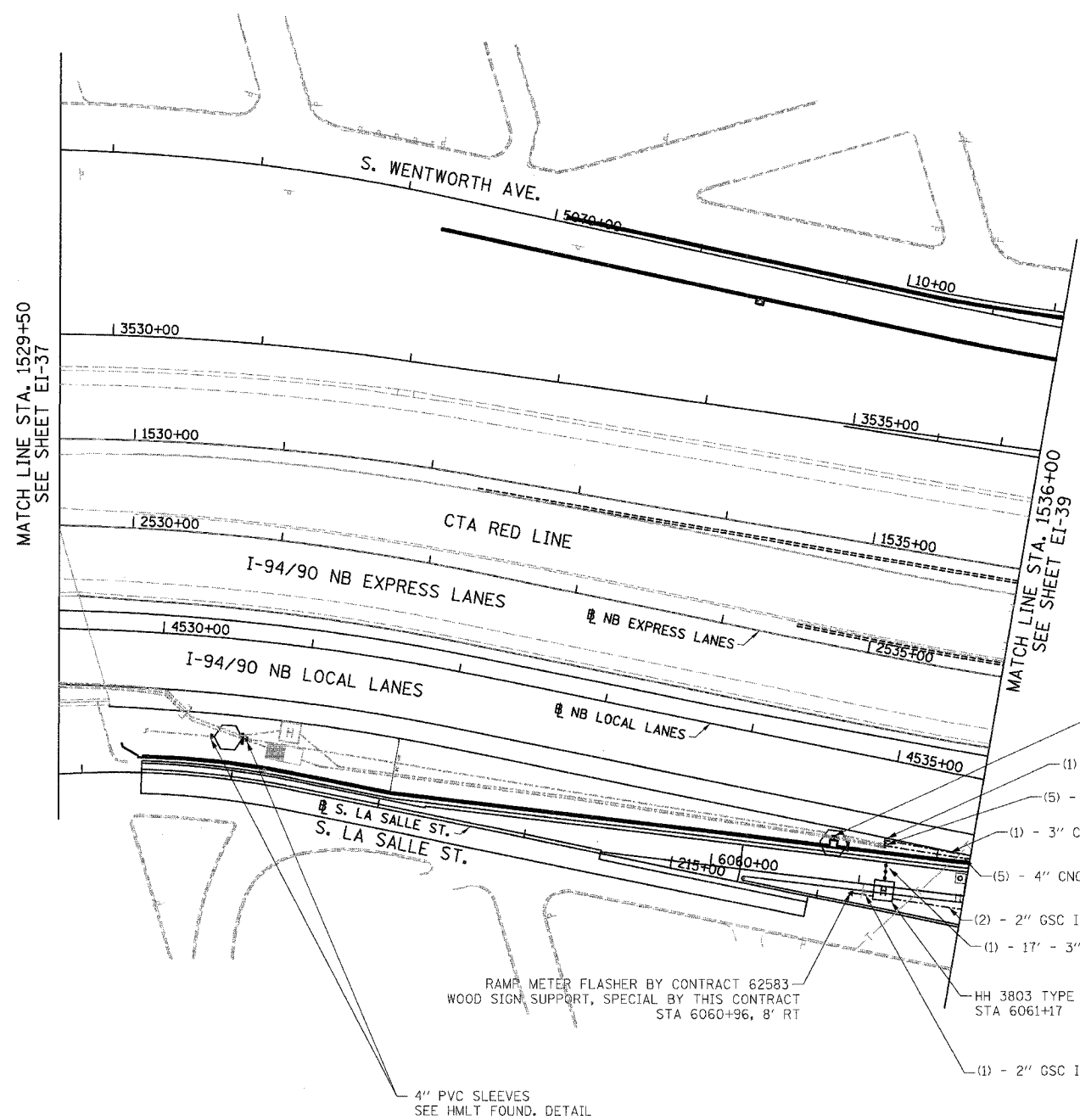
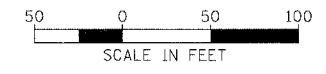


F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	*	COOK	565	301
STA. 1529+50		TO STA. 1536+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62301 * (2021-922 PT2 ETC 2324.6-1P) R-10				



- NOTES:**
- SEE DRAWINGS EI-100 AND EI-101 FOR ELECTRICAL SYMBOLS AND ABBREVIATIONS.
 - SEE DRAWINGS EI-102, EI-103, AND EI-104 FOR TYPICAL HANDHOLE INSTALLATION DETAILS
 - TRENCHED CONDUITS INSTALLED IN PARALLEL ARE TO BE INSTALLED IN COMMON TRENCH.
 - THIS CONTRACT IS RESPONSIBLE FOR PROPOSED ITEMS THAT ARE LABELED. UNLABELLED ITEMS ARE THE RESPONSIBILITY OF CONTRACT 62583. ALL WORK MUST BE COORDINATED BY BOTH CONTRACTS.
 - ELECTRICAL DUCTBANKS AROUND BRIDGE ABUTMENTS MUST CLEAR ALL PROPOSED DRAINAGE STRUCTURES. SEE DRAINAGE PLANS FOR DETAILS.

- 4" PVC SLEEVES SEE RET. WALL PLANS
- (1) - 3" CNC STUBOUT, STA 4535+05, 50' RT
- (5) - 4" CNC CONCRETE ENCASED STUBOUT, STA 4535+05, 50' RT
- (1) - 3" CNC IN TRENCH
- (5) - 4" CNC CONCRETE ENCASED
- (2) - 2" GSC IN TRENCH
- (1) - 17' - 3" PVC CONCRETE ENCASED
- HH 3803 TYPE S1 (SPECIAL) STA 6061+17
- (1) - 2" GSC IN TRENCH



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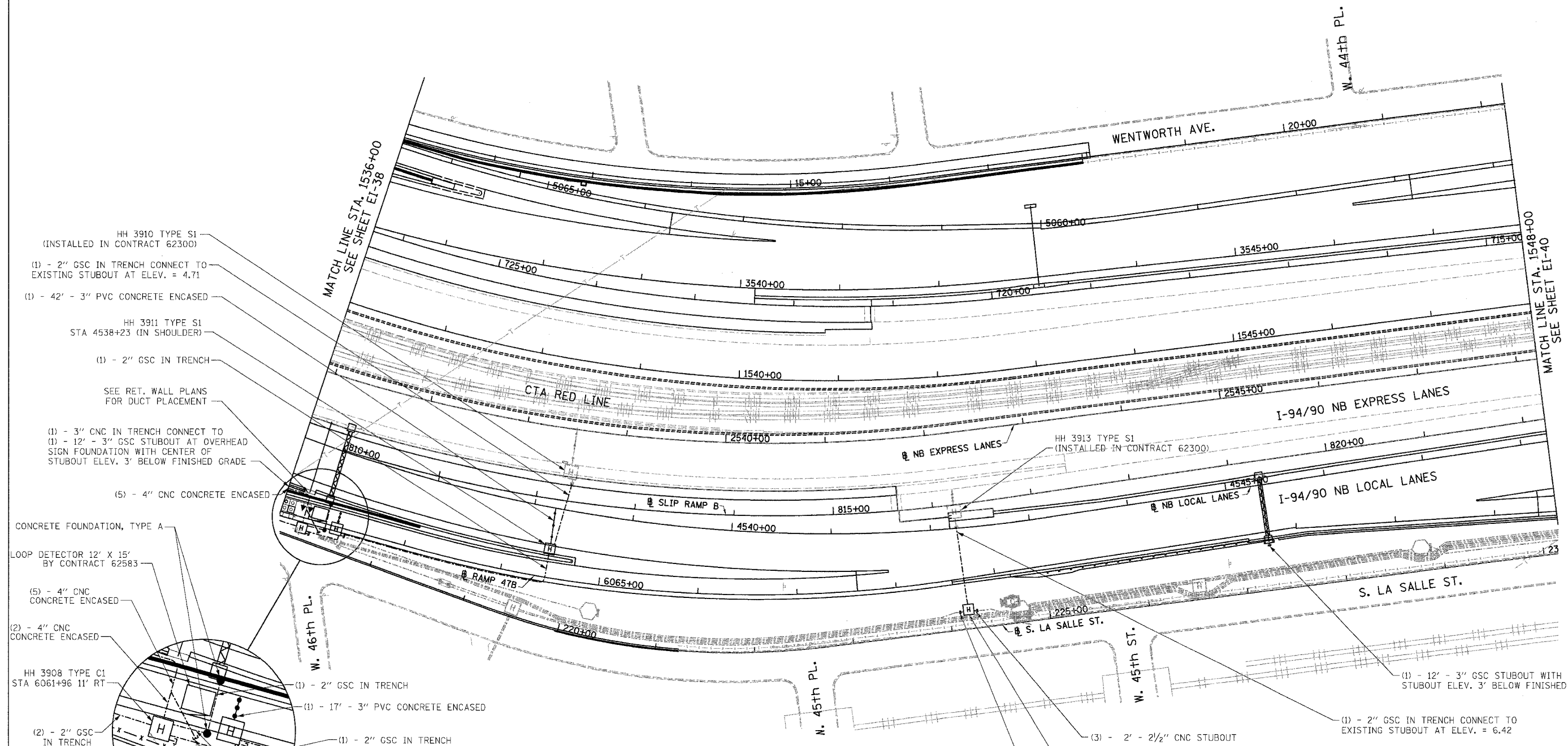
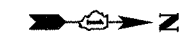
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
59TH STREET TO 31ST STREET (NB LOCAL LANES)
ELECTRICAL INFRASTRUCTURE PLANS

SCALE: 1"=50'
DATE: 06/09/06
DRAWN BY: JDC
CHECKED BY: RS

EI-38

12-4-06 3:37 PM

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	*	COOK	565	302
STA. 1536+00		TO STA. 1548+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62301	* (2021-922 PT2 ETC 2324.6-1P) R-10			



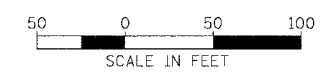
- HH 3910 TYPE S1 (INSTALLED IN CONTRACT 62300)
- (1) - 2" GSC IN TRENCH CONNECT TO EXISTING STUBOUT AT ELEV. = 4.71
- (1) - 42' - 3" PVC CONCRETE ENCASED
- HH 3911 TYPE S1 STA 4538+23 (IN SHOULDER)
- (1) - 2" GSC IN TRENCH
- SEE RET. WALL PLANS FOR DUCT PLACEMENT
- (1) - 3" CNC IN TRENCH CONNECT TO (1) - 12' - 3" GSC STUBOUT AT OVERHEAD SIGN FOUNDATION WITH CENTER OF STUBOUT ELEV. 3' BELOW FINISHED GRADE
- (5) - 4" CNC CONCRETE ENCASED

- CONCRETE FOUNDATION, TYPE A
- LOOP DETECTOR 12' X 15' BY CONTRACT 62583
- (5) - 4" CNC CONCRETE ENCASED
- (2) - 4" CNC CONCRETE ENCASED
- HH 3908 TYPE C1 STA 6061+96 11' RT
- (2) - 2" GSC IN TRENCH
- (4) - 2' - 3" GSC STUBOUT
- (1) - 2' - 4" CNC STUBOUT

- (1) - 2" GSC IN TRENCH
- (1) - 17' - 3" PVC CONCRETE ENCASED
- (1) - 2" GSC IN TRENCH
- (1) - 2' - 2 1/2" CNC STUBOUT
- HH 3909 TYPE S1 (SPECIAL) STA 6062+09
- (2) - 2" GSC IN TRENCH
- (1) - 2" GSC IN TRENCH
- (3) - 4" CNC CONCRETE ENCASED

- HH 3913 TYPE S1 (INSTALLED IN CONTRACT 62300)
- HH 3914 TYPE S1 STA 4542+30, 82' RT
- (3) - 2' - 2 1/2" CNC STUBOUT
- (3) - 2' - 2 1/2" CNC STUBOUT

- NOTES:**
- SEE DRAWINGS EI-100 AND EI-101 FOR ELECTRICAL SYMBOLS AND ABBREVIATIONS.
 - SEE DRAWINGS EI-102, EI-103, AND EI-104 FOR TYPICAL HANDHOLE INSTALLATION DETAILS.
 - TRENCHED CONDUITS INSTALLED IN PARALLEL ARE TO BE INSTALLED IN COMMON TRENCH.
 - THIS CONTRACT IS RESPONSIBLE FOR PROPOSED ITEMS THAT ARE LABELED. UNLABELED ITEMS ARE THE RESPONSIBILITY OF CONTRACT 62583. ALL WORK MUST BE COORDINATED BY BOTH CONTRACTS.
 - ELECTRICAL DUCTBANKS AROUND BRIDGE ABUTMENTS MUST CLEAR ALL PROPOSED DRAINAGE STRUCTURES. SEE DRAINAGE PLANS FOR DETAILS.



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REVISIONS	
NAME	DATE

EI-39

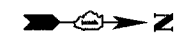
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
59TH STREET TO 31ST STREET (NB LOCAL LANES)
ELECTRICAL INFRASTRUCTURE PLANS

SCALE: 1"=50'
DATE: 06/09/06

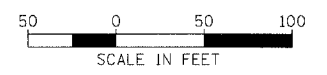
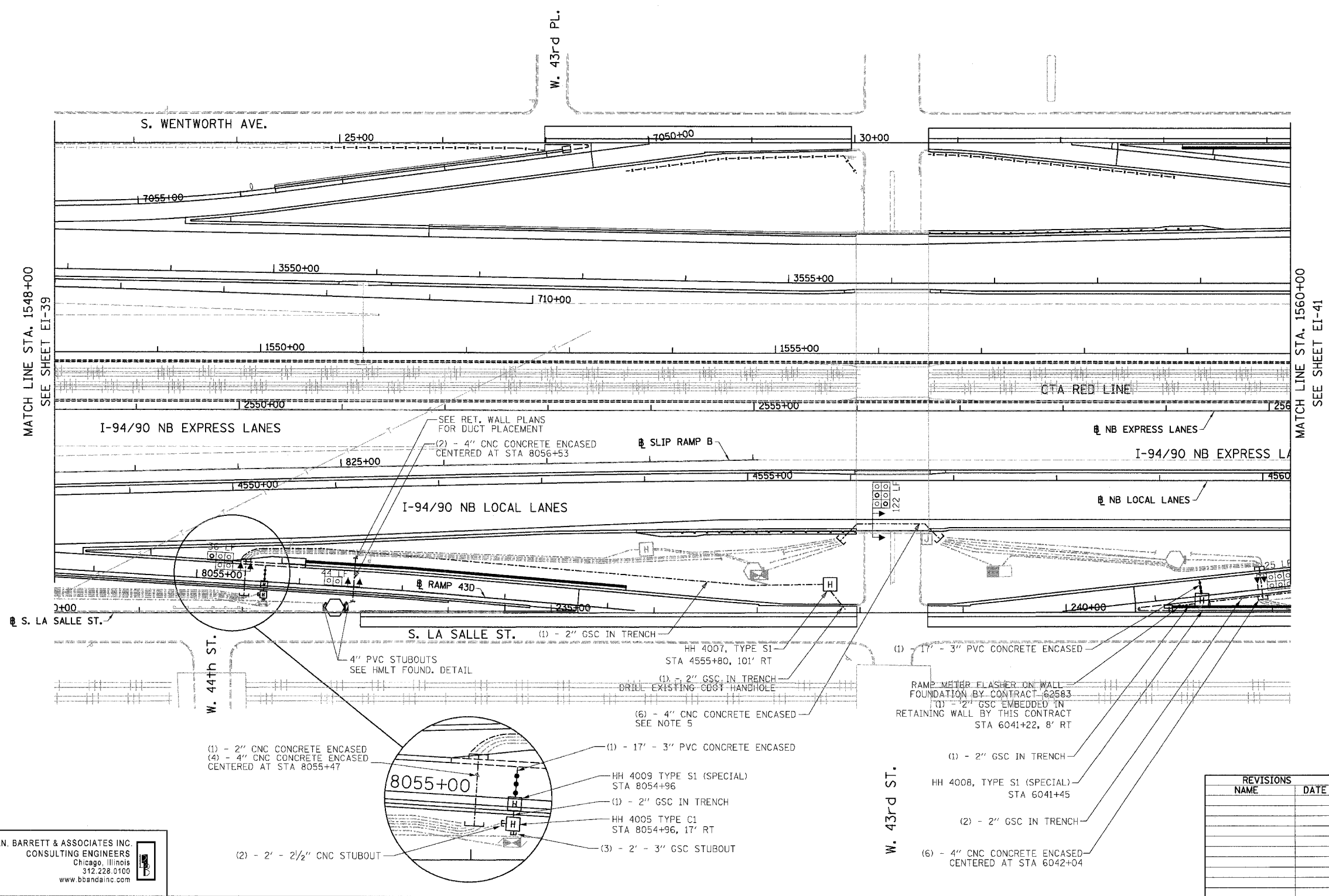
DRAWN BY: JDC
CHECKED BY: RS

6/7/2006 12:58:49 PM

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90		COOK	565	303
STA. 1548+00		TO STA. 1560+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62301 • (2021-922 PT2 ETC 2324.6-1P) R-10				



- NOTES:
- SEE DRAWINGS EI-100 AND EI-101 FOR ELECTRICAL SYMBOLS AND ABBREVIATIONS.
 - SEE DRAWINGS EI-102, EI-103, AND EI-104 FOR TYPICAL HANDHOLE INSTALLATION DETAILS
 - TRENCHED CONDUITS INSTALLED IN PARALLEL ARE TO BE INSTALLED IN COMMON TRENCH.
 - THIS CONTRACT IS RESPONSIBLE FOR PROPOSED ITEMS THAT ARE LABELED. UNLABELLED ITEMS ARE THE RESPONSIBILITY OF CONTRACT 62583. ALL WORK MUST BE COORDINATED BY BOTH CONTRACTS.
 - ELECTRICAL DUCTBANKS AROUND BRIDGE ABUTMENTS MUST CLEAR ALL PROPOSED DRAINAGE STRUCTURES. SEE DRAINAGE PLANS FOR DETAILS.



EI-40

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 59TH STREET TO 31ST STREET (NB LOCAL LANES)
 ELECTRICAL INFRASTRUCTURE PLANS

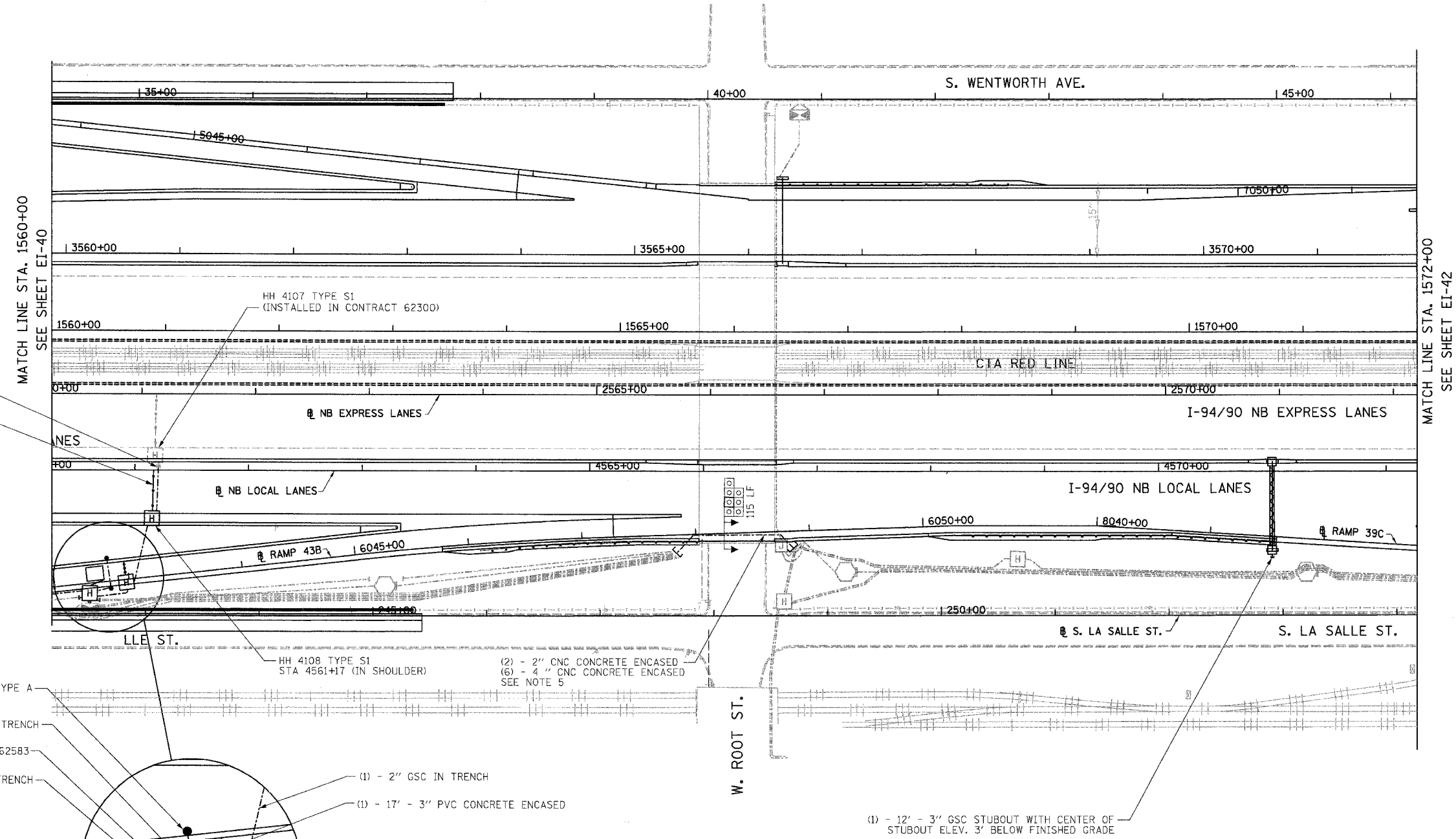
SCALE: 1"=50'
 DATE: 06/09/06
 DRAWN BY: JDC
 CHECKED BY: RS

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6/7/2006 12:50:58 PM

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90		COOK	565	304
STA. 1560+00		TO STA. 1572+00		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
62301		(2021-922 PT2 ETC 2324.6-1P) R-10		



- (1) - 2" GSC IN TRENCH CONNECT TO EXISTING STUBOUT AT ELEV. = -4.77
- (1) - 42' - 3" PVC CONCRETE ENCASED

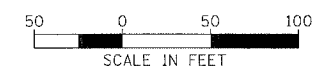
- CONCRETE FOUNDATION, TYPE A
- (1) - 2" GSC IN TRENCH
- LOOP DETECTOR 12' X 15', BY CONTRACT 62583
- (1) - 2" GSC IN TRENCH
- HH 4109 TYPE C1 STA 6042+78, 11' RT
- (1) - 2' - 4" CNC STUBOUT
- (4) - 2' - 3" GSC STUBOUT

- (1) - 2" GSC IN TRENCH
- (1) - 17' - 3" PVC CONCRETE ENCASED
- HH 4110, TYPE S1 (SPECIAL) STA 6042+91
- CONCRETE FOUNDATION, TYPE A
- (2) - 2" GSC IN TRENCH
- (1) - 2' - 4" CNC STUBOUT

- (2) - 2" CNC CONCRETE ENCASED
- (6) - 4" CNC CONCRETE ENCASED
- SEE NOTE 5

(1) - 12' - 3" GSC STUBOUT WITH CENTER OF STUBOUT ELEV. 3' BELOW FINISHED GRADE

- NOTES:
1. SEE DRAWINGS EI-100 AND EI-101 FOR ELECTRICAL SYMBOLS AND ABBREVIATIONS.
 2. SEE DRAWINGS EI-102, EI-103, AND EI-104 FOR TYPICAL HANDHOLE INSTALLATION DETAILS.
 3. TRENCHED CONDUITS INSTALLED IN PARALLEL ARE TO BE INSTALLED IN COMMON TRENCH.
 4. THIS CONTRACT IS RESPONSIBLE FOR PROPOSED ITEMS THAT ARE LABELED. UNLABELLED ITEMS ARE THE RESPONSIBILITY OF CONTRACT 62583. ALL WORK MUST BE COORDINATED BY BOTH CONTRACTS.
 5. ELECTRICAL DUCTBANKS AROUND BRIDGE ABUTMENTS MUST CLEAR ALL PROPOSED DRAINAGE STRUCTURES. SEE DRAINAGE PLANS FOR DETAILS.



EI-41

REVISIONS		DATE
NAME		

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
59TH STREET TO 31ST STREET (NB LOCAL LANES)
ELECTRICAL INFRASTRUCTURE PLANS

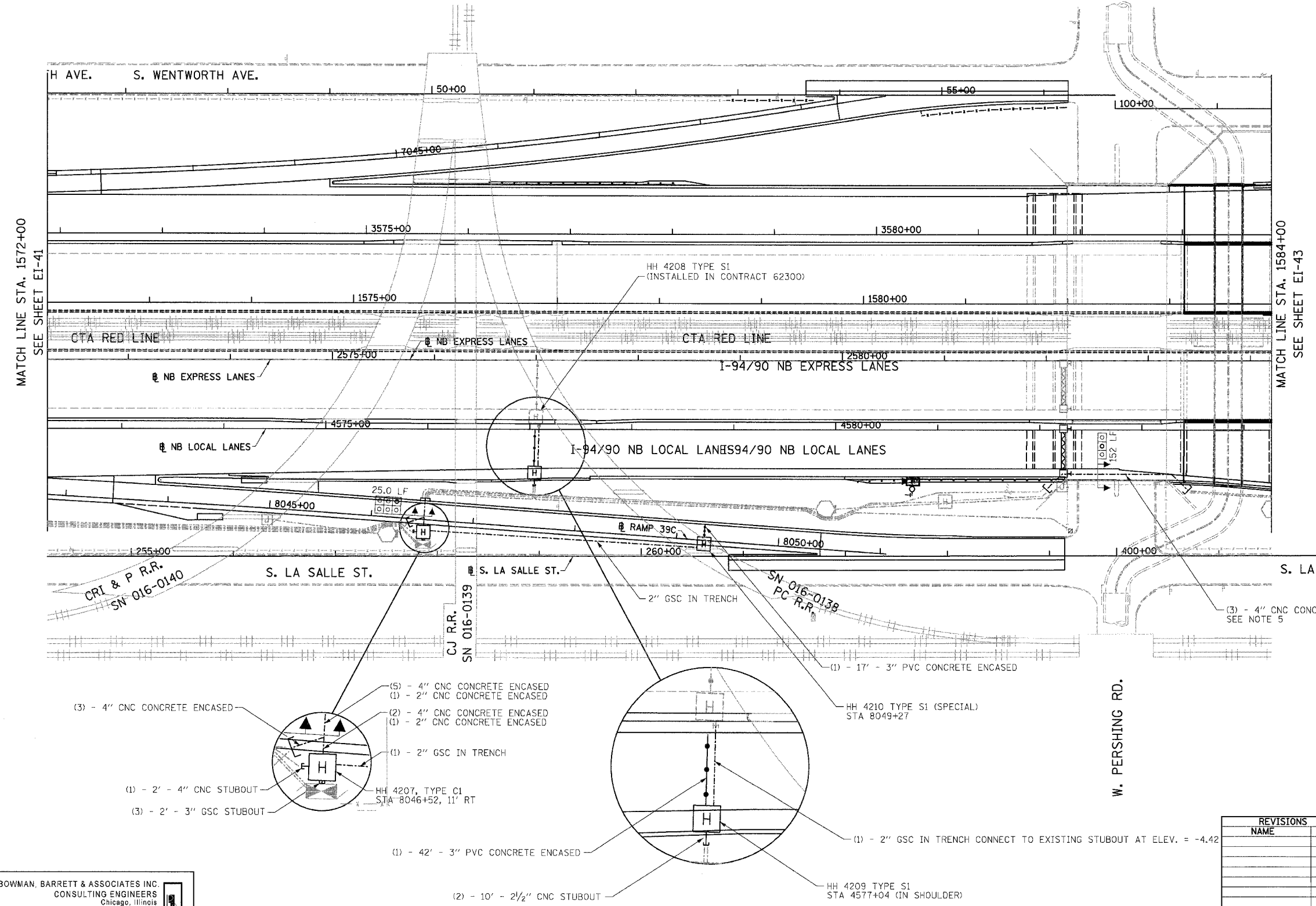
SCALE: 1"=50'
DATE: 06/09/06

DRAWN BY: JDC
CHECKED BY: RS

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6/7/2006 12:53:38 PM

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90		COOK	565	305
STA. 1572+00		TO STA. 1584+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62301 • (2021-922 PT2 ETC 2324.6-1P) R-10				



- NOTES:**
- SEE DRAWINGS EI-100 AND EI-101 FOR ELECTRICAL SYMBOLS AND ABBREVIATIONS.
 - SEE DRAWINGS EI-102, EI-103, AND EI-104 FOR TYPICAL HANDHOLE INSTALLATION DETAILS
 - TRENCHED CONDUITS INSTALLED IN PARALLEL ARE TO BE INSTALLED IN COMMON TRENCH.
 - THIS CONTRACT IS RESPONSIBLE FOR PROPOSED ITEMS THAT ARE LABELED. UNLABELLED ITEMS ARE THE RESPONSIBILITY OF CONTRACT 62583. ALL WORK MUST BE COORDINATED BY BOTH CONTRACTS.
 - ELECTRICAL DUCTBANKS AROUND BRIDGE ABUTMENTS MUST CLEAR ALL PROPOSED DRAINAGE STRUCTURES. SEE DRAINAGE PLANS FOR DETAILS.

MATCH LINE STA. 1572+00
SEE SHEET EI-41

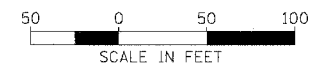
MATCH LINE STA. 1584+00
SEE SHEET EI-43

- (3) - 4" CNC CONCRETE ENCASED
- (1) - 2" CNC CONCRETE ENCASED
- (2) - 4" CNC CONCRETE ENCASED
- (1) - 2" CNC CONCRETE ENCASED
- (1) - 2" GSC IN TRENCH
- HH 4207, TYPE C1
STA 8046+52, 11' RT
- (1) - 2' - 4" CNC STUBOUT
- (3) - 2' - 3" GSC STUBOUT

- (1) - 42' - 3" PVC CONCRETE ENCASED
- (2) - 10' - 2 1/2" CNC STUBOUT

HH 4210 TYPE S1 (SPECIAL)
STA 8049+27

HH 4209 TYPE S1
STA 4577+04 (IN SHOULDER)



EI-42

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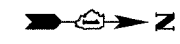
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
59TH STREET TO 31ST STREET (NB LOCAL LANES)
ELECTRICAL INFRASTRUCTURE PLANS

SCALE: 1"=50'
DATE: 06/09/06

DRAWN BY: JDC
CHECKED BY: RS

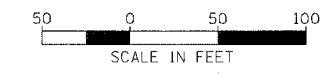
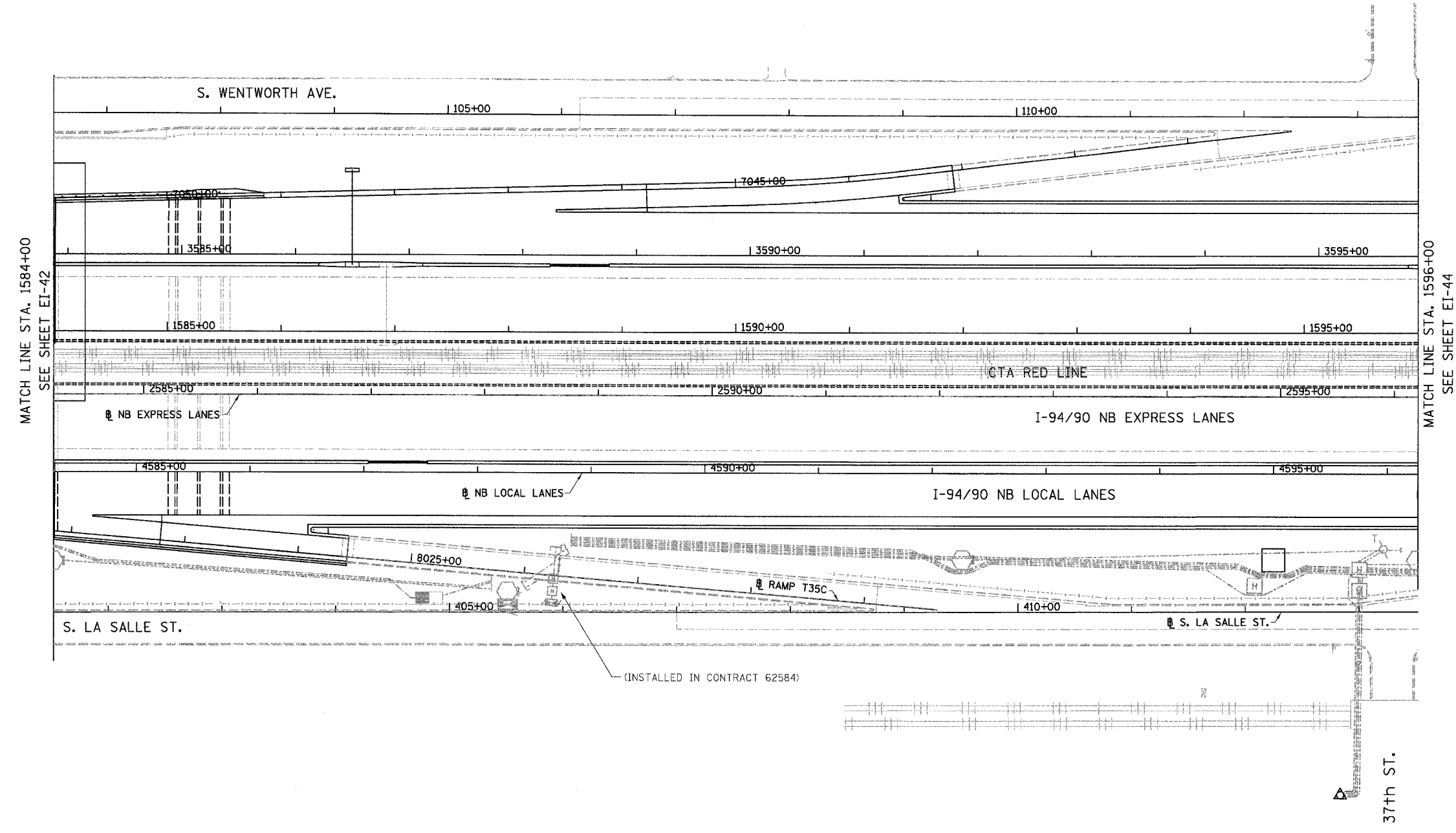
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F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90		COOK	565	306
STA. 1584+00		TO STA. 1596+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62301	• (2021-922 PT2 ETC 2324.6-1P) R-10			



NO PROPOSED WORK ON THIS SHEET

- NOTES:
- SEE DRAWINGS EI-100 AND EI-101 FOR ELECTRICAL SYMBOLS AND ABBREVIATIONS.
 - SEE DRAWINGS EI-102, EI-103, AND EI-104 FOR TYPICAL HANDHOLE INSTALLATION DETAILS
 - TRENCHED CONDUITS INSTALLED IN PARALLEL ARE TO BE INSTALLED IN COMMON TRENCH.
 - THIS CONTRACT IS RESPONSIBLE FOR PROPOSED ITEMS THAT ARE LABELED. UNLABELLED ITEMS ARE THE RESPONSIBILITY OF CONTRACT 62583. ALL WORK MUST BE COORDINATED BY BOTH CONTRACTS.



EI-43

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 59TH STREET TO 31ST STREET (NB LOCAL LANES)
 ELECTRICAL INFRASTRUCTURE PLANS

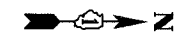
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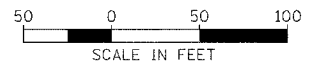
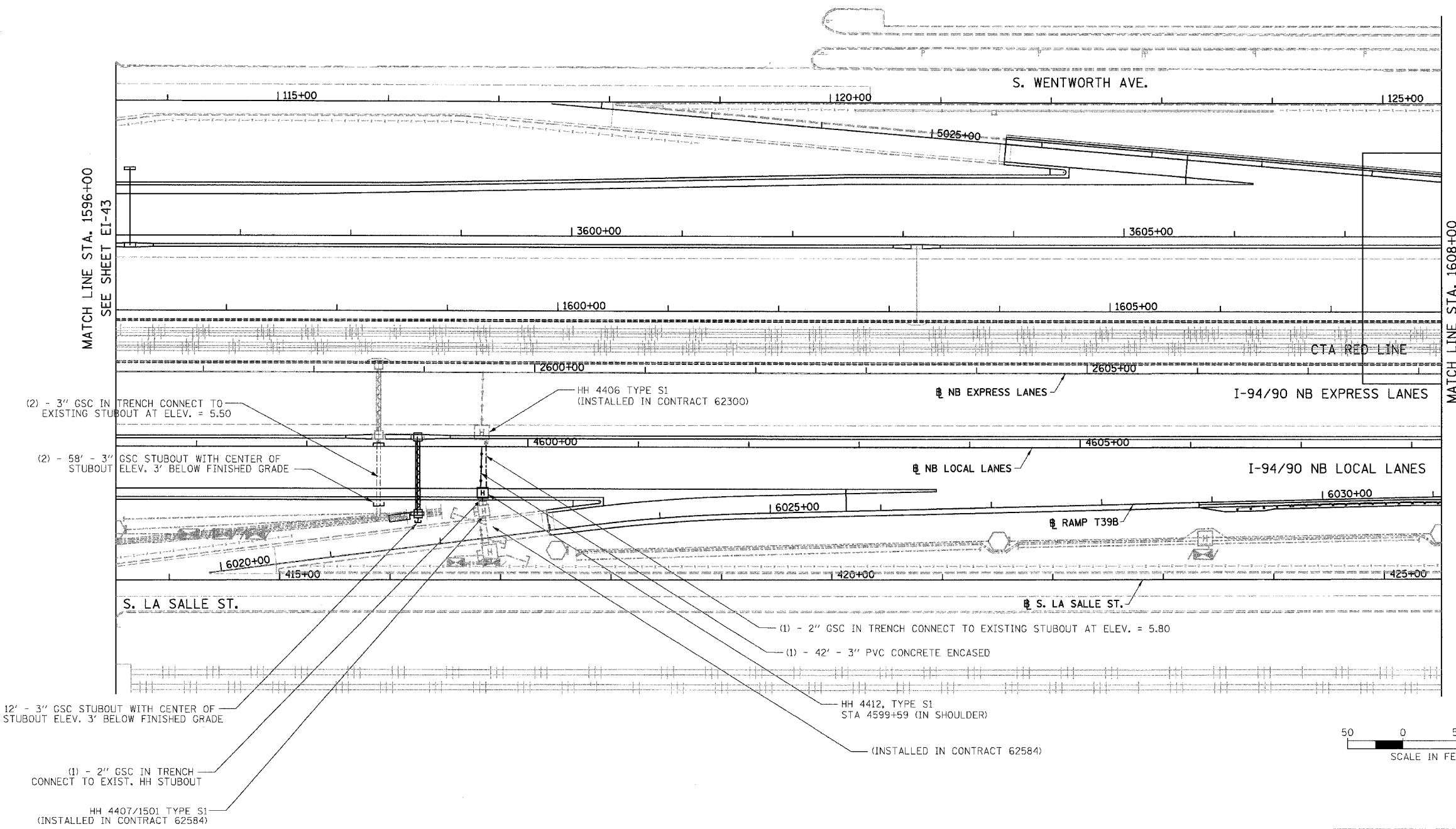
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6/7/2006 12:45:51 PM

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90		COOK	565	307
STA. 1596+00		TO STA. 1608+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62301		(2021-922 PT2 ETC 2324.6-1P) R-10		



- NOTES:
- SEE DRAWINGS EI-100 AND EI-101 FOR ELECTRICAL SYMBOLS AND ABBREVIATIONS.
 - SEE DRAWINGS EI-102, EI-103, AND EI-104 FOR TYPICAL HANDHOLE INSTALLATION DETAILS
 - TRENCHED CONDUITS INSTALLED IN PARALLEL ARE TO BE INSTALLED IN COMMON TRENCH.
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REVISIONS		DATE
NAME		

EI-44

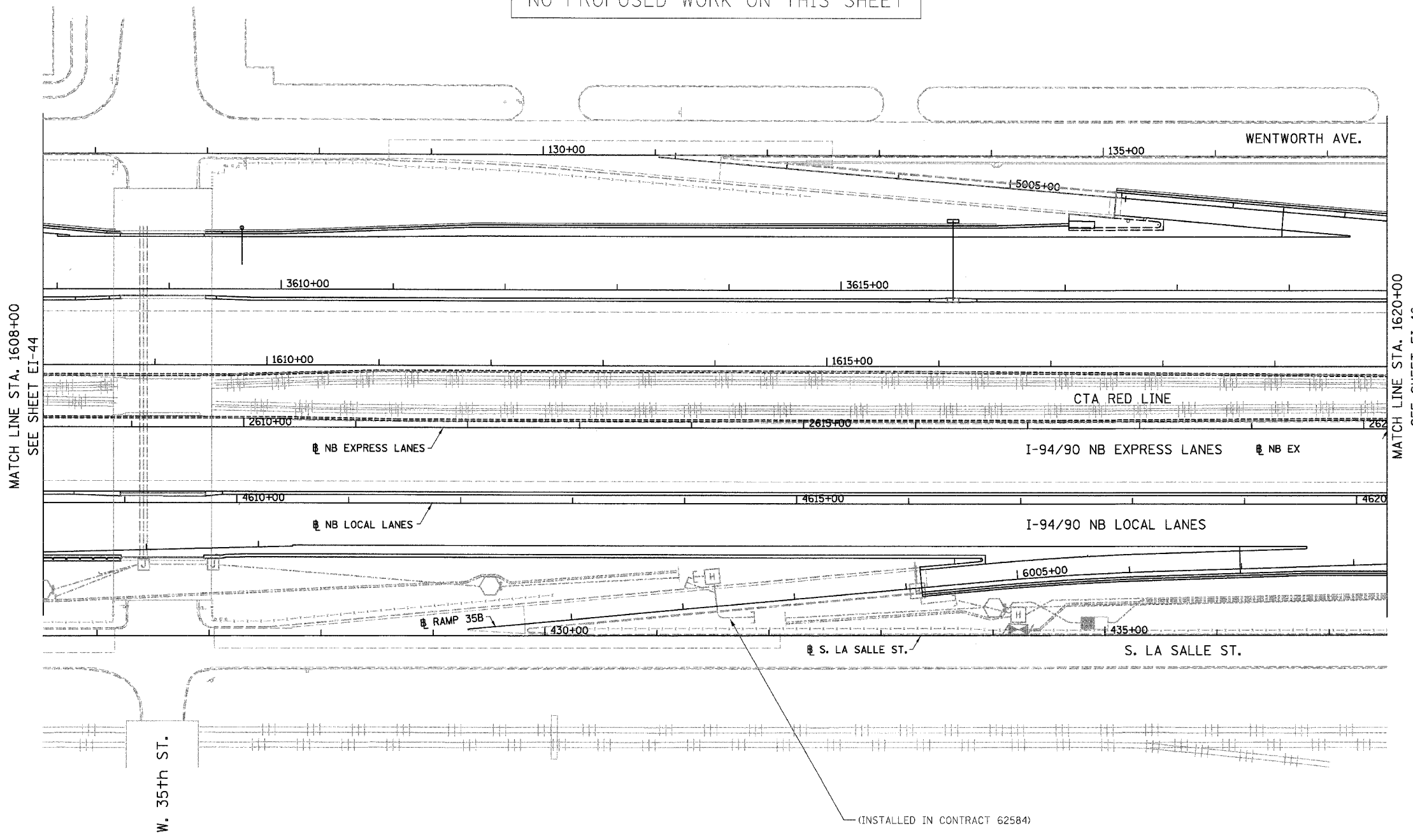
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
59TH STREET TO 31ST STREET (NB LOCAL LANES)
ELECTRICAL INFRASTRUCTURE PLANS

SCALE: 1"=50'
DATE: 06/09/06
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F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	*	COOK	565	308
STA. 1608+00		TO STA. 1620+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62301 • (2021-922 PT2 ETC 2324.6-1P) R-10				

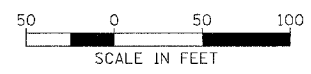
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- NOTES:
- SEE DRAWINGS EI-100 AND EI-101 FOR ELECTRICAL SYMBOLS AND ABBREVIATIONS.
 - SEE DRAWINGS EI-102, EI-103, AND EI-104 FOR TYPICAL HANDHOLE INSTALLATION DETAILS
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MATCH LINE STA. 1608+00
SEE SHEET EI-44

MATCH LINE STA. 1620+00
SEE SHEET EI-46



EI-45

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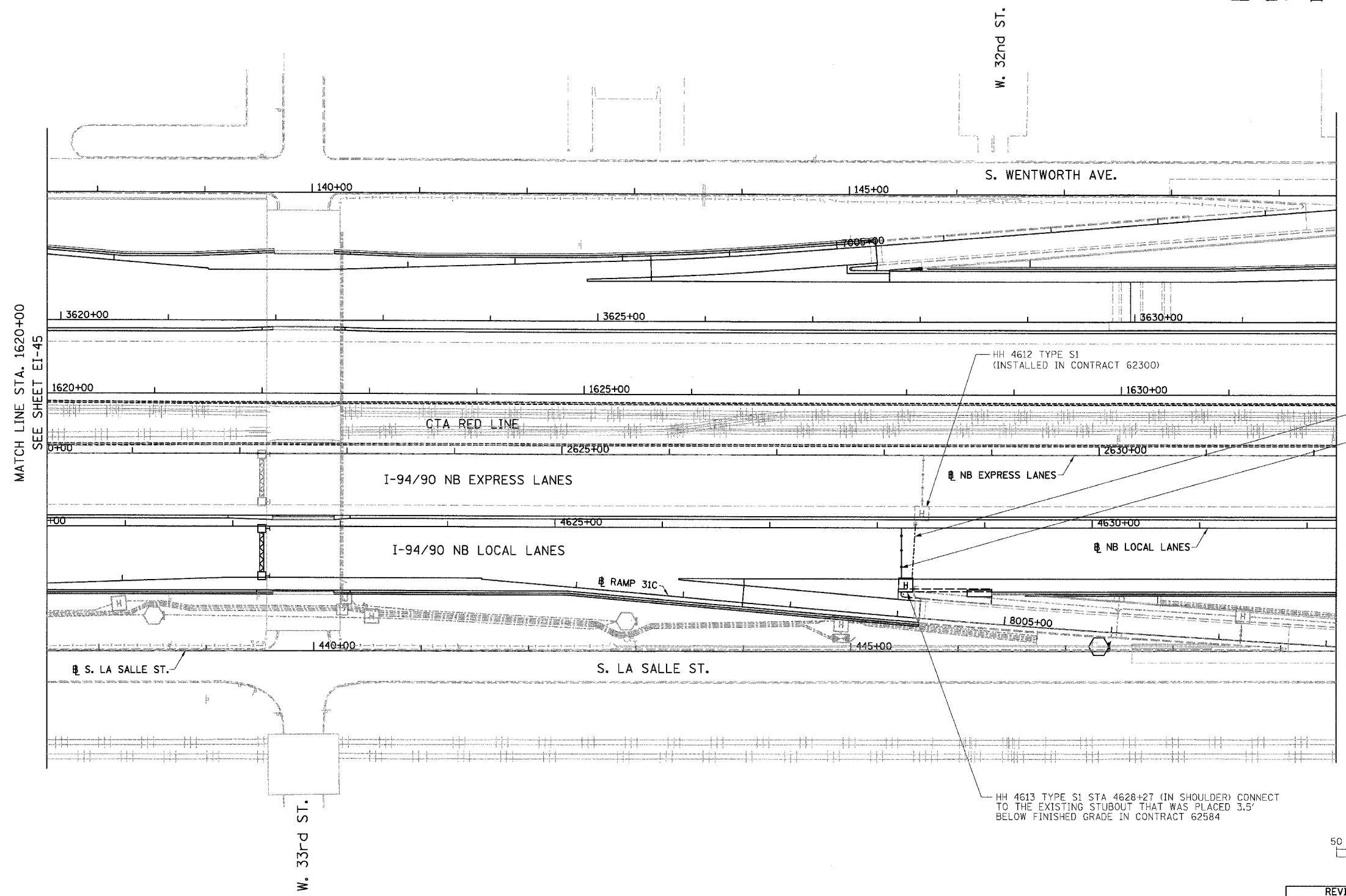
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
59TH STREET TO 31ST STREET (NB LOCAL LANES)
ELECTRICAL INFRASTRUCTURE PLANS

SCALE: 1"=50'
DATE: 06/09/06

DRAWN BY: JDC
CHECKED BY: RS

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F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	*	COOK	565	309
STA. 1620+00		TO STA. 1632+00		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
62301 • (2021-922 PT2 ETC 2324.6-1P) R-10				



NOTES:

- SEE DRAWINGS EI-100 AND EI-101 FOR ELECTRICAL SYMBOLS AND ABBREVIATIONS.
- SEE DRAWINGS EI-102, EI-103, AND EI-104 FOR TYPICAL HANDHOLE INSTALLATION DETAILS.
- TRENCHED CONDUITS INSTALLED IN PARALLEL ARE TO BE INSTALLED IN COMMON TRENCH.
- THIS CONTRACT IS RESPONSIBLE FOR PROPOSED ITEMS THAT ARE LABELED. UNLABELLED ITEMS ARE THE RESPONSIBILITY OF CONTRACT 62583. ALL WORK MUST BE COORDINATED BY BOTH CONTRACTS.

(1) - 2" GSC IN TRENCH CONNECT TO EXISTING STUBOUT AT ELEV. = -3.43
 (1) - 54' - 3" PVC CONCRETE ENCASED

HH 4613 TYPE S1 STA 4628+27 (IN SHOULDER) CONNECT TO THE EXISTING STUBOUT THAT WAS PLACED 3.5' BELOW FINISHED GRADE IN CONTRACT 62584

MATCH LINE STA. 1620+00
SEE SHEET EI-45

MATCH LINE STA. 1632+00
SEE SHEET EI-47



EI-46

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 59TH STREET TO 31ST STREET (NB LOCAL LANES)
 ELECTRICAL INFRASTRUCTURE PLANS

SCALE: 1"=50'
 DATE: 06/09/06
 DRAWN BY: JDC
 CHECKED BY: RS

REVISIONS	
NAME	DATE

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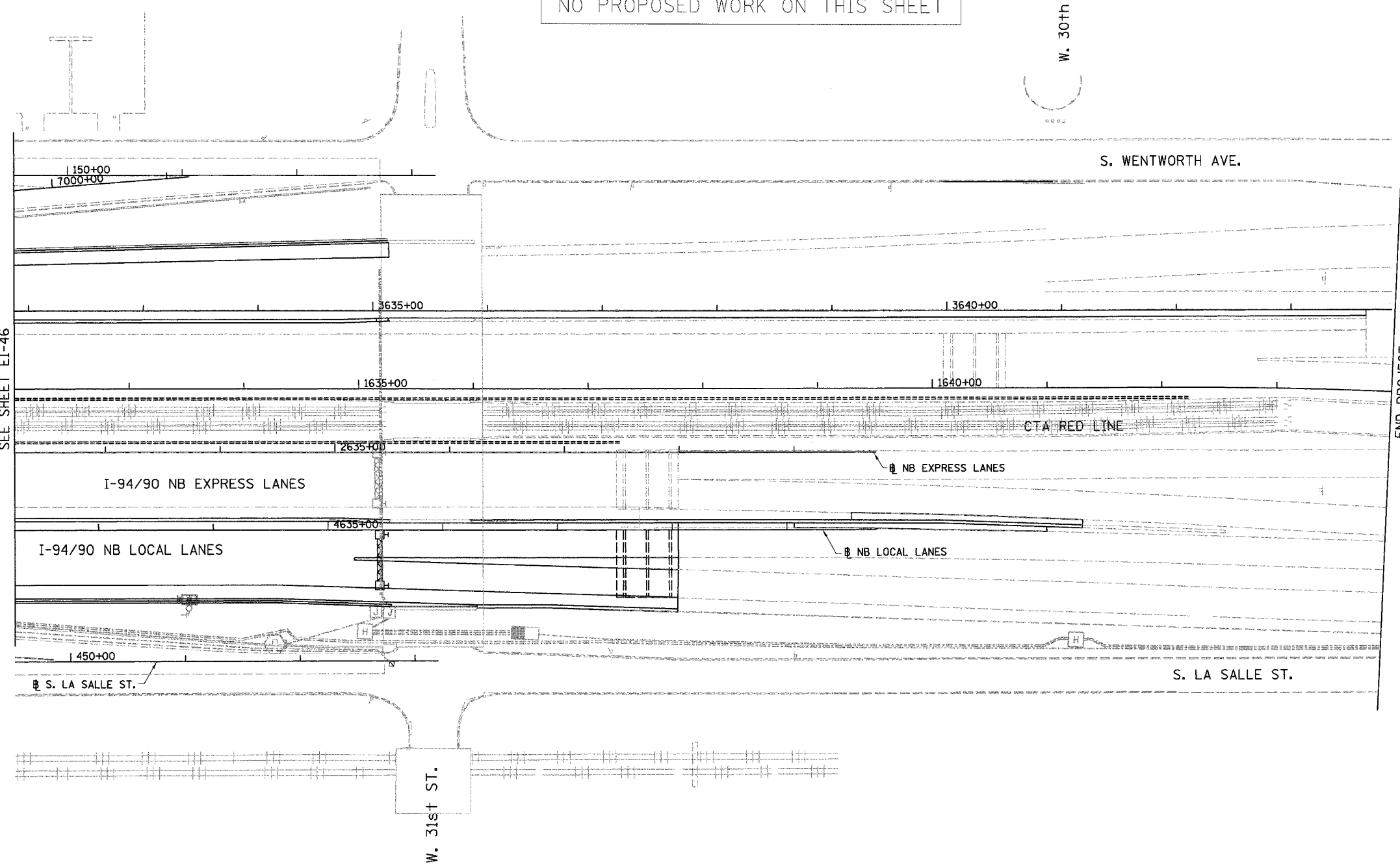
F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90		COOK	565	310
STA. 1632+00		TO STA. 1644+00		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62301 • (2021-922 PT2 ETC 2324.6-1P) R-10				



NO PROPOSED WORK ON THIS SHEET

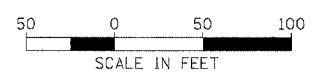
W. 30th ST.

MATCH LINE STA. 1632+00
SEE SHEET EI-46



END PROJECT

- NOTES:
- SEE DRAWINGS EI-100 AND EI-101 FOR ELECTRICAL SYMBOLS AND ABBREVIATIONS.
 - SEE DRAWINGS EI-102, EI-103, AND EI-104 FOR TYPICAL HANDHOLE INSTALLATION DETAILS
 - TRENCHED CONDUITS INSTALLED IN PARALLEL ARE TO BE INSTALLED IN COMMON TRENCH.
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BOWMAN, BARRETT & ASSOCIATES INC.
CONSULTING ENGINEERS
Chicago, Illinois
312.228.0100
www.bbainc.com

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
59TH STREET TO 31ST STREET (NB LOCAL LANES)
ELECTRICAL INFRASTRUCTURE PLANS
SCALE: 1"=50'
DATE: 06/09/06
DRAWN BY: JDC
CHECKED BY: RS

EI-47

12/25/06 5:59 PM

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94		COOK	565	311
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	
62301		(2021-922 PT2 ETC 2324.6-1P) R-10		

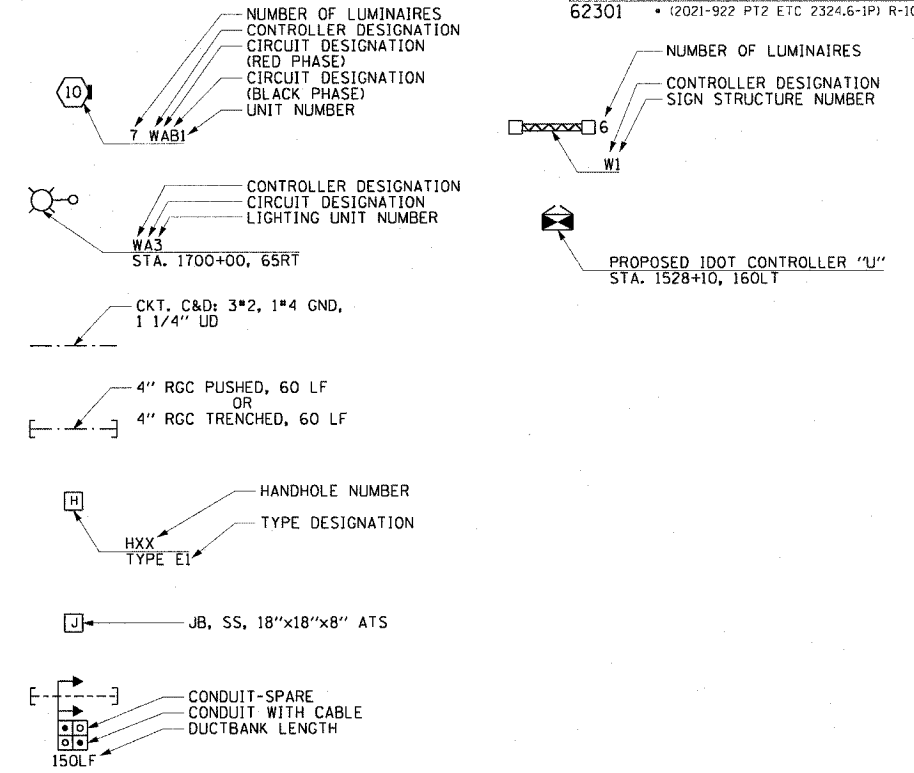
ELECTRICAL SYMBOLS FOR PROPOSED WORK

- LIGHT TOWER FOUNDATION
NUMBER INSIDE HEXAGON INDICATES TOWER TYPE
HANDHOLE LOCATION AS INDICATED
TOWER INSTALLED BY OTHERS,
UNDER A SEPARATE CONTRACT
- | TYPE | TOWER HEIGHT |
|------|--------------|
| 10 | 100 FEET |
| 11 | 110 FEET |
| 12 | 120 FEET |
- LIGHT POLE FOUNDATION
POLE INSTALLED BY OTHERS
UNDER A SEPARATE CONTRACT
- TEMPORARY LIGHTING UNIT INCLUDING 60 FOOT WOOD POLE (CLASS 4), 8'-0" MAST ARM WITH 400 WATT HPS LUMINAIRE
- ELECTRIC HANDHOLE: TYPE AS INDICATED
TYPE E1: PC CONCRETE, 21.5"x21.5"x30" IDOT STANDARD 814001
TYPE E2: PC CONCRETE-HEAVY DUTY, 22"x22"x30", IDOT STANDARD 814001
TYPE C1: COMMUNICATIONS VAULT
TYPE S1: PC CONCRETE-HEAVY DUTY, 22"x22"x36"
TYPE S2: PC CONCRETE-HEAVY DUTY SPECIAL, 30"x30"x36"
- JUNCTION BOX: TYPE AND SIZE AS INDICATED ON PLANS
- PULL BOX: TYPE AND SIZE AS INDICATED ON PLANS
- TELEPHONE CONNECTION
- FIBER OPTIC COMMUNICATIONS HUT
- LIGHTED SIGN STRUCTURE-CANTILEVER TYPE (NUMBER OF FLUORESCENT FIXTURES AS INDICATED WITH ASSOCIATED DISCONNECT SWITCH - TYP.) (N.I.C.)
- LIGHTED SIGN STRUCTURE-TRUSS TYPE
- TEMPORARY LIGHTED SIGN STRUCTURE-TRUSS TYPE, QUANTITY OF LUMINAIRES AS SHOWN ON SIGNING PLANS
- LIGHTED SIGN STRUCTURE-BRIDGE MOUNT TYPE
- DYNAMIC MESSAGE SIGN
- FLASHING BEACON SIGN
- CLOSED CIRCUIT TELEVISION CAMERA
- MICROWAVE DETECTOR
- DETECTOR LOOP
- CONTROLLER CABINET FOUNDATION
- CONTROLLER CABINET FOUNDATION: SURVEILLANCE
- CONTROLLER CABINET FOUNDATION: SURVEILLANCE, TYPE 334
- RAMP METER SIGNAL POLE/HEAD FOUNDATION
- RAMP METER FLASHER FOUNDATION
- TEMPORARY WOOD POLE, 50 FOOT LENGTH (10 FOOT BURIED, 40 FOOT INSTALLED HEIGHT)
- HIGHWAY ADVISORY RADIO ANTENNA
- ELECTRIC UTILITY POLE
- CCTV CAMERA POLE
- PULLING PEDESTAL

ELECTRICAL SYMBOLS FOR EXISTING CONDITIONS

- EXISTING LIGHTING UNIT, TWIN LUMINAIRE
- EXISTING LIGHTING UNIT
- EXISTING TEMPORARY LIGHTING UNIT
- EXISTING CDOT LIGHTING UNIT
- EXISTING UNDERPASS LUMINAIRE
- EXISTING ELECTRIC HANDHOLE
- EXISTING JUNCTION BOX
- EXISTING PULL BOX
- EXISTING TELEPHONE CONNECTION
- EXISTING FIBER OPTIC COMMUNICATIONS HUT
- EXISTING ELECTRIC HANDHOLE/MANHOLE
- EXISTING CDOT ELECTRIC HANDHOLE/MANHOLE
- EXISTING LIGHTED SIGN STRUCTURE-CANTILEVER TYPE
- EXISTING LIGHTED SIGN STRUCTURE-TRUSS TYPE
- EXISTING LIGHTED SIGN STRUCTURE-BRIDGE MOUNT TYPE
- EXISTING DYNAMIC MESSAGE SIGN
- EXISTING FLASHING BEACON SIGN
- EXISTING CLOSED CIRCUIT TELEVISION CAMERA
- EXISTING MICROWAVE DETECTOR
- EXISTING DETECTOR LOOP
- EXISTING LIGHTING CONTROLLER, DUPLEX
- EXISTING CONTROLLER CABINET
- EXISTING RAMP METER SIGNAL POLE/HEAD
- PULLING PEDESTAL
- EXISTING RAMP METER FLASHER
- EXISTING HIGHWAY ADVISORY RADIO ANTENNA
- EXISTING CCTV CAMERA POLE
- EXISTING UTILITY SERVICE CONNECTION, POLE MOUNTED
- EXISTING UTILITY SERVICE CONNECTION, PAD MOUNTED
- EXISTING CONCEALED CONDUIT IN STRUCTURE
- EXISTING EXPOSED CONDUIT
- EXISTING RACEWAY OR DIRECT BURIED CABLE WITHOUT ENCASEMENT
- EXISTING CONCEALED CONDUIT UNDERGROUND, TRENCHED OR PUSHED
- EXISTING ELECTRIC CABLE IN CONDUIT

GENERAL ELECTRICAL CALLOUTS



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 90/94 (DAN RYAN EXPRESSWAY)
GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)

ELECTRICAL SYMBOLS

SCALE: NOT TO SCALE
DATE: June 9, 2006
DRAWN BY: HAR
CHECKED BY: JPC

06/07/2006 10:50:41 AM

ABBREVIATIONS

A	AMPERES	ID	INNERDUCT	WB	WESTBOUND
AC	ALTERNATING CURRENT	IDOT	ILLINOIS DEPARTMENT OF TRANSPORTATION	WM	WALL MOUNTED
A/C	AERIAL CABLE	IN	INCHES	WP	WOOD POLE
AFG	ABOVE FINISHED GRADE	J, JB	JUNCTION BOX	XFMR	TRANSFORMER
ANT	ANTENNA	KVA	KILOVOLT-AMPERE		
AOBE	AS ORDERED BY THE ENGINEER	KW	KILOWATT		
ASPH	ASPHALT	LF	LINEAR FEET		
ATS	ATTACHED TO STRUCTURE	LP	LIGHT POLE		
AVE	AVENUE	L SUM	LUMP SUM		
BHD	BULKHEAD	LT	LEFT		
BIT	BITUMINOUS	M	METER		
BLK	BLOCK	MA	MAST ARM		
BR	BRIDGE	MD	MICROWAVE DETECTOR		
C	CONDUIT, CONDUCTOR	MM	MULTI-MODE		
CAB	CABINET	MW	MESSENGER WIRE		
CBW	CONCRETE BLOCK WALL	NB	NORTHBOUND		
CC	COMMUNICATIONS CENTER	NIC	NOT IN CONTRACT		
CCTV	CLOSED CIRCUIT TELEVISION	NM	NONMETALLIC		
CDOT	CDOT-CHICAGO DEPARTMENT OF TRANSPORTATION	NO	NUMBER		
COMED	COMED	NTS	NOT TO SCALE		
CKT	CIRCUIT	OH	OVERHEAD		
CLF	CHAIN LINK FENCE	PL	PROPERTY LINE		
CNC	COILABLE NONMETALLIC CONDUIT	PH	PHASE		
COMM	COMMUNICATIONS	PIN	PROJECT IDENTIFICATION NUMBER		
CONC	CONCRETE	PNL	PANEL		
CONST	CONSTRUCTION	PROP	PROPOSED		
CORR	CORRUGATED	PTZ	PAN-TILT-ZOOM		
CW	CONCRETE WALL	PEC	POLYETHYLENE CONDUIT		
☉	CENTERLINE	PVC	POLYVINYL CHLORIDE		
DB	DIRECT BURIED	PVCC	POLYVINYL CHLORIDE COATED		
DC	DIRECT CURRENT	R	EXISTING UNIT TO BE REMOVED (OWNER SALVAGED UNO)		
DF	DARK FIBER	RC	REINFORCED CONCRETE		
DIA	DIAMETER	RD	ROAD		
DMS	DYNAMIC MESSAGE SIGN	RGC	RIGID GALVANIZED STEEL CONDUIT		
DWG	DRAWING(S)	RM	RAMP METER		
E	EXISTING UNIT TO REMAIN	ROW	RIGHT OF WAY		
EA	EACH	RR	EXISTING UNIT TO BE REMOVED AND REINSTALLED		
EB	EASTBOUND	RT	RIGHT		
ECA	ELECTRIC CABLE ASSEMBLY	RW	RETAINING WALL		
EL	ELEVATION	SB	SOUTHBOUND		
EM	EXISTING UNIT TO BE MODIFIED (e.g. NEW LUMINAIRE, BALLAST, OR MAST ARM)	SH	SHEET		
ER	EXISTING RELOCATED UNIT	SM	SINGLE MODE		
ET	EXISTING TEMPORARY UNIT TO REMAIN OR MODIFIED	SS	STAINLESS STEEL		
ETP	EMERGENCY TRAFFIC PATROL	ST	STREET		
ETR	EXISTING TEMPORARY RELOCATED UNIT	STA	STATION		
EXCAV	EXCAVATION	STD	STANDARD		
F, FT	FOOT, FEET	STL	STEEL		
FDN	FOUNDATION	STRUCT	STRUCTURE		
FO	FIBER OPTIC	SURF	SURFACE		
GM	GROUND MOUNTED	SURV	SURVEILLANCE		
GND, GRD	GROUND	SW	SIDEWALK		
GR	GUARD RAIL	T	TEMPORARY		
GSC	GALVANIZED STEEL CONDUIT	TAN	TANGENT		
HAR	HIGHWAY ADVISORY RADIO	TC	TRAY CABLE		
HD	HEAVY DUTY	TEL	TELEPHONE		
HH	HANDHOLE	TS	TRAFFIC SIGNAL		
HPS	HIGH PRESSURE SODIUM	TSC	TRAFFIC SYSTEMS CENTER		
HYD	HYDRANT	TYP	TYPICAL		
I	INTERSTATE	UD	UNIT DUCT		
		UND	UNDERDRAIN		
		UNO	UNLESS NOTED OTHERWISE		
		V	VOLT		
		W	WATT		

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	*	COOK	565	312
STA.	TO STA.			
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		
62301		* (2021-922 PT2 ETC 2324.6-1P) R-10		

EI-101

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 90/94 (DAN RYAN EXPRESSWAY)
 GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)
ELECTRICAL ABBREVIATIONS

SCALE: NOT TO SCALE
 DATE: June 9, 2006
 DRAWN BY: HAR
 CHECKED BY: JPC

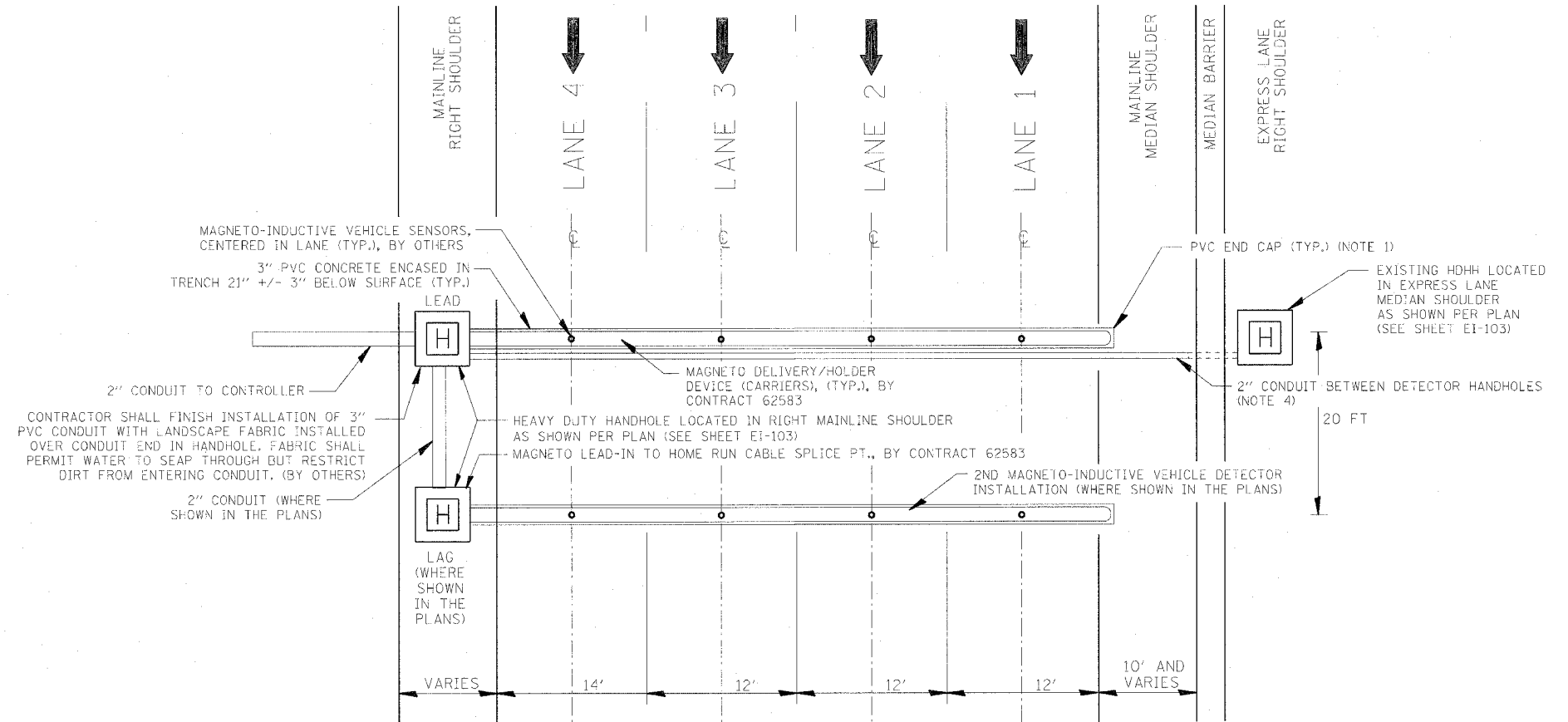


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F.A.I. RTE. 90/94	SECTION •	COUNTY COOK	TOTAL SHEETS 565	SHEET NO. 313
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		
62301		(2021-922 PT2 ETC 2324.6-1P) R-10		

NOTES:

1. CONDUIT END CAP TO BE PRESS FITTED (NO ADHESIVE).
2. CONDUIT TO EXTEND 2-3 IN. INTO HANDHOLE.
3. FOR 3" PVC CONCRETE ENCASED IN TRENCH DETAIL, SEE SHEET EI-103. FOR HANDHOLE DETAIL, SEE SHEET EI-104.
4. CONNECT PROPOSED 2" RGC TO EXISTING 2" RGC (SEE ELECTRICAL INFRASTRUCTURE SHEETS FOR EXISTING CONDUIT LOCATIONS AND ELEVATIONS).



DAN RYAN TYPICAL MULTI-LANE CROSS SECTION WITH NON-INVASIVE MAGNETO-INDUCTIVE VEHICLE SENSOR (PROBE) INSTALLED IN ALL LANES

CTE | AECOM

REVISIONS	
NAME	DATE

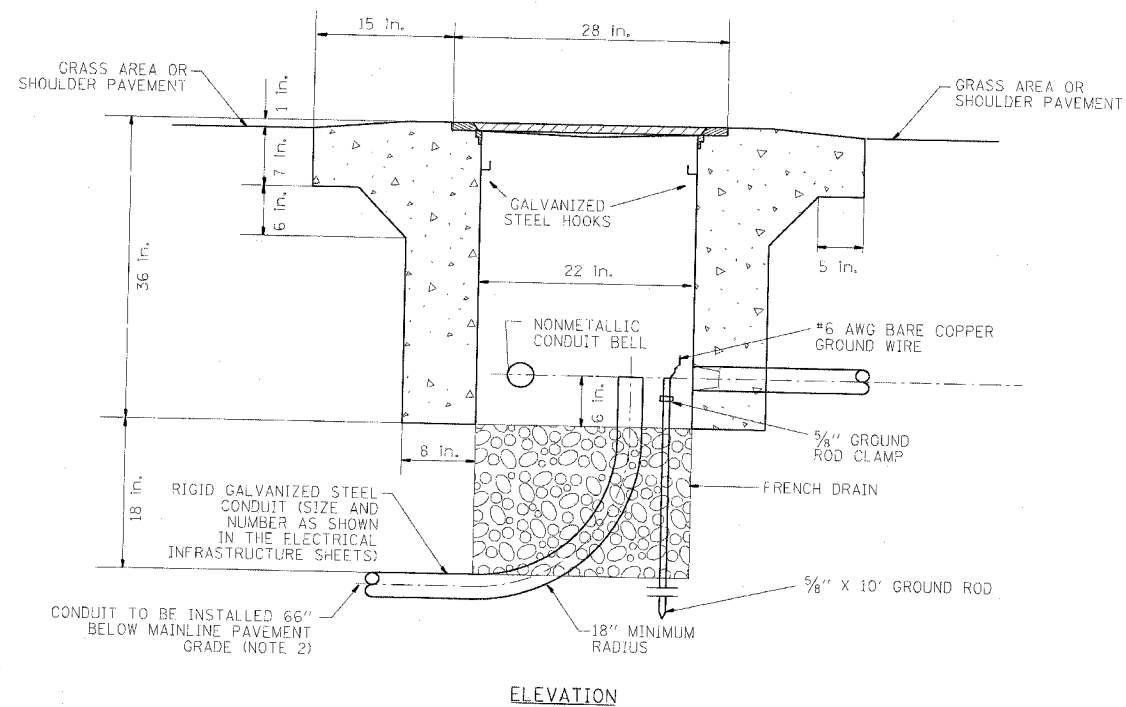
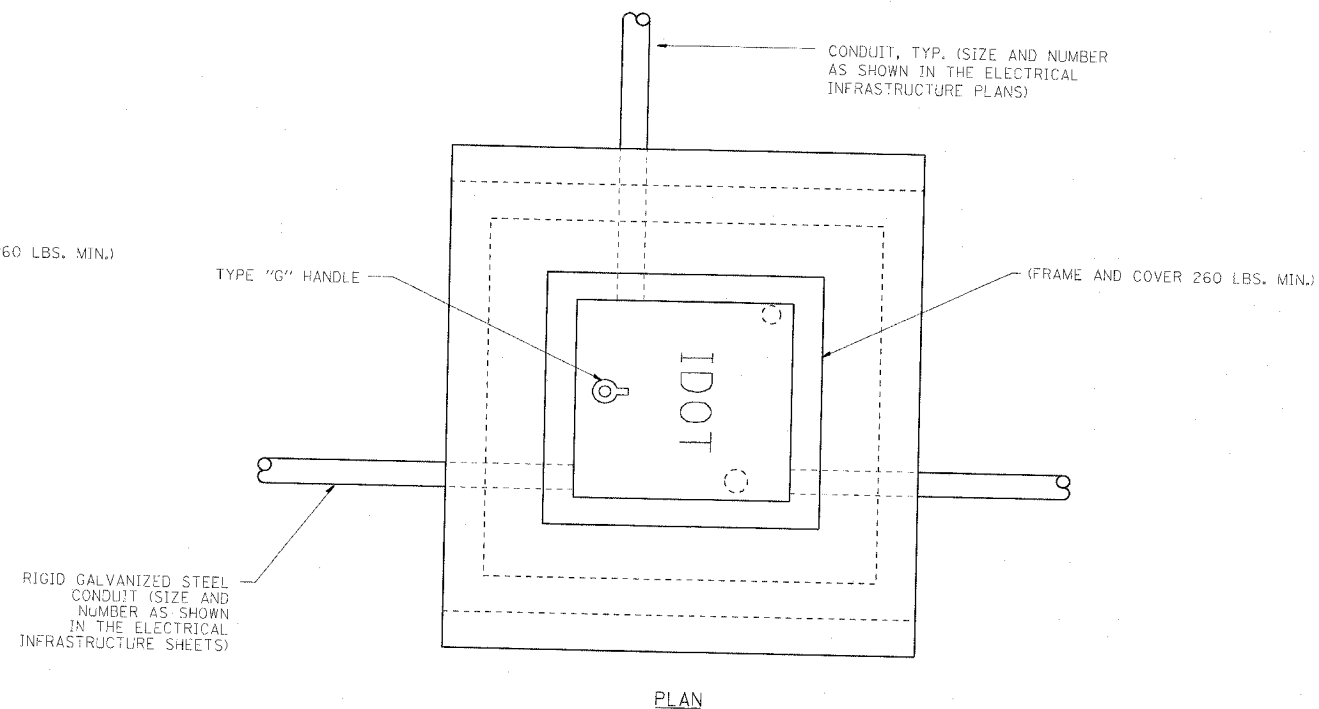
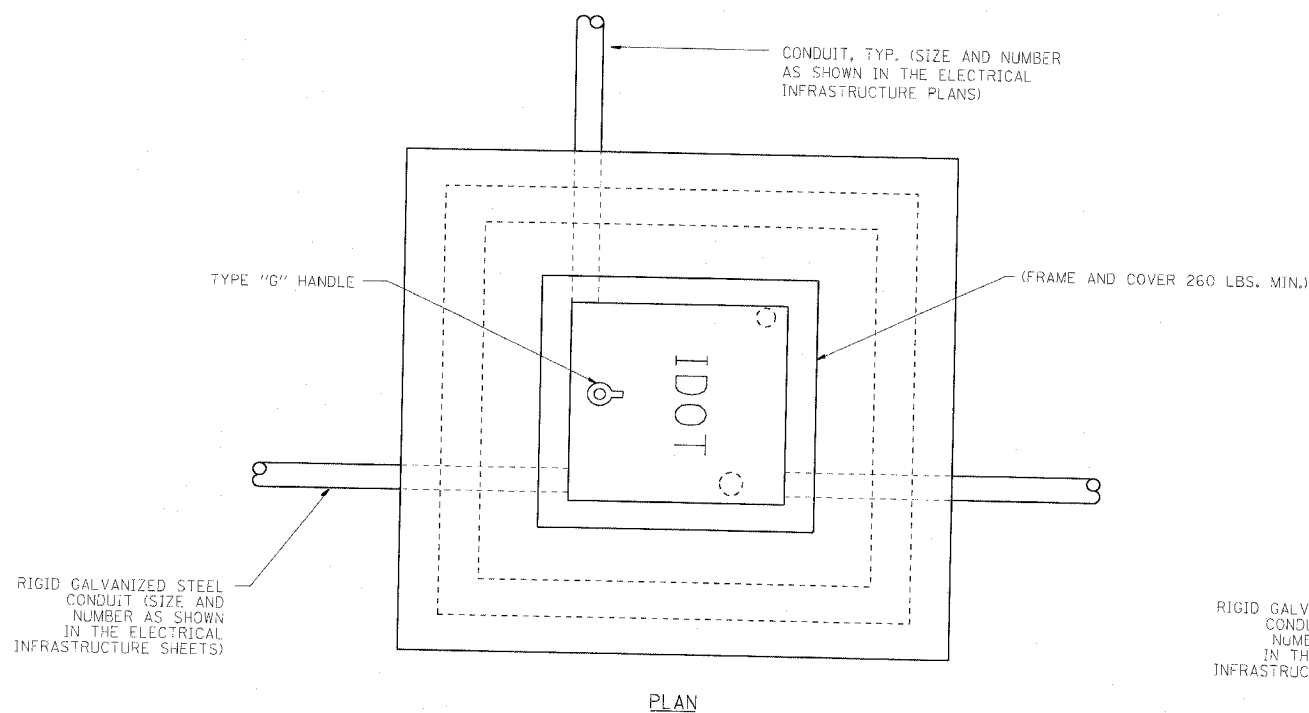
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 90/94 (DAN RYAN EXPRESSWAY)
GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)
**TYPICAL LOCAL LANE
DETECTOR STATION LAYOUT**

SCALE: NOT TO SCALE
DATE: June 9, 2006
DRAWN BY: HAR
CHECKED BY: JPC

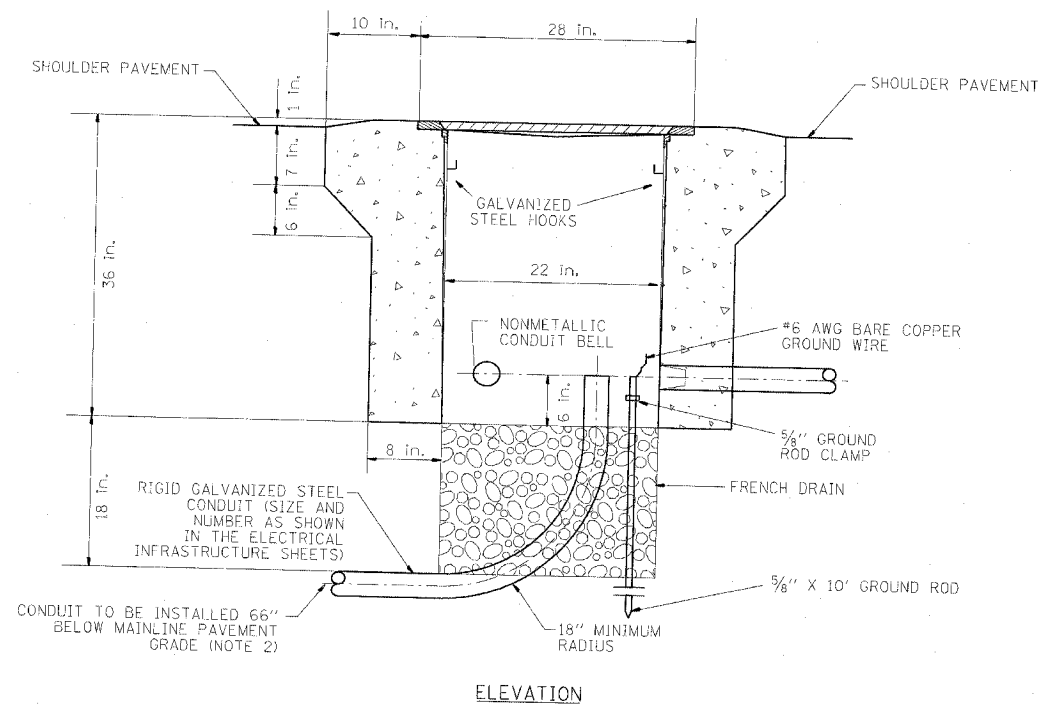
EI-102

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	•	COOK	565	315
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		
62301	• (2021-922 PT2 ETC 2324.6-1P) R-10			



**PC CONCRETE
HEAVY DUTY HANDHOLE, TYPE S1**
(FOR INSTALLATION IN
SHOULDER WIDER THAN 6' OR
BEHIND PAVED AREA)



**PC CONCRETE
HEAVY DUTY HANDHOLE, TYPE S1 (SPECIAL)**
(FOR INSTALLATION IN
SHOULDER NARROWER
THAN 6', 4' MINIMUM WIDTH)

- NOTE:
1. ALL METALLIC ELEMENTS SHALL BE GROUND IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE (NEC), SECTION 250, GROUNDING, METAL COVERS AND OTHER EXPOSED CONDUCTIVE SURFACES SHALL BE BONDED IN ACCORDANCE WITH NEC ARTICLE 250.96 (A).
 2. CONDUIT TO BE INSTALLED BELOW MAINLINE PAVEMENT WHERE SHOWN IN THE ELECTRICAL INFRASTRUCTURE PLANS (SEE SHEET EI-103).

