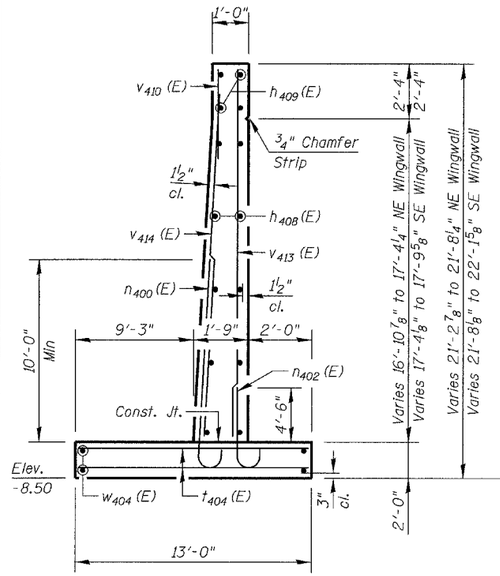
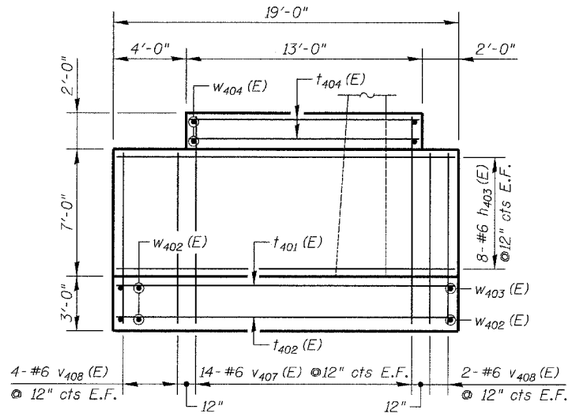
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	*	COOK	907	701
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* (1516.1, 1717 & 1818) R-9

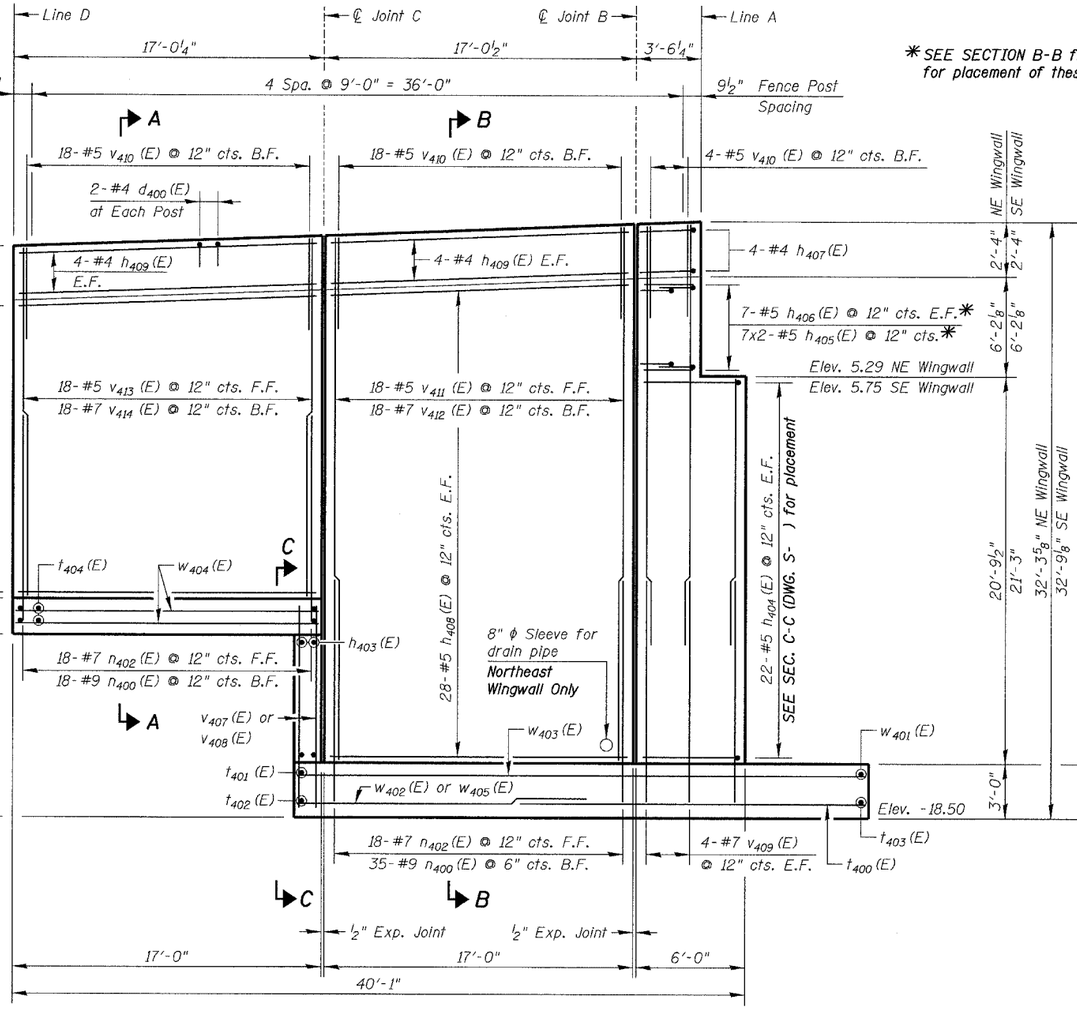
62695



SECTION A-A



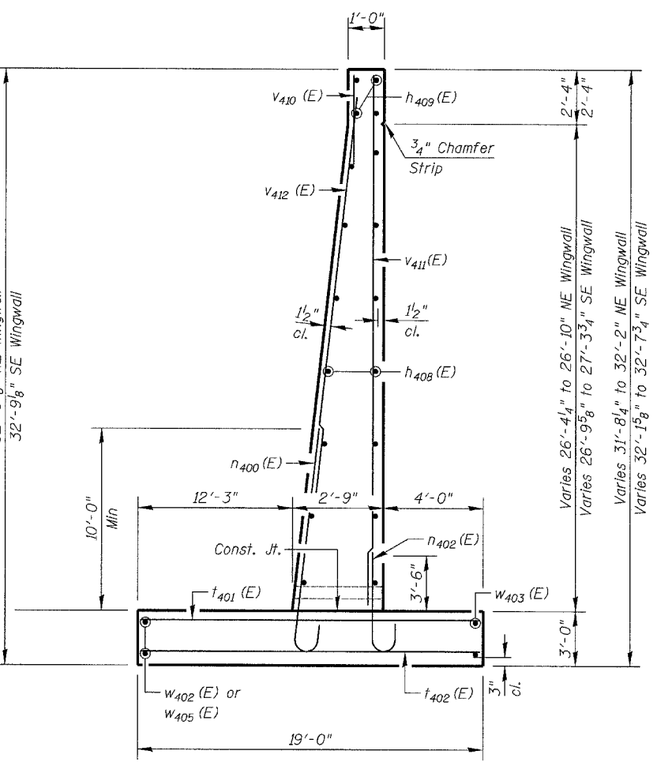
SECTION C-C



ELEVATION - NORTHEAST WINGWALL

Southeast Wingwall Similar

* SEE SECTION B-B from DWG. S-30 for placement of these bars



SECTION B-B

TOP/ PARAPET ELEVATIONS

Location	Northeast Wingwall	Southeast Wingwall
Line A	13.80	14.26
℄ Joint B	13.67	14.15
℄ Joint C	13.19	13.64
Line D	12.74	13.18

DWG. S-31 of 42

Legend

E.F. = Each Face
F.F. = Front Face
B.F. = Back Face

Min. Bar Laps:

Vert./Horiz. Bars	Horiz. Top Bars
#5 = 1'-8"	#5 = 2'-5"
#6 = 2'-0"	#6 = 2'-10"
#7 = 2'-9"	

Notes:

Reinforcement Bars designated (E) shall be epoxy coated.

Cost of drain pipe sleeve included with "Concrete Structure".

Estimated Soil Bearing Pressure = 5 ksf.

Work this DWG. with DWGS. S-28 thru S-30 & S-32.

KNIGHT
Engineers & Architects

REVISIONS NAME	DATE
REVISED	04/15/05

ILLINOIS DEPARTMENT OF TRANSPORTATION
EAST ABUTMENT WINGWALLS
76TH STREET OVER FAI-94
FAP ROUTE 1541 SECTION 1818 R-9
COOK COUNTY
STATION 73+49.33
STRUCTURE NUMBER 016-2850

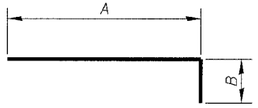
SCALE: NONE DESIGNED BY: TB DRAWN BY: TL
DATE: March 25, 2005 CHECKED BY: WPM CHECKED BY: WPM

FILE: L:\6592.02\Cad\Structs\Revised 178\04-15-05\6592-S2850-ABE04 Rev041505.dgn

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	*	COOK	907	702
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* (1516.1, 1717 & 1818) R-9

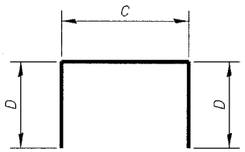
62695



BARS h_{101} (E), h_{102} (E), h_{104} (E), h_{105} (E), h_{111} (E), h_{401} (E), h_{402} (E), h_{404} (E), h_{405} (E), & h_{411} (E)

A & B DIMENSIONS

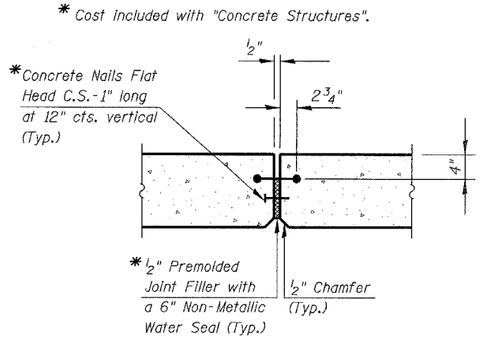
BAR	A	B
h101(E)	22'-10"	10"
h102(E)	13'-8"	10"
h104(E)	5'-7"	3'-0"
h105(E)	3'-0"	1'-0"
h111(E)	8'-2"	1'-8"
h401(E)	22'-10"	10"
h402(E)	13'-8"	10"
h404(E)	5'-7"	3'-0"
h405(E)	3'-0"	1'-0"
h411(E)	8'-2"	1'-8"



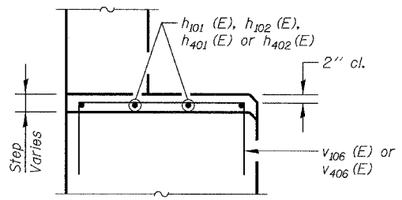
BARS d_{100} (E), h_{107} (E), u_{100} (E), v_{106} (E), d_{400} (E), h_{407} (E), u_{400} (E), & v_{406} (E)

C & D DIMENSIONS

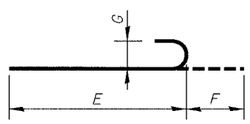
BAR	C	D
d100(E)	6"	9"
h107(E)	7"	3'-0"
u100(E)	1'-2"	1'-8"
v106(E)	4'-2"	1'-9"
d400(E)	6"	9"
h407(E)	7"	3'-0"
u400(E)	1'-2"	1'-8"
v406(E)	4'-2"	1'-9"



WALL EXPANSION JOINT DETAIL



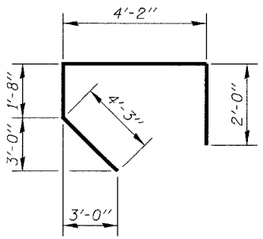
STEP REINFORCEMENT



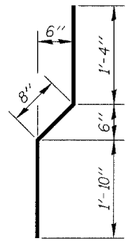
BARS n_{100} (E), n_{101} (E), n_{102} (E), n_{400} (E), n_{401} (E), & n_{402} (E)

E, F, & G DIMENSIONS

BAR	E	F	G
n100(E)	12'-9"	1'-3"	11 3/4"
n101(E)	12'-9"	10"	7"
n102(E)	6'-3"	10"	7"
n400(E)	12'-9"	1'-3"	11 3/4"
n401(E)	12'-9"	10"	7"
n402(E)	6'-3"	10"	7"



BARS v_{101} (E) & v_{401} (E)



BARS v_{104} (E) & v_{404} (E)

WEST ABUTMENT BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
d100(E)	20	#4	2'-0"	
h100(E)	156	#5	29'-9"	
h101(E)	8	#5	23'-8"	
h102(E)	8	#5	14'-6"	
h103(E)	32	#6	18'-8"	
h104(E)	88	#5	8'-7"	
h105(E)	28	#5	4'-0"	
h106(E)	28	#5	3'-0"	
h107(E)	8	#4	6'-7"	
h108(E)	184	#5	16'-8"	
h109(E)	32	#4	16'-8"	
h110(E)	12	#6	29'-0"	
h111(E)	4	#5	9'-10"	
n100(E)	282	#9	14'-0"	
n101(E)	92	#7	13'-7"	
n102(E)	72	#7	7'-1"	
t100(E)	282	#9	19'-8"	
t101(E)	46	#8	18'-8"	
t102(E)	25	#7	18'-8"	
t103(E)	40	#7	7'-0"	
t104(E)	106	#6	12'-8"	
u100(E)	16	#4	4'-6"	
v100(E)	168	#7	15'-6".	
v101(E)	84	#5	12'-1"	
v102(E)	83	#5	6'-4"	
v103(E)	83	#5	5'-5"	
v104(E)	83	#5	3'-10"	
v105(E)	83	#5	3'-3"	
v106(E)	63	#4	7'-8"	
v107(E)	56	#6	11'-8"	
v108(E)	24	#6	9'-8"	
v109(E)	16	#7	23'-3"	
v110(E)	80	#5	3'-9"	
v111(E)	36	#5	28'-5"	
v112(E)	36	#7	21'-6"	
v113(E)	36	#5	18'-11"	
v114(E)	36	#7	10'-0"	
w100(E)	63	#5	28'-6"	
w101(E)	84	#5	25'-0"	
w102(E)	34	#5	15'-0"	
w103(E)	12	#5	31'-0"	
w104(E)	56	#5	16'-8"	
w105(E)	34	#5	14'-0"	

Reinforcement Bars, Epoxy Coated	LB	74280
Concrete Structures	Cu. Yd.	657
Structure Excavation	Cu. Yd.	3219
Bridge Seat Sealer	Sq. Ft.	211
Porous Granular Embankment	Cu. Yd.	1414

EAST ABUTMENT BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
d400(E)	20	#4	2'-0"	
h400(E)	156	#5	29'-9"	
h401(E)	8	#5	23'-8"	
h402(E)	8	#5	14'-6"	
h403(E)	32	#6	18'-8"	
h404(E)	88	#5	8'-7"	
h405(E)	28	#5	4'-0"	
h406(E)	28	#5	3'-0"	
h407(E)	8	#4	6'-7"	
h408(E)	184	#5	16'-8"	
h409(E)	32	#4	16'-8"	
h410(E)	12	#6	29'-0"	
h411(E)	4	#5	9'-10"	
n400(E)	282	#9	14'-0"	
n401(E)	92	#7	13'-7"	
n402(E)	72	#7	7'-1"	
t400(E)	282	#9	19'-8"	
t401(E)	46	#8	18'-8"	
t402(E)	25	#7	18'-8"	
t403(E)	40	#7	7'-0"	
t404(E)	106	#6	12'-8"	
u400(E)	16	#4	4'-6"	
v400(E)	168	#7	15'-6".	
v401(E)	84	#5	12'-1"	
v402(E)	83	#5	6'-4"	
v403(E)	83	#5	5'-5"	
v404(E)	83	#5	3'-10"	
v405(E)	83	#5	3'-3"	
v406(E)	63	#4	7'-8"	
v407(E)	56	#6	11'-8"	
v408(E)	24	#6	9'-8"	
v409(E)	16	#7	23'-3"	
v410(E)	80	#5	3'-9"	
v411(E)	36	#5	28'-5"	
v412(E)	36	#7	21'-6"	
v413(E)	36	#5	18'-11"	
v414(E)	36	#7	10'-0"	
w400(E)	63	#5	28'-6"	
w401(E)	84	#5	25'-0"	
w402(E)	34	#5	15'-0"	
w403(E)	12	#5	31'-0"	
w404(E)	56	#5	16'-8"	
w405(E)	34	#5	14'-0"	

Reinforcement Bars, Epoxy Coated	LB	74280
Concrete Structures	Cu. Yd.	657
Structure Excavation	Cu. Yd.	3173
Bridge Seat Sealer	Sq. Ft.	211
Porous Granular Embankment	Cu. Yd.	1414

DWG. S-32 of 42

Notes:

Reinforcement Bars designated (E) shall be epoxy coated.

Work this DWG. with DWGS. S-24 thru S-31.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

ABUTMENT MISCELLANEOUS DETAILS

76TH STREET OVER FAI-94

FAP ROUTE 1541 SECTION 1818 R-9

COOK COUNTY

STATION 73+49.33

STRUCTURE NUMBER 016-2850

SCALE: NONE DESIGNED BY: TB DRAWN BY: TL

DATE: March 25, 2005 CHECKED BY: WPM CHECKED BY: WPM

KNIGHT

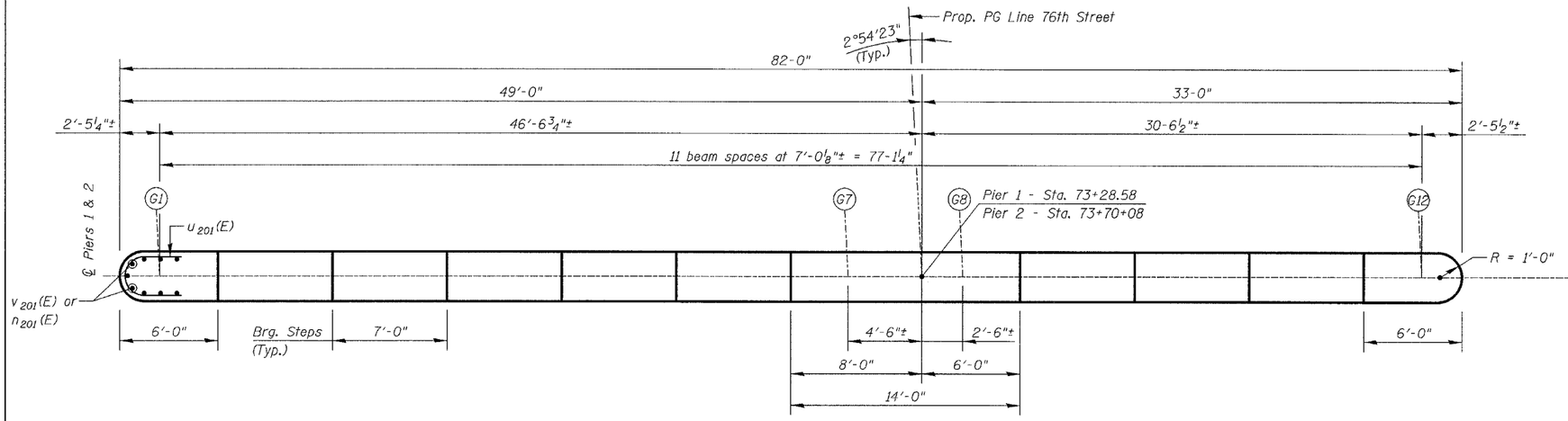
Engineers & Architects

FILE: L:\6592.02\Cad\Sheets\Roadway Structures\Bridge\6592-52850-ABD.dgn

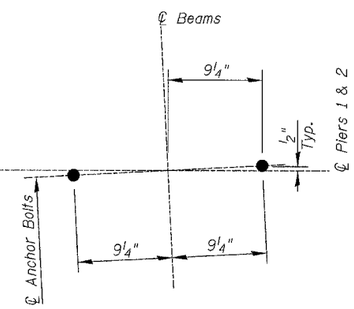
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	*	COOK	907	703
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* (1516.1, 1717 & 1818) R-9

62695



TOP PLAN - PIERS 1 & 2



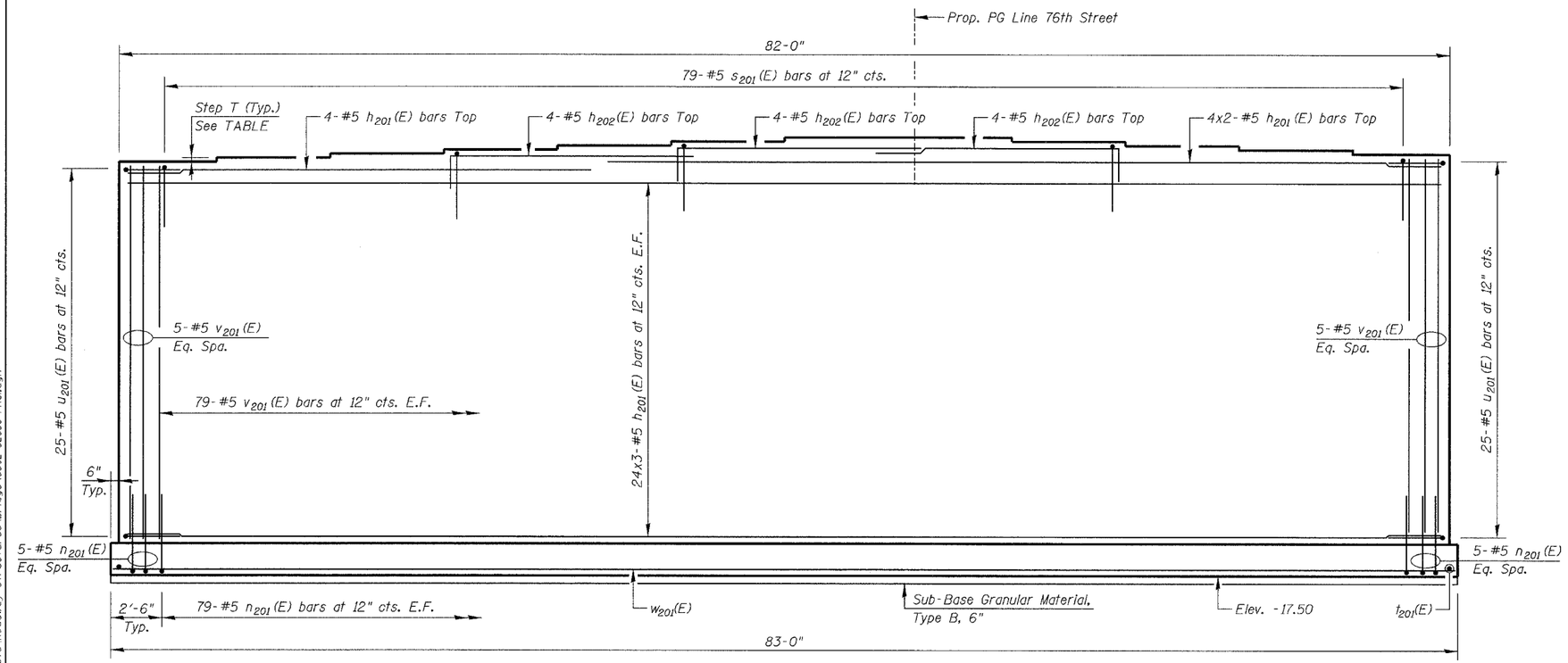
ANCHOR BOLTS - LAYOUT

PIER 1 BEARING SEAT ELEVATIONS

GIRDER	BRG. SEAT ELEVATION	STEP T- inch
G1	8.32	
G2	8.47	1 3/4"
G3	8.61	1 3/4"
G4	8.76	1 3/4"
G5	8.90	1 3/4"
G6	9.04	1 5/8"
G7	9.15	1 3/8"
G8	9.15	0
G9	9.07	1"
G10	8.94	1 5/8"
G11	8.79	1 3/4"
G12	8.64	1 3/4"

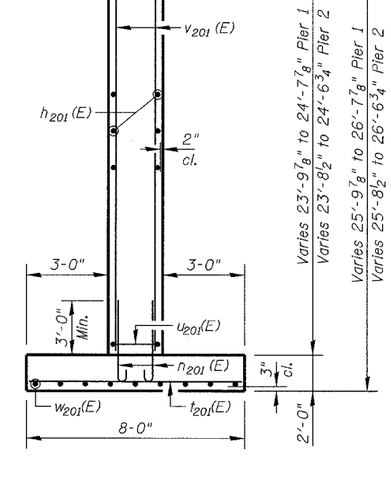
PIER 2 BEARING SEAT ELEVATIONS

GIRDER	BRG. SEAT ELEVATION	STEP T- inch
G1	8.21	
G2	8.36	1 3/4"
G3	8.50	1 3/4"
G4	8.65	1 3/4"
G5	8.81	1 7/8"
G6	8.95	1 3/4"
G7	9.07	1 3/8"
G8	9.07	0
G9	8.99	7/8"
G10	8.86	1 5/8"
G11	8.71	1 3/4"
G12	8.58	1 5/8"



ELEVATION - PIERS 1 & 2

(Looking East)



END VIEW

Notes:

Space reinforcement bars to miss anchor bolts.

Pour Steps monolithically with cap.

All exposed edges shall have 3/4" chamfers except as noted.

Estimated Soil Bearing Pressure = 5 ksf.

Bars indicated thus 20x3-#5 indicates 20 lines of bars with 3 lengths per line.

Reinforcement Bars designated (E) shall be epoxy coated.

Work this DWG. with DWG. S-34.

Legend:

E.F. = Each Face

Min. Bar Lap:

Vertical Bars/Horizontal Bars #5 - 1'-8"

Horizontal Top Bars #5 - 2'-5"

KNIGHT
Engineers & Architects

DWG. S-33 of 42

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
PIER TOP PLAN & ELEVATION
76TH STREET OVER FAI-94
FAP ROUTE 1541 SECTION 1818 R-9
COOK COUNTY
STATION 73+49.33
STRUCTURE NUMBER 016-2850

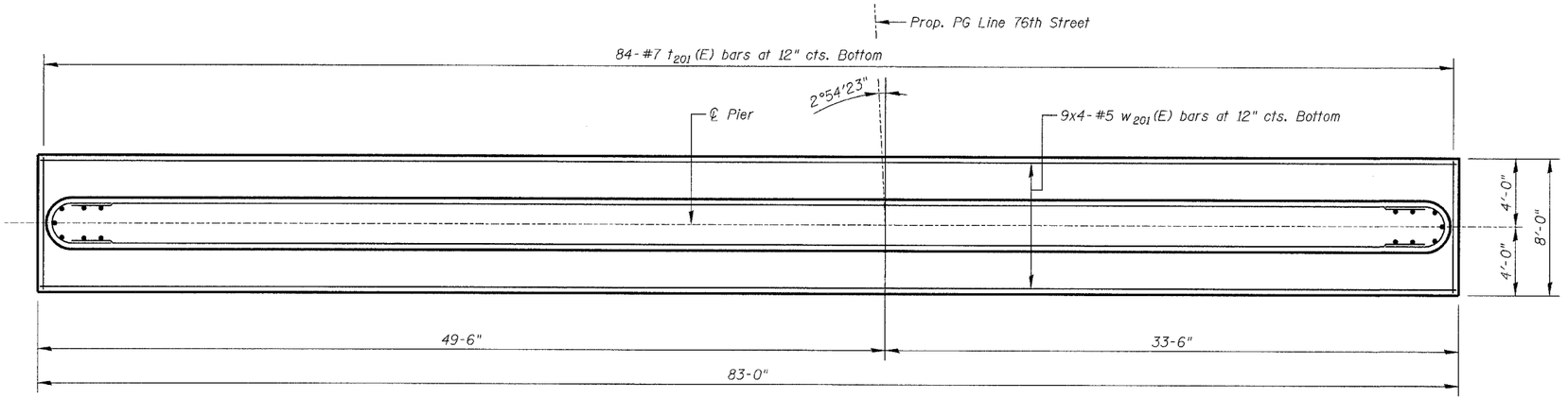
SCALE: NONE DESIGNED BY: TB DRAWN BY: TL
DATE: March 25, 2005 CHECKED BY: WPM CHECKED BY: WPM

FILE: L:\6592.02\Cad\Sheets\Roadway Structures\Bridge\6592-S2850-PR01.dgn

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	*	COOK	907	704
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* (1516.1, 1717 & 1818) R-9

62695



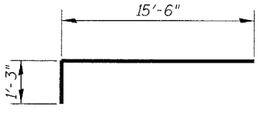
FOOTING PLAN
(Looking East)

PIER 1 BILL OF MATERIAL

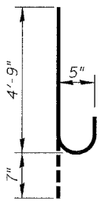
BAR	NO.	SIZE	LENGTH	SHAPE
h201(E)	156	#5	28'-9"	
h202(E)	12	#5	16'-9"	
n201(E)	168	#5	5'-4"	
s201(E)	79	#5	9'-0"	
t201(E)	84	#7	7'-8"	
u201(E)	50	#5	8'-8"	
v201(E)	168	#5	23'-0"	
W201(E)	36	#5	22'-6"	
Reinforcement Bars, Epoxy Coated			LB	13,210
Concrete Structures			Cu. Yd.	206

PIER 2 BILL OF MATERIAL

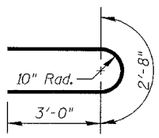
BAR	NO.	SIZE	LENGTH	SHAPE
h201(E)	156	#5	28'-9"	
h202(E)	12	#5	16'-9"	
n201(E)	168	#5	5'-4"	
s201(E)	79	#5	9'-0"	
t201(E)	84	#7	7'-8"	
u201(E)	50	#5	8'-8"	
v201(E)	168	#5	23'-0"	
W201(E)	36	#5	22'-6"	
Reinforcement Bars, Epoxy Coated			LB	13,210
Concrete Structures			Cu. Yd.	206



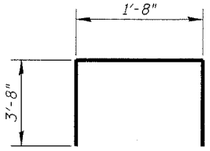
BARS h_{202}(E)



BAR n_{201}(E)



BAR u_{201}(E)



BAR s_{201}(E)

Min. Bar Lap:
Horizontal Top Bars
#5 - 2'-5"

Notes:

Reinforcement Bars designated (E) shall be epoxy coated.

Bars indicated thus 20x3-#5 indicates 20 lines of bars with 3 lengths per line.

All exposed edges shall have $\frac{3}{4}$" chamfers except as noted.

Estimated Soil Bearing Pressure = 5 ksf.

Work this DWG. with DWG. S-33.

DWG. S-34 of 42

REVISIONS	
NAME	DATE
REVISED	04/15/05

ILLINOIS DEPARTMENT OF TRANSPORTATION
PIER FOOTING PLAN & DETAILS
76TH STREET OVER FAI-94
FAP ROUTE 1541 SECTION 1818 R-9
COOK COUNTY
STATION 73+49.33
STRUCTURE NUMBER 016-2850

SCALE: NONE DESIGNED BY: TB DRAWN BY: TL
DATE: March 25, 2005 CHECKED BY: WPM CHECKED BY: WPM

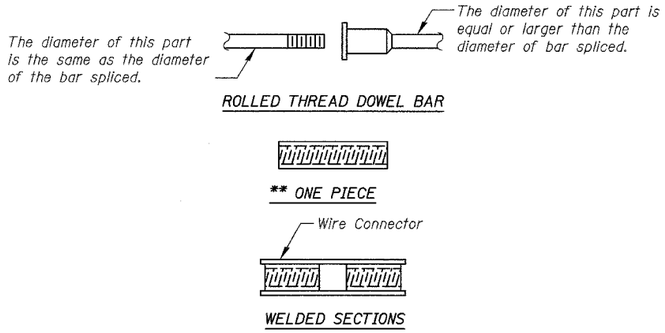
KNIGHT
Engineers & Architects

FILE: L:\16592.02\Cad\SSheets\Revised 178\04-15-05\6592-S2850-PR02 Rev041505.dgn

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	*	COOK	907	705
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

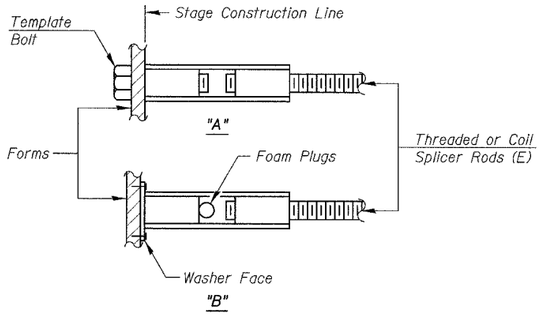
* (1516.1, 1717 & 1818) R-9

62695



BAR SPLICER ASSEMBLY ALTERNATIVES

** Heavy Hex Nuts conforming to ASTM A 563, Grade C, D or DH may be used.



INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
(E) : Indicates epoxy coating.

NOTES

Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.

Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.

All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.

Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.

Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

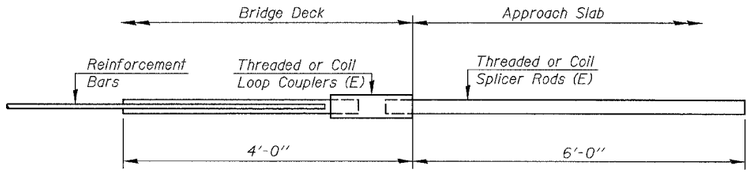
① Minimum Capacity (Tension in kips) = $1.25 \times f_y \times A_t$

② Minimum *Pull-out Strength (Tension in kips) = $1.25 \times fs_{allow} \times A_t$

Where f_y = Yield strength of lapped reinforcement bars in ksi.
fs_{allow} = Allowable tensile stress in lapped reinforcement bars in ksi (Service Load)
A_t = Tensile stress area of lapped reinforcement bars.
* = 28 day concrete

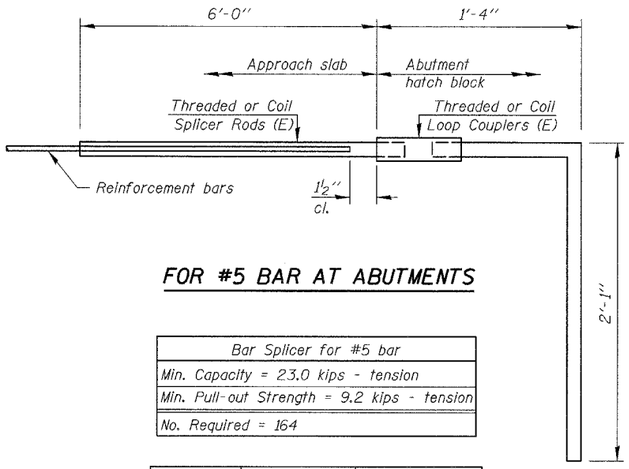
BAR SPLICER ASSEMBLIES			
Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#4	1'-8"	14.7	5.9
#5	2'-0"	23.0	9.2
#6	2'-7"	33.1	13.3
#7	3'-5"	45.1	18.0
#8	4'-6"	58.9	23.6
#9	5'-9"	75.0	30.0
#10	7'-3"	95.0	38.0
#11	9'-0"	117.4	46.8

Bar splicer assemblies shall be according to Section 508 of the Standard Specifications, except as noted. The furnishing and installation of bar splicer assemblies will be measured and paid for at the contract unit price each for "BAR SPLICERS."



FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

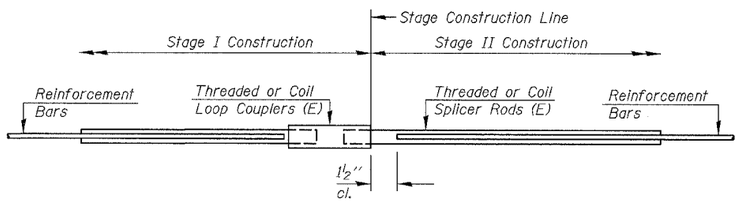
Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 9.2 kips - tension
No. Required =



FOR #5 BAR AT ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 9.2 kips - tension
No. Required = 164

Bar Size	No. Assemblies Required	Location
#5	82	West Abutment
#5	82	East Abutment



STANDARD

Bar Size	No. Assemblies Required	Location

DWG. S-35 of 42

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
BAR SPLICER ASSEMBLY DETAILS
76TH STREET OVER FAI-94
FAP ROUTE 1541 SECTION 1818 R-9
COOK COUNTY
STATION 73+49.33
STRUCTURE NUMBER 016-2850

SCALE: NONE DESIGNED BY: TB DRAWN BY: TL
DATE: March 25, 2005 CHECKED BY: WPM CHECKED BY: WPM

KNIGHT
Engineers & Architects

FILE: L:\6592.02\Cad\Sheets\Roadway Structures\Bridge\6592-S2850-BS01.dgn

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	*	COOK	907	706
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* (1516.1, 1717 & 1818) R-9

62695

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SOIL BORING LOG

PAGE 1 of 2
DATE September 18, 2002
LOGGED BY TK
OBA JOB No. 02235

ROUTE FAU Route 1541 DESCRIPTION Proposed Bridge Improvements IDOT Project No. D-91-122-97
SECTION 1818-4B LOCATION 76th St. over FAI 94 Chicago, Illinois (Sections 27 & 28-T38N-R14E)
COUNTY Cook DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. 016-2850
Station 73+49.33
BORING NO. SB-76-1
Station 71+98.82
Offset 36.5' Left
Ground Surface Elev. 588.6 (9.1 CCD)

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter Dry
Upon Completion Dry
After ____ Hrs. ____

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	
				4.0" ASPHALT, 9.0" CONCRETE
	5			
	6			Fine SAND–brown–medium dense (A–3) Fill
	6	NP	6	
	3			
	2			SANDY LOAM–brown gray & black–loose (Fill)
–5	2	NP	28	
	4			
	2			CLAY–brown & gray–stiff (A–6)
	3	1.9B	21	
	1			
	3			CLAY–gray–stiff to very stiff (A–6)
–10	4	1.2B	19	
	2			
	4			
	5	1.9B	18	
	2			
	5			
–15	6	2.0B	17	SILTY LOAM–gray–dense (A–4)
	2			
	6			
	8	3.0B	15	CLAY–gray–hard (A–6)
	3			
	5			
–20	8	3.0B	16	

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	
	5			CLAY–gray–stiff to very stiff (A–6)
	8			
	10	2.4B	14	
	4			
	6			
–25	8	4.1B	12	CLAY–gray–hard (A–6)
	5			
	8			
	11	4.1B	12	
	8			
	15			
–30	34	4.1B	10	
	9			
	18			
	24	4.2B	11	
	10			
	14			
–35	20	NP	14	
	11			
	12			
	22	4.5+P	10	
	12			
	20			
–40	26	4.5+P	9	

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B–Bulge, S–Shear, P–Penetrometer) ST–Shelby Tube Sample V&=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in Italics above moist (%)
NR–No Recovery

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SOIL BORING LOG

PAGE 2 of 2
DATE September 18, 2002
LOGGED BY TK
OBA JOB No. 02235

ROUTE FAU Route 1541 DESCRIPTION Proposed Bridge Improvements IDOT Project No. D-91-122-97
SECTION 1818-4B LOCATION 76th St. over FAI 94 Chicago, Illinois (Sections 27 & 28-T38N-R14E)
COUNTY Cook DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. 016-2850
Station 73+49.33
BORING NO. SB-76-1
Station 71+98.82
Offset 36.5' Left
Ground Surface Elev. 588.6 (9.1 CCD)

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter Dry
Upon Completion Dry
After ____ Hrs. ____

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	
	12			CLAY to CLAY LOAM–gray–hard (A–6)
	22			
	28	4.5+P	9	
	12			
	18			
–45	20	4.5+P	10	
	13			
	19			
	23	4.5+P	10	
	13			
	17			
–50	20	4.5+P	10	
	13			
	22			
	26	5.3B	11	
	19			
	24			
–55	32	4.5+P	10	
	16			
	20			
	30	4.5+P	10	
	18			
	32			
–60	36	4.5+P	7	End of Boring @ –60.0' Hollow Stem Augers CME Automatic Hammer

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	
–65				
–70				
–75				
–80				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B–Bulge, S–Shear, P–Penetrometer) ST–Shelby Tube Sample V&=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in Italics above moist (%)
NR–No Recovery

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SOIL BORING LOG

PAGE 1 of 1
DATE August 29, 2002
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OBA JOB No. 02235

ROUTE FAU Route 1541 DESCRIPTION Proposed Bridge Improvements IDOT Project No. D-91-122-97
SECTION 1818-4B LOCATION 76th St. over FAI 94 Chicago, Illinois (Sections 27 & 28-T38N-R14E)
COUNTY Cook DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. 016-2850
Station 73+49.33
BORING NO. SB-76-2
Station 72+50.98
Offset 61.4' Left
Ground Surface Elev. 570.9 (-8.6 CCD)

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter Dry
Upon Completion Dry
After ____ Hrs. ____

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	
				TOPSOIL & STONE (Fill)
	2			
	4			CLAY– brown & gray– very stiff to hard (A–6)
	4	4.5P	16	
	4			
	7			
–5	8	3.2B	13	
	4			
	7			
	10	3.25B	18	
	5			
	10			CLAY– gray hard (A–6)
–10	10	6.3B	12	
	7			
	11			
	13	4.9B	12	
	8			
	13			
–15	20	4.5+P	12	SILT– gray–very dense (A–4)
	12			
	18			
	21	4.5+P	11	CLAY LOAM– gray–hard (A–4)
	12			
	17			
–20	22	4.5+P	9	

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	
	16			CLAY LOAM– gray–hard (A–4)
	23			
	30	4.5+P	10	
	16			
	23			
–25	30	NP	8	
	14			
	30			
	38	4.5+P	11	
	20			
	22			
–30	31	5.9B	11	
	18			
	24			
	33	4.5+P	11	
	18			
	27			
–35	41	NP	19	
	32			
	48			
	50/	NP	10	
	25			
	30			SILTY CLAY LOAM– gray–very dense (A–4)
	49			End of Boring @ –40.0' Hollow Stem Augers
–40	50/25	NP	7	

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B–Bulge, S–Shear, P–Penetrometer) ST–Shelby Tube Sample V&=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in Italics above moist (%)
NR–No Recovery

DWG. S-36 of 42

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SOIL BORING LOGS - SB1 & SB2
76TH STREET OVER FAI-94
FAP ROUTE 1541 SECTION 1818 R-9
COOK COUNTY
STATION 73+49.33
STRUCTURE NUMBER 016-2850

SCALE: NONE DESIGNED BY: OBA DRAWN BY: TL
DATE: March 25, 2005 CHECKED BY: TB CHECKED BY: TB

KNIGHT
Engineers & Architects

FILE: L:\6592.02\Cad\Sheets\Roadway Structures\Bridge\6592-52850-SB0x.dgn

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	*	COOK	907	707
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* (1516.1, 1717 & 1818) R-9

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SOIL BORING LOG

PAGE 1 of 2
DATE September 17, 2002
LOGGED BY RH
OBA JOB No. 02235

ROUTE FAU Route 1541
DESCRIPTION Proposed Bridge Improvements IDOT Project No. D-91-122-97
SECTION 1818-4B
LOCATION 76th St. over FAI 94 Chicago, Illinois (Sections 27 & 28-T38N-R14E)
COUNTY Cook
DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. 016-2850
Station 73+49.33
BORING NO. SB-76-3
Station 71+98.82
Offset 24.8' Right
Ground Surface Elev. 588.6 (9.1 CCD)

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter Dry
Upon Completion Dry
After ____ Hrs. ____

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	
				2.0" Asphalt, 10.0" Concrete
	3			
	3			
	4	NP	17	Silty SAND, CINDERS & WOOD--very loose to loose (Fill)
				CLAY--gray--very stiff to hard (A-6)
	2			
	1			
-5	1	NP	33	
	2			
	1			CLAY--gray--stiff to very stiff (A-6)
	2	1.25P	25	
	2			
	3			
-10	4	1.5B	19	
	2			
	4			LOAM--gray--dense (A-4)
	4	2.0B	18	
	3			CLAY--gray--very stiff to hard (A-6)
	4			
-15	6	2.4B	19	
	3			CLAY--gray--hard (A-6)
	5			
	7	2.8B	17	
	5			
	5			
-20	10	4.1B	17	

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	
	4			
	7			
	9	4.0B	17	
	5			
	7			
-25	8	4.5B	13	
	6			
	10			
	11	4.1B	13	
	7			
	11			
-30	16	7.6B	12	
	13			
	17			
	17	NP	12	
	12			
	16			
-35	20	4.5P	10	
	9			
	14			
	16	5.3B	12	
	7			
	10			
-40	16	6.0B	13	

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in Italics above moist (%)
NR-No Recovery

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SOIL BORING LOG

PAGE 2 of 2
DATE September 17, 2002
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OBA JOB No. 02235

ROUTE FAU Route 1541
DESCRIPTION Proposed Bridge Improvements IDOT Project No. D-91-122-97
SECTION 1818-4B
LOCATION 76th St. over FAI 94 Chicago, Illinois (Sections 27 & 28-T38N-R14E)
COUNTY Cook
DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. 016-2850
Station 73+49.33
BORING NO. SB-76-3
Station 71+98.82
Offset 24.8' Right
Ground Surface Elev. 588.6 (9.1 CCD)

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter Dry
Upon Completion Dry
After ____ Hrs. ____

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	
	20			
	24			
	27	4.5P	10	CLAY--gray--hard (A-6)
	25			
	35			
-45	30	4.5P	11	
	20			
	25			
	32	4.5P	11	
	13			
	20			
-50	32	4.5P	11	
	27			
	30			SILTY LOAM to SILT--gray--very dense (A-4)
	40	NP	13	
				Drillers Observation: Cobbles from -52.0' to 54.0'
	35			
	50/51			
-55		NP	14	End of Boring @ -55.0' Hollow Stem Augers CME Automatic Hammer

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
-65			
-70			
-75			
-80			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in Italics above moist (%)
NR-No Recovery

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DWG. S-37 of 42

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SOIL BORING LOGS - SB3
76TH STREET OVER FAI-94
FAP ROUTE 1541 SECTION 1818 R-9
COOK COUNTY
STATION 73+49.33
STRUCTURE NUMBER 016-2850

SCALE: NONE DESIGNED BY: OBA DRAWN BY: TL
DATE: March 25, 2005 CHECKED BY: TB CHECKED BY: TB

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	*	COOK	907	708
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* (1516.1, 1717 & 1818) R-9

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SOIL BORING LOG

PAGE 1 of 2
DATE August 30, 2002
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OBA JOB No. 02235

ROUTE FAU Route 1541 DESCRIPTION Proposed Bridge Improvements IDOT Project No. D-91-122-97
SECTION 1818-4B LOCATION 76th St. over FAI 94 Chicago, Illinois (Sections 27 & 28-T38N-R14E)
COUNTY Cook DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. 016-2850
Station 73+49.33
BORING NO. SB-76-4
Station 72+46.72
Offset 41.2' Right
Ground Surface Elev. 571.5 (-8.0 CCD)

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter 561.7
Upon Completion Dry
After ____ Hrs.

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	
				TOPSOIL (Fill)
	1			
	1		109	SILTY LOAM– gray–medium dense (A–4)
	1			
	1	2.0P	16	CLAY– brown & gray– very stiff (A–6)
	1		116	
	1			
–5	1	0.5P	20	CLAY– gray–medium stiff (A–6)
	1			
	2			
	2	0.5P	19	
	6		111	
	8			
–10	8	7.7B	12	CLAY– gray–hard (A–6) ▼
	6		111	
	10			
	13	8.8S	12	
	8		111	
	13			
–15	14	8.1S	13	
	6		118	
	10			
	11	7.5B	10	
	4			SILTY LOAM– gray–medium dense (A–4)
–20	7	NP	14	

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	
	8		109	SILTY LOAM– gray–medium dense (A–4)
	13			
	14	3.9B	13	CLAY– gray–very stiff to hard (A–6)
	10		116	
	19			
–25	24	5.3S	11	
	11			
	19			
	31		11	
	50/ 152		113	
		9.9S		
–30			12	
	10			SILT– gray–very dense (A–4)
	24			
	26	NP	14	
	16			
	50/ 152			
–35		NP	9	
	14			
	50/ 152			
		NP	14	
	19			SILTY CLAY LOAM to SILTY LOAM– gray–very dense (A–4)
	48			
–40	50	NP	9	

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B–Bulge, S–Shear, P–Penetrometer) ST–Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in Italics above moist (%)
NR–No Recovery

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SOIL BORING LOG

PAGE 2 of 2
DATE August 30, 2002
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OBA JOB No. 02235

ROUTE FAU Route 1541 DESCRIPTION Proposed Bridge Improvements IDOT Project No. D-91-122-97
SECTION 1818-4B LOCATION 76th St. over FAI 94 Chicago, Illinois (Sections 27 & 28-T38N-R14E)
COUNTY Cook DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. 016-2850
Station 73+49.33
BORING NO. SB-76-4
Station 72+46.72
Offset 41.2' Right
Ground Surface Elev. 571.5 (-8.0 CCD)

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter 561.7
Upon Completion Dry
After ____ Hrs.

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	
	21			SILTY CLAY LOAM to SILTY LOAM– gray–very dense (A–4)
	41			
	48	NP	14	
				End of Boring @ –42.5' Hollow Stem Augers CME Automatic Hammer
–45				
–50				
–55				
–60				

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
–65			
–70			
–75			
–80			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B–Bulge, S–Shear, P–Penetrometer) ST–Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in Italics above moist (%)
NR–No Recovery

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Engineers & Architects

DWG. S-38 of 42

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SOIL BORING LOGS - SB4
76TH STREET OVER FAI-94
FAP ROUTE 1541 SECTION 1818 R-9
COOK COUNTY
STATION 73+49.33
STRUCTURE NUMBER 016-2850

SCALE: NONE DESIGNED BY: OBA DRAWN BY: TL
DATE: March 25, 2005 CHECKED BY: TB CHECKED BY: TB

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	*	COOK	907	709
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* (1516.1, 1717 & 1818) R-9 62695

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SOIL BORING LOG

PAGE 1 of 2
DATE August 30, 2002
LOGGED BY RH
OBA JOB No. 02235

ROUTE FAU Route 1541
DESCRIPTION Proposed Bridge Improvements IDOT Project No. D-91-122-97
SECTION 1818-4B
LOCATION 76th St. over FAI 94 Chicago, Illinois (Sections 27 & 28-T38N-R14E)
COUNTY Cook
DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. 016-2850
Station 73+49.33
BORING NO. SB-76-5
Station 74+51.44
Offset 58.2' Left
Ground Surface Elev. 570.5 (-9.0 CCD)

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter 546.9
Upon Completion Dry
After ____ Hrs. ____

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
TOPSOIL (Fill)			
	1		
CLAY LOAM- dark brown & black-hard (Fill)	2		
	4	4.5+P	19
	4		
CLAY- gray-very stiff to hard (A-6)	7		
-5	7	5.7B	12
	3		
	5		
	7	4.1B	12
	5		
	7		
-10	12	4.5+P	12
	6		
	12		
	14	5.7B	12
	9		
	14		
-15	18	4.1B	9
	5		
	11		
	14	4.5+P	12
	6		
	10		
-20	14	6.1B	13
CLAY- gray-very stiff to hard (A-6)	8		
	12		
	15	4.6B	13
	11		
	15		
-25	19	8.0B	11
	14		
	20		
	24	3.7B	11
	16		
	24		
-30	30	10.7B	15
	20		
	26		
	33	10.6B	11
SILT- gray-very dense (A-4)	25		
	42		
-35	50/ 51	NP	12
SILTY CLAY LOAM- gray-very dense (A-4/A-6)	34		
	50		
		NP	8
	22		
	36		
-40	37	NP	10

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS-Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

O'BRIEN & ASSOCIATES, INC.
CONSULTING ENGINEERS
1235 E. DAVIS ST./ARLINGTON HTS., IL 60005
(847)398-1441 • FAX(847) 398-2376

SOIL BORING LOG

PAGE 2 of 2
DATE August 30, 2002
LOGGED BY RH
OBA JOB No. 02235

ROUTE FAU Route 1541
DESCRIPTION Proposed Bridge Improvements IDOT Project No. D-91-122-97
SECTION 1818-4B
LOCATION 76th St. over FAI 94 Chicago, Illinois (Sections 27 & 28-T38N-R14E)
COUNTY Cook
DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. 016-2850
Station 73+49.33
BORING NO. SB-76-5
Station 74+51.44
Offset 58.2' Left
Ground Surface Elev. 570.5 (-9.0 CCD)

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter 546.9
Upon Completion Dry
After ____ Hrs. ____

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
Drillers Observation: Cobbles from -39.0' to -43.0'			
	50/ 51		
			NR
Fractured STONE- Possible Bedrock			
	50/ 152		
-45		NP	4
End of Boring @ -45.0' Hollow Stem Augers CME Automatic Hammer			
-50			
-55			
-60			
-65			
-70			
-75			
-80			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS-Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

FILE: L:\16592.02\Cad\Sheets\Roadway Structures\Bridge\16592-52850-SB04.dgn

KNIGHT
Engineers & Architects

DWG. S-39 of 42

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SOIL BORING LOGS - SB5
76TH STREET OVER FAI-94
FAP ROUTE 1541 SECTION 1818 R-9
COOK COUNTY
STATION 73+49.33
STRUCTURE NUMBER 016-2850

SCALE: NONE DESIGNED BY: OBA DRAWN BY: TL
DATE: March 25, 2005 CHECKED BY: TB CHECKED BY: TB

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	*	COOK	907	710
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* (1516.1, 1717 & 1818) R-9

62695

O'BRIEN & ASSOCIATES, INC.
CONSULTING ENGINEERS
1235 E. DAVIS ST./ARLINGTON HTS., IL 60005
(847)398-1441 • FAX(847) 368-2370

SOIL BORING LOG

DATE September 18, 2002

LOGGED BY TK

OBA JOB No. 02235

ROUTE FAU Route 1541 DESCRIPTION Proposed Bridge Improvements IDOT Project No. D-91-122-97

SECTION 1818-4B LOCATION 76th St. over FAI 94 Chicago, Illinois (Sections 27 & 28-T38N-R14E)

COUNTY Cook DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. 016-2850
Station 73+49.33

BORING NO. SB-76-6
Station 74+96.72
Offset 37.5' Left
Ground Surface Elev. 588.6 (9.1 CCD)

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter Dry
Upon Completion Dry
After ____ Hrs. ____

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	
				4.0" ASPHALT, 8.0" CONCRETE
	7			
	6			Fine SAND-brown-medium dense (A-3)
	5	NP	12	
				CLAY-gray-very stiff to hard (A-6)
	3			
	2			
-5	2	NP	60	SANDY LOAM with Cinders-black-loose (Fill)
	2			
	2			CLAY-brown & gray-stiff (A-6)
	2	1.6B	21	
	2			
	2			
-10	3	0.8B	18	CLAY-gray-medium stiff to very stiff (A-6)
	3			
	4			
	6	1.9B	17	
	4			
	6			
-15	8	2.0B	17	
	3			
	5			
	5	1.4B	17	
	4			CLAY-gray-very stiff to hard (A-6)
	7			
-20	9	4.9B	17	

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	
	6			
	10			
	14	5.7B	14	
	5			
	8			
-25	12	4.7B	12	
	6			
	8			
	10	4.9B	11	
	7			
	10			
-30	12	5.9B	12	
	5			
	12			
	12	3.2B	10	
	5			
	9			
-35	13	3.2B	8	
	6			
	7			
	10	4.1B	12	
	6			
	10			
-40	13	4.2B	11	

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample V-Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in Italics above moist (%)
NR-No Recovery

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CONSULTING ENGINEERS
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(847)398-1441 • FAX(847) 368-2370

SOIL BORING LOG

DATE September 18, 2002

LOGGED BY TK

OBA JOB No. 02235

ROUTE FAU Route 1541 DESCRIPTION Proposed Bridge Improvements IDOT Project No. D-91-122-97

SECTION 1818-4B LOCATION 76th St. over FAI 94 Chicago, Illinois (Sections 27 & 28-T38N-R14E)

COUNTY Cook DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. 016-2850
Station 73+49.33

BORING NO. SB-76-6
Station 74+96.72
Offset 37.5' Left
Ground Surface Elev. 588.6 (9.1 CCD)

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter Dry
Upon Completion Dry
After ____ Hrs. ____

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	
	8			CLAY-gray-very stiff to hard (A-6)
	11			
	12	4.5+P	12	
	9			
	11			
-45	13	4.5+P	12	
	5			
	7			SAND with Gravel-gray-medium dense (A-1-b)
	8	NP	8	
	8			
	12			
-50	13	3.7P	13	
				CLAY to CLAY LOAM-gray-very stiff to hard (A-6)
	7			
	10			
	14	4.5+P	11	
	10			
	16			
-55	18	6.7B	11	
	10			
	18			
	23	4.5+P	10	
	16			End of Boring @ -60.0'
	25			Hollow Stem Augers
-60	32	4.5+P	10	CME Automatic Hammer

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)
-65			
-70			
-75			
-80			

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample V-Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in Italics above moist (%)
NR-No Recovery

FILE: L:\6592.02\Cad\Sheets\Roadway Structures\Bridge\6592-S2850-SB05.dgn

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Engineers & Architects

DWG. S-40 of 42

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SOIL BORING LOGS - SB6
76TH STREET OVER FAI-94
FAP ROUTE 1541 SECTION 1818 R-9
COOK COUNTY
STATION 73+49.33
STRUCTURE NUMBER 016-2850

SCALE: NONE DESIGNED BY: OBA DRAWN BY: TL
DATE: March 25, 2005 CHECKED BY: TB CHECKED BY: TB

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	*	COOK	907	711
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* (1516.1, 1717 & 1818) R-9

62695

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(847)398-1441 • FAX(847) 398-2376

SOIL BORING LOG

DATE August 31, 2002

LOGGED BY RH

OBA JOB No. 02235

ROUTE FAU Route 1541 DESCRIPTION Proposed Bridge Improvements IDOT Project No. D-91-122-97

SECTION 1818-4B LOCATION 76th St. over FAI 94 Chicago, Illinois (Sections 27 & 28-T38N-R14E)

COUNTY Cook DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. 016-2850
Station 73+49.33
BORING NO. SB-76-7
Station 74+49.48
Offset 42.6' Right
Ground Surface Elev. 572.8 (-6.7 CCD)

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter 529.2
Upon Completion 529.2
After ____ Hrs. ____

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	
	8			TOPSOIL with GRAVEL (Fill)
	8			
	9		14	
	2			
	4			
-5	7	4.6B	16	CLAY- gray-very stiff to hard (A-6)
	4			
	7			
	12	4.7B	14	
	6			
	7			
-10	10	5.3B	12	CLAY- gray-hard (A-6)
	6			
	8			
	11	3.7B	12	
	5			
	8			
-15	11	3.7B	13	
	6			
	7			
	9	4.7B	13	SILTY LOAM- gray-very dense (A-6)
	7			
	9			
-20	12	3.7B	12	

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	
	4			CLAY- gray-very stiff to hard (A-6)
	7			
	8	2.8B	14	
	3			
	8			
-25	10	3.1B	13	
	8			
	12			SANDY CLAY LOAM- gray-dense (A-4)
	23	NP	10	
	11			
	21			
-30	27	9.6B	11	CLAY- gray-hard (A-6)
	15			
	23			
	30	4.5+P	10	
	8			
	15			
-35	19	9.6B	11	
	10			
	26			
	30	NP	11	SILTY LOAM- gray-very dense (A-4)
	20			
	36			
-40	40	NP	13	

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

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CONSULTING ENGINEERS
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(847)398-1441 • FAX(847) 398-2376

SOIL BORING LOG

DATE August 31, 2002

LOGGED BY RH

OBA JOB No. 02235

ROUTE FAU Route 1541 DESCRIPTION Proposed Bridge Improvements IDOT Project No. D-91-122-97

SECTION 1818-4B LOCATION 76th St. over FAI 94 Chicago, Illinois (Sections 27 & 28-T38N-R14E)

COUNTY Cook DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. 016-2850
Station 73+49.33
BORING NO. SB-76-7
Station 74+49.48
Offset 42.6' Right
Ground Surface Elev. 572.8 (-6.7 CCD)

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter 529.2
Upon Completion 529.2
After ____ Hrs. ____

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	
	30			SILTY LOAM- gray-very dense (A-4)
	33			
	39	NP	9	
	28			
	32			CLAY with Fractured STONE- gray-hard (A-6)
-45	36	4.5+P	8	
				End of Boring @ -45.0' Hollow Stem Augers CME Automatic Hammer
-155				
-165				
-180				

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	
-195				
-217				
-227				
-248				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

FILE: L:\6592.02\Cad\Sheets\Roadway Structures\Bridge\6592-S2850-SB06.dgn

KNIGHT
Engineers & Architects

DWG. S-41 of 42

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SOIL BORING LOGS - SB7
76TH STREET OVER FAI-94
FAP ROUTE 1541 SECTION 1818 R-9
COOK COUNTY
STATION 73+49.33
STRUCTURE NUMBER 016-2850

SCALE: NONE DESIGNED BY: OBA DRAWN BY: TL
DATE: March 25, 2005 CHECKED BY: TB CHECKED BY: TB

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	*	COOK	907	718
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* (1516.1, 1717 & 1818) R-9

62695

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CONSULTING ENGINEERS
1235 E. DAVIS ST./ARLINGTON HTS., IL 60005
(847)398-1441 • FAX(847) 398-2376

SOIL BORING LOG

DATE September 17, 2002

LOGGED BY TK

OBA JOB No. 02235

ROUTE FAU Route 1541 DESCRIPTION Proposed Bridge Improvements IDOT Project No. D-91-122-97

SECTION 1818-4B LOCATION 76th St. over FAI 94 Chicago, Illinois (Sections 27 & 28-T38N-R14E)

COUNTY Cook DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. 016-2850
Station 73+49.33
BORING NO. SB-76-8
Station 74+96.39
Offset 21.9' Right
Ground Surface Elev. 588.9 (9.4 CCD)

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter Dry
Upon Completion Dry
After ____ Hrs. ____

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	
				3.0" Asphalt, 8.0" Concrete
	10			
	9			Fine SAND-brown-medium dense (Fill)
	12	NP	10	
	6			
	3			SANDY TOPSOIL-black
-5	2	-	46	
	5			
	5			SILTY LOAM to LOAM-brown & gray-loose (A-4)
	3	NP	25	
	1		106	
	3			
-10	5	1.6B	19	CLAY-gray-stiff to very stiff (A-6)
	2		104	
	3			
	5	1.7B	19	
	3		108	
	4			
-15	6	2.0B	18	
	3		108	
	5			
	6	1.9B	17	
	3		109	
	6			
-20	4	2.7B	16	
				CLAY-gray-stiff to very stiff (A-6)
	6			
	10			
	12	4.5P	13	
				CLAY-gray-hard (A-6)
	7		111	
	11			
-25	10	4.6B	12	
	8		114	
	10			
	11	4.3B	13	
	5		116	
	9			
-30	11	6.1B	12	
	7		116	
	8			
	11	5.3B	14	
	4		111	
	7			
-35	9	4.1B	14	
	5		115	
	7			
	9	4.1B	14	
	3		116	
	7			
-40	11	6.0B	13	

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

O'BRIEN & ASSOCIATES, INC.
CONSULTING ENGINEERS
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(847)398-1441 • FAX(847) 398-2376

SOIL BORING LOG

DATE September 17, 2002

LOGGED BY TK

OBA JOB No. 02235

ROUTE FAU Route 1541 DESCRIPTION Proposed Bridge Improvements IDOT Project No. D-91-122-97

SECTION 1818-4B LOCATION 76th St. over FAI 94 Chicago, Illinois (Sections 27 & 28-T38N-R14E)

COUNTY Cook DRILLING METHOD 3.25" Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. 016-2850
Station 73+49.33
BORING NO. SB-76-8
Station 74+96.39
Offset 21.9' Right
Ground Surface Elev. 588.9 (9.4 CCD)

Surface Water Elev. n/a
Stream Bed Elev. n/a
Groundwater Elevation:
First Encounter Dry
Upon Completion Dry
After ____ Hrs. ____

DEPTH (ft)	BLOWS (/6")	UCS Qu (tsf)	MOIST (%)	
	4			
	8			
	11	4.5P	12	CLAY-gray-hard (A-6)
	11		115	
	18			
-45	25	7.8S	11	
	11		116	
	16			
	25	10.7S	11	
	10			
	15			
-50	20	4.5P	12	
	10			
	16			
	23	4.5P	12	
	9			
	15			
-55	22	4.5P	11	
	10			
	15			
	22	4.5P	12	
	9			
	15			
-60	20	4.5P	11	End of Boring @ -60.0' Hollow Stem Augers CME Automatic Hammer
-65				
-70				
-75				
-80				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) ST-Shelby Tube Sample VS=Vane Shear Test
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206) The Unit Dry Weight (pcf) is noted in italics above moist (%)
NR-No Recovery

FILE: L:\6592.02\Cad\Sheets\Roadway Structures\Bridge\6592-S2850-SB07.dgn

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Engineers & Architects

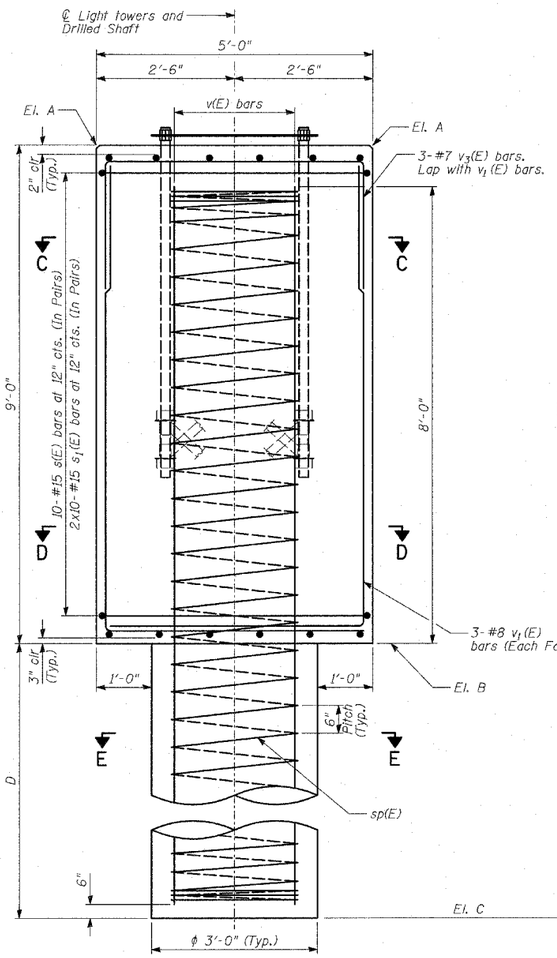
DWG. S-42 of 42

REVISIONS	
NAME	DATE

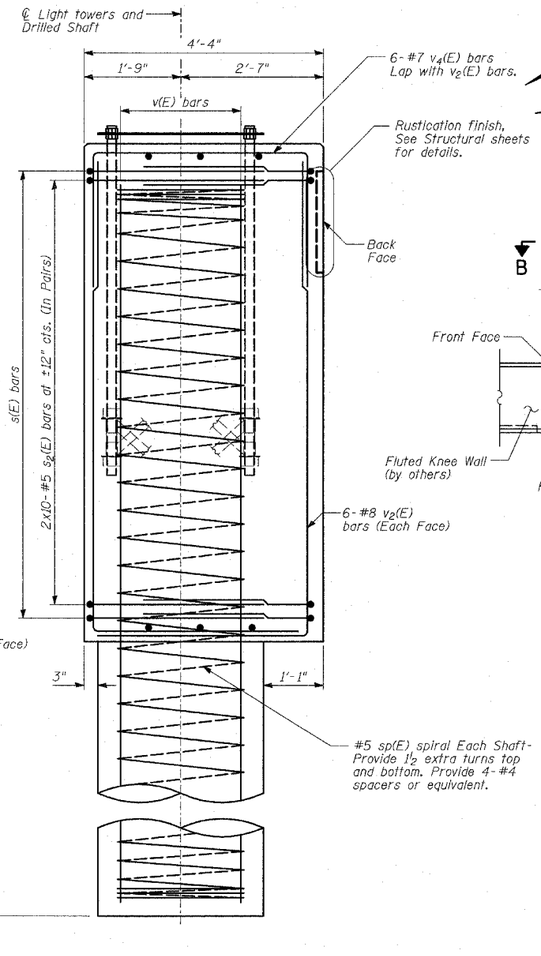
ILLINOIS DEPARTMENT OF TRANSPORTATION
SOIL BORING LOGS - SB8
76TH STREET OVER FAI-94
FAP ROUTE 1541 SECTION 1818 R-9
COOK COUNTY
STATION 73+49.33
STRUCTURE NUMBER 016-2850

SCALE: NONE DESIGNED BY: OBA DRAWN BY: TL
DATE: March 25, 2005 CHECKED BY: TB CHECKED BY: TB

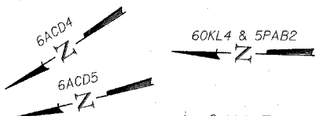
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	•	COOK	907	713
STA. 1200+00.00	TO STA. 1365+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
• (1516.1, 1717 & 1818) R-9				62695

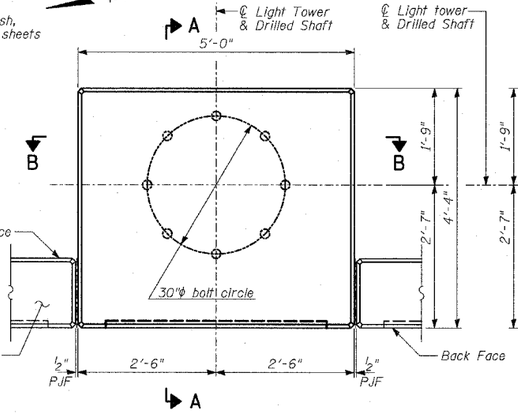


SECTION B-B

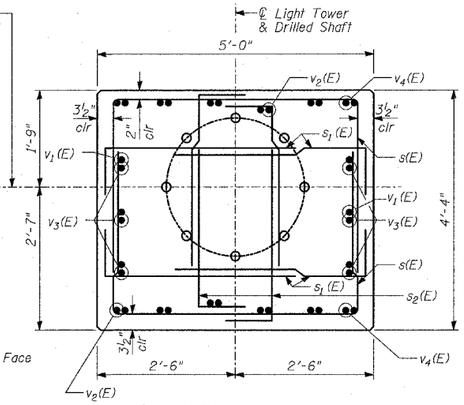


SECTION A-A

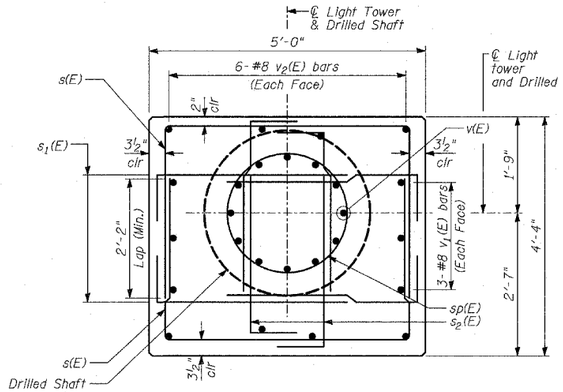




PLAN-LIGHT TOWER



SECTION C-C



SECTION D-D

BILL OF MATERIAL

(Per HMLT Foundation In Fluted Knee Wall)

Bar	No.	Size	Length	Shape
s (E)	20	#5	10'-7"	
s_1(E)	40	#5	4'-2"	
s_2(E)	40	#5	3'-11"	
sp (E)	1	#5	34'-6"	
v(E)	12	#10	34'-6"	
v_1(E)	6	#8	12'-10"	
v_2(E)	12	#8	12'-3"	
v_3(E)	3	#7	11'-2"	
v_4(E)	6	#7	10'-8"	
Reinforcement Bars, Epoxy Coated		POUND		3,650
Structure Excavation		CU YD		18
Concrete Structures		CU YD		8
Protective Coat		SQ YD		9
Rustication Finish		SQ FT		8
Drilled Shaft in Soil 36"		FOOT		27

Reinforcement bars designated (E) shall be epoxy coated.

NOTES:

1. The design loads are based on AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminares and Traffic Signals-2001.
2. Drilled shafts shall be installed according to IDOT special provisions for "Drilled Shafts".
3. Protective Coat shall be applied to exposed surfaces of the new concrete wall and tower base.
4. At all locations where reinforcement bar laps are not in direct contact, the Contractor shall provide sufficient spacing between the vertical bars, equal to the size of the largest concrete aggregate plus ½ inch.
5. Conduit is not shown for clarity. For location of conduit, see Sheet 3 of 3.
6. Cost of anchor rod assembly, conduit and wires for grounding are included with "Concrete Structures".
7. Minimum lap for spirals = 2'-6"

HMLT	EL. A	EL. B	EL. C	D
6 ACD4	13.92	4.92	-22.08	27'-0"
6 ACD5	18.53	9.53	-17.47	27'-0"
6 OKL4	13.09	4.09	-22.91	27'-0"
5 PAB2	11.70	2.70	-24.30	27'-0"

TOTAL BILL OF MATERIAL

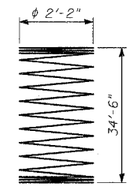
ITEM	UNIT	TOTAL
Structure Excavation	CU YD	72
Concrete Structures	CU YD	32
Protective Coat	SQ YD	24
Rustication Finish	SQ FT	32
Reinforcement Bars, Epoxy Coated	POUND	14,600
Drilled Shaft in Soil 36"	FOOT	108

DESIGN SPECIFICATION

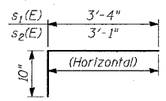
AASHTO 2002 Standard Specifications for Highway Bridges

DESIGN STRESSES FIELD UNITS

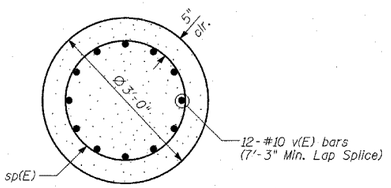
f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)



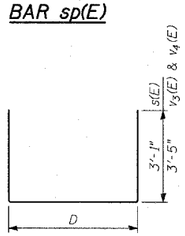
BAR sp(E)



BARS s_1(E) & s_2(E)



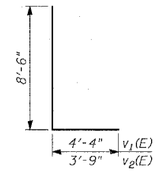
SECTION E-E



BARS s(E), v_3(E) & v_4(E)

MARK TABLE

Bar	D
s (E)	4'-5"
v_3(E)	4'-4"
v_4(E)	3'-10"



BARS v_1(E)& v_2(E)

STATE OF ILLINOIS
PHILLIP D. FREY
081-004826
CHICAGO, ILLINOIS
LICENSED STRUCTURAL ENGINEER

Signed Phillip D. Frey
Phillip D. Frey, S.E. Il. Lic. No. 081-004826 Expires 11-30-2006
For drawings 1 thru 3 of 3

Date 3/25/05

SHEET 1 OF 3

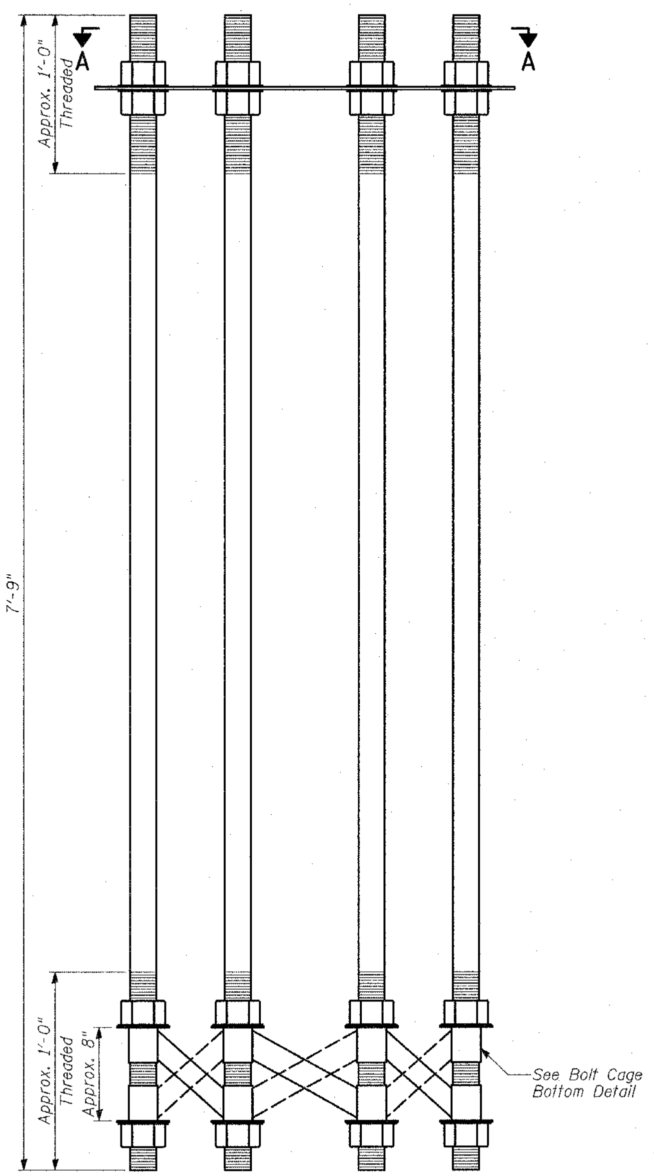
REVISIONS NAME	DATE
REVISED	04/15/05

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)
HMLT FOUNDATION DETAILS AT FLUTED KNEE WALLS

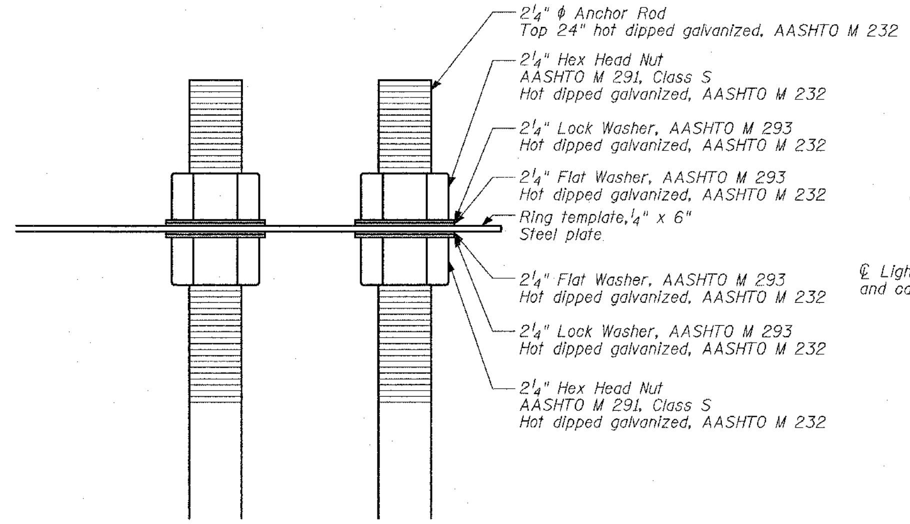
S.N.
SCALE: N.T.S.
DATE: MARCH 25, 2005
DESIGNED BY: MI MAF
DRAWN BY: MAF, DJR
CHECKED BY: TD

TY·LIN INTERNATIONAL

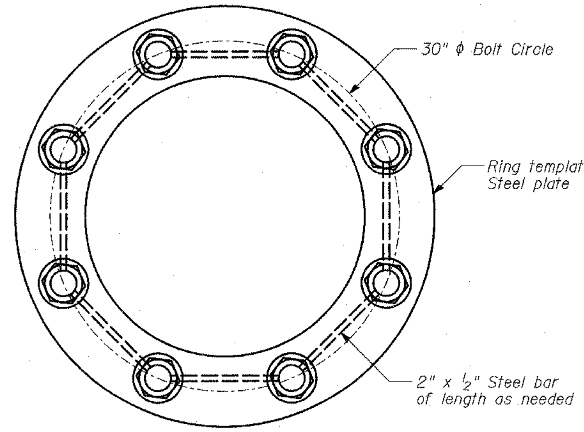
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	•	COOK	907	714
STA. 1200+00.00	TO STA. 1365+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
• (1516.1, 1717 & 1818) R-9				62695



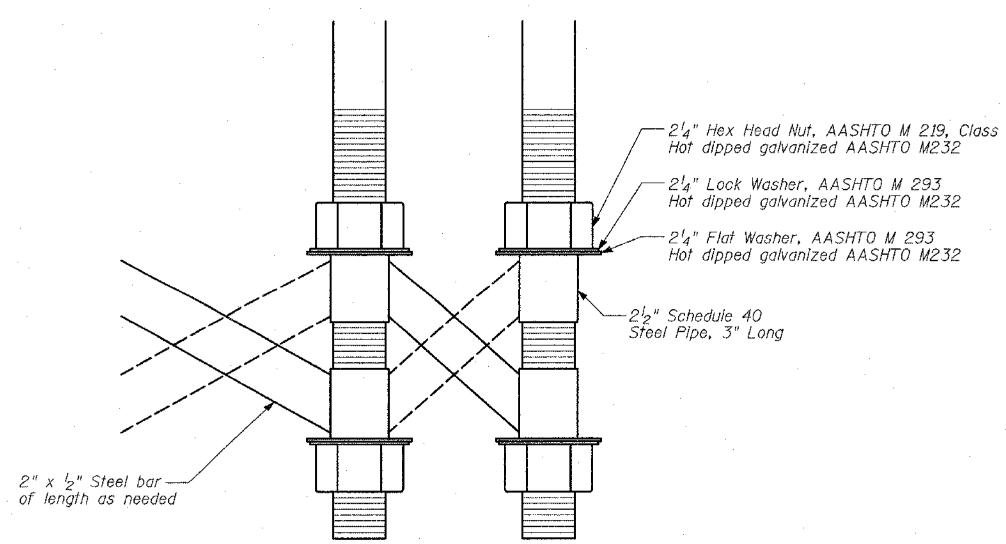
ANCHOR BOLT CAGE



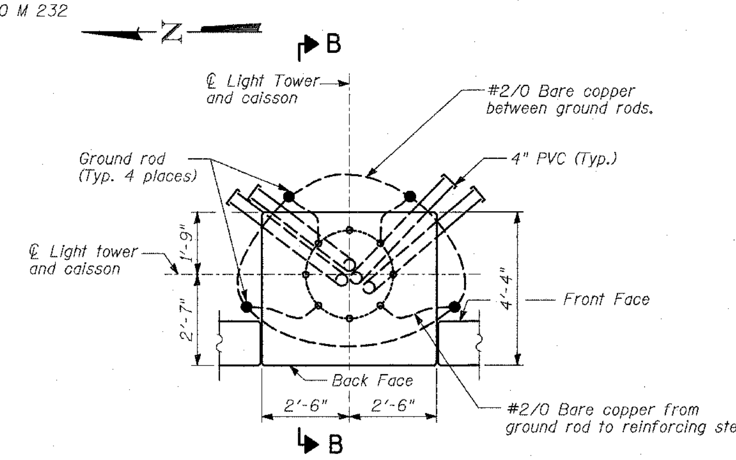
BOLT CAGE TOP



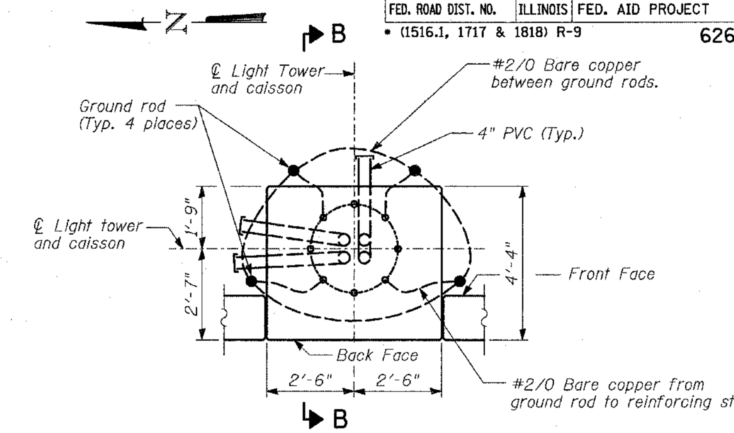
SECTION A-A



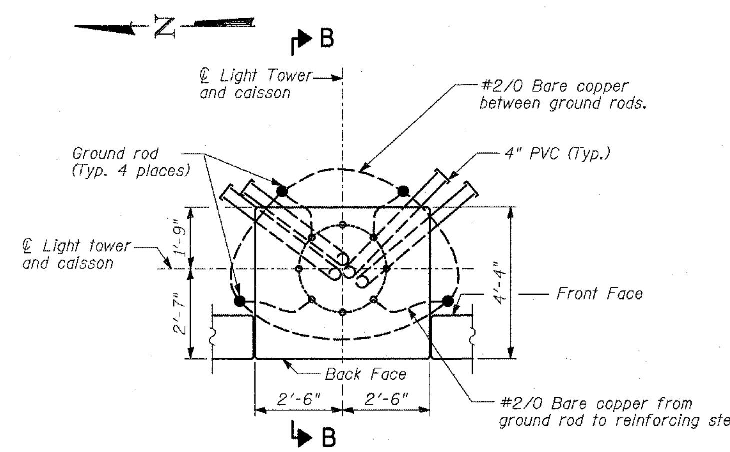
BOLT CAGE BOTTOM



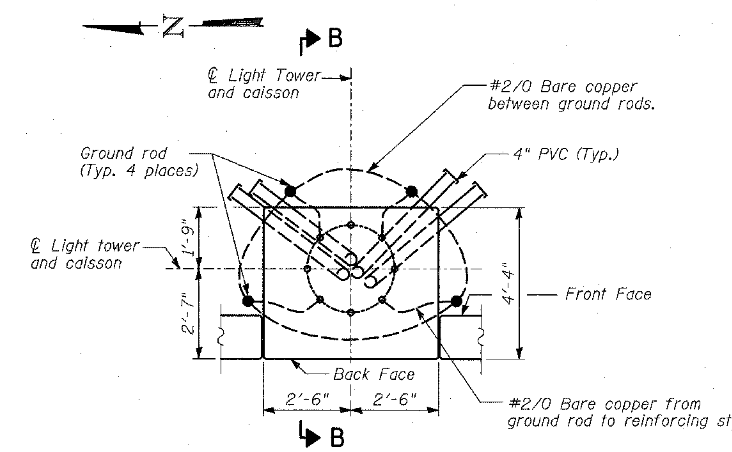
PLAN - 6OKL4 CONDUIT PLACEMENT



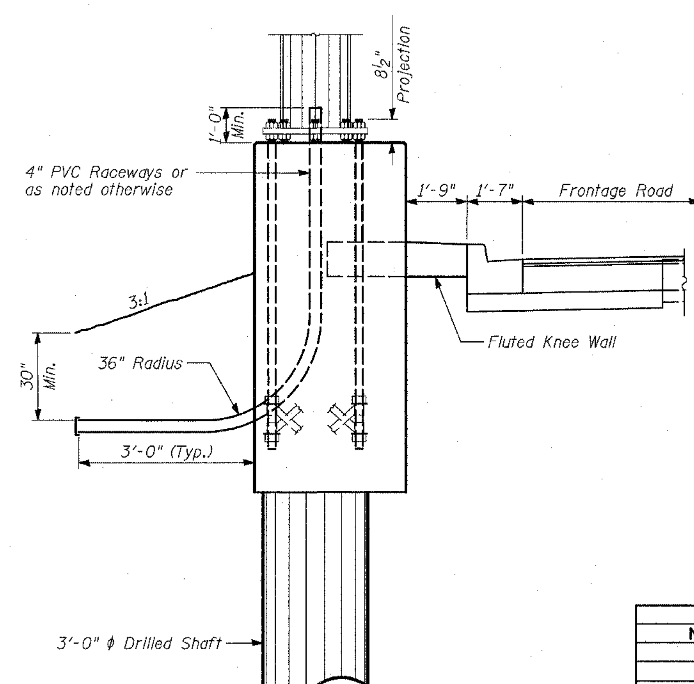
PLAN - 5PAB2 CONDUIT PLACEMENT



PLAN - 6ACD4 CONDUIT PLACEMENT



PLAN - 6ACD5 CONDUIT PLACEMENT



SECTION B-B

NOTES:

1. Anchor rods shall be straight and shall be according to AASHTO M 314 or ASTM F1554, Grade 105 and galvanized according to Article 1006.09.
2. Anchor rod information shall be submitted for approval and shall be fully coordinated with tower manufacturer's requirements.
3. The Anchor Rods shall be vertical. No adjustment shall be allowed after the foundation is placed.
4. The gap between the foundation and the base plate shall be enclosed with a stainless steel screen fastened with a stainless steel band.
5. The Light Tower shall not be erected until after the concrete has been cured according to Article 1020.13.
6. Two anchor rods opposite each other shall have the anchor rod threads peened after nuts are installed.
7. Refer to BE501 for details.

