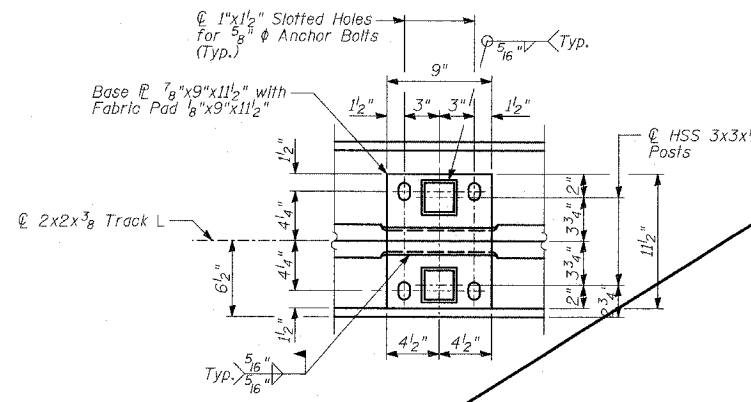
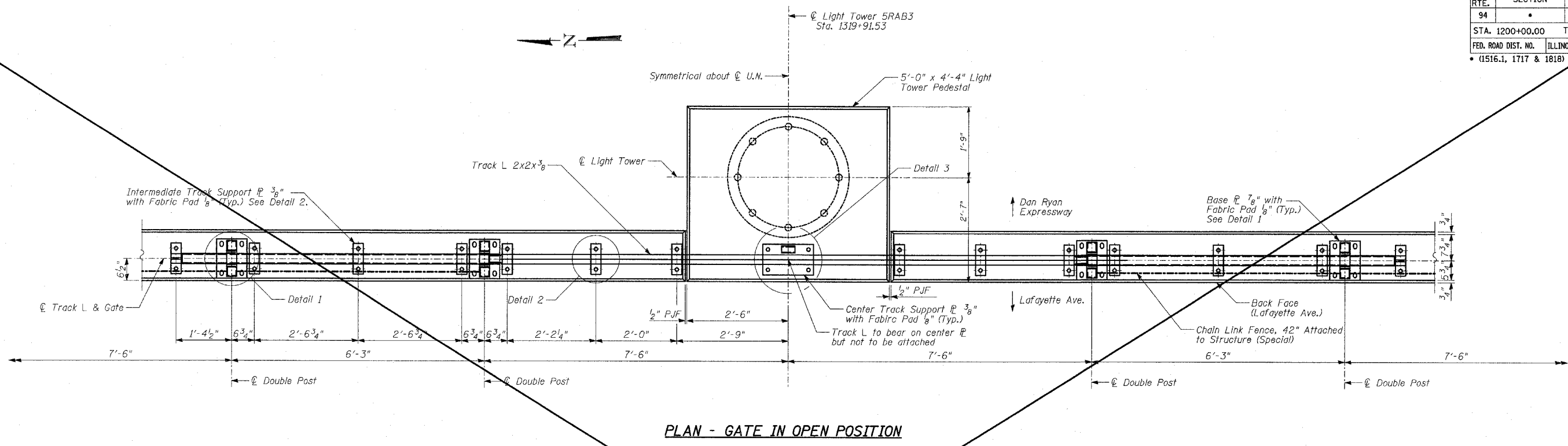
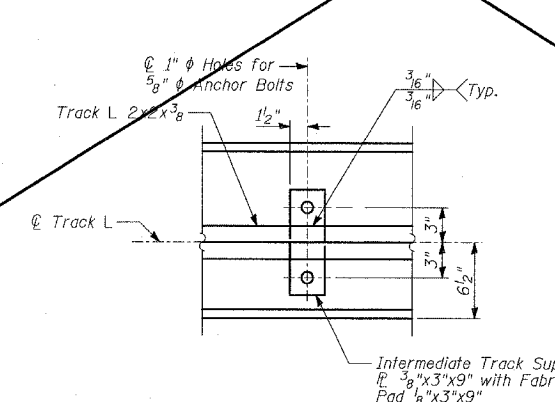


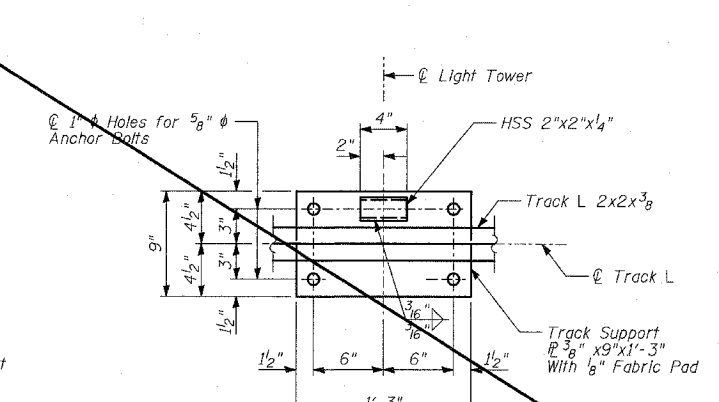
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STA. 1200+00.00 TO STA. 1365+00				
FED. ROAD DIST. NO. ILLINOIS			FED. AID PROJECT	
(1516.1, 1717 & 1818) R-B			62695	



DETAIL 1 - BASE P PLAN



DETAIL 2



DETAIL 3

NOTES:

1. All bolts shall be stainless steel conforming to ASTM F593-98 and F594-98.
2. All pipes and bars shall be hot dipped galvanized after fabrication.
3. For Back Face Elevations, see Sheet 18 of 25.
4. For Anchor Bolt Details, see Sheet 19 of 25.

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Chain Link Gate Assembly (Special)	EACH	1

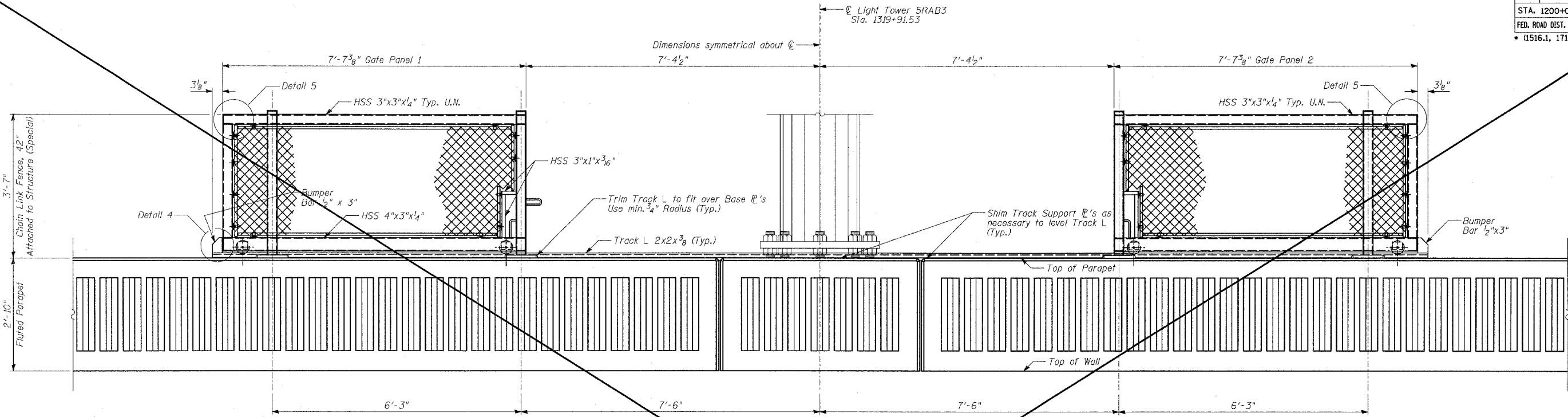
REVISIONS

NAME	DATE

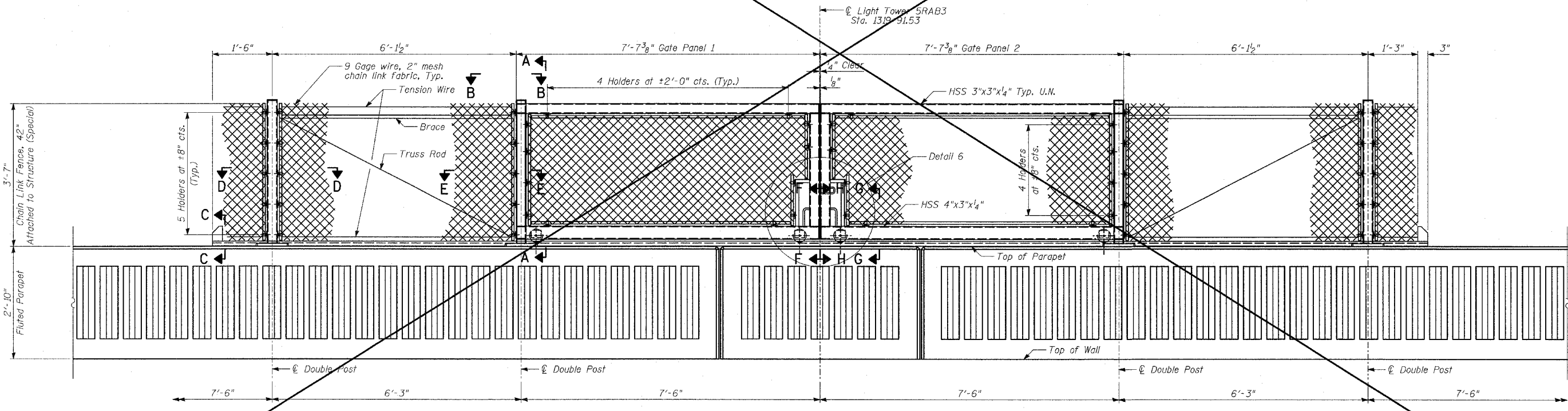
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)
RETAINING WALL ALONG LAFAYETTE AVE.
77TH PL. TO 78TH ST.
WALL 73A
GATE PLAN AND NOTES

S.N. 016-W972
SCALE: N.T.S.
DATE: MARCH 25, 2005

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



BACK FACE ELEVATION - GATE IN OPEN POSITION



BACK FACE ELEVATION - GATE IN CLOSED POSITION

- NOTES:**
1. For notes, see Sheet 17 of 25.
 2. For Sections A-A, B-B, D-D & E-E, see Sheet 19 of 25.
 3. For Sections C-C, F-F, G-G, H-H, J-J and Details 4, 5, 6 & 7, see Sheet 20 of 25.

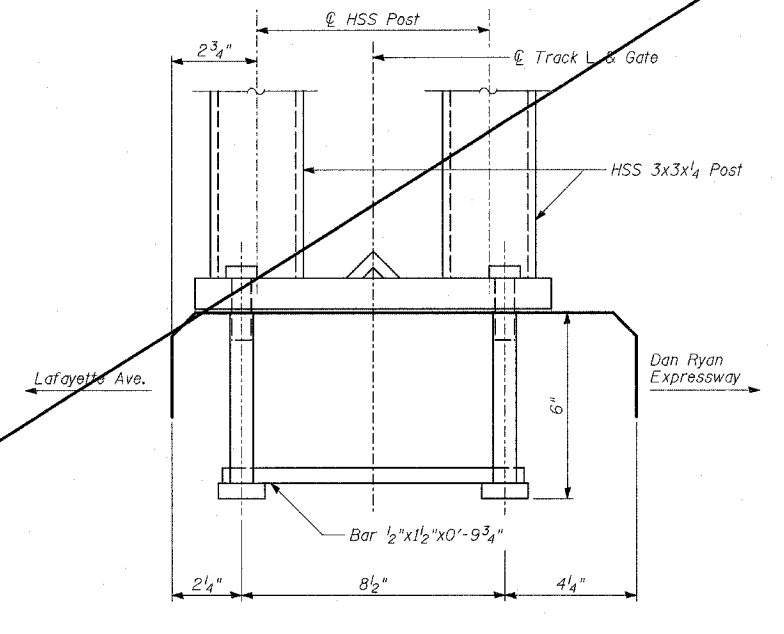
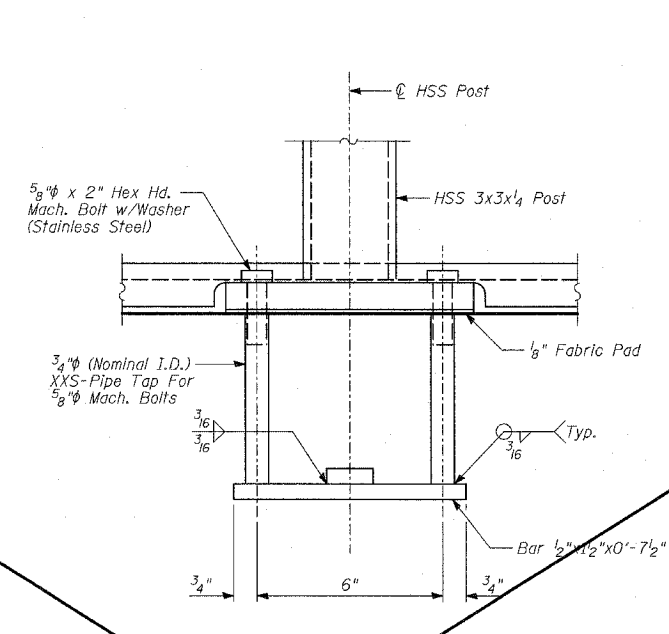
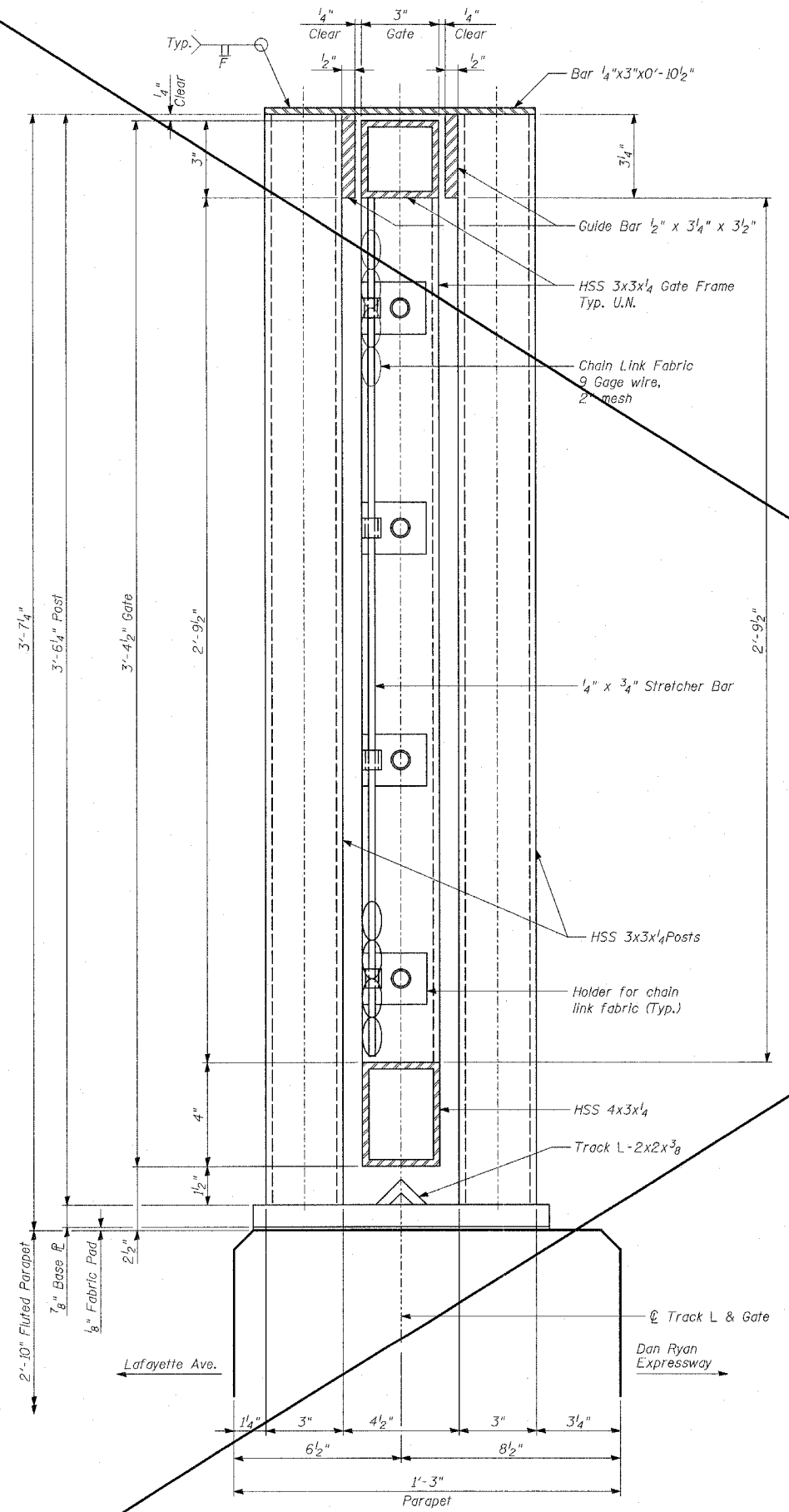
REVISIONS		NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94 (DAN RYAN EXPRESSWAY)
 RETAINING WALL ALONG LAFAYETTE AVE.
 77TH PL. TO 78TH ST.
WALL 73A
GATE ELEVATIONS

S.N. 016-W972
 SCALE: N.T.S.
 DATE: MARCH 25, 2005

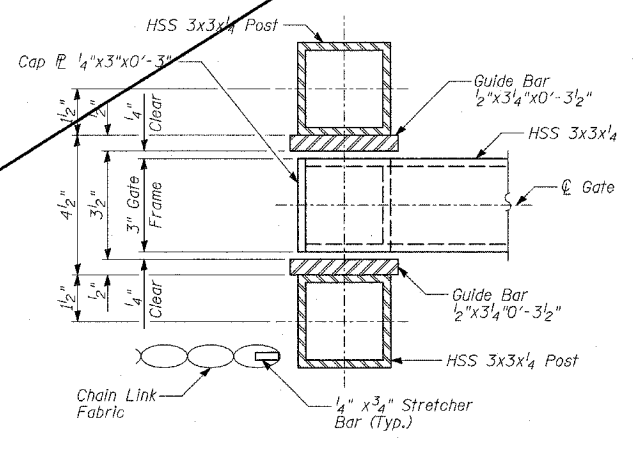
DESIGNED BY: MI, DJR
 DRAWN BY: DJR
 CHECKED BY: TD, MI

F.A.I. RTE. 94	SECTION	COUNTY COOK	TOTAL SHEETS 907	SHEET NO. 604
STA. 1200+00.00		TO STA. 1365+00		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
(1516.1, 1717 & 1818) R-5			62695	

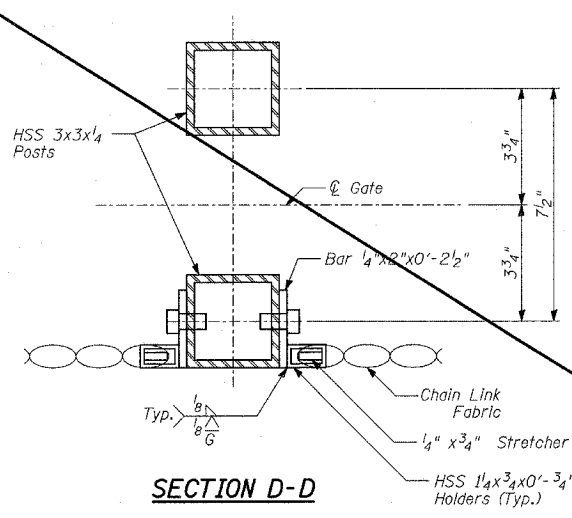


ANCHOR BOLT DETAILS

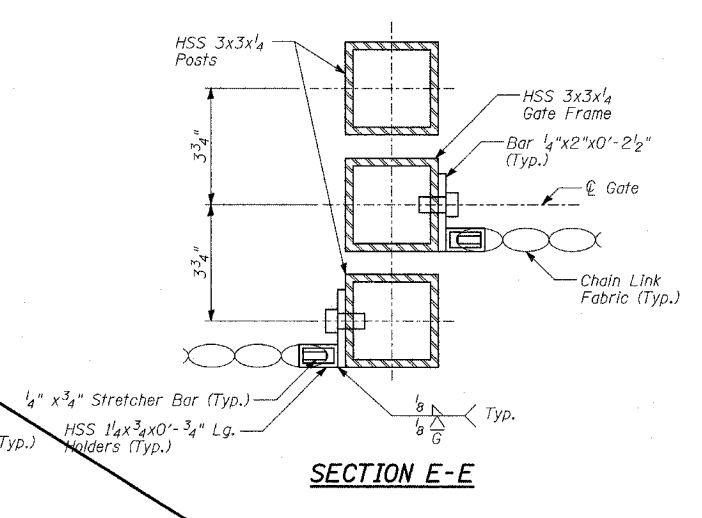
In lieu of the cast-in-place anchor bolt assembly shown, the Contractor has the option of drilling and epoxy grouting 3/8" diameter anchor rods with 1/4" diameter washers. The Contractor shall use the capsule or the adhesive cartridge type anchor rods that have been previously tested and given prior approval by the Department. The Contractor shall install these anchor rods in pre-drilled holes according to the manufacturer's recommendations and procedures. The capsule or adhesive cartridge shall be sealed with pre-measured amounts of adhesive chemical. Anchor rod threading to be peened after nuts are installed.



SECTION B-B



SECTION D-D



SECTION E-E

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SECTION A-A

NOTES:
 1. For Notes See Sheet 17 of 25.
 2. For Anchor Bolt locations, see Details 1, 2 & 3 on Sheet 17 of 25.

REVISIONS	
NAME	DATE
REVIS	04/15/05

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)
RETAINING WALL ALONG LAFAYETTE AVE.
77TH PL. TO 78TH ST.
WALL 73A
GATE SECTIONS

S.N. 016-W972
 SCALE: N.T.S.
 DATE: MARCH 25, 2005

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

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BORING LOG SB 72-03 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 69th Street

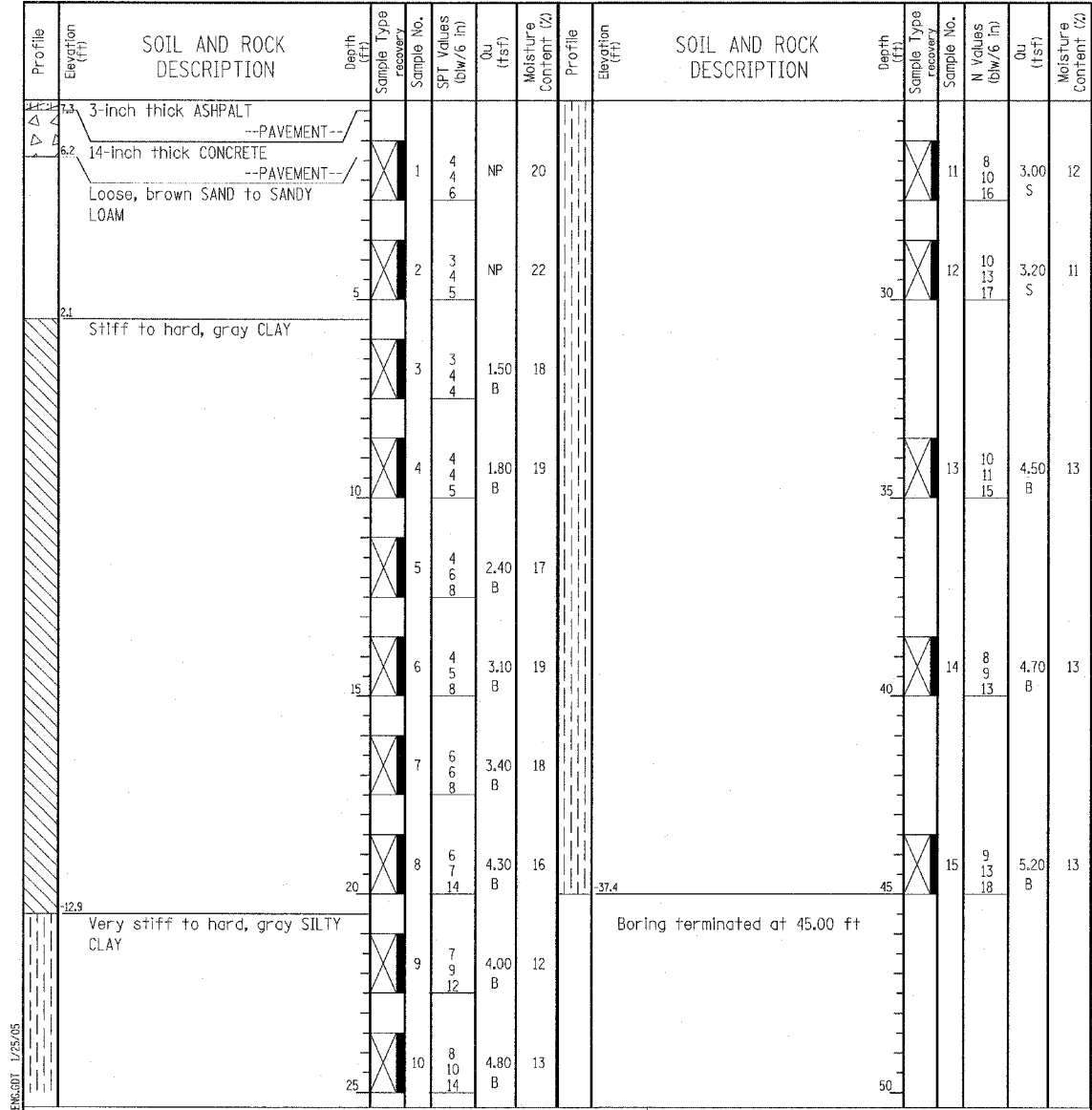
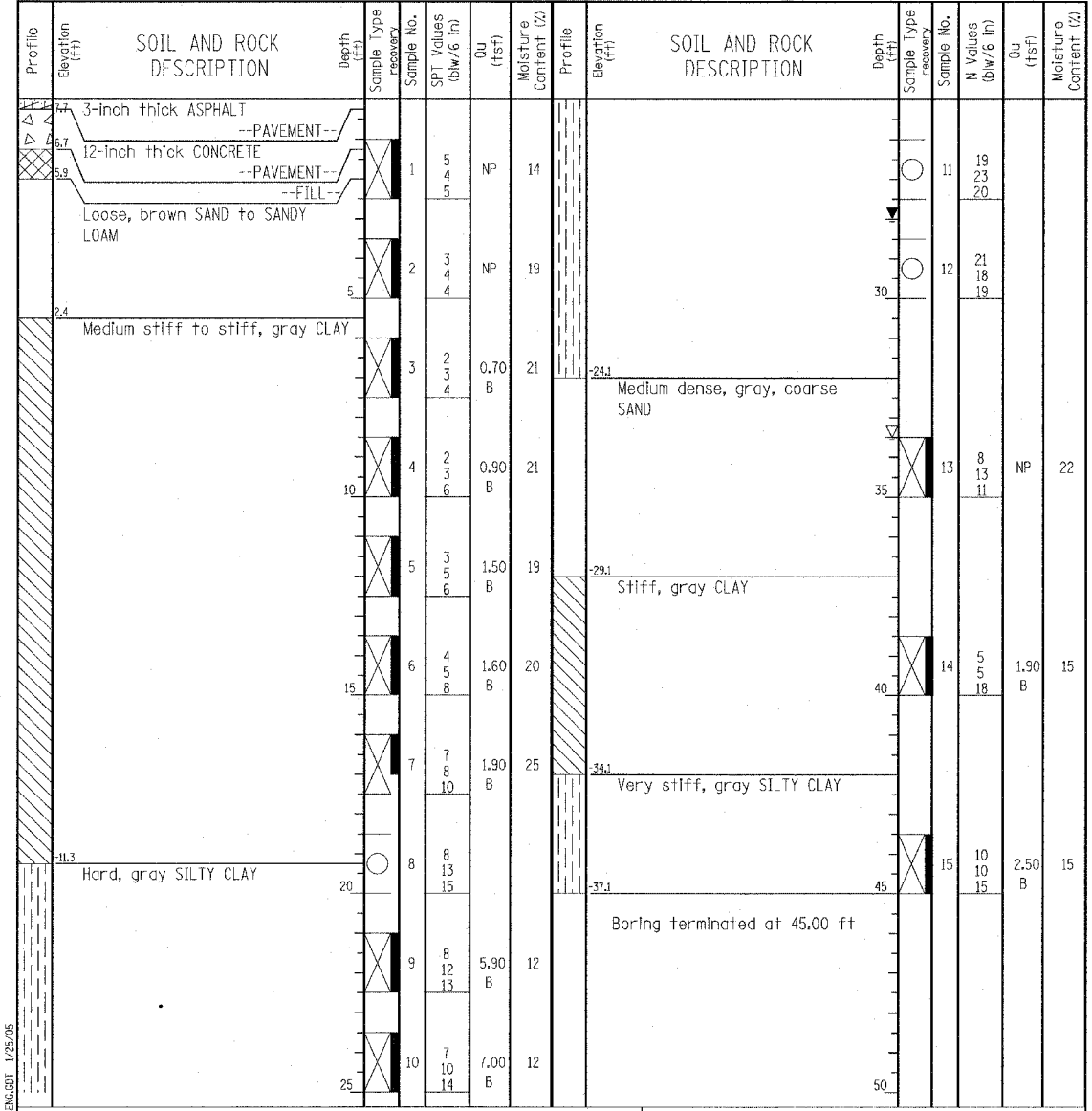
Datum: CCD
 Elevation: 7.92 ft
 North: 1852997.00 ft
 East: 1177320.00 ft
 Station: 1316+25
 Offset: 121' LT

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BORING LOG SB 72-04 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 69th Street

Datum: CCD
 Elevation: 7.57 ft
 North: 1853055.00 ft
 East: 1177318.00 ft
 Station: 1316+83
 Offset: 119' LT



GENERAL NOTES				WATER LEVEL DATA	
Begin Drilling	01-06-2005	Complete Drilling	01-06-2005	While Drilling	33.50 ft
Drilling Contractor	DLZ Drilling	Drill Rig	Mobile B-59 TMR	At Completion of Drilling	28.00 ft
Driller	E&J	Logger	B. Panozzo	Time After Drilling	NA
Drilling Method	3.25" ID, HSA; Boring backfilled with bentonite upon completion				

GENERAL NOTES				WATER LEVEL DATA	
Begin Drilling	01-06-2005	Complete Drilling	01-06-2005	While Drilling	DRY
Drilling Contractor	DLZ Drilling	Drill Rig	Mobile B-59 TMR	At Completion of Drilling	DRY
Driller	E&J	Logger	B. Panozzo	Time After Drilling	NA
Drilling Method	3.25" ID, HSA; Boring backfilled with bentonite upon completion				

TYLIN INTERNATIONAL

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
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 77TH PL. TO 78TH ST.
 WALL 73A
 BORING LOGS SB72-03 & SB72-04
 S.N. 016-W972
 SCALE: N.T.S.
 DATE: MARCH 25, 2005

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

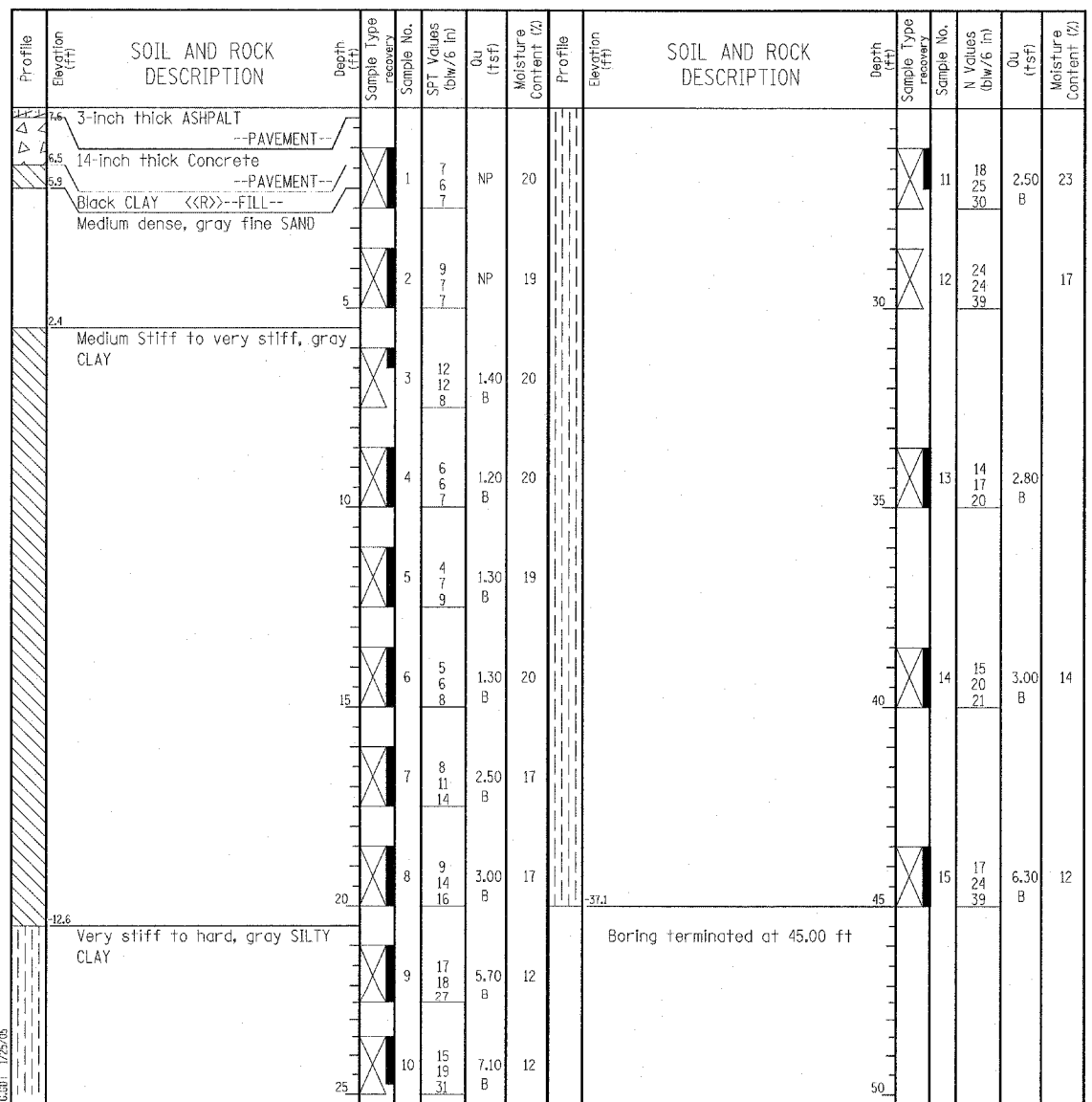
Wang Engineering, INC.
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wangeng3@wangeng.com
1145 Main Street
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Fax: 630 953-9938

BORING LOG SB 73-03 Page 1 of 1

WEI Job No.: 414-07-01

Datum: CCD
Elevation: 7.87 ft
North: 1853105.00 ft
East: 1177299.00 ft
Station: 1317+35
Offset: 135' LT

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



GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	01-10-2005	Complete Drilling	01-10-2005	While Drilling	∇	DRY	
Drilling Contractor	DLZ Drilling	Drill Rig	Djedrich D-120 TMR	At Completion of Drilling	∇	DRY	
Driller	E&R	Logger	BP	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.			

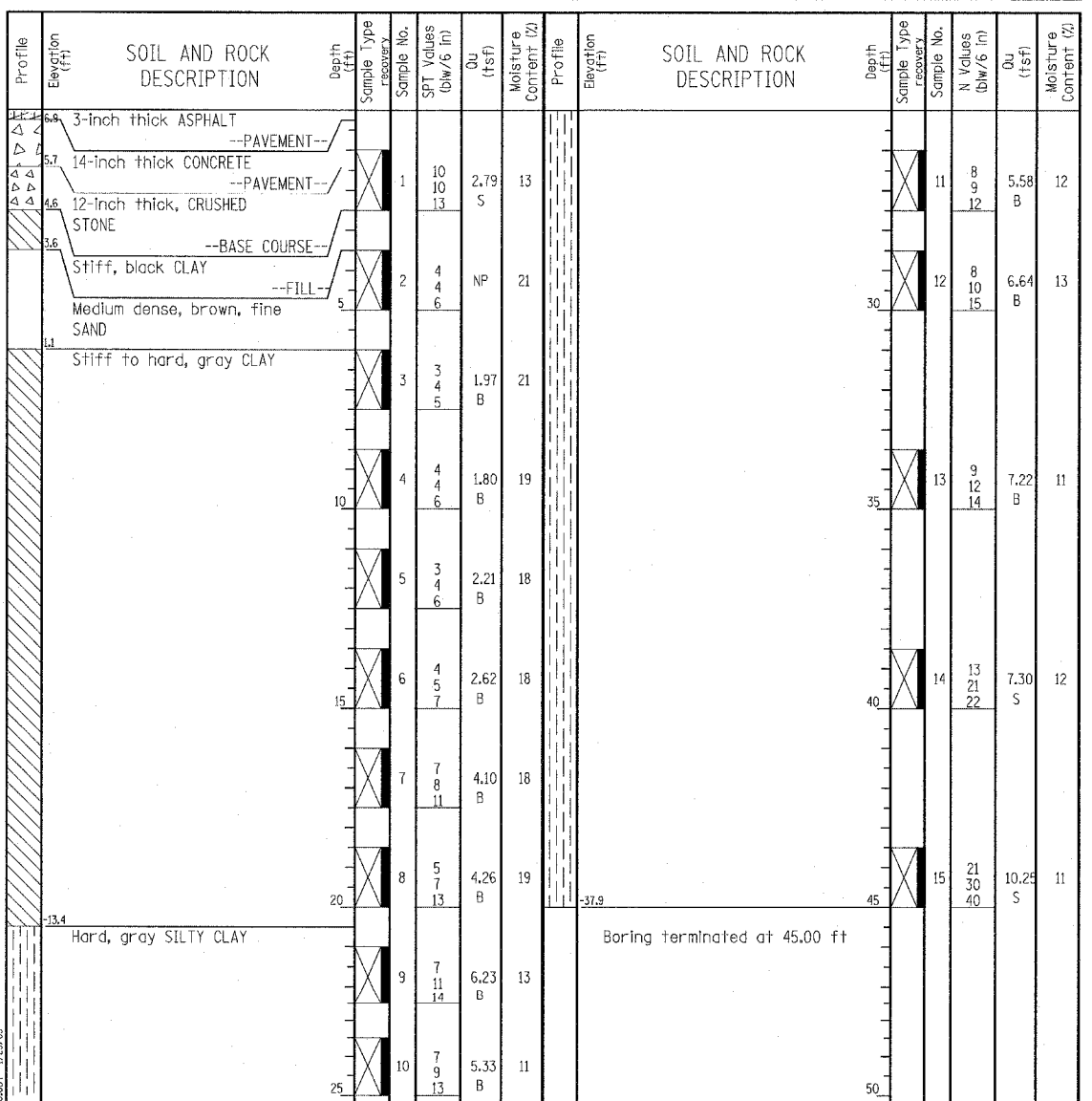
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BORING LOG SB 73-04 Page 1 of 1

WEI Job No.: 414-07-01

Datum: CCD
Elevation: 7.14 ft
North: 1853181.00 ft
East: 1177296.00 ft
Station: 1318+11
Offset: 133' LT

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



GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	12-30-2004	Complete Drilling	12-30-2004	While Drilling	∇	DRY	
Drilling Contractor	DLZ Drilling	Drill Rig	Djedrich D-120 TMR	At Completion of Drilling	∇	DRY	
Driller	J&R	Logger	B. Panozzo	Time After Drilling	NA		
Checked by	END	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 LAFAYETTE AVE.
77TH PL. TO 78TH ST.
WALL 73A
BORING LOGS SB73-03 & SB73-04
S.N. 016-W972
SCALE: N.T.S.
DATE: MARCH 25, 2005

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

P:\02373\struc\ur-C\DrawWall73a\sb73-03-04-01.dwg 03/29/2005 04:31:59 PM

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 wangeng3@wangeng.com
 1145 Main Street
 Lombard, IL 60148
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 Fax: 630 953-9938

BORING LOG SB 73-05 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 69th Street

Datum: CGD
 Elevation: 7.46 ft
 North: 1853248.00 ft
 East: 1177292.00 ft
 Station: 1318+80
 Offset: 132' LT

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BORING LOG SB 73-06 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 69th Street

Datum: CGD
 Elevation: 7.28 ft
 North: 1853333.00 ft
 East: 1177287.00 ft
 Station: 1319+65
 Offset: 131' LT

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 (%)
7.2	3-inch thick ASPHALT --PAVEMENT--	0						7.46		0					
6.0	14-inch thick CONCRETE --PAVEMENT--	1						7.46		1					
5.5	Stiff, brown CLAY<<R>>--FILL--	1		1	6 9 10	NP	27	7.46		11		9 19 19	7.95 B	13	
5.0	Soft, black CLAY<<R>>--FILL--	1						7.46		11					
	Loose to medium dense, brown, fine SAND	2		2	4 4 5	NP	19	7.46		12		8 13 15	5.74 B	14	
1.5	Medium stiff, gray CLAY	3		3	2 3 4	0.50 P	20	7.46		13		9 12 13	4.43 B	16	
		4		4	2 2 4	0.50 P	21	7.46		13					
		5		5	2 4 6	0.50 P	19	7.46		14		50/5"			
		6		6	7 7 10		19	7.46		14					
8.5	Hard, gray CLAY	7		7	3 9 12	4.10 B	18	7.46		15		50/2"			
		8		8	8 12 14	4.02 B	19	7.46		15					
13.5	Hard, gray SILTY CLAY	9		9	7 15 15	7.13 B	12	7.46		15					
		10		10	8 11 13	8.28 B	13	7.46		15					
		25						7.46		15					
		45						37.5		45					

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 (%)
7.2	3-inch thick ASPHALT --PAVEMENT--	0						7.28		0					
6.0	14-inch thick CONCRETE --PAVEMENT--	1						7.28		1					
5.9	Black CLAY with cinders, glass and debris	1		1	5 5/5"		15	7.28		11		10 13 13	4.50 P	14	
3.8	Medium dense, brown SANDY LOAM	2		2	5 5 5		21	7.28		12		12 15 17	4.50 P	16	
1.3	Stiff to very stiff, gray CLAY	3		3	5 5 6			7.28		13		11 13 16	3.12 B	15	
		4		4	3 4 6	2.13 B	22	7.28		13					
		5		5	4 4 6	2.13 B	19	7.28		14		6 11 15	4.92 B	14	
		6		6	3 5 8	1.89 B	20	7.28		14					
		7		7	5 6 9	2.54 B	18	7.28		15		12 14 18	8.12 S	12	
		8		8	5 7 11	3.53 B	18	7.28		15					
13.2	Hard, gray SILTY CLAY	9		9	7 11 12	4.67 B	12	7.28		15					
		10		10	8 11 13	5.08 B	12	7.28		15					
		25						7.28		15					
		45						37.7		45					

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	12-30-2004	Complete Drilling	12-30-2004	While Drilling	∇	DRY	
Drilling Contractor	DLZ Drilling	Drill Rig	Diedrich D-120 TMR	At Completion of Drilling	∇	DRY	
Driller	J&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.							

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	01-04-2004	Complete Drilling	01-04-2004	While Drilling	∇	DRY	
Drilling Contractor	DLZ Drilling	Drill Rig	Mobile B-59	At Completion of Drilling	∇	DRY	
Driller	E&J	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 LAFAYETTE AVE.
 77TH PL. TO 78TH ST.
 WALL 73A
 BORING LOGS SB73-05 & SB73-06
 S.N. 016-W972
 SCALE: N.T.S.
 DATE: MARCH 25, 2005

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

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

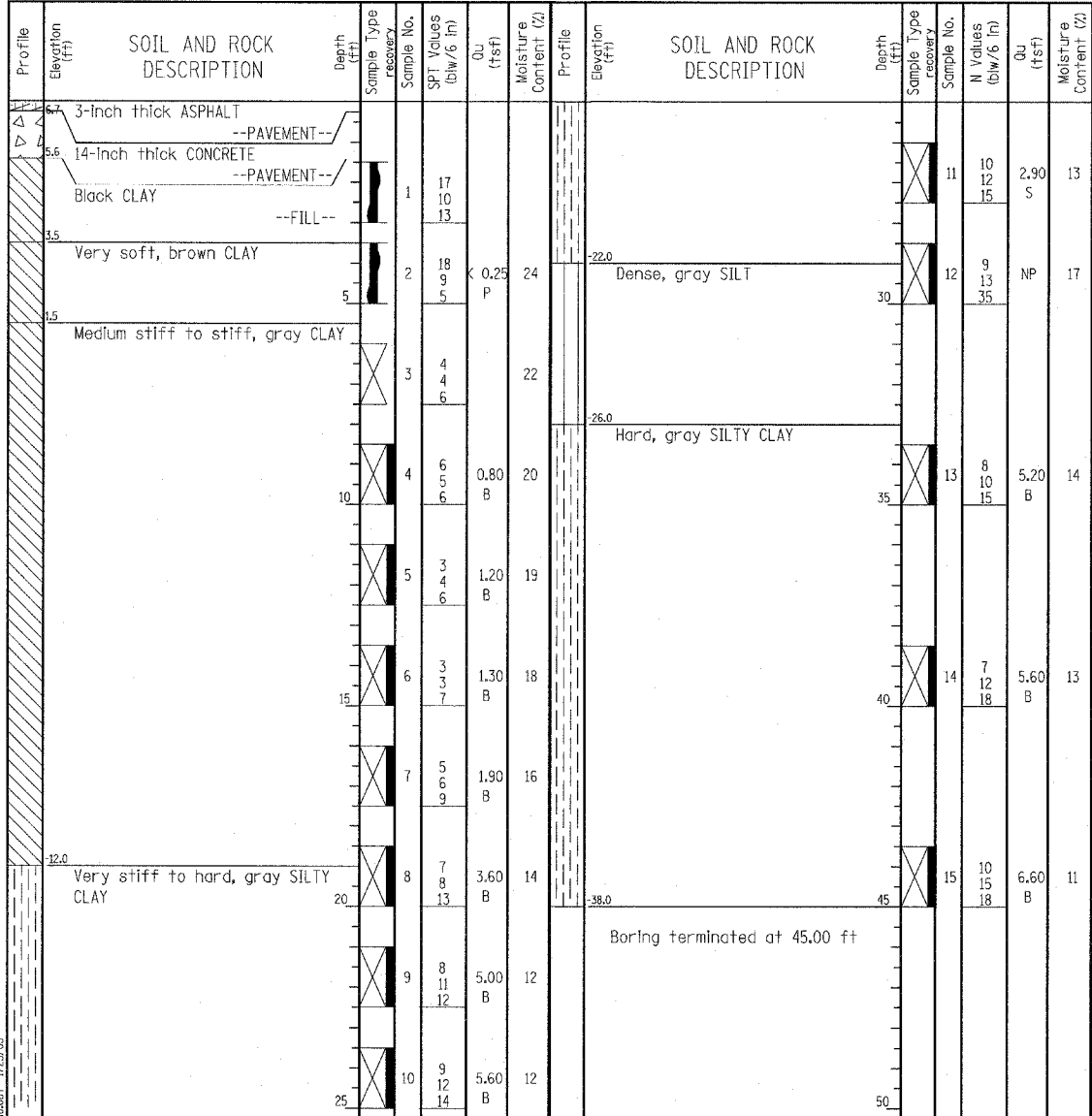
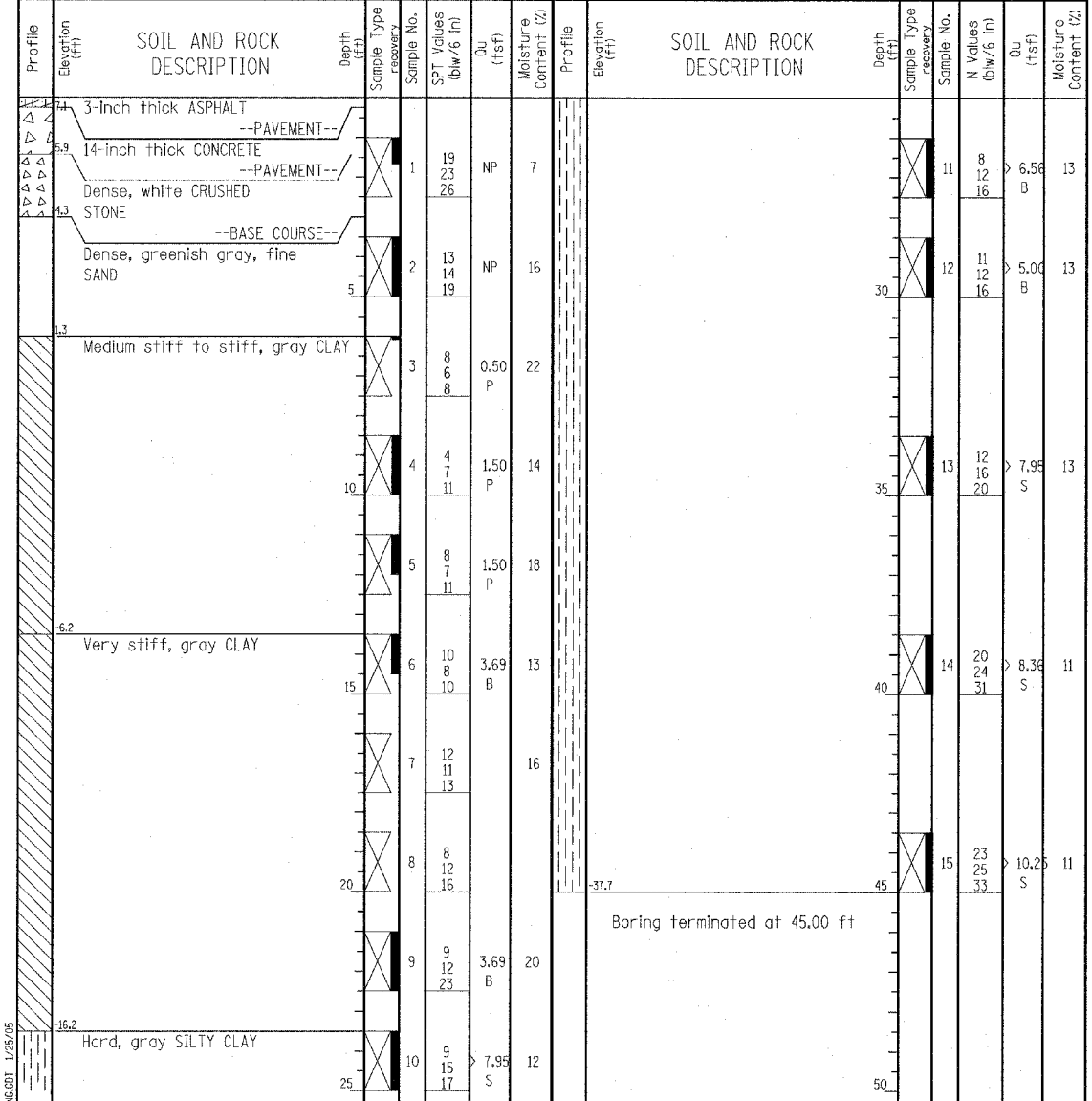
BORING LOG SB 73-07
 WEI Job No.: 414-07-01
 Datum: CCD
 Elevation: 7.30 ft
 North: 1853409.00 ft
 East: 1177279.00 ft
 Station: 1320+42
 Offset: 132' LT

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

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 Fax: 630 953-9938

BORING LOG SB 73-08
 WEI Job No.: 414-07-01
 Datum: CCD
 Elevation: 6.97 ft
 North: 1853486.00 ft
 East: 1177270.00 ft
 Station: 1321+19
 Offset: 136' LT

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



GENERAL NOTES

Begin Drilling 12-29-2004 Complete Drilling 12-29-2004
 Drilling Contractor DLZ Drilling Drill Rig Diederich D-120 TMR
 Driller J&R Logger B. Panozzo Checked by END
 Drilling Method 3.25" ID. HSA; Boring backfilled with bentonite upon completion

WATER LEVEL DATA

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

GENERAL NOTES

Begin Drilling 01-07-2005 Complete Drilling 01-07-2005
 Drilling Contractor DLZ Drilling Drill Rig Mobile B-59
 Driller E&B Logger BP Checked by MLS
 Drilling Method 3.25" ID. HSA; Boring backfilled with bentonite upon completion

WATER LEVEL DATA

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



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94 (DAN RYAN EXPRESSWAY)
 RETAINING WALL ALONG LAFAYETTE AVE.
 77TH PL. TO 78TH ST.
 WALL 73A
 BORING LOGS SB73-07 & SB73-08
 S.N. 016-W972 DESIGNED BY: DJR
 SCALE: N.T.S. DRAWN BY: DJR
 DATE: MARCH 25, 2005 CHECKED BY: TD

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 Consulting Geotechnical and Environmental Engineers
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 Fax: 630 953-9938

BORING LOG SB 73-09 Page 1 of 1

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

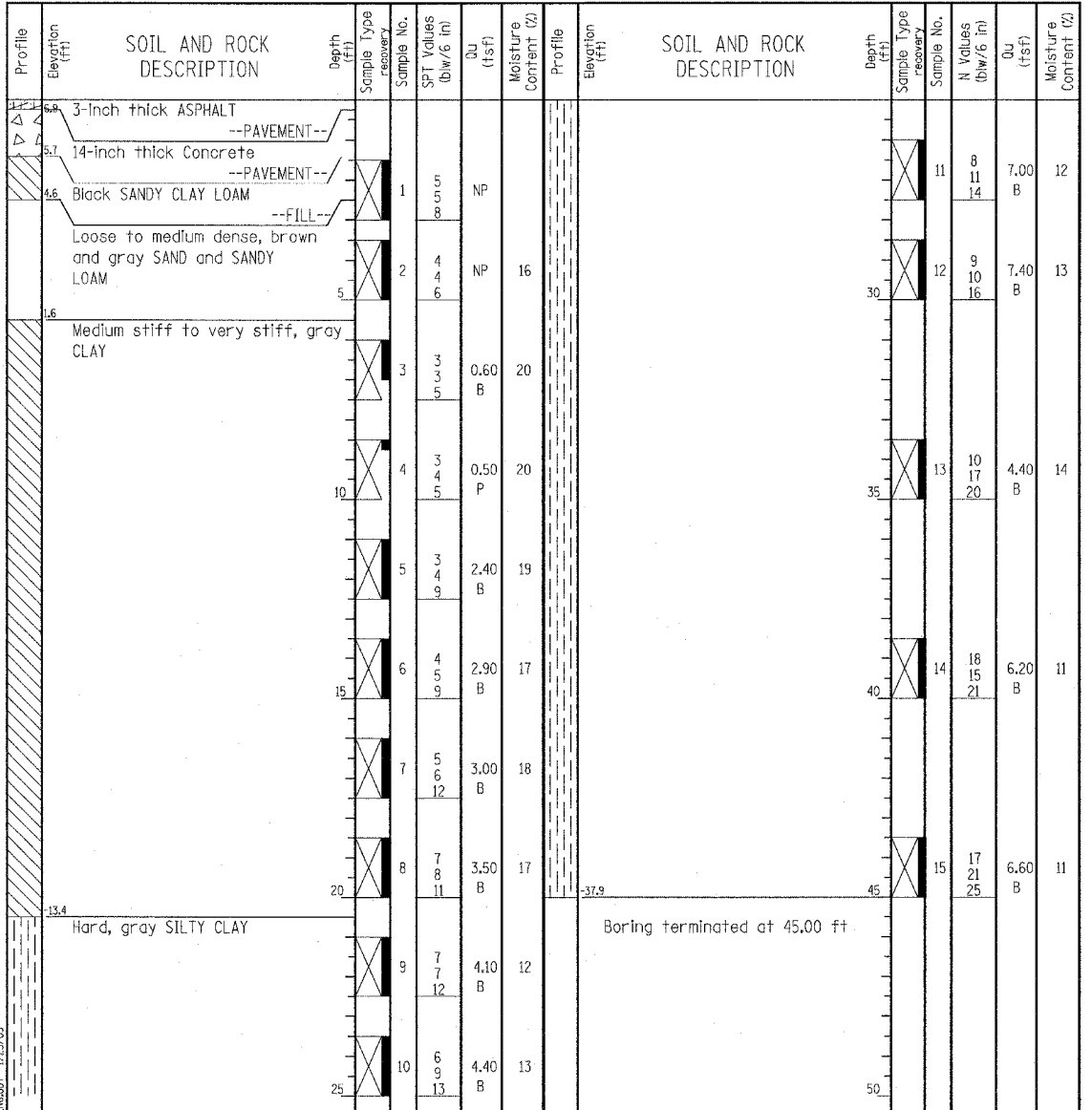
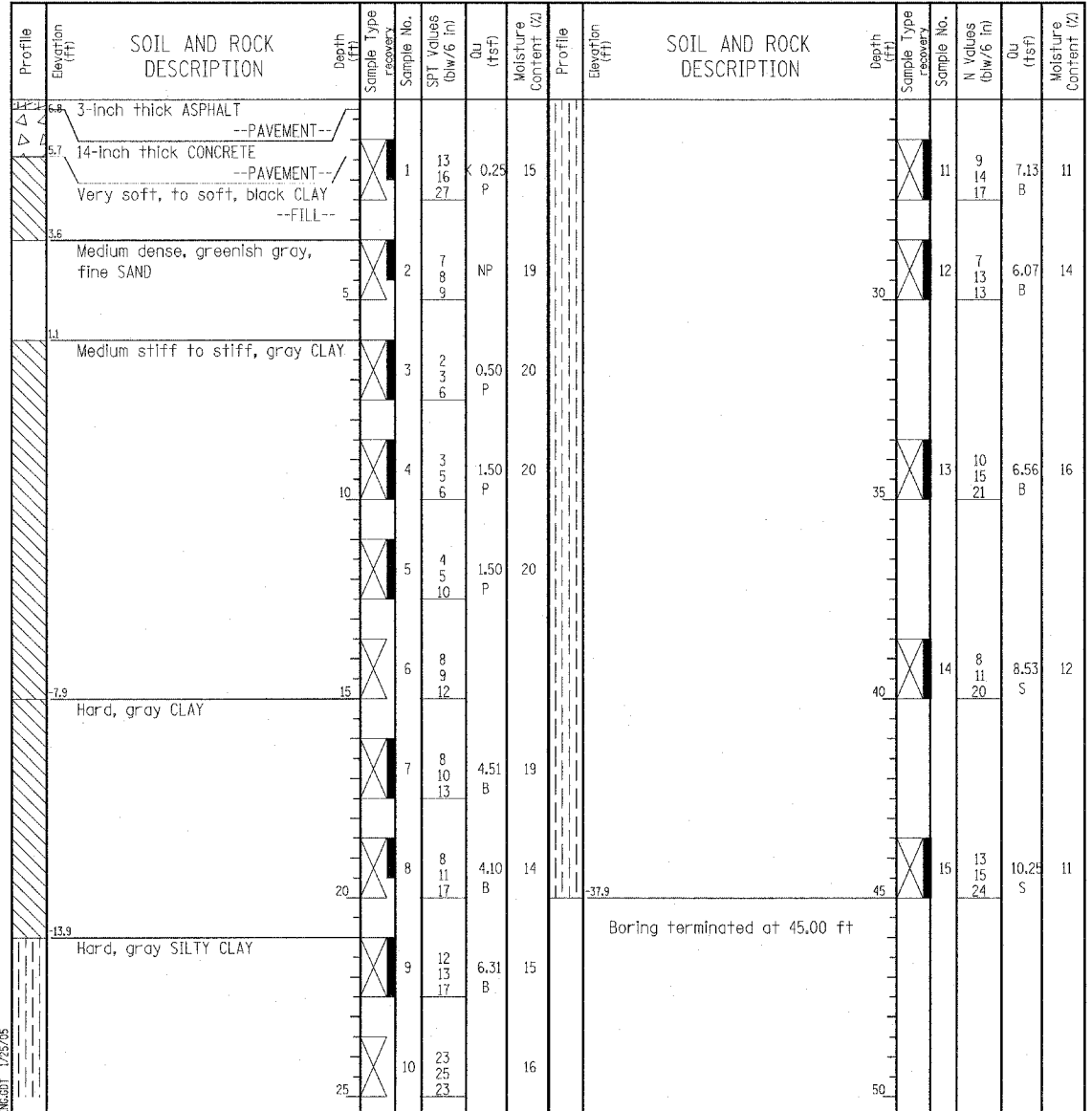
Datum: CCD
 Elevation: 7.08 ft
 North: 1853548.00 ft
 East: 1177262.00 ft
 Station: 1321+82
 Offset: 138' LT

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 wangeng3ewangeng.com
 1145 Main Street
 Lombard, IL 60148
 Telephone: 630 953-9928
 Fax: 630 953-9938

BORING LOG SB 73-10 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 69th Street

Datum: CCD
 Elevation: 7.10 ft
 North: 1853622.00 ft
 East: 1177251.00 ft
 Station: 1322+56
 Offset: 143' LT



GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	12-29-2004	Complete Drilling	12-29-2004	While Drilling	▽	DRY	
Drilling Contractor	DLZ Drilling	Drill Rig	Diedrich D-120 TMR	At Completion of Drilling	▽	DRY	
Driller	J&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.							