CTE | AECOM

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 90/94 (DAN RYAN EXPRESSWAY)
GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)
**PC CONCRETE - HEAVY
DUTY HANDHOLE DETAIL,
TYPE S1 AND TYPE S1 (SPECIAL)**

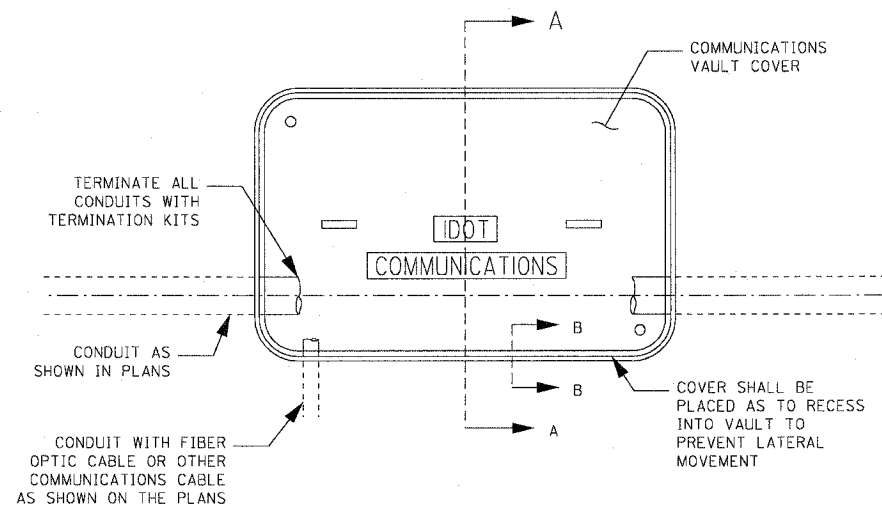
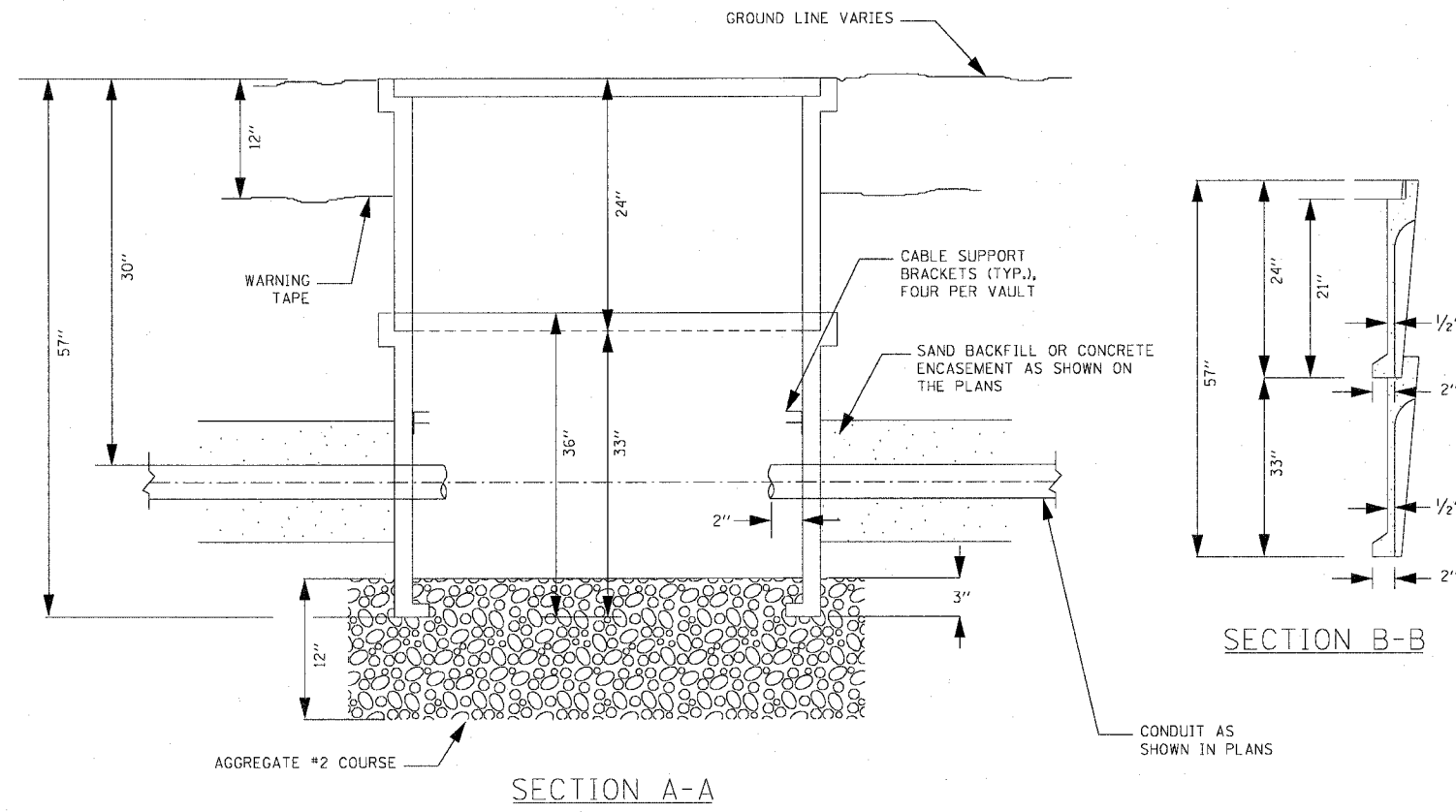
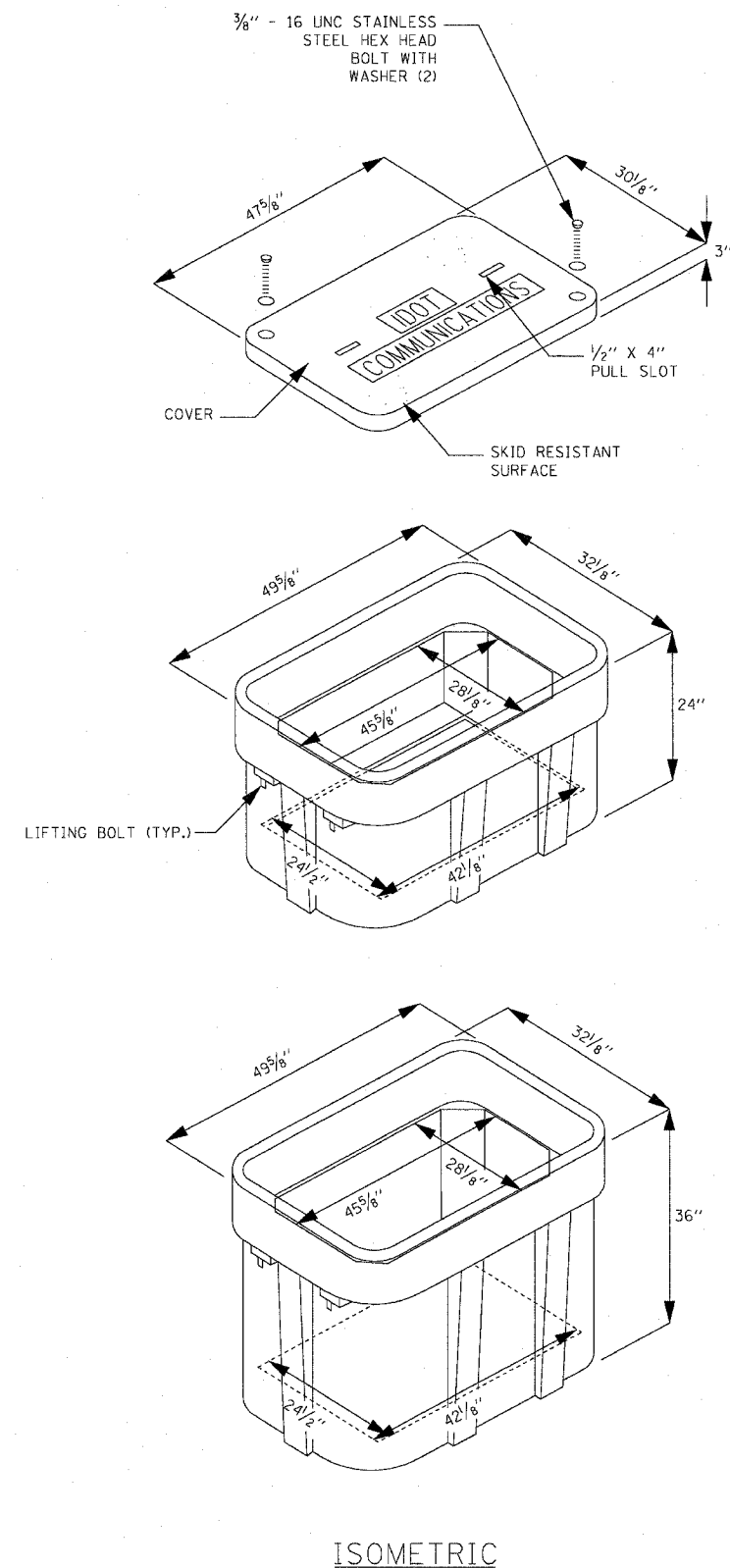
SCALE: NOT TO SCALE
DATE: June 9, 2006

DRAWN BY: HAR
CHECKED BY: JPC

EI-104

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F.A.I. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94		COOK	565	316
STA.	TO STA.			
FED. ROAD DIST. NO. 1 ILLINOIS		FED. AID PROJECT		
62301		• (2021-922 PT2 ETC 2324.6-1P) R-10		



- NOTES:**
1. BOX SHALL HAVE AN OPEN BASE.
 2. COVER SHALL BE TYPE HA AND SHALL LOCK.
 3. ALL OPENINGS IN STRUCTURE MUST BE MACHINED AT TIME OF FABRICATION OR PUNCH DRIVEN AT TIME OF PLACEMENT.
 4. FIELD PLACEMENT OF COMMUNICATIONS VAULT SHALL BE AS DIRECTED BY THE ENGINEER.

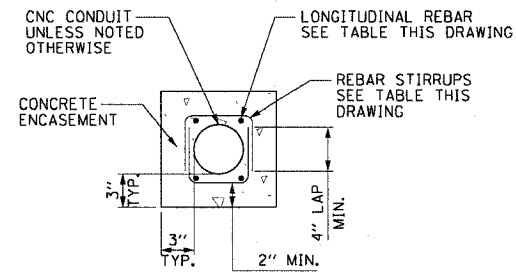
REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION F.A.I. 90/94 (DAN RYAN EXPRESSWAY) GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)
NAME	DATE	
		COMMUNICATIONS VAULT DETAILS (HANDHOLE TYPE C1)

SCALE: NTS
DATE: June 9, 2006

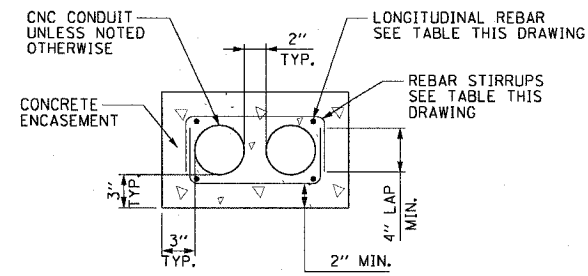
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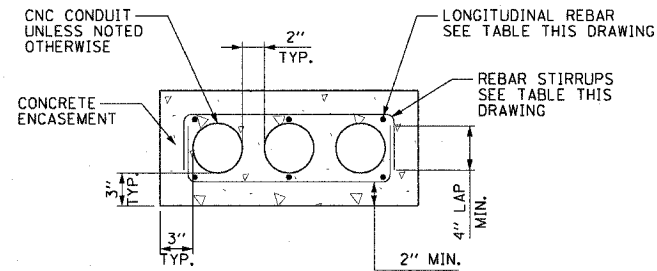
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94		COOK	565	317
STA.	TO STA.			
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	
62301		• (2021-922 PT2 ETC 2324.6-1P) R-10		



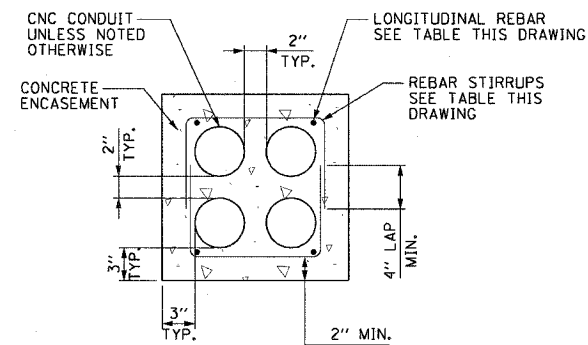
**1x1 DUCTBANK DETAIL-
IN REINFORCED CONCRETE**
NOT TO SCALE



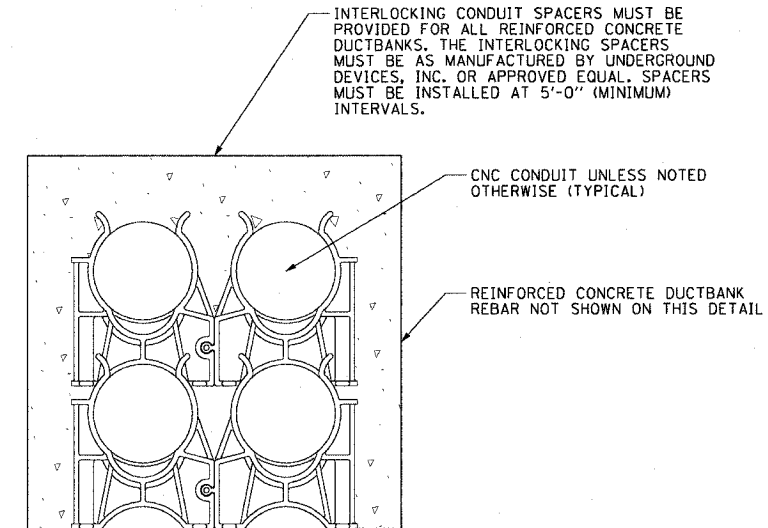
**2x1 DUCTBANK DETAIL-
IN REINFORCED CONCRETE**
NOT TO SCALE



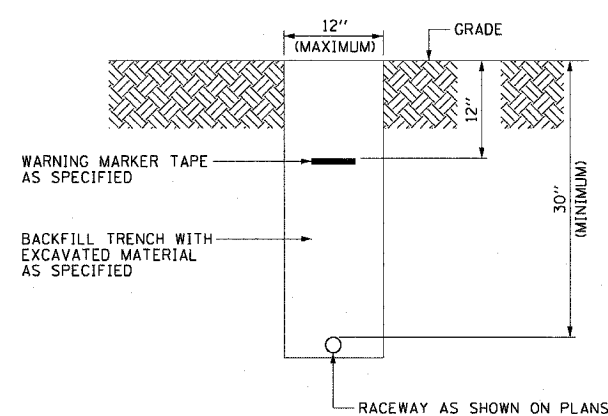
**3x1 DUCTBANK DETAIL-
IN REINFORCED CONCRETE**
NOT TO SCALE



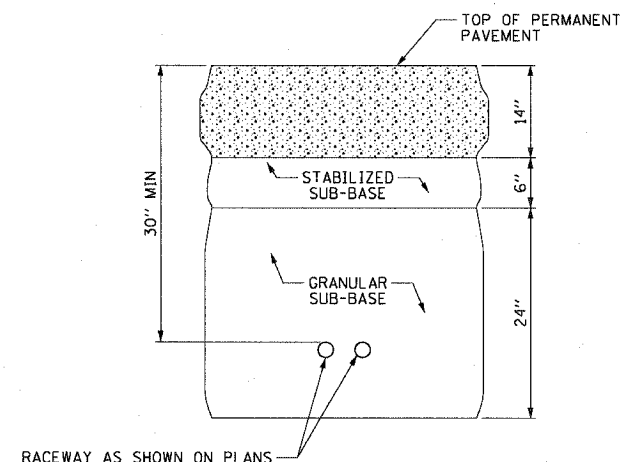
**2x2 DUCTBANK DETAIL-
IN REINFORCED CONCRETE**
NOT TO SCALE



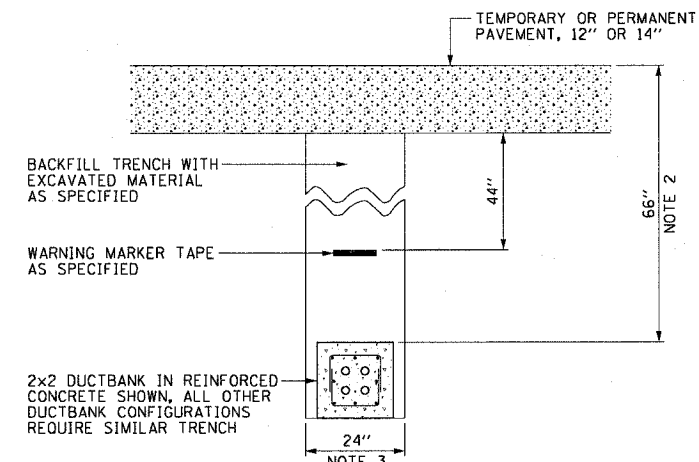
INTERLOCKING CONDUIT SPACER DETAIL
NOT TO SCALE



**TYPICAL ELECTRICAL
CONDUIT IN UNPAVED AREA**
NOT TO SCALE



**TYPICAL SURVEILLANCE
CONDUIT UNDER PERMANENT PAVEMENT**
NOT TO SCALE



**TYPICAL ELECTRICAL
DUCTBANK UNDER PAVEMENT**
NOT TO SCALE

NOTES:

- SEE DRAWINGS E1-100 AND E1-101 FOR ELECTRICAL SYMBOLS AND ABBREVIATIONS.
- PROVIDE MINIMUM CLEARANCE SHOWN FROM TOP OF DUCTBANK TO FINISHED GRADE FOR ALL DUCTBANKS, REGARDLESS OF SIZE. CONTRACTOR MUST INSTALL DUCTBANKS SUCH THAT THEY WILL CLEAR ALL UNDERGROUND OBSTACLES.
- TRENCH MUST HAVE MINIMUM WIDTH SHOWN FOR ALL DUCTBANKS DETAILED ON THIS DRAWING. THE CONTRACTOR MUST INCREASE TRENCH WIDTH FOR ADDITIONAL CONDUITS, AS DIRECTED BY THE COMMISSIONER, AT NO ADDITIONAL COST.
- NOT ALL DUCTBANK CONFIGURATIONS ARE SHOWN, ALL DUCTBANKS INSTALLED UNDER THIS CONTRACT WILL CONFORM TO THE TYPICAL SPACINGS SHOWN ON THIS DRAWING.

DUCTBANK REINFORCEMENT TABLE		
DUCTBANK CONCRETE CROSS-SECTIONAL AREA SQ. INCHES	LONGITUDINAL REBAR	REBAR STIRRUPS
	BARS	
LESS THAN 450	#4	#3 AT 12" SPACING
451 TO 650	#5	#3 AT 12" SPACING
GREATER THAN 651	#6	#3 AT 12" SPACING

REVISIONS	
NAME	DATE

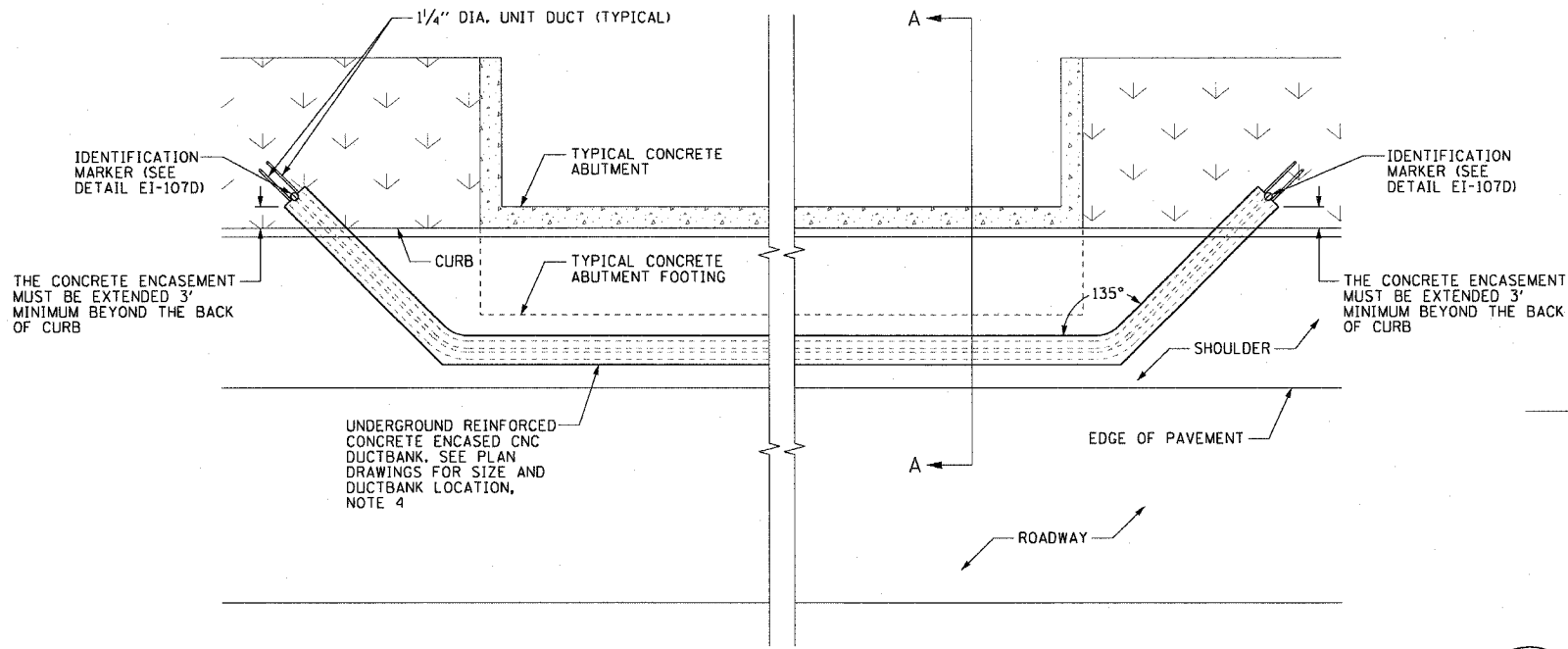
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 90/94 (DAN RYAN EXPRESSWAY)
GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)

ELECTRICAL DUCTBANK DETAILS

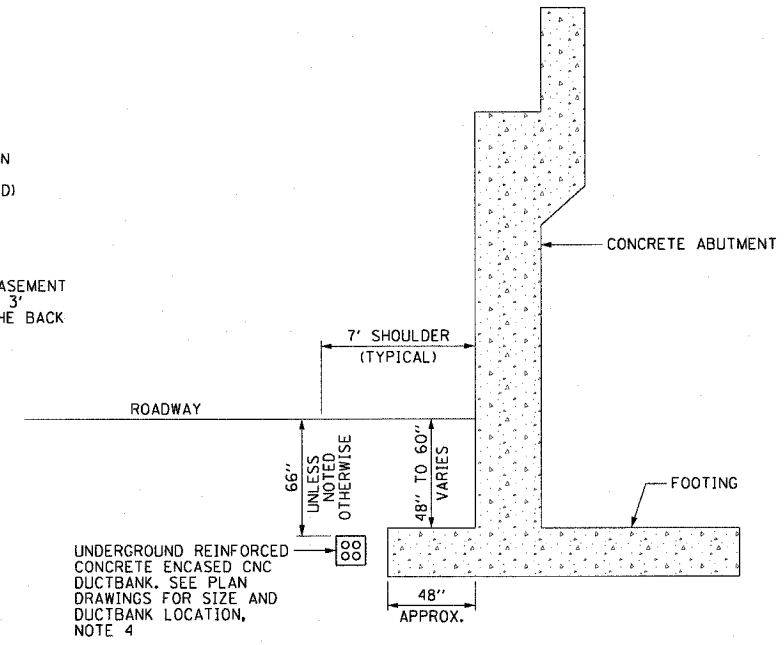
SCALE: NOT TO SCALE DRAWN BY: HAR
DATE: June 9, 2006 CHECKED BY: JPC

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94		COOK	565	318
STA.	TO STA.			
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
62301 • (2021-922 PT2 ETC 2324.6-1P) R-10				

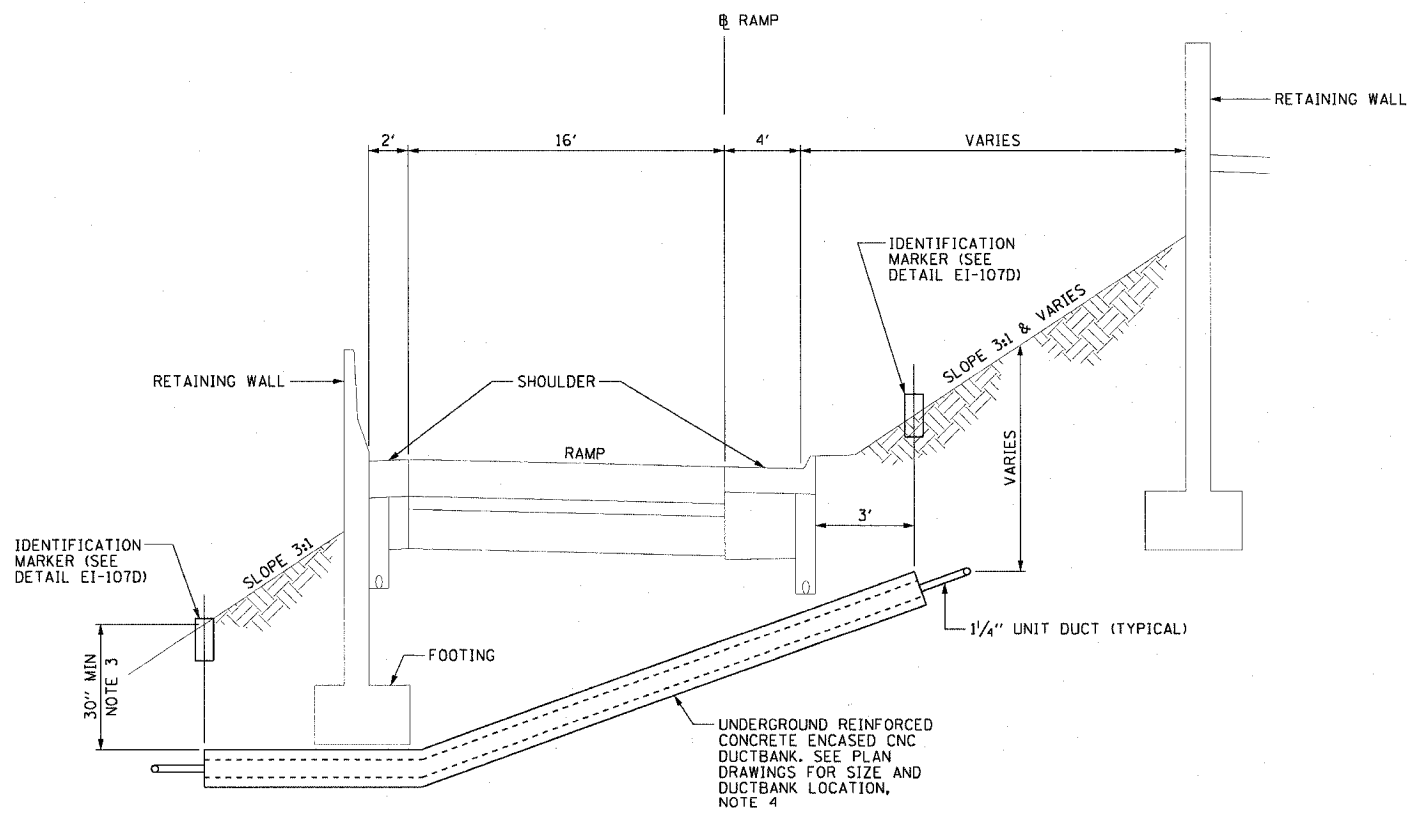


EI-107A DUCTBANK ROUTING AROUND ABUTMENT
SCALE: 1/4" = 1'-0"

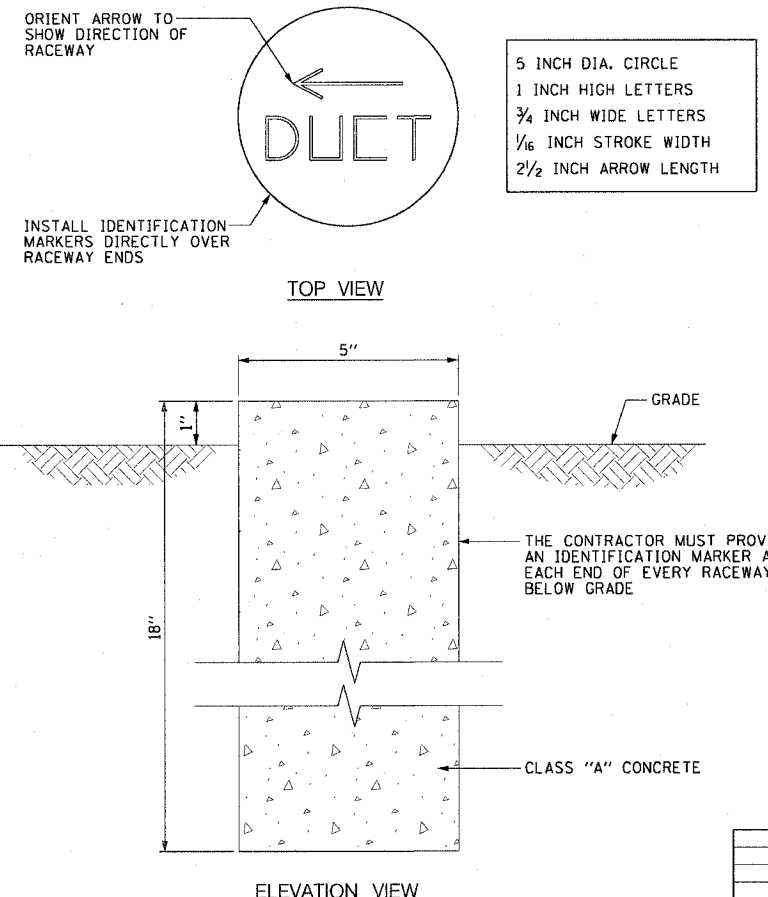


EI-107B DUCTBANK INSTALLATION DETAIL A-A
SCALE: 1/4" = 1'-0"

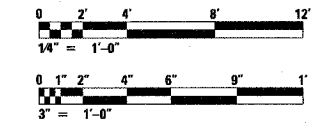
- NOTES:**
- SEE DRAWINGS EI-100 AND EI-101 FOR ELECTRICAL SYMBOLS AND ABBREVIATIONS.
 - SEE PLAN DRAWINGS FOR THE PROPOSED CONDUIT ROUTING.
 - DUCTBANK DEPTH MUST BE ADJUSTED SUCH THAT THE TOP OF CONCRETE ENCASEMENT IS INSTALLED UNDER THE RETAINING WALL FOOTING. FOR SOLDIER PILE TYPE RETAINING WALLS THE DUCTBANK IS ROUTED BETWEEN PILES. THE DUCTBANK DEPTH MUST BE 30 INCHES MINIMUM.
 - SEE DRAWING EI-106 FOR ELECTRICAL CONCRETE DUCTBANK DETAILS.
 - SEE PLAN DRAWINGS FOR ANY DEVIATIONS IN DUCTBANK DEPTH.



EI-107C TYPICAL CONCRETE ENCASED CNC UNDER RAMP INSTALLATION DETAIL
NOT TO SCALE



EI-107D IDENTIFICATION MARKER DETAIL
SCALE: 3" = 1'-0"



REVISIONS	
NAME	DATE

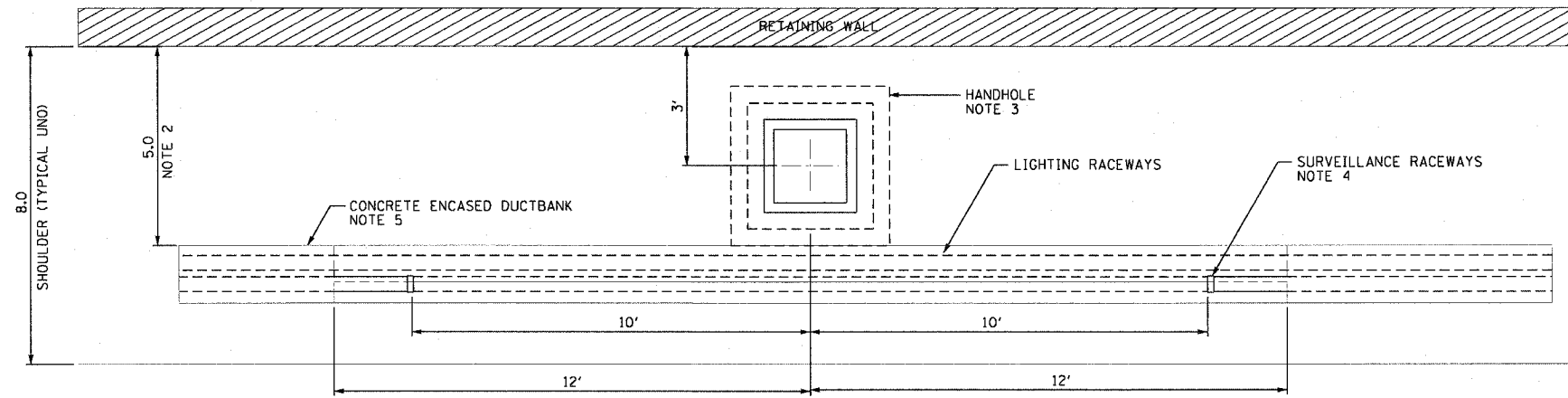
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 90/94 (DAN RYAN EXPRESSWAY)
GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)

**DUCTBANK INSTALLATION DETAILS
UNDER RAMPS AND AROUND
ABUTMENTS**

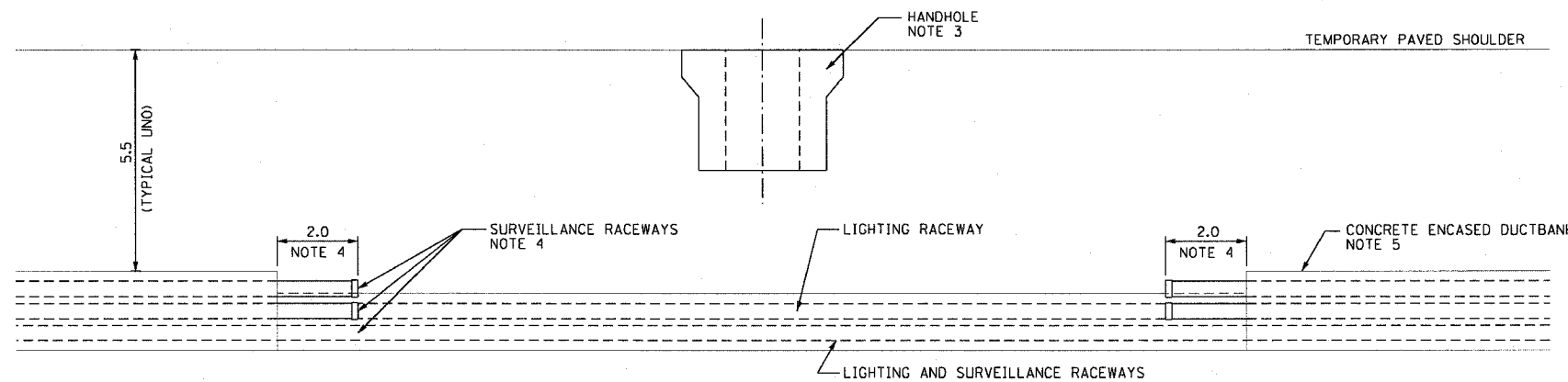
SCALE: AS SHOWN
DATE: June 9, 2006

DRAWN BY: HAR
CHECKED BY: JPC

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94		COOK	565	319
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		
62301	* (2021-922 PT2 ETC 2324.6-1P) R-10			



TOP VIEW



ELEVATION VIEW

NOTES:

- SEE DRAWING EI-106 FOR ELECTRICAL DUCTBANK DETAILS.
- THE DISTANCE IS MEASURED FROM THE FRONT FACE OF RETAINING WALL TO THE FACE OF DUCTBANK.
- THE HANDHOLE WILL BE INSTALLED CONTRACT 62301. THE PLANS SHOW THE ANTICIPATED LOCATIONS OF PROPOSED HANDHOLES. THIS SHEET IS INCLUDED TO PROVIDE THE CONTRACTOR WITH ANTICIPATED EXISTING CONDITIONS. DUCTBANK SHOWN WAS INSTALLED IN CONTRACT 62586.
- THE TOP TWO SURVEILLANCE RACEWAYS SHOULD BE STUBBED OUT FROM THE CONCRETE ENCASEMENT AND CAPPED AS SHOWN. THE DUCTBANK REINFORCING REBAR SHOULD ALSO BE EXTENDED OUT FROM THE CONCRETE ENCASEMENT A MINIMUM OF 2 FEET AS SHOWN.
- DUCTBANK WAS LOCATED 5 FEET FROM THE FACE OF WALL TO AVOID CONFLICTS WITH PROPOSED AND FUTURE DRAINAGE STRUCTURES.

CTE | AECOM

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 90/94 (DAN RYAN EXPRESSWAY)
 GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)
 EXISTING DUCTBANK
 INSTALLATION DETAILS
 AT PROPOSED HANDHOLE

SCALE: NOT TO SCALE DRAWN BY: HAR
 DATE: June 9, 2006 CHECKED BY: JPC

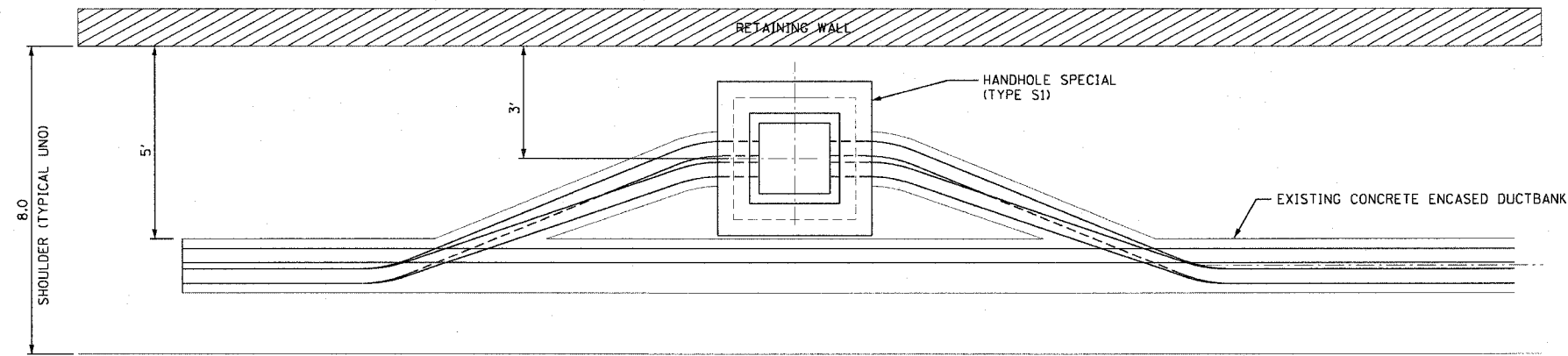
EI-108

06/07/2006 10:50:43 AM

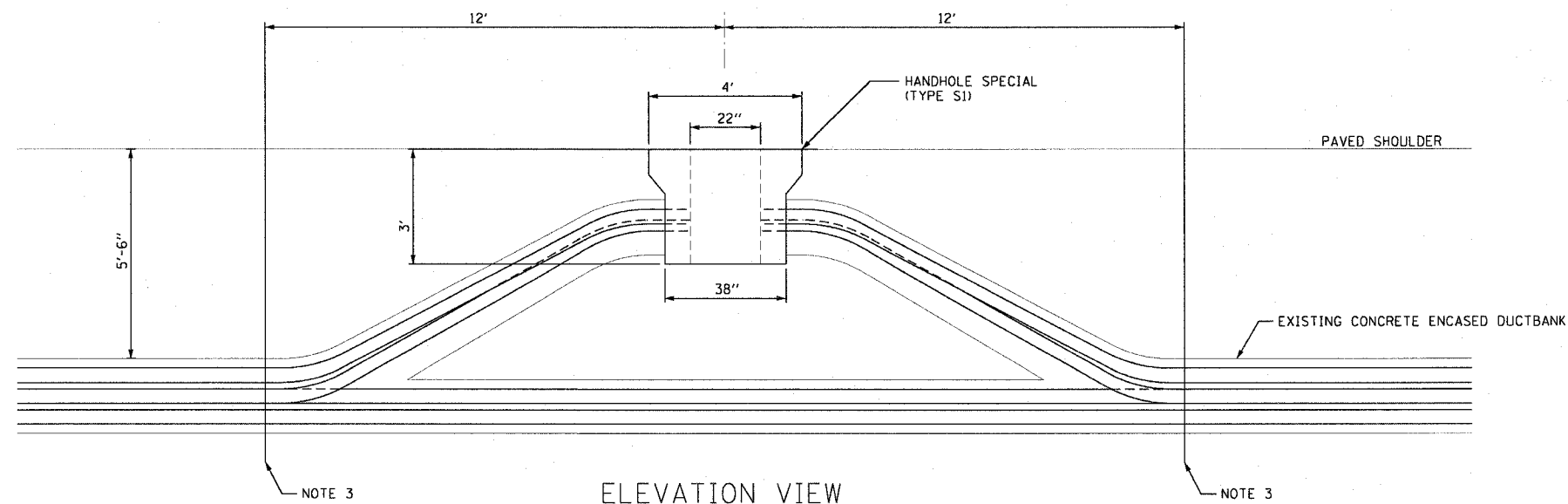
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	*	COOK	565	320
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		
62301	* (2021-922 PT2 ETC 2324.6-1P) R-10			

NOTES:

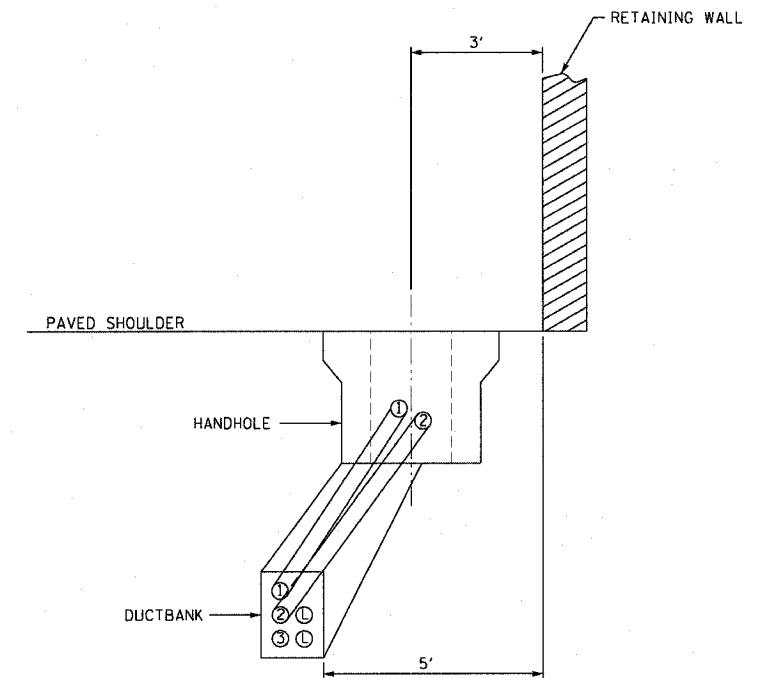
1. SEE DRAWING EI-106 FOR ELECTRICAL DUCTBANK DETAILS.
2. SEE DRAWING EI-108 FOR EXISTING CONDITIONS.
3. EXTEND 4" RACEWAYS FROM EXISTING DUCTBANK TO HANDHOLE. COORDINATE WORK WITH SHOULDER CONSTRUCTION. ALL CONDUIT SHALL BE ENCASED IN REINFORCED CONCRETE.
4. ADJUST HANDHOLE LOCATION AS REQUIRED TO ACCOMMODATE EXISTING CONDITIONS. FINAL LOCATION MUST BE APPROVED BY THE ENGINEER.
5. ONLY TWO OF THE SURVEILLANCE RACEWAYS ARE ROUTED THROUGH THE HANDHOLE. THE BOTTOM SURVEILLANCE RACEWAY IS FOR THE BACKBONE FIBER OPTIC CABLE AND MUST BYPASS THE HANDHOLE.



TOP VIEW



ELEVATION VIEW



SIDE VIEW

NOTE 3

NOTE 3

EI-109

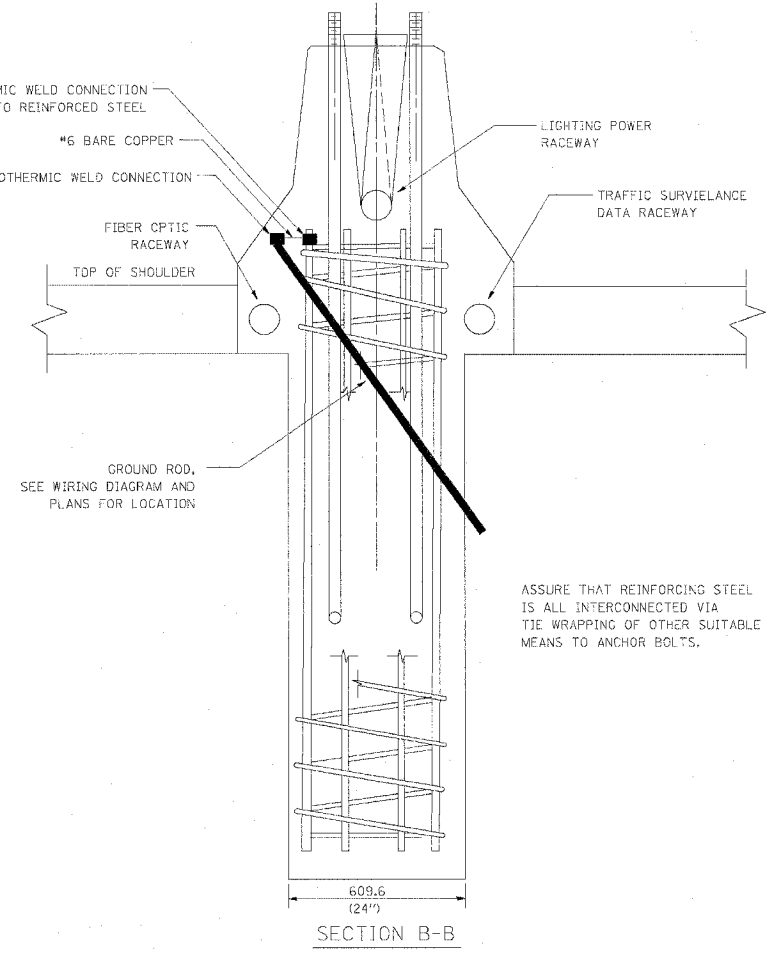
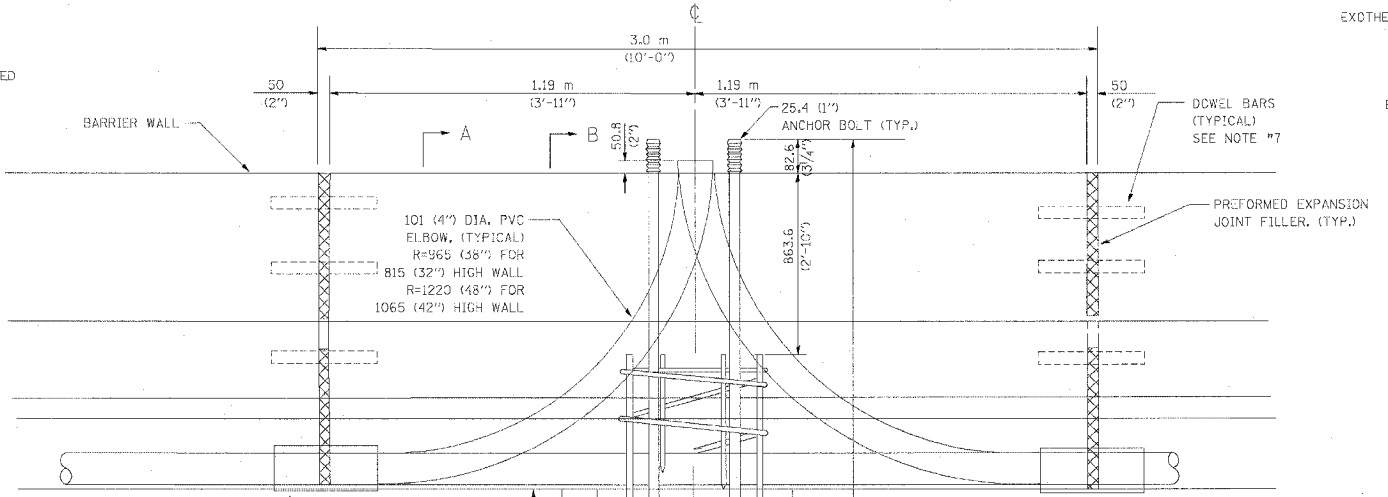
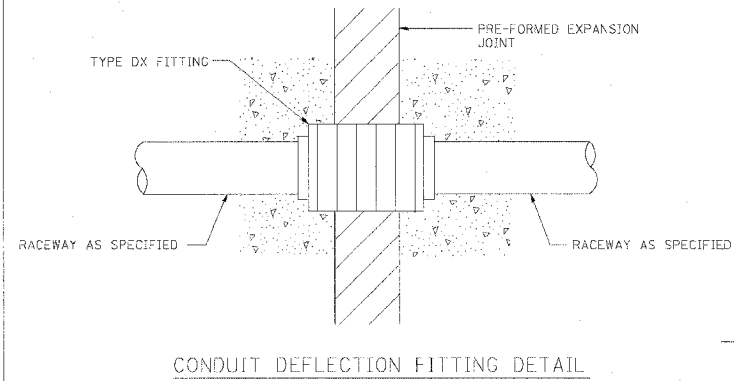
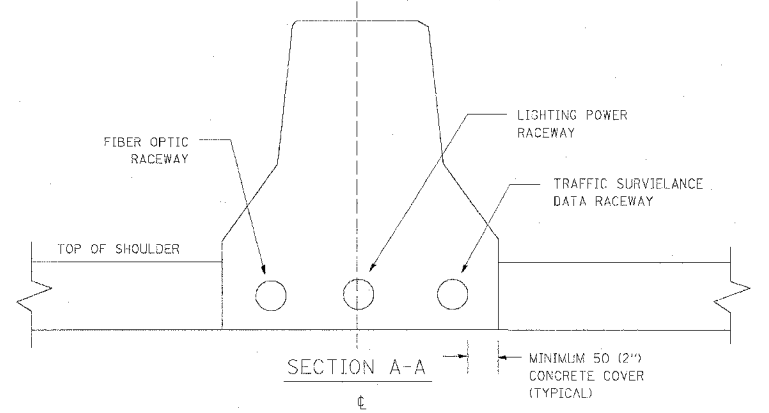
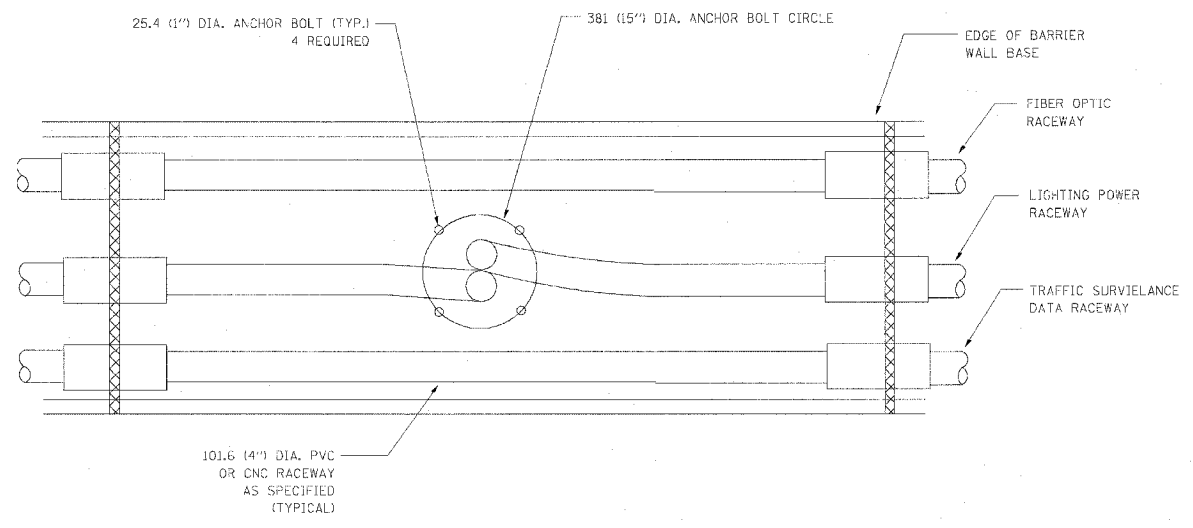
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 90/94 (DAN RYAN EXPRESSWAY)
 GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)
**DUCTBANK ROUTING
 INTO HANDHOLE**

SCALE: NOT TO SCALE
 DATE: June 9, 2006
 DRAWN BY: HAR
 CHECKED BY: JPC

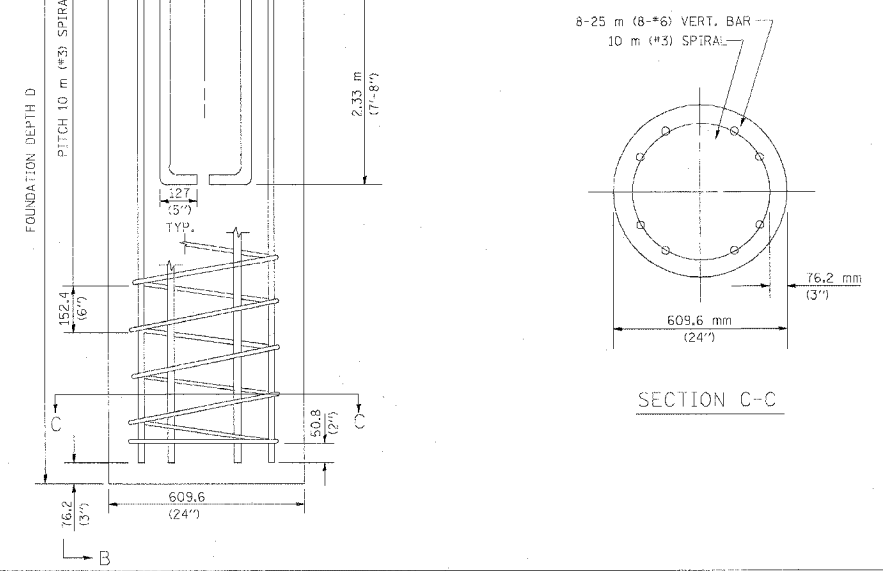
NOTES:

- ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE SHOWN.
- THE ANCHOR BOLTS AND RACEWAYS SHALL BE PROPERLY SECURED IN PLACE BEFORE THE CONCRETE IS PLACED IN THE FORMS.
- THE CONTRACTOR AT HIS OPTION MAY SUBSTITUTE 15 m (#4) TIES AT 304.8 m (12") CTRS. FOR THE 3 m (#3) SPIRAL. TACKWELDED TYPE BOLT MAY BE SUBSTITUTED FOR THE HOOK TYPE BOLT.
- COLD BENDING OF THE HOOK BOLT SHALL NOT BE ALLOWED.
- EXCAVATION FOR THE POLE FOUNDATION SHALL BE MADE WITH AN AUGER 609.6 m (24 INCHES) IN DIAMETER.
- THE ENGINEER SHALL DETERMINE THE TYPE OF SOIL DURING EXCAVATION AND SELECT THE DESIGN DEPTH OF FOUNDATION FROM THE DESIGN TABLE USING THE DOMINANT CHARACTERISTIC OF THE SOIL ENCOUNTERED.
- BARRIER WALL EXPANSION AND CONSTRUCTION JOINTS SHALL BE IN ACCORDANCE WITH STANDARD DETAIL 637001-02 AND 637006 AS APPLICABLE.



TYPE OF SOIL	FOUND FEPTH D	REINFORCEMENT IN FOUNDATION	
		VERTICAL BARS	SPIRAL
ROCK OR SOLIDIFIED SLAG	1.52 m (5'-0")	NONE	NONE
DENSE SAND	2.36 m (7'-9")	8-20 m x 2.74 m (8-#6 x 9'-0")	3 m x 27.43 m (#3 x 90')
MEDIUM SAND	2.51 m (8'-3")	8-20 m x 2.87 m (8-#6 x 9'-5")	3 m x 28.65 m (#3 x 94')
LOOSE SAND	2.74 m (9'-0")	8-20 m x 3.09 m (8-#6 x 10'-2")	3 m x 30.48 m (#3 x 100')
STIFF CLAY	2.13 m (7'-0")	8-20 m x 2.48 m (8-#6 x 10'-8")	3 m x 24.38 m (#3 x 80')
MEDIUM CLAY	2.89 m (9'-6")	8-20 m x 3.25 m (8-#6 x 10'-8")	3 m x 31.69 m (#3 x 104')
SOFT CLAY	3.96 m (13'-0")	8-20 m x 4.32 m (8-#6 x 14'-2")	3 m x 43.89 m (#3 x 144')

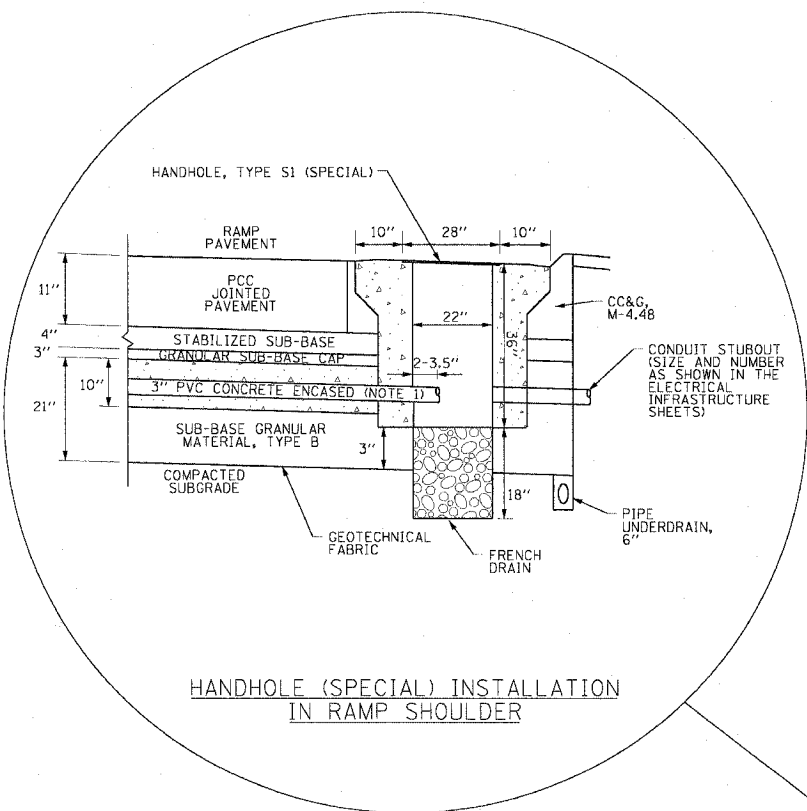
DESIGN: 80 MPH AASHTO



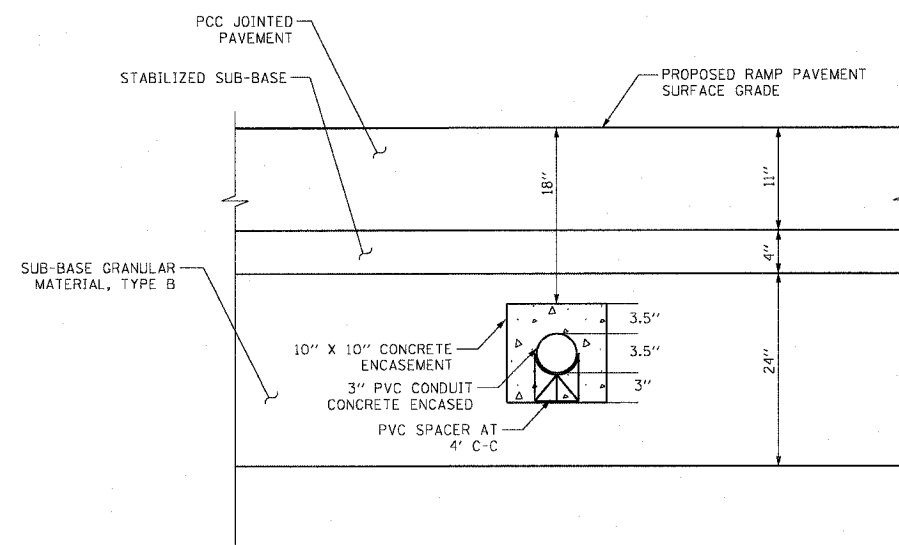
REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		609.6 mm (24") DIA. LIGHT POLE FOUNDATION INTEGRAL WITH DOUBLE FACE BARRIER WALL SCALE: VERT. NONE HORIZ. NONE DATE 04/08/2004

DRAWN BY CADD
CHECKED BY
SE-322
REVISION DATE: 04/07/04

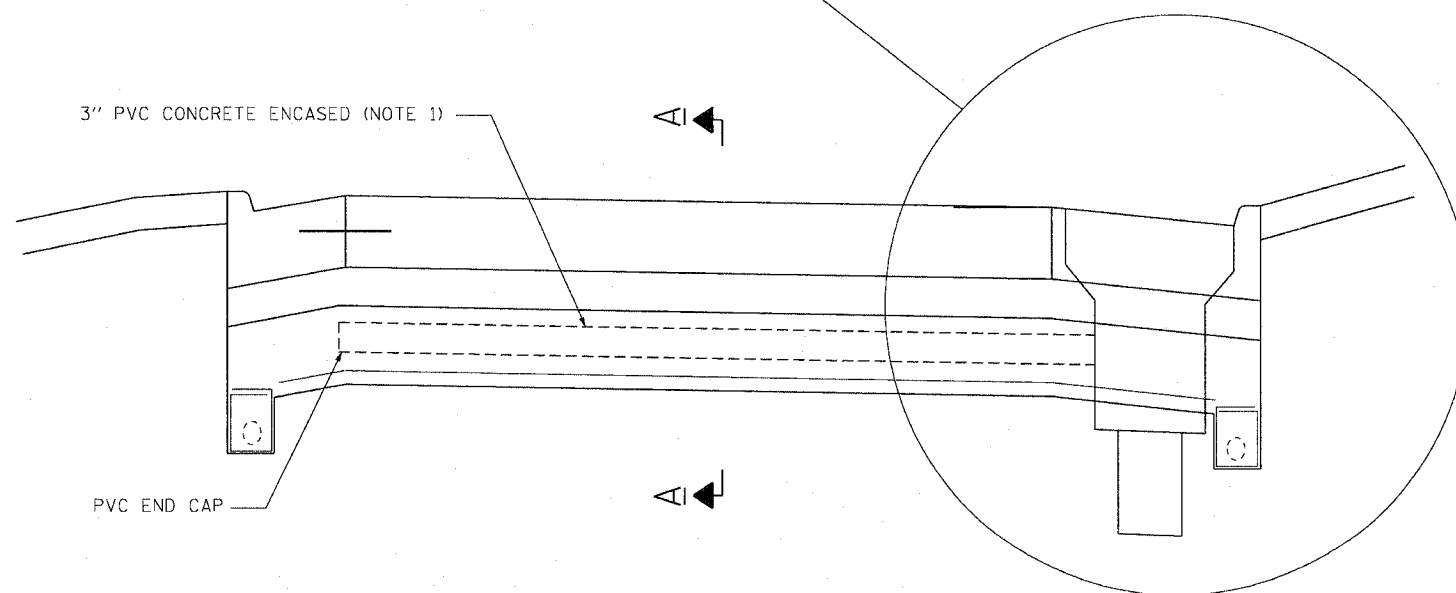
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94		COOK	565	322
STA.	TO STA.			
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
62301 • (2021-922 PT2 ETC 2324.6-1P) R-10				



HANDHOLE (SPECIAL) INSTALLATION
IN RAMP SHOULDER



TYPICAL DETECTOR CONDUIT INSTALLATION
IN RAMP PAVEMENT: SECTION A-A



TYPICAL RAMP DETECTOR INSTALLATION

NOTES

- 3" PVC CONCRETE ENCASED CONDUIT IS REQUIRED ONLY WHERE SHOWN ON THE PLAN DRAWINGS. WHEN INSTALLED, THE CONDUIT MUST MAINTAIN THE SAME ANGLE AS THE PAVEMENT THROUGHOUT ITS ENTIRE LENGTH. CONTRACTOR MUST VERIFY THE DETECTOR CONDUIT STRAIGHTNESS ACCORDING TO THE CONTRACT SPECIFICATIONS BEFORE THE CONCRETE ENCASEMENT IS INSTALLED.
- FOR HANDHOLE DETAIL SEE SHEET EI-104.
- WHEN INSTALLING CONDUIT NEAR OR THROUGH UNDERDRAIN GEOTECHNICAL FABRIC, THE CONTRACTOR SHALL MAINTAIN THE INTEGRITY AND UNIFORMITY OF THE UNDERDRAIN FABRIC THROUGH OVERLAP TO THE SATISFACTION OF THE ENGINEER.

CTE | AECOM

REVISIONS	
NAME	DATE

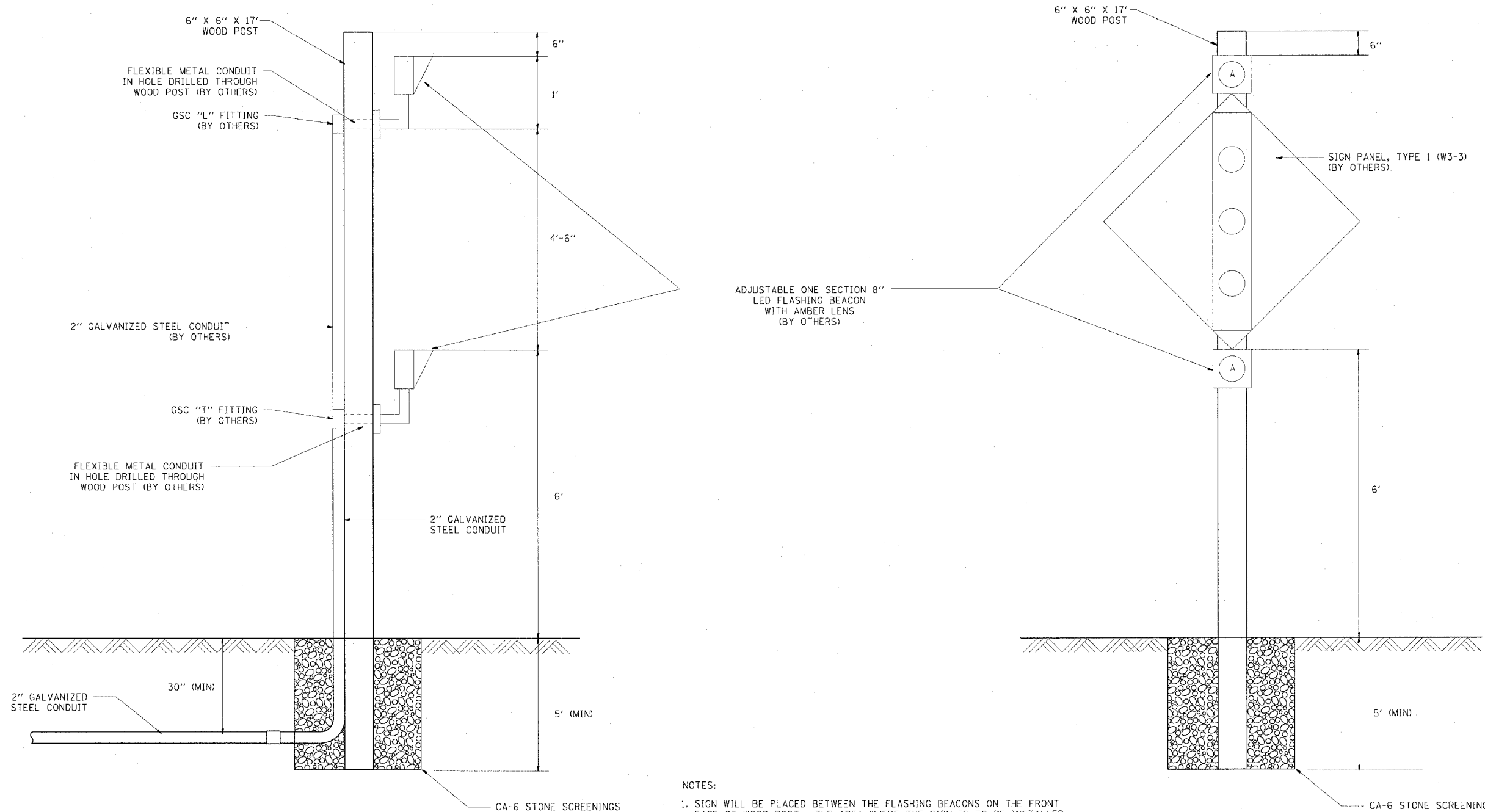
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 90/94 (DAN RYAN EXPRESSWAY)
GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)
TYPICAL RAMP DETECTOR
INSTALLATION DETAIL

SCALE: NOT TO SCALE
DATE: June 9, 2006
DRAWN BY: HAR
CHECKED BY: JPC

EI-111

10:50:43 AM 06/07/2006

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94		COOK	565	323
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		
62301	• (2021-922 PT2 ETC 2324.6-1P) R-10			



- NOTES:
- SIGN WILL BE PLACED BETWEEN THE FLASHING BEACONS ON THE FRONT FACE OF WOOD POST. THE AREA WHERE THE SIGN IS TO BE INSTALLED (4'-6\"/>

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 90/94 (DAN RYAN EXPRESSWAY)
 GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)
RAMP METER FLASHER ON WOOD SIGN SUPPORT DETAIL

SCALE: NOT TO SCALE
 DATE: June 9, 2006

DRAWN BY: HAR
 CHECKED BY: JPC

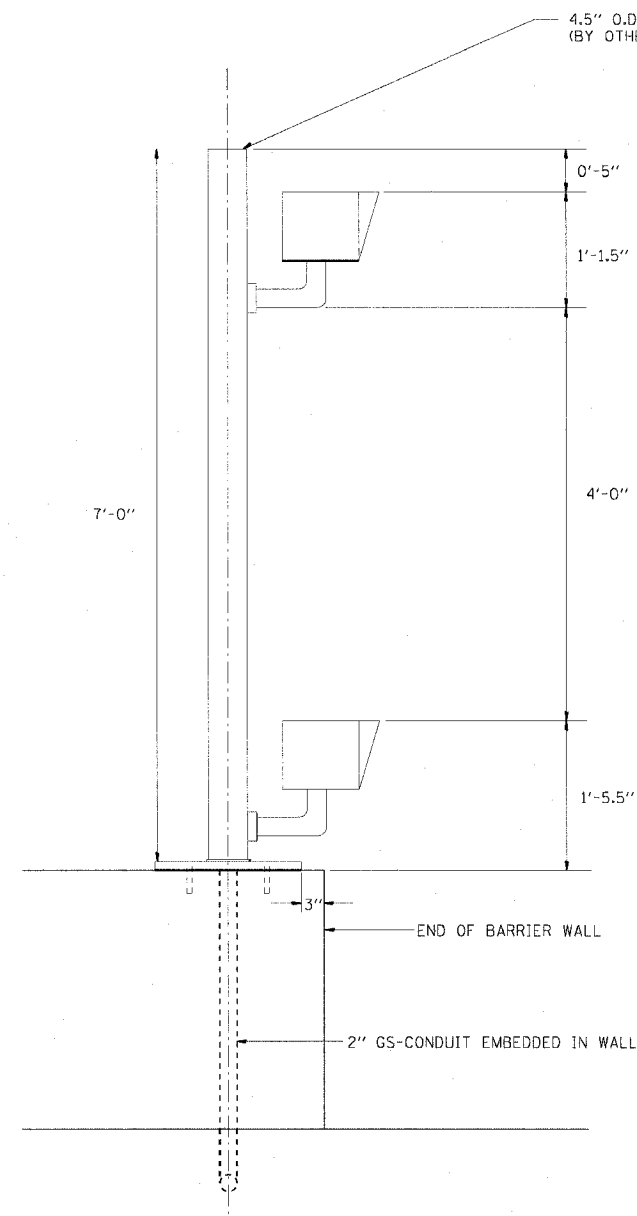


EI-112
 05/07/2006 10:50:44 AM

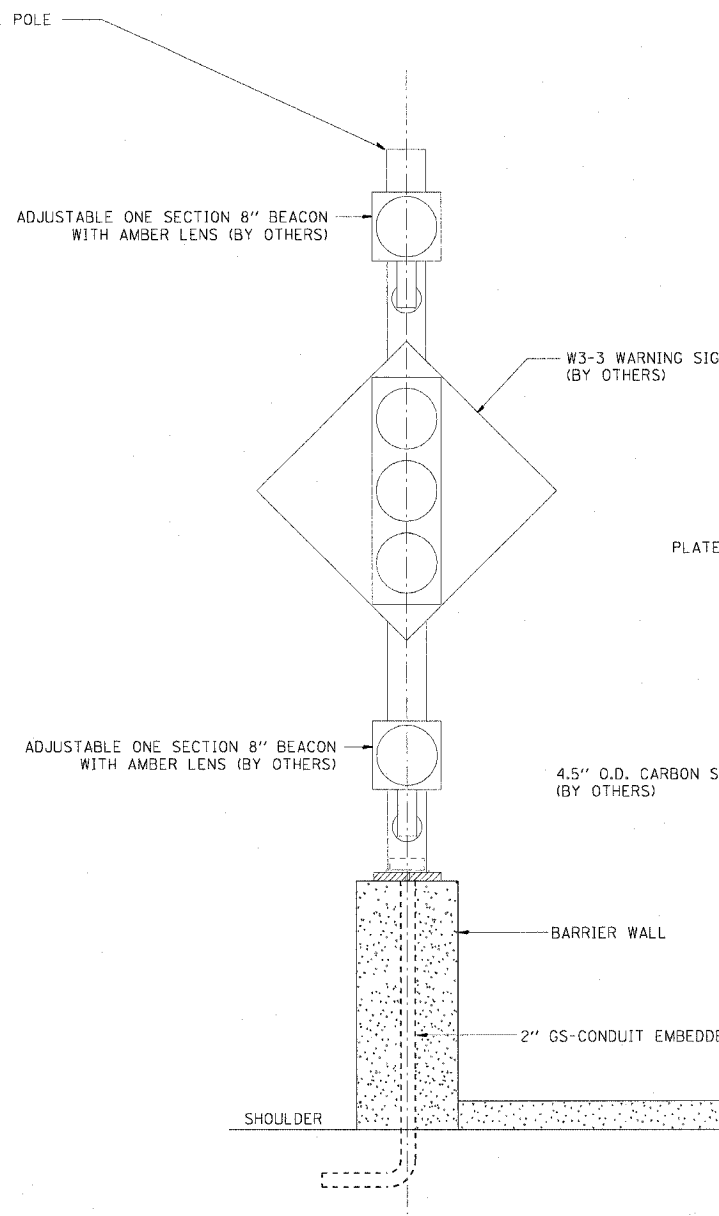
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94		COOK	565	324
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		
62301	• (2021-922 PT2 ETC 2324.6-1P) R-10			

NOTES:

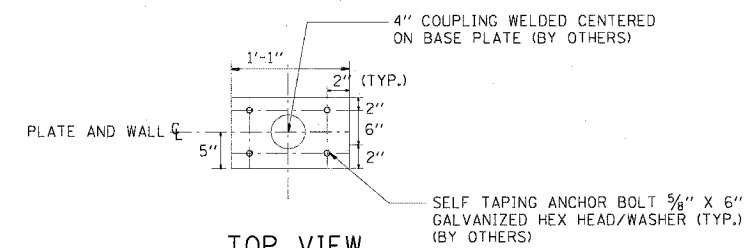
- SEE DRAWINGS EI-100 AND EI-101 FOR ELECTRICAL SYMBOLS AND ABBREVIATIONS.
- COORDINATE ALL WORK WITH STRUCTURAL DRAWINGS AND IDOT CONTRACT NO. 62583.
- ALL ITEMS DESIGNATED AS "BY OTHERS" WILL BE INSTALLED UNDER IDOT CONTRACT NO. 62583.
- CONDUIT MUST BE STUBBED OUT OF CONCRETE A MINIMUM OF 3".
- LOCATION OF CONDUIT STUB UP IN PARAPET WALL FOR FUTURE RAMP METER FLASHER SHALL BE COORDINATED WITH IDOT CONTRACT NO. 62583.
- SEE PLAN DRAWINGS FOR CONDUIT ROUTING.



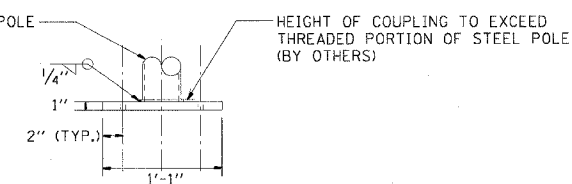
SIDE VIEW



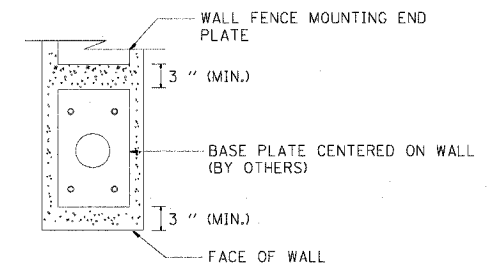
FRONT VIEW



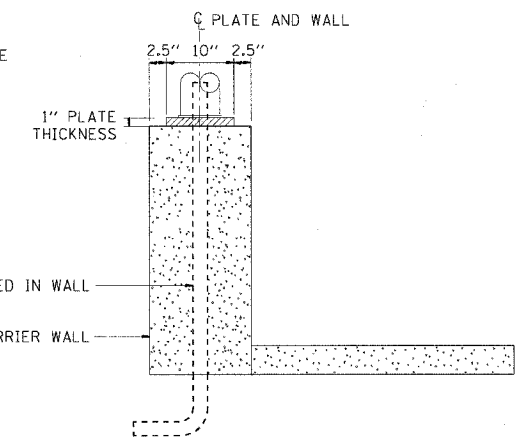
TOP VIEW
(BASE PLATE)



SIDE VIEW
(BASE PLATE)



TOP VIEW
(BASE PLATE ON WALL)



FRONT VIEW
(BASE PLATE ON WALL)

FLASHER POST ON BARRIER WALL

CTE | AECOM

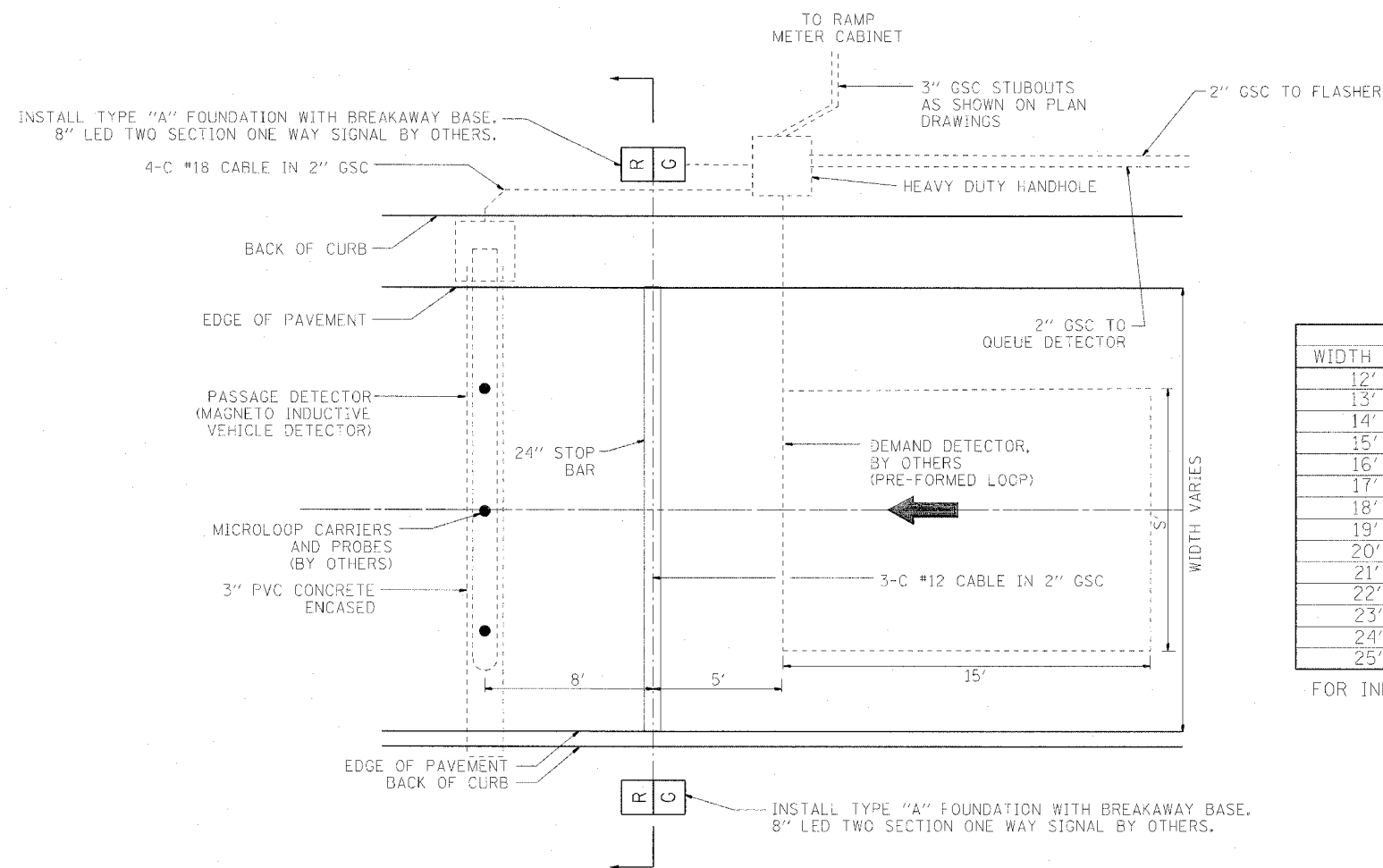
REVISIONS		NAME	DATE
NO.	DESCRIPTION		

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 90/94 (DAN RYAN EXPRESSWAY)
GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)
**RAMP METER FLASHER
ON BARRIER WALL DETAIL**

SCALE: NOT TO SCALE
DATE: June 9, 2006
DRAWN BY: HAR
CHECKED BY: JPC

06/07/2006 10:50:44 AM

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	*	COOK	565	325
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		
62301	• (2021-922 PT2 ETC 2324.6-1P) R-10			



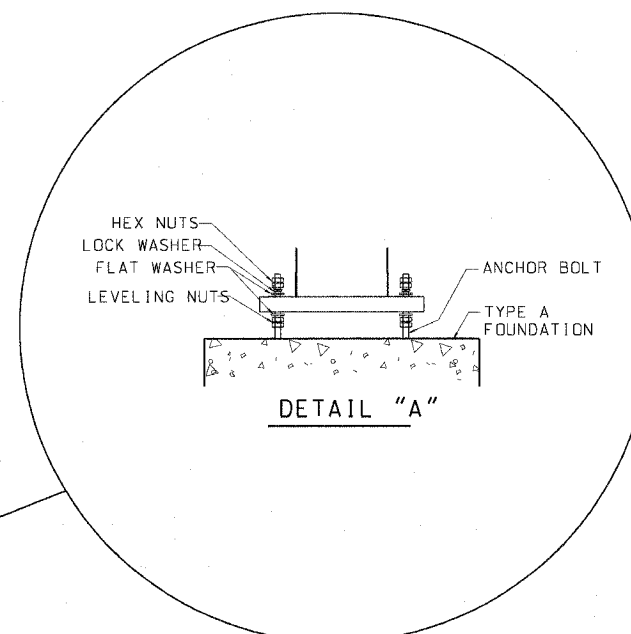
WIDTH (W)	WIDTH (S)
12'	8'
13'	9'
14'	10'
15'	11'
16'	12'
17'	13'
18'	14'
19'	15'
20'	16'
21'	17'
22'	18'
23'	19'
24'	20'
25'	21'

FOR INFORMATION ONLY

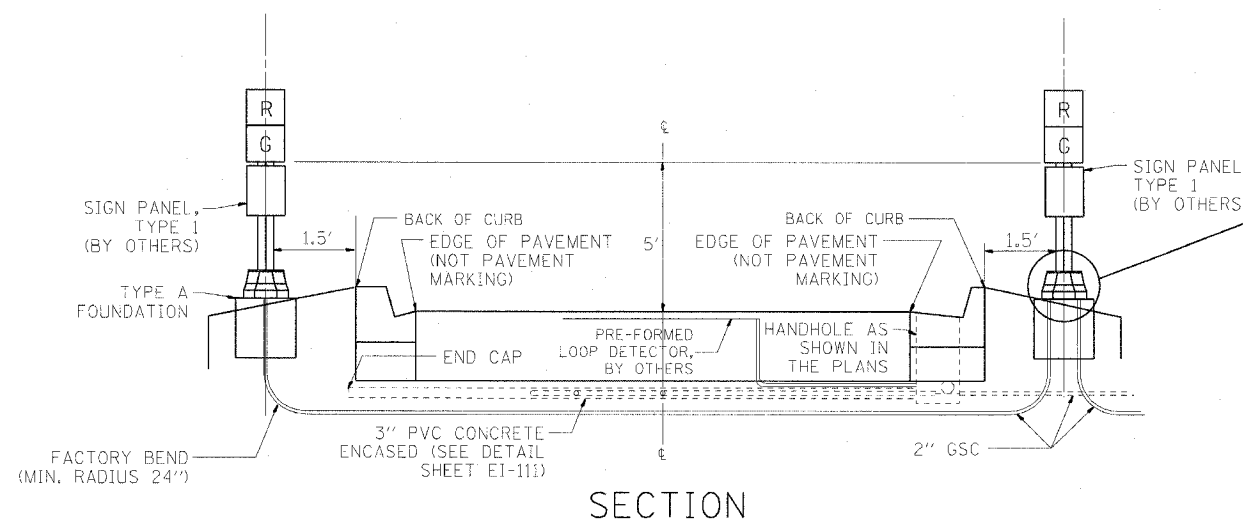
NOTES:

1. CONDUIT AND HANDHOLES SHALL BE FURNISHED AND INSTALLED UNDER THIS CONTRACT. ALL CABLES, PROBES, SIGNALS, SIGNS, AND OTHER EQUIPMENT WILL BE FURNISHED AND INSTALLED BY OTHERS UNDER CONTRACT NUMBER 62583.
2. CONDUIT MUST BE STUBBED OUT OF CONCRETE A MINIMUM OF 3".
3. CENTERLINE OF STOP BAR AND TRAFFIC SIGNALS SHALL BE LOCATED AT THE STATION SHOWN ON THE PLANS.
4. CONTRACTOR MUST COORDINATE PLACEMENT AND SIZE OF ANCHOR BOLTS WITH IDOT CONTRACT NUMBER 62583.

TYPICAL SIGNAL AND LOOP LAYOUT



TYPICAL BREAKAWAY POLE BASE



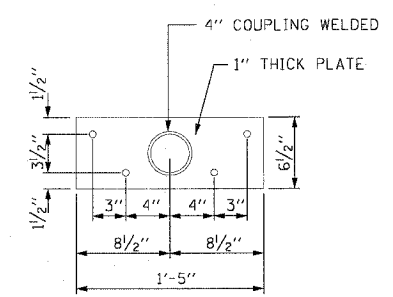
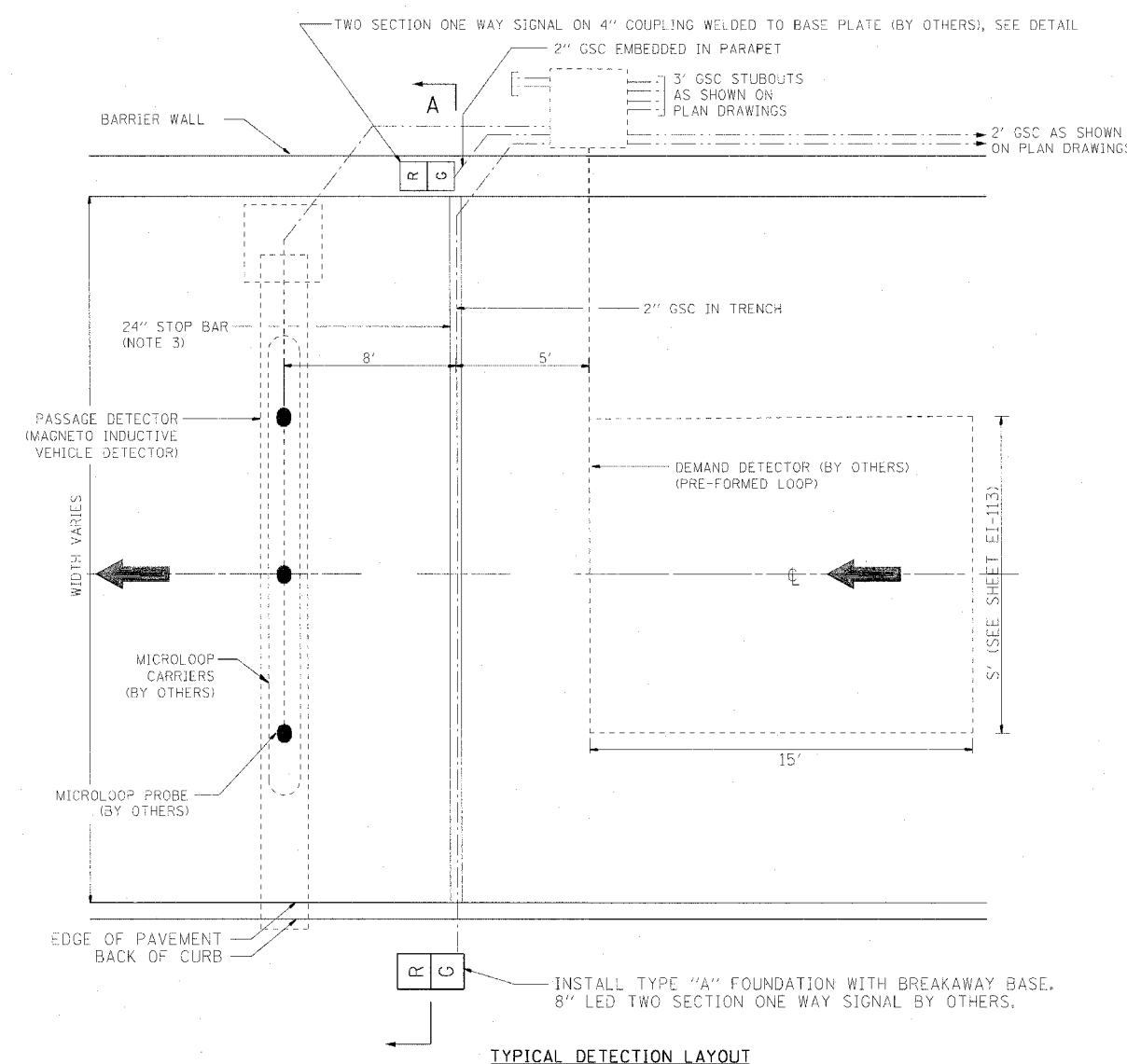
EI-113

REVISIONS	NAME	DATE

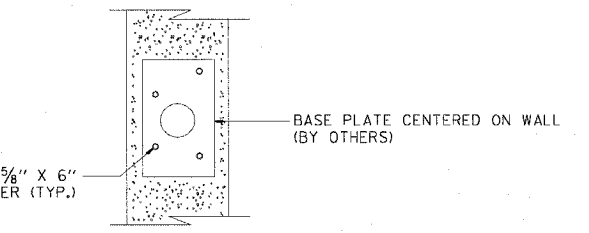
ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 90/94 (DAN RYAN EXPRESSWAY)
 GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)
 TYPICAL RAMP METERING INSTALLATION
 FOR RAMP WITH CURBS AND GUTTERS

SCALE: NOT TO SCALE
 DATE: June 9, 2006
 DRAWN BY: HAR
 CHECKED BY: JPC

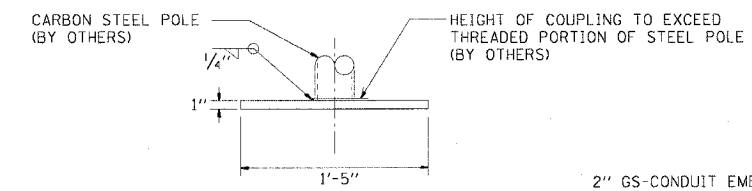
F.A.I. SHEETS	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94		COOK	565	326
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		
62301	(2021-922 PT2 ETC 2324.6-1P) R-10			



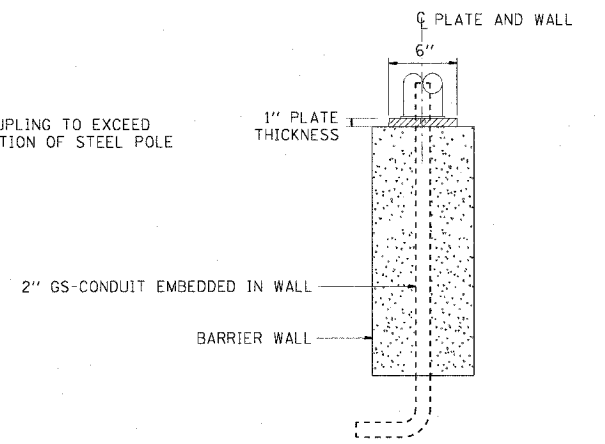
TOP VIEW
(BASE PLATE)



TOP VIEW
(BASE PLATE ON WALL)



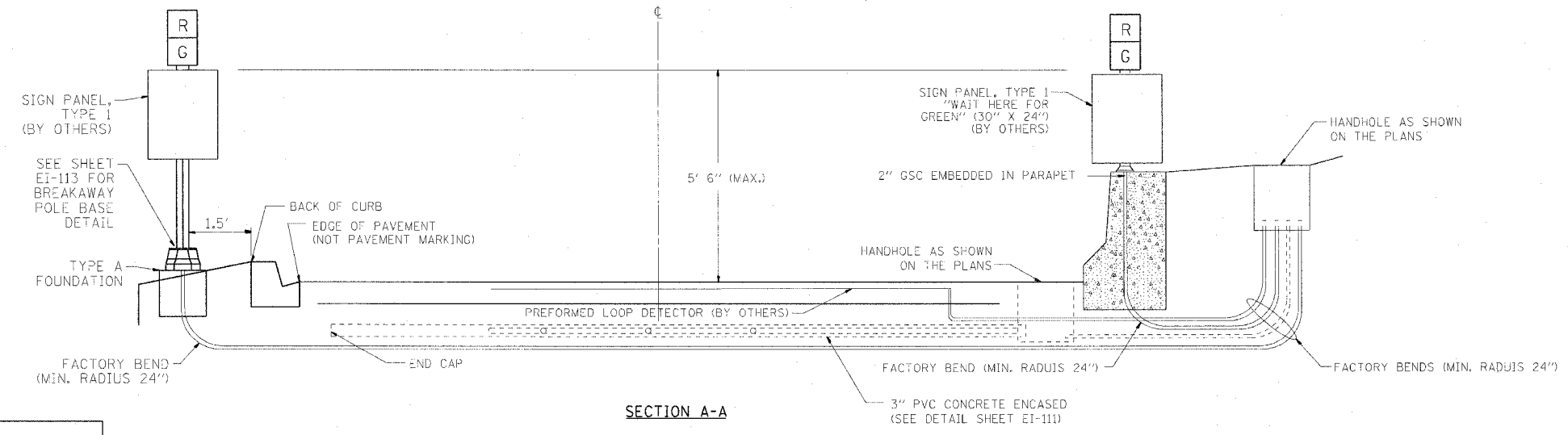
SIDE VIEW
(BASE PLATE)



FRONT VIEW
(BASE PLATE ON WALL)

NOTES:

- CONDUIT AND HANDHOLES SHALL BE FURNISHED AND INSTALLED UNDER THIS CONTRACT. ALL CABLES, PROBES, SIGNALS, SIGNS, AND OTHER EQUIPMENT WILL BE FURNISHED AND INSTALLED BY OTHERS UNDER CONTRACT NUMBER 62583.
- CONDUIT MUST BE STUBBED OUT OF CONCRETE A MINIMUM OF 3'.
- CENTERLINE OF STOP BAR AND TRAFFIC SIGNALS SHALL BE LOCATED AT THE STATION SHOWN ON THE PLANS.
- CONTRACTOR MUST COORDINATE PLACEMENT AND SIZE OF ANCHOR BOLTS WITH IDOT CONTRACT NUMBER 62583.