SHEET 2 OF 3

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

F.A.I. 94 (DAN RYAN EXPRESSWAY)

HMLT DETAILS AT FLUTED KNEE WALL

S.N.	DESIGNED BY: MI, DJR
SCALE: N.T.S.	DRAWN BY: DJR
DATE: MARCH 25, 2005	CHECKED BY: TD

T·Y·LIN INTERNATIONAL

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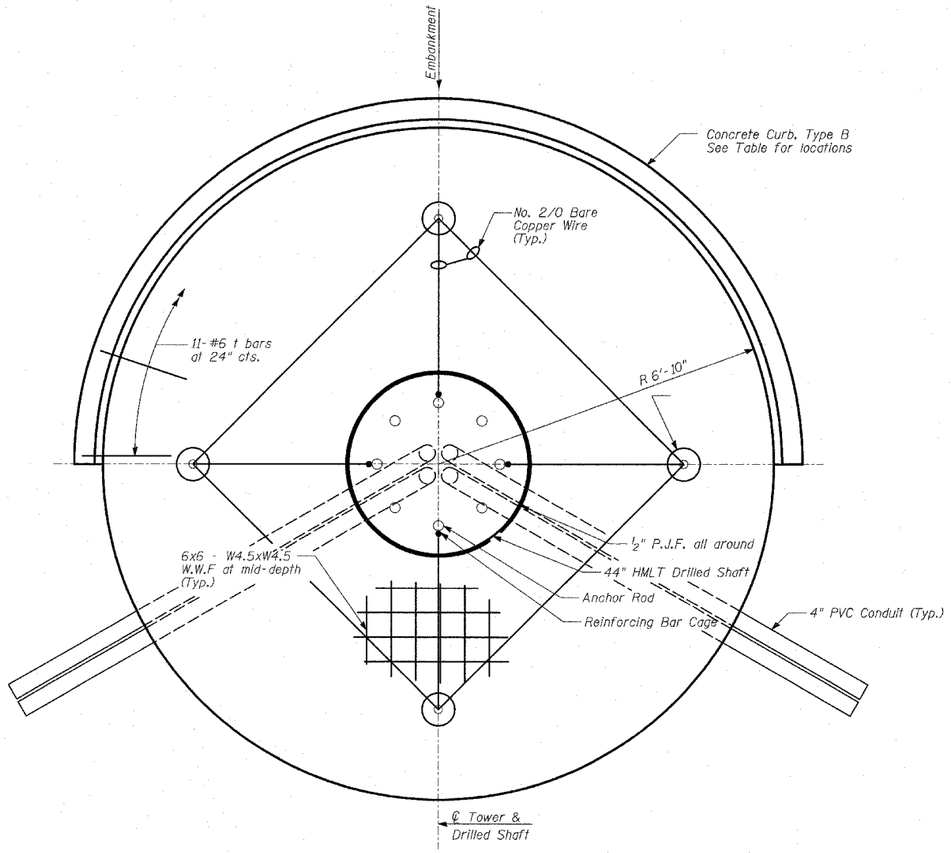
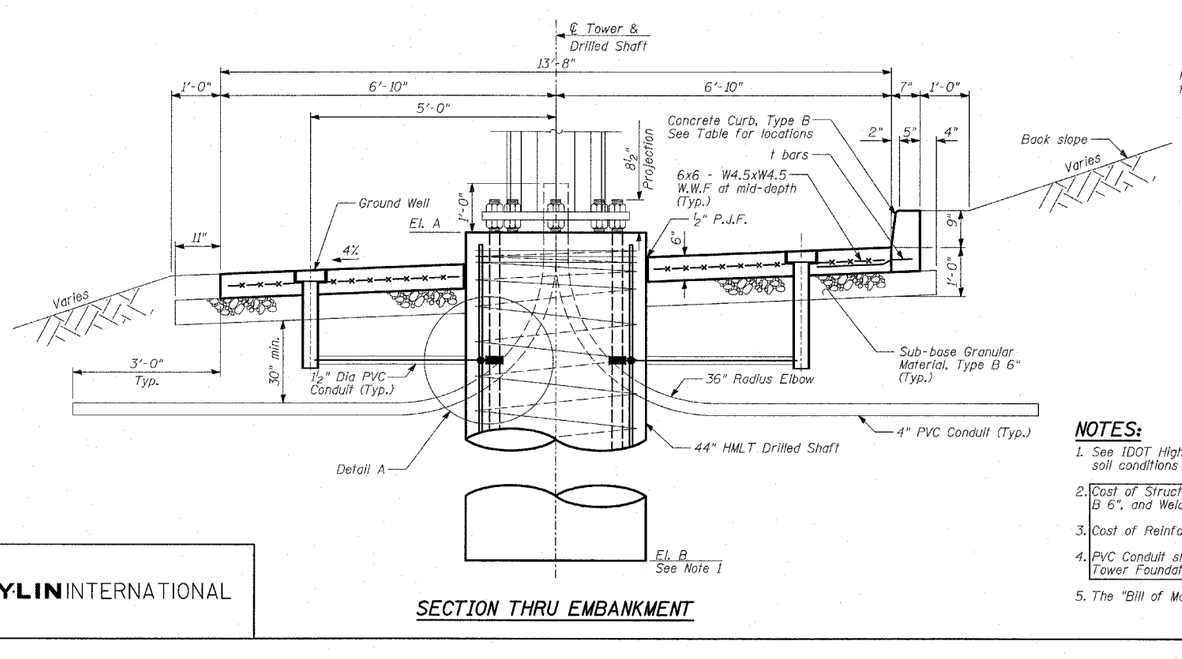
03/29/2005 04:44:14 PM

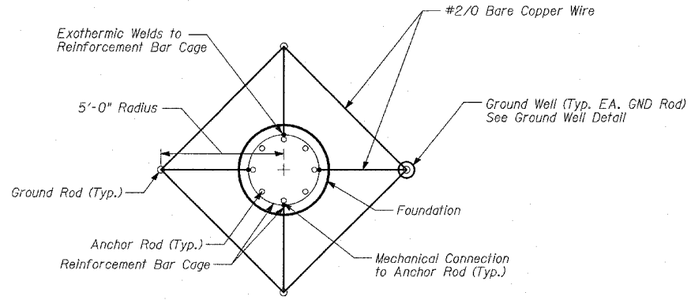
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	•	COOK	907	715
STA. 1200+00.00	TO STA. 1365+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
• (1516.1, 1717 & 1818) R-9				62695



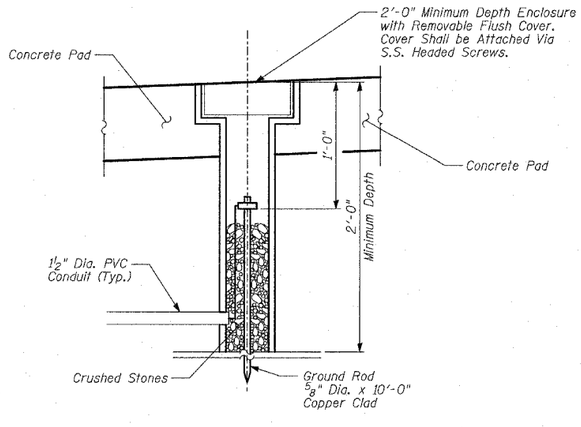
PLAN VIEW



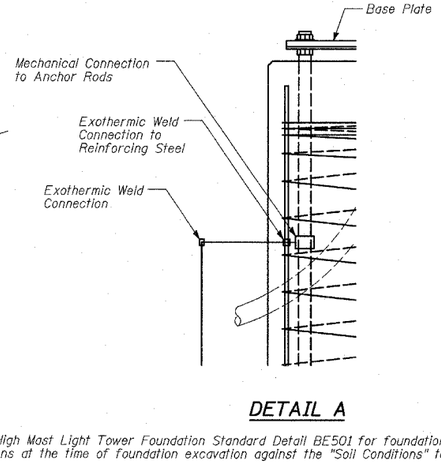
SECTION THRU EMBANKMENT



GROUND ROD DETAIL



GROUND WELL DETAIL



DETAIL A

HMLT	EL. A	EL. B	Concrete Curb, Type B 9"
6 OIJ1	3.69	-26.31	Yes
6 OCD2	-7.27	-37.27	Yes
5 RIJ4	-0.70	-30.70	Yes

BILL OF MATERIAL*

(Per HMLT Foundation)

Bar	No.	Size	Length	Shape
t	11	#6	2'-0"	———
Reinforcement Bars			POUND	40
Sub-Base Granular Material, Type B 6"			SQ YD	20
Structure Excavation			CU YD	12
Concrete Structures			CU YD	3
Protective Coat			SQ YD	17
Welded Wire Fabric, 6x6			SQ YD	16
Concrete Curb, Type B			FOOT	22
Light Tower Foundation, 44" Diameter			FOOT	30

* See Note 5.

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Concrete Curb, Type B	FOOT	66
Light Tower Foundation, 44" Diameter	FOOT	90
Light Tower Service Pad, 6"	SQ FT	411

NOTES:

1. See IDOT High Mast Light Tower Foundation Standard Detail BE501 for foundation details. Contractor to verify soil conditions at the time of foundation excavation against the "Soil Conditions" table on STD. Detail BE501.
2. Cost of Structure Excavation, Backfilling, Concrete Structures, Protective Coat, Sub-base Granular Material type B 6", and Welded Wire Fabric, 6x6 is included in Light Tower Service Pad, 6" and will not be paid for separately.
3. Cost of Reinforcement Bars is included in Concrete Curb, Type B and will not be paid for separately.
4. PVC Conduit shall extend 3 feet beyond the edge of the concrete pad. Cost of PVC Conduits is included in Light Tower Foundation, 44" Diameter and will not be paid for separately.
5. The "Bill of Material" is shown for constructability whereas the "Total Bill of Material" shows what is being paid for.

TY·LIN INTERNATIONAL

REVISIONS NAME	DATE
REVISED	04/15/05

ILLINOIS DEPARTMENT OF TRANSPORTATION

F.A.I. 94 (DAN RYAN EXPRESSWAY)

HMLT SERVICE PAD

S.N.

SCALE: N.T.S.

DATE: MARCH 25, 2005

DESIGNED BY: MI, DJR

DRAWN BY: DJR

CHECKED BY: TD

SHEET 3 OF 3

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	*	COOK	907	716
STA. 1200+00.00 TO STA. 1365+00				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* (1516.1, 1717 & 1818) R-9 62695

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BORING LOG 6ACD5

Page 1 of 1

Wang Engineering, INC. Consulting Geotechnical and Environmental Engineers
wangeng3@wangeng.com
1145 Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

WEI Job No.: 414-07-01

Client: T. Y. LIN International
Project: Dan Ryan Improvements; IDOT No. D-91-421-01
Location: From 95th Street to South of 69th Street

Datum: CCD
Elevation: 15.68 ft
North: ft
East: ft
Station: 145+81.00
Offset: 109.0 LT

Elevation (ft)	Soil and Rock Description	Depth (ft)	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	Brown SILTY CLAY LOAM --TOPSOIL--					
14.7	Stiff to hard, brown SILTY CLAY --FILL--		1	6 6 6	> 4.50 P	16
		5	2	5 4 5	1.31 S	17
10.2	Very stiff to hard, brown and gray SILTY CLAY		3	3 3 4	2.05 B	19
7.7	Soft to medium stiff, gray CLAY	10	4	2 2 2	0.66 B	20
			5	1 2 2	0.41 B	21
		15	6	0 1 1	0.33 B	21
-0.8	Very stiff to hard, gray SILTY CLAY		7	1 3 5	2.71 S	14
		20	8	4 6 13	4.51 B	13
		25	9	3 11 10	5.08 B	13
		30	10	5 7 9	5.17 B	13
-19.3		35	11	9 15 15	4.67 S	11
	Boring terminated at 35.00 ft	40, 45, 50				

GENERAL NOTES

Begin Drilling 08-10-2004 Complete Drilling 08-10-2004
Drilling Contractor Patrick Drilling Drill Rig CME 75 ATV
Driller J&L Logger J. Kasnick Checked by L.I.
Drilling Method 3.25" ID HSA; Boring backfilled with bentonite upon completion

WATER LEVEL DATA

While Drilling ▽ DRY
At Completion of Drilling ▼ DRY
Time After Drilling NA
Depth to Water ▽ NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 4140701.GPJ WANGENG.GDT 8/11/04

BORING LOG 50AB2

Page 1 of 1

Wang Engineering, INC. Consulting Geotechnical and Environmental Engineers
wangeng3@wangeng.com
1145 Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

WEI Job No.: 414-07-01

Client: T. Y. LIN International
Project: Dan Ryan Improvements; IDOT No. D-91-421-01
Location: From 95th Street to South of 69th Street

Datum: CCD
Elevation: 3.77 ft
North: ft
East: ft
Station: 150+31.48
Offset: 75.28 LT

Elevation (ft)	Soil and Rock Description	Depth (ft)	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	Brown SILTY CLAY LOAM --TOPSOIL--					
3.0	Very stiff, gray SILTY CLAY		1	6 6 7	3.61 S	15
		5	2	4 5 6	2.87 B	14
-1.7	Medium dense, gray SANDY LOAM, gravelly		3	9 15 16	NP	8
-4.2	Hard, gray SILTY CLAY	10	4	4 7 9	6.15 B	13
			5	3 7 15	5.41 S	13
-9.2	Medium dense, gray SANDY LOAM		6	3 12 13	NP	13
-10.7	Very stiff to hard, gray SILTY CLAY	15				
			7	6 12 13	6.31 S	12
		20	8	5 13 13	7.05 S	12
		25	9	8 15 12	5.17 S	10
		30	10	18 26 27	3.20 S	10
-31.2		35	11	18 23 27	2.46 S	9
	Boring terminated at 35.00 ft	40, 45, 50				

GENERAL NOTES

Begin Drilling 08-10-2004 Complete Drilling 08-10-2004
Drilling Contractor Patrick Drilling Drill Rig CME 75 ATV
Driller J&L Logger J. Kasnick Checked by L.I.
Drilling Method 3.25" ID HSA; Boring backfilled with bentonite upon completion

WATER LEVEL DATA

While Drilling ▽ DRY
At Completion of Drilling ▼ DRY
Time After Drilling NA
Depth to Water ▽ NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 4140701.GPJ WANGENG.GDT 8/11/04

LEGEND

NP	NON-PLASTIC
B	BULGE FAILURE
S	SHEAR FAILURE
P	POCKET PENETROMETER

TYLIN INTERNATIONAL

SHEET 1 OF 10

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)

BORING LOGS 6ACD5 & 50AB2

S.N.
SCALE: N.T.S.
DATE: MARCH 25, 2005
DESIGNED BY: DJR
DRAWN BY: DJR
CHECKED BY: DAK

03/30/2005 11:00:56 AM

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	•	COOK	907	717
STA. 1200+00.00	TO STA. 1365+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
• (1516.1, 1717 & 1818) R-9				62695

USE THIS BORING FOR HMLT - 60AB1

BORING LOG SB 33-03

Wang Engineering, INC.
Consulting Geotechnical and Environmental Engineers
wangeng3@wangeng.com
1145 Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

WEI Job No.: 414-07-01
Client: T. Y. LIN International
Project: Dan Ryan Improvements; IDOT No. D-91-421-01
Location: From 95th Street to South of 69th Street

Datum: CCD
Elevation: 15.36 ft
North: 1841899.95 ft
East: 1177629.03 ft
Station: 155+92.9
Offset: 109.712' LT

Elevation (ft)	Soil and Rock Description	Depth (ft)
15.1	3-inch thick, ASPHALT --PAVEMENT--	
14.6	7-inch thick, CONCRETE --PAVEMENT--	
14.1	6-inch thick, CRUSHED STONE --BASE COURSE--	
	Hard, gray CLAY	
10.4	Very soft, gray CLAY --LL=31%, PL=18%--	5
-1.2	Very stiff, gray CLAY	
-3.6	Medium dense, gray SAND	
-5.8	Hard, gray CLAY, with gravel	
-8.8	Dense, gray SILT	
-10.1	Very stiff to hard, gray SILTY CLAY, with gravel	25
-23.8	Very dense, gray gravelly SILTY LOAM	
-26.6	Hard, gray gravelly SILTY CLAY	
-29.6	Boring terminated at 45.00 ft	45

Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
1	6, 4, 8	> 4.50 P	32
2	3, 3, 3		
3	1, 1, 1	0.25 P	21
4	1, 1, 1	0.16 B	24
5	1, 1, 1	< 0.25 P	24
6	1, 1, 1	< 0.25 P	24
7	1, 1, 2	2.79 B	20
8	8, 9, 11	NP	17
9	7, 10, 10	6.15 B	16
10	4, 15, 23	6.48 B	13
11	7, 9, 15	4.92 S	11
12	6, 14, 15	5.25 S	12
13	10, 13, 21	7.13 S	
14	9, 27, 40	4.02 B	
15	17, 24, 25	9.84 S	

GENERAL NOTES

Begin Drilling 02-09-2004 Complete Drilling 02-09-2004
Drilling Contractor Patrick Drilling Drill Rig CME 75 TMR
Driller J&L Logger K. Jacob Checked by N. Davis
Drilling Method 3.25" ID HSA; Boring backfilled with bentonite upon completion

WATER LEVEL DATA

While Drilling ▽ 19.25 ft
At Completion of Drilling ▼ DRY
Time After Drilling NA
Depth to Water ▼ NA
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 4140701.GPJ WANGENG.GDT 5/20/04

USE THIS BORING FOR HMLT - 60IJ4

BORING LOG SB 34-01

Wang Engineering, INC.
Consulting Geotechnical and Environmental Engineers
wangeng3@wangeng.com
1145 Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

WEI Job No.: 414-07-01
Client: T. Y. LIN International
Project: Dan Ryan Improvements; IDOT No. D-91-421-01
Location: From 95th Street to South of 69th Street

Datum: CCD
Elevation: 15.93 ft
North: 1842437.11 ft
East: 1177613.92 ft
Station: 1210+57.1
Offset: 133.433' LT

Elevation (ft)	Soil and Rock Description	Depth (ft)
15.6	4-inch thick, ASPHALT --PAVEMENT--	
14.9	8-inch thick, CONCRETE --PAVEMENT--	
	Stiff, black and brown CLAY --FILL--	
12.9	Very soft, brown and gray CLAY	
0.4	Very dense, gray SANDY GRAVEL	15
-2.4	Medium dense, gray SANDY LOAM, with interbeds of silt	
-4.6	Very stiff to hard, gray SILTY CLAY, with gravel	20
-20.6	Hard, gray CLAY	
-24.1	Boring terminated at 40.00 ft	40

Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
1	11, 6, 4	1.07 B	21
2	5, 2, 3	0.49 B	36
3	1, 1, 2	< 0.25 P	21
4	1, 1, 1	0.16 B	24
5	1, 1, 1	< 0.25 P	18
6	1, 1, 2	0.25 B	19
7	15, 33, 35	NP	5
8	9, 11, 12	NP	15
9	6, 10, 14	5.08 B	10
10	5, 7, 8	5.49 B	14
11	6, 7, 11	4.26 B	14
12	5, 8, 12	5.49 B	13
13	4, 6, 13	3.20 B	12
14	10, 11, 16	4.10 B	18

GENERAL NOTES

Begin Drilling 02-06-2004 Complete Drilling 02-06-2004
Drilling Contractor Patrick Drilling Drill Rig CME 75 TMR
Driller J&L Logger N. Davis Checked by S. Janowski
Drilling Method 3.25" ID HSA; Boring backfilled with bentonite upon completion

WATER LEVEL DATA

While Drilling ▽ 18.80 ft
At Completion of Drilling ▼ DRY
Time After Drilling NA
Depth to Water ▼ NA
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 4140701.GPJ WANGENG.GDT 2/17/04

LEGEND

NP	NON-PLASTIC
B	BULGE FAILURE
S	SHEAR FAILURE
P	POCKET PENETROMETER

TYLIN INTERNATIONAL

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)
BORING LOGS SB33-03 & SB34-01

S.N.
SCALE: N.T.S.
DATE: MARCH 25, 2005
DESIGNED BY: DJR
DRAWN BY: DJR
CHECKED BY: DAK

03/30/2005 11:30:57 AM

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	*	COOK	907	718

STA. 1200+00.00 TO STA. 1365+00

FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT

* (1516.1, 1717 & 1818) R-9 — 62695

USE THIS BORING FOR HMLT - 60IJ1

Wang Engineering, INC. Consulting Geotechnical and Environmental Engineers
wangeng3@wangeng.com
1145 Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

BORING LOG SB 36-02

Page 1 of 1

WEI Job No.: 414-07-01
Client: T. Y. LIN International
Project: Dan Ryan Improvements; IDOT No. D-91-421-01
Location: From 95th Street to South of 69th Street

Datum: NGVD
Elevation: 18.12 ft
North: 1844037.82 ft
East: 1177562.90 ft
Station: 1226+58.6
Offset: 138.623' LT

Elevation (ft)	Soil and Rock Description
17.9	2-inch thick, ASPHALT --PAVEMENT--
16.9	12-inch thick CONCRETE --PAVEMENT--
16.4	7-inch thick CRUSHED STONE --BASE COURSE--
15.1	Medium dense, brown SAND --FILL--
	Very stiff, brown CLAY
12.6	Very soft to medium stiff, gray CLAY
-0.9	Very stiff to hard, gray SILTY CLAY to SILTY CLAY LOAM
-15.9	Medium dense, gray SAND
-16.4	Very stiff to hard, gray SILTY CLAY
-21.4	Very dense, gray, SILTY LOAM, with gravel
-22.9	--AUGER REFUSAL--
	Boring terminated at 41.00 ft

Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
1	7, 16, 9	NP	15
2	4, 2, 2	2.13 B	24
3	2, 2, 2	0.90 B	22
4	2, 1, 2	0.41 B	22
5	1, 0, 0	0.33 B	22
6	0, 0, 1	0.25 B	22
7	0, 0, 1	0.25 B	23
8	2, 4, 4	3.77 B	12
9	4, 6, 8	4.02 B	12
10	4, 7, 8	4.92 B	12
11	7, 10, 14	5.17 B	11
12	10, 12, 13	3.44 S	14
13	4, 7, 8	3.50 P	17
14	23, 37, 80/5	> 4.50 P	14

GENERAL NOTES

Begin Drilling 02-02-2004 Complete Drilling 02-02-2004
Drilling Contractor Patrick Drilling Drill Rig CME 75 TMR
Driller J&L Logger K. Jacob Checked by S. Janowski
Drilling Method 3.25" ID HSA; Boring backfilled with bentonite upon completion

WATER LEVEL DATA

While Drilling: 34.00 ft
At Completion of Drilling: 37.00 ft
Time After Drilling: NA
Depth to Water: NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 4140701.GPJ WANGENG.GDT 2/10/04

USE THIS BORING FOR HMLT - 60KL1

Wang Engineering, INC. Consulting Geotechnical and Environmental Engineers
wangeng3@wangeng.com
1145 Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

BORING LOG SB 36-09

Page 1 of 1

WEI Job No.: 414-07-01
Client: T. Y. LIN International
Project: Dan Ryan Improvements; IDOT No. D-91-421-01
Location: From 95th Street to South of 69th Street

Datum: CCD
Elevation: 20.01 ft
North: 1844556.85 ft
East: 1177547.96 ft
Station: 1231+77.9
Offset: 138.701' LT

Elevation (ft)	Soil and Rock Description
19.8	2-inch thick, ASPHALT --PAVEMENT--
19.0	10-inch thick, CONCRETE --PAVEMENT--
18.3	9-inch thick, CRUSHED STONE --BASE COURSE--
	Loose to medium dense, brown SAND --FILL--
9.5	Stiff to very stiff, gray CLAY
4.5	Soft, gray CLAY
-3.0	Stiff to hard, gray SILTY CLAY, with gravel
-16.5	--BEDROCK-- RUN 1: 36.5'-41.5' 98% REC 82%RQD; RUN 2: 41.5'-46.5' 96% REC 1% RQD
-26.5	Boring terminated at 46.50 ft

Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
1	14, 10, 6	NP	9
2	8, 6, 3	NP	16
3	7, 2, 2	NP	10
4	7, 2, 2	NP	10
5	4, 3, 5	2.46 B	19
6	2, 2, 3	1.64 B	18
7	2, 2, 2	0.41 B	20
8	1, 1, 1	0.40 B	22
9	0, 0, 0	0.45 B	22
10	2, 2, 2	1.23 B	14
11	6, 7, 9	4.57 B	12
12	4, 7, 10	4.92 B	12
13	30, 24, 22		

GENERAL NOTES

Begin Drilling 01-02-2004 Complete Drilling 01-02-2004
Drilling Contractor Patrick Drilling Drill Rig CME 75 TMR
Driller J&L Logger K. Jacob Checked by N. Davis
Drilling Method 3.25" ID HSA; Boring backfilled with bentonite upon completion

WATER LEVEL DATA

While Drilling: DRY
At Completion of Drilling: DRY
Time After Drilling: NA
Depth to Water: NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 4140701.GPJ WANGENG.GDT 5/20/04

LEGEND

NP	NON-PLASTIC
B	BULGE FAILURE
S	SHEAR FAILURE
P	POCKET PENETROMETER

TYLIN INTERNATIONAL

REVISIONS NAME	DATE

SHEET 3 OF 10

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)
BORING LOGS SB36-02 & SB36-09

S.N.
SCALE: N.T.S.
DATE: MARCH 25, 2005
DESIGNED BY: DJR
DRAWN BY: DJR
CHECKED BY: DAK

p:\0237\cadd\cb\hmlt\sh033a_hmlt.dgn 03/30/2005 11:00:56 AM

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	•	COOK	907	719

STA. 1200+00.00 TO STA. 1365+00

FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT

• (1516.1, 1717 & 1818) R-9 62695

USE THIS BORING FOR HMLT - 60KL2

Wang Engineering, INC.
Consulting Geotechnical and Environmental Engineers
wangeng3@wangeng.com
1145 Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

BORING LOG SB 37-04

WEI Job No.: 414-07-01

Client: T. Y. LIN International
Project: Dan Ryan Improvements; IDOT No. D-91-421-01
Location: From 95th Street to South of 69th Street

Datum: CCD
Elevation: 8.98 ft
North: 1844919.92 ft
East: 1177539.09 ft
Station: 1235+41.0
Offset: 137.17' LT

Elevation (ft)	Soil and Rock Description	Depth (ft)	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
8.8	2-inch thick, ASPHALT --PAVEMENT--					
7.9	11-inch thick, CONCRETE --PAVEMENT--		1	12 9 8	NP	5
7.0	11-inch thick, CRUSHED STONE --BASE COURSE--					
	Medium stiff to very stiff, brown and gray CLAY	5	2	9 5 7	4.02 B	19
			3	6 3 5	2.46 B	20
		10	4	3 4 5	2.46 B	22
			5	3 2 4	0.98 B	18
		15	6	2 2 5	1.56 B	19
			7	3 6 6	3.55 B	12
		20	8	2 4 6	3.44 B	13
-11.5	Hard, gray SILTY CLAY, with gravel		9	4 7 10	4.92 B	14
		25	10	7 7 12	5.74 B	12
			11	7 10 15	4.90 B	11
-20.1	POSSIBLE BOULDER --SPOON REFUSAL--		12	5 50/1	> 4.50 P	7
	Boring terminated at 29.10 ft	30				

GENERAL NOTES

Begin Drilling 01-02-2004 Complete Drilling 01-02-2004
Drilling Contractor Patrick Drilling Drill Rig CME 75 TMR
Driller J&L Logger K. Jacob Checked by N. Davis
Drilling Method 3.25" ID HSA; Boring backfilled with bentonite upon completion

WATER LEVEL DATA

While Drilling ▽ DRY
At Completion of Drilling ▼ DRY
Time After Drilling NA
Depth to Water ▽ NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 41407001.GPJ WANGENG.GDT 2/10/04

LEGEND

NP	NON-PLASTIC
B	BULGE FAILURE
S	SHEAR FAILURE
P	POCKET PENETROMETER

T.Y.LIN INTERNATIONAL

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)

BORING LOGS SB37-04 & 60KL3

S.N.
SCALE: N.T.S.
DATE: MARCH 25, 2005

DESIGNED BY: DJR
DRAWN BY: DJR
CHECKED BY: DAK

03/30/2005 11:00:58 AM

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	•	COOK	907	720
STA. 1200+00.00		TO STA. 1365+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
• (1516.1, 1717 & 1818) R-9			62695	

USE THIS BORING FOR HMLT - 60KL4

Wang Engineering, INC.
Consulting Geotechnical and Environmental Engineers
wangeng3@wangeng.com
1145 Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

BORING LOG SB 38-01

WEI Job No.: 414-07-01
Client: T. Y. LIN International
Project: Dan Ryan Improvements; IDOT No. D-91-421-01
Location: From 95th Street to South of 69th Street

Datum: CCD
Elevation: 9.74 ft
North: 1846098.09 ft
East: 1177511.09 ft
Station: 1247+19.5
Offset: 131.432' LT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	9.2	6-inch thick, black LOAM --TOPSOIL--						
		Medium stiff to very stiff, brown and gray CLAY			1	2 4 8	1.25 P	11
			5		2	2 2 1	1.39 B	32
					3	1 1 2	0.90 B	25
			10		4	1 2 3	1.39 B	22
					5	1 2 3	1.80 B	17
	-4.3	Hard, gray SILTY CLAY to SILTY CLAY LOAM, with interbeds of silt	15		6	3 8 12	0.75 P	16
					7	7 11 11	> 4.50 P	9
			20		8	5 10 12	> 4.50 P	11
					9	3 9 13	> 4.50 P	11
			25		10	5 8 12	> 4.50 P	12
		POSSIBLE BOULDER or BEDROCK	30		12	4 8 11	> 4.50 P	12
	-24.2	--AUGER REFUSAL-- Boring terminated at 33.90 ft	35		13	100/5"	4.00 P	12
			40		11	5 8 9	> 4.50 P	13
			45					
			50					

GENERAL NOTES

Begin Drilling: 01-08-2004 Complete Drilling: 01-08-2004
Drilling Contractor: Patrick Drilling Drill Rig: CME 75 TMR
Driller: J&L Logger: K. Jacob Checked by: N. Davis
Drilling Method: 3.25" ID HSA; Boring backfilled with bentonite upon completion

WATER LEVEL DATA

While Drilling: ▽ DRY
At Completion of Drilling: ▼ DRY
Time After Drilling: NA
Depth to Water: ▽ NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

USE THIS BORING FOR HMLT - 60CD2

Wang Engineering, INC.
Consulting Geotechnical and Environmental Engineers
wangeng3@wangeng.com
1145 Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

BORING LOG SB 39-09

WEI Job No.: 414-07-01
Client: T. Y. LIN International
Project: Dan Ryan Improvements; IDOT No. D-91-421-01
Location: From 95th Street to South of 69th Street

Datum: CCD
Elevation: 6.60 ft
North: 1846990.87 ft
East: 1177478.02 ft
Station: 1256+12.9
Offset: 138.933' LT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type / recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	5.7	2-inch thick ASPHALT, over 9-inch thick CONCRETE --PAVEMENT--						
	5.1	7-inch thick CRUSHED STONE --BASE COURSE--			1	2 6 6	2.75 P	19
	3.6	Very stiff, brown SILTY CLAY LOAM --FILL--			2	3 2 2	0.49 B	26
		Soft, gray CLAY	5		3	1 1 1	0.33 B	23
			10		4	1 1 1	0.41 B	23
	-4.9	Medium dense, gray SILT, with sand and clay interbeds			5	1 10 12	NP	13
			15		6	6 12 12	NP	14
	-9.6	Very stiff to hard, gray SILTY CLAY to CLAY			7	3 5 6	2.87 B	14
			20		8	2 3 6	3.28 B	14
					9	3 6 9	5.66 B	13
			25		10	5 10 11	5.08 B	12
	-18.9	Dense, gray SILTY LOAM	30		12	14 20 26	NP	11
	-33.0	Boring terminated at 39.58 ft	35		13	80/5"	NP	7
			40		14	40 80 50/4"	NP	7
			45					
			50					

GENERAL NOTES

Begin Drilling: 02-03-2004 Complete Drilling: 02-03-2004
Drilling Contractor: Patrick Drilling Drill Rig: CME 75 TMR
Driller: J&L Logger: K. Jacob Checked by: S. Jgnowski
Drilling Method: 3.25" ID HSA; Boring backfilled with bentonite upon completion

WATER LEVEL DATA

While Drilling: ▽ DRY
At Completion of Drilling: ▼ DRY
Time After Drilling: NA
Depth to Water: ▽ NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

LEGEND

NP	NON-PLASTIC
B	BULGE FAILURE
S	SHEAR FAILURE
P	POCKET PENETROMETER

TY·LIN INTERNATIONAL

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)
BORING LOGS SB38-01 & SB39-09

S.N.
SCALE: N.T.S.
DATE: MARCH 25, 2005
DESIGNED BY: DJR
DRAWN BY: DJR
CHECKED BY: DAK

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	•	COOK	907	721
STA. 1200+00.00	TO STA. 1365+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

• (1516.1, 1717 & 1818) R-9 62695

BORING LOG 6PAB4

Wang Engineering, INC.
Consulting Geotechnical and Environmental Engineers
wangeng3@wangeng.com
1145 Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

WEI Job No.: 414-07-01
Client: T. Y. LIN International
Project: Dan Ryan Improvements; IDOT No. D-91-421-01
Location: From 95th Street to South of 69th Street

Datum: CCD
Elevation: 7.63 ft
North: ft
East: ft
Station: 1260+65.65
Offset: 127 LT

Elevation (ft)	Soil and Rock Description	Depth (ft)	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
7.1	Brown SILTY CLAY --TOPSOIL--					
6.6	Hard, brown SILTY CLAY LOAM --FILL--		1	3, 7, 9	>4.50 P	14
	Hard, brown and gray SILTY CLAY					
3.4	Medium dense, gray SILTY LOAM	5	2	6, 11, 11	>4.50 P	14
			3	13, 12, 14		20
-0.4	Hard, gray SILTY CLAY	10	4	7, 9, 9	6.15 B	12
			5	6, 8, 11	5.33 B	13
		15	6	6, 12, 14	6.97 S	11
			7	7, 12, 15	6.31 S	12
		20	8	8, 19, 23	7.46 S	10
		25	9	19, 29, 48	>4.50 P	9
-18.4 / -18.6	--AUGER REFUSAL--		10	50/3	NP	13
	Boring terminated at 26.75 ft	30, 35, 40, 45, 50				

GENERAL NOTES

Begin Drilling 08-10-2004 Complete Drilling 08-10-2004
Drilling Contractor Patrick Drilling Drill Rig CME 75 ATV
Driller J&L Logger J. Kasnick Checked by L.I.
Drilling Method 3.25" ID HSA; Boring backfilled with bentonite upon completion

WATER LEVEL DATA

While Drilling ▽ DRY
At Completion of Drilling ▼ DRY
Time After Drilling NA
Depth to Water ▽ NA
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 4140701.GPJ WANGENG.GDT 8/11/04

BORING LOG 5PAB3

Wang Engineering, INC.
Consulting Geotechnical and Environmental Engineers
wangeng3@wangeng.com
1145 Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

WEI Job No.: 414-07-01
Client: T. Y. LIN International
Project: Dan Ryan Improvements; IDOT No. D-91-421-01
Location: From 95th Street to South of 69th Street

Datum: CCD
Elevation: 8.43 ft
North: ft
East: ft
Station: 1265+04.78
Offset: 125.1 LT

Elevation (ft)	Soil and Rock Description	Depth (ft)	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
7.7	Gray SANDY LOAM --TOPSOIL--					
	Loose, brown SAND --FILL--		1	4, 2, 2	NP	13
5.4	Very stiff, black CLAY LOAM --FILL--	5	2	1, 1, 3	2.50 P	4
2.9	Soft to medium stiff, gray CLAY		3	2, 1, 2	0.49 B	25
		10	4	1, 0, 1	0.41 B	22
			5	0, 1, 1	0.49 B	23
		15	6	0, 1, 3	0.66 B	21
-7.1	Very stiff, gray SILTY CLAY		7	2, 8, 11	3.94 B	19
-9.6	Medium dense, gray, coarse SANDY to SANDY LOAM	20	8	4, 7, 6	NP	18
-12.1	Very stiff to hard, gray SILTY CLAY		9	5, 8, 12	4.92 B	13
		25	11 / 10	6, 9, 13 / 5, 8	3.77 B / 3.94 B	13
		30	12	5, 8, 11	4.35 B	13
-23.6	Very dense, gray SILTY LOAM					
-26.6		35	13	17, 27, 30	NP	7
	Boring terminated at 35.00 ft	40, 45, 50				

GENERAL NOTES

Begin Drilling 08-10-2004 Complete Drilling 08-10-2004
Drilling Contractor Patrick Drilling Drill Rig CME 75
Driller K&M Logger B. Fugiel Checked by
Drilling Method 3.25" ID HSA; Boring backfilled with bentonite upon completion

WATER LEVEL DATA

While Drilling ▽ 19.00 ft
At Completion of Drilling ▼ DRY
Time After Drilling NA
Depth to Water ▽ NA
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 4140701.GPJ WANGENG.GDT 8/11/04

LEGEND

NP	NON-PLASTIC
B	BULGE FAILURE
S	SHEAR FAILURE
P	POCKET PENETROMETER

TYLIN INTERNATIONAL

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)
BORING LOGS 6PAB4 & 5PAB3

S.N.
SCALE: N.T.S.
DATE: MARCH 25, 2005
DESIGNED BY: DJR
DRAWN BY: DJR
CHECKED BY: DAK

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03/30/2005 11:01:00 AM

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	•	COOK	907	722

STA. 1200+00.00 TO STA. 1365+00

FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT

• (1516.1, 1717 & 1818) R-9 62695

USE THIS BORING FOR HMLT - 5PAB2

BORING LOG SB A3-01

Page 1 of 1

Wang Engineering, INC. Consulting Geotechnical and Environmental Engineers
wangeng3@wangeng.com
1145 Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

WEI Job No.: 414-07-01
Client: T. Y. LIN International
Project: Dan Ryan Improvements; IDOT No. D-91-421-01
Location: From 95th Street to South of 69th Street

Datum: CCD
Elevation: 8.75 ft
North: 1.00 ft
East: 0.00 ft
Station: 1267+14.64
Offset: 142.85' LT

Elevation (ft)	Soil and Rock Description
	17-inch thick TOPSOIL
7.3	Very loose, brown SANDY GRAVEL --FILL--
3.8	Medium stiff to stiff, gray CLAY
-9.3	Very stiff to hard, gray SILTY CLAY with Gravel
-30.3	Very dense, gray SANDY GRAVEL
-31.3	Boring terminated at 40.00 ft

Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
1	5, 8, 5	NP	
2	1, 1, 1	NP	
3	1, 2, 2	1.56 B	
4	2, 3, 3	1.56 B	
5	0, 1, 9	0.49 B	
6	1, 1, 3	0.74 B	
7	2, 4, 8	1.56 B	
8	6, 12, 16	3.36 B	
9	4, 7, 9	4.51 B	
10	4, 7, 11	5.33 S	
11	6, 11, 16	8.20 S	
12	6, 11, 15	7.38 B	
13	16, 29, 42	9.84 S	
14	35, 38, 55	8.53 S	

GENERAL NOTES

Begin Drilling 04-26-2004 Complete Drilling 04-26-2004
Drilling Contractor Patrick Drill Rig CME 75 TMR
Driller K&A Logger N. Davis Checked by MLS
Drilling Method 3.25" ID HSA; Boring backfilled with bentonite upon completion

WATER LEVEL DATA

While Drilling ▽ DRY
At Completion of Drilling ▼ DRY
Time After Drilling NA
Depth to Water ▽ NA
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 4140701.GPJ WANGENG.GDT 4/27/04

BORING LOG 5PAB1

Page 1 of 1

Wang Engineering, INC. Consulting Geotechnical and Environmental Engineers
wangeng3@wangeng.com
1145 Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

WEI Job No.: 414-07-01
Client: T. Y. LIN International
Project: Dan Ryan Improvements; IDOT No. D-91-421-01
Location: From 95th Street to South of 69th Street

Datum: CCD
Elevation: 7.24 ft
North: ft
East: ft
Station: 1274+15.86
Offset: 104.06 LT

Elevation (ft)	Soil and Rock Description
6.7	Brown SILTY CLAY LOAM --TOPSOIL--
6.0	Very stiff, brown SILTY CLAY --FILL--
	Loose, brown, fine SAND --FILL--
4.2	Very stiff, brown and gray SILTY CLAY
1.7	Soft to medium stiff, gray CLAY
-8.3	Hard, gray SILTY CLAY
-11.5 / -12.0	Medium dense, gray SANDY LOAM
	Very stiff, gray SILTY CLAY
-14.8	Dense, gray SILT
-19.3	Hard, gray SILTY CLAY
-23.8	Very dense, gray SILTY LOAM
-25.8	Boring terminated at 33.00 ft

Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
1	5, 5, 4	NP	6
2	3, 4, 3	3.36 B	21
3	2, 2, 3	0.82 B	22
4	1, 1, 2	0.57 B	24
5	1, 1, 2	0.33 B	23
6	1, 1, 3	0.57 B	20
7	4, 8, 14	5.90 S	13
8	7, 12, 16	2.87 S	10
9	8, 22, 25	NP	12
10	9, 11, 14	6.64 S	12
11	25, 42, 50/4	NP	9

GENERAL NOTES

Begin Drilling 08-10-2004 Complete Drilling 08-10-2004
Drilling Contractor Patrick Drilling Drill Rig CME 75 ATV
Driller J&L Logger J. Kasnick Checked by L.I.
Drilling Method 3.25" ID HSA; Boring backfilled with bentonite upon completion

WATER LEVEL DATA

While Drilling ▽ DRY
At Completion of Drilling ▼ DRY
Time After Drilling NA
Depth to Water ▽ NA
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 4140701.GPJ WANGENG.GDT 8/11/04

LEGEND

NP	NON-PLASTIC
B	BULGE FAILURE
S	SHEAR FAILURE
P	POCKET PENETROMETER

TYLIN INTERNATIONAL

SHEET 7 OF 10

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)
BORING LOGS SB-A3-01 & 5PAB1

S.N.
SCALE: N.T.S.
DATE: MARCH 25, 2005
DESIGNED BY: DJR
DRAWN BY: DJR
CHECKED BY: DAK

03/30/2005 11:01:01 AM

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	*	COOK	907	723
STA. 1200+00.00 TO STA. 1365+00				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* (1516.1, 1717 & 1818) R-9

62695

Wang Engineering, INC.
Consulting Geotechnical and Environmental Engineers
wangeng3@wangeng.com
1145 Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

BORING LOG 5PIJ3

WEI Job No.: 414-07-01

Client: T. Y. LIN International
Project: Dan Ryan Improvements; IDOT No. D-91-421-01
Location: From 95th Street to South of 69th Street

Datum: CCD
Elevation: 5.87 ft
North: ft
East: ft
Station: 1278+64.66
Offset: 99.85 LT

Elevation (ft)	SOIL AND ROCK DESCRIPTION
5.2	brown SILTY CLAY LOAM --TOPSOIL--
2.9	Loose, brown SAND --FILL--
0.4	Very stiff, gray SILTY CLAY
-4.6	Stiff, gray CLAY
-26.1	Very stiff to hard, gray SILTY CLAY
-29.1	Hard, gray SILTY CLAY LOAM
	Boring terminated at 35.00 ft

Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
1	4 3 3	NP	7
2	4 3 3	2.87 B	20
3	2 2 3	1.80 B	21
4	2 2 3	1.39 B	20
5	2 3 2	1.23 B	19
6	2 4 5	3.94 B	15
7	9 14 13	4.26 S	12
8	5 7 13	6.56 B	13
9	6 13 13	5.00 S	11
10	8 16 15	2.71 S	22
11	28 34 45	> 4.50 P	9

GENERAL NOTES

Begin Drilling 08-09-2004 Complete Drilling 08-09-2004
Drilling Contractor Patrick Drilling Drill Rig CME 75 ATV
Driller J&L Logger J. Kasnick Checked by L.I.
Drilling Method 3.25" ID HSA; Boring backfilled with bentonite upon completion

WATER LEVEL DATA

While Drilling ▽ DRY
At Completion of Drilling ▼ DRY
Time After Drilling NA
Depth to Water ▼ NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 4140701.GPJ WANGENG.GDT 8/11/04

Wang Engineering, INC.
Consulting Geotechnical and Environmental Engineers
wangeng3@wangeng.com
1145 Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

BORING LOG 6RIJ1

WEI Job No.: 414-07-01

Client: T. Y. LIN International
Project: Dan Ryan Improvements; IDOT No. D-91-421-01
Location: From 95th Street to South of 69th Street

Datum: CCD
Elevation: 1.50 ft
North: ft
East: ft
Station: 1346+40.00
Offset: 118.20 LT

Elevation (ft)	SOIL AND ROCK DESCRIPTION
1.0	Brown SILTY CLAY LOAM --TOPSOIL--
-1.5	Very stiff, brown SILTY CLAY --FILL--
-6.5	Very stiff, brown and gray SILTY CLAY
-9.0	Hard, gray SILTY CLAY
-11.5	Medium dense, gray SILTY LOAM with interbedded silty clay lenses
-27.5	Very stiff to hard, gray SILTY CLAY
-28.0	Medium dense, gray SANDY LOAM, gravelly
-30.5	Medium desne, gray SILT
-33.5	Medium dense, brown SAND, gravelly
	Boring terminated at 35.00 ft

Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
1	9 6 7	2.62 S	14
2	7 4 5	3.03 B	18
3	2 4 5	2.54 B	17
4	4 8 11	4.51 B	17
5	6 11 14	NP	16
6	4 6 8	4.35 B	13
7	4 8 9	4.02 S	12
8	4 9 13	5.25 B	12
9	6 11 14	6.56 B	12
10	2 11 15	5.08 S	12
11	9 11 7	3.69 B	13
12	5 6 7	NP	24

GENERAL NOTES

Begin Drilling 08-09-2004 Complete Drilling 08-09-2004
Drilling Contractor Patrick Drilling Drill Rig CME 75 ATV
Driller J&L Logger J. Kasnick Checked by L.I.
Drilling Method 3.25" ID HSA; Boring backfilled with bentonite upon completion

WATER LEVEL DATA

While Drilling ▽ 29.75 ft
At Completion of Drilling ▼ DRY
Time After Drilling NA
Depth to Water ▼ NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 4140701.GPJ WANGENG.GDT 8/11/04

LEGEND

NP	*NON-PLASTIC*
B	*BULGE FAILURE*
S	*SHEAR FAILURE*
P	*POCKET PENETROMETER*

TYLIN INTERNATIONAL

SHEET 8 OF 10

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

F.A.I. 94 (DAN RYAN EXPRESSWAY)

BORING LOGS 5PIJ3 & 6RIJ1

S.N.
SCALE: N.T.S.
DATE: MARCH 25, 2005
DESIGNED BY: DJR
DRAWN BY: DJR
CHECKED BY: DAK

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03/30/2005 11:01:01 AM

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	•	COOK	907	724
STA. 1200+00.00	TO STA. 1365+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

• (1516.1, 1717 & 1818) R-9

62695

BORING LOG 6RKL1

Wang Engineering, INC.
Consulting Geotechnical and Environmental Engineers
wangeng3@wangeng.com
1145 Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

WEI Job No.: 414-07-01

Client: T. Y. LIN International
Project: Dan Ryan Improvements; IDOT No. D-91-421-01
Location: From 95th Street to South of 69th Street

Datum: CCD
Elevation: 5.08 ft
North: ft
East: ft
Station: 1350+64.44
Offset: 154.60 LT

Elevation (ft)	Soil and Rock Description	Depth (ft)	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
4.6	Black LOAM --TOPSOIL--					
	Medium dense, brown SANDY LOAM --FILL--		1	8 9 8	NP	10
2.1	Very stiff to hard, gray SILTY CLAY	5	2	3 5 6	4.39 B	16
			3	4 4 6	3.28 B	16
		10	4	3 5 6	3.12 B	17
			5	3 5 9	3.44 B	15
		15	6	3 6 9	5.33 B	17
			7	5 7 12	3.44 B	13
		20	8	3 6 9	3.53 B	13
			9	3 8 11	3.61 B	13
		25	10	4 9 11	3.94 B	13
			11	6 11 13	4.10 B	13
		30	12	4 8 11	4.76 B	14
-29.9		35	13	3 9 10	3.69 B	14
	Boring terminated at 35.00 ft	40, 45, 50				

GENERAL NOTES

Begin Drilling 08-10-2004 Complete Drilling 08-10-2004
Drilling Contractor Patrick Drilling Drill Rig CME 75
Driller J&L Logger Y. Shiu Checked by L.L.
Drilling Method 3.25" ID HSA; Boring backfilled with bentonite upon completion

WATER LEVEL DATA

While Drilling ▽ DRY
At Completion of Drilling ▼ DRY
Time After Drilling NA
Depth to Water ▼ NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 41407010.GPJ WANGENG.GDT 8/11/04

BORING LOG 6RKL2

Wang Engineering, INC.
Consulting Geotechnical and Environmental Engineers
wangeng3@wangeng.com
1145 Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

WEI Job No.: 414-07-01

Client: T. Y. LIN International
Project: Dan Ryan Improvements; IDOT No. D-91-421-01
Location: From 95th Street to South of 69th Street

Datum: CCD
Elevation: 3.42 ft
North: ft
East: ft
Station: 1354+90.00
Offset: 125.80 LT

Elevation (ft)	Soil and Rock Description	Depth (ft)	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
3.1	Black CLAY LOAM --TOPSOIL--					
	Loose, brown SAND --FILL--		1	7 4 5	NP	6
0.4	Very stiff to hard, gray SILTY CLAY	5	2	3 2 5	2.13 B	18
			3	2 4 3	2.46 B	18
		10	4	4 4 4	2.46 B	17
			5	1 4 5	2.30 B	17
		15	6	4 7 9	3.53 B	17
			7	2 8 7	4.51 B	12
-14.6	Medium dense, gray SILT					
-15.6	Very stiff to hard, gray SILTY CLAY	20	8	7 8 8	3.28 B	13
			9	2 4 6	4.43 B	13
		25	10	4 6 5	6.81 B	13
			11	3 6 8	4.33 B	13
		30	12	4 5 7	5.00 B	13
-31.6		35	13	3 7 7	4.84 B	13
	Boring terminated at 35.00 ft	40, 45, 50				

GENERAL NOTES

Begin Drilling 08-09-2004 Complete Drilling 08-09-2004
Drilling Contractor Patrick Drilling Drill Rig CME 75 TMR
Driller K&M Logger Y. Shiu Checked by L.L.
Drilling Method 3.25" ID HSA; Boring backfilled with bentonite upon completion

WATER LEVEL DATA

While Drilling ▽ DRY
At Completion of Drilling ▼ DRY
Time After Drilling NA
Depth to Water ▼ NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

WANGENGINC 41407010.GPJ WANGENG.GDT 8/11/04

LEGEND

NP	*NON-PLASTIC*
B	*BULGE FAILURE*
S	*SHEAR FAILURE*
P	*POCKET PENETROMETER*

TYLIN INTERNATIONAL

SHEET 9 OF 10

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

F.A.I. 94 (DAN RYAN EXPRESSWAY)

BORING LOGS 6RKL1 & 6RKL2

S.N.
SCALE: N.T.S.
DATE: MARCH 25, 2005

DESIGNED BY: DJR
DRAWN BY: DJR
CHECKED BY: DAK

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	•	COOK	907	725
STA. 1200+00.00	TO STA. 1365+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
• (1516.1, 1717 & 1818) R-9				62695

Wang Engineering, INC.
Consulting Geotechnical and Environmental Engineers
wangeng3@wangeng.com
1145 Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

BORING LOG 6RKL3

WEI Job No.: 414-07-01

Client T. Y. LIN International

Project Dan Ryan Improvements; IDOT No. D-91-421-01

Location From 95th Street to South of 69th Street

Datum:
Elevation: 4.72 ft
North: ft
East: ft
Station: 1359+20
Offset: 153.1 LT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	4.2	Black CLAY LOAM --TOPSOIL--						
		Very stiff, gray SILTY CLAY			1	7 1 2	3.12 B	17
			5		2	3 2 4	2.54 B	18
					3	4 4 4	3.28 B	17
	-3.3	Medium dense, gray SILT	10		4	5 5 7	NP	18
	-5.8	Very stiff, gray SILTY CLAY			5	2 4 7	2.95 B	17
	-8.3	Very stiff, gray CLAY	15		6	3 4 7	3.85 B	18
	-10.8	Very stiff to hard, gray SILTY CLAY			7	3 6 6	4.10 B	13
			20		8	4 5 6	3.94 B	12
					9	3 6 8	5.17 B	13
			25		10	2 6 7	4.10 B	12

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	N Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
			30		11	5 9 12	5.74 B	13
					12	5 8 13	5.98 B	12
	-30.3	Boring terminated at 35.00 ft	35		13	13 26 35	> 4.50 P	10
			40					
			45					
			50					

GENERAL NOTES

Begin Drilling 08-09-2004 Complete Drilling 08-09-2004
Drilling Contractor Patrick Drilling Drill Rig CME 75 TMR
Driller K&M Logger Y. Shiu Checked by L.I.
Drilling Method 3.25" ID HSA; Boring backfilled with bentonite upon completion

WATER LEVEL DATA

While Drilling ▽ DRY
At Completion of Drilling ▼ DRY
Time After Drilling NA
Depth to Water ▼ NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

Wang Engineering, INC.
Consulting Geotechnical and Environmental Engineers
wangeng3@wangeng.com
1145 Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

BORING LOG 6RCD1

WEI Job No.: 414-07-01

Client T. Y. LIN International

Project Dan Ryan Improvements; IDOT No. D-91-421-01

Location From 95th Street to South of 69th Street

Datum: CCD
Elevation: -0.62 ft
North: ft
East: ft
Station: 1363+43
Offset: 111.5 LT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	-1.1	Brown SILTY CLAY LOAM --TOPSOIL--						
		Very stiff to hard, gray SILTY CLAY			1	3 3 2	4.10 B	16
			5		2	6 4 5	3.44 B	15
					3	4 5 8	3.44 B	14
			10		4	3 3 9	4.10 B	13
					5	4 6 12	4.02 B	16
			15		6	3 6 8	5.08 B	13
					7	4 7 9	4.84 B	12
			20		8	4 9 9	6.31 B	13
					9	4 9 13	5.74 B	12
			25		10	6 10 14	6.23 B	12

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	N Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
			30		11	20 22 22	6.56 S	10
	-31.6 -31.8	--WEATHERED BEDROCK--			12	50/2	NP	
		Boring terminated at 31.16 ft	35					
			40					
			45					
			50					

GENERAL NOTES

Begin Drilling 08-09-2004 Complete Drilling 08-09-2004
Drilling Contractor Patrick Drilling Drill Rig CME 75 ATV
Driller J&L Logger J. Kasnick Checked by L.I.
Drilling Method 3.25" ID HSA; Boring backfilled with bentonite upon completion

WATER LEVEL DATA

While Drilling ▽ DRY
At Completion of Drilling ▼ DRY
Time After Drilling NA
Depth to Water ▼ NA

The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

LEGEND

NP	NON-PLASTIC
B	BULGE FAILURE
S	SHEAR FAILURE
P	POCKET PENETROMETER

TY·LIN INTERNATIONAL

SHEET 10 OF 10

REVISIONS NAME	DATE

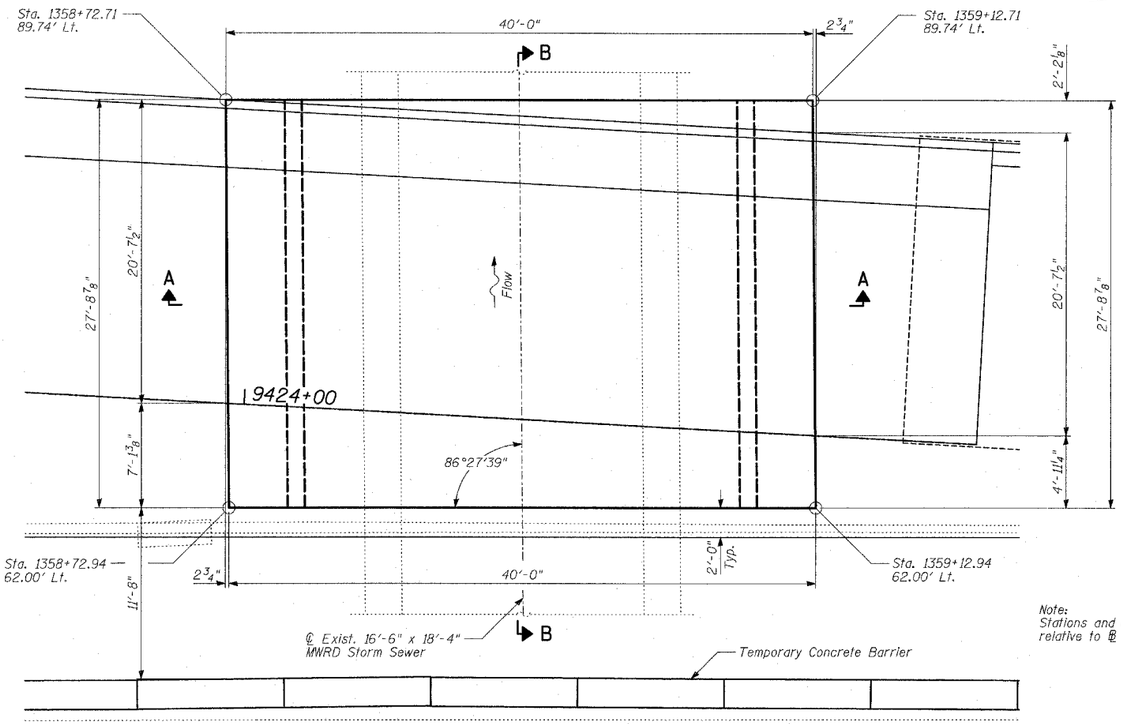
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)
BORING LOGS 6RKL3 & 6RCD1

S.N.
SCALE: N.T.S.
DATE: MARCH 25, 2005
DESIGNED BY: DJR
DRAWN BY: DJR
CHECKED BY: DAK

WANGENGINC 414070LOG.PJ WANGENG.GDT 8/11/04

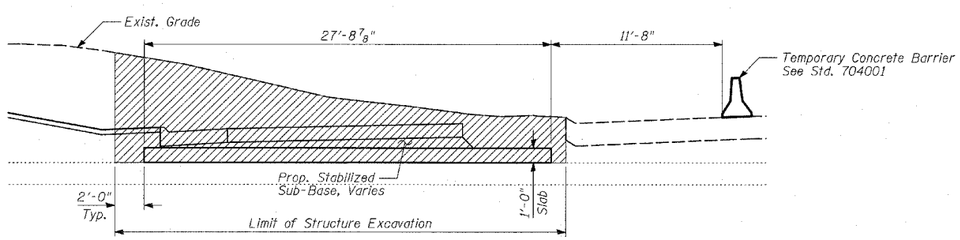
03/30/2005 11:08:03 AM

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	•	COOK	907	726
STA. 1200+00.00	TO STA. 1365+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
• (1516.1, 1717 & 1818) R-9				62695

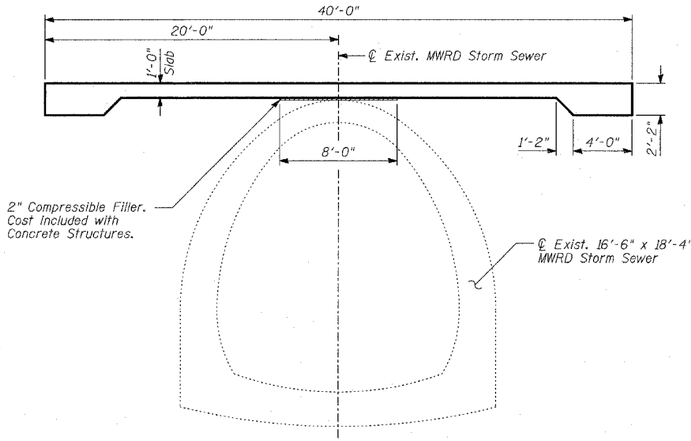


Note:
Stations and offsets are relative to ℄ SB I-94

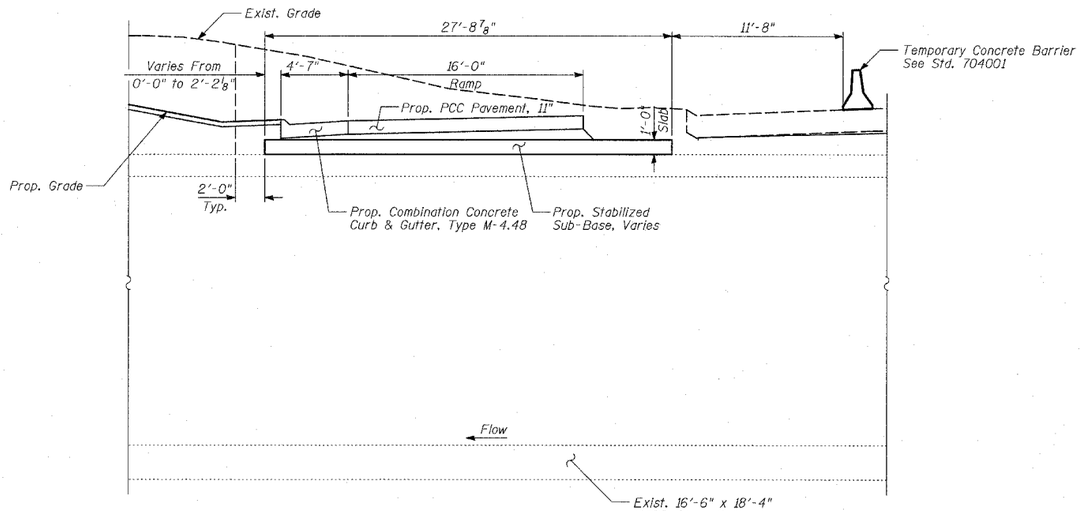
PLAN



LIMITS OF STRUCTURAL EXCAVATION



SECTION A-A



SECTION B-B

NOTES:

1. Reinforcement bars shall conform to the requirements of AASHTO M31 or M322 Grade 60.
2. Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of the work; however, the Contractor will be paid for the quantity actually finished at the unit price bid for the work.
3. All exposed concrete edges shall be chamfered $\frac{3}{4}$" except as noted.
4. All elevations shown are based on the Chicago City Datum of 0.00, which is 579.19 feet above mean tide New York. (NAVD 88)
5. It is the Contractor's responsibility to locate existing utilities, especially the existing MWRD Storm Sewer. Any repairs due to damage of the storm sewer shall be the Contractor's responsibility.
6. For Earth Excavation, see Roadway Plans

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Concrete Structures	CU YD	53
Reinforcement Bars, Epoxy Coated	POUND	11,690
Structure Excavation	CU YD	260

TY·LIN INTERNATIONAL

LEGEND

Structure Excavation

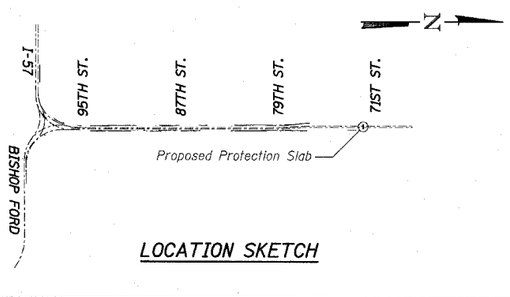
DESIGN SPECIFICATION

AASHTO 2002 Standard Specifications for Highway Bridges

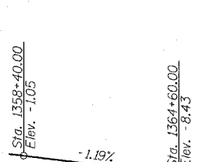
DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)



LOCATION SKETCH



PROFILE GRADE

(S.B. I-94)

STATE OF ILLINOIS
PHILLIP D. FREY
081-004826
CHICAGO, ILLINOIS
REGISTERED STRUCTURAL ENGINEER

Signed Phillip D. Frey
Phillip D. Frey, S.E. IL Lic. No. 081-004826
Expires 11-30-2006.
For drawings 1 thru 2 of 2

Date 3/25/05

SHEET 1 OF 2

REVISIONS NAME	DATE
REVISED	05/06/05

ILLINOIS DEPARTMENT OF TRANSPORTATION

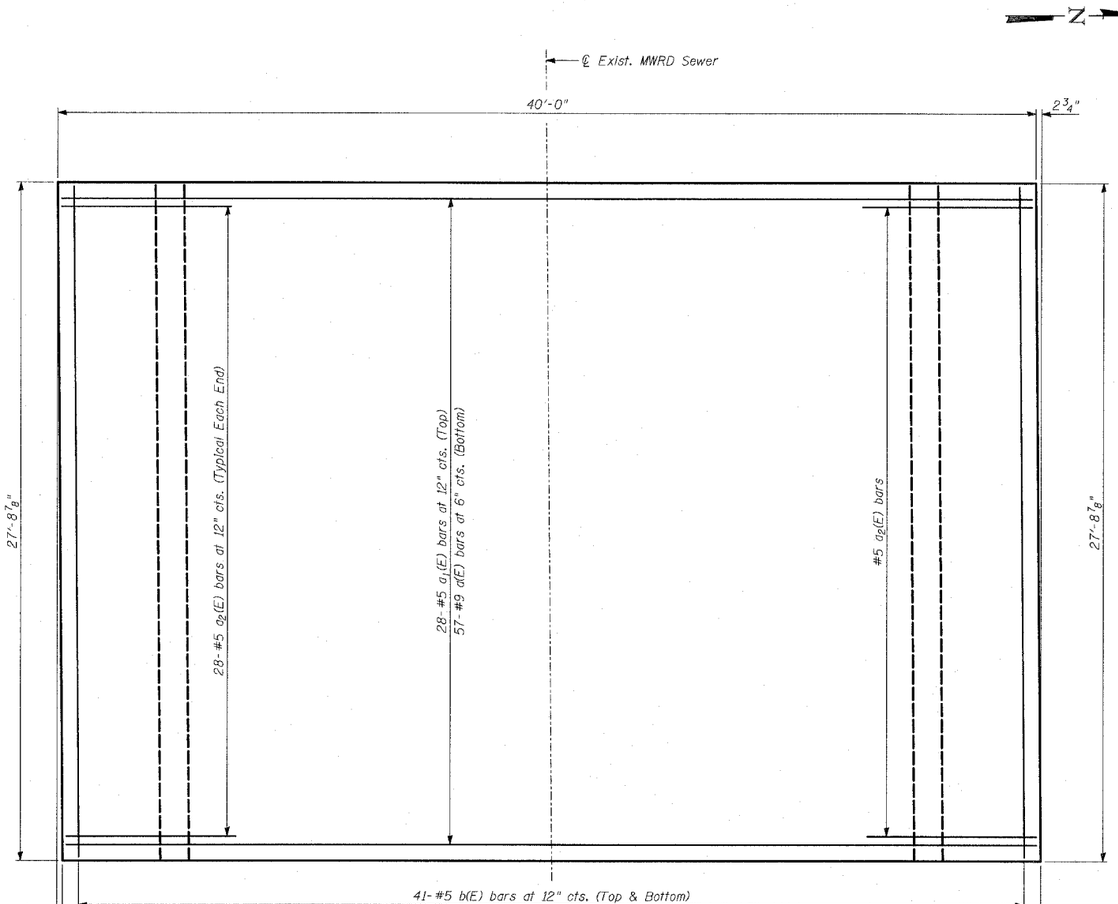
F.A.I. 94 (DAN RYAN EXPRESSWAY)

SADDLE FOR EXISTING 16'-6" x 18'-4" MWRD STORM SEWER

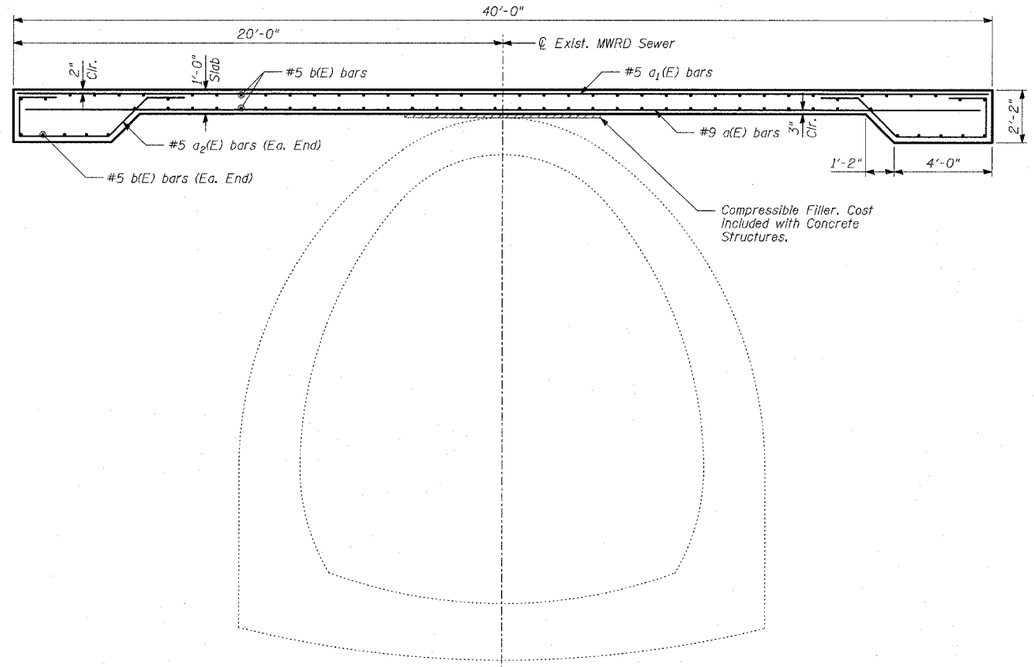
S.N.
SCALE:
DATE: MARCH 25, 2005
DESIGNED BY:
DRAWN BY: DJR
CHECKED BY: TD

05/03/2005 03:45:52 PM

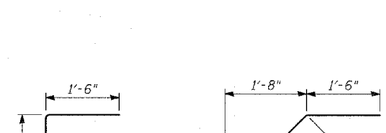
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	•	COOK	907	727
STA. 1200+00.00	TO STA. 1365+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
• (1516.1, 1717 & 1818) R-9				62695



PLAN



SECTION A-A



BAR $a_2(E)$

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	57	#9	39'-0"	
$a_1(E)$	28	#5	39'-8"	
$a_2(E)$	56	#5	10'-8"	
b(E)	82	#5	27'-5"	
Reinforcement Bars, Epoxy Coated			POUND	11,690
Concrete Structures			CU YD	53

Reinforcement bars designated (E) shall be epoxy coated.

REVISIONS NAME	DATE
REVISED	05/06/05
REVISED	04/15/05

ILLINOIS DEPARTMENT OF TRANSPORTATION

F.A.I. 94 (DAN RYAN EXPRESSWAY)

SADDLE FOR EXISTING 16'-6" x 18'-4" MWRD STORM SEWER

S.N.
SCALE:
DATE: MARCH 25, 2005

DESIGNED BY:
DRAWN BY: DJR
CHECKED BY: TD

TY·LIN INTERNATIONAL

05/03/2005 03:44:09 PM

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	•	COOK	907	728
STA. 1200+00.00	TO STA. 1365+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

• (1516.1, 1717 & 1818) R-9 62695

MAINLINE EXISTING SIGN SCHEDULE

SIGN NO.	LOCATION	SIGN INFORMATION			REMOVE SIGN PANEL, TYPE 1	REMAIN IN PLACE	REMOVE AND REINSTALL	REMOVE	RELOCATE	WOOD POST (FT)	SIGN DESCRIPTION
		STATION	OFFSET	MOUNTING							
1	HALSTED ST EXIT RAMP	7444+80	-	LIGHT POLE	1						CHICAGO EXPRESSWAYS KEEP THEM CLEAN
2	SB I-57	101+42	43' LT	WOOD POST			1				EXIT 357 (ARROW)
3	SB I-57	103+30	63.9' LT	LIGHT POLE				1			RAMP 30 MPH
4	SB I-57	107+16	OVERHEAD	BRIDGE-MOUNT				•			EXIT 357 ILLINOIS 1 HALSTED ST & ARROW
5	SB I-57	107+22	52.1' LT	WOOD POST		1					PARNELL AV 532 W
6	SB I-57	109+09	26.1' RT	WOOD POST		1					ACCIDENT INVESTIGATION SITE & ARROW
7	SB I-57	118+78	40.8' LT	LIGHT POLE		1					M1-1 (57), M3-3 (INTERSTATE)
8	SB I-57	119+38	50.6' LT	STEEL POSTS				•			EXIT 357 ILLINOIS 1 HALSTED ST 1/4 MILE
9	SB I-57	124+89	50.8' LT	WOOD POSTS		1					BEVERLY HILLS MORGAN PARK HISTORIC DIST. EXIT 357
10	SB I-57	130+97	44.3' LT	WOOD POSTS		1					WENTWORTH AVE 200W
11	SB I-57	133+63	OVERHEAD	TRUSS		1					EXIT 355 111TH ST 2 1/4 MILES, EXIT 357 ILLINOIS 1
											HALSTED ST 1/2 MILE
12	SB I-57	133+86	41.3' LT	WOOD POST		1					ACCIDENT INVESTIGATION SITE 1/2 MILE LEFT
13	SB I-57	135+64	11.0' RT	LIGHT POLE		1					ACCIDENT INVESTIGATION SITE 1/2 MILE LEFT
14	SB I-57	135+88	44.6' LT	WOOD POST		1					INTERSTATE 57 BEGINS
15	SB I-57	135+88	18.3' RT	WOOD POST		1					INTERSTATE 57 BEGINS
16	SB I-57	139+93	43.3' LT	WOOD POST			1				EXIT & ARROW
17	SB I-57	142+42	54.8' LT	LIGHT POLE				1			RAMP 30 MPH
18	SB I-57	144+20	16.2' RT	WOOD POST		1					ACCIDENT INVESTIGATION SITE 3/4 MILE LEFT
19	SB I-57	144+90	37.0' LT	LIGHT POLE					1	17	ACCIDENT INVESTIGATION SITE 3/4 MILE LEFT
20	SB I-57	144+90	48.3' LT	STEEL POSTS				•			WENTWORTH AVE & ARROW
21	SB I-57	145+46	18.7' RT	WOOD POST		1					W12-1
22	SB I-57	147+88	OVERHEAD	TRUSS				•			INT. 94 EAST BISHOP FORD FWY INDIANA (2 ARROWS), EXIT 63
											INT. 57 SOUTH MEMPHIS (2 ARROWS), R2-1(55),R2-1(55)
23	SB I-94 (BISHOP FORD)	1130+27	36' LT	STEEL POSTS				•			BISHOP LOUIS HENRY FORD MEMORIAL FREEWAY
24	SB I-94 (BISHOP FORD)	1134+27	45' LT	STEEL POSTS				•			ILLINOIS INT'L PORT EXITS
											IROQUOIS LNDG 65 LAKE CALUMET 68B
25	SB I-94 (BISHOP FORD)	1141+21	49' LT	STEEL POSTS				•			EXIT 65 STONY ISLAND AVE TO 95th - 103rd STs 3/4 MILE
26	SB I-94 (DAN RYAN)	1210+82	73' LT	STEEL POSTS				•			WENTWORTH AVE KEEP RIGHT
27	SB I-94 (DAN RYAN)	1210+82	73' LT	STEEL POSTS	1						CHICAGO EXPRESSWAYS KEEP THEM CLEAN
28	SB I-94 (DAN RYAN)	1219+86	72.5' LT	WOOD POST			1				EXIT 62 (ARROW)
29	SB I-94 (DAN RYAN)	1221+41	99.2' LT	LIGHT POLE				1			RAMP 30 MPH
30	SB I-94 (DAN RYAN)	1224+87	OVERHEAD	TRUSS				•			INT.94 EAST BISHOP FORD FWY INDIANA (2 ARROWS),
											EXIT 63 INT. 57 SOUTH MEMPHIS (2 ARROWS), EXIT 62 12 20
											95TH ST & ARROW, R2-1(55), R2-1(55)
31	SB I-94 (DAN RYAN)	1233+05	69.9' LT	WOOD POST		1					91ST ST
32	SB I-94 (DAN RYAN)	1239+76	81.6' LT	STEEL POSTS				•			EXIT 62 12 20 95TH ST 1/4 MILE
33	SB I-94 (DAN RYAN)	1247+34	67.6' LT	WOOD POST			1				W4-1
34	SB I-94 (DAN RYAN)	1262+20	OVERHEAD	TRUSS				•			INT. 94 EAST BISHOP FORD FWY INDIANA LEFT 2 LANES,
											EXIT 63 INT.57 SOUTH MEMPHIS RIGHT 2 LANES
35	SB I-94 (DAN RYAN)	1262+42	71.0' LT	WOOD POST		1					R2-1 (45)
36	SB I-94 (DAN RYAN)	1265+21	79.4' LT	STEEL POST		1					NO PARKING TOW AWAY ZONE

•SEE REMOVAL SIGNING SCHEDULE

NOTES

THE CONTRACTOR SHALL COORDINATE WITH THE CITY OF CHICAGO AND THE ENGINEER REGARDING THE RELOCATION OF EXISTING SIGNS.

ALL WORK ON THIS SCHEDULE IS GOVERNED BY ARTICLE 107.25 EXCEPT WOOD POST AND REMOVE SIGN PANEL, TYPE 1.

REVISIONS	
NAME	DATE

TYLIN INTERNATIONAL

ILLINOIS DEPARTMENT OF TRANSPORTATION

F.A.I. 94 (DAN RYAN EXPRESSWAY)

MAINLINE EXISTING SIGN SCHEDULE

1 OF 2

SCALE: NONE DRAWN BY: AMB

DATE: MARCH 25, 2005 CHECKED BY: TGB

3/30/2005 12:44:19 PM

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	•	COOK	907	729

STA. 1200+00.00 TO STA. 1365+00

FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

• (1516.1, 1717 & 1818) R-9

62695

MAINLINE EXISTING SIGN SCHEDULE

SIGN NO.	LOCATION	SIGN INFORMATION			REMOVE SIGN PANEL, TYPE 1	REMAIN IN PLACE	REMOVE AND REINSTALL	REMOVE	RELOCATE	WOOD POST (FT)	SIGN DESCRIPTION
		STATION	OFFSET	MOUNTING							
37	SB I-94 (DAN RYAN)	1265+47	80.5' LT	WOOD POST		1					STATE POLICE SB RYAN & 86TH ST PULLOUT SITE OFFICIAL
											USE ONLY
38	SB I-94 (DAN RYAN)	1271+66	64.9' LT	WOOD POST			1				EXIT 61B & ARROW
39	SB I-94 (DAN RYAN)	1272+20	99.2' LT	LIGHT POLE				1			RAMP 30 MPH
40	SB I-94 (DAN RYAN)	1277+58	67.6' LT	CANTILEVER				•			EXIT 61B 87TH ST & ARROW
41	SB I-94 (DAN RYAN)	1280+00	90.17' LT	WOOD POSTS				•			EXIT 62 12 12 95TH ST 1 MILE
42	SB I-94 (DAN RYAN)	1287+13	11.5' RT	LIGHT POLE		1					END TRUCK LANE RESTRICTION
43	SB I-94 (DAN RYAN)	1287+38	83.9' LT	WOOD POST		1					END TRUCK LANE RESTRICTION
44	SB I-94 (DAN RYAN)	1297+13	95.3' LT	WOOD POST		1					EXIT 61A & ARROW
45	SB I-94 (DAN RYAN)	1298+69	73.2' LT	STEEL POST		1					W4-1R
46	SB I-94 (DAN RYAN)	1302+82	73.2' LT	CANTILEVER		1					EXIT 61B 87TH ST 1/2 MILE
47	SB I-94 (DAN RYAN)	1304+04	76.3' LT	STEEL POST		1					EXIT 61A & ARROW
48	SB I-94 (DAN RYAN)	1305+67	97.9' LT	WOOD POST		1					W4-3R
49	SB I-94 (DAN RYAN)	1309+35	90.0' LT	WOOD POSTS				•			
50	SB I-94 (DAN RYAN)	1315+76	OVERHEAD	TRUSS				•			EXIT 63 INT. 57 SOUTH MEMPHIS 2 MILES, EXIT 61B 87TH ST
											3/4 MILE, EXIT 61A 83RD ST 1/4 MILE
51	SB I-94 (DAN RYAN)	1316+15	9.2' RT	LIGHT POLE		1					TRUCKS USE 2 RIGHT LANES
52	SB I-94 (DAN RYAN)	1317+08	80.9' LT	WOOD POST			1				R2-1 (55)
53	SB I-94 (DAN RYAN)	1319+59	75.9' LT	WOOD POST			1				EXIT 60C & ARROW
54	SB I-94 (DAN RYAN)	1323+17	77.5' LT	CANTILEVER				•			EXIT 60C 79TH ST & ARROW
55	SB I-94 (DAN RYAN)	1326+85	67.4' LT	WOOD POST			1				W4-1R
56	SB I-94 (DAN RYAN)	1332+76	64.5' LT	BRIDGE ABUT.		1					76TH ST
57	SB I-94 (DAN RYAN)	1337+56	11.8' RT	LIGHT POLE		1					M1-1 (94), M3-2 (INTERSTATE)
58	SB I-94 (DAN RYAN)	1339+32	77.0' LT	BRIDGE ABUT.		1					75TH ST
59	SB I-94 (DAN RYAN)	1340+80	OVERHEAD	TRUSS				•			EXIT 61A 83RD ST 3/4 MILE, EXIT 60C 79TH ST 1/4 MILE,
											TRUCKS USE 2 RIGHT LANES, R2-1(55)
60	SB I-94 (DAN RYAN)	1344+63	12.4' RT	LIGHT POLE		1					•999 CELLULAR EXPRESS LINE
61	SB I-94 (DAN RYAN)	1349+65	81.6' LT	WOOD POST				1			EXIT 60A & ARROW
62	SB I-94 (DAN RYAN)	1350+60	110.5' LT	LIGHT POLE				1			RAMP 30 MPH
	SB I-94 (DAN RYAN)	1350+60	110.5' LT	LIGHT POLE	1						CHICAGO EXPRESSWAYS KEEP THEM CLEAN
63	SB I-94 (DAN RYAN)	1353+31	75.9' LT	CANTILEVER				•			EXIT 60A 75TH ST & ARROW
64	SB I-94 (DAN RYAN)	1358+29	70.5' LT	WOOD POST				1			W4-1R
65	SB I-94 (DAN RYAN)	1366+91	81.8' LT	STEEL POSTS		1					EXIT 60A 75TH ST 1/4 MILE

•SEE REMOVAL SIGNING SCHEDULE

NOTES

THE CONTRACTOR SHALL COORDINATE WITH THE CITY OF CHICAGO AND THE ENGINEER REGARDING THE RELOCATION OF EXISTING SIGNS.

ALL WORK ON THIS SCHEDULE IS GOVERNED BY ARTICLE 107.25 EXCEPT WOOD POST AND REMOVE SIGN PANEL, TYPE 1.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

F.A.I. 94 (DAN RYAN EXPRESSWAY)

MAINLINE EXISTING SIGN SCHEDULE

2 OF 2

SCALE: NONE DRAWN BY: AMB

DATE: MARCH 25, 2005 CHECKED BY: TGB

TYLIN INTERNATIONAL

3/30/2005 12:44:19 PM

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	•	COOK	907	730

STA. 1200+00.00 TO STA. 1365+00

FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT

• (1516.1, 1717 & 1818) R-9

62695

REMOVAL SIGNING SCHEDULE

SIGN NO.	LOCATION	SIGN INFORMATION			REMOVAL									SIGN DESCRIPTION
					REMOVE OVERHEAD SIGN STRUCTURE - BRIDGE-MOUNT	REMOVE OVERHEAD SIGN STRUCTURE - CANTILEVER	REMOVE OVERHEAD SIGN STRUCTURE - SPAN	REMOVE CONCRETE FOUNDATION - OVERHEAD	REMOVE SIGN PANEL-TYPE 3			REMOVE GROUND-MOUNTED SIGN SUPPORT	REMOVE CONCRETE FOUNDATION-GROUND-MOUNT	
		STATION	OFFSET	MOUNTING					LENGTH (FT)	HEIGHT(FT)	AREA (SQFT)			
1	SB I-57	107+16	OVERHEAD	BRIDGE-MOUNT	1									EXIT 357 ILLINOIS 1 HALSTED ST (ARROW)
2	SB I-57	119+38	50.6' LT	STEEL POSTS					16.5	9	148.5	2	2	EXIT 357 ILLINOIS 1 HALSTED ST 1/4 MILE
3	SB I-57	144+90	48.3' LT	STEEL POSTS					14	9	126	2	2	WENTWORTH AVE (ARROW)
4	SB I-57	147+88	OVERHEAD	TRUSS			1	1						I-94 EAST BISHOP FORD FWY INDIANA (2 ARROWS)
														EXIT 63 I-57 SOUTH MEMPHIS (2 ARROWS)
5	SB I-94 (BISHOP FORD)	1130+27	36' LT	STEEL POSTS					13.5	5.5	74.25	3	3	BISHOP LOUIS HENRY FORD MEMORIAL FREEWAY
6	SB I-94 (BISHOP FORD)	1134+27	45' LT	STEEL POSTS					15.5	9	139.5	2	2	ILLINOIS INT'L PORT EXITS
														IROQUOIS LNDG 65 LAKE CALUMET 68B
7	SB I-94 (BISHOP FORD)	1141+21	49' LT	STEEL POSTS					20	10	200	3	3	EXIT 65 STONY ISLAND AVE TO 95th - 103rd STs 3/4 MILE
8	SB I-94 (DAN RYAN)	1210+82	73' LT	STEEL POSTS					14	8	112	2	2	WENTWORTH AVE KEEP RIGHT
9	SB I-94 (DAN RYAN)	1224+87	OVERHEAD	TRUSS			1	1						I-94 EAST BISHOP FORD FWY INDIANA (2 ARROWS)
														EXIT 63 I-57 SOUTH MEMPHIS (2 ARROWS)
														EXIT 62 ROUTE 12 ROUTE 20 95th ST (ARROW)
10	SB I-94 (DAN RYAN)	1239+76	81.6' LT	STEEL POSTS					12	11.5	138	2	2	EXIT 62 ROUTE 12 ROUTE 20 95th ST 1/4 MILE
11	SB I-94 (DAN RYAN)	1262+20	OVERHEAD	TRUSS			1	1						I-94 EAST BISHOP FORD FWY INDIANA LEFT 2 LANES
														EXIT 63 I-57 SOUTH MEMPHIS RIGHT 2 LANES
12	SB I-94 (DAN RYAN)	1277+58	67.6' LT	CANTILEVER		1		1						EXIT 61B 87th ST (ARROW)
13	SB I-94 (DAN RYAN)	1280+00	90.2' LT	WOOD POSTS					10	9.5	95	2	2	EXIT 62 ROUTE 12 ROUTE 20 1 MILE
14	SB I-94 (DAN RYAN)	1309+35	90.0' LT	WOOD POSTS					10	8.5	85	2		EXIT 61 A 83RD ST (ARROW)
15	SB I-94 (DAN RYAN)	1315+76	OVERHEAD	TRUSS			1	1						EXIT 63 I-57 SOUTH MEMPHIS 2 MILES
														EXIT 61B 87th ST 3/4 MILE
														EXIT 61A 83rd ST 1/4 MILE
16	SB I-94 (DAN RYAN)	1323+17	77.5' LT	CANTILEVER		1		1						EXIT 60C 79th ST & ARROW
17	SB I-94 (DAN RYAN)	1340+80	OVERHEAD	TRUSS			1	1						EXIT 61A 83rd ST 3/4 MILE
														EXIT 60C 79th ST 1/4 MILE
18	SB I-94 (DAN RYAN)	1353+31	75.9' LT	CANTILEVER		1		1						EXIT 60A 75th ST (ARROW)
				TOTAL	1	3	5	8			1118.25	20	18	

NOTES

OVERHEAD SIGN STRUCTURES (SPAN, CANTILEVER, BRIDGE-MOUNTS) AND SIGN PANELS THAT ARE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND BE DISPOSED OFFSITE.