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	01-07-2005	Complete Drilling	01-07-2005	While Drilling	▽	DRY	
Drilling Contractor	DLZ Drilling	Drill Rig	Mobile B-59	At Completion of Drilling	▽	DRY	
Driller	E&B	Logger	BP	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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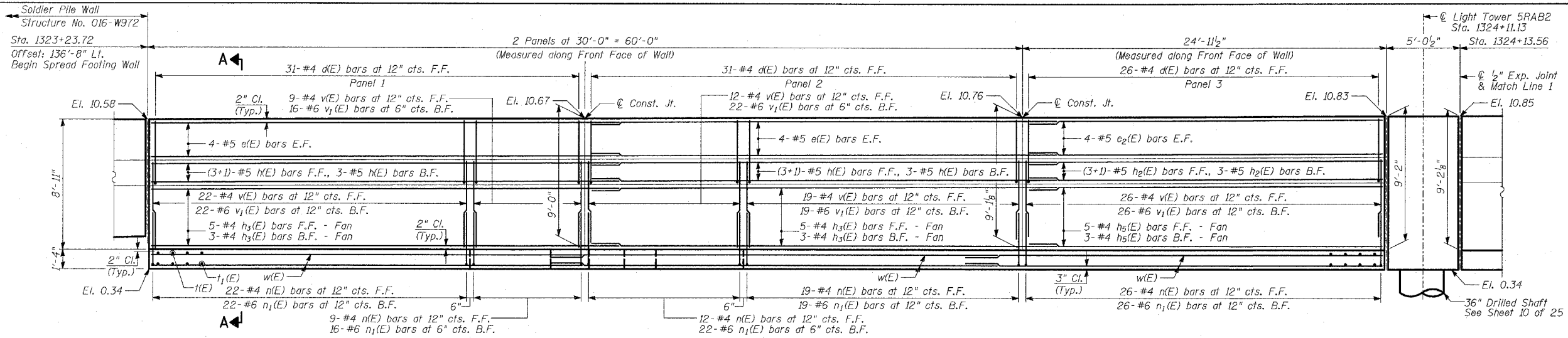
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
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 RETAINING WALL ALONG LAFAYETTE AVE.
 77TH PL. TO 78TH ST.
 WALL 73A
 BORING LOGS SB73-09 & SB73-10
 S.N. 016-W972
 SCALE: N.T.S.
 DATE: MARCH 25, 2005

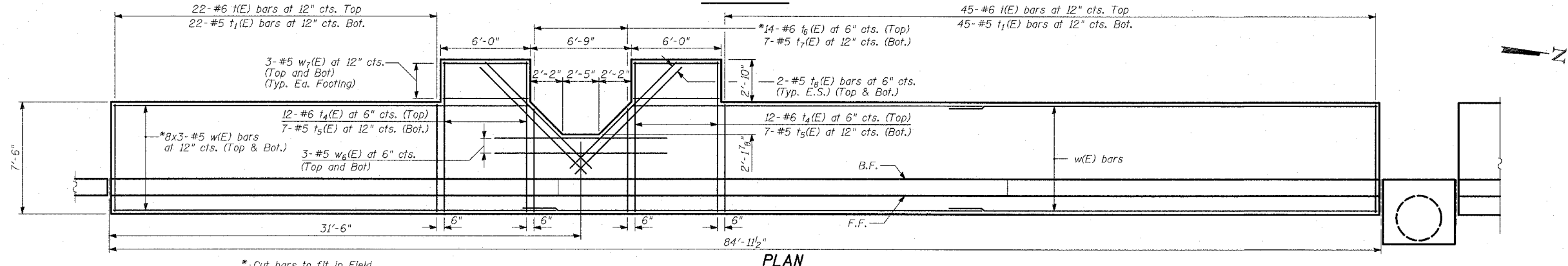
DESIGNED BY: DJR
 DRAWN BY: DJR
 CHECKED BY: TD

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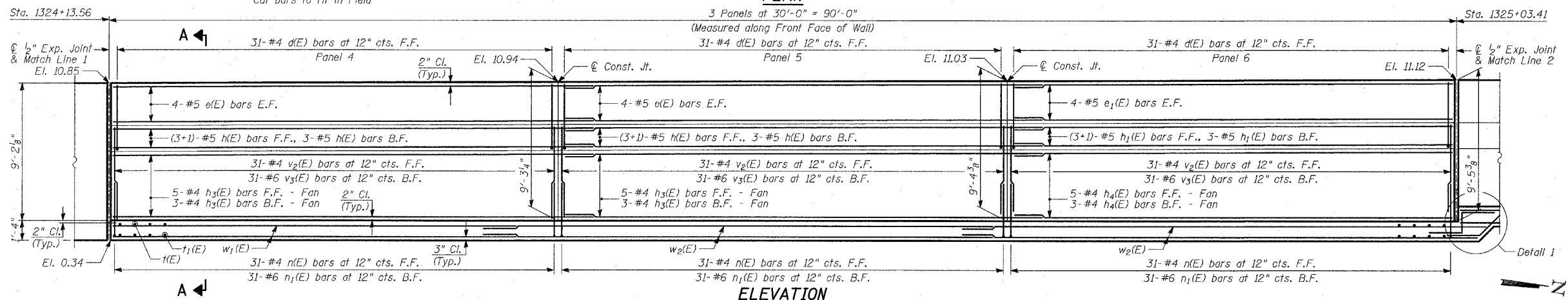
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94		COOK	907	612
STA. 1200+00.00 TO STA. 1365+00		ILLINOIS FED. AID PROJECT		
FED. ROAD DIST. NO.		(1516.1, 1717 & 1818) R-9		
				62695



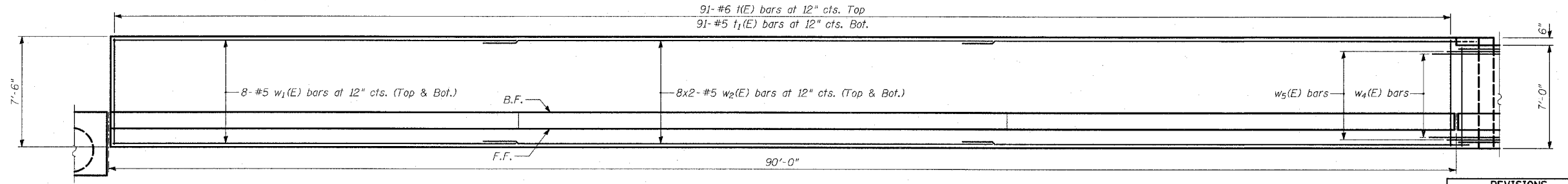
ELEVATION



PLAN



ELEVATION



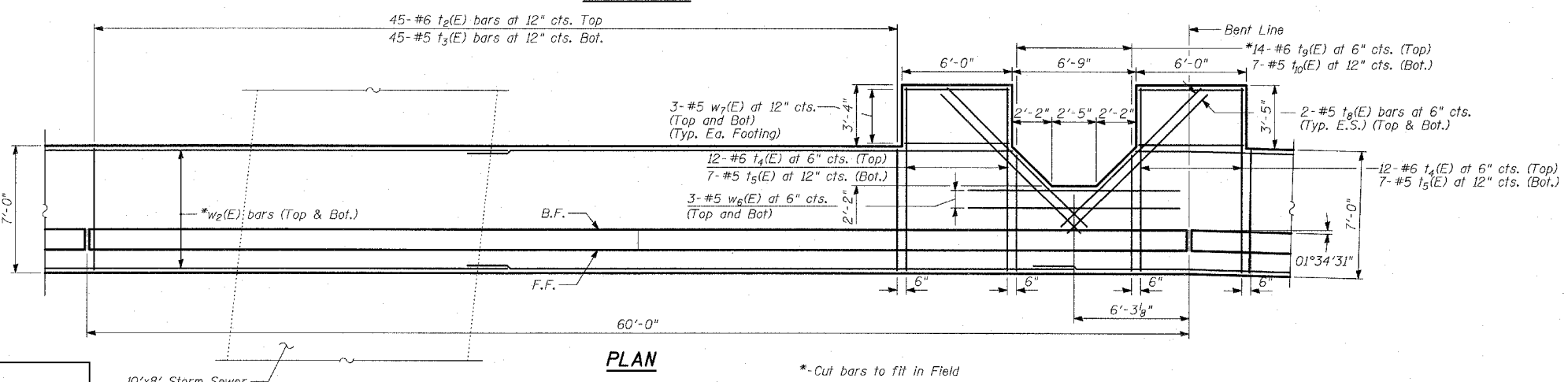
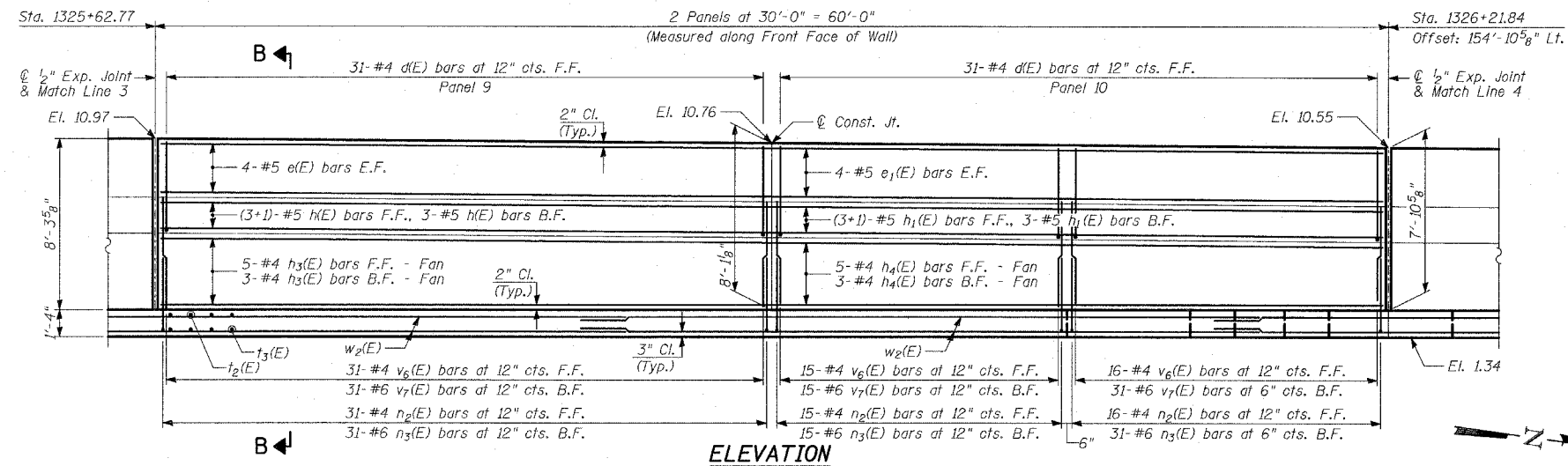
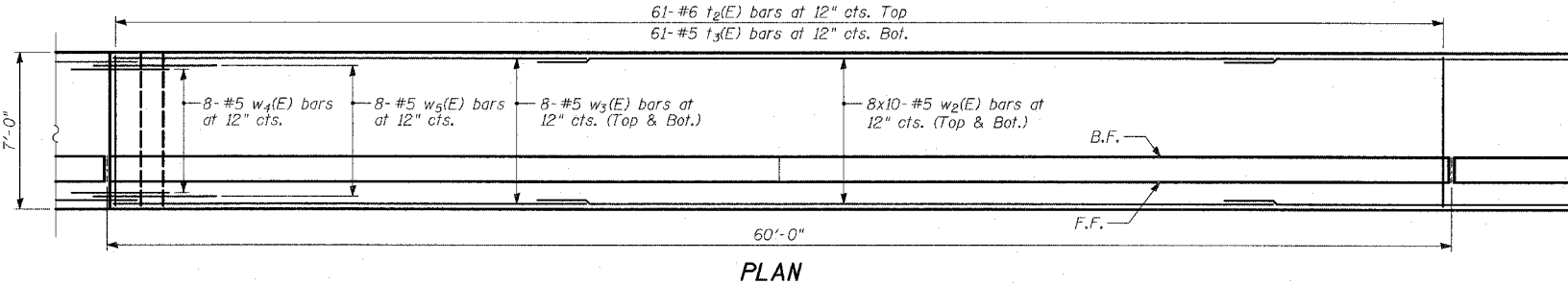
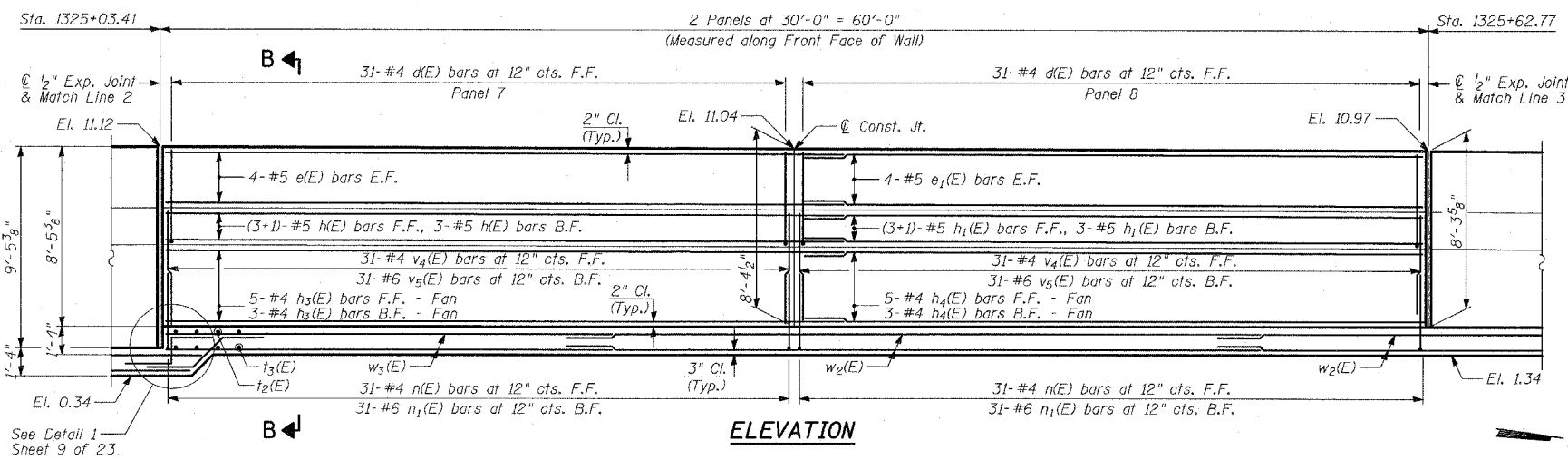
PLAN

- 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 9, 10, 12, 13 and 15 thru 20 of 25.
 5. Pile spacing measured along front face of wall.
 6. For Lap Splices, see Sheet 9 of 25.

TYLIN INTERNATIONAL

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94 (DAN RYAN EXPRESSWAY)
 RETAINING WALL ALONG LAFAYETTE AVE.
 77TH PL. TO 78TH ST.
 WALL 73B - PLAN AND ELEVATION
 STA. 1323+23.72 TO STA. 1325+03.41
 S.N. 016-W973 DESIGNED BY: MI
 SCALE: N.T.S. DRAWN BY: SNB
 DATE: MARCH 25, 2005 CHECKED BY: TD, MI



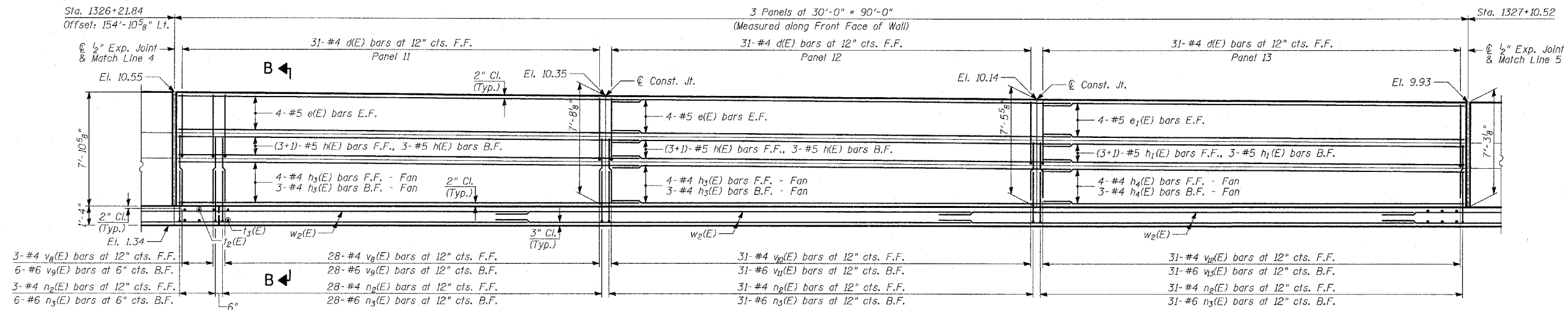
- NOTES:**
1. B.F. - denotes Back Face.
 2. E.F. - denotes Each Face.
 3. F.F. - denotes Front Face.
 4. Work this Sheet with Sheets 9, 13, 15 and 16 of 25.
 5. Pile spacing measured along front face of wall.
 6. For Lap Splices, see Sheet 9 of 25.

REVISIONS	
NAME	DATE

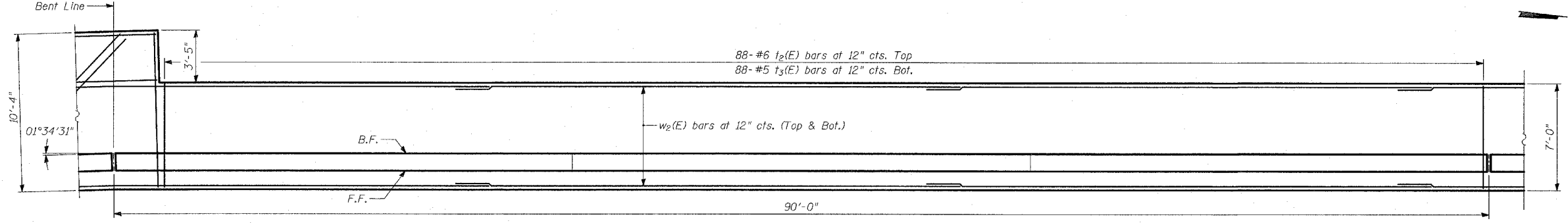
SHEET 3 OF 25

ILLINOIS DEPARTMENT OF TRANSPORTATION	
F.A.I. 94 (DAN RYAN EXPRESSWAY)	
RETAINING WALL ALONG LAFAYETTE AVE.	
77TH PL. TO 78TH ST.	
WALL 73B - PLAN AND ELEVATION	
STA. 1325+03.41 TO STA. 1326+21.84	
S.N. 016-W	DESIGNED BY: MI
SCALE: N.T.S.	DRAWN BY: SNB
DATE: MARCH 25, 2005	CHECKED BY: TD, MI

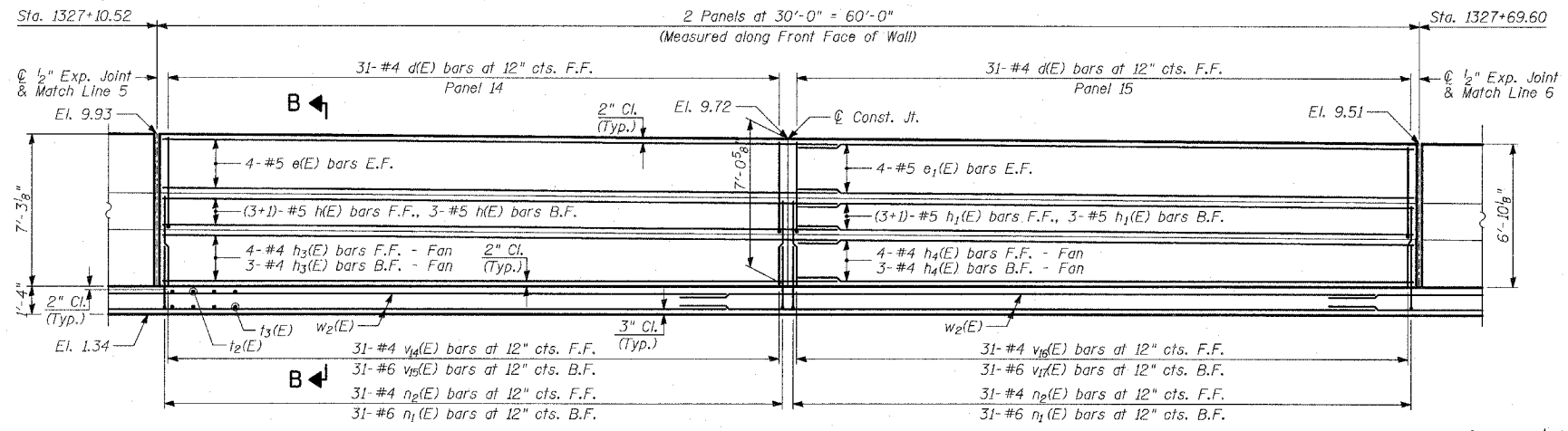
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	*	COOK	907	614
STA. 1200+00.00 TO STA. 1365+00				
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
(1516.1, 1717 & 1818) R-9		62695		



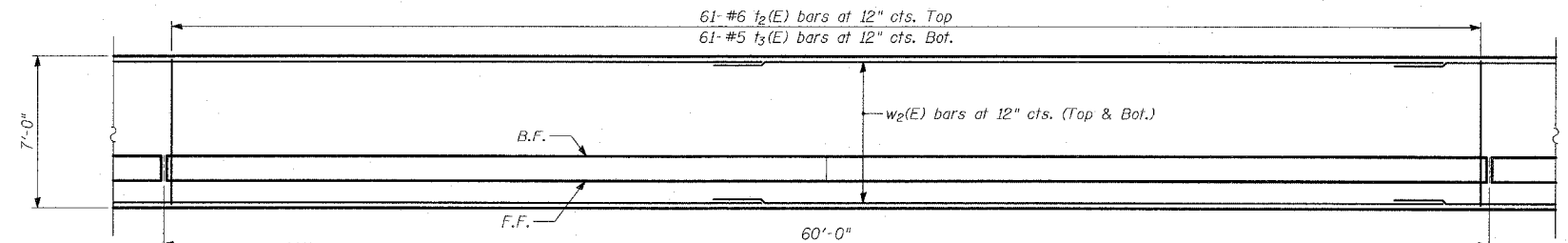
ELEVATION



PLAN



ELEVATION



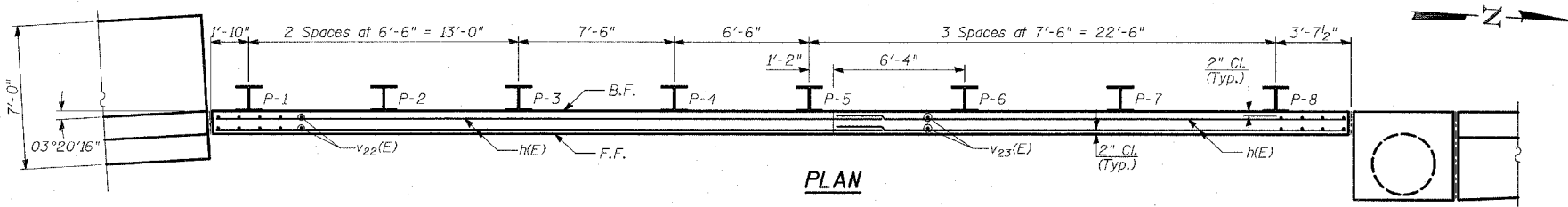
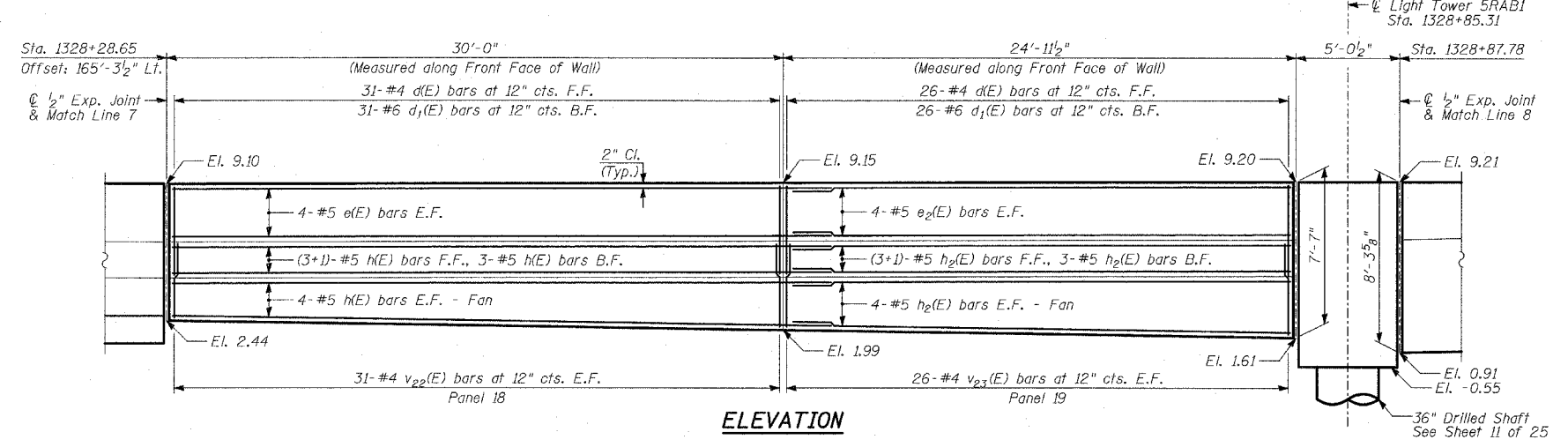
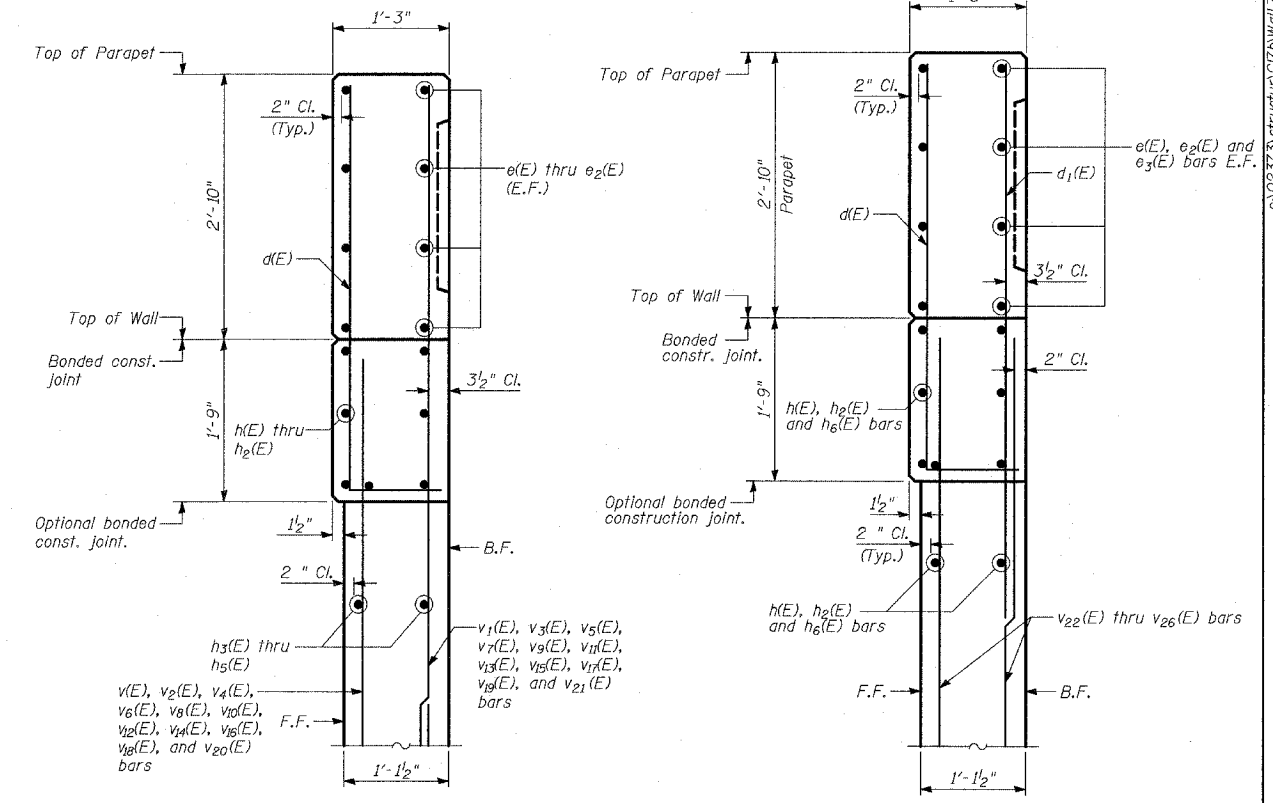
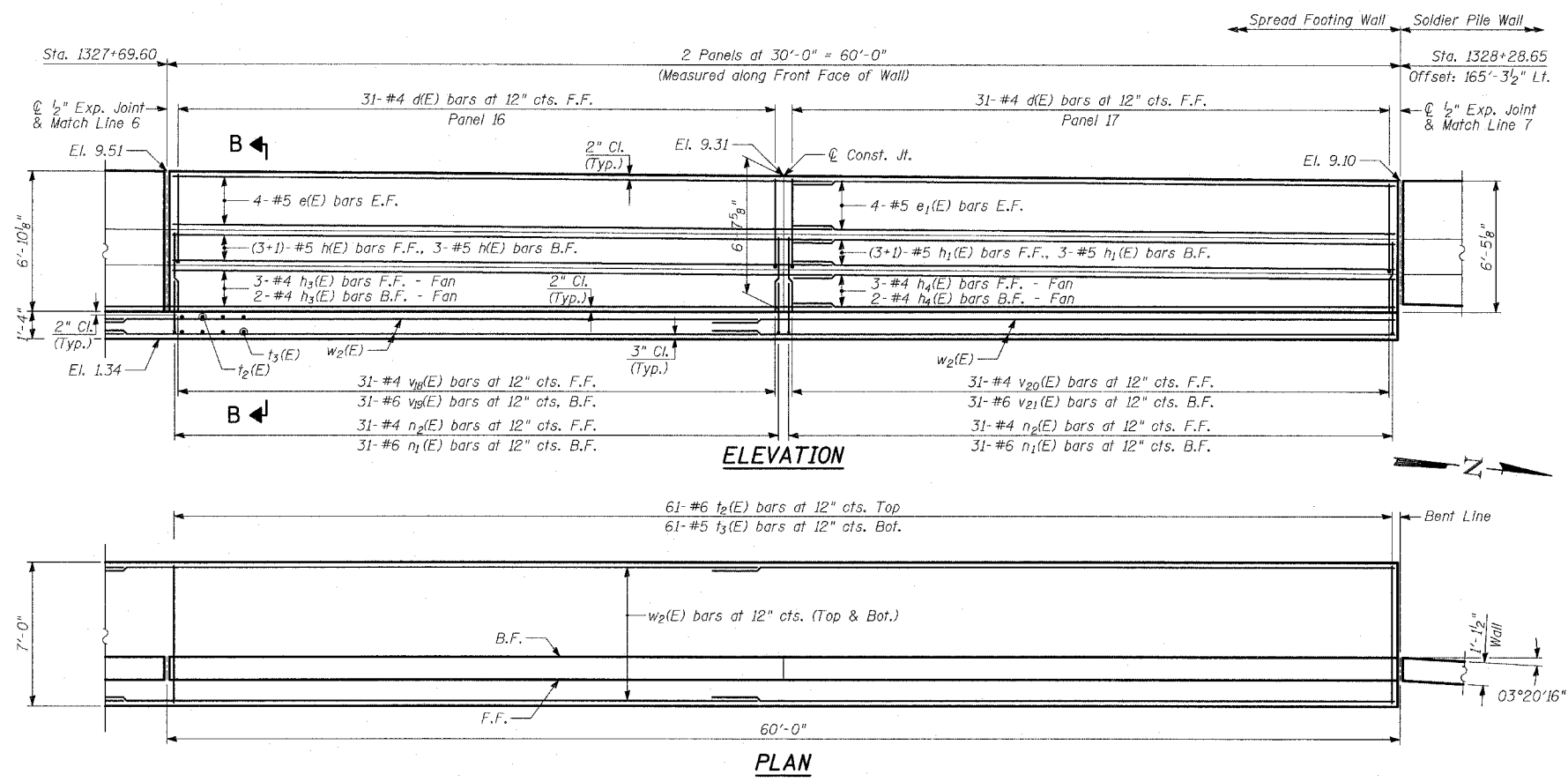
PLAN

- 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 9, 13, 15 and 16 of 25.
 5. Pile spacing measured along front face of wall.
 6. For Lap Splices, see Sheet 9 of 25.

TYLIN INTERNATIONAL

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94 (DAN RYAN EXPRESSWAY)
 RETAINING WALL ALONG LAFAYETTE AVE.
 77TH PL. TO 78TH ST.
 WALL 73B - PLAN AND ELEVATION
 STA. 1326+21.84 TO STA. 1327+69.60
 S.N. 016-W973 DESIGNED BY: TD
 SCALE: N.T.S. DRAWN BY: SNB
 DATE: MARCH 25, 2005 CHECKED BY: TD, MI

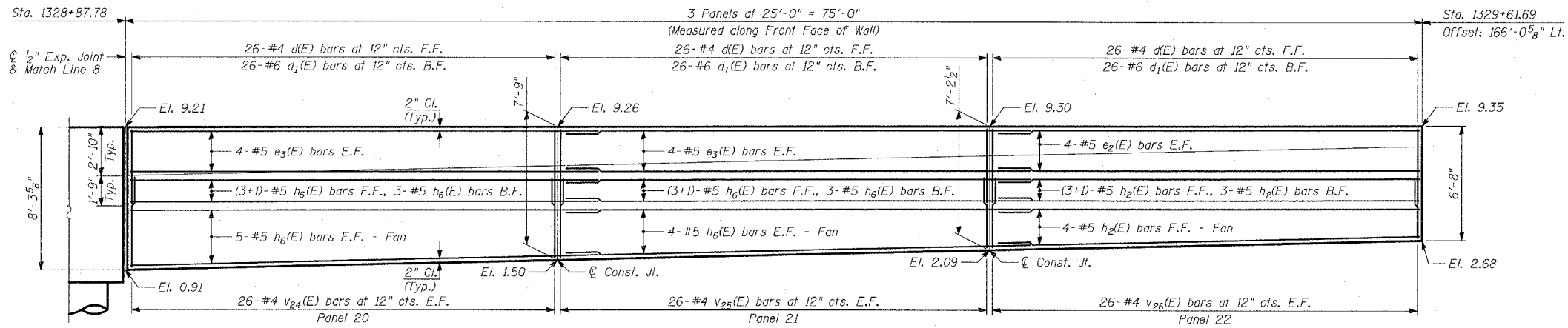


- NOTES:**
1. B.F. - denotes Back Face.
 2. E.F. - denotes Each Face.
 3. F.F. - denotes Front Face.
 4. Work this Sheet with Sheets 9 and 11 thru 20 of 25.
 5. Pile spacing measured along front face of wall.
 6. For Lap Splices, see Sheet 9 of 25.

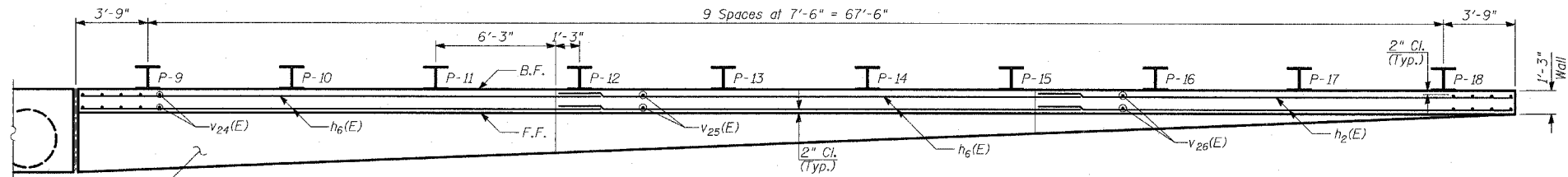
TYLIN INTERNATIONAL

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94 (DAN RYAN EXPRESSWAY)
 RETAINING WALL ALONG LAFAYETTE AVE.
 77TH PL. TO 78TH ST.
 WALL 73B - PLAN AND ELEVATION
 STA. 1327+69.60 TO STA. 1328+87.78
 S.N. 016-W973 DESIGNED BY: TD
 SCALE: N.T.S. DRAWN BY: SNB
 DATE: MARCH 25, 2005 CHECKED BY: TD, MI



ELEVATION



PLAN

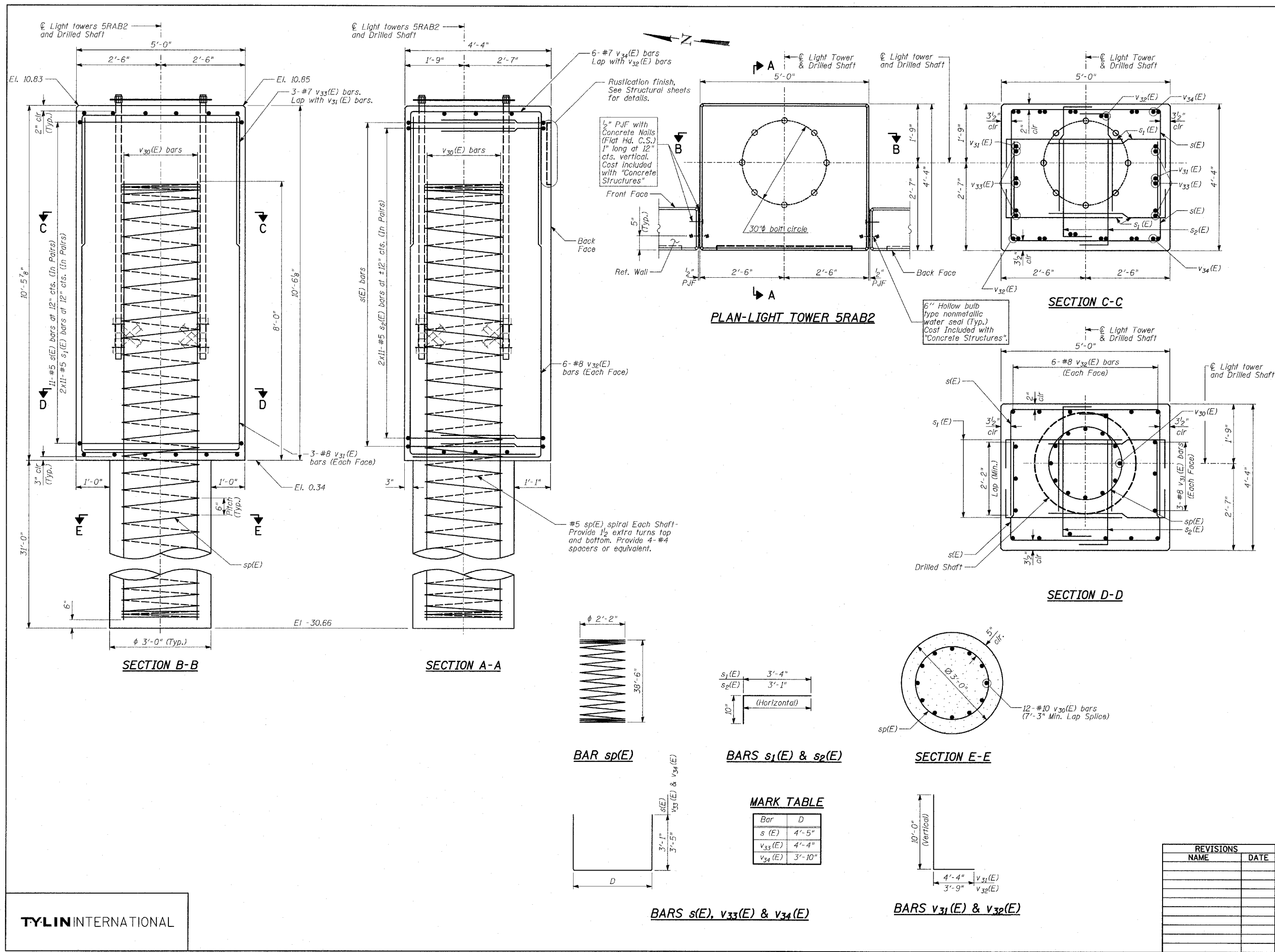
NOTES:

1. B.F. - denotes Back Face.
2. E.F. - denotes Each Face.
3. F.F. - denotes Front Face.
4. Work this Sheet with Sheets 7 thru 9, 11, 12, and 14 thru 20 of 25.
5. Pile spacing measured along front face of wall.
6. For Lap Splices, see Sheet 9 of 25.
7. For Sections C-C and D-D, see Sheet 8 of 25.

TYLIN INTERNATIONAL

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)
RETAINING WALL ALONG LAFAYETTE AVE.
 77TH PL. TO 78TH ST.
WALL 73B - PLAN AND ELEVATION
STA. 1328+87.78 TO STA. 1329+61.69
 S.N. 016-W973 DESIGNED BY: TD
 SCALE: N.T.S. DRAWN BY: SNB
 DATE: MARCH 25, 2005 CHECKED BY: TD, MI



BILL OF MATERIAL

Bar	No.	Size	Length	Shape
s(E)	22	#5	10'-7"	L
s ₁ (E)	44	#5	4'-2"	L
s ₂ (E)	44	#5	3'-11"	L
sp(E)	1	#5	38'-6"	
v ₃₀ (E)	12	#10	38'-6"	—
v ₃₁ (E)	6	#8	14'-4"	L
v ₃₂ (E)	12	#8	13'-9"	L
v ₃₃ (E)	3	#7	11'-2"	L
v ₃₄ (E)	6	#7	10'-8"	L

Reinforcement Bars, Epoxy Coated	POUND	4,050
Structure Excavation	CU YD	12
Concrete Structures	CU YD	9
Protective Coat	SQ YD	11
Rustication Finish	SQ FT	8
Drilled Shaft in Soil 36"	FOOT	31

Reinforcement bars designated (E) shall be epoxy coated.

- NOTES:**
- The design loads are based on AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminares 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 25.
 - Conduit is not shown for clarity. For location of conduit, see Sheet 12 of 25.
 - Cost of anchor rod assembly, conduit and wires for grounding are included with "Concrete Structures".
 - Minimum lap for spirals = 2'-6"

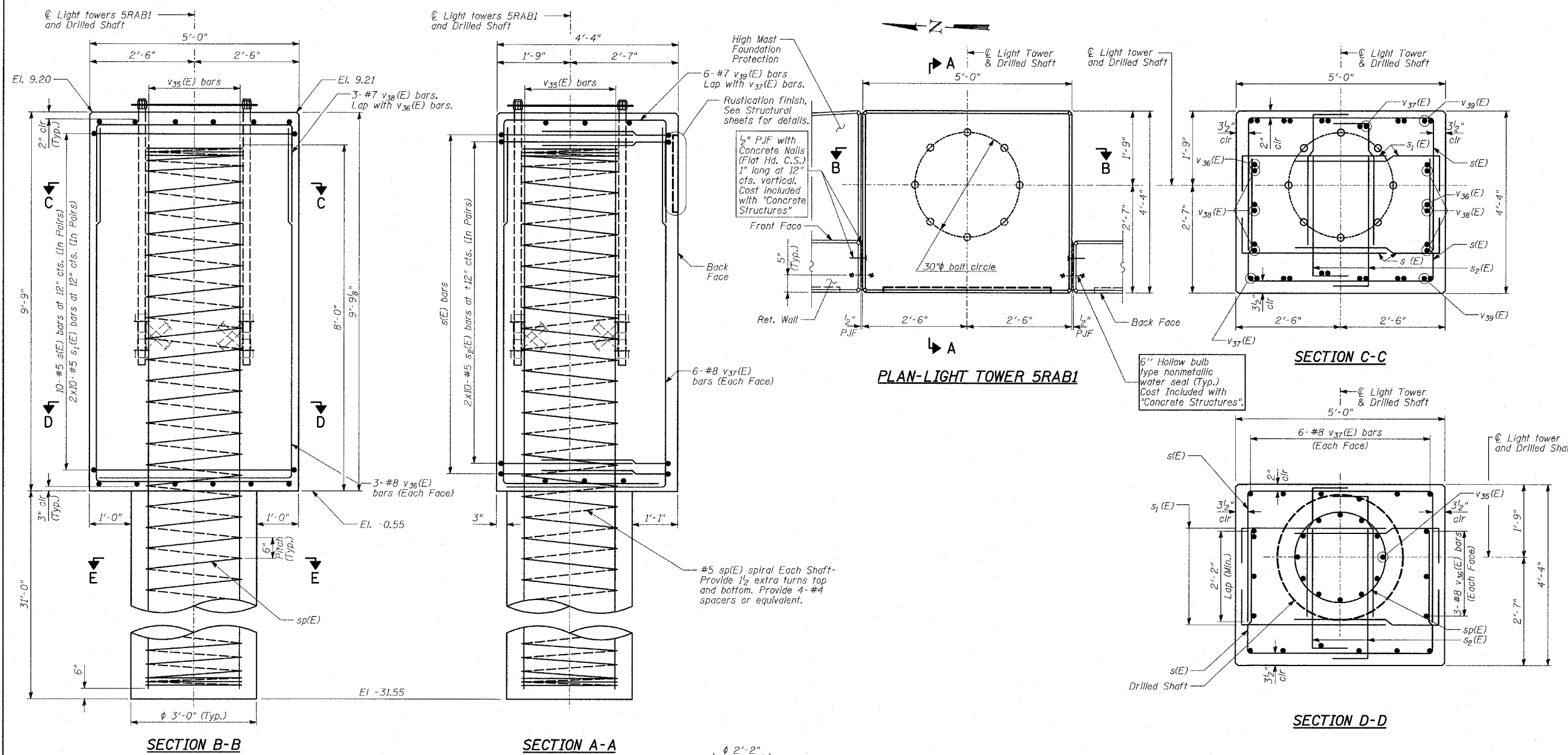
REVISIONS

NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94 (DAN RYAN EXPRESSWAY)
 RETAINING WALL ALONG LAFAYETTE AVE.
 77TH PL. TO 78TH ST.
 WALL 73B
 LIGHT TOWER 5RAB2 FOUNDATION DETAILS
 S.N. 016-W
 SCALE: N.T.S.
 DATE: MARCH 25, 2005

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94		COOK	907	621
STA. 1200+00.00		TO STA. 1365+00		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
(1516.1, 1717 & 1818) R-9		62695		



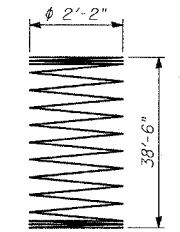
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
s(E)	20	#5	10'-7"	□
s ₁ (E)	40	#5	4'-2"	□
s ₂ (E)	40	#5	3'-11"	□
sp(E)	1	#5	38'-6"	
v ₃₅ (E)	12	#10	38'-6"	—
v ₃₆ (E)	6	#8	13'-7"	L
v ₃₇ (E)	12	#8	13'-0"	L
v ₃₈ (E)	3	#7	11'-2"	L
v ₃₉ (E)	6	#7	10'-8"	L
Reinforcement Bars, Epoxy Coated		POUND	3,950	
Structure Excavation		CU YD	10	
Concrete Structures		CU YD	8	
Protective Coat		SQ YD	11	
Rustication Finish		SQ FT	8	
Drilled Shaft in Soil 36"		FOOT	31	

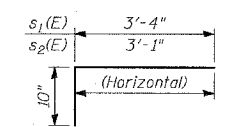
Reinforcement bars designated (E) shall be epoxy coated.

NOTES:

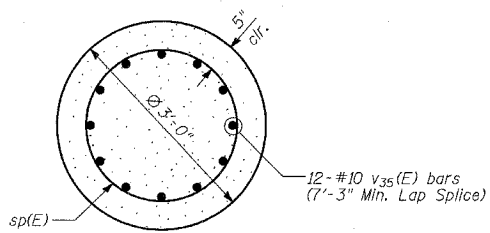
- The design loads are based on AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals-2001.
- Drilled shafts shall be installed according to IDOT special provisions for "Drilled Shafts".
- Protective Coat shall be applied to exposed surfaces of the new 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 5 of 25.
- Conduit is not shown for clarity. For location of conduit, see Sheet 12 of 25.
- Cost of anchor rod assembly, conduit and wires for grounding are included with "Concrete Structures".
- Minimum lap for spirals = 2'-6"



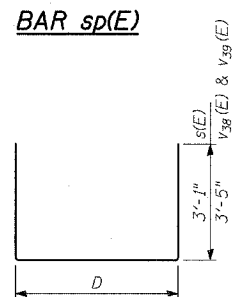
BAR sp(E)



BARS s₁(E) & s₂(E)



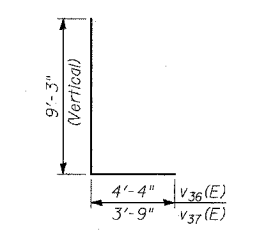
SECTION E-E



BARS s(E), v₃₈(E) & v₃₉(E)

MARK TABLE

Bar	D
s(E)	4'-5"
v ₃₈ (E)	4'-4"
v ₃₉ (E)	3'-10"



BARS v₃₆(E) & v₃₇(E)

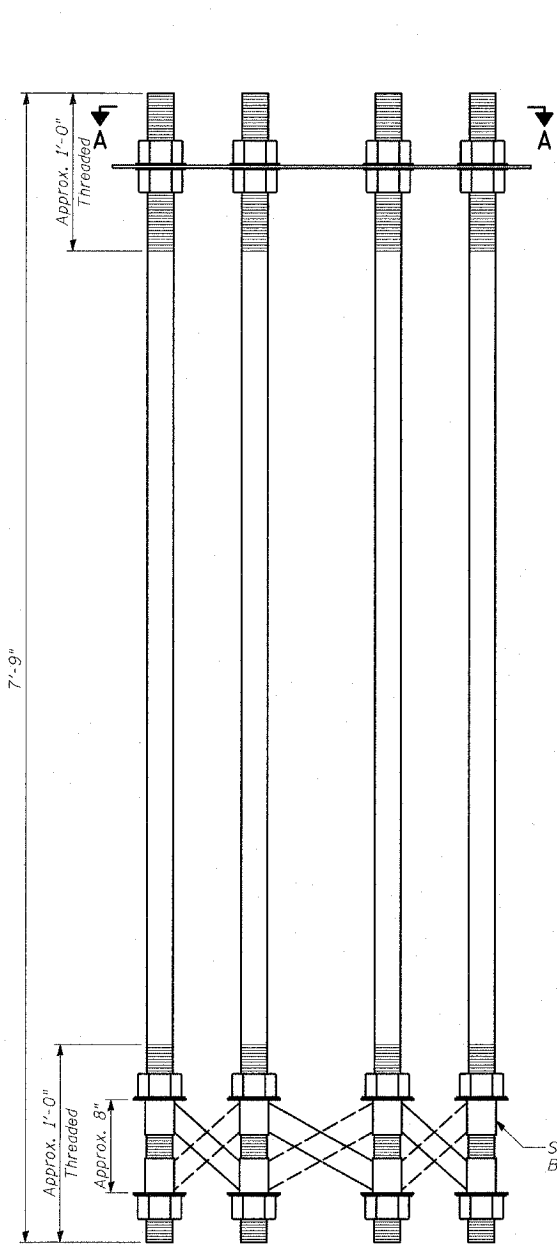
TYLIN INTERNATIONAL

REVISIONS	
NAME	DATE

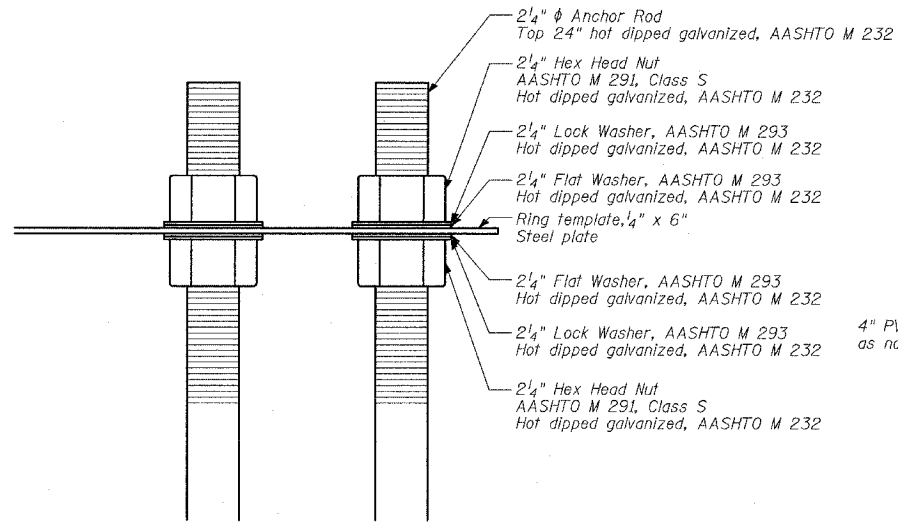
ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94 (DAN RYAN EXPRESSWAY)
 RETAINING WALL ALONG LAFAYETTE AVE.
 77TH PL. TO 78TH ST.
 WALL 73B
 LIGHT TOWER 5RAB1 FOUNDATION DETAILS
 S.N. 016-W973
 SCALE: N.T.S.
 DATE: MARCH 25, 2005

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

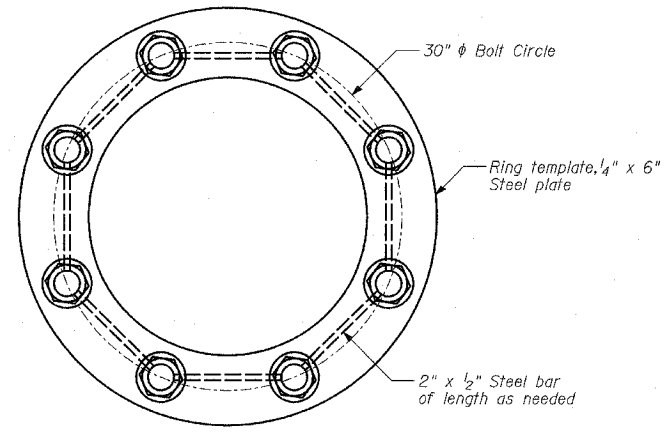
03/30/2005 10:57:59 AM



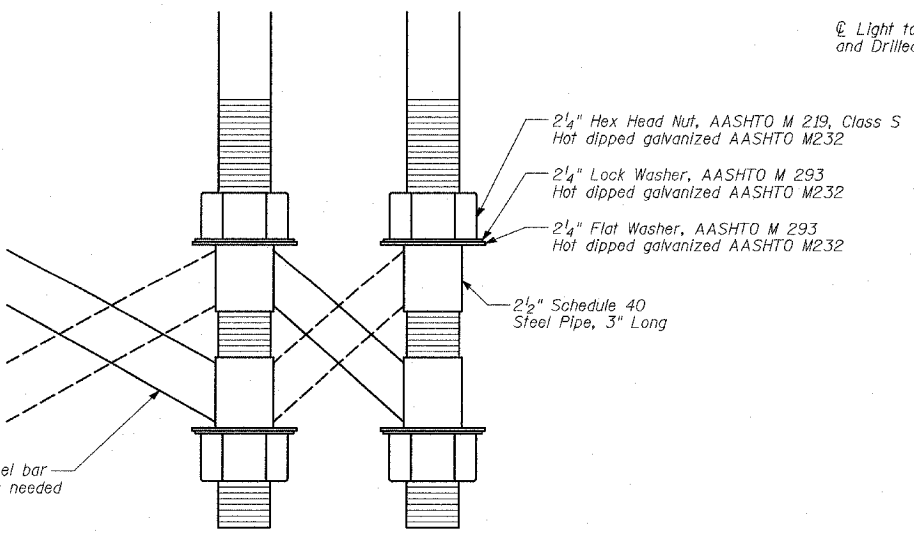
ANCHOR BOLT CAGE



BOLT CAGE TOP



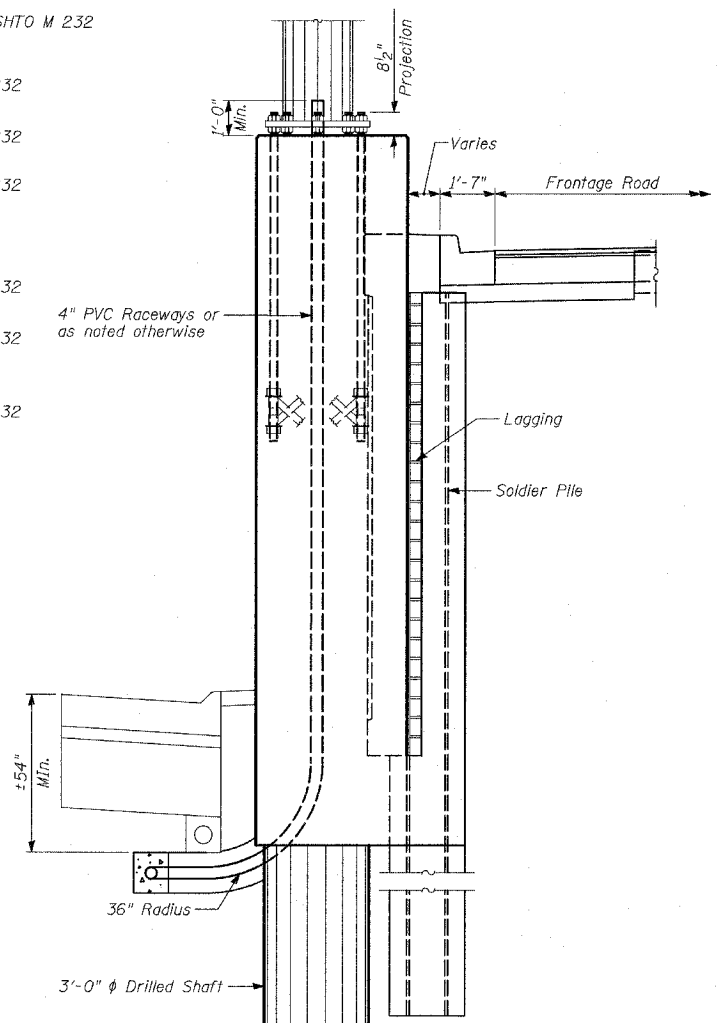
SECTION A-A



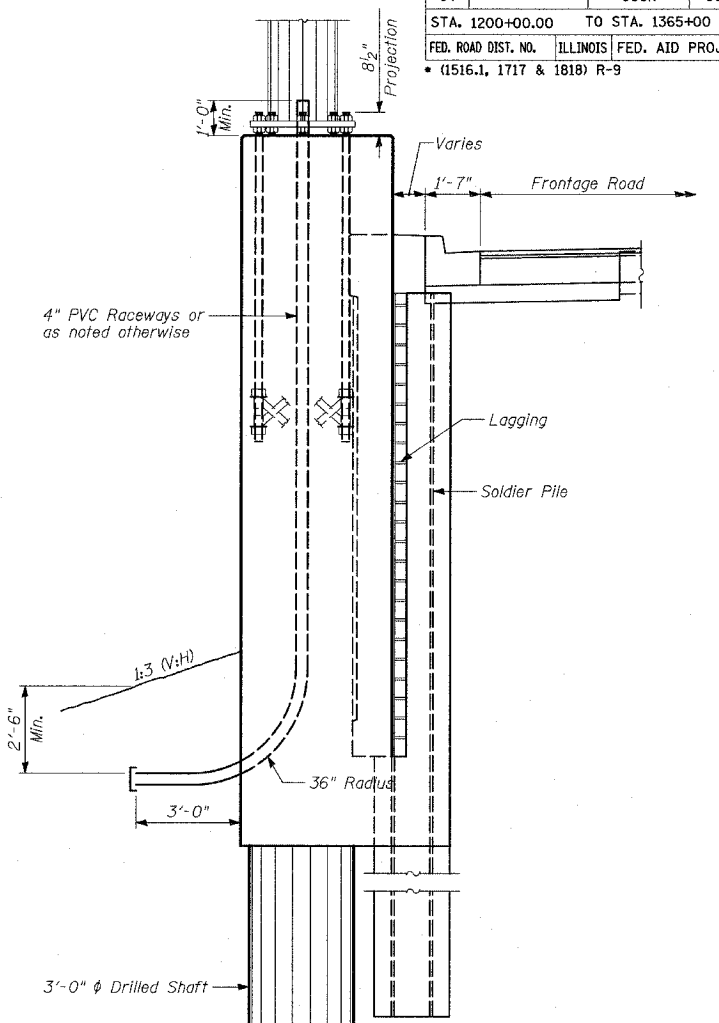
BOLT CAGE BOTTOM

- 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. Cost included with "Light Tower" in Contract 62583.
 - 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.

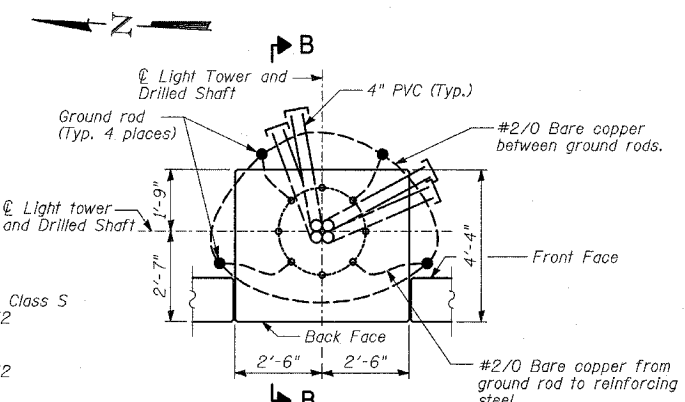
TYLIN INTERNATIONAL



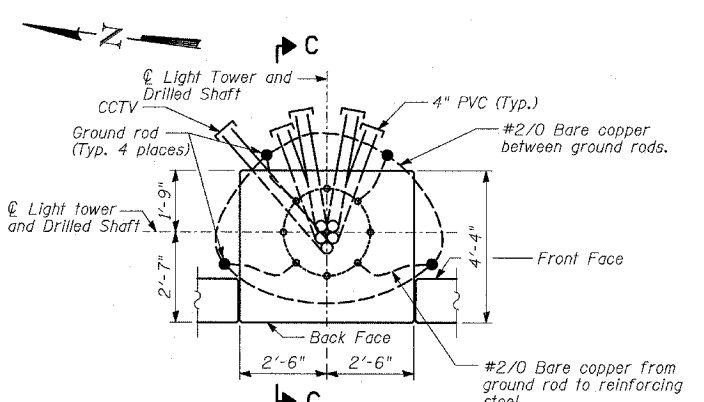
SECTION B-B



SECTION C-C



PLAN - 5RAB1 CONDUIT PLACEMENT

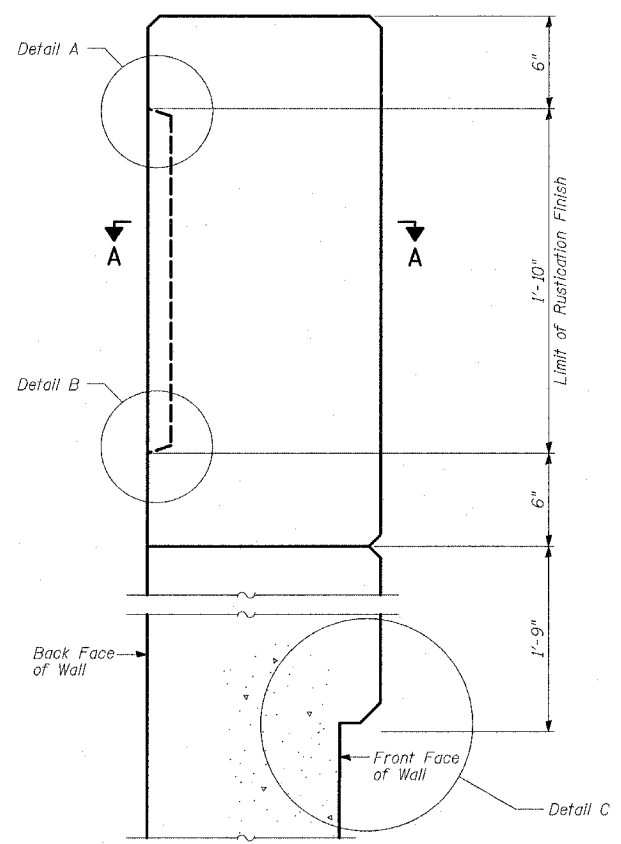


PLAN - 5RAB2 CONDUIT PLACEMENT

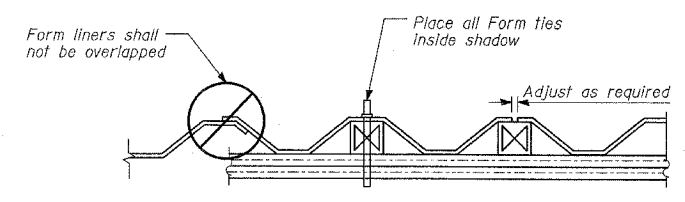
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)
RETAINING WALL ALONG LAFAYETTE AVE.
77TH PL. TO 78TH ST.
WALL 73B
LIGHT TOWER DETAILS
 S.N. 016-W973 DESIGNED BY: TD, DJR
 SCALE: N.T.S. DRAWN BY: DJR
 DATE: MARCH 25, 2005 CHECKED BY: MI

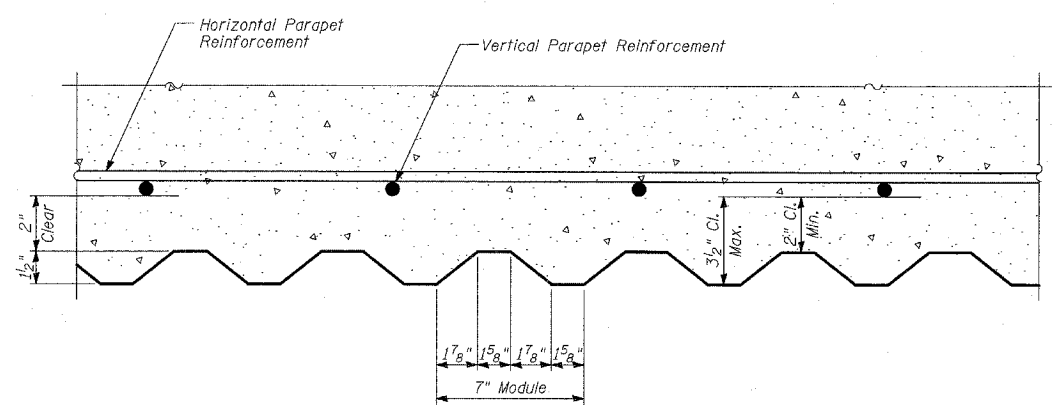
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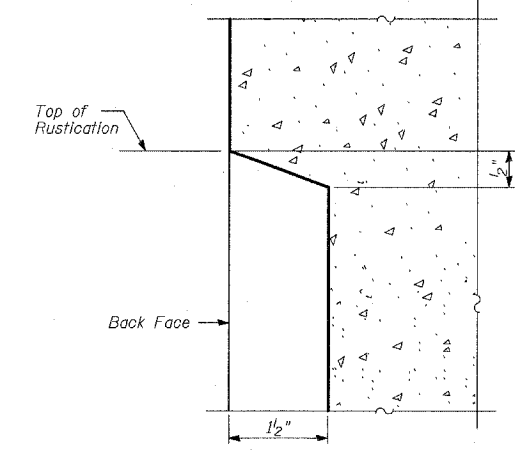
PARAPET DETAIL



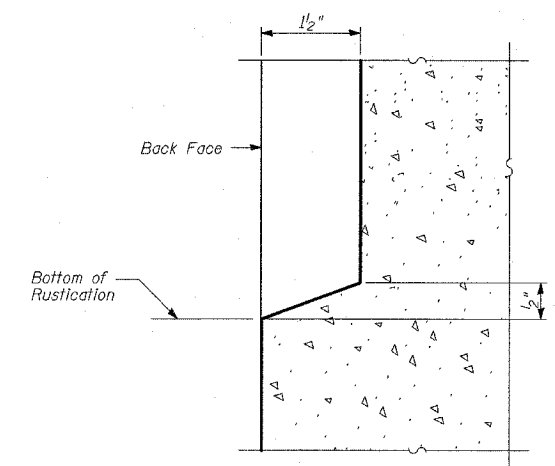
SUGGESTED FORMWORK DETAIL



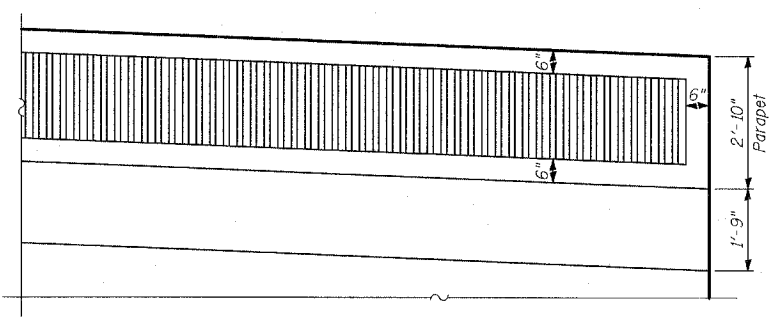
SECTION A-A



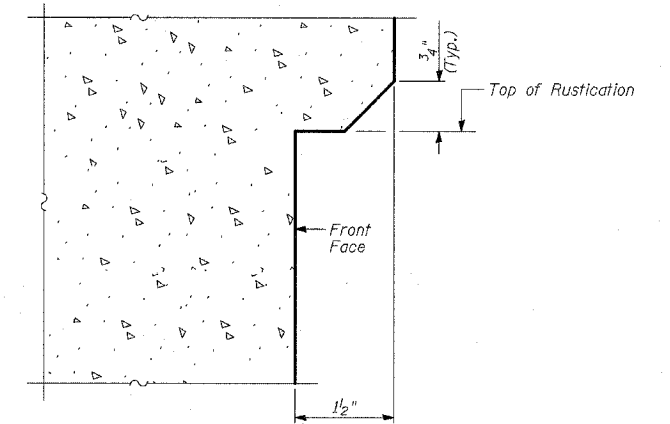
DETAIL A



DETAIL B



RUSTICATION DETAIL
(Back Face)



DETAIL C

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Rustication Finish	SQ FT	1,163

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94 (DAN RYAN EXPRESSWAY)
 RETAINING WALL ALONG LAFAYETTE AVE.
 77TH PL. TO 78TH ST.
 WALL 73B
 RUSTICATION DETAILS
 S.N. 016-W948
 SCALE: N.T.S.
 DATE: MARCH 25, 2005

DESIGNED BY: MI, DJR
 DRAWN BY: DJR
 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 73-11

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 69th Street

Datum: CCD
 Elevation: 7.18 ft
 North: 1853698.00 ft
 East: 1177241.00 ft
 Station: 1323+33
 Offset: 146' LT

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 73-12

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 69th Street

Datum: CCD
 Elevation: 7.29 ft
 North: 1853769.00 ft
 East: 1177230.00 ft
 Station: 1324+04
 Offset: 152' LT

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 (%)
6.8	3-inch thick ASPHALT --PAVEMENT--												
5.8	14-inch thick CONCRETE --PAVEMENT--												
	Soft, black CLAY, with cinders, sand, and brick --FILL--												
		1	8	10	0.49	15				11	15	4.67	13
		2	5	7		17				12	17	4.10	14
		3	15	7	1.15	20				13	33	4.50	9
		4	16	8	1.56	20				14	8	5.08	13
		5	18	10	2.05	19				15	21	8.61	12
		6	18	7	2.38	17				16	25		
		7	15	9	1.64	16				17	25		
		8	10	7	2.30	18				18	30		
		9	50/3		NR					19			
	Hard, gray gravelly SILTY CLAY									20			
		10	43	17	4.50	12				21			
		11	17	16						22			
		12								23			
		13								24			
		14								25			
		15								26			
		16								27			
		17								28			
		18								29			
		19								30			
		20								31			
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BORING LOG SB 73-13 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 69th Street

Datum: CCD
 Elevation: 7.71 ft
 North: 1853842.00 ft
 East: 1177221.00 ft
 Station: 1324+78
 Offset: 155' LT

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 (%)
7.6	3-inch thick ASPHALT	0	--PAVEMENT--												
6.3	14-inch thick CONCRETE	0	--PAVEMENT--												
	Very soft, black CLAY, with organics	0	--FILL--	1	3	0.25	22					12	4.26	14	
3.7	Very soft, gray CLAY, with shells	5		2	2	0.25	20					15	4.26	14	
1.7	Stiff to hard, gray CLAY	10		3	3		1.56					14	5.49	13	
		15		4	4		1.64					17	4.50	10	
		20		5	3		2.38					47	4.50	11	
		25		6	3		2.30					33			
		30		7	6		2.62					50/5			
		35		8	6		4.43								
		40		9	14		6.23								
		45		10	13		4.50								
		50													

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	12-28-2004	Complete Drilling	12-28-2004	While Drilling	☒	DRY	
Drilling Contractor	DLZ Drilling	Drill Rig	D-120 TMR	At Completion of Drilling	☒	DRY	
Driller	E&R	Logger	BP	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 73-14 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 69th Street