SECTION A-A

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 90/94 (DAN RYAN EXPRESSWAY)
GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)
TYPICAL RAMP METERING INSTALLATION
FOR RAMP WITH BARRIER WALL (RIGHT SIDE)
AND CURB AND GUTTER (LEFT SIDE)

SCALE: NOT TO SCALE
DATE: June 9, 2006

DRAWN BY: HAR
CHECKED BY: JPC

EI-114

06/07/2006 10:50:45 AM P:\940460\elec\IB-ctrs\IB & 15\contract\IB\sheet\IB114.dwg

HIGH MAST TOWER SCHEDULE

HIGH MAST LIGHT TOWER IDENTIFICATION	HIGH MAST LIGHT TOWER LOCATION		FOUNDATION INSTALLED BY CONTRACT	LIGHT TOWER INSTALLED BY CONTRACT	LIGHT TOWER SERVICE PAD INSTALLED BY CONTRACT	LIGHT TOWER SERVICE PAD AND WALL 3'-6" INSTALLED BY CONTRACT	LIGHT TOWER SERVICE PAD AND WALL 5'-0" INSTALLED BY CONTRACT	REMARKS
	STATION	OFFSET						
7 UGH1	4530+50	RT 67	THIS CONTRACT	62583	-	-	THIS CONTRACT	GROUND MOUNTED
8 UGH2	4534+69	RT 62	THIS CONTRACT	62583	-	-	-	MOUNTED ON WALL N-47N-F
7 UGH3	4538+70	RT 97	62583	62583	THIS CONTRACT	-	-	GROUND MOUNTED
7 VMN3	4542+80	RT 88	62583	62583	THIS CONTRACT	-	-	GROUND MOUNTED
7 VMN2	4546+85	RT 88	62583	62583	-	THIS CONTRACT	-	GROUND MOUNTED
7 VMN1	4550+95	RT 116	THIS CONTRACT	62583	-	-	-	TO BE INTEGRAL W/ FUTURE KNEE WALL
7 VEF3	4555+05	RT 88	62583	62583	-	-	THIS CONTRACT	GROUND MOUNTED
7 VEF2	4559+15	RT 77	62583	62583	-	-	THIS CONTRACT	GROUND MOUNTED
7 VEF1	4563+20	RT 101	62583	62583	-	-	THIS CONTRACT	GROUND MOUNTED
7 VGH1	4567+25	RT 88	62583	62583	-	-	THIS CONTRACT	GROUND MOUNTED
7 VGH2	4571+30	RT 88	62583	62583	THIS CONTRACT	-	-	GROUND MOUNTED
7 VGH3	4575+60	RT 103	62583	62583	THIS CONTRACT	-	-	GROUND MOUNTED
7 VGH4	4579+90	RT 78	62583	62583	-	THIS CONTRACT	-	GROUND MOUNTED
7 WEF6	4584+26.3	RT 78	62584	62733	THIS CONTRACT	-	-	GROUND MOUNTED
7 WEF5	4588+26.3	RT 105	62584	62733	-	62584	-	GROUND MOUNTED
7 WEF4	4592+26.3	RT 76	62584	62733	THIS CONTRACT	-	-	GROUND MOUNTED
7 WEF3	4596+26.5	RT 76	62584	62733	62584	-	-	GROUND MOUNTED
7 WEF2	4600+26.3	RT 94	62584	62733	-	THIS CONTRACT	-	GROUND MOUNTED
7 WEF1	4604+26.3	RT 85	62584	62733	-	62584	-	GROUND MOUNTED
7 WCH1	4608+26.3	RT 78	62584	62733	-	62584	-	GROUND MOUNTED
7 WCH2	4612+26.3	RT 74	62584	62733	-	-	62584	GROUND MOUNTED
7 WCH3	4616+76.3	RT 93	62584	62733	-	THIS CONTRACT	-	GROUND MOUNTED
7 WCH4	4621+26.3	RT 83	62584	62733	-	THIS CONTRACT	-	GROUND MOUNTED
7 WCH5	4625+66.3	RT 88	62584	62733	-	THIS CONTRACT	-	GROUND MOUNTED
7 XEF6	4630+06.3	RT 111	62584	62733	-	-	-	MOUNTED ON WALL N-33N-F
8 XEF5	4634+53.3	RT 100	62584	62733	-	-	-	MOUNTED ON WALL N-31S-R

HIGH MAST TOWER FOUNDATION

HIGH MAST LIGHT TOWER IDENTIFICATION	NORTHING	EASTING	TOP OF FOUNDATION ELEVATION	LIGHT TOWER FOUNDATION, 44" DIAMETER (FOOT)	BOTTOM ELEVATION (FOOT)	GROUND ROD, 5/8" X 10' (EACH)
7 UGH1	1873943.55	1175753.06	-2.22	20	-22.22	4

EI-115

BOWMAN, BARRETT & ASSOCIATES INC.
CONSULTING ENGINEERS
Chicago, Illinois
312.228.0100
www.bbnaa.com

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION F.A.I. 94/90 (DAN RYAN EXPRESSWAY) GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)
NAME	DATE	
		HIGH MAST TOWER SCHEDULE

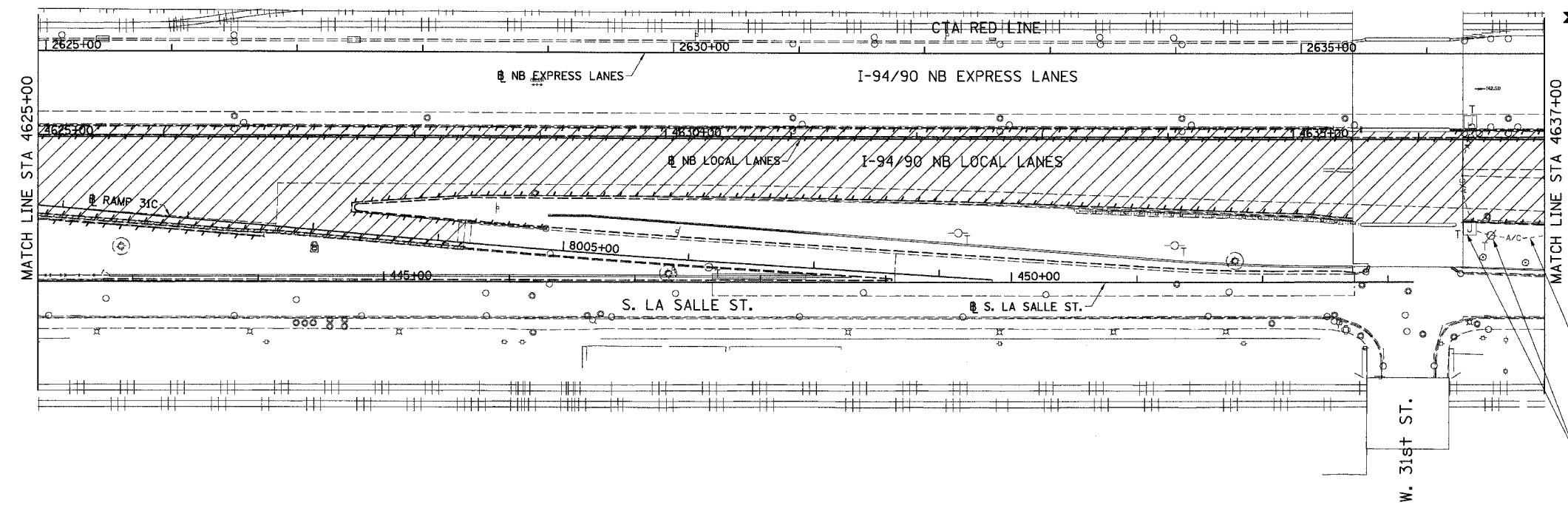
SCALE: NTS
DATE: 06/09/06

DRAWN BY: JDC
CHECKED BY: RS

6/7/2006 10:59:53 PM

F.A.I. RT.:	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	*	COOK	565	328
STA.	TO STA.			
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

62301 *1818, ETC. 2324.6-1PIR-10

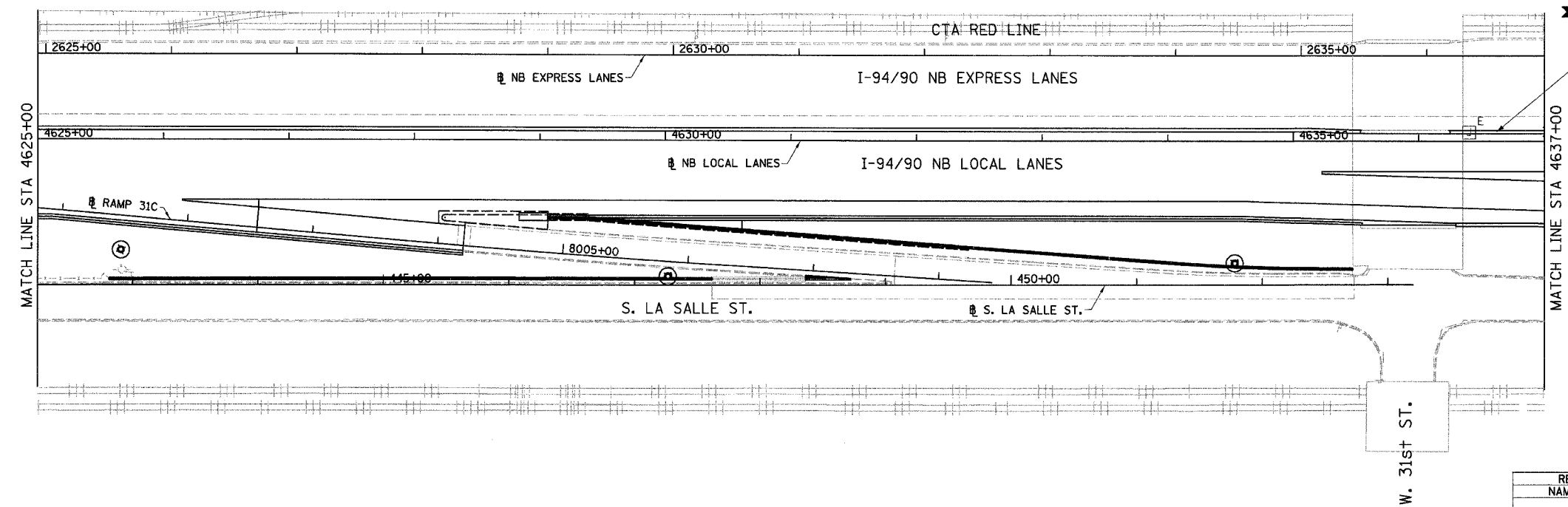


- NOTES:**
1. TEMPORARY AERIAL CABLE, JUNCTION BOXES AND WOOD POLES SHALL BE REMOVED WHEN PROPOSED MEDIAN LIGHTING IS INSTALLED AND OPERATIONAL.
 2. REMOVAL OF JUNCTION BOXES SHALL BE INCLUDED IN COST OF AERIAL CABLE REMOVAL.
 3. EQUIPMENT TO BE REMOVED SHALL BE CONFIRMED BASED ON EQUIPMENT ACTUALLY INSTALLED CONTRACT 62580.

CKT. E&F: AERIAL CABLE INSTALLED CONTRACT 62580

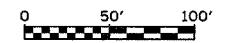
TEMPORARY JUNCTION BOX AND WOOD POLE INSTALLED CONTRACT 62580

**EXISTING CONDITIONS AND REMOVAL
PROPOSED IMPROVEMENTS**



CKT. E&F: 3*2, 1*4 GND 1/4" UD PULLED IN EMBEDDED 4" CONDUIT (TYP)

- NOTES:**
1. PROPOSED CIRCUIT SHALL CONTINUE TO THE EXISTING JUNCTION BOX ATTACHED TO STRUCTURE.



EL-01

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)
 EXISTING AND PROPOSED LIGHTING PLANS

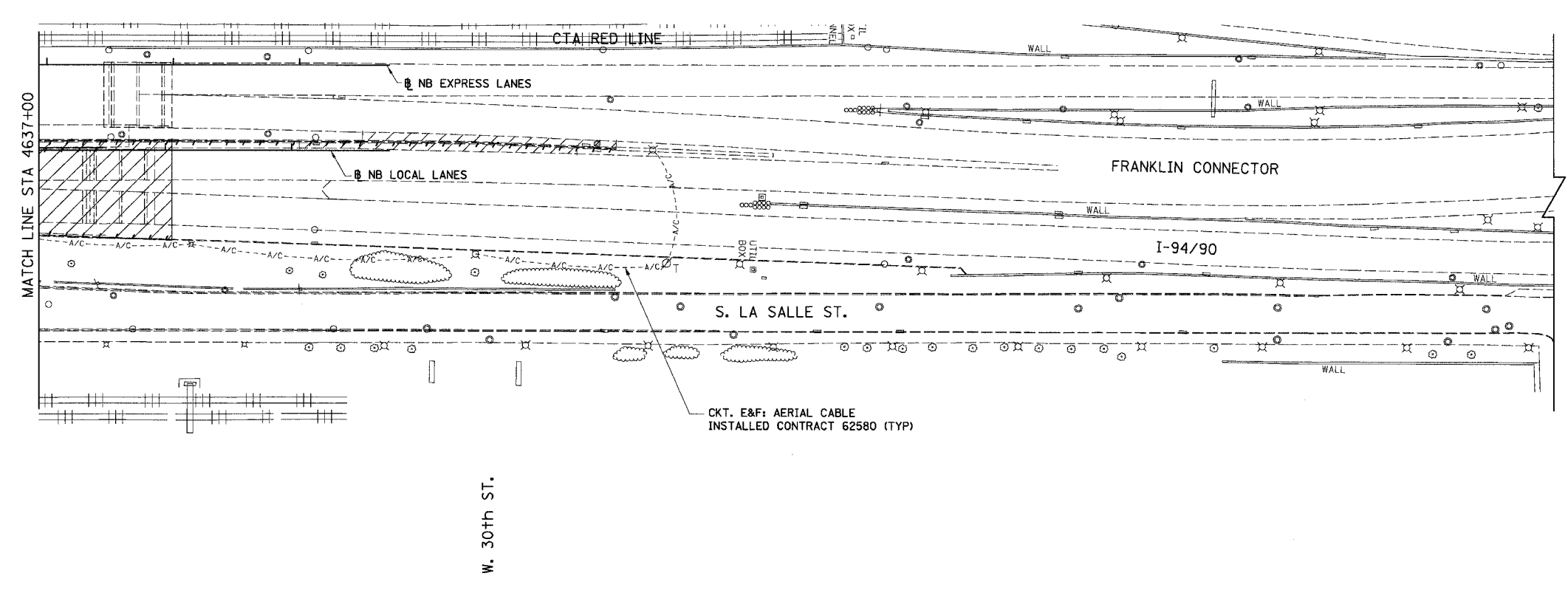
SCALE: 1"=50'
 DATE: 06/09/06

DRAWN BY: BL
 CHECKED BY: SM

K&E KAM ENGINEERING, INC.
 CONSULTING ENGINEERS
 707A Davile Road, Suite 205
 Elgin, Illinois 60123-1369

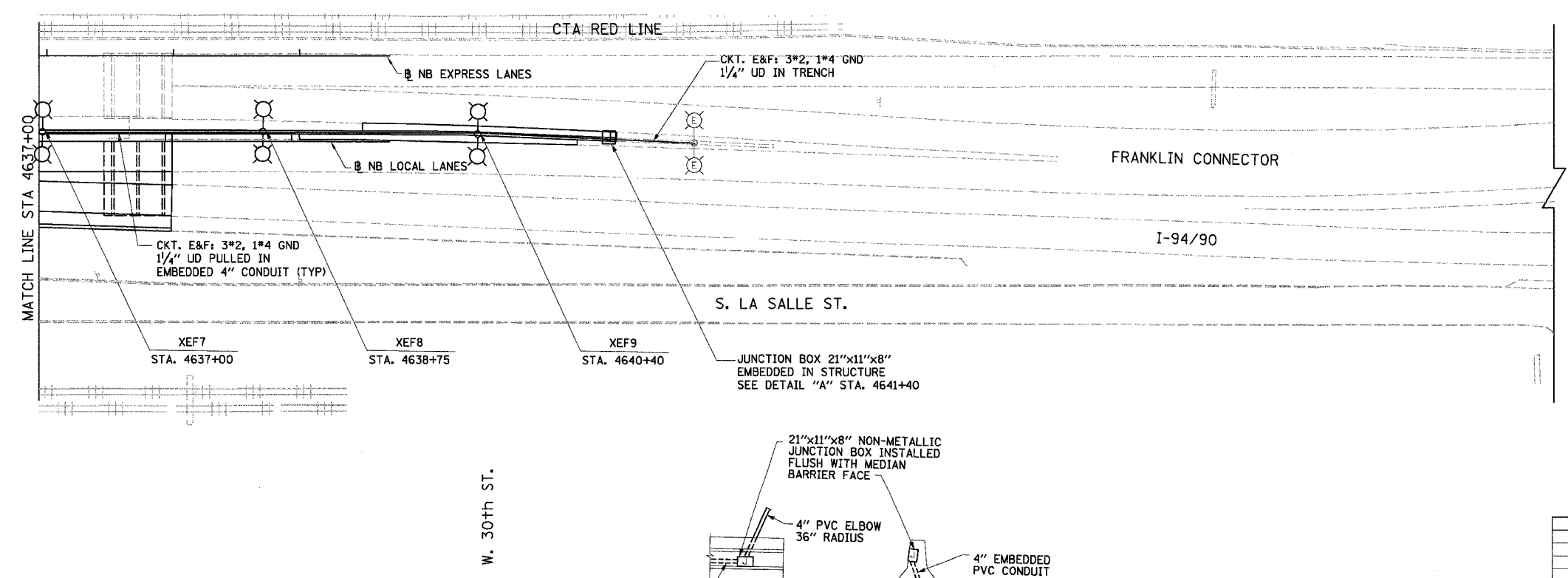
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	*	COOK	565	329
STA.	TO STA.		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT	
62301	*1818, ETC, 2324.6-1P/R-10			

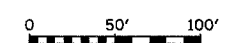
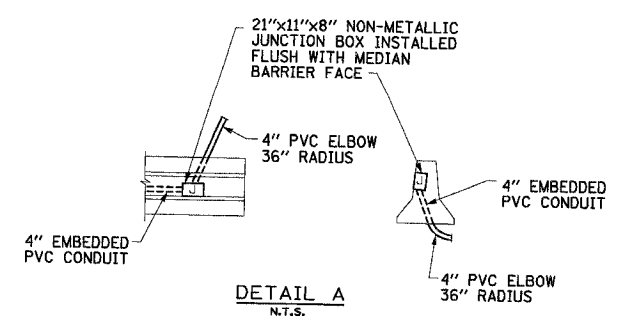


- NOTES:**
- TEMPORARY AERIAL CABLE, JUNCTION BOXES AND WOOD POLES SHALL BE REMOVED WHEN PROPOSED MEDIAN LIGHTING IS INSTALLED AND OPERATIONAL.
 - EQUIPMENT TO BE REMOVED SHALL BE CONFIRMED BASED ON EQUIPMENT ACTUALLY INSTALLED CONTRACT 62580.

**EXISTING CONDITIONS AND REMOVAL
PROPOSED IMPROVEMENTS**



- NOTE:**
- EXISTING LIGHTING UNITS REMOVED BY CONTRACT 62580 SHALL BE RE-INSTALLED ON THE PROPOSED MEDIAN WALL. THIS WORK SHALL BE PAID LIGHT POLE, ALUMINUM, INSTALL ONLY.



REVISIONS	
NAME	DATE

KAM ENGINEERING, INC.
CONSULTING ENGINEERS
707A Davis Road, Suite 205
Elgin, Illinois 60123-1569

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)
EXISTING AND PROPOSED LIGHTING PLANS

SCALE: 1"=50'
DATE: 06/09/06

DRAWN BY: BL
CHECKED BY: SM

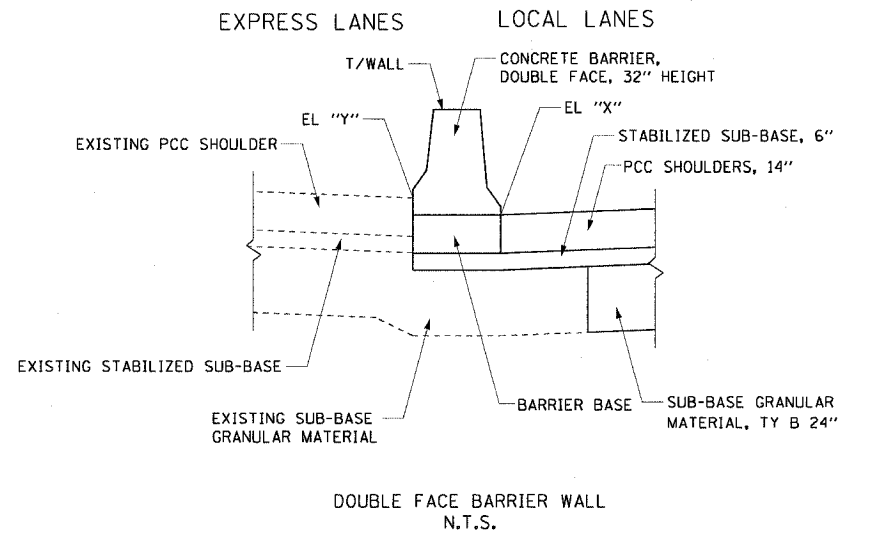
6/7/2006 10:53:38 PM

DOUBLE FACE BARRIER WALL ELEVATIONS

LOCAL LANE STATION	ELEVATION		
	"X"	"Y"	T/WALL
4474+75.00	-1.98	-1.32	1.35
4475+00.00	-1.83	-1.15	1.52
4475+25.00	-1.65	-0.93	1.74
4475+50.00	55th ST BRIDGE		
4475+75.00	55th ST BRIDGE		
4476+00.00	-0.90	-0.15	2.52
4476+25.00	-0.65	0.11	2.77
4476+50.00	-0.38	0.35	3.02
4476+75.00	-0.12	0.61	3.28
4477+00.00	0.15	0.87	3.54
4477+25.00	0.41	1.13	3.80
4477+50.00	0.68	1.38	4.05
4477+75.00	0.94	1.64	4.31
4478+00.00	1.21	1.90	4.57
4478+25.00	1.47	2.15	4.82
4478+50.00	1.74	2.41	5.08
4478+75.00	2.01	2.67	5.34
4479+00.00	2.27	2.92	5.59
4479+25.00	2.54	3.18	5.85
4479+50.00	2.80	3.44	6.11
4479+75.00	3.07	3.70	6.37
4480+00.00	3.33	3.95	6.62
4480+25.00	3.60	4.21	6.88
4480+50.00	3.86	4.47	7.14
4480+75.00	4.13	4.72	7.39
4481+00.00	4.39	4.98	7.65
4481+25.00	4.66	5.24	7.91
4481+50.00	4.93	5.49	8.16
4481+75.00	5.19	5.75	8.42
4482+00.00	5.46	6.01	8.68
4482+25.00	5.72	6.26	8.93
4482+50.00	5.99	6.52	9.19
4482+75.00	6.25	6.78	9.45
4483+00.00	6.52	7.04	9.71
4483+25.00	6.77	7.29	9.96
4483+50.00	7.04	7.55	10.22
4483+75.00	7.30	7.81	10.48
4484+00.00	7.57	8.06	10.73
4484+25.00	7.84	8.32	10.99
4484+50.00	8.10	8.57	11.24
4484+75.00	8.37	8.81	11.48
4485+00.00	8.63	9.04	11.71
4485+25.00	8.90	9.24	11.91
4485+50.00	9.15	9.43	12.10
4485+75.00	9.38	9.61	12.28
4486+00.00	9.60	9.77	12.44
4486+25.00	9.79	9.91	12.58
4486+50.00	9.95	10.03	12.70
4486+75.00	10.10	10.14	12.81
4487+00.00	10.22	10.24	12.91
4487+25.00	10.33	10.32	13.00
4487+50.00	10.41	10.38	13.08
4487+75.00	10.47	10.42	13.14
4488+00.00	10.51	10.45	13.18
4488+25.00	10.52	10.47	13.19
4488+50.00	10.52	10.46	13.19
4488+75.00	10.49	10.44	13.16
4489+00.00	10.44	10.41	13.11
4489+25.00	10.37	10.36	13.04
4489+50.00	10.28	10.29	12.96
4489+75.00	10.16	10.21	12.88
4490+00.00	10.03	10.11	12.78
4490+25.00	9.87	9.99	12.66
4490+50.00	9.69	9.86	12.53
4490+75.00	9.49	9.71	12.38
4491+00.00	9.27	9.55	12.22
4491+25.00	9.03	9.37	12.04
4491+50.00	8.77	9.17	11.84
4491+75.00	8.52	8.96	11.63
4492+00.00	8.26	8.73	11.40

LOCAL LANE STATION	ELEVATION		
	"X"	"Y"	T/WALL
4492+25.00	8.01	8.49	11.16
4492+50.00	7.75	8.23	10.90
4492+75.00	7.50	7.97	10.64
4493+00.00	7.24	7.71	10.38
4493+25.00	6.99	7.45	10.12
4493+50.00	6.73	7.20	9.87
4493+75.00	6.48	6.94	9.61
4494+00.00	6.22	6.68	9.35
4494+25.00	5.97	6.42	9.09
4494+50.00	5.71	6.16	8.83
4494+75.00	5.46	5.90	8.57
4495+00.00	5.19	5.64	8.31
4495+25.00	4.94	5.39	8.06
4495+50.00	4.68	5.13	7.80
4495+75.00	4.43	4.87	7.54
4496+00.00	4.17	4.61	7.28
4496+25.00	3.92	4.35	7.02
4496+50.00	3.67	4.09	6.76
4496+75.00	3.41	3.83	6.50
4497+00.00	3.16	3.57	6.24
4497+25.00	2.90	3.32	5.99
4497+50.00	2.65	3.06	5.73
4497+75.00	2.39	2.82	5.48
4498+00.00	2.14	2.58	5.25
4498+25.00	1.88	2.30	4.96
4498+50.00	1.63	2.02	4.69
4498+75.00	1.37	1.76	4.43
4499+00.00	1.12	1.52	4.18
4499+25.00	0.84	1.27	3.94
4499+50.00	0.58	1.02	3.69
4499+75.00	0.30	0.78	3.45
4500+00.00	0.04	0.53	3.20
4500+25.00	-0.22	0.29	2.95
4500+50.00	-0.47	0.03	2.70
4500+75.00	-0.72	-0.21	2.45
4501+00.00	-0.97	-0.47	2.20
4501+25.00	-1.19	-0.73	1.94
4501+50.00	-1.41	-0.98	1.69
4501+75.00	51st ST BRIDGE		
4502+00.00	51st ST BRIDGE		
4502+25.00	51st ST BRIDGE		
4502+50.00	51st ST BRIDGE		
4502+75.00	-2.65	-2.13	0.54
4503+00.00	-2.78	-2.27	0.39
4503+25.00	-2.88	-2.37	0.30
4503+50.00	-2.94	-2.42	0.25
4503+75.00	-2.96	-2.44	0.23
4504+00.00	-2.93	-2.41	0.26
4504+25.00	-2.85	-2.34	0.33
4504+50.00	-2.74	-2.24	0.43
4504+75.00	-2.58	-2.09	0.58
4505+00.00	-2.37	-1.90	0.77
4505+25.00	-2.12	-1.67	1.00
4505+50.00	-1.83	-1.41	1.26
4505+75.00	-1.50	-1.09	1.58
4506+00.00	-1.14	-0.74	1.93
4506+25.00	-0.78	-0.36	2.31
4506+50.00	-0.42	0.05	2.71
4506+75.00	-0.07	0.45	3.12
4507+00.00	0.29	0.82	3.48
4507+25.00	0.65	1.18	3.85
4507+50.00	1.00	1.57	4.24
4507+75.00	1.36	1.96	4.63
4508+00.00	1.72	2.34	5.01
4508+25.00	2.08	2.73	5.40
4508+50.00	2.43	3.12	5.79
4508+75.00	2.79	3.50	6.17
4509+00.00	3.15	3.89	6.56
4509+25.00	3.51	4.27	6.94
4509+50.00	3.86	4.66	7.33

LOCAL LANE STATION	ELEVATION		
	"X"	"Y"	T/WALL
4509+75.00	4.22	5.05	7.72
4510+00.00	4.58	5.43	8.10
4510+25.00	4.94	5.81	8.48
4510+50.00	5.29	6.17	8.84
4510+75.00	5.65	6.53	9.20
4511+00.00	6.01	6.88	9.55
4511+25.00	6.36	7.21	9.88
4511+50.00	6.72	7.52	10.19
4511+75.00	7.05	7.81	10.48
4512+00.00	7.35	8.07	10.74
4512+25.00	7.64	8.32	10.99
4512+50.00	7.91	8.54	11.21
4512+75.00	8.16	8.74	11.41
4513+00.00	8.39	8.92	11.59
4513+25.00	8.59	9.07	11.74
4513+50.00	8.77	9.20	11.87
4513+75.00	8.92	9.32	11.99
4514+00.00	9.05	9.41	12.08
4514+25.00	9.16	9.47	12.14
4514+50.00	9.26	9.49	12.16
4514+75.00	9.34	9.49	12.16
4515+00.00	9.39	9.47	12.14
4515+25.00	9.43	9.51	12.18
4515+50.00	9.44	9.52	12.19
4515+75.00	9.44	9.50	12.17
4516+00.00	9.43	9.45	12.12
4516+25.00	9.38	9.36	12.05
4516+33.26	9.33	9.33	12.00



NOTES:

- SEE IDOT HIGHWAY STANDARD 637001 FOR DOUBLE FACE CONCRETE BARRIER DETAILS.
- THE EDGE OF THE BARRIER WALL ALONG THE EXPRESS LANES SHOULDER SHALL MATCH THE EXISTING SHOULDER.
- ELEVATIONS ARE TAKEN AT THE TOE OF THE DOUBLE FACE BARRIER WALL.
- SEE RDT-B FOR THE CONSTRUCTION OF THE SUB-BASE GRANULAR MATERIAL UNDER THE PROPOSED DOUBLE FACE BARRIER WALL.

RDT-1

REVISIONS	
NAME	DATE

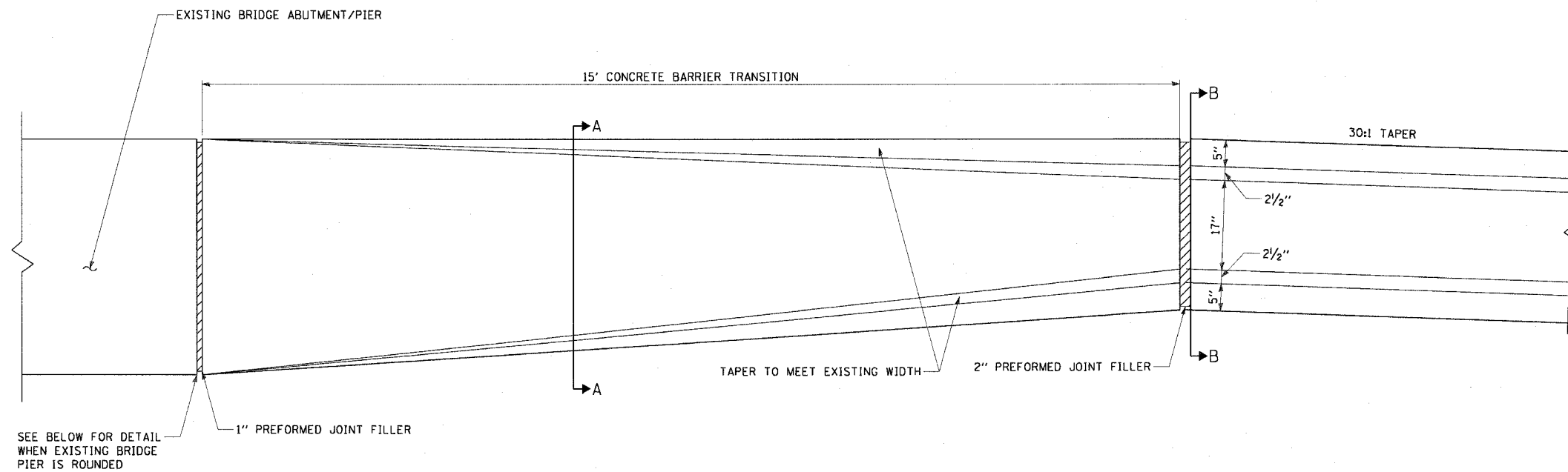
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 90/94 (DAN RYAN EXPRESSWAY)
GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)

ROADWAY DETAILS
DOUBLE FACE BARRIER WALL ELEVATIONS

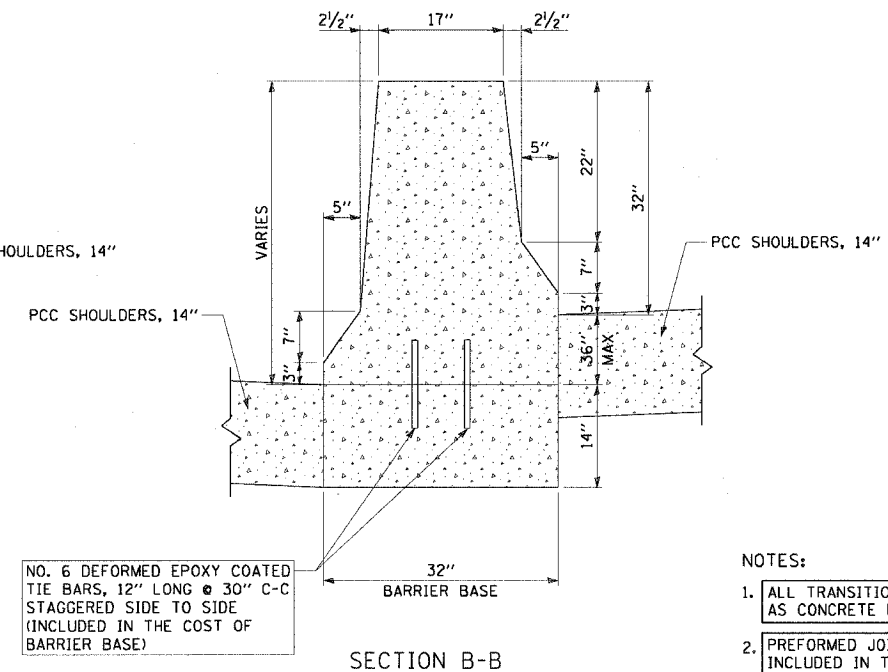
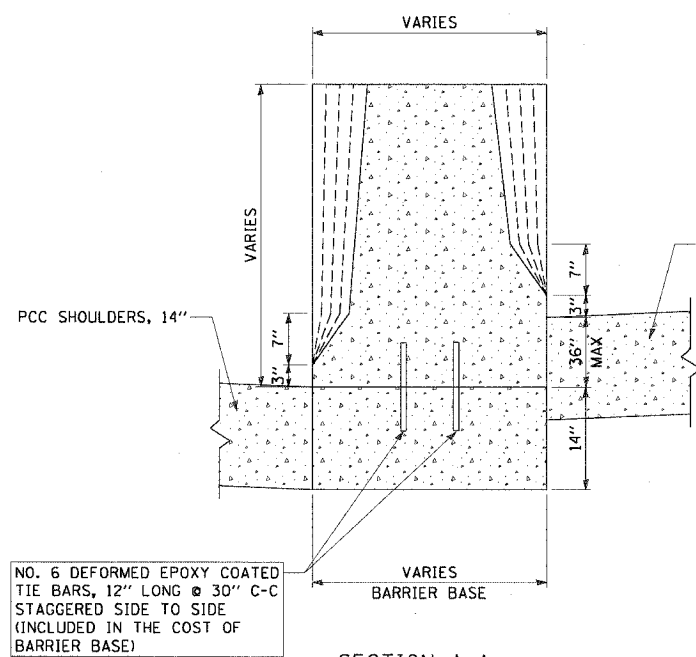
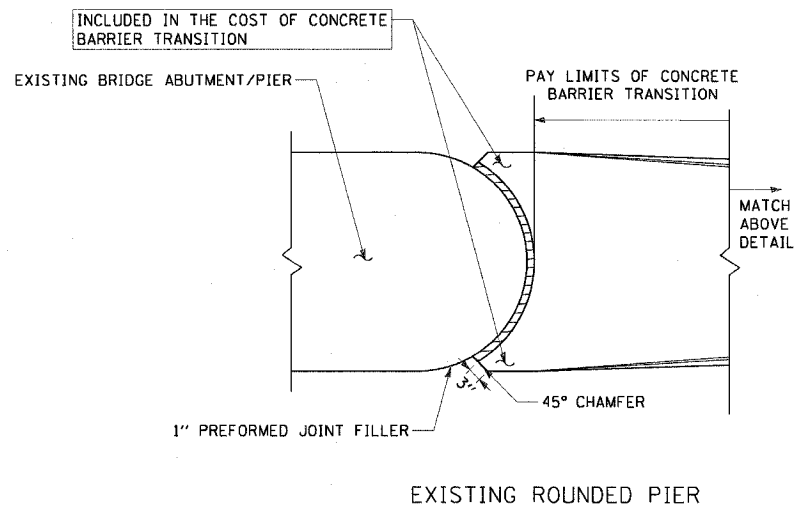
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DATE: June 9, 2006
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CHECKED BY: RMG

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94		COOK	565	331
STA.	TO STA.			
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
62301 • (2021-922 PT2 ETC 2324.6-1P) R-10				

DOUBLE FACE CONCRETE BARRIER TRANSITION
N.T.S.



SEE BELOW FOR DETAIL WHEN EXISTING BRIDGE PIER IS ROUNDED



NOTES:

1. ALL TRANSITIONS SHALL BE PAID FOR AS CONCRETE BARRIER TRANSITION
2. PREFORMED JOINT FILLER SHALL BE INCLUDED IN THE COST OF THE CONCRETE BARRIER TRANSITION.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 90/94 (DAN RYAN EXPRESSWAY)
GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)

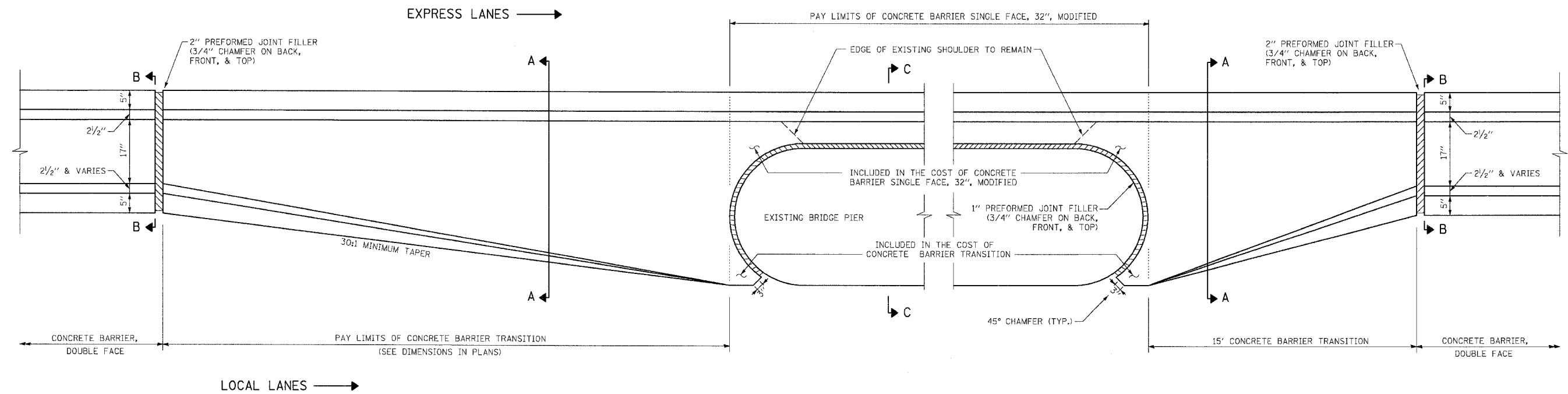
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DOUBLE FACE CONCRETE BARRIER TRANSITION

SCALE: NONE
DATE: June 9, 2006

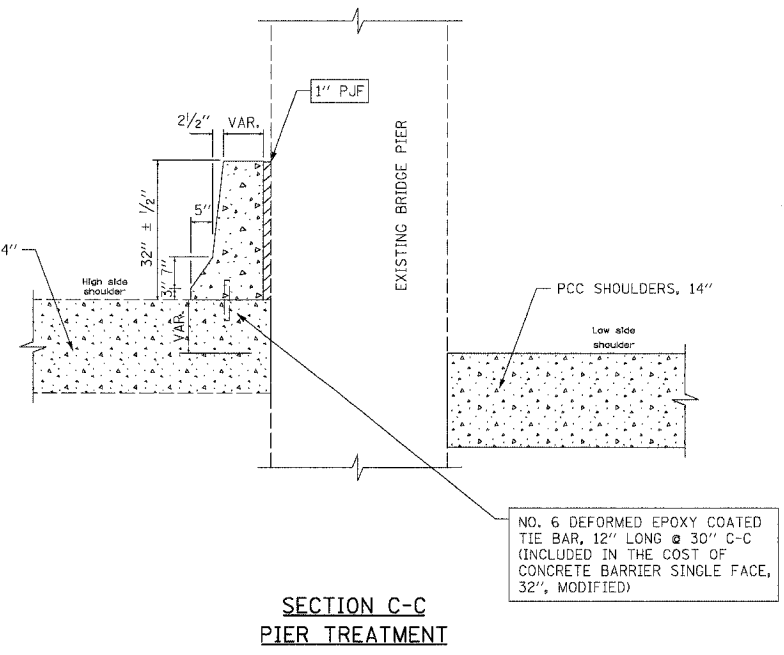
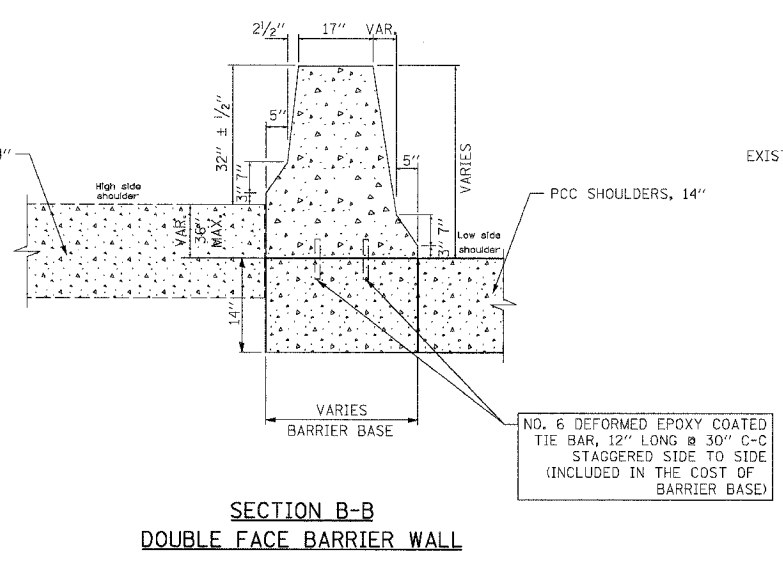
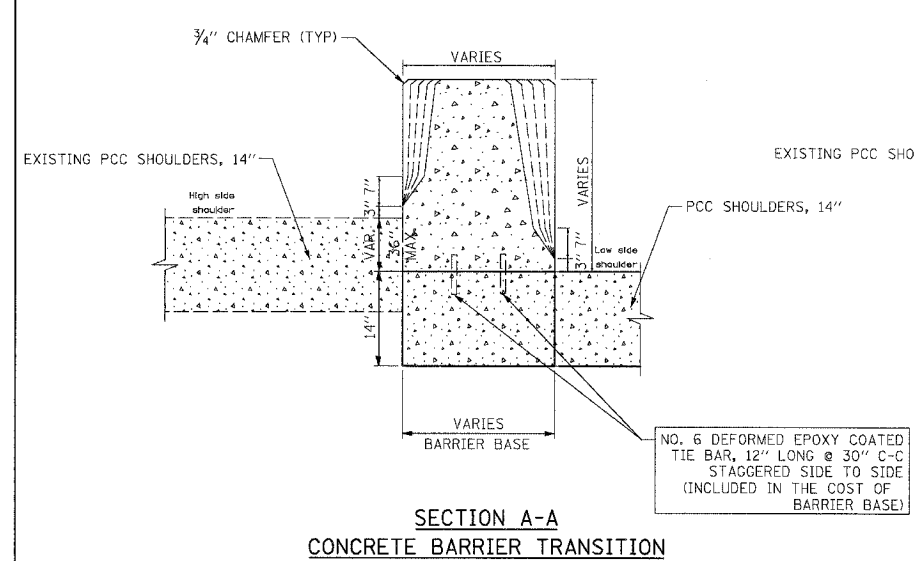
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F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90		COOK	565	332
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
62301	• (2021-922 PT2 ETC 2324.6-IP) R-10			



DETAIL OF CONCRETE BARRIER TRANSITION AND CONCRETE BARRIER SINGLE FACE, 32", MODIFIED AT EXISTING MEDIAN BRIDGE PIERS



- NOTE:
1. ALL TRANSITIONS PAID FOR AS CONCRETE BARRIER TRANSITION
 2. THIS DETAIL APPLIES TO THE BRIDGE PIER TREATMENTS AT THE FOLLOWING BRIDGES: 43RD STREET, ROOT STREET, PERSHING ROAD, 35TH STREET, AND 33RD STREET. SEE DETAIL RDT-2 FOR ALL OTHER BRIDGE PIER TREATMENTS.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
**F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)**

**ROADWAY DETAILS
 BRIDGE PIER TREATMENT**

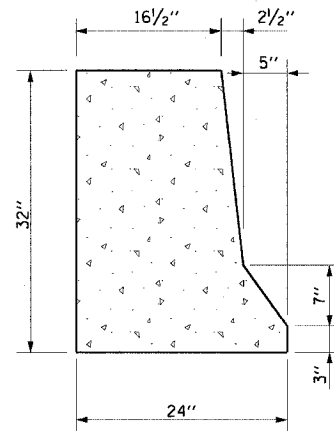
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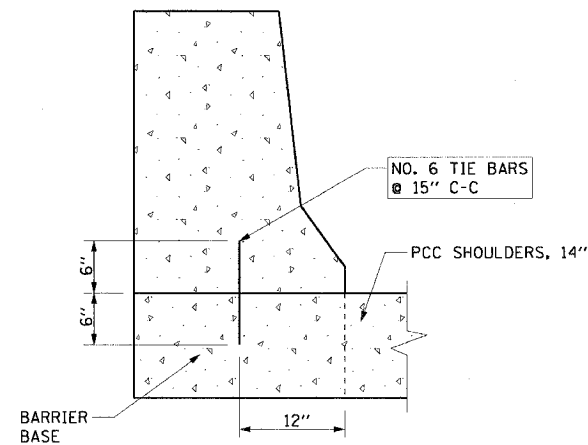
BOWMAN, BARRETT & ASSOCIATES INC.
 CONSULTING ENGINEERS
 Chicago, Illinois
 312.228.0100
 www.bbainc.com

RDT-2B
 6/7/2006

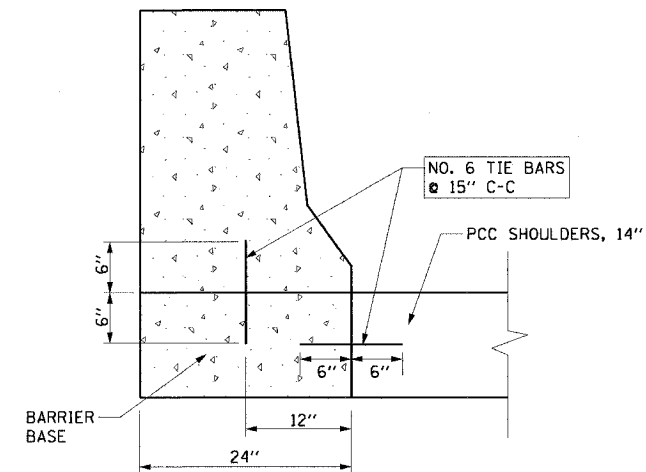
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	*	COOK	565	333
STA.	TO STA.			
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
62301 • (2021-922 PT2 ETC 2324.6-1P) R-10				



CONCRETE BARRIER
TYPICAL SECTION



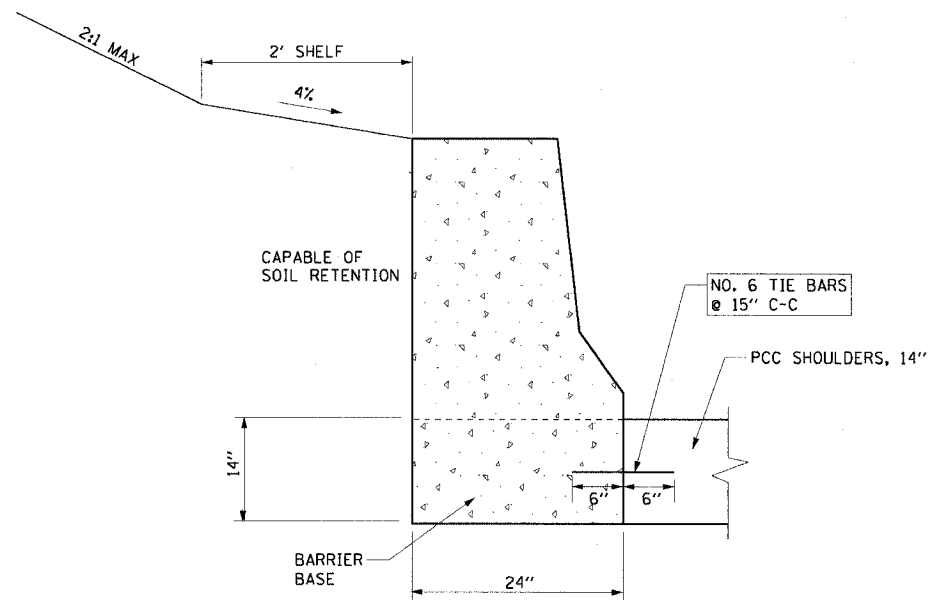
ANCHORING METHOD



CONCRETE BARRIER ON
INDEPENDANT FOUNDATION

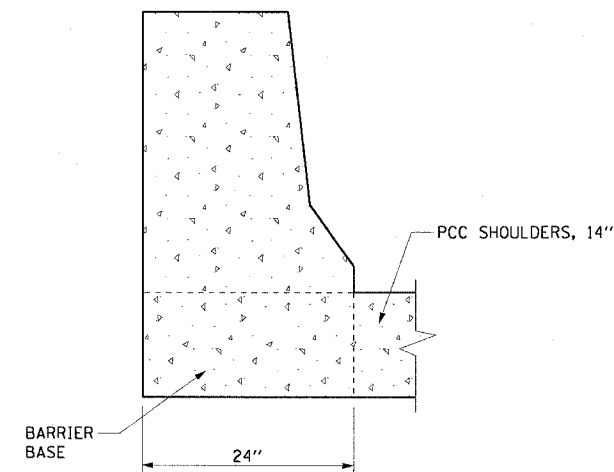
NOTES:

1. TIE BARS SHALL BE EPOXY COATED AND INCLUDED IN THE COST OF CONCRETE BARRIER, SINGLE FACE, 32" HEIGHT AND BARRIER BASE.
2. THE CONTRACTOR HAS THE OPTION OF CHOOSING BETWEEN ANCHORING METHODS SHOWN ON THIS SHEET.
3. THE 1/2" PREFORMED JOINT FILLER SHALL BE INCLUDED IN THE COST OF THE CONCRETE BARRIER, SINGLE FACE, 32", MODIFIED.

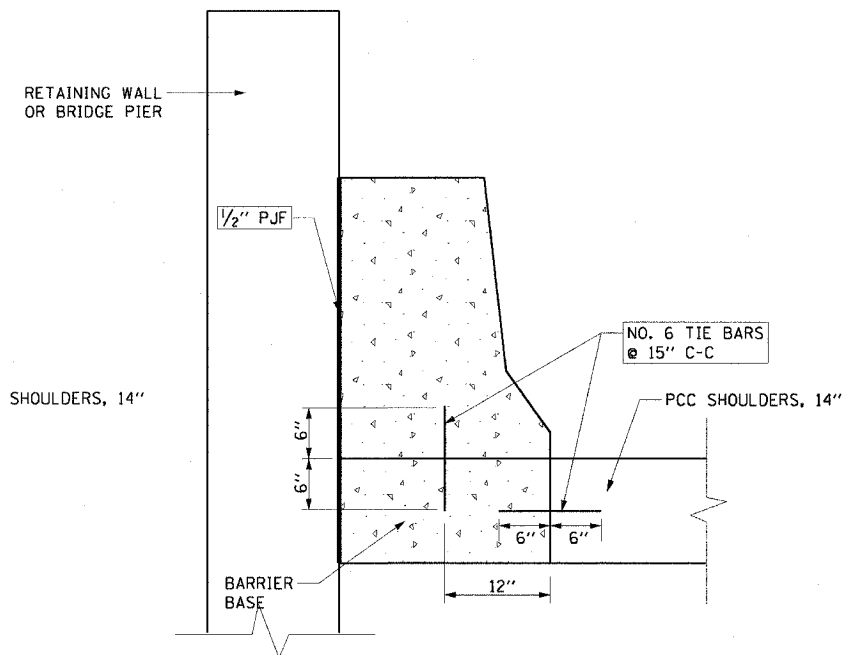


MONOLITHIC CONCRETE BARRIER

IF SOIL RETENTION IS USED, 14" PCC SHOULDER PAVEMENT MUST BE IN PLACE PRIOR TO BACKFILLING BARRIER WALL



CONCRETE BARRIER INTEGRAL
WITH PCC SHOULDERS, 14"



CONCRETE BARRIER
SINGLE FACE, 32", MODIFIED

STA 4622+37.22 TO STA 4622+94.11 RT
STA 4629+06.50 TO STA 4629+37.74 RT
STA 4635+54.98 TO STA 4636+29.69 RT

CONCRETE BARRIER, SINGLE FACE, 32" HEIGHT

CTE | AECOM

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 90/94 (DAN RYAN EXPRESSWAY)
GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)

ROADWAY DETAILS
CONCRETE BARRIER, SINGLE FACE 32" HEIGHT

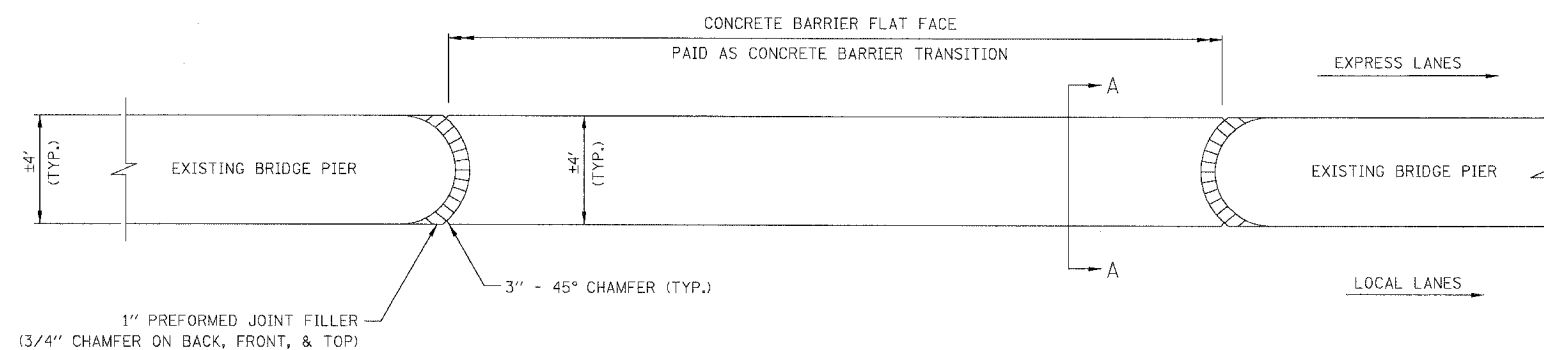
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DATE: June 9, 2006

DRAWN BY: RLK
CHECKED BY: EL

RD-3

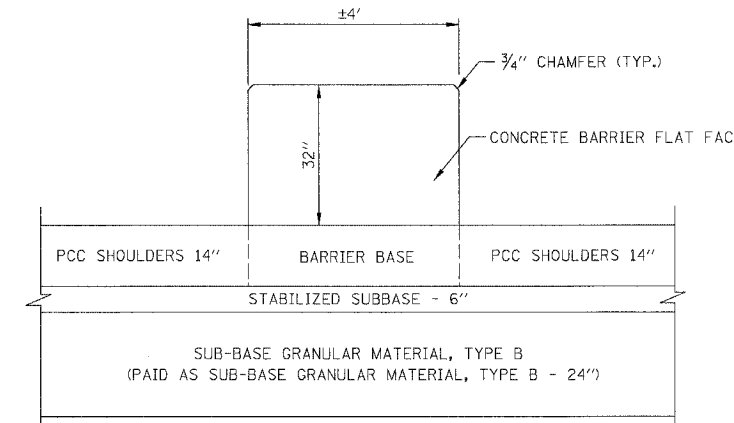
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F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90		COOK	565	334
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62301	(2021-922 PT2 ETC 2324.6-1P) R-10			

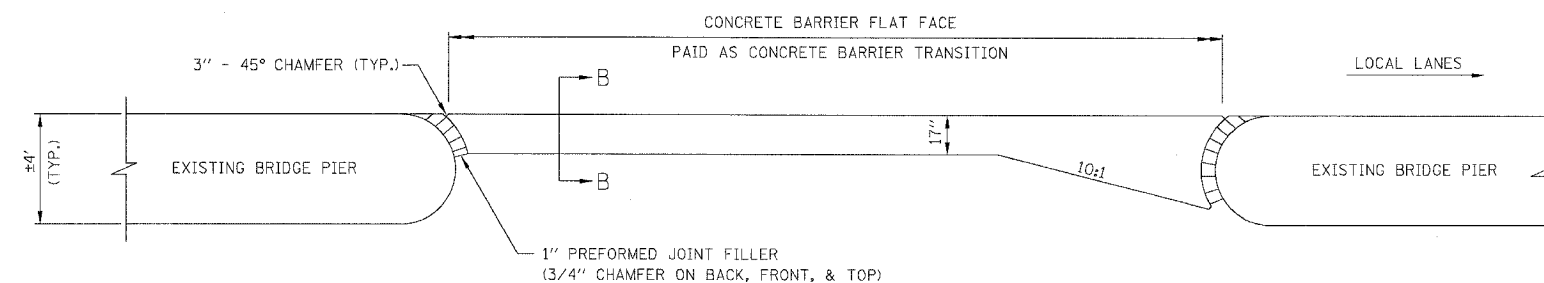


CONCRETE BARRIER FLAT FACE

STA. 4474+76.0 TO STA. 4475+39.2 (LT)
 STA. 4575+38.0 TO STA. 4576+29.3 (LT)
 STA. 4576+45.5 TO STA. 4577+26.5 (LT)

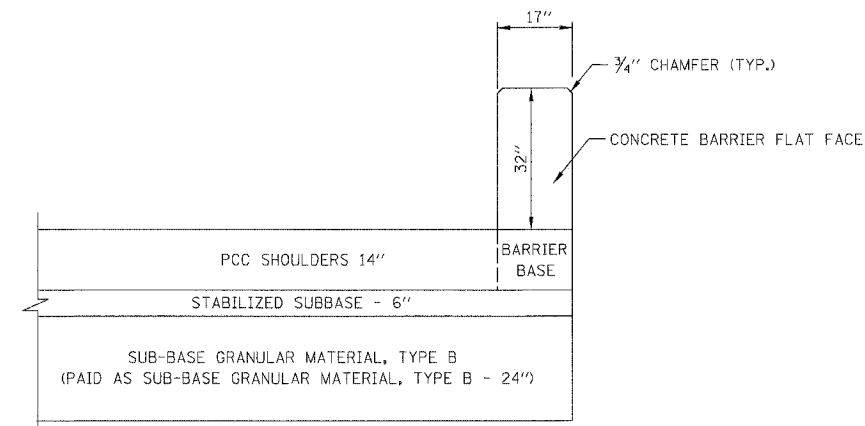


SECTION A:A



CONCRETE BARRIER FLAT FACE

STA. 4574+90.5 TO STA. 4576+29.3 (RT)



SECTION B:B

RDT-4

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)
 ROADWAY DETAILS
 CONCRETE BARRIER FLAT FACE
 SCALE: NONE
 DATE: 06/09/06
 DRAWN BY: JDC
 CHECKED BY: RS

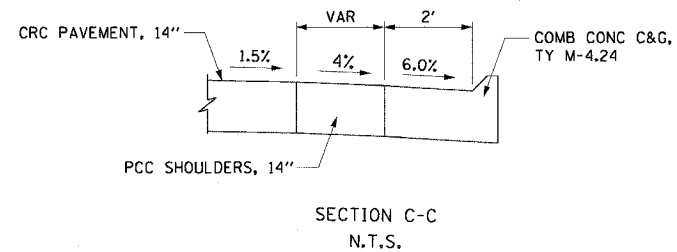
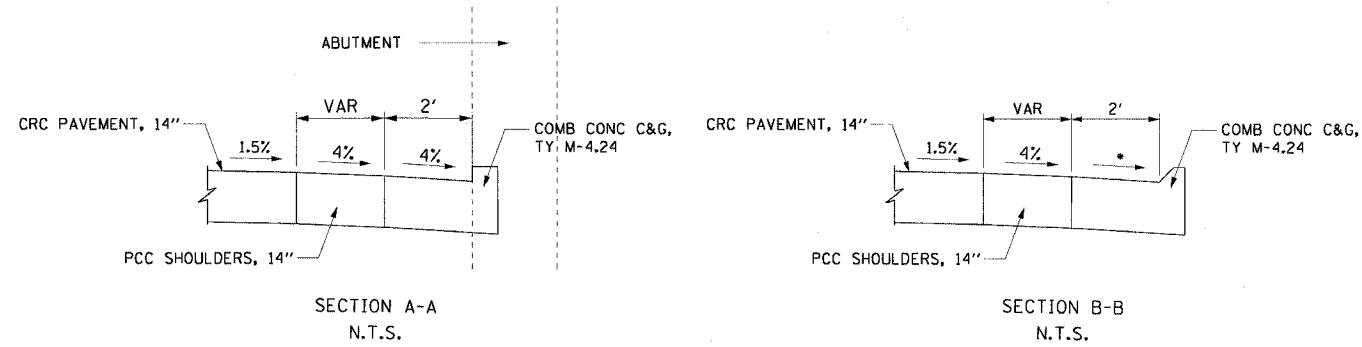
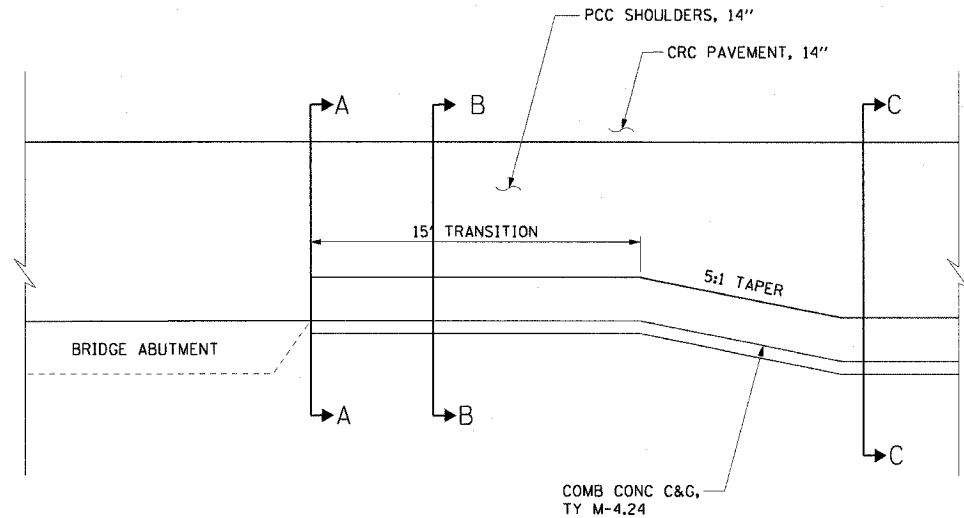
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 CONSULTING ENGINEERS
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	*	COOK	565	335
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		
62301	* (2021-922 PT2 ETC 2324.6-1P) R-10			

COMB CONC C&G, TY M-4.24 TRANSITION TO BRIDGE ABUTMENT
N.T.S.

STA 4476+70.62
STA 4502+70.87

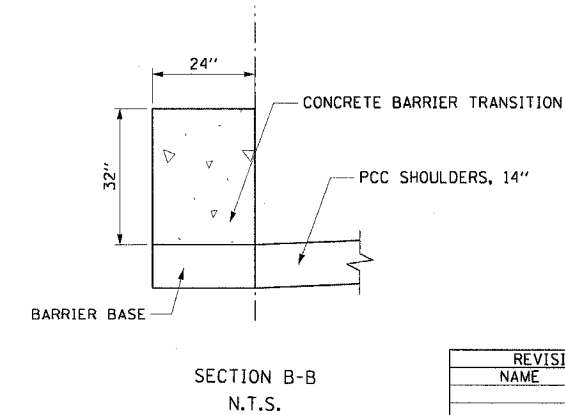
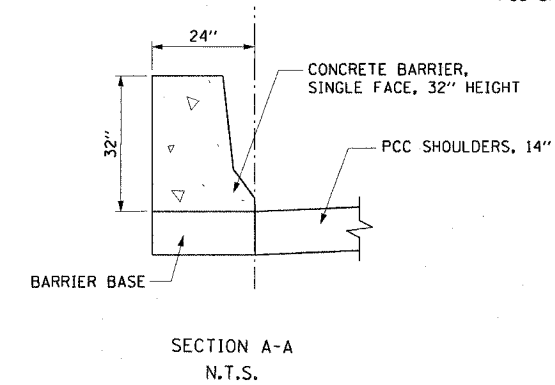
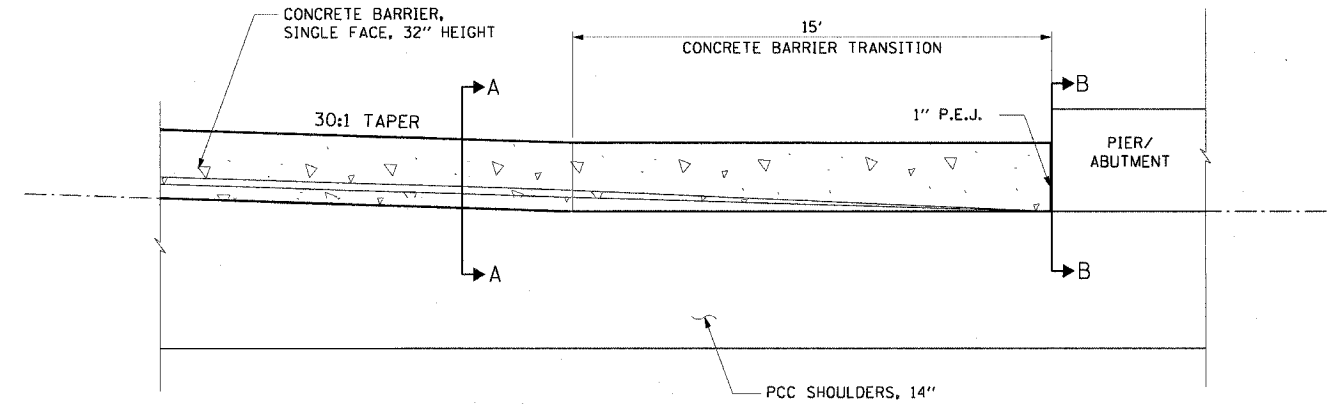


LEGEND:
• TRANSITION FROM 4% TO 6%

NOTE:
THE TRANSITION SECTION SHALL BE PAID FOR AS COMB CONC C&G, TY M-4.24.

SINGLE FACE CONCRETE BARRIER TRANSITION TO PIER/ABUTMENT
N.T.S.

STA 4501+75.94 RT
STA 4528+64.03 RT
STA 4576+47.48 RT
STA 4583+26.09 RT
STA 4622+22.22 RT
STA 4622+94.11 RT



- NOTES:
1. THE 1" PREFORMED EXPANSION JOINT SHALL BE INCLUDED IN THE COST OF CONCRETE BARRIER TRANSITION.
 2. SEE RDT-3 FOR CONCRETE BARRIER, SINGLE FACE, 32" HEIGHT DETAILS.

REVISIONS	
NAME	DATE

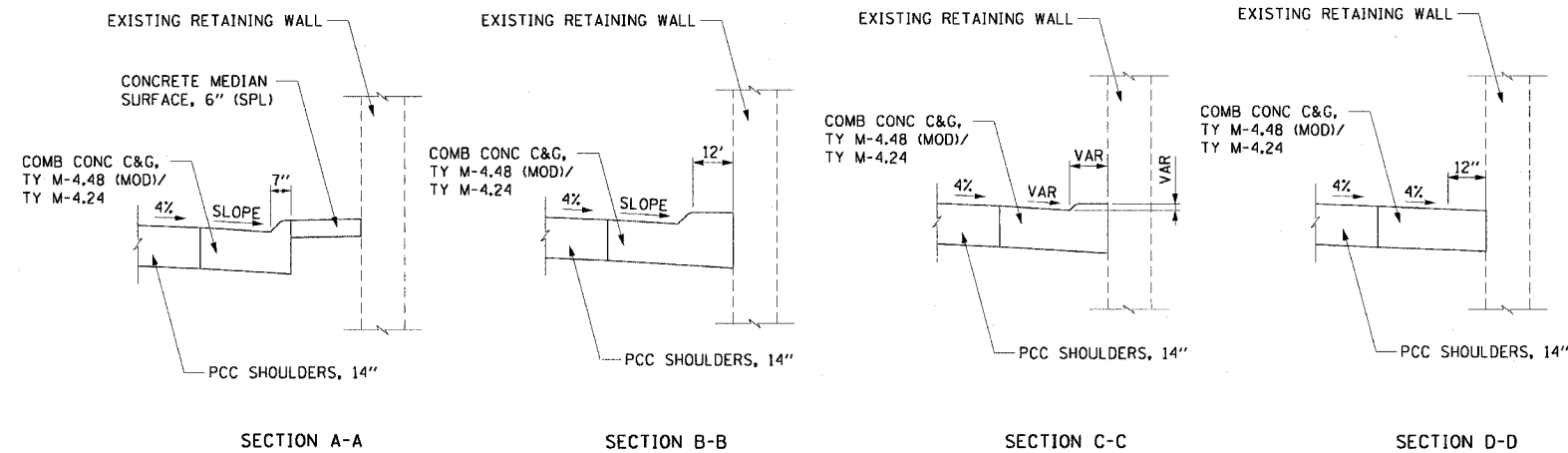
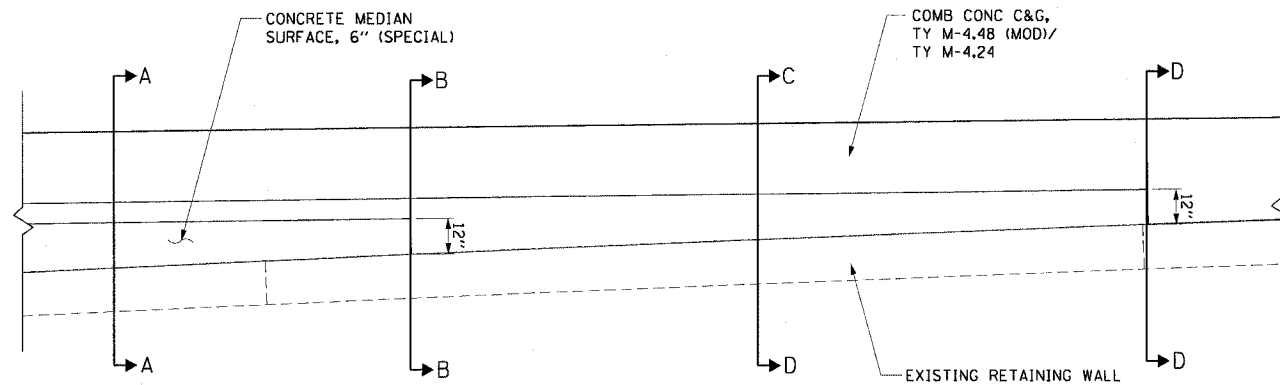
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 90/94 (DAN RYAN EXPRESSWAY)
GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)
ROADWAY DETAILS
COMB CONC C&G TRANSITION TO ABUTMENT
SINGLE FACE CONCRETE BARRIER TRANSITION
SCALE: NONE DRAWN BY: NJH
DATE: June 9, 2006 CHECKED BY: RMG

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	*	COOK	565	336
STA.	TO STA.			
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
62301 • (2021-922 PT2 ETC 2324.6-1P) R-10				

VARIABLE CURB WIDTH AND GUTTER TRANSITIONS FOR COMB CONC C&G, TY M-4.24 & TY M-4.48 (MOD)

N.T.S.

STA 4479+61.90
STA 6089+27.63
STA 8067+12.46



NOTES:

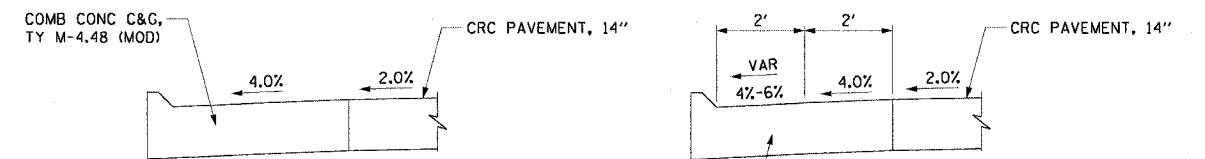
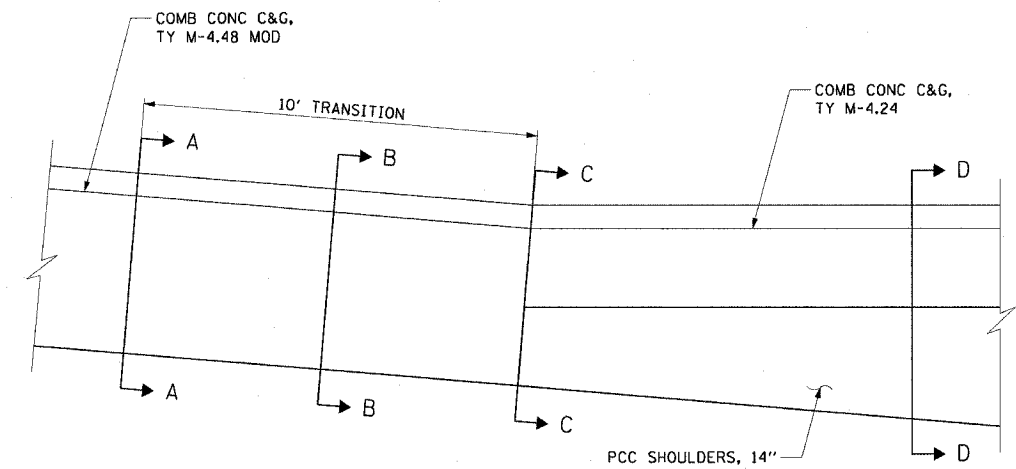
1. THE TRANSITION SECTION SHALL BE PAID FOR AS COMB CONC C&G, TY M-4.24 OR TY M-4.48 (MOD).
2. SEE RDT-7 FOR COMB CONC C&G, TY M-4.48 (MOD) DETAILS.
3. SLOPE FOR TY M-4.24 IS 6% AND SLOPE FOR TY M-4.48 (MOD) IS 4%.

CTE | AECOM

C&G TY M-4.48 (MOD) TRANSITION TO C&G TY M-4.24

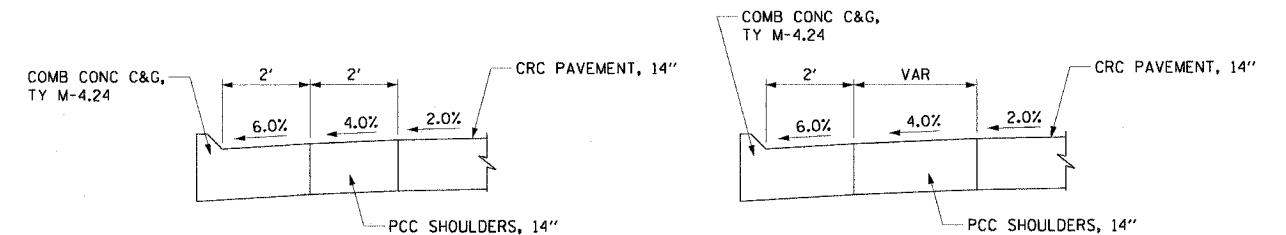
N.T.S.

STA 4497+98.67
STA 4506+66.41



SECTION A-A
N.T.S.

SECTION B-B
N.T.S.



SECTION C-C
N.T.S.

SECTION D-D
N.T.S.

NOTES:

1. THE TRANSITION SECTION SHALL BE PAID FOR AS COMB CONC C&G, TY M-4.48 (MOD).
2. SEE RDT-7 FOR COMB CONC C&G, TY M-4.48 (MOD) DETAILS.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 90/94 (DAN RYAN EXPRESSWAY)
GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)

ROADWAY DETAILS
COMB CONC C&G, TY M TRANSITION
TY M-4.48 (MOD) TO TY M-4.24 TRANSITION

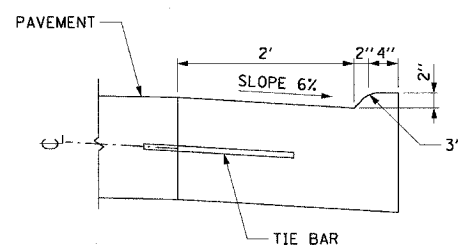
SCALE: NONE DRAWN BY: NJH
DATE: June 9, 2006 CHECKED BY: RMG

RDT-6

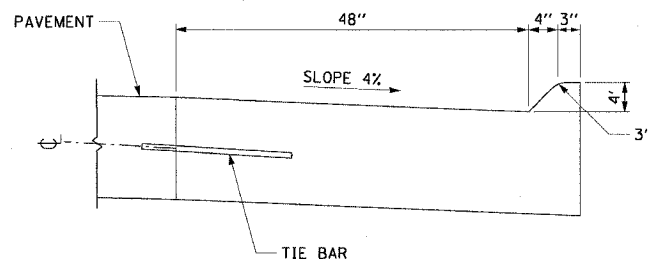
6/7/2006 147.30 PM

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94		COOK	565	337
STA.	TO STA.			
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	
62301	• (2021-922 PT2 ETC 2324.6-1P) R-10			

COMB CONC C&G, TY M-2.24 AND M-4.48 (MOD) DETAILS
N.T.S.



TY M-2.24

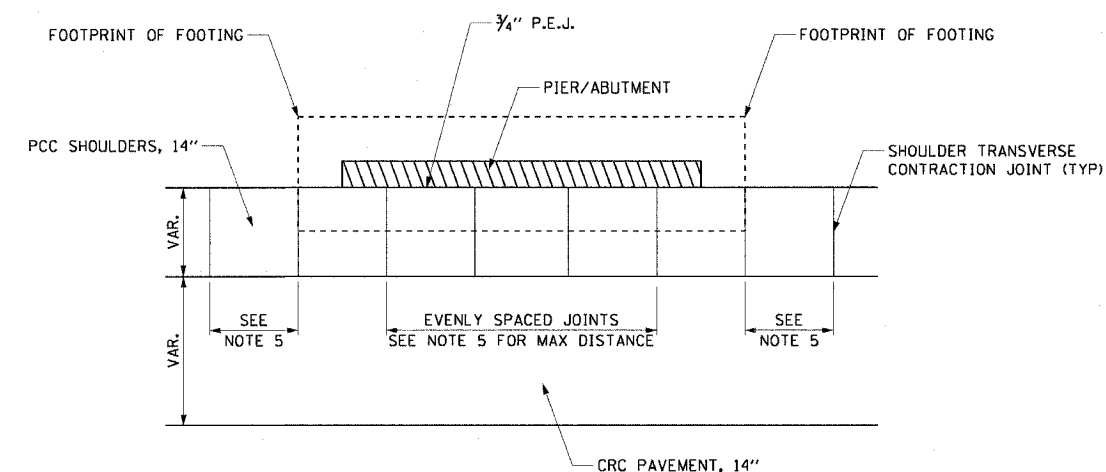


TY M-4.48 (MOD)

NOTES:

- CONTRACTOR SHALL FOLLOW IDOT HIGHWAY STANDARD 606001 FOR GENERAL NOTES AND PROCEDURES
- TIE BARS SHALL BE INCLUDED IN THE COST OF COMB CONC C&G, TY M-2.24 & TY M-4.48 (MOD).
- FOR THE TY M-2.24 C&G, THE TIE BARS SHALL BE NO. 6 DEFORMED EPOXY, 24" LONG AT 24" C-C.
- FOR THE TY M-4.48 (MOD) C&G, THE TIE BARS SHALL BE NO. 8 DEFORMED EPOXY, 30" LONG AT 24" C-C.

SHOULDER JOINTS AT PIERS AND ABUTMENTS



NOTES:

- CARE SHOULD BE TAKEN WHEN EXCAVATING NEAR AND AROUND EXISTING PIERS AND ABUTMENTS.
- THE CONTRACTOR SHALL VERIFY THE FOOTPRINT OF THE FOOTING DURING EXCAVATION.
- THE MINIMUM WIDTH BETWEEN SHOULDER TRANSVERSE CONTRACTION JOINTS SHOULD BE NO LESS THAN 7' C-C.
- 1/4" P.E.J. SHALL BE INCLUDED IN THE COST OF PCC SHOULDERS, 14".
- THE SPACING OF THE SHOULDER TRANSVERSE CONTRACTION JOINT SHALL BE 20' C-C ALONG THE INSIDE SHOULDER AND 15' C-C ALONG THE OUTSIDE SHOULDER.

CTE | AECOM

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 90/94 (DAN RYAN EXPRESSWAY)
GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)

ROADWAY DETAILS
MOUNTABLE CURB & GUTTER DETAILS
SHOULDER JOINTS AT PIER/ABUTMENT

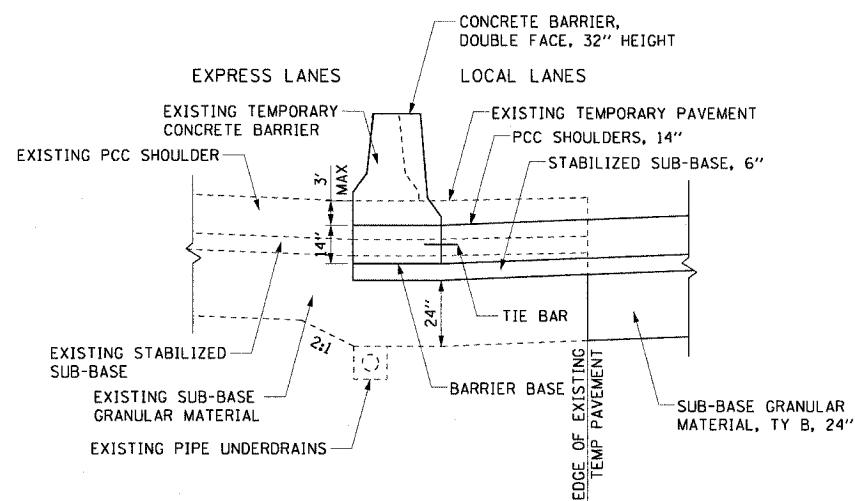
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DATE: June 9, 2006

DRAWN BY: NJH
CHECKED BY: RMC

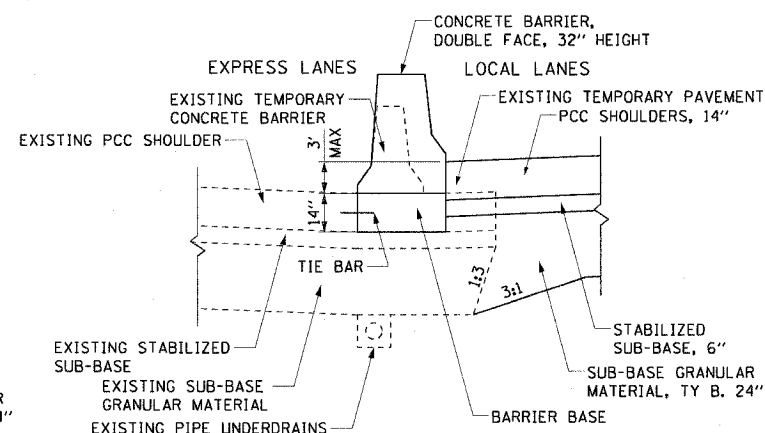
RDT-7

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6/7/2006

CONSTRUCTION OF SUB-BASE GRANULAR MATERIAL UNDER PROPOSED DOUBLE FACE BARRIER WALL



EXISTING EXPRESS LANES HIGHER THAN PROPOSED LOCAL LANES
N.T.S.



