

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 69-05 Page 1 of 1

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

Datum: CCD
 Elevation: 8.85 ft
 North: 1852962.94 ft
 East: 1177616.30 ft
 Station: 2315+95.19
 Offset: 110.71' RT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	SPT Values (blows/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	N Values (blows/6 in)	Qu (tsf)	Moisture Content (%)
8.4	6-inch thick CLAY LOAM --TOPSOIL--								Boring terminated at 25.00 ft						
	Hard, gray CLAY LOAM --FILL--	1	X	1	2 5 3	4.50 P	28								
6.4	Loose, brown SAND --FILL--	2	X	2	3 5 4	NP	19								
2.4	Stiff to very stiff, gray CLAY	3	X	3	4 3 4	1.23 B	23								
		4	X	4	3 5 5	1.23 B	21								
		5	X	5	3 4 6	1.72 B	21								
		6	X	6	4 5 6	1.72 B	20								
		7	X	7	5 7 9	2.21 B	20								
		8	X	8	10 12 14										
11.7	Hard, gray gravelly SILTY CLAY	9	X	9	12 14 16	7.79 B	12								
15.2		10	X	10	11 13 17	7.95 B	12								

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	01-27-2005	Complete Drilling	01-27-2005	While Drilling	▽	DRY	
Drilling Contractor	DLZ Drilling	Drill Rig	D-120 TMR	At Completion of Drilling	▽	DRY	
Driller	J&R	Logger	K. Jacob	Time After Drilling	NA		
Checked by	MLS	Depth to Water	▽	NA			
Drilling Method 3.25" ID. HSA; Boring backfilled with bentonite upon completion				The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.			

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BORING LOG SB 69-06 Page 1 of 1

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

Datum: CCD
 Elevation: 9.43 ft
 North: 1852887.55 ft
 East: 1177625.86 ft
 Station: 2315+20.20
 Offset: 117.01' RT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	SPT Values (blows/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	N Values (blows/6 in)	Qu (tsf)	Moisture Content (%)
8.4	2-inch thick ASPHALT --PAVEMENT--								Boring terminated at 25.00 ft						
	10-inch thick GRAVEL --BASE COURSE--	1	X	1	11 13 11	1.20 B	15								
6.4	Very stiff, brown and gray gravelly CLAY --FILL--	2	X	2	5 8 8	NP	11								
	Medium dense, brown SAND	3	X	3	4 5 5	NP	23								
		4	X	4	3 5 6	1.00 B	21								
		5	X	5	2 4 6	1.10 B	21								
		6	X	6	4 5 7	1.80 B	19								
		7	X	7	4 8 12	3.00 B	17								
		8	X	8	7 11 16	3.50 B	16								
11.1	Stiff to very stiff, gray CLAY	9	X	9	15 21 23	7.80 S	12								
15.6	Hard, gray gravelly SILTY CLAY	10	X	10	10 11 17	7.00 B	12								

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	01-26-2005	Complete Drilling	01-26-2005	While Drilling	▽	DRY	
Drilling Contractor	DLZ Drilling	Drill Rig	D-120 TMR	At Completion of Drilling	▽	DRY	
Driller	J&R	Logger	Y. Shlu	Time After Drilling	NA		
Checked by	MLS	Depth to Water	▽	NA			
Drilling Method 3.25" ID. HSA; Boring backfilled with bentonite upon completion				The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.			

TYLIN INTERNATIONAL

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94 (DAN RYAN EXPRESSWAY)
 RETAINING WALL ALONG STATE ST.
 ENTRANCE RAMP AT 79TH ST.
 WALL 69
 BORING LOGS SB69-05 & SB69-06
 S.N. 016-W975
 SCALE: N.T.S.
 DATE: MARCH 18, 2005

DESIGNED BY: DJR
 DRAWN BY: DJR
 CHECKED BY: TD

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BORING LOG SB 69-07 Page 1 of 1

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

Datum: CCD
 Elevation: 9.61 ft
 North: 1852810.12 ft
 East: 1177629.57 ft
 Station: 2314+43.47
 Offset: 117.89' RT

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BORING LOG SB 69-08 Page 1 of 1

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

Datum: CCD
 Elevation: 9.71 ft
 North: 1852738.78 ft
 East: 1177632.66 ft
 Station: 2313+72.61
 Offset: 118.81' RT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	SPT Values (blows/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	N Values (blows/6 in)	Qu (tsf)	Moisture Content (%)
9.6	2-inch thick ASPHALT --PAVEMENT--	0							Boring terminated at 25.00 ft						
8.6	10-inch thick GRAVEL and CRUSHED STONE --BASE COURSE--	1	X	1	11 11 7	4.50 P	21								
6.6	Hard, brown and gray CLAY --FILL--	5	X	2	3 6 6	NP	12								
	Loose to medium dense, brown SAND	5	X	3	3 4 5	NP	23								
1.6	Stiff to very stiff, gray CLAY	10	X	4	2 5 6	1.20 B	22								
		15	X	5	2 4 6	1.20 B	20								
		20	X	6	3 4 6	1.10 B	19								
		25	X	7	5 7 8	2.10 B	18								
		30	X	8	5 5 8	1.80 B	19								
		35	X	9	9 18 23	3.40 B	16								
		40	X	10	11 17 16	5.70 B	13								
		45													
		50													

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	SPT Values (blows/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	N Values (blows/6 in)	Qu (tsf)	Moisture Content (%)
9.7	4-inch thick TOPSOIL Hard, brown and black CLAY LOAM --FILL--	0	X	1	12 17 7	4.50 P	20		Boring terminated at 25.00 ft						
5.7	Medium dense, brown SAND	5	X	2	2 5 5	NP	15								
		10	X	3	3 6 7	NP	17								
1.7	Stiff to very stiff, gray CLAY	10	X	4	1 4 4	1.25 P	21								
		15	X	5	2 4 6	1.20 B	20								
		20	X	6	2 5 7	1.20 B	19								
		25	X	7	4 6 10	2.90 B	20								
		30	X	8	5 9 13	3.30 B	17								
		35	X	9	18 22 26	5.30 S	12								
		40	X	10	12 14 18	7.00 B	12								
		45													
		50													

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	01-26-2005	Complete Drilling	01-26-2005	While Drilling	∇	DRY	
Drilling Contractor	DLZ Drilling	Drill Rig	D-120 TMR	At Completion of Drilling	∇	DRY	
Driller	J&R	Logger	Y. Shiu	Time After Drilling	NA		
Drilling Method	3.25" ID HSA; Boring backfilled with bentonite upon completion			Depth to Water	∇	NA	
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.							

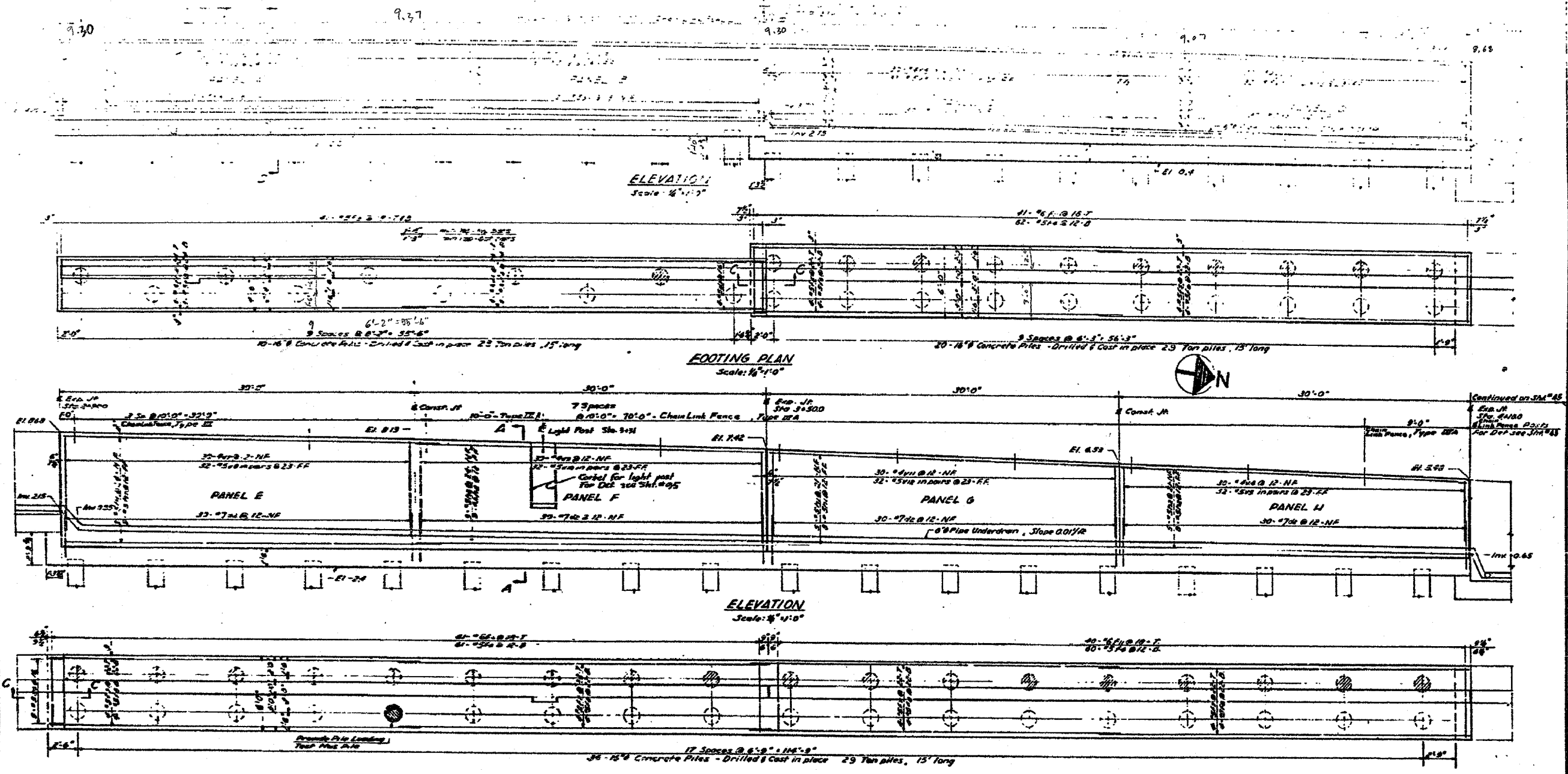
GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	01-26-2005	Complete Drilling	01-26-2005	While Drilling	∇	DRY	
Drilling Contractor	DLZ Drilling	Drill Rig	D-120 TMR	At Completion of Drilling	∇	DRY	
Driller	J&R	Logger	Y. Shiu	Time After Drilling	NA		
Drilling Method	3.25" ID HSA; Boring backfilled with bentonite upon completion			Depth to Water	∇	NA	
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.							

TYLIN INTERNATIONAL

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94 (DAN RYAN EXPRESSWAY)
 RETAINING WALL ALONG STATE ST.
 ENTRANCE RAMP AT 79TH ST.
 WALL 69
 BORING LOGS SB69-07 & SB69-08
 S.N. 016-W975
 SCALE: N.T.S.
 DATE: MARCH 18, 2005

DESIGNED BY: DJR
 DRAWN BY: DJR
 CHECKED BY: TD



NOTES:
 For Details of Expansion Joint & Bonded Construction See Sheet No. 42
 For Site Details & Bill of Materials See Sheet No. 43
 For Drainage, Excavation & Backfill See Sheet No. 44
 For Location of Wall See Sheet No. 45
 For Sections A-B & D-E See Sheet No. 46
 Indicated Batter Piles
 For Concrete & Reinf. @ Light Post, See Sheet No. 48

DEPARTMENT OF HIGHWAYS
 COOK COUNTY, ILLINOIS

DANIEL RYAN
 WILLIAM J. MONTINER

**RETAINING WALL ALONG WEST EDGE OF RAMP "L"
 SOUTH ROUTE EXPRESSWAY**

PROJECT: I-94-B(138)
 SCALE: 1/4"=1'-0"
 DATE: 08-18-04

REVISIONS		
DATE	BY	DESCRIPTION
08-18-04	CH	ADD LIGHT POSTS
08-18-04	CH	REPLACE BATTER & CHAIN LINK FENCE

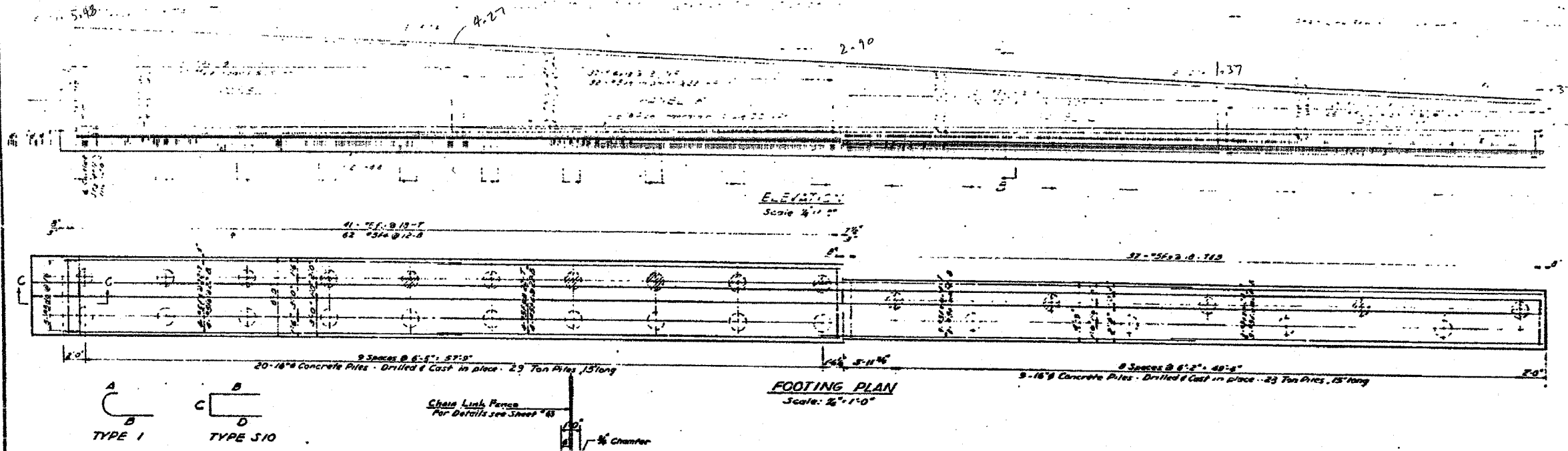
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94 (DAN RYAN EXPRESSWAY)
 RETAINING WALL ALONG STATE ST.
 ENTRANCE RAMP AT 79TH ST.
 EXISTING RETAINING WALL
 (1 OF 2)

S.N. 016-W975 DESIGNED BY: DJR
 SCALE: N.T.S. DRAWN BY: DJR
 DATE: MARCH 18, 2005 CHECKED BY: TD

TYLIN INTERNATIONAL

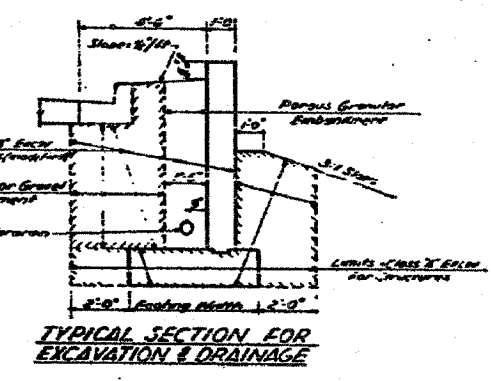
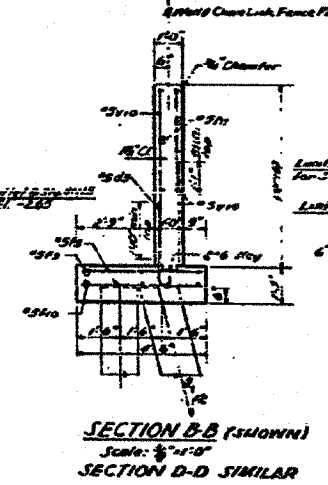
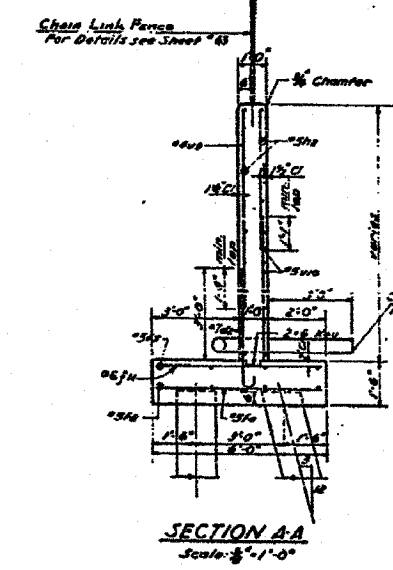
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 No Pay Items are shown.



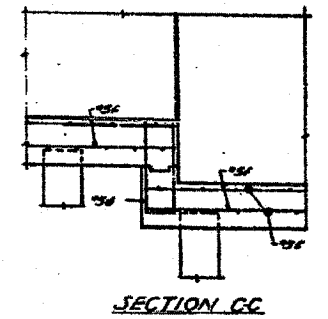
BILL OF MATERIAL

MARK	NO.	SIZE	LENGTH	TYPE	A	B	C	D	PANELS
41	42	5	3'-5"	C	1	7	2-10		A, B
42	240	7	4'-10"	C	1	10	4-0		C, D, E, F, G, H, K
43	4	5	3'-10"	C	5-10	2-5	7-0	2-5	B
44	5	5	3'-4"	C	5-10	3-0	1-0	3-0	D
45	30	5	4'-4"	C	1	7	3-9		L, M
46	5	5	6'-0"	C	5-10	2-10	10	2-10	N
47	4	5	30'-9"						A, D
48	6	5	37'-6"						B, C
49	256	5	4'-0"						A, D, L, M
50	245	5	3'-6"						C, D, E, F, G, H, K
51	16	5	31'-5"						C, D, L, K
52	16	5	31'-1"						C, D, L, K
53	16	5	31'-7"						E, F, G, H
54	16	5	31'-7"						E, F, G, H
55	6	5	29'-4"						L, M
56	6	5	29'-4"						L, M
57	163	5	5'-6"						C, A, E, F, G, H, K
58	71	5	31'-6"						A, C, E, G, J, L
59	81	5	29'-9"						D, C, E, H, K
60	10	5	2'-9"						M
61	42	5	5'-5"						A, B
62	16	5	5'-10"						A
63	16	5	5'-9"						B
64	90	4	5'-7"						C, D, N
65	128	2	4'-2"						C, D, H, K
66	30	4	5'-2"						D
67	30	4	3'-7"						E
68	32	5	5'-5"						F
69	30	4	4'-4"						F
70	23	5	5'-0"						F, G
71	60	4	4'-8"						G, J
72	60	5	4'-0"						G, J
73	30	4	3'-6"						K
74	32	5	3'-8"						L
75	37	5	3'-1"						M
76	28	5	3'-1"						M

Class "C" Concrete 198.0 Cu. Yds.
 Reinforcement Bars 16,581 LBS.
 Class "A" Excavation for Structures 370 Cu. Yds.
 Class "A" Excavation for Structures (Material) 251 Cu. Yds.
 Sand or Gravel Embankment 366 Tons
 Porous Granular Embankment 124 Cu. Yds.
 Enclosure for Corroded Metal Pipes 150 Lbs.
 Chain Link Fence - 1/2" x 1/2" 100 Lbs.
 Chain Link Fence - 1/4" x 1/4" 100 Lbs.



NOTES -
 For location of wall see Sheet # 48
 For pile quantities & details see Sheet # 48
 Batter Piles (2 in 12)
 For location of Section D-D see Sheet No. 48
 For Concrete & Reinf. @ Light Posts, See Set No. 95



REVISIONS

DATE	BY	DESCRIPTION
10-19-99	W.L.C.	ADD LIGHT POSTS
10-19-99	W.L.C.	REVISION TO SECTION B-B

DEPARTMENT OF HIGHWAYS
 COOK COUNTY, ILLINOIS

DANIEL RYAN
 WILLIAM J. BORTNER

**RETAINING WALL ALONG WEST EDGE OF RAMP 'L'
 SOUTH ROUTE EXPRESSWAY**

PROJECT: E-04-B(38)
 DRAWN: W.L.C.
 CHECKED: W.L.C.

DATE: 4-08-1810 45 98 SR-1833

DESIGN DIVISION DRAWING NO. 5.C.075

REVISIONS

NAME	DATE

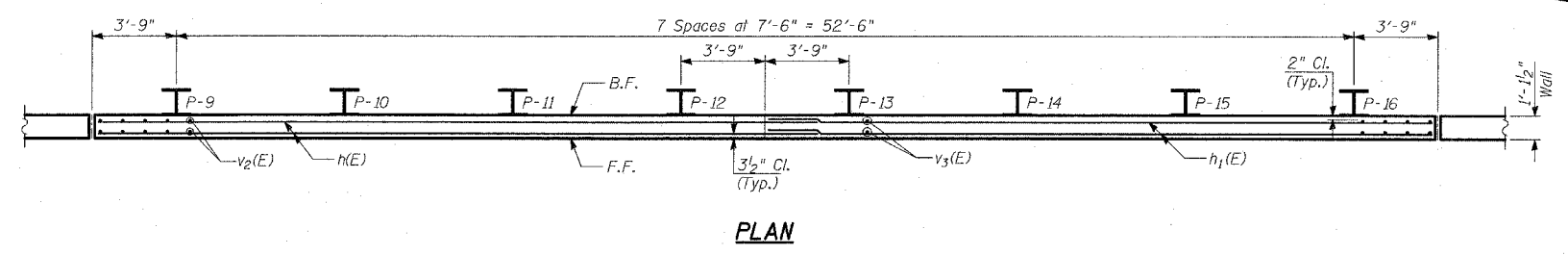
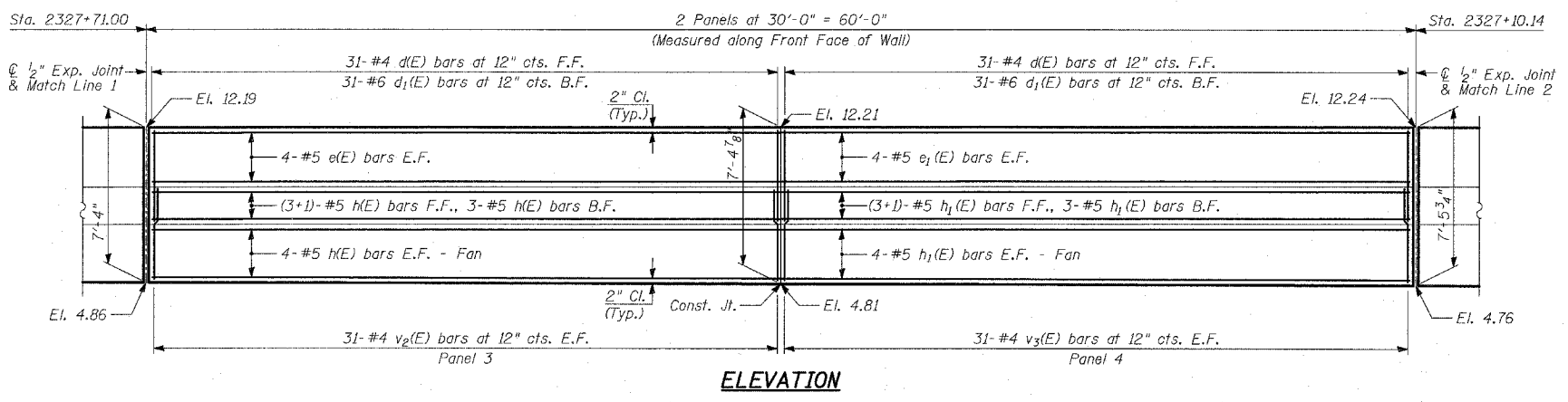
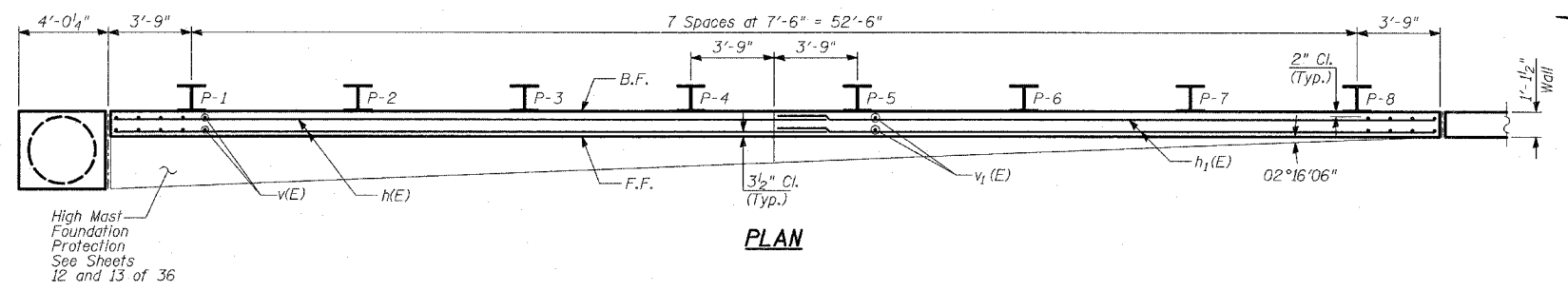
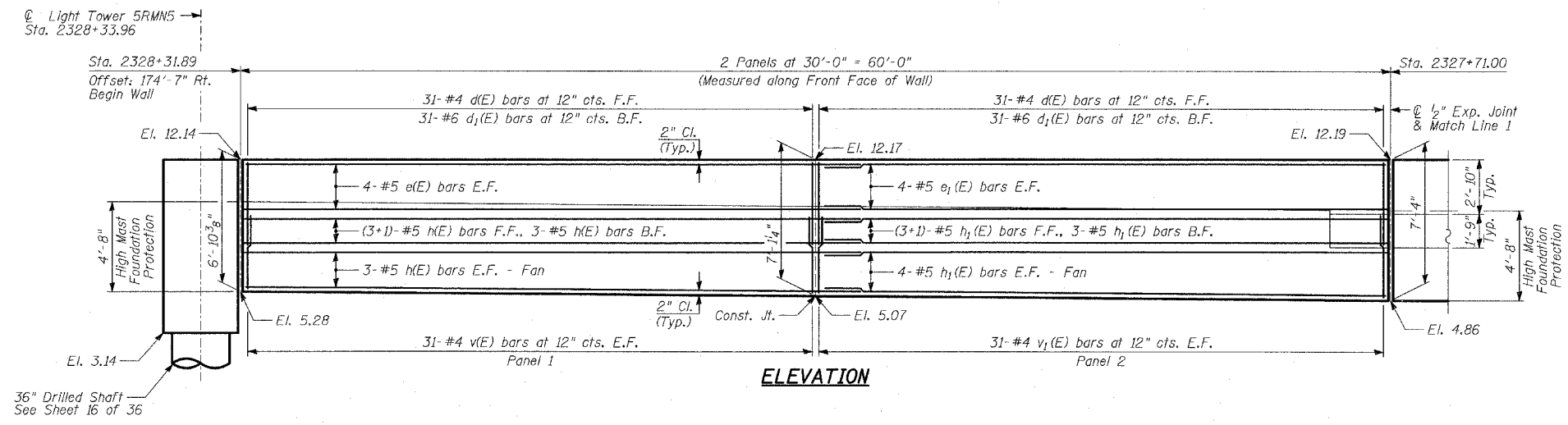
ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94 (DAN RYAN EXPRESSWAY)
 RETAINING WALL ALONG STATE ST.
 ENTRANCE RAMP AT 79TH ST.
 EXISTING RETAINING WALL
 (2 OF 2)

S.N. 016-W975 DESIGNED BY: DJR
 SCALE: N.T.S. DRAWN BY: DJR
 DATE: MARCH 18, 2005 CHECKED BY: TD

Do not work from this sheet.
 The information shown is for
 reference purposes only.
 No Pay Items are shown.

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	•	COOK	860	608
STA. 2200+00.00		TO STA. 2362+00.00		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
(1516.1, 1717 & 1818) R-8		62694		



- NOTES:**
1. B.F. - denotes Back Face.
 2. E.F. - denotes Each Face.
 3. F.F. - denotes Front Face.
 4. Work this sheet with Sheets 12 thru 27 of 36.
 5. Pile spacing measured along front face of wall.
 6. For Lap Splices, see Sheet 15 of 36.

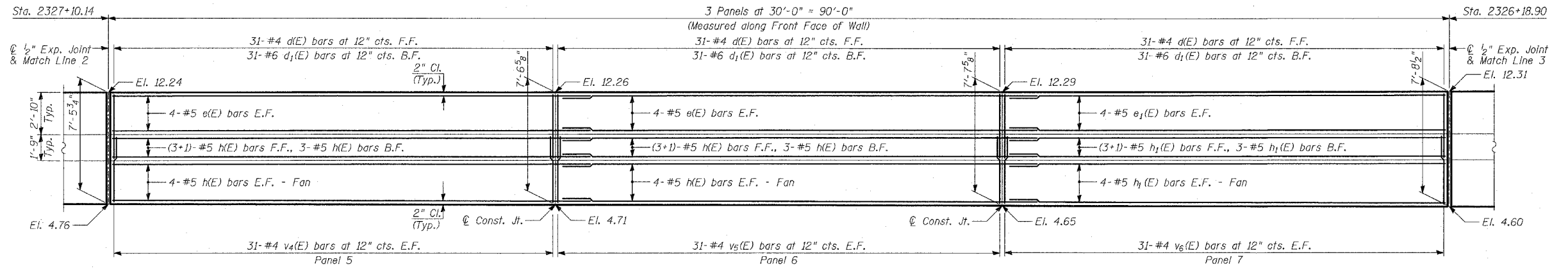
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)
RETAINING WALL ALONG STATE ST.
77TH ST. TO 78TH ST.
WALL TO - PLAN AND ELEVATION
STA. 2328+31.89 TO STA. 2327+10.14
S.N. 016-W976
SCALE: N.T.S.
DATE: MARCH 18, 2005

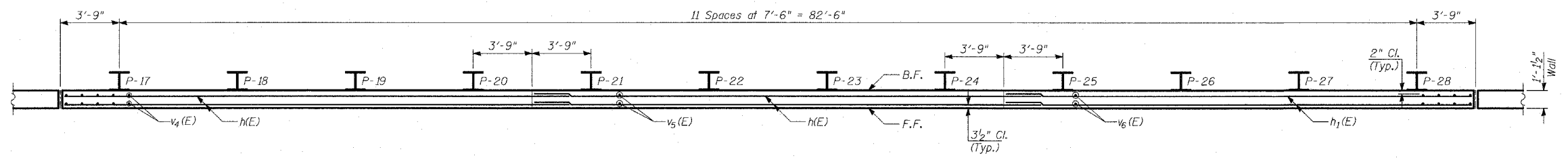
DESIGNED BY: MI, DJR
DRAWN BY: SNB
CHECKED BY: TD, MI

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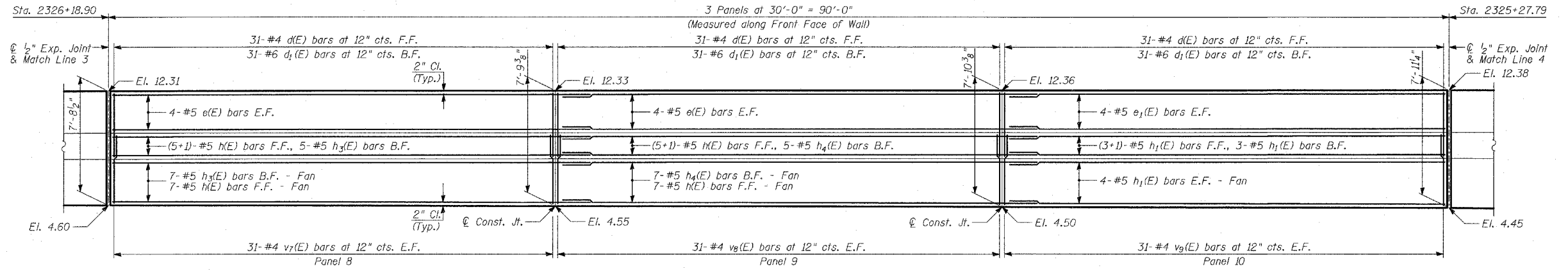
TYLININTERNATIONAL



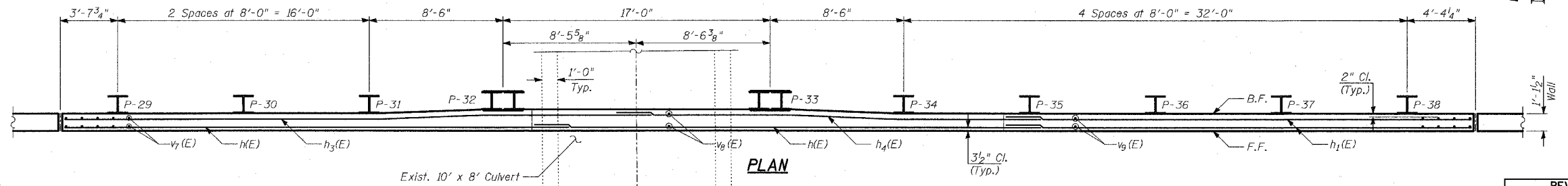
ELEVATION



PLAN



ELEVATION



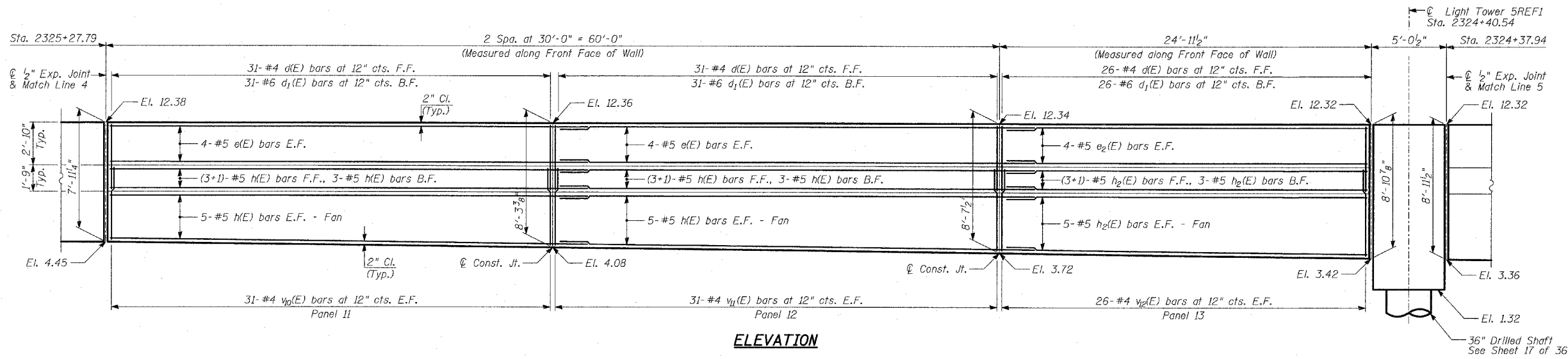
PLAN

- NOTES:**
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 2. E.F. - denotes Each Face.
 3. F.F. - denotes Front Face.
 4. Work this sheet with Sheets 14, 15, and 20 thru 23 of 36.
 5. Pile spacing measured along front face of wall.
 6. For Lap Splices, see Sheet 15 of 36.

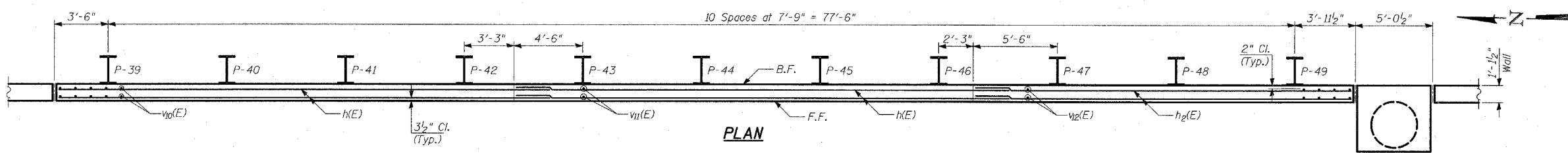
TYLIN INTERNATIONAL

REVISIONS	
NAME	DATE

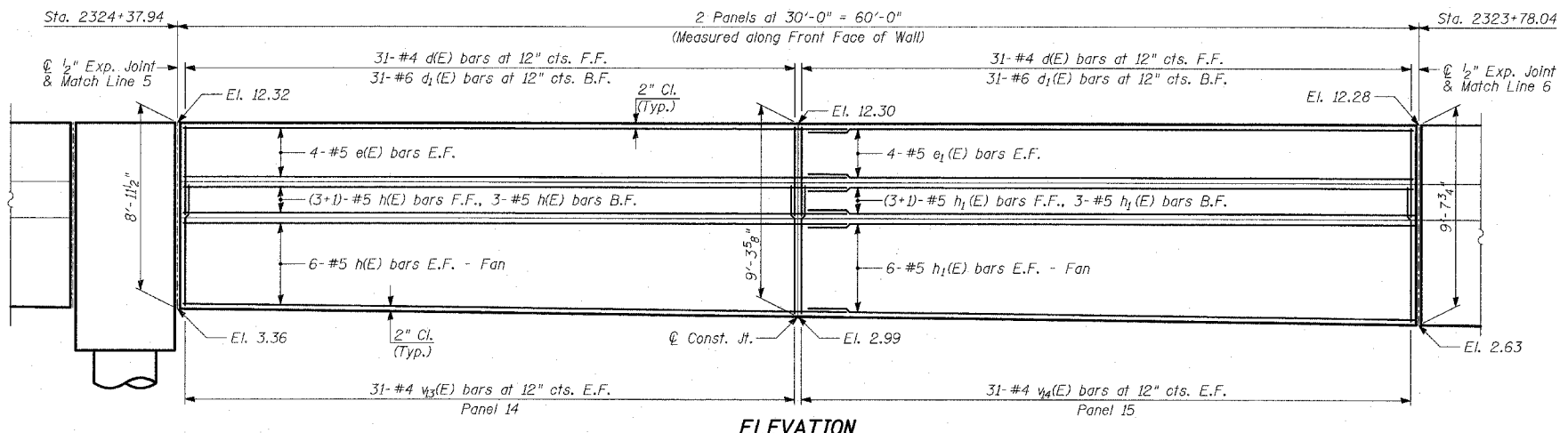
ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94 (DAN RYAN EXPRESSWAY)
 RETAINING WALL ALONG STATE ST.
 77TH ST. TO 78TH ST.
 WALL 70 - PLAN AND ELEVATION
 STA. 2327+10.14 TO STA. 2325+27.79
 S.N. 016-W976 DESIGNED BY: MI, DJR
 SCALE: N.T.S. DRAWN BY: MAF
 DATE: MARCH 18, 2005 CHECKED BY: TD, MI



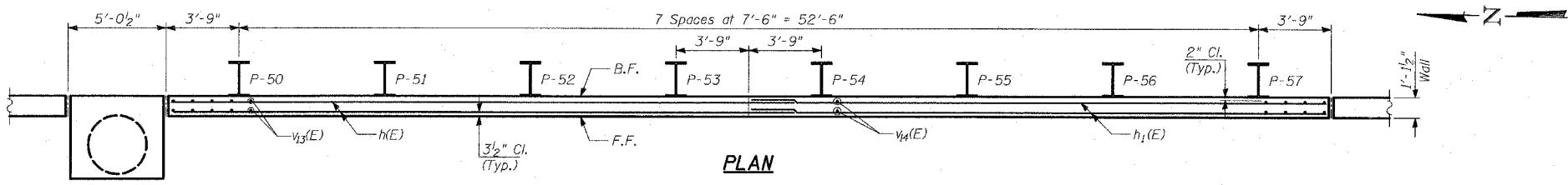
ELEVATION



PLAN



ELEVATION



PLAN

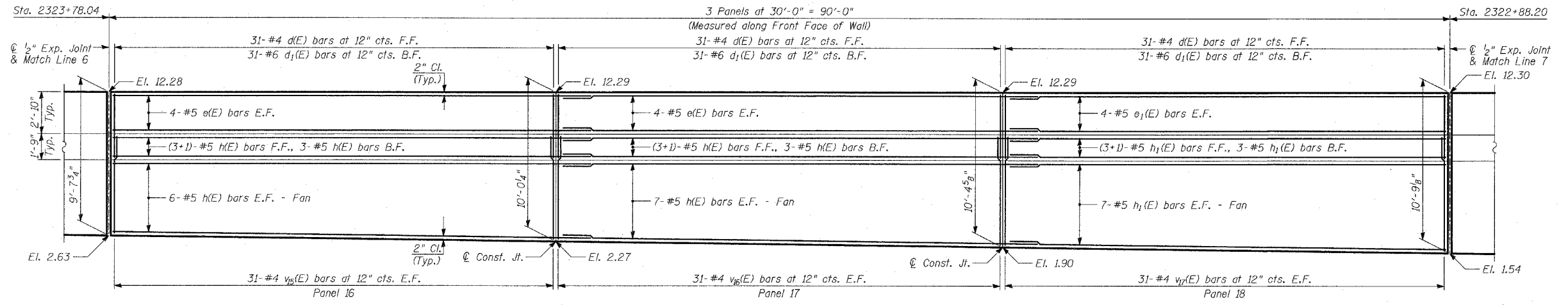
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 4. Work this sheet with Sheets 14 thru 27 of 36.
 5. Pile spacing measured along front face of wall.
 6. For Lap Splices, see Sheet 15 of 36.

TYLINTERNATIONAL

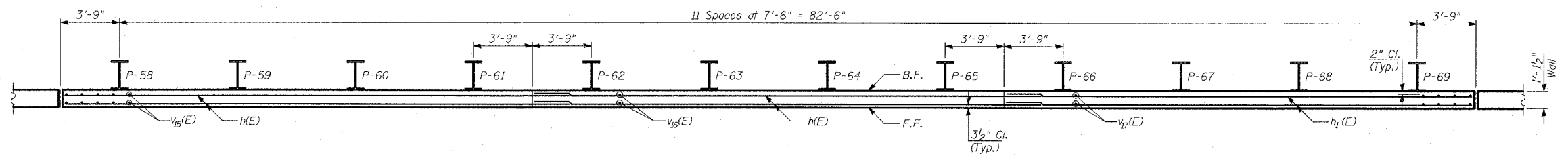
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94 (DAN RYAN EXPRESSWAY)
 RETAINING WALL ALONG STATE ST.
 77TH ST. TO 78TH ST.
 WALL 70 - PLAN AND ELEVATION
 STA. 2325+27.79 TO STA. 2323+78.04
 S.N. 016-W976 DESIGNED BY: MI, DJR
 SCALE: N.T.S. DRAWN BY: SNB
 DATE: MARCH 18, 2005 CHECKED BY: TD, MI

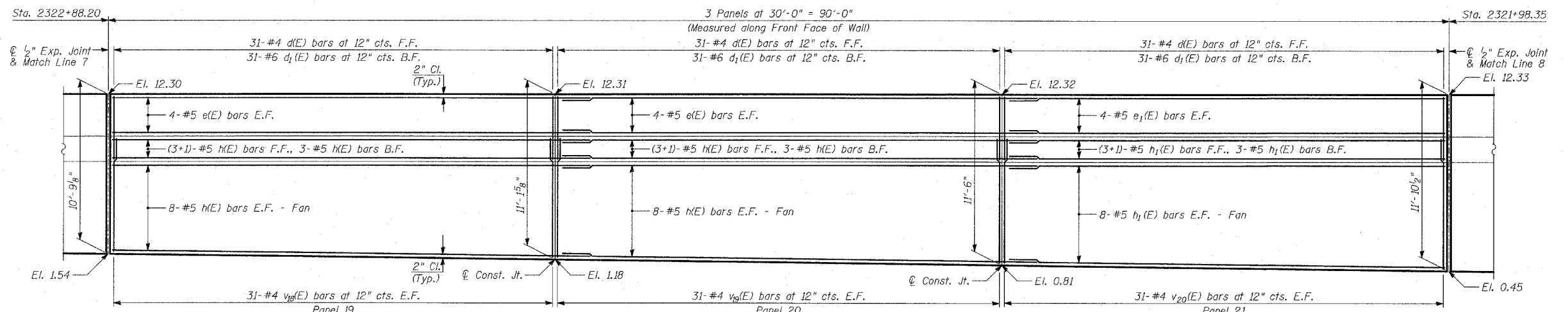
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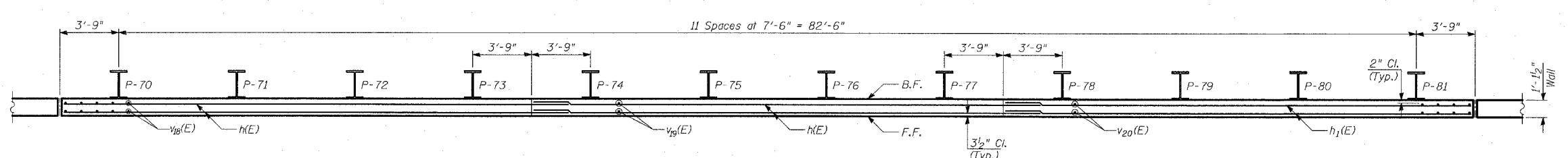
ELEVATION



PLAN



ELEVATION



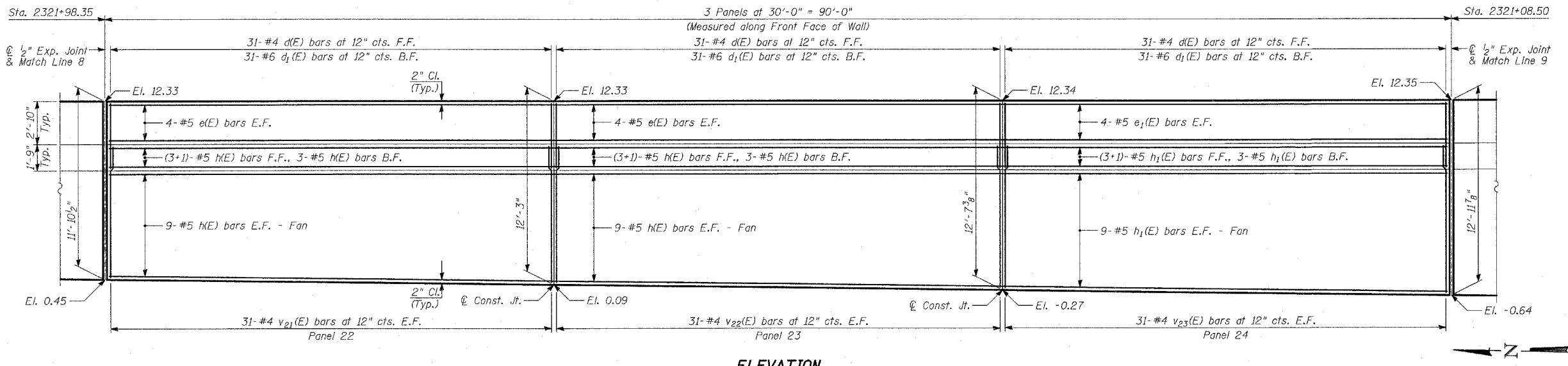
PLAN

- NOTES:**
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 4. Work this sheet with Sheets 14, 15, and 20 thru 23 of 36.
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 6. For Lap Splices, see Sheet 15 of 36.

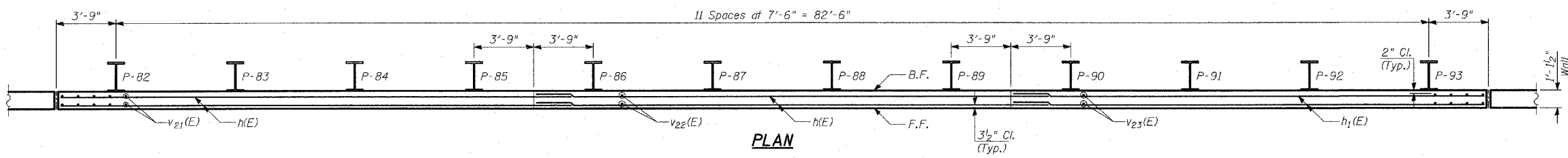
TYLIN INTERNATIONAL

REVISIONS	
NAME	DATE

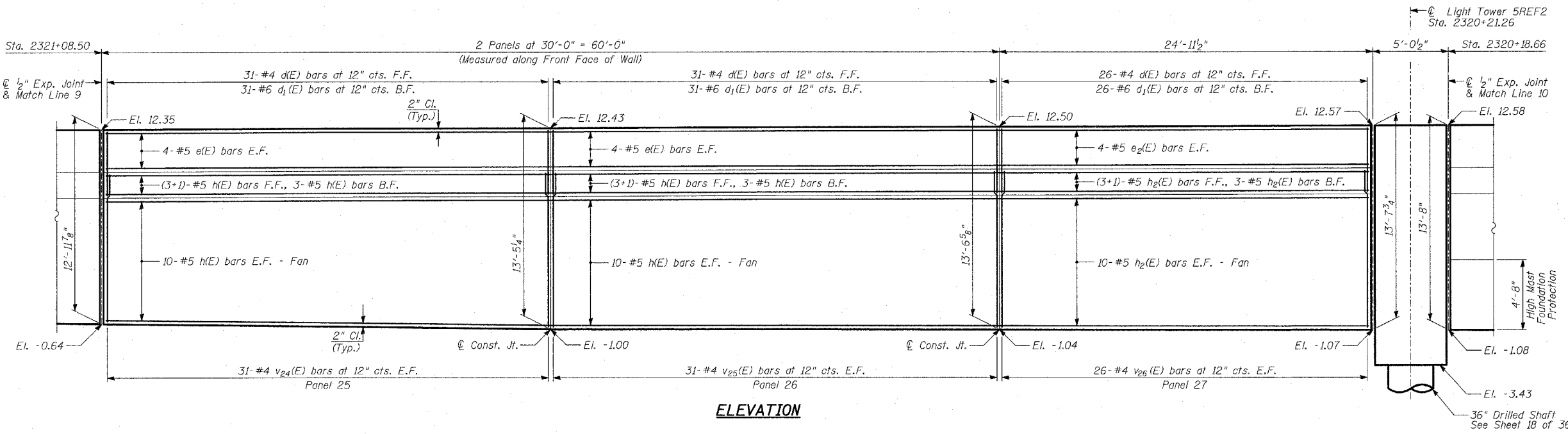
ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94 (DAN RYAN EXPRESSWAY)
 RETAINING WALL ALONG STATE ST.
 77TH ST. TO 78TH ST.
 WALL 70 - PLAN AND ELEVATION
 STA. 2323+78.04 TO STA. 2321+98.35
 S.N. 016-W976 DESIGNED BY: MI, DJR
 SCALE: N.T.S. DRAWN BY: MAF
 DATE: MARCH 18, 2005 CHECKED BY: TD, MI



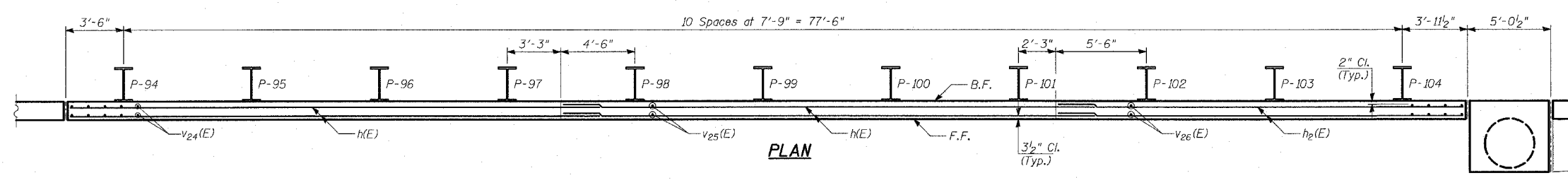
ELEVATION



PLAN



ELEVATION



PLAN

- NOTES:**
1. B.F. - denotes Back Face.
 2. E.F. - denotes Each Face.
 3. F.F. - denotes Front Face.
 4. Work this sheet with Sheets 12 thru 27 of 36.
 5. Pile spacing measured along front face of wall.
 6. For Lap Splices, see Sheet 15 of 36.