Datum: CCD
 Elevation: 7.76 ft
 North: 1853915.00 ft
 East: 1177210.00 ft
 Station: 1325+51
 Offset: 161' LT

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 (%)
7.6	3-inch thick ASPHALT	0	--PAVEMENT--												
6.6	11-inch thick Concrete	0	--PAVEMENT--												
	Medium dense, brown and gray fine SAND	0		1	50/2										
		5		2	20		NP								
		10		3	3		2.46								
		15		4	5		1.72								
		20		5	4		2.95								
		25		6	8		2.00								
		30		7	20		3.61								
		35		8	17		6.07								
		40		9	14		3.77								
		45		10	11										
		50													

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	01-07-2005	Complete Drilling	01-07-2005	While Drilling	☒	DRY	
Drilling Contractor	DLZ Drilling	Drill Rig	Diedrich D-120 TMR	At Completion of Drilling	☒	DRY	
Driller	K&J	Logger	KJ	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 LAFAYETTE AVE.
 77TH PL. TO 78TH ST.
 WALL 73B
 BORING LOGS SB73-13 & SB73-14
 S.N. 016-W973
 SCALE: N.T.S.
 DATE: MARCH 25, 2005

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

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BORING LOG SB 73-15 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 69th Street

Datum: CCD
 Elevation: 7.51 ft
 North: 1853988.00 ft
 East: 1177200.00 ft
 Station: 1326+24
 Offset: 165' LT

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 (%)
7.51	2-inch thick ASPHALT	0	---					7.51							
6.6	9-inch thick CONCRETE	0.9	---	1	15	2.00	21	6.6				9	6.89	12	
6.1	3-inch thick CRUSHED STONE	1.4	---					6.1				8			
5.7	Very stiff, black and brown SILTY CLAY	1.9	---	2	2	NP		5.7				5	5.49	13	
2.0	Loose to medium dense, brown, black, and gray SAND	5.0	---	3	2	1.72	21	2.0				4	5.58	14	
	Medium stiff to stiff, gray CLAY with organics	5.0	---									12			
		10.0	---	4	2	0.80	19					13			
		15.0	---	5	2	1.97	19					14			
		20.0	---	6	3	NP	17					15	8.69	10	
		25.0	---	7	3	2.71	17	32.0				16			
		30.0	---	8	4	4.26	18	34.0				17			
		35.0	---	9	9	6.40	12	37.5				18	9.43	11	
		40.0	---	10	7	8.12	10					19			
		45.0	---												

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	12-28-2004	Complete Drilling	12-28-2004	While Drilling	∇	14.00 ft	
Drilling Contractor	DLZ Drilling	Drill Rig	D-120 TMR	At Completion of Drilling	∇	DRY	
Driller	J&J	Logger	JPK	Time After Drilling	NA		
Checked by	MLS	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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BORING LOG SB 73-16 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 69th Street

Datum: CCD
 Elevation: 6.85 ft
 North: 1854062.00 ft
 East: 1177192.00 ft
 Station: 1326+96
 Offset: 168' LT

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 (%)
6.85	3-inch thick ASPHALT	0	---					6.85							
5.7	11-inch thick CONCRETE	1.1	---	1	4	NP	20	5.7				14	5.33	13	
	Medium dense, brown SAND	1.1	---									21			
		1.7	---	2	4	NP	19					11	3.85	12	
		2.3	---									22			
		3.0	---	3	5	1.64	19					12			
		3.7	---									13			
		4.4	---	4	5	2.21	18					14			
		5.1	---									15			
		5.8	---	5	6	3.12	19					16			
		6.5	---									17			
		7.2	---	6	6	3.94	17					18			
		7.9	---									19			
		8.6	---	7	7	2.50	15					20			
		9.3	---									21			
		10.0	---	8	7	2.75	17					22			
		10.7	---									23			
		11.4	---	9	12	2.75	17					24			
		12.1	---									25			
		12.8	---	10	9	3.00	13					26			
		13.5	---									27			

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	01-07-2005	Complete Drilling	01-07-2005	While Drilling	∇	DRY	
Drilling Contractor	DLZ Drilling	Drill Rig	Diedrich D-120 TMR	At Completion of Drilling	∇	DRY	
Driller	K&J	Logger	KJ	Time After Drilling	NA		
Checked by	MLS	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 LAFAYETTE AVE.
 77TH PL. TO 78TH ST.
 WALL 73B
 BORING LOGS SB73-15 & SB73-16
 S.N. 016-W973
 SCALE: N.T.S.
 DATE: MARCH 25, 2005

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

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BORING LOG SB 73-17
 WEI Job No.: 414-07-01

Datum: CCD
 Elevation: 6.27 ft
 North: 1854133.00 ft
 East: 1177186.00 ft
 Station: 1327+67
 Offset: 170' LT

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

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	N Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
6.27	3-inch thick ASPHALT --PAVEMENT--	0						6.27		0					
4.9	14-inch thick CONCRETE --PAVEMENT--	0.5		1	5	NP	59	6.27		0.5		1	8	4.76	14
3.8	Black CLAY, trace organics Medium dense, brown SAND	3.8		2	10		1.48	6.27		3.8		2	10	6.56	15
2.3	Stiff to very stiff, gray CLAY	5		3	4		1.80	6.27		5		3	10	4.10	14
		10		4	3		1.56	6.27		10		4	10	4.10	14
		15		5	9		1.7	6.27		15		5	10	4.50	11
		20		6	6		2.50	6.27		20		6	10	4.50	11
		25		7	7		2.75	6.27		25		7	12	4.50	11
-12.2	Very stiff to hard, gray gravelly SILTY CLAY	20		8	8		2.50	-12.2		20		8	24	4.50	11
		25		9	8		6.72			25		9	10		
				10	10		6.81					10	10		

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	12-27-2004	Complete Drilling	12-27-2004	While Drilling	∇	DRY	
Drilling Contractor	DLZ Drilling	Drill Rig	D-120 TMR	At Completion of Drilling	∇	DRY	
Driller	E&R	Logger	BP	Time After Drilling	NA		
Drilling Method	3.25" ID HSA; Boring backfilled with bentonite upon completion			Depth to Water	∇	NA	

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BORING LOG SB 73-18
 WEI Job No.: 414-07-01

Datum: CCD
 Elevation: 6.11 ft
 North: 1854195.00 ft
 East: 1177181.00 ft
 Station: 1328+29
 Offset: 172' LT

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

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	N Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
6.11	3-inch thick ASPHALT --PAVEMENT--	0						6.11		0					
4.7	14-inch thick Concrete --PAVEMENT--	0.5		1	11	NP	25	6.11		0.5		1	11	2.20	17
3.1	Medium dense, gray SAND Stiff to very stiff, gray CLAY	3.1		2	11		1.10	6.11		3.1		2	11	2.20	17
		5		3	13		1.90	6.11		5		3	14	2.90	17
		10		4	8		2.20	6.11		10		4	9	3.00	17
		15		5	7		2.90	6.11		15		5	10	3.00	17
		20		6	9		3.00	6.11		20		6	11	5.70	14
		25		7	8		5.70	6.11		25		7	11	6.60	14
		30		8	6		6.60	6.11		30		8	18	6.50	13
		35		9	16		6.50	6.11		35		9	17	4.90	13
		40		10	17		4.90	6.11		40		10	19		
		45		11	19			6.11		45		11	23		

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	01-10-2005	Complete Drilling	01-10-2005	While Drilling	∇	DRY	
Drilling Contractor	DLZ Drilling	Drill Rig	Diedrich D-120 TMR	At Completion of Drilling	∇	DRY	
Driller	E&R	Logger	BP	Time After Drilling	NA		
Drilling Method	3.25" ID HSA; Boring backfilled with bentonite upon completion			Depth to Water	∇	NA	

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)
RETAINING WALL ALONG LAFAYETTE AVE.
77TH PL. TO 78TH ST.
WALL 73B
BORING LOGS SB73-17 & SB73-18
 S.N. 016-W973 DESIGNED BY: DJR
 SCALE: N.T.S. DRAWN BY: DJR
 DATE: MARCH 25, 2005 CHECKED BY: TD

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BORING LOG SB 74-01 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 69th Street

Datum: CCD
Elevation: 5.59 ft
North: 1854285.00 ft
East: 1177190.00 ft
Station: 1329+16
Offset: 157' LT

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 (%)
6.5	1.5-inch thick ASPHALT --PAVEMENT--												
4.4	10.5-inch thick CONCRETE --PAVEMENT--												
2.6	6-inch thick CRUSHED STONE --BASE COURSE--												
	Very stiff, black CLAY LOAM, with brick debris --FILL--												
	Stiff to very stiff, gray CLAY												
		10	1	7 6	2.00 P	16			10	11	5 12	8.36 S	12
		15	2	3 3 3	1.48 B	22			15	12	6 8 10	> 4.50 P	13
		20	3	3 4 5	1.72 B	16			20	13	5 5 7	2.62 B	14
		25	4	4 4 6	1.89 B	18			25	14	12 14 21	8.36 S	11
		30	5	3 4 5	2.30 B	19			30	15	11 15 23	8.94 S	12
		35	6	3 4 6	3.28 B	17			35				
		40	7	3 5 7	2.95 B	17			40				
		45	8	6 8 10	5.82 B	14			45				
		50	9	8 10 12	7.63 B	12			50				
		55	10	6 8 12	7.54 B	12			55				

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	12-28-2004	Complete Drilling	12-28-2004	While Drilling	∇	DRY	
Drilling Contractor	DLZ Drilling	Drill Rig	D-120 TMR	At Completion of Drilling	∇	DRY	
Driller	J&J	Logger	JKP	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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BORING LOG SB 74-02 Page 1 of 1
WEI Job No.: 414-07-01
Client: T. Y. LIN International
Project: Dan Ryan Improvements; IDOT No. D-91-421-01
Location: From 95th Street to 69th Street

Datum: CCD
Elevation: 5.88 ft
North: 1854359.00 ft
East: 1177179.00 ft
Station: 1329+89
Offset: 165' LT

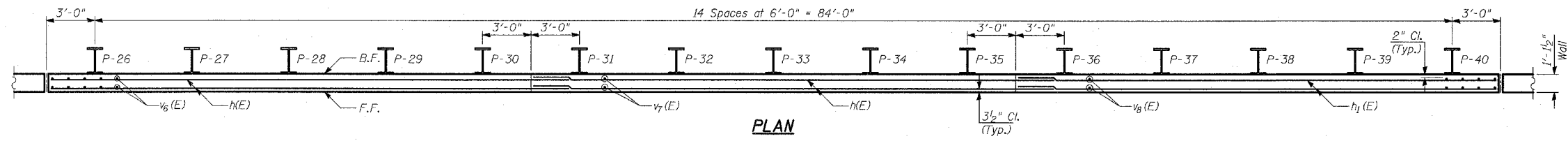
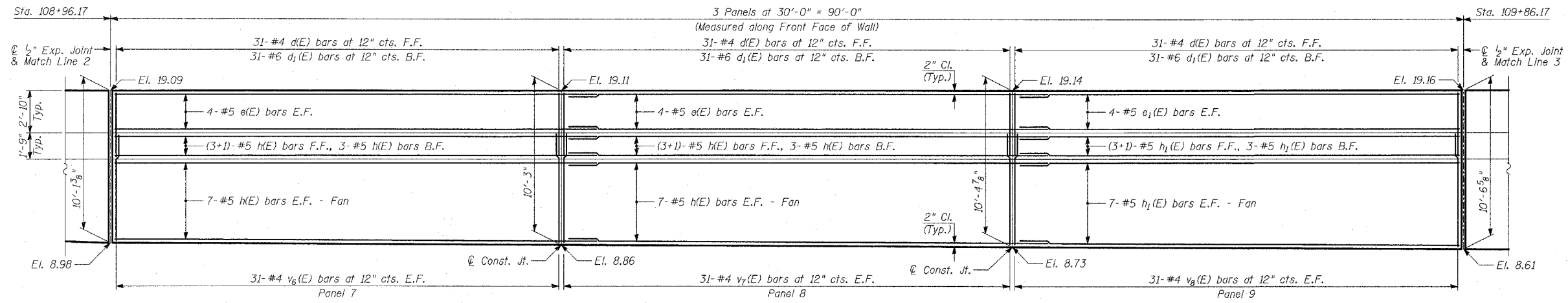
Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blows/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	N Values (blows/6 in)	Qu (tsf)	Moisture Content (%)
6.7	2-inch thick ASPHALT --PAVEMENT--												
4.7	12-inch thick CONCRETE --PAVEMENT--												
	Medium dense, gray SAND												
	Stiff, gray CLAY												
		10	1	12 6 5	NP	51			10	11	17 22 27	6.40 B	12
		15	2	5 4 6	1.64 B	20			15	12	18 25 37	5.74 B	13
		20	3	5 8 8	1.48 B	19			20	13	14 22 38	2.79 B	14
		25	4	3 7 10	1.97 B	17			25	14	70 60/3	> 4.50 P	13
		30	5	14 25 32	1.25 P	17			30	15	100/4	NR	
		35	6	15 32 48	2.00 P	18			35				
		40	7	14 18 21	5.49 B	15			40				
		45	8	16 20 22	7.22 B	12			45				
		50	9	23 25 32	2.50 P	15			50				
		55	10	16 20 25	4.50 P	12			55				

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	12-27-2004	Complete Drilling	12-27-2004	While Drilling	∇	DRY	
Drilling Contractor	DLZ Drilling	Drill Rig	D-120 TMR	At Completion of Drilling	∇	DRY	
Driller	E&R	Logger	KJ	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.							

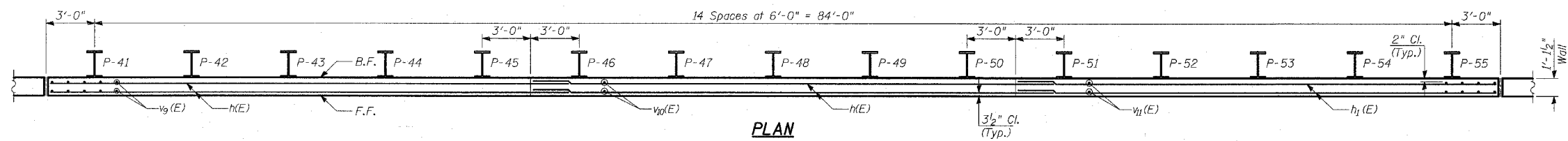
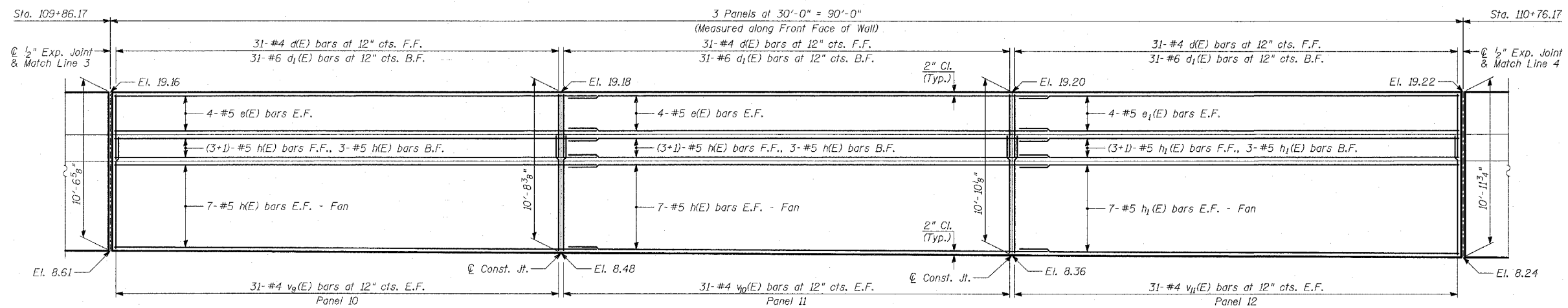
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)
RETAINING WALL ALONG LAFAYETTE AVE.
77TH PL. TO 78TH ST.
WALL 73B
BORING LOGS SB74-01 & SB74-02
S.N. 016-W974 DESIGNED BY: DJR
SCALE: N.T.S. DRAWN BY: DJR
DATE: MARCH 25, 2005 CHECKED BY: TD

TYLIN INTERNATIONAL



PLAN



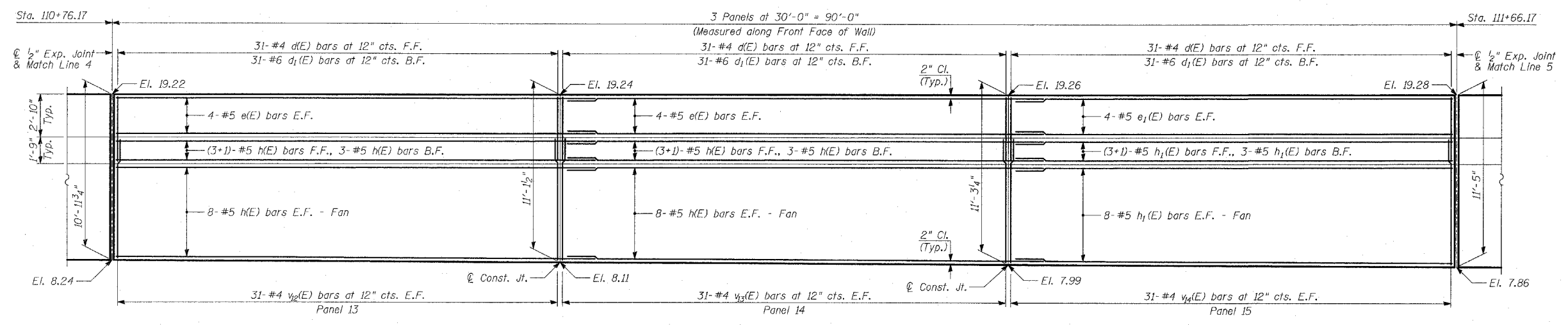
PLAN

- 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 9 thru 12 of 18.
 5. Pile spacing measured along front face of wall.
 6. For Lap Splices, see Sheet 9 of 18.

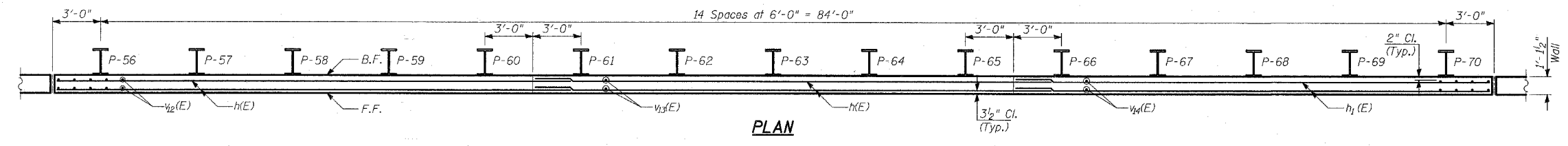
TYLIN INTERNATIONAL

REVISIONS	
NAME	DATE

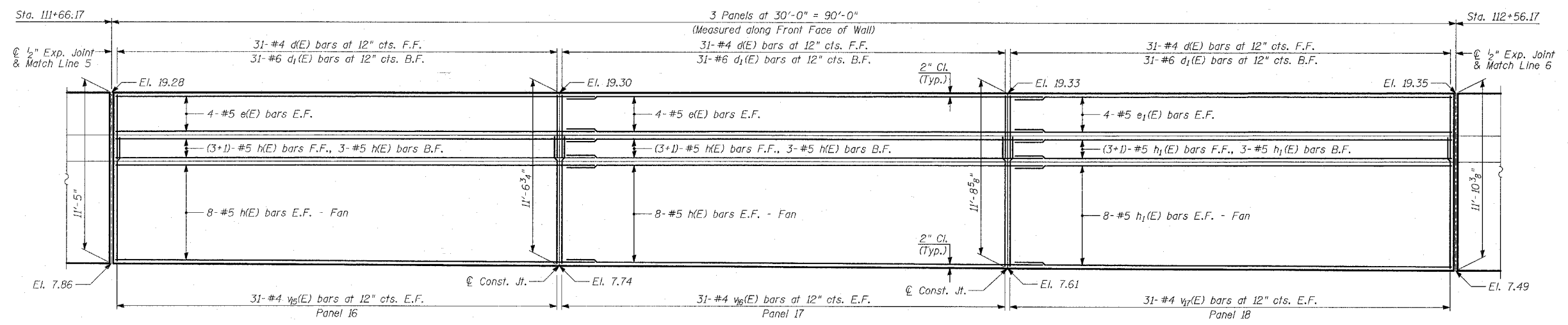
ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94 (DAN RYAN EXPRESSWAY)
 RETAINING WALL ALONG W. 98TH PLACE
 PARNELL TO C&WI RR
 WALL 67 - PLAN AND ELEVATION
 STA. 108+96.17 TO STA. 110+76.17
 S.N. 016-W952 DESIGNED BY: MI, DJR
 SCALE: N.T.S. DRAWN BY: DJR, TB
 DATE: MARCH 25, 2005 CHECKED BY: TD, MI



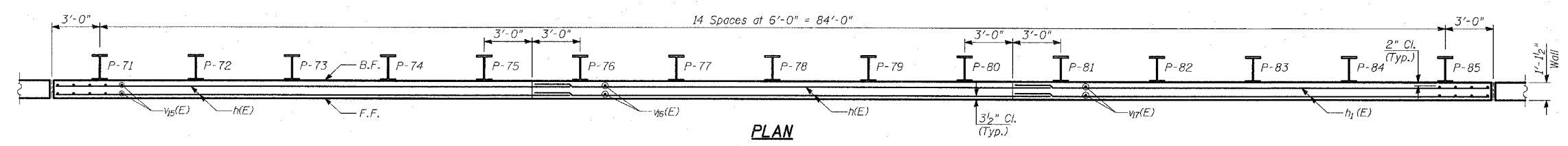
ELEVATION



PLAN



ELEVATION



PLAN

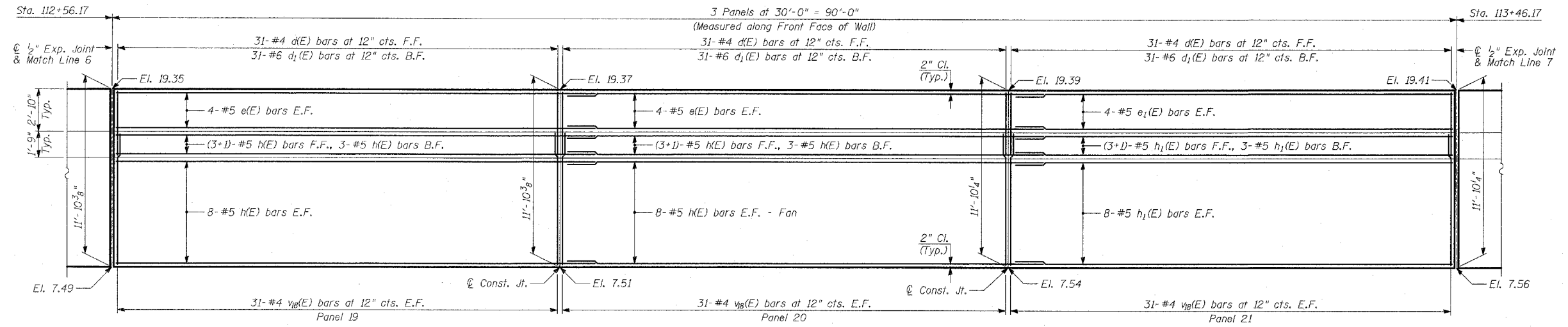
- NOTES:**
1. B.F. - denotes Back Face.
 2. E.F. - denotes Each Face.
 3. F.F. - denotes Front Face.
 4. Work this Sheet with Sheets 9 thru 12 of 18.
 5. Pile spacing measured along front face of wall.
 6. For Lap Splices, see Sheet 9 of 18.

TYLIN INTERNATIONAL

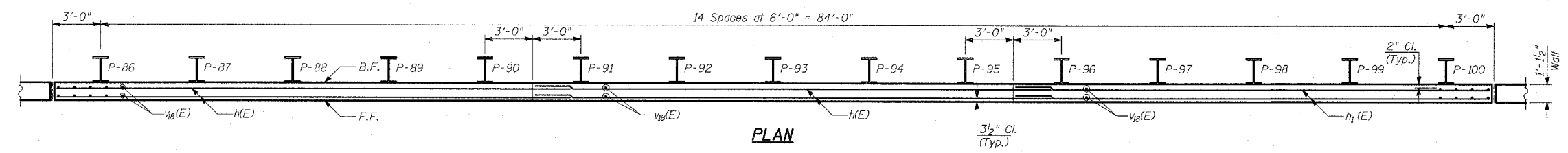
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)
RETAINING WALL ALONG W. 98TH PLACE
PARNELL TO C&WI RR
WALL 67 - PLAN AND ELEVATION
STA. 110+76.17 TO STA. 112+56.17
 S.N. 016-W952 DESIGNED BY: MI, DJR
 SCALE: N.T.S. DRAWN BY: DJR, TB
 DATE: MARCH 25, 2005 CHECKED BY: TD, MI

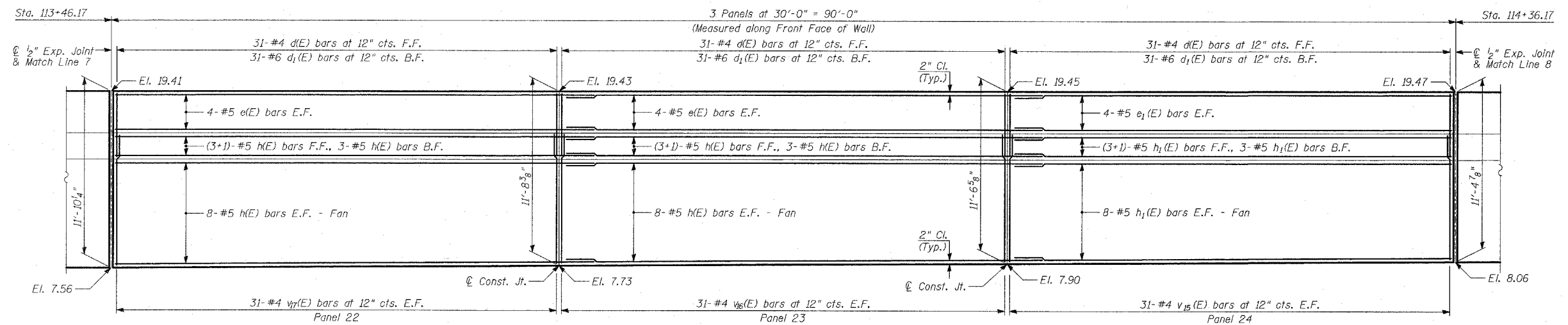
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	•	COOK	907	641
STA. 1200+00.00 TO STA. 1365+00				
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
• (1516.1, 1717 & 1818) R-9		62695		



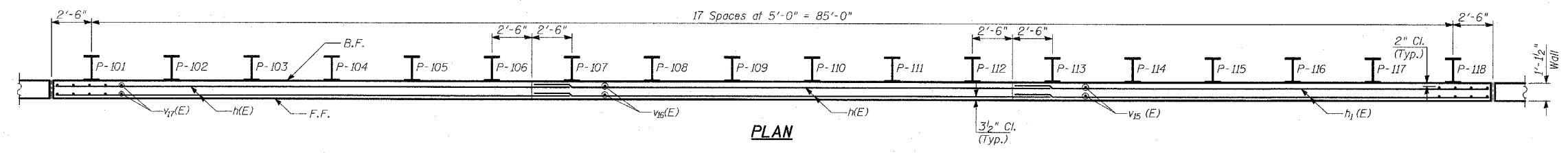
ELEVATION



PLAN



ELEVATION



PLAN

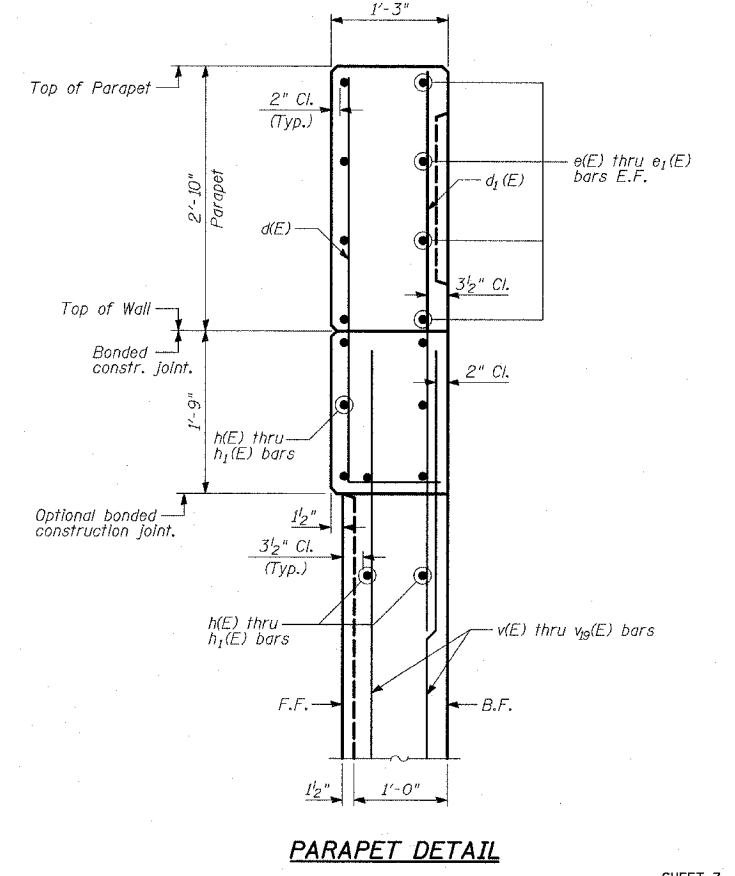
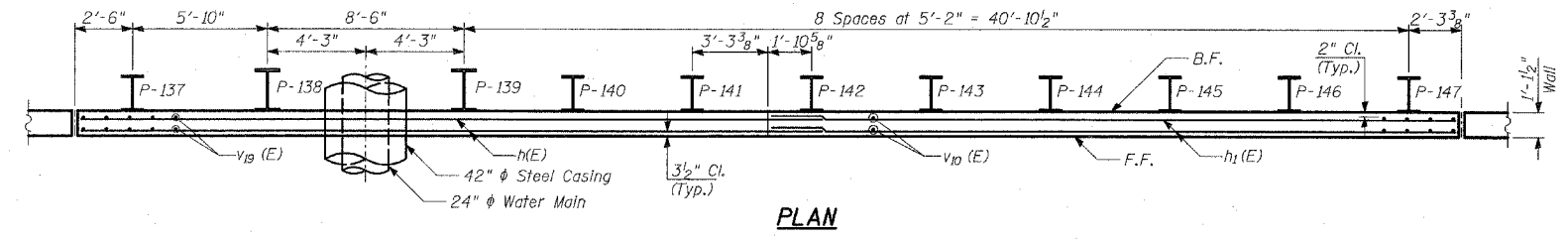
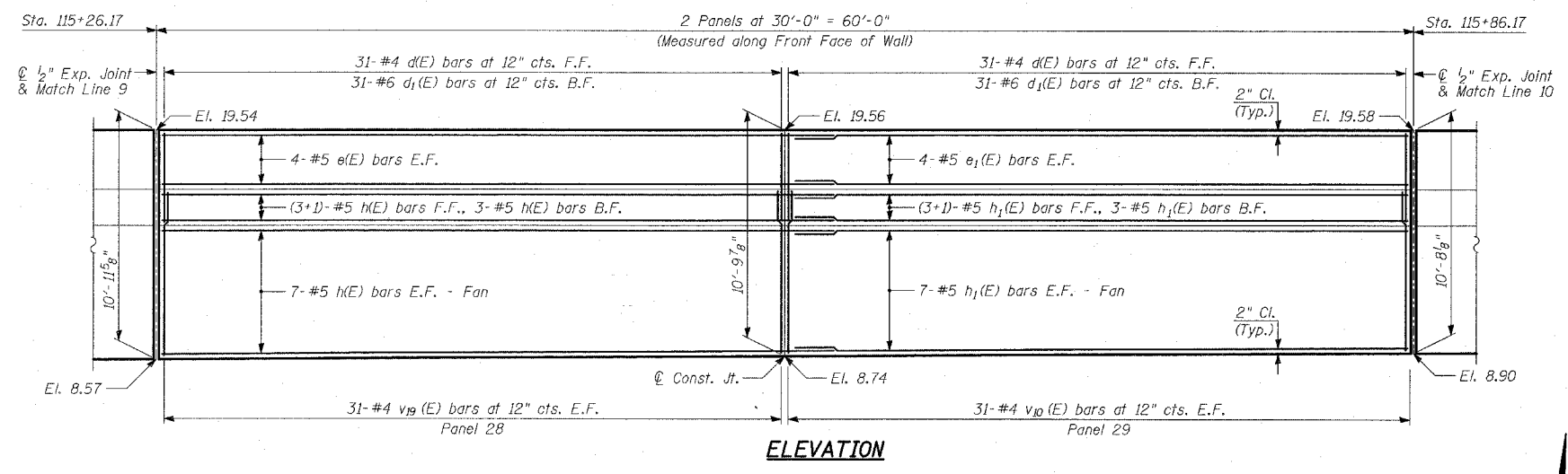
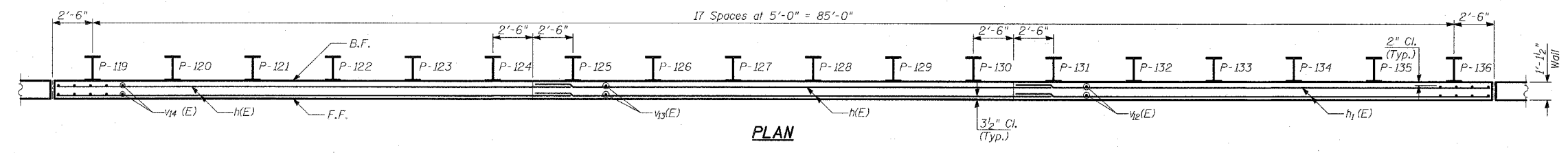
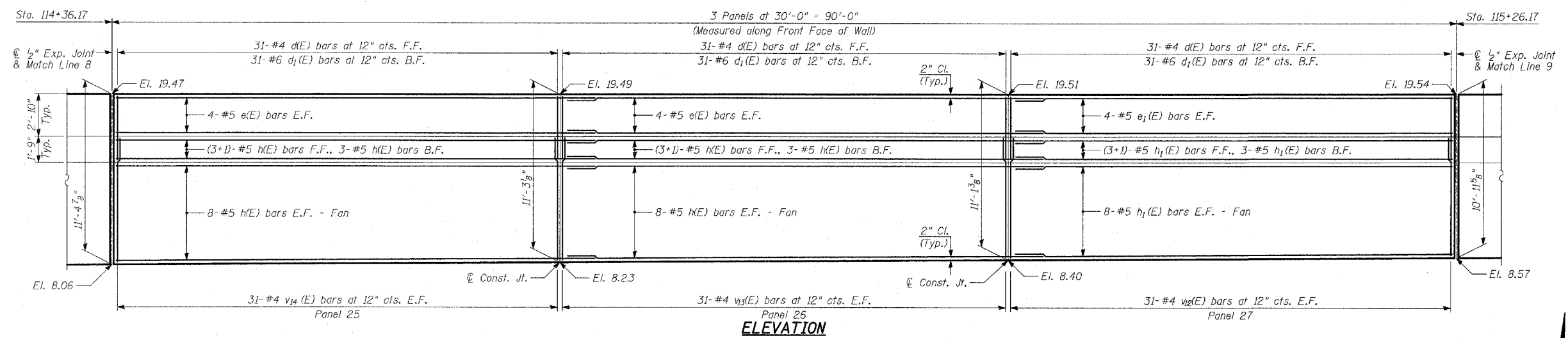
NOTES:

1. B.F. - denotes Back Face.
2. E.F. - denotes Each Face.
3. F.F. - denotes Front Face.
4. Work this Sheet with Sheets 9 thru 12 of 18.
5. Pile spacing measured along front face of wall.
6. For Lap Splices, see Sheet 9 of 18.

TYLIN INTERNATIONAL

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)
RETAINING WALL ALONG W. 98TH PLACE
PARNELL TO C&WI RR
WALL 67 - PLAN AND ELEVATION
STA. 112+56.17 TO STA. 114+36.17
 S.N. O16-W952 DESIGNED BY: MI, DJR
 SCALE: N.T.S. DRAWN BY: DJR, TB
 DATE: MARCH 25, 2005 CHECKED BY: TD, MI

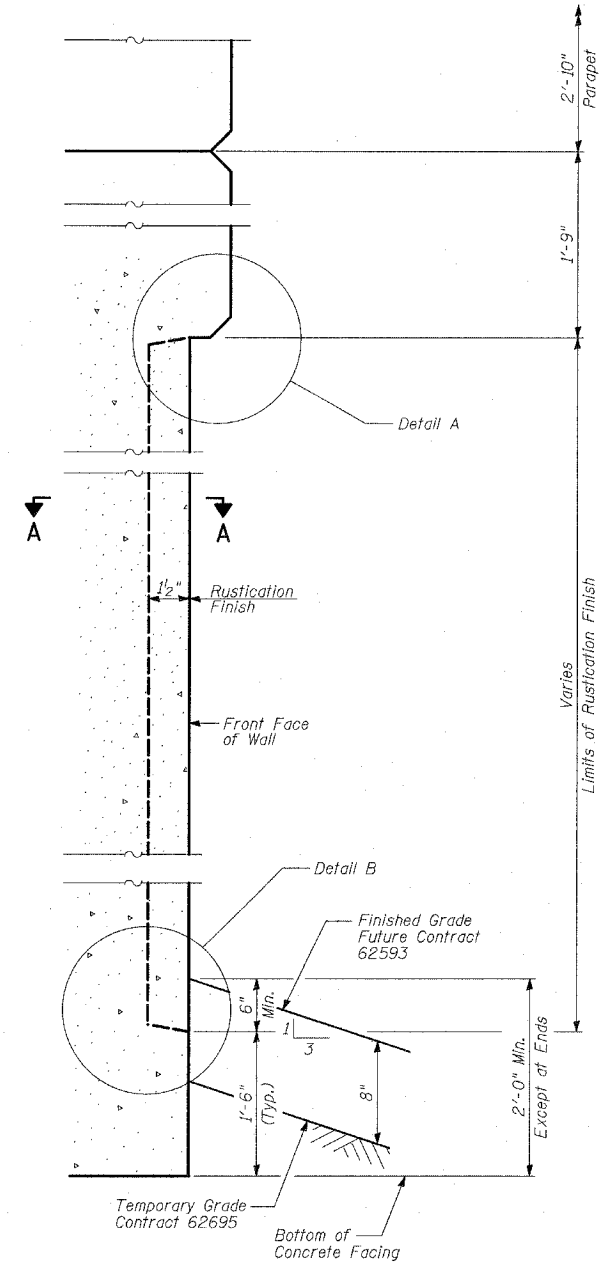


- NOTES:**
1. B.F. - denotes Back Face.
 2. E.F. - denotes Each Face.
 3. F.F. - denotes Front Face.
 4. Work this Sheet with Sheets 9 thru 12 of 18.
 5. File spacing measured along front face of wall.
 6. For Lap Splices, see Sheet 9 of 18.

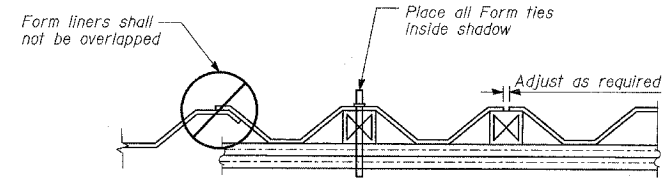
TYLIN INTERNATIONAL

REVISIONS	
NAME	DATE

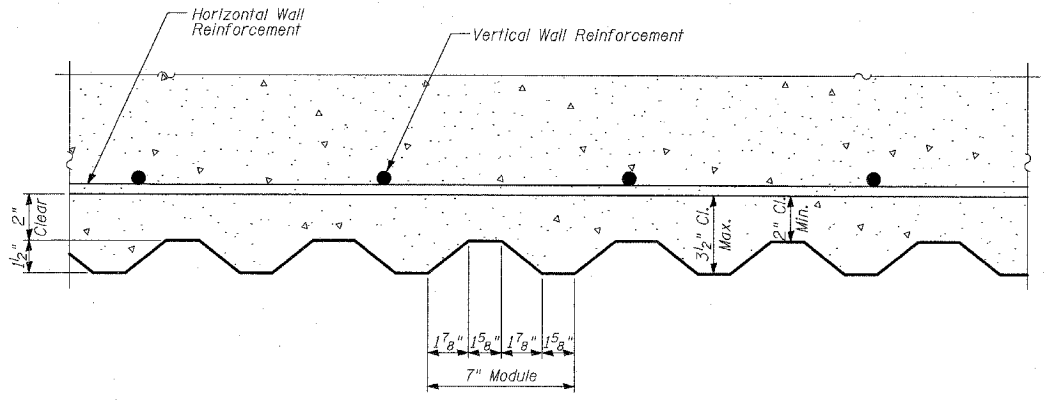
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)
RETAINING WALL ALONG W. 98TH PLACE
PARNELL TO C&WI RR
WALL 67 - PLAN AND ELEVATION
STA. 114+36.17 TO STA. 115+86.17
 S.N. 016-W952 DESIGNED BY: MI, DJR
 SCALE: N.T.S. DRAWN BY: DJR, TB
 DATE: MARCH 25, 2005 CHECKED BY: TD, MI



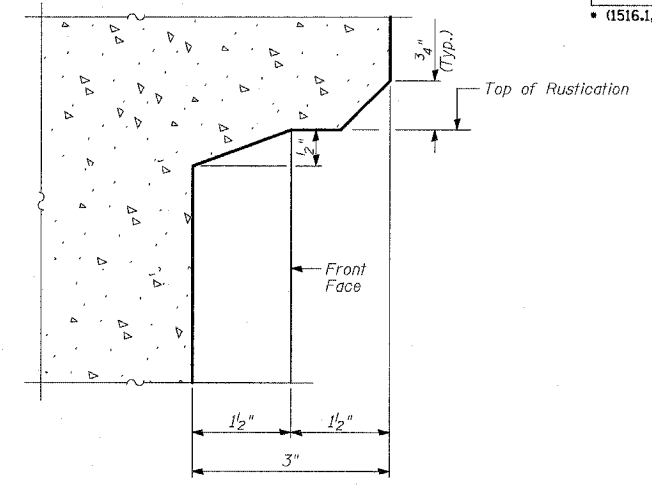
WALL DETAIL



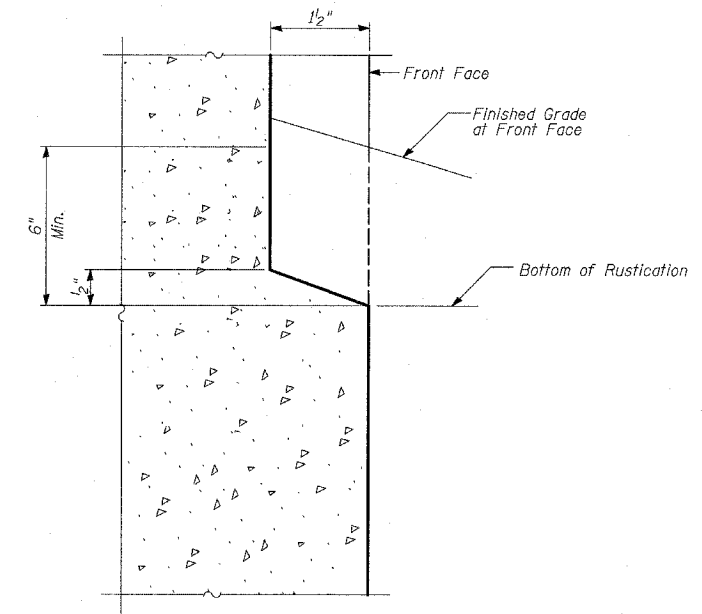
SUGGESTED FORMWORK DETAIL



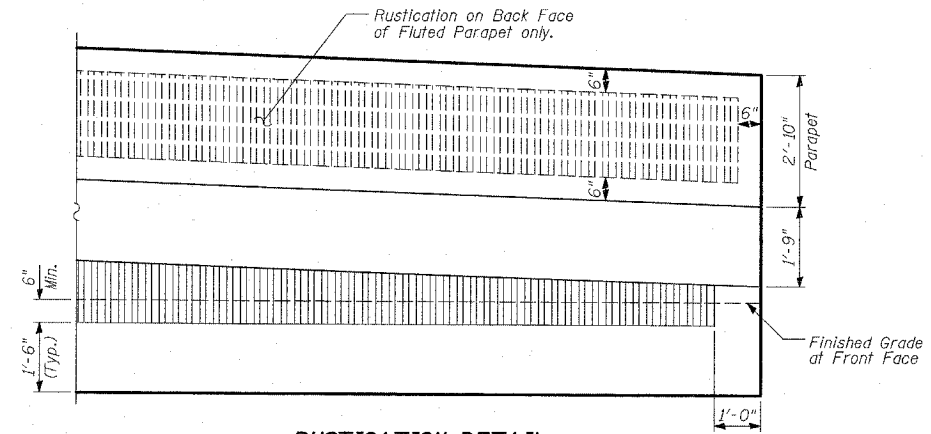
SECTION A-A



DETAIL A



DETAIL B



RUSTICATION DETAIL
(At End Panel with Embankment)

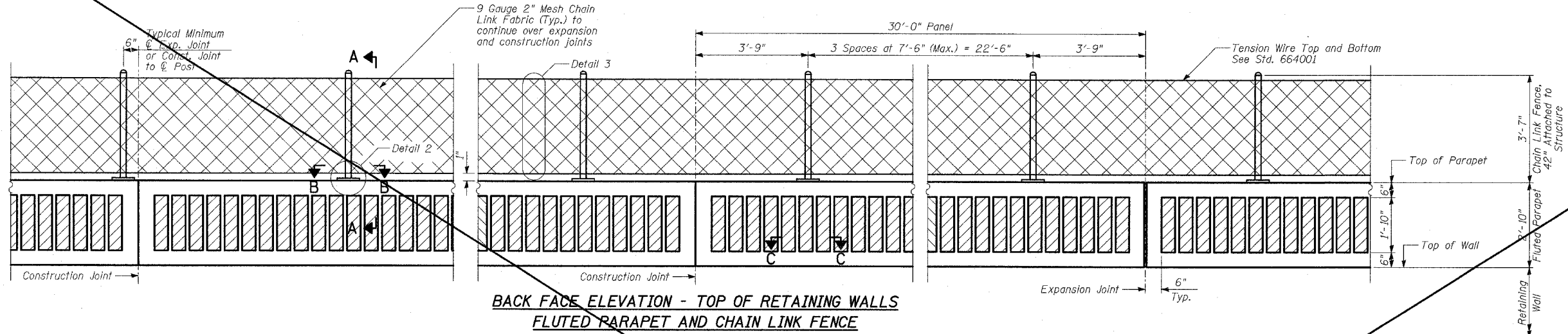
NOTES:
1. See Sheet 10 of 18 for expansion and construction joint details.

BILL OF MATERIAL

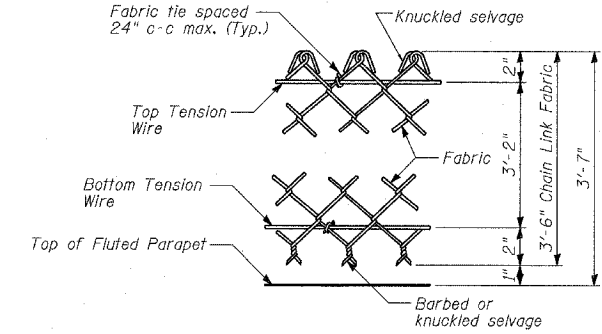
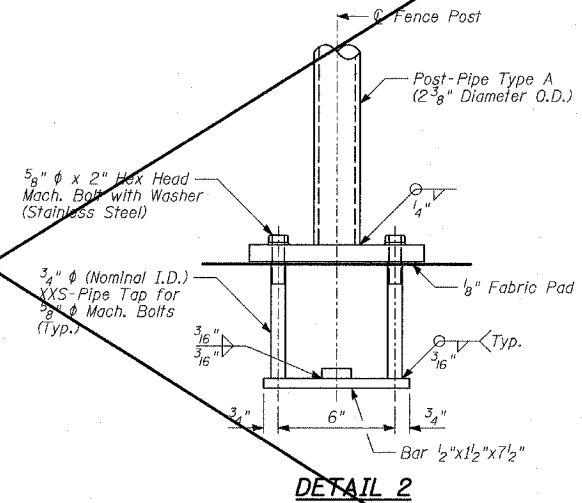
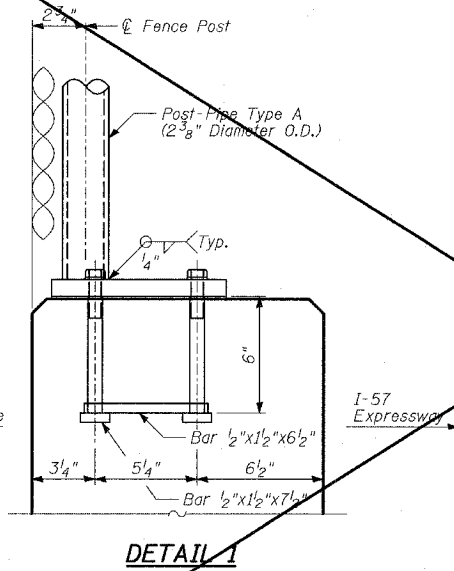
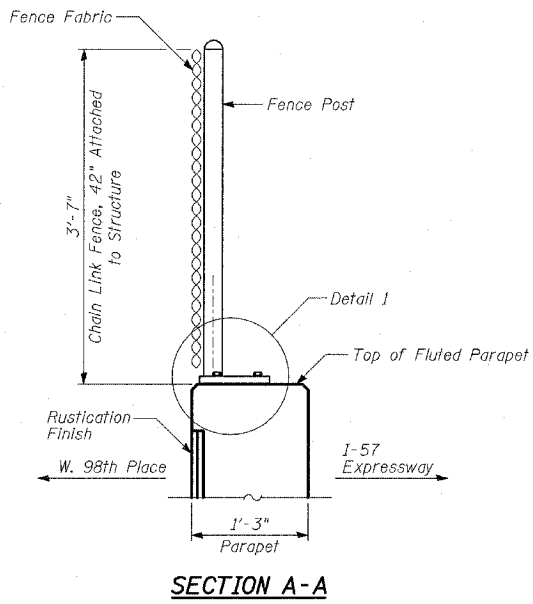
ITEM	UNIT	TOTAL
Rustication Finish	50 FT	5,621

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)
RETAINING WALL ALONG W. 98TH PLACE
PARNELL TO C&WI RR
WALL 67
RUSTICATION DETAILS
 S.N. 016-W952 DESIGNED BY: MI, DJR
 SCALE: N.T.S. DRAWN BY: DJR
 DATE: MARCH 25, 2005 CHECKED BY: TD, MI



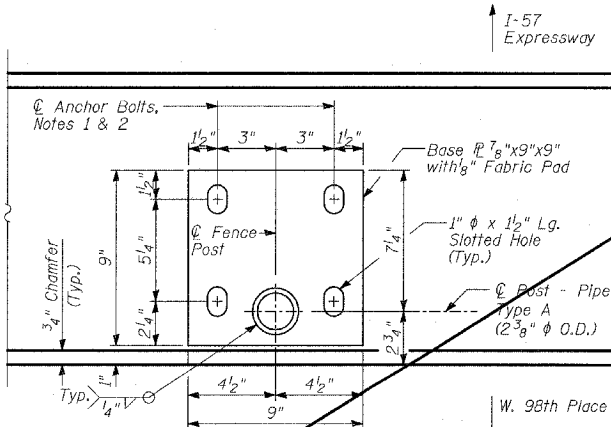
**BACK FACE ELEVATION - TOP OF RETAINING WALLS
FLUTED PARAPET AND CHAIN LINK FENCE**



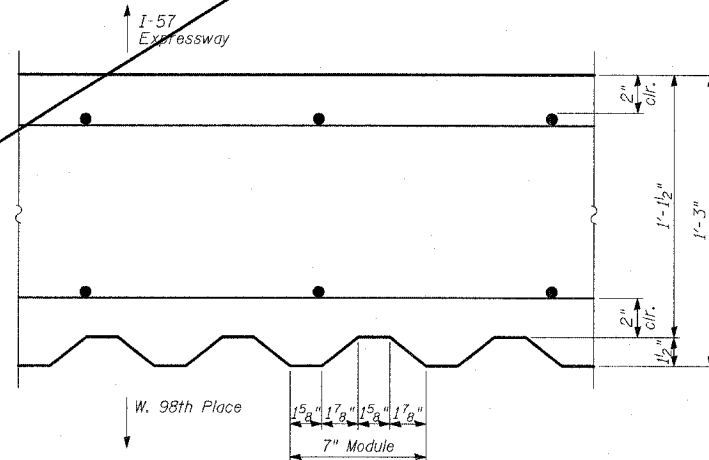
DETAIL 3

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Chain Link Fence, 42" Attached to Structure	FOOT	930



**SECTION B-B
BASE PLATE PLAN**



SECTION C-C

NOTES:

- In lieu of the cast-in-place anchor bolt assembly shown, the Contractor has the option of drilling and epoxy grouting 5/8" diameter anchor rods with 1/4" diameter washers. The Contractor shall use the capsule or the adhesive cartridge type anchor rods that have been previously tested and given prior approval by the Department. The Contractor shall install these anchor rods in pre-drilled holes according to the manufacturer's recommendations and procedures. The capsule or adhesive cartridge shall be sealed with pre-measured amounts of adhesive chemical. Anchor rod threading to be peened after nuts are installed.
- For additional chain link details, see Standard 664001.

REVISIONS	
NAME	DATE
REVISION	04/15/05

ILLINOIS DEPARTMENT OF TRANSPORTATION
**F.A.I. 94 (DAN RYAN EXPRESSWAY)
 RETAINING WALL ALONG W. 98TH PLACE
 PARNELL TO C&NI RR
 WALL 67 - CHAIN LINK FENCE, 42"
 ATTACHED TO STRUCTURE**
 S.N. 016-W952 DESIGNED BY: MI, DJR
 SCALE: N.T.S. DRAWN BY: DJR
 DATE: MARCH 25, 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 67-01 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

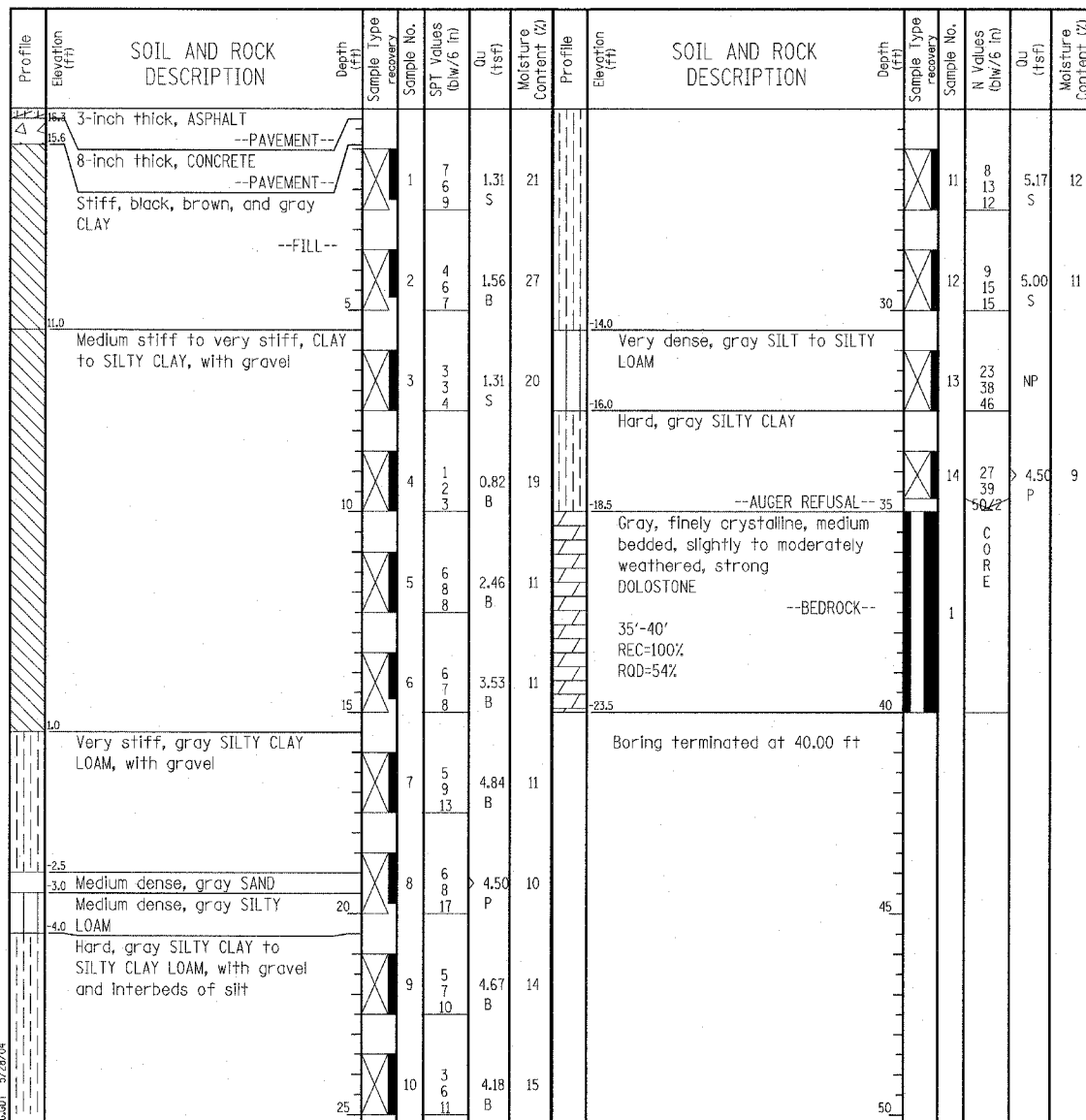
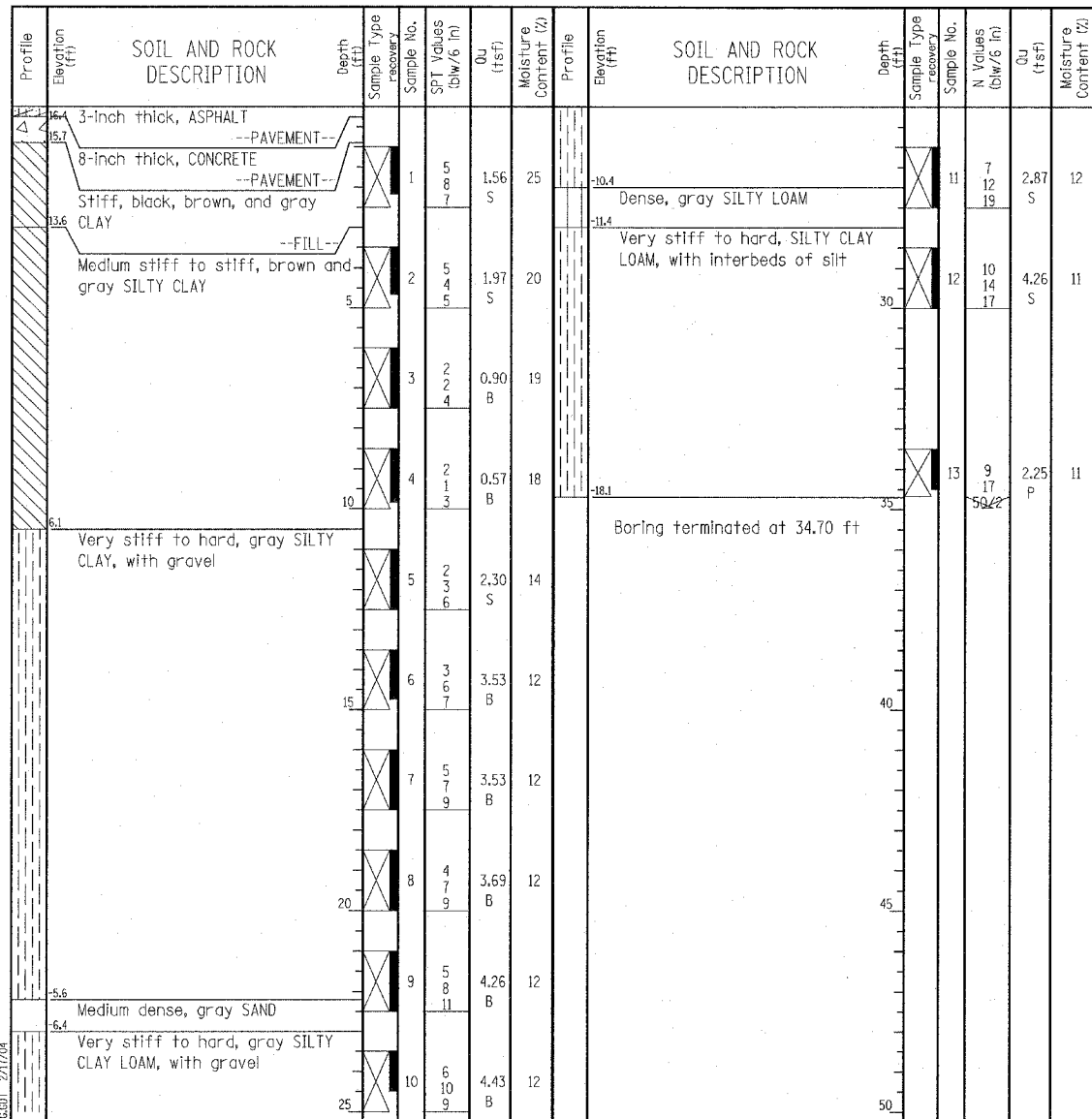
Datum: CCD
 Elevation: 16.63 ft
 North: 1839564.03 ft
 East: 1174436.63 ft
 Station: 107+54.5
 Offset: 106.547' LT

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

BORING LOG SB 67-02 Page 1 of 1

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

Datum: CCD
 Elevation: 16.50 ft
 North: 1839565.36 ft
 East: 1174507.82 ft
 Station: 108+25.7
 Offset: 106.125' LT



GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	02-12-2004	Complete Drilling	02-12-2004	While Drilling	▽	DRY	
Drilling Contractor	Patrick Drilling	Drill Rig	CME 75 TMR	At Completion of Drilling	▽	DRY	
Driller	T&D	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.

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	02-12-2004	Complete Drilling	02-12-2004	While Drilling	▽	DRY	
Drilling Contractor	Patrick Drilling	Drill Rig	CME 75 TMR	At Completion of Drilling	▽	DRY	
Driller	T&D	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.

TYLIN INTERNATIONAL

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94 (DAN RYAN EXPRESSWAY)
 RETAINING WALL ALONG W. 98TH PLACE
 PARNELL TO C&WI RR
 WALL 67
 BORING LOGS SB67-01 & SB67-02
 S.N. 016-W952
 SCALE: N.T.S.
 DATE: MARCH 25, 2005

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

03/29/2005 03:57:42 PM
 I:\Projects\94\Drawings\SB67\SB67-01.dwg
 I:\Projects\94\Drawings\SB67\SB67-02.dwg

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 67-03 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

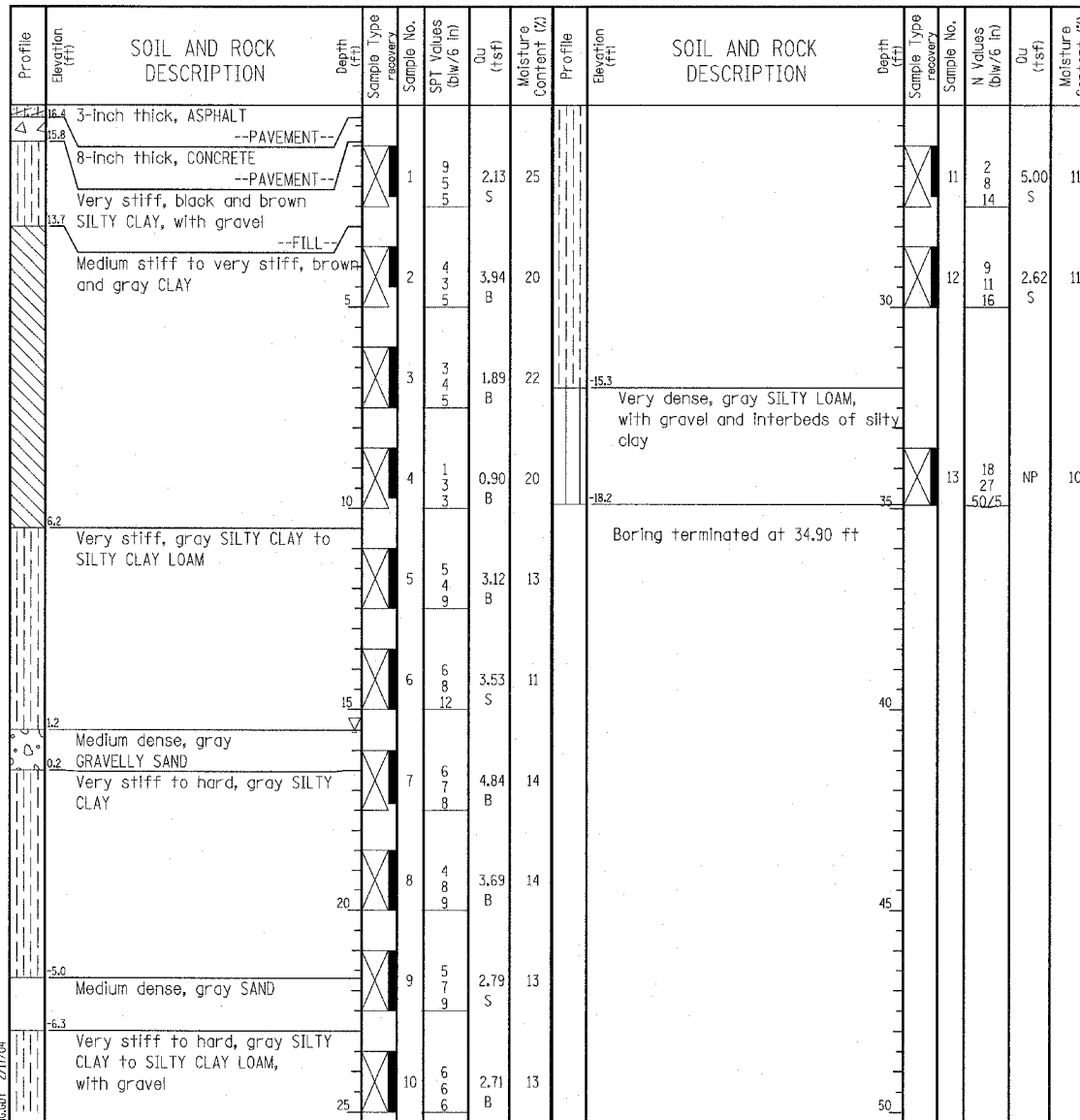
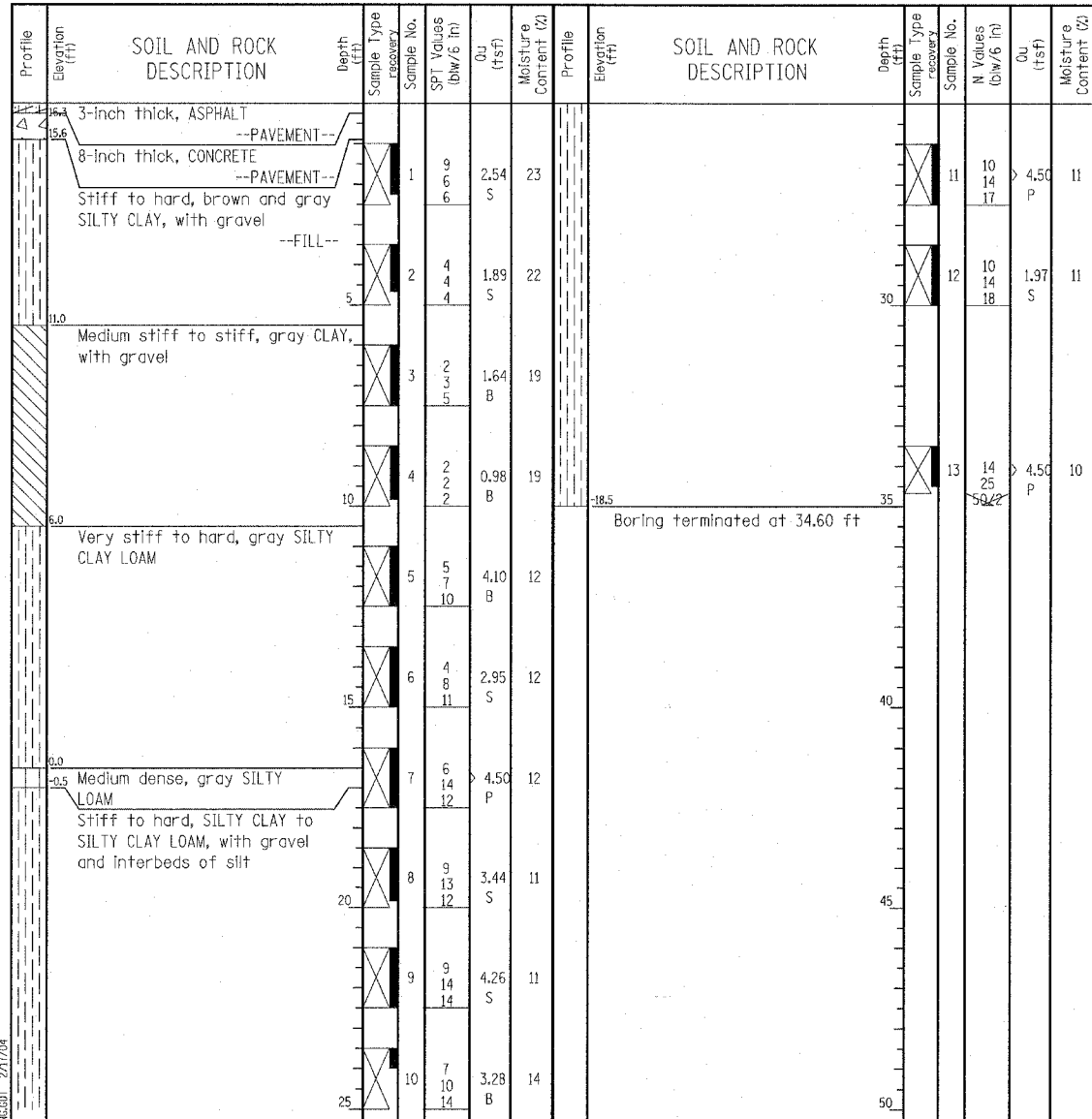
Datum: CCD
 Elevation: 16.51 ft
 North: 1839568.15 ft
 East: 1174585.53 ft
 Station: 109+03.4
 Offset: 107.005' LT

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 67-04 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: 16.69 ft
 North: 1839569.36 ft
 East: 1174661.61 ft
 Station: 109+79.5
 Offset: 106.353' LT



GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	02-11-2004	Complete Drilling	02-11-2004	While Drilling	▽	DRY	
Drilling Contractor	Patrick Drilling	Drill Rig	CME 75 TMR	At Completion of Drilling	▽	DRY	
Driller	T&D	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.							

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	02-11-2004	Complete Drilling	02-11-2004	While Drilling	▽	15.50 ft	
Drilling Contractor	Patrick Drilling	Drill Rig	CME 75 TMR	At Completion of Drilling	▽	DRY	
Driller	T&D	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.							

TYLIN INTERNATIONAL

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94 (DAN RYAN EXPRESSWAY)
 RETAINING WALL ALONG W. 98TH PLACE
 PARNELL TO C&WI RR
 WALL 67
 BORING LOGS SB67-03 & SB67-04
 S.N. 016-W952
 SCALE: N.T.S.
 DATE: MARCH 25, 2005

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

03/29/2005 03:57:42 PM

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 67-05 Page 1 of 1

WEI Job No.: 414-07-01
 Datum: CCD
 Elevation: 16.63 ft
 North: 1839571.98 ft
 East: 1174738.75 ft
 Station: 110+56.7
 Offset: 107.07' LT

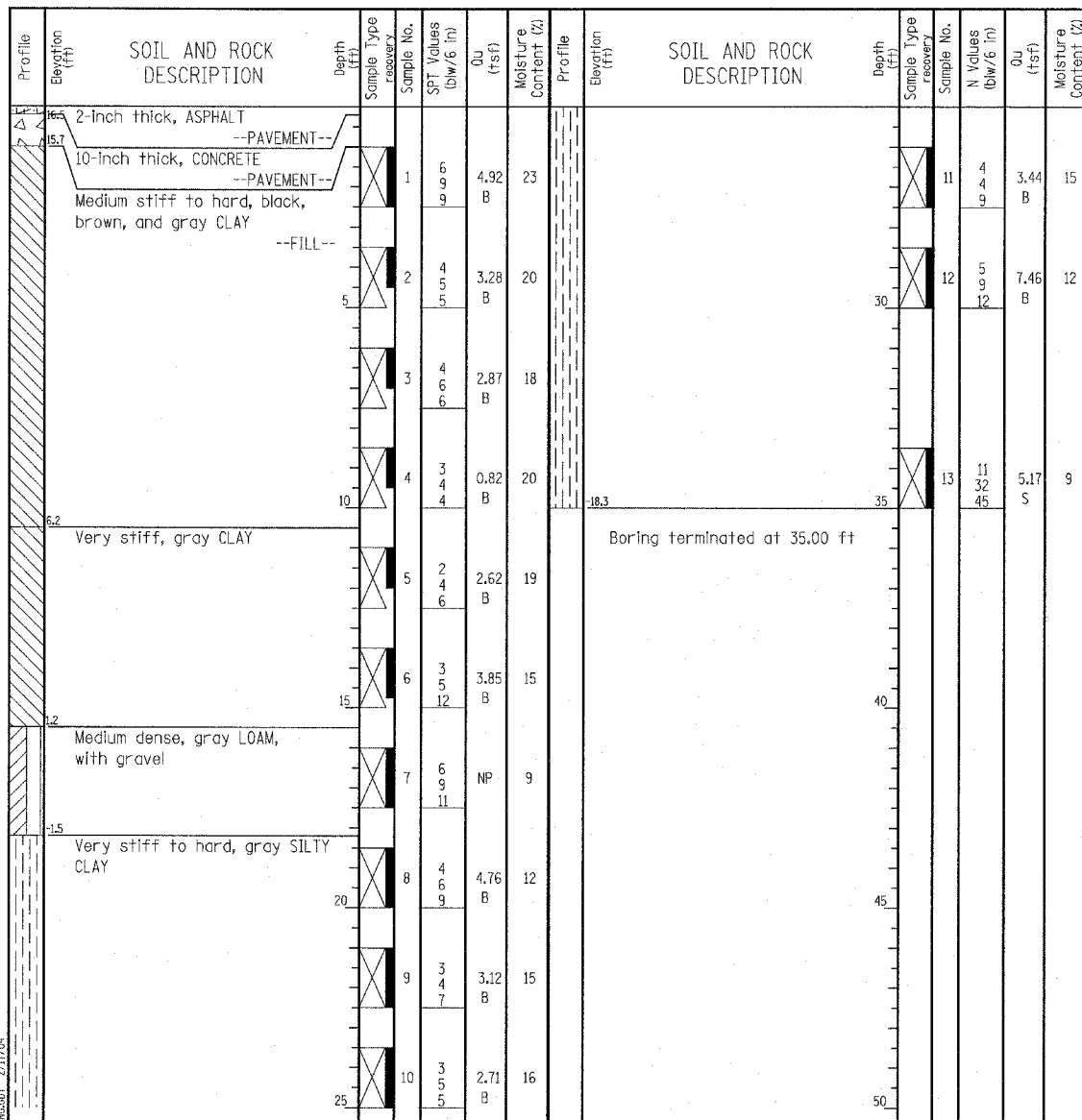
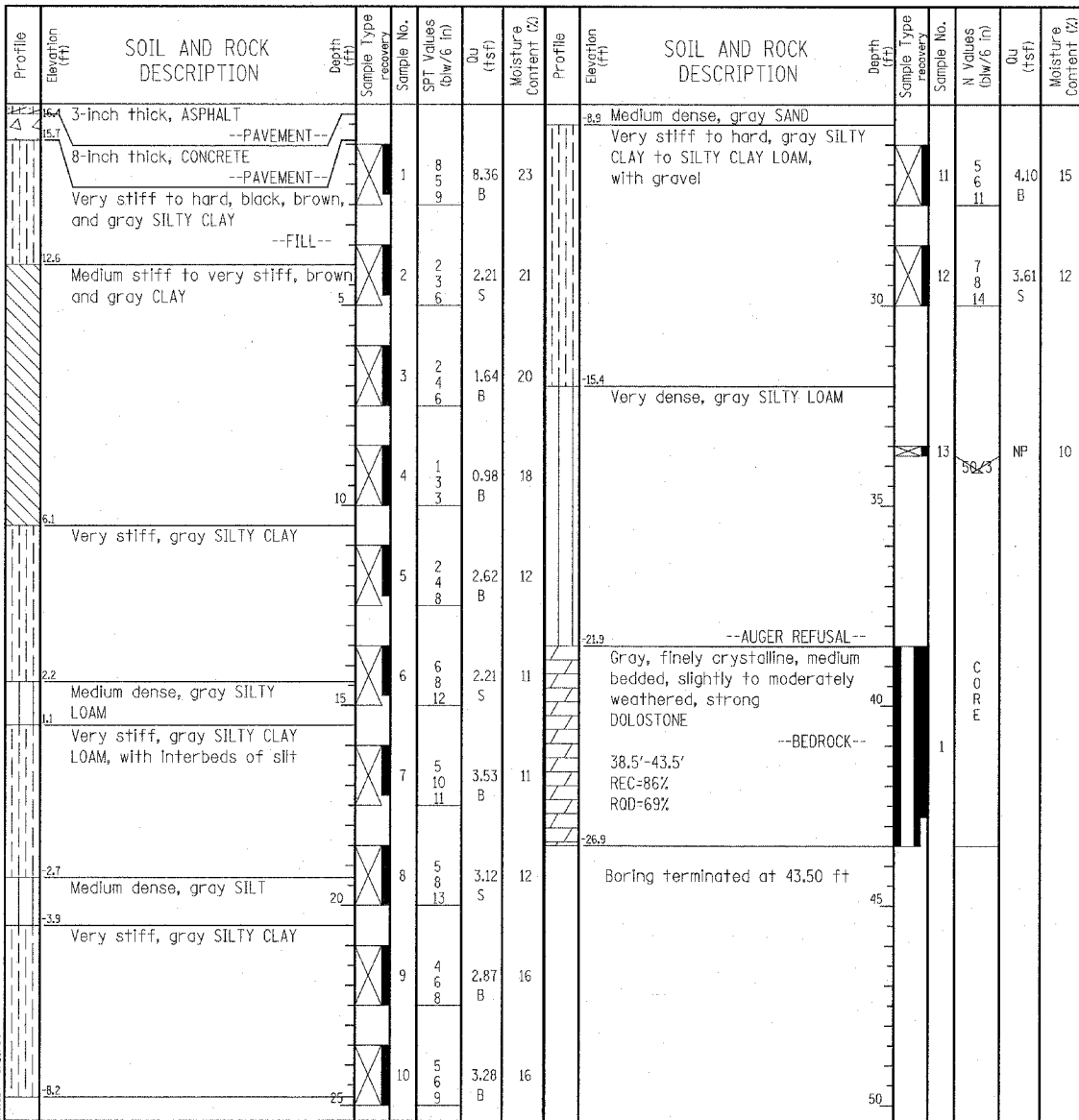
Client: T. Y. LIN International
 Project: Dan Ryan Improvements; IDOT No. D-91-421-01
 Location: From 95th Street to South of 69th Street

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 67-06 Page 1 of 1

WEI Job No.: 414-07-01
 Datum: CCD
 Elevation: 16.66 ft
 North: 1839574.59 ft
 East: 1174811.59 ft
 Station: 111+29.6
 Offset: 107.902' LT

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



GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	02-11-2004	Complete Drilling	02-11-2004	While Drilling	∇	DRY	
Drilling Contractor	Patrick Drilling	Drill Rig	CME 75 TMR	At Completion of Drilling	∇	DRY	
Driller	T&D	Logger	J. Kasnick	Time After Drilling	NA		
Checked by	N. Davis	Drilling Method	3.25" ID HSA; Boring backfilled with bentonite upon completion	Depth to Water	∇	NA	

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	02-12-2004	Complete Drilling	02-12-2004	While Drilling	∇	DRY	
Drilling Contractor	Patrick Drilling	Drill Rig	CME 75 TMR	At Completion of Drilling	∇	DRY	
Driller	J&L	Logger	Y. Shiu	Time After Drilling	NA		
Checked by	N. Davis	Drilling Method	3.25" ID HSA; Boring backfilled with bentonite upon completion	Depth to Water	∇	NA	

WANGENG INC. 4140701.GPJ WANGENG.DOT 2/17/04

WANGENG INC. 4140701.GPJ WANGENG.DOT 2/17/04



REVISIONS	
NAME	DATE

SHEET 15 OF 18

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)
RETAINING WALL ALONG W. 98TH PLACE
PARNELL TO C&W RR
WALL 67
BORING LOGS SB67-05 & SB67-06
 S.N. 016-W952
 SCALE: N.T.S.
 DATE: MARCH 25, 2005

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

03/29/2005 03:57:43 PM

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 67-07 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

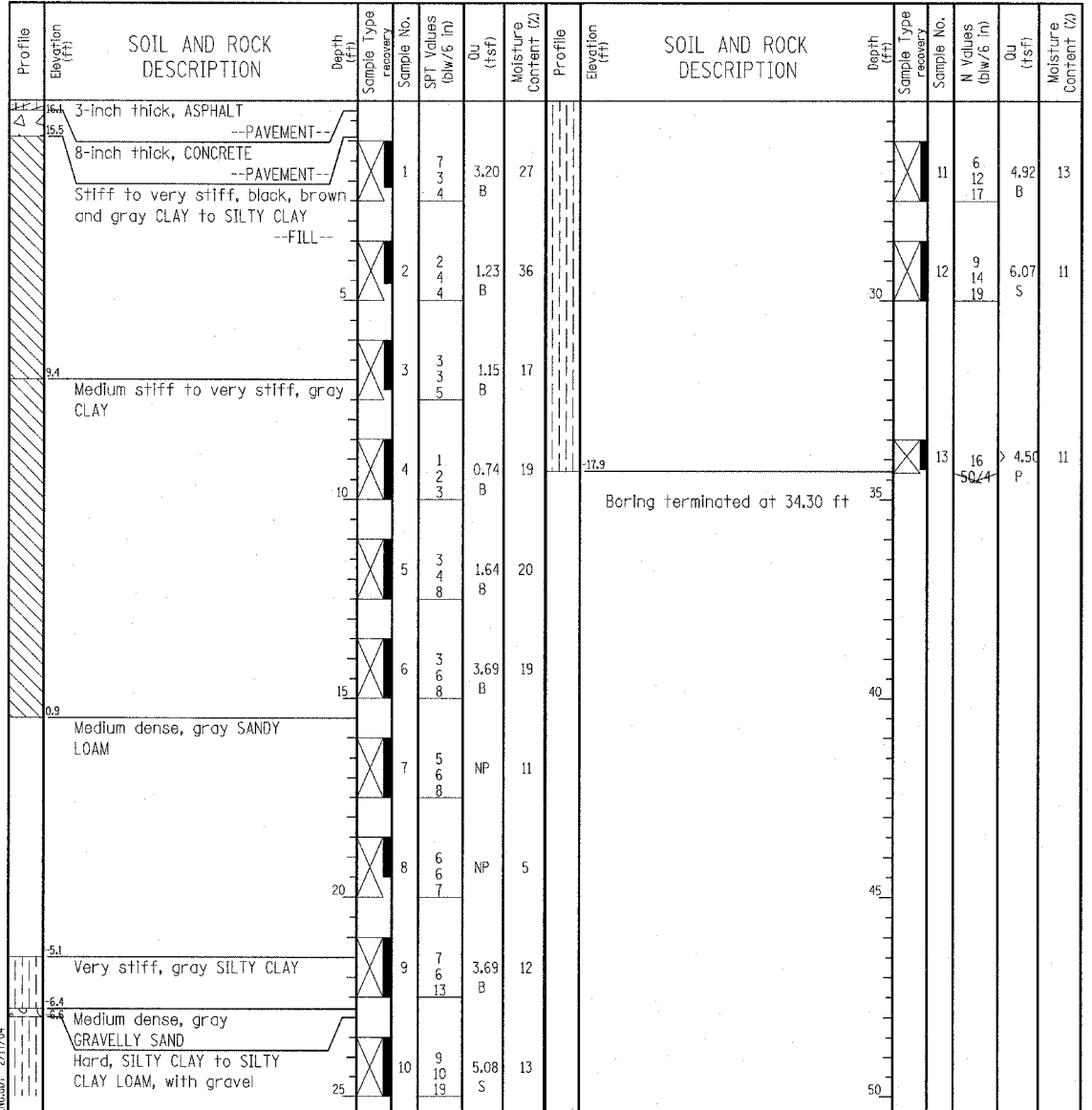
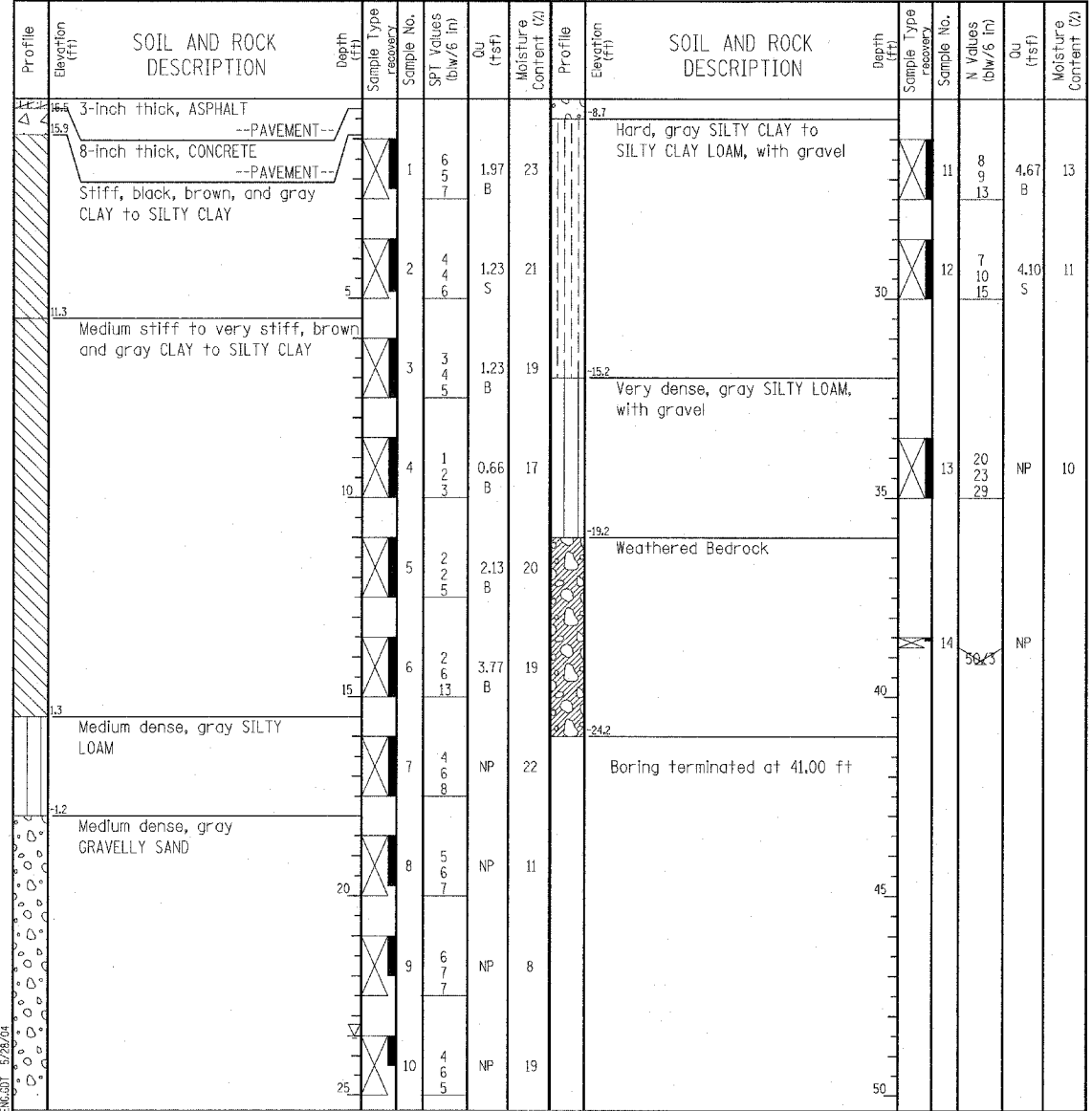
Datum: CCD
 Elevation: 16.76 ft
 North: 1839574.23 ft
 East: 1174884.40 ft
 Station: 112+02.4
 Offset: 105.755' LT

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 67-08 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: 16.39 ft
 North: 1839577.13 ft
 East: 1174960.82 ft
 Station: 112+78.8
 Offset: 106.781' LT



GENERAL NOTES				WATER LEVEL DATA	
Begin Drilling	02-10-2004	Complete Drilling	02-10-2004	While Drilling	▽ 23.50 ft
Drilling Contractor	Patrick Drilling	Drill Rig	CME 75 TMR	At Completion of Drilling	▽ DRY
Driller	T&D	Logger	J. Kasnick	Time After Drilling	NA
Checked by	N. Davis	Drilling Method	3.25" ID. HSA; Boring back-filled with bentonite upon completion	Depth to Water	▽ NA

GENERAL NOTES				WATER LEVEL DATA	
Begin Drilling	02-10-2004	Complete Drilling	02-10-2004	While Drilling	▽ DRY
Drilling Contractor	Patrick Drilling	Drill Rig	CME 75 TMR	At Completion of Drilling	▽ DRY
Driller	T&D	Logger	J. Kasnick	Time After Drilling	NA
Checked by	N. Davis	Drilling Method	3.25" ID. HSA; Boring back-filled 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 W. 98TH PLACE
 PARNELL TO C&WI RR
 WALL 67
 BORING LOGS SB67-07 & SB67-08
 S.N. 016-W952
 SCALE: N.T.S.
 DATE: MARCH 25, 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 67-09 Page 1 of 1

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

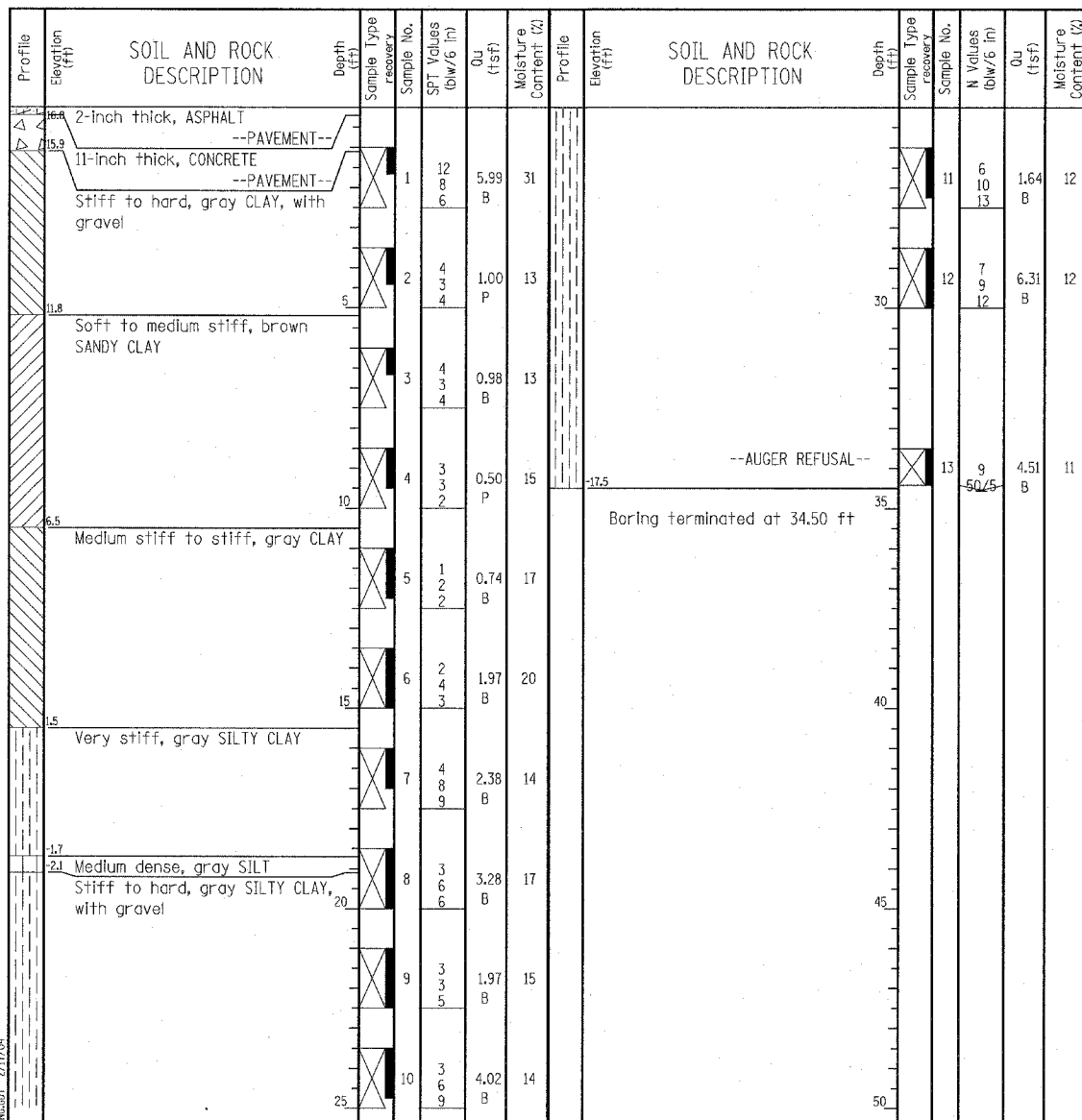
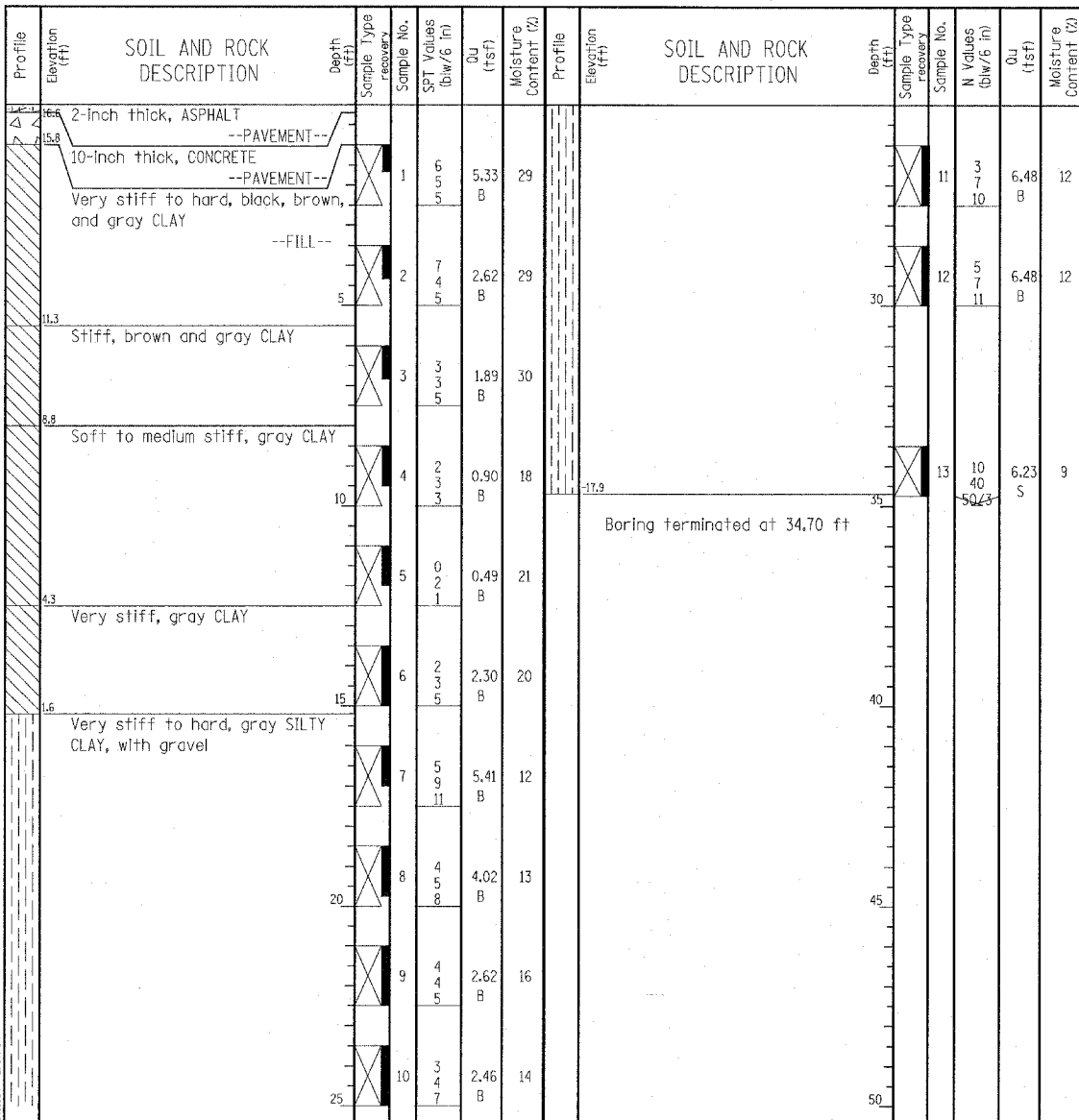
Datum: CCD
 Elevation: 16.84 ft
 North: 1839580.22 ft
 East: 1175036.04 ft
 Station: 113+54.1
 Offset: 108.019' LT

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

BORING LOG SB 67-10 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: 17.00 ft
 North: 1839581.96 ft
 East: 1175109.77 ft
 Station: 114+21.9
 Offset: 107.952' LT



GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	02-12-2004	Complete Drilling	02-12-1947	While Drilling	∇	DRY	
Drilling Contractor	Patrick Drilling	Drill Rig	CME 75 TMR	At Completion of Drilling	∇	DRY	
Driller	J&L	Logger	Y. Shiu	Time After Drilling	NA		
Checked by	N. Davis	Drilling Method	3.25" ID HSA; Boring backfilled with bentonite upon completion	Depth to Water	∇	NA	

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	02-11-2003	Complete Drilling	02-11-2003	While Drilling	∇	DRY	
Drilling Contractor	Patrick Drilling	Drill Rig	CME 75 TMR	At Completion of Drilling	∇	DRY	
Driller	J&L	Logger	Y. Shiu	Time After Drilling	NA		
Checked by	N. Davis	Drilling Method	3.25" ID HSA; Boring backfilled with bentonite upon completion	Depth to Water	∇	NA	

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94 (DAN RYAN EXPRESSWAY)
 RETAINING WALL ALONG W. 98TH PLACE
 PARNELL TO C&WI RR
 WALL 67
 BORING LOGS SB67-09 & SB67-10
 S.N. 016-W952
 SCALE: N.T.S.
 DATE: MARCH 25, 2005

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 DRAWN BY: DJR
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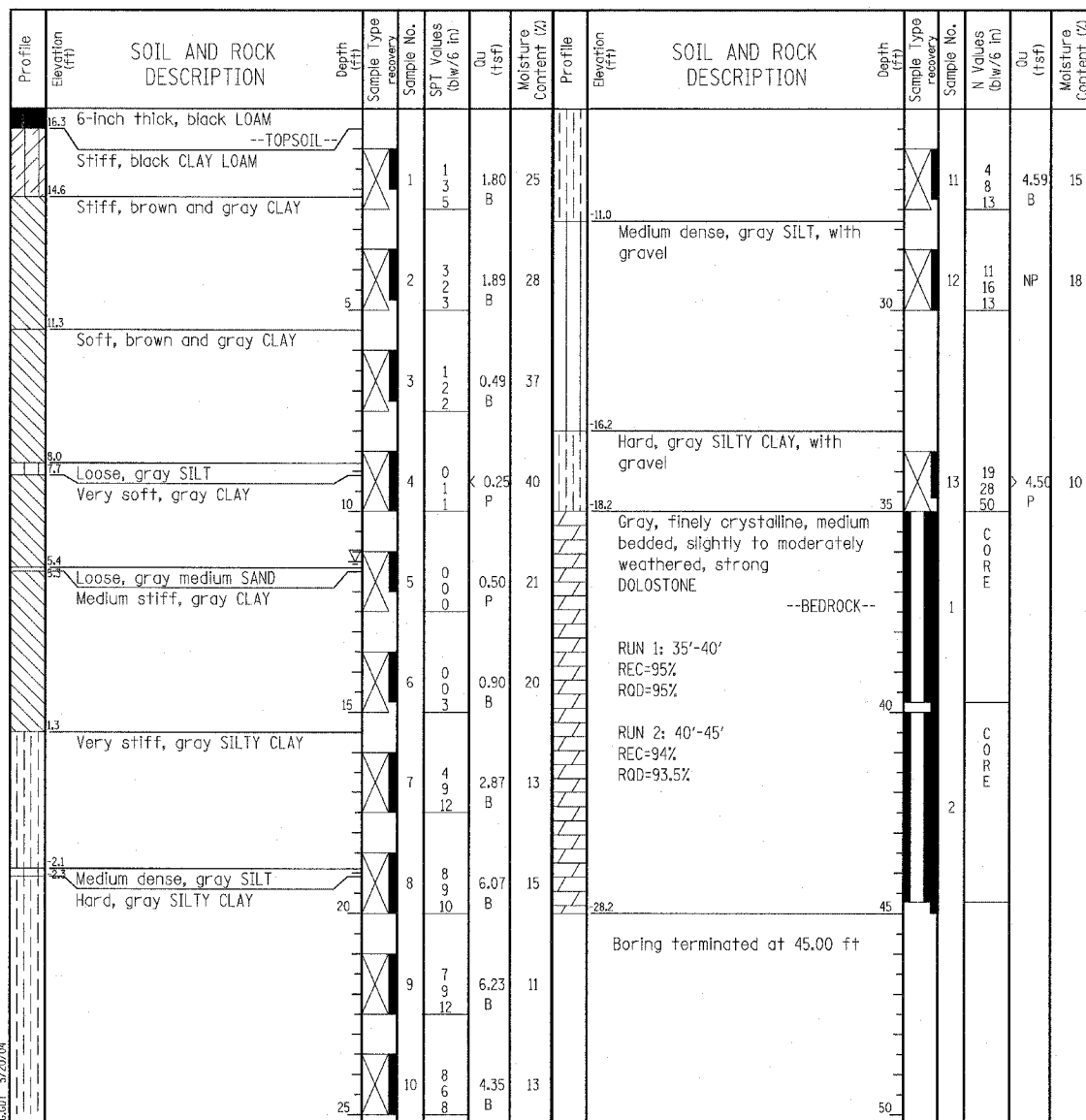
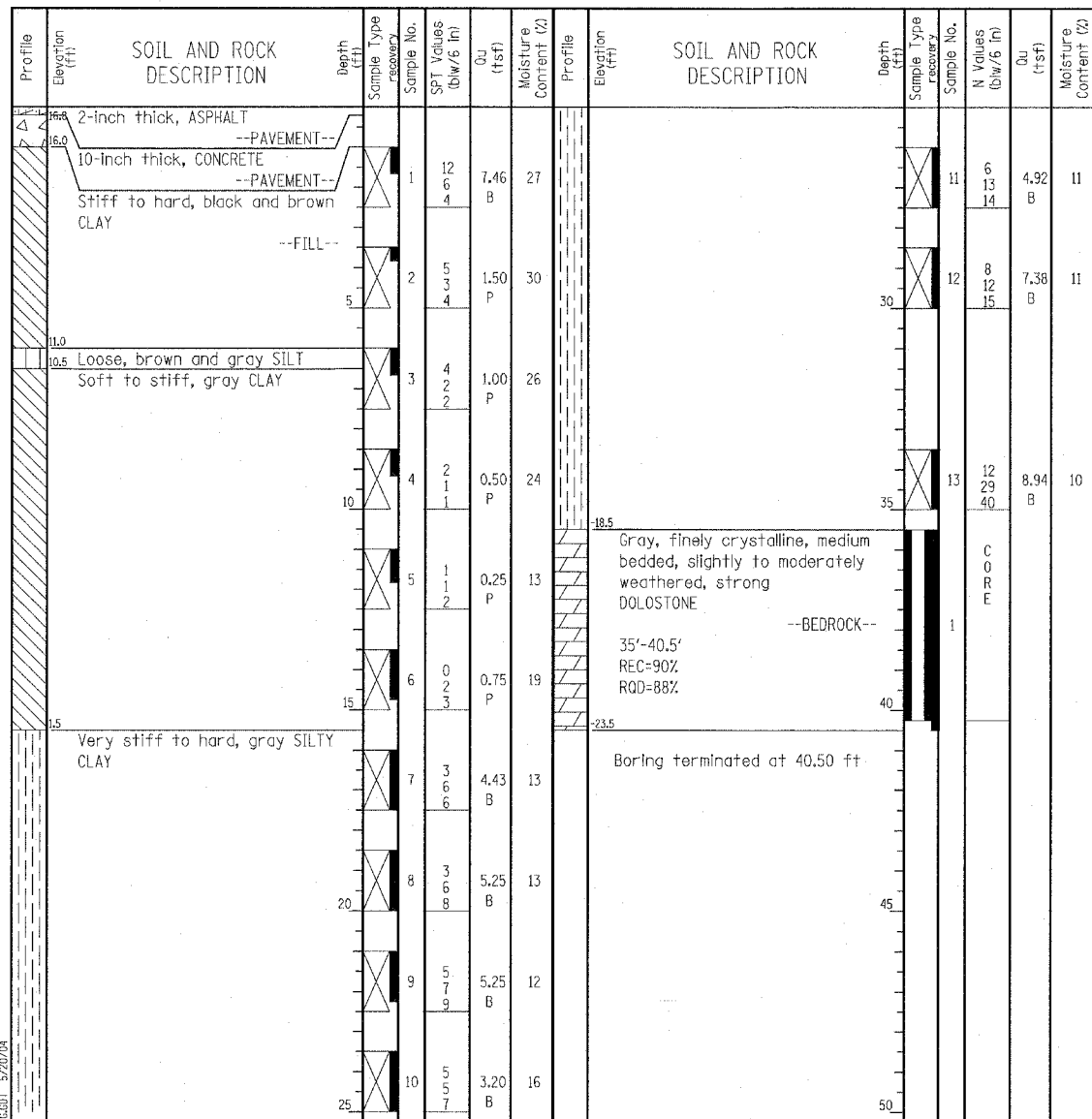
BORING LOG SB 67-11 Page 1 of 1
WEI Job No.: 414-07-01
Datum: CCD
Elevation: 16.97 ft
North: 1839583.42 ft
East: 1175183.82 ft
Station: 115+01.9
Offset: 107.595' LT

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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BORING LOG SB 67-12 Page 1 of 1
WEI Job No.: 414-07-01
Datum: CCD
Elevation: 16.83 ft
North: 1839583.33 ft
East: 1175264.98 ft
Station: 115+03.1
Offset: 105.515' LT

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



GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	02-11-2004	Complete Drilling	02-11-2004	While Drilling	▽	DRY	
Drilling Contractor	Patrick Drilling	Drill Rig	CME 75 TMR	At Completion of Drilling	▽	DRY	
Driller	J&L	Logger	Y. Shiu	Time After Drilling	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	02-11-2003	Complete Drilling	02-11-2003	While Drilling	▽	11.25 ft	
Drilling Contractor	Patrick Drilling	Drill Rig	CME 75 TMR	At Completion of Drilling	▽	DRY	
Driller	J&L	Logger	Y. Shiu	Time After Drilling	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)
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PARNELL TO C&WI RR
WALL 67
BORING LOGS SB67-11 & SB67-12
S.N. 016-W952
SCALE: N.T.S.
DATE: MARCH 25, 2005
DESIGNED BY: DJR
DRAWN BY: DJR
CHECKED BY: TD

A:\0257\31\Structure\01\Wall_67_SB67-11-SB67-12.dwg

03/25/2005 03:57:44 PM

Benchmarks: BM 3514 Set "+" on chain bolt of hydrant at southwest intersection of LaSalle St. and 97th St. El. 17.56

Existing Structure: None.

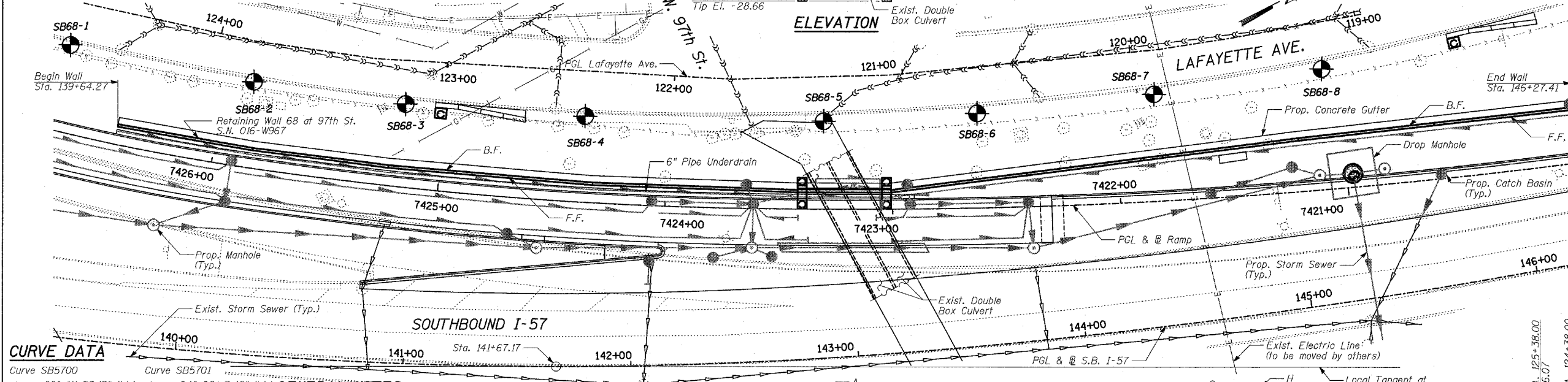
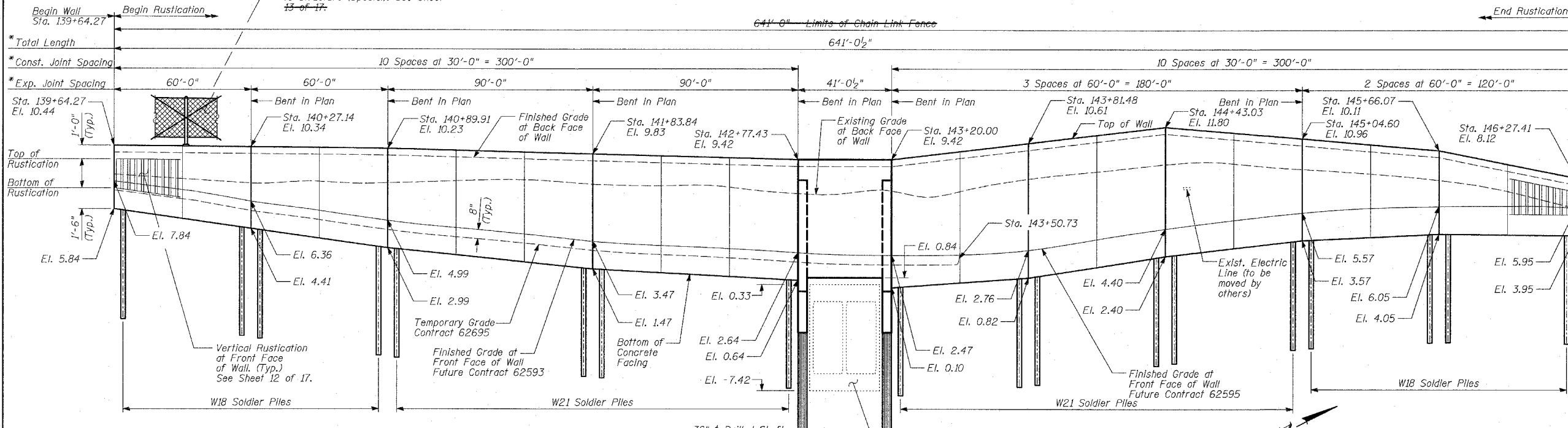
Chain Link Fence, 42" Attached to Structure (Special). See Sheet 13 of 17.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94		COOK	907	654

STA. 1200+00.00 TO STA. 1365+00
 FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT
 (1516.1, 1717 & 1818) R-9 62695

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Porous Granular Embankment	CU YD	169
Structure Excavation	CU YD	529
Concrete Structures	CU YD	229
Protective Coat	SQ YD	547
Rustication Finish	SQ FT	3,314
Stud Shear Connectors	EACH	750
Untreated Timber Lagging	SQ FT	3,347
Furnishing Soldier Piles (W Section)	FOOT	2,626
Reinforcement Bars, Epoxy Coated	POUND	32,040
Geocomposite Wall Drain	SQ YD	439
Pipe Underdrains for Structures, 6"	FOOT	642
Drilling and Setting Soldier Piles (in Soil)	CU FT	12,754
Drilled Shaft in Soil 36"	FOOT	102
Chain Link Fence, 42" Attached to Structure (Special)	FOOT	641



CURVE DATA

Curve SB5700	Curve SB5701
$\Delta = 66^\circ 11' 55.15''$ (Lt.)	$\Delta = 24^\circ 02' 7.49''$ (Lt.)
$D = 3^\circ 02' 10.83''$	$D = 1^\circ 58' 30.13''$
$R = 1,887.00$	$R = 2,901.00$
$L = 2,180.21$	$L = 1,216.96$
$E = 365.53$	$E = 65.01$
$T = 1,230.09$	$T = 617.56$
$PC = Sta. 121+39.97$	$PC = Sta. 143+20.18$
$PT = Sta. 133,70.06$	$PT = Sta. 149+37.75$
$PT = Sta. 143+20.18$	$PT = Sta. 155+37.15$

GENERAL NOTES:

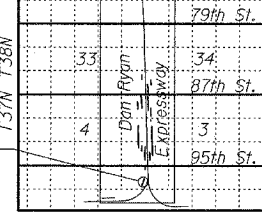
- Reinforcement bars shall conform to the requirements of AASHTO M31 or M322 Grade 60.
- Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of the work; however, the Contractor will be paid for the quantity actually finished at the unit price bid for the work.
- The Contractor is responsible for the design and performance of the lagging using no less than 3" nominal rough-sawn thickness and the minimum fabricated unit stress in bending (f_b), used in the design of timber lagging shall be 1000 psi.
- The soldier piles shall be cleaned and given one shop coat of Inorganic Zinc-Rich primer.
- All exposed concrete edges shall be chamfered $\frac{3}{8}$ " except as noted.
- Protective Coat shall be applied to exposed surfaces of the concrete facing.
- Existing utilities in conflict with soldier pile wall construction shall be abandoned or relocated according directions given on the roadway plans.
- All construction joints shall be bonded.
- All elevations shown are based on the Chicago City Datum of 0.00, which is 579.19 feet above mean tide New York. (NAVD 88)
- The wall shall be backfilled (where applicable) prior to placing the concrete facing.
- The Contractor is responsible to coordinate all electrical crossings with this Contract and with Contract 62583.
- It is the Contractor's responsibility to verify the location of the existing double box culvert and report any discrepancies to the Engineer prior to drilling.

INDEX OF SHEETS

- GENERAL PLAN
- PLAN AND ELEVATION STA. 139+64.27 TO STA. 140+89.91
- PLAN AND ELEVATION STA. 140+89.91 TO STA. 142+77.43
- PLAN AND ELEVATION STA. 142+77.43 TO STA. 144+43.03
- PLAN AND ELEVATION STA. 144+43.03 TO STA. 145+66.07
- PLAN AND ELEVATION STA. 145+66.07 TO STA. 146+27.41
- PILE LAYOUT, DETAILS & BILL OF MATERIAL
- PLAN AND ELEVATION STA. 142+77.43 TO STA. 143+20.00
- SADDLE SECTION AND DETAILS 1
- SADDLE SECTION AND DETAILS 2
- WALL CROSS SECTIONS & DETAILS
- RUSTICATION DETAILS
- CHAIN LINK FENCE, 42" ATTACHED TO STRUCTURE (SPECIAL)
- BORING LOGS SB68-01 & SB68-02
- BORING LOGS SB68-03 & SB68-04
- BORING LOGS SB68-05 & SB68-06
- BORING LOGS SB68-07 & SB68-08

OFFSET SKETCH

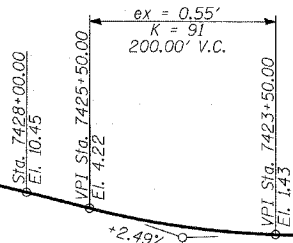
Point	Sta.	Offset to S.B. I-57
A	139+64.27	95'-0" Lt.
B	140+27.14	89'-11" Lt.
C	140+89.91	85'-8" Lt.
D	141+83.84	79'-8" Lt.
E	142+77.43	73'-5" Lt.
F	143+20.00	70'-7" Lt.
G	145+04.60	73'-5" Lt.
H	146+27.41	67'-0" Lt.



LOCATION SKETCH

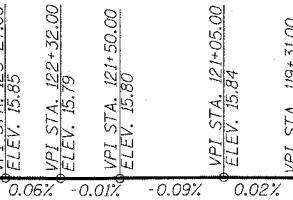
PROFILE GRADE

(Southbound I-57)



PROFILE GRADE

(Ramp)



LEGEND

- Boring Location
- Measured along Front Face of Wall.

DESIGN SPECIFICATION

AASHTO 2002 Standard Specifications for Highway Bridges

DESIGN STRESSES

$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)
 $f_y = 36,000$ psi (M270 Grade 36)
 Soldier Piles

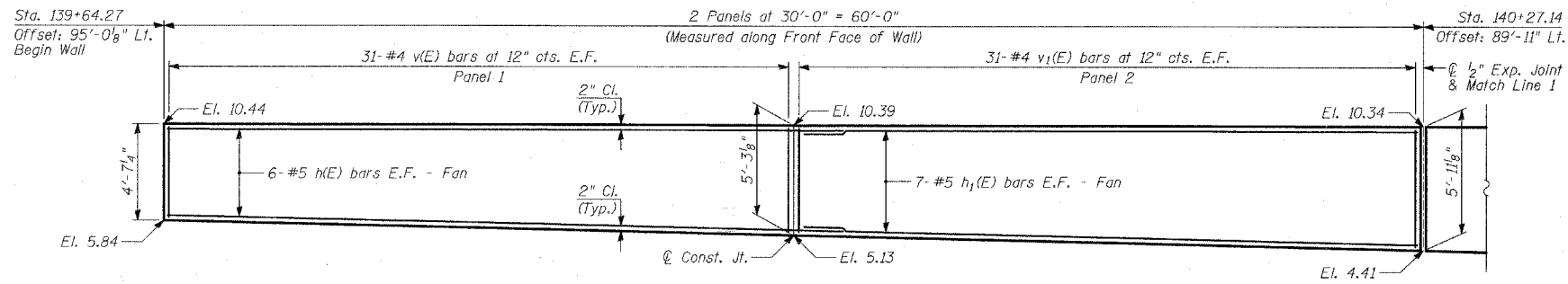
TYLIN INTERNATIONAL



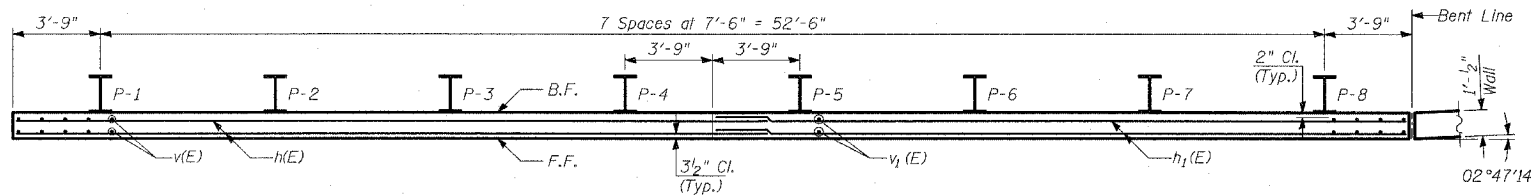
Signed *Phillip D. Frey*
 Phillip D. Frey, P.E., No. 081-004826, Expires 11-30-2006.
 Date: 3/25/05

REVISIONS	NAME	DATE

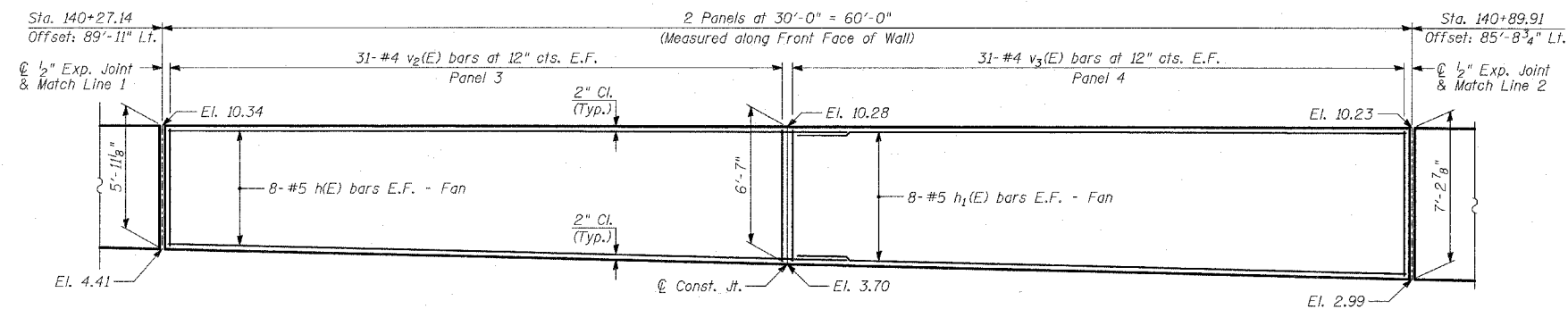
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)
RETAINING WALL ALONG LAFAYETTE AVE.
AT 97TH ST.
STA. 139+64.27 TO STA. 146+27.41
 S.N. 016-W967
 SCALE: N.T.S.
 DATE: MARCH 25, 2005
 DESIGNED BY: MI, DJR
 DRAWN BY: DJR
 CHECKED BY: TD, MI



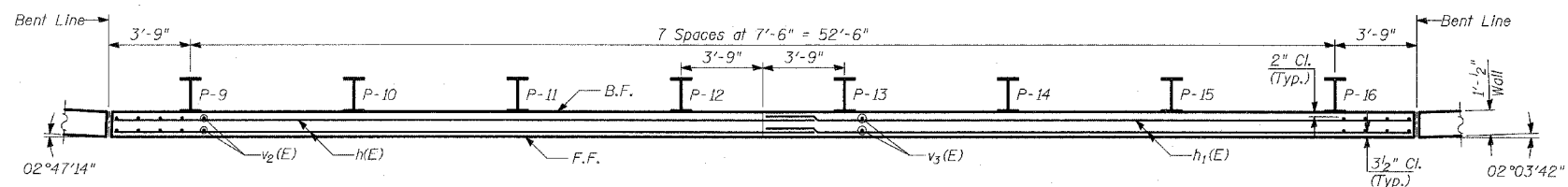
ELEVATION



PLAN



ELEVATION



PLAN

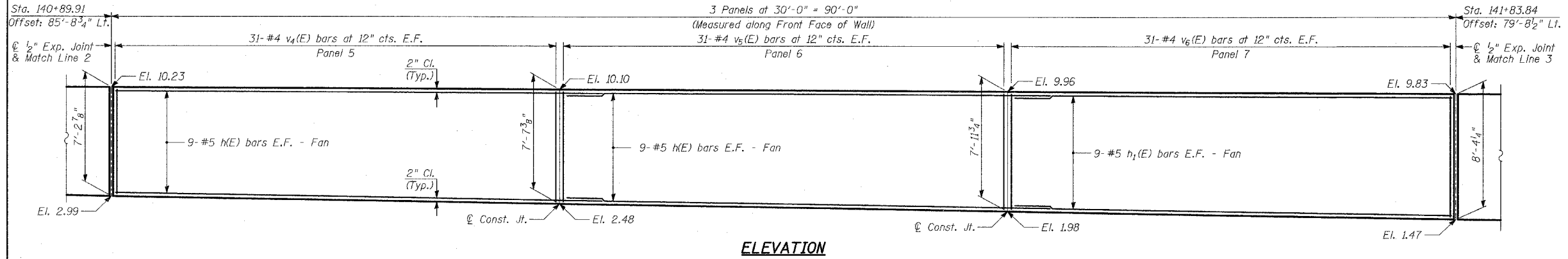
NOTES:

1. B.F. - denotes Back Face.
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4. Work this Sheet with Sheets 7 and 11 thru 13 of 17.
5. Pile spacing measured along front face of wall.
6. For Lap Splices, see Sheet 7 of 17.