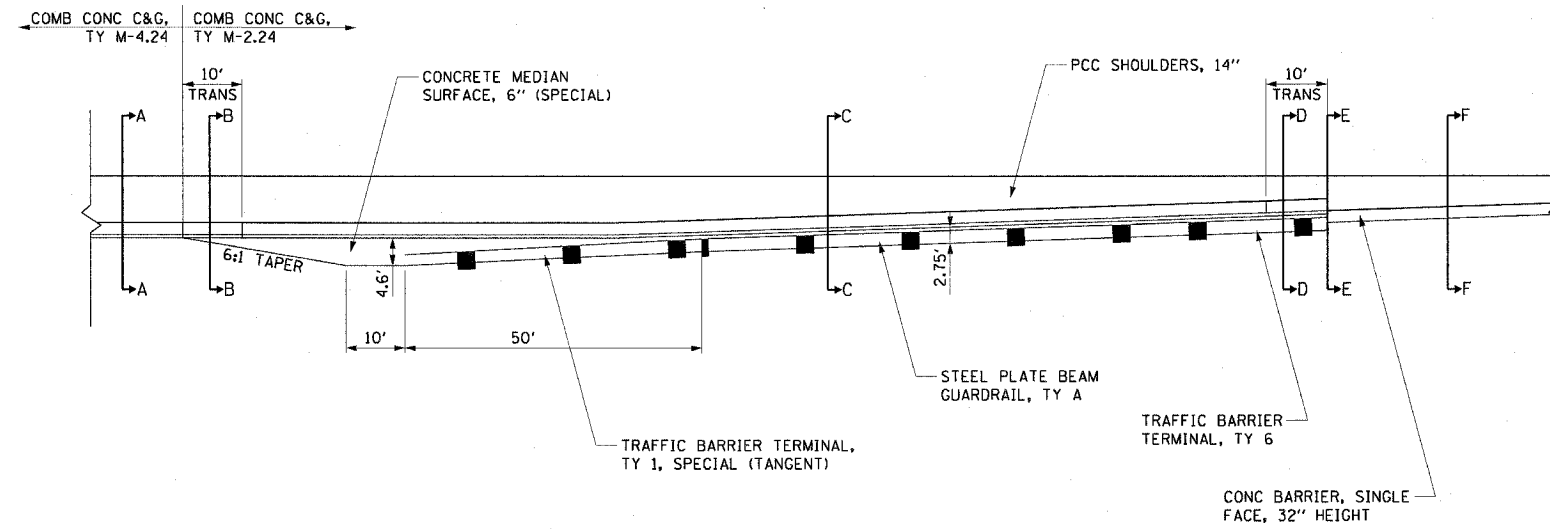
EXISTING EXPRESS LANES LOWER THAN PROPOSED LOCAL LANES
N.T.S.

NOTES:

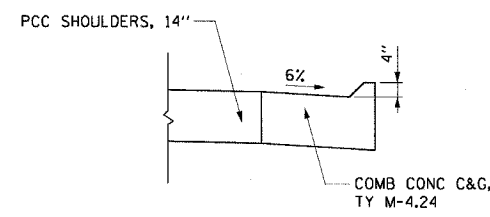
- SEE IDOT HIGHWAY STANDARD 637001 FOR DOUBLE FACE CONCRETE BARRIER DETAILS.
- THE TOE OF THE PROPOSED BARRIER WALL ALONG THE EXPRESS LANES SHOULDER SHALL MATCH THE EDGE OF THE EXISTING SHOULDER.
- SEE RDT-8 FOR DOUBLE FACE BARRIER WALL ELEVATIONS.
- PROPOSED SUB-BASE GRANULAR MATERIAL, TY B, 24" SHALL BE CONSTRUCTED BEGINNING AT THE EDGE OF THE EXISTING TEMPORARY PAVEMENT.
- IF THE BARRIER BASE IS CONSTRUCTED INDEPENDENTLY OF THE PCC SHOULDER, THE TIE BAR SHALL BE PLACED AT A DEPTH WHERE THE BAR TIES THE BARRIER BASE TO THE "LOW SIDE" PCC SHOULDER.
- TIE BARS SHALL BE NO. 6 EPOXY COATED, 12" LONG, 15" C-C AND SHALL BE INCLUDED IN THE COST OF THE BARRIER BASE.
- WHEN THE EXPRESS LANES ARE LOWER THAN THE LOCAL LANES, THE EXTRA DEPTH OF THE SUB-BASE GRANULAR MATERIAL SHALL BE INCLUDED IN THE COST OF SUB-BASE GRANULAR MATERIAL, TY B, 24".

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	*	COOK	565	339
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		
62301	* (2021-922 PT2 ETC 2324.6-1P) R-10			

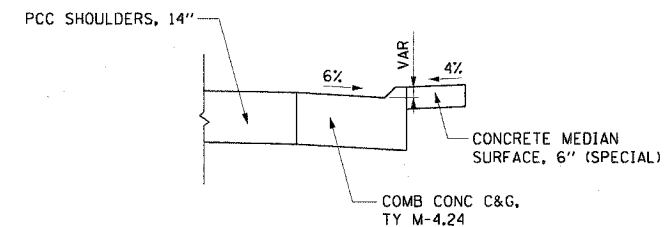
STABILIZATION AT TRAFFIC BARRIER TERMINAL, TYPE 1, SPECIAL (TANGENT)
N.T.S.



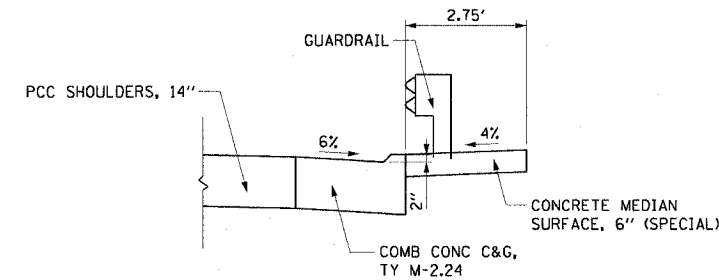
- NOTES:
1. THE TRANSITION SECTION IS PAID FOR AS COMB CONC C&G, TY M-2.24.
 2. DIMENSIONS OF THE CONCRETE MEDIAN SURFACE ARE TAKEN FROM THE BACK OF CURB.
 3. THE CONCRETE MEDIAN SURFACE, 6" (SPECIAL) AT GUARDRAIL LOCATIONS SHALL USE THE INTEGRAL RED CONCRETE WITHOUT THE BRICK PATTERN FINISH.
 4. SEE RDT-7 FOR COMB CONC C&G, TY M-2.24 DETAILS.



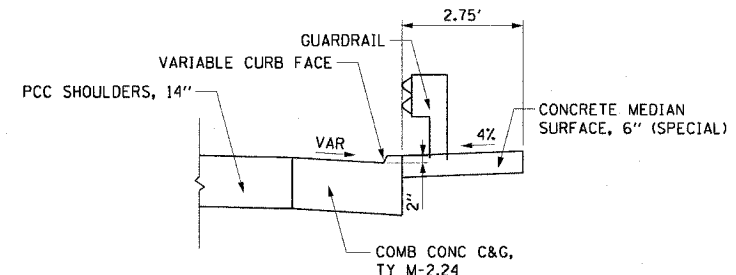
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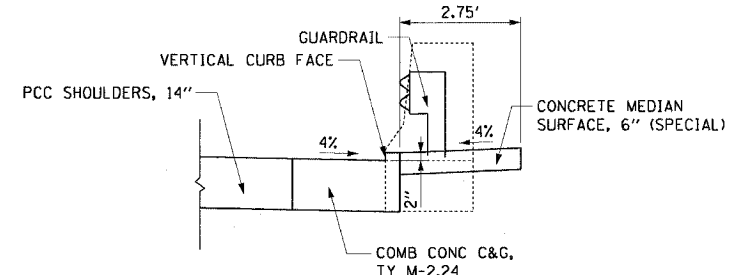
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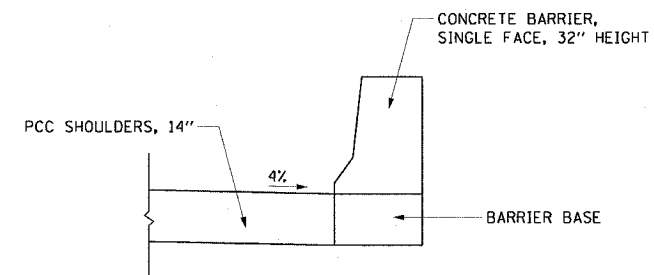
SECTION C-C



SECTION D-D



SECTION E-E



SECTION F-F

CTE | AECOM

REVISIONS	
NAME	DATE

RDT-9

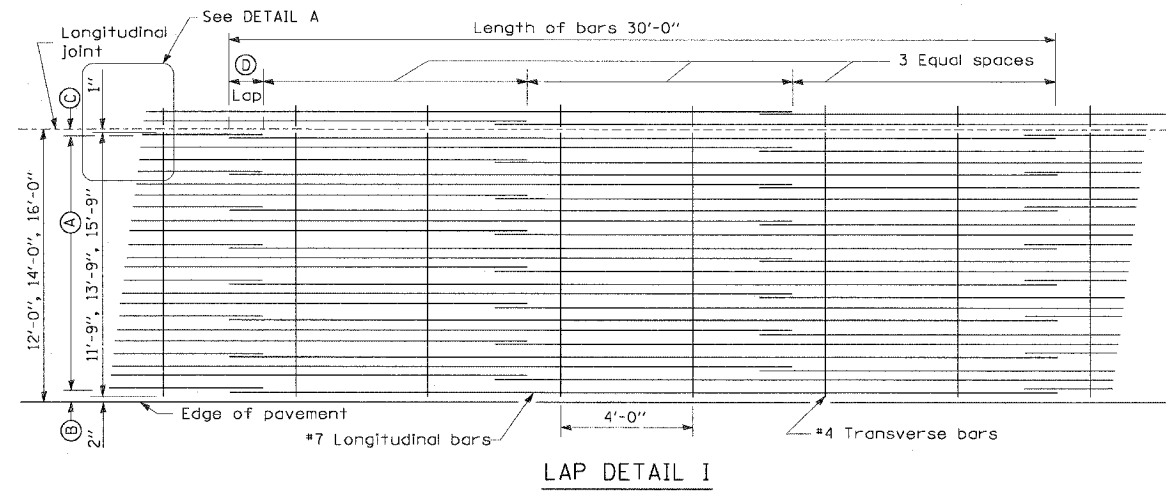
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 90/94 (DAN RYAN EXPRESSWAY)
GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)

ROADWAY DETAILS
STABILIZATION AT TBT, TY 1, SPECIAL

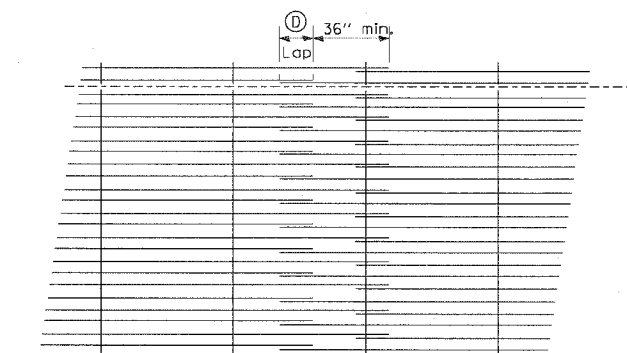
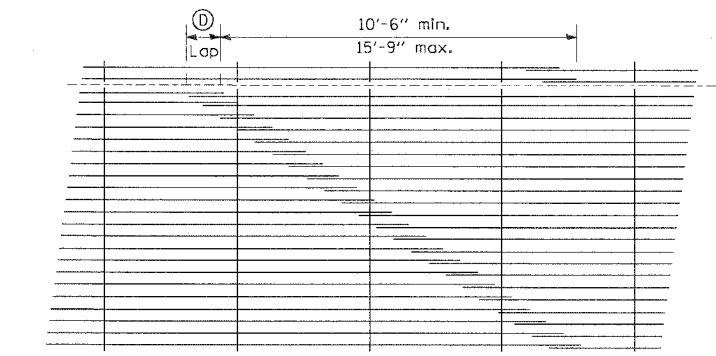
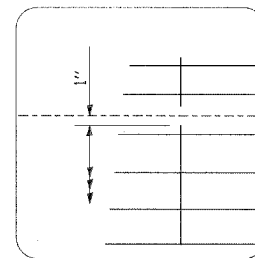
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DATE: June 9, 2006 CHECKED BY: RMG

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	*	COOK	565	340
STA.	TO STA.			
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
62301 • (2021-922 PT2 ETC 2324.6-1P) R-10				



Pavement Width	Bar Size	Pavement Thickness	(A) (Approx. Spacing)	(B)	(C)	(D)
12 feet	#7	14"	26 spaces (27 bars) @ 5 1/4"	3 1/2"	3"	26"
14 feet	#7	14"	30 spaces (31 bars) @ 5 3/8"	3 1/2"	3"	26"
16 feet	#7	14"	35 spaces (36 bars) @ 5 1/4"	3 1/2"	3"	26"



NOTES:

1. THE PAVEMENT REINFORCEMENT SHALL BE 4.5" FROM THE TOP OF PAVEMENT.
2. EXCEPT AS NOTED OR SHOWN, THE DIMENSIONS AND NOTES SPECIFIED FOR LAP DETAIL I ARE TYPICAL FOR LAP DETAIL II AND III.
3. THE (B) DIMENSION AND THE DISTANCE FROM THE END OF THE TRANSVERSE BAR TO THE EDGE OF PAVEMENT MAY BE INCREASED BY 1" FOR SLIP FORM PAVING.

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION F.A.I. 90/94 (DAN RYAN EXPRESSWAY) GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES) ROADWAY DETAILS EXTENDED LANE REINFORCEMENT FOR CONTINUOUSLY REINFORCED PCC PAVEMENT
NAME	DATE	

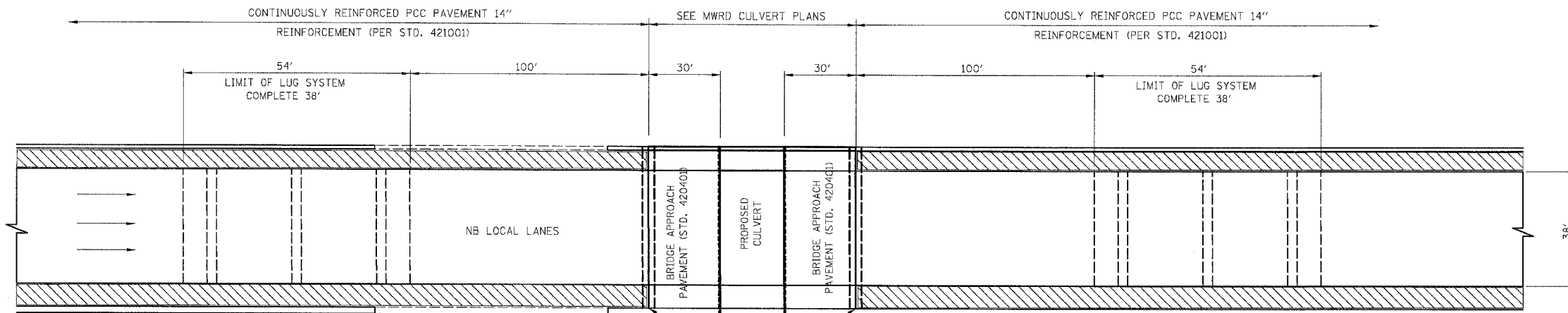
SCALE: NONE DRAWN BY: NJH
DATE: June 9, 2006 CHECKED BY: RMG

CTE | AECOM

RDT-10

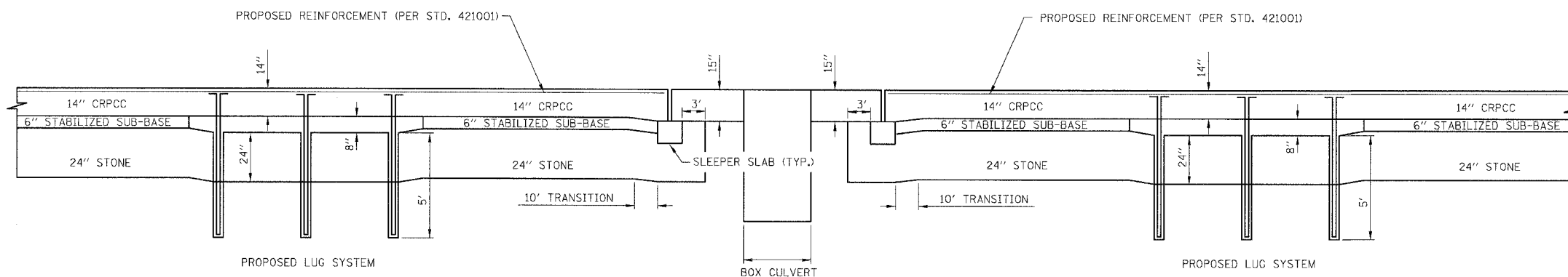
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F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	*	COOK	565	341
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
62301	* I2021-922 PT2 ETC 2324.6-1PI R-10			



PROPOSED PLAN

LEGEND:
 PCC SHOULDERS 14"



PROPOSED PROFILE

MATERIALS REQUIRED FOR ONE LUG SYSTEM COMPLETE 38'
 (EXCLUDING PAVEMENT CONCRETE AND PAVEMENT REINFORCEMENT)

BAR	QTY.	SIZE	LENGTH	SHAPE
a	210	#8	16'-4"	
b	18	#5	38'-9"	
c	210	#5	20'-0"	
d	28	#4	11'-9"	
d	14	#4	13'-9"	

CONCRETE 91.71 CU. YDS.
 REINFORCING BARS 14,613 LBS.

NOTE

- ABOVE SCHEDULE ONLY ACCOUNTS FOR ONE OF THE TWO LUG SYSTEMS
- LUG SYSTEM COMPLETE 38' IS SIMILAR TO (24') CRC PAVEMENT -WITH LUG SYSTEM (STD. 421201). SEE STANDARD 421201 FOR LAYOUT OF REINFORCING BARS AND OTHER APPLICABLE DIMENSIONS.

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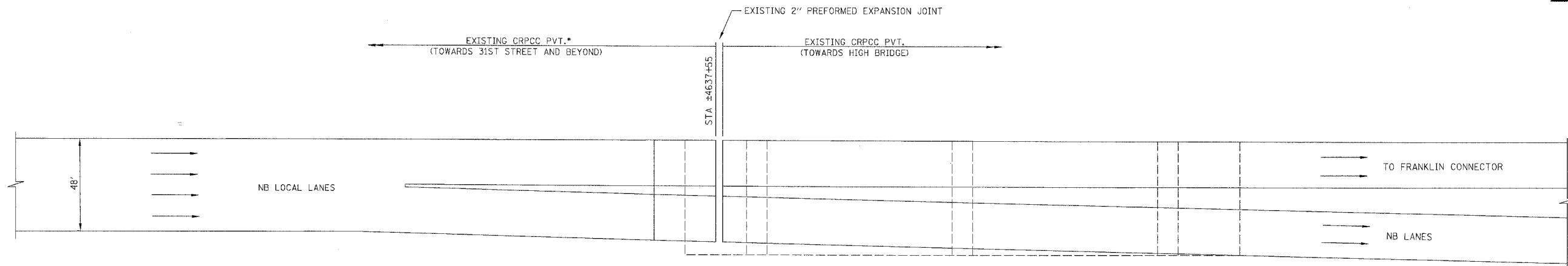
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)
ROADWAY DETAILS
 LUG SYSTEM INTERFACE AT PERSHING ROAD
 SCALE: NTS
 DATE: 06/09/06
 DRAWN BY: JDC
 CHECKED BY: RS

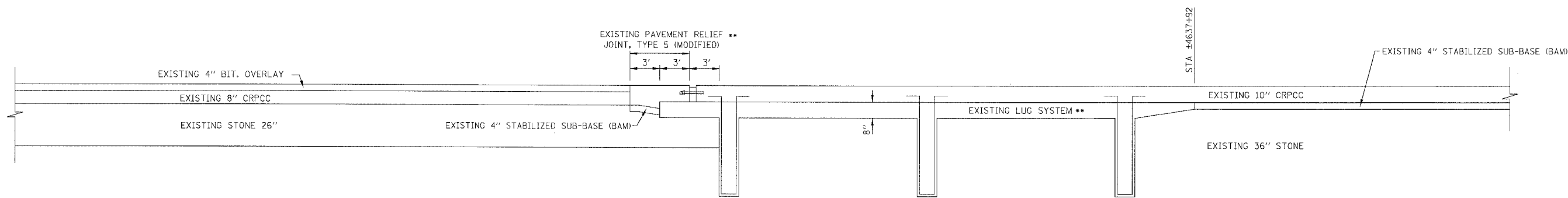
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F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90		COOK	565	342
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62301	* I2021-922 PT2 ETC 2324.6-1P1 R-10			



EXISTING PLAN



EXISTING PROFILE

- * LUGS FROM ORIGINAL 1961 CONSTRUCTION WERE REMOVED DURING 1987 HIGH BRIDGE (31ST TO I-290) RECONSTRUCTION.
- ** LUGS AND PAVEMENT RELIEF JOINTS FROM 1987 RECONSTRUCTION OF DAN RYAN HIGH BRIDGE AND APPROACH PAVEMENTS.

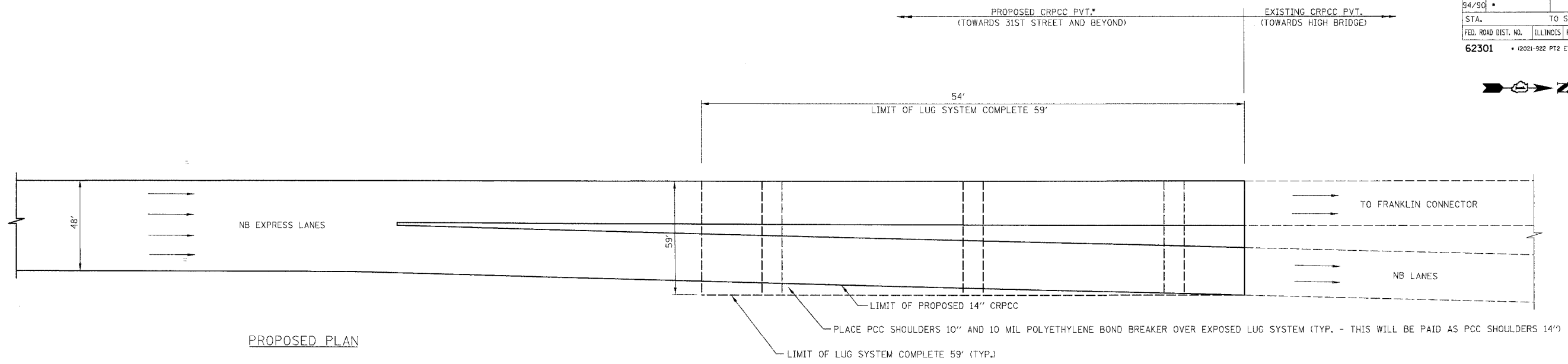
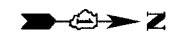
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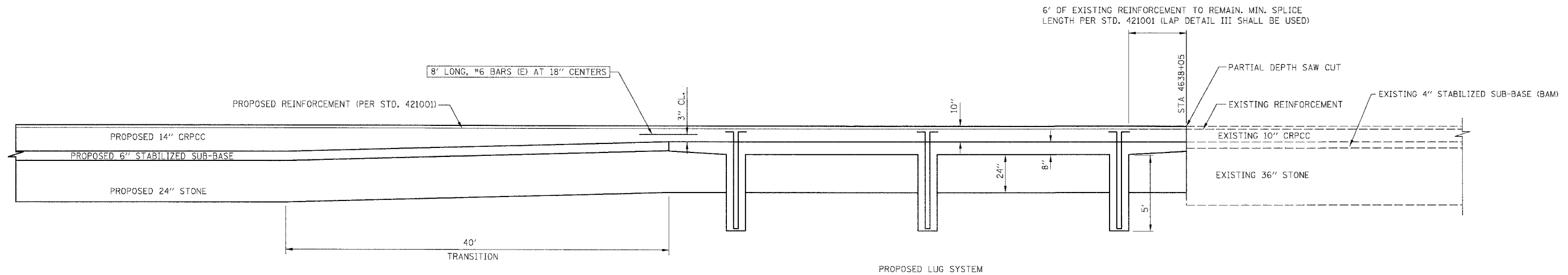
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)
ROADWAY DETAILS
LUG SYSTEM INTERFACE AT 31ST STREET
SCALE: NTS
DATE: 06/09/06
DRAWN BY: JDC
CHECKED BY: RS

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90		COOK	565	343
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62301	• (2021-922 PT2 ETC 2324-5-1P) R-10			

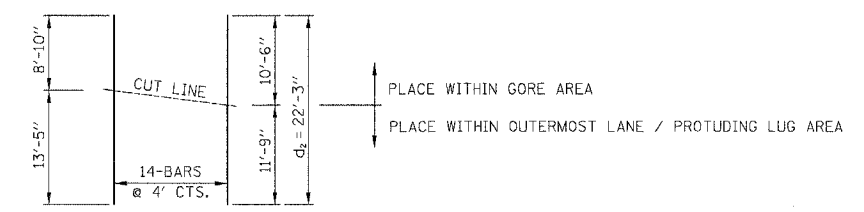


PROPOSED PLAN



PROPOSED PROFILE

MATERIALS REQUIRED FOR ONE LUG SYSTEM COMPLETE 59'				
(EXCLUDING PAVEMENT CONCRETE AND PAVEMENT REINFORCEMENT)				
BAR	QTY.	SIZE	LENGTH	SHAPE
a	324	#8	15'-8"	
b	18	#5	59'-9"	
c	324	#5	20'-0"	
d ₁	42	#4	11'-9"	
d ₂	14	#4	22'-3"	
CONCRETE		142.39 CU. YDS.		
REINFORCING BARS		21,974 LBS.		



BAR CUTTING DIAGRAM
(ORDER d₂ BARS FULL LENGTH CUT AS SHOWN)

NOTES

- EXISTING LUG SYSTEM AND RELIEF JOINT LOCATIONS MAY DIFFER FROM STATIONING SHOWN IN PLANS. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING EXISTING LUG SYSTEMS AND RELIEF JOINTS PRIOR TO WORK BEING PERFORMED.
- THE CONTRACTOR SHALL TAKE CARE IN REMOVING THE EXISTING CRC PAVEMENT SO AS NOT TO DAMAGE THE EXISTING REINFORCEMENT BARS THAT WILL BE TIED INTO. ANY DAMAGE TO THE EXISTING REINFORCEMENT BARS IS TO BE REPAIRED AT THE CONTRACTOR'S EXPENSE AS DIRECTED BY THE ENGINEER.
- 8'-#6 BARS ARE TO BE SUPPORTED BY PINS OR OTHER METHOD AS APPROVED BY THE ENGINEER. MUCKING IN OF THE BARS IS NOT ACCEPTABLE. COST OF THESE ADDITIONAL BARS WILL NOT BE PAID FOR SEPARATELY, BUT WILL BE INCLUDED IN THE PRICE FOR CRPCC PAVEMENT 14".
- TRANSITION AREA FROM 10" TO 14" CRPCC AND 10" CRPCC WILL BE PAID AS CRPCC PAVEMENT 14".
- LUG SYSTEM COMPLETE 59' IS SIMILAR TO (24') CRC PAVEMENT - WITH LUG SYSTEM (STD. 421201). SEE STANDARD 421201 FOR LAYOUT OF REINFORCING BARS AND OTHER APPLICABLE DIMENSIONS.

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Chicago, Illinois
312.228.0100
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REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)

ROADWAY DETAILS
LUG SYSTEM INTERFACE AT 31ST STREET

SCALE: NTS
DATE: 06/09/06

DRAWN BY: JDC
CHECKED BY: RS

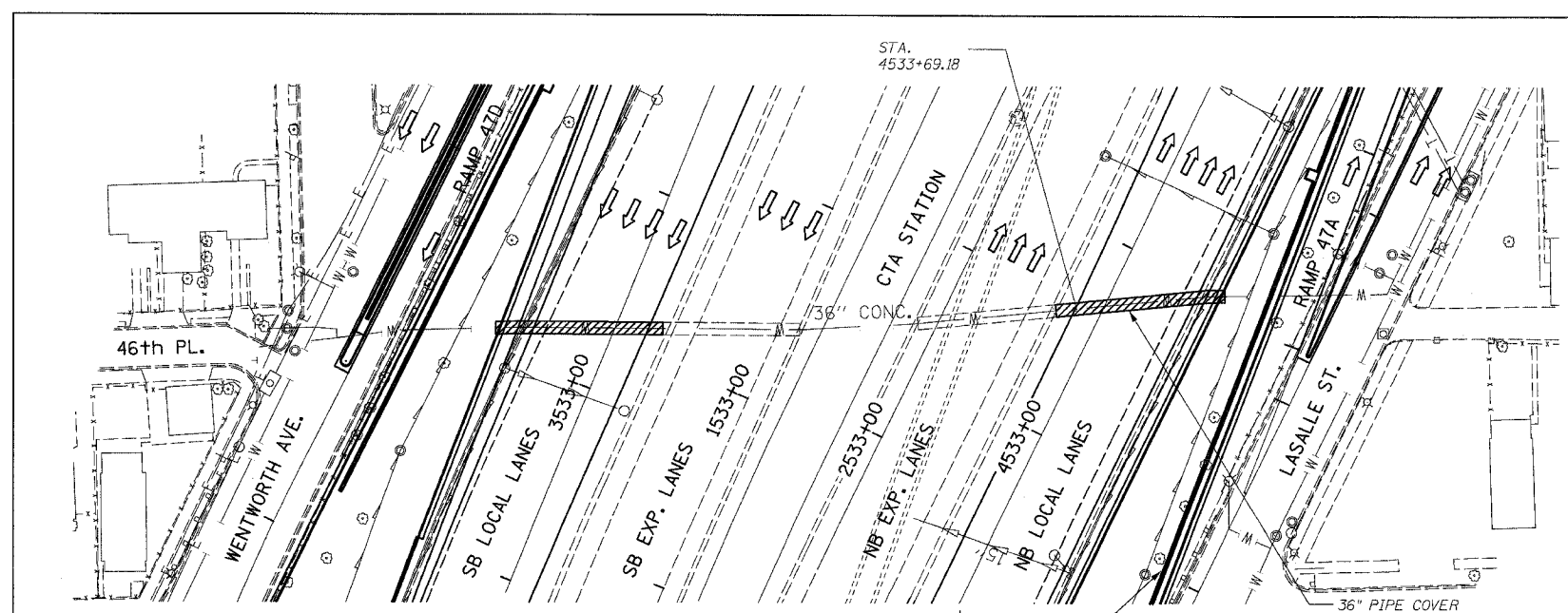
F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	*	COOK	565	344
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
62301 * (2021-922 PT2 ETC 2324.6-1P) R-10				

BILL OF MATERIAL

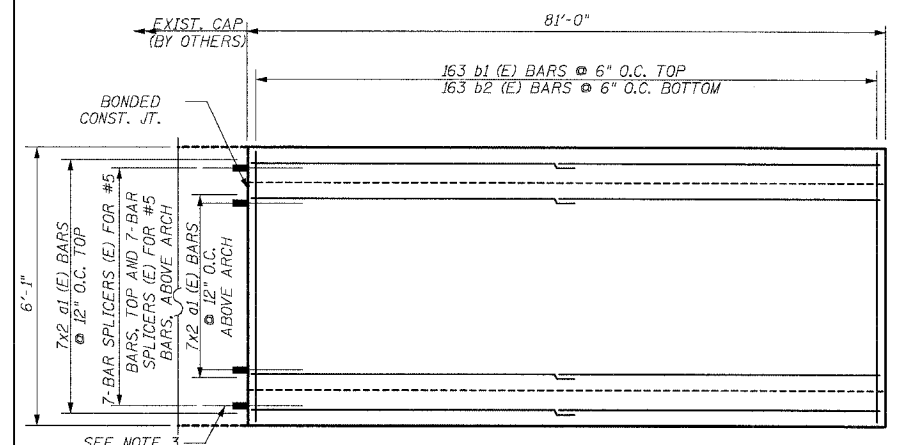
BAR	NO.	SIZE	LENGTH	SHAPE
a1(E)	40	#5	41'-6"	—
b1(E)	163	#5	10'-4"	□
b2(E)	163	#5	10'-3"	⤴
REINFORCEMENT BARS, EPOXY COATED			POUNDS	5,240
CONCRETE STRUCTURES			CU. YD.	29.8

NOTES:

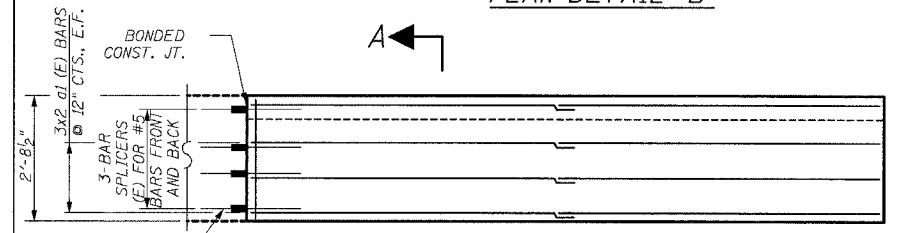
1. THE 2" POLYSTYRENE INSULATION SHALL BE INCLUDED IN THE COST OF 36" WATER MAIN PROTECTION CAP CONSTRUCTION. THE ESTIMATED QUANTITY IS 477 SQ. FT.
2. ADDITIONAL GRANULAR SUB-BASE REQUIRED AS SHOWN IN SECTION A-A OR AS DIRECTED BY ENGINEER WILL BE INCLUDED IN THE COST OF SUB-BASE GRANULAR MATERIAL, TYPE B 24".
3. CONTRACTOR SHALL BE PROVIDED BAR SPLICER "TAILS" FROM THE ENGINEER & SHALL INSTALL THEM IN PREVIOUSLY PLACED THREADED COUPLERS. CLEAN COUPLERS AS REQUIRED TO RECEIVE TAILS. COST INCLUDED WITH REINFORCEMENT BARS, EPOXY COATED.
4. DEViate CAP AND REINFORCEMENT AS NECESSARY TO FOLLOW LAYOUT OF PIPE.
5. ALL BARS DESIGNATED (E) MUST BE EPOXY COATED.
6. ALL BARS MUST BE #5 BARS WITH A MINIMUM LAP OF 2'-2".



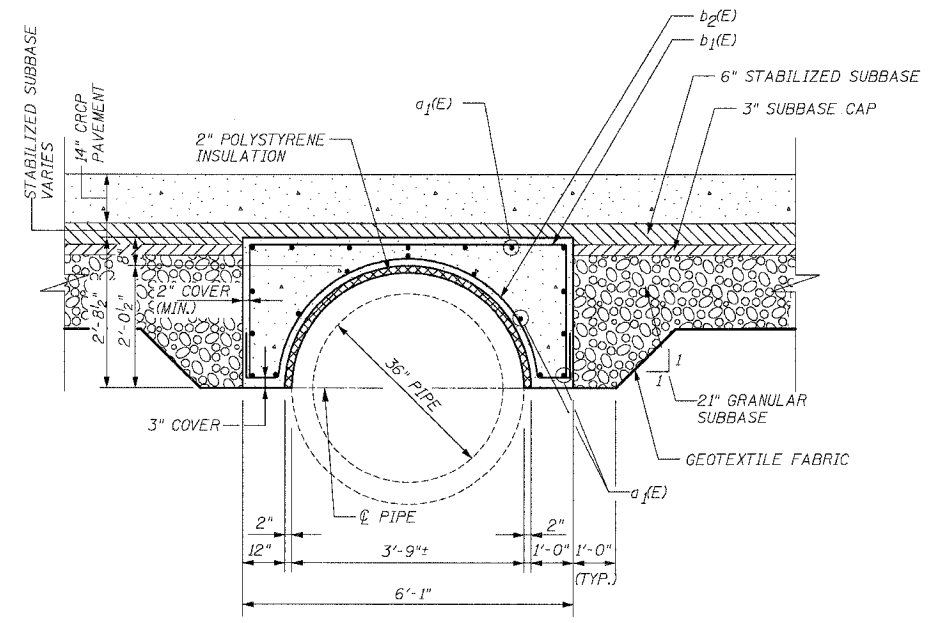
THIS PORTION OF PLAN PROVIDED FOR INFORMATION ONLY, NOT IN CONTRACT.
TOPOGRAPHIC PLAN



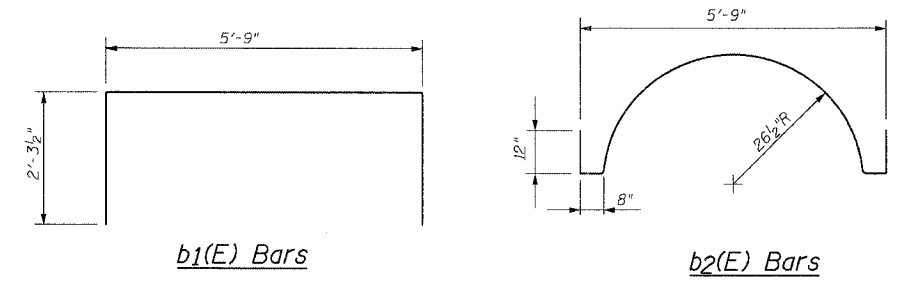
PLAN DETAIL 'B'



ELEVATION 'B'



SECTION A-A



b1(E) Bars

b2(E) Bars

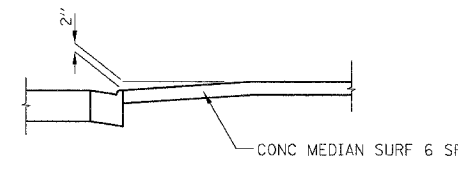
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REVISIONS	
NAME	DATE

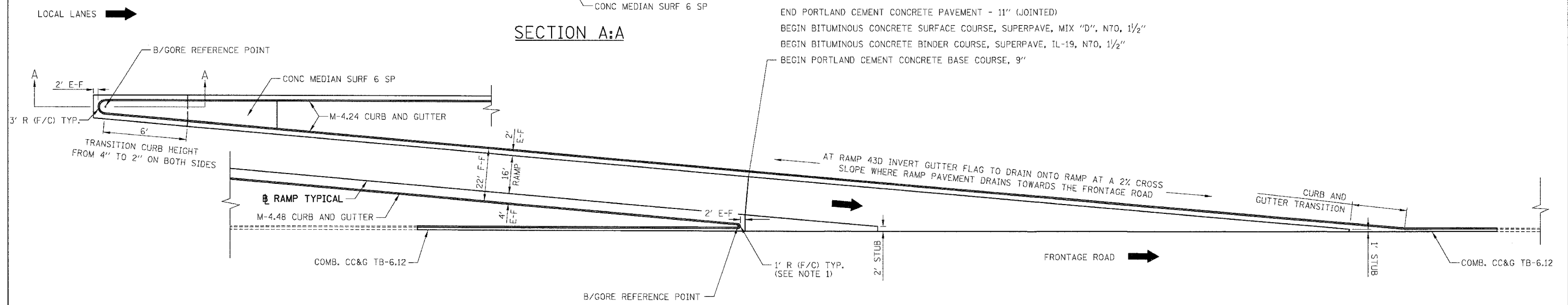
RDT-13
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
GARFIELD BLVD. TO 31ST STREET (NB LOCAL LANES)
RDWY DETAILS - 46TH ST CROSSING
36" WATER MAIN PROTECTION CAP
SCALE: NTS
DATE: JUNE 9, 2006
DRAWN BY: BLU
CHECKED BY: MTR

6/7/2006 7:56:09 PM

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	*	COOK	565	345
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62301	* (2021-922 PT2 ETC 2324.6-1P) R-10			



SECTION A:A

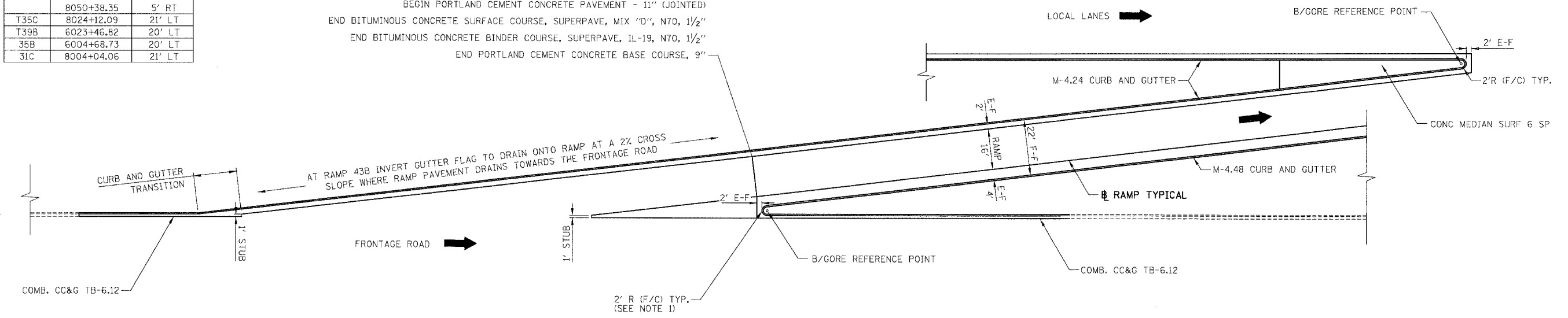


B/GORE REFERENCE POINT

RAMP	STA	OFFSET
47B	6060+23.40	6' RT
	6064+69.14	20' LT
43D	8053+91.74	19.25' LT
	8058+68.68	5' RT
43B	6040+83.76	20' LT
	6045+38.11	21' LT
39C	8044+10.17	-
	8050+38.35	5' RT
T35C	8024+12.09	21' LT
T39B	6023+46.82	20' LT
35B	6004+68.73	20' LT
31C	8004+04.06	21' LT

EXIT RAMP GOES

BEGIN PORTLAND CEMENT CONCRETE PAVEMENT - 11" (JOINTED)
 END BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, MIX "D", N70, 1 1/2"
 END BITUMINOUS CONCRETE BINDER COURSE, SUPERPAVE, IL-19, N70, 1 1/2"
 END PORTLAND CEMENT CONCRETE BASE COURSE, 9"



ENTRANCE RAMP GOES

- NOTES:
1. TRANSITION 6" TO 4" CURB HEIGHT AND GUTTER CROSS-SLOPE OVER THE LENGTH OF THE GORE CIRCUMFERENCE.
 2. PLACE CONCRETE MEDIAN SURFACE 6" SPECIAL UNTIL THE WIDTH BETWEEN THE BACK OF C&G'S IS 6' UP TO A MAXIMUM LENGTH OF 25' OR AS SHOWN ON THE PLANS.
 3. 2" CURB AND VARIABLE HEIGHT CURB AT LOCAL LANE EXIT GORE NOSE WILL BE PAID AS M-4.24 CURB AND GUTTER.
 4. DEPRESS CURB IN FRONT OF AND ADJACENT TO AN ATTENUATOR.

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NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)

ROADWAY DETAILS
 TYPICAL RAMP GOES

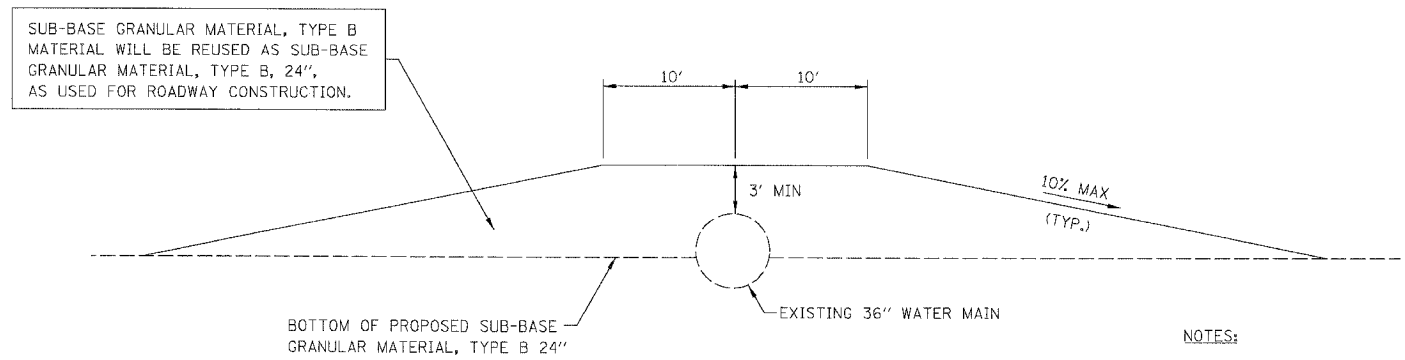
SCALE: NONE
 DATE: 06/09/06

DRAWN BY: JDC
 CHECKED BY: RS

RDT-14

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F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90		COOK	565	346
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62301	• (2021-922 PT2 ETC 2324.6-1P) R-10			



SUB-BASE GRANULAR MATERIAL, TYPE B MATERIAL WILL BE REUSED AS SUB-BASE GRANULAR MATERIAL, TYPE B, 24", AS USED FOR ROADWAY CONSTRUCTION.

EXISTING 36" WATER MAIN

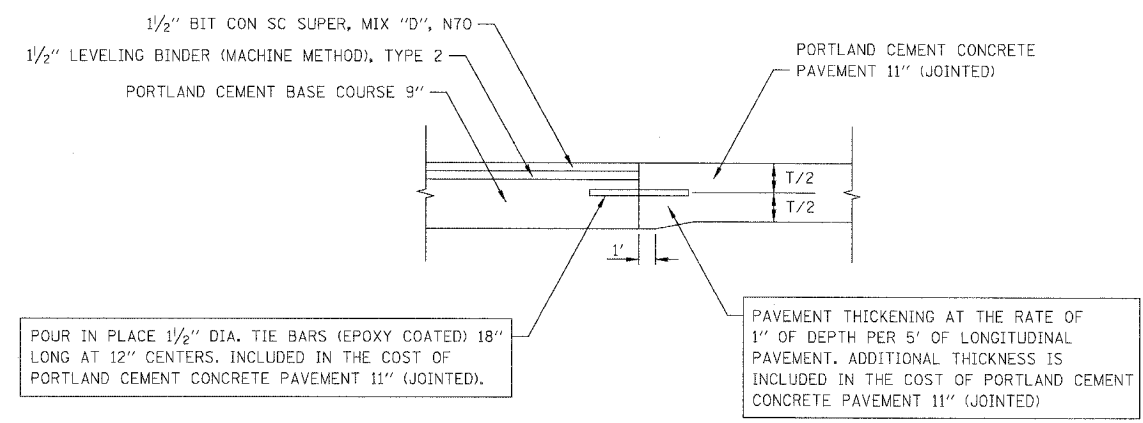
3' MIN

10% MAX (TYP.)

BOTTOM OF PROPOSED SUB-BASE GRANULAR MATERIAL, TYPE B 24"

CONSTRUCTION PROTECTION
STA. 4533+69

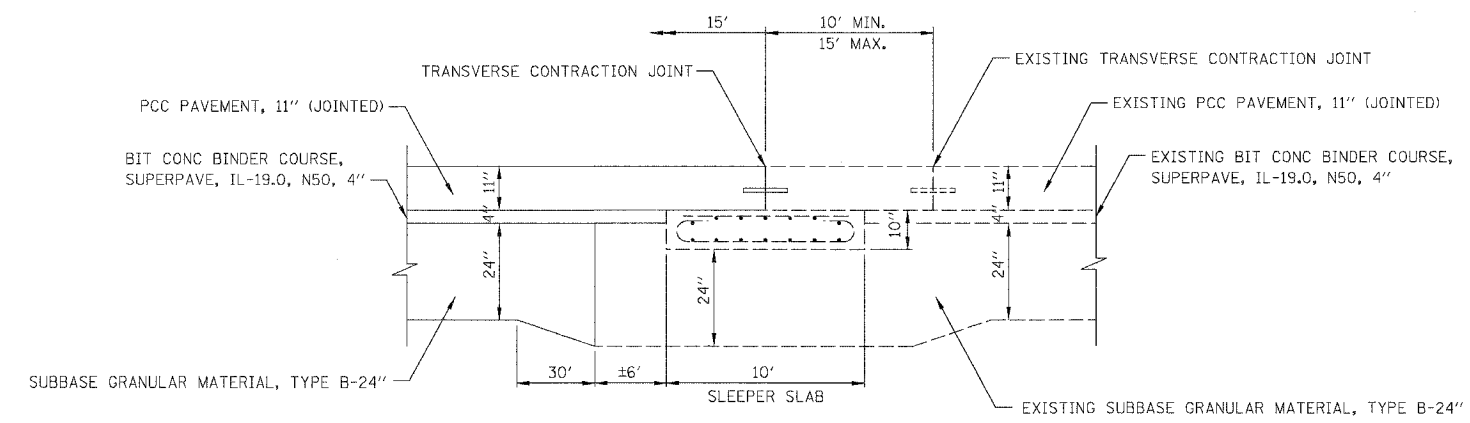
- NOTES:
- CONTRACTOR WILL PROVIDE A MINIMUM COVER, AS SHOWN ABOVE AT ALL TIMES DURING CONSTRUCTION AND PRIOR TO THE INSTALLATION OF THE PERMANENT WATER MAIN PROTECTION CAP. CONSTRUCTION TRAFFIC SHALL NOT CROSS THE WATER MAIN PIPE WITHOUT PROTECTION IN PLACE.
 - CONTRACTOR IS RESPONSIBLE FOR THE INTEGRITY OF THE WATER MAIN PIPE THROUGH OUT THE DURATION OF THE PROJECT AND WILL NOT BE PAID FOR ANY REPAIRS REQUIRED, AS DETERMINED BY THE ENGINEER, TO THE PIPE, DUE TO CONSTRUCTION ACTIVITIES.



POUR IN PLACE 1/2" DIA. TIE BARS (EPOXY COATED) 18" LONG AT 12" CENTERS. INCLUDED IN THE COST OF PORTLAND CEMENT CONCRETE PAVEMENT 11" (JOINTED).

PAVEMENT THICKENING AT THE RATE OF 1" OF DEPTH PER 5' OF LONGITUDINAL PAVEMENT. ADDITIONAL THICKNESS IS INCLUDED IN THE COST OF PORTLAND CEMENT CONCRETE PAVEMENT 11" (JOINTED)

PAVEMENT TRANSITION BETWEEN FRONTAGE ROAD AND RAMP



SLEEPER SLAB INTERFACE

- RAMP T35C STA 8024+43.4
- RAMP T39B STA 6022+99.0
- RAMP 35B STA 6004+13.9
- RAMP 31C STA 8004+20.6

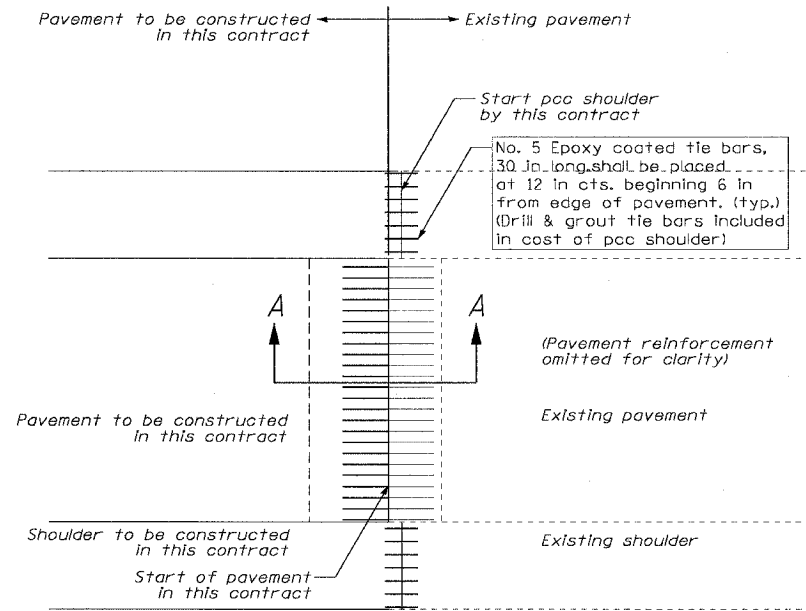
- NOTES:
- 10 MIL. POLYETHYLENE BOND BREAKER WAS PLACED ON THE EXISTING SLEEPER SLABS BY THE PREVIOUS CONTRACT ALONG WITH A 3" PREFORMED EXPANSION JOINT AT THE TEMPORARY PAVEMENT LIMIT. THE EXISTING SLEEPER SLABS MUST NOT BE DAMAGED BY THE TEMPORARY CONCRETE PAVEMENT REMOVAL OPERATIONS DONE BY THIS CONTRACT.
 - THE AREAS OF VARYING HEIGHT SUB-BASE GRANULAR MATERIAL, TYPE B WILL BE PAID FOR AS SUB-BASE GRANULAR MATERIAL, TYPE B-24".

RDT-15

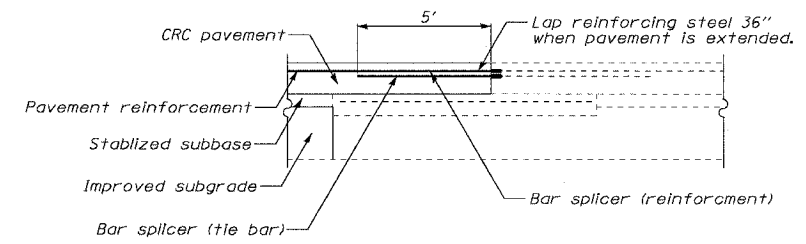
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REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION F.A.I. 94/90 (DAN RYAN EXPRESSWAY) GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES) ROADWAY DETAILS CONSTRUCTION PROTECTION PVT TRAN BTWN FRONTAGE RD & RAMP SLEEPER SLAB INTERFACE SCALE: NONE DATE: 06/09/06
NAME	DATE	
		DRAWN BY: JDC CHECKED BY: RS

6/7/2006 PM



PLAN
(CONNECTION TO EXISTING LONG TERM TRANSVERSE CONSTRUCTION JOINT)



LONG TERM TRANSVERSE CONSTRUCTION JOINT SECTION A-A

NOTES

- This detail shows connection of proposed CRC pavement to existing pavement at an existing long term transverse construction joint.
- Bar splicer assemblies shall be of an IDOT approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.
- Bar splicers shall be of the "coupler" type, and shall not have flanges.
- Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.
- All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.
- Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.
- Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:
 - Minimum Capacity (Tension in ksi) = $1.25 \times f_y \times A(t)$
 - Minimum Pull-out Strength (Tension in ksi) = $1.25 \times f_s(\text{allow}) \times A(t)$

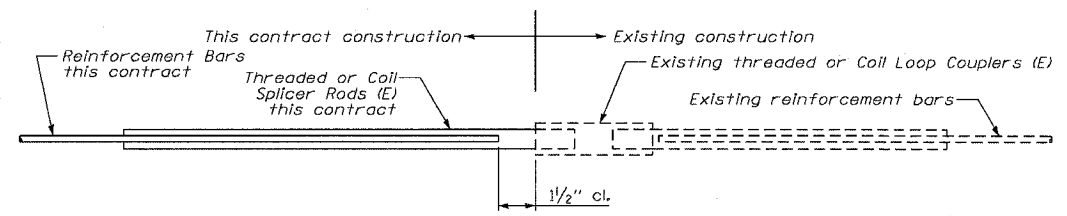
Where:
 f_y = Yield strength of lapped reinforcement bars in ksi.
 $f_s(\text{allow})$ = Allowable tensile stress in lapped reinforcement bars in ksi (Service Load)
 $A(t)$ = Tensile stress area of lapped reinforcement bars (in^2).
 * = 28 day concrete

BAR SPLICER ASSEMBLIES			
Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	STRENGTH REQUIREMENTS	
		Min. Capacity (kips) tension	Min. Pull-Out Strength (kips) tension
#5	2'-0"	23.0	9.2
#6	2'-7"	33.1	13.3
#7	3'-5"	45.1	18.0
#8	4'-6"	58.9	23.6
#9	5'-9"	75.0	30.0

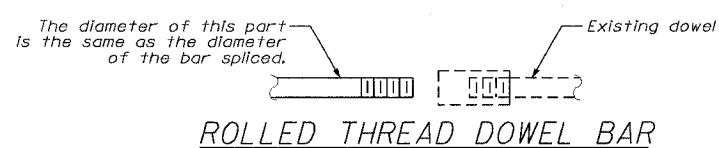
- Bar splicer assemblies shall be according to Section 508 of the Standard Specifications, except as noted.
- Reinforcement shall not be paid for separately but included in the cost of PAVEMENT REINFORCEMENT, 14".
- Connection to long term transverse construction joint work includes the installation of the bar splicers. Payment for this work will be included in the cost of CONTINUOUSLY REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT, 14".
- Tie bars to be drilled and grouted shall not be paid for separately but included in the cost of PORTLAND CEMENT CONCRETE SHOULDERS, 14".

GENERAL NOTES

- See Standard 421001 for details of CRC pavement reinforcement.
- See Standards 420001 and 420401 for details of joints and tie bars not shown.
- See Standard 483001 for pcc shoulder details

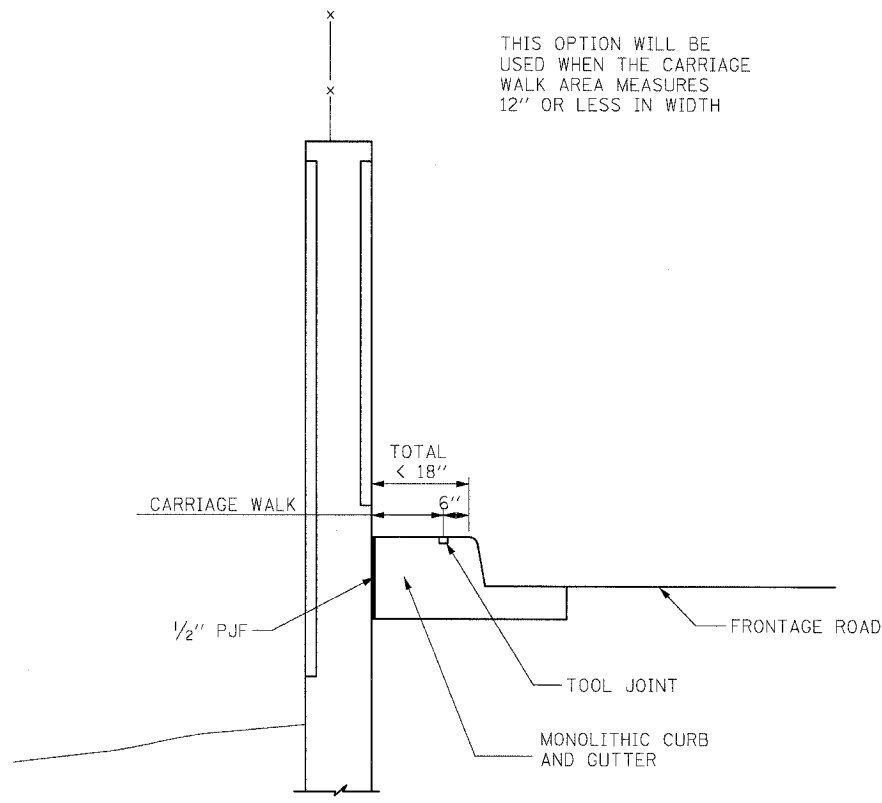


BAR SPLICER ASSEMBLY DETAIL
(E) : Indicates epoxy coating.

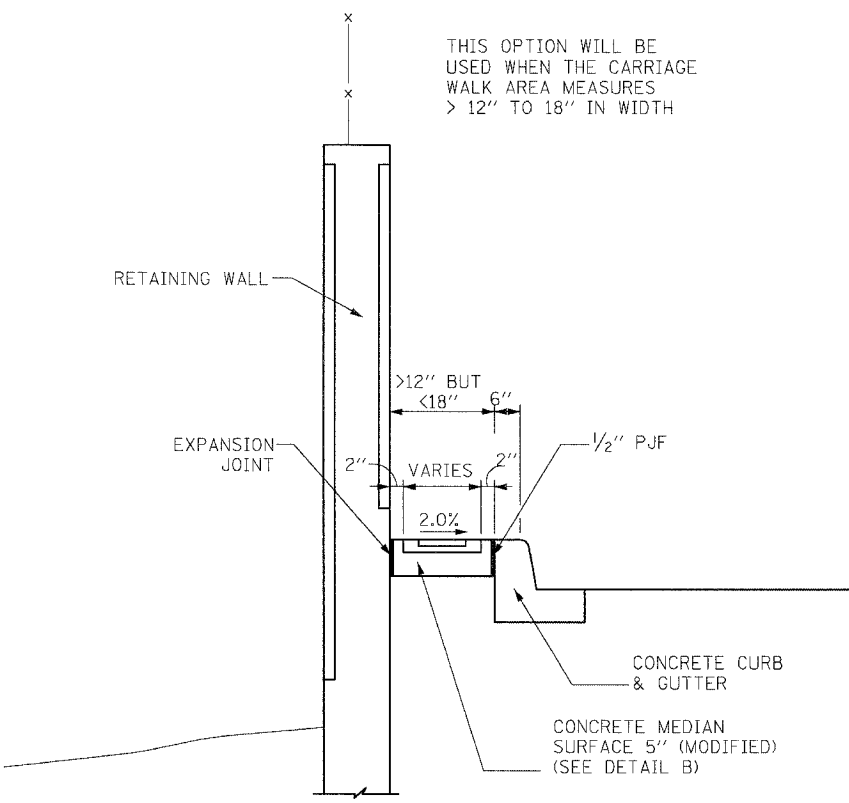


ROLLED THREAD DOWEL BAR

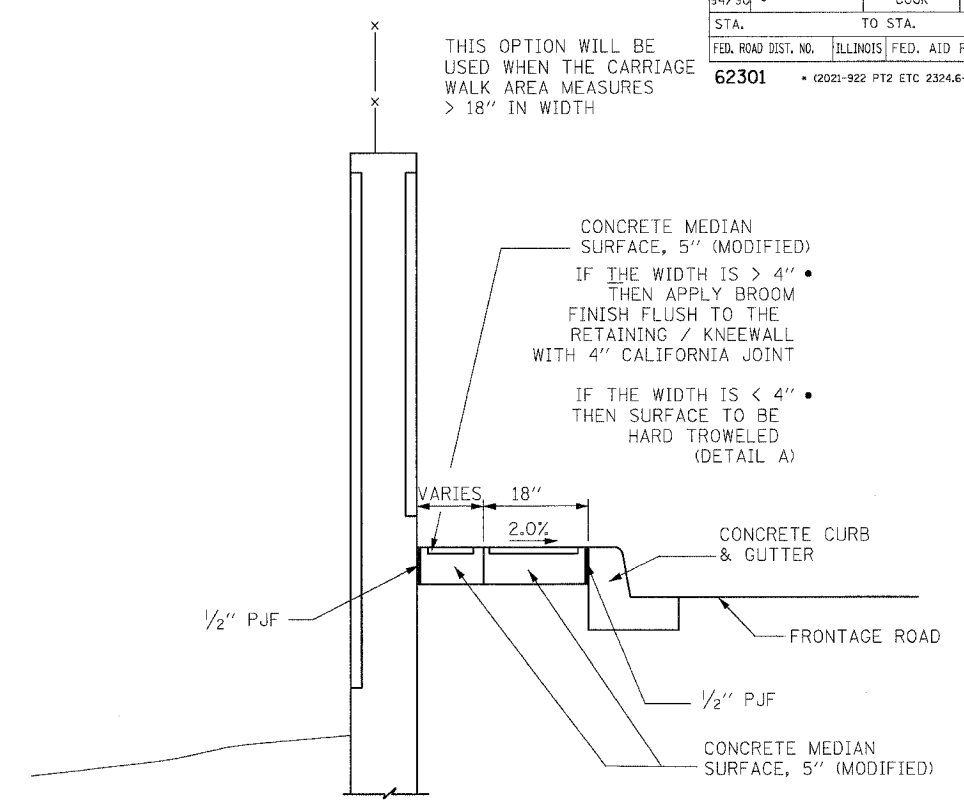
F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90		COOK	565	348
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
	62301	• (2021-922 PT2 ETC 2324.6-1PI) R-10		



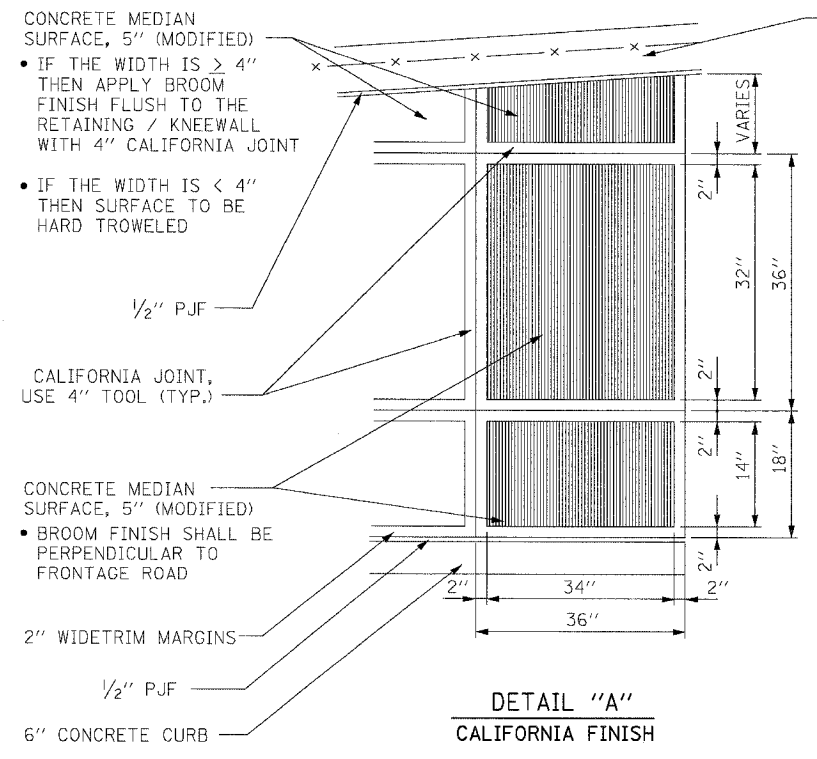
CARRIAGE WALK
AREA < 12"



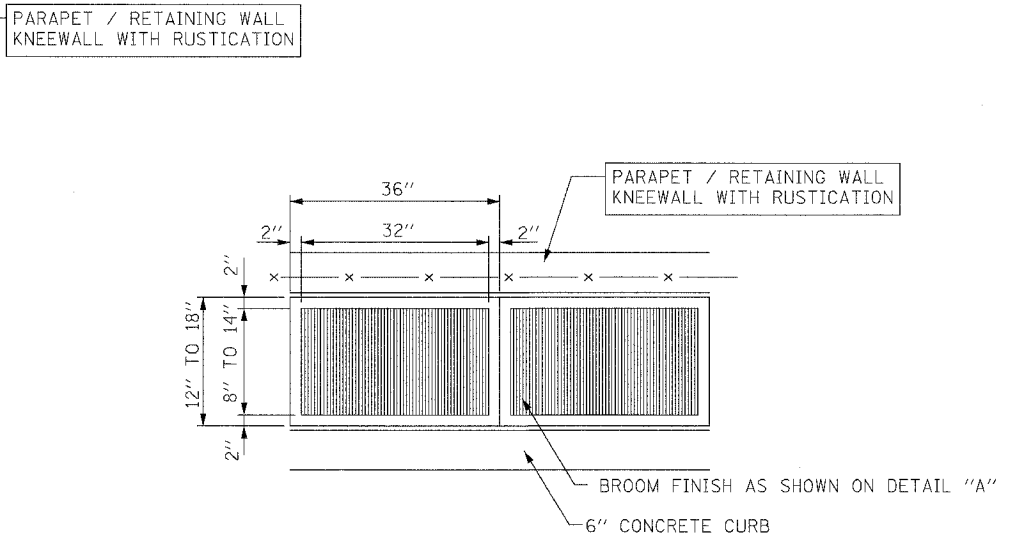
CARRIAGE WALK
AREA > 12" TO 18"



CARRIAGE WALK
AREA > 18"



DETAIL "A"
CALIFORNIA FINISH



DETAIL "B"
CALIFORNIA FINISH

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REVISIONS	NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)
ROADWAY DETAILS
CONCRETE MEDIAN SURFACE 5"
(MODIFIED) CALIFORNIA FINISH
SCALE: NONE
DATE: 06/09/06
DRAWN BY: CTE
CHECKED BY: JDC

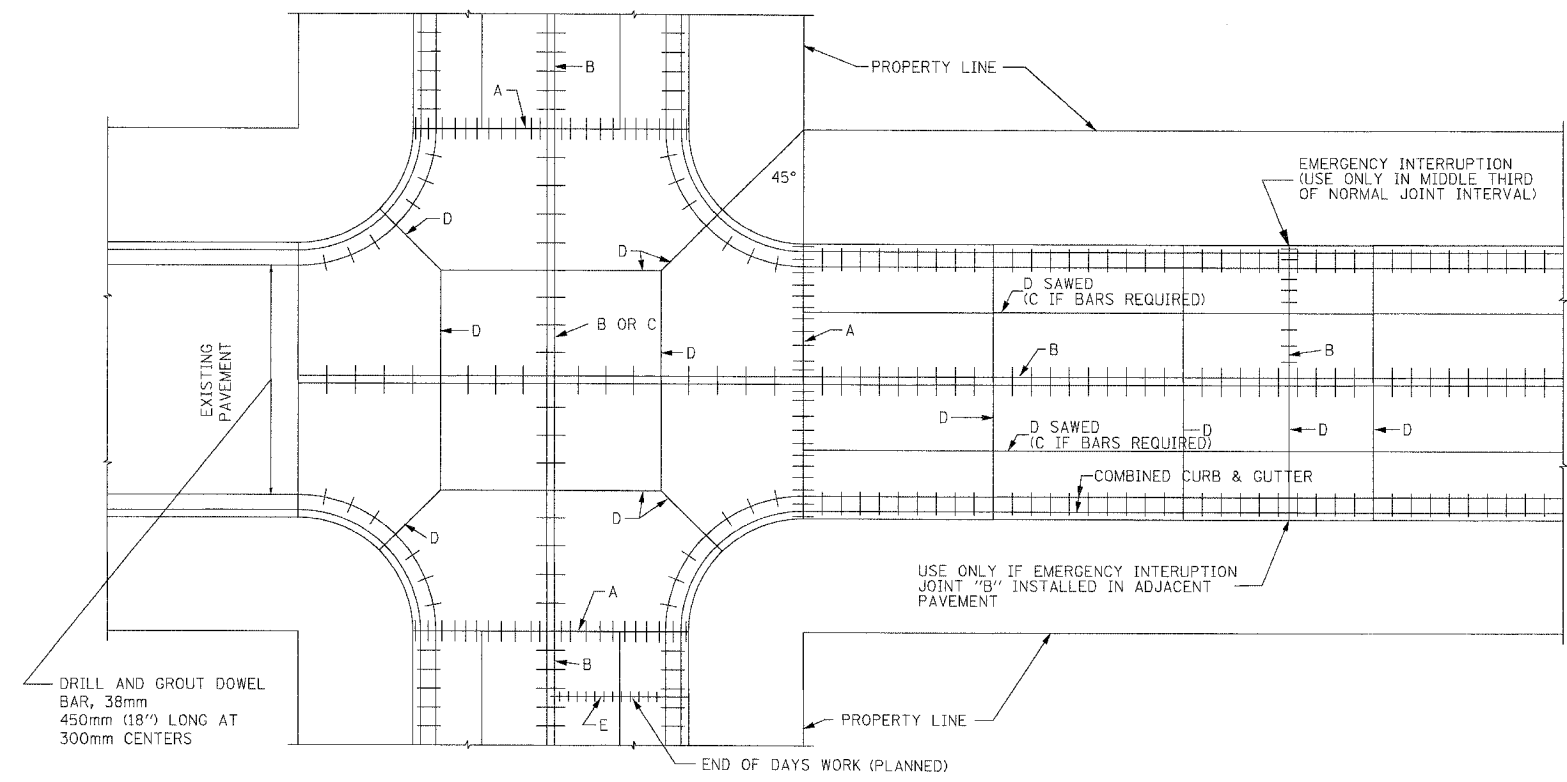
RDT-17

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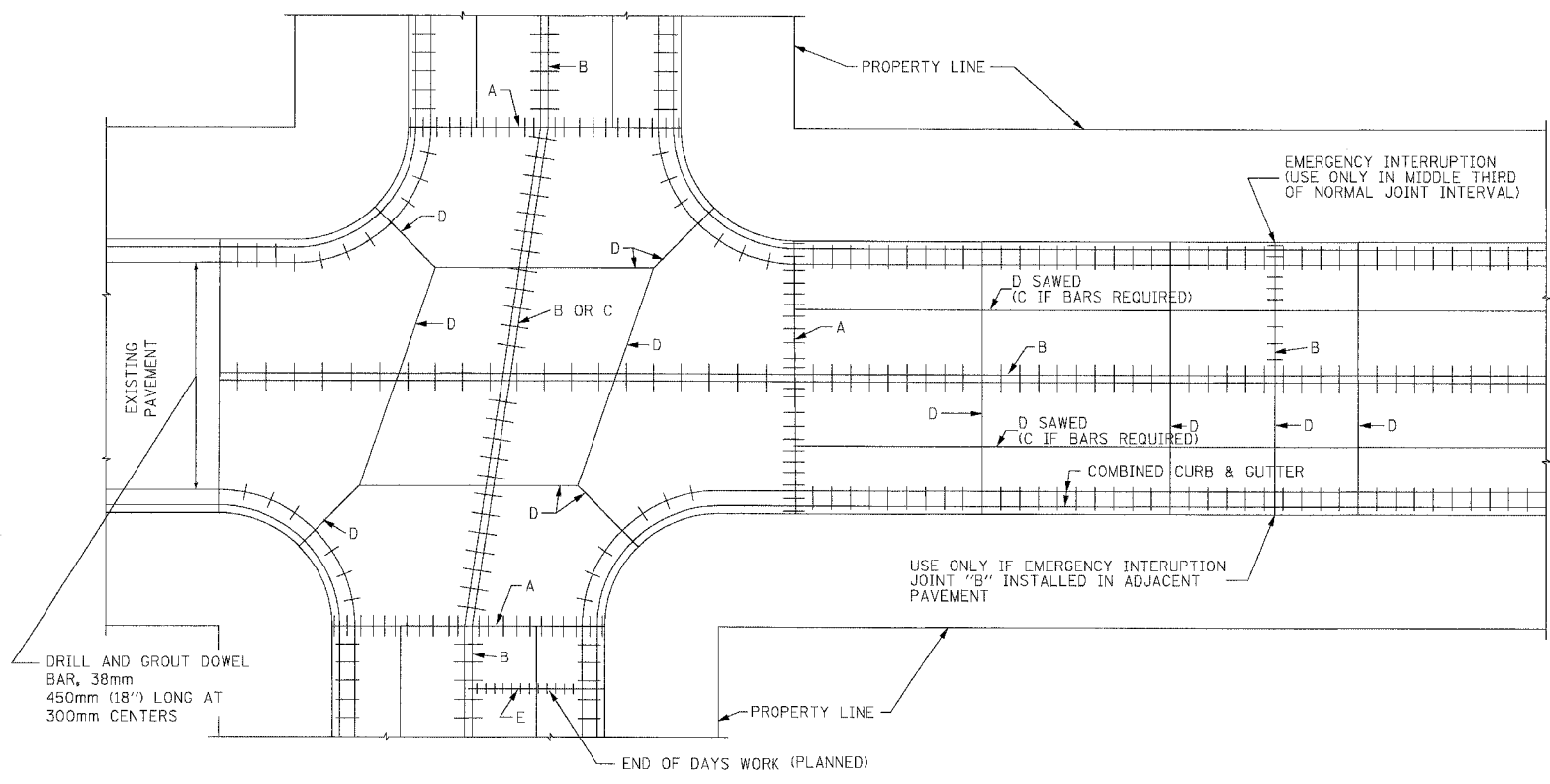
6/7/2006

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	*	COOK	565	349
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62301	* (2021-922 P12 ETC 2324.6-1P1 R-10			

TYPICAL JOINT LAYOUT FOR P.C. CONCRETE BASE COURSE



TYPICAL JOINT LAYOUT FOR P.C. CONCRETE BASE COURSE



NOTES:

1. SAWED INTERMEDIATE LONGITUDINAL JOINTS ARE REQUIRED ON STREETS THAT EXCEED 34 FEET IN WIDTH.
2. JOINTS IN CURBS SHALL CONFORM TO PAVEMENT JOINTS.
3. FOR JOINT IDENTIFICATION, SEE P.C.C. BASE COURSE JOINT DETAILS ON FOLLOWING SHEET.
4. TYPE 'D' TRANSVERSE JOINTS SHALL HAVE A MAXIMUM SPACING OF 6.1m (20').
5. TYPE 'A' EXPANSION JOINTS SHALL BE INSTALLED AT INTERSECTIONS AS SHOWN AND AT MIDPOINT OF LONG BLOCKS. LONG BLOCK IS 201m (660'), SHORT BLOCK IS 100.5m (330')
6. SEE IDOT STANDARD 420111 FOR ROUNDOUT TREATMENTS, WITHIN P.C.C. BASE COURSE.

RDT-18A

REVISIONS	
NAME	DATE

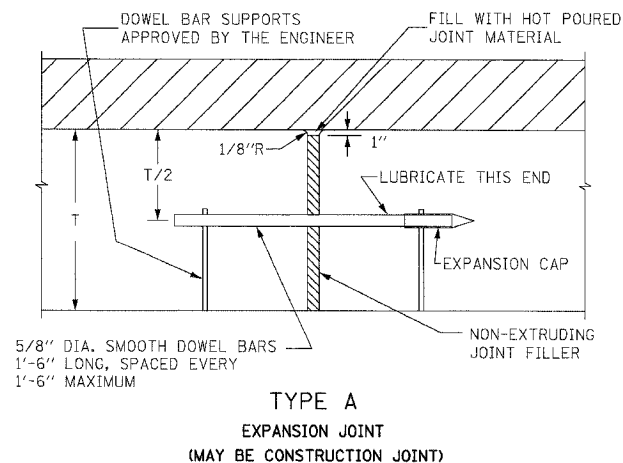
ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)
 ROADWAY DETAILS
 CITY STANDARD DETAILS
 PAVEMENT JOINT DETAILS
 SCALE: NONE
 DATE: 06/09/06
 DRAWN BY: CTE
 CHECKED BY: JDC

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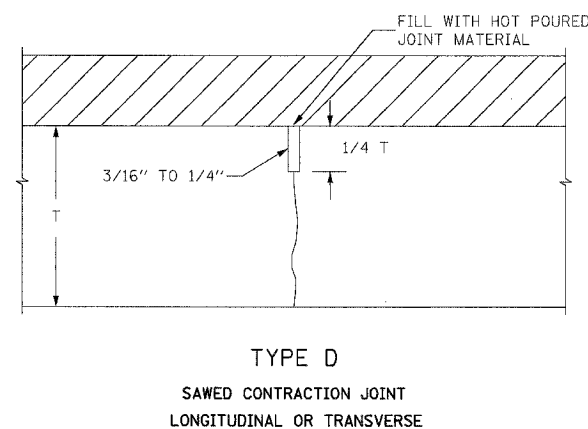
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F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	*	COOK	565	350
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
62301		• (2021-922 FT2 ETC 2324.6-1P) R-10		

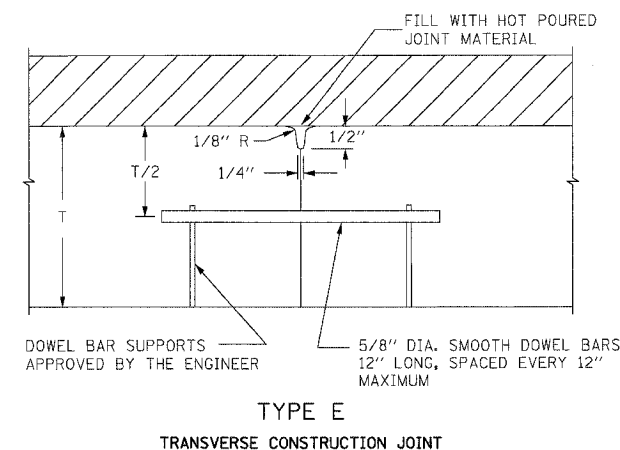
P.C.C. BASE COURSE JOINT DETAILS



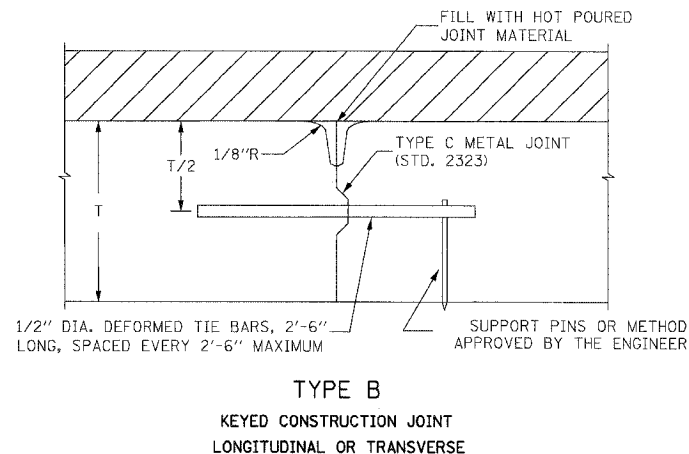
TYPE A
EXPANSION JOINT
(MAY BE CONSTRUCTION JOINT)



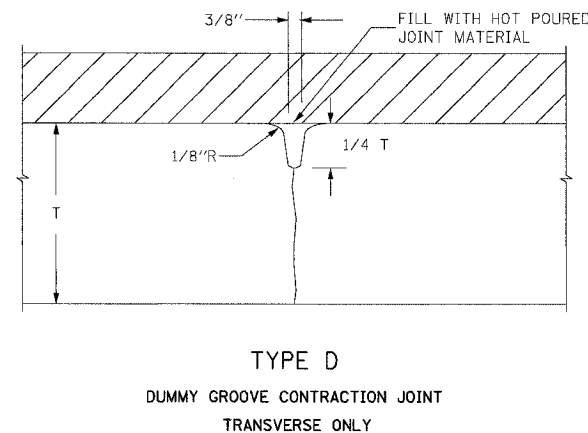
TYPE D
SAWED CONTRACTION JOINT
LONGITUDINAL OR TRANSVERSE



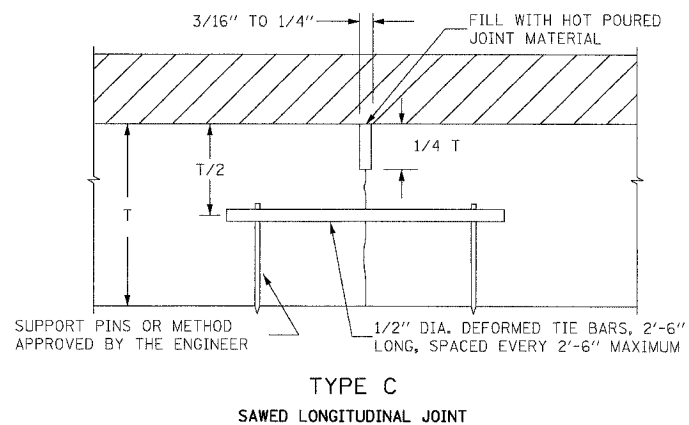
TYPE E
TRANSVERSE CONSTRUCTION JOINT



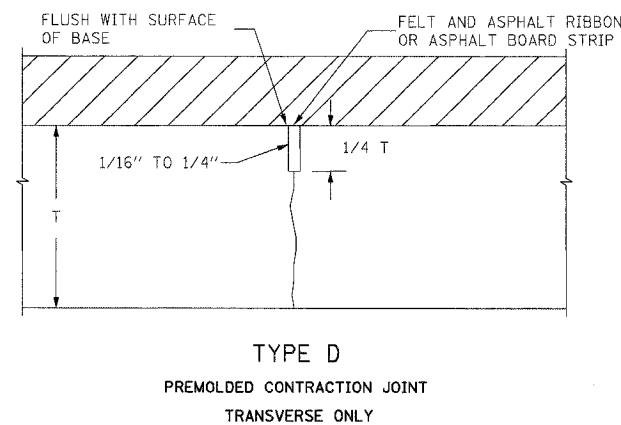
TYPE B
KEYED CONSTRUCTION JOINT
LONGITUDINAL OR TRANSVERSE



TYPE D
DUMMY GROOVE CONTRACTION JOINT
TRANSVERSE ONLY



TYPE C
SAWED LONGITUDINAL JOINT



TYPE D
PREMOLDED CONTRACTION JOINT
TRANSVERSE ONLY

NOTES:

1. DEFORMED TIE BARS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M-31 OR M-53 WITH AN ELONGATION NOT LESS THAN 20%.
2. HOT POURED JOINT MATERIAL SHALL CONFORM TO THE REQUIREMENTS OF AASHTO SPECIFICATION M-173-60 FOR CONCRETE JOINT SEALER.
3. ALL TIE BARS AND DOWEL BARS ARE TO BE EPOXY COATED.
4. SPLIT BOARD HEADERS WILL NOT BE ALLOWED.

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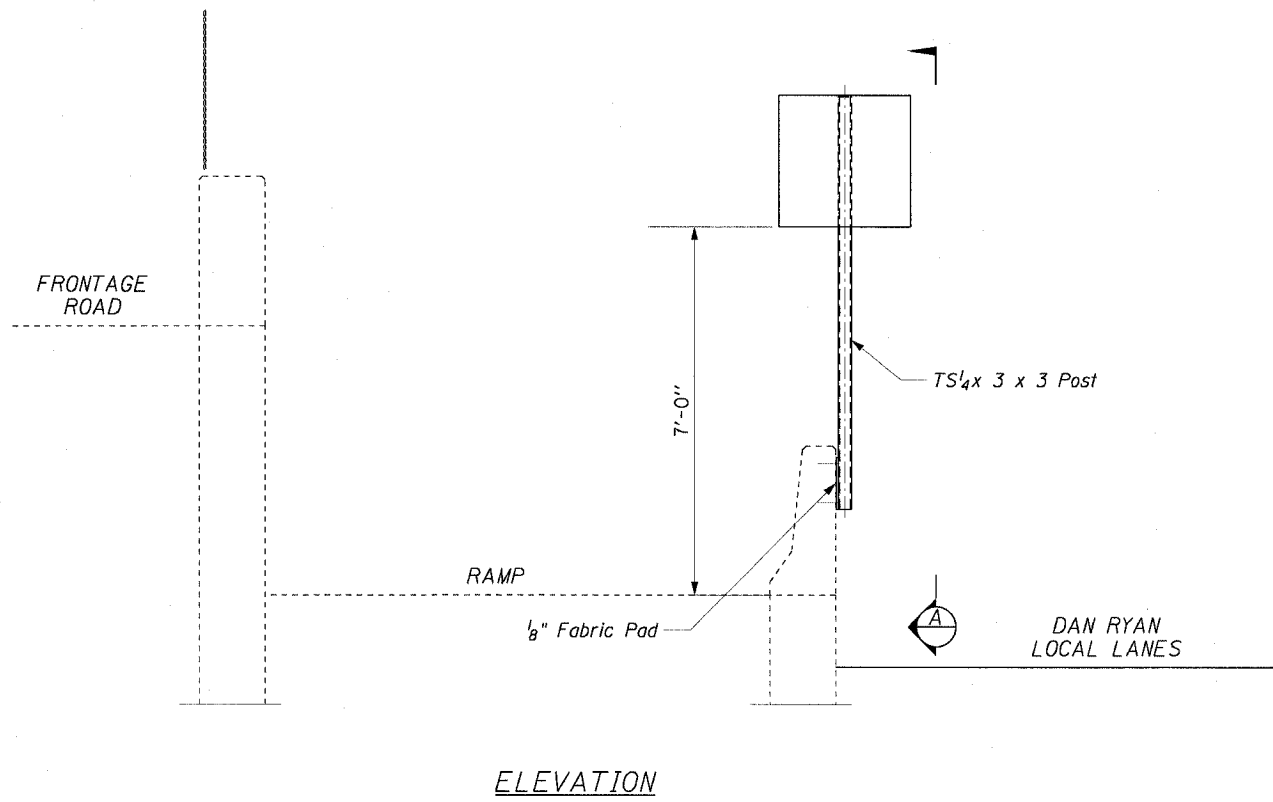
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)
ROADWAY DETAILS
CITY STANDARD DETAILS
PAVEMENT JOINT DETAILS
SCALE: NONE
DATE: 06/09/06
DRAWN BY: CTE
CHECKED BY: JDC

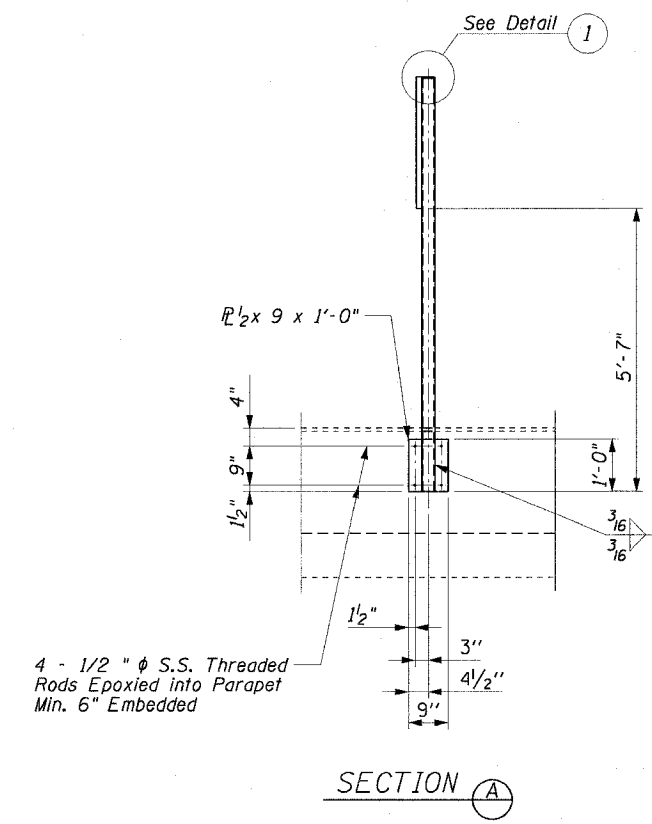
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94		COOK	565	351
STA.	TO STA.			
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
62301 • (2021-922 PT2 ETC 2324.6-1P) R-10				

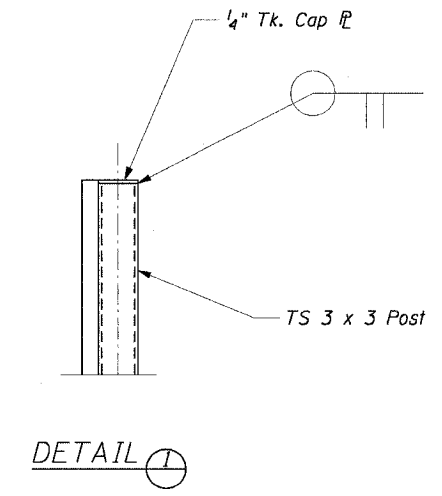
EXISTING BARRIER WALL SIGN POST MOUNTING DETAILS



ELEVATION



SECTION A



DETAIL 1

NOTE

When drilling and epoxy grouting the anchor rods, the Contractor shall use the capsule or the adhesive cartridge type anchor rods that have been previously tested and given a prior approval by IDOT. 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 shall be sealed with pre-measured amounts of the adhesive chemical. This associated materials and work performed shall be included in the cost of Base For Telescoping Steel Sign Support.

CTE | AECOM

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 90/94 (DAN RYAN EXPRESSWAY)
 GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)

**ROADWAY DETAILS
 EXISTING BARRIER WALL
 SIGN POST MOUNTING DETAILS**

SCALE: NONE
 DATE: June 9, 2006

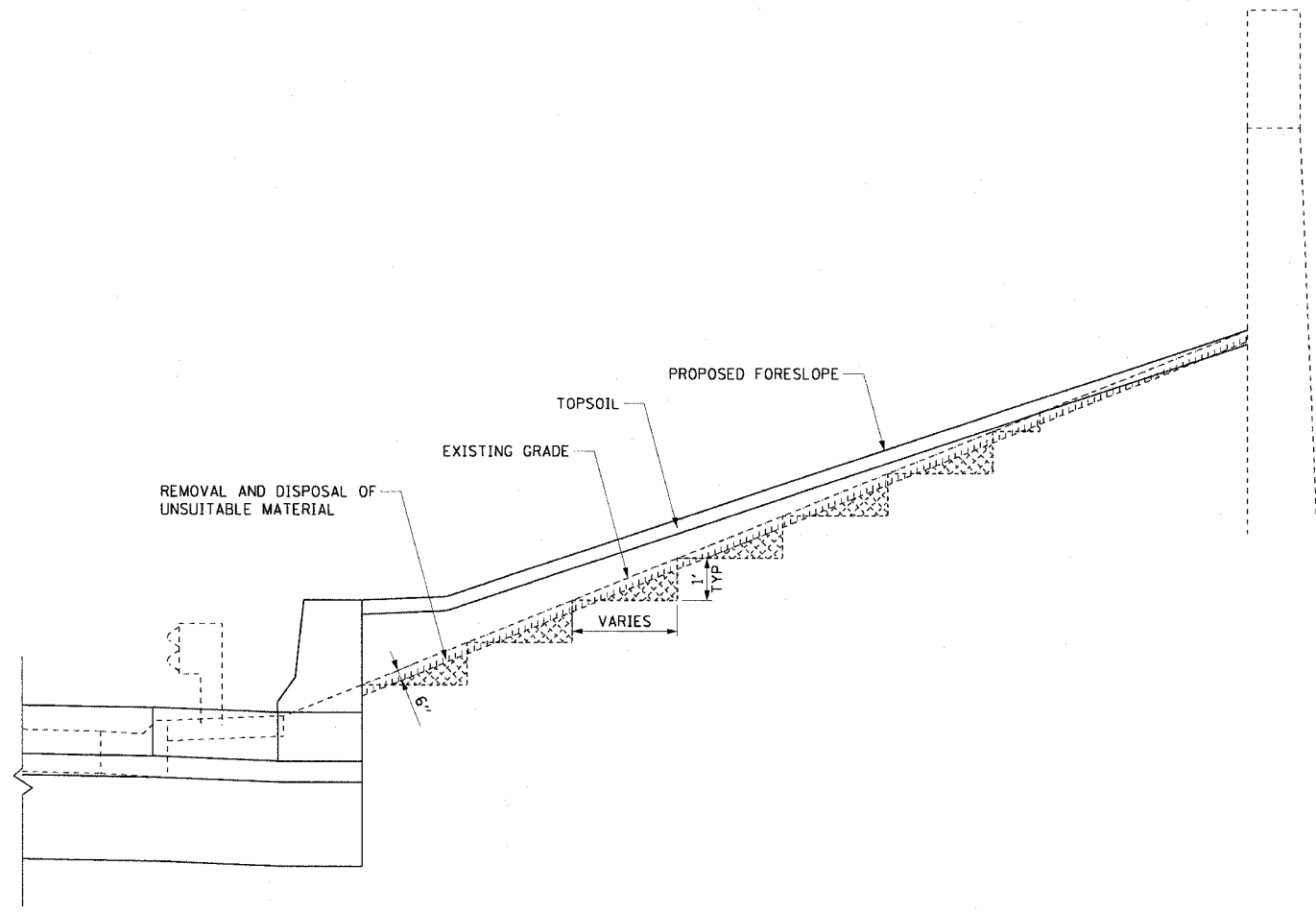
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 CHECKED BY: SWANG

RDT-19



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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	*	COOK	565	352
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		
62301		(2021-922 PT2 ETC 2324.6-1P) R-10		

BENCHING DETAIL FOR EMBANKMENT
N.T.S.



LEGEND:

-  EARTH EXCAVATION (SPECIAL)
-  REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL

NOTES:

1. SEE LANDSCAPING PLANS AND DETAILS FOR TOPSOIL AND SEEDING TYPES.
2. THE EXCAVATION OF THE TOP 6" OF EXISTING SOIL SHALL BE PAID FOR AS "REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL."
3. CONSTRUCT SUCCEEDING BENCH CUTS AND EMBANKMENT PLACEMENT AND COMPACTION FROM BOTTOM TO TOP IN STAIRSTEP FASHION.
4. EXISTING FORESLOPE PREPARED IN ACCORDANCE WITH ARTICLE 205.04 OF THE STANDARD SPECIFICATIONS.
5. BENCH CUT EXISTING SLOPE TYPICAL FOR EACH STEP.
6. EQUAL 6-INCH LIFTS OF EMBANKMENT COMPACTED IN ACCORDANCE WITH ARTICLE 205.06 OF THE STANDARD SPECIFICATIONS.
7. EXCAVATION OF BENCH CUTS WITHIN EXISTING EMBANKMENT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC YARD FOR "EARTH EXCAVATION (SPECIAL)". THIS PRICE WILL INCLUDE ALL LABOR AND MATERIAL. NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
8. SEE CROSS SECTIONS SHEETS FOR EMBANKMENT AREAS THAT NEED TO BE BENCHED.
9. BENCHING HEIGHT SHALL BE 1 FOOT TYPICAL WITH A MAXIMUM HEIGHT OF 2.5 FOOT.

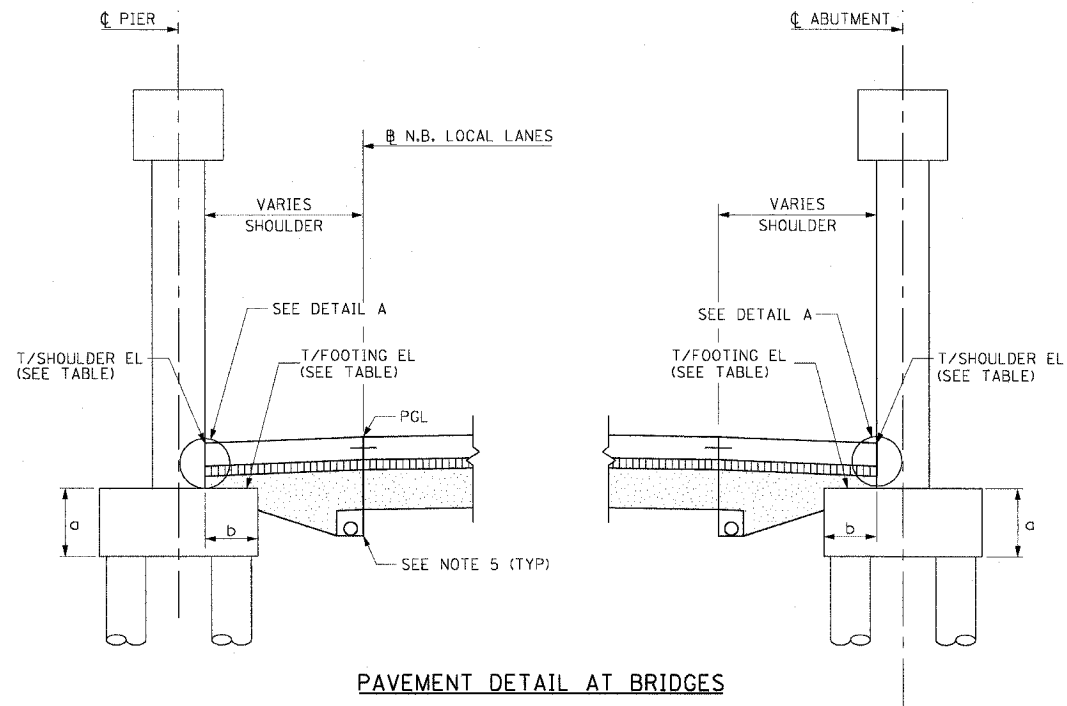
CTE | AECOM

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION F.A.I. 90/94 (DAN RYAN EXPRESSWAY) GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)
NAME	DATE	
		ROADWAY DETAILS BENCHING DETAIL FOR EMBANKMENT

SCALE: NONE DRAWN BY: NJH
DATE: June 9, 2006 CHECKED BY: RMG

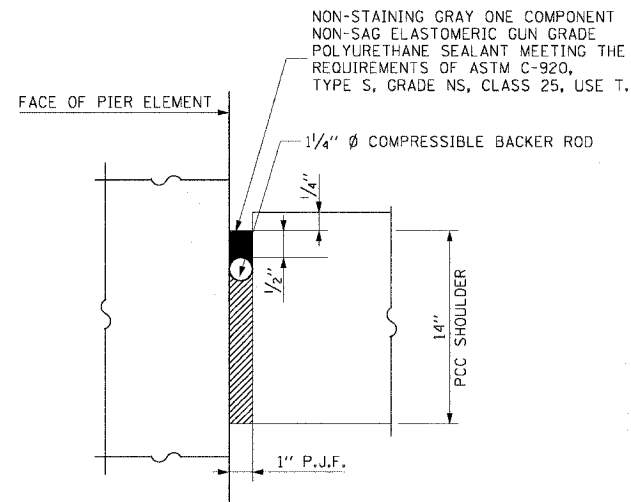
RDT-20

p:\p\40468\CIVIL\B-cvtrs 18 & 19\stair-18\roadway details\mtd8202a.rvt 6/7/2006 1:47:36 PM



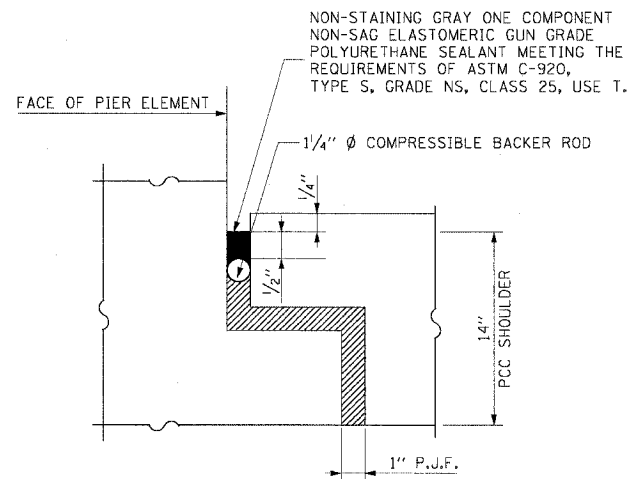
LOCATION	PIER	T/FOOTING EL	FOOTING THICKNESS "a" (FT)	TOE WIDTH "b" (FT)	T/SHOULDER EL	
					MAX	MIN
55TH ST (NORTH BRIDGE)	4	-3.00	2.00	2.50	-0.17	-1.52
	E. ABUT.	-2.67	2.00	3.50	-0.51	-1.28
51ST ST	4	-4.13	2.50	2.50	-1.23	-2.61
	E. ABUT.	-4.54	2.50	2.50	-1.44	-2.28
47TH ST	4	-8.62	2.00	3.25	-4.87	-5.36
	E. ABUT.	-10.02	2.50	3.00	-7.97	-8.84

PAVEMENT DETAIL AT BRIDGES



DETAIL A

COST OF P.J.F., BACKER ROD AND SEALANT INCLUDED WITH PCC SHOULDER



DETAIL B

COST OF P.J.F., BACKER ROD AND SEALANT INCLUDED WITH PCC SHOULDER

LEGEND:

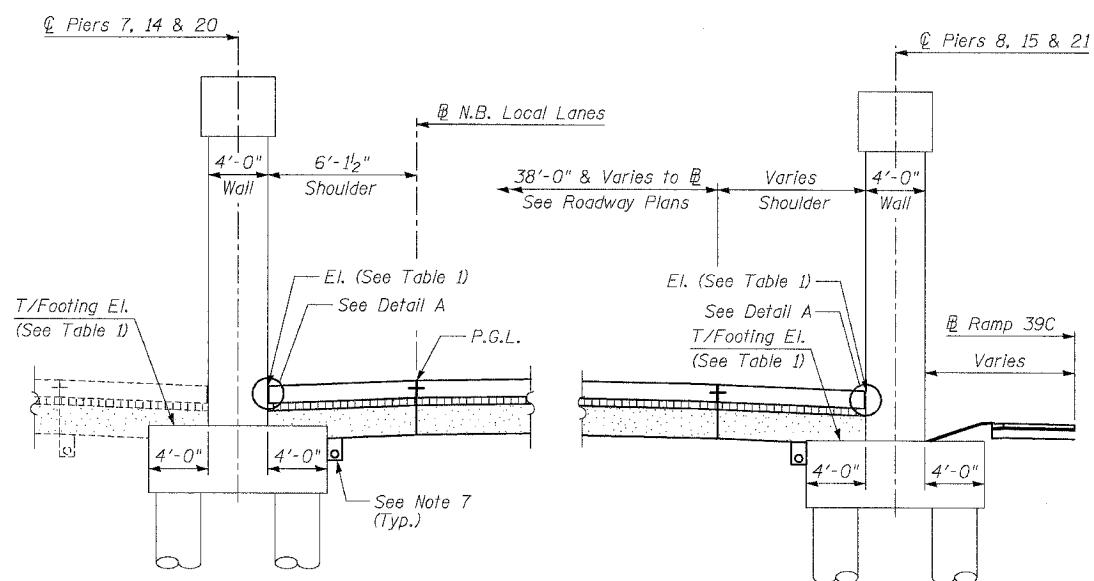
- STABILIZED SUB-BASE 6"
- SUB-BASE GRANULAR MATERIAL, TY B 24"

NOTES:

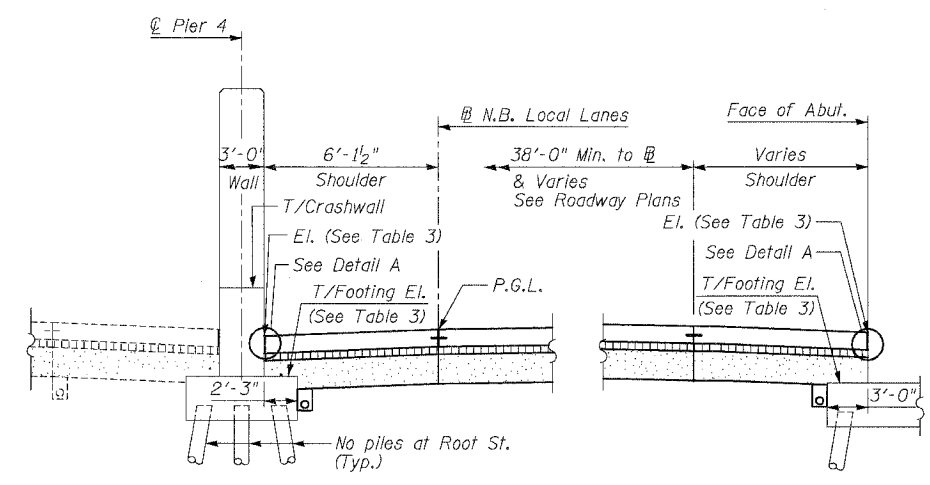
1. SEE TYPICAL SECTIONS FOR COMPOSITION OF EXISTING AND PROPOSED PAVEMENT.
2. ALL VIEWS LOOKING NORTH.
3. CONTRACTOR SHALL USE CAUTION DURING PAVEMENT REMOVAL AND EXCAVATION OPERATIONS AROUND EXISTING OVERHEAD BRIDGE FOUNDATION.
4. PROVIDE 10 MIL POLYETHYLENE BOND BRAKER AND POUR SHOULDER PAVEMENT DIRECTLY ON PIER FOOTING.
5. SEE DRAINAGE AND UTILITY SHEETS FOR LOCATION OF PIPE UNDERDRAINS 6".
6. SEE DETAIL B WHEN PCC SHOULDER IS LOCATED WITHIN THE FOOTING.
7. THE ADDITIONAL DEPTH OF AGGREGATE SUBGRADE UNDER THE SHOULDER SHALL BE INCLUDED IN THE COST OF SUB-BASE GRANULAR MATERIAL, TY B, 24".

REVISIONS	
NAME	DATE

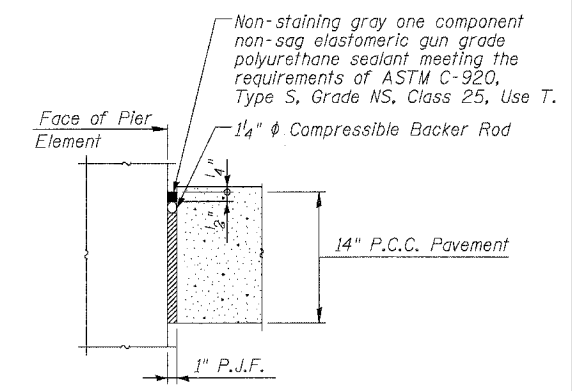
F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	*	COOK	565	354
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62301 * (2021-922 PT2 ETC 2324.6-1P) R-10				



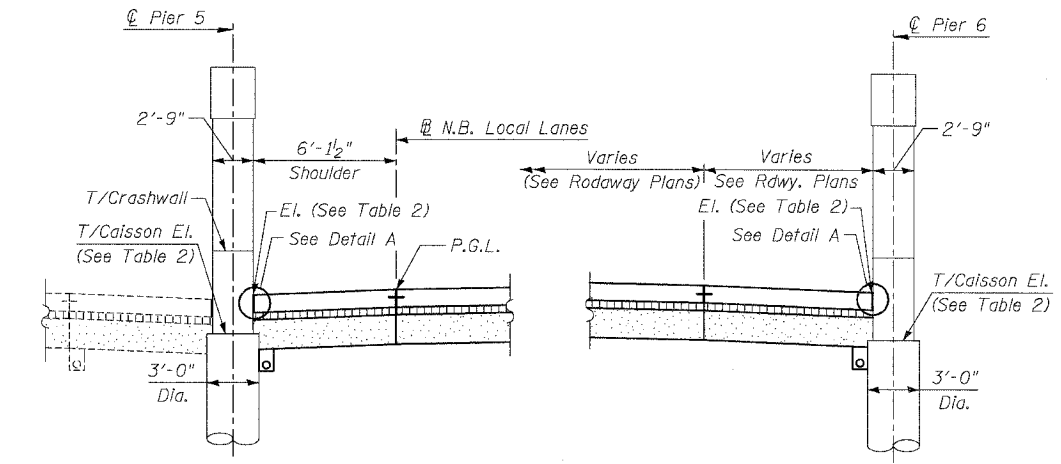
SHOULDER DETAIL AT OVERHEAD RAILROAD
Near 40th Street (S.N.'s 016-0138, 0139 & 0140)



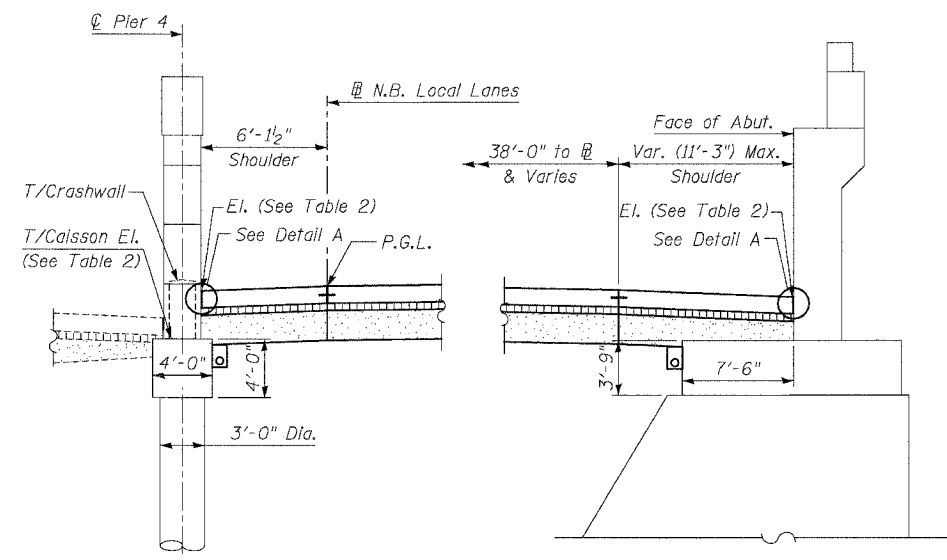
SHOULDER DETAIL AT 43rd STREET (S.N. 016-1155)
Root Street (S.N. 016-1154) Similar as noted



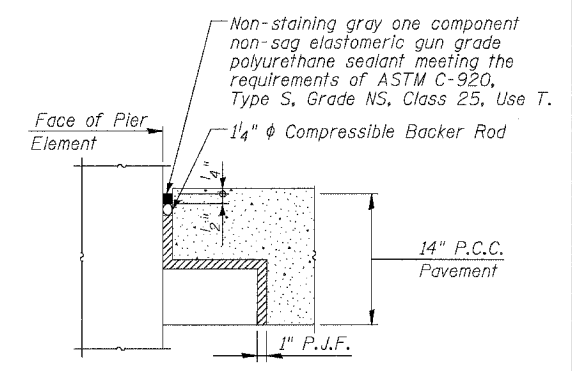
DETAIL A
Cost of P.J.F., Backer Rod and sealant included with PCC Shoulder



SHOULDER DETAIL AT OVERHEAD BRIDGES
For 31st Street (S.N. 016-1159)
33rd Street (S.N. 016-1158)
35th Street (S.N. 016-1160)



SHOULDER DETAIL AT 39th STREET (S.N. 016-0398)



DETAIL B
Cost of P.J.F., Backer Rod and sealant included with PCC Shoulder

Notes:

- See Typical Sections for Composition of Exist. & Prop. Pavement.
- All views looking North.
- Contractor shall use caution during pavement removal and excavation operations around existing overhead bridge foundations.
- Top of Rock El. at Root Street is approx. El. -12.0
- All dimensions at right angles to Expressway.
- Provide 10 mil polyethylene bond breaker and pour shoulder pavement directly on pier footing.
- Adjust underdrain location to clear foundation as directed by the Engineer.
- Use Detail B where pavement encroaches within bridge foundation.
- See Roadway Plans and Details for locations of Single Face Barriers in front of bridge piers. Eliminate backer rod and sealant at these locations and adjust details as directed by the Engineer. RDT-21

TABLE 1

PIER	T/FOOTING EL.	T/SHOULDER EL.	
		MAX.	MIN.
7	-1.37	0.6	0.5
8	-1.44	0.6	0.5
14	-0.57	1.3	1.2
15	-0.87	1.5	1.4
20	-2.66	-0.4	-0.7
21	-2.76	-1.0	-1.5

TABLE 2

LOCATION	PIER	T/CAISSON EL.	T/SHOULDER EL.	
			MAX.	MIN.
31st St.	5	-6.44	-4.4	-4.7
	6	-5.64	-4.8	-5.0
33rd St.	5	-5.36	-3.6	-3.8
	6	-4.97	-3.9	-4.1
35th St.	5	-3.89	-1.7	-2.0
	6	-3.69	-1.6	-1.8
39th St.	4	-11.30	-5.7	-6.2
E. Abut.		-8.25	-5.4	-6.2

TABLE 3

LOCATION	PIER	T/FOOTING EL.	T/SHOULDER EL.	
			MAX.	MIN.
Root St.	4	-8.0	-3.9	-4.5
	Abut	-8.0	-4.0	-4.5
43rd St.	4	-7.0	-4.4	-5.0
	Abut	-7.0	-4.4	-4.9

LEGEND

- Concrete Pavement
- Stabilized Sub-base
- Sub-base Granular material

REVISIONS

NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)
ROADWAY DETAILS
PAVEMENT DETAILS AT
CROSS STREET BRIDGES

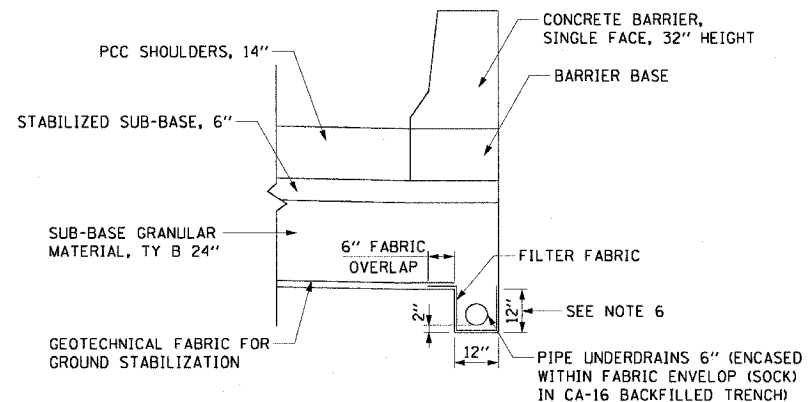
SCALE: NTS
DATE: JUNE 9, 2006
DRAWN BY: MTR
CHECKED BY: BLU

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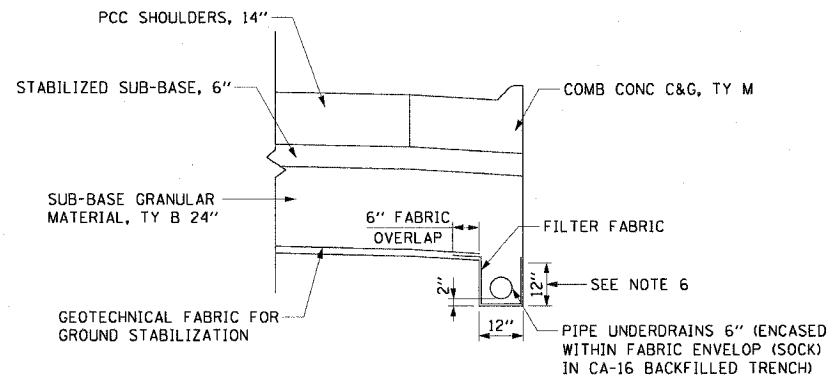
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94	*	COOK	565	355
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		
62301		(2021-922 PT2 ETC 2324.6-1P) R-10		

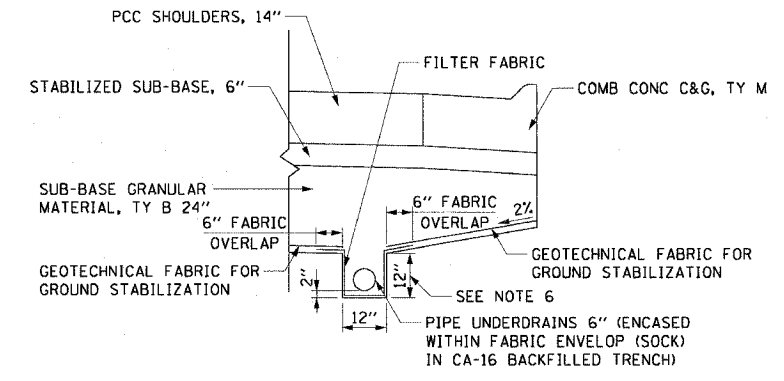
PIPER UNDERDRAINS 6"
N.T.S.



PIPE UNDERDRAINS 6"
LOCATED UNDER SINGLE FACE BARRIER WALL



PIPE UNDERDRAINS 6"
LOCATED UNDER COMB CONC C&G

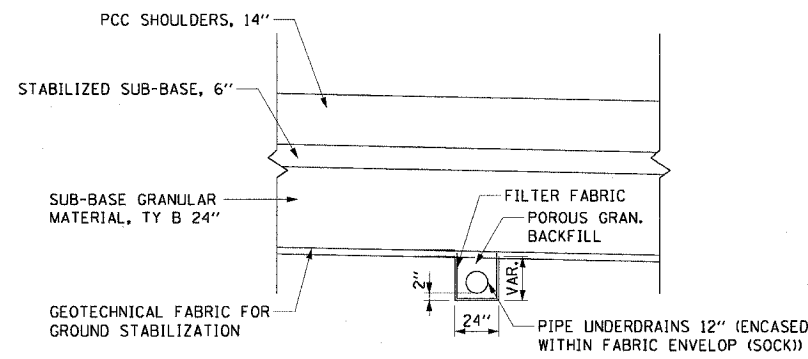


PIPE UNDERDRAINS 6"
NOT LOCATED AT BACK OF CURB OR BARRIER WALL

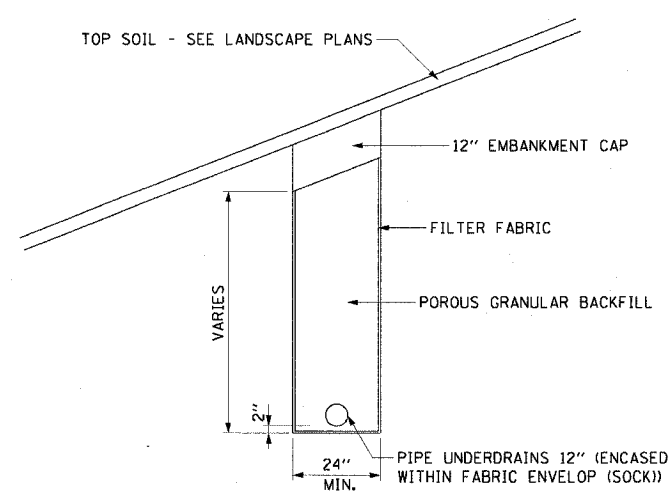
NOTES:

1. GEOTECHNICAL FABRIC FOR GROUND STABILIZATION SHALL BE PLACED SUCH THAT IT EXTENDS TO THE EDGE OF THE TRENCH AND OVERLAPS THE FILTER FABRIC BY A MINIMUM OF 6". AT NO TIME SHALL THE GEOTECHNICAL FABRIC FOR GROUND STABILIZATION BE OVER OR COVER THE UNDERDRAIN TRENCH.
2. NO CONSTRUCTION TRAFFIC SHALL BE ALLOWED ON THE TRENCH UNTIL A MINIMUM OF 12" OF COMPACTED SUB-BASE IS PROVIDED.
3. THE PIPE UNDERDRAIN TRENCH SHALL BE LINED WITH FILTER FABRIC ON THE BOTTOM AND SIDES OF THE TRENCH. THE TOP OF THE TRENCH MUST NOT BE COVERED WITH ANY FABRIC.
4. FILTER FABRIC, FABRIC ENVELOPE, AND CA-16 AGGREGATE ARE INCLUDED IN THE UNIT COST OF PIPE UNDERDRAIN, 6".
5. CONTRACTOR SHALL FLUSH PIPE UNDERDRAIN WITH WATER TO INSURE UNDERDRAIN IS FUNCTIONING PROPERLY PRIOR TO THE PLACEMENT OF STABILIZED SUB-BASE. PRIOR TO COMMENCING THIS WORK, THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH HIS APPROACH AND METHODS FOR COMPLETING THIS WORK, FOR THE ENGINEER'S REVIEW AND APPROVAL. THE COST OF FLUSHING THE PIPE IS INCLUDED IN THE UNIT COST OF PIPE UNDERDRAIN, 6".
6. WHERE PIPE UNDERDRAIN CONFLICTS WITH EXISTING UTILITY CROSSINGS, DEPTH WILL VARY AS NEEDED TO ACHIEVE FLOW DIRECTIONS SHOWN ON DRAINAGE PLANS. MINIMUM DEPTH OF PIPE UNDERDRAIN IS 12" BELOW SUBGRADE. COST OF ADDITIONAL PIPE UNDERDRAIN DEPTH SHALL BE INCLUDED IN THE UNIT COST OF PIPE UNDERDRAIN, 6".
7. SEE ROADWAY DETAIL SHEETS RDT21A & RDT21B FOR PIPE UNDERDRAIN DETAILS AT CROSS STREET BRIDGES.

PIPER UNDERDRAINS 12"
N.T.S.



PIPE UNDERDRAINS 12"
LOCATED UNDER PROPOSED PAVEMENT



PIPE UNDERDRAINS 12"
LOCATED OUTSIDE PROPOSED PAVEMENT

NOTES:

1. THE PIPE UNDERDRAIN TRENCH SHALL BE LINED WITH FILTER FABRIC ON THE BOTTOM AND SIDES OF THE TRENCH.
2. FILTER FABRIC AND FABRIC ENVELOPE ARE INCLUDED IN THE UNIT COST OF PIPE UNDERDRAIN, 12".

CTE | AECOM

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 90/94 (DAN RYAN EXPRESSWAY)
GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)

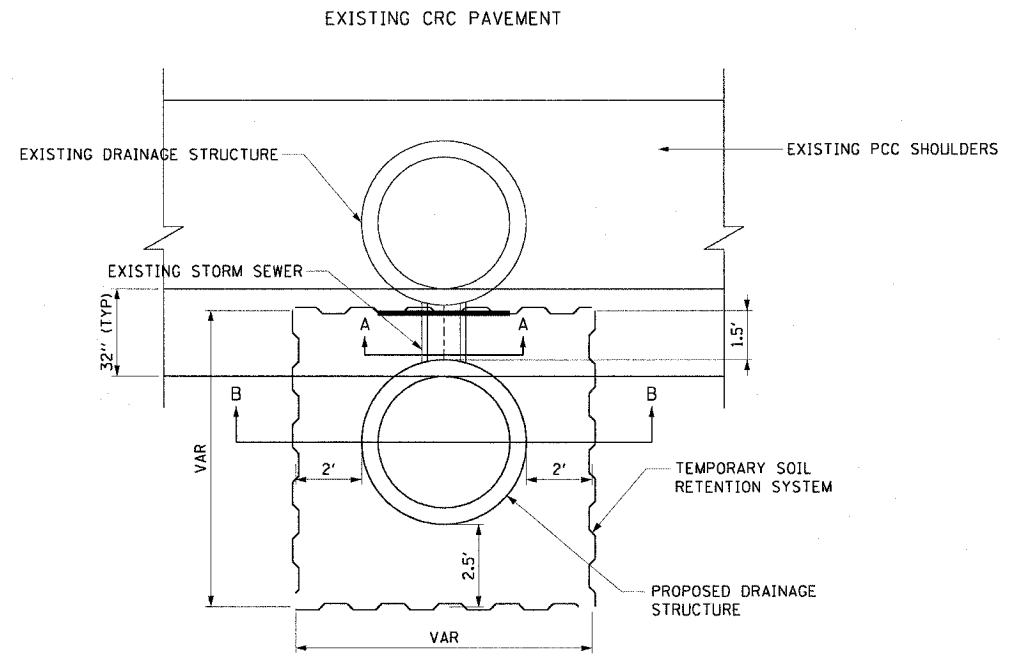
DRAINAGE DETAILS
PIPE UNDERDRAINS 6"

SCALE: NONE
DATE: June 9, 2006

DRAWN BY: RMG
CHECKED BY: XXX

DDT-1
6/7/2006

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94		COOK	565	356
STA.	TO STA.			
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
62301 • (2021-922 PT2 ETC 2324.6-1P) R-10				

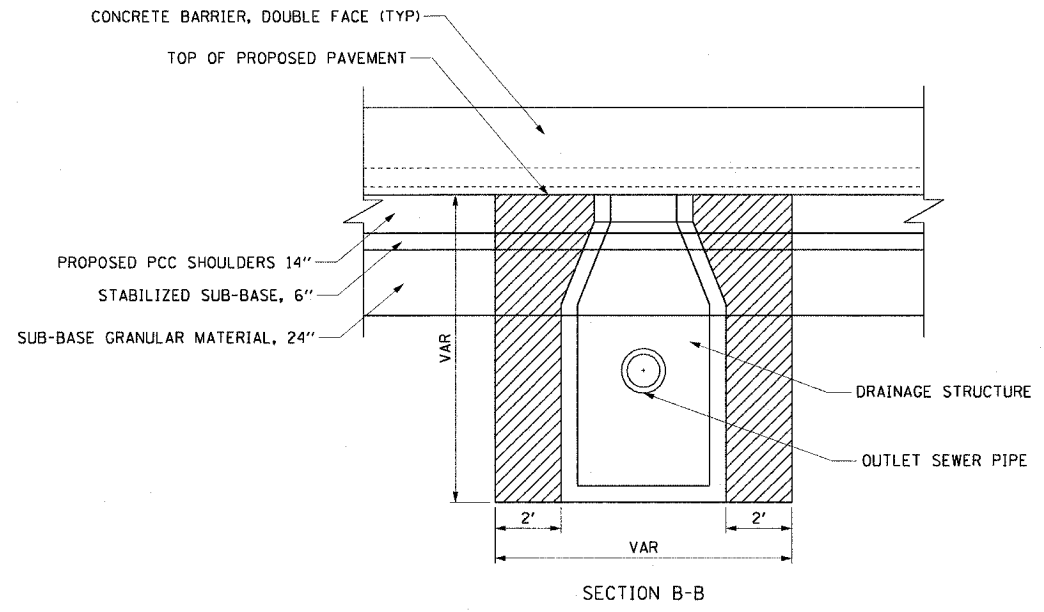
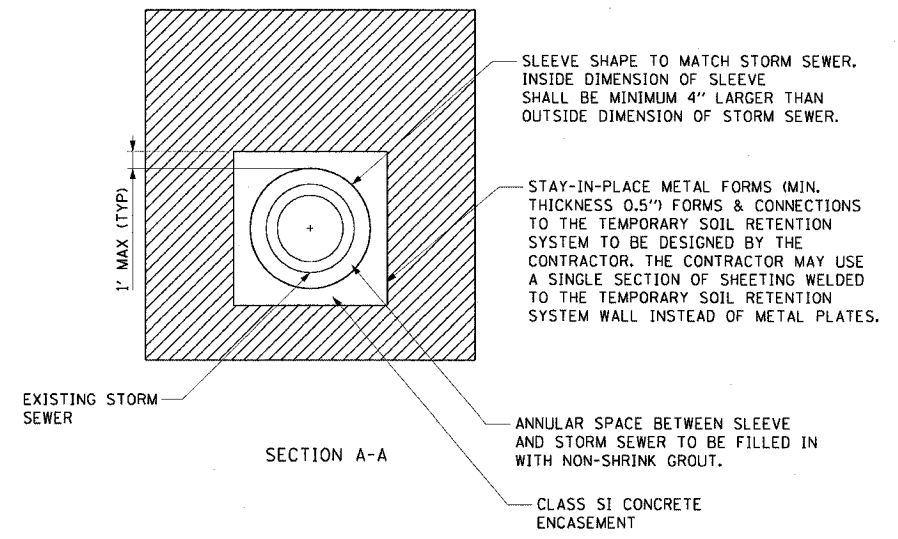


PLAN VIEW

- NOTES
- STORM SEWER PENETRATIONS THROUGH THE TEMPORARY SOIL RETENTION SYSTEM WILL NOT BE PAID FOR SEPARATELY, BUT WILL BE INCLUDED IN THE COST FOR THE TEMPORARY SOIL RETENTION SYSTEM.

LEGEND

TEMPORARY SOIL RETENTION SYSTEM



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REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 90/94 (DAN RYAN EXPRESSWAY)
 GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)

DRAINAGE DETAILS
 TEMPORARY SOIL RETENTION SYSTEM

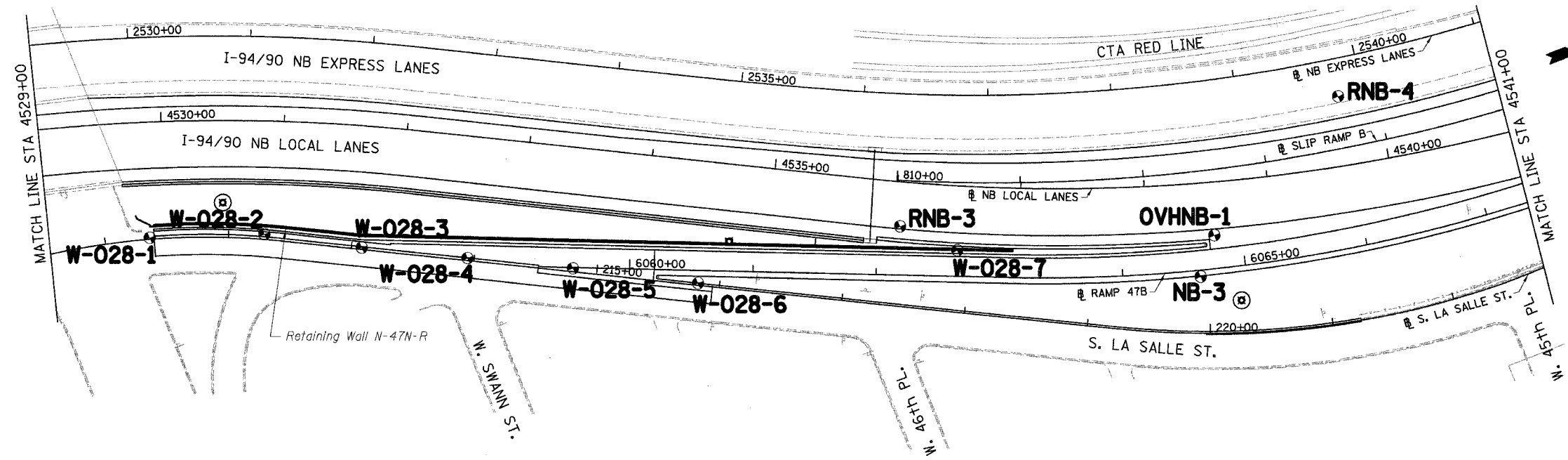
SCALE: NONE
 DATE: June 9, 2006

DRAWN BY: RMG
 CHECKED BY: XXX

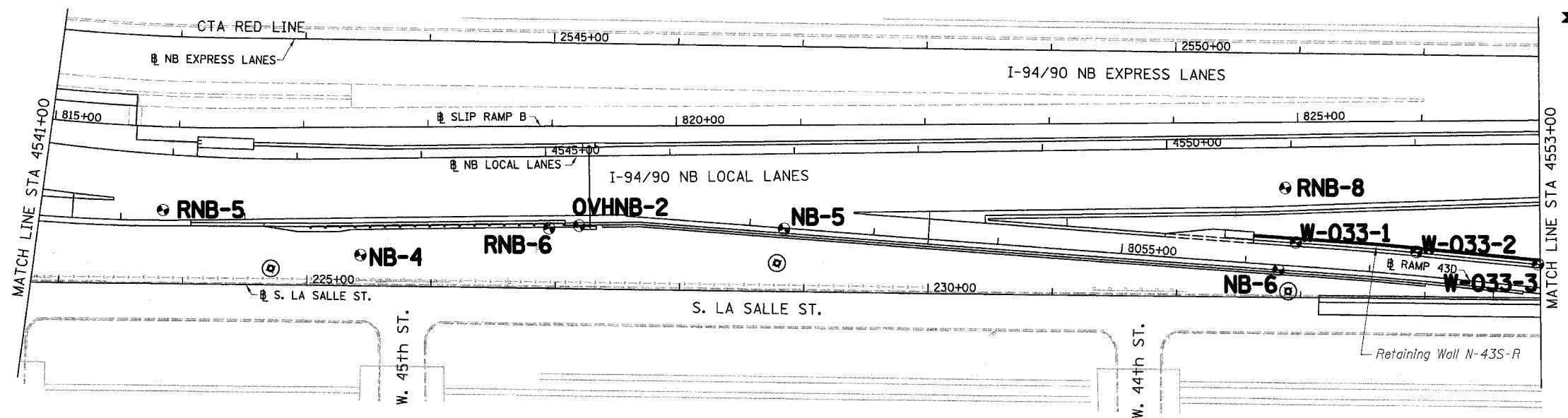
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F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90		COOK	565	357
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62301	*(2021-922 PT2 ETC 2324.6-1P) R-10			

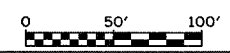


- NOTES:
1. FOR RETAINING WALL SOIL BORINGS SEE ASSOCIATED RETAINING WALL PLANS
 2. FOR SIGN STRUCTURE BORINGS SEE SOIL BORING LOGS FOR SIGN STRUCTURE FOUNDATIONS



LEGEND:

NB	HIGH MAST LIGHT TOWER
RNB	ROADWAY
OVHNB	OVERHEAD SIGN STRUCTURE
W	RETAINING WALLS



BP-01

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)

SOIL BORING PLAN

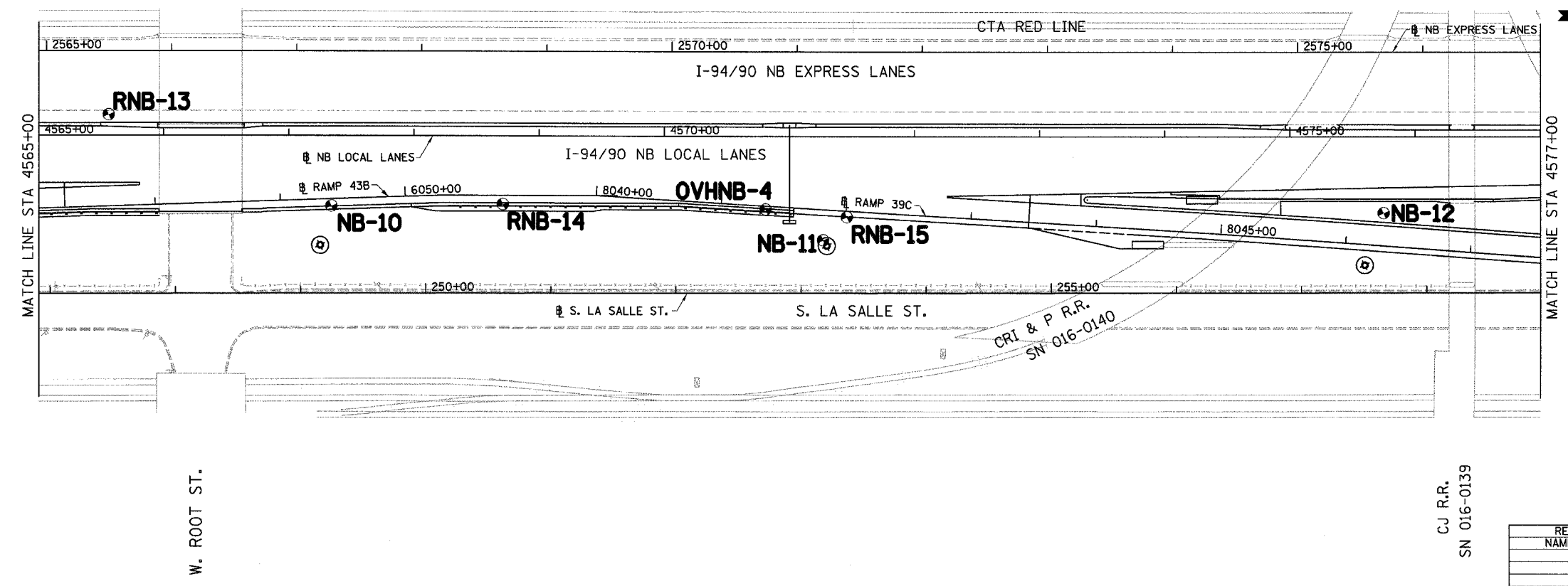
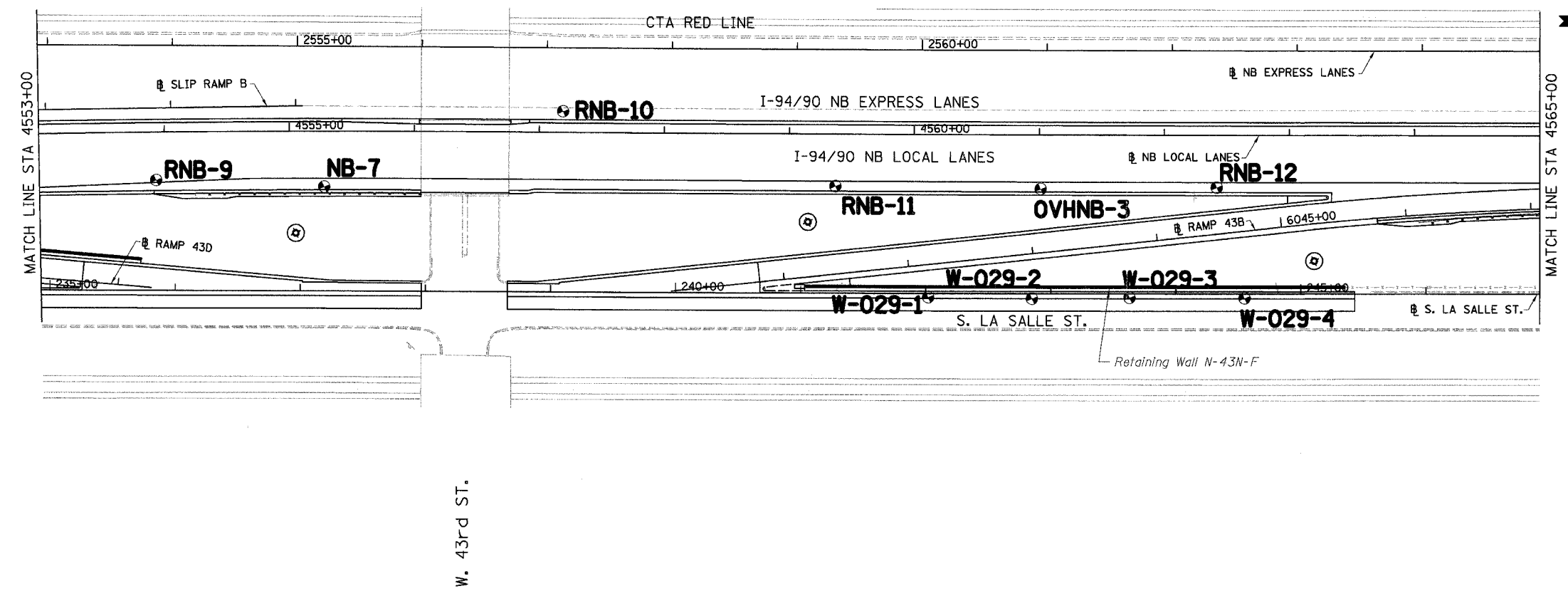
SCALE: 1"=50'
 DATE: 06/09/06
 DRAWN BY: LAM
 CHECKED BY: BLU

REVISIONS	
NAME	DATE

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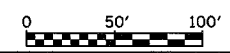
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F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	*	COOK	565	358
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
62301		*(2021-922 PT2 ETC 2324.6-1P) R-10		



LEGEND:

NB	HIGH MAST LIGHT TOWER
RNB	ROADWAY
OVHNB	OVERHEAD SIGN STRUCTURE
W	RETAINING WALLS



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)

SOIL BORING PLAN

SCALE: 1"=50'
 DATE: 06/09/06

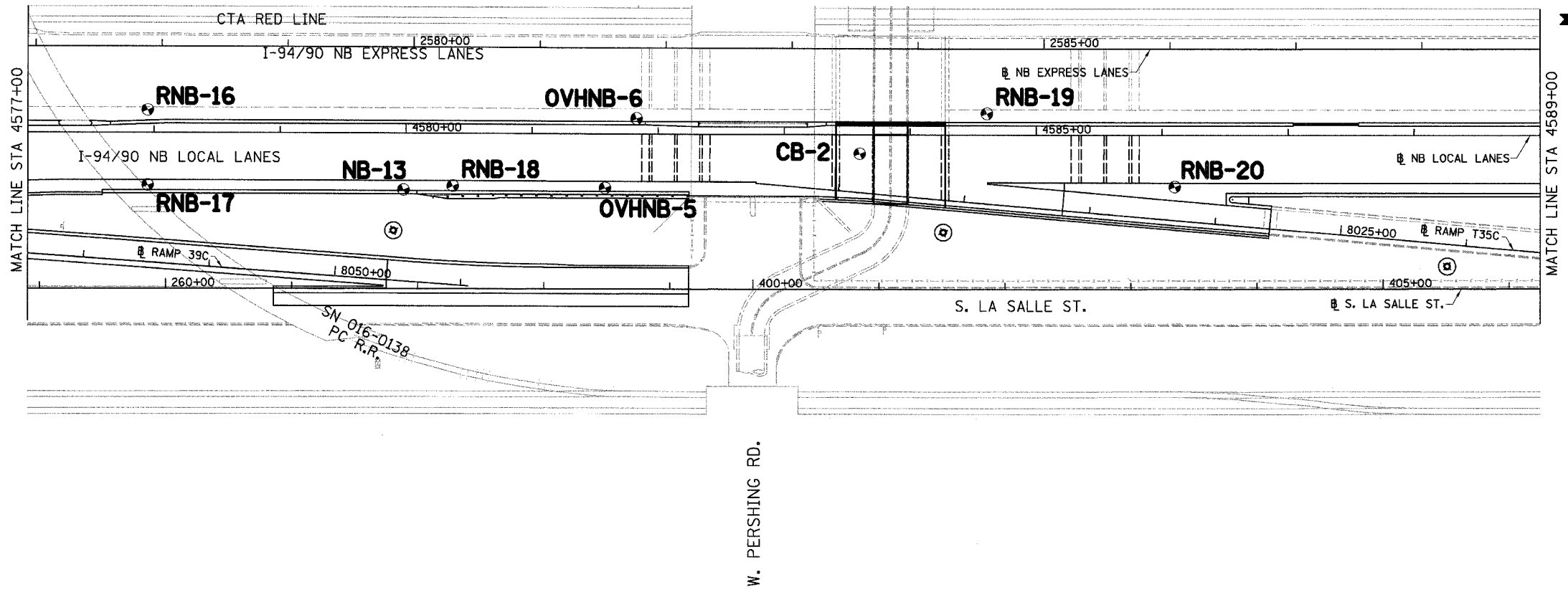
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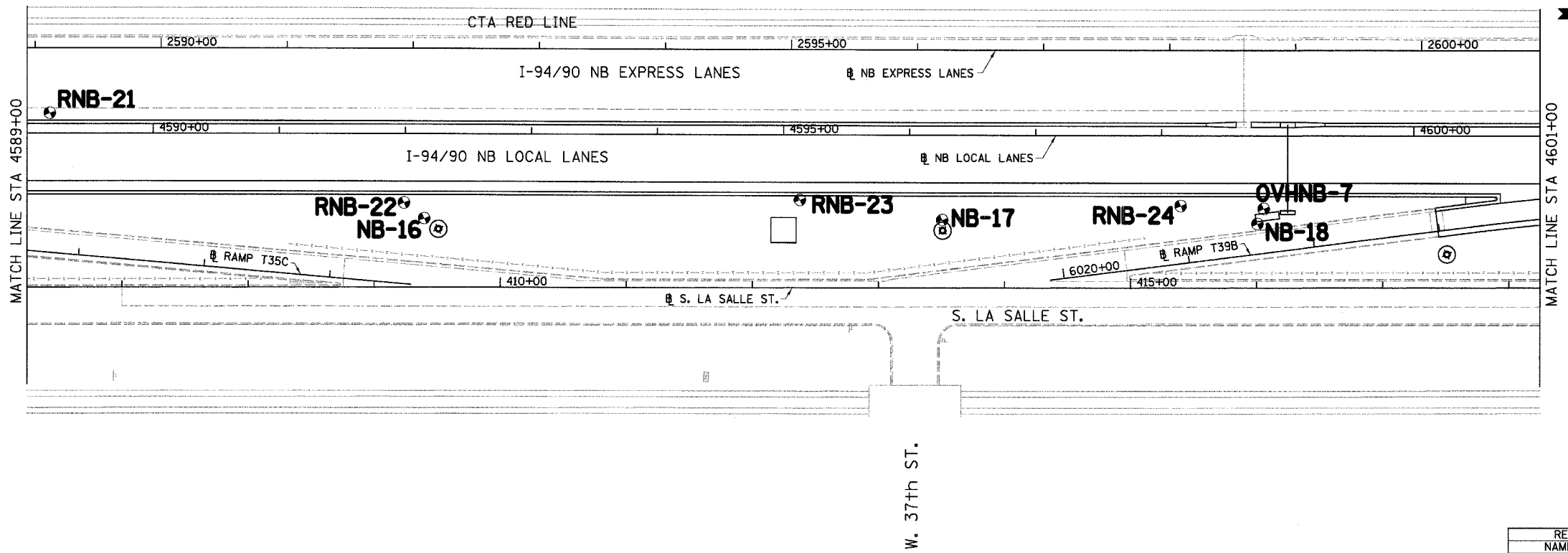
CJ R.R.
 SN 016-0139

BP-02
 6/7/2006

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	*	COOK	565	359
STA.		TO STA.		
62301		*(2021-92? PT2 ETC 2324.6-1P) R-10		

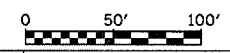


NOTES:
 1. SEE CULVERT PLANS FOR BORING LOG FOR CB-2



LEGEND:

NB	HIGH MAST LIGHT TOWER
RNB	ROADWAY
CB	CULVERT
OVHNB	OVERHEAD SIGN STRUCTURE



BP-03

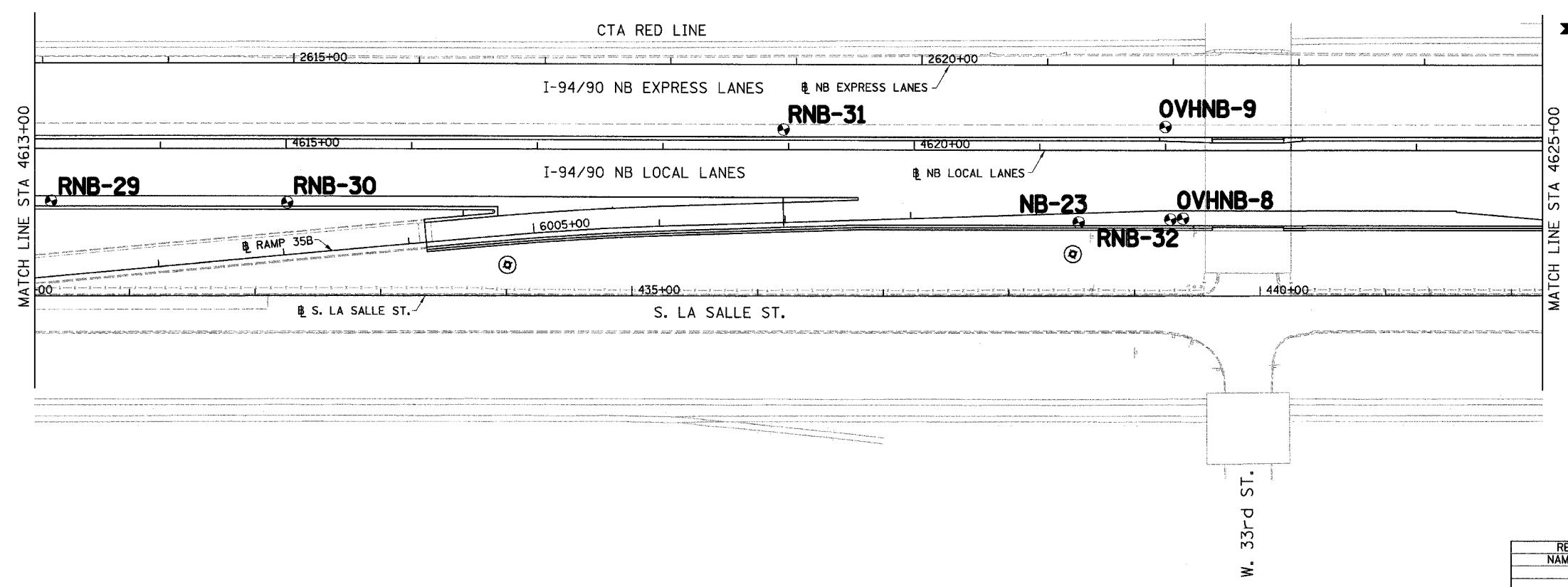
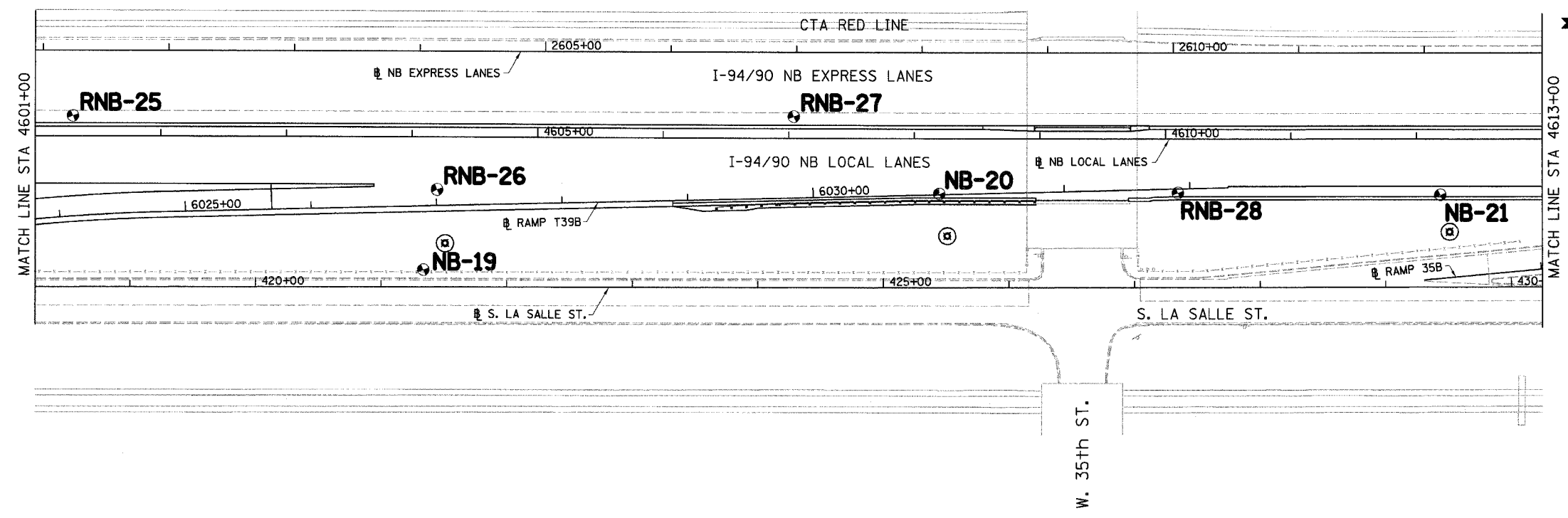
ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)
 SOIL BORING PLAN
 SCALE: 1"=50'
 DATE: 06/09/06
 DRAWN BY: LAM
 CHECKED BY: BLU

REVISIONS	
NAME	DATE

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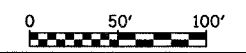
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F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90		COOK	565	360
STA.		TO STA.		
62301		*(2021-922 PT2 ETC 2324.6-1P) R-10		



LEGEND:

NB	HIGH MAST LIGHT TOWER
RNB	ROADWAY
OVHNB	OVERHEAD SIGN STRUCTURE



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)
 SOIL BORING PLAN

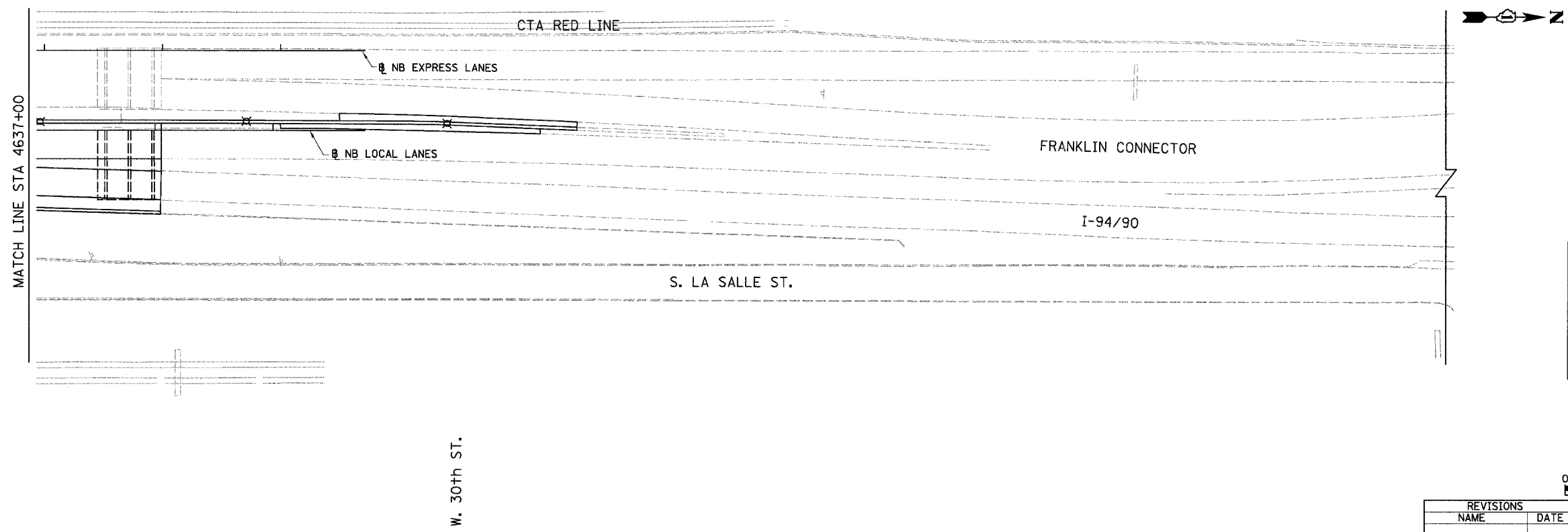
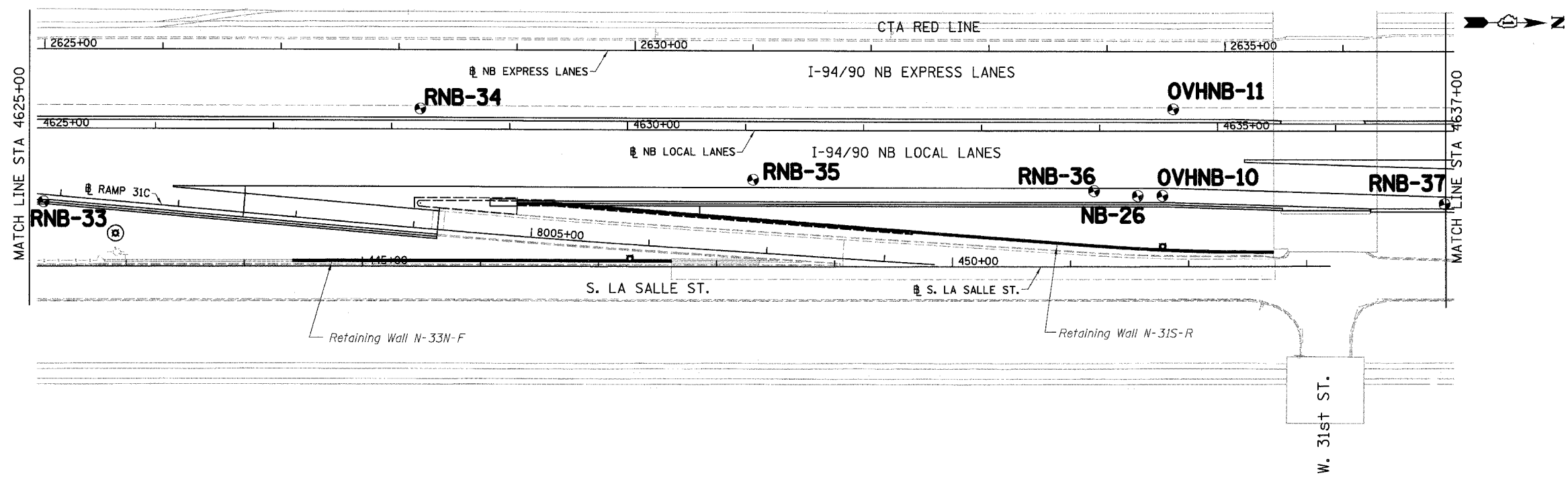
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DRAWN BY: LAM
 CHECKED BY: BLU

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 CONSULTING ENGINEERS
 Chicago, Illinois
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6/7/2006 7:07:40 PM

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	*	COOK	565	361
STA.		TO STA.		
62301		*(2021-922 PT2 ETC 2324.6-1P) R-10		



LEGEND:

NB	HIGH MAST LIGHT TOWER
RNB	ROADWAY
OVHNB	OVERHEAD SIGN STRUCTURE



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)

SCALE: 1"=50'
 DATE: 06/09/06

DRAWN BY: LAM
 CHECKED BY: BLU

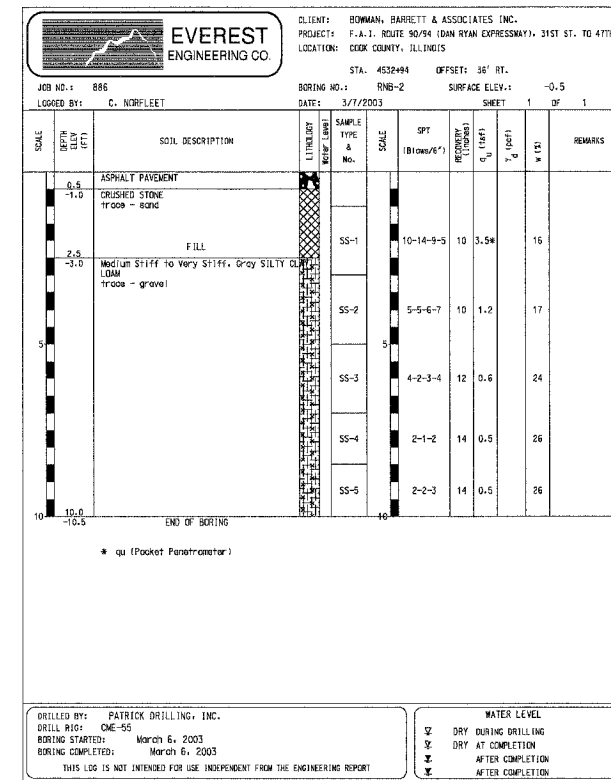
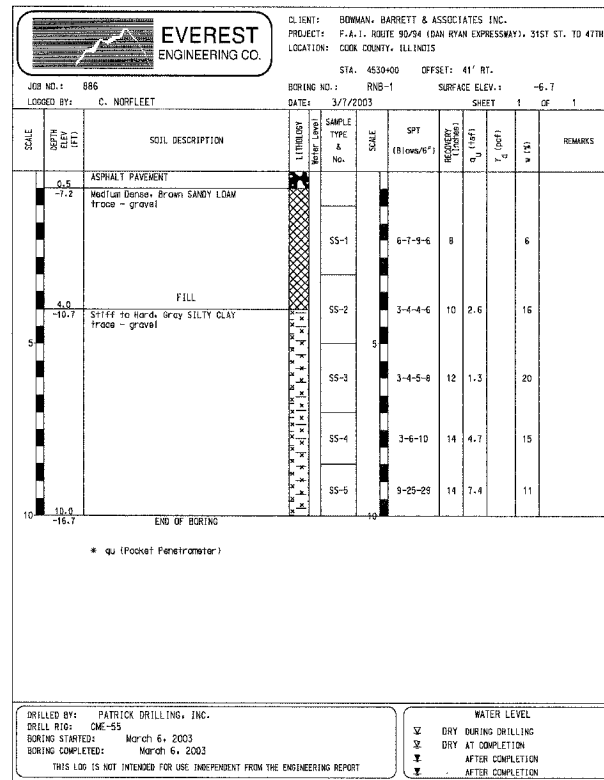
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TOP-OF-ROCK ELEVATIONS ENCOUNTERED DURING CONSTRUCTION OF CONTRACTS 62300 & 62301

NORTHBOUND		
STATION	OFFSET	ELEVATION
2530+00	SEE NOTE 3	-22.9
2529+60	SEE NOTE 3	-24.7
2528+00	SEE NOTE 3	-12.0
2527+50	SEE NOTE 3	-16.7
2527+00	SEE NOTE 3	-16.4
2526+50	SEE NOTE 3	-15.6
2526+00	SEE NOTE 3	-15.4
2525+50	SEE NOTE 3	-12.9
2525+00	SEE NOTE 3	-12.3
2524+50	SEE NOTE 3	-12.4
2568+40	SEE NOTE 3	-7.2
2569+25	SEE NOTE 3	-6.5
2569+90	SEE NOTE 3	-5.4
2570+50	SEE NOTE 3	-5.0
2571+00	SEE NOTE 3	-18.2
2571+70	SEE NOTE 3	-19.2

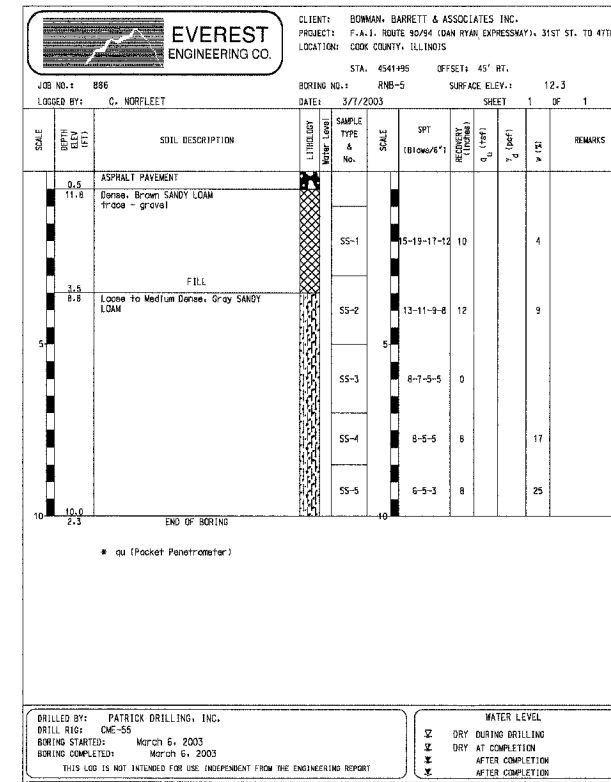
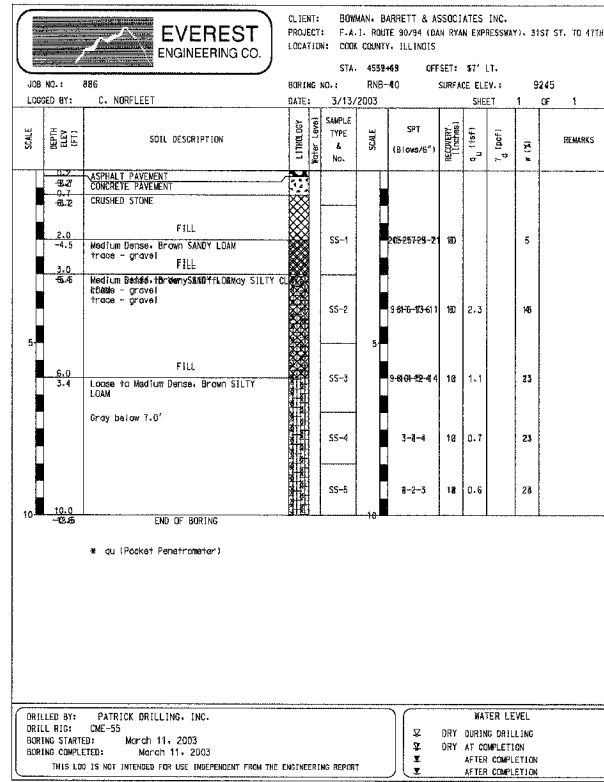
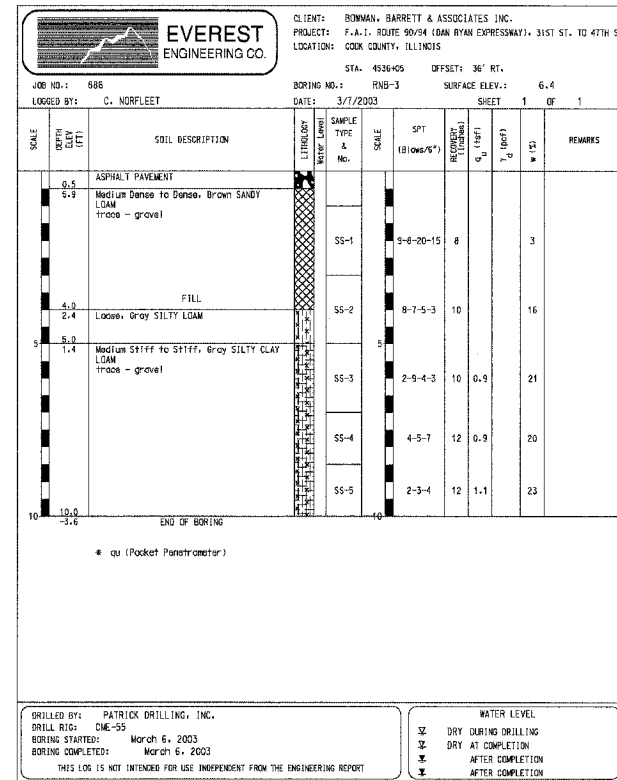
SOUTHBOUND		
STATION	OFFSET	ELEVATION
1530+00	SEE NOTE 3	-23.5
1528+00	SEE NOTE 3	-11.2
1527+00	SEE NOTE 3	-11.2
1526+70	SEE NOTE 3	-14.8
1525+40	SEE NOTE 3	-10.3
1524+50	SEE NOTE 3	-7.9
1523+95	SEE NOTE 3	-6.8
1560+97	SEE NOTE 4	-16.3
1563+21	SEE NOTE 4	-12.5
1565+05	SEE NOTE 4	-9.0
1568+70	SEE NOTE 3	-6.8
1569+40	SEE NOTE 3	-5.8
1570+60	SEE NOTE 3	-7.4
1571+20	SEE NOTE 3	-17.5
1571+70	SEE NOTE 3	-17.5



F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	*	COOK	565	362

STA. TO STA. TO STA.
 62301 • (2021-922 PT2 ETC 2324.6-1P) R-10

- NOTES:
- BEDROCK WAS ENCOUNTERED AT THE ABOVE LOCATIONS DURING CONSTRUCTION OF CONTRACTS 62300 AND 62301.
 - BEDROCK ELEVATIONS ARE ESTIMATED BASED ON BORING PERFORMED BY CONTRACT 62300 AND 62301.
 - BORING LOCATED IN EXPRESS LANE SHOULDER ADJACENT TO CTA.
 - BORINGS LOCATED IN WESTERN SHOULDER OF SB EXPRESS LANES.



REVISIONS	
NAME	DATE

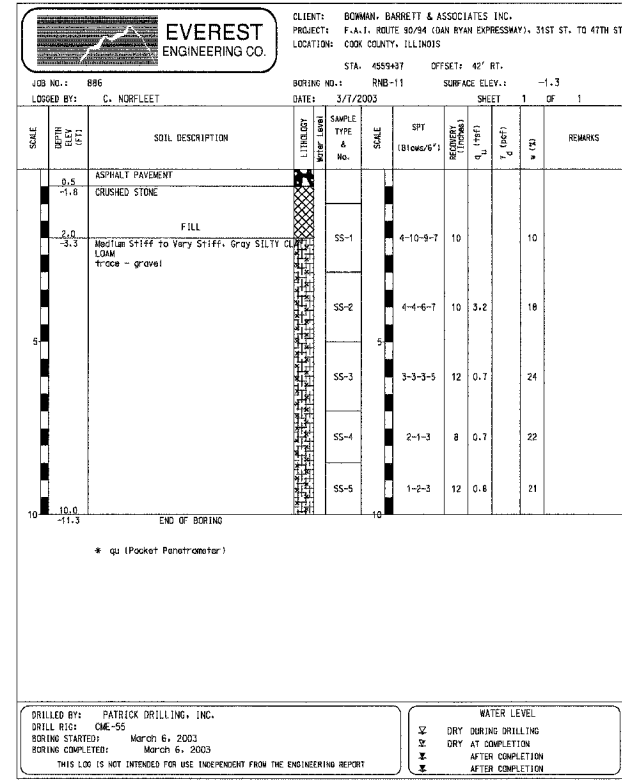
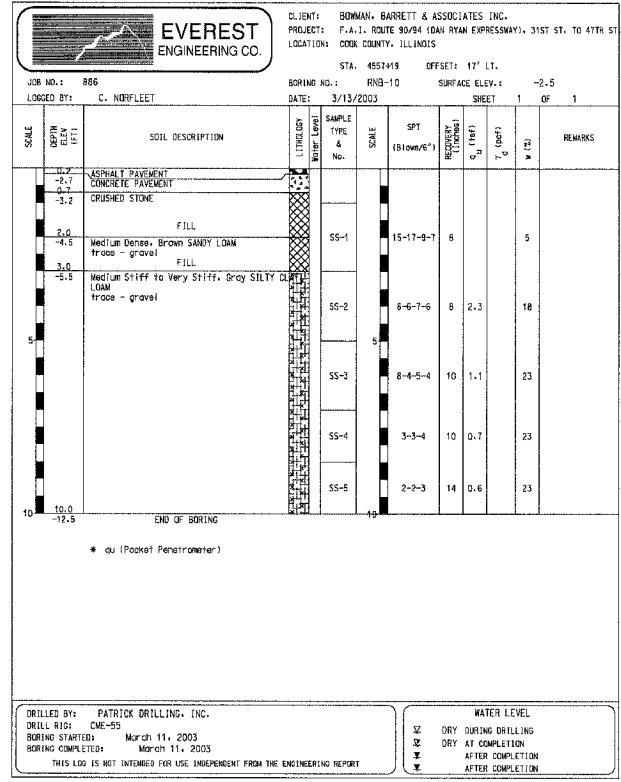
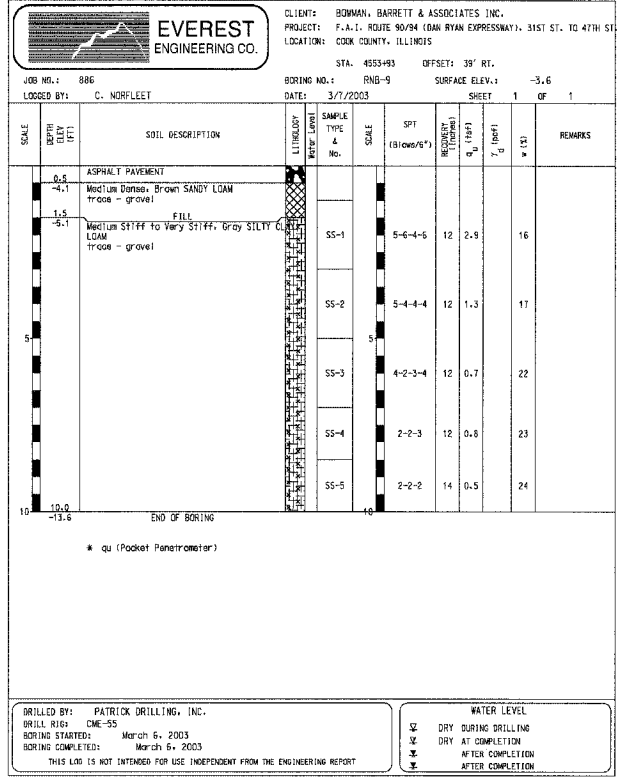
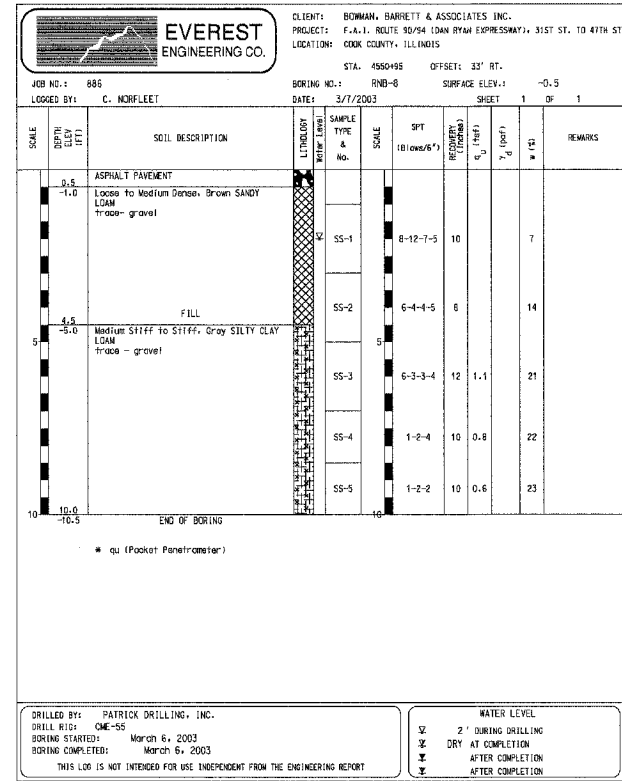
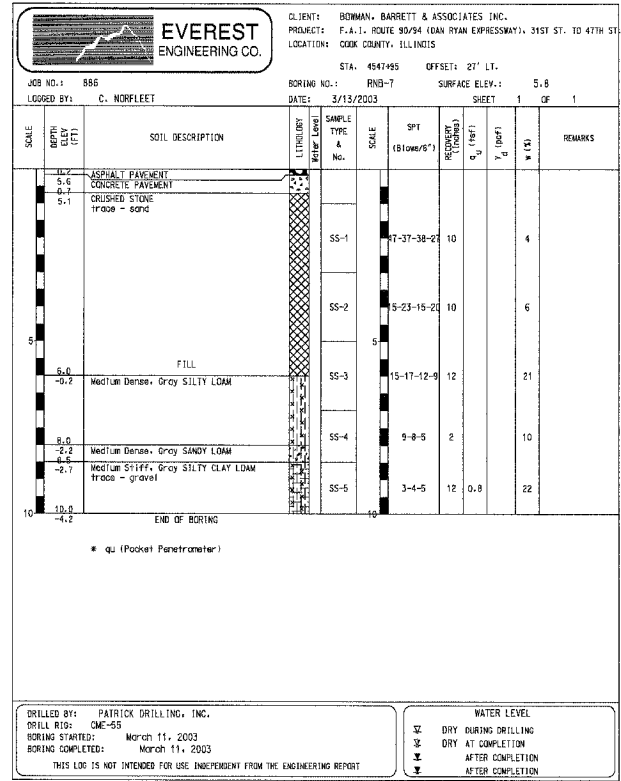
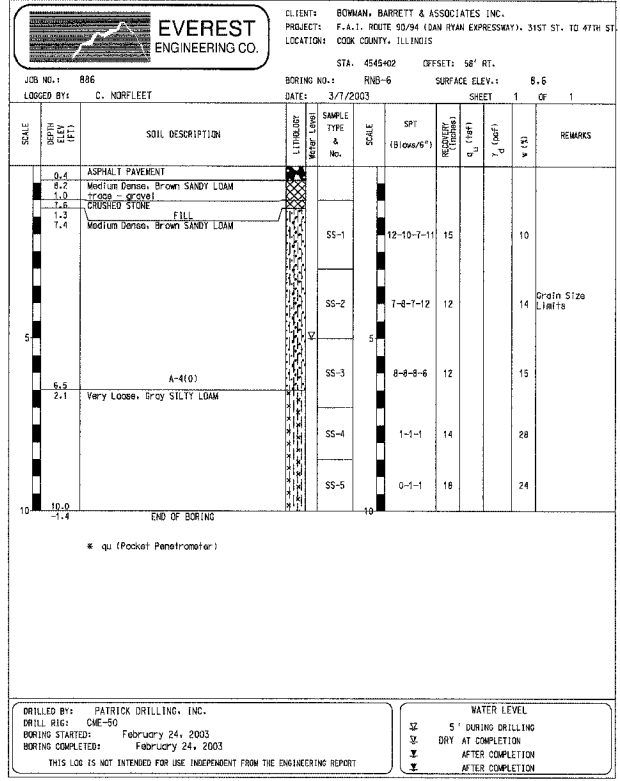
ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)

SCALE: 1"=50'
 DATE: 06/09/06

DRAWN BY: RR
 CHECKED BY: RS

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F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	*	COOK	565	363
STA.	TO STA.			
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				
62301 * (2021-922 PT2 ETC 2324.6-1P) R-10				

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REVISIONS	
NAME	DATE

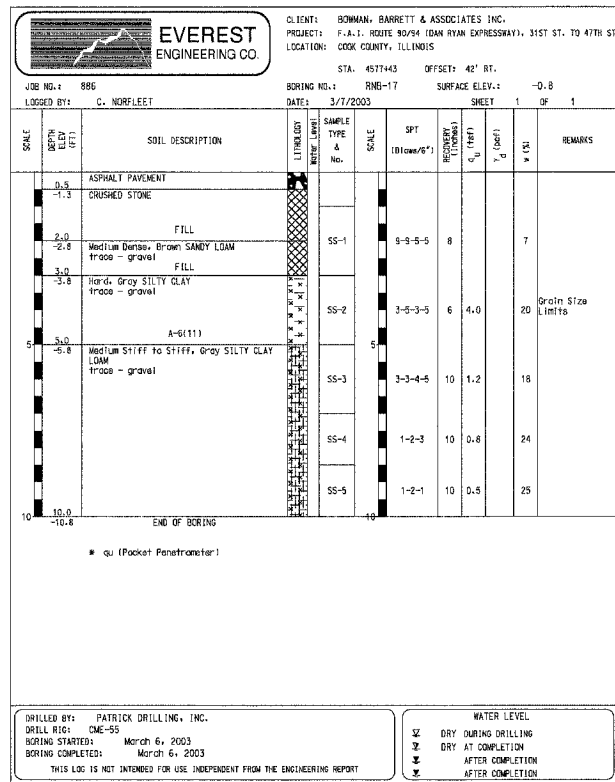
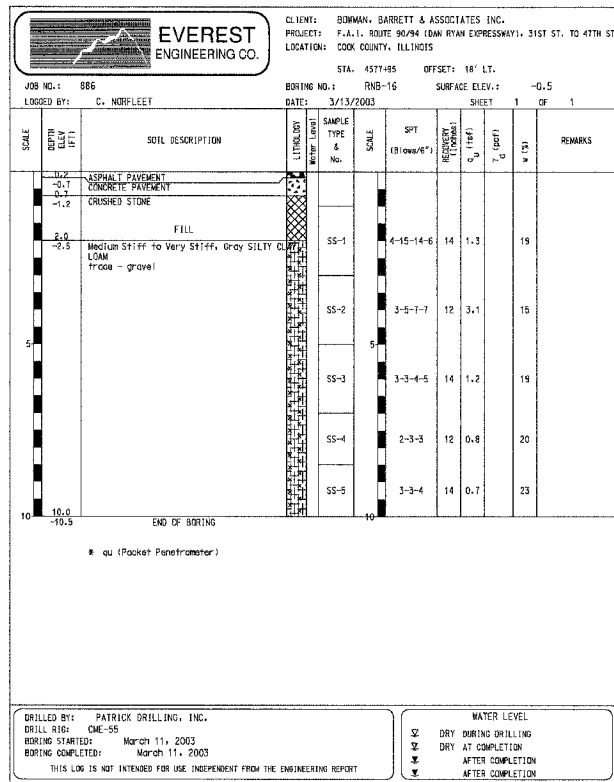
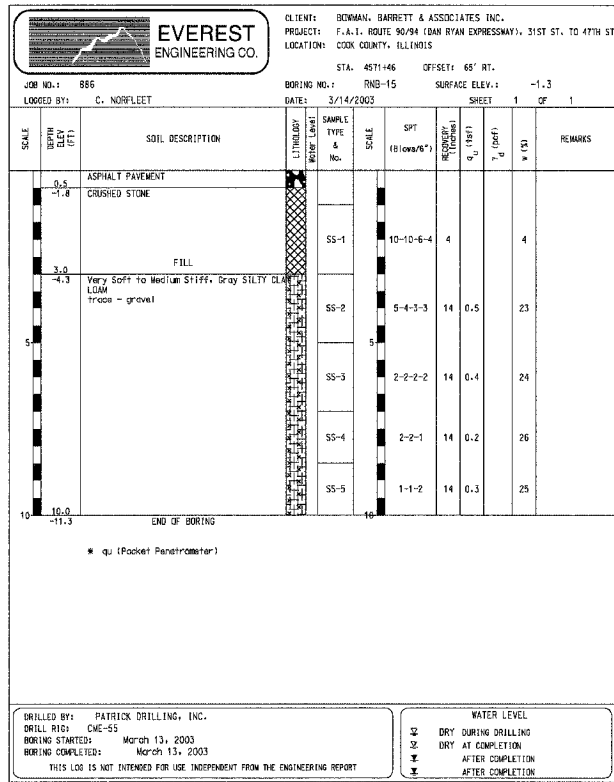
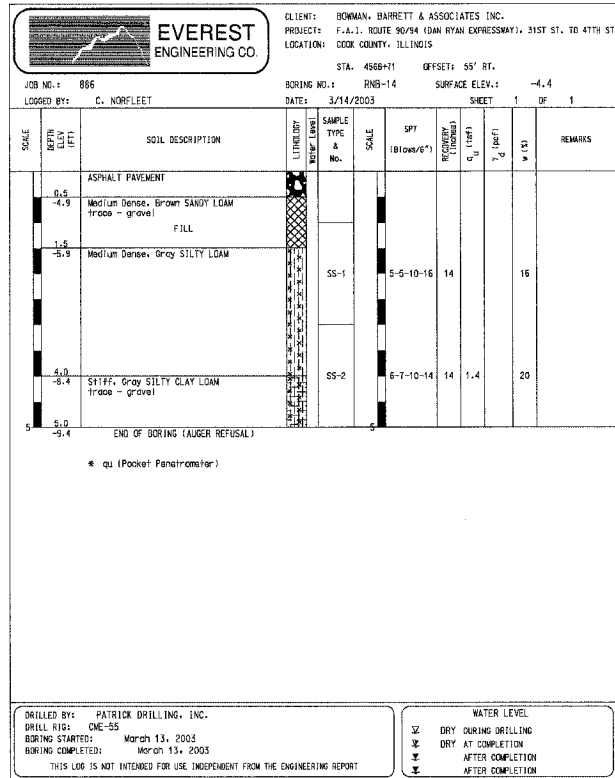
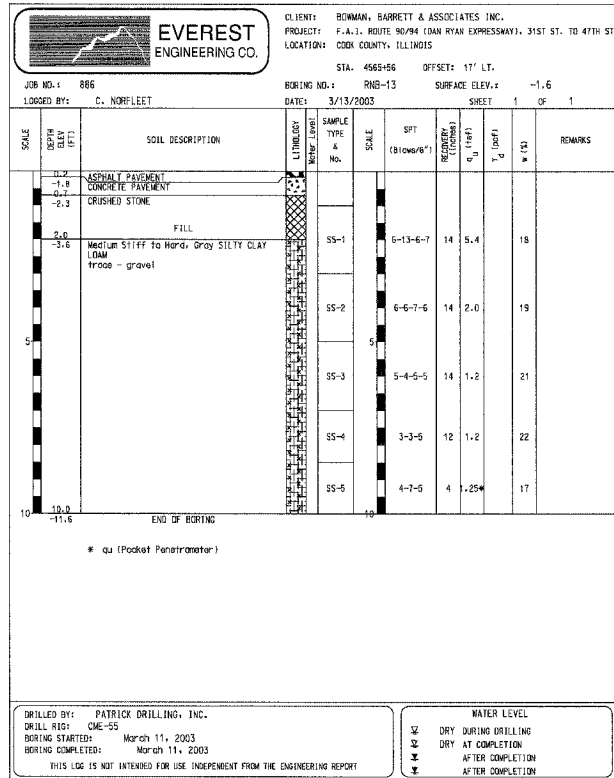
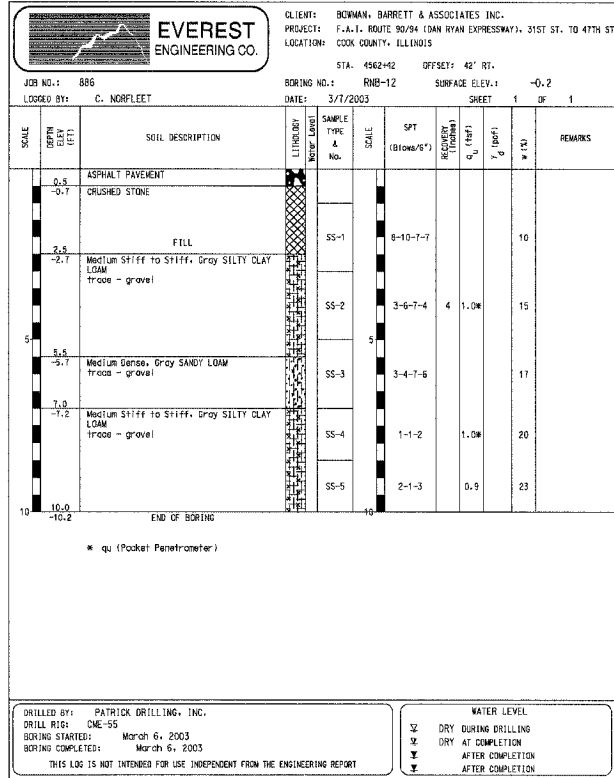
ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)

SOIL BORING LOGS

SCALE: 1"=50'
 DATE: 06/09/06

DRAWN BY: RR
 CHECKED BY: RS

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 6/17/2006



F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90		COOK	565	364
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
62301 * (2021-922 PT2 ETC 2324.6-1P) R-10				

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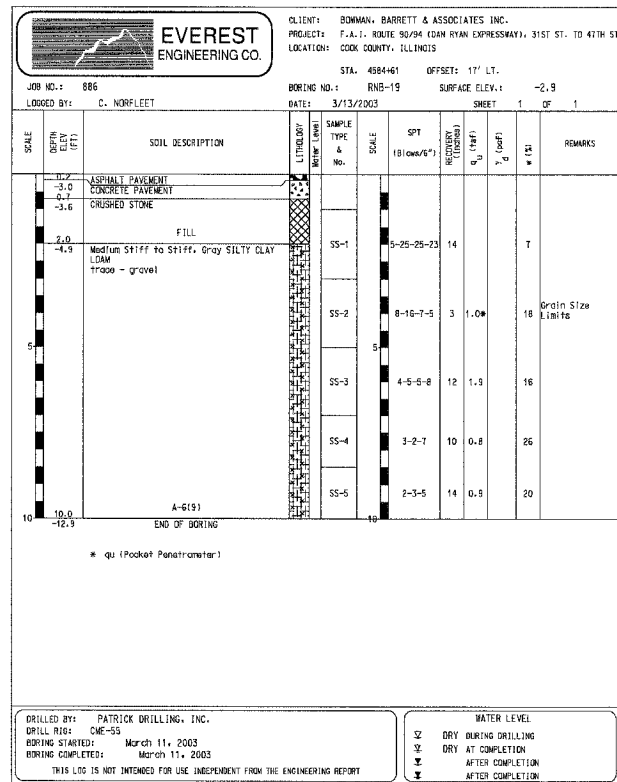
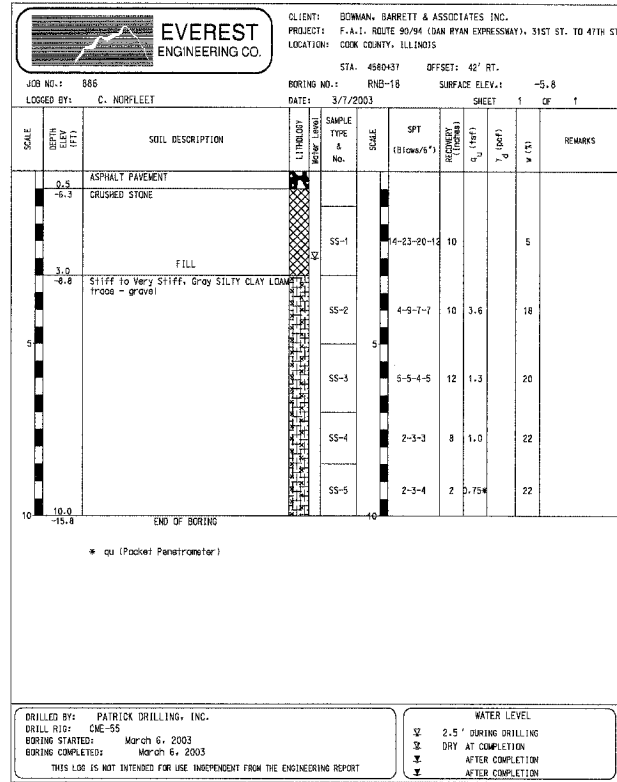
REVISIONS	
NAME	DATE

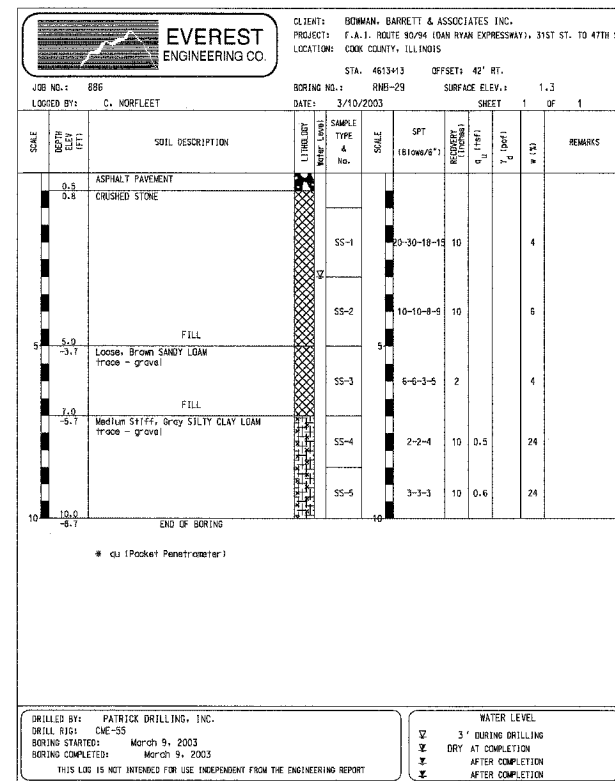
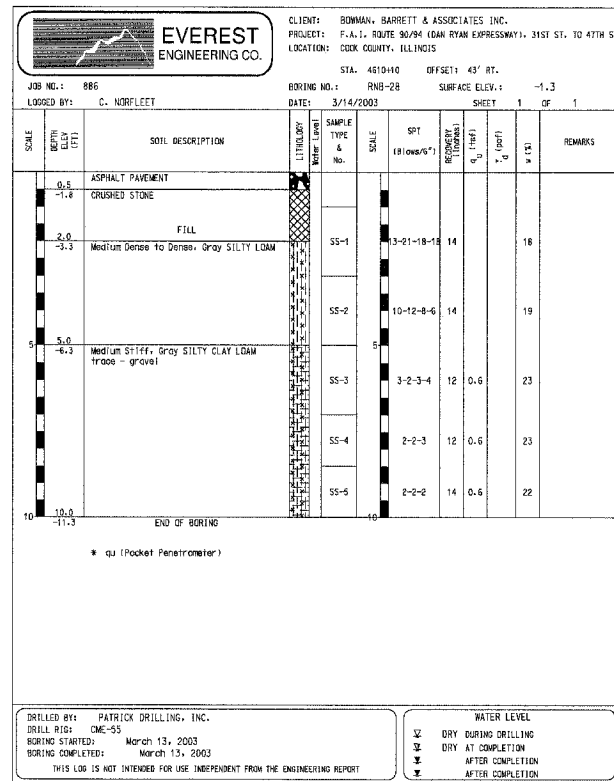
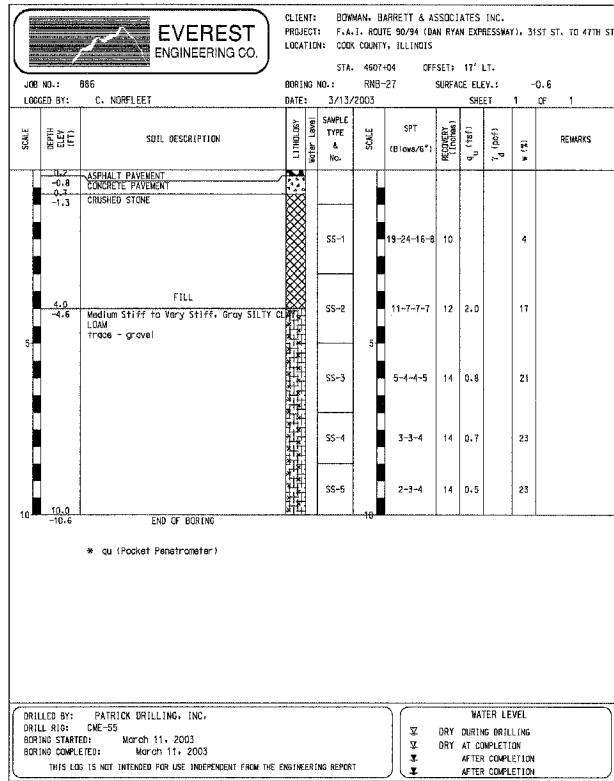
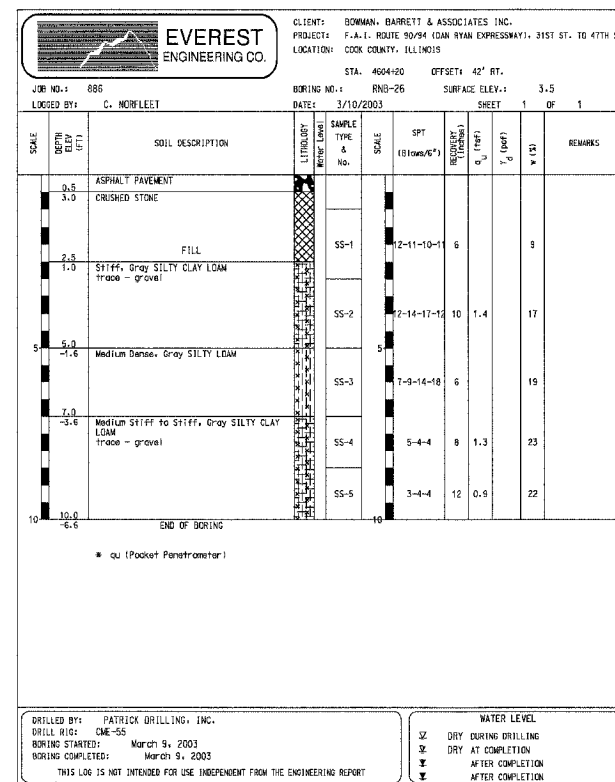
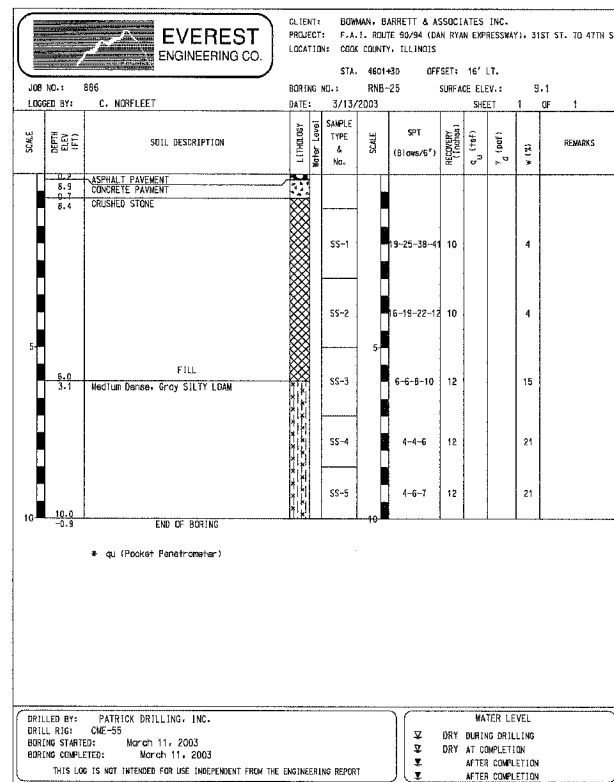
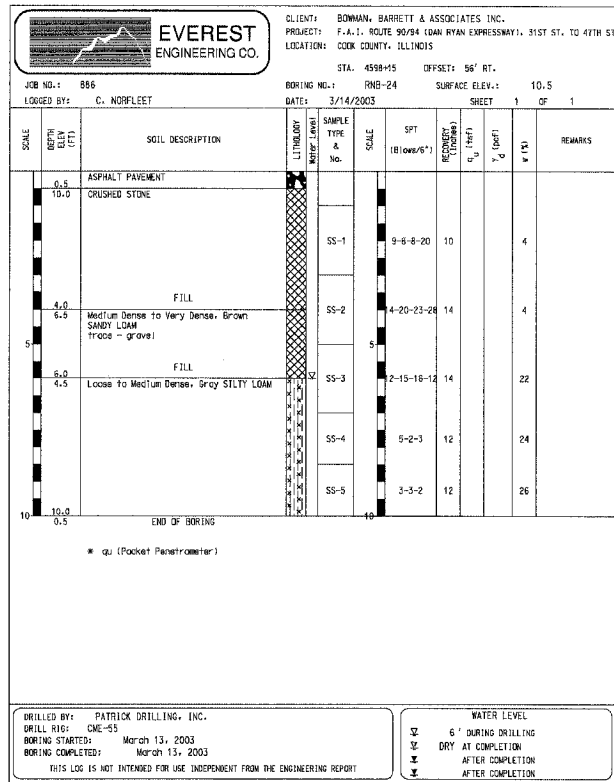
ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)

SCALE: 1"=50'
 DATE: 06/09/06

DRAWN BY: RR
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F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90		COOK	565	366
STA.	TO STA.			
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				
62301 *I2021-922 PT2 ETC 2324.6-1P) R-10				

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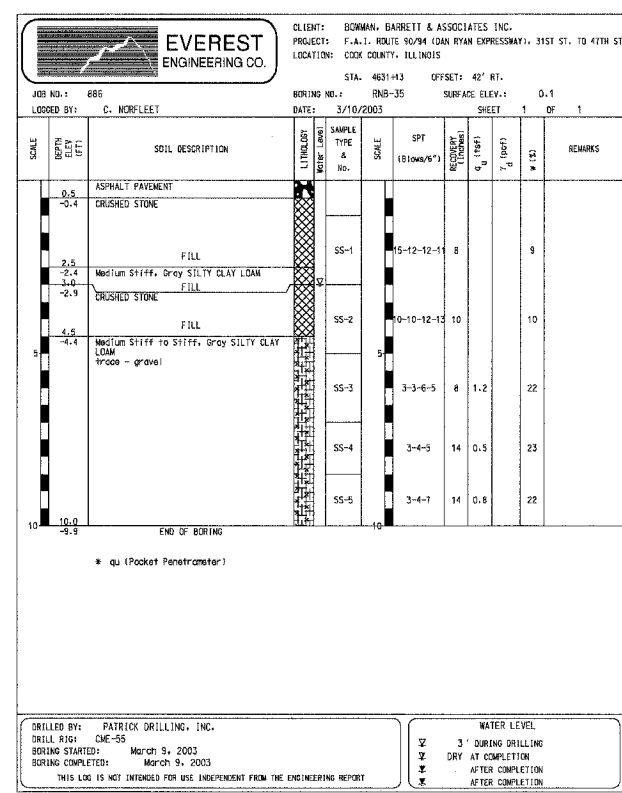
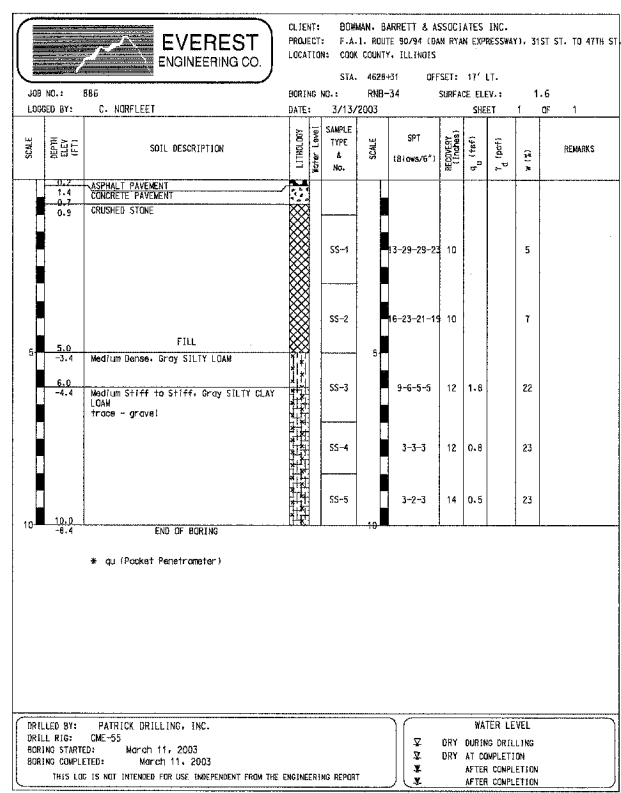
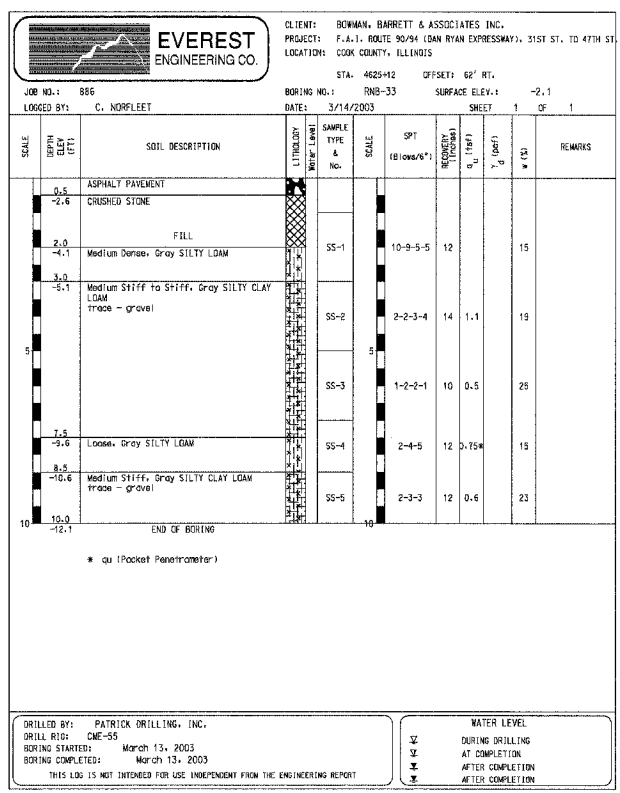
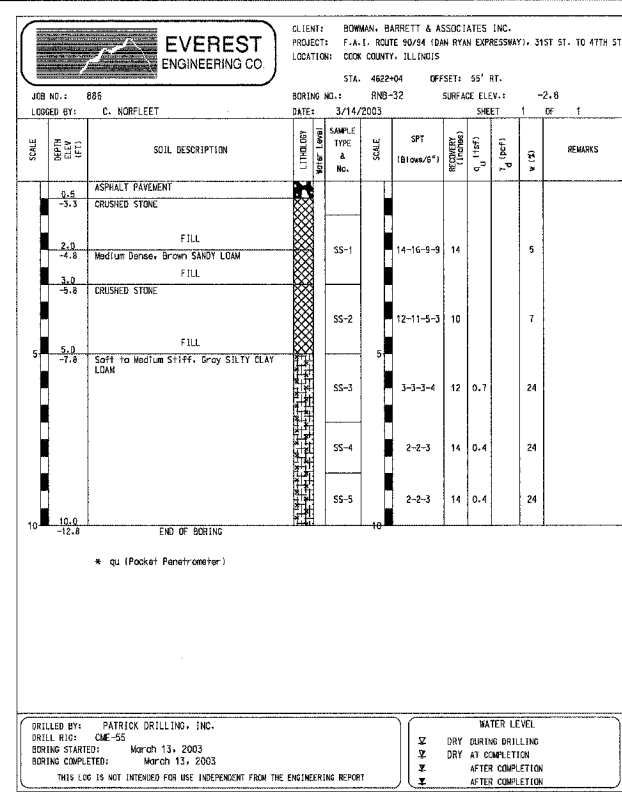
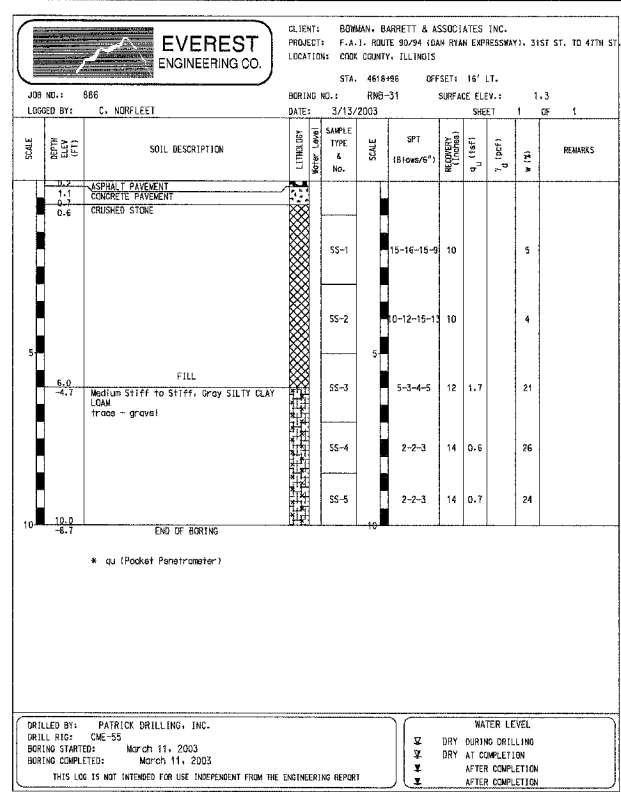
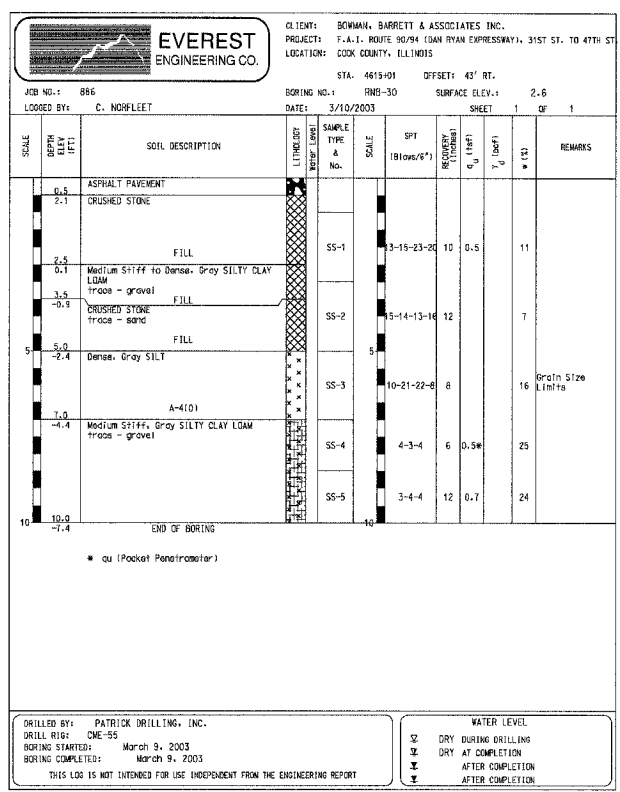
REVISIONS	NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)

SCALE: 1"=50'
 DATE: 06/09/06
 DRAWN BY: RR
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F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	*	COOK	565	367
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62301	*2021-922 PT2 ETC	2324.6-1P	R-10	

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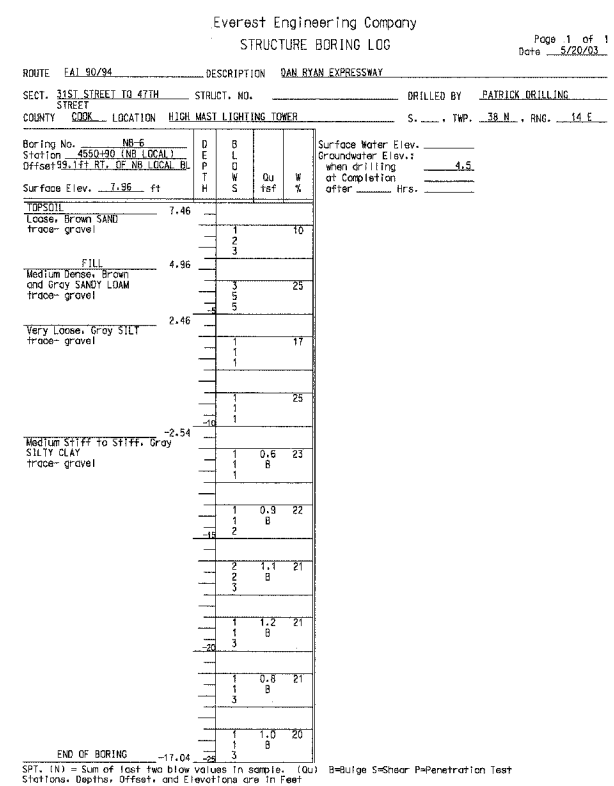
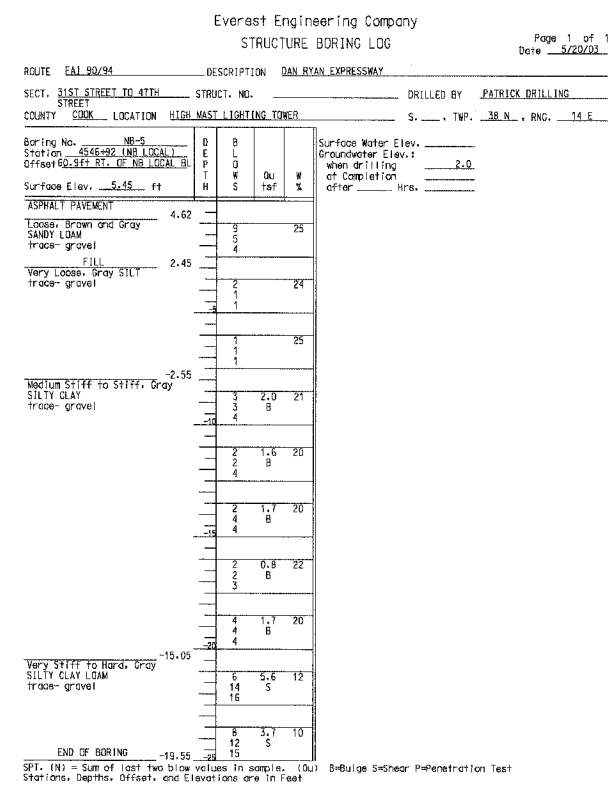
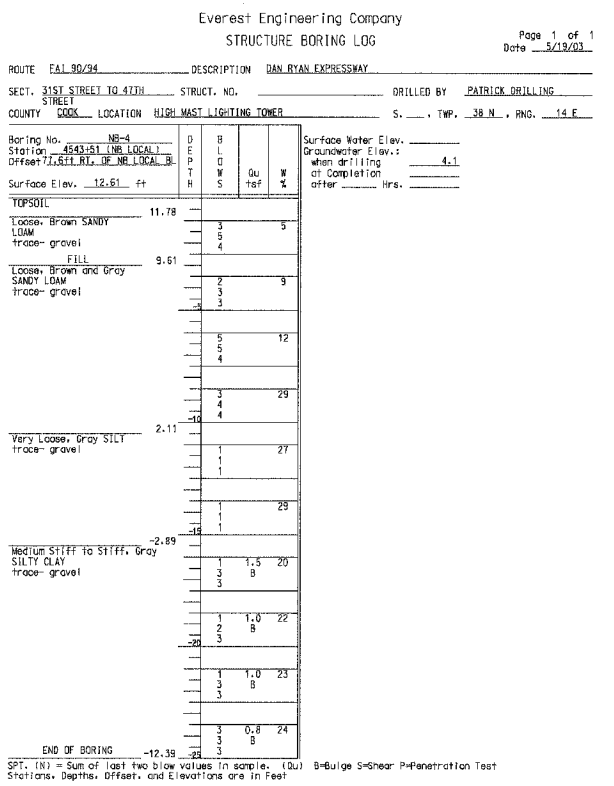
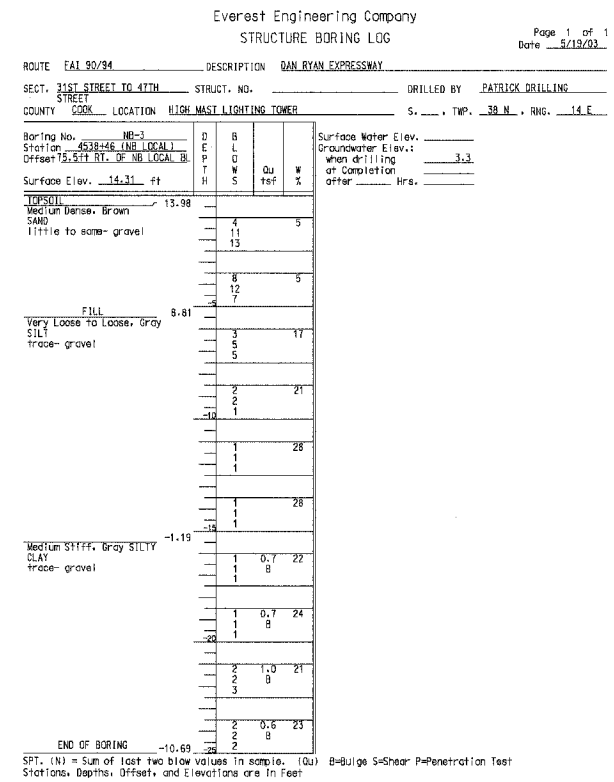
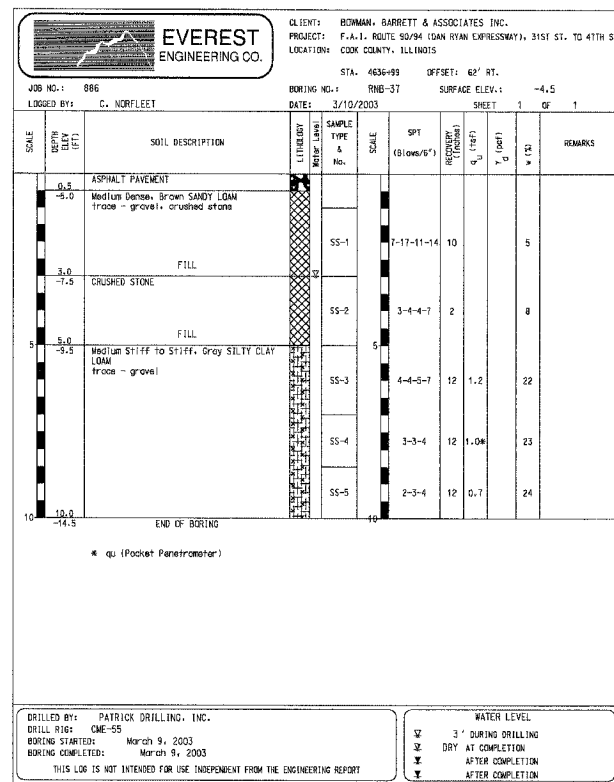
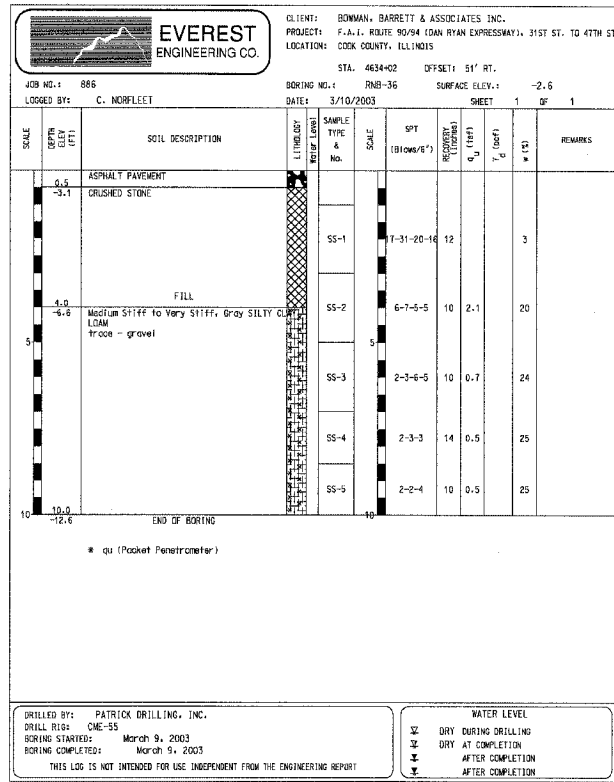
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)

SCALE: 1"=50'
DATE: 06/09/06

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F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)

SOIL BORING LOGS

SCALE: 1"=50'
DATE: 06/09/06

DRAWN BY: RR
CHECKED BY: RS

BL-07
6/7/2006

ROUTE FAL 90/94 DESCRIPTION DAN RYAN EXPRESSWAY
SECT. 31ST STREET TO 41TH STREET NO. _____ DRILLED BY PATRICK DRILLING
COUNTY COOK LOCATION HIGH MAST LIGHTING TOWER S. _____ TWP. 38 N. RNG. 14 E.

Boring No.	Station	Offset	Surface Elev.	D	B	W	Q _u	W	Surface Water Elev.	Groundwater Elev. when drilling or Completion	Other	Hrs.
NR-7	4555+28 (NB LOCAL)	43.75 FT. OF NB LOCAL BL	-4.26	3	0	0	0	0				
ASPHALT PAVEMENT												
Loose, Brown SANDY LOAM some gravel												
FILL												
Very Soft to Medium STIFF, Gray SILTY CLAY trace gravel												
Hard to Very Hard, Gray SILTY CLAY LOAM trace gravel												
END OF BORING												

SPT. (N) = Sum of last two blow values in sample. (Q_u) = Bludge S-Shear Penetration Test Stations, Depths, Offset, and Elevations are in Feet

ROUTE FAL 90/94 DESCRIPTION DAN RYAN EXPRESSWAY
SECT. 31ST STREET TO 41TH STREET NO. _____ DRILLED BY PATRICK DRILLING
COUNTY COOK LOCATION HIGH MAST LIGHTING TOWER S. _____ TWP. 38 N. RNG. 14 E.

Boring No.	Station	Offset	Surface Elev.	D	B	W	Q _u	W	Surface Water Elev.	Groundwater Elev. when drilling or Completion	Other	Hrs.
NR-10	4567+34 (NB LOCAL)	56.5 FT. OF NB LOCAL BL	-4.49	6	0	0	0	0				
ASPHALT PAVEMENT												
Medium Dense, Brown SANDY LOAM some gravel												
FILL												
STIFF to Very STIFF, Gray SILTY CLAY trace gravel												
For Rock Cores See Page 2												
END OF BORING												

SPT. (N) = Sum of last two blow values in sample. (Q_u) = Bludge S-Shear Penetration Test Stations, Depths, Offset, and Elevations are in Feet

ROUTE FAL 90/94 DESCRIPTION DAN RYAN EXPRESSWAY
SECT. 31ST STREET TO 41TH STREET NO. _____ DRILLED BY PATRICK DRILLING
COUNTY COOK LOCATION HIGH MAST LIGHTING TOWER S. _____ TWP. 38 N. RNG. 14 E.

Top Elev. ft	Coring Notes and Rock Description	Core Run (#)	R C O V E R Y (%)	R O Q T I M E (min)	CORE LENGTH (ft)	CONF. S T R U C T U R E I N G I T H (feet)
-12.49	DOLMITE: Dark gray, fine grained, massive, thin to medium bedded, moderately weathered, moderately fractured trace - wugs and pyrite	1	83	69	3	
-10.0						
-15.0		2	94	76	3.5	
-22.49	END OF BORING					

Color pictures of the cores YES
Cores will be stored for examination until September 30, 2003

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	*	COOK	565	369

STA. _____ TO STA. _____
FED. ROAD DIST. NO. _____ ILLINOIS FED. AID PROJECT
62301 (2021-922 PT2 ETC 2324.6-1P) R-10

ROUTE FAL 90/94 DESCRIPTION DAN RYAN EXPRESSWAY
SECT. 31ST STREET TO 41TH STREET NO. _____ DRILLED BY PATRICK DRILLING
COUNTY COOK LOCATION HIGH MAST LIGHTING TOWER S. _____ TWP. 38 N. RNG. 14 E.

Boring No.	Station	Offset	Surface Elev.	D	B	W	Q _u	W	Surface Water Elev.	Groundwater Elev. when drilling or Completion	Other	Hrs.
NR-11	4571+27 (NB LOCAL)	52.4 FT. OF NB LOCAL BL	0.55	3	0	0	0	0				
TOPSOIL												
Medium Dense, Brown and Gray SANDY LOAM trace gravel												
FILL												
Very Soft to Very STIFF, Gray SILTY CLAY trace gravel												
Hard to Very Hard, Gray SILTY CLAY LOAM trace gravel												
Very Dense, Gray SILTY LOAM trace gravel												
Hard to Very Hard, Gray SILTY CLAY LOAM trace gravel												
END OF BORING												

SPT. (N) = Sum of last two blow values in sample. (Q_u) = Bludge S-Shear Penetration Test Stations, Depths, Offset, and Elevations are in Feet

ROUTE FAL 90/94 DESCRIPTION DAN RYAN EXPRESSWAY
SECT. 31ST STREET TO 41TH STREET NO. _____ DRILLED BY PATRICK DRILLING
COUNTY COOK LOCATION HIGH MAST LIGHTING TOWER S. _____ TWP. 38 N. RNG. 14 E.

Boring No.	Station	Offset	Surface Elev.	D	B	W	Q _u	W	Surface Water Elev.	Groundwater Elev. when drilling or Completion	Other	Hrs.
NR-12	4575+25 (NB LOCAL)	41.5 FT. OF NB LOCAL BL	2.08	1	0	0	0	0				
TOPSOIL												
Medium Dense, Brown SANDY LOAM trace - fossil and gravel												
CRUSHED STONE												
FILL												
Medium Dense, Brown SANDY LOAM trace gravel												
Medium STIFF to Very STIFF, Gray SILTY CLAY trace gravel												
Hard, Gray SILTY CLAY LOAM trace gravel												
END OF BORING												

SPT. (N) = Sum of last two blow values in sample. (Q_u) = Bludge S-Shear Penetration Test Stations, Depths, Offset, and Elevations are in Feet

ROUTE FAL 90/94 DESCRIPTION DAN RYAN EXPRESSWAY
SECT. 31ST STREET TO 41TH STREET NO. _____ DRILLED BY PATRICK DRILLING
COUNTY COOK LOCATION HIGH MAST LIGHTING TOWER S. _____ TWP. 38 N. RNG. 14 E.

Boring No.	Station	Offset	Surface Elev.	D	B	W	Q _u	W	Surface Water Elev.	Groundwater Elev. when drilling or Completion	Other	Hrs.
NR-13	4579+38 (NB LOCAL)	45.1 FT. OF NB LOCAL BL	-5.17	3	0	0	0	0				
ASPHALT PAVEMENT												
CRUSHED STONE												
FILL												
Medium STIFF to Very STIFF, Gray SILTY CLAY trace gravel												
Hard, Gray SILTY CLAY LOAM trace gravel												
END OF BORING												

SPT. (N) = Sum of last two blow values in sample. (Q_u) = Bludge S-Shear Penetration Test Stations, Depths, Offset, and Elevations are in Feet

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REVISIONS	NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)

SCALE: 1"=50'
DATE: 06/09/06

DRAWN BY: RR
CHECKED BY: RS

BL-08
6/7/2006 7:07:38 PM

ROUTE FAI 94/94 DESCRIPTION DAN RYAN EXPRESSWAY
SECT. 31ST STREET TO 4TH STREET NO. _____ DRILLED BY PATRICK DRILLING
COUNTY COOK LOCATION HIGH MAST LIGHTING TOWER S. _____ TWP. 39 N. RING. 14 E.

Boring No. NR-23 D B Surface Water Elev. _____
Station 4621311 INB LOCAL E L Groundwater Elev.: _____
Offset 31.4 FT. BT. OF NB LOCAL P O when drilling _____
Surface Elev. -2.28 ft. T W Qu W % of Completion _____
offer _____ Hrs. _____

ASPHALT PAVEMENT	-2.99						
CRUSHED STONE		26	4				
		11					
		11					
		20	6				
		8					
		7					
FILL	-7.78						
Soft, Gray SILTY CLAY		3	0.4	25			
trace gravel		1	B				
		1					
		1	0.4	25			
		1	B				
		2					
		1	0.5	26			
		1	B				
		1	0.4	27			
		2	B				
		2					
		2	0.4	26			
		1	B				
		1	0.3	27			
		1	B				
		1	0.4	25			
		1	B				
		2					
		1	0.5	25			
		2	B				
		1					
END OF BORING	-27.28						

SPT. (N) = Sum of last two blow values in sample. (Qu) B-Bulge S-Shear P-Penetration Test
Stations, Depths, Offset, and Elevations are in Feet

ROUTE FAI 94/94 DESCRIPTION DAN RYAN EXPRESSWAY
SECT. 31ST STREET TO 4TH STREET NO. _____ DRILLED BY PATRICK DRILLING
COUNTY COOK LOCATION HIGH MAST LIGHTING TOWER S. _____ TWP. 39 N. RING. 14 E.

Boring No. NR-26 D B Surface Water Elev. _____
Station 4634139 INB LOCAL E L Groundwater Elev.: _____
Offset 35.2 FT. BT. OF NB LOCAL P O when drilling -6.5
Surface Elev. -3.02 ft. T W Qu W % of Completion _____
offer _____ Hrs. _____

ASPHALT PAVEMENT	-3.77						
CRUSHED STONE		14					
		10					
		5					
FILL	-7.02						
Soft to STIFF, Gray SILTY		12	1.7	21			
CLAY		3	B				
trace gravel		3					
		1	0.6	24			
		1	B				
		1					
		1	0.6	23			
		1	B				
		1					
		1	0.6	22			
		2	B				
		1	0.5	27			
		1	B				
		1	0.4	27			
		1	B				
		1	0.5	25			
		2	B				
		2					
		1	0.8	24			
		2	B				
		2					
		1	0.9	24			
		2	B				
		2					
END OF BORING	-28.02						

SPT. (N) = Sum of last two blow values in sample. (Qu) B-Bulge S-Shear P-Penetration Test
Stations, Depths, Offset, and Elevations are in Feet

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90 *		COOK	565	371
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62301 *(2021-922 PT2 ETC 2324.6-1P) R-10				

INVENTORY CONTROL SHEET

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REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)

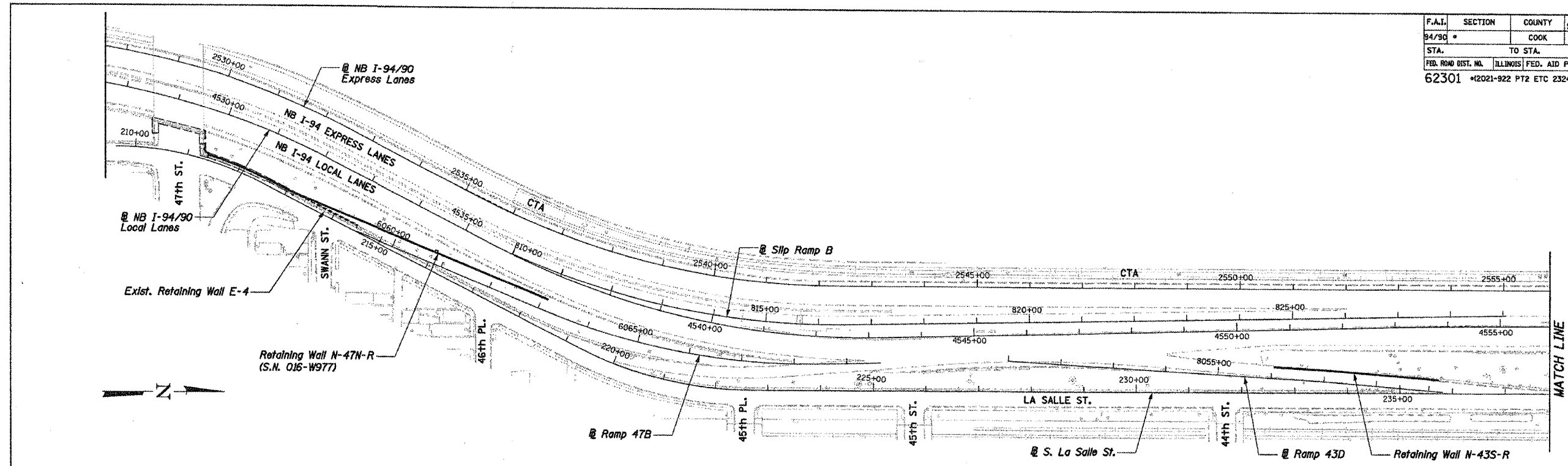
SOIL BORING LOGS

SCALE: 1"=50'
DATE: 06/09/06

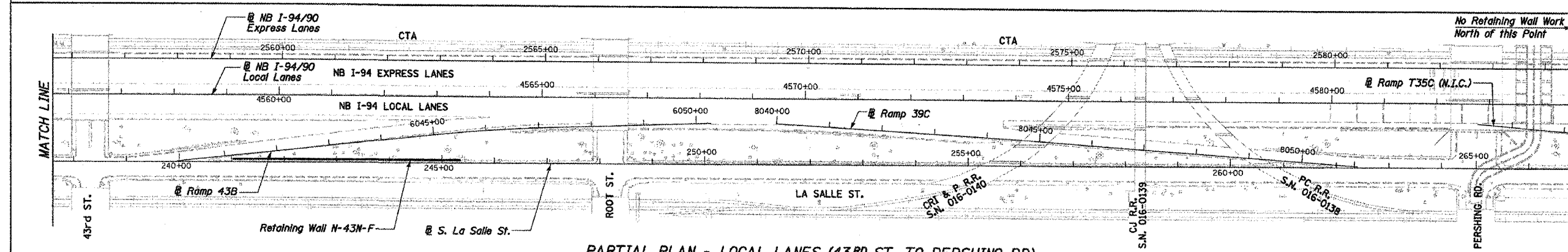
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CHECKED BY: RS

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F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90		COOK	565	372
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62301	12021-922 PT2 ETC	2324.6-1P	R-10	



PARTIAL PLAN - LOCAL LANES (47TH ST. TO 43RD ST.)



PARTIAL PLAN - LOCAL LANES (43RD ST. TO PERSHING RD)

GENERAL NOTES

- All construction joints shall be bonded.
- 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 furnished at the unit price for the work.
- Existing wall designations from 1961 as-builts are provided "For Information Only".
- Key Plan shows existing and proposed walls superimposed on existing conditions only with proposed baselines. See Roadway Plans for all proposed civil works.
- Expansion joints and vertical construction joints are mandatory, horizontal construction joints are optional U.N.O.

WALL NUMBER DESIGNATION

X-##Y-Z
 X = Direction of mainline traffic, S (South) or N (North)
 ## = Cross Street Number
 Y = Location relative to Cross Street, S (South) or N (North)
 Z = Adjacent to R (Ramp) or F (Frontage Road)
 N.I.C. = Not in Contract

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REVISIONS	
NAME	DATE
REVISED	06/22/06

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)
RETAINING WALLS
KEY PLAN & GENERAL NOTES
 SCALE: NTS
 DATE: JUNE 9, 2006
 DRAWN BY: KMW
 CHECKED BY: BLU

6/23/2006 2:04:56 PM

Benchmark: BM No. 3538
 "x" Cut on Easterly flange bolt of fire hydrant at Northeast corner of 47th Street and La Salle St. El. 17.31

All elevations are based on the Chicago City Datum (C.C.D.)

Salvage: None

Existing Structure Description:

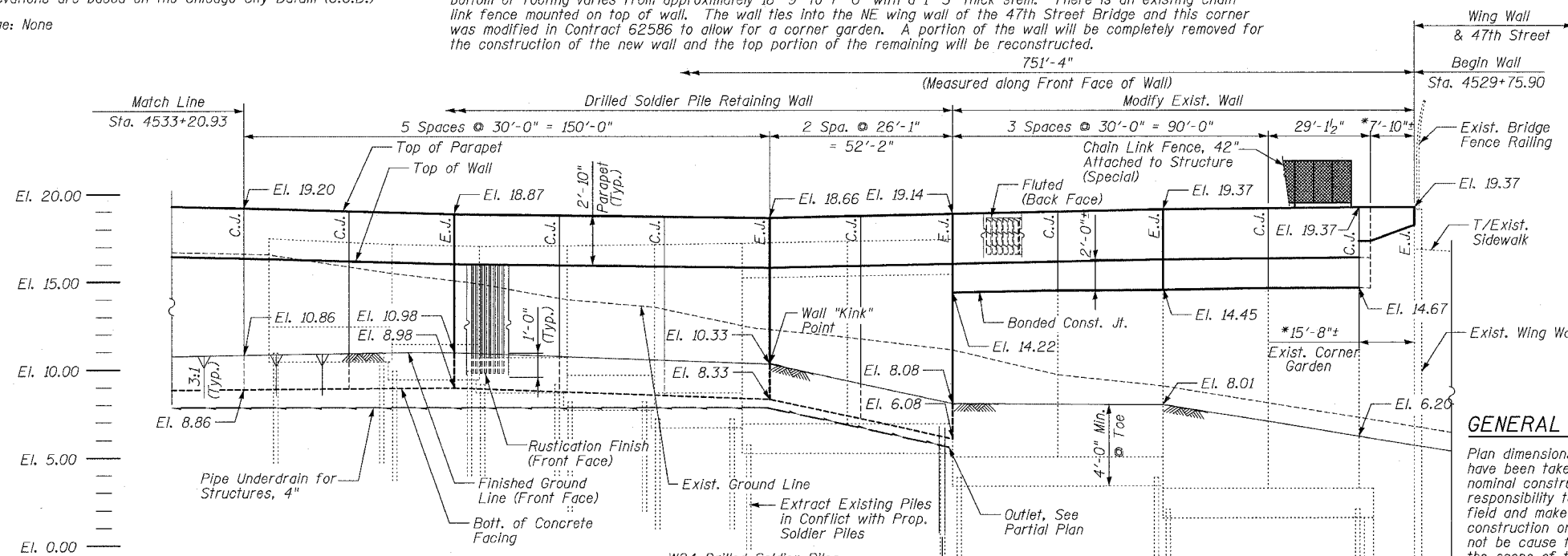
The existing wall was built in 1962 as part of Section 2122-907HB and Section 2122-921 PT. I in two phases designated as part of the 47th Street Bridge (S.N. 016-1156) and Wall "E-4". The existing wall is a cast-in-place concrete cantilever type on pile supported footings with a total length of 323'-4". The height from top of wall to bottom of footing varies from approximately 18'-9" to 7'-0" with a 1'-3" thick stem. There is an existing chain link fence mounted on top of wall. The wall ties into the NE wing wall of the 47th Street Bridge and this corner was modified in Contract 62586 to allow for a corner garden. A portion of the wall will be completely removed for the construction of the new wall and the top portion of the remaining will be reconstructed.

* Corner Garden wall at an angle with respect to wall, 7'-10" dimension is measured along original wall.

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90		COOK	565	373
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
62301		*(2021-922 PT2 ETC 2324.6-1P) R-10		

TOTAL BILL OF MATERIAL

Item	Unit	Quantity
Removal of Existing Structures	Each	1
Porous Granular Embankment (Special)	Cu. Yd.	211
Concrete Removal	Cu. Yd.	18
Structure Excavation	Cu. Yd.	195
Concrete Structures	Cu. Yd.	180.0
Concrete Superstructure	Cu. Yd.	71.6
Protective Coat	Sq. Yd.	592
Rustication Finish	Sq. Ft.	4,222
Stud Shear Connectors	Each	992
Untreated Timber Lagging	Sq. Ft.	3,724
Furnishing Soldier Piles (W Section)	Foot	2,150
Reinforcement Bars, Epoxy Coated	Pound	39,920
Geocomposite Wall Drain	Sq. Yd.	302
Pipe Underdrains for Structures 4"	Foot	625
Pile Extraction	Each	20
Temporary Soil Retention System	Sq. Ft.	1200
Drilling and Setting Soldier Piles (In Soil)	Cu. Ft.	12,973
Chain Link Fence, 42" Attached to Structure (Special)	Foot	470
Chain Link Gate Assembly (Special)	Each	1
Drilled Shaft in Soil, 44"	Foot	30



PARTIAL FRONT FACE ELEVATION

(LOOKING FROM NB LOCAL LANES)
 EJ - Denotes Expansion Joint
 CJ - Denotes Construction Joint

GENERAL NOTES:

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 furnished at the unit price for the work.

All Construction joints shall be bonded.

The Contractor is responsible for the design and performance of the lagging using no less than a 3" nominal rough-sawn thickness and timber with a minimum allowable bending stress f_b of 1000 psi.

All exposed concrete edges shall be chamfered 3/4" except as noted.

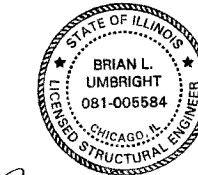
Protective Coat shall be applied to the top and back face of parapet and to the exposed front face in areas where the wall is within 25 feet of edge of pavement.

Additional Notes:

- Offsets given to Back Face of Wall. Station and offsets in parentheses are along Frontage Road or ramp.
- For HMLT foundation and work pads, see Electrical Infrastructure Plans and Structure Details. Towers by others.
- Wall to be built along straight chords between const. joints.
- Min. Facing in contact with soldier pile shall be 3'-0".
- Outlet pipe underdrain to daylight at Invert given with 1% min. slope. Provide Rodent Shield. Cost included with Pipe Underdrain for Structures, 4"
- See Sheet 8 for Offset Sketch.

LEGEND

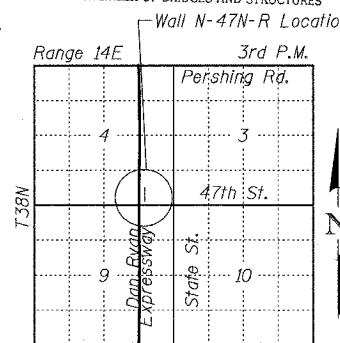
- Soil Boring Location
- High Mast Lighting Foundation and Tower (See Notes)
- Removal of Exist. Structures
- Proposed Drainage Structure
- Proposed Underdrain
- Proposed Storm Sewer



Date: July 13, 2006
 License Expires: November 30, 2006

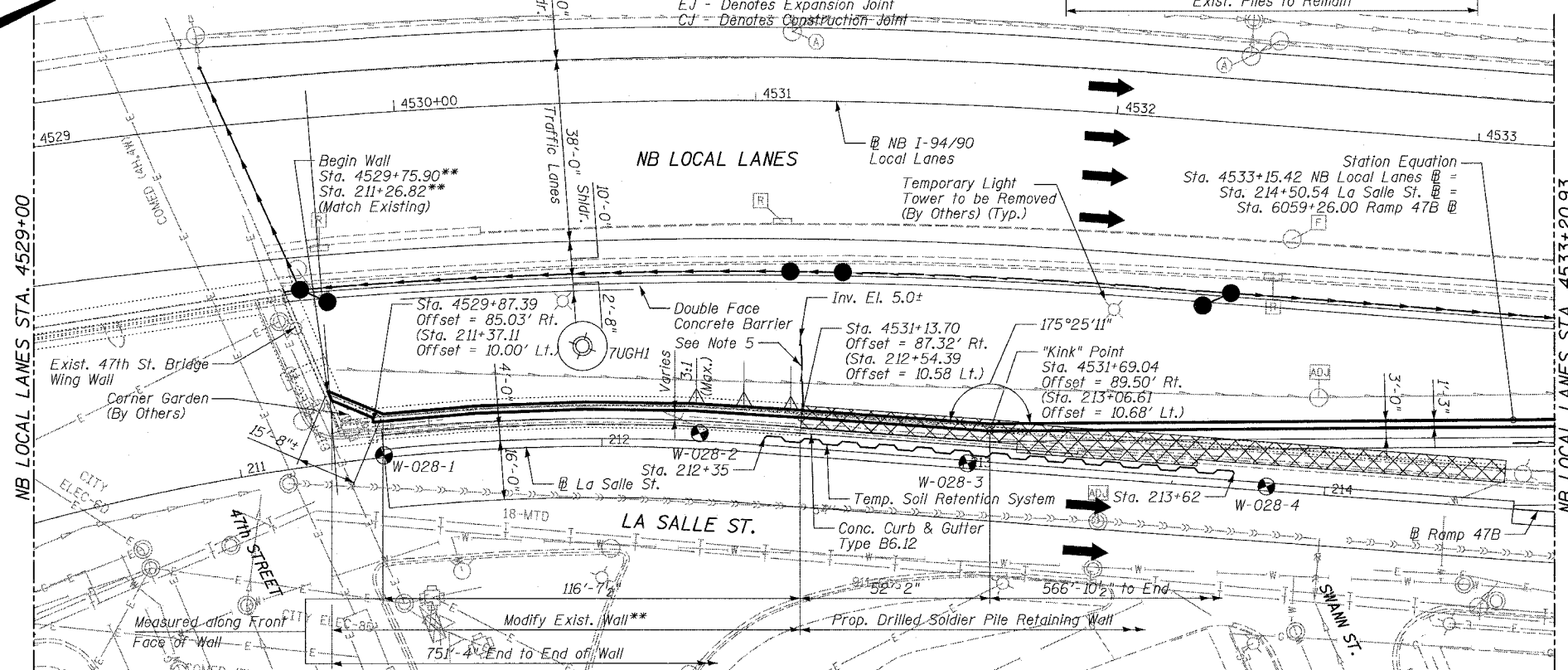
APPROVED
 FOR STRUCTURAL ADEQUACY ONLY

ENGINEER OF BRIDGES AND STRUCTURES



LOCATION SKETCH

SHEET 1 OF 24



PARTIAL PLAN

** Utilize existing wall as reference to construct modification

DESIGN SPECIFICATIONS

2002 AASHTO

DESIGN STRESSES

FIELD UNITS

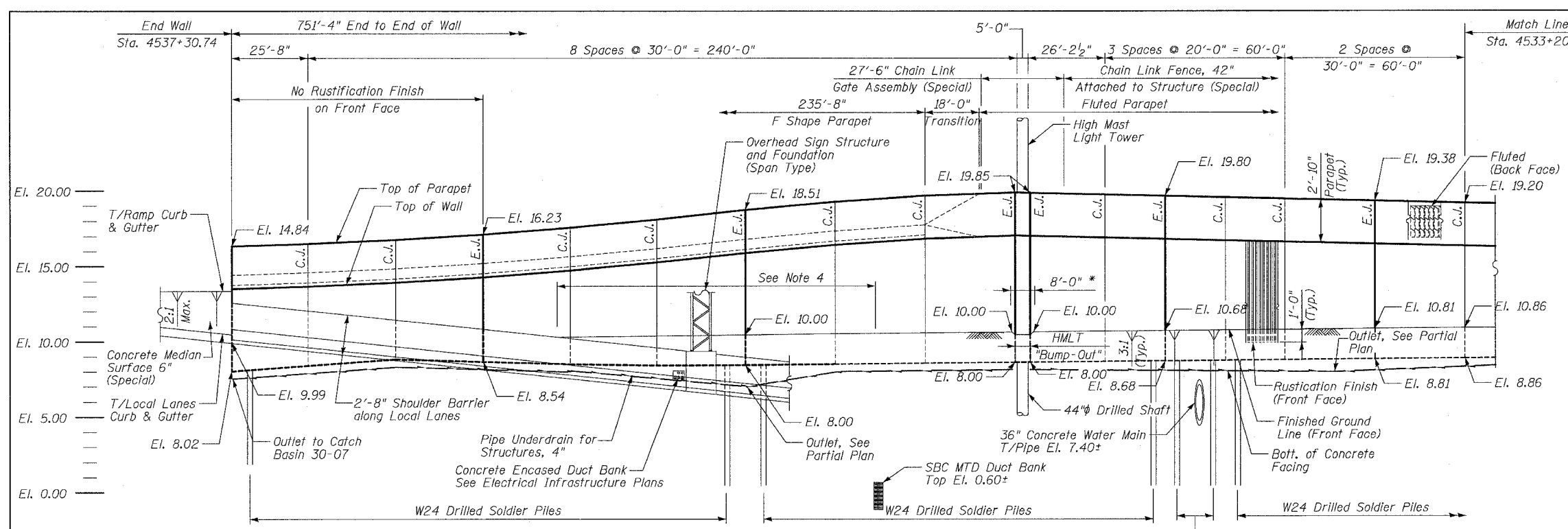
$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)
 $f_y = 36,000$ psi (M270 Gr 36) Soldier Piles

REVISIONS		
NAME	DATE	
REVISION	06/21/06	
REVISION	07/13/06	

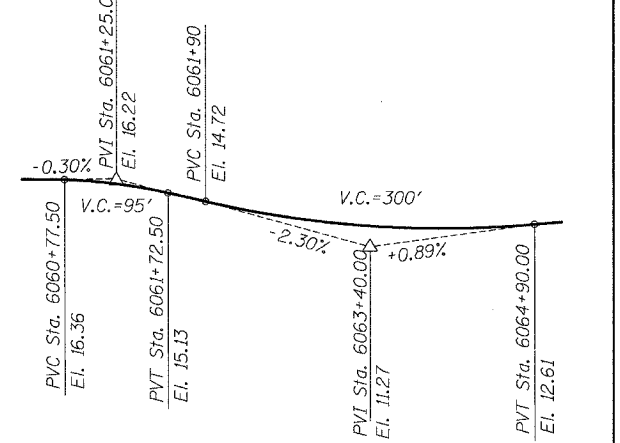
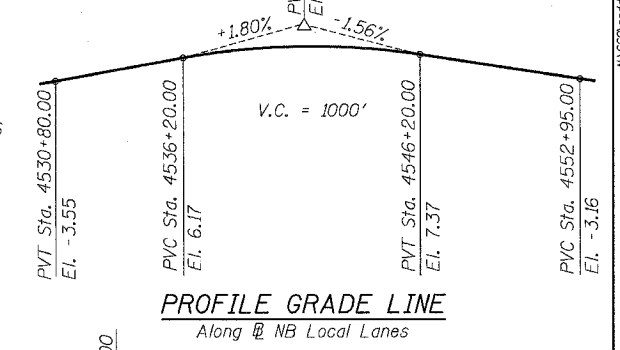
ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)
 COOK COUNTY
 STA. 4529+75.90 TO STA. 4537+30.74
 RETAINING WALL N-47N-R
 GENERAL PLAN AND ELEVATION 1
 S.N. 016-W977
 SCALE: NTS
 DATE: JUNE 9, 2006
 DRAWN BY: MTR
 CHECKED BY: BLU

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F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90		COOK	565	374
STA.		TO STA.		
62301		•(2021-922 PT2 ETC 2324.6-1P) R-10		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

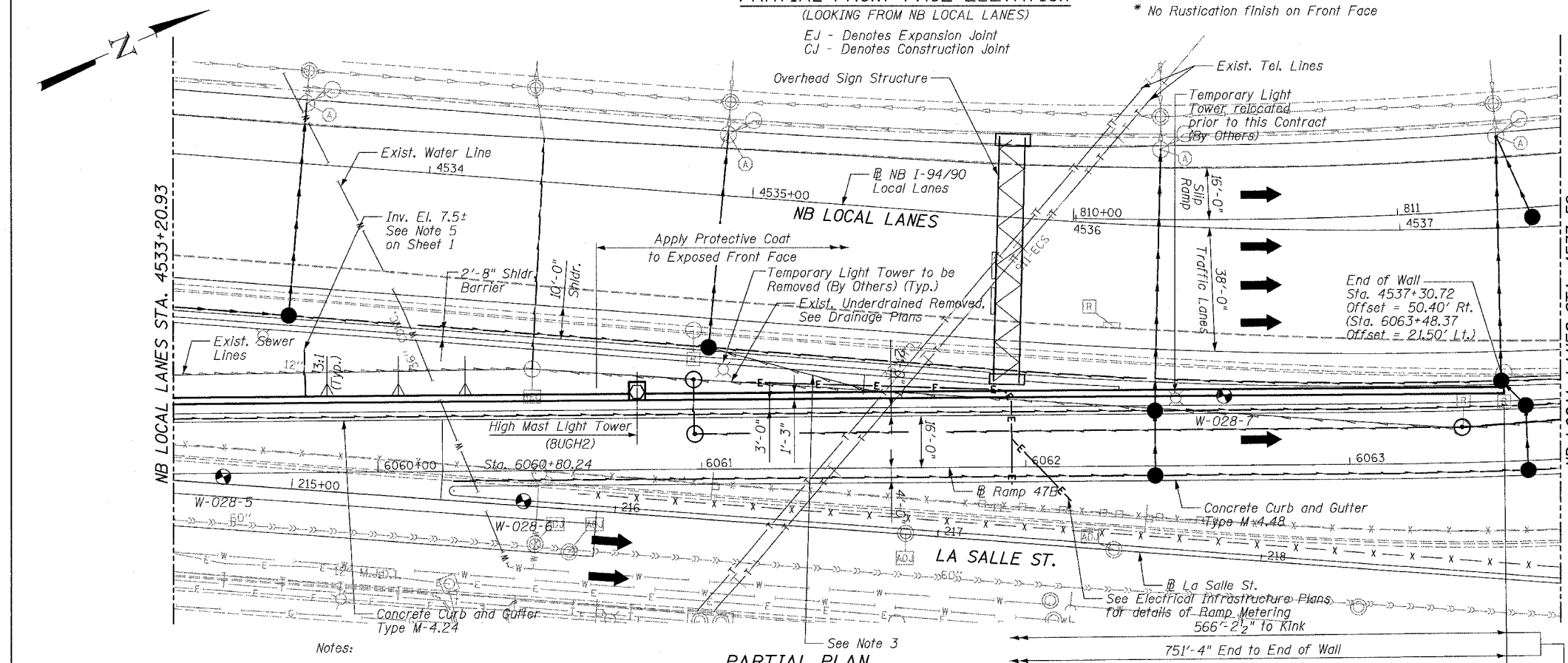


PARTIAL FRONT FACE ELEVATION
(LOOKING FROM NB LOCAL LANES)
EJ - Denotes Expansion Joint
CJ - Denotes Construction Joint
* No Rustication finish on Front Face



BASELINE ELEVATIONS
At La Salle St.

Sta. 211+00.00	El. 16.36
Sta. 211+50.00	El. 15.76
Sta. 212+00.00	El. 15.62
Sta. 212+50.00	El. 15.48
Sta. 213+00.00	El. 15.26
Sta. 213+50.00	El. 15.23
Sta. 214+00.00	El. 15.31
Sta. 214+50	El. 15.62
Sta. 215+00.00	El. 15.91



PARTIAL PLAN
751'-4" End to End of Wall
Measured along Front Face of Wall

- Notes:
- See Sheets 10 & 11 for HMLT foundation on this wall.
 - Take notice of existing utilities. See Drainage and Utility Plans and Special Provisions for Status of Utilities to be Adjusted. Piles have been spaced to avoid utilities based upon best available information. Contractor shall verify utility locations, as directed by Engineer, before drilled shaft construction. Cost of verifying utility locations is included with Drilling and Setting Soldier Piles (in Soil).
 - Connect underdrain to Catch Basin at Inv. El. 0.0. Cost included with Pipe Underdrains for Structures, 4".
 - Concrete Median Surface 6" (Special) between front face of wall and back of shoulder barrier, see Roadway Plans for details. Worp paving as required to drain and fit around OHSS foundation.

- LEGEND**
- Soil Boring Location
 - High Mast Lighting (Wall Mounted)
 - Proposed Drainage Structure
 - Proposed Underdrain
 - Proposed Storm Sewer
 - Proposed Electrical Line

REVISIONS

NAME	DATE
REVISOR	06/23/06
REVISOR	07/13/06

SHEET 2 OF 24

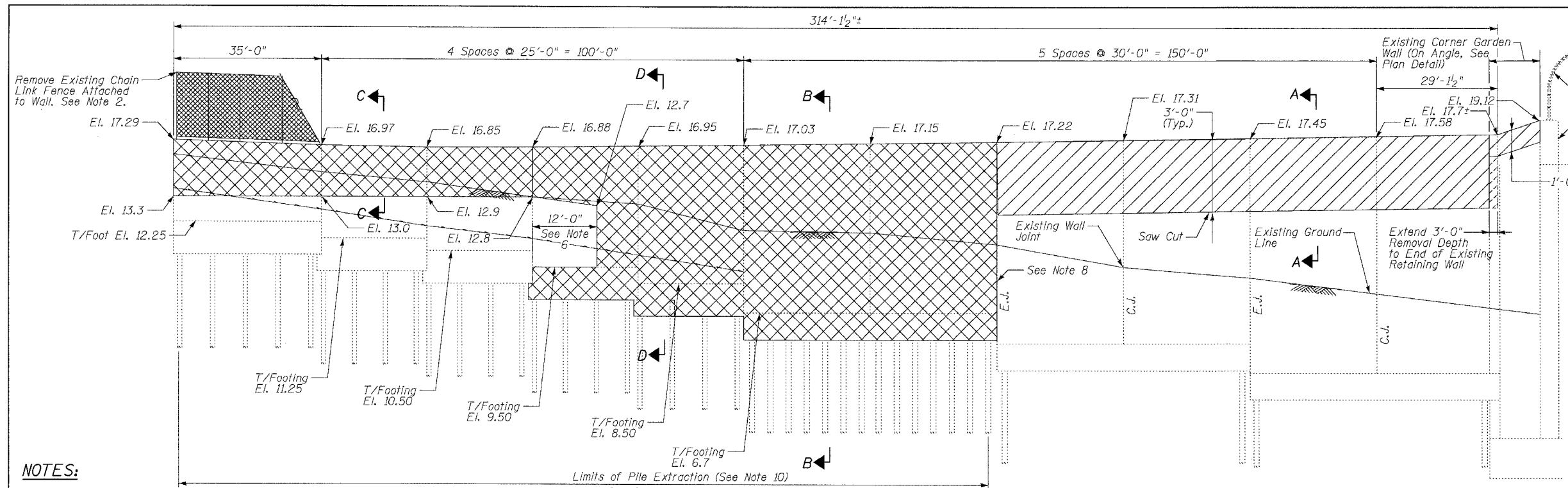
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)
COOK COUNTY
STA. 4529+75.90 TO STA. 4537+30.74
RETAINING WALL N-47N-R
GENERAL PLAN AND ELEVATION 2
S.N. 016-W977

SCALE: NTS
DATE: JUNE 9, 2006
DRAWN BY: MTR
CHECKED BY: BLU

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F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90		COOK	565	375
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62301	*(2021-922 PT2 ETC 2324.6-1P) R-10			



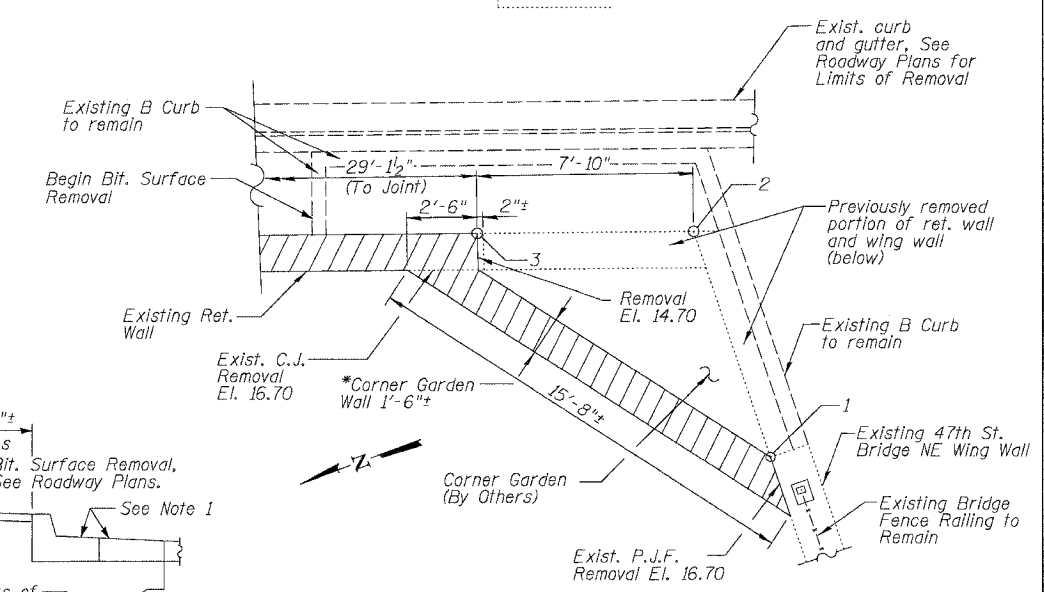
LEGEND

	- Concrete Removal
	- Removal of Existing Structures

NOTES:

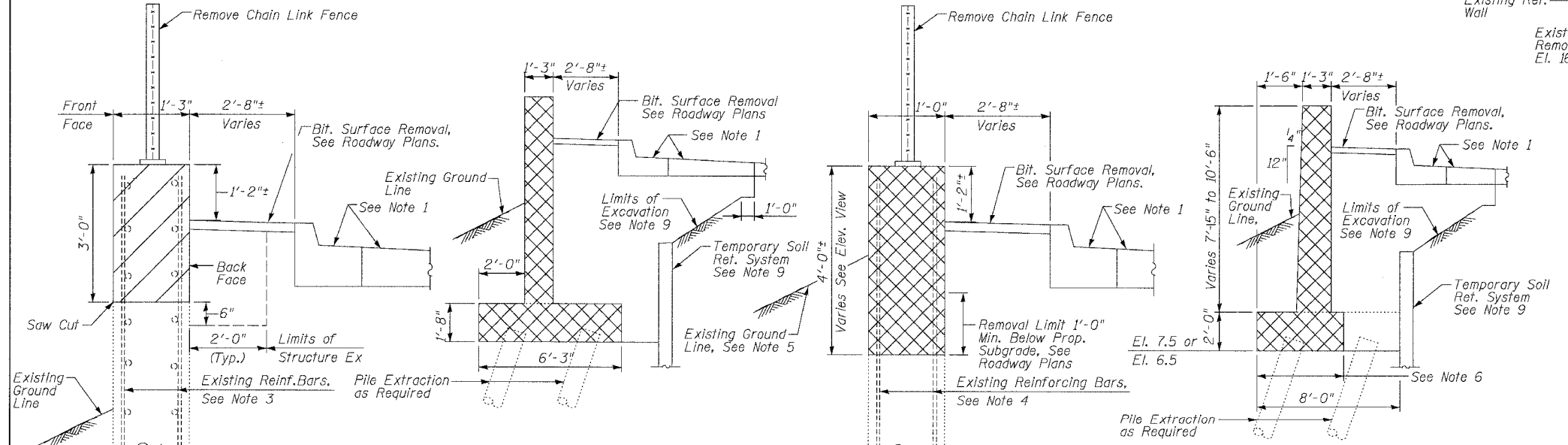
- See Roadway Plans for Curb and Gutter and Pavement Removal and Replacement Limits.
- Cost of Chain Link Fence Removal Included with Removal of Existing Structures or Concrete Removal as appropriate.
- Existing vertical reinforcement bars shall be cleaned, straightened, and incorporated into new construction. Horizontal reinforcement bars shall be removed. Cost included with "Concrete Removal."
- Existing vertical reinforcement can be cut-off at removal line.
- See Roadway Plans for payment of excavations, not included in structure excavation.
- Contractor only has to remove portion of existing stem and footing in conflict with proposed wall and pavement construction.
- No structure excavation paid over limits of Removal of Existing Structure.
- Contractor shall maintain existing wall underdrain to remain and cap end as necessary.
- See Sheet 8 for Temporary Soil Retention Details.
- Where existing stem and footing are not to be entirely removed, Contractor must still sufficiently remove piles marked for extraction.

FRONT FACE ELEVATION - EXIST. RETAINING WALL



PLAN DETAIL - CORNER GARDEN

See Offset Sketch for Point Designations on Sheet 8
 *Remove any fencing attached to Wall, cost included with Concrete Removal.



SECTION A-A
(Looking North)

SECTION B-B
(Looking North)

SECTION C-C
(Looking North)

SECTION D-D
(Looking North)

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REVISIONS	NAME	DATE

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 GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)
 COOK COUNTY
 STA. 4529+75.90 TO STA. 4537+30.74
 RETAINING WALL N-47N-R
 REMOVAL PLAN & DETAILS
 S.N. 016-W977

SCALE: NTS
 DATE: JUNE 9, 2006

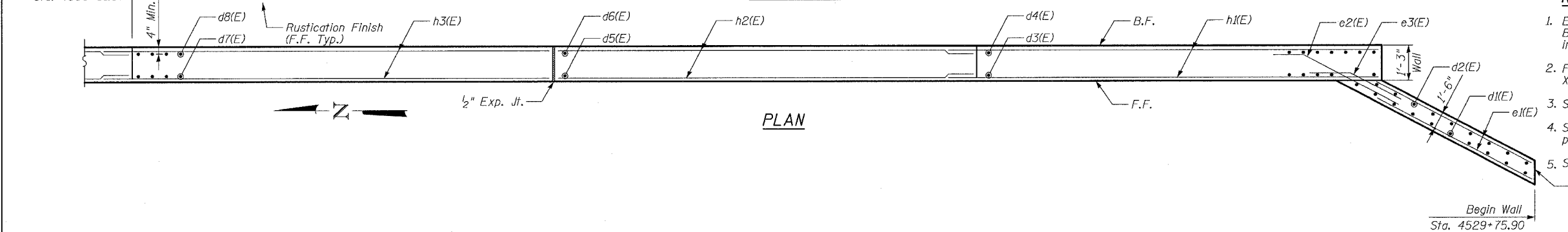
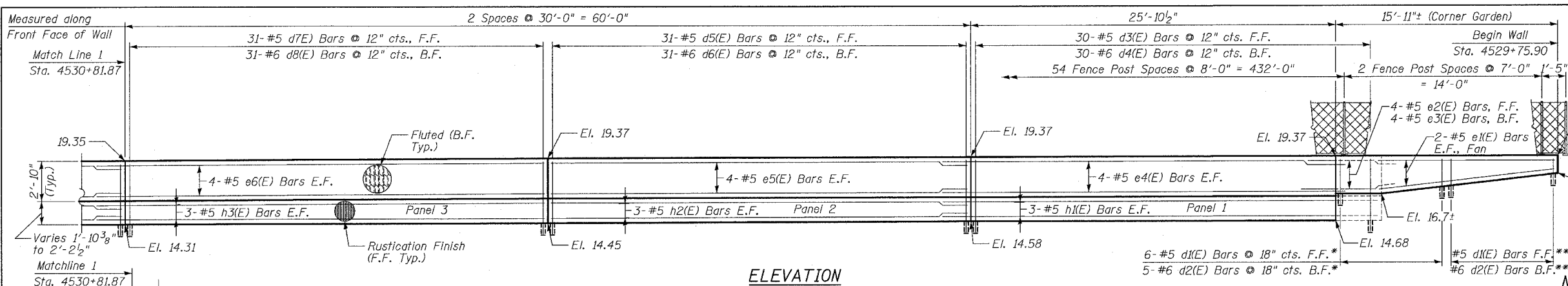
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BILL OF MATERIAL

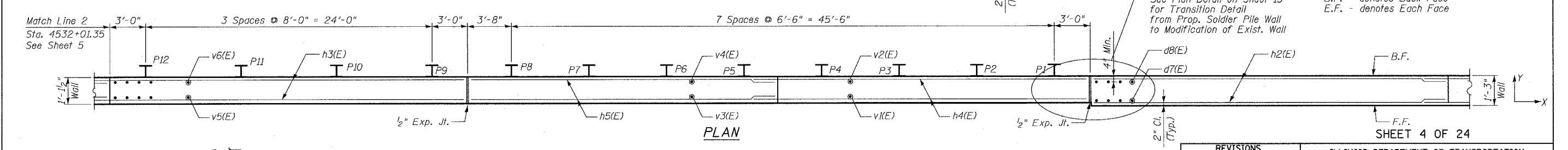
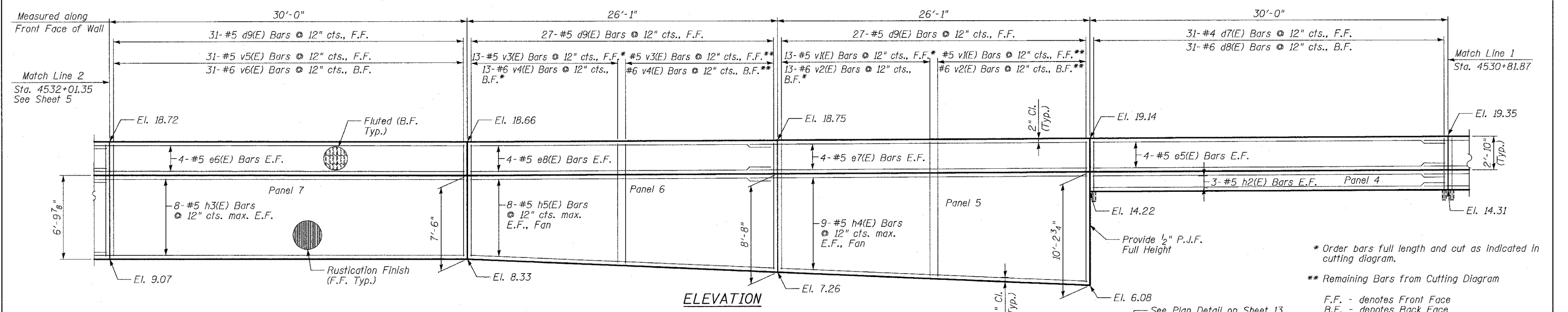
Item	Unit	Quantity
Removal of Existing Structures	Each	1
Concrete Removal	Cu. Yd.	18
Structure Excavation	Cu. Yd.	195
Pile Extraction	Each	20

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F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90		COOK	565	376
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
62301 • (2021-922 PT2 ETC 2324.6-1P) R-10				



- NOTES:**
1. Epoxy grout #6 d2(E), d4(E), d6(E) & d8(E) Bars in drilled holes with a min. depth of 9" in accordance with Art. 584 of the Std. Specs.
 2. Facing in Plan Views is scaled 1:2 on an X:Y scale to show reinforcement.
 3. See details for reinforcing bar clearances.
 4. See Sheet 13 for relationship between proposed and existing piles.
 5. Stationing is @ Northbound Local Lanes.
- Provide 1/2" P.J.F. against Exist. Bridge Wing Wall



- * Order bars full length and cut as indicated in cutting diagram.
- ** Remaining Bars from Cutting Diagram
- F.F. - denotes Front Face
B.F. - denotes Back Face
E.F. - denotes Each Face

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MIN BAR LAP
#5 - 2'-2"
#6 - 2'-7"

REVISIONS	
NAME	DATE
REVISOR	07/13/06

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)
COOK COUNTY
STA. 4529+75.90 TO STA. 4537+30.74
RETAINING WALL N-47N-R
WALL DETAILS 1
S.N. 016-W977

SCALE: NTS
DATE: JUNE 9, 2006

DRAWN BY: MTR
CHECKED BY: BLU

4-46523 PW 7/17/2006

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90		COOK	565	377
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
62301 *12021-922 PT2 ETC 2324.6-1P1 R-10				

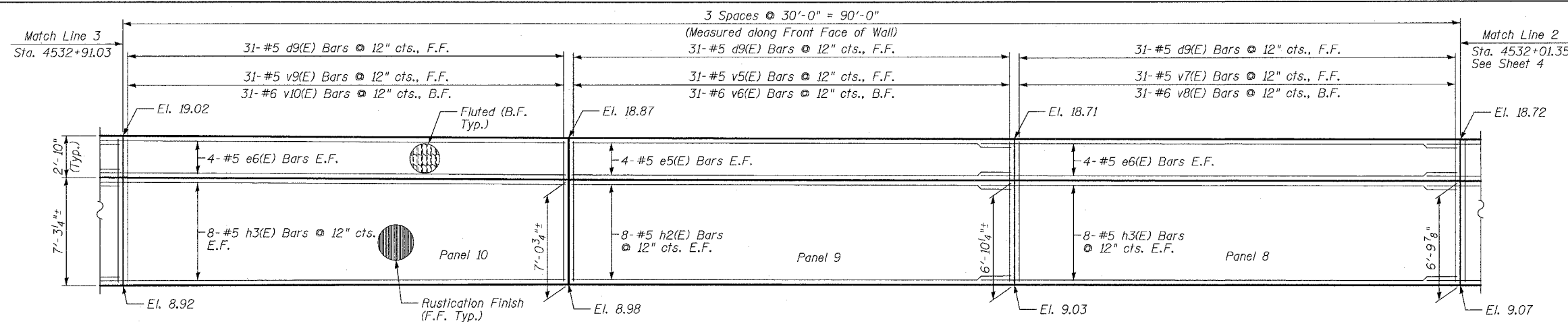
NOTES:

1. Facing in Plan Views is scaled 1:2 on an X:Y scale to show reinforcement.
2. See details for reinforcing bar clearances.
3. See Sheet 13 for relationship between proposed and existing piles.
4. Stationing is @ Northbound Local Lanes.

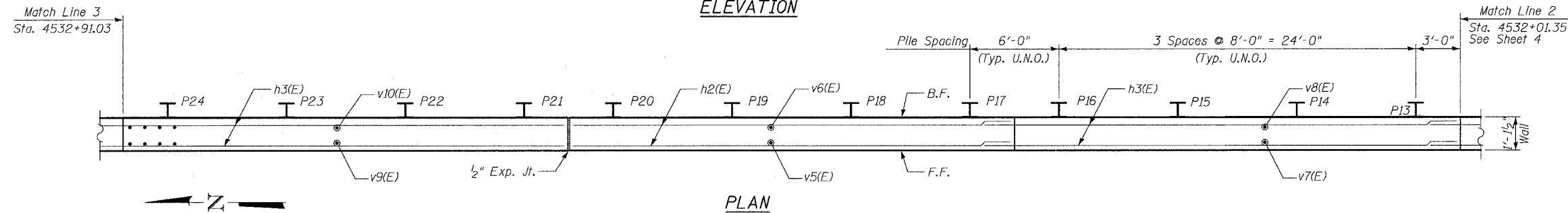
F.F. - denotes Front Face
 B.F. - denotes Back Face
 E.F. - denotes Each Face

MIN BAR LAP

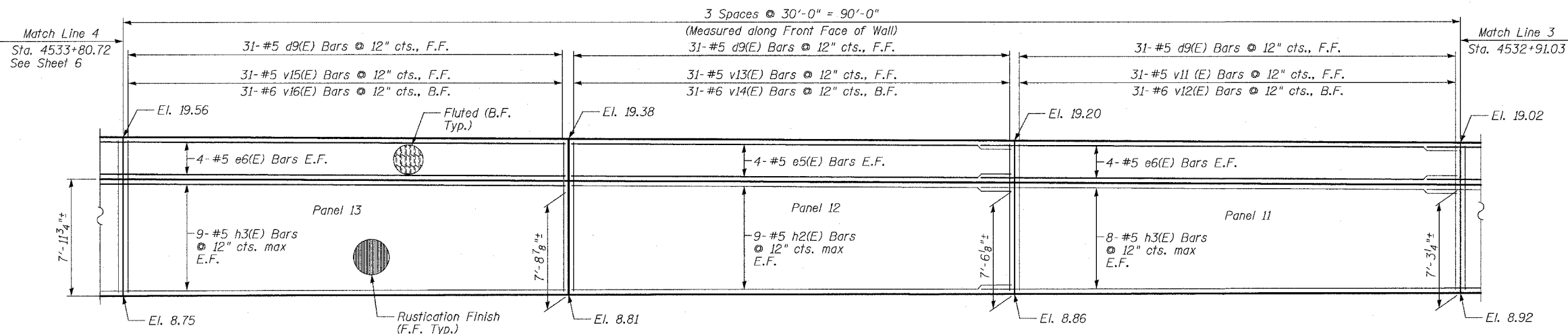
#5 - 2'-2"
 #6 - 2'-7"



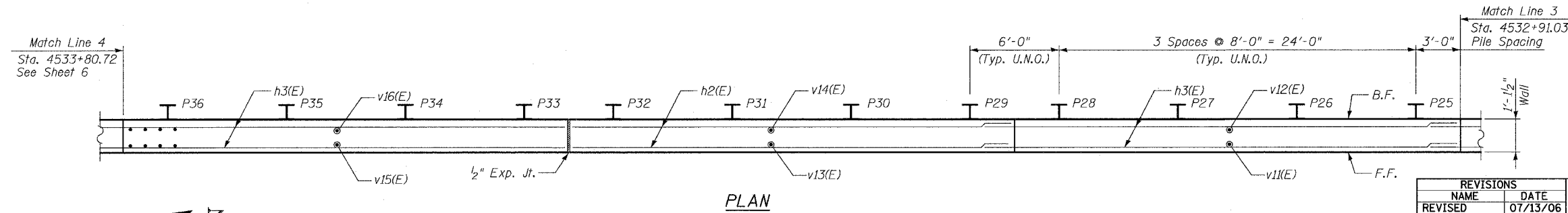
ELEVATION



PLAN



ELEVATION



PLAN

SHEET 5 OF 24

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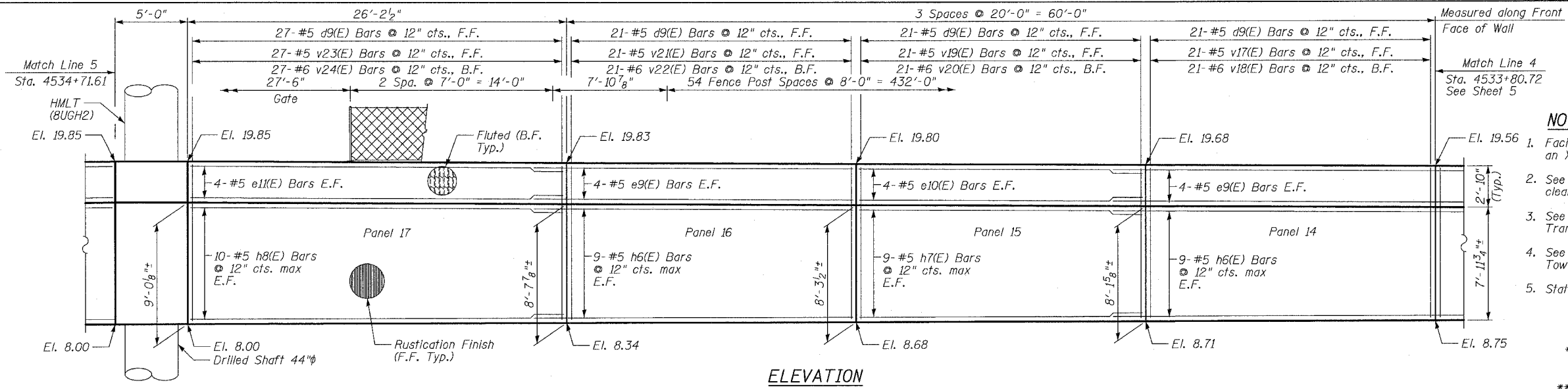
REVISIONS	
NAME	DATE
REVISED	07/13/06

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)
 COOK COUNTY
 STA. 4529+75.90 TO STA. 4537+30.74
 RETAINING WALL N-47N-R
 WALL DETAILS 2
 S.N. 016-W977

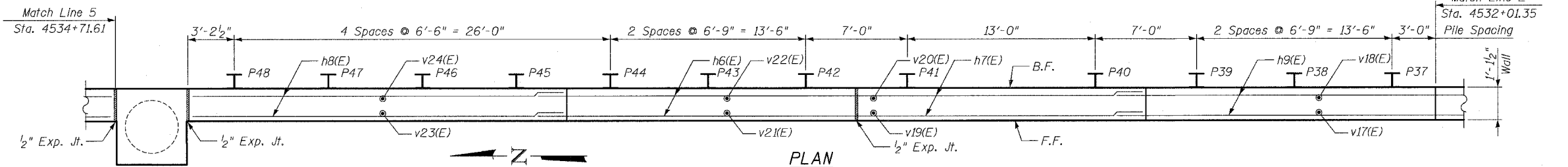
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 CHECKED BY: BLU

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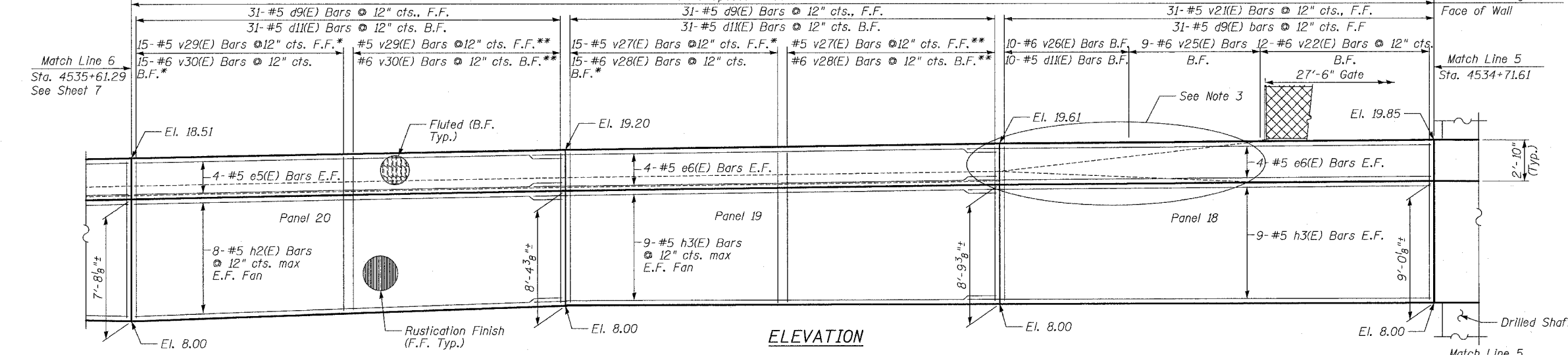
F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90		COOK	565	378
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62301	*12021-922	PT2 ETC 2324.6-1P1	R-10	



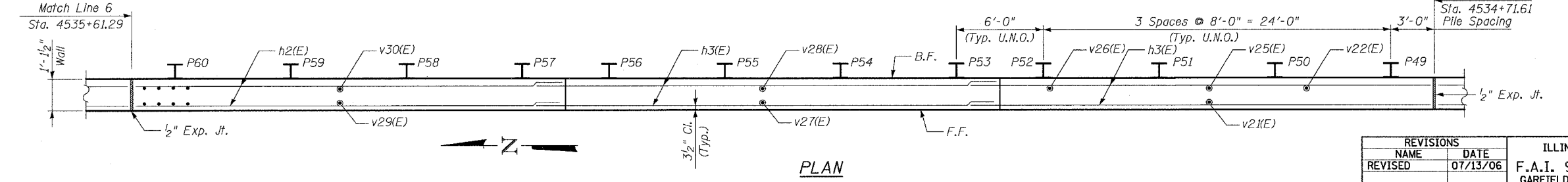
ELEVATION



PLAN



ELEVATION



PLAN

- NOTES:**
1. Facing in Plan Views is scaled 1:2 on an X:Y scale to show reinforcement.
 2. See details for reinforcing bar clearances.
 3. See Sheet 15 for Parapet Reinforcing Transition Detail.
 4. See Sheets 10 & 11 for High Mast Light Tower Details.
 5. Stationing is @ Northbound Local Lanes

* Order bars full length and cut as indicated in cutting diagram.
 ** Remaining Bars from Cutting Diagram

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

MIN BAR LAP
 #5 - 2'-2"
 #6 - 2'-7"

SHEET 6 OF 24

REVISIONS	
NAME	DATE
REVISED	07/13/06

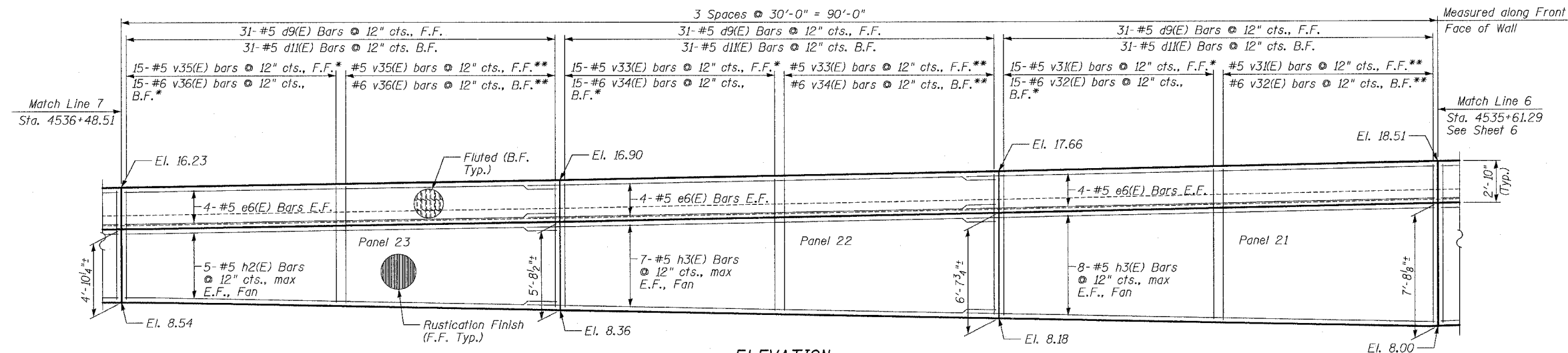
ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)
 COOK COUNTY
 STA. 4529+75.90 TO STA. 4537+30.74
 RETAINING WALL N-47N-R
 S.N. 016-W977

SCALE: NTS
 DATE: JUNE 9, 2006
 DRAWN BY: MTR
 CHECKED BY: BLU

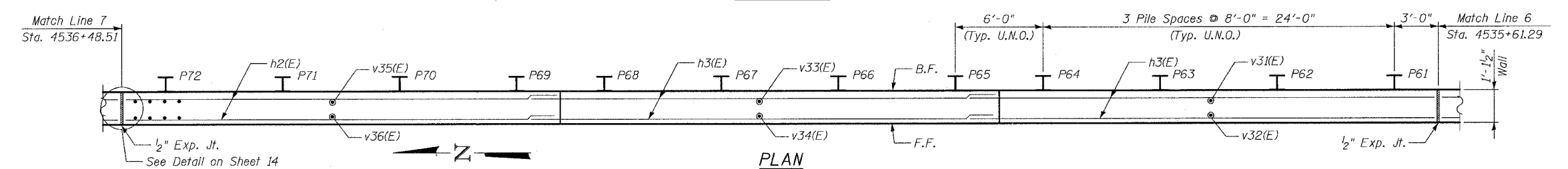
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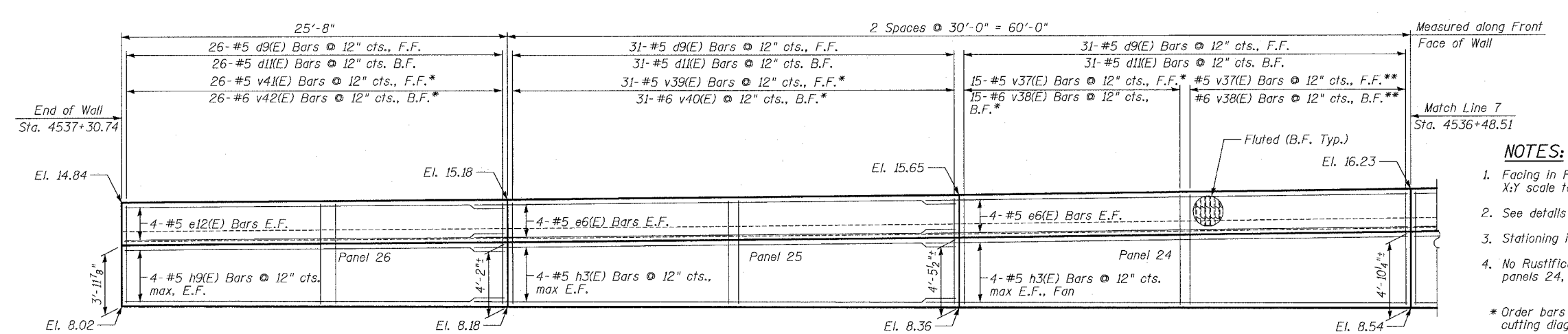
F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90		COOK	565	379
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62301	*I2021-922 PT2 ETC 2324.6-1P1 R-10			



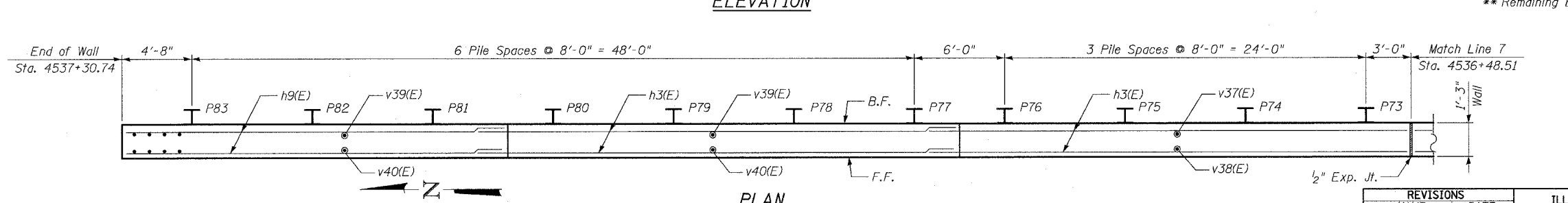
ELEVATION



PLAN



ELEVATION



PLAN

NOTES:

1. Facing in Plan Views is scaled 1:2 on an X:Y scale to show reinforcement.
 2. See details for reinforcing bar clearances.
 3. Stationing is Northbound Local Lanes
 4. No Rustication Finish on Front Face of panels 24, 25, & 26.
- * Order bars full length and cut as indicated in cutting diagram.
 ** Remaining Bars from Cutting Diagram

MIN BAR LAP
 #5 - 2'-2"
 #6 - 2'-7"

SHEET 7 OF 24

BOWMAN, BARRETT & ASSOCIATES INC.
 CONSULTING ENGINEERS
 Chicago, Illinois 312.228.0100
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REVISIONS	
NAME	DATE
REVISED	07/13/06

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)
 COOK COUNTY
 STA. 4529+75.90 TO STA. 4537+30.74
 RETAINING WALL N-47N-R
 WALL DETAILS 4
 S.N. 016-W977

SCALE: NTS
 DATE: JUNE 9, 2006
 DRAWN BY: MTR
 CHECKED BY: BLU

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F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	*	COOK	565	380
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
62301		*(2021-922 PT2 ETC 2324.6-1P) R-10		

PILE LAYOUT

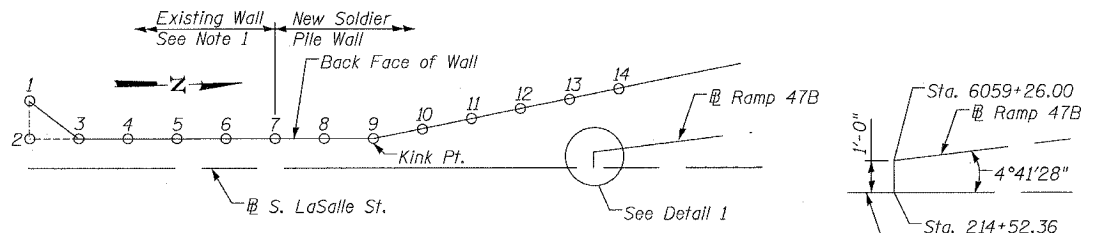
Pile	Offset (Ft.)	Top of Wall El.	Top of Pile Elevation	Bott. of Facing Elevation	Section	Pile Tip Elevation	Pile Length (Ft.)
P-1	88.47	16.26	15.26	6.32	W24x68	-12.35	27.61
P-2	88.80	16.16	15.16	6.52	W24x68	-12.35	27.51
P-3	89.13	16.07	15.07	6.71	W24x68	-12.35	27.41
P-4	89.46	15.97	14.97	6.91	W24x68	-12.35	27.31
P-5	89.74	15.90	14.90	7.48	W24x68	-11.17	26.07
P-6	89.95	15.88	14.88	7.65	W24x68	-11.17	26.05
P-7	90.16	15.86	14.86	7.83	W24x68	-11.17	26.03
P-8	90.37	15.84	14.84	8.01	W24x68	-11.17	26.01
P-9	90.30	15.84	14.84	8.48	W24x76	-11.10	25.94
P-10	89.77	15.85	14.85	8.60	W24x76	-11.10	25.95
P-11	89.24	15.87	14.87	8.72	W24x76	-11.10	25.97
P-12	88.71	15.88	14.88	8.85	W24x76	-11.10	25.99
P-13	88.22	15.89	14.89	9.06	W24x68	-10.16	25.04
P-14	87.56	15.89	14.89	9.06	W24x68	-10.16	25.04
P-15	86.90	15.88	14.88	9.05	W24x68	-10.16	25.04
P-16	86.23	15.88	14.88	9.04	W24x68	-10.16	25.04
P-17	85.73	15.89	14.89	9.02	W24x68	-10.21	25.11
P-18	85.06	15.94	14.94	9.01	W24x68	-10.21	25.15
P-19	84.39	15.98	14.98	9.00	W24x68	-10.21	25.19
P-20	83.72	16.02	15.02	8.99	W24x68	-10.21	25.23
P-21	83.21	16.05	15.05	8.97	W24x68	-10.27	25.32
P-22	82.54	16.09	15.09	8.96	W24x68	-10.27	25.36
P-23	81.87	16.13	15.13	8.95	W24x68	-10.27	25.40
P-24	81.20	16.17	15.17	8.94	W24x68	-10.27	25.44
P-25	80.69	16.20	15.20	8.91	W24x68	-10.23	25.43
P-26	80.02	16.25	15.25	8.90	W24x68	-10.23	25.48
P-27	79.35	16.30	15.30	8.89	W24x68	-10.23	25.53
P-28	78.68	16.35	15.35	8.88	W24x68	-10.23	25.58
P-29	-20.51	16.38	15.38	8.85	W24x68	-10.34	25.73
P-30	-20.51	16.43	15.43	8.84	W24x68	-10.34	25.77
P-31	-20.51	16.48	15.48	8.83	W24x68	-10.34	25.82
P-32	-20.51	16.53	15.53	8.82	W24x68	-10.34	25.87
P-33	-20.51	16.57	15.57	8.80	W24x68	-10.40	25.96
P-34	-20.51	16.61	15.61	8.79	W24x68	-10.40	26.01
P-35	-20.51	16.66	15.66	8.78	W24x68	-10.40	26.06
P-36	-20.51	16.71	15.71	8.77	W24x68	-10.40	26.11
P-37	-20.51	16.75	15.75	8.74	W24x68	-12.59	28.33
P-38	-20.51	16.79	15.79	8.73	W24x68	-12.59	28.37
P-39	-20.51	16.83	15.83	8.72	W24x68	-12.59	28.41
P-40	-20.36	16.87	15.87	8.70	W27x114	-16.35	32.22
P-41	-20.36	16.95	15.95	8.69	W27x114	-16.35	32.30
P-42	-20.51	16.99	15.99	8.67	W24x68	-12.66	28.65
P-43	-20.51	17.03	16.03	8.66	W24x68	-12.66	28.69
P-44	-20.51	17.07	16.07	8.65	W24x68	-12.66	28.73
P-45	-20.51	17.08	16.08	8.63	W24x68	-12.71	28.79
P-46	-20.51	17.06	16.06	8.62	W24x68	-12.71	28.77
P-47	-20.51	17.04	16.04	8.61	W24x68	-12.71	28.75
P-48	-20.51	17.02	16.02	8.60	W24x68	-12.71	28.73
P-49	-20.50	16.97	15.97	8.57	W24x76	-13.48	29.45
P-50	-20.50	16.91	15.91	8.56	W24x76	-13.48	29.39
P-51	-20.50	16.86	15.86	8.55	W24x76	-13.48	29.33
P-52	-20.50	16.80	15.80	8.54	W24x76	-13.48	29.28
P-53	-20.50	16.74	15.74	8.51	W24x76	-13.53	29.27
P-54	-20.50	16.63	15.63	8.50	W24x76	-13.53	29.16
P-55	-20.50	16.52	15.52	8.49	W24x76	-13.53	29.05
P-56	-20.50	16.41	15.41	8.48	W24x76	-13.53	28.94
P-57	-20.51	16.30	15.30	8.46	W24x68	-11.38	26.68
P-58	-20.51	16.11	15.11	8.45	W24x68	-11.38	26.49
P-59	-20.51	15.93	14.93	8.44	W24x68	-11.38	26.31
P-60	-20.51	15.74	14.74	8.43	W24x68	-11.38	26.12

PILE LAYOUT

Pile	Offset (Ft.)	Top of Wall El.	Top of Pile Elevation	Bott. of Facing Elevation	Section	Pile Tip Elevation	Pile Length (Ft.)
P-61	-20.51	15.59	14.59	8.41	W24x68	-11.40	25.99
P-62	-20.51	15.36	14.36	8.40	W24x68	-11.40	25.76
P-63	-20.51	15.13	14.13	8.40	W24x68	-11.40	25.53
P-64	-20.51	14.90	13.90	8.40	W24x68	-11.40	25.30
P-65	-20.51	14.75	13.75	8.41	W24x68	-11.40	25.15
P-66	-20.51	14.55	13.55	8.42	W24x68	-11.40	24.95
P-67	-20.51	14.35	13.35	8.43	W24x68	-11.40	24.74
P-68	-20.51	14.14	13.14	8.45	W24x68	-11.40	24.54
P-69	-20.51	14.00	13.00	8.62	W24x68	-10.86	23.86
P-70	-20.51	13.82	12.82	8.74	W24x68	-10.86	23.68
P-71	-20.51	13.64	12.64	8.87	W24x68	-10.86	23.50
P-72	-20.51	13.46	12.46	9.00	W24x68	-10.86	23.32
P-73	-20.51	13.34	12.34	9.13	W24x68	-10.11	22.45
P-74	-20.51	13.18	12.18	9.06	W24x68	-10.11	22.29
P-75	-20.51	13.03	12.03	8.98	W24x68	-10.11	22.14
P-76	-20.51	12.88	11.88	8.91	W24x68	-10.11	21.99
P-77	-20.51	12.77	11.77	8.67	W24x68	-9.42	21.19
P-78	-20.51	12.65	11.65	8.59	W24x68	-9.42	21.07
P-79	-20.51	12.52	11.52	8.51	W24x68	-9.42	20.94
P-80	-20.51	12.40	11.40	8.43	W24x68	-9.42	20.82
P-81	-20.51	12.28	11.28	8.21	W24x68	-8.98	20.26
P-82	-20.51	12.14	11.14	8.15	W24x68	-8.98	20.12
P-83	-20.51	12.02	11.02	8.08	W24x68	-8.98	19.99

OFFSET TABLE

PT.	Station	Offset
1	211+27.35	17.12
2	211+29.26	10.51
3	211+37.31	10.00
4	211+65.75	10.18
5	211+95.23	10.33
6	212+24.71	10.48
7	212+54.39	10.58
8	212+80.55	10.63
9	213+06.61	10.68
10	213+36.55	13.14
11	213+66.46	15.59
12	213+96.35	18.05
13	214+26.25	20.50
14	214+56.15	22.95



OFFSET SKETCH

Points Shown are Wall Joints. Build Wall Parallel to Ramp 47B @ & at Constant Offset Beyond Pt. 14 U.N.O.

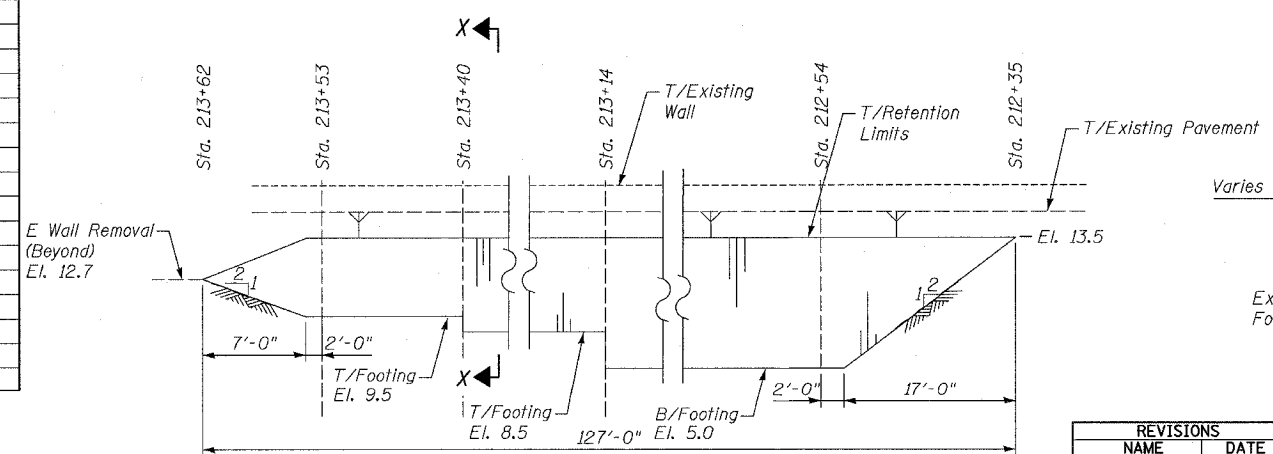
- 1. Utilize Back Face of existing wall as W.P. for top modification.

DETAIL 1



NOTES

- 1. All piles have drilled shaft dia = 3'-0".



SECTION X-X

SHEET 8 OF 24

BILL OF MATERIAL

Item	Unit	Quantity
Furnishing Soldier Piles (W Sections)	Foot	2,150
Drilling and Setting Soldier Piles (In Soil)	Cu. Ft.	12,973

TEMPORARY SOIL RETENTION SYSTEM

A cantilevered sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The Contractor shall submit a temporary soil retention system design including plan details and calculations for review and acceptance by the Engineer.

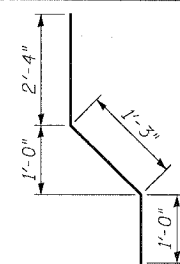
REVISIONS	
NAME	DATE
REVISD	6/15/06
REVISD	07/13/06

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)
 COOK COUNTY
 STA. 4529+75.90 TO STA. 4537+30.74
RETAINING WALL N-47N-R
PILE LAYOUT & TEMP. SOIL RET. SYSTEM
 S.N. 016-W977
 SCALE: NTS
 DATE: JUNE 9, 2006
 DRAWN BY: MTR
 CHECKED BY: BLU

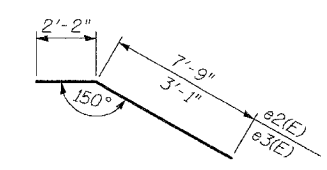
BOWMAN, BARRETT & ASSOCIATES INC.
 CONSULTING ENGINEERS
 Chicago, Illinois
 312.228.0100
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450-43 PM 7/13/2006

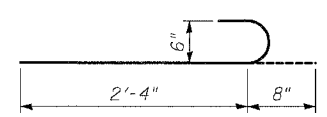
BILL OF MATERIAL



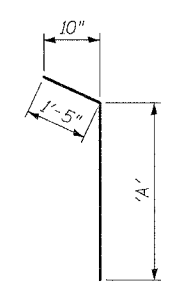
BAR d9(E)



BARS e2(E) & e3(E)

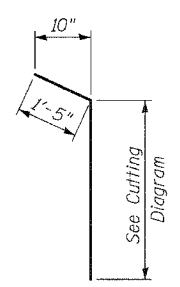


BAR d11(E)



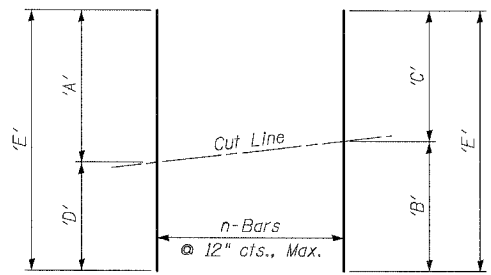
BARS v26, v40(E) & v42(E)

Bar	'A'
v26(E)	8'-3"
v40(E)	2'-10"
v42(E)	2'-8"



** BARS v28(E), v30(E), v32(E), v34(E), v36(E) & v38(E)

** Cut bars v28(E), v30(E), v32(E), v34(E), v36(E), & v38(E) according to Cutting Diagram, then bend according to Bar Bend Detail.



* BAR CUTTING DIAGRAM

* Order bars d1(E), d2(E), v1(E) thru v4(E) and v27(E), v29(E), v31(E), v33(E), v35(E) and v37(E) full length, cut as shown and use remainder where indicated.

TABLE OF DIMENSIONS

Bar	'A'	'B'	'C'	'D'	'E'	n
d1(E)	2'-4"	1'-8"	1'-7"	11"	3'-3"	6
d2(E)	3'-4"	2'-8"	2'-6"	1'-10"	5'-2"	5
v1(E)	9'-5"	8'-8"	8'-7"	7'-10"	17'-3"	13
v2(E)	12'-3"	11'-6"	11'-5"	10'-8"	22'-11"	13
v3(E)	7'-10"	7'-3"	7'-3"	6'-8"	14'-6"	13
v4(E)	10'-8"	10'-1"	10'-1"	9'-6"	20'-2"	13
v27(E)	7'-11"	7'-9"	7'-9"	7'-7"	15'-6"	15
v28(E)	9'-8"	9'-6"	9'-6"	9'-4"	19'-0"	15
v29(E)	7'-7"	7'-3"	7'-3"	6'-11"	14'-6"	15
v30(E)	9'-4"	9'-0"	9'-0"	8'-8"	18'-0"	15
v31(E)	6'-11"	6'-6"	6'-6"	6'-1"	13'-0"	15
v32(E)	8'-8"	8'-3"	8'-3"	7'-10"	16'-6"	15
v33(E)	6'-1"	5'-8"	5'-8"	5'-3"	11'-4"	15
v34(E)	7'-10"	7'-5"	7'-5"	7'-0"	14'-10"	15
v35(E)	5'-3"	4'-7"	4'-6"	3'-10"	9'-1"	15
v36(E)	7'-0"	6'-4"	6'-3"	5'-7"	12'-7"	15
v37(E)	3'-10"	3'-3"	3'-2"	2'-7"	6'-5"	15
v38(E)	5'-7"	5'-0"	4'-11"	4'-4"	9'-11"	15

Bar	No.	Size	Length	Shape
d1(E)	6	#5	3'-3"	---
d2(E)	5	#6	5'-2"	---
d3(E)	30	#5	4'-5"	---
d4(E)	30	#6	5'-4"	---
d5(E)	31	#5	4'-6"	---
d6(E)	31	#6	5'-5"	---
d7(E)	62	#5	4'-7"	---
d8(E)	62	#6	5'-6"	---
d9(E)	635	#5	4'-7"	---
d10(E)	9	#6	5'-5"	---
d11(E)	253	#6	3'-0"	---
e1(E)	4	#5	11'-6"	---
e2(E)	4	#5	9'-11"	---
e3(E)	4	#5	5'-3"	---
e4(E)	8	#5	31'-4"	---
e5(E)	48	#5	29'-8"	---
e6(E)	96	#5	32'-2"	---
e7(E)	8	#5	28'-3"	---
e8(E)	8	#5	25'-9"	---
e9(E)	16	#5	22'-2"	---
e10(E)	8	#5	19'-8"	---
e11(E)	8	#5	25'-10"	---
e12(E)	8	#5	25'-4"	---
h1(E)	6	#5	28'-1"	---
h2(E)	72	#5	29'-8"	---
h3(E)	170	#5	32'-2"	---
h4(E)	18	#5	28'-3"	---
h5(E)	16	#5	25'-9"	---
h6(E)	36	#5	22'-2"	---
h7(E)	18	#5	19'-8"	---
h8(E)	20	#5	25'-10"	---
h9(E)	6	#5	25'-4"	---
v1(E)	13	#5	17'-3"	---
v2(E)	13	#6	22'-11"	---
v3(E)	13	#5	14'-6"	---
v4(E)	13	#6	20'-2"	---
v5(E)	62	#5	6'-7"	---
v6(E)	62	#6	9'-5"	---
v7(E)	31	#5	6'-6"	---
v8(E)	31	#6	9'-4"	---
v9(E)	31	#5	6'-10"	---
v10(E)	31	#6	9'-8"	---
v11(E)	31	#5	7'-0"	---
v12(E)	31	#6	9'-10"	---
v13(E)	31	#5	7'-3"	---
v14(E)	31	#6	10'-1"	---
v15(E)	31	#5	7'-6"	---
v16(E)	31	#6	10'-4"	---
v17(E)	21	#5	7'-8"	---
v18(E)	21	#6	10'-6"	---

Bar	No.	Size	Length	Shape
v19(E)	21	#5	7'-10"	---
v20(E)	21	#6	10'-8"	---
v21(E)	52	#5	8'-0"	---
v22(E)	33	#6	10'-10"	---
v23(E)	27	#5	8'-1"	---
v24(E)	27	#6	10'-11"	---
v25(E)	9	#5	8'-0"	---
v26(E)	10	#6	9'-8"	---
v27(E)	15	#5	15'-6"	---
v28(E)	15	#6	19'-0"	---
v29(E)	15	#5	14'-6"	---
v30(E)	15	#6	18'-0"	---
v31(E)	15	#5	13'-0"	---
v32(E)	15	#6	16'-6"	---
v33(E)	15	#5	11'-4"	---
v34(E)	15	#6	14'-10"	---
v35(E)	15	#5	9'-1"	---
v36(E)	15	#6	12'-7"	---
v37(E)	15	#5	6'-5"	---
v38(E)	15	#6	9'-11"	---
v39(E)	31	#5	2'-6"	---
v40(E)	31	#6	4'-3"	---
v41(E)	26	#5	2'-4"	---
v42(E)	26	#6	4'-1"	---

Reinforcement Bars, Epoxy Coated	Pound	35,680
Concrete Structures	Cu. Yd.	171.0
Concrete Superstructure	Cu. Yd.	69.1
Chain Link Fence, 42" Attached to Structure (Special)	Foot	470
Chain Link Gate Assembly (Special)	Each	1
Rustication Finish	Sq. Ft.	4,222
Protective Coat	Sq. Yd.	592

REVISIONS	NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)
COOK COUNTY
STA. 4529+75.90 TO STA. 4537+30.74
RETAINING WALL N-47N-R
BILL OF MATERIAL
S.N. 016-W977

SCALE: NTS
DATE: JUNE 9, 2006
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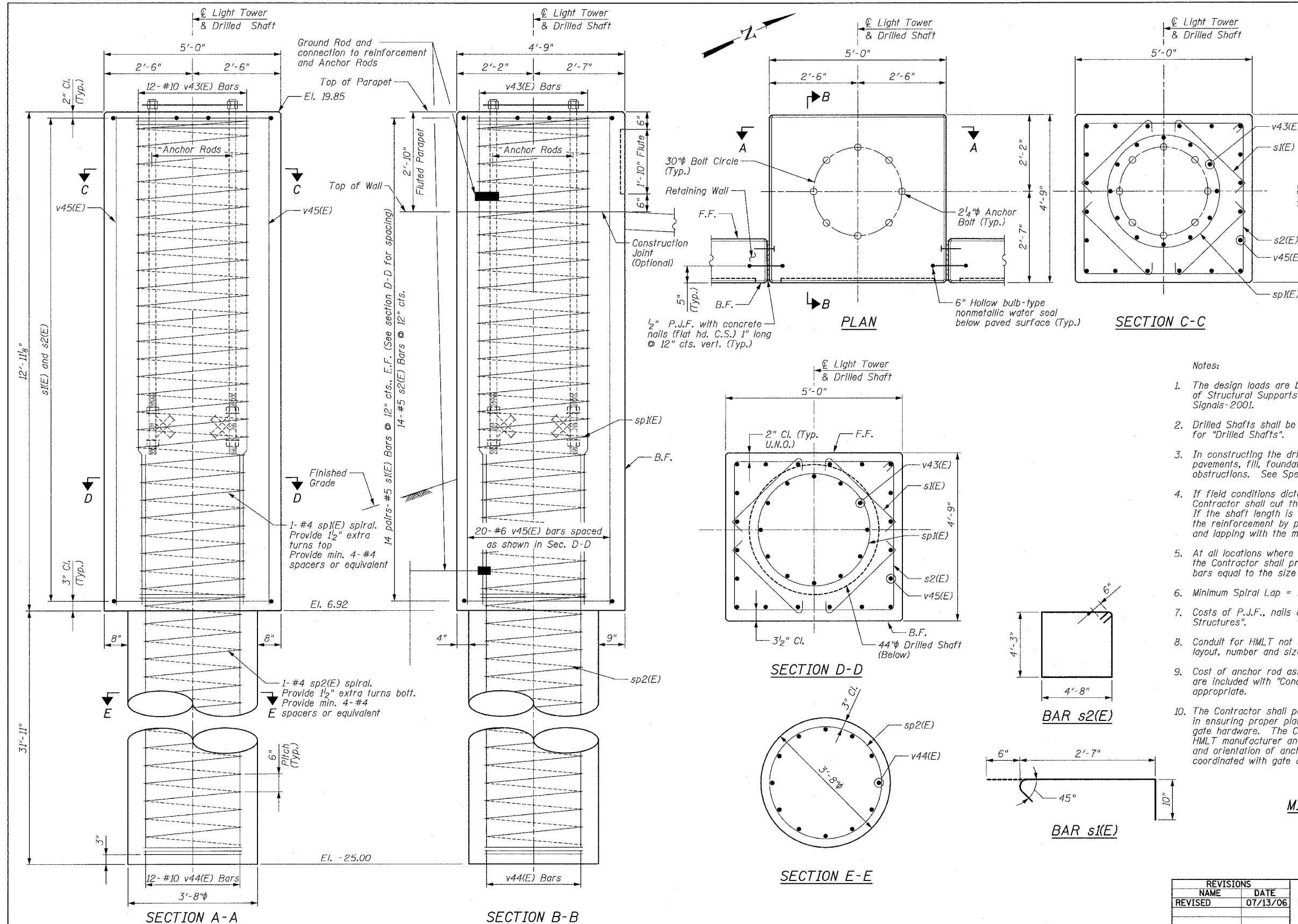
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F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90		COOK	565	382
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62301	*2021-922	PT2 ETC 2324.6-1P	R-10	

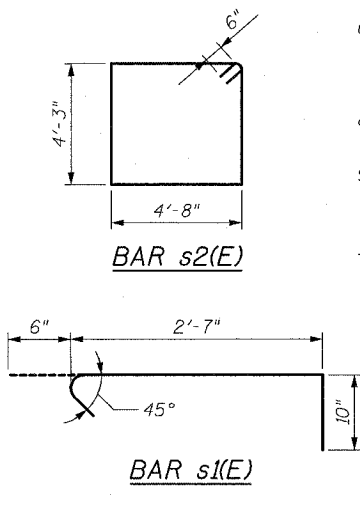
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
s1(E)	56	#5	3'-11"	□
s2(E)	14	#5	18'-10"	□
**sp1(E)	1	#4	12'-6"	W
**sp2(E)	1	#4	33'-0"	W
v43(E)	12	#10	12'-6"	—
v44(E)	12	#10	37'-9"	—
v45(E)	20	#6	12'-6"	—
Reinforcement Bars, Epoxy Coated *			Pound	4,240
Concrete Structures			Cu. Yd.	8.9
Concrete Superstructure			Cu. Yd.	2.5
Drilled Shaft in Soil, 44"			Foot	32

Reinforced Bars designated (E) shall be epoxy coated.
 * Weight Includes 4-#4 spacer bars
 ** Length indicates height of spiral



- Notes:
- The design loads are based on AASHTO Standard Specifications of Structural Supports for Highway Signs, Luminaires and Traffic Signals-2001.
 - Drilled Shafts shall be installed according to IDOT Special Provisions for "Drilled Shafts".
 - In constructing the drilled shafts, the Contractor may encounter pavements, fill, foundations, abandoned utilities, boulders and other obstructions. See Special Provisions for "Drilled Shaft in Soil, 44"
 - If field conditions dictate a shorter shaft length than shown, the Contractor shall cut the reinforcement bars to their required length. If the shaft length is longer than indicated, the Contractor shall extend the reinforcement by providing additional reinforcement of equal size and lapping with the minimum lap length shown.
 - 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.
 - Minimum Spiral Lap = 1/2 turns
 - Costs of P.J.F., nails and waterseal shall be included with "Concrete Structures".
 - Conduit for HMLT not shown for clarity. See Sheet 11 for location, layout, number and size of conduit.
 - Cost of anchor rod assembly, conduit, wires and grounding requirements are included with "Concrete Structures" or "Drilled Shaft in Soil, 44" as appropriate.
 - The Contractor shall pay particular attention to construction tolerances in ensuring proper placement of reinforcement bars, anchor rods and gate hardware. The Contractor shall coordinate with Contract 62733, the HMLT manufacturer and installer, as required, to ensure proper placement and orientation of anchor rods and HMLT. Orientation of HMLT must be coordinated with gate and handhole clearances.



MIN BAR LAP

#4	1'-8"
#5	2'-2"
#6	2'-7"
#10	5'-10"

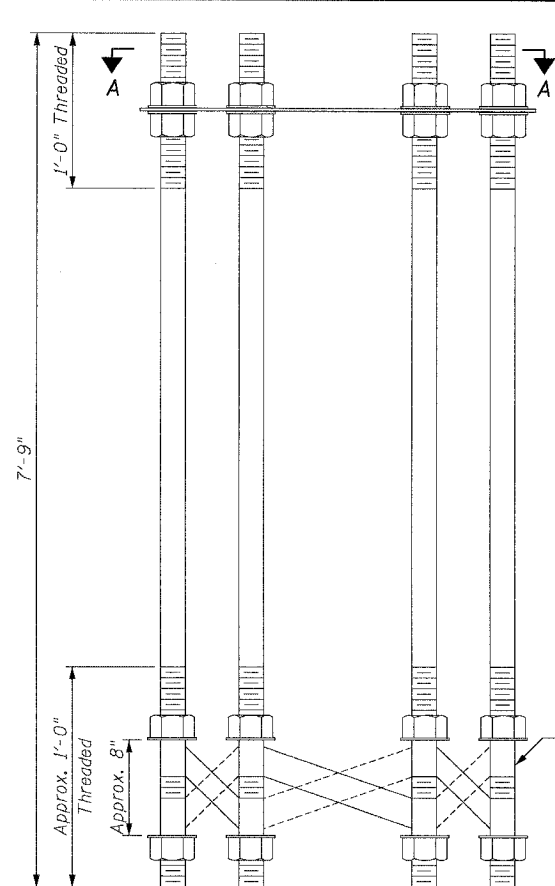
SHEET 10 OF 24

REVISIONS	NAME	DATE
REVIS		07/13/06

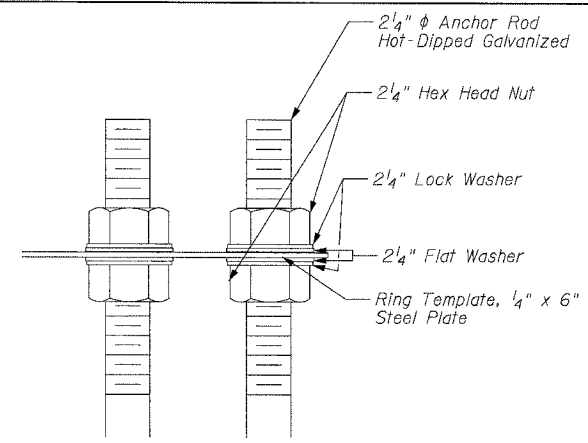
ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)
 COOK COUNTY
 STA. 4529+75.90 TO STA. 4537+30.74
 RETAINING WALL N-47N-R
 LIGHT TOWER FOUNDATION DETAILS
 S.N. 016-W977
 SCALE: NTS
 DATE: JUNE 9, 2006
 DRAWN BY: MTR
 CHECKED BY: BLU

BOWMAN, BARRETT & ASSOCIATES INC.
 CONSULTING ENGINEERS
 Chicago, Illinois
 312.228.0100
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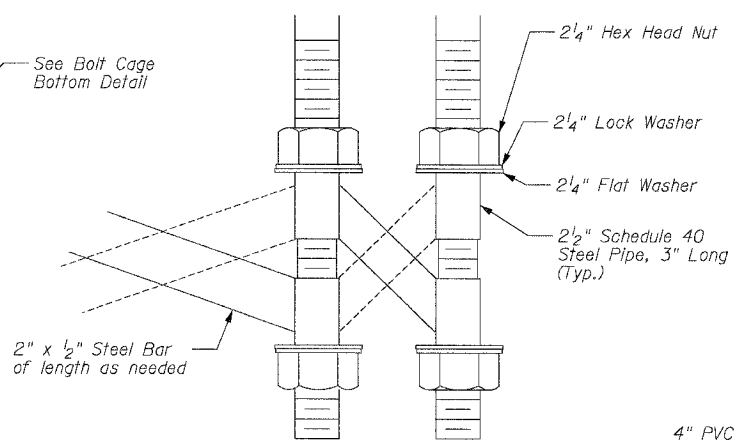
F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	*	COOK	565	383
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
62301 * (2021-922 PT2 ETC 2324.6-1P) R-10				



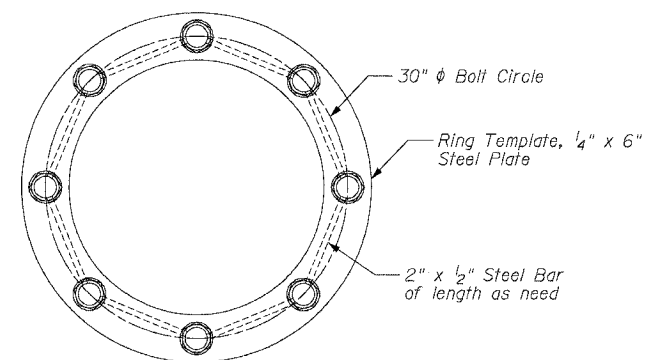
ANCHOR BOLT CAGE



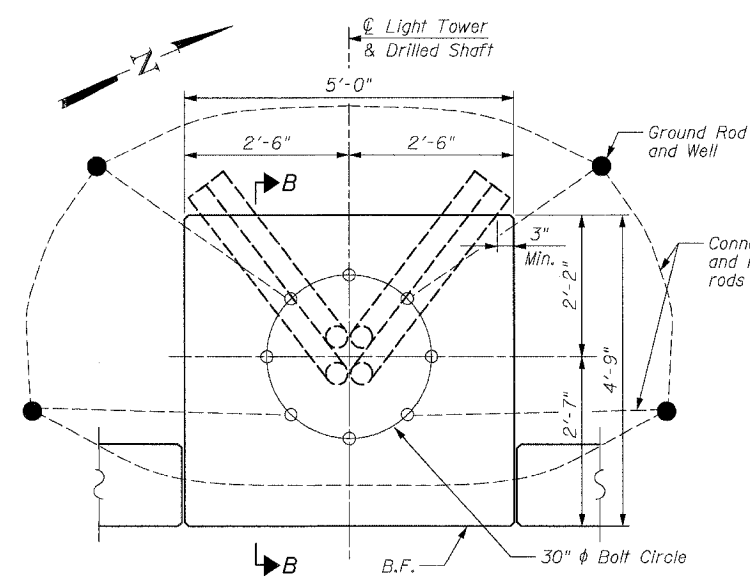
BOLT CAGE TOP



BOLT CAGE BOTTOM

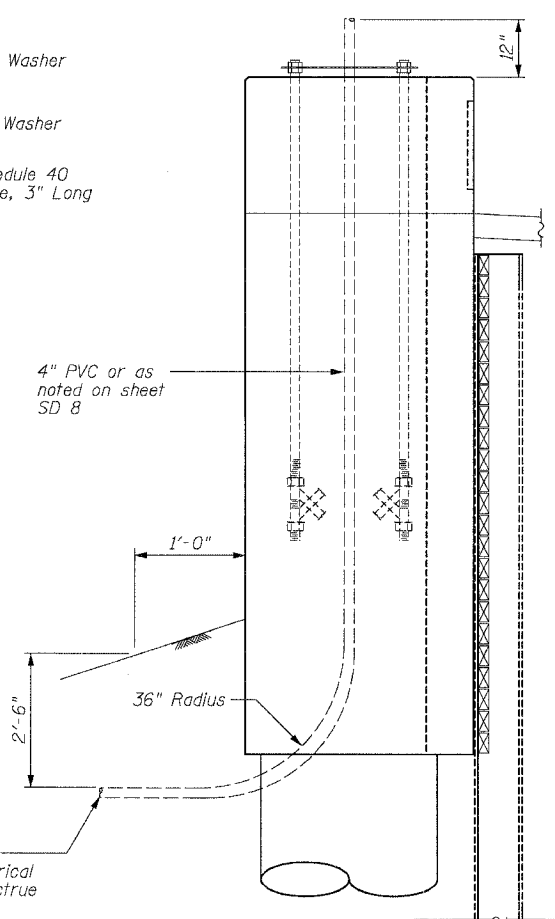


SECTION A-A



PLAN - CONDUIT PLACEMENT

See Note 10



SECTION B-B

- 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.
 - Nuts shall be AASHTO M 291, Class S and washers shall be AASHTO M 293. All nuts and washers shall be hot-dipped galvanized in accordance with AASHTO M 232.
 - Steel Bar and Pipe shall be galvanized in accordance with AASHTO M 111.
 - 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.
 - See BE500 & BE501 for additional details not shown here. Light Towers and Base R by others.
 - Grounding requirements shall be as shown on IDOT standard BE501. Location of ground rods and grounding attachments to reinforcement bars and anchor rods shall be as directed by Engineer. Epoxy coating must be removed from bars prior to exothermic welding. Repair coating after welding in accordance with Article 508.05 of the Standard Specs.

SHEET 11 OF 24

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)
 COOK COUNTY
 STA. 4529+75.90 TO STA. 4537+30.74
RETAINING WALL N-47N-R
LIGHT TOWER DETAILS
 S.N. 016-W977

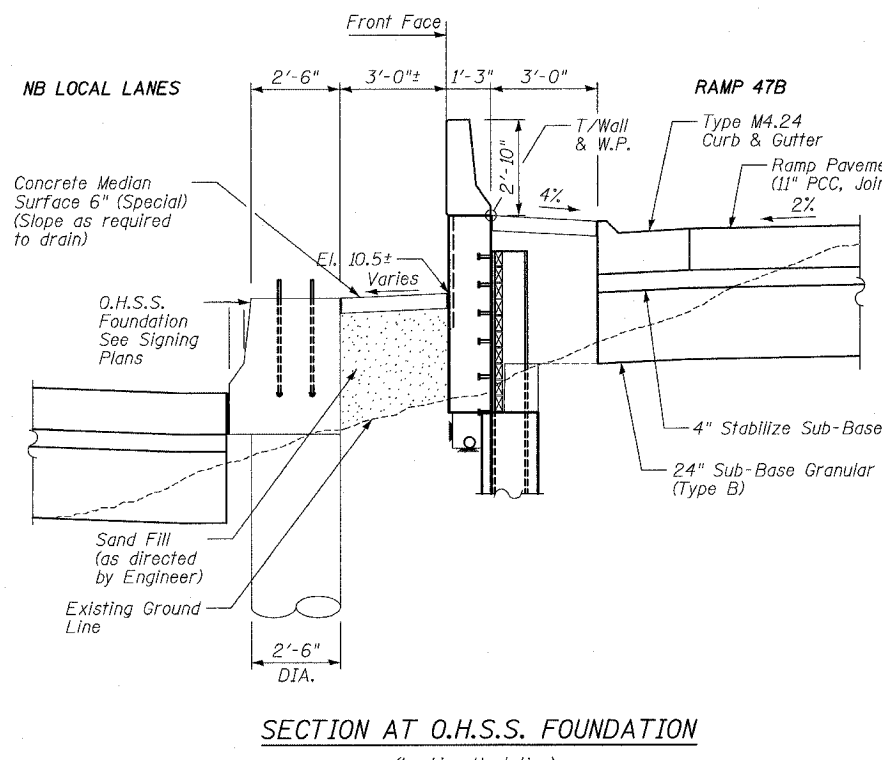
SCALE: NTS
 DATE: JUNE 9, 2006

DRAWN BY: MTR
 CHECKED BY: BLU

BOWMAN, BARRETT & ASSOCIATES INC.
 CONSULTING ENGINEERS
 Chicago, Illinois
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6/7/2006 3:55:44 PM

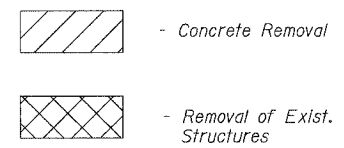
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STA.		TO STA.		
62301		*(2021-922 PT2 ETC 2324.6-1P) R-10		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



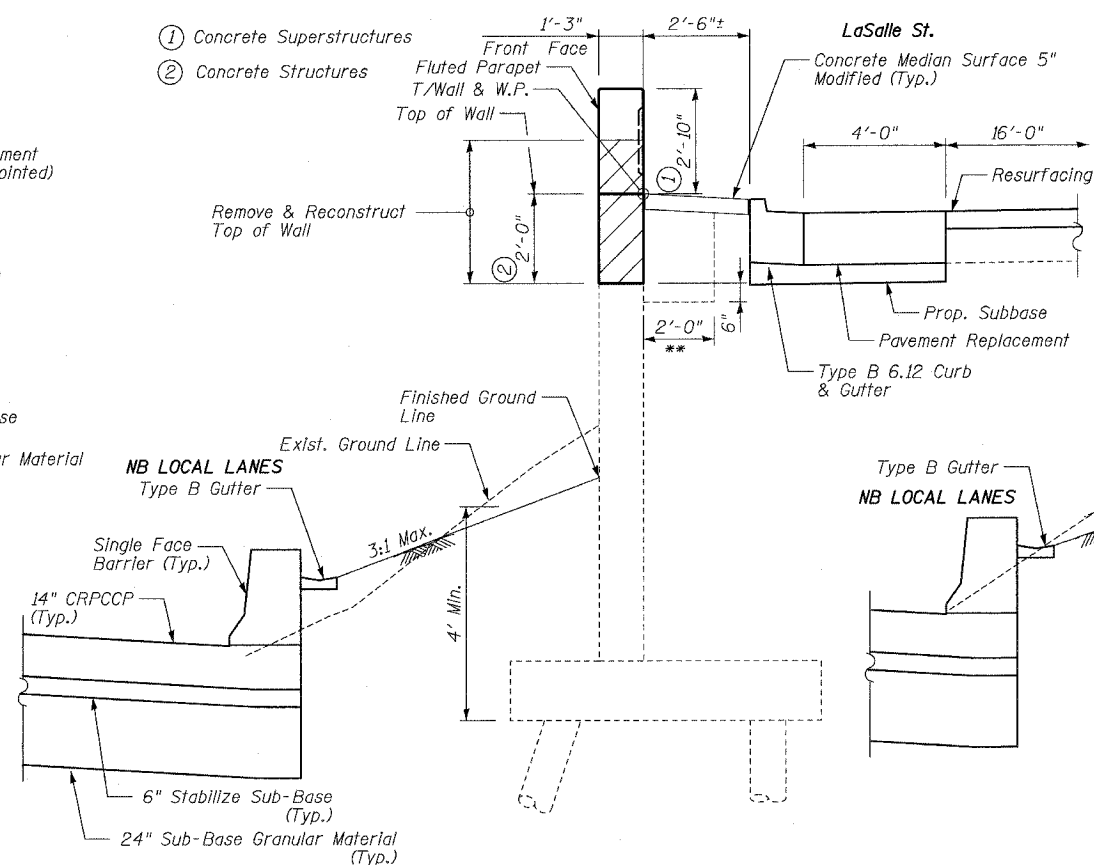
SECTION AT O.H.S.S. FOUNDATION
(Looking Upstation)

- Notes:
1. Dimensions not indicated are typical to all sections.
 2. See Roadway Plans as required.
 3. Adjust Type B Gutter and slope of finished grade as required to drain and meet elevations shown on Sheets 1 and 2.
 4. For excavations and/or embankments outside limits indicated see Roadway Plans and schedules.
 5. Structure Excavation limits in areas of removal of existing wall will be measured from bottom of removal limits to bottom of facing.
 6. Provide Porous Granular Embankment (Special) behind lagging (2'-0" min.) from existing or excavated ground line to bottom of Concrete Median Surface 5" (Modified).

LEGEND

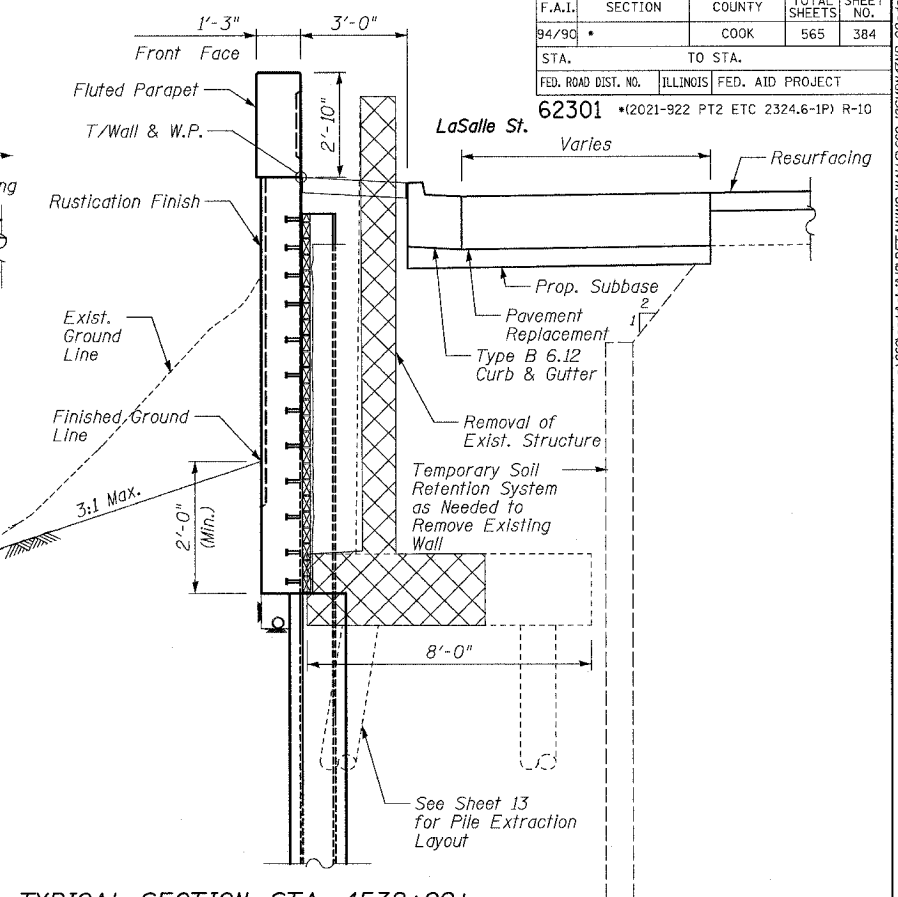


- ① Concrete Superstructures
- ② Concrete Structures

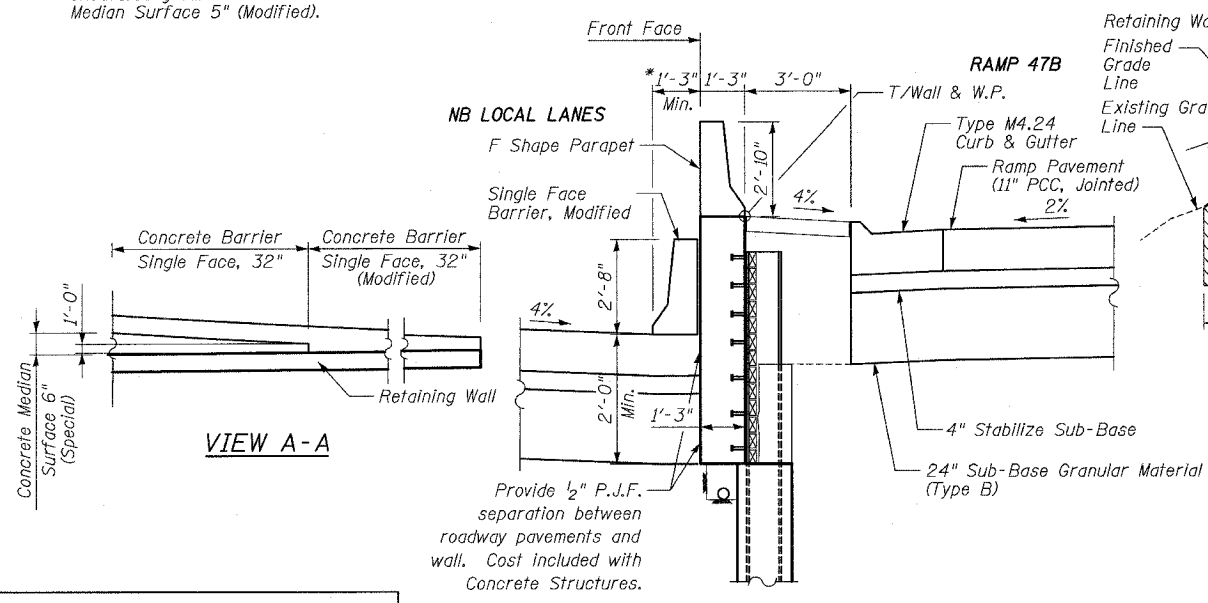


TYPICAL SECTION, STA 4530+50±
(Looking Upstation)

** Limits of Structure Excavation

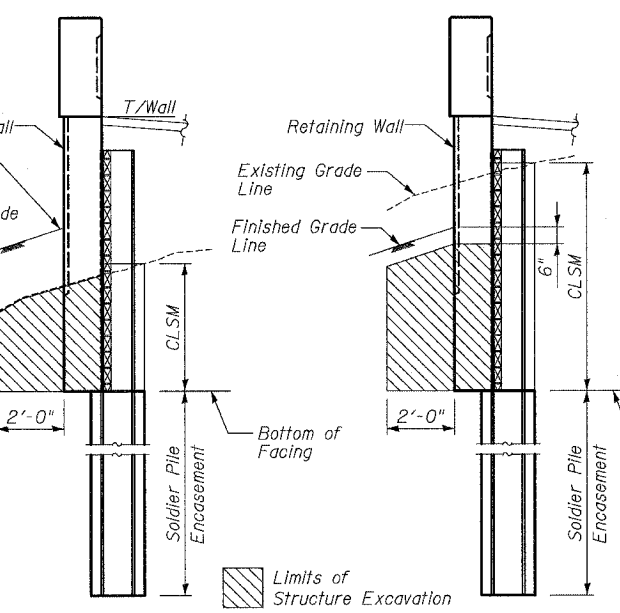


TYPICAL SECTION, STA. 4532+00±
(Looking Upstation)

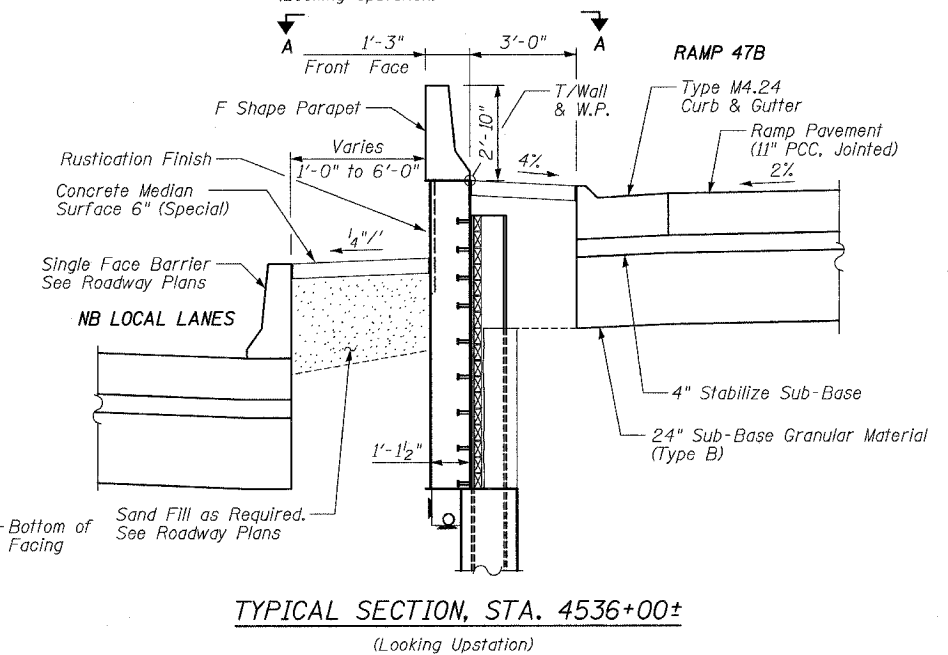


TYPICAL SECTION, STA. 4537+50±
(Looking Upstation)

* Varies 2'-3" to 1'-3"



LIMITS OF STRUCTURE EXCAVATION



TYPICAL SECTION, STA. 4536+00±
(Looking Upstation)

REVISIONS	
NAME	DATE
REVISOR	06/23/06
REVISOR	07/13/06

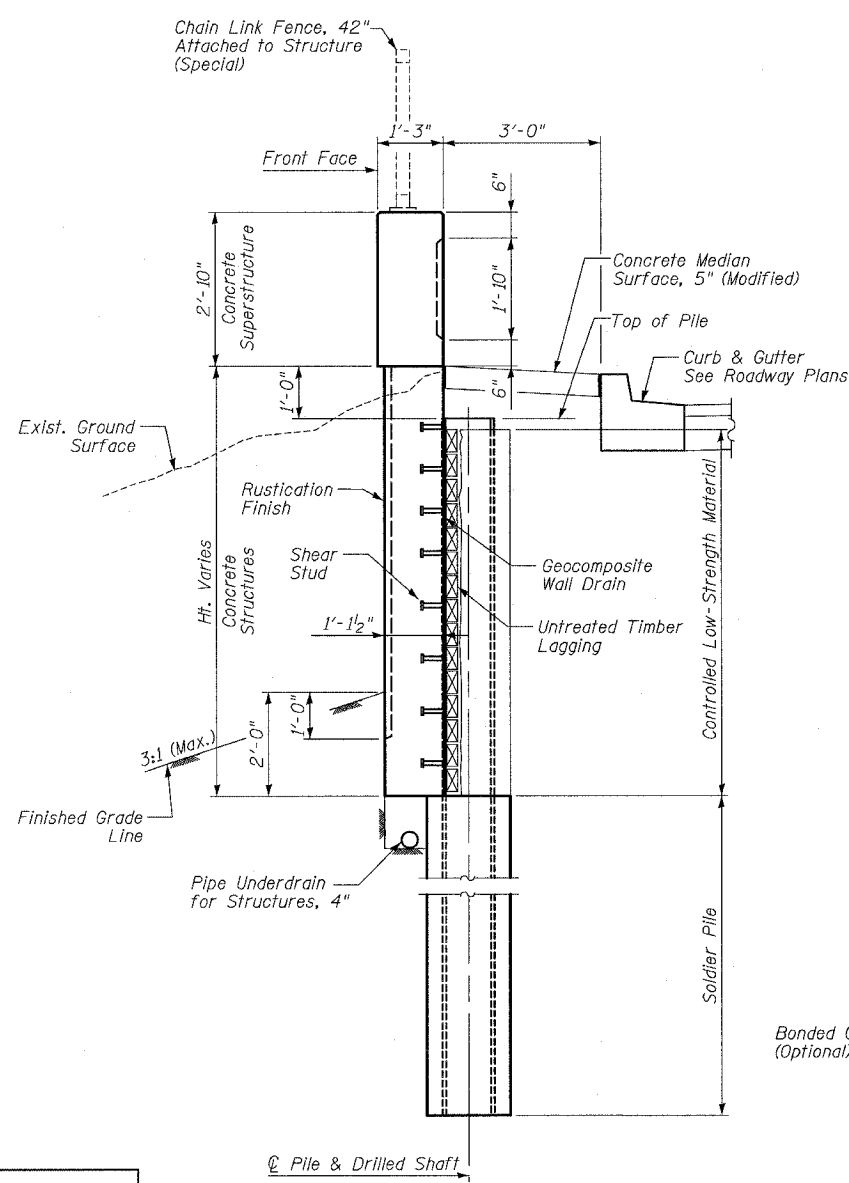
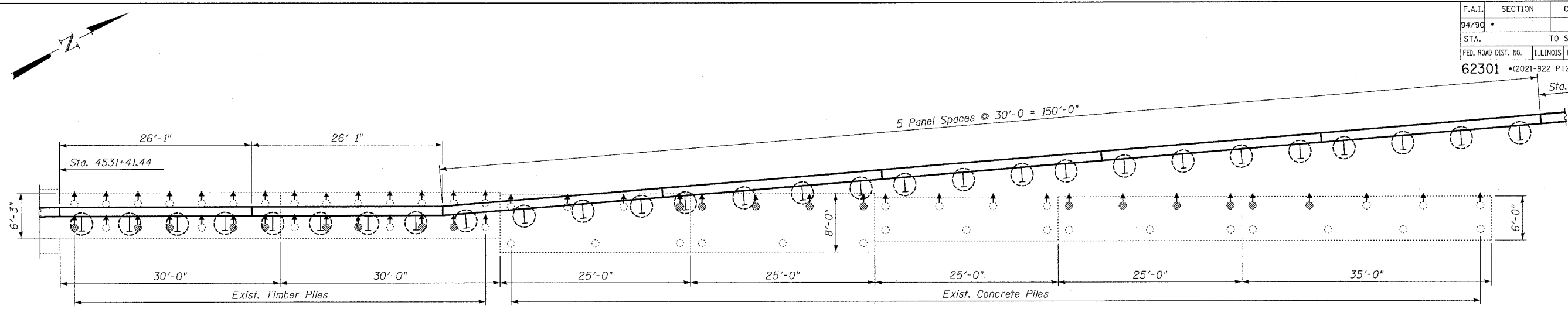
ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)
 COOK COUNTY
 STA. 4529+75.90 TO STA. 4537+30.74
 RETAINING WALL N-47N-R
 TYPICAL SECTIONS
 S.N. 016-W977

SCALE: NTS
 DATE: JUNE 9, 2006
 DRAWN BY: KMW
 CHECKED BY: BLU

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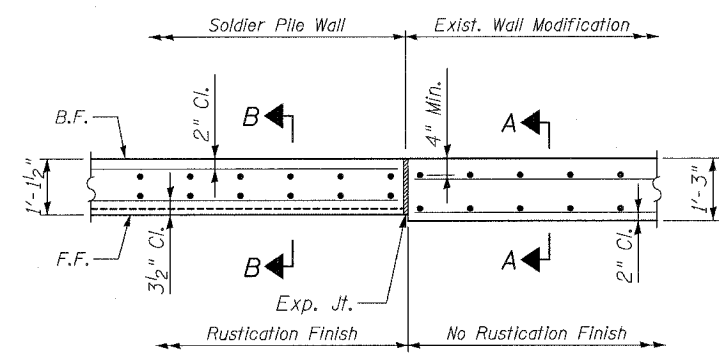
6/20/2006 7/13/2006

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	*	COOK	565	385
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
62301	*(2021-922 PT2 ETC 2324.6-1P) R-10			
	Sta. 4533+20.93			

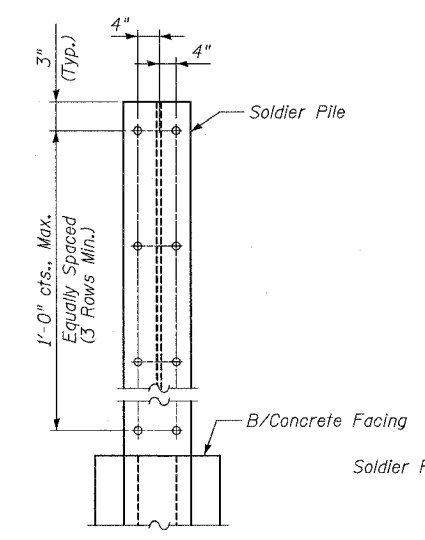


PILE EXTRACTION LAYOUT

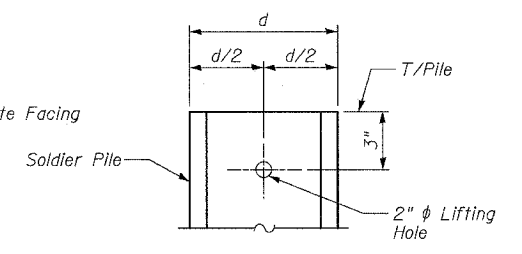
- LEGEND:**
- Existing Pile to be Extracted
 - Existing Pile to Remain
 - Indicates 3" in 12" Batter Pile
 - Proposed Soldier Pile Encasement



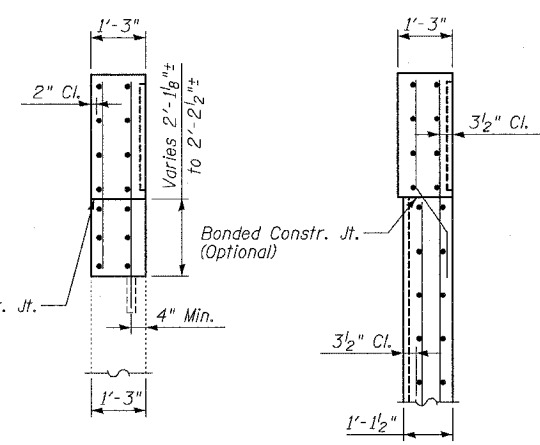
PLAN DETAIL



SHEAR STUD CONNECTOR DETAIL



LIFTING HOLE DETAIL



SECTION A-A

SECTION B-B

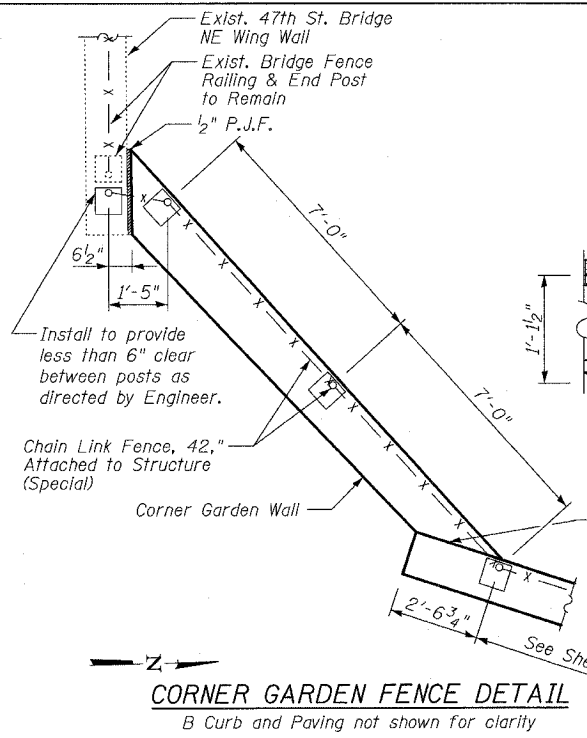
SHEET 13 OF 24

REVISIONS	
NAME	DATE
REVISED	07/13/06

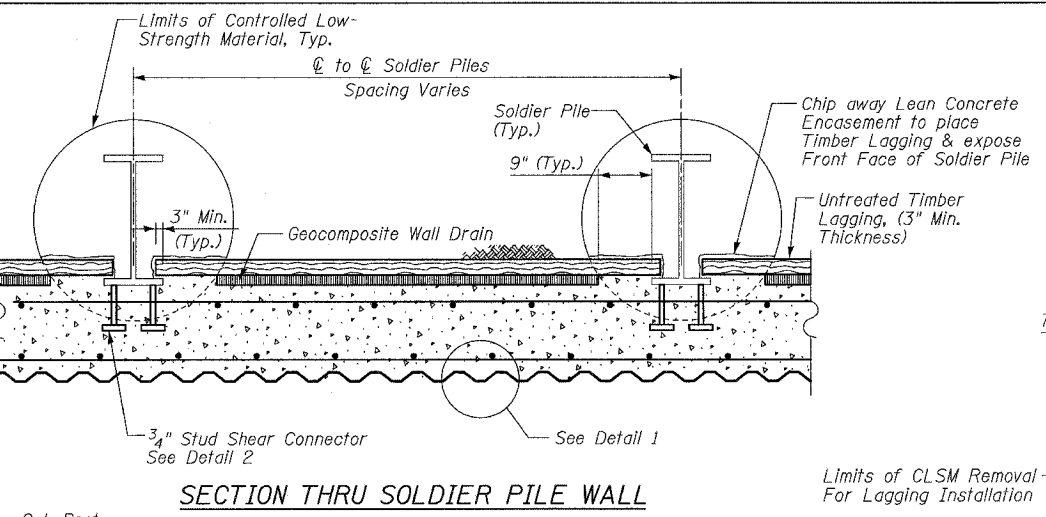
ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)
 COOK COUNTY
 STA. 4529+75.90 TO STA. 4537+30.74
 RETAINING WALL N-47N-R
 TYPICAL SECTIONS & DETAILS
 S.N. 016-W977
 SCALE: NTS
 DATE: JUNE 9, 2006
 DRAWN BY: MTR
 CHECKED BY: BLU

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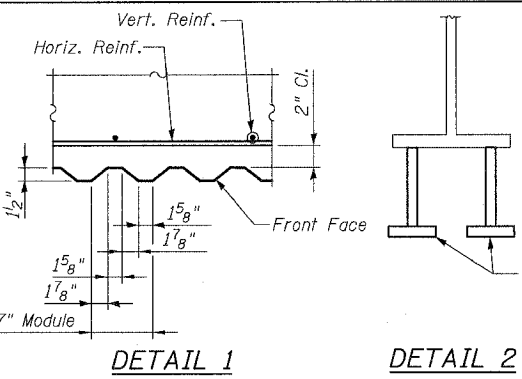
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94/90	*	COOK	565	386
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62301	*I2021-922 PT2 ETC 2324.6-1P) R-10			



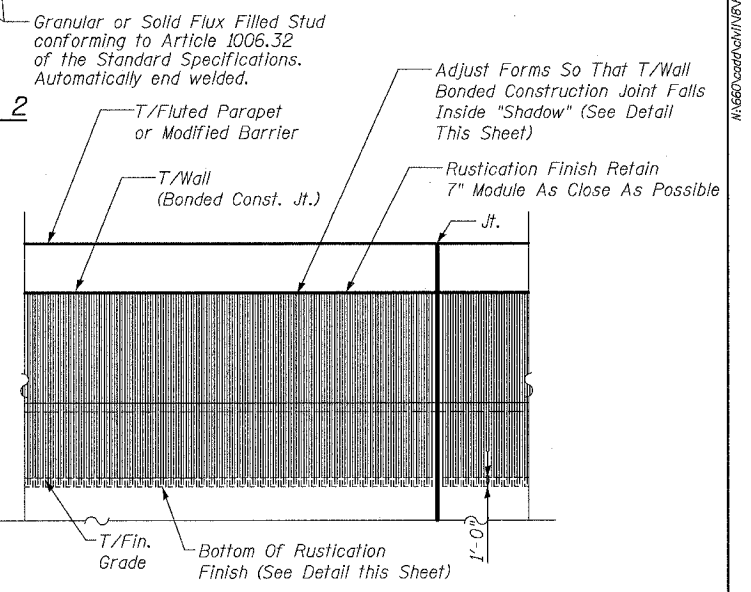
CORNER GARDEN FENCE DETAIL
B Curb and Paving not shown for clarity



SECTION THRU SOLDIER PILE WALL

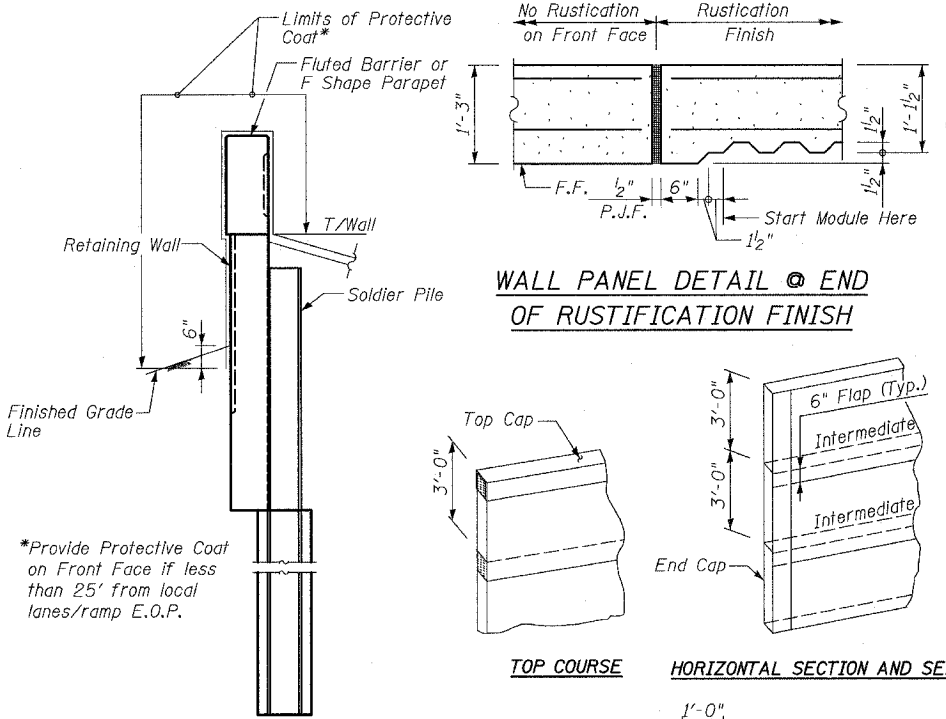


DETAIL 1 **DETAIL 2**

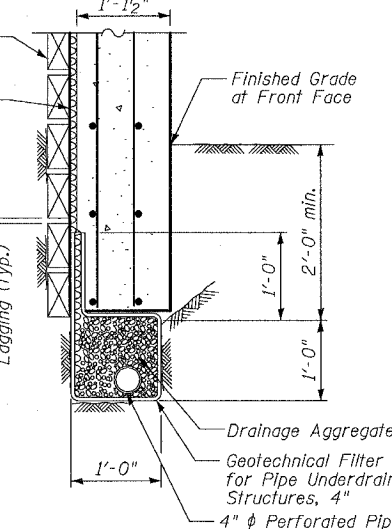


FRONT FACE ELEVATION OF RETAINING WALL

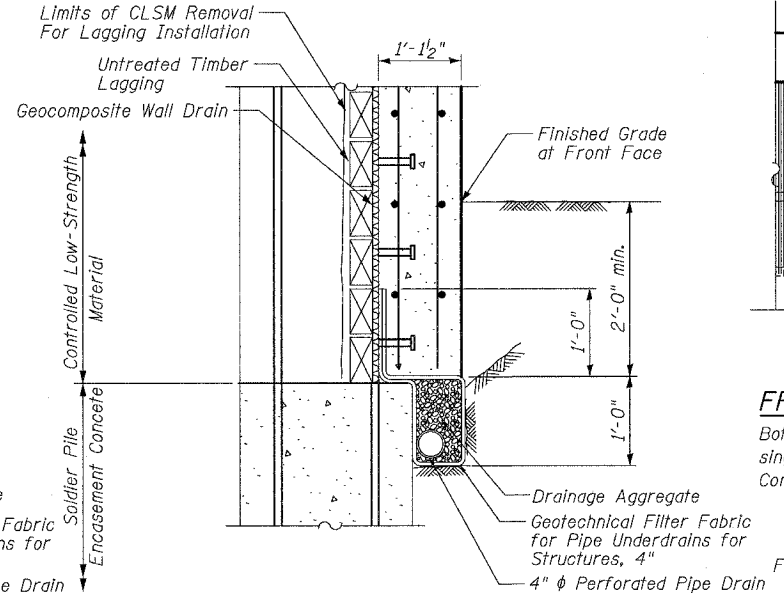
Bottom of Rustication Finish 4" above T/Barrier at locations where single face barrier is in contact with front face of wall. Where Concrete Median Surface 6" (Special) is present treat as finished grade.



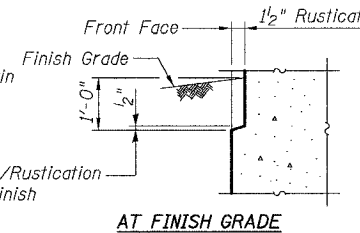
WALL PANEL DETAIL @ END OF RUSTICATION FINISH



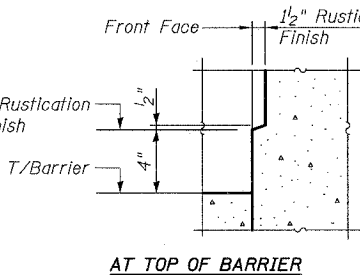
PIPE UNDERDRAIN DETAIL BETWEEN SOLDIER PILES



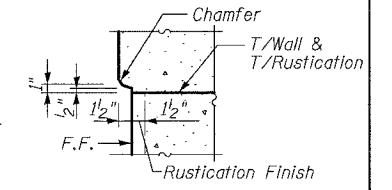
PIPE UNDERDRAIN DETAIL AT SOLDIER PILES



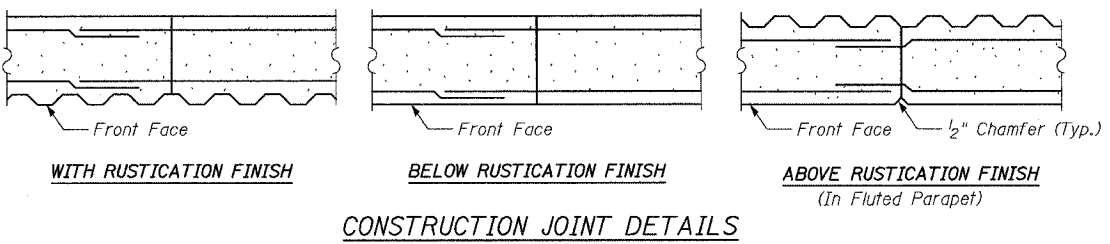
AT FINISH GRADE



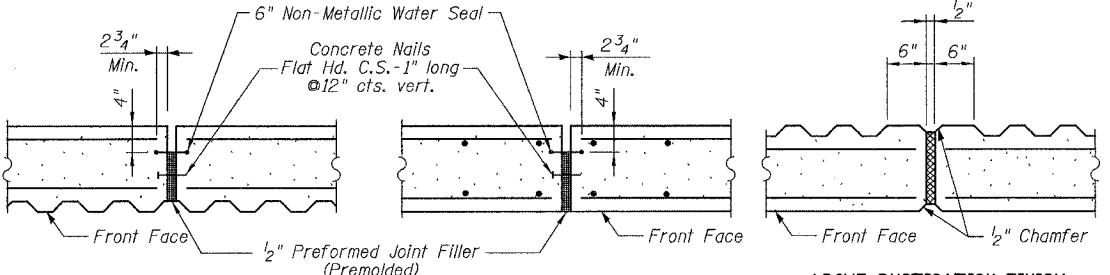
AT TOP OF BARRIER



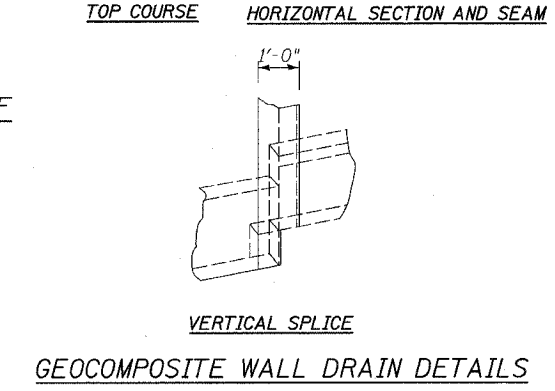
TOP OF RUSTICATION FINISH



CONSTRUCTION JOINT DETAILS



EXPANSION JOINT DETAILS



GEOCOMPOSITE WALL DRAIN DETAILS

DETAIL OF LIMITS OF PROTECTIVE COAT

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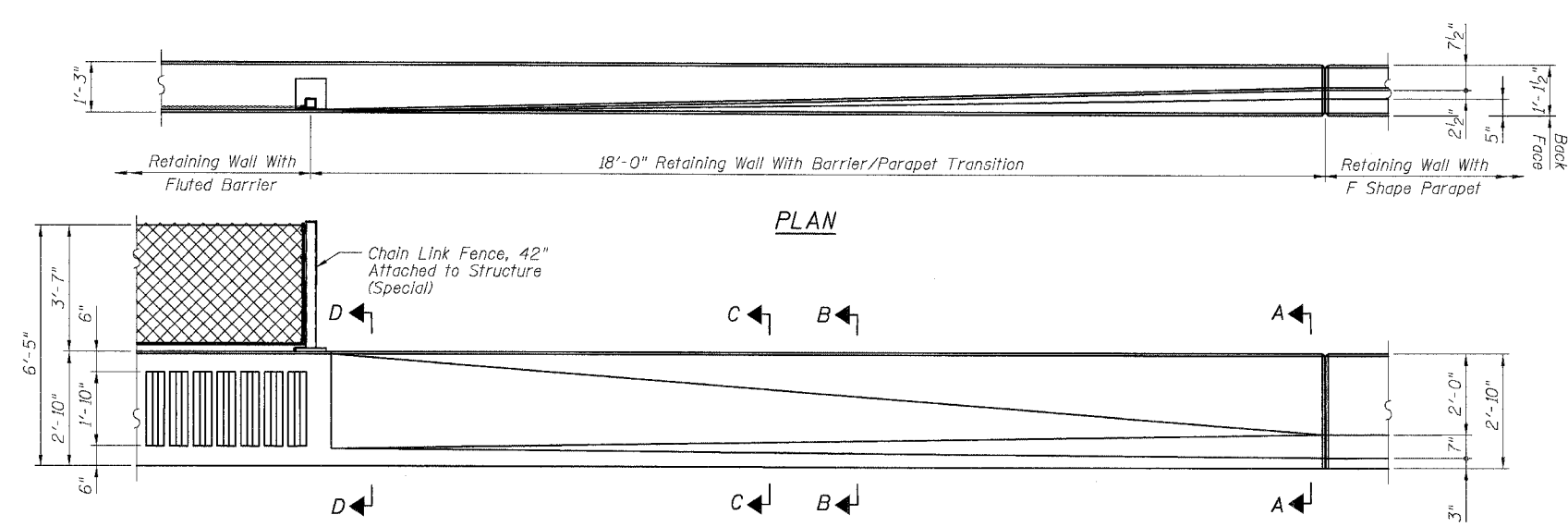
REVISIONS	
NAME	DATE
REVISED	06/21/06
REVISED	07/13/06

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)
COOK COUNTY
STA. 4529+75.90 TO STA. 4537+30.74
RETAINING WALL N-47N-R
MISCELLANEOUS DETAILS 1
S.N. 016-W977
SCALE: NTS
DATE: JUNE 9, 2006
DRAWN BY: MTR
CHECKED BY: BLU

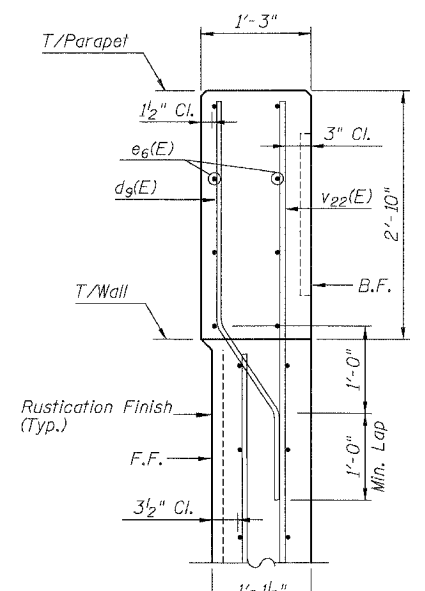
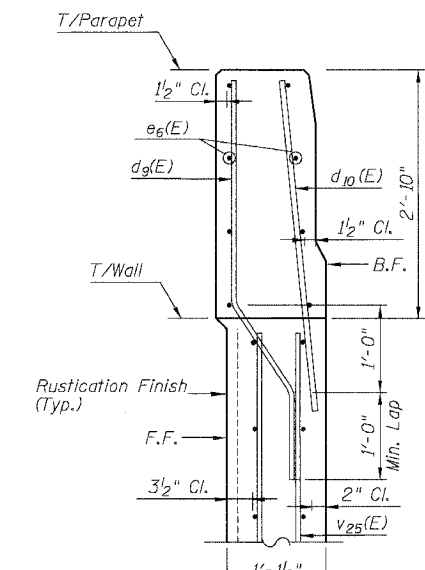
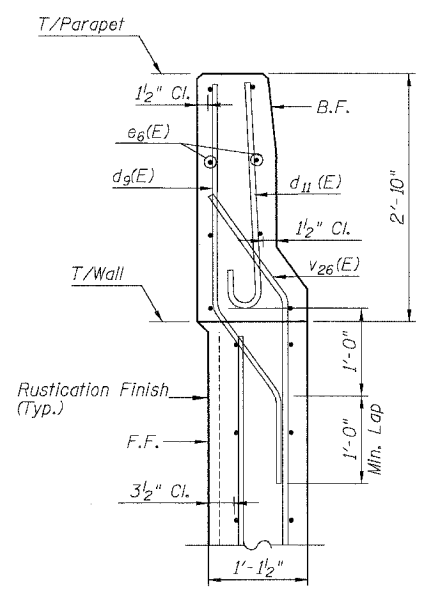
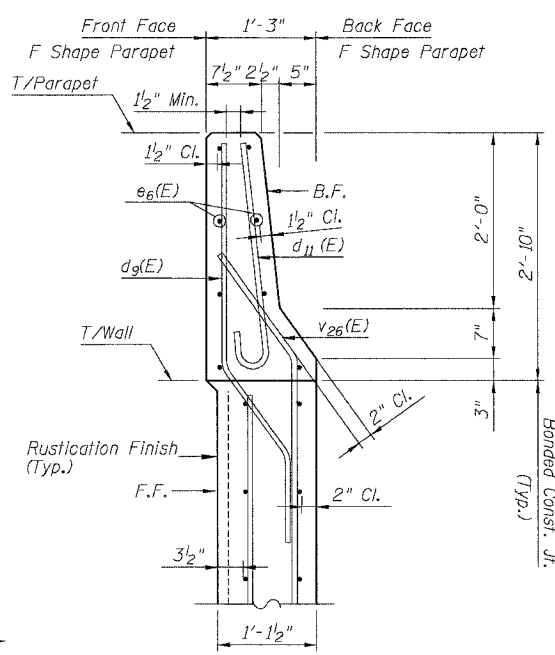
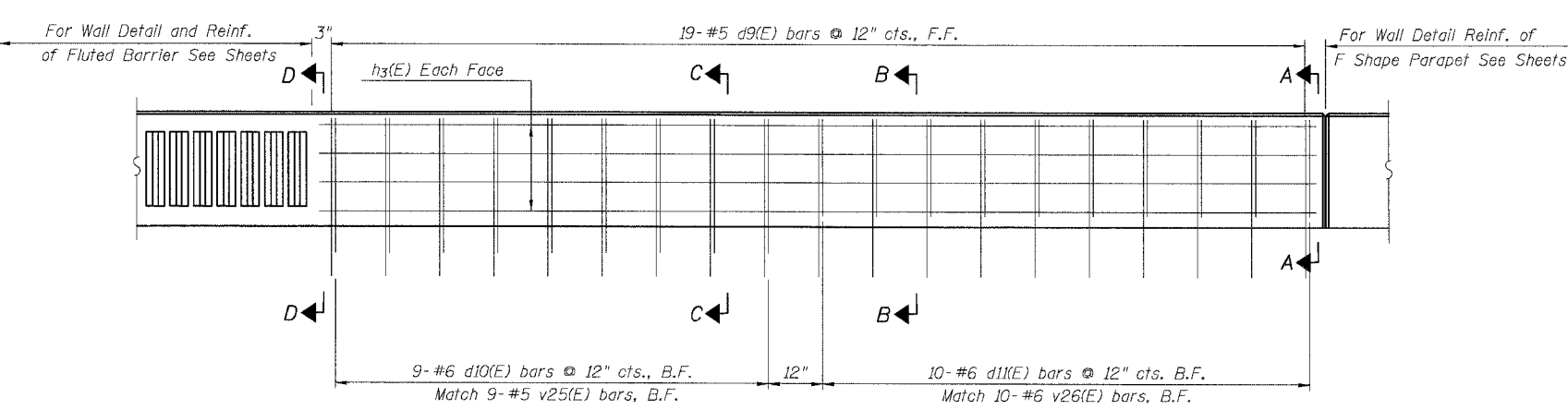
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F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90		COOK	565	387
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62301	*I2021-922 PT2 ETC	2324.6-1P	R-10	

6/11/2006 3:48:48 PM



BACK FACE ELEVATION - TRANSITIONS



SHEET 15 OF 24

NOTES:
1. For Bill of Bars & Bar Bend Details, See Sheet 9 of 24.

REVISIONS	
NAME	DATE

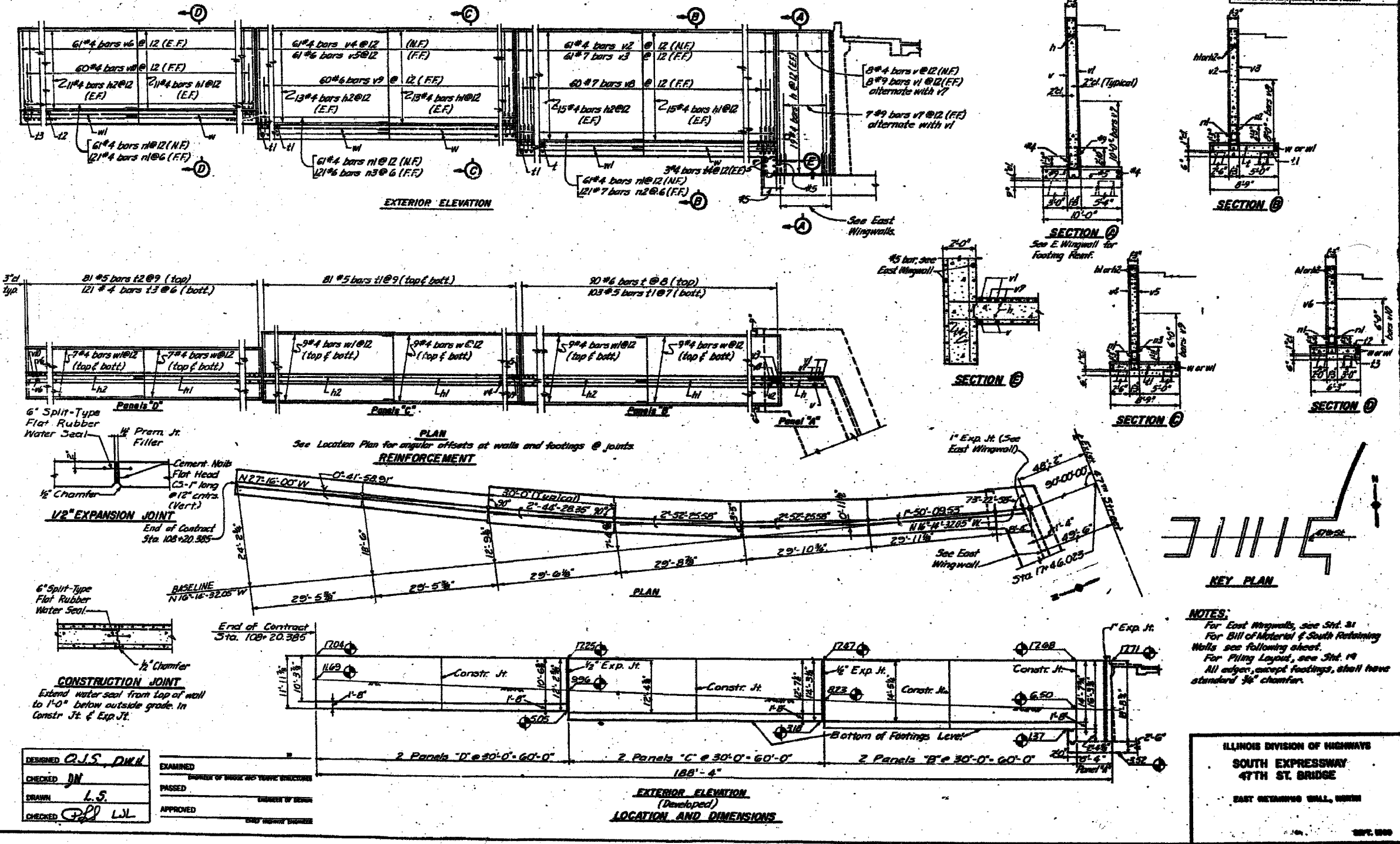
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)
COOK COUNTY
STA. 4529+75.90 TO STA. 4537+30.74
RETAINING WALL N-47N-R
PARAPET TRANSITION
S.N. 016-W977

SCALE: NTS
DATE: JUNE 9, 2006
DRAWN BY: MTR
CHECKED BY: BLU

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F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	*	COOK	565	388
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62301	*2021-922 PT2 ETC 2324.6-1P) R-10			

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS



NOTES:
For East Wingwalls, see Sht. 31
For Bill of Material & South Retaining Walls see following sheets.
For Piling Layout, see Sht. 19
All edges, except footings, shall have standard 1/2" chamfer.

ILLINOIS DIVISION OF HIGHWAYS
**SOUTH EXPRESSWAY
47TH ST. BRIDGE**
EAST RETAINING WALL, NORTH

DESIGNED	C.J.S. DIK	EXAMINED	
CHECKED	JN	PASSED	
DRAWN	L.S.	APPROVED	
CHECKED	PPD LWL		

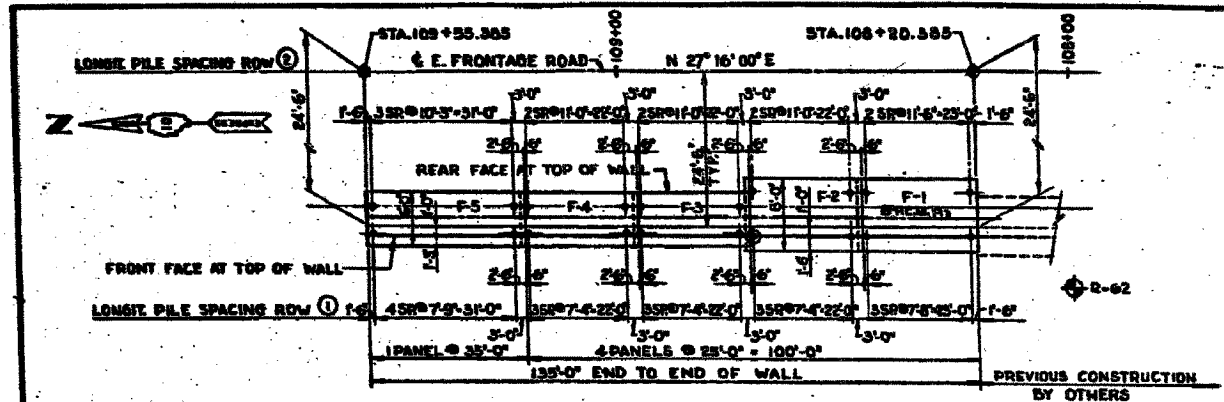
FOR INFORMATION ONLY

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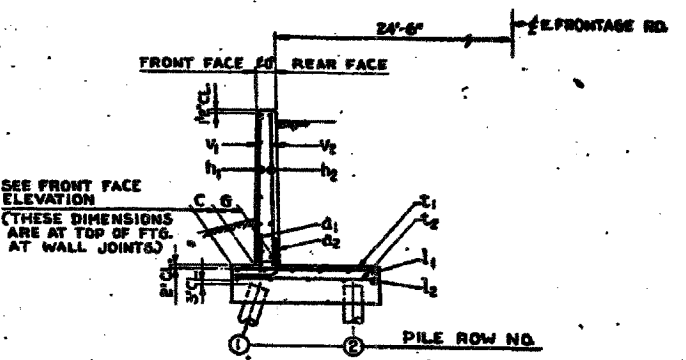
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)
COOK COUNTY
STA. 4529+75.90 TO STA. 4537+30.74
RETAINING WALL N-47N-R
EXISTING RETAINING WALL PLAN 1
S.N. 016-W977
SCALE: NTS
DATE: JUNE 9, 2006
DRAWN BY: KMW
CHECKED BY: BLU

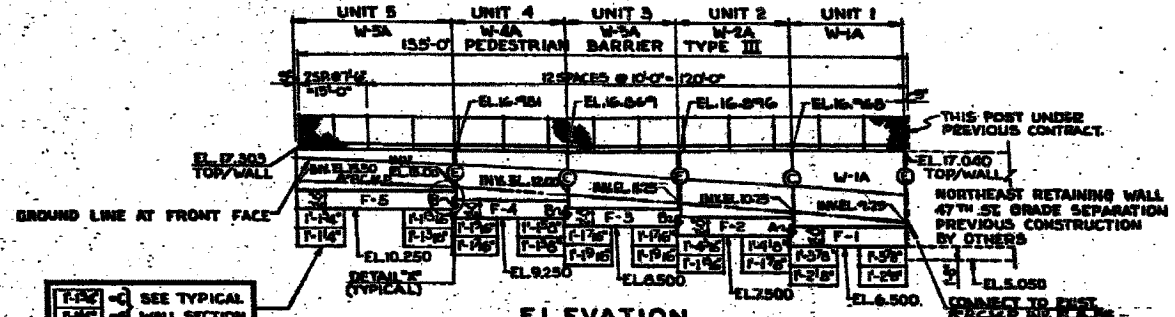
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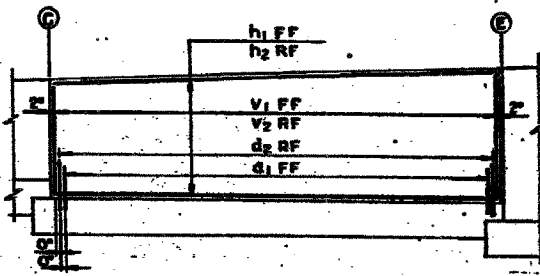
PLAN
 LONGIT. 1/8"=1'-0"
 TRANSV. 1/8"=1'-0"



TYPICAL WALL SECT-WALL TYPES 1 & 2
 LOOKING NORTH



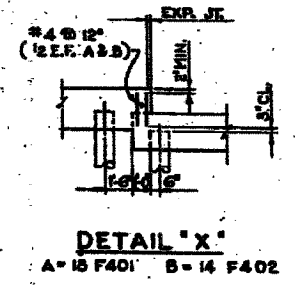
ELEVATION
 SCALE: HORIZ. 1/8"=1'-0"
 VERT. 1/8"=1'-0"



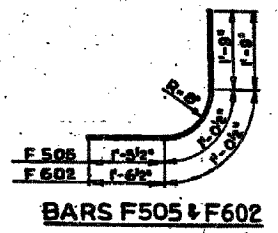
TYPICAL WALL ELEVATION
 FRONT FACE

BAR LIST					
*BAR	NO.	SIZE	LENGTH	SHAPE	WEIGHT
F 401	60	4	7'-0"		75
F 501	53	5	7'-0"		424
F 502	38	5	25'-9"		1821
F 503	8	5	25'-9"		290
F 504	49	5	2'-0"		182
F 505	80	5	4'-1"		375
F 506	175	5	5'-8"		1054
F 601	52	6	7'-0"		599
F 602	52	6	4'-0"		558
V 501	35	5	6'-9"		301
V 502	35	5	7'-2"		262
V 503	35	5	6'-2"		225
V 504	35	5	5'-0"		201
V 505	49	5	4'-7"		234
H 501	17	5	24'-9"		439
H 502	15	6	28'-2"		409
H 503	7	5	24'-9"		254

UNIT	WALL	FOOTING				STEM							
		FTB. MARK	BAND	REINF. IN EA. BAND	NO. OF BARS	STEM MARK	BAND	REINF. IN EA. BAND	NO. OF BARS				
1	F-1	T1	27	5	12	F501	I-BOT	V1	9	5	36	V501	I-FF
		T2	28	6	12	F601	I-TOP	V2	26	5	12	V501	I-RF
		d1	5	5	24	F502	I-BOT	H1	6	5	18	H501	I-FF
		d2	6	5	18	F502	I-TOP	H2	4	5	36	H501	I-RF
		d3	9	5	36	F504	I-FF						
2	F-2	T1	26	5	12	F501	I-BOT	V1	9	5	36	V502	I-FF
		T2	26	6	12	F601	I-TOP	V2	26	5	12	V502	I-RF
		d1	5	5	24	F502	I-BOT	H1	5	5	18	H502	I-FF
		d2	6	5	18	F502	I-TOP	H2	3	5	36	H502	I-RF
		d3	9	5	36	F504	I-FF						
3	F-3	T1	25	5	12	F506	I-BOT	V1	9	5	36	V503	I-FF
		T2	26	5	12	F506	I-TOP	V2	26	5	12	V503	I-RF
		d1	4	5	24	F502	I-BOT	H1	4	5	18	H501	I-FF
		d2	5	5	18	F502	I-TOP	H2	3	5	36	H501	I-RF
		d3	9	5	36	F504	I-FF						
4	F-4	T1	26	5	12	F506	I-BOT	V1	9	5	36	V504	I-FF
		T2	26	5	12	F506	I-TOP	V2	26	5	12	V504	I-RF
		d1	4	5	24	F502	I-BOT	H1	4	5	18	H502	I-FF
		d2	5	5	18	F502	I-TOP	H2	3	5	36	H502	I-RF
		d3	9	5	36	F504	I-FF						
5	F-5	T1	25	5	12	F503	I-BOT	V1	13	5	36	V505	I-FF
		T2	26	5	12	F503	I-TOP	V2	36	5	12	V505	I-RF
		d1	4	5	24	F503	I-BOT	H1	4	5	18	H503	I-FF
		d2	5	5	18	F503	I-TOP	H2	3	5	36	H503	I-RF
		d3	9	5	36	F504	I-FF						



NOTE:
 FOR GENERAL NOTES & STANDARD DETAILS SEE SHEET N-81
 FOR DETAILS, DIMENSIONS, ETC. OF WALL TYPES 1 & 2
 SEE SHEET N-96
 (E) = EXPANSION JOINT } FOR DETAIL SEE SHT N-81
 (C) = CONSTRUCTION JOINT
 (T) INDICATES TEST BORING
 (P) INDICATES TEST PILE
 FOR ADDITIONAL PLAN GEOMETRICS SEE ALIGNMENT & TIES
 STA. 100+00 TO STA. 115+00 SEE SHEET N-76



SOILS DATA	
FOOTINGS	DESIGN CONDITION
ALL FOOTINGS	CONCRETE PILES EQL LENGTH=25 FT.

BILL OF MATERIAL		
ITEM	UNIT	QUANTITY
POROUS GRANULAR BACKFILL	CYLD	95
CLASS A EXCAVATION FOR STRUCTURES	CYLD	311
CLASS 1 CONCRETE	CYLD	101.5
REINFORCEMENT BARS	POUND	6607
DRIVING CONCRETE PILES	LIN. FT.	900
FURNISHING CONCRETE PILES	LIN. FT.	900
TEST PILE CONCRETE	EACH	1
PROP. CORR. MET. PIPE-8"	LIN. FT.	194
PEDESTRIAN BARRIER TYPE 3	LIN. FT.	195

ILLINOIS DIVISION OF HIGHWAYS
 SOUTH EXPRESSWAY
 RETAINING WALL
 E-4

SHEET 17 OF 24

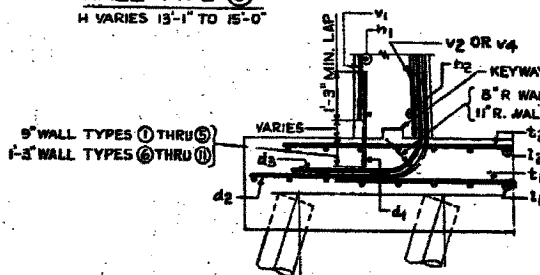
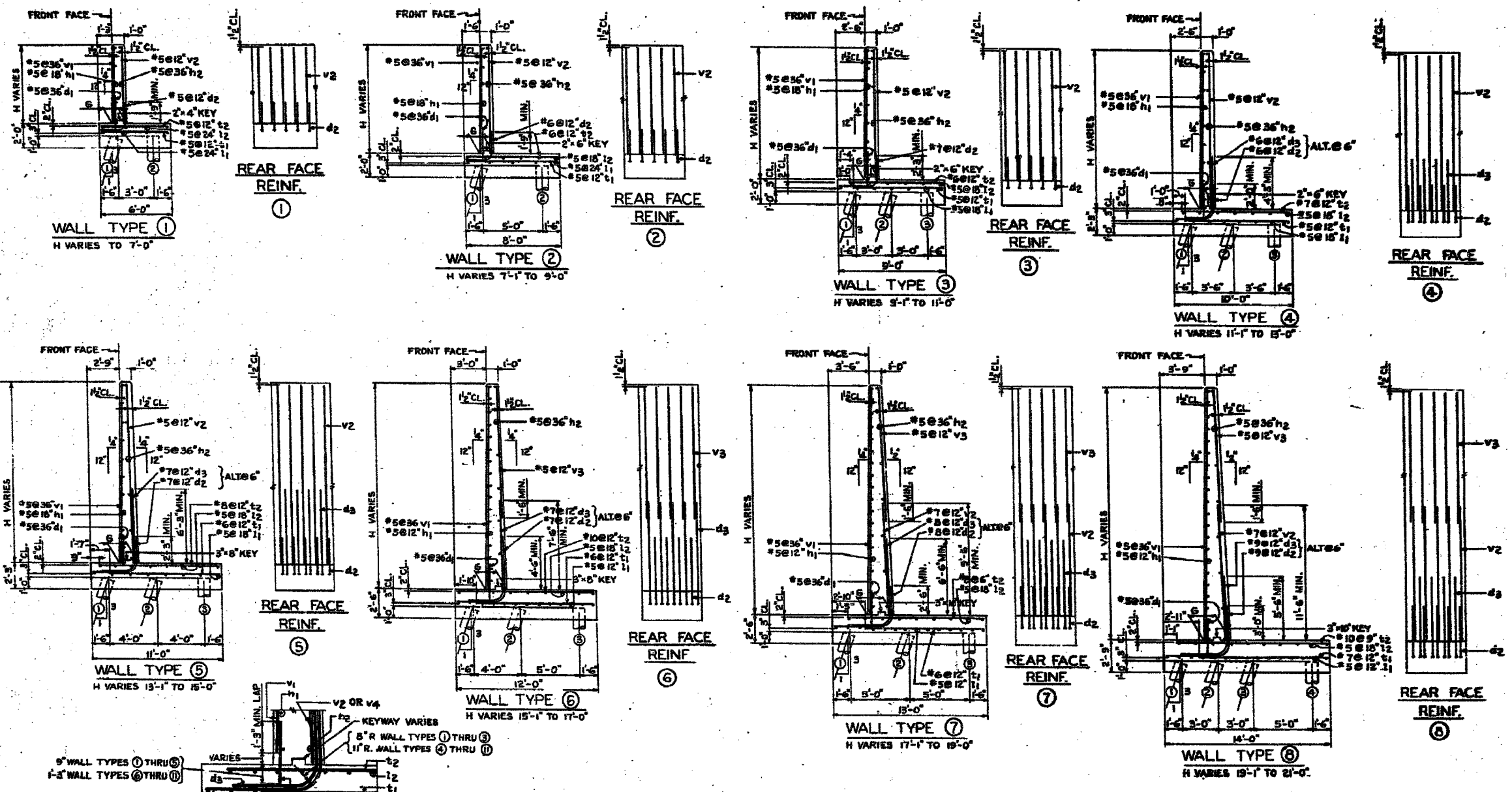
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 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)
 COOK COUNTY
 STA. 4529+75.90 TO STA. 4537+30.74
 RETAINING WALL N-47N-R
 EXISTING RETAINING WALL PLAN 2
 S.N. 016-W977
 SCALE: NTS DRAWN BY: MTR
 DATE: JUNE 9, 2006 CHECKED BY: BLU

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VALUES OF "G" MAXIMUM											
WALL TYPE	1	2	3	4	5	6	7	8	9	10	11
"G" MAX.	1'-1 1/2"	1'-2 1/4"	1'-3 1/4"	1'-3 3/4"	1'-7 1/2"	1'-8 1/2"	2'-2 1/4"	2'-3 3/4"	2'-11"	3'-1"	3'-3"

NOTE: "G" VARIES DUE TO CHANGE IN WALL HEIGHT "H". FOR VALUES OF "G" MAXIMUM SEE TABLE. FOR STANDARD PILE DETAILS SEE SHEET NO. 106

ILLINOIS DIVISION OF HIGHWAYS
SOUTH EXPRESSWAY
STANDARD RETAINING WALL DETAILS
PILE FOOTINGS
WALL TYPES ① THRU ⑧

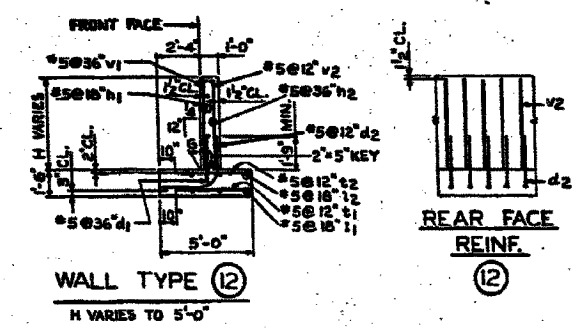
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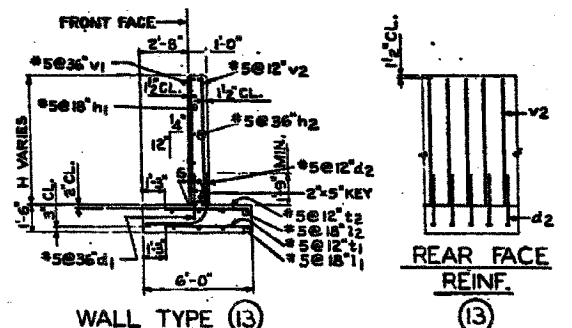
REVISIONS	
NAME	DATE

SHEET 18 OF 24
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)
COOK COUNTY
STA. 4529+75.90 TO STA. 4537+30.74
RETAINING WALL N-47N-R
EXISTING RETAINING WALL PLAN 3
S.N. 016-W977
SCALE: NTS
DATE: JUNE 9, 2006
DRAWN BY: KMW
CHECKED BY: BLU

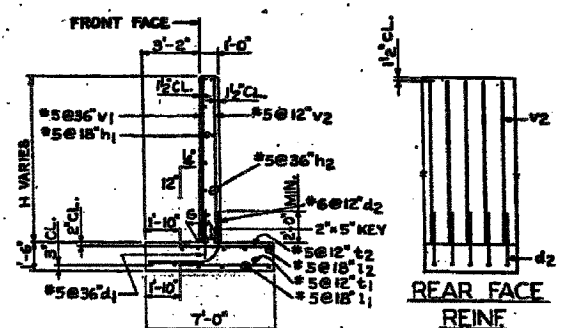
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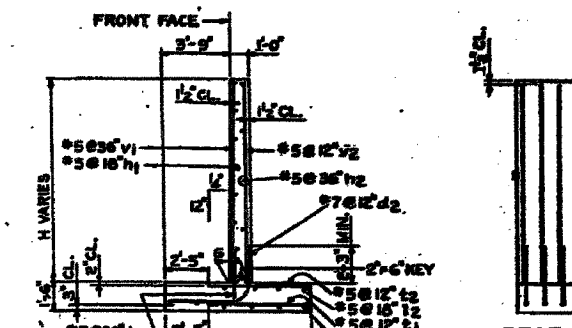
WALL TYPE 12
H VARIES TO 5'-0"



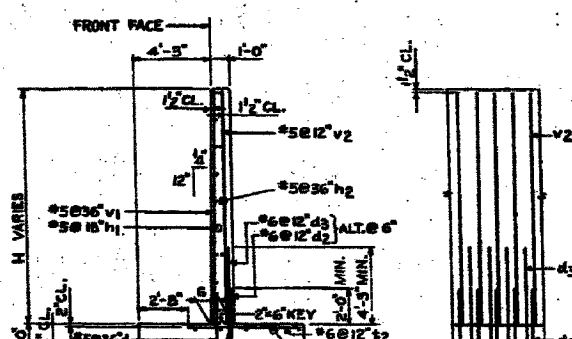
WALL TYPE 13
H VARIES 5'-1" TO 7'-0"



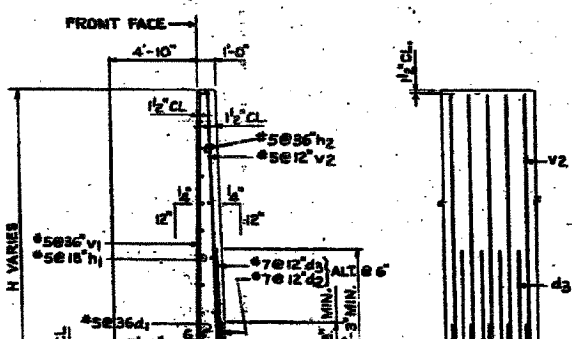
WALL TYPE 14
H VARIES 7'-1" TO 9'-0"



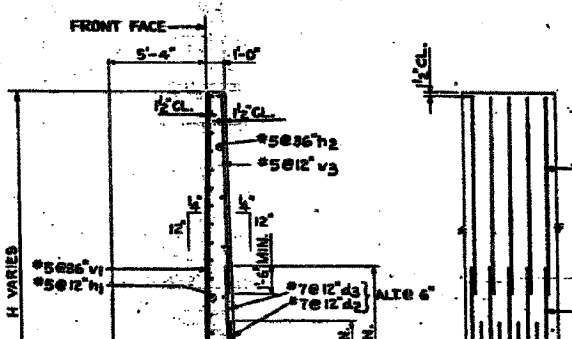
WALL TYPE 15
H VARIES 9'-1" TO 11'-0"



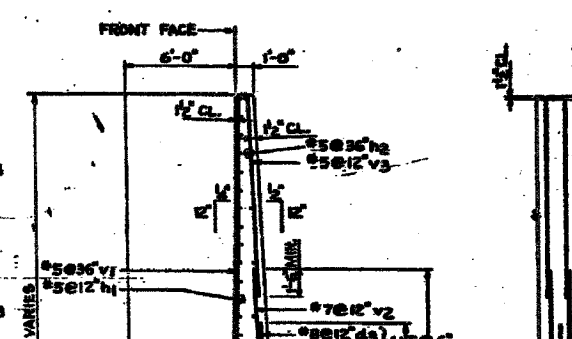
WALL TYPE 16
H VARIES 11'-1" TO 13'-0"



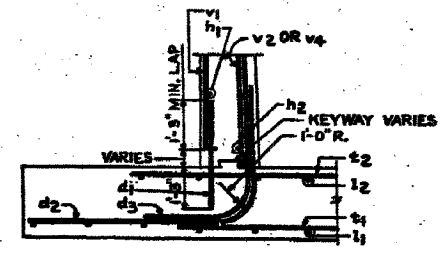
WALL TYPE 17
H VARIES 13'-1" TO 15'-0"



WALL TYPE 18
H VARIES 15'-1" TO 17'-0"



WALL TYPE 19
H VARIES 17'-1" TO 19'-0"



TYPICAL DETAIL JUNCTION
OF STEM & FOOTING
SCALE: 1/2" = 1'-0"

VALUES OF 'G' MAXIMUM	
WALL TYPE	'G' MAX.
12	1'-11"
13	1'-11"
14	1'-2 1/2"
15	1'-2 1/2"
16	1'-3 1/2"
17	1'-7 1/2"
18	1'-8 1/2"
19	2'-2 1/2"
20	2'-3 1/2"
21	2'-11"
22	3'-1"

NOTE: 'G' VARIES DUE TO CHANGE IN WALL HEIGHT 'H'. FOR VALUES OF 'G' MAXIMUM SEE TABLE.

ILLINOIS DIVISION OF HIGHWAYS
SOUTH EXPRESSWAY
STANDARD RETAINING WALL DETAILS
SPREAD FOOTINGS - 3000 PSF
WALL TYPES 12 THRU 19

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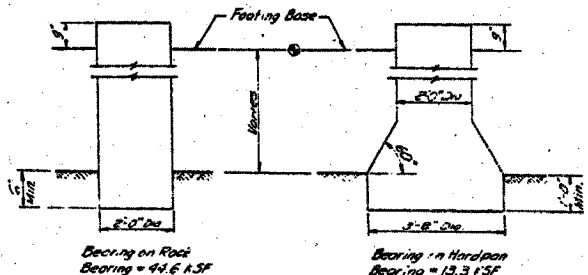
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)
COOK COUNTY
STA. 4529+75.90 TO STA. 4537+30.74
RETAINING WALL N-47N-R
EXISTING RETAINING WALL PLAN 4
S.N. 016-W977
SCALE: NTS
DATE: JUNE 9, 2006
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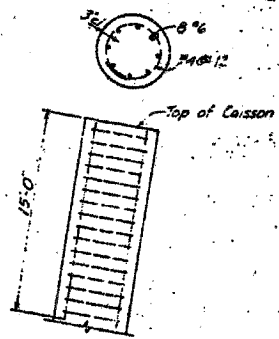
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROAD DIST. NO.	SEC.	LAPEL	SENA	FS	TOTAL SHEETS	SHEET NO.
FBI-94	102				65	19
STA.	TO STA.					
62301	62301					

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90		COOK	565	392
STA.	TO STA.			
62301	62301			



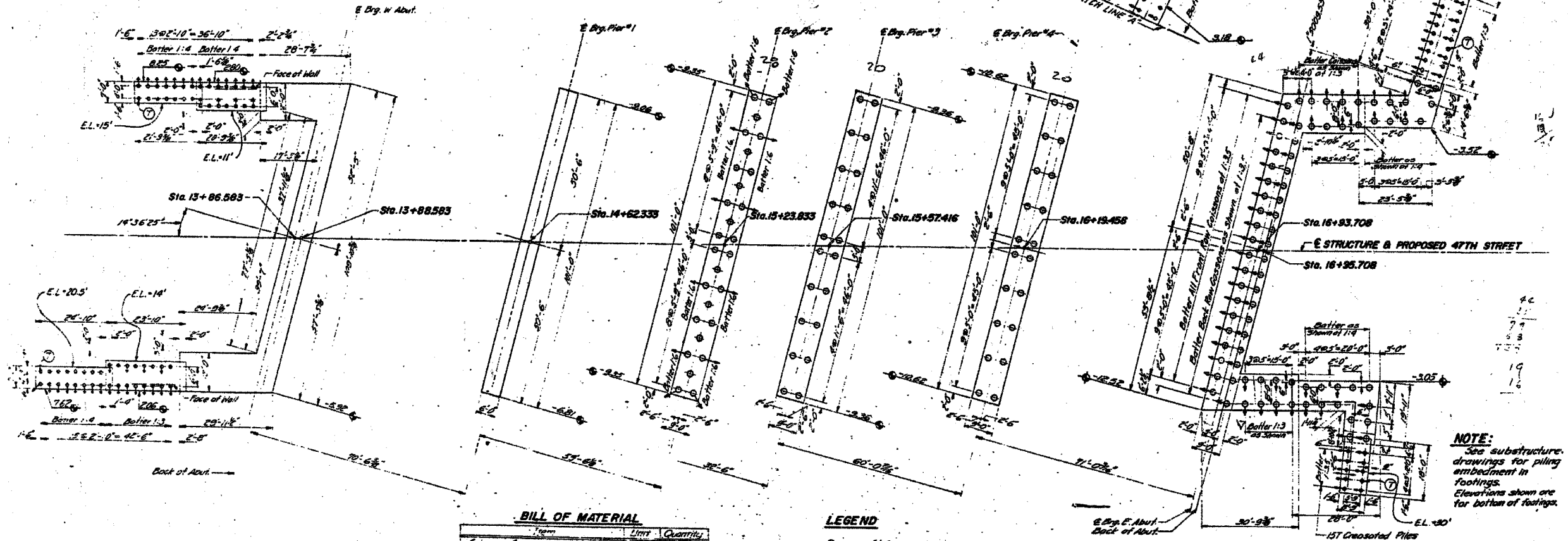
CAISSON DETAILS



All Battered Caissons to be reinforced as shown above.

PILE DATA

Type: Creosoted with Metal Shoes
(Incidental to cost of piling)
Capacity: 15T
* No. Req'd: 166 (Includes 5 Test Piles)
Est Length: See Plans - "E."
* Does not include approach slab pile bents.



NOTE:
See substructure drawings for piling embedment in footings.
Elevations shown are for bottom of footings.

BILL OF MATERIAL

Item	Unit	Quantity
Caisson Concrete	Cu Yds	238.7
Steel Casings	Lin. Ft.	1000
Steel Casings Left in Place	Lin. Ft.	500
Reinforcement Bars	Lbs.	42,225
Rock Excav. for Struct.	Cu Yds	3.6
Creosoted Piles (Up to 20')	Lin. Ft.	573
Creosoted Piles (20' to 39')	Lin. Ft.	3113
Test Piles (Timber)	Each	5

LEGEND

- 24" Caissons
- Creosoted Piles
- ⊙ Indicates Permanent Test Piles
- ⊙ Indicates Battered Caissons or Piles

ILLINOIS DIVISION OF HIGHWAYS
SOUTH EXPRESSWAY
47TH ST. BRIDGE
CAISSON AND PILING PLAN
SCALE: NOTED DATE: SEPT. 1960

SHEET 20 OF 24

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DESIGNED DWH	EXAMINED
CHECKED DN	PASSED
DRAWN RY	APPROVED
CHECKED AS	

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GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)
COOK COUNTY
STA. 4529+75.90 TO STA. 4537+30.74
RETAINING WALL N-47N-R
EXISTING RETAINING WALL PLAN 5
S.N. 016-W977
SCALE: NTS
DATE: JUNE 9, 2006
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3-4660 TM 6/7/2006

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STRUCTURE BORING LOG

Page 1 of 1
Date 4/24/03

ROUTE FAL 90/94 DESCRIPTION DAN RYAN EXPRESSWAY

SECT. 31ST STREET TO 47TH STREET STRUCT. NO. _____ DRILLED BY PATRICK DRILLING, INC.

COUNTY COOK LOCATION WALL 028 S. _____, TWP. 38 N, RNC. 14 E

Boring No. W-028-1 D E L P O T H B L W S Qu W Surface Water Elev. _____ Groundwater Elev. 4.2 when drilling at Completion after _____ Hrs. _____

Station 4529+91(NB LOCAL) P O T H W S Qu W

Offset 94 RT. OF NB LOCAL BL T H W S Qu W

Surface Elev. 15.7 ft

Depth (ft)	Soil Description	Penetration (blows)	Soil Description	Penetration (blows)
15.5	ASPHALT PAVEMENT			7
14.2	CONCRETE PAVEMENT			
	Medium Dense to Dense, Brown SANDY LOAM trace - gravel	15 15 17		2.1 B 14
	FILL	9 6 6		6.0 S 9
9.7	Loose, Brown SANDY LOAM trace - gravel	8 3 2		
	FILL	5 3 2		8.2 S 10
	Loose, Gray SILT trace - sand	3 3 4		
2.2	Loose, Gray SILT trace - sand	3 1 1		
	END OF BORING			
	Medium Stiff to Very Stiff, Gray SILTY CLAY trace - sand and gravel	2 2 5		7.8 S 9
		2 8 8		
		3 4 6		0.9 B 21
		3 3		0.9 B 25

SPT (N) = Sum of last two blow values in sample. (Qu) B-Bulge S-Shear P-Penetration Test
Stations, Depths, Offset, and Elevations are in Feet

BORING W-028-1

Everest Engineering Company
STRUCTURE BORING LOG

Page 1 of 1
Date 4/25/03

ROUTE FAL 90/94 DESCRIPTION DAN RYAN EXPRESSWAY

SECT. 31ST STREET TO 47TH STREET STRUCT. NO. _____ DRILLED BY PATRICK DRILLING, INC.

COUNTY COOK LOCATION WALL 028 S. _____, TWP. 38 N, RNC. 14 E

Boring No. W-028-2 D E L P O T H B L W S Qu W Surface Water Elev. _____ Groundwater Elev. 4.1 when drilling at Completion after _____ Hrs. _____

Station 4530+84 (NB LOCAL) P O T H W S Qu W

Offset 92 RT. OF NB LOCAL BL T H W S Qu W

Surface Elev. 15.6 ft

Depth (ft)	Soil Description	Penetration (blows)	Soil Description	Penetration (blows)
15.3	ASPHALT PAVEMENT			1
14.1	CONCRETE PAVEMENT			
	Medium Dense, Brown SANDY LOAM trace - gravel	12 12 13		1.2 B 20
	FILL	9 4 5		1.7 B 19
	Very Loose to Loose, Brown SANDY LOAM trace - gravel	3 1 2		
	Very Hard, Gray SILTY CLAY LOAM trace to little - sand and gravel	2 1 2		8.5 S 11
	Very Loose to Loose, Gray SILT trace - sand	4 4 5		
4.6	Very Loose to Loose, Gray SILT trace - sand	0 1 1		
	END OF BORING			
	Medium Stiff to Stiff, Gray SILTY CLAY trace - sand and gravel	1 2 2		2.0 B 20
		1 2 3		1.6 B 21
		1 1 2		0.6 B 23
		0 1		0.3 B 26

SPT (N) = Sum of last two blow values in sample. (Qu) B-Bulge S-Shear P-Penetration Test
Stations, Depths, Offset, and Elevations are in Feet

BORING W-028-2

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GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)
COOK COUNTY
STA. 4529+75.90 TO STA. 4537+30.74
RETAINING WALL N-47N-R
SOIL BORINGS 1
S.N. 016-W977
SCALE: NTS
DATE: JUNE 9, 2006
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Date 4/25/03

ROUTE FAI 90/94 DESCRIPTION DAN RYAN EXPRESSWAY

SECT. 31ST STREET TO 47TH STREET STRUCT. NO. _____ DRILLED BY PATRICK DRILLING INC.

COUNTY COOK LOCATION WALL 028 S. _____, TWP. 38 N, RNC. 14 E

Boring No.	Station	Offset	Surface Elev.	D E P T H	B L O W S	Qu tsf	W %	Surface Water Elev.	Groundwater Elev. when drilling	Groundwater Elev. at Completion	Hrs.	D E P T H	B L O W S	Qu tsf	W %
W-028-3	4531+63 (NB LOCAL)	99 RT. OF NB LOCAL BL	15.2 ft						3.7						
ASPHALT PAVEMENT				15.0											
CONCRETE PAVEMENT				13.7											
Medium Dense, Brown SANDY LOAM					14	2.1	19								
trace - gravel					12	B									
					9										
					7	2.3	19								
					5	B									
					6										
FILL				9.2											
Loose to Medium Dense, Brown SANDY LOAM					5		5								
trace - gravel					2										
					26										
					5		20								
					4										
					4										
Very Loose to Loose, Gray SILT				4.7											
trace - sand					4		23								
					2										
					3										
					0		27								
					1										
					1										
Soft to Very Soft, Gray SILTY CLAY				-0.8											
trace - sand and gravel					6	1.9	19								
					6	B									
					5										
					7	1.7	19								
					7	B									
					8										
					6	1.5	22								
					7	B									
					7										
					2	2.0	17								
					4	B									
					4										

SPT (N) = Sum of last two blow values in sample. (Qu) B-Bulge S-Shear P-Penetration Test
Stations, Depths, Offset, and Elevations are in Feet

BORING W-028-3

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ROUTE FAI 90/94 DESCRIPTION DAN RYAN EXPRESSWAY

SECT. 31ST STREET TO 47TH STREET STRUCT. NO. _____ DRILLED BY PATRICK DRILLING INC.

COUNTY COOK LOCATION WALL 028 S. _____, TWP. 38 N, RNC. 14 E

Boring No.	Station	Offset	Surface Elev.	D E P T H	B L O W S	Qu tsf	W %	Surface Water Elev.	Groundwater Elev. when drilling	Groundwater Elev. at Completion	Hrs.	D E P T H	B L O W S	Qu tsf	W %
W-028-4	4532+49 (NB LOCAL)	99 RT. OF NB LOCAL BL	15.0 ft						3.5						
ASPHALT PAVEMENT				14.8											
CONCRETE PAVEMENT				13.5											
Loose, Brown SANDY LOAM					14	13									
trace - gravel					7										
					7										
					6		12								
					3										
					4										
FILL				9.0											
Loose to Medium Dense, Brown SANDY LOAM					4	11									
trace - gravel, cinders, and brick					3										
					2										
					2		9								
					2										
					3										
Very Loose to Dense, Gray SILT				4.0											
trace - sand and gravel					2	20									
					20										
					12										
					1		25								
					1										
					2										
Soft to Very Soft, Gray SILTY CLAY				-1.0											
trace - sand and gravel					6	2.9	21								
					7	B									
					7										
					3	1.1	22								
					3	B									
					4										
					2	1.3	20								
					2	B									
					3										
					3	1.2	19								
					3	B									
					3										

SPT (N) = Sum of last two blow values in sample. (Qu) B-Bulge S-Shear P-Penetration Test
Stations, Depths, Offset, and Elevations are in Feet

BORING W-028-4

REVISIONS	
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SHEET 22 OF 24

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)
COOK COUNTY
STA. 4529+75.90 TO STA. 4537+30.74
RETAINING WALL N-47N-R
SOIL BORINGS 2
S.N. 016-W977

SCALE: NTS
DATE: JUNE 9, 2006
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ROUTE FAI 90/94 DESCRIPTION DAN RYAN EXPRESSWAY

SECT. 31ST STREET TO 47TH STREET STRUCT. NO. DRILLED BY PATRICK DRILLING INC.

COUNTY COOK LOCATION WALL 028 S. , TWP. 38 N , R1G. 14 E

Boring No.	Station	Offset	Surface Elev.	D E P T H	B L O W S	Qu tsf	W %	Surface Water Elev.	Groundwater Elev.	when drilling	at Completion	after	Hrs.	D E P T H	B L O W S	Qu tsf	W %
W-028-5	4533+35 (NB LOCAL)	98 RT. OF NB LOCAL BL	15.6							1.6							
ASPHALT PAVEMENT				15.4											3		
CONCRETE PAVEMENT				14.1											2	1.9	20
Medium Dense, Brown SANDY LOAM															3	B	
trace - cinders, gravel, topsoil, and brick															4		
FILL															1	1.4	21
Loose, Brown SANDY LOAM															2	B	
trace - gravel															4		
Hard, Gray SILTY CLAY LOAM																	
trace - gravel																	
END OF BORING																	
Very Loose, Gray SILT																	
trace - sand																	
Very Soft to Very Stiff, Gray SILTY CLAY																	
trace - sand and gravel																	
END OF BORING																	

SPT (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Feet

BORING W-028-5

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Everest Engineering Company
STRUCTURE BORING LOG

Page 1 of 1
Date 4/28/03

ROUTE FAI 90/94 DESCRIPTION DAN RYAN EXPRESSWAY

SECT. 31ST STREET TO 47TH STREET STRUCT. NO. DRILLED BY PATRICK DRILLING INC.

COUNTY COOK LOCATION WALL 028 S. , TWP. 38 N , R1G. 14 E

Boring No.	Station	Offset	Surface Elev.	D E P T H	B L O W S	Qu tsf	W %	Surface Water Elev.	Groundwater Elev.	when drilling	at Completion	after	Hrs.	D E P T H	B L O W S	Qu tsf	W %
W-028-6	4534+37 (NB LOCAL)	99 RT. OF NB LOCAL BL	16.1							4.6							
ASPHALT PAVEMENT				15.9													
CONCRETE PAVEMENT				14.6													
Loose, Brown SANDY LOAM																	
trace - topsoil, brick, cinders, and gravel																	
FILL																	
Very Loose to Loose, Brown SANDY LOAM																	
trace - gravel																	
Very Hard, Gray SILTY CLAY LOAM																	
trace - gravel																	
Loose, Gray SILT																	
trace - sand																	
Very Soft to Very Stiff, Gray SILTY CLAY																	
trace - sand and gravel																	
END OF BORING																	

SPT (N) = Sum of last two blow values in sample. (Qu) B=Bulge S=Shear P=Penetration Test
Stations, Depths, Offset, and Elevations are in Feet

BORING W-028-6

REVISIONS	
NAME	DATE

SHEET 23 OF 24

ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)
COOK COUNTY
STA. 4529+75.90 TO STA. 4537+30.74
RETAINING WALL N-47N-R
SOIL BORINGS 3
S.N. 016-W977

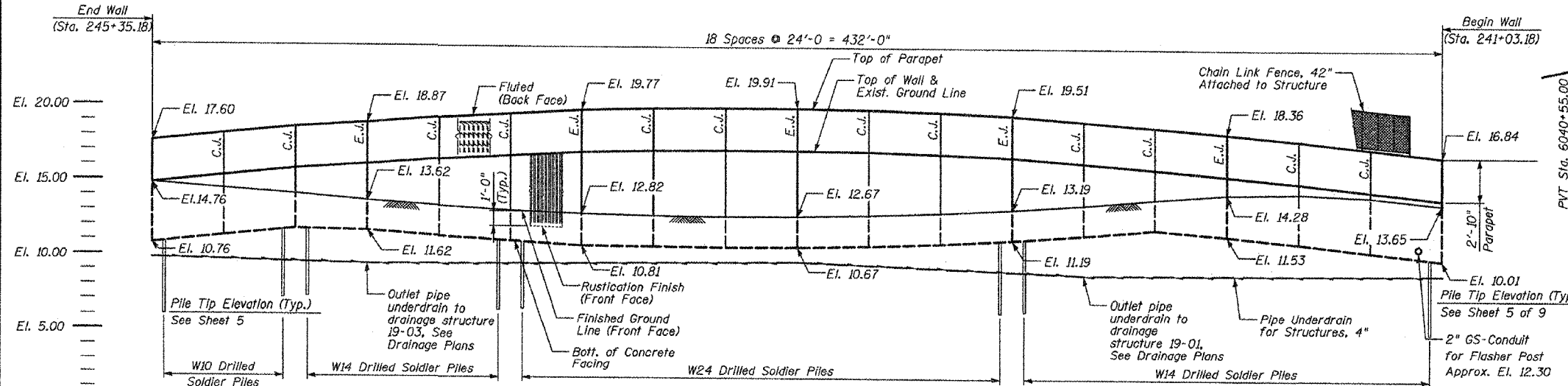
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DATE: JUNE 9, 2006

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CHECKED BY: BLU

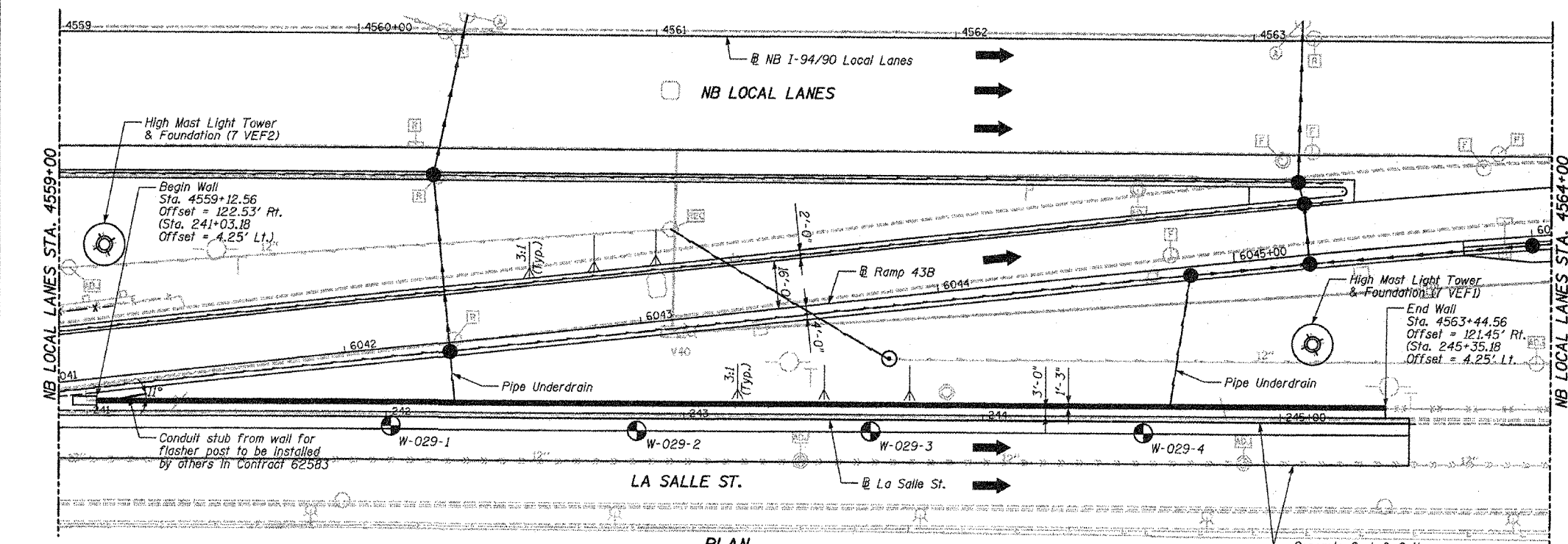
R:\6200\94\90\RETAINING WALLS\6200-0399.DWG 3:41:24 PM 6/7/2006

Benchmark: BM No. 3539
 "X" Cut on Easterly bolt of light pole
 base at the SE corner of 43rd St.
 and La Salle St.
 El. 13.10

All elevations are based on the Chicago City Datum (C.C.D.)

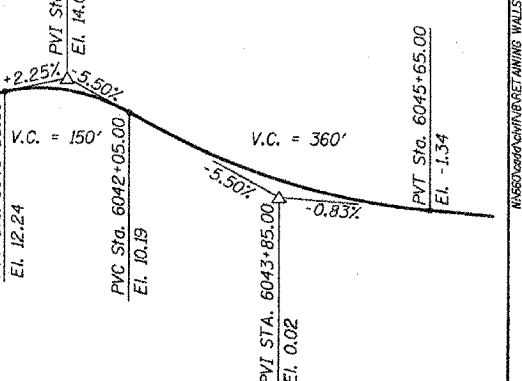


FRONT FACE ELEVATION
 (LOOKING FROM NB LOCAL LANES)
 EJ - Denotes Expansion Joint
 CJ - Denotes Construction Joint



PLAN

F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	*	COOK	565	397
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62301	*(2021-922 PT2 ETC 2324,6-1P) R-10			

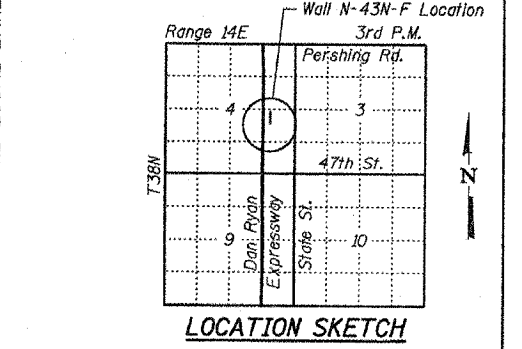


PROFILE GRADE LINE
 Along Ramp 43B
TOTAL BILL OF MATERIAL

ITEM	UNIT	QTY.
Structure Excavation	Cu. Yd.	100
Reinforcement Bars, Epoxy Coated	Pound	18,810
Concrete Structures	Cu. Yd.	87.4
Concrete Superstructures	Cu. Yd.	54.9
Protective Coat	Sq. Yd.	311
Rustication Finish	Sq. Ft.	2,374
Stud Shear Connector	Each	430
Untreated Timber Logging	Sq. Ft.	1,753
Furnishing Soldier Piles (W Section)	Foot	1,315
Drilling and Setting Soldier Piles (In Soil)	Cu. Ft.	6,545
Geocomposite Wall Drain	Sq. Yd.	147
Pipe Underdrains for Structures, 4"	Foot	495
Chain Link Fence, 42" Attached to Structure (Special)	Foot	424

LEGEND

- Soil Boring Location
- High Mast Lighting Foundation and Tower (See Notes)
- Proposed Drainage Structure
- Proposed Underdrain
- Proposed Storm Sewer



LOCATION SKETCH
 SHEET 1 OF 9

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DESIGN SPECIFICATIONS
 2002 AASHTO
DESIGN STRESSES
FIELD UNITS
 $f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)
 $f_y = 36,000$ psi (M270 Gr 36) Soldier Piles

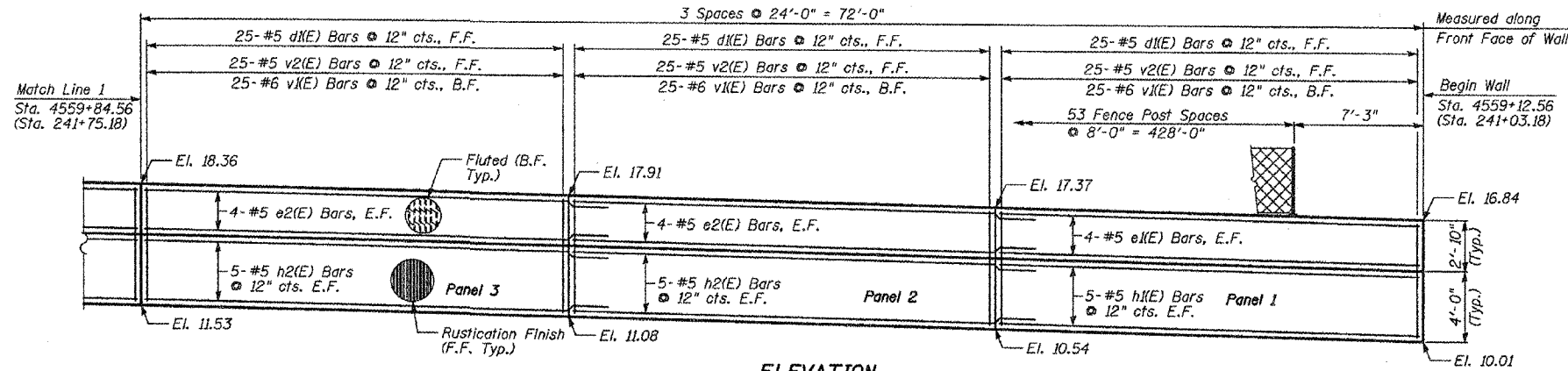
- Notes:
- Offsets given to Front Face of Wall. Station and offsets in parentheses are along Frontage Road or ramp.
 - H.M.L.T. foundations and work pads by others. See Special Provisions for Contractor Cooperation.
 - Min. Facing in contact with soldier pile shall be 3'-0".
 - Coordinate pipe underdrain outlet with Drainage Contractor.
 - Reference Top View of Detail for installing conduit sleeves in foundation in retaining wall on sheet SD8. One conduit with 24" radius elbow. Cost included with Concrete Superstructures.

REVISIONS

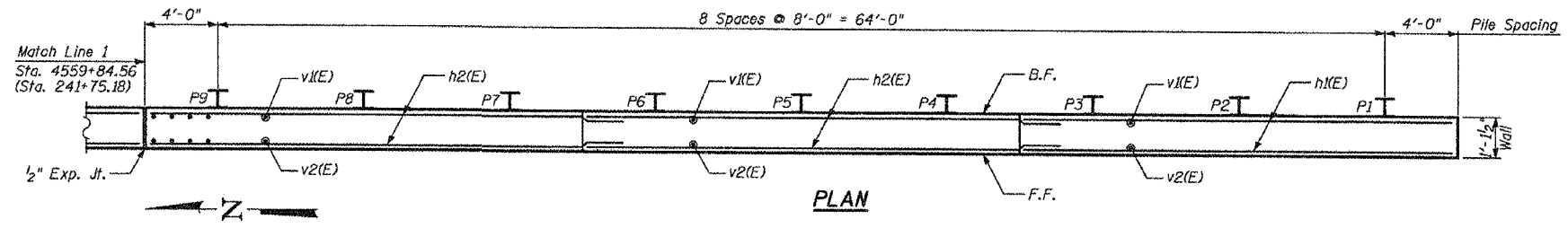
NAME	DATE
REVISOR	06/15/06

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)
RETAINING WALL N-43N-F
 GENERAL PLAN AND ELEVATION
 SCALE: NTS
 DATE: JUNE 9, 2006
 DRAWN BY: LAM
 CHECKED BY: BLU

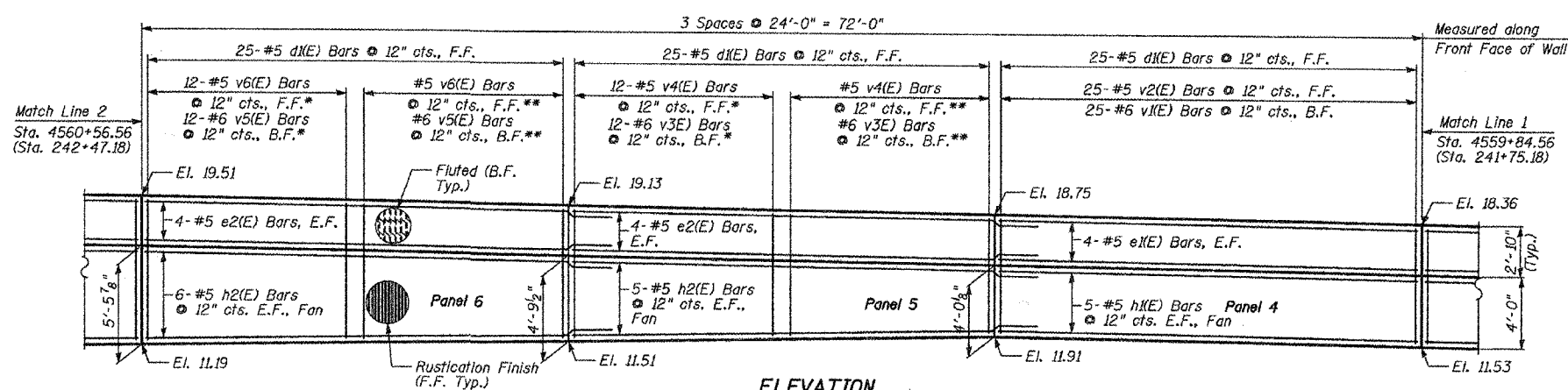
F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	*	COOK	565	398
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62301	*12021-922	PT2 ETC 2324.6-1P1	R-10	



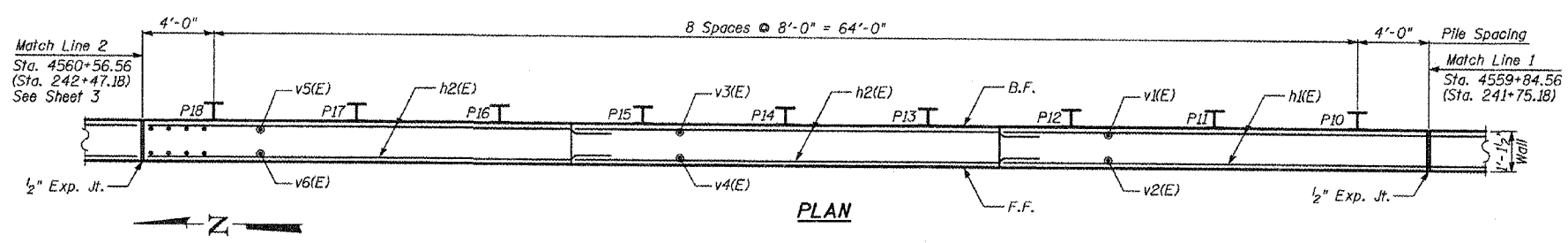
ELEVATION



PLAN



ELEVATION



PLAN

NOTES:

1. Stations in parentheses are along La Salle St.
 2. Facing in Plan Views is scaled 1:2 on an X:Y scale to show reinforcement.
 3. See details for reinforcing bar clearances.
- * Order bars full length and cut as indicated in cutting diagram.
 ** Remaining Bars from Cutting Diagram
- F.F. - denotes Front Face
 B.F. - denotes Back Face
 E.F. - denotes Each Face

MIN BAR LAP

- #5 - 2'-2"
- #6 - 2'-7"

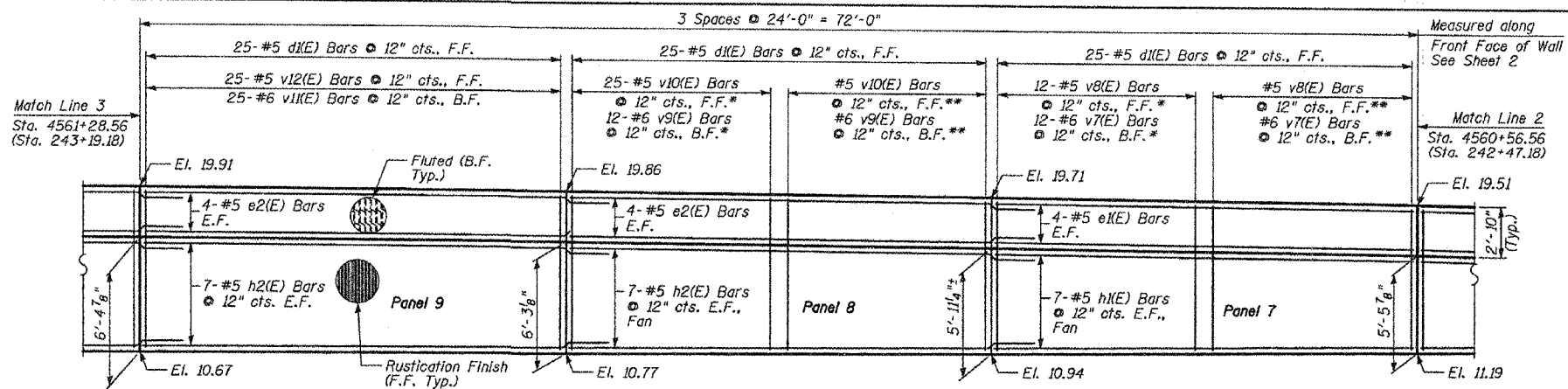
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NAME	DATE
REVISED	05/22/06

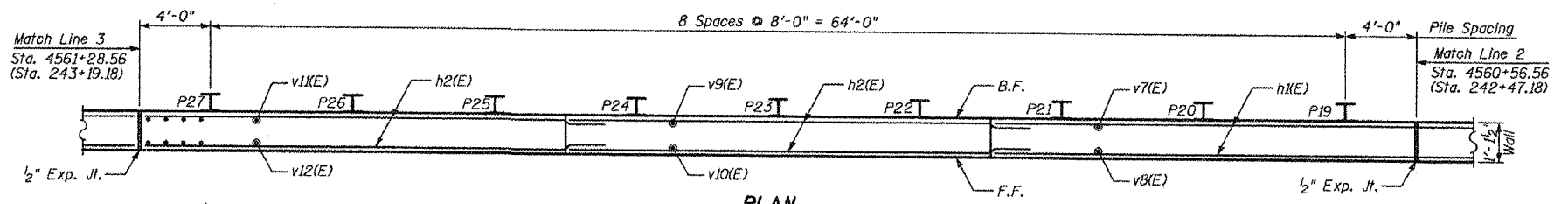
SHEET 2 OF 9
 ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)
 RETAINING WALL N-43N-F
 WALL DETAILS 1
 SCALE: NTS
 DATE: JUNE 9, 2006
 DRAWN BY: MTR
 CHECKED BY: BLU

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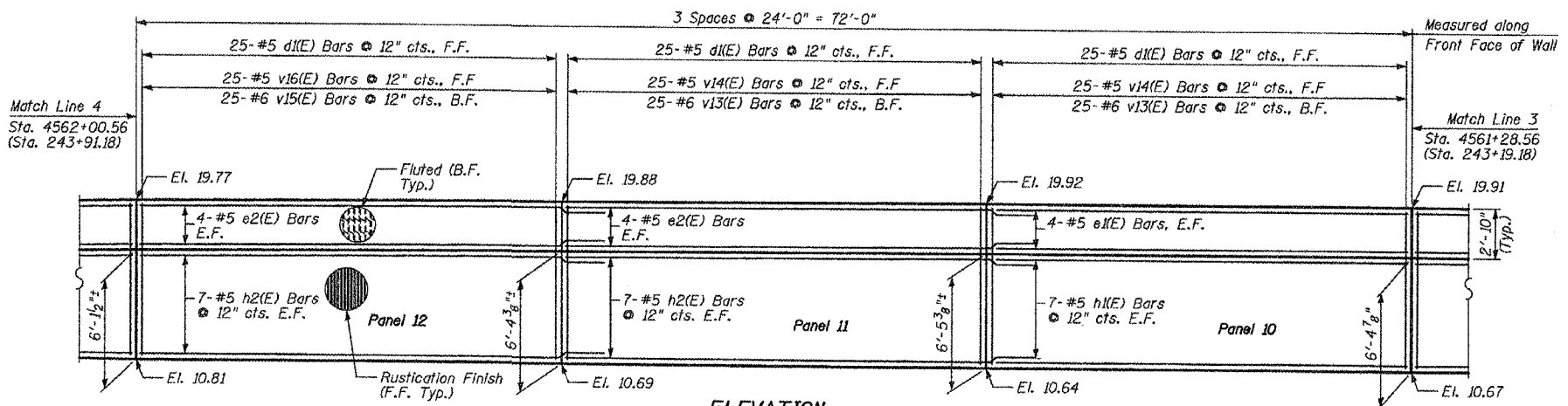
F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90	*	COOK	565	399
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
62301	*(2021-922 PT2 ETC 2324.6-1P) R-10			



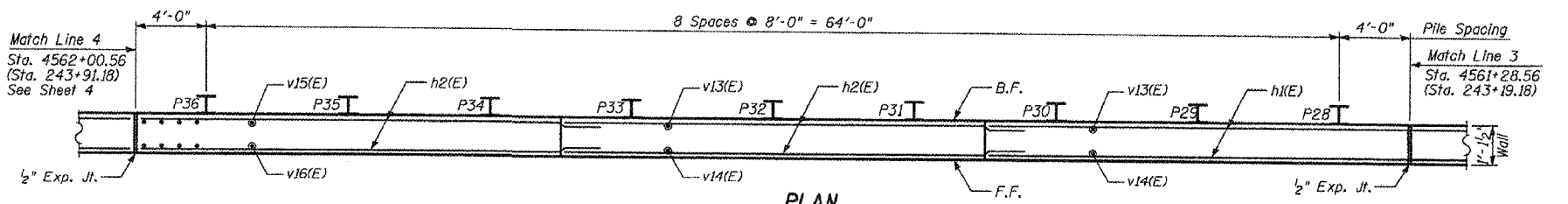
ELEVATION



PLAN



ELEVATION



PLAN

NOTES:

- Stations in parentheses are along La Salle St.
 - Facing in Plan Views is scaled 1:2 on an X:Y scale to show reinforcement.
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- ** Remaining Bars from Cutting Diagram
- F.F. - denotes Front Face
B.F. - denotes Back Face
E.F. - denotes Each Face

MIN BAR LAP
#5 - 2'-2"
#6 - 2'-7"

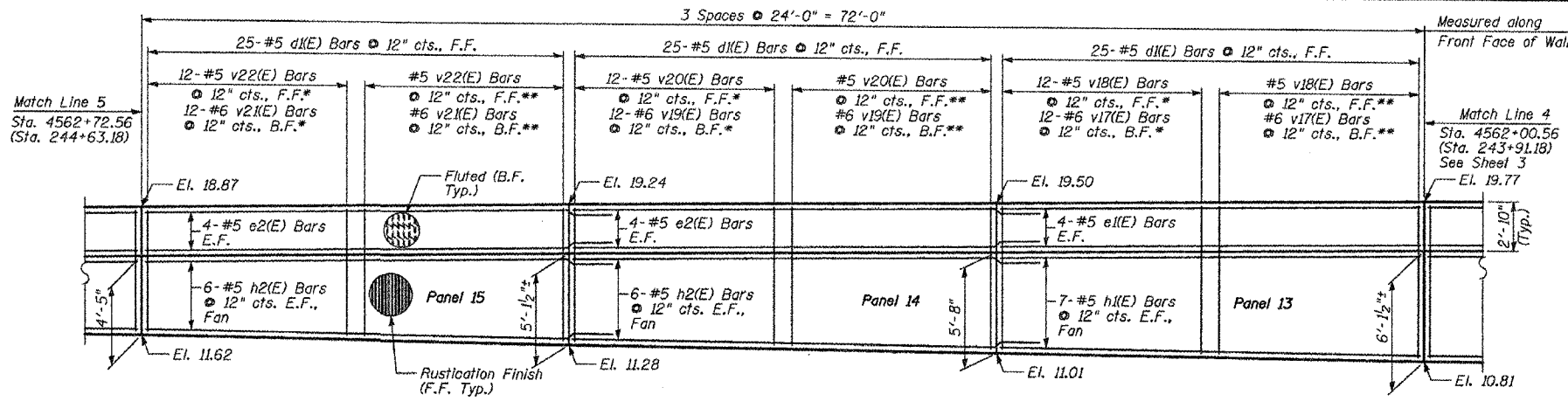
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NAME	DATE
REVISOR	06/22/06

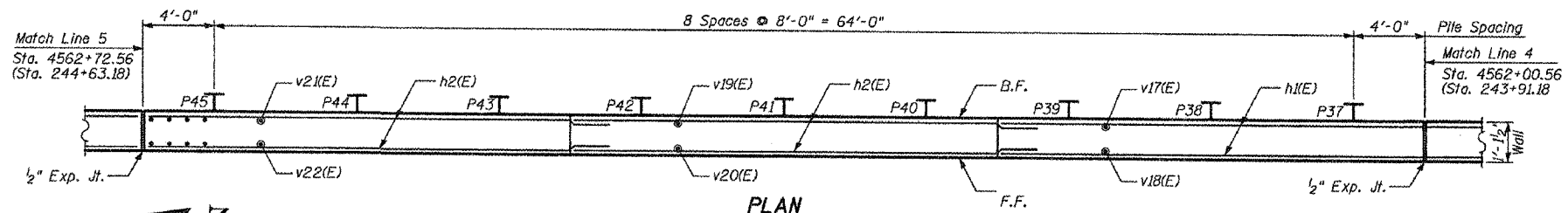
SHEET 3 OF 9
ILLINOIS DEPARTMENT OF TRANSPORTATION
F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)
**RETAINING WALL N-43N-F
WALL DETAILS 2**
SCALE: NTS
DATE: JUNE 9, 2006
DRAWN BY: LAM
CHECKED BY: BLU

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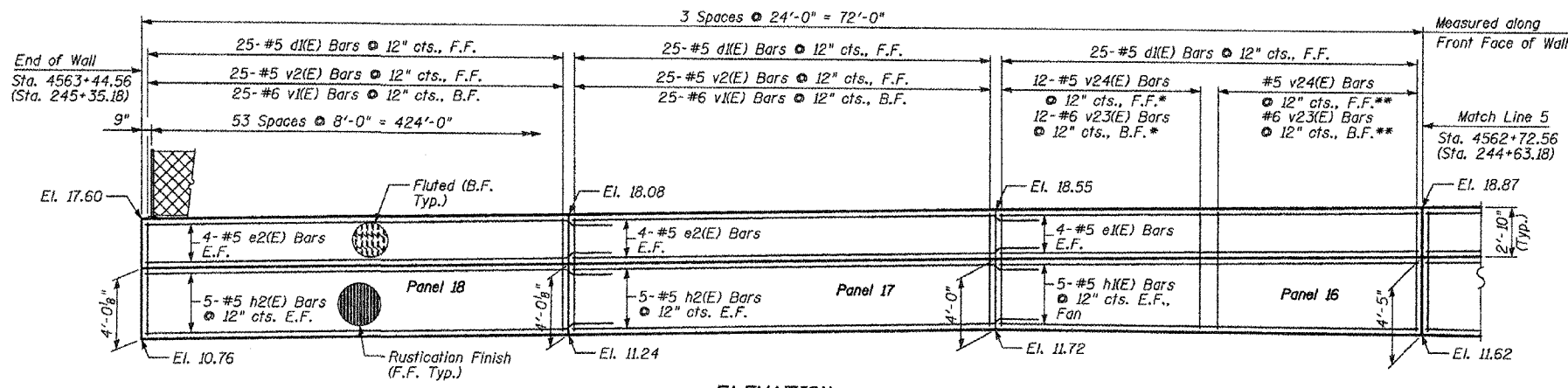
F.A.I.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
94/90		COOK	565	400
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
62301	*(2021-922 PT2 ETC 2324.6-1P) R-10			



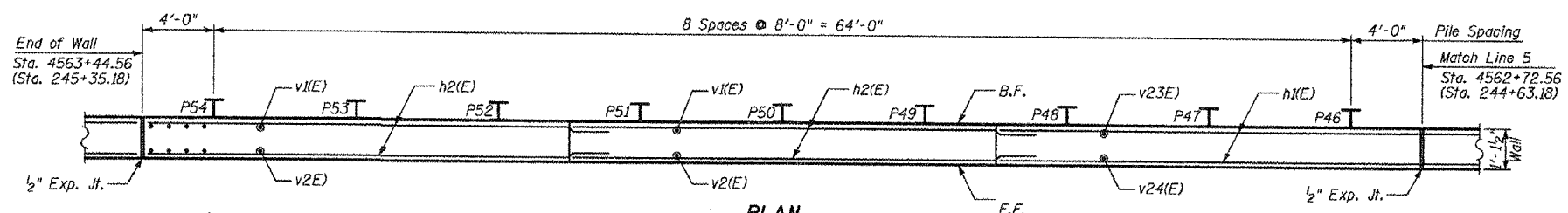
ELEVATION



PLAN



ELEVATION



PLAN

- NOTES:**
1. Stations in parentheses are along @ La Salle St.
 2. Facing in Plan Views is scaled 1:2 on an X:Y scale to show reinforcement.
 3. See details for reinforcing bar clearances.

* Order bars full length and cut as indicated in cutting diagram.
 ** Remaining Bars from Cutting Diagram

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

MIN BAR LAP
 #5 - 2'-2"
 #6 - 2'-7"

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REVISED	06/22/06

SHEET 4 OF 9

ILLINOIS DEPARTMENT OF TRANSPORTATION
 F.A.I. 94/90 (DAN RYAN EXPRESSWAY)
 GARFIELD BLVD TO 31ST STREET (NB LOCAL LANES)
 RETAINING WALL N-43N-F
 WALL DETAILS 3

SCALE: NTS
 DATE: JUNE 9, 2006

DRAWN BY: LAM
 CHECKED BY: BLU