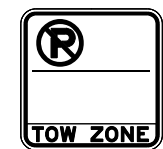
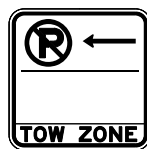


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TOW ZONE
R7-201-3
REFLECTIVE: NO
MOUNT: FLAG
(18"x18")

PEO-19-ST

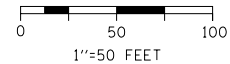


TOW ZONE
R7-201-3
REFLECTIVE: NO
MOUNT: FLAG
(18"x18")

PEO-20-ST

**SIGN NUMBERING CODE
EXAMPLE**

DIRECTION OF TRAFFIC	EB-03-LP	MOUNTING TYPE
PEO - PEORIA STREET		ST - STEEL POST
EB - EASTBOUND EISENHOWER EXPY		LP - LIGHT POLE BANDING
WB - WESTBOUND EISENHOWER EXPY		BM - BRIDGE MOUNTED
SIGN PANEL NUMBER		TS - TELESCOPING STEEL



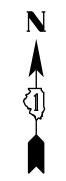
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PLOT DATE = 10/28/2013	DATE - 10/30/2013	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SIGNING PLAN
PEORIA STREET**





SCALE: 1"=50' SHEET 3 OF 4 SHEETS STA. 3700+00 TO STA. 3710+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-01R	COOK	356	101
CONTRACT NO. 60W29				
ILLINOIS FED. AID PROJECT				



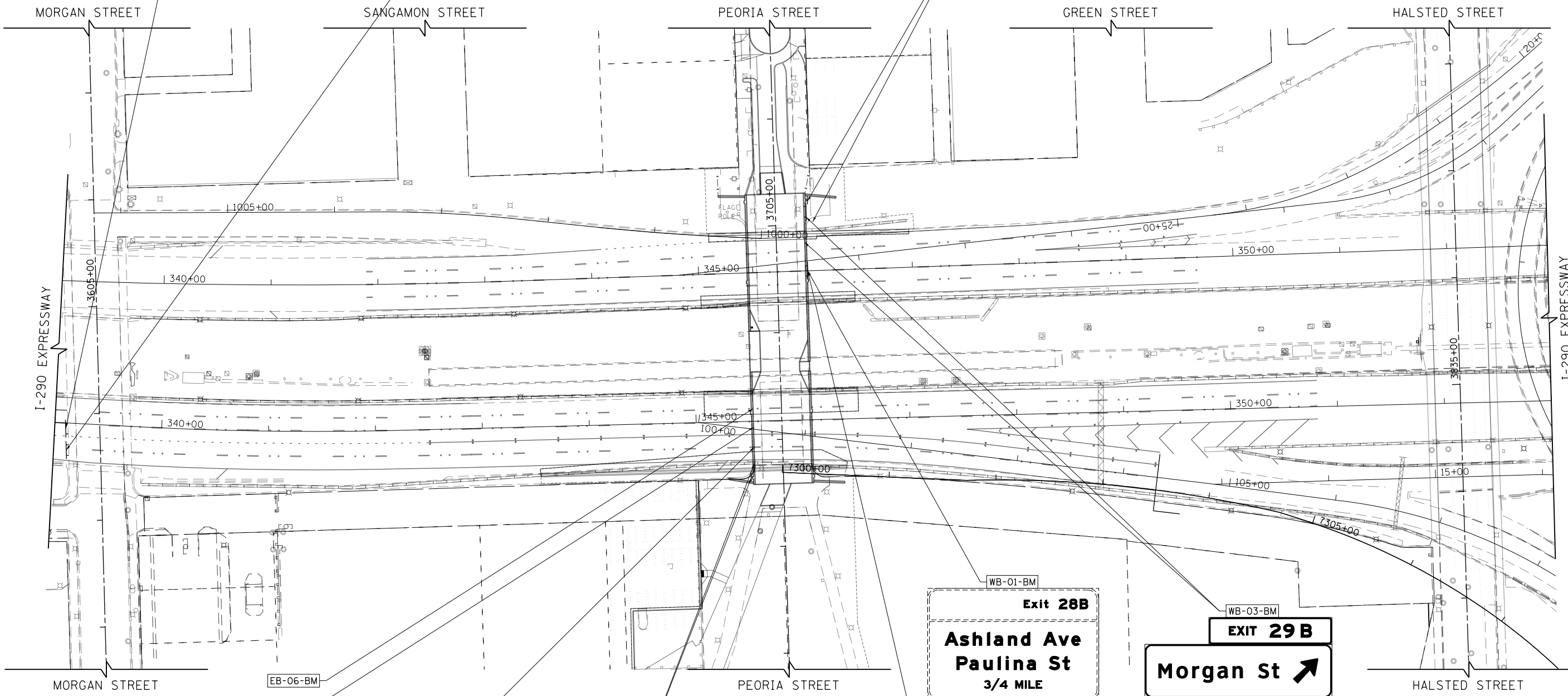





WEST Kennedy Expy
Wisconsin






EAST Ryan Expy
Indiana

EXIT ONLY


**Peoria St
900 W**

WB-04-TS





WEST Kennedy Expy
Wisconsin




EAST Ryan Expy
Indiana


**Peoria St
900 W**

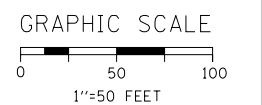
EXIT 28 B
Ashland Ave
3/4 MILE

Exit 28B
Ashland Ave
Paulina St
3/4 MILE

EXIT 29 B
Morgan St

SIGN NUMBERING CODE EXAMPLE

DIRECTION OF TRAFFIC	MOUNTING TYPE
PEO - PEORIA STREET	ST - STEEL POST
EB - EASTBOUND EISENHOWER EXPY	LP - LIGHT POLE BANDING
WB - WESTBOUND EISENHOWER EXPY	BM - BRIDGE MOUNTED
	TS - TELESCOPING STEEL



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D160W29-Sht-Sign-03.dgn
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 PLOT SCALE = 100.0000' / in.
 PLOT DATE = 10/28/2013

DESIGNED - JDT	REVISED -
DRAWN - JTR	REVISED -
CHECKED - JMG	REVISED -
DATE - 10/30/2013	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SIGNING PLAN
I-290
 SCALE: 1"=50' SHEET 4 OF 4 SHEETS STA. 339+00 TO STA. 353+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-011R	COOK	356	102

CONTRACT NO. 60W29

ILLINOIS FED. AID PROJECT

GENERAL NOTES

SPECIFICATIONS:

DESIGN: AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals. ("AASHTO Specifications") (2)

CONSTRUCTION: Current (at time of letting) Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, Supplemental Specifications and Special Provisions. ("Standard Specifications")

LOADING: 90 M.P.H. WIND VELOCITY

WALKWAY LOADING: Dead load plus 500 lbs. concentrated live load.

MINIMUM CLEARANCE: 3" greater than bridge members at all locations. (All Obstructions)

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

MATERIALS: All Structural Steel Pipe shall be ASTM A53 Grade B with a minimum yield of 35,000 p.s.i., or A500 Grade B or C with a minimum yield of 46,000 p.s.i. If A500 pipe is substituted for A53, then the outside diameter shall be as detailed and wall thickness greater than or equal to A53. All Structural Steel Plates and Shapes shall conform to AASHTO M270 Gr. 36, Gr. 50 (M183, M223 Gr. 50).

HIGH STRENGTH BOLTS: All bolts, washers, nuts and locknuts shall satisfy the requirements of ASTM designation A307 unless noted as "H.S." which shall require AASHTO M164 (A325), ASTM A449, or approved alternate. All fasteners shall be hot dip galvanized per AASHTO M232 unless otherwise specified.

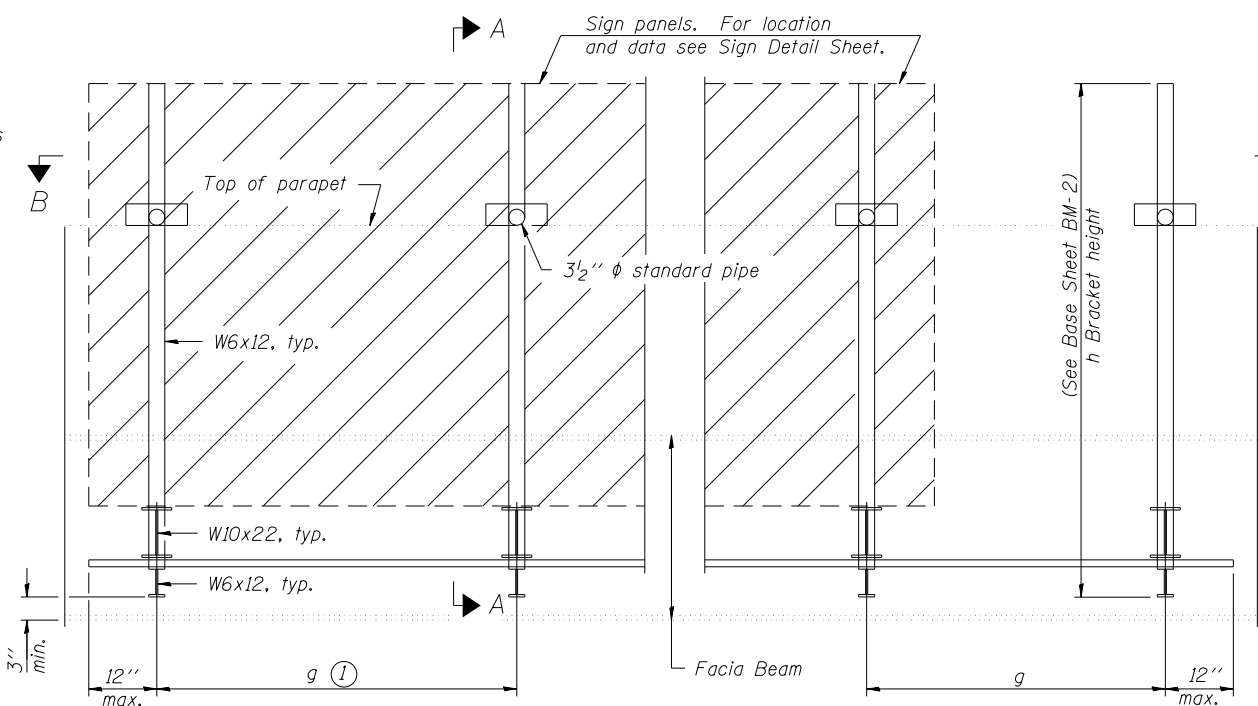
GALVANIZING: All Steel Grating, Plates, Shapes and Pipe shall be Hot Dip Galvanized after fabrication in accordance with AASHTO M111. Painting is not permitted.

ANCHOR RODS: All-threaded rod shall conform to ASTM F1554 Grade 105, 3/4" ϕ x 12" long, each with one plate washer and locknut and be hot dip galvanized per AASHTO M232. They shall be either cast into the concrete or epoxy grouted in accordance with Section 584 of the Standard Specifications. Minimum embedment in concrete shall be 9".

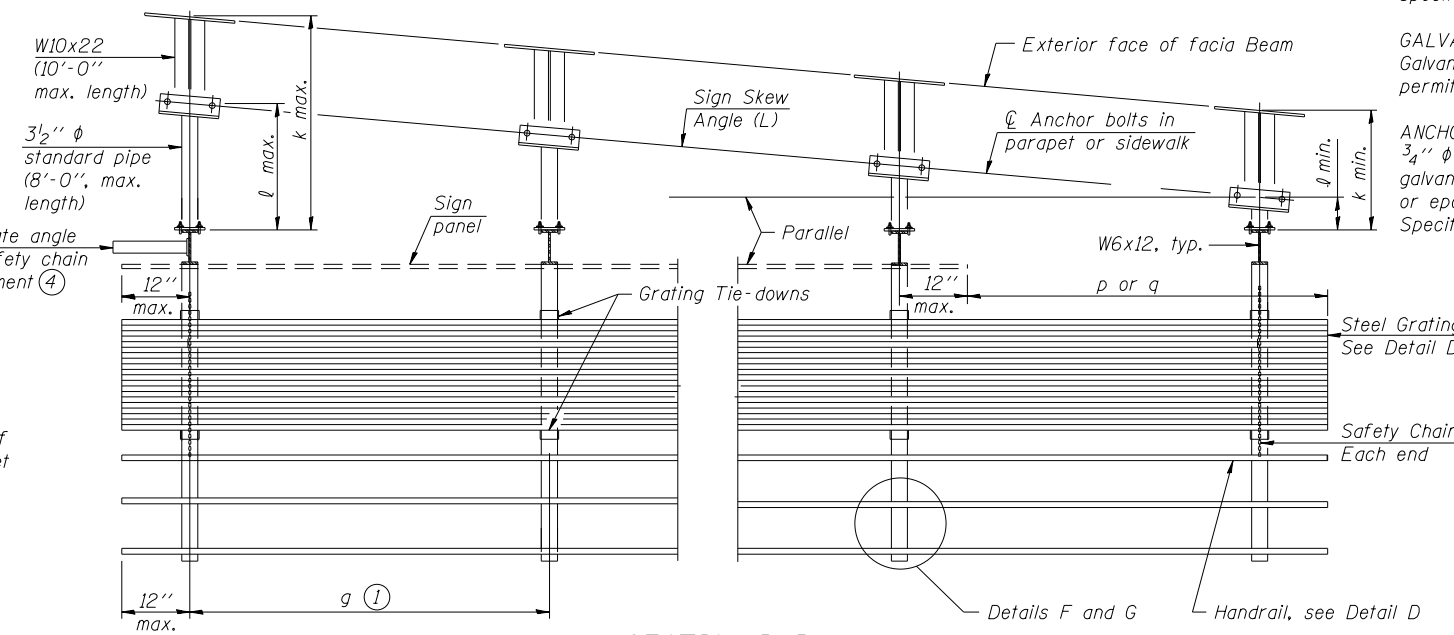
- (1) Bracket spacing $g \leq 6'-0"$, max. Spacing shall be uniform if possible but may vary $\pm 6"$ to miss existing obstruction (rail post, light poles, web stiffeners, splice plates, etc.). Adjust bracket lengths accordingly on skewed structures.
- (2) Any design modifications shall be based on the current version of applicable specifications and submitted for the Engineer's approval.
- (3) Unit price includes grating, handrail, brackets, supports, anchor bolts, fasteners, fabrication, delivery, erection, field drilling and other necessary items. Limits of payment are based on grating length (cw, dw) unless otherwise specified. For Safety Chain Details and Details D, F and G, see Base Sheet BM-4.
- (4) If walkway bracket at safety chain location is behind sign, add angle to bracket. See detail on Base Sheet BM-4.

TOTAL BILL OF MATERIAL

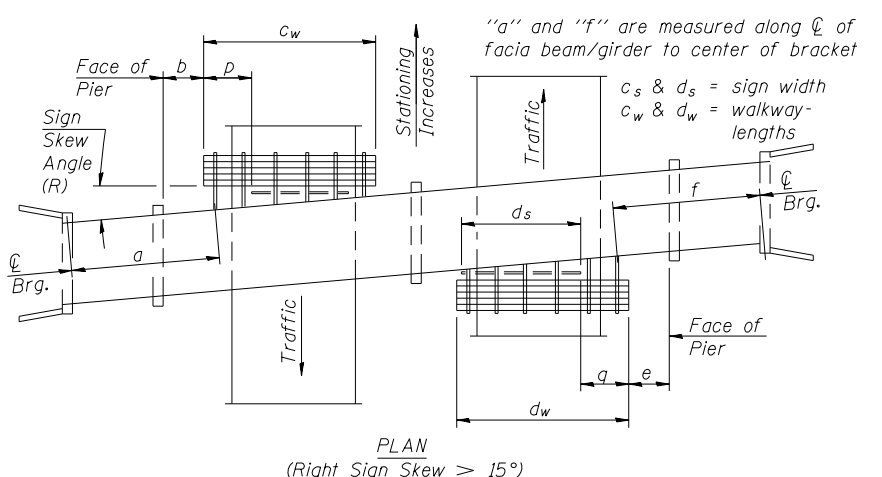
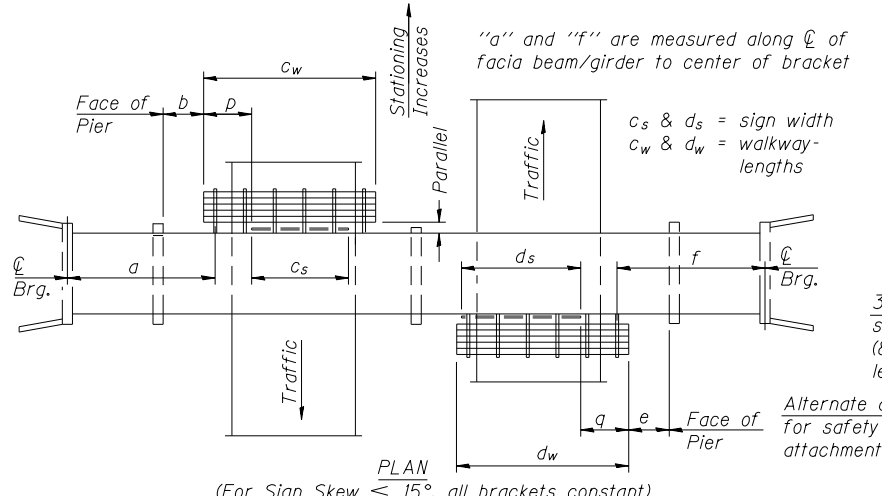
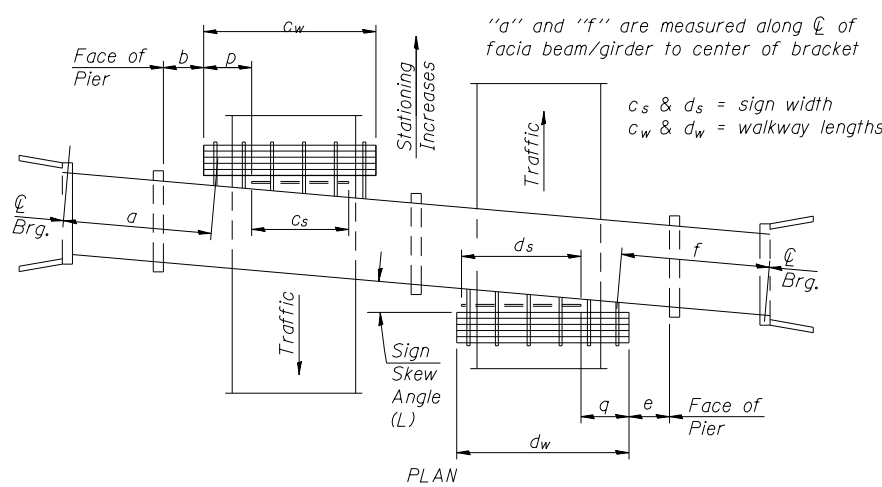
(3) OVERHEAD SIGN STRUCTURE - BRIDGE MOUNTED	Foot	35
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TYPICAL FRONT ELEVATION
(With lights, safety chain and handrail omitted for clarity.)



SECTION B-B
(Shown: Left Sign Skew > 15°)



Structure Number	Sign Skew Angle (L) or (R)	Bridge Station	Bridge Structure Number	Contract Route Designation	a	b	c _s	c _w	d _s	d _w	e	f	g	No. of Brackets (Total)	p	q	Total Grating/Hndrl. Lengths (c _w + d _w)
1B0161290L029.7A	0°	3704+57	016-1708	MUN 2090	-	-	-	-	17'-0"	0'-0"	-	64'-0 3/4"	5'-0"	4	-	0'-0"	0'-0"
1B0161290L029.7B	0°	3705+12	016-1708	MUN 2090	-	-	-	-	18'-0"	0'-0"	-	8'-6 3/4"	5'-4"	4	-	0'-0"	0'-0"

Dimensions a, b, e, f & g may vary as approved by the Engineer, see (1).
When c_w < c_s and/or d_w < d_s, use alternate brackets without walkway supports where applicable, see (3).

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D160W29-Sht-Sign-Det-02.dgn
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PLOT SCALE = 2.0000' / in.
PLOT DATE = 10/28/2013

DESIGNED - WJC
DRAWN - WJC
CHECKED - KAM
DATE - 10/30/2013

REVISED -
REVISED -
REVISED -
REVISED -

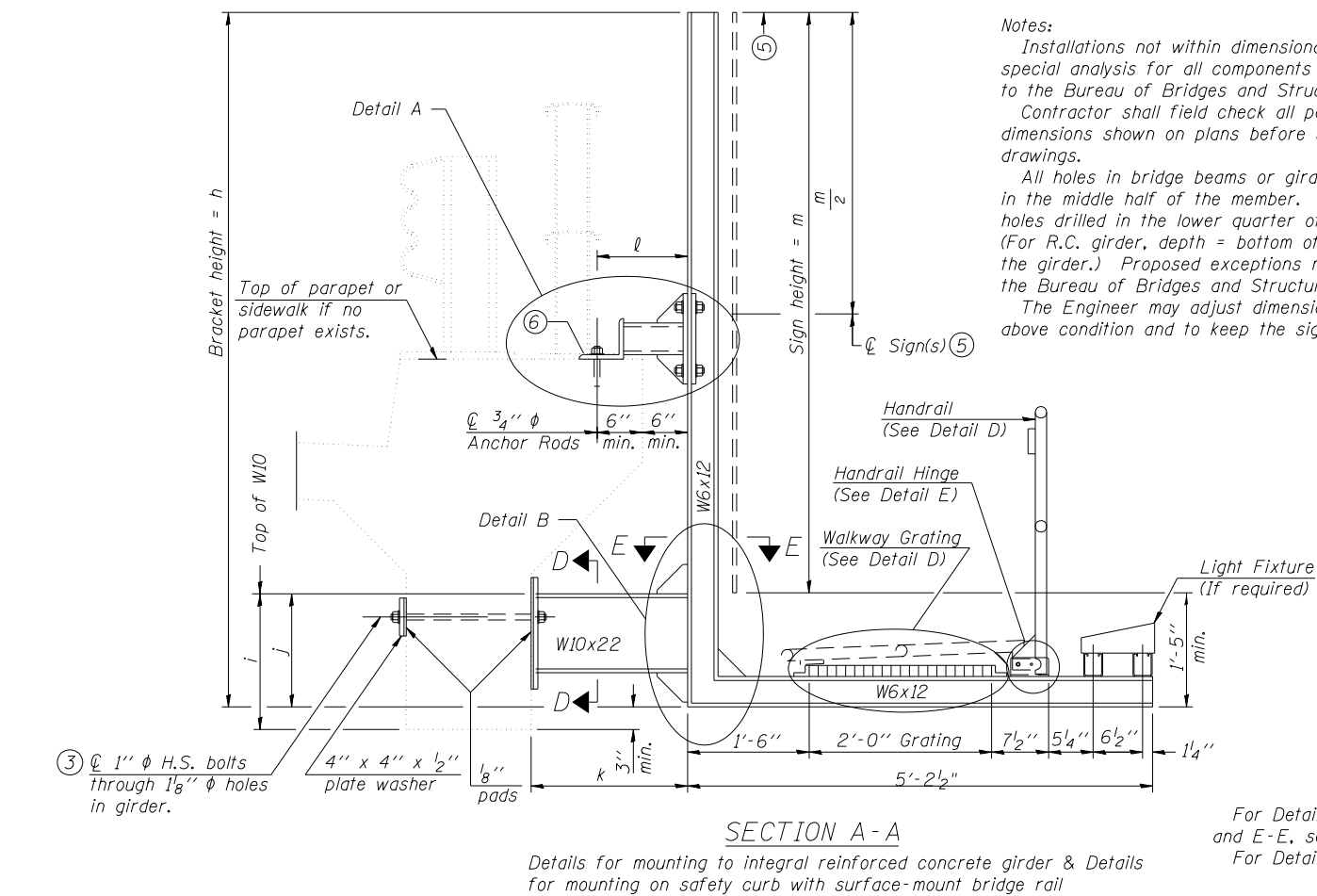
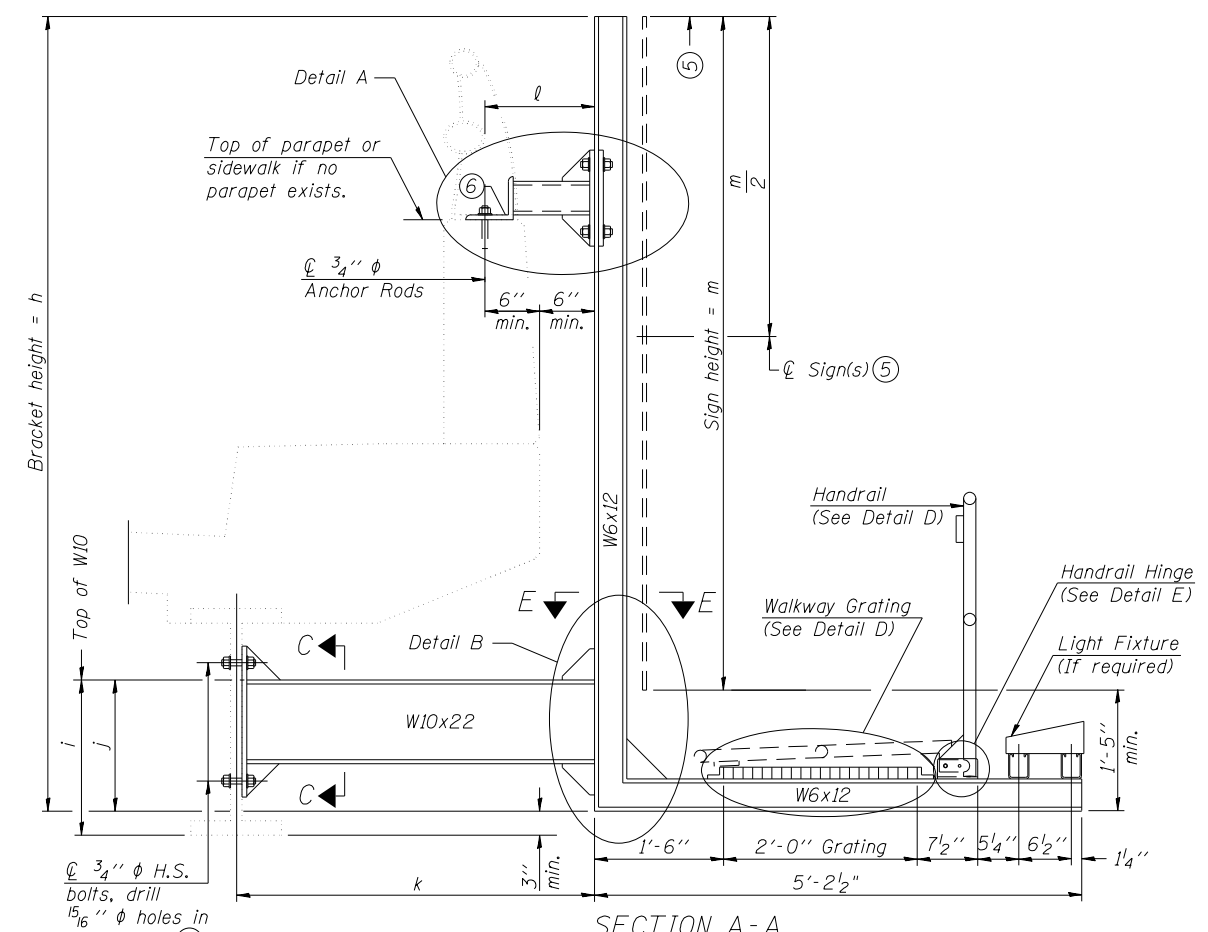
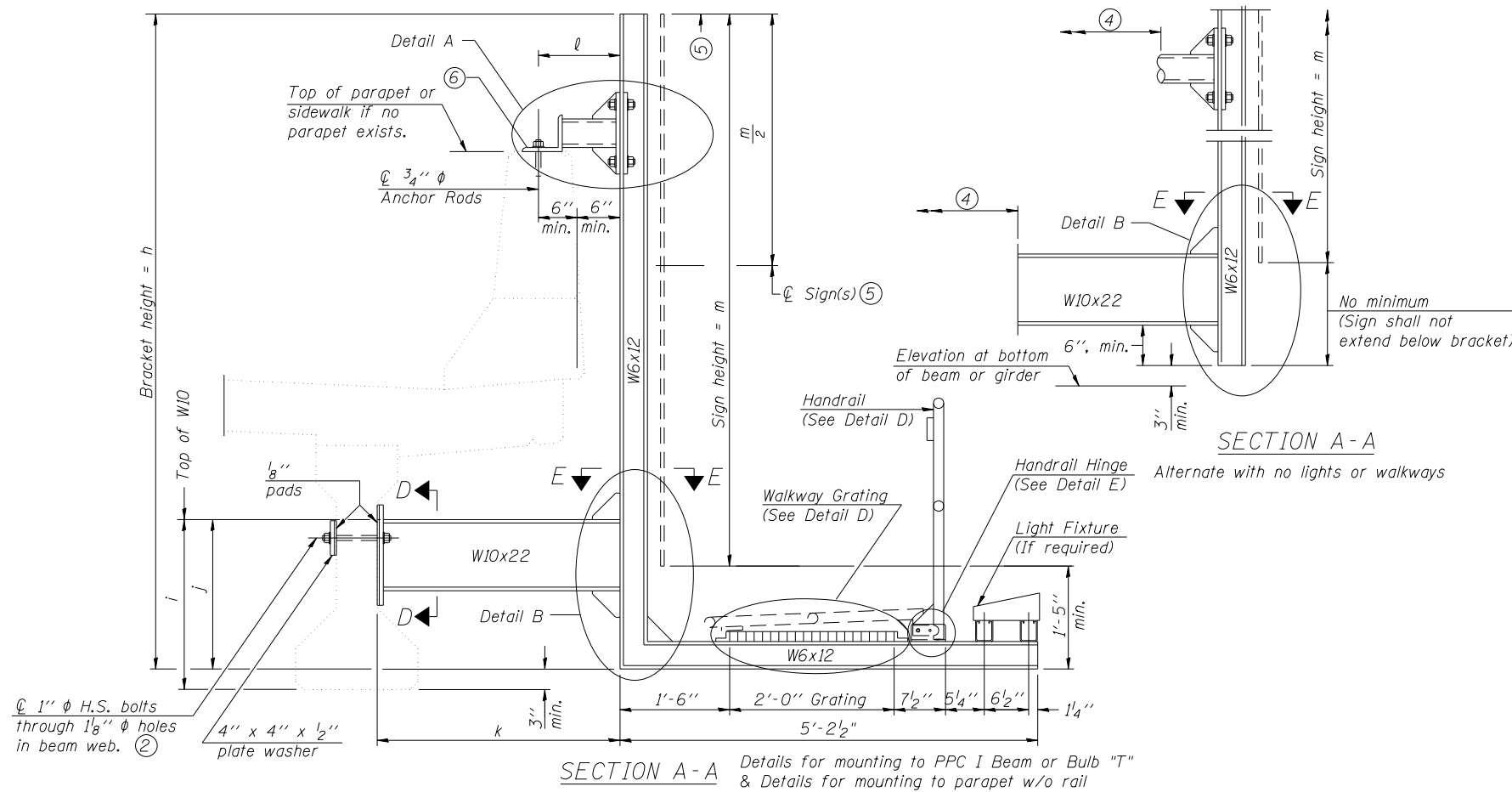
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE MOUNT SIGN STRUCTURES
GENERAL PLAN AND ELEVATION

SCALE: NONE SHEET 1 OF 5 SHEETS STA. TO STA.

F.A.I. R.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-011R	COOK	356	103
CONTRACT NO. 60W29			ILLINOIS FED. AID PROJECT	

FILE PATH = p:\388035-projects\11000-CD-005-Roadway\Sheets\60W29-Sht-Sign-Det-03.dgn



Notes:
 Installations not within dimensional limits shown require special analysis for all components and must be submitted to the Bureau of Bridges and Structures for approval. Contractor shall field check all pertinent existing bridge dimensions shown on plans before submitting shop drawings.
 All holes in bridge beams or girders should be located in the middle half of the member. There shall be no holes drilled in the lower quarter of the member's depth. (For R.C. girder, depth = bottom of deck to bottom of the girder.) Proposed exceptions must be approved by the Bureau of Bridges and Structures.
 The Engineer may adjust dimension "i" to meet the above condition and to keep the sign level.

- ① Holes in new steel members may be drilled in the fabrication shop or in the field. Field drill existing members.
- ② For new PPC I beams, holes shall be formed during casting. For existing PPC I beams, prestressing strand locations shall be determined and spaced to miss strands by 6", min. Minimize spalling during field drilling of existing beams.
- ③ For new construction, form holes. For existing RC beams, locate primary reinforcement and space holes to miss by 6", min. Minimize spalling and concrete fracturing/damage during field drilling of existing concrete. Spalls over 1/4" deep or beyond the coverage of the 4x4 plate washer shall be repaired with epoxy mortar before installing washer.
- ④ For attachment details of 3 1/2" pipe and W10x22, see other sections as applicable.
- ⑤ Sign shall not extend more than 6" above top of bracket, and this dimension may vary to keep sign level if bridge is on grade or vertical curve. Multiple signs of various heights shall share a common horizontal centerline and use equal bracket heights. If no sign is attached to a W6x12 vertical (bracket only supporting walkway), dimension h shall be the same as an adjacent bracket with a sign attached, unless Engineer specifically directs shorter brackets due to locational restraints on future uses. (See Detail A for minimum bracket height.)
- ⑥ For bridge mounted sign structures installed on new bridges with railing, during design, bracket spacing must be coordinated with railing post spacing and the Contractor must install upper brackets prior to railing installation. For bridge mounted sign structures installed on existing bridges with railing, during design, brackets spacing must be coordinated with railing post spacing and the Contractor must temporarily remove sections of railing to facilitate upper bracket installation. If it is determined during design that existing railings can't be removed, alternate upper connection details must be developed for the contract plans and approved by the Bureau of Bridges and Structures.

Structure Number	Station	h	i	j	k max. (10'-0" max.)	l max. (8'-0" max.)	m (15'-0" max.)
1B0161290L029.7A	3704+57	8'-0 1/8"	1'-10 3/16"	1'-4 1/8"	4'-0"	1'-6"	8'-6"
1B0161290L029.7B	3705+12	7'-8 1/16"	1'-9 15/16"	1'-4 1/8"	4'-0"	1'-6"	7'-6"

For Details A & B, Sections C-C, D-D and E-E, see Base Sheet BM-3.
 For Details D & E, see Base Sheet BM-4.



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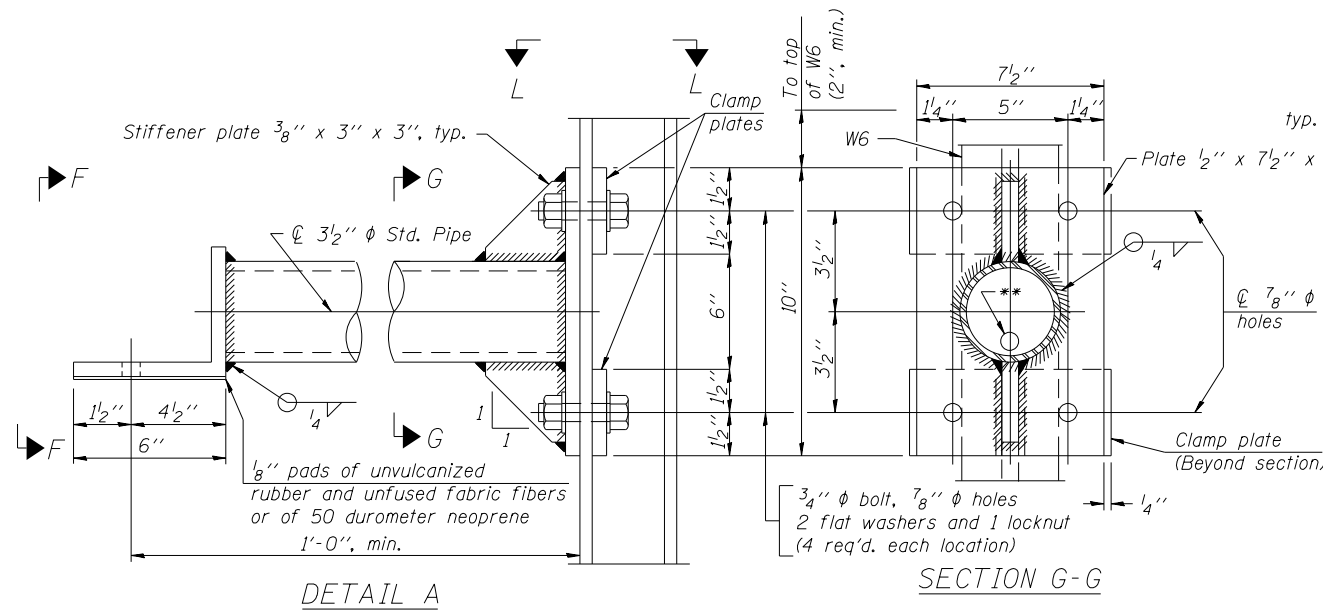
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

BRIDGE MOUNT SIGN STRUCTURES WALKWAY AND CONNECTION DETAILS	
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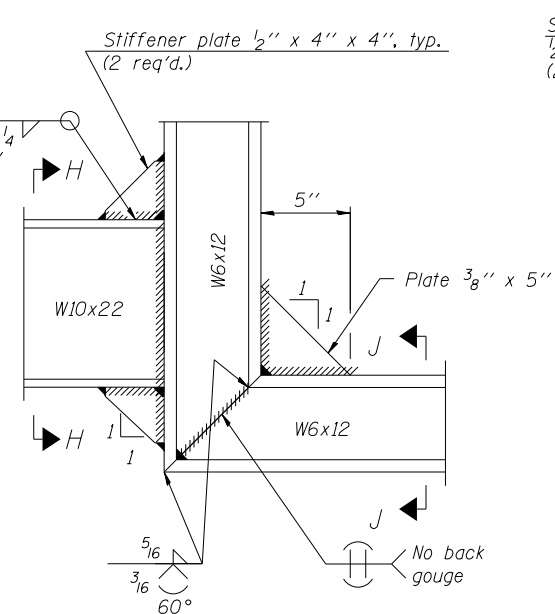
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90/94/290	2013-011R	COOK	356	104
ILLINOIS FED. AID PROJECT				

CONTRACT NO. 60W29

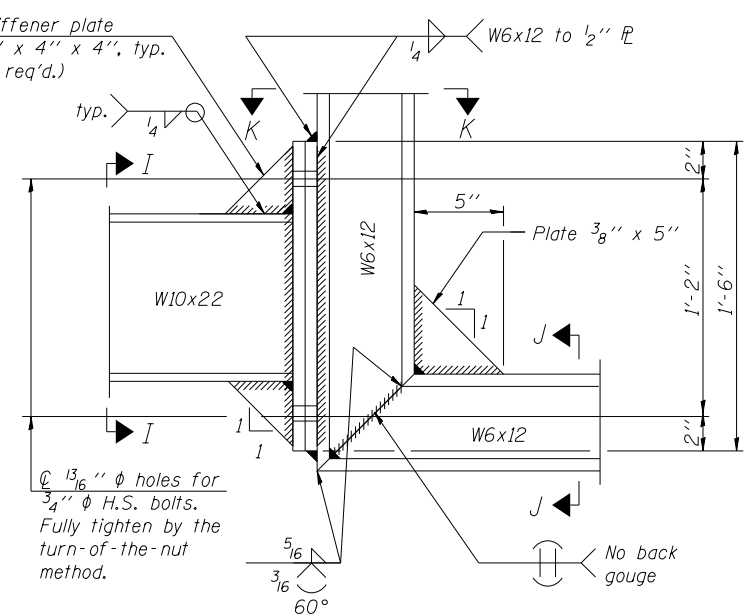
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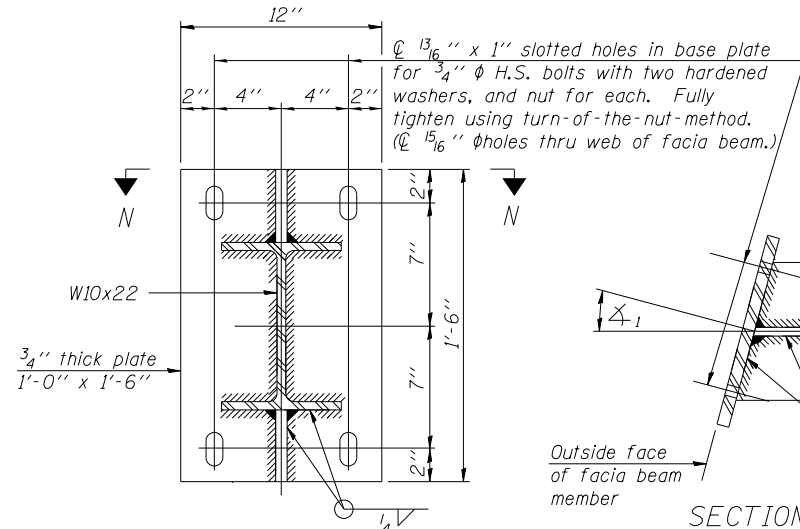
DETAIL A



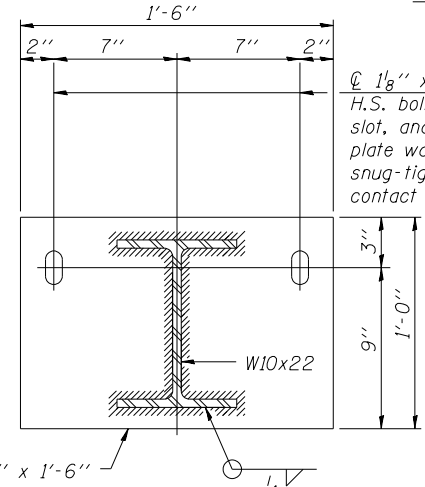
DETAIL B - WELDED W10x22 TO W6x12 CONNECTION



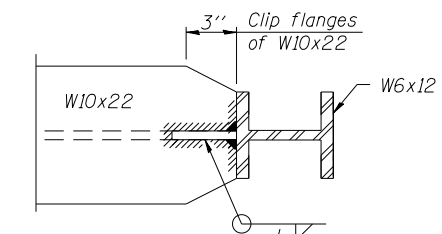
DETAIL B - ALTERNATE BOLTED W10x22 TO W6x12 CONNECTION



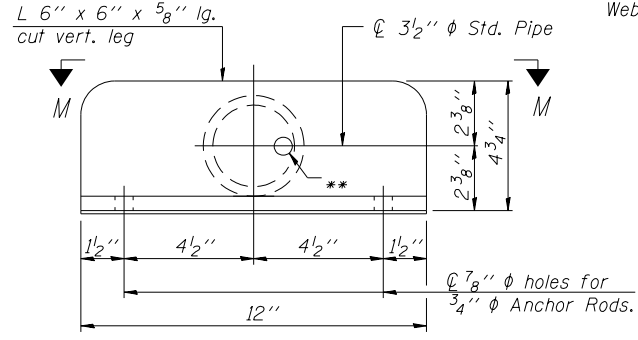
SECTION C-C
Steel beam or girder connection plate details



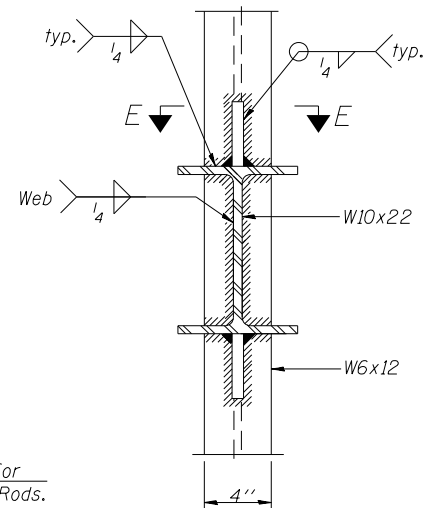
SECTION D-D
Concrete beam or girder connection plate details.



SECTION E-E

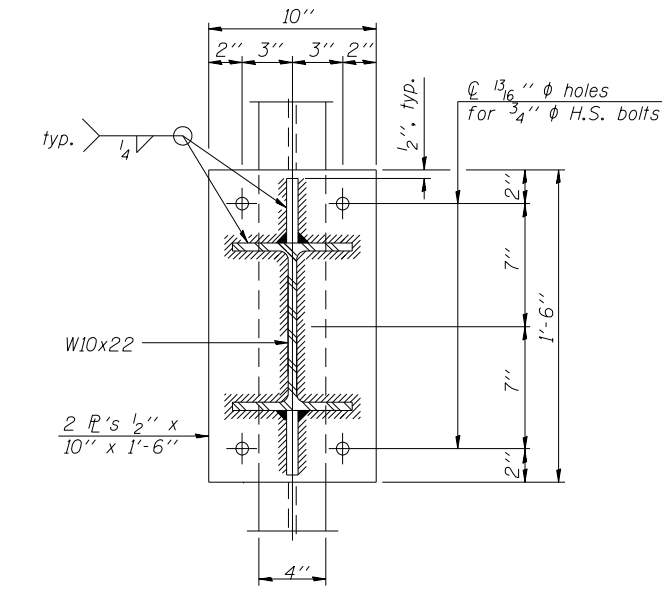


VIEW F-F

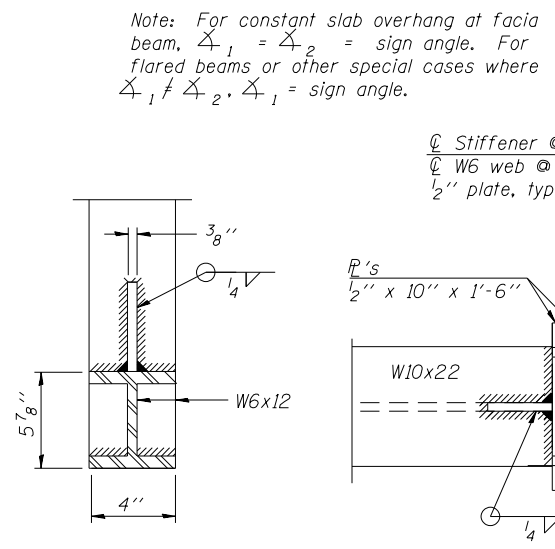


SECTION H-H

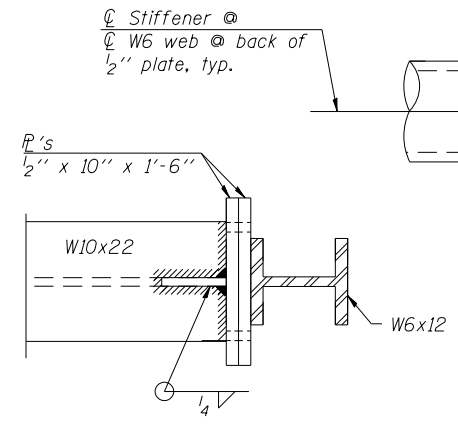
** 1 3/16 inch holes for galvanizing. After galvanizing, install 7/8 inch A307 hot-dip galvanized bolt to close hole in angle. (No bolt required in 1/2 inch plate.)



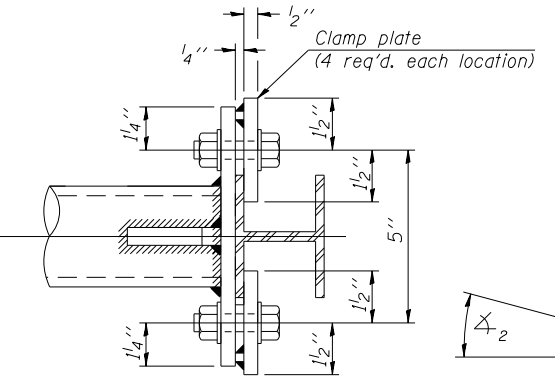
SECTION I-I



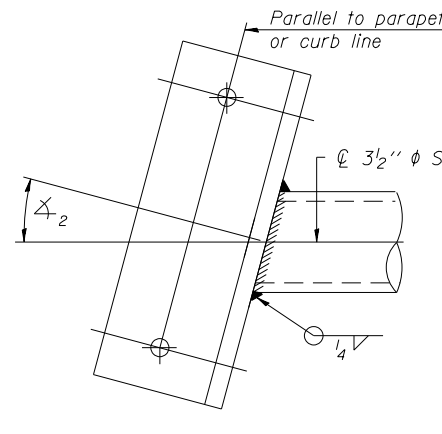
SECTION J-J



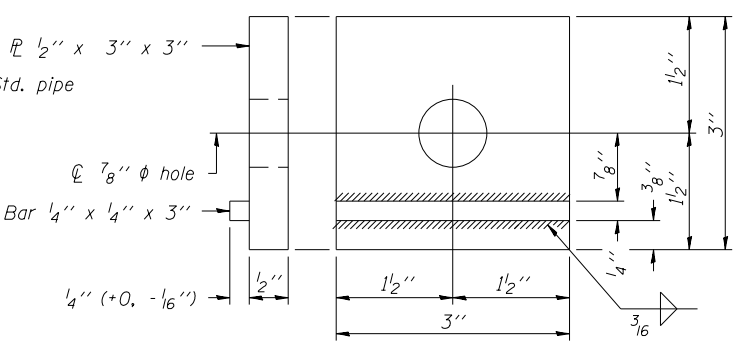
SECTION K-K



SECTION L-L



SECTION M-M
Skewed connection detail for 3 1/2 inch pipe to parapet.



CLAMP PLATE DETAILS

Note: For constant slab overhang at facia beam, $\Delta_1 = \Delta_2 =$ sign angle. For flared beams or other special cases where $\Delta_1 \neq \Delta_2$, $\Delta_1 =$ sign angle.



DI60W29-Sht-Sign-Det-04.dgn	DESIGNED - WJC	REVISED -
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

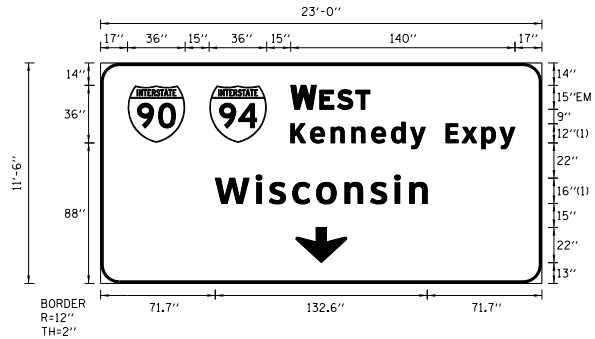
BRIDGE MOUNT SIGN STRUCTURES
CONNECTION DETAILS

SCALE: NONE SHEET 3 OF 5 SHEETS STA. TO STA.

F.A.I. R.E. 90/94/290	SECTION 2013-01R	COUNTY COOK	TOTAL SHEETS 356	SHEET NO. 105
CONTRACT NO. 60W29			ILLINOIS FED. AID PROJECT	

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SIGN DETAIL
1:100



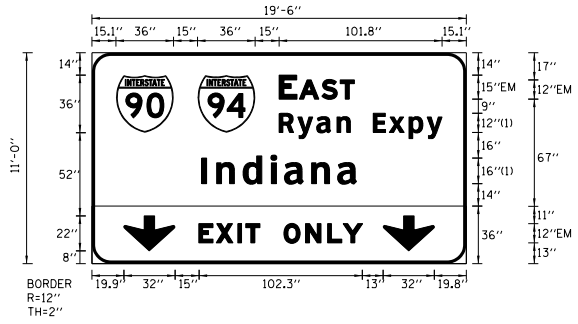
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BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Overhead
BACKGROUND	TYPE: ZZ SHEETING COLOR: Green
LEGEND/BORDER	TYPE: ZZ SHEETING COLOR: White

SYMBOL	ROT	X	Y	WID	HT
M1_1	0	17	88	36	36
M1_1	0	68	88	36	36
ARDOWN	0	122	13	32	22

Panel Style: guide_exp_overhead.ssi
 Dimensions are in inches.tenths
 Letter locations are panel edge to lower left corner
 FONT: (1) ClearviewHwy-5-W
 M.U.T.C.D.: 2009 Edition

LETTER POSITIONS (X)													LENGTH	SERIESIZE					
W	E	S	T													EM 2000			
119	137.1	148.1	159.6													49.5	15.12		
K	e	n	n	e	d	y		E	x	p	y						ClearviewHwy-5-W		
119	131.2	144.2	157	169.5	181.9	193.7	203.1	216	226	238.3	249.7						140.1	129.8	
W	i	s	c	o	n	s	i	n										ClearviewHwy-5-W	
71.7	97.3	105.5	120.2	135	152.9	168.8	183.8	193.3										132.6	16/13

SIGN DETAIL
1:100



SIGN NUMBER	EB-02-BM
WIDTH x HGHT.	19'-6" x 11'-0"
BORDER WIDTH	2"
CORNER RADIUS	12"
MOUNTING	Overhead
BACKGROUND	TYPE: ZZ SHEETING COLOR: Green & Yellow
LEGEND/BORDER	TYPE: ZZ SHEETING COLOR: White & Black

SYMBOL	ROT	X	Y	WID	HT
M1_1	0	15.1	82	36	36
M1_1	0	66.1	82	36	36
ARDOWN	0	19.9	8	32	22
ARDOWN	0	182.2	8	32	22

Panel Style: guide_exp_overhead.ssi
 Dimensions are in inches.tenths
 Letter locations are panel edge to lower left corner
 FONT: (1) ClearviewHwy-5-W
 M.U.T.C.D.: 2009 Edition

LETTER POSITIONS (X)													LENGTH	SERIESIZE					
E	A	S	T															EM 2000	
117.1	129.7	143.7	155.2															47	15.12
R	y	a	n		E	x	p	y											ClearviewHwy-5-W
117.1	128.7	140.5	153.3	161.6	175.9	185.9	198.2	209.6										101.8	129.8
I	n	d	i	a	n	a													ClearviewHwy-5-W
68.6	78	94.5	111.9	120.4	137.4	153.6												96.9	16/13
E	X	I	T	O	N	L	Y												EM 2000
66.8	77.7	91.2	96.2	120	133.6	147.3	157											102.3	12

DI60W29-sht-Sign-Det-05.dgn	DESIGNED - JDT	REVISED -
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DESIGNED - JDT	REVISED -
DRAWN - BAW	REVISED -
CHECKED - JMG	REVISED -
DATE - 10/30/2013	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

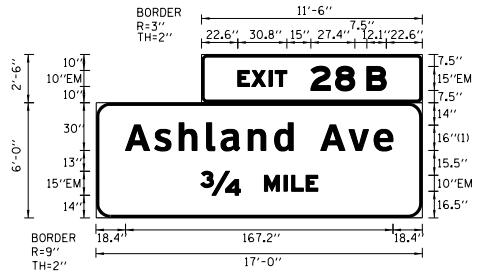
BRIDGE MOUNT SIGN STRUCTURES			
BRIDGE MOUNTED SIGN PANEL DESIGN DETAIL			
SCALE: NONE	SHEET 4	OF 5 SHEETS	STA. TO STA.

F.A.I. RTE. 90/94/290	SECTION 2013-011R	COUNTY COOK	TOTAL SHEETS 356	SHEET NO. 106
ILLINOIS FED. AID PROJECT				

CONTRACT NO. 60W29

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SIGN DETAIL
1:100



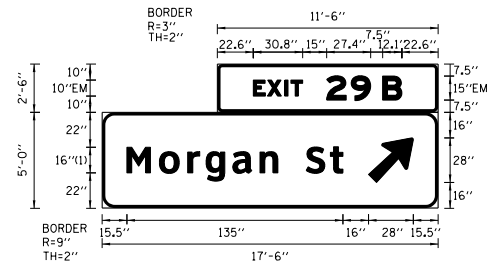
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WIDTH x HGHT.	17'-0" x 6'-0"
BORDER WIDTH	2"
CORNER RADIUS	9" (Guide), 3" (Exit)
MOUNTING	Overhead
BACKGROUND	TYPE: ZZ SHEETING
	COLOR: Green
LEGEND/BORDER	TYPE: ZZ SHEETING
	COLOR: White

SYMBOL	ROT	X	Y	WID	HT

Panel Style: guide_exp_overhead.ssi FONT: (1) ClearviewHwy-5-W
 Dimensions are in inches.tenths
 Letter locations are panel edge to lower left corner M.U.T.C.D.: 2009 Edition

LETTER POSITIONS (X)													LENGTH	SERIESIZE			
E	X	I	T	2	8	B									EM 2000		
22.6	31.4	42.2	46	68.4	83.7	103.3									92.9	10,15	
A	s	h	l	a	n	d		A	v	e						ClearviewHwy-5-W	
18.4	36.6	52	69.2	78.1	95.1	111.6	123.2	140.5	158.1	173.8					167.2	1613	
34	M	I	L	E												EM 2000	
65.4	105.3	117.4	122.2	131.2												73.3	15,10

SIGN DETAIL
1:100



SIGN NUMBER	WB-03A-BM & WB-03B-BM
WIDTH x HGHT.	17'-6" x 5'-0"
BORDER WIDTH	2"
CORNER RADIUS	8"
MOUNTING	Overhead
BACKGROUND	TYPE: ZZ SHEETING
	COLOR: Green
LEGEND/BORDER	TYPE: ZZ SHEETING
	COLOR: White

SYMBOL	ROT	X	Y	WID	HT
AR_Type A	315	166.5	16	22.2	35.6

Panel Style: guide_exp_overhead.ssi FONT: (1) ClearviewHwy-5-W
 Dimensions are in inches.tenths
 Letter locations are panel edge to lower left corner M.U.T.C.D.: 2009 Edition

LETTER POSITIONS (X)													LENGTH	SERIESIZE			
E	X	I	T	2	9	B										EM 2000	
22.6	31.4	42.2	46	68.4	83.7	103.3										92.9	10,15
M	o	r	g	a	n			S	t								ClearviewHwy-5-W
15.5	35.8	53.6	65	81.8	98.8	109.9	127.6	142.7								135.1	1613

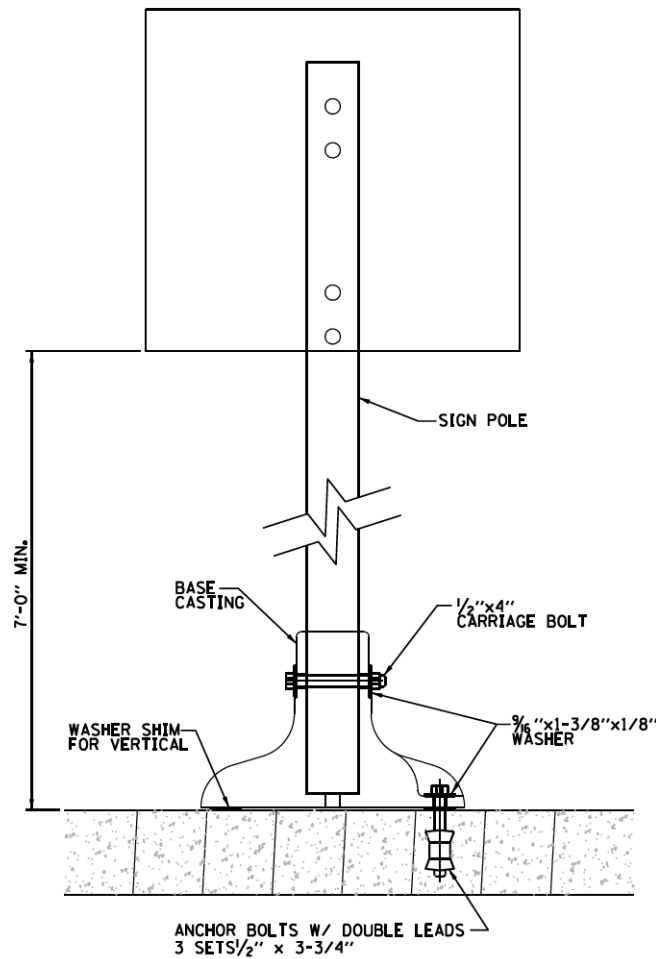
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PLOT DATE = 10/28/2013	DATE -	10/30/2013	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

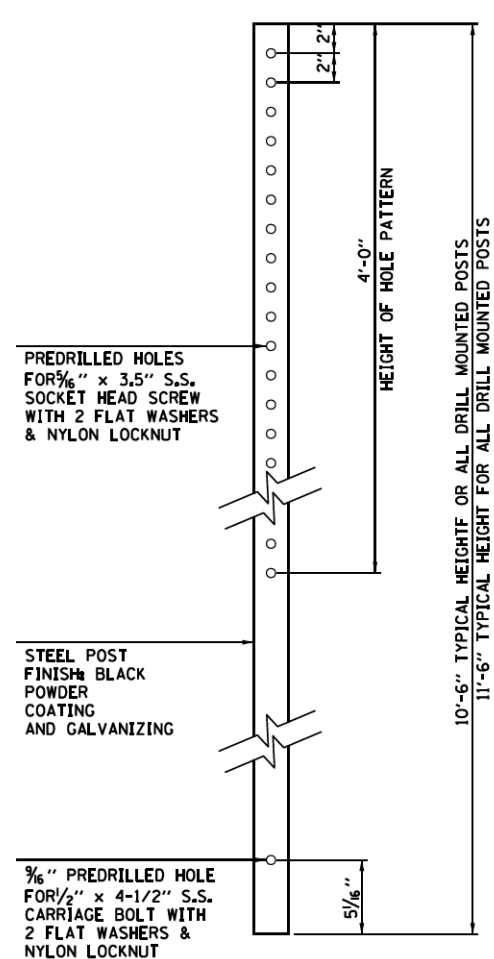
BRIDGE MOUNT SIGN STRUCTURES
BRIDGE MOUNTED SIGN PANEL DESIGN DETAIL

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-011R	COOK	356	107
				CONTRACT NO. 60W29
				ILLINOIS FED. AID PROJECT

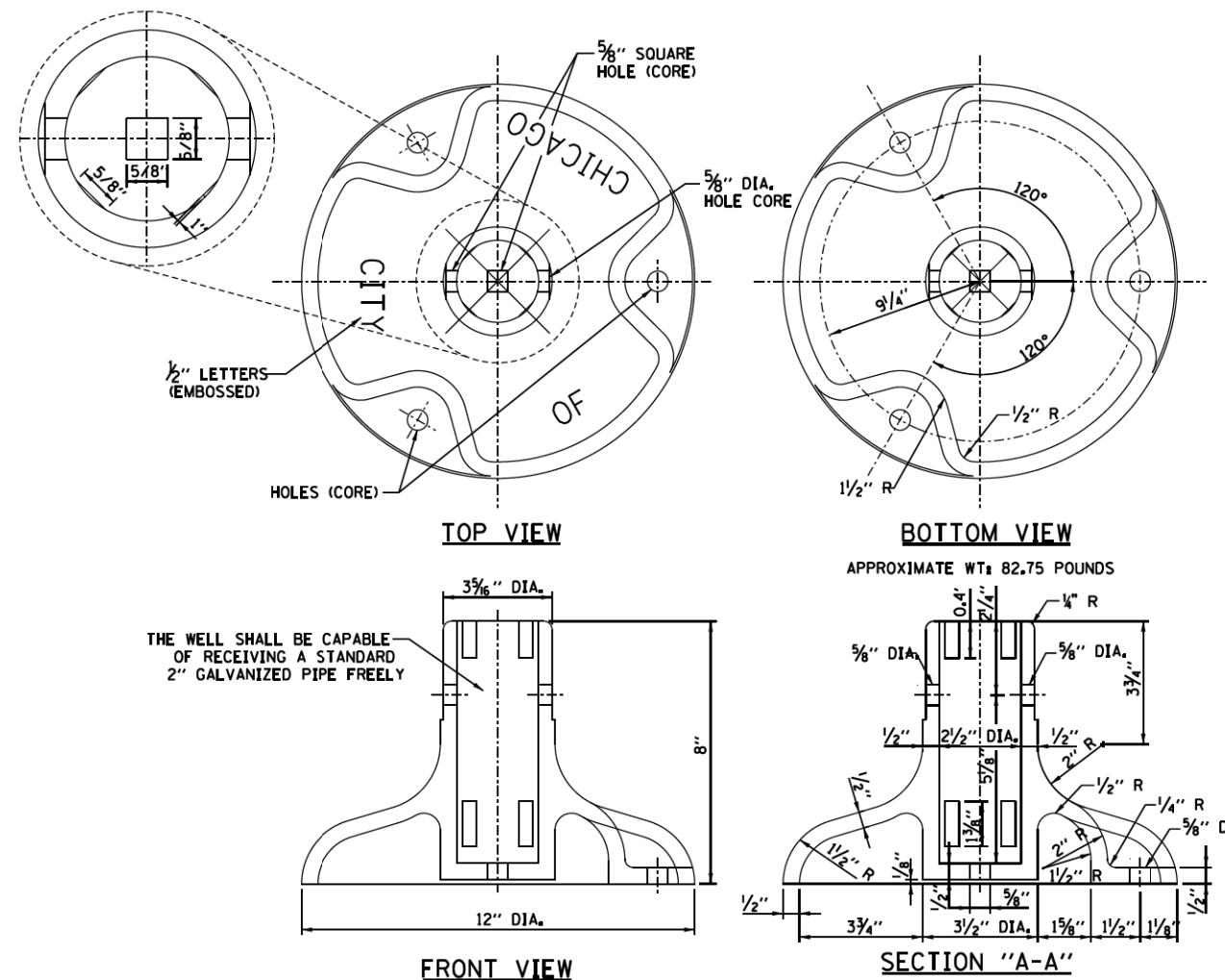
SCALE: NONE	SHEET 5	OF 5	SHEETS	STA.	TO STA.
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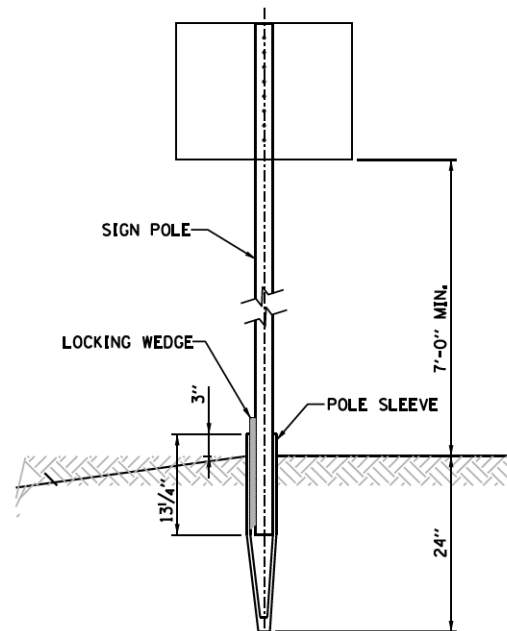
DRILL MOUNTED INSTALLATION DETAIL
NOT TO SCALE



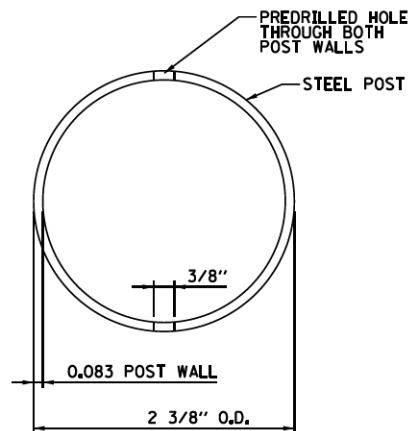
1 ELEVATION: DRILLED SIGN POST
NOT TO SCALE



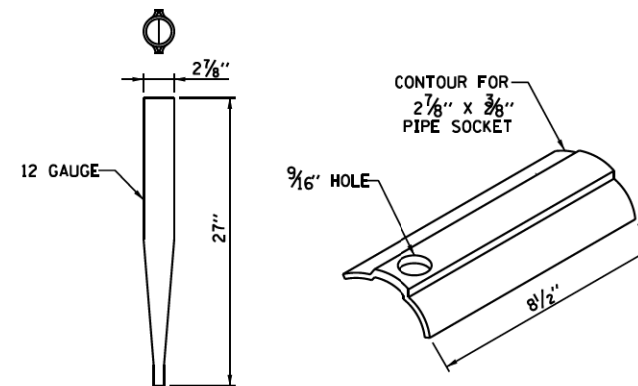
SIGN POLE BASE DETAIL
NOT TO SCALE



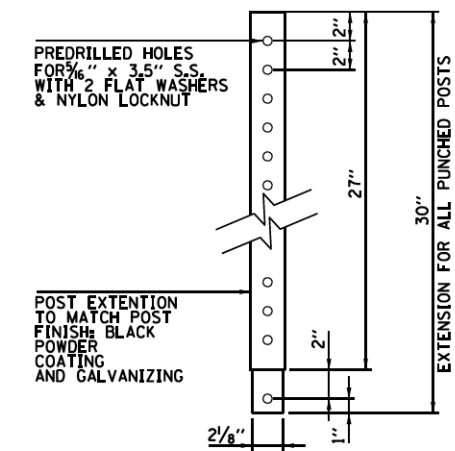
GROUND DIG INSTALLATION DETAIL
NOT TO SCALE



2 ELEVATION: DRILLED POST
NOT TO SCALE



PIPE SOCKET AND WEDGE DETAIL
NOT TO SCALE



SECTION: DRILLED POST EXTENSION
NOT TO SCALE

NOTE:
PROVIDE ADDITIONAL TWO SETS OF PREDRILLED HOLES ON EXTENSION. HOLES SHALL BE LOCATED AT 30° ANGLE TO HOLES SHOWN IN SECTION 3. HOLES SHALL ACCOMMODATE 5/8\"/>

FILE PATH = p:\388035-p\m\l\escomon\me\local\p\w\ec\m\00\Documents\01_Americas\Transportation\60269938_Circle\Phase_1\1\000_CAD\006_Roadway_Sheets\60W29_sht-Sign-Det-07.dgn

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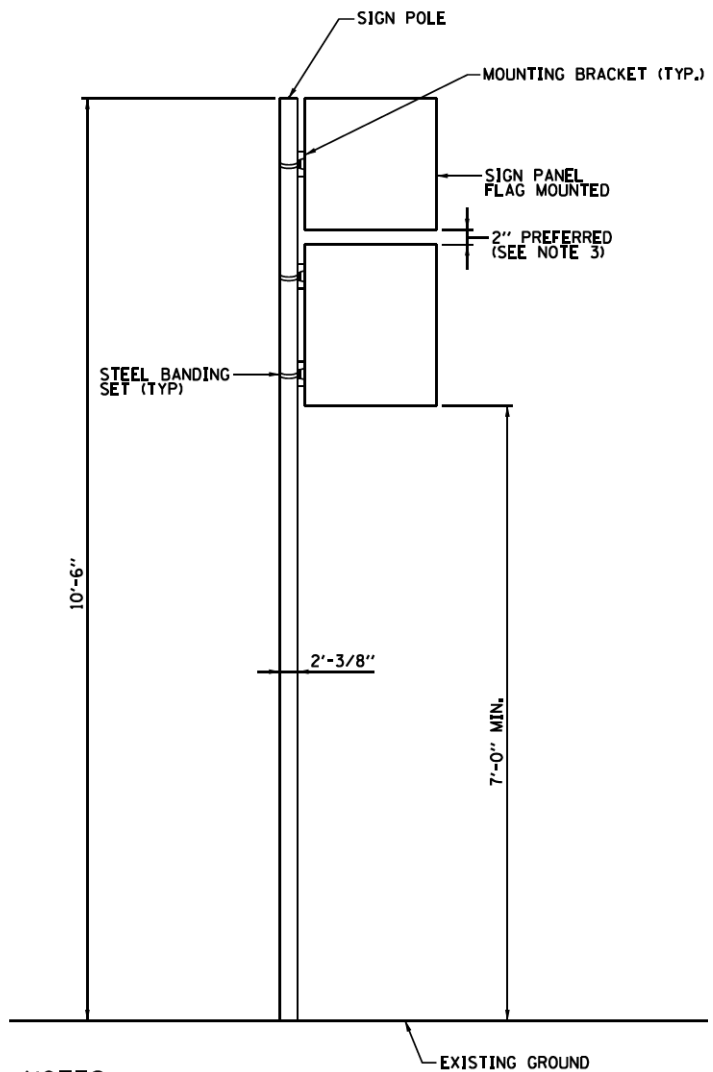
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SIGNING DETAILS

SCALE: NONE SHEET 1 OF 3 SHEETS STA. TO STA.

F.A.I. RE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-011R	COOK	356	108
CONTRACT NO. 60W29			ILLINOIS FED. AID PROJECT	

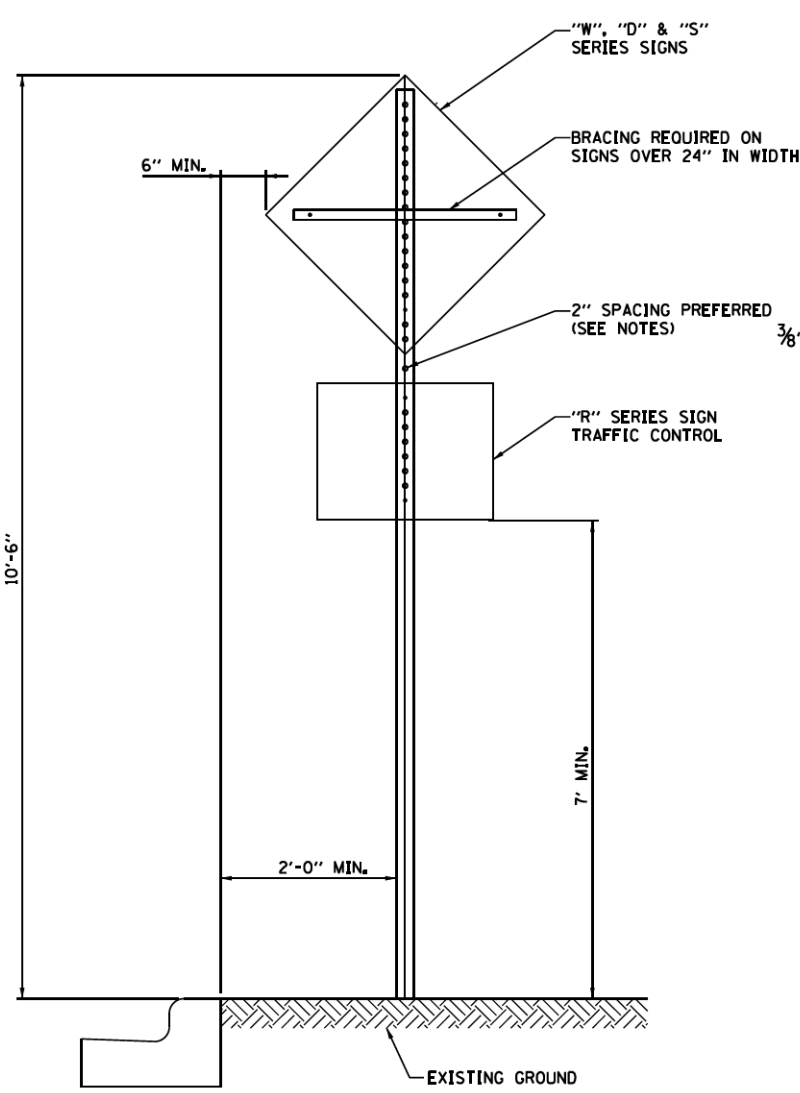
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NOTES:

1. PROVIDE ONE MOUNTING BRACKET FOR SIGNS 18" AND UNDER.
2. PROVIDE TWO MOUNTING BRACKETS FOR SIGNS OVER 18".
3. REDUCE SPACING IF REQUIRED TO MAINTAIN MIN. 7'-0" CLEARANCE TO BOTTOM OF SIGN.
4. FLAG MOUNT SIGNS TOWARD SIDEWALK ALONG ARTERIAL STREETS.
5. FLAG MOUNT ALL PARKING REGULATIONS SIGNS.

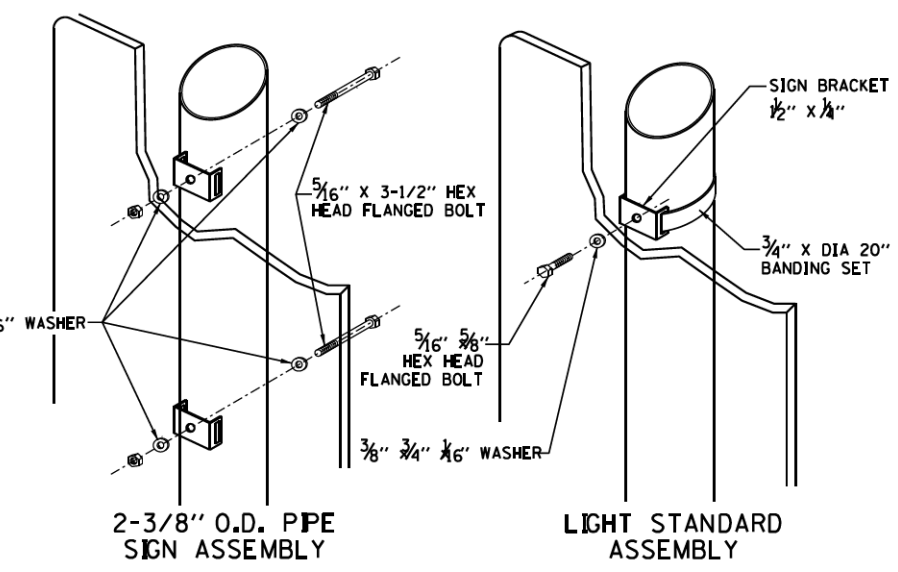
FLAG MOUNTED SIGN INSTALLATION DETAIL
NOT TO SCALE



NOTE:

2" SPACING MAY BE REDUCED IF REQUIRED TO MAINTAIN MIN. 7'-0" CLEARANCE TO BASE OF SIGN.

CENTER MOUNTED SIGN INSTALLATION
NOT TO SCALE



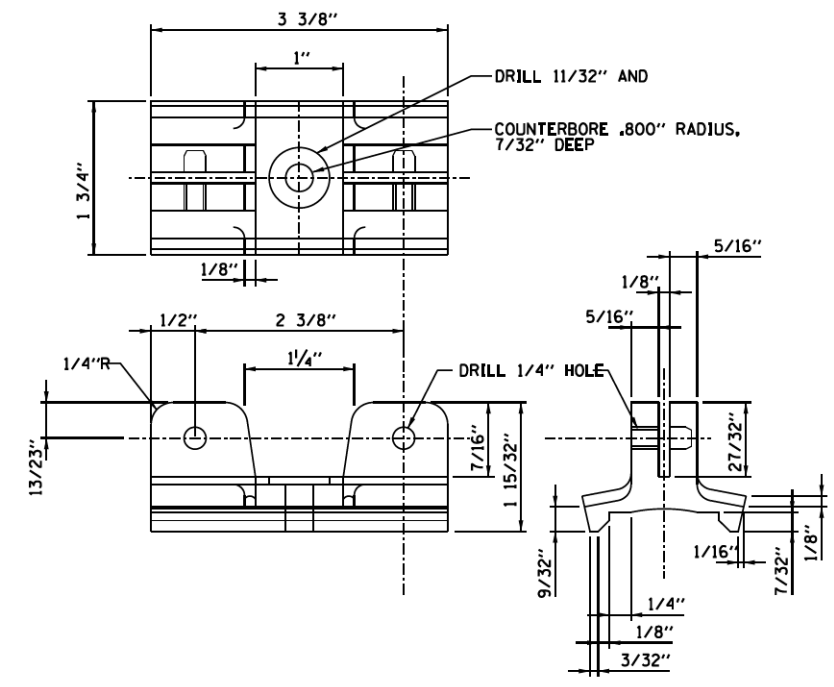
NOTE:

SIGN INSTALLATION STARTS AT 10'-6". PROVIDE MINIMUM 7'-0" CLEARANCE BETWEEN GROUND AND BOTTOM OF SIGN. RAISE INITIAL INSTALLATION HEIGHT IF REQ'D TO MAINTAIN 7' CLEAR.

REQUIREMENT

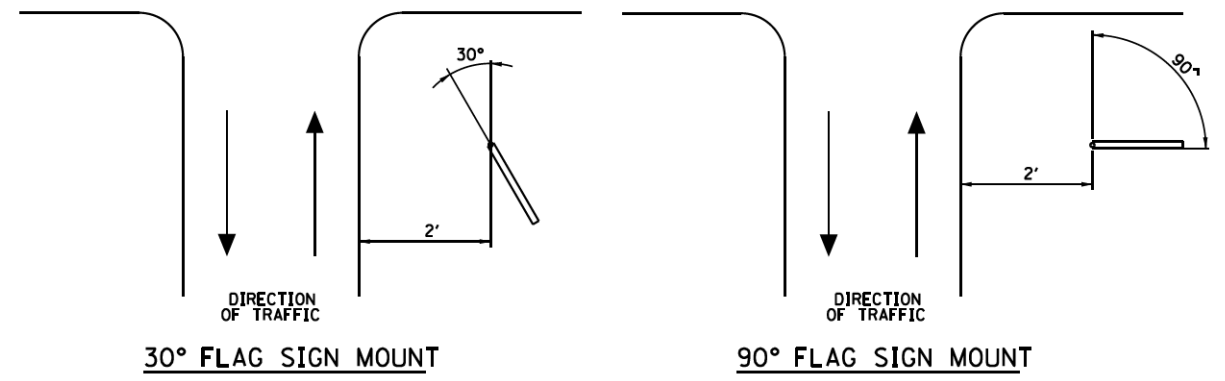
- 2 BANDS PER SIGN UNDER 6'
- 3 BANDS PER SIGN OVER 6'

CENTER MOUNTED SIGN ASSEMBLY
NOT TO SCALE



SIGN MOUNTING MATERIAL: ALUMINUM-ZINC ALLOY TENZALLOY

SIGN MOUNTING BRACKET DETAIL
NOT TO SCALE (VERSION 2A)



SIGN MOUNTING DETAILS
NOT TO SCALE

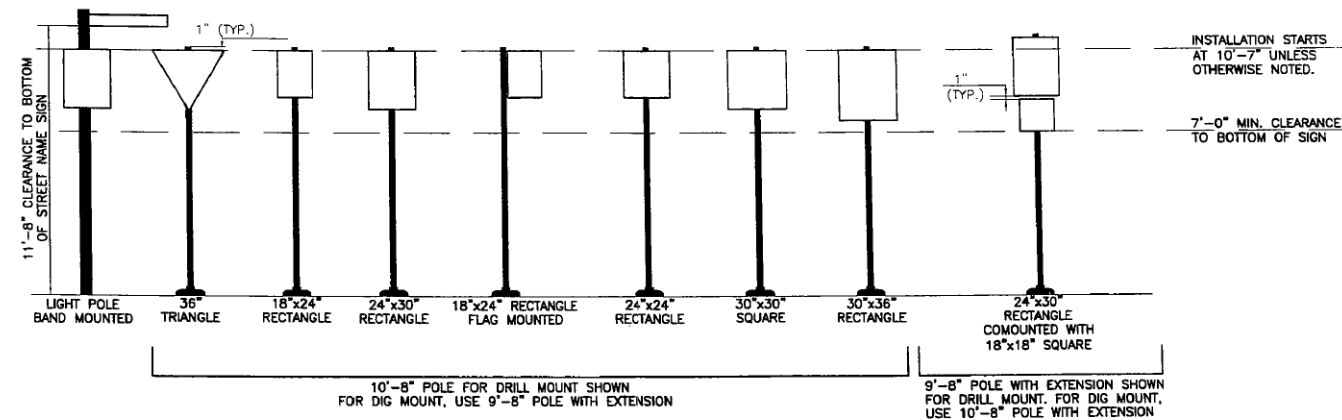
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SIGNING DETAILS	
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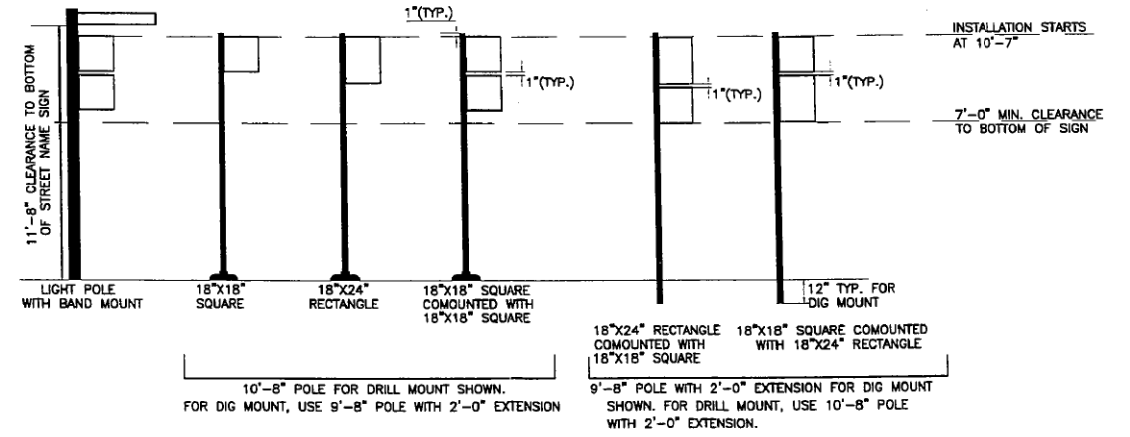
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-011R	COOK	356	109
CONTRACT NO. 60W29				
ILLINOIS FED. AID PROJECT				

REGULATORY TRAFFIC SIGNS
(CHICAGO STYLE)



TYPICAL LAYOUT
NOT TO SCALE

REGULATORY PARKING SIGNS
(CHICAGO STYLE)



TYPICAL LAYOUT
NOT TO SCALE

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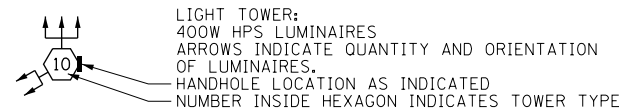
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SIGNING DETAILS

SCALE: NONE SHEET 3 OF 3 SHEETS STA. TO STA.

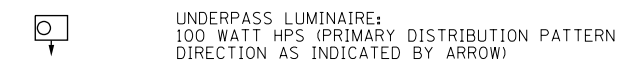
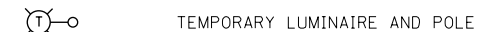
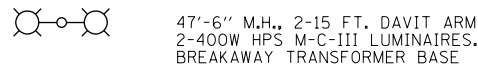
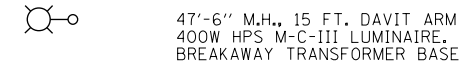
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-011R	COOK	356	110
CONTRACT NO. 60W29			ILLINOIS FED. AID PROJECT	

ELECTRICAL SYMBOLS FOR PROPOSED WORK



TYPE	TOWER HEIGHT
10	100 FEET
11	110 FEET
12	120 FEET

LIGHTING UNIT: TYPE AS INDICATED



ELECTRIC HANDHOLE: TYPE AS INDICATED

TYPE E1: PRECAST CONCRETE, 21.5"x21.5"x30",
IDOT STANDARD 814001

TYPE E2: PRECAST CONCRETE-HEAVY DUTY,
22"x22"x30", IDOT STANDARD 814001

TYPE C1: COMMUNICATIONS VAULT, 49 5/8"x32 1/8"x57"

TYPE S1: PRECAST CONCRETE-HEAVY DUTY,
22"x22"x36"

TYPE S2: PRECAST 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

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 SURVEILLANCE CABINET

LIGHTED SIGN STRUCTURE-CANTILEVER TYPE
(NUMBER OF FLUORESCENT FIXTURES AS
INDICATED - TYP.)

LIGHTED SIGN STRUCTURE-TRUSS TYPE

LIGHTED SIGN STRUCTURE-BRIDGE MOUNT TYPE

DYNAMIC MESSAGE SIGN

FLASHING BEACON SIGN

CLOSED CIRCUIT TELEVISION CAMERA

MICROWAVE DETECTOR

DETECTOR LOOP

CONTROLLER CABINET: LIGHTING, RADIO CONTROL
DUPLEX TYPE WITH SCADA (DOOR SIDE AS
INDICATED)

CONTROLLER CABINET: SURVEILLANCE

CONTROLLER CABINET: SURVEILLANCE, TYPE 334

RAMP METER SIGNAL POLE/HEAD

RAMP METER FLASHER POST

TEMPORARY WOOD POLE, 50 FOOT LENGTH
(10 FOOT BURIED, 40 FOOT INSTALLED HEIGHT)

HIGHWAY ADVISORY RADIO ANTENNA

ELECTRIC UTILITY POLE

CCTV CAMERA POLE

POLE MOUNTED ELECTRIC UTILITY TRANSFORMER(S)

ELECTRICAL SYMBOLS FOR EXISTING CONDITIONS

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

PAD MOUNTED ELECTRIC UTILITY TRANSFORMER

GROUND ROD

MAIN SERVICE FUSED DISCONNECT SWITCH
(RATING AS INDICATED)

PHOTOCELL

AERIAL CABLE

FLEXIBLE CONDUIT

RACEWAY EMBEDDED IN STRUCTURE

EXPOSED CONDUIT

RACEWAY OR DIRECT BURIAL CABLE
UNDERGROUND WITHOUT ENCASEMENT

RIGID GALVANIZED STEEL CONDUIT
SLEEVE, TRENCHED OR PUSHED

UNDERGROUND REINFORCED CONCRETE ENCASED
CONDUIT DUCTBANK, UNLESS NOTED OTHERWISE.
(NUMBER, TYPE, AND SIZE OF DUCTS AS SHOWN)

CONDUIT TURNED DOWN

CONDUIT TURNED UP

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

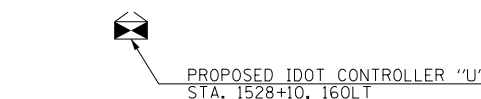
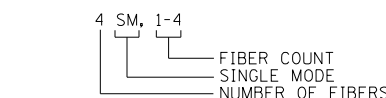
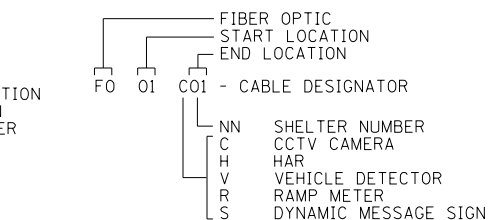
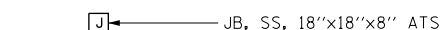
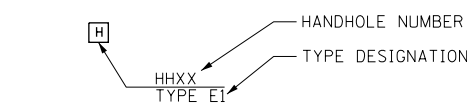
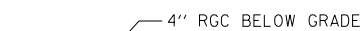
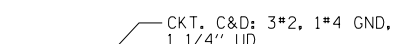
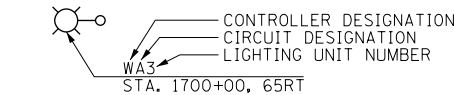
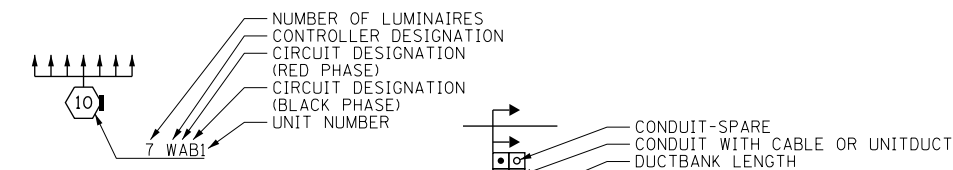
EXISTING RACEWAY OR DIRECT BURIED CABLE
WITHOUT ENCASEMENT

EXISTING CONCEALED CONDUIT UNDERGROUND,
TRENCHED OR PUSHED

EXISTING ELECTRIC CABLE IN CONDUIT SLEEVE

EXISTING AERIAL CABLE TO REMAIN

GENERAL ELECTRICAL CALLOUTS



TYPICAL EXISTING TO BE REMOVED SYMBOLS

EXISTING LIGHTING UNIT TO BE REMOVED

EXISTING UNDERPASS LUMINAIRE TO BE REMOVED

EXISTING JUNCTION BOX TO BE REMOVED

EXISTING LIGHTED SIGN STRUCTURE-
CANTILEVER TYPE TO BE REMOVED

DYNAMIC MESSAGE SIGN TO BE REMOVED

FLASHING BEACON SIGN TO BE REMOVED

EXISTING LIGHTING CONTROLLER, DUPLEX
TO BE REMOVED

EXISTING CONTROLLER CABINET TO BE REMOVED

EXISTING DETECTOR LOOP TO BE REMOVED

EXISTING RAMP METER SIGNAL POLE/HEAD TO BE
REMOVED

EXISTING RAMP METER FLASHER TO BE REMOVED

EXISTING POLE MOUNTED UTILITY SERVICE CONNECTION
TO BE REMOVED

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D160W29-sh-t-Light-01
USER NAME = BAW\jort
PLOT SCALE = 2.0000' / in.
PLOT DATE = 10/28/2013

DESIGNED - WDS
DRAWN - CAM
CHECKED - JPC
DATE - 10/30/2013

REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IDOT ELECTRICAL SYMBOLS

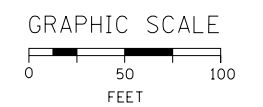
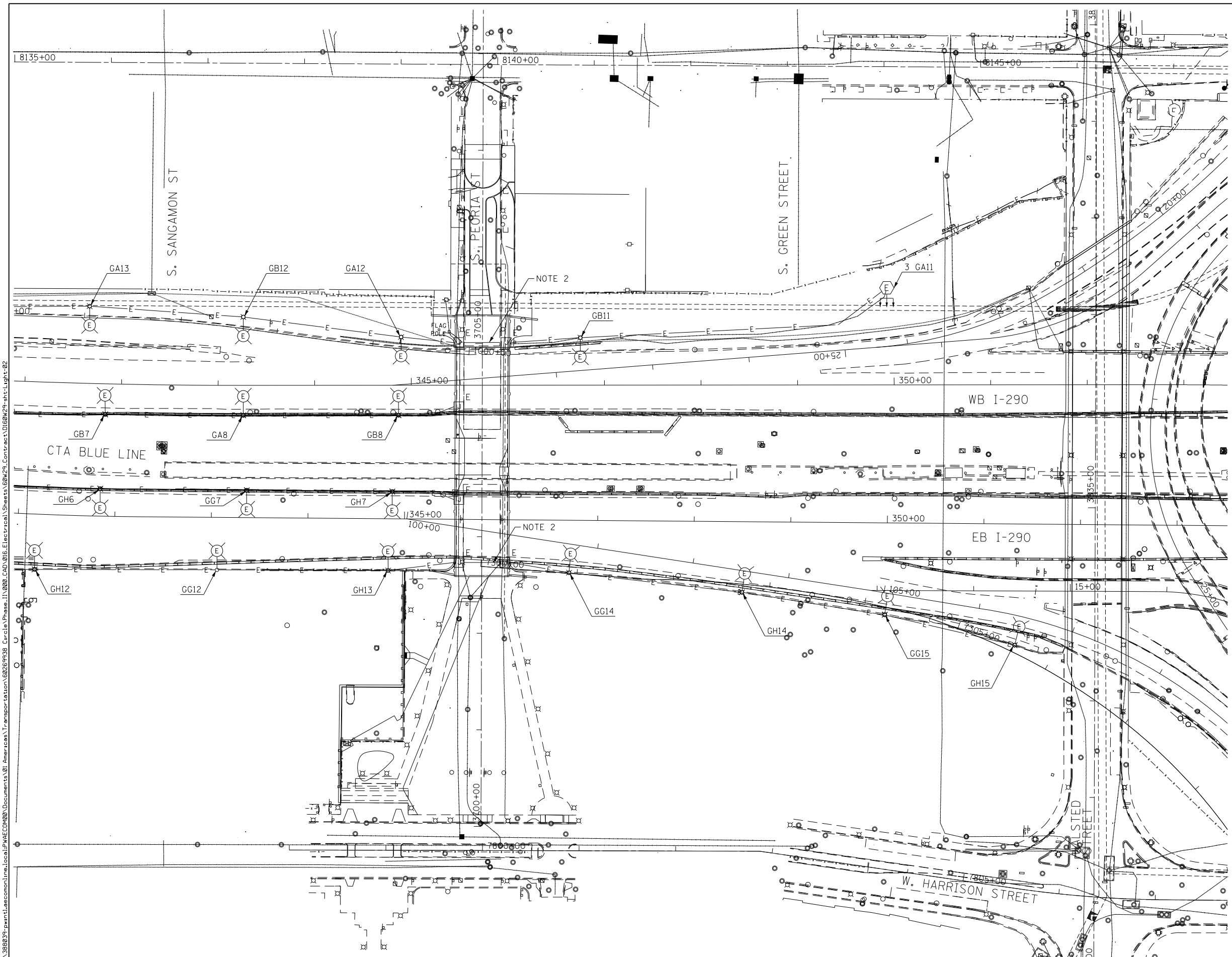
SCALE: NONE SHEET 1 OF 19 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-011R	COOK	356	111
CONTRACT NO. 60W29				
ILLINOIS FED. AID PROJECT				

E-01

NOTES:

1. SEE DRAWING E-01 FOR IDOT ELECTRICAL SYMBOLS.
2. THE EXISTING CONDUIT ATTACHED TO STRUCTURE FOR THE ROADWAY LIGHTING CIRCUITS CANNOT BE DISCONNECTED AND REMOVED UNTIL THE TEMPORARY FEED HAS BEEN INSTALLED. SEE DRAWING E-03 FOR THE TEMPORARY POWER PLANS.



E-02

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D160W29-sht-Light-02
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DRAWN - CAM	REVISED -
CHECKED - JPC	REVISED -
DATE - 10/30/2013	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

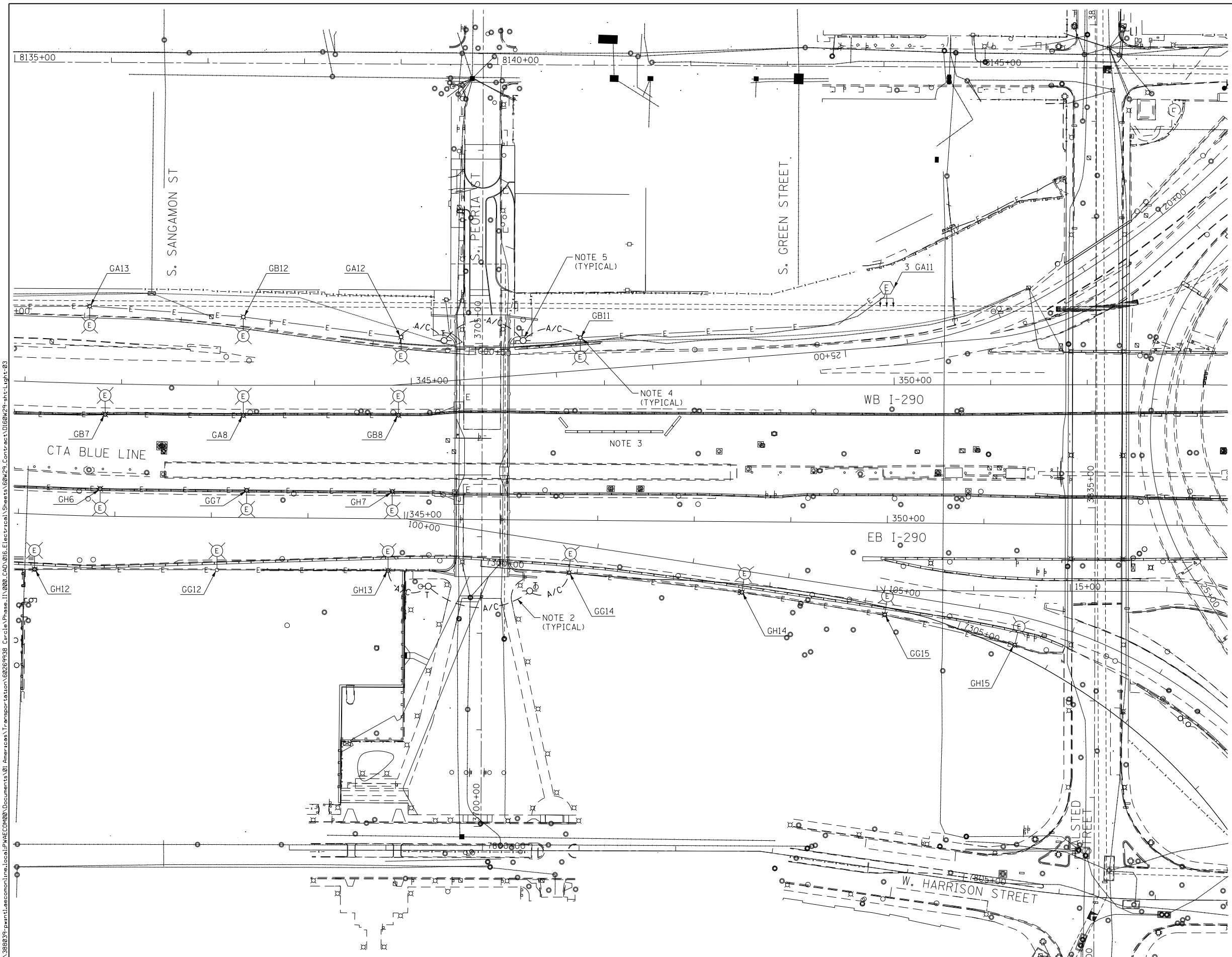
**I-290 EXISTING/DEMOLITION
 LIGHTING PLAN**

SCALE: 1"=50' SHEET 2 OF 19 SHEETS STA. TO STA.