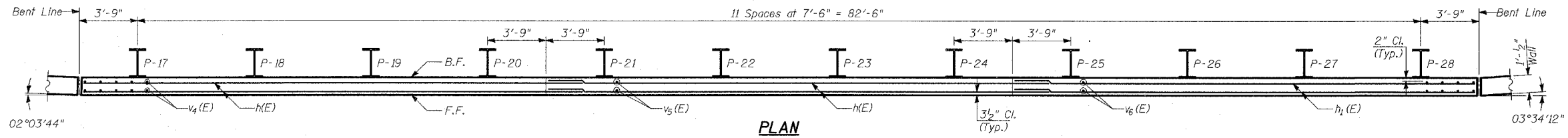
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REVISIONS	
NAME	DATE

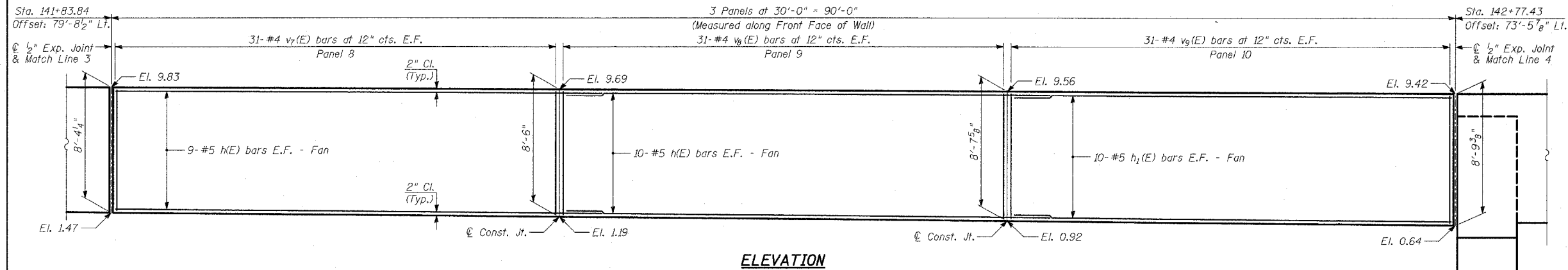
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)
RETAINING WALL ALONG LAFAYETTE AVE.
AT 97TH ST.
WALL 68 - PLAN AND ELEVATION
STA. 139+64.27 TO STA. 140+89.91
 S.N. 016-W967 DESIGNED BY: MI, DJR
 SCALE: N.T.S. DRAWN BY: DJR, MAF
 DATE: MARCH 25, 2005 CHECKED BY: TD, MI



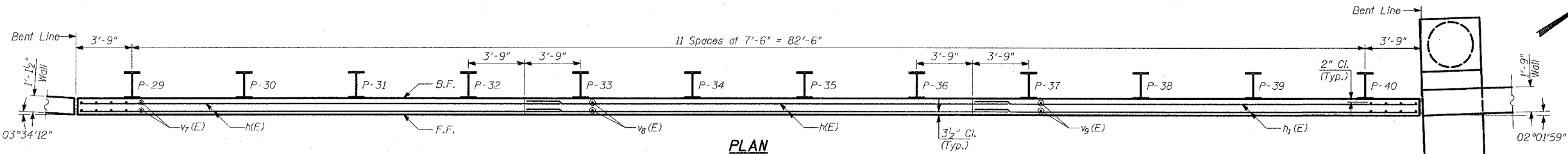
ELEVATION



PLAN



ELEVATION



PLAN

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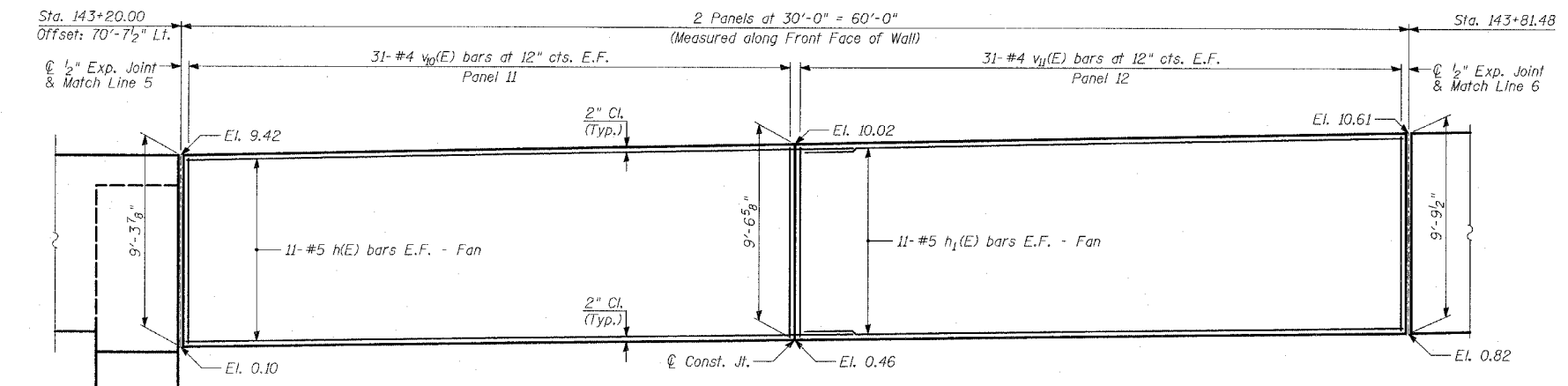
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REVISIONS	
NAME	DATE
REVISED	04/15/05

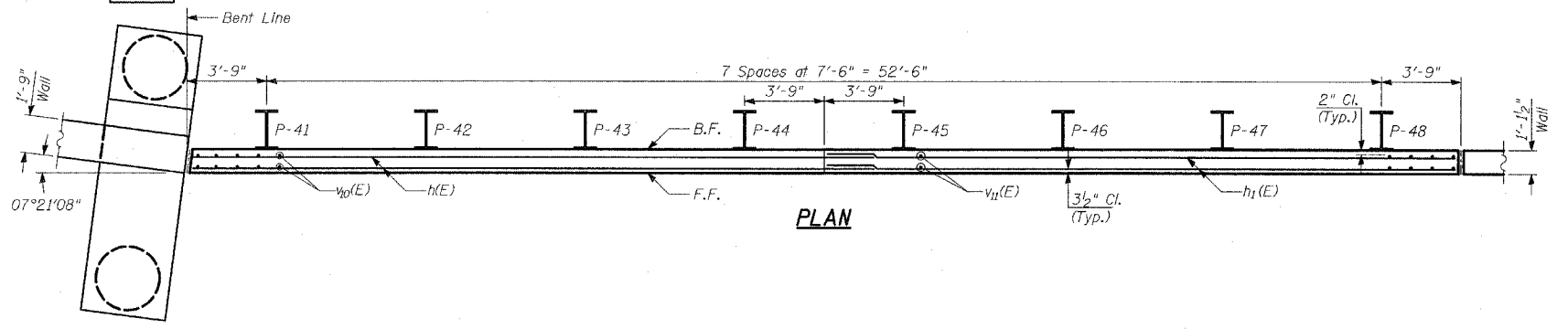
ILLINOIS DEPARTMENT OF TRANSPORTATION
**F.A.I. 94 (DAN RYAN EXPRESSWAY)
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 AT 97TH ST.
 WALL 68 - PLAN AND ELEVATION
 STA. 140+89.91 TO STA. 142+77.43**
 S.N. 016-W967
 SCALE: N.T.S.
 DATE: MARCH 25, 2005

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

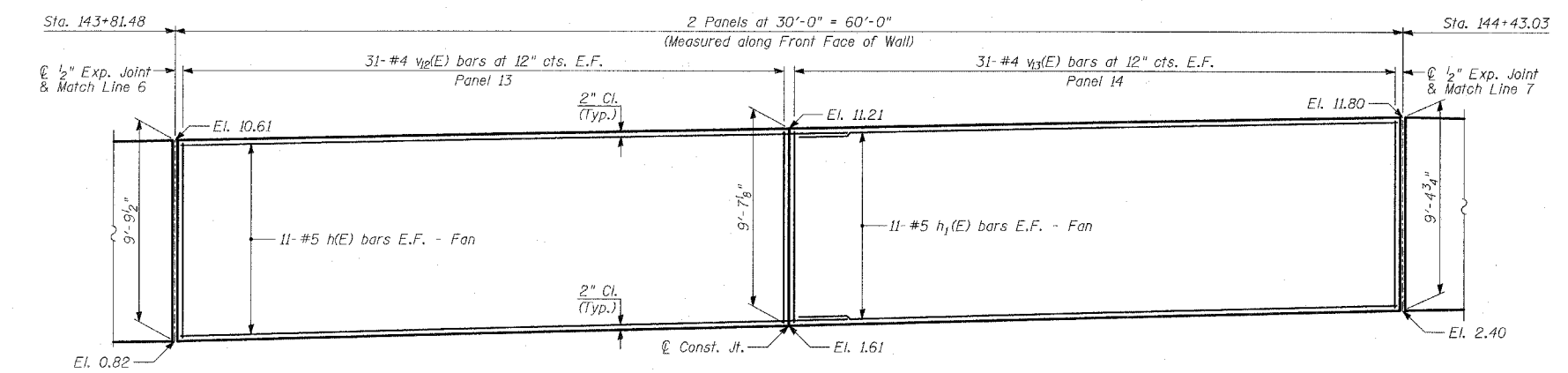
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94		COOK	907	657
STA. 1200+00.00		TO STA. 1365+00		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
(1516.1, 1717 & 1818) R-9		62695		



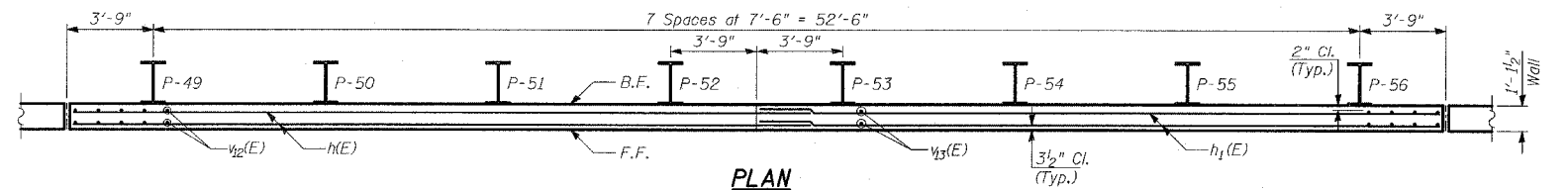
ELEVATION



PLAN



ELEVATION



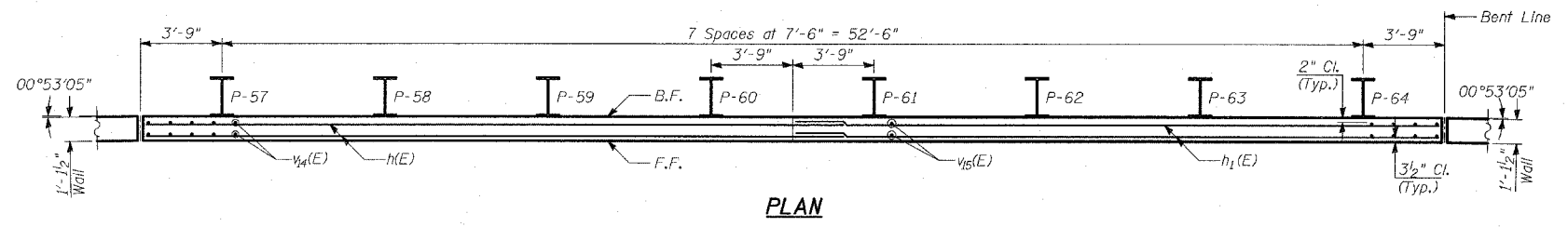
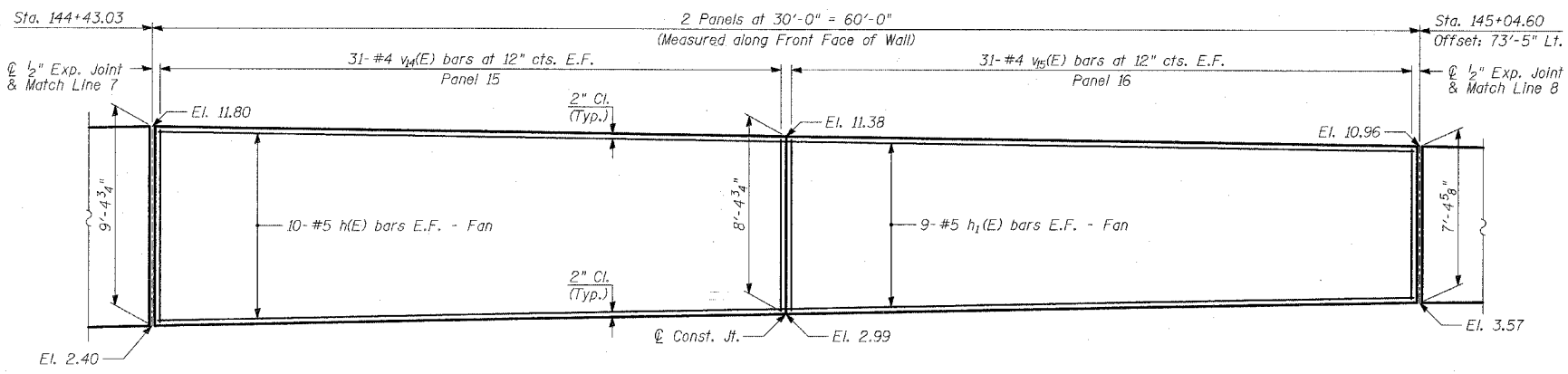
PLAN

- NOTES:**
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 3. F.F. - denotes Front Face.
 4. Work this Sheet with Sheets 7, 11 and 12 of 17.
 5. Pile spacing measured along front face of wall.
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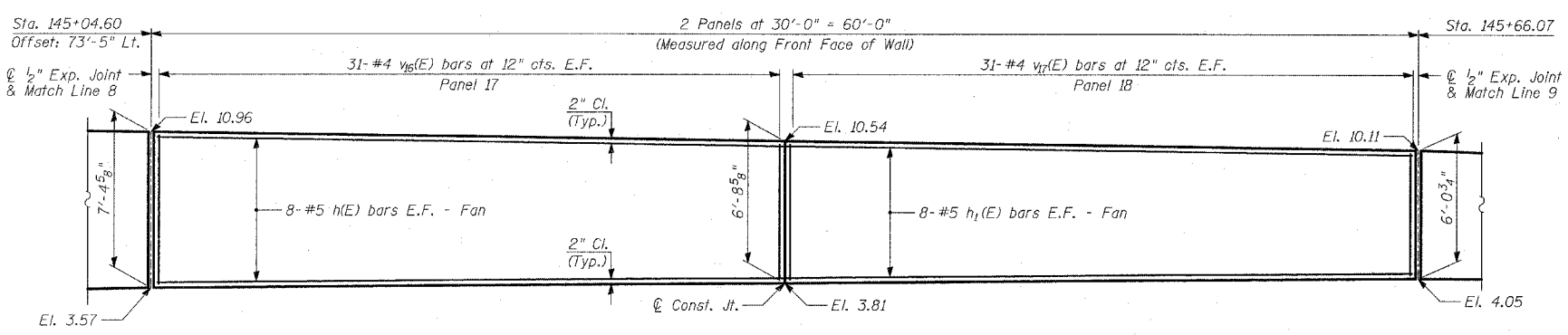
TYLIN INTERNATIONAL

REVISIONS	
NAME	DATE

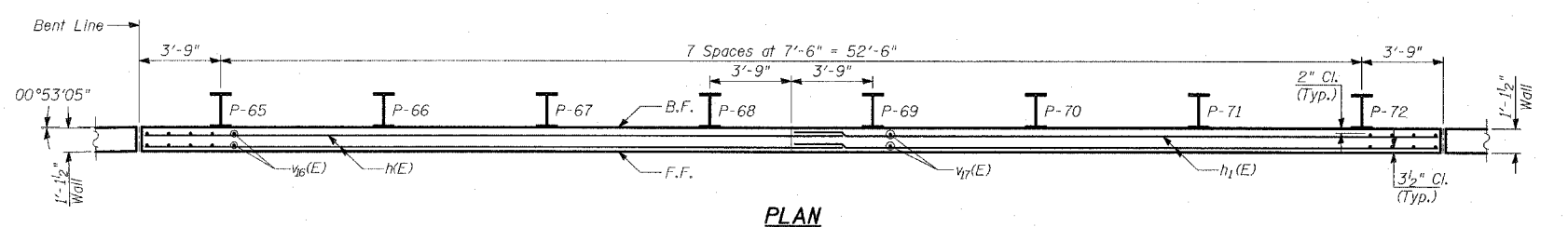
ILLINOIS DEPARTMENT OF TRANSPORTATION
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 AT 97TH ST.
 WALL 68 - PLAN AND ELEVATION
 STA. 143+20.00 TO STA. 144+43.03
 S.N. 016-W967 DESIGNED BY: MI, DJR
 SCALE: N.T.S. DRAWN BY: DJR, MAF
 DATE: MARCH 25, 2005 CHECKED BY: TD, MI



PLAN



ELEVATION



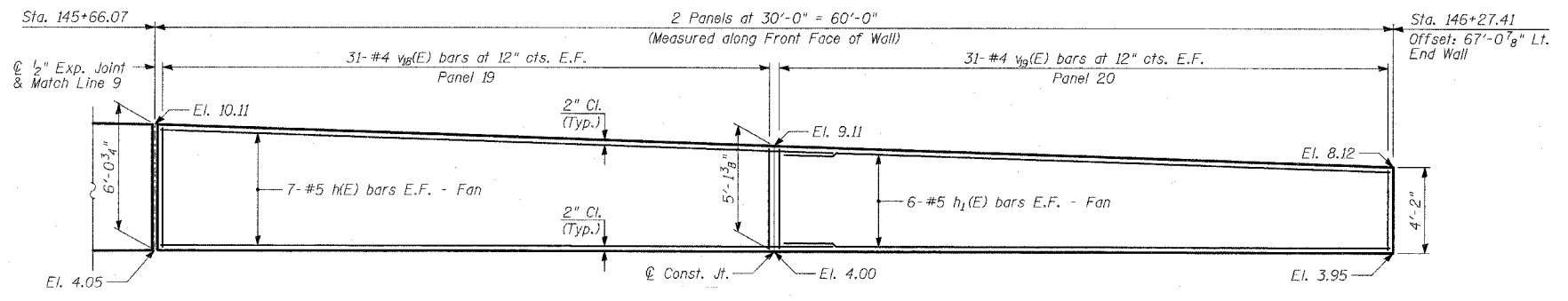
PLAN

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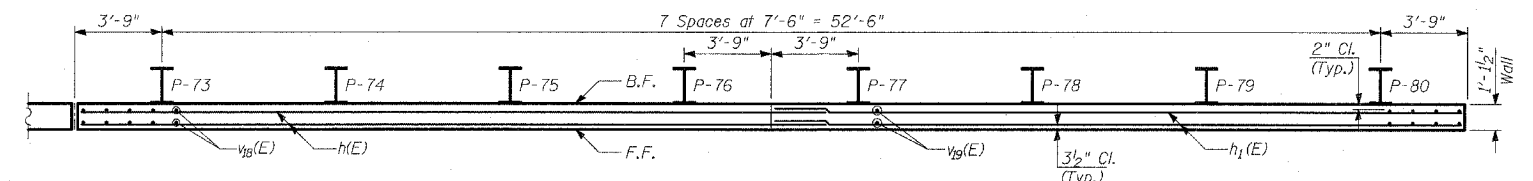
TYLIN INTERNATIONAL

REVISIONS	
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ILLINOIS DEPARTMENT OF TRANSPORTATION
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 WALL 68 - PLAN AND ELEVATION
 STA. 144+43.03 TO STA. 145+66.07**
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ELEVATION



PLAN



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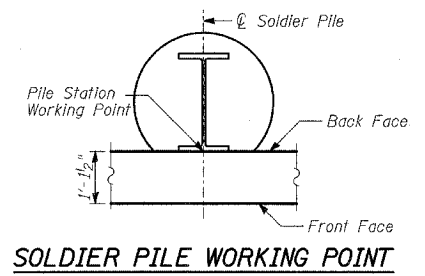
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PILE LAYOUT

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	139+68.29	10.43	8.43	5.75	W18x106	-20.32	28'-9"
P-2	139+76.17	10.42	8.42	5.57		-20.50	28'-11"
P-3	139+84.05	10.41	8.41	5.39		-20.68	29'-1"
P-4	139+91.91	10.39	8.39	5.21		-20.86	29'-3"
P-5	139+99.78	10.38	8.38	5.04		-21.04	29'-5"
P-6	140+07.64	10.37	8.37	4.86		-21.22	29'-7"
P-7	140+15.49	10.36	8.36	4.68		-21.39	29'-9"
P-8	140+23.34	10.34	8.34	4.50		-21.57	29'-11"
P-9	140+31.13	10.33	8.33	4.32		-21.75	30'-1"
P-10	140+39.00	10.32	8.32	4.15		-21.93	30'-3"
P-11	140+46.86	10.30	8.30	3.97		-22.11	30'-5"
P-12	140+54.72	10.29	8.29	3.79		-22.21	30'-6"
P-13	140+62.57	10.28	8.28	3.61		-22.39	30'-8"
P-14	140+70.42	10.26	8.26	3.43		-22.57	30'-10"
P-15	140+78.26	10.25	8.25	3.26		-22.75	31'-0"
P-16	140+86.10	10.24	8.24	3.08	W18x106	-22.93	31'-2"
P-17	140+93.89	10.21	8.21	2.93	W21x132	-25.12	33'-4"
P-18	141+01.74	10.18	8.18	2.80		-25.24	33'-5"
P-19	141+09.59	10.15	8.15	2.67		-25.35	33'-6"
P-20	141+17.44	10.11	8.11	2.55		-25.47	33'-7"
P-21	141+25.28	10.08	8.08	2.42		-25.59	33'-8"
P-22	141+33.12	10.05	8.05	2.29		-25.79	33'-10"
P-23	141+40.95	10.01	8.01	2.17		-25.91	33'-11"
P-24	141+48.78	9.98	7.98	2.04		-26.02	34'-0"
P-25	141+56.60	9.94	7.94	1.91		-26.14	34'-1"
P-26	141+64.42	9.91	7.91	1.79		-26.26	34'-2"
P-27	141+72.24	9.88	7.88	1.66		-26.37	34'-3"
P-28	141+80.04	9.84	7.84	1.53		-26.49	34'-4"
P-29	141+87.80	9.81	7.81	1.44		-26.61	34'-5"
P-30	141+95.63	9.77	7.77	1.37		-26.64	34'-5"
P-31	142+03.45	9.74	7.74	1.30		-26.76	34'-6"
P-32	142+11.27	9.71	7.71	1.23		-26.79	34'-6"
P-33	142+19.08	9.67	7.67	1.16		-26.91	34'-7"
P-34	142+26.89	9.64	7.64	1.09		-26.94	34'-7"
P-35	142+34.70	9.61	7.61	1.02		-27.06	34'-8"
P-36	142+42.50	9.57	7.57	0.95		-27.09	34'-8"
P-37	142+50.30	9.54	7.54	0.88		-27.13	34'-8"
P-38	142+58.09	9.50	7.50	0.81		-27.25	34'-9"
P-39	142+65.87	9.47	7.47	0.74		-27.28	34'-9"
P-40	142+73.65	9.44	7.44	0.67		-27.40	34'-10"
P-41	143+23.79	9.49	7.49	0.14		-27.92	35'-5"
P-42	143+31.47	9.64	7.64	0.23		-27.72	35'-5"
P-43	143+39.16	9.79	7.79	0.32		-27.71	35'-6"
P-44	143+46.85	9.94	7.94	0.42		-27.64	35'-7"
P-45	143+54.53	10.09	8.09	0.51		-27.58	35'-8"
P-46	143+62.22	10.24	8.24	0.60		-27.43	35'-8"
P-47	143+69.92	10.39	8.39	0.69		-27.36	35'-9"
P-48	143+77.61	10.54	8.54	0.78		-27.30	35'-10"
P-49	143+85.30	10.68	8.68	0.92		-27.15	35'-10"
P-50	143+93.00	10.83	8.83	1.12		-26.92	35'-9"
P-51	144+00.69	10.98	8.98	1.32		-26.68	35'-8"
P-52	144+08.39	11.13	9.13	1.51		-26.54	35'-8"
P-53	144+16.08	11.28	9.28	1.71		-26.30	35'-7"
P-54	144+23.78	11.43	9.43	1.91		-26.16	35'-7"
P-55	144+31.48	11.58	9.58	2.10		-25.92	35'-6"
P-56	144+39.18	11.73	9.73	2.30		-25.77	35'-6"
P-57	144+46.88	11.75	9.75	2.47		-25.59	35'-4"
P-58	144+54.58	11.64	9.64	2.62		-25.44	35'-1"
P-59	144+62.27	11.54	9.54	2.77		-25.30	34'-10"
P-60	144+69.97	11.43	9.43	2.91		-25.15	34'-7"
P-61	144+77.67	11.33	9.33	3.06		-25.01	34'-4"
P-62	144+85.37	11.22	9.22	3.21		-24.86	34'-1"
P-63	144+93.07	11.12	9.12	3.35		-24.72	33'-10"
P-64	145+00.77	11.01	9.01	3.50	W21x132	-24.57	33'-7"
P-65	145+08.48	10.90	8.90	3.60	W18x106	-22.43	31'-4"

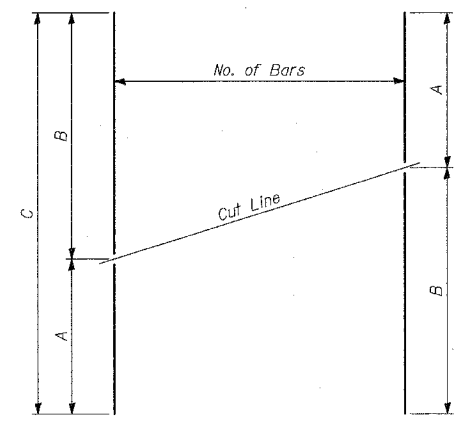
PILE LAYOUT

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	145+16.17	10.80	8.80	3.66	W18x106	-22.37	31'-2"
P-67	145+23.86	10.69	8.69	3.72		-22.31	31'-0"
P-68	145+31.55	10.59	8.59	3.78		-22.25	30'-10"
P-69	145+39.24	10.48	8.48	3.84		-22.18	30'-8"
P-70	145+46.93	10.38	8.38	3.90		-22.12	30'-6"
P-71	145+54.61	10.27	8.27	3.96		-22.06	30'-4"
P-72	145+62.29	10.17	8.17	4.02		-22.00	30'-2"
P-73	145+69.97	9.99	7.99	4.05		-22.01	30'-0"
P-74	145+77.65	9.74	7.74	4.03		-22.01	29'-9"
P-75	145+85.33	9.49	7.49	4.02		-22.01	29'-6"
P-76	145+93.00	9.24	7.24	4.01		-22.01	29'-3"
P-77	146+00.67	8.99	6.99	3.99		-22.01	29'-0"
P-78	146+08.34	8.74	6.74	3.98		-22.09	28'-10"
P-79	146+16.00	8.49	6.49	3.97		-22.09	28'-7"
P-80	146+23.67	8.24	6.24	3.95	W18x106	-22.09	28'-4"



BAR TABLE SCHEDULE

Bar	No. of Sets Req'd	No. of Bars Per Set	A	B	C
v(E)	1	31	4'-4"	5'-0"	9'-4"
v ₁ (E)	1	31	5'-0"	5'-8"	10'-8"
v ₂ (E)	1	31	5'-8"	6'-3"	11'-11"
v ₃ (E)	1	31	6'-3"	6'-11"	13'-2"
v ₄ (E)	1	31	6'-11"	7'-4"	14'-3"
v ₅ (E)	1	31	7'-4"	7'-8"	15'-0"
v ₆ (E)	1	31	7'-8"	8'-1"	15'-9"
v ₁₀ (E)	1	31	9'-0"	9'-3"	18'-3"
v ₁₁ (E)	1	31	9'-3"	9'-6"	18'-9"
v ₁₃ (E)	1	31	9'-4"	9'-1"	18'-5"
v ₁₄ (E)	1	31	9'-1"	8'-1"	17'-2"
v ₁₅ (E)	1	31	8'-1"	7'-1"	15'-2"
v ₁₆ (E)	1	31	7'-1"	6'-5"	13'-6"
v ₁₇ (E)	1	31	6'-5"	5'-9"	12'-2"
v ₁₈ (E)	1	31	5'-9"	4'-10"	10'-7"
v ₁₉ (E)	1	31	4'-10"	3'-11"	8'-9"



See table for dimensions. Make all cuts normal to bar axis

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
v(E)	31	#4	9'-4"	
v ₁ (E)	31	#4	10'-8"	
v ₂ (E)	31	#4	11'-11"	
v ₃ (E)	31	#4	13'-2"	
v ₄ (E)	31	#4	14'-3"	
v ₅ (E)	31	#4	15'-0"	
v ₆ (E)	31	#4	15'-9"	
v ₇ (E)	62	#4	8'-2"	
v ₈ (E)	62	#4	8'-3"	
v ₉ (E)	62	#4	8'-5"	
v ₁₀ (E)	31	#4	18'-3"	
v ₁₁ (E)	31	#4	18'-9"	
v ₁₂ (E)	62	#4	9'-5"	
v ₁₃ (E)	31	#4	18'-5"	
v ₁₄ (E)	31	#4	17'-2"	
v ₁₅ (E)	31	#4	15'-2"	
v ₁₆ (E)	31	#4	13'-6"	
v ₁₇ (E)	31	#4	12'-2"	
v ₁₈ (E)	31	#4	10'-7"	
v ₁₉ (E)	31	#4	8'-9"	

Protective Coat	SQ YD	505
Reinforcement Bars, Epoxy Coated	POUND	17,500
Concrete Structures	CU YD	190
Furnishing Soldier Piles (W Section)	FOOT	2,626
Drilling and Setting Soldier Piles (in Soil)	CU FT	12,754

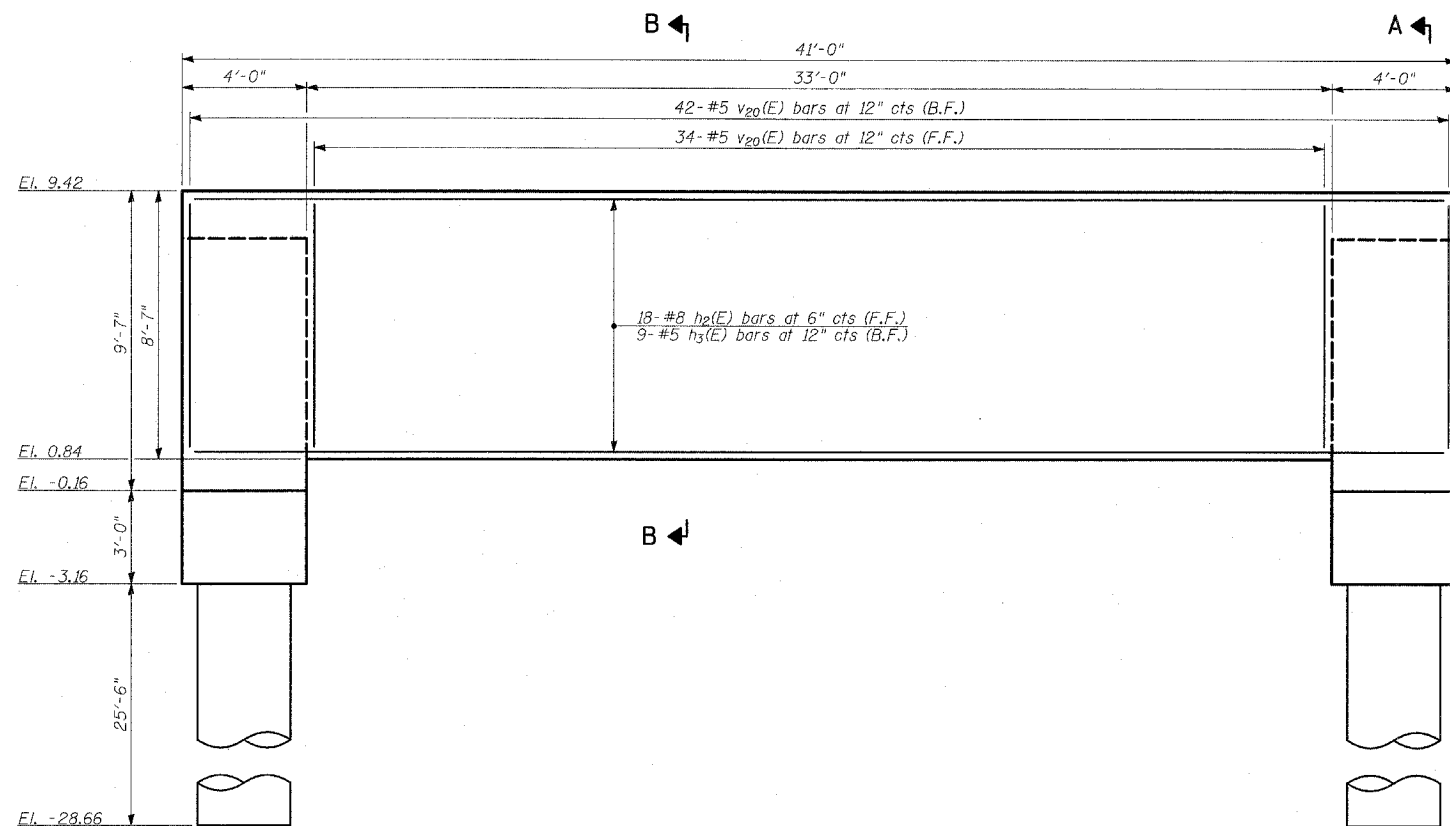
Reinforcement bars designated (E) shall be epoxy coated.

LAP SPLICES

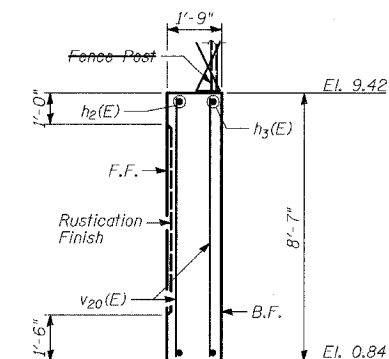
Bar	Lap
#4	1'-8"
#5	2'-2"
#6	2'-7"
#8	4'-6"

REVISIONS	
NAME	DATE
REVISED	04/15/05

ILLINOIS DEPARTMENT OF TRANSPORTATION
**F.A.I. 94 (DAN RYAN EXPRESSWAY)
 RETAINING WALL ALONG LAFAYETTE AVE.
 AT 97TH ST.
 WALL 68**
PILE LAYOUT, DETAILS & BILL OF MATERIAL
 S.N. 016-W967 DESIGNED BY: MI, DJR
 SCALE: N.T.S. DRAWN BY: DJR, MAF
 DATE: MARCH 25, 2005 CHECKED BY: TD, MI

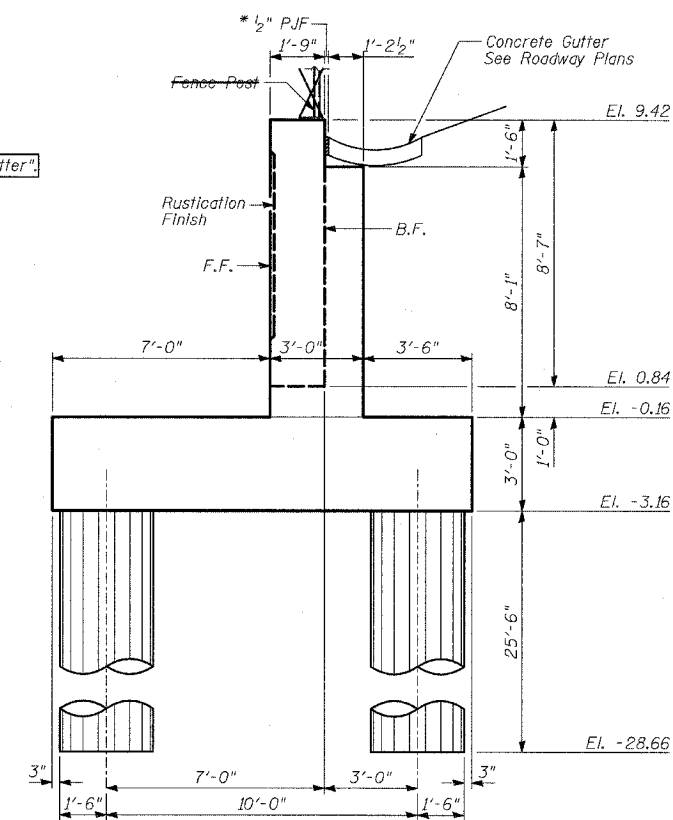


ELEVATION

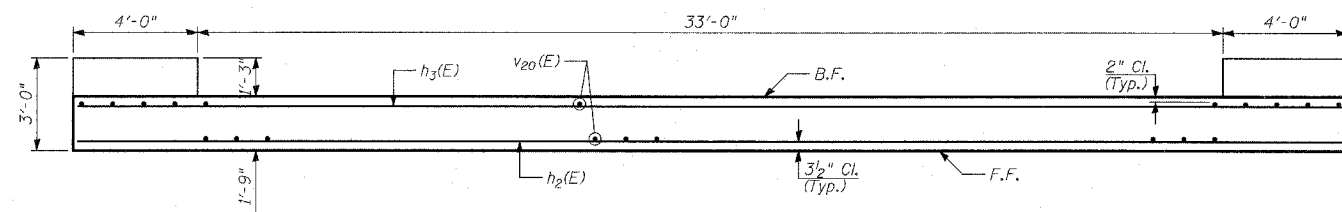


SECTION B-B

* [Cost Included with "Concrete Gutter"]



SECTION A-A



PLAN

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LEGEND:

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

NOTES:

See Sheet 12 of 17 for details of rustication finish.
















REVISIONS	
NAME	DATE
REVISION	04/15/05

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)
RETAINING WALL ALONG LAFAYETTE AVE.
AT 97TH ST.

WALL 68 SADDLE SECTION AND DETAILS 1

S.N. 016-W967 DESIGNED BY: MI, DJR
SCALE: DRAWN BY: DJR, MI
DATE: MARCH 25, 2005 CHECKED BY: TD, MI

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d(E)	32	#10	14'-3"	
h ₂ (E)	18	#8	40'-8"	
h ₃ (E)	9	#5	40'-8"	
h ₄ (E)	8	#8	15'-8"	
s(E)	26	#5	13'-6"	
s ₁ (E)	58	#5	10'-6"	
s ₂ (E)	6	#5	11'-0"	
s ₃ (E)	36	#5	14'-0"	
sp(E)	4	#5	27'-0"	
v ₂₀ (E)	76	#5	8'-3"	
v ₂₁ (E)	14	#10	13'-11"	
v ₂₂ (E)	14	#10	12'-5"	
v ₂₃ (E)	32	#10	25'-0"	
w(E)	10	#8	15'-8"	
w ₁ (E)	10	#10	15'-8"	

Structure	Excavation	CU YD	165
Concrete	Structures	CU YD	39
Protective	Coat	SQ YD	42
Rustication	Finish	SQ FT	272
Reinforcement	Bars, Epoxy Coated	POUND	14,540
Drilled Shaft	in Soil 36"	FOOT	102

Reinforcement bars designated (E) shall be epoxy coated.

Reinforcement bars designated (E) shall be epoxy coated.

MARK TABLE

Bar	C	D
d(E)	4'-6"	9'-9"
v ₂₁ (E)	1'-10"	12'-1"
v ₂₂ (E)	1'-10"	10'-7"

BARS d(E), v₂₁(E) & v₂₂(E)

MARK TABLE

Bar	A	B
h ₄ (E)	13'-0"	1'-4"
w(E)	13'-0"	1'-4"
w ₁ (E)	13'-0"	1'-4"

BARS h₄(E), w(E) & w₁(E)

MARK TABLE

Bar	E	F
s(E)	3'-5"	2'-6"
s ₁ (E)	1'-11"	2'-6"
s ₂ (E)	3'-5"	1'-3"
s ₃ (E)	3'-8"	2'-6"

BARS s(E) THRU s₃(E)

BAR sp(E)

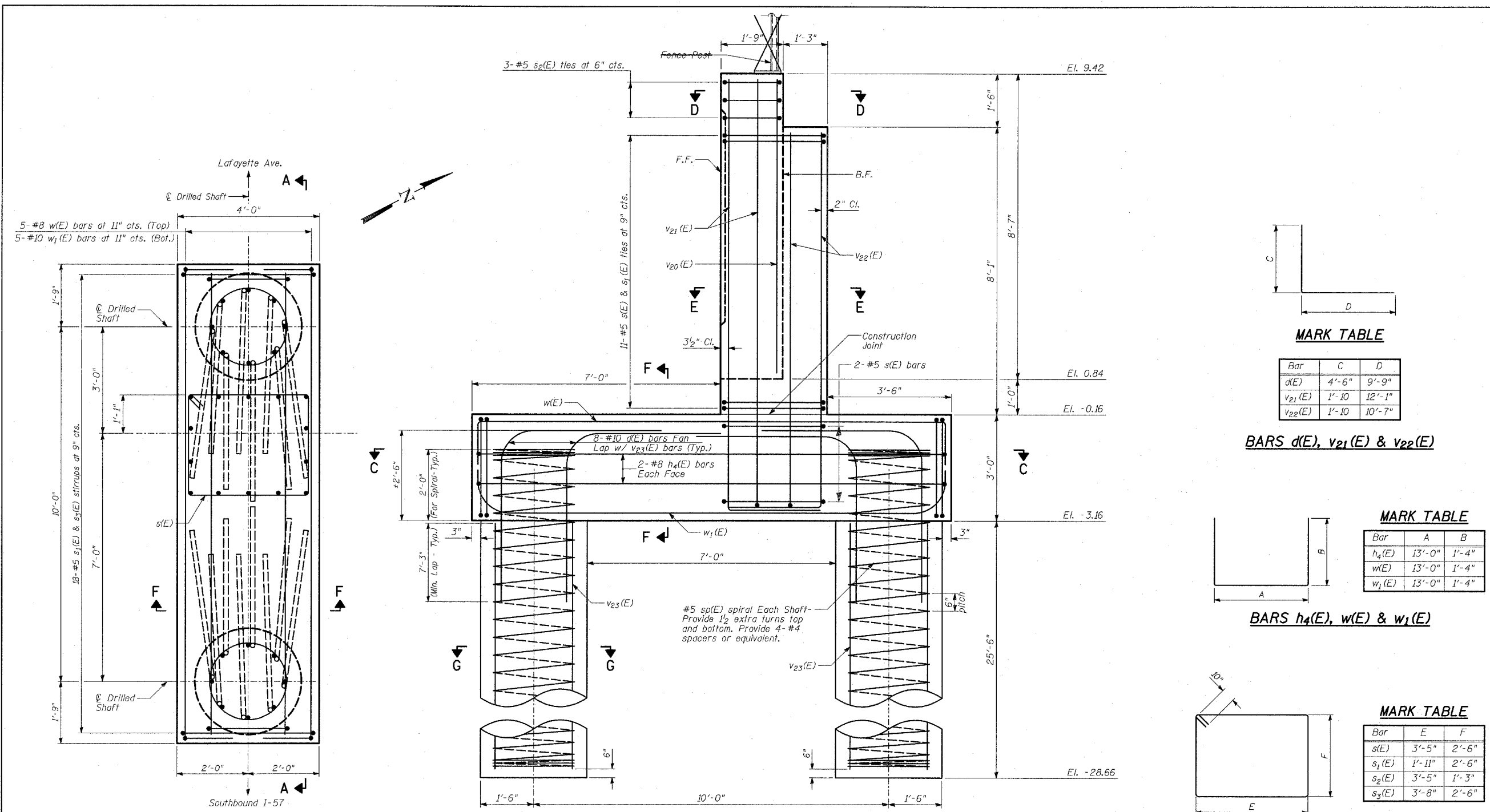
LEGEND:

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

NOTES:

Minimum Lap for Spirals = 2'-6"

SHEET 10 OF 17



SECTIONAL PLAN C-C

SECTION A-A

BARS s(E) THRU s₃(E)

BAR sp(E)

LEGEND:

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

NOTES:

Minimum Lap for Spirals = 2'-6"

SHEET 10 OF 17

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
**F.A.I. 94 (DAN RYAN EXPRESSWAY)
 RETAINING WALL ALONG LAFAYETTE AVE.
 AT 97TH ST.
 WALL 68**
SADDLE SECTION AND DETAILS 2
 S.N. 016-W967
 SCALE: DATE: MARCH 25, 2005
 DESIGNED BY: MI, DJR
 DRAWN BY: DJR, MAF
 CHECKED BY: TD, MI

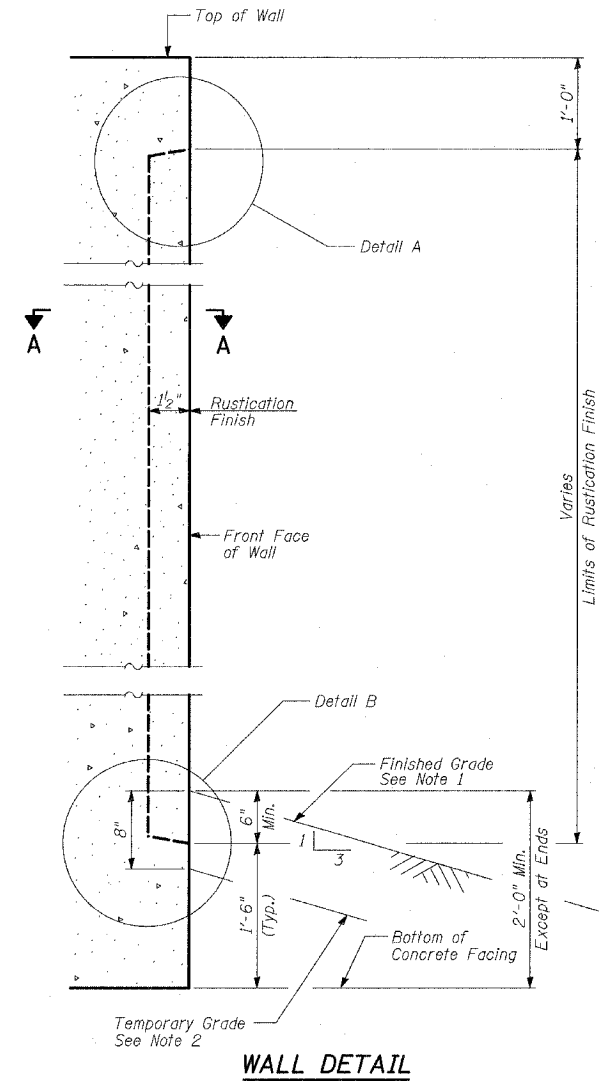
TYLIN INTERNATIONAL

SECTION D-D

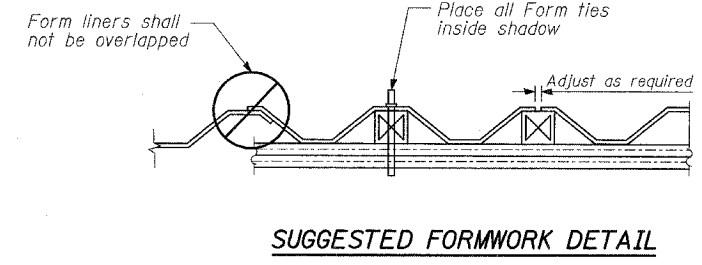
SECTION E-E

SECTION F-F

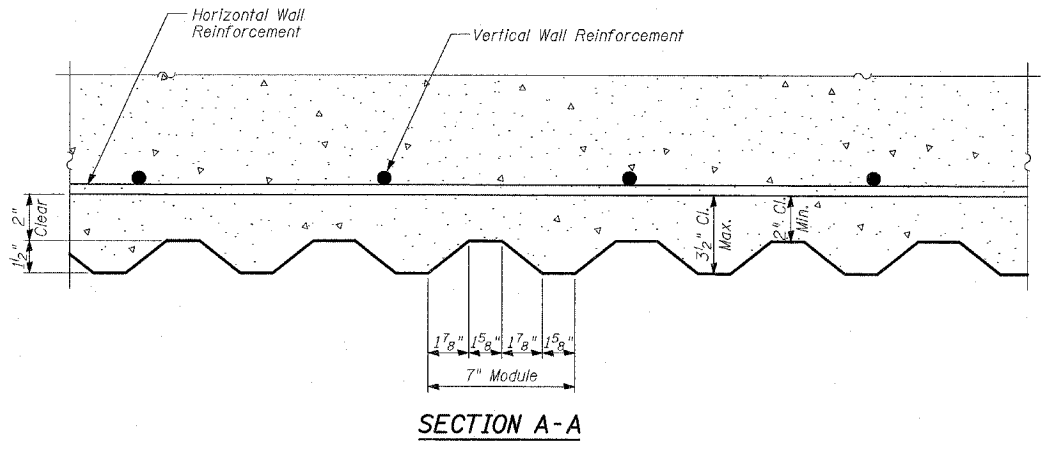
SECTION G-G



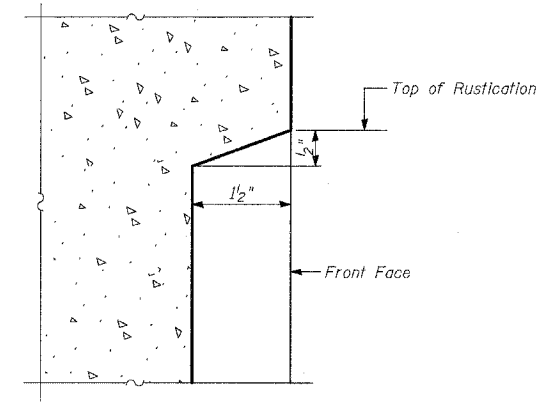
WALL DETAIL



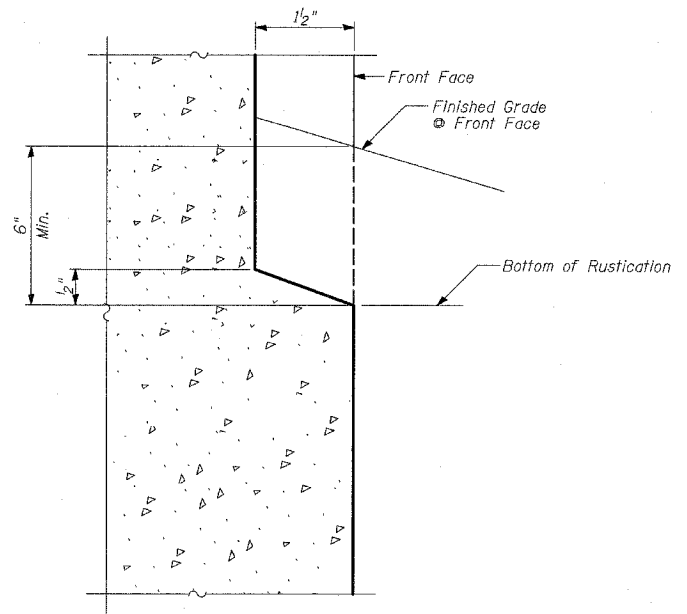
SUGGESTED FORMWORK DETAIL



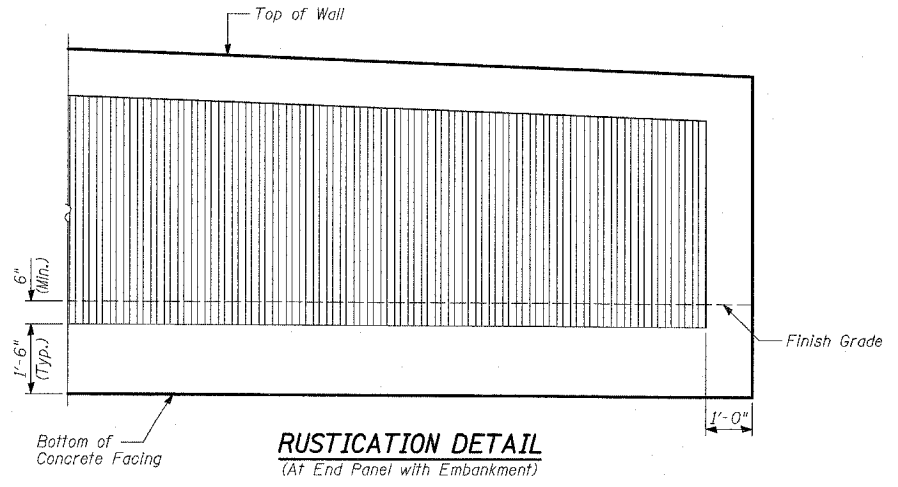
SECTION A-A



DETAIL A



DETAIL B



RUSTICATION DETAIL
(At End Panel with Embankment)

- NOTES:**
1. Finished Grade: Contract 62593 - Sta. 139+64.27 to Sta. 143+50.73
Contract 62695 - Sta. 143+50.73 to Sta. 146+27.41
 2. Temporary Grade: Contract 62695 - Sta. 139+64.27 to Sta. 143+50.73
 3. See Sheet 11 of 17 for expansion and construction joint details.

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Rustication Finish	SQ FT	3,042

REVISIONS	
NAME	DATE

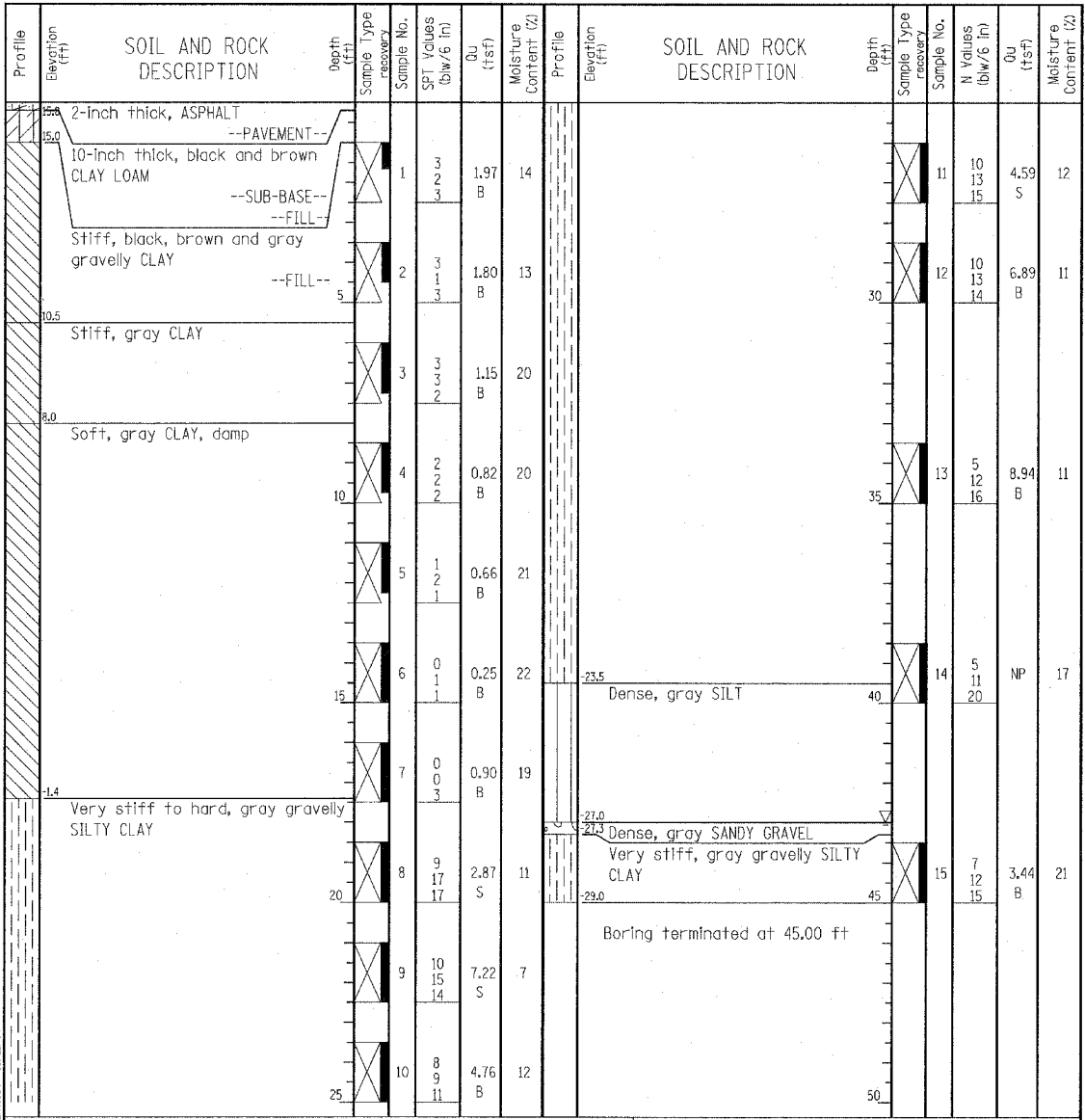
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94 (DAN RYAN EXPRESSWAY)
RETAINING WALL ALONG LAFAYETTE AVE.
AT 97TH ST.
WALL 68
RUSTICATION DETAILS
 S.N. 016-W967 DESIGNED BY: MI, DJR
 SCALE: N.T.S. DRAWN BY: DJR
 DATE: MARCH 25, 2005 CHECKED BY: TD, MI

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 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 68-01 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: 15.98 ft
 North: 1840394.67 ft
 East: 1177235.92 ft
 Station: 139+38.07
 Offset: 128.15 LT



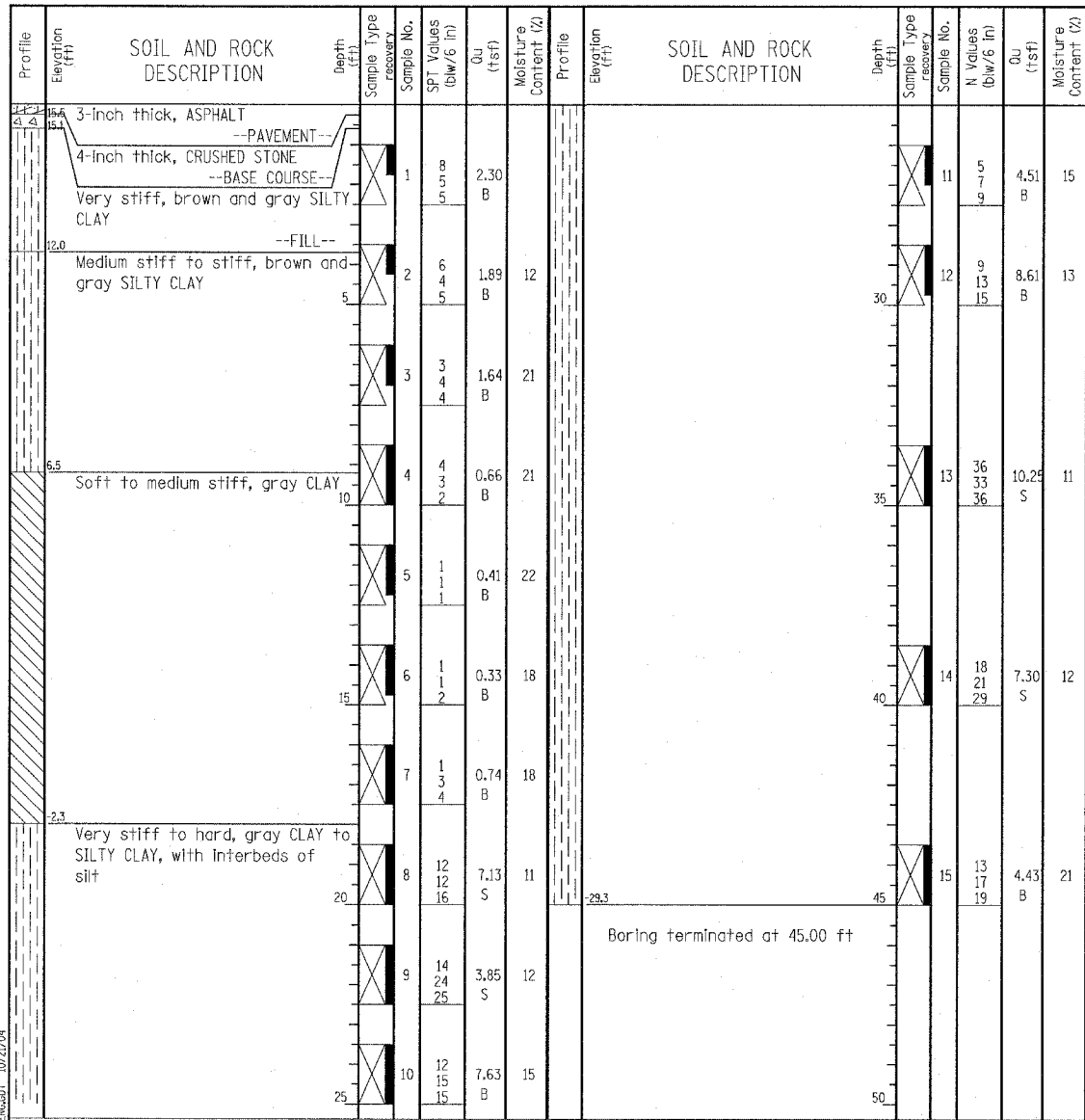
GENERAL NOTES				WATER LEVEL DATA	
Begin Drilling	07-01-2004	Complete Drilling	07-01-2004	While Drilling	43.00 ft
Drilling Contractor	Patrick Drilling	Drill Rig	CME 75 TMR	At Completion of Drilling	DRY
Driller	K&A	Logger	Y. Shiu	Time After Drilling	NA
Drilling Method	3.25" ID HSA; Boring backfilled with 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 68-02 Page 1 of 1

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

Datum: CCD
 Elevation: 15.74 ft
 North: 1840458.94 ft
 East: 1177286.77 ft
 Station: 140+25.39
 Offset: 120 LT



GENERAL NOTES				WATER LEVEL DATA	
Begin Drilling	07-14-2004	Complete Drilling	07-14-2004	While Drilling	DRY
Drilling Contractor	Patrick Drilling	Drill Rig	CME 75 TMR	At Completion of Drilling	DRY
Driller	K&A	Logger	J. Kasnick	Time After Drilling	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 LAFAYETTE AVE.
 AT 97TH ST.
 WALL 68
 BORING LOGS SB68-01 & SB68-02
 S.N. 016-W967
 SCALE: N.T.S.
 DATE: MARCH 25, 2005

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

Wang Engineering, INC.
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BORING LOG SB 68-03 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

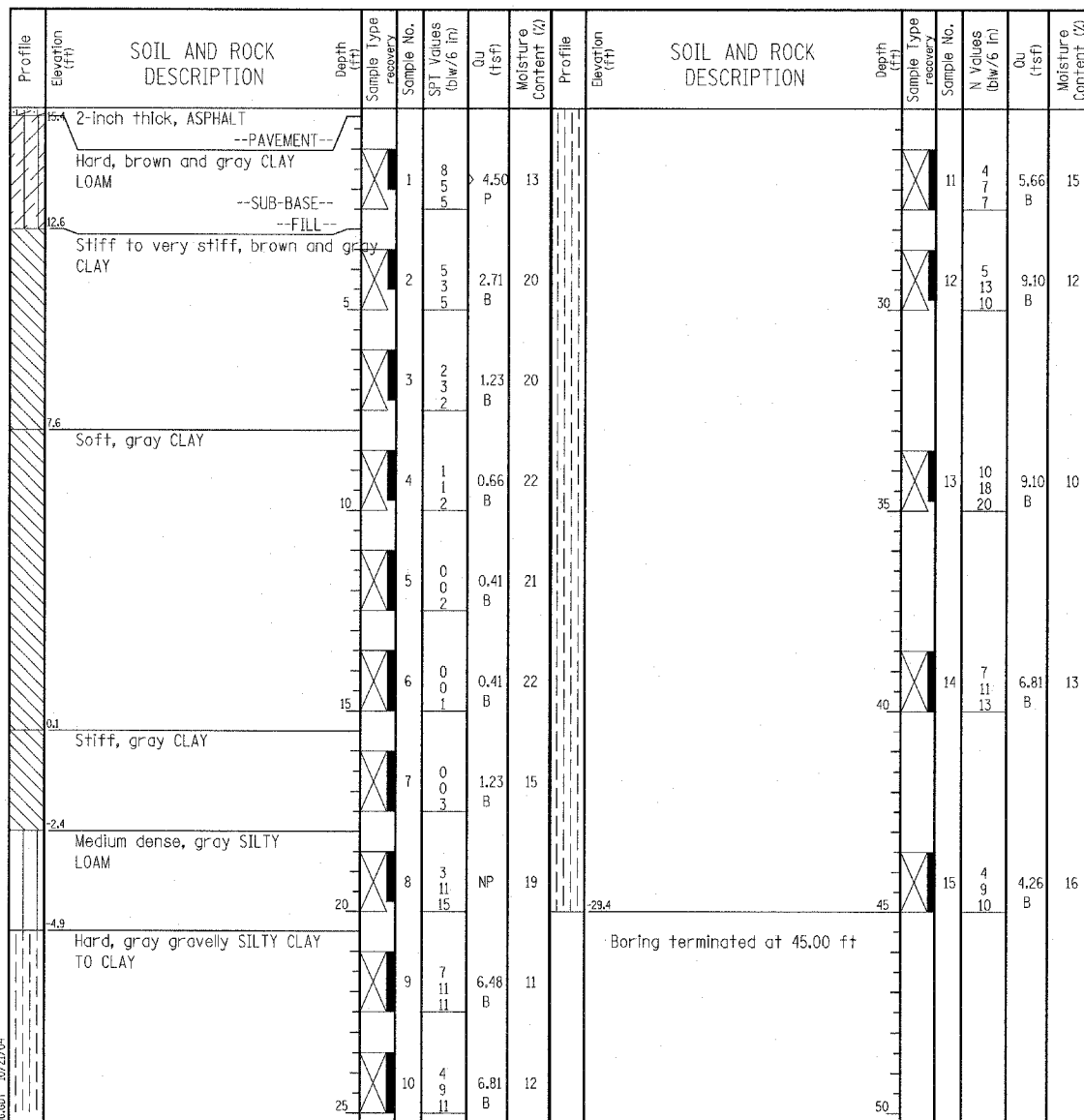
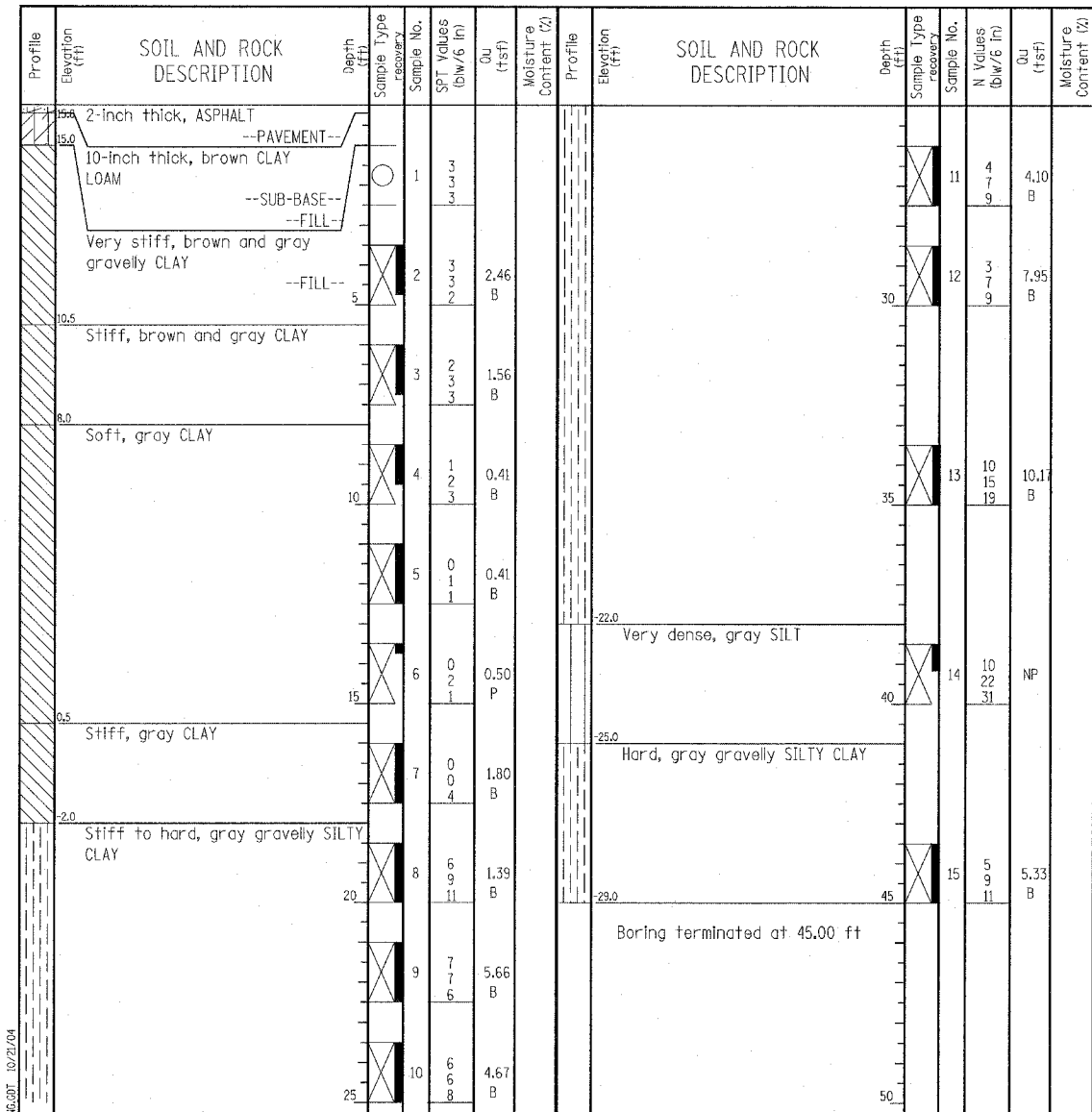
Datum: CCD
 Elevation: 15.96 ft
 North: 1840513.80 ft
 East: 1177325.66 ft
 Station: 140+96.82
 Offset: 114 LT

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 wangeng3@wangeng.com
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 Fax: 630 953-9938

BORING LOG SB 68-04 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: 15.57 ft
 North: 1840581.41 ft
 East: 1177366.49 ft
 Station: 141+80.68
 Offset: 110 LT



GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	07-01-2004	Complete Drilling	07-01-2004	While Drilling	∇	DRY	
Drilling Contractor	Patrick Drilling	Drill Rig	CME 75 TMR	At Completion of Drilling	∇	DRY	
Driller	K&A	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	07-01-2004	Complete Drilling	07-01-2004	While Drilling	∇	DRY	
Drilling Contractor	Patrick Drilling	Drill Rig	CME 75 TMR	At Completion of Drilling	∇	DRY	
Driller	K&A	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 LAFAYETTE AVE.
 AT 97TH ST.
 WALL 68
 BORING LOGS SB68-03 & SB68-04
 S.N. 016-W967
 SCALE: N.T.S.
 DATE: MARCH 25, 2005

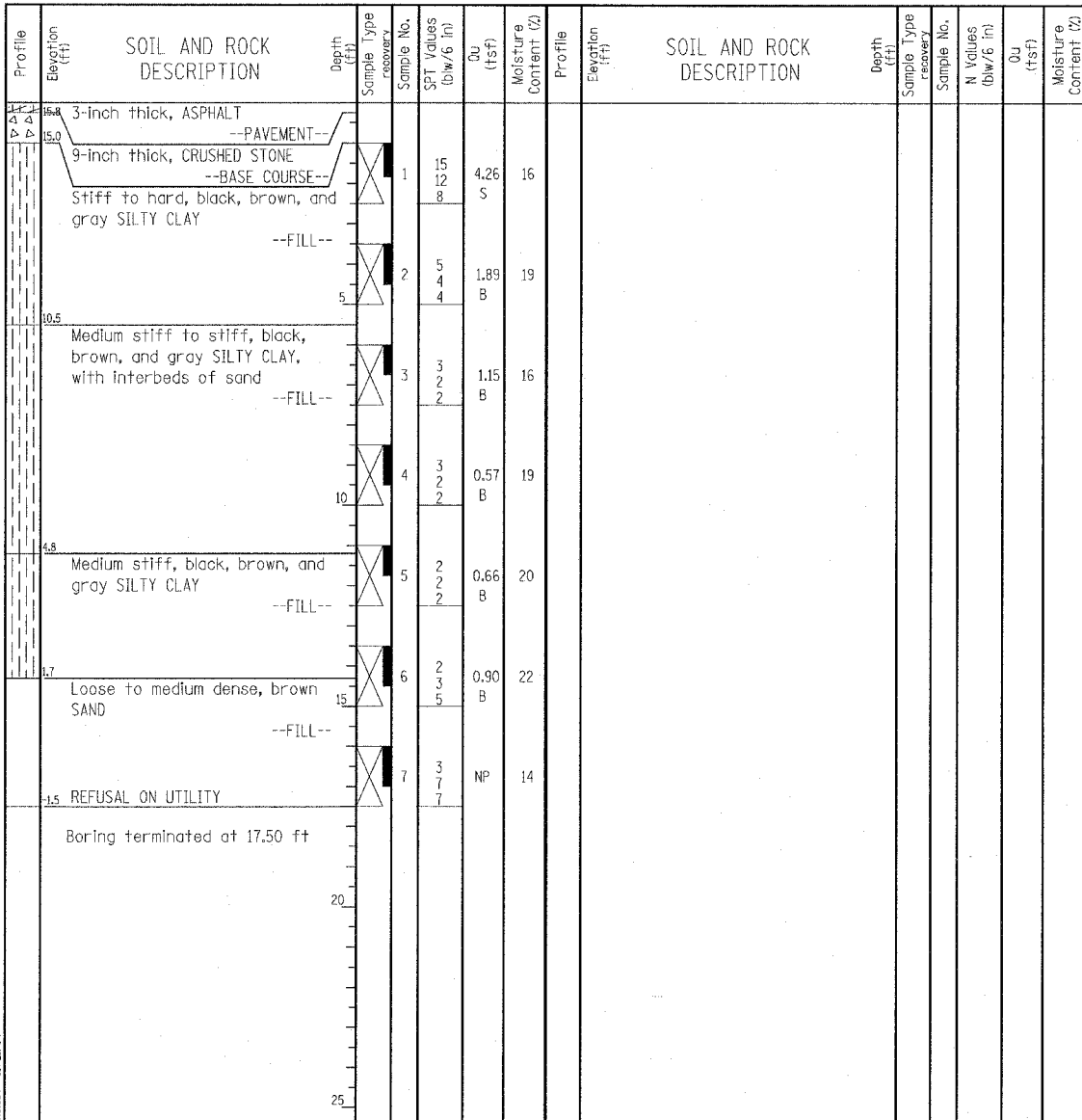
DESIGNED BY: DJR
 DRAWN BY: DJR
 CHECKED BY: TD

BORING LOG SB 68-05 Page 1 of 1

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

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

Datum: CCD
Elevation: 16.01 ft
North: 1840673.68 ft
East: 1177415.75 ft
Station: 142+91.41
Offset: 104 LT



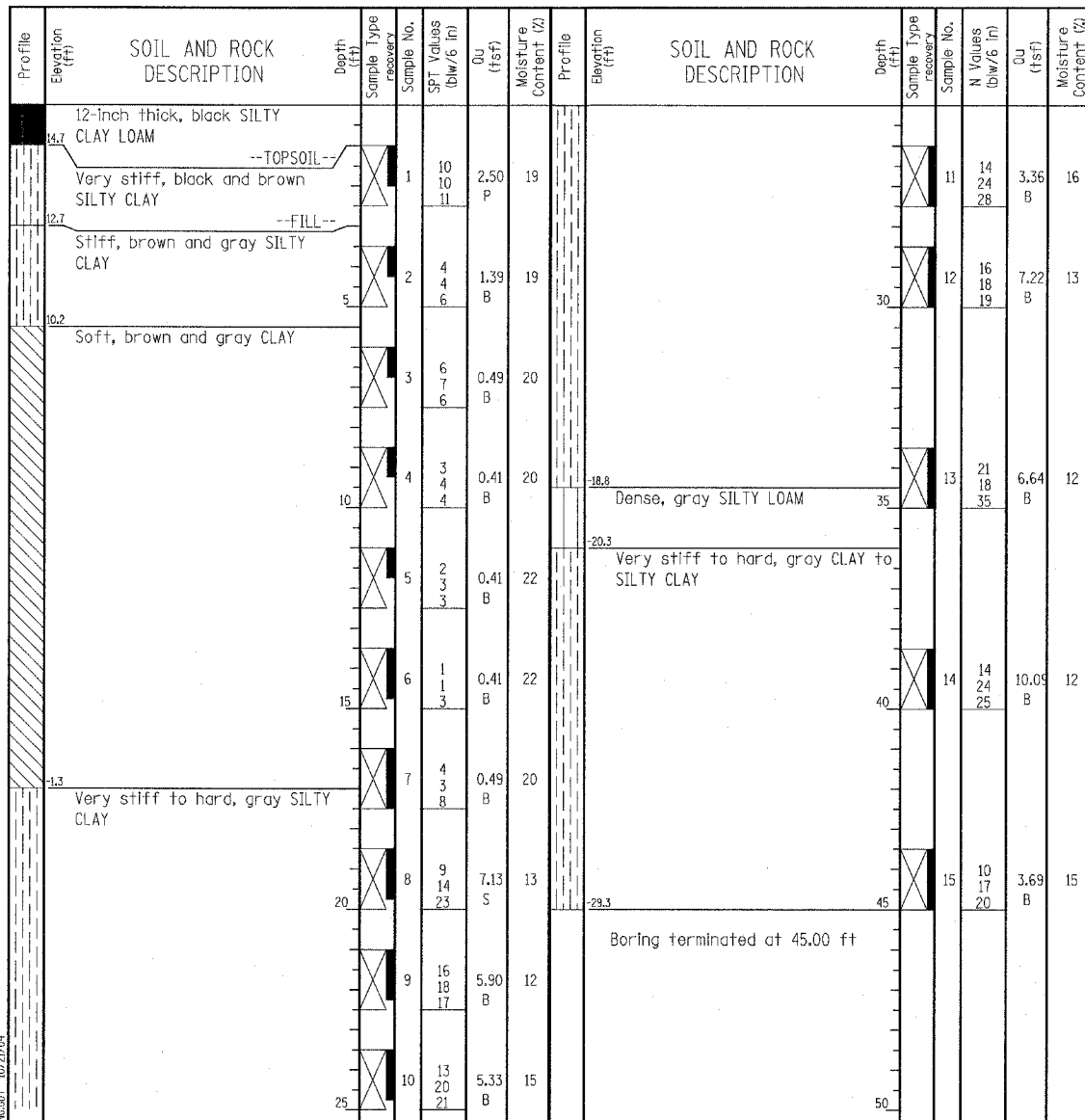
GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	07-14-2004	Complete Drilling	07-14-2004	While Drilling	∇	DRY	
Drilling Contractor	Patrick Drilling	Drill Rig	CME 75 TMR	At Completion of Drilling	∇	DRY	
Driller	K&A	Logger	J. Kasnick	Time After Drilling	NA		
Checked by	N. Davis	Depth to Water	∇	NA			
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.			

BORING LOG SB 68-06 Page 1 of 1

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

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

Datum: CCD
Elevation: 15.73 ft
North: 1840735.01 ft
East: 1177443.59 ft
Station: 143+61.78
Offset: 102 LT



GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	07-13-2004	Complete Drilling	07-14-2004	While Drilling	∇	DRY	
Drilling Contractor	Patrick Drilling	Drill Rig	CME 75 TMR	At Completion of Drilling	∇	DRY	
Driller	K&A	Logger	J. Kasnick	Time After Drilling	NA		
Checked by	N. Davis	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 LAFAYETTE AVE.
AT 97TH ST.
WALL 68
BORING LOGS SB68-05 & SB68-06
S.N. 016-W967 DESIGNED BY: DJR
SCALE: N.T.S. DRAWN BY: DJR
DATE: MARCH 25, 2005 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 68-07 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

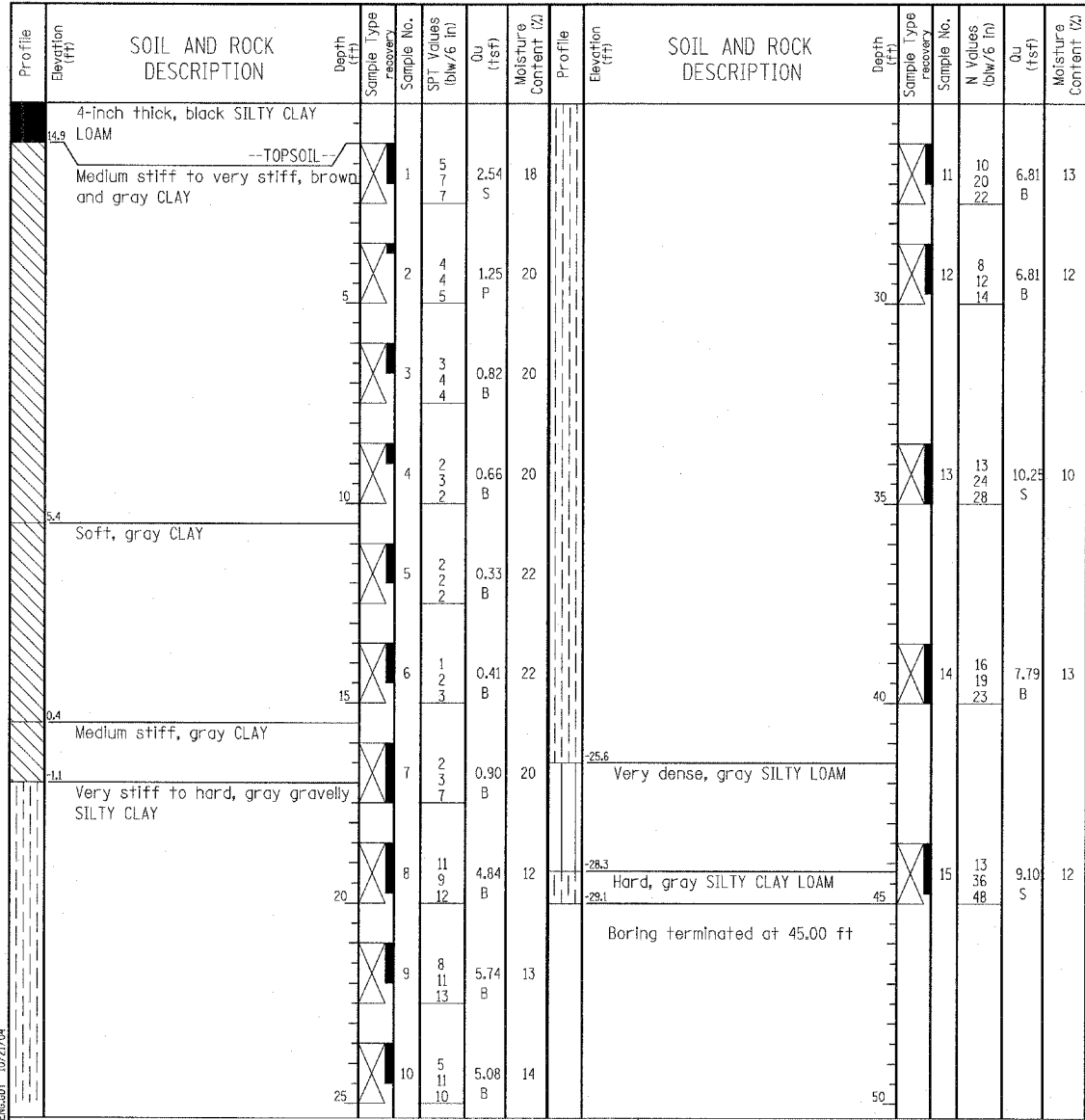
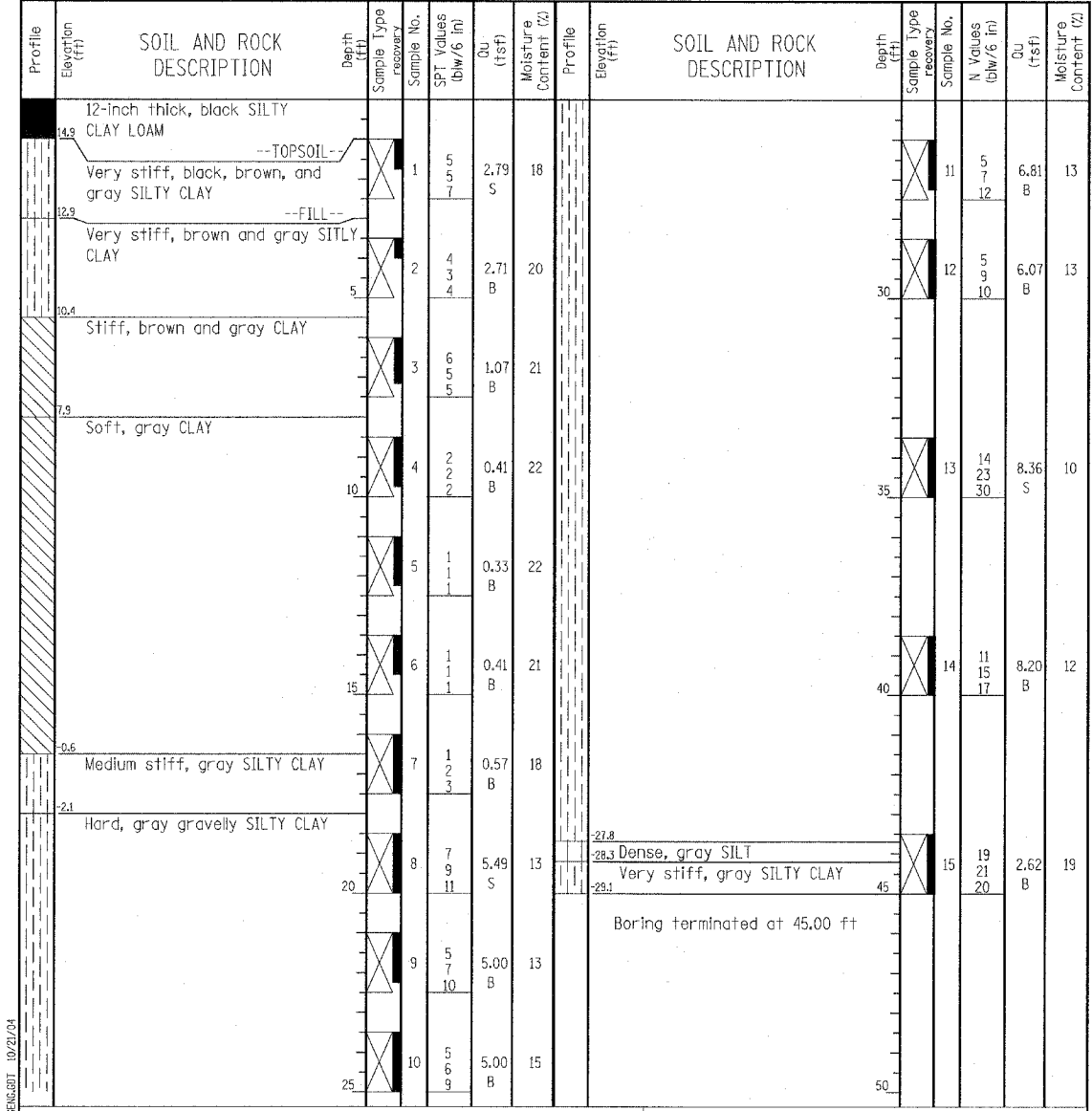
Datum: CCD
 Elevation: 15.89 ft
 North: 1840807.89 ft
 East: 1177471.46 ft
 Station: 144+42.64
 Offset: 102 LT

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 68-08 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: 15.87 ft
 North: 1840878.65 ft
 East: 1177494.29 ft
 Station: 145+19.70
 Offset: 103 LT



GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	07-13-2004	Complete Drilling	07-13-2004	While Drilling	▽	DRY	
Drilling Contractor	Patrick Drilling	Drill Rig	CME 75 TMR	At Completion of Drilling	▽	DRY	
Driller	K&A	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.							

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	07-13-2004	Complete Drilling	07-13-2004	While Drilling	▽	DRY	
Drilling Contractor	Patrick Drilling	Drill Rig	CME 75 TMR	At Completion of Drilling	▽	DRY	
Driller	K&A	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.							

TYLIN INTERNATIONAL

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94 (DAN RYAN EXPRESSWAY)
 RETAINING WALL ALONG LAFAYETTE AVE.
 AT 97TH ST.
 WALL 68
 BORING LOGS SB68-07 & SB68-08
 S.N. 016-W967
 SCALE: N.T.S.
 DATE: MARCH 25, 2005

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

Bench Mark: Set "X" on South bolt of fire hydrant at Northwest corner of South Perry Avenue and West 76th Street. Elevation 8.69.

Existing Structure: SN 016-0890 built over FAI Route 4, Section 066-1818.4-15D in 1958. Existing Structure is a 3-simple span (74'-6 1/4" x 41'-6" x 74'-6 1/4") with 193'-0 1/2" Bk. To Bk. Abuts. The existing abutments are high closed abutments with counterfort wingwalls supported on spread footings. The existing piers are solid wall type supported on spread footings. The existing superstructure consists of a reinforced concrete deck, 7" thick and 83'-0" out to out width, supported by 16-48" simple span PPC I-Beams. The entire structure is to be removed. No Salvage

Construction Staging: Not required. 76th Street will be closed during the reconstruction of the bridge.

LOADING HS20-44

Allow 50#/sq. ft. for future wearing surface.

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications for Highway Bridges

DESIGN STRESSES

FIELD UNITS

$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (reinforcement)
 $f_y = 50,000$ psi (Structural Steel) (M270 Grade 50)
 $f_y = 36,000$ psi (Structural Steel) (M270 Grade 36)

SEISMIC DATA

Seismic Performance Category (SPC) = A
 Bedrock Acceleration Coefficient (A) = 0.04g
 Site Coefficient (S) = 1.0

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	*	COOK	907	671

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

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

INDEX OF DRAWINGS

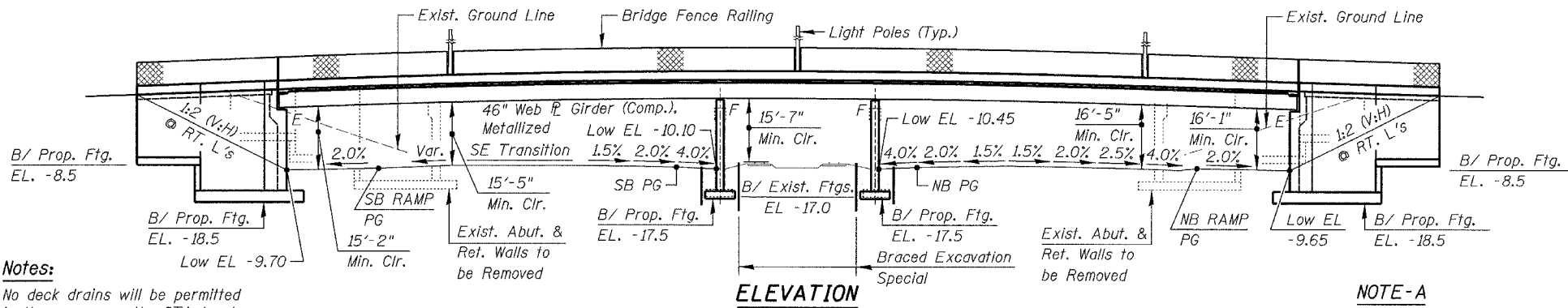
DWG NO.	TITLE
S-01	General Plan & Elevation
S-02	Notes & Total Bill of Materials
S-03	Footing Layout & Misc. Details
S-04	Top of Slab Elevations
S-05	Top of Slab Elevations
S-06	Top of Slab Elevations
S-07	Top of Slab Elevations
S-08	Top of Slab Elevations
S-09	Deck Plan
S-10	Deck Cross Section & Details
S-11	Sidewalk & Parapet Details
S-12	Light Pole Pedestal Details
S-13	Deck Miscellaneous Details
S-14	Not Used
S-15	Deck Expansion Joint - Strip Seal
S-16	Drainage Scupper Details
S-17	Bridge Drainage System
S-18	Bridge Fence Railing
S-19	Beam Framing Plan & Elevation
S-20	Steel Beam Details
S-21	Field Splice & Diaphragm Details
S-22	Bearing Details
S-23	Anchor Bolt Details
S-24	West Abutment Top Plan & Elevation
S-25	West Abutment Footing Plan
S-26	West Abutment Sections & Details
S-27	West Abutment Wingwalls
S-28	East Abutment Top Plan & Elevation
S-29	East Abutment Footing Plan
S-30	East Abutment Sections & Details
S-31	East Abutment Wingwalls
S-32	Abutment Miscellaneous Details
S-33	Pier Top Plan & Elevation
S-34	Pier Footing Plan & Details
S-35	Bar Splicer Assembly Details
S-36	Soil Boring Logs - SB1 & SB2
S-37	Soil Boring Logs - SB3
S-38	Soil Boring Logs - SB4
S-39	Soil Boring Logs - SB5
S-40	Soil Boring Logs - SB6
S-41	Soil Boring Logs - SB7
S-42	Soil Boring Logs - SB8

STATION EQUATIONS & SKEW ANGLES

Points	Stations along P.G. 76th Street	Stations	Alignments	Skew/Tangent Angles
A	73+16.89	1332+29.71	@ SB I-94	2° 54' 55"
B	73+49.33	159+51.32	@ CTA	2° 54' 23"
C	73+81.34	2332+51.16	@ NB I-94	2° 55' 32"
D	72+37.16	9451+52.52	@ SB Ramp	7° 54' 55"
E	74+56.26	9487+60.80	@ NB Ramp	1° 50' 26"

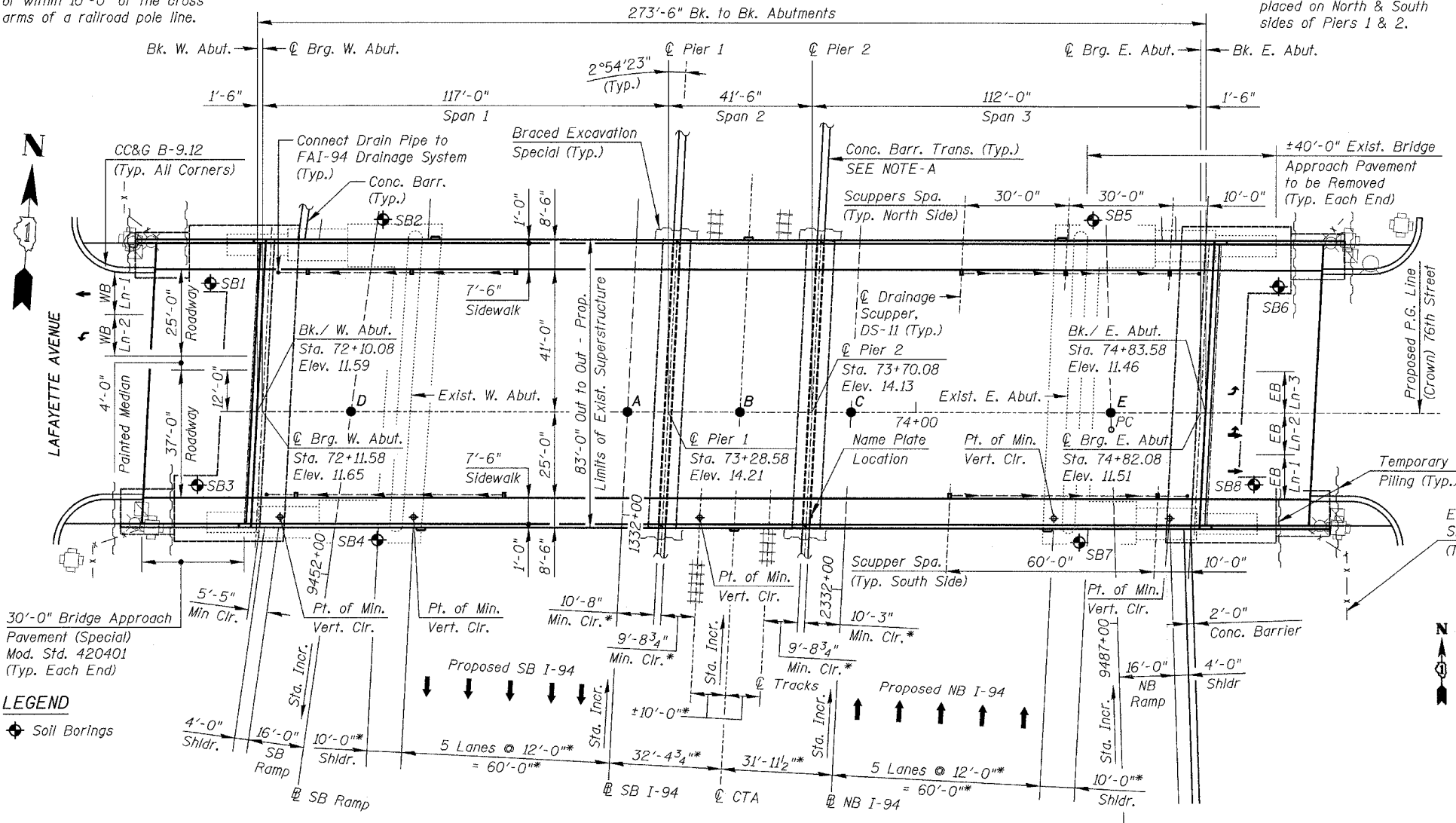
CURVE DATA

@ NB RAMP
 Curve 7976B-1
 $\Delta = 2^\circ 10' 40"$ (RT)
 $D = 1^\circ 08' 32"$
 $R = 5016.00'$
 $T = 95.34'$
 $L = 190.65'$
 $E = 0.91'$
 PC Sta. 9487+55.87
 PT Sta. 9489+46.51
 PI Sta. 9488+51.20



Notes:
 No deck drains will be permitted in the span over the CTA tracks or within 10'-0" of the cross arms of a railroad pole line.

NOTE-A
 Concrete Barriers to be placed on North & South sides of Piers 1 & 2.

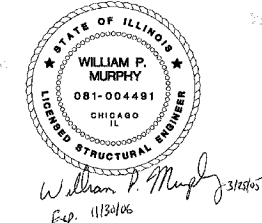


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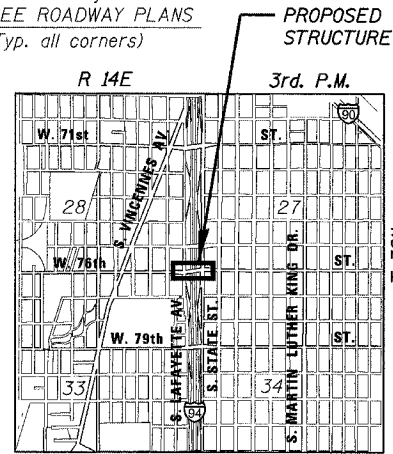
- Soil Borings



APPROVED
 FOR STRUCTURAL ADEQUACY ONLY
 Robert E. Anderson (TSP)
 ENGINEER OF BRIDGES AND STRUCTURES



Notes:
 SEE DWG. S-02 for General Notes & Total Bill of Material.
 SEE DWG. S-02 for all Profile Grade Lines.
 Elevations shown are based on City of Chicago Datum.
 USGS Elevation = City of Chicago Elevation + 579.19

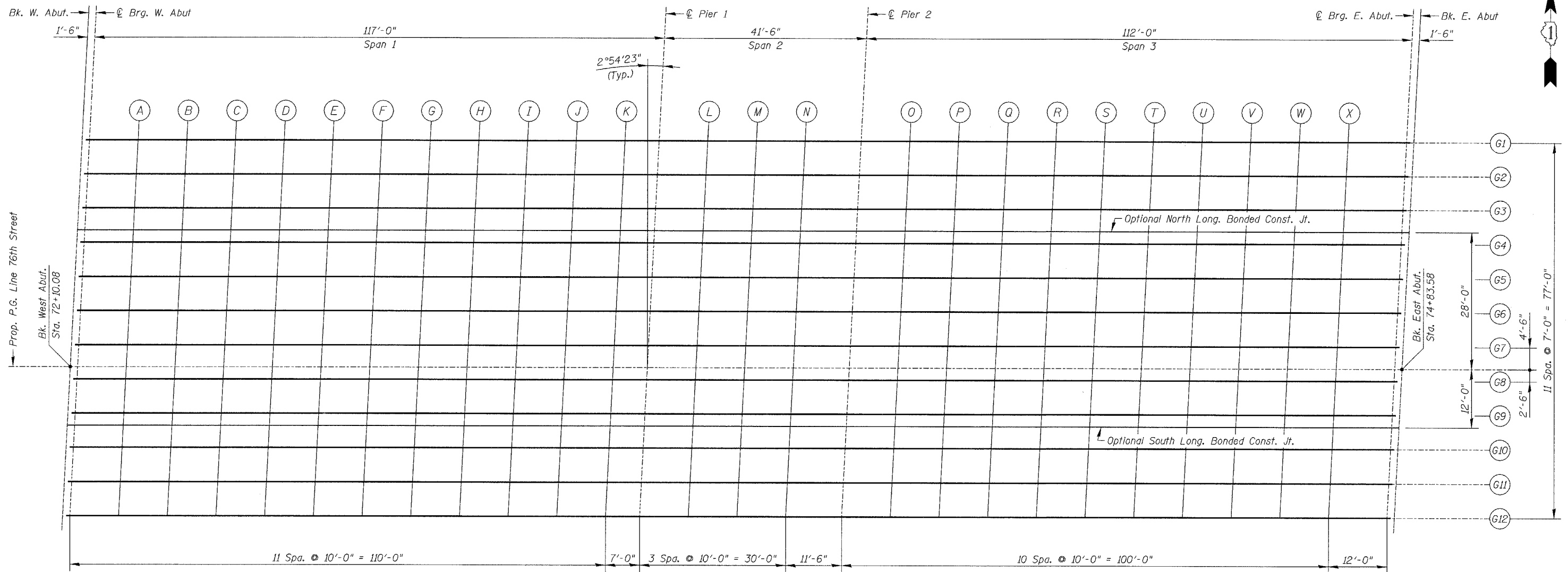


REVISIONS	NAME	DATE

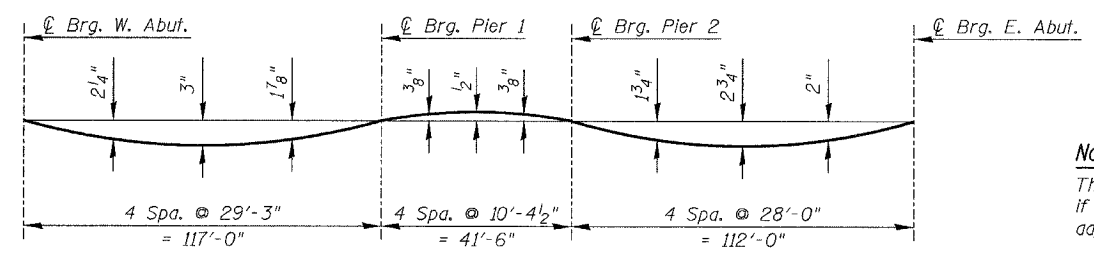
ILLINOIS DEPARTMENT OF TRANSPORTATION
GENERAL PLAN & ELEVATION
 76TH STREET OVER FAI-94
 FAP ROUTE 1541 SECTION 1818 R-9
 COOK COUNTY
 STATION 73+49.33
 STRUCTURE NUMBER 016-2850

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

FILE: L:\16552-02\Cad\1\Sheets\Roadway_Structures\Bridges\6552-52850-DWG.dgn



PLAN



DEAD LOAD DEFLECTION DIAGRAM
(Includes weight of concrete, excluding beams).

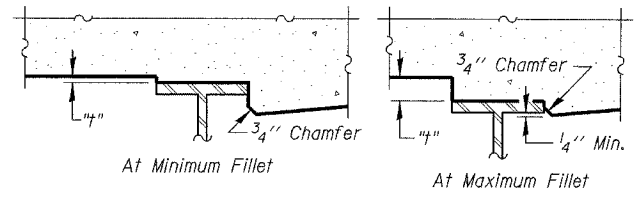
Notes:
These deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown in TABLES.

REVISIONS	
NAME	DATE

DWG. S-04 of 42
ILLINOIS DEPARTMENT OF TRANSPORTATION
TOP OF SLAB ELEVATIONS
76TH STREET OVER FAI-94
FAP ROUTE 1541 SECTION 1818 R-9
COOK COUNTY
STATION 73+49.33
STRUCTURE NUMBER 016-2850
SCALE: NONE DESIGNED BY: TB DRAWN BY: TB
DATE: March 25, 2005 CHECKED BY: SB CHECKED BY: SB

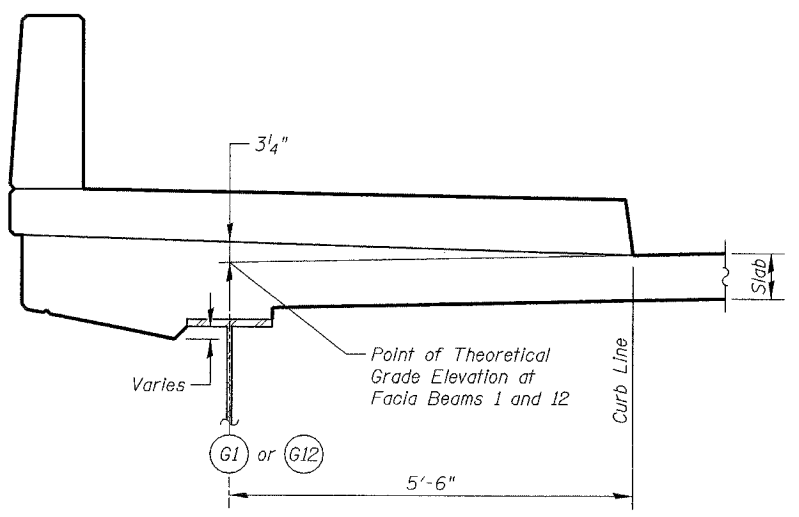
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To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown below, minus slab thickness, equals the fillet heights "t" above top flange of beams.

FILLET HEIGHTS



SECTION THRU SIDEWALK

BEAM 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. West Abut.	7212.441	-46.500	10.776	10.776
Q Brg. West Abut.	7213.941	-46.500	10.834	10.834
A	7223.941	-46.500	11.208	11.280
B	7233.941	-46.500	11.552	11.691
C	7243.941	-46.500	11.865	12.060
D	7253.941	-46.500	12.148	12.383
E	7263.941	-46.500	12.401	12.655
F	7273.941	-46.500	12.624	12.878
G	7283.941	-46.500	12.817	13.050
H	7293.941	-46.500	12.979	13.174
I	7303.941	-46.500	13.111	13.256
J	7313.941	-46.500	13.213	13.300
K	7323.941	-46.500	13.284	13.317
Q Pier 1	7330.941	-46.500	13.316	13.316
L	7340.941	-46.500	13.336	13.308
M	7350.941	-46.500	13.326	13.287
N	7360.941	-46.500	13.286	13.255
Q Pier 2	7372.441	-46.500	13.202	13.202
O	7382.441	-46.500	13.096	13.142
P	7392.441	-46.500	12.960	13.060
Q	7402.441	-46.500	12.794	12.945
R	7412.441	-46.500	12.598	12.792
S	7422.441	-46.500	12.371	12.593
T	7432.441	-46.500	12.114	12.345
U	7442.441	-46.500	11.827	12.047
V	7452.441	-46.500	11.518	11.707
W	7462.441	-46.500	11.208	11.349
X	7472.441	-46.500	10.898	10.979
Q Brg. East Abut.	7484.441	-46.500	10.526	10.526
Bk. East Abut.	7485.941	-46.500	10.480	10.480

BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. West Abut.	7212.085	-39.500	10.908	10.908
Q Brg. West Abut.	7213.585	-39.500	10.966	10.966
A	7223.585	-39.500	11.341	11.413
B	7233.585	-39.500	11.686	11.825
C	7243.585	-39.500	12.000	12.195
D	7253.585	-39.500	12.285	12.519
E	7263.585	-39.500	12.539	12.793
F	7273.585	-39.500	12.763	13.016
G	7283.585	-39.500	12.956	13.189
H	7293.585	-39.500	13.120	13.315
I	7303.585	-39.500	13.253	13.397
J	7313.585	-39.500	13.356	13.443
K	7323.585	-39.500	13.428	13.460
Q Pier 1	7330.585	-39.500	13.461	13.461
L	7340.585	-39.500	13.482	13.453
M	7350.585	-39.500	13.473	13.434
N	7360.585	-39.500	13.433	13.403
Q Pier 2	7372.085	-39.500	13.351	13.351
O	7382.085	-39.500	13.246	13.292
P	7392.085	-39.500	13.111	13.211
Q	7402.085	-39.500	12.946	13.098
R	7412.085	-39.500	12.751	12.945
S	7422.085	-39.500	12.526	12.747
T	7432.085	-39.500	12.270	12.500
U	7442.085	-39.500	11.984	12.203
V	7452.085	-39.500	11.675	11.864
W	7462.085	-39.500	11.365	11.506
X	7472.085	-39.500	11.055	11.136
Q Brg. East Abut.	7484.085	-39.500	10.683	10.683
Bk. East Abut.	7485.585	-39.500	10.636	10.636

BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. West Abut.	7211.730	-32.500	11.040	11.040
Q Brg. West Abut.	7213.230	-32.500	11.098	11.098
A	7223.230	-32.500	11.474	11.546
B	7233.230	-32.500	11.820	11.959
C	7243.230	-32.500	12.136	12.330
D	7253.230	-32.500	12.421	12.655
E	7263.230	-32.500	12.676	12.930
F	7273.230	-32.500	12.901	13.154
G	7283.230	-32.500	13.096	13.329
H	7293.230	-32.500	13.260	13.455
I	7303.230	-32.500	13.394	13.539
J	7313.230	-32.500	13.498	13.586
K	7323.230	-32.500	13.572	13.604
Q Pier 1	7330.230	-32.500	13.605	13.605
L	7340.230	-32.500	13.628	13.599
M	7350.230	-32.500	13.619	13.581
N	7360.230	-32.500	13.581	13.550
Q Pier 2	7371.730	-32.500	13.500	13.500
O	7381.730	-32.500	13.396	13.442
P	7391.730	-32.500	13.262	13.362
Q	7401.730	-32.500	13.099	13.250
R	7411.730	-32.500	12.904	13.098
S	7421.730	-32.500	12.680	12.901
T	7431.730	-32.500	12.425	12.656
U	7441.730	-32.500	12.140	12.360
V	7451.730	-32.500	11.832	12.021
W	7461.730	-32.500	11.522	11.663
X	7471.730	-32.500	11.212	11.292
Q Brg. East Abut.	7483.730	-32.500	10.840	10.840
Bk. East Abut.	7485.230	-32.500	10.793	10.793

NORTH LONGITUDINAL BONDED CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. West Abut.	7211.502	-28.000	11.125	11.125
Q Brg. West Abut.	7213.002	-28.000	11.183	11.183
A	7223.002	-28.000	11.559	11.631
B	7233.002	-28.000	11.906	12.045
C	7243.002	-28.000	12.222	12.417
D	7253.002	-28.000	12.509	12.743
E	7263.002	-28.000	12.764	13.018
F	7273.002	-28.000	12.990	13.243
G	7283.002	-28.000	13.185	13.418
H	7293.002	-28.000	13.350	13.546
I	7303.002	-28.000	13.485	13.630
J	7313.002	-28.000	13.590	13.678
K	7323.002	-28.000	13.664	13.697
Q Pier 1	7330.002	-28.000	13.698	13.698
L	7340.002	-28.000	13.721	13.692
M	7350.002	-28.000	13.714	13.675
N	7360.002	-28.000	13.676	13.645
Q Pier 2	7371.502	-28.000	13.595	13.595
O	7381.502	-28.000	13.493	13.538
P	7391.502	-28.000	13.360	13.459
Q	7401.502	-28.000	13.196	13.348
R	7411.502	-28.000	13.003	13.197
S	7421.502	-28.000	12.779	13.001
T	7431.502	-28.000	12.525	12.756
U	7441.502	-28.000	12.241	12.460
V	7451.502	-28.000	11.933	12.122
W	7461.502	-28.000	11.623	11.764
X	7471.502	-28.000	11.313	11.393
Q Brg. East Abut.	7483.502	-28.000	10.941	10.941
Bk. East Abut.	7485.002	-28.000	10.894	10.894

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DWG. S-05 of 42

REVISIONS	
NAME	DATE

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

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

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. West Abut.	7211.375	-25.500	11.172	11.172
☉ Brg. West Abut.	7212.875	-25.500	11.230	11.230
A	7222.875	-25.500	11.607	11.679
B	7232.875	-25.500	11.954	12.093
C	7242.875	-25.500	12.271	12.466
D	7252.875	-25.500	12.557	12.791
E	7262.875	-25.500	12.813	13.067
F	7272.875	-25.500	13.039	13.293
G	7282.875	-25.500	13.235	13.468
H	7292.875	-25.500	13.401	13.596
I	7302.875	-25.500	13.536	13.681
J	7312.875	-25.500	13.641	13.728
K	7322.875	-25.500	13.716	13.748
☉ Pier 1	7329.875	-25.500	13.750	13.750
L	7339.875	-25.500	13.773	13.744
M	7349.875	-25.500	13.766	13.727
N	7359.875	-25.500	13.729	13.698
☉ Pier 2	7371.375	-25.500	13.648	13.648
O	7381.375	-25.500	13.546	13.592
P	7391.375	-25.500	13.414	13.513
Q	7401.375	-25.500	13.251	13.402
R	7411.375	-25.500	13.058	13.251
S	7421.375	-25.500	12.834	13.056
T	7431.375	-25.500	12.581	12.811
U	7441.375	-25.500	12.297	12.516
V	7451.375	-25.500	11.989	12.178
W	7461.375	-25.500	11.679	11.820
X	7471.375	-25.500	11.369	11.449
☉ Brg. East Abut.	7483.375	-25.500	10.997	10.997
Bk. East Abut.	7484.875	-25.500	10.950	10.950

BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. West Abut.	7211.019	-18.500	11.304	11.304
☉ Brg. West Abut.	7212.519	-18.500	11.362	11.362
A	7222.519	-18.500	11.740	11.812
B	7232.519	-18.500	12.088	12.227
C	7242.519	-18.500	12.406	12.601
D	7252.519	-18.500	12.693	12.927
E	7262.519	-18.500	12.951	13.205
F	7272.519	-18.500	13.178	13.431
G	7282.519	-18.500	13.375	13.607
H	7292.519	-18.500	13.541	13.736
I	7302.519	-18.500	13.677	13.822
J	7312.519	-18.500	13.783	13.871
K	7322.519	-18.500	13.859	13.892
☉ Pier 1	7329.519	-18.500	13.894	13.894
L	7339.519	-18.500	13.919	13.890
M	7349.519	-18.500	13.913	13.874
N	7359.519	-18.500	13.876	13.846
☉ Pier 2	7371.019	-18.500	13.797	13.797
O	7381.019	-18.500	13.696	13.742
P	7391.019	-18.500	13.565	13.664
Q	7401.019	-18.500	13.403	13.554
R	7411.019	-18.500	13.211	13.405
S	7421.019	-18.500	12.988	13.210
T	7431.019	-18.500	12.736	12.967
U	7441.019	-18.500	12.453	12.673
V	7451.019	-18.500	12.146	12.335
W	7461.019	-18.500	11.836	11.977
X	7471.019	-18.500	11.526	11.606
☉ Brg. East Abut.	7483.019	-18.500	11.154	11.154
Bk. East Abut.	7484.519	-18.500	11.107	11.107

BEAM 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. West Abut.	7210.664	-11.500	11.434	11.434
☉ Brg. West Abut.	7212.164	-11.500	11.492	11.492
A	7222.164	-11.500	11.870	11.942
B	7232.164	-11.500	12.219	12.358
C	7242.164	-11.500	12.538	12.733
D	7252.164	-11.500	12.827	13.061
E	7262.164	-11.500	13.085	13.339
F	7272.164	-11.500	13.313	13.567
G	7282.164	-11.500	13.511	13.744
H	7292.164	-11.500	13.679	13.874
I	7302.164	-11.500	13.816	13.961
J	7312.164	-11.500	13.923	14.011
K	7322.164	-11.500	14.000	14.033
☉ Pier 1	7329.164	-11.500	14.036	14.036
L	7339.164	-11.500	14.061	14.033
M	7349.164	-11.500	14.057	14.018
N	7359.164	-11.500	14.021	13.991
☉ Pier 2	7370.664	-11.500	13.944	13.944
O	7380.664	-11.500	13.843	13.889
P	7390.664	-11.500	13.713	13.812
Q	7400.664	-11.500	13.552	13.704
R	7410.664	-11.500	13.361	13.555
S	7420.664	-11.500	13.140	13.362
T	7430.664	-11.500	12.889	13.119
U	7440.664	-11.500	12.607	12.827
V	7450.664	-11.500	12.300	12.489
W	7460.664	-11.500	11.990	12.131
X	7470.664	-11.500	11.680	11.760
☉ Brg. East Abut.	7482.664	-11.500	11.308	11.308
Bk. East Abut.	7484.164	-11.500	11.261	11.261

BEAM 7

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. West Abut.	7210.308	-4.500	11.530	11.530
☉ Brg. West Abut.	7211.808	-4.500	11.587	11.587
A	7221.808	-4.500	11.966	12.038
B	7231.808	-4.500	12.317	12.456
C	7241.808	-4.500	12.637	12.832
D	7251.808	-4.500	12.926	13.161
E	7261.808	-4.500	13.186	13.440
F	7271.808	-4.500	13.415	13.669
G	7281.808	-4.500	13.614	13.847
H	7291.808	-4.500	13.783	13.978
I	7301.808	-4.500	13.921	14.066
J	7311.808	-4.500	14.029	14.117
K	7321.808	-4.500	14.107	14.140
☉ Pier 1	7328.808	-4.500	14.144	14.144
L	7338.808	-4.500	14.170	14.142
M	7348.808	-4.500	14.167	14.128
N	7358.808	-4.500	14.133	14.102
☉ Pier 2	7370.308	-4.500	14.056	14.056
O	7380.308	-4.500	13.957	14.003
P	7390.308	-4.500	13.828	13.927
Q	7400.308	-4.500	13.668	13.819
R	7410.308	-4.500	13.478	13.672
S	7420.308	-4.500	13.258	13.479
T	7430.308	-4.500	13.007	13.238
U	7440.308	-4.500	12.727	12.946
V	7450.308	-4.500	12.420	12.609
W	7460.308	-4.500	12.110	12.251
X	7470.308	-4.500	11.800	11.881
☉ Brg. East Abut.	7482.308	-4.500	11.428	11.428
Bk. East Abut.	7483.808	-4.500	11.382	11.382

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REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
TOP OF SLAB ELEVATIONS
 76TH STREET OVER FAI-94
 FAP ROUTE 1541 SECTION 1818 R-9
 COOK COUNTY
 STATION 73+49.33
 STRUCTURE NUMBER 016-2850
 SCALE: NONE DESIGNED BY: TB DRAWN BY: TB
 DATE: March 25, 2005 CHECKED BY: SB CHECKED BY: SB



BEAM 10

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. West Abut.	7209.242	16.500	11.278	11.278
☉ Brg. West Abut.	7210.742	16.500	11.335	11.335
A	7220.742	16.500	11.716	11.788
B	7230.742	16.500	12.070	12.209
C	7240.742	16.500	12.393	12.588
D	7250.742	16.500	12.686	12.920
E	7260.742	16.500	12.949	13.203
F	7270.742	16.500	13.181	13.435
G	7280.742	16.500	13.383	13.616
H	7290.742	16.500	13.555	13.751
I	7300.742	16.500	13.697	13.842
J	7310.742	16.500	13.808	13.896
K	7320.742	16.500	13.890	13.922
☉ Pier 1	7327.742	16.500	13.928	13.928
L	7337.742	16.500	13.958	13.929
M	7347.742	16.500	13.958	13.919
N	7357.742	16.500	13.927	13.896
☉ Pier 2	7369.242	16.500	13.854	13.854
O	7379.242	16.500	13.758	13.804
P	7389.242	16.500	13.632	13.731
Q	7399.242	16.500	13.475	13.627
R	7409.242	16.500	13.289	13.483
S	7419.242	16.500	13.072	13.293
T	7429.242	16.500	12.825	13.055
U	7439.242	16.500	12.547	12.767
V	7449.242	16.500	12.242	12.431
W	7459.242	16.500	11.932	12.073
X	7469.242	16.500	11.622	11.703
☉ Brg. East Abut.	7481.242	16.500	11.250	11.250
Bk. East Abut.	7482.742	16.500	11.204	11.204

BEAM 11

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. West Abut.	7208.887	23.500	11.118	11.118
☉ Brg. West Abut.	7210.387	23.500	11.176	11.176
A	7220.387	23.500	11.557	11.629
B	7230.387	23.500	11.912	12.051
C	7240.387	23.500	12.236	12.431
D	7250.387	23.500	12.530	12.765
E	7260.387	23.500	12.794	13.048
F	7270.387	23.500	13.028	13.281
G	7280.387	23.500	13.231	13.464
H	7290.387	23.500	13.404	13.599
I	7300.387	23.500	13.547	13.691
J	7310.387	23.500	13.659	13.747
K	7320.387	23.500	13.741	13.774
☉ Pier 1	7327.387	23.500	13.781	13.781
L	7337.387	23.500	13.812	13.783
M	7347.387	23.500	13.812	13.774
N	7357.387	23.500	13.783	13.752
☉ Pier 2	7368.887	23.500	13.711	13.711
O	7378.887	23.500	13.616	13.662
P	7388.887	23.500	13.491	13.591
Q	7398.887	23.500	13.336	13.487
R	7408.887	23.500	13.150	13.344
S	7418.887	23.500	12.934	13.156
T	7428.887	23.500	12.688	12.919
U	7438.887	23.500	12.412	12.631
V	7448.887	23.500	12.107	12.296
W	7458.887	23.500	11.797	11.939
X	7468.887	23.500	11.487	11.568
☉ Brg. East Abut.	7480.887	23.500	11.115	11.115
Bk. East Abut.	7482.387	23.500	11.069	11.069

BEAM 12

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. West Abut.	7208.532	30.500	10.958	10.958
☉ Brg. West Abut.	7210.032	30.500	11.016	11.016
A	7220.032	30.500	11.398	11.467
B	7230.032	30.500	11.754	11.886
C	7240.032	30.500	12.079	12.264
D	7250.032	30.500	12.375	12.596
E	7260.032	30.500	12.639	12.879
F	7270.032	30.500	12.874	13.111
G	7280.032	30.500	13.078	13.295
H	7290.032	30.500	13.252	13.432
I	7300.032	30.500	13.396	13.528
J	7310.032	30.500	13.510	13.588
K	7320.032	30.500	13.593	13.621
☉ Pier 1	7327.032	30.500	13.633	13.633
L	7337.032	30.500	13.665	13.640
M	7347.032	30.500	13.667	13.633
N	7357.032	30.500	13.638	13.611
☉ Pier 2	7368.532	30.500	13.568	13.568
O	7378.532	30.500	13.474	13.514
P	7388.532	30.500	13.350	13.437
Q	7398.532	30.500	13.196	13.330
R	7408.532	30.500	13.011	13.184
S	7418.532	30.500	12.797	12.995
T	7428.532	30.500	12.552	12.758
U	7438.532	30.500	12.276	12.474
V	7448.532	30.500	11.973	12.143
W	7458.532	30.500	11.663	11.790
X	7468.532	30.500	11.353	11.425
☉ Brg. East Abut.	7480.532	30.500	10.981	10.981
Bk. East Abut.	7482.032	30.500	10.934	10.934

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DWG. S-08 of 42

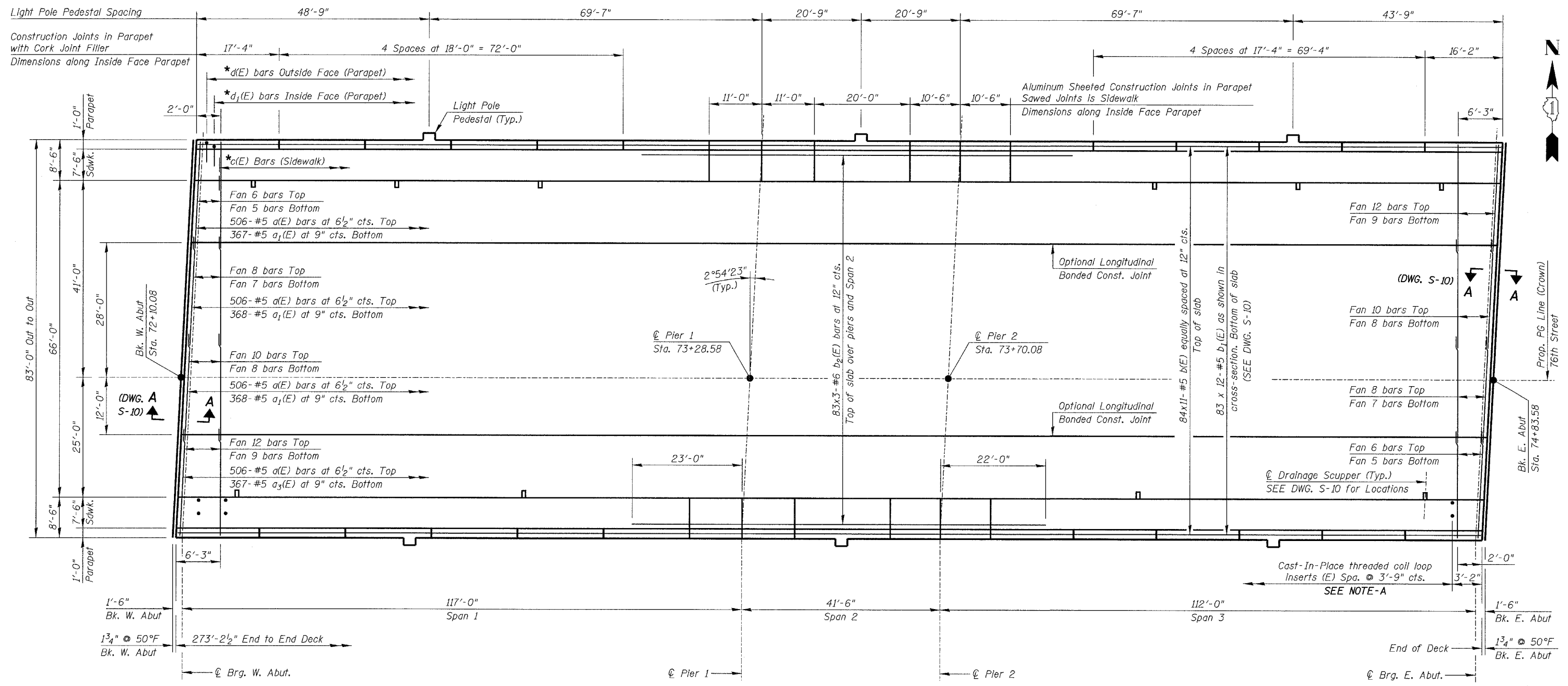
REVISIONS	
NAME	DATE

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

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	*	COOK	907	1679
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
*(1516.1, 1717 & 1818) R-9		62695		

* For c(E), d(E), and d₁(E) - Deck to Sidewalk/Parapet Bars see DWG. S-11



DECK PLAN

NOTE - A

Coordinate threaded coil loop inserts with Electrical Contractor. Cost shall be included with "Concrete Superstructures".

Notes:

- Reinforcement Bars designated (E) shall be epoxy coated.
- Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
- SEE DWG. S-10 for Deck Cross Section Details.
- SEE DWG. S-11 for Sidewalk & Parapet Details
- SEE DWG. S-12 for Light Pole Pedestal Details

- SEE DWG. S-13 for Deck Misc. Details and Bill of Material.
- SEE DWGS. S-16 & S-17 for Scupper & Drainage Details.
- For Under-Deck Lighting and Luminaire Hanger Details SEE UNDERPASS LIGHTING PLANS.
- Work this DWG. with DWGS. S-10 thru S-13.

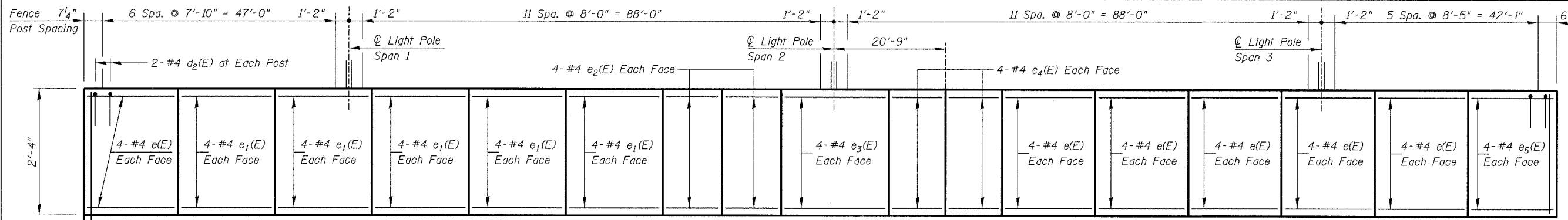
MIN. BAR LAPS:
 #5 = 1'-8"
 #6 = 2'-0"

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
DECK PLAN
 76TH STREET OVER FAI-94
 FAP ROUTE 1541 SECTION 1818 R-9
 COOK COUNTY
 STATION 73+49.33
 STRUCTURE NUMBER 016-2850
 SCALE: NONE DESIGNED BY: TB DRAWN BY: TL
 DATE: March 25, 2005 CHECKED BY: WPM CHECKED BY: WPM

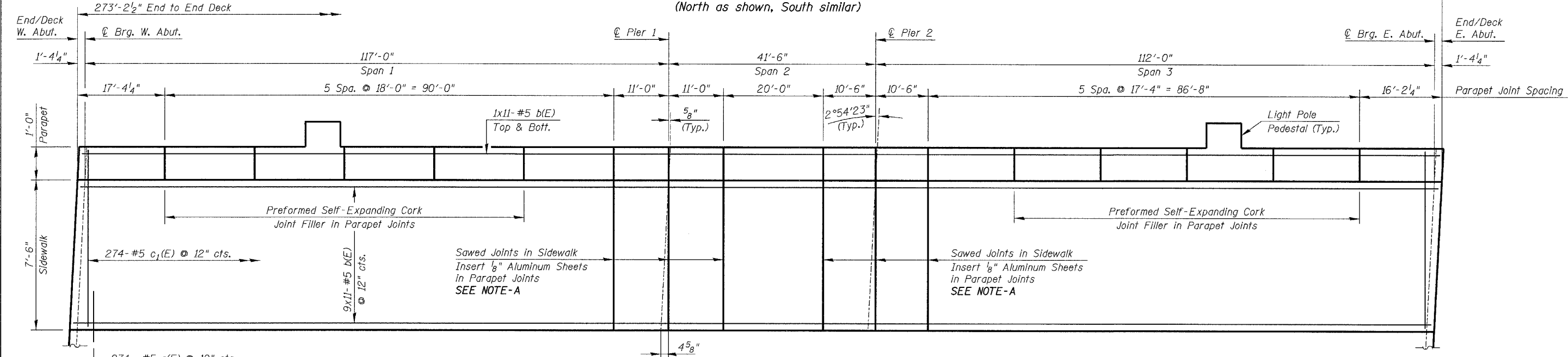
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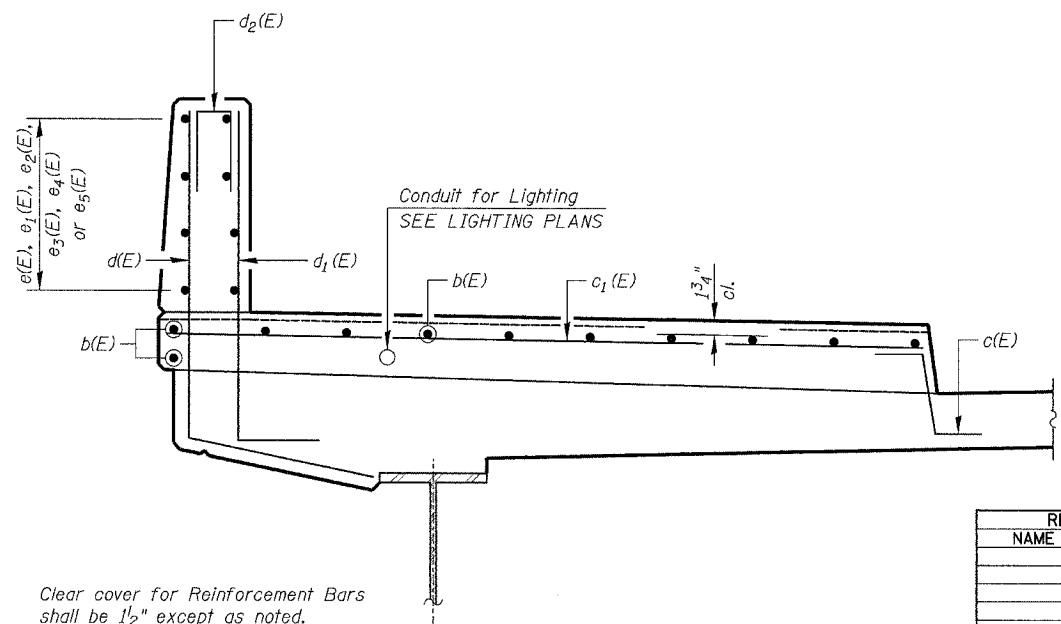
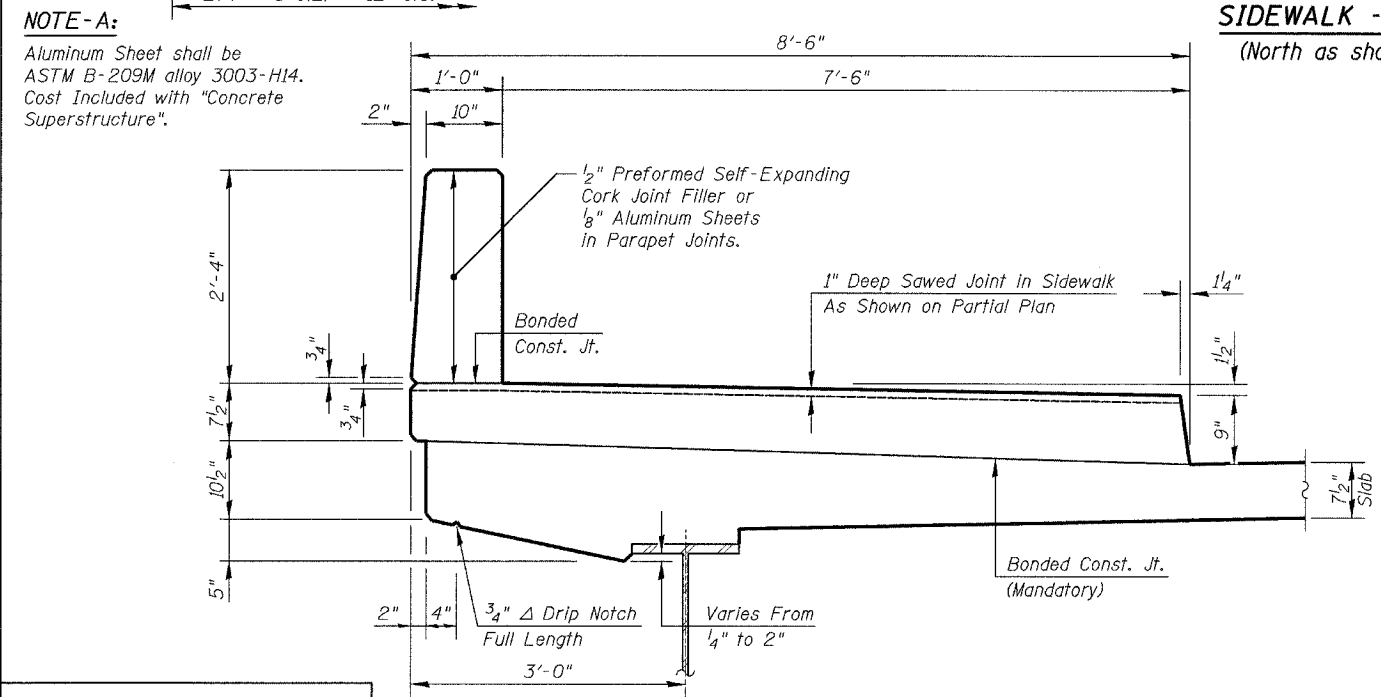


F.A.I. RTE. 94	SECTION *	COUNTY COOK	TOTAL SHEETS 407	SHEET NO. 651
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		62695
* (1516.1, 1717 & 1818) R-9				

INSIDE ELEVATION OF PARAPET
(North as shown, South similar)



SIDEWALK - PARTIAL PLAN
(North as shown, South similar)



NOTE-A:
Aluminum Sheet shall be ASTM B-209M alloy 3003-H14. Cost Included with "Concrete Superstructure".

Notes:
Reinforcement Bars designated (E) shall be epoxy coated.
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
SEE DWG. S-12 for Light Pole Pedestal Details.
SEE DWG. S-13 for Cork Filled Parapet Joint Detail.
SEE DWG. S-13 for Deck Misc. details and Bill of Materials.
SEE DWG. S-18 for Bridge Railing Details
Work this DWG. with DWGS. S-09, S-10, S-12 & S-13.

MIN. BAR LAPS:
#5 = 1'-8"
#6 = 2'-0"

Clear cover for Reinforcement Bars shall be 1 1/2" except as noted.

SECTION THRU SIDEWALK & PARAPET
(Showing Dimensions)

SECTION THRU SIDEWALK & PARAPET
(Showing Reinforcement Bars)

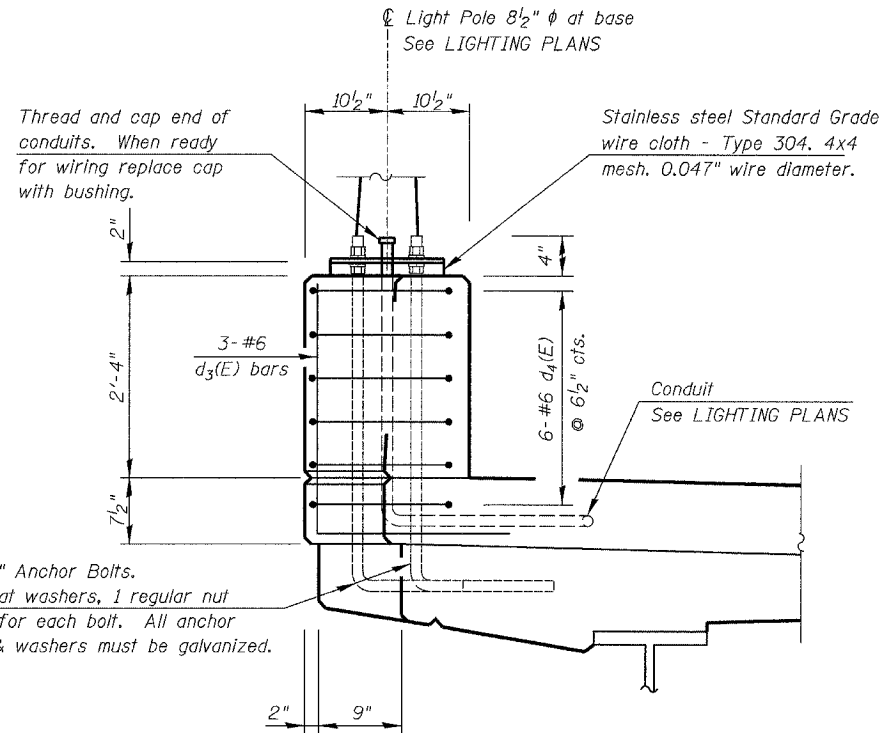
REVISIONS	
NAME	DATE

DWG. S-11 of 42
ILLINOIS DEPARTMENT OF TRANSPORTATION
SIDEWALK & PARAPET DETAILS
76TH STREET OVER FAI-94
FAP ROUTE 1541 SECTION 1818 R-9
COOK COUNTY
STATION 73+49.33
STRUCTURE NUMBER 016-2850
SCALE: NONE DESIGNED BY: TB DRAWN BY: TL
DATE: March 25, 2005 CHECKED BY: WPM CHECKED BY: WPM

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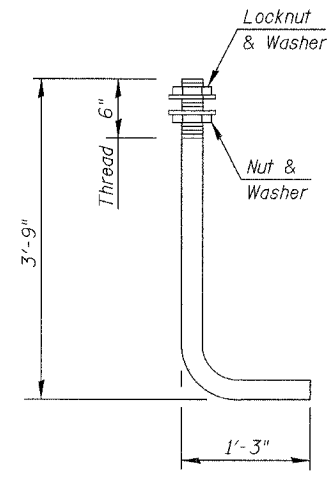


F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	*	COOK	907	682
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
*(1516.1, 1717 & 1818) R-9		62695		

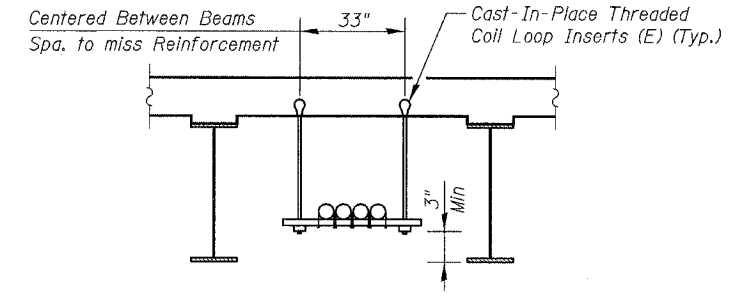


Note:
Cost of anchor bolts and conduits are included with "Concrete Superstructure".

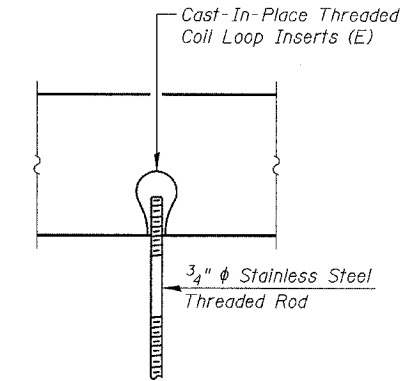
SECTION A-A



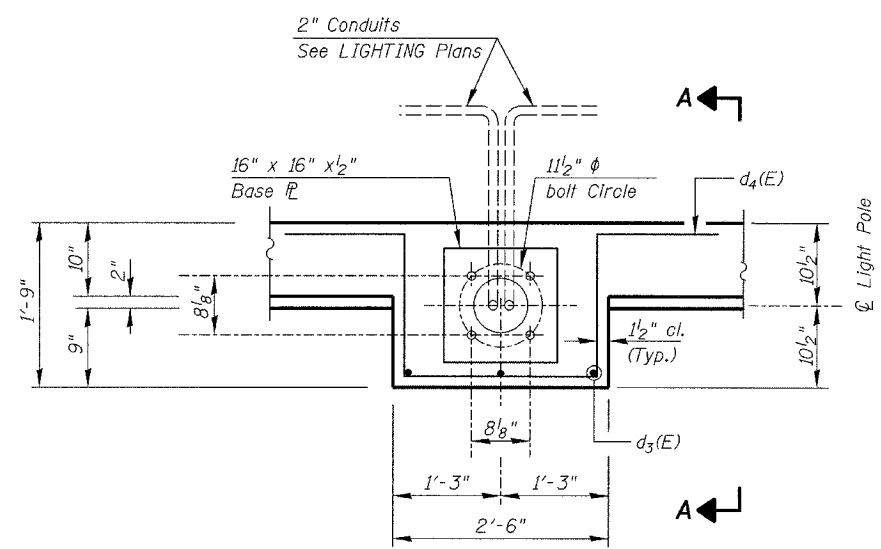
1" ANCHOR BOLT



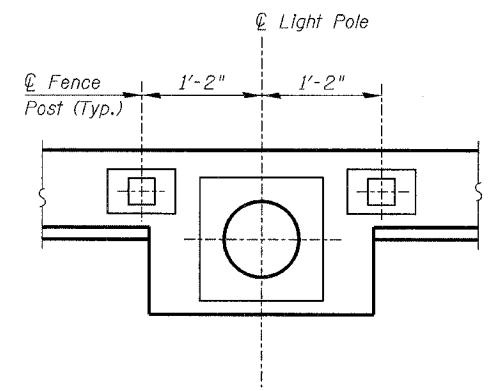
CONDUIT SUPPORT DETAIL



THREADED COIL LOOP INSERTS DETAIL



PLAN
LIGHT POLE PEDESTAL DETAILS



PLAN - LIGHT POLE & FENCE POSTS

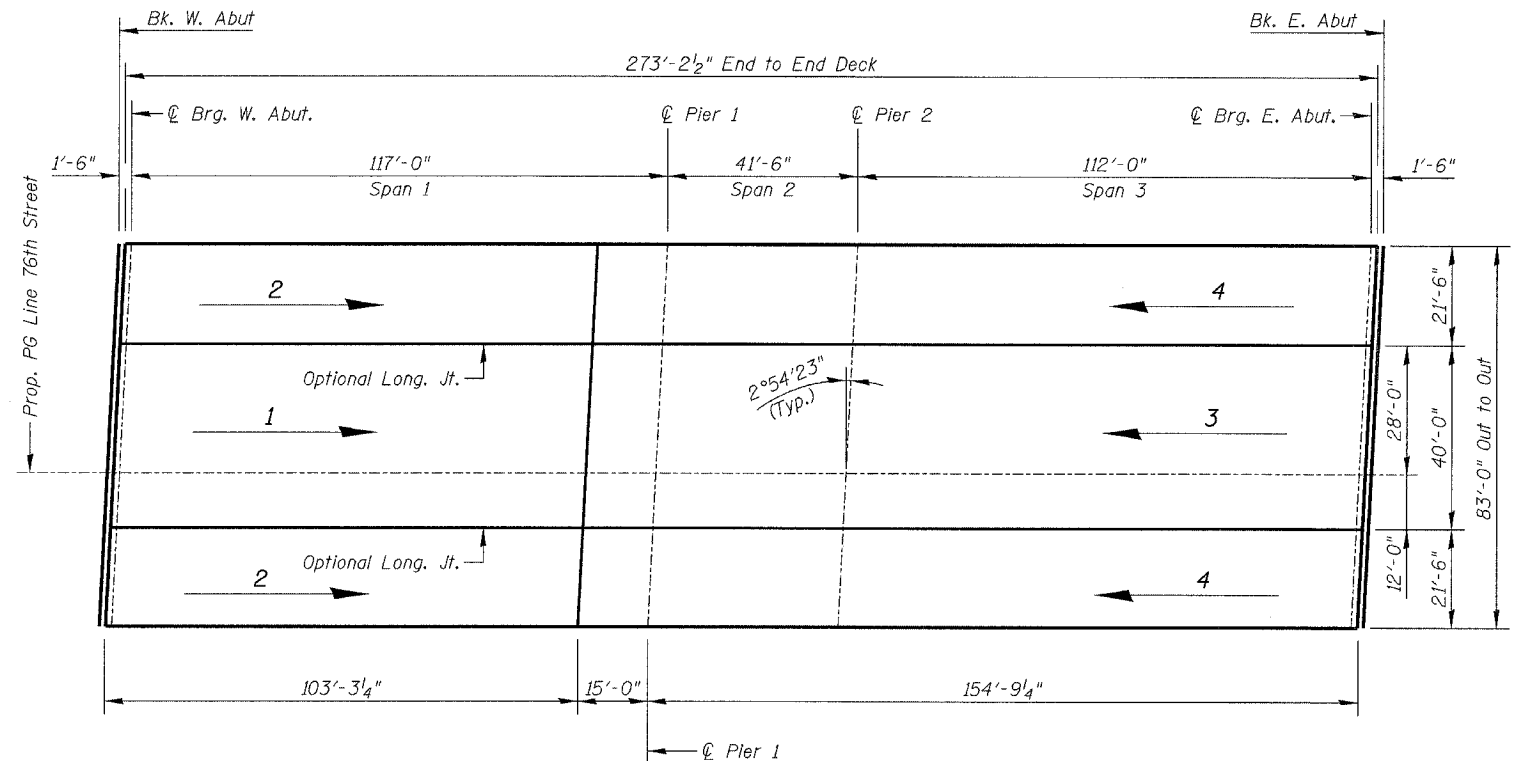
Notes:
Reinforcement Bars designated (E) shall be epoxy coated.
See DWG. S-13 for Deck Misc. Details, and Bill of Material.
For additional Conduit Support Details, SEE TRAFFIC SIGNAL PLANS
Work this DWG. with DWGS. S-09 thru S-11 & S-13.

DWG. S-12 of 42

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION LIGHT POLE PEDESTAL DETAILS 76TH STREET OVER FAI-94 FAP ROUTE 1541 SECTION 1818 R-9 COOK COUNTY STATION 73+49.33 STRUCTURE NUMBER 016-2850
NAME	DATE	
		SCALE: NONE DATE: March 25, 2005 DESIGNED BY: TB CHECKED BY: WPM
REVISED	04/15/05	CHECKED BY: WPM

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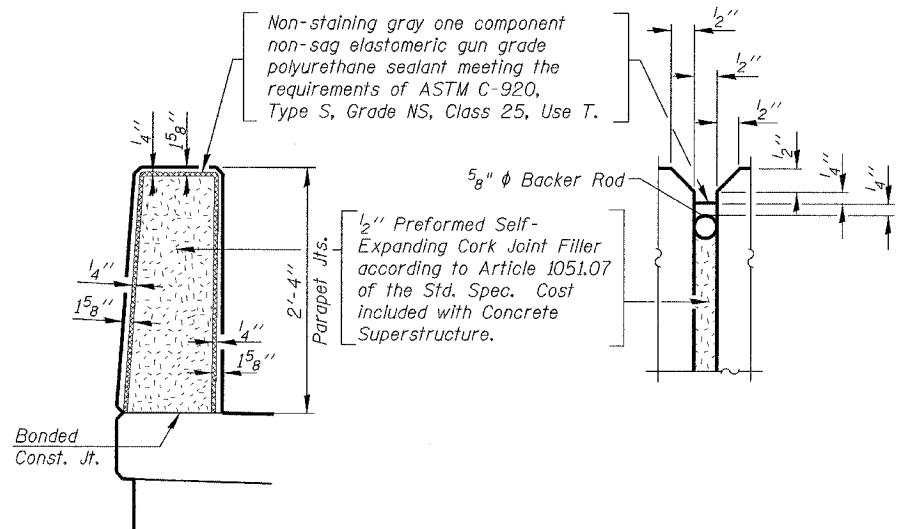


PLAN - DECK POURING SEQUENCE

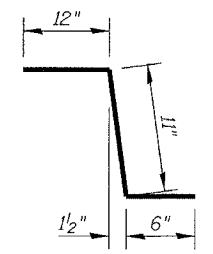
Notes:

When the deck pour is stopped for the day, at one or more of the transverse Bonded Construction Joints in the deck Pouring Sequence as shown, the next pour shall not be made until both of the following requirements are met.

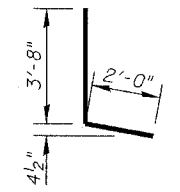
1. At least 72 hours shall have elapsed from the end of the previous pour.
2. The concrete strength shall have attained a minimum flexural strength of 650 psi or a minimum compressive strength of 3500 psi.



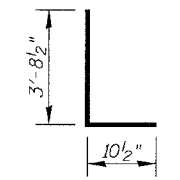
PARAPET JOINT DETAILS



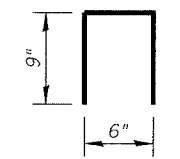
BAR c(E)



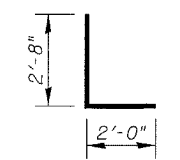
BAR d(E)



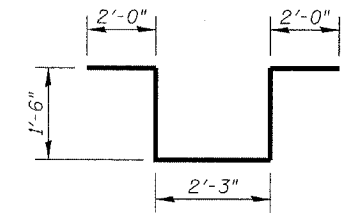
BAR d1(E)



BAR d2(E)



BAR d3(E)



BAR d4(E)

BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
a(E)	2024	#5	22'-6"	—
a1(E)	1103	#5	24'-6"	—
a2(E)	80	#5	2'-0"	—
a3(E)	367	#5	16'-0"	—
b(E)	1166	#5	27'-0"	—
b1(E)	996	#5	25'-0"	—
b2(E)	249	#6	31'-0"	—
c(E)	548	#5	2'-5"	—
c1(E)	548	#5	8'-2"	—
d(E)	574	#4	5'-8"	—
d1(E)	574	#6	4'-7"	—
d2(E)	148	#4	2'-0"	—
d3(E)	18	#6	4'-8"	—
d4(E)	36	#6	9'-3"	—
e(E)	96	#4	17'-0"	—
e1(E)	80	#4	17'-8"	—
e2(E)	32	#4	10'-8"	—
e3(E)	16	#4	19'-8"	—
e4(E)	32	#4	10'-2"	—
e5(E)	16	#4	15'-10"	—
Reinforcement Bars, Epoxy Coated			LB	168,240
Concrete Superstructure			Cu. Yd.	784
Bridge Deck Grooving			Sq. Yd.	1943
Protective Coat			Sq. Yd.	2697

Notes:

Work this DWG. with DWGS. S-09 thru S-12.

Reinforcement Bars designated (E) shall be epoxy coated.

DWG. S-13 of 42

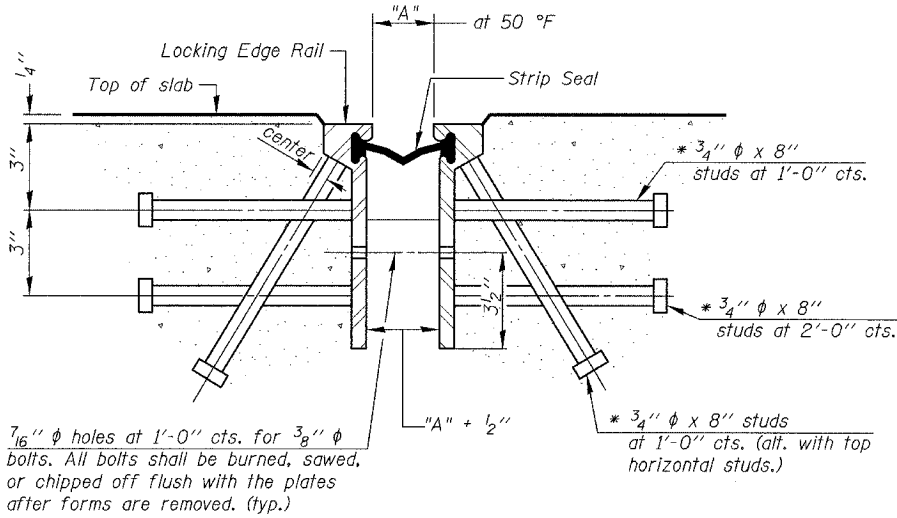
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
DECK MISCELLANEOUS DETAILS
 76TH STREET OVER FAI-94
 FAP ROUTE 1541 SECTION 1818 R-9
 COOK COUNTY
 STATION 73+49.33
 STRUCTURE NUMBER 016-2850
 SCALE: NONE DESIGNED BY: TB DRAWN BY: TL
 DATE: March 25, 2005 CHECKED BY: WPM CHECKED BY: WPM

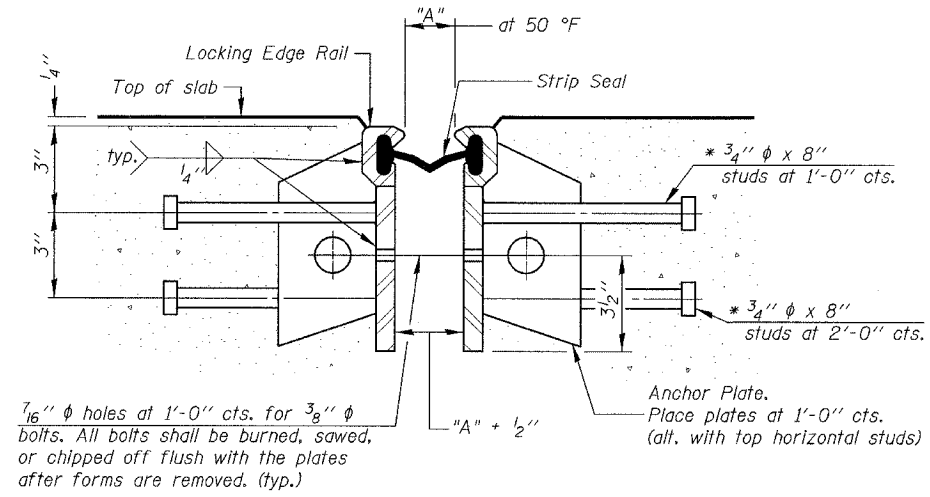
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	*	COOK	907	685
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
(1516.1, 1717 & 1818) R-9		62695		



Required Strip Seal rated movement	"A"
1"	1 1/8"
2"	1 3/4"



GENERAL NOTES

The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the Locking Edge Rails.

The height and thickness of the Locking Edge Rails shown are minimum dimensions. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed.

Locking Edge Rails may be spliced at slope discontinuities and stage construction joints.

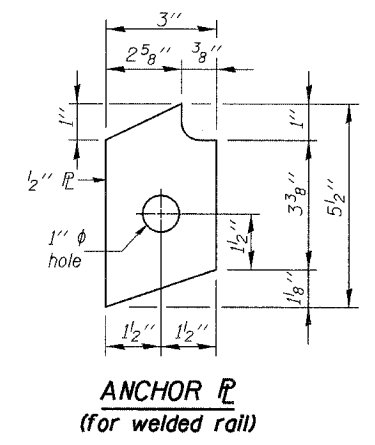
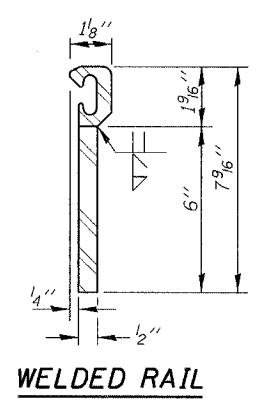
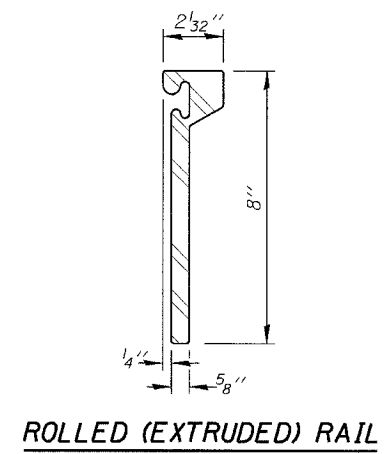
The manufacturer's recommended installation methods shall be followed.

The joint opening and deck dimensions detailed on the superstructure are based on a preformed joint seal. If the contractor elects to use the alternate strip seal joint, the opening and deck dimensions shall be modified according to the dimensions detailed on this sheet. Required modifications shall be made at no additional cost to the State.

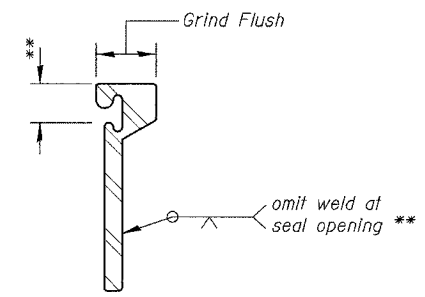
SECTION THRU ROLLED RAIL EXP. JOINT
(856 Studs Required)

SECTION THRU WELDED RAIL EXP. JOINT
(516 Studs Required)
(340 Anchor Plates Required)

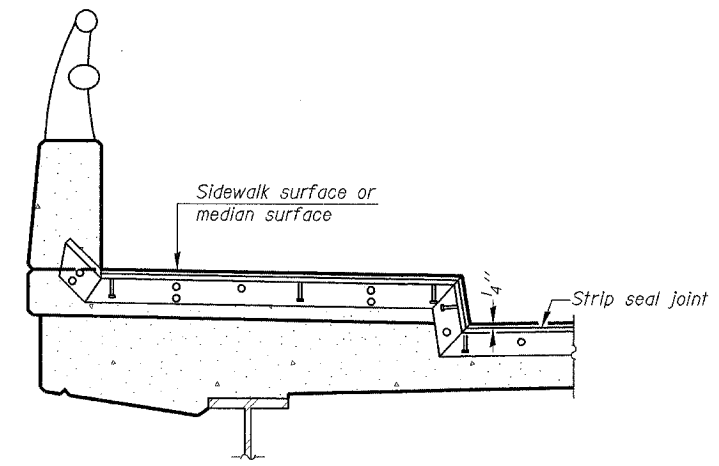
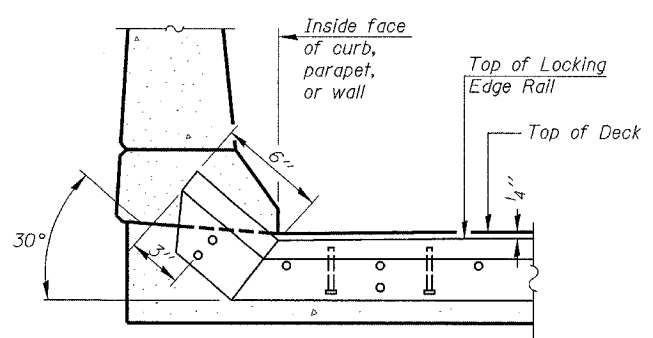
* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.



LOCKING EDGE RAILS



The inside of the locking edge rail groove shall be free of weld residue.



BILL OF MATERIAL

Item	Unit	Total
Strip Seal Expansion Joint Assembly	foot	167

DWG. S-15 of 42

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION DECK EXPANSION JOINT - STRIP SEAL 76TH STREET OVER FAI-94 FAP ROUTE 1541 SECTION 1818 R-9 COOK COUNTY STATION 73+49.33 STRUCTURE NUMBER 016-2850
NAME	DATE	
		SCALE: NONE
		DESIGNED BY: TB DRAWN BY: TL
		DATE: March 25, 2005 CHECKED BY: WPM CHECKED BY: WPM

EJ-BJS 9-01-03

KNIGHT
Engineers & Architects

AT CURB, PARAPET, OR WALL

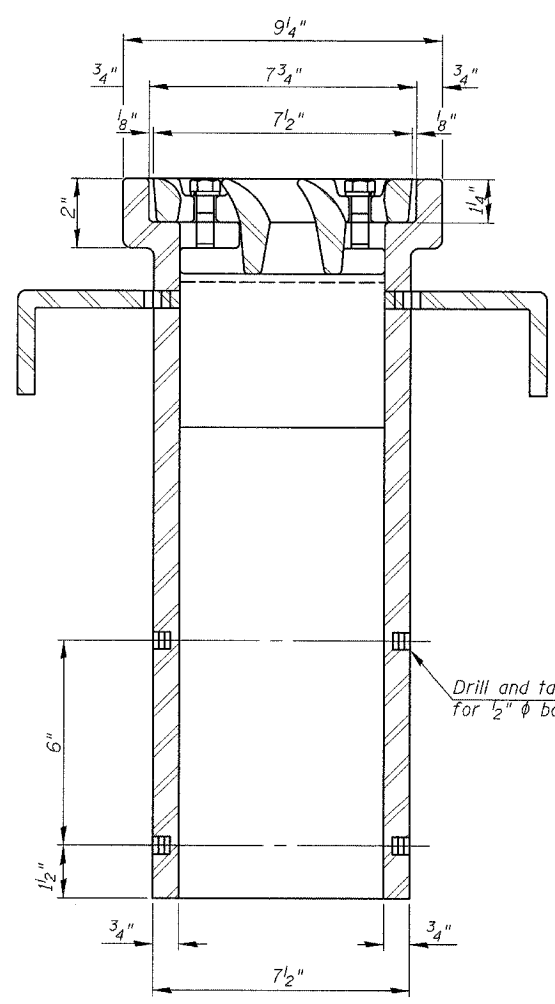
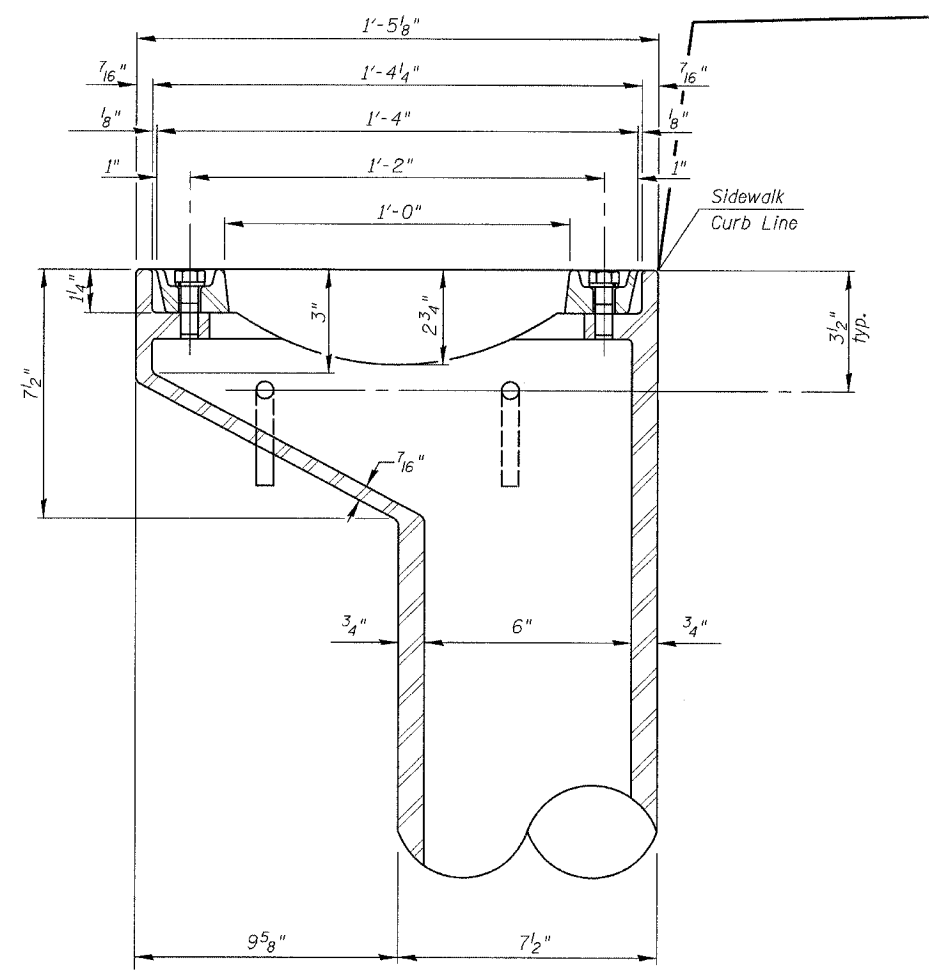
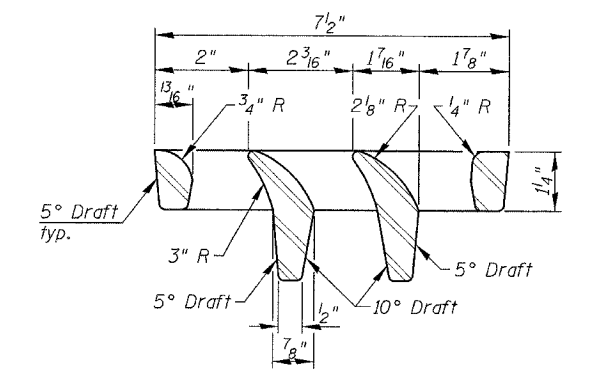
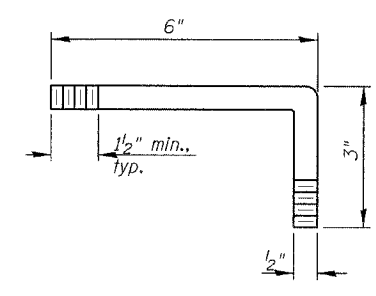
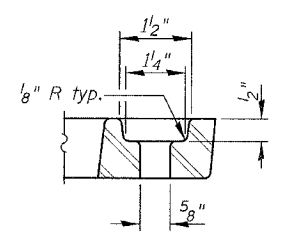
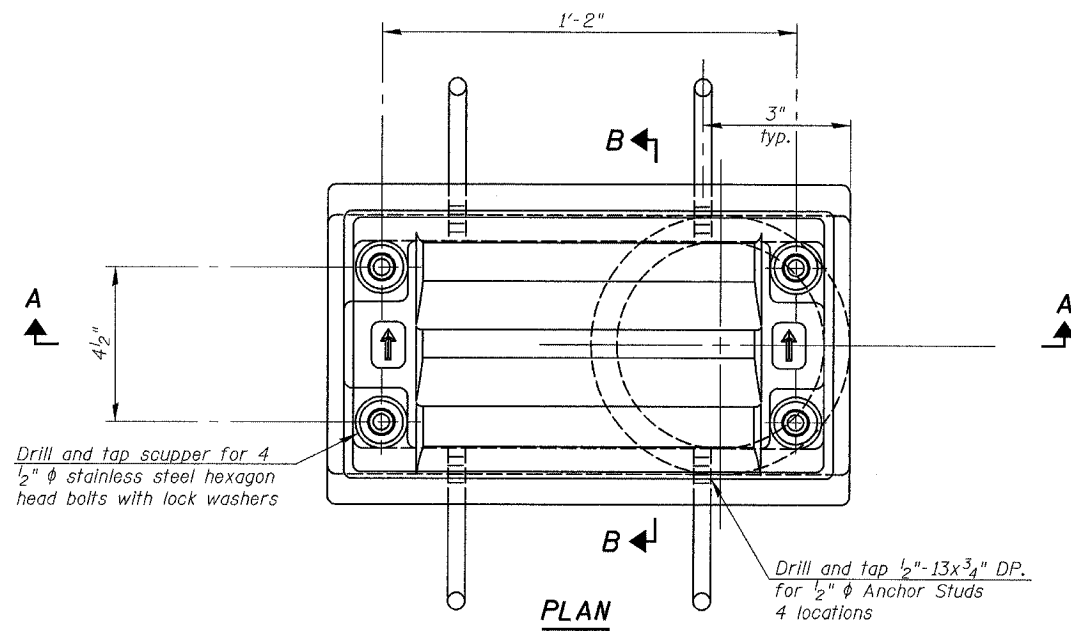
AT SIDEWALK OR MEDIAN*

TYPICAL END TREATMENTS

* Shorter plates with a single row of studs at 12" centers may be necessary on medians which are shallower than 9". See manufacturer's recommendation.

FILE: L:\6592\021\Cad\Sheet\Roadway\Structures\Bridges\6592-32950-E.dwg

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	*	COOK	907	684
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
*(1516.1, 1717 & 1818) R-9		62695		



Notes: All cast iron parts shall be gray iron conforming to the requirements of AASHTO M 105, Class 35B.
 Bolts, anchor studs, washers and nuts shall conform to the requirements of ASTM A 307 and shall be galvanized according to AASHTO M 232.
 The grate, frame and downspout shall be galvanized according to AASHTO M 111 and ASTM A 385. Downspouts located on the exterior side of a painted steel fascia beam shall be painted with the finish coat specified for the exterior side of the fascia beam.
 As an alternate, bolts, anchor studs, washers and nuts may be stainless steel according to Article 1006.29(d) of the Standard Specifications.
 Structural steel weldments of equal sections and of the same configuration may be substituted for cast iron. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval.
 The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.
 Cost of the Grate, Frame, Downspout, Anchor Studs, Bolts, Washers and Nuts including complete installation of the scupper shall be paid for at the contract unit price each for Drainage Scupper, DS-11.

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Drainage Scupper, DS-11	Each	10

REVISIONS	
NAME	DATE

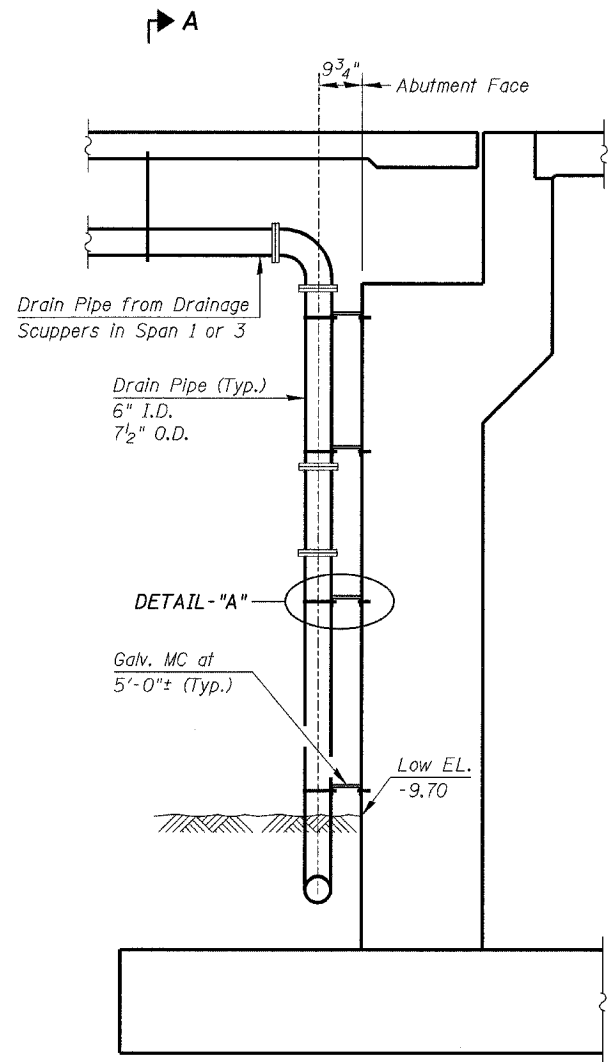
ILLINOIS DEPARTMENT OF TRANSPORTATION
DRAINAGE SCUPPER DETAILS
 76TH STREET OVER FAI-94
 FAP ROUTE 1541 SECTION 1818 R-9
 COOK COUNTY
 STATION 73+49.33
 STRUCTURE NUMBER 016-2850

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

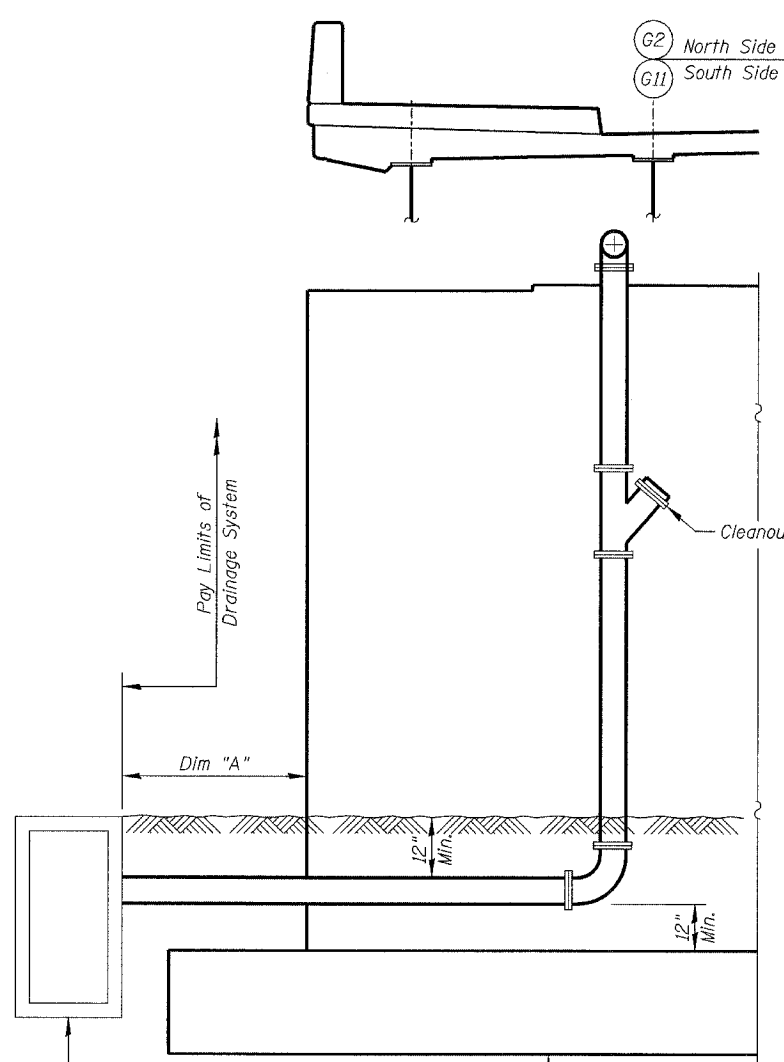
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KNIGHT
 Engineers & Architects

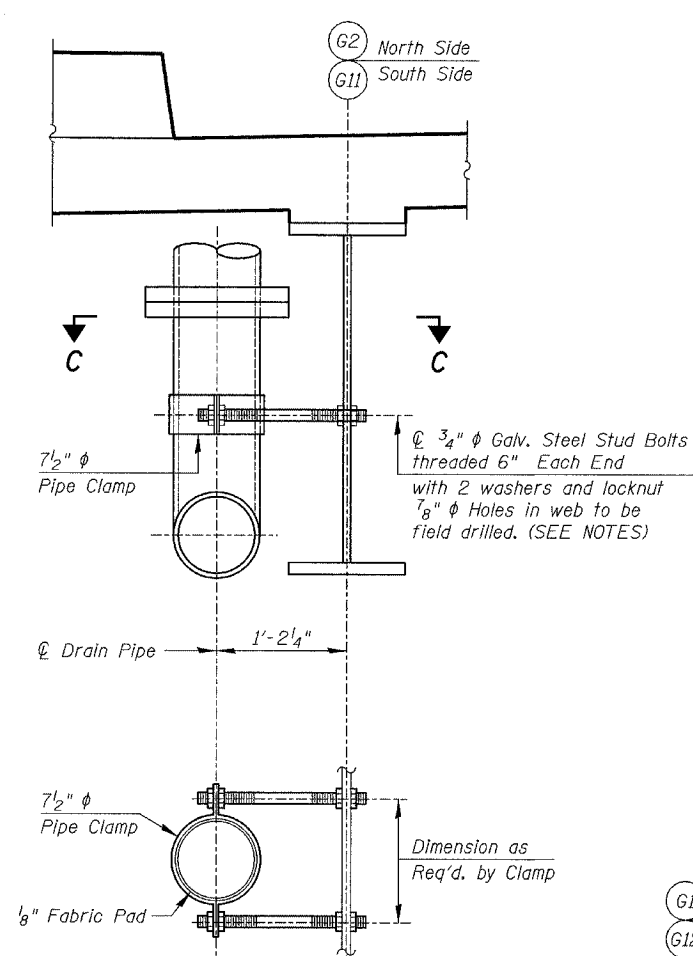
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	*	COOK	907	1087
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT		62695	
*(1516.1, 1717 & 1818) R-9				



DRAINAGE SYSTEM AT ABUTMENTS

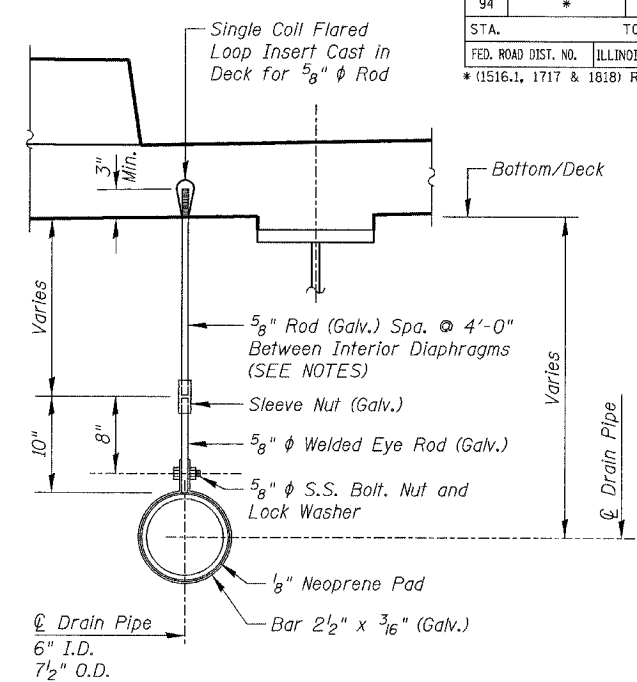


SECTION A-A

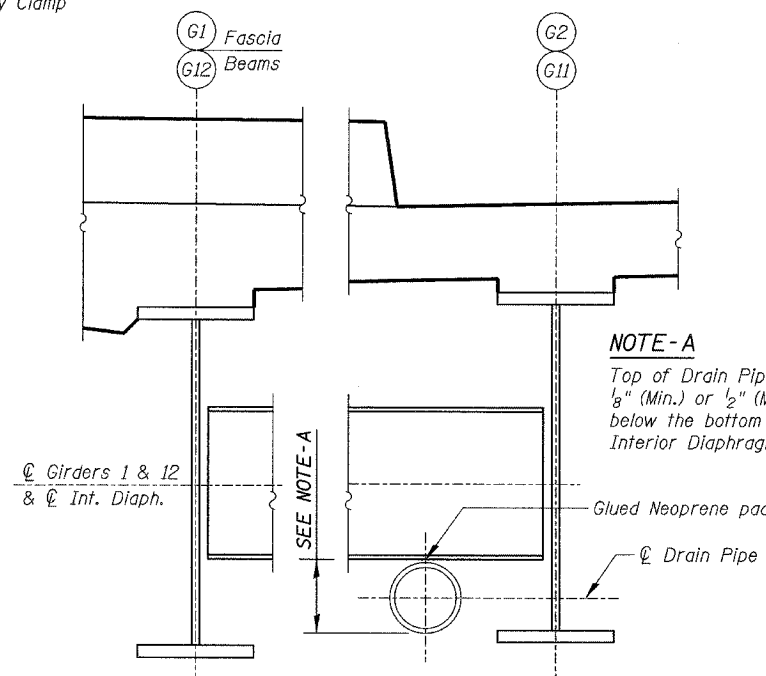


SECTION C-C

VERTICAL PIPE SUPPORT DETAIL



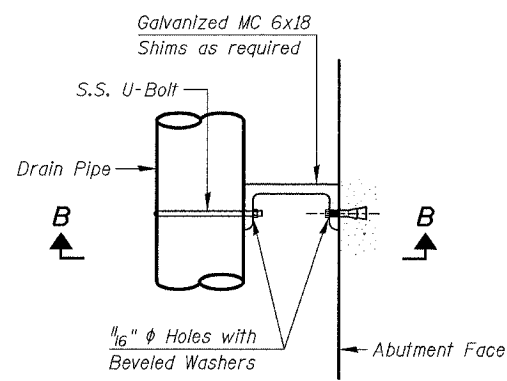
LONGITUDINAL PIPE SUPPORT DETAIL



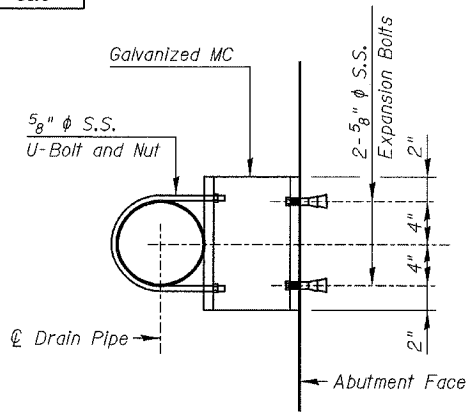
PIPE AT DIAPHRAGMS

NOTE-A
Top of Drain Pipe to be 1/8" (Min.) or 1/2" (Max.) below the bottom of Interior Diaphragms.

DIM "A"		
W. Abut.	NW Corner	18.0'
	SW Corner	10.0'
E. Abut	NE Corner	14.0'
	SE Corner	31.0'



DETAIL - "A"



SECTION B-B

Notes:
The Contractor shall submit all details of the drainage system for approval by the Engineer.
Cost of all drain pipes, collars, bolts, expansion bolts, channels, shims, clamps, cleanouts, pads, field drilling of web holes, and other items required to be included with "Drainage System".
All shim plates and beveled washers to be galvanized.

BILL OF MATERIAL

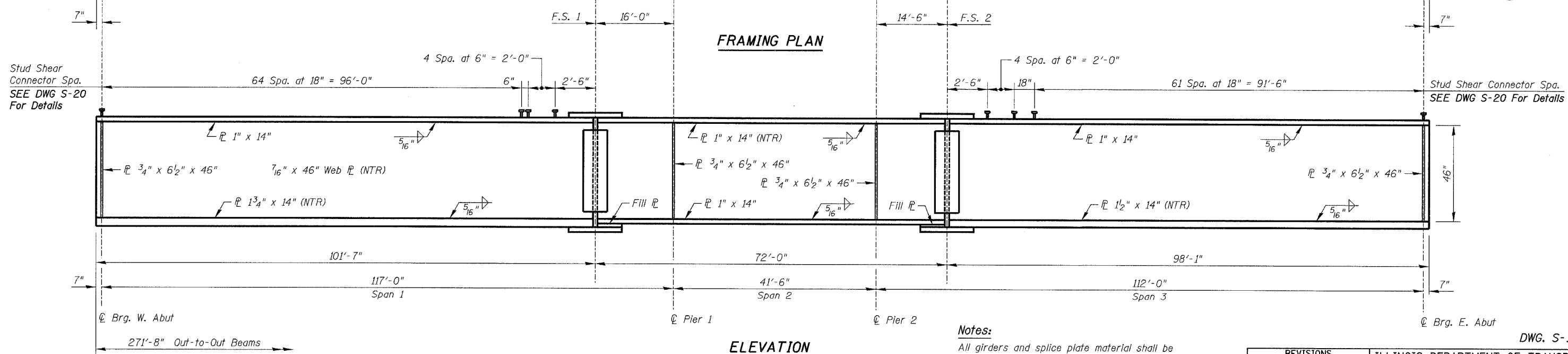
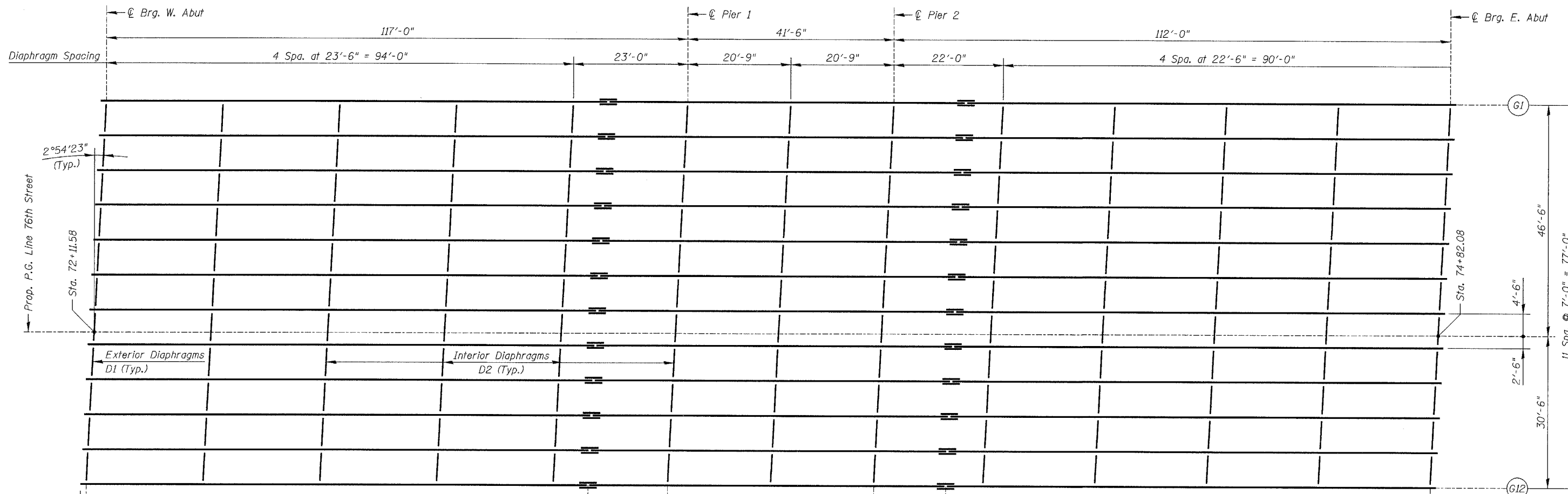
Item	Unit	Quantity
Drainage System	L Sum	I

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
BRIDGE DRAINAGE SYSTEM
76TH STREET OVER FAI-94
FAP ROUTE 1541 SECTION 1818 R-9
COOK COUNTY
STATION 73+49.33
STRUCTURE NUMBER 016-2850
SCALE: NONE
DATE: March 25, 2005
DESIGNED BY: TB
CHECKED BY: WPM
DRAWN BY: TL
CHECKED BY: WPM

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	*	COOK	907	1089
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
* (1516.1, 1717 & 1818) R-9		62695		



FRAMING PLAN

ELEVATION

Notes:
 All girders and splice plate material shall be AASHTO M 270 Grade 50. Materials designated NTR shall meet Notch Toughness Requirements.
 For Metallizing See Special Provisions.
 All span lengths, end of beam dimensions and diaphragm spaces are along horizontal plane of the structure.
 Work this DWG. with DWGS. S-20 & S-21.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
BEAM FRAMING PLAN & ELEVATION
 76TH STREET OVER FAI-94
 FAP ROUTE 1541 SECTION 1818 R-9
 COOK COUNTY
 STATION 73+49.33
 STRUCTURE NUMBER 016-2850
 SCALE: NONE
 DATE: March 25, 2005
 DESIGNED BY: TB
 CHECKED BY: WPM
 DRAWN BY: TL
 CHECKED BY: WPM

FILE: L:\15592\22\Cad\Sheets\Roadway Structures\Bridges\6592-52650-BM1.dgn



BEAM MOMENT TABLE

	0.4 S1	Pier 1	0.5 S2	Pier 2	0.6 S3
I_s (in^4)	24136	19014	19014	19014	22608
I_c (in^4)	58926				53691
I_c ($3n$) (in^4)	42273				39066
S_s (in^3)	851	792	792	792	835
S_c (in^3)	1540				1374
S_c ($3n$) (in^3)	1421				1268
Z (in^3)					
ϕ ($k/'$)	0.90	1.44	1.44	1.44	0.90
$M\phi$ (k')	1101	-1309	-946	-1203	1010
$s\phi$ ($k/'$)	0.54				0.54
$M_s\phi$ (k')	741				677
$M\phi$ (k')	974	-491	-313	-440	920
M (Imp) (k')	201	-101	-94	-132	194
$S_3(M\phi + M$ (Imp)) (k')	1959	-987	-679	-954	1857
M_a (k')	4941	-2985	-2113	-2805	4607
M_u (k')	5905				5254
$f_s\phi$ (non-comp) (ksi)	11.2	-19.8	-14.3	-18.2	11.5
$f_s\phi$ (comp) (ksi)	6.3				6.4
$f_s^2\phi$ ($k' \cdot Imp$) (ksi)	15.3	-15.0	-10.3	-14.5	16.2
f_s (Overload) (ksi)	32.7	-34.8	-24.6	-32.7	34.1
f_s (Total) (ksi)		-45.2	-32.0	-42.5	
VR (k)	54				56

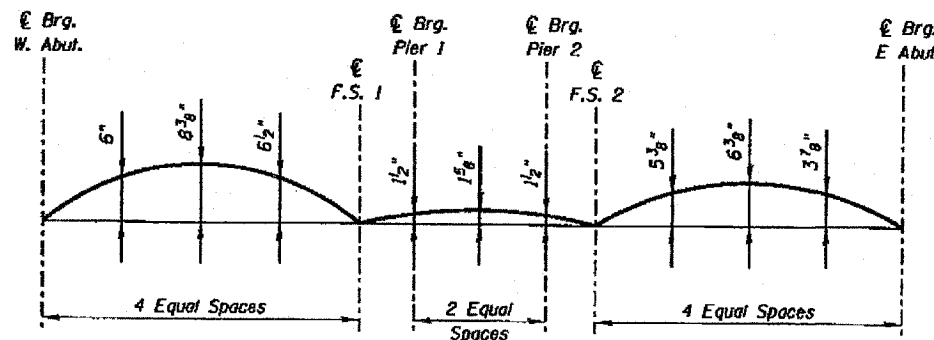
INTERIOR BEAM REACTION TABLE				
	W. Abut.	Pier 1	Pier 2	E. Abut.
$R\phi$ (k)	73	128	119	70
$R\phi$ (k)	42	61	59	42
Imp. (k)	8	18	18	8
R (Total) (k)	123	207	196	120

I_s and S_s are the moment of inertia and section modulus of the steel section used in computing f_s (Total & Overload).
 I_{cs} and S_{cs} are the moment of inertia and section modulus of the composite section used in computing stresses due to Live Load.
 I_{csw} and S_{csw} are the moment of inertia and section modulus of the composite section used in computing stresses due to superimposed dead loads. (see AASHTO 10.38)
 VR is the maximum Live Load + Impact shear range in span.
 Z is the plastic section modulus used to determine the fully plastic moments in the non-composite areas.
 M_a (Applied Moment) = $1.3[M\phi + M_s\phi + S_3(M\phi + M$ (Imp))].
 The Plastic Moment capacity (M_u) is computed according to AASHTO 10.48.1 and 10.50.1.1.
 f_s (Overload) is the sum of the stresses due to $M\phi + M_s\phi + S_3(M\phi + M$ (Imp)).
 f_s (Total) (Non-compact section) is the sum of the stresses due to $1.3[M\phi + M_s\phi + S_3(M\phi + M$ (Imp))].

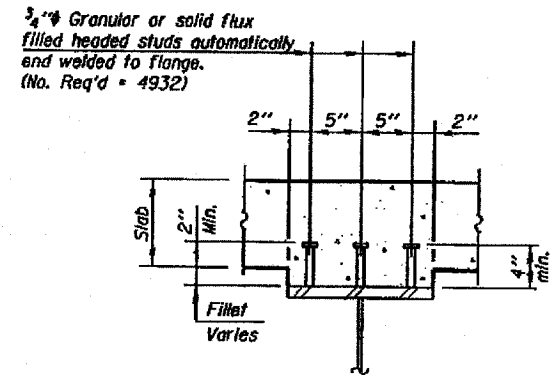
TOP OF WEB ELEVATIONS

(For Fabrication use only)

Girder No.	Brg. W. Abut.	F.S. 1	¢ Pier 1	¢ Pier 2	F.S. 2	Brg. E. Abut.
G1	10.056	12.457	12.540	12.431	12.268	9.751
G2	10.191	12.603	12.686	12.577	12.414	9.907
G3	10.327	12.747	12.831	12.723	12.560	10.063
G4	10.452	12.894	12.977	12.868	12.705	10.220
G5	10.587	13.036	13.123	13.025	12.866	10.376
G6	10.712	13.167	13.258	13.170	13.014	10.532
G7	10.806	13.282	13.373	13.285	13.129	10.657
G8	10.827	13.313	13.404	13.316	13.160	10.699
G9	10.702	13.195	13.290	13.212	13.059	10.595
G10	10.556	13.058	13.154	13.077	12.925	10.470
G11	10.400	12.912	13.008	12.931	12.779	10.334
G12	10.244	12.764	12.863	12.795	12.646	10.209



CAMBER DIAGRAM



SHEAR CONNECTORS DETAIL

NOTES:

All girders and splice plate material shall be AASHTO M 270 Grade 50.

Work this DWG. with DWGS. S-19 & S-21.

BILL OF MATERIAL

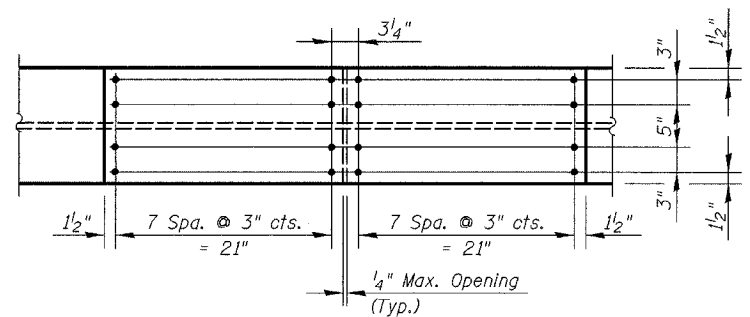
Item	Unit	Quantity
Furnishing And Erecting Structural Steel	Pound	711,168
Stud Shear Connectors	Each	4932

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION	
NAME	DATE	STEEL BEAM DETAILS	
		76TH STREET OVER FAI-94	
		FAP ROUTE 1541 SECTION 1818 R-9	
		COOK COUNTY	
		STATION 73+49.33	
		STRUCTURE NUMBER 016-2850	
REVISED	05/06/05	SCALE: NONE	DESIGNED BY: TB DRAWN BY: TL
		DATE: March 25, 2005	CHECKED BY: WPM CHECKED BY: WPM

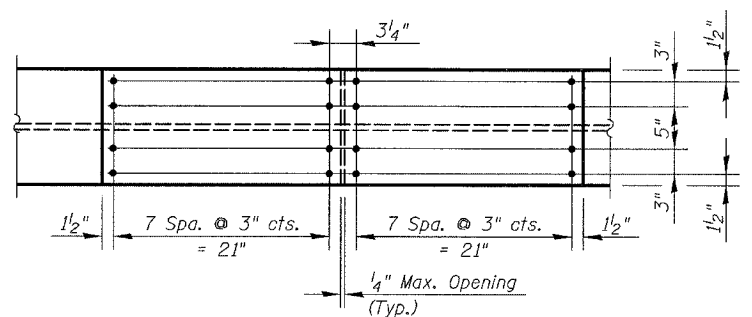
DWG. S-20 of 42

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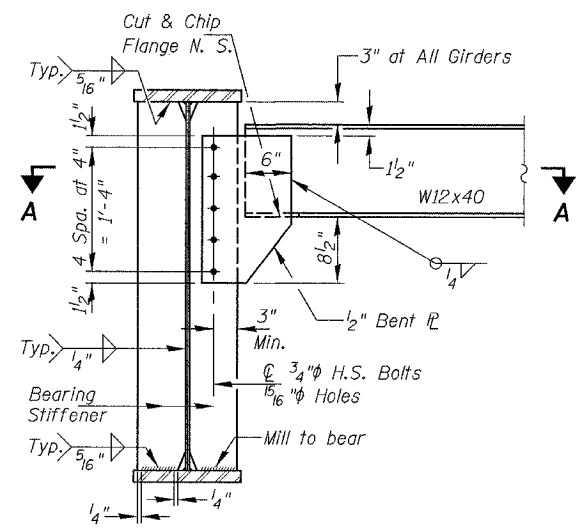
KNIGHT
Engineers & Architects



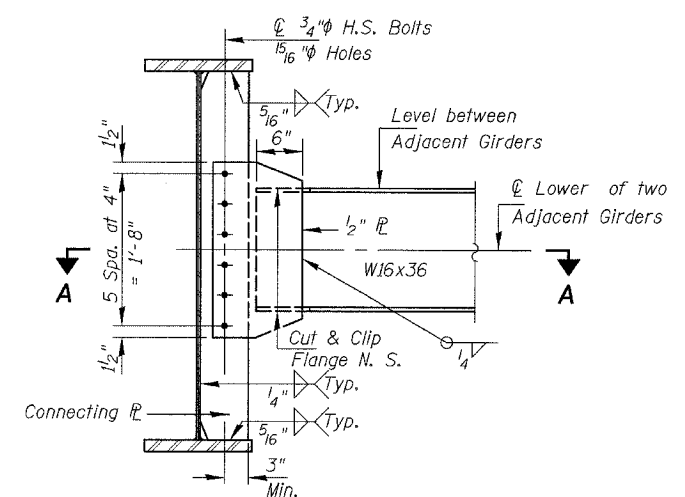
TOP FLANGE



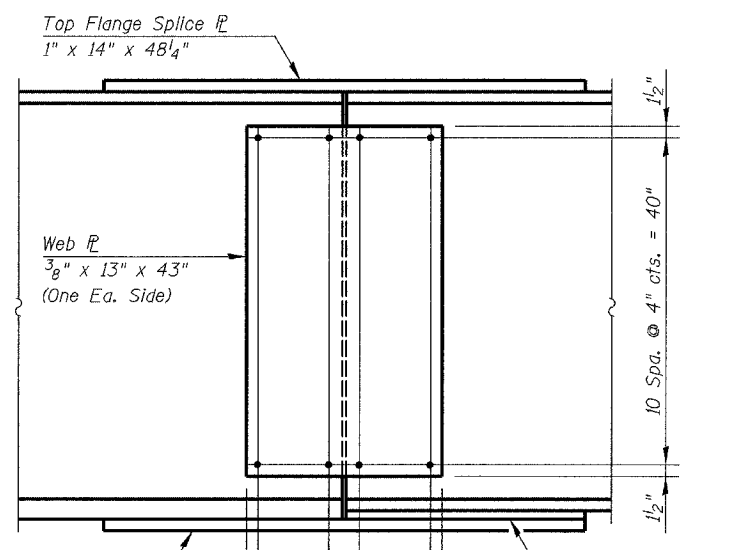
TOP FLANGE



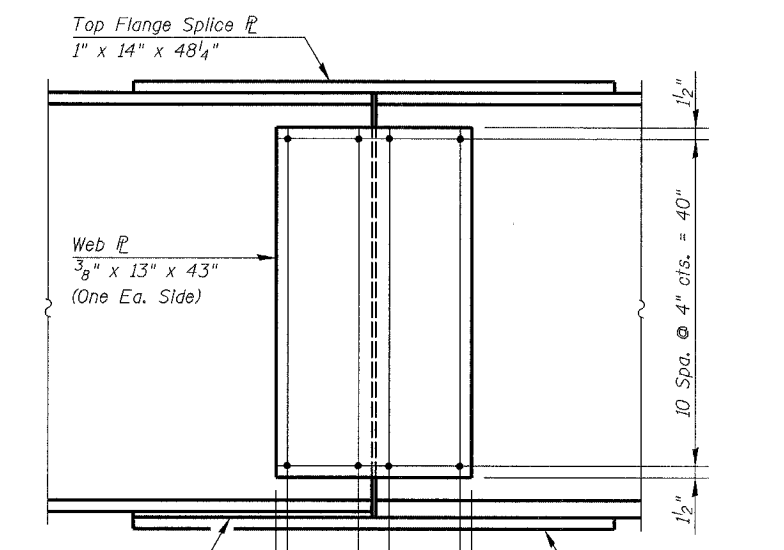
END DIAPHRAGM D1
22 Required



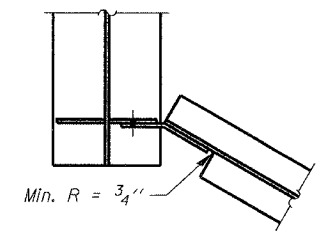
INTERIOR DIAPHRAGM D2
121 Required



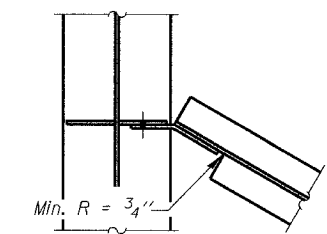
ELEVATION



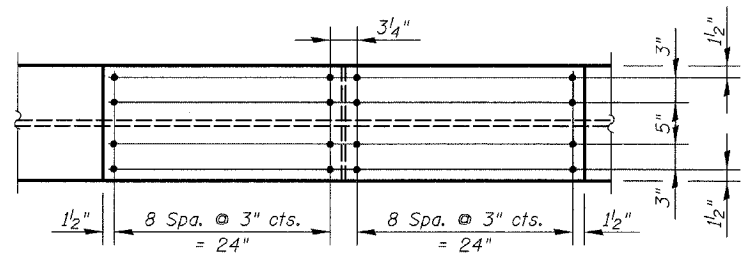
ELEVATION



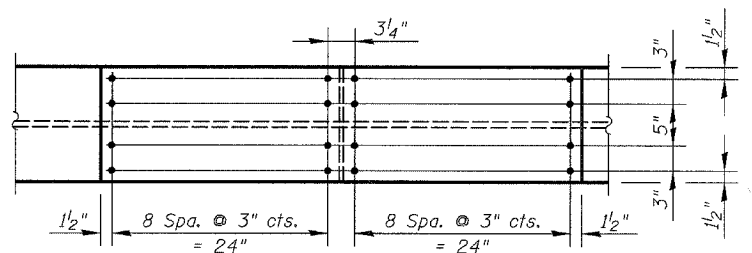
SECTION A-A



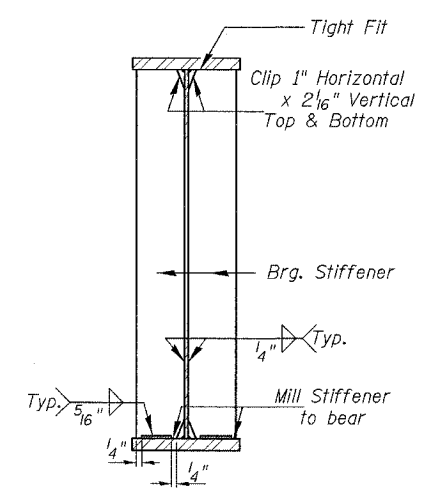
SECTION A-A



BOTTOM FLANGE
DETAIL OF SPLICE - FS1



BOTTOM FLANGE
DETAIL OF SPLICE - FS2



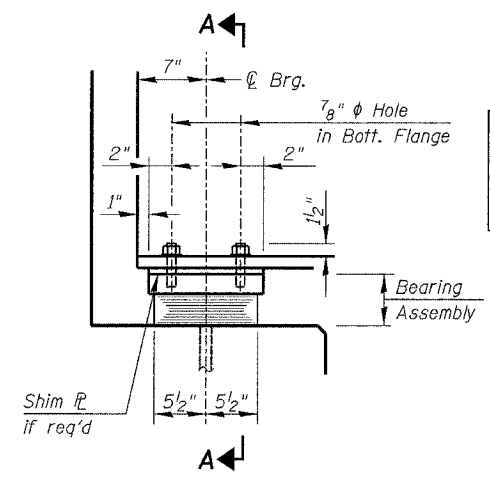
BEARING STIFFENER

NOTES:
 All girders and splice plate material shall be AASHTO M 270 Grade 50. All materials for splice plates, except fill plates, shall meet Notch Toughness Requirements.
 All diaphragms shall be AASHTO M 270 Grade 36.
 All splice bolts shall be 7/8 inch High Strength Bolts. All splice holes shall be 5/16 inch holes.
 Work this DWG. with DWGS. S-19 & S-20.

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION FIELD SPLICE & DIAPHRAGM DETAILS 76TH STREET OVER FAI-94 FAP ROUTE 1541 SECTION 1818 R-9 COOK COUNTY STATION 73+49.33 STRUCTURE NUMBER 016-2850
NAME	DATE	
		SCALE: NONE DESIGNED BY: TB DATE: March 25, 2005
		DRAWN BY: TL CHECKED BY: WPM

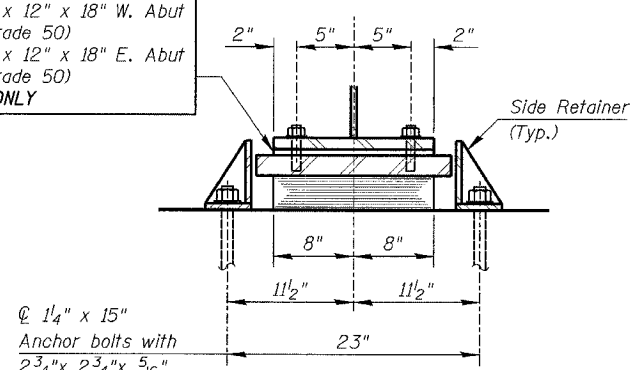
DWG. S-21 of 42

FILE: L:\6592.02\Cad\Structures\Roadway_Structures\Bridges\6592-S2850-BM03.dgn

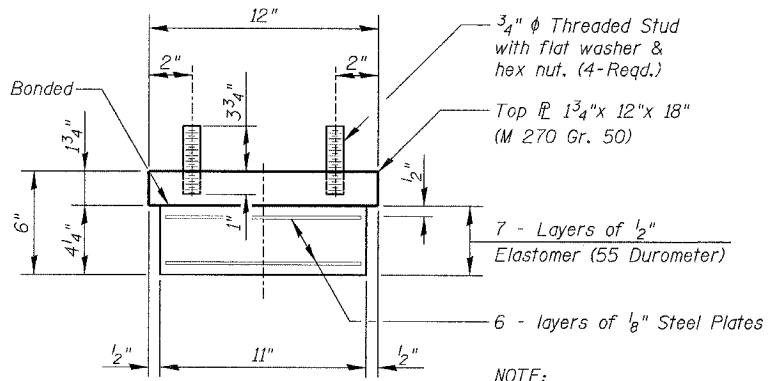


ELEVATION AT ABUTMENTS

Fill \varnothing 1/4" x 12" x 18" W. Abut (M 270 Grade 50)
 Fill \varnothing 1/2" x 12" x 18" E. Abut (M 270 Grade 50)
BEAM 8 ONLY

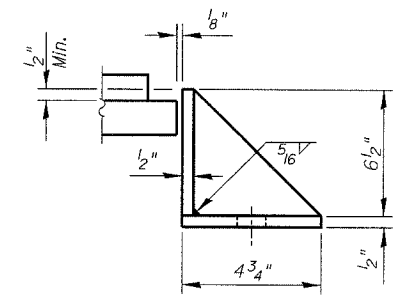
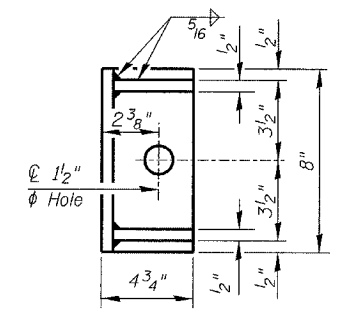


SECTION A-A



BEARING ASSEMBLY

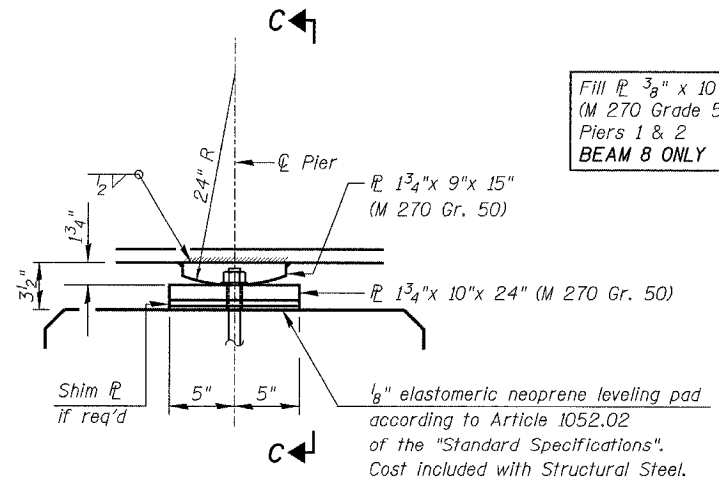
NOTE:
 Shim plates shall not be placed under Bearing Assembly



SIDE RETAINER AT ABUTMENTS

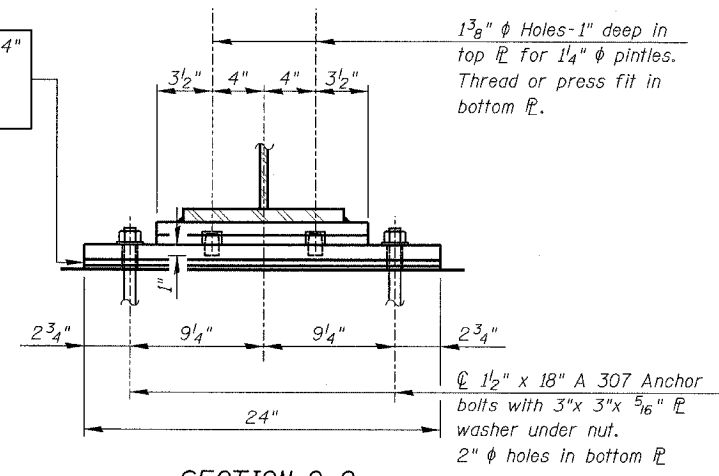
W. Abut 24 Required
 E. Abut. 24 Required

TYPE I ELASTOMERIC EXPANSION BEARING AT WEST ABUTMENT & EAST ABUTMENTS



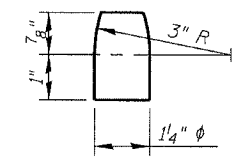
ELEVATION AT PIERS

Fill \varnothing 3/8" x 10" x 24" (M 270 Grade 50)
 Piers 1 & 2
BEAM 8 ONLY



SECTION C-C

FIXED BEARING AT PIER 1 & 2



PINTLE

(M270, Gr 50)

Notes:

- Anchor bolts at fixed bearings may be built into the masonry.
- See DWG. S-24 for Anchor Bolt installation.
- Furnishing and Installation of Side Retainers and Anchor Bolts included with "Furnishing and Erecting Structural Steel".
- Cost of all plates, pintles and anchor bolts for fixed bearings included with "Furnishing and Erecting Structural Steel".

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	24

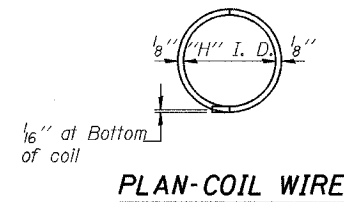
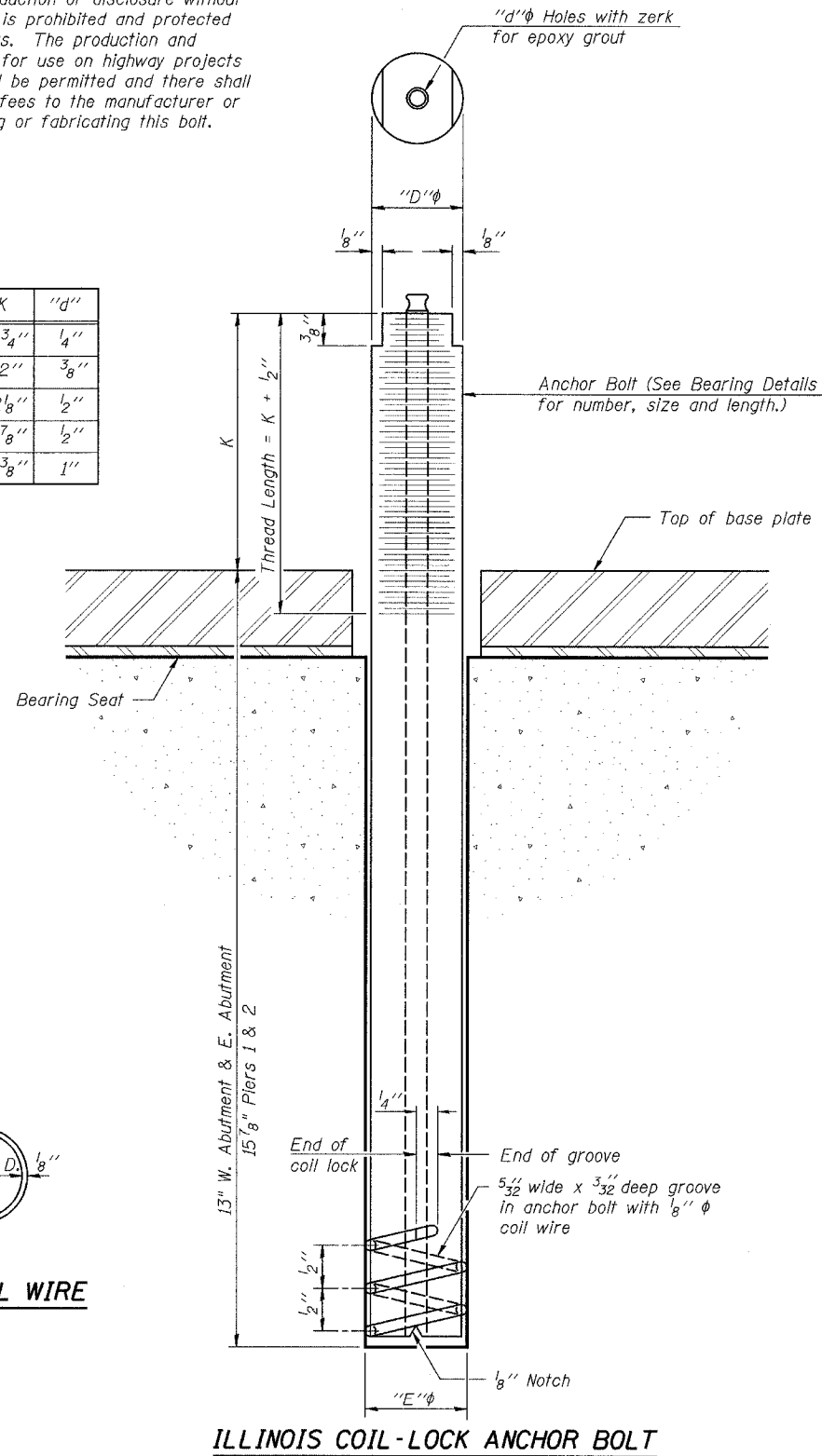
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
BEARING DETAILS
 76TH STREET OVER FAI-94
 FAP ROUTE 1541 SECTION 1818 R-9
 COOK COUNTY
 STATION 73+49.33
 STRUCTURE NUMBER 016-2850
 SCALE: NONE DESIGNED BY: TB DRAWN BY: TL
 DATE: March 25, 2005 CHECKED BY: WPM CHECKED BY: WPM

DWG. S-22 of 42

The Illinois Coil-Lock Anchor Bolt is a proprietary item which is the property of the Illinois Department of Transportation. Use, reproduction or disclosure without express written permission is prohibited and protected under Federal copyright laws. The production and the fabrication of this bolt for use on highway projects in the State of Illinois shall be permitted and there shall be no incurred charges or fees to the manufacturer or the fabricator for producing or fabricating this bolt.

D	E	H	K	"d"
1"	1 1/8"	1 3/16"	1 3/4"	1/4"
1 1/4"	1 3/8"	1 1/16"	2"	3/8"
1 1/2"	1 5/8"	1 5/16"	2 1/8"	1/2"
2"	2 1/8"	1 3/16"	2 7/8"	1/2"
2 1/2"	2 5/8"	2 5/16"	3 3/8"	1"



MATERIALS FOR ILLINOIS COIL-LOCK ANCHOR BOLT

The anchor bolt shall be fabricated from cold drawn or hot finished seamless carbon steel mechanical tubing conforming to ASTM A 519, Grade 1026, CW and supplied with hexagonal nuts and cut washers.
 The coil wire shall be made of any suitable soft steel wire.
 The finished anchor bolt shall be cleaned of rust and other foreign materials and wrapped or packaged to prevent contamination until they are installed.
 The epoxy grout shall be a two-component, epoxy resin bonding system conforming to ASTM C 881, Type I, Grade 1 and of a Class suitable for the temperature at installation.

INSTALLATION PROCEDURE for the ILLINOIS COIL-LOCK ANCHOR BOLT

1. With the coil wire in place, the bolt shall be inserted into the hole and turned clockwise to a snug fit in the hole. Nut and washer shall be placed on the bolt. The nut shall be tensioned until the steel base plates are held securely to the concrete bearing seat.
2. Epoxy grout shall be pumped through the zerk fitting with a pressure gun. Pumping shall continue until the epoxy overflows the hole around the bolt shank. After pumping is discontinued, excess epoxy shall be immediately wiped off.

ALTERNATE ANCHOR BOLTS

The Contractor may use, at his option, the capsule or the adhesive cartridge type anchor rods that have been previously tested and given a prior approval by the Department. The Contractor shall install these anchor rods in pre-drilled holes according to the manufacturer's recommendations and procedures.
 The capsule or the adhesive cartridge type anchor rods shall be a two part system composed of:
 1. A threaded rod stud with nut and washer of the type specified.
 2. A sealed glass capsule or a sealed glass adhesive cartridge containing premeasured amounts of the adhesive chemical.

Location	Type
Abutments	A307
Piers	A307

ASTM F 1554 Grade 105, ASTM A 449 and AASHTO M 314 Grade 105 anchor bolts may be substituted for the anchor bolts shown above.

GENERAL NOTES

Holes in the masonry for anchor bolts shall be drilled through the base plates to the diameter and depth shown or according to the manufacturer's recommendation after beams or girders have been erected and adjusted.
 Prior to setting the bolts, the holes shall be dry and all dust and loose particles shall be removed by the use of compressed air or vacuuming.
 The anchor bolts, furnished and installed and including the epoxy grout or capsules shall not be paid for separately but shall be included in the unit bid price for Furnishing and Erecting Structural Steel.

DWG. S-23 of 42

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
ANCHOR BOLT DETAILS
 76TH STREET OVER FAI-94
 FAP ROUTE 1541 SECTION 1818 R-9
 COOK COUNTY
 STATION 73+49.33
 STRUCTURE NUMBER 016-2850
 SCALE: NONE DESIGNED BY: TB DRAWN BY: TL
 DATE: March 25, 2005 CHECKED BY: WPM CHECKED BY: WPM

FILE: L:\6592.02\Coil Lockers\Roadway Structures\Bridges\6592-52850-ANB01.dgn

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	*	COOK	907	694
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
(1516.1, 1717 & 1818) R-9		62695		

BEARING SEAT ELEVATIONS

GIRDER	BRG. SEAT ELEVATION	STEP T- inch
G1	5.58	1 ⁵ / ₈ "
G2	5.71	1 ⁵ / ₈ "
G3	5.85	1 ¹ / ₂ "
G4	5.97	1 ⁵ / ₈ "
G5	6.11	1 ¹ / ₂ "
G6	6.23	1 ¹ / ₈ "
G7	6.33	0
G8	6.33	1 ¹ / ₄ "
G9	6.22	1 ³ / ₄ "
G10	6.08	1 ⁷ / ₈ "
G11	5.92	1 ⁷ / ₈ "
G12	5.76	1 ⁷ / ₈ "

TOP OF BACK WALL ELEVATIONS

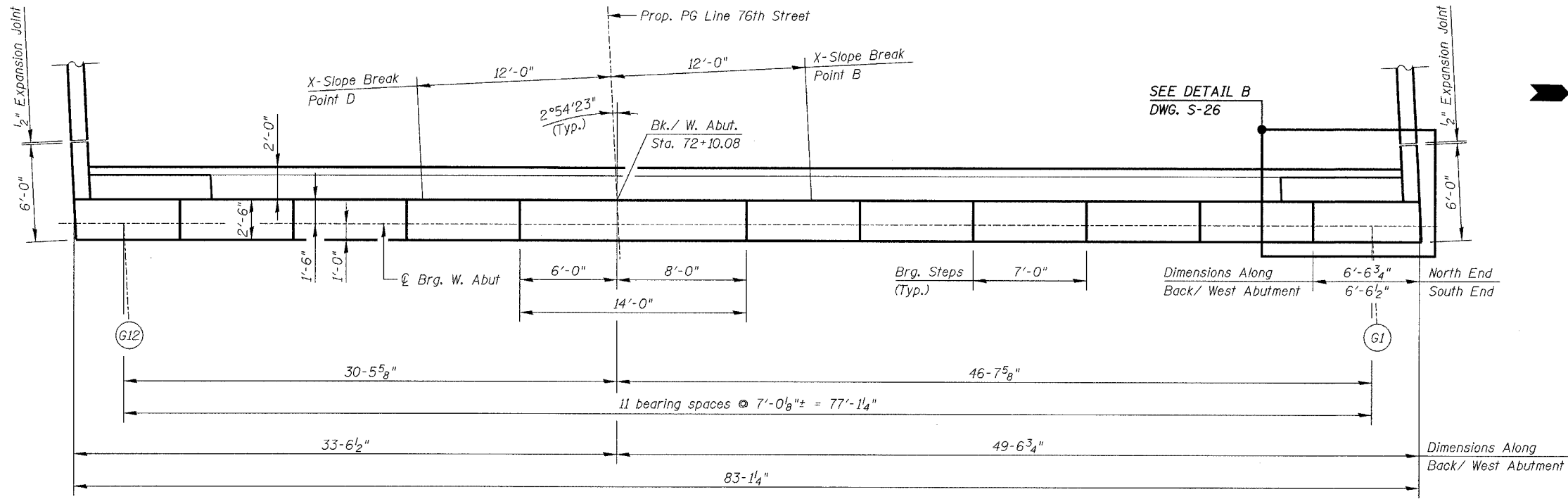
POINTS	FRONT FACE	BACK FACE
A - North Curb Line	10.88	10.82
B - X-Slope Break	11.43	11.37
C - Crown	11.59	11.53
D - X-Slope Break	11.38	11.32
E - South Curb Line	11.08	11.03

- Notes:**
- Space reinforcement in cap to miss anchor bolts.
 - Pour steps monolithically with cap.
 - Reinforcement Bars designated (E) shall be epoxy coated.
 - Bars indicated thus 20x3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
 - Cost of conduit sleeves in backwall included with "Concrete Structures".
 - Estimated Soil Bearing Pressure = 5 ksf.
 - Work this DWG. with DWGS. S-25 thru S-27 & S-32.

DWG. S-24 of 42

ILLINOIS DEPARTMENT OF TRANSPORTATION
WEST ABUTMENT TOP PLAN & ELEVATION
 76TH STREET OVER FAI-94
 FAP ROUTE 1541 SECTION 1818 R-9
 COOK COUNTY
 STATION 73+49.33
 STRUCTURE NUMBER 016-2850
 SCALE: NONE
 DATE: March 25, 2005
 DESIGNED BY: TB
 CHECKED BY: WPM
 DRAWN BY: TL
 CHECKED BY: WPM

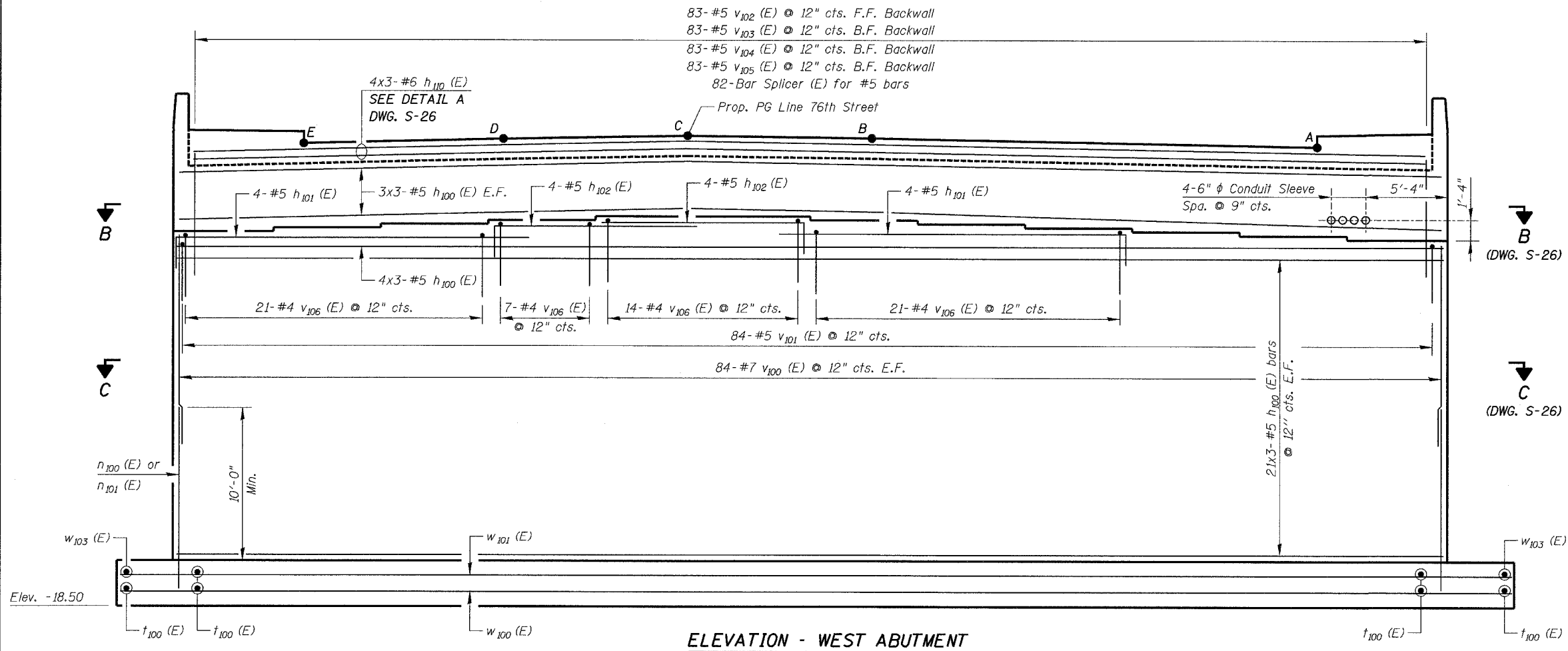
REVISIONS	
NAME	DATE



TOP PLAN - WEST ABUTMENT

- 83-#5 v₁₀₂ (E) @ 12" cts. F.F. Backwall
- 83-#5 v₁₀₃ (E) @ 12" cts. B.F. Backwall
- 83-#5 v₁₀₄ (E) @ 12" cts. B.F. Backwall
- 83-#5 v₁₀₅ (E) @ 12" cts. B.F. Backwall
- 82-Bar Splicer (E) for #5 bars

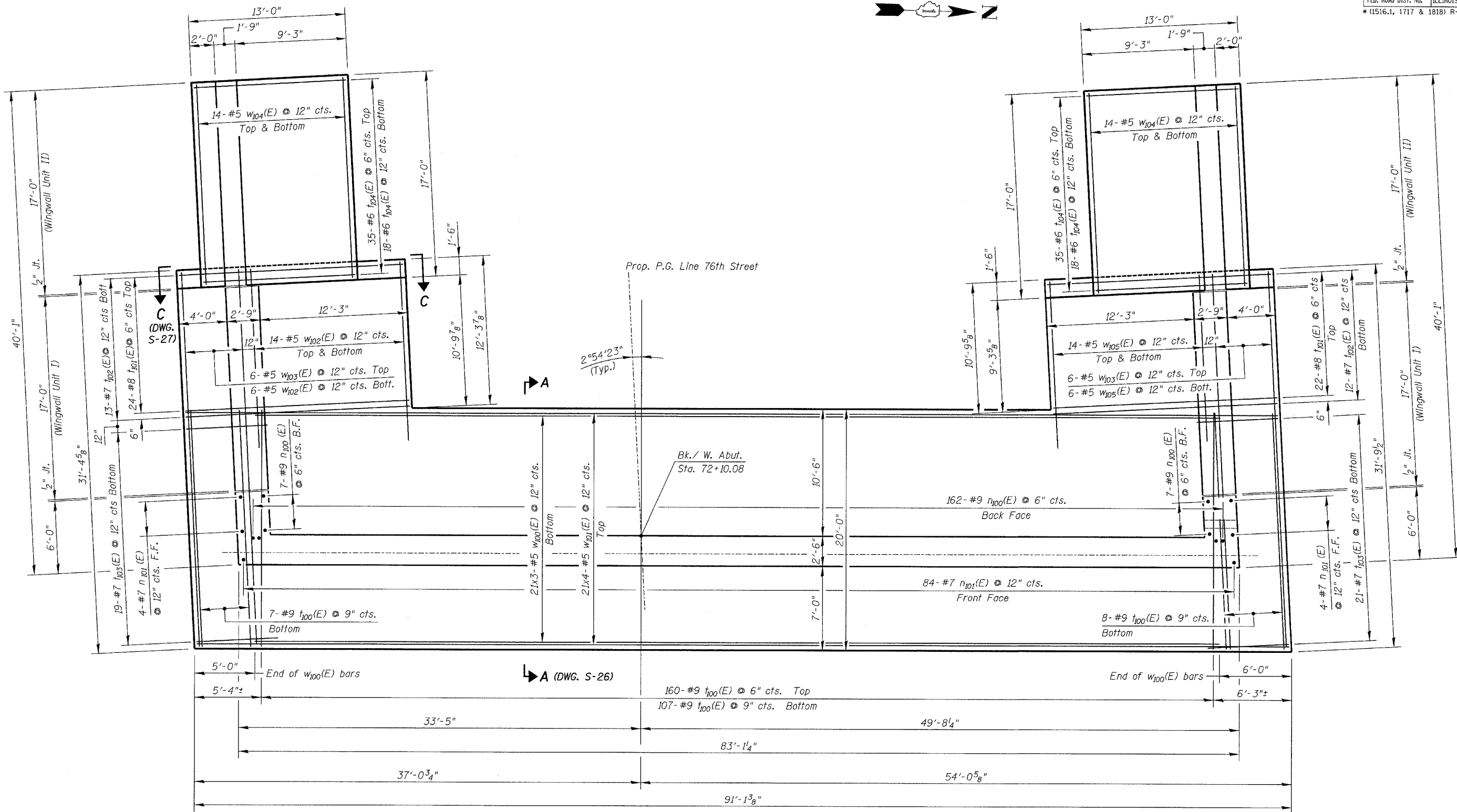
ELEVATION - WEST ABUTMENT



- Legend**
- E.F. = Each Face
 - F.F. = Front Face
 - B.F. = Back Face
- Min. Bar Laps:**
- #5 = 1'-8"
 - #6 = 2'-0"
 - #7 = 2'-9"
- Vert./Horiz. Bars**
- #5 = 2'-5"
 - #6 = 2'-10"
- Horiz. Top Bars**
- #5 = 2'-5"
 - #6 = 2'-10"

KNIGHT
 Engineers & Architects

FILE: L:\6592.02\Conf\Structures\Roadway_S\Structures\Bridges\6592-2850-16\W01.dgn



FOOTING PLAN - WEST ABUTMENT

DWG. S-25 of 42



Legend	Min. Bar Laps:	Vert./Horiz. Bars	Horiz. Top Bars
E.F. = Each Face	#5 = 1'-8"	#5 = 1'-8"	#5 = 2'-5"
F.F. = Front Face	#6 = 2'-0"	#6 = 2'-0"	#6 = 2'-10"
B.F. = Back Face	#7 = 2'-9"	#7 = 2'-9"	

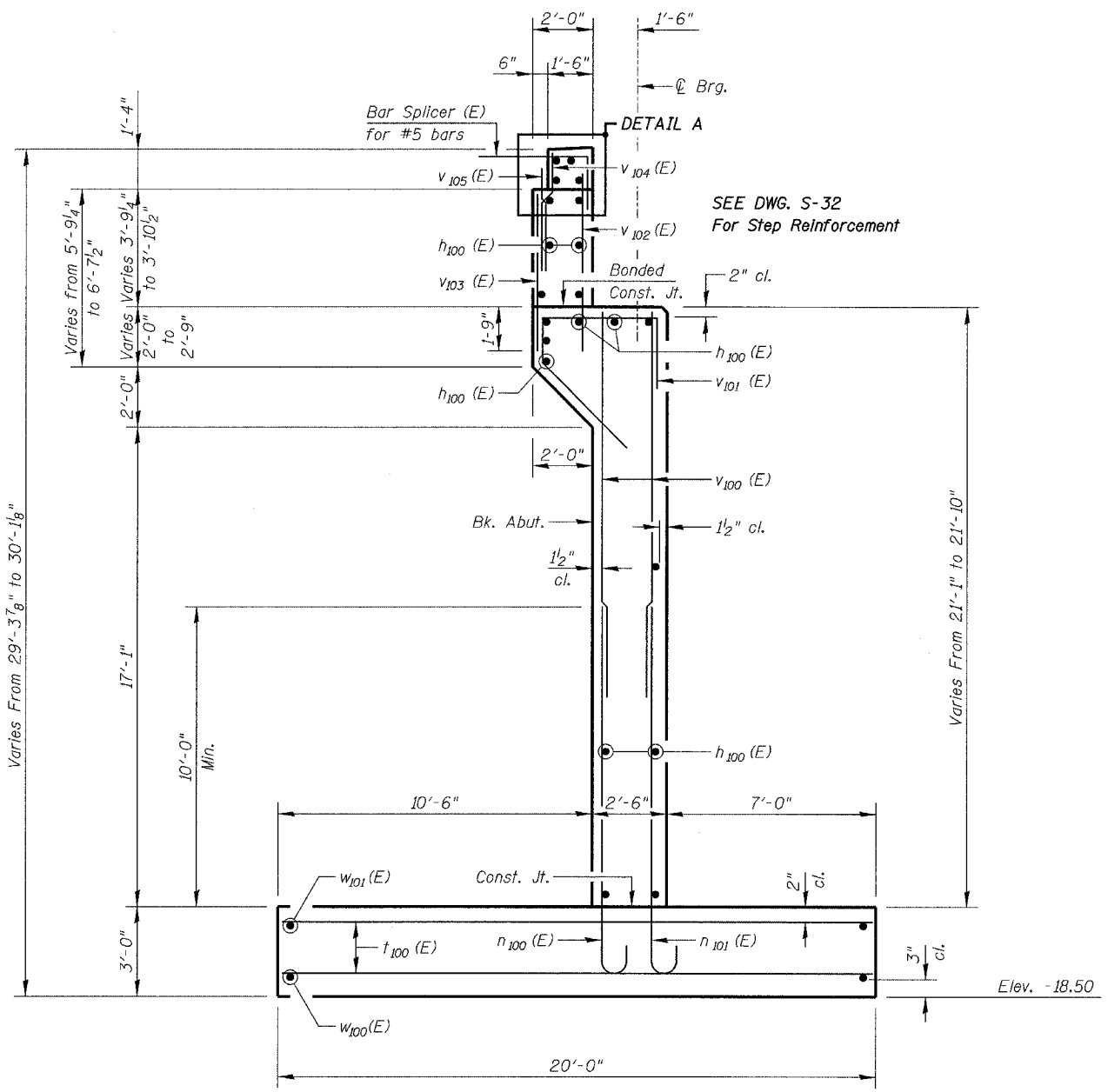
Notes:
 Reinforcement Bars designated (E) shall be epoxy coated.
 Estimated Soil Bearing Pressure = 5 ksf.
 Work this DWG. with DWGS. S-24, S-26, S-27 & S-32.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
WEST ABUTMENT FOOTING PLAN
 76TH STREET OVER FAI-94
 FAP ROUTE 1541 SECTION 1818 R-9
 COOK COUNTY
 STATION 73+49.33
 STRUCTURE NUMBER 016-2850
 SCALE: NONE
 DATE: March 25, 2005
 DESIGNED BY: TB
 CHECKED BY: WPM
 DRAWN BY: TL
 CHECKED BY: WPM

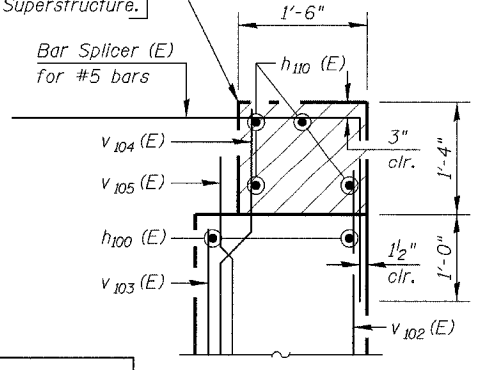
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	*	COOK	907	1090
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
(1516.1, 1717 & 1818) R-9		62695		

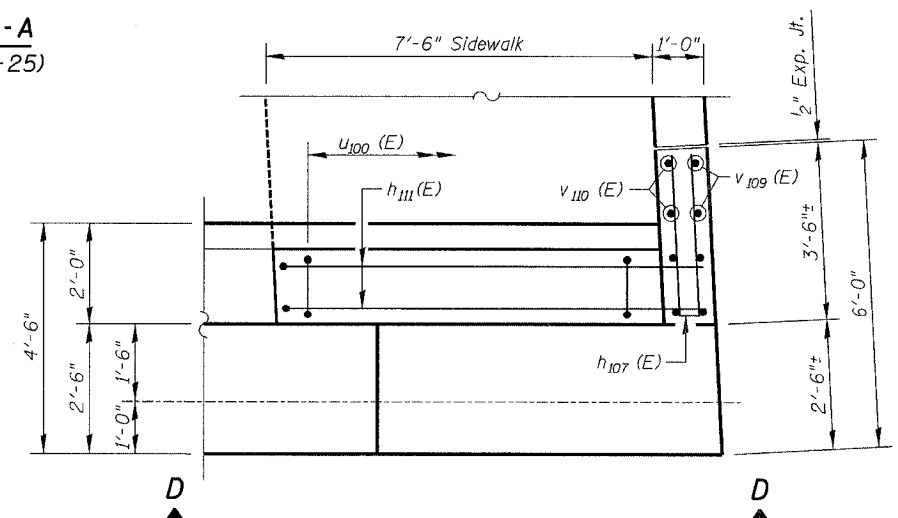


SECTION A-A
(From DWG. S-25)

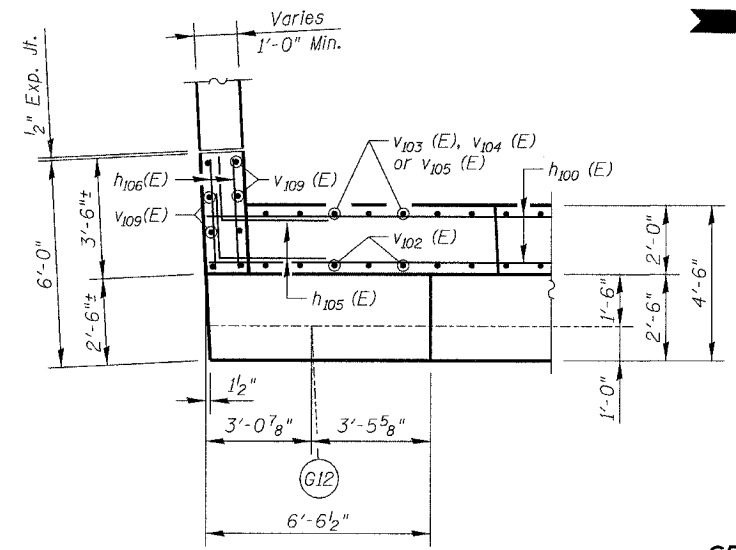
Hatched area to be poured after superstructure forms have been removed. Quantity of concrete included with Concrete Superstructure.



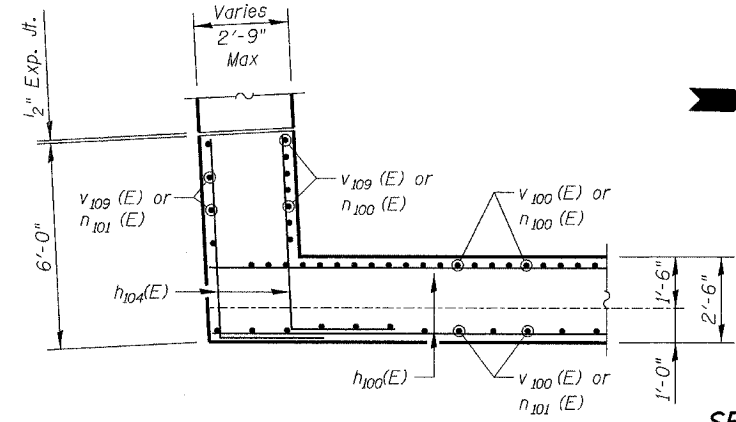
DETAIL A



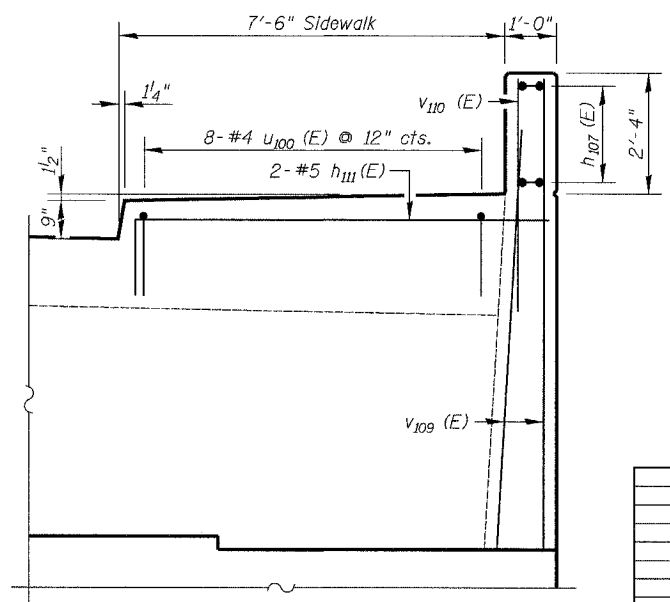
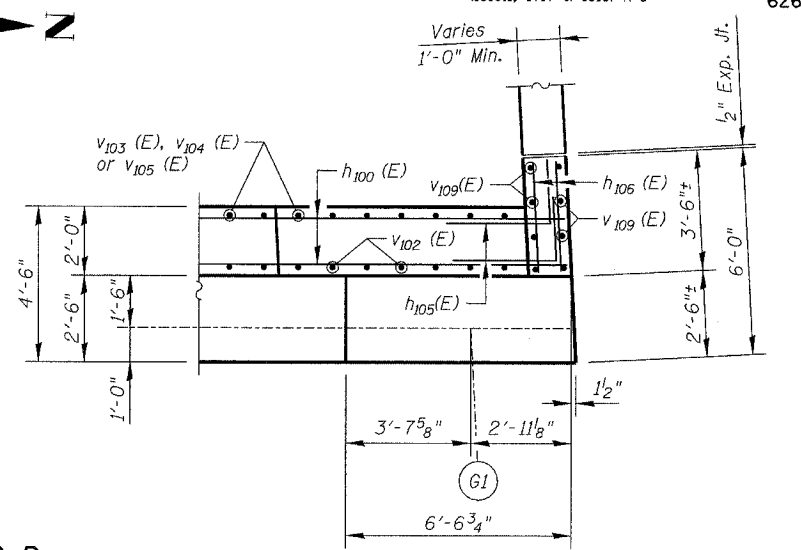
DETAIL B - PLAN
(From DWG. S-24)



SECTION B-B
(From DWG. S-24)



SECTION C-C
(From DWG. S-24)



SECTION D-D - ELEVATION

Notes:
Reinforcement Bars designated (E) shall be epoxy coated.
Estimated Soil Bearing Pressure = 5 ksf.
Work this DWG. with DWGS. S-24, S-25, S-27 & S-32.

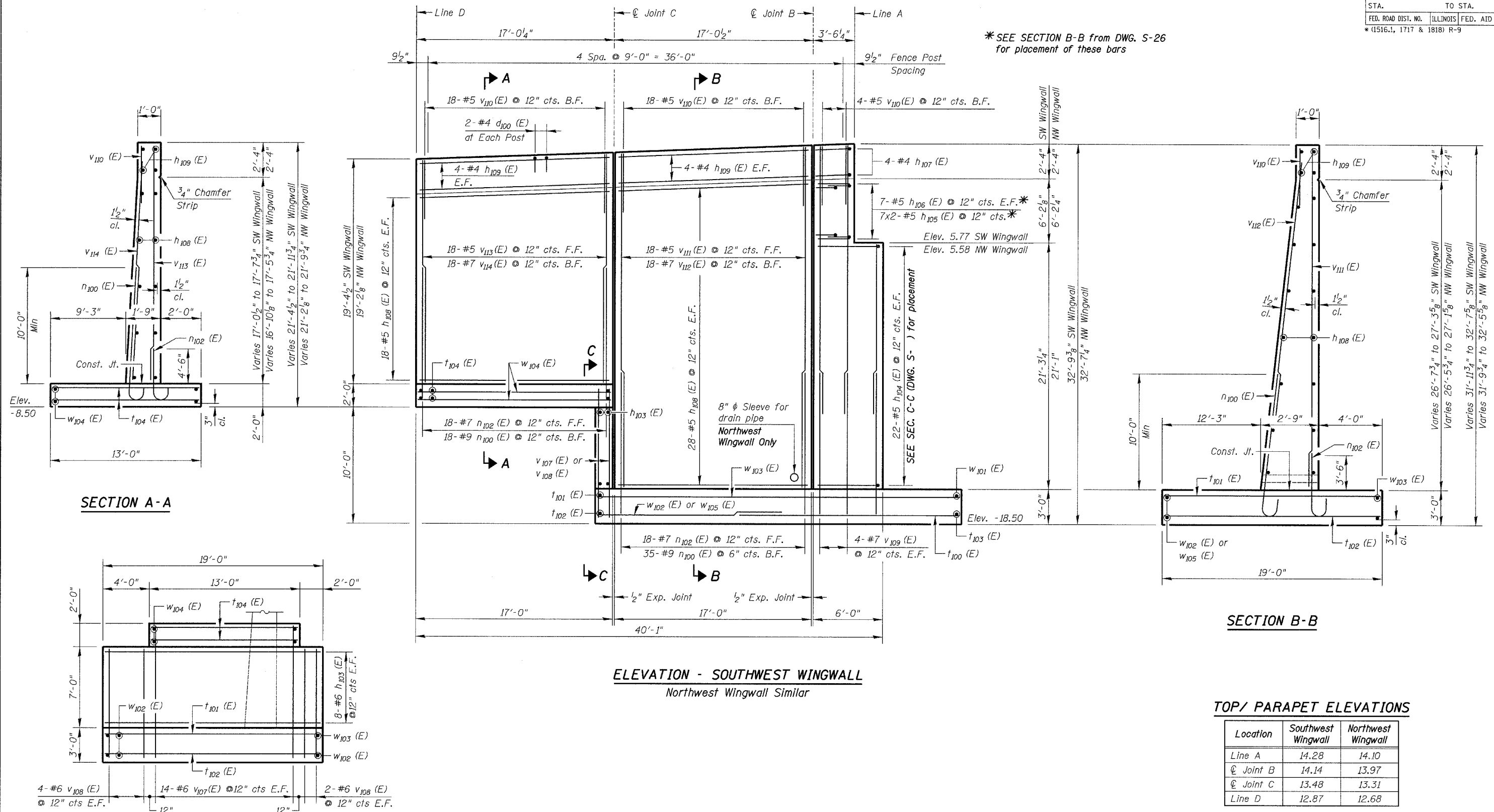
REVISIONS	
NAME	DATE

DWG. S-26 of 42
ILLINOIS DEPARTMENT OF TRANSPORTATION
WEST ABUTMENT SECTIONS & DETAILS
76TH STREET OVER FAI-94
FAP ROUTE 1541 SECTION 1818 R-9
COOK COUNTY
STATION 73+49.33
STRUCTURE NUMBER 016-2850
SCALE: NONE
DESIGNED BY: TB
DRAWN BY: TL
DATE: March 25, 2005
CHECKED BY: WPM
CHECKED BY: WPM

FILE: L:\16592.02\16592\Roadway Structures\Bridges\6592-52850-ABW03.dgn

KNIGHT
Engineers & Architects

* SEE SECTION B-B from DWG. S-26 for placement of these bars



TOP/ PARAPET ELEVATIONS

Location	Southwest Wingwall	Northwest Wingwall
Line A	14.28	14.10
Joint B	14.14	13.97
Joint C	13.48	13.31
Line D	12.87	12.68

DWG. S-27 of 42

Notes:
 Reinforcement Bars designated (E) shall be epoxy coated.
 Cost of drain pipe sleeve included with "Concrete Structure".
 Estimated Soil Bearing Pressure = 5 ksf.
 Work this DWG. with DWGS. S-24 thru S-26 & S-32.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
WEST ABUTMENT WINGWALLS
 76TH STREET OVER FAI-94
 FAP ROUTE 1541 SECTION 1818 R-9
 COOK COUNTY
 STATION 73+49.33
 STRUCTURE NUMBER 016-2850
 SCALE: NONE
 DATE: March 25, 2005
 DESIGNED BY: TB
 CHECKED BY: WPM
 DRAWN BY: TL
 CHECKED BY: WPM

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

Min. Bar Laps:
 #5 = 1'-8"
 #6 = 2'-0"
 #7 = 2'-9"

Vert./Horiz. Bars
 #5 = 2'-5"
 #6 = 2'-10"

KNIGHT
 Engineers & Architects

FILE: L:\15592.02\Cad\Sheets\Roadway Structures\Bridges\6592-52850-1818R-9.dgn

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	*	COOK	903	693
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
* (1516.1, 1717 & 1818) R-9		62695		



BEARING SEAT ELEVATIONS

GIRDER	BRG. SEAT ELEVATION	STEP T- inch
G1	5.29	1 7/8"
G2	5.45	1 7/8"
G3	5.61	1 7/8"
G4	5.76	1 7/8"
G5	5.92	1 7/8"
G6	6.07	1 7/8"
G7	6.20	1 1/2"
G8	6.20	0
G9	6.14	3/4"
G10	6.01	1 1/2"
G11	5.88	1 5/8"
G12	5.75	1 1/2"

TOP OF BACK WALL ELEVATIONS

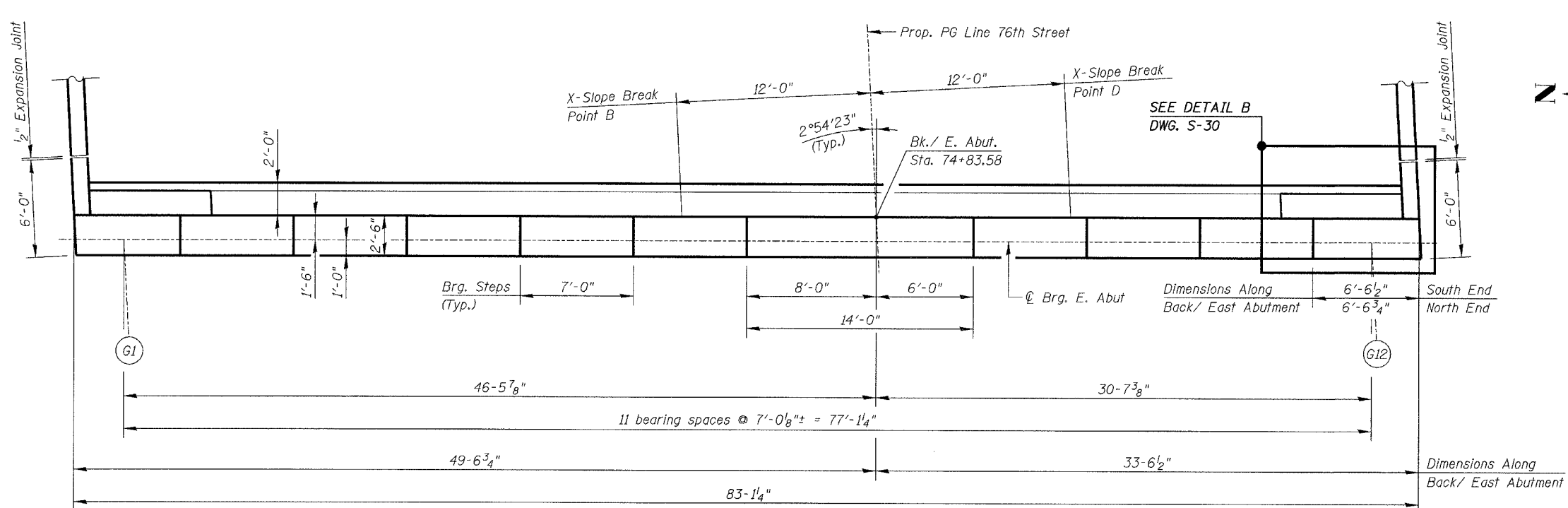
POINTS	FRONT FACE	BACK FACE
A - North Curb Line	10.60	10.56
B - X-Slope Break	11.25	11.21
C - Crown	11.46	11.41
D - X-Slope Break	11.29	11.24
E - South Curb Line	11.04	10.99

Notes:
 Space reinforcement in cap to miss anchor bolts.
 Pour steps monolithically with cap.
 Reinforcement Bars designated (E) shall be epoxy coated.
 Bars indicated thus 20x3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
 Cost of conduit sleeves in backwall included with "Concrete Structures".
 Estimated Soil Bearing Pressure = 5 ksf.
 Work this DWG. with DWGS. S-29 thru S-32.

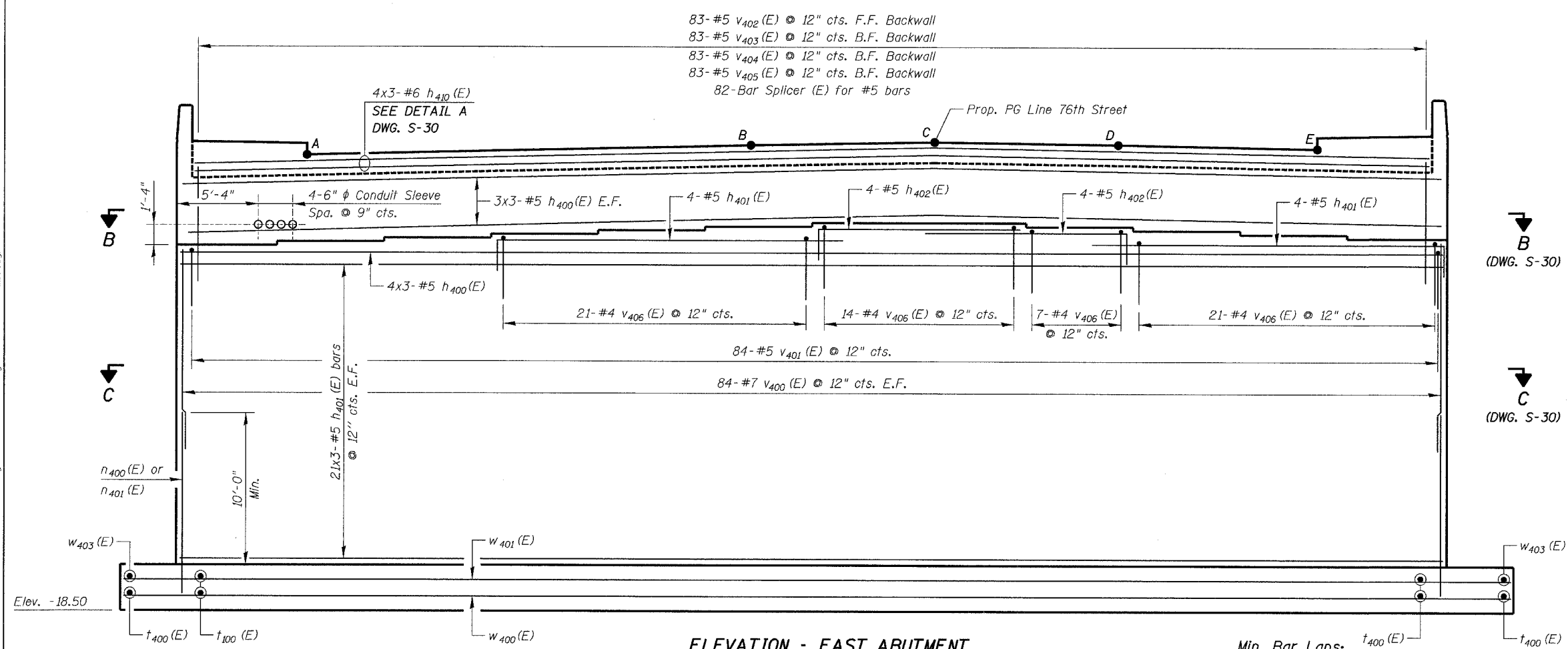
DWG. S-28 of 42

ILLINOIS DEPARTMENT OF TRANSPORTATION
EAST ABUTMENT TOP PLAN & ELEVATION
 76TH STREET OVER FAI-94
 FAP ROUTE 1541 SECTION 1818 R-9
 COOK COUNTY
 STATION 73+49.33
 STRUCTURE NUMBER 016-2850
 SCALE: NONE DESIGNED BY: TB DRAWN BY: TL
 DATE: March 25, 2005 CHECKED BY: WPM CHECKED BY: WPM

REVISIONS	
NAME	DATE



TOP PLAN - EAST ABUTMENT



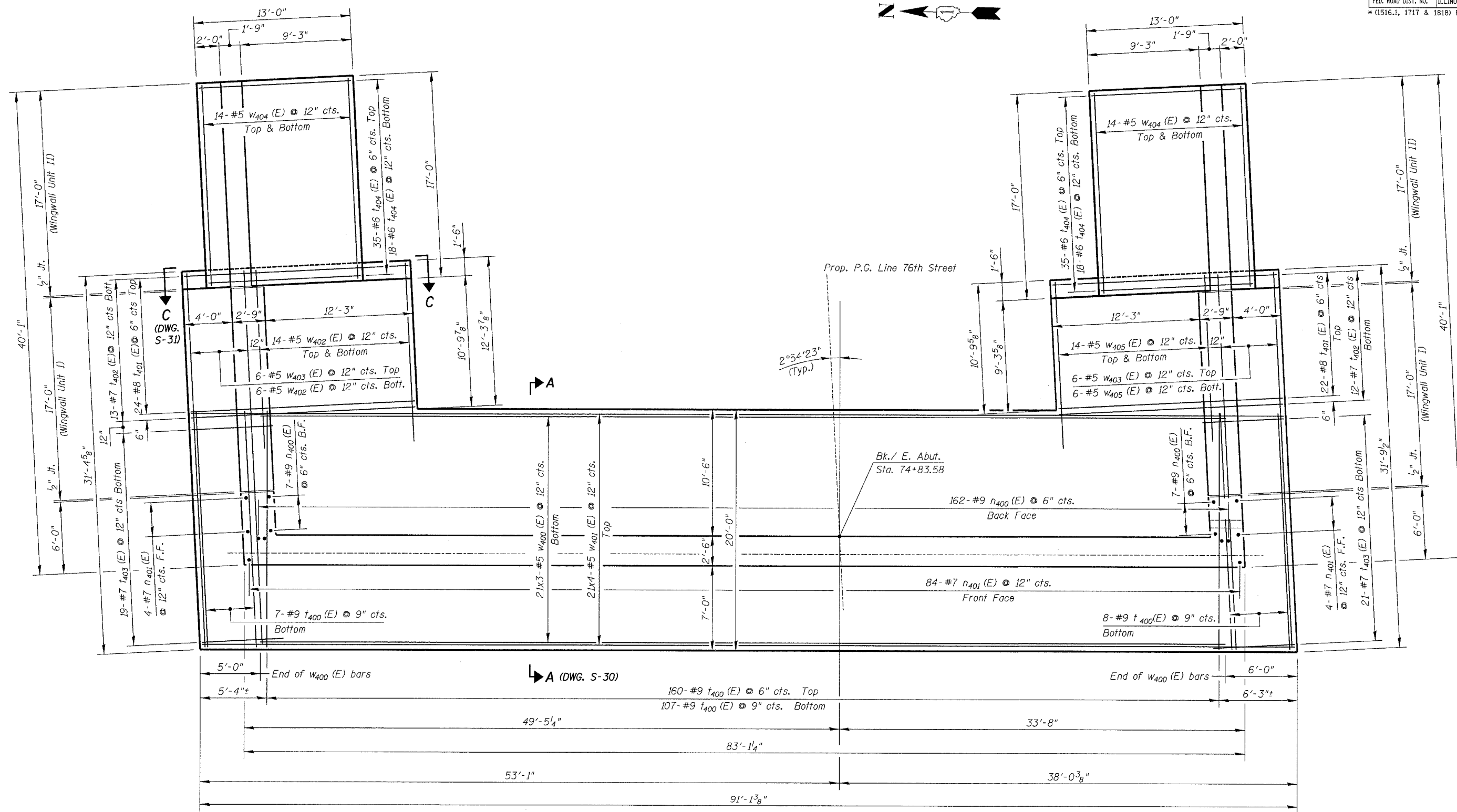
ELEVATION - EAST ABUTMENT

Legend
 E.F. = Each Face #5 = 1'-8" #5 = 2'-5"
 F.F. = Front Face #6 = 2'-0" #6 = 2'-10"
 B.F. = Back Face #7 = 2'-9"

Min. Bar Laps: t₄₀₀(E)



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FOOTING PLAN - EAST ABUTMENT

DWG. S-29 of 42



Legend	Min. Bar Laps:	Vert./Horiz. Bars	Horiz. Top Bars
E.F. = Each Face	#5 = 1'-8"	#5 = 2'-5"	#5 = 2'-5"
F.F. = Front Face	#6 = 2'-0"	#6 = 2'-10"	#6 = 2'-10"
B.F. = Back Face	#7 = 2'-9"		

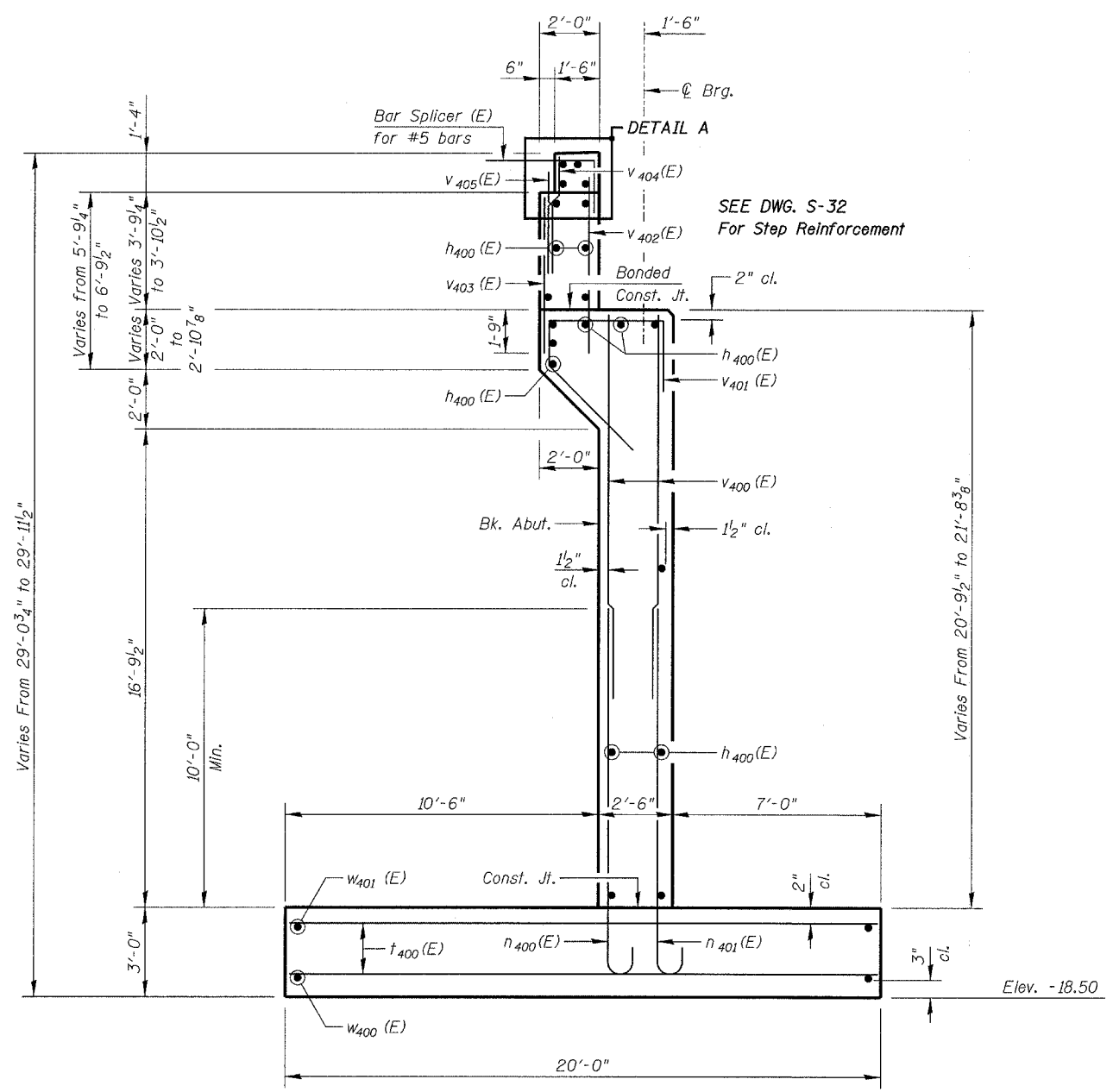
Notes:
 Reinforcement Bars designated (E) shall be epoxy coated.
 Estimated Soil Bearing Pressure = 5 ksf.
 Work this DWG. with DWGS. S-28 & S-30 thru S-32.

REVISIONS	
NAME	DATE

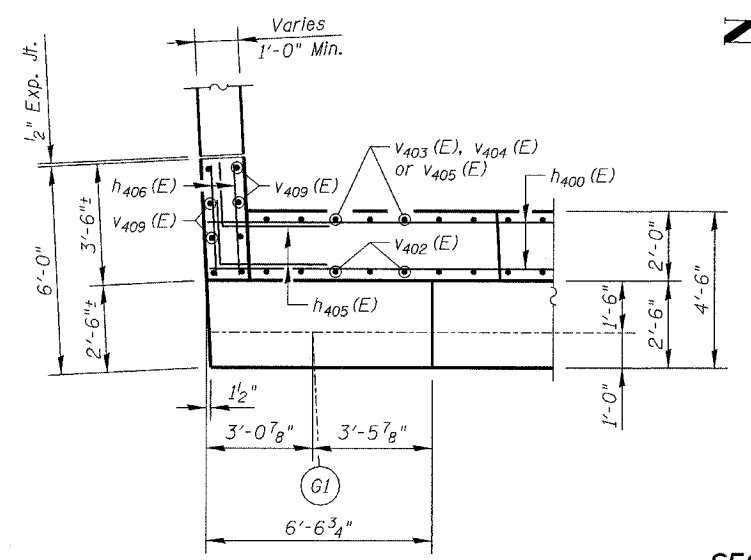
ILLINOIS DEPARTMENT OF TRANSPORTATION
EAST ABUTMENT FOOTING PLAN
 76TH STREET OVER FAI-94
 FAP ROUTE 1541 SECTION 1818 R-9
 COOK COUNTY
 STATION 73+49.33
 STRUCTURE NUMBER 016-2850
 SCALE: NONE DESIGNED BY: TB DRAWN BY: TL
 DATE: March 25, 2005 CHECKED BY: WPM CHECKED BY: WPM

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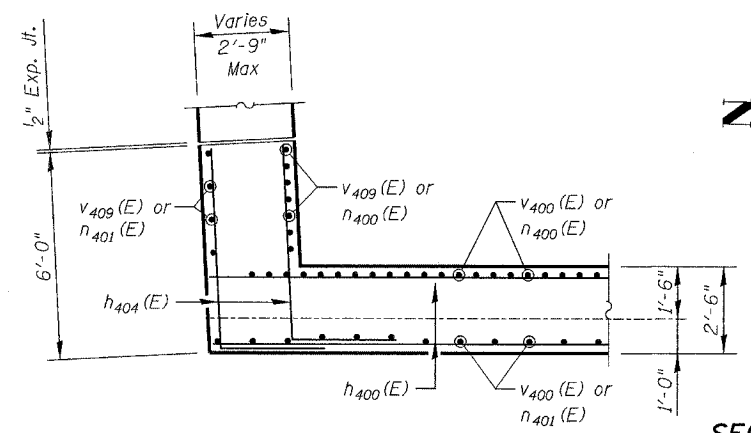
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94	*	COOK	007	00
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
(1516.1, 1717 & 1818) R-9		62695		



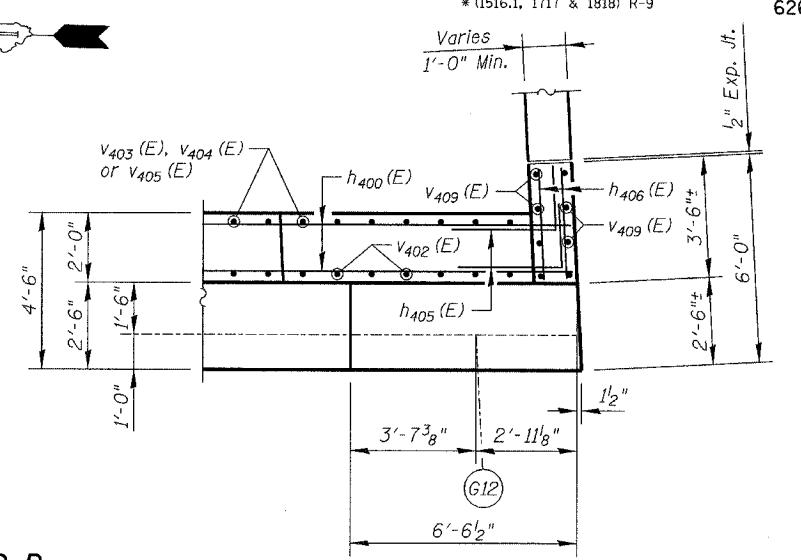
SECTION A-A
(From DWG. S-29)



SECTION B-B
(From DWG. S-28)

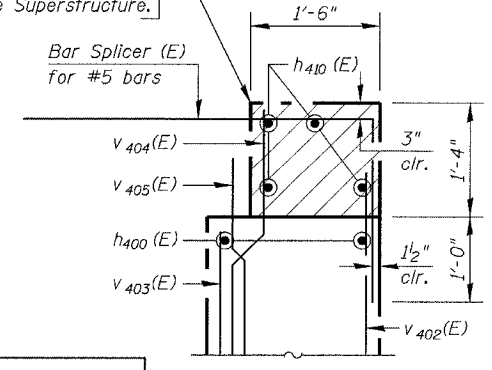


SECTION C-C
(From DWG. S-28)

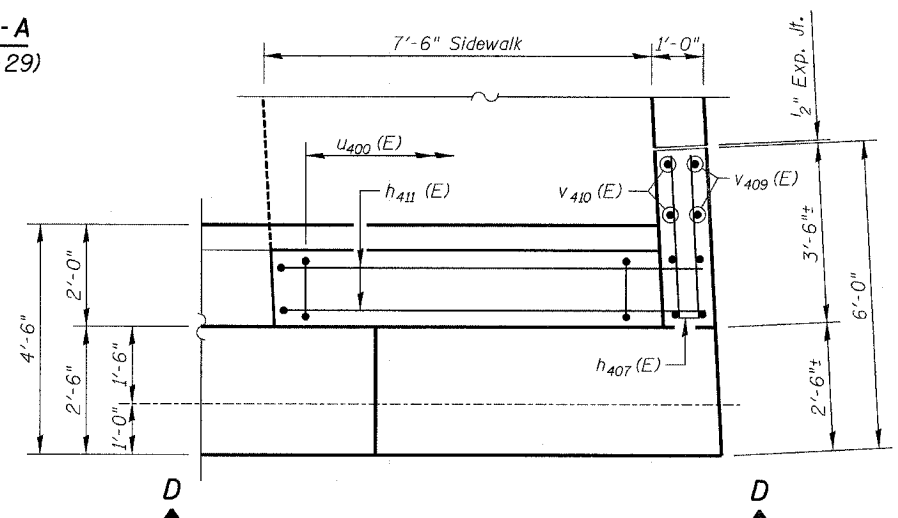


SECTION D-D - ELEVATION

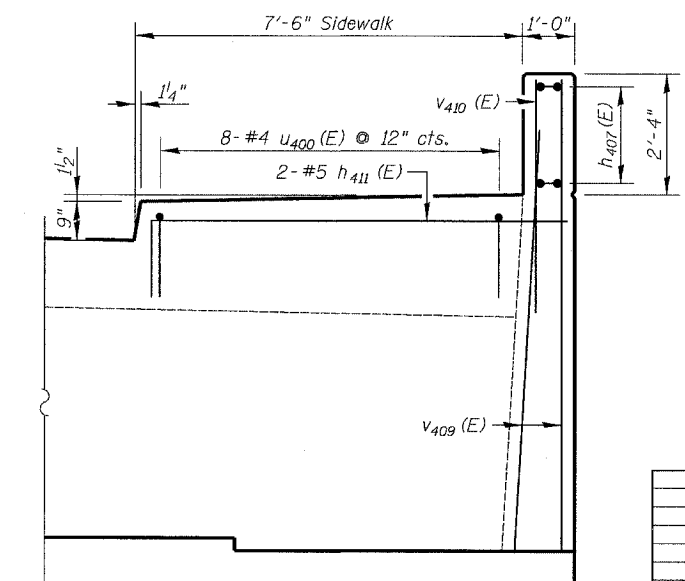
Hatched area to be poured after superstructure forms have been removed. Quantity of concrete included with Concrete Superstructure.



DETAIL A



DETAIL B - PLAN
(From DWG. S-28)



SECTION D-D - ELEVATION

Notes:
Reinforcement Bars designated (E) shall be epoxy coated.
Estimated Soil Bearing Pressure = 5 ksf.
Work this DWG. with DWGS. S-28, S-29, S-31 & S-32.

REVISIONS	
NAME	DATE

DWG. S-30 of 42
ILLINOIS DEPARTMENT OF TRANSPORTATION
EAST ABUTMENT SECTIONS & DETAILS
76TH STREET OVER FAI-94
FAP ROUTE 1541 SECTION 1818 R-9
COOK COUNTY
STATION 73+49.33
STRUCTURE NUMBER 016-2850
SCALE: NONE
DESIGNED BY: TB
DRAWN BY: TL
DATE: March 25, 2005
CHECKED BY: WPM
CHECKED BY: WPM

KNIGHT
Engineers & Architects

FILE: L:\6592.02\Coop\Sheets\Roadway Structures\Bridges\6592-52850-ABEC03.dgn