REVISIONS	
NAME	DATE

TYLIN INTERNATIONAL

ILLINOIS DEPARTMENT OF TRANSPORTATION

F.A.I. 94 (DAN RYAN EXPRESSWAY)

REMOVAL SIGNING SCHEDULE

1 OF 1

SCALE: NONE | DRAWN BY: AMB

DATE: MARCH 25, 2005 | CHECKED BY: TGB

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	*	COOK	907	731

STA. 1200+00.00 TO STA. 1365+00

FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT

* (1516.1, 1717 & 1818) R-9

62695

PROPOSED BRIDGE-MOUNTED SIGN SCHEDULE

LOCATION	STATION	SIGN				STRUCTURE LENGTH (FT)	SIGN REMARKS
		TYPE	WIDTH, FT	HEIGHT, FT	AREA, SQ FT		
SB I-57	107+16	3	13.5	12.5	168.75	13.50'	EXIT 357 ILLINOIS 1 HALSTED ST (ARROW) EXIT ONLY
SB I-94 (DAN RYAN)	1313+24	3	11.5	12.5	143.75	38.00'	EXIT 63 I-57 SOUTH MEMPHIS 2 MILES
SB I-94 (DAN RYAN)	1313+24	3	10.5	8.5	89.25		EXIT 61B 87th ST 3/4 MILE
SB I-94 (DAN RYAN)	1313+24	3	9	8.5	76.50		EXIT 61A 83rd ST (ARROW)
SB I-94 (DAN RYAN)	1339+32	3	10.5	8.5	89.25	50.00'	EXIT 61B 87TH ST 1 MILE
SB I-94 (DAN RYAN)	1339+32	3	10.5	8.5	89.25		EXIT 61A 83RD ST 1/2 MILE
SB I-94 (DAN RYAN)	1339+32	3	9	8.5	76.50		EXIT 60C 79TH ST (1 ARROW)
SB I-94 (DAN RYAN)	1365+87	3	9	8.5	76.50	16.00'	EXIT 60A 75th ST (1 ARROW)
NB I-94 (DAN RYAN)	2332+18	3	17	12.5	212.50	55.00'	I-90 I-94 EXPRESS NO TRUCKS NEXT EXIT PERSHING RD LEFT 3 LANES
NB I-94 (DAN RYAN)	2332+18	3	15	12.5	187.50		I-90 I-94 LOCAL ALL EXITS RIGHT 2 LANES

PROPOSED OVERHEAD SIGN STRUCTURE - CANTILEVER SIGN SCHEDULE

LOCATION	STATION	SIGN				STRUCTURE TYPE	STRUCTURE LENGTH (FT)	DRILLED SHAFT CONC. FNDS (CY)	SIGN REMARKS
		TYPE	WIDTH, FT	HEIGHT, FT	AREA, SQ FT				
SB I-57	117+30	3	13.5	15	202.50	III-C-A	37'	11.67	EXIT 357 ILLINOIS 1 HALSTED ST 1/4 MILE EXIT (ARROW) ONLY
SB I-57	144+75	3	13	7	91.00	III-C-A	32'	7.75	WENTWORTH AVE (1 ARROW)
SB I-94 (DAN RYAN)	1216+75	3	14.5	8.5	123.25	III-C-A	40'	11.67	WENTWORTH AVE RIGHT 1/2 MILE
SB I-94 (DAN RYAN)	1227+50	3	14	10.5	147.00	III-C-A	40'	8.11*	EXIT 62 ROUTE 12 ROUTE 20 95th ST (1 ARROW)
									*10' OF DRILLED SHAFT IS PAID FOR AS DRILLED SHAFT IN ROCK 42"

PROPOSED OVERHEAD SIGN STRUCTURE - TRUSS SIGN SCHEDULE

LOCATION	STATION	SIGN				STRUCTURE TYPE	STRUCTURE LENGTH (FT)	DRILLED SHAFT CONC. FNDS (CY)	SIGN REMARKS
		TYPE	WIDTH, FT	HEIGHT, FT	AREA, SQ FT				
SB I-57	149+87	3	17	12.5	212.50	II-A	108	16.94	I-94 EAST BISHOP FORD FWY INDIANA (2 ARROWS)
SB I-57	149+87	3	25	12.5	312.50				EXIT 63 I-57 SOUTH MEMPHIS (3 ARROWS)
SB I-57	149+87	2	3	4	12.00				R2-1 (55 MPH)
SB I-94 (DAN RYAN)	1224+00	3	17	12.5	212.50	II-A	112	21.96	I-94 EAST BISHOP FORD FWY INDIANA (2 ARROWS)
SB I-94 (DAN RYAN)	1224+00	3	25	12.5	312.50				EXIT 63 I-57 SOUTH MEMPHIS (3 ARROWS)
SB I-94 (DAN RYAN)	1251+43	3	17	12.5	212.50	II-A	94	18.92	I-94 EAST BISHOP FORD FWY INDIANA LEFT 2 LANES
SB I-94 (DAN RYAN)	1251+43	3	15	12.5	187.50				EXIT 63 I-57 SOUTH MEMPHIS RIGHT 3 LANES
SB I-94 (DAN RYAN)	1251+43	3	14.5	12.5	181.25				EXIT 62 ROUTE 12 ROUTE 20 95th ST RIGHT 1/2 MILE
SB I-94 (DAN RYAN)	1251+43	2	3	4	12.00				R2-1 (55 MPH)
SB I-94 (DAN RYAN)	1276+67	3	9	8.5	76.50	II-A	104	21.19	EXIT 61B 87th ST (1 ARROW)
SB I-94 (DAN RYAN)	1276+67	3	10.5	12.5	131.25				EXIT 62 95TH ST 1 MILE
SB I-94 (DAN RYAN)	1276+67	3	4.5	6	27.00				87TH ST. AIS (1 ARROW)
SB I-94 (DAN RYAN)	1286+85	-	-	-	-	III-A	93	27.19	OVERHEAD SIGN STRUCTURE FOR DYNAMIC MESSAGE SIGN UNIT
SB I-94 (DAN RYAN)	1286+85	2	4.5	4.5	20.25				AIS SITE 1/4 MILE RIGHT
SB I-94 (DAN RYAN)	1355+91	3	10.5	8.5	89.25	I-A	85.5	22.17	EXIT 61A 83rd ST 1 MILE
SB I-94 (DAN RYAN)	1355+91	3	10.5	8.5	89.25				EXIT 60C 79th ST 1/2 MILE
SB I-94 (DAN RYAN)	1355+91	2	3	4	12.00				R2-1 (55 MPH)

TYLIN INTERNATIONAL

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

F.A.I. 94 (DAN RYAN EXPRESSWAY)

PROPOSED SIGNING SCHEDULE
SHEET 1 OF 2

SCALE: NONE DRAWN BY: AMB

DATE: MARCH 25, 2005 CHECKED BY: TGB

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	•	COOK	907	732

STA. 1200+00.00 TO STA. 1365+00

FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT

• (1516.1, 1717 & 1818) R-9

62695

PROPOSED GROUND-MOUNTED SIGN SCHEDULE

LOCATION	STATION	SIGN				SUPPORT				SIGN REMARKS
		TYPE	WIDTH, FT	HEIGHT, FT	AREA, SQ FT	TYPE	POST QUANTITY	POST LENGTH (FT)	CONCRETE FND. (CY)	
SB I-57	104+57	2	3	4	12.00	WOOD	1	16	-	W13-3 (RAMP 30 MPH)
SB I-94 (BISHOP FORD)	1134+06	3	25	12	300.00	STEEL BREAKAWAY	3	69.69'	3.55	ILLINOIS INT'L PORT EXITS IROQUOIS LNDG 65 LAKE CALUMET 65B
SB I-94 (BISHOP FORD)	1140+68	3	22.5	11	247.50	STEEL BREAKAWAY	3	66.59'	3.55	EXIT 65 STONY ISLAND AVE TO 95TH-103RD STS 3/4 MILE
SB I-57	143+97	2	3	4	12.00	WOOD	1	16	-	W13-3 (RAMP 30 MPH)
SB I-57	145+48	-	-	-	-	WOOD	1	17	-	EXISTING "ACCIDENT INVESTIGATION SITE 3/4 MILE LEFT"
SB I-57	152+00	2	3	4	12.00	WOOD	1	16	-	R2-1 (55 MPH)
SB I-94 (DAN RYAN)	1223+47	2	3	4	12.00	WOOD	1	16	-	W13-3 (RAMP 30 MPH)
SB I-94 (DAN RYAN)	1239+75	3	13	8	104.00	STEEL BREAKAWAY	2	35.5	1.4	WENTWORTH AVE 1 MILE
SB I-94 (DAN RYAN)	1243+00	2	3	4	12.00	WOOD	1	16	-	R2-1 (55 MPH)
SB 87TH ST. RAMP	7184+80	1	2.5	2.5	6.25	WOOD	1	14.5	-	R1-1
SB 87TH ST. RAMP	7183+50	3	5.5	5	27.50	WOOD	2	34	-	87TH ST. AIS INFO
SB I-94 (DAN RYAN)	7181+14	2	3	4	12.00	WOOD	1	16	-	W13-3 (RAMP 30 MPH)
		1	2.5	2.5	6.25		SAME AS ABOVE			R5-1
SB I-94 (DAN RYAN)	1313+80	2	4.5	4.5	20.25	WOOD	2	33	-	AIS SITE 3/4 MILE
SB I-94 (DAN RYAN)	1335+53	2	3	4	12.00	WOOD	1	16	-	W13-3 (RAMP 30 MPH)
SB I-94 (DAN RYAN)	1347+00					WOOD	1	17	-	"EXISTING TRUCKS USE 2 RIGHT LANES"
SB I-94 (DAN RYAN)	1350+73	3	7.5	5	37.50	WOOD	2	34	-	EXIT 60A (1 ARROW)
SB 75TH ST. RAMP	7132+19	1	2.5	2.5	6.25	WOOD	1	14.5	-	R1-1
SB I-94 (DAN RYAN)	1352+50	1	3	3	9.00	TELESCOP. STEEL	1	8.57	-	W4-1R
SB 75TH ST. RAMP	7130+38	3	5.5	5	27.50	WOOD	2	34	-	75TH ST. AIS INFO
SB 75TH ST. RAMP	7129+04	1	2.5	2.5	6.25	WOOD	1	14.5	-	R5-1
SB I-94 (DAN RYAN)	1356+62	2	3.5	4.7	16.33	TELESCOP. STEEL	1	9	-	EXIT 60A (1 ARROW)
SB I-94 (DAN RYAN)	1358+27	2	4	4	16.00	WOOD	1	17.66	-	W4-3R
SB I-94 (DAN RYAN)	1360+00	2	3	4	12.00	WOOD	1	16	-	W13-3 (RAMP 30 MPH)
SB I-94 (DAN RYAN)	1366+00	3	4.5	6	27.00	WOOD	2	36	-	75TH ST. AIS (1 ARROW)

TYLIN INTERNATIONAL

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

F.A.I. 94 (DAN RYAN EXPRESSWAY)

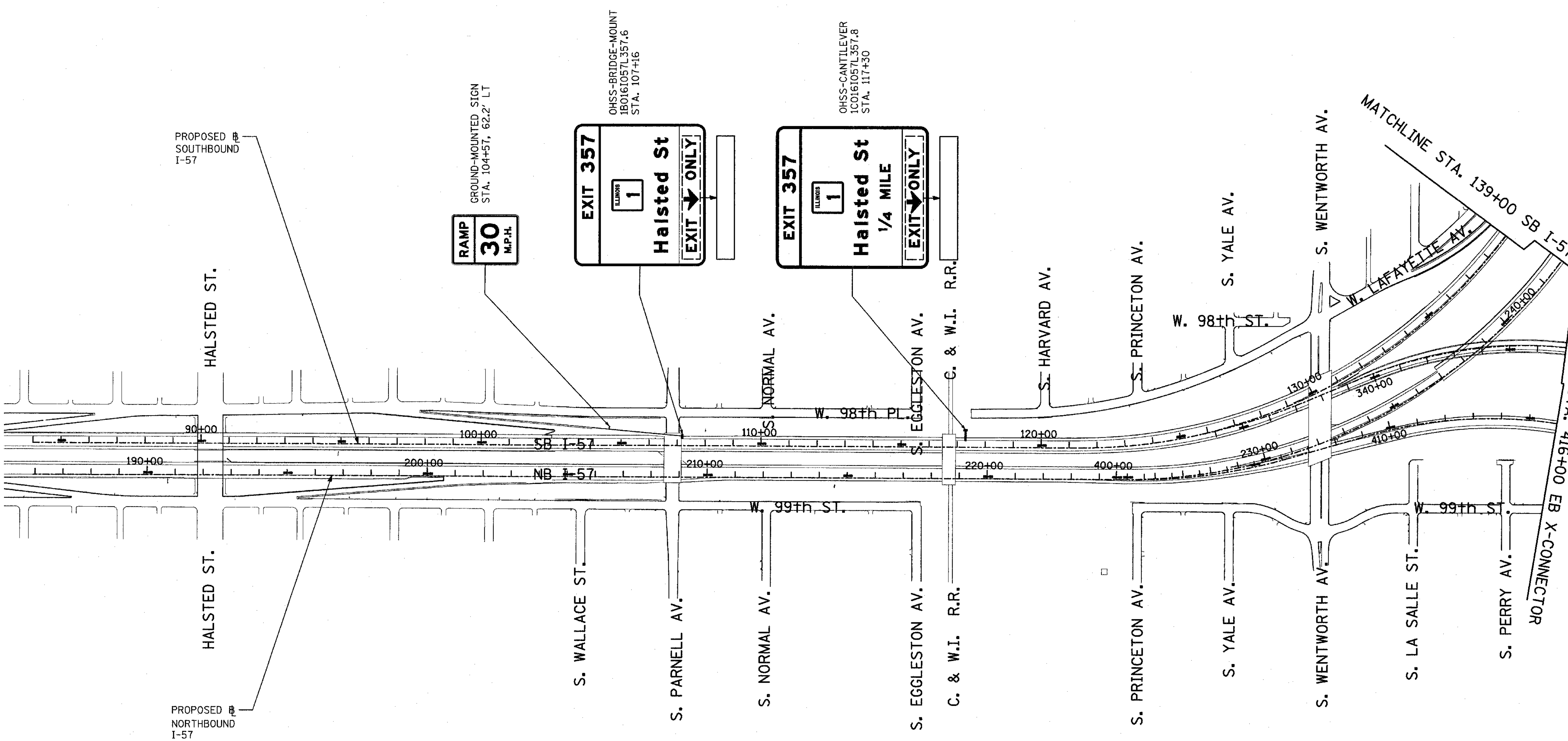
PROPOSED SIGNING SCHEDULE
SHEET 2 OF 2

SCALE: NONE DRAWN BY: AMB
DATE: MARCH 25, 2005 CHECKED BY: TGB

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	•	COOK	907	733
STA. 1200+00.00	TO STA. 1365+00			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

• (1516.1, 1717 & 1818) R-9

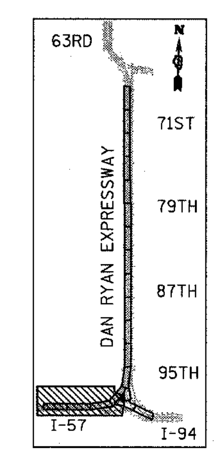
62695



N

SIGNING LEGEND:

- PROPOSED GROUND MOUNTED SIGN
- PROPOSED OVERHEAD SIGN STRUCTURE -TRUSS
- PROPOSED OVERHEAD SIGN STRUCTURE-BRIDGE MOUNTED
- PROPOSED OVERHEAD SIGN STRUCTURE-CANTILEVER
- PROPOSED SIGN
- OVERLAY SIGN PANEL



LOCATION MAP

TYLIN INTERNATIONAL

200 0 200 400

SCALE: 1" = 200'-0"

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

F.A.I. 94 (DAN RYAN EXPRESSWAY)

PROPOSED SIGNING
STA. 94+00 TO STA 138+00
SHEET 1 OF 6

SCALE: 1"= 200' DRAWN BY: AMB

DATE: MARCH 25, 2005 CHECKED BY: TGB

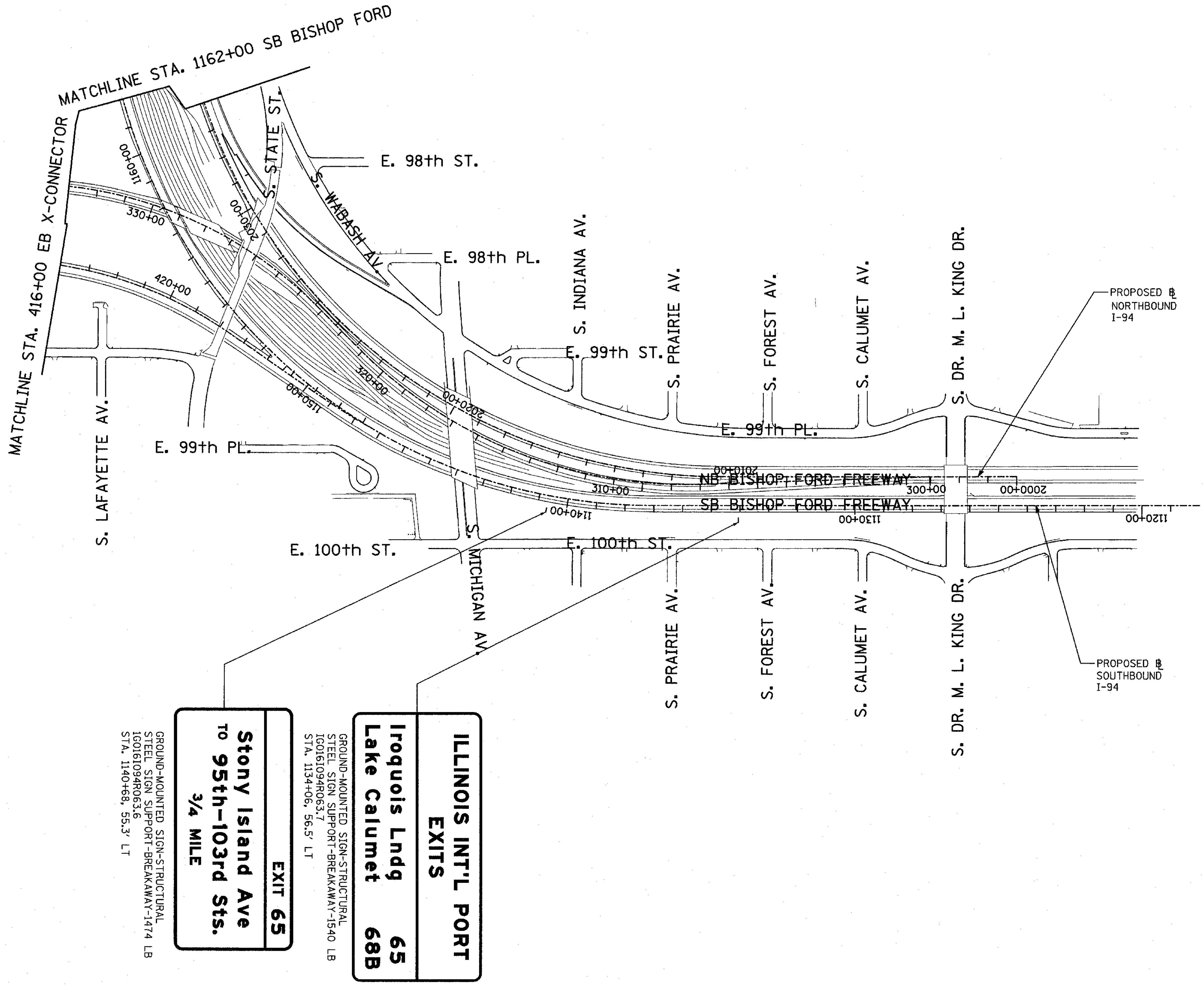
3/30/2005 12:44:54 PM

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	•	COOK	907	734

STA. 1200+00.00 TO STA. 1365+00

FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT

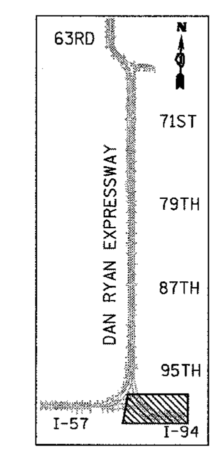
• (1516.1, 1717 & 1818) R-9 62695



N

SIGNING LEGEND:

- PROPOSED GROUND MOUNTED SIGN
- PROPOSED OVERHEAD SIGN STRUCTURE -TRUSS
- PROPOSED OVERHEAD SIGN STRUCTURE-BRIDGE MOUNTED
- PROPOSED OVERHEAD SIGN STRUCTURE-CANTILEVER
- PROPOSED SIGN
- OVERLAY SIGN PANEL



LOCATION MAP

200 0 200 400

SCALE: 1" = 200'-0"

TYLIN INTERNATIONAL

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

F.A.I. 94 (DAN RYAN EXPRESSWAY)

PROPOSED SIGNING
STA. 1120+00 TO STA. 1162+00
SHEET 2 OF 6

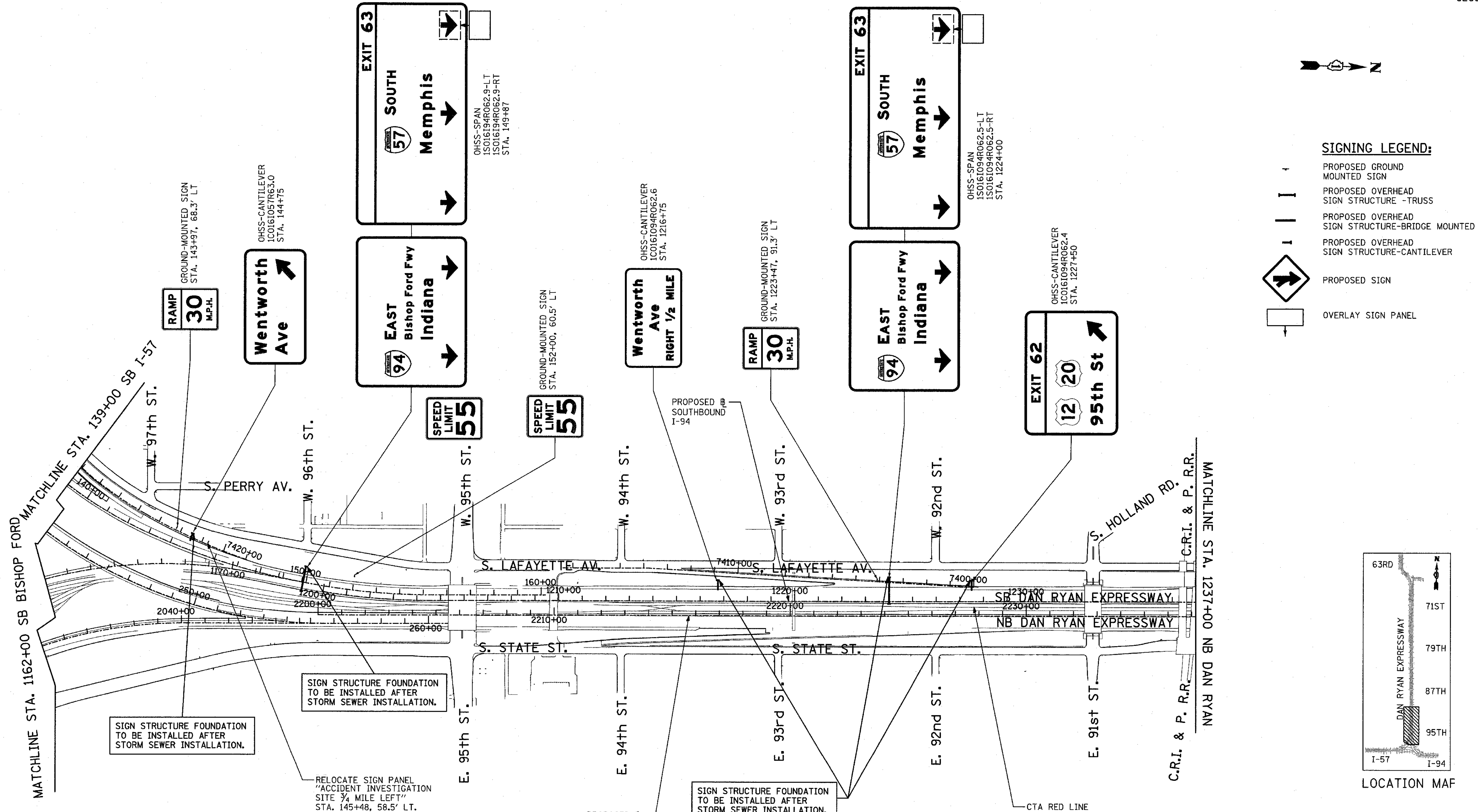
SCALE: 1"= 200' DRAWN BY: AMB

DATE: MARCH 25, 2005 CHECKED BY: TGB

3/30/2005 12:45:02 PM

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	•	COOK	907	735
STA. 1200+00.00	TO STA. 1365+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

• (1516.1, 1717 & 1818) R-9 62695



EXIT 63
57 SOUTH
Memphis
94 EAST
Bishop Ford Fwy
Indiana
OHSS-SPAN
1SO16I94R062.9-LT
1SO16I94R062.9-RT
STA. 149+87
OHSS-SPAN
1SO16I094R062.5-LT
1SO16I094R062.5-RT
STA. 1224+00
Wentworth Ave
OHSS-CANTILEVER
1CO16I057R63.0
STA. 144+75
RAMP 30 M.P.H.
GROUND-MOUNTED SIGN
STA. 143+97, 68.3' LT
SPEED LIMIT 55
GROUND-MOUNTED SIGN
STA. 152+00, 60.5' LT
Wentworth Ave RIGHT 1/2 MILE
OHSS-CANTILEVER
1CO16I094R062.6
STA. 1216+75
GROUND-MOUNTED SIGN
STA. 1223+47, 91.3' LT
EXIT 62
12 20
95th St
OHSS-CANTILEVER
1CO16I094R062.4
STA. 1227+50
PROPOSED ℄ SOUTHBOUND I-94
PROPOSED ℄ NORTHBOUND I-94
SIGNING LEGEND:
PROPOSED GROUND MOUNTED SIGN
PROPOSED OVERHEAD SIGN STRUCTURE -TRUSS
PROPOSED OVERHEAD SIGN STRUCTURE-BRIDGE MOUNTED
PROPOSED OVERHEAD SIGN STRUCTURE-CANTILEVER
PROPOSED SIGN
OVERLAY SIGN PANEL
MATCHLINE STA. 139+00 SB I-57
MATCHLINE STA. 1162+00 SB BISHOP FORD
MATCHLINE STA. 1237+00 NB DAN RYAN
W. 97th ST.
S. PERRY AV.
W. 96th ST.
W. 95th ST.
W. 94th ST.
W. 93rd ST.
W. 92nd ST.
S. HOLLAND RD.
C.R.I. & P. R.R.
S. LAFAYETTE AV.
SB DAN RYAN EXPRESSWAY
NB DAN RYAN EXPRESSWAY
S. STATE ST.
E. 95th ST.
E. 94th ST.
E. 93rd ST.
E. 92nd ST.
E. 91st ST.
SIGN STRUCTURE FOUNDATION TO BE INSTALLED AFTER STORM SEWER INSTALLATION.
RELOCATE SIGN PANEL "ACCIDENT INVESTIGATION SITE 3/4 MILE LEFT" STA. 145+48, 58.5' LT.
CTA RED LINE
63RD
71ST
79TH
87TH
95TH
I-57
I-94
DAN RYAN EXPRESSWAY
LOCATION MAP

200 0 200 400

SCALE: 1" = 200'-0"

T·Y·LIN INTERNATIONAL

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

F.A.I. 94 (DAN RYAN EXPRESSWAY)

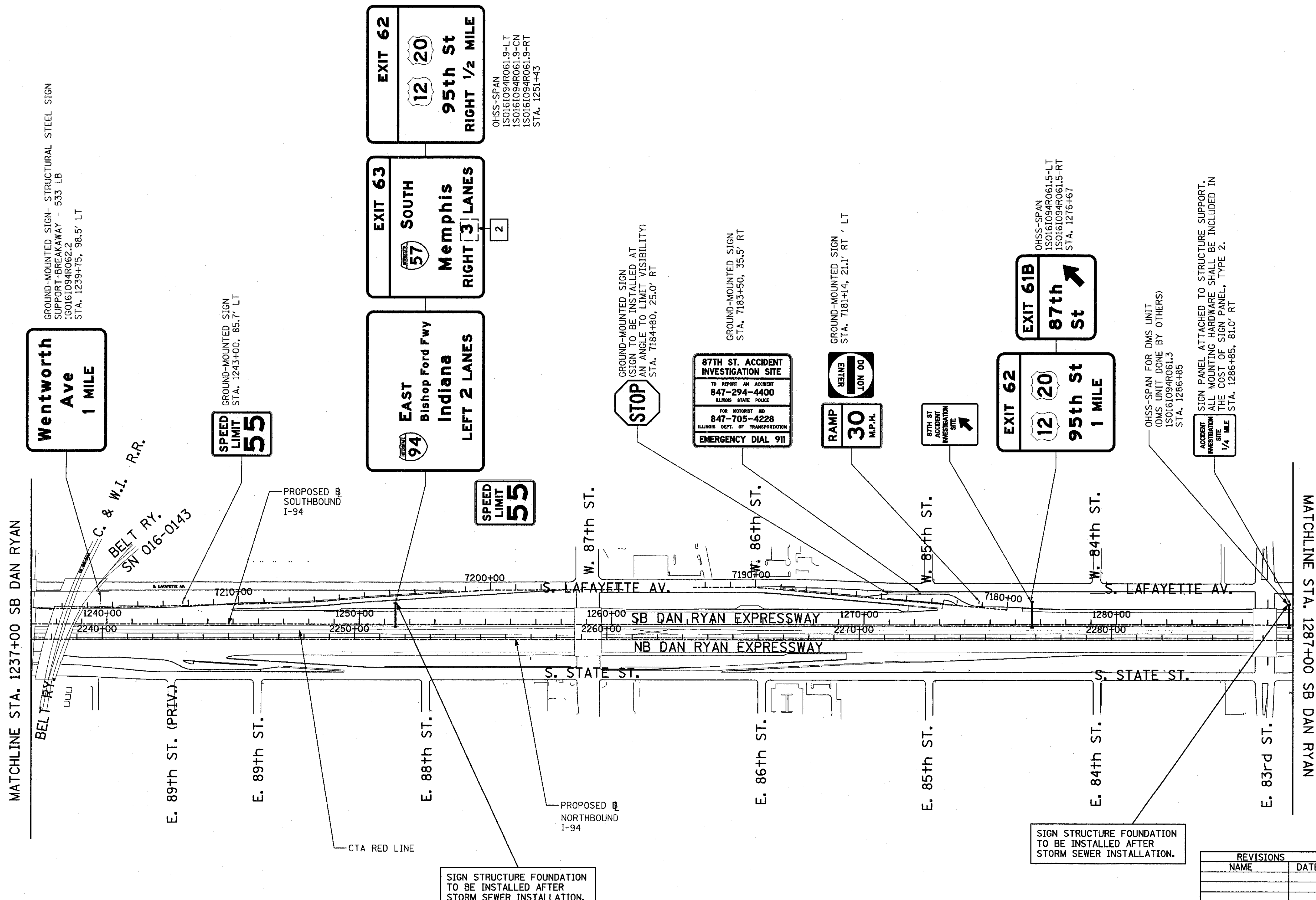
PROPOSED SIGNING
STA. 1162+00 TO STA 1237+00
SHEET 3 OF 6

SCALE: 1"= 200' DRAWN BY: AMB
DATE: MARCH 25, 2005 CHECKED BY: TGB

3/30/2005 12:45:10 PM

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	•	COOK	907	736
STA. 1200+00.00	TO STA. 1365+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

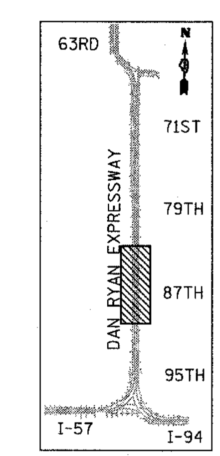
• (1516.1, 1717 & 1818) R-9 62695



GROUND-MOUNTED SIGN- STRUCTURAL STEEL SIGN
SUPPORT-BREAKAWAY - 533 LB
1G016I094R062.2
STA. 1239+75, 98.5' LT
Wentworth Ave 1 MILE
GROUND-MOUNTED SIGN
STA. 1243+00, 85.7' LT
SPEED LIMIT 55
EXIT 62
12 20 95th St RIGHT 1/2 MILE
OHSS-SPAN
1S016I094R061.9-LT
1S016I094R061.9-CN
1S016I094R061.9-RT
STA. 1251+43
EXIT 63
SOUTH 57 Memphis RIGHT 3 LANES
2
EAST 94 Bishop Ford Fwy Indiana LEFT 2 LANES
SPEED LIMIT 55
GROUND-MOUNTED SIGN
(SIGN TO BE INSTALLED AT
AN ANGLE TO LIMIT VISIBILITY)
STA. 7184+80, 25.0' RT
STOP
GROUND-MOUNTED SIGN
STA. 7183+50, 35.5' RT
87TH ST. ACCIDENT INVESTIGATION SITE
TO REPORT AN ACCIDENT 847-294-4400 ILLINOIS STATE POLICE
FOR MOTORIST AID 847-705-4228 ILLINOIS DEPT. OF TRANSPORTATION
EMERGENCY DIAL 911
GROUND-MOUNTED SIGN
STA. 7181+14, 21.1' RT
DO NOT ENTER
RAMP 30 M.P.H.
87TH ST ACCIDENT INVESTIGATION SITE
OHSS-SPAN
1S016I094R061.5-LT
1S016I094R061.5-RT
STA. 1276+67
EXIT 61B 87th St
EXIT 62
12 20 95th St 1 MILE
OHSS-SPAN FOR DMS UNIT
(DMS UNIT DONE BY OTHERS)
1S016I094R061.3
STA. 1286+85
SIGN PANEL ATTACHED TO STRUCTURE SUPPORT.
ALL MOUNTING HARDWARE SHALL BE INCLUDED IN
THE COST OF SIGN PANEL, TYPE 2.
STA. 1286+85, 81.0' RT
ACCIDENT INVESTIGATION SITE 1/4 MILE
MATCHLINE STA. 1237+00 SB DAN RYAN
MATCHLINE STA. 1287+00 SB DAN RYAN
C. & W.I. R.R.
BELT RY.
SN 016-0143
PROPOSED ℄ SOUTHBOUND I-94
PROPOSED ℄ NORTHBOUND I-94
CTA RED LINE
S. LAFAYETTE AV.
SB DAN RYAN EXPRESSWAY
NB DAN RYAN EXPRESSWAY
S. STATE ST.
W. 87th ST.
W. 86th ST.
W. 85th ST.
W. 84th ST.
E. 89th ST. (PRIV.)
E. 89th ST.
E. 88th ST.
E. 86th ST.
E. 85th ST.
E. 84th ST.
E. 83rd ST.
SIGN STRUCTURE FOUNDATION TO BE INSTALLED AFTER STORM SEWER INSTALLATION.
SIGN STRUCTURE FOUNDATION TO BE INSTALLED AFTER STORM SEWER INSTALLATION.

SIGNING LEGEND:

- PROPOSED GROUND MOUNTED SIGN
- PROPOSED OVERHEAD SIGN STRUCTURE -TRUSS
- PROPOSED OVERHEAD SIGN STRUCTURE-BRIDGE MOUNTED
- PROPOSED OVERHEAD SIGN STRUCTURE-CANTILEVER
- PROPOSED SIGN
- OVERLAY SIGN PANEL



LOCATION MAP

200 0 200 400

SCALE: 1" = 200'-0"

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

F.A.I. 94 (DAN RYAN EXPRESSWAY)

PROPOSED SIGNING
STA. 1237+00 TO STA 1287+00
SHEET 4 OF 6

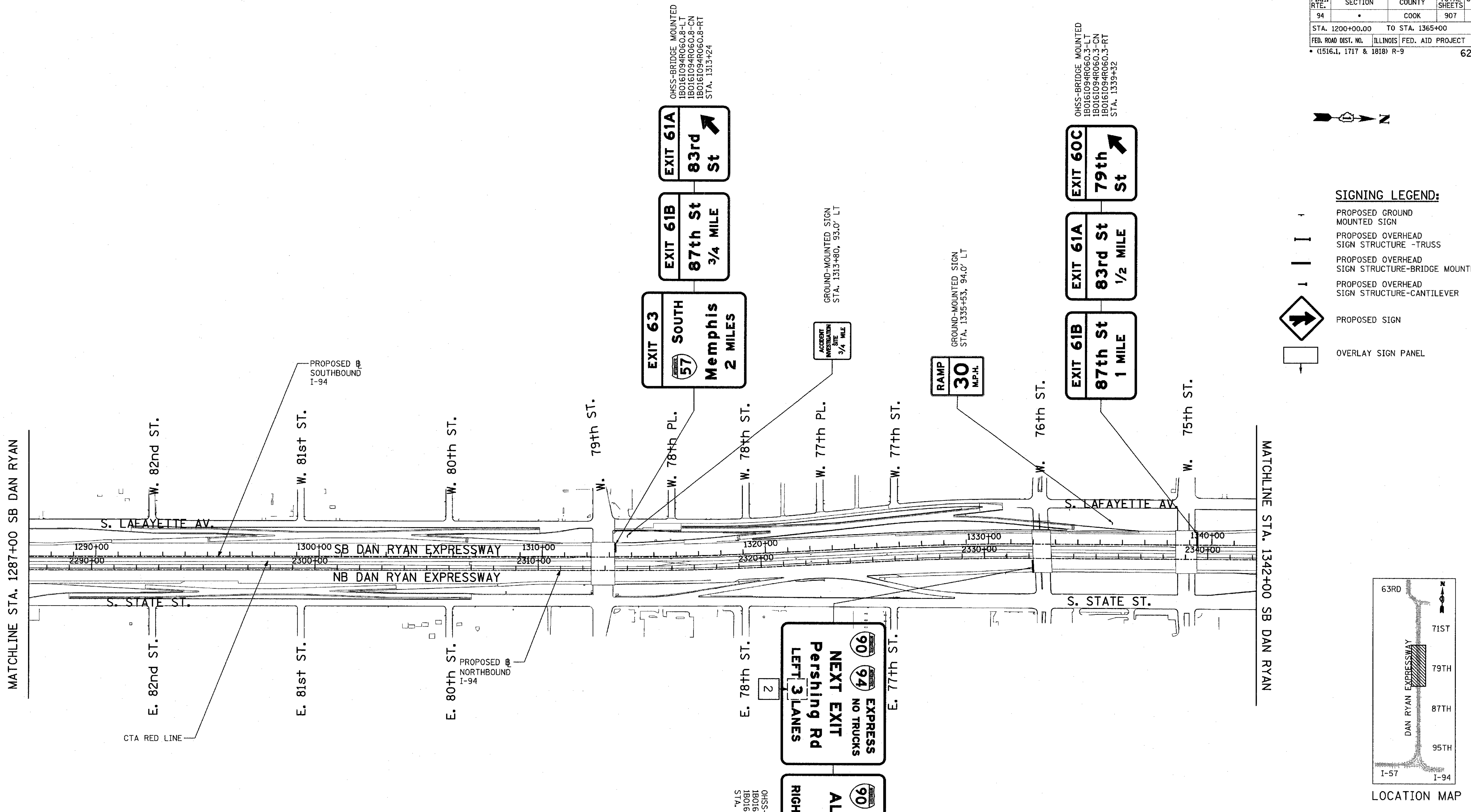
SCALE: 1"= 200' DRAWN BY: AMB
DATE: MARCH 25, 2005 CHECKED BY: TGB

TYLIN INTERNATIONAL

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	•	COOK	907	737
STA. 1200+00.00	TO STA. 1365+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

• (1516.1, 1717 & 1818) R-9

62695



OHSS-BRIDGE MOUNTED
IB016I094R060.8-LT
IB016I094R060.8-CN
IB016I094R060.8-RT
STA. 1313+24
EXIT 61A 83rd St
EXIT 61B 87th St 3/4 MILE
EXIT 63 SOUTH 57 Memphis 2 MILES
GROUND-MOUNTED SIGN STA. 1313+80, 93.0' LT
ACCIDENT INVESTIGATION SITE 3/4 MILE
GROUND-MOUNTED SIGN STA. 1335+53, 94.0' LT
RAMP 30 M.P.H.
OHSS-BRIDGE MOUNTED
IB016I094R060.3-LT
IB016I094R060.3-CN
IB016I094R060.3-RT
STA. 1339+32
EXIT 60C 79th St
EXIT 61A 83rd St 1/2 MILE
EXIT 61B 87th St 1 MILE
SIGNING LEGEND:
PROPOSED GROUND MOUNTED SIGN
PROPOSED OVERHEAD SIGN STRUCTURE -TRUSS
PROPOSED OVERHEAD SIGN STRUCTURE-BRIDGE MOUNTED
PROPOSED OVERHEAD SIGN STRUCTURE-CANTILEVER
PROPOSED SIGN
OVERLAY SIGN PANEL
N
PROPOSED ℄ SOUTHBOUND I-94
MATCHLINE STA. 1287+00 SB DAN RYAN
MATCHLINE STA. 1342+00 SB DAN RYAN
W. 82nd ST.
W. 81st ST.
W. 80th ST.
W. 79th ST.
W. 78th PL.
W. 78th ST.
W. 77th PL.
W. 77th ST.
W. 76th ST.
W. 75th ST.
S. LAFAYETTE AV.
SB DAN RYAN EXPRESSWAY
NB DAN RYAN EXPRESSWAY
S. STATE ST.
1290+00
2290+00
1300+00
2300+00
1310+00
2310+00
1320+00
2320+00
1330+00
2330+00
1340+00
2340+00
E. 82nd ST.
E. 81st ST.
E. 80th ST.
E. 78th ST.
E. 77th ST.
PROPOSED ℄ NORTHBOUND I-94
CTA RED LINE
2
90 94 EXPRESS NO TRUCKS NEXT EXIT Pershing Rd LEFT 3 LANES
90 94 LOCAL ALL EXITS RIGHT 2 LANES
OHSS-BRIDGE MOUNTED
IB016I094R060.4-LT
IB016I094R060.4-RT
STA. 2332+18
63RD
71ST
79TH
87TH
95TH
I-57
I-94
DAN RYAN EXPRESSWAY
LOCATION MAP
200 0 200 400
SCALE: 1" = 200'-0"

TYLIN INTERNATIONAL

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

F.A.I. 94 (DAN RYAN EXPRESSWAY)

PROPOSED SIGNING
STA. 1287+00 TO STA 1342+00
SHEET 5 OF 6

SCALE: 1"= 200' DRAWN BY: AMB
DATE: MARCH 25, 2005 CHECKED BY: TGB

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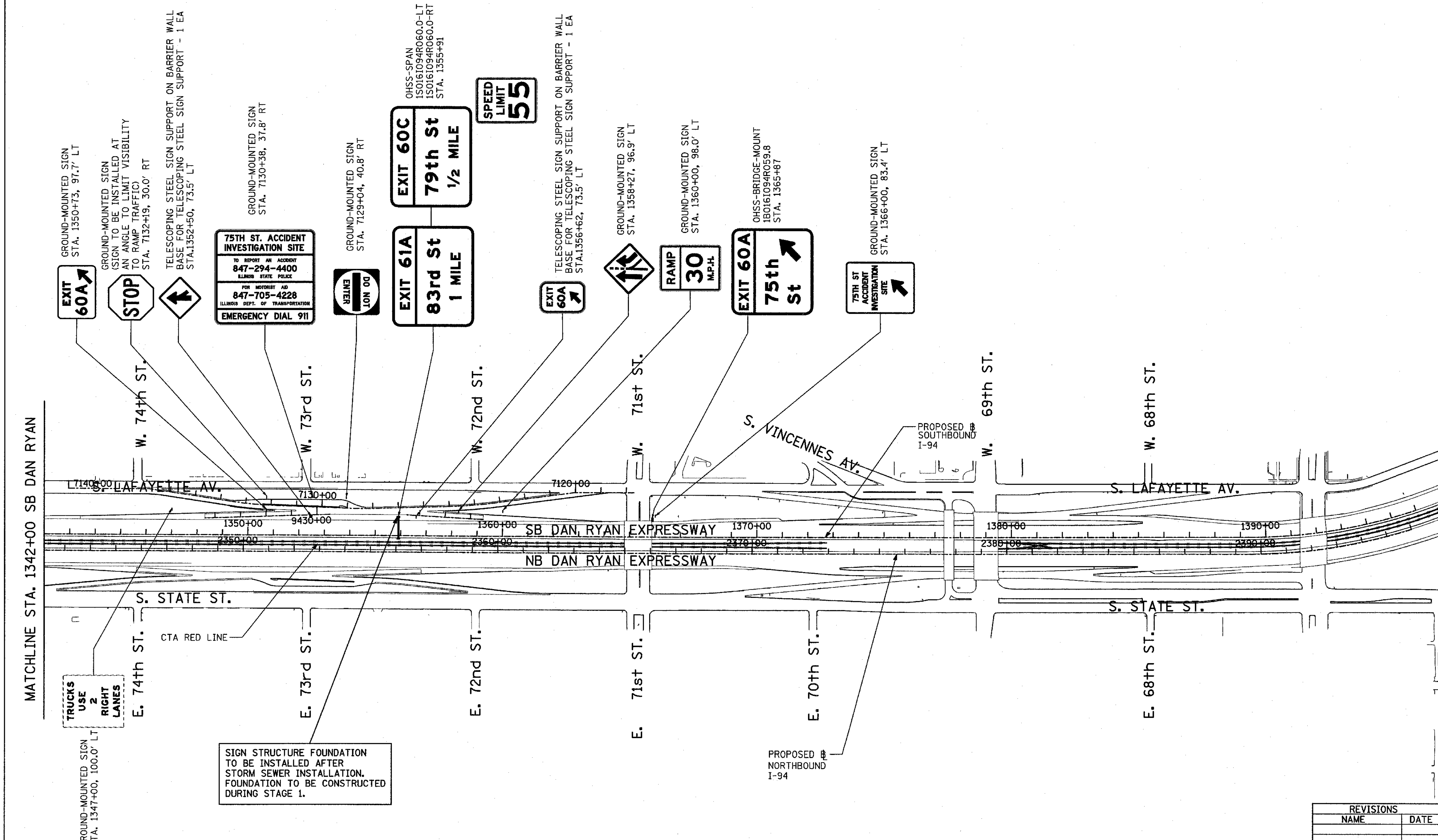
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	•	COOK	907	738
STA. 1200+00.00	TO STA. 1365+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

• (1516.1, 1717 & 1818) R-9

62695



SIGNING LEGEND:

PROPOSED GROUND MOUNTED SIGN

PROPOSED OVERHEAD SIGN STRUCTURE -TRUSS

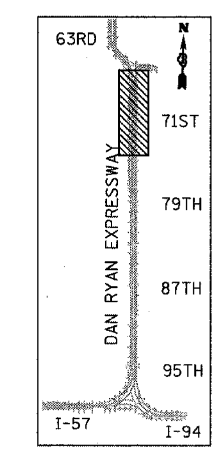
PROPOSED OVERHEAD SIGN STRUCTURE-BRIDGE MOUNTED

PROPOSED OVERHEAD SIGN STRUCTURE-CANTILEVER

PROPOSED SIGN

EXISTING SIGN

OVERLAY SIGN PANEL



LOCATION MAP

200 0 200 400

SCALE: 1" = 200'-0"

TYLIN INTERNATIONAL

REVISIONS	
NAME	DATE
REVISED	04/15/05

ILLINOIS DEPARTMENT OF TRANSPORTATION

F.A.I. 94 (DAN RYAN EXPRESSWAY)

PROPOSED SIGNING
STA. 1342+00 TO STA 1396+00
SHEET 6 OF 6

SCALE: 1"= 200' DRAWN BY: AMB

DATE: MARCH 25, 2005 CHECKED BY: TGB

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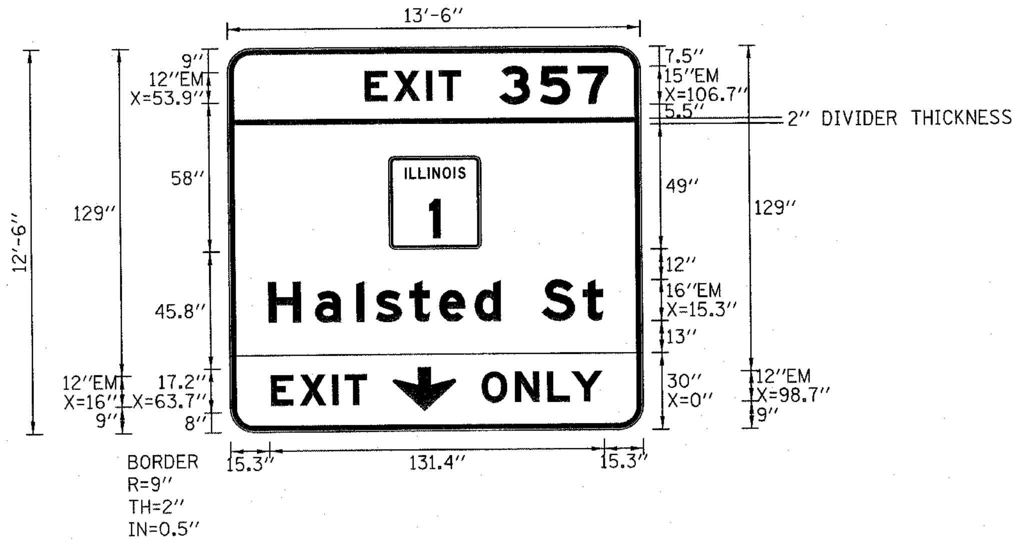
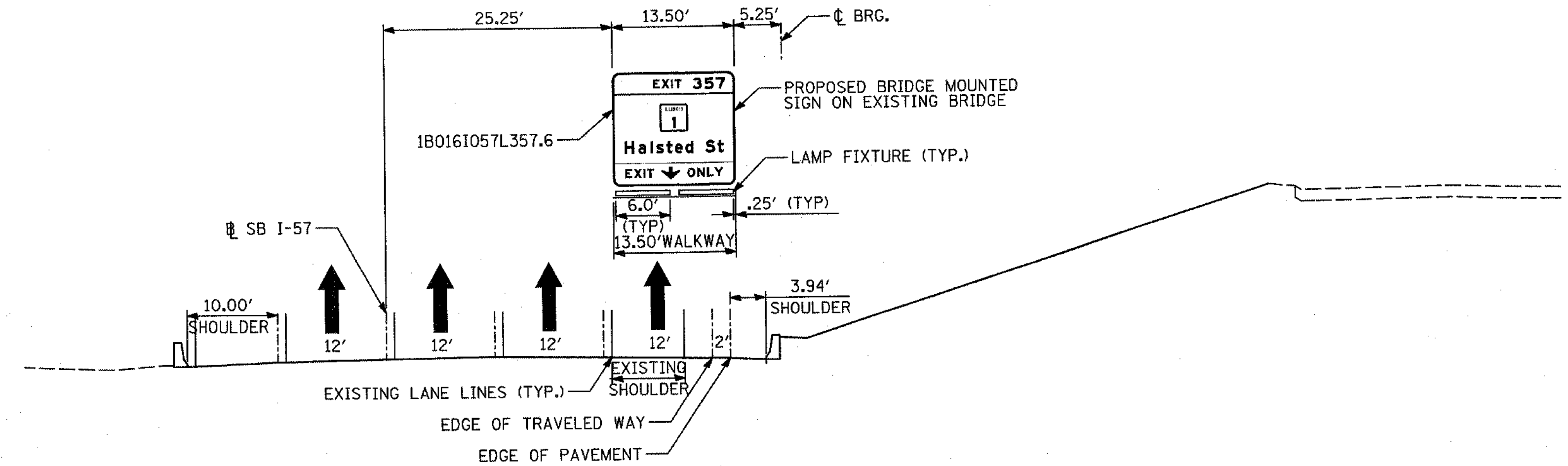
4/12/2005 4:41:41 PM

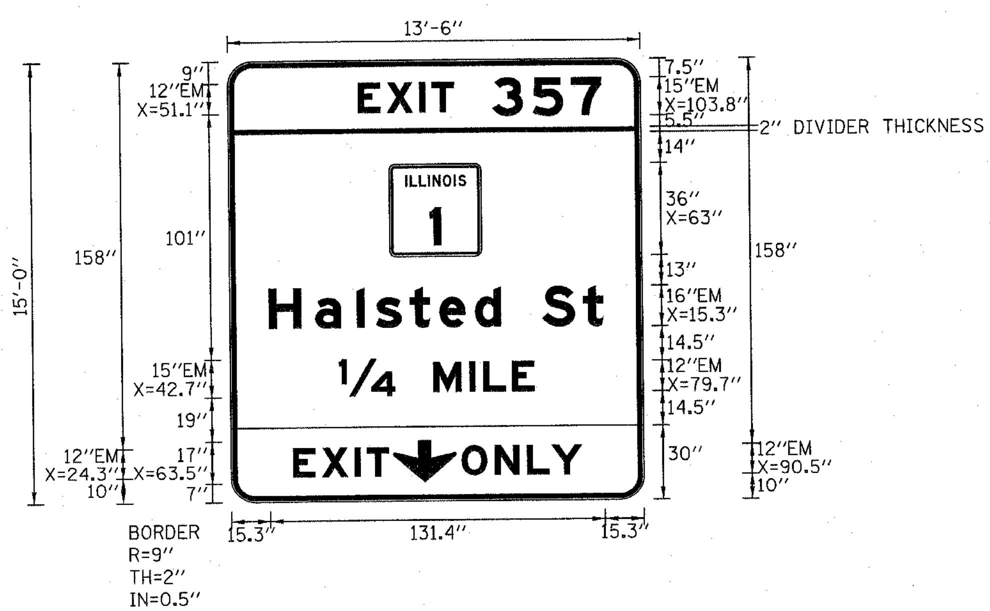
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	•	COOK	907	739
STA. 1200+00.00	TO STA. 1365+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
• (1516.1, 1717 & 1818) R-9				62695

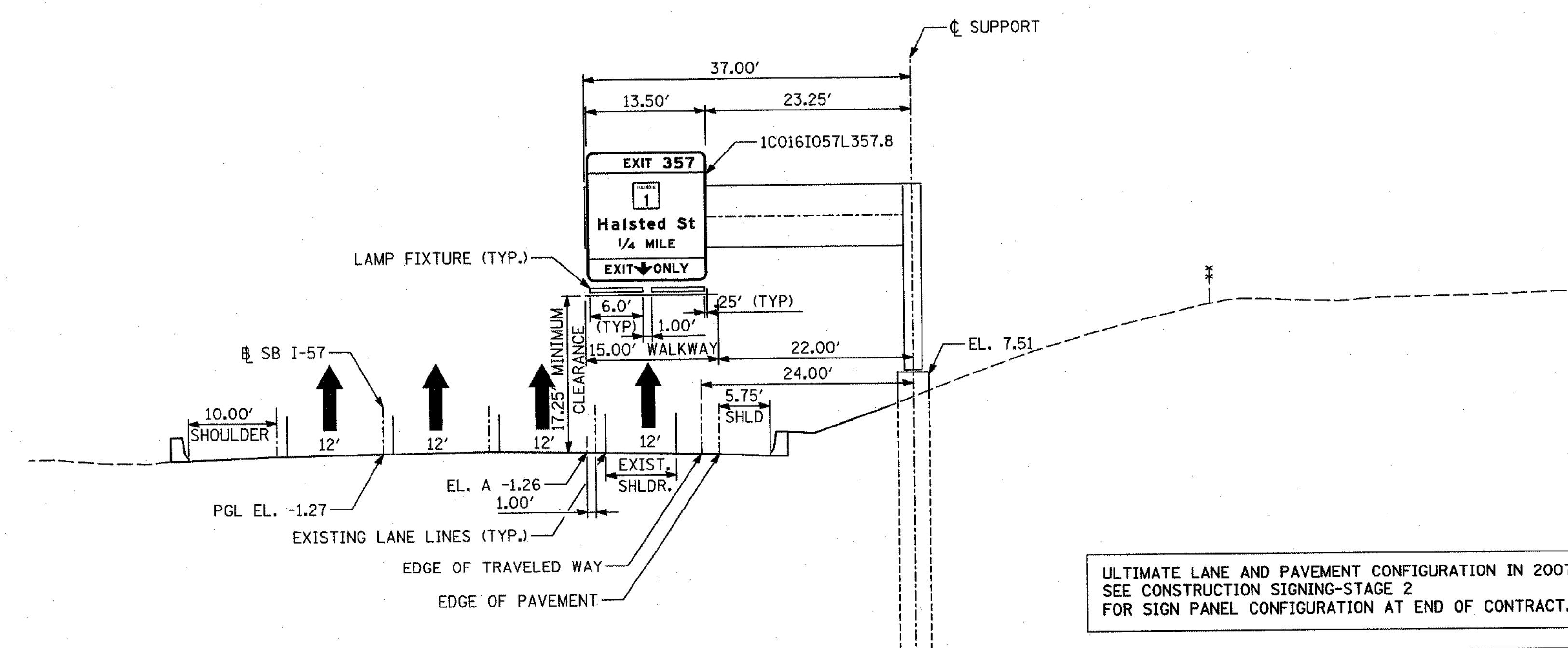




STA. 107+16 SB I-57
LOOKING WEST
1B016I057L357.6

ULTIMATE LANE AND PAVEMENT CONFIGURATION IN 2007 IS SHOWN.
SEE CONSTRUCTION SIGNING-STAGE 2
FOR SIGN PANEL CONFIGURATION AT END OF CONTRACT.





ULTIMATE LANE AND PAVEMENT CONFIGURATION IN 2007 IS SHOWN.
SEE CONSTRUCTION SIGNING-STAGE 2
FOR SIGN PANEL CONFIGURATION AT END OF CONTRACT.

STA. 117+30 SB I-57
LOOKING WEST
1C016I057L357.8

TY·LIN INTERNATIONAL

REVISIONS	
NAME	DATE

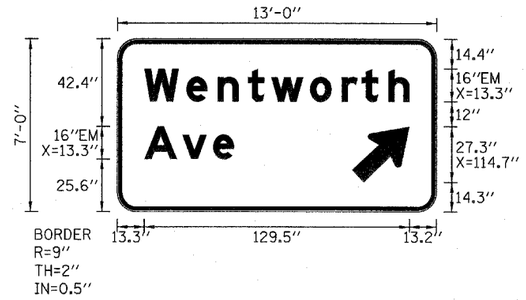
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)

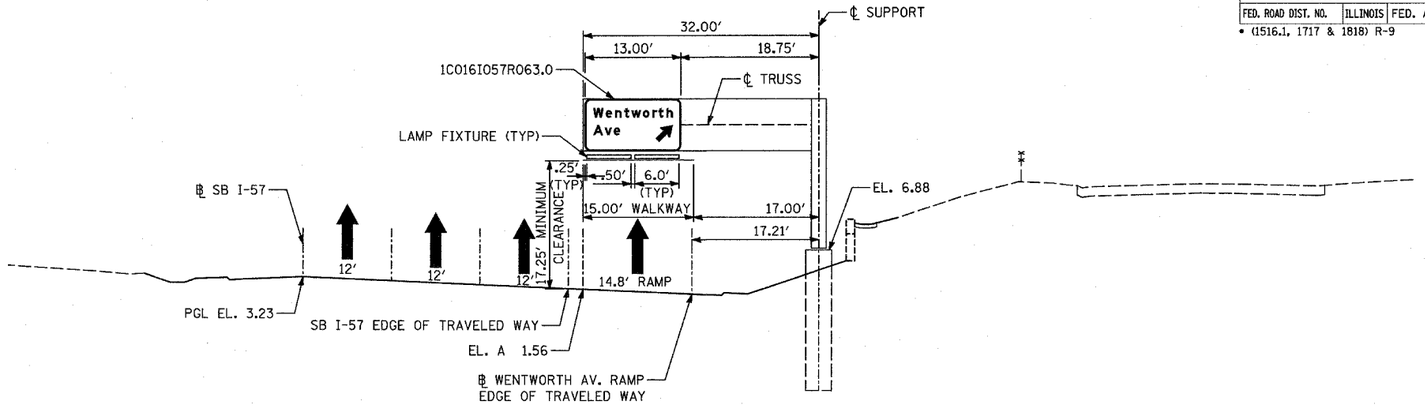
PERMANENT SIGN PANEL MOUNTING DETAILS
PROPOSED OVERHEAD SIGN STRUCTURE
SB I-57 STA. 107+16 (PARNELL AVE. BRIDGE)
& SB I-57 STA. 117+30

SCALE: NOT TO SCALE — DRAWN BY: AMB
DATE: MARCH 25, 2005 — CHECKED BY: TB

3/30/2005 12:44:23 PM

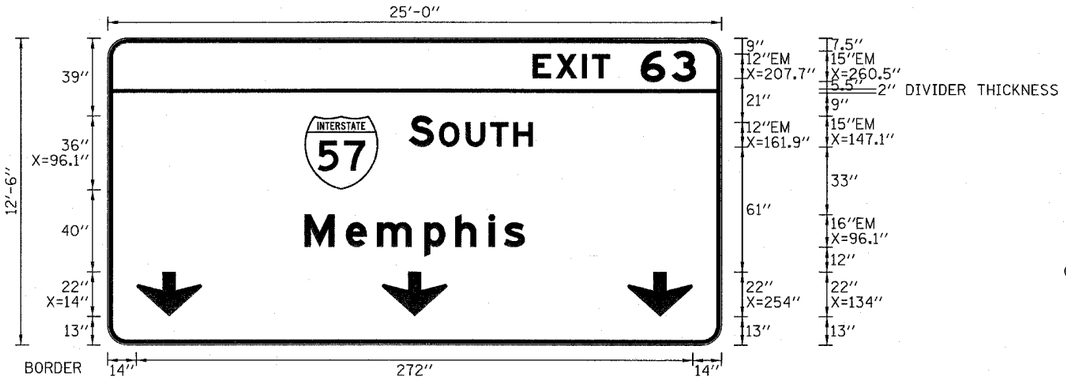
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	•	COOK	907	740
STA. 1200+00.00		TO STA. 1365+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
• (1516.1, 1717 & 1818) R-9				62695

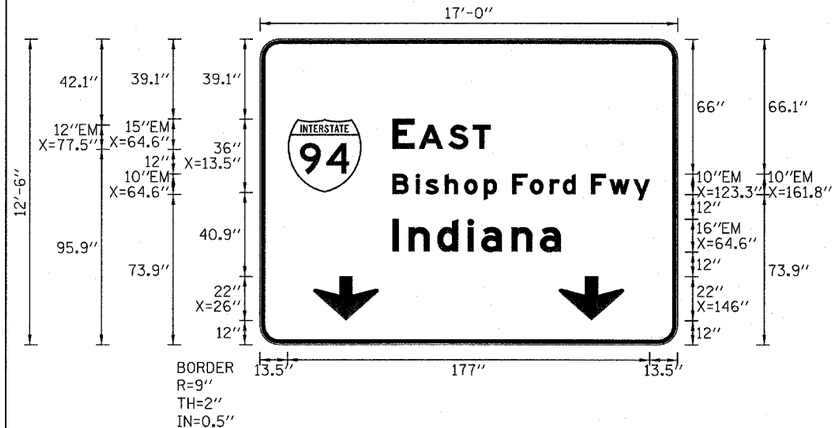


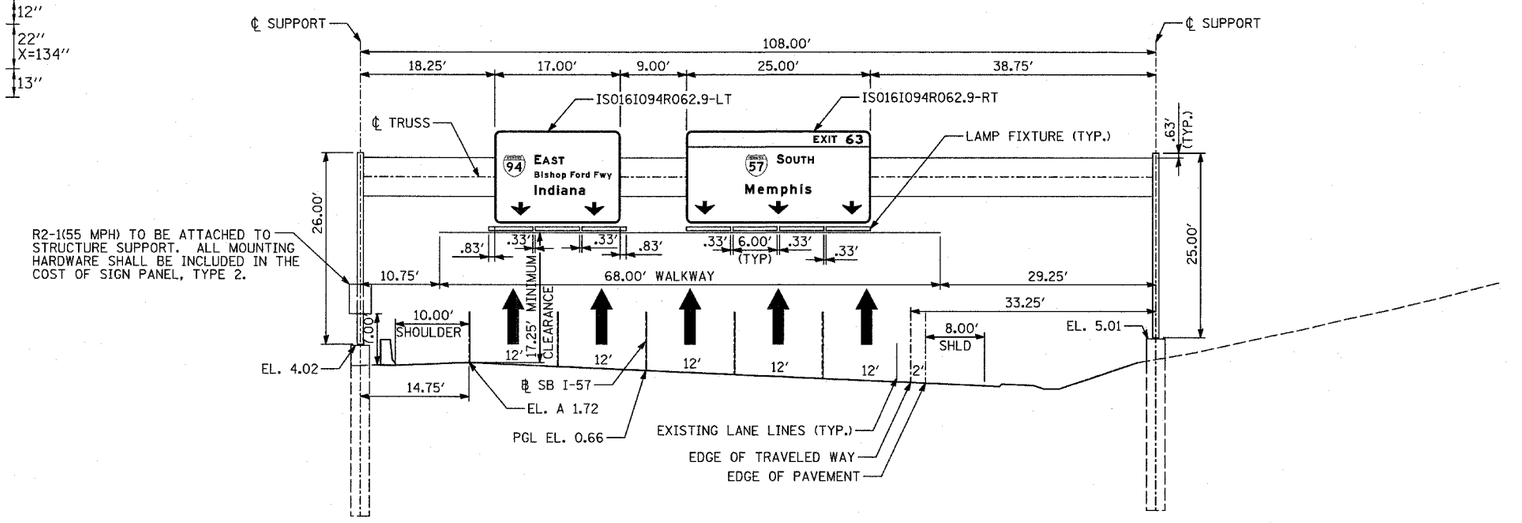


STA. 144+75 SB I-57
LOOKING SOUTH
1C016I057R063.0

ULTIMATE LANE AND PAVEMENT CONFIGURATION IN 2007 IS SHOWN.
SEE CONSTRUCTION SIGNING-STAGE 2
FOR SIGN PANEL CONFIGURATION AT END OF CONTRACT.







STA. 149+87 SB I-57
LOOKING SOUTH
IS016I094R062.9

ULTIMATE LANE AND PAVEMENT CONFIGURATION IN 2007 IS SHOWN.
SEE CONSTRUCTION SIGNING-STAGE 2
FOR SIGN PANEL CONFIGURATION AT END OF CONTRACT.

TY·LIN INTERNATIONAL

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

F.A.I. 94 (DAN RYAN EXPRESSWAY)

PERMANENT SIGN PANEL MOUNTING DETAILS
PROPOSED OVERHEAD SIGN STRUCTURE
SB I-57 STA. 144+75
SB I-57 STA. 149+87

SCALE: NOT TO SCALE DRAWN BY: AMB

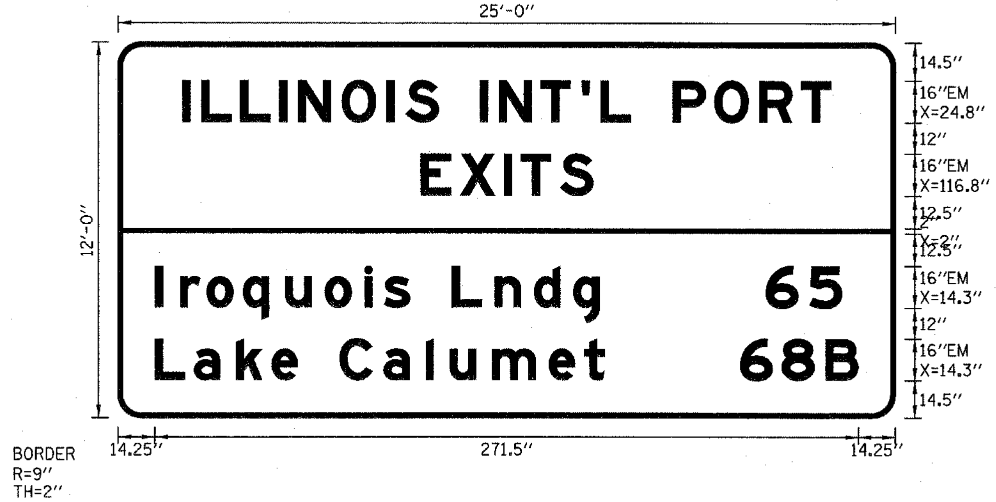
DATE: MARCH 25, 2005 CHECKED BY: TB

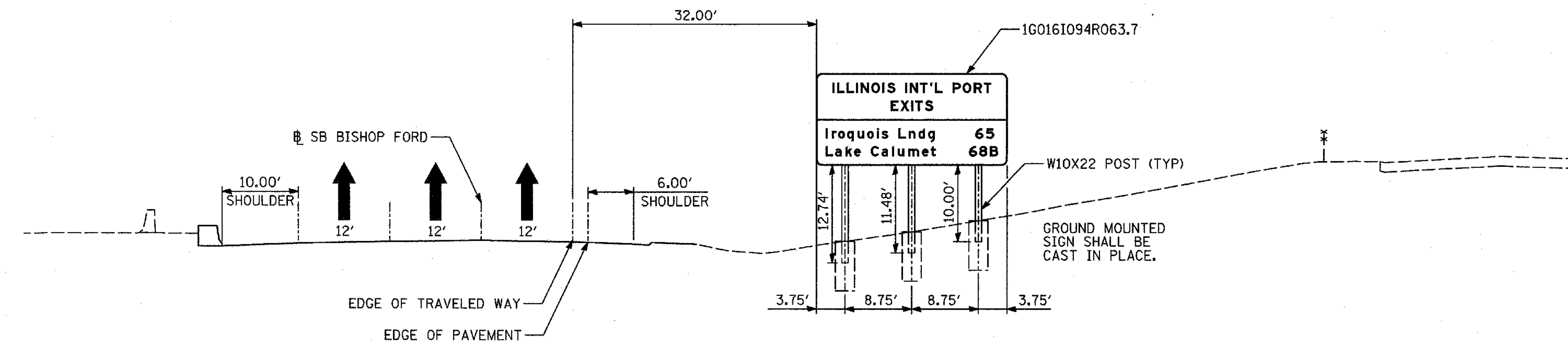
3/30/2005 12:44:25 PM

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	•	COOK	907	741
STA. 1200+00.00	TO STA. 1365+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

• (1516.1, 1717 & 1818) R-9

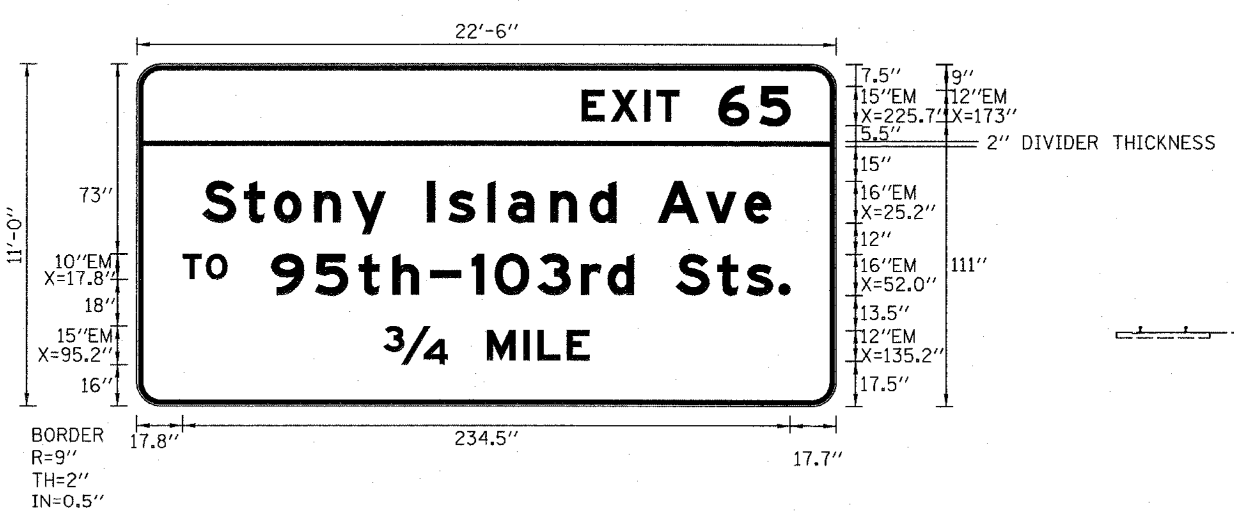
62695

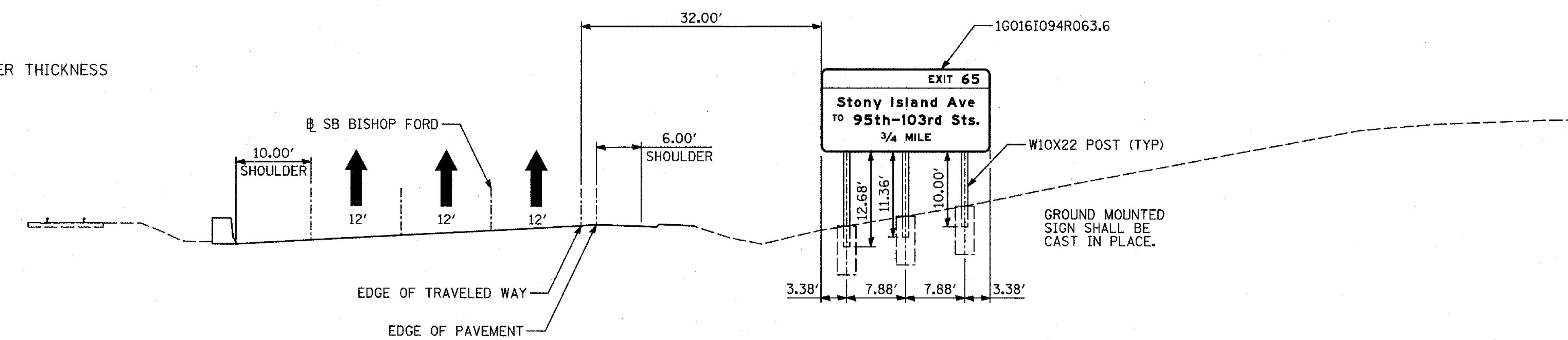




STA. 1134+06 SB BISHOP FORD CONNECTOR
LOOKING EAST
1G016I094R063.7

ULTIMATE LANE AND PAVEMENT CONFIGURATION IN 2007 IS SHOWN.
SEE CONSTRUCTION SIGNING-STAGE 1
FOR SIGN PANEL CONFIGURATION AT END OF CONTRACT.





STA. 1140+68 SB BISHOP FORD CONNECTOR
LOOKING EAST
1G016I094R063.6

ULTIMATE LANE AND PAVEMENT CONFIGURATION IN 2007 IS SHOWN.
SEE CONSTRUCTION SIGNING-STAGE 1
FOR SIGN PANEL CONFIGURATION AT END OF CONTRACT.

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)

PERMANENT SIGN PANEL MOUNTING DETAILS
PROPOSED GROUND MOUNTED SIGN STRUCTURES
STA. 1134+06 AND STA. 1140+68

SCALE: NOT TO SCALE DRAWN BY: AMB
DATE: MARCH 25, 2005 CHECKED BY: TB

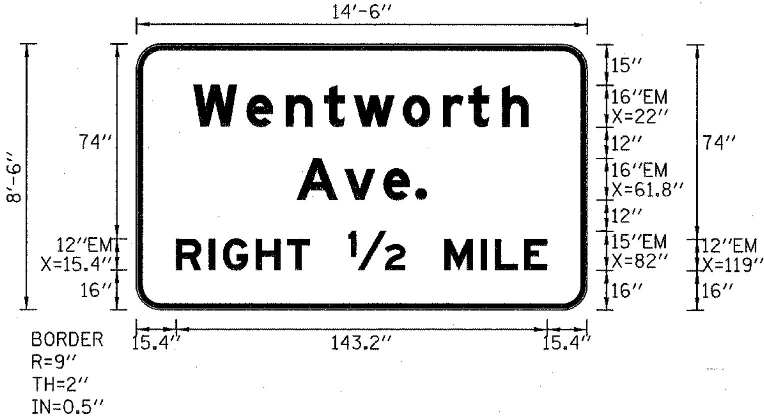
TYLIN INTERNATIONAL

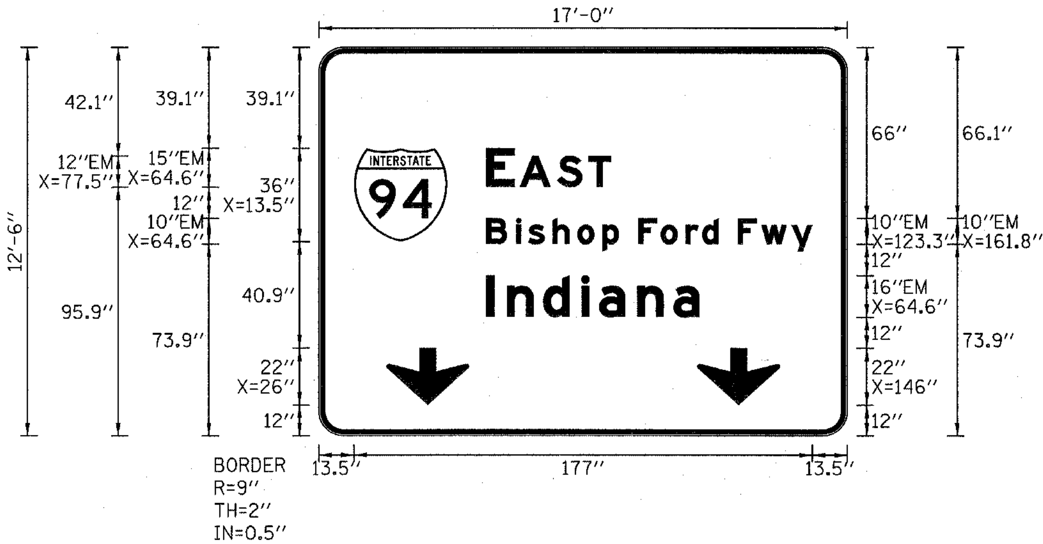
3/30/2005 12:44:30 PM

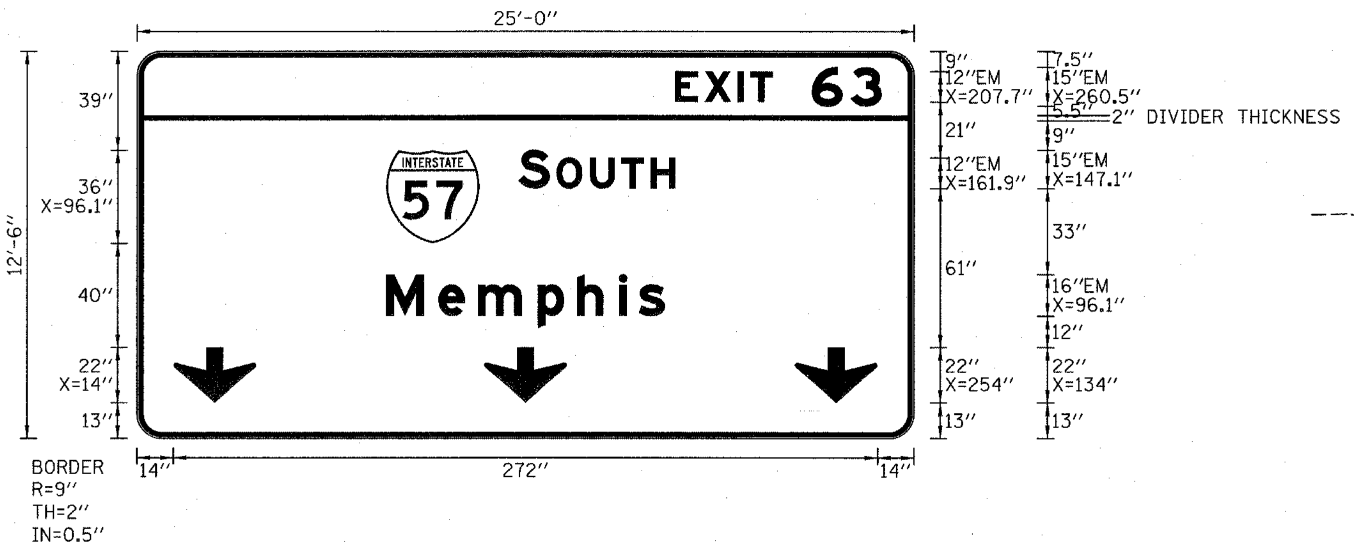
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	•	COOK	907	742
STA. 1200+00.00	TO STA. 1365+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

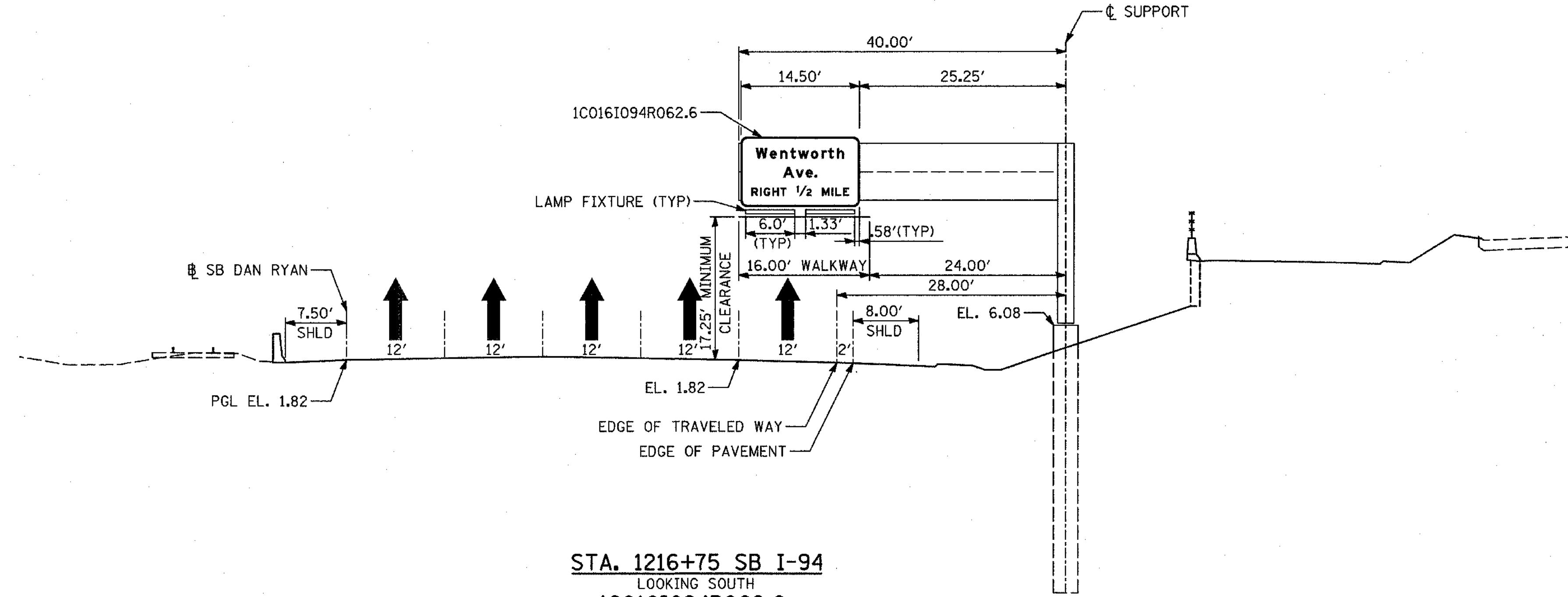
• (1516.1, 1717 & 1818) R-9

62695







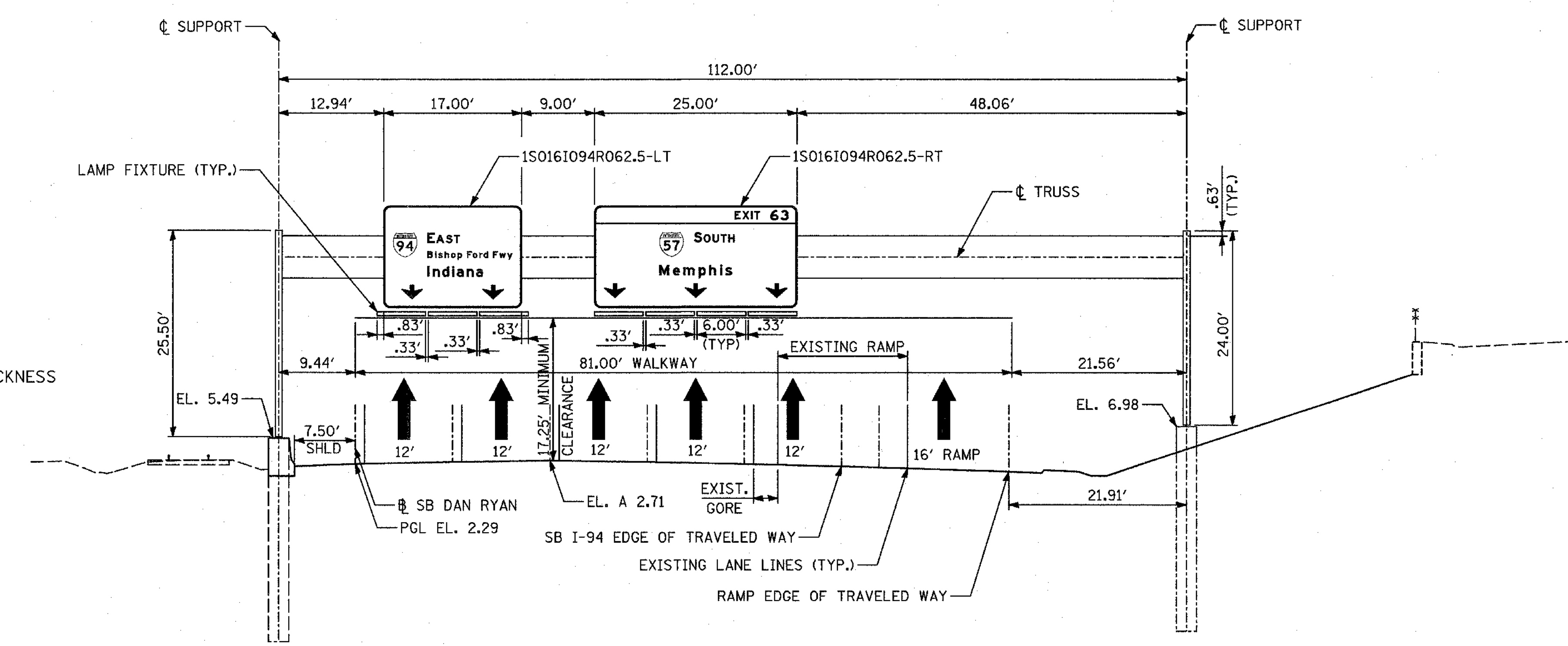


STA. 1216+75 SB I-94

LOOKING SOUTH

1C016I094R062.6

ULTIMATE LANE AND PAVEMENT CONFIGURATION IN 2007 IS SHOWN.
SEE CONSTRUCTION SIGNING-STAGE 2
FOR SIGN PANEL CONFIGURATION AT END OF CONTRACT.



STA. 1224+00 SB I-94

LOOKING SOUTH

1S016I094R062.5

ULTIMATE LANE AND PAVEMENT CONFIGURATION IN 2007 IS SHOWN.
SEE CONSTRUCTION SIGNING-STAGE 2
FOR SIGN PANEL CONFIGURATION AT END OF CONTRACT.