F.A.I. RTE. 90/94/290	SECTION 2013-01R	COUNTY COOK	TOTAL SHEETS 356	SHEET NO. 112
CONTRACT NO. 60W29			ILLINOIS FED. AID PROJECT	

NOTES:

1. SEE DRAWING E-01 FOR IDOT ELECTRICAL SYMBOLS.
2. PROVIDE A TEMPORARY AERIAL CABLE POWER FEED FOR THE ROADWAY LIGHTING CIRCUITS. THE FEED SHALL BE 3-1/2" NO. 2 WITH MESSENGER.
3. THIS DRAWING SHOWS THE INTERIM TEMPORARY POWER FEEDS REQUIRED TO BE INSTALLED PRIOR TO THE PEORIA STREET BRIDGE RECONSTRUCTION WORK. DRAWING NO. E-04 SHOWS THE FINAL CONDITIONS FOR THE TEMPORARY ROADWAY LIGHTING CONNECTIONS TO REMAIN AT THE CONCLUSION OF THIS CONTRACT.
4. ATTACH AERIAL CABLES TO EXISTING LIGHT POLES.
5. PROVIDE 25 FEET OF SLACK CABLE ON EACH TEMPORARY WOOD POLE TO ALLOW FOR RELOCATION OF WOOD POLES DURING CONSTRUCTION.



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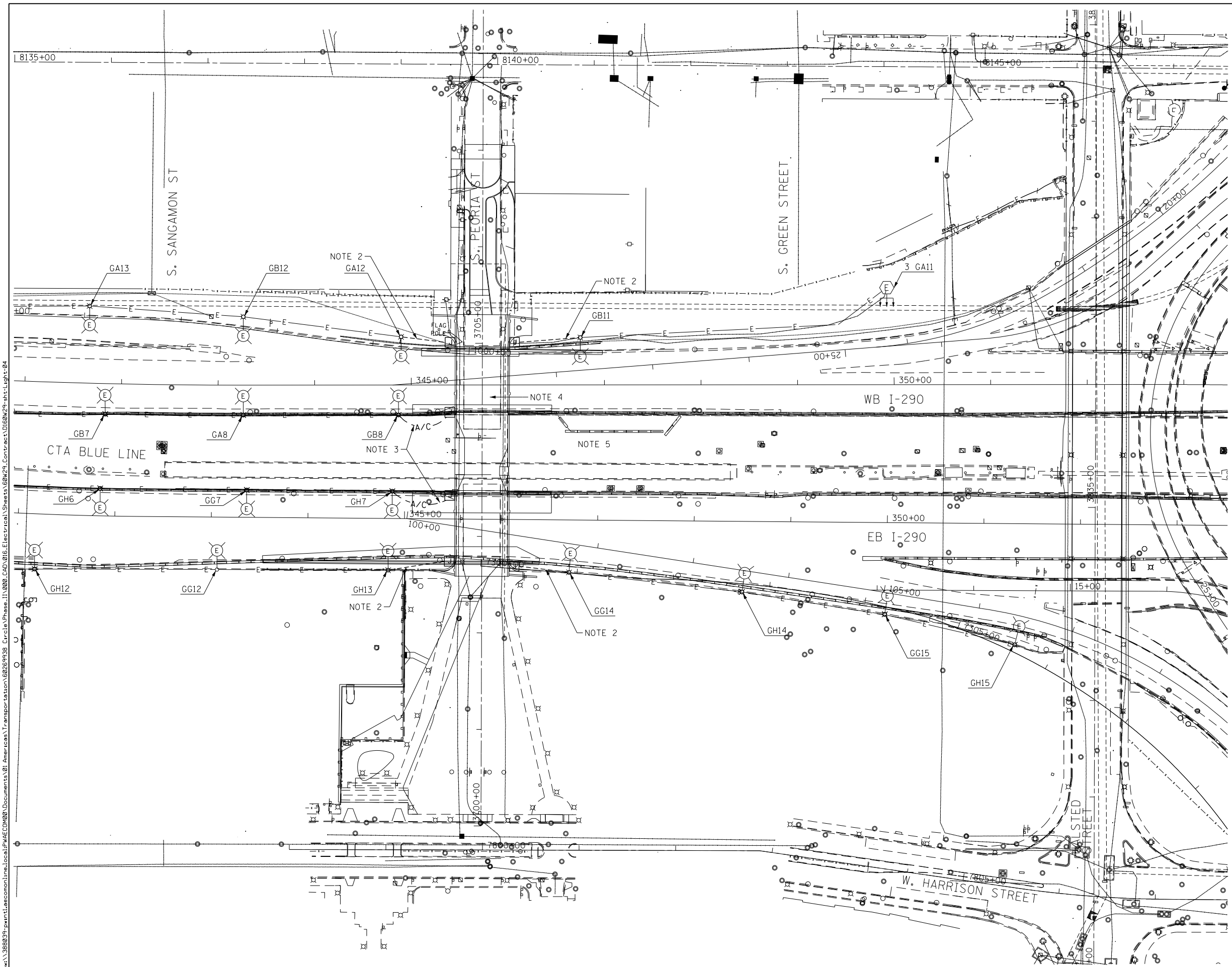
D160W29-sht-Light-03
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 PLOT DATE = 10/28/2013

DESIGNED - WDS	REVISED -
DRAWN - CAM	REVISED -
CHECKED - JPC	REVISED -
DATE - 10/30/2013	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

I-290 TEMPORARY POWER PLAN
 SCALE: 1"=50' SHEET 3 OF 19 SHEETS STA. TO STA.

F.A.I. RTE. 90/94/290	SECTION 2013-011R	COUNTY COOK	TOTAL SHEETS 356	SHEET NO. 113
CONTRACT NO. 60W29			ILLINOIS FED. AID PROJECT	



NOTES:

1. SEE DRAWING E-01 FOR IDOT ELECTRICAL SYMBOLS.
2. PROVIDE 3-1/2 NO. 2 WITH 1/2 NO. 4 GROUND XLP TYPE USE CABLES IN 1 1/2" UNIT DUCT.
3. PROVIDE A TEMPORARY AERIAL CABLE FEED, 3-1/2 NO. 2 WITH MESSENGER FROM JUNCTION BOX MOUNTED ON THE BRIDGE TO THE EXISTING MEDIAN WALL MOUNTED LIGHTING UNIT AS SHOWN. CONNECT THE ROADWAY LIGHTING UNITS TO THE UNDERPASS LIGHTING SYSTEM.
4. SEE DRAWING NO. E-05 FOR THE PEORIA STREET UNDERPASS LIGHTING PLAN.
5. THIS DRAWING SHOWS THE FINAL CONDITIONS FOR THE TEMPORARY ROADWAY LIGHTING CONNECTIONS.

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 PLOT DATE = 10/28/2013

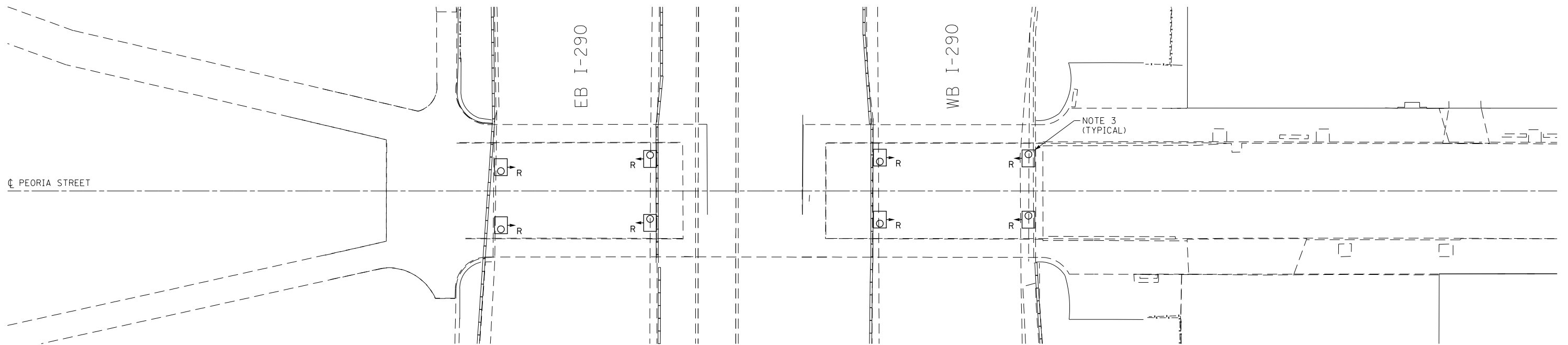
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CHECKED - JPC	REVISED -
DATE - 10/30/2013	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

I-290 PROPOSED LIGHTING PLAN
 SCALE: 1"=50' SHEET 4 OF 19 SHEETS STA. TO STA.

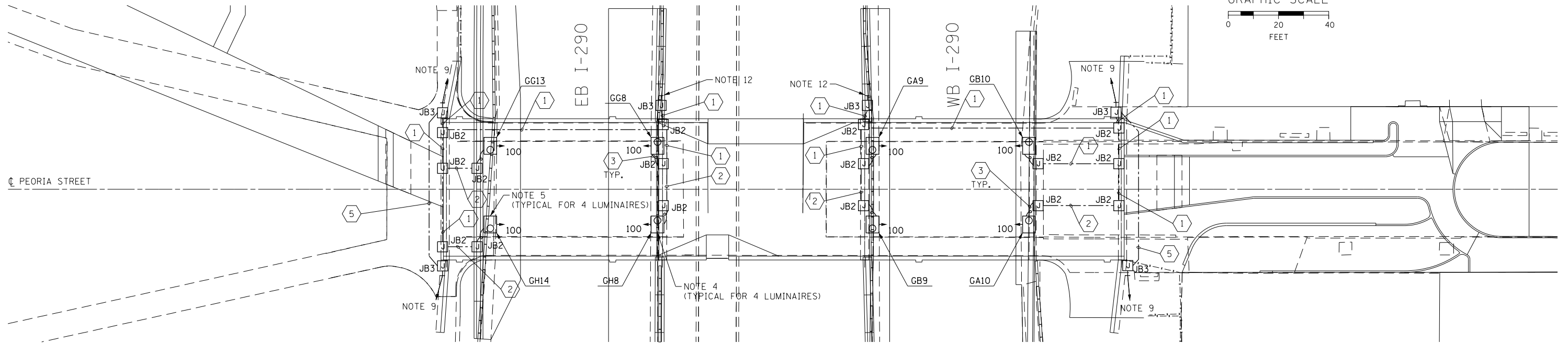
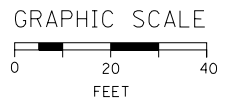
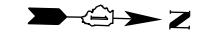
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-011R	COOK	356	114
CONTRACT NO. 60W29			ILLINOIS FED. AID PROJECT	

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EXISTING UNDERPASS LIGHTING PLAN

NOTES 2 AND 3



PROPOSED UNDERPASS LIGHTING PLAN

NOTES:

1. SEE DRAWING E-01 FOR IDOT ELECTRICAL SYMBOLS AND ABBREVIATIONS.
2. LOCATIONS OF EXISTING ELECTRICAL EQUIPMENT SHOWN ON THIS DRAWING ARE APPROXIMATIONS AND MUST BE VERIFIED IN THE FIELD BY THE CONTRACTOR.
3. THE REMOVAL OF EXISTING UNDERPASS LUMINAIRES MUST INCLUDE THE REMOVAL OF ALL CABLES, CONDUIT, JUNCTION BOXES, AND HARDWARE ASSOCIATED WITH THE EXISTING UNDERPASS LIGHTING. COST FOR THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED AS PART OF THE "REMOVAL OF LIGHTING UNIT, SALVAGE" PAY ITEM.
4. SEE IDOT STANDARD DRAWING BE-902 FOR ADDITIONAL INSTALLATION DETAILS FOR PROPOSED PIER/ABUTMENT WALL MOUNTED UNDERPASS LUMINAIRES.
5. SEE IDOT STANDARD DRAWING BE-900 FOR ADDITIONAL INSTALLATION DETAILS FOR PROPOSED SUSPENDED MOUNT UNDERPASS LUMINAIRES.
6. ALL PROPOSED UNDERPASS LIGHTING UNITS SHOWN ON THIS DRAWING WILL BE FED FROM EXISTING IDOT LIGHTING CONTROLLER "G".
7. SUSPENDED MOUNT UNDERPASS LUMINAIRES SETBACK FROM THE EDGE OF PAVEMENT SHALL BE 2 FEET.
8. ALL VERTICAL CONDUIT RUNS ROUTED DOWN THE STRUCTURE SHALL BE INSTALLED ON THE INSIDE OF THE PIER FACING AWAY FROM TRAFFIC FLOW.
9. SEE DRAWING E-04 FOR CONTINUATION OF LIGHTING CIRCUIT.

10. ROUTE NEW CABLES IN UNIT DUCT FROM PROPOSED JUNCTION BOX ON HALSTED ST. BRIDGE TO THE PROVIDE A TEMPORARY POWER CONNECTION FOR THE UNDERPASS LIGHTING SYSTEM FROM EXISTING LIGHT TOWER ZC02. ALLOW 200 FEET OF CABLES IN UNIT DUCT FOR BIDDING PURPOSES.
11. ROUTE NEW CABLES IN UNIT DUCT FROM PROPOSED JUNCTION BOX ON PEORIA ST. BRIDGE TO THE EXISTING LIGHTING CIRCUITS LOCATED IN THE EXISTING LIGHT POLE TO PROVIDE A TEMPORARY POWER CONNECTION AS SHOWN. SEE DRAWING E-03 FOR CONTINUATION.
12. SEE DRAWING E-03 FOR TEMPORARY POWER CONNECTIONS TO UNDER PASS LIGHTING SYSTEM.

100 WATT, HPS UNDERPASS LUMINAIRE WITH TYPE 4 DISTRIBUTION

JUNCTION BOX SCHEDULE		
NO.	SIZE	DESCRIPTION
JB1	6"X6"X4"	STAINLESS STEEL, ATTACHED TO STRUCTURE, UNDERPASS LIGHTING
JB2	12"X10"X6"	STAINLESS STEEL, ATTACHED TO STRUCTURE, UNDERPASS LIGHTING
JB3	18"X18"X8"	STAINLESS STEEL, ATTACHED TO STRUCTURE, UNDERPASS LIGHTING

CABLE / CONDUIT SCHEDULE

1	3-1/C#10, 1-1/C#10 GND IN 1" DIA PVCC RGC ATTACHED TO STRUCTURE (CKTS AS INDICATED ON THIS DRAWING)
2	2-1/C#10, 1-1/C#10 GND IN 1" DIA PVCC RGC ATTACHED TO STRUCTURE (CKTS AS INDICATED ON THIS DRAWING)
3	2-1/C#10, 1-1/C#10 GND IN 1" DIA LIQUID TIGHT FLEXIBLE CONDUIT (CKTS AS INDICATED ON THIS DRAWING)
4	3-1/C#2, 1-1/C#4 GND XLP TYPE USE CABLES IN A 1 1/2" UNIT DUCT (CKTS AS INDICATED ON THIS DRAWING)
5	3-1/C#2, 1-1/C#4 GND XLP TYPE USE CABLES IN A 3" DIA. PVCC RGC ATTACHED TO STRUCTURE (CKTS AS INDICATED ON THIS DRAWING)



D160W29-sht-Light-05
 USER NAME = BAW:tor t
 PLOT SCALE = 40.0000' / in.
 PLOT DATE = 10/28/2013

DESIGNED - WDS
 DRAWN - CAM
 CHECKED - WDS
 DATE - 10/30/2013

REVISED -
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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

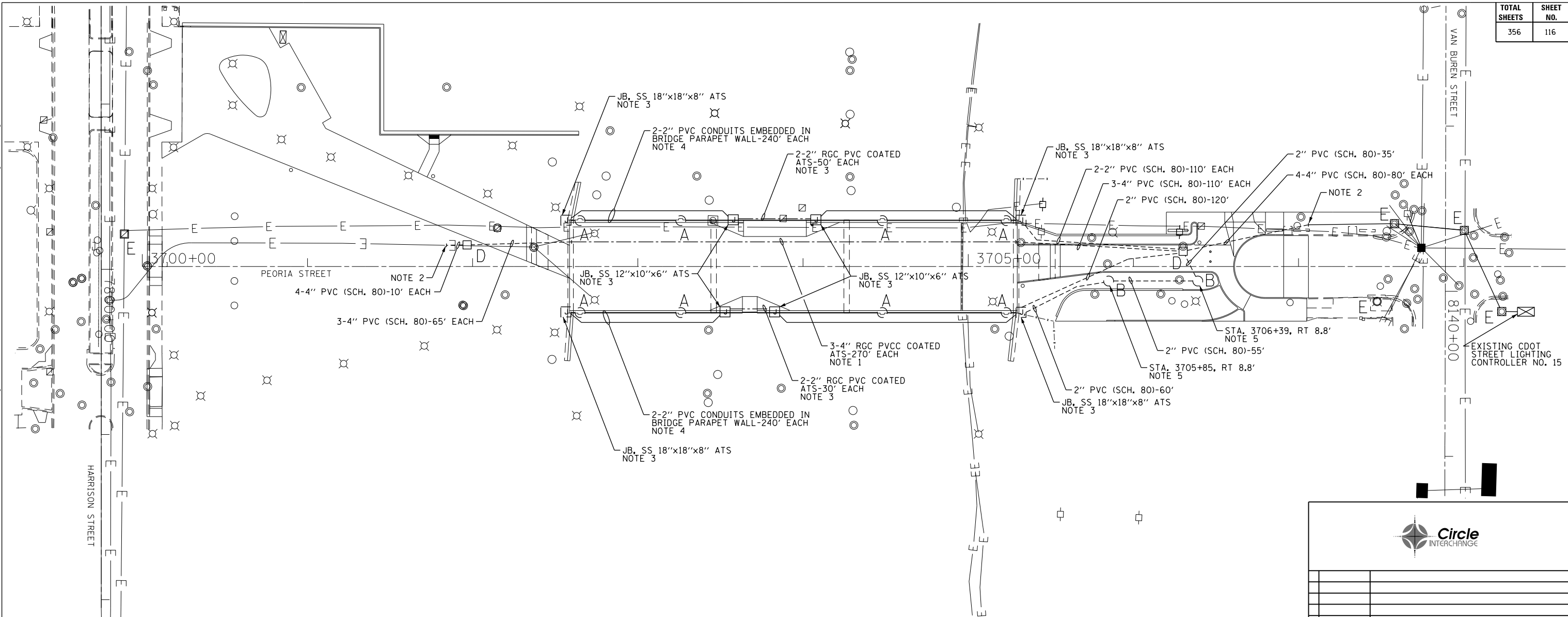
PEORIA STREET UNDERPASS LIGHTING PLAN

SCALE: 1"=20' SHEET 5 OF 19 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-011R	COOK	356	115
ILLINOIS FED. AID PROJECT			CONTRACT NO. 60W29	

E-05

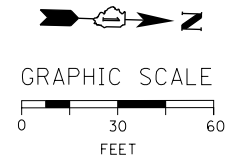
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"A"	LIGHT POLE FOUNDATION IS INTEGRAL TO THE BRIDGE STRUCTURE PARAPET WALL. SEE STRUCTURAL PLANS FOR DETAILS AND FINAL LOCATION OF FOUNDATION.
"B"	PROVIDE 20"x5', 1" A.R., 10" B.C. FOUNDATION FOR LIGHT POLE, PER DWG. NOS. 565 AND 837.
"C"	DRILL EXISTING HANDHOLE/MANHOLE.
"D"	PROVIDE 3'x4'x4' CONCRETE MANHOLE PER DRAWING NO. 729 WITH 30" FRAME AND COVER PER DRAWING NO. 847.
"E"	EXISTING TO REMAIN.

NOTES:

1. PROVIDE THREE 4-INCH RIGID GALVANIZED STEEL PVC COATED CONDUITS ATTACHED TO STRUCTURE. THE CONDUITS SHALL BE MOUNTED UNDER THE BRIDGE DECK. SEE STRUCTURAL PLANS FOR LOCATION OF CONDUITS.
2. INTERCEPT EXISTING CITY CONDUITS AND CONNECT TO PROPOSED CONDUITS AS SHOWN.
3. SEE DRAWING NO. E-12 FOR EMBEDDED CONDUIT EXITING PARAPET WALL DETAILS.
4. PROVIDE TWO 2-INCH SCHEDULE 40 PVC CONDUITS IN BOTH BRIDGE PARAPET WALLS; ONE FOR THE LIGHTING CIRCUITS AND ONE SPARE. SEE STRUCTURAL PLANS FOR LOCATIONS, DETAILS AND INSTALLATION OF CONDUITS.
5. INSTALL LIGHT POLE FOUNDATION IN THE CENTER OF THE ISLAND.

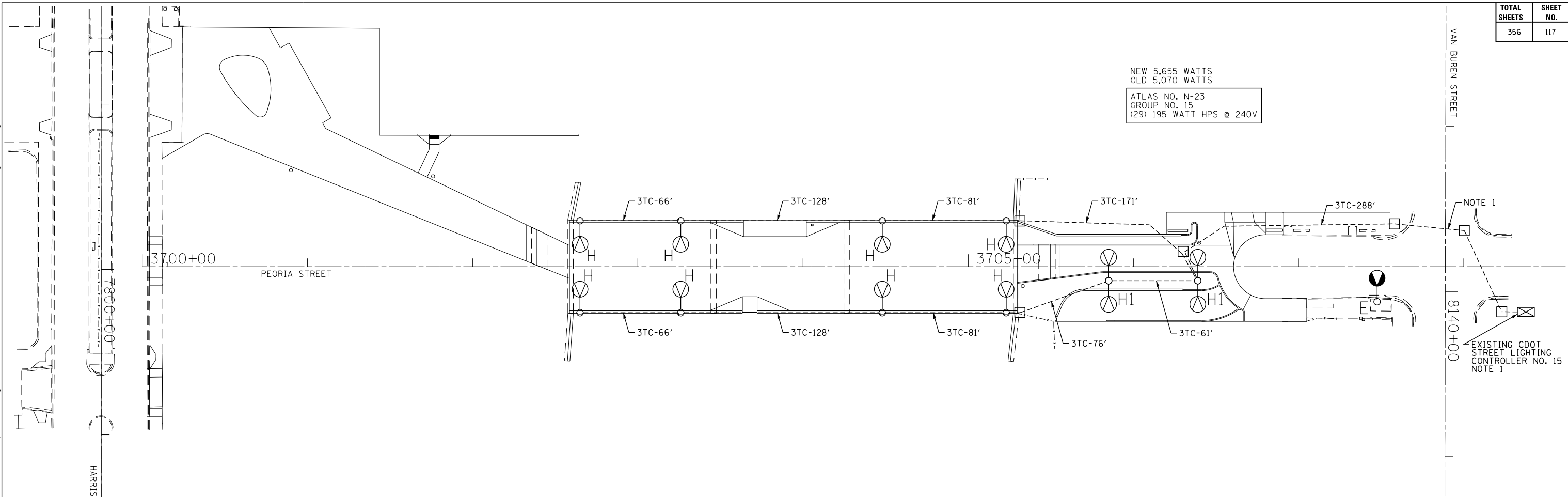


FOR LIGHTING CABLE AND EQUIPMENT INSTALLATION PLANS SEE DRAWING NO. E-07.
 FOR LIGHTING REMOVAL PLANS SEE DRAWING NO. E-08.

 Circle INTERCHANGE	
CITY OF CHICAGO DEPARTMENT OF TRANSPORTATION DIVISION OF ENGINEERING	
CONSULTANT:  AECOM <small>303 EAST WACKER DRIVE, SUITE 1400 CHICAGO, IL 60601-5276 PHONE: (312) 313-7100 FAX: (312) 313-6800</small>	
WORK ORDER NO. _____	DATE _____
COST ALLOCATION ACCOUNT _____	
APPROPRIATION ACCOUNT _____	MATERIAL _____ LABOR _____
PEORIA STREET LIGHTING CONDUIT AND FOUNDATION PLAN	
CITY OF CHICAGO <small>DEPT. OF TRANSPORTATION DIVISION OF ELECTRICAL OPERATIONS</small>	
DRAFTSMAN: CAM	CHIEF DRAFTSMAN: WDS
SUPERVISING ENGINEER: JPC	ELEC. DESIGN ENGR.:
ENGINEER OF ELECTRICITY:	
GEN'L SUPT. OF ELECTRICITY:	
DEPUTY COMMISSIONER:	
SIZE: 22" 34"	SCALE: 1" = 30'
DATE: 05/14/13	DATE:
C.D.O.T. PROJECT NO.:	DWG. NO.:

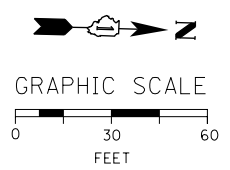
E-06

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NEW 5,655 WATTS
 OLD 5,070 WATTS
 ATLAS NO. N-23
 GROUP NO. 15
 (29) 195 WATT HPS @ 240V

NOTE 1
 EXISTING CDOT STREET LIGHTING CONTROLLER NO. 15
 NOTE 1



NOTES:

1. ROUTE NEW LIGHTING CIRCUIT THROUGH EXISTING CITY CONDUITS AND MANHOLES INTO THE EXISTING CDOT LIGHTING CONTROLLER AND MAKE THE NECESSARY CONNECTIONS TO THE EXISTING CIRCUIT BREAKERS. THIS WORK WILL NOT BE PAID FOR SEPARATELY AND SHALL BE INCLUDED IN THE COST OF THE "CABLE IN CONDUIT, TRIPLEX" PAY ITEM.

"H" PROVIDE 12.5' ALUMINUM POLE, 150W HPS LUMINAIRE AND 8 FOOT ALUMINUM DAVIT ARM PER DRAWING NOS. 940 AND 945.
 "H1" PROVIDE 12.5' ALUMINUM POLE, TWO 150W HPS LUMINAIRES AND TWIN 8 FOOT DAVIT ARMS PER DRAWING NOS. 940 AND 945.

FOR CONDUIT AND FOUNDATION PLANS SEE DRAWING NO. E-06.
 FOR LIGHTING REMOVAL PLANS SEE DRAWING NO. E-08.

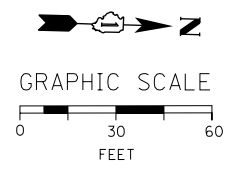
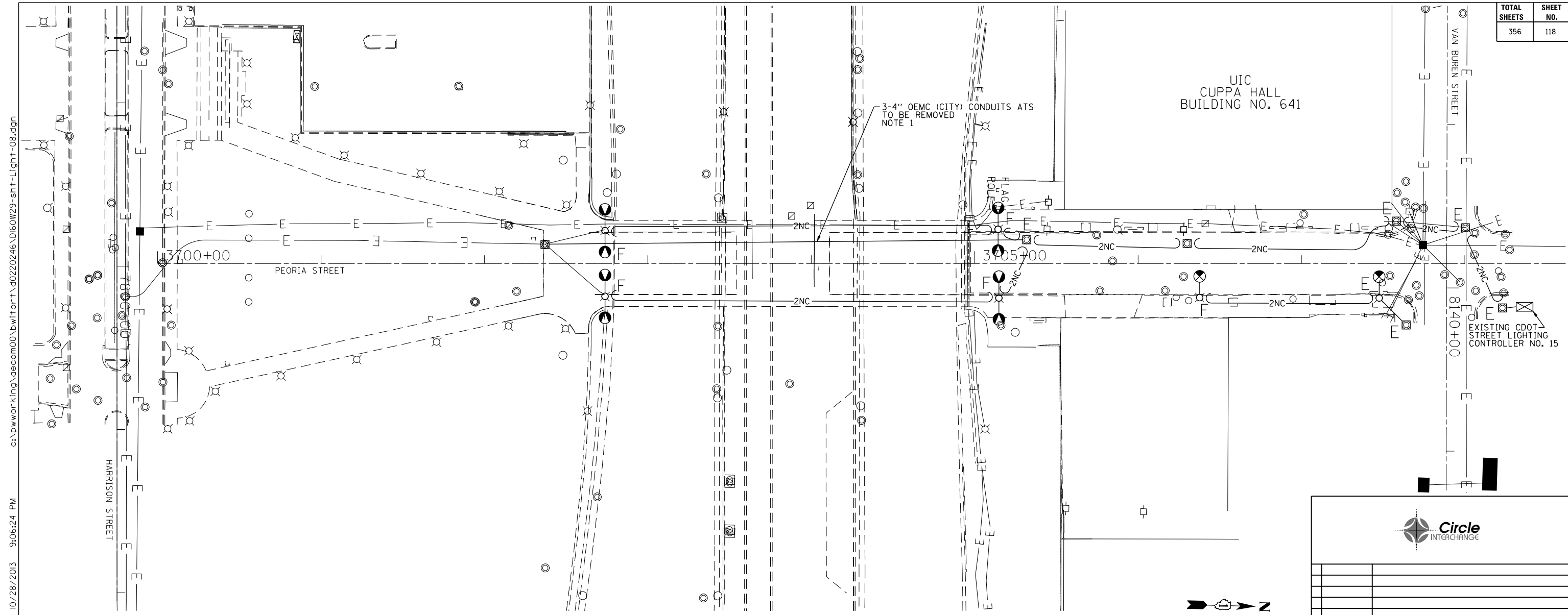
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CITY OF CHICAGO DEPARTMENT OF TRANSPORTATION DIVISION OF ENGINEERING	
CONSULTANT: AECOM <small>303 EAST WACKER DRIVE, SUITE 1400 CHICAGO, IL 60601-5276 PHONE: (312) 313-7100 FAX: (312) 313-6800</small>	
WORK ORDER NO. _____	DATE _____
COST ALLOCATION ACCOUNT _____	
APPROPRIATION ACCOUNT _____	MATERIAL _____ LABOR _____
PEORIA STREET LIGHTING CABLE AND EQUIPMENT INSTALLATION PLAN	
CITY OF CHICAGO <small>DEPT. OF TRANSPORTATION DIVISION OF ELECTRICAL OPERATIONS</small>	
DRAFTSMAN: CAM	ENGINEER: WDS
SUPERVISING ENGINEER: JPC	ELEC. DESIGN ENGR.:
ENGINEER OF ELECTRICITY:	
GEN'L SUPT. OF ELECTRICITY:	
DEPUTY COMMISSIONER:	
SIZE: 22" 34"	SCALE: 1" = 30'
DATE: 05/14/13	DATE:
C.D.O.T. PROJECT NO.:	DWG. NO.:

E-07

UIC
CUPPA HALL
BUILDING NO. 641

3-4" OEMC (CITY) CONDUITS ATS
TO BE REMOVED
NOTE 1

EXISTING CDOT
STREET LIGHTING
CONTROLLER NO. 15



NOTES:

1. THE EXISTING CDOT CONDUITS ATTACHED TO THE UNDERSIDE OF THE BRIDGE STRUCTURE MAY CONTAIN ASBESTOS MATERIALS. THE CONDUITS SHALL BE REMOVED AND DISPOSED OF PROPERLY PRIOR TO THE BRIDGE DEMOLITION. CONDUITS TESTED AND CONFIRMED TO CONTAIN ASBESTOS MUST BE REMOVED IN ACCORDANCE WITH THE SPECIAL PROVISION "REMOVAL OF ASBESTOS CEMENT CONDUIT". ASBESTOS CONDUIT REMOVAL SHALL BE PAID FOR UNDER THE "REMOVAL OF ASBESTOS CEMENT CONDUIT" PAY ITEM.

"E" EXISTING TO REMAIN
"F" REMOVE AND SALVAGE EXISTING STEEL POLE, LUMINAIRE(S), MAST ARM(S) AND BALLAST HOUSING. BREAKDOWN CONCRETE FOUNDATION COMPLETE.

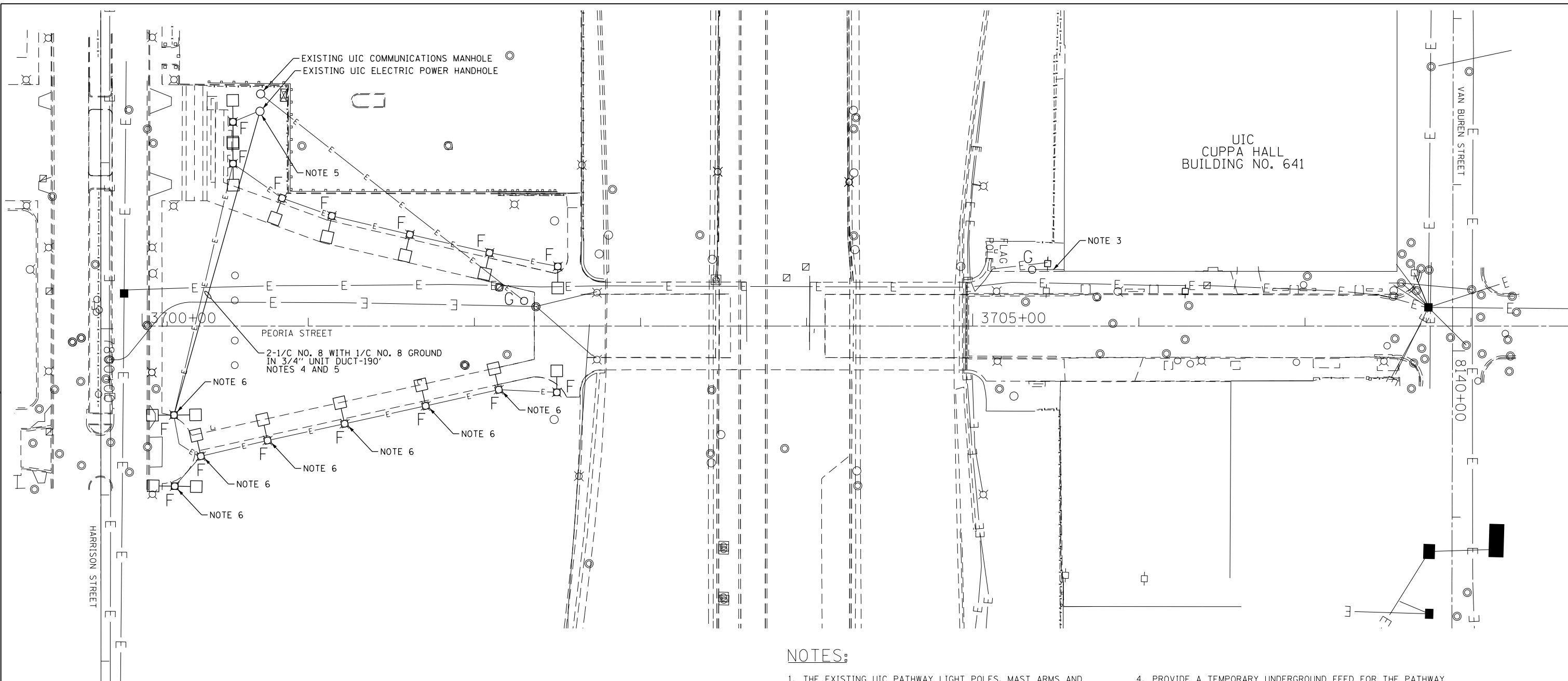
FOR CONDUIT AND FOUNDATION PLANS
SEE DRAWING NO. E-06.
FOR LIGHTING CABLE AND EQUIPMENT
INSTALLATION PLANS SEE DRAWING NO. E-07.

DATE	REVISION
CITY OF CHICAGO	
DEPARTMENT OF TRANSPORTATION DIVISION OF ENGINEERING	
CONSULTANT: AECOM <small>303 EAST WACKER DRIVE, SUITE 1400 CHICAGO, IL 60601-5276 PHONE: (312) 373-7700 FAX: (312) 373-6800</small>	
WORK ORDER NO. _____	DATE _____
COST ALLOCATION ACCOUNT _____	
APPROPRIATION ACCOUNT _____	MATERIAL _____ LABOR _____
PEORIA STREET LIGHTING REMOVAL PLAN	
CITY OF CHICAGO DEPT. OF TRANSPORTATION DIVISION OF ELECTRICAL OPERATIONS	
DRAFTSMAN: CAM	CHIEF DRAFTSMAN: ENGINEER: WDS
SUPERVISING ENGINEER: JPC	ELEC. DESIGN ENGR.
ENGINEER OF ELECTRICITY:	
GEN'L SUPT. OF ELECTRICITY:	
DEPUTY COMMISSIONER:	
SIZE: 22" 34"	SCALE: 1" = 30'
DATE: 05/14/13	DATE:
C.D.O.T. PROJECT NO.:	DWG. NO.:

E-08

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"E" EXISTING TO REMAIN
 "F" REMOVE EXISTING UIC LIGHT POLE FOUNDATION COMPLETE. NOTES 1 AND 6
 "G" REMOVE EXISTING ETU FOUNDATION COMPLETE. NOTE 2

NOTES:

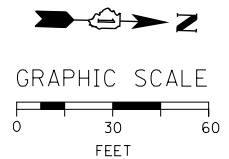
- THE EXISTING UIC PATHWAY LIGHT POLES, MAST ARMS AND LUMINAIRES WILL BE REMOVED BY OTHERS. THE CONTRACTOR SHALL COORDINATE THIS REMOVAL WORK WITH UIC'S FACILITIES MANAGEMENT. UIC FACILITIES MANAGEMENT CONTACT INFORMATION IS AS FOLLOWS:

 PABLO ACEVEDO 312-996-2106
 KEVIN O'SHEA 312-996-2883
 CLARENCE BRIDGES 312-413-5946

 THE CONTRACTOR MUST CONTACT UIC'S FACILITIES MANAGEMENT A MINIMUM OF TWO WEEKS PRIOR TO THE REMOVAL OF THE EXISTING UIC PATHWAY LIGHTING UNITS.
- THE EXISTING UIC ETU BOLLARD SHALL BE REMOVED BY OTHERS. THE CONTRACTOR SHALL COORDINATE THE REMOVAL WORK WITH UIC'S TELECOM/ACCC ENGINEERING DEPARTMENT. UIC'S TELECOM/ACCC ENGINEERING DEPARTMENT INFORMATION IS AS FOLLOWS:

 BRIAN NG 312-413-8254
 BEVERLY BAILEY 312-213-7419
 TOM WIESE 815-272-6607

 THE CONTRACTOR MUST CONTACT UIC'S TELECOM/ACCC GROUP A MINIMUM OF TWO WEEKS PRIOR TO THE REMOVAL OF THE EXISTING UIC ETU BOLLARDS.
- THE EXISTING POWER AND DATA FEED FOR THE ETU BOLLARD IS ROUTED INTO BUILDING 641-CUPPA HALL. THE EXISTING POWER AND DATA CONDUITS SHALL BE SAWCUT, CAPPED AND PROTECTED DURING CONSTRUCTION FOR FUTURE USE. SEE DRAWING E-10 FOR PROPOSED CONDUIT CONNECTIONS.
- PROVIDE A TEMPORARY UNDERGROUND FEED FOR THE PATHWAY LIGHTING CIRCUITS ON THE EAST PATHWAY AS SHOWN. THE TEMPORARY FEED SHALL BE PROTECTED DURING CONSTRUCTION STAGES 1B THROUGH STAGE 3 UNTIL IT IS NO LONGER REQUIRED.
- THE TEMPORARY LIGHTING FEED SHALL BE SPLICED TO EXISTING UIC LIGHTING CIRCUITS LOCATED WITHIN THE EXISTING UIC POWER HANDHOLE. CONTRACTOR SHALL PROVIDE A WATERPROOF CONNECTION FOR ALL SPLICES.
- THE EXISTING UIC PATHWAY LIGHTING UNIT WILL REMAIN IN PLACE AND OPERATIONAL UNTIL THE END OF STAGE 3 OF THE SUGGESTED CONSTRUCTION SCHEDULE. THE CONTRACTOR SHALL PROTECT THE LIGHTING UNIT UNTIL THE ENGINEER DIRECTS THE CONTRACTOR TO REMOVE IT. SEE DRAWING E-09A FOR TEMPORARY POWER FEED TO THESE LIGHTING UNITS.



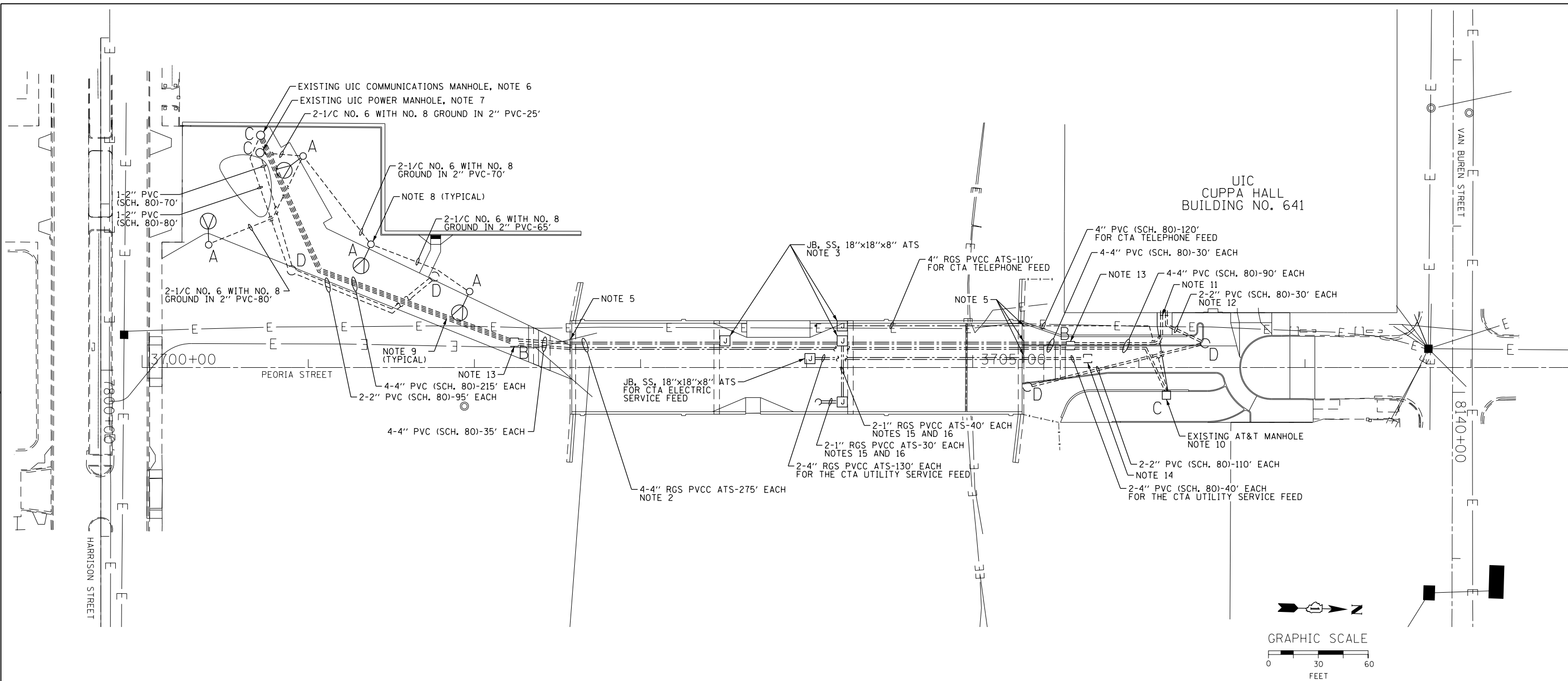
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 PLOT DATE = 10/28/2013

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 DATE - 10/30/2013
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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

EXISTING/TEMPORARY/DEMOLITION PLAN
 UNIVERSITY OF ILLINOIS AT CHICAGO
 SCALE: 1"=30'
 SHEET 9 OF 19 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-011R	COOK	356	119
CONTRACT NO. 60W29			ILLINOIS FED. AID PROJECT	



- "A" PROVIDE AN 12.5' ALUMINUM LIGHT POLE, 150W HPS, LUMINAIRE AND 8 FOOT ALUMINUM DAVIT ARM AND ALL ASSOCIATED COMPONENTS PER DRAWING NOS. 940 AND 945. PROVIDE 20"x5', 1" A.R., 10" B.C. FOUNDATION FOR LIGHT POLE, PER DRAWING NOS. 565 AND 837.
- "B" PROVIDE 3'x4'x4' CONCRETE MANHOLE PER DRAWING NO. 729 WITH 30" FRAME AND COVER PER DRAWING NO. 847.
- "C" DRILL EXISTING MANHOLE/HANDHOLE.
- "D" PROVIDE AN ETU BOLLARD FOUNDATION WITH TWO QUAZITE JUNCTION BOXES PER DETAILS SHOWN ON DRAWING E-11. QUAZITE JUNCTION BOXES NOT SHOWN ON THIS DRAWING, BUT REQUIRED FOR THE INSTALLATION. FINAL LOCATION OF FOUNDATION TO BE STAKED IN THE FIELD AND APPROVED BY A UIC REPRESENTATIVE PRIOR TO BEGINNING ANY ETU BOLLARD FOUNDATION WORK.
- "E" EXISTING TO REMAIN.

NOTES:

1. SEE DRAWING E-01 FOR ELECTRICAL SYMBOLS.
2. PROVIDE FOUR 4-INCH RIGID GALVANIZED STEEL PVC COATED CONDUITS ATTACHED TO STRUCTURE. THE CONDUITS SHALL BE MOUNTED UNDER THE BRIDGE DECK. SEE STRUCTURAL PLANS FOR LOCATION OF CONDUITS.
3. THE PROPOSED JUNCTION BOX SHALL BE INSTALLED DIRECTLY ABOVE THE INSIDE FACE OF THE PIER STRUCTURE TO ALLOW FOR EASY CONNECTION TO FUTURE CONDUITS ATTACHED TO AND ROUTED UP THE PIER FACE. ROUTE TWO OF THE 4-INCH UIC CONDUITS THROUGH THE JUNCTION BOX.
4. INTERCEPT EXISTING CONDUITS AND CONNECT TO PROPOSED MANHOLE AS SHOWN.
5. SEE DRAWING NO. E-12 FOR EMBEDDED CONDUIT EXITING PARAPET WALL DETAILS.
6. ROUTE THE NEW COMMUNICATIONS CONDUITS TO THE EXISTING UIC COMMUNICATIONS MANHOLE AS SHOWN. COORDINATE ALL WORK WITH UIC'S TELECOM/ACCC ENGINEERING DEPARTMENT. SEE DRAWING E-09 FOR UIC CONTACT INFORMATION.
7. ROUTE NEW LIGHTING CONDUIT AND CABLES TO THE EXISTING UIC POWER MANHOLE. CONNECT THE NEW PATHWAY LIGHTING CIRCUIT TO THE EXISTING UIC LIGHTING CIRCUIT LOCATED INSIDE THE MANHOLE. PROVIDE WATERPROOF CONNECTIONS FOR ALL SPLICES.
8. INSTALL LIGHT POLE FOUNDATION IN GRADE 3 FEET FROM THE FACE OF CURB TO CENTER OF FOUNDATION.
9. PROVIDE A POLYPROPYLENE, TWISTED YELLOW, ROT AND MILDEW RESISTANT PULL ROPE IN ALL EMPTY CONDUITS. THE ROPE SHALL BE A MINIMUM 3/8 INCHES IN DIAMETER WITH 2400 STRENGTH POUNDS.
10. ROUTE TWO 4-INCH CONDUITS FROM THE UIC MANHOLE TO THE AT&T MANHOLE. THIS WORK SHALL BE COORDINATED WITH AT&T.
11. ROUTE TWO 4-INCH CONDUITS TO UIC BUILDING NO. 461-CUPPA HALL AND INTERCEPT THE EXISTING TWO 3-INCH CONDUITS. CONNECT THE NEW CONDUITS TO THE EXISTING CONDUITS. PROVIDE CONDUIT REDUCERS AS NEEDED. LOCATION OF EXISTING CONDUITS TO BE DETERMINED IN THE FIELD BY THE CONTRACTOR. ALL WORK TO BE COORDINATED WITH UIC.
12. ROUTE TWO 2-INCH PVC CONDUITS (1 DATA, 1 POWER) FROM THE PROPOSED ETU JUNCTION BOXES AND FOUNDATION TO INTERCEPT THE EXISTING CONDUIT STUBOUTS LOCATED AT UIC BUILDING NO. 461-CUPPA HALL. CONNECT THE NEW CONDUITS TO THE EXISTING CONDUITS. LOCATION OF EXISTING CONDUITS TO BE DETERMINED IN THE FIELD BY THE CONTRACTOR. ALL WORK SHALL BE COORDINATED WITH UIC.
13. THE UIC COMMUNICATIONS LOGO SHOULD BE STAMPED ON THE MANHOLE COVER. COORDINATE THIS WORK WITH UIC TELECOM/ACCC ENGINEERING DEPARTMENT.
14. COMED MANHOLE FOR CTA UTILITY FEED BY OTHERS.
15. ROUTE TWO 1-INCH RIGID GALVANIZED STEEL PVC COATED CONDUITS ATTACHED TO STRUCTURE FROM THE JUNCTION BOX TO THE CONDUIT SLEEVE THROUGH THE BRIDGE DECK FOR THE UIC MESSAGE BOARD. SEE THE STRUCTURAL DRAWINGS FOR THE LOCATION OF THE CONDUIT SLEEVE THROUGH THE BRIDGE DECK.
16. SEE DETAIL ON DRAWING E-12 FOR CONDUIT INSTALLATION PLAN - PIER 2.

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D160W29-sht-Light-10
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 PLOT SCALE = 60.0000' / in.
 PLOT DATE = 10/28/2013

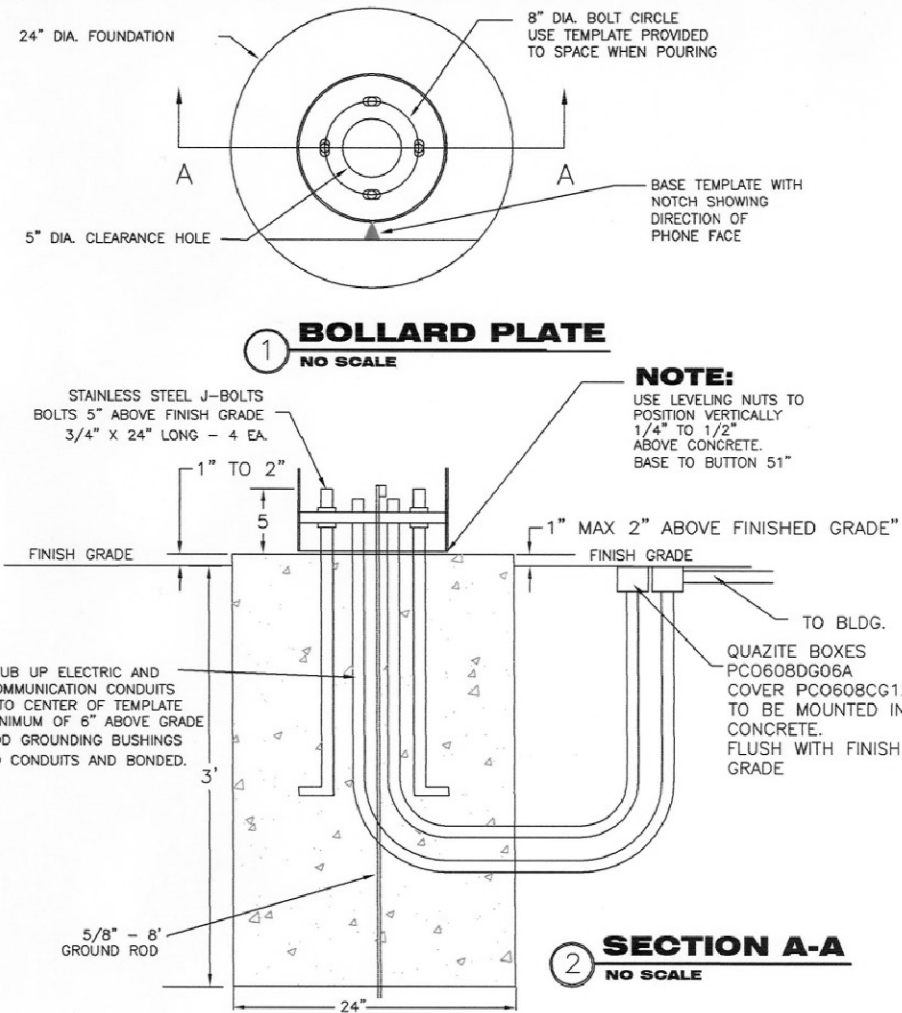
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DRAWN - CAM	REVISED -
CHECKED - WDS	REVISED -
DATE - 10/30/2013	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

PROPOSED LIGHTING PLAN	
UNIVERSITY OF ILLINOIS AT CHICAGO	
SCALE: 1"=30'	SHEET 10 OF 19 SHEETS STA. TO STA.

F.A.I. RTE. 90/94/290	SECTION 2013-011R	COUNTY COOK	TOTAL SHEETS 356	SHEET NO. 120
ILLINOIS FED. AID PROJECT				

BOLLARD BASE FOR STANDARD E.T.U.'s & P.A.U.'s



FILE: BOLLARD.DWG	DRAWN BY: T. E. D.	UNIVERSITY OF ILLINOIS AT CHICAGO TELECOMMUNICATIONS DEPARTMENT
DWG: E.T.U. & P.A.U. BOLLARD BASE	DATE: 07.10.97	
	SHEET: 1 OF 1	
	SCALE: NO SCALE	



EMERGENCY TELEPHONE UNIT BOLLARD

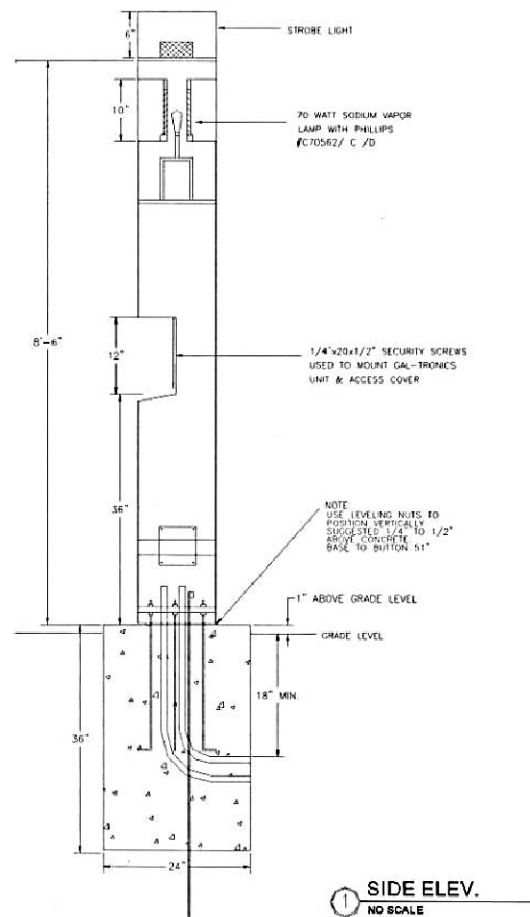


DIAGRAM 17A

FILE: BOLLARD.DWG	DRAWN BY: T.E.D. rv	UNIVERSITY OF ILLINOIS AT CHICAGO TELECOMMUNICATIONS DEPARTMENT
DWG: E.T.U. COMMUNICATIONS BOLLARD	DATE: 07/10/97	
	SHEET: 1 OF 1	
	SCALE: NO SCALE	



ETU AND PAU CONDUIT INSTALLATION

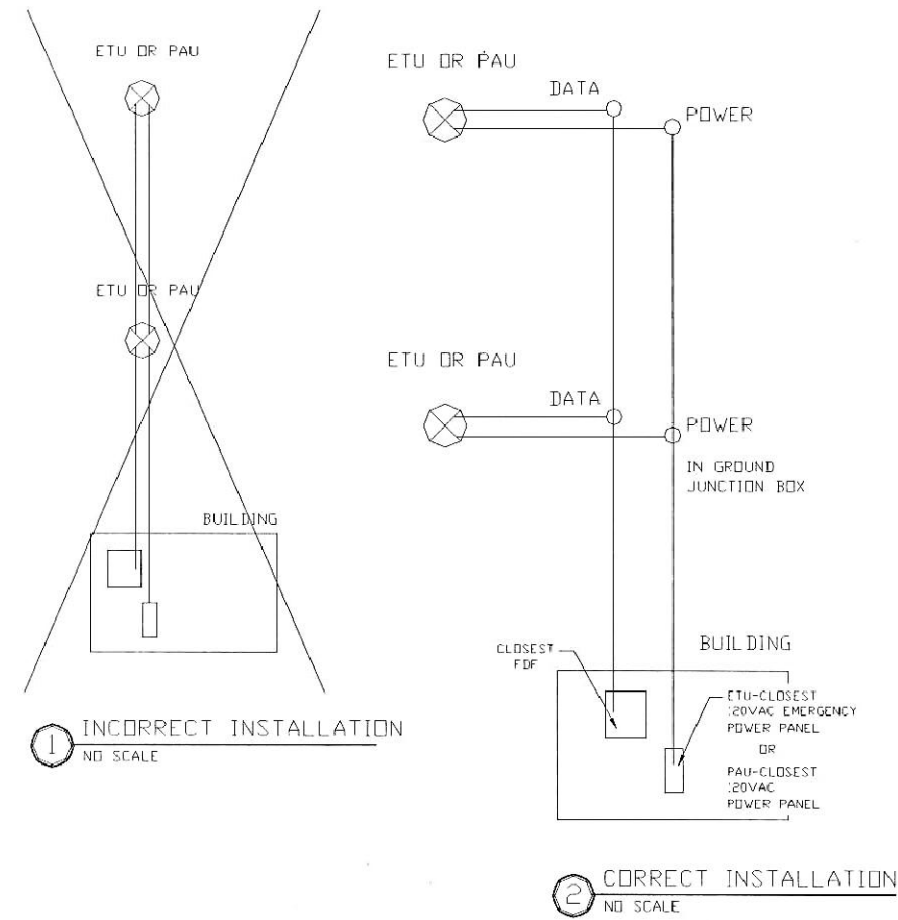


DIAGRAM 17i

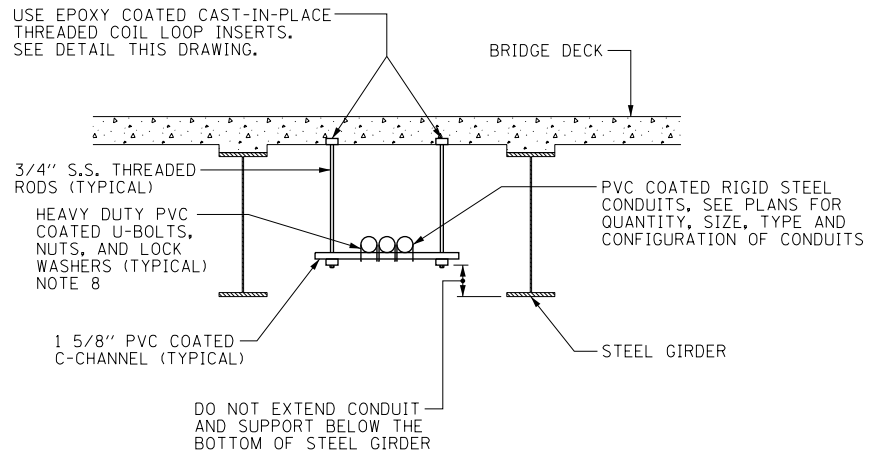
FILE: ETUDIGRM.DWG	DRAWN BY: T. E. D.	UNIVERSITY OF ILLINOIS AT CHICAGO TELECOMMUNICATIONS DEPARTMENT
DWG: ETU - PAU CORRECT INSTALLATION	DATE: 07.30.97	
	SHEET: 1 OF 1	
	SCALE: NO SCALE	



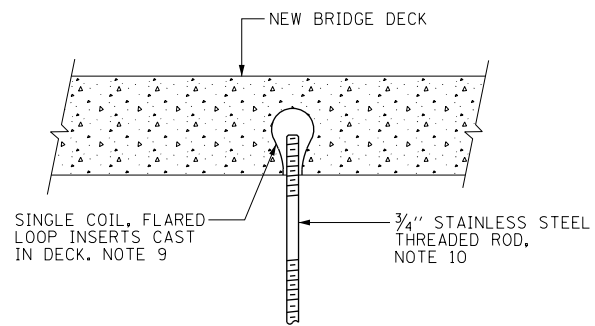
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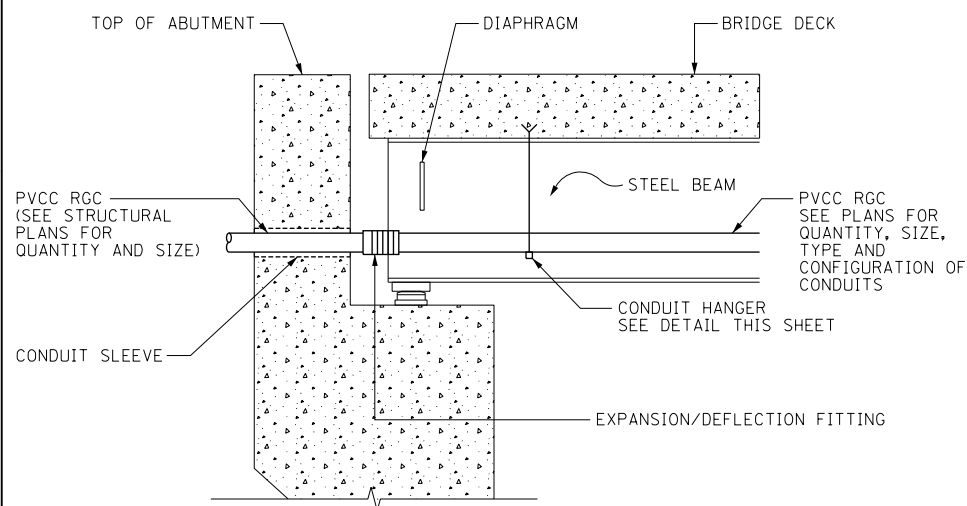
DI60W29-sht-Light-11	DESIGNED - WDS	REVISED -
USER NAME = BAW:tor.t	DRAWN - CAM	REVISED -
PLOT SCALE = 2.0000' / in.	CHECKED - WDS	REVISED -
PLOT DATE = 10/28/2013	DATE - 10/30/2013	REVISED -



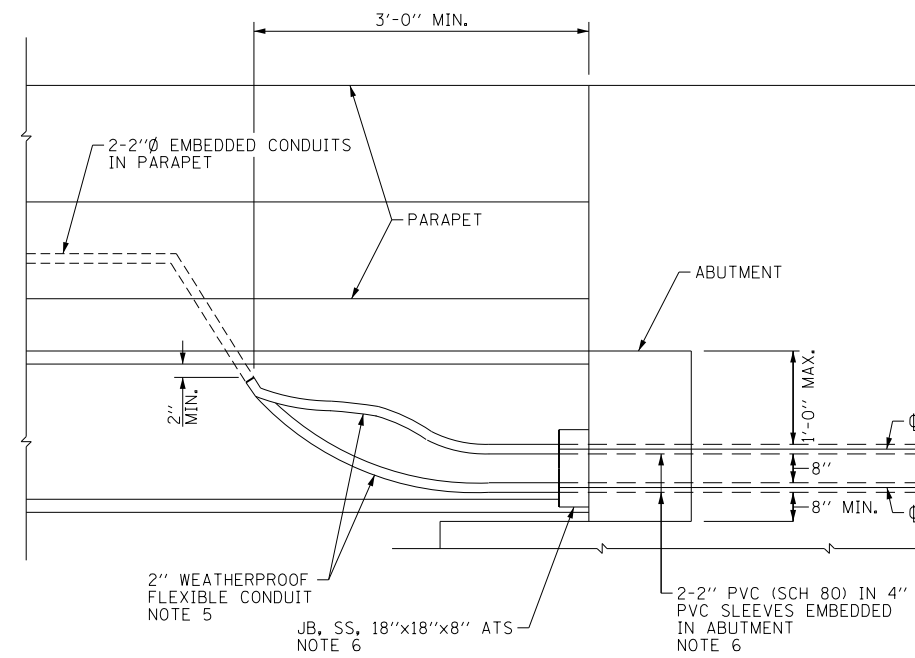
TYPICAL CONDUIT SUPPORT ATTACHED TO BRIDGE DECK DETAIL
SCALE: NOT TO SCALE
NOTE 11



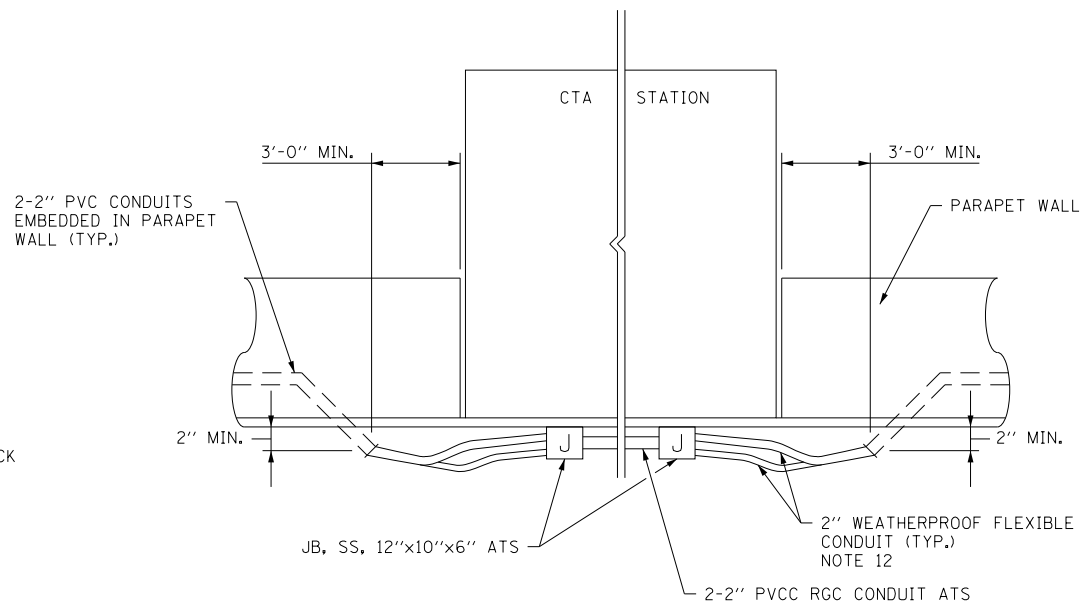
BRIDGE DECK THREADED ROD INSTALLATION ANCHOR DETAILS
SCALE: NOT TO SCALE



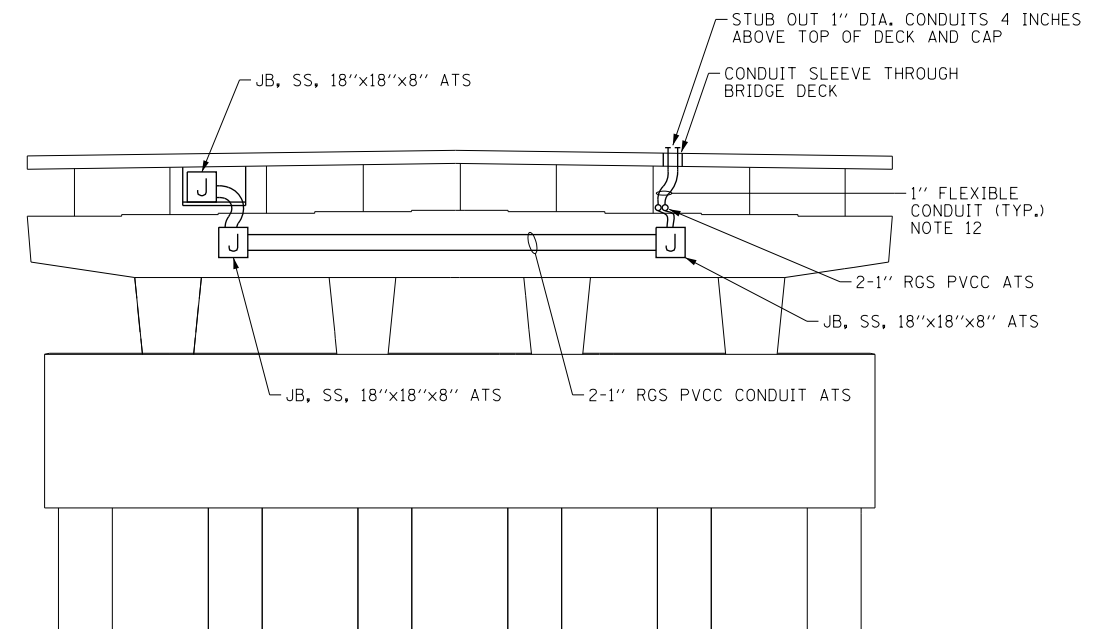
TYPICAL CONDUIT INSTALLATION THROUGH ABUTMENT WALL
SCALE: NOT TO SCALE



EMBEDDED BRIDGE CONDUIT DETAIL-A
SCALE: NOT TO SCALE



EMBEDDED BRIDGE CONDUIT DETAIL-B
SCALE: NOT TO SCALE



CONDUIT INSTALLATION PLAN - PIER 2 (LOOKING NORTH)
SCALE: NOT TO SCALE

NOTES:

- SEE DRAWING E-01 FOR IDOT ELECTRICAL SYMBOLS.
- 2" PVCC CONDUITS SHALL HAVE A MINIMUM BENDING RADIUS OF 10".
- SEE STRUCTURAL PLANS FOR LOCATION OF EMBEDDED CONDUITS.
- JUNCTION BOXES SHALL HAVE A 1 1/2" WIRE MESH DRAIN IN THE BOTTOM.
- WEATHERPROOF FLEXIBLE CONDUIT WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED AS INCLUDED IN THE PRICE FOR "CONDUIT EMBEDDED IN STRUCTURE" PAY ITEM. COST OF 4" SLEEVES IS INCLUDED WITH CONCRETE STRUCTURES.
- COORDINATE THE LOCATION OF THE JUNCTION BOX AND CONDUITS ROUTED THROUGH THE ABUTMENT WITH THE LOCATION OF THE CONDUIT SLEEVE OPENINGS SHOWN ON THE STRUCTURAL PLANS.
- SEE PLAN DRAWINGS FOR THE PROPOSED CONDUIT ROUTING.
- ALL MOUNTING HARDWARE FOR CONDUIT SUPPORTS AND PVCC RGC MUST BE PVC COATED.
- THE CONTRACTOR MUST USE APPROVED SINGLE COIL FLARED LOOP INSERTS WHEN PENDANT MOUNTING THREADED RODS TO A NEW BRIDGE DECK. THE FLARED LOOP INSERTS MUST BE CAST INTO THE CONCRETE DECK. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND COORDINATING THE INSERT LOCATIONS WITH THE BRIDGE DECK CONTRACTOR.
- THE CONTRACTOR MUST COORDINATE THREADED ROD END SIZES WITH THE C-CHANNEL AND FLARED LOOP INSERT MANUFACTURERS.
- THE CONDUIT SUPPORT SYSTEM ATTACHED TO THE BRIDGE DECK, INCLUDING THE INSERTS, WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED AS INCLUDED IN THE PRICE FOR THE "CONDUIT ATTACHED TO STRUCTURE" PAY ITEM.
- WEATHERPROOF FLEXIBLE CONDUIT WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED AS INCLUDED IN THE PRICE FOR "CONDUIT ATTACHED TO STRUCTURE" PAY ITEM.

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DI60W29-sht-Light-12
USER NAME = BAW:tor t
PLOT SCALE = 2.0000 ' / in.
PLOT DATE = 10/28/2013

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DATE -	10/30/2013	REVISED -	

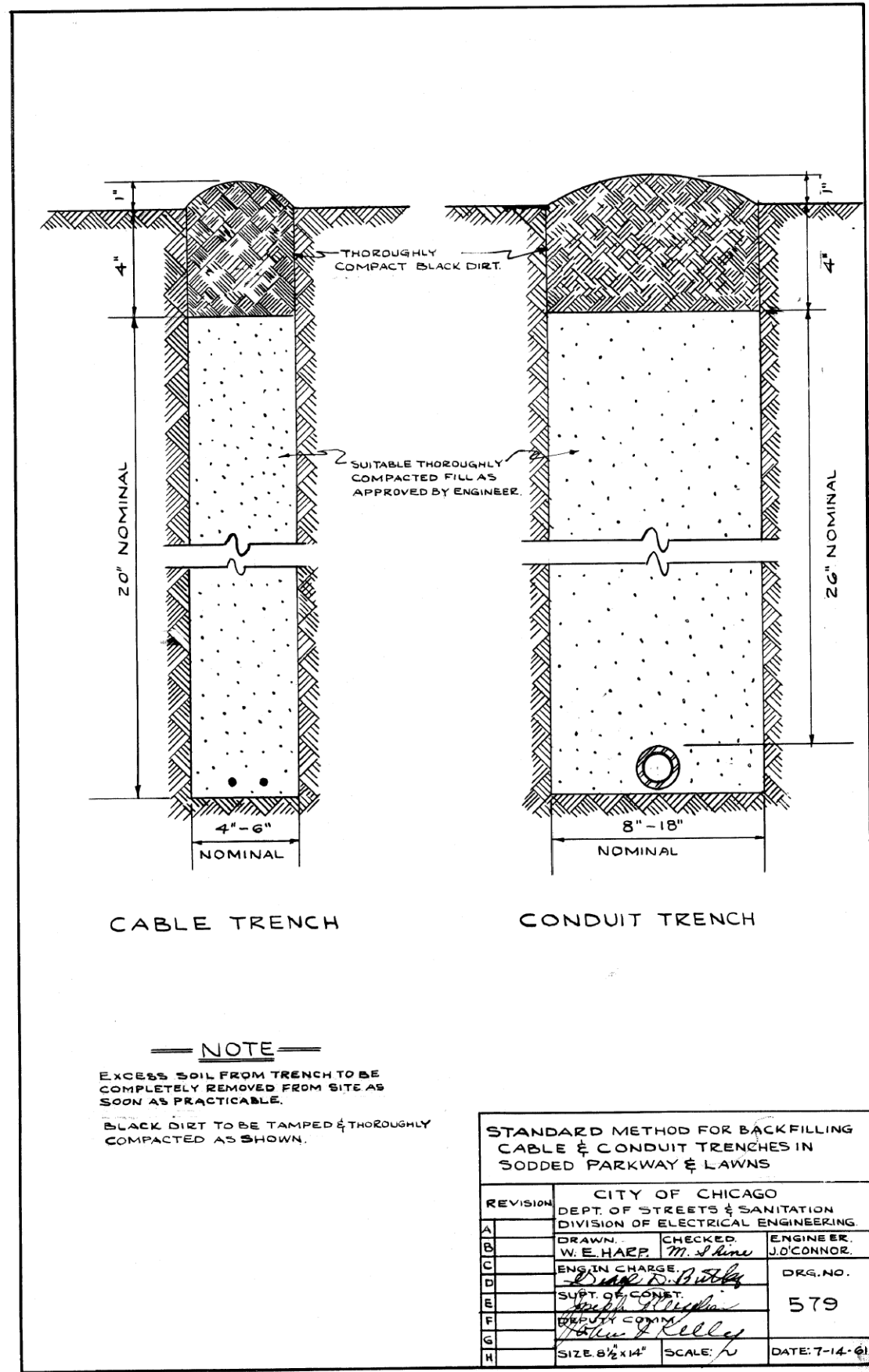
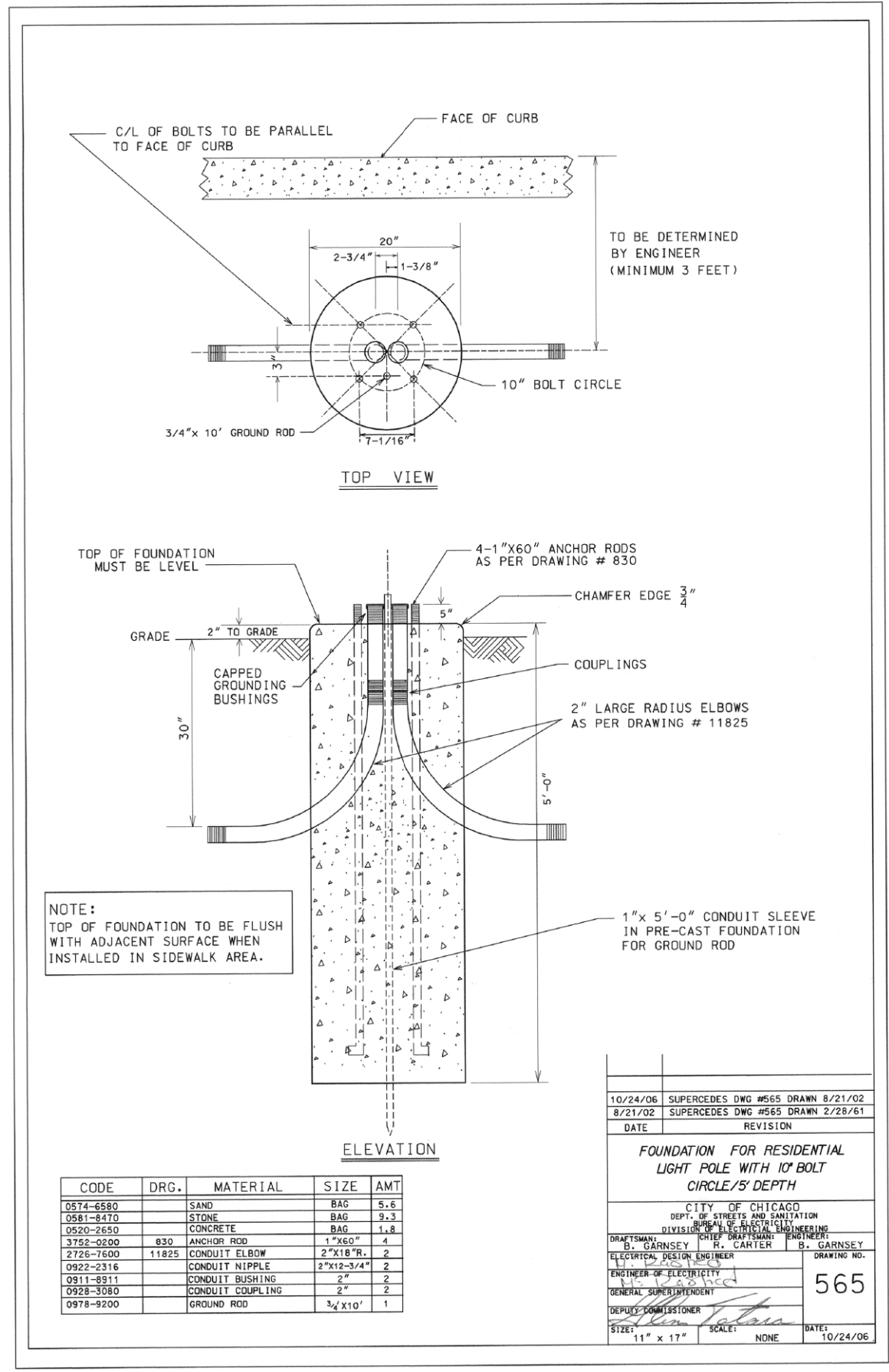
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

MISCELLANEOUS ELECTRICAL DETAILS

SCALE: N.T.S. SHEET 12 OF 19 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-011R	COOK	356	122
CONTRACT NO. 60W29			ILLINOIS FED. AID PROJECT	

FILE PATH = p:\388035\pmt\l\ecom\online\local\p\AEC\DWG\Documents\01_Americas\Transportation\60269938_Circle\Phase_1\1000_CAD\016_Electrical\Sheets\60W29_sht-Light-13



J:\ALL 2\STANDARD\565.DGN 12/11/2006 10:56:45 AM



D160W29-sht-Light-13
USER NAME = BAW:tor t
PLOT SCALE = 2.0000' / in.
PLOT DATE = 10/28/2013

DESIGNED - WDS
DRAWN - CAM
CHECKED - WDS
DATE - 10/30/2013

REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MISCELLANEOUS ELECTRICAL DETAILS

SCALE: N.T.S. SHEET 13 OF 19 SHEETS STA. TO STA.

F.A.I. R.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-011R	COOK	356	123
ILLINOIS FED. AID PROJECT			CONTRACT NO. 60W29	



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 PLOT DATE = 10/28/2013

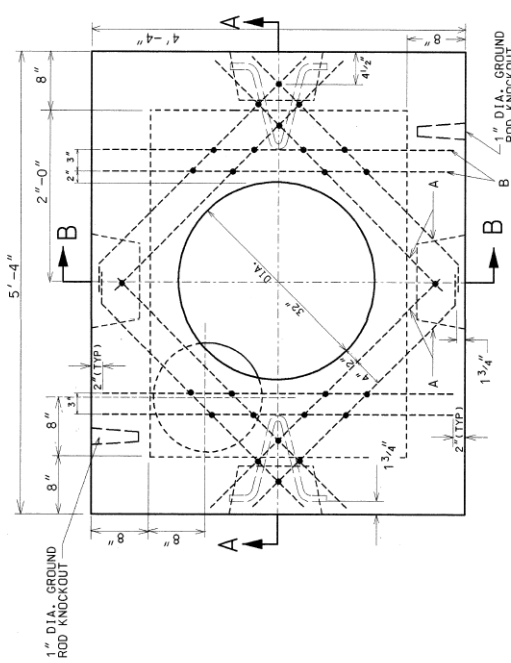
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 DATE - 10/30/2013

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

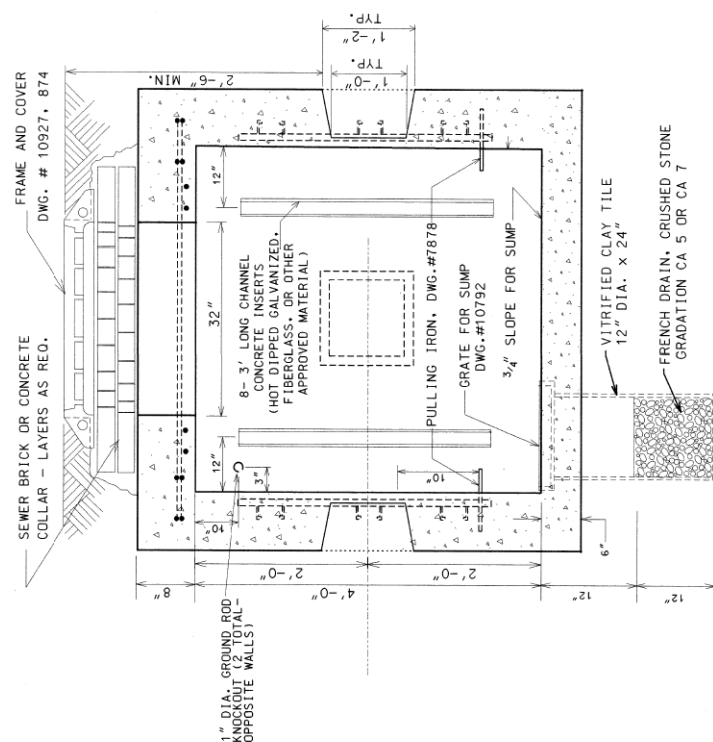
MISCELLANEOUS ELECTRICAL DETAILS

SCALE: N.T.S. SHEET 14 OF 19 SHEETS STA. TO STA.

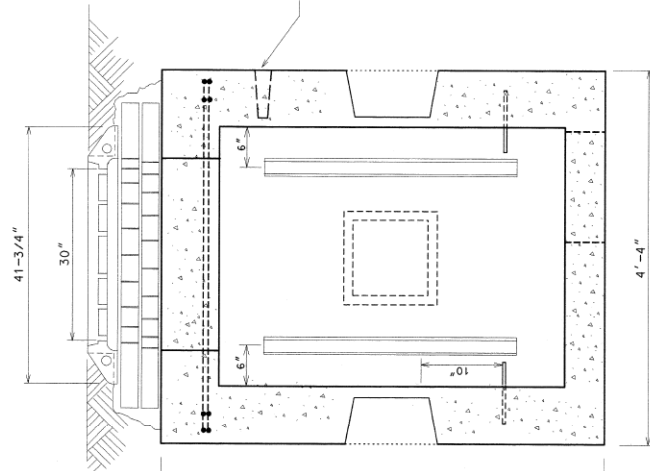
F.A.I. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-011R	COOK	356	124
CONTRACT NO. 60W29			ILLINOIS FED. AID PROJECT	



ROOF PLAN



SECTION A-A



SECTION B-B

EXCAVATION (CONSTRUCTION INFORMATION)

COMPLETE MANHOLE	5.0 CU. YDS.
NEW ROOF ONLY	2.0 CU. YDS.
SHEETING MANHOLE	150.0 50' FT.

#5 REINFORCING BARS

BAR	LENGTH	NO. OF BARS	TOTAL FT.
A	2'-9"	8	22'-0"
B	4'-0"	4	16'-0"

MATERIALS FOR ROOF ONLY

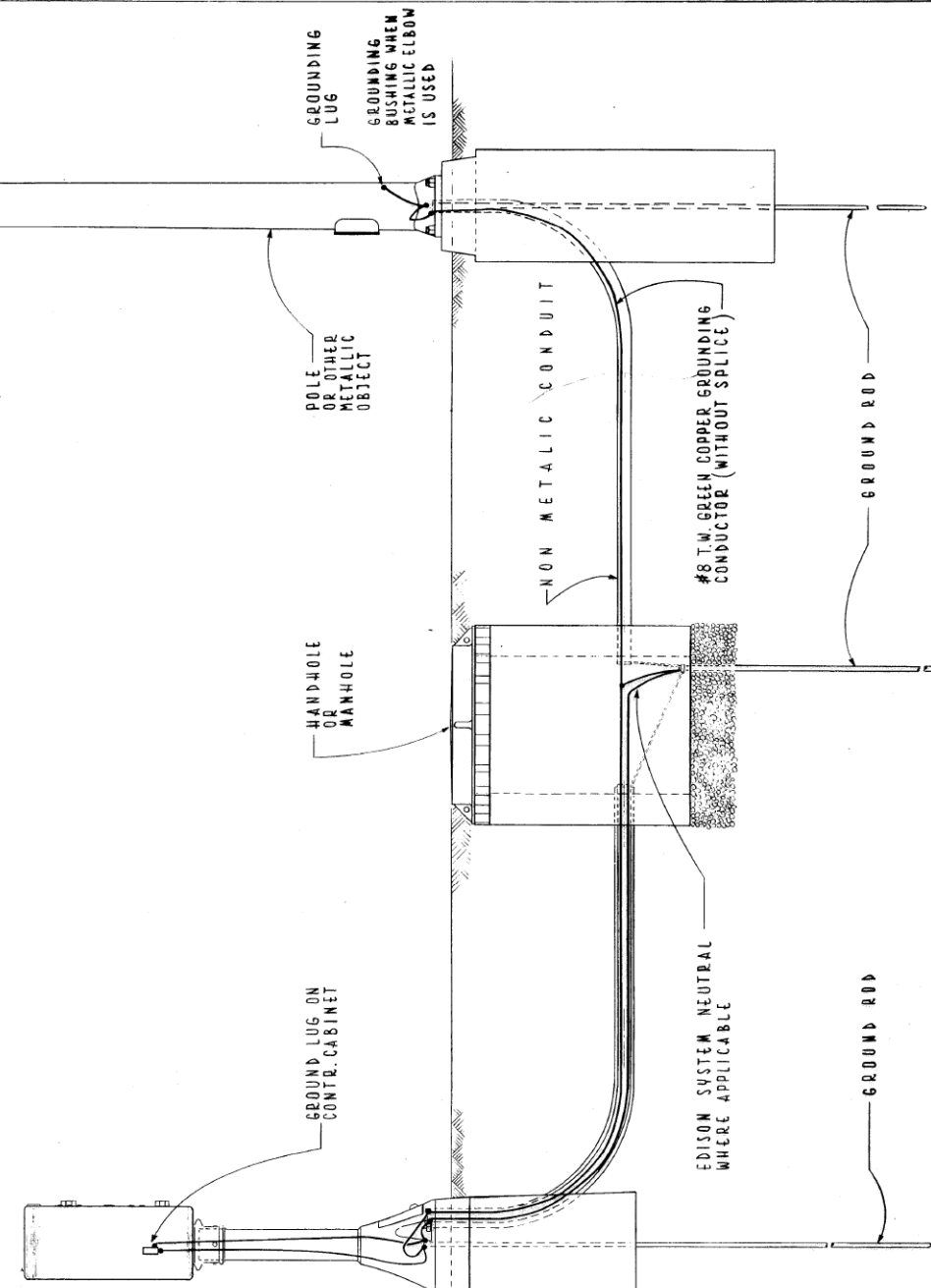
CONCRETE	0.5 CU. YDS.
REINFORCING BARS #5	38'

DRG.	MATERIAL	CODE	SIZE	No. Req.
	FORM FOR MANHOLE	17-6874-6000	3'x4'x4'	1
	CONDUIT END BELL	17-6445-3320	AS REQ.	
	TILE - SEWER	39-4036-3200	12"/24"	
	SLAB BOLSTER	20-5472-9650	2" x 20"	
	BAR, REINFORCING	13-9938-6106	#20GA.35'	
	TIE WIRE	02-4483-6370	3/4" x 2'	
7878	PULLING IRON	05-3267-2940	3 CU. YDS.	
	SEWER BRICK	05-1452-9720	370. 50	
10792	GRATE FOR SUMP	02-4368-7100	15" x 15" x 1"	
	GROUND ROD	09-7796-9200	3/4" x 10'	
	GROUND ROD CLAMP	09-2636-3240	3/4" x 1"	
	CRUSHED STONE	05-9057-5471	3/4" ONE INCH DIA.	
874	MANHOLE FRAME	02-4299-5524	30" x 1"	
10927	MANHOLE COVER	02-4574-5040	30" x 1"	
	CONC. CHANNEL INSERT	02-4574-5040	3" x 8"	

- NOTES:
1. PRECAST MANHOLES MUST BE PROVIDED WITH CHANNEL INSERTS, PULLING IRONS, AND CONDUIT KNOCK-OUTS.
 2. ALL CONCRETE MUST BE PORTLAND CEMENT CONCRETE MEETING LOCAL REQUIREMENTS FOR CONCRETE FOR PRE-CAST STRUCTURES, OR CLASS S1 CONCRETE FOR CAST-IN-PLACE STRUCTURES.
 3. REINFORCING BARS MUST MEET ASTM A615 GRADE 60.

8/21/02 SUPERCEDES DWG. 729 DATED JAN 12, 1996	
1/12/96 SUPERCEDES DWG. 729 DATED NOV. 21, 1973	
DATE	REVISION
3' x 4' x 4'	
CONCRETE MANHOLE WITH 30" FRAME AND COVER	
CHICAGO DEPT. OF STREETS & SANITATION BUREAU OF ELECTRICITY DIVISION OF ELECTRICAL ENGINEERING DRAFTSMAN: R. CARTER ELECTRICAL DESIGN ENGINEER: B. GARNSEY ENGINEER IN CHARGE: B. GARNSEY GENERAL SUPERINTENDENT: <i>[Signature]</i> DEPUTY SUPERINTENDENT: <i>[Signature]</i>	
SIZE: 11" x 22"	SCALE: NONE
DWG. NO. 729	DATE: 9/21/02

NOTE: TERMINATE ALL METALLIC CONDUIT WITH GROUNDING BUSHING & GROUND TO GROUND ROD WHEN METALLIC CONDUIT IS USED DELETED GROUNDING CONDUCTOR



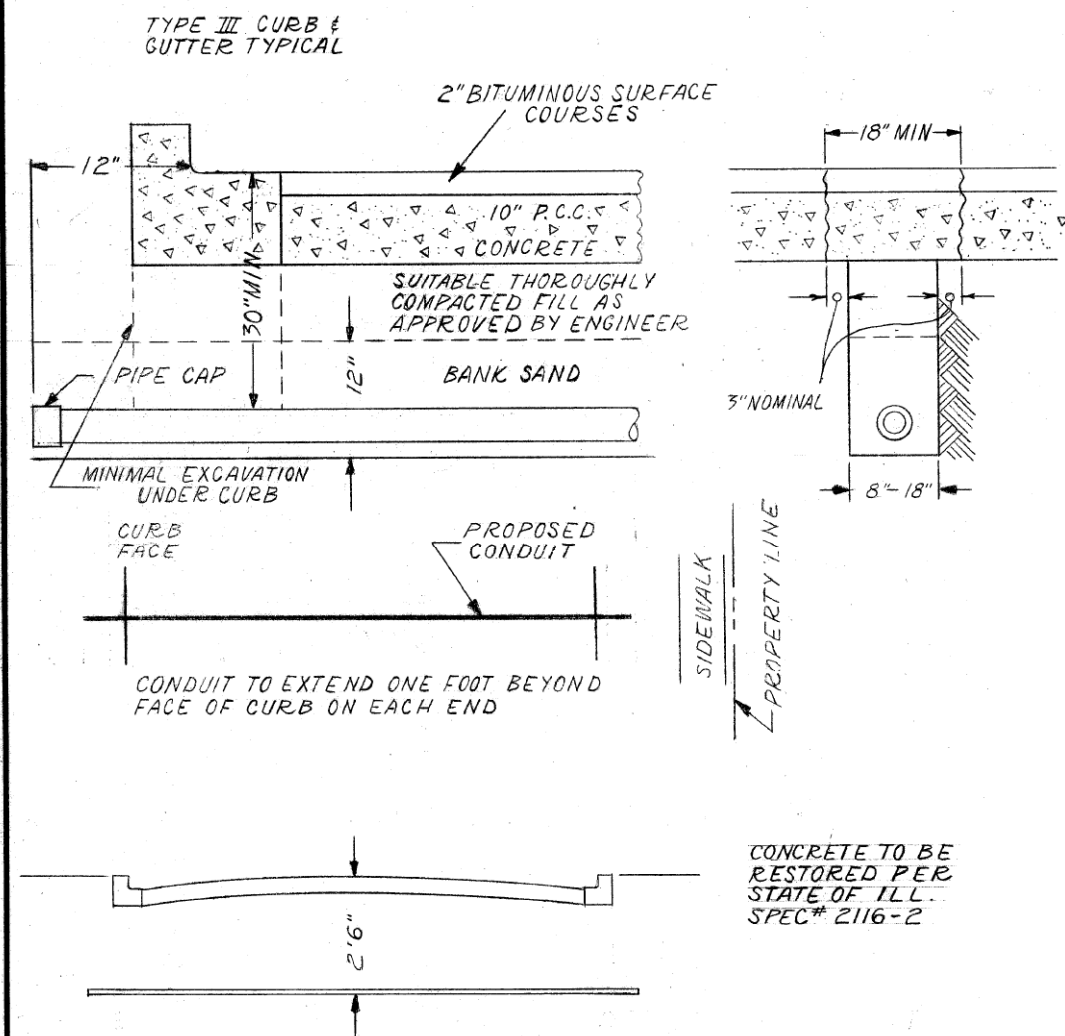
TYPICAL GROUNDING METHODS FOR BUREAU OF ELECTRICITY EQUIPMENT

CITY OF CHICAGO
DEPT. OF STREETS & SANITATION
BUREAU OF ELECTRICITY
DIVISION OF ELEC. ENGINEERING

REVISED	DRAWN: E GERULIS	CHECKED: M SHINE	ENGINEER: J O'CONNOR
A	ENG. OF ELEC.		DWG. NO. 736
B	SUPT. OF CONST.		
C	PER. OF CONST.		
D	PER. OF CONST.		
E	PER. OF CONST.		
F	PER. OF CONST.		

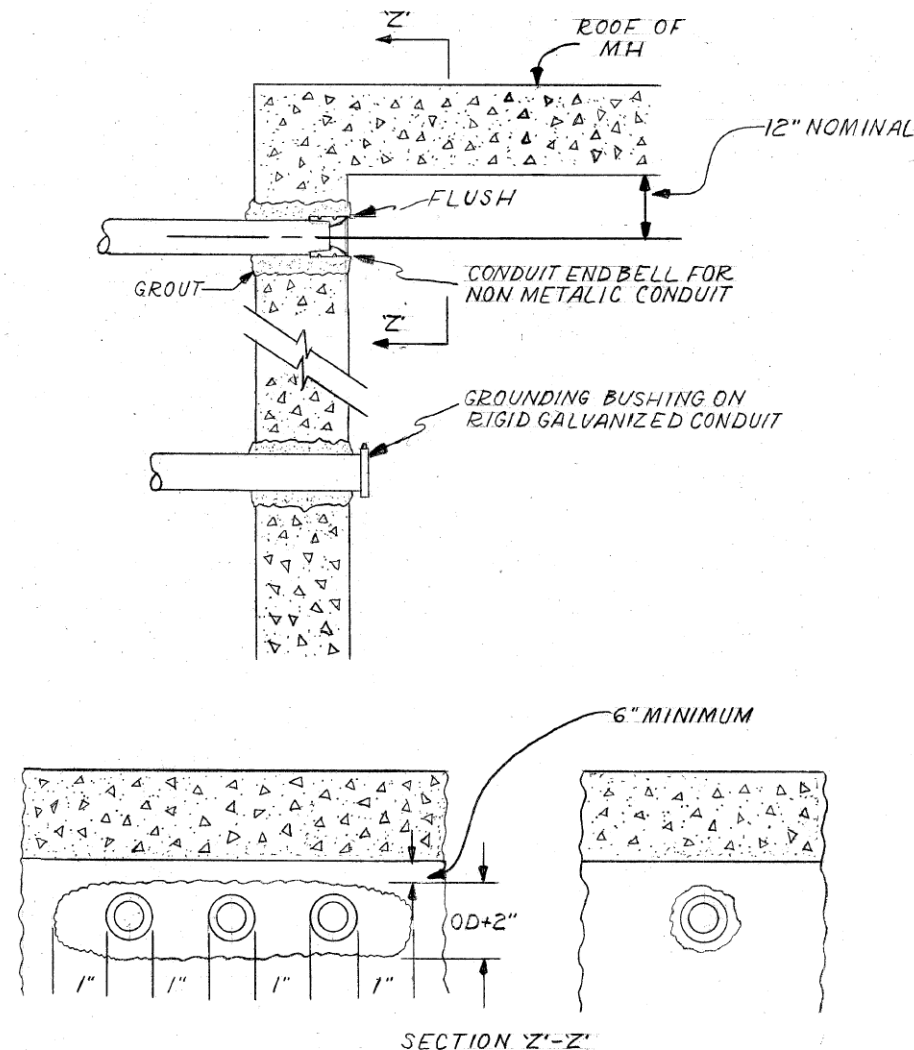
SIZE: 8 1/2" x 14" SCALE: 1" = 10' DATE: 5-17-76

CONDUIT INSTALLATION UNDER PAVED STREET



INSTALLATION METHOD OF INSTALLING CONDUIT UNDER PAVED ROADWAY		
CITY OF CHICAGO DEPT. OF STREETS AND SANITATION BUREAU OF ELECTRICITY DIVISION OF ELECTRICAL ENGINEERING		
DRAWN A.M. JOHNSON	CHECKED R. SYCKOWSKI	ENGINEER R.L. MARTIN
 THOMAS HILDUFF ENGINEER OF ELECTRICITY		DRG. NO. 813
 CHARLES E. BUNKLEY DEPT. OF STREETS DEPUTY COMM.		DATE 3-13-81
SIZE 8 1/2" X 14"	SCALE N.T.S.	