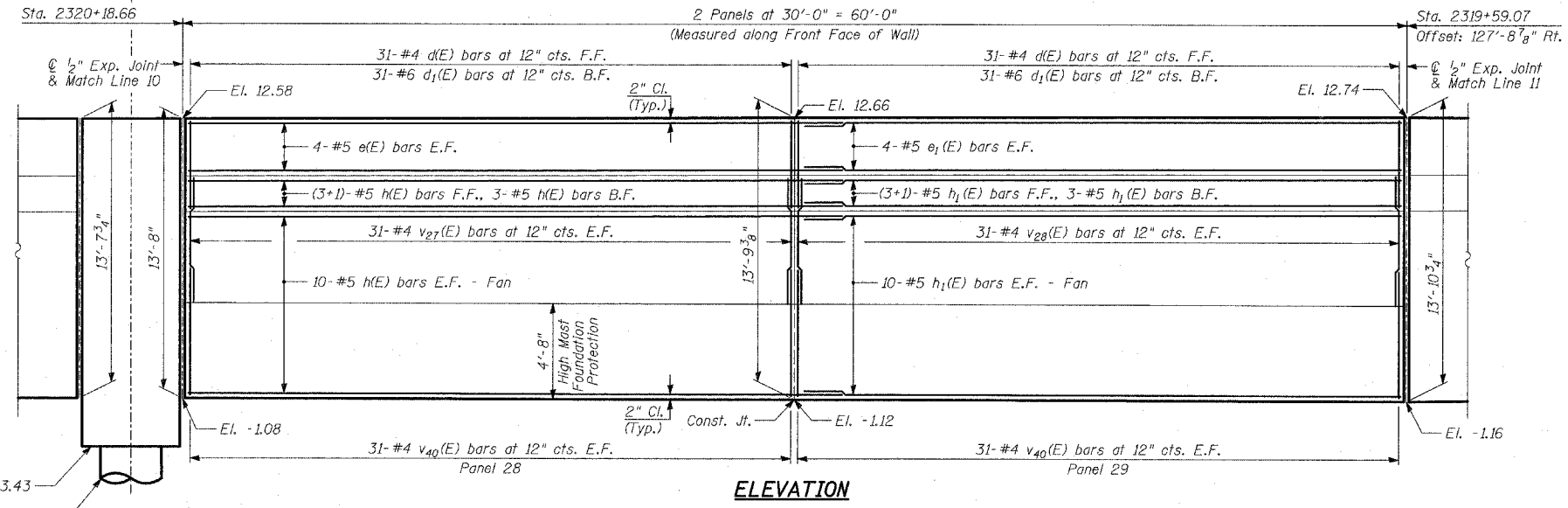
TYLIN INTERNATIONAL

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)
RETAINING WALL ALONG STATE ST.
77TH ST. TO 78TH ST.
WALL 70 - PLAN AND ELEVATION
STA. 2321+98.35 TO STA. 2320+18.66
 S.N. 016-W976 DESIGNED BY: MI, DJR
 SCALE: N.T.S. DRAWN BY: SNB
 DATE: MARCH 18, 2005 CHECKED BY: TD, MI

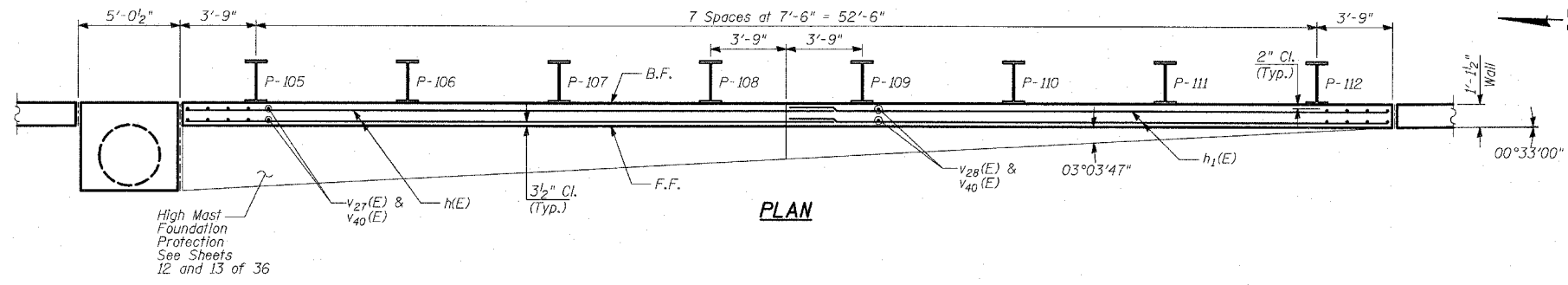
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94		COOK	860	613
STA. 2200+00.00		TO STA. 2362+00.00		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
(1516.1, 1717 & 1818) R-8		62694		

Light Tower 5REF2
Sta. 2320+21.26

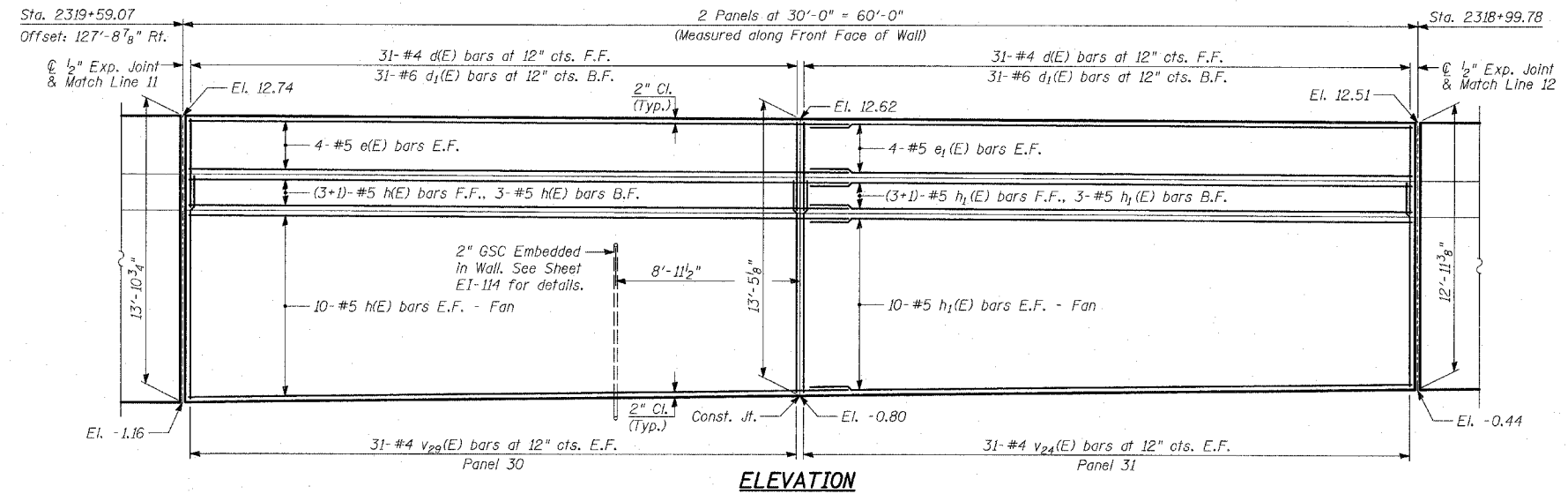


ELEVATION

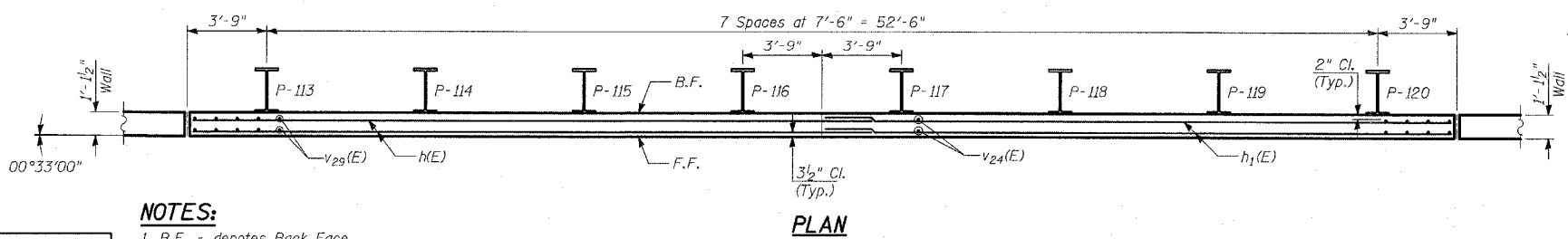
36" Drilled Shaft
See Sheet 18 of 36



PLAN



ELEVATION



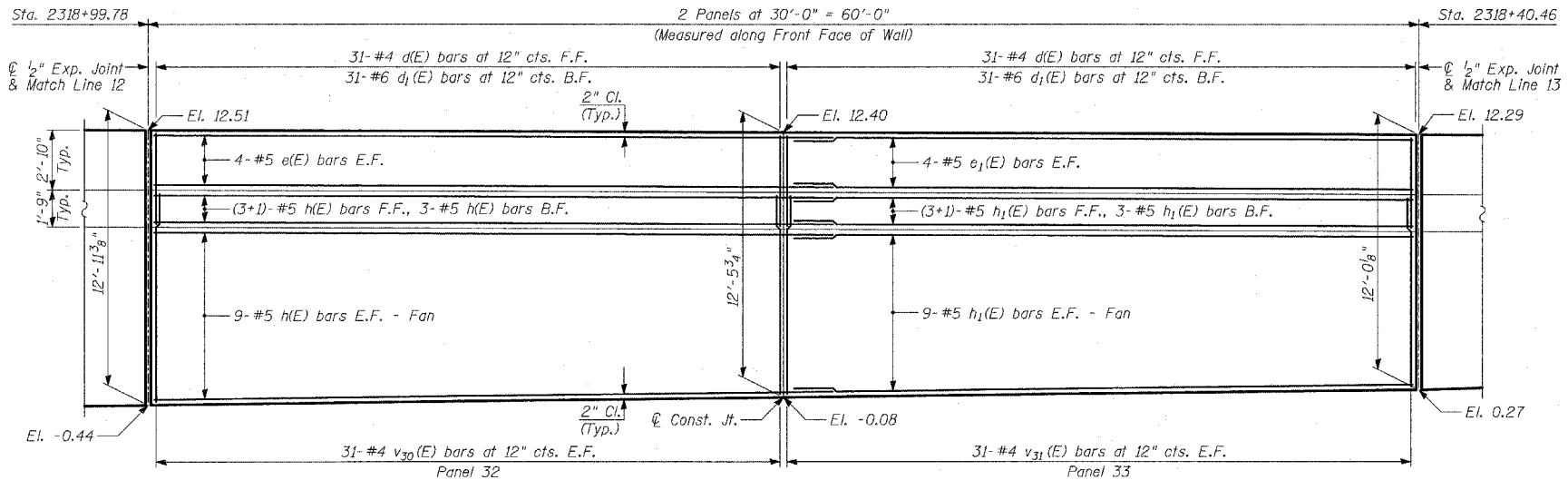
PLAN

- NOTES:**
1. B.F. - denotes Back Face.
 2. E.F. - denotes Each Face.
 3. F.F. - denotes Front Face.
 4. Work this sheet with Sheets 12 thru 27 of 36.
 5. Pile spacing measured along front face of wall.
 6. For Lap Splices, see Sheet 15 of 36.

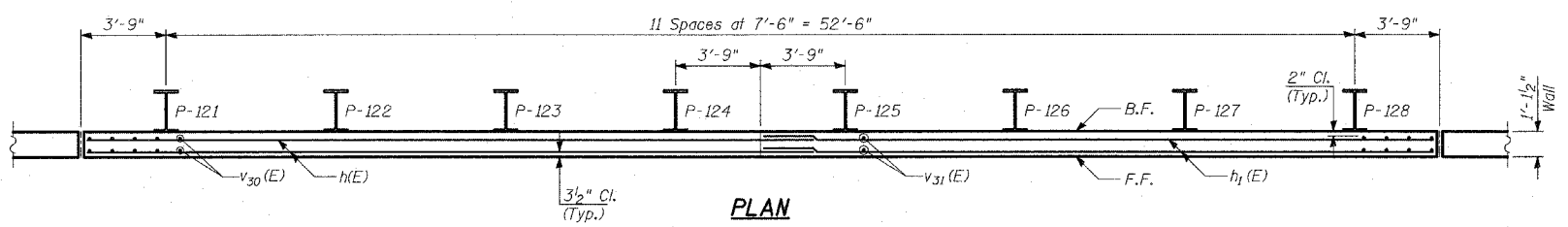
TYLIN INTERNATIONAL

REVISIONS	
NAME	DATE

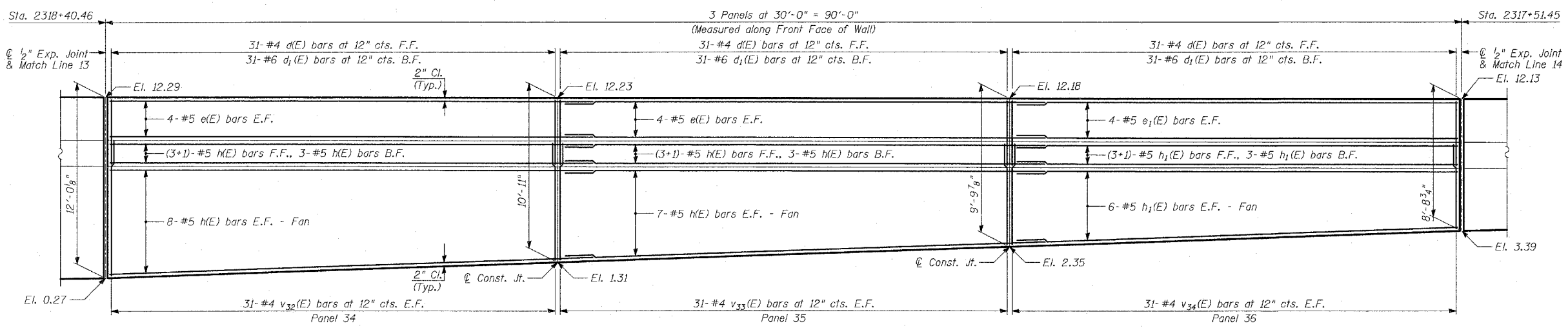
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)
RETAINING WALL ALONG STATE ST.
77TH ST. TO 78TH ST.
WALL 70 - PLAN AND ELEVATION
STA. 2320+18.66 TO STA. 2318+99.78
 S.N. 016-W976 DESIGNED BY: MI, DJR
 SCALE: N.T.S. DRAWN BY: SNB
 DATE: MARCH 18, 2005 CHECKED BY: TD, MI



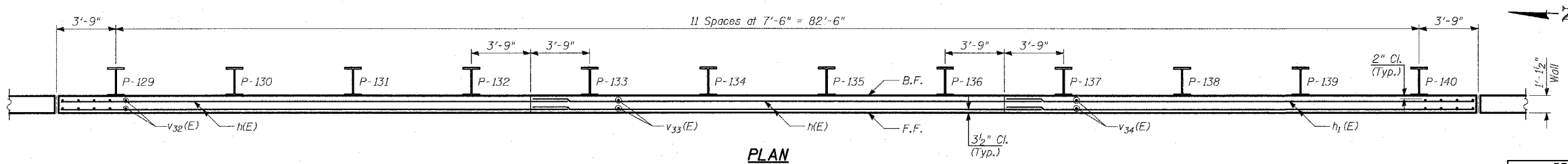
ELEVATION



PLAN



ELEVATION



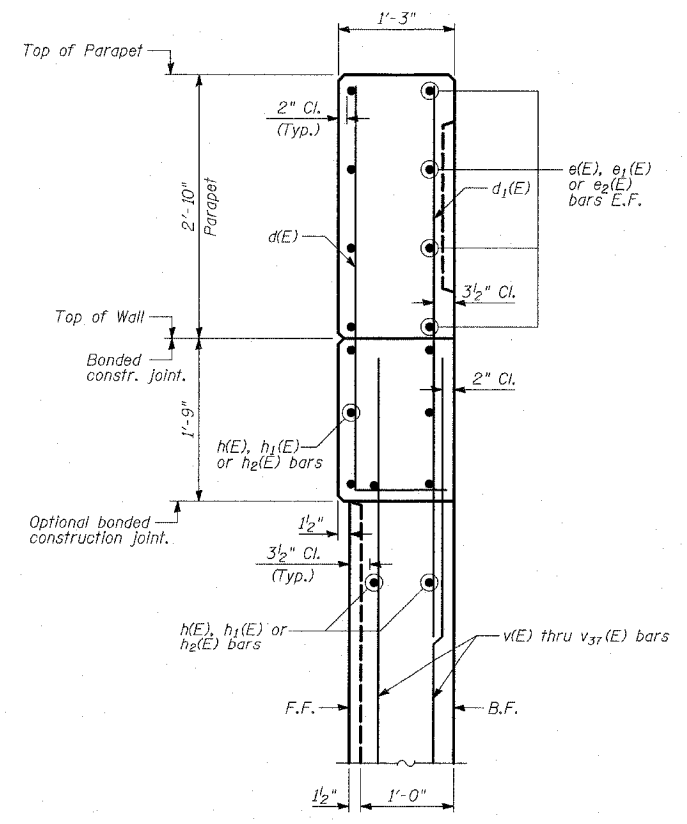
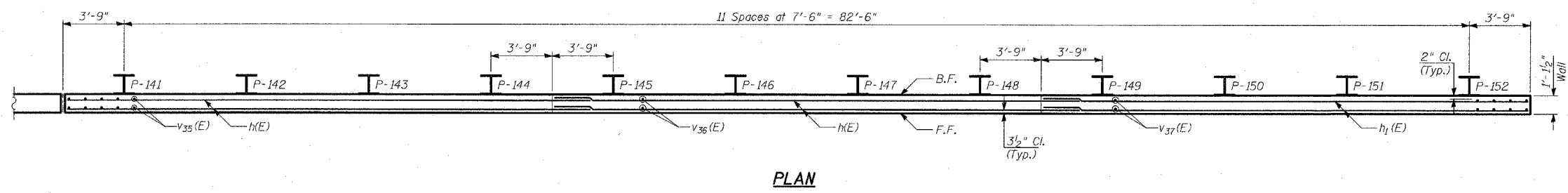
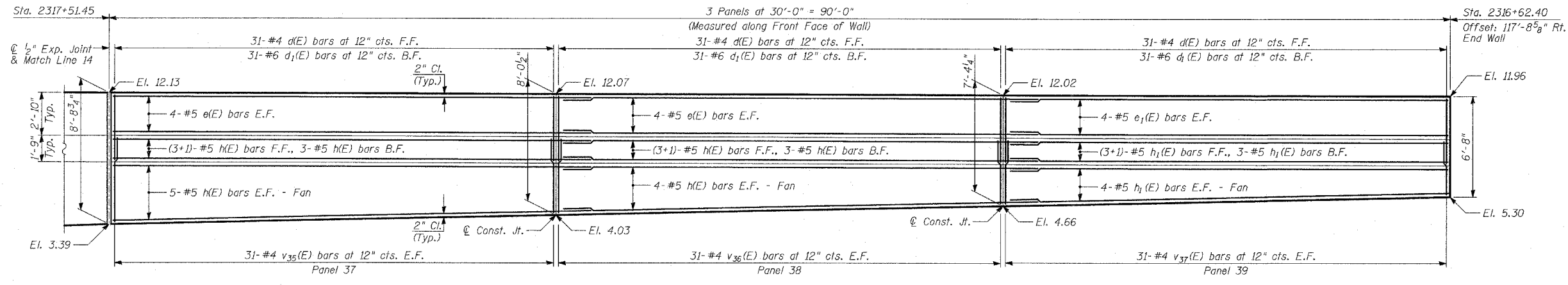
PLAN

- NOTES:**
1. B.F. - denotes Back Face.
 2. E.F. - denotes Each Face.
 3. F.F. - denotes Front Face.
 4. Work this sheet with Sheets 14, 15, and 20 thru 23 of 36.
 5. Pile spacing measured along front face of wall.
 6. For Lap Splices, see Sheet 15 of 36.

TYLIN INTERNATIONAL

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)
RETAINING WALL ALONG STATE ST.
77TH ST. TO 78TH ST.
STA. 2318+99.78 TO STA. 2317+51.45
 S.N. 016-W976 DESIGNED BY: MI, DJR
 SCALE: N.T.S. DRAWN BY: MAF
 DATE: MARCH 18, 2005 CHECKED BY: TD, MI



NOTES:

- B.F. - denotes Back Face.
- E.F. - denotes Each Face.
- F.F. - denotes Front Face.
- Work this sheet with Sheets 14, 15, and 20 thru 23 of 36.
- Pile spacing measured along front face of wall.
- For Lap Splices, see Sheet 15 of 36.

TYLIN INTERNATIONAL

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94 (DAN RYAN EXPRESSWAY)
 RETAINING WALL ALONG STATE ST.
 77TH ST. TO 78TH ST.
 WALL TO - PLAN AND ELEVATION
 STA. 2317+51.45 TO STA. 2316+62.40

S.N. 016-W976
 SCALE: N.T.S.
 DATE: MARCH 18, 2005

DESIGNED BY: MI, DJR
 DRAWN BY: MAF
 CHECKED BY: TD, MI

PILE LAYOUT

Pile	Station at Working Point	Top of Parapet El.	Top of Pile El.	Bot. of Wall El.	Section	Pile Tip El.	Pile Length
P-1	2328+28.04	12.15	7.65	5.26	HP14x117	-20.77	28'-5"
P-2	2328+20.43	12.15	7.65	5.20		-20.85	28'-6"
P-3	2328+12.82	12.16	7.66	5.15		-20.93	28'-7"
P-4	2328+05.21	12.16	7.66	5.10		-20.92	28'-7"
P-5	2327+97.59	12.17	7.67	5.05		-21.00	28'-8"
P-6	2327+89.98	12.18	7.68	4.99		-21.07	28'-9"
P-7	2327+82.37	12.18	7.68	4.94		-21.07	28'-9"
P-8	2327+74.76	12.19	7.69	4.89		-21.15	28'-10"
P-9	2327+67.15	12.19	7.69	4.86		-21.22	28'-11"
P-10	2327+59.54	12.20	7.70	4.84		-21.22	28'-11"
P-11	2327+51.93	12.21	7.71	4.83		-21.21	28'-11"
P-12	2327+44.32	12.21	7.71	4.82		-21.20	28'-11"
P-13	2327+36.71	12.22	7.72	4.80		-21.20	28'-11"
P-14	2327+29.11	12.22	7.72	4.79		-21.28	29'-0"
P-15	2327+21.50	12.23	7.73	4.78		-21.27	29'-0"
P-16	2327+13.89	12.24	7.74	4.76		-21.26	29'-0"
P-17	2327+06.28	12.24	7.74	4.75		-21.26	29'-0"
P-18	2326+98.68	12.25	7.75	4.74		-21.34	29'-1"
P-19	2326+91.07	12.25	7.75	4.73		-21.33	29'-1"
P-20	2326+83.47	12.26	7.76	4.71		-21.32	29'-1"
P-21	2326+75.86	12.27	7.77	4.70		-21.32	29'-1"
P-22	2326+68.26	12.27	7.77	4.69		-21.40	29'-2"
P-23	2326+60.65	12.28	7.78	4.67		-21.39	29'-2"
P-24	2326+53.05	12.28	7.78	4.66		-21.38	29'-2"
P-25	2326+45.45	12.29	7.79	4.65		-21.38	29'-2"
P-26	2326+37.84	12.30	7.80	4.63		-21.37	29'-2"
P-27	2326+30.24	12.30	7.80	4.62		-21.45	29'-3"
P-28	2326+22.64	12.31	7.81	4.61		-21.44	29'-3"
P-29	2326+15.14	12.31	7.81	4.60		-21.44	29'-3"
P-30	2326+07.04	12.32	7.82	4.58		-21.43	29'-3"
P-31	2325+98.93	12.33	7.83	4.57	HP14x117	-21.51	29'-4"
P-32	2325+90.30	12.33	7.83	4.55	Built-Up	-26.50	34'-4"
P-33	2325+82.68	12.35	7.85	4.52	Built-Up	-26.49	34'-4"
P-34	2325+74.48	12.35	7.85	4.51	HP14x117	-21.56	29'-5"
P-35	2325+66.38	12.36	7.86	4.50		-21.56	29'-5"
P-36	2325+58.28	12.37	7.87	4.48		-21.55	29'-5"
P-37	2325+50.17	12.37	7.87	4.47		-21.54	29'-5"
P-38	2325+42.07	12.38	7.88	4.45	HP14x117	-21.62	29'-6"
P-39	2325+33.97	12.38	7.88	4.40	W21x132	-25.62	33'-6"
P-40	2325+25.87	12.37	7.87	4.31		-25.71	33'-7"
P-41	2325+17.77	12.37	7.87	4.22		-25.80	33'-8"
P-42	2325+09.67	12.36	7.86	4.12		-25.89	33'-9"
P-43	2324+93.28	12.36	7.86	4.03		-25.98	33'-10"
P-44	2324+85.18	12.35	7.85	3.93		-26.15	34'-0"
P-45	2324+77.08	12.35	7.85	3.84		-26.24	34'-1"
P-46	2324+68.98	12.34	7.84	3.75		-26.32	34'-2"
P-47	2324+60.88	12.34	7.84	3.65		-26.41	34'-3"
P-48	2324+52.78	12.33	7.83	3.56		-26.50	34'-4"
P-49	2324+44.68	12.33	7.83	3.47		-26.59	34'-5"
P-50	2324+36.58	12.32	7.82	3.31		-26.77	34'-7"
P-51	2324+28.48	12.31	7.81	3.22		-26.85	34'-8"
P-52	2324+20.38	12.31	7.81	3.13		-26.94	34'-9"
P-53	2324+12.28	12.30	7.80	3.04		-27.03	34'-10"
P-54	2324+04.18	12.30	7.80	2.95		-27.12	34'-11"
P-55	2323+96.08	12.29	7.79	2.86		-27.21	35'-0"
P-56	2323+87.98	12.29	7.79	2.77		-27.30	35'-1"
P-57	2323+79.88	12.28	7.78	2.68	W21x132	-27.39	35'-2"
P-58	2323+71.78	12.28	7.78	2.58	W21x147	-27.47	35'-3"
P-59	2323+63.68	12.28	7.78	2.49		-27.55	35'-4"
P-60	2323+55.58	12.28	7.78	2.40		-27.63	35'-5"
P-61	2323+47.48	12.29	7.79	2.31		-27.71	35'-6"
P-62	2323+39.38	12.29	7.79	2.22		-27.80	35'-7"
P-63	2323+31.28	12.29	7.79	2.13		-27.88	35'-8"
P-64	2323+23.18	12.29	7.79	2.04		-28.04	35'-10"
P-65	2323+15.08	12.29	7.79	1.95	W21x147	-28.12	35'-11"

PILE LAYOUT

Pile	Station at Working Point	Top of Parapet El.	Top of Pile El.	Bot. of Wall El.	Section	Pile Tip El.	Pile Length
P-66	2323+14.34	12.30	7.80	1.86	W21x147	-28.20	36'-0"
P-67	2323+06.85	12.30	7.80	1.77		-28.29	36'-1"
P-68	2322+99.36	12.30	7.80	1.68		-28.37	36'-2"
P-69	2322+91.87	12.30	7.80	1.59		-28.45	36'-3"
P-70	2322+84.39	12.30	7.80	1.50		-28.53	36'-4"
P-71	2322+76.90	12.31	7.81	1.40		-28.61	36'-5"
P-72	2322+69.41	12.31	7.81	1.31		-28.69	36'-6"
P-73	2322+61.93	12.31	7.81	1.22		-28.86	36'-8"
P-74	2322+54.44	12.31	7.81	1.13		-28.94	36'-9"
P-75	2322+46.95	12.31	7.81	1.04		-29.02	36'-10"
P-76	2322+39.46	12.32	7.82	0.95		-29.10	36'-11"
P-77	2322+31.98	12.32	7.82	0.86		-29.18	37'-0"
P-78	2322+24.49	12.32	7.82	0.77		-29.26	37'-1"
P-79	2322+17.00	12.32	7.82	0.68		-29.35	37'-2"
P-80	2322+09.51	12.32	7.82	0.59		-29.43	37'-3"
P-81	2322+02.03	12.33	7.83	0.50		-29.51	37'-4"
P-82	2321+94.54	12.33	7.83	0.41		-29.67	37'-6"
P-83	2321+87.05	12.33	7.83	0.32		-29.75	37'-7"
P-84	2321+79.57	12.33	7.83	0.22		-29.83	37'-8"
P-85	2321+72.08	12.33	7.83	0.13		-29.92	37'-9"
P-86	2321+64.59	12.34	7.84	0.04		-30.00	37'-10"
P-87	2321+57.10	12.34	7.84	-0.05		-30.08	37'-11"
P-88	2321+49.62	12.34	7.84	-0.14		-30.16	38'-0"
P-89	2321+42.13	12.34	7.84	-0.23		-30.24	38'-1"
P-90	2321+34.64	12.34	7.84	-0.32		-30.32	38'-2"
P-91	2321+27.16	12.35	7.85	-0.41		-30.49	38'-4"
P-92	2321+19.67	12.35	7.85	-0.50		-30.57	38'-5"
P-93	2321+12.18	12.35	7.85	-0.59	W21x147	-30.65	38'-6"
P-94	2321+04.69	12.36	7.86	-0.68	W24x176	-32.72	40'-7"
P-95	2320+97.21	12.38	7.88	-0.77		-32.79	40'-8"
P-96	2320+89.72	12.40	7.90	-0.87		-32.93	40'-10"
P-97	2320+82.23	12.42	7.92	-0.96		-33.00	40'-11"
P-98	2320+74.74	12.44	7.94	-1.01		-33.06	41'-0"
P-99	2320+67.25	12.46	7.96	-1.02		-33.04	41'-0"
P-100	2320+59.76	12.48	7.98	-1.03		-33.10	41'-1"
P-101	2320+52.27	12.50	8.00	-1.04		-33.08	41'-1"
P-102	2320+44.78	12.52	8.02	-1.05		-33.06	41'-1"
P-103	2320+37.29	12.54	8.04	-1.06		-33.13	41'-2"
P-104	2320+29.80	12.56	8.06	-1.07		-33.11	41'-2"
P-105	2320+22.31	12.59	8.09	-1.08		-33.16	41'-3"
P-106	2320+14.82	12.61	8.11	-1.09		-33.14	41'-3"
P-107	2319+99.87	12.63	8.13	-1.10		-33.12	41'-3"
P-108	2319+92.38	12.65	8.15	-1.11		-33.18	41'-4"
P-109	2319+84.89	12.67	8.17	-1.12		-33.17	41'-4"
P-110	2319+77.40	12.69	8.19	-1.13		-33.15	41'-4"
P-111	2319+70.01	12.71	8.21	-1.14		-33.21	41'-5"
P-112	2319+62.52	12.73	8.23	-1.15		-33.19	41'-5"
P-113	2319+55.03	12.72	8.22	-1.11		-33.11	41'-4"
P-114	2319+47.54	12.69	8.19	-1.02		-33.06	41'-3"
P-115	2319+40.05	12.67	8.17	-0.93		-33.00	41'-2"
P-116	2319+32.56	12.64	8.14	-0.84		-32.86	41'-0"
P-117	2319+25.07	12.61	8.11	-0.75		-32.81	40'-11"
P-118	2319+17.58	12.58	8.08	-0.66		-32.67	40'-9"
P-119	2319+10.09	12.55	8.05	-0.58		-32.61	40'-8"
P-120	2319+02.60	12.53	8.03	-0.49	W24x176	-32.56	40'-7"
P-121	2318+95.11	12.50	8.00	-0.40	W21x147	-30.42	38'-5"
P-122	2318+87.62	12.47	7.97	-0.31		-30.36	38'-4"
P-123	2318+80.13	12.44	7.94	-0.22		-30.23	38'-2"
P-124	2318+72.64	12.41	7.91	-0.13		-30.17	38'-1"
P-125	2318+65.15	12.39	7.89	-0.04		-30.12	38'-0"
P-126	2318+57.66	12.36	7.86	0.05		-29.98	37'-10"
P-127	2318+50.17	12.33	7.83	0.14		-29.92	37'-9"
P-128	2318+42.68	12.30	7.80	0.23		-29.78	37'-7"
P-129	2318+35.19	12.28	7.78	0.40		-29.64	37'-5"
P-130	2318+27.70	12.27	7.77	0.66	W21x147	-29.40	37'-2"

PILE LAYOUT

Pile	Station at Working Point	Top of Parapet El.	Top of Pile El.	Bot. of Wall El.	Section	Pile Tip El.	Pile Length
P-131	2318+21.89	12.25	7.75	0.92	W21x147	-29.08	36'-10"
P-132	2318+14.40	12.24	7.74	1.18		-28.84	36'-7"
P-133	2318+07.05	12.23	7.73	1.44		-28.61	36'-4"
P-134	2317+99.64	12.21	7.71	1.70		-28.37	36'-1"
P-135	2317+92.22	12.20	7.70	1.96		-28.05	35'-9"
P-136	2317+84.80	12.19	7.69	2.22		-27.81	35'-6"
P-137	2317+77.38	12.17	7.67	2.48		-27.58	35'-3"
P-138	2317+69.97	12.16	7.66	2.74		-27.26	34'-11"
P-139	2317+62.55	12.15	7.65	3.00		-27.02	34'-8"
P-140	2317+55.13	12.13	7.63	3.26	W21x147	-26.78	34'-5"
P-141	2317+47.71	12.13	7.63	3.39	HP14x117	-22.63	30'-3"
P-142	2317+40.29	12.11	7.61	3.55		-22.47	30'-1"
P-143	2317+32.87	12.10	7.60	3.71		-22.32	29'-11"
P-144	2317+25.45	12.08	7.58	3.87		-22.17	29'-9"
P-145	2317+18.03	12.07	7.57	4.03		-22.01	29'-7"
P-146	2317+10.61	12.06	7.56	4.19		-21.86	29'-5"
P-147	2317+03.19	12.04	7.54	4.34		-21.71	29'-3"
P-148	2316+95.77	12.03					

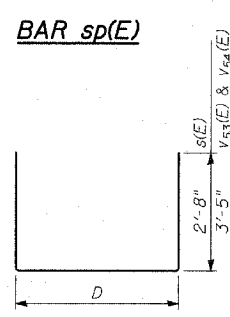
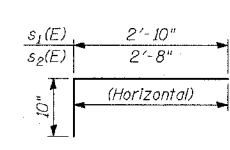
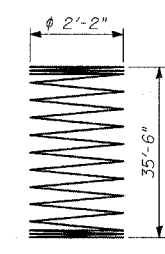
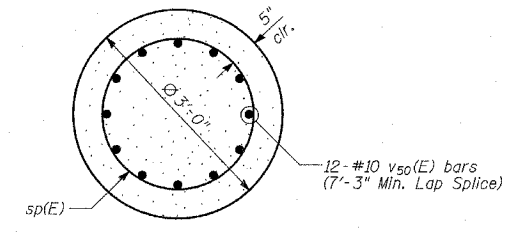
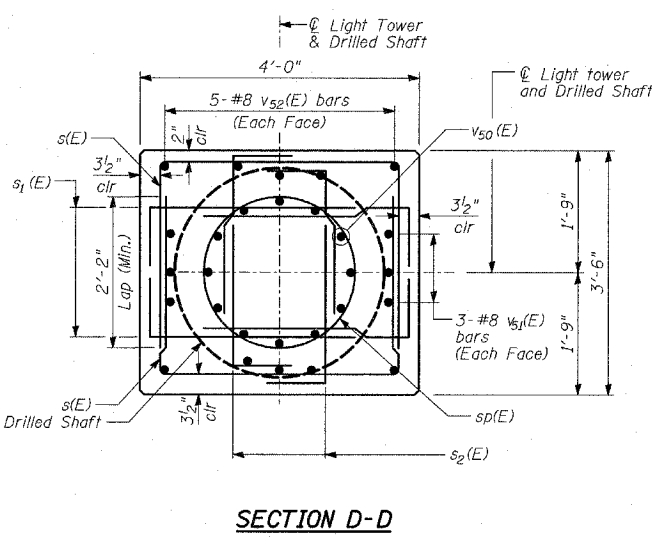
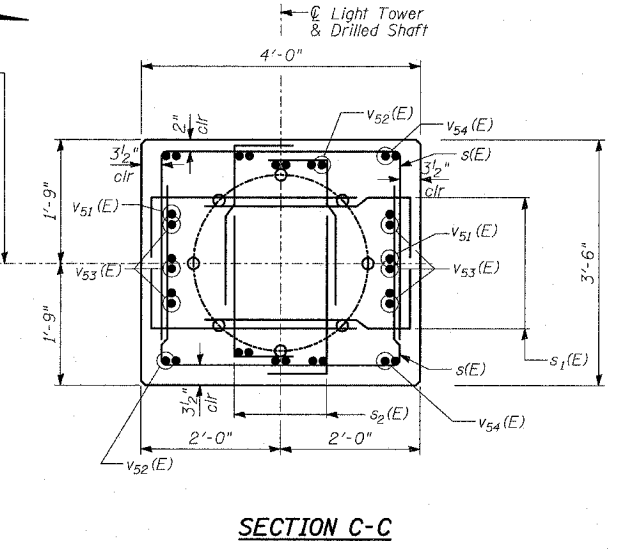
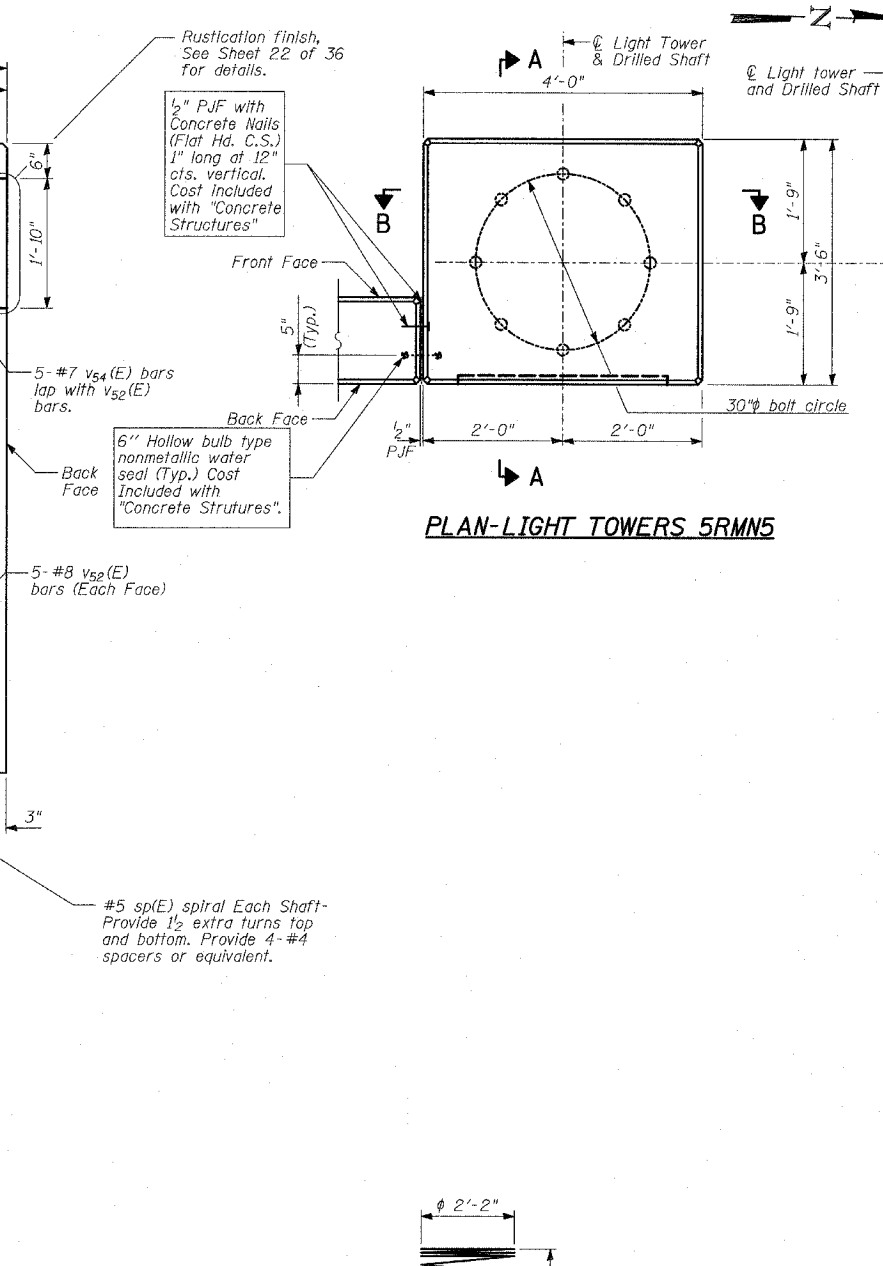
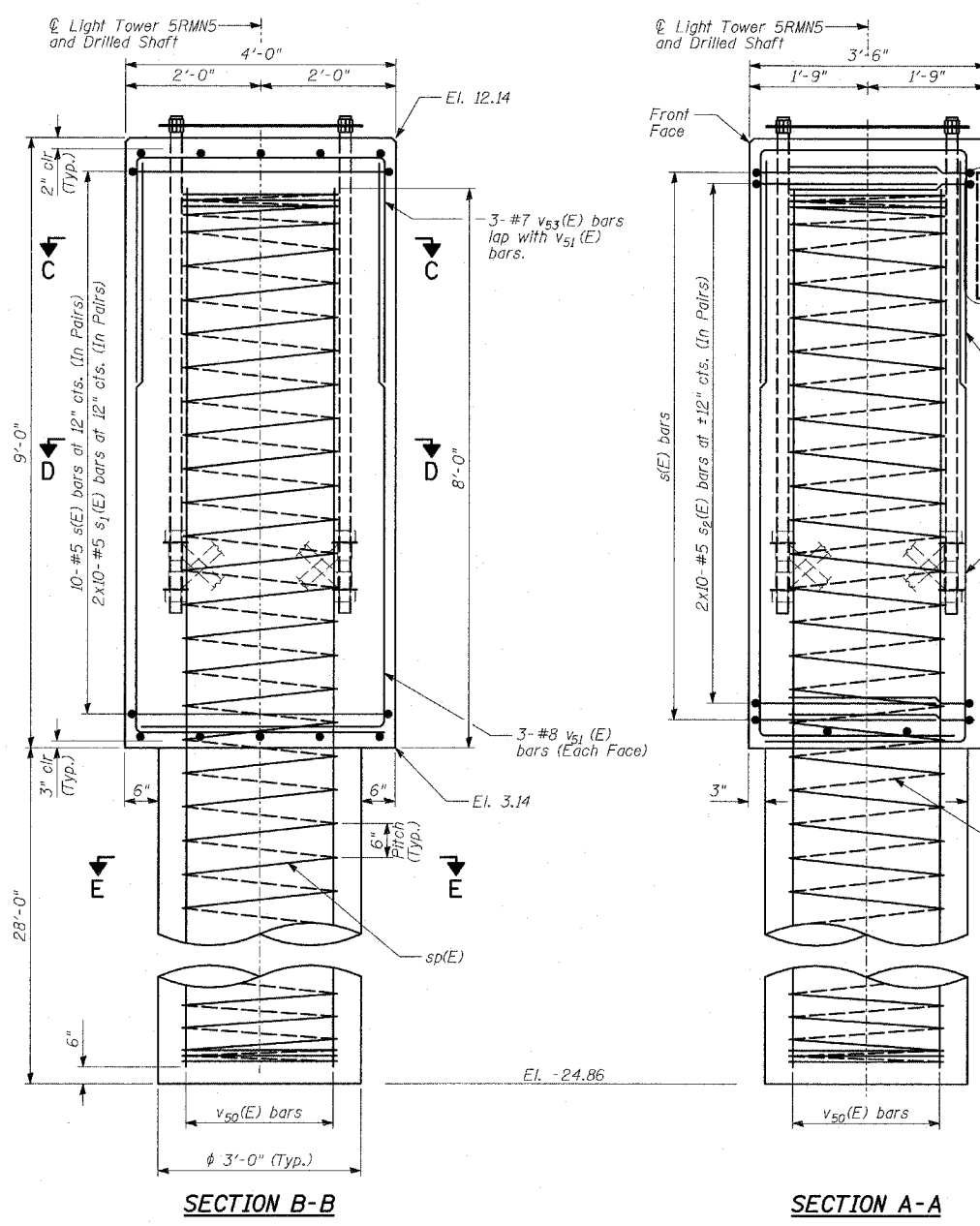
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
s(E)	20	#5	8'-9"	□
s ₁ (E)	40	#5	3'-8"	□
s ₂ (E)	40	#5	3'-6"	□
sp(E)	1	#5	35'-6"	
v ₅₀ (E)	12	#10	35'-6"	—
v ₅₁ (E)	6	#8	11'-10"	L
v ₅₂ (E)	10	#8	11'-5"	L
v ₅₃ (E)	3	#7	10'-2"	□
v ₅₄ (E)	5	#7	9'-10"	□
Reinforcement Bars, Epoxy Coated		POUND	3,520	
Structure Excavation		SQ YD	7	
Concrete Structures		CU YD	5	
Protective Coat		SQ YD	8	
Rustication Finish		SQ FT	6	
Drilled Shaft in Soil 36"		FOOT	28	

Reinforcement bars designated (E) shall be epoxy coated.

NOTES:

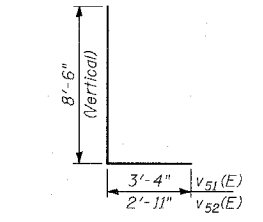
- The design loads are based on AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals-2001.
- Drilled shafts shall be installed according to IDOT special provision for "Drilled Shafts".
- Protective Coat shall be applied to exposed surfaces of the new concrete wall and tower base.
- 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 1/2 inch.
- For location of drilled shaft, see Sheet 4 of 36.
- Conduit is not shown for clarity. For location of conduit, see Sheet 19 of 36.
- Cost of anchor rod assembly, conduit and wires for grounding are included with "Concrete Structures".
- Minimum lap for spirals = 2'-6"



BARS s(E), v₅₃(E) & v₅₄(E)

MARK TABLE

Bar	D
s(E)	3'-5"
v ₅₃ (E)	3'-4"
v ₅₄ (E)	3'-0"



BARS v₅₁(E) & v₅₂(E)

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REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94 (DAN RYAN EXPRESSWAY)
 RETAINING WALL ALONG STATE ST.
 77TH ST. TO 78TH ST.
 WALL TO
 LIGHT TOWER 5RMN5 FOUNDATION DETAILS
 S.N. 016-W976 DESIGNED BY: TD, MAF
 SCALE: N.T.S. DRAWN BY: MAF, DJR
 DATE: MARCH 18, 2005 CHECKED BY: TD, MI

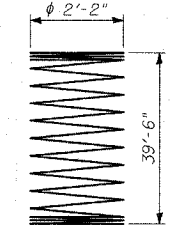
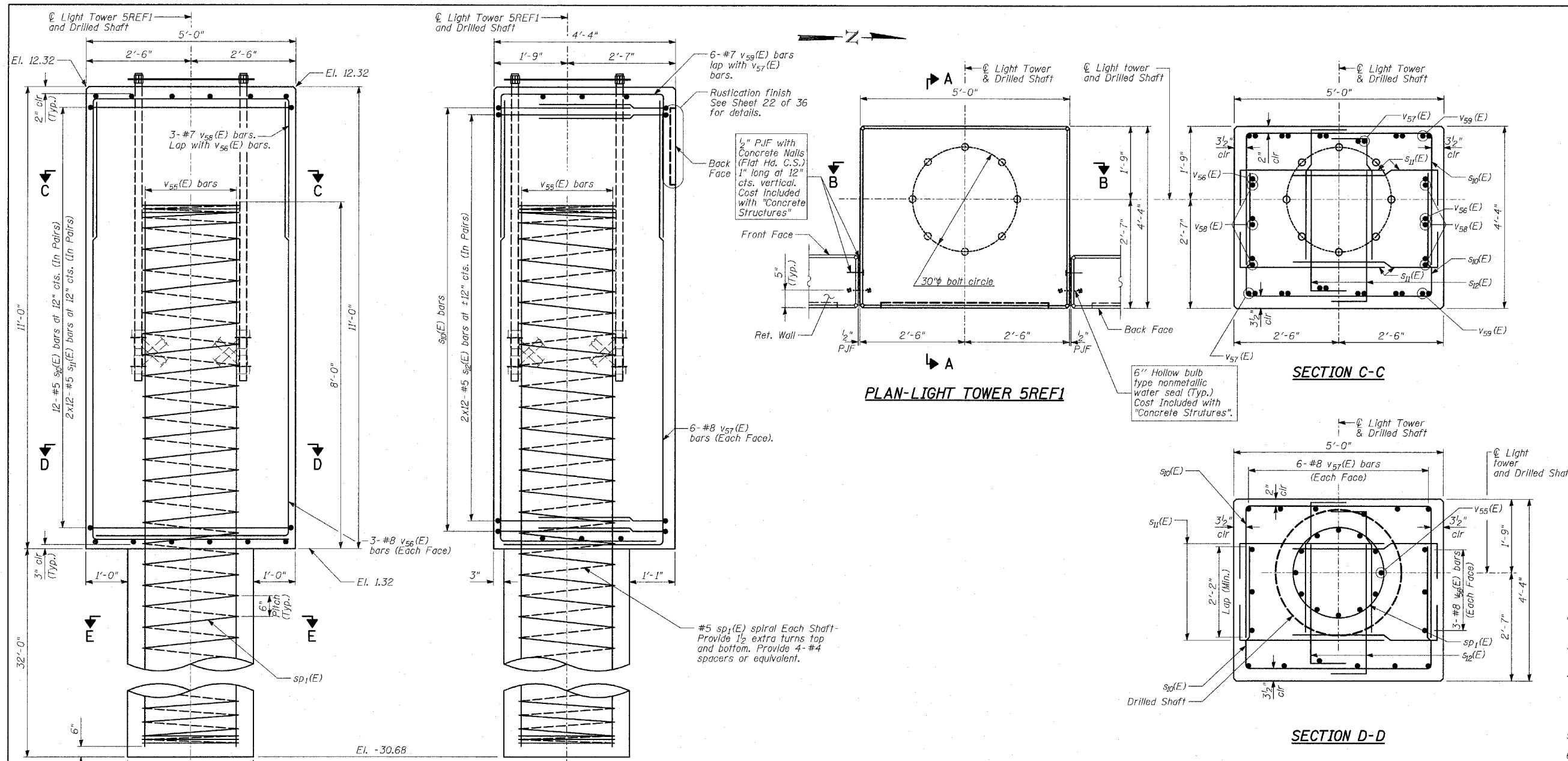
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
$s_{10}(E)$	24	#5	10'-7"	┌
$s_{11}(E)$	48	#5	4'-2"	┌
$s_{12}(E)$	48	#5	3'-11"	┌
$sp_1(E)$	1	#5	39'-6"	
$v_{55}(E)$	12	#10	39'-6"	—
$v_{56}(E)$	6	#8	14'-10"	┌
$v_{57}(E)$	12	#8	14'-3"	┌
$v_{58}(E)$	3	#7	11'-2"	┌
$v_{59}(E)$	6	#7	10'-8"	┌
Reinforcement Bars, Epoxy Coated		POUND	4,190	
Structure Excavation		CU YD	13	
Concrete Structures		CU YD	9	
Protective Coat		SQ YD	13	
Rustication Finish		SQ FT	8	
Drilled Shaft in Soil 36"		FOOT	32	

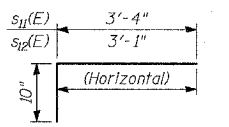
Reinforcement bars designated (E) shall be epoxy coated.