TYLIN INTERNATIONAL

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

F.A.I. 94 (DAN RYAN EXPRESSWAY)

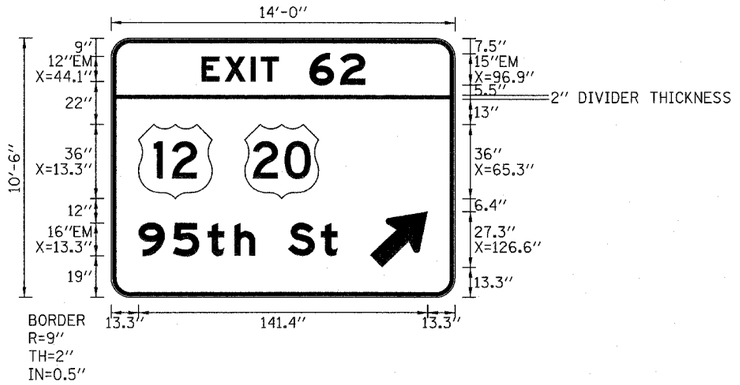
PERMANENT SIGN PANEL MOUNTING DETAILS
PROPOSED OVERHEAD SIGN STRUCTURES
STA. 1216+75 AND STA. 1224+00

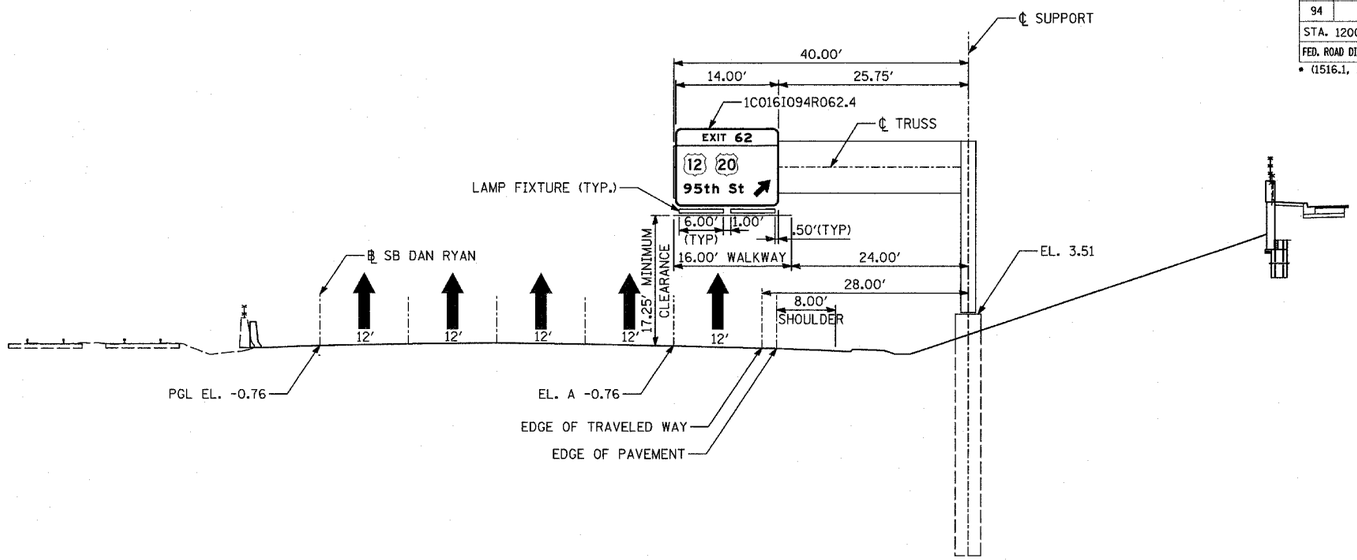
SCALE: NOT TO SCALE — DRAWN BY: AMB
DATE: MARCH 25, 2005 — CHECKED BY: TB

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	•	COOK	907	743
STA. 1200+00.00	TO STA. 1365+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

• (1516.1, 1717 & 1818) R-9 62695

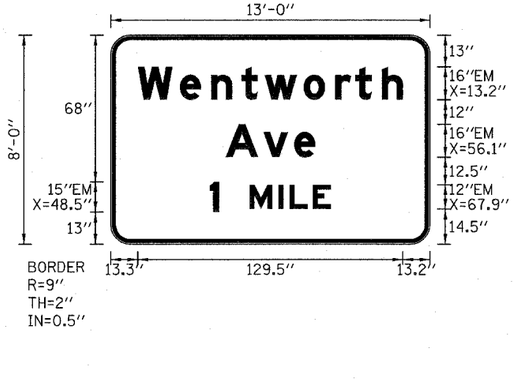
p:\02373\road\cl7b\sml7bsh053a.dgn

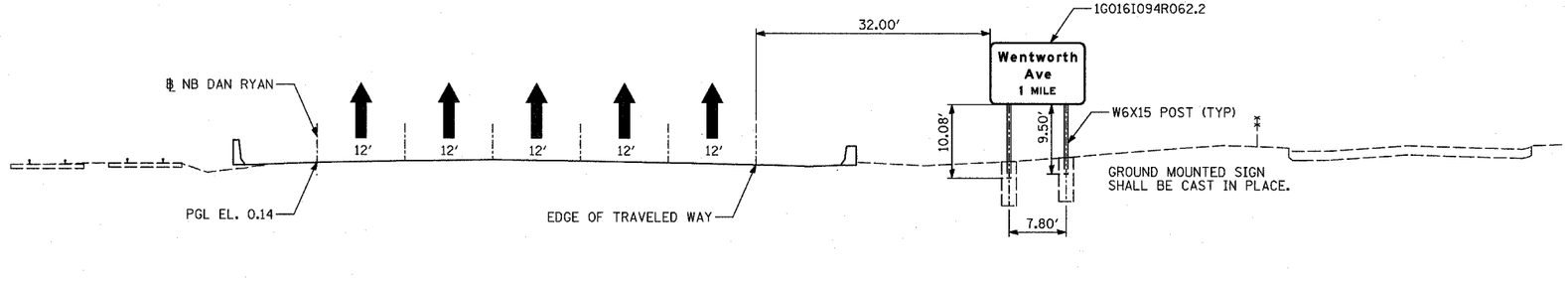




STA. 1227+50 SB I-94
LOOKING SOUTH
1C016I094R062.4

ULTIMATE LANE AND PAVEMENT CONFIGURATION IN 2007 IS SHOWN.
SEE CONSTRUCTION SIGNING-STAGE 2
FOR SIGN PANEL CONFIGURATION AT END OF CONTRACT.





STA. 1239+75 SB I-94
LOOKING SOUTH
1G016I094R062.2

ULTIMATE LANE AND PAVEMENT CONFIGURATION IN 2007 IS SHOWN.
SEE CONSTRUCTION SIGNING-STAGE 2
FOR SIGN PANEL CONFIGURATION AT END OF CONTRACT.

TYLININTERNATIONAL

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)

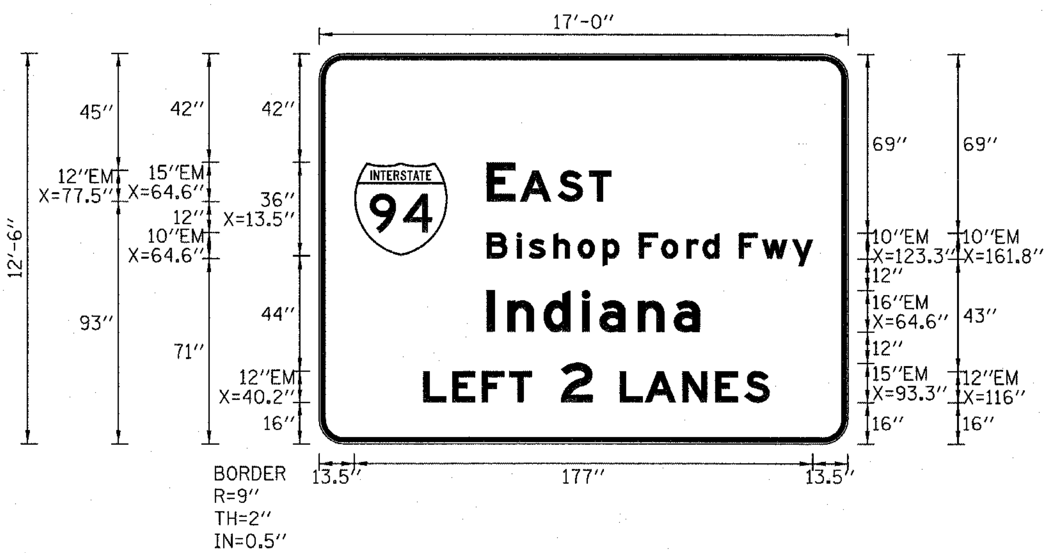
PERMANENT SIGN PANEL MOUNTING DETAILS
PROPOSED OVERHEAD SIGN STRUCTURE
STA. 1227+50 AND
GROUND MOUNTED SIGN STRUCTURE
STA. 1239+75

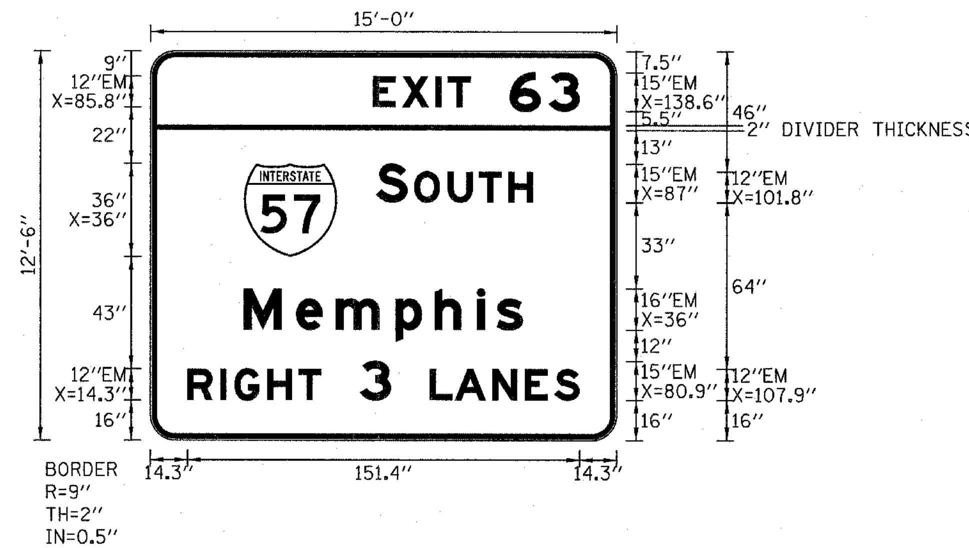
SCALE: NOT TO SCALE DRAWN BY: AMB
DATE: MARCH 25, 2005 CHECKED BY: TB

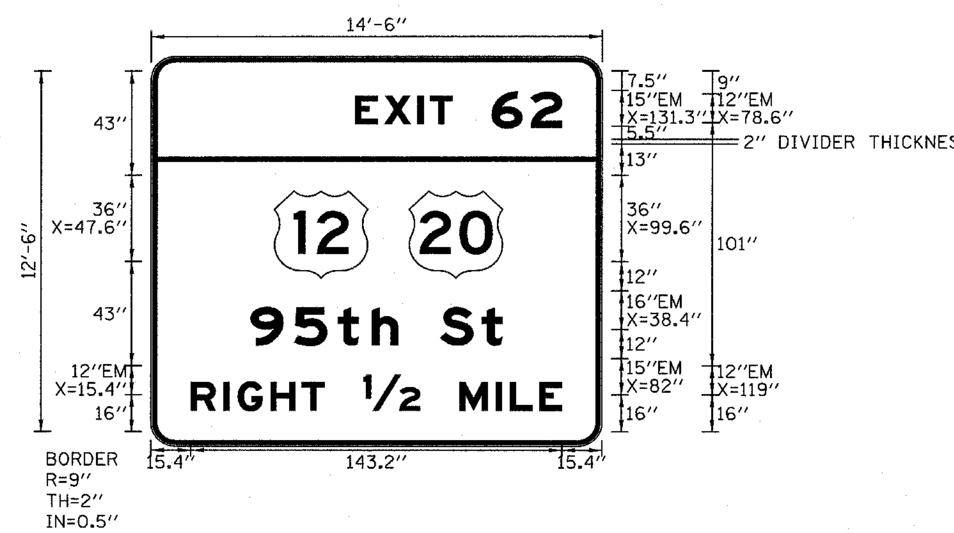
3/30/2005 12:44:33 PM

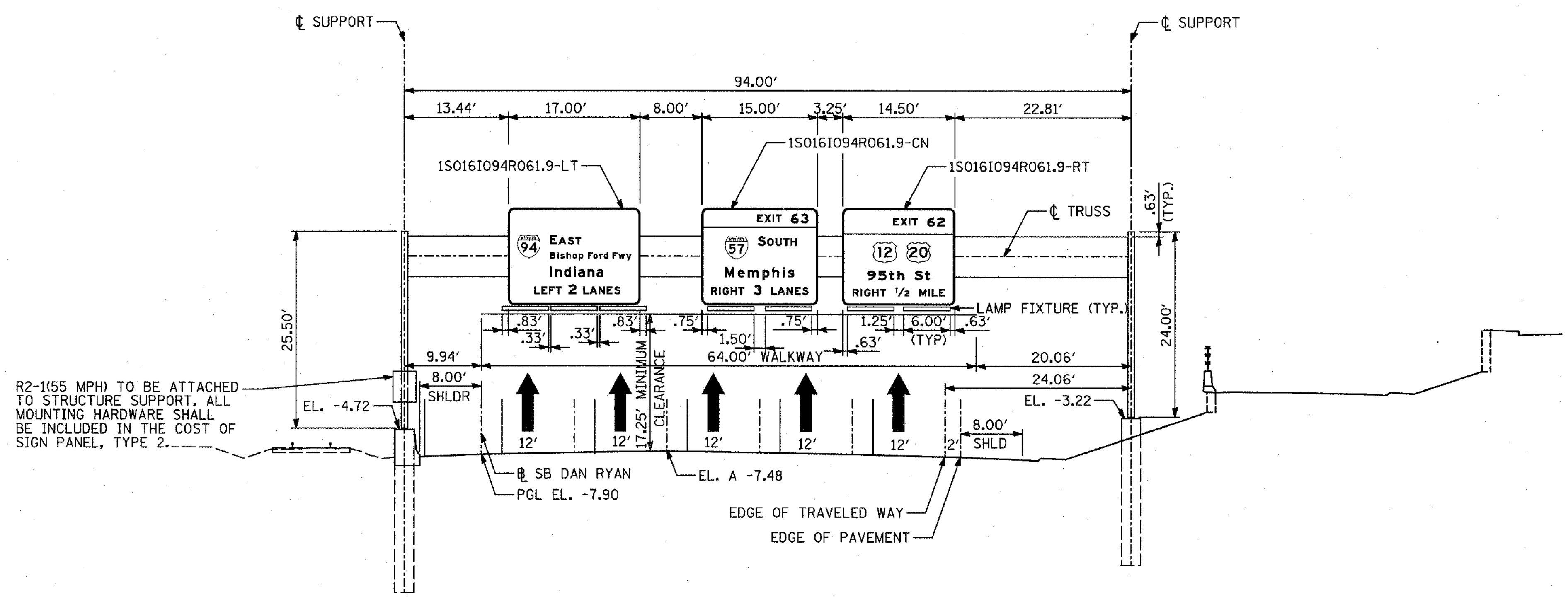
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	•	COOK	907	744
STA. 1200+00.00	TO STA. 1365+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

• (1516.1, 1717 & 1818) R-9 62695









STA. 1251+43 SB I-94

LOOKING SOUTH

1S016I094R061.9

ULTIMATE LANE AND PAVEMENT CONFIGURATION IN 2007 IS SHOWN.
SEE CONSTRUCTION SIGNING-STAGE 2
FOR SIGN PANEL CONFIGURATION AT END OF CONTRACT.

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

F.A.I. 94 (DAN RYAN EXPRESSWAY)

PERMANENT SIGN PANEL MOUNTING DETAILS
PROPOSED OVERHEAD SIGN STRUCTURE
STA. 1251+43

SCALE: NOT TO SCALE DRAWN BY: AMB

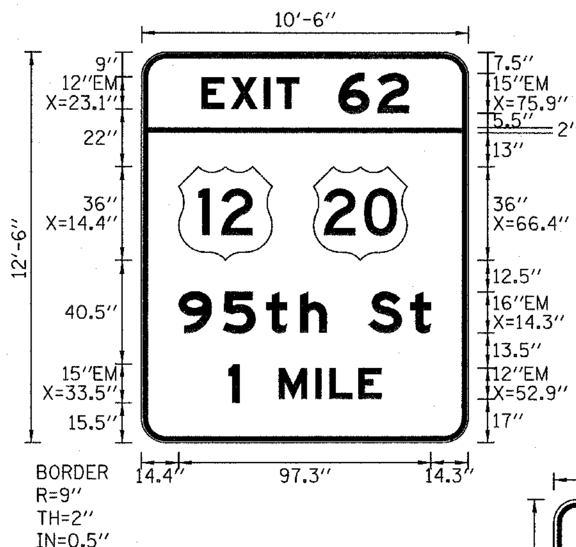
DATE: MARCH 25, 2005 CHECKED BY: TB

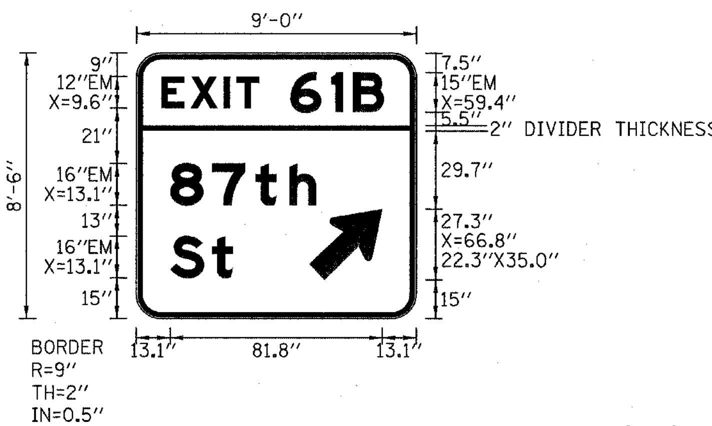
TYLIN INTERNATIONAL

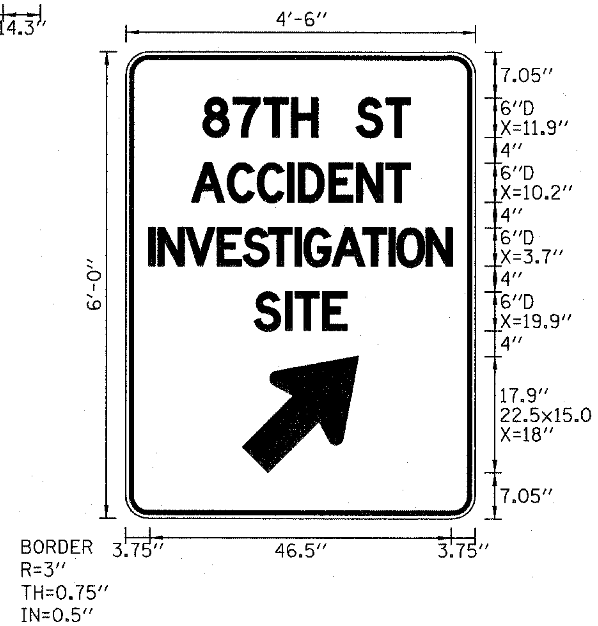
3/30/2005 12:44:34 PM

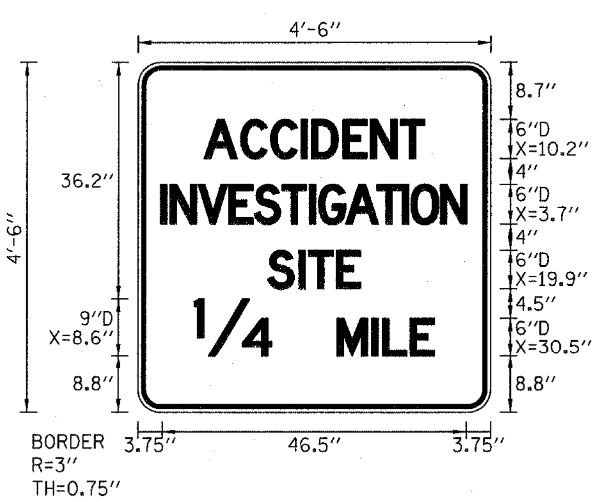
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	*	COOK	907	745
STA. 1200+00.00	TO STA. 1365+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

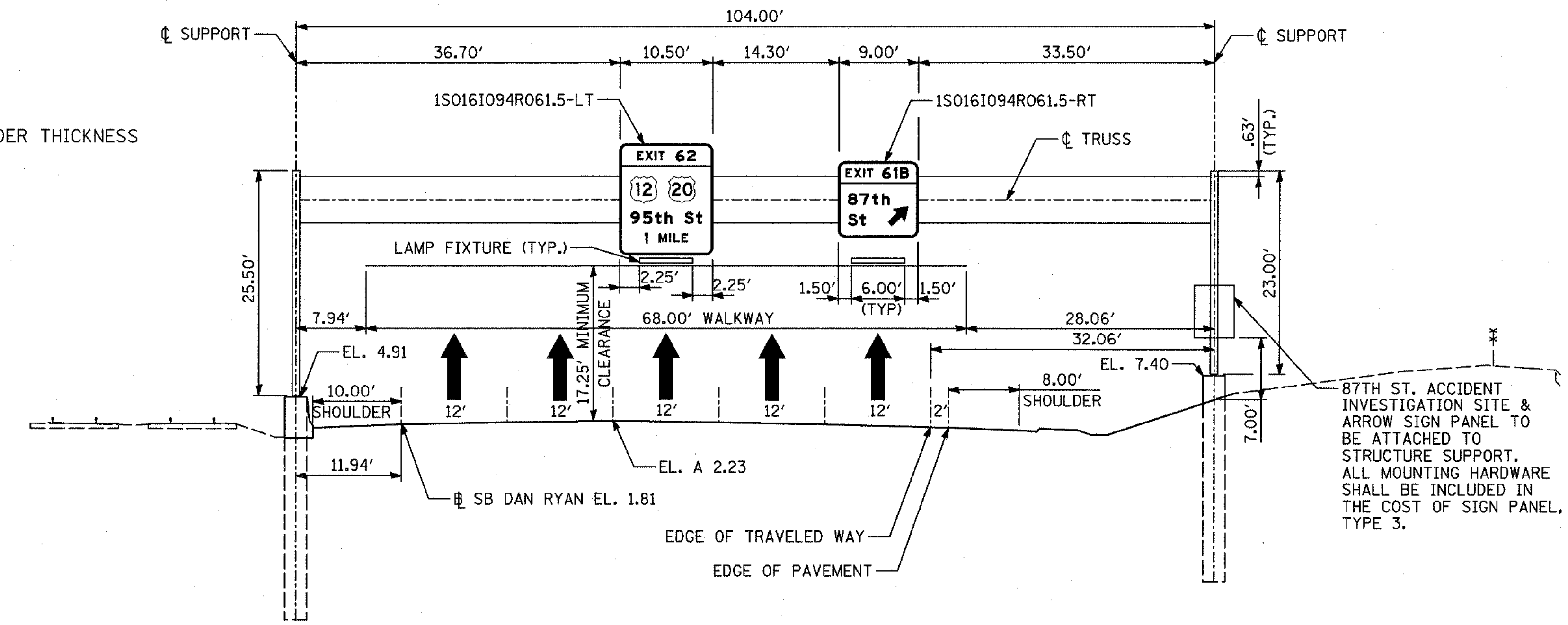
* (1516.1, 1717 & 1818) R-9 62695





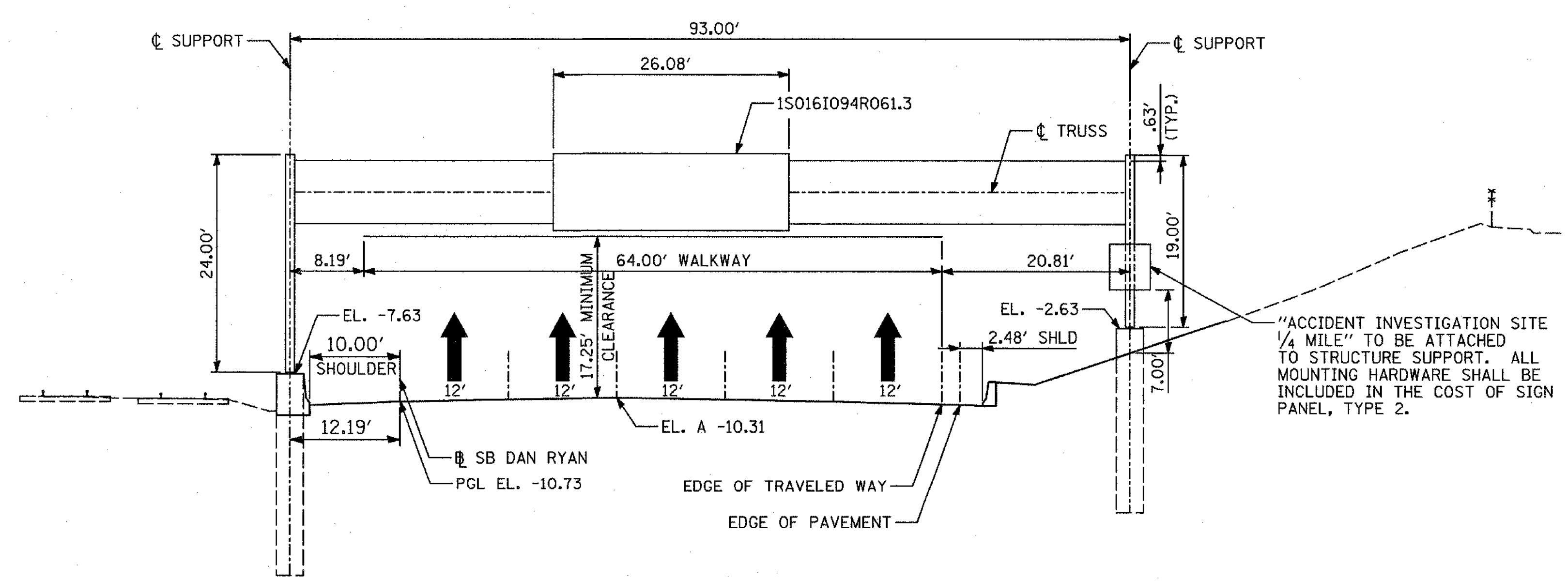






STA. 1276+67 SB I-94
LOOKING SOUTH
1S016I094R061.5

ULTIMATE LANE AND PAVEMENT CONFIGURATION IN 2007 IS SHOWN.
SEE CONSTRUCTION SIGNING-STAGE 2
FOR SIGN PANEL CONFIGURATION AT END OF CONTRACT.



NOTE: DMS UNIT AT STA. 1286+85 WILL BE PROVIDED BY OTHERS.

DYNAMIC MESSAGE SIGN
STA. 1286+85 SB I-94
LOOKING SOUTH
1S016I094R061.3

ULTIMATE LANE AND PAVEMENT CONFIGURATION IN 2007 IS SHOWN.
SEE CONSTRUCTION SIGNING-STAGE 2
FOR SIGN PANEL CONFIGURATION AT END OF CONTRACT.

TY·LIN INTERNATIONAL

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

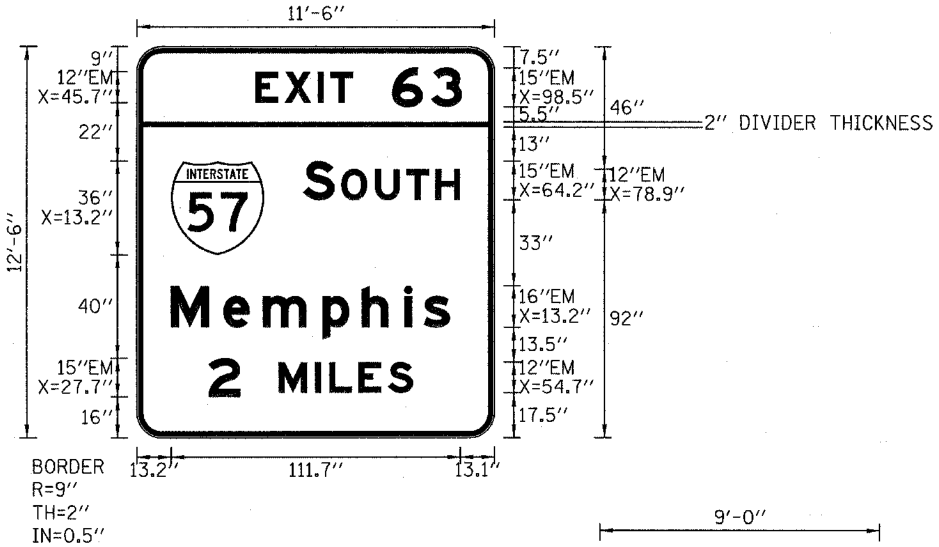
F.A.I. 94 (DAN RYAN EXPRESSWAY)

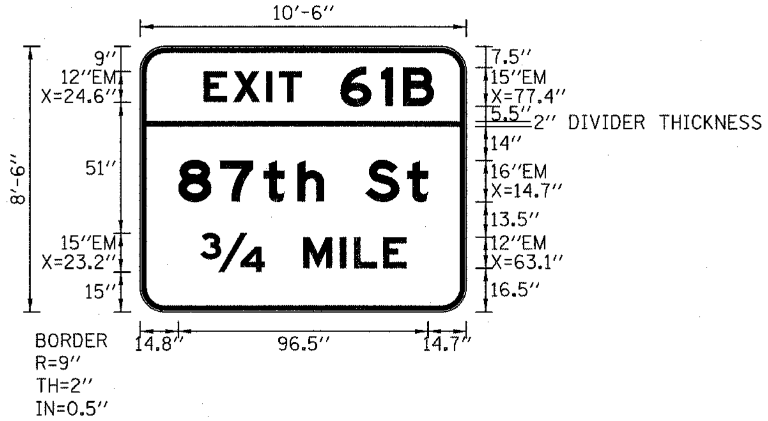
PERMANENT SIGN PANEL MOUNTING DETAILS
PROPOSED OVERHEAD SIGN STRUCTURES
STA. 1276+67 AND STA. 1286+85 (DMS)

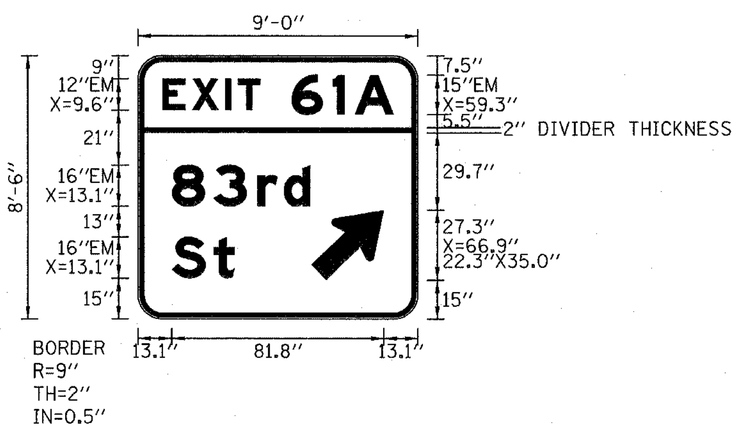
SCALE: NOT TO SCALE   DRAWN BY: AMB
DATE: MARCH 25, 2005   CHECKED BY: TB

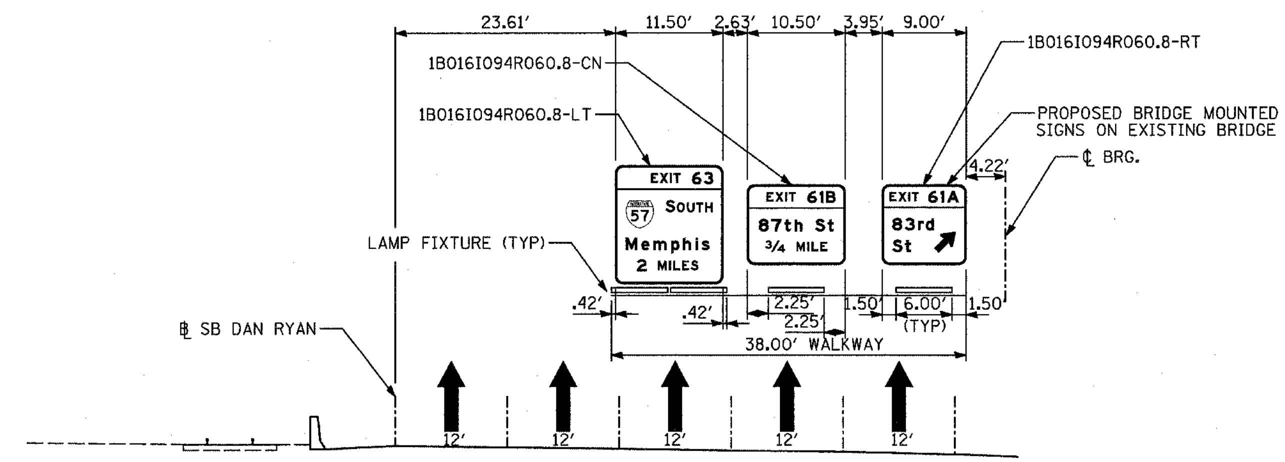
3/30/2005 12:44:36 PM

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	•	COOK	907	746
STA. 1200+00.00	TO STA. 1365+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
• (1516.1, 1717 & 1818) R-9				62695









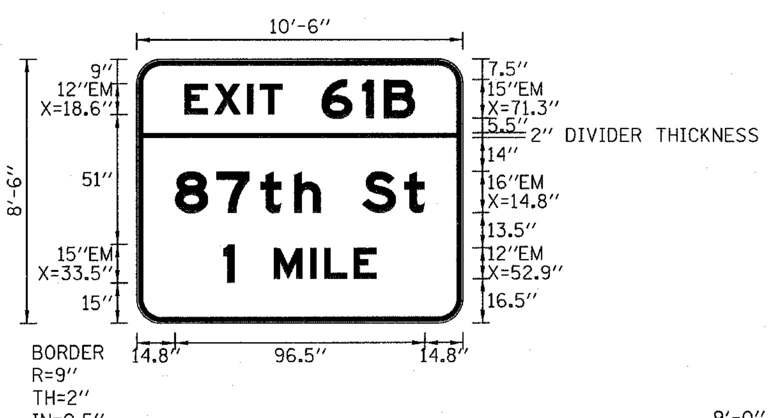
79TH STREET BRIDGE MOUNTED SIGNS

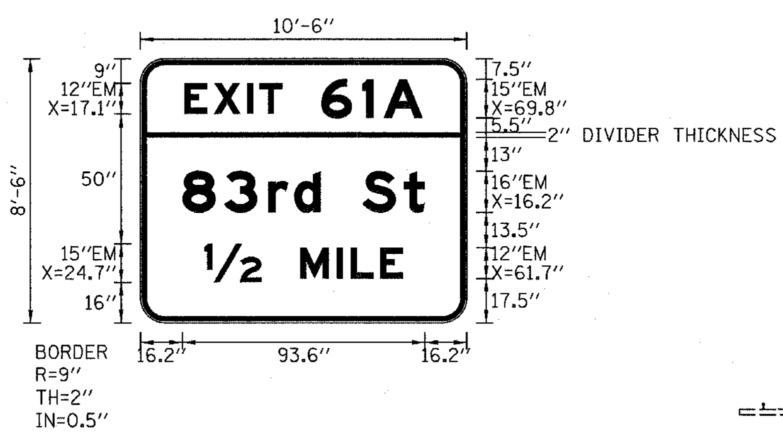
STA. 1313+24 SB I-94

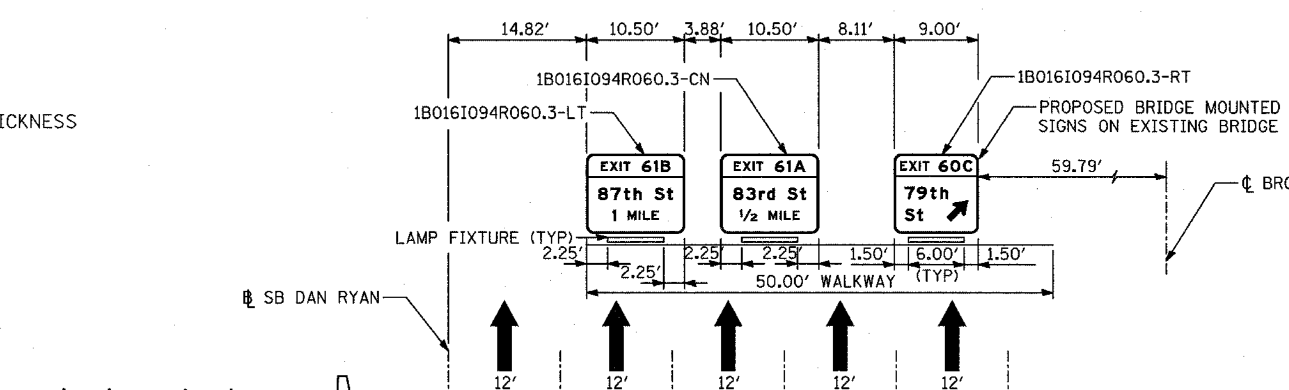
LOOKING SOUTH

1B016I094R060.8

ULTIMATE LANE AND PAVEMENT CONFIGURATION IN 2007 IS SHOWN.
SEE CONSTRUCTION SIGNING-STAGE 2
FOR SIGN PANEL CONFIGURATION AT END OF CONTRACT.





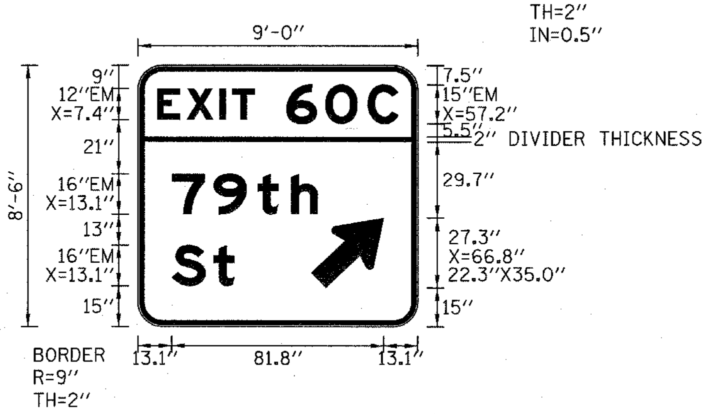


75TH STREET BRIDGE MOUNTED SIGNS

STA. 1339+32 SB I-94

LOOKING SOUTH

1B016I094R060.3



TYLIN INTERNATIONAL

ULTIMATE LANE AND PAVEMENT CONFIGURATION IN 2007 IS SHOWN.
SEE CONSTRUCTION SIGNING-STAGE 2
FOR SIGN PANEL CONFIGURATION AT END OF CONTRACT.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

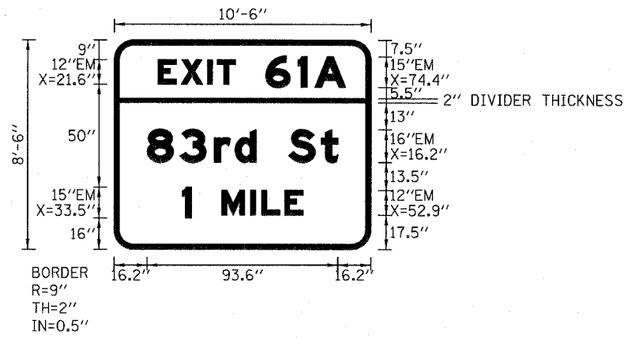
F.A.I. 94 (DAN RYAN EXPRESSWAY)

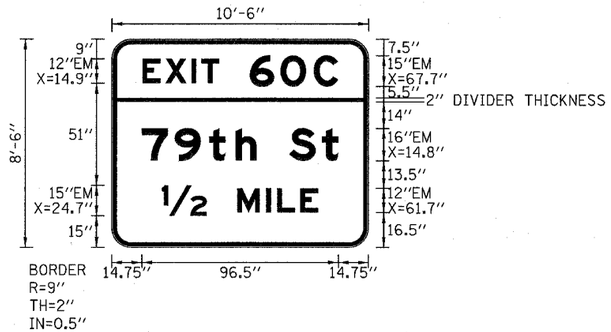
PERMANENT SIGN PANEL MOUNTING DETAILS
PROPOSED BRIDGE MOUNTED SIGN STRUCTURES
STA. 1313+24 (79TH ST.) &
STA. 1339+32 (75TH ST.)

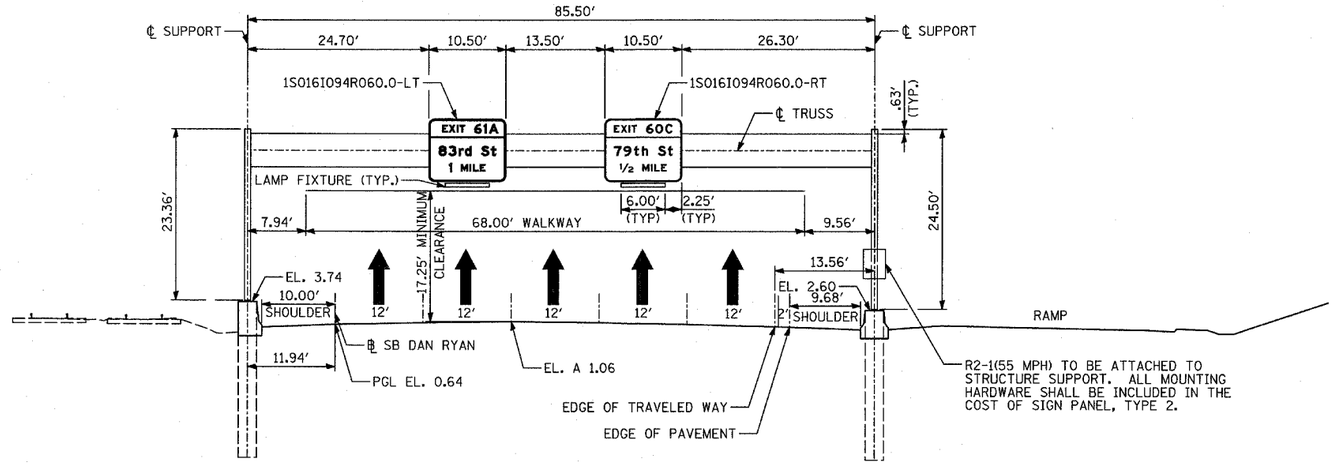
SCALE: NOT TO SCALE
DRAWN BY: AMB
DATE: MARCH 25, 2005
CHECKED BY: TB

3/30/2005 12:44:38 PM

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	•	COOK	907	747
STA. 1200+00.00	TO STA. 1365+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
• (1516.1, 1717 & 1818) R-9				62695

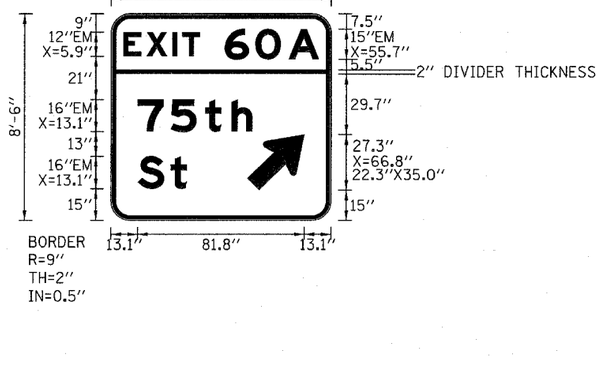


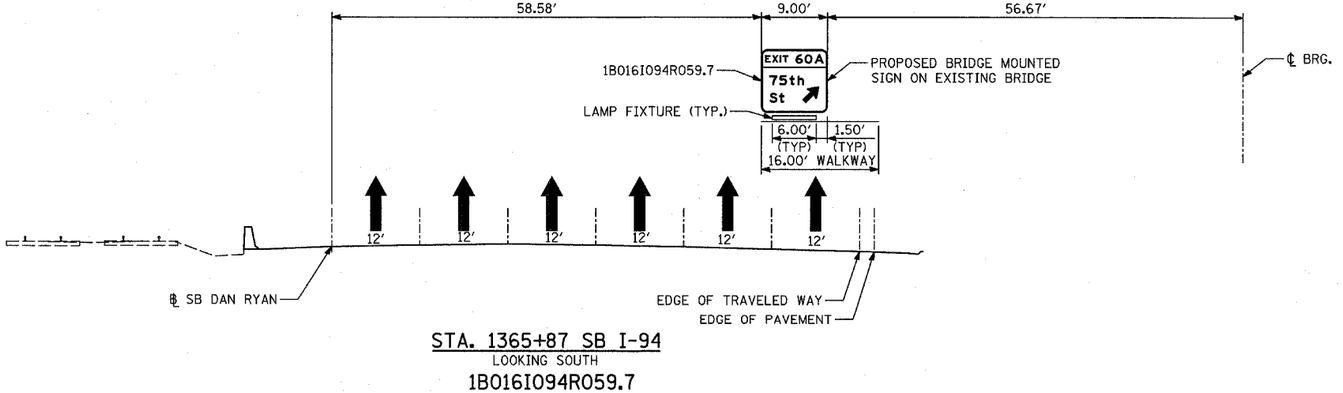




STA. 1355+91 SB I-94
LOOKING SOUTH
1S016I094R060.0

ULTIMATE LANE AND PAVEMENT CONFIGURATION IN 2007 IS SHOWN.
SEE CONSTRUCTION SIGNING-STAGE 2
FOR SIGN PANEL CONFIGURATION AT END OF CONTRACT.





STA. 1365+87 SB I-94
LOOKING SOUTH
1B016I094R059.7

ULTIMATE LANE AND PAVEMENT CONFIGURATION IN 2007 IS SHOWN.
SEE CONSTRUCTION SIGNING-STAGE 2
FOR SIGN PANEL CONFIGURATION AT END OF CONTRACT.

TY·LIN INTERNATIONAL

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

F.A.I. 94 (DAN RYAN EXPRESSWAY)

PERMANENT SIGN PANEL MOUNTING DETAILS
PROPOSED OVERHEAD SIGN STRUCTURE
STA. 1355+91
PROPOSED BRIDGE MOUNTED SIGN STRUCTURE
STA. 1365+87

SCALE: NOT TO SCALE DRAWN BY: AMB
DATE: MARCH 25, 2005 CHECKED BY: TB

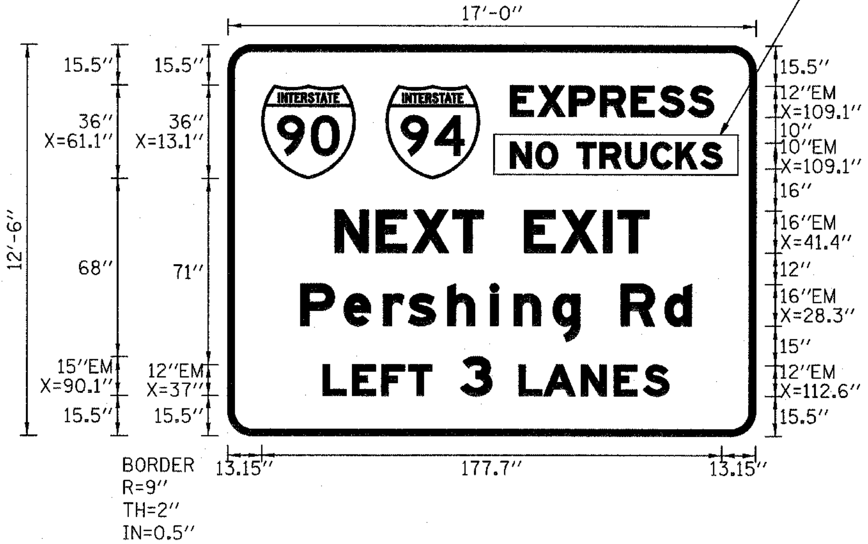
3/30/2005 12:44:40 PM

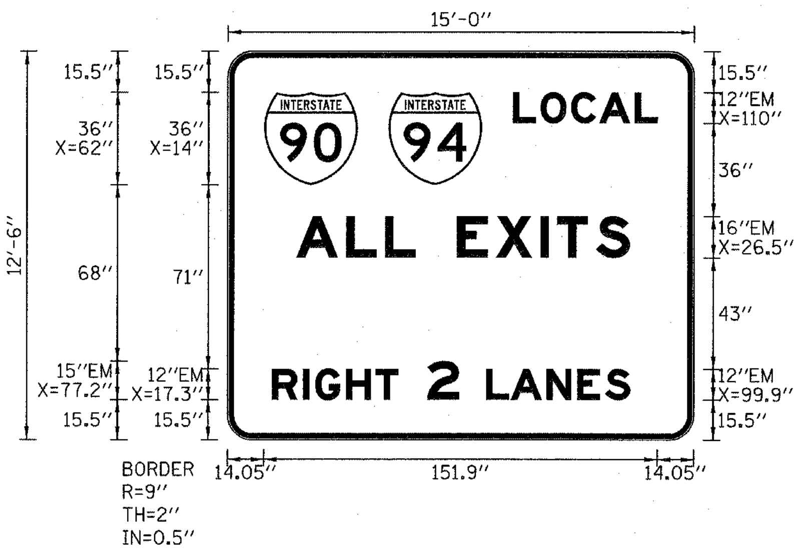
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	•	COOK	907	748
STA. 1200+00.00	TO STA. 1365+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

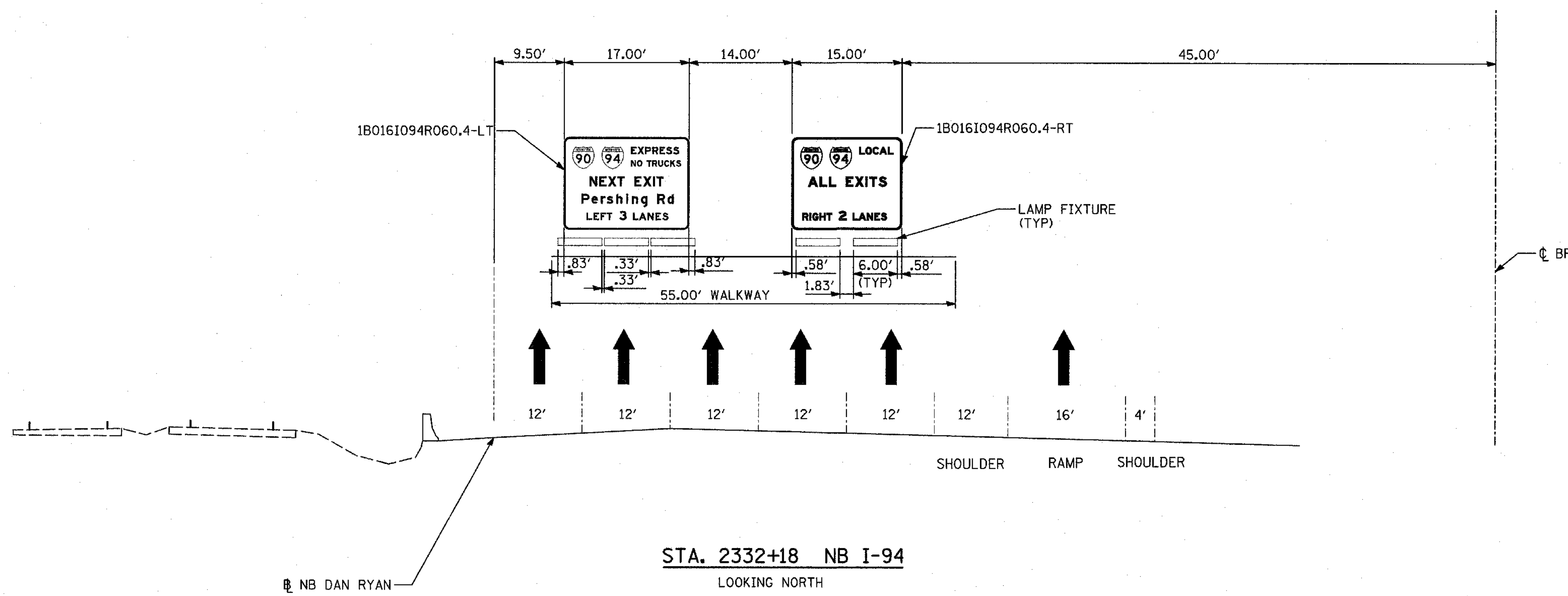
• (1516.1, 1717 & 1818) R-9

62695

PERMANENT WHITE REFLECTIVE OVERLAY PANEL, 7' X 1'-6" BLACK LETTERS, 10" EM







STA. 2332+18 NB I-94

LOOKING NORTH

1B016I094R060.4

TYLIN INTERNATIONAL

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

F.A.I. 94 (DAN RYAN EXPRESSWAY)

PERMANENT SIGN PANEL MOUNTING DETAILS
PROPOSED BRIDGE-MOUNTED SIGN STRUCTURE
STA. 2332+18

SCALE: NOT TO SCALE | DRAWN BY: RTA

DATE: MARCH 25, 2005 | CHECKED BY: JM

3/30/2005 12:44:41 PM

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	•	COOK	907	749
STA. 1200+00.00	TO STA. 1365+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

• (1516.1, 1717 & 1818) R-9

62695

BORDER
R=3"
TH=1"
IN=0.5"

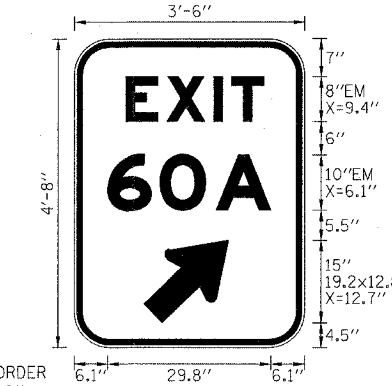
87TH ST. RAMP, STA. 7183+50

BORDER
R=3"
TH=1"
IN=0.5"

75TH ST RAMP, STA. 7130+38

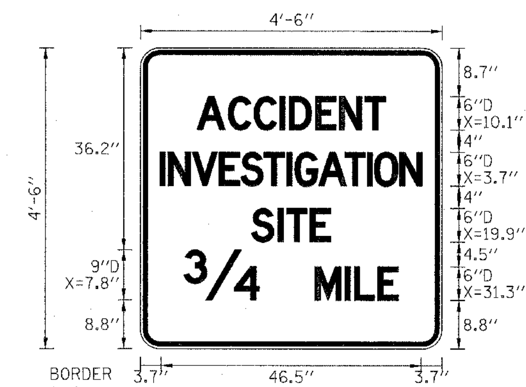
BORDER
R=3"
TH=0.75"
IN=0.5"

STA. 1366+00



BORDER
R=6"
TH=1"
IN=0.5"

STA. 1356+62



BORDER
R=3"
TH=0.75"
IN=0.5"

STA. 1313+80

BORDER
R=9"
TH=2"
IN=1"

STA. 1350+73

TYLIN INTERNATIONAL

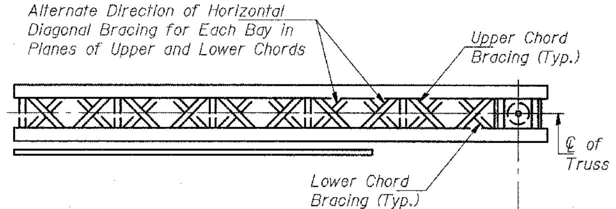
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

F.A.I. 94 (DAN RYAN EXPRESSWAY)

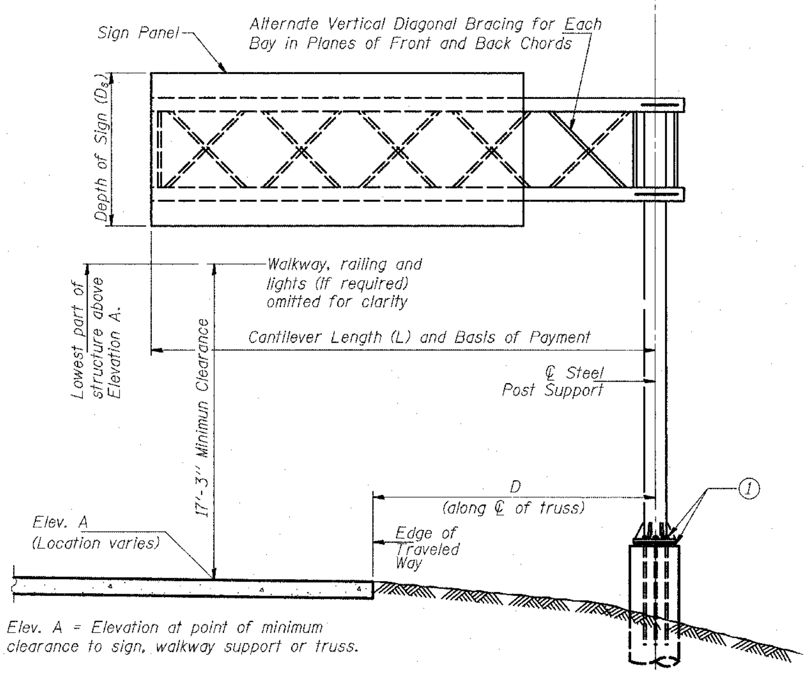
GROUND-MOUNTED SIGN DETAILS
SHEET 1 OF 1

SCALE: NOT TO SCALE — DRAWN BY: AMB
DATE: MARCH 25, 2005 — CHECKED BY: TGB



TYPICAL PLAN

(Walkway not shown)



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

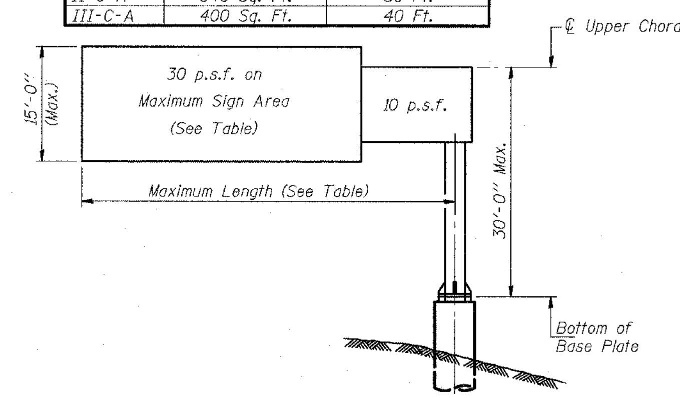
TYPICAL ELEVATION

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 attach temporary blank sign panels or other bracing to the structure until permanent signs are installed.

Structure Number	Station	Design Truss Type	Cantilever Length (L)	Elev. A	Dim. D	D_s	Total Sign Area
1C016I057L357.8	117+30	III-C-A	37'	-1.26	24'	15'	202.5 ft²
1C016I057R063.0	144+75	III-C-A	32'	1.56	17.21'	7'	91.0 ft ²
1C016I094R062.6	1216+75	III-C-A	40'	1.82	28'	8.5'	123.25 ft²
1C016I094R062.4	1227+50	III-C-A	40'	-0.76	28'	10.5'	147.0 ft²

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



DESIGN WIND LOADING DIAGRAM

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

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

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

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
WIND LOADING: 30 p.s.f. normal to Sign Panel Area and truss elements not behind sign Loading Diagram.
WALKWAY LOADING: Dead load plus 500 lbs. concentrated live load.

DESIGN STRESSES:
Field Units
f' = 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 with a minimum yield of 35,000 p.s.i., or A500 Grade B or C with a minimum yield of 46,000 p.s.i. 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) 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 or 55 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.

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

TOTAL BILL OF MATERIAL

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	149
OVERHEAD SIGN WALKWAY-CANTILEVER TYPE A**	Foot	62
DRILLED SHAFT IN ROCK, 42"	Foot	10
DRILLED SHAFT CONCRETE FOUNDATIONS	Cu. Yds.	40

**Paid for as Overhead Sign Structure Walkway

NUMBER	REVISION	DATE

OSC-A-1 11/1/2002

THE CONTRACTOR SHALL COORDINATE WITH THE LIGHTING CONTRACTOR TO ALLOW FOR INSTALLATION OF APPROPRIATE EQUIPMENT PRIOR TO ERECTION OF THE SIGN STRUCTURES.

TYLIN INTERNATIONAL

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

F.A.I. 94 (DAN RYAN EXPRESSWAY)

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

SCALE: AS NOTED DRAWN BY: AMB
DATE: MARCH 25, 2005 CHECKED BY: TB

3/30/2005 12:44:11 PM

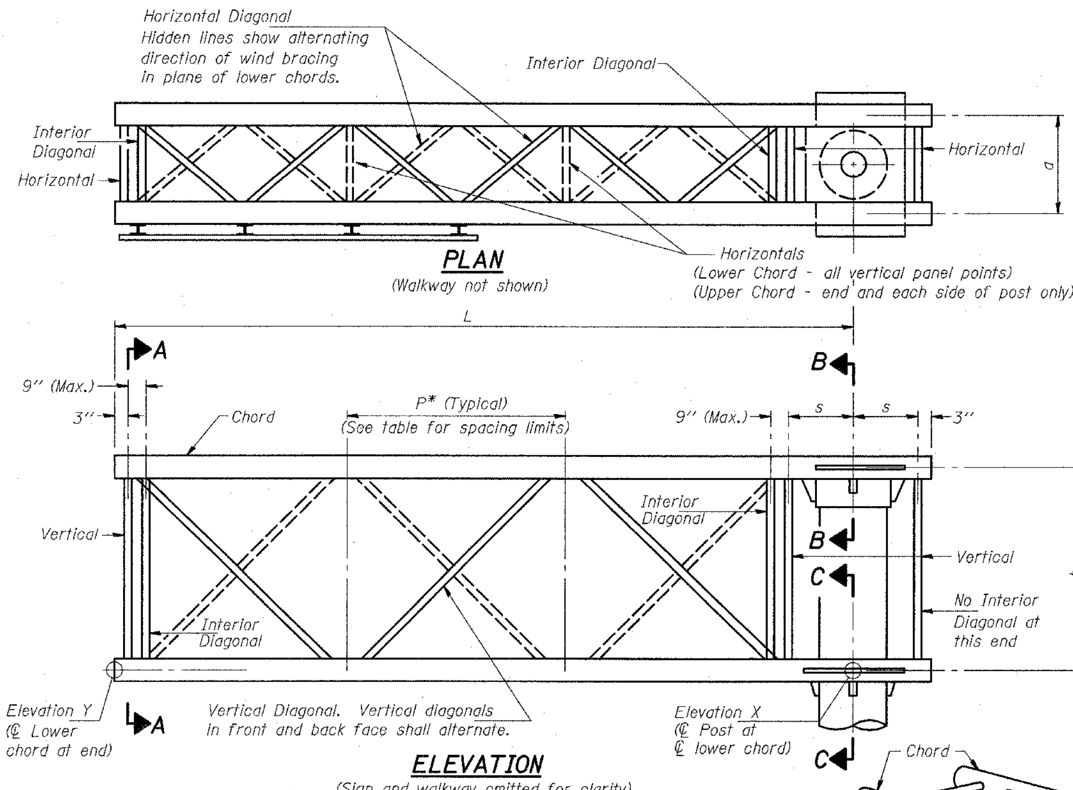
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	•	COOK	907	751

STA. 1200+00.00 TO STA. 1365+00

FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT

• (1516.1, 1717 & 1818) R-9

62695



PLAN

(Walkway not shown)

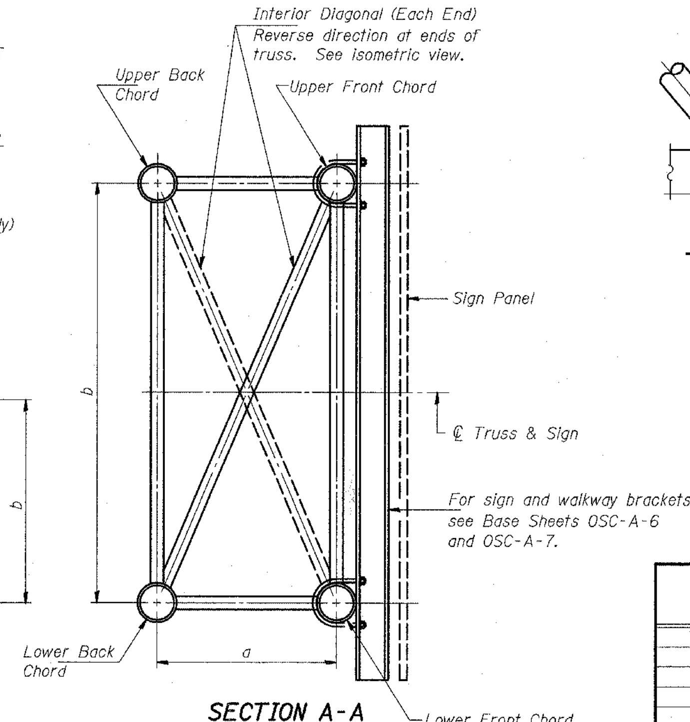
ELEVATION

(Sign and walkway omitted for clarity)

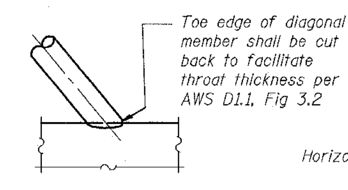
TYPICAL TRUSS UNIT

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

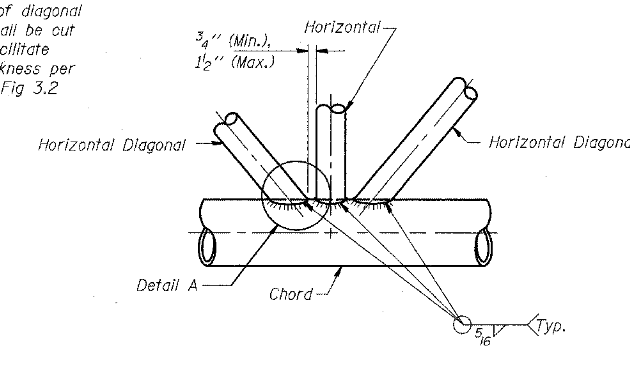
Note: There are twice as many horizontal diagonals as there are vertical diagonals.



SECTION A-A

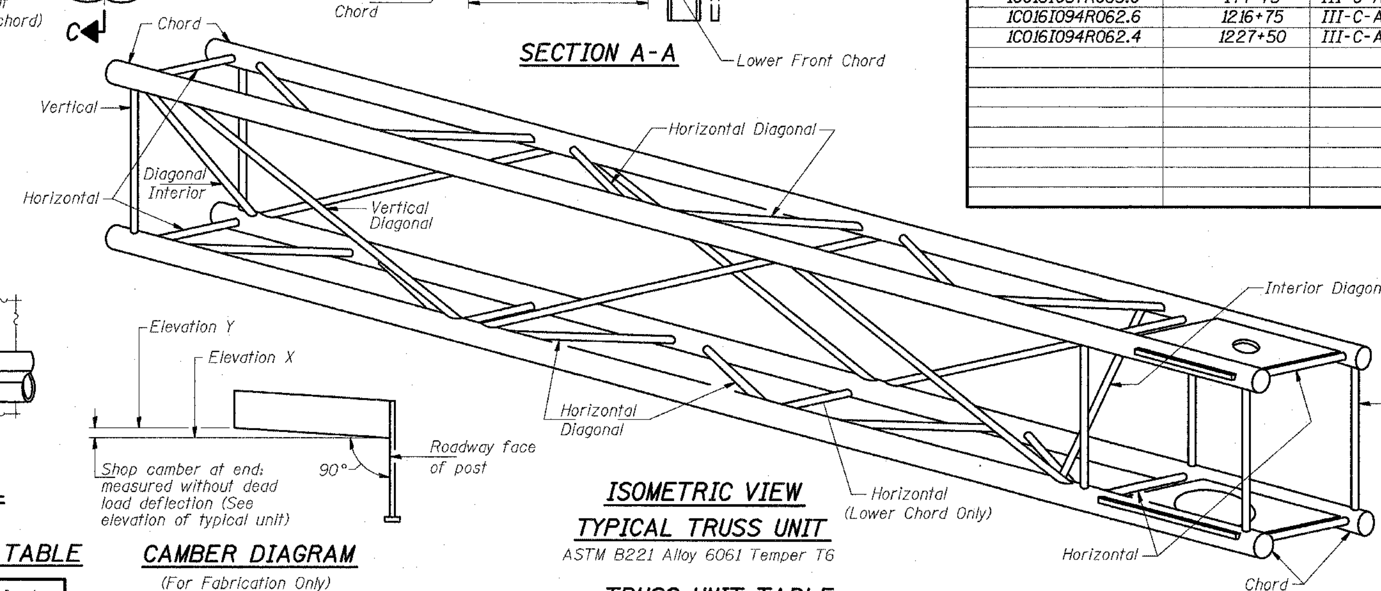


DETAIL A



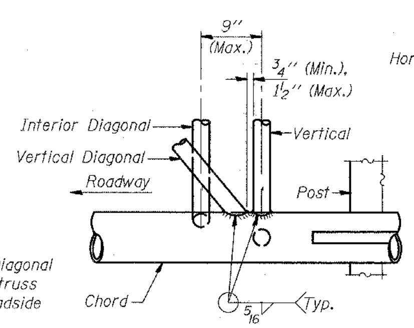
TRUSS INTERIOR JOINT DETAIL

Structure Number	Station	Truss Type	Design Length (L)	Number of Panels Per Unit	Panel Length (P)*
IC016I057L357.8	117+30	III-C-A	37'	7	5.00'
IC016I057R063.0	144+75	III-C-A	32'	6	5.00'
IC016I094R062.6	1216+75	III-C-A	40'	8	4.75'
IC016I094R062.4	1227+50	III-C-A	40'	8	4.75'

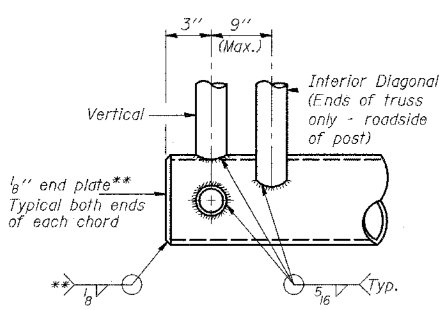


ISOMETRIC VIEW
TYPICAL TRUSS UNIT

ASTM B221 Alloy 6061 Temper T6



POST END JOINT DETAIL



CANTILEVER END JOINT DETAIL

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

SHOP CAMBER TABLE

Unit Length (L)	Shop Camber at End
15'	½"
16'-17'	1¾"
18'-20'	2"
21'-22'	2¼"
23'-25'	2½"
26'-27'	2¾"
28'-30'	3"
31'-32'	3¼"
33'-35'	3½"
36'-37'	4"
38'-40'	4½"

Elevation Y
Elevation X
Roadway face of post
90°
Shop camber at end: measured without dead load deflection (See elevation of typical unit)

CAMBER DIAGRAM

(For Fabrication Only)

TRUSS UNIT TABLE

Truss Type	Dimension "a"	Dimension "b"	Dimension "s"	Limits for Panel Spacing (P)*	Up. & Low. Chord O.D.	Up. & Low. Chord Wall	Verticals; Horizontals; Vertical, Horizontal, and Interior Diagonals O.D.	Verticals; Horizontals; Vertical, Horizontal, and Interior Diagonals Wall
I-C-A	24"	54"	16"	36" Min. to 48" Max.	5"	5/16"	2½"	5/16"
II-C-A	36"	66"	21"	42" Min. to 54" Max.	6½"	5/16"	3¼"	5/16"
III-C-A (35' Max.)	36"	84"	21"	48" Min. to 66" Max.	7"	⅜"	3½"	⅜"
III-C-A (>35' to 40')	36"	84"	21"	48" Min. to 66" Max.	8"	⅜"	3½"	⅜"

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

NUMBER	REVISION	DATE

OSC-A-2 11/1/2002

TYLIN INTERNATIONAL

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

F.A.I. 94 (DAN RYAN EXPRESSWAY)

CANTILEVER SIGN STRUCTURES
TRUSS DETAILS
ALUMINUM TRUSS & STEEL POST

SCALE: AS NOTED | DRAWN BY: AMB
DATE: MARCH 25, 2005 | CHECKED BY: TB

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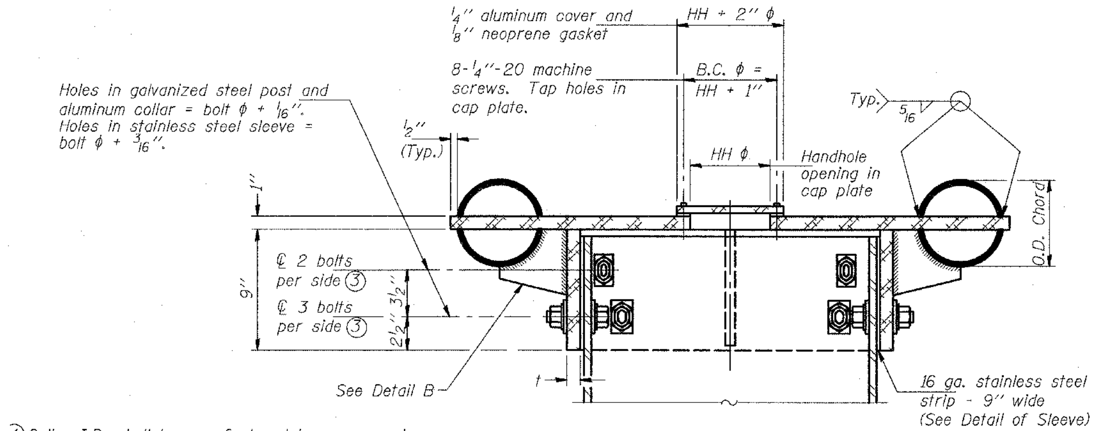
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	•	COOK	907	752
STA. 1200+00.00	TO STA. 1365+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

• (1516.1, 1717 & 1818) R-9

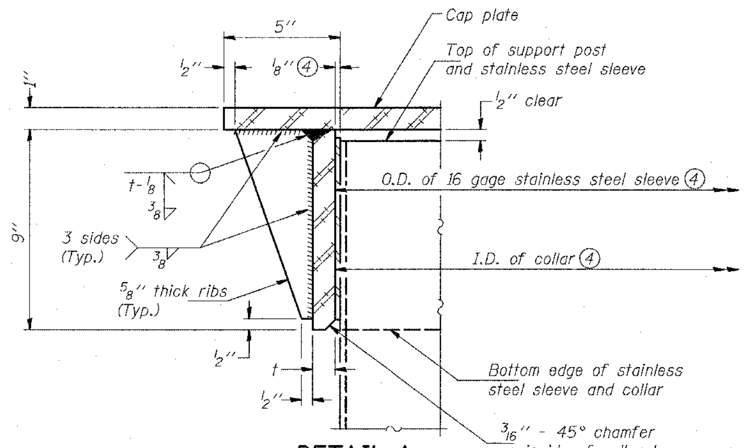
62695



SECTION B-B

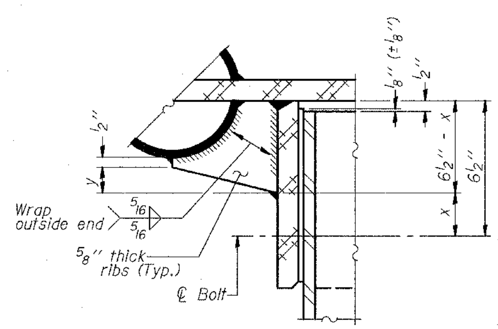
Bolts, washers (including contoured washers), and locknuts shall be stainless steel.

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.



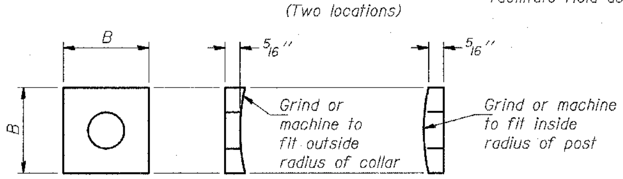
DETAIL A

(Two locations)



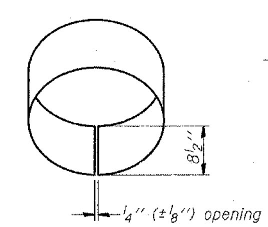
DETAIL B

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



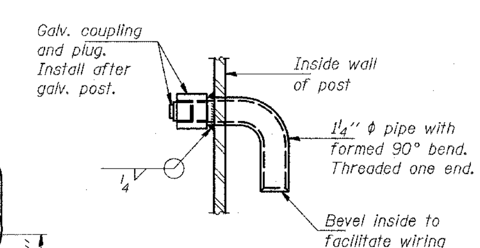
CONTOURED WASHERS

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"



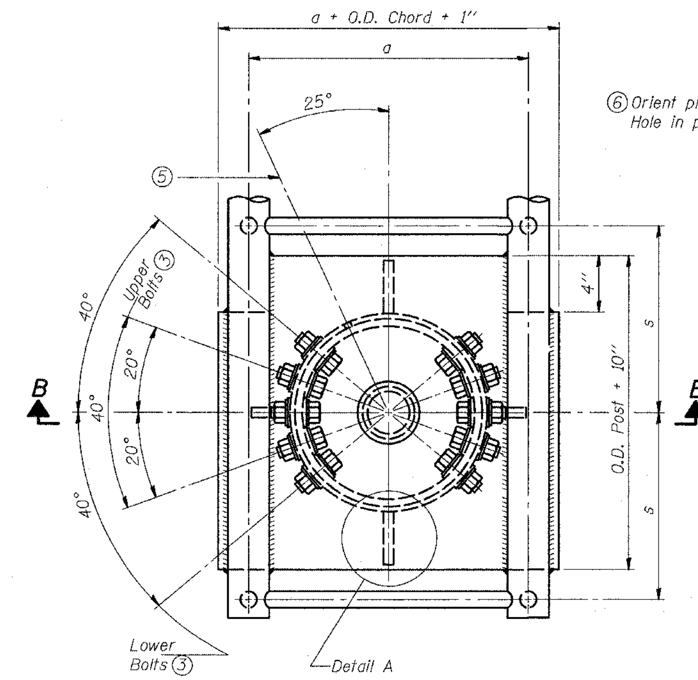
DETAIL OF STAINLESS STEEL SLEEVE

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



DETAIL D

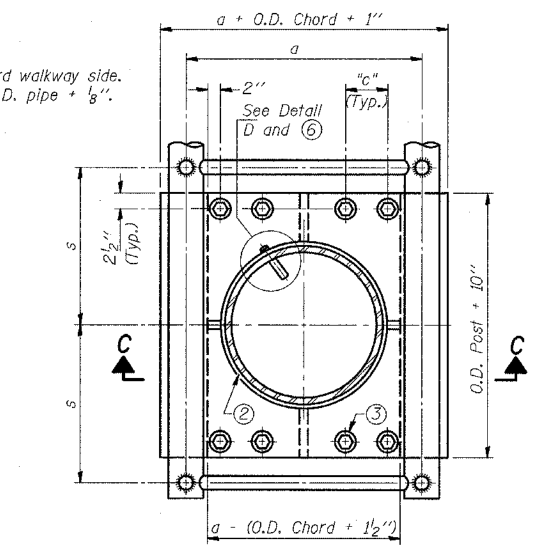
NUMBER	REVISION	DATE



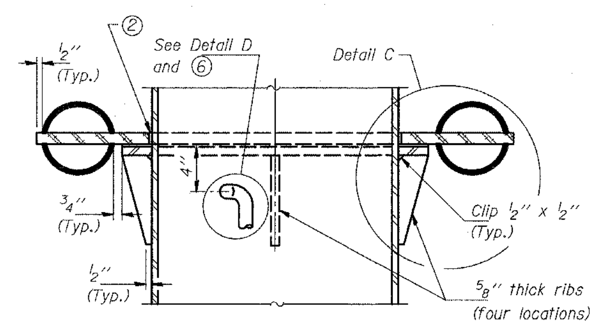
PLAN VIEW - TOP OF COLUMN

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

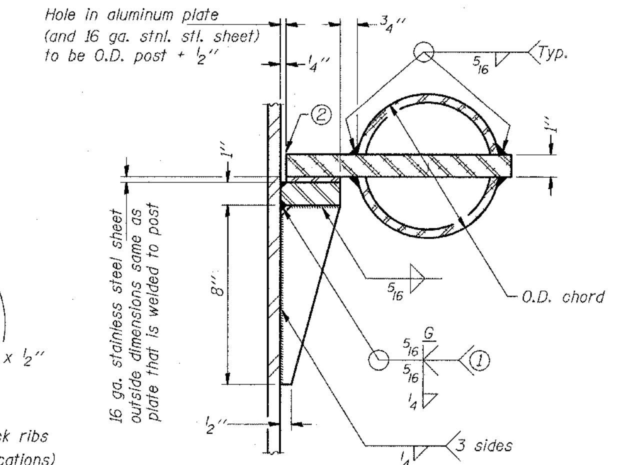
⑥ Orient pipe toward walkway side. Hole in post = O.D. pipe + 1/8".



SECTION THRU POST ABOVE LOWER CHORDS



SECTION C-C



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".

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	Side Ribs y
I-C-A	16" ϕ (83#/')	7/8"	3 1/4"	8"	5/8"	1 3/4"	2 1/4"
II-C-A	24" ϕ (125#/')	1"	3 1/2"	12"	7/8"	2"	1 1/4"
III-C-A (35' Max.)	24" ϕ (125#/')	1 1/4"	3 1/2"	12"	7/8"	2"	1"
III-C-A (>35' to 40')	24" ϕ (171#/')	1 1/4"	3 1/2"	12"	7/8"	2"	1"

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

SC-A-3 11/1/2002

TYLIN INTERNATIONAL

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

F.A.I. 94 (DAN RYAN EXPRESSWAY)

CANTILEVER SIGN STRUCTURES
JUNCTION DETAILS
ALUMINUM TRUSS & STEEL POST

SCALE: AS NOTED DRAWN BY: AMB
DATE: MARCH 25, 2005 CHECKED BY: TB

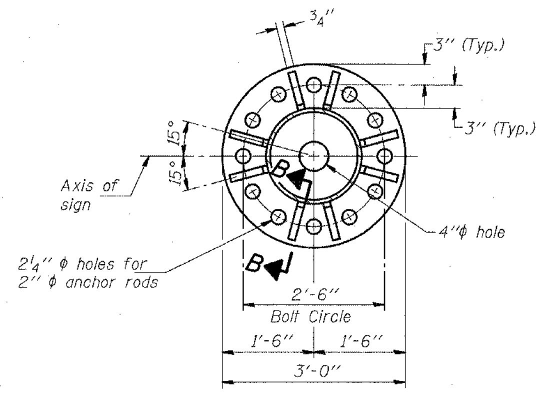
3/30/2005 12:44:12 PM

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	•	COOK	907	753

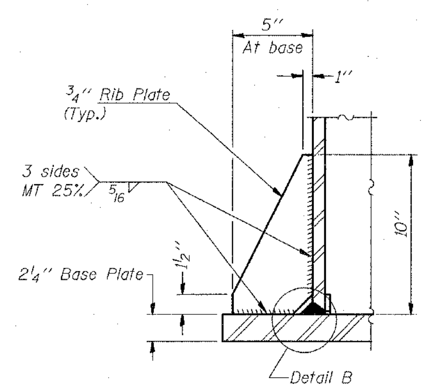
STA. 1200+00.00 TO STA. 1365+00

FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT

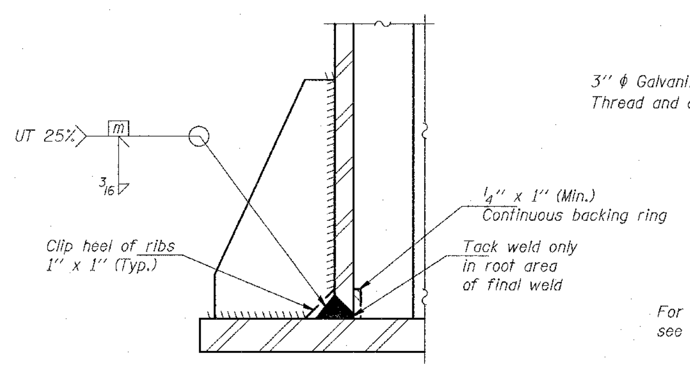
• (1516.1, 1717 & 1818) R-9 62695



SECTION A-A

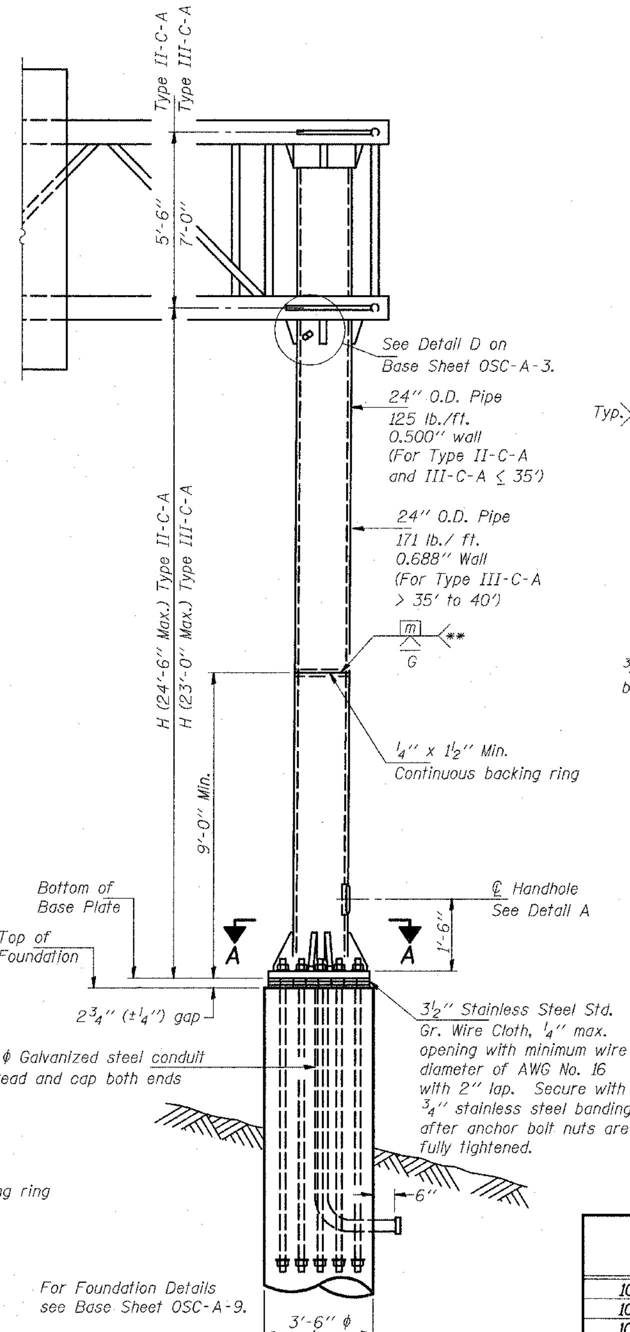


SECTION B-B

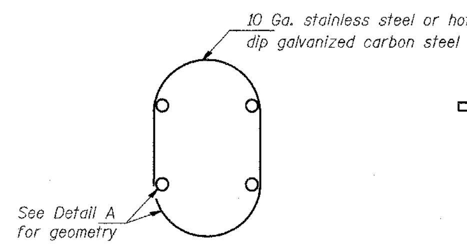


DETAIL B

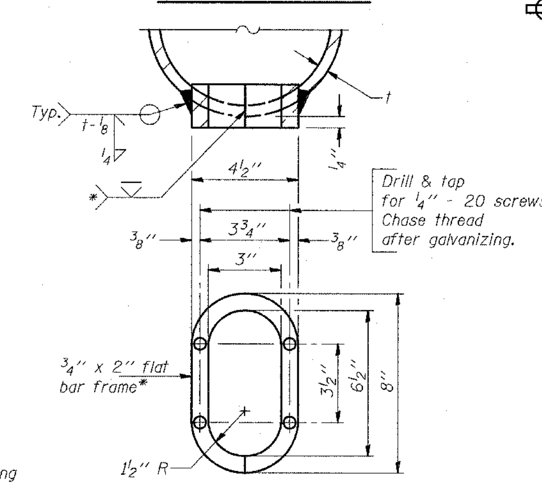
(Typical rib)



FRONT ELEVATION



HANDHOLE COVER



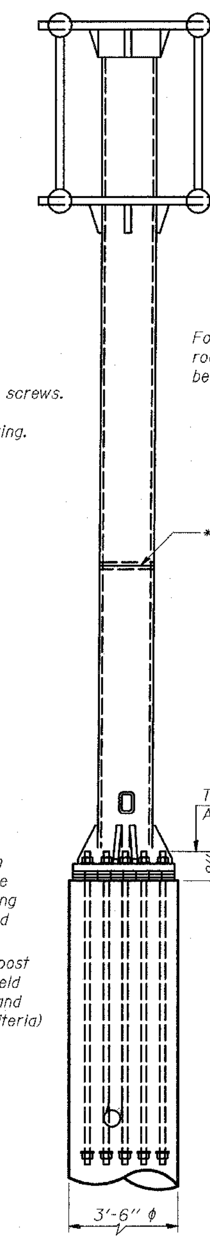
Provide 8" x 4 1/2" cover. Outside corners = 2 1/4" radius. Provide 4-5/16" ϕ holes in cover for 1/4" - 20 round head hot dip galvanized or stainless steel machine screws. (See cover details.)

DETAIL A

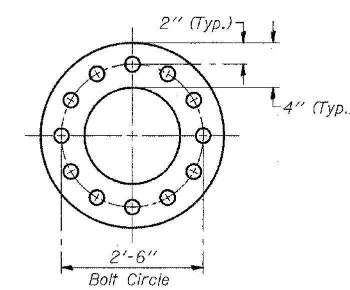
*Bent bars may be butt welded top and bottom or bottom only. In lieu of fabricated handhole frame as shown, may cut from 2" plate (rolling direction vertical). All cut faces to be ground to ANSI Roughness of 500 √in or less.