CONDUIT INSTALLATION THROUGH EXISTING
MANHOLE OR HANDHOLE WALL



OPENING THROUGH WALL TO BE KEPT TO MINIMUM SIZE TO ADMIT CONDUIT AND SUFFICIENT GROUT TO ASSURE SEALING WALL.

INSTALLATION METHOD OF INSTALLING CONDUIT THRU MANHOLE WALL		
CITY OF CHICAGO DEPT. OF STREETS AND SANITATION BUREAU OF ELECTRICITY DIVISION OF ELECTRICAL ENGINEERING		
DRAWN A.M. JOHNSON	CHECKED R. SYCKOWSKI	ENGINEER R.L. MARTIN
 THOMAS HILDUFF ENGINEER OF ELECTRICITY		DRG. NO. 814
 CHARLES E. BUNKLEY DEPT. OF STREETS DEPUTY COMM.		DATE 3-13-81
SIZE 8 1/2" X 14"	SCALE N.T.S.	

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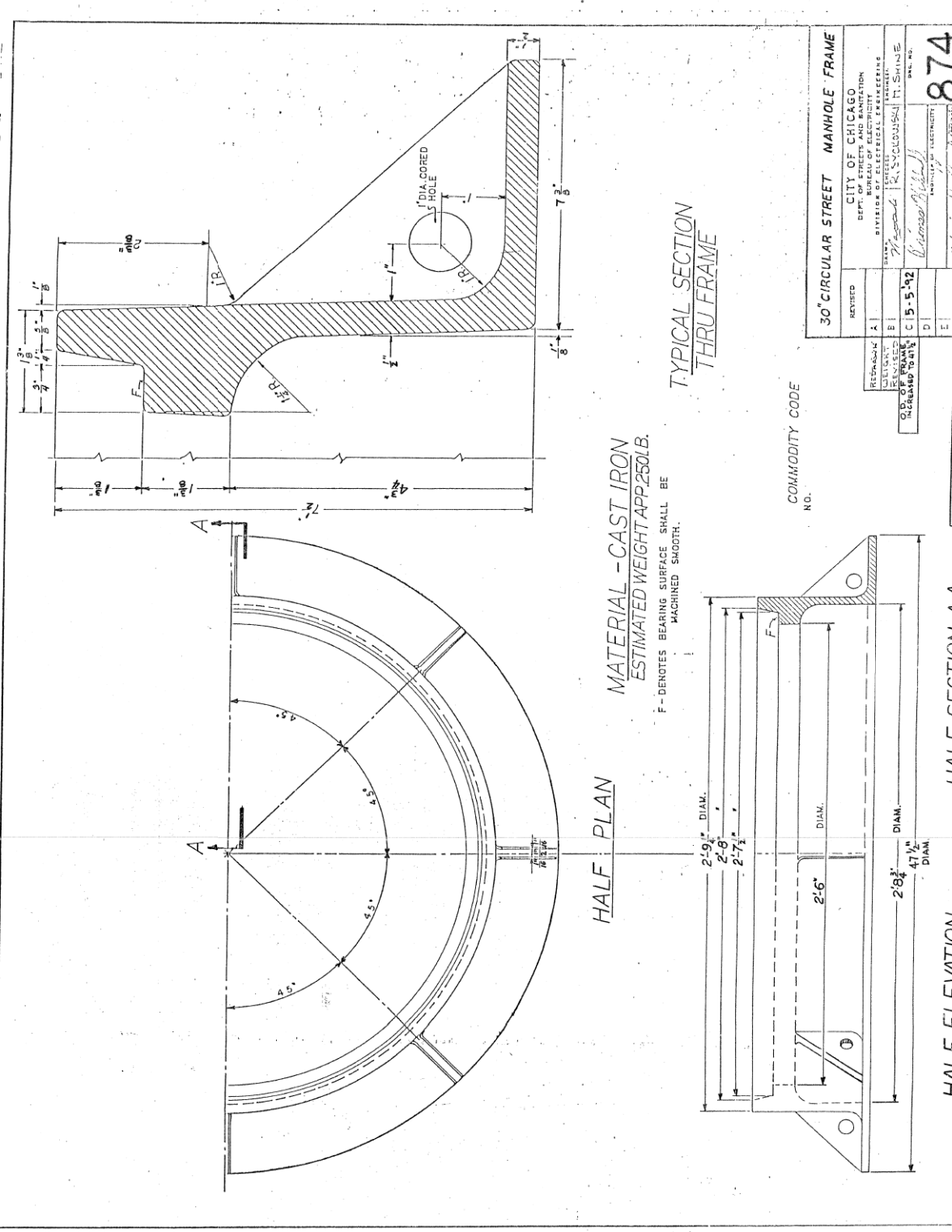
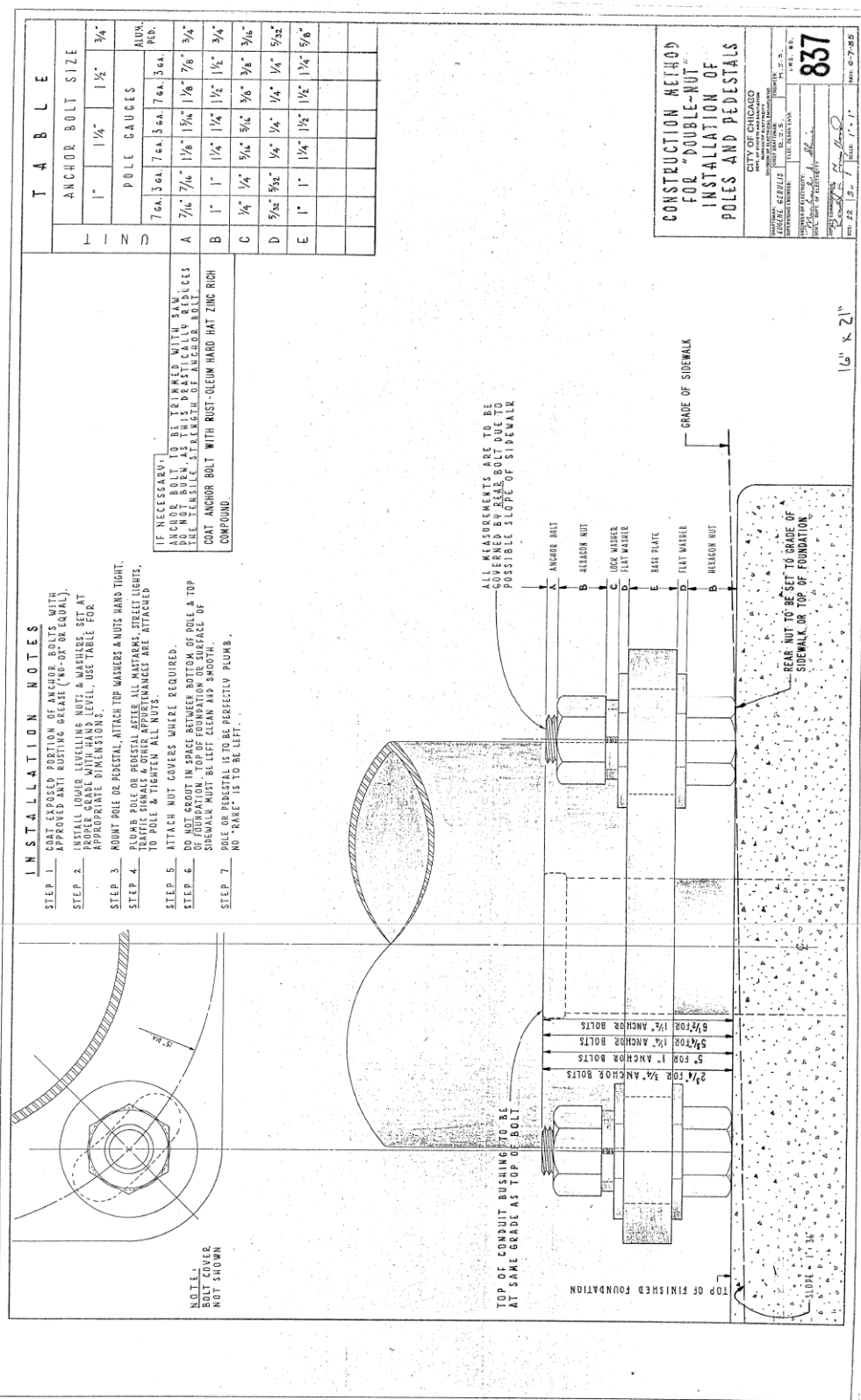
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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

MISCELLANEOUS ELECTRICAL DETAILS

SCALE: N.T.S. SHEET 15 OF 19 SHEETS STA. TO STA.

F.A.I. RTE. 90/94/290	SECTION 2013-011R	COUNTY COOK	TOTAL SHEETS 356	SHEET NO. 125
CONTRACT NO. 60W29				
ILLINOIS FED. AID PROJECT				



COMMODITY CODE NO.

REVISION	DATE	BY	DESCRIPTION
A			
B			
C	15-5-12		
D			
E			
F			
G			

30" CIRCULAR STREET MANHOLE FRAME

CITY OF CHICAGO
 DEPT. OF ELECTRICAL ENGINEERING
 DIVISION OF ELECTRICAL ENGINEERING
 312 N. LAUREL ST., CHICAGO, ILL. 60607
 TEL: 312-321-2000
 FAX: 312-321-2000
 DATE: 10/28/2013
 DRAWN BY: CAM
 CHECKED BY: WDS
 DESIGNED BY: WDS
 REVISIONS: -

874

SUPERSEDES DRG # 10926 DATED 4-6-35

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AECOM
303 EAST WACKER DRIVE, SUITE 1400
CHICAGO, IL 60601-5276
PHONE: (312) 373-7700 FAX: (312) 373-6800

D160W29-sh-18
USER NAME = BAW1ortt
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PLOT DATE = 10/28/2013

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DATE - 10/30/2013

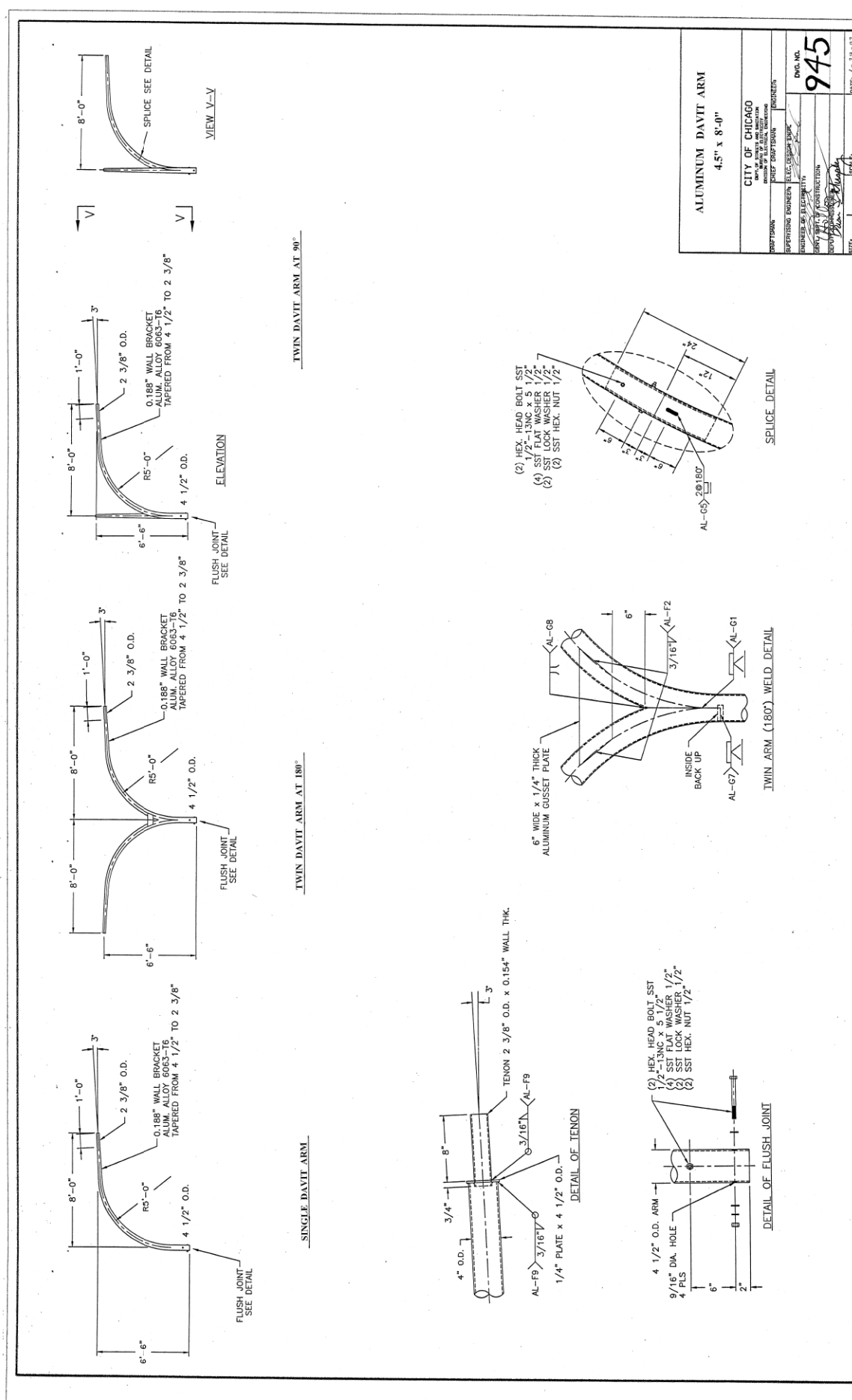
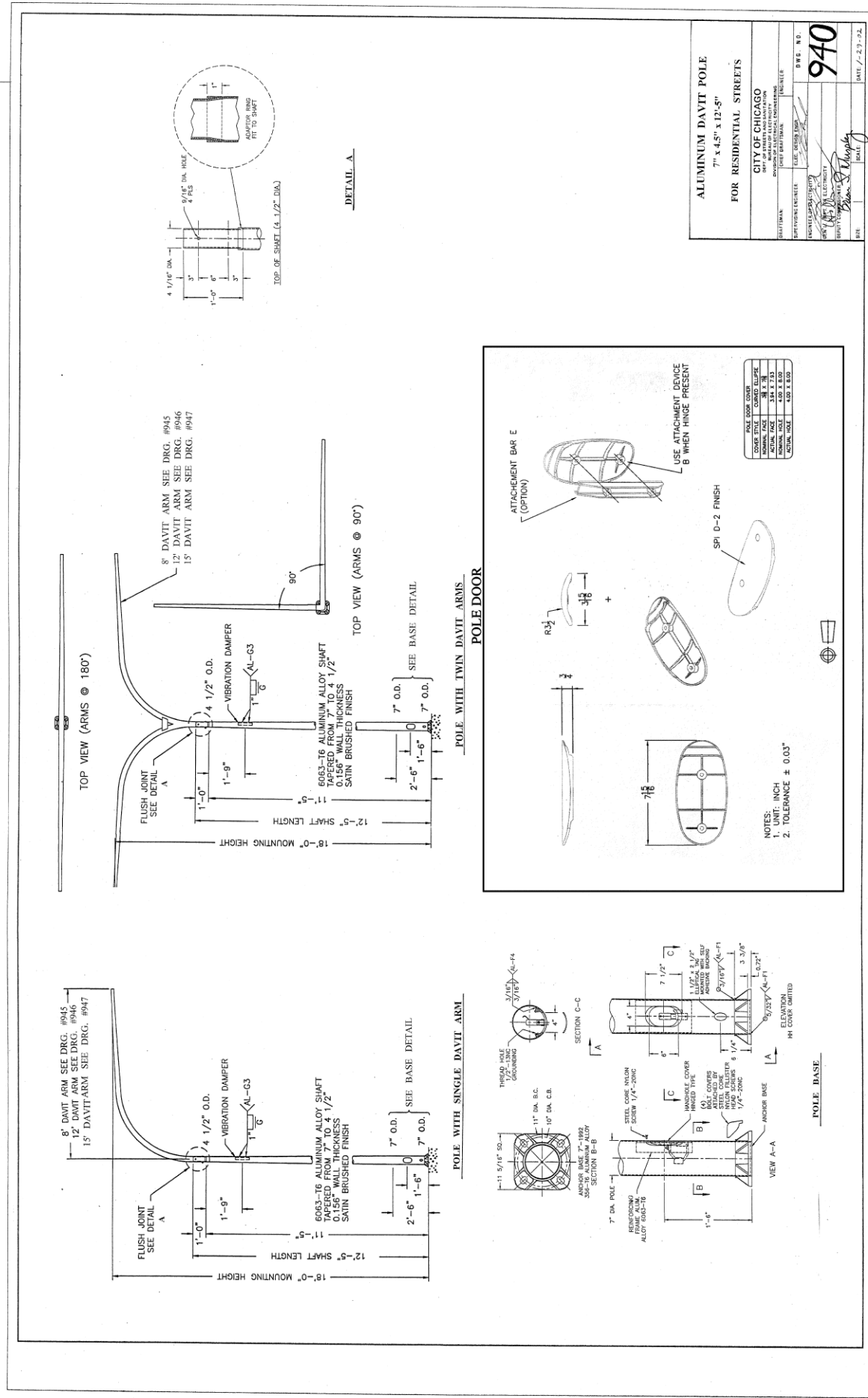
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

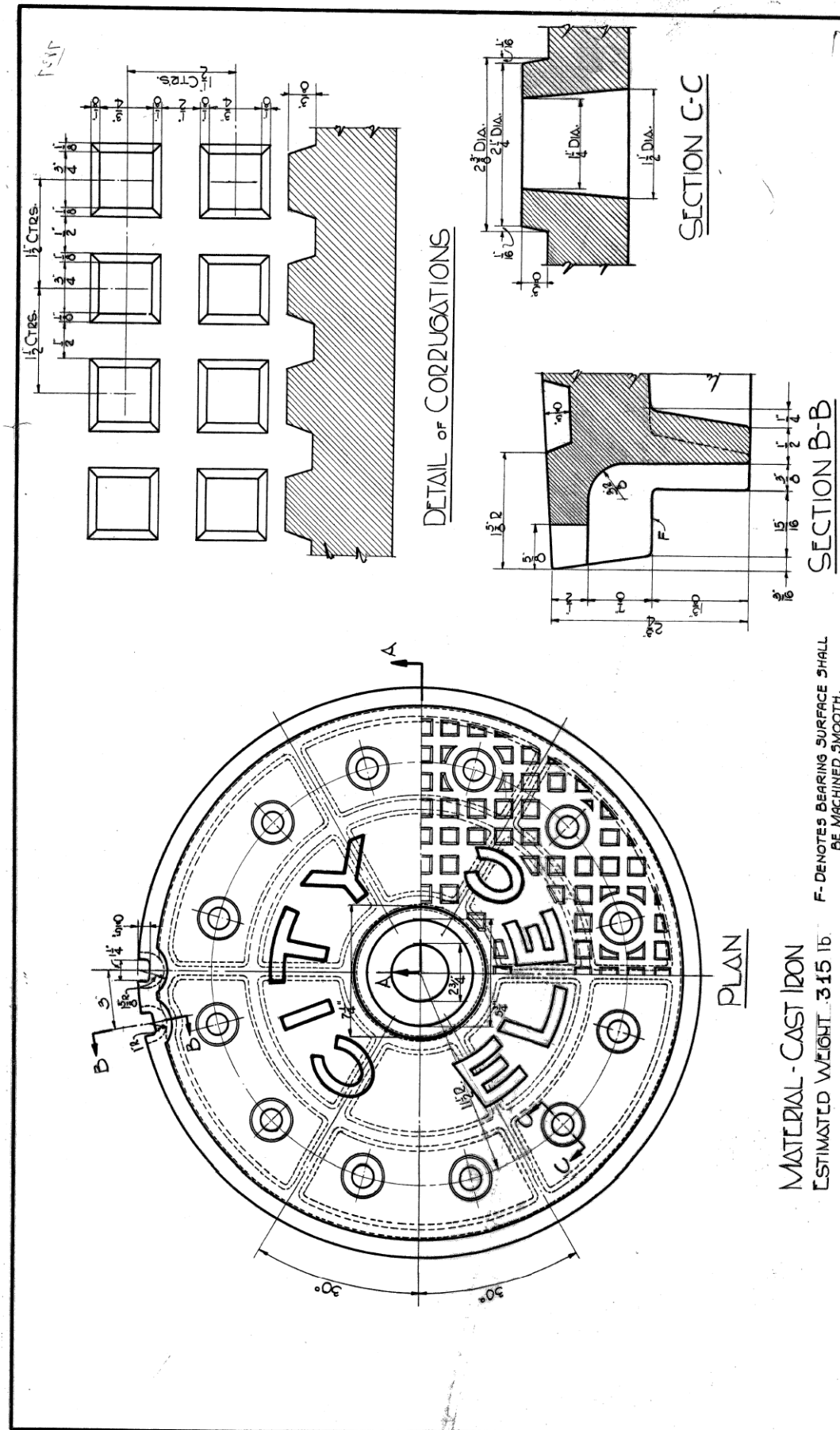
MISCELLANEOUS ELECTRICAL DETAILS

SCALE: N.T.S. SHEET 18 OF 19 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-011R	COOK	356	128
CONTRACT NO. 60W29			ILLINOIS FED. AID PROJECT	

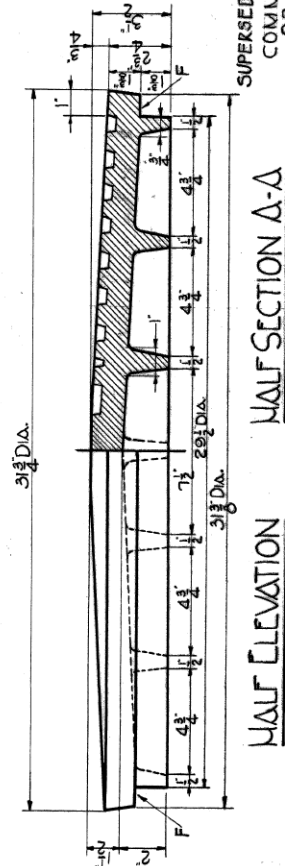


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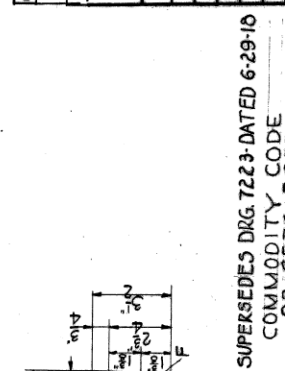


MATERIAL - CAST IRON
ESTIMATED WEIGHT 315 lb

F - DENOTES BEARING SURFACE SHALL BE MACHINED SMOOTH.

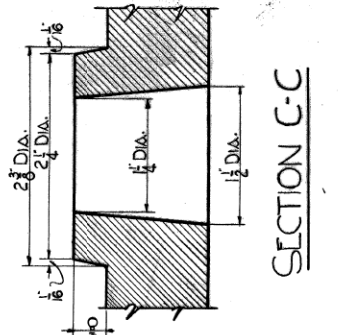


HALF SECTION A-A



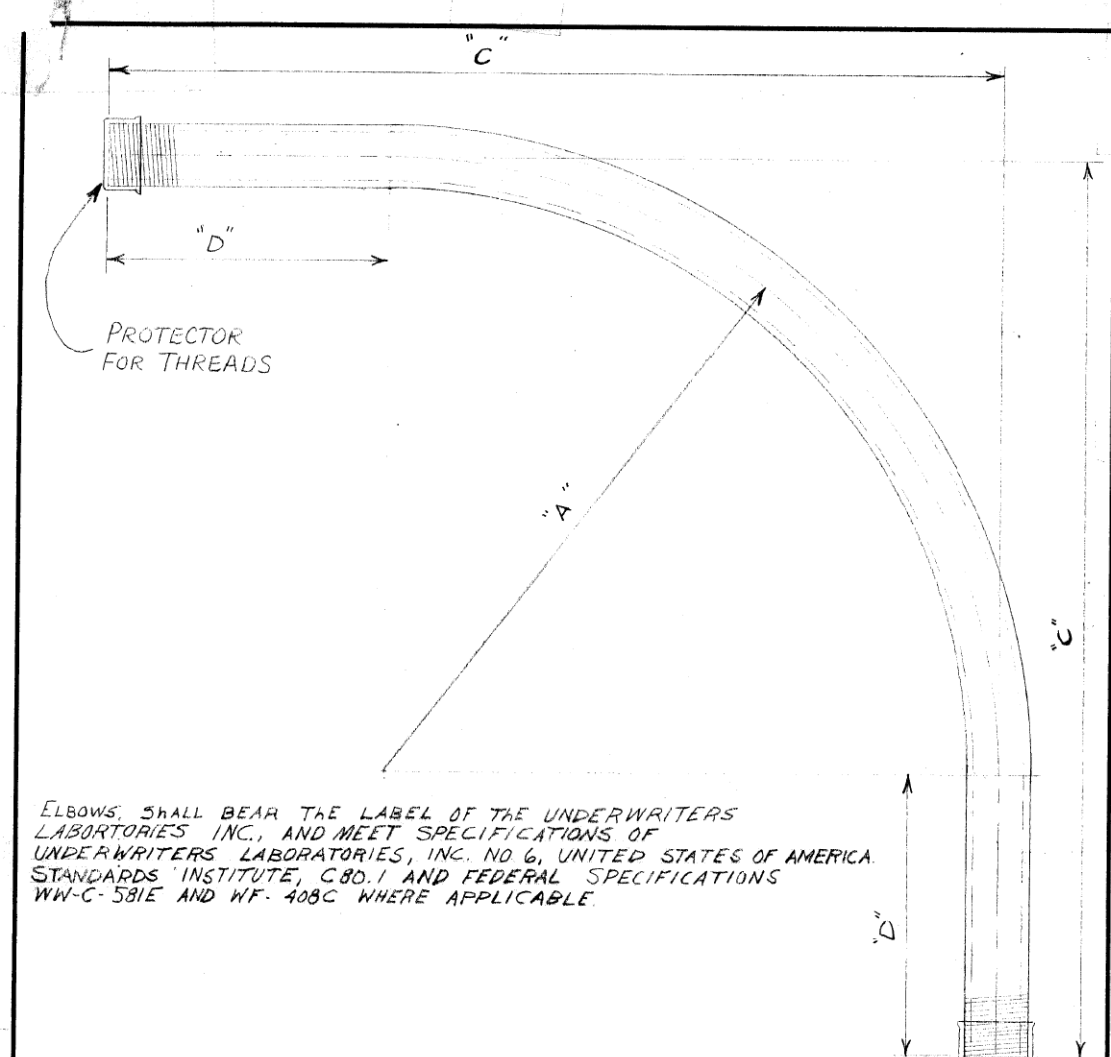
SECTION B-B

DETAIL OF CORRUGATIONS



SECTION C-C

WEIGHT	REVISED
IDENTIFICATION LETTERS ON COVER CHANGED	REVISED
30" CIRCULAR STREET MANHOLE COVER	
CITY OF CHICAGO DEPT. OF STREETS AND SANITATION DIVISION OF ELECTRICAL ENGINEERING	
REVISED	DATE
A	12-7-53
B	9-7-79
C	9-9-85
D	
E	
F	
G	
SUPERSEDES DRG. 7223 DATED 6-29-10 COMMODITY CODE 02-4574-5630	
DRAWN BY: <i>M. Shive</i>	
CHECKED BY: <i>M. Shive</i>	
DESIGNED BY: <i>M. Shive</i>	
PROJECT NO. 10927	
SHEET NO. 4-3-84	



ELBOWS SHALL BEAR THE LABEL OF THE UNDERWRITERS LABORATORIES INC., AND MEET SPECIFICATIONS OF UNDERWRITERS LABORATORIES, INC. NO 6, UNITED STATES OF AMERICA. STANDARDS INSTITUTE, C80.1 AND FEDERAL SPECIFICATIONS WW-C-581E AND WF-408C WHERE APPLICABLE

NOTE:
TWO THREAD PROTECTORS TO BE FURNISHED ON EACH ELBOW, PROTECTOR TO COVER A MINIMUM OF TEN THREADS.

REAM BOTH ENDS TO REMOVE BURRS

CONDUIT SIZE	DIMENSIONS			COMMODITY CODE
	"A"	"C"	"D"	
1 1/4"	24"	35"	11"	09-4001-0510
1 1/2"	24"	35"	11"	09-4001-0520
2"	24"	35"	11"	09-4001-4126
2 1/2"	24"	35"	11"	09-4001-4128
3"	24"	35"	11"	09-4001-4230
4"	24"	35"	11"	09-4001-0000

B SPECIFICATIONS REVISED	
A REVISED DIMENSIONS ON 3" x 4" CONDUIT L.P.	
ELBOW, CONDUIT, RIGID GALVANIZED STEEL, LARGE RADIUS	
REVISED	CITY OF CHICAGO
A 7-22-71	DEPT. OF STREETS AND SANITATION
B 4-3-79	BUREAU OF ELECTRICITY
C	DIVISION OF ELECTRICAL ENGINEERING
D	DRAWN BY: <i>Lon Purdy</i>
E	CHECKED BY: <i>M.S.</i>
F	ENGINEER: <i>M. SHINE</i>
G	DRG. NO. 11825
DEPUTY COMM. DATE 6-2-71	
SCALE: 3/16"	



D160W29-sht-Light-19
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PLOT SCALE = 2.0000 / 1"
PLOT DATE = 10/28/2013

DESIGNED - WDS
DRAWN - CAM
CHECKED - WDS
DATE - 10/30/2013

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REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

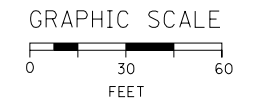
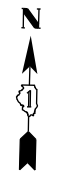
MISCELLANEOUS ELECTRICAL DETAILS

SCALE: N.T.S. SHEET 19 OF 19 SHEETS STA. TO STA.

F.A.I. RTE. 90/94/290	SECTION 2013-011R	COUNTY COOK	TOTAL SHEETS 356	SHEET NO. 129
ILLINOIS FED. AID PROJECT			CONTRACT NO. 60W29	

SANGAMON ST.

PEORIA ST.



EXISTING ITS CONDUIT AND CABLES TO BE ABANDONED.

EXISTING ITS CABINET G1 TO REMAIN. DISCONNECT AND REMOVE CABLES TO BE ABANDONED (INCIDENTAL TO MAINTAINING ITS DURING CONSTRUCTION ITEM)

EXISTING ITS CONDUIT AND CABLES AT5 TO BE ABANDONED

EXISTING ITS CONDUIT AND CABLES TO BE ABANDONED

EXISTING HAND HOLE TO BE REPLACED

EXISTING ITS CABLES TO BE REPLACED BY OTHERS

EXISTING HAND HOLE TO REMAIN

EXISTING LOOPS TO BE REPLACED BY OTHERS

125+00

350+00

WB I-290

EXISTING ITS CABLES TO BE ABANDONED

EXISTING ITS CABINET Z3 TO BE REPLACED BY OTHERS

345+00
100+00

EB I-290

350+00

105+00



DI60W29-sht-ITS-01
USER NAME = BAW:tor t
PLOT SCALE = 60.0000' / in.
PLOT DATE = 10/28/2013

DESIGNED - JML
DRAWN - JML
CHECKED - WDS
DATE - 10/30/2013

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ITS REMOVAL PLAN
I-290

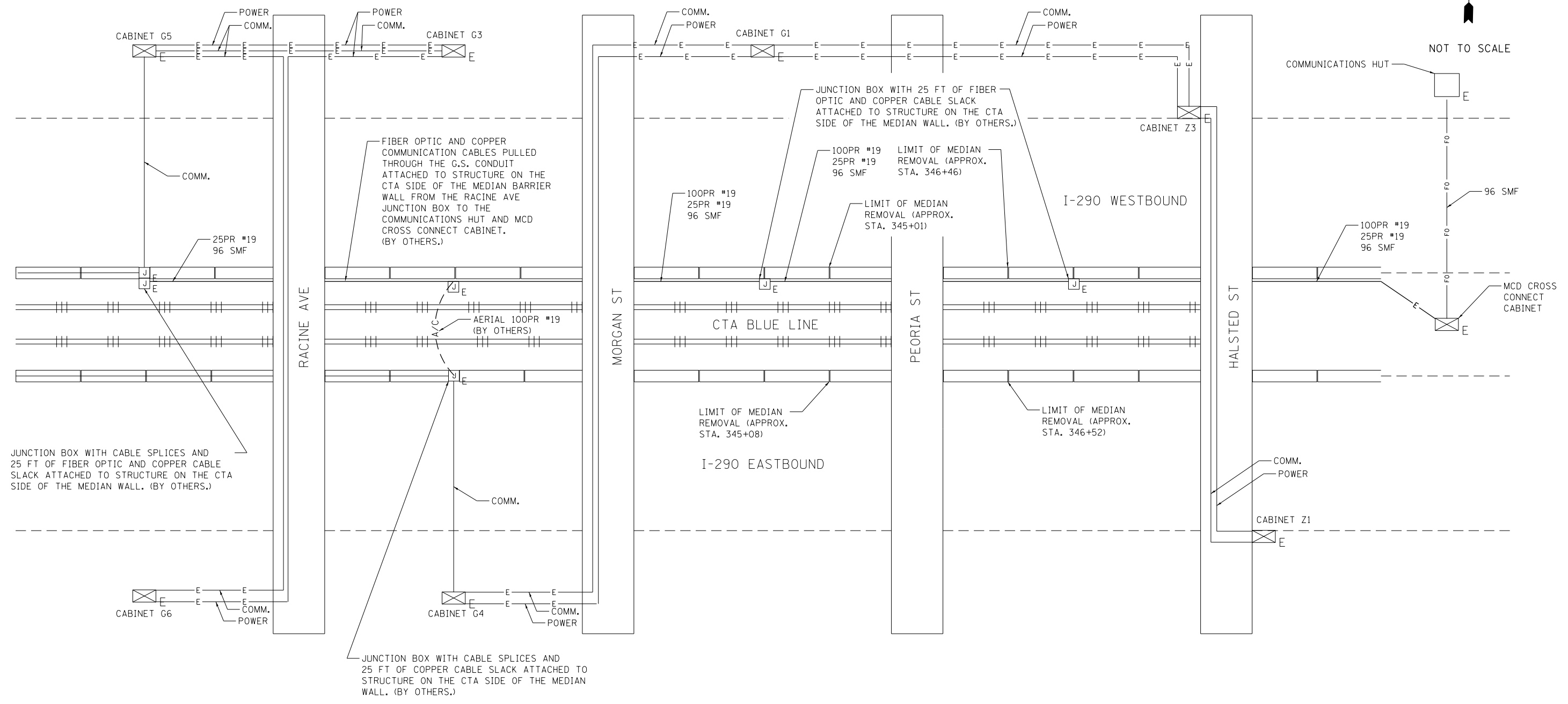
SCALE: 1" = 30' SHEET 1 OF 3 SHEETS STA. 342+26 TO STA. 351+80

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-011R	COOK	356	130
CONTRACT NO. 60W29				
ILLINOIS FED. AID PROJECT				

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NOT TO SCALE



NOTES

1. THE ITS COMMUNICATION CABLES HAVE BEEN REROUTED BY OTHERS TO ALLOW SUFFICIENT SLACK TO MAINTAIN THE ITS CONNECTIONS DURING PIER REMOVAL ACTIVITIES.
2. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE REROUTED ITS INFRASTRUCTURE IN CONDUIT ATTACHED TO STRUCTURE.
3. THE CONTRACTOR MUST MAINTAIN THE ITS CONNECTION THROUGH THE PIER REMOVAL WORK ZONE. MAINTAINING THE CONDUIT ATTACHED TO STRUCTURE MAY NOT BE POSSIBLE IN THE PIER REMOVAL WORK ZONE. THE CONTRACTOR MAY REMOVE THE CONDUIT ATTACHED TO STRUCTURE AND PROTECT IT IN PLACE THROUGH THE WORK ZONE DURING CONSTRUCTION ACTIVITIES. THE CONTRACTOR MUST REATTACH THE CONDUIT TO STRUCTURE ON THE CTA SIDE OF THE MEDIAN BARRIER ONCE PIER CONSTRUCTION ACTIVITIES ARE COMPLETE.
4. THE CONTRACTOR SHALL COORDINATE MAINTAINING ITS ACTIVITIES WITH ADJACENT IDOT PROJECTS.
5. SEE THE MAINTAINING ITS DURING CONSTRUCTION SPECIAL PROVISION FOR ADDITIONAL INFORMATION.
6. THIS DRAWING IS DIAGRAMMATICAL AND FOR INFORMATIONAL PURPOSES ONLY.

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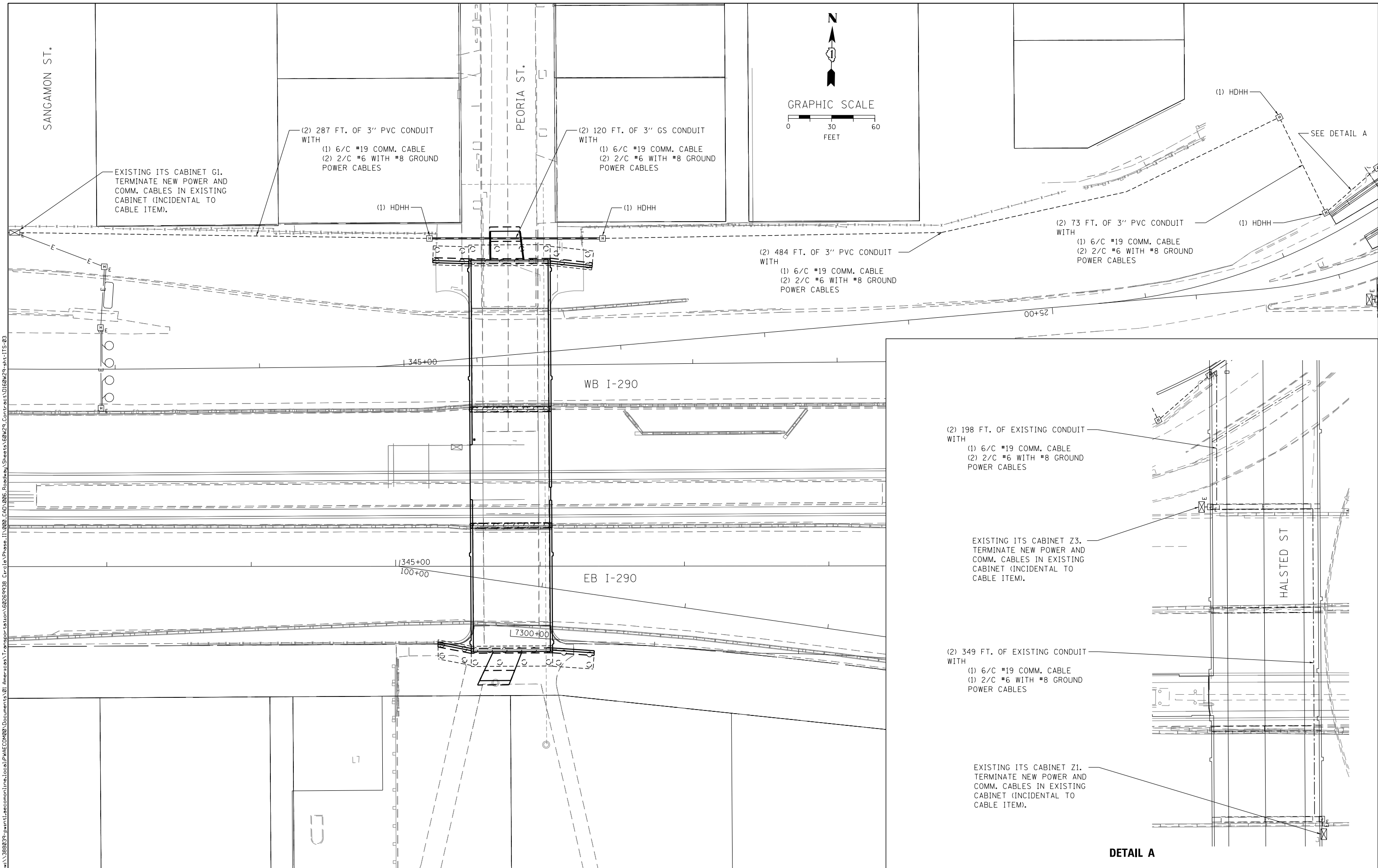
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PLOT DATE = 10/28/2013	DATE - 10/30/2013	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**MAINTAINING ITS DURING PIER REMOVAL PLAN
I-290**

SCALE: NO SCALE SHEET 2 OF 3 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-011R	COOK	356	131
CONTRACT NO. 60W29				
ILLINOIS FED. AID PROJECT				



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 PLOT DATE = 10/28/2013

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DRAWN - JML	REVISED -
CHECKED - WDS	REVISED -
DATE - 10/30/2013	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**PROPOSED ITS PLAN
 I-290**

SCALE: 1" = 30' SHEET 3 OF 3 SHEETS STA. 342+26 TO STA. 351+80

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90/94/290	2013-011R	COOK	356	132
CONTRACT NO. 60W29			ILLINOIS FED. AID PROJECT	

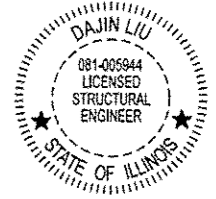
Bench Mark: Chisel "X" on S. flange bolt of F.H. on W. side of Peoria Street first F.H. S. of Van Buren Street.
Elev. 594.37

Existing Structure: SN 016-2082. Constructed in 1950 under F.A. Route 131 Section 2525.1-1B.
Three span bridge that measures 219'-8" from back-to-back of abutments.
Out-to-out width of 56'-4". The spans are supported by 36" wide flange steel I-beams. Substructure is reinforced concrete piers and abutments on creosoted timber piles. The existing bridge is to be removed and replaced.

The bridge will be closed to pedestrian traffic and detoured during construction.
Existing equipment located in the head house is to be salvaged and relocated in the existing CTA Glass Station adjacent to the structure. The existing CTA Station is to remain closed during construction.

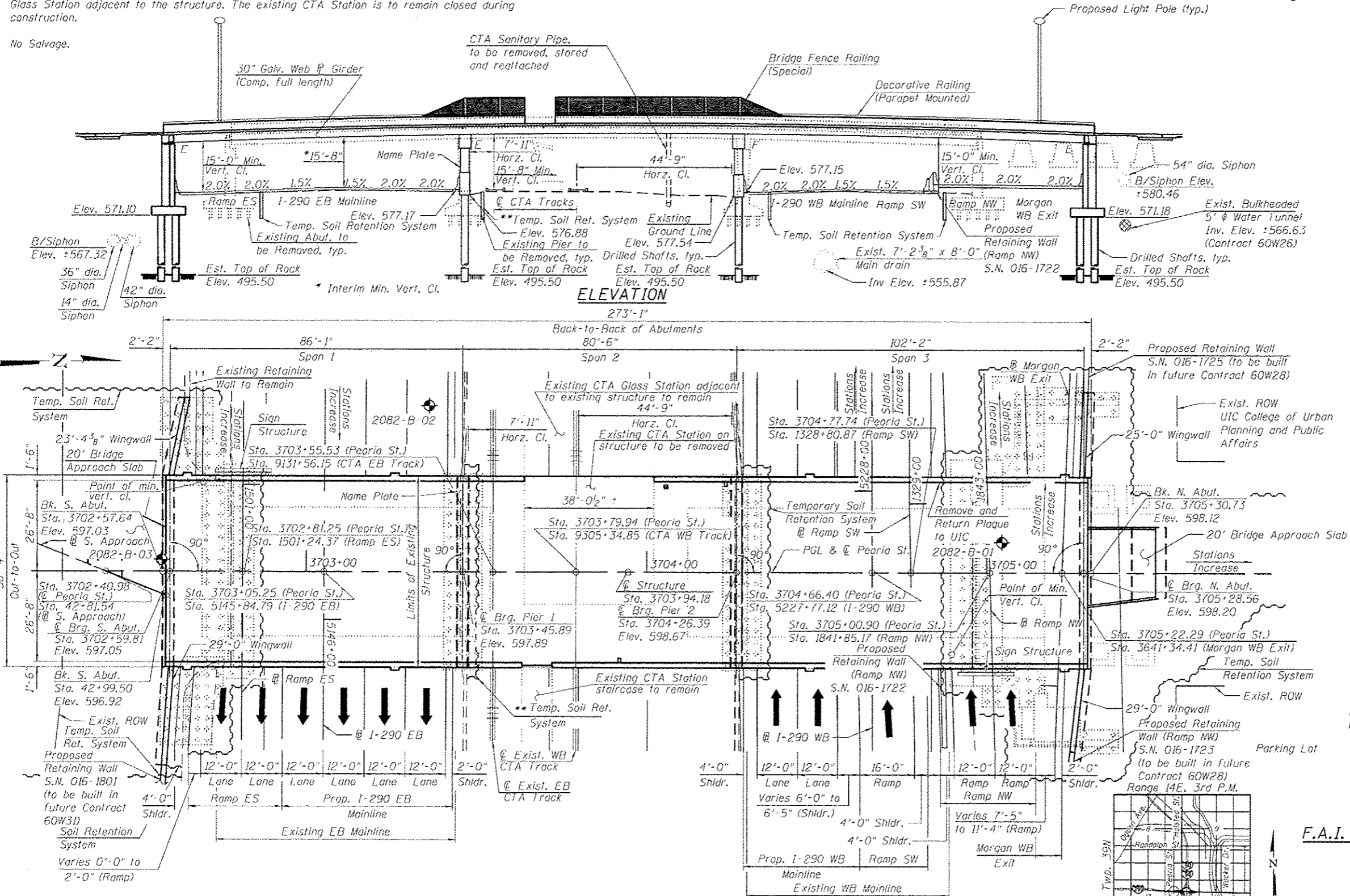
No Salvage.

APPROVED
For Structural Adequacy Only
De Carl Ruyter
Engineer of Bridges & Structures



Dajin Liu
DAJIN LIU, P.E., S.E.
NO. 081-005944
EXP. DATE 11/30/2014
10/10/13

Construction of Pier 1 is adjacent to the EB CTA Blue Line track. Construction activities require a modification to the normal operation of CTA service to facilitate access to perform work on or near the CTA Right-of-Way will be allowed with CTA Track Access Occurrences. See Special Provision for CTA Flagging and Coordination.



LOADING HL-93

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

DESIGN SPECIFICATIONS

2012 AASHTO LRFD Bridge Design Specifications
6th Edition, with 2013 Interim Revisions

DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
f'c = 21,000 psi (Ultra-High Performance Concrete)
fy = 60,000 psi (Reinforcement)
fy = 50,000 psi (M270 Grade 50)
fy = 36,000 psi (M270 Grade 36)

PRECAST UNITS

f'c = 5,000 psi

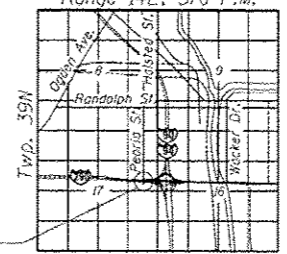
SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (S₁) = 0.086g
Design Spectral Acceleration at 0.2 sec. (S_s) = 0.153g
Soil Site Class = D

GENERAL PLAN & ELEVATION

PEORIA STREET OVER
F.A.I. 290 (EISENHOWER EXPRESSWAY) AND CTA
MUN 2090 SECTION 2013-011R
COOK COUNTY
STATION 3703+94.18
STRUCTURE NO. 016-1708

LOCATION SKETCH



Note:
For limits of Protective Shield, See Sheet 7 of 55.
See Sheet 3 for Legend.



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PLOT SCALE = 3210.0000 1" / in.	CHECKED = KAH/MDS/DL	REVISED
PLOT DATE = 10/28/2013	DRAWN = WJC	REVISED
	CHECKED = KAH/MDS/DL	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 1 OF 55 SHEETS

MUN	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2090	2013-011R	COOK	356	133
CONTRACT NO. 60W29			ILLINOIS FED. AID PROJECT	

GENERAL NOTES:

- Fasteners shall be ASTM A325 Type 1, hot dip galvanized bolts. Bolts $\frac{7}{8}$ in. ϕ , holes $\frac{15}{16}$ in. ϕ , unless otherwise noted (See special provision for Hot Dip Galvanizing for Structural Steel).
- Calculated weight of Structural Steel = 476,330 pounds (AASHTO M270 Grade 50).
Calculated weight of Structural Steel = 41,150 pounds (AASHTO M270 Grade 36).
- All structural steel shall be hot dip galvanized. Cost included in Furnishing and Erecting Structural Steel. See special provisions for Hot Dipped Galvanizing for Structural Steel.
- Girders have bearing stiffeners and connection plates as required design. Additional stiffeners may be added at the Contractor's expense as necessary to prevent distortion of the girders during galvanizing. The Contractor shall coordinate with the fabricator and the galvanizer to determine if additional stiffeners are necessary, and where these should be placed. Any proposed changes shall be submitted to the Engineer for approval prior to making any changes.
- Temporary stiffener angles shall be bolted to each side of the splice ends of each girder segment to prevent distortion during galvanizing. Temporary stiffener angles shall bolt or fit tight against the top and bottom flanges and shall include spacer tubes to minimize damage to galvanizing during removal. Cost included with "Furnishing and Erecting Structural Steel".
- No field welding is permitted except as specified in the contract documents.
- Reinforcement bars designated (E) shall be epoxy coated.
- Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction 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 scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
- Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of $\frac{1}{8}$ inch (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.
- Concrete Sealer shall be applied to the designated areas of the Piers, Abutments and Wingwalls .
- For Conduit Attached to Structure quantities and details, see Electrical Plans.
- The contractor shall exercise extreme caution during construction to make certain that construction activities, live load surcharge and other loads applied to the structures will not have detrimental effects on the adjacent building foundations. Driving piles and temporary sheet piling is not allowed.
- For light pole support system, see Electrical Plans.
- Abandoned 5' diameter CTA Water Tunnel shall be filled prior to the start of drilled shaft construction in a previous contract. The Contractor shall verify with the Engineer that the tunnel has been filled prior to the start of drilled shaft construction. A number of the drilled shaft foundations will be placed through this tunnel. Drilling operations must account for the presence of debris, brick material, CLSM and bedding material in addition to soil and other expected materials to be encountered.
- The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
- Slipforming of parapets is not allowed.
- Cast-in-place deck except parapets is not allowed.
- For drilled shaft locations where permanent casing is required as shown on the plans, the casing will be paid for under the Permanent Casing pay item. If contractor elects to use permanent casing for ease of construction in locations where permanent casing is not required on the plans the casing will not be paid for separately and is included in the Drilled Shaft in Soil pay item.
- Post-tensioning for precast deck panel is not allowed.

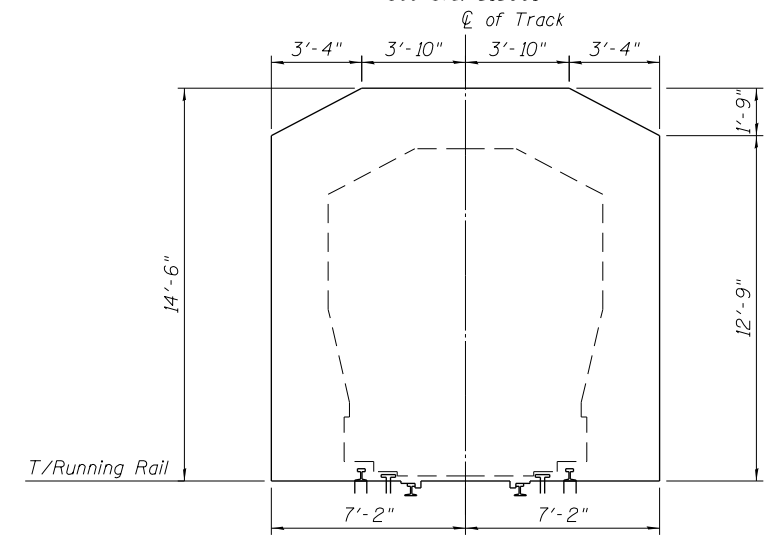
INDEX OF SHEETS

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- General Data 2
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- Precast Deck Panel Plan and Cross Section
- Precast Deck Panel Details 1
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- Parapet Elevations and Details
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- Conduit Support and Conduit Layout
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- Boring Logs 2
- Boring Logs 3

STATION 3703+94.18
BUILT 20-- BY
STATE OF ILLINOIS
M.U.N. 2090 SEC. 2013-011R
LOADING HL-93
STR. NO. 016-1708

NAME PLATE

See Std. 515001



MINIMUM CTA CONSTRUCTION CLEARANCES

TOTAL BILL OF MATERIAL

Item	Unit	Super	Sub	Total
Removal of Existing Structures	Each			1
Protective Shield	Sq. Yd.	1394		1394
Structure Excavation	Cu. Yd.		3293	3293
Concrete Structures	Cu. Yd.		1017.7	1017.7
Concrete Superstructure	Cu. Yd.	192		192
Form Liner Textured Surface	Sq. Ft.	192	1020	1212
Protective Coat	Sq. Yd.	400		400
Furnishing and Erecting Structural Steel	L. Sum	1		1
Stud Shear Connectors	Each	6,806		6,806
Reinforcement Bars	Pound		292,640	292,640
Reinforcement Bars, Epoxy Coated	Pound	17,560	140,240	157,800
Name Plates	Each		1	1
Permanent Casing	Foot		1554	1554
Drilled Shaft in Soil	Cu. Yd.		1318.9	1318.9
Drilled Shaft in Rock	Cu. Yd.		38.2	38.2
Elastomeric Bearing Assembly, Type I	Each	18		18
Elastomeric Bearing Assembly, Type II	Each	9		9
Anchor Bolts, 3/4"	Each	18		18
Anchor Bolts, 1 1/4"	Each	36		36
Concrete Sealer	Sq. Ft.		8,122	8,122
Geocomposite Wall Drain	Sq. Yd.		490	490
Chain Link Fence, 4'	Foot		131	131
Pile Extraction	Each		77	77
Decorative Railing (Parapet Mounted)	Foot	476		476
Crosshole Sonic Logging	Each		4	4
Foundation Removal	Each		8	8
Bridge Fence Railing (Special)	Foot	129		129
Granular Backfill for Structures	Cu. Yd.		647	647
Welded Wire Fabric 6x6	Sq. Yd.		32	32
Drainage Scuppers, DS-II	Each	2		2
Drainage System	L. Sum	1		1
Pipe Underdrains for Structures 4"	Foot		229	229
Temporary Soil Retention System	Sq. Ft.		9,382	9,382
Soil Retention System	Sq. Ft.		104	104
Precast Concrete Deck Panels	Sq. Ft.	15,272		15,272
Bridge Deck Latex Concrete Overlay for New Bridge Deck	Cu. Yd.	106		106

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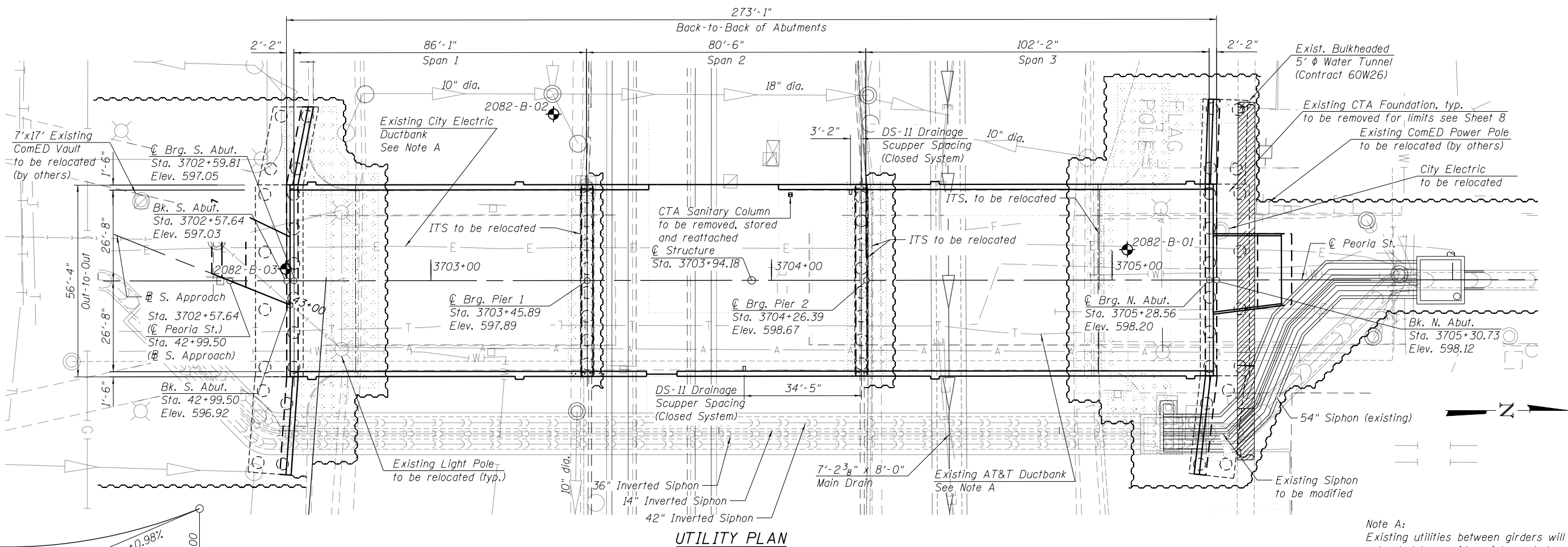
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**GENERAL DATA 1
STRUCTURE NO. 016-1708**

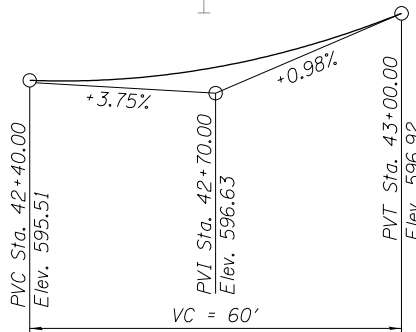
SHEET NO. 2 OF 55 SHEETS

MUN	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2090	2013-011R	COOK	356	134
ILLINOIS FED. AID PROJECT			CONTRACT NO.	60W29



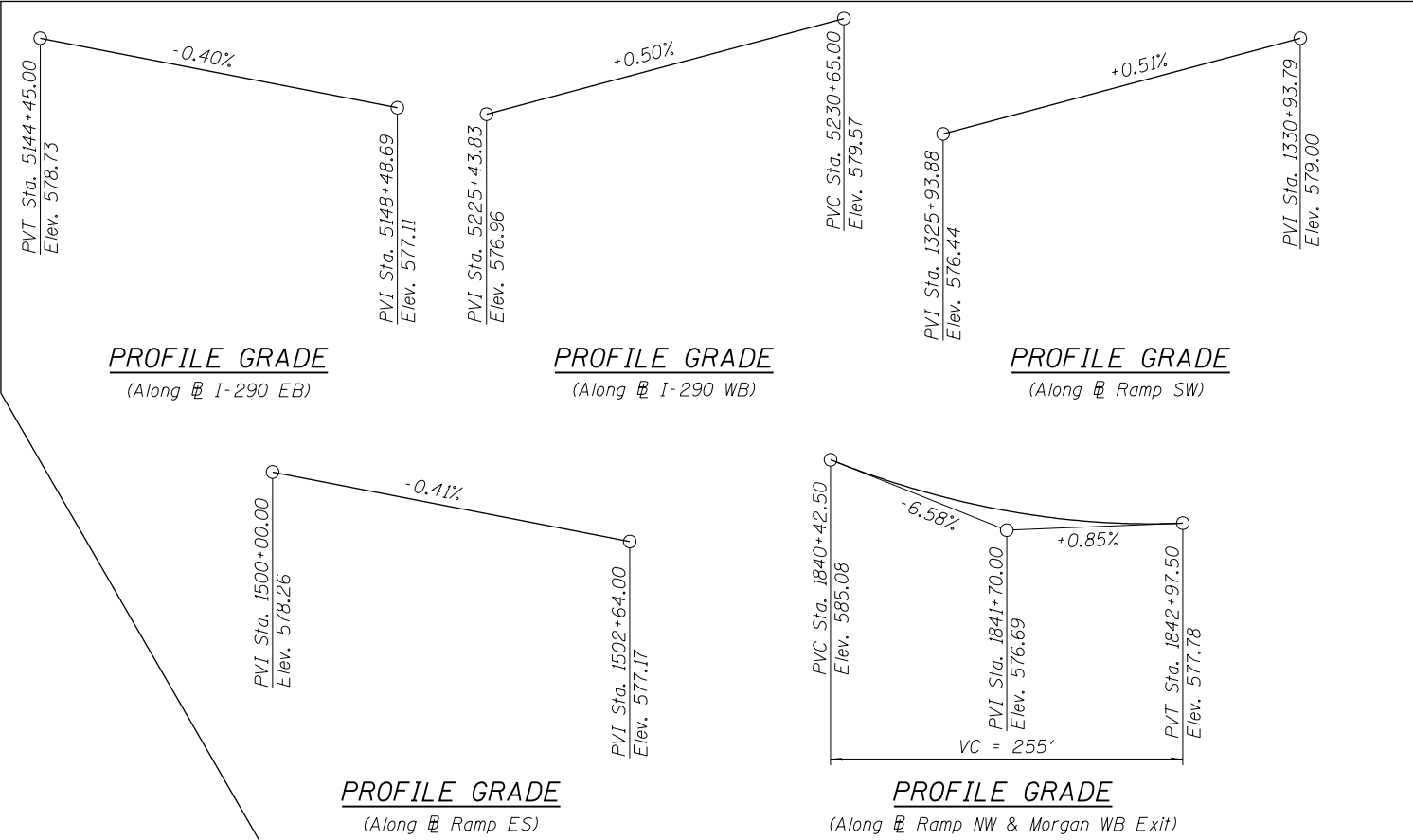
UTILITY PLAN

Note A:
Existing utilities between girders will be relocated to provide uninterrupted service during construction.



PROFILE GRADE
(Along S. Approach)

For Information Only,
Part of future contract.



LEGEND:

- Aerial Line ——— A ——— A
- Combined Sewer —>>>>>>>>>>
- Electric ——— E ——— E
- Storm Sewer —> —> —> —> —> —>
- Telephone ——— T ——— T
- Gas ——— | G | ———
- ITS ——— - - - - -
- Water ——— W ——— W
- Power Pole □
- Light Pole ○
- Soil Boring ⊕
- Bulkhead and area filled with CLSM [Hatched Box]

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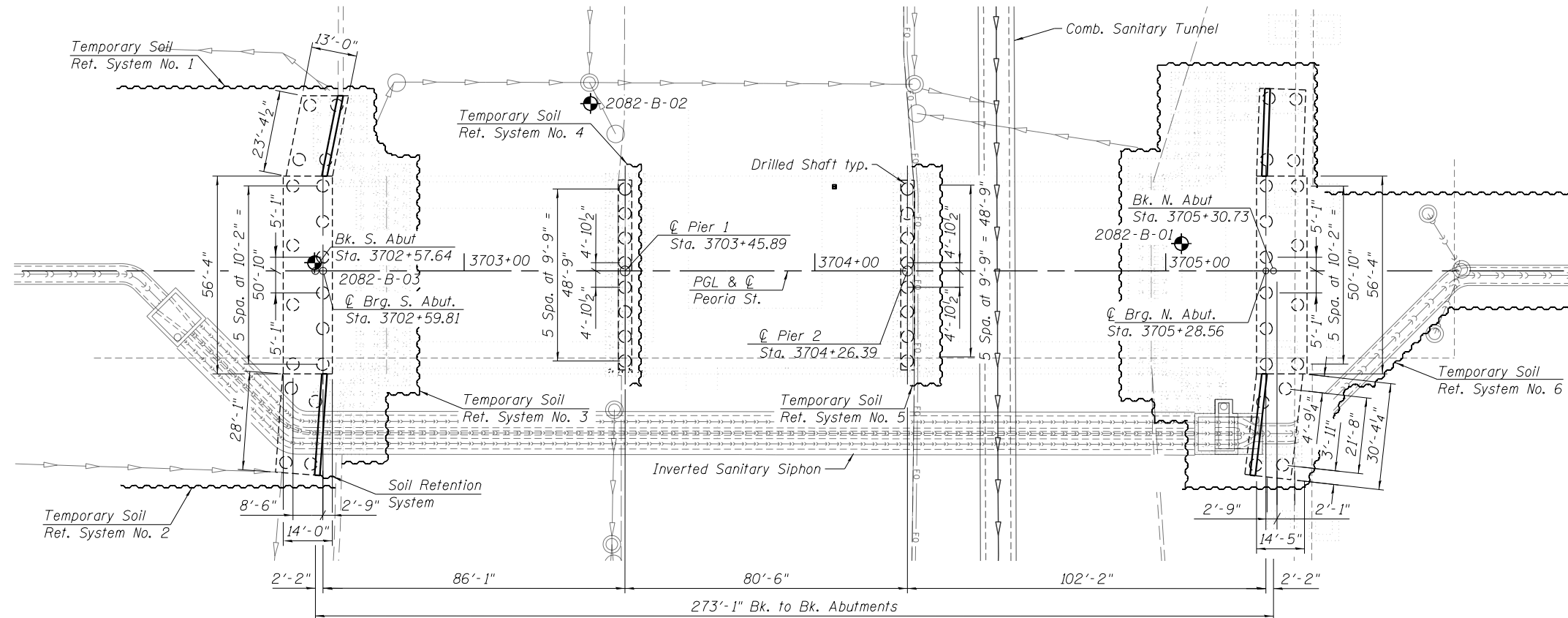
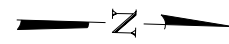


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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL DATA 2
STRUCTURE NO. 016-1708
SHEET NO. 3 OF 55 SHEETS

MUN = 2090	SECTION = 2013-011R	COUNTY = COOK	TOTAL SHEETS = 356	SHEET NO. = 135
CONTRACT NO. = 60W29			ILLINOIS FED. AID PROJECT	

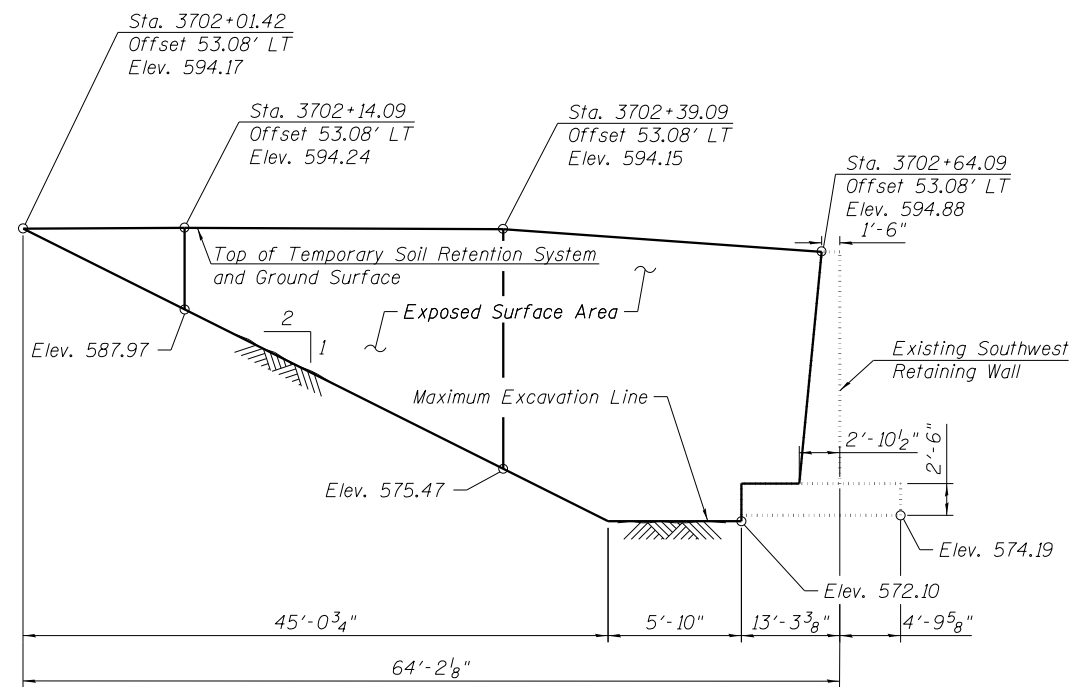


FOUNDATION LAYOUT

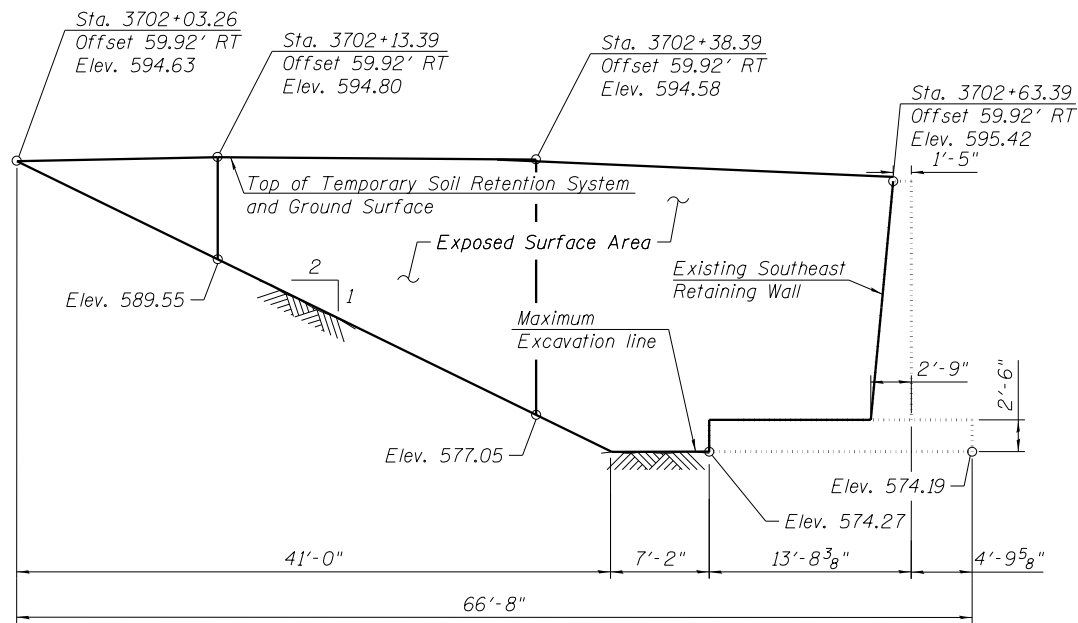
LEGEND:

- Combined Sewer
- Storm Sewer
- ITS Fiber Optic
- Light Pole
- Soil Boring

Notes:
 Driving piles and temporary sheet piling is not allowed.
 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.
 See the Utility Plan on sheet 3 of 55 for existing utilities.
 The maximum allowable excavation slope is 1:2 (V:H).
 For additional Temporary Soil Retention System details see sheets 5 and 6 of 55.
 For Soil Retention System details see sheet 6 of 55.



TEMPORARY SOIL RETENTION SYSTEM NO. 1
(At South Abutment)



TEMPORARY SOIL RETENTION SYSTEM NO. 2
(At South Abutment)

BILL OF MATERIAL

Item	Unit	Quantity
Temporary Soil Retention System	Sq. Ft.	1608

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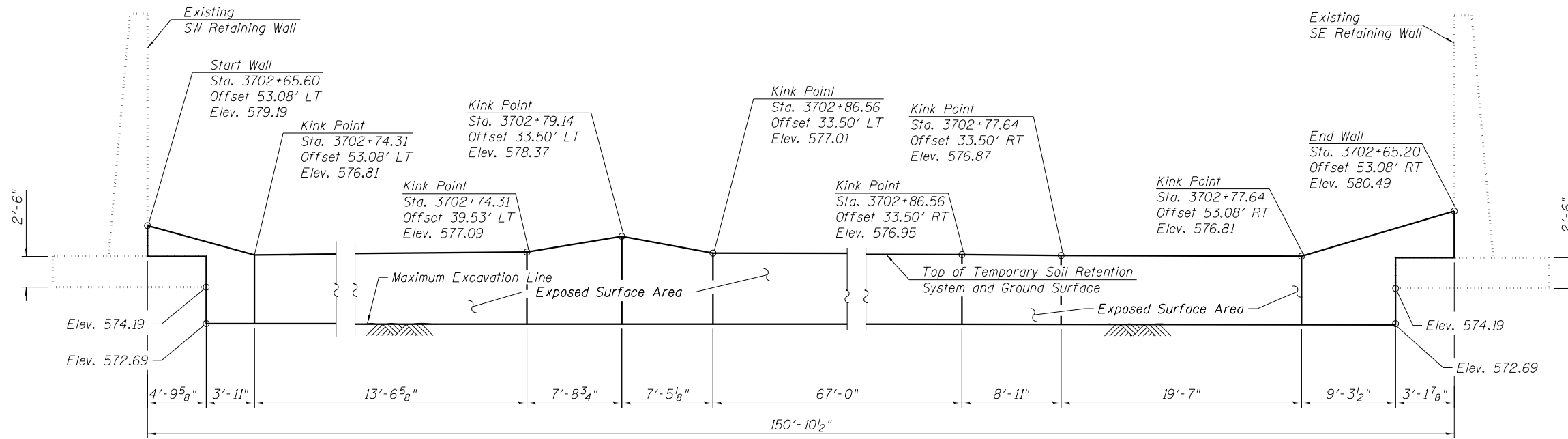
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FOUNDATION LAYOUT
STRUCTURE NO. 016-1708

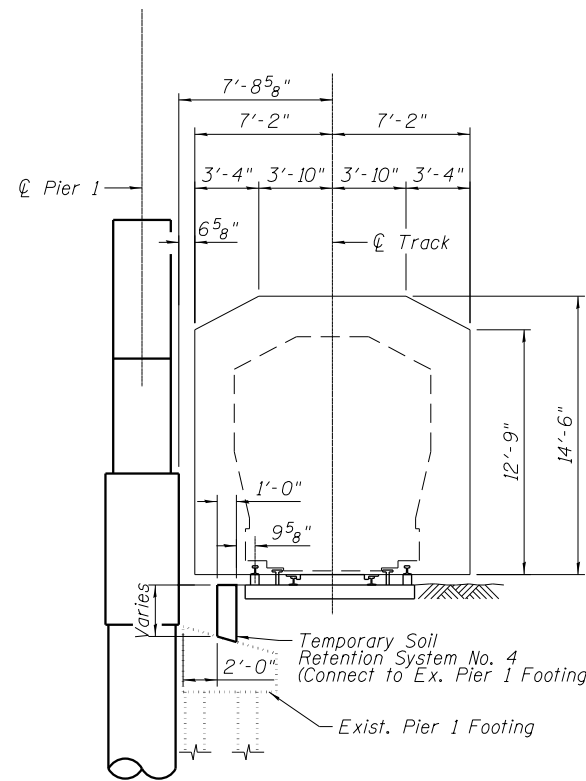
SHEET NO. 4 OF 55 SHEETS

MUN	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO.			60W29	

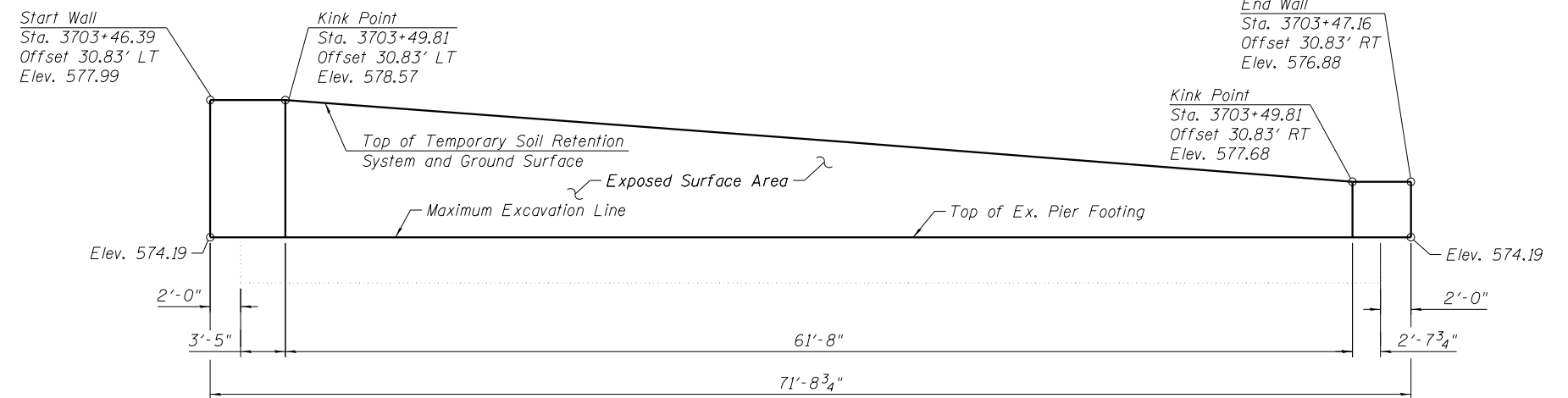
ILLINOIS FED. AID PROJECT



TEMPORARY SOIL RETENTION SYSTEM NO. 3
(At South Abutment)



SECTION THRU CTA TRACKS
(At Pier 1)



TEMPORARY SOIL RETENTION SYSTEM NO. 4
(At Pier 1)

Notes:
Driving piles and temporary sheet piling is not allowed.
A cantilevered sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The Contractor shall submit a soil retention system design including plan details and calculations for review and acceptance by The Engineer.
The maximum allowable excavation slope is 1:2 (V:H).
CTA EB Blue Line is to be shutdown during installation of Temporary Soil Retention System No. 4. Closure to be coordinated with the CTA. See Special Provision for CTA Flagging and Coordination.

BILL OF MATERIAL

Item	Unit	Quantity
Temporary Soil Retention System	Sq. Ft.	902

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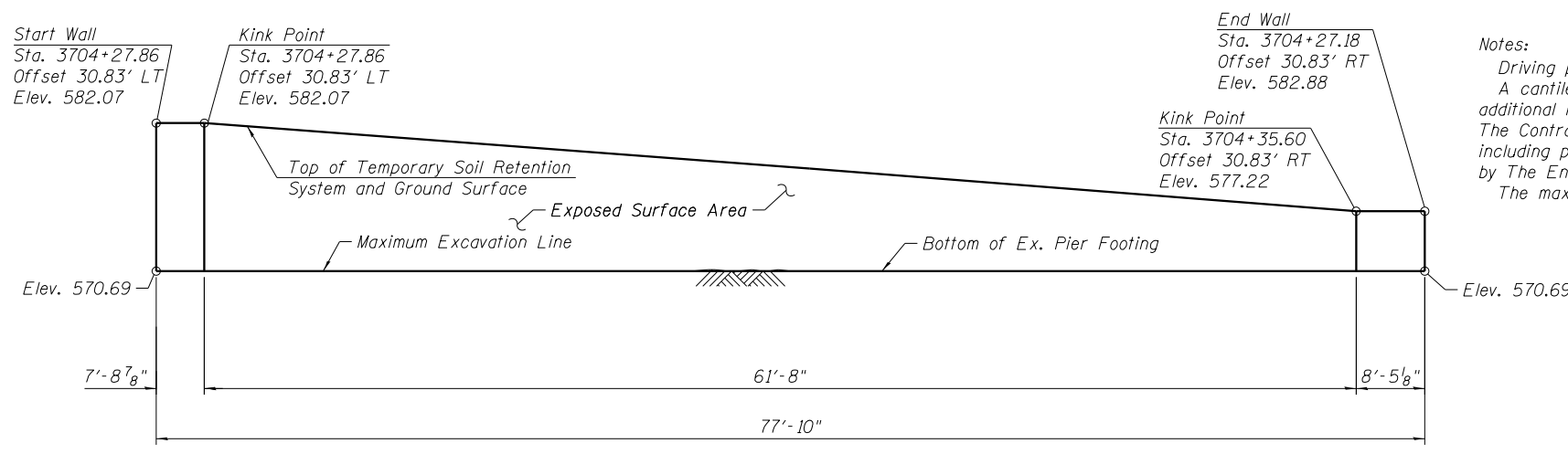
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY SOIL RETENTION DETAILS 1
STRUCTURE NO. 016-1708

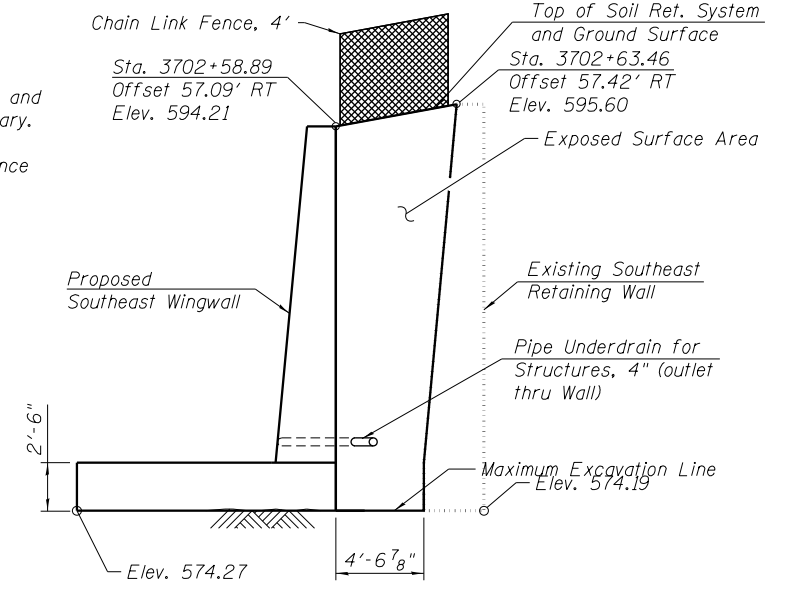
SHEET NO. 5 OF 55 SHEETS

MUN	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO.			60W29	
ILLINOIS FED. AID PROJECT				

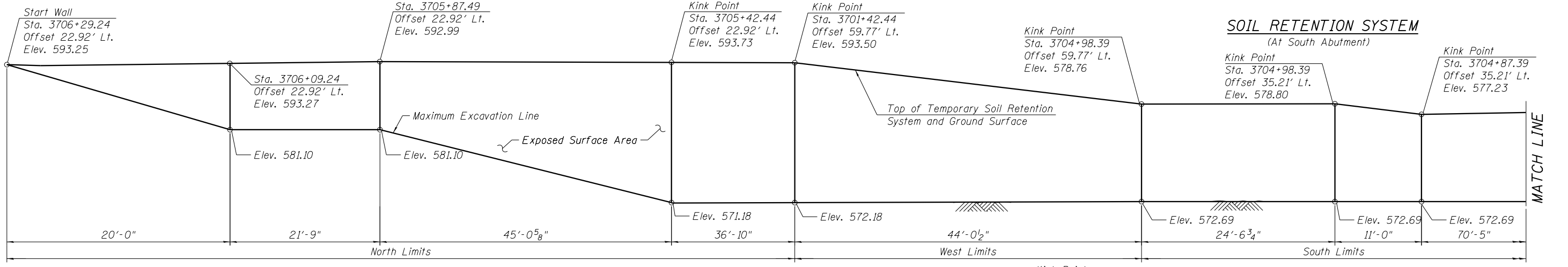


TEMPORARY SOIL RETENTION SYSTEM NO. 5
(At Pier 2)

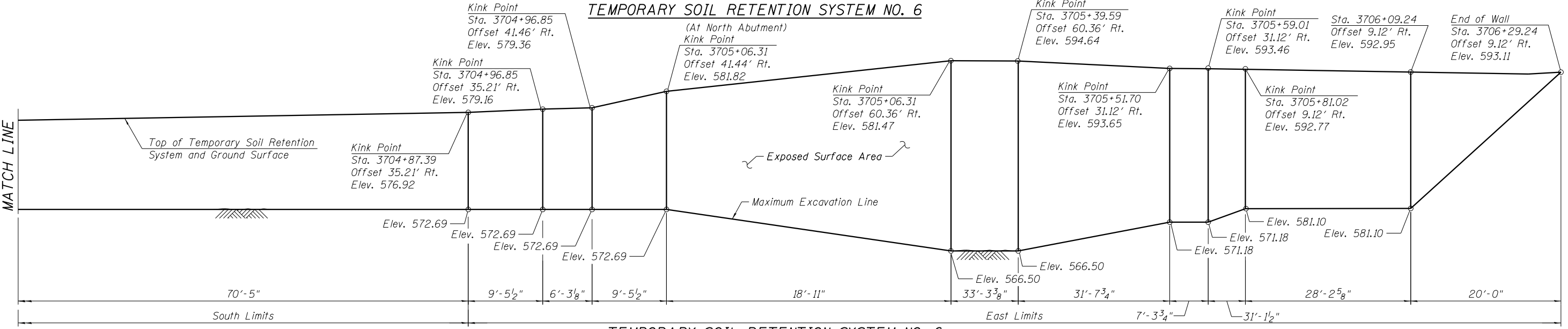
Notes:
Driving piles and temporary sheet piling is not allowed. A cantilevered sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The Contractor shall submit a soil retention system design including plan details and calculations for review and acceptance by The Engineer.
The maximum allowable excavation slope is 1:2 (V:H).



SOIL RETENTION SYSTEM
(At South Abutment)



TEMPORARY SOIL RETENTION SYSTEM NO. 6
(At North Abutment)



TEMPORARY SOIL RETENTION SYSTEM NO. 6
(At North Abutment)

BILL OF MATERIAL

Item	Unit	Quantity
Temporary Soil Retention System	Sq. Ft.	6,872
Soil Retention System	Sq. Ft.	104

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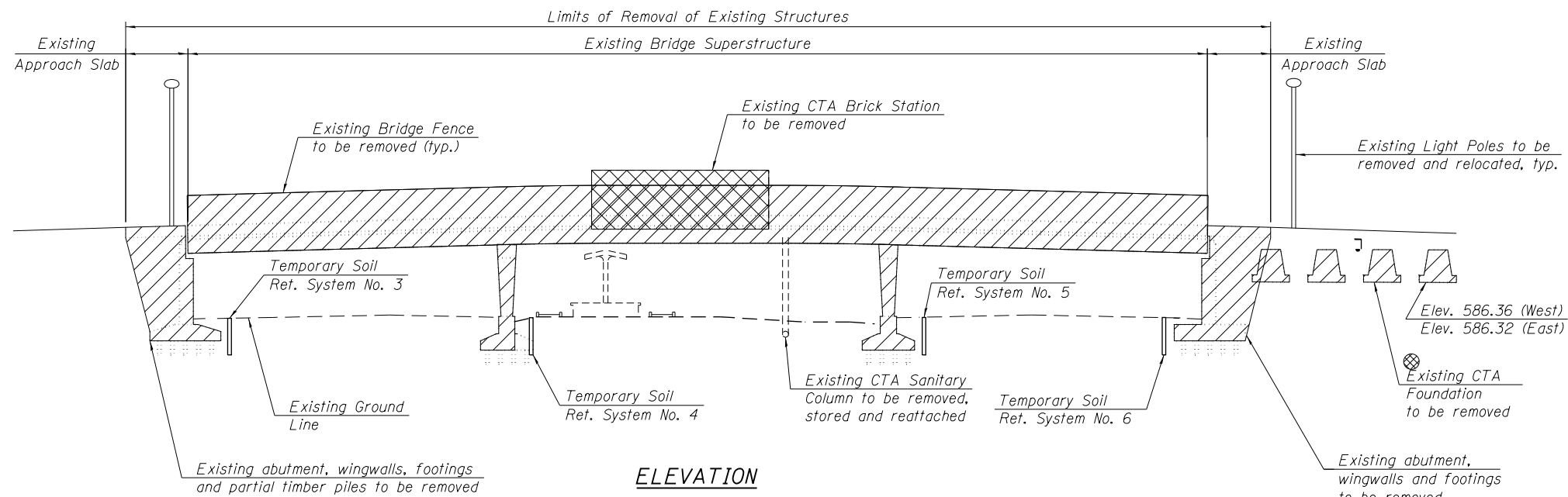
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

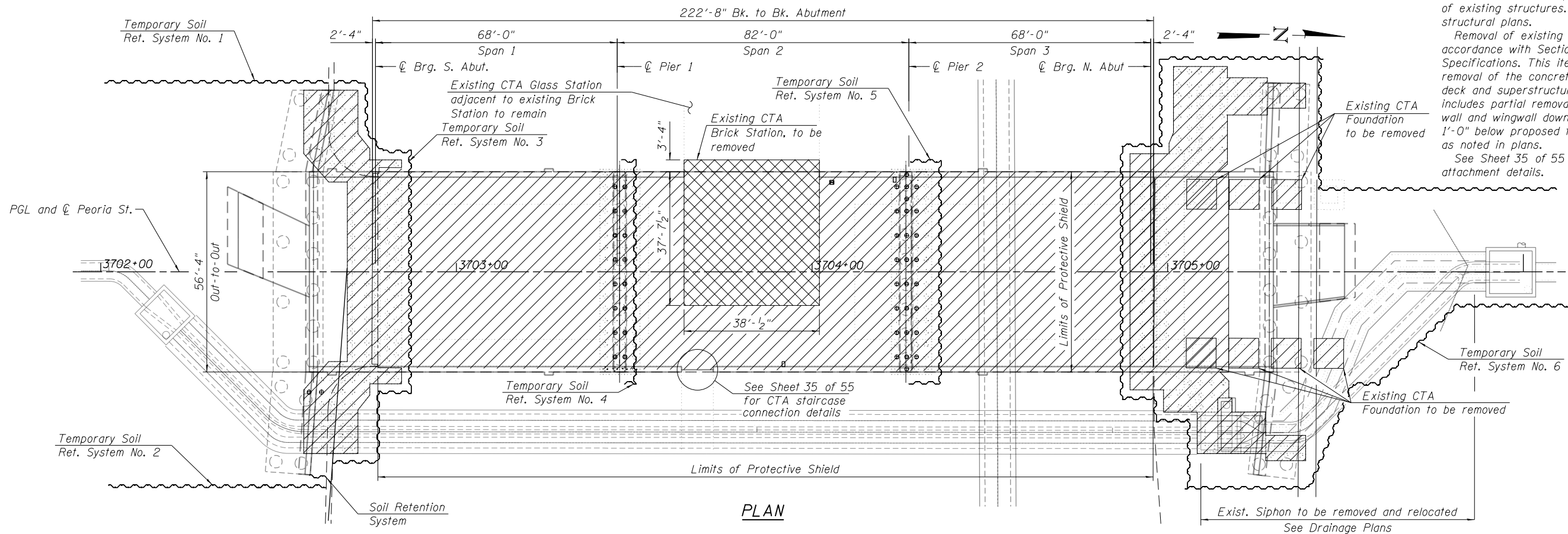
TEMPORARY SOIL RETENTION DETAILS 2
STRUCTURE NO. 016-1708

SHEET NO. 6 OF 55 SHEETS

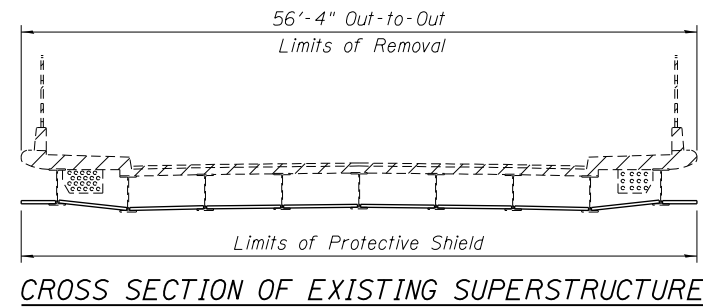
MUN	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2090	2013-011R	COOK	356	138
CONTRACT NO.			60W29	
ILLINOIS FED. AID PROJECT				



ELEVATION



PLAN



CROSS SECTION OF EXISTING SUPERSTRUCTURE

LEGEND:

- Removal Area
- Existing CTA Brick Station to be removed

BILL OF MATERIAL

Item	Unit	Quantity
Removal of Existing Structures	Each	1
Protective Shield	Sq. Yd.	1394

Notes:
 For substructure removal, pile extraction and partial timber pile removal details, see Sheets 8 and 9 of 55.
 Existing utilities between girders will be relocated to provide uninterrupted service during construction (by others). Utilities to be incorporated into new structure (by others).
 The Contractor is responsible to protect the CTA tracks from falling objects and debris during removal of the existing structure.
 For existing approach slab removal quantities, see Roadway plans.
 Contractor to coordinate with CTA for removal, by CTA personnel, of existing station house including, but not limited to, revenue collecting machines, agent's kiosk, turnstiles, rotogates, transportation information boards, train arrival/departure information sign, advertising displays, miscellaneous signage, etc. in the existing brick station.
 The cost of removing the existing CTA Brick Station is included in the cost of Removal of Existing Structures.
 Temporary shoring for the existing remaining CTA station and for the CTA staircase must be in place before removal of existing structures. See CTA structural plans.
 Removal of existing structures shall be in accordance with Section 501 of the Standard Specifications. This item shall include complete removal of the concrete bridge rails, concrete deck and superstructure. This item also includes partial removal of the abutment wall and wingwall down to a minimum of 1'-0" below proposed finish grade or as noted in plans.
 See Sheet 35 of 55 for CTA Sanitary Clumn attachment details.