NOTES:

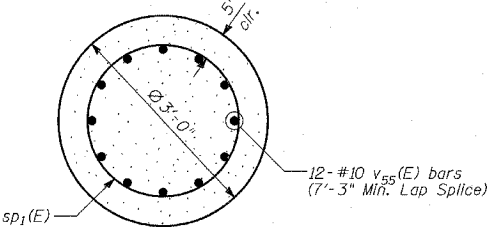
- The design loads are based on AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals-2001.
- Drilled shafts shall be installed according to IDOT special provision for "Drilled Shafts".
- Protective Coat shall be applied to exposed surfaces of the new concrete wall and tower base.
- 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 1/2 inch.
- For location of drilled shaft, see Sheet 6 of 36.
- Conduit is not shown for clarity. For location of conduit, see Sheet 19 of 36.
- Cost of anchor rod assembly, conduit and wires for grounding are included with "Concrete Structures".
- Minimum lap for spirals = 2'-6"



BAR $sp_1(E)$



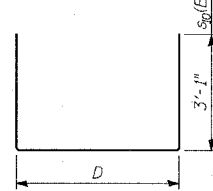
BARS $s_{11}(E)$ & $s_{12}(E)$



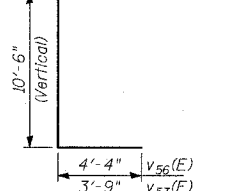
SECTION E-E

MARK TABLE

Bar	D
$s_{10}(E)$	4'-5"
$v_{58}(E)$	4'-4"
$v_{59}(E)$	3'-10"



BARS $s_{10}(E)$, $v_{58}(E)$ & $v_{59}(E)$



BARS $v_{56}(E)$ & $v_{57}(E)$

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94 (DAN RYAN EXPRESSWAY)
 RETAINING WALL ALONG STATE ST.
 77TH ST. TO 78TH ST.
 WALL TO
 LIGHT TOWER 5REF1 FOUNDATION DETAILS
 S.N. 016-W961 DESIGNED BY: TD, MAF
 SCALE: N.T.S. DRAWN BY: MAF, DJR
 DATE: MARCH 18, 2005 CHECKED BY: TD, MI

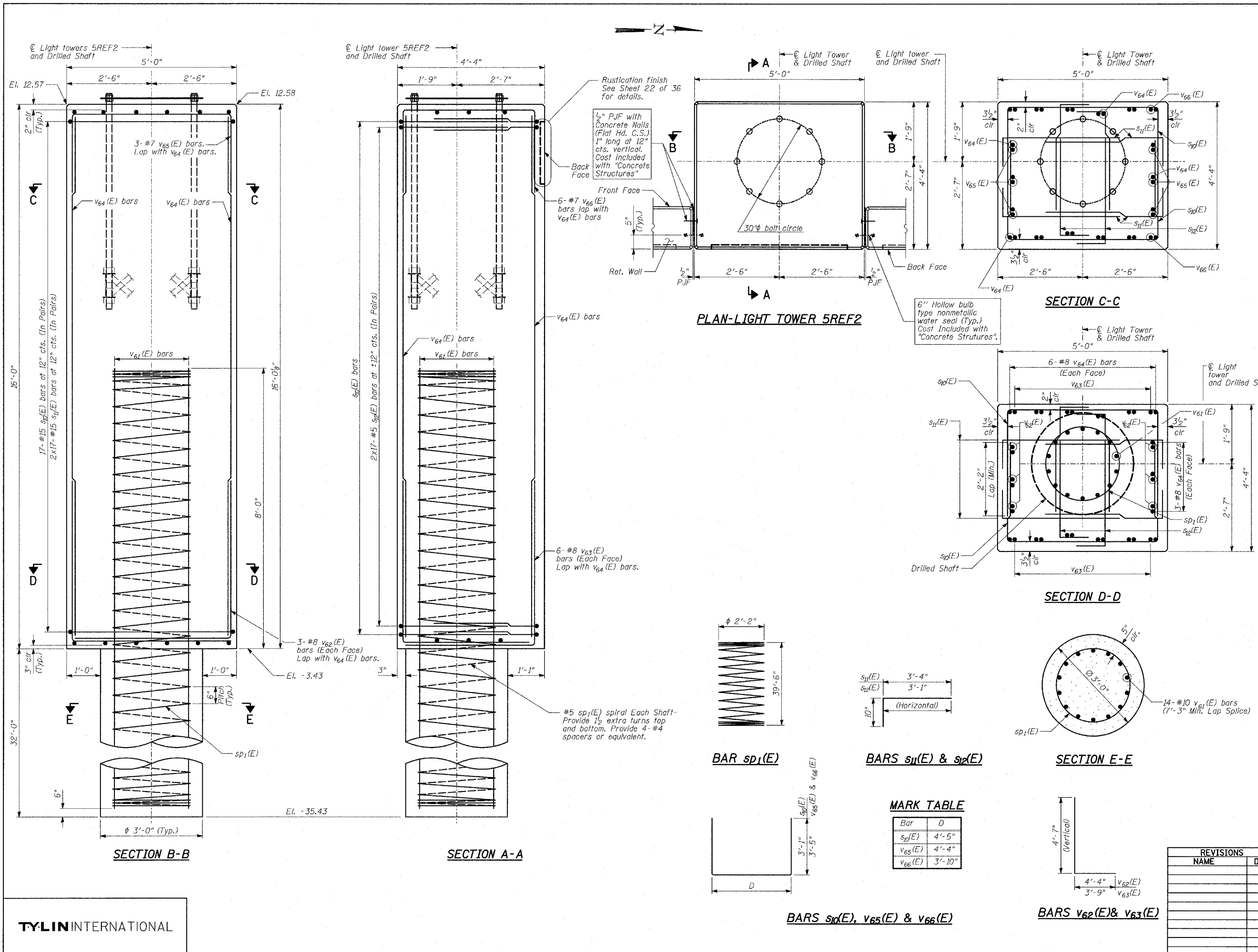
BILL OF MATERIAL

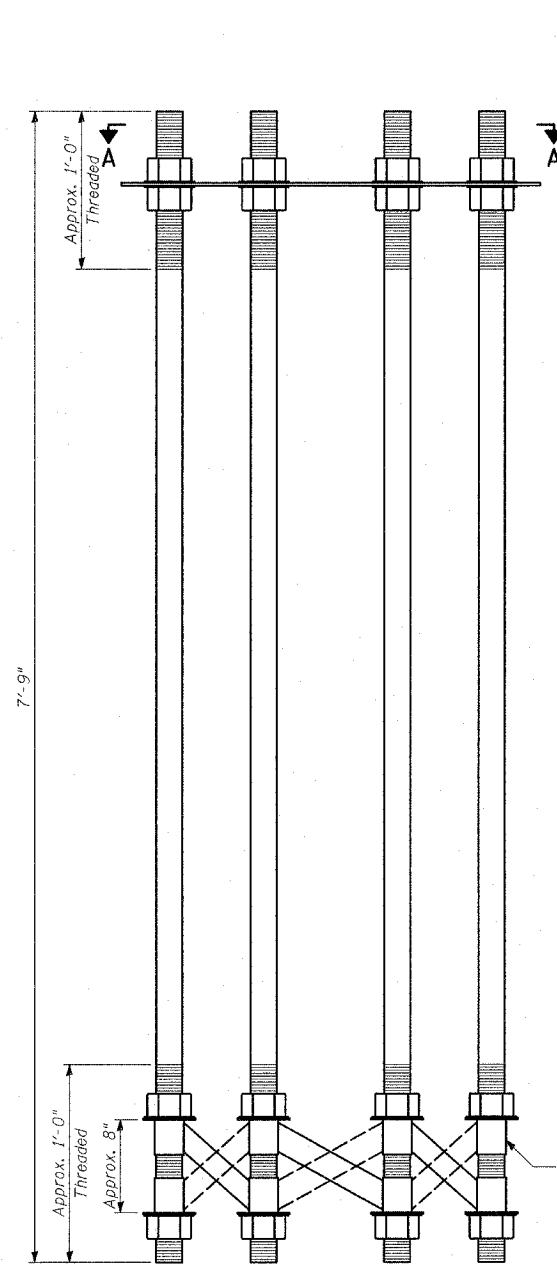
Bar	No.	Size	Length	Shape
s ₁₀ (E)	34	#5	10'-7"	□
s ₁₁ (E)	68	#5	4'-2"	□
s ₁₂ (E)	68	#5	3'-11"	□
sp ₁ (E)	1	#5	39'-6"	
v ₆₁ (E)	14	#10	39'-6"	—
v ₆₂ (E)	6	#8	8'-11"	L
v ₆₃ (E)	12	#8	8'-4"	L
v ₆₄ (E)	18	#8	15'-6"	—
v ₆₅ (E)	3	#7	11'-2"	□
v ₆₆ (E)	6	#7	10'-8"	□
Reinforcement Bars, Epoxy Coated		POUND	5,270	
Structure Excavation		CU YD	21	
Concrete Structures		CU YD	13	
Protective Coat		SQ YD	19	
Rustlocation Finish		SQ FT	8	
Drilled Shaft in Soil 36"		FOOT	32	

Reinforcement bars designated (E) shall be epoxy coated.

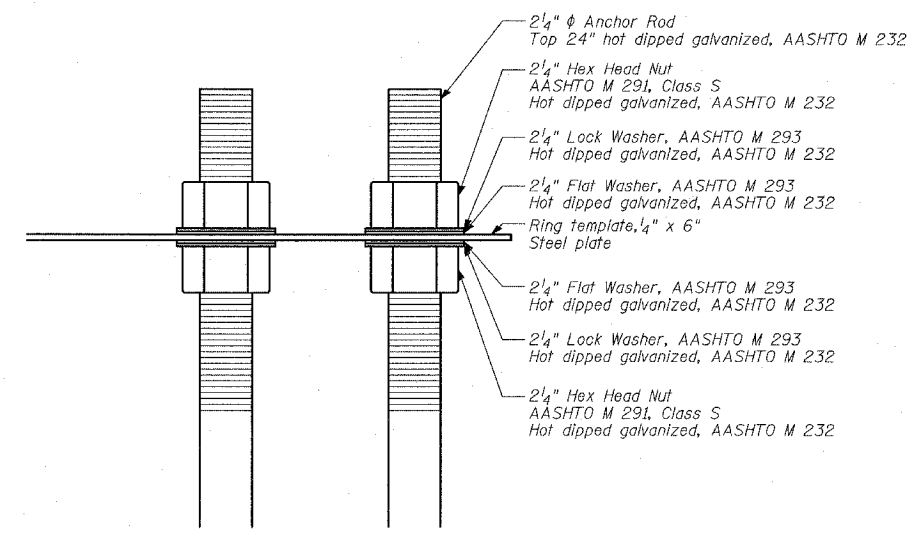
NOTES:

- The design loads are based on AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals-2001.
- Drilled shafts shall be installed according to IDOT special provision for "Drilled Shafts".
- Protective Coat shall be applied to exposed surfaces of the new concrete wall and tower base.
- 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 1/2 inch.
- For location of drilled shaft, see Sheet 8 of 36.
- Conduit is not shown for clarity. For location of conduit, see Sheet 19 of 36.
- Cost of anchor rod assembly, conduit and wires for grounding are included with "Concrete Structures".
- Minimum lap for spirals = 2'-6"

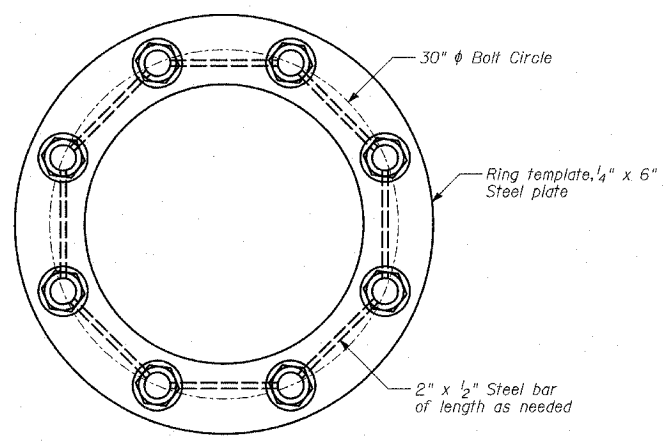




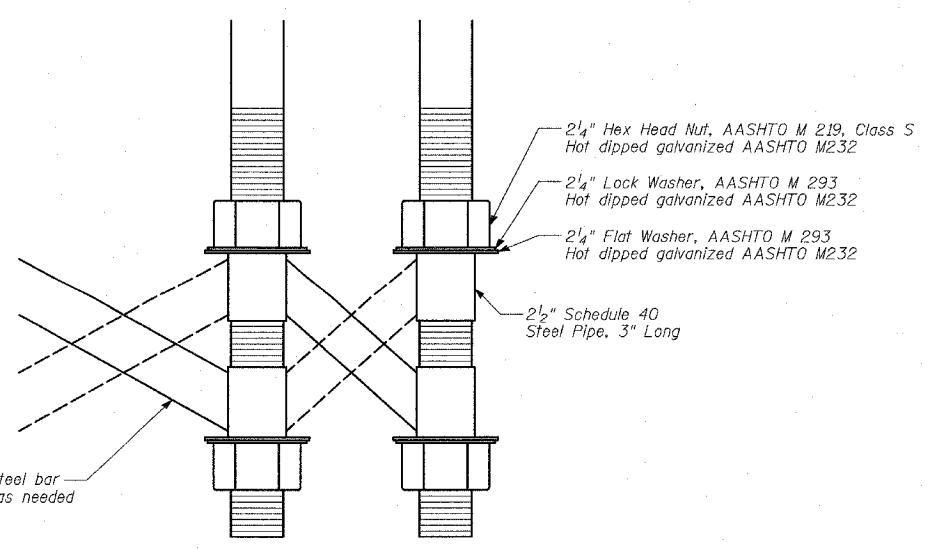
ANCHOR BOLT CAGE



BOLT CAGE TOP



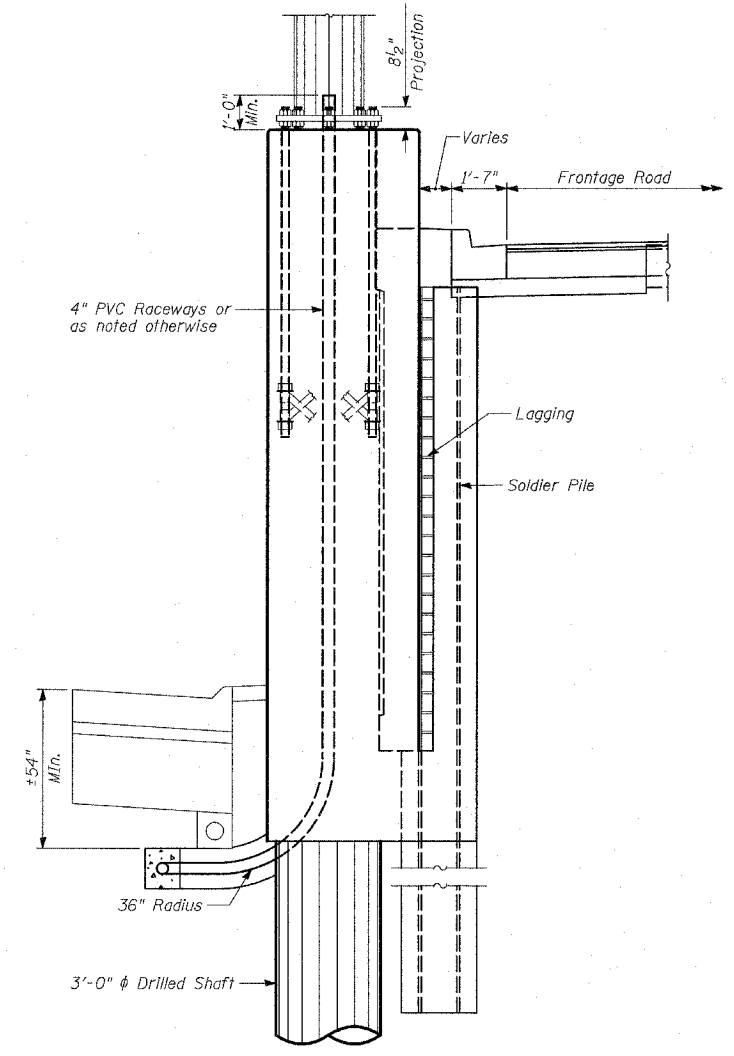
SECTION A-A



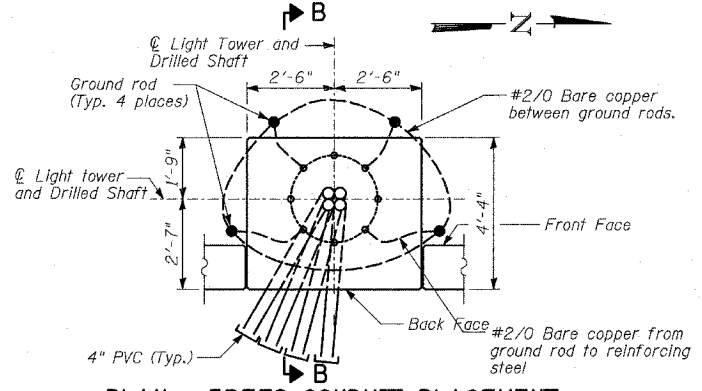
BOLT CAGE BOTTOM

- NOTES:**
- 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.
 - Anchor rod information shall be submitted for approval and shall be fully coordinated with tower manufacturer's requirements.
 - The Anchor Rods shall be vertical. No adjustment shall be allowed after the foundation is placed.
 - The gap between the foundation and the base plate shall be enclosed with a stainless steel screen fastened with a stainless steel band.
 - The Light Tower shall not be erected until after the concrete has been cured according to Article 1020.13.
 - Two anchor rods opposite each other shall have the anchor rod threads peened after nuts are installed.
 - Refer to BE501 for details.

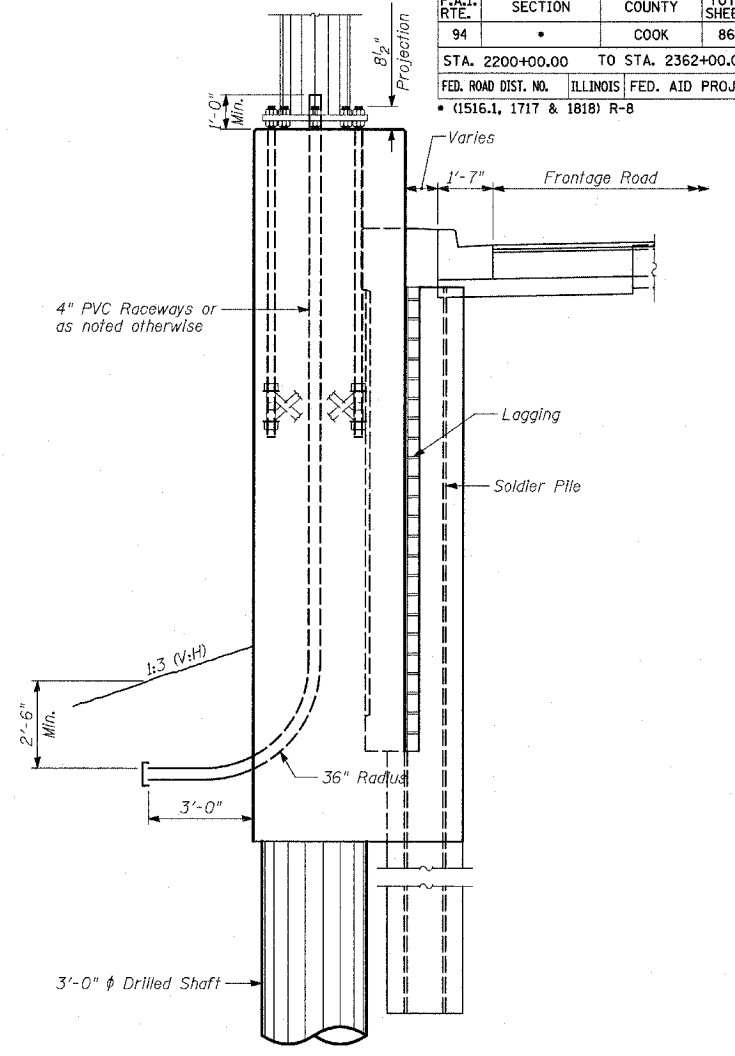
TYLIN INTERNATIONAL



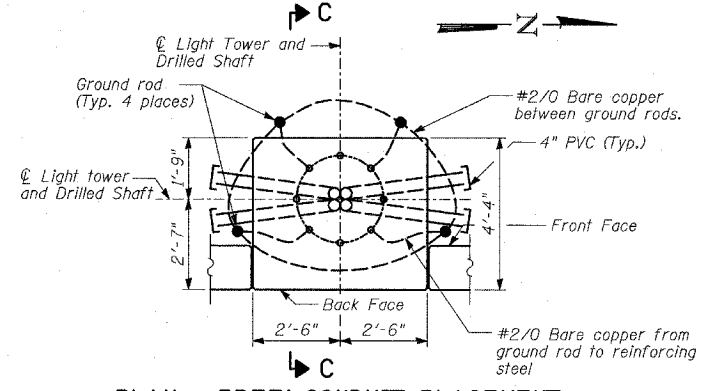
SECTION B-B



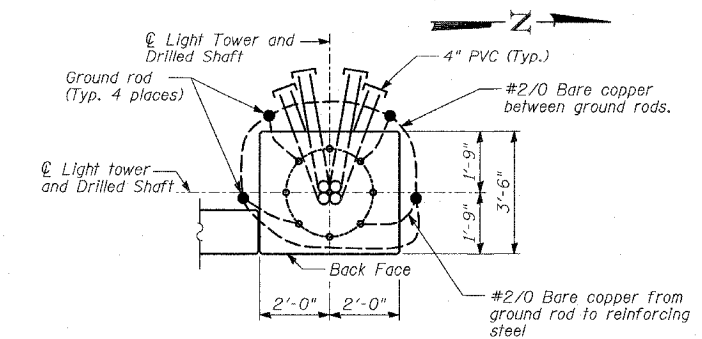
PLAN - 5REF2 CONDUIT PLACEMENT



SECTION C-C



PLAN - 5REF1 CONDUIT PLACEMENT



PLAN - 5RM5 CONDUIT PLACEMENT

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)
RETAINING WALL ALONG STATE ST.
77TH ST. TO 78TH ST.
WALL 70
LIGHT TOWER DETAILS
 S.N. 016-W976 DESIGNED BY: TD, DJR
 SCALE: N.T.S. DRAWN BY: DJR
 DATE: MARCH 18, 2005 CHECKED BY: TD, MI

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

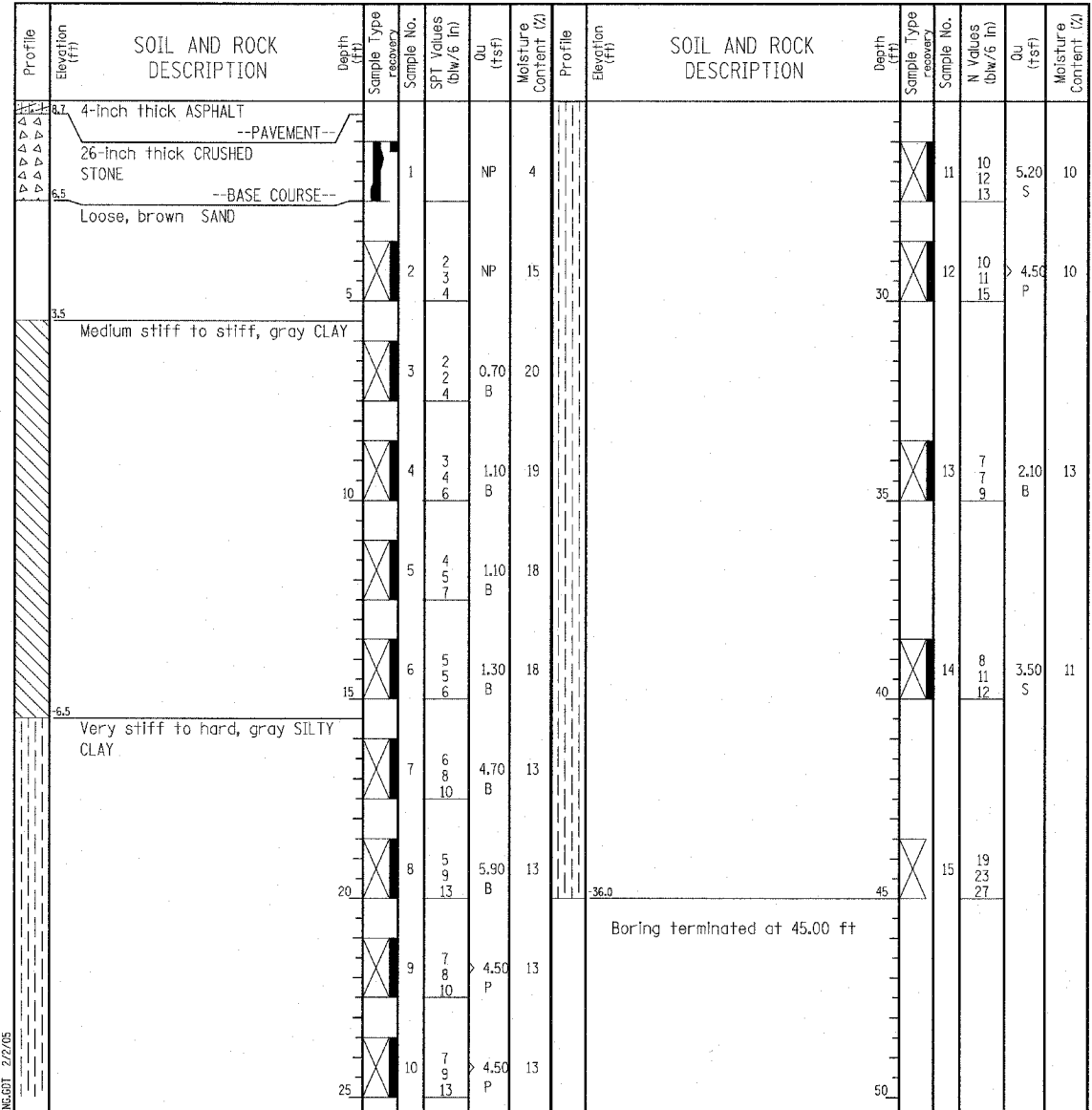
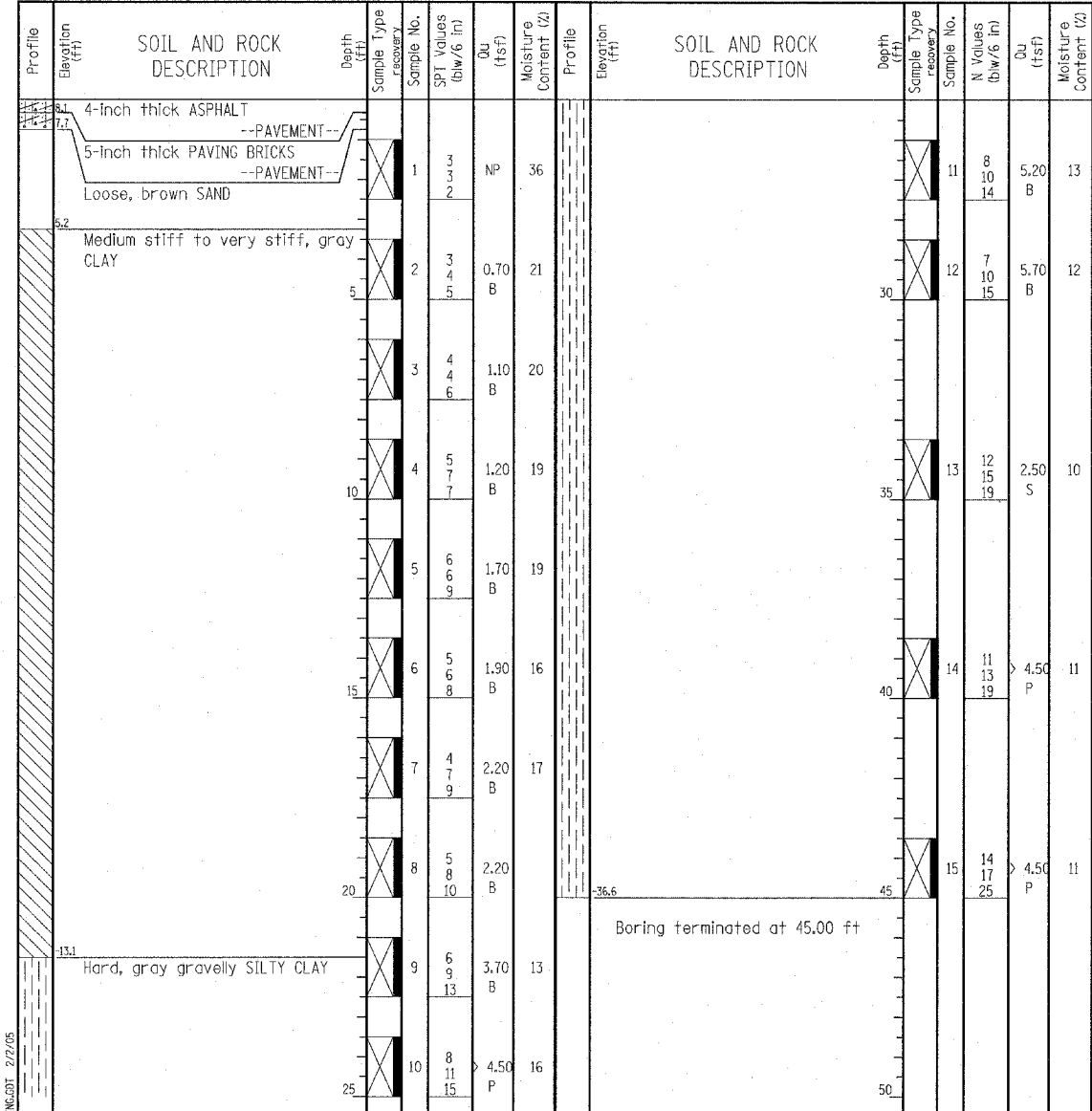
BORING LOG SB 70-01
 WEI Job No.: 414-07-01
 Datum: CCD
 Elevation: 8.40 ft
 North: 1854275.06 ft
 East: 1177565.23 ft
 Station: 2329+08.54
 Offset: 152.58' RT

Client: T. Y. LIN International
 Project: Dan Ryan Improvements; IDOT D-91-421-01
 Location: From 95th Street to 69th Street

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BORING LOG SB 70-02
 WEI Job No.: 414-07-01
 Datum: CCD
 Elevation: 9.00 ft
 North: 1854203.99 ft
 East: 1177597.55 ft
 Station: 2328+34.84
 Offset: 181.24' RT

Client: T. Y. LIN International
 Project: Dan Ryan Improvements; IDOT D-91-421-01
 Location: From 95th Street to 69th Street



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BORING LOG SB 70-03 Page 1 of 1

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

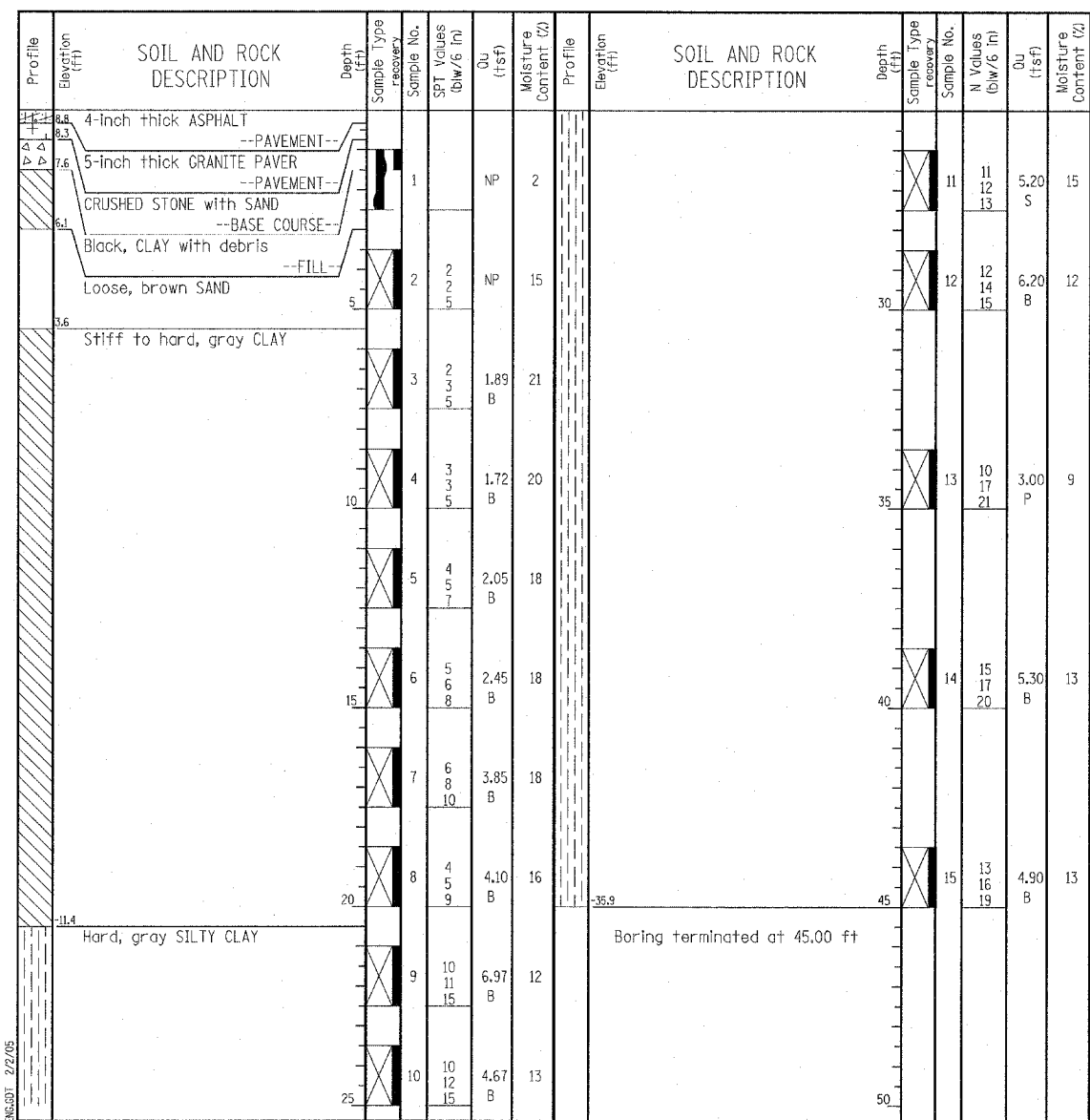
Datum: CCD
 Elevation: 9.06 ft
 North: 1854141.53 ft
 East: 1177599.12 ft
 Station: 2327+71.40
 Offset: 179.25' RT

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BORING LOG SB 07-04 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: 5.00 ft
 North: 1848116.13 ft
 East: 1177742.21 ft
 Station: 2267+49
 Offset: 96.0' RT



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BORING LOG SB 70-05 Page 1 of 1

WEI Job No.: 414-07-01

Datum: CCD
 Elevation: 9.59 ft
 North: 1853991.61 ft
 East: 1177596.20 ft
 Station: 2326+19.70
 Offset: 166.41' RT

Client: T. Y. LIN International
 Project: Dan Ryan Improvements; IDOT D-91-421-01
 Location: From 95th Street to 69th Street

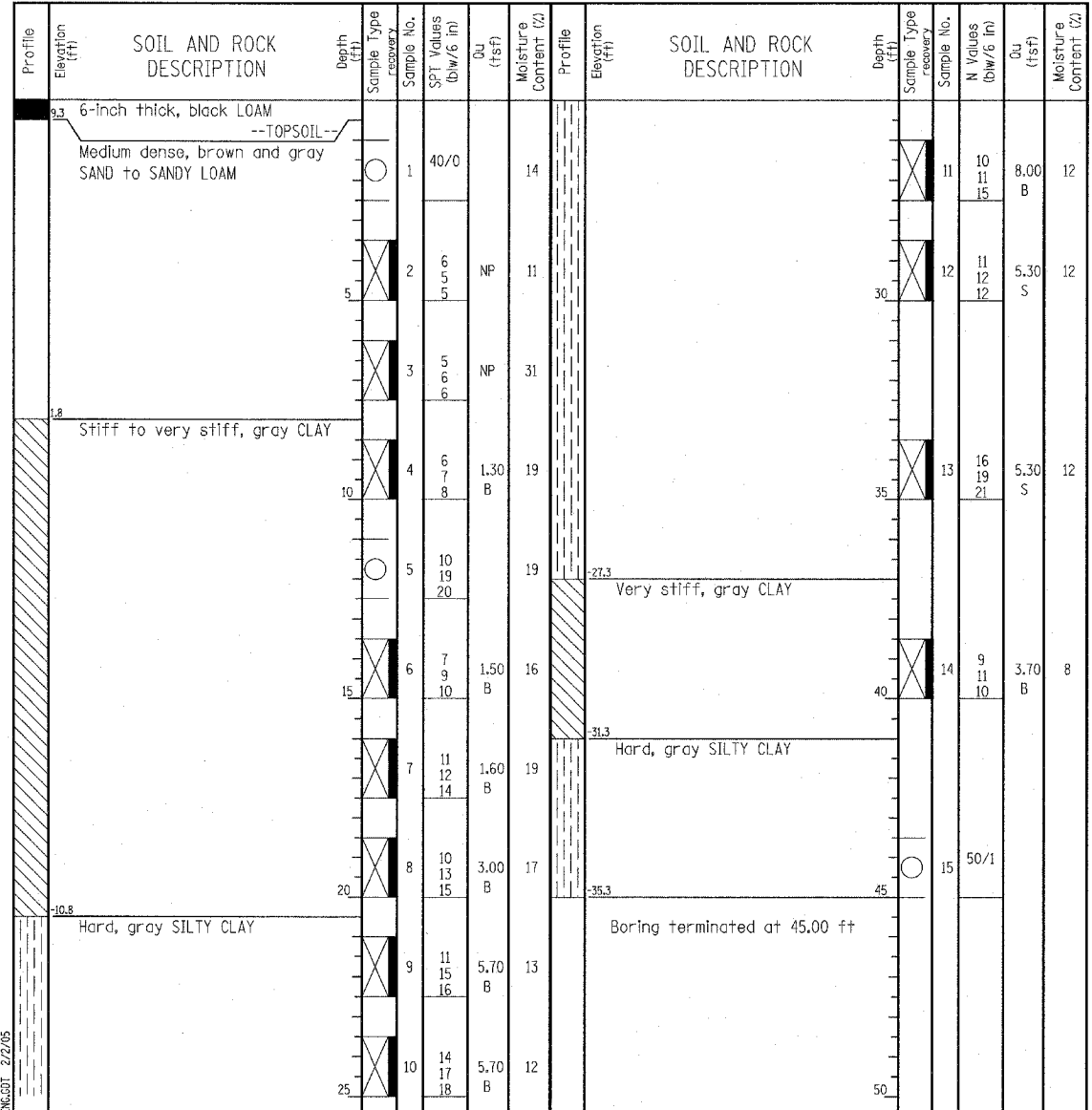
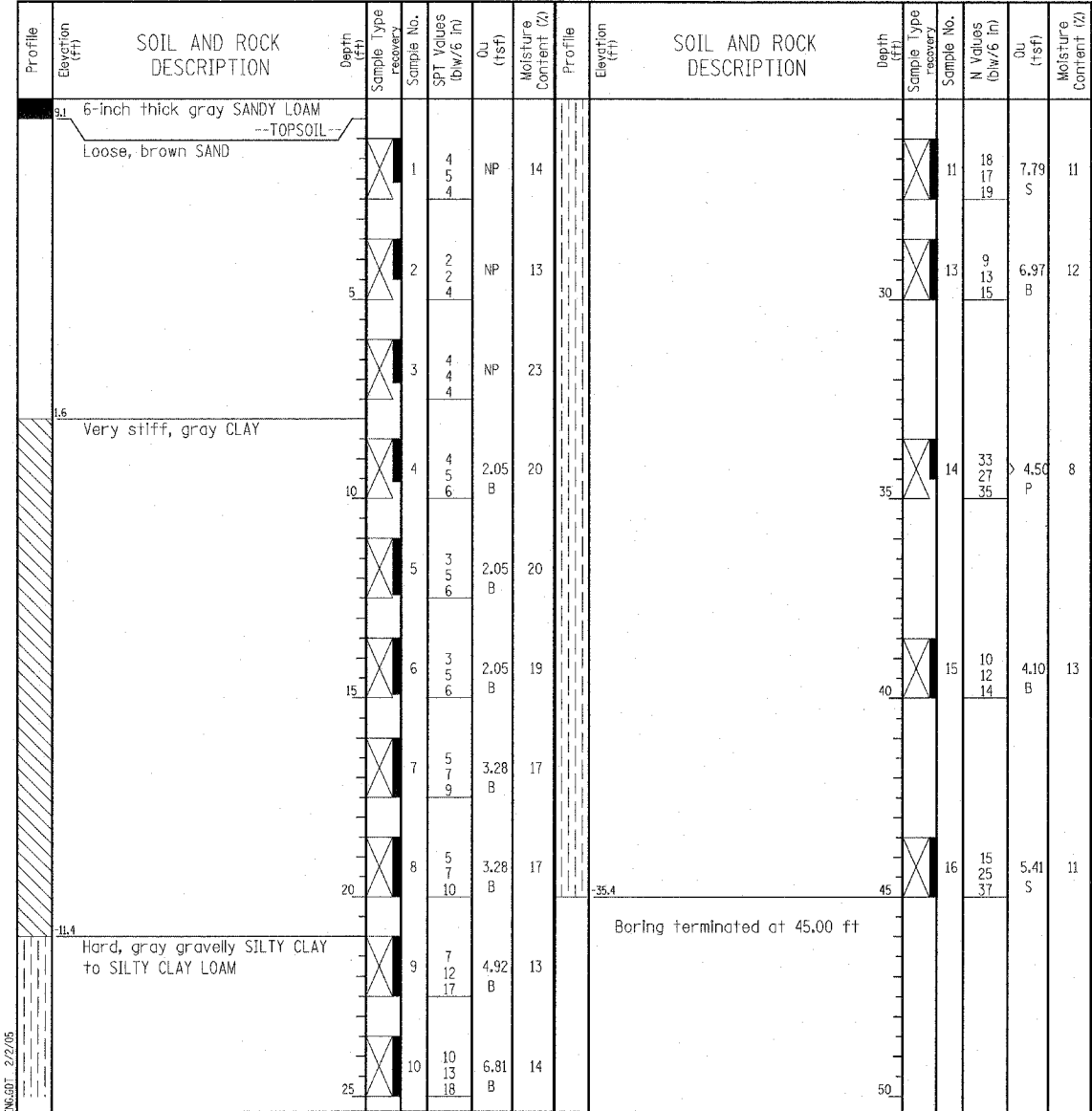
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 Lombard, IL 60148
 Telephone: 630 953-9928
 Fax: 630 953-9938

BORING LOG SB 70-06 Page 1 of 1

WEI Job No.: 414-07-01

Datum: CCD
 Elevation: 9.75 ft
 North: 1853875.06 ft
 East: 1177599.95 ft
 Station: 2325+01.96
 Offset: 161.10' RT

Client: T. Y. LIN International
 Project: Dan Ryan Improvements; IDOT D-91-421-01
 Location: From 95th Street to 69th Street



GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	01-25-2005	Complete Drilling	01-25-2005	While Drilling	∇	DRY	
Drilling Contractor	DLZ Drilling	Drill Rig	D-120 TMR	At Completion of Drilling	∇	DRY	
Driller	J&R	Logger	K. Jacob	Time After Drilling	NA		
Drilling Method	3.25" ID, HSA; Boring backfilled with bentonite upon completion			Depth to Water	∇	NA	
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.							

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	01-24-2005	Complete Drilling	01-24-2005	While Drilling	∇	DRY	
Drilling Contractor	DLZ Drilling	Drill Rig	D-120 TMR	At Completion of Drilling	∇	DRY	
Driller	E&R	Logger	B. Panozzo	Time After Drilling	NA		
Drilling Method	3.25" ID, HSA; Boring backfilled with bentonite upon completion			Depth to Water	∇	NA	
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.							

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REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94 (DAN RYAN EXPRESSWAY)
 RETAINING WALL ALONG STATE ST.
 77TH ST. TO 78TH ST.
 WALL 70
 BORING LOGS SB70-05 & SB70-06
 S.N. 016-W976
 SCALE: N.T.S.
 DATE: MARCH 18, 2005

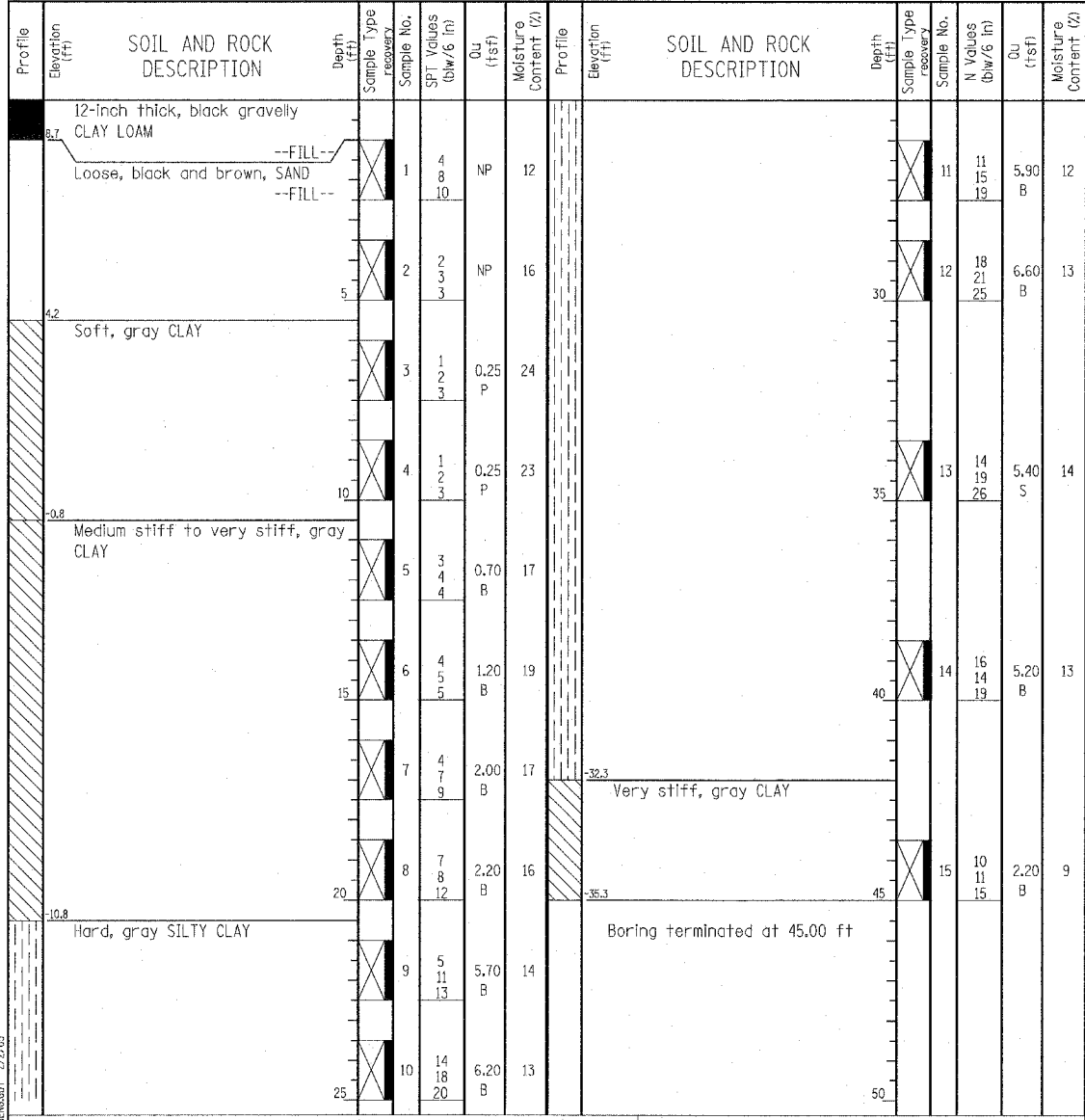
DESIGNED BY: DJR
 DRAWN BY: DJR
 CHECKED BY: TD

Wang Engineering, INC.
 Consulting Geotechnical and Environmental Engineers
 wangeng3@wangeng.com
 1145 Main Street
 Lombard, IL 60148
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BORING LOG SB 70-07 Page 1 of 1

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

Datum: CCD
 Elevation: 9.71 ft
 North: 1853843.00 ft
 East: 1177600.33 ft
 Station: 2324+69.97
 Offset: 158.89' RT



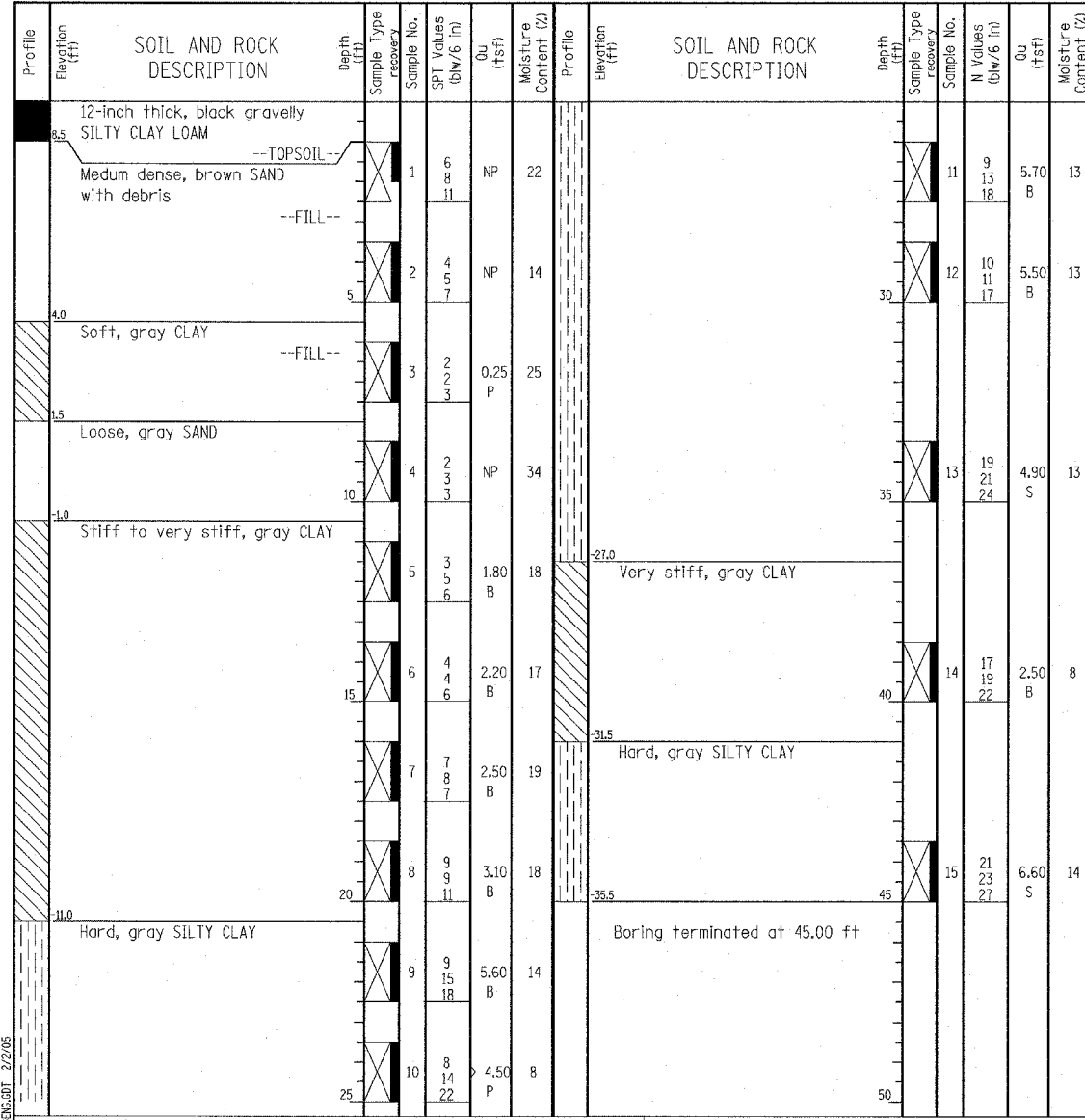
GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	01-20-2005	Complete Drilling	01-20-2005	While Drilling	∇	DRY	
Drilling Contractor	DLZ Drilling	Drill Rig	D-120 TMR	At Completion of Drilling	∇	DRY	
Driller	E&R	Logger	B. Panozzo	Time After Drilling	NA		
Drilling Method	3.25" ID HSA; Boring backfilled with bentonite upon completion			Depth to Water	∇	NA	
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.							

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 Fax: 630 953-9938

BORING LOG SB 70-08 Page 1 of 1

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

Datum: CCD
 Elevation: 9.52 ft
 North: 1853767.40 ft
 East: 1177602.03 ft
 Station: 2323+94.48
 Offset: 154.51' RT



GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	01-20-2005	Complete Drilling	01-20-2005	While Drilling	∇	DRY	
Drilling Contractor	DLZ Drilling	Drill Rig	D-120 TMR	At Completion of Drilling	∇	DRY	
Driller	E&Y	Logger	B. Panozzo	Time After Drilling	NA		
Drilling Method	3.25" ID HSA; Boring backfilled with bentonite upon completion			Depth to Water	∇	NA	
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.							

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REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94 (DAN RYAN EXPRESSWAY)
 RETAINING WALL ALONG STATE ST.
 77TH ST. TO 78TH ST.
 WALL 70
 BORING LOGS SB70-07 & SB70-08
 S.N. 016-W976
 SCALE: N.T.S.
 DATE: MARCH 18, 2005

DESIGNED BY: DJR
 DRAWN BY: DJR
 CHECKED BY: TD

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

BORING LOG SB 70-09 Page 1 of 1

WEI Job No.: 414-07-01

Datum: CCD
 Elevation: 9.29 ft
 North: 1853694.20 ft
 East: 1177610.10 ft
 Station: 2323+20.86
 Offset: 156.65' RT

Client: T. Y. LIN International
 Project: Dan Ryan Improvements; IDOT D-91-421-01
 Location: From 95th Street to 69th Street

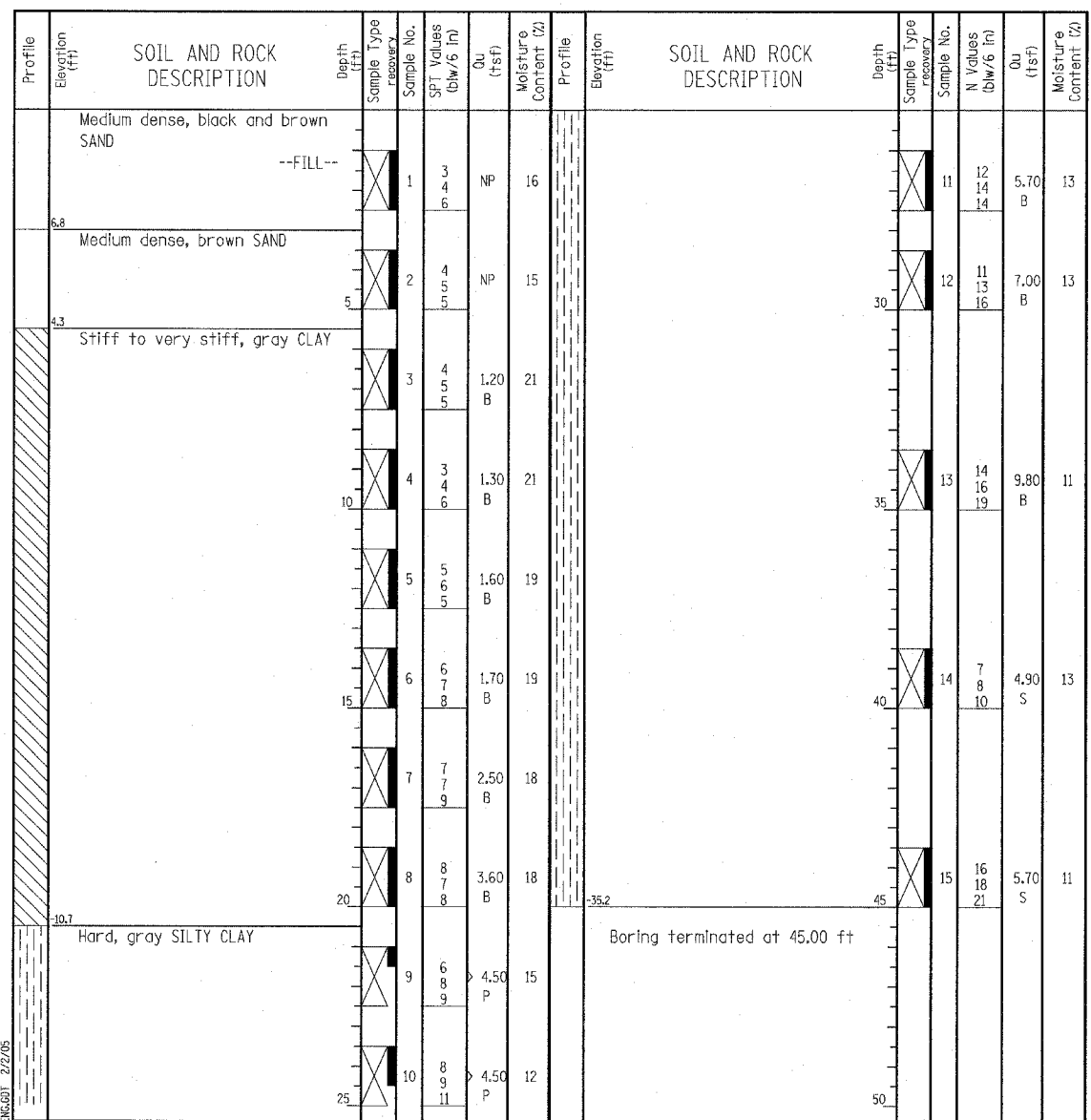
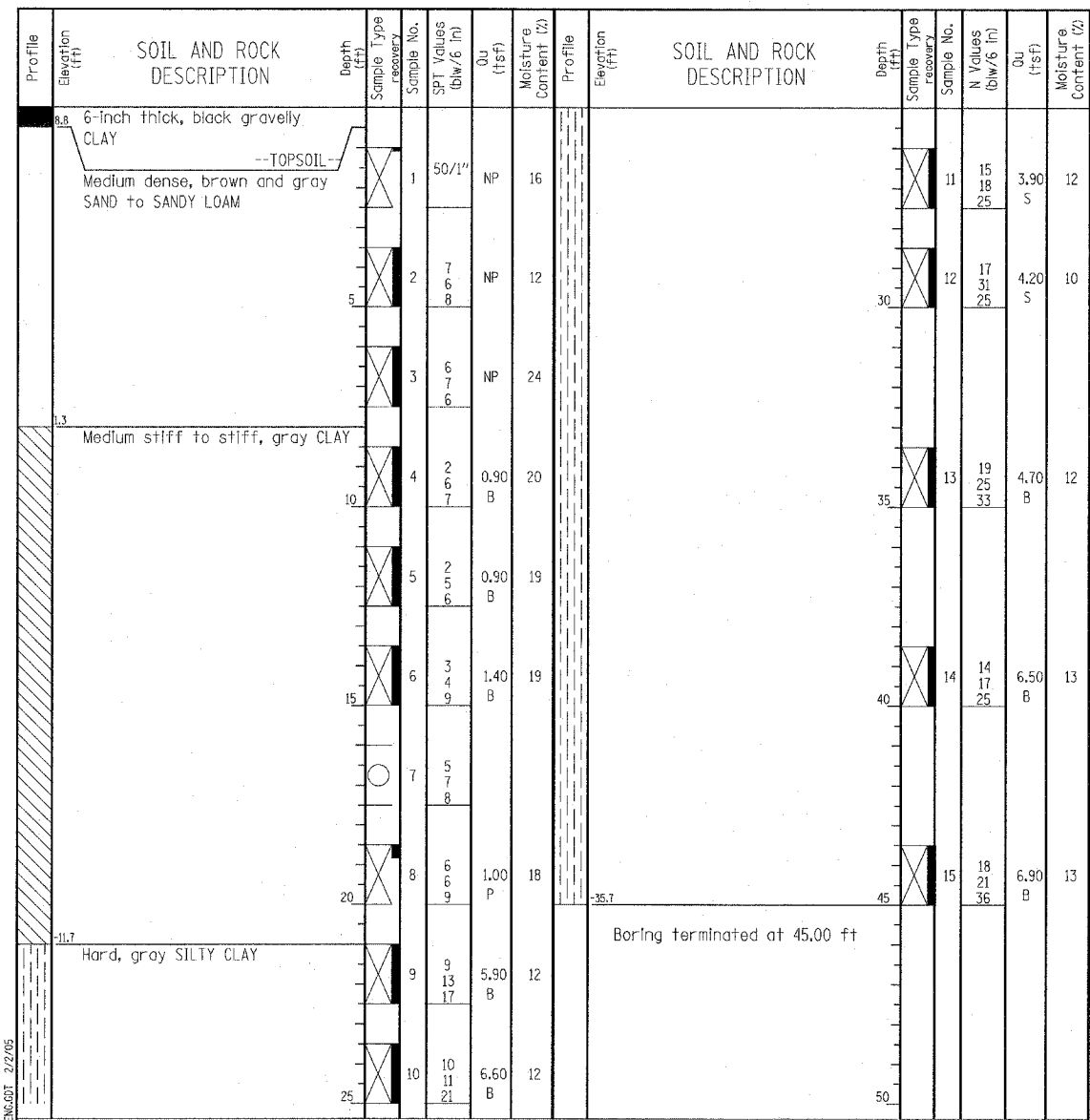
Wang Engineering, Inc.
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 Lombard, IL 60148
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 Fax: 630 953-9938

BORING LOG SB 70-10 Page 1 of 1

WEI Job No.: 414-07-01

Datum: CCD
 Elevation: 9.82 ft
 North: 1853637.71 ft
 East: 1177604.00 ft
 Station: 2322+65.05
 Offset: 146.03' RT

Client: T. Y. LIN International
 Project: Dan Ryan Improvements; IDOT D-91-421-01
 Location: From 95th Street to 69th Street



GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	01-20-2005	Complete Drilling	01-20-2005	While Drilling	▽	DRY	
Drilling Contractor	DLZ Drilling	Drill Rig	D-120 TMR	At Completion of Drilling	▽	DRY	
Driller	E&R	Logger	B. Panozzo	Time After Drilling	NA		
Checked by	MLS	Depth to Water	▽	NA			
Drilling Method 3.25" ID HSA; Boring backfilled with bentonite upon completion							

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	01-24-2005	Complete Drilling	01-24-2005	While Drilling	▽	DRY	
Drilling Contractor	DLZ Drilling	Drill Rig	D-120 TMR	At Completion of Drilling	▽	DRY	
Driller	E&R	Logger	B. Panozzo	Time After Drilling	NA		
Checked by	MLS	Depth to Water	▽	NA			
Drilling Method 3.25" ID HSA; Boring backfilled with bentonite upon completion							

TYLIN INTERNATIONAL

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94 (DAN RYAN EXPRESSWAY)
 RETAINING WALL ALONG STATE ST.
 77TH ST. TO 78TH ST.
 WALL 70
 BORING LOGS SB70-09 & SB70-10
 S.N. 016-W976
 SCALE: N.T.S.
 DATE: MARCH 18, 2005

DESIGNED BY: DJR
 DRAWN BY: DJR
 CHECKED BY: TD

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 70-11 Page 1 of 1

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

Datum: CCD
 Elevation: 9.66 ft
 North: 1853545.85 ft
 East: 1177607.37 ft
 Station: 2321+73.22
 Offset: 141.99' RT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	N Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
34.4	3-inch thick, brown SILTY LOAM --TOPSOIL--	0													
17.2	Medium dense, brown SANDY LOAM --FILL--	1		1	8 5 5	NP	17			11		11	10 10 15	6.56 B	12
		5		2	3 5 5	NP	11			30		12	5 4 13	7.71 S	12
		5		3	4 4 5	NP	15								
17	Stiff to hard, gray CLAY	10		4	2 2 4		20			35		13	10 13 18	8.20 S	12
		15		5	2 3 4		21								
		15		6	3 4 7		20			40		14	8 10 12	6.23 B	13
		20		8	5 7 13		17			45		15	18 36 50/3	10.25 B	11
		25		10	6 9 15		15								
13.3	Hard, gray SILTY CLAY	25		10	9 18 24		12								

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	01-20-2005	Complete Drilling	01-20-2005	While Drilling	∇	DRY	
Drilling Contractor	DLZ Drilling	Drill Rig	D-120 TMR	At Completion of Drilling	∇	DRY	
Driller	J&B	Logger	S. Janowski	Time After Drilling	NA		
Drilling Method	3.25" ID HSA; Boring backfilled with bentonite upon completion			Depth to Water	∇	NA	
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.							

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 Lombard, IL 60148
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BORING LOG SB 70-12 Page 1 of 1

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

Datum: CCD
 Elevation: 9.68 ft
 North: 1853465.03 ft
 East: 1177607.63 ft
 Station: 2320+92.64
 Offset: 135.74' RT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	N Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
32	6-inch thick, gray SANDY LOAM --TOPSOIL--	0													
	Loose to medium dense, brown SAND --FILL--	1		1	5 6 6	NP	11			11		11	9 11 17	5.82 B	12
		5		2	3 4 5	NP	11			30		12	9 12 20	7.71 B	11
		5		3	3 3 8	NP	21								
17	Stiff to very stiff, gray CLAY	10		4	3 3 7		20			35		13	20 17 21	6.56 S	12
		15		5	3 4 7		19								
		15		6	3 5 7		19			40		14	20 17 21	6.89 B	12
		20		8	4 7 10		17			45		15	33 50/4	NP	7
		25		10	10 14 15		12								
10.8	Hard, gray gravelly SILTY CLAY	25		10	7 11 14		15								

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	01-24-2005	Complete Drilling	01-24-2005	While Drilling	∇	DRY	
Drilling Contractor	DLZ Drilling	Drill Rig	D-120 TMR	At Completion of Drilling	∇	DRY	
Driller	J&R	Logger	K. Jacob	Time After Drilling	NA		
Drilling Method	3.25" ID HSA; Boring backfilled with bentonite upon completion			Depth to Water	∇	NA	
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.							

TYLIN INTERNATIONAL

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94 (DAN RYAN EXPRESSWAY)
 RETAINING WALL ALONG STATE ST.
 77TH ST. TO 78TH ST.
 WALL 70
 BORING LOGS SB70-11 & SB70-12
 S.N. 016-W976
 SCALE: N.T.S.
 DATE: MARCH 18, 2005

DESIGNED BY: DJR
 DRAWN BY: DJR
 CHECKED BY: TD

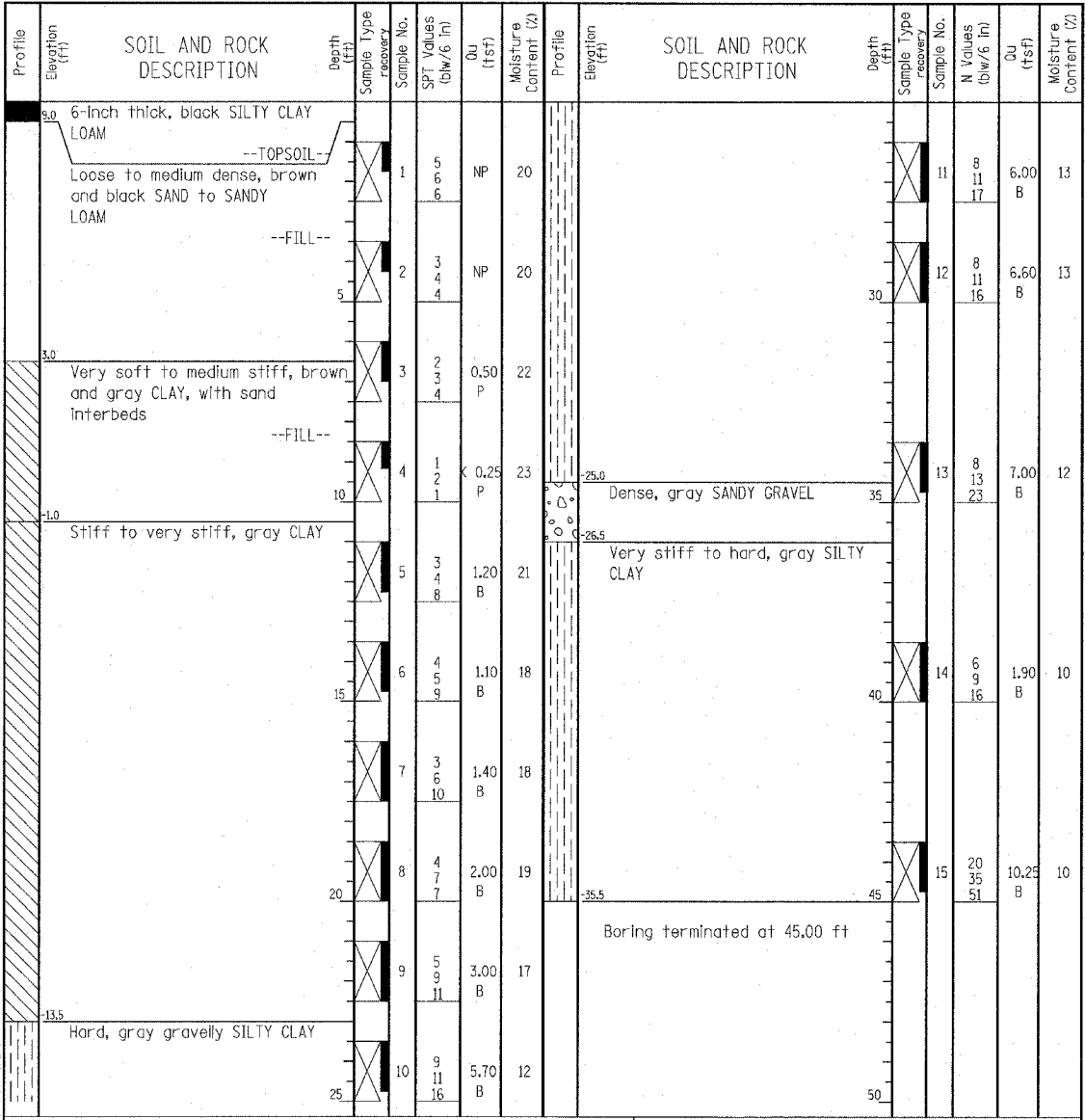
Wang Engineering, INC.
Consulting Geotechnical and Environmental Engineers
wangeng3@wangeng.com
1145 Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

BORING LOG SB 70-13 Page 1 of 1

WEI Job No.: 414-07-01

Datum: CCD
Elevation: 9.48 ft
North: 1853391.47 ft
East: 1177618.34 ft
Station: 2320+18.45
Offset: 140.49' RT

Client: T. Y. LIN International
Project: Dan Ryan Improvements; IDOT D-91-421-01
Location: From 95th Street to 69th Street



GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	01-19-2005	Complete Drilling	01-19-2005	While Drilling	∇	DRY	
Drilling Contractor	DLZ Drilling	Drill Rig	D-120 TMR	At Completion of Drilling	∇	DRY	
Driller	K&R	Logger	J. Kasnick	Time After Drilling	NA		
Drilling Method	3.25" ID HSA; Boring backfilled with bentonite upon completion			Depth to Water	∇	NA	
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.							

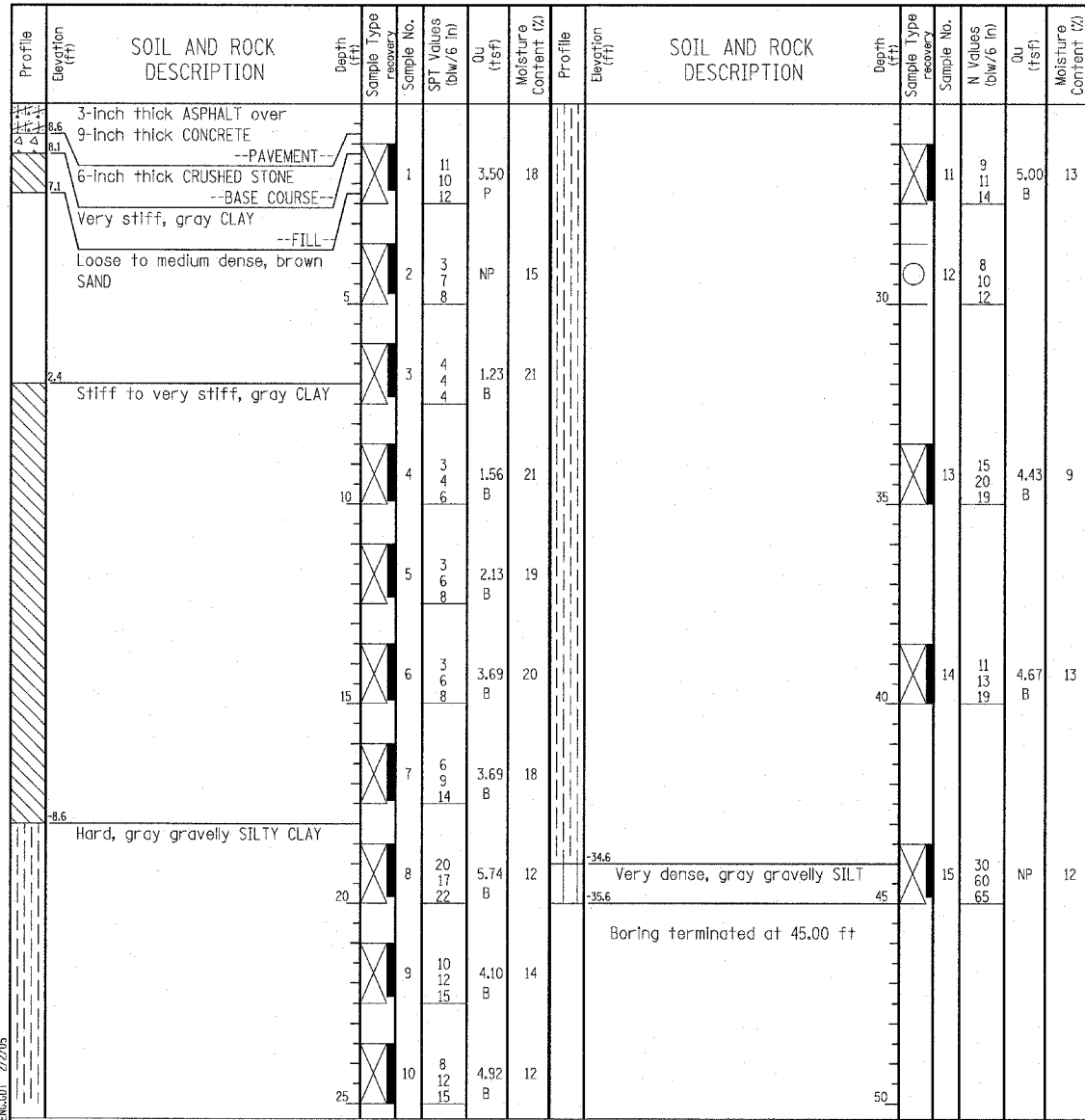
Wang Engineering, INC.
Consulting Geotechnical and Environmental Engineers
wangeng3@wangeng.com
1145 Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax: 630 953-9938

BORING LOG SB 70-14 Page 1 of 1

WEI Job No.: 414-07-01

Datum: CCD
Elevation: 9.37 ft
North: 1853310.91 ft
East: 1177618.51 ft
Station: 2319+38.70
Offset: 134.28' RT

Client: T. Y. LIN International
Project: Dan Ryan Improvements; IDOT D-91-421-01
Location: From 95th Street to 69th Street



GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	01-24-2005	Complete Drilling	01-24-2005	While Drilling	∇	DRY	
Drilling Contractor	DLZ Drilling	Drill Rig	D-120 TMR	At Completion of Drilling	∇	DRY	
Driller	J&R	Logger	K. Jacob	Time After Drilling	NA		
Drilling Method	3.25" ID HSA; Boring backfilled with bentonite upon completion			Depth to Water	∇	NA	
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.							

TYLIN INTERNATIONAL

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)
RETAINING WALL ALONG STATE ST.
77TH ST. TO 78TH ST.
WALL 70
BORING LOGS SB70-13 & SB70-14
S.N. 016-W976
SCALE: N.T.S.
DATE: MARCH 18, 2005

DESIGNED BY: DJR
DRAWN BY: DJR
CHECKED BY: TD

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 70-15 Page 1 of 1

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

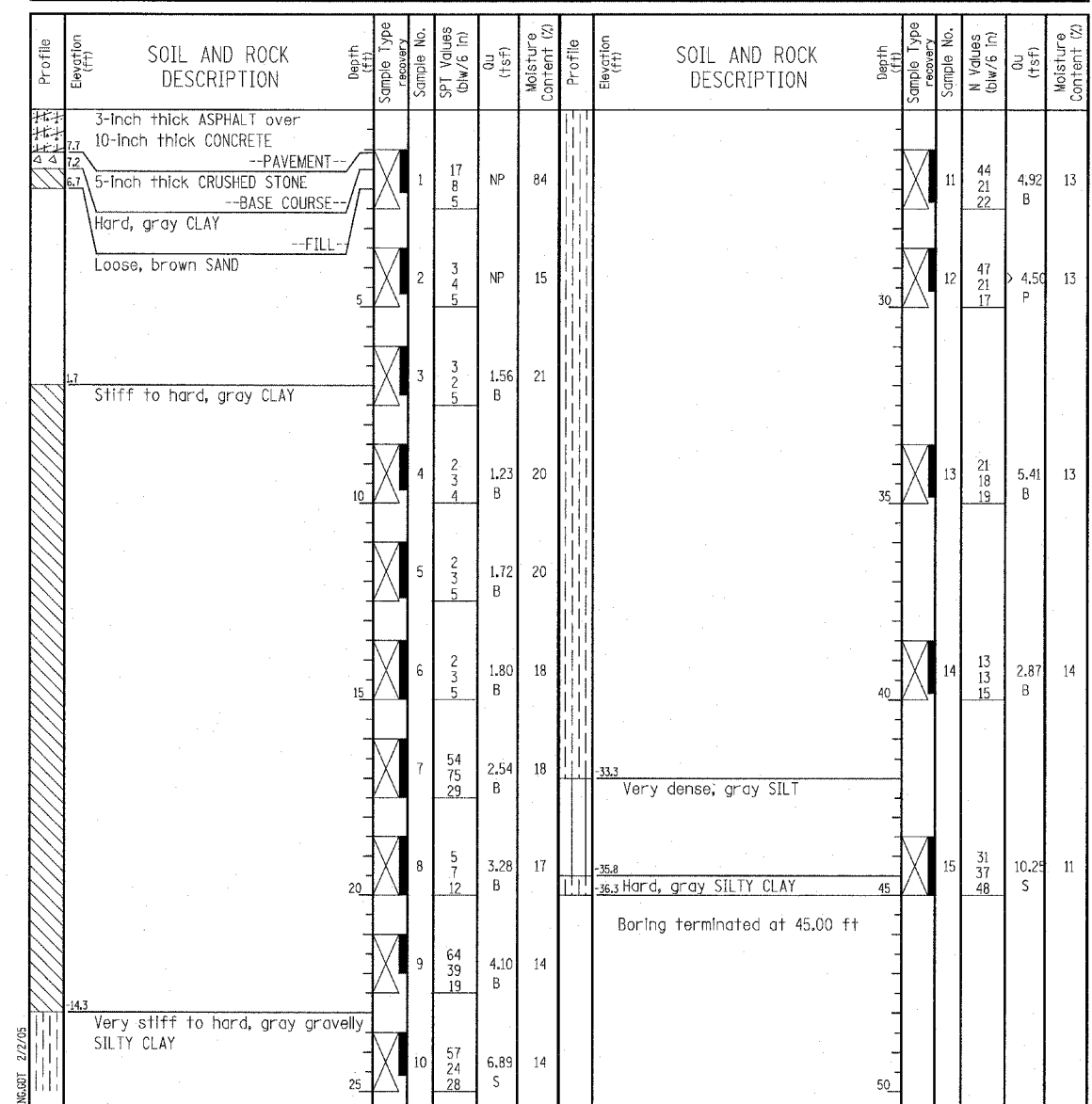
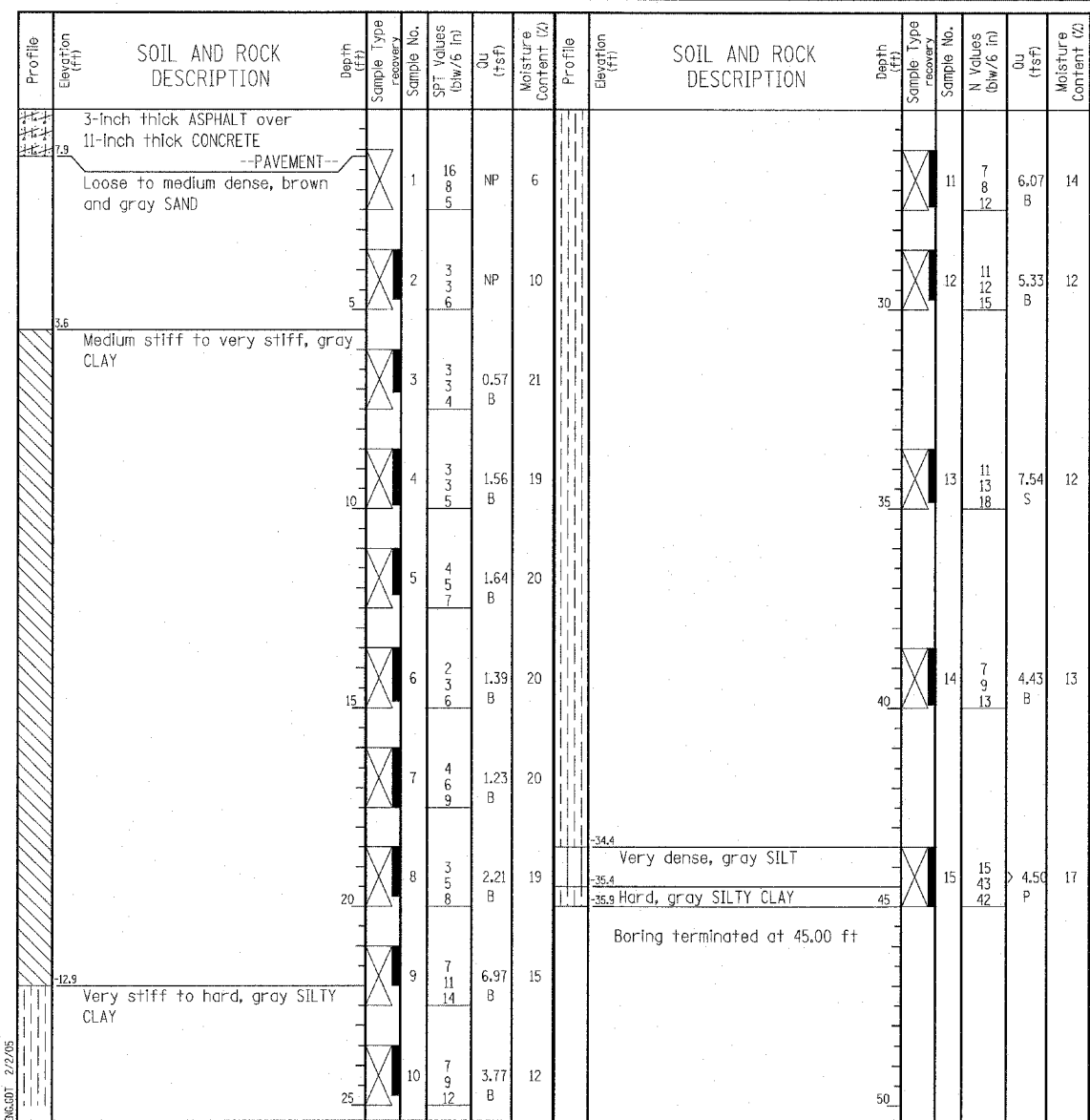
Datum: CCD
 Elevation: 9.06 ft
 North: 1853241.58 ft
 East: 1177621.13 ft
 Station: 2318+60.40
 Offset: 131.81' RT

Wang Engineering, INC.
 Consulting Geotechnical and Environmental Engineers
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 Lombard, IL 60148
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BORING LOG SB 70-16 Page 1 of 1

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

Datum: CCD
 Elevation: 8.74 ft
 North: 1853171.59 ft
 East: 1177623.65 ft
 Station: 2318+00.95
 Offset: 129.61' RT



GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	01-19-2005	Complete Drilling	01-19-2005	While Drilling	∇	DRY	
Drilling Contractor	DLZ Drilling	Drill Rig	D-120 TMR	At Completion of Drilling	∇	DRY	
Driller	E&B	Logger	K. Jacob	Time After Drilling	NA		
Drilling Method	3.25" ID. HSA; Boring backfilled with bentonite upon completion			Depth to Water	∇	NA	


GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	01-25-2005	Complete Drilling	01-25-2005	While Drilling	∇	DRY	
Drilling Contractor	DLZ Drilling	Drill Rig	D-120 TMR	At Completion of Drilling	∇	DRY	
Driller	J&R	Logger	K. Jacob	Time After Drilling	NA		
Drilling Method	3.25" ID. HSA; Boring backfilled with bentonite upon completion			Depth to Water	∇	NA	

TYLIN INTERNATIONAL

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94 (DAN RYAN EXPRESSWAY)
 RETAINING WALL ALONG STATE ST.
 77TH ST. TO 78TH ST.
 WALL 70
 BORING LOGS SB70-15 & SB70-16
 S.N. 016-W976
 SCALE: N.T.S.
 DATE: MARCH 18, 2005

DESIGNED BY: DJR
 DRAWN BY: DJR
 CHECKED BY: TD



Wang Engineering, INC.
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Lombard, IL 60148
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Fax: 630 953-9938

BORING LOG SB 70-17

WEI Job No.: 414-07-01

Client: T. Y. LIN International

Project: Dan Ryan Improvements; IDOT D-91-421-01

Location: From 95th Street to 69th Street

Datum: CCD
Elevation: 8.63 ft
North: 1853091.77 ft
East: 1177626.35 ft
Station: 2317+22.00
Offset: 127.44' RT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blows/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	N Values (blows/6 in)	Qu (tsf)	Moisture Content (%)
22.84	3-inch thick ASPHALT --PAVEMENT--												
	Medium dense, brown and gray SAND		1	10 5 5	NP	15				11	9 11 16	5.90 B	13
			2	7 6 6	NP	10			30	12	8 10 14	4.80 B	13
3.1	Stiff to very stiff, gray CLAY		3	3 3 4		1.10 B							
			4	3 3 4		1.10 B			35	13	9 11 16	1.90 B	8
			5	3 4 6		1.50 B							
			6	3 4 7		1.90 B			40	14	8 12 20	6.20 B	13
			7	4 6 11		3.30 B							
			8	5 7 12		3.10 B			45	15	20 46 54	4.50 P	9
11.9	Stiff to hard, gray gravelly SILTY CLAY to SILTY CLAY LOAM		9	8 12 17		3.10 B							
			10	8 12 16		7.20 B			50				

GENERAL NOTES				WATER LEVEL DATA		
Begin Drilling	01-19-2005	Complete Drilling	01-19-2005	While Drilling	☐ DRY	
Drilling Contractor	DLZ Drilling	Drill Rig	D-120 TMR	At Completion of Drilling	☐ DRY	
Driller	E&B	Logger	K. Jacob	Time After Drilling	NA	
Drilling Method	3.25" ID. HSA; Boring backfilled with bentonite upon completion				Depth to Water	☐ NA
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.						

WANGENG 414070101 WANGENG 2/2/05

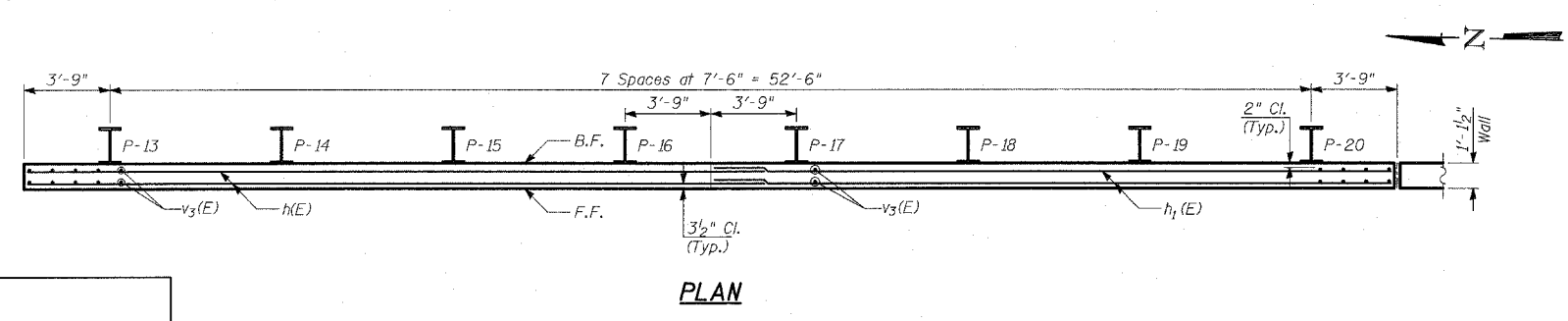
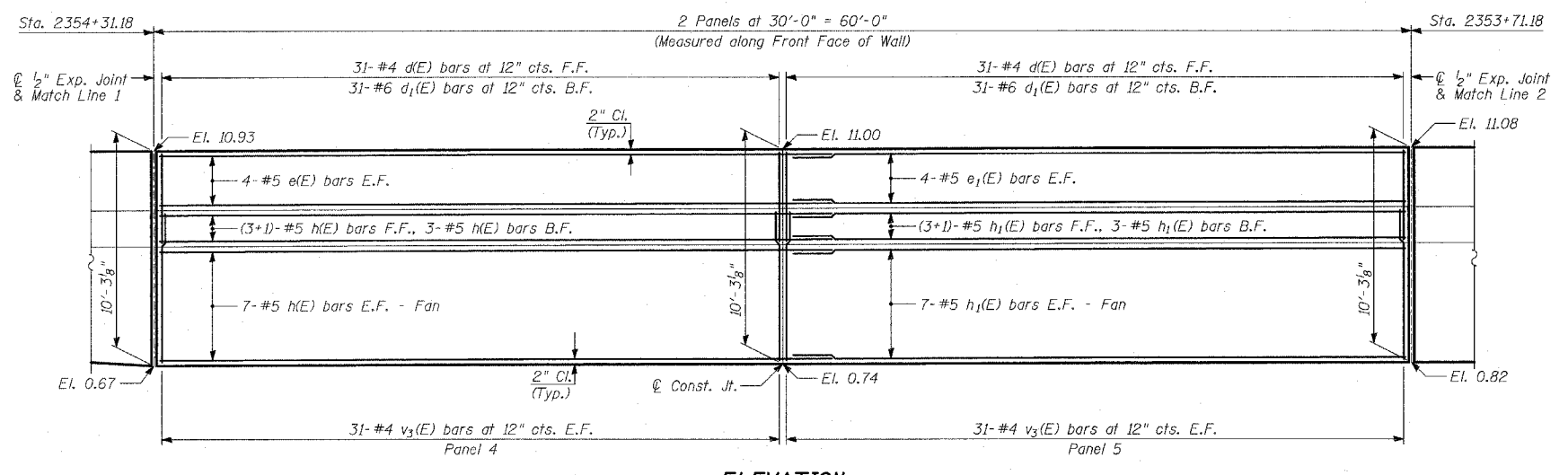
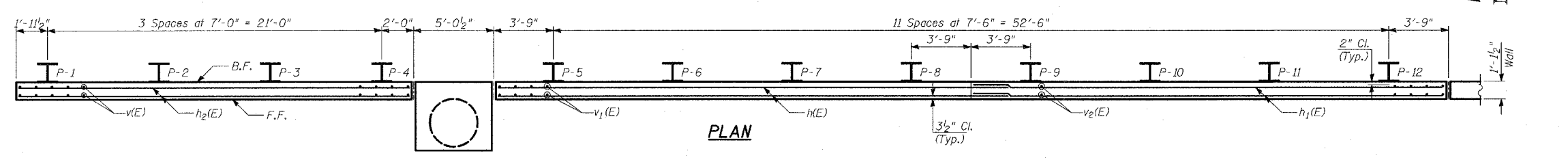
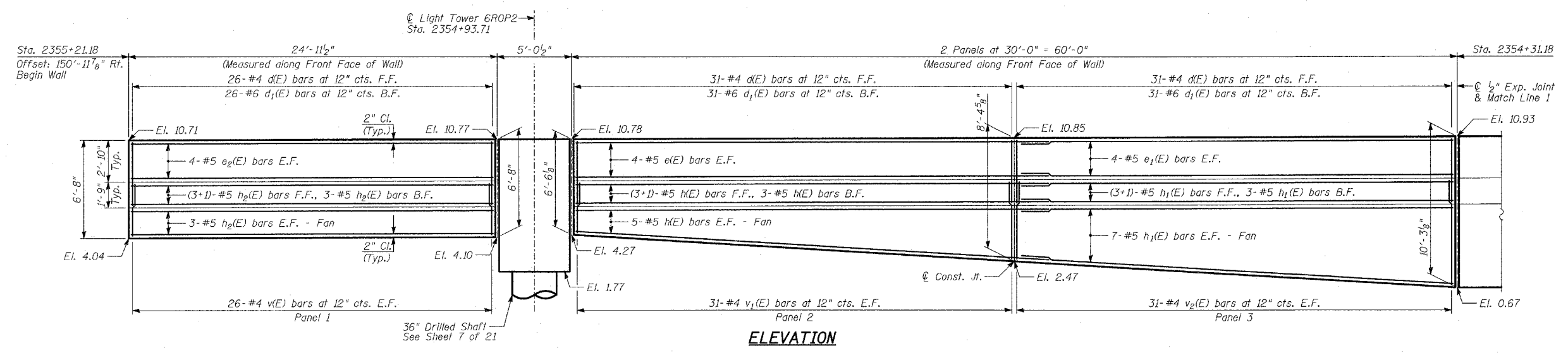
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)
RETAINING WALL ALONG STATE ST.
77TH ST. TO 78TH ST.
WALL 70
BORING LOG SB70-17

S.N. 016-W976 DESIGNED BY: DJR
 SCALE: N.T.S. DRAWN BY: DJR
 DATE: MARCH 18, 2005 CHECKED BY: TD



03/25/2005 11:00:07 AM

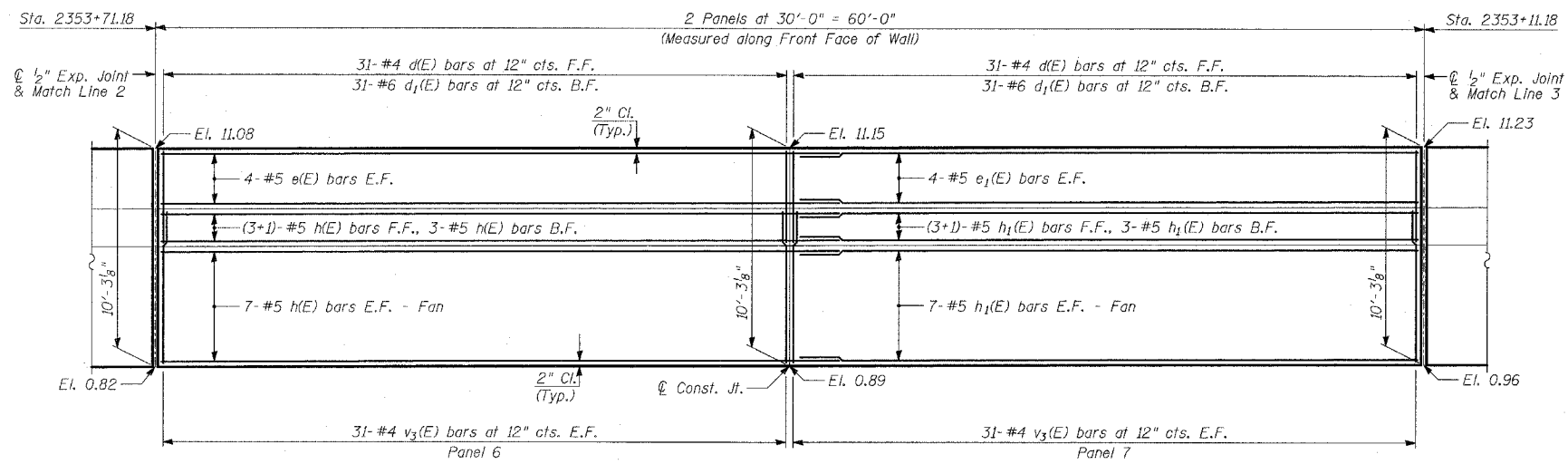


- NOTES:**
1. B.F. - denotes Back Face.
 2. E.F. - denotes Each Face.
 3. F.F. - denotes Front Face.
 4. Work this sheet with Sheets 5, 6 and 8 thru 15 of 21.
 5. Pile spacing measured along front face of wall.
 6. For Lap Splices, see Sheet 5 of 21.

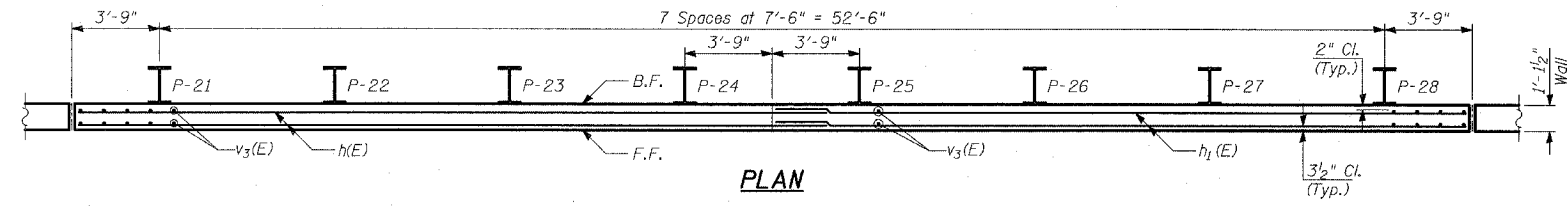
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)
RETAINING WALL ALONG STATE ST.
EXIT RAMP AT AIS #2
AIS #2 - PLAN AND ELEVATION
STA. 2355+21.18 TO STA. 2353+71.18
 S.N. 016-W960 DESIGNED BY: MI, DJR
 SCALE: N.T.S. DRAWN BY: DJR, TB
 DATE: MARCH 18, 2005 CHECKED BY: TD, MI

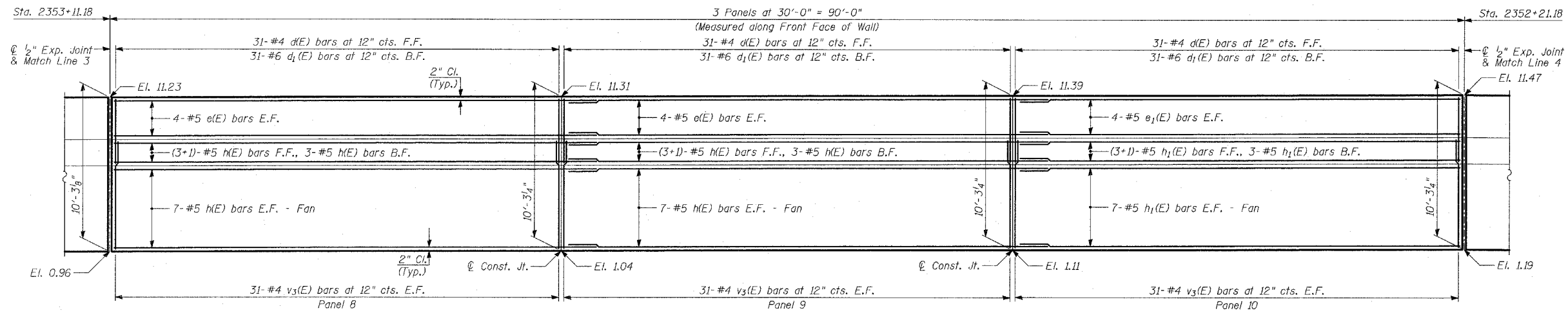
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	•	COOK	860	643
STA. 2200+00.00		TO STA. 2362+00.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
(1516.1, 1717 & 1818) R-8		62694		



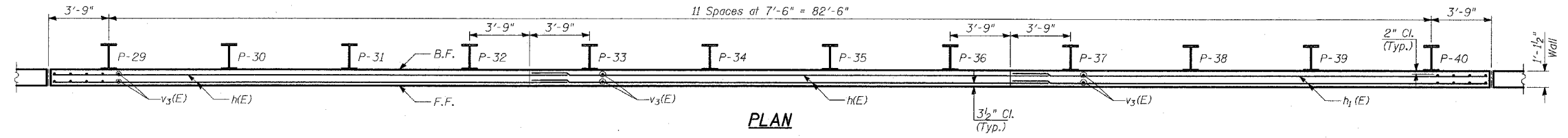
ELEVATION



PLAN



ELEVATION



PLAN

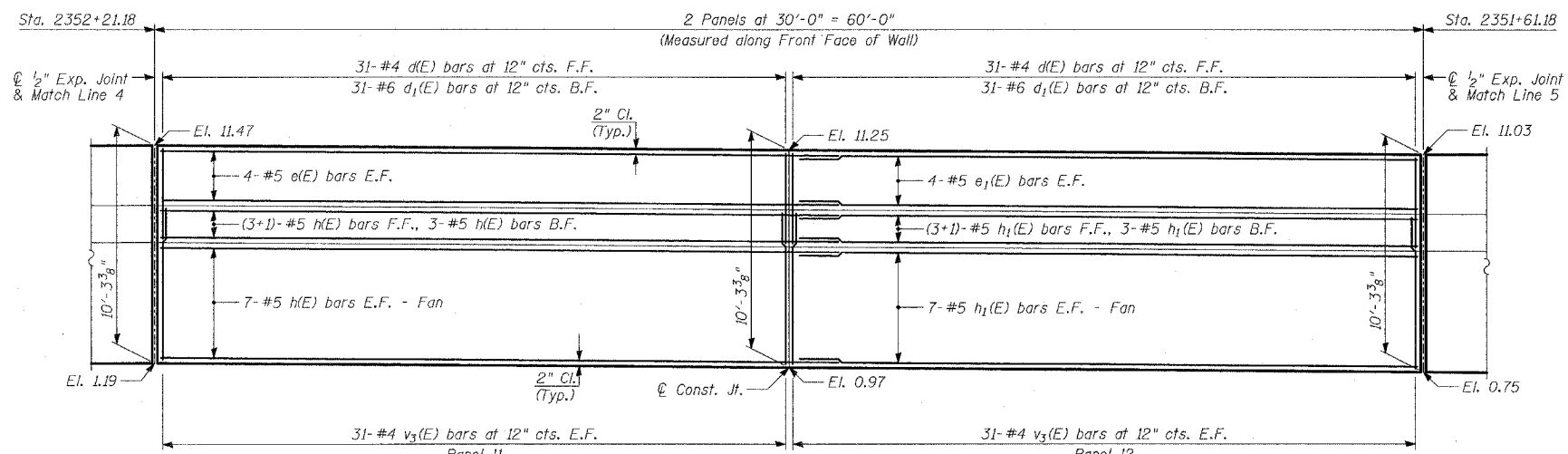
- NOTES:**
1. B.F. - denotes Back Face.
 2. E.F. - denotes Each Face.
 3. F.F. - denotes Front Face.
 4. Work this sheet with Sheets 5 and 9 thru 11 of 21.
 5. Pile spacing measured along front face of wall.
 6. For Lap Splices, see Sheet 5 of 21.

SHEET 3 OF 21

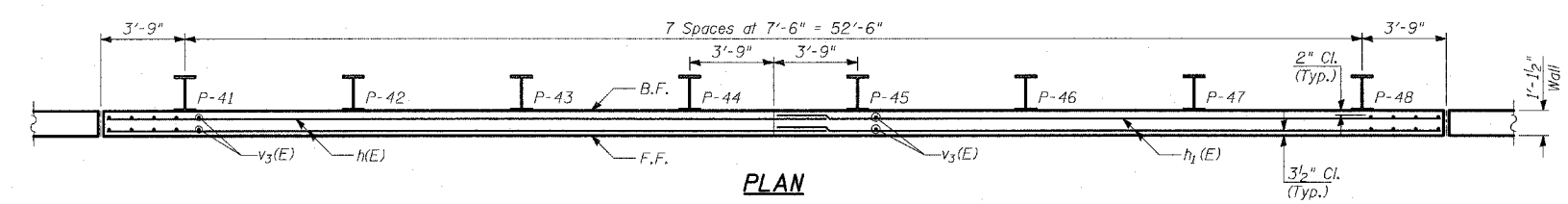
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94 (DAN RYAN EXPRESSWAY)
 RETAINING WALL ALONG STATE ST.
 EXIT RAMP AT AIS #2
 AIS #2 - PLAN AND ELEVATION
 STA. 2353+71.18 TO STA. 2352+21.18
 S.N. 016-W960 DESIGNED BY: MI, DJR
 SCALE: N.T.S. DRAWN BY: DJR, TB
 DATE: MARCH 18, 2005 CHECKED BY: TD, MI

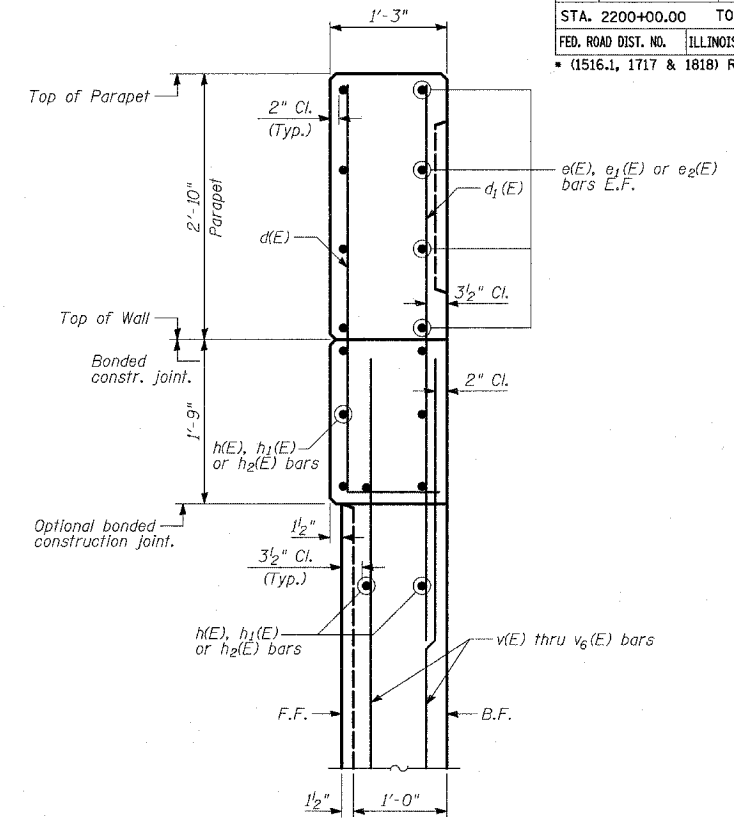
TYLIN INTERNATIONAL



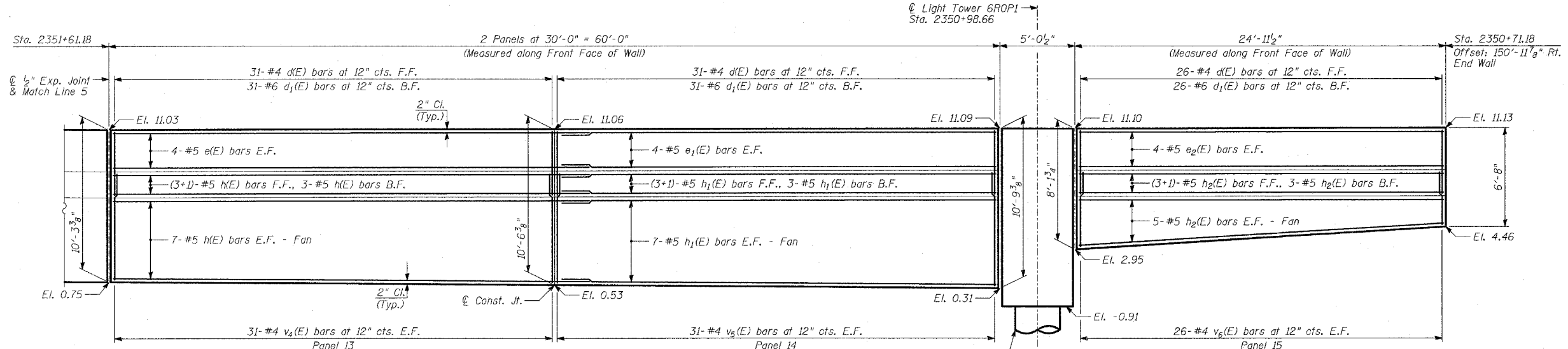
ELEVATION



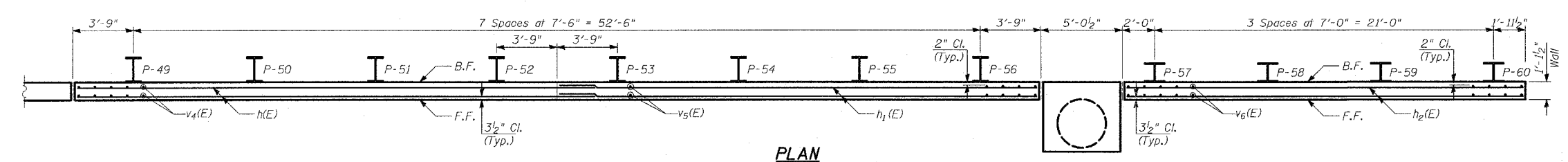
PLAN



FLUTED PARAPET DETAIL



ELEVATION



PLAN

NOTES:

1. B.F. - denotes Back Face.
2. E.F. - denotes Each Face.
3. F.F. - denotes Front Face.
4. Work this sheet with Sheets 5 and 7 thru 15 of 21.
5. Pile spacing measured along front face of wall.
6. For Lap Splices, see Sheet 5 of 21.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)
RETAINING WALL ALONG STATE ST.
EXIT RAMP AT AIS #2
AIS #2 - PLAN AND ELEVATION
STA. 2352+21.18 TO STA. 2350+71.18
 S.N. 016-W960 DESIGNED BY: MI, DJR
 SCALE: N.T.S. DRAWN BY: DJR, TB
 DATE: MARCH 18, 2005 CHECKED BY: TD, MI

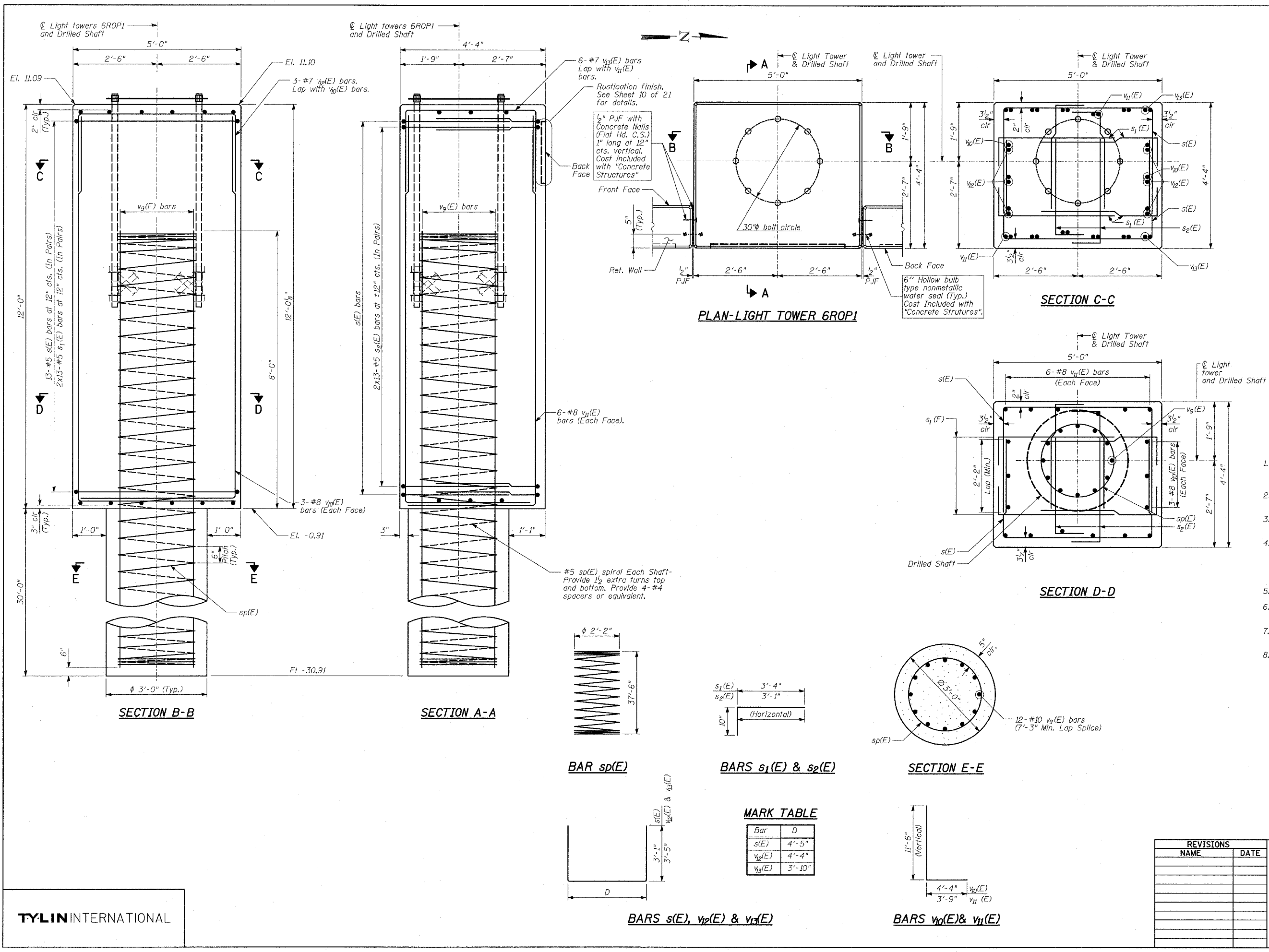
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
s(E)	26	#5	10'-7"	□
s ₁ (E)	52	#5	4'-2"	□
s ₂ (E)	52	#5	3'-11"	□
sp(E)	1	#5	37'-6"	
v ₉ (E)	12	#10	37'-6"	—
v ₁₀ (E)	6	#8	15'-10"	L
v ₁₁ (E)	12	#8	15'-3"	L
v ₁₂ (E)	3	#7	11'-2"	□
v ₁₃ (E)	6	#7	10'-8"	□
Reinforcement Bars, Epoxy Coated		POUND	4,160	
Structure Excavation		CU YD	14	
Concrete Structures		CU YD	10	
Protective Coat		SQ YD	13	
Rustication Finish		SQ FT	8	
Drilled Shaft in Soil 36"		FOOT	30	

Reinforcement bars designated (E) shall be epoxy coated.

NOTES:

- The design loads are based on AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals-2001.
- Drilled shafts shall be installed according to IDOT special provisions for "Drilled Shafts".
- Protective Coat shall be applied to exposed surfaces of the new concrete wall and tower base.
- 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 1/2 inch.
- For location of drilled shaft, see Sheet 4 of 21.
- Conduit is not shown for clarity. For location of conduit, see Sheet 8 of 21.
- Cost of anchor rod assembly, conduit and wires for grounding are included with "Concrete Structures".
- Minimum lap for spirals = 2'-6"



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MARK TABLE

Bar	D
s(E)	4'-5"
v ₁₀ (E)	4'-4"
v ₁₃ (E)	3'-10"

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94 (DAN RYAN EXPRESSWAY)
 RETAINING WALL ALONG STATE ST.
 EXIT RAMP AT AIS #2
 AIS #2
 LIGHT TOWER 6R0P1 FOUNDATION DETAILS
 S.N. 016-W960 DESIGNED BY: TD, MAF
 SCALE: N.T.S. DRAWN BY: MAF, DJR
 DATE: MARCH 18, 2005 CHECKED BY: MI

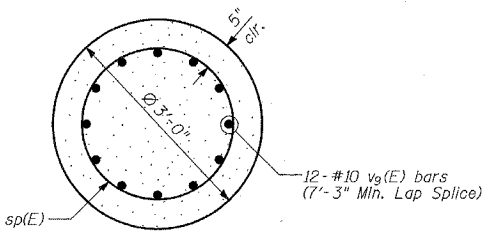
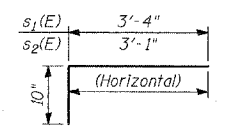
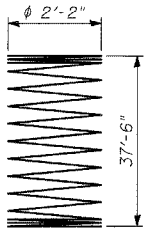
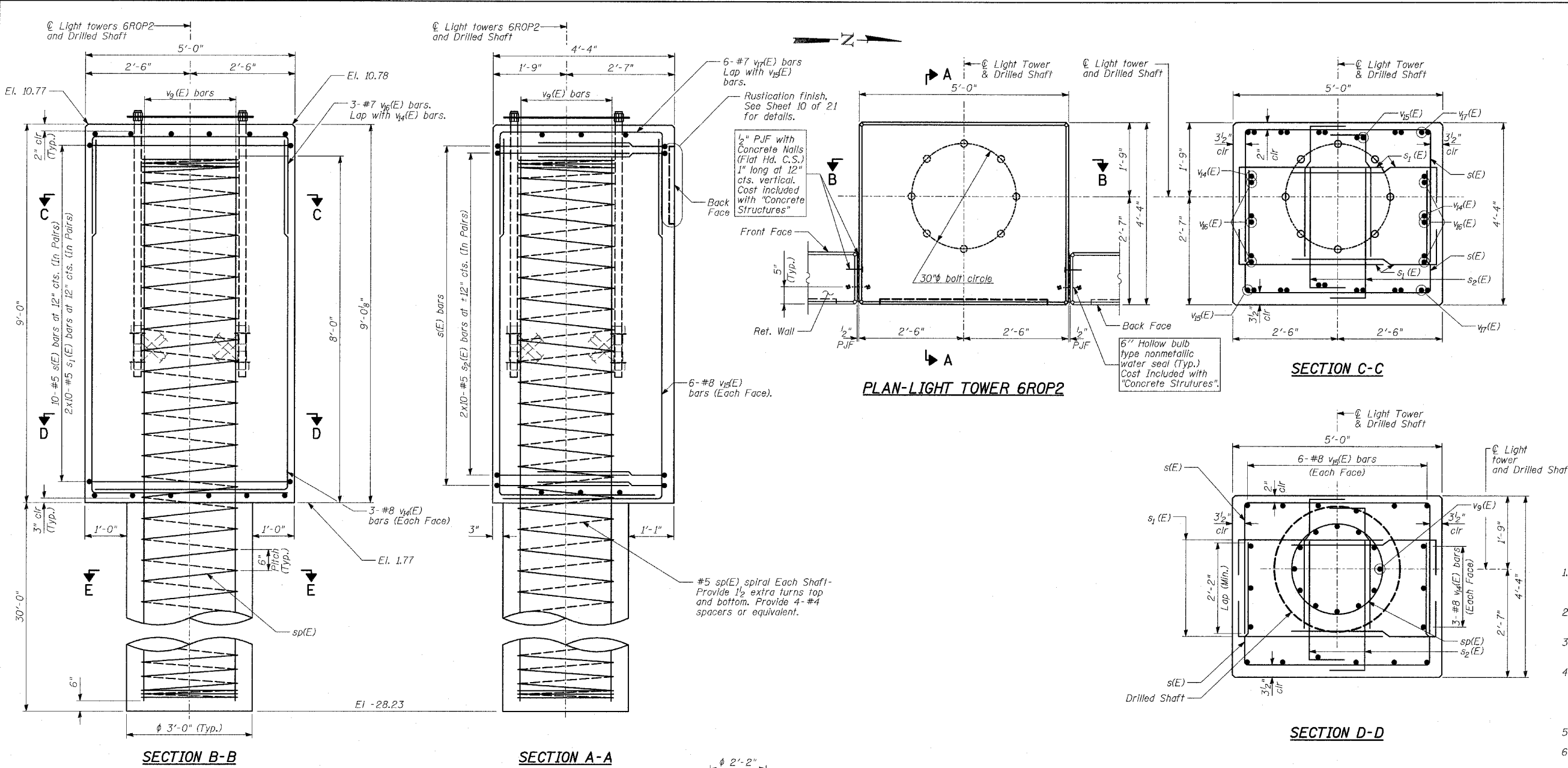
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
s(E)	20	#5	10'-7"	L
s ₁ (E)	40	#5	4'-2"	L
s ₂ (E)	40	#5	3'-11"	L
sp(E)	1	#5	37'-6"	
v ₉ (E)	12	#10	37'-6"	L
v ₁₄ (E)	6	#8	12'-10"	L
v ₁₅ (E)	12	#8	12'-3"	L
v ₁₆ (E)	3	#7	11'-2"	L
v ₁₇ (E)	6	#7	10'-8"	L
Reinforcement Bars, Epoxy Coated		POUND	3,850	
Structure Excavation		CU YD	10	
Concrete Structures		CU YD	8	
Protective Coat		SQ YD	10	
Rustication Finish		SQ FT	8	
Drilled Shaft in Soil 36"		FOOT	30	

Reinforcement bars designated (E) shall be epoxy coated.

NOTES:

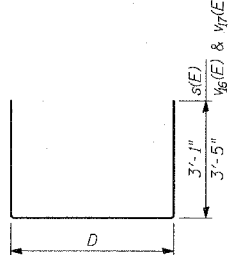
- The design loads are based on AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals-2001.
- Drilled shafts shall be installed according to IDOT special provisions for "Drilled Shafts".
- Protective Coat shall be applied to exposed surfaces of the new concrete wall and tower base.
- 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 1/2 inch.
- For location of drilled shaft, see Sheet 2 of 21.
- Conduit is not shown for clarity. For location of conduit, see Sheet 8 of 21.
- Cost of anchor rod assembly, conduit and wires for grounding are included with "Concrete Structures".
- Minimum lap for spirals = 2'-6"



BAR sp(E)

BARS s₁(E) & s₂(E)

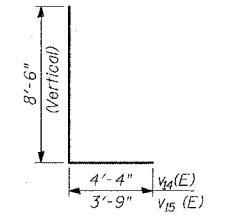
SECTION E-E



BARS s(E), v₁₆(E) & v₁₇(E)

MARK TABLE

Bar	D
s(E)	4'-5"
v ₁₆ (E)	4'-4"
v ₁₇ (E)	3'-10"



BARS v₁₄(E) & v₁₅(E)

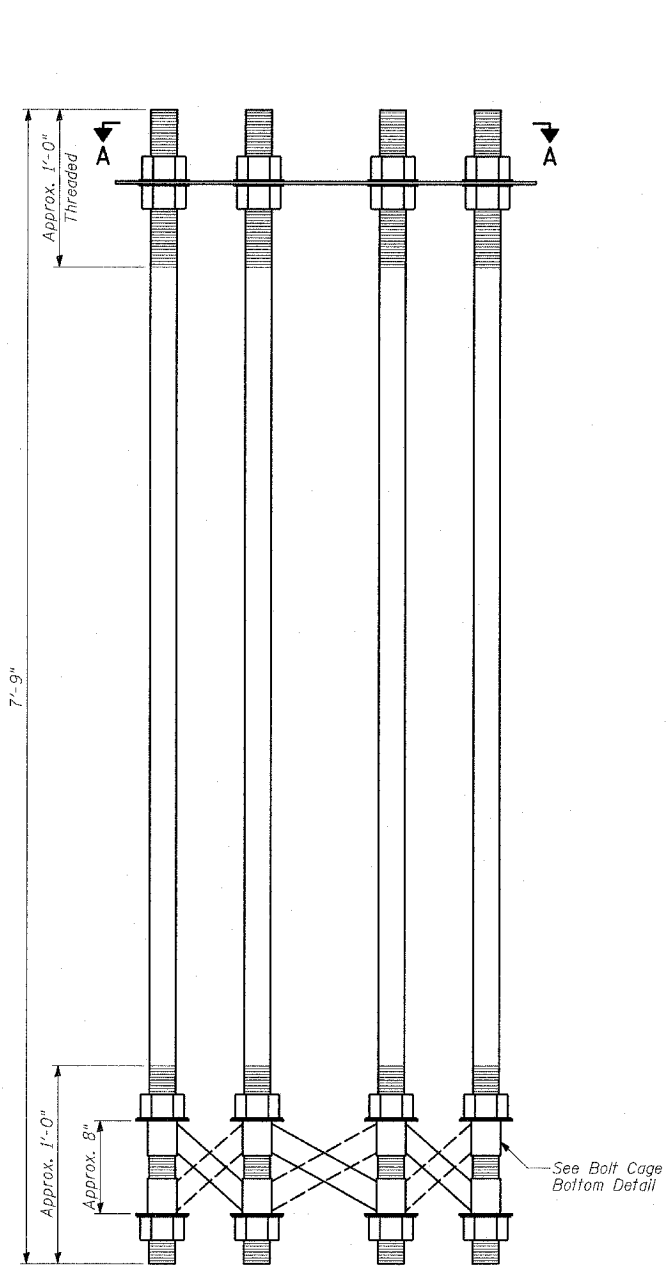
TYLIN INTERNATIONAL

REVISIONS	
NAME	DATE

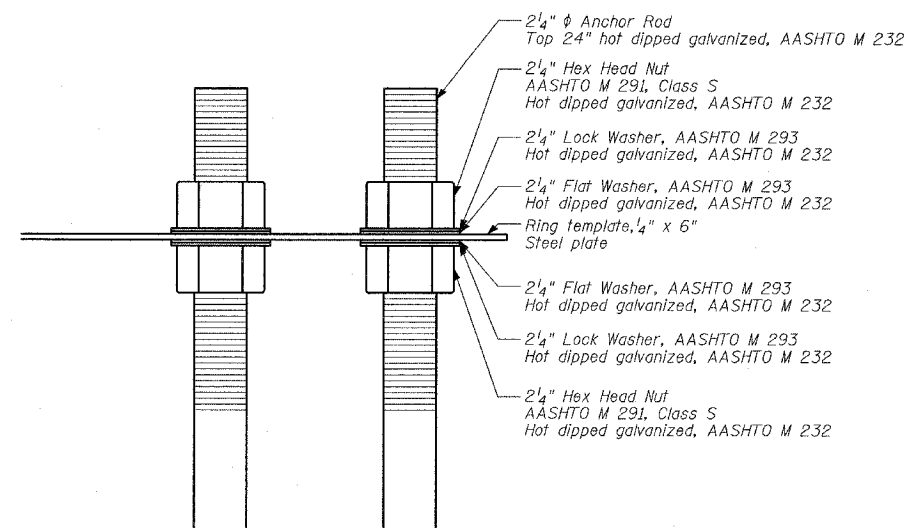
ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94 (DAN RYAN EXPRESSWAY)
 RETAINING WALL ALONG STATE ST.
 EXIT RAMP AT AIS #2
 AIS #2
 LIGHT TOWER 6ROP2 FOUNDATION DETAILS
 S.N. 016-W960
 SCALE: N.T.S.
 DATE: MARCH 18, 2005

DESIGNED BY: TD, MAF
 DRAWN BY: MAF, DJR
 CHECKED BY: MI

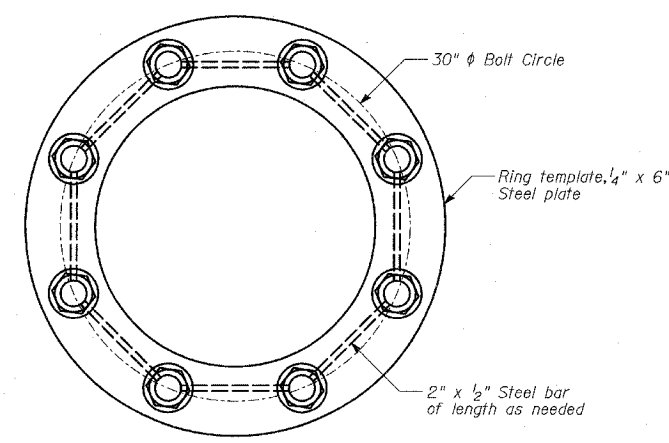
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94		COOK	860	648
STA. 2200+00.00		TO STA. 2362+00.00		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
(1516.1, 1717 & 1818) R-8				62694



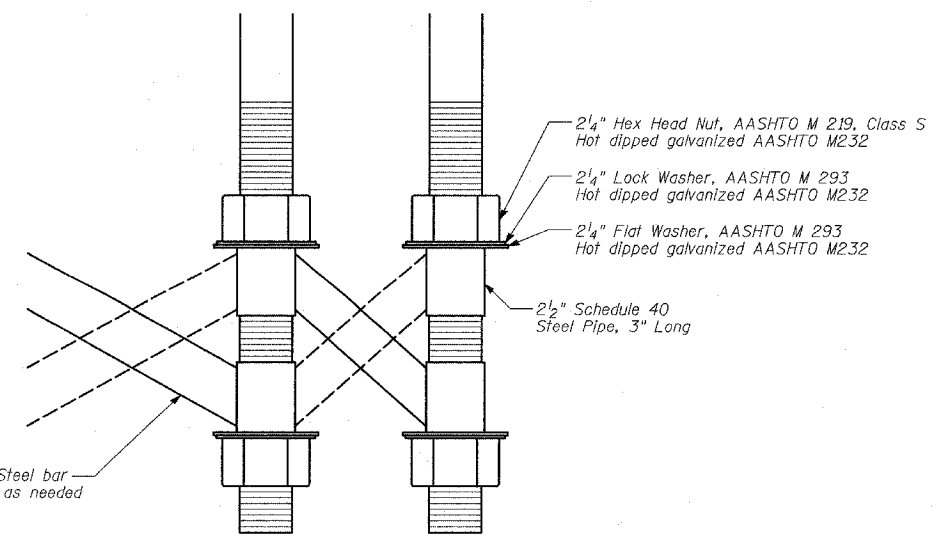
ANCHOR BOLT CAGE



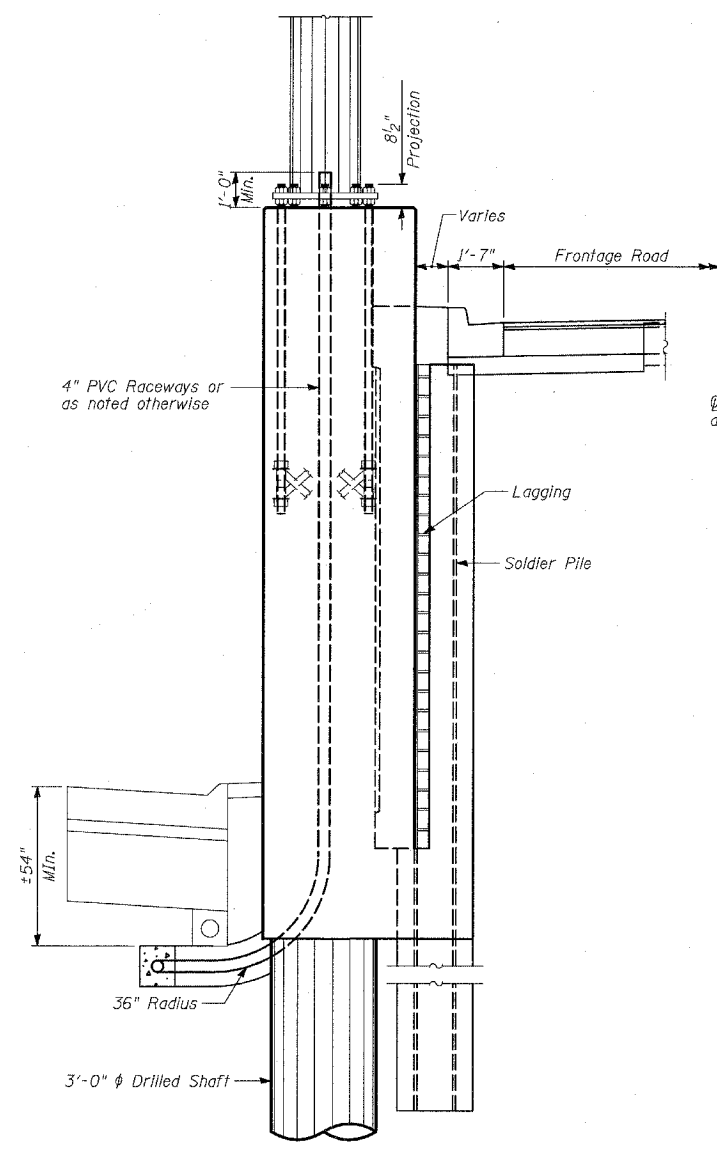
BOLT CAGE TOP



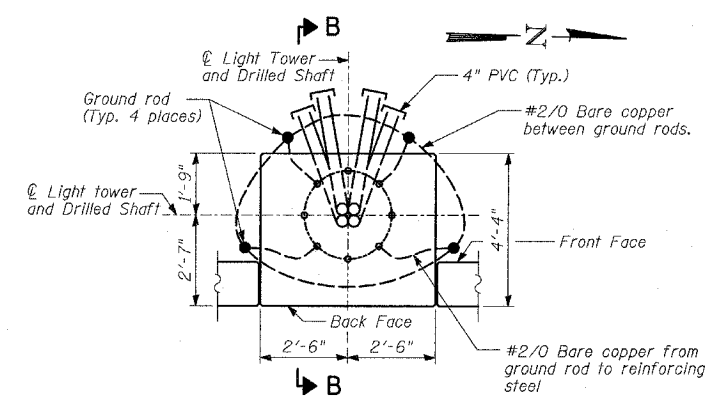
SECTION A-A



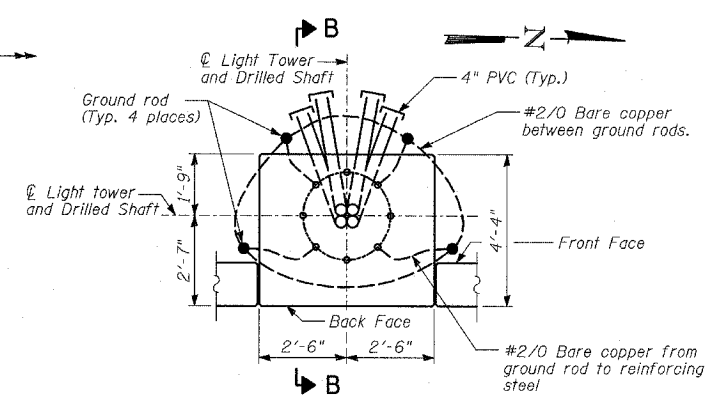
BOLT CAGE BOTTOM



SECTION B-B



PLAN - 6ROP1 CONDUIT PLACEMENT



PLAN - 6ROP2 CONDUIT PLACEMENT

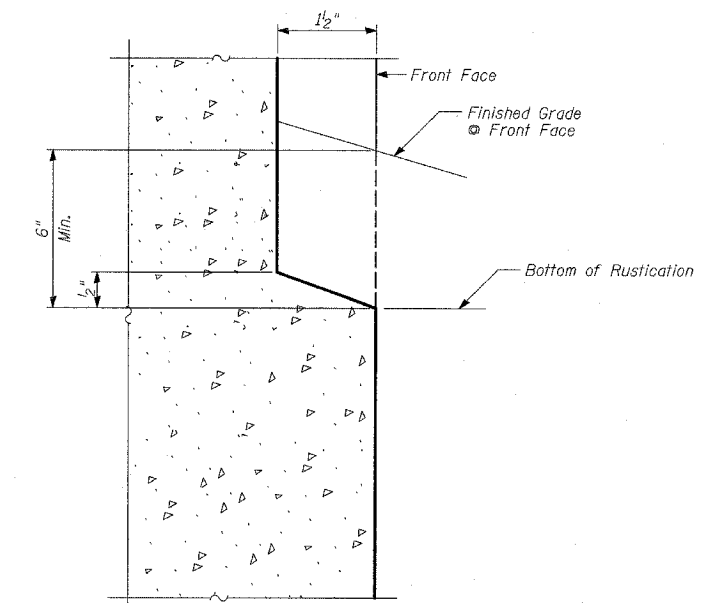
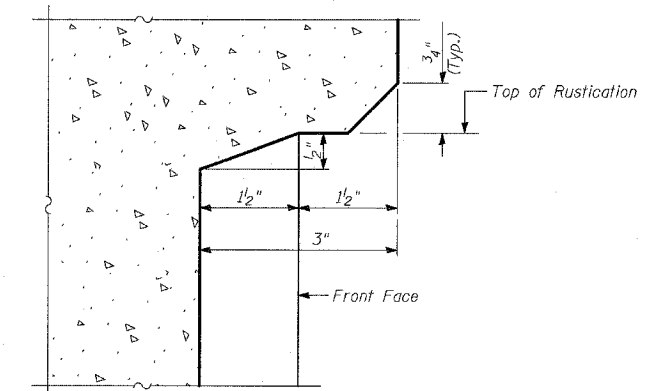
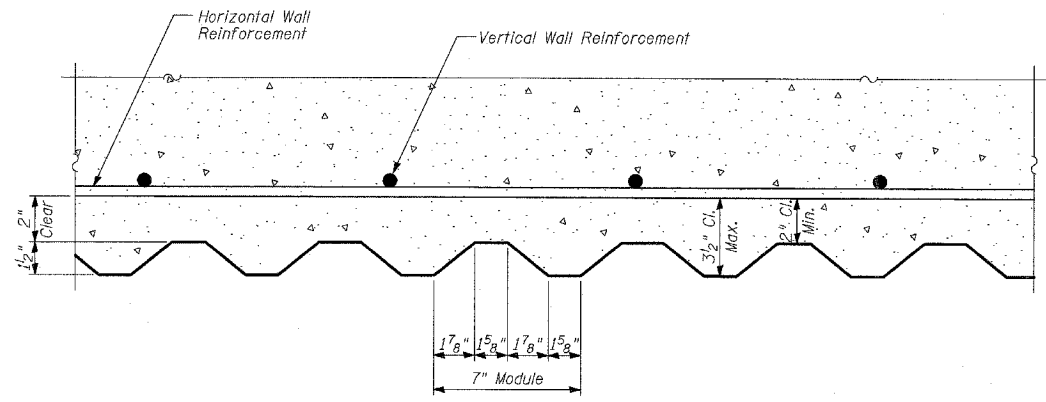
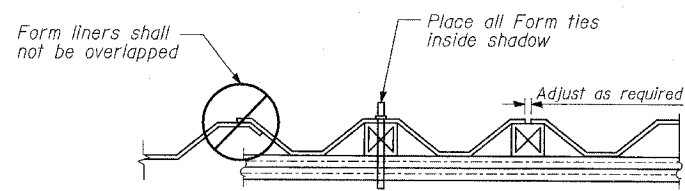
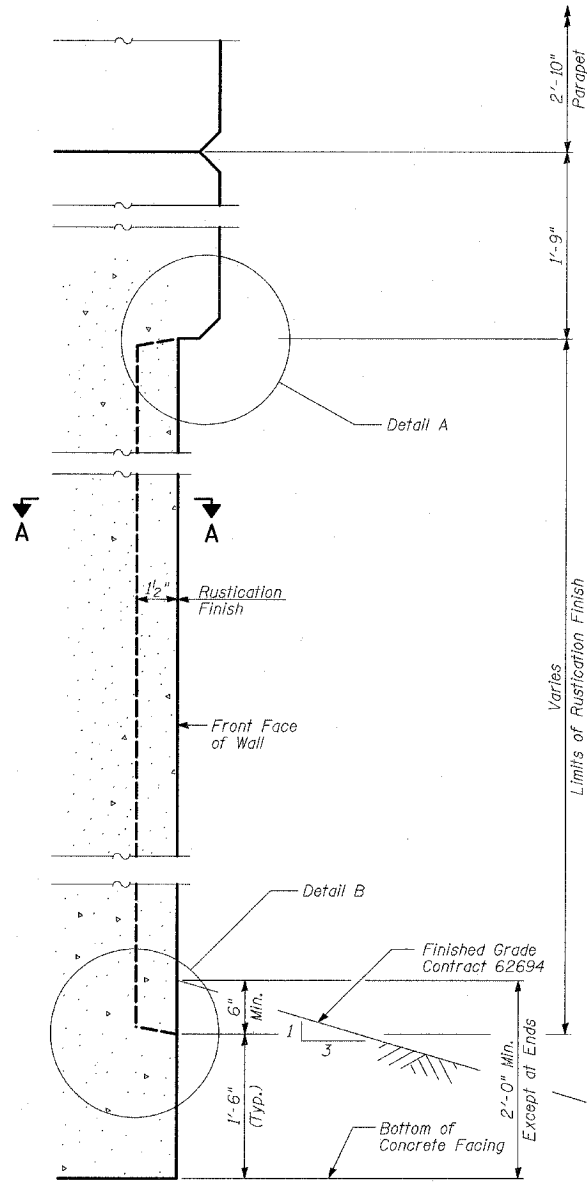
NOTES:

- 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.
- Anchor rod information shall be submitted for approval and shall be fully coordinated with tower manufacturer's requirements.
- The Anchor Rods shall be vertical. No adjustment shall be allowed after the foundation is placed.
- The gap between the foundation and the base plate shall be enclosed with a stainless steel screen fastened with a stainless steel band.
- The Light Tower shall not be erected until after the concrete has been cured according to Article 1020.13.
- Two anchor rods opposite each other shall have the anchor rod threads peened after nuts are installed.
- Refer to BE501 for details.

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REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)
RETAINING WALL ALONG STATE ST.
EXIT RAMP AT AIS #2
AIS #2
LIGHT TOWER DETAILS
 S.N. 016-W960 DESIGNED BY: TD, MAF
 SCALE: N.T.S. DRAWN BY: MAF, DJR
 DATE: MARCH 18, 2005 CHECKED BY: MI



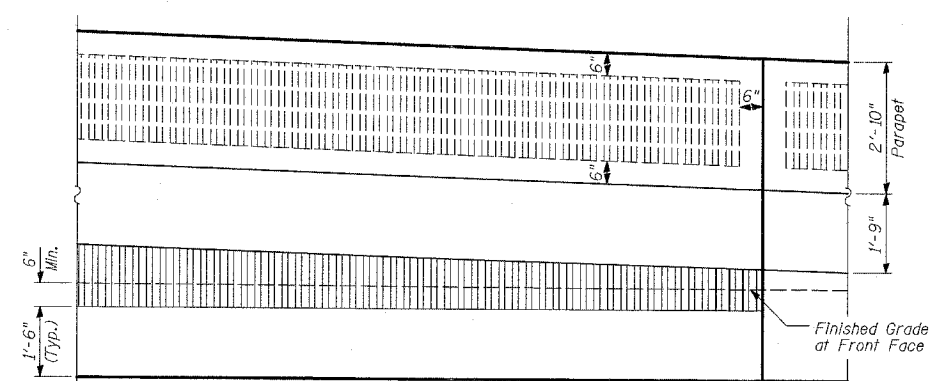
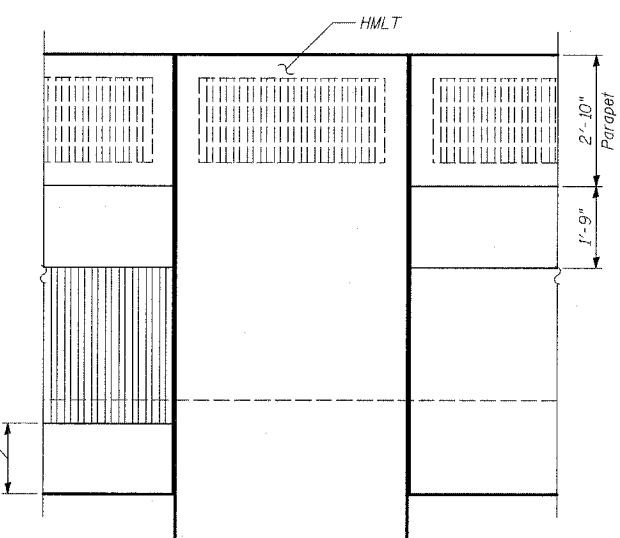
WALL DETAIL

SECTION A-A

DETAIL A

DETAIL B

No Rustication for Light Tower 6R0P2
1'-6" - For Light Tower 6R0P1



RUSTICATION DETAIL (At End Panel with Embankment)

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Rustication Finish	SQ FT	2,299

NOTES

- See Sheet 9 of 21 for expansion and construction joint details.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94 (DAN RYAN EXPRESSWAY)
 RETAINING WALL ALONG STATE ST.
 EXIT RAMP AT AIS #2
 AIS #2
 RUSTICATION DETAILS
 S.N. 016-W940
 SCALE: N.T.S.
 DATE: MARCH 18, 2005

DESIGNED BY: MI, DJR
 DRAWN BY: DJR, MAF
 CHECKED BY: TD, MI

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

BORING LOG SB A2-01

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: 7.77 ft
 North: 1856817.25 ft
 East: 1177515.72 ft
 Station: 2354+55
 Offset: 165.77' RT

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	SPT Values (blows/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	N Values (blows/6 in)	Qu (tsf)	Moisture Content (%)	
7.0	2-inch thick ASPHALT over 8-inch thick CONCRETE --PAVEMENT-- Loose, brown SAND --FILL--	0		1	8 4 2	NP	23			0		11	5 9 10	5.74 B	11	
3.3	Stiff to very stiff, gray CLAY	5		2	1 3 4	NP	22			30		12	3 7 10	4.84 B	13	
				3	1 2 3		1.64 B									
				4	1 4 5		2.13 B					13	3 8 11	3.69 B	14	
				5	2 3 6		3.28 B									
				6	7 9 16		2.38 B					14	17 29 33	4.50 P	10	
8.2	Hard, gray SILTY CLAY			7	4 8 13		4.84 B									
				8	4 8 18		4.50 P					15	15 20 23	6.72 S	11	
				9	6 10 12		6.97 B									
				10	7 11 14		5.74 B					16	59 44	NP	8	
								-39.2	Very dense, gray, gravelly SILT							
								-41.0	Boring terminated at 48.80 ft							

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	04-15-2004	Complete Drilling	04-15-2004	While Drilling	▽	47.50 ft	
Drilling Contractor	Patrick Drilling	Drill Rig	CME 75 TMR	At Completion of Drilling	▽	DRY	
Driller	K&J	Logger	N. Davis	Time After Drilling	NA		
Drilling Method	3.25" ID, HSA; Boring backfilled with bentonite upon completion	Checked by	MLS	Depth to Water	▽	NA	


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

TYLIN INTERNATIONAL

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94 (DAN RYAN EXPRESSWAY)
 RETAINING WALL ALONG STATE ST.
 EXIT RAMP AT AIS #2
 AIS #2
 BORING LOG SB A2-01
 S.N. 016-W960 DESIGNED BY: DJR
 SCALE: N.T.S. DRAWN BY: DJR
 DATE: MARCH 18, 2005 CHECKED BY: TD


03/25/2005 11:14:44 AM


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 A2-04
 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: 8.02 ft
 North: 1856592.03 ft
 East: 1177521.82 ft
 Station: 2352+30
 Offset: 166.61' RT

Page 1 of 2


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 Lombard, IL 60148
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 Fax: 630 953-9938

BORING LOG SB A2-04
 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: 8.02 ft
 North: 1856592.03 ft
 East: 1177521.82 ft
 Station: 2352+30
 Offset: 166.61' RT

Page 2 of 2

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	SPT Values (blows/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	N Values (blows/6 in)	Qu (tsf)	Moisture Content (%)
11.2	2-inch thick ASPHALT over 8-inch thick CONCRETE Loose, brown SAND	1		8 5 3	NP	11		11		11		5 8 10	5.74 B	12	
4.0	Stiff to very stiff, gray CLAY	2		6 2 3	NP	20		30		12		6 10 11	5.74 B	12	
		3		2 2 2		16									
		4		3 4 5		18		35		13		5 8 9	5.00 B	13	
		5		2 4 6		18									
		6		3 4 7		18		40		14		14 20 26	2.95 S	12	
		7		4 7 13		19									
10.0	Very stiff to hard, gray SILTY CLAY	8		11 13 16		12		45		15		16 20 30	7.46 B	12	
		9		5 9 13		12									
		10		5 7 11		12		50		16		8 50 75	NP	12	

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	SPT Values (blows/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	N Values (blows/6 in)	Qu (tsf)	Moisture Content (%)
	Boring terminated at 49.42 ft														

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	04-14-2004	Complete Drilling	04-15-2004	While Drilling	▽	DRY	
Drilling Contractor	Patrick Drilling	Drill Rig	CME 75 TMR	At Completion of Drilling	▽	DRY	
Driller	K&J	Logger	N. Davis	Time After Drilling	NA		
Checked by	MLS	Depth to Water	▽	NA			
Drilling Method 3.25" ID HSA; Boring backfilled with bentonite upon completion				The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.			

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	04-14-2004	Complete Drilling	04-15-2004	While Drilling	▽	DRY	
Drilling Contractor	Patrick Drilling	Drill Rig	CME 75 TMR	At Completion of Drilling	▽	DRY	
Driller	K&J	Logger	N. Davis	Time After Drilling	NA		
Checked by	MLS	Depth to Water	▽	NA			
Drilling Method 3.25" ID HSA; Boring backfilled with bentonite upon completion				The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.			

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REVISIONS	
NAME	DATE

SHEET 19 OF 21

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)
RETAINING WALL ALONG STATE ST.
EXIT RAMP AT AIS #2
AIS #2
BORING LOG SB A2-04

S.J. 016-W960 DESIGNED BY: DJR
 SCALE: N.T.S. DRAWN BY: DJR
 DATE: MARCH 18, 2005 CHECKED BY: TD

03/25/2005 11:41:45 AM

Wang Engineering, INC.
 Consulting Geotechnical and Environmental Engineers
 wangeng3@wangeng.com
 1145 Main Street
 Lombard, IL 60148
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BORING LOG SB A2-06 Page 1 of 2

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

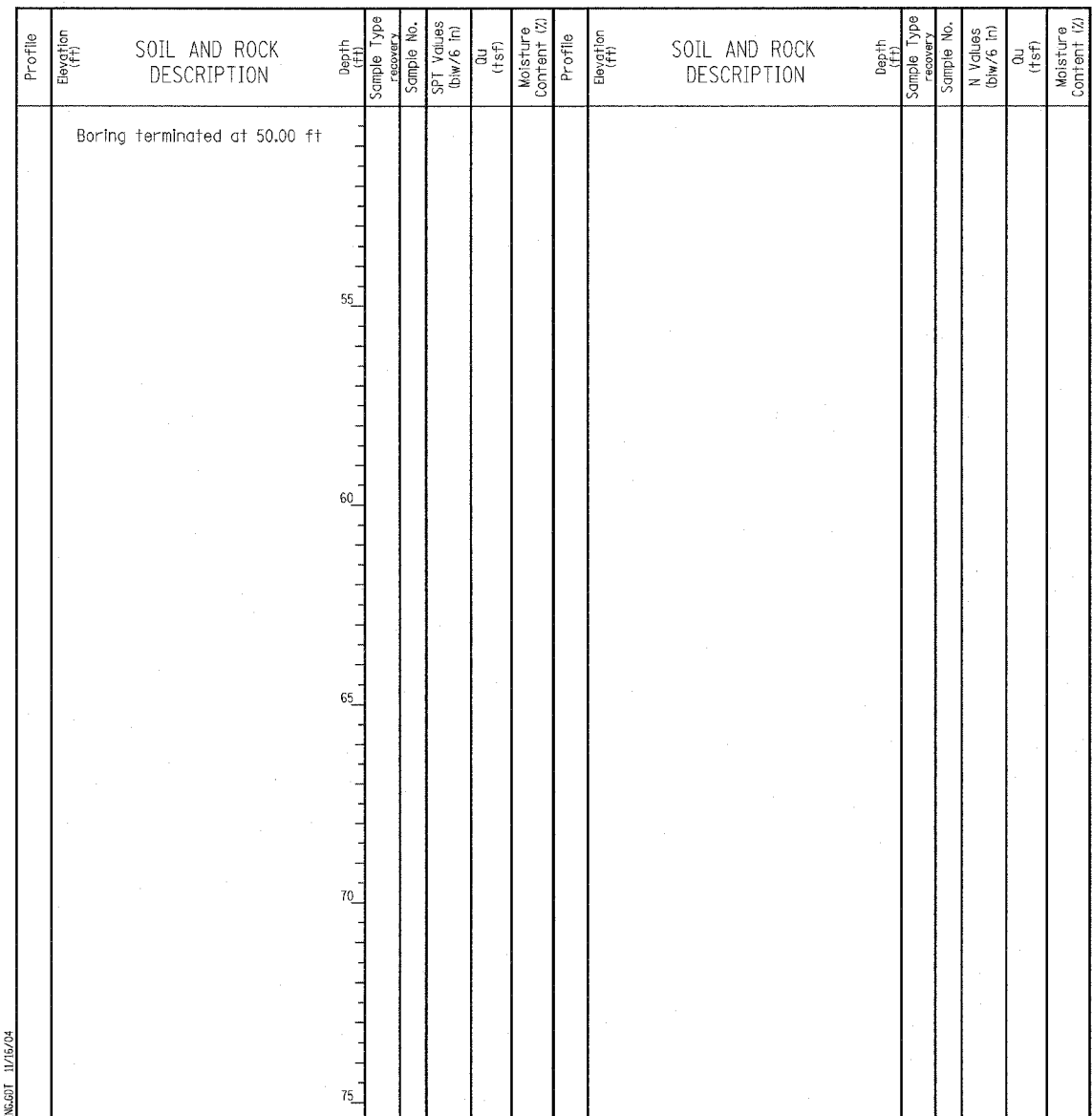
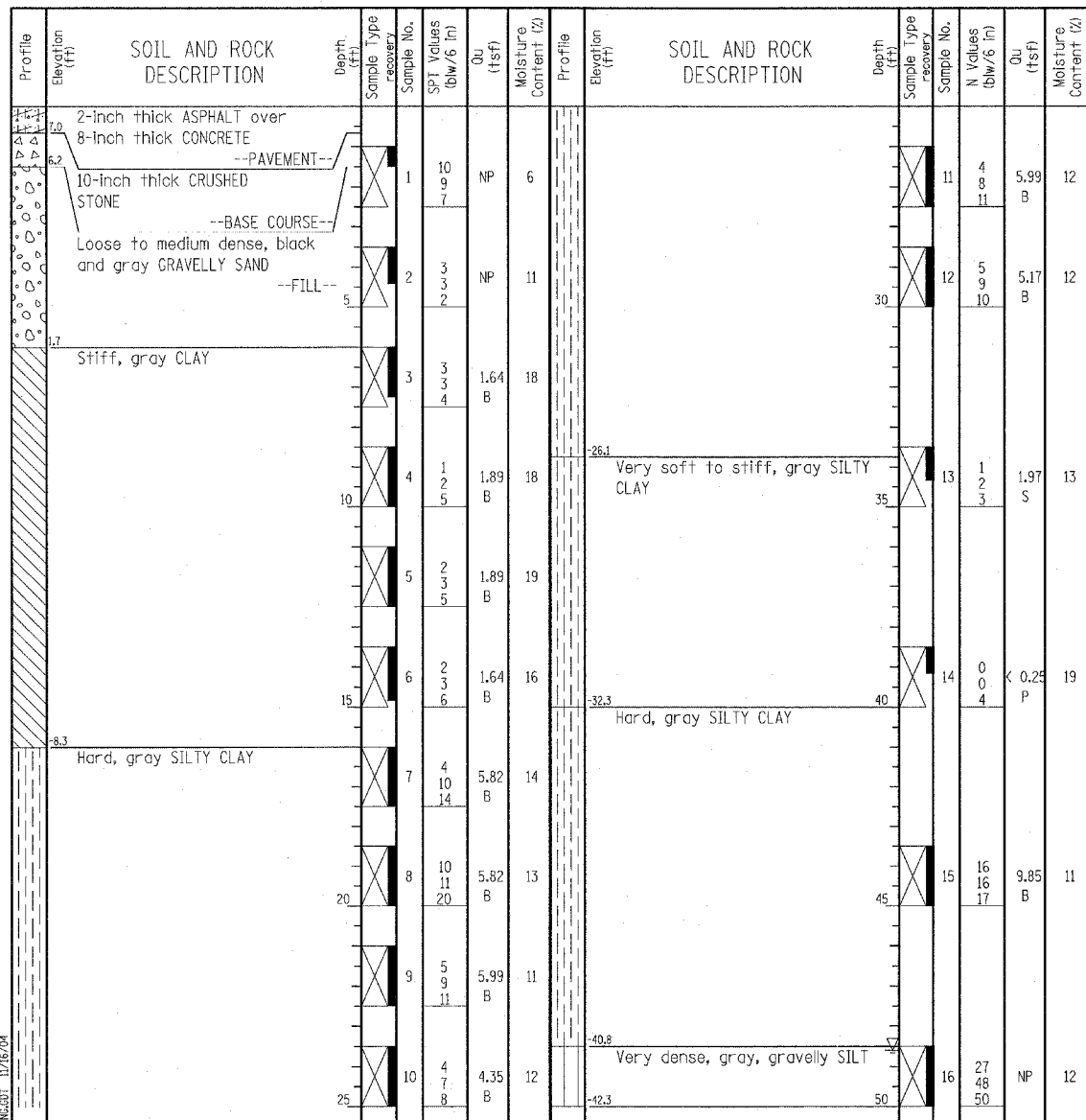
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 East: 1177524.05 ft
 Station: 2350+83
 Offset: 165.43' RT

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 A2-06 Page 2 of 2

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: 7.70 ft
 North: 1856445.81 ft
 East: 1177524.05 ft
 Station: 2350+83
 Offset: 165.43' RT



GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	04-14-2004	Complete Drilling	04-14-2004	While Drilling	▽	48.60 ft	
Drilling Contractor	Patrick Drilling	Drill Rig	CME 75 TMR	At Completion of Drilling	▽	DRY	
Driller	K&J	Logger	N. Davis	Time After Drilling	NA		
Checked by	MLS	Depth to Water	▽	NA			
Drilling Method 3.25" ID HSA; Boring backfilled with bentonite upon completion							
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.							

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	04-14-2004	Complete Drilling	04-14-2004	While Drilling	▽	48.60 ft	
Drilling Contractor	Patrick Drilling	Drill Rig	CME 75 TMR	At Completion of Drilling	▽	DRY	
Driller	K&J	Logger	N. Davis	Time After Drilling	NA		
Checked by	MLS	Depth to Water	▽	NA			
Drilling Method 3.25" ID HSA; Boring backfilled with bentonite upon completion							
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.							

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REVISIONS	
NAME	DATE

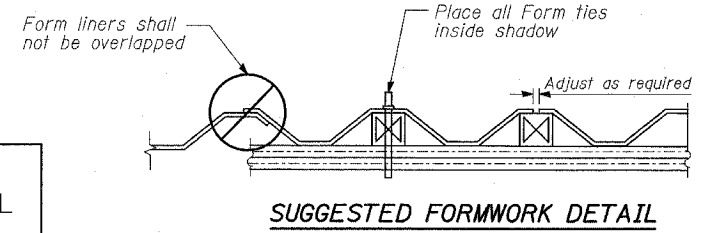
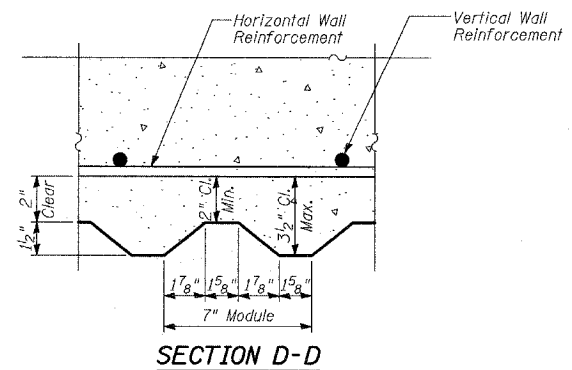
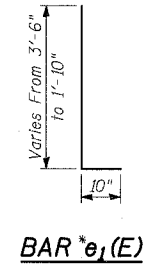
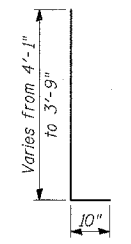
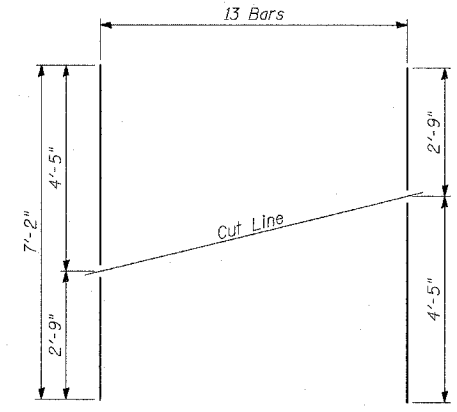
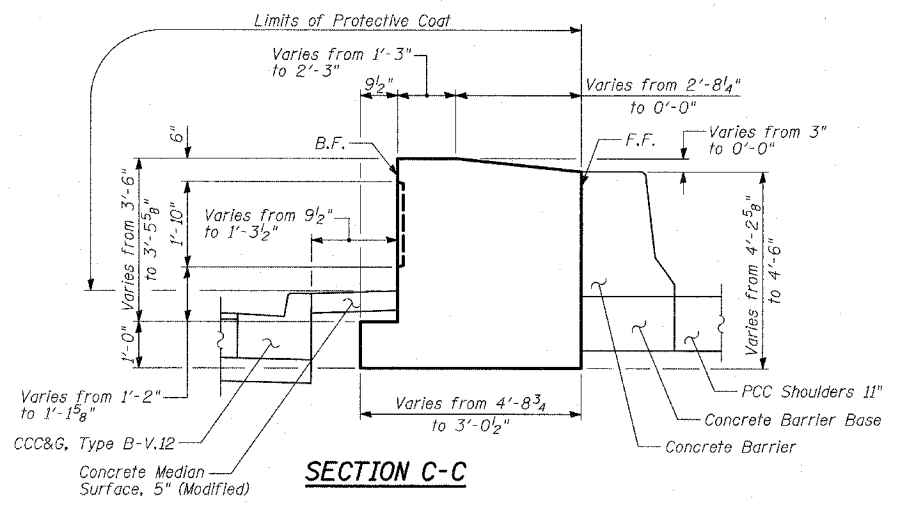
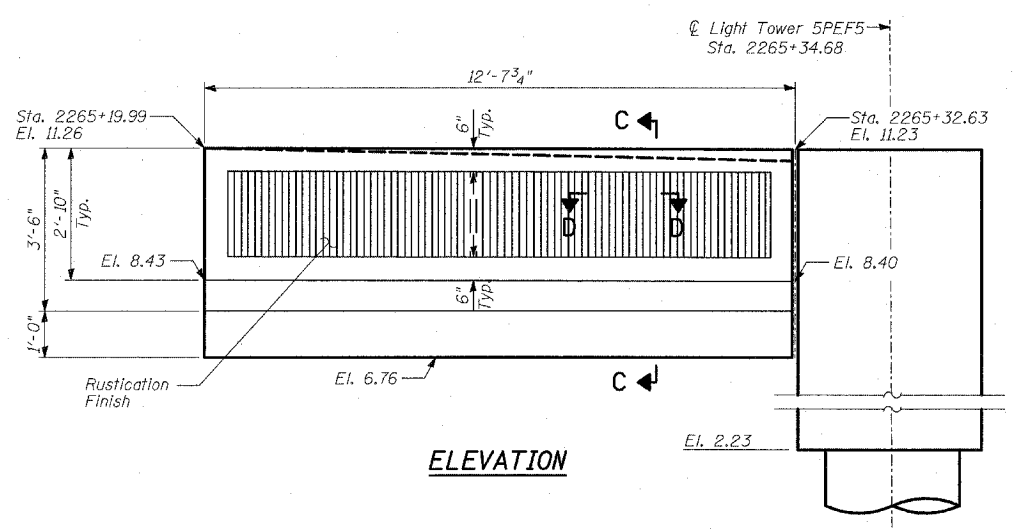
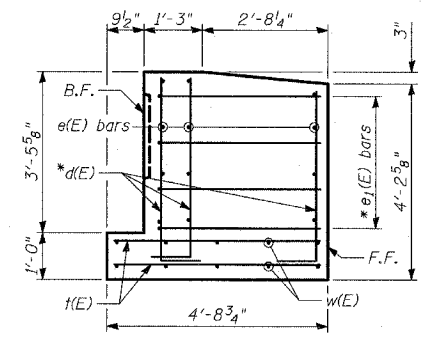
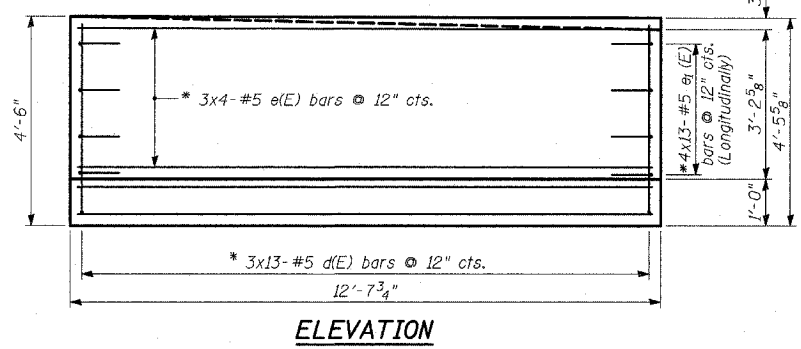
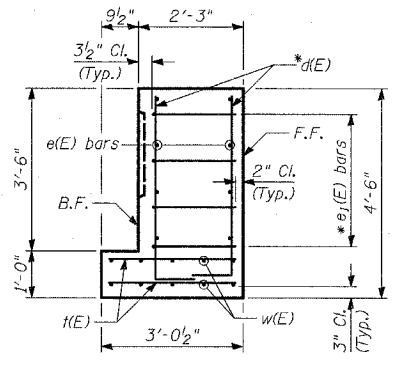
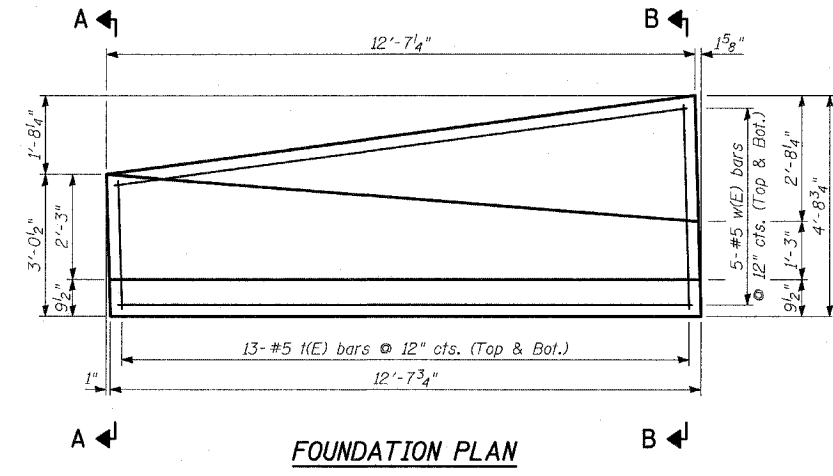
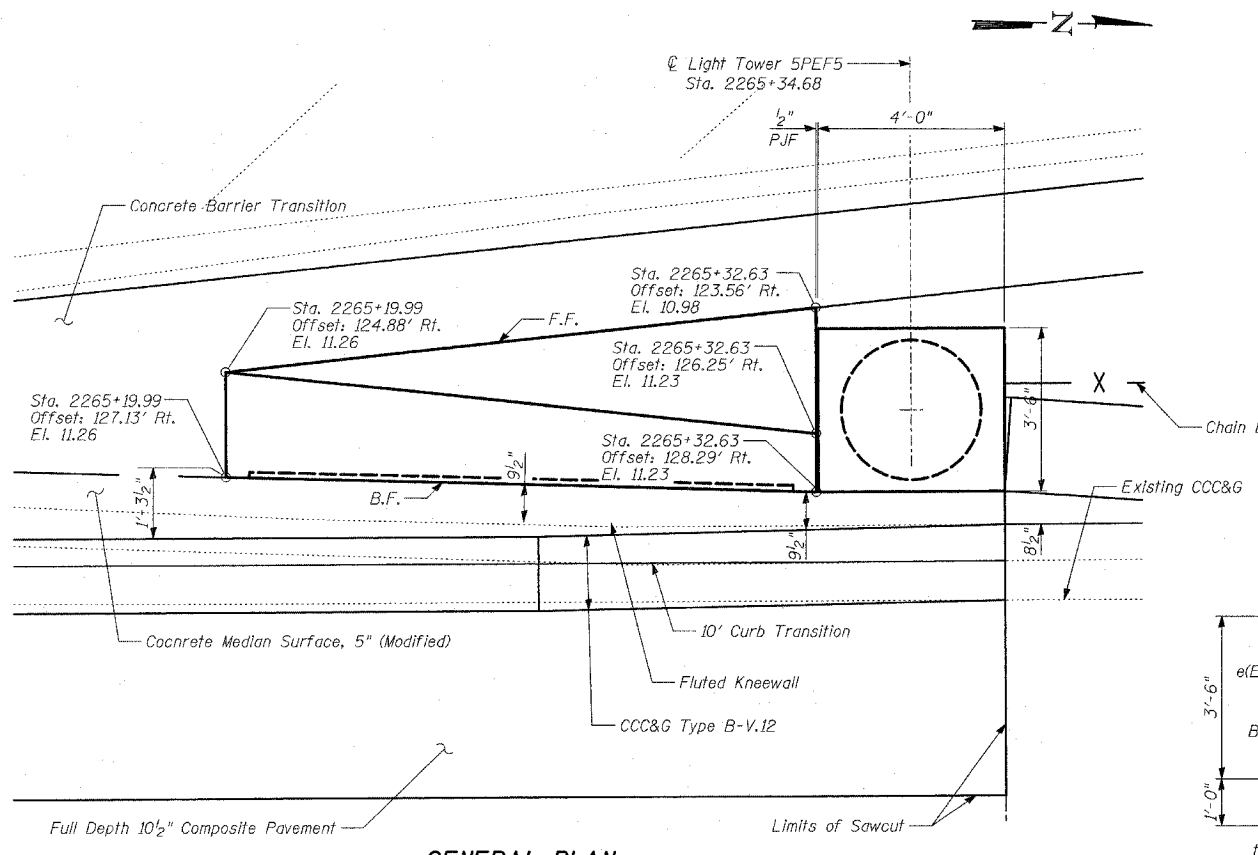
ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94 (DAN RYAN EXPRESSWAY)
 RETAINING WALL ALONG STATE ST.
 EXIT RAMP AT AIS #2
 AIS #2
 BORING LOG SB A2-06
 S.N. 016-W960
 SCALE: N.T.S.
 DATE: MARCH 18, 2005

DESIGNED BY: DJR
 DRAWN BY: DJR
 CHECKED BY: TD

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d(E)	39	#5	4'-11"	J
e(E)	12	#5	12'-4"	—
e ₁ (E)	52	#5	4'-4"	└
t(E)	13	#5	7'-2"	—
w(E)	10	#5	12'-4"	—
Reinforcement Bars, Epoxy Coated		POUND	820	
Protective Coat		SQ YD	9	
Concrete Structures		CU YD	8	
Structure Excavation		CU YD	9	
Rustication Finish		SQ FT	24	

Reinforcement bars designated (E) shall be epoxy coated.



LOADING

Net Allowable Soil Bearing Pressure =

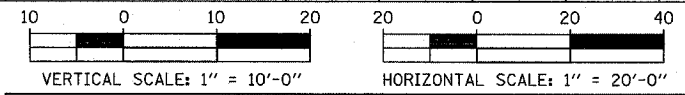
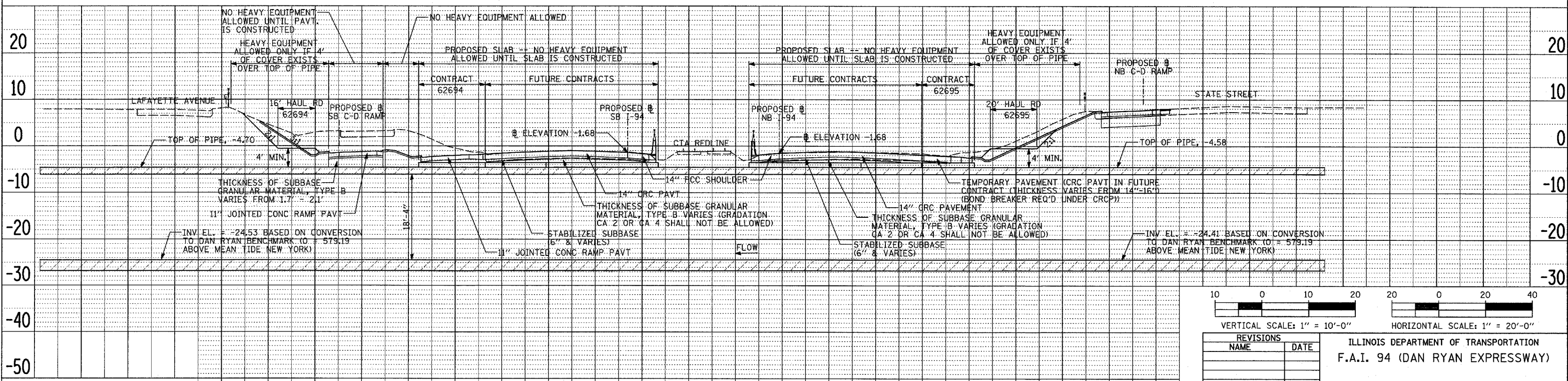
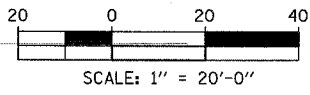
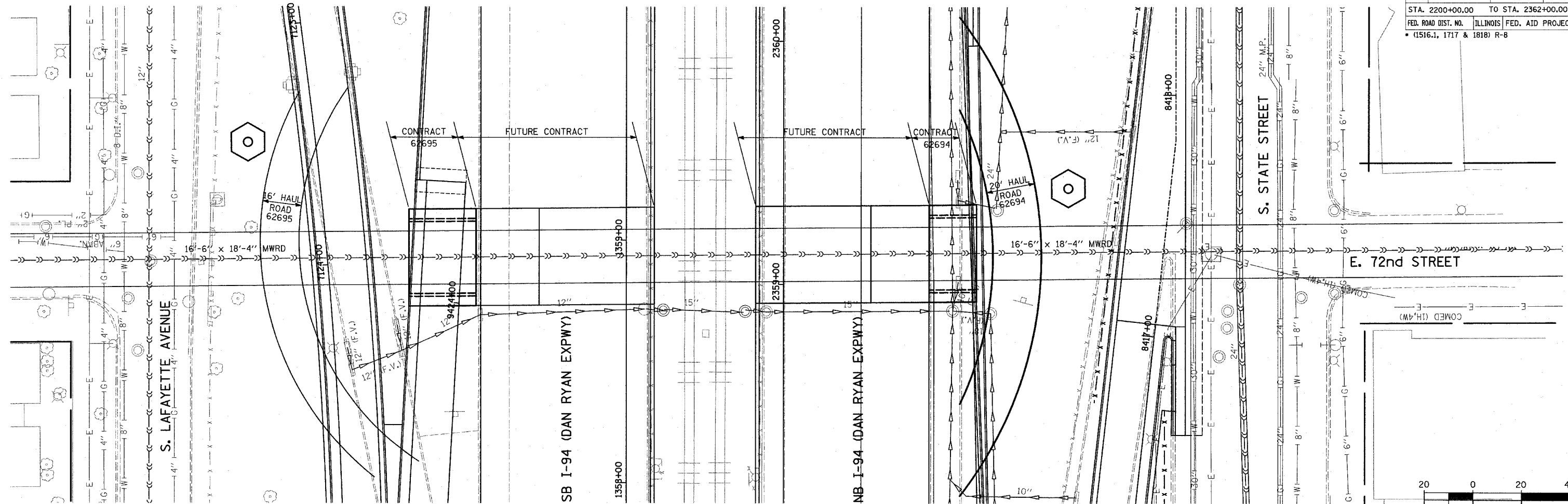
NOTES:

- Work this Sheet with Roadway Plans and HMLT SPEF5 Foundation Details Sheet 2 of 3.
- Bars indicated thus 3x4-#5 etc. indicates 3 faces of bars with 4 bars per face.

B.F. - denotes Back Face.
E.F. - denotes Each Face.
F.F. - denotes Front Face.

REVISIONS	
NAME	DATE

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	*	COOK	860	667
STA. 2200+00.00 TO STA. 2362+00.00				
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
* (1516.1, 1717 & 1818) R-8		62694		



REVISIONS	
NAME	DATE

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

**HAUL ROAD DETAIL AT
 MWRD SEWER PROTECTION SLAB
 AT 72ND STREET**

SCALE:
 DATE: MARCH 18, 2005 DRAWN BY: MPG
 CHECKED BY: TGB

TYLIN INTERNATIONAL

DATE
BY
PLAN
NO. OF SHEETS
NO. OF PAGES
NO. OF FIGS.
NO. OF FIG. PAGES
NO. OF FIG. SHEETS
NO. OF FIG. PAGES
NO. OF FIG. SHEETS

DATE
BY
PROFILE
NO. OF SHEETS
NO. OF PAGES
NO. OF FIGS.
NO. OF FIG. PAGES
NO. OF FIG. SHEETS

03/25/2005 11:45:40 AM

MAINLINE EXISTING SIGN SCHEDULE

SIGN NO.	LOCATION	SIGN INFORMATION			REMAIN IN PLACE	REMOVE AND REINSTALL	REMOVE	RELOCATE SIGN PANEL	WOOD POST (FT)	SIGN DESCRIPTION
		STATION	OFFSET	MOUNTING						
1	NB I-57	199+99	13.9' RT	LIGHT POLE		1			W4-1R	
2	NB I-57	206+58	25.5' RT	LIGHT POLE	1				M3-1 (INTERSTATE) (NORTH), M1-1 (57)	
3	NB I-57	208+45	30.0' RT	WOOD POSTS	1				PARNELL AVE 532 W	
4	NB I-57	214+94	OVERHEAD	TRUSS			*		INTERSTATE 94 WEST RYAN EXPY 2 ARROWS, INTERSTATE 94 E. BISHOP FORD FWY INDIANA & ARROW, R2-1(55), R2-1(55)	
5	NB I-57	226+44	OVERHEAD	TRUSS			*		INTER. 94 WEST RYAN EXPY 2 ARROWS, INTERSTATE 94 EAST BISHOP FORD FWY INDIANA & ARROW, R2-1 (55), R2-1 (55)	
6	NB I-57	231+60	36.5' RT	WOOD POSTS	1				WENTWORTH AVE 200W	
7	NB I-57	232+67	9.1' RT	WOOD POST	1				W12-1	
8	NB I-57	246+36	10.8' RT	LIGHT POLE		1			W4-3L	
9	NB I-57	249+05	9.9' RT	LIGHT POLE	1				I-57 ENDS	
10	NB I-57	249+31	43.4' LT	WOOD POST	1				I-57 ENDS	
11	WB X-CONNECTOR	338+38	21.8' RT	LIGHT POLE	1				ACCIDENT INVESTIGATION SITE 1/2 MILE LEFT	
12	WB X-CONNECTOR	333+55	OVERHEAD	TRUSS	1				EXIT 355 111TH ST 2 1/4 MILES, EXIT 357 ILLINOIS 1 HALSTED ST 1/2 MILE	
13	WB X-CONNECTOR	420+83	37.6' RT	WOOD POSTS	1				STATE ST	
14	SB I-94	1152+15	16.0' LT	WOOD POST	1				W12-1	
15	SB I-94	1144+08	36.0' LT	BRIDGE ABUTMT.	1				MICHIGAN AVE	
16	NB-I94	2005+65	35.5' LT	LIGHT POLE	1				M3-3 (INTERSTATE) (SOUTH), M1-1 (94), M5-2 (INTERSTATE)	
17	NB-I94	2007+95	OVERHEAD	TRUSS	1				EXIT 63 INTERSTATE 57 SOUTH MEMPHIS EXIT (ARROW) ONLY, INTERSTATE 94 WEST RYAN EXPWY CHICAGO LOOP & 2 ARROWS	
18	NB-I94	2010+33	17.2' LT	WOOD POST	1				EXIT 63 & ARROW	
19	NB-I94	2019+54	42.0' RT	WOOD POSTS	1				MICHIGAN AVE 100 E	
20	NB-I94	2029+13	38.4' RT	METAL POST	1				STATE ST	
21	NB-I94	2031+34	30.0' RT	WOOD POST	1				W4-1R	
22	NB-I94	2042+14	21.8' LT	LIGHT POLE		1			W4-3L	
23	NB-I94	2204+37	OVERHEAD	TRUSS			*		INTERSTATE 94 WEST RYAN EXPY CHICAGO LOOP, EXIT 61B 87TH ST 3/4 MILE, R2-1(55), R2-1(55)	
24	NB-I94	2205+43	73.0' RT	WOOD POSTS	1				95TH ST	
25	NB-I94	2216+06	65.0' RT	WOOD POST		1			W4-1R	
26	NB-I94	2231+26	OVERHEAD	TRUSS			*		EXIT 60C 79TH ST 1 1/4 MILES, EXIT 61B 87TH ST 1/2 MILE, R2-1 (55), R2-1 (55)	
27	NB-I94	2232+38	70.8' RT	WOOD POSTS	1				95TH ST	
28	NB-I94	2236+18	74.4' RT	WOOD POST	1				CHICAGO STATE UNIVERSITY EXIT 61B	
29	NB-I94	2240+07	69.2' RT	CANTILEVER			*		EXIT 61B 87TH ST	
30	NB-I94	2243+66	90.2' RT	LIGHT POLE			1		W13-3	
31	NB-I94	2245+90	71.3' RT	WOOD POST		1			EXIT 61B	
32	NB-I94	2258+72	OVERHEAD	BRIDGE	1				TRUCKS USE 2 RIGHT LANES	
33	NB-I94	2268+17	64.2' RT	WOOD POST		1			W4-1R	
34	NB-I94	2277+39	77.7' RT	METAL POST		1			NO PARKING TOW ZONE	
35	NB-I94	2284+32	OVERHEAD	TRUSS			*		EXIT 60B 76TH ST 3/4 MILE, EXIT 60C 79TH ST 1/4 MILE, R2-1 (55), R2-1(55)	
36	NB-I94	2285+68	69.2' RT	BRIDGE ABUTMT.	1				83RD ST	
37	NB I-94	2293+74	97.9' R	WOOD POST	1				W4-3R	
38	NB I-94	2295+09	76.9' R	STEEL POST	1				EXIT 60C	
39	NB I-94	2299+80	73.2' R	STEEL POST	1				W4-1R	
40	NB I-94	2302+08	94.7' R	WOOD POSTS	1				EXIT 60C	
41	NB I-94	2312+07	OVERHEAD	TRUSS			*		EXIST 59C 71ST ST 3/4 MILE, EXIT 60B 76TH 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 RELOCATE SIGN PANEL.

REVISIONS	
NAME	DATE

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 18, 2005 CHECKED BY: TGB

MAINLINE EXISTING SIGN SCHEDULE

SIGN NO.	LOCATION	SIGN INFORMATION			REMAIN IN PLACE	REMOVE AND REINSTALL	REMOVE	RELOCATE SIGN PANEL	WOOD POST (FT)	SIGN DESCRIPTION
		STATION	OFFSET	MOUNTING						
43	NB I-94	2322+78	76.4' R	CANTILEVER			*			EXIT 60B 76TH ST & ARROW, RAMP 30 MPH
44	NB I-94	2325+50	78.5' R	WOOD POST		1				EXIT 60B
45	NB I-94	2330+95	OVERHEAD	TRUSS			*			EXIT 59B MARQUETTE RD 67TH ST 3/4 MILE, EXIT 59C 71ST ST 1/2 MILE, TRUCKS USE 2 RIGHT LANES
								1	16	TRUCKS USE 2 RIGHT LANES
46	NB I-94	2338+58	68.4' RT	BRIDGE ABUTMT.						75TH ST
47	NB I-94	2344+77	11.3' LT	LIGHT POLE	1					*999 CELLULAR EXPRESS LINE
48	NB I-94	2347+00	68.2' RT	WOOD POST			1			W4-1R
49	NB I-94	2352+32	77.5' RT	CANTILEVER			*			EXIT 59C 71ST ST & ARROW
50	NB I-94	2355+38	106.6' RT	LIGHT POLE			1			RAMP 30 MPH
51	NB I-94	2355+86	76.4' RT	WOOD POST			1			EXIT 59C
52	NB I-94	2358+93	98.9' RT	STEEL POSTS			*			TO INTERSTATE 90 EAST TOLLWAY CHICAGO SKYWAY EXIT 59B
53	NB I-94	2363+81	OVERHEAD	TRUSS			*			INTERSTATE 94 EXPRESS NO TRUCKS NEXT EXIT 43RD ST KEEP LEFT, INTERSTATE 94 LOCAL TRUCKS ALL EXITS KEEP RIGHT, EXIT 59B MARQUETTE RD 67TH ST 1/4 MILE, R2-1(55), R2-1(55)

*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 RELOCATE SIGN PANEL.

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 18, 2005 CHECKED BY: TGB

REMOVAL SIGNING SCHEDULE

SIGN NO.	LOCATION	SIGN INFORMATION			REMOVAL						SIGN DESCRIPTION		
		STATION	OFFSET	MOUNTING	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 CONC. FOUND.-GROUND MOUNTED
								LENGTH (FT)	HEIGHT(FT)	AREA (SQFT)			
1	NB I-57	214+94	OVERHEAD	SPAN		1	2					I-94 WEST RYAN EXPY CHICAGO LOOP (2 ARROWS)	
												I-94 EAST BISHOP FORD FWY INDIANA (1 ARROW)	
2	NB I-57	226+44	OVERHEAD	SPAN		1	2					I-94 WEST RYAN EXPY CHICAGO LOOP (2 ARROWS)	
												I-94 EAST BISHOP FORD FWY INDIANA (1 ARROW)	
3	NB I-94 (DAN RYAN)	2204+37	OVERHEAD	SPAN		1	1					I-94 WEST RYAN EXPY CHICAGO LOOP	
												EXIT 61B 87th ST 3/4 MILE	
4	NB I-94 (DAN RYAN)	2231+26	OVERHEAD	SPAN		1	1					EXIT 60C 79th ST 1 1/4 MILES	
												EXIT 61B 87th ST 1/2 MILE	
5	NB I-94 (DAN RYAN)	2240+07	69.2' RT	CANTILEVER	1		1					EXIT 61B 87th ST (1 ARROW)	
6	NB I-94 (DAN RYAN)	2284+32	OVERHEAD	SPAN		1	1					EXIT 60B 76th ST 3/4 MILE	
												EXIT 60C 79th ST 1/4 MILE	
7	NB I-94 (DAN RYAN)	2312+07	OVERHEAD	SPAN		1	1					EXIT 59C 71st ST 3/4 MILE	
												EXIT 60B 76th ST 1/4 MILE	
8	NB I-94 (DAN RYAN)	2322+78	76.4' R	CANTILEVER	1		1					EXIT 60B 76th ST & ARROW, RAMP 30 MPH	
9	NB I-94 (DAN RYAN)	2330+95	OVERHEAD	SPAN		1	1					EXIT 59B MARQUETTE RD 67th ST 3/4 MILE	
												EXIT 59C 71st ST 1/2 MILE	
10	NB I-94 (DAN RYAN)	2352+32	77.5' RT	CANTILEVER	1		1					EXIT 59C 71st ST (ARROW)	
11	NB I-94 (DAN RYAN)	2358+93	98.9' RT	STEEL POSTS				12	9	108	3	3	TO I-90 EAST TOLLWAY CHICAGO SKYWAY EXIT 59B
													I-94 EXPRESS NO TRUCKS NEXT EXIT - 43rd ST KEEP LEFT
12	NB I-94 (DAN RYAN)	2363+81	OVERHEAD	SPAN		1	1						I-90 LOCAL TRUCKS ALL EXITS KEEP RIGHT
													EXIT 59B MARQUETTE RD 67th ST 1/4 MILE
				TOTAL	3	8	13			108	3	3	

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

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

REMOVAL SIGNING SCHEDULE
1 OF 1

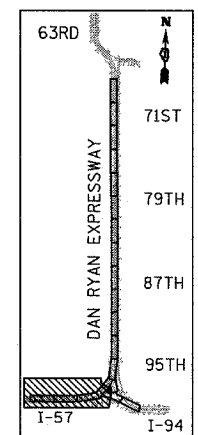
SCALE: NONE
DATE: MARCH 18, 2005
DRAWN BY: AMB
CHECKED BY: TGB

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	•	COOK	860	673
STA. 2200+00.00		TO STA. 2362+00.00		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
• (1516.1, 1717 & 1818) R-8				62694

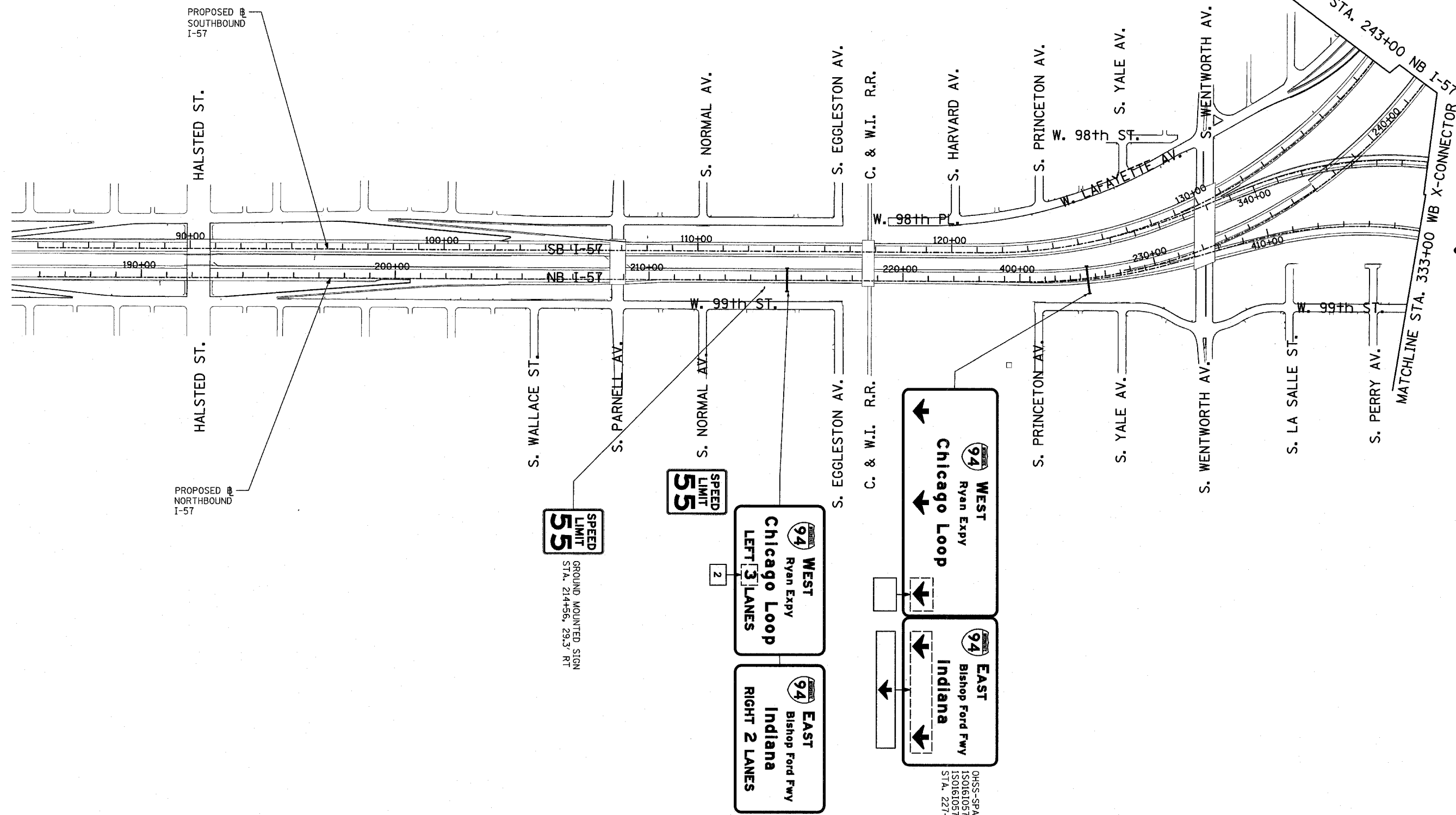


SIGNING LEGEND:

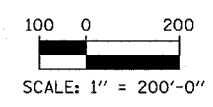
- PROPOSED GROUND MOUNTED SIGN
- PROPOSED OVERHEAD SIGN STRUCTURE - TRUSS
- PROPOSED OVERHEAD SIGN STRUCTURE-BRIDGE MOUNTED
- PROPOSED OVERHEAD SIGN STRUCTURE-CANTILEVER
- PROPOSED SIGN
- OVERLAY SIGN PANEL



LOCATION MAP



TYLIN INTERNATIONAL



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)
PROPOSED SIGNING
STA. 196+00 TO STA 243+00
SHEET 1 OF 6
 SCALE: 1" = 200'
 DATE: MARCH 18, 2005
 DRAWN BY: AMB
 CHECKED BY: TGB

OHSS-SPAN
 1S0161057R357.7-L-T
 1S0161057R357.7-R-T
 STA. 215+44

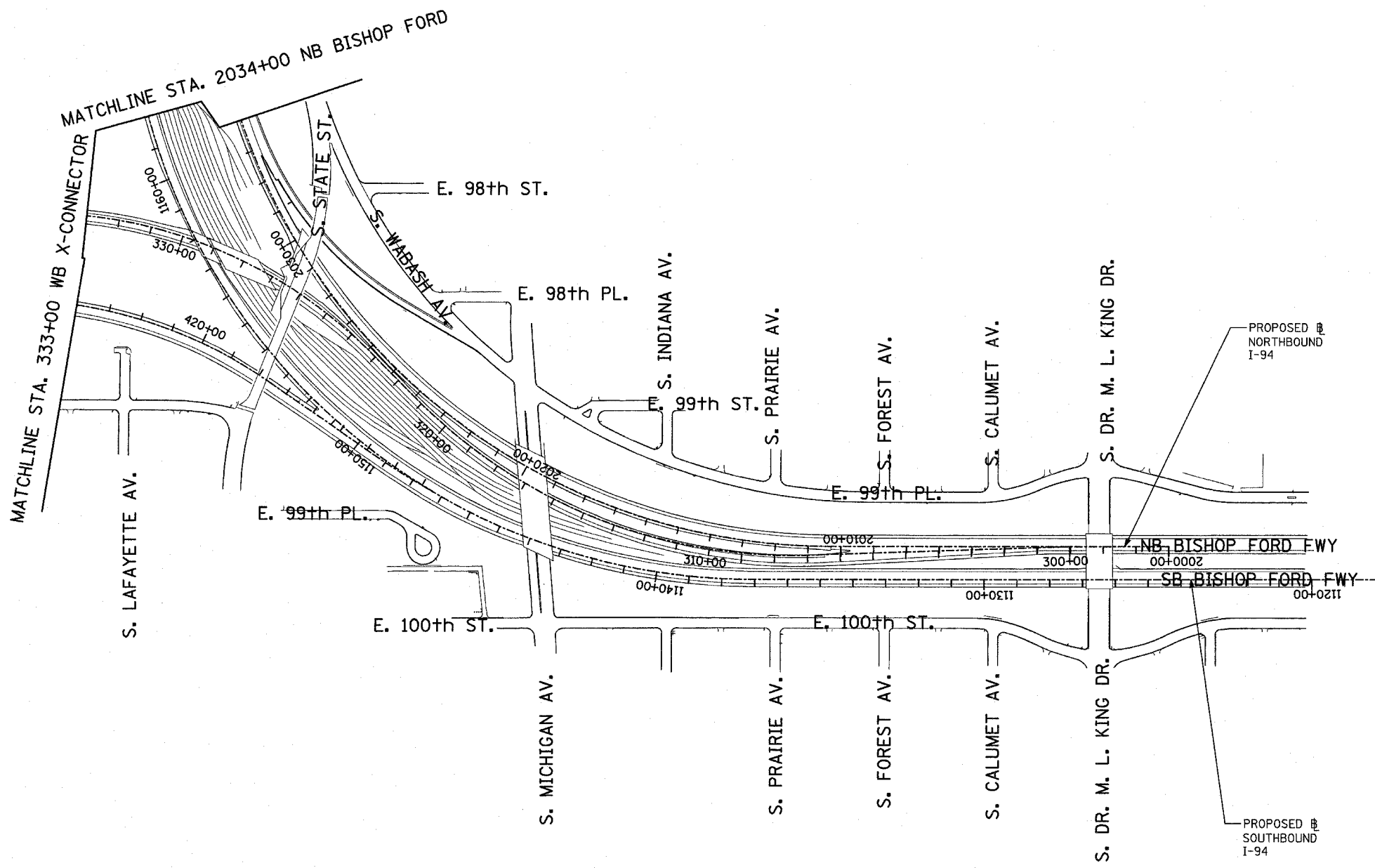
OHSS-SPAN
 1S0161057R357.90-L-T
 1S0161057R357.9-R-T
 STA. 227+29

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	•	COOK	860	674
STA. 2200+00.00		TO STA. 2362+00.00		
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
(1516, 1, 1717 & 1818) R-8	62694			



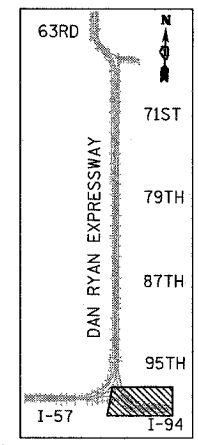
SIGNING LEGEND:

- 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



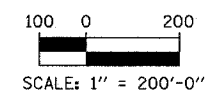
PROPOSED NORTHBOUND I-94

PROPOSED SOUTHBOUND I-94



LOCATION MAP

TYLIN INTERNATIONAL



REVISIONS	
NAME	DATE

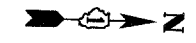
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)

PROPOSED SIGNING
STA. 2000+00 TO STA 2034+00
SHEET 2 OF 6

SCALE: 1" = 200' DRAWN BY: AMB
DATE: MARCH 18, 2005 CHECKED BY: TGB

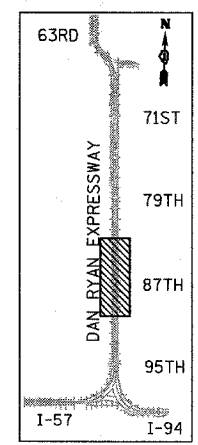
3/25/2005 4:50:53 PM

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	*	COOK	860	676
STA. 2200+00.00		TO STA. 2362+00.00		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
(1516.1, 1717 & 1818) R-8				62694



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



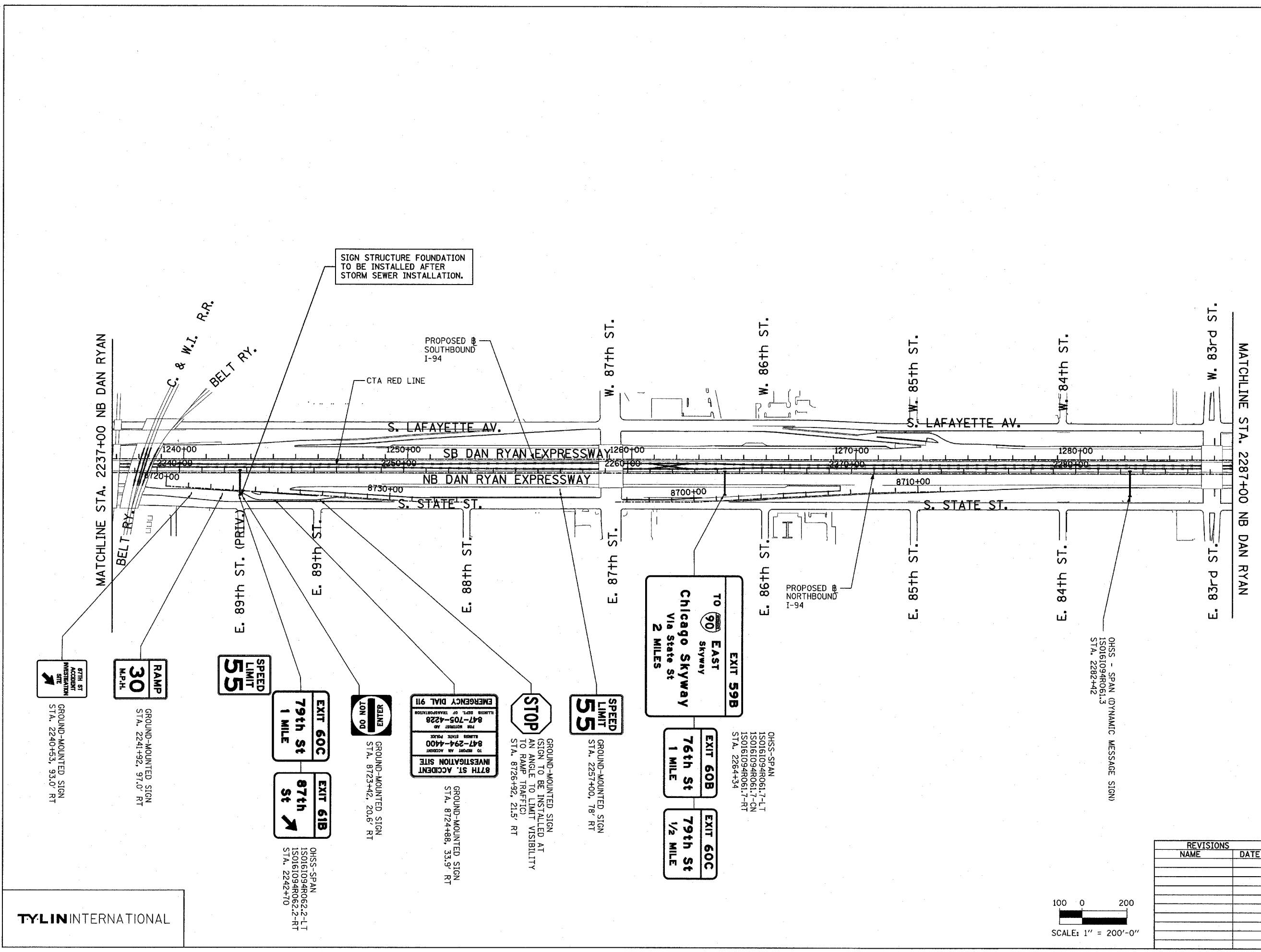
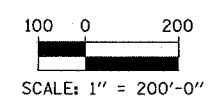
LOCATION MAP

REVISIONS	
NAME	DATE

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

PROPOSED SIGNING
STA. 2237+00 TO STA 2287+00
SHEET 4 OF 6

SCALE: 1" = 200'
DATE: MARCH 18, 2005
DRAWN BY: AMB
CHECKED BY: TGB



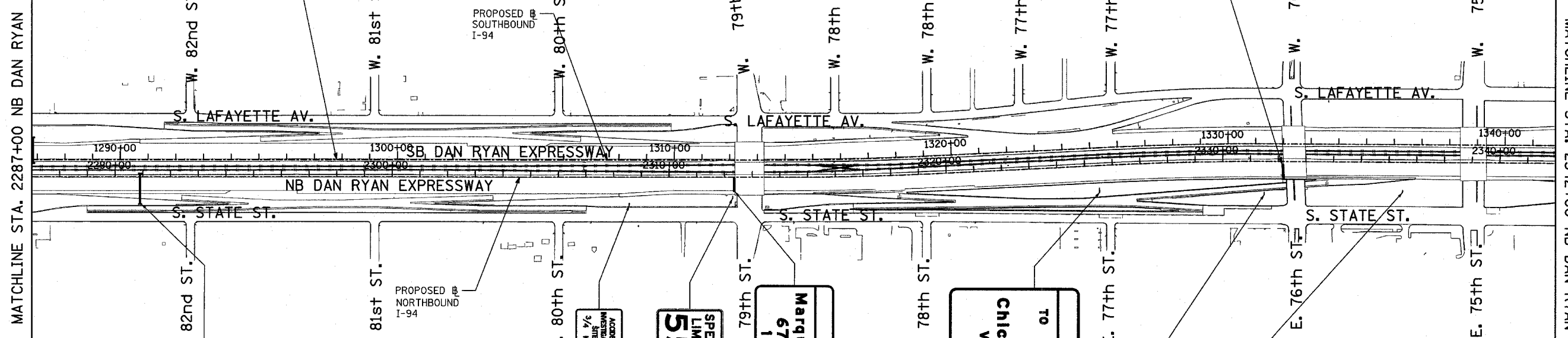
TYLIN INTERNATIONAL

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94		COOK	860	677
STA. 2200+00.00		TO STA. 2362+00.00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
(1516.1, 1717 & 1818) R-8		62694		



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



SPEED LIMIT 55

EXIT 59C
71st St
1 MILE

EXIT 60B
76th St
1/2 MILE

EXIT 60C
79th St

OHS - SPAN
150161094R061.2-LT
150161094R061.2-CN
150161094R061.2-RT
STA. 2290+90

ACCIDENT INVESTIGATION SITE 3/4 MILE
GROUND-MOUNTED SIGN
STA. 2308+57, 98.7' RT

SPEED LIMIT 55
GROUND-MOUNTED SIGN
STA. 2312+30, 73.2' RT

EXIT 59B
Marquette Rd
67th St
1 MILE

EXIT 59C
71st St
1/2 MILE

EXIT 60B
76th St

OHS - BRIDGE MOUNT
150161094R060.8-LT
150161094R060.8-CN
150161094R060.8-RT
STA. 2312+37

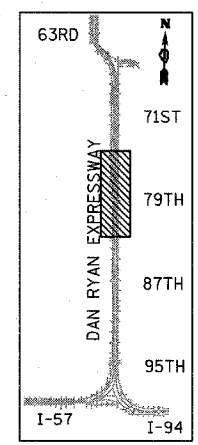
EXIT 59B
TO EAST
Chicago Skyway
Via State St
3/4 MILE

GROUND-MOUNTED SIGN
1G0161094L060.5
STA. 2325+50, 85.0' RT
STRUCTURAL STEEL SIGN
SUPPORT-BREAKAWAY - 2002 LB

TRUCKS USE 2 RIGHT LANES

GROUND-MOUNTED SIGN
STA. 2331+50, 115.4' RT

ACCIDENT INVESTIGATION SITE 1/4 MILE
GROUND-MOUNTED SIGN
STA. 2336+50, 105.1' RT



LOCATION MAP

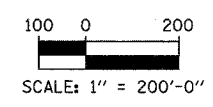
REVISIONS	
NAME	DATE

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

PROPOSED SIGNING
STA. 2287+00 TO STA 2342+00
SHEET 5 OF 6

SCALE: 1" = 200'
DATE: MARCH 18, 2005






DRAWN BY: AMB
CHECKED BY: TGB

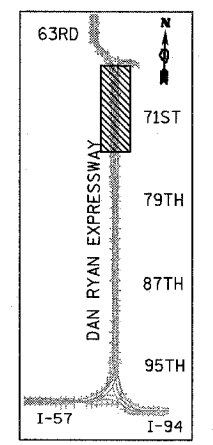


F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	*	COOK	860	678
STA. 2200+00.00 TO STA. 2362+00.00				
FED. ROAD DIST. NO. ILLINOIS		FED. AID PROJECT		
* (1516.1, 1717 & 1818) R-8		62694		

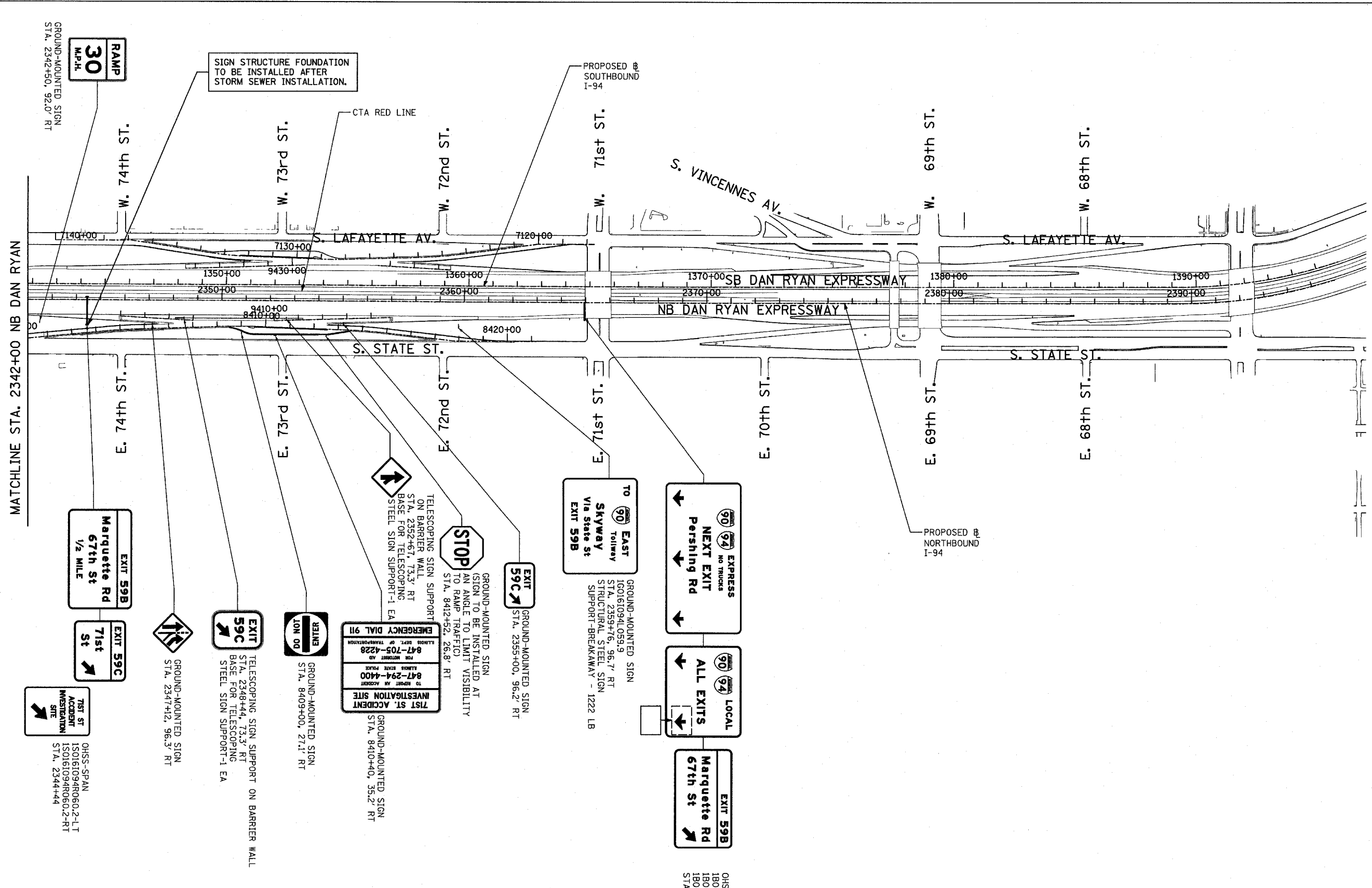


SIGNING LEGEND:

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



LOCATION MAP

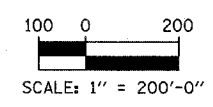


REVISIONS	
NAME	DATE

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

PROPOSED SIGNING
STA. 2342+00 TO STA 2396+00
SHEET 6 OF 6

SCALE: 1" = 200'
DATE: MARCH 18, 2005
DRAWN BY: AMB
CHECKED BY: TGB



TYLIN INTERNATIONAL

OHS - BRIDGE MOUNT
180161094R059.8-LT
180161094R059.8-CN
180161094R059.8-RT
STA. 2365+00

GROUND-MOUNTED SIGN
EXIT 59C
STA. 2355+00, 96.2' RT

GROUND-MOUNTED SIGN
EMERGENCY DIAL 911
FOR MOTORIST AD
847-705-4228
FOR POLICE
847-294-4400
71ST ST ACCIDENT
INVESTIGATION SITE
STA. 8410+40, 35.2' RT

GROUND-MOUNTED SIGN
EXIT 59C
STA. 2348+44, 73.3' RT
TELESCOPING SIGN SUPPORT ON BARRIER WALL
STEEL SIGN SUPPORT-1 EA
STA. 8409+00, 27.1' RT

GROUND-MOUNTED SIGN
EXIT 59B
STA. 2347+12, 96.3' RT

EXIT 59B
Marquette Rd
1/2 MILE
EXIT 59C
71st St

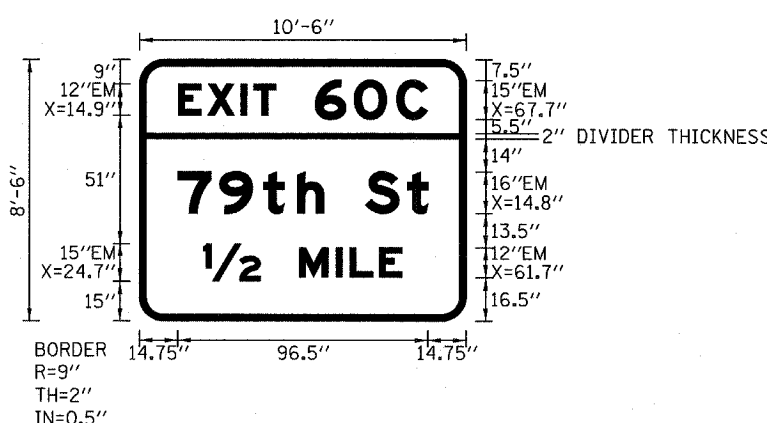
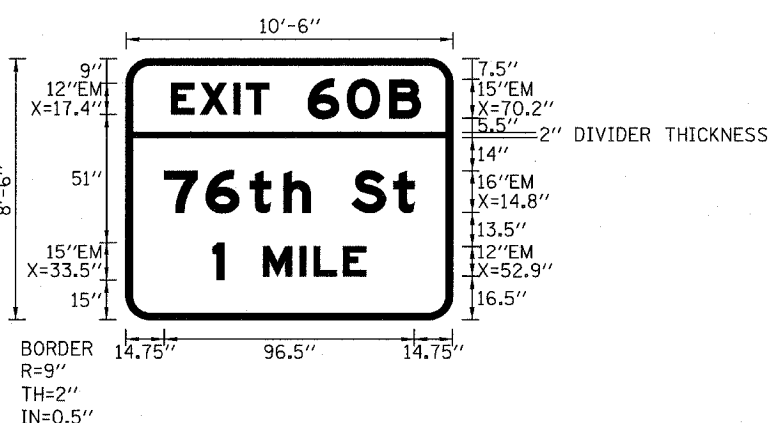
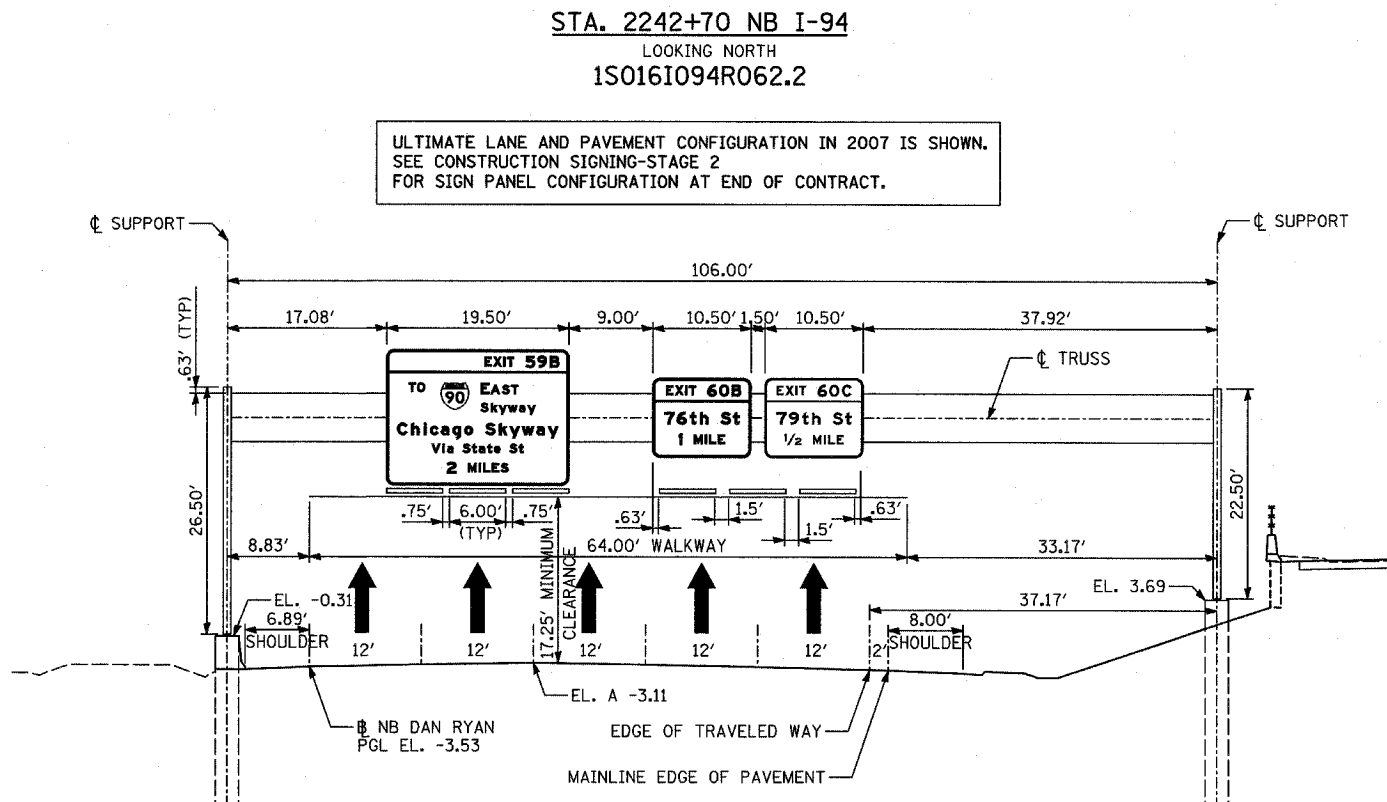
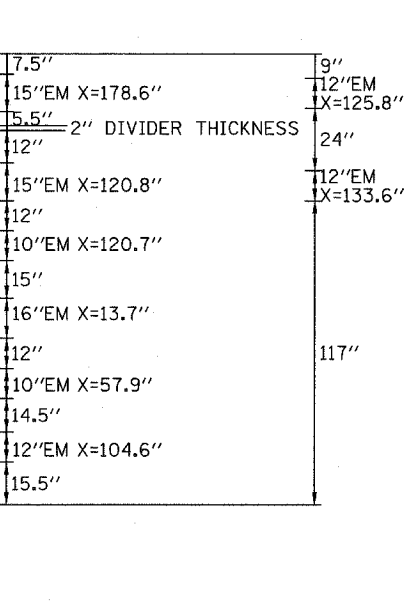
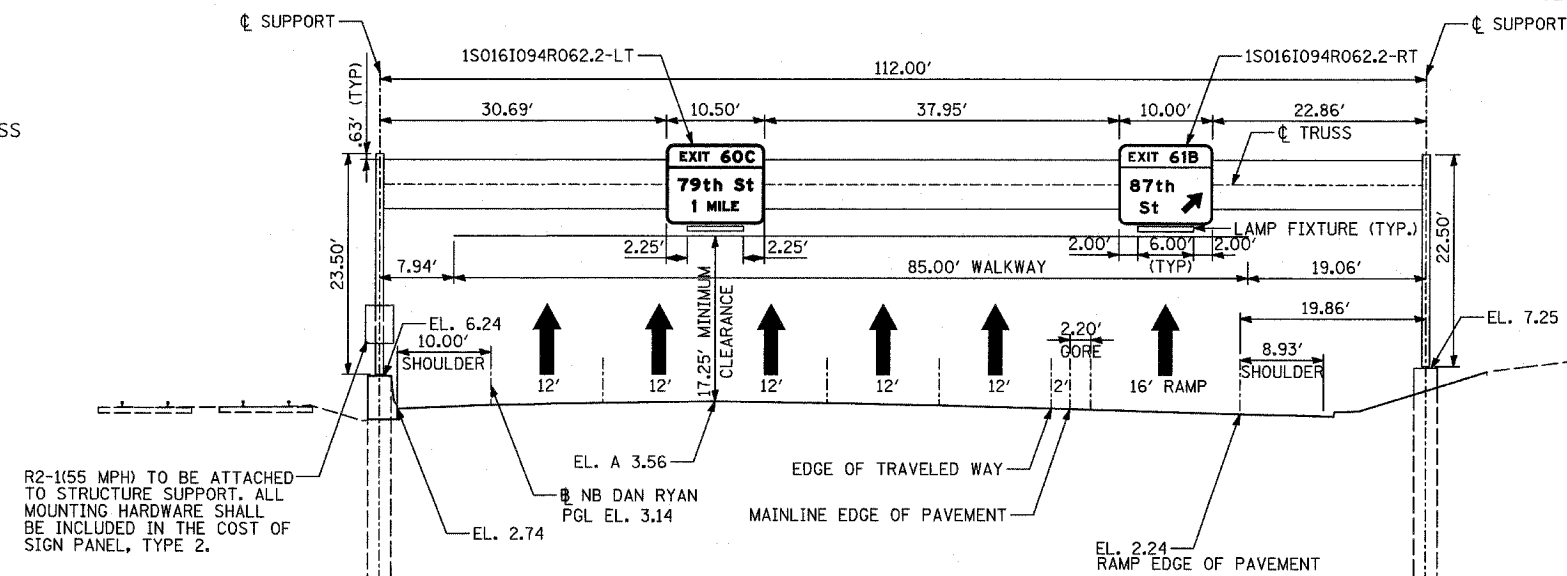
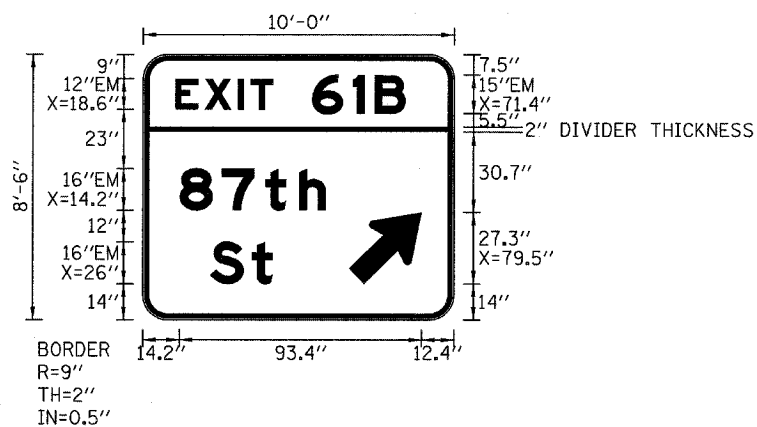
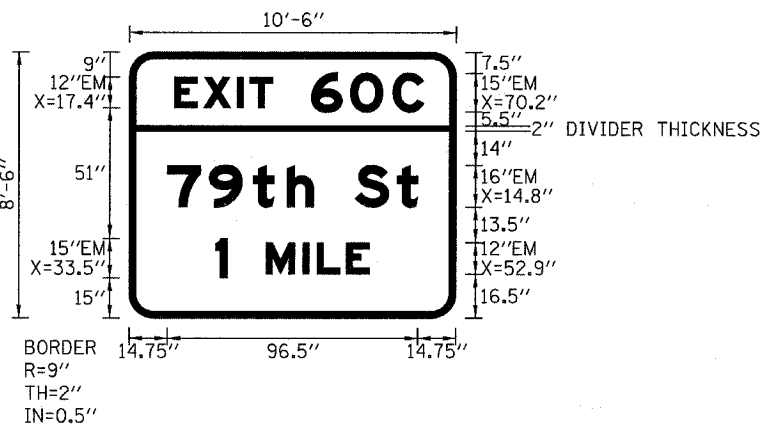
OHS - SPAN
150161094R060.2-LT
150161094R060.2-RT
71ST ST
ACCIDENT
INVESTIGATION
SITE
STA. 2344+44

SIGN STRUCTURE FOUNDATION
TO BE INSTALLED AFTER
STORM SEWER INSTALLATION.

PROPOSED @
SOUTHBOUND
I-94

PROPOSED @
NORTHBOUND
I-94

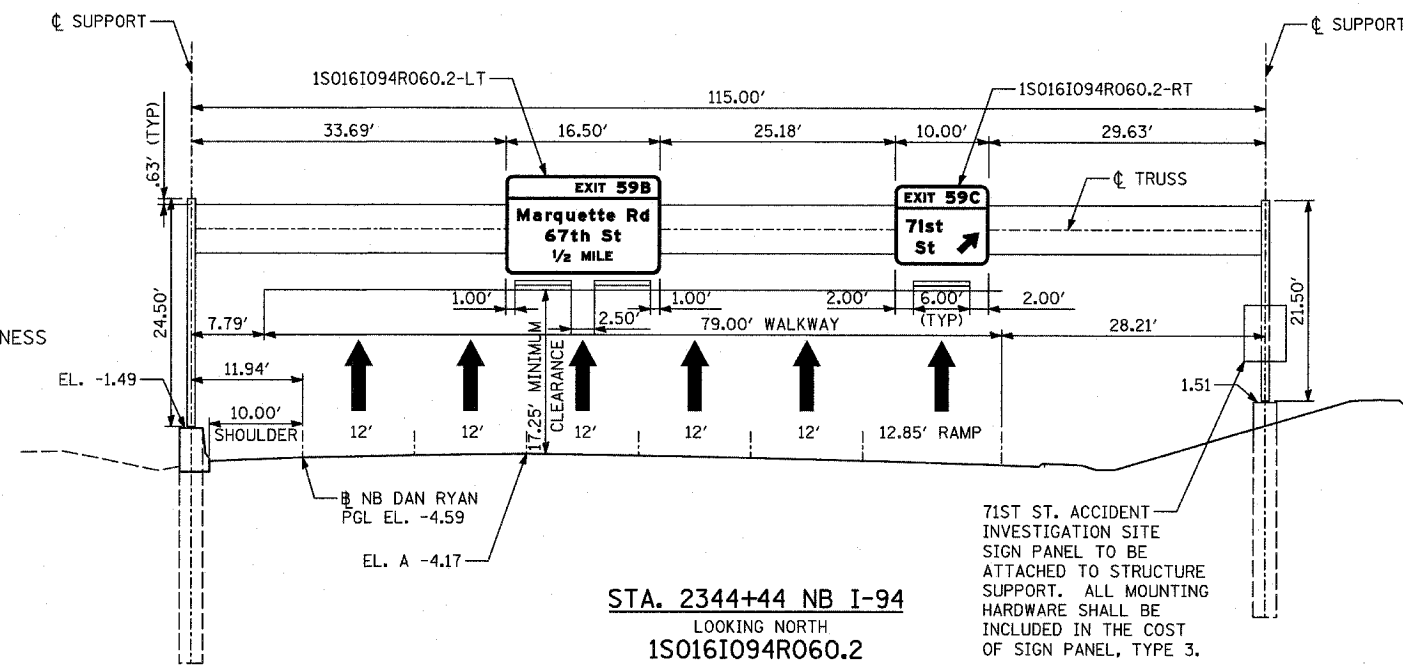
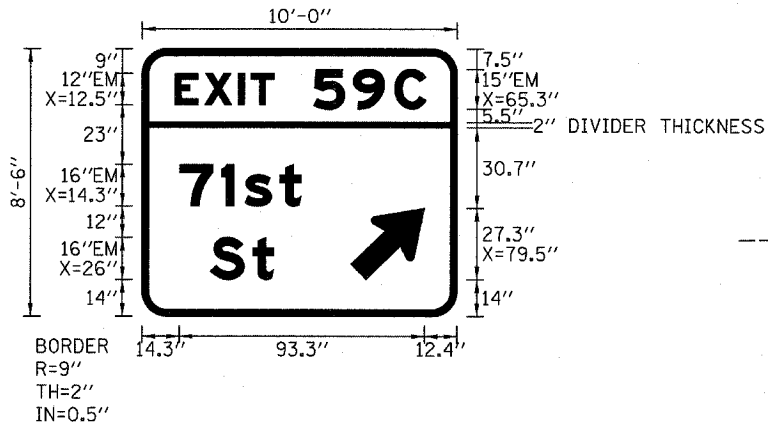
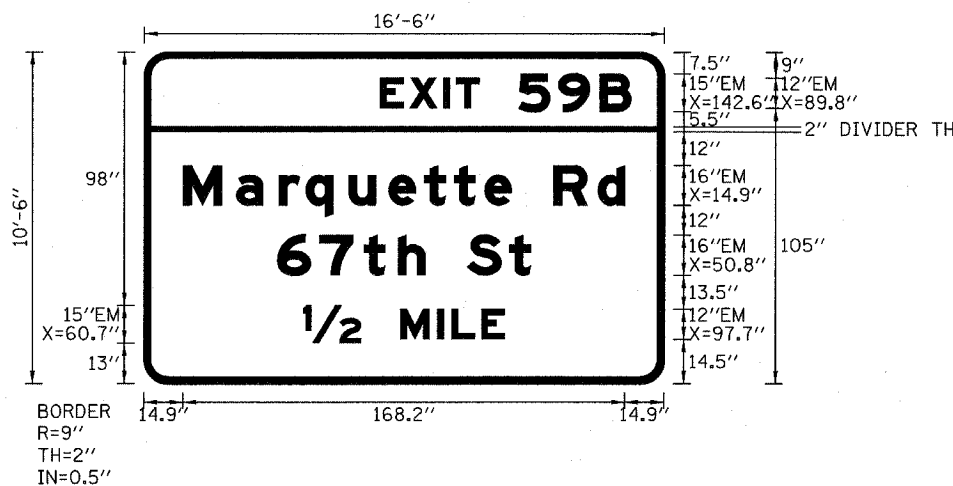
GROUND-MOUNTED SIGN
RAMP
30
M.P.H.
STA. 2342+50, 92.0' RT



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94 (DAN RYAN EXPRESSWAY)
 PERMANENT SIGN PANEL MOUNTING DETAILS
 PROPOSED OVERHEAD SIGN STRUCTURES
 STA. 2242+70 AND STA. 2264+34

SCALE: NOT TO SCALE
 DATE: MARCH 18, 2005
 DRAWN BY: AMB
 CHECKED BY: TB



STA. 2344+44 NB I-94
 LOOKING NORTH
 IS016I094R060.2

71ST ST. ACCIDENT INVESTIGATION SITE SIGN PANEL TO BE ATTACHED TO STRUCTURE SUPPORT. ALL MOUNTING HARDWARE SHALL BE INCLUDED IN THE COST OF SIGN PANEL, TYPE 3.

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. 2344+44

SCALE: NOT TO SCALE
 DATE: MARCH 18, 2005
 DRAWN BY: AMB
 CHECKED BY: TB

3/25/2005 4:48:58 PM



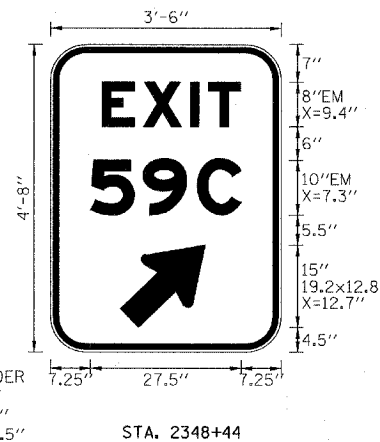
87TH ST. RAMP, STA. 8724+88



71ST ST. RAMP, STA. 8410+40



STA. 2240+53



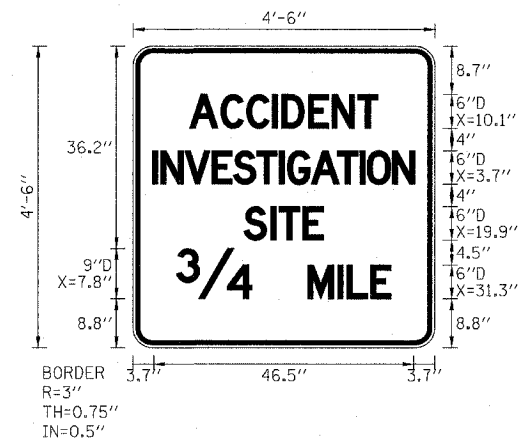
STA. 2348+44



STA. 2355+00



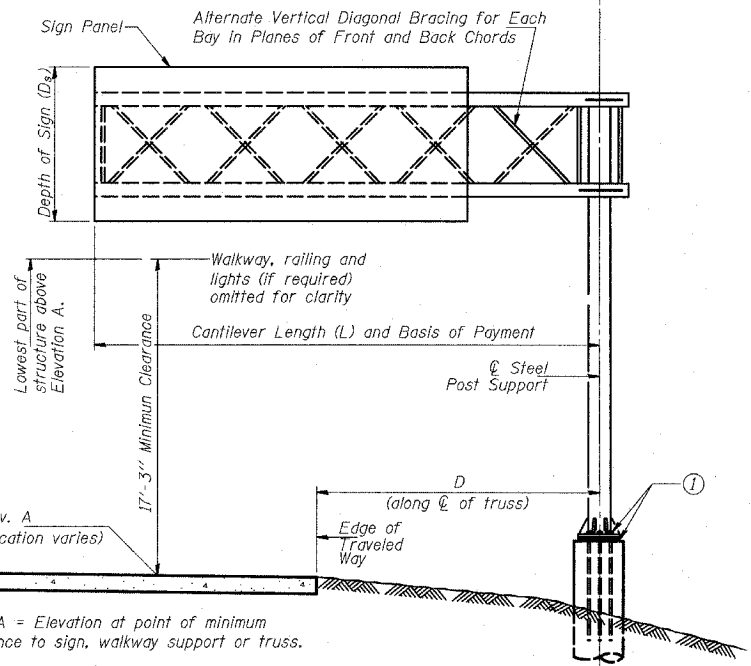
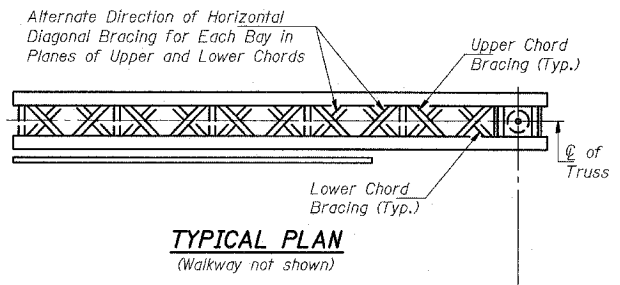
STA. 2332+10
STA. 2336+50



STA. 2203+00
STA. 2308+57

REVISIONS	
NAME	DATE

3/25/2005 4:47:50 PM

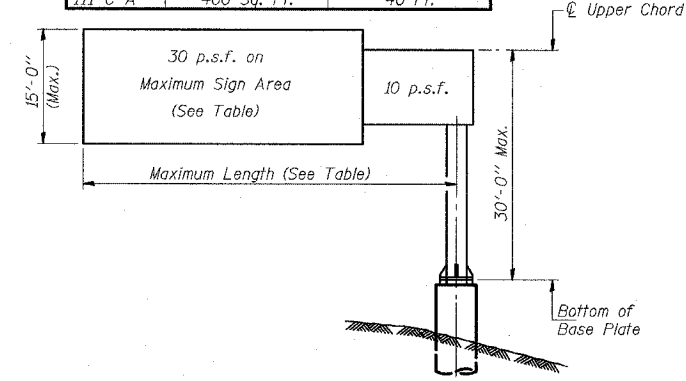


TYPICAL ELEVATION
Looking in Direction of Traffic

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
IC0161094L062.4	2228+81	III-C-A	40'	-2.19	16.31'	8.5'	89.25 ft ²

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.
F_y = 60,000 p.s.i. (reinforcement)

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

MATERIALS: Aluminum Alloys as shown throughout plans. All Structural Steel Pipe shall be ASTM A53 Grade B 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 Seal 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	40'
OVERHEAD SIGN WALKWAY-CANTILEVER TYPE A**	Foot	24'
DRILLED SHAFT CONCRETE FOUNDATIONS	Cu. Yds.	11.67

**Paid for as Overhead Sign Structure Walkway

NUMBER	REVISION	DATE

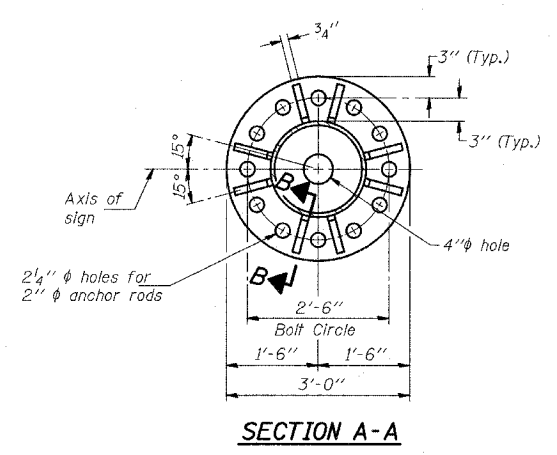
THE CONTRACTOR SHALL COORDINATE WITH THE LIGHTING CONTRACTOR TO ALLOW FOR INSTALLATION OF APPROPRIATE EQUIPMENT PRIOR TO ERECTION OF THE SIGN STRUCTURES

OSC-A-1 11/1/2002

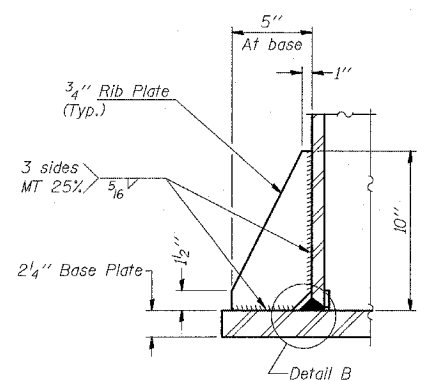
REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION F.A.I. 94 (DAN RYAN EXPRESSWAY)
NAME	DATE	
		CANTILEVER SIGN STRUCTURES GENERAL PLAN & ELEVATIONS ALUMINUM TRUSS & STEEL POST

SCALE: AS NOTED DRAWN BY: AMB
DATE: MARCH 18, 2005 CHECKED BY: TB

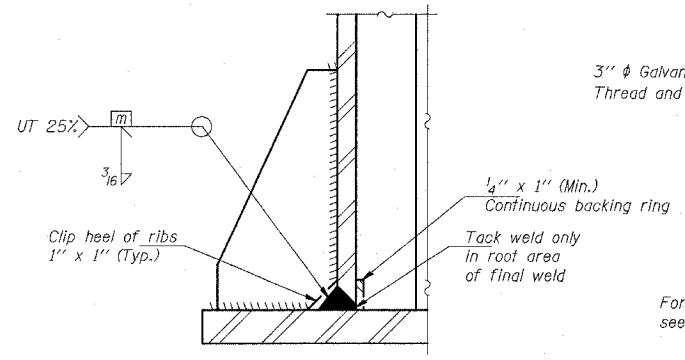
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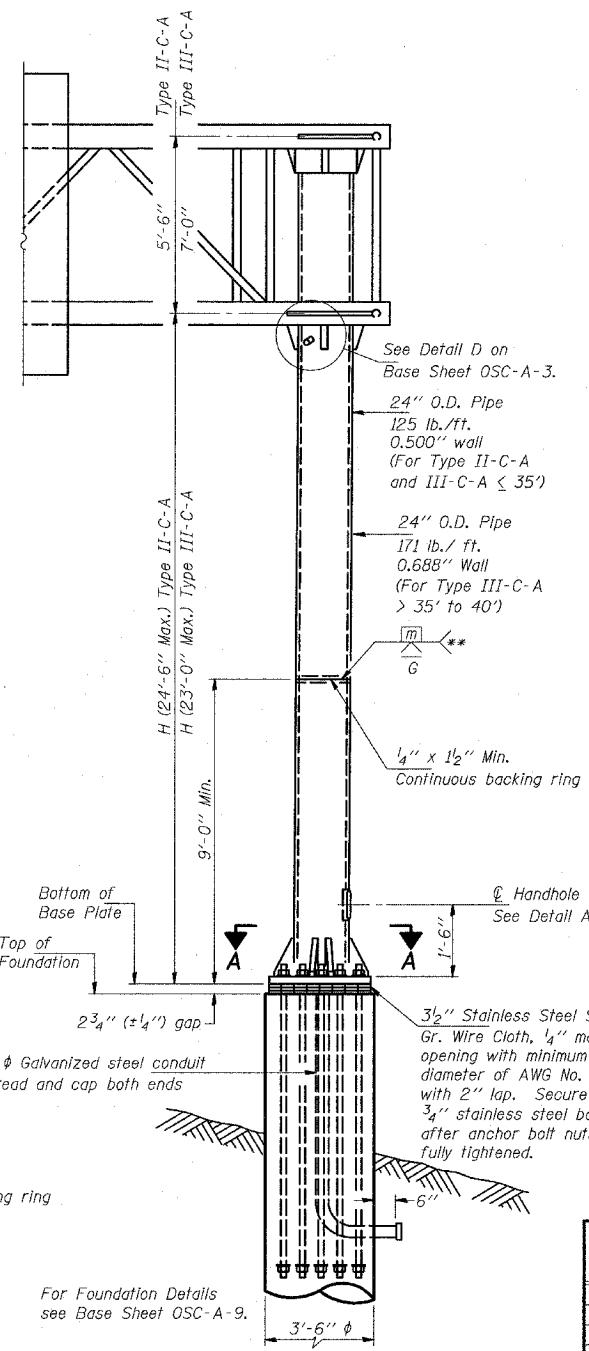
SECTION A-A



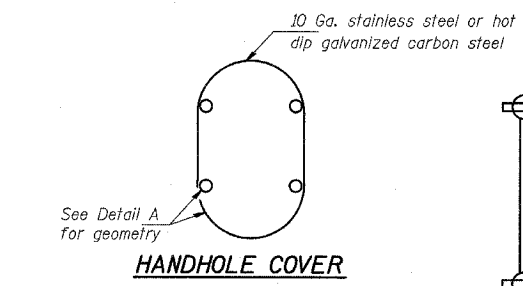
SECTION B-B



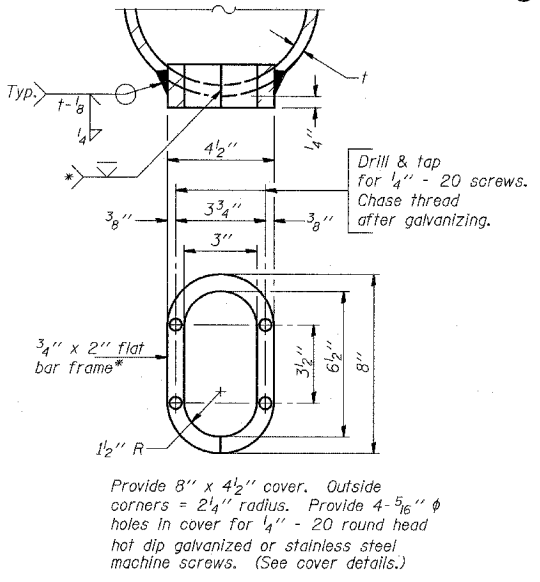
DETAIL B
(Typical rib)



FRONT ELEVATION



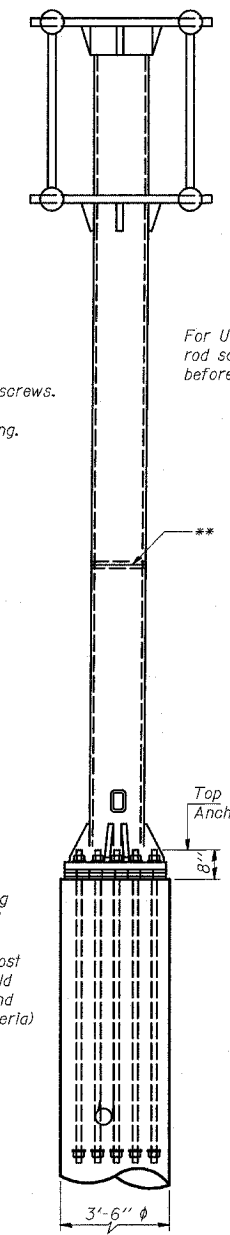
HANDHOLE COVER



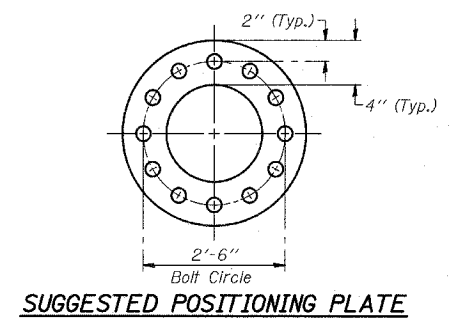
DETAIL A

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

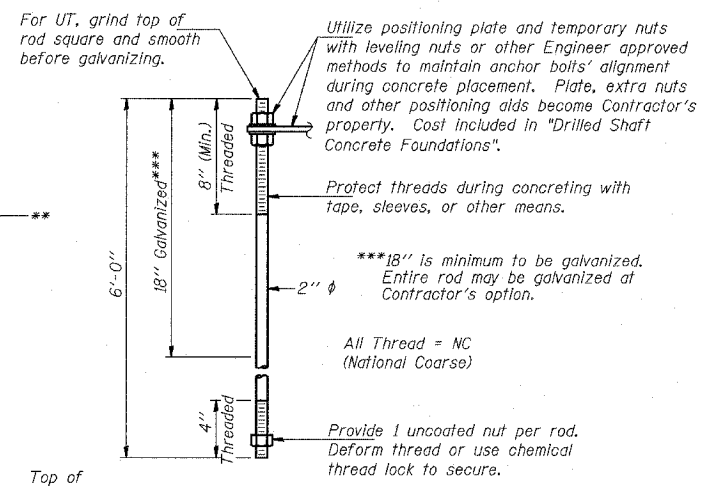
Structure Number	Station	H
1C0161094L062.4	2228+81	16.5'



SIDE ELEVATION



SUGGESTED POSITIONING PLATE



ANCHOR ROD DETAIL

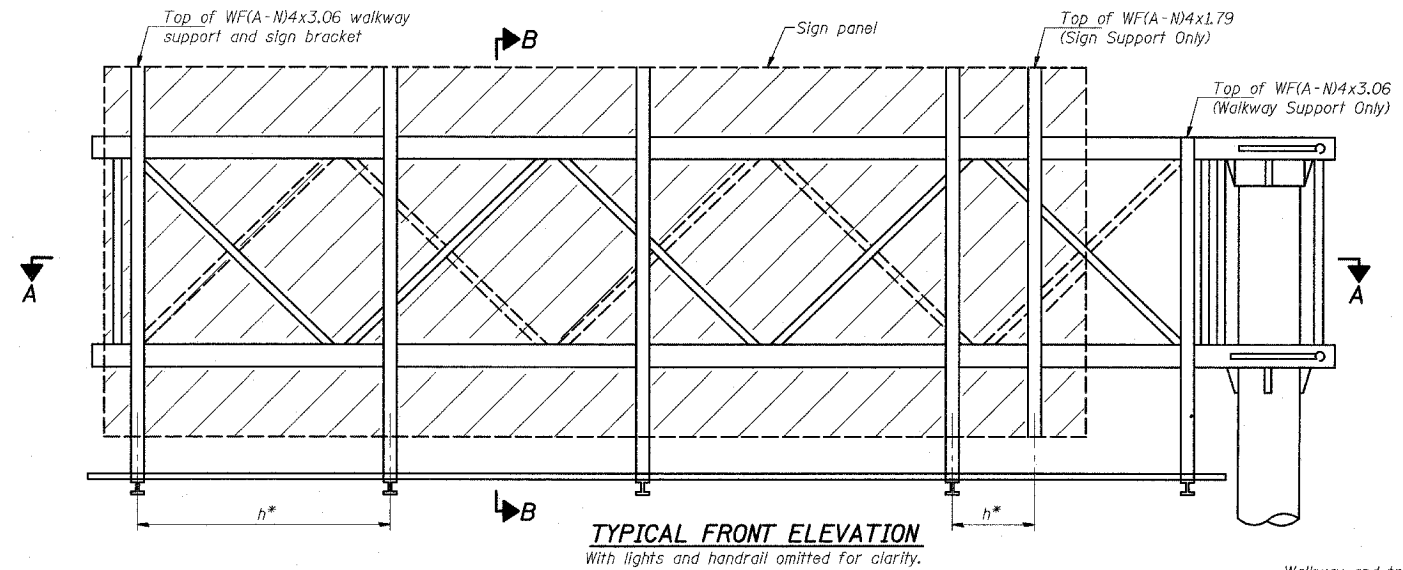
Anchor rods shall conform to AASHTO M314 Grade 55 and meet Charpy V-Notch (CVN) energy of 15 lb.-ft. at 10° F. before galvanizing. Galvanize the upper 18" (minimum) and associated M291, Grade A, C or DH heavy hex nuts and hardened washers per AASHTO M232. No welding shall be permitted on rods. Provide 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

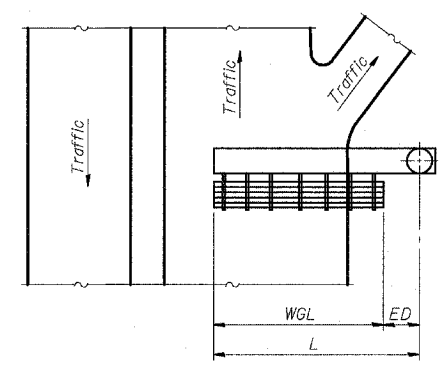
OSC-A-5 11/1/2002

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 18, 2005 CHECKED BY: TB

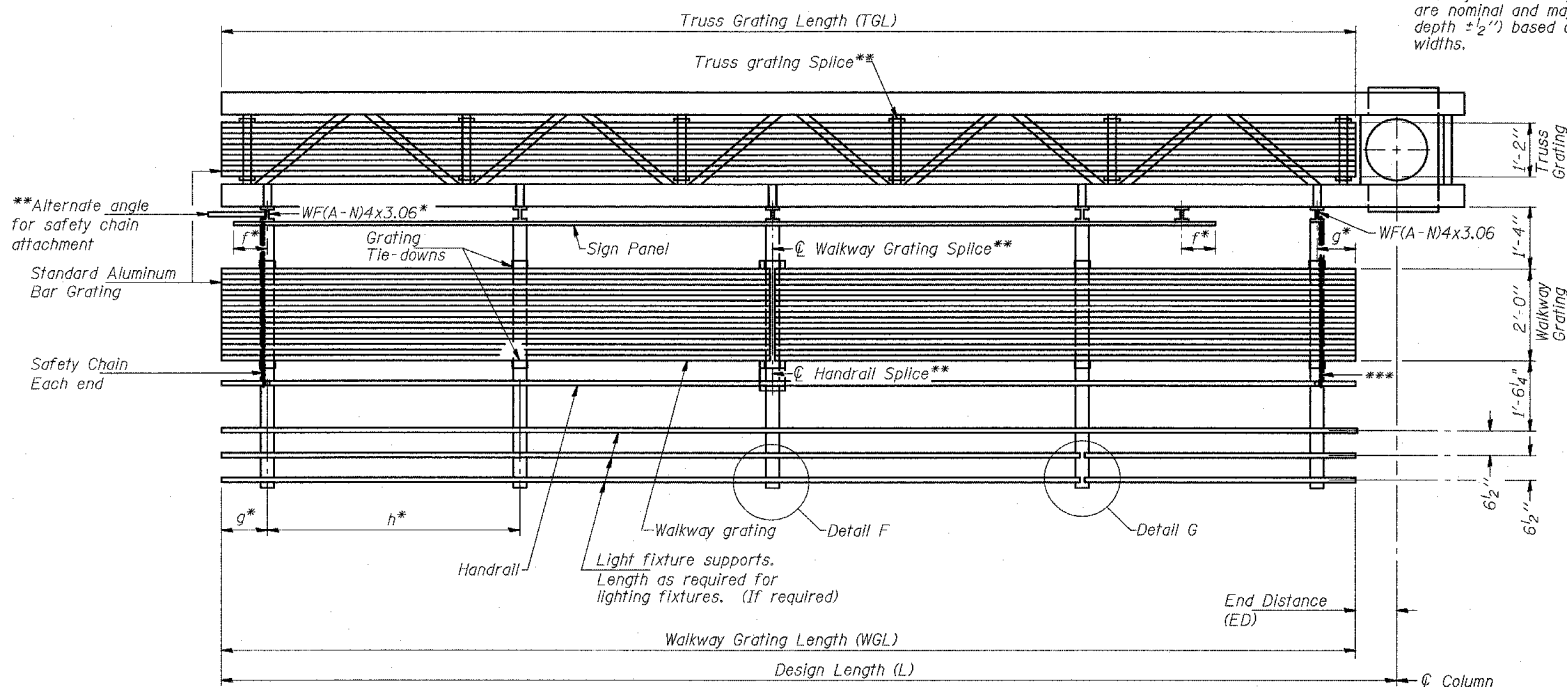


TYPICAL FRONT ELEVATION
With lights and handrail omitted for clarity.



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

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



SECTION A-A

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

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

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

NUMBER	REVISION	DATE

Structure Number	Station	WGL	ED	TGL
1C0161094L062.4	2228+81	24'	16'	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 center of nearest bracket)
 g = 12" maximum, 4" minimum (End of walkway to center of nearest bracket)
 h = 6'-0" maximum (center to center sign and/or walkway support brackets, WF(A-N)4x1.79 or WF(A-N)4x3.06)
 ***If walkway bracket at safety chain location is behind sign, add angle to bracket.
 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.

BRACKET TABLE

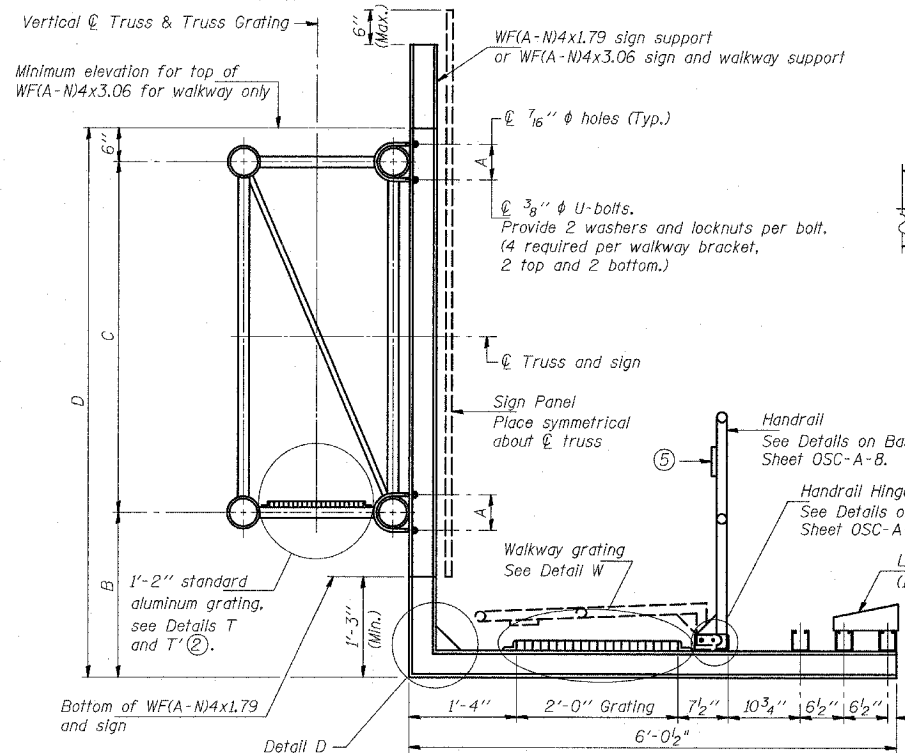
Sign Width		Number Brackets Required
Greater Than	Less Than or Equal To	
	8'-0"	2
8'-0"	14'-0"	3
14'-0"	20'-0"	4
20'-0"	26'-0"	5
26'-0"	32'-0"	6

OSC-A-6 11/1/2002

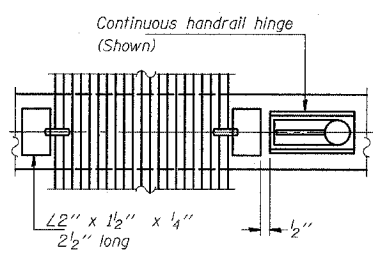
REVISIONS	
NAME	DATE

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 18, 2005 CHECKED BY: TB

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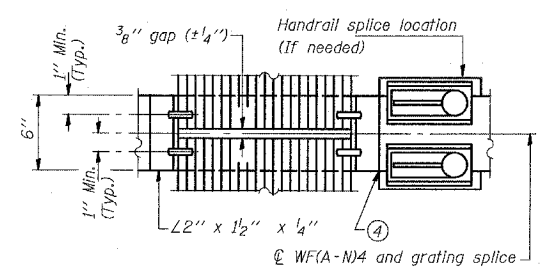


SECTION B-B

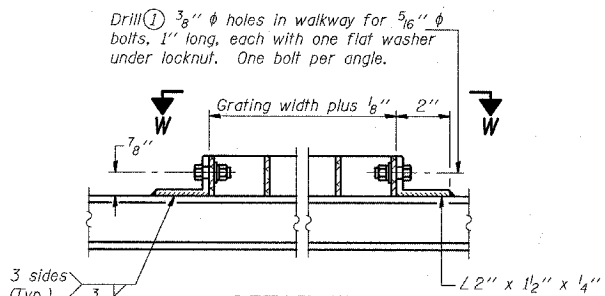


(CONTINUOUS WALKWAY GRATING)

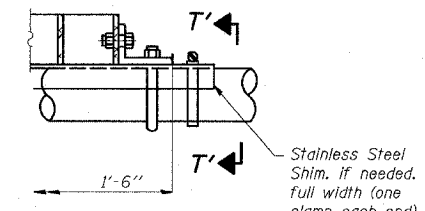
SECTION W-W



(AT WALKWAY GRATING SPLICE)

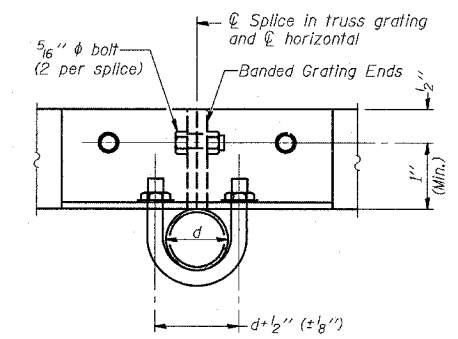


DETAIL W
(Walkway grating)

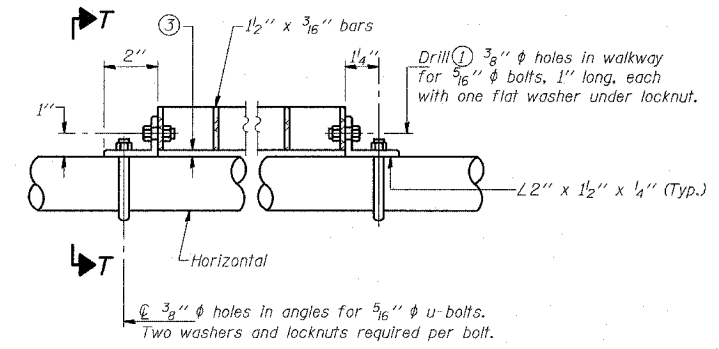


DETAIL T'

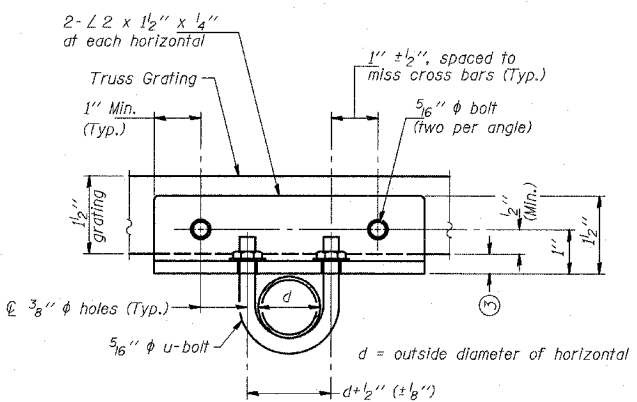
(Truss grating splice)
Details not shown same as Detail T.
Alternate materials may be used subject to the Engineer's review and approval.



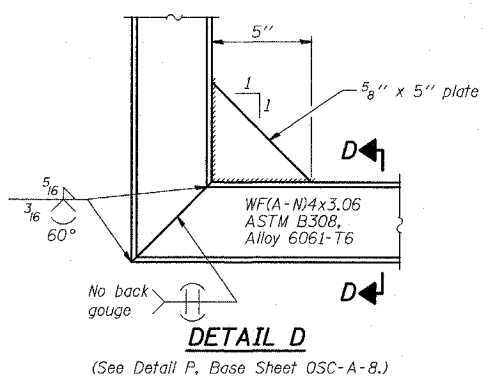
SECTION T'-T'



DETAIL T
(Truss grating at horizontal)

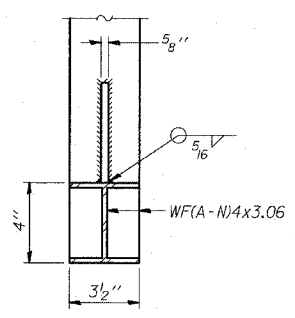


SECTION T-T



DETAIL D

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



SECTION D-D

NUMBER	REVISION	DATE

- Drilling holes in grating may be done in shop or field, based on Contractor's preference and subject to accurate alignment.
- 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.
- Tube to grating gap may vary from 0 to 1/2 inch (Max.) to align walkway, allow for camber, etc.
- If Handrail Joint present, weld angle to WF(A-N)4 and 1/4 inch extension bars. (See Base Sheet OSC-A-8)
- 1/2 inch by 1/2 inch by 2 inch welded to handrail posts to protect locations that contact grating.

Structure Number	Station	A	B	C	D
1C0161094L062.4	2228+81	8.5"	2'	7'	9'-6"

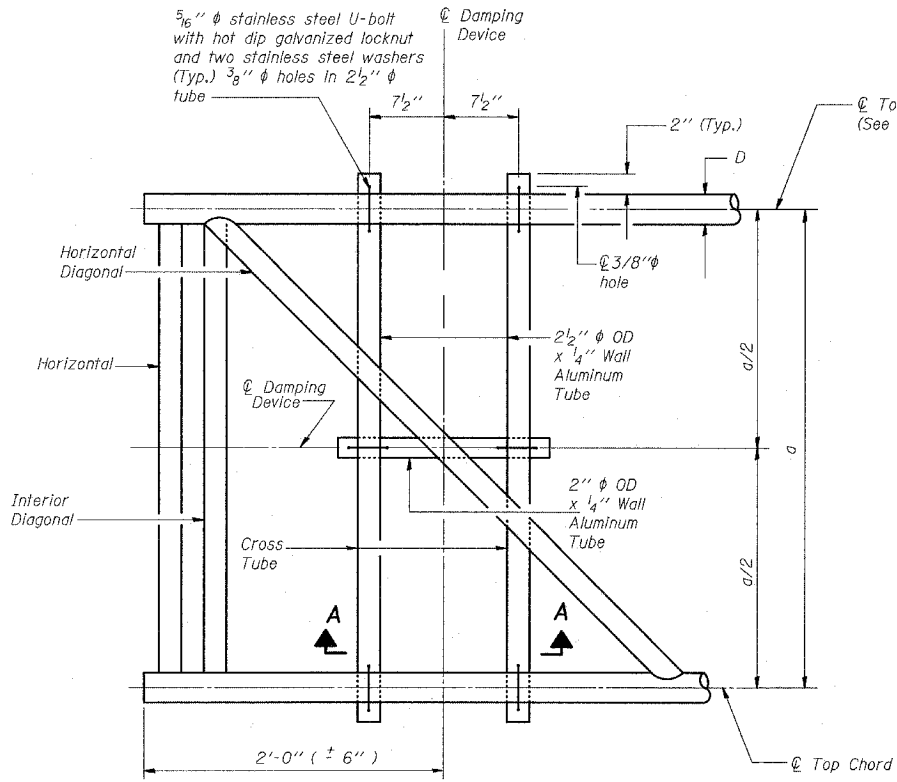
REVISIONS	
NAME	DATE

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

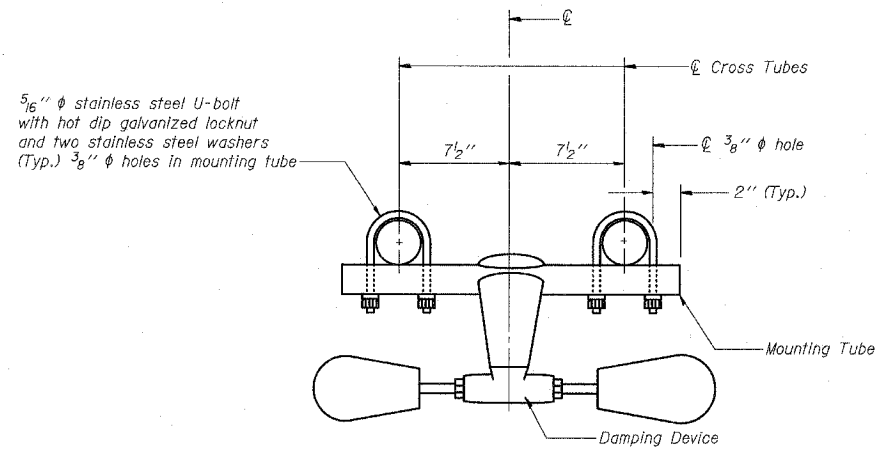
SCALE: AS NOTED
DATE: MARCH 18, 2005

DRAWN BY: AMB
CHECKED BY: TB

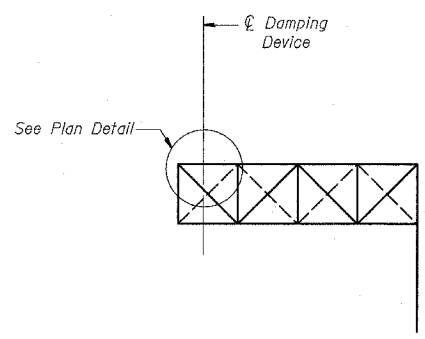
OSC-A-7 11/1/2002



PLAN DETAIL



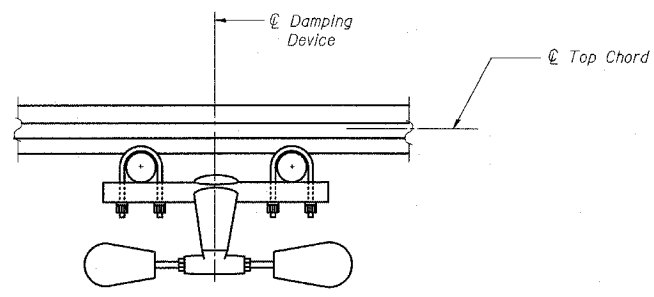
TRUSS DAMPING DEVICE CONNECTION DETAIL



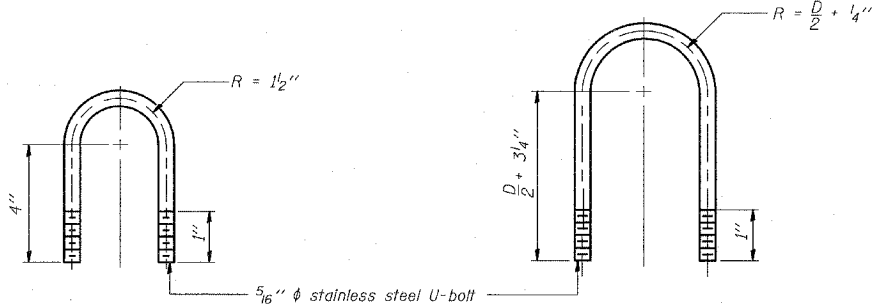
ELEVATION
Aluminum Cantilever Sign Structure

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

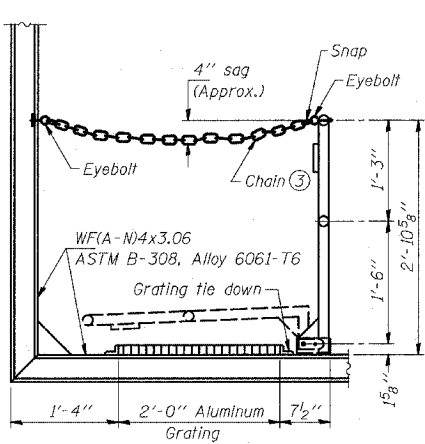
TYLIN INTERNATIONAL

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)
CANTILEVER SIGN STRUCTURES
DAMPING DEVICE

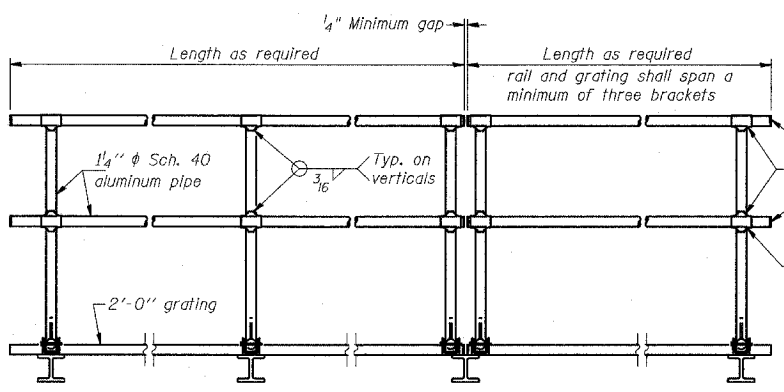
SCALE: AS NOTED DRAWN BY: AMB
DATE: MARCH 18, 2005 CHECKED BY: TB

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SIDE ELEVATION

(Showing Safety Chain W/O Sign)



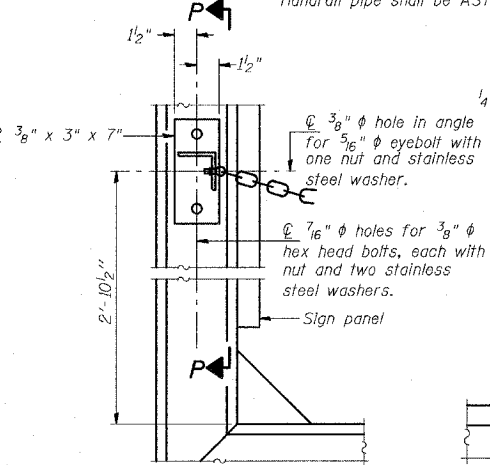
FRONT ELEVATION

HANDRAIL DETAILS

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

① Install standard force-fit end caps or weld 1/8\"/>

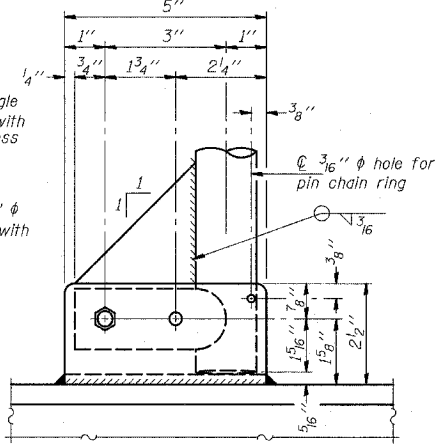
② Horizontal handrail member shall be continuous thru fitting. Provide 1/16\"/>



ALTERNATE SAFETY CHAIN ATTACHMENT

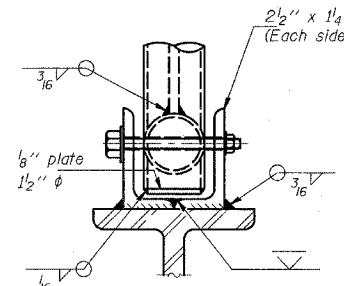
(With Sign Present)

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



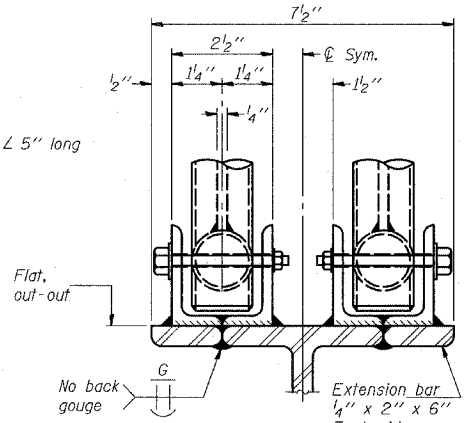
SIDE ELEVATION

Drill and ream for 3/8\"/>



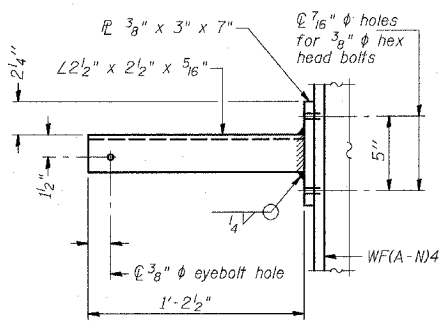
FRONT ELEVATION

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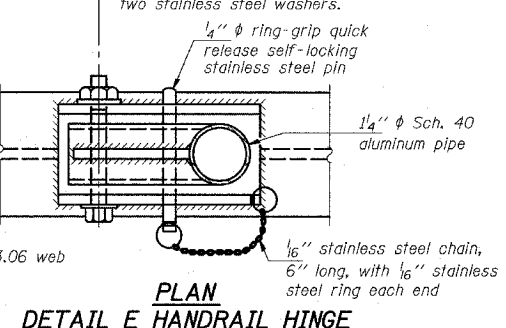


ELEVATION AT HANDRAIL JOINT

Details not shown same as "FRONT ELEVATION"

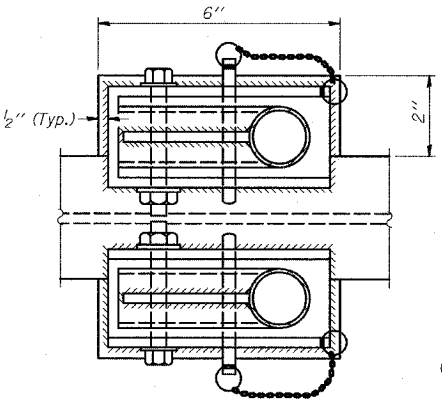


SECTION P-P



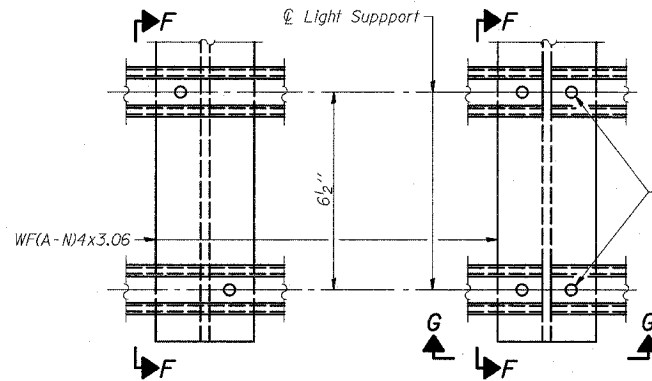
PLAN

DETAIL E HANDRAIL HINGE



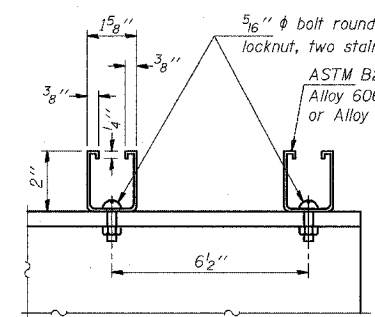
PLAN AT HANDRAIL JOINT

Details not shown same as "PLAN"

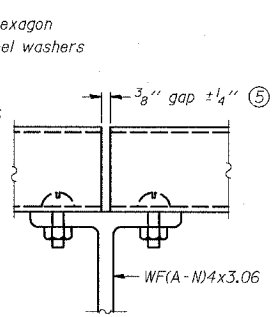


DETAIL F

DETAIL G



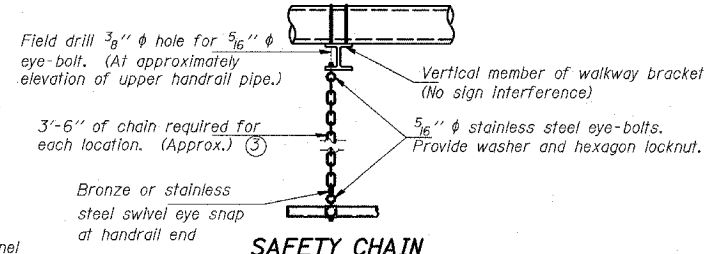
SECTION F-F



SECTION G-G

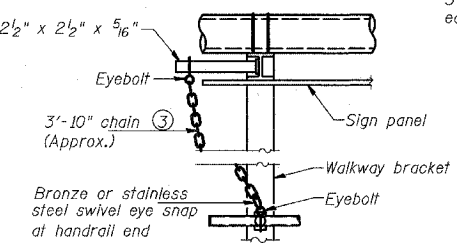
LIGHTING FIXTURE MOUNTS (IF REQUIRED)

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.



ALTERNATE SAFETY CHAIN ATTACHMENT

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

③ 3/16\"/>

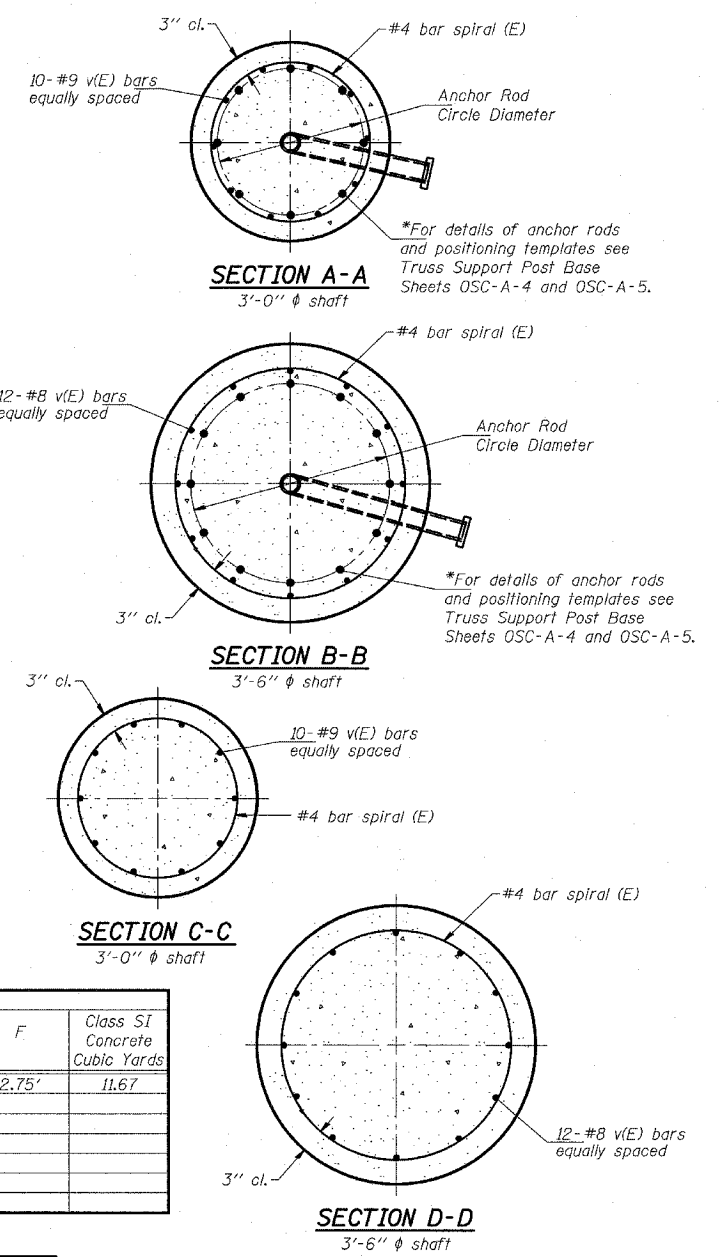
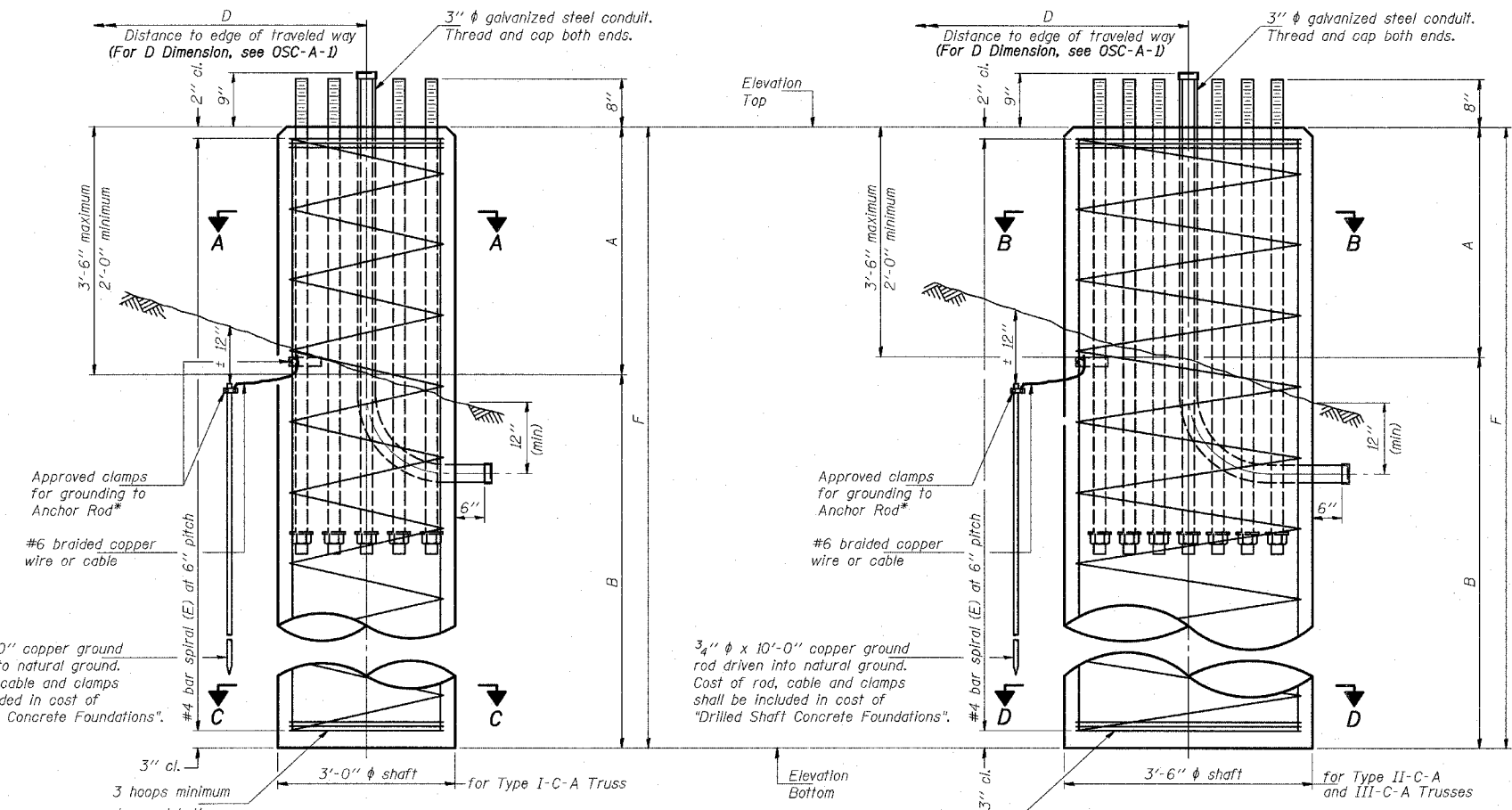
④ Extrusions may be used in lieu of the details shown, with approval of the Engineer.

NUMBER	REVISION	DATE

OSC-A-8 11/1/2002

REVISIONS	
NAME	DATE

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



NOTES:

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

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 Seal 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	Truss Type	Shaft Diameter	Elevation Top	Elevation Bottom	A	B	F	Class SI Concrete Cubic Yards
1C0161094L062.4	2228+81	III-C-A	3.5'	0.80	-31.95	2.75'	30'	32.75'	11.67

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

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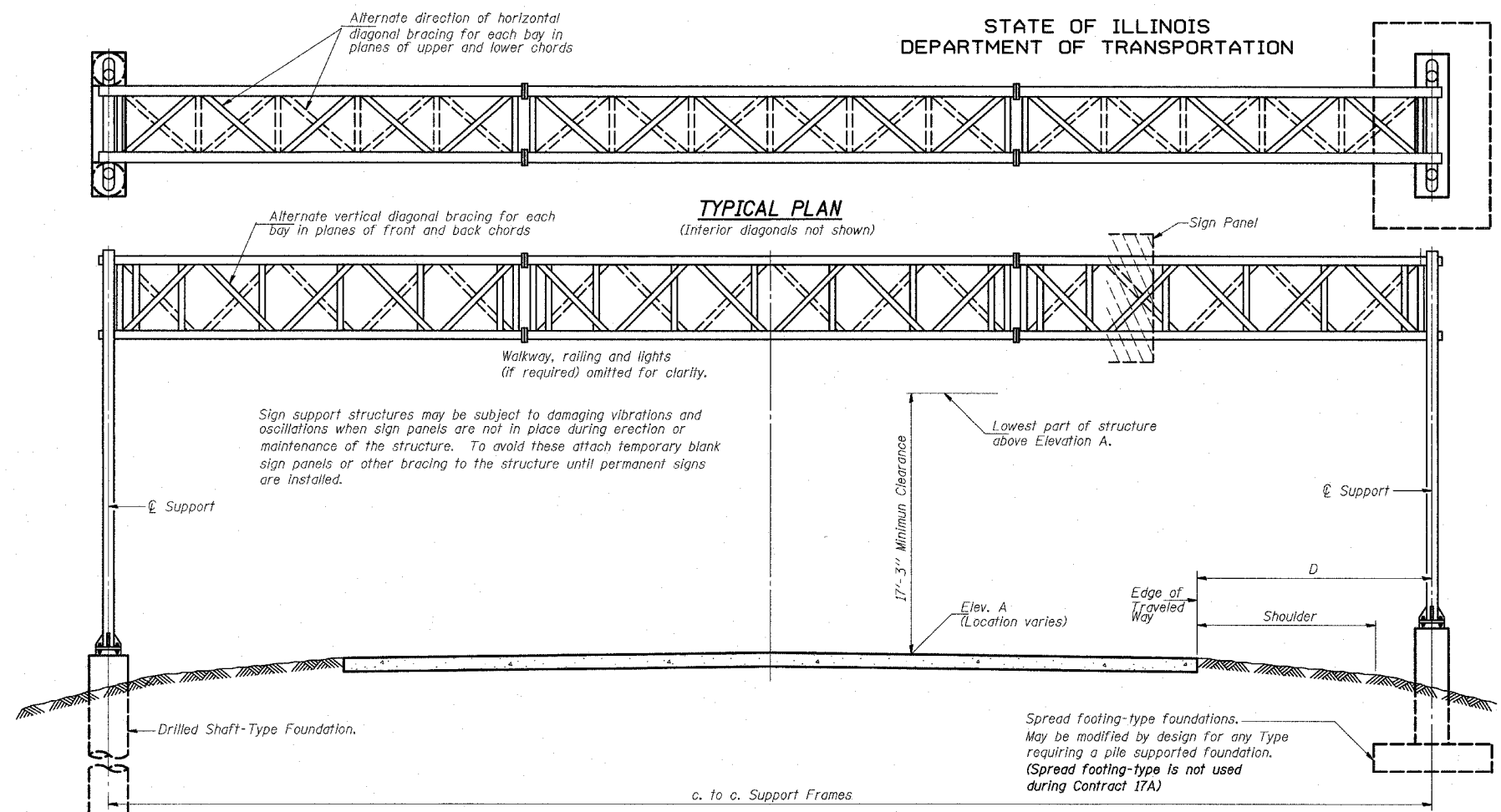
REVISIONS	
NAME	DATE
REVISED	05/06/05

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

SCALE: AS NOTED
DATE: MARCH 18, 2005

DRAWN BY: AMB
CHECKED BY: TB

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



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.
 $f_y = 60,000$ p.s.i. (reinforcement)

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

MATERIALS: Aluminum Alloys as shown throughout plans. All Structural Steel Pipe shall be ASTM A53 Grade B 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.

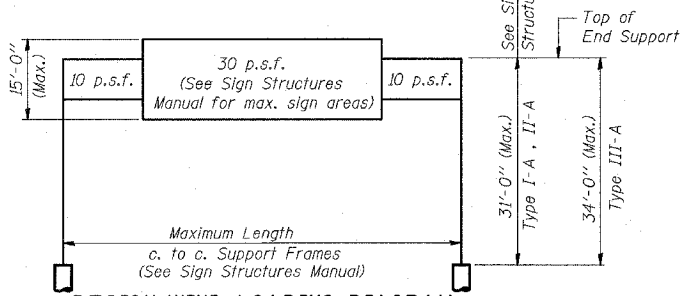
REINFORCEMENT BARS: Reinforcement Bars designated (E) shall be epoxy coated in accordance with the Standard Specifications.

*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.

TYPICAL ELEVATION
(Looking at Face of Signs)**

Structure Number	Station	Design Truss Type	c. to c. Supports	Elev. A	Dim. D	Height of Tallest Sign	Total Sign Area
ISO161057R357.7	215+44	I-A	92'	-3.16	32.13'	10'	335.0 ft ²
ISO161057R357.9	227+29	II-A	109'	5.22	32.44'	10.5'	441.0 ft ²
ISO161094R062.8	2204+66	I-A	96'	-1.70	26.06'	8.5'	229.5 ft ²
ISO161094R062.2	2242+70	II-A	112'	3.56	19.86'	8.5'	174.25 ft ²
ISO161094R061.7	2264+34	II-A	106'	-3.11	37.17'	14.5'	461.25 ft ²
ISO161094R061.3	2282+42	III-A	112'	-5.34	39.81'	8.5'	***
ISO161094R061.2	2290+90	II-A	110'	-8.16	38.06'	8.5'	255.0 ft ²
ISO161094R060.2	2344+44	II-A	115'	-4.17	28.21'	10.5'	258.25 ft ²

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.

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

OS-A-1 11/1/2002

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
OVERHEAD SIGN STRUCTURE TYPE I-A (4'-0" x 4'-6")	Foot	188
OVERHEAD SIGN STRUCTURE TYPE II-A (4'-6" x 5'-3")	Foot	552
OVERHEAD SIGN STRUCTURE TYPE III-A (5'-0" x 7'-0")	Foot	112
OVERHEAD SIGN WALKWAY TYPE A****	Foot	560
CONCRETE FOUNDATIONS	Cu. Yds.	0
DRILLED SHAFT CONCRETE FOUNDATIONS	Cu. Yds.	168

****Paid for as Overhead Sign Structure Walkway

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

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

NUMBER	REVISION	DATE

REVISIONS	
NAME	DATE

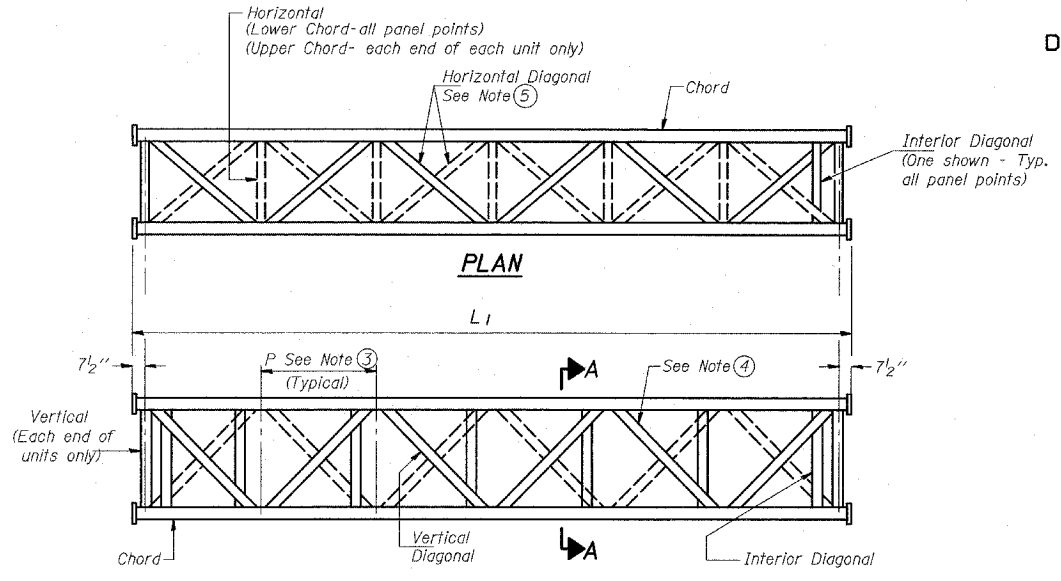
ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94 (DAN RYAN EXPRESSWAY)

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

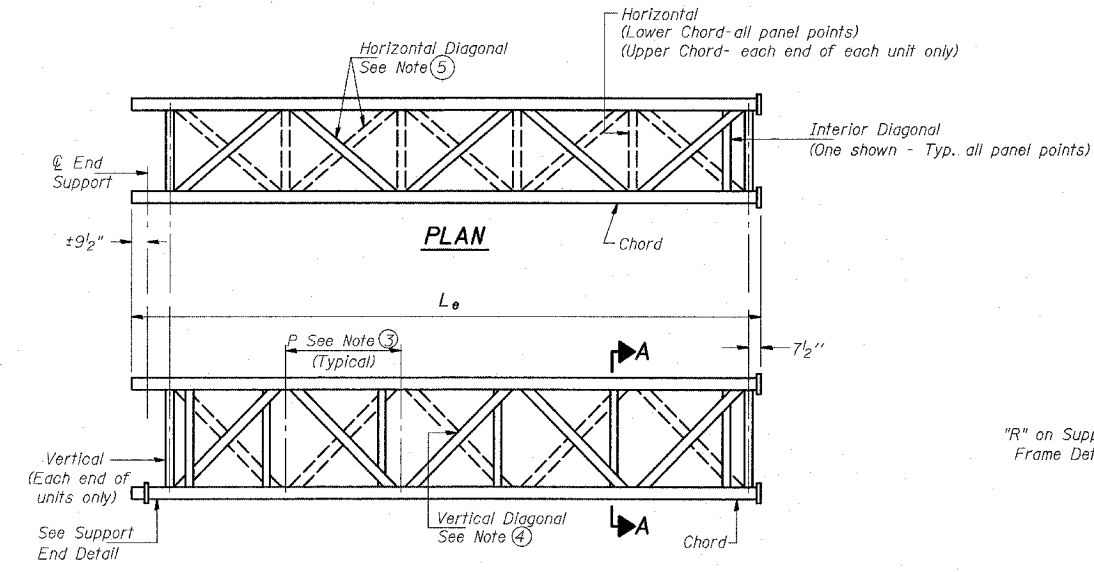
SCALE: AS NOTED
 DATE: MARCH 18, 2005

DRAWN BY: AMB
 CHECKED BY: TB

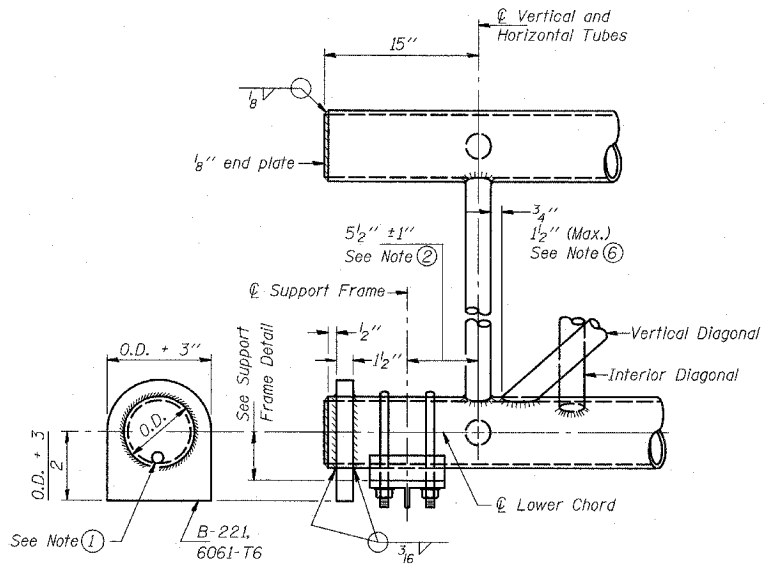
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



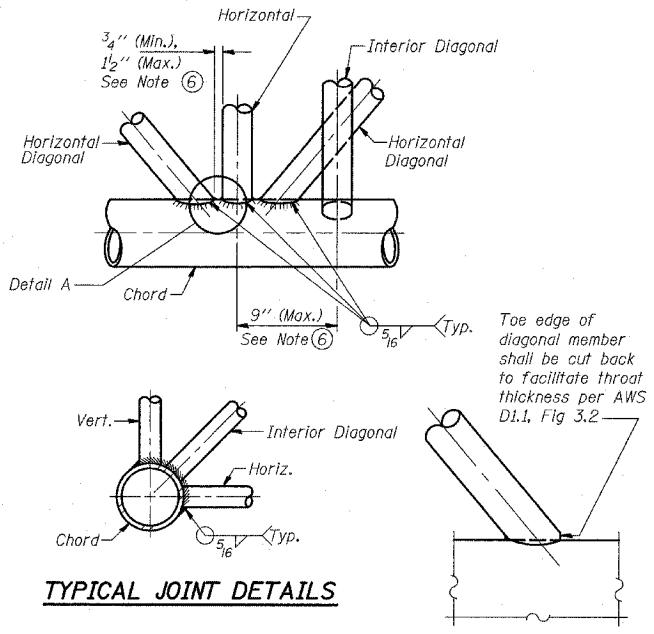
**ELEVATION
TYPICAL INTERIOR UNIT**
Even number of panels/interior unit required.



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



SUPPORT END DETAIL FOR EXTERIOR UNIT

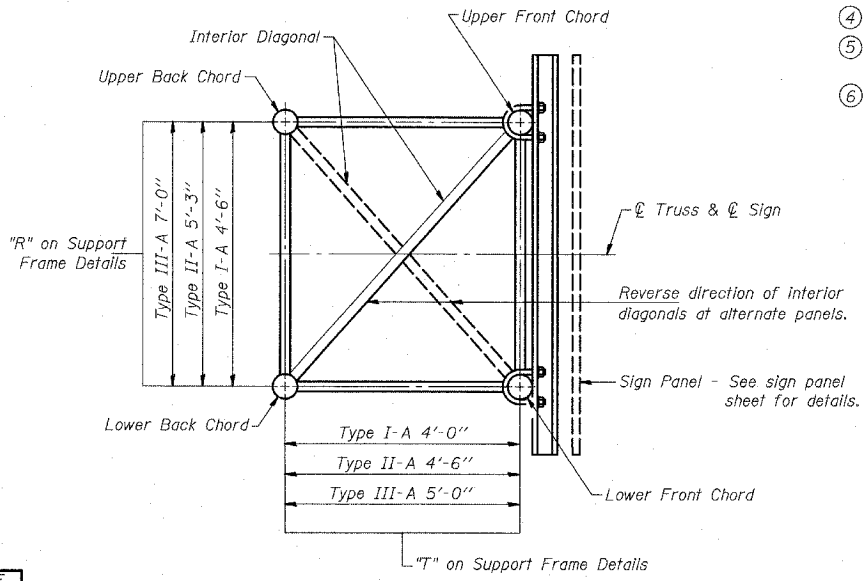


TYPICAL JOINT DETAILS

DETAIL A

NOTES

- Contractor may alternatively use standard aluminum drive-fit cap to close end. 1/2 inch diameter drain hole in end plate/drive-fit cap. (Typ. at ends of all chords)
- 5 1/2 inch end dimension may vary by +/- 1 inch to provide uniform panel spacing (P).
- Panel spacing (P) shall be uniform for entire truss and between 4'-0 inch and 5'-0 inch for Type I-A or 4'-0 inch and 5'-6 inch for Types II-A and III-A.
- Vertical Diagonals in front and back face shall alternate.
- Hidden lines show wind bracing alternates direction between planes of top and bottom chords.
- All diagonals shall be detailed for minimum offset from the panel point based on the following: Offset shall be such as to provide a 3/4 inch minimum to 1 1/2 inch 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 -	20
CHECKED -	EXAMINED
DRAWN -	PASSED
CHECKED -	ENGINEER OF BRIDGES AND STRUCTURES

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

NUMBER	REVISION	DATE

OS-A-2 11/1/2002

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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

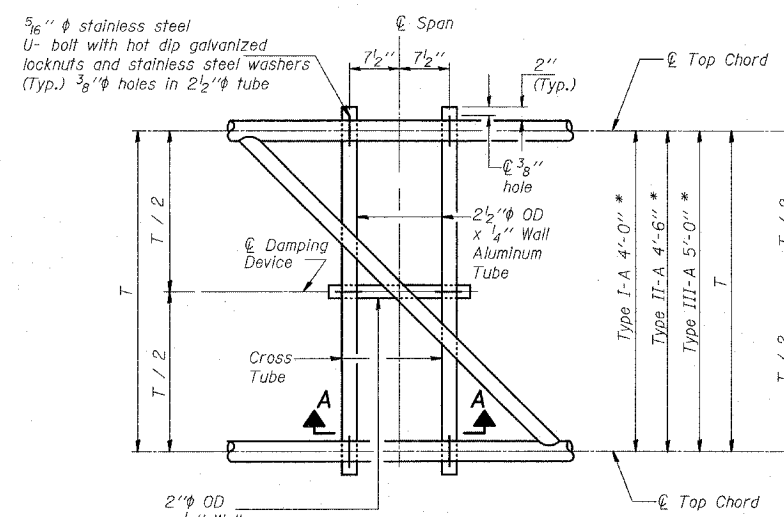
SCALE: AS NOTED DRAWN BY: AMB
DATE: MARCH 18, 2005 CHECKED BY: TB

3/25/2005 4:57 PM

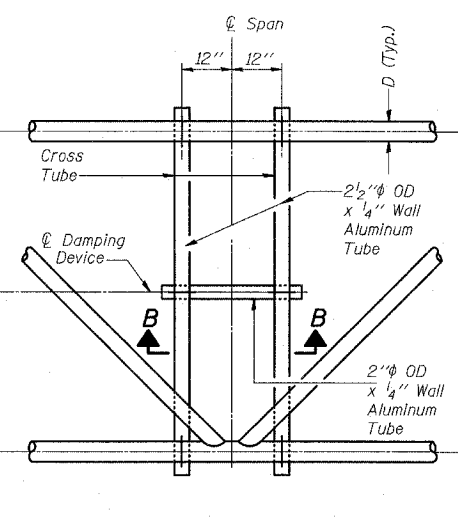
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94		COOK	860	699
STA. 2200+00.00		TO STA. 2362+00.00		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
• (1516.1, 1717 & 1818) R-8				62694

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

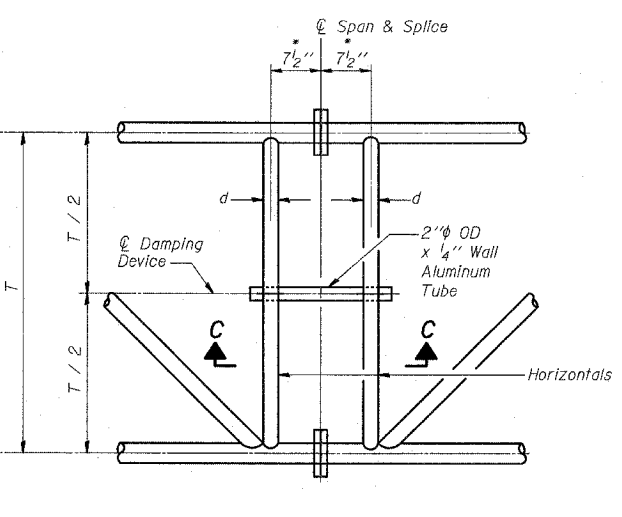
* Center of horizontal to center of splice dimension may vary. Verify before drilling holes in mounting tube.



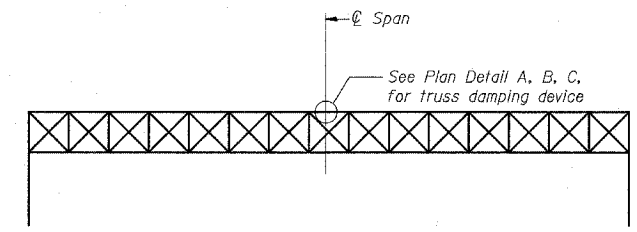
PLAN DETAIL "A"
Span BETWEEN PANEL POINTS



PLAN DETAIL "B"
Span AT PANEL POINT



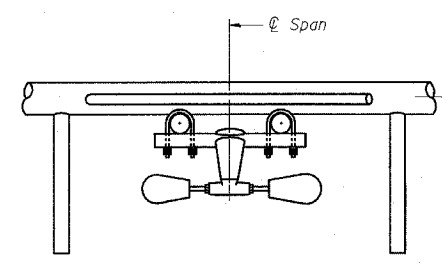
PLAN DETAIL "C"
Span AT CHORD SPLICE



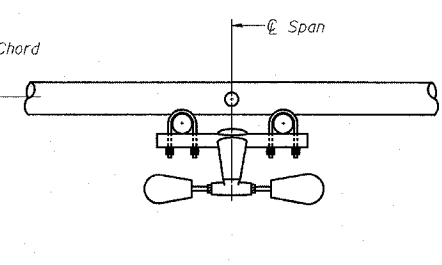
ELEVATION
Aluminum Overhead Sign Truss

NOTES

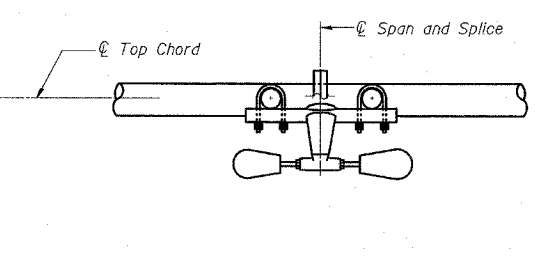
Damper: One damper per truss.
(31 lbs. Stockbridge-Type Aluminum)
Cost included in "Overhead Sign Structure..."
Materials: Aluminum tubes shall be ASTM B221 alloy 6061 temper T6. Cost included in "Overhead Sign Structure..."



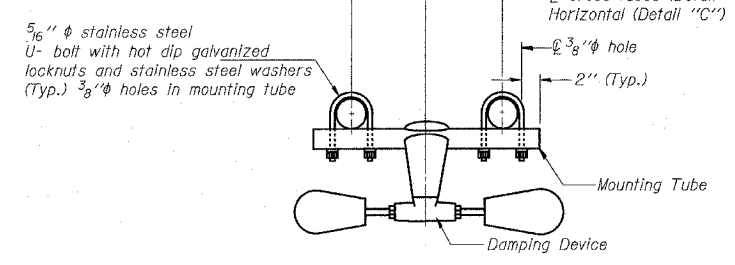
SECTION A-A



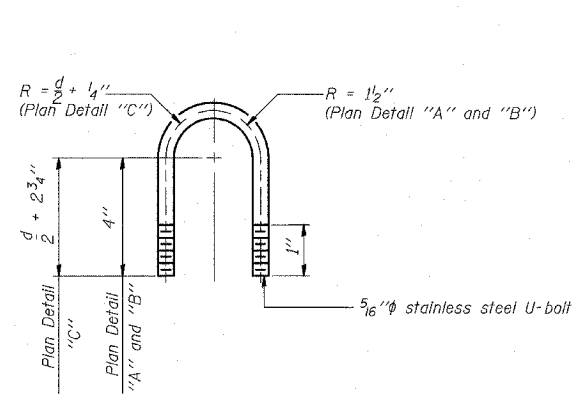
SECTION B-B



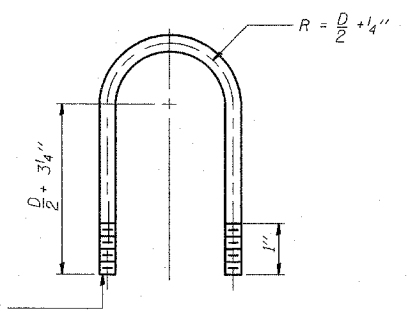
SECTION C-C



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	20
CHECKED	EXAMINED
DRAWN	PASSED
CHECKED	ENGINEER OF BRIDGES AND STRUCTURES

DESIGNED	20
CHECKED	EXAMINED
DRAWN	PASSED
CHECKED	ENGINEER OF BRIDGES AND STRUCTURES

OS-A-D 11/1/2002

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)
OVERHEAD SIGN STRUCTURES DAMPING DEVICE
SCALE: AS NOTED
DATE: MARCH 18, 2005
DRAWN BY: AMB
CHECKED BY: TB