**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.

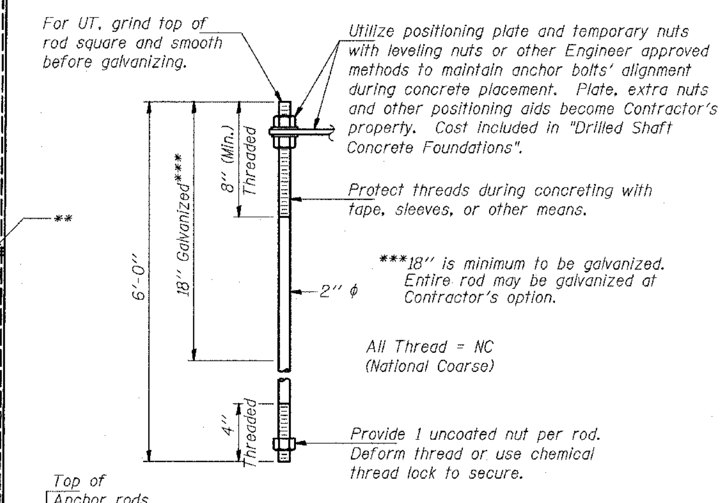
Structure Number	Station	H
1C016I057L357.8	117+30	14.0'
1C016I057R063.0	144+75	13.5'
1C016I094R062.6	1216+75	15.0'
1C016I094R062.4	1227+50	16'



SIDE ELEVATION



SUGGESTED POSITIONING PLATE



ANCHOR ROD DETAIL

Anchor rods shall conform to AASHTO M314 Grade 55 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".

NUMBER	REVISION	DATE

OSC-A-5 11/1/2002

TYLIN INTERNATIONAL

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

F.A.I. 94 (DAN RYAN EXPRESSWAY)

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

SCALE: AS NOTED DRAWN BY: AMB

DATE: MARCH 25, 2005 CHECKED BY: TB

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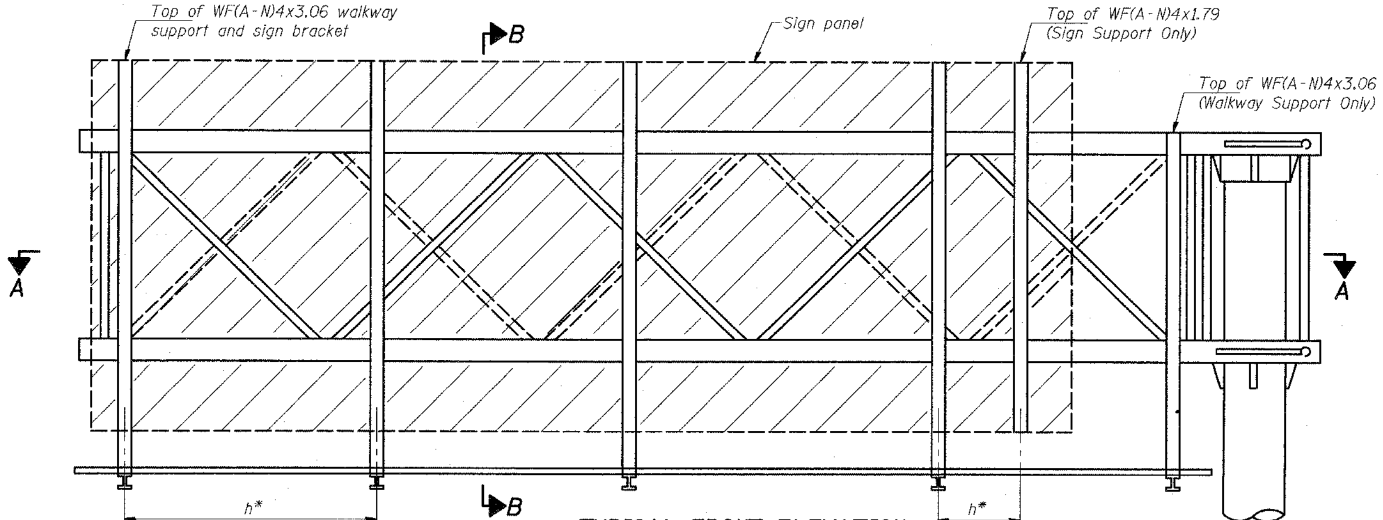
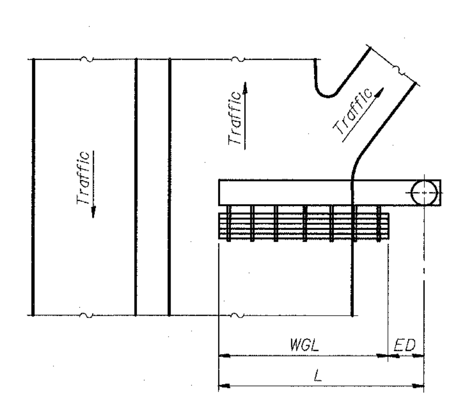
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	•	COOK	907	754
STA. 1200+00.00	TO STA. 1365+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

• (1516.1, 1717 & 1818) R-9 62695



TYPICAL FRONT ELEVATION

With lights and handrail omitted for clarity.



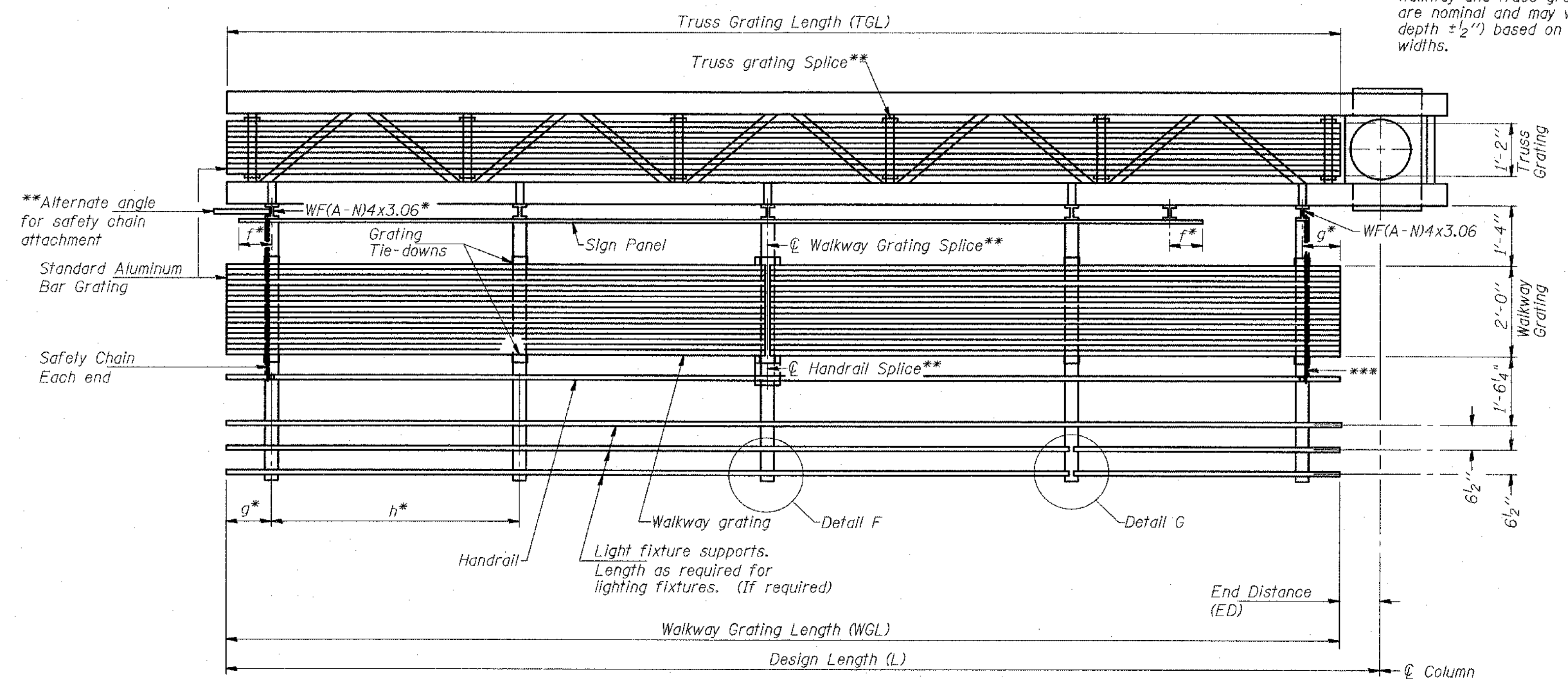
PLAN

WALKWAY AND HANDRAIL SKETCH

(Road plan beneath truss varies)

Walkway and truss grating dimensions are nominal and may vary (width ±½", depth ±½") based on available standard widths.

Structure Number	Station	WGL	ED	TGL
1C016I057L357.8	117+30	15'	22'	35.5'
1C016I057R063.0	144+75	15'	17'	30.5'
1C016I094R062.6	1216+75	16'	24'	38.5'
1C016I094R062.4	1227+50	16'	24'	38.5'



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 ℄ 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.

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 splice, safety chain and Details F and G, see Base Sheet OSC-A-8.

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 or grating splices are optional, based on lengths needed and material availability.

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

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

NUMBER	REVISION	DATE

OSC-A-6 11/1/2002

TYLININTERNATIONAL

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)

CANTILEVER SIGN STRUCTURES
ALUMINUM WALKWAY DETAILS
ALUMINUM TRUSS & STEEL POST

SCALE: AS NOTED DRAWN BY: AMB
DATE: MARCH 25, 2005 CHECKED BY: TB

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	•	COOK	907	755
STA. 1200+00.00	TO STA. 1365+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
• (1516.1, 1717 & 1818) R-9				62695

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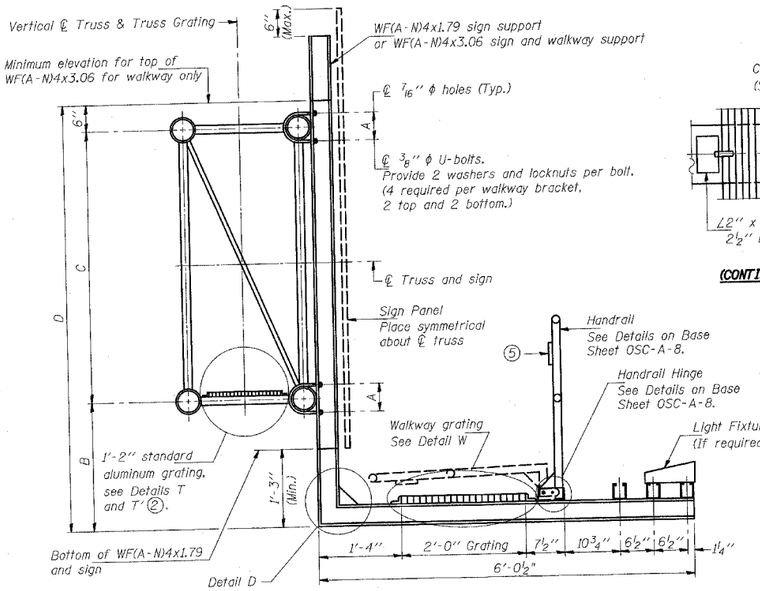
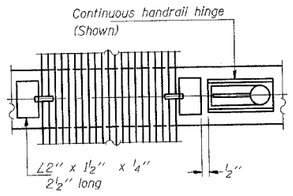
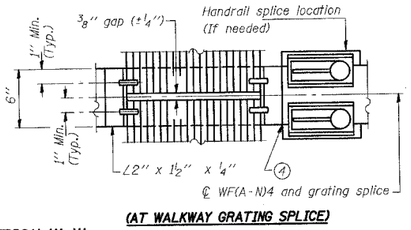


SECTION B-B



(CONTINUOUS WALKWAY GRATING)



(AT WALKWAY GRATING SPLICE)

SECTION W-W

SPECIFICATIONS FOR STANDARD ALUMINUM GRATING

Main Bearing Bars (MBB) shall be 3/16" x 1½" on 1 3/16" centers and conform to ASTM B211 Alloy 6061-T6.

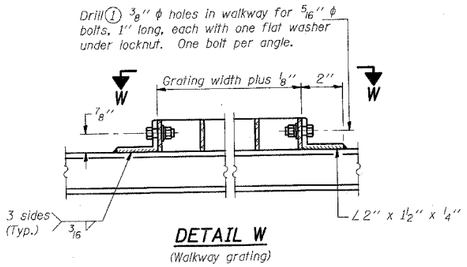
Cross bars (CB) shall be 3/16" x 1½" on 4" centers and conform to ASTM B221 Alloy 6063-T5 or 6061-T6.

OR

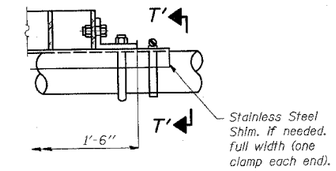
Aluminum Grating with modified "I" sections for main bearing bars shall meet the following requirements:

Main bars shall conform to ASTM B221 Alloy 6061-T6 and have a minimum section modulus equal to 0.0705 in.^{3} per bar, a depth of 1½", spaced on 1 3/16" centers.

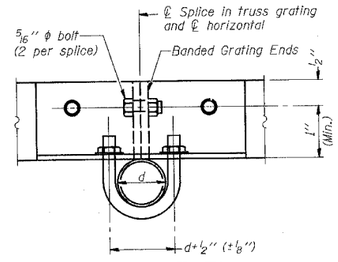
Cross bars shall conform to ASTM B221 Alloy 6063-T5 or T-42 and spaced on 4" centers.



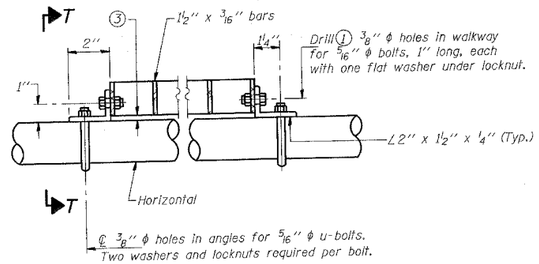
DETAIL W
(Walkway grating)



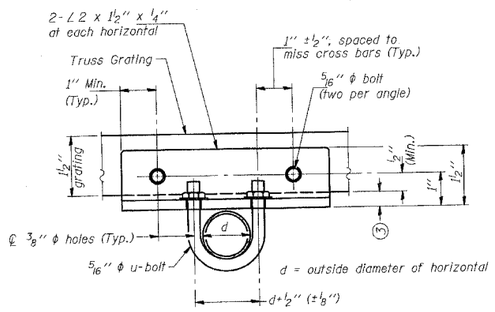
DETAIL T'
(Truss grating splice)
Details not shown same as Detail T.
Alternate materials may be used subject to the Engineer's review and approval.



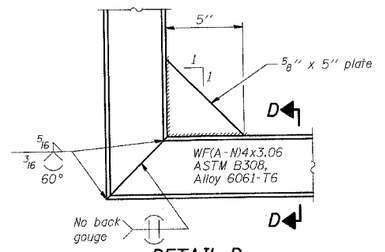
SECTION T'-T'



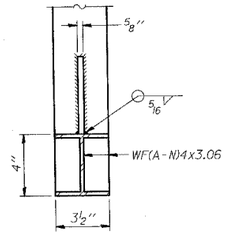
DETAIL T
(Truss grating at horizontal)



SECTION T-T



DETAIL D
(See Detail P, Base Sheet OSC-A-8.)



SECTION D-D

NUMBER	REVISION	DATE

(1) Drilling holes in grating may be done in shop or field, based on Contractor's preference and subject to accurate alignment.
(2) When truss grating must be spliced, use suggested detail or other methods subject to the Engineer's review and approval. Locate splice to avoid interference between cross bars and bolt locations.
(3) Tube to grating gap may vary from 0 to ½" (Max.) to align walkway, allow for camber, etc.
(4) If Handrail Joint present, weld angle to WF(A-N)4 and ¼" extension bars. (See Base Sheet OSC-A-8)
(5) ℄ ⅛" x ½" x 2" welded to handrail posts to protect locations that contact grating.

Structure Number	Station	A	B	C	D
IC0161057L357.8	117+30	8.5"	5.25'	7'	12'-9"
IC0161057R063.0	144+75	8.5"	1'-3"	7'	8'-9"
IC0161094R062.6	1216+75	8.5"	2'-0"	7'	9'-6"
IC0161094R062.4	1227+50	8.5"	3'-0"	7'	10'-6"

OSC-A-7 11/1/2002

TYLIN INTERNATIONAL

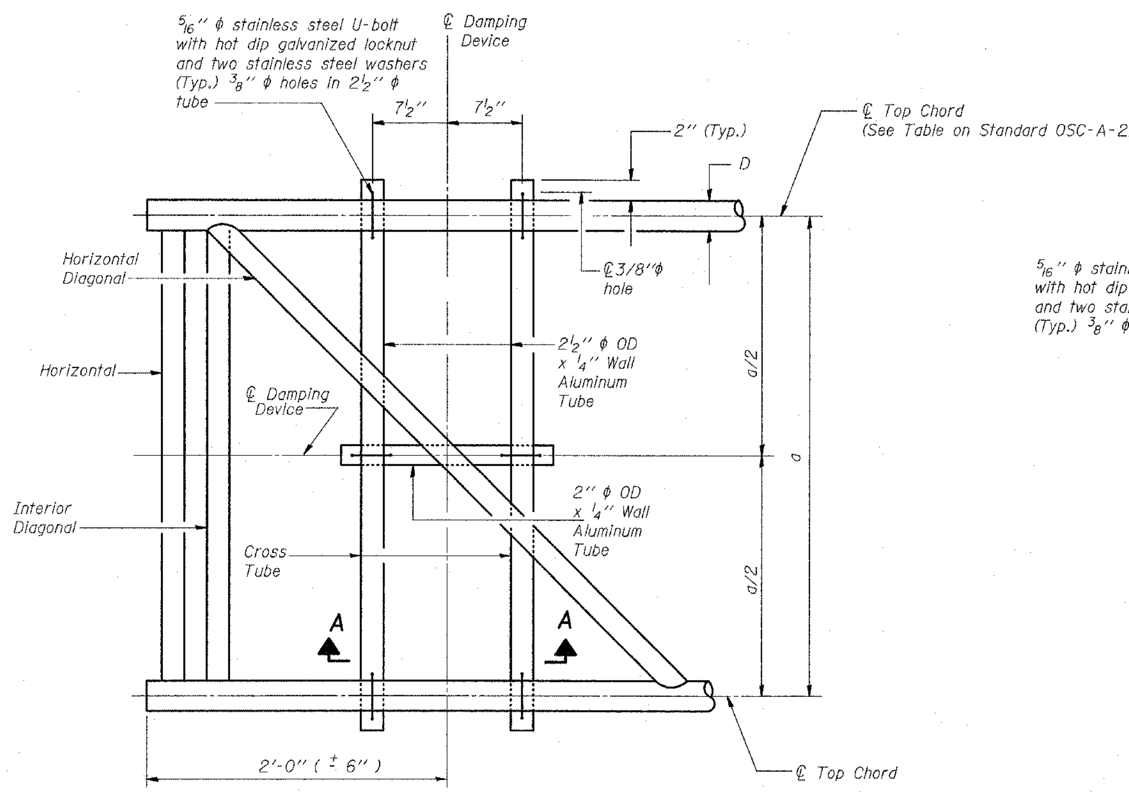
REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)
CANTILEVER SIGN STRUCTURES
WALKWAY DETAILS
ALUMINUM TRUSS & STEEL POST

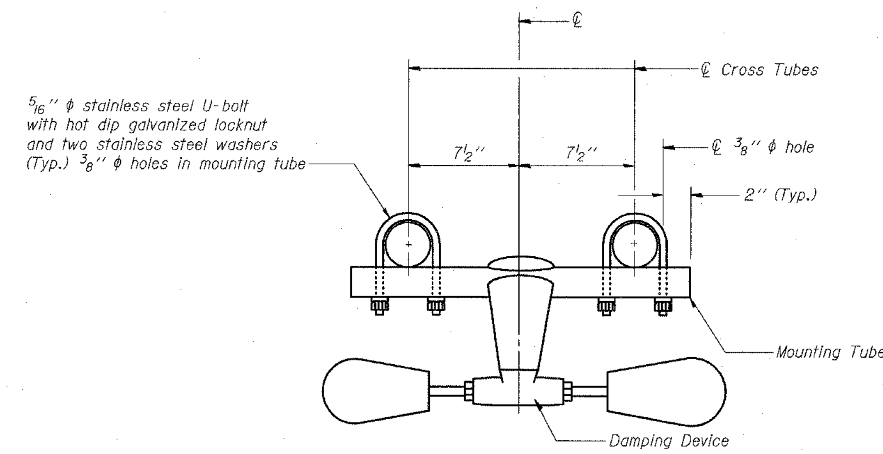
SCALE: AS NOTED DRAWN BY: AMB
DATE: MARCH 25, 2005 CHECKED BY: TB

3/30/2005 12:44:4 PM

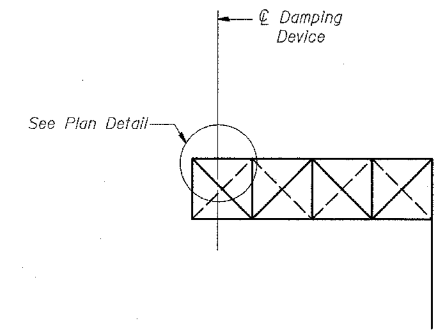
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	•	COOK	907	756
STA. 1200+00.00	TO STA. 1365+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
• (1516.1, 1717 & 1818) R-9				62695



PLAN DETAIL



TRUSS DAMPING DEVICE CONNECTION DETAIL



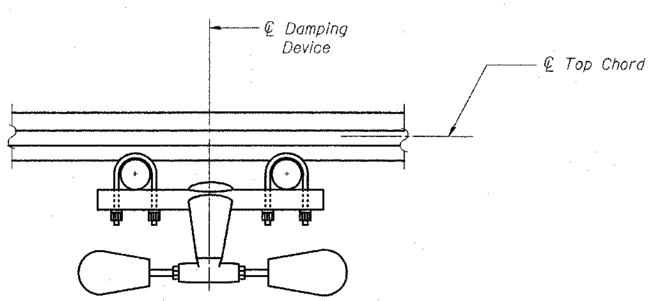
ELEVATION

Aluminum Cantilever Sign Structure

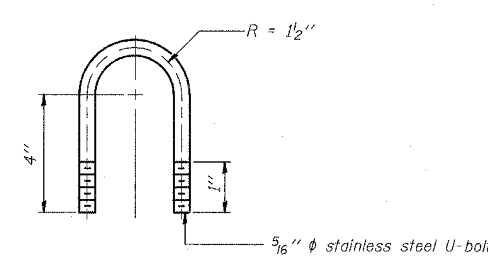
GENERAL NOTES

Damper: One damper per truss. (31 lbs. Stockbridge-Type Aluminum)

Materials: Aluminum tubes shall be ASTM B221 alloy 6061 temper T6

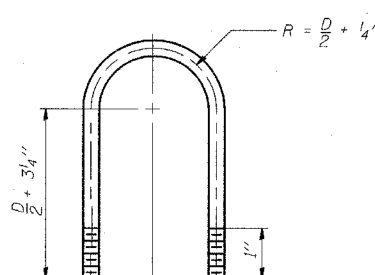


SECTION A-A



DAMPING DEVICE MOUNTING TUBE U-BOLT DETAIL

(Typical)



TOP CHORD TO CROSS TUBE U-BOLT DETAIL

(Typical)

OSC-A-D 11/1/2002

TYLIN INTERNATIONAL

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

F.A.I. 94 (DAN RYAN EXPRESSWAY)

CANTILEVER SIGN STRUCTURES DAMPING DEVICE

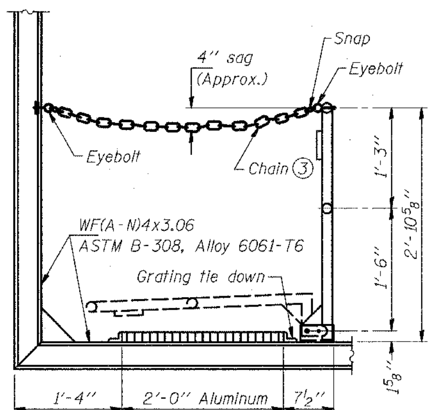
SCALE: AS NOTED
DATE: MARCH 25, 2005
DRAWN BY: AMB
CHECKED BY: TB

3/30/2005 12:44:14 PM

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	•	COOK	907	757
STA. 1200+00.00	TO STA. 1365+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

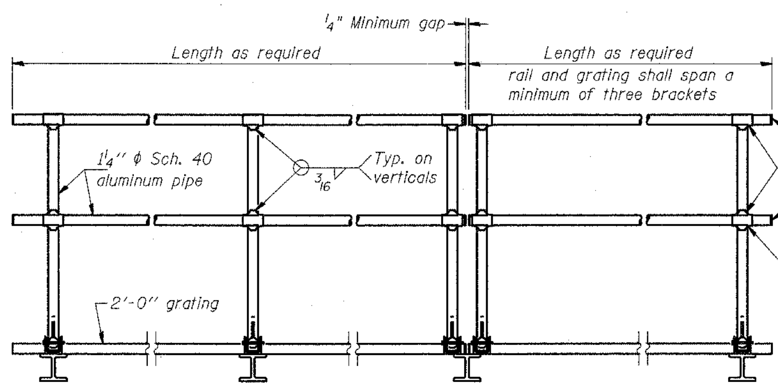
• (1516.1, 1717 & 1818) R-9

62695



SIDE ELEVATION

(Showing Safety Chain W/O Sign)



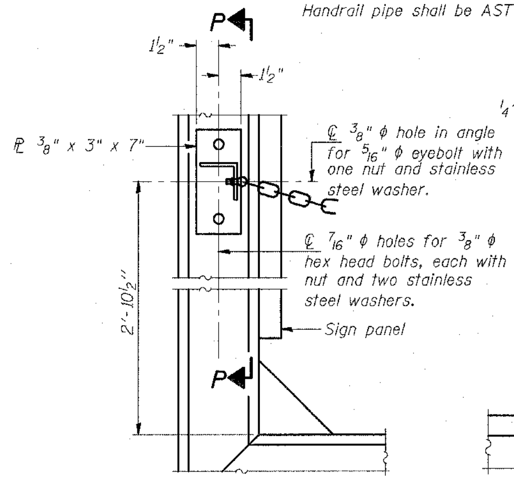
HANDRAIL DETAILS

FRONT ELEVATION

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

① Install standard force-fit end caps or weld ⅛" end plates with ⅛" c.f.w. and grind smooth. (All rail ends)

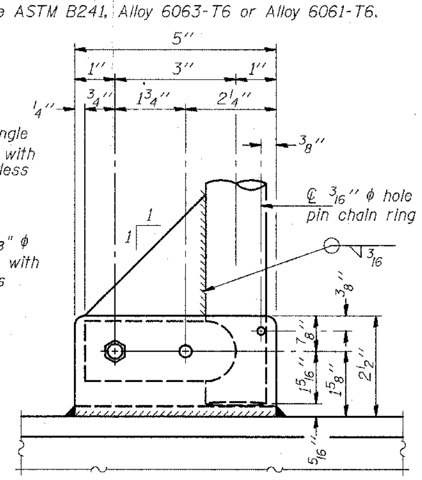
② Horizontal handrail member shall be continuous thru fitting. Provide 7/16" ϕ hole in fitting for ⅜" ϕ bolt. Field drill 7/16" ϕ hole in horizontal rail member. Provide locknut and two stainless steel washers for bolt. (Use 5/16" eyebolts in 7/16" ϕ holes on top rail at ends only.)



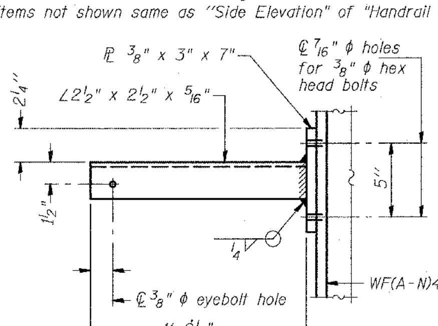
ALTERNATE SAFETY CHAIN ATTACHMENT

(With Sign Present)

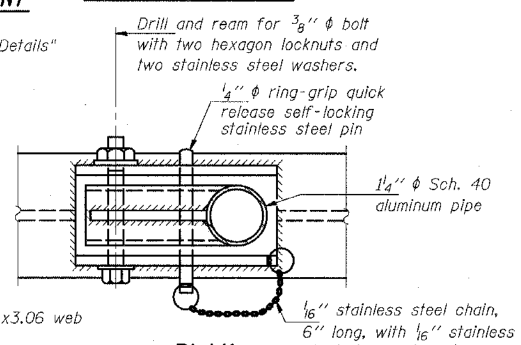
Items not shown same as "Side Elevation" of "Handrail Details"



SIDE ELEVATION



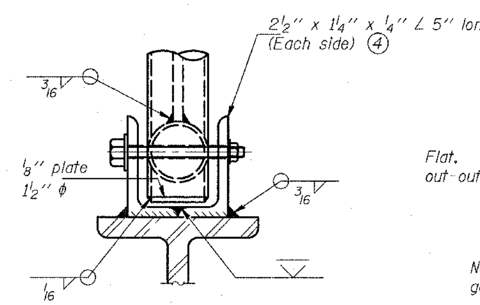
SECTION P-P



PLAN
DETAIL E HANDRAIL HINGE

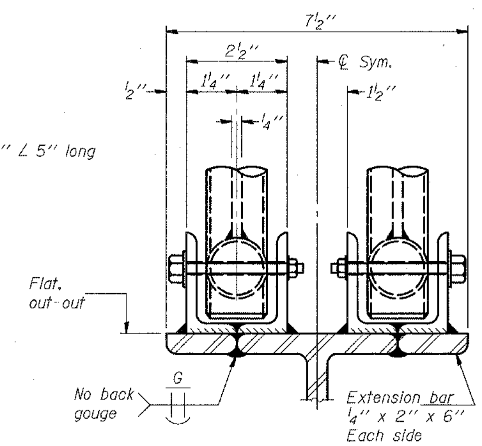
NUMBER	REVISION	DATE

OSC-A-8 11/1/2002



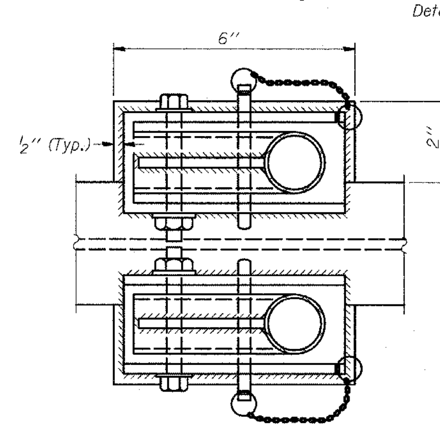
FRONT ELEVATION

Details not shown same as "ELEVATION" at right.



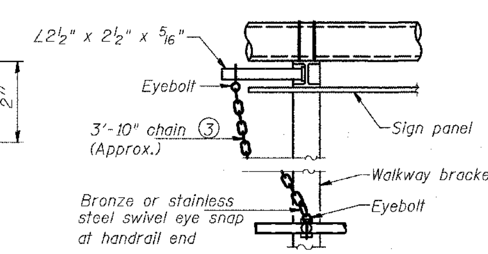
ELEVATION AT HANDRAIL JOINT ④

Details not shown same as "FRONT ELEVATION"



PLAN AT HANDRAIL JOINT

Details not shown same as "PLAN"

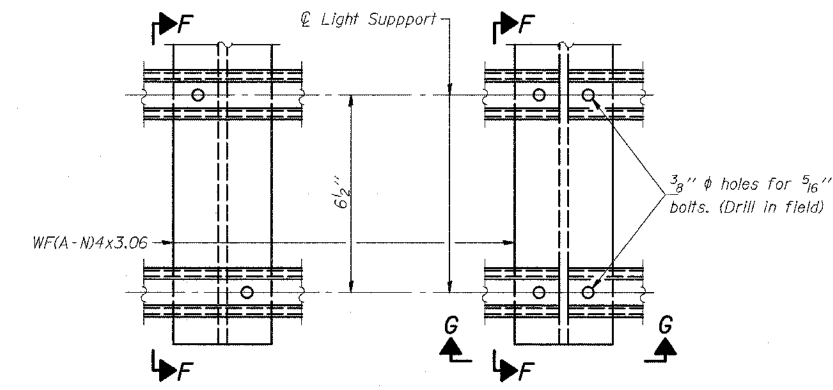


ALTERNATE SAFETY CHAIN ATTACHMENT

Details not shown similar to "Safety Chain" Details (Walkway omitted for clarity)

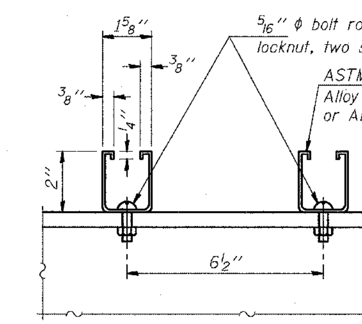
③ 3/16" galvanized steel chain, approximately 12 links per foot. Chain to be hot dip galvanized after manufacture and suitable for prolonged exterior exposure. Alternate materials may be substituted with the Engineer's approval.

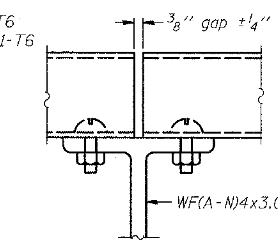
④ Extrusions may be used in lieu of the details shown, with approval of the Engineer.



DETAIL F

DETAIL G



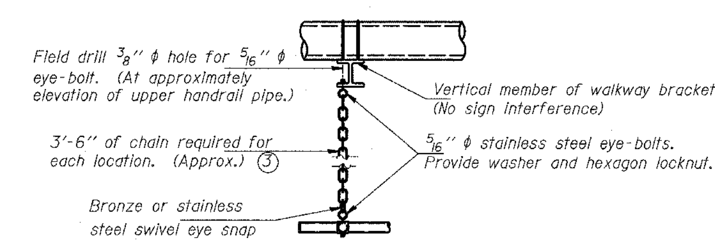


SECTION F-F

SECTION G-G

LIGHTING FIXTURE MOUNTS (IF REQUIRED)

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



SAFETY CHAIN

One required for each end of each walkway.

TYLIN INTERNATIONAL

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

F.A.I. 94 (DAN RYAN EXPRESSWAY)

CANTILEVER SIGN STRUCTURES
HANDRAIL DETAILS
ALUMINUM TRUSS & STEEL POST

SCALE: AS NOTED — DRAWN BY: AMB

DATE: MARCH 25, 2005 — CHECKED BY: TB

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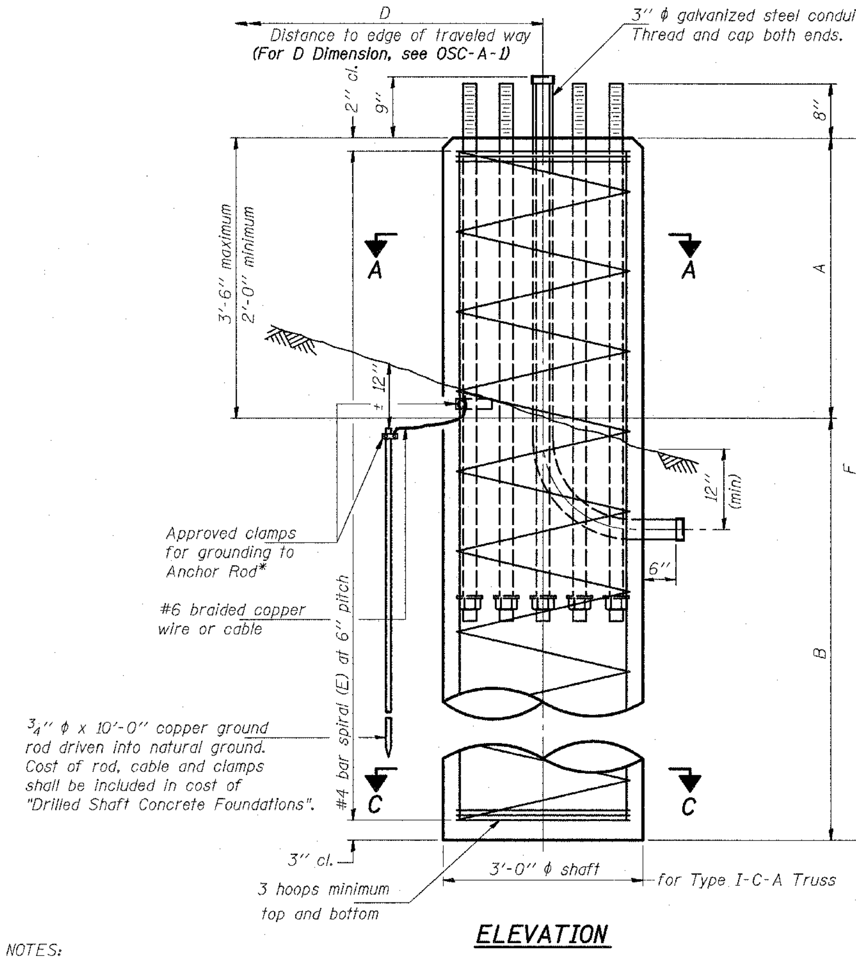
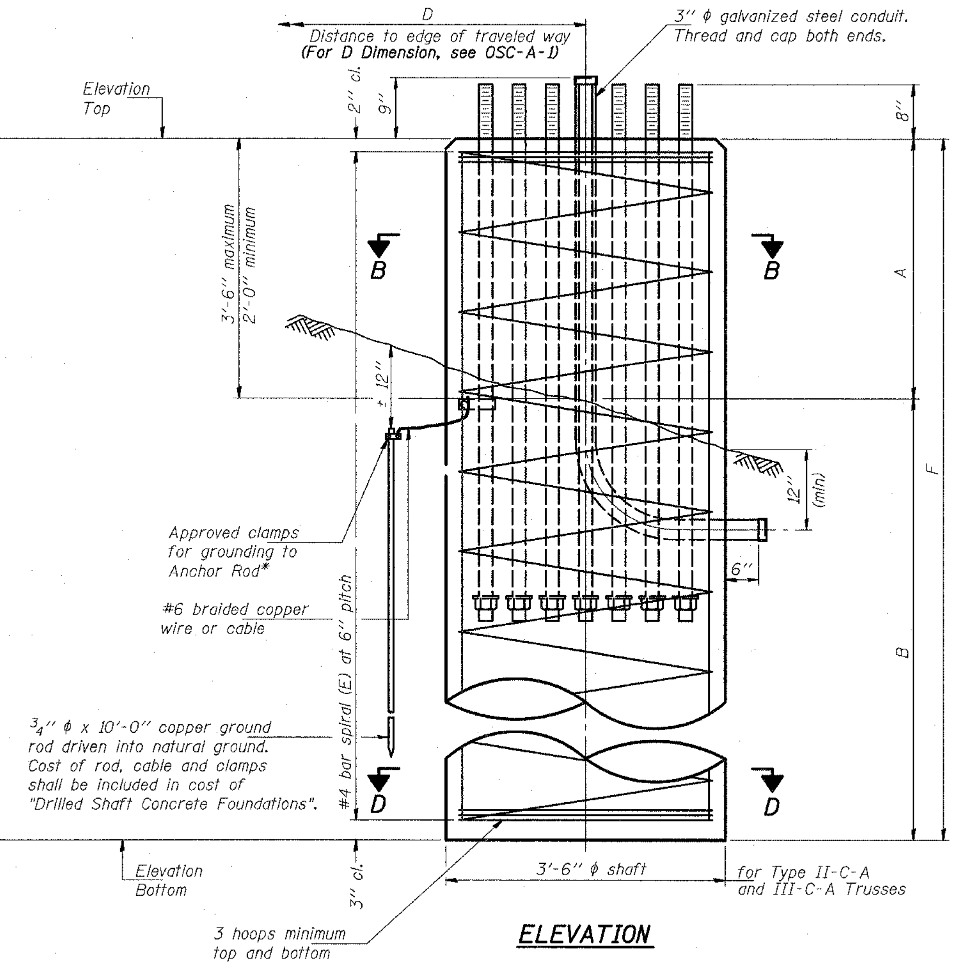
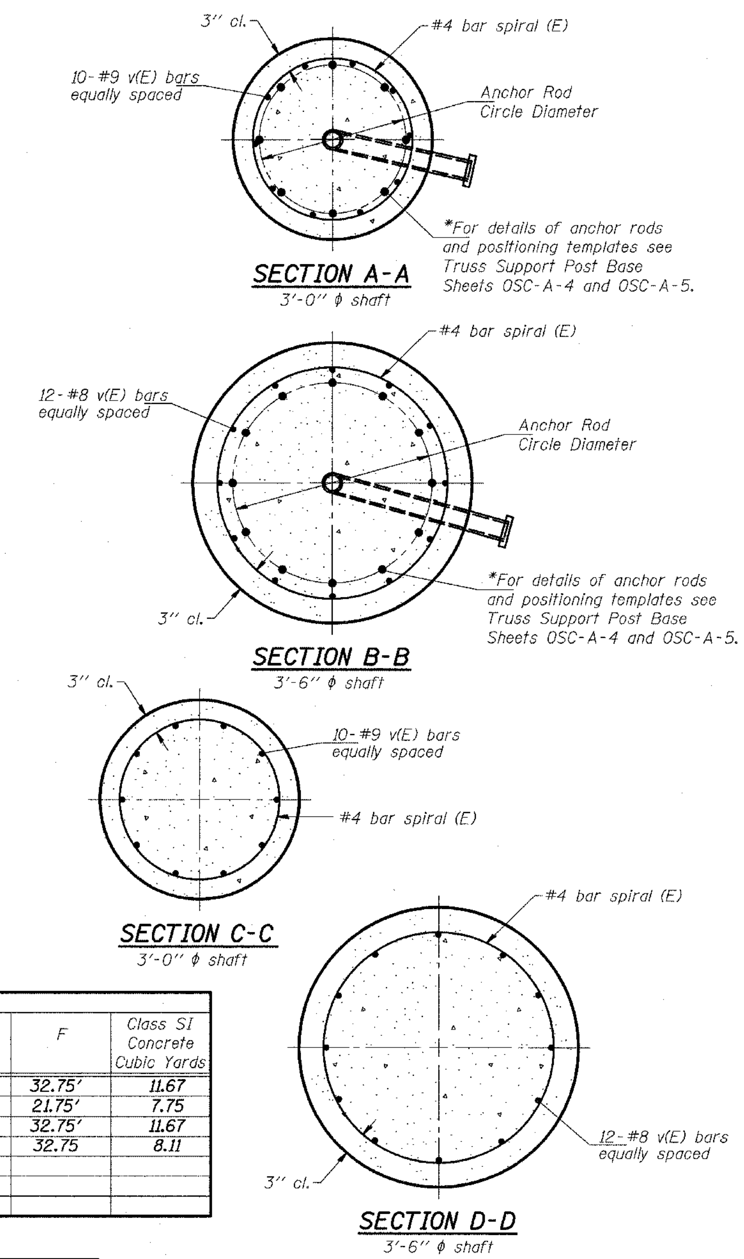
*Grind anchor rod to bright finish at ground clamp location before installing clamp.







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 (Qu) of at least 1.25 tsf, which must be determined by previous soil investigations at the jobsite. When other conditions are indicated, the boring data will be included in the plans and the foundation dimensions shown in the Foundation Data Table will be the result of site specific designs.

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".

FOUNDATION DATA TABLE

Structure Number	Station	Truss Type	Shaft Diameter	Elevation Top	Elevation Bottom	A	B	F	Class SI Concrete Cubic Yards
1C016I057L357.8	117+30	III-C-A	3.5′	7.51	-25.24	2.75′	30′	32.75′	11.67
1C016I057R063.0	144+75	III-C-A	3.5′	6.88	-14.87	2.75′	19′	21.75′	7.75
1C016I094R062.6	1216+75	III-C-A	3.5′	6.08	-26.67	2.75′	30′	32.75′	11.67
*1C016I094R062.4	1227+50	III-C-A	3.5′	3.51	-29.24	2.75′	30′	32.75	8.11

FOUNDATION DESIGN TABLE

Truss Type	Post Base Sheet	Maximum Cantilever Length (ft)	Maximum Total Sign Area (sq ft)	Shaft Diameter (ft)	"B" Depth (ft)	Anchor Rods		Anchor Rod Circle Diameter (in)
						No.	Diameter (in)	
I-C-A	OSC-A-4	25	170	3.0	15.5	8	2	22
II-C-A	OSC-A-5	30	170	3.5	15.0	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	30.0	12	2	30

NUMBER	REVISION	DATE

OSC-A-9 11/1/2002

*BOTTOM 10′ OF FOUNDATION (FROM EL. -19.24 TO EL. -29.24) IS PAID FOR AS DRILLED SHAFT IN ROCK 42".

TYLININTERNATIONAL

REVISIONS	
NAME	DATE

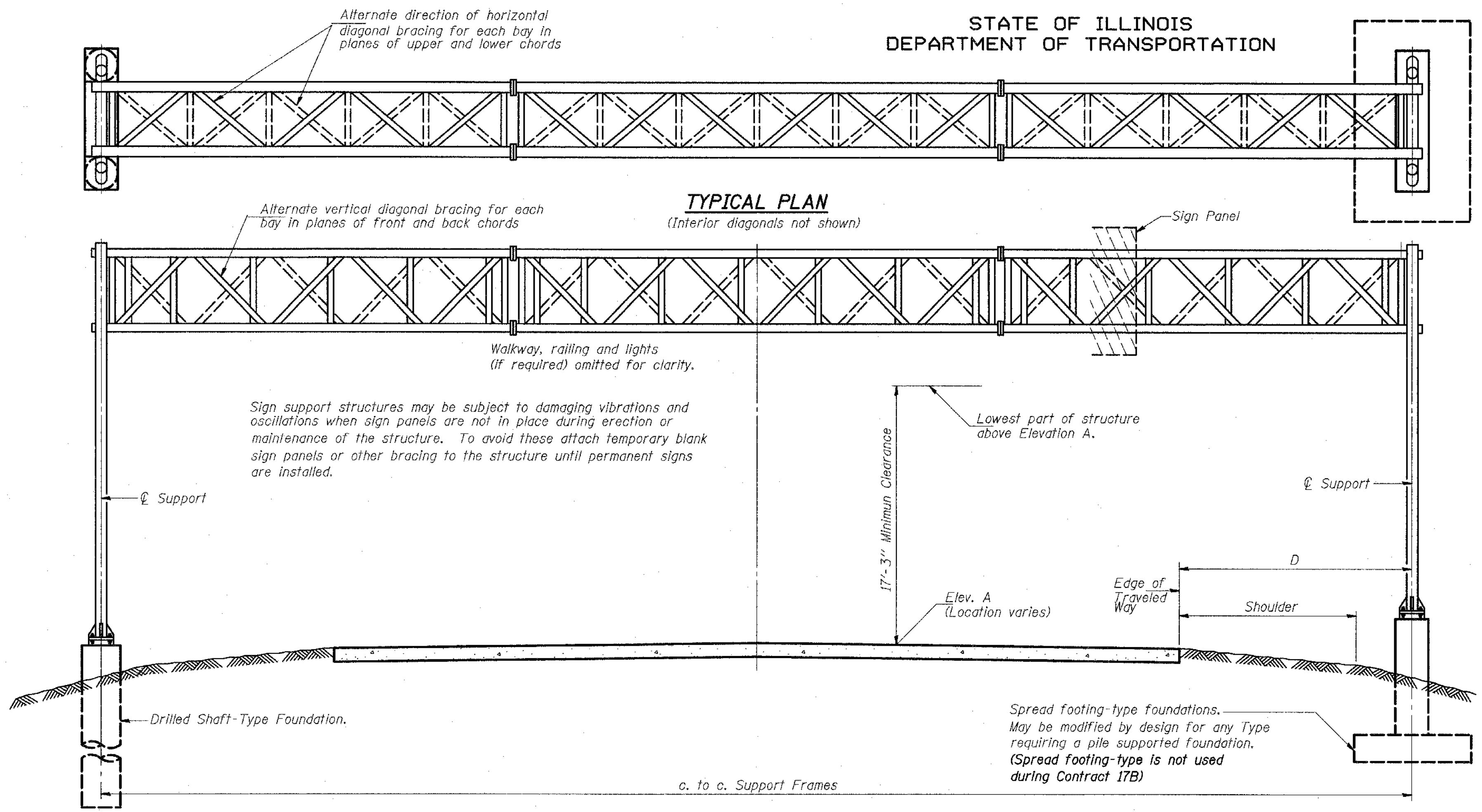
ILLINOIS DEPARTMENT OF TRANSPORTATION

F.A.I. 94 (DAN RYAN EXPRESSWAY)

CANTILEVER SIGN STRUCTURES
DRILLED SHAFT
ALUMINUM TRUSS & STEEL POST

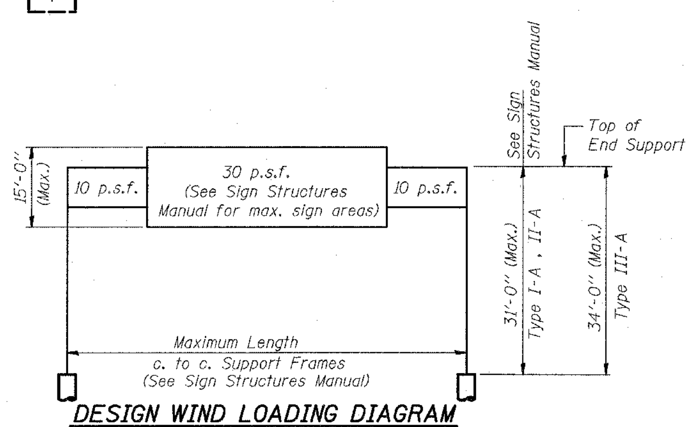
SCALE: AS NOTED DRAWN BY: AMB
DATE: MARCH 25, 2005 CHECKED BY: TB

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



TYPICAL ELEVATION
(Looking at Face of Signs**)

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



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.

Structure Number	Station	Design Truss Type	c. to c. Supports	Elev. A	Dim. D	Height of Tallest Sign	Total Sign Area
1S016I094R060.0	1355+91	I-A	85.5'	1.06	13.56'	8.5'	178.50 ft²
1S016I094R061.3	1286+85	III-A	93'	-10.31	20.81'	8.5'	***
1S016I094R061.5	1276+67	II-A	104'	2.23	32.06'	12.5'	207.75 ft²
1S016I094R061.9	1251+43	II-A	94'	-7.48	24.06'	12.5'	581.25 ft²
1S016I094R062.5	1224+00	II-A	112'	2.71	21.91'	12.5'	525.00 ft²
1S016I094R062.9	149+87	II-A	108'	1.72	33.25'	12.5'	525.00 ft²

**Looking upstation for structures with signs both sides.
***Dynamic Message Sign

NUMBER	REVISION	DATE

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
OVERHEAD SIGN STRUCTURE TYPE I-A (4'-0" x 4'-6")	Foot	86
OVERHEAD SIGN STRUCTURE TYPE II-A (4'-6" x 5'-3")	Foot	418
OVERHEAD SIGN STRUCTURE TYPE III-A (5'-0" x 7'-0")	Foot	93
OVERHEAD SIGN WALKWAY TYPE A****	Foot	413
CONCRETE FOUNDATIONS	Cu. Yds.	-
DRILLED SHAFT CONCRETE FOUNDATIONS	Cu. Yds.	129

****Paid for as Overhead Sign Structure Walkway

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
WIND LOADING: 30 p.s.f. normal to Sign Panel Area and truss elements not behind sign Loading Diagram.
WALKWAY LOADING: Dead load plus 500 lbs. concentrated live load.

DESIGN STRESSES:
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 Specifications.

MATERIALS: Aluminum Alloys as shown throughout plans. All Structural Steel Pipe shall be ASTM A53 Grade B with a minimum yield of 35,000 p.s.i., or A500 Grade B or C with a minimum yield of 46,000 p.s.i. 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) 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 or 55 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.

*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.

THE CONTRACTOR SHALL COORDINATE WITH THE LIGHTING CONTRACTOR TO ALLOW FOR INSTALLATION OF APPROPRIATE EQUIPMENT PRIOR TO ERECTION OF THE SIGN STRUCTURES.

DESIGNED	-
CHECKED	-
DRAWN	-
CHECKED	-

EXAMINED - 20
ENGINEER OF STRUCTURAL SERVICES
PASSED
ENGINEER OF BRIDGES AND STRUCTURES

OS-A-1 11/1/2002

TYLIN INTERNATIONAL

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)

OVERHEAD SIGN STRUCTURES
GENERAL PLAN & ELEVATIONS
ALUMINUM TRUSS & STEEL POST

SCALE: AS NOTED
DATE: MARCH 25, 2005
DRAWN BY: AMB
CHECKED BY: TB

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	•	COOK	907	760
STA. 1200+00.00	TO STA. 1365+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

• (1516.1, 1717 & 1818) R-9

62695

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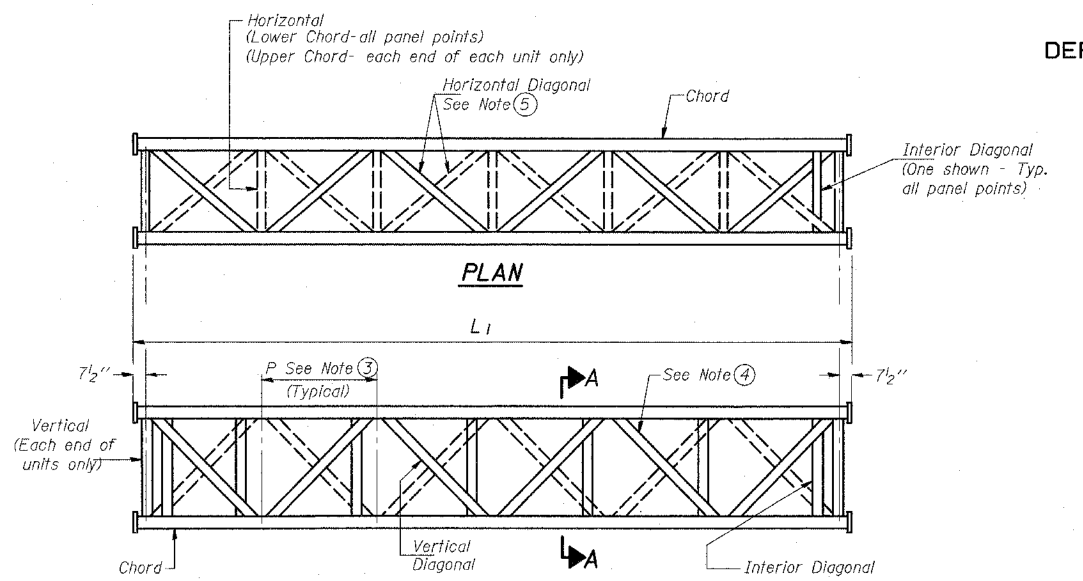
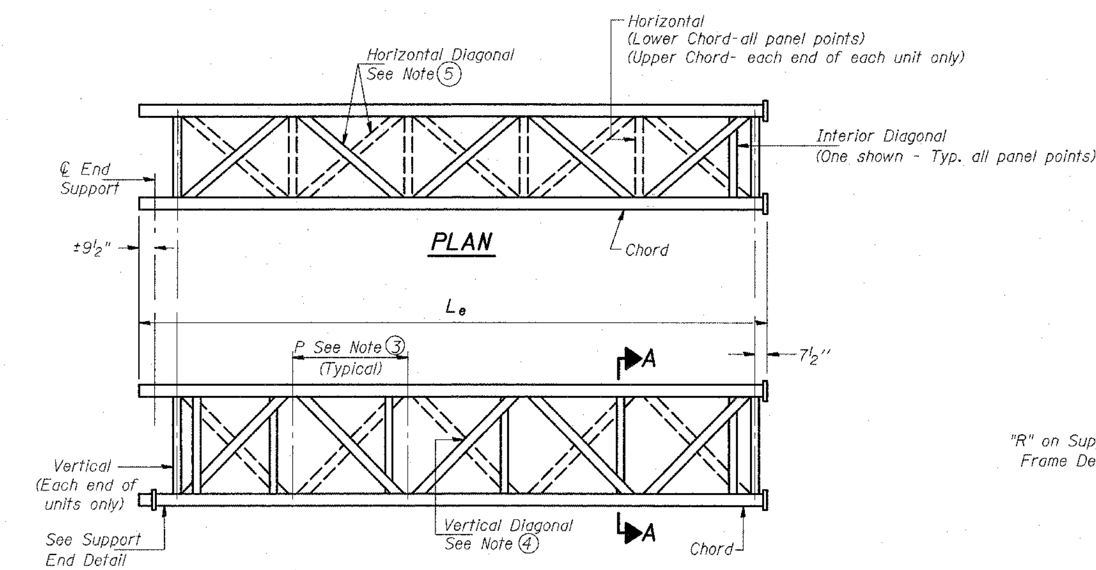


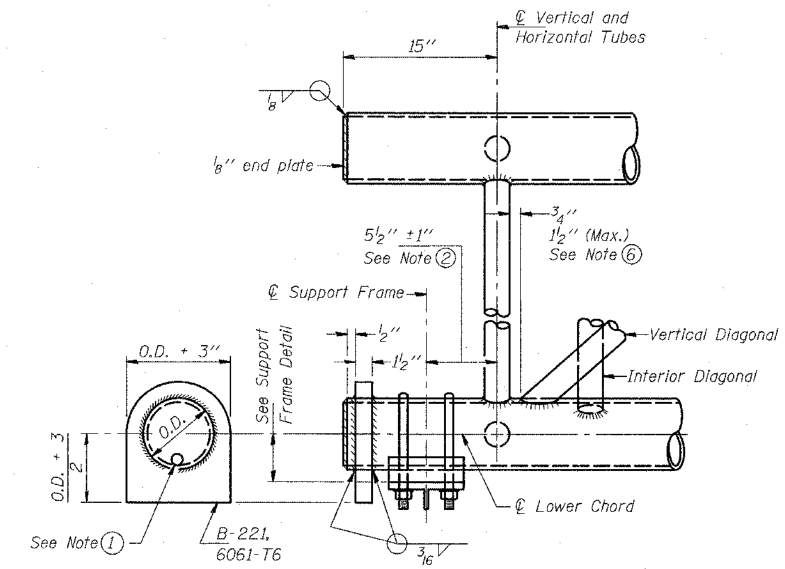
ELEVATION
TYPICAL INTERIOR UNIT

Even number of panels/interior unit required.

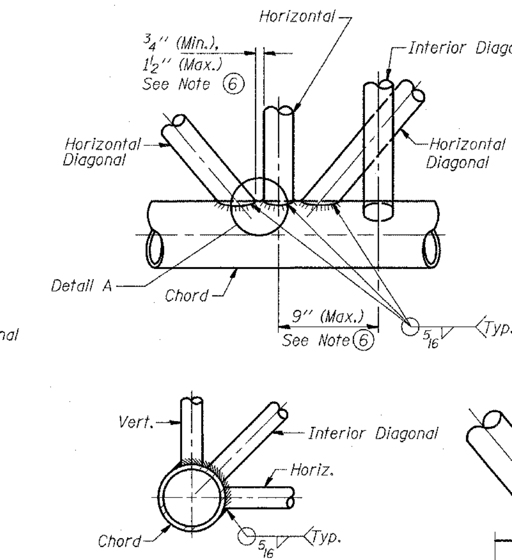


ELEVATION
TYPICAL EXTERIOR UNIT

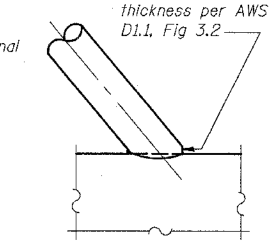
Even or odd number of panels/exterior units allowed.



SUPPORT END DETAIL FOR EXTERIOR UNIT



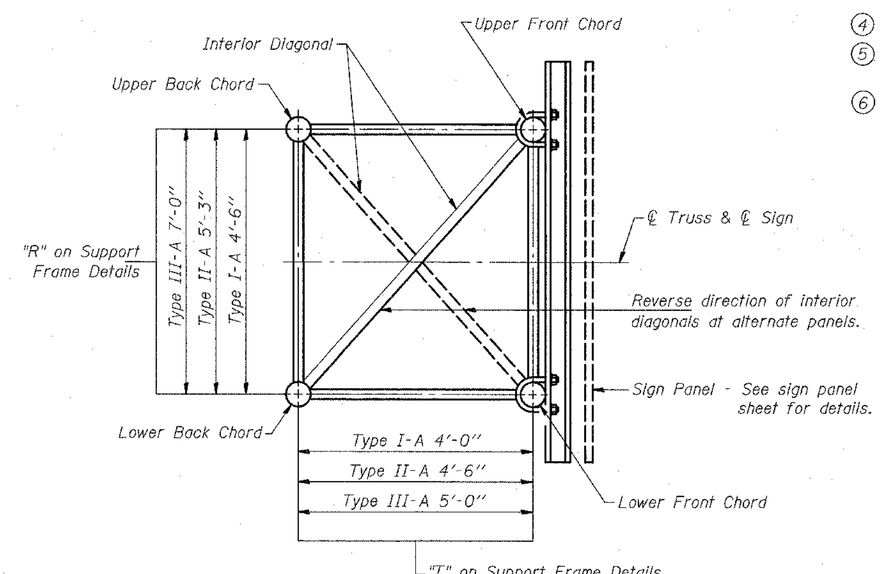
TYPICAL JOINT DETAILS



DETAIL A

NOTES

1. Contractor may alternatively use standard aluminum drive-fit cap to close end. ½" ϕ drain hole in end plate/drive-fit cap. (Typ. at ends of all chords)
2. 5½" end dimension may vary by ±1" to provide uniform panel spacing (P).
3. Panel spacing (P) shall be uniform for entire truss and between 4'-0" and 5'-0" for Type I-A or 4'-0" and 5'-6" for Types II-A and III-A.
4. Vertical Diagonals in front and back face shall alternate.
5. Hidden lines show wind bracing alternates direction between planes of top and bottom chords.
6. All diagonals shall be detailed for minimum offset from the panel point based on the following: Offset shall be such as to provide a ¾" 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.



SECTION A-A

DESIGNED	-
CHECKED	-
DRAWN	
CHECKED	-

OS-A-2 11/1/2002

- 20

EXAMINED
ENGINEER OF STRUCTURAL SERVICES

PASSED
ENGINEER OF BRIDGES AND STRUCTURES

NUMBER	REVISION	DATE

TYLIN INTERNATIONAL

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

F.A.I. 94 (DAN RYAN EXPRESSWAY)

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

SCALE: AS NOTED   DRAWN BY: AMB
DATE: MARCH 25, 2005   CHECKED BY: TB

3/30/2005 12:45:38 PM

STATE OF ILLINOIS
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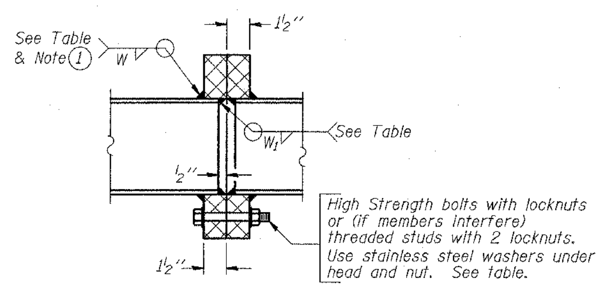
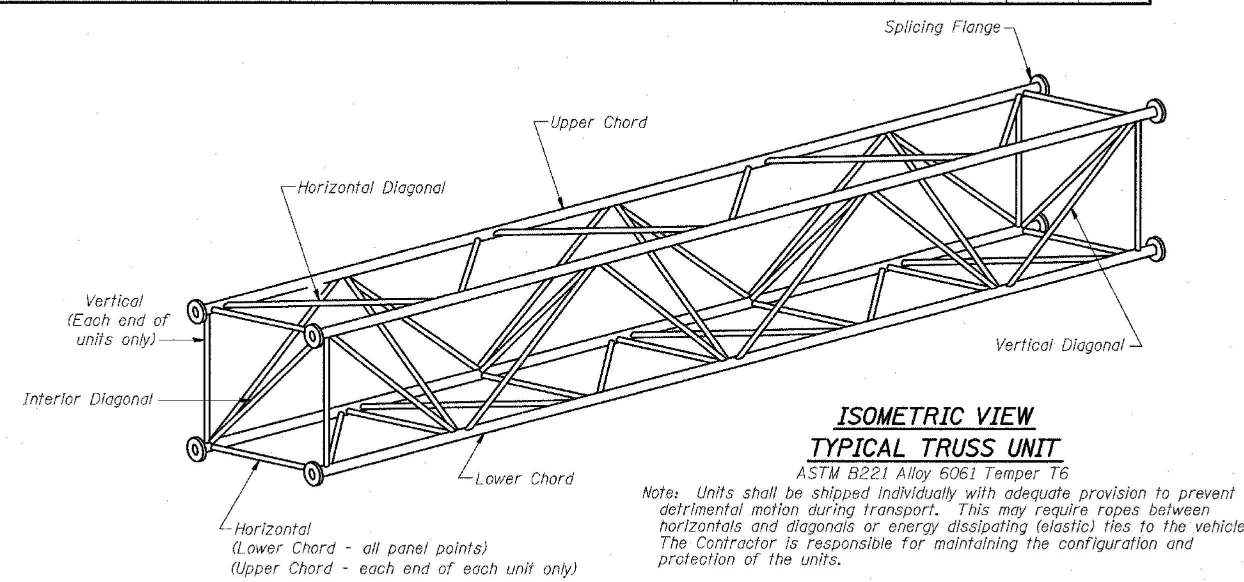
TRUSS UNIT TABLE

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_e)	Panel Lgth.(P)	No. Req'd.	No. Panels per Unit	Unit Lgth.(L_I)	Panel Lgth.(P)	O.D.	Wall	O.D.	Wall		Bolts No./Splice	Bolts Dia.	Weld Sizes W	Weld Sizes W_1	A	B
IS016I094R060.0	1355+91	I-A	6	29'-3 1/2"	4'-7"	1	6	28'-6"	4'-6 1/2"	5"	5/16"	2 1/2"	5/16"	2.55"	6	7/8"	5/16"	1/4"	8 3/4"	11 3/4"
IS016I094R061.3	1286+85	III-A	6	31'-9"	4'-11 3/4"	1	6	31'-1 1/2"	4'-11 3/4"	7"	5/16"	3 1/4"	5/16"	1.95"	6	1"	7/16"	5/16"	11 1/2"	15"
IS016I094R061.5	1276+67	II-A	7	37'-0 1/4"	5'-0 1/4"	1	6	31'-4 1/2"	5'-0 1/4"	6 1/2"	5/16"	3"	5/16"	3.30"	6	1"	3/8"	1/4"	11"	14 1/4"
IS016I094R061.9	1251+43	II-A	6	32'-1 1/2"	5'-0 1/2"	1	6	31'-6"	5'-0 1/2"	6"	5/16"	3"	5/16"	2.75"	6	7/8"	3/8"	1/4"	10 1/4"	13 3/4"
IS016I094R062.5	1224+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"	3.73"	6	1"	3/8"	1/4"	11 1/2"	15"
IS016I094R062.9	149+87	II-A	7	38'-5 3/4"	5'-2 3/4"	1	6	32'-7 1/2"	5'-2 3/4"	6 1/2"	5/16"	3"	5/16"	3.5"	6	1"	3/8"	1/4"	11"	14 1/2"



SECTION B-B

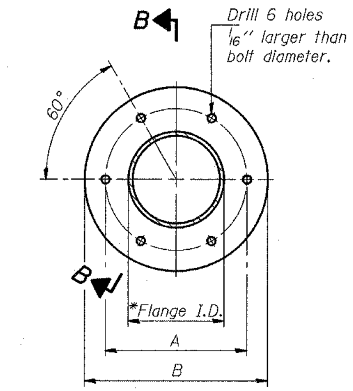
(1) Splicing Flanges shall be attached to each truss unit with the truss shop assembled to camber shown. Truss units shall be in proper alignment and flange surfaces shall be shop bolted into full contact before welding. Sufficient external welds or tacks shall be made to secure flanges until remaining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



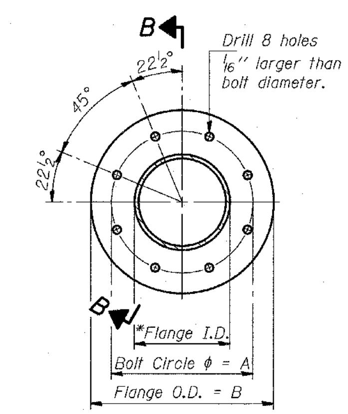
ISOMETRIC VIEW
TYPICAL TRUSS UNIT

ASTM B221 Alloy 6061 Temper T6

Note: 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.



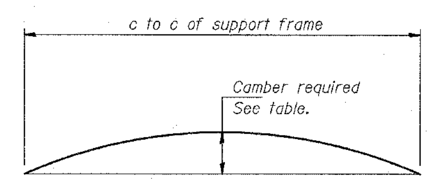
TRUSS TYPES I-A, II-A, & III-A



TRUSS TYPES II-A & III-A

SPLICING FLANGES

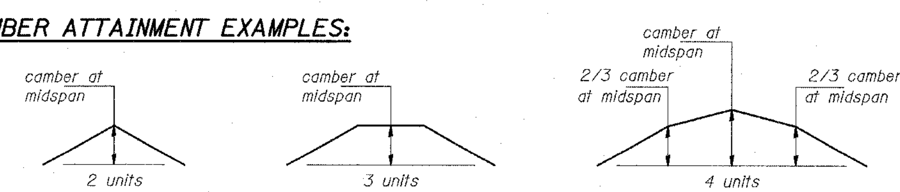
ASTM B221, Alloy 6061-T6
or ASTM B209, Alloy 6061-T651
*To fit O.D. of Chord with maximum gap of 1/16".



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)

NUMBER	REVISION	DATE

DESIGNED	-
CHECKED	-
DRAWN	-
CHECKED	-

- 20
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ENGINEER OF BRIDGES AND STRUCTURES

OS4-A-2 11/1/2002

T·Y·LIN INTERNATIONAL

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)

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

SCALE: AS NOTED DRAWN BY: AMB
DATE: MARCH 25, 2005 CHECKED BY: TB

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	•	COOK	907	762

STA. 1200+00.00 TO STA. 1365+00

FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT

• (1516.1, 1717 & 1818) R-9 62695

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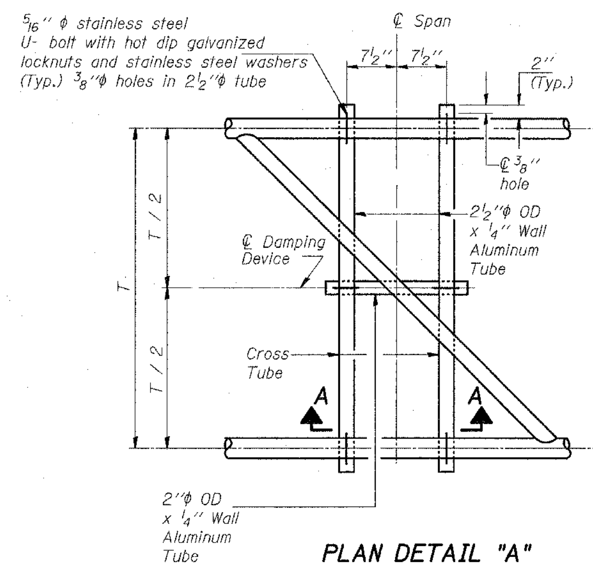
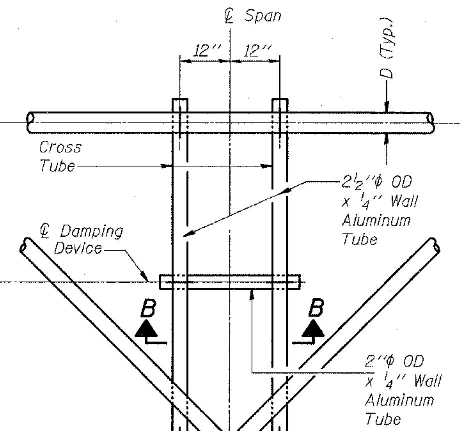
DEPARTMENT OF TRANSPORTATION

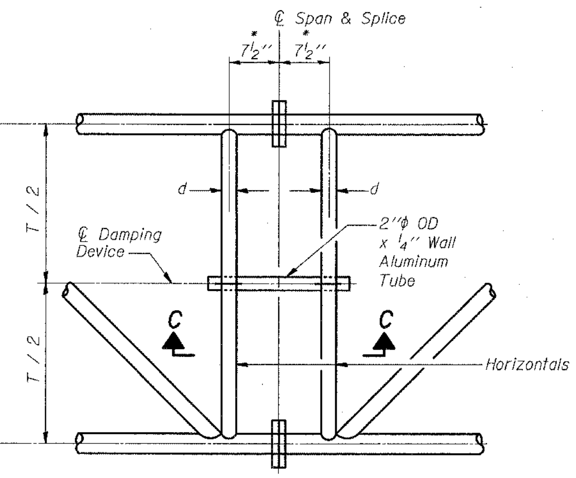
* Center of horizontal to center of splice dimension may vary. Verify before drilling holes in mounting tube.



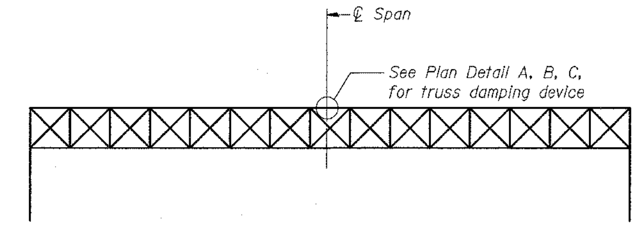
PLAN DETAIL "A"
℄ SPAN BETWEEN PANEL POINTS



PLAN DETAIL "B"
℄ SPAN AT PANEL POINT



PLAN DETAIL "C"
℄ SPAN AT ℄ CHORD SPLICE

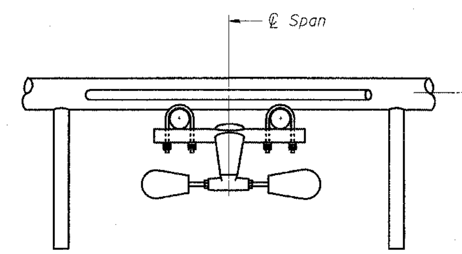


ELEVATION
Aluminum Overhead Sign Truss

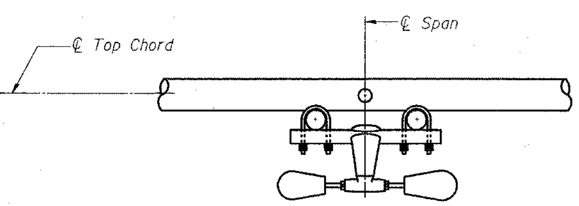
NOTES

Damper: One damper per truss.
(31 lbs. Stockbridge-Type Aluminum)
Cost included in "Overhead Sign Structure..."

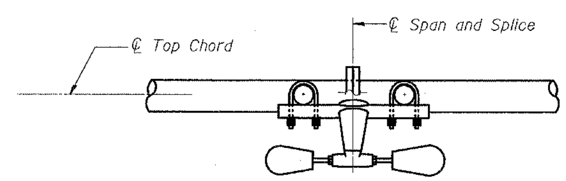
Materials: Aluminum tubes shall be ASTM B221 alloy 6061 temper T6. Cost included in "Overhead Sign Structure..."



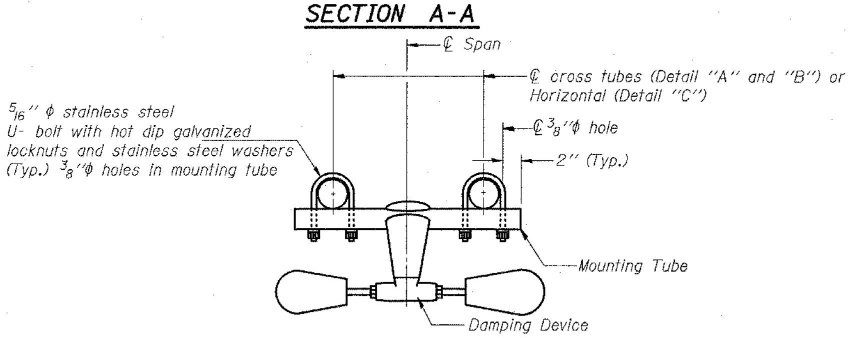
SECTION A-A



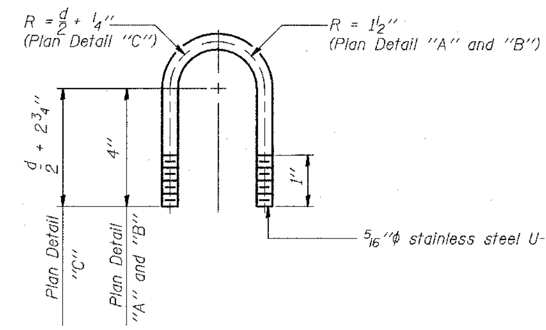
SECTION B-B



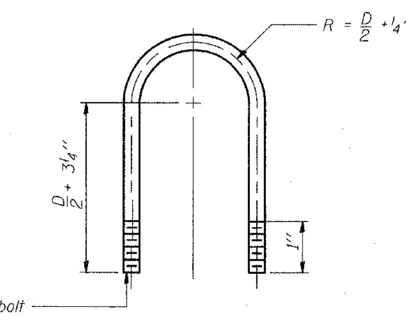
SECTION C-C



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")

DESIGNED	-
CHECKED	-
DRAWN	-
CHECKED	-

- 20
EXAMINED
ENGINEER OF STRUCTURAL SERVICES
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ENGINEER OF BRIDGES AND STRUCTURES

OS-A-D 11/1/2002

TY·LIN INTERNATIONAL

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)

OVERHEAD SIGN STRUCTURES
DAMPING DEVICE

SCALE: AS NOTED DRAWN BY: AMB
DATE: MARCH 25, 2005 CHECKED BY: TB

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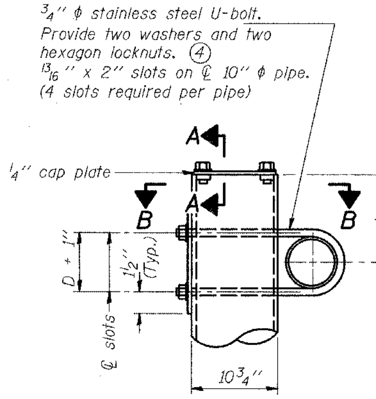
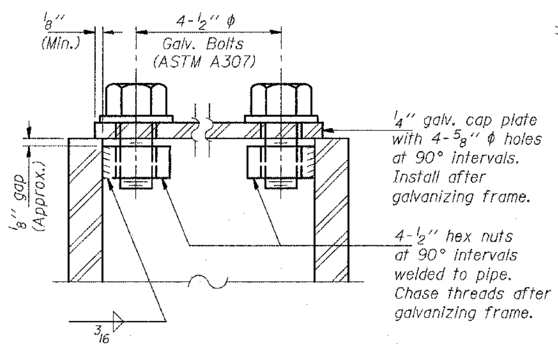
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

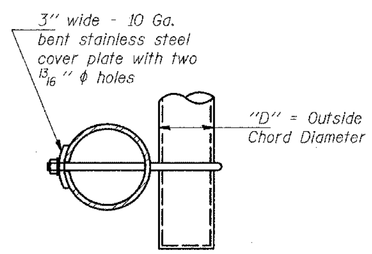


DETAIL A

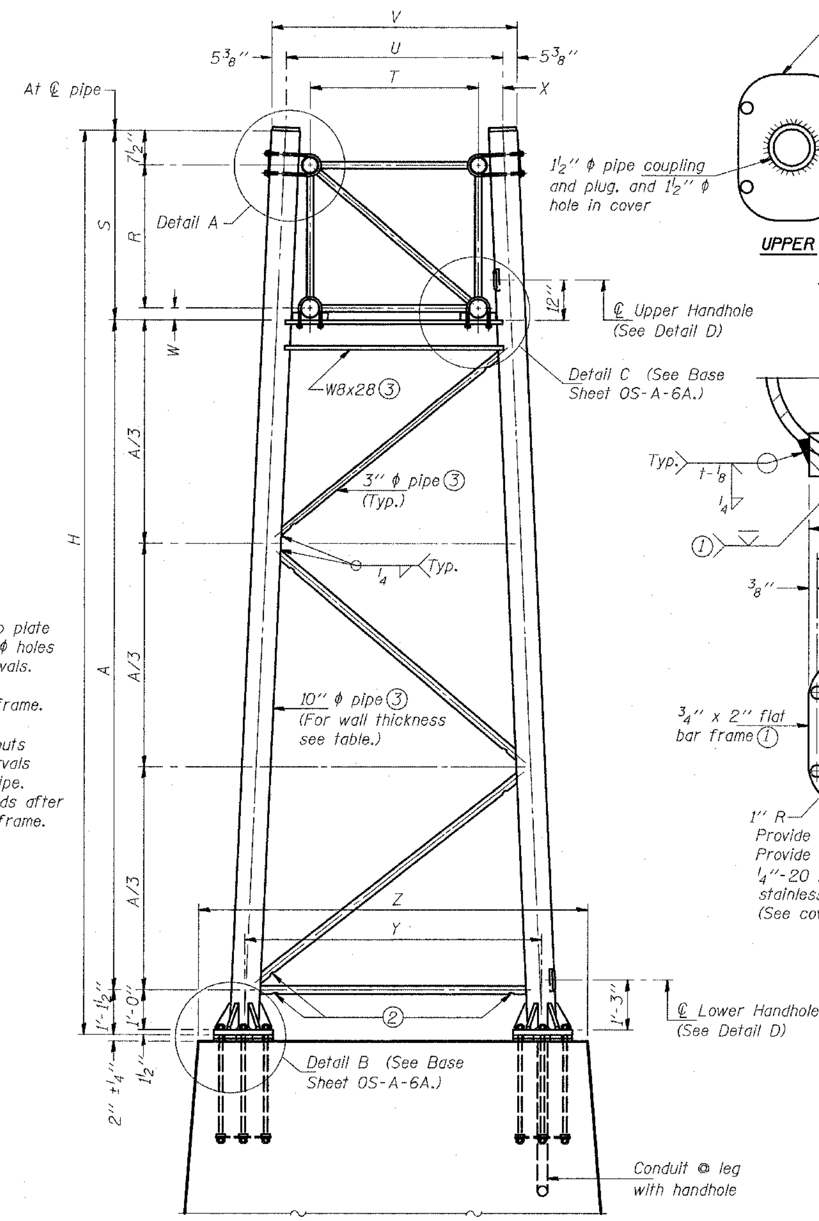


SECTION A-A

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

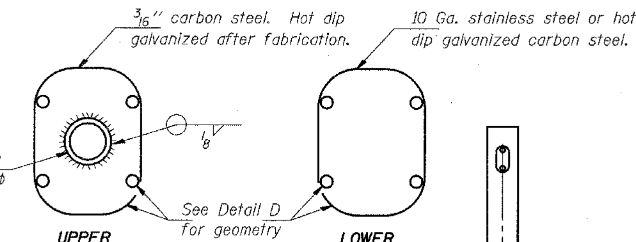


SECTION B-B

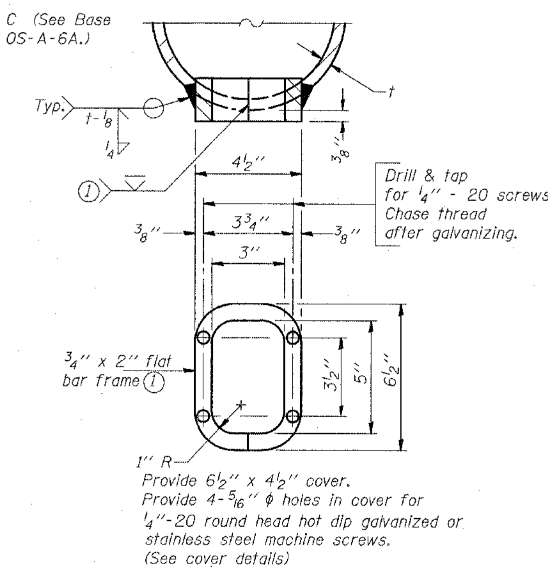


FOR FOUNDATION DETAILS SEE BASE SHEET OS-F3 (Spread Footing) or OS4-F3 (Drilled Shaft).

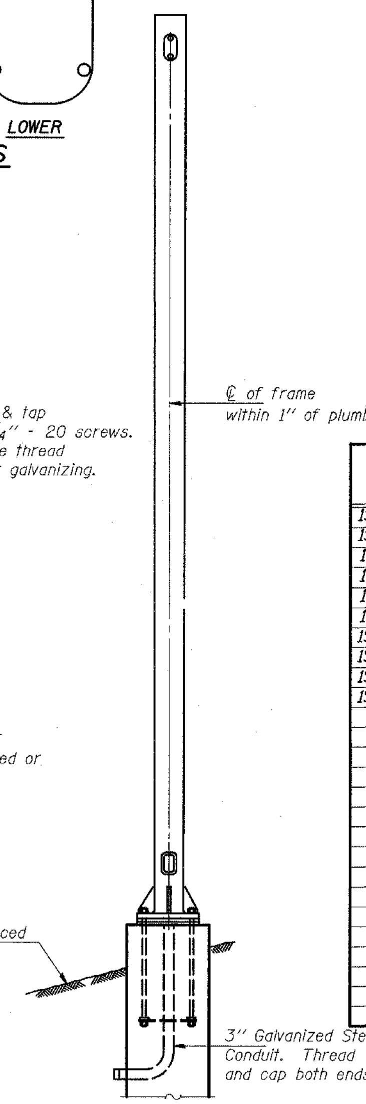
SIDE ELEVATION



HANDHOLE COVERS



DETAIL D



END ELEVATION

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

① In lieu of fabricated handhole frame as shown, may cut from 2'' plate (rolling direction vertical). All cut faces to be ground to ANSI Roughness of 500 $\sqrt{in}$ or less.

② Galvanizing vent holes of adequate size shall be provided on underside at each end of bracing pipes. Alternately, holes may be provided in wall of pipe column. All vent holes shall be drilled and de-burred. (Typ.)

③ Steel pipe, plate, carbon steel handhole covers and rolled sections shall be hot dip galvanized after fabrication. Painting is not permitted. See Base Sheet OS-A-1.

④ See General Notes for fasteners.

⑤ Dimensions shown are based on selection criteria in the Sign Structures Manual. Nonstandard applications must have dimensions verified or amended as appropriate.

Structure Number	Station	Support		Truss Type	Pipe Wall Thickness	H	A
		Left	Right				
1S016I094R060.0	1355+91	X		I-A	0.279"	23.36'	16.78'
1S016I094R060.0	1355+91		X	I-A	0.279"	24.50'	17.92'
1S016I094R061.5	1276+67	X		II-A	0.365"	25.5'	18.11'
1S016I094R061.5	1276+67		X	II-A	0.365"	23'	15.61'
1S016I094R061.9	1251+43	X		II-A	0.365"	25.5'	18.11'
1S016I094R061.9	1251+43		X	II-A	0.365"	24'	16.61'
1S016I094R062.5	1224+00	X		II-A	0.365"	25.5'	18.11'
1S016I094R062.5	1224+00		X	II-A	0.365"	24'	16.61'
1S016I094R062.9	149+87	X		II-A	0.365"	26'	18.61'
1S016I094R062.9	149+87		X	II-A	0.365"	25'	17.61'

10'' ϕ PIPE TRUSS SUPPORT FRAME

Truss Type	Dimensions								
	R	S	T	U	V	W	X	Y	Z
I-A	4'-6''	5'-5½''	4'-0''	5'-6''	6'-4¾''	4''	9''	8'-3''	10'-9''
II-A ⑤	5'-3''	6'-3¼''	4'-6''	6'-1''	6'-11¾''	4¾''	9½''	8'-3''	10'-9''

NUMBER	REVISION	DATE

DESIGNED	-
CHECKED	-
DRAWN	-
CHECKED	-

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OS-A-6 11/1/2002

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REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)

OVERHEAD SIGN STRUCTURES
SUPPORT FRAME FOR ALUMINUM TRUSS

SCALE: AS NOTED DRAWN BY: AMB
DATE: MARCH 25, 2005 CHECKED BY: TB

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	•	COOK	907	764
STA. 1200+00.00	TO STA. 1365+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

• (1516.1, 1717 & 1818) R-9

62695

STATE OF ILLINOIS
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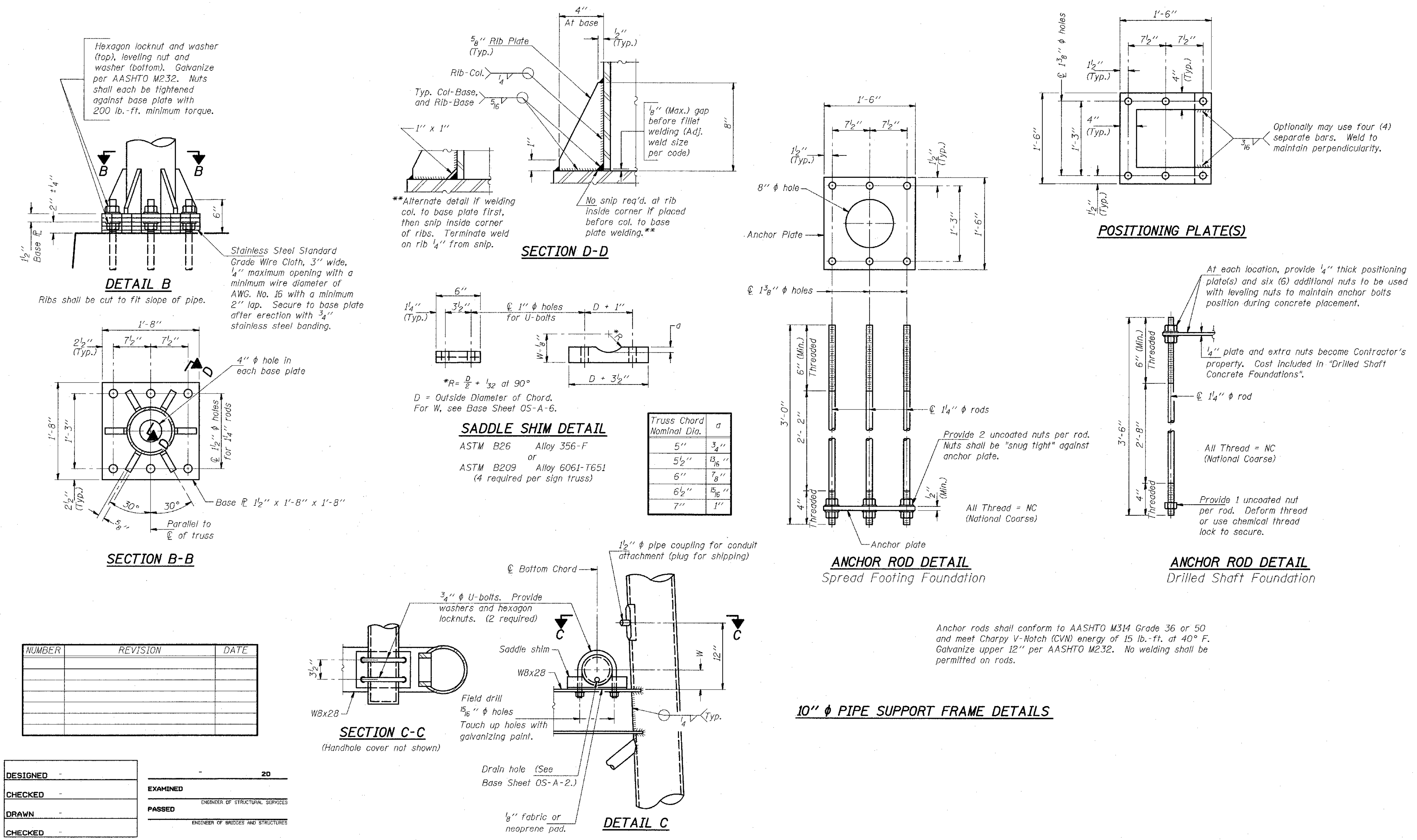

Truss Chord Nominal Dia.	a
5"	¾"
5½"	13/16"
6"	⅞"
6½"	15/16"
7"	1"

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" ϕ PIPE SUPPORT FRAME DETAILS

NUMBER	REVISION	DATE

DESIGNED -	- 20
CHECKED -	EXAMINED
DRAWN -	ENGINEER OF STRUCTURAL SERVICES
CHECKED -	PASSED
	ENGINEER OF BRIDGES AND STRUCTURES

OS-A-6A 11/1/2002

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REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

F.A.I. 94 (DAN RYAN EXPRESSWAY)

OVERHEAD SIGN STRUCTURES
SUPPORT FRAME DETAILS
ALUMINUM TRUSS

SCALE: AS NOTED DRAWN BY: AMB
DATE: MARCH 25, 2005 CHECKED BY: TB

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	•	COOK	907	765
STA. 1200+00.00	TO STA. 1365+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
• (1516.1, 1717 & 1818) R-9				62695

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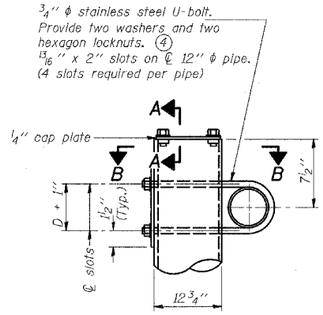
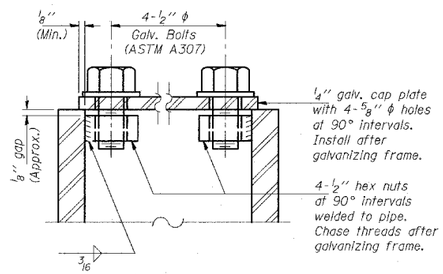
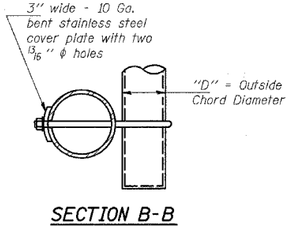


DETAIL A

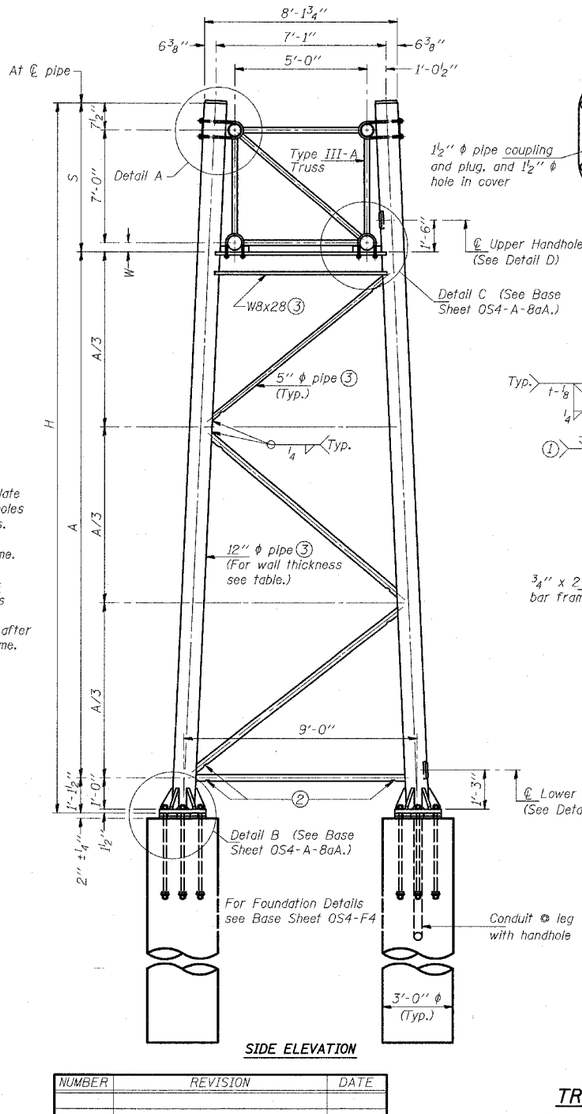


SECTION A-A

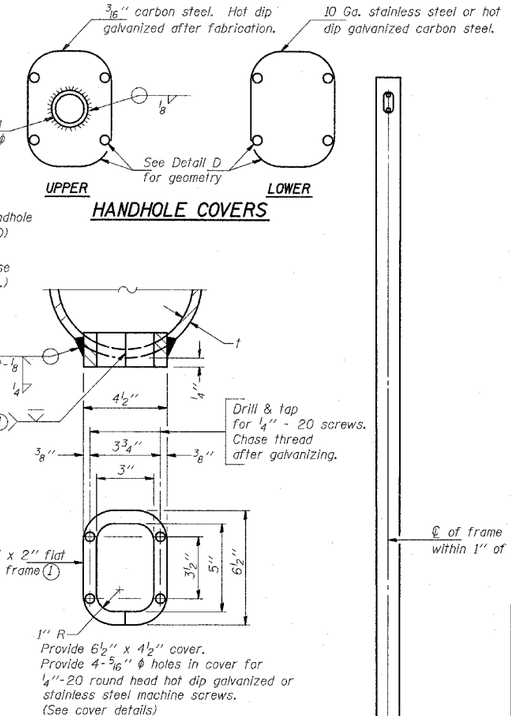
As an alternate to bolts, may use galvanized drive-fit caps installed after galvanizing frame.



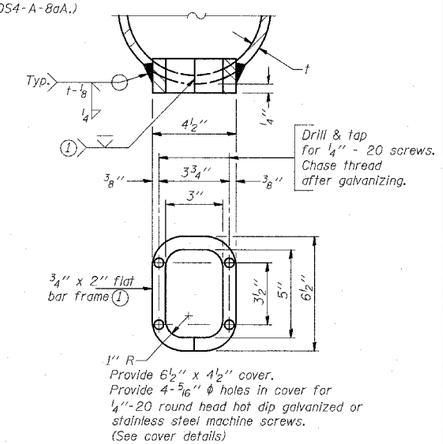
SECTION B-B



SIDE ELEVATION

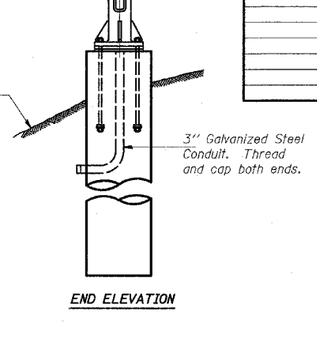


HANDHOLE COVERS



DETAIL D

Dimensions		
Truss Chord Nominal Dia.	W	S
7"	4 3/4"	8'-0 1/4"
8 1/2"	5 1/2"	8'-1"
9"	5 3/4"	8'-1 1/4"



END ELEVATION

TRUSS SUPPORT DETAILS
(12" ϕ Pipe-Type III-A Truss)

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

(1) *In lieu of fabricated handhole frame as shown, may cut from 2" plate (rolling direction vertical). All cut faces to be ground to ANSI Roughness of 500 √in or less.*
(2) *Galvanizing vent holes of adequate size shall be provided on underside at each end of bracing pipes. Alternately, holes may be provided in wall of pipe column. All vent holes shall be drilled and de-burred. (Typ.)*
(3) *Steel pipe, plate, carbon steel handhole covers and rolled sections shall be hot dip galvanized after fabrication. Painting is not permitted. See Base Sheet OS-A-1.*
(4) *See General Notes for fasteners.*
(5) *Dimensions shown are based on selection criteria in the Sign Structures Manual. Nonstandard applications must have dimensions verified or amended as appropriate.*

Structure Number	Station	Support Left	Support Right	Pipe Wall Thickness	H	A
IS0161094R061.3	1286+85	X		0.33"	24'	14.86'
IS0161094R061.3	1286+85		X	0.33"	19'	9.86'

NUMBER	REVISION	DATE

DESIGNED	-
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DRAWN	-
CHECKED	-

- 20

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OS4-A-8a 11/1/2002

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)

OVERHEAD SIGN STRUCTURES
SUPPORT FRAME FOR TYPE III-A ALUMINUM TRUSS

SCALE: AS NOTED DRAWN BY: AMB
DATE: MARCH 25, 2005 CHECKED BY: TB

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	•	COOK	907	766
STA. 1200+00.00	TO STA. 1365+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

• (1516.1, 1717 & 1818) R-9 62695

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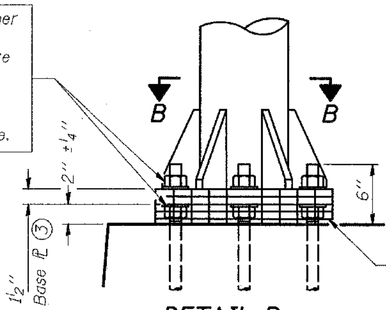
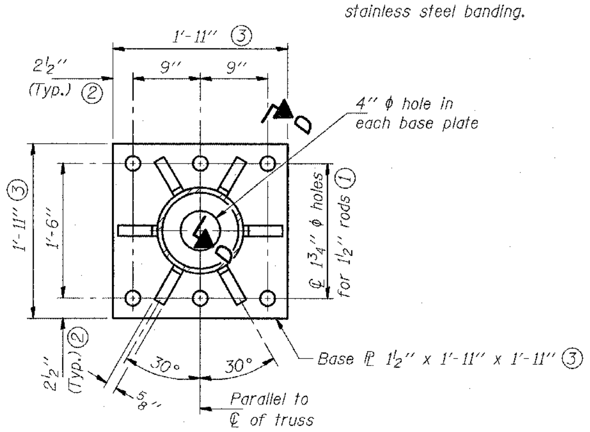
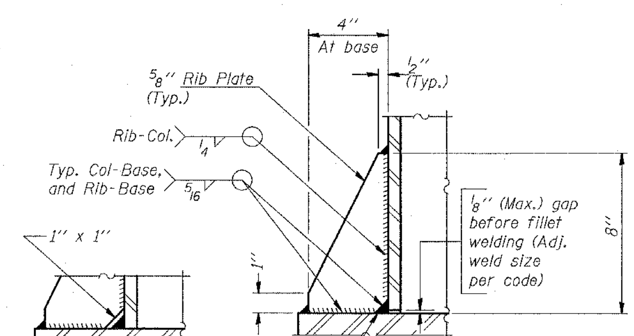


DETAIL B

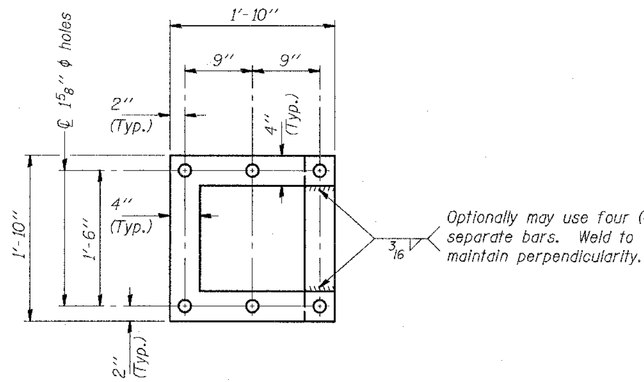
Ribs shall be cut to fit slope of pipe.



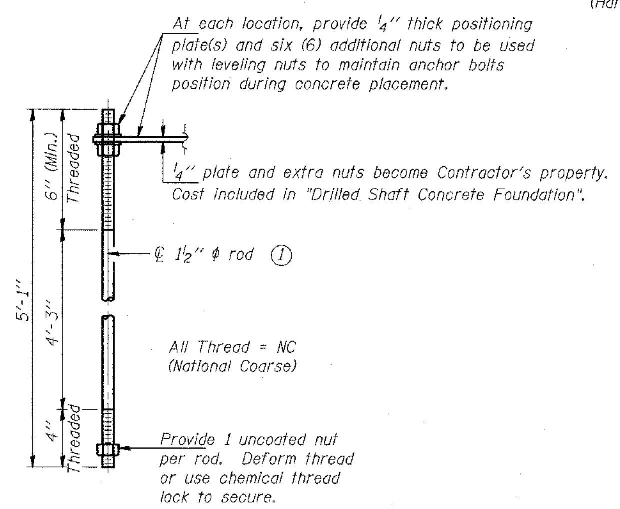
SECTION B-B



SECTION D-D



POSITIONING PLATE(S)



ANCHOR ROD DETAIL

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.

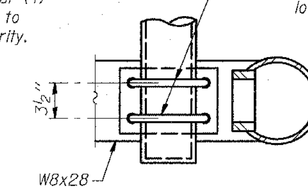
TYPE III-A TRUSS
12" ϕ PIPE SUPPORT FRAME DETAILS

Notes: For Type III-A Truss spans greater than 150 ft. and up to 160 ft.:

① 1¾" ϕ rod, 2" ϕ holes

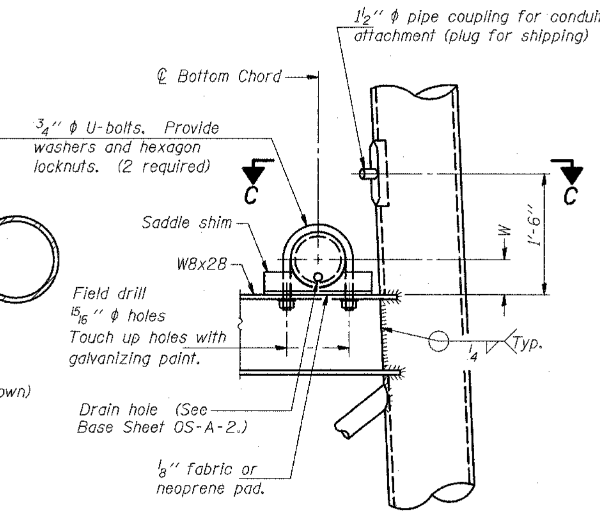
② 2¾" edge distance

③ Base ℙ 1⅝" x 1'-11½" x 1'-11½"

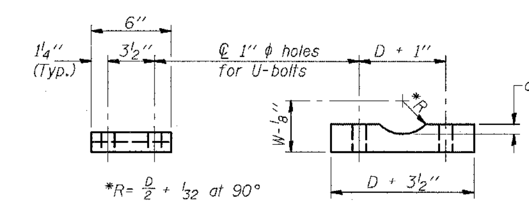


SECTION C-C

(Handhole cover not shown)



DETAIL C



*R= D/2 + 1/32 at 90°
D = Outside Diameter of Chord.
For W, see Base Sheet OS-A-6.

Truss Chord Nominal Dia.	a
7"	1"
8½"	1¼"
9"	1⅜"

SADDLE SHIM DETAIL

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

DESIGNED	-
CHECKED	-
DRAWN	-
CHECKED	-

OS4-A-8aA 11/1/2002

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ENGINEER OF BRIDGES AND STRUCTURES

NUMBER	REVISION	DATE

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REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)

OVERHEAD SIGN STRUCTURES
SUPPORT FRAME FOR TYPE III-A
ALUMINUM TRUSS

SCALE: AS NOTED DRAWN BY: AMB
DATE: MARCH 25, 2005 CHECKED BY: TB

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	•	COOK	907	767
STA. 1200+00.00		TO STA. 1365+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
• (1516.1, 1717 & 1818) R-9				62695

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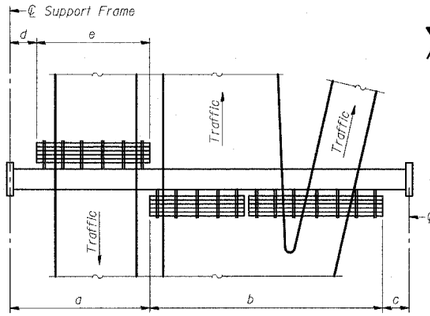
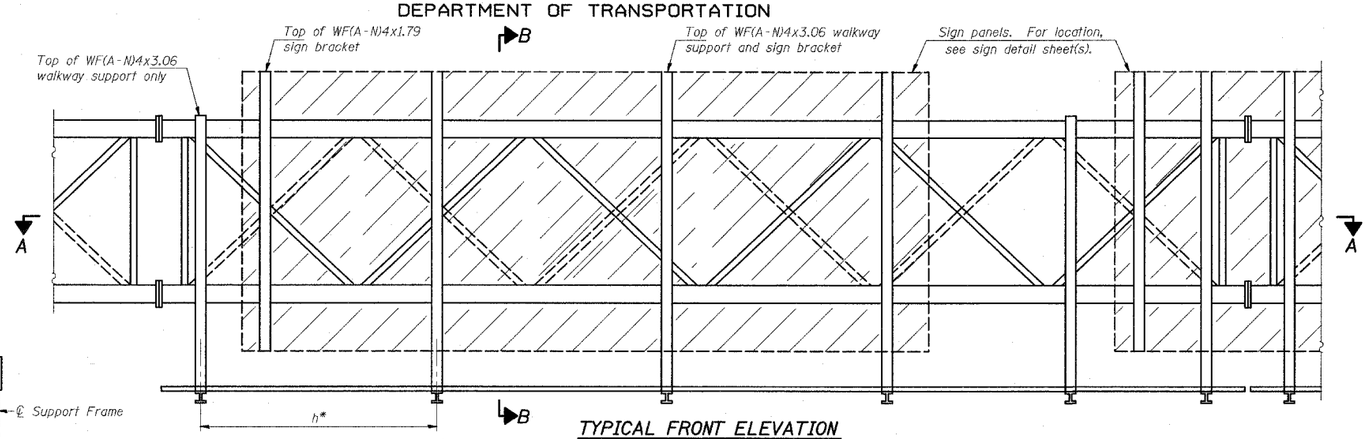
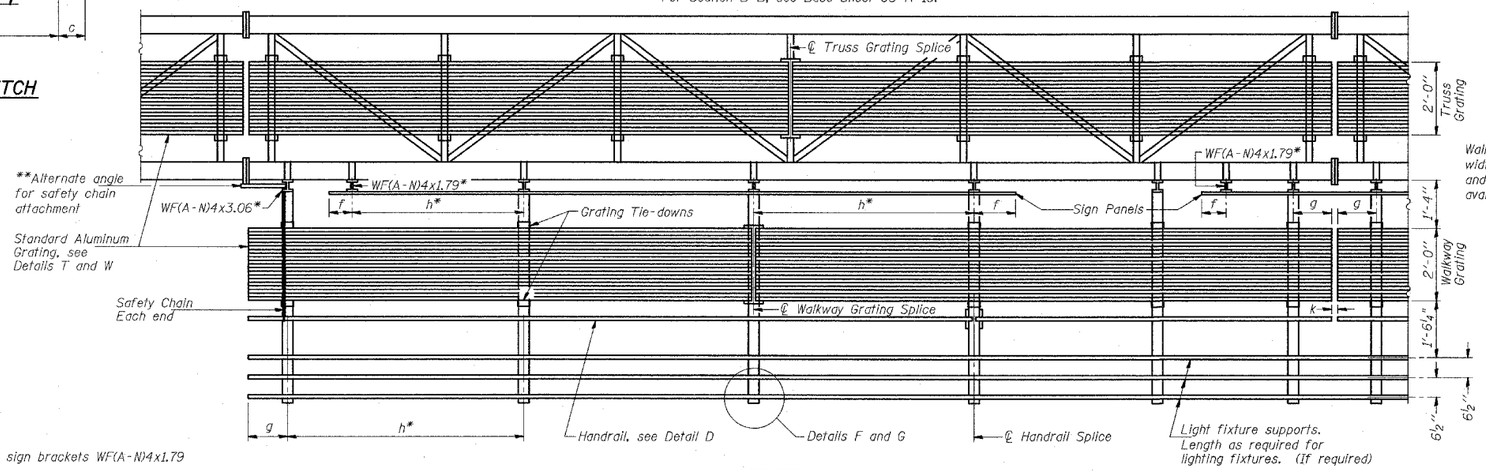


PLAN
WALKWAY AND HANDRAIL SKETCH
(Road plan beneath truss varies)



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



Walkway and Truss Grating width dimensions are nominal and may vary ±½" based on available standard widths.

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 ℄ of nearest bracket)
g = 12" maximum, 4" minimum (End of walkway grating to ℄ 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 OS-A-10.
For Details D, F, G and P and Handrail Splice 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. Grating, handrail and light support splices placed as needed.

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

Structure Number	Station	a	b	c	d	e	Walkway Grating and Handrail Lengths
IS016I094R060.0	1355+91	7.94'	68'	9.56'	-	-	68'
IS016I094R061.5	1276+67	7.94'	68'	28.06'	-	-	68'
IS016I094R061.9	1251+43	9.94'	64'	20.06'	-	-	64'
IS016I094R062.5	1224+00	9.44'	81'	21.56'	-	-	81'
IS016I094R062.9	149+87	10.75'	68'	29.25'	-	-	68'

OS-A-9 11/1/2002

DESIGNED	-
CHECKED	-
DRAWN	-
CHECKED	-

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ENGINEER OF STRUCTURAL SERVICES
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NUMBER	REVISION	DATE

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)
OVERHEAD SIGN STRUCTURES
ALUMINUM WALKWAY DETAILS

SCALE: AS NOTED DRAWN BY: AMB
DATE: MARCH 25, 2005 CHECKED BY: TB

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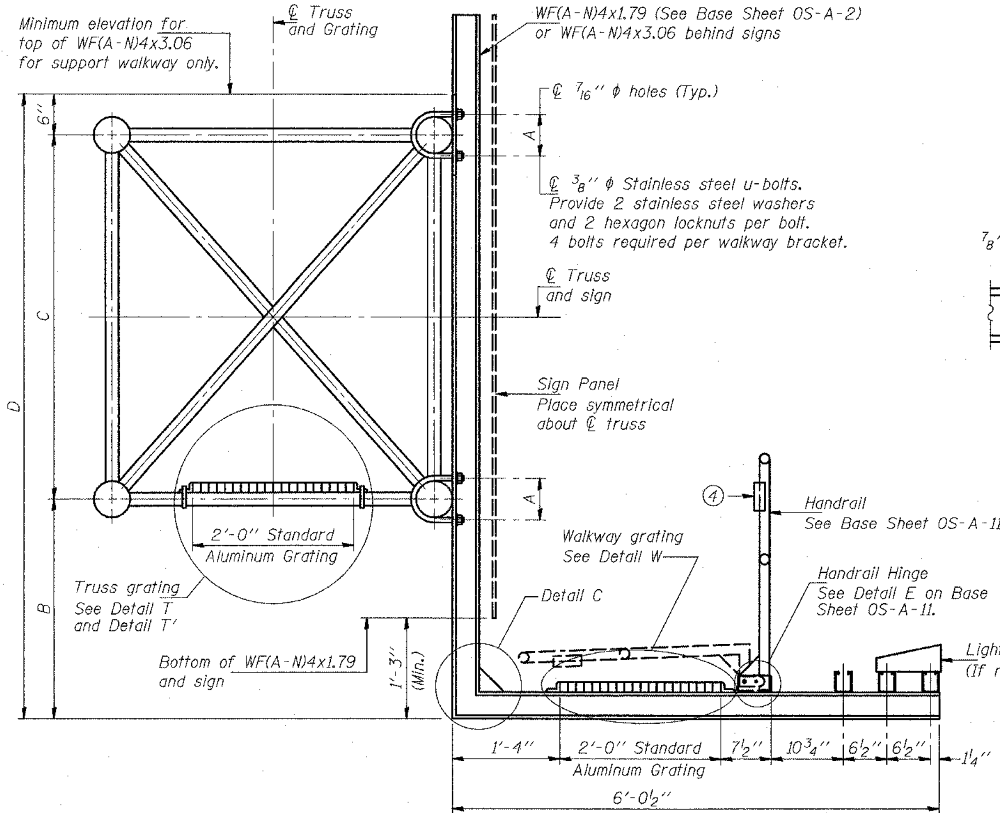
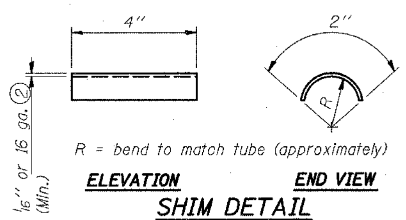
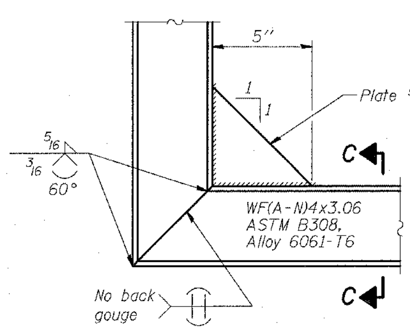


SECTION B-B

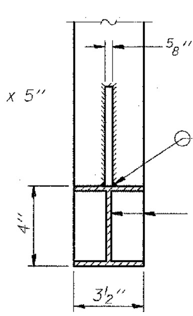


SHIM DETAIL

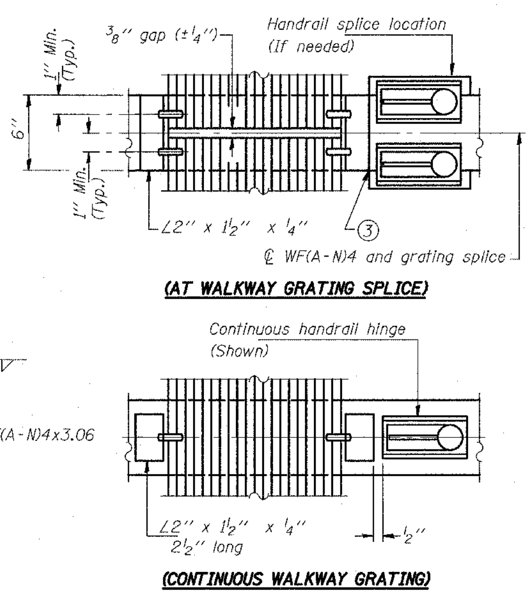


DETAIL C

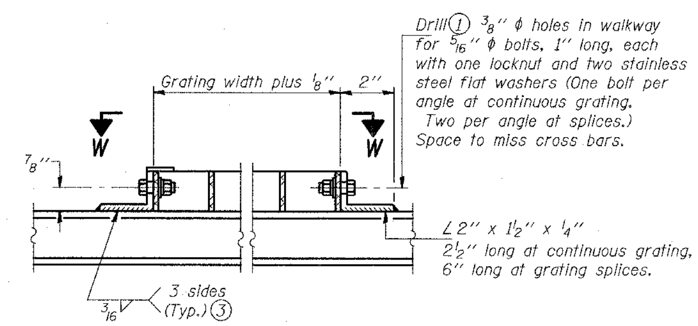
(See Detail P, Base Sheet OS-A-11.)



SECTION C-C

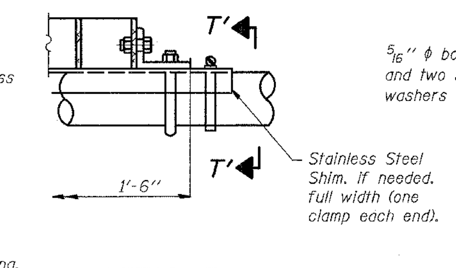


SECTION W-W



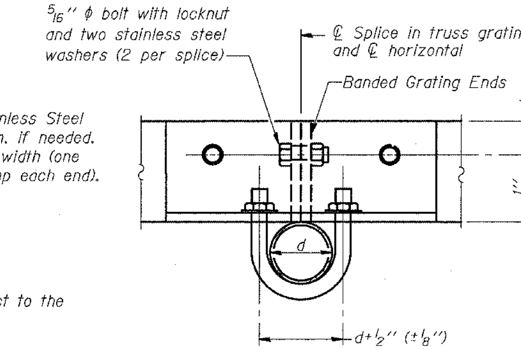
DETAIL W

(Walkway grating)

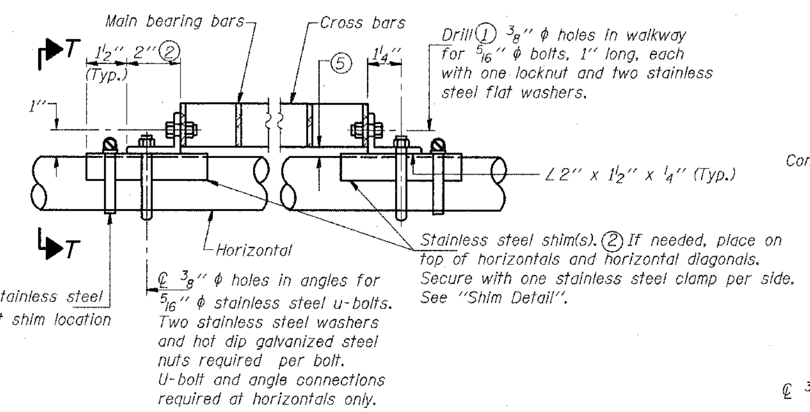


DETAIL T'

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

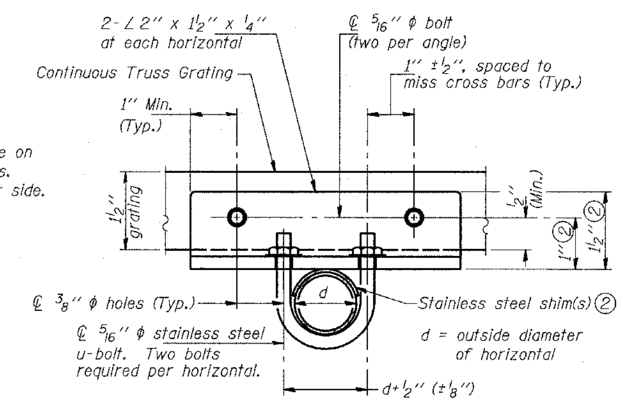


SECTION T'-T'



DETAIL T

(Continuous Truss grating)



SECTION T-T

SPECIFICATIONS FOR STANDARD ALUMINUM GRATING

Main Bearing Bars shall be 3/16" x 1½" on 1 3/16" centers and conform to ASTM B221 Alloy 6061-T6.
Cross bars shall be 3/16" x 1½" on 4" centers and conform to ASTM B221 Alloy 6063-T5 or 6061-T6.

OR

Aluminum Grating with modified "I" sections for main bearing bars shall meet the following requirements:
Main bars shall conform to ASTM B221 Alloy 6061-T6 and have a minimum section modulus equal to 0.0705 $in.^3$ per bar, a depth of 1½", spaced on 1 3/16" centers.
Cross bars shall conform to ASTM B221 Alloy 6063-T5 or T-42 and spaced on 4" centers.

① Drilling holes in grating may be done in shop or field, based on Contractor's preference and subject to accurate alignment.
② Stainless steel shims shall be placed as shown in Detail T if needed to compensate for alignment variations between horizontal and diagonal pipes beyond adjustment provided by angles. Thicker shims may be used subject to shims performing properly.
③ If Handrail Joint present, weld angle to WF(A-N)4 and 1/4" extension bars. (See Base Sheet OS-A-11.)
④ ℙ 1/8" x ½" x 2" welded to handrail posts to protect locations that contact grating.
⑤ Tube to grating gap may vary from 0 to ½" (max.) to align walkway, allow for camber, etc.

Structure Number	Station	A	B	C	D
1S016I094R060.0	1355+91	5½"	3'-3"	4'-6"	8'-3"
1S016I094R061.5	1276+67	7"	4'-10½"	5'-3"	10'-7½"
1S016I094R061.9	1251+43	6½"	4'-10½"	5'-3"	10'-7½"
1S016I094R062.5	1224+00	7½"	4'-10½"	5'-3"	10'-7½"
1S016I094R062.9	149+87	7"	4'-10½"	5'-3"	10'-7½"

DESIGNED	-
CHECKED	-
DRAWN	-
CHECKED	-

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NUMBER	REVISION	DATE

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REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)

OVERHEAD SIGN STRUCTURES
ALUMINUM WALKWAY DETAILS

SCALE: AS NOTED DRAWN BY: AMB
DATE: MARCH 25, 2005 CHECKED BY: TB

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	•	COOK	907	769
STA. 1200+00.00	TO STA. 1365+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

• (1516.1, 1717 & 1818) R-9 62695

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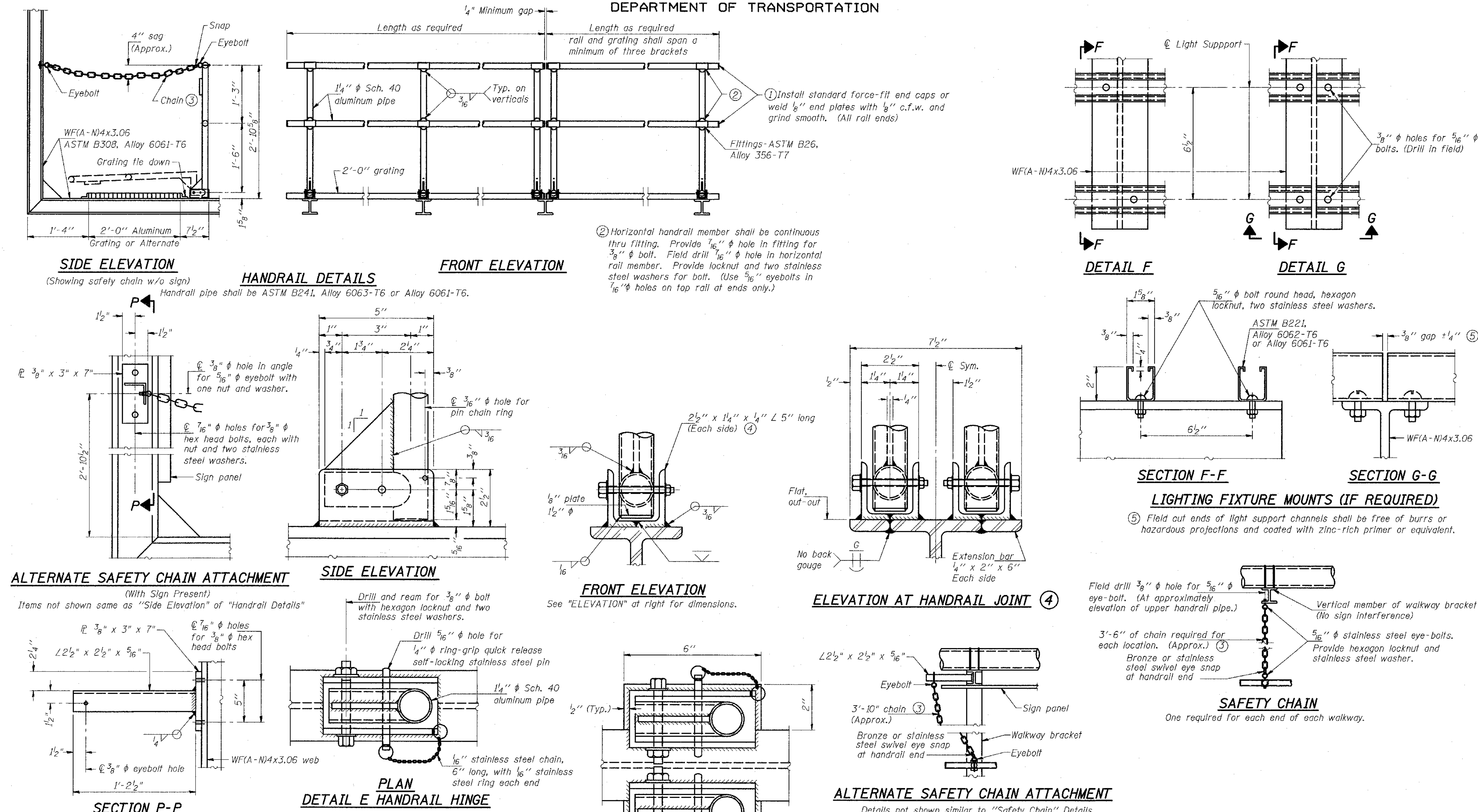


SIDE ELEVATION
(Showing safety chain w/o sign)
HANDRAIL DETAILS
Handrail pipe shall be ASTM B241, Alloy 6063-T6 or Alloy 6061-T6.
FRONT ELEVATION
①Install standard force-fit end caps or weld ⅛" end plates with ⅛" c.f.w. and grind smooth. (All rail ends)
②Horizontal handrail member shall be continuous thru fitting. Provide 7/16" ϕ hole in fitting for 3/8" ϕ bolt. Field drill 7/16" ϕ hole in horizontal rail member. Provide locknut and two stainless steel washers for bolt. (Use 5/16" eyebolts in 7/16" ϕ holes on top rail at ends only.)
Fittings-ASTM B26, Alloy 356-T7
WF(A-N)4x3.06 ASTM B308, Alloy 6061-T6
DETAIL F
DETAIL G
3/8" ϕ holes for 5/16" ϕ bolts. (Drill in field)
ALTERNATE SAFETY CHAIN ATTACHMENT
(With Sign Present)
Items not shown same as "Side Elevation" of "Handrail Details"
SIDE ELEVATION
FRONT ELEVATION
See "ELEVATION" at right for dimensions.
ELEVATION AT HANDRAIL JOINT ④
SECTION F-F
SECTION G-G
LIGHTING FIXTURE MOUNTS (IF REQUIRED)
⑤ Field cut ends of light support channels shall be free of burrs or hazardous projections and coated with zinc-rich primer or equivalent.
SAFETY CHAIN
One required for each end of each walkway.
SECTION P-P
PLAN
DETAIL E HANDRAIL HINGE
PLAN AT HANDRAIL JOINT
Details not shown same as "PLAN"
ALTERNATE SAFETY CHAIN ATTACHMENT
Details not shown similar to "Safety Chain" Details (Walkway omitted for clarity)
③3/16" galvanized steel chain, approximately 12 links per foot. Chain to be hot dip galvanized after manufacture and suitable for prolonged exterior exposure. Alternate materials may be substituted with the Engineer's approval.
④Extrusions may be used in lieu of the details shown, with approval of the Engineer.

DESIGNED	-
CHECKED	-
DRAWN	-
CHECKED	-

EXAMINED — 20
ENGINEER OF STRUCTURAL SERVICES
PASSED
ENGINEER OF BRIDGES AND STRUCTURES

NUMBER	REVISION	DATE

OS-A-11 11/1/2002

TYLIN INTERNATIONAL

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)

OVERHEAD SIGN STRUCTURES
ALUMINUM HANDRAIL DETAILS

SCALE: AS NOTED — DRAWN BY: AMB
DATE: MARCH 25, 2005 — CHECKED BY: TB

3/30/2005 12:45:43 PM

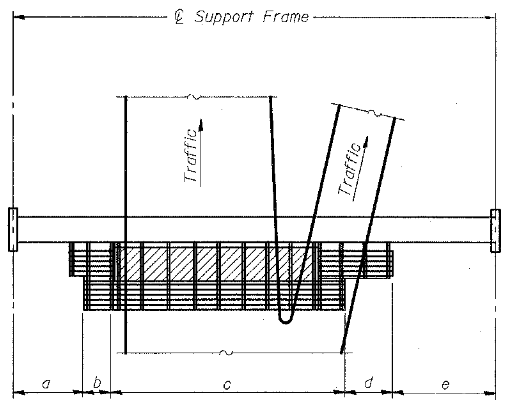
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	*	COOK	907	770
STA. 1200+00.00 TO STA. 1365+00				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* (1516.1, 1717 & 1818) R-9

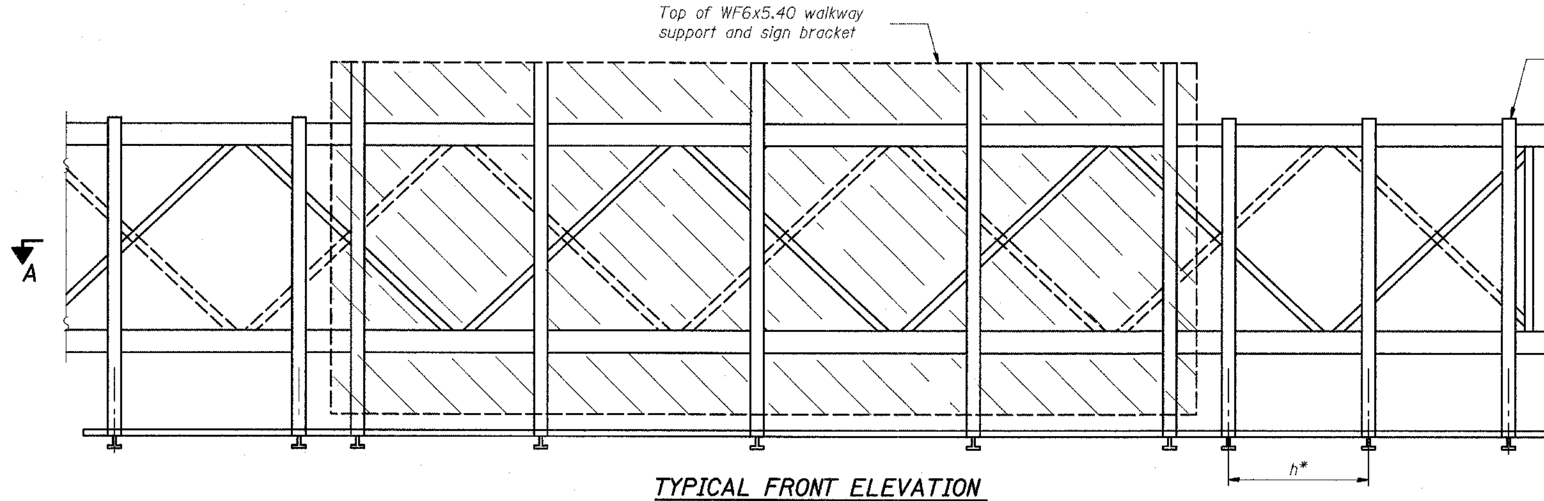
62695

p:\02373\road\cl7b\stl7bsh123a.dgn

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

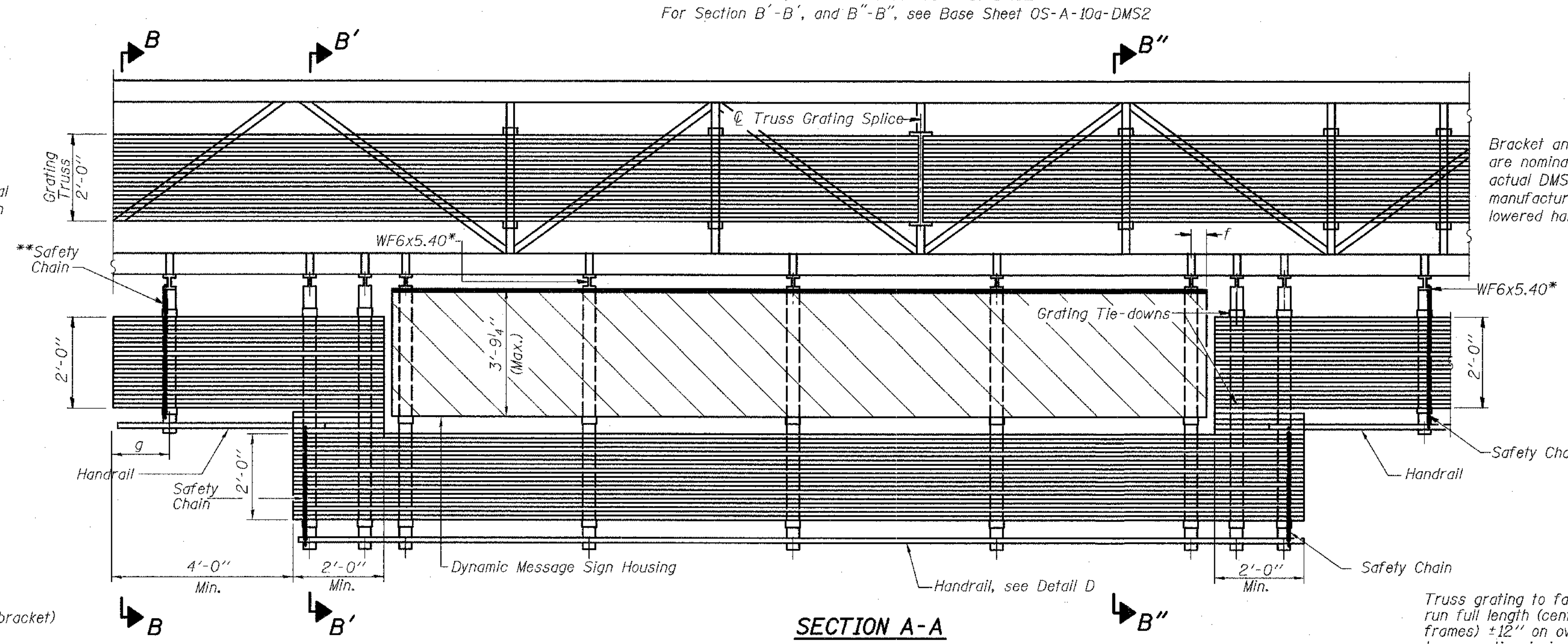


PLAN
WALKWAY AND HANDRAIL SKETCH
(Road plan beneath truss varies)



TYPICAL FRONT ELEVATION
With handrail omitted for clarity.
For Section B-B, see Base Sheet OS-A-10-DMS2
For Section B′-B′, and B″-B″, see Base Sheet OS-A-10a-DMS2

Walkway and Truss Grating width dimensions are nominal and may vary ±½″ based on available standard widths.



SECTION A-A

Bracket and grating dimensions are nominal and will vary based on actual DMS cabinet dimensions plus manufacturer's mounting devices, lowered handrail and DMS cabinet.

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"

BRACKET TABLE

WF6x5.40 ASTM B308, Alloy 6061-T6		
Sign Width		Number Brackets Required
Greater Than	Less Than or Equal To	
	10′-0″	2
10′-0″	16′-0″	3
16′-0″	22′-0″	4
22′-0″	28′-0″	5
28′-0″	34′-0″	6

Notes: *Space WF6x5.40 brackets 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 grating to ℄ of nearest support bracket)
h = 6′-0″ maximum (℄ to ℄ or walkway support brackets, WF6x5.40)

**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-DMS2

For Details T and W, Section B-B and Grating Splice Details, see Base Sheet OS-A-10-DMS2.
For Details D, F, G and P and Handrail Splice Details, see Base Sheet OS-A-11-DMS2.

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.
Grating and handrail splices placed as needed.

DESIGNED	
CHECKED	
DRAWN	
CHECKED	

EXAMINED ______ 19__
ENGINEER OF STRUCTURAL SERVICES

PASSED ______
ENGINEER OF BRIDGES AND STRUCTURES

OS-A-9-DMS2 7/1/2001

NUMBER	REVISION	DATE

Structure Number	Station	a	b	c	d	e	Walkway Grating and Handrail Lengths
1S016I094R061.3	1286+85	26.98′	2′	28.42′	14.79′	20.81′	64′

REVISIONS	
NAME	DATE

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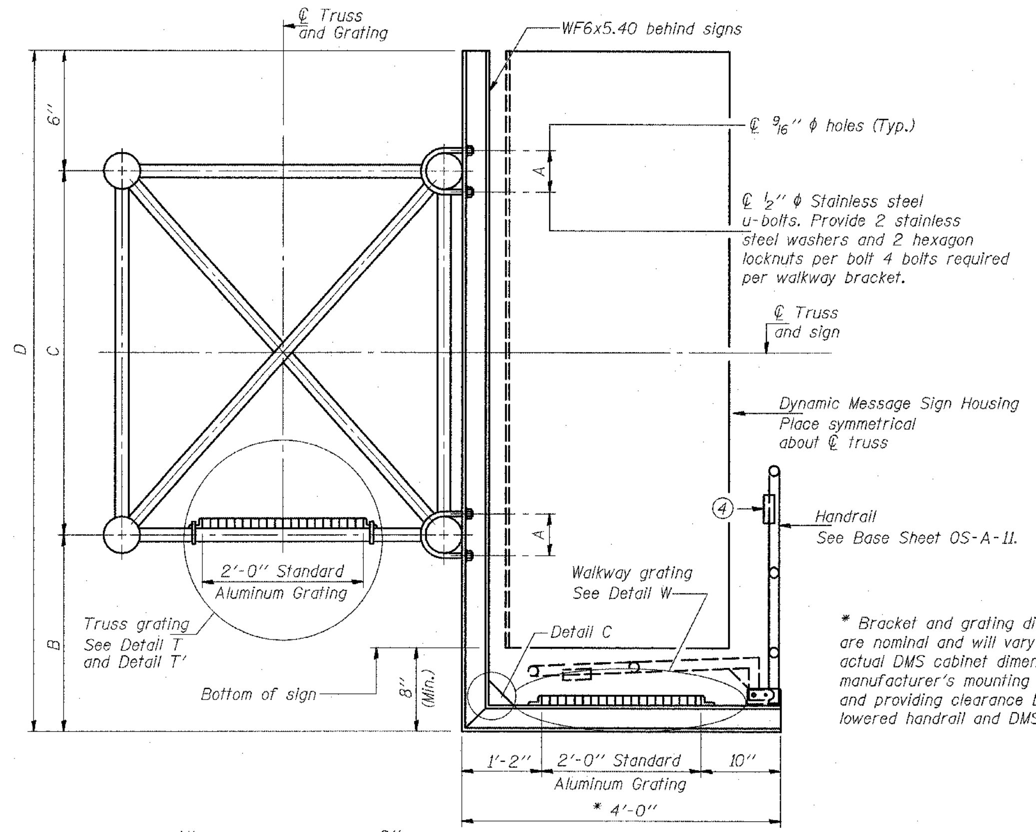
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)

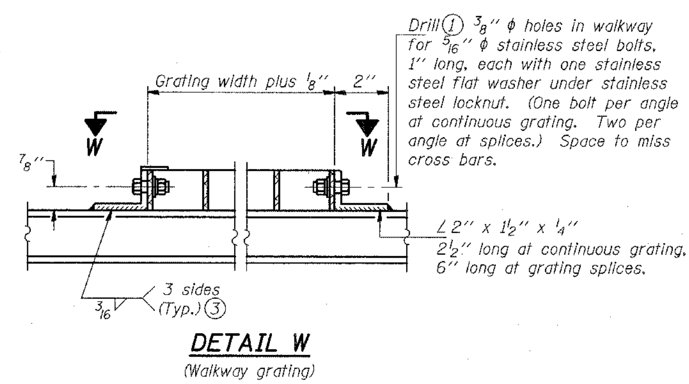
OVERHEAD SIGN STRUCTURES
ALTERNATE ALUMINUM WALKWAY DETAILS

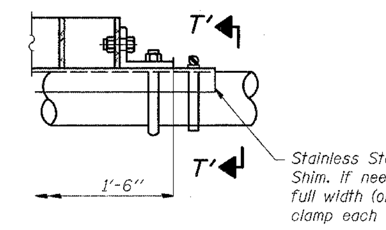
SCALE: AS NOTED
DATE: MARCH 25, 2005
DRAWN BY: AMB
CHECKED BY: TB

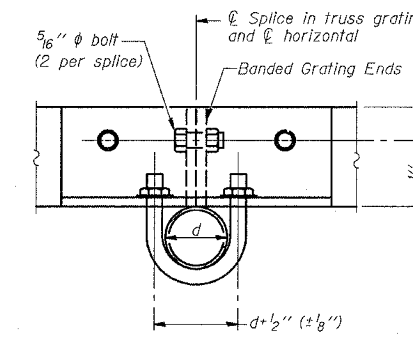
3/30/2005 12:45:43 PM

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

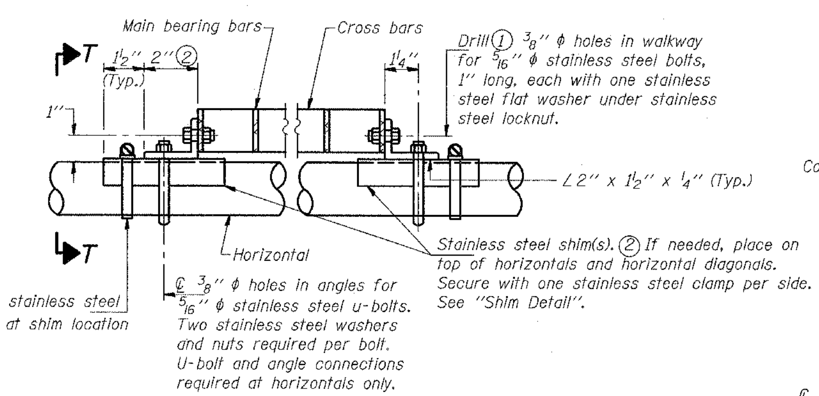


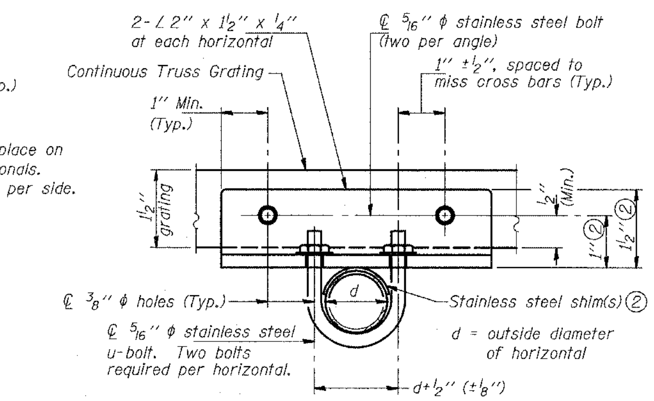


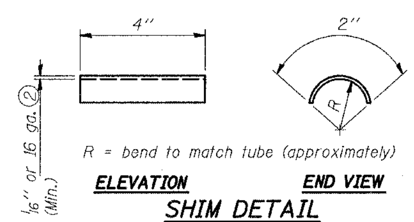


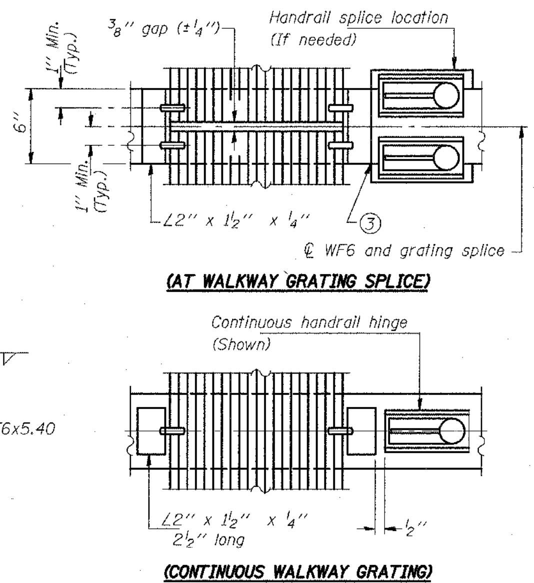


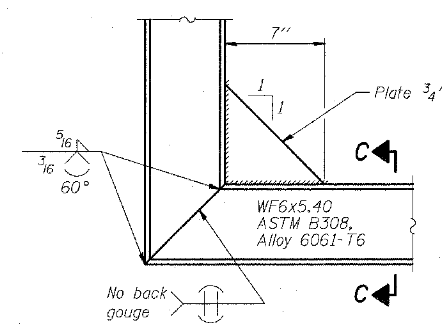
* Bracket and grating dimensions are nominal and will vary based on actual DMS cabinet dimensions plus manufacturer's mounting devices, and providing clearance between the lowered handrail and DMS cabinet.

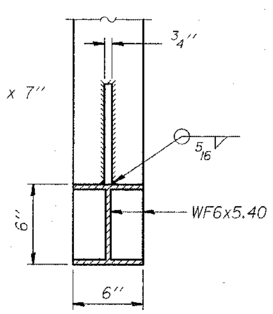












SPECIFICATIONS FOR STANDARD ALUMINUM GRATING

Main Bearing Bars shall be 3/16" x 1½" on 1 3/16" centers and conform to ASTM B211 Alloy 6061-T6.
Cross bars shall be 3/16" x 1½" on 4" centers and conform to ASTM B221 Alloy 6063-T5 or 6061-T6.

OR

Aluminum Grating with modified "I" sections for main bearing bars shall meet the following requirements:
Main bars shall conform to ASTM B221 Alloy 6061-T6 and have a minimum section modulus equal to 0.0705 in.^{3} per bar, a depth of 1½", spaced on 1 3/16" centers.
Cross bars shall conform to ASTM B221 Alloy 6063-T5 or T-42 and spaced on 4" centers.

(1) Drilling holes in grating may be done in shop or field, based on Contractor's preference and subject to accurate alignment.

(2) Stainless steel shims shall be placed as shown in Detail T if needed to compensate for alignment variations between horizontal and diagonal pipes beyond adjustment provided by angles. Thicker shims may be used subject to shims performing properly.

(3) If Handrail Joint present, weld angle to WF6 and 1/4" extension bars. (See Base Sheet OS-A-11-DMS2.)

(4) ℞ 1/8" x ½" x 2" welded to handrail posts to protect locations that contact grating.

Structure Number	Station	A	B	C	D
IS0161094R061.3	1286+85	7 1/2"	1'-5"	7'-0"	8'-11"

DESIGNED	
CHECKED	
DRAWN	
CHECKED	

19
EXAMINED — ENGINEER OF STRUCTURAL SERVICES
PASSED — ENGINEER OF BRIDGES AND STRUCTURES

OS-A-10-DMS2 7/1/2001

NUMBER	REVISION	DATE

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)

OVERHEAD SIGN STRUCTURES
ALTERNATE ALUMINUM WALKWAY DETAILS

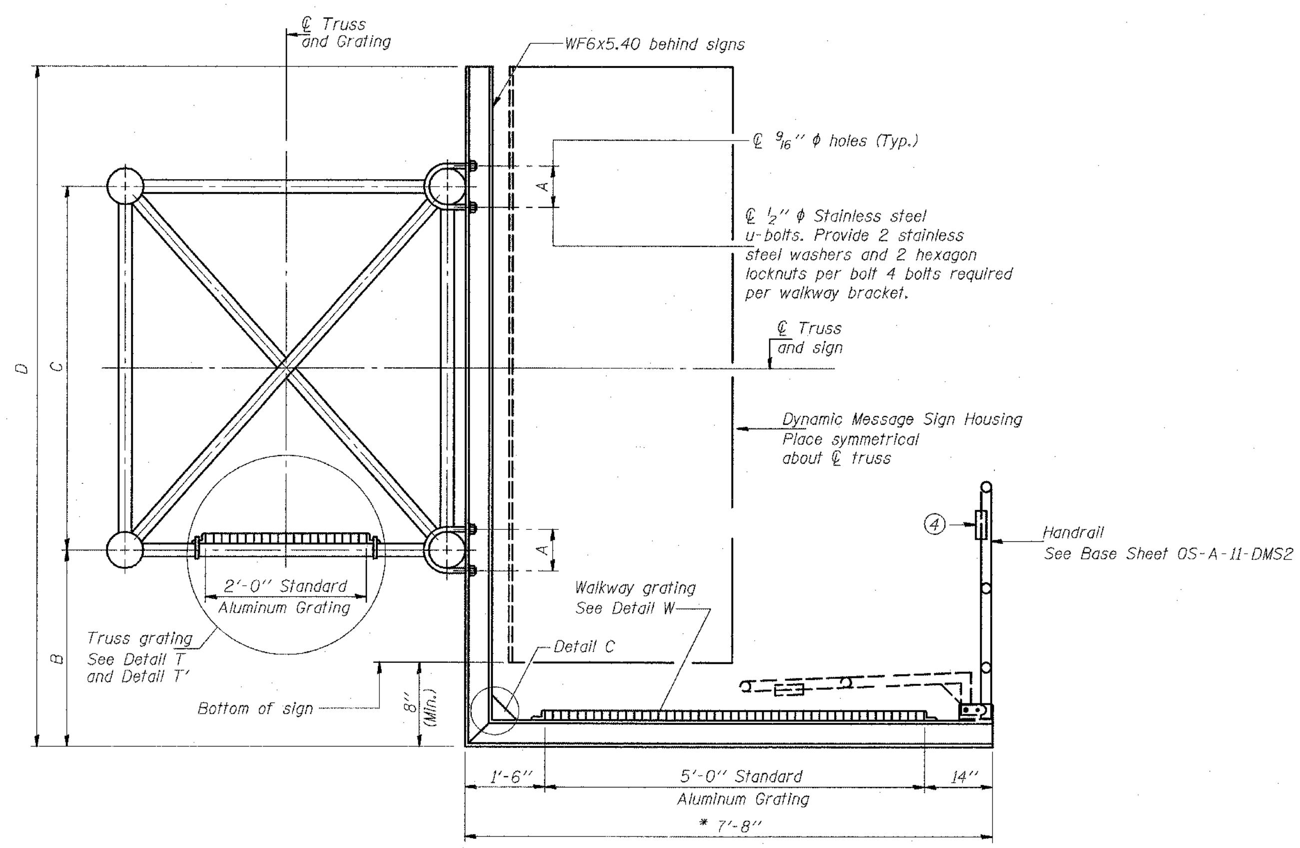
SCALE: AS NOTED DRAWN BY: AMB
DATE: MARCH 25, 2005 CHECKED BY: TB

TYLIN INTERNATIONAL

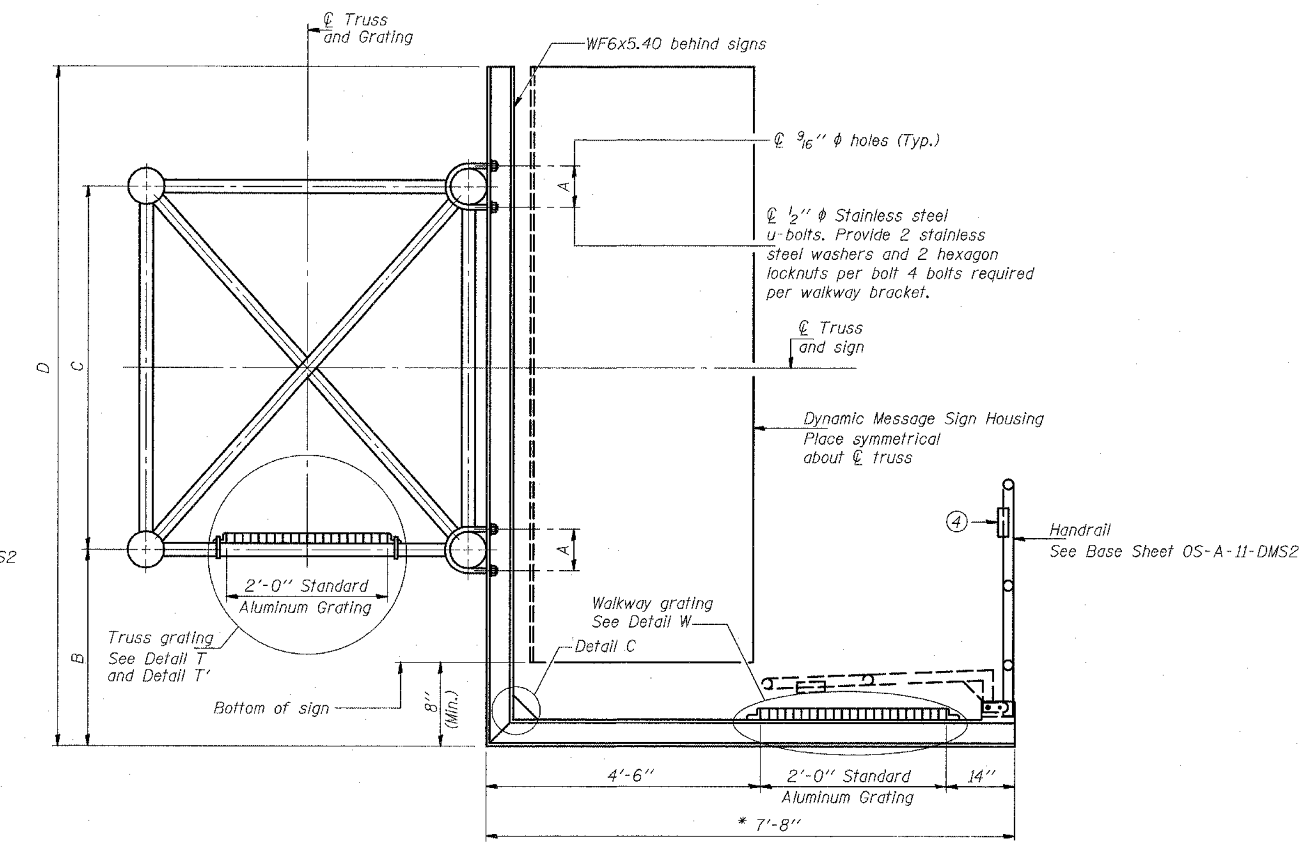
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	•	COOK	907	772
STA. 1200+00.00	TO STA. 1365+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

• (1516.1, 1717 & 1818) R-9 62695

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



SECTION B'-B'



SECTION B"-B"

* Bracket and grating dimensions are nominal and will vary based on actual DMS cabinet dimensions plus manufacturer's mounting devices, and providing clearance between the lowered handrail and DMS cabinet.

Note:

For dimentions "A" to "D" and remaining details, see sheet OS-A-10-DMS2

NUMBER	REVISION	DATE

DESIGNED	
CHECKED	
DRAWN	
CHECKED	

EXAMINED ____________ 19
ENGINEER OF STRUCTURAL SERVICES
PASSED
ENGINEER OF BRIDGES AND STRUCTURES

OS-A-10a-DMS2 7/1/2001

T·Y·LIN INTERNATIONAL

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)

OVERHEAD SIGN STRUCTURES
ALTERNATE ALUMINUM WALKWAY DETAILS

SCALE: AS NOTED DRAWN BY: AMB
DATE: MARCH 25, 2005 CHECKED BY: TB

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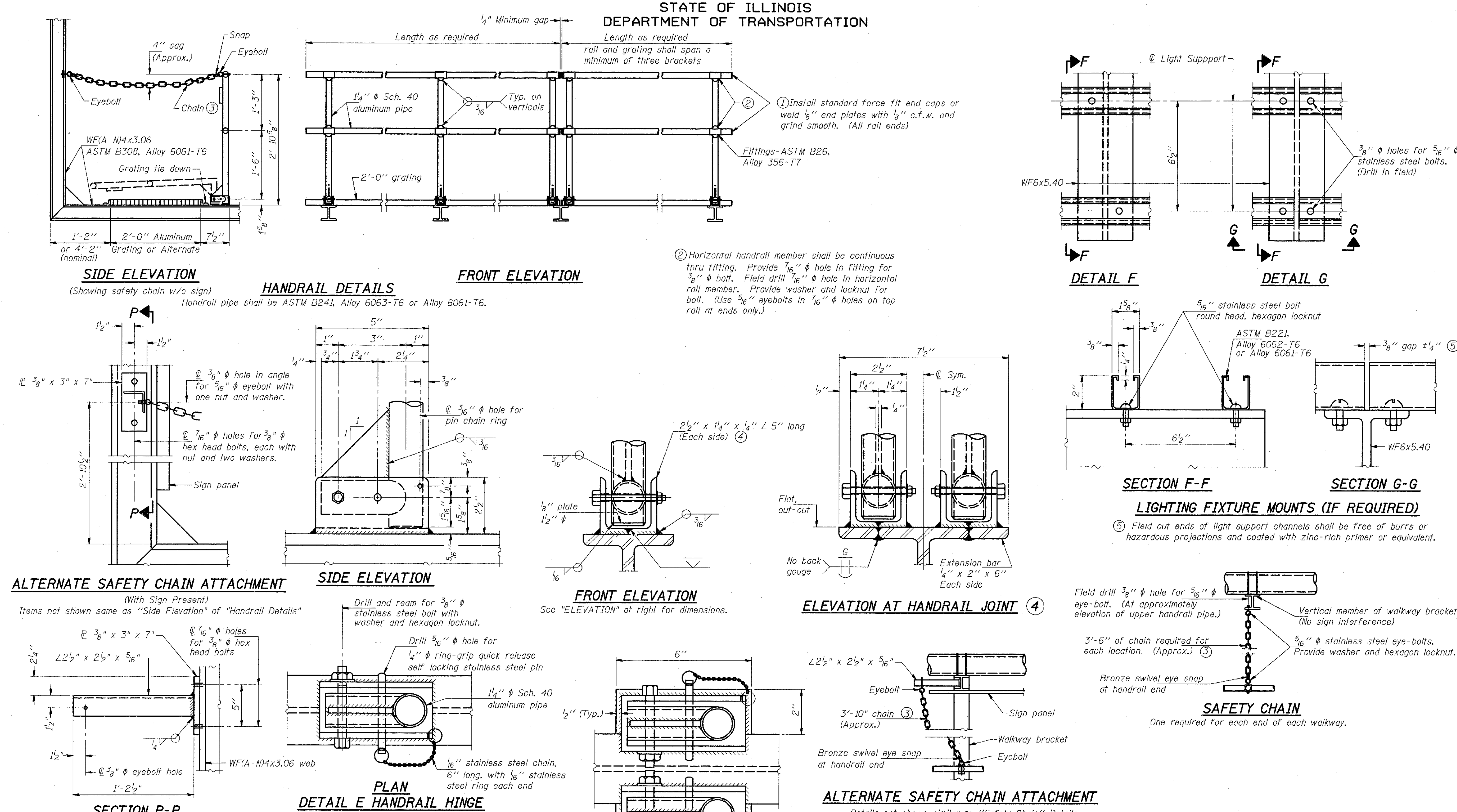
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	•	COOK	907	773

STA. 1200+00.00 TO STA. 1365+00

FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT

• (1516.1, 1717 & 1818) R-9 62695

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



① Install standard force-fit end caps or weld 1/8" end plates with 1/8" c.f.w. and grind smooth. (All rail ends)

② Horizontal handrail member shall be continuous thru fitting. Provide 7/16" φ hole in fitting for 3/8" φ bolt. Field drill 7/16" φ hole in horizontal rail member. Provide washer and locknut for bolt. (Use 5/16" eyebolts in 7/16" φ holes on top rail at ends only.)

LIGHTING FIXTURE MOUNTS (IF REQUIRED)

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

③ 3/16" galvanized steel chain, approximately 12 links per foot. Chain to be hot dip galvanized after manufacture and suitable for prolonged exterior exposure. Alternate materials may be substituted with the Engineer's approval.

④ Extrusions may be used in lieu of the details shown, with approval of the Engineer.

DESIGNED	
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DRAWN	
CHECKED	

EXAMINED ______ 19 ENGINEER OF BRIDGE DESIGN

PASSED ______ ENGINEER OF BRIDGES AND STRUCTURES

NUMBER	REVISION	DATE

OS-A-11-DMS2 7/1/2001

TYLIN INTERNATIONAL

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

F.A.I. 94 (DAN RYAN EXPRESSWAY)

OVERHEAD SIGN STRUCTURES
ALTERNATE ALUMINUM HANDRAIL DETAILS

SCALE: AS NOTED | DRAWN BY: AMB
DATE: MARCH 25, 2005 | CHECKED BY: TB

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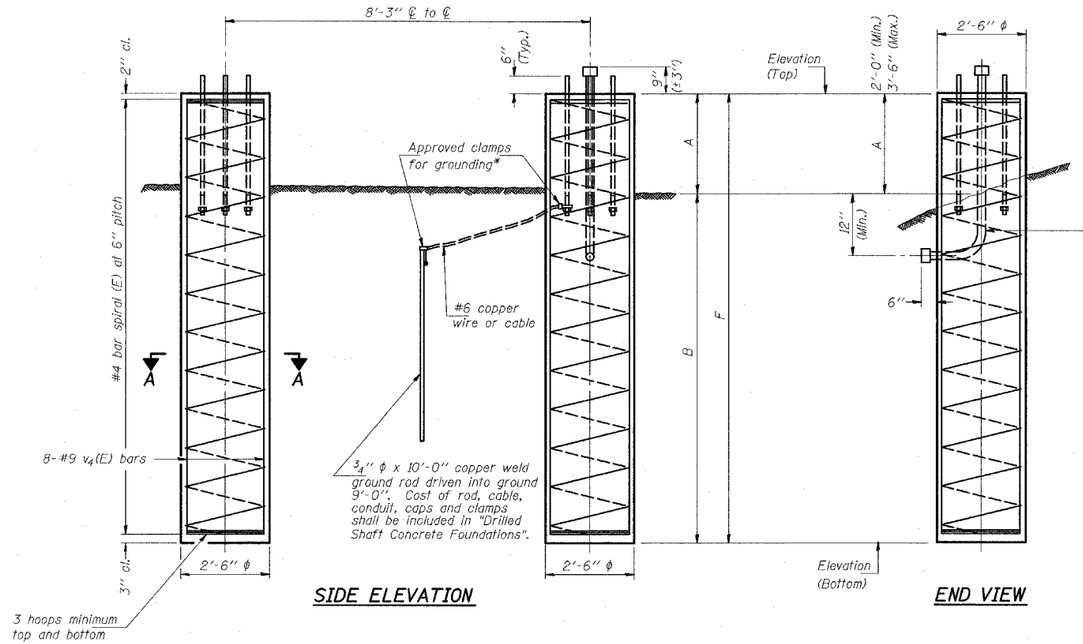
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	•	COOK	907	774
STA. 1200+00.00		TO STA. 1365+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
• (1516.1, 1717 & 1818) R-9				62695

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

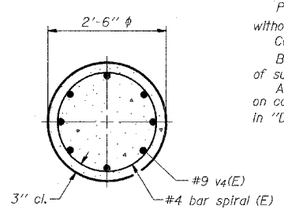
**Anchor rod shall be ground or filed to bright metal at clamp and cable connection location.*

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



SIDE ELEVATION

END VIEW



SECTION A-A

BAR LIST - EACH FOUNDATION

Bar	Number	Size	Length	Shape
v4(E)	16	#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.

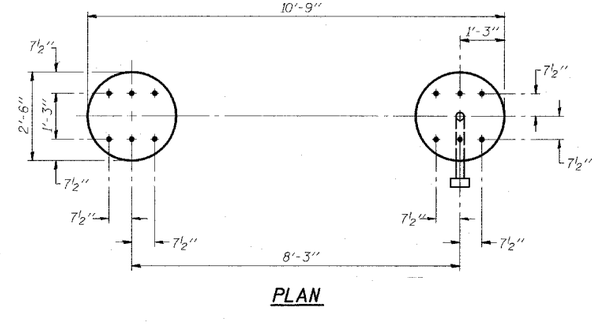
No sonotubes or decomposable forms shall be used below the lower conduit entrance.

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".



PLAN

Structure Number	Station	Left Foundation					Right Foundation					Class SI Concrete (Cu. Yds.)
		Elevation Top	Elevation Bottom	A	B	F	Elevation Top	Elevation Bottom	A	B	F	
IS0161094R061.5	1276+67						7.4	-15.82	2.72'	20.5'	23.22'	8.44
IS0161094R061.9	1251+43						-3.22	-23.19	2.47'	17.5'	19.97'	7.26
IS0161094R062.5	1224+00						6.98	-18.34	2.82'	22.5'	25.32'	9.20
IS0161094R062.9	149+87	4.02	-19.23	2.75'	20.5'	23.25'	5.01	-18.33	2.84'	20.5'	23.34'	16.94

DESIGNED	-
CHECKED	-
DRAWN	-
CHECKED	-

- 20

EXAMINED

ENGINEER OF STRUCTURAL SERVICES

PASSED

ENGINEER OF BRIDGES AND STRUCTURES

NUMBER	REVISION	DATE

OS4-F3 11/1/2002

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

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

F.A.I. 94 (DAN RYAN EXPRESSWAY)

OVERHEAD SIGN STRUCTURES
DRILLED SHAFT DETAILS

SCALE: AS NOTED DRAWN BY: AMB

DATE: MARCH 25, 2005 CHECKED BY: TB

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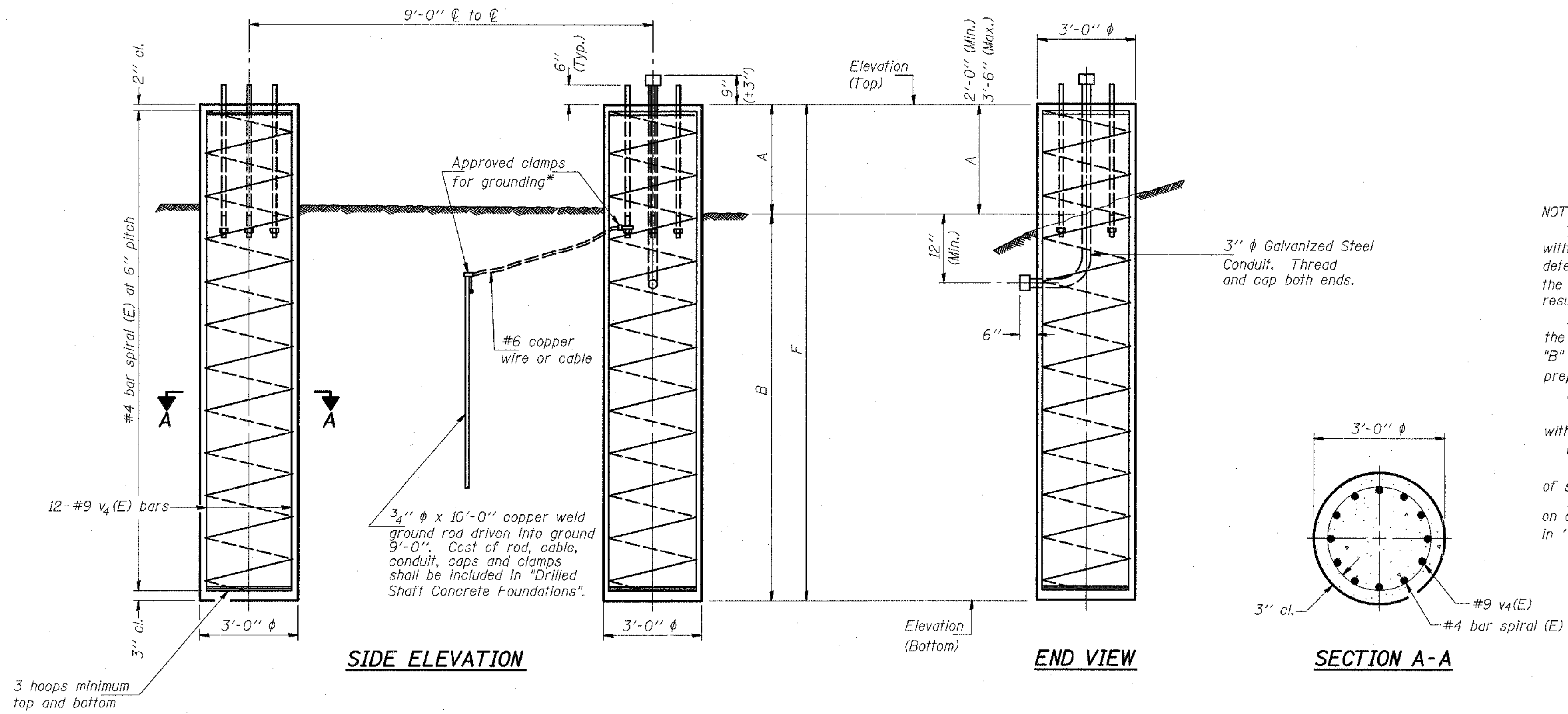
3/30/2005 12:45:45 PM

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	•	COOK	907	775
STA. 1200+00.00 TO STA. 1365+00				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
• (1516.1, 1717 & 1818) R-9				62695

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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

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



BAR LIST - EACH FOUNDATION

Bar	Number	Size	Length	Shape
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.

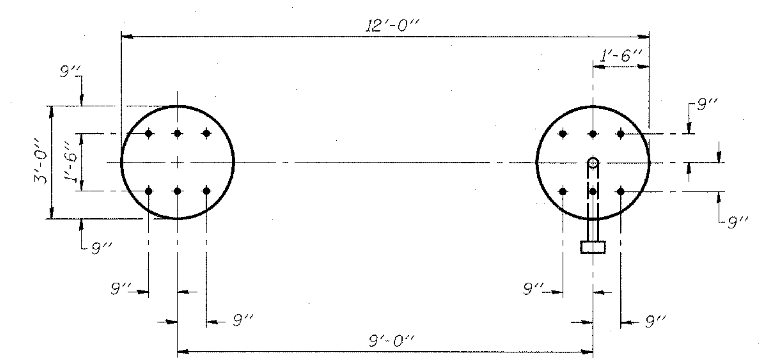
No sonotubes or decomposable forms shall be used below the lower conduit entrance.

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".



Structure Number	Station		Left Foundation				Right Foundation					Class SI Concrete (Cu. Yds.)
		Elevation Top	Elevation Bottom	A	B	F	Elevation Top	Elevation Bottom	A	B	F	
1S0161094R061.3	1286+85						-2.63	-23.29	2.66'	18'	20.66'	10.82

DESIGNED	-
CHECKED	-
DRAWN	-
CHECKED	-

- 20
EXAMINED
ENGINEER OF STRUCTURAL SERVICES
PASSED
ENGINEER OF BRIDGES AND STRUCTURES

OS4-F4 11/1/2002

NUMBER	REVISION	DATE

DETAILS FOR 12" ϕ SUPPORT FRAME
TYPE III-A TRUSS

TYLIN INTERNATIONAL

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)

OVERHEAD SIGN STRUCTURES
DRILLED SHAFT DETAILS

SCALE: AS NOTED DRAWN BY: AMB
DATE: MARCH 25, 2005 CHECKED BY: TB

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	•	COOK	907	776

STA. 1200+00.00 TO STA. 1365+00

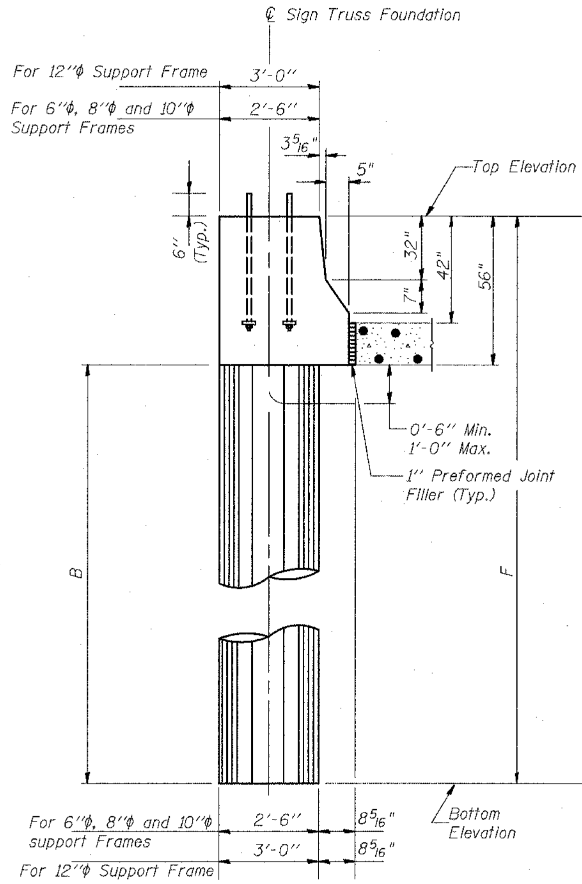
FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT

• (1516.1, 1717 & 1818) R-9

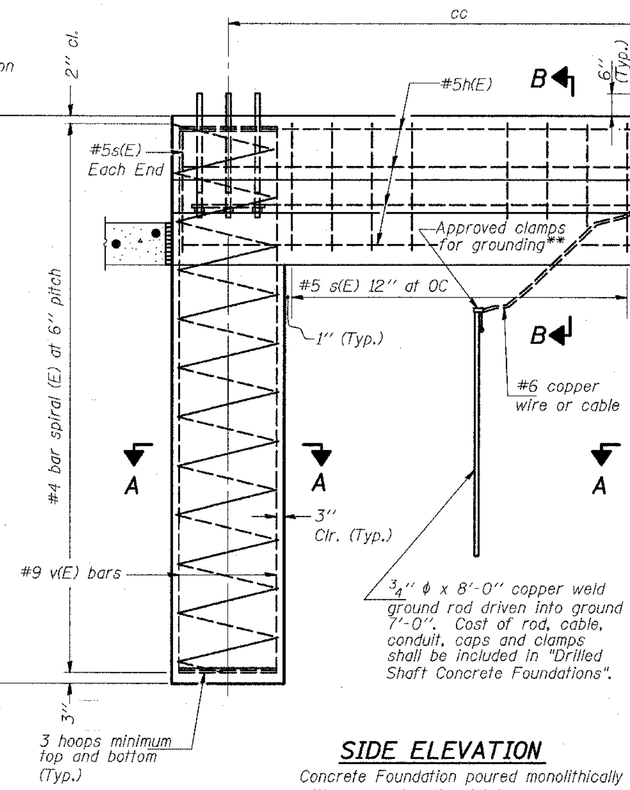
62695

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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

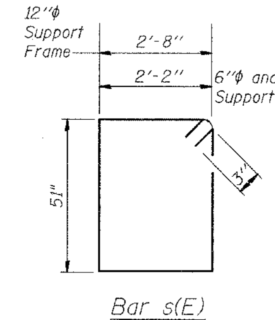


END VIEW

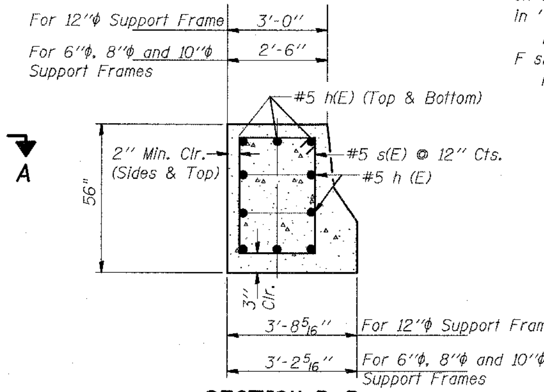


SIDE ELEVATION

Concrete Foundation poured monolithically with no construction joint.



Bar s(E)



SECTION B-B

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".

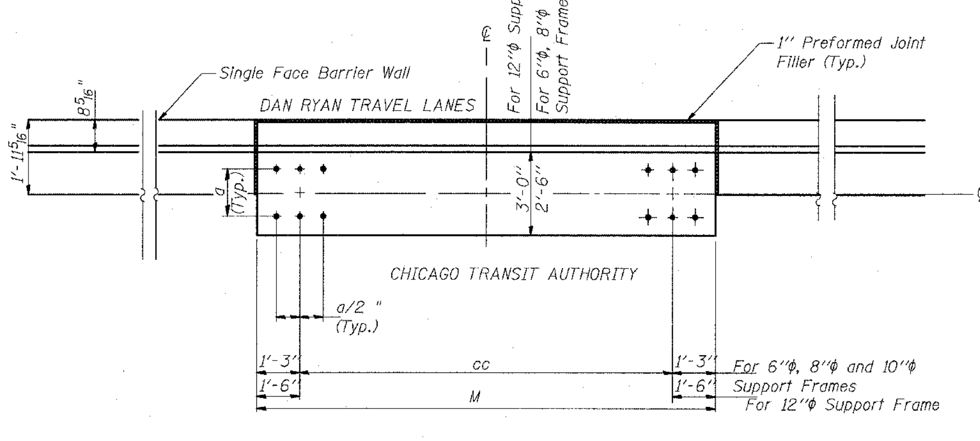
Face of median support foundation shall match dimensions of permanent barrier wall F shape.

Refer to the lighting plans for location and orientation of the conduit.

BAR LIST - EACH FOUNDATION

Bar	Number	Size	Length	Shape
h(E)	10	#5	M less 4″	—
s(E)	Varies	#5	Varies	□
v(E)	16	#9	F less 0′-5″	—
#4(E) bar spiral _ see Side Elevation				

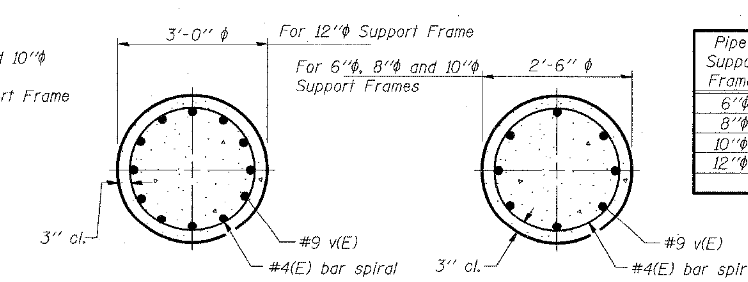
Structure Number	Station	Left Foundation				Right Foundation				Class SI Concrete (Cu. Yds.)
		Elevation Top	Elevation Bottom	B	F	Elevation Top	Elevation Bottom	B	F	
IS016I094R060.0	1355+91	3.74	-17.43	16.5′	21.17′					11.30
IS016I094R061.3	1286+85	-7.63	-30.30	18′	22.67′					16.37
IS016I094R061.5	1276+67	4.91	-20.26	20.5′	25.17′					12.76
IS016I094R061.9	1251+43	-4.72	-26.89	17.5′	22.17′					11.66
IS016I094R062.5	1224+00	5.49	-19.68	20.5′	25.17′					12.76



PLAN

MODIFIED BY CTE ENGINEERS, INC. FROM OS4-MED
MODIFIED BY T.Y. LIN INTERNATIONAL FOR BARRIER WALL DIMENSIONS, ANCHOR ROD

Pipe Support Frames	cc	M	a	a/2
6″ϕ	7′-0″	9′-6″	0′-11″	5½″
8″ϕ	7′-6″	10′-0″	1′-1½″	6¾″
10″ϕ	8′-3″	10′-9″	1′-3″	7½″
12″ϕ	9′-0″	12′-0″	1′-6″	9″



SECTION A-A

DESIGNED - SLW		EXAMINED	
CHECKED - RD		ENGINEER OF STRUCTURAL SERVICES	
DRAWN -		PASSED	
CHECKED -		ENGINEER OF BRIDGES AND STRUCTURES	

TYLIN INTERNATIONAL

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

F.A.I. 94 (DAN RYAN EXPRESSWAY)

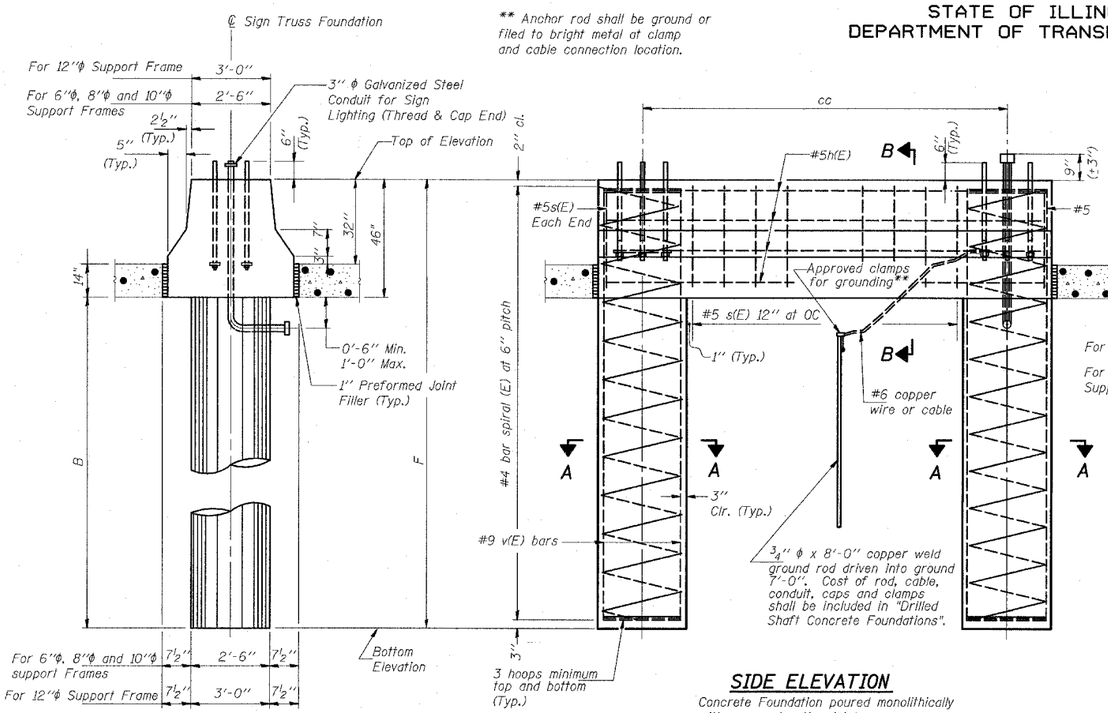
OVERHEAD SIGN STRUCTURES
MEDIAN SUPPORT FOUNDATION DETAILS
SINGLE FACE MEDIAN SUPPORT FOUNDATION

SCALE: AS NOTED — DRAWN BY: AMB
DATE: MARCH 25, 2005 — CHECKED BY: TB

3/30/2005 12:45:46 PM

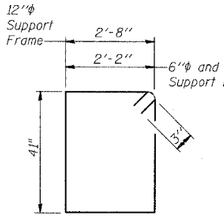
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	•	COOK	907	777
STA. 1200+00.00		TO STA. 1365+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
• (1516.1, 1717 & 1818) R-9				62695

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

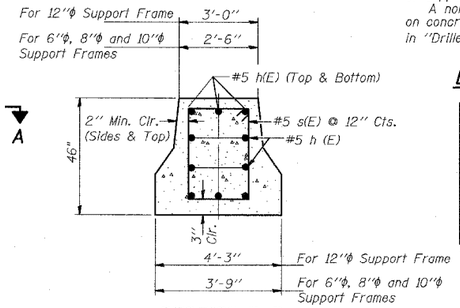


SIDE ELEVATION

Concrete Foundation poured monolithically with no construction joint.



Bar s(E)



SECTION B-B

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.

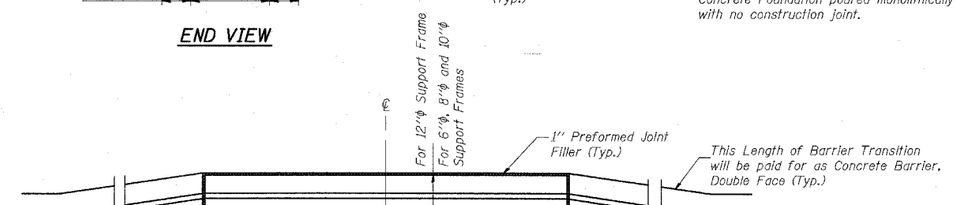
Backfill shall be placed per Article 502 of Standard Specification and prior to erection of support column.

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".

BAR LIST - EACH FOUNDATION

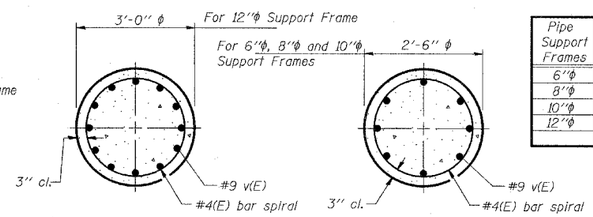
Bar	Number	Size	Length	Shape	
h(E)	10	#5	M less 4"	——	
s(E)	Varies	#5	Varies	□	
v(E)	16	#9	F less 0'-5"	——	← 6"ϕ, 8"ϕ and 10"ϕ Support Frame
v(E)	24	#9	F less 0'-5"	——	← 12"ϕ Support Frame
#4(E) bar spiral _ see Side Elevation					

END VIEW



PLAN

Structure Number	Station	Left Foundation				Right Foundation				Class SI Concrete (Cu. Yds.)
		Elevation Top	Elevation Bottom	B	F	Elevation Top	Elevation Bottom	B	F	
IS0161094R060.0	1355+91					2.60	-17.74	16.5'	20.34'	10.88



SECTION A-A

Pipe Support Frames	cc	M	a	a/2
6"ϕ	7'-0"	9'-6"	0'-11"	5½"
8"ϕ	7'-6"	10'-0"	1'-1½"	6¾"
10"ϕ	8'-3"	10'-9"	1'-3"	7½"
12"ϕ	9'-0"	12'-0"	1'-6"	9"

DESIGNED	-	
CHECKED	-	
DRAWN	-	
CHECKED	-	

EXAMINED - 20

ENGINEER OF STRUCTURAL SERVICES

PASSED

ENGINEER OF BRIDGES AND STRUCTURES

OS4-MED 11/1/2002

MODIFIED BY T.Y. LIN INTERNATIONAL FROM OS4-MED FOR BARRIER WALL DIMENSIONS

T·Y·LIN INTERNATIONAL

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

F.A.I. 94 (DAN RYAN EXPRESSWAY)

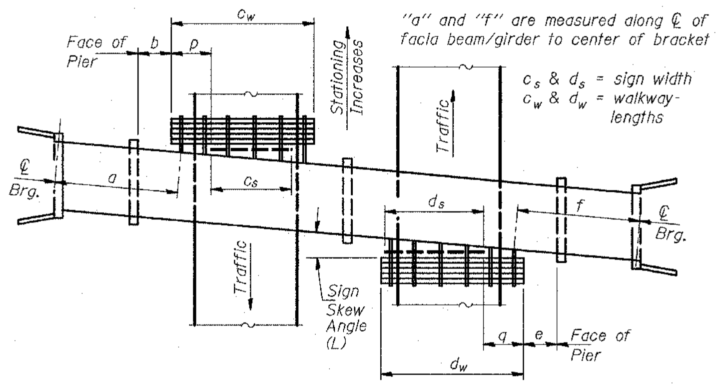
OVERHEAD SIGN STRUCTURES
MEDIAN SUPPORT FOUNDATION DETAILS

SCALE: AS NOTED DRAWN BY: AMB

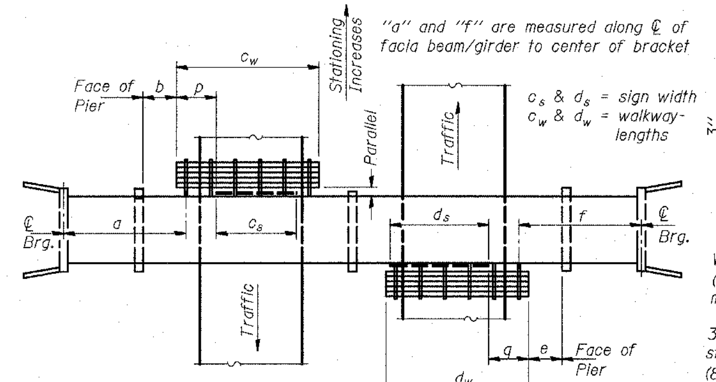
DATE: MARCH 25, 2005 CHECKED BY: TB

3/30/2005 12:45:47 PM

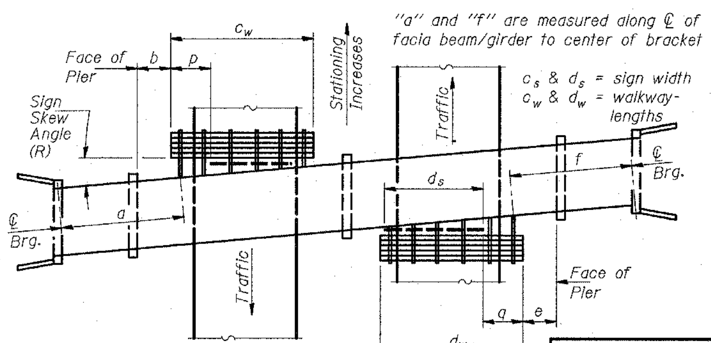
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



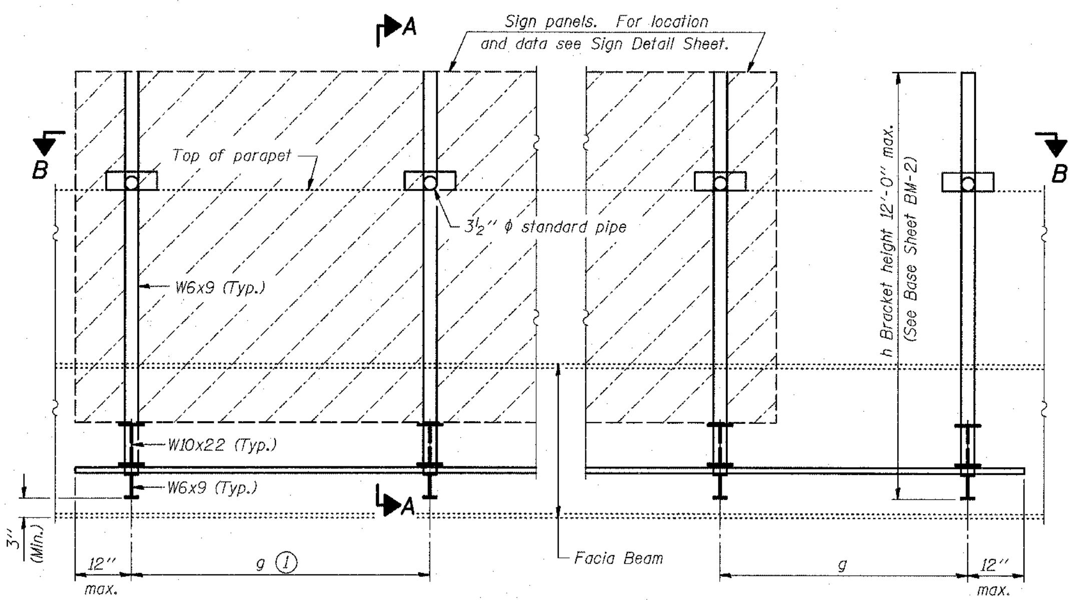
PLAN
(Left Sign Skew > 15°)
WALKWAY AND HANDRAIL SKETCH
(Road plan beneath structure varies.)



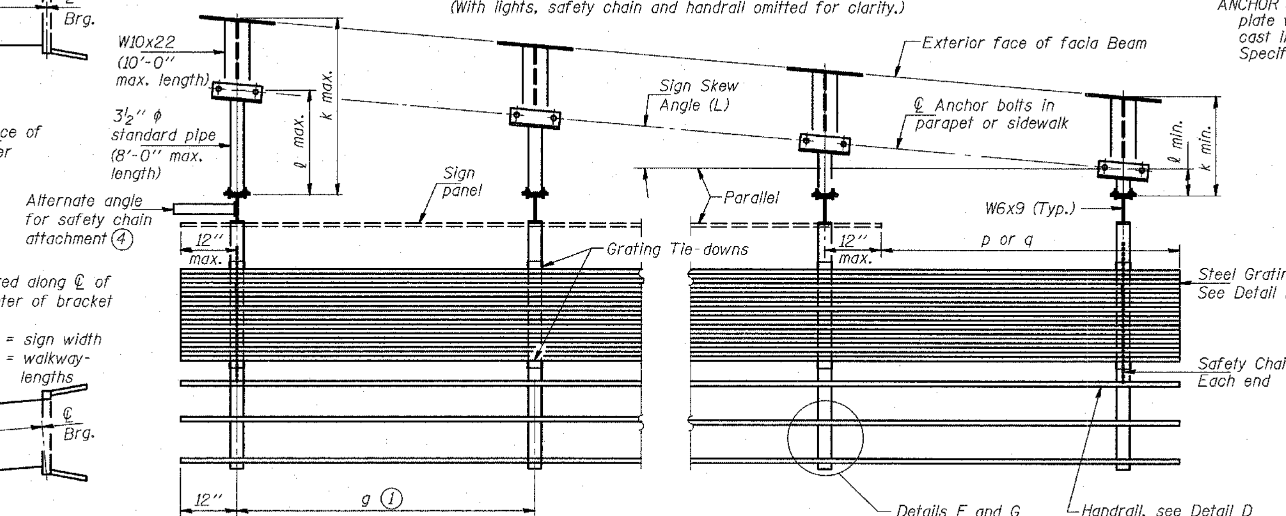
PLAN
(For Sign Skew ≤ 15°, all brackets constant)
WALKWAY AND HANDRAIL SKETCH
(Road plan beneath structure varies.)



PLAN
(Right Sign Skew > 15°)
WALKWAY AND HANDRAIL SKETCH
(Road plan beneath structure varies.)



TYPICAL FRONT ELEVATION
(With lights, safety chain and handrail omitted for clarity.)



SECTION B-B
(Shown: Left Sign Skew >15°)

GENERAL NOTES

SPECIFICATIONS:

DESIGN: AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals. ("AASHTO Specifications") ②

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: 80 M.P.H. WIND VELOCITY PLUS 30% GUST FACTOR
WIND LOADING: 35 p.s.f. normal to Sign Panel Area and truss elements not behind sign Loading Diagram.
WALKWAY LOADING: Dead load plus 500 lbs. concentrated live load.

MINIMUM CLEARANCE: 3" greater than bridge members at all locations. (All Obstructions)

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

MATERIALS: All Structural Steel Pipe shall be ASTM A53 Grade B with a minimum yield of 35,000 p.s.i., or A500 Grade B or C with a minimum yield of 46,000 p.s.i. 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 (M183, M223 Gr. 50,).

HIGH STRENGTH BOLTS: All bolts, washers, nuts and locknuts shall satisfy the requirements of ASTM designation A307 unless noted as "H.S." which shall require AASHTO M164 (A325), ASTM A449, or approved alternate. All fasteners shall be hot dip galvanized per AASHTO M232 unless otherwise specified.

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: All-threaded rod conforming to ASTM A307, ¾" ϕ x 12" long, each with one plate washer and locknut and be hot dip galvanized per AASHTO M232. They shall be either cast into the concrete or epoxy grouted in accordance with Section 584 of the Standard Specifications. Minimum embedment in concrete shall be 9".

① Bracket spacing g ≤ 6'-0" max. Spacing shall be uniform if possible but may vary ±6" to miss existing obstruction (rail post, light poles, web stiffeners, splice plates, etc.). Adjust bracket lengths accordingly on skewed structures.
② Any design modifications shall be based on the current version of applicable specifications and submitted for the Engineer's approval.
③ Unit price includes grating, handrail, brackets, supports, anchor bolts, fasteners, fabrication, delivery, erection, field drilling and other necessary items. Limits of payment are based on grating length (cw, dw) unless otherwise specified.

For Safety Chain Details and Details D, F and G, see Base Sheet BM-4.
④ If walkway bracket at safety chain location is behind sign, add angle to bracket. See detail on Base Sheet BM-4.

NUMBER	REVISION	DATE

TOTAL BILL of MATERIAL

③ OVERHEAD SIGN STRUCTURE - BRIDGE MOUNTED	Foot	173.00

Structure Number	Sign Skew Angle (L) or (R)	Bridge Station	Bridge Structure Number	Contract Route Designation	a	b	c_s	c_w	d_s	d_w	e	f	g	No. of Brackets (Total)	p	q	Total Grating/ Hndrl. Lengths (c_w + d_w)
1B016I057L357.6	0°	107+16	016-2029	FAI-94	6.00'		13.50'	13.50'					6.00'	3			13.50'
1B016I094R060.8	0°	1313+24	016-1144	FAI-94	4.81'		37.58'	38.00'					***	9			38.00'
1B016I094R060.3	0°	1339+32	016-1145	FAI-94	52.36'	7.52'	41.99'	50.00'					**	12	8.01'		50.00'
1B016I094R059.7	0°	1365+87	016-1146	FAI-94	50.25'	5.42'	9.00'	16.00'					*	4	7.00'		16.00'
1B016I094R060.4	2°54'-23"R	2332+18	016-2850	FAI-94					46.5'	55.0'	36.08'	37.17'	****	12		9.00'	55.00'

Dimensions a, b, e, f & g may vary as approved by the Engineer, see ①.
When $c_w < c_s$ and/or $d_w < d_s$, use alternate brackets without walkway supports where applicable, see ③.

*Starting from bracket at the right (facing southbound), the spacings are 5.61', 4.11' and 5.11'.
**Starting from the bracket at the right (facing southbound), the spacings are 2.18', 6.00', 2.17', 5.50', 3.27', 6.00', 5.22', 4.12', 5.04', 5.22', and 4.12'.
***Starting from the bracket at the right (facing southbound), the spacings are 3.92', 3.92', 5.12', 5.93', 3.41', 3.80', 4.33', and 6.00'.
****Starting from bracket at the right (facing northbound), the spacings are 3.50', 5.50', 3 @ 4.33', 3 @ 5.34', and 3 @ 5.00'.

FOR BRIDGE-MOUNTED SIGN STRUCTURES AT STA. 107+16, STA. 1313+24, & STA. 2332+18 USE W6X12 INSTEAD OF W6X9.

THE CONTRACTOR SHALL COORDINATE WITH THE LIGHTING CONTRACTOR TO ALLOW FOR INSTALLATION OF APPROPRIATE EQUIPMENT PRIOR TO ERECTION OF THE SIGN STRUCTURES.

DESIGNED -	
CHECKED -	
DRAWN -	
CHECKED -	

- 20
EXAMINED
ENGINEER OF STRUCTURAL SERVICES
PASSED
ENGINEER OF BRIDGES AND STRUCTURES

BM-1 11/1/2002

TYLIN INTERNATIONAL

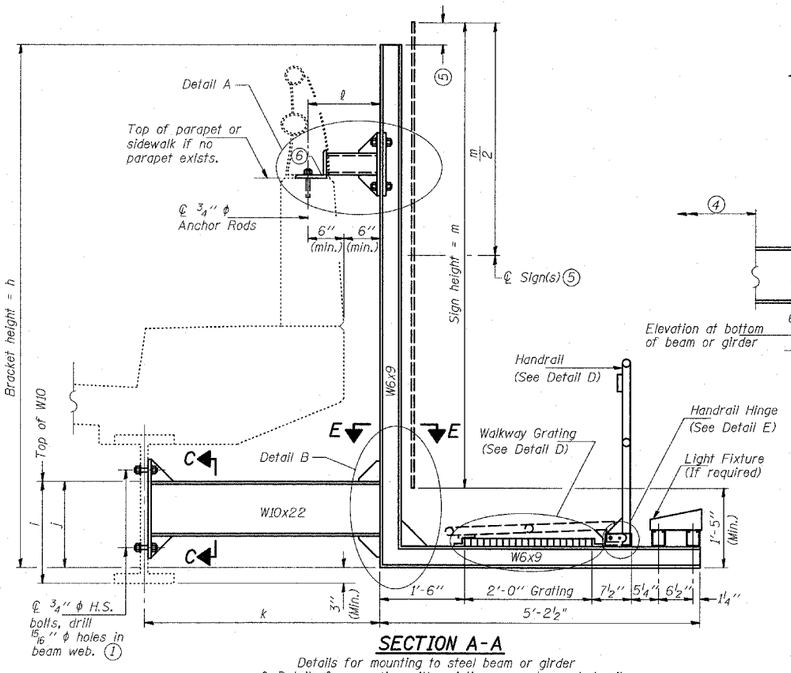
REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)
BRIDGE MOUNT SIGN STRUCTURES GENERAL PLAN AND ELEVATION

SCALE: AS NOTED DRAWN BY: AMB
DATE: MARCH 25, 2005 CHECKED BY: TB

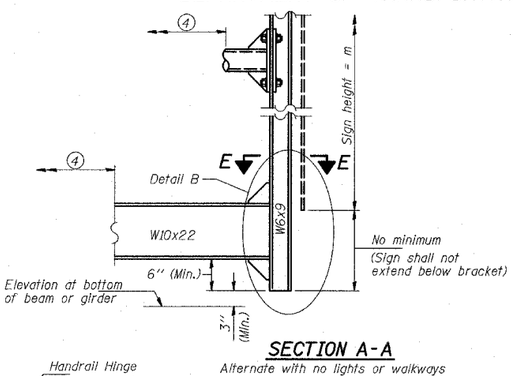
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	•	COOK	907	779
STA. 1200+00.00	TO STA. 1365+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
• (1516.1, 1717 & 1818) R-9				62695

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



SECTION A-A

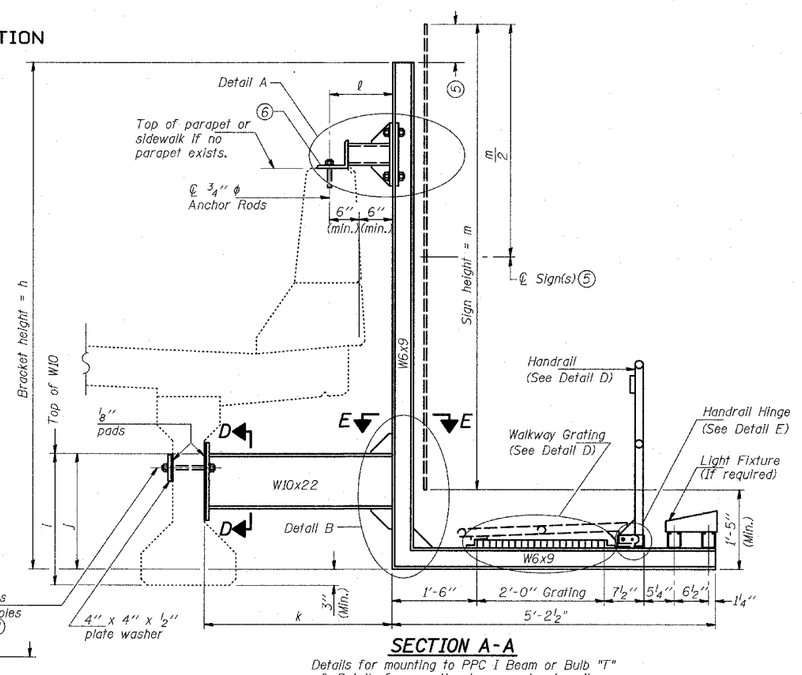
Details for mounting to steel beam or girder
& Details for mounting with existing parapet mounted rail



SECTION A-A

Alternate with no lights or walkways

(4) For attachment details of 3 1/2" pipe and W10x22, see other sections as applicable.



SECTION A-A

Details for mounting to PPC I Beam or Bulb "T"
& Details for mounting to parapet w/o rail

Structure Number	Station	h	l	j	k max. (10'-0" max.)	ℓ max. (8'-0" max.)	m
1B016I057L357.6	107+16	13.42'	1.92'	1.50'	3.00'	1.00'	12.50'
1B016I094R060.8	1313+24	13.42'	1.81'	1.39'	3.50'	1.05'	12.50'
1B016I094R060.3	1339+32	9.42'	1.92'	1.50'	3.50'	1.00'	8.50'
1B016I094R059.7	1365+87	9.42'	1.93'	1.50'	3.50'	1.09'	8.50'
1B016I094R060.4	2332+18	13.92'	2.17'	1.67'	6.33'	2.83'	12.50'

For Details A & B, Sections C-C, D-D and E-E, see Base Sheet BM-3.
For Details D & E, see Base Sheet BM-4.

(1) Holes in new steel members may be drilled in the fabrication shop or in the field. Field drill existing members.

(2) For new PPC I beams, holes shall be formed during casting. For existing PPC I beams, prestressing strand locations shall be determined and spaced to miss strands by 6" min. Minimize spalling during field drilling of existing beams.

(3) For new construction, form holes. For existing RC beams, locate primary reinforcement and space holes to miss by 6" min. Minimize spalling and concrete fracturing/damage during field drilling of existing concrete. Spalls over 1/4" deep or beyond the coverage of the 4x4 plate washer shall be repaired with epoxy mortar before installing washer.

DESIGNED	-
CHECKED	-
DRAWN	-
CHECKED	-

- 20

EXAMINED

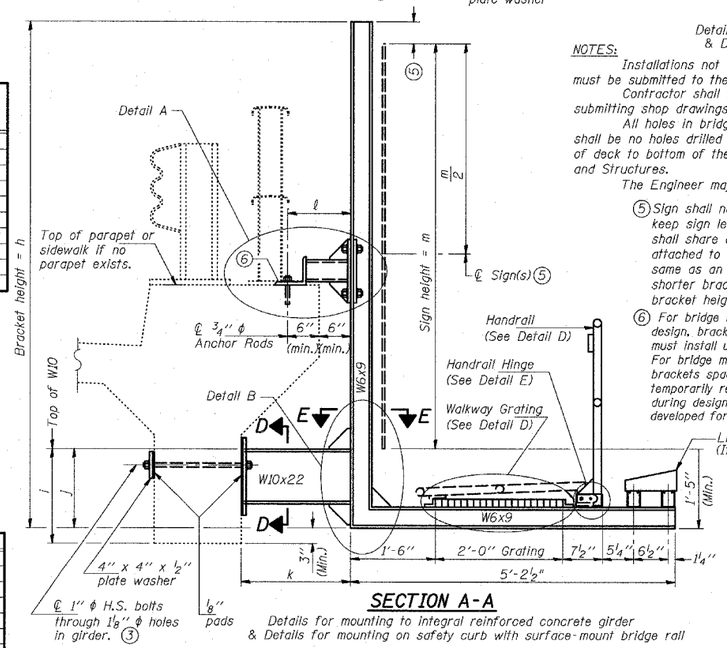
ENGINEER OF STRUCTURAL SERVICES

PASSED

ENGINEER OF BRIDGES AND STRUCTURES

NUMBER	REVISION	DATE

BM-2 11/1/2002



SECTION A-A

Details for mounting to integral reinforced concrete girder
& Details for mounting on safety curb with surface-mount bridge rail

NOTES:

Installations not within dimensional limits shown require special analysis for all components and must be submitted to the Bureau of Bridges and Structures for approval.

Contractor shall field check all pertinent existing bridge dimensions shown on plans before submitting shop drawings.

All holes in bridge beams or girders should be located in the middle half of the member. There shall be no holes drilled in the lower quarter of the member's depth. (For R.C. girder, depth = bottom of deck to bottom of the girder.) Proposed exceptions must be approved by the Bureau of Bridges and Structures.

The Engineer may adjust dimension "l" to meet the above condition and to keep the sign level.

(5) Sign shall not extend more than 6" above top of bracket, and this dimension may vary to keep sign level if bridge is on grade or vertical curve. Multiple signs of various heights shall share a common horizontal centerline and use equal bracket heights. If no sign is attached to a W6x9 vertical (bracket only supporting walkway), dimension h shall be the same as an adjacent bracket with a sign attached, unless Engineer specifically directs shorter brackets due to locational restraints on future uses. (See Detail A for minimum bracket height.)

(6) For bridge mounted sign structures installed on new bridges with railing, during design, bracket spacing must be coordinated with railing post spacing and the Contractor must install upper brackets prior to railing installation.
For bridge mounted sign structrues installed on existing bridges with railing, during design, brackets spacing must be coordinated with railing post spacing and the Contractor must temporarily remove sections of railing to facilitate upper bracket installation. If it is determined during design that existing railings can't be removed, alternate upper connection details must be developed for the contract plans and approved by the Bureau of Bridges and Structures.

FOR BRIDGE-MOUNTED SIGN STRUCTURES AT STA. 107+16, STA. 1313+24, & STA. 2332+18 USE W6X12 INSTEAD OF W6X9.

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

F.A.I. 94 (DAN RYAN EXPRESSWAY)

BRIDGE MOUNT SIGN STRUCTURES
WALKWAY AND CONNECTION DETAILS

SCALE: AS NOTED DRAWN BY: AMB

DATE: MARCH 25, 2005 CHECKED BY: TB

TY·LIN INTERNATIONAL

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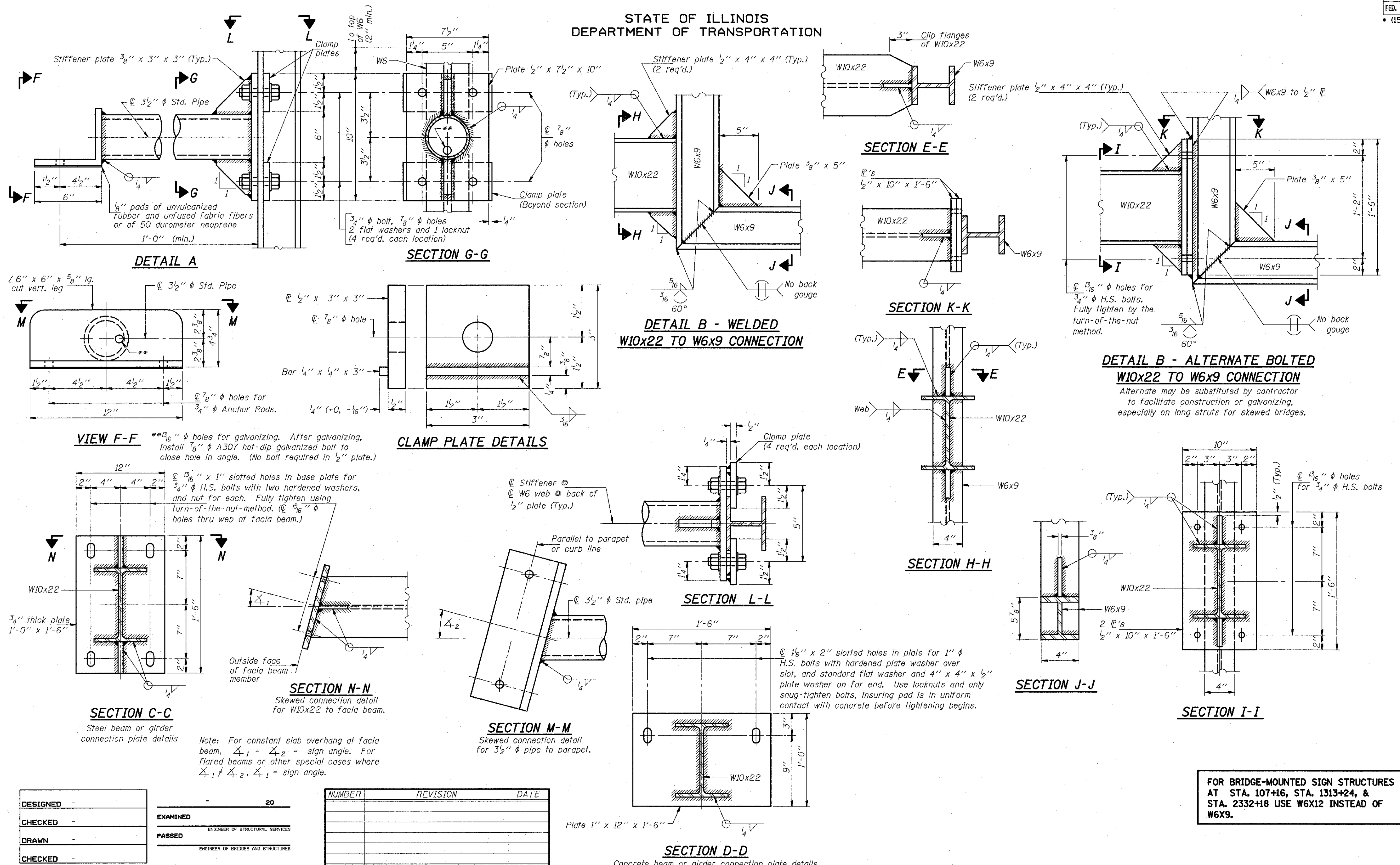
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	*	COOK	907	780
STA. 1200+00.00	TO STA. 1365+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* (1516.1, 1717 & 1818) R-9

62695

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



DETAIL A
Stiffener plate 3/8" x 3" x 3" (Typ.)
℄ 3½" ϕ Std. Pipe
1/8" pads of unvulcanized rubber and unfused fabric fibers or of 50 durometer neoprene
1'-0" (min.)
Clamp plates
SECTION G-G
Plate ½" x 7½" x 10"
℄ 7/8" ϕ holes
Clamp plate (Beyond section)
3/4" ϕ bolt, 7/8" ϕ holes 2 flat washers and 1 locknut (4 req'd. each location)
VIEW F-F
∠6" x 6" x 5/8" lg. cut vert. leg
℄ 7/8" ϕ holes for 3/4" ϕ Anchor Rods.
**13/16" ϕ holes for galvanizing. After galvanizing, install 7/8" ϕ A307 hot-dip galvanized bolt to close hole in angle. (No bolt required in ½" plate.)
CLAMP PLATE DETAILS
Bar ¼" x ¼" x 3"
DETAIL B - WELDED
W10x22 TO W6x9 CONNECTION
Stiffener plate ½" x 4" x 4" (Typ.) (2 req'd.)
Plate 3/8" x 5"
No back gouge
SECTION E-E
Clip flanges of W10x22
SECTION K-K
SECTION H-H
DETAIL B - ALTERNATE BOLTED
W10x22 TO W6x9 CONNECTION
Alternate may be substituted by contractor to facilitate construction or galvanizing, especially on long struts for skewed bridges.
℄ 13/16" ϕ holes for 3/4" ϕ H.S. bolts. Fully tighten by the turn-of-the-nut method.
SECTION C-C
Steel beam or girder connection plate details
℄ 13/16" x 1" slotted holes in base plate for 3/4" ϕ H.S. bolts with two hardened washers, and nut for each. Fully tighten using turn-of-the-nut-method. (℄ 15/16" ϕ holes thru web of facia beam.)
3/4" thick plate 1'-0" x 1'-6"
SECTION N-N
Skewed connection detail for W10x22 to facia beam.
Outside face of facia beam member
SECTION M-M
Skewed connection detail for 3½" ϕ pipe to parapet.
Parallel to parapet or curb line
Note: For constant slab overhang at facia beam, ∡1 = ∡2 = sign angle. For flared beams or other special cases where ∡1 ≠ ∡2, ∡1 = sign angle.
SECTION L-L
Clamp plate (4 req'd. each location)
℄ Stiffener & ℄ W6 web @ back of ½" plate (Typ.)
SECTION D-D
Concrete beam or girder connection plate details.
℄ 1⅛" x 2" slotted holes in plate for 1" ϕ H.S. bolts with hardened plate washer over slot, and standard flat washer and 4" x 4" x ½" plate washer on far end. Use locknuts and only snug-tighten bolts. Insuring pad is in uniform contact with concrete before tightening begins.
Plate 1" x 12" x 1'-6"
SECTION J-J
SECTION I-I
℄ 13/16" ϕ holes for 3/4" ϕ H.S. bolts
2 ℙ's ½" x 10" x 1'-6"

FOR BRIDGE-MOUNTED SIGN STRUCTURES AT STA. 107+16, STA. 1313+24, & STA. 2332+18 USE W6X12 INSTEAD OF W6X9.

DESIGNED	-
CHECKED	-
DRAWN	-
CHECKED	-

BM-3 11/1/2002

- 20
EXAMINED
ENGINEER OF STRUCTURAL SERVICES
PASSED
ENGINEER OF BRIDGES AND STRUCTURES

NUMBER	REVISION	DATE

TY·LIN INTERNATIONAL

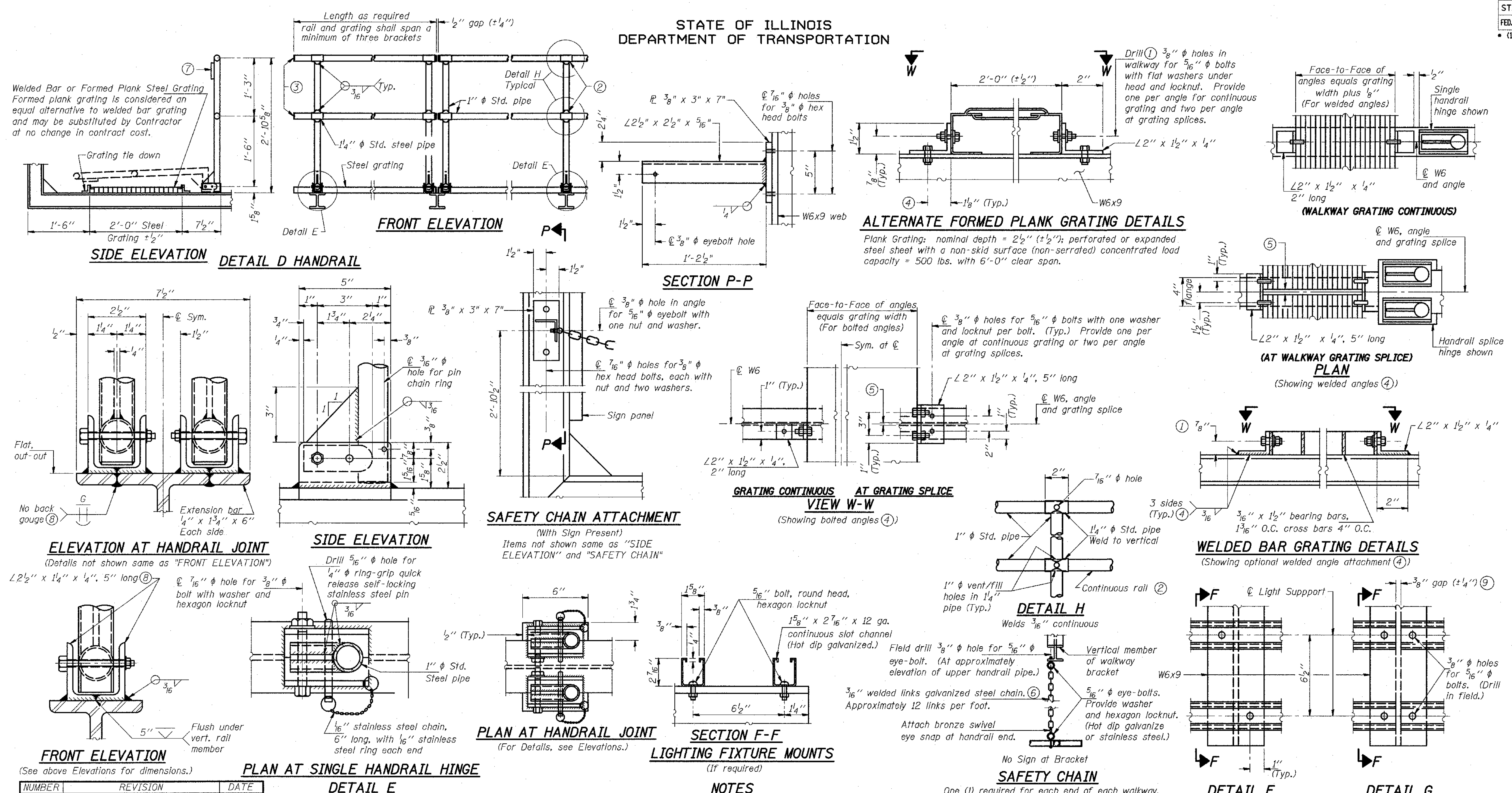
REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)
BRIDGE MOUNT SIGN STRUCTURES
CONNECTION DETAILS

SCALE: AS NOTED DRAWN BY: AMB
DATE: MARCH 25, 2005 CHECKED BY: TB

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	•	COOK	907	781
STA. 1200+00.00	TO STA. 1365+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
• (1516.1, 1717 & 1818) R-9				62695

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



NOTES

① Drilling holes in grating may be done in shop or field, based on Contractor's preference and subject to accurate alignment.

② Horizontal rail member shall be continuous thru 1¼" ϕ pipe. Provide 7/16" ϕ hole in fitting for ⅜" ϕ bolt. Field drill 7/16" ϕ hole in horizontal rail member. Provide washer and locknut for bolt. (Use 5/16" eyebolts in 7/16" ϕ holes on top rail at ends only.)

③ Install standard force-fit end caps or weld ⅛" end plates with ⅛" c.f.w. and grind smooth. (All rail ends.)

④ Grating tie-down angles may be either bolted to W6x9 after galvanizing or welded to W6x9 before galvanizing, at the Contractor's option. (No weld on grating side.)

⑤ ⅜" (±¼") gap between grating panels at splice.

⑥ Chain to be hot dip galvanized after manufacture and suitable for prolonged exterior exposure. Alternate materials may be substituted with the Engineer's approval. Approximately 3'-6" long chain per location. Maximum sag with handrail erected = 4".

⑦ ℙ ⅛" x ½" x 2" welded to handrail posts to protect locations that contact grating.

⑧ Extrusions may be used in lieu of details shown, with approval by Engineer.

⑨ Field cut ends of light support channels shall be free of burrs or hazardous projections and coated with zinc-rich primer or equivalent.

FOR BRIDGE-MOUNTED SIGN STRUCTURES AT STA. 107+16, STA. 1313+24, & STA. 2332+18 USE W6X12 INSTEAD OF W6X9.

NUMBER	REVISION	DATE

DESIGNED -		- 20
CHECKED -	EXAMINED	ENGINEER OF STRUCTURAL SERVICES
DRAWN -	PASSED	ENGINEER OF BRIDGES AND STRUCTURES
CHECKED -		

BM-4 11/1/2002

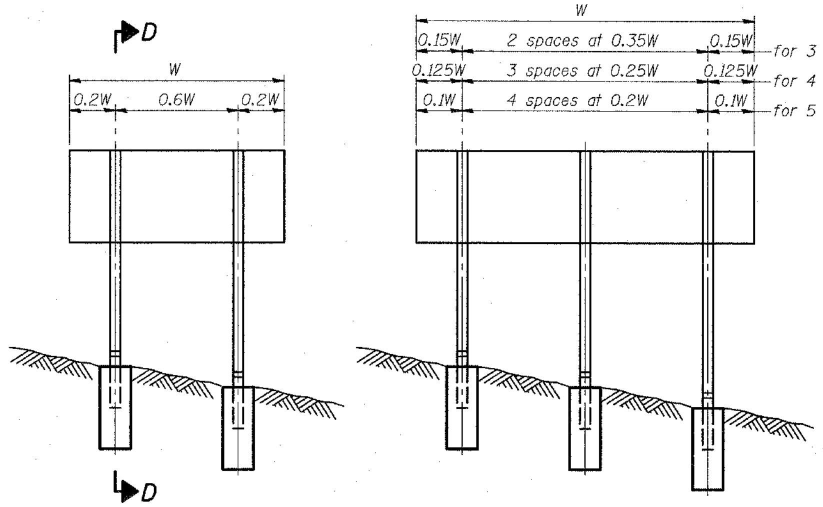
TYLIN INTERNATIONAL

REVISIONS NAME	DATE

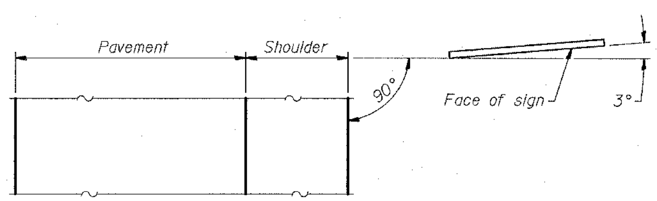
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)

BRIDGE MOUNT SIGN STRUCTURES
WALKWAY DETAILS

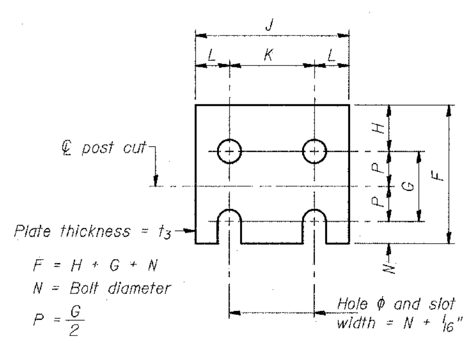
SCALE: AS NOTED DRAWN BY: AMB
DATE: MARCH 25, 2005 CHECKED BY: TB



ELEVATION



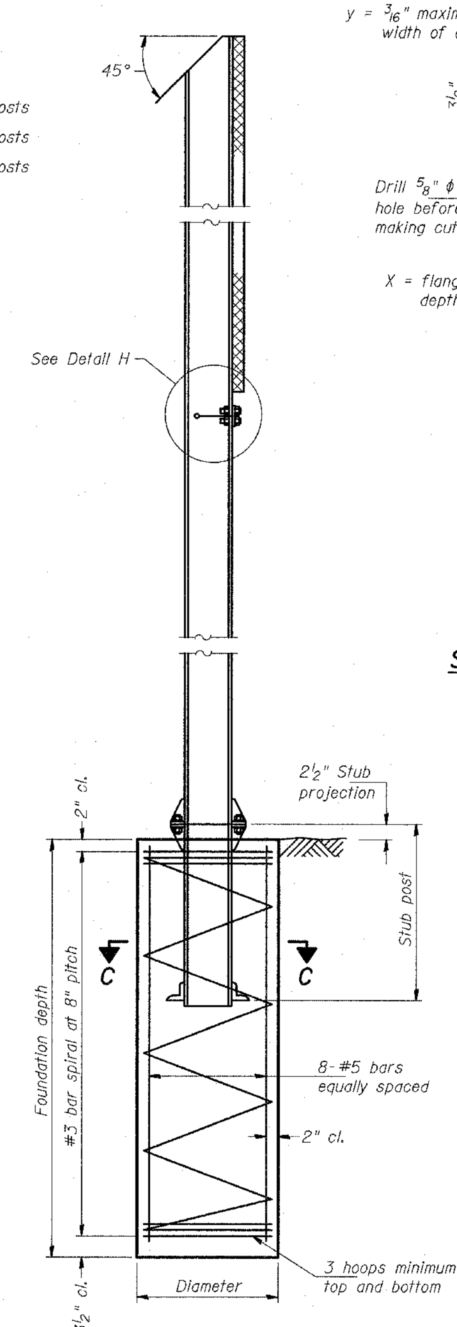
LOCATION SKETCH



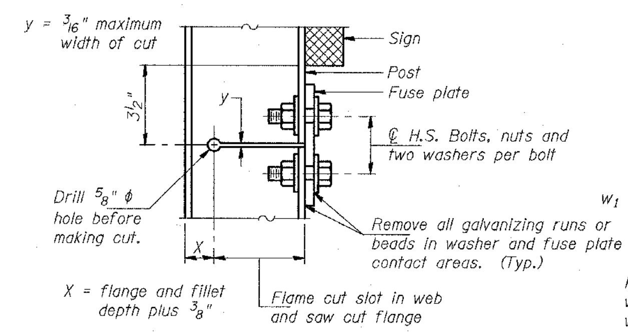
FUSE PLATE DETAIL

(Install with notches down.)

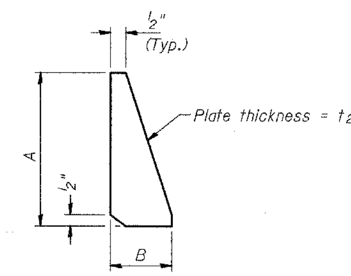
FUSE PLATE DATA		
N = Bolt Diameter	G	H
1/2"	2"	1 1/8"
5/8"	2 1/4"	1 1/4"
3/4"	2 1/2"	1 3/8"
7/8"	2 3/4"	1 1/2"
1"	3"	1 5/8"
1 1/8"	3 1/4"	1 3/4"



SECTION D-D

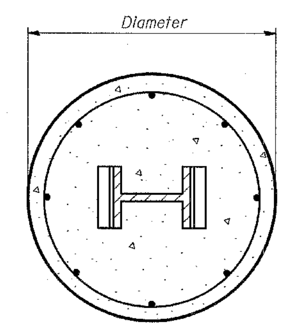


DETAIL H



STIFFENER PLATE DETAIL

(See table for dimensions.)



SECTION C-C

GENERAL NOTES

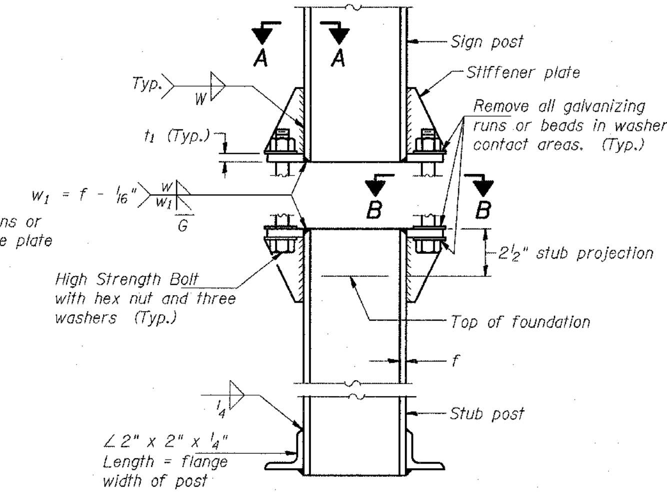
Posts shall be plumbed by using shims with post-to-stub post connection bolts snug tight only. Final tightening of all High Strength Bolts shall be in accordance with Article 505.04(f)(3), and threads at the junction of the bolt and nut shall be burred or center punched to prevent the nut from loosening.

LOADING: 80 m.p.h. wind with 30% gust factor, normal to sign.

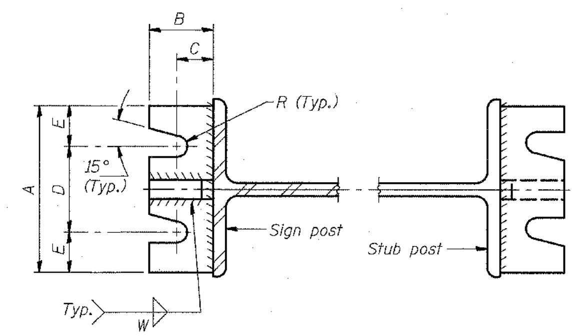
DESIGN STRESSES:
- Structural steel - 20,000 p.s.i.
- Reinforcing steel - 20,000 p.s.i.
- Concrete - 1,400 p.s.i.
- Footing soil pressure - 2,000 p.s.f.

After fabrication, the post, fuse plate and upper 6" (Minimum) of the stub post shall be hot-dip galvanized in accordance with AASHTO M111. All bolts, nuts and washers shall be hot-dip galvanized in accordance with AASHTO M232.

Work this sheet with Base Sheet BAW-A-2.

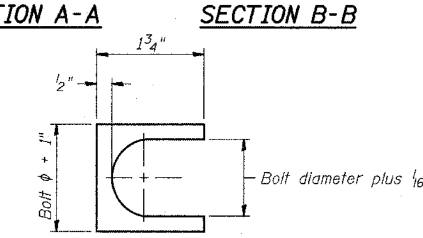


ELEVATION SIGN POST & STUB POST



SECTION A-A

SECTION B-B



SHIM DETAIL

Furnish two 0.01" thick and two 0.03" thick stainless steel or brass (ASTM B36) shims per post.

NUMBER	REVISION	DATE

BAW-A-1 11/1/2002

TYLIN INTERNATIONAL

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

F.A.I. 94 (DAN RYAN EXPRESSWAY)

BREAK-AWAY WIDE FLANGE STEEL SIGN POST DETAILS

SCALE: AS NOTED
DATE: MARCH 25, 2005
DRAWN BY: AMB
CHECKED BY: TB

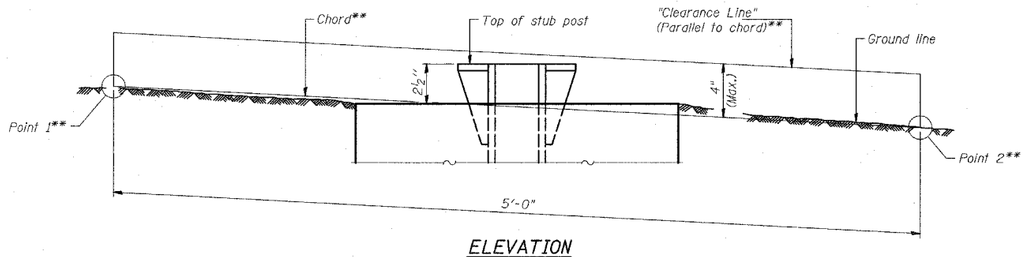
3/30/2005 12:44:42 PM

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	•	COOK	907	783
STA. 1200+00.00	TO STA. 1365+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
• (1516.1, 1717 & 1818) R-9				62695

POST	CONCRETE FOUNDATION TABLE							POST TO STUB POST CONNECTION DATA										FUSE PLATE DATA			
	Foundation			Reinforcement				Stub Post	Bolt Size	A	B	C	D	E	t_1	t_2	R	W	J	K	L	t_3
	Diameter	*Minimum Depth	Concrete (1) (cu. yds.)	Vertical Bars Length	Bar Spirals Diameter	Bar Spirals Length	lbs. (2)	Length														
W6x9	2'-0"	6'-0"	0.70	5'-9"	1'-8½"	79'-0"	78	2'-3"	⅝" x 3¼"	6"	2¼"	1¼"	3½"	1¼"	¾"	½"	11/32"	¼"	4"	2¼"	⅞"	¼"
W6x15	2'-0"	6'-0"	0.70	5'-9"	1'-8½"	79'-0"	78	2'-6"	⅝" x 3¼"	6"	2¼"	1¼"	3½"	1¼"	¾"	½"	11/32"	¼"	6"	3½"	1¼"	⅜"
W8x18	2'-0"	6'-0"	0.70	5'-9"	1'-8½"	79'-0"	78	2'-6"	¾" x 3¾"	6"	2½"	1⅜"	3¼"	1⅜"	1"	½"	13/32"	5/16"	5¼"	2¾"	1¼"	⅜"
W10x22	2'-6"	6'-6"	1.18	6'-3"	2'-2½"	105'-0"	92	3'-0"	¾" x 3¾"	6"	2½"	1⅜"	3¼"	1⅜"	1"	½"	13/32"	5/16"	5¾"	2¾"	1½"	½"
W10x26	2'-6"	7'-0"	1.27	6'-9"	2'-2½"	112'-0"	98	3'-0"	⅞" x 4"	7"	2¾"	1½"	4"	1½"	1"	¾"	15/32"	⅜"	5¾"	2¾"	1½"	⅝"
W12x26	2'-6"	7'-9"	1.41	7'-6"	2'-2½"	119'-0"	107	3'-0"	⅞" x 4"	7"	2¾"	1½"	4"	1½"	1"	¾"	15/32"	⅜"	6½"	3½"	1½"	⅝"
W14x30	3'-0"	7'-3"	1.90	7'-0"	2'-8½"	145'-0"	113	3'-0"	⅞" x 4"	7"	2¾"	1½"	4"	1½"	1"	¾"	15/32"	⅜"	6¾"	3½"	1⅝"	½"
W14x38	3'-0"	8'-0"	2.09	7'-9"	2'-8½"	153'-0"	122	3'-6"	1" x 4½"	7½"	3"	1¾"	4"	1¾"	1¼"	¾"	17/32"	⅜"	6¾"	3½"	1⅝"	½"
W16x45	3'-0"	8'-6"	2.23	8'-3"	2'-8½"	162'-0"	130	3'-6"	1" x 4½"	7½"	3"	1¾"	4"	1¾"	1¼"	¾"	17/32"	⅜"	7"	3½"	1¾"	½"

*Dimensional changes required for varying site conditions shall be approved by the Engineer.

POST	FUSE PLATE BOLT SIZE												
	Sign Depth												
	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	11'-0"	12'-0"	13'-0"	14'-0"	15'-0"	16'-0"
W6x9	½" x 1½"	½" x 1½"	½" x 1½"	⅝" x 1¾"	⅝" x 1¾"	⅝" x 1¾"	——	——	——	——	——	——	——
W6x15	½" x 1¾"	½" x 1¾"	⅝" x 2"	⅝" x 2"	¾" x 2"	¾" x 2"	¾" x 2"	¾" x 2"	⅞" x 2¼"	⅞" x 2¼"	——	——	——
W8x18	½" x 1¾"	½" x 1¾"	½" x 1¾"	⅝" x 2"	⅝" x 2"	¾" x 2"	¾" x 2¼"	⅞" x 2¼"	⅞" x 2¼"	⅞" x 2½"	⅞" x 2¼"	⅞" x 2¼"	⅞" x 2¼"
W10x22	½" x 2"	½" x 2"	½" x 2"	⅝" x 2¼"	⅝" x 2¼"	¾" x 2¼"	¾" x 2¼"	⅞" x 2½"	⅞" x 2½"	⅞" x 2½"	1" x 2¾"	1" x 2¾"	1" x 2¾"
W10x26	½" x 2"	½" x 2"	½" x 2"	⅝" x 2¼"	⅝" x 2¼"	¾" x 2½"	¾" x 2½"	⅞" x 2½"	⅞" x 2½"	1" x 2¾"	1" x 2¾"	1" x 2¾"	1⅛" x 3"
W12x26	——	——	——	——	——	⅝" x 2¼"	——	——	⅞" x 2½"	⅞" x 2½"	1" x 2¾"	1" x 2¾"	1" x 2¾"
W14x30	½" x 2"	——	½" x 2"	½" x 2"	½" x 2"	⅝" x 2¼"	¾" x 2¼"	¾" x 2¼"	¾" x 2¼"	⅞" x 2½"	1" x 2¾"	1" x 2¾"	1" x 2¾"
W14x38	——	½" x 2"	½" x 2"	½" x 2"	½" x 2"	⅝" x 2¼"	¾" x 2½"	¾" x 2½"	¾" x 2½"	¾" x 2½"	⅞" x 2½"	1" x 2¾"	1" x 2¾"
W16x45	——	——	——	½" x 2"	½" x 2"	⅝" x 2¼"	⅝" x 2¼"	¾" x 2½"	¾" x 2½"	¾" x 2½"	⅞" x 2½"	⅞" x 2½"	1" x 2¾"



ELEVATION

GROUND LINE & STUB POST

**For all "Point 1" and "Point 2" locations, "Clearance Line" must be at or above top of stub post.

(1) Quantity includes all concrete necessary for one foundation.

(2) Includes reinforcement bars and spiral hooping for one foundation.

NUMBER	REVISION	DATE

BAW-A-2 11/1/2002

TY·LIN INTERNATIONAL

REVISIONS NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

F.A.I. 94 (DAN RYAN EXPRESSWAY)

BREAK-AWAY WIDE FLANGE STEEL SIGN POST TABLES

SCALE: AS NOTED DRAWN BY: AMB

DATE: MARCH 25, 2005 CHECKED BY: TB

3/30/2005 12:44:42 PM

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	*	COOK	907	784
STA. 1200+00.00 TO STA. 1365+00				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

* (1516.1, 1717 & 1818) R-9

62695

EXISTING SIGN SCHEDULE

SIGN NO.	EXISTING LOCATION			SIGN DESCRIPTION	REMAIN IN PLACE	REMOVE AND REINSTALL IN SAME LOCATION	COVER	RELOCATE	METAL POST (FT.)	
	STATION	OFFSET (FT.)	MOUNTING						TYPE A	TYPE B
1	1364+83	234.4 LT	SIGNAL POLE	ONE WAY	1					
2	1364+83	234.4 LT	SIGNAL POLE	NO TURN ON RED, 7 A.M. - 7 P.M.	1					
3	1364+83	234.4 LT	SIGNAL POLE	ONE WAY	1					
4	1364+76	165.7 LT	SIGNAL POLE	NO TURN ON RED, 7 A.M. - 7 P.M.	1					
5	1364+76	165.7 LT	SIGNAL POLE	(NO) PEDDLING	1					
6	1364+71	215.9 LT	SIGNAL POLE	NO TURN ON RED, 7 A.M. - 7 P.M.	1					
7	1364+71	215.9 LT	SIGNAL POLE	(NO) PEDDLING	1					
8	1364+18	212.3 LT	SIGN POST	CTA BUS STOP	1					
9	1363+71	212.0 LT	LIGHT POLE	NO PARKING ANYTIME EXCEPT VEHICLES DISPLAYING ZONE 64 PERMIT	1		1			
10	1363+71	212.0 LT	LIGHT POLE	(NO PARKING) BUS STOP, TOW ZONE	1					
11	1363+58	170.0 LT	SIGN POST	(NO PARKING)				1		
12	1362+74	212.2 LT	LIGHT POLE	NO PARKING ANYTIME EXCEPT VEHICLES DISPLAYING ZONE 64 PERMIT	1		1			
13	1362+61	212.2	SIGN POST	NO PARKING ANYTIME EXCEPT PERMIT #	1		1			
14	1362+40	212.4 LT	SIGN POST	NO PARKING ANYTIME EXCEPT PERMIT #	1		1			
15	1361+79	213.3 LT	LIGHT POLE	NO PARKING ANYTIME EXCEPT VEHICLES DISPLAYING ZONE 64 PERMIT	1		1			
16	1361+95	213.4 LT	SIGN POST	(HANDICAPPED) RESERVED PARKING PERMIT 4725	1		1			
17	1361+66	213.2 LT	SIGN POST	(HANDICAPPED) RESERVED PARKING PERMIT 4725	1		1			
18	1360+96	167.1 LT	SIGNAL POLE	(SIGNAL AHEAD)				1		
19	1360+69	212.3 LT	LIGHT POLE	(NO PARKING) ANYTIME EXCEPT VEHICLES DISPLAYING PERMIT 64	1		1			
20	1360+56	164.2 LT	SIGN POST	EAST				1		
21	1360+56	164.2 LT	SIGN POST	INTERSTATE ILLINOIS 94				1		
22	1360+56	164.2 LT	SIGN POST	(ARROW)				1		
23	1360+18	114.3 LT	LIGHT POLE	CHICAGO EXPRESSWAYS, KEEP THEM CLEAN				1		13.5
24	1359+83	212.1 LT	SIGN POST	(NO PARKING) BUS STOP, TOW ZONE	1					
25	1359+64	138.3 LT	SIGNAL POLE	WAIT HERE FOR GREEN				1		
26	1359+69	113.1 LT	SIGNAL POLE	WAIT HERE FOR GREEN				1		
27	1359+58	212.0 LT	LIGHT POLE	(NO PARKING) ANYTIME EXCEPT VEHICLES DISPLAYING PERMIT 64	1		1			
28	1358+91	175.4 LT	SIGN POST	(NO PARKING)	1		1			
29	1358+91	175.4 LT	SIGN POST	ONE WAY	1		1			
30	1358+60	172.4 LT	SIGN POST	NO DUMPING, LITTERING, GRAFFITI, FINES UP TO $2000, CALL 744-5000	1					
31	1358+55	120.9 LT	LIGHT POLE	USE PROHIBITED BY MOTOR DRIVEN CYCLES, FARM IMPLEMENTS, PEDESTRIANS, NON-MOTORIZED TRAFFIC				1		2@16′ = 32
32	1358+55	120.9 LT	LIGHT POLE	BUCKLE UP				1		
33	1357+39	211.7 LT	LIGHT POLE	(HANDICAPPED) RESERVED PARKING PERMIT 9652	1		1			
34	1357+09	212.9 LT	SIGN POST	(HANDICAPPED) RESERVED PARKING PERMIT 9652	1		1			
35	1357+09	212.9 LT	SIGN POST	(HANDICAPPED) RESERVED PARKING PERMIT 4811	1		1			
36	1356+91	213.2 LT	SIGN POST	(HANDICAPPED) RESERVED PARKING PERMIT 4811	1		1			
37	1356+59	212.2 LT	SIGN POST	(HANDICAPPED) RESERVED PARKING PERMIT 36005	1		1			
38	1356+36	212.1 LT	SIGN POST	(HANDICAPPED) RESERVED PARKING PERMIT 36005	1		1			
39	1353+56	211.7 LT	SIGN POST	(HANDICAPPED) RESERVED PARKING PERMIT 14666	1		1			
40	1353+40	211.2 LT	SIGN POST	(HANDICAPPED) RESERVED PARKING PERMIT 14666	1		1			
41	1352+67	211.8 LT	LIGHT POLE	STOP	1					
42	1352+69	177.8 LT	SIGN POST	STOP	1					
43	1352+25	176.4 LT	SIGN POST	ONE WAY	1					
44	1351+73	177.0 LT	SIGN POST	(NO PARKING)	1		1			
45	1350+60	110.5 LT	LIGHT POLE	CHICAGO EXPRESSWAYS, KEEP THEM CLEAN				1		13.5
46	1349+45	211.6 LT	SIGN POST	NO PARKING ANYTIME EXCEPT PERMIT #16760	1		1			
47	1349+23	211.6 LT	SIGN POST	NO PARKING ANYTIME EXCEPT PERMIT #16760	1		1			

NOTES

THE CONTRACTOR SHALL COORDINATE WITH THE CITY OF CHICAGO AND THE ENGINEER REGARDING THE RELOCATION OF EXISTING SIGNS.

ALL WORK ON THIS SCHEDULE IS GOVERNED BY ARTICLE 107.25, EXCEPT METAL POST

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

F.A.I. 94 (DAN RYAN EXPRESSWAY)

FRONTAGE ROAD EXISTING SIGN SCHEDULE
SHEET 1 OF 6

SCALE: NONE
DRAWN BY: JJS
DATE: MARCH 25, 2005
CHECKED BY: MAG

TYLIN INTERNATIONAL

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	•	COOK	907	785
STA. 1200+00.00		TO STA. 1365+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
• (1516.1, 1717 & 1818) R-9				62695

EXISTING SIGN SCHEDULE

SIGN NO.	EXISTING LOCATION			SIGN DESCRIPTION	REMAIN IN PLACE	REMOVE AND REINSTALL IN SAME LOCATION	COVER	RELOCATE	METAL POST (FT.)	
	STATION	OFFSET (FT.)	MOUNTING						TYPE A	TYPE B
48	1348+99	136.8 LT	LIGHT POLE	WRONG WAY				1		13
49	1348+88	107.1 LT	SIGN POST	WRONG WAY				1		
50	1348+19	210.7 LT	SIGN POST	NO PARKING ANYTIME EXCEPT PERMIT *9694	1		1			
51	1347+97	210.7 LT	SIGN POST	NO PARKING ANYTIME EXCEPT PERMIT *9694	1		1			
52	1347+41	167.2 LT	LIGHT POLE	DO NOT ENTER				1	2@13.5' = 27	
53	1347+37	132.1 LT	SIGN POST	DO NOT ENTER				1		
54	1346+87	213.1 LT	SIGN POST	(NO PARKING) BUS STOP, TOW ZONE	1					
55	1346+02	212.4 LT	SIGN POST	CTA BUS STOP	1					
56	1345+61	157.0 LT	SIGN POST	ONE WAY		1			1	
57	1344+40	211.5 LT	LIGHT POLE	(NO PARKING)	1		1			
58	1342+41	158.7 LT	SIGN POST	NO DUMPING, LITTERING, GRAFFITI, FINES UP TO $2000, CALL 744-5000	1					
59	1340+66	152.6 LT	SIGN POST	NO DUMPING, LITTERING, GRAFFITI, FINES UP TO $2000, CALL 744-5000	1					
60	1339+77	152.2 LT	SIGN POST	(NO) PEDDLING	1					
61	1339+77	152.2 LT	SIGN POST	(NO) PEDDLING	1					
62	1339+46	211.8 LT	SIGNAL POLE	CTA BUS STOP	1					
63	1339+32	148.8 LT	SIGNAL POLE	ONE WAY	1					
64	1339+32	148.8 LT	SIGNAL POLE	ONE WAY	1					
65	1331+82	207.9 LT	LIGHT POLE	(NO) PEDDLING	1					
66	1328+40	161.8 LT	SIGN POST	(SIGNAL AHEAD)				1		
67	1328+40	161.8 LT	SIGN POST	RAMP SIGNAL				1		
68	1328+35	160.4 LT	LIGHT POLE	EAST				1	2@15' = 30	
69	1328+35	160.4 LT	LIGHT POLE	INTERSTATE ILLINOIS 94				1		
70	1328+35	160.4 LT	LIGHT POLE	(ARROW)				1		
71	1327+18	94.7 LT	SIGNAL POLE	WAIT HERE FOR GREEN				1		
72	1327+14	198.3 LT	LIGHT POLE	NO PARKING, BUS STOP, TOW ZONE	1					
73	1327+11	119.5 LT	SIGNAL POLE	WAIT HERE FOR GREEN				1		
74	1326+52	153.1 LT	SIGN POST	NO DUMPING, LITTERING, GRAFFITI, FINES UP TO $2000, CALL 744-5000				1		
75	1326+03	206.6 LT	SIGN POST	CTA BUS STOP	1					
76	1326+03	206.6 LT	SIGN POST	CTA BUS STOP	1					
77	1325+82	154.6 LT	SIGN POST	ONE WAY				1		
78	1325+78	87.2 LT	LIGHT POLE	CHICAGO EXPRESSWAYS, KEEP THEM CLEAN				1		13.5
79	1324+62	183.9 LT	LIGHT POLE	(NO PARKING)	1		1			
80	1322+87	173.3 LT	LIGHT POLE	ONE WAY	1					
81	1321+58	129.6 LT	SIGN POST	(NO PARKING)				1		
82	1321+30	164.6 LT	LIGHT POLE	(NO PARKING)	1		1			
83	1320+45	161.4 LT	LIGHT POLE	NO PARKING, BUS STOP, TOW ZONE	1					
84	1319+55	160.2 LT	LIGHT POLE	ONE WAY	1					
85	1319+55	160.2 LT	LIGHT POLE	(NO TRUCKS) OVER 5 TONS GROSS WEIGHT	1					
86	1319+55	160.2 LT	LIGHT POLE	CTA BUS STOP	1					
87	1319+55	160.2 LT	LIGHT POLE	CTA BUS STOP	1					
88	1319+17	113.5 LT	SIGN POST	WRONG WAY				1		
89	1319+13	84.1 LT	SIGN POST	WRONG WAY				1		
90	1319+02	169.3 LT	SIGN POST	ONE WAY	1					
91	1318+64	121.7 LT	LIGHT POLE	DO NOT ENTER				1	2@13.5' = 27	
92	1317+90	97.6 LT	SIGN POST	DO NOT ENTER				1		
93	1317+05	166.3 LT	LIGHT POLE	(NO PARKING) TOW ZONE	1		1			
94	1316+13	168.8 LT	LIGHT POLE	ONE WAY	1					
95	1315+78	113.1 LT	SIGN POST	ONE WAY				1		
96	1315+23	171.3 LT	LIGHT POLE	(NO PARKING)	1		1			
97	1314+33	172.2 LT	LIGHT POLE	(NO PARKING) TOW ZONE	1		1			
98	1313+46	115.9 LT	SIGN POST	(NO) PEDDLING				1		

TY·LIN INTERNATIONAL

NOTES

THE CONTRACTOR SHALL COORDINATE WITH THE CITY OF CHICAGO AND THE ENGINEER REGARDING THE RELOCATION OF EXISTING SIGNS.

ALL WORK ON THIS SCHEDULE IS GOVERNED BY ARTICLE 107.25, EXCEPT METAL POST

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

F.A.I. 94 (DAN RYAN EXPRESSWAY)

FRONTAGE ROAD EXISTING SIGN SCHEDULE
SHEET 2 OF 6

SCALE: NONE DRAWN BY: JJS

DATE: MARCH 25, 2005 CHECKED BY: MAG

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	•	COOK	907	786
STA. 1200+00.00		TO STA. 1365+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
• (1516.1, 1717 & 1818) R-9				62695

EXISTING SIGN SCHEDULE

SIGN NO.	EXISTING LOCATION			SIGN DESCRIPTION	REMAIN IN PLACE	REMOVE AND REINSTALL IN SAME LOCATION	COVER	RELOCATE	METAL POST (FT.)	
	STATION	OFFSET (FT.)	MOUNTING						TYPE A	TYPE B
99	1313+42	175.4 LT	LIGHT POLE	NO TURN ON RED, 7 A.M. - 7 P.M.	1					
100	1276+78	123.4 LT	SIGN POST	NO DUMPING, LITTERING, GRAFFITI, FINES UP TO $2000, CALL 744-5000	1					
101	1274+00	165.4 LT	LIGHT POLE	NO PARKING, BUS STOP, TOW ZONE	1					
102	1273+04	165.8 LT	LIGHT POLE	CTA BUS STOP	1					
103	1272+56	127.8 LT	SIGN POST	ONE WAY				1		
104	1270+37	131.5 LT	SIGN POST	(NO PARKING)				1		
105	1269+15	127.7 LT	LIGHT POLE	WRONG WAY				1		13
106	1269+12	91.7 LT	SIGN POST	WRONG WAY				1		
107	1267+63	139.4 LT	LIGHT POLE	DO NOT ENTER				1	2@13.5' = 27	
108	1266+88	179.7 LT	LIGHT POLE	NO PARKING, BUS STOP, TOW ZONE	1					
109	1266+75	112.6 LT	SIGN POST	DO NOT ENTER				1		
110	1265+97	179.1 LT	LIGHT POLE	(NO PARKING) TOW ZONE	1		1			
111	1265+51	121.2 LT	SIGN POST	WRONG WAY				1		
112	1264+21	119.9 LT	SIGN POST	ONE WAY	1					
113	1261+39	178.1 LT	LIGHT POLE	(NO PARKING) TOW ZONE	1		1			
114	1259+56	199.1 LT	SIGNAL POLE	NO TURN ON RED, 7 A.M. - 7 P.M.	1					
115	1259+58	114.4 LT	LIGHT POLE	ONE WAY	1					
116	1259+58	114.4 LT	LIGHT POLE	ONE WAY	1					
117	1258+43	178.5 LT	SIGNAL POLE	NO TURN ON RED, 7 A.M. - 7 P.M.	1					
118	1258+51	120.7 LT	SIGNAL POLE	NO TURN ON RED, 7 A.M. - 7 P.M.	1					
119	1257+82	170.3 LT	SIGN POST	CTA BUS STOP	1					
120	1257+34	169.3 LT	LIGHT POLE	(NO) PEDDLING	1					
121	1257+34	169.3 LT	LIGHT POLE	(NO PARKING) BUS STOP, TOW ZONE	1					
122	1256+33	168.8 LT	LIGHT POLE	(NO PARKING) TOW ZONE	1		1			
123	1256+16	126.4 LT	SIGN POST	NO DUMPING, LITTERING, GRAFFITI, FINES UP TO $2000, CALL 744-5000				1		
124	1253+31	168.7 LT	LIGHT POLE	(NO PARKING) TOW ZONE	1		1			
125	1251+40	168.4 LT	LIGHT POLE	NO PARKING, BUS STOP, TOW ZONE	1					
126	1250+52	168.3 LT	LIGHT POLE	CTA BUS STOP	1					
127	1250+52	168.3 LT	LIGHT POLE	NO PARKING, BUS STOP, TOW ZONE	1					
128	1249+60	168.2 LT	LIGHT POLE	ONE WAY	1					
129	1249+20	128.3 LT	SIGNAL POLE	(SIGNAL AHEAD)				1		
130	1247+60	108.5 LT	SIGNAL POLE	WAIT HERE FOR GREEN				1		
131	1247+63	82.7 LT	SIGNAL POLE	WAIT HERE FOR GREEN				1		
132	1247+00	108.5 LT	LIGHT POLE	USE PROHIBITED BY MOTOR DRIVEN CYCLES, FARM IMPLEMENTS, PEDESTRIANS, NON-MOTORIZED TRAFFIC				1		2@16' = 32
133	1247+00	108.5 LT	LIGHT POLE	BUCKLE UP				1		
134	1247+13	131.9 LT	SIGN POST	NO DUMPING, LITTERING, GRAFFITI, FINES UP TO $2000, CALL 744-5000		1			1	
135	1246+48	168.0 LT	LIGHT POLE	NO PARKING, BUS STOP, TOW ZONE	1					
136	1245+35	93.7 LT	LIGHT POLE	CHICAGO EXPRESSWAYS, KEEP THEM CLEAN				1		13.5
137	1235+15	128.3 LT	SIGN POST	NO DUMPING, LITTERING, GRAFFITI, FINES UP TO $2000, CALL 744-5000				1		
138	1233+00	122.5 LT	SIGNAL POLE	NO LEFT TURN	1					
139	1233+00	122.5 LT	SIGNAL POLE	NO LEFT TURN	1					
140	1233+00	122.5 LT	SIGNAL POLE	ONE WAY	1					
141	1233+00	122.5 LT	SIGNAL POLE	ONE WAY	1					
142	1232+36	182.4 LT	SIGNAL POLE	NO RIGHT TURN	1					
143	1232+36	182.4 LT	SIGNAL POLE	NO RIGHT TURN	1					
144	1232+36	182.4 LT	SIGNAL POLE	ONE WAY	1					
145	1232+36	182.4 LT	SIGNAL POLE	ONE WAY	1					
146	1232+16	167.3 LT	LIGHT POLE	SPEED LIMIT 30	1					
147	1232+16	167.3 LT	LIGHT POLE	(NO TRUCKS) OVER 5 TONS GROSS WEIGHT	1					

NOTES

THE CONTRACTOR SHALL COORDINATE WITH THE CITY OF CHICAGO AND THE ENGINEER REGARDING THE RELOCATION OF EXISTING SIGNS.