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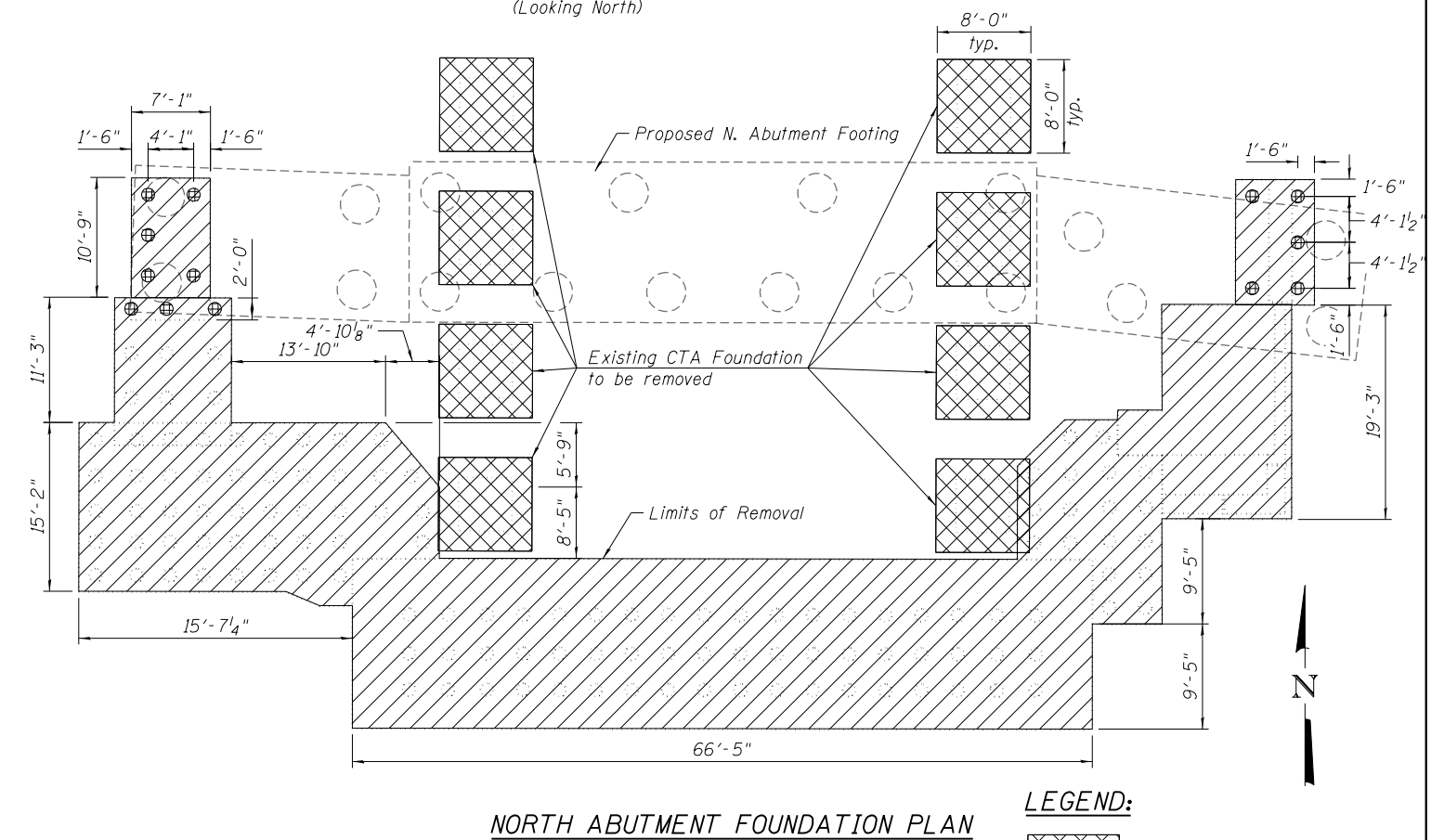
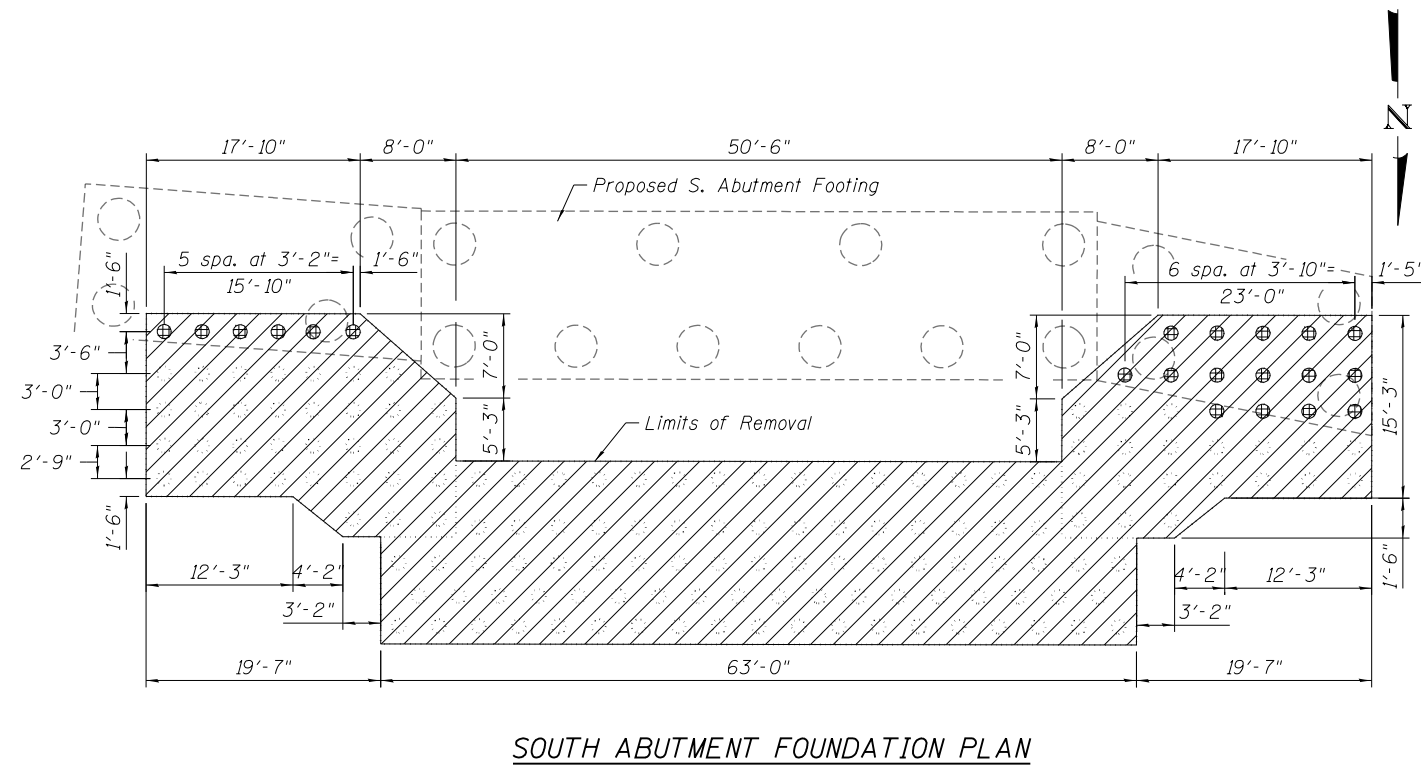
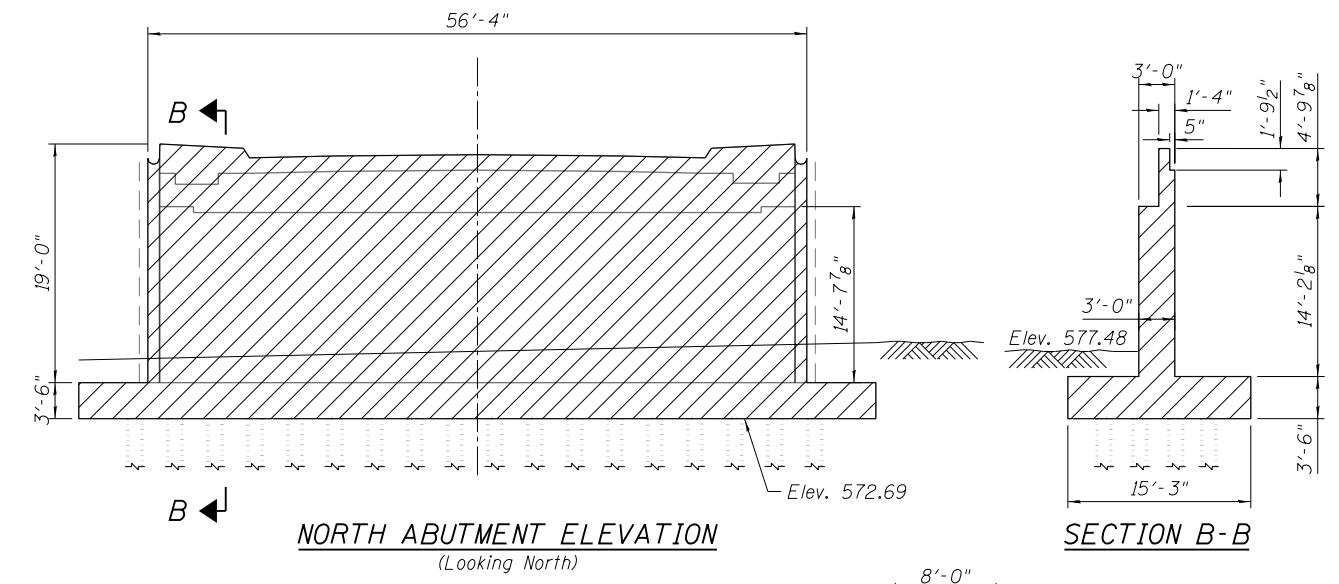
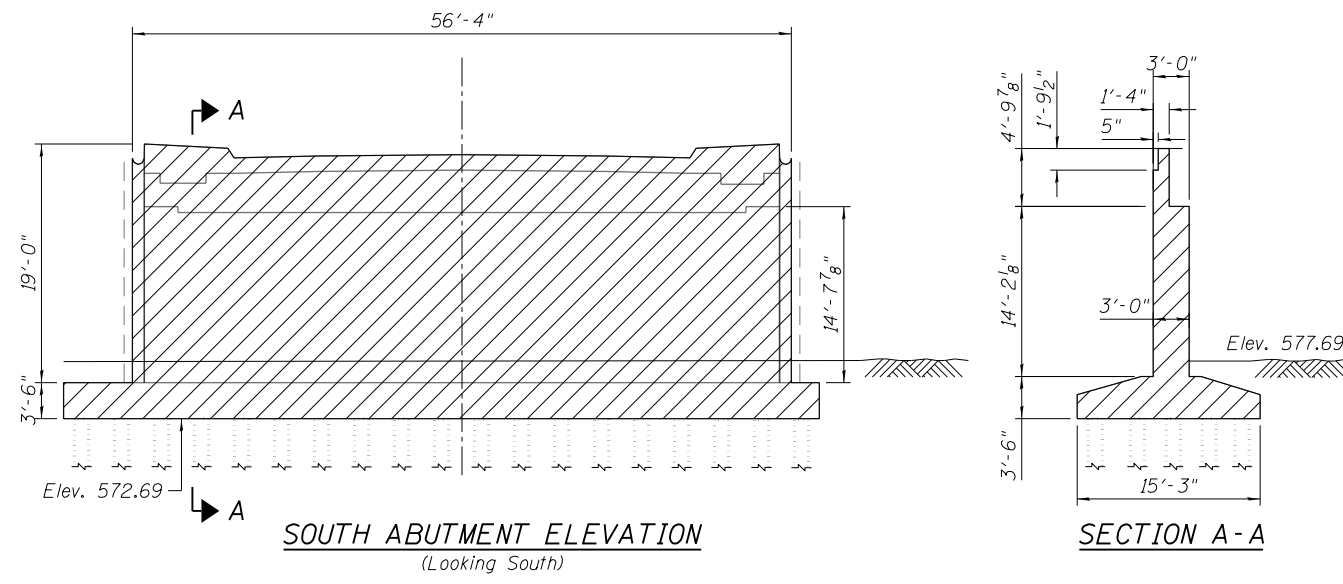
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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**EXISTING STRUCTURE REMOVAL DETAILS 1
 STRUCTURE NO. 016-1708**

SHEET NO. 7 OF 55 SHEETS

MUN 2090	SECTION 2013-011R	COUNTY COOK	TOTAL SHEETS 356	SHEET NO. 139
CONTRACT NO. 60W29			ILLINOIS FED. AID PROJECT	



BILL OF MATERIAL

Item	Unit	Quantity
Pile Extraction	Each	34
Foundation Removal	Each	8

LEGEND:

- Foundation Removal
- Removal of Existing Structures
- Pile Extraction

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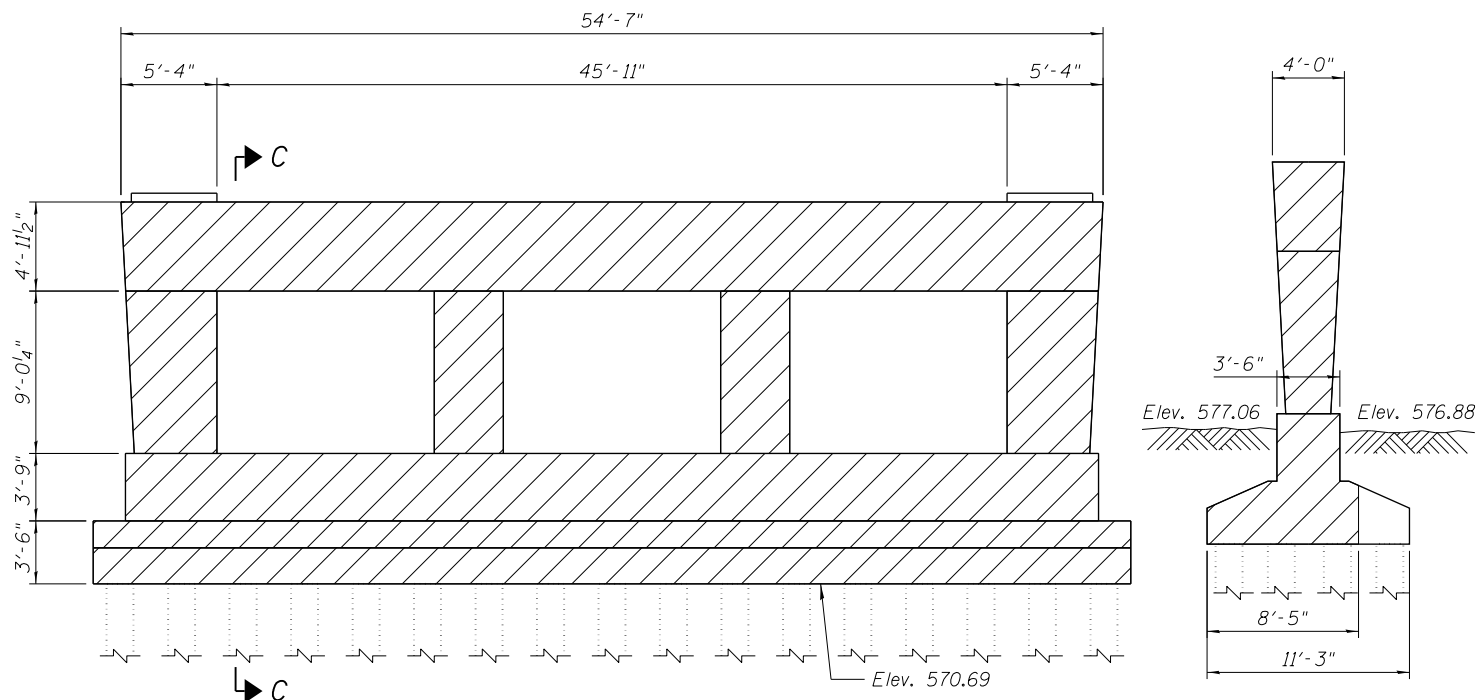
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**EXISTING STRUCTURE REMOVAL DETAILS 2
STRUCTURE NO. 016-1708**

SHEET NO. 8 OF 55 SHEETS

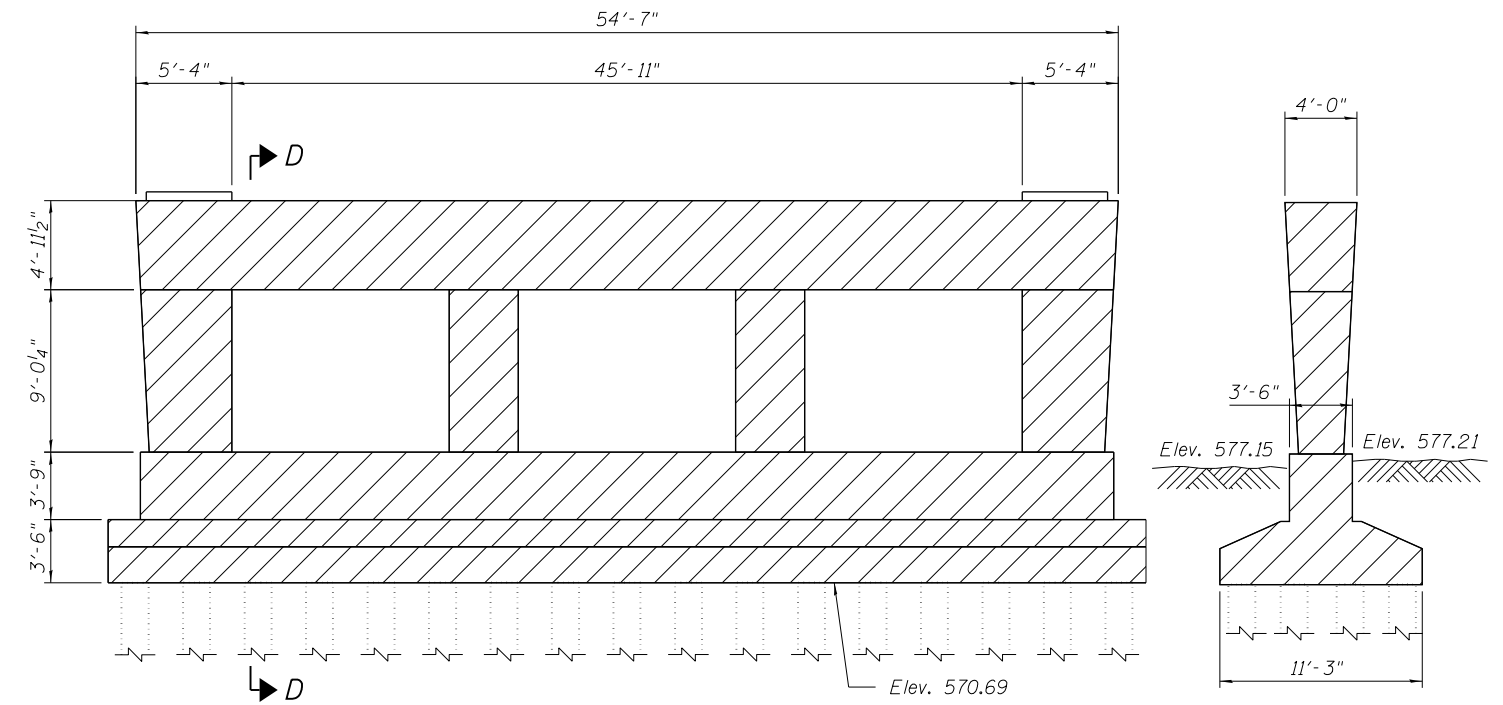
MUN 2090	SECTION 2013-011R	COUNTY COOK	TOTAL SHEETS 356	SHEET NO. 140
CONTRACT NO. 60W29			ILLINOIS FED. AID PROJECT	



PIER 1 ELEVATION

(Looking North)

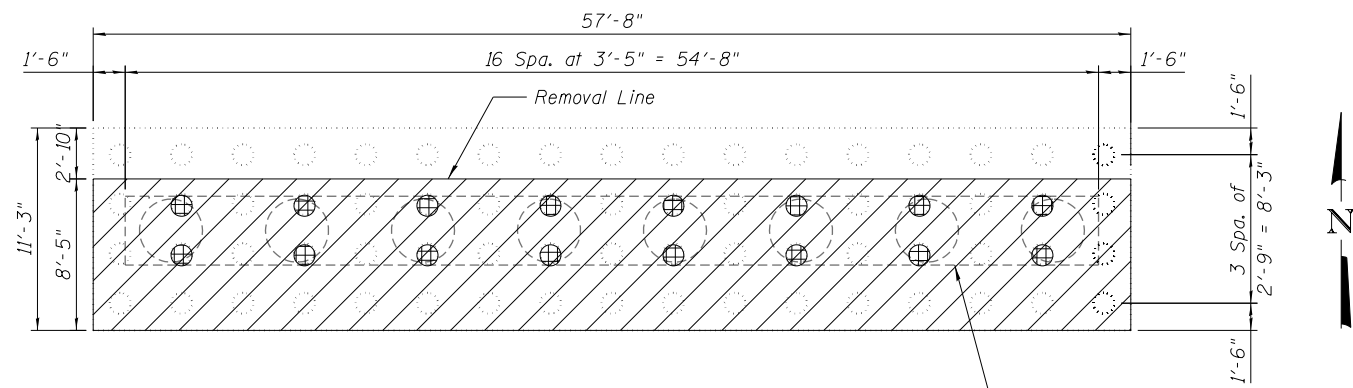
SECTION C-C



PIER 2 ELEVATION

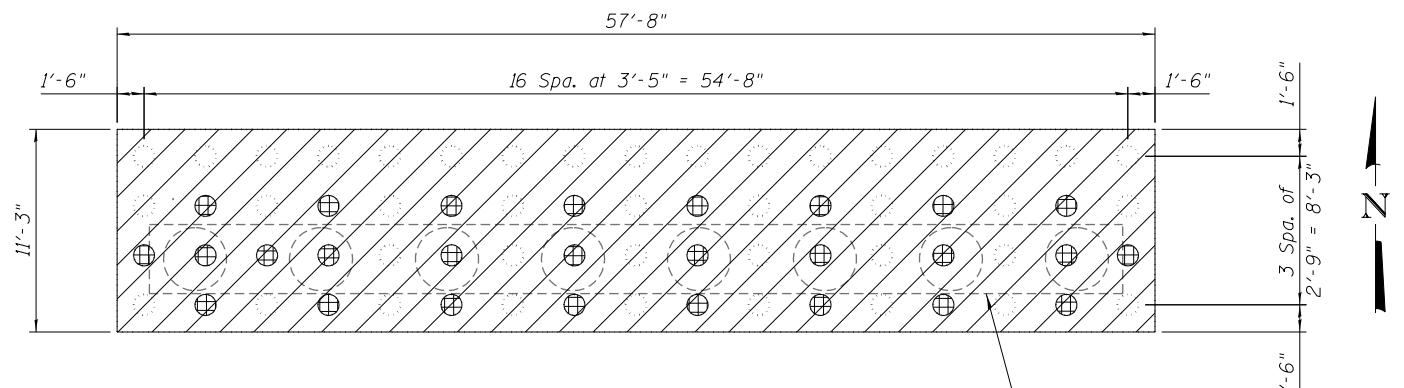
(Looking North)

SECTION D-D



PIER 1 FOUNDATION PLAN

Proposed Pier 1
Crashwall



PIER 2 FOUNDATION PLAN

Proposed Pier 2
Crashwall

BILL OF MATERIAL

Item	Unit	Quantity
Pile Extraction	Each	43

LEGEND:

- Removal of Existing Structures
- Pile Extraction

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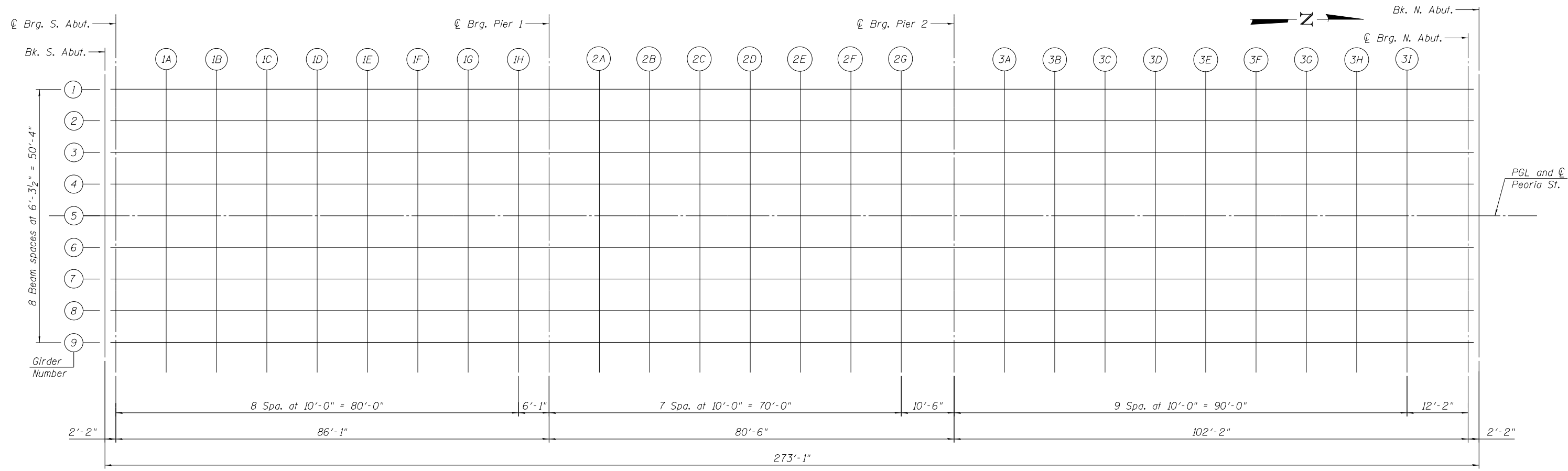
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

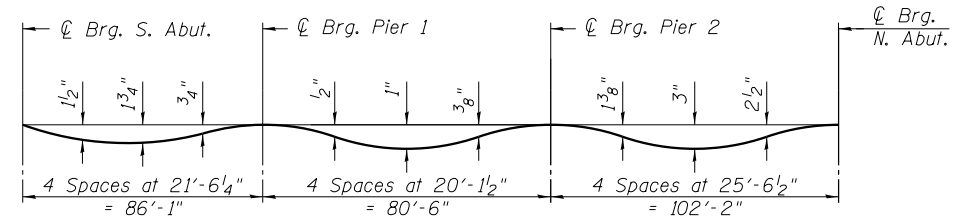
**EXISTING STRUCTURE REMOVAL DETAILS 3
STRUCTURE NO. 016-1708**

SHEET NO. 9 OF 55 SHEETS

MUN	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2090	2013-011R	COOK	356	141
CONTRACT NO.			60W29	
ILLINOIS FED. AID PROJECT				

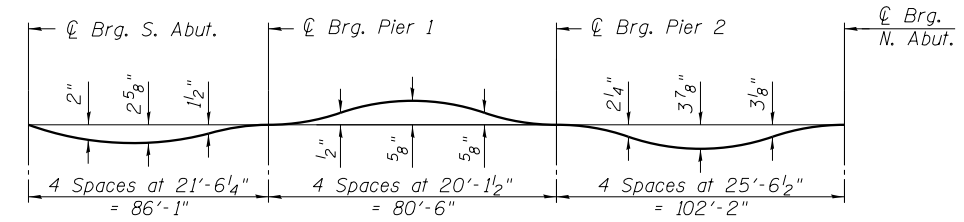


PLAN



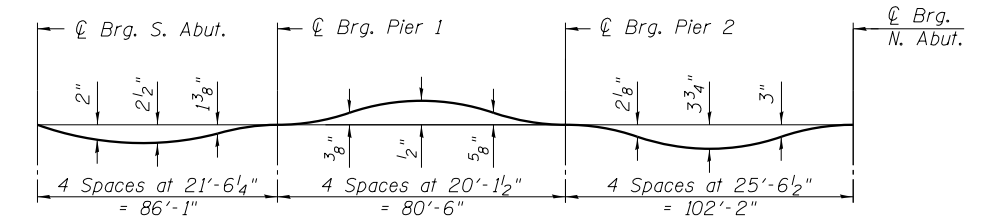
GIRDER 1 DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete, Bridge Deck Overlay, Bridge Fence Railing, Decorative Railing, Utility and Partial CTA Station.)



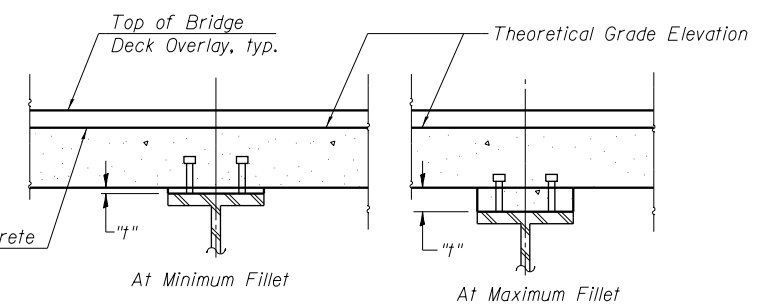
GIRDERS 2 THRU 8 DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete, Bridge Deck Overlay, Bridge Fence Railing, Decorative Railing and Utility.)



GIRDER 9 DEAD LOAD DEFLECTION DIAGRAM

(Includes weight of concrete, Bridge Deck Overlay, Bridge Fence Railing, Decorative Railing, Utility and CTA Stairway.)



FILLET HEIGHTS

To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown on sheets 11 and 12 of 55. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on sheet 11 and 12 of 55, minus Precast Concrete Deck Panel thickness, equals the fillet heights "t" above top flange of beams.

Notes:
The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown on Sheets 11 and 12 of 55. Elevations shown on Sheets 11 and 12 of 55 are at top of Precast Concrete Deck Panel.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS 1
STRUCTURE NO. 016-1708

SHEET NO. 10 OF 55 SHEETS

MUN	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2090	2013-011R	COOK	356	142
CONTRACT NO.			60W29	
ILLINOIS FED. AID PROJECT				

GIRDER 1

Table with 5 columns: Location, Station, Offset, Theoretical Grade Elevations*, Theoretical Grade Elevations Adjusted For Dead Load Deflection *. Rows include Bk. S. Abut., S. Abut., Pier 1, Pier 2, N. Abut., Bk. N. Abut.

GIRDER 2

Table with 5 columns: Location, Station, Offset, Theoretical Grade Elevations*, Theoretical Grade Elevations Adjusted For Dead Load Deflection *. Rows include Bk. S. Abut., S. Abut., Pier 1, Pier 2, N. Abut., Bk. N. Abut.

GIRDER 3

Table with 5 columns: Location, Station, Offset, Theoretical Grade Elevations*, Theoretical Grade Elevations Adjusted For Dead Load Deflection *. Rows include Bk. S. Abut., S. Abut., Pier 1, Pier 2, N. Abut., Bk. N. Abut.

GIRDER 4

Table with 5 columns: Location, Station, Offset, Theoretical Grade Elevations*, Theoretical Grade Elevations Adjusted For Dead Load Deflection *. Rows include Bk. S. Abut., S. Abut., Pier 1, Pier 2, N. Abut., Bk. N. Abut.

GIRDER 5, PGL. & C ROADWAY

Table with 5 columns: Location, Station, Offset, Theoretical Grade Elevations*, Theoretical Grade Elevations Adjusted For Dead Load Deflection *. Rows include Bk. S. Abut., S. Abut., Pier 1, Pier 2, N. Abut., Bk. N. Abut.

GIRDER 6

Table with 5 columns: Location, Station, Offset, Theoretical Grade Elevations*, Theoretical Grade Elevations Adjusted For Dead Load Deflection *. Rows include Bk. S. Abut., S. Abut., Pier 1, Pier 2, N. Abut., Bk. N. Abut.

* Elevations are taken at the top of the Precast Concrete Deck Panels.

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Table with 4 columns: USER NAME, DESIGNED, CHECKED, PLOT SCALE, PLOT DATE. Values include BAWIforT, WJC, DL, RLS, DL, 0x2.0000 'L' / In., 10/28/2013.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS 2 STRUCTURE NO. 016-1708

SHEET NO. 11 OF 55 SHEETS

Table with 6 columns: MUN, SECTION, COUNTY, TOTAL SHEETS, SHEET NO., CONTRACT NO. Values include 2090, 2013-011R, COOK, 356, 143, 60W29.

ILLINOIS FED. AID PROJECT

GIRDER 7

Location	Station	Offset	Theoretical Grade Elevations*	Theoretical Grade Elevations Adjusted For Dead Load Deflection *
Bk. S. Abut.	3702+57.64	12.58	596.65	596.65
S. Abut.	3702+59.81	12.58	596.67	596.67
1A	3702+69.81	12.58	596.77	596.86
1B	3702+79.81	12.58	596.87	597.03
1C	3702+89.81	12.58	596.97	597.17
1D	3702+99.81	12.58	597.06	597.28
1E	3703+09.81	12.58	597.16	597.36
1F	3703+19.81	12.58	597.26	597.41
1G	3703+29.81	12.58	597.36	597.45
1H	3703+39.81	12.58	597.45	597.49
Pier 1	3703+45.89	12.58	597.51	597.51
2A	3703+55.89	12.58	597.61	597.58
2B	3703+65.89	12.58	597.71	597.66
2C	3703+75.89	12.58	597.81	597.75
2D	3703+85.89	12.58	597.90	597.85
2E	3703+95.89	12.58	598.00	597.94
2F	3704+05.89	12.58	598.10	598.04
2G	3704+15.89	12.58	598.20	598.16
Pier 2	3704+26.39	12.58	598.30	598.30
3A	3704+36.39	12.58	598.40	598.46
3B	3704+46.39	12.58	598.49	598.63
3C	3704+56.39	12.58	598.59	598.81
3D	3704+66.39	12.58	598.69	598.97
3E	3704+76.39	12.58	598.74	599.06
3F	3704+86.39	12.58	598.72	599.05
3G	3704+96.39	12.58	598.62	598.92
3H	3705+06.39	12.58	598.46	598.69
3I	3705+16.39	12.58	598.22	598.35
N. Abut.	3705+28.56	12.58	597.83	597.83
Bk. N. Abut.	3705+30.73	12.58	597.74	597.74

GIRDER 8

Location	Station	Offset	Theoretical Grade Elevations*	Theoretical Grade Elevations Adjusted For Dead Load Deflection *
Bk. S. Abut.	3702+57.64	18.88	596.56	596.56
S. Abut.	3702+59.81	18.88	596.58	596.58
1A	3702+69.81	18.88	596.68	596.77
1B	3702+79.81	18.88	596.77	596.94
1C	3702+89.81	18.88	596.87	597.08
1D	3702+99.81	18.88	596.97	597.19
1E	3703+09.81	18.88	597.07	597.27
1F	3703+19.81	18.88	597.16	597.32
1G	3703+29.81	18.88	597.26	597.35
1H	3703+39.81	18.88	597.36	597.39
Pier 1	3703+45.89	18.88	597.42	597.42
2A	3703+55.89	18.88	597.52	597.49
2B	3703+65.89	18.88	597.61	597.57
2C	3703+75.89	18.88	597.71	597.66
2D	3703+85.89	18.88	597.81	597.75
2E	3703+95.89	18.88	597.91	597.85
2F	3704+05.89	18.88	598.00	597.95
2G	3704+15.89	18.88	598.10	598.06
Pier 2	3704+26.39	18.88	598.20	598.20
3A	3704+36.39	18.88	598.30	598.37
3B	3704+46.39	18.88	598.40	598.54
3C	3704+56.39	18.88	598.50	598.71
3D	3704+66.39	18.88	598.59	598.88
3E	3704+76.39	18.88	598.64	598.97
3F	3704+86.39	18.88	598.62	598.95
3G	3704+96.39	18.88	598.53	598.83
3H	3705+06.39	18.88	598.36	598.59
3I	3705+16.39	18.88	598.12	598.26
N. Abut.	3705+28.56	18.88	597.73	597.73
Bk. N. Abut.	3705+30.73	18.88	597.65	597.65

GIRDER 9

Location	Station	Offset	Theoretical Grade Elevations*	Theoretical Grade Elevations Adjusted For Dead Load Deflection *
Bk. S. Abut.	3702+57.64	25.17	596.46	596.46
S. Abut.	3702+59.81	25.17	596.49	596.49
1A	3702+69.81	25.17	596.58	596.67
1B	3702+79.81	25.17	596.68	596.83
1C	3702+89.81	25.17	596.78	596.97
1D	3702+99.81	25.17	596.88	597.08
1E	3703+09.81	25.17	596.97	597.16
1F	3703+19.81	25.17	597.07	597.21
1G	3703+29.81	25.17	597.17	597.25
1H	3703+39.81	25.17	597.27	597.29
Pier 1	3703+45.89	25.17	597.32	597.32
2A	3703+55.89	25.17	597.42	597.40
2B	3703+65.89	25.17	597.52	597.48
2C	3703+75.89	25.17	597.62	597.58
2D	3703+85.89	25.17	597.71	597.67
2E	3703+95.89	25.17	597.81	597.76
2F	3704+05.89	25.17	597.91	597.86
2G	3704+15.89	25.17	598.01	597.97
Pier 2	3704+26.39	25.17	598.11	598.11
3A	3704+36.39	25.17	598.21	598.27
3B	3704+46.39	25.17	598.30	598.44
3C	3704+56.39	25.17	598.40	598.61
3D	3704+66.39	25.17	598.50	598.77
3E	3704+76.39	25.17	598.55	598.86
3F	3704+86.39	25.17	598.53	598.85
3G	3704+96.39	25.17	598.43	598.72
3H	3705+06.39	25.17	598.27	598.49
3I	3705+16.39	25.17	598.03	598.16
N. Abut.	3705+28.56	25.17	597.64	597.64
Bk. N. Abut.	3705+30.73	25.17	597.56	597.56

* Elevations are taken at the top of the Precast Concrete Deck Panels.

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TOP OF SLAB ELEVATIONS 3
STRUCTURE NO. 016-1708**

SHEET NO. 12 OF 55 SHEETS

MUN	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2090	2013-011R	COOK	356	144
CONTRACT NO.			60W29	
ILLINOIS FED. AID PROJECT				

S. APPR. WEST CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
S. End South Appr. Slab	3702+38.64	-22.49	596.25
AI	3702+48.64	-17.70	596.52
N. End South Appr. Slab	3702+58.64	-12.91	596.85

S. APPR. PGL & C ROADWAY

Location	Station	Offset	Theoretical Grade Elevations
S. End South Appr. Slab	3702+38.64	0.00	596.57
AI	3702+48.64	0.00	596.81
N. End South Appr. Slab	3702+58.64	0.00	597.04

S. APPR. EAST CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
S. End South Appr. Slab	3702+38.64	-0.94	596.62
AI	3702+48.64	3.08	596.80
N. End South Appr. Slab	3702+58.64	7.09	596.93

S. APPR. CROWN

Location	Station	Offset	Theoretical Grade Elevations
S. End South Appr. Slab	3702+38.64	-0.94	596.62
AI	3702+48.64	-0.47	596.83
N. End South Appr. Slab	3702+58.64	0.00	597.04

N. APPR. WEST CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
S. End North Appr. Slab	3705+29.73	-13.00	597.96
A2	3705+39.73	-13.00	597.64
N. End North Appr. Slab	3705+49.73	-13.00	597.31

N. APPR. CROWN

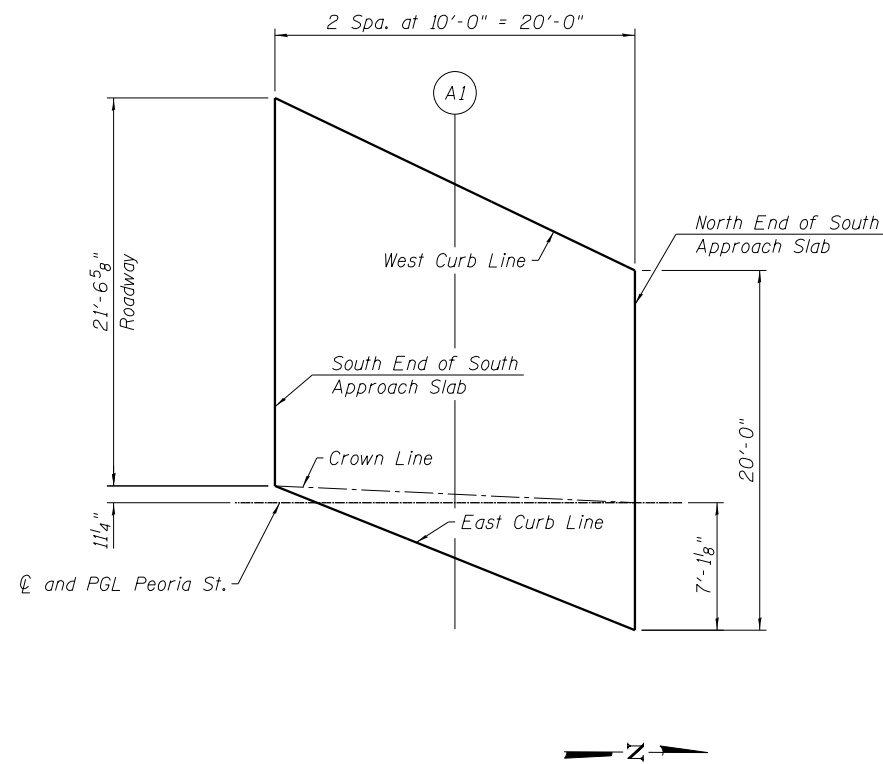
Location	Station	Offset	Theoretical Grade Elevations
S. End North Appr. Slab	3705+29.73	0.00	598.16
A2	3705+39.73	-2.50	597.80
N. End North Appr. Slab	3705+49.73	-5.00	597.43

N. APPR. PGL & C ROADWAY

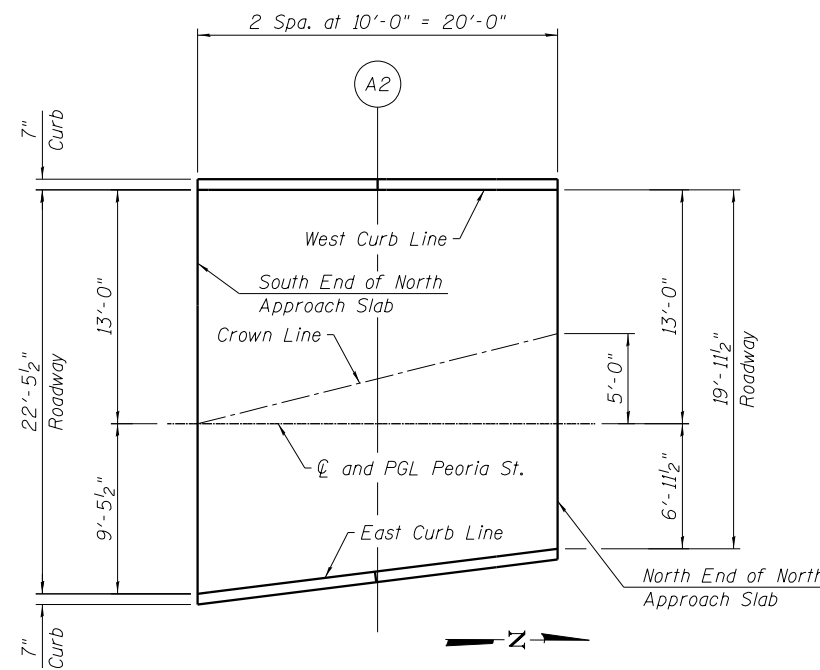
Location	Station	Offset	Theoretical Grade Elevations
S. End North Appr. Slab	3705+29.73	0.00	598.16
A2	3705+39.73	0.00	597.76
N. End North Appr. Slab	3705+49.73	0.00	597.35

N. APPR. EAST CURB LINE

Location	Station	Offset	Theoretical Grade Elevations
S. End North Appr. Slab	3705+29.73	9.46	598.02
A2	3705+39.73	8.21	597.64
N. End North Appr. Slab	3705+49.73	6.96	597.25



SOUTH APPROACH PLAN



NORTH APPROACH PLAN

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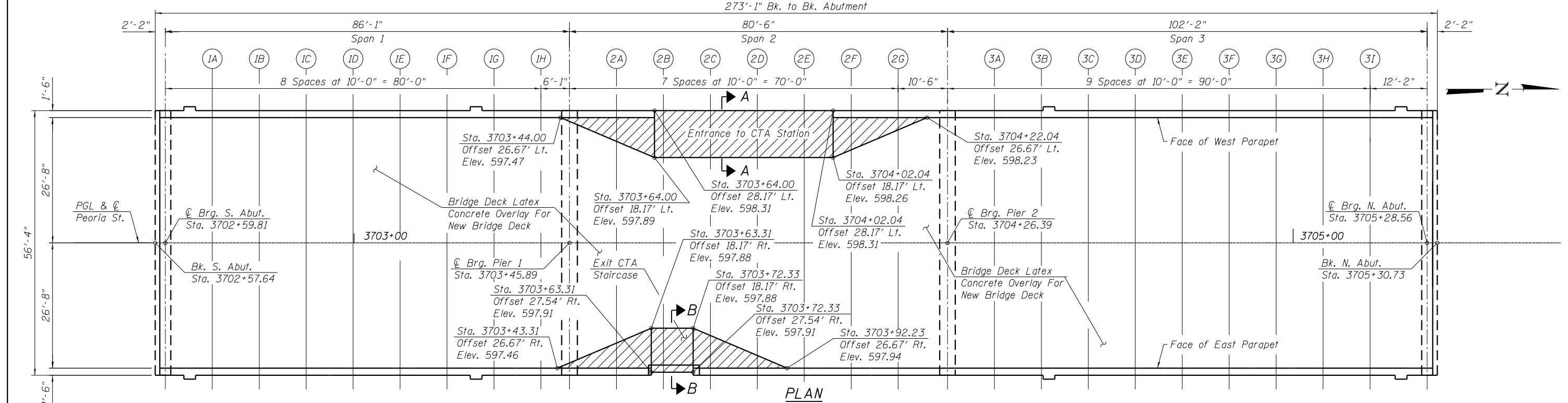
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

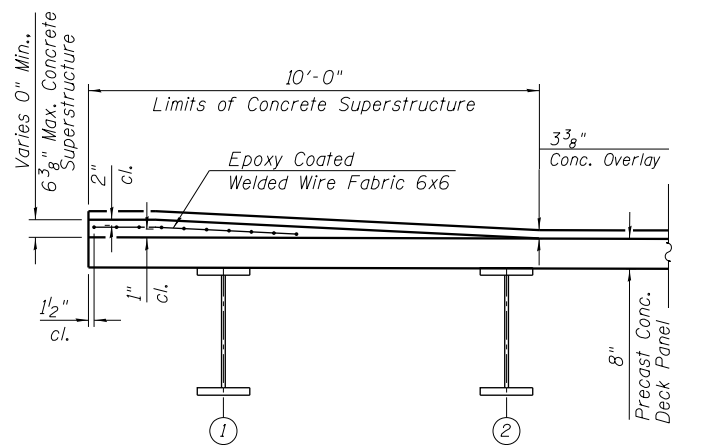
**TOP OF APPROACH SLAB ELEVATIONS
STRUCTURE NO. 016-1708**

SHEET NO. 13 OF 55 SHEETS

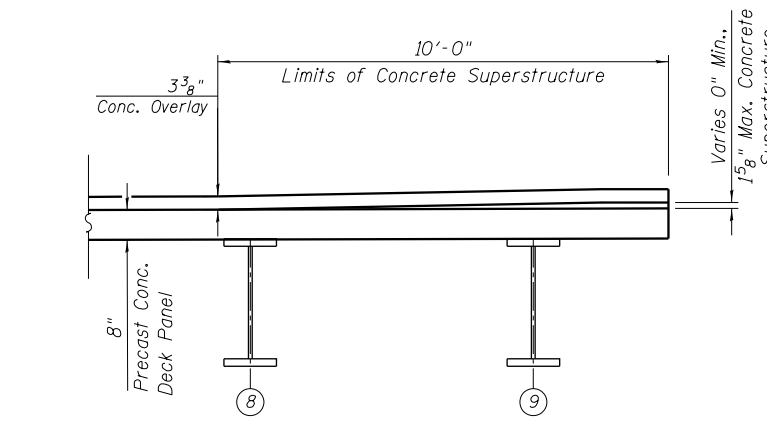
MUN	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2090	2013-011R	COOK	356	145
CONTRACT NO.			60W29	
ILLINOIS FED. AID PROJECT				



PLAN



SECTION A-A



SECTION B-B

FACE OF WEST PARAPET

Location	Station	Offset	Theoretical Grade Elevations	Overlay Thickness
Bk. S. Abut.	3702+57.64	-26.67	596.63	2.25
S. Abut.	3702+59.81	-26.67	596.65	2.25
1A	3702+69.81	-26.67	596.75	2.25
1B	3702+79.81	-26.67	596.85	2.25
1C	3702+89.81	-26.67	596.94	2.25
1D	3702+99.81	-26.67	597.04	2.25
1E	3703+09.81	-26.67	597.14	2.25
1F	3703+19.81	-26.67	597.24	2.25
1G	3703+29.81	-26.67	597.33	2.25
1H	3703+39.81	-26.67	597.43	2.25
Pier 1	3703+45.89	-26.67	597.51	2.46
2A	3703+55.89	-26.67	597.85	5.35
2B	3703+65.89	-26.67	598.31	9.81
2C	3703+75.89	-26.67	598.31	8.61
2D	3703+85.89	-26.67	598.31	7.41
2E	3703+95.89	-26.67	598.31	6.21
2F	3704+05.89	-26.67	598.48	7.22
2G	3704+15.89	-26.67	598.55	6.78
Pier 2	3704+26.39	-26.67	598.27	2.25
3A	3704+36.39	-26.67	598.37	2.25
3B	3704+46.39	-26.67	598.47	2.25
3C	3704+56.39	-26.67	598.57	2.25
3D	3704+66.39	-26.67	598.66	2.25
3E	3704+76.39	-26.67	598.71	2.25
3F	3704+86.39	-26.67	598.69	2.25
3G	3704+96.39	-26.67	598.60	2.25
3H	3705+06.39	-26.67	598.43	2.25
3I	3705+16.39	-26.67	598.19	2.25
N. Abut.	3705+28.56	-26.67	597.80	2.25
Bk. N. Abut.	3705+30.73	-26.67	597.44	2.25

PGL & C ROADWAY

Location	Station	Offset	Theoretical Grade Elevations	Overlay Thickness
Bk. S. Abut.	3702+57.64	0.00	597.03	2.25
S. Abut.	3702+59.81	0.00	597.05	2.25
1A	3702+69.81	0.00	597.15	2.25
1B	3702+79.81	0.00	597.25	2.25
1C	3702+89.81	0.00	597.34	2.25
1D	3702+99.81	0.00	597.44	2.25
1E	3703+09.81	0.00	597.54	2.25
1F	3703+19.81	0.00	597.64	2.25
1G	3703+29.81	0.00	597.73	2.25
1H	3703+39.81	0.00	597.83	2.25
Pier 1	3703+45.89	0.00	597.89	2.25
2A	3703+55.89	0.00	597.99	2.25
2B	3703+65.89	0.00	598.08	2.25
2C	3703+75.89	0.00	598.18	2.25
2D	3703+85.89	0.00	598.28	2.25
2E	3703+95.89	0.00	598.38	2.25
2F	3704+05.89	0.00	598.47	2.25
2G	3704+15.89	0.00	598.57	2.25
Pier 2	3704+26.39	0.00	598.67	2.25
3A	3704+36.39	0.00	598.77	2.25
3B	3704+46.39	0.00	598.87	2.25
3C	3704+56.39	0.00	598.97	2.25
3D	3704+66.39	0.00	599.06	2.25
3E	3704+76.39	0.00	599.11	2.25
3F	3704+86.39	0.00	599.09	2.25
3G	3704+96.39	0.00	599.00	2.25
3H	3705+06.39	0.00	598.83	2.25
3I	3705+16.39	0.00	598.59	2.25
N. Abut.	3705+28.56	0.00	598.20	2.25
Bk. N. Abut.	3705+30.73	0.00	598.12	2.25

FACE OF EAST PARAPET

Location	Station	Offset	Theoretical Grade Elevations	Overlay Thickness
Bk. S. Abut.	3702+57.64	26.67	596.63	2.25
S. Abut.	3702+59.81	26.67	596.65	2.25
1A	3702+69.81	26.67	596.75	2.25
1B	3702+79.81	26.67	596.85	2.25
1C	3702+89.81	26.67	596.94	2.25
1D	3702+99.81	26.67	597.04	2.25
1E	3703+09.81	26.67	597.14	2.25
1F	3703+19.81	26.67	597.24	2.25
1G	3703+29.81	26.67	597.33	2.25
1H	3703+39.81	26.67	597.43	2.25
Pier 1	3703+45.89	26.67	597.49	2.29
2A	3703+55.89	26.67	597.68	3.37
2B	3703+65.89	26.67	597.91	5.16
2C	3703+75.89	26.67	597.88	3.49
2D	3703+85.89	26.67	597.90	2.43
2E	3703+95.89	26.67	597.98	2.25
2F	3704+05.89	26.67	598.07	2.25
2G	3704+15.89	26.67	598.17	2.25
Pier 2	3704+26.39	26.67	598.27	2.25
3A	3704+36.39	26.67	598.37	2.25
3B	3704+46.39	26.67	598.47	2.25
3C	3704+56.39	26.67	598.57	2.25
3D	3704+66.39	26.67	598.66	2.25
3E	3704+76.39	26.67	598.71	2.25
3F	3704+86.39	26.67	598.69	2.25
3G	3704+96.39	26.67	598.60	2.25
3H	3705+06.39	26.67	598.43	2.25
3I	3705+16.39	26.67	598.19	2.25
N. Abut.	3705+28.56	26.67	597.80	2.25
Bk. N. Abut.	3705+30.73	26.67	597.44	2.25

LEGEND
 Concrete Superstructure

Notes:
 Concrete Superstructure is to be reinforced with 6x6 W1.4/W1.4 Epoxy Coated Welded Wire.
 For Top of Slab Elevations for precast concrete deck panels see Sheets 10 through 12 of 55.
 The surface finish of the overlay shall meet the requirements of Article 424.06 Paragraph 1 of the Standard Specifications.

BILL OF MATERIAL

Item	Unit	Quantity
Concrete Superstructure	Cu. Yd.	6.6
Bridge Deck Latex Concrete Overlay For New Bridge Deck	Cu. Yd.	112
Welded Wire Fabric 6x6	Sq. Yd.	32

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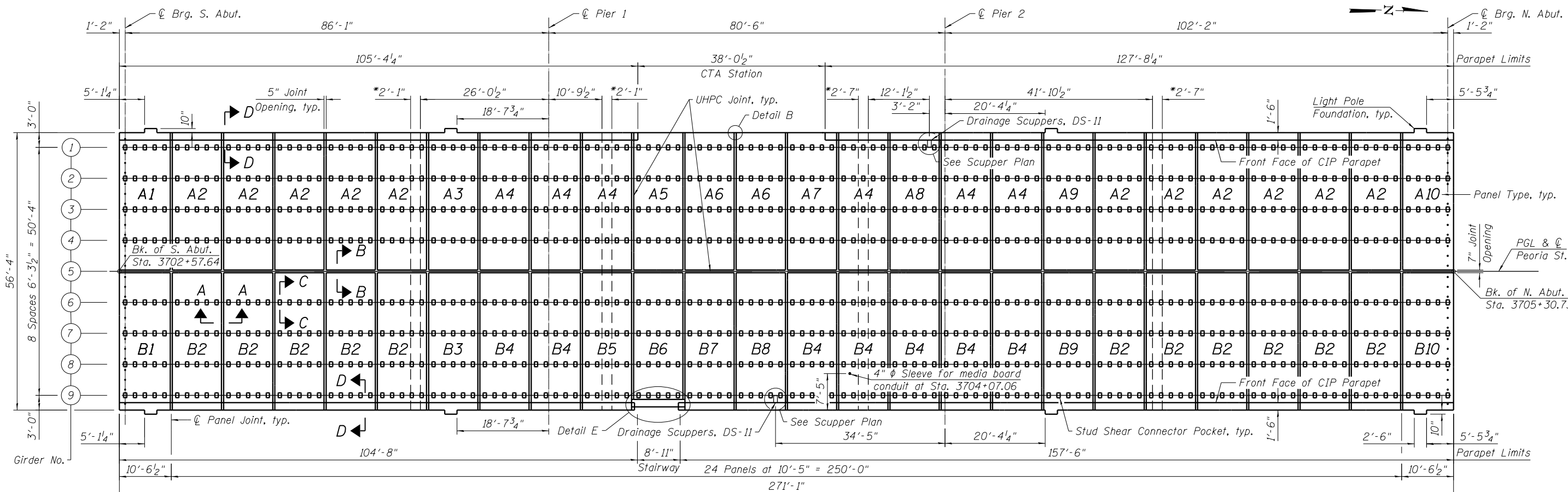


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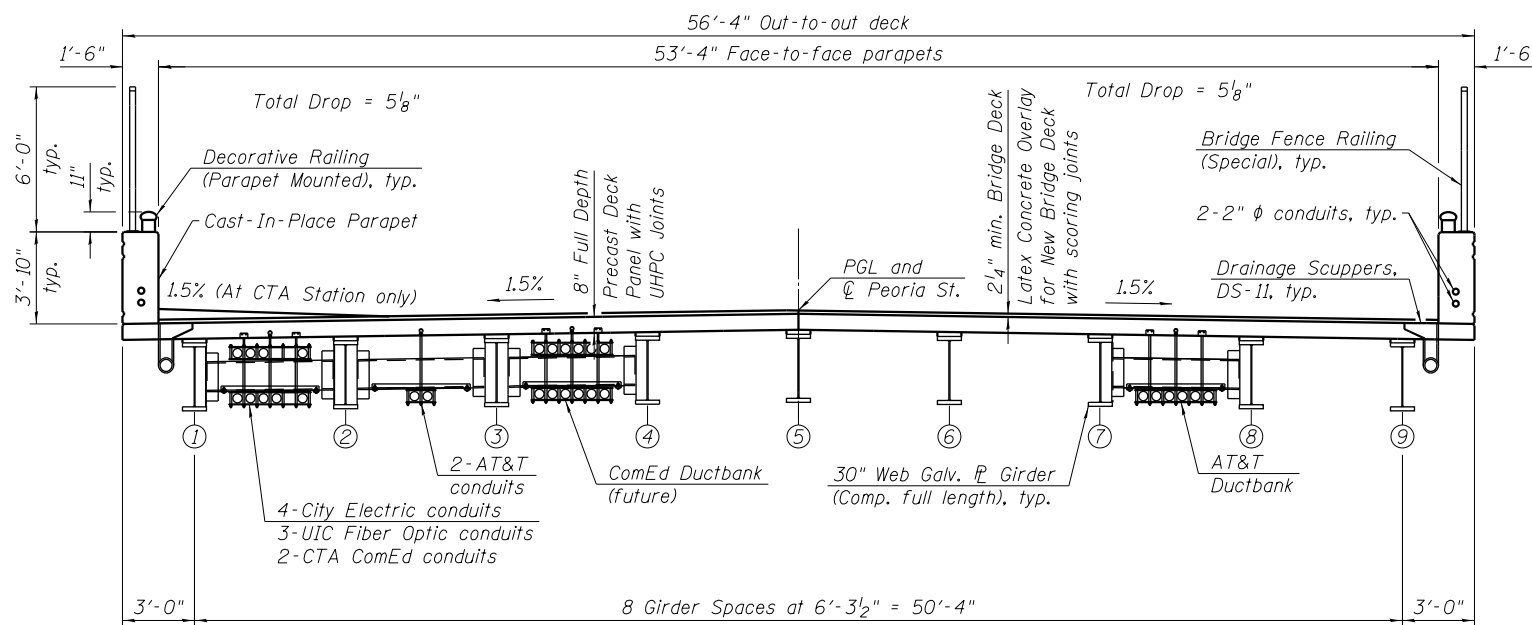
BRIDGE DECK OVERLAY
 STRUCTURE NO. 016-1708
 SHEET NO. 14 OF 55 SHEETS

MUN 2090	SECTION 2013-011R	COUNTY COOK	TOTAL SHEETS 356	SHEET NO. 146
		CONTRACT NO. 60W29		
ILLINOIS FED. AID PROJECT		FED. AID PROJECT		



PRECAST DECK PANEL PLAN

* Do not place stud shear connectors within this region (field splice).



CROSS SECTION
(Looking North)

SUGGESTED CONSTRUCTION SEQUENCE

- Erect steel girders.
- Cast abutment diaphragms.
- Clean surfaces of deck panel shear keys and stud shear connector pockets.
- Install drainage scuppers.
- Preset leveling bolts to anticipated height.
- Erect precast concrete deck panels according to the erection sequence for Stage 1.
- Adjust leveling devices on deck panels to bring panels to grade.
- All leveling bolts shall be torqued to approximately the same value (20 percent maximum deviation).
- Form and cast transverse and longitudinal UHPC joints for Stage 1.
- Repeat steps 6-9 according to the erection sequence for Stage 2.
- Install stud shear connectors in all blockouts.
- Form fillets between the top of the girders and the bottom of the deck panels.
- Grout all fillets and stud shear connector pockets with a flowable, non-shrink grout.
- Cast Concrete Superstructure slab at CTA stairway.
- Cast parapets.
- Place latex concrete overlay.

Precast Concrete Deck Panel Notes:

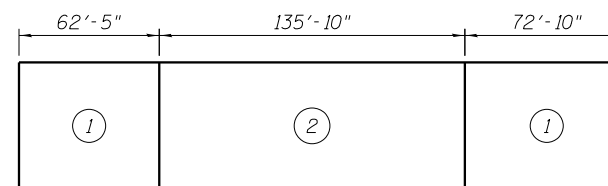
Contractor shall field verify all dimensions and horizontal locations prior to ordering materials to verify fit-up of new deck panels. The panel layout and dimensions provided are suggested. Final panel layout and dimensions shall be shown on the panel shop drawings. All panel dimensions provided on the superstructure plans are plan dimensions. The fabrication dimensions on the panel shop drawings shall account for the profile and slope of the proposed bridge deck. Contractor shall be responsible for exercising care in lifting, handling, storing, and transportation of the precast slab panels to prevent cracking or damage. Panels shall be lifted by devices as designed by the contractor and approved by the Engineer. UHPC shall reach a strength of 14.5 ksi before live loads or deck overlay can be applied to the bridge. Contractor shall apply set retarder to inside of side bulkheads and to stud pocket blockouts on the day prior to a pour to avoid interference with form setup. After form stripping, set retarder shall be thoroughly cleaned off keyways (and stud pockets) using a water blast to create the desired exposed aggregate finish.

BILL OF MATERIAL

Item	Unit	Total
Precast Concrete Deck Panels	Sq. Ft.	15,272

Notes:

See Sheet 16 of 55 for Sections A-A, B-B, C-C, D-D, Detail B and Scupper Plan.
See Sheet 23 of 55 for Detail E.
See Sheet 20 of 55 for Bill of Material.
See Sheet 21 of 55 for parapet reinforcement.
Type and location of precast inserts for utility hangers shall be coordinated with the utility companies. Cost included in Precast Concrete Deck Panels.
See Lighting Plans for parapet conduit sleeve locations.
See Roadway Plans for scoring joint details.



PANEL ERECTION SEQUENCE

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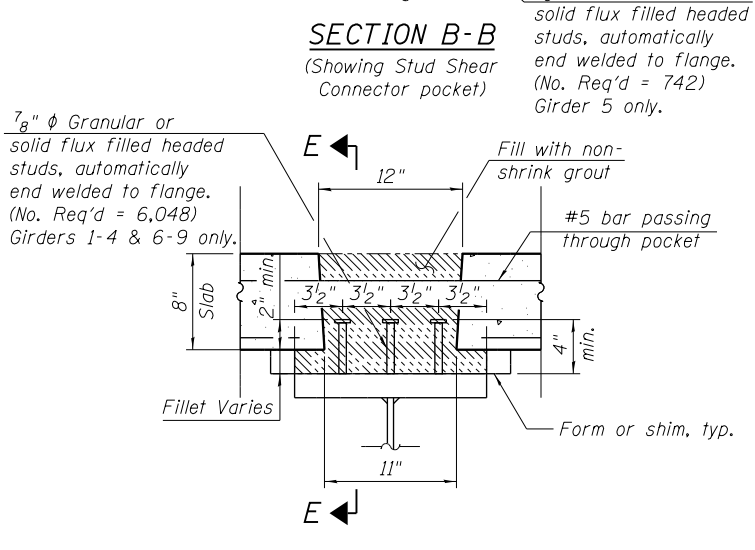
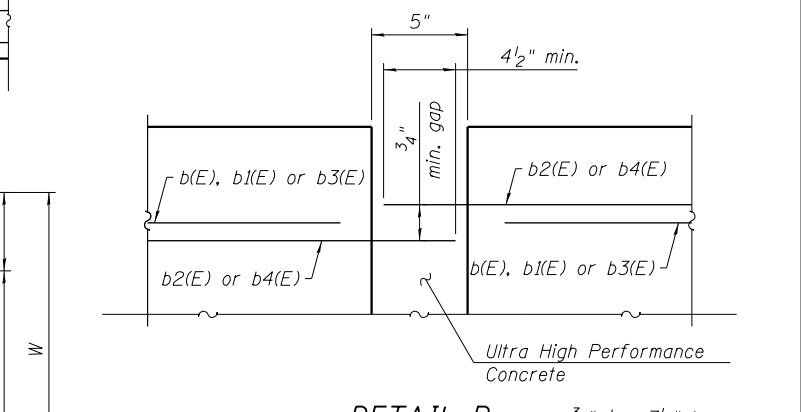
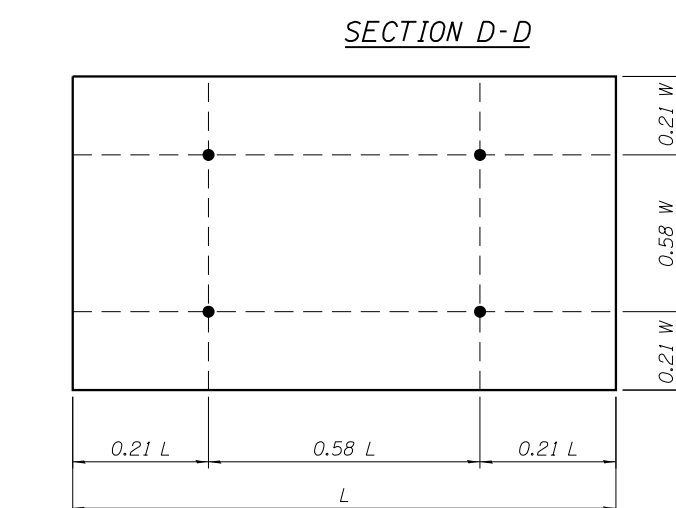
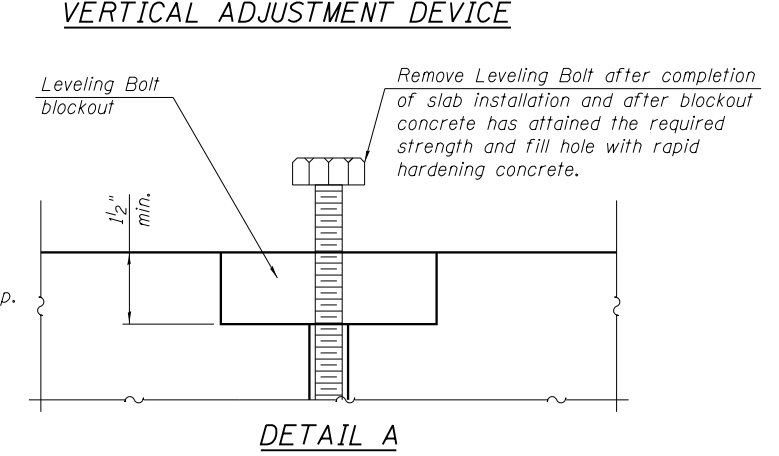
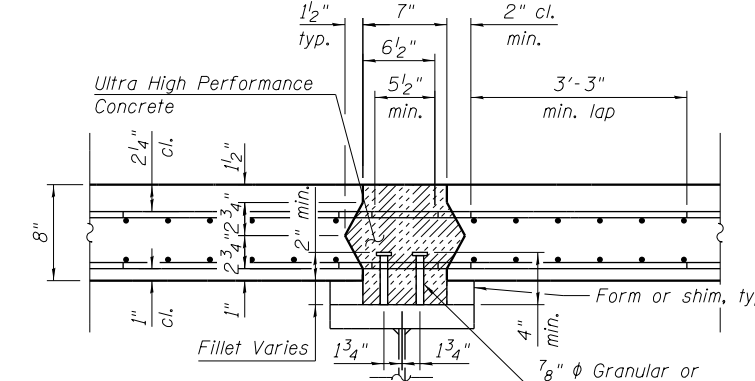
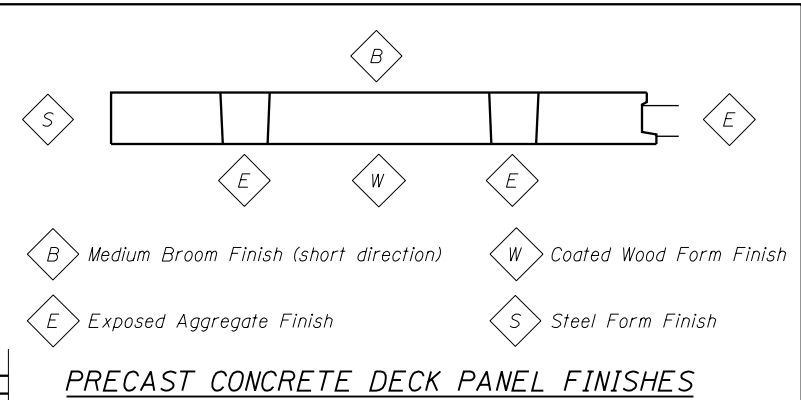
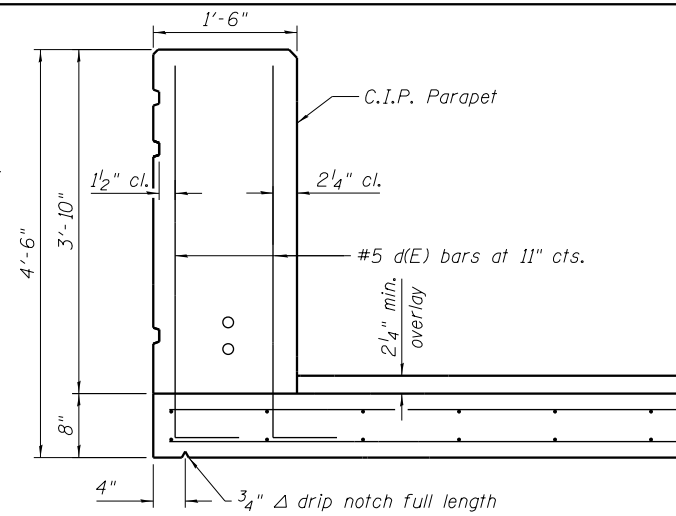
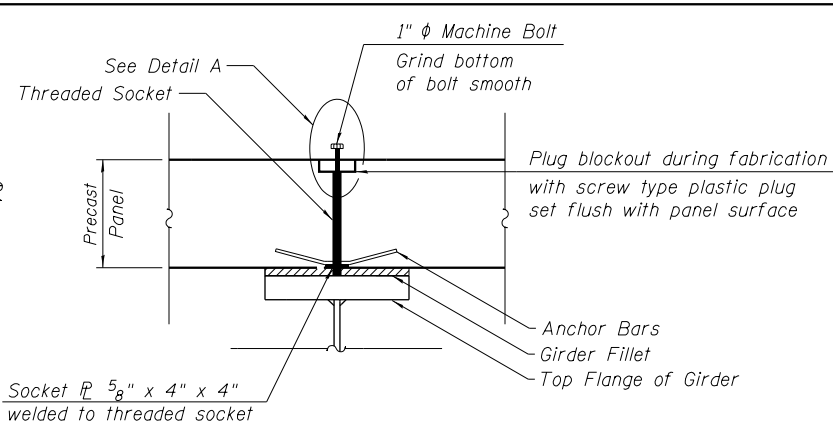
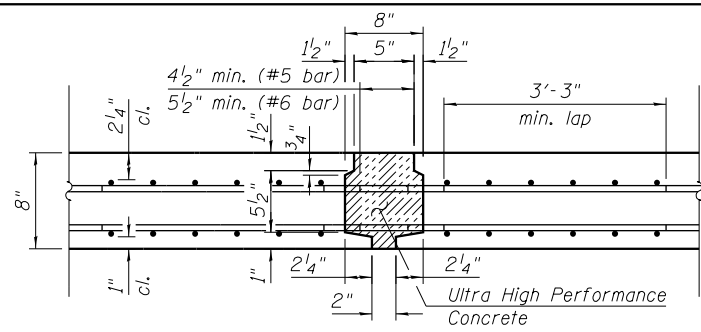
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

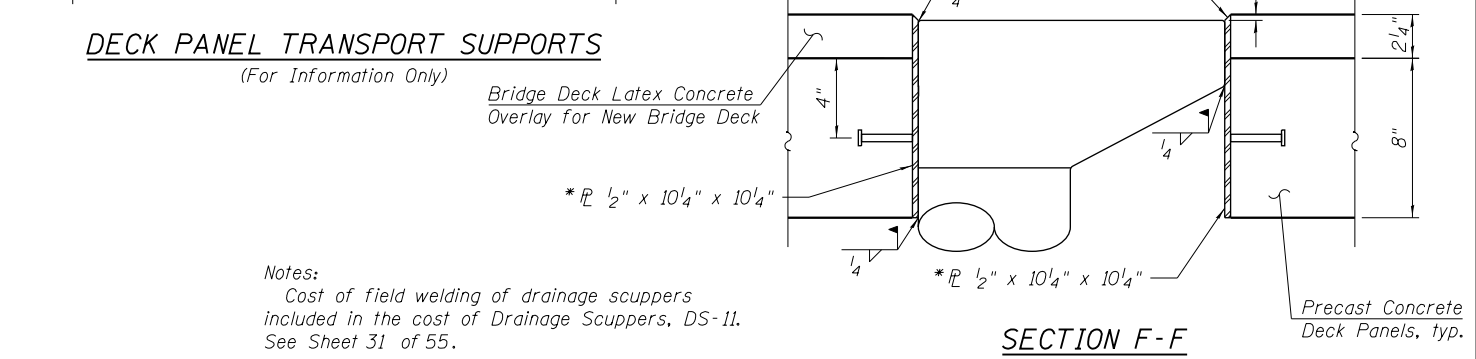
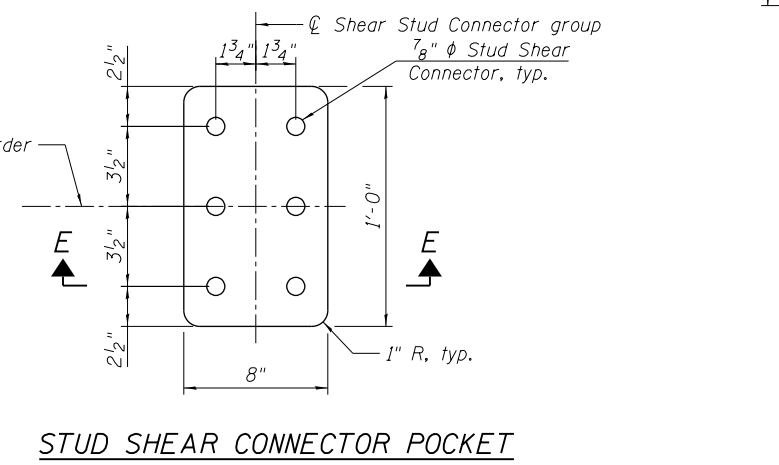
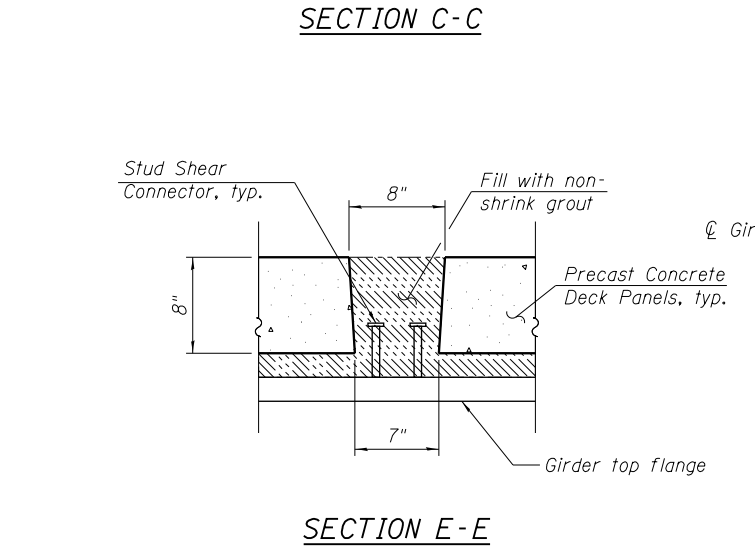
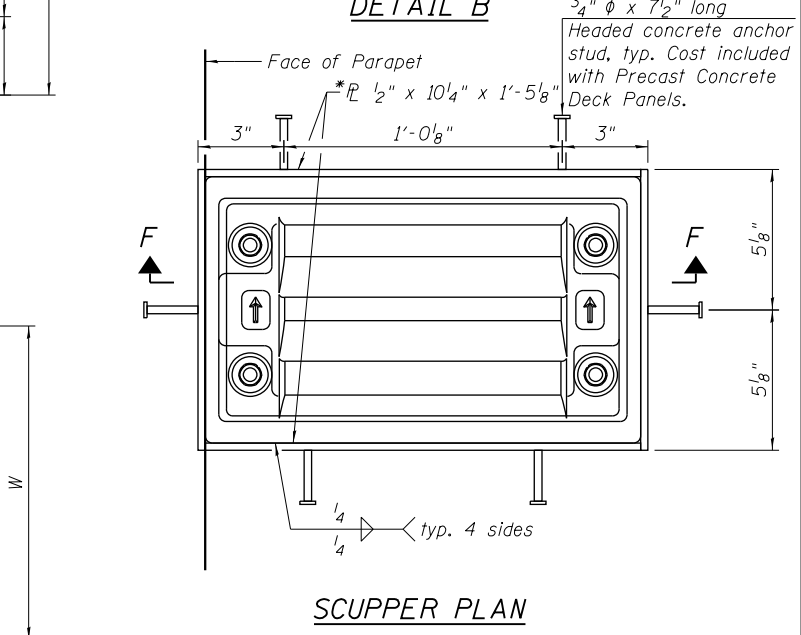
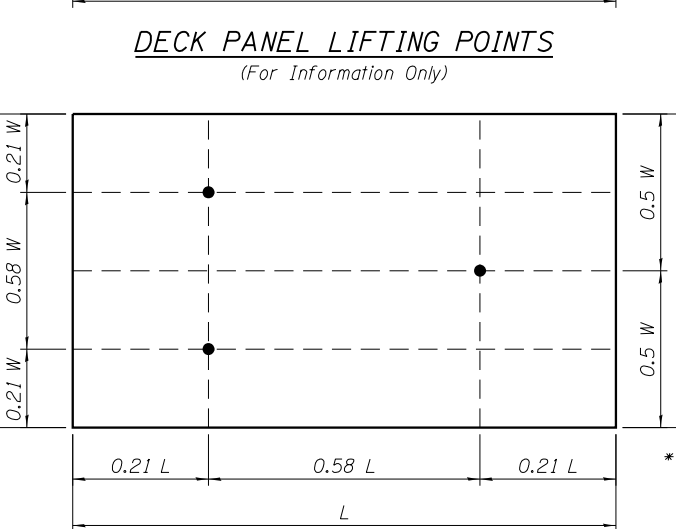
PRECAST DECK PANEL PLAN AND CROSS SECTION
STRUCTURE NO. 016-1708

SHEET NO. 15 OF 55 SHEETS

MUN	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2090	2013-011R	COOK	356	147
CONTRACT NO.			60W29	
ILLINOIS FED. AID PROJECT				



Vertical Adjustment Device Notes:
 A machine bolt or similar shall provide smooth and detailed vertical adjustment to the panel after placement on the girders.
 During panel installation, all vertical adjustment devices shall be in full contact with the girders.
 The location, spacing and final details of the vertical adjustment devices shall be designed for at least 100% more than the load of the precast panel, barrier and any construction loading as determined by the Contractor.
 The vertical adjustment devices shall be fully removable and the voids filled with rapid hardening concrete after the girder or stringer haunch has been placed and cured.
 The details shown are for schematic only and alternatives are permitted. Details and layout of the vertical adjustment devices shall be signed and sealed by a Illinois Licensed Structural Engineer and submitted to the Engineer for review prior to casting the panels.
 The cost of the vertical adjustment devices, including furnishing, installing, removing and all work required for repairing the slab panels after removal, shall be included in the cost of Precast Concrete Deck Panels.



Notes:
 Cost of field welding of drainage scuppers included in the cost of Drainage Scuppers, DS-11. See Sheet 31 of 55.

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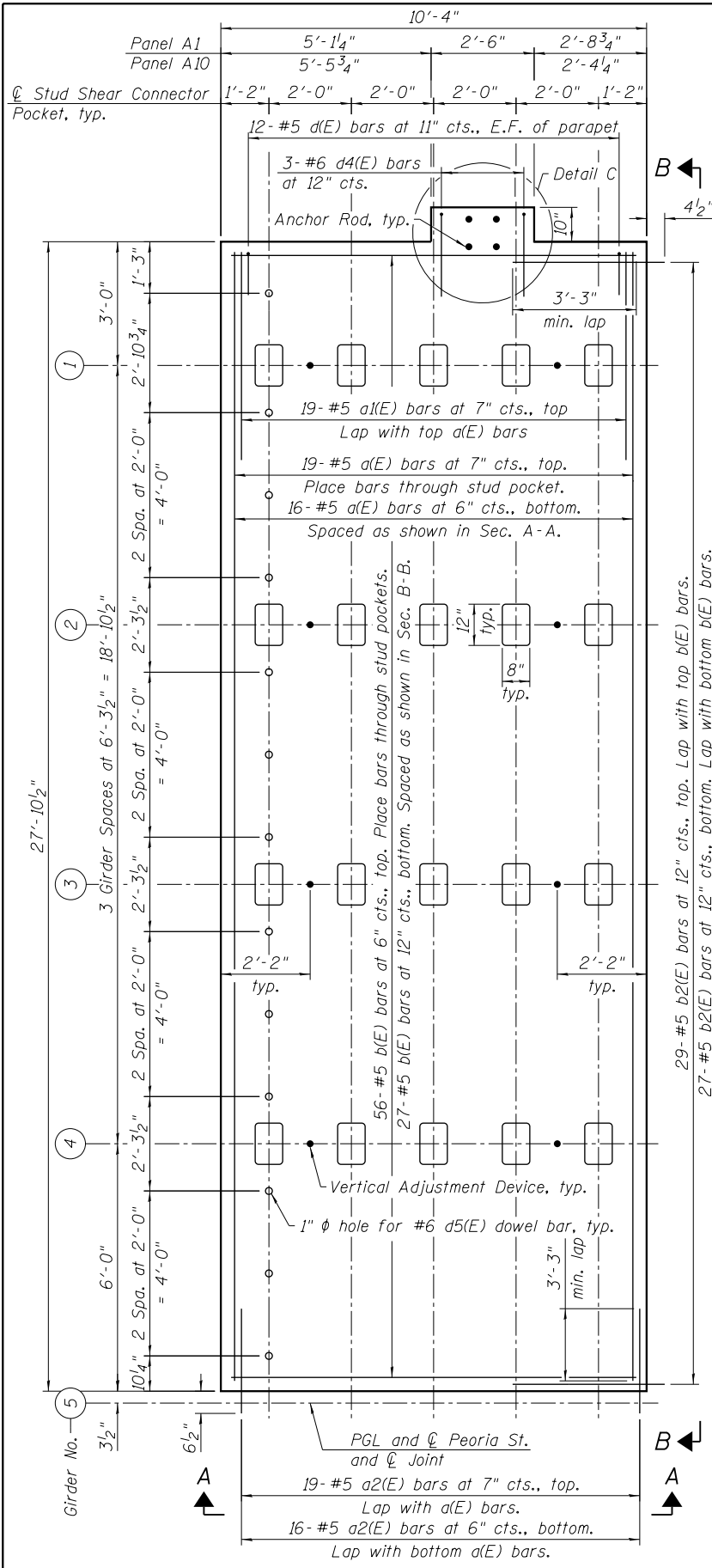


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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

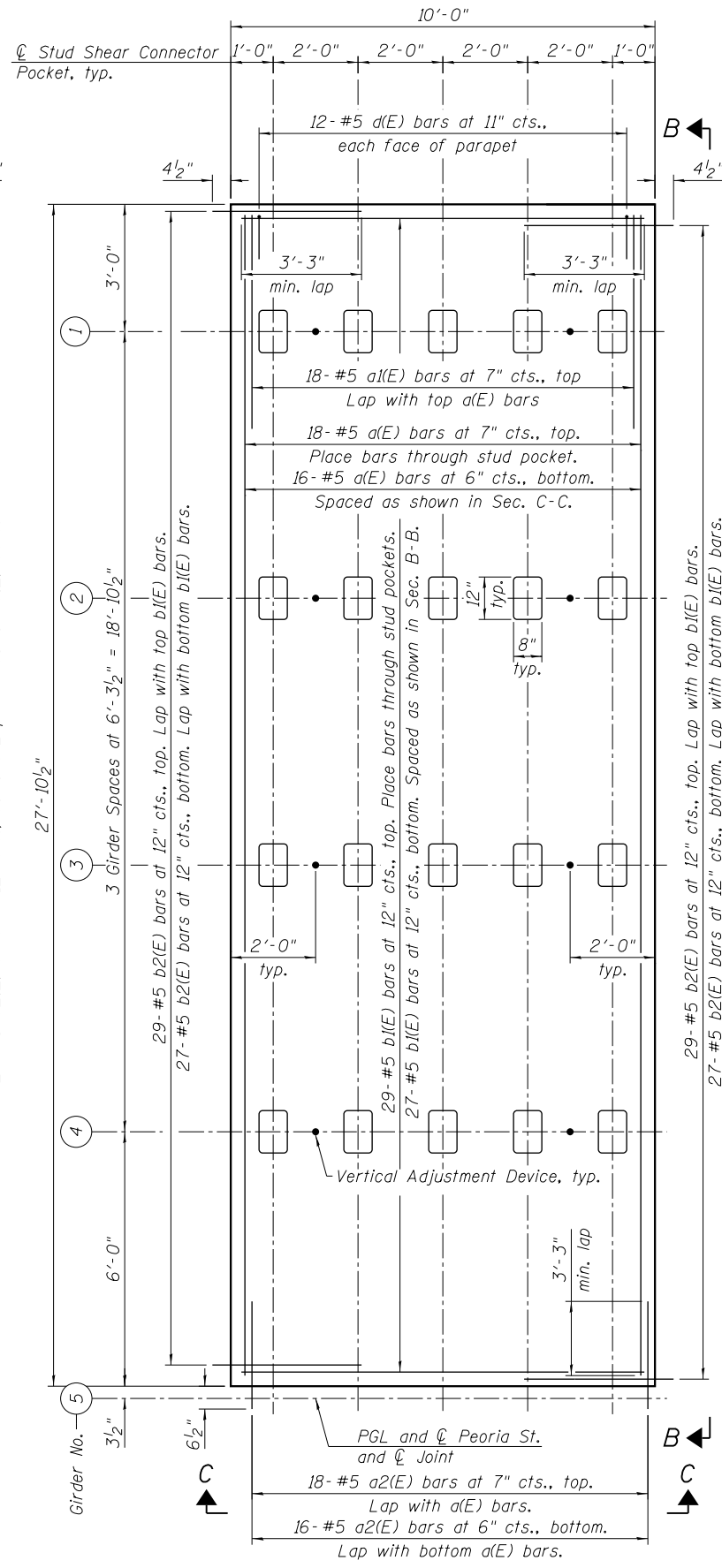
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 STRUCTURE NO. 016-1708
 SHEET NO. 16 OF 55 SHEETS

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CONTRACT NO. = 60W29			ILLINOIS FED. AID PROJECT	



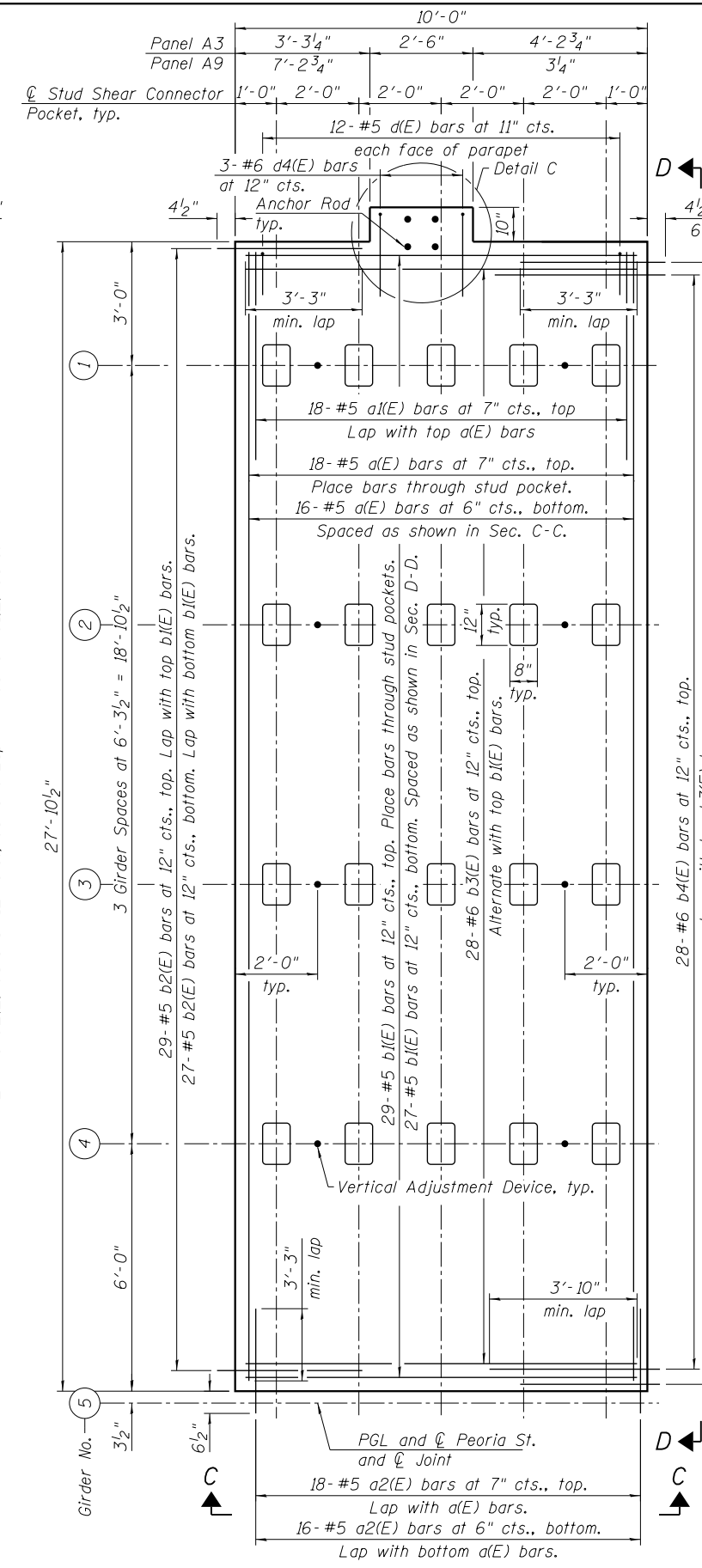
REINFORCING PLAN - DECK PANEL A1

(1 required)
Deck Panel A10 opposite hand (1 required)



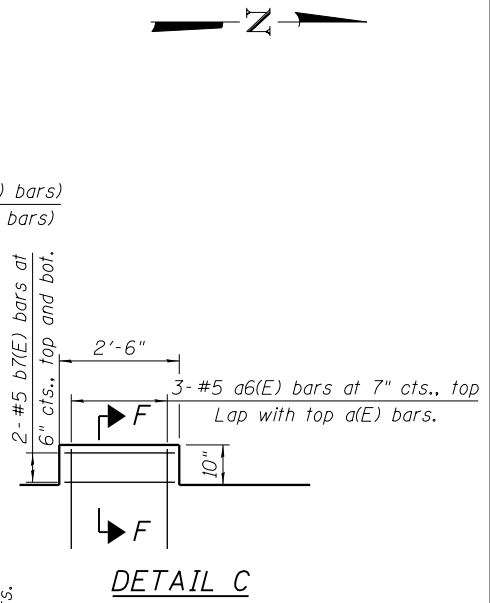
REINFORCING PLAN - DECK PANEL A2

(11 required)



REINFORCING PLAN - DECK PANEL A3

(1 required)
Deck Panel A9 opposite hand (1 required)



DETAIL C

Notes:
Provide a 3/4" min. gap between adjacent b2(E) or b4(E) dowels within UHPC joints. See Detail B on sheet 16 of 55.
For Sections A-A, B-B, C-C and D-D see Sheet 20 of 55.
For Section F-F, see Sheet 21 of 55.
See Sheet 20 of 55 for anchor rod details.

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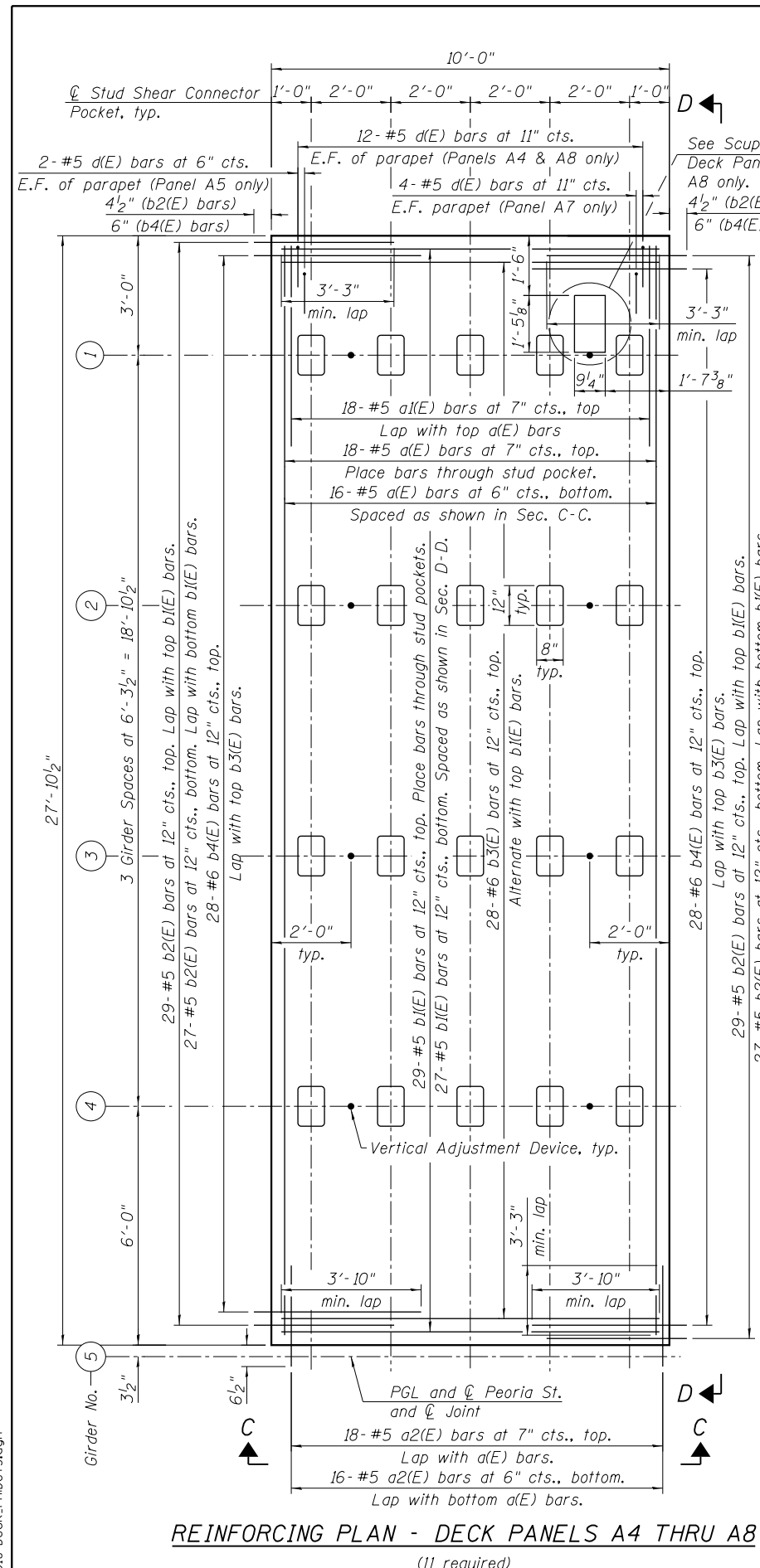
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PRECAST DECK PANEL DETAILS 2
STRUCTURE NO. 016-1708**

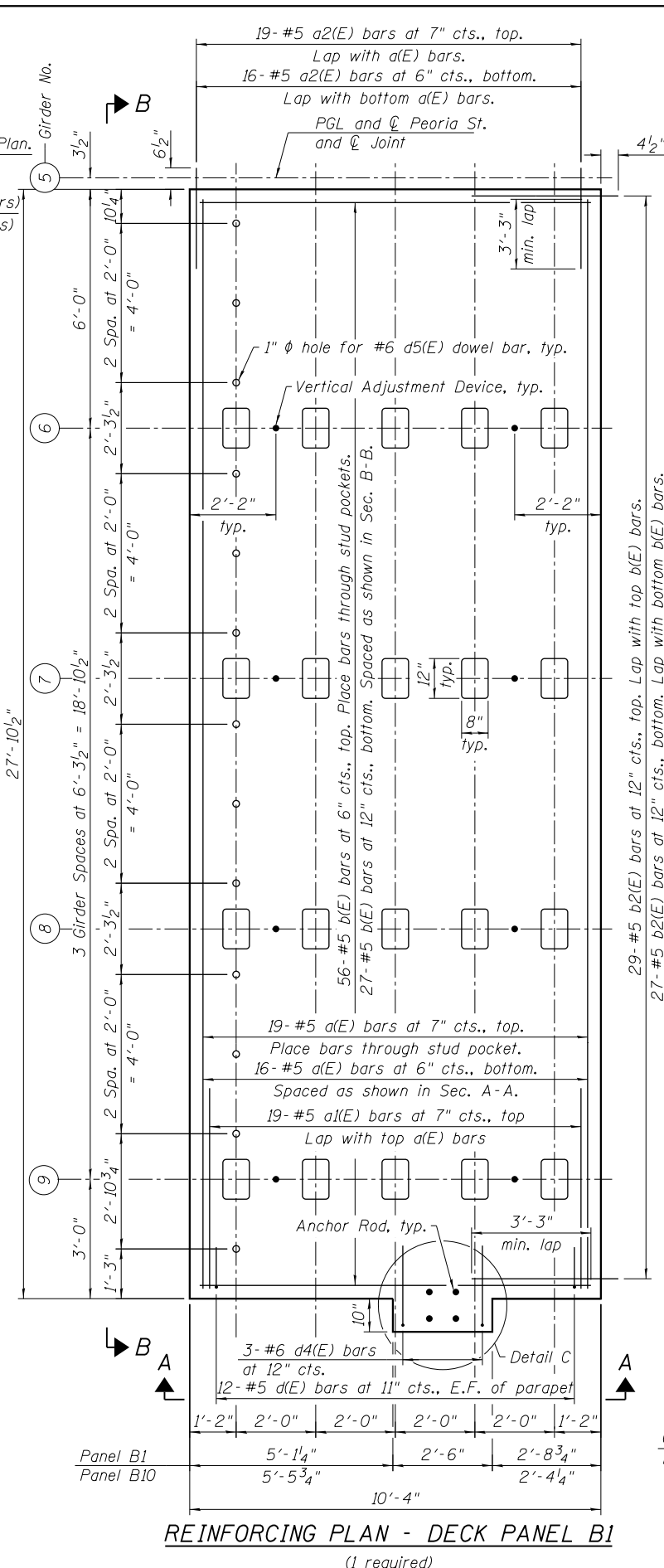
SHEET NO. 17 OF 55 SHEETS

MUN	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO.			60W29	
ILLINOIS FED. AID PROJECT				

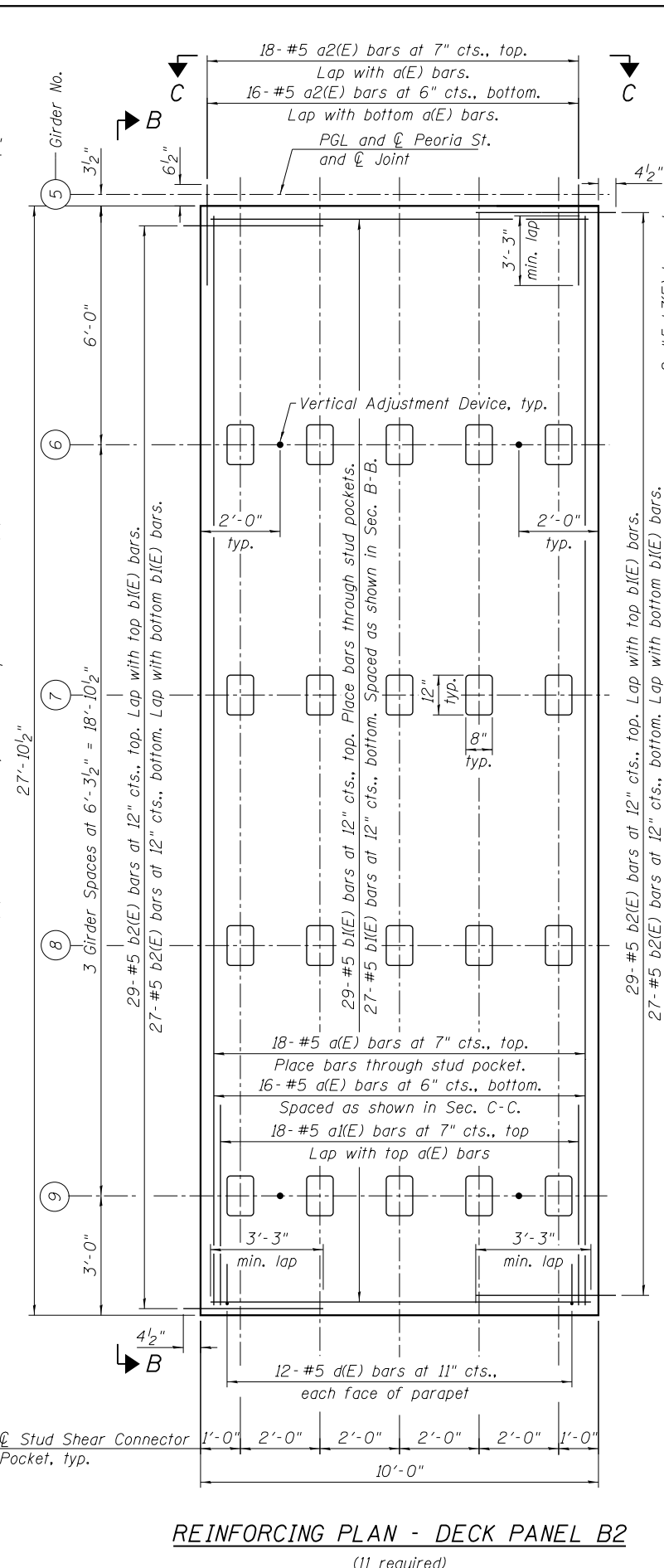
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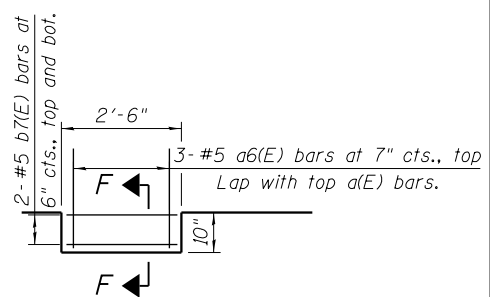
REINFORCING PLAN - DECK PANELS A4 THRU A8
(11 required)



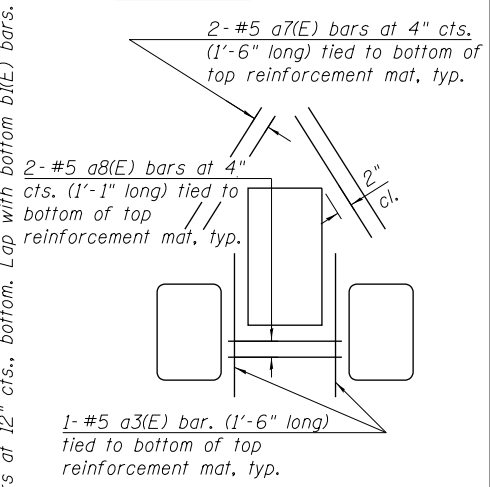
REINFORCING PLAN - DECK PANEL B1
(1 required)
Deck Panel B10 opposite hand (1 required)



REINFORCING PLAN - DECK PANEL B2
(11 required)



DETAIL C



SCUPPER PLAN

Notes:
Provide a 3/4\"/>



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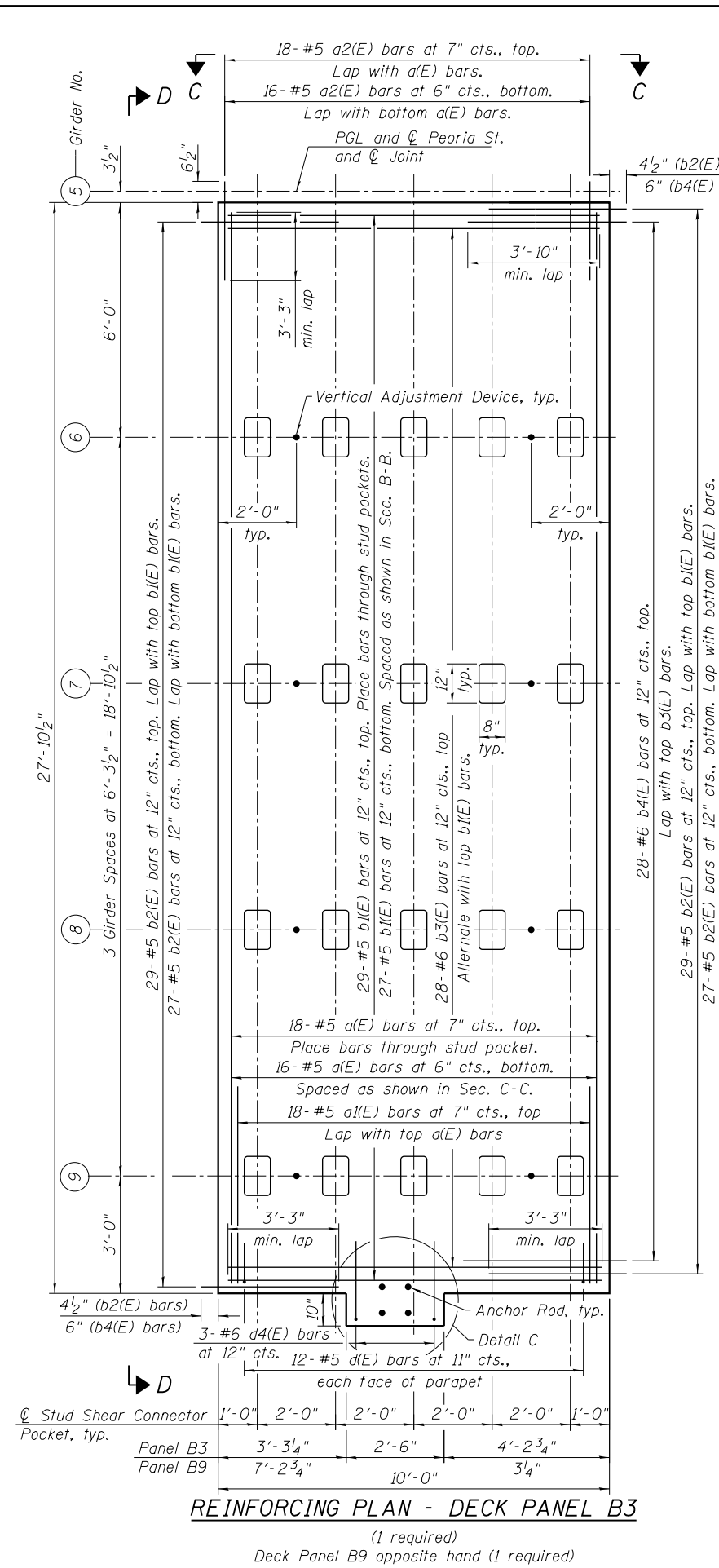
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DEPARTMENT OF TRANSPORTATION

PRECAST DECK PANEL DETAILS 3
STRUCTURE NO. 016-1708

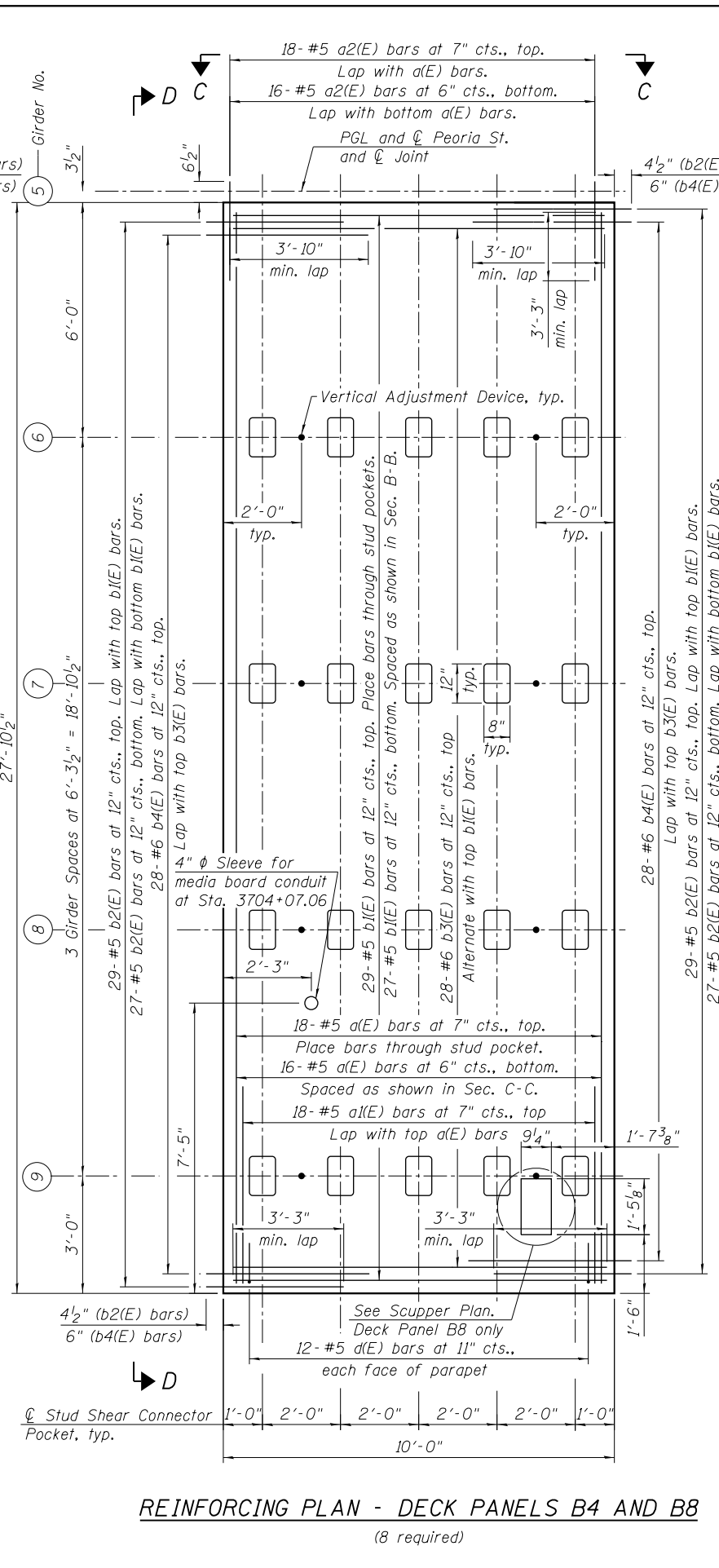
SHEET NO. 18 OF 55 SHEETS

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CONTRACT NO.			60W29	
ILLINOIS FED. AID PROJECT				

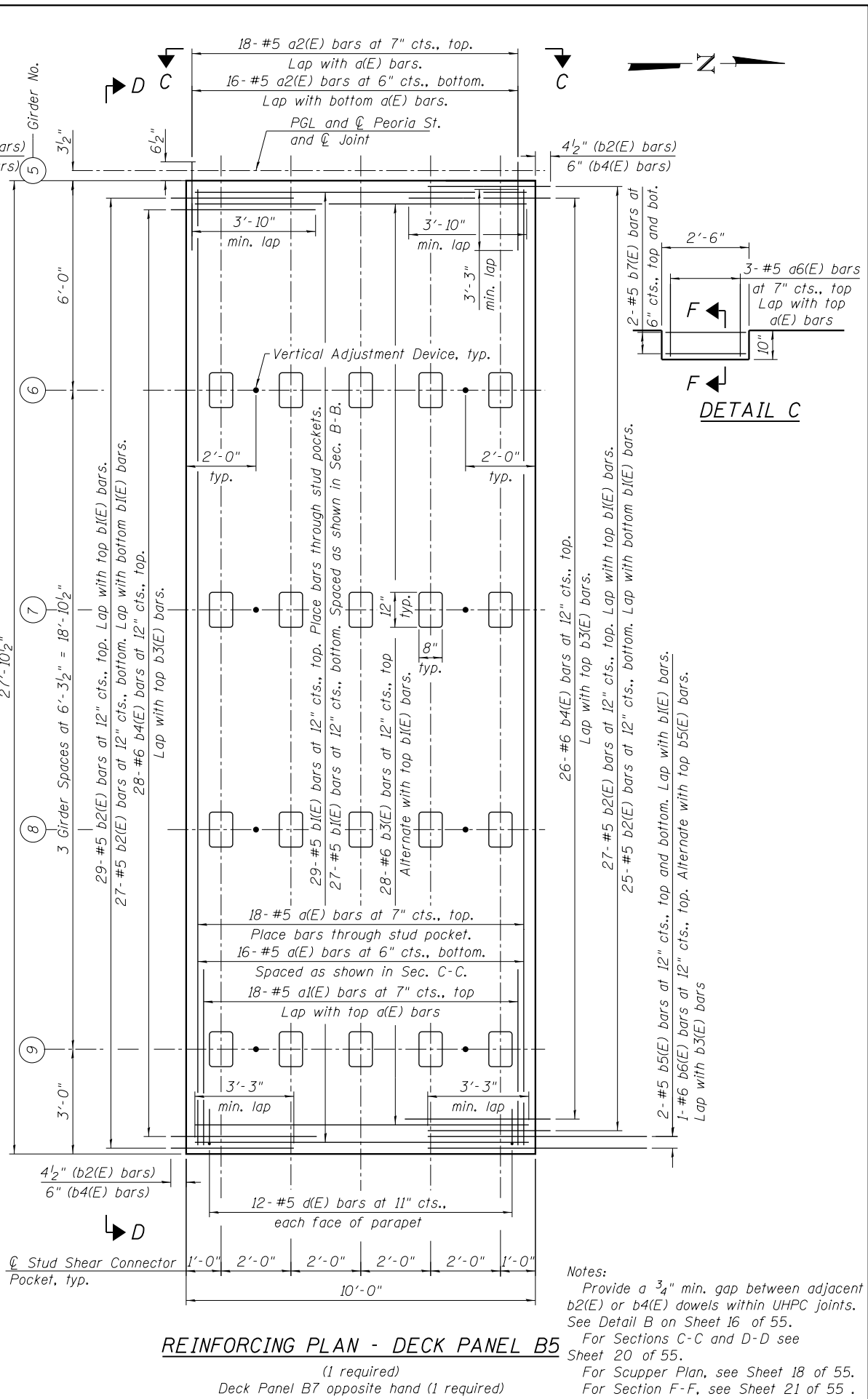
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REINFORCING PLAN - DECK PANEL B3
(1 required)
Deck Panel B9 opposite hand (1 required)



REINFORCING PLAN - DECK PANELS B4 AND B8
(8 required)



REINFORCING PLAN - DECK PANEL B5
(1 required)
Deck Panel B7 opposite hand (1 required)

Notes:
Provide a 3/4" min. gap between adjacent b2(E) or b4(E) dowels within UHPC joints. See Detail B on Sheet 16 of 55.
For Sections C-C and D-D see Sheet 20 of 55.
For Scupper Plan, see Sheet 18 of 55.
For Section F-F, see Sheet 21 of 55.