ALL WORK ON THIS SCHEDULE IS GOVERNED BY ARTICLE 107.25, EXCEPT METAL POST

REVISIONS	
NAME	DATE

TY·LIN INTERNATIONAL

ILLINOIS DEPARTMENT OF TRANSPORTATION

F.A.I. 94 (DAN RYAN EXPRESSWAY)

FRONTAGE ROAD EXISTING SIGN SCHEDULE
SHEET 3 OF 6

SCALE: NONE DRAWN BY: JJS

DATE: MARCH 25, 2005 CHECKED BY: MAG

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	•	COOK	907	787
STA. 1200+00.00	TO STA. 1365+00			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
• (1516.1, 1717 & 1818) R-9				62695

EXISTING SIGN SCHEDULE

SIGN NO.	EXISTING LOCATION			SIGN DESCRIPTION	REMAIN IN PLACE	REMOVE AND REINSTALL IN SAME LOCATION	COVER	RELOCATE	METAL POST (FT.)	
	STATION	OFFSET (FT.)	MOUNTING						TYPE A	TYPE B
148	1230+95	167.6 LT	SIGN POST	(HANDICAPPED) RESERVED PARKING PERMIT 3512	1		1			
149	1230+70	167.6 LT	SIGN POST	(HANDICAPPED) RESERVED PARKING PERMIT 3512	1		1			
150	1230+22	131.2 LT	SIGN POST	(NO PARKING)				1		
151	1228+25	130.1 LT	SIGN POST	NO DUMPING, LITTERING, GRAFFITI, FINES UP TO $2000, CALL 744-5000				1		
152	1227+00	169.4 LT	LIGHT POLE	NO PARKING, BUS STOP, TOW ZONE	1					
153	1226+17	180.9 LT	SIGN POST	(NO TRUCKS) OVER 5 TONS GROSS WEIGHT	1					
154	1225+95	129.8 LT	SIGN POST	ONE WAY				1		
155	1225+14	132.3 LT	SIGN POST	(NO PARKING)				1		
156	1224+62	170.0 LT	LIGHT POLE	SPEED LIMIT 30	1					
157	1224+39	169.9 LT	SIGN POST	NO PARKING ANYTIME EXCEPT PERMIT #14273	1		1			
158	1224+16	132.2 LT	SIGN POST	NO DUMPING, LITTERING, GRAFFITI, FINES UP TO $2000, CALL 744-5000				1		
159	1224+09	170.1 LT	SIGN POST	NO PARKING ANYTIME EXCEPT PERMIT #14273	1		1			
160	1222+34	133.6 LT	SIGN POST	NO DUMPING, LITTERING, GRAFFITI, FINES UP TO $2000, CALL 744-5000				1		
161	1221+70	171.1 LT	SIGN POST	NO PARKING ANYTIME EXCEPT PERMIT #15250	1		1			
162	1221+45	171.4 LT	SIGN POST	NO PARKING ANYTIME EXCEPT PERMIT #15250	1		1			
163	1221+11	172.4 LT	SIGN POST	NO PARKING ANYTIME EXCEPT PERMIT #16170	1		1			
164	1220+91	172.4 LT	SIGN POST	NO PARKING ANYTIME EXCEPT PERMIT #16170	1		1			
165	1220+84	172.3 LT	SIGN POST	(NO PARKING) LOADING ZONE, TOW ZONE	1		1			
166	1220+18	173.0 LT	LIGHT POLE	(NO PARKING) LOADING ZONE, TOW ZONE	1		1			
167	1220+18	173.0 LT	LIGHT POLE	(NO PARKING) BUS STOP, TOW ZONE	1					
168	1219+80	174.2 LT	SIGN POST	CTA BUS STOP	1					
169	1219+33	137.5 LT	SIGNAL POLE	ONE WAY	1					
170	1218+89	173.4 LT	SIGNAL POLE	LILYDALE COMMUNITY ORG., ADOPT-A-STREET PROGRAM	1					
171	1218+72	136.8 LT	SIGN POST	(NO PARKING)	1		1			
172	1218+76	173.4 LT	SIGN POST	(NO PARKING) TOW ZONE	1		1			
173	1218+43	137.2 LT	SIGN POST	(NO PARKING) BUS STOP, TOW ZONE	1					
173	1218+01	173.3 LT	LIGHT POLE	SPEED LIMIT 30	1					
174	1217+75	90.0 LT	SIGN POST	WRONG WAY				1		
175	1215+90	173.5 LT	LIGHT POLE	(NO PARKING)	1		1			
176	1215+24	136.3 LT	SIGN POST	DO NOT ENTER				1		
177	1214+97	106.6 LT	SIGN POST	DO NOT ENTER				1		
178	1213+91	173.0 LT	LIGHT POLE	NO PARKING, BUS STOP, TOW ZONE	1					
179	1213+91	173.0 LT	LIGHT POLE	(NO PARKING)	1		1			
180	1213+59	173.5 LT	SIGN POST	NO PARKING IN DRIVEWAY	1					
181	1212+98	172.8 LT	LIGHT POLE	ONE WAY	1					
182	1212+98	172.8 LT	LIGHT POLE	CTA BUS STOP	1					
183	1212+98	172.8 LT	LIGHT POLE	WARNING, SAFE SCHOOL ZONE	1					
184	1212+70	117.1 LT	SIGN POST	CHICAGO STATE UNIVERSITY				1		
185	1212+70	117.1 LT	SIGN POST	CHICAGO STATE UNIVERSITY				1		
186	1212+43	182.9 LT	SIGN POST	ONE WAY	1					
187	1212+08	173.0 LT	LIGHT POLE	(NO PARKING) TOW ZONE	1		1			
188	1211+18	175.0 LT	LIGHT POLE	(NO PARKING) TOW ZONE	1		1			
189	1210+22	175.7 LT	LIGHT POLE	(NO PEDESTRIANS)	1					
190	1210+22	175.7 LT	LIGHT POLE	(NO PEDESTRIANS)	1					
191	1210+15	115.0 LT	SIGN POST	(NO PEDESTRIANS)	1					
192	1210+15	115.0 LT	SIGN POST	(NO PEDESTRIANS)	1					
193	1209+29	175.4 LT	LIGHT POLE	(NO PARKING) TOW ZONE	1		1			
194	1208+87	175.5 LT	SIGN POST	(NO PARKING) NO STOPPING, NO STANDING, TOW ZONE	1		1			
195	1208+40	175.6 LT	LIGHT POLE	(NO PARKING) TOW ZONE	1		1			
196	1208+40	175.6 LT	LIGHT POLE	CHICAGO STATE	1					
197	1207+51	175.6 LT	LIGHT POLE	(NO PARKING) TOW ZONE	1		1			

TYLIN INTERNATIONAL

NOTES

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REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

F.A.I. 94 (DAN RYAN EXPRESSWAY)

FRONTAGE ROAD EXISTING SIGN SCHEDULE
SHEET 4 OF 6

SCALE: NONE DRAWN BY: JJS

DATE: MARCH 25, 2005 CHECKED BY: MAG

03/30/2005 04:39:07 PM

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	•	COOK	907	788

STA. 1200+00.00 TO STA. 1365+00

FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT

• (1516.1, 1717 & 1818) R-9 62695

EXISTING SIGN SCHEDULE

SIGN NO.	EXISTING LOCATION			SIGN DESCRIPTION	REMAIN IN PLACE	REMOVE AND REINSTALL IN SAME LOCATION	COVER	RELOCATE	METAL POST (FT.)	
	STATION	OFFSET (FT.)	MOUNTING						TYPE A	TYPE B
198	1207+51	175.6 LT	LIGHT POLE	ONE WAY	1					
199	1206+52	124.1 LT	SIGNAL POLE	ONE WAY	1					
200	1206+52	124.1 LT	SIGNAL POLE	ONE WAY	1					
201	1205+31	127.3 LT	SIGN POST	NO EXPRESSWAY ENTRANCE TO I-57				1		
202	1205+31	127.3 LT	SIGN POST	(NO TRUCKS) OVER 5 TONS GROSS WEIGHT				1		
203	1205+29	163.8 LT	SIGNAL POLE	NO EXPRESSWAY ENTRANCE TO I-57	1					
204	1204+19	169.4 LT	LIGHT POLE	NO PARKING, THIS SIDE, 8AM TO 10AM, MONDAY THRU FRIDAY	1		1			
205	1203+50	128.0 LT	SIGN POST	(NO PARKING)				1		
206	149+77	128.5 LT	SIGN POST	ONE WAY	1					
207	149+77	128.5 LT	SIGN POST	(NO PARKING)	1		1			
208	149+45	171.8 LT	LIGHT POLE	(NO PARKING)	1					
209	149+45	171.8 LT	LIGHT POLE	ONE WAY	1					
210	149+45	171.8 LT	LIGHT POLE	NO PARKING, THIS SIDE, 8AM TO 10AM, MONDAY THRU FRIDAY	1		1			
211	147+30	157.2 LT	LIGHT POLE	NO PARKING, THIS SIDE, 8AM TO 10AM, MONDAY THRU FRIDAY	1		1			
212	146+33	148.0 LT	LIGHT POLE	NO PARKING, THIS SIDE, 8AM TO 10AM, MONDAY THRU FRIDAY	1		1			
213	146+03	103.4 LT	SIGN POST	NO DUMPING, LITTERING, GRAFFITI, FINES UP TO $2000, CALL 744-5000				1		
214	143+06	140.9 LT	LIGHT POLE	NO PARKING, THIS SIDE, 8AM TO 10AM, MONDAY THRU FRIDAY	1		1			
215	142+49	106.3 LT	SIGN POST	ONE WAY				1		
216	139+62	126.7 LT	SIGN POST	NO DUMPING, LITTERING, GRAFFITI, FINES UP TO $2000, CALL 744-5000				1		
217	139+14	91.3 LT	LIGHT POLE	CHICAGO EXPRESSWAYS, KEEP THEM CLEAN				1		13.5
218	137+59	121.4 LT	LIGHT POLE	WRONG WAY				1		13
219	137+54	92.5 LT	SIGN POST	WRONG WAY				1		
220	136+90	190.2 LT	LIGHT POLE	ONE WAY	1					
221	136+04	161.2 LT	LIGHT POLE	DO NOT ENTER				1	2@13.5' = 27	
222	135+95	209.1 LT	SIGN POST	ONE WAY	1					
223	135+95	209.1 LT	SIGN POST	STOP	1					
224	135+68	136.0 LT	SIGN POST	DO NOT ENTER				1		
225	135+68	205.9 LT	LIGHT POLE	ONE WAY	1					
226	134+50	222.2 LT	LIGHT POLE	(NO PARKING)	1		1			
227	133+36	237.9 LT	LIGHT POLE	(NO PARKING)	1		1			
228	115+52	98.9 LT	SIGN POST	(ARROW)				1		
229	115+28	137.1 LT	LIGHT POLE	ONE WAY	1					
230	113+85	99.5 LT	SIGN POST	NO DUMPING, LITTERING, GRAFFITI, FINES UP TO $2000, CALL 744-5000				1		
231	112+19	100.3 LT	SIGN POST	(NO PARKING)				1		
232	110+50	136.4 LT	SIGN POST	ONE WAY	1					
233	109+95	136.7 LT	LIGHT POLE	ONE WAY	1					
234	109+58	100.2 LT	SIGN POST	NO DUMPING, LITTERING, GRAFFITI, FINES UP TO $2000, CALL 744-5000				1		
235	108+50	97.4 LT	SIGN POST	(NO PARKING)				1		
236	108+50	97.4 LT	SIGN POST	ONE WAY				1		
237	107+23	135.6 LT	LIGHT POLE	STOP	1					
238	107+16	97.4 LT	LIGHT POLE	ONE WAY	1					
239	107+16	97.4 LT	LIGHT POLE	ONE WAY	1					
240	106+61	152.7 LT	SIGN POST	ONE WAY	1					
241	106+61	152.7 LT	SIGN POST	ONE WAY	1					
242	106+61	152.7 LT	SIGN POST	STOP	1					

NOTES

THE CONTRACTOR SHALL COORDINATE WITH THE CITY OF CHICAGO AND THE ENGINEER REGARDING THE RELOCATION OF EXISTING SIGNS.

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REVISIONS	
NAME	DATE

TY·LIN INTERNATIONAL

ILLINOIS DEPARTMENT OF TRANSPORTATION

F.A.I. 94 (DAN RYAN EXPRESSWAY)

FRONTAGE ROAD EXISTING SIGN SCHEDULE
SHEET 5 OF 6

SCALE: NONE DRAWN BY: JJS

DATE: MARCH 25, 2005 CHECKED BY: MAG

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	•	COOK	907	789
STA. 1200+00.00		TO STA. 1365+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
• (1516.1, 1717 & 1818) R-9				62695

EXISTING SIGN SCHEDULE

SIGN NO.	EXISTING LOCATION			SIGN DESCRIPTION	REMAIN IN PLACE	REMOVE AND REINSTALL IN SAME LOCATION	COVER	RELOCATE	METAL POST (FT.)	
	STATION	OFFSET (FT.)	MOUNTING						TYPE A	TYPE B
243	106+54	97.1 LT	LIGHT POLE	(NO PARKING) TOW ZONE	1		1			
244	105+39	135.5 LT	LIGHT POLE	SCHOOL SPEED LIMIT 20 ON SCHOOL DAYS WHEN CHILDREN ARE PRESENT	1					
245	105+42	99.1 LT	SIGN POST	(NO PARKING)				1		
246	103+51	136.3 LT	LIGHT POLE	WARNING, SAFE SCHOOL ZONE	1					
247	103+36	98.6 LT	SIGN POST	NO DUMPING, LITTERING, GRAFFITI, FINES UP TO $2000, CALL 744-5000	1					
248	102+35	104.1 LT	SIGN POST	(NO PARKING)	1		1			
249	102+31	141.1 LT	LIGHT POLE	SCHOOL SPEED LIMIT 20 ON SCHOOL DAYS WHEN CHILDREN ARE PRESENT	1					
250	102+31	141.1 LT	LIGHT POLE	(NO PARKING) SCHOOL DAYS 8AM - 4:30 PM, TOW ZONE	1		1			
251	101+72	76.5 LT	LIGHT POLE	CHICAGO EXPRESSWAYS, KEEP THEM CLEAN				1		13.5
252	101+21	145.0 LT	LIGHT POLE	(SCHOOL CROSSING)	1					
253	101+21	145.0 LT	LIGHT POLE	(NO PARKING) SCHOOL DAYS 8AM - 4:30 PM, TOW ZONE	1		1			
254	100+76	147.0 LT	SIGN POST	(NO PARKING) SCHOOL DAYS 8AM - 4:30 PM, TOW ZONE	1		1			
255	100+46	170.0 LT	SIGN POST	ONE WAY	1					
256	100+46	170.0 LT	SIGN POST	DO NOT ENTER	1					
257	100+28	110.6 LT	SIGN POST	(NO PARKING)	1		1			
258	100+28	110.6 LT	SIGN POST	ONE WAY	1					
259	100+15	95.2 LT	LIGHT POLE	WRONG WAY				1		13
260	100+11	61.3 LT	SIGN POST	WRONG WAY				1		
261	100+01	148.8 LT	LIGHT POLE	ONE WAY	1					
262	98+64	110.1 LT	LIGHT POLE	DO NOT ENTER				1	2@13.5' = 27	
263	98+56	115.3 LT	SIGN POST	ONE WAY		1			1	
264	98+54	79.8 LT	SIGN POST	DO NOT ENTER				1		
265	97+50	152.9 LT	LIGHT POLE	STOP	1					
266	96+97	152.9 LT	SIGN POST	DO NOT ENTER	1					
267	96+67	162.8 LT	SIGN POST	DO NOT ENTER	1					
268	96+67	162.8 LT	SIGN POST	STOP	1					
269	96+62	152.8 LT	LIGHT POLE	(NO PARKING) TOW ZONE	1		1			
270	95+45	149.9 LT	SIGN POST	ONE WAY	1					
271	95+20	149.9 LT	SIGN POST	ONE WAY	1					
272	95+20	149.9 LT	SIGN POST	DO NOT ENTER	1					
273	94+05	146.6 LT	LIGHT POLE	ONE WAY	1					
274	93+63	101.6 LT	SIGN POST	(NO PARKING)	1		1			
275	93+63	101.6 LT	SIGN POST	ONE WAY	1					
276	93+30	146.3 LT	LIGHT POLE	ONE WAY	1					
			TOTAL			3			3	

TY·LIN INTERNATIONAL

NOTES

THE CONTRACTOR SHALL COORDINATE WITH THE CITY OF CHICAGO AND THE ENGINEER REGARDING THE RELOCATION OF EXISTING SIGNS.

ALL WORK ON THIS SCHEDULE IS GOVERNED BY ARTICLE 107.25, EXCEPT METAL POST

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

F.A.I. 94 (DAN RYAN EXPRESSWAY)

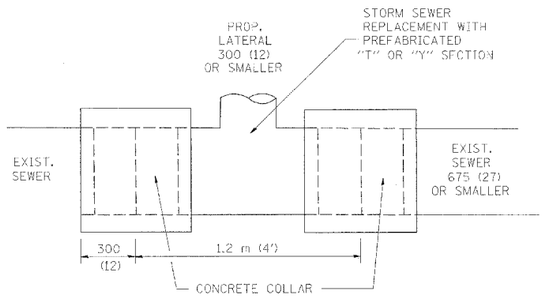
FRONTAGE ROAD EXISTING SIGN SCHEDULE
SHEET 6 OF 6

SCALE: NONE DRAWN BY: JJS

DATE: MARCH 25, 2005 CHECKED BY: MAG

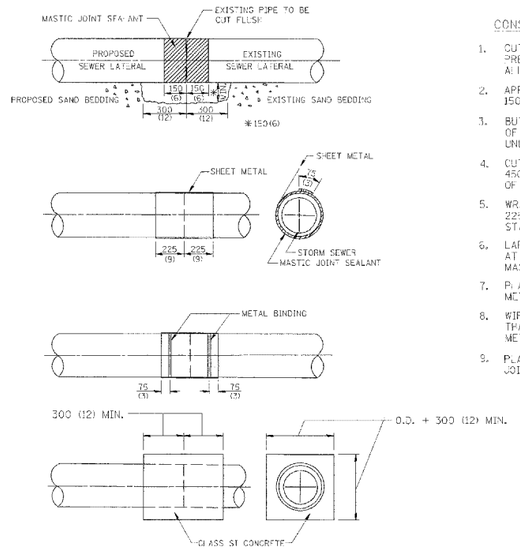
05/30/2005 04:39:48 PM

F. A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
			907	796
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



DETAIL "A"

LATERAL CONNECTION TO EXISTING SEWER OF 675 (27) OR SMALLER

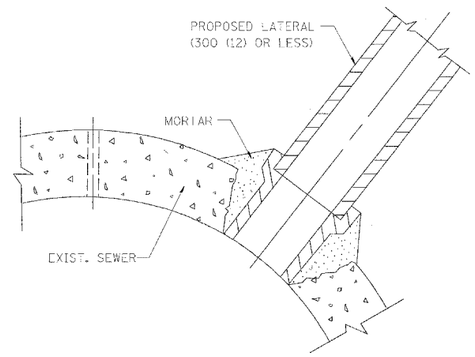


DETAIL "B"

CLASS SI CONCRETE COLLAR

CONSTRUCTION SEQUENCE

1. CUT THE EXISTING END OF THE PIPE SO AS TO PRESENT A FLUSH BUTT JOINT. BRUSH AND CLEAN ALL PIPES.
2. APPLY THE MASTIC JOINT SEALANT TO THE FIRST 150 (6) OF EACH PIPE.
3. BUTT THE PIPES TOGETHER LEAVING A MINIMUM OF 300 x 150 (12 x 6) DEEP EXCAVATION UNDER AND AROUND EACH PIPE END.
4. CUT A PIECE OF SHEET METAL GAGE NO. 19 1.1 (0.0418) 450 (18) WIDE BY THE OUTSIDE CIRCUMFERANCE OF THE PIPE PLUS 75 (3) LONG.
5. WRAP THE SHEET METAL AROUND THE PIPES, 225 (9) ON EACH SIDE OF THE JOINT, STARTING AT THE TOP OF THE PIPE.
6. LAP THE SHEET METAL AT LEAST 75 (3) AT THE TOP OF THE PIPE AND PLACE THE MASTIC JOINT SEALANT BETWEEN THE LAP.
7. PLACE TWO METAL BANDS AROUND THE SHEET METAL AND TIGHTEN.
8. WIPE OFF ANY EXCESS MASTIC JOINT SEALANT THAT OOZES OUT FROM BETWEEN THE SHEET METAL AND THE PIPES.
9. PLACE CLASS SI CONCRETE AROUND THE JOINT.



DETAIL "C"

PROPOSED LATERAL CONNECTION TO EXISTING SEWER OF 750 (30) OR LARGER

NOTES

MATERIAL

MATERIAL USED FOR THE TEE OR WYE SECTION SHALL BE COMPATIBLE WITH THE EXISTING STORM SEWER OR THE PROPOSED STORM SEWER.

CONSTRUCTION METHODS

I THIS WORK SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE APPLICABLE PORTIONS OF SECTION 550 OF THE STANDARD SPECIFICATIONS.

II CONNECTION TO AN EXISTING STORM SEWER SHALL BE BY EITHER OF THE FOLLOWING METHODS:

A) PROPOSED STORM SEWER CONNECTION TO EXISTING SEWER OF 675 (27) OR SMALLER SEE DETAIL "A" AND "B".

B) PROPOSED STORM SEWER CONNECTION TO EXISTING SEWER OF 750 (30) OR LARGER SEE DETAIL "C".

IF THE EXISTING SEWER PIPE IS CRACKED, BROKEN OR OTHERWISE DAMAGED BY THE CONTRACTOR IN MAKING THE CIRCULAR OPENING, THE CONTRACTOR SHALL REPLACE THAT SECTION OF PIPE WITH PIPE EQUAL AND SIMILAR IN ALL RESPECTS TO THE PIPE IN THE EXISTING SEWER, IN A CAREFUL WORKMANLIKE MANNER, WITHOUT EXTRA COMPENSATION.

GENERAL

CARE MUST BE TAKEN TO PREVENT DEBRIS FROM ENTERING THE SEWER. ALL DEBRIS WHICH ENTERS THE SEWER MUST BE REMOVED. THE SEWER MUST BE LEFT CLEAN AND UNOBSTRUCTED UPON COMPLETION OF THE CONTRACT.

CARE MUST BE TAKEN TO PREVENT ANY PART OF THE NEW PIPE CONNECTION FROM PROJECTING INTO THE EXISTING SEWER.

BASIS OF PAYMENT

TEE OR WYE CONNECTIONS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR STORM SEWER TEE OR WYE OF THE TYPE AND SIZE SPECIFIED IN THE PLANS, THIS PRICE SHALL INCLUDE ALL EXCAVATION OF THE TRENCH, REMOVAL OF THE EXISTING STORM SEWER, FURNISHING AND INSTALLING THE SPECIFIED TEE OR WYE SECTION, FURNISHING AND INSTALLING THE REQUIRED CONCRETE COLLAR, AND ALL OTHER MATERIAL NECESSARY TO COMPLETE THIS WORK AS SHOWN AND SPECIFIED.

REMOVAL AND REINSTALLATION OF EXISTING STORM SEWER ADJACENT TO THE PROPOSED TEE OR WYE SECTION, FOR THE PURPOSE OF FACILITATING THE INSTALLATION OF THE TEE OR WYE SECTION, WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE WORK.

TRENCH BACKFILL, EXCAVATION IN ROCK AND REMOVAL AND REPLACEMENT OF UNSUITABLE MATERIAL BELOW PLAN BEDDING GRADE WILL BE PAID FOR SEPARATELY.

CONCRETE COLLAR FOR CONNECTING A PROPOSED STORM SEWER TO AN EXISTING STORM SEWER WILL NOT BE PAID PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE PROPOSED STORM SEWER.

ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE SHOWN.

REVISIONS	
NAME	DATE
M. DE YONG	07/25/90
M. DE YONG	02/05/92
M. DE YONG	05/08/92
R. SHAH	09/09/94
R. SHAH	10/25/94
R. SHAH	06/12/96

ILLINOIS DEPARTMENT OF TRANSPORTATION

DETAIL OF STORM SEWER CONNECTION TO EXISTING SEWER

SCALE: NONE — DRAWN BY CADD

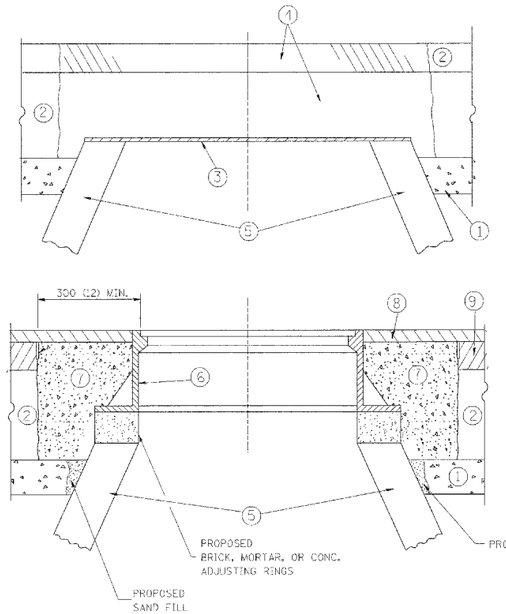
DATE 10/18/2002 — CHECKED BY

BD500-01 (BD-7)

REVISION DATE: 06/12/96

10/18/2002
c:\projects\distst\bd07.dgn
VHBDT

F. A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
			907	791
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



CONSTRUCTION PROCEDURES

STAGE 1 (BEFORE PAVEMENT MILLING)

A) REMOVE A MINIMUM OF 300 (12) OF THE PAVEMENT FROM AROUND THE STRUCTURE.

B) REMOVE THE EXISTING FRAME AND LID FROM THE STRUCTURE.

C) COVER THE STRUCTURE OPENING WITH A 900 (36) DIAMETER METAL PLATE.

D) BACKFILL WITH CRUSHED STONE AND A MINIMUM 40 (1½) THICK BITUMINOUS MATERIAL APPROVED BY THE ENGINEER.

STAGE 2 (AFTER PAVEMENT MILLING)

A) REMOVE THE BITUMINOUS MATERIAL AND CRUSHED STONE.

B) INSTALL THE FRAME AND LID; ADJUST THE FRAME TO ITS FINAL SURFACE ELEVATION.

C) THE SURROUNDING SPACE SHALL BE FILLED WITH CLASS SI CONCRETE, OR BITUMINOUS CONCRETE SURFACE OR BINDER COURSE MATERIAL TO THE ELEVATION OF THE SURFACE OF THE EXISTING BASE COURSE OR THE BINDER COURSE.

THE PROCEDURE EXPLAINED ABOVE SHALL CONFORM TO THE APPLICABLE PORTIONS OF SECTIONS 353, 406, 602, AND 603 OF THE STANDARD SPECIFICATIONS.

LEGEND

1. SUB-BASE GRANULAR MATERIAL
2. EXISTING PAVEMENT
3. 900 (36) DIAMETER METAL PLATE
4. PROPOSED CRUSHED STONE AND BITUMINOUS MATERIAL
5. EXISTING STRUCTURE
6. FRAME AND LID (SEE NOTES)
7. CLASS SI CONCRETE, BITUMINOUS CONCRETE SURFACE OR BINDER COURSE MATERIAL
8. PROPOSED BITUMENOUS CONCRETE SURFACE COURSE
9. PROPOSED BITUMINOUS CONCRETE BINDER COURSE

NOTES:

EXISTING BROKEN FRAMES AND LIDS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AND SHALL BE REPLACED AS DIRECTED BY THE ENGINEER. REPLACEMENT FRAMES AND LIDS WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS UNLESS A SEPARATE PAY ITEM HAS BEEN PROVIDED.

IF THE EXISTING LIDS ARE OPEN, THE FRAME WILL BE ADJUSTED TO THE ELEVATION OF THE MILLED PAVEMENT SURFACE PRIOR TO THE MILLING OPERATION. THE FRAME WILL NOT BE REMOVED AND COVERED BY THE METAL PLATE.

CITY OF CHICAGO CASTINGS ARE THE PROPERTY OF THE CITY AND THE CONTRACTOR SHALL NOTIFY THE CITY FOR REMOVAL AND DISPOSITION OF THE CASTINGS.

THE METAL PLATE USED TO COVER THE STRUCTURE SHALL REMAIN THE PROPERTY OF THE CONTRACTOR.

WHEN STRUCTURES ARE TO BE ADJUSTED OR RECONSTRUCTED, THE LOWERING AND RAISING OF THE FRAMES AND LIDS WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE COST OF THE CORRESPONDING PAY ITEM.

LOCATION OF STRUCTURES:

THE CONTRACTOR WILL BE REQUIRED TO KEEP A RECORD OF THE LOCATIONS OF THE BURIED STRUCTURES ACCORDING TO THE STATION AND DISTANCE LEFT OR RIGHT OF THE CENTERLINE OF PAVEMENT. UPON COMPLETION OF THE WORK, THE CONTRACTOR WILL DELIVER THE RECORD TO THE ENGINEER.

BASIS OF PAYMENT: FRAMES AND LIDS TO BE ADJUSTED, SPECIAL EACH

NEW FRAMES AND LIDS, WHEN SPECIFIED, WILL BE PAID FOR SEPARATELY.

DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING

ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE SHOWN

REVISIONS	
NAME	DATE
R. SHAH	10/25/94
R. SHAH	01/30/95
R. SHAH	03/10/95
A. ABBAS	03/21/97
R. WIEDEMAN	05/14/04

ILLINOIS DEPARTMENT OF TRANSPORTATION

DETAILS FOR
FRAMES AND LIDS ADJUSTMENT
WITH MILLING

SCALE: NONE — DRAWN BY

DATE: 05/17/2004 — CHECKED BY

BD600-03 (BD-8)

REVISION DATE: 05/17/04

05/17/2004
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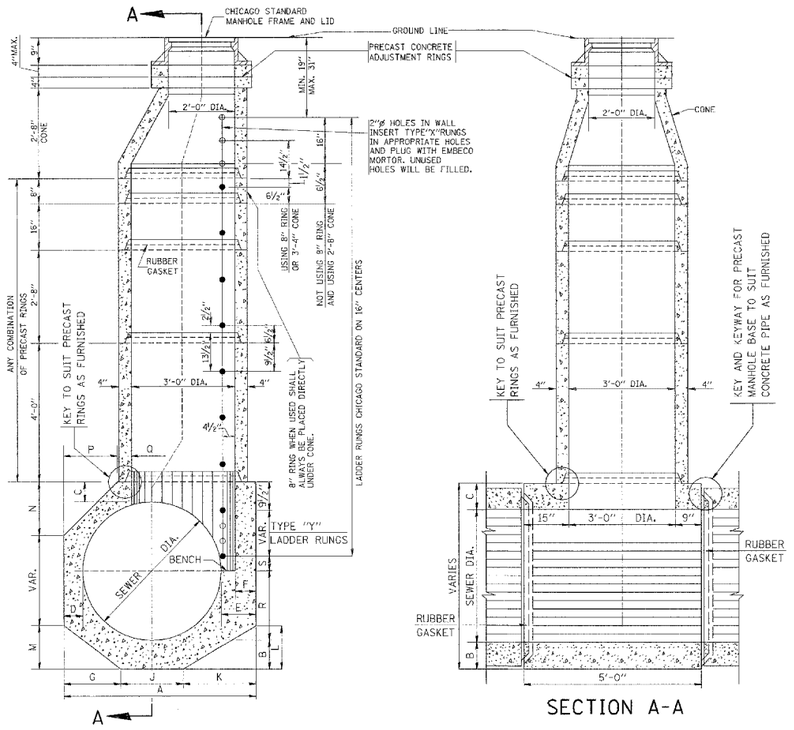
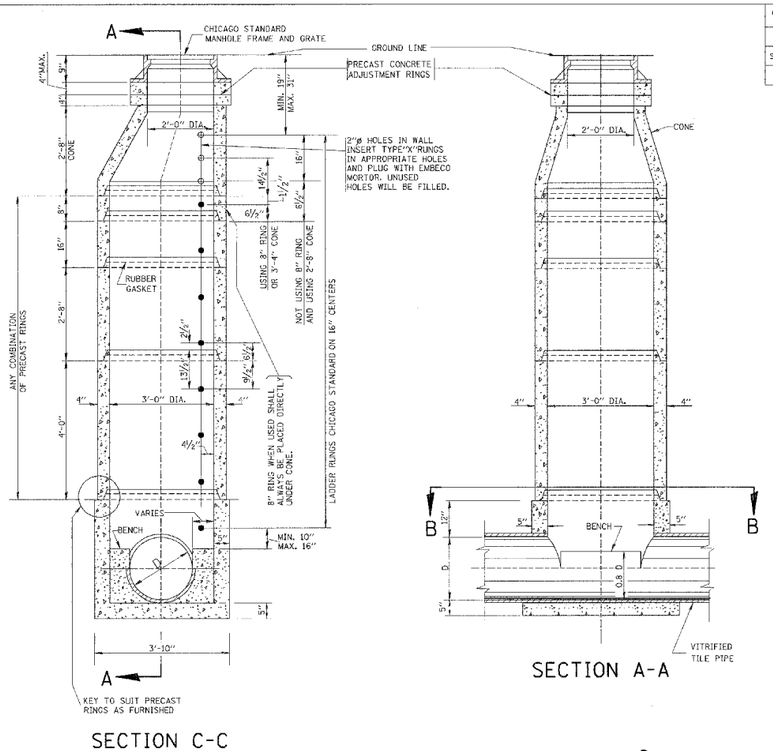
F. A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
			157	142
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

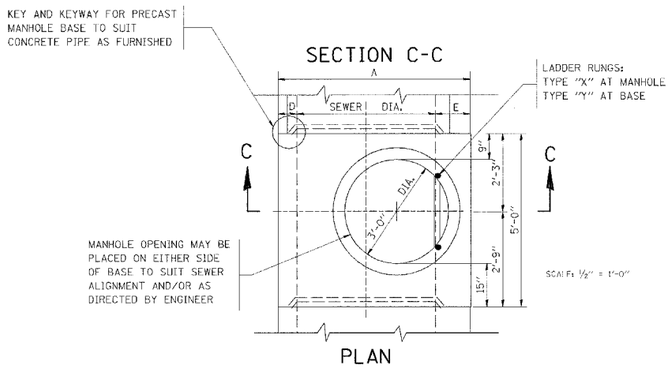


SECTION A-A



SECTION C-C

SECTION A-A



TYPE "A" MANHOLE

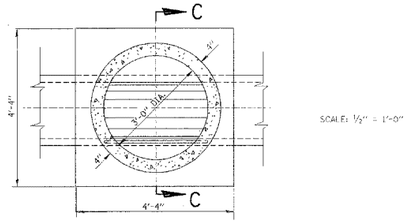
FOR SEWERS
24" TO 120" DIAMETER
PRECAST BASES AND RINGS

SEWER DIA.	PART OF ITEM	DIMENSIONS OF PRECAST MANHOLE BASE																NO. "Y" RINGS
		A	B	C	D	E	F	G	J	K	L	M	N	P	Q	R		
120"		12'-4½"	12"	12"	12"	16½"	12"	4'-0"	4'-0"	4'-4½"	2'-7½"	2'-5"	3'-7"	3'-7"	4'-8½"	2'-0"	2½"	7
108"		11'-4½"	12"	12"	12"	16½"	12"	3'-8"	3'-8"	4'-0½"	2'-5"	2'-2"	3'-4"	3'-4"	4'-0½"	2'-0"	6½"	6
102"		10'-10½"	12"	12"	12"	16½"	12"	3'-6"	3'-6"	3'-10½"	2'-4"	2'-1"	3'-2"	3'-2"	3'-8½"	2'-0"	16½"	5
96"	10-A	10'-2½"	11"	11"	11"	15½"	11"	3'-3"	3'-3"	3'-8½"	2'-3"	23"	2'-11"	2'-11"	3'-4½"	2'-0"	9½"	5
90"	10-B	9'-8½"	11"	11"	11"	15½"	11"	3'-1"	3'-1"	3'-6½"	2'-1½"	22"	2'-10"	2'-10½"	3'-2½"	2'-0"	3½"	5
84"	10-C	9'-0½"	10"	10"	10"	14½"	10"	2'-11"	2'-11"	3'-2½"	23"	21"	2'-7"	2'-7"	2'-7½"	2'-0"	12½"	4
78"	10-D	8'-6½"	10"	10"	10"	14½"	10"	2'-9"	2'-9"	3'-0½"	22"	20"	2'-6"	2'-6"	2'-2½"	2'-0"	6½"	4
72"	10	7'-10½"	9"	9"	9"	13½"	9"	2'-6"	2'-6"	2'-10½"	21"	18"	2'-3"	2'-3"	22½"	2'-0"	15½"	3
66"	11	7'-4½"	9"	9"	9"	13½"	9"	2'-4"	2'-4"	2'-8½"	19½"	17"	2'-1"	2'-1"	18½"	2'-0"	9½"	3
60"	12	6'-8½"	8"	8"	8"	12½"	8"	2'-1½"	2'-1"	2'-6"	18"	15"	23"	23"	13½"	2'-0"	2½"	3
54"	13	6'-2½"	8"	8"	8"	12½"	8"	23½"	23"	2'-4"	17"	14"	21"	21"	9½"	2'-0"	12½"	2
48"	14	5'-6½"	7"	7"	7"	11½"	7"	20½"	21"	2'-1"	15"	12½"	18½"	18½"	5"	2'-0"	5½"	2
42"	15	5'-0½"	7"	7"	7"	11½"	7"	18½"	19"	23"	14"	11"	---	---	17½"	21"	2½"	2
36"	16	4'-4½"	6"	6"	6"	10½"	6"	16"	16"	20½"	12½"	9½"	---	---	10½"	18"	14½"	1
30"	17	4'-0"	6"	6"	6"	12"	6"	14"	14"	20"	12"	8½"	---	---	6"	15"	11½"	1
24"	18	4'-0"	5"	6"	12"	12"	6"	16"	16"	16"	9½"	9½"	---	---	6"	12"	8½"	1

FOR STATE CONTRACT ALL DIMENSIONS SHOULD BE PREPARED IN METRIC UNITS SOFT CONVERSION METHOD SHOULD BE USED.

TYPE "A" MANHOLE

FOR SEWERS
21" DIAMETER AND SMALLER
PRECAST BASES AND RINGS



SECTION B-B

REVISIONS		
DATE	DESCRIPTION	
6-18-82	CHICAGO STANDARD MH	
9-22-90	TYPE "A" MANHOLE	MDY

CITY OF CHICAGO
DRAINAGE
DETAILS

10/18/2002

BD600-12 (BD-9)

REVISION DATE: 09/22/90

10/18/2002
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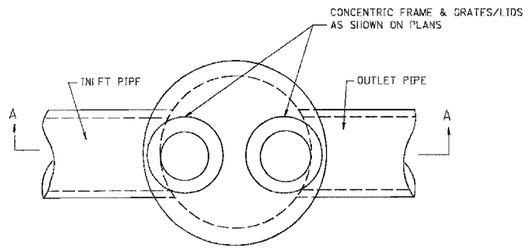
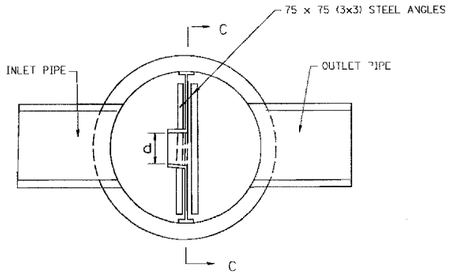
VI-BDS

F. A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
			907	793
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

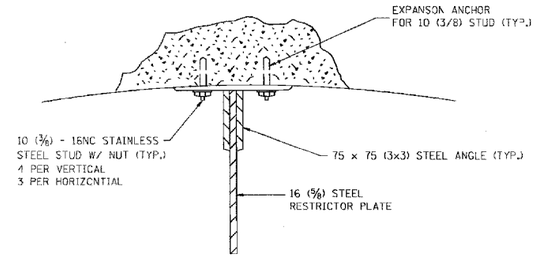
62695



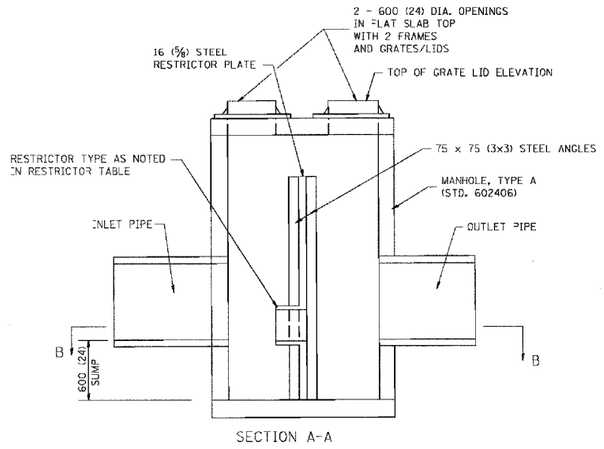
PLAN



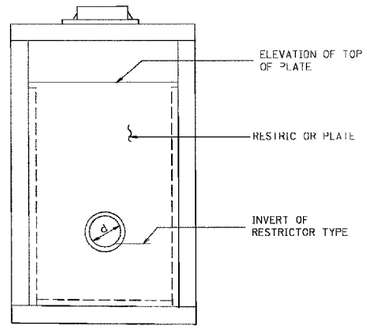
SECTION B-B



ANGLE FASTENER DETAIL



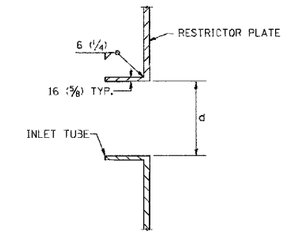
SECTION A-A



SECTION C-C

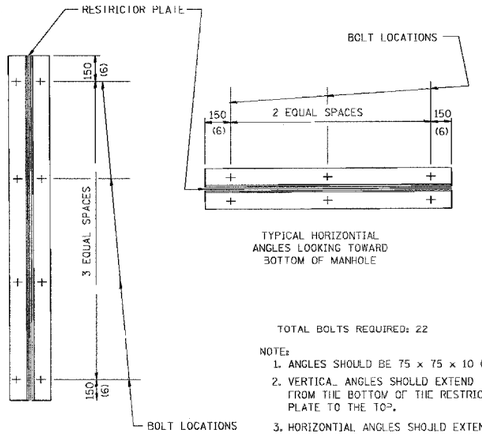
NOTES:

1. ALL STEEL ANGLES AND PLATES TO BE GALVANIZED AFTER FABRICATION.
2. ALL RESTRICTOR PLATES, ANGLES AND HARDWARE TO BE INCLUDED IN THE COST OF THE MANHOLE.
3. BASIS OF PAYMENT: "MANHOLES ,TYPE A, 1.8m (6FT.)-DIAMETER, TYPE 1 FRAME, CLOSED LID, RESTRICTOR PLATE" EACH



INLET TUBE DETAIL

	STATION	MANHOLE DIAMETER	FRAME AND GRATE	RESTRICTOR TYPE	INSIDE RESTRICTOR TYPE DIAMETER mm (in.) (d)	INVERT OF RESTRICTOR TYPE	ELEVATION OF TOP OF PLATE OVERFLOW
75	145+11.87	6'	TIF CL	2	24"	-15.90	-0.89
76	145+40.93	6'	TIF CL	2	30"	-12.63	-0.82
99	1210+37.00	6'	TIF CL	2	30"	-9.9	-1.44



TYPICAL VERTICAL ANGLES LOOKING TOWARD MANHOLE WALL

TYPICAL HORIZONTIAL ANGLES LOOKING TOWARD BOTTOM OF MANHOLE

TOTAL BOLTS REQUIRED: 22

NOTE:

1. ANGLES SHOULD BE 75 x 75 x 10 (3x3x3/8)
2. VERTICAL ANGLES SHOULD EXTEND FROM THE BOTTOM OF THE RESTRICTOR PLATE TO THE TOP.
3. HORIZONTIAL ANGLES SHOULD EXTEND FROM VERTICAL ANGLE TO VERTICAL ANGLE.

STEEL ANGLE BOLTING DETAILS

RESTRICTOR TYPE					
1	2	3	4	5	6
RE-ENTRANT TUBE	SHARP EDGED	SQUARE EDGED	RE-ENTRANT TUBE	SQUARE EDGED	ROUNDED
LENGTH: 1/2 TO 1 DIA.		STREAM CLEARS SIDES	LENGTH: 2-1/2 DIA.	LENGTH: 2-1/2 DIA.	
C=.52	C=.61	C=.61	C=.73	C=.82	C=.98

VALUES OF "C" FOR CIRCULAR AND SQUARE ORIFICES

ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE SHOWN.

REVISIONS	
NAME	DATE
R. SHAH	09/09/94
R. SHAH	10/25/94
E. GOMEZ	08/28/00
M. GOMEZ	01/08/01

ILLINOIS DEPARTMENT OF TRANSPORTATION

MANHOLE WITH RESTRICTOR PLATE

SCALE: NONE

DRAWN BY

DATE 10/18/2002

CHECKED BY

BD600-04 (BD-12)

REVISION DATE: 01/08/01

10/18/2002
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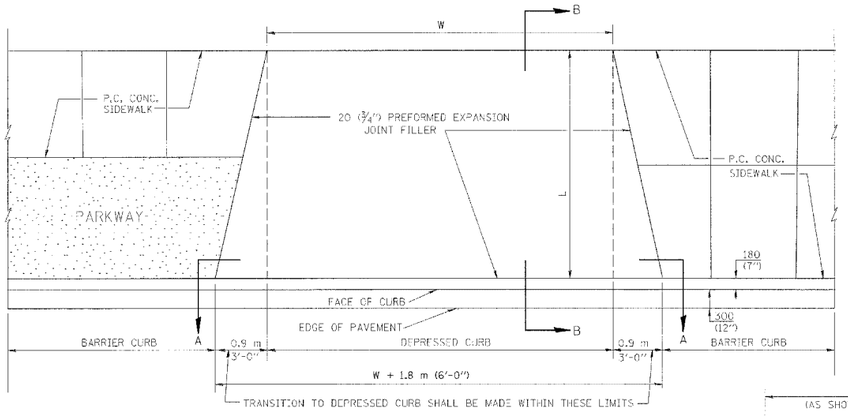
VI-BDI2

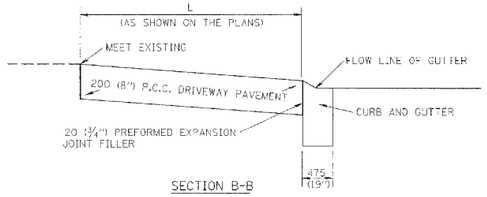
F. A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
			907	79H
STA.		TO STA.		
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		



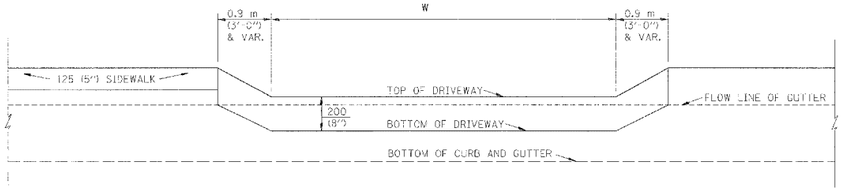
PLAN VIEW

NOTES:

1. EXPANSION JOINTS SHALL BE CONSTRUCTED AS SHOWN ON THE DETAILS FOR P.C.C. SIDEWALK.
2. THE CURB BETWEEN ADJACENT DRIVEWAYS SHALL BE FULL HEIGHT FOR A DISTANCE OF AT LEAST FOUR 1.2 METERS (4 FEET).
3. P.C. CONCRETE DRIVEWAYS SHALL BE CONSTRUCTED AT LOCATIONS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
4. 20 (3/4") PREFORMED EXPANSION JOINTS WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCIDENTAL TO P.C.C. DRIVEWAY PAVEMENT 200 (8").
5. COMBINATION CONC. CURB AND GUTTER SHALL BE MEASURED STRAIGHT ACROSS THE DRIVEWAY. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR THE TRANSITION CURB AND GUTTER.

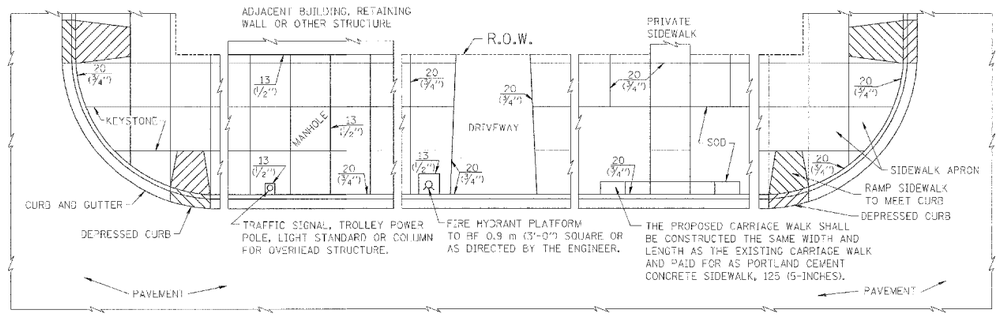


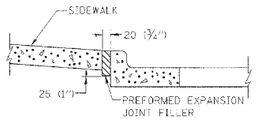
SECTION B-B



SECTION A-A

P.C.C. DRIVEWAY PAVEMENT DETAIL





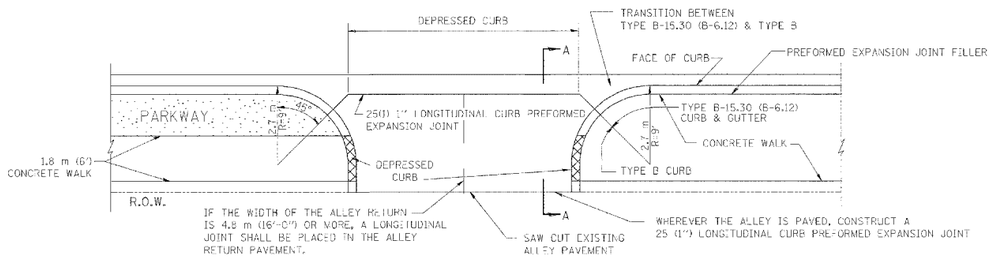
SLOPE FOR SIDEWALK
25 (1") IN 0.9 m (3'-0") IN CHICAGO

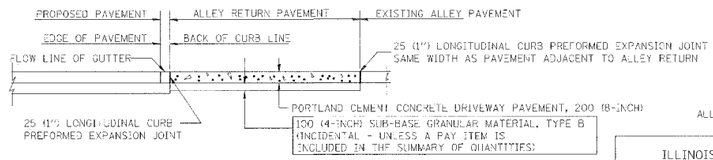
NOTES:

1. ONE-HALF INCH THICK EXPANSION JOINTS SHALL BE PLACED BETWEEN THE SIDEWALK AND ALL STRUCTURES SUCH AS LIGHT STANDARDS, TRAFFIC LIGHT STANDARDS, MANHOLES, WHICH EXTEND THROUGH THE SIDEWALK.
2. 20 (3/4) THICK EXPANSION JOINTS SHALL BE PLACED AT INTERVALS OF NOT MORE THAN 30 METERS (100 FEET) IN THE SIDEWALK. WHERE THE SIDEWALK IS CONSTRUCTED ADJACENT TO PAVEMENT OR CURB HAVING EXPANSION JOINTS, THE EXPANSION JOINTS IN THE SIDEWALK SHALL BE PLACED OPPOSITE THE EXISTING EXPANSION JOINTS AS NEARLY AS PRACTICABLE. EXPANSION JOINTS SHALL ALSO BE PLACED WHERE THE SIDEWALK ABUTS EXISTING SIDEWALKS, BETWEEN DRIVEWAY PAVEMENT AND SIDEWALK, AND BETWEEN SIDEWALK AND CURBS WHERE THE SIDEWALK ABUTS A CURB.

PORTLAND CEMENT CONCRETE SIDEWALK DETAILS

NOTES: NO EXTRA COMPENSATION SHALL BE ALLOWED FOR THE GUTTER FLARE





SECTION A-A

ALLEY RETURN DETAIL

ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE SHOWN

REVISIONS	
NAME	DATE
M. DE YONG	06/13/90

ILLINOIS DEPARTMENT OF TRANSPORTATION

CITY OF CHICAGO DETAILS FOR P.C. CONCRETE DRIVEWAY, ALLEY RETURN AND SIDEWALK

SCALE: NONE — DRAWN BY RJH

DATE: 10/18/2002 — CHECKED BY

BD400-03 (BD-17)

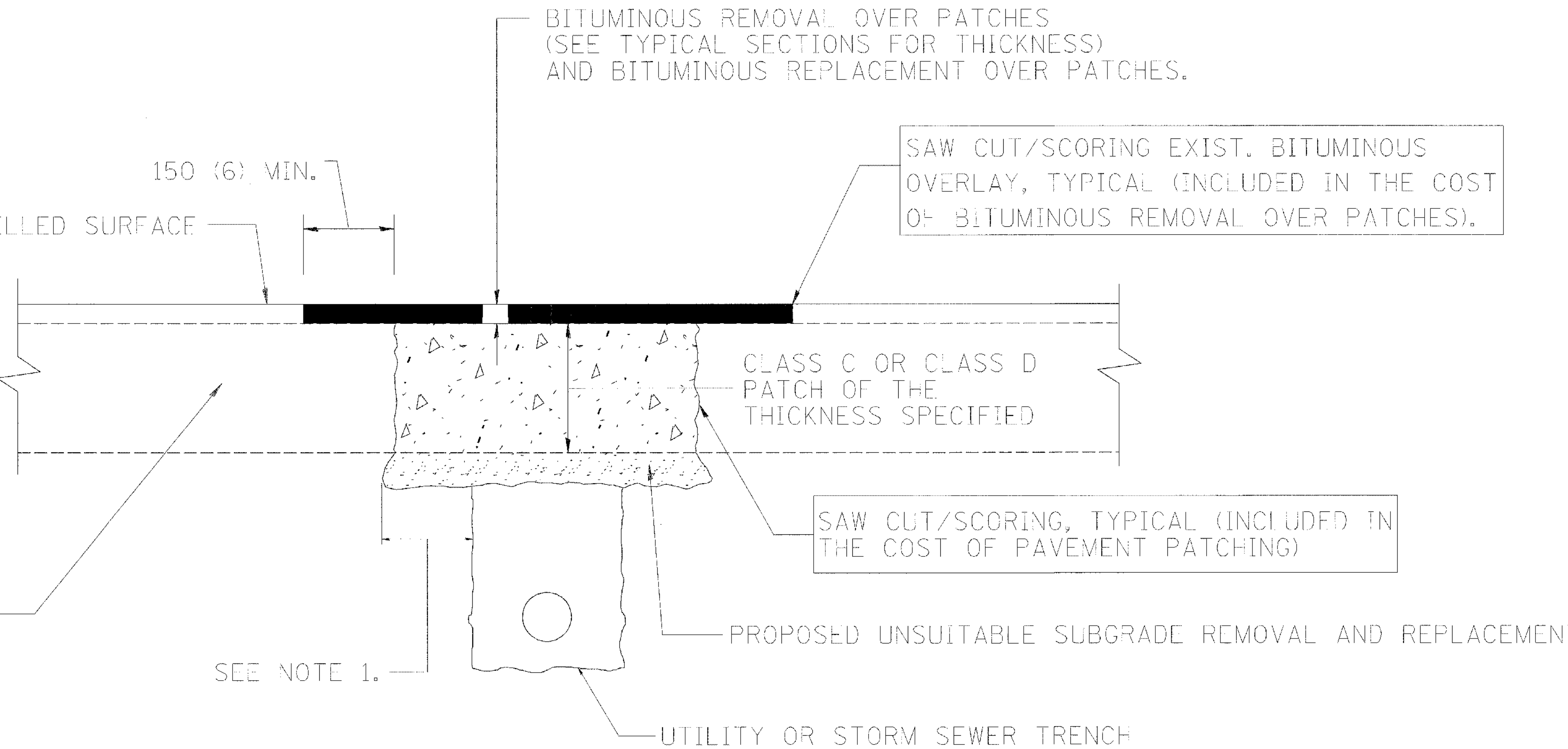
REVISION DATE: 06/13/90

10/18/2002
c:\projects\diststd\bd17.dgn
VH-BD17

F. A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
			907	795

STA. TO STA.

FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT



* SEE TYPICAL SECTIONS FOR THICKNESS AND MATERIALS

NOTES:

1. THE WIDTH OF THE FULL DEPTH PATCH OVER A TRENCH SHALL BE 300 (12) WIDER ON EACH SIDE OF THE TRENCH.

2. FOR METHOD OF MEASUREMENT AND BASIS OF PAYMENT, SEE SPECIAL PROVISION "PATCHING WITH BITUMINOUS OVERLAY REMOVAL".

SEQUENCE OF CONSTRUCTION

1. REMOVE THE EXISTING BITUMINOUS MATERIAL OVER THE AREA TO BE PATCHED.

2. REMOVE AND REPLACE FULL DEPTH PATCHES

3. REPLACE BITUMINOUS MATERIAL OVER THE AREA TO BE PATCHED.

ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE SHOWN.

REVISIONS NAME	DATE	REVISIONS NAME	DATE
R. SHAH	10/25/94	ART ABBAS	04/27/98
R. SHAH	01/14/95		
R. SHAH	03/23/95		
R. SHAH	04/24/95		
A. HOUSEH	03/15/96		
A. ABBAS	03/21/97		
A. ABBAS	01/20/98		

ILLINOIS DEPARTMENT OF TRANSPORTATION

PAVEMENT PATCHING FOR BITUMINOUS SURFACED PAVEMENT

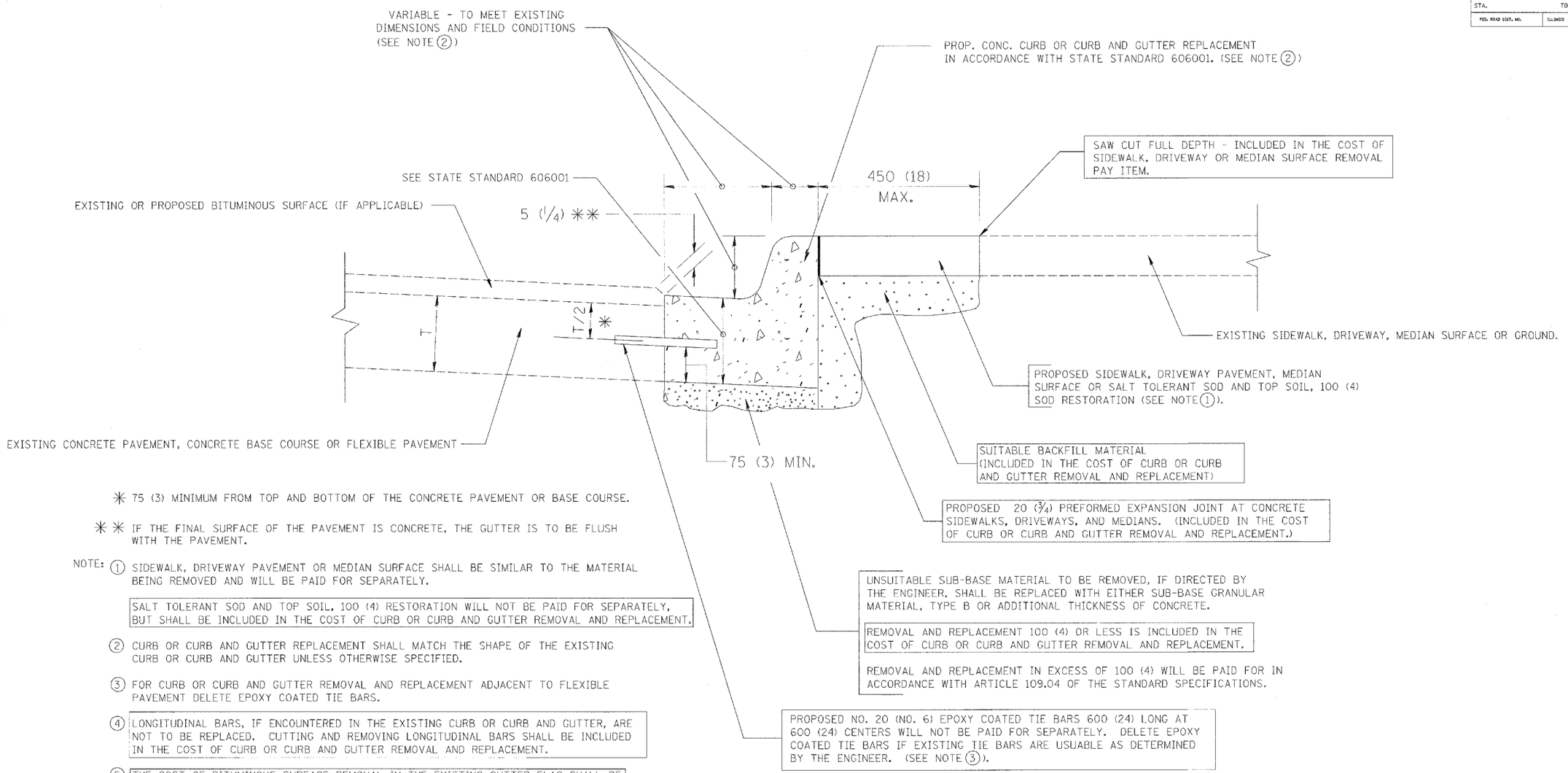
SCALE: NONE
DATE 10/18/2002

DRAWN BY
CHECKED BY

BD400-04 (BD-22)
REVISION DATE: 04/27/98

c:\projects\d:stsd\bd22.dgn LV=35,63
Friday October 18, 2002 @ 09:04:45 AM
VI-8022

F. A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
			907	796
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



* 75 (3) MINIMUM FROM TOP AND BOTTOM OF THE CONCRETE PAVEMENT OR BASE COURSE.

** IF THE FINAL SURFACE OF THE PAVEMENT IS CONCRETE, THE GUTTER IS TO BE FLUSH WITH THE PAVEMENT.

NOTE: (1) SIDEWALK, DRIVEWAY PAVEMENT OR MEDIAN SURFACE SHALL BE SIMILAR TO THE MATERIAL BEING REMOVED AND WILL BE PAID FOR SEPARATELY.

SALT TOLERANT SOD AND TOP SOIL, 100 (4) RESTORATION WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.

(2) CURB OR CURB AND GUTTER REPLACEMENT SHALL MATCH THE SHAPE OF THE EXISTING CURB OR CURB AND GUTTER UNLESS OTHERWISE SPECIFIED.

(3) FOR CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT ADJACENT TO FLEXIBLE PAVEMENT DELETE EPOXY COATED TIE BARS.

(4) LONGITUDINAL BARS, IF ENCOUNTERED IN THE EXISTING CURB OR CURB AND GUTTER, ARE NOT TO BE REPLACED. CUTTING AND REMOVING LONGITUDINAL BARS SHALL BE INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.

(5) THE COST OF BITUMINOUS SURFACE REMOVAL IN THE EXISTING GUTTER FLAG SHALL BE INCLUDED IN THE COST OF THE CURB AND GUTTER REMOVAL AND REPLACEMENT.

(6) THE REMOVAL AND REPLACEMENT OF THE EXISTING CURB OR CURB AND GUTTER SHALL BE DONE IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF SECTION 440 AND 606 OF THE STANDARD SPECIFICATIONS.

(7) THE LOCATIONS OF REMOVAL AND REPLACEMENT OF EXISTING CURB OR CURB AND GUTTER SHALL BE DETERMINED BY THE RESIDENT ENGINEER AT THE TIME OF CONSTRUCTION.

BASIS OF PAYMENT:

THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER METER (FOOT) FOR "CURB REMOVAL AND REPLACEMENT" OR "COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT".

CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE SHOWN.

REVISIONS	
NAME	DATE
M. DE YONG	05/28/91
A. HOUSEH	03/11/94
R. SHAH	02/24/95
R. SHAH	03/02/95
R. SHAH	08/19/96
R. SHAH	09/12/96
R. SHAH	09/19/96
R. SHAH	10/03/96
A. ABBAS	03/21/97
M. GOMEZ	01/22/01

ILLINOIS DEPARTMENT OF TRANSPORTATION

CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

SCALE: NONE | DRAWN BY

DATE 10/18/2002 | CHECKED BY

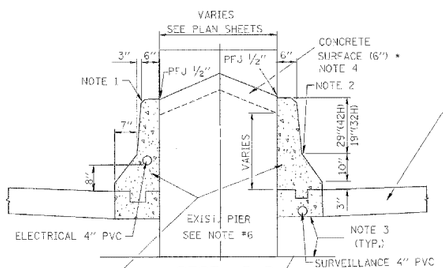
BD600-06 (BD-24)

REVISION DATE: 12/06/88

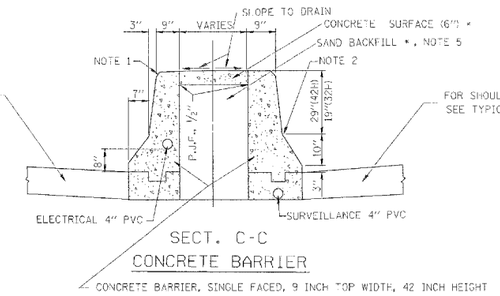
10/18/2002
c:\projects\alstate\bd24.dgn
V1-BD24

F. A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
			907	797
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

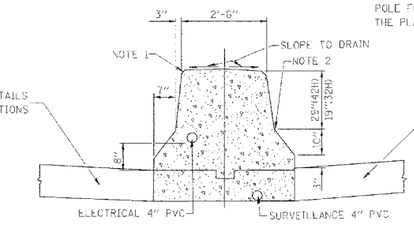
TANGENT CONDITION



SECT. D-D
CONCRETE BARRIER



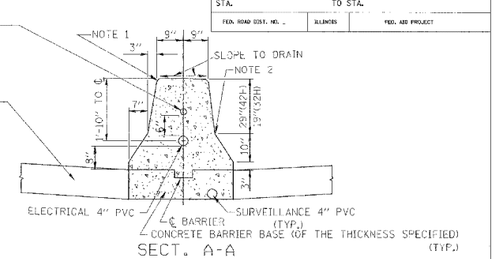
SECT. C-C
CONCRETE BARRIER



SECT. B-B
CONCRETE BARRIER

CONCRETE BARRIER, DOUBLE FACED
18 INCH VARIABLE TOP WIDTH
42 INCH HEIGHT

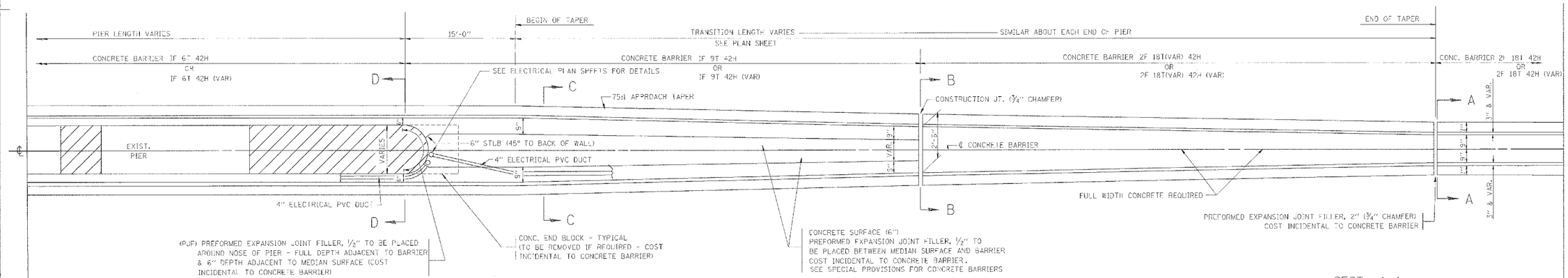
2" PVC TO BE INSTALLED BETWEEN SIGN FOUNDATION AND NEAREST LIGHT POLE FOUNDATION WHERE SHOWN ON THE PLANS.



SECT. A-A
CONCRETE BARRIER

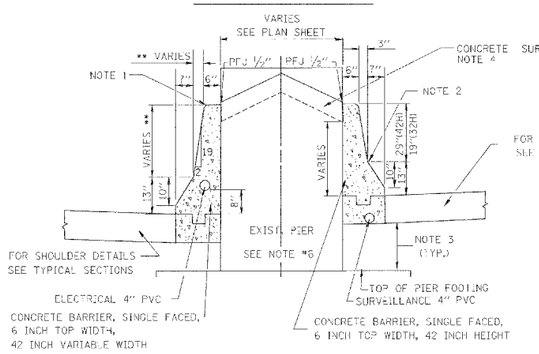
CONCRETE BARRIER, DOUBLE FACE,
18 INCH TOP WIDTH,
42 INCH HEIGHT

PLAN VIEW OF CONCRETE BARRIER TRANSITION

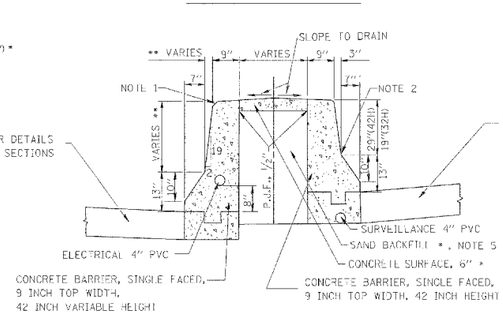


(SUPER ELEVATION CONDITION)

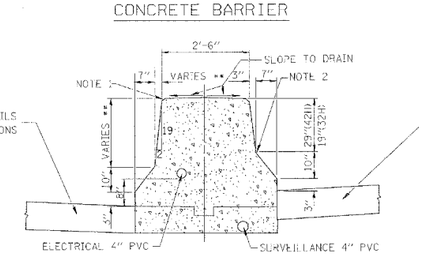
SECT. D-D
CONCRETE BARRIER



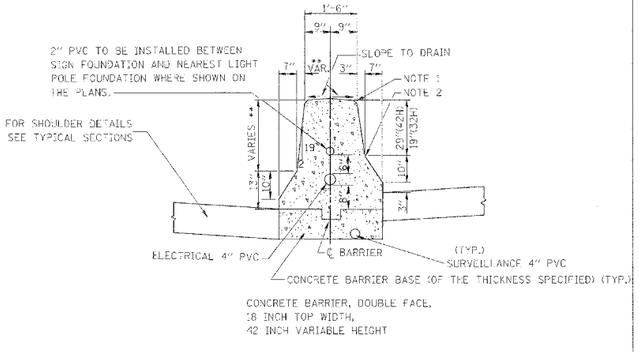
SECT.C-C
CONCRETE BARRIER



SECT. B-B
CONCRETE BARRIER



SECT. A-A
CONCRETE BARRIER



CONCRETE BARRIER, DOUBLE FACE,
18 INCH TOP WIDTH,
42 INCH VARIABLE HEIGHT

GENERAL NOTES - FOR UNDERDRAIN DETAILS SEE TYPICAL SECTIONS
- PREFORMED JOINT FILLER SHALL BE INCIDENTAL TO THE CONCRETE BARRIER OF THE TYPE INVOLVED.
- FOR KEYWAY (F) DIMENSIONS, SEE TYPICAL SECTIONS
- CONCRETE BARRIER BASE PAY ITEM IS TO BE INCLUDED IF THE BARRIER IS CONSTRUCTED MONOLITHIC OR JOINTED TO BASE. IF JOINTED CONTRACTORS WILL HAVE THE OPTION OF USING A KEYWAY OR *__ TIE BARS AT _____O.C.

NOTE 1 - ¾" CHAMFER OR 1" RADIUS (OPTIONAL)

NOTE 2 - 10" RADIUS (OPTIONAL)

NOTE 3 - EXTEND BOTTOM OF BARRIER TO FOOTING ONLY WHEN DEPTH IS 6" OR LESS, OTHERWISE MAINTAIN SAME DEPTH AS BOTTOM OF SHOULDER

NOTE 4 - PIER FILLER MATERIAL TO BE CONCRETE IF MINIMUM 6" THICKNESS WILL BE MAINTAINED. IF 6" THICKNESS CANNOT BE MAINTAINED USE ASPHALT FILLER MATERIAL AS DIRECTED BY THE ENGINEER.

NOTE 5 - SAND BACKFILL AND CONCRETE SURFACE WILL BE REQUIRED. FILLING WITH CONCRETE WILL NOT BE ALLOWED.

NOTE 6 - IF PIER IS NEW CONSTRUCTION BARRIER WALL MAY BE MONOLITHIC

** MAINTAIN SLOPE OF FACE AS SHOWN ON DETAIL. HEIGHT AND WIDTH OF BARRIER INCREASE WHERE A DIFFERENCE IN MEDIAN EDGE-OF-PAVEMENT GRADE ELEVATION EXISTS.

* COST OF SAND BACKFILL, CONCRETE SURFACE (6"), AND PIER FILLER MATERIAL WILL NOT BE INCIDENTAL.

REVISIONS	
NAME	DATE
FORD	9/9/88
FORD	12/6/88

ILLINOIS DEPARTMENT OF TRANSPORTATION

CONCRETE BARRIER TRANSITION & GENERAL DETAILS CONCRETE BARRIER BASE

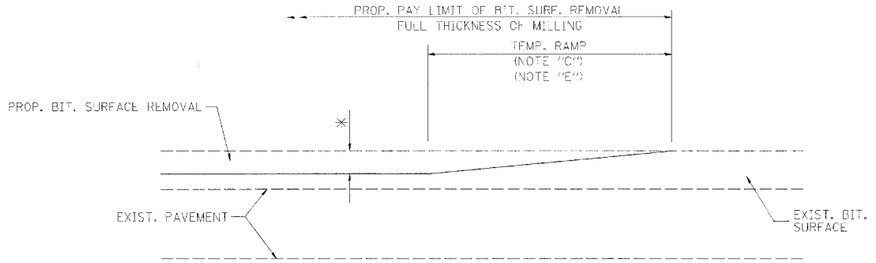
SCALE: NONE — DRAWN BY J.B.P.

DATE 12/19/2002 — CHECKED BY

BD-27

12/19/2002
K:\dist\std\bd27.dgn
V1-BD27

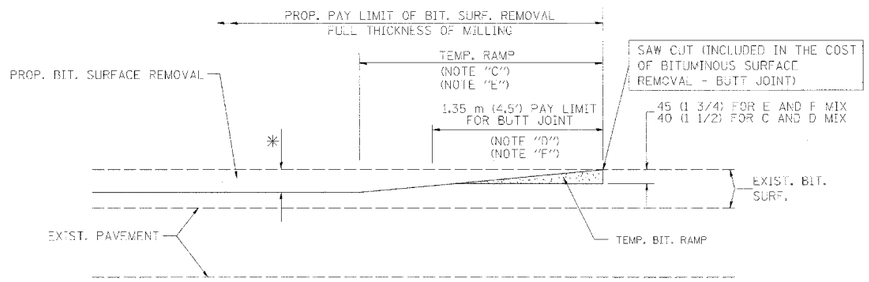
REVISION DATE: 12/06/88



MILLED TEMPORARY RAMP

(FOR BUTT JOINT AND BIT. TAPER SEE DETAIL BELOW)

OPTION 1

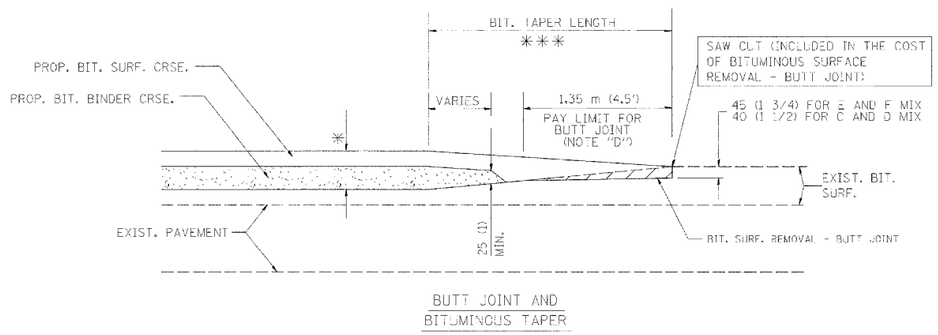


BITUMINOUS CONSTRUCTED TEMPORARY RAMP

(FOR BUTT JOINT AND BIT. TAPER SEE DETAIL BELOW)

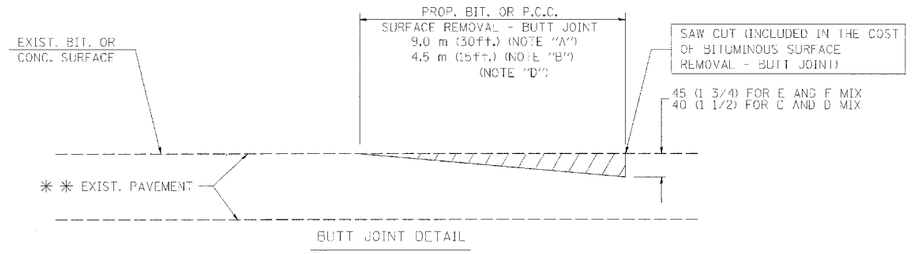
OPTION 2

TYPICAL TEMPORARY RAMP

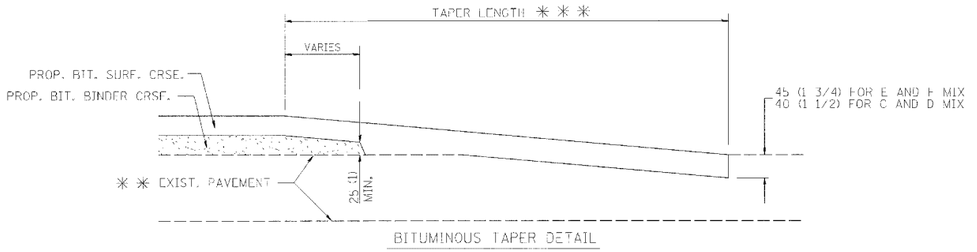


BUTT JOINT AND BITUMINOUS TAPER

TYPICAL BUTT JOINT AND BITUMINOUS TAPER FOR MILLING AND RESURFACING



BUTT JOINT DETAIL



BITUMINOUS TAPER DETAIL

TYPICAL BUTT JOINT AND BITUMINOUS TAPER FOR RESURFACING ONLY

** PC CONCRETE, BITUMINOUS OR BITUMINOUS RESURFACED PAVEMENT.

NOTES

A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.

B: MINOR SIDE ROADS.

C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING BITUMINOUS SURFACE.

D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED BITUMINOUS COURSES.

E: TAPER THE TEMP. RAMP AT A RATE OF 900 (3 ft.) PER INCH OF MILLING THICKNESS.

F: INSTALLATION AND REMOVAL OF THE 1.35 m (4.5') TEMP. BIT. RAMP WILL BE PAID AS "BITUMINOUS SURFACE REMOVAL - BUTT JOINT".

G: SEE ARTICLE 406.18 AND 406.24 OF THE STANDARD SPECIFICATIONS FOR "BITUMINOUS AND PCC SURFACE REMOVAL, BUTT JOINT".

* SEE TYPICAL SECTIONS FOR MILLING THICKNESS.

*** 6.1 m (20') PER 25 (1) RESURFACING (NOTE "A")
3.0 m (10') PER 25 (1) RESURFACING (NOTE "B")

ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE SHOWN.

BASIS OF PAYMENT:

THE BUTT JOINT WILL BE PAID FOR PER SQUARE METER (SQUARE YARD) AS "BITUMINOUS SURFACE REMOVAL - BUTT JOINT" OR AS "PORTLAND CEMENT CONCRETE SURFACE REMOVAL- BUTT JOINT".

REVISIONS	
NAME	DATE
M. DE YONG	6-13-90
M. DE YONG	7-3-90
M. DE YONG	3-27-92
R. SHAH	09/09/94
R. SHAH	10/25/94
A. ABBAS	03/21/97
M. GOMEZ	04/06/01

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
			907	798
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

ILLINOIS DEPARTMENT OF TRANSPORTATION

BUTT JOINT AND BITUMINOUS TAPER DETAILS

SCALE: NONE

DRAWN BY

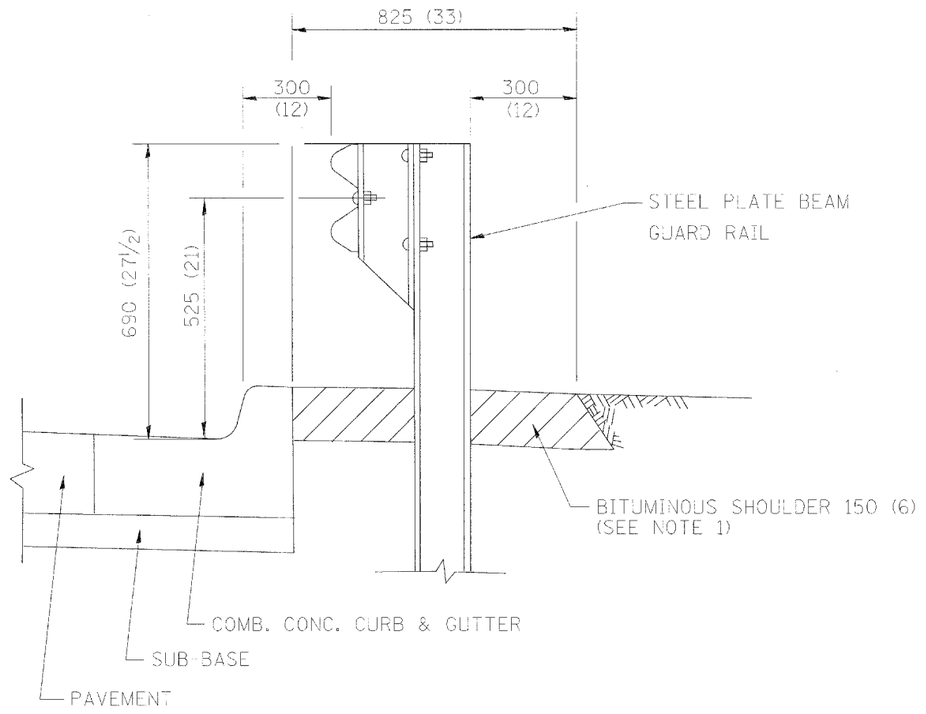
DATE PLOTTED:10/18/2002

CHECKED BY

BD400-05 (V1=BD32)

REVISION DATE:04/06/01

DATE-TIME
DGN-SPEC
V1=BD32



NOTES: 1. THE BITUMINOUS SHOULDER SHALL EXTEND UNDER THE TRAFFIC BARRIER TERMINAL

2. GUARD RAIL MAY BE PLACED AT THE BACK OF CURB WHEN DIRECTED BY THE ENGINEER.

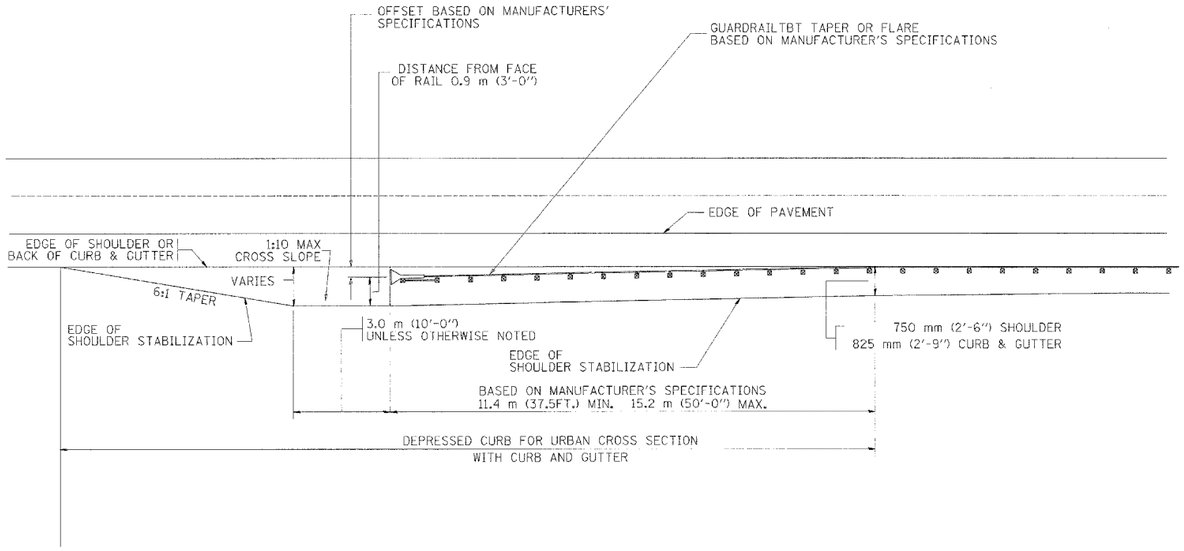
BASIS OF PAYMENT: BITUMINOUS SHOULDER 150 (6) WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER m^2 (sq. yd.) AS "BITUMINOUS SHOULDER 150 (6)."

STEEL PLATE BEAM GUARD RAIL AND TRAFFIC BARRIER TERMINAL, OF THE TYPE SPECIFIED WILL BE PAID FOR SEPARATELY.

DETAILS FOR STEEL PLATE BEAM GUARD RAIL ADJACENT TO CURB AND GUTTER

[FOR ROADWAY SPEED 60 kmh (35 MPH) TO 70 kmh (45 MPH)]

F. A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO
			907	799
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



STABILIZATION AT TBT TY. 1 SPL.

ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE SHOWN.

REVISIONS	
NAME	DATE
M. DE YONG	09-22-90
M. DE YONG	07-14-92
R. SHAH	09/09/94
R. SHAH	10/25/94
R. SHAH	02/23/95
A. ABBAS	03/21/97
E. GOMEZ	08/28/00

ILLINOIS DEPARTMENT OF TRANSPORTATION

DETAILS FOR STEEL PLATE BEAM GUARD RAIL ADJACENT TO CURB AND GUTTER

STABILIZATION AT TBT TY 1 SPL.

SCALE: NONE DRAWN BY jls

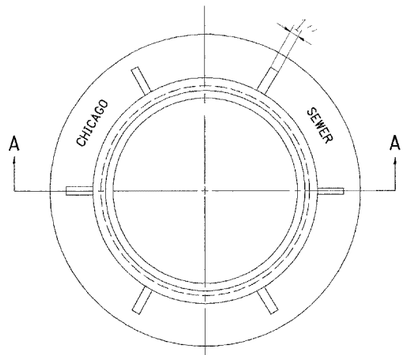
DATE 10/18/2002 CHECKED BY

BD600-10 (BD 34)

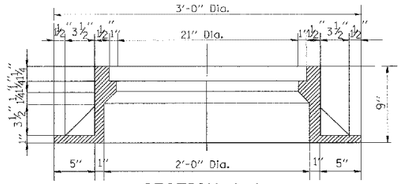
REVISION DATE: 08/28/00

DATE-TIME
DGN-SPEC
VI-DD34

RECD FROM DI. 1/2/83--CEL CREATED 7/18/82



PLAN



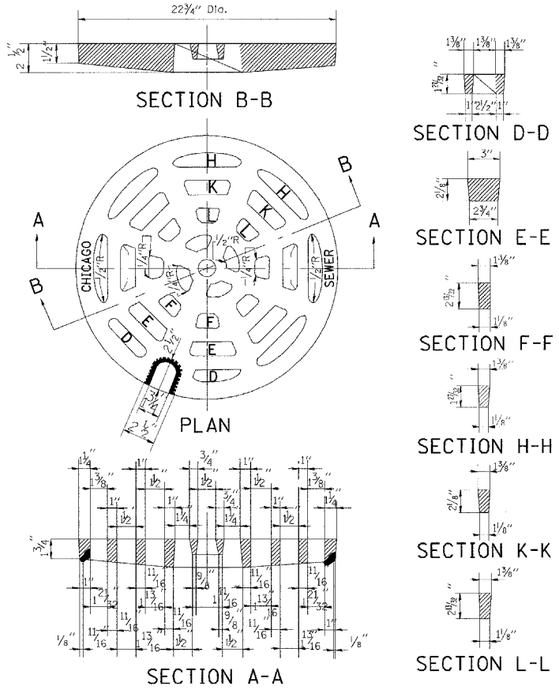
SECTION A-A

NOTE: *Metal Plates Must Be Furnished For Perforated Lids On Manholes*

CHICAGO STANDARD MANHOLE FRAME

Scale: 1½"=1'-0"

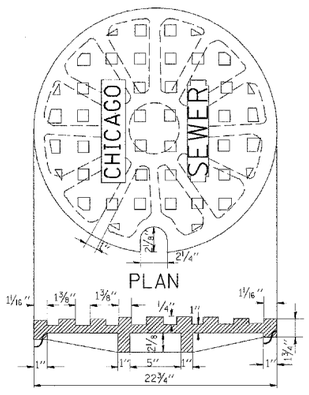
Material: Cast Iron



PERFORATED LID FOR CATCH BASINS & MANHOLES

Scale: 2"=1'-0"

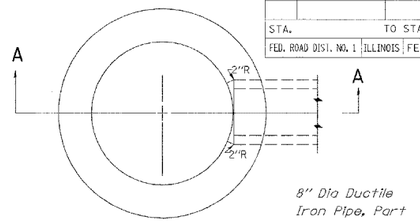
Material: Cast Iron



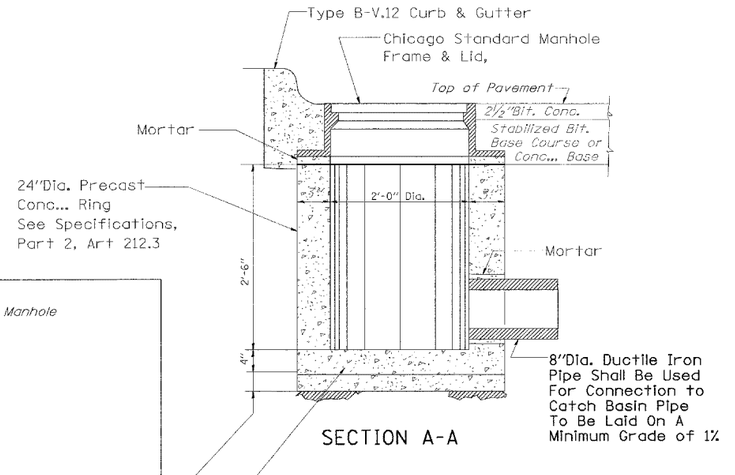
SOLID LID FOR MANHOLES

Scale: NONE

Material: Cast Iron



(Frame & Lid Not Shown)



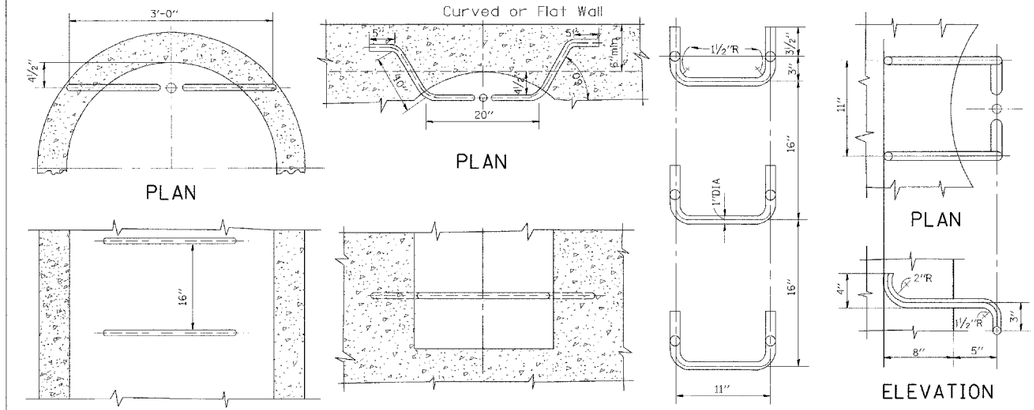
STANDARD INLETS

Scale 1"= 1'-0"

Item 12

This Inlet Detail Is Sometimes Referred To As "Chicago Standard Inlet, Type A"

NOTE:
INLETS SHALL NOT BE CONSTRUCTED UNLESS IT IS IMPOSSIBLE TO CONSTRUCT A CATCH BASIN. THE CONTRACTOR SHALL HAVE THE DEPARTMENT OF SEWERS APPROVAL BEFORE CONSTRUCTING INLETS



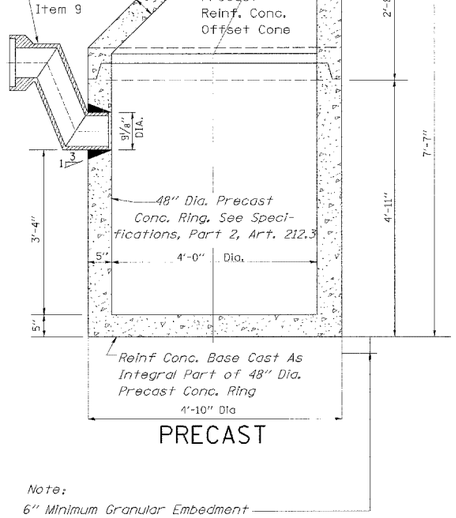
Scale: 1"=1'-0" Scale: 1"=1'-0"

STANDARD LADDER RUNGS

HANDHOLD-TYPE Z RUNG

Scale: 1½"=1'-0"

All Ladder Rungs Shall Be Aluminum or Galvanized Wrought Iron As Specified in Spefications, Part 2, rticle214.2. Rungs Shall Be 1" Diameter or of A Shape Having An Equivalent Cross-Sectionsl Area



Note:
6" Minimum Granular Embedment Under All Catch Basins

STANDARD CATCH BASINS

Scale: ¾"= 1'-0"

Item 9

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			107	80D
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		

CITY OF CHICAGO
DEPARTMENT OF SEWERS
ENGINEERING DIVISION

REVISIONS	
NAME	DATE
M. GOMEZ	01/25/01

ILLINOIS DEPARTMENT OF TRANSPORTATION

CITY OF CHICAGO CATCH BASIN, INLET AND MANHOLE DETAILS

SCALE: VERT. HORIZ.
DATE 10/18/2002
DRAWN BY
CHECKED BY

BD600-13 (BD47)

REVISION DATE: 01/25/01

DATE-TIME
DGN-SPEC
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