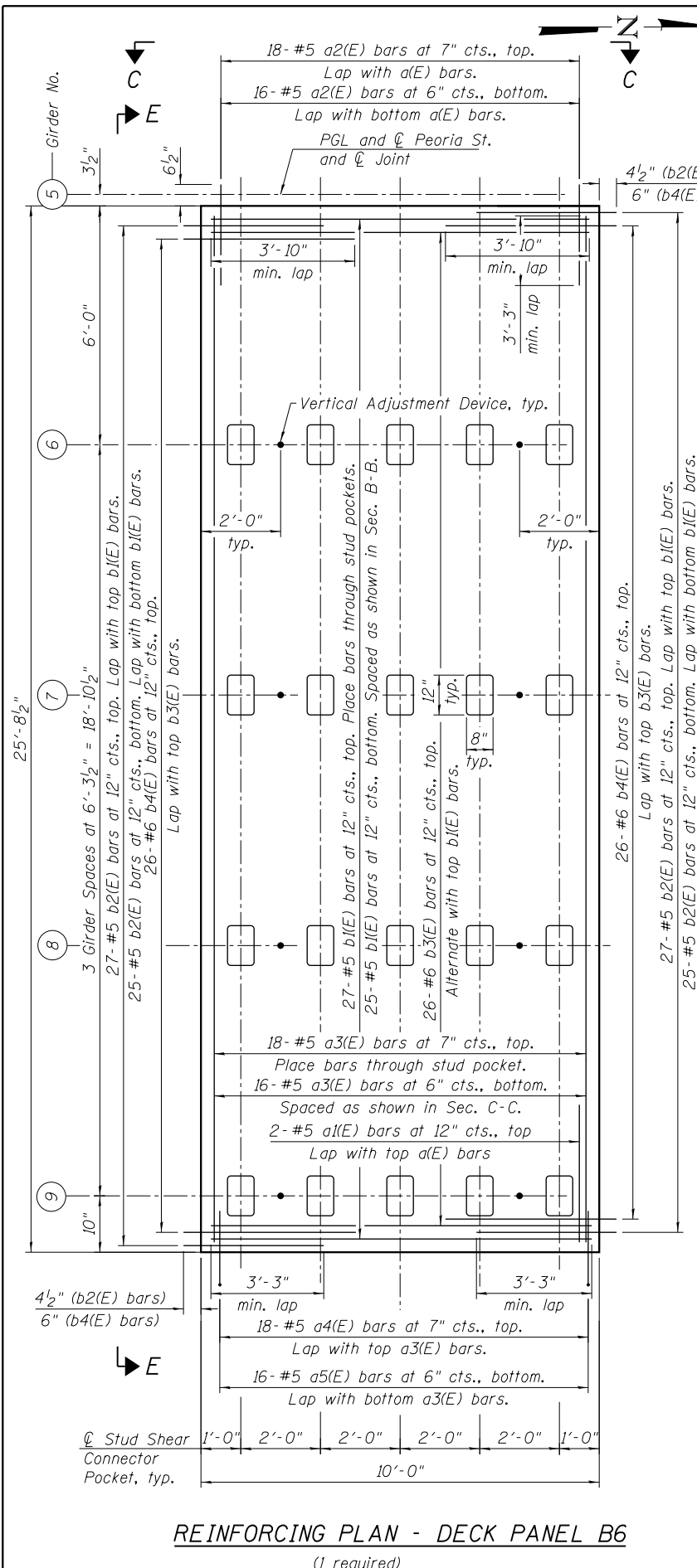
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

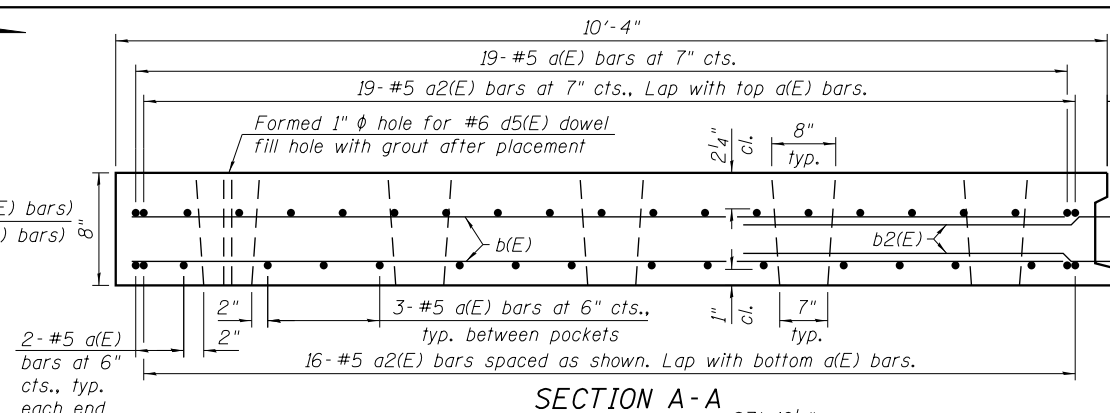
PRECAST DECK PANEL DETAILS 4
STRUCTURE NO. 016-1708

SHEET NO. 19 OF 55 SHEETS

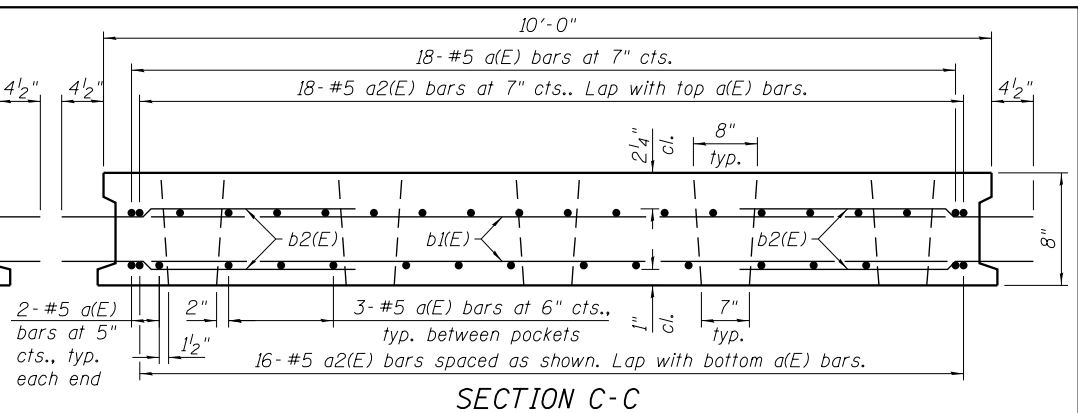
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CONTRACT NO.			60W29	
ILLINOIS FED. AID PROJECT				



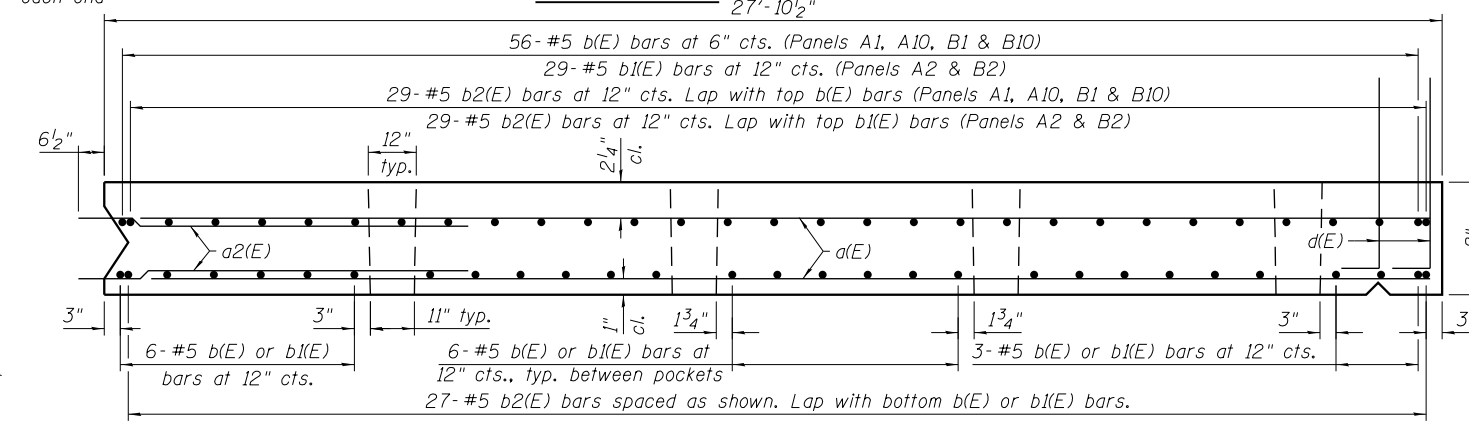
REINFORCING PLAN - DECK PANEL B6
(1 required)



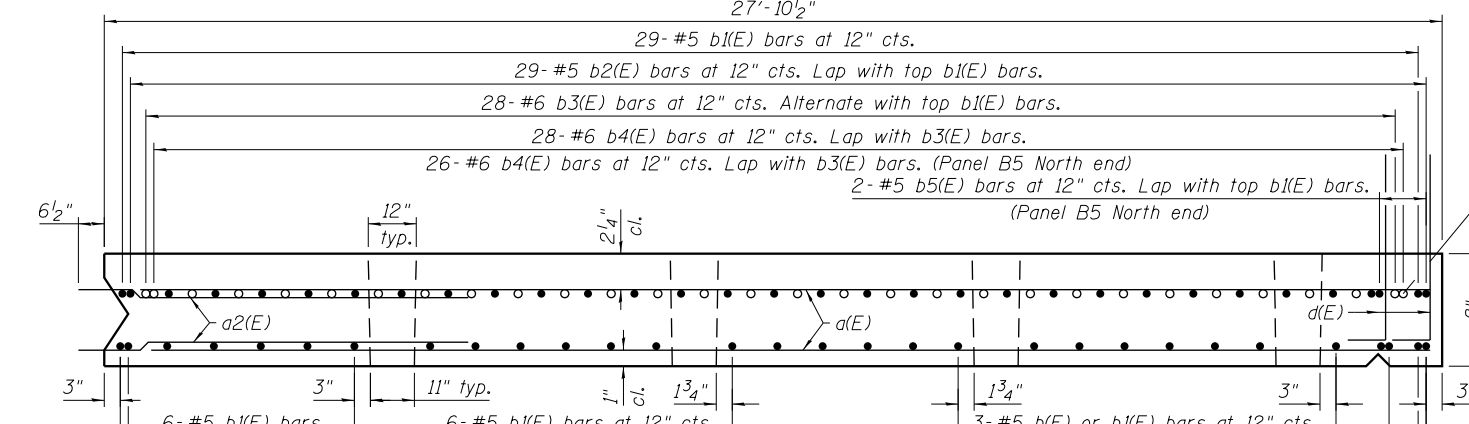
SECTION A-A
27'-10 1/2"



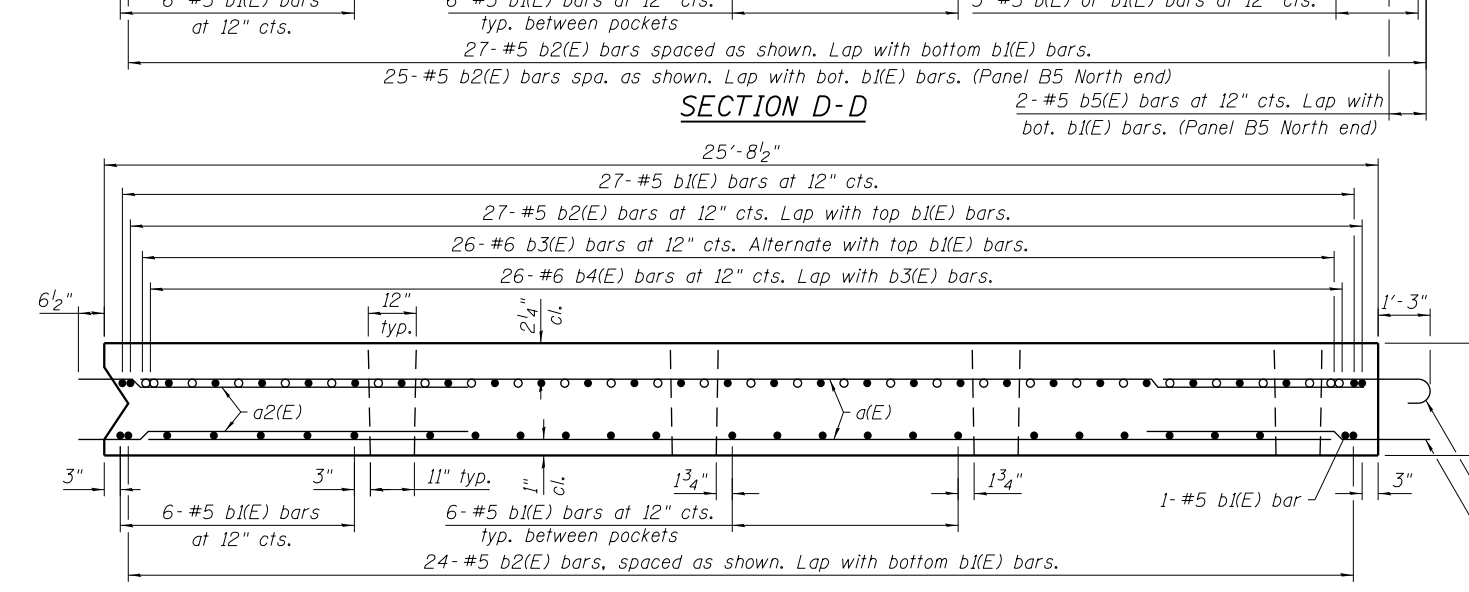
SECTION C-C



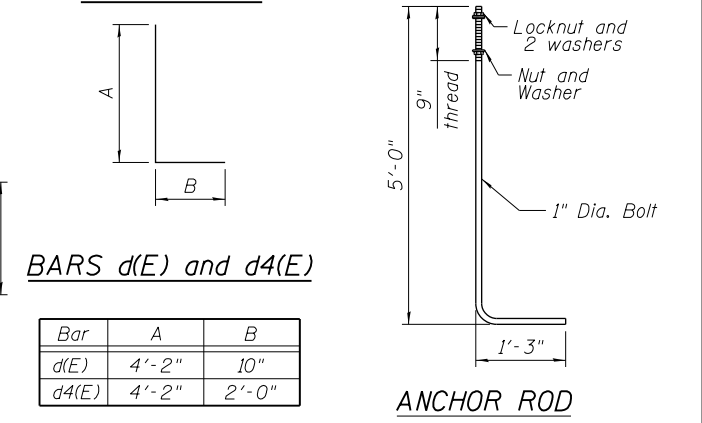
SECTION B-B
27'-10 1/2"



SECTION D-D
27'-10 1/2"



SECTION E-E
25'-8 1/2"



ANCHOR ROD

Cost of anchor rods is included with Precast Concrete Deck Panels. (ASTM F 1554 Grade 105) Full length hot dip galvanized

BARS d(E) and d4(E)

Bar	A	B
d(E)	4'-2"	10"
d4(E)	4'-2"	2'-0"

BAR a4(E)

1-#6 b6(E) bar. Alternate with b5(E) bars. Lap with top b1(E) bar. (Panel B5 North end)

***BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a(E)	1738	#5	27'-6"	—
a1(E)	924	#5	6'-6"	—
a2(E)	1738	#5	4'-0"	—
a3(E)	34	#5	25'-4"	—
a4(E)	18	#5	5'-3"	C
a5(E)	16	#5	5'-4"	—
a6(E)	12	#5	4'-1"	—
a7(E)	12	#5	1'-6"	—
a8(E)	4	#5	1'-1"	—
b(E)	332	#5	10'-0"	—
b1(E)	2684	#5	9'-8"	—
b2(E)	2892	#5	3'-10"	—
b3(E)	726	#6	9'-8"	—
b4(E)	1336	#6	4'-6"	—
b5(E)	4	#5	6'-10"	—
b6(E)	1	#6	8'-0"	—
b7(E)	16	#5	2'-2"	—
d(E)	1144	#5	5'-0"	L
d4(E)	24	#6	6'-2"	L
* Reinforcement Bars, Epoxy Coated			Pound	132,430
* Ultra High Performance Concrete			Cu. Yd.	25.1

* For information only

Notes:
Provide a 3/4" min. gap between adjacent b2(E) or b4(E) dowels within UHPC joints. See Detail B on sheet 16 of 55.

11:03:39 PM 01/16/1708-60W29-5020-Deck_PnlDet5.dgn



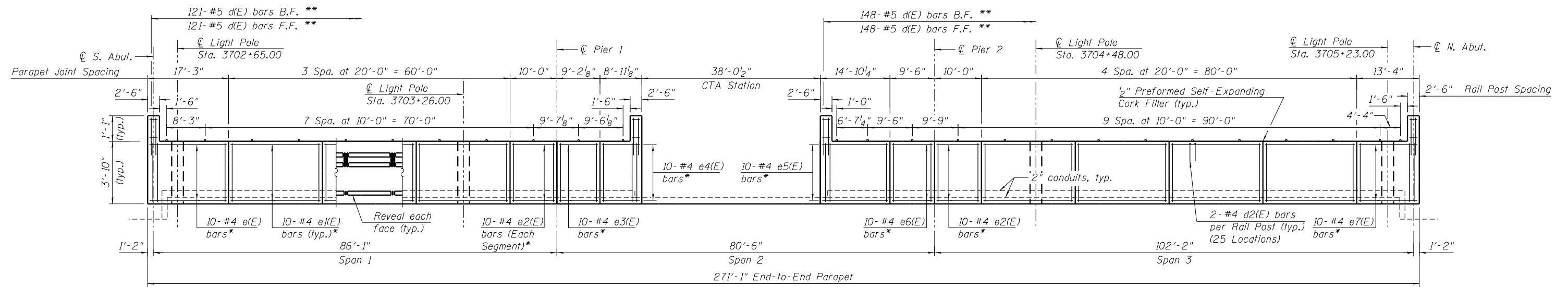
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PRECAST DECK PANEL DETAILS 5
STRUCTURE NO. 016-1708

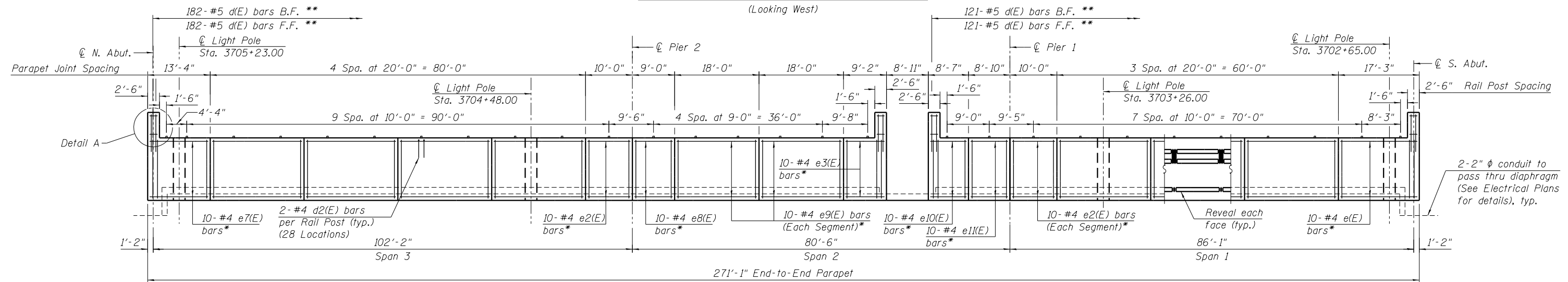
SHEET NO. 20 OF 55 SHEETS

MUN	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2090	2013-011R	COOK	356	152
CONTRACT NO.			60W29	
ILLINOIS FED. AID PROJECT				



INSIDE ELEVATION OF WEST PARAPET

(Looking West)

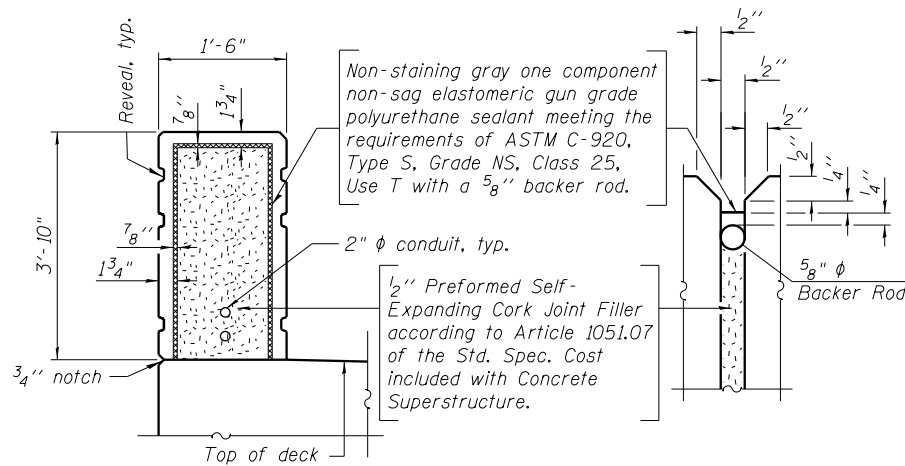


INSIDE ELEVATION OF EAST PARAPET

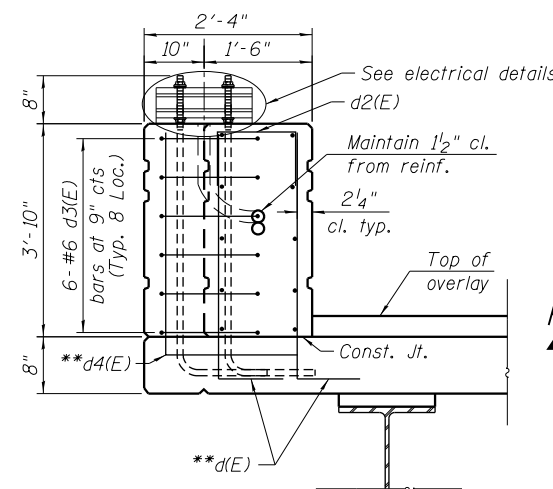
(Looking East)

- * See Section thru Parapet on Sheet 23 of 55.
- ** See Sheets 17 thru 20 of 55 for spacing of d(E) and d4(E) bars. Bars are included with Precast Deck Panels. See Sheet 20 of 55 for Bill of Material.

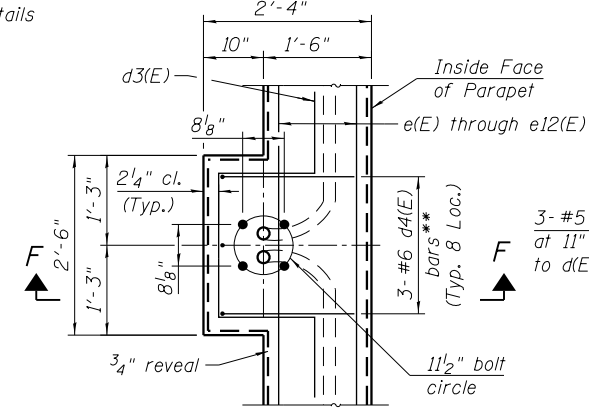
Notes:
 For notes, bar diagrams, section through parapet and Bill of Material, see Sheet 23 of 55.
 All edges shall be chamfered 3/4".
 For architectural details on the parapets and Decorative Railing (Parapet Mounted) details, see Sheet 26 of 55.
 For Bridge Fence Railing (Special) layout and post spacing, see Sheet 28 of 55.
 For Bridge Fence Railing (Special) details, see Sheet 29 of 55.
 The cost of reveal is included in cost of Concrete Superstructure.



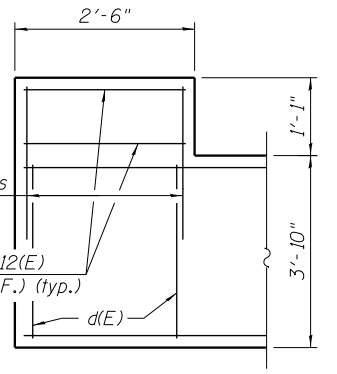
PARAPET JOINT DETAILS



SECTION F-F



PARAPET DETAIL AT LIGHTPOLE



DETAIL A

11:03:40 PM 01/16/17 08-60W29-5021-Parapet.dgn



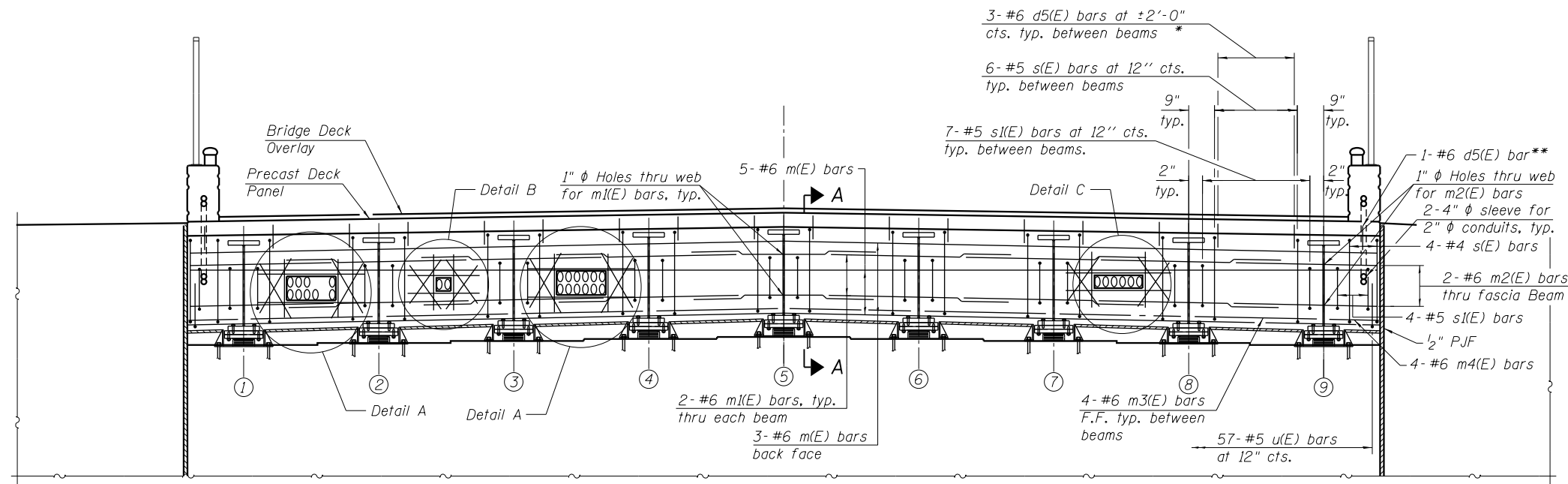
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PLOT DATE = 10/28/2013	CHECKED = DL	REVISED

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**PARAPET ELEVATIONS AND DETAILS
 STRUCTURE NO. 016-1708**

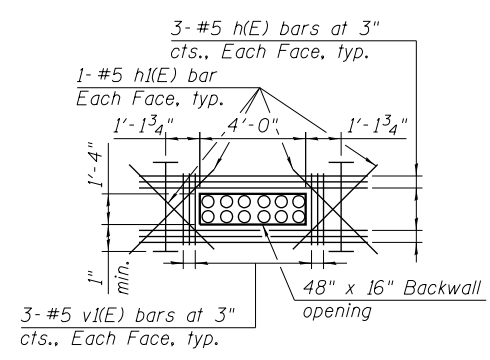
SHEET NO. 21 OF 55 SHEETS

MUN	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO.			60W29	
ILLINOIS FED. AID PROJECT				

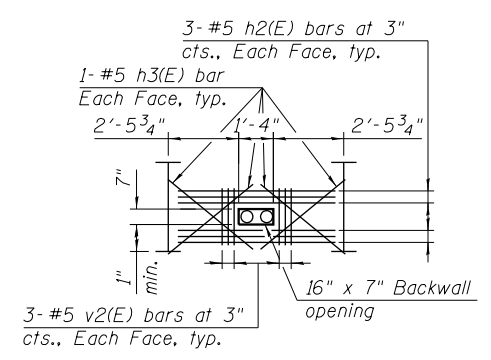


DIAPHRAGM ELEVATION
(North Abutment shown, South Abutment opposite hand)

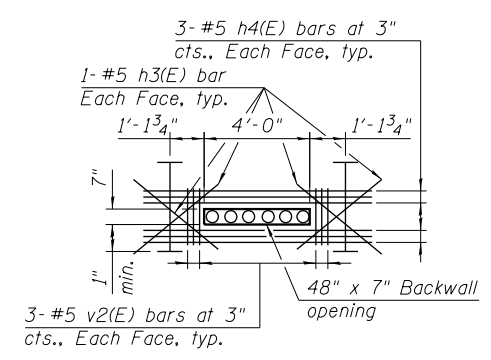
* See Sheets 17 thru 20 of 55 for spacing of d5(E) bars.



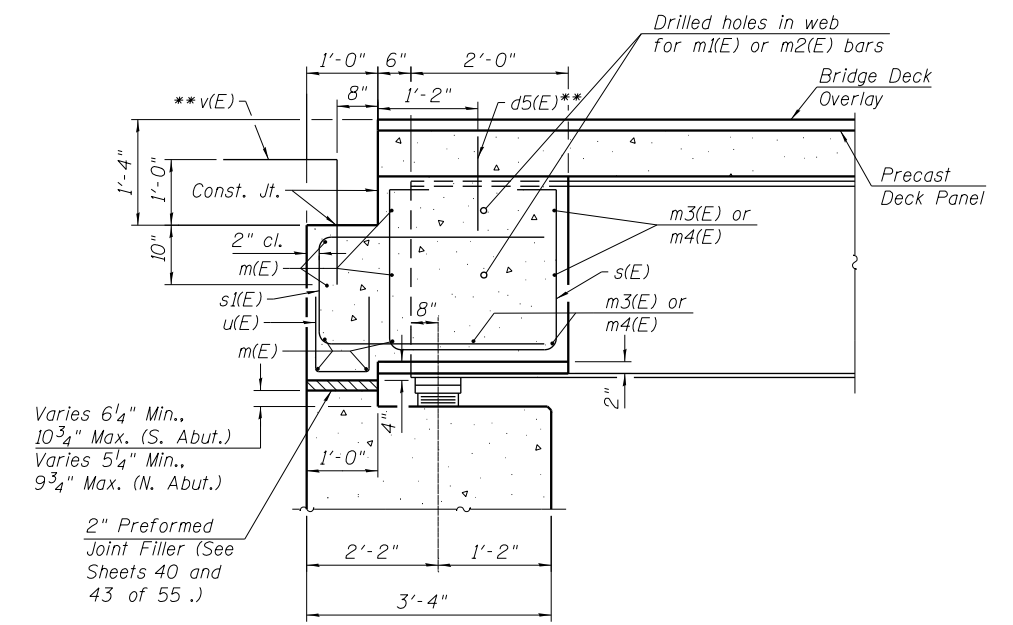
DETAIL A



DETAIL B



DETAIL C



SECTION A-A

** d5(E) and v(E) bars shall be drill and set.

Note:
Utility sleeve installed in this Contract. Conduit provided by Others. Contractor to coordinate with utility owner for location and size of the utility sleeves. Cost of utility sleeves included in Concrete Structures.
See Sheet 23 of 55 for Bill of Material.
See Sheet 24 of 55 for spacing of v(E) bars.

11:03:44 PM 01/17/08-60W29-5022-SuperStruct-Detail.dgn

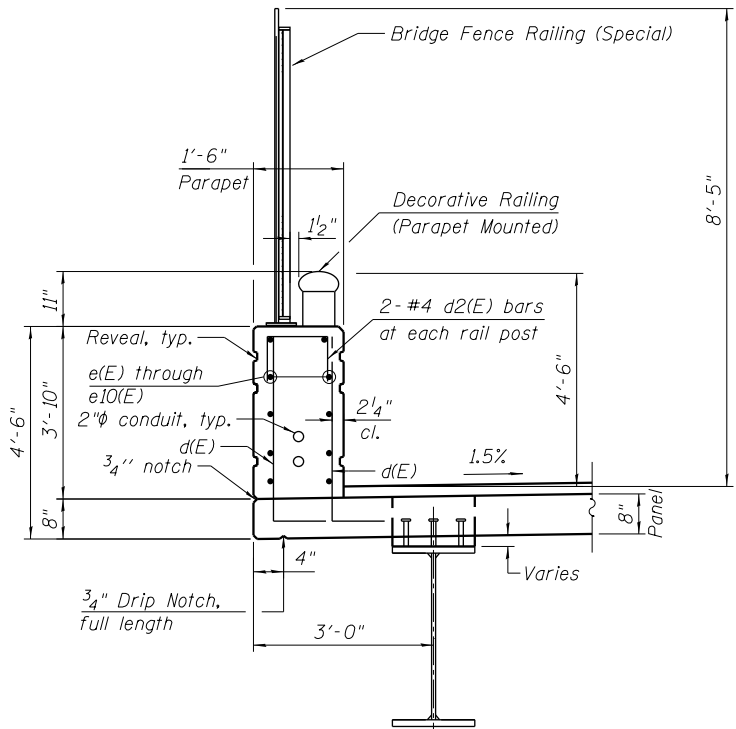


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PLOT DATE = 10/28/2013	CHECKED JRM	REVISED

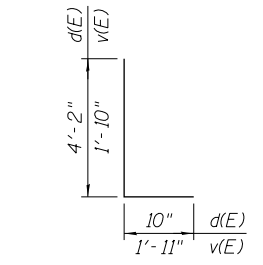
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SUPERSTRUCTURE DETAILS 1
STRUCTURE NO. 016-1708**
SHEET NO. 22 OF 55 SHEETS

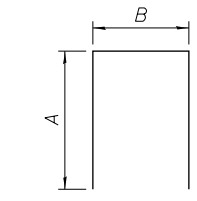
MUN 2090	SECTION 2013-011R	COUNTY COOK	TOTAL SHEETS 356	SHEET NO. 154
CONTRACT NO. 60W29			ILLINOIS FED. AID PROJECT	



SECTION THROUGH WEST PARAPET
(Looking Up-Station, East Parapet similar, opposite hand)

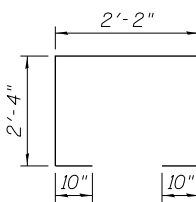


BAR d(E) and v(E)

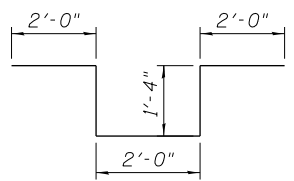


BARS d1(E), d2(E), s1(E) & u(E)

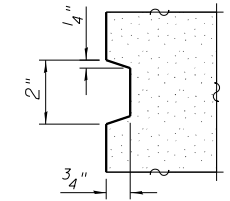
Bar	A	B
d1(E)	2'-5"	1'-1"
d2(E)	9"	11"
s1(E)	3'-2"	2'-0"
u(E)	1'-0"	8"



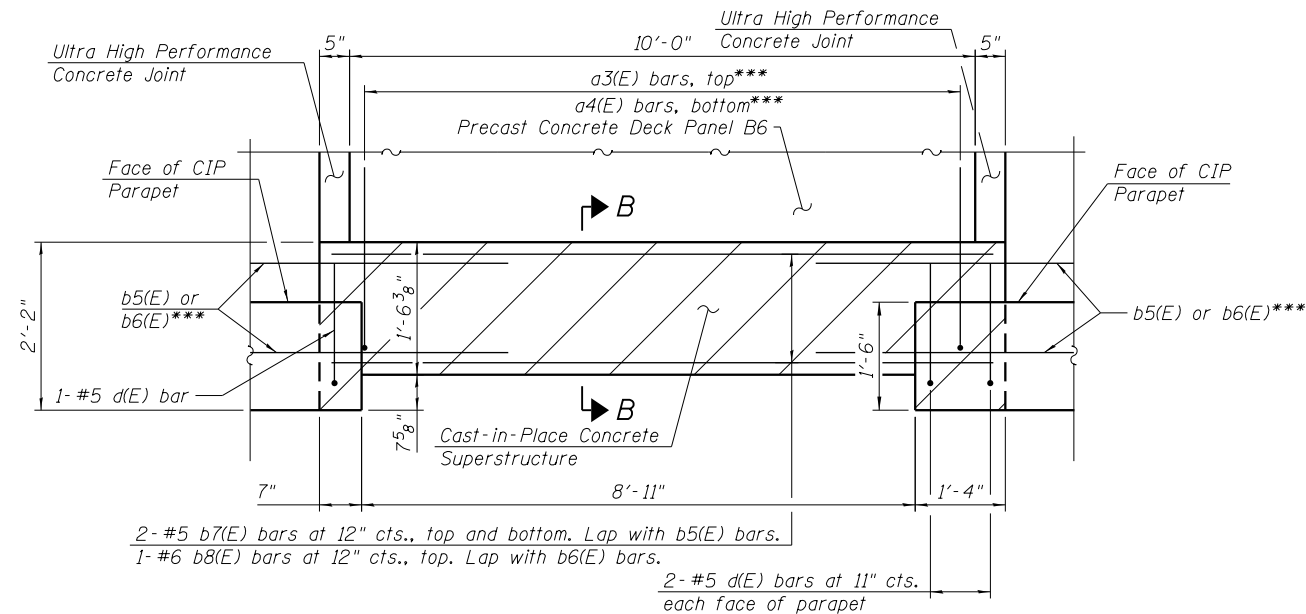
BAR s(E)



BARS d3(E)

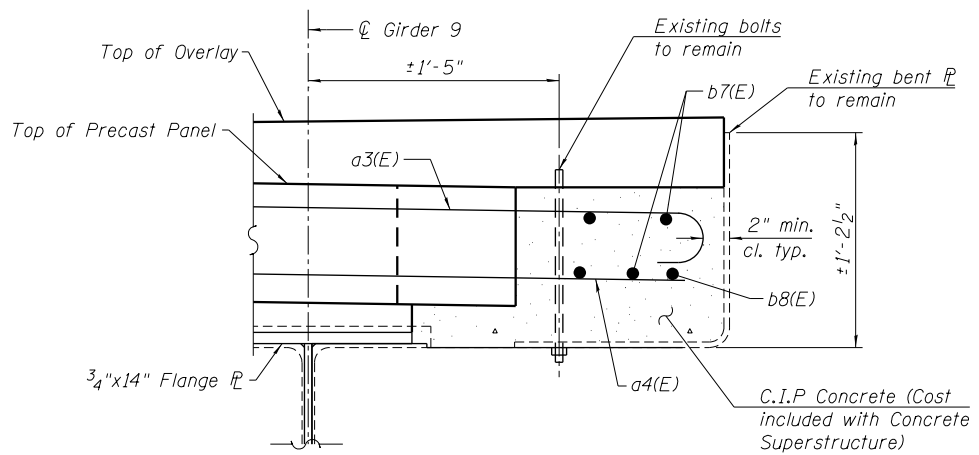


REVEAL DETAIL



DETAIL E
(At CTA Stairway)

*** Bars are included with Precast Deck Panels. See sheet 20 of 55 for Bill of Material.



SECTION B-B

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
b7(E)	4	#5	10'-6"	—
b8(E)	1	#6	10'-6"	—
d(E)	6	#5	5'-0"	└
d1(E)	24	#5	5'-11"	└
d2(E)	106	#4	2'-5"	└
d3(E)	48	#6	8'-8"	└
d5(E)	52	#6	1'-6"	—
e(E)	20	#4	16'-11"	—
e1(E)	140	#4	19'-8"	—
e2(E)	40	#4	9'-8"	—
e3(E)	20	#4	8'-10"	—
e4(E)	10	#4	8'-7"	—
e5(E)	10	#4	14'-6"	—
e6(E)	10	#4	8'-8"	—
e7(E)	20	#4	13'-0"	—
e8(E)	10	#4	8'-8"	—
e9(E)	20	#4	17'-8"	—
e10(E)	10	#4	8'-3"	—
e11(E)	10	#4	8'-6"	—
e12(E)	32	#4	2'-2"	—
h(E)	24	#5	9'-4"	—
h1(E)	16	#5	4'-3"	—
h2(E)	12	#5	5'-2"	—
h3(E)	8	#5	3'-3"	—
h4(E)	12	#5	7'-10"	—
m(E)	16	#6	56'-0"	—
m1(E)	28	#6	10'-2"	—
m2(E)	8	#6	7'-11"	—
m3(E)	64	#6	5'-11"	—
m4(E)	16	#6	2'-8"	—
s(E)	112	#5	8'-6"	└
s1(E)	128	#5	8'-4"	└
u(E)	114	#5	2'-8"	└
v(E)	62	#5	3'-9"	└
v1(E)	24	#5	3'-0"	—
v2(E)	12	#5	2'-3"	—
Concrete Superstructure			Cu. Yd.	145.2
Protective Coat			Sq. Yd.	615
Reinforcement Bars, Epoxy Coated			Pound	10,200

MIN. BAR LAP
#6 bar = 3'-10"

Note:
See sheet 35 of 55 for additional CTA Stairway connection details.

11:04:04 PM 01/17/08-60W29-5023-SuperStruct-Detail2.dgn



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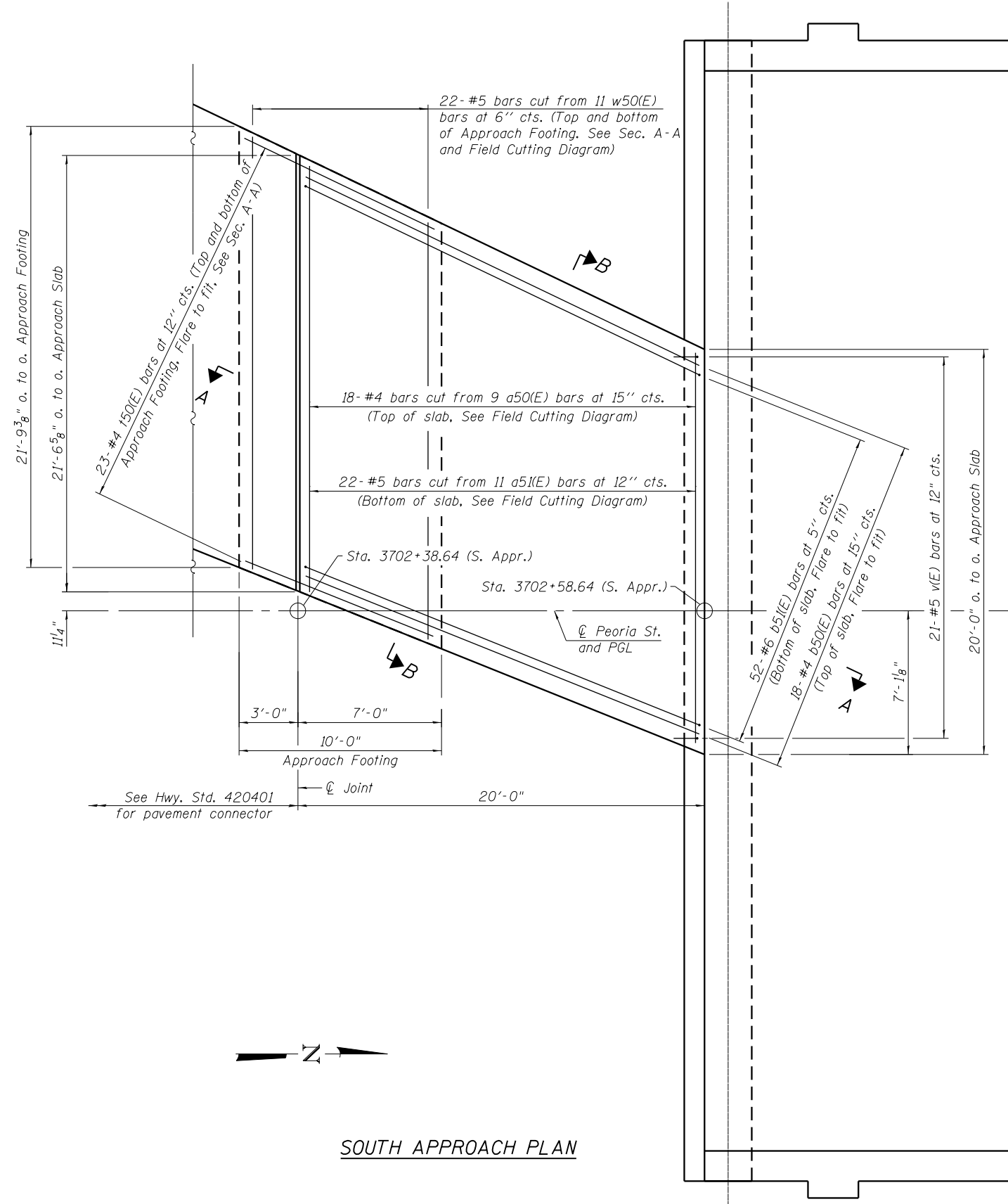
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS 2
STRUCTURE NO. 016-1708

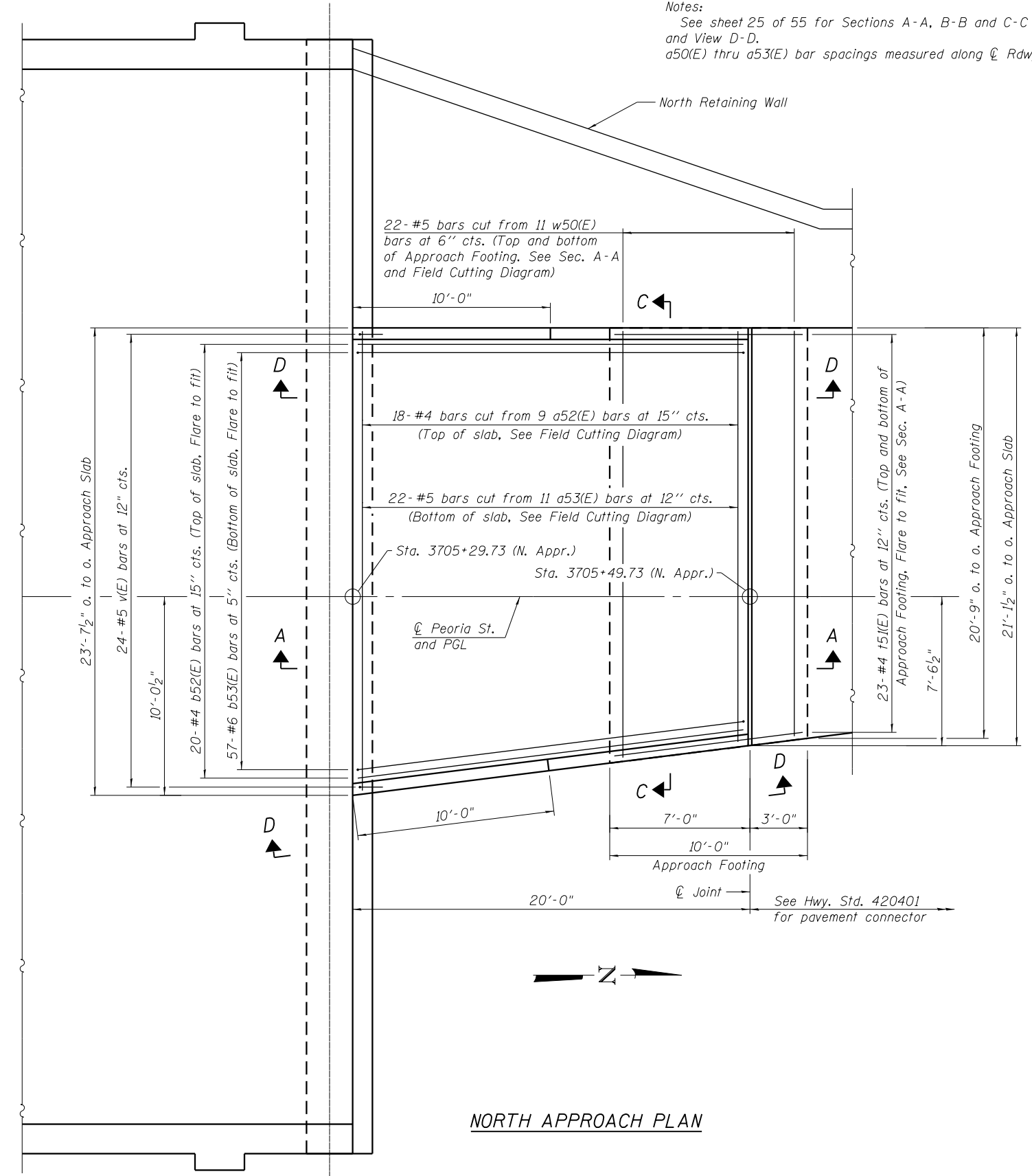
SHEET NO. 23 OF 55 SHEETS

MUN	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2090	2013-011R	COOK	356	155
CONTRACT NO.			60W29	
ILLINOIS FED. AID PROJECT				

Notes:
 See sheet 25 of 55 for Sections A-A, B-B and C-C
 and View D-D.
 a50(E) thru a53(E) bar spacings measured along $\text{\textcircled{C}}$ Rdwy.



SOUTH APPROACH PLAN



NORTH APPROACH PLAN

11/04/18 PM 01:17:08-60W29-5024-ApprSlab_Details1.dgn



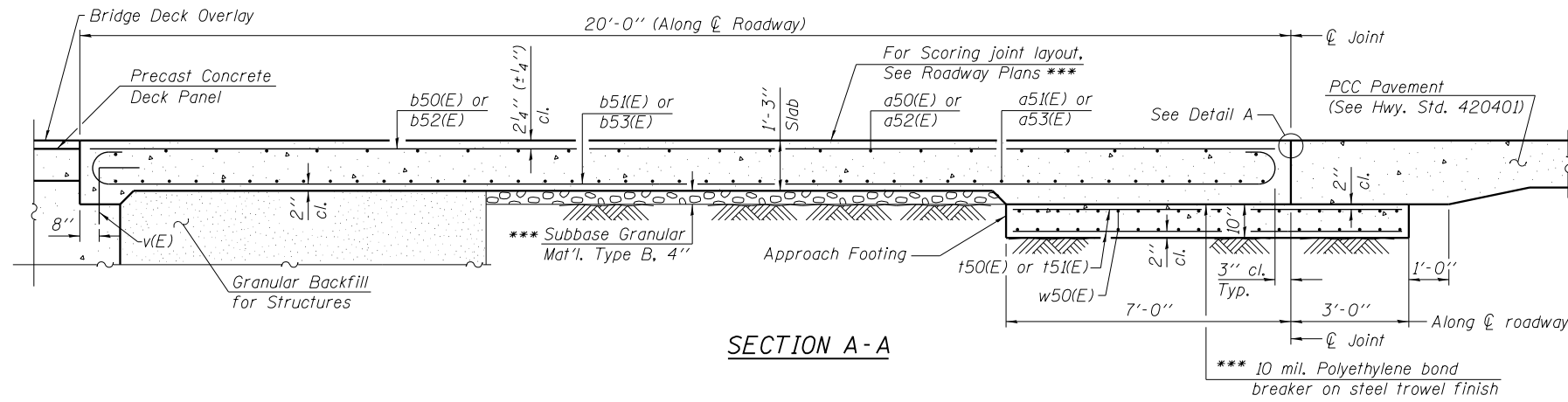
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PLOT DATE = 10/28/2013	CHECKED DL	REVISED

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**BRIDGE APPROACH SLAB DETAILS 1
 STRUCTURE NO. 016-1708**

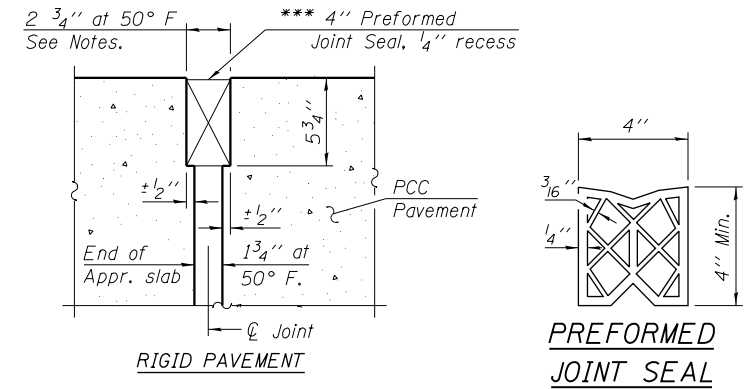
SHEET NO. 24 OF 55 SHEETS

MUN	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO.			60W29	
ILLINOIS FED. AID PROJECT				

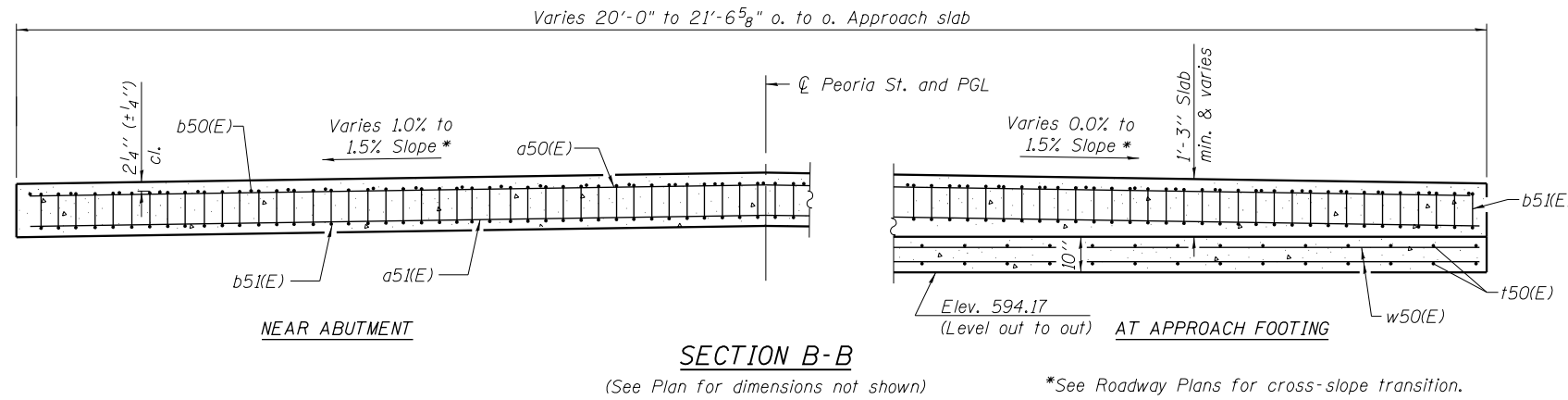


Notes:
 Approach slab and curb concrete shall be paid for as Concrete Superstructure.
 Approach footing concrete shall be paid for as Concrete Structures.
 Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
 For v(E) bar details, see sheet 23 of 55.
 The approach footing maximum applied service bearing pressure (Q_{max}) = 2.0 ksf.
 Cost of excavation for approach footing included with Concrete Structures.
 For Granular Backfill for Structures and drainage treatment details, see sheet 40 of 55.
 The joint opening shall be determined per Article 520.04 except that on jointless structures, the distance described as the bridge length between the nearest fixed bearings each way from the joint shall be taken as half the bridge length plus the approach slab length. The minimum dimension shall be 1 1/2" for installation purposes.

*** Cost included with Concrete Superstructure.

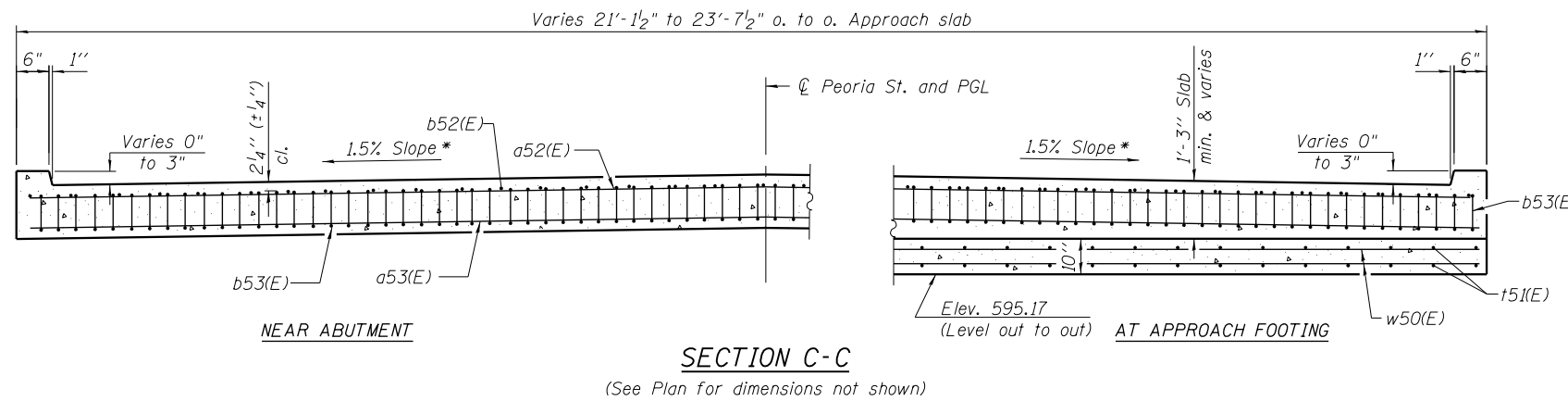


DETAIL A



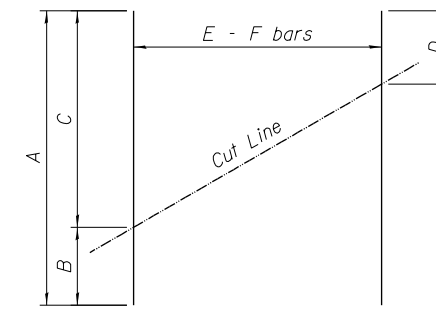
SECTION B-B

(See Plan for dimensions not shown) *See Roadway Plans for cross-slope transition.



SECTION C-C

(See Plan for dimensions not shown)



FIELD CUTTING DIAGRAM

Order bars full length. Cut as Shown and use remainder of bars in opposite face.

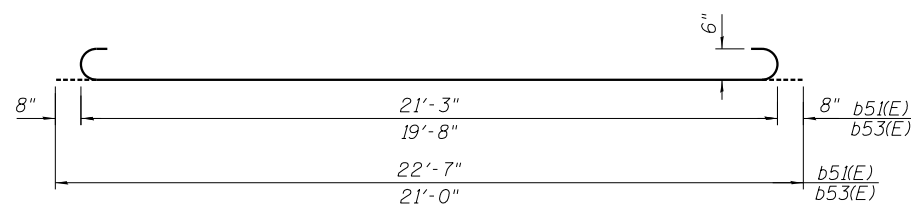
FIELD CUTTING TABLE

Bar	A	B	C	D	E	F
a50(E)	40'-10"	19'-8"	21'-2"	20'-6"	9	#4
a51(E)	40'-10"	19'-8"	21'-2"	20'-5"	11	#5
a52(E)	44'-1"	20'-10"	23'-3"	22'-1"	9	#4
a53(E)	44'-1"	20'-10"	23'-3"	22'-1"	11	#5
w50(E)	42'-1"	20'-5"	21'-8"	21'-1"	11	#5

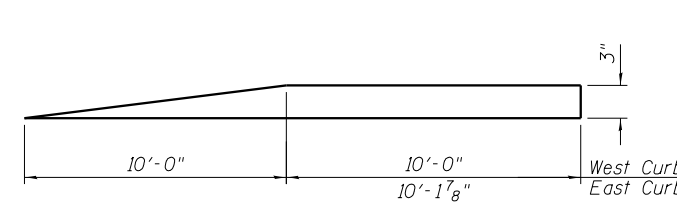
TWO APPROACHES
 BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a50(E)	9	#4	40'-10"	————
a51(E)	11	#5	40'-10"	————
a52(E)	9	#4	44'-1"	————
a53(E)	11	#5	44'-1"	————
** b50(E)	18	#4	21'-10"	————
b51(E)	52	#6	22'-7"	⌋
** b52(E)	20	#4	19'-10"	————
b53(E)	57	#6	21'-0"	⌋
t50(E)	46	#4	10'-5"	————
t51(E)	46	#4	9'-8"	————
w50(E)	44	#5	42'-1"	————
Concrete Superstructure			Cu. Yd.	40.1
Concrete Structures			Cu. Yd.	13.3
Reinforcement Bars, Epoxy Coated			Pound	7,360

** Cut to fit in field



BAR b51(E) or b53(E)



VIEW D-D

11:04:19 PM
 0161708-60W29-5025-ApprSlab_Details2.dgn



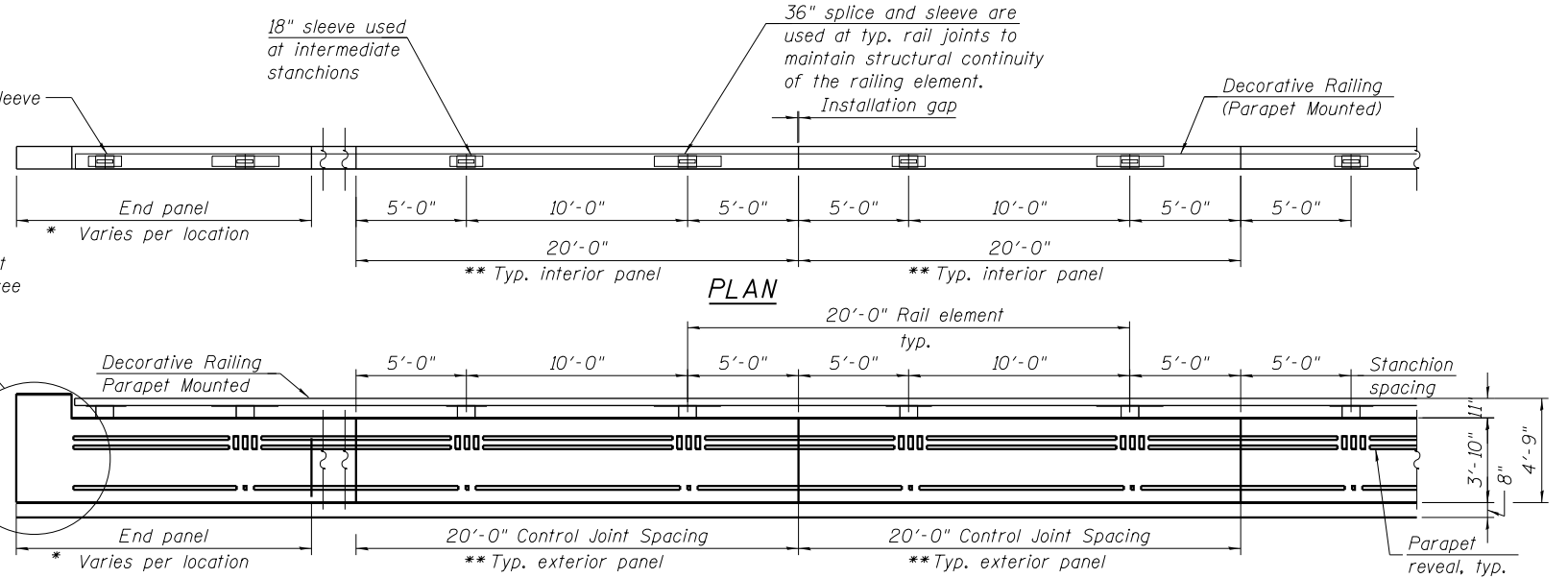
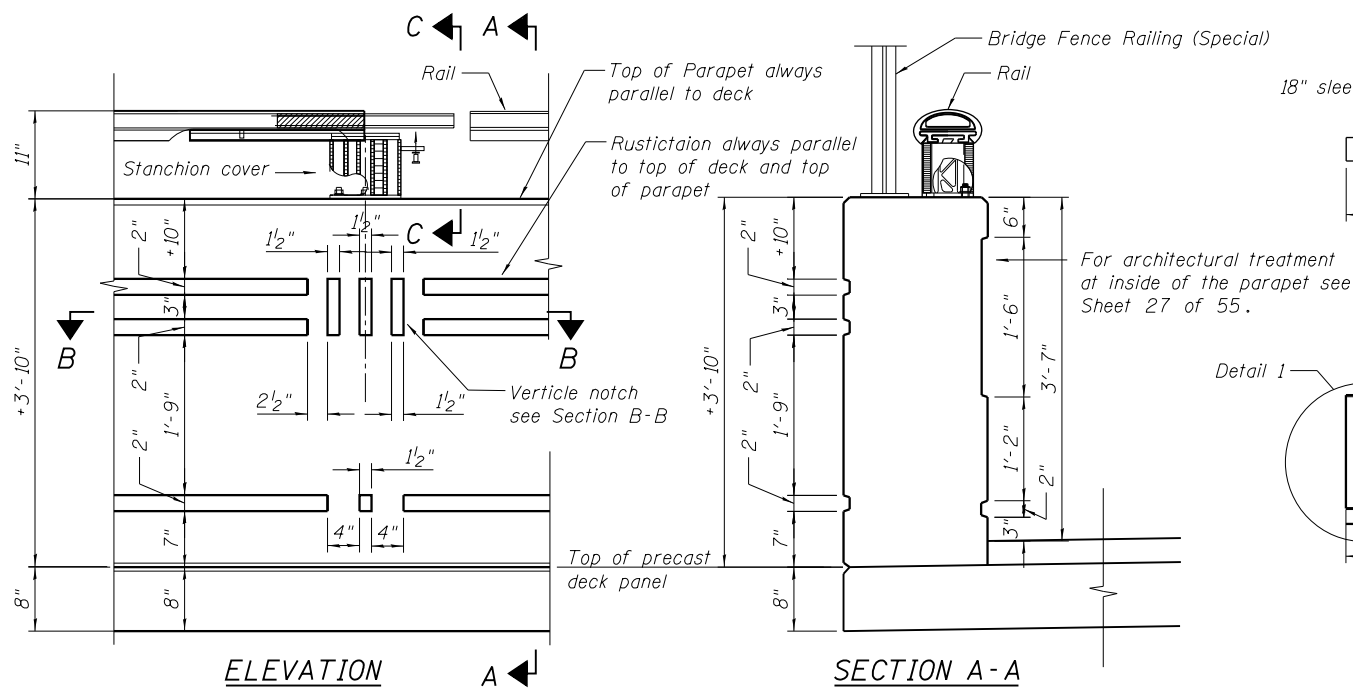
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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

BRIDGE APPROACH SLAB DETAILS 2
 STRUCTURE NO. 016-1708

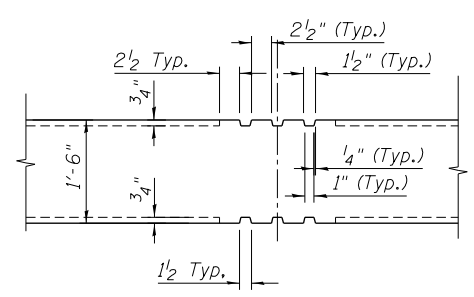
SHEET NO. 25 OF 55 SHEETS

MUN	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO.			60W29	
ILLINOIS FED. AID PROJECT				

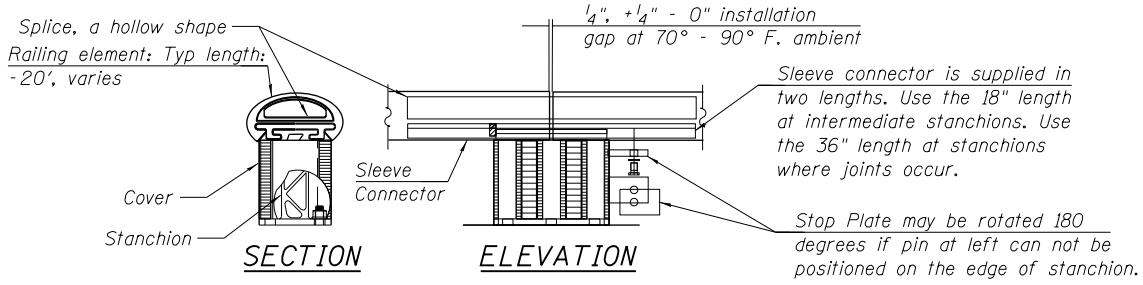


ELEVATION - LOOKING FROM OUTSIDE OF BRIDGE
RAIL DETAIL - STANCHION LOCATION AND SPACING

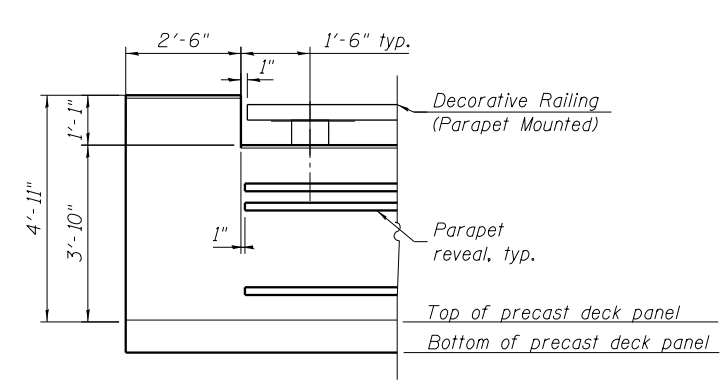
* Dimensions vary per location.
 ** Some interior panels are not 20' long.



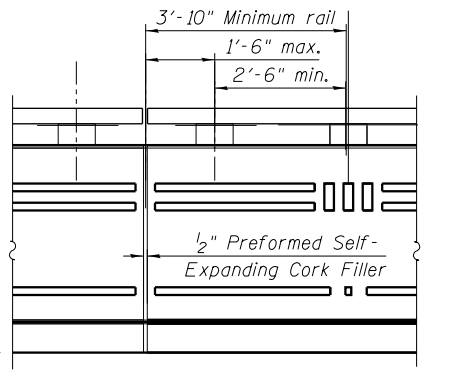
SECTION B-B



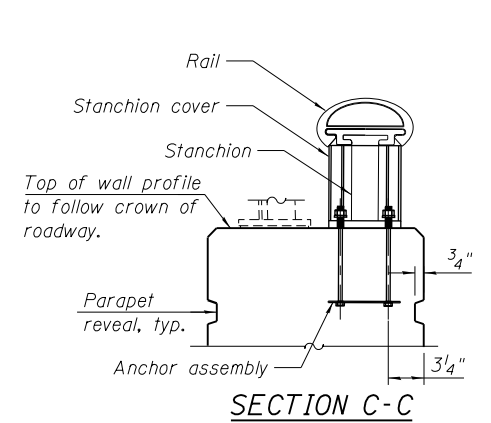
TYPICAL CHICAGO RAIL DETAIL



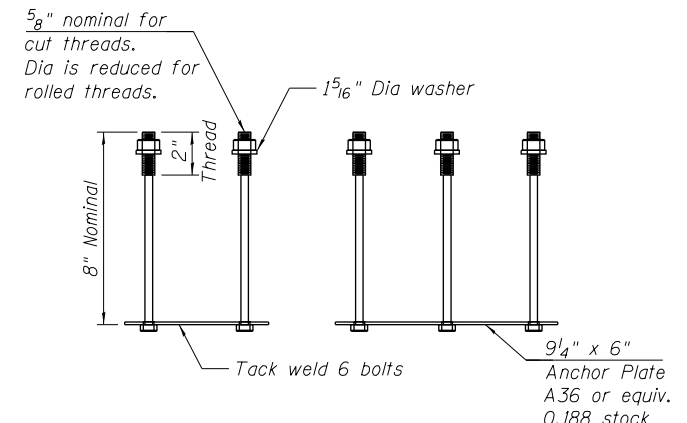
RAIL DETAIL 1 - AT END OF PARAPET



RAIL DETAIL 2 - AT EXPANSION JOINT

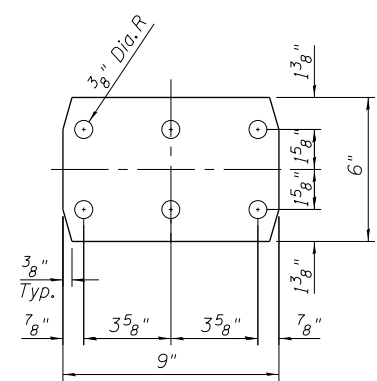


SECTION C-C



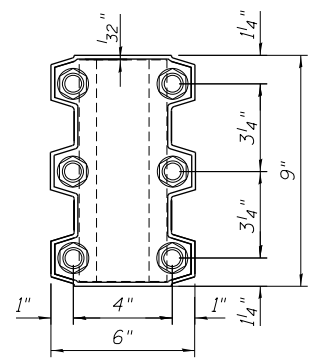
ANCHOR ASSEMBLY
NOTES:

- All fasteners to meet, or exceed, ASTM A307 Grade C strength requirements.
- Galvanize per Article 509.05 of the Standard Specifications after fabrication.
- The size and position of parapet reinforcing must be consistent with capture of the anchor assembly. See Sheet 21 of 55 for rebar details.

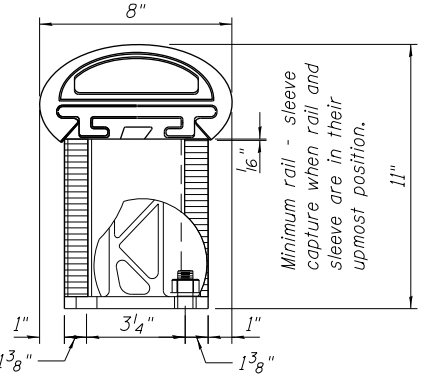


ELASTOMERIC PAD
NOTES:

- Elastomeric pad for stanchion made from 1/16\"/>
- One required per stanchion.



PLAN VIEW



ELEVATION

STANCHION COVER
NOTES:

- Cover is shown superimposed over stanchion with anchors in place.
- The stanchion cover is a non-structural element, serving an aesthetic function. It rests on the flange of the stanchion, without fasteners and is captured in place by the rail and stanchion.

Notes:
 Rustication may vary at terminal ends and is subject to site conditions and site approval. In all other situations, the middle 2.5\"/>

BILL OF MATERIAL

Item	Unit	Total
Decorative Railing (Parapet Mounted)	Foot	476

11:04:20 PM 0161708-60W29-5026-Railing-ParapetMtd.dgn



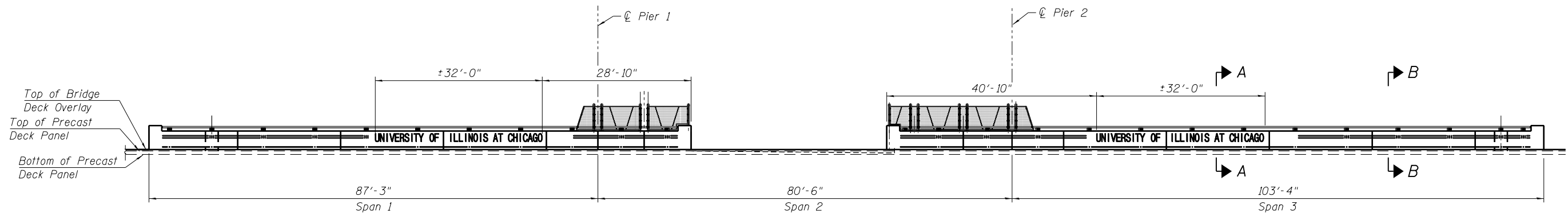
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

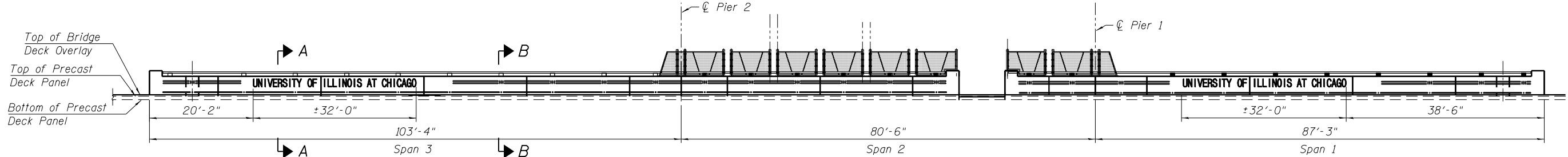
DECORATIVE RAILING PARAPET MOUNTED
STRUCTURE NO. 016-1708

SHEET NO. 26 OF 55 SHEETS

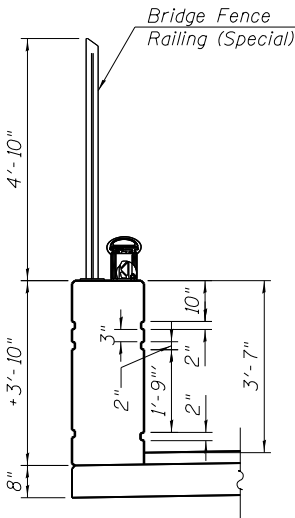
MUN	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2090	2013-011R	COOK	356	158
CONTRACT NO.			60W29	
ILLINOIS FED. AID PROJECT				



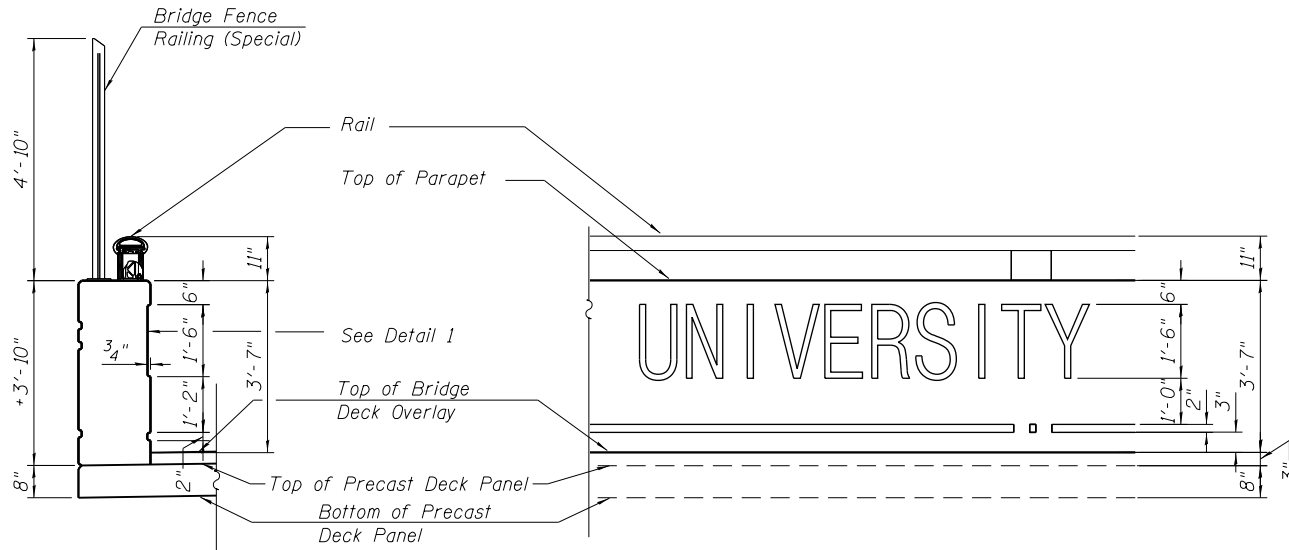
INSIDE ELEVATION OF WEST PARAPET



INSIDE ELEVATION OF EAST PARAPET



SECTION B-B



SECTION A-A

DETAIL 1 - LETTERING

Notes:
 Lettering in the Chicago wall parapet shall be included in the cost of Formliner Textured Surface.
 Font for Lettering shall be coordinated with UIC.

BILL OF MATERIAL

Item	Unit	Quantity
Form Liner Textured Surface	Sq. Ft.	192

11:04:22 PM
 0161708-60W29-5027-Parapet.dgn



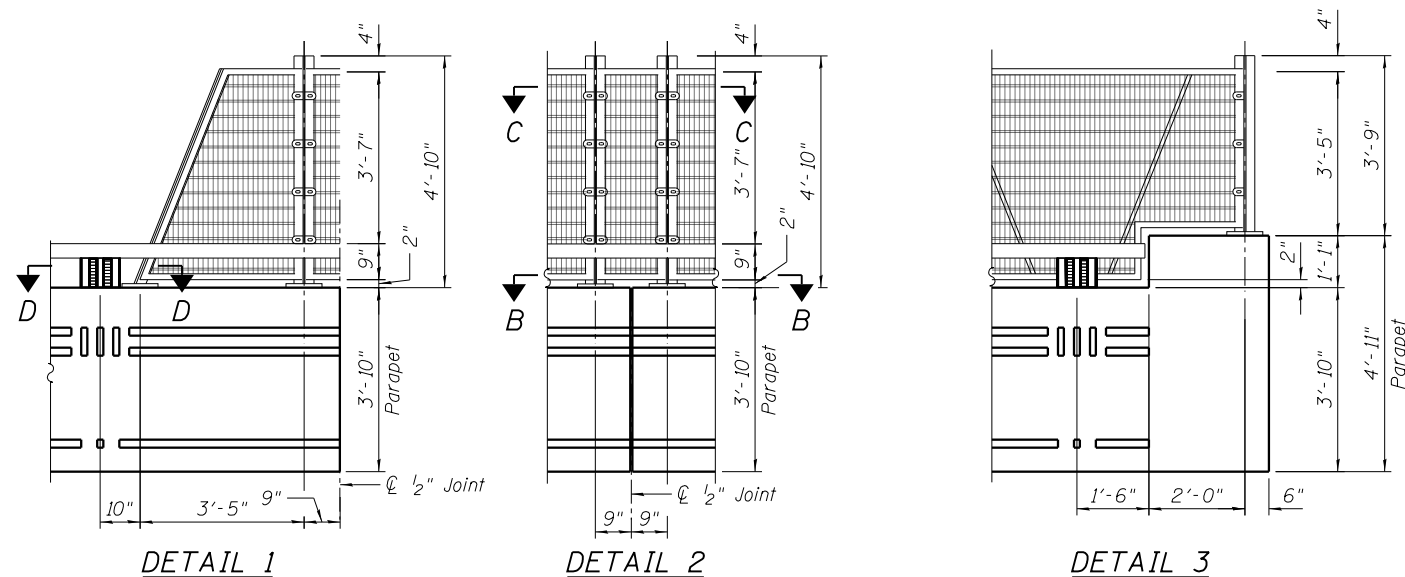
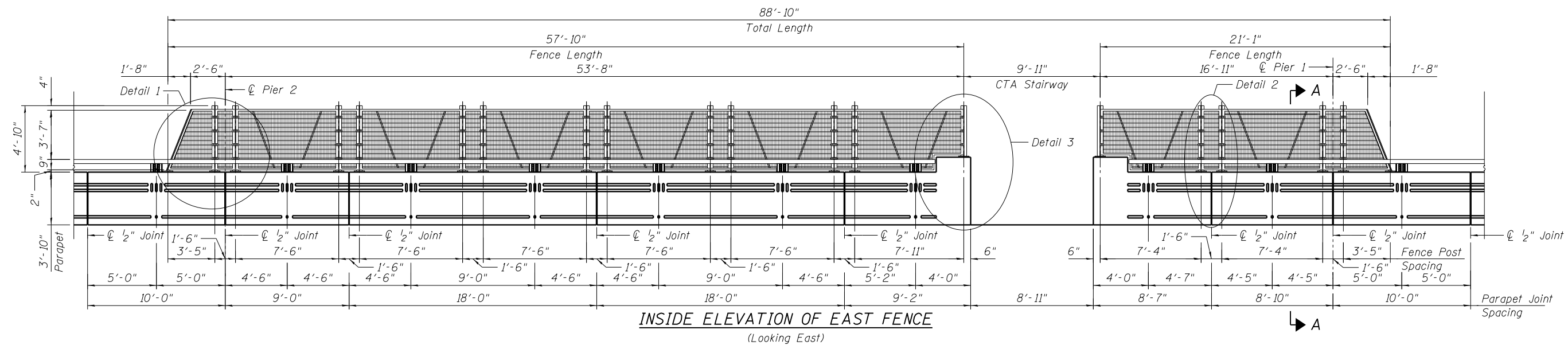
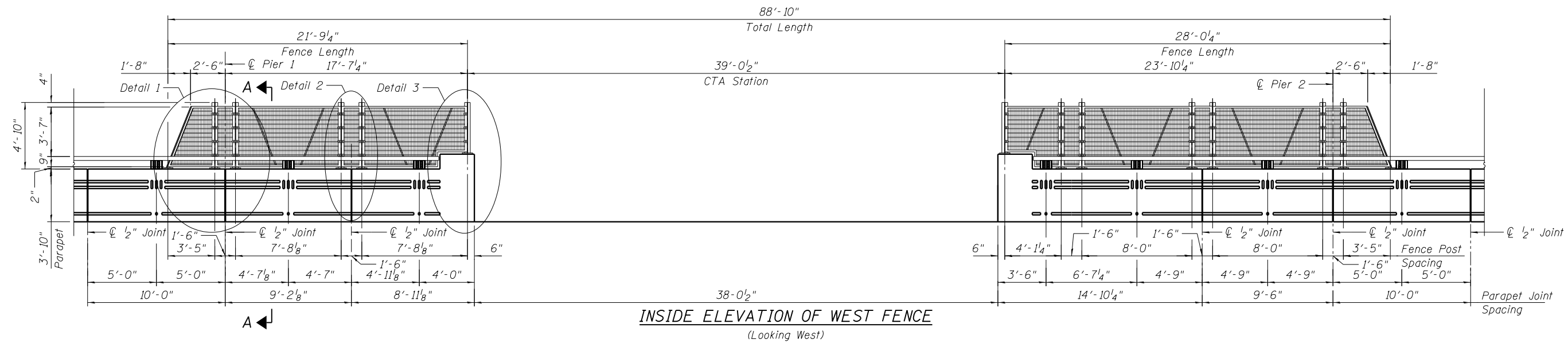
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PLOT DATE = 10/28/2013	CHECKED = DL	REVISED

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

PARAPET ARCHITECTURAL TREATMENT
 STRUCTURE NO. 016-1708

SHEET NO. 27 OF 55 SHEETS

MUN	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2090	2013-011R	COOK	356	159
CONTRACT NO.			60W29	
ILLINOIS FED. AID PROJECT				



Note:
For Section A-A thru D-D,
see Sheet 29 of 55.

11:04:24 PM 01/17/08-60W29-5028-Rolling_FenElevations.dgn



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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

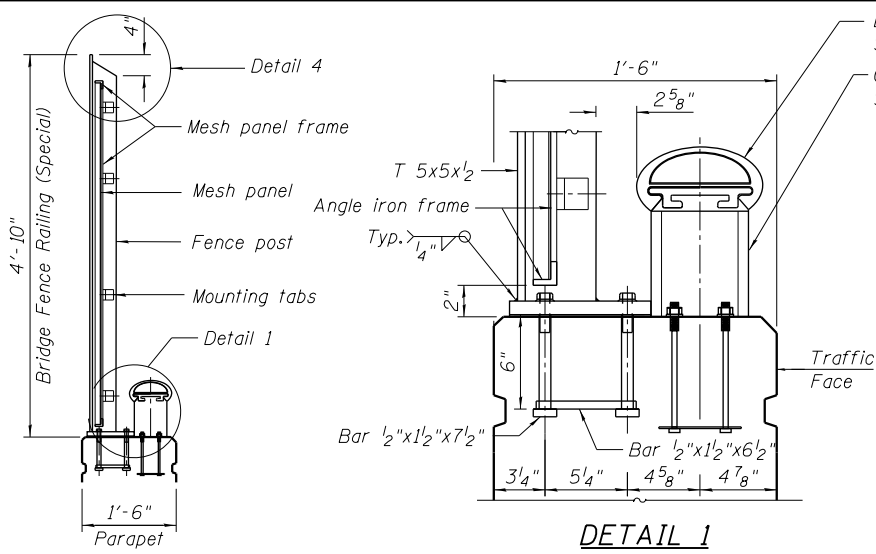
**BRIDGE FENCE RAILING (SPECIAL) ELEVATIONS
STRUCTURE NO. 016-1708**

SHEET NO. 28 OF 55 SHEETS

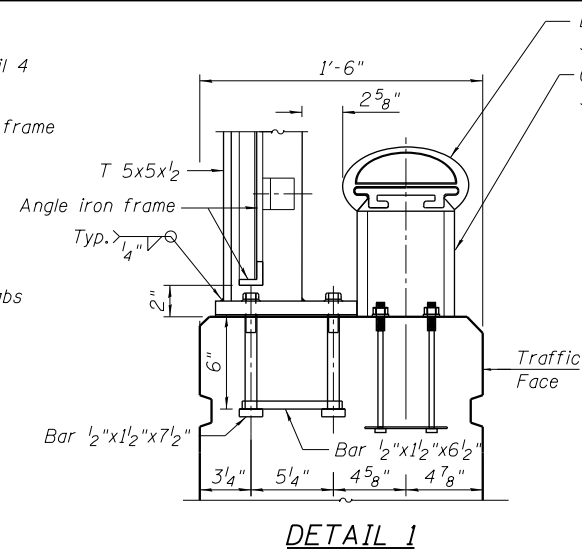
MUN	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2090	2013-011R	COOK	356	160
CONTRACT NO.			60W29	
ILLINOIS FED. AID PROJECT				

BILL OF MATERIAL

Item	Unit	Total
Bridge Fence Railing (Special)	Foot	129

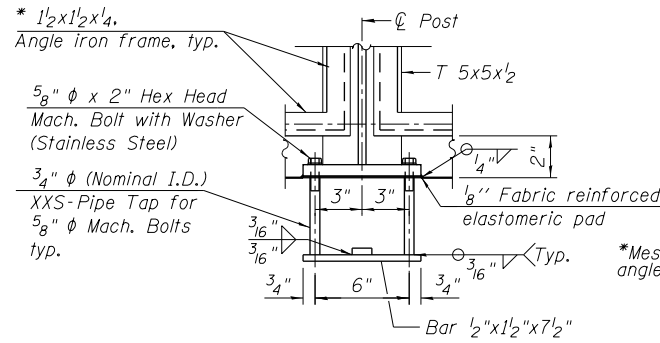


SECTION A-A

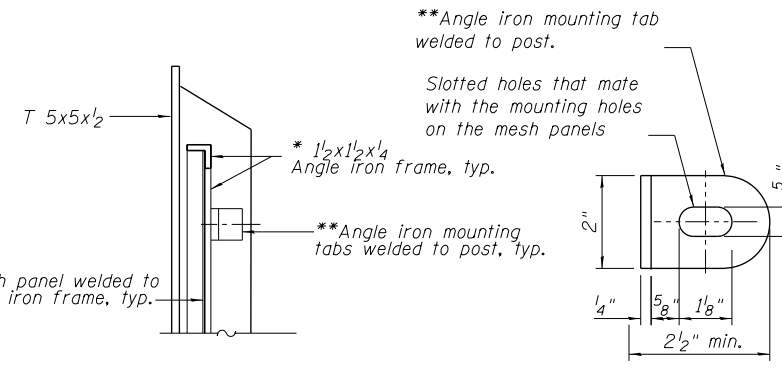


DETAIL 1

Decorative Railing (Parapet Mounted)
See details on Sheet 26 of 55.
Chicago rail stanchion cover.
See details on Sheet 26 of 55.

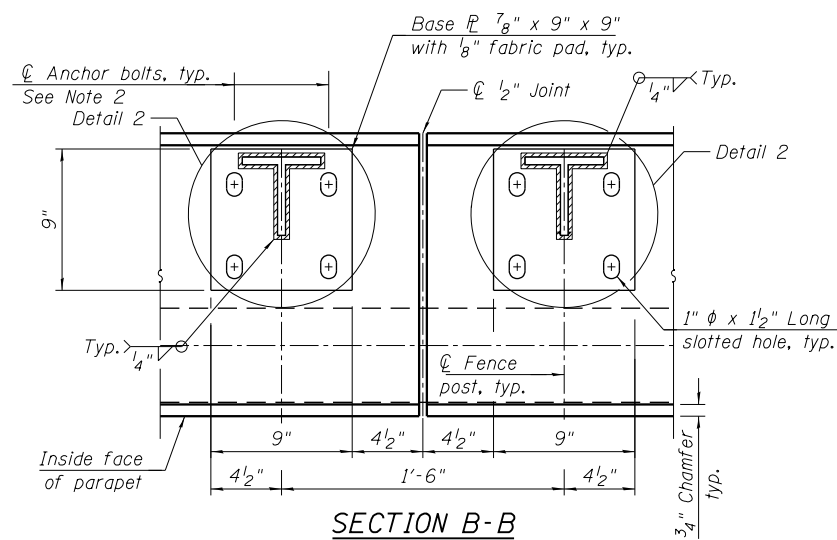


ANCHOR BOLT DETAILS

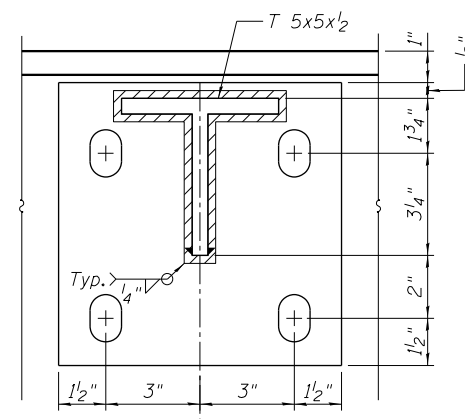


DETAIL 4

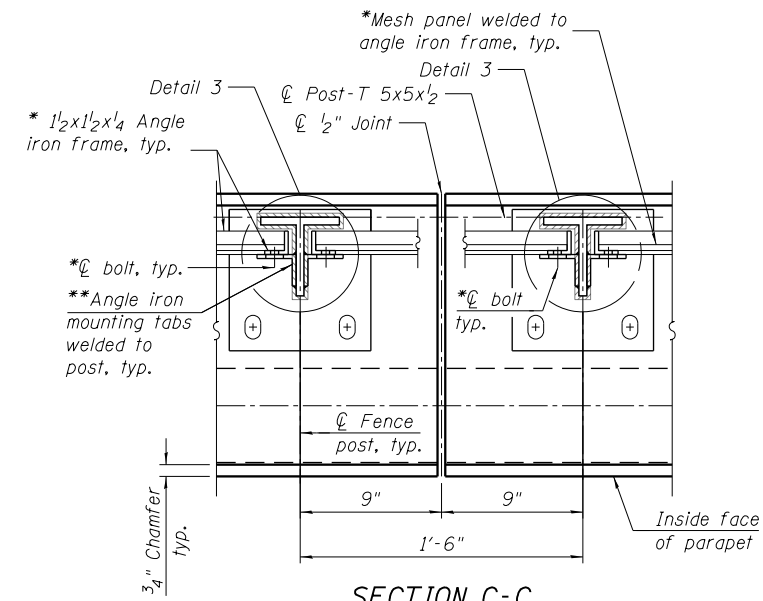
MOUNTING TAB DETAIL



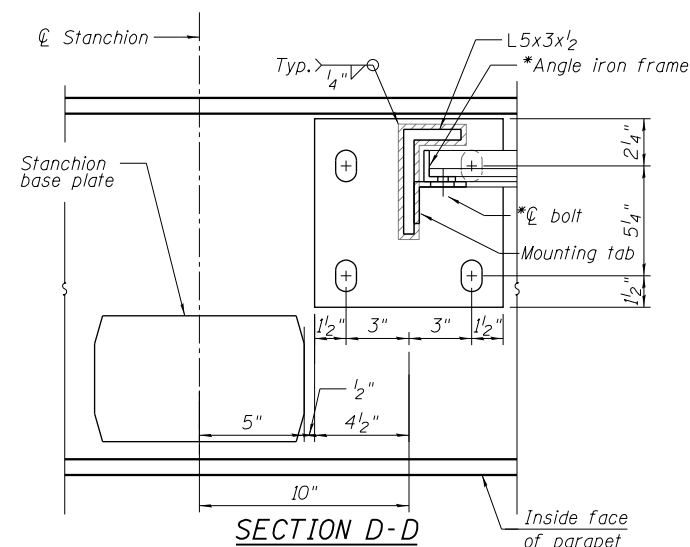
**SECTION B-B
BASE PLATE PLAN**



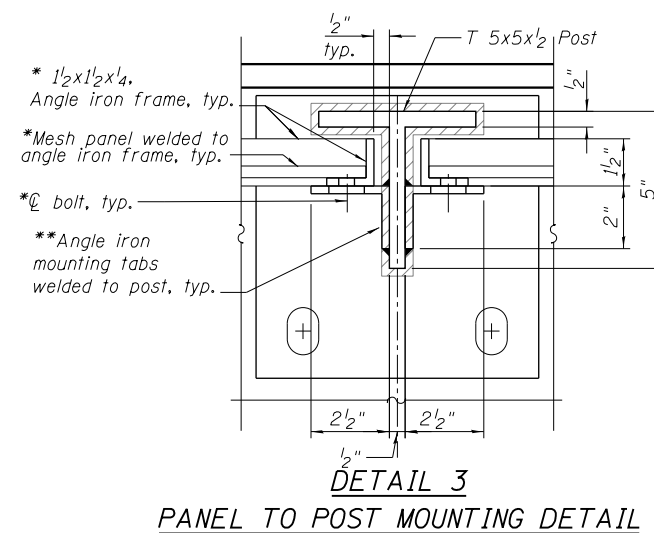
DETAIL 2



SECTION C-C



SECTION D-D



**DETAIL 3
PANEL TO POST MOUNTING DETAIL**

Notes:
All steel rail elements shall be Stainless Steel 316.
In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting 5/8" ϕ anchor rods according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications.
Provide bolted connection with oversized slotted hole to allow for erection tolerance of mesh panel and movement at control joints. Spacing between posts may not be the same at bottom and top of frame due to a slight vertical curve at parapet top surface.
* Fence panels and their mounting system, including angles, bracing, bolts and welds to be designed by wire mesh manufacturer. The design shown is based on Banker Architectural. Approved manufacturer can submit their own mounting system for Engineer's review and approval.
**Number, spacing and size of mounting tabs and slotted holes to be verified and designed by fence manufacturer.

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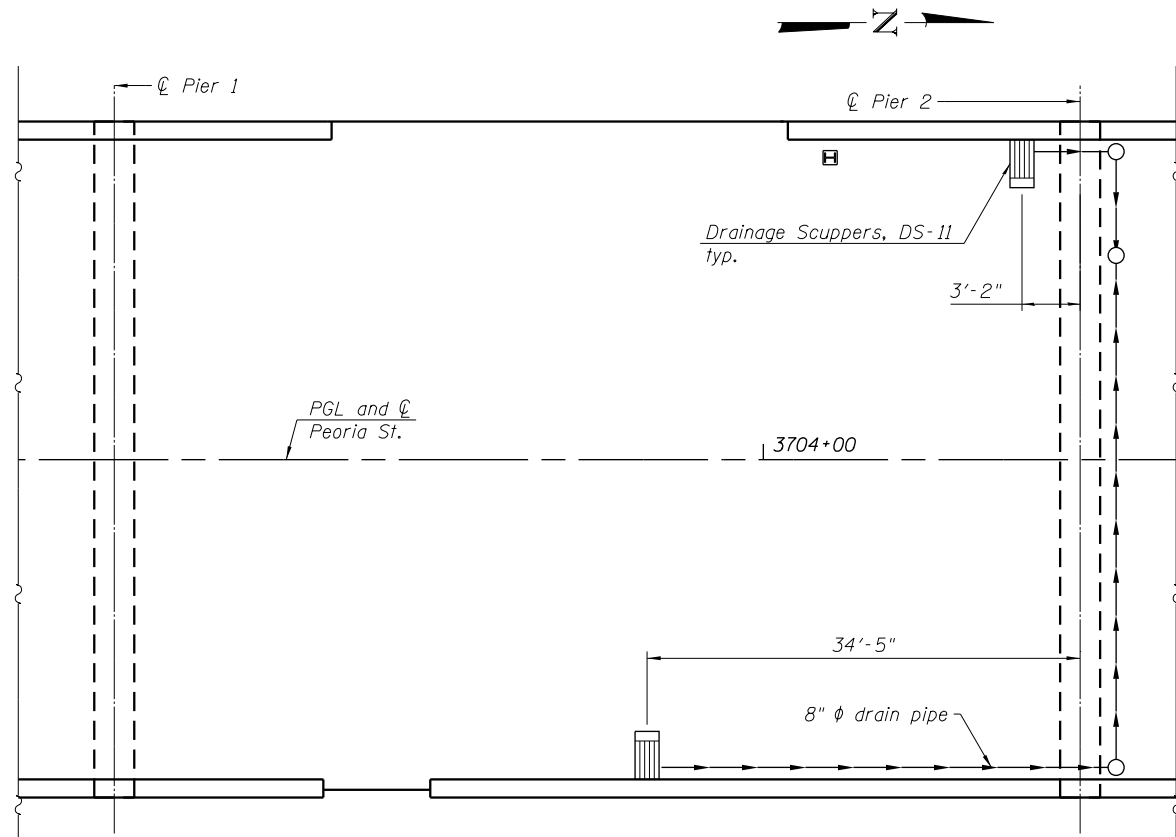
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**BRIDGE FENCE RAILING (SPECIAL)
STRUCTURE NO. 016-1708**

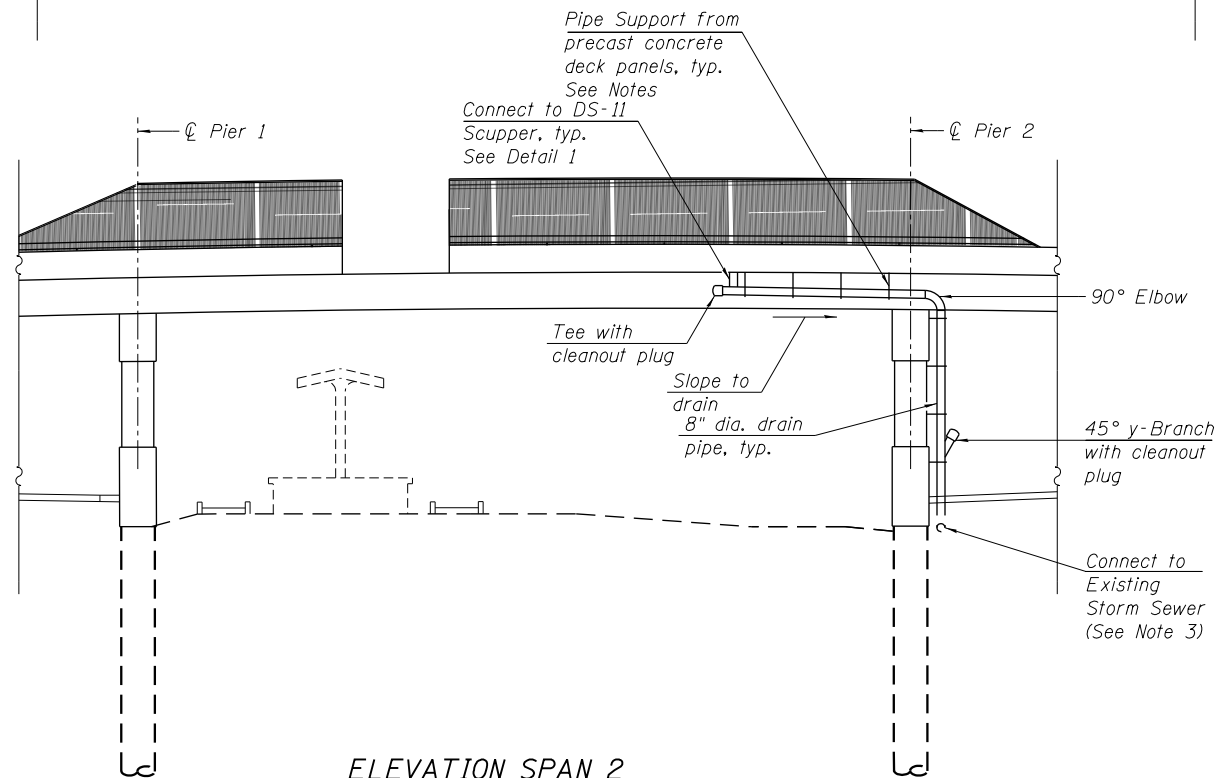
SHEET NO. 29 OF 55 SHEETS

MUN	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2090	2013-011R	COOK	356	161
CONTRACT NO.			60W29	

ILLINOIS FED. AID PROJECT

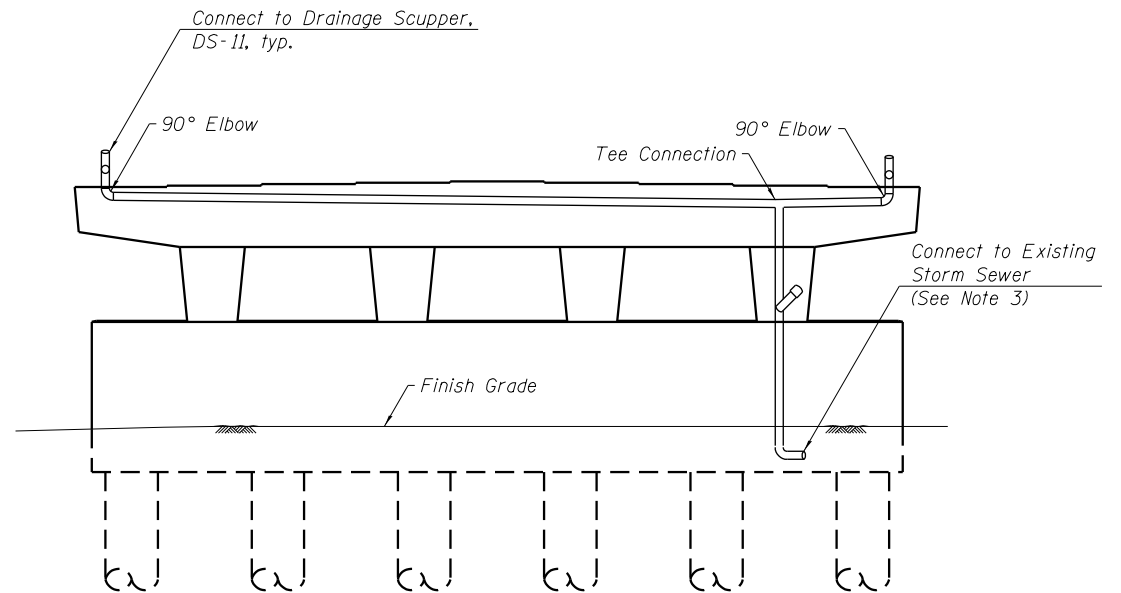


PLAN SPAN 2

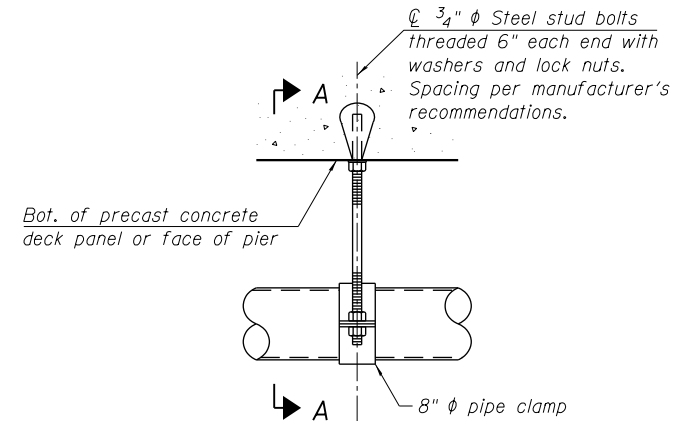


ELEVATION SPAN 2
(Looking West)

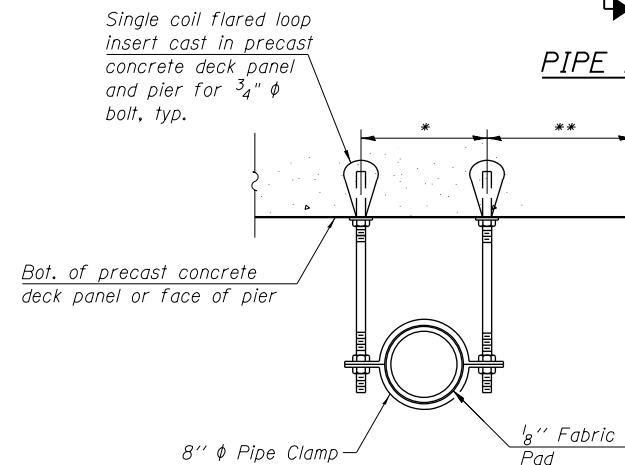
Notes:
 Provide structural support from proposed precast concrete deck panel for drain pipe per manufacturer's recommendation, not to exceed 6' cts. Cost included with "Precast Concrete Deck Panels".
 All pipes, pipe fittings and brackets needed shall be included with cost of "Drainage System".
 Drainage system shall connect to the existing roadway storm sewer. Cost of connection included in "Drainage System". See Sheet 79 of 356 for details.
 Location of structural supports for the drainage system shall be coordinated with the Precast Concrete Deck Panel Manufacturer.
 The drainage system shall be painted with a finish coat of gray, Munsell No. 5B 7/1.



PIER 2
(Looking South)

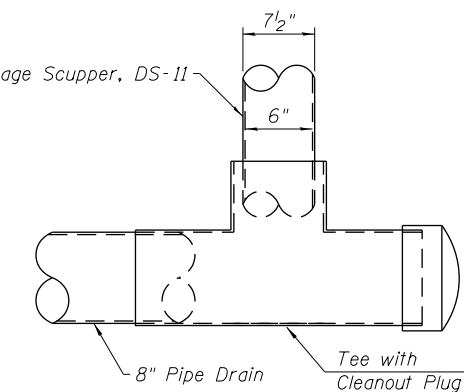


PIPE BRACKET DETAIL



SECTION A-A

* Dimension as required by Pipe Clamp
 ** Dimension to end of precast concrete deck panel



DETAIL 1

LEGEND

→ Indicates direction of flow

BILL OF MATERIAL

Item	Unit	Quantity
Drainage System	L. Sum	I

MUN	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2090	2013-011R	COOK	356	162
CONTRACT NO.			60W29	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE DRAINAGE SYSTEM
STRUCTURE NO. 016-1708

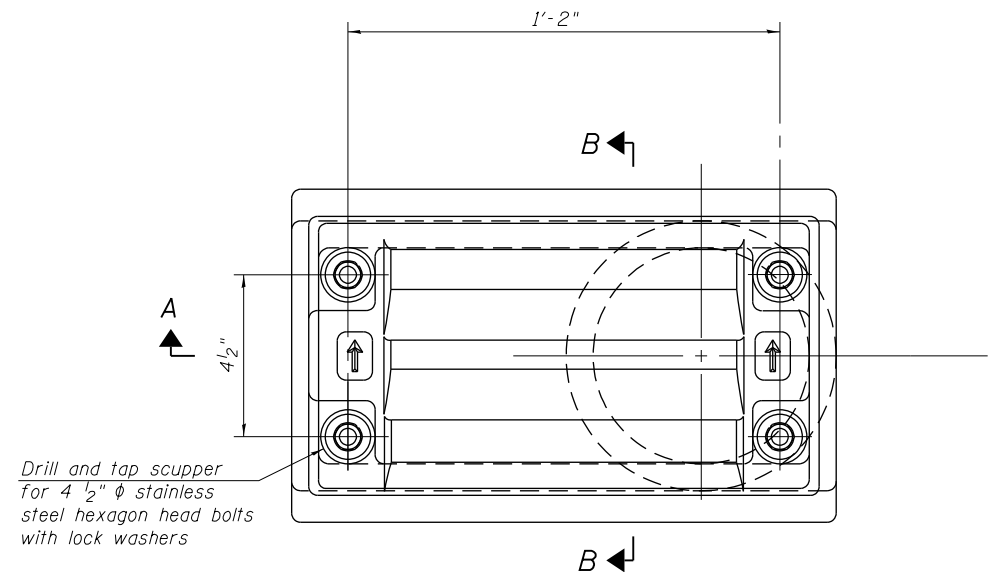
SHEET NO. 30 OF 55 SHEETS

ILLINOIS FED. AID PROJECT

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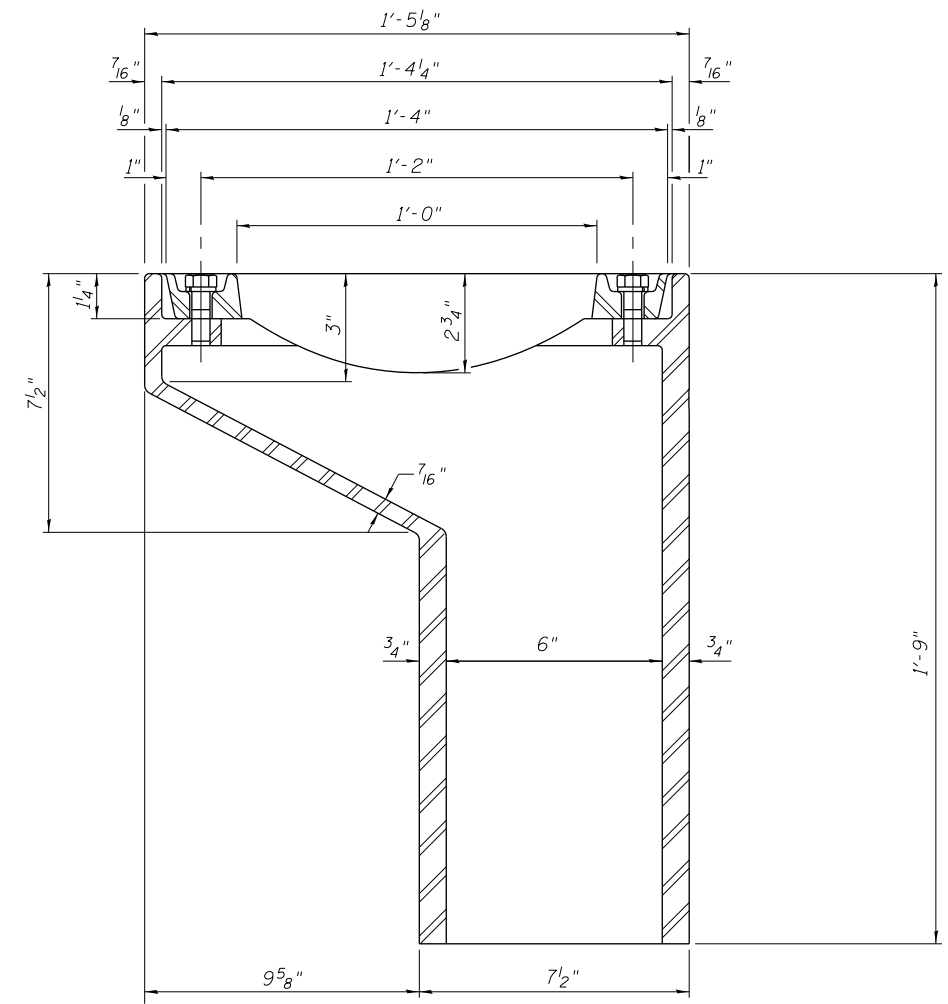


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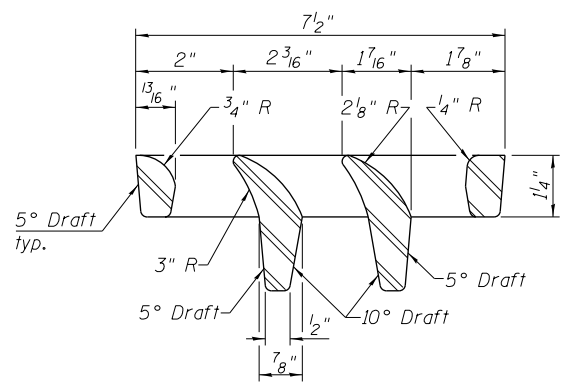
Drill and tap scupper for 4 1/2" φ stainless steel hexagon head bolts with lock washers

PLAN

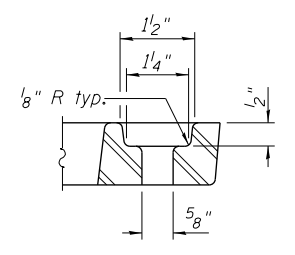


SECTION A-A

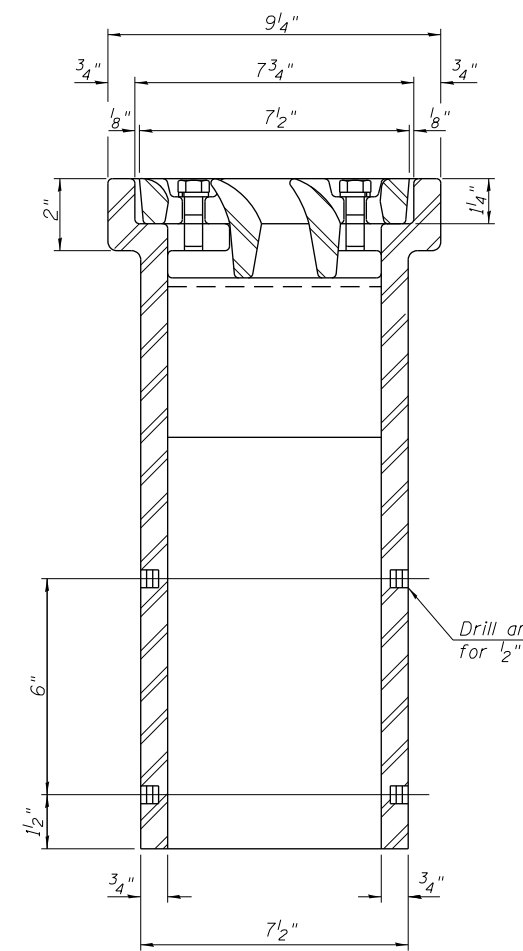
See Sheet 15 and 16 of 55 for scupper location relative to parapet.



VANE GRATE DETAIL



BOLT HOLE DETAIL



SECTION B-B

Drill and tap 1/2"-13x1/2" DP, for 1/2" φ bolts. (4 locations)

Notes:
 All cast iron parts shall be gray iron conforming to the requirements of AASHTO M 105, Class 35B.
 Bolts, anchor studs, washers and nuts shall conform to the requirements of ASTM A 307 and shall be galvanized according to AASHTO M 232.
 Downspouts located on the exterior side of a painted steel fascia beam shall be painted with the finish coat specified for the exterior side of the fascia beam.
 As an alternate, bolts, anchor studs, washers and nuts may be stainless steel according to Article 1006.29(d) of the Standard Specifications.
 Structural steel weldments of equal sections and of the same configuration may be substituted for the cast iron scupper frame. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval. Structural steel weldments shall not be substituted for the cast iron scupper grate. Structural steel frames and downspouts shall be galvanized according to AASHTO M111.
 The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.
 Cost of the Grate, Frame, Downspout, Anchor Studs, Field Welding, Bolts, Washers and Nuts including complete installation of the scupper including field welding in place shall be paid for at the contract unit price each for Drainage Scupper, DS-11.
 Alternate fiberglass downspout conforming to ASTM D 2996 with a short-time rupture strength hoop tensile stress of 30,000 psi min. may be used in lieu of the cast iron or steel equivalent.
 See Sheet 16 of 55 for additional scupper details.

BILL OF MATERIAL

Item	Unit	Quantity
Drainage Scupper, DS-11	Each	2

11:04:28 PM 01/17/08-60W29-5031-Drainage_ScupperDS11.dgn



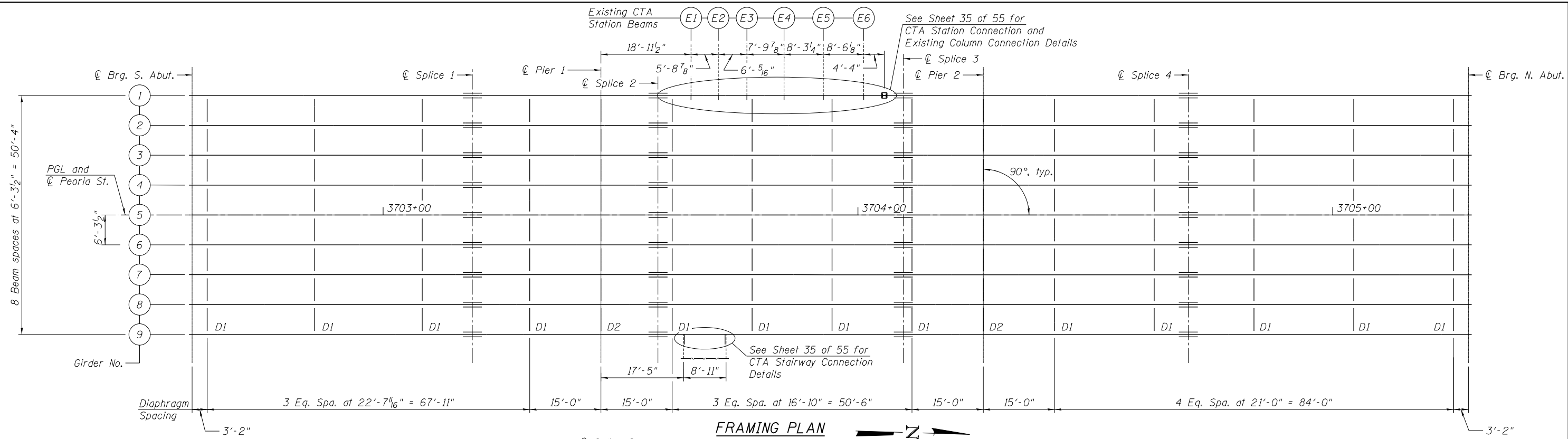
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

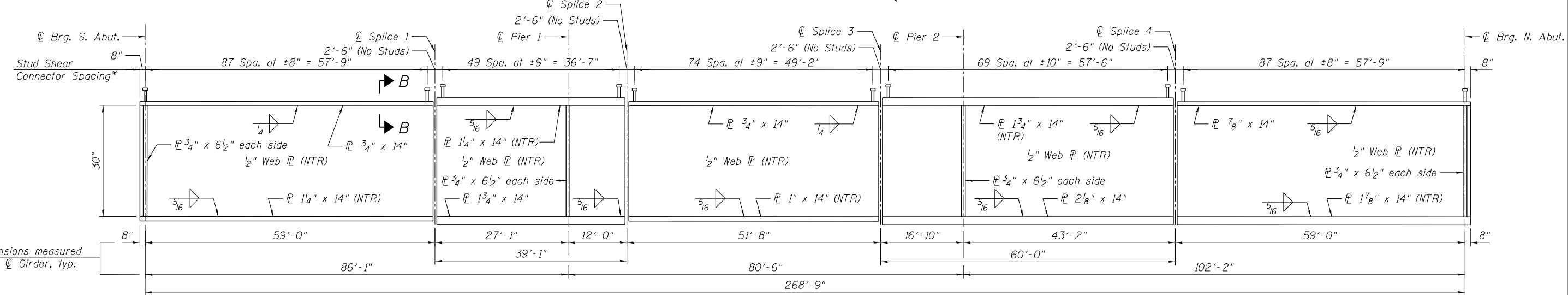
**DRAINAGE SCUPPER, DS-11
STRUCTURE NO. 016-1708**

SHEET NO. 31 OF 55 SHEETS

MUN	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2090	2013-011R	COOK	356	163
CONTRACT NO.			60W29	
ILLINOIS FED. AID PROJECT				



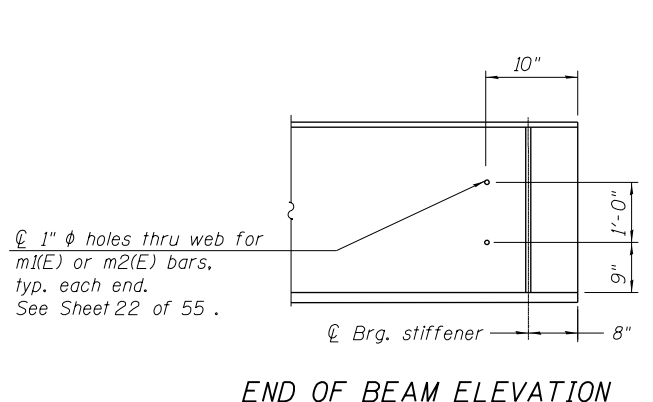
FRAMING PLAN



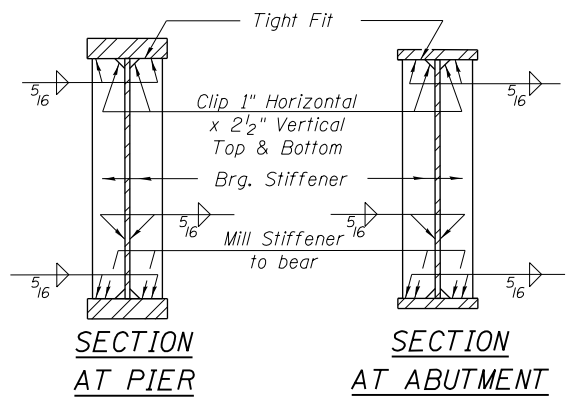
GIRDER ELEVATION

TOP OF WEB ELEVATIONS
(For fabrication use only)

Girder	℄ Brg. S. Abut.	℄ Splice 1	℄ Brg. Pier 1	℄ Splice 2	℄ Splice 3	℄ Brg. Pier 2	℄ Splice 4	℄ Brg. N. Abut.
1	595.66	596.32	596.44	596.50	596.92	597.20	597.94	596.81
2	595.76	596.41	596.54	596.59	597.01	597.30	598.04	596.90
3	595.85	596.51	596.63	596.69	597.10	597.39	598.13	596.99
4	595.95	596.60	596.72	596.78	597.20	597.49	598.23	597.09
5	596.04	596.69	596.82	596.87	597.29	597.58	598.32	597.18
6	595.95	596.60	596.72	596.78	597.20	597.49	598.23	597.09
7	595.85	596.51	596.63	596.69	597.10	597.39	598.13	596.99
8	595.76	596.41	596.54	596.59	597.01	597.30	598.04	596.90
9	595.66	596.32	596.44	596.50	596.92	597.20	597.94	596.81



END OF BEAM ELEVATION



SECTION AT PIER

SECTION AT ABUTMENT

Notes:
 All plates of the girders, including bearing stiffeners and splice plates, shall be AASHTO M 270, Grade 50.
 All diaphragms, angles, fill plates and connecting plates may be AASHTO M270, Grade 36.
 Load carrying components designated "NTR" shall conform to the Impact Testing Requirement, Zone 2.
 All diaphragms shall be installed as steel is erected and secured with erection pins and bolts. Individual diaphragms at supports may be temporarily disconnected to install bearing anchor rods.
 For diaphragm details, see Sheet 33 of 55.
 All structural steel shall be hot dip galvanized. Cost included with Furnishing and Erecting Structural Steel.
 For notes on galvanized steel, see Sheet 2 of 55.
 For Bridge Mounted Sign Structure locations and details, See Roadway Plans.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FRAMING PLAN
STRUCTURE NO. 016-1708
SHEET NO. 32 OF 55 SHEETS

MUN	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2090	2013-011R	COOK	356	164
CONTRACT NO.			60W29	

ILLINOIS FED. AID PROJECT

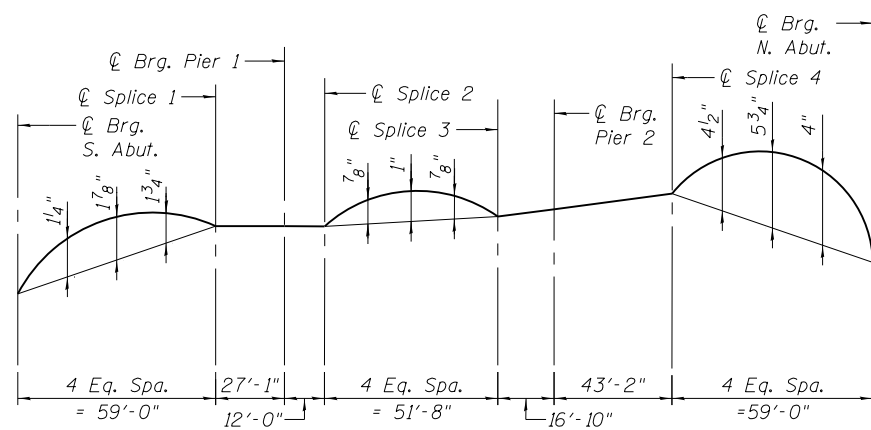
	0.4 Sp. 1	Pier 1	0.5 Sp. 2	Pier 2	0.6 Sp. 3	
I_s	(in ⁴)	7,591	11,346	6,894	14,878	9,738
$I_c(n)$	(in ⁴)	20,181	-	17,607	-	26,236
$I_c(3n)$	(in ⁴)	14,578	-	12,961	-	18,410
$I_c(cr)$	(in ⁴)	-	15,254	-	18,789	-
S_s	(in ³)	556	771	473	939	773
$S_c(n)$	(in ³)	753	-	642	-	1,027
$S_c(3n)$	(in ³)	693	-	590	-	946
$S_c(cr)$	(in ³)	-	869	-	1032	-
DC1	(k/')	0.82	0.87	0.81	0.92	0.86
M _{DC1}	('k)	518	552	-34	851	760
DC2*	(k/')	0.61	0.62	0.62	0.62	0.61
M _{DC2}	('k)	379	408	8	578	532
DW	(k/')	0.19	0.19	0.19	0.19	0.19
M _{DW}	('k)	115	124	0	176	161
$M_{\xi} \cdot IM$	('k)	1,009	998	689	1,166	1,269
M_u (Strength I)	('k)	3,060	3,133	1,173	4,091	4,077
$\phi_r M_n$	('k)	3,708	3,817	3,368	4,661	4,871
f_s DC1	(ksi)	11.2	8.6	-0.9	10.9	11.8
f_s DC2	(ksi)	6.6	5.6	0.2	6.7	6.7
f_s DW	(ksi)	2.0	1.7	0.0	2.0	2.0
f_s ($\xi+IM$)	(ksi)	16.1	13.8	12.9	13.6	14.8
f_s (Service II)	(ksi)	40.6	33.9	16.1	37.3	39.9
0.95R _n F _{yf}	(ksi)	47.5	47.5	47.5	47.5	47.5
f_s (Total)(Strength I)	(ksi)	-	-	-	-	-
$\phi_r F_n$	(ksi)	-	-	-	-	-
V _f	(k)	27.7	-	27.8	-	27.8

	0.4 Sp. 1	Pier 1	0.5 Sp. 2	Pier 2	0.6 Sp. 3	
I_s	(in ⁴)	7,591	11,346	6,894	14,878	9,738
$I_c(n)$	(in ⁴)	20,061	-	17,508	-	26,060
$I_c(3n)$	(in ⁴)	14,470	-	12,869	-	18,267
$I_c(cr)$	(in ⁴)	-	15,254	-	18,789	-
S_s	(in ³)	556	771	473	939	773
$S_c(n)$	(in ³)	752	-	641	-	1,026
$S_c(3n)$	(in ³)	691	-	589	-	945
$S_c(cr)$	(in ³)	-	869	-	1032	-
DC1	(k/')	0.82	0.87	0.81	0.92	0.86
M _{DC1}	('k)	509	542	-34	837	747
DC2*	(k/')	0.39	0.45	0.47	0.40	0.39
M _{DC2} **	('k)	123	1,173	1,180	1,312	40
DW	(k/')	0.30	0.30	0.30	0.30	0.30
M _{DW}	('k)	184	199	0	282	258
$M_{\xi} \cdot IM$	('k)	274	656	344	822	678
M_u (Strength I)	('k)	1,340	3,098	1,777	3,931	2,049
$\phi_r M_n$	('k)	3,765	3,804	3,281	4,649	4,852
f_s DC1	(ksi)	11.0	8.4	-0.9	10.7	11.6
f_s DC2	(ksi)	2.1	16.2	24.1	15.2	0.5
f_s DW	(ksi)	3.2	2.7	0.0	3.3	3.3
f_s ($\xi+IM$)	(ksi)	4.4	9.1	6.4	9.6	7.9
f_s (Service II)	(ksi)	22.0	39.2	31.6	41.6	25.7
0.95R _n F _{yf}	(ksi)	47.5	47.5	47.5	47.5	47.5
f_s (Total)(Strength I)	(ksi)	-	50.77	-	54.07	-
$\phi_r F_n$	(ksi)	-	50.0	-	44.6	-
V _f	(k)	0.0	-	0.0	-	0.0

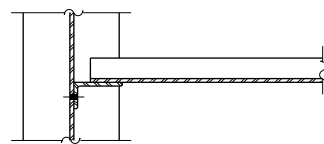
	S. Abut.	Pier 1	Pier 2	N. Abut.	
R _{DC1}	(k)	37.50	72.71	92.49	44.54
R _{DC2} ***	(k)	40.26	52.19	62.33	44.24
R _{DW}	(k)	6.53	16.22	19.29	7.74
R $\xi \cdot IM$	(k)	74.62	122.49	135.46	78.68
R _{Total}	(k)	158.91	263.61	309.57	175.20

	S. Abut.	Pier 1	Pier 2	N. Abut.	
R _{DC1}	(k)	36.79	71.44	90.96	43.74
R _{DC2} ***	(k)	7.83	120.92	116.42	11.92
R _{DW}	(k)	10.44	25.95	30.86	12.37
R $\xi \cdot IM$	(k)	17.15	44.10	49.26	19.75
R _{Total}	(k)	72.21	262.41	287.50	87.78

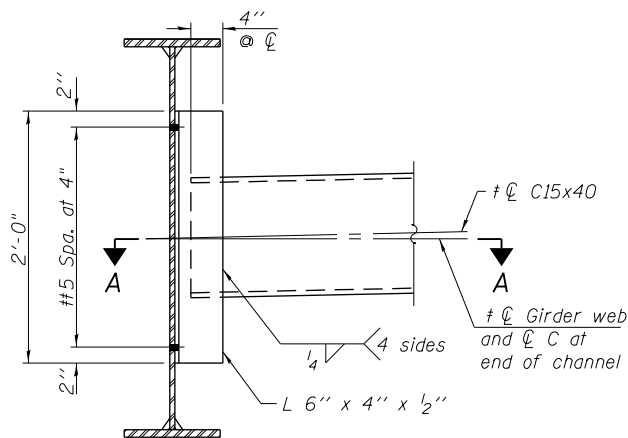
* Load allowance includes 0.025 k/’ for duct banks. Girders 2 thru 8 include weight for two 10’ sidewalks for the future condition.
 ** Moment includes six concentrated forces of 19.8 k, 16.6 k, 21.8 k, 26.5 k, 28.4 k and 25.6 k due to the unfactored reactions at the locations of the Existing CTA Station stringers (Beams E1 thru E6, respectively) under dead, snow and wind loads.
 *** Includes Approach Slab Dead Load Reactions at Abutments.



CAMBER DIAGRAM

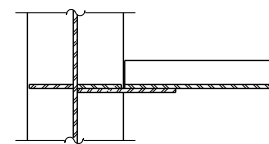


SECTION A-A

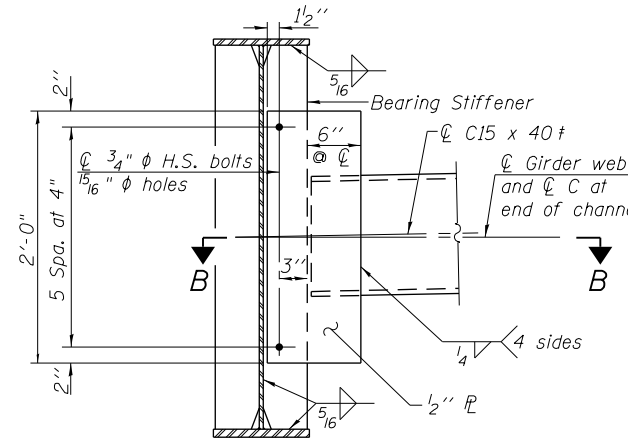


INTERIOR DIAPHRAGM D1

(104 Required)



SECTION B-B



INTERIOR DIAPHRAGM D2

(16 Required)

Note:
 Two hardened washers required for each set of oversized holes.
 † Alternate channels C15x50 are permitted to facilitate material acquisition. Calculated weight of structural steel is based on the lighter section. The alternate, if utilized, shall be provided at no additional cost to the Department.
 # 3/4" ϕ HS bolts, 15/16" ϕ holes

I_s, S_s : Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total-Strength I, and Service II) due to non-composite dead loads (in.⁴ and in.³).
 $I_c(n), S_c(n)$: Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total-Strength I, and Service II) in uncracked sections due to short-term composite live loads (in.⁴ and in.³).
 $I_c(3n), S_c(3n)$: Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing f_s (Total-Strength I, and Service II) in uncracked sections, due to long-term composite (superimposed) dead loads (in.⁴ and in.³).
 $I_c(cr), S_c(cr)$: Composite moment of inertia and section modulus of the steel and longitudinal deck reinforcement, used for computing f_s (Total-Strength I and Service II) in cracked sections, due to both short-term composite live loads and long-term composite (superimposed) dead loads (in.⁴ and in.³).

DC1: Un-factored non-composite dead load (kips/ft.).
 M_{DC1}: Un-factored moment due to non-composite dead load (kip-ft.).
 DC2: Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).
 M_{DC2}: Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).
 DW: Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).
 M_{DW}: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).
 $M_{\xi} \cdot IM$: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).

M_u (Strength I): Factored design moment (kip-ft.).
 $1.25 (M_{DC1} + M_{DC2}) + 1.5 M_{DW} + 1.75 M_{\xi} \cdot IM$
 $\phi_r M_n$: Compact composite positive moment capacity computed according to Article 6.10.7.1 or non-slender negative moment capacity according to Article A6.1.1 or A6.1.2 (kip-ft.).
 f_s DC1: Un-factored stress at edge of flange for controlling steel flange due to vertical non-composite dead loads as calculated below (ksi).
 M_{DC1} / S_c
 f_s DC2: Un-factored stress at edge of flange for controlling steel flange due to vertical composite dead loads as calculated below (ksi).
 $M_{DC2} / S_c(3n)$ or $M_{DC2} / S_c(cr)$ as applicable.
 f_s DW: Un-factored stress at edge of flange for controlling steel flange due to vertical composite future wearing surface loads as calculated below (ksi).
 $M_{DW} / S_c(3n)$ or $M_{DW} / S_c(cr)$ as applicable.
 f_s ($\xi+IM$): Un-factored stress at edge of flange for controlling steel flange due to vertical composite live load plus impact loads as calculated below (ksi).
 $M_{\xi} \cdot IM / S_c(n)$ or $M_{DW} / S_c(cr)$ as applicable.
 f_s (Service II): Sum of stresses as computed below (ksi).
 $f_{SDC1} + f_{SDC2} + f_{SDW} + 1.3 f_s (\xi + IM)$

0.95R_nF_{yf}: Composite stress capacity for Service II loading according to Article 6.10.4.2 (ksi).

f_s (Total)(Strength I): Sum of stresses as computed below on non-compact section (ksi).
 $1.25 (f_{SDC1} + f_{SDC2}) + 1.5 f_{SDW} + 1.75 f_s (\xi + IM)$

$\phi_r F_n$: Non-Compact composite positive or negative stress capacity for Strength I loading according to Article 6.10.7 or 6.10.8 (ksi).

V_f: Maximum factored shear range in span computed according to Article 6.10.10.

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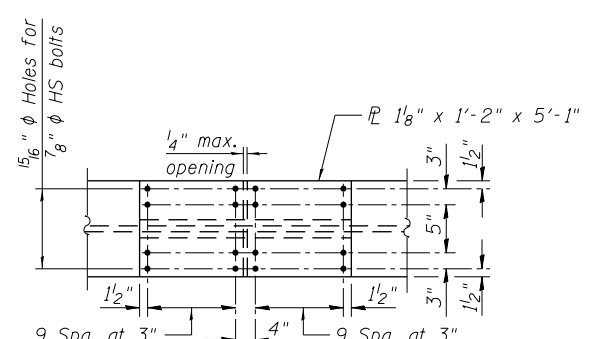
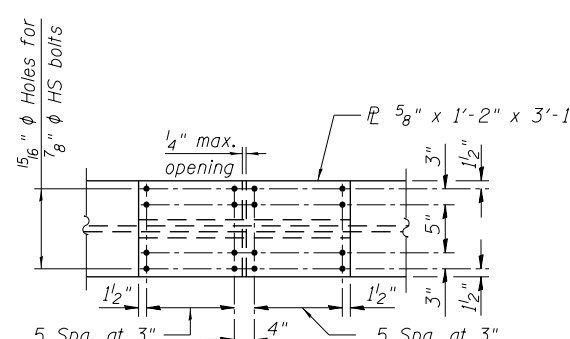
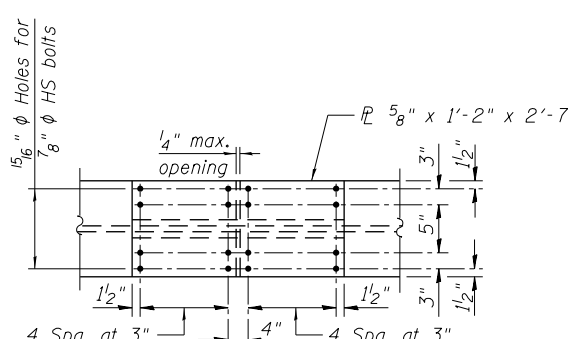
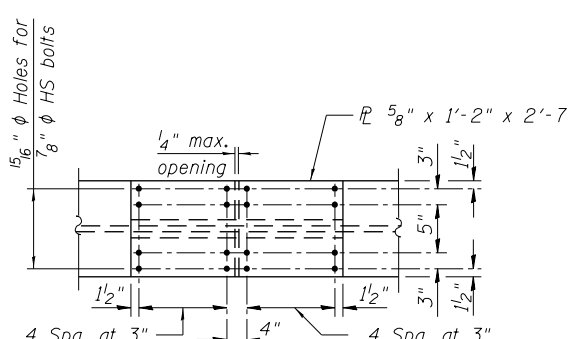
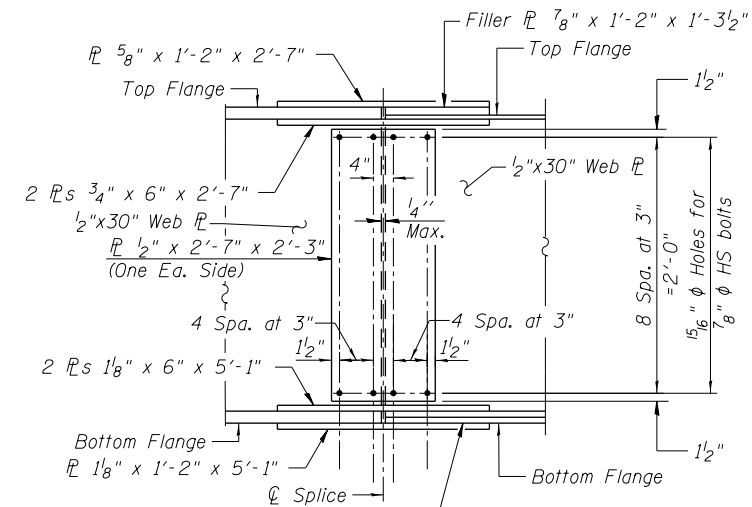
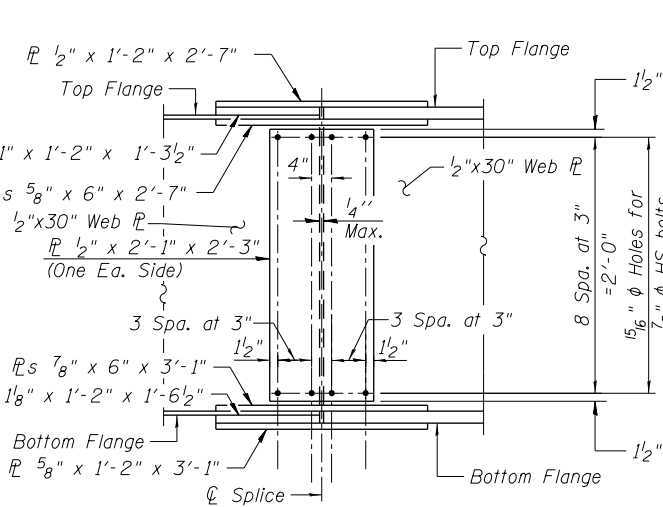
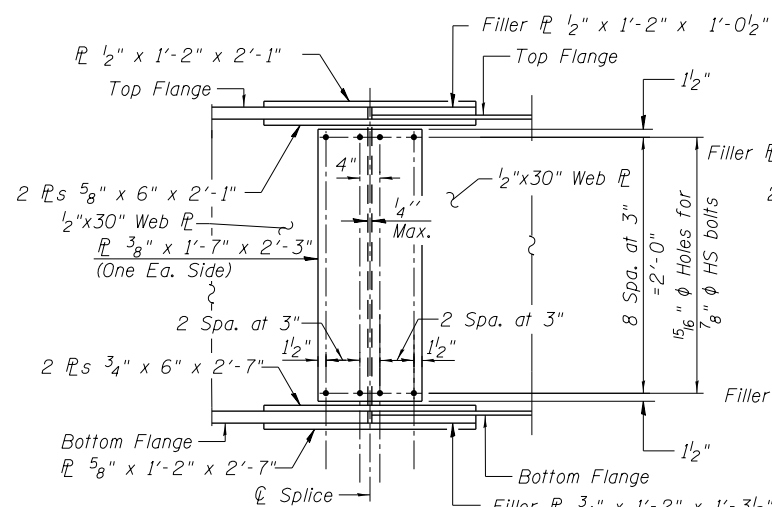
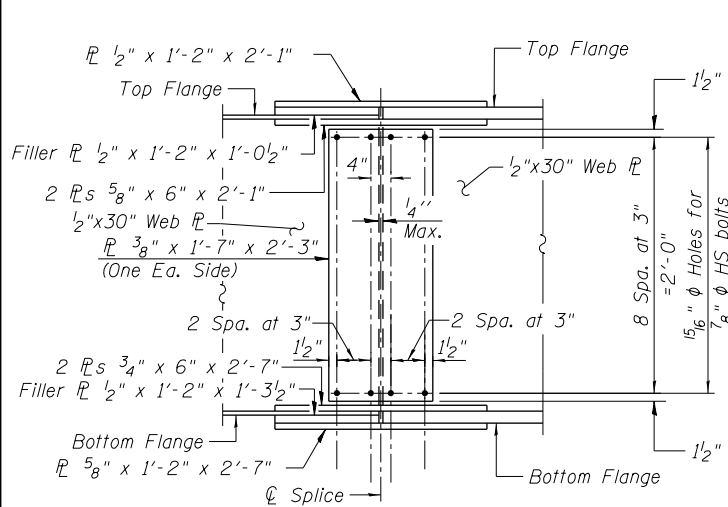
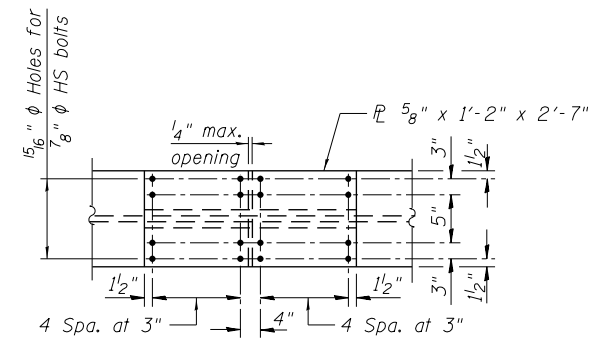
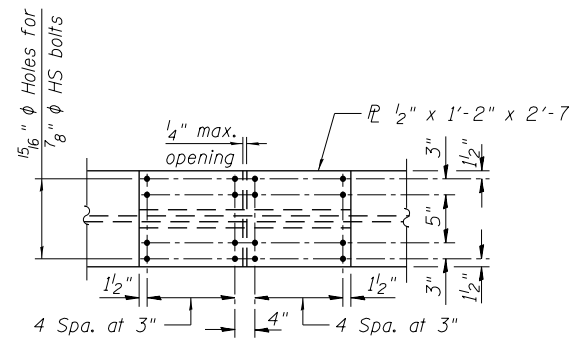
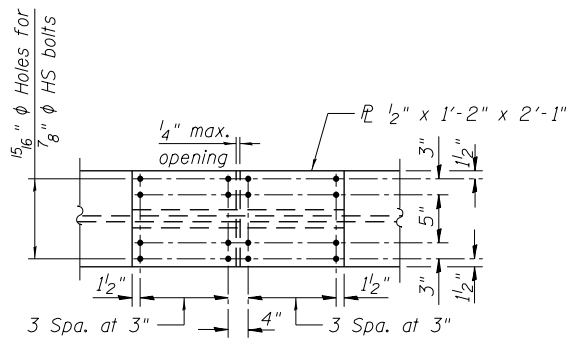
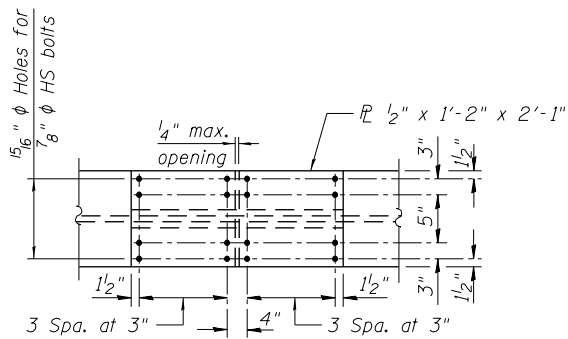
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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**STRUCTURAL STEEL DETAILS 1
 STRUCTURE NO. 016-1708**

SHEET NO. 33 OF 55 SHEETS

MUN	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2090	2013-011R	COOK	356	165
CONTRACT NO. 60W29			ILLINOIS FED. AID PROJECT	



FIELD SPLICE 1 DETAIL

(9 Required)

FIELD SPLICE 2 DETAIL

(9 Required)

FIELD SPLICE 3 DETAIL

(9 Required)

FIELD SPLICE 4 DETAIL

(9 Required)

Notes:
 All splice plates except filler plates shall meet NTR.
 Load carrying components designated "NTR" shall conform to the Impact Testing Requirement, Zone 2.
 All splice plates, except filler plates, shall be AASHTO M 270 Grade 50.

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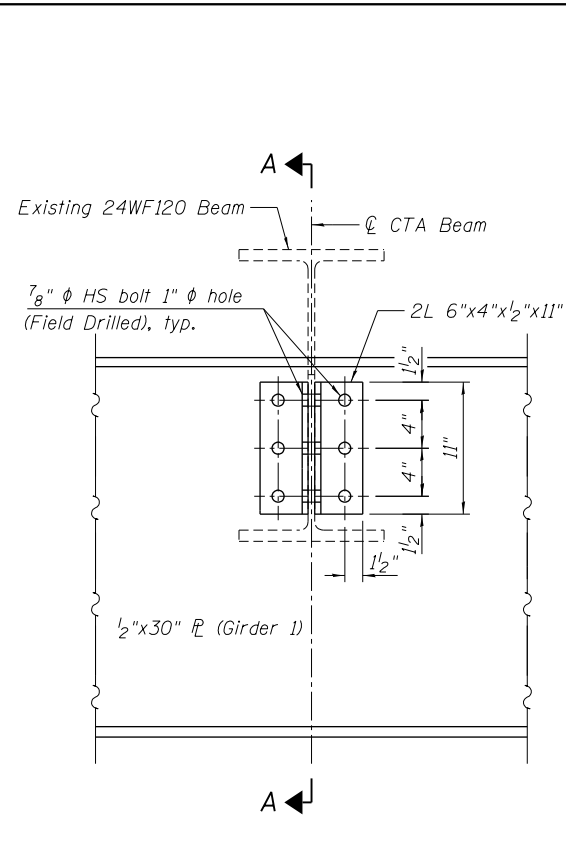
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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

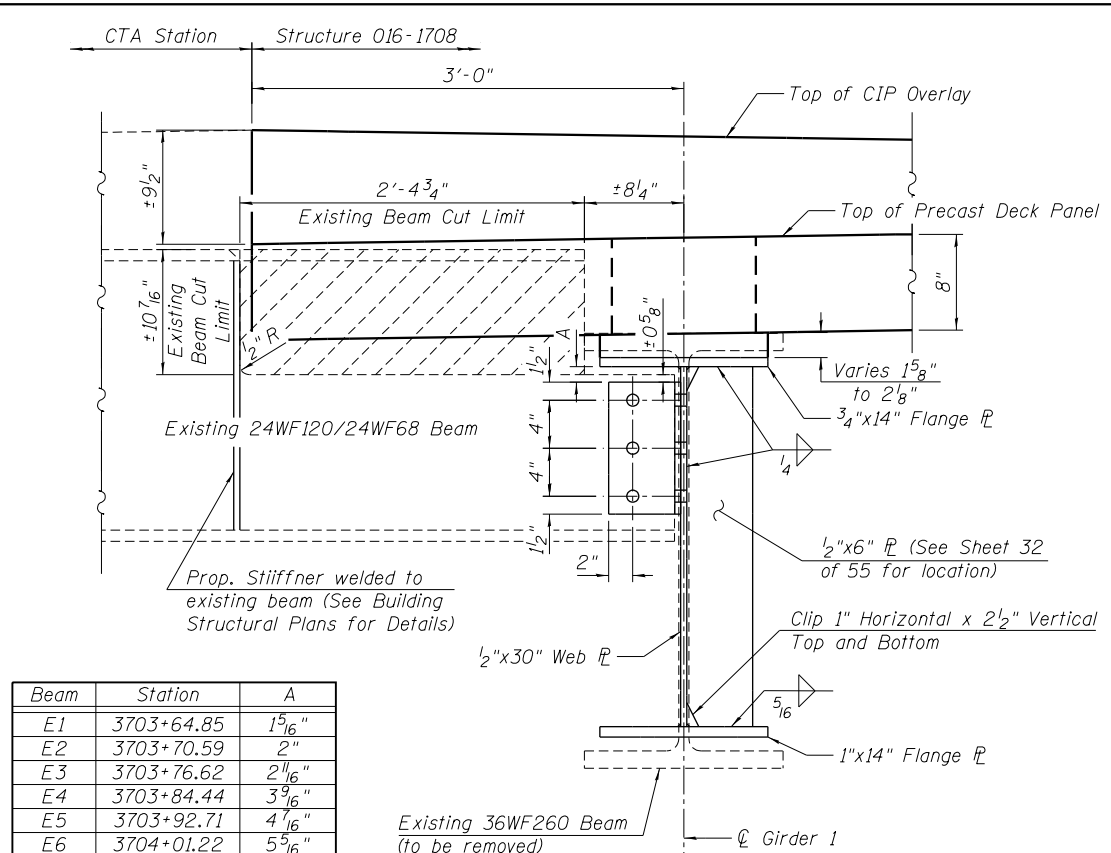
**STRUCTURAL STEEL DETAILS 2
 STRUCTURE NO. 016-1708**

SHEET NO. 34 OF 55 SHEETS

MUN	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2090	2013-011R	COOK	356	166
CONTRACT NO.			60W29	
ILLINOIS FED. AID PROJECT				

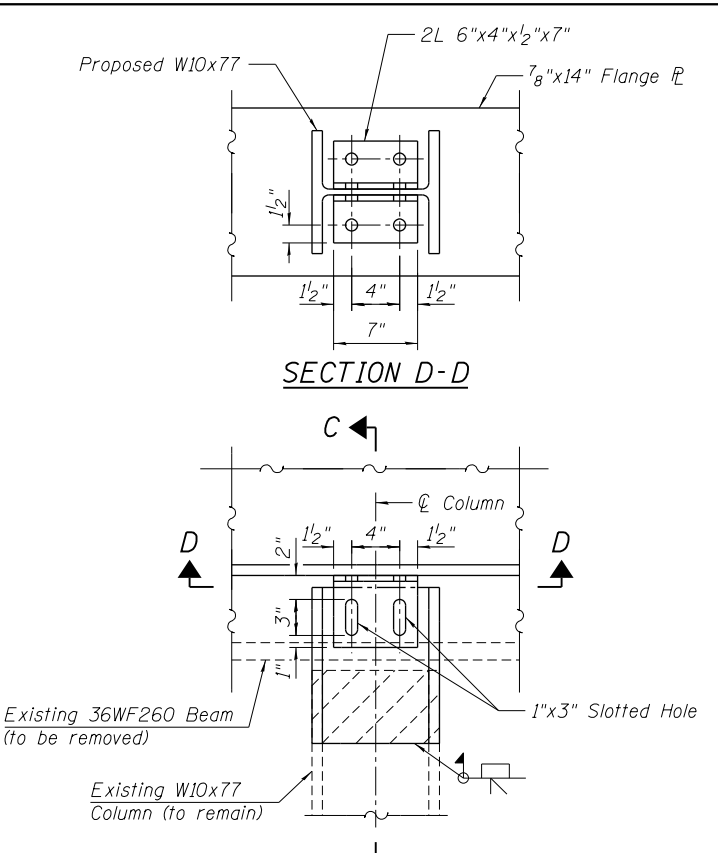


CTA STATION CONNECTION
ELEVATION
 (Looking East)

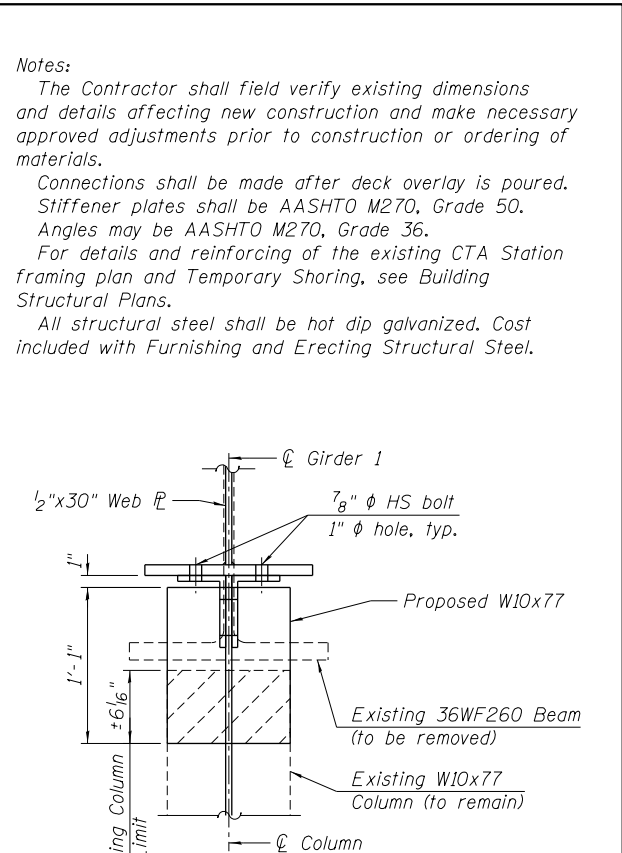


SECTION A-A

Beam	Station	A
E1	3703+64.85	1 5/16"
E2	3703+70.59	2"
E3	3703+76.62	2 1/16"
E4	3703+84.44	3 9/16"
E5	3703+92.71	4 7/16"
E6	3704+01.22	5 5/16"

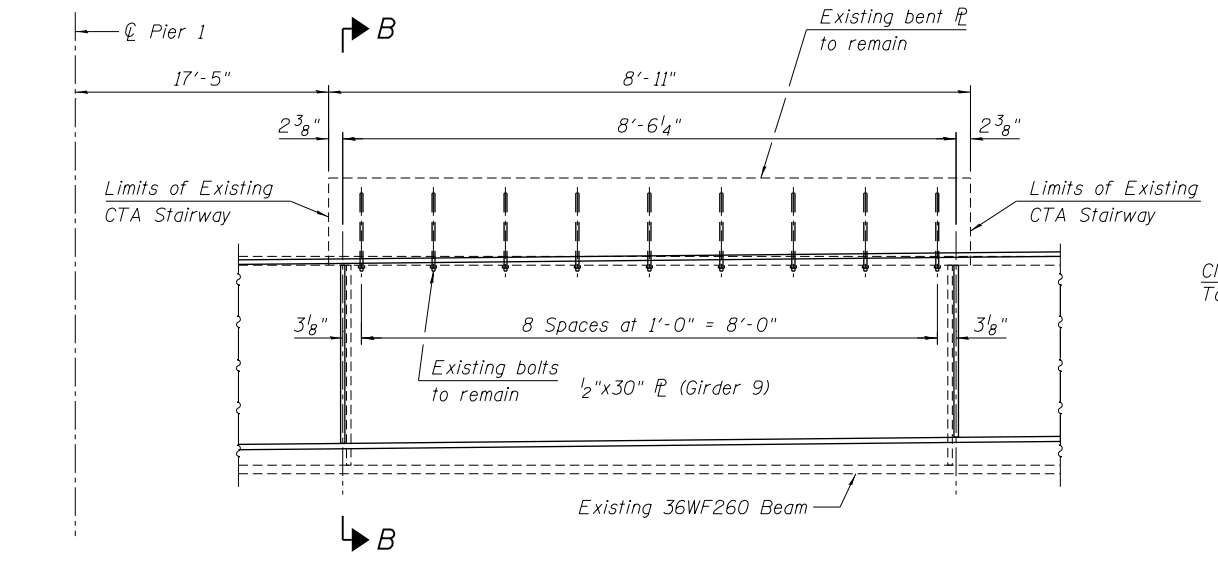


EXISTING COLUMN CONNECTION
 (Looking East)

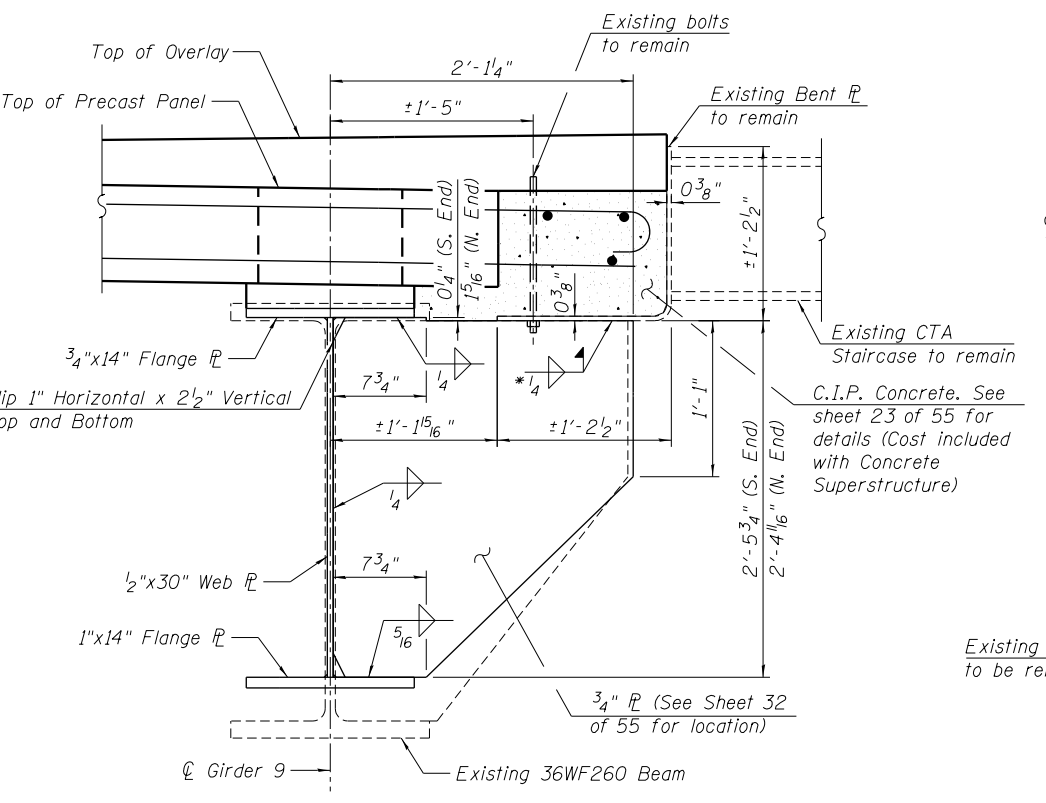


SECTION C-C

Notes:
 The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials.
 Connections shall be made after deck overlay is poured. Stiffener plates shall be AASHTO M270, Grade 50. Angles may be AASHTO M270, Grade 36.
 For details and reinforcing of the existing CTA Station framing plan and Temporary Shoring, see Building Structural Plans.
 All structural steel shall be hot dip galvanized. Cost included with Furnishing and Erecting Structural Steel.

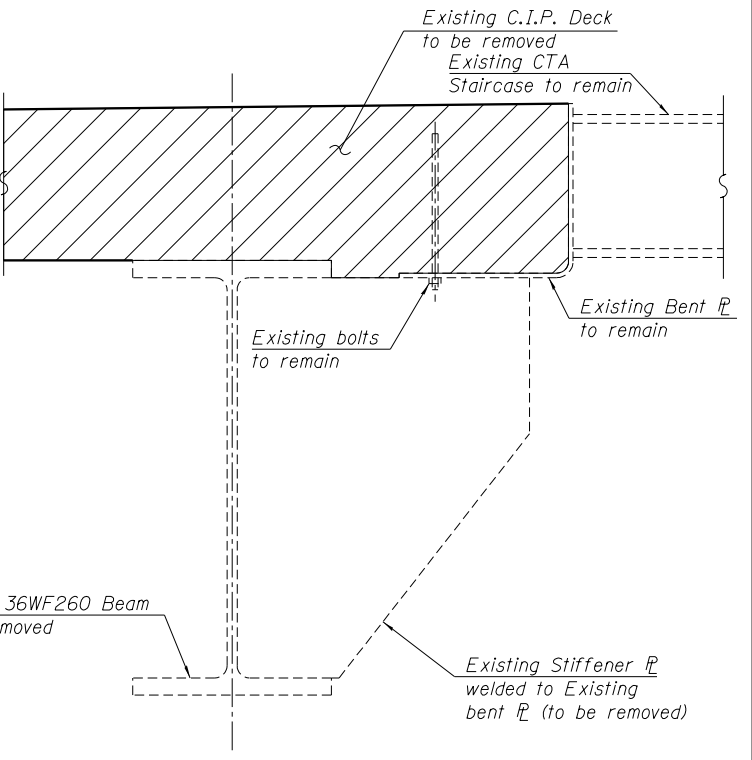


CTA STAIRWAY CONNECTION
ELEVATION
 (Looking West)



SECTION B-B

*Cost included with Furnishing and Erecting Structural Steel.



DECK REMOVAL DETAIL

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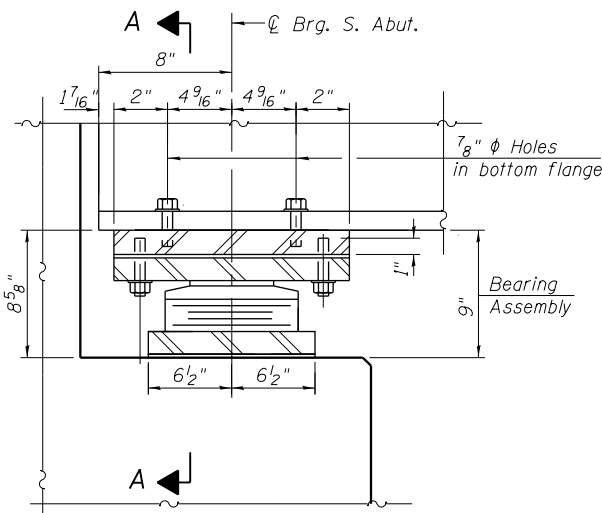
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STRUCTURAL STEEL DETAILS 3
STRUCTURE NO. 016-1708

SHEET NO. 35 OF 55 SHEETS

MUN	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2090	2013-011R	COOK	356	167
CONTRACT NO.			60W29	
ILLINOIS FED. AID PROJECT				



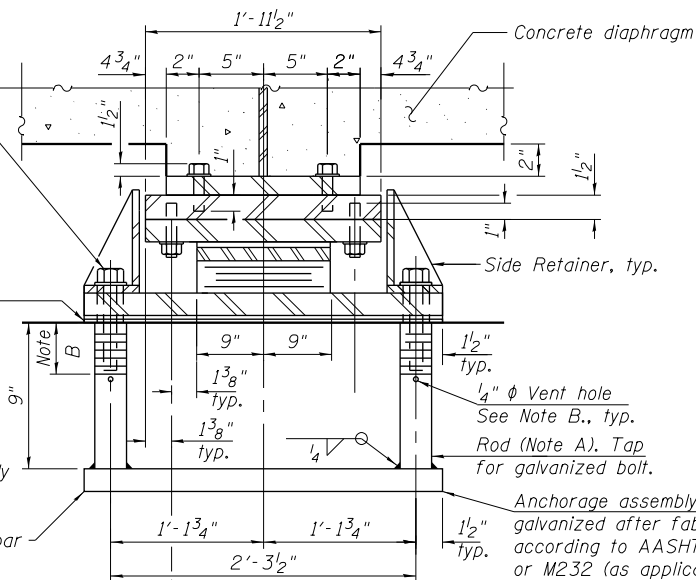
ELEVATION AT ABUT.
(Looking West)

3/4" ϕ ASTM A325 bolt.
hot dip galvanized
per AASHTO M332.
Coat bolts with
anti-seize compound.
2" x 2" x 5/16" PL
washer under nut.
1/4" ϕ Hole in bott PL

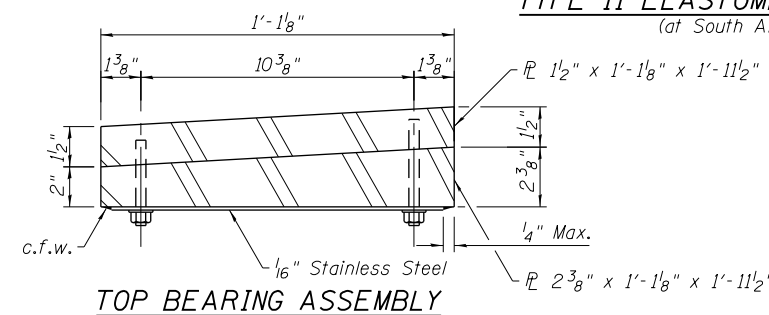
Fill PL for crown, shim
PL and 1/8" elastomeric
neoprene leveling pad
according to the
material properties of
Article 1052.02 of the
Standard Specifications.
Cost of pad included with
Elastomeric Bearing Assembly
Type II

ϕ 2-3/4" ϕ H.S. Bolts w/lock washers (Typ. ea. side)
(Coat bolts with anti-seize compound)
Tapped holes in top PL; 7/8" ϕ holes in bearing PL

TYPE II ELASTOMERIC EXP. BRG.
(at South Abutment)



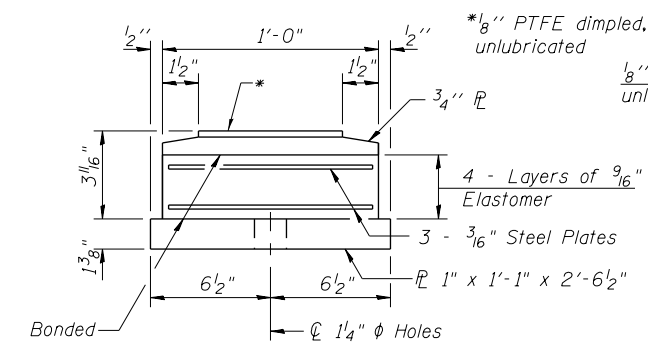
SECTION A-A



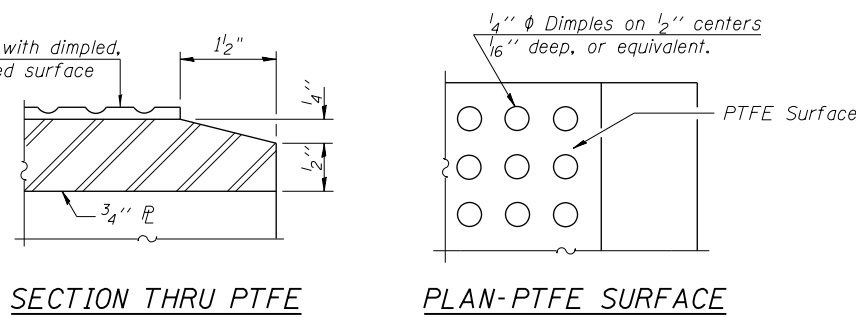
TOP BEARING ASSEMBLY

Note A:
AASHTO M270 G50 or G50W or similar material.
Rod dia. = 1/2" ϕ

Note B:
Bolt engagement 1/4" min., 1 5/8" max., allowing up to 3/8" adjustment shims. Tap full threads in rod 1 3/4" deep. Provide 1/4" ϕ galvanizing vent hole below full thread.

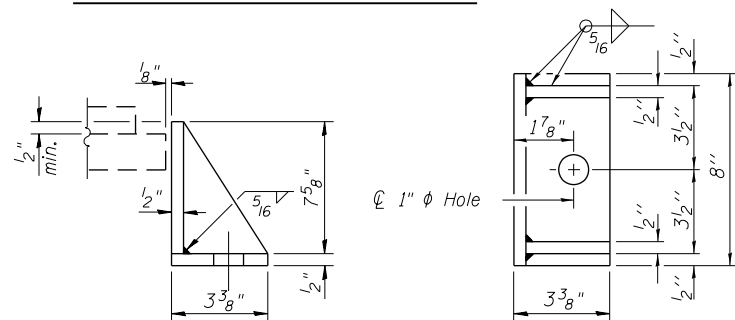


BOTTOM BEARING ASSEMBLY

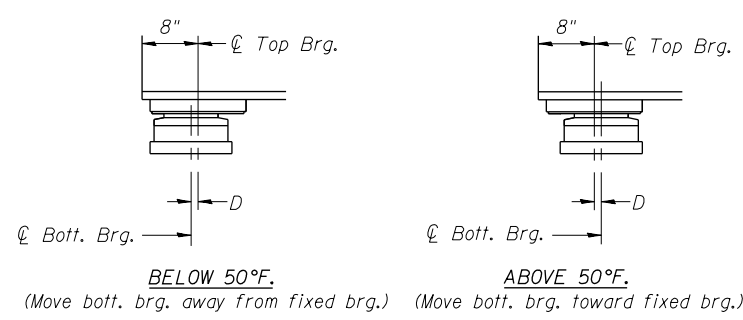


SECTION THRU PTFE

PLAN-PTFE SURFACE

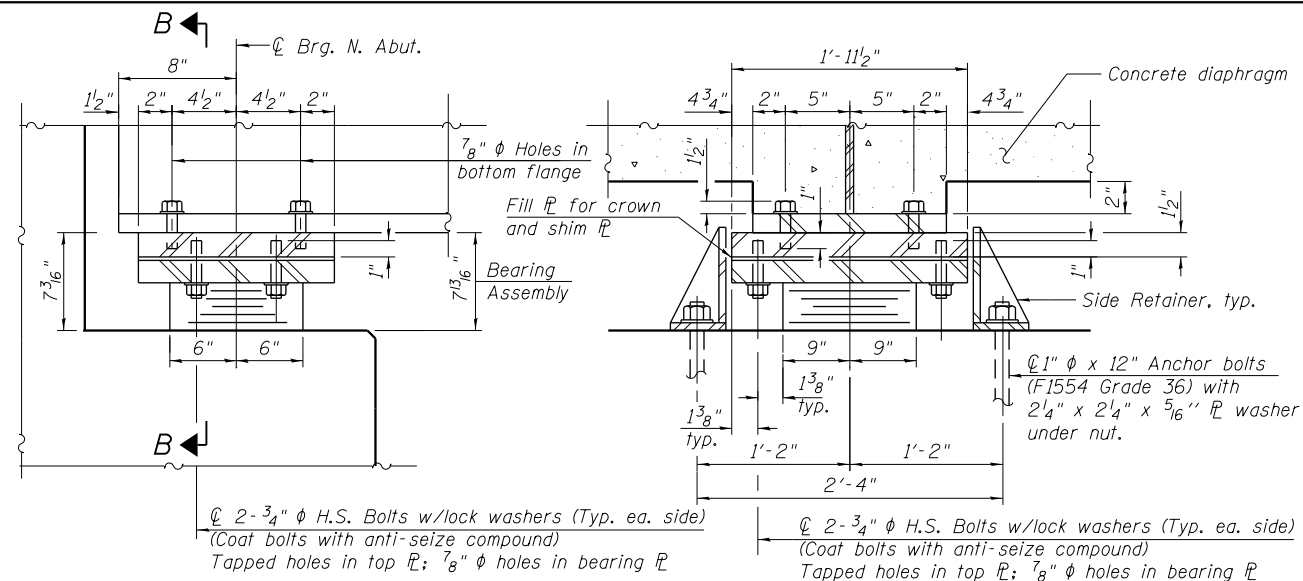


SIDE RETAINER
Equivalent rolled angle with stiffeners
will be allowed in lieu of welded plates.



SETTING ANCHOR BOLTS AT EXP. BRG.

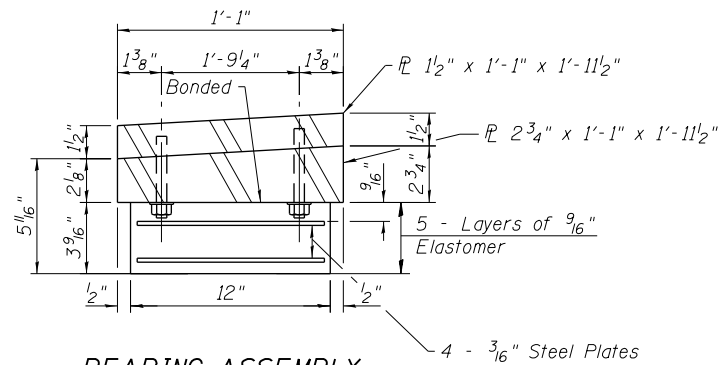
D = 1/8" per each 100' of expansion for every 15° temp. change from the normal temp. of 50°F.



ELEVATION AT ABUT.
(Looking East)

SECTION B-B

TYPE I ELASTOMERIC EXP. BRG.
(at North Abutment)



BEARING ASSEMBLY

Notes:
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
Anchor bolts for side retainers for Type I bearings may be cast in place or installed in holes drilled before or after members are in place.
Anchor bolts for Type II bearings shall be placed in holes drilled in the concrete through holes in the bottom bearing plate after members are in place. Side retainers shall be placed after bolts are installed.
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
Side retainers and other steel members required for the elastomeric bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I or Elastomeric Bearing Assembly, Type II.
The 1/8" PTFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.
Bonding of 1/8" PTFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.
Two 1/8" adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.
All (embedded and separate) bearing plates, side retainers, anchor bolts, nuts and washers shall be galvanized according to ASTM M111 or M232 as applicable.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type I	Each	9
Elastomeric Bearing Assembly, Type II	Each	9
Anchor Bolts, 1" ϕ	Each	18

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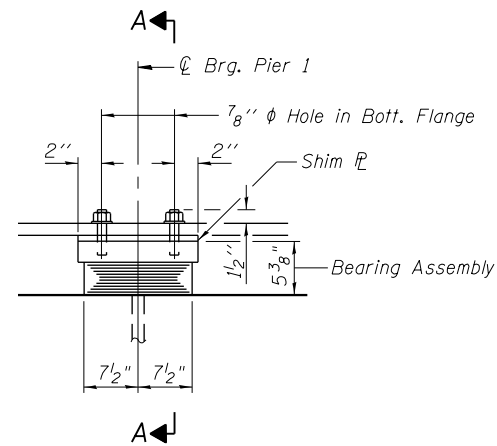
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

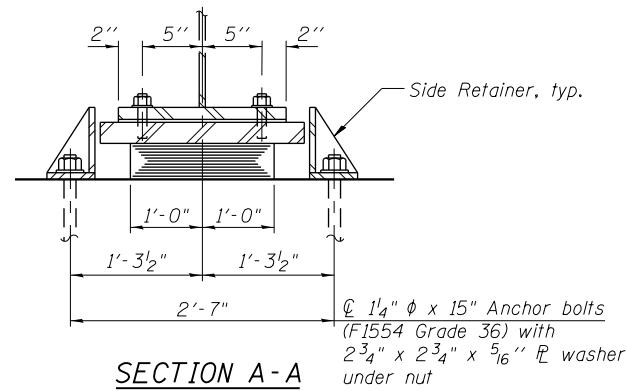
ABUTMENT BEARING DETAILS
STRUCTURE NO. 016-1708

SHEET NO. 36 OF 55 SHEETS

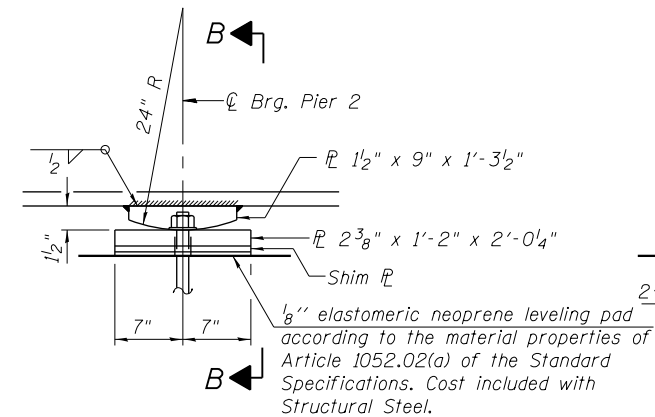
MUN	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2090	2013-011R	COOK	356	168
CONTRACT NO.			60W29	
ILLINOIS FED. AID PROJECT				



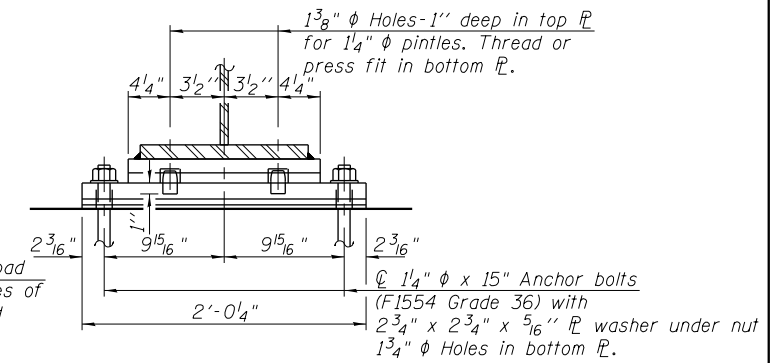
ELEVATION AT PIER
(Looking West)



SECTION A-A

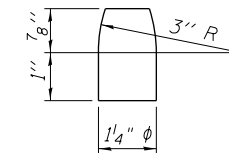


ELEVATION AT PIER
(Looking West)



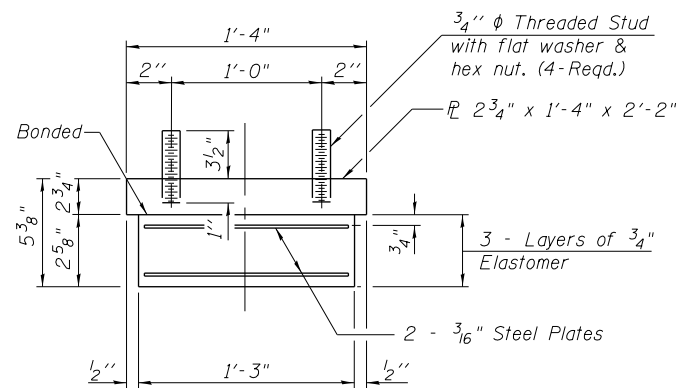
SECTION B-B

FIXED BEARING
(At Pier 2)



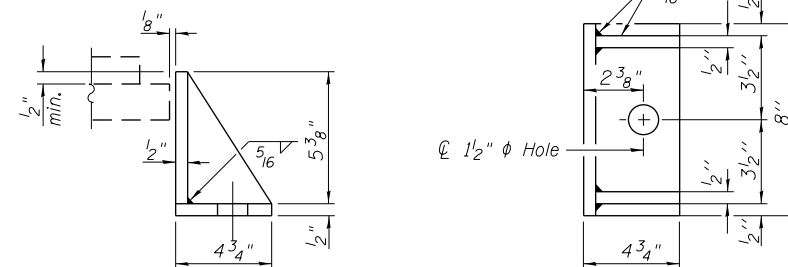
PINTLE
F1554 Grade 36

TYPE I ELASTOMERIC EXP. BRG.
(At Pier 1)



BEARING ASSEMBLY

Note:
Shim plates shall not be placed under Bearing Assembly.



SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

Notes:
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.
Anchor bolts for side retainers may be cast in place or installed in holes drilled before or after members are in place.
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
Side retainers and other steel members required for the elastomeric bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.
Two 1/8" adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.
All (embedded and separate) bearing plates, side retainers, anchor bolts, nuts, washers and pintles shall be galvanized according to ASTM M111 or M232 as applicable.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly, Type I	Each	9
Anchor Bolts, 1 1/4"	Each	36

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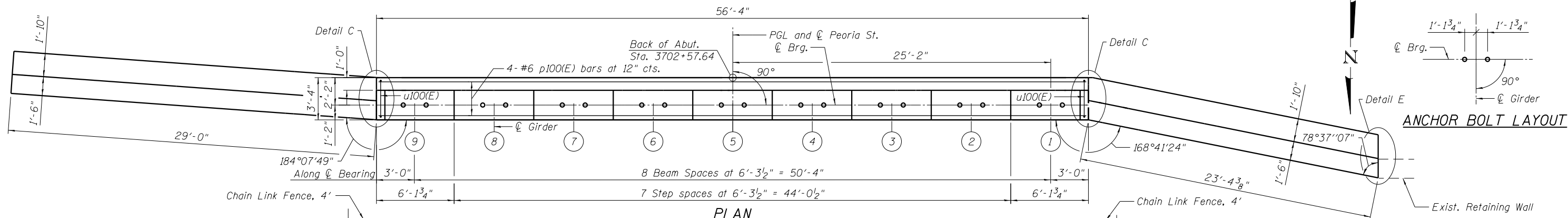
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

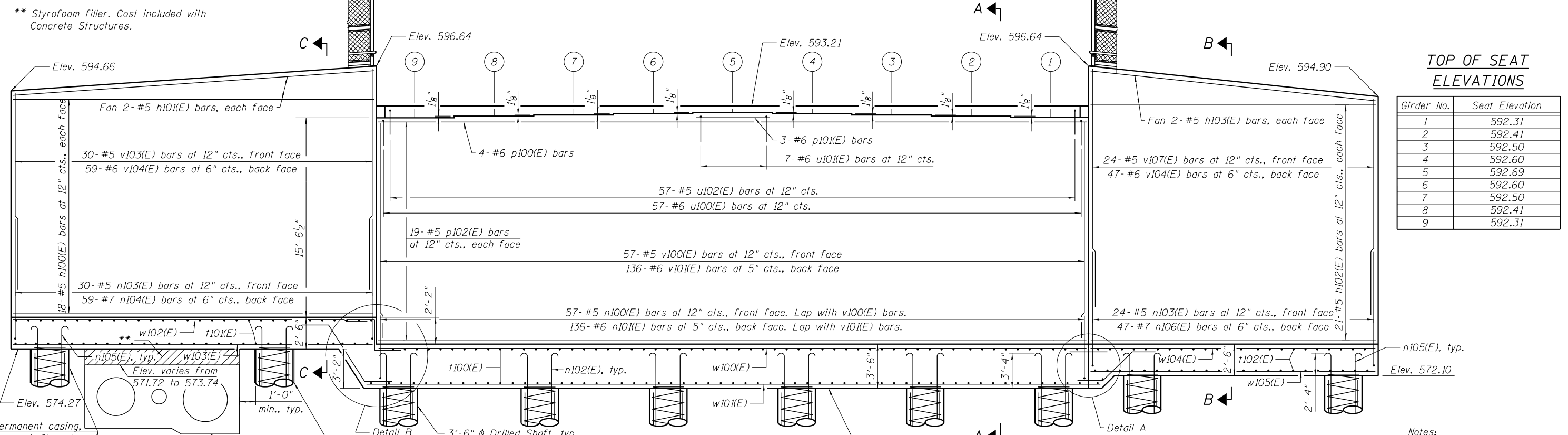
PIER BEARING DETAILS
STRUCTURE NO. 016-1708

SHEET NO. 37 OF 55 SHEETS

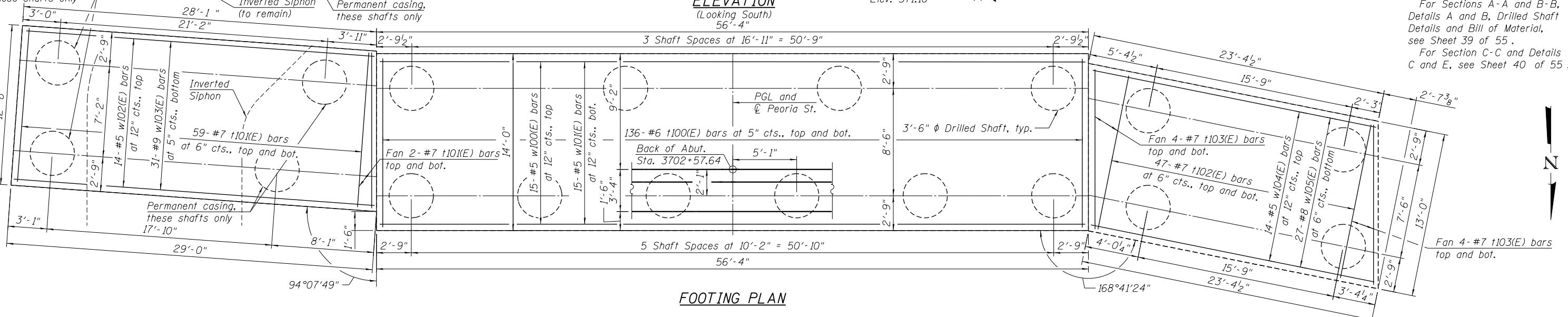
MUN	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2090	2013-011R	COOK	356	169
CONTRACT NO.			60W29	
ILLINOIS FED. AID PROJECT				



PLAN



ELEVATION
(Looking South)



FOOTING PLAN

TOP OF SEAT ELEVATIONS

Girder No.	Seat Elevation
1	592.31
2	592.41
3	592.50
4	592.60
5	592.69
6	592.60
7	592.50
8	592.41
9	592.31

Notes:
For Sections A-A and B-B, Details A and B, Drilled Shaft Details and Bill of Material, see Sheet 39 of 55.
For Section C-C and Details C and E, see Sheet 40 of 55.

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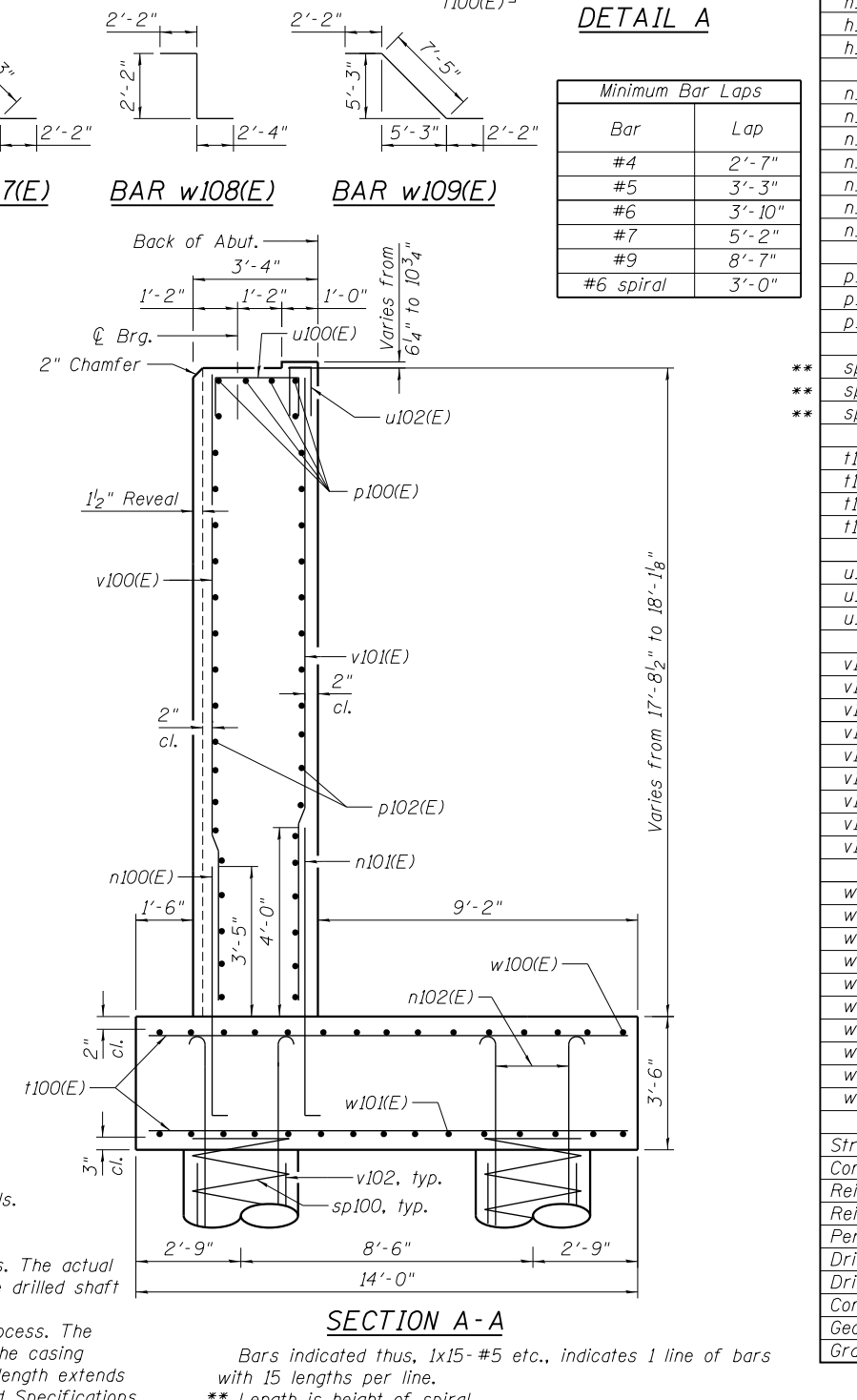
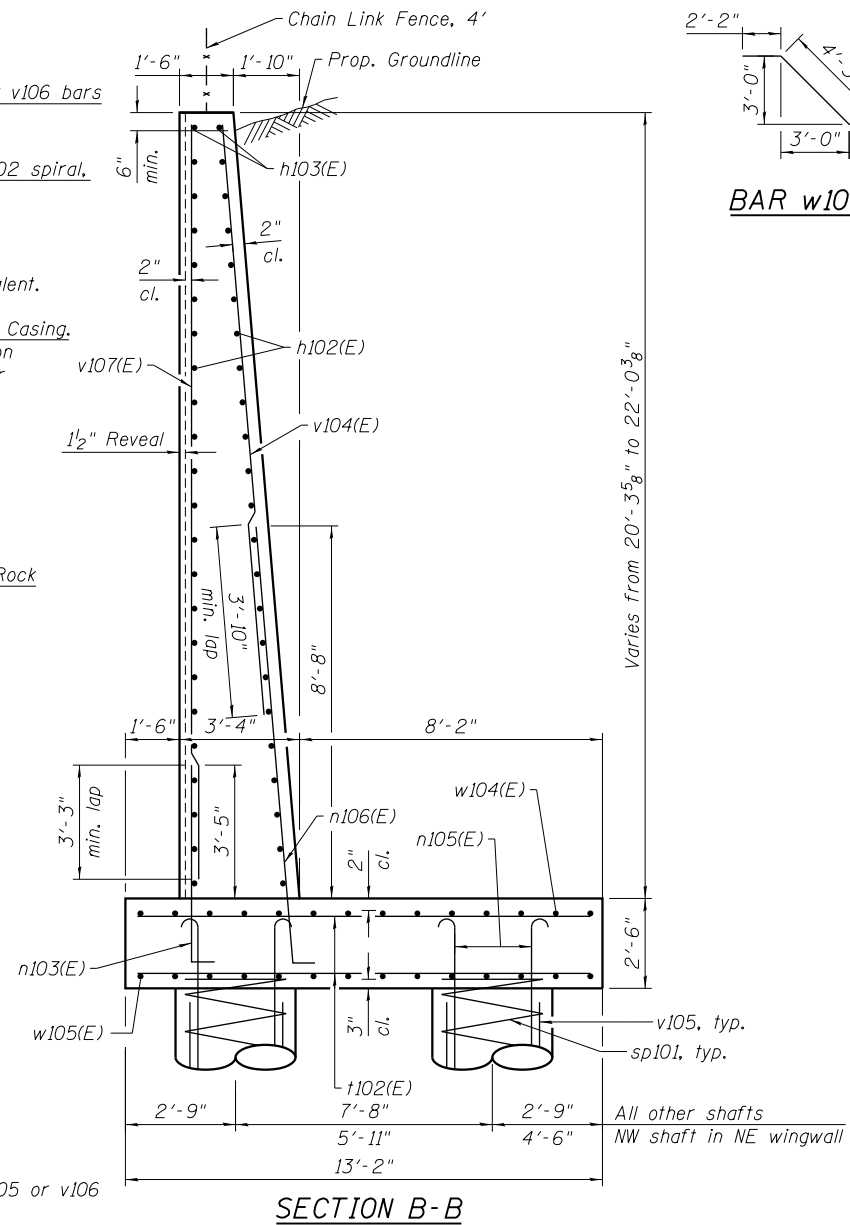
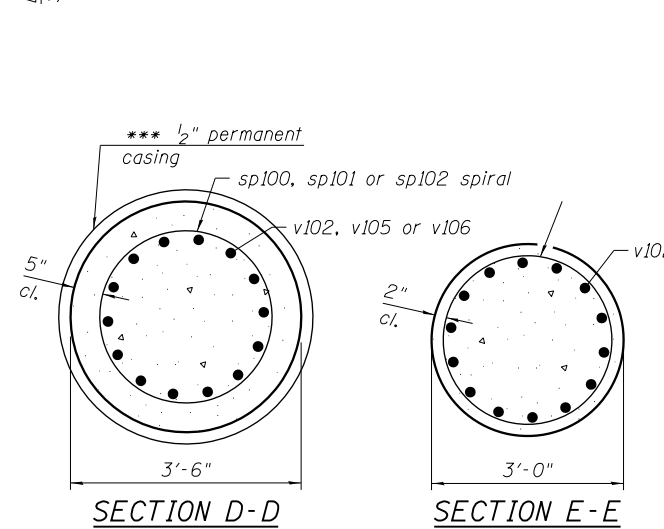
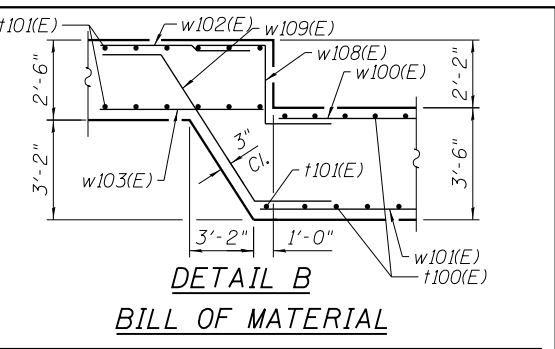
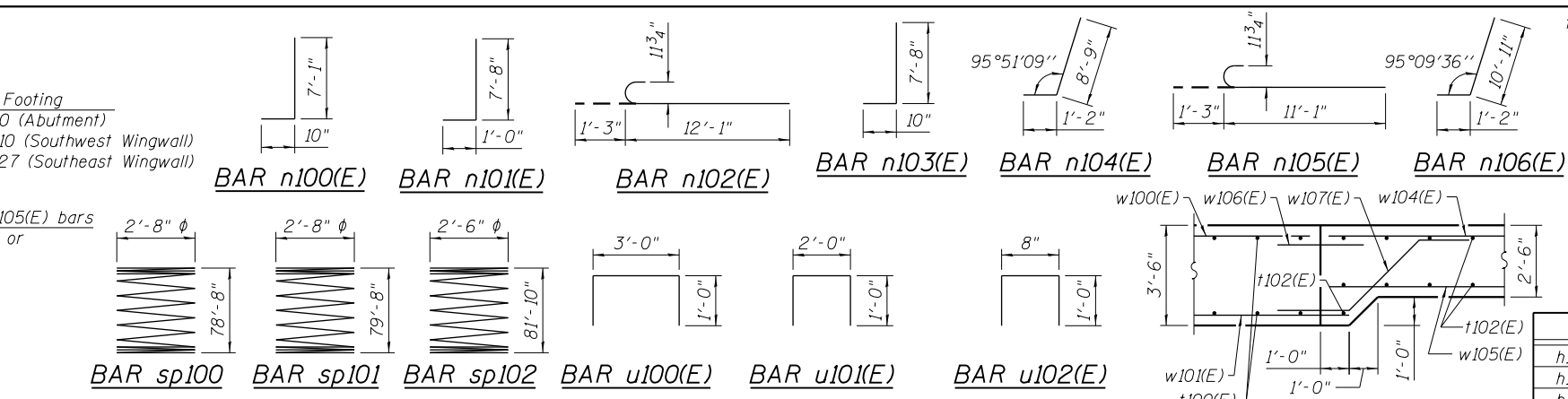
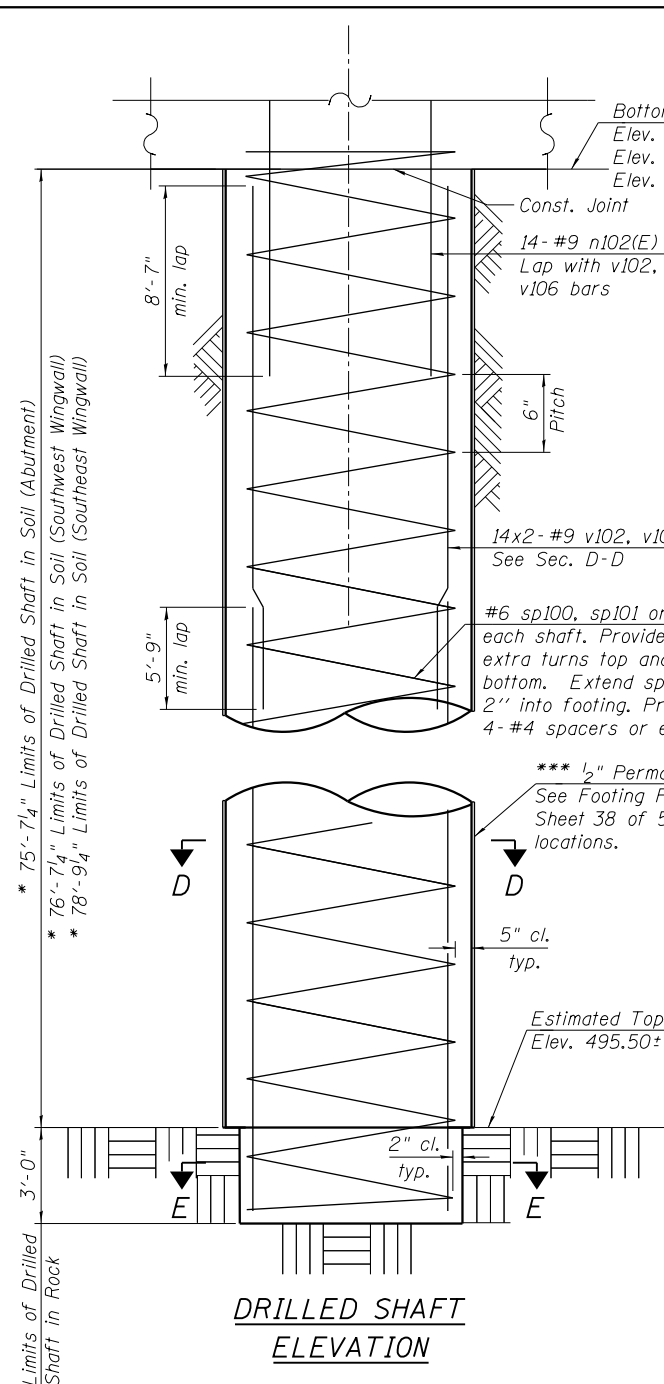
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOUTH ABUTMENT PLAN AND ELEVATION
STRUCTURE NO. 016-1708

SHEET NO. 38 OF 55 SHEETS

MUN 2090	SECTION 2013-011R	COUNTY COOK	TOTAL SHEETS 356	SHEET NO. 170
CONTRACT NO. 60W29			ILLINOIS FED. AID PROJECT	



BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h100(E)	36	#5	28'-8"	—
h101(E)	4	#5	28'-9"	—
h102(E)	42	#5	23'-0"	—
h103(E)	4	#5	23'-1"	—
h104(E)	4	#5	2'-0"	—
n100(E)	57	#5	7'-11"	—
n101(E)	136	#6	8'-8"	—
n102(E)	140	#9	13'-4"	—
n103(E)	54	#5	8'-6"	—
n104(E)	59	#7	9'-11"	—
n105(E)	112	#9	12'-4"	—
n106(E)	47	#7	12'-1"	—
p100(E)	4	#6	56'-0"	—
p101(E)	3	#6	5'-11"	—
p102(E)	38	#5	56'-0"	—
sp100	10	#6	78'-8"	—
sp101	4	#6	79'-8"	—
sp102	4	#6	81'-10"	—
t100(E)	272	#6	13'-8"	—
t101(E)	123	#7	12'-4"	—
t102(E)	95	#7	12'-8"	—
t103(E)	16	#7	12'-11"	—
u100(E)	57	#6	5'-0"	—
u101(E)	7	#6	4'-0"	—
u102(E)	57	#5	2'-8"	—
v100(E)	57	#5	17'-4"	—
v101(E)	136	#6	17'-4"	—
v102	280	#9	42'-0"	—
v103(E)	30	#5	17'-6"	—
v104(E)	106	#6	17'-0"	—
v105	112	#9	42'-6"	—
v106	112	#9	43'-8"	—
v107(E)	24	#5	19'-11"	—
v108(E)	6	#5	1'-8"	—
w100(E)	15	#5	56'-0"	—
w101(E)	15	#5	58'-0"	—
w102(E)	14	#5	28'-8"	—
w103(E)	31	#9	28'-8"	—
w104(E)	14	#5	23'-0"	—
w105(E)	27	#8	23'-0"	—
w106(E)	14	#5	4'-4"	—
w107(E)	14	#5	8'-7"	—
w108(E)	14	#5	6'-8"	—
w109(E)	14	#5	11'-9"	—
Structure Excavation			Cu. Yd.	1577
Concrete Structures			Cu. Yd.	384.0
Reinforcement Bars			Pound	108,920
Reinforcement Bars, Epoxy Coated			Pound	49,220
Permanent Casing			Foot	315
Drilled Shaft in Soil			Cu. Yd.	490.9
Drilled Shaft in Rock			Cu. Yd.	14.3
Concrete Sealer			Sq. Ft.	2079
Geocomposite Wall Drain			Sq. Yd.	235
Granular Backfill for Structures			Cu. Yd.	308

Notes:

Apply Concrete Sealer to all exposed concrete surfaces of the abutment and wingwalls. Pour steps monolithically with cap.

Space p100(E), u100(E) and u101(E) bars to miss anchor bolts.

* The quantities and detailing are based on the estimated elevations shown on the plans. The actual elevations may differ at each shaft and corresponding adjustments shall be made to the drilled shaft and reinforcement quantities and payment limits.

*** Contractor may need to increase the casing thickness to withstand the installation process. The Estimated Top of Rock/Bottom of Permanent Casing Elevation is shown. The limits of the casing shall be adjusted as necessary, and as approved, such that the actual installed casing length extends to the as-encountered top of rock at each shaft. See Article 516.06(d) of the Standard Specifications.

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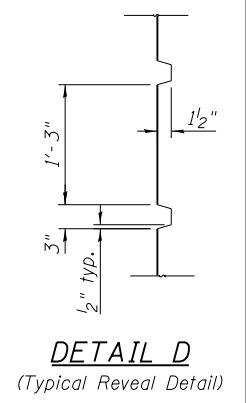
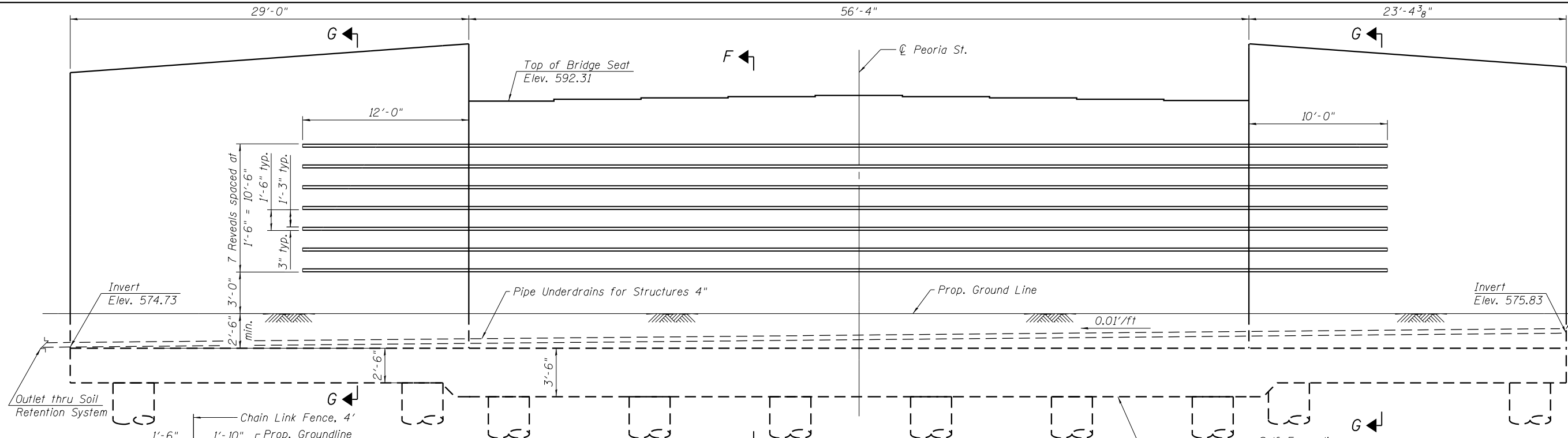


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PLOT DATE = 10/28/2013	CHECKED	MDS	REVISED

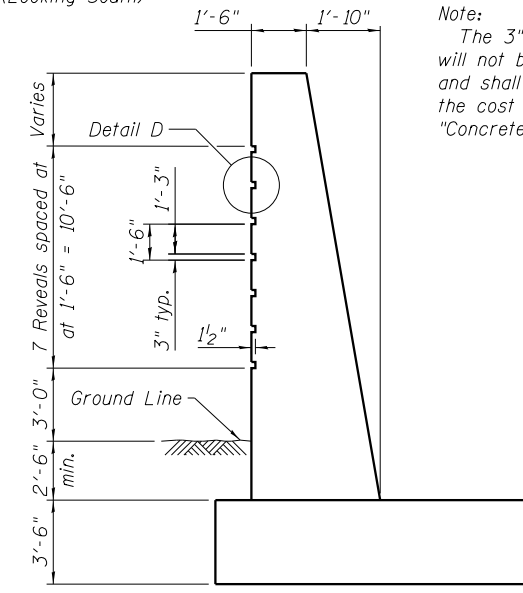
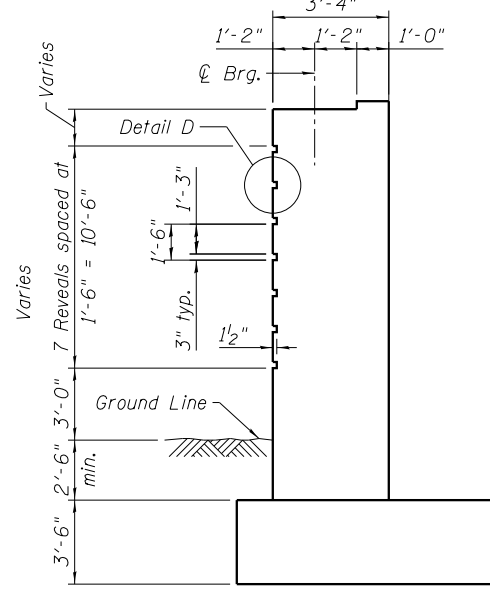
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOUTH ABUTMENT DETAILS 1
STRUCTURE NO. 016-1708
SHEET NO. 39 OF 55 SHEETS

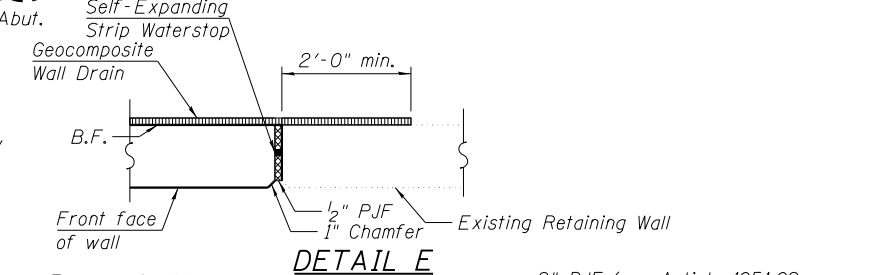
MUN	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2090	2013-011R	COOK	356	171
CONTRACT NO.			60W29	
ILLINOIS FED. AID PROJECT				



SOUTH ABUTMENT ELEVATION - ARCHITECTURAL DETAILS
(Looking South)

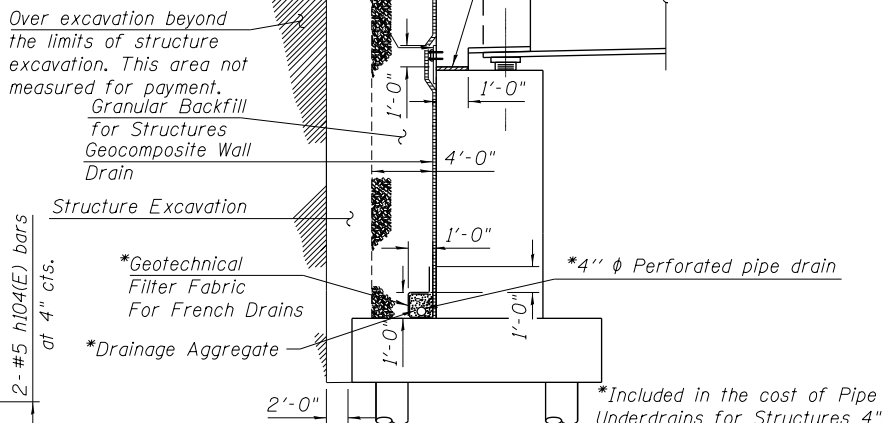


Note:
The 3" x 1/2" reveal will not be paid separately and shall be included in the cost of the pay item "Concrete Structures".

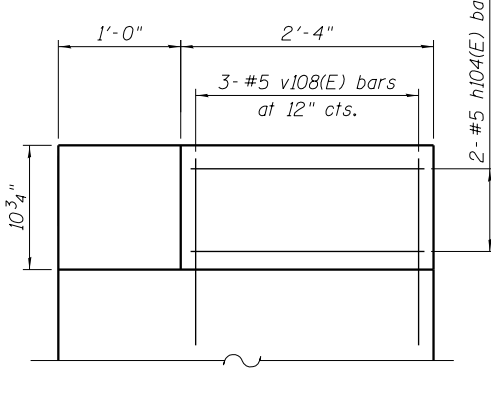
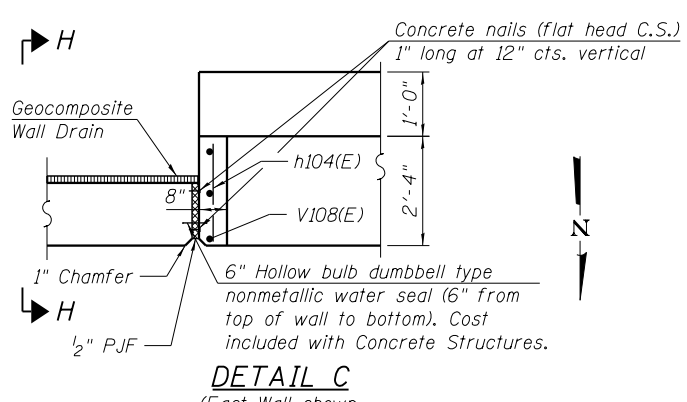
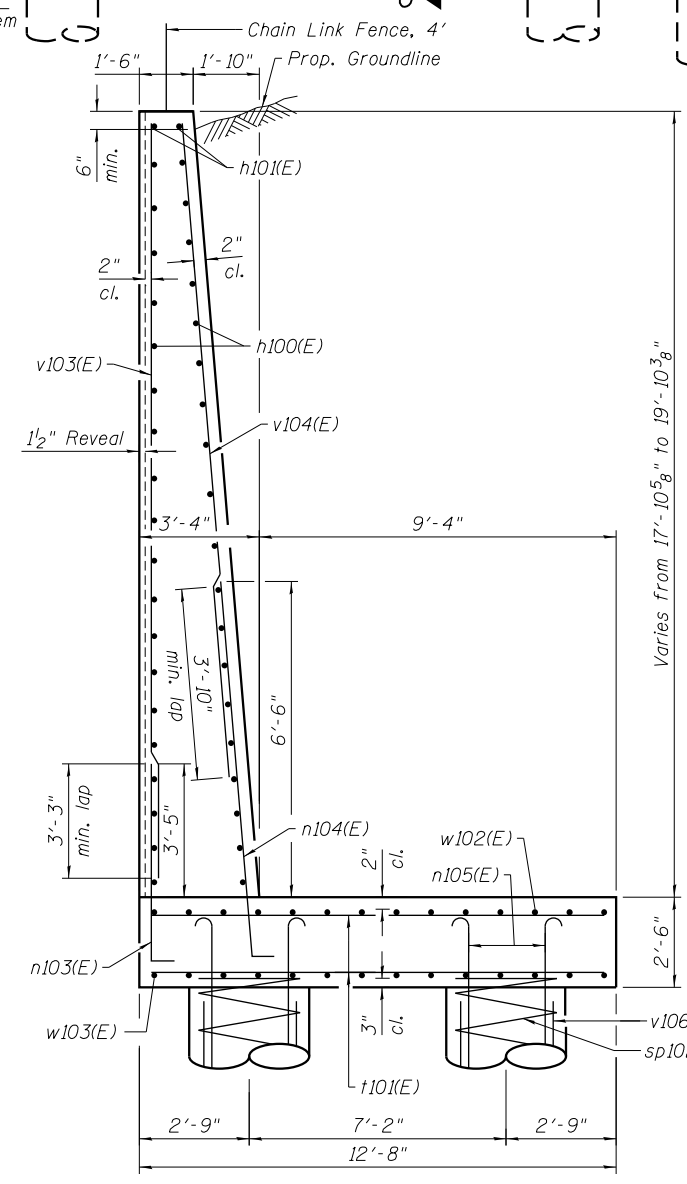


Fabric Reinforced Elastomeric Mat according to Section 1028 of the Std. Specs. Fabric mat shall be 24" wide and attached full width and vertically at edges to the abutment cap with a 3/8" x 5" steel plate and 1/2" φ studs with nuts and washers at 12" cts. See Fig. 3.8.4-2. Cost included with Concrete Superstructures.

2" P/JF (per Article 1051.09 of the Standard Specifications) full width and vertically at edges bonded to abutment cap with suitable adhesive as recommended by supplier. See Fig. 3.8.4-2.



All drainage system components shall extend to the West end of the Southwest wingwall and to the East end of the Southeast wingwall except an outlet pipe shall extend thru the Soil Retention System to the East. The pipe shall drain onto the roadway.



BILL OF MATERIAL

Item	Unit	Total
Pipe Underdrains for Structures 4"	Foot	114

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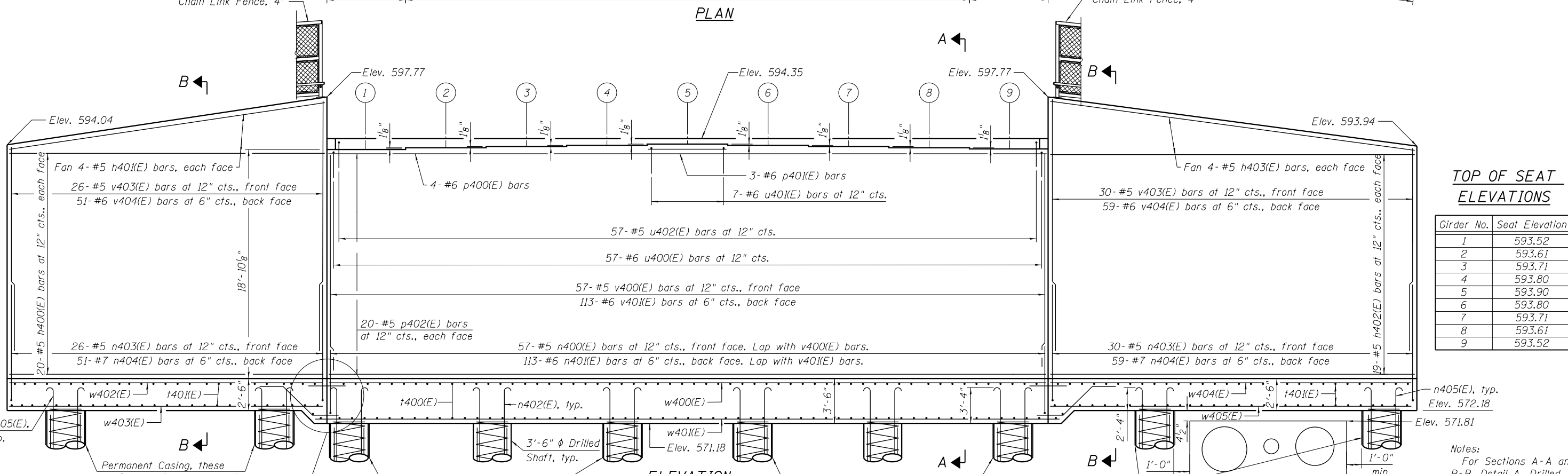
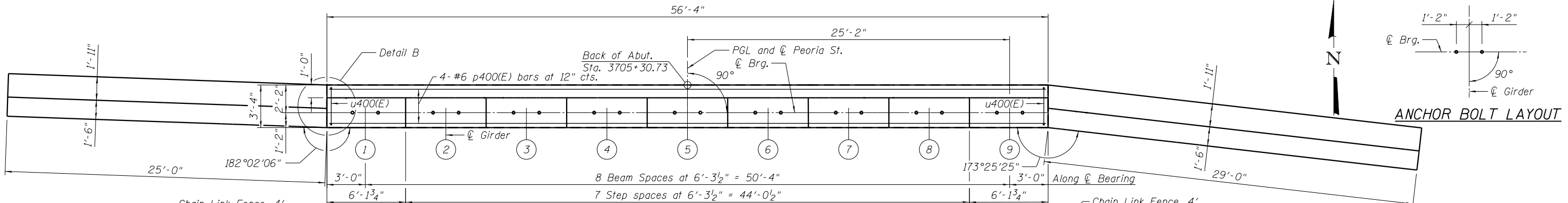


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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

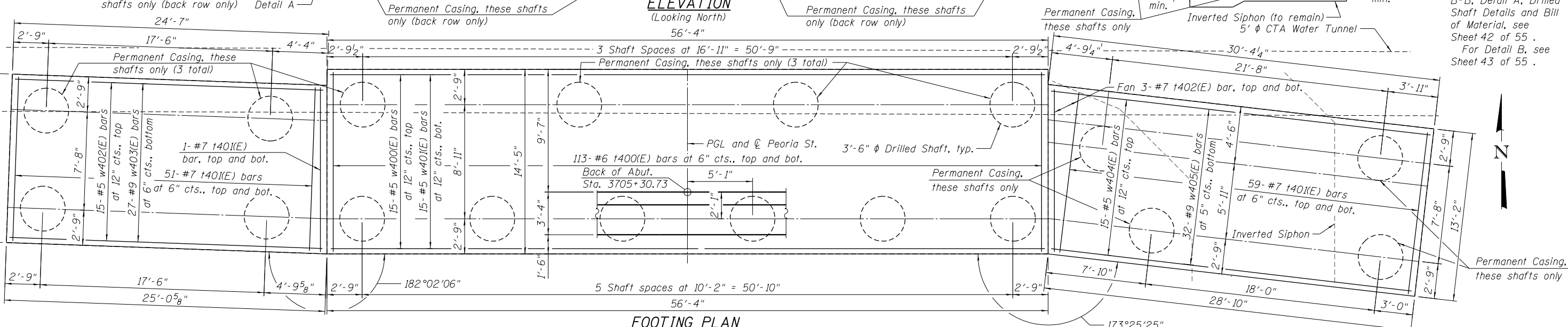
**SOUTH ABUTMENT DETAILS 2
STRUCTURE NO. 016-1708**
SHEET NO. 40 OF 55 SHEETS

MUN	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2090	2013-011R	COOK	356	172
ILLINOIS FED. AID PROJECT			CONTRACT NO. 60W29	



TOP OF SEAT ELEVATIONS

Girder No.	Seat Elevation
1	593.52
2	593.61
3	593.71
4	593.80
5	593.90
6	593.80
7	593.71
8	593.61
9	593.52



Notes:
 For Sections A-A and B-B, Detail A, Drilled Shaft Details and Bill of Material, see Sheet 42 of 55.
 For Detail B, see Sheet 43 of 55.

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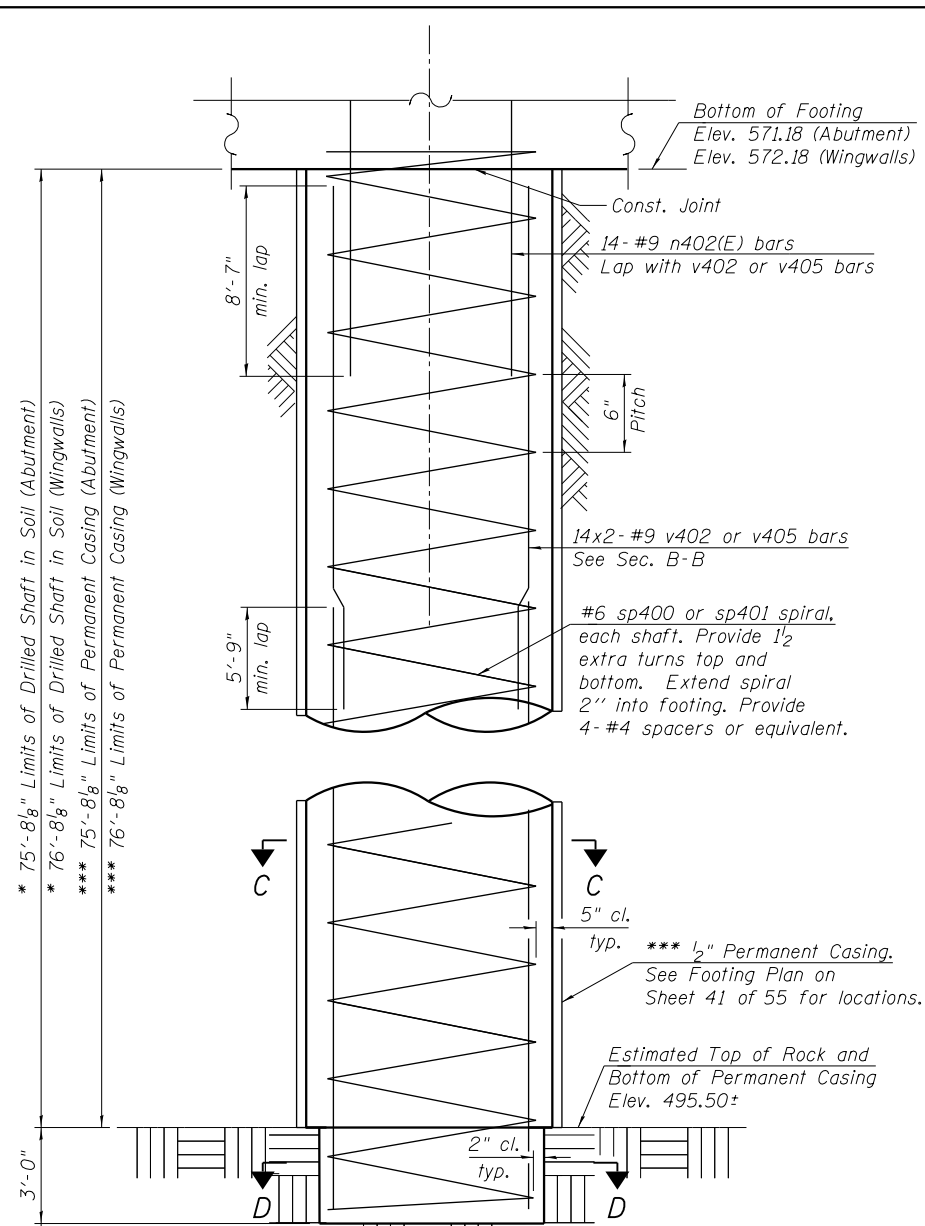
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PLOT DATE = 10/28/2013	CHECKED = MDS	REVISED

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**NORTH ABUTMENT PLAN AND ELEVATION
STRUCTURE NO. 016-1708**

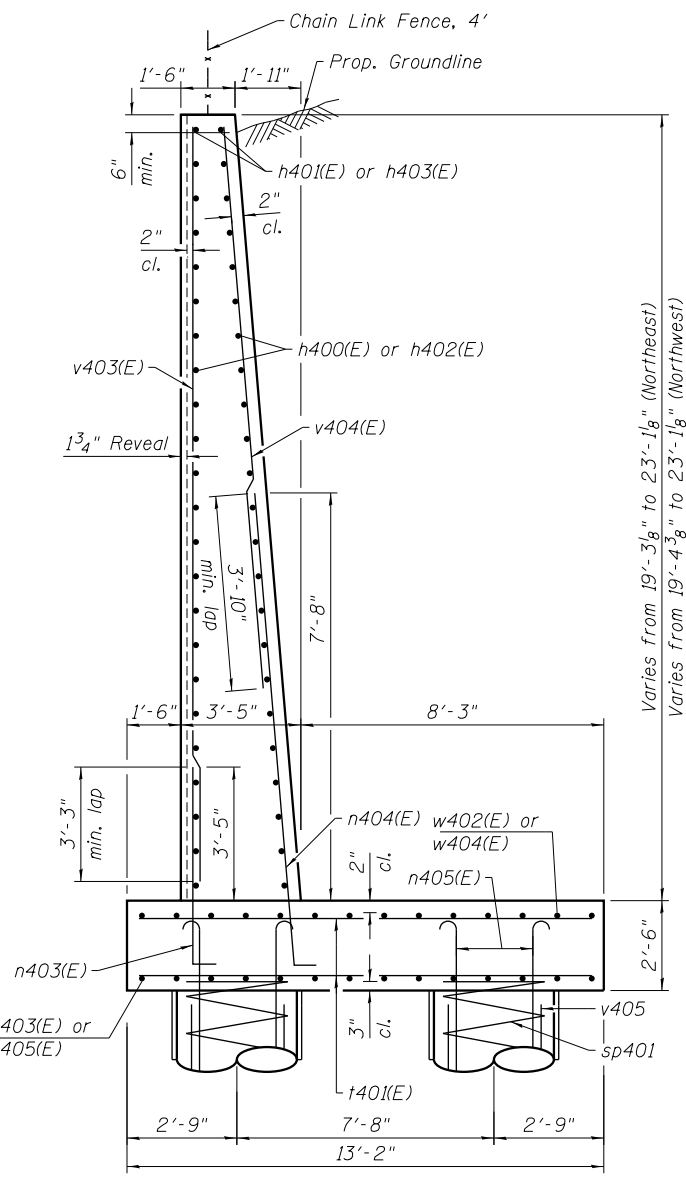
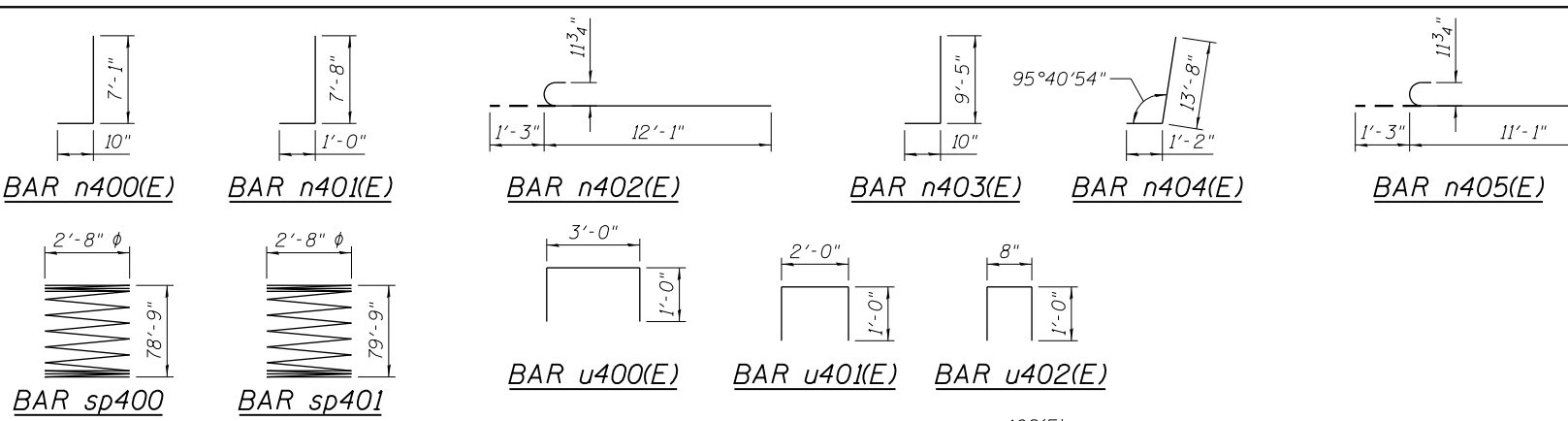
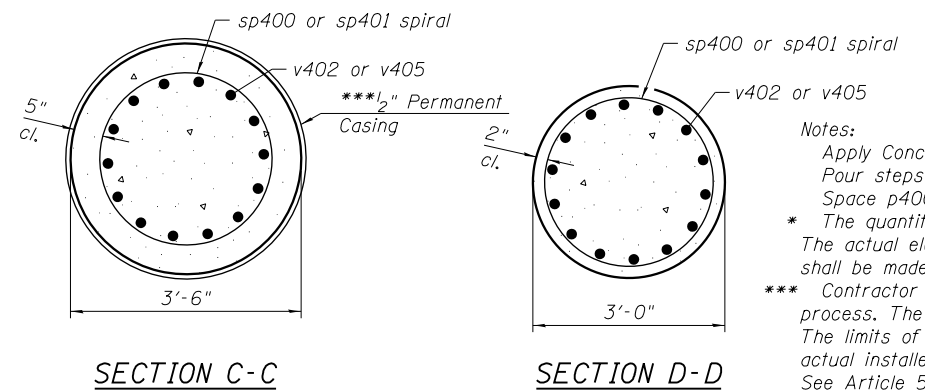
MUN 2090	SECTION 2013-011R	COUNTY COOK	TOTAL SHEETS 356	SHEET NO. 173
CONTRACT NO. 60W29			ILLINOIS FED. AID PROJECT	

SHEET NO. 41 OF 55 SHEETS

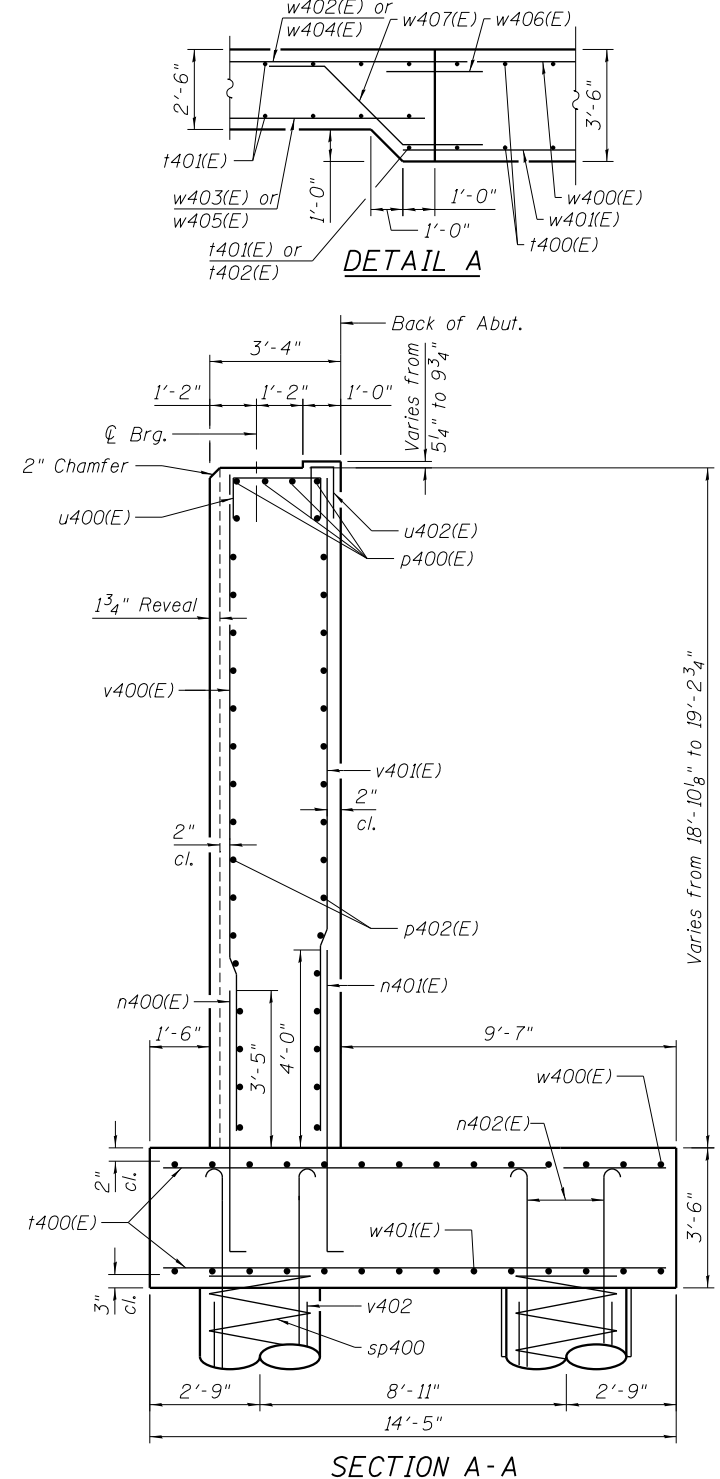


DRILLED SHAFT ELEVATION

Minimum Bar Laps	
Bar	Lap
#4	2'-7"
#5	3'-3"
#6	3'-10"
#7	5'-2"
#9	8'-7"
#6 Spiral	3'-0"



SECTION B-B



SECTION A-A

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h400(E)	40	#5	24'-8"	—
h401(E)	8	#5	24'-11"	—
h402(E)	38	#5	28'-8"	—
h403(E)	8	#5	28'-11"	—
h404(E)	4	#5	2'-0"	—
n400(E)	57	#5	7'-11"	L
n401(E)	113	#6	8'-8"	L
n402(E)	140	#9	13'-4"	C
n403(E)	56	#5	10'-3"	L
n404(E)	110	#7	14'-10"	L
n405(E)	112	#9	12'-4"	C
p400(E)	4	#6	56'-0"	—
p401(E)	3	#6	5'-11"	—
p402(E)	40	#5	56'-0"	—
sp400	10	#6	78'-9"	—
sp401	8	#6	79'-9"	—
t400(E)	226	#6	14'-1"	—
t401(E)	223	#7	12'-10"	—
t402(E)	7	#7	12'-11"	—
u400(E)	57	#6	5'-0"	□
u401(E)	7	#6	4'-0"	□
u402(E)	57	#5	2'-8"	□
v400(E)	57	#5	18'-6"	—
v401(E)	113	#6	18'-6"	—
v402	280	#9	42'-1"	—
v403(E)	56	#5	19'-0"	—
v404(E)	110	#6	15'-4"	—
v405	224	#9	42'-7"	—
v406(E)	6	#5	1'-7"	—
w400(E)	14	#5	56'-0"	—
w401(E)	14	#5	58'-0"	—
w402(E)	14	#5	24'-8"	—
w403(E)	27	#9	24'-8"	—
w404(E)	14	#5	28'-8"	—
w405(E)	32	#9	28'-8"	—
w406(E)	28	#5	4'-4"	—
w407(E)	28	#5	8'-7"	—
Structure Excavation		Cu. Yd.	1638	
Concrete Structures		Cu. Yd.	411.1	
Reinforcement Bars		Pound	108,440	
Reinforcement Bars, Epoxy Coated		Pound	49,790	
Permanent Casing		Foot	763	
Drilled Shaft in Soil		Cu. Yd.	488.3	
Drilled Shaft in Rock		Cu. Yd.	14.3	
Concrete Sealer		Sq. Ft.	2062	
Geocomposite Wall Drain		Sq. Yd.	254	
Granular Backfill for Structures		Cu. Yd.	339	

Bars indicated thus, 1x15-#5 etc., indicates 1 line of bars with 15 lengths per line.
 ** Length is height of spiral.

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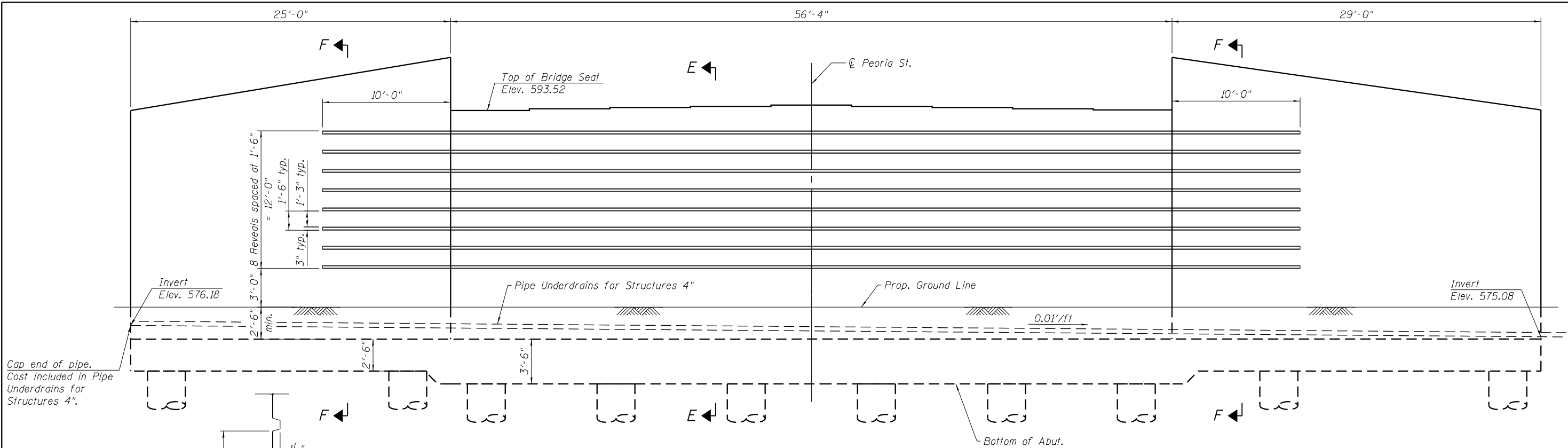


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PLOT DATE = 10/28/2013	CHECKED MDS	REVISD

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**NORTH ABUTMENT DETAILS 1
STRUCTURE NO. 016-1708**
SHEET NO. 42 OF 55 SHEETS

MUN	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2090	2013-011R	COOK	356	174
ILLINOIS FED. AID PROJECT			CONTRACT NO.	60W29



NORTH ABUTMENT ELEVATION - ARCHITECTURAL DETAILS

(Looking North)

Note:
The 3" x 1/2" reveal will not be paid separately and shall be included in the cost of the pay item "Concrete Structures".

Fabric Reinforced Elastomeric Mat according to Section 1028 of the Std. Specs. Fabric mat shall be 24" wide and attached full width and vertically at edges to the abutment cap with a 3/8" x 5" steel plate and 1/2" φ studs with nuts and washers at 12" cts. See Fig. 3.8.4-2. Cost included with Concrete Superstructures.

2" PJF (per Article 1051.09 of the Standard Specifications) full width and vertically at edges bonded to abutment cap with suitable adhesive as recommended by supplier. See Fig. 3.8.4-2.

Over excavation beyond the limits of structure excavation. This area not measured for payment.

Granular Backfill For Structures
Geocomposite Wall Drain

Structure Excavation

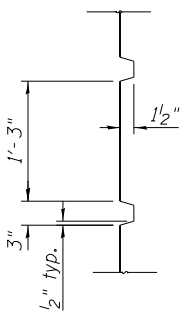
*Geotechnical Filter Fabric For French Drains

*Drainage Aggregate

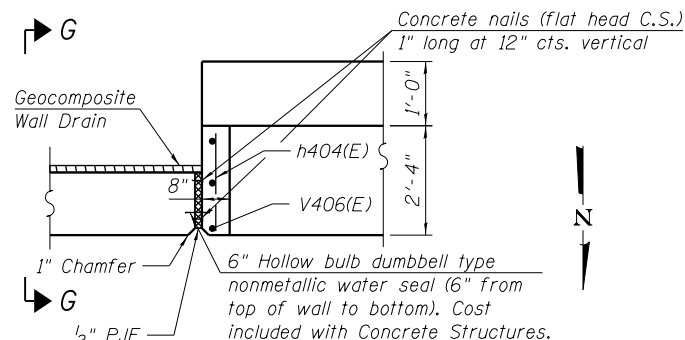
*4" φ Perforated pipe drain
*Included in the cost of Pipe Underdrains for Structures 4".

SECTION THRU ABUTMENT

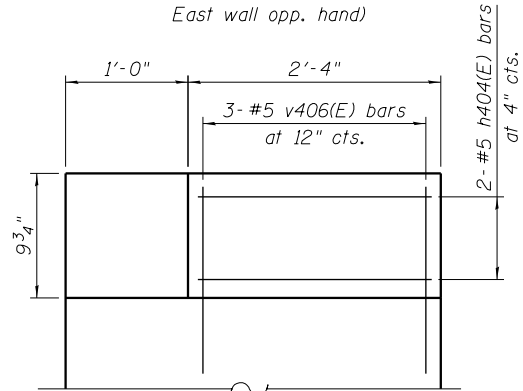
All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipes shall drain into concrete headwalls. (See Article 601.05 of the Standard Specifications and Highway Standard 601101).



DETAIL C
(Typical Reveal Detail)



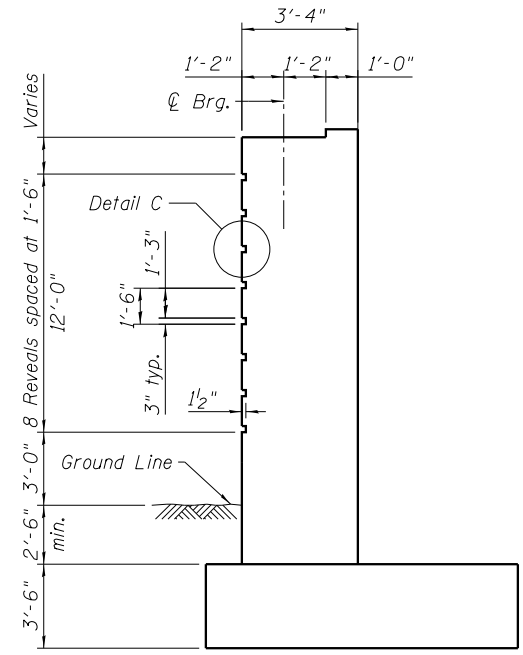
DETAIL B
(West Wall shown, East wall opp. hand)



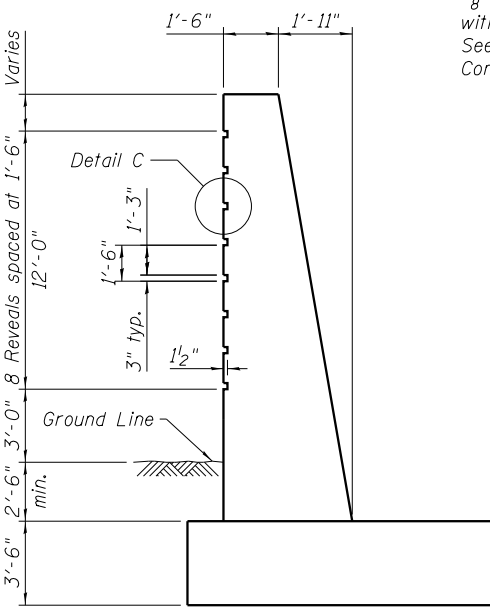
SECTION G-G

BILL OF MATERIAL

Item	Unit	Total
Pipe Underdrains for Structures 4"	Foot	115



SECTION E-E



SECTION F-F

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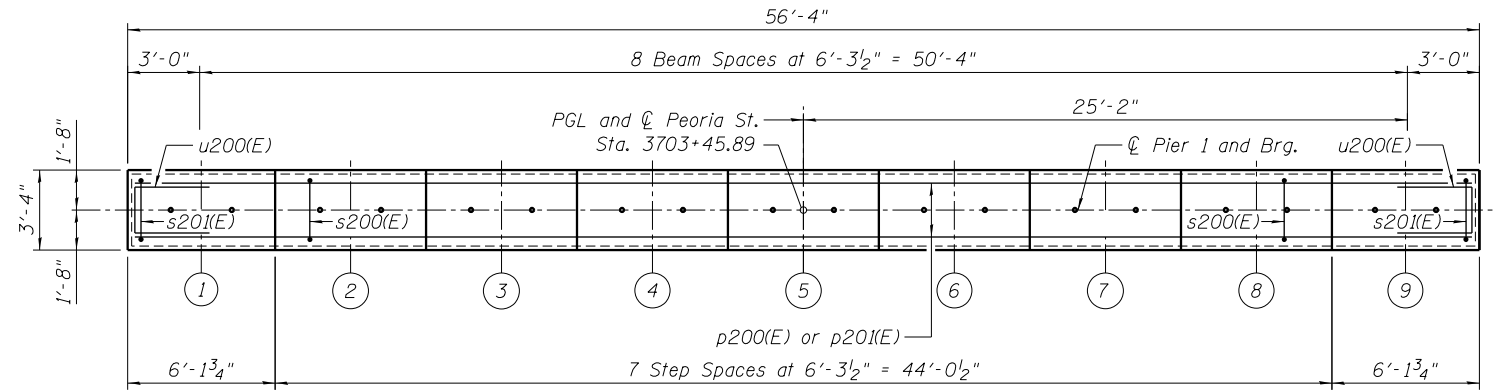
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

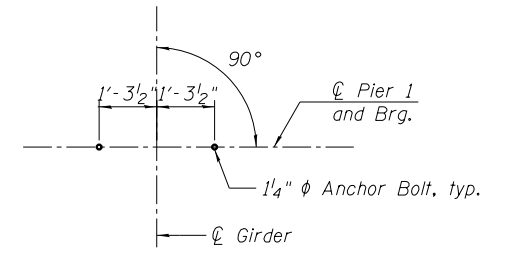
**NORTH ABUTMENT DETAILS 2
STRUCTURE NO. 016-1708**

SHEET NO. 43 OF 55 SHEETS

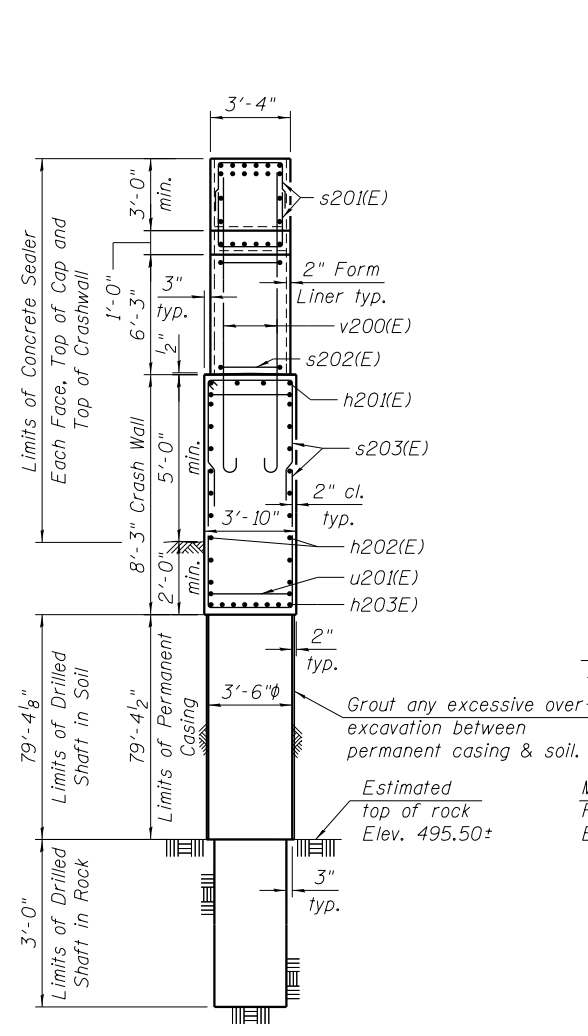
MUN	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2090	2013-011R	COOK	356	175
CONTRACT NO.			60W29	
ILLINOIS FED. AID PROJECT				



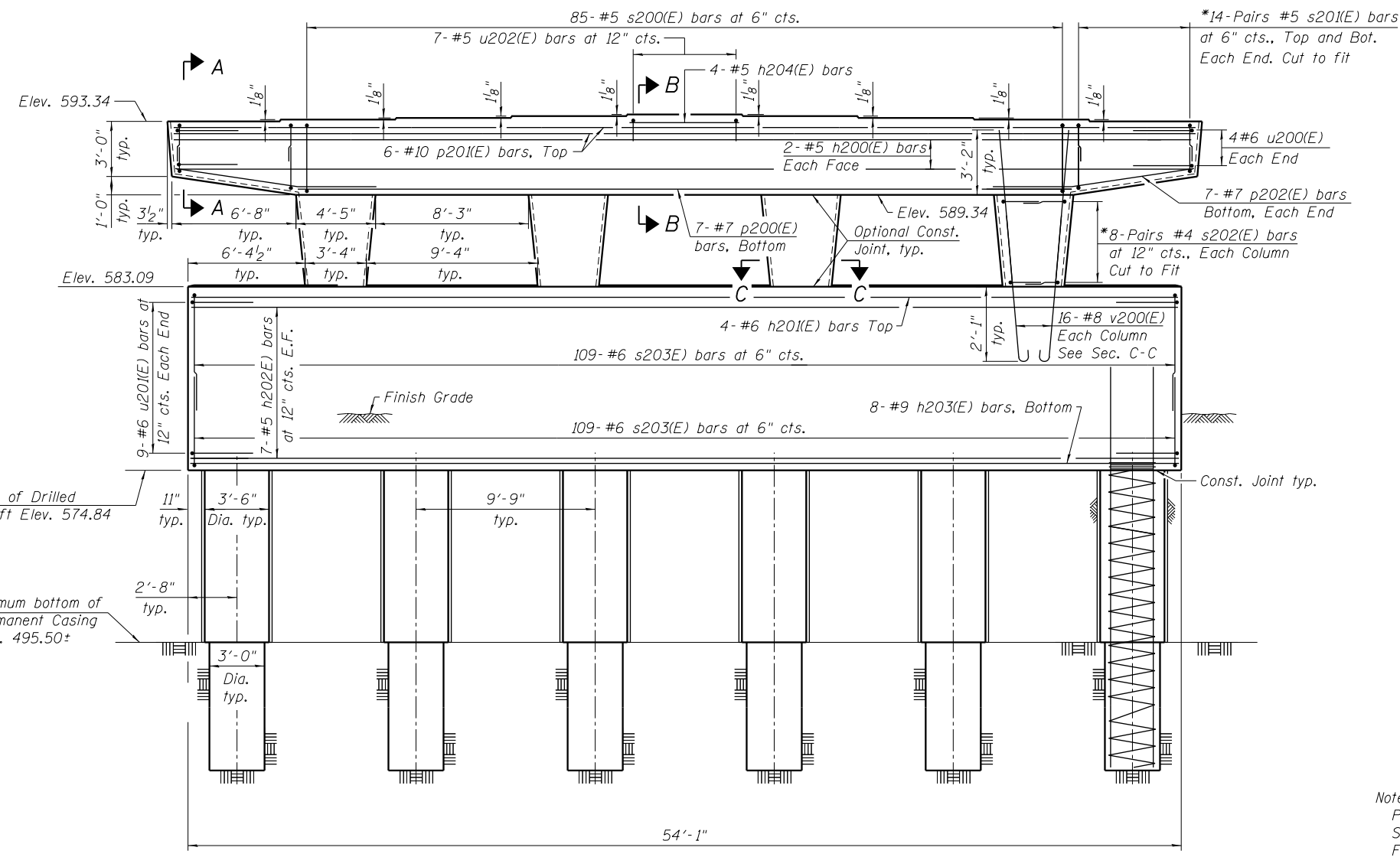
TOP PLAN



ANCHOR BOLT LAYOUT



END VIEW



ELEVATION
(Looking North)

* Cut vertical legs of bar to fit.

TOP OF SEAT ELEVATION

Girder No.	Seat Elevation
1	593.34
2	593.44
3	593.53
4	593.63
5	593.72
6	593.63
7	593.53
8	593.44
9	593.34

Notes:
 Pour steps monolithically with cap.
 Space reinforcement in cap to miss anchor bolts.
 For Sections A-A, B-B, and C-C, Drilled Shaft Details and Bill of Material, see sheet 45 of 55.

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CHECKED KAH	REVISED	
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PLOT DATE = 10/28/2013	CHECKED MDS	REVISED

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

PIER 1 PLAN AND ELEVATION
 STRUCTURE NO. 016-1708

SHEET NO. 44 OF 55 SHEETS

MUN 2090	SECTION 2013-011R	COUNTY COOK	TOTAL SHEETS 356	SHEET NO. 176
CONTRACT NO. 60W29			ILLINOIS FED. AID PROJECT	

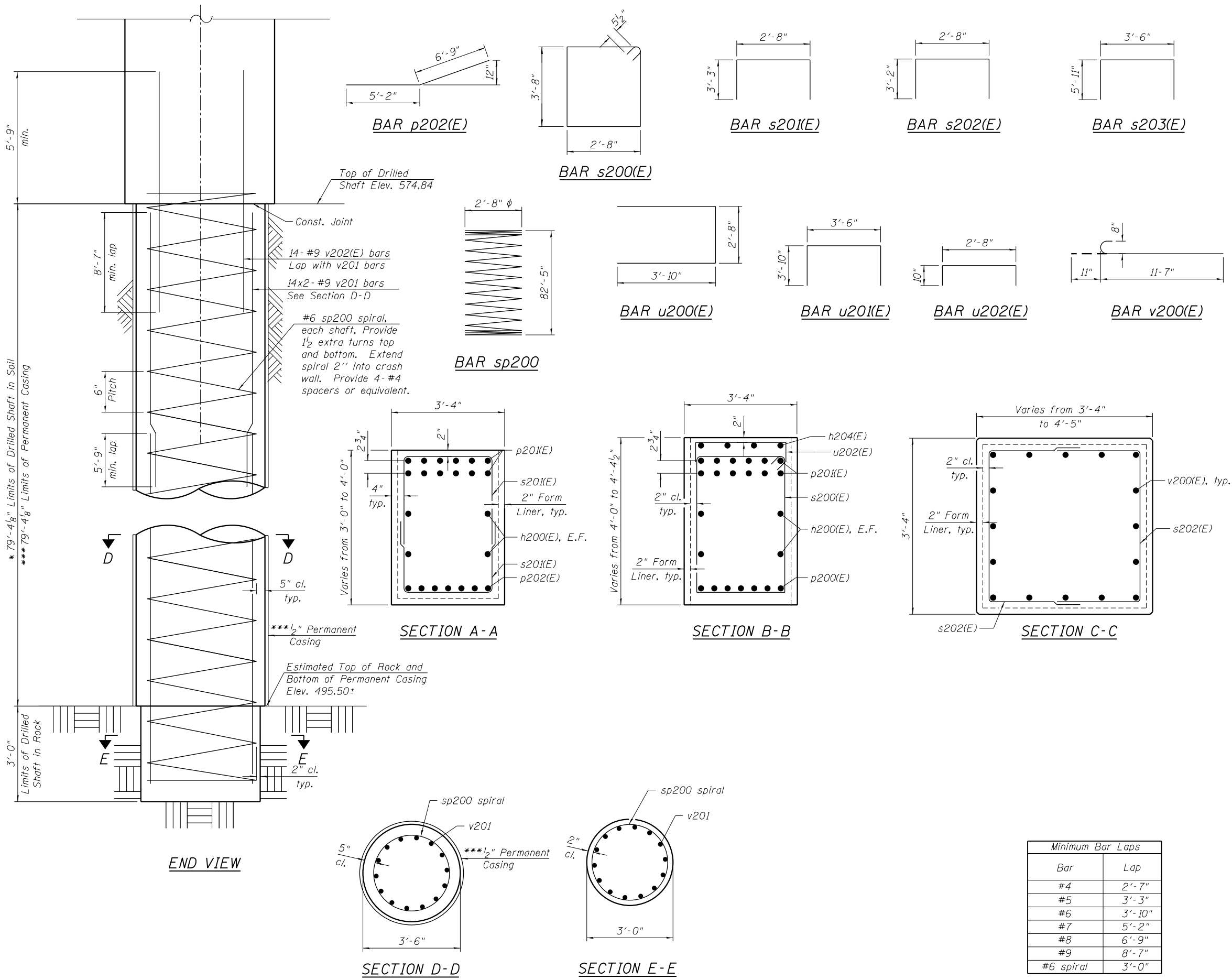
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h200(E)	4	#5	55'-4"	—
h201(E)	4	#6	53'-9"	—
h202(E)	14	#5	53'-9"	—
h203(E)	8	#9	53'-9"	—
h204(E)	4	#5	5'-11"	—
p200(E)	7	#7	42'-1"	—
p201(E)	12	#10	55'-8"	—
p202(E)	14	#7	11'-11"	—
s200(E)	85	#5	13'-7"	□
s201(E)	56	#5	9'-0"	□
s202(E)	64	#4	9'-0"	□
s203(E)	218	#6	15'-4"	□
** sp200	6	#6	82'-5"	—
u200(E)	8	#6	10'-4"	□
u201(E)	18	#6	11'-2"	□
u202(E)	7	#5	4'-4"	□
v200(E)	64	#8	13'-6"	□
v201	168	#9	44'-0"	—
v202(E)	84	#9	14'-6"	—
Structure Excavation		Cu. Yd.	42	
Concrete Structures		Cu. Yd.	104.0	
Reinforcement Bars		Pound	37,600	
Reinforcement Bars, Epoxy Coated		Pound	20,530	
Permanent Casing		Foot	476	
Drilled Shaft in Soil		Cu. Yd.	169.8	
Drilled Shaft in Rock		Cu. Yd.	4.8	
Concrete Sealer		Sq. Ft.	1973	

Bars indicated thus 1x15 etc., indicates 1 line of bars with 15 lengths per line.

- Notes:
- Apply concrete sealer to all exposed concrete surfaces of the pier.
 - The quantities and reinforcement detailing are based on the top of shaft and the estimated top of rock elevations shown and may change based on the actual top of rock encountered at each shaft and the final top of shaft elevation.
 - Length is height of spiral.
 - Contractor may need to increase the casing thickness to withstand the installation process. The Estimated Top of Rock/Bottom of Permanent Casing Elevation is shown. The limits of casing shall be adjusted as necessary, and as approved, such that the actual installed casing length extends to the as-encountered top of rock at each shaft. See Article 516.06(d) of the Standard Specifications.

Minimum Bar Laps	
Bar	Lap
#4	2'-7"
#5	3'-3"
#6	3'-10"
#7	5'-2"
#8	6'-9"
#9	8'-7"
#6 spiral	3'-0"



MUN	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2090	2013-011R	COOK	356	177
CONTRACT NO.			60W29	

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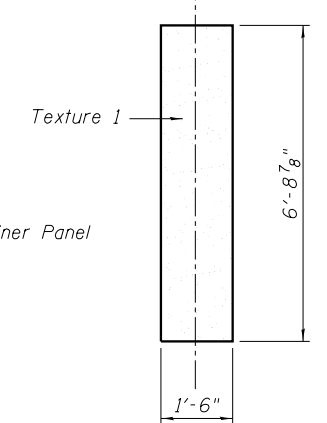
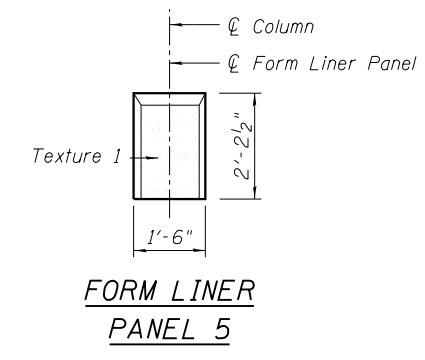
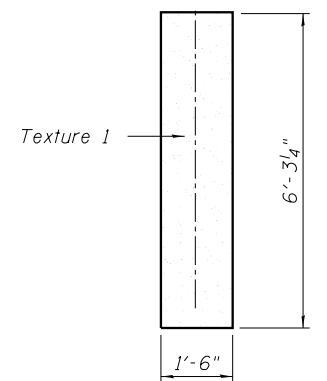
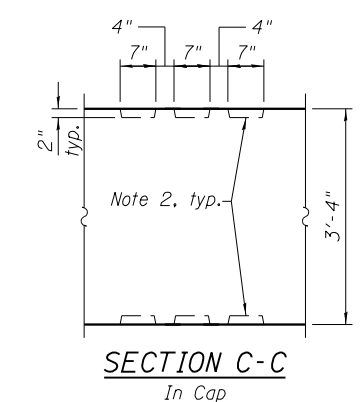
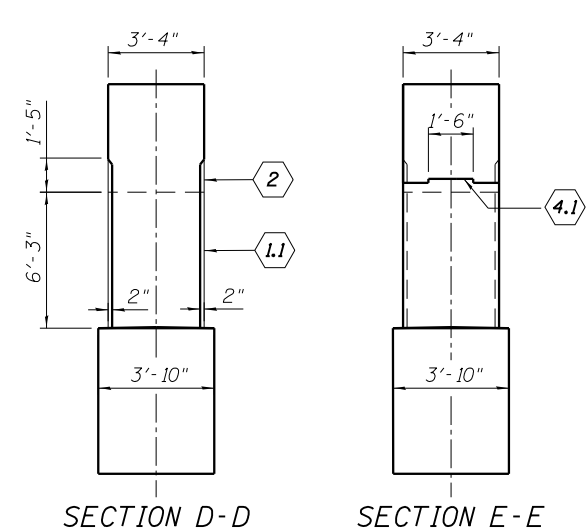
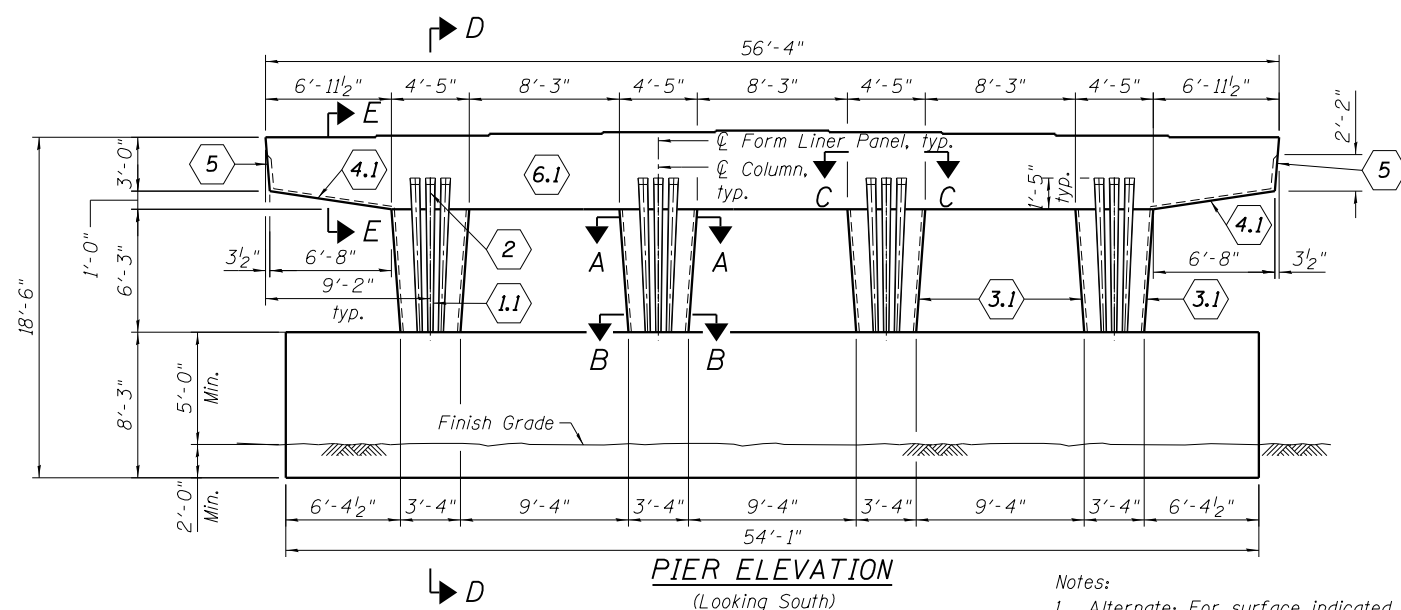
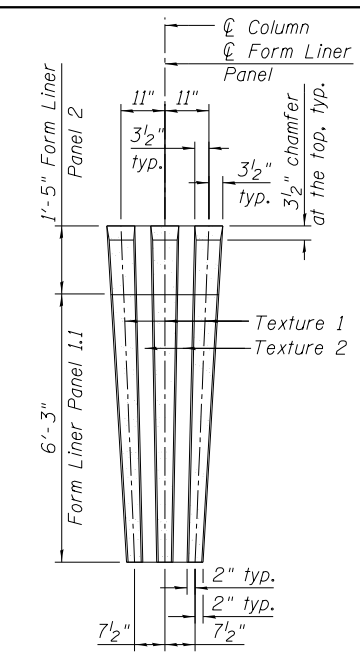
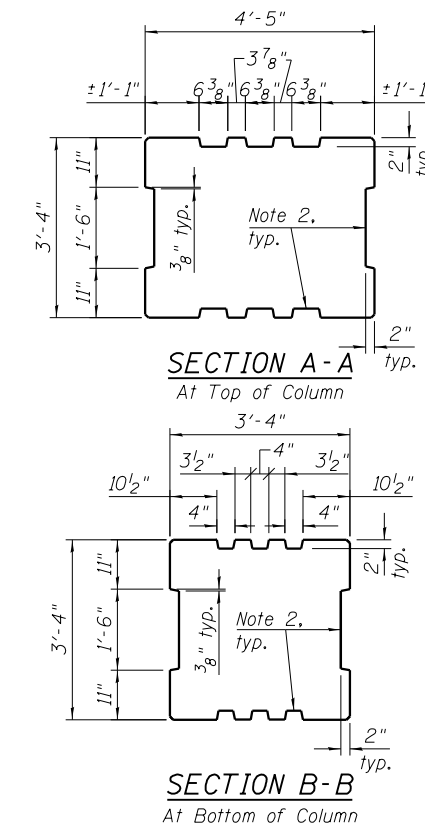
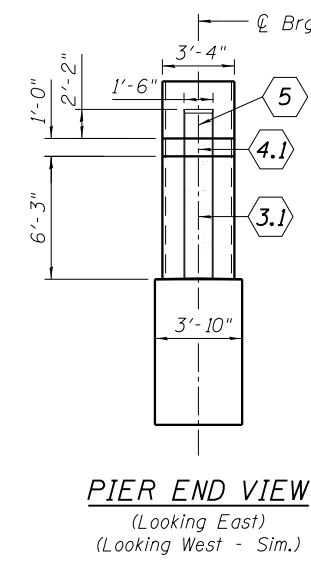
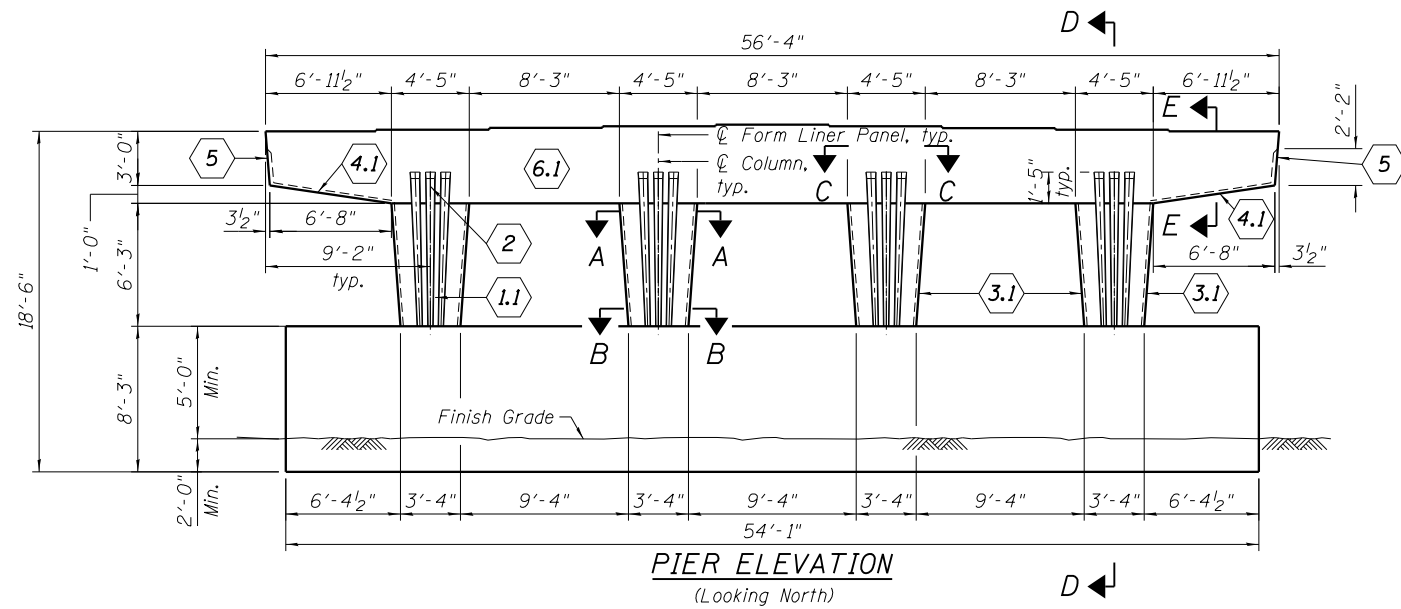
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PLOT DATE = 10/28/2013	DRAWN MTS	REVISED
	CHECKED MDS	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 1 DETAILS
STRUCTURE NO. 016-1708

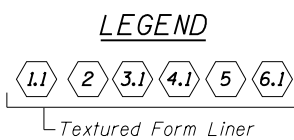
SHEET NO. 45 OF 55 SHEETS

ILLINOIS FED. AID PROJECT



BILL OF MATERIAL

Item	Unit	Total
Form Liner Textured Surface	Sq. Ft.	465



- Notes:
- Alternate: For surface indicated as Textured Form Liner (6.1), which includes Form Liner (2), Contractor can choose to build large protrusions directly into these forms for Form Liner panel (2) if a smooth uniform surface can be provided.
 - Tapered fluting - dimensions vary, see elevation profile.
 - Form Liner panel (2) is continuation of panel (1.1). Keep adjacent form liners aligned.
 - Hand clean and smooth the surface of the construction joint between the pier and cap.
 - Texture 1: Light Sandblast as selected from manufacturer's standard pattern selection. Texture 2: Smooth

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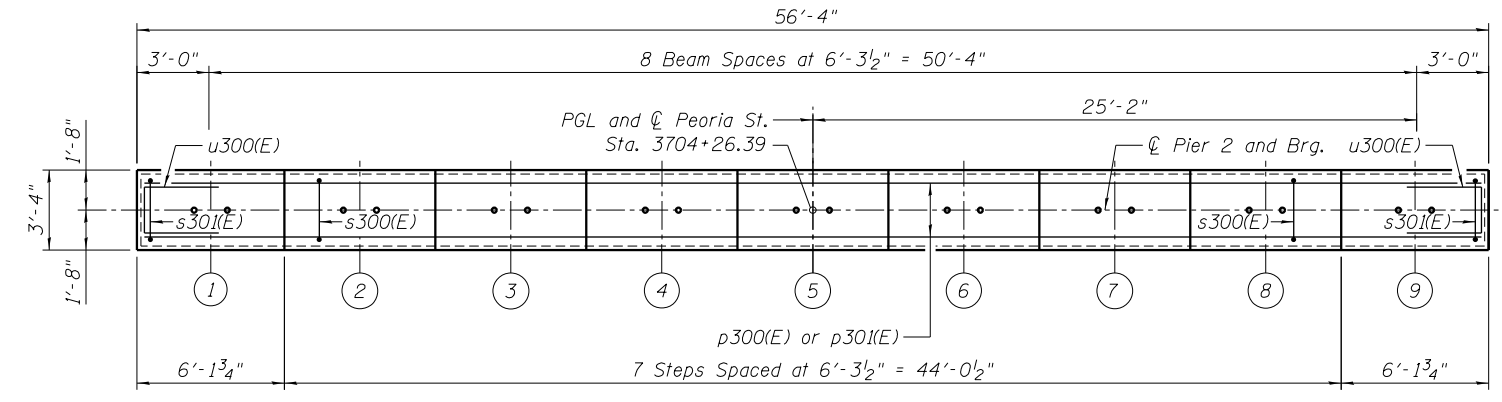
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 1 ARCHITECTURAL DETAILS
STRUCTURE NO. 016-1708

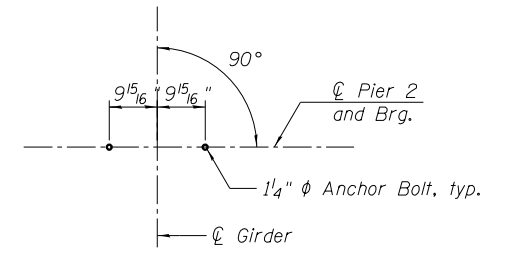
SHEET NO. 46 OF 55 SHEETS

MUN	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2090	2013-011R	COOK	356	178
CONTRACT NO. 60W29				

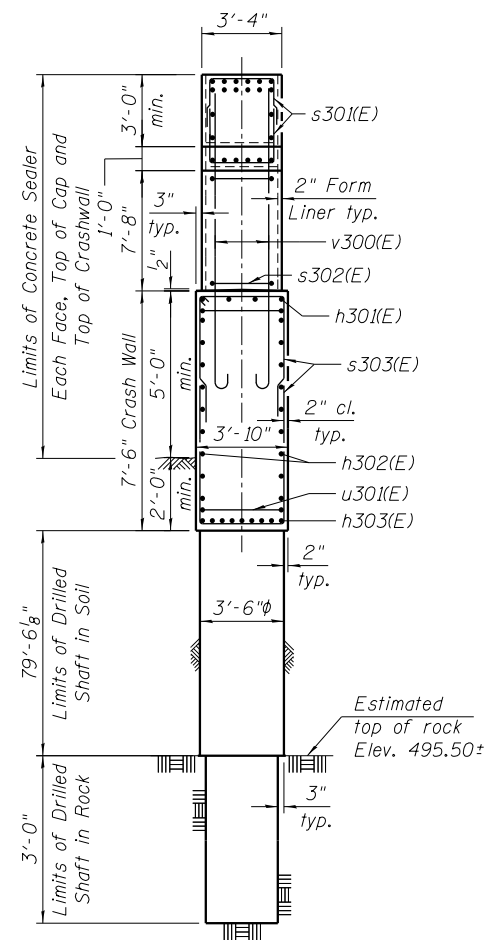
ILLINOIS FED. AID PROJECT



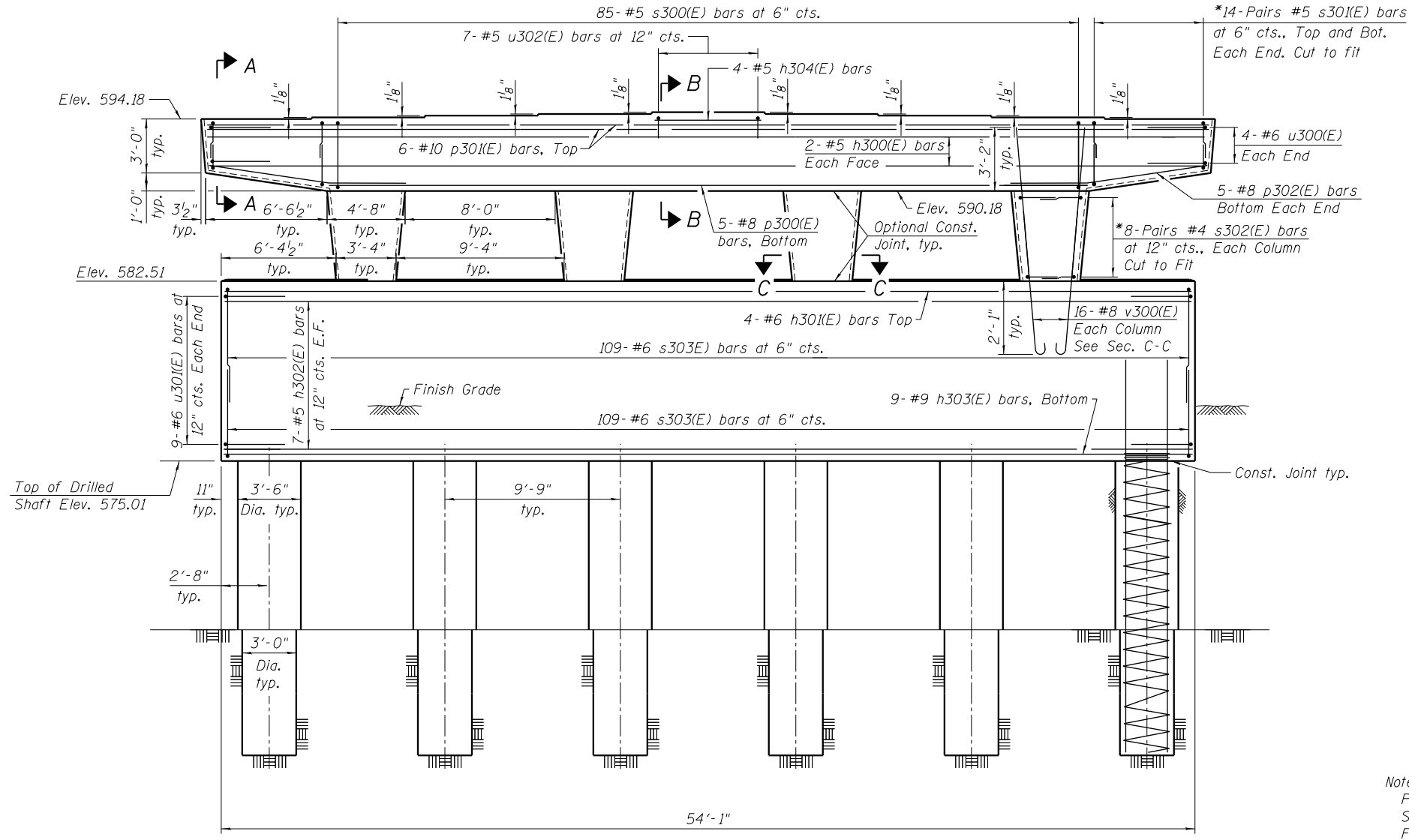
TOP PLAN



ANCHOR BOLT LAYOUT



END VIEW



ELEVATION
(Looking North)

* Cut vertical legs of bar to fit.

TOP OF SEAT ELEVATION

Girder No.	Seat Elevation
1	594.18
2	594.27
3	594.37
4	594.46
5	594.56
6	594.46
7	594.37
8	594.27
9	594.18

Notes:
 Pour steps monolithically with cap.
 Space reinforcement in cap to miss anchor bolts.
 For Sections A-A, B-B and C-C, Drilled Shaft
 Details and Bill of Material, see sheet 48 of 55.

11:04:56 PM 01/17/08 60W29-5047-Pier 2_P&E.dgn



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CHECKED = MDS	REVISIONS	
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PLOT DATE = 10/28/2013	CHECKED = MDS	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 2 PLAN AND ELEVATION
STRUCTURE NO. 016-1708

SHEET NO. 47 OF 55 SHEETS

MUN	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2090	2013-011R	COOK	356	179
CONTRACT NO.			60W29	
ILLINOIS FED. AID PROJECT				

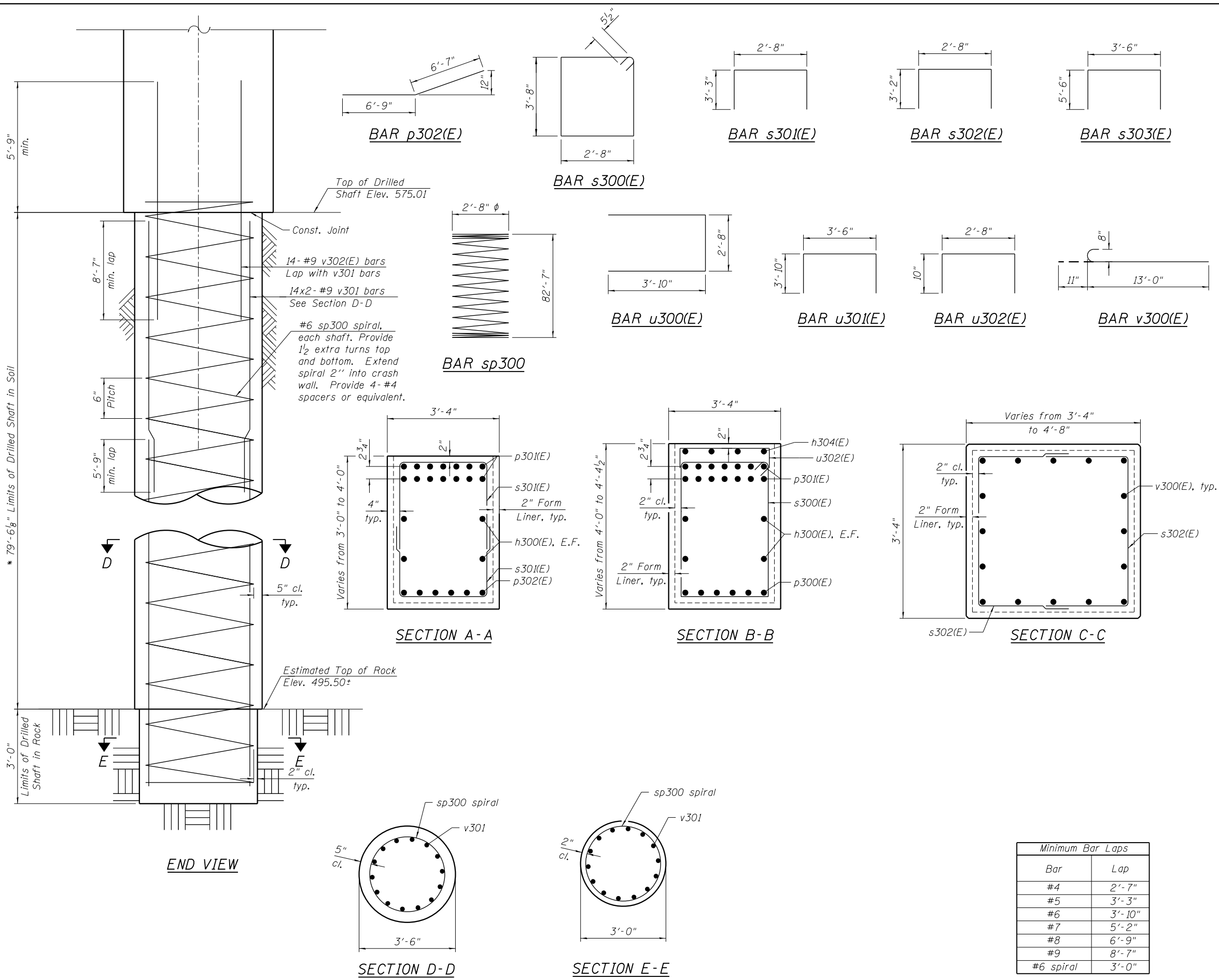
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h300(E)	4	#5	55'-2"	—
h301(E)	4	#6	53'-9"	—
h302(E)	14	#5	53'-9"	—
h303(E)	9	#9	53'-9"	—
h304(E)	4	#5	5'-11"	—
p300(E)	5	#8	42'-0"	—
p301(E)	12	#10	55'-8"	—
p302(E)	10	#8	13'-4"	—
s300(E)	85	#5	13'-7"	□
s301(E)	56	#5	9'-2"	□
s302(E)	72	#4	9'-0"	□
s303(E)	218	#6	14'-6"	□
sp300	6	#6	82'-7"	⌀
u300(E)	8	#6	10'-4"	□
u301(E)	18	#6	11'-2"	□
u302(E)	7	#5	4'-4"	□
v300(E)	64	#8	13'-11"	C
v301	168	#9	44'-1"	—
v302(E)	84	#9	14'-6"	—
Structure Excavation		Cu. Yd.	36	
Concrete Structures		Cu. Yd.	101.4	
Reinforcement Bars		Pound	37,680	
Reinforcement Bars, Epoxy Coated		Pound	20,700	
Drilled Shaft in Soil		Cu. Yd.	170.1	
Drilled Shaft in Rock		Cu. Yd.	4.8	
Concrete Sealer		Sq. Ft.	2008	

Bars indicated thus 1x15 etc., indicates 1 line of bars with 15 lengths per line.

Notes:
 Apply concrete sealer to all exposed concrete surfaces of the pier.
 * The quantities and reinforcement detailing are based on the top of shaft and the estimated top of rock elevations shown and may change based on the actual top of rock encountered at each shaft and the final top of shaft elevation.
 ** Length is height of spiral.

Minimum Bar Laps	
Bar	Lap
#4	2'-7"
#5	3'-3"
#6	3'-10"
#7	5'-2"
#8	6'-9"
#9	8'-7"
#6 spiral	3'-0"



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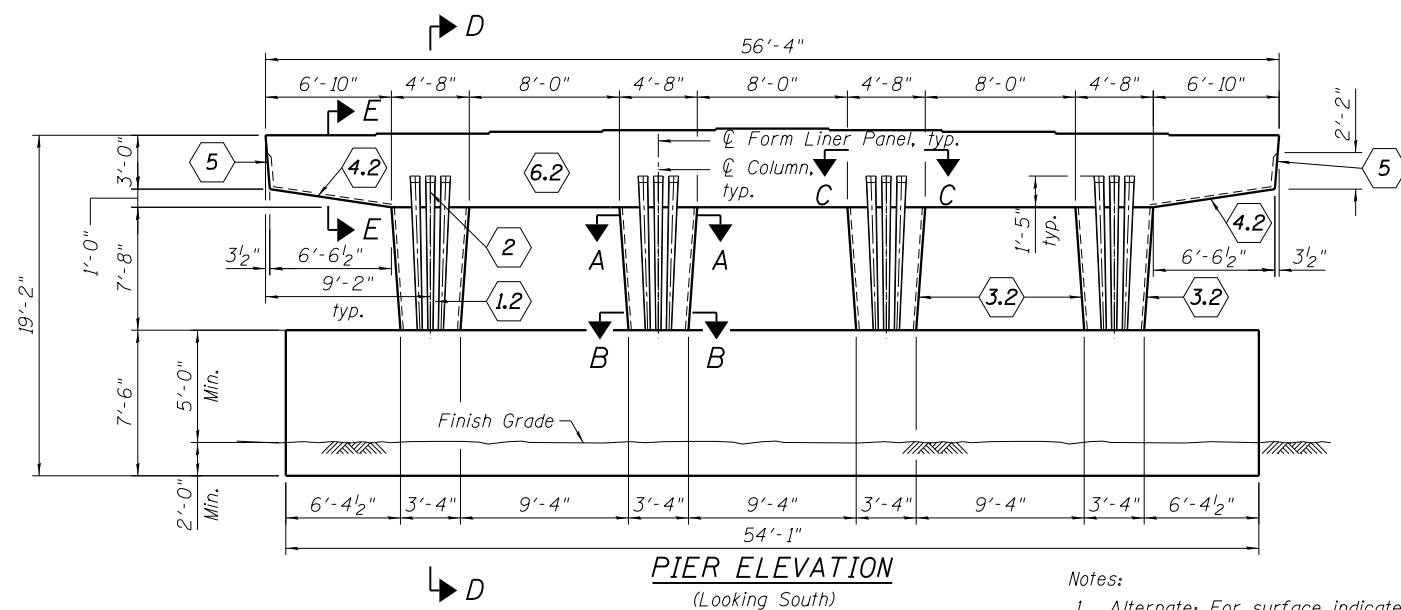
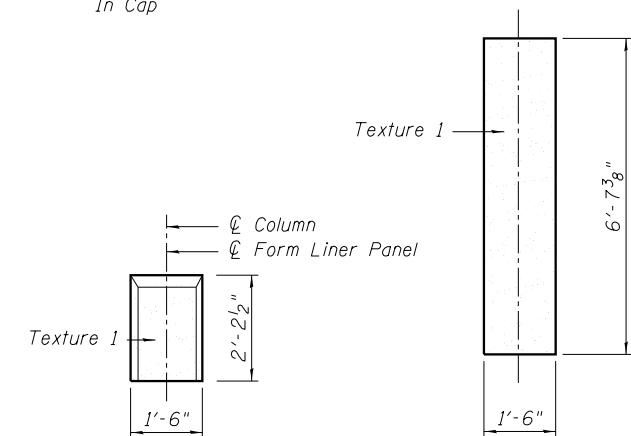
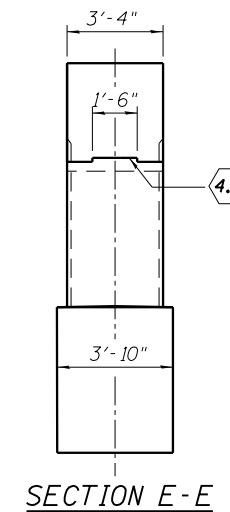
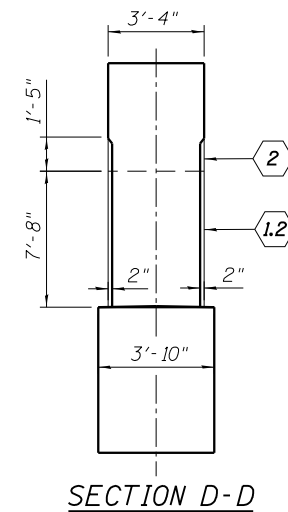
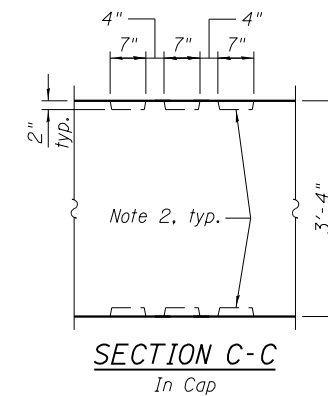
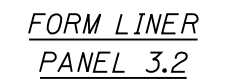
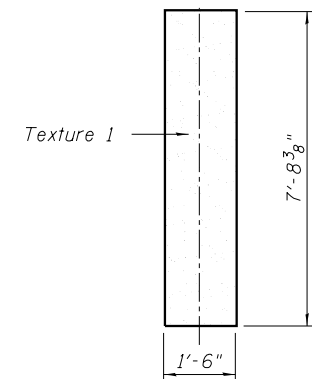
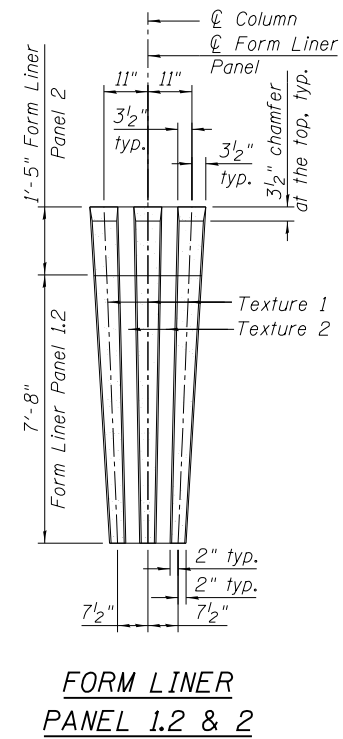
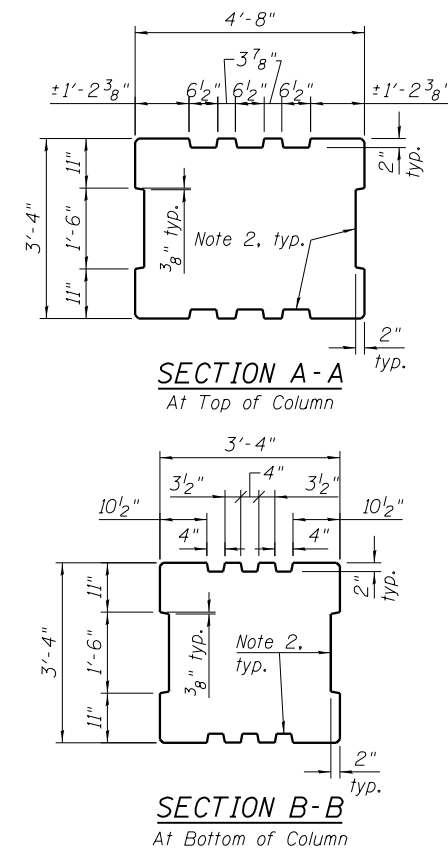
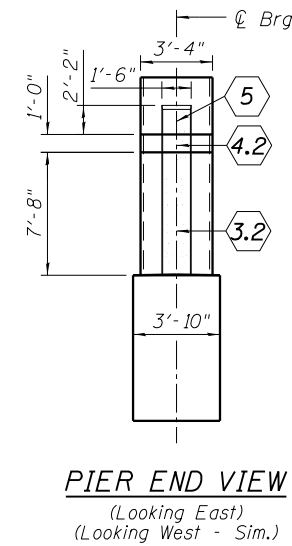
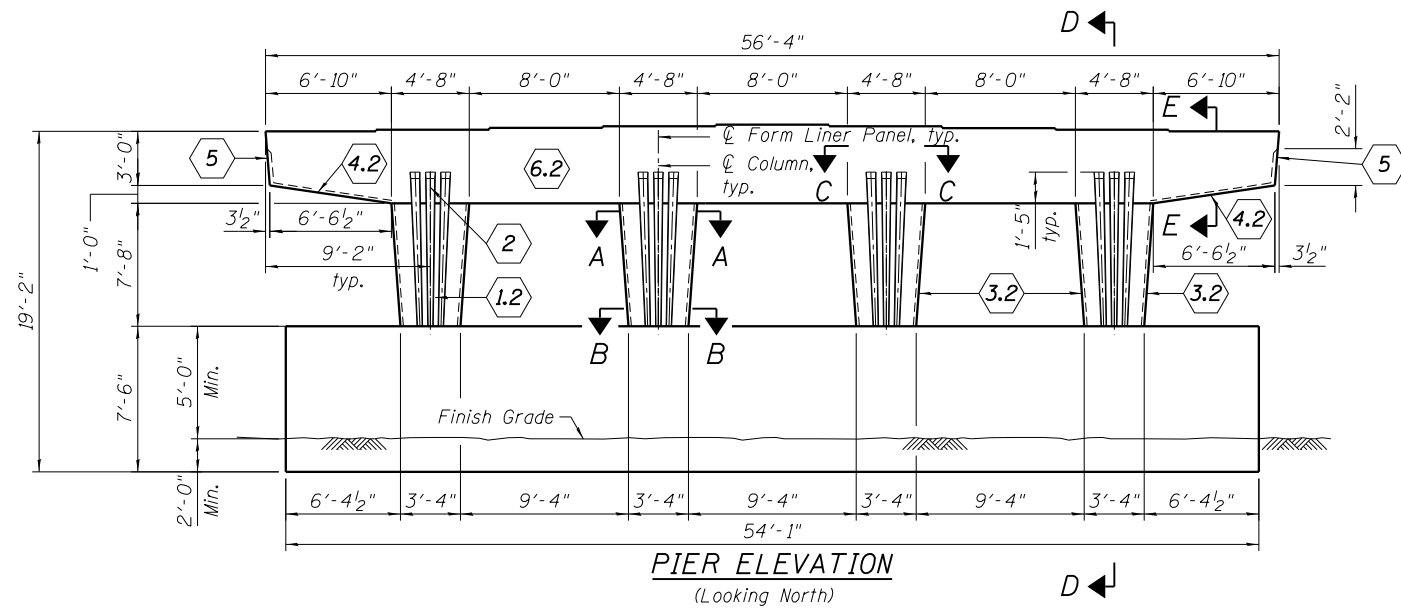
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PLOT DATE = 10/28/2013	DRAWN MTS	REVISED
	CHECKED MDS	REVISED

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PIER 2 DETAILS
STRUCTURE NO. 016-1708**

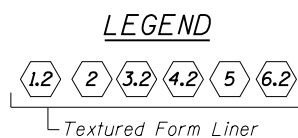
SHEET NO. 48 OF 55 SHEETS

MUN 2090	SECTION 2013-011R	COUNTY COOK	TOTAL SHEETS 356	SHEET NO. 180
CONTRACT NO. 60W29			ILLINOIS FED. AID PROJECT	



BILL OF MATERIAL

Item	Unit	Total
Form Liner Textured Surface	Sq. Ft.	555



Notes:

1. Alternate: For surface indicated as Textured Form liner 6.2, which includes Form Liner 2, Contractor can choose to build large protrusions directly into these forms for Form Liner panel if a smooth uniform surface can be provided.
2. Tapered fluting - dimensions vary, see elevation profile.
3. Form liner panel 2 is continuation of panel 1.2. Keep adjacent form liners aligned.
4. Hand clean and smooth the surface of the construction joint between the pier and cap.
5. Texture 1: Light Sandblast as selected from manufacturer's standard pattern selection. Texture 2: Smooth

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PLOT DATE = 10/28/2013	DRAWN MTS	REVISED
	CHECKED MDS	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 2 ARCHITECTURAL DETAILS
STRUCTURE NO. 016-1708

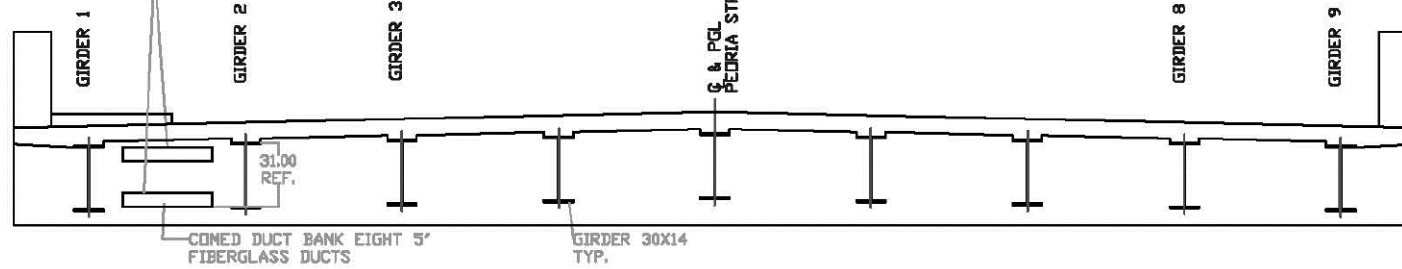
SHEET NO. 49 OF 55 SHEETS

MUN	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2090	2013-011R	COOK	356	181
CONTRACT NO. 60W29				

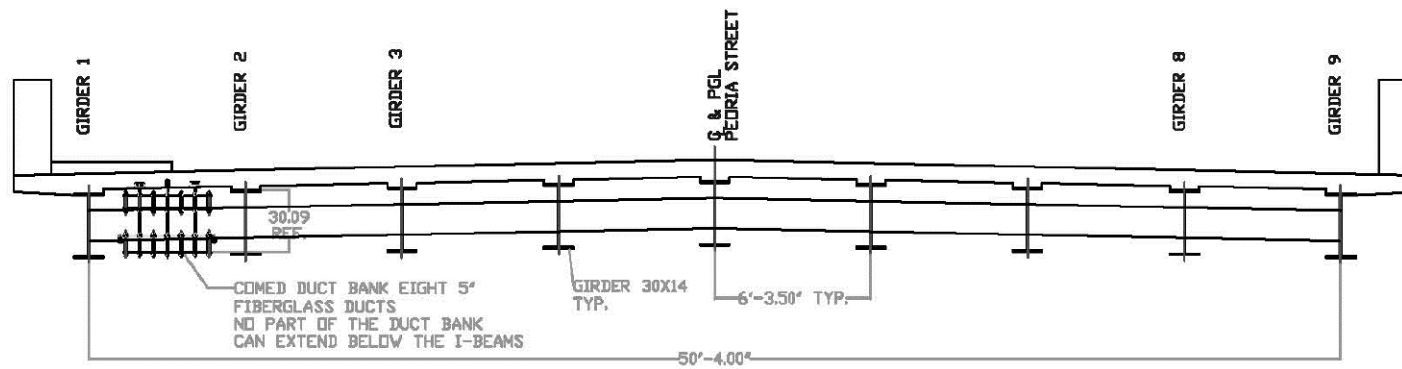
ILLINOIS FED. AID PROJECT

NOTE
SEAL AROUND DUCTS AFTER
INSTALLED THROUGH WALL

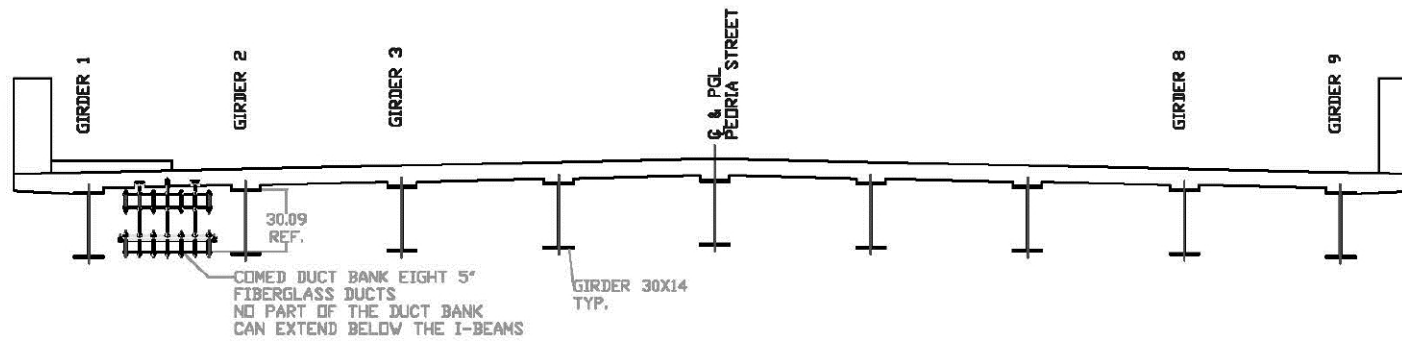
TYPICAL BLOCK OUT
MINIMUM SIZE 7' X 43"



TYPICAL CROSS SECTION
AT ABUTMENT
LOOKING UP STATION
AT NORTH ABUTMENT



TYPICAL CROSS SECTION
DIAPHRAGM D1
LOOKING UP STATION



TYPICAL CROSS SECTION
LOOKING UP STATION

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED

FOR INFORMATION ONLY
WORK TO BE PERFORMED BY OTHERS
WITH THE EXCEPTION OF PLACEMENT
OF INSERTS INTO SUPERSTRUCTURE

NOTE
NO PART OF THE CONDUIT SUPPORT HANGER CAN
EXTEND BELOW THE BRIDGE DECK GIRDER
EXTENDED RODS MAY NEED TO BE ALTERED

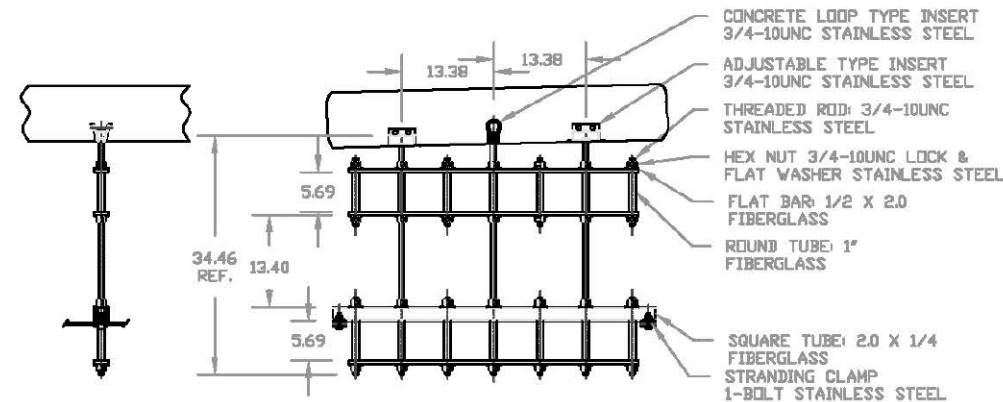
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and the information thereon is
to be treated as confidential.
It is not to be used, copied
or disclosed to outside
parties without our written
consent

Note:
ALL MEASUREMENTS ARE IN INCHES UNLESS
NOTED OTHERWISE

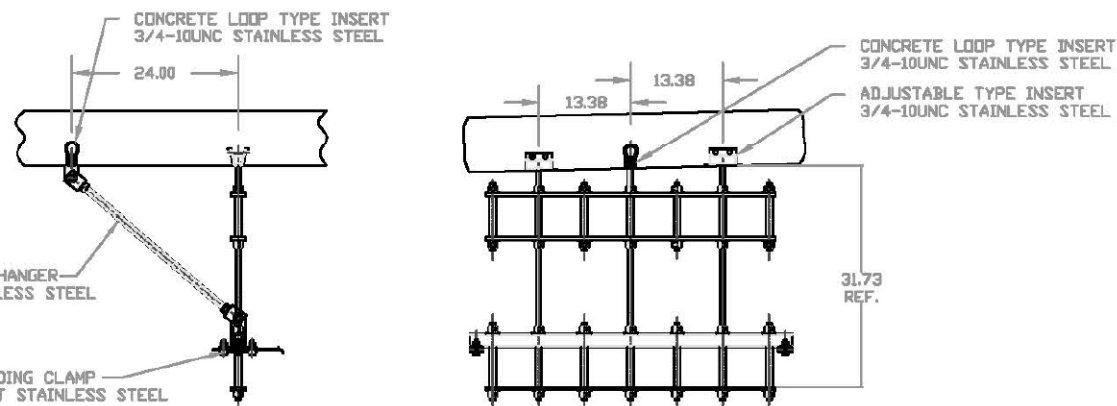
DRAWING APPROVAL
I APPROVE THIS DRAWING FOR MANUFACTURING
DATE: _____

Bridge Deck Cross Section		CONDUX INTERNATIONAL, INC. MANKATO MN PH. 800-533-2077		
		Project: ComEd Peoria Street Bridge over F.A.I. 290 Eisenhower Expressway, Cook County Illinois		
WEIGHT: 0.0 LBS EA	SIZE	FSCM NO.	DWG NO. TBA	REV
QUOTE NO. 3985214497	SCALE 1/2	DATE: 10-03-2013	SHEET 50 OF 55	
			SHEET 182 OF 356	

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STANDARD SUPPORT HANGER WITH STRANDING CLAMPS



ABUTMENT SUPPORT HANGER WITH STRANDING CLAMPS AND BRACING

FOR INFORMATION ONLY
WORK TO BE PERFORMED BY OTHERS
WITH THE EXCEPTION OF PLACEMENT
OF INSERTS INTO SUPERSTRUCTURE

NOTE
NO PART OF THE CONDUIT SUPPORT HANGER
CAN EXTEND BELOW THE BRIDGE DECK
GIRDER
EXTENDED RODS MAY NEED TO BE ALTERED

Condux International, Inc. Support hanger meet the following specifications

- Fiberglass Items**
 Flat Bar: 1/2 x 2.0
 Round Tube: 1.0" O.D., .105 wall
 Square Tube: 2 x 2 x 1/4
 Fiberglass reinforced with polyester resin with surface veil for better weathering, resin shall contain u.v. inhibitor. Fiberglass is made with continuous strand mat and uni-directional roving, gray in color.
 Tensile Strength (ASTM D 638) 30,000 PSI
 Tensile Modulus (ASTM D 638) 2.3E6 PSI
 Flexural Strength (ASTM D 790) 30,000 PSI
 Flexural Modulus (ASTM D 790) 2.3E6 PSI
 Compressive Strength (ASTM D 695) 20,000 PSI
 Compressive Modulus 1.4E6 PSI
 Yield shear strength 2000 PSI
 Barcol hardness 50
 Dielectric strength (ASTM D 149) 200 VPM Min.

Stainless steel Hardware Items

- Threaded Rod
 Threaded rod meets (ASTM/ASME B1.1) (ASTM A307 Grade A) (Tensile Strength 60,000 PSD)
 Hexnut
 Hexnut meets (ANSI/ASME B18.2.2) Material: 316 Stainless steel (ASTM F594)
 Flatwasher
 Flatwasher meets (ANSI/ASME B18.22.1) Material: 316 stainless steel (ASTM F436)
 Lockwasher
 Lockwasher meets (ANSI/ASME B18.21.1) Material: 316 Stainless steel (ASTM F436)
Stranding Items
 Stranding Clamps (1-Bolt & 3-Bolt)
 Material: 1/4 x 1.5 (316 Stainless Steel)
 Stranding Wire
 Cable: 1/4" Dia (7 X 19 Steel Aircraft)
 304 Stainless Steel
Bracing
 Adjustable hanger attachment brackets
 Material: angle 2.5 x 2.5 x .25 (316 Stainless steel)

DRAWING APPROVAL

1. APPROVE THIS DRAWING FOR MANUFACTURING DATE: _____

Note:
ALL MEASUREMENTS ARE IN INCHES UNLESS NOTED OTHERWISE

REVISIONS

ZONE	REV	DESCRIPTION	DATE	APPROVED

CURRENT BILL OF MATERIAL

ITEM NO.	PART NO.	DESCRIPTION	QTY	UNIT
1	TBA	STANDARD CONDUIT SUPPORT HANGER 2 HIGH X 6 WIDE FIBERGLASS AND STAINLESS STEEL, DEPENDING FOR EIGHT 5" FGL DUCTS THREADED RODS THREE 3/4-10UNC X 38.00 LONG	26	EA
2	08410236	HANGER BRACE ADJUSTABLE: 36 INCH STAINLESS STEEL	6	EA
3	08409990	CONCRETE INSERT: 3/4-10 LOOP TYPE, STAINLESS STEEL	32	EA
4	08558300	CONCRETE INSERT SETTING PLUG 3/4-10	32	EA
5	08409929	CONCRETE INSERT ADJUSTABLE: 3/4-10 STAINLESS STEEL	52	EA
6	08408950	STRANDING WIRE: 1/4 X 900 FT., STAINLESS STEEL	2	EA
7	08409404	GUY STRAND CLAMP 3-BOLT, STAINLESS STEEL	6	EA
8	08409504	GUY STRAND CLAMP 1-BOLT, STAINLESS STEEL	46	EA
9	08460053	CONDUIT FIBERGLASS: 5" IPS, MV (3.57 O.D. X .096 WALL) MEETING NEMA TC-14A	2240	FT.
10	08460153	CONDUIT STOP COUPLING 5" IPS MV	10	EA
11	08460453	CONDUIT EXPANSION JOINT O-RING TYPE: 5" IPS MV	16	EA
12	08460953	CONDUIT SPLIT STOP RING 5" IPS MV	16	EA
13	08461333	CONDUIT ADAPTER: 5" IPS MV TO 5" GRC	16	EA
14	08463402	CONDUIT EPOXY ADHESIVE CARTRIDGE	25	EA
15	02280990	CONDUIT EPOXY ADHESIVE GUN	1	EA

General Construction, Hanger and Conduit Notes

- 1.0 Recommended spacing between Support is 10 Foot.
- 2.0 Support Hanger Material shall be manufactured using 316 stainless steel and fiberglass components.
- 3.0 Conduit is 5 inch Fiberglass with minimum wall thickness of .096 inch meeting NEMA TC-14A Specs.
- 4.0 Conduit joints shall be positive locking adhesive bonded bell and spigot.
- 5.0 Conduit expansion joints shall be sliding sleeve with provision for 8 inch of travel.
- 6.0 Bridge abutments must have a block out or be sleeved to allow the fiberglass conduit to pass through. After conduit is placed through abutment seal up opening with state approved sealant.
- 7.0 Place concrete inserts for future support system. Hangers will be installed at a later date.
- 8.0 Conduit support hangers weight 2525 LBS total
 Fiberglass conduit weight 2807 LBS total
 cable weight weight 18,942 LBS total

Grand total being placed on the bridge is 24,274 LBS.

CONDUIT SUPPORT HANGER DETAIL AND BILL OF MATERIALS

CONDUX INTERNATIONAL, INC.
MANKATO MN
PH. 800-533-2077

Project: ComEd
Peoria Street Bridge over F.A.I. 290
Eisenhower Expressway, Cook County Illinois

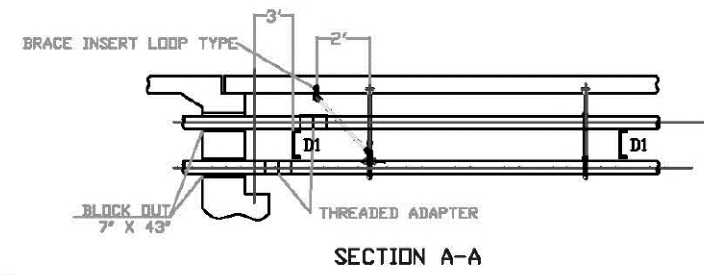
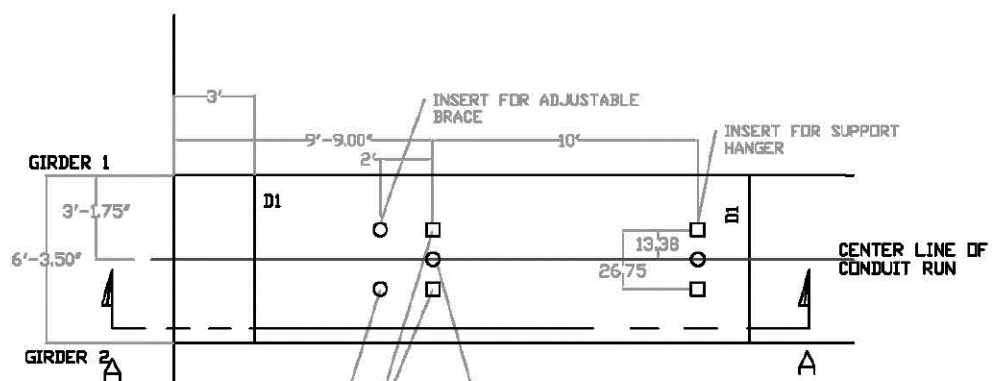
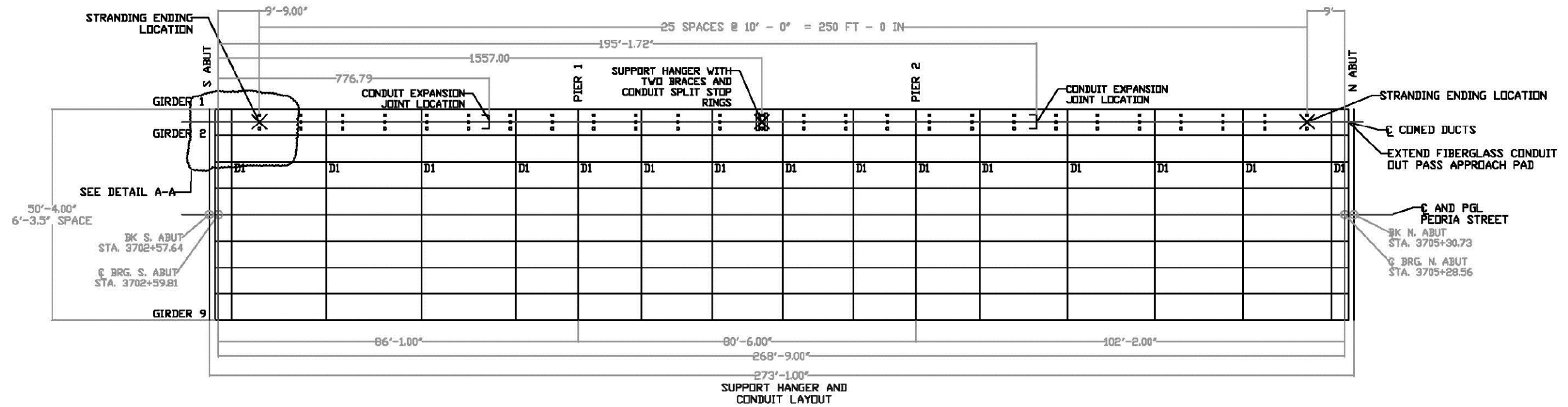
WEIGHT: 0.0 LBS EA

SIZE	FSCM NO.	DWG NO.	REV
		TBA	

QUOTE NO. 3985214497

SCALE 1/2	DATE: 10-03-2013	SHEET 183 OF 356
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REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED



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DETAIL A-A
 CONCRETE INSERT LAYOUT DETAIL
 SCALE 4:1

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 I APPROVE THIS DRAWING FOR MANUFACTURING
 DATE: _____

CONDUIT SUPPORT AND CONDUIT LAYOUT		CONDUX INTERNATIONAL, INC. MANKATO MN PH. 800-533-2077		
		Project: ComEd Peoria Street Bridge over F.A.I. 290 Eisenhower Expressway, Cook County Illinois		
WEIGHT: 0.0 LBS EA	SIZE	FSCM NO.	DWG NO. TBA	REV
QUOTE NO. 3985214497	SCALE 1/2	DATE: 10-03-2013	SHEET 52 OF 55	
			SHEET 184 OF 356	



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

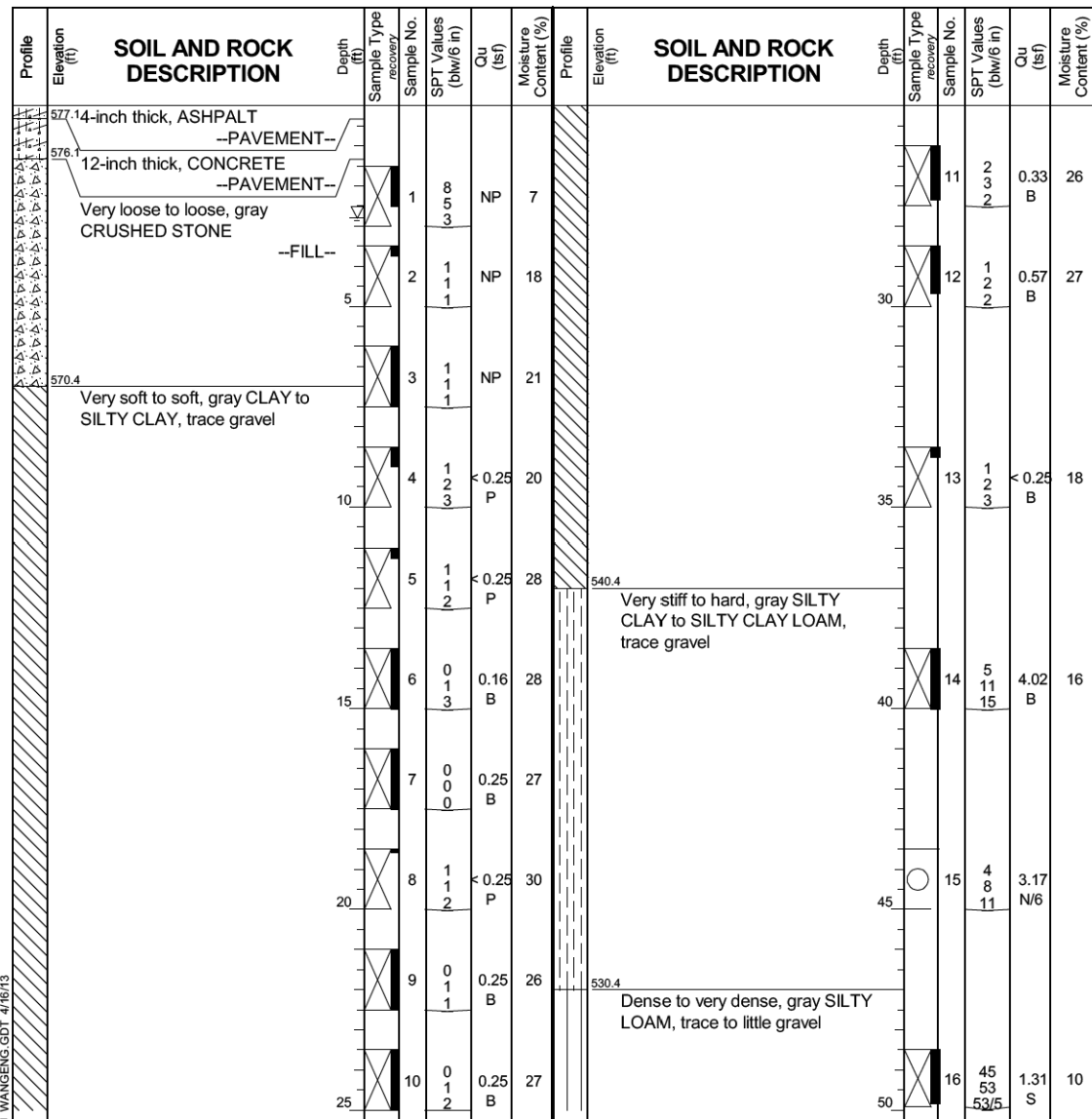
BORING LOG 2082-B-02

WEI Job No.: 1100-04-01

Client **AECOM**
Project **Circle Interchange Reconstruction**
Location **Sections 16 and 17, T39N, R14E of 3rd PM**

Datum: NAVD 88
Elevation: 577.41 ft
North: 1897924.64 ft
East: 1170439.46 ft
Station: 3703+36.04
Offset: 47.69 LT

Page 1 of 2



GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	03-17-2013	Complete Drilling	03-21-2013	While Drilling	▽	2.80 ft	
Drilling Contractor	Wang Testing Services	Drill Rig	CME-55 TMR	At Completion of Drilling	▽	MUD	
Driller	R&J	Logger	D. Kolpacki	Time After Drilling	NA		
Checked by	C. Marin	Drilling Method	2.25" SSA to 10', Mud Rotary 10' thereafter, boring	Depth to Water	▽	NA	
			backfilled upon completion	The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.			



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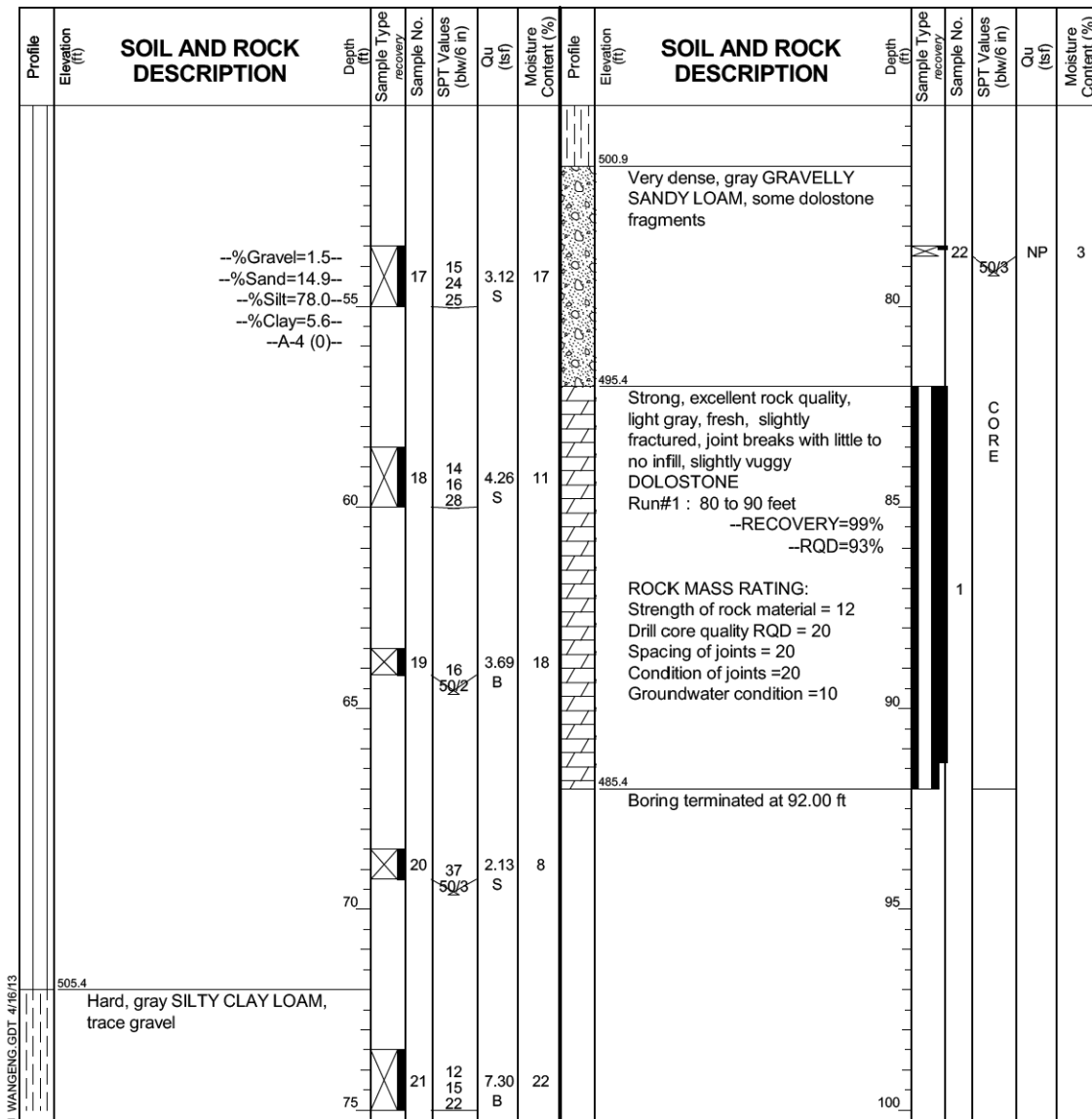
BORING LOG 2082-B-02

WEI Job No.: 1100-04-01

Client **AECOM**
Project **Circle Interchange Reconstruction**
Location **Sections 16 and 17, T39N, R14E of 3rd PM**

Datum: NAVD 88
Elevation: 577.41 ft
North: 1897924.64 ft
East: 1170439.46 ft
Station: 3703+36.04
Offset: 47.69 LT

Page 2 of 2



GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	03-17-2013	Complete Drilling	03-21-2013	While Drilling	▽	2.80 ft	
Drilling Contractor	Wang Testing Services	Drill Rig	CME-55 TMR	At Completion of Drilling	▽	MUD	
Driller	R&J	Logger	D. Kolpacki	Time After Drilling	NA		
Checked by	C. Marin	Drilling Method	2.25" SSA to 10', Mud Rotary 10' thereafter, boring	Depth to Water	▽	NA	
			backfilled upon completion	The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.			

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PLOT DATE = 10/28/2013	DRAWN RLS	REVISED
	CHECKED KAH	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS 2
STRUCTURE NO. 016-1708

SHEET NO. 54 OF 55 SHEETS

MUN	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2090	2013-011R	COOK	356	186
CONTRACT NO.			60W29	
ILLINOIS FED. AID PROJECT				



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

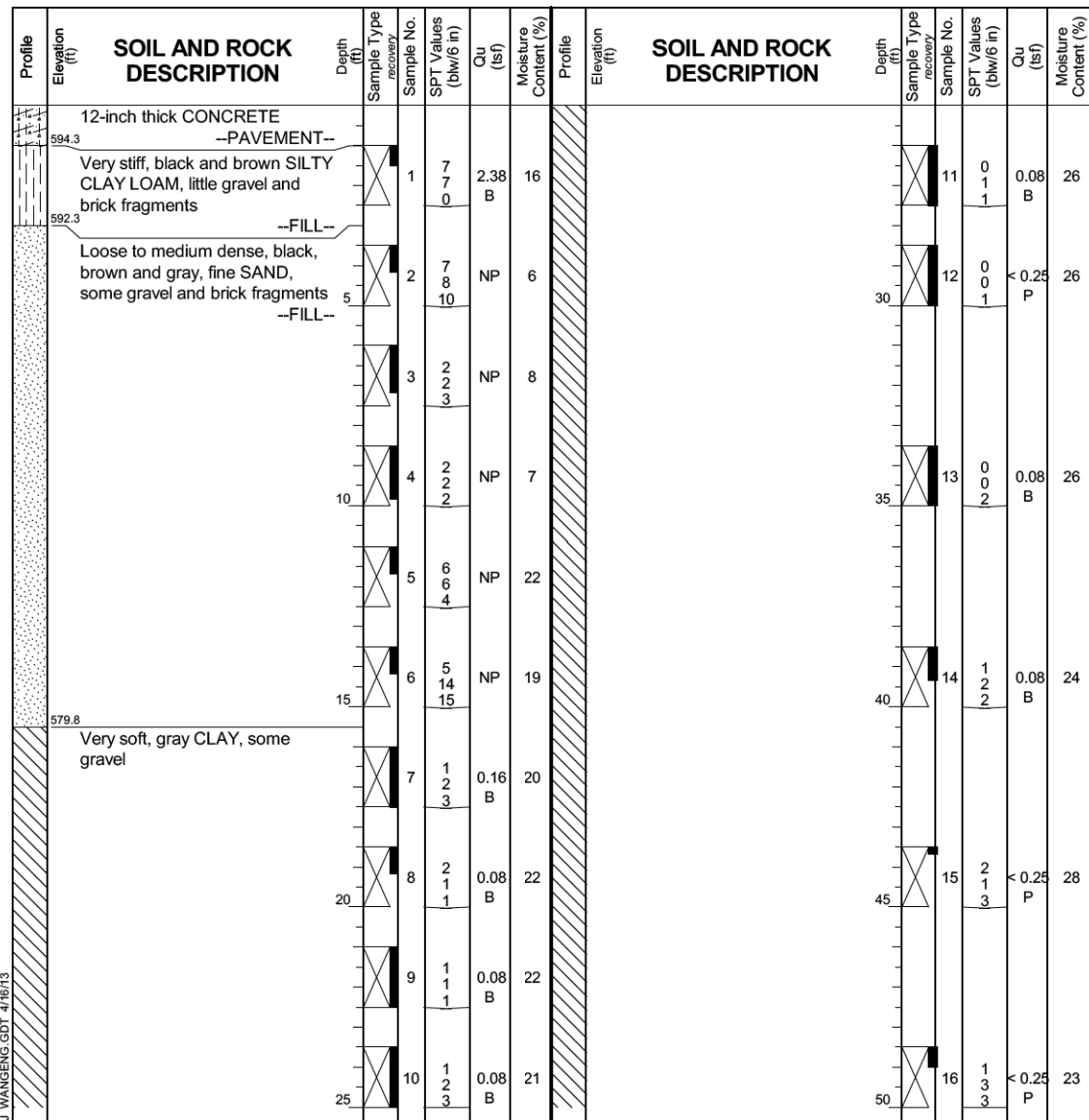
BORING LOG 2082-B-03

WEI Job No.: 1100-04-01

Client: **AECOM**
Project: **Circle Interchange Reconstruction**
Location: **Sections 16 and 17, T39N, R14E of 3rd PM**

Datum: NAVD 88
Elevation: 595.34 ft
North: 1897847.44 ft
East: 1170487.25 ft
Station: 3702+57.39
Offset: 02.32 LT

Page 1 of 2



GENERAL NOTES		WATER LEVEL DATA	
Begin Drilling	03-18-2013	Complete Drilling	03-19-2013
Drilling Contractor	Wang Testing Services	Drill Rig	D-50 TMR
Driller	R&N	Logger	D. Wind
Checked by	C. Marin	Time After Drilling	NA
Drilling Method	2.25" SSA to 10', Mud Rotary 10' thereafter, boring	Depth to Water	NA
backfilled upon completion		The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.	



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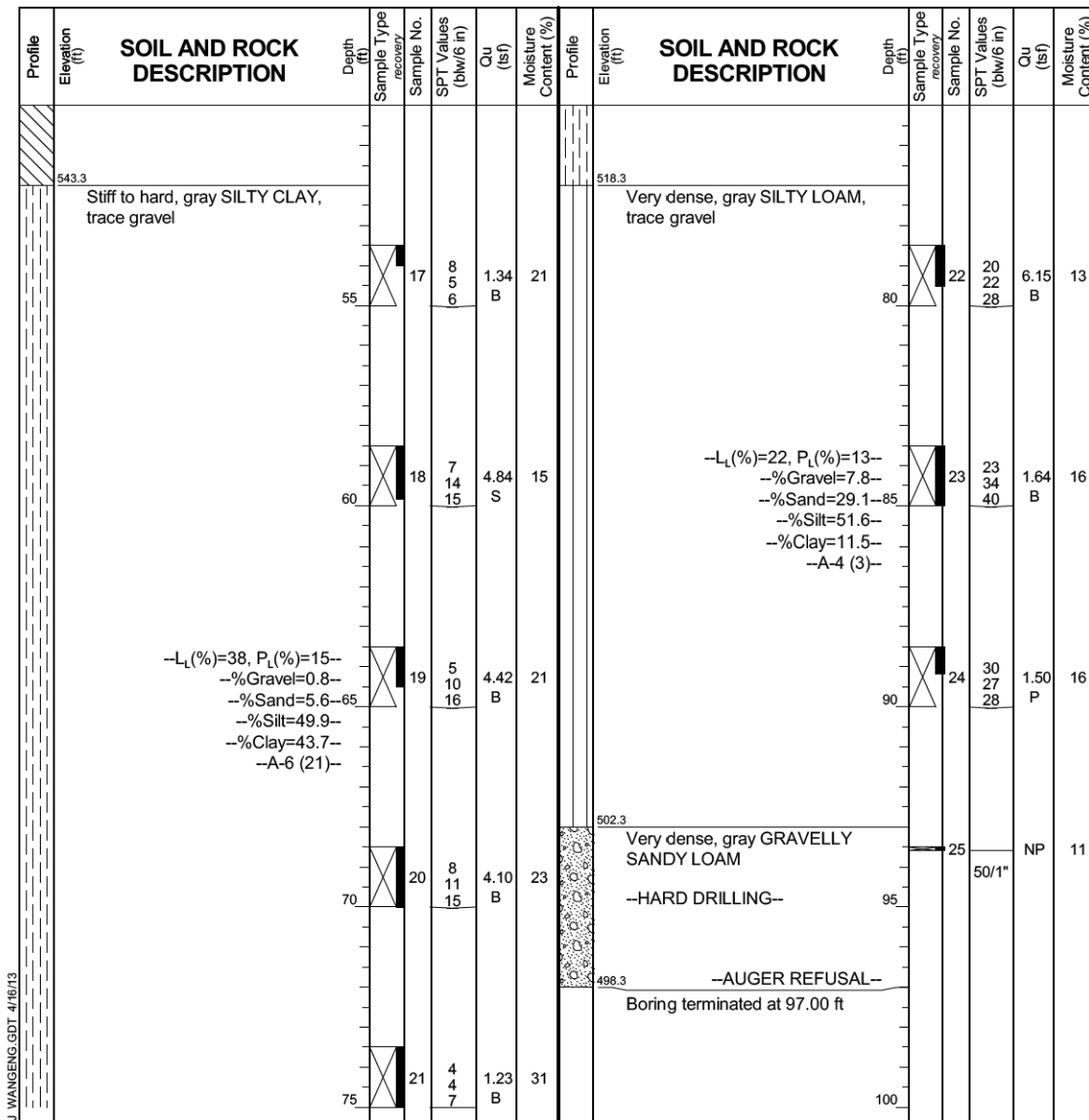
BORING LOG 2082-B-03

WEI Job No.: 1100-04-01

Client: **AECOM**
Project: **Circle Interchange Reconstruction**
Location: **Sections 16 and 17, T39N, R14E of 3rd PM**

Datum: NAVD 88
Elevation: 595.34 ft
North: 1897847.44 ft
East: 1170487.25 ft
Station: 3702+57.39
Offset: 02.32 LT

Page 2 of 2



GENERAL NOTES		WATER LEVEL DATA	
Begin Drilling	03-18-2013	Complete Drilling	03-19-2013
Drilling Contractor	Wang Testing Services	Drill Rig	D-50 TMR
Driller	R&N	Logger	D. Wind
Checked by	C. Marin	Time After Drilling	NA
Drilling Method	2.25" SSA to 10', Mud Rotary 10' thereafter, boring	Depth to Water	NA
backfilled upon completion		The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.	

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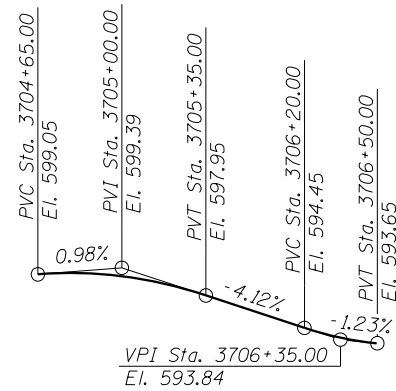
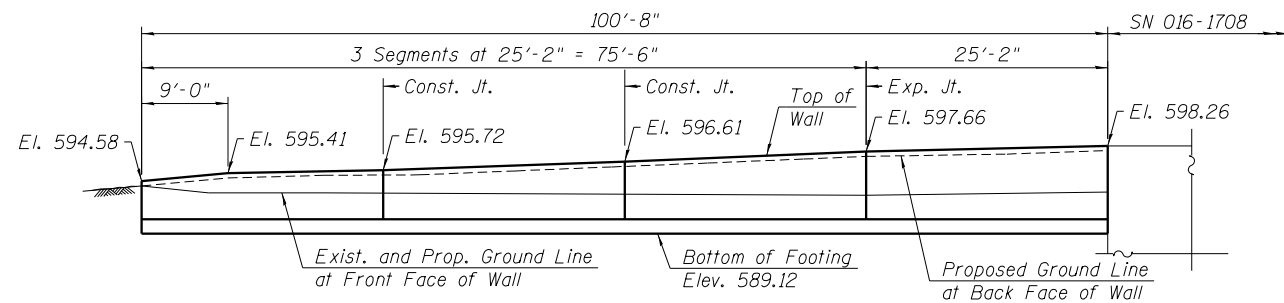
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS 3
STRUCTURE NO. 016-1708

SHEET NO. 55 OF 55 SHEETS

MUN	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2090	2013-011R	COOK	356	187
ILLINOIS FED. AID PROJECT			CONTRACT NO.	60W29

Bench Mark: Chisel "X" on south flange bolt of first fire hydrant south of Van Buren Street on west side of Peoria Street. Elev. 594.37
 Street. Elev. 594.37
 The road will be closed and traffic detoured during construction.



GENERAL NOTES

1. Reinforcement bars designated (E) shall be epoxy coated.
2. All construction joints shall be bonded.
3. Minimum bar laps shall be:

Bar	Min. Lap
#4	2'-7"
#5	3'-3"
4. Station and offsets are measured from the centerline of Peoria Street to the front face of the wall.
5. Exposed concrete edges shall have a standard 3/4" chamfer unless otherwise noted. Chamfer on vertical edges shall be continued a minimum of 1 foot below the finished ground line.

INDEX OF SHEETS

- 1 General Plan and Elevation
- 2 Retaining Wall 1 Plan and Elevation
- 3 Retaining Wall 2 Plan and Elevation
- 4 Retaining Wall Details

DESIGN SPECIFICATIONS

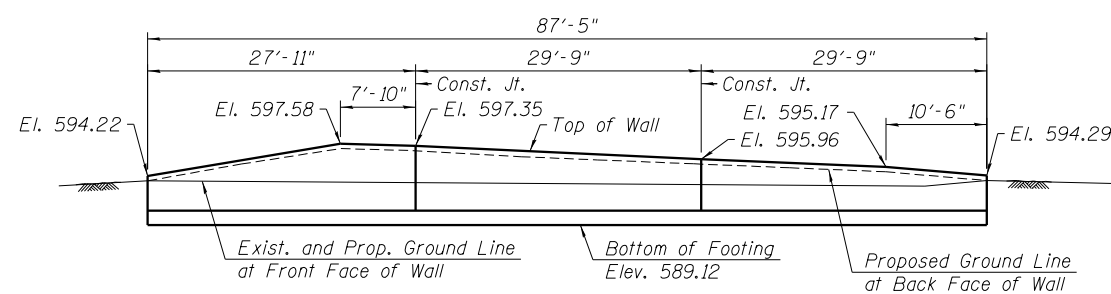
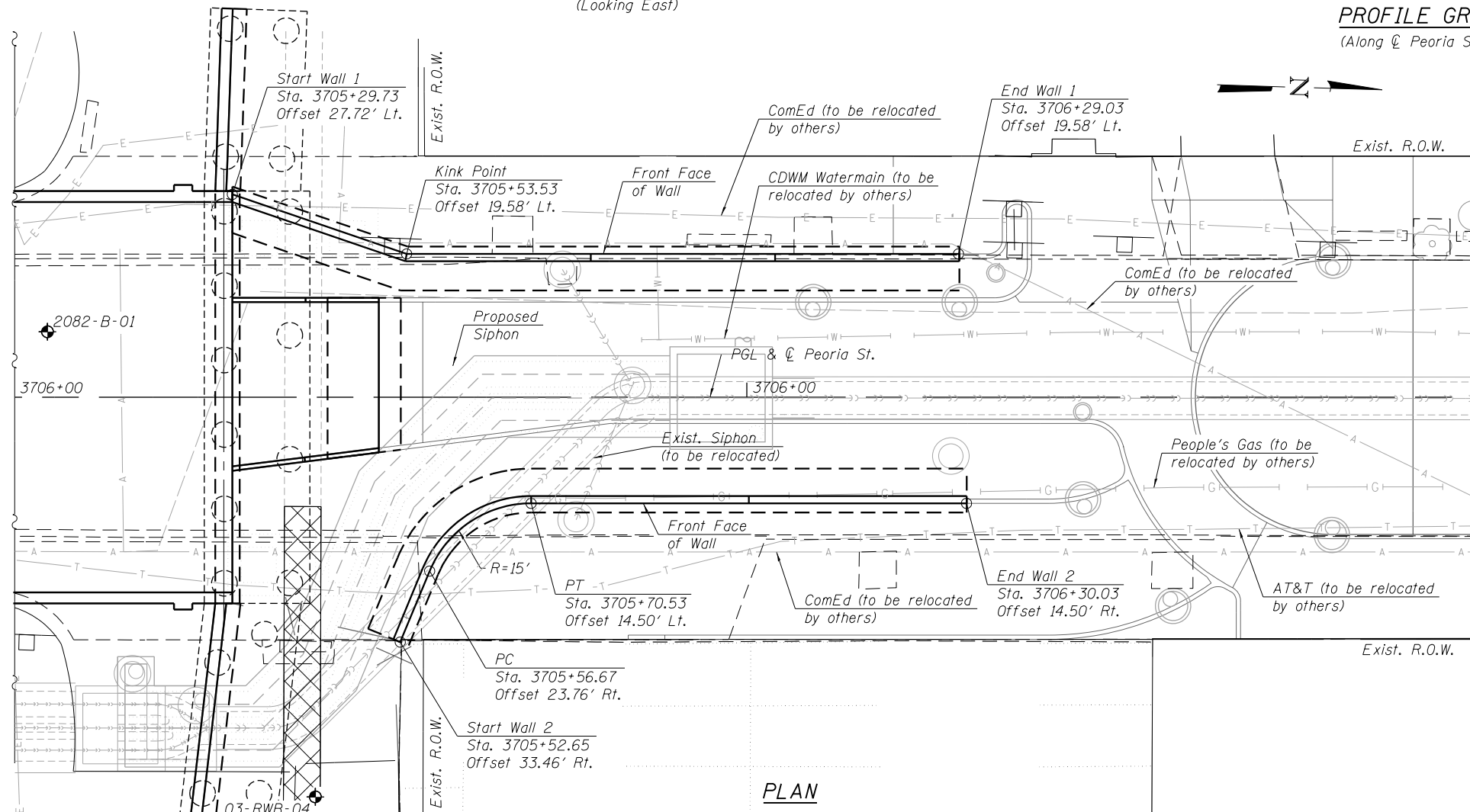
2012 AASHTO LRFD Bridge Design Specifications
 6th Edition, with 2013 Interim Revisions

DESIGN STRESSES

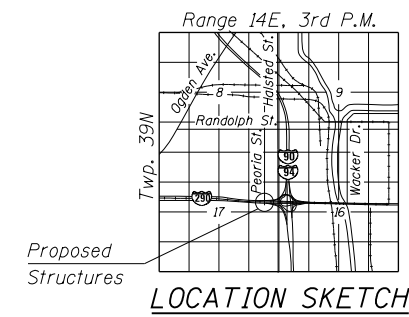
FIELD UNITS
 f'c = 3,500 psi
 fy = 60,000 psi (Reinforcement)

TOTAL BILL OF MATERIAL

Item	Unit	Quantity
Structural Excavation	Cu. Yd.	335
Concrete Structures	Cu. Yd.	105.3
Reinforcement Bars, Epoxy Coated	Pound	15,800
Concrete Sealer	Sq. Ft.	900
Geocomposite Wall Drain	Sq. Yd.	101
Granular Backfill for Structures	Cu. Yd.	134
Pipe Underdrains for Structures 4"	Foot	205



LEGEND
 Soil Boring Location



**GENERAL PLAN AND ELEVATION
 RETAINING WALL ALONG PEORIA STREET
 MUN 2090 SECTION 2013-011R
 COOK COUNTY
 WALL 1-STATION 3705+29.73 TO 3706+28.90
 WALL 2-STATION 3705+52.81 TO 3706+30.00**

8/10/20 PM 0161708-GOW29-5164-RetWall_GP.dgn



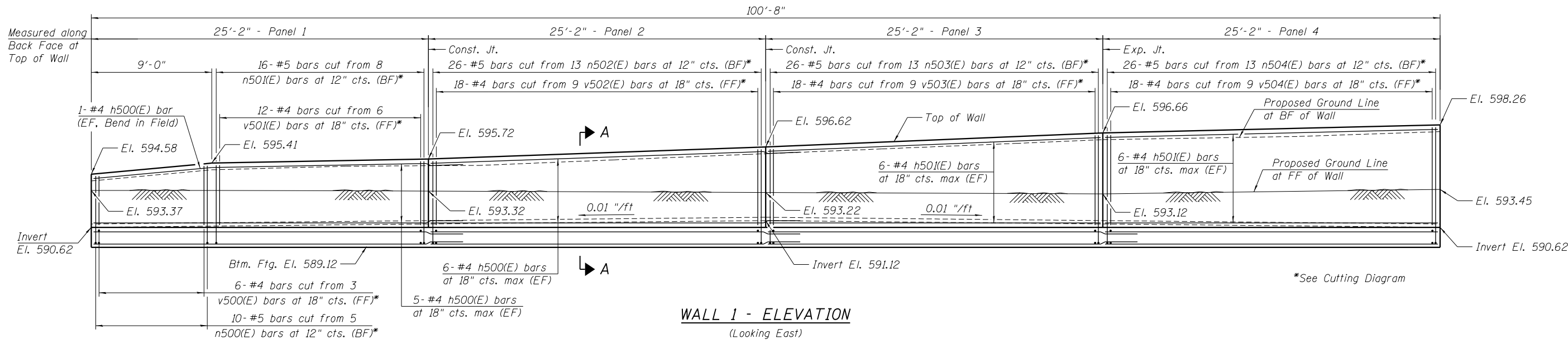
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	CHECKED KAH	REVIS

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

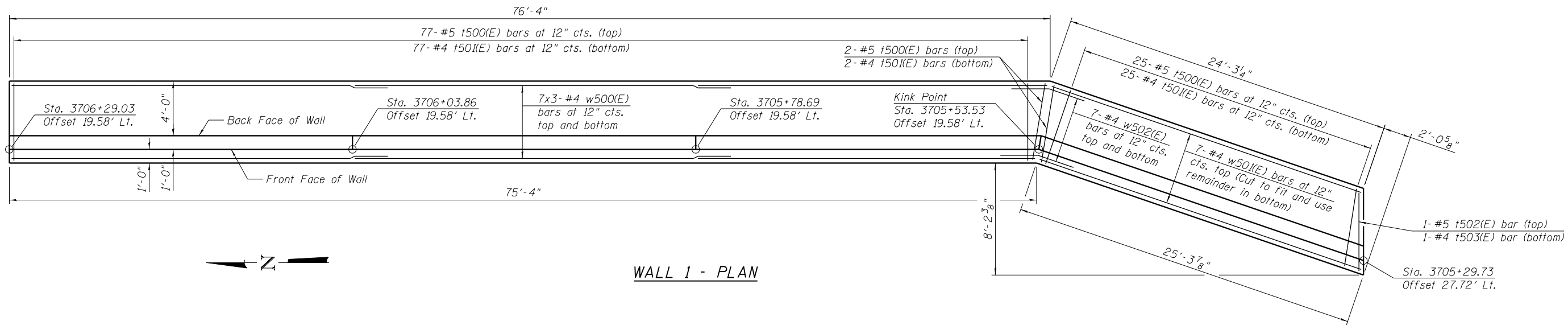
SHEET NO. 1 OF 4 SHEETS

MUN	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2090	2013-011R	COOK	356	188
CONTRACT NO.			60W29	

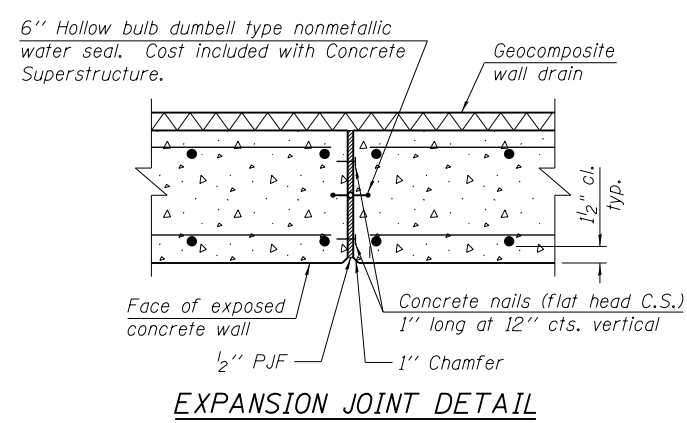
ILLINOIS FED. AID PROJECT



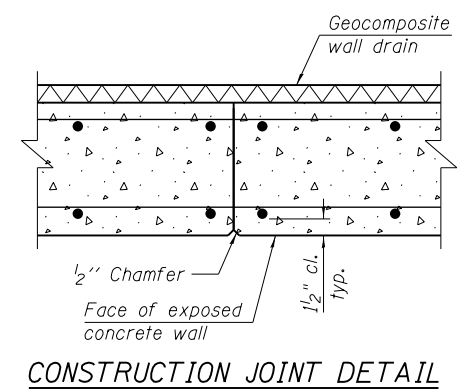
WALL 1 - ELEVATION
(Looking East)



WALL 1 - PLAN



EXPANSION JOINT DETAIL



CONSTRUCTION JOINT DETAIL

Note:
For Section A-A, see Sheet 4 of 4.
Bars indicated thus 16x3-#5 etc. indicates 16 lines of bars with 3 lengths per line.

BILL OF MATERIAL

Item	Unit	Quantity
Structural Excavation	Cu. Yd.	172
Concrete Structures	Cu. Yd.	56.3
Reinforcement Bars, Epoxy Coated	Pound	8,450
Concrete Sealer	Sq. Ft.	508
Geocomposite Wall Drain	Sq. Yd.	57
Granular Backfill for Structures	Cu. Yd.	76
Pipe Underdrains for Structures 4"	Foot	106

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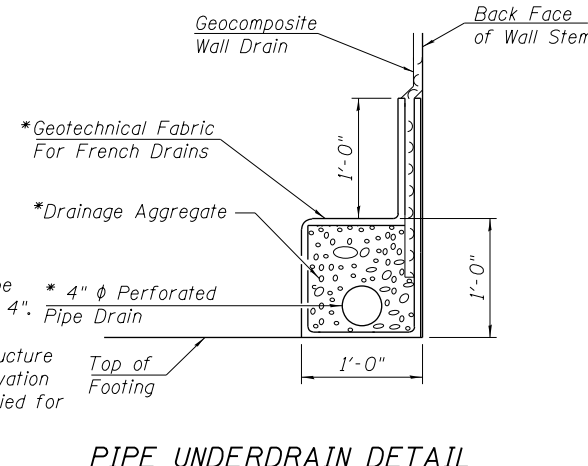
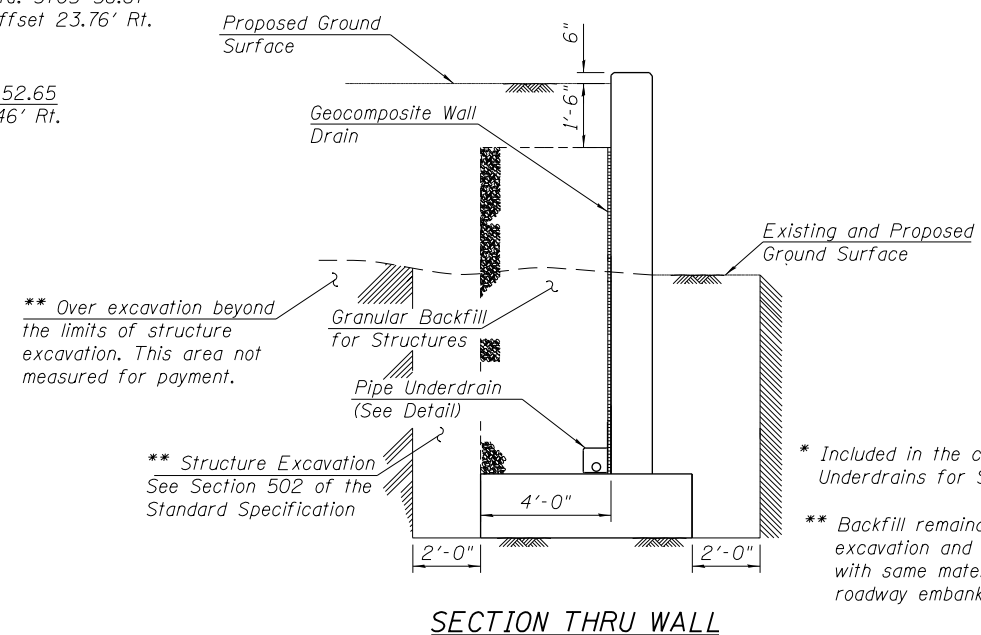
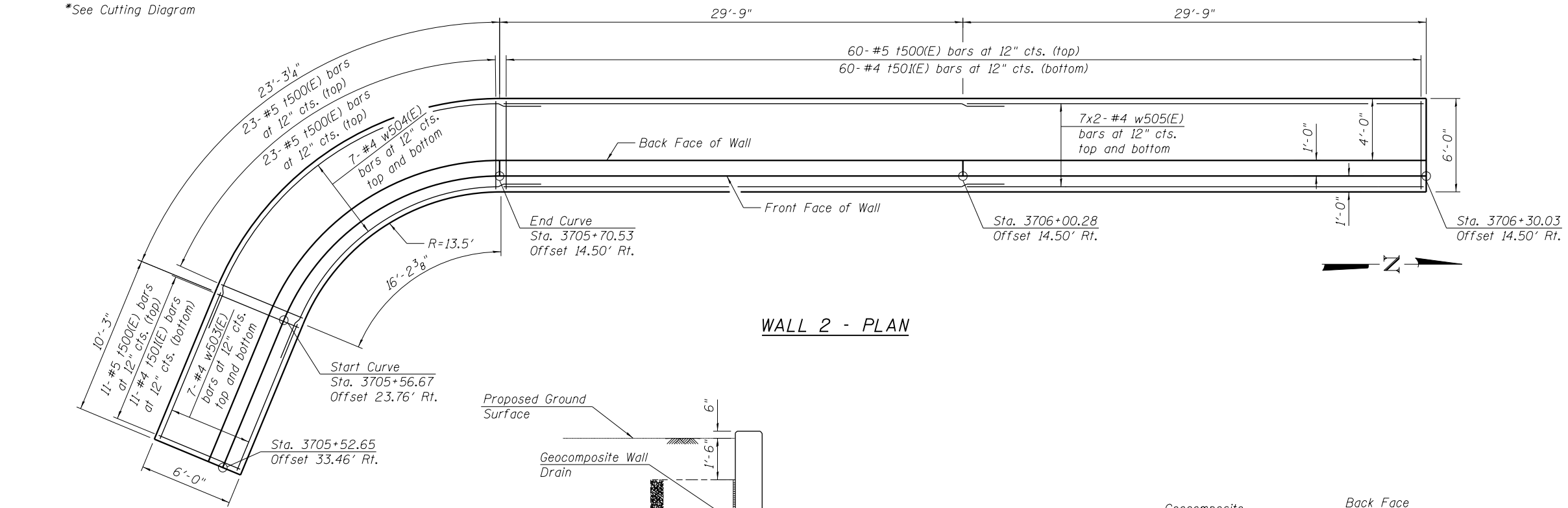
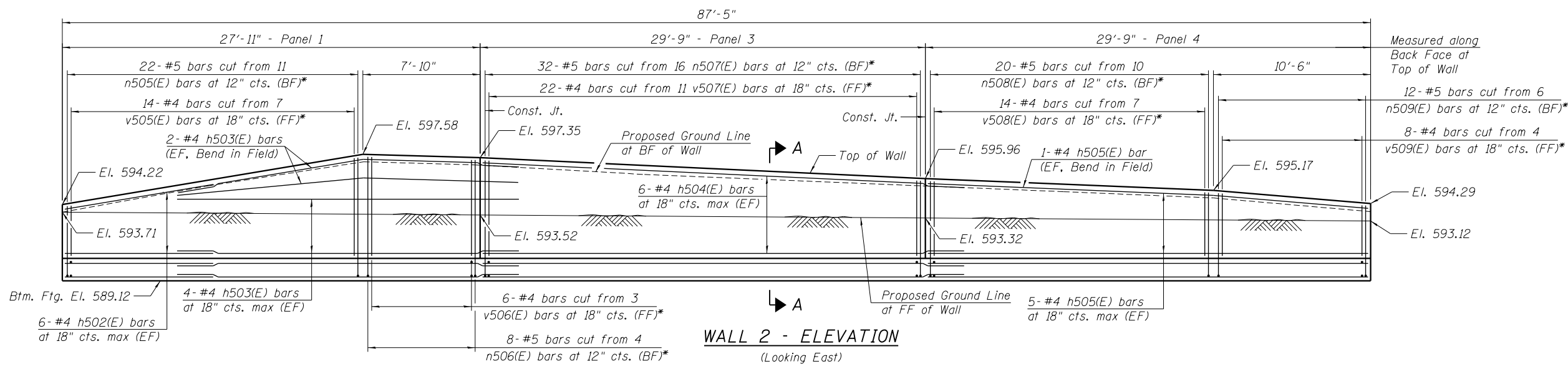
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	CHECKED MDS	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RETAINING WALL 1
PLAN AND ELEVATION

SHEET NO. 2 OF 4 SHEETS

MUN 2090	SECTION 2013-011R	COUNTY COOK	TOTAL SHEETS 356	SHEET NO. 189
ILLINOIS FED. AID PROJECT			CONTRACT NO. 60W29	



Notes:
 For Expansion Joint Detail and Construction Joint Detail see Sheet 2 of 4.
 For Section A-A, see Sheet 4 of 4.

BILL OF MATERIAL

Item	Unit	Quantity
Structural Excavation	Cu. Yd.	163
Concrete Structures	Cu. Yd.	49.0
Reinforcement Bars, Epoxy Coated	Pound	7350
Concrete Sealer	Sq. Ft.	392
Geocomposite Wall Drain	Sq. Yd.	44
Granular Backfill for Structures	Cu. Yd.	58
Pipe Underdrains for Structures 4"	Foot	99

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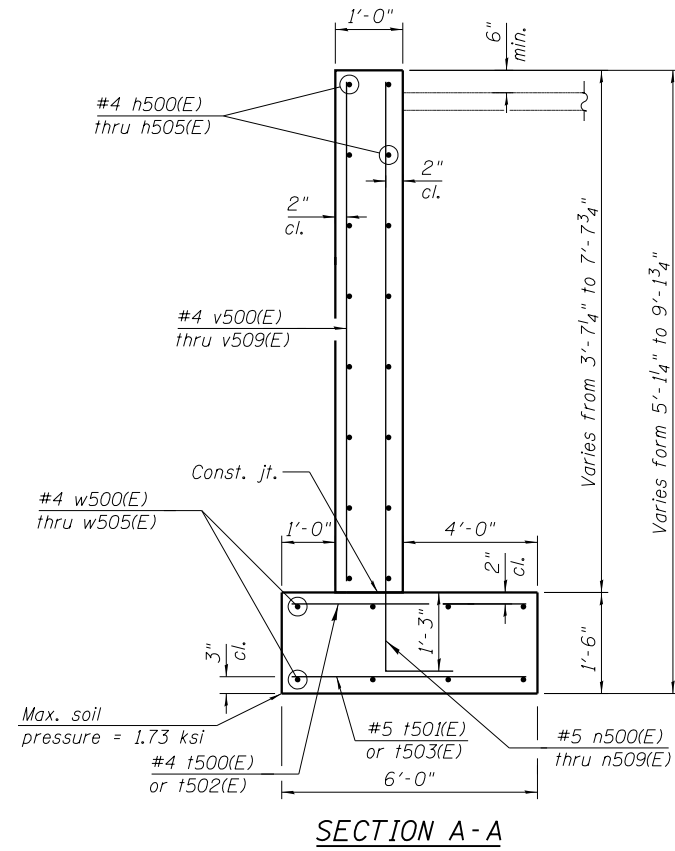
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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

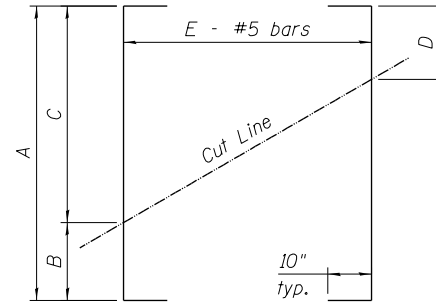
**RETAINING WALL 2
 PLAN AND ELEVATION**

SHEET NO. 3 OF 4 SHEETS

MUN	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2090	2013-011R	COOK	356	190
ILLINOIS FED. AID PROJECT			CONTRACT NO. 60W29	



SECTION A-A

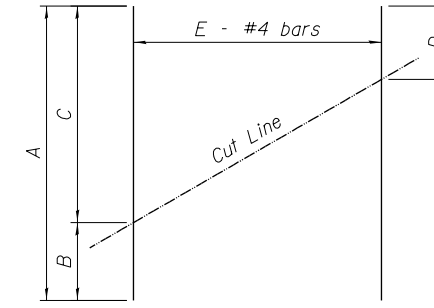


FIELD CUTTING DIAGRAM

Order bars full length.

FIELD CUTTING TABLE

Bar	A	B	C	D	E
n500(E)	10'-10"	5'-0"	5'-10"	5'-6"	5
n501(E)	12'-0"	5'-10"	6'-2"	6'-0"	8
n502(E)	13'-3"	6'-2"	7'-1"	6'-8"	13
n503(E)	15'-2"	7'-1"	8'-1"	7'-7"	13
n504(E)	16'-9"	8'-1"	8'-8"	8'-5"	13
n505(E)	12'-8"	4'-8"	8'-0"	6'-5"	11
n506(E)	15'-10"	7'-11"	7'-11"	7'-10"	4
n507(E)	14'-3"	7'-2"	7'-1"	6'-5"	16
n508(E)	12'-1"	6'-1"	6'-0"	5'-8"	10
n509(E)	10'-4"	5'-2"	5'-2"	4'-9"	6

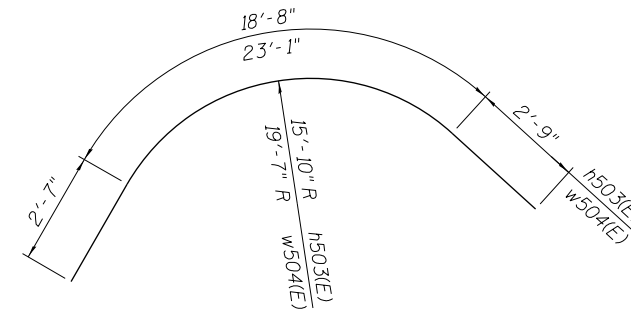


FIELD CUTTING DIAGRAM

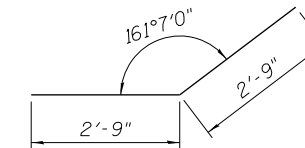
Order bars full length.

FIELD CUTTING TABLE

Bar	A	B	C	D	E
v500(E)	10'-10"	3'-8"	4'-4"	4'-1"	3
v501(E)	12'-0"	4'-5"	4'-9"	4'-7"	6
v502(E)	13'-3"	4'-9"	5'-8"	5'-3"	9
v503(E)	15'-2"	5'-8"	6'-8"	6'-2"	9
v504(E)	16'-9"	6'-8"	7'-3"	7'-0"	9
v505(E)	9'-8"	3'-3"	6'-5"	4'-11"	7
v506(E)	13'-0"	6'-6"	6'-6"	6'-5"	3
v507(E)	11'-5"	5'-9"	5'-8"	5'-0"	11
v508(E)	9'-3"	4'-8"	4'-7"	4'-3"	7
v509(E)	7'-6"	3'-10"	3'-8"	3'-4"	4



BARS h503(E) & w504(E)



BAR w502(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h500(E)	24	#4	27'-9"	—
h501(E)	24	#4	24'-10"	—
h502(E)	12	#4	10'-3"	—
h503(E)	12	#4	24'-0"	⤿
h504(E)	12	#4	32'-4"	—
h505(E)	12	#4	29'-5"	—
n500(E)	5	#5	12'-6"	—
n501(E)	8	#5	13'-8"	—
n502(E)	13	#5	14'-11"	—
n503(E)	13	#5	16'-10"	—
n504(E)	13	#5	18'-5"	—
n505(E)	11	#5	14'-4"	—
n506(E)	4	#5	17'-6"	—
n507(E)	16	#5	15'-11"	—
n508(E)	10	#5	13'-9"	—
n509(E)	6	#5	12'-0"	—
v500(E)	3	#4	10'-10"	—
v501(E)	6	#4	12'-0"	—
v502(E)	9	#4	13'-3"	—
v503(E)	9	#4	15'-2"	—
v504(E)	9	#4	16'-9"	—
v505(E)	7	#4	9'-8"	—
v506(E)	3	#4	13'-0"	—
v507(E)	11	#4	11'-5"	—
v508(E)	7	#4	9'-3"	—
v509(E)	4	#4	7'-6"	—
t500(E)	198	#5	5'-8"	—
t501(E)	198	#4	5'-8"	—
t502(E)	1	#5	5'-11"	—
t503(E)	1	#4	5'-11"	—
w500(E)	42	#4	27'-1"	—
w501(E)	7	#4	49'-0"	—
w502(E)	14	#4	5'-6"	⤿
w503(E)	14	#4	10'-1"	—
w504(E)	14	#4	28'-5"	⤿
w505(E)	28	#4	30'-11"	—
Concrete Superstructure		Cu. Yd.	143.2	
Protective Coat		Sq. Yd.	615	
Reinforcement Bars, Epoxy Coated		Pound	9,520	

8/10/24 PM 0161708-60W29-5165B-Rev+Wall.DET



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PLOT DATE = 10/28/2013	CHECKED MDS	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

RETAINING WALL DETAILS

SHEET NO. 4 OF 4 SHEETS

MUN 2090	SECTION 2013-011R	COUNTY COOK	TOTAL SHEETS 356	SHEET NO. 191
CONTRACT NO. 60W29			ILLINOIS FED. AID PROJECT	

GENERAL NOTES:

GENERAL REQUIREMENTS:

1. THE GENERAL STRUCTURAL NOTES ARE INTENDED TO AUGMENT THE DRAWINGS AND SPECIFICATIONS. SHOULD CONFLICTS EXIST BETWEEN THE DRAWINGS SPECIFICATIONS AND THE STRUCTURAL NOTES, THE STRICTEST PROVISION SHALL GOVERN.
2. THE STRUCTURES ARE DESIGNED TO BE SELF-SUPPORTING AND STABLE AFTER THE BUILDING IS FULLY COMPLETED. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE ERECTION PROCEDURE AND SEQUENCE, TO INSURE THE SAFETY OF THE BUILDING AND ITS COMPONENT PARTS DURING ERECTION, AND TO PROVIDE TEMPORARY BRACING, GUYS, OR TIE-DOWNS AS NECESSARY FOR COMPLETION OF THE WORK. SUCH MATERIAL SHALL REMAIN THE CONTRACTOR'S PROPERTY AFTER COMPLETION OF THE WORK.
3. FOLLOW ALL APPLICABLE SAFETY CODES AND REGULATIONS DURING ALL PHASES OF CONSTRUCTION.
4. ALL CONDITIONS AND DIMENSIONS PERTAINING TO EXISTING UTILITIES AND CONSTRUCTION, AT THE SITE, SHALL BE VERIFIED BY THE CONTRACTOR BEFORE PROCEEDING WITH THE WORK. THIS ASSESSMENT SHALL BE CONDUCTED SUFFICIENTLY IN ADVANCE OF ANY PHASE OF CONSTRUCTION, TO THE MAXIMUM EXTENT POSSIBLE, TO AVOID DELAYS IN THE WORK.
5. EQUIPMENT WEIGHTS AND STRUCTURAL ITEMS IN ANY WAY RELATED TO THE SUPPORT OF EQUIPMENT OR OPENINGS ARE INDICATED FOR INFORMATIONAL PURPOSES ONLY. VERIFY AND COORDINATE SIZE, LOCATION AND QUANTITY OF OPENINGS AND EQUIPMENT WEIGHTS REQUIRED FOR ARCHITECTURAL, MECHANICAL AND ELECTRICAL TRADES. OBTAIN APPROVAL OF AFFECTED TRADES BEFORE PROCEEDING WITH SUCH PORTION OF THE WORK. CHANGES REQUIRED BY EQUIPMENT IN EXCESS OF THE WEIGHT OR GEOMETRIC ALLOWANCES ARE THE CONTRACTOR'S RESPONSIBILITY.
6. ALL LOADS AND REACTIONS ON DRAWINGS AND IN THESE GENERAL STRUCTURAL NOTES ARE UNFACTORED SERVICE LOADS UNLESS OTHERWISE NOTED. LOAD CASES WHICH INCLUDE COMBINED LOADS SHALL BE CALCULATED IN ACCORDANCE WITH THE MUNICIPAL CODE OF CHICAGO.
7. IN GENERAL, ALL SECTIONS AND DETAILS SHOWN ON THE PLANS ARE INTENDED TO APPLY TO SIMILAR CONDITIONS, UNLESS SPECIFICALLY NOTED.
8. SEE ARCHITECTURAL AND MECHANICAL REQUIREMENTS FOR EMBEDDED ITEMS NOT SHOWN HEREIN AND TO VERIFY SIZE AND LOCATION OF ALL OPENINGS.
9. NO CORE DRILLING SHALL BE ALLOWED WITHOUT APPROVAL BY THE ENGINEER. BEFORE CORE DRILLING ANY HOLES, LOCATE THE REINFORCING STEEL IN EXISTING CONCRETE WITH R-METER. RELOCATE THE HOLE TO AVOID CUTTING ANY REBARS OR POST-TENSIONING TENDONS. DO NOT DRILL HOLES THROUGH EXISTING REBARS UNLESS ACCEPTABLE TO THE STRUCTURAL ENGINEER. DO NOT OVERCUT ANY HOLES.

FOUNDATION NOTES:

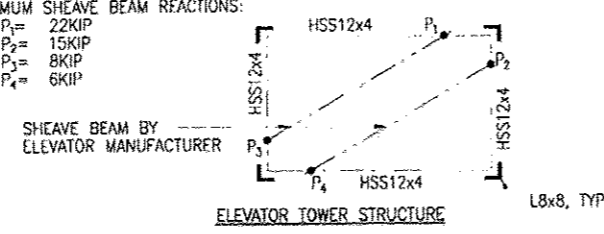
1. FOUNDATIONS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE RECOMMENDATIONS PROVIDED IN THE PROJECT SPECIFIC GEOTECHNICAL REPORT PERFORMED BY WANG ENGINEERING, REPORT NUMBER 1100-04-01 INCLUDING THE TECHNICAL MEMORANDUM DATED AUGUST 23, 2013.
2. DRILLED SHAFTS HAVE BEEN DESIGNED FOR AN ALLOWABLE END-BEARING CAPACITY OF 13, 500 PSF IN ACCORDANCE WITH THE GEOTECHNICAL CRITERIA INDICATED IN NOTE 1.
3. CONTRACTOR SHALL FOLLOW RECOMMENDATIONS CONTAINED WITHIN THE GEOTECHNICAL REPORT IN PREPARATION OF THE SITE AND BUILDING FOUNDATIONS.
4. PRIOR TO ANY EXCAVATION OPERATIONS, THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES OR OTHER SUBSURFACE STRUCTURES WITHIN THE AREA TO BE EXCAVATED.
5. ALL EXCAVATIONS WITHIN 2 FEET OF EXISTING STRUCTURES TO REMAIN SHALL BE REMOVED BY HAND. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR TAKING ADEQUATE PRECAUTIONS NOT TO DAMAGE THE EXISTING INFRASTRUCTURE DURING ALL EXCAVATION, FILL AND COMPACTION OPERATIONS.

DEMOLITION:

1. THE CONTRACTOR IS FULLY RESPONSIBLE FOR THE MEANS AND METHODS OF DEMOLITION AND THE INTEGRITY AND STABILITY OF THE EXISTING STRUCTURE DURING DEMOLITION UNTIL THE WORK IS COMPLETED. THE CONTRACTOR SHALL PROVIDE SHORING IN REQUIRED LOCATIONS WHERE EXISTING CONSTRUCTION IS TO REMAIN WILL BE AFFECTED BY DEMOLITION.
2. THE EXISTING STRUCTURE IS INDICATED FOR REFERENCE ONLY AND IS TO BE FIELD VERIFIED BY THE CONTRACTOR. THE EXACT EXTENT OF DEMOLITION SHALL BE VERIFIED AT THE SITE. DETERMINE THE NATURE AND EXTENT OF DEMOLITION THAT WILL BE NECESSARY BY COMPARING THE DRAWINGS WITH THE EXISTING CONSTRUCTION. THE CONTRACTOR SHALL USE THESE DRAWINGS IN CONJUNCTION WITH THE ARCHITECTURAL AND MECHANICAL DEMOLITION DRAWINGS. IN THE EVENT OF CONFLICTS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE AUTHORITY.
3. THE CONTRACTOR SHALL USE QUALIFIED, EXPERIENCED PERSONNEL FOR DEMOLITION AND REMOVAL OPERATIONS. DEMOLITION AND REMOVAL OPERATIONS SHALL BE PERFORMED IN A CAREFUL AND ORDERLY MANNER TO PREVENT HAZARDS TO PERSONS, DAMAGE TO PROPERTY AND THE SPREADING OF DUST AND/OR DEBRIS USING A VACUUM SYSTEM AND/OR WET METHODS.
4. NO PORTIONS OF THE STRUCTURE SHALL BE PERMITTED TO FALL NOR SHALL ANY DEBRIS BE DROPPED EXCEPT BY METHODS WHICH WILL ENSURE INTEGRITY OF THE STRUCTURE.
5. PRIOR TO THE START OF WORK, VERIFY THAT THE SCOPE OF DEMOLITION INDICATED ON THE DRAWINGS SHALL NOT DAMAGE, CUT OR DISRUPT SERVICE TO ANY MECHANICAL SYSTEM, COMMUNICATION SYSTEM, ELECTRICAL SYSTEM OR UTILITY EMBEDDED IN THE EXISTING STRUCTURE.
6. DO NOT REMOVE MORE OF THE EXISTING STRUCTURE THAN IS INDICATED ON THE DRAWINGS. DO NOT DAMAGE, MAR, CUT OR DEFACE THE REMAINING STRUCTURE TO REMAIN, OR MATERIALS TO BE REUSED.
7. THE CONTRACTOR SHALL INCLUDE IN THEIR BID THE COST OF REMOVING AND LEGALLY DISPOSING OF DEMOLISHED MATERIALS FROM THE SITE IN ACCORDANCE WITH ALL APPLICABLE LAWS, CODES AND REGULATIONS.
8. WHERE NEW OPENINGS IN EXISTING CONCRETE SLABS ARE TO BE CREATED, THE DEMOLITION CONTRACTOR SHALL CORE HOLES AT THE OUTSIDE CORNERS OF THE NEW OPENING PRIOR TO DEMOLITION. SAW-CUTTING SHALL BE STRAIGHT AND SHALL NOT EXTEND INTO THE EXISTING REMAINING SLAB OR BEYOND THE HOLES CORED AT THE CORNERS OF THE NEW OPENING.
9. A DEMOLITION PLAN IS TO BE SUBMITTED TO THE AUTHORITY FOR APPROVAL. DEMOLITION SHALL NOT COMMENCE UNTIL THE CONTRACTOR HAS RECEIVED WRITTEN APPROVAL FROM THE AUTHORITY.

DESIGN CRITERIA:

1. REFERENCE STANDARDS:
MUNICIPAL CODE OF CHICAGO,
ASCE 7-05, MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES
2. BUILDING IMPORTANCE CATEGORY II
3. LOADS:
LIVE LOADS:
PLATFORM LEVEL LIVE LOADS: 100 PSF
STATION LEVEL LIVE LOADS: 100 PSF
ROOF LIVE LOAD: 20 PSF (NON-REDUCIBLE)
4. FUTURE STATION LOADS (GRIDS A5/12 TO B/16.8)
STATION DEAD LOADS (SELFWEIGHT + SDL) 125 PSF
STATION LIVE LOADS (SLL) 100 PSF
STATION ROOF DEAD LOADS (RDL) 25 PSF
STATION ROOF LIVE LOADS (RL) 20 PSF
STATION ROOF SNOW LOADS (RSL) 25 PSF
5. WIND DESIGN CRITERIA:
BASIC WIND SPEED, V: 90 MPH
MWFRS PRESSURE: 20 PSF
COMPONENTS AND CLADDING PRESSURE: 25 PSF (30 PSF @ CORNERS)
CORNER DIMENSION: 3.6 FT
6. SNOW LOADS:
FLAT ROOF SNOW LOAD: 25 PSF
DRIFT SNOW LOAD:
7. ELEVATOR DESIGN CRITERIA:
ELEVATOR TOWER DESIGN IS BASED ON THE LOAD CRITERIA BELOW. ALL LOADS ARE UNFACTORED AND INCLUDE AN 100% IMPACT ADJUSTMENT. IF THE FINAL DESIGN LOADS ARE GREATER THAN 5% OF THE LOADS INDICATED, THEN THE ENGINEER OF RECORD SHALL BE NOTIFIED PRIOR TO FABRICATION.
TYPE: TRACTION
CAPACITY: 2,500 LB
IMPACT: 100%
MAXIMUM SHEAVE BEAM REACTIONS:
P₁= 22KIP
P₂= 15KIP
P₃= 8KIP
P₄= 6KIP



CAST-IN-PLACE CONCRETE NOTES:

1. REFERENCE STANDARDS:
EXCEPT AS INDICATED, ALL CONCRETE WORK AND DETAILING, FABRICATION AND PLACING OF REINFORCING SHALL BE GOVERNED BY:
ACI 301, SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS, 2005.
ACI 305.1, HOT WEATHER CONCRETING, 2006.
ACI 306, COLD WEATHER CONCRETING, 2002.
ACI 315, DETAILS AND DETAILING OF CONCRETE REINFORCEMENT, 1999.
ACI 318, BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE, 2008.
2. MATERIALS:
ALL FOOTINGS, RETAINING WALLS, CAST-IN-PLACE WALLS AND SLABS ON GRADE: f_c = 4,000 PSI, AE, UNO
ALL OTHER BEAMS AND COLUMNS: f_c = 6,000 PSI, AE, UNO
3. CONCRETE COVER REQUIREMENTS:
CONCRETE CAST DIRECTLY AGAINST EARTH: 3 IN
CONCRETE EXPOSED TO EARTH OR WEATHER, BUT CAST AGAINST FORMS:
(BARS > #5): 2 IN
(BARS <= #5): 1-1/2 IN
CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH THE GROUND:
SLABS, WALLS, JOISTS: 3/4 IN
BEAMS, COLUMNS: 1-1/2 IN
4. CONCRETE COVER REQUIREMENTS:
CONCRETE CAST DIRECTLY AGAINST EARTH: 3 IN
CONCRETE EXPOSED TO EARTH OR WEATHER, BUT CAST AGAINST FORMS:
(BARS > #5): 1 IN
(BARS <= #5): 1-1/2 IN
CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH THE GROUND:
SLABS, WALLS, JOISTS: 3/4 IN
BEAMS, COLUMNS: 1-1/2 IN
5. DURING PLACEMENT OF THE CONCRETE SLABS, TAKE ALL NECESSARY STEPS TO AVOID PLASTIC CRACKS DUE TO WEATHER CHANGES. CURE ALL CONCRETE ACCORDING TO ACI 308.1 AND SPECIFICATIONS.
6. CORNER BEND DIAMETERS: #5 AND SMALLER: 4D
#6 AND LARGER: 6D
7. WHERE NO REINFORCING IS INDICATED IN SLABS ON GRADE, PROVIDE WWR 4x4-W2.9xW2.9.
8. WHERE ANY OPENING REQUIRED FOR THE WORK IS NOT INDICATED, OBTAIN APPROVAL FROM THE ENGINEER OF RECORD BEFORE PROCEEDING WITH THE WORK.
9. PROVIDE 3/4" CHAMFER ON ALL EXPOSED EDGES OF CONCRETE EXCEPT AS INDICATED.
10. ALL REINFORCING SHALL BE HELD SECURELY IN POSITION WITH STANDARD ACCESSORIES DURING CONCRETE PLACEMENT. REINFORCING SHALL NOT BE SUPPORTED ON BOOSTERS MADE OF CMU OR CONCRETE NOT SPECIFICALLY DESIGNED TO SUPPORT REINFORCING STEEL.
11. WALLS AND PILASTERS SHALL BE CAST MONOLITHICALLY. CONTRACTOR SHALL LIMIT LENGTH OF CONTINUOUS WALL PLACEMENT TO 60 FEET.
12. PROVIDE CONTINUOUS REINFORCEMENT WHEREVER POSSIBLE. SPLICE ONLY AS SHOWN OR APPROVED. STAGGER ALL SPLICES. USE CLASS "B" TENSION SPLICE UNLESS NOTED OTHERWISE. DOWELS SHALL MATCH SIZE AND SPACING OF THE SPECIFIED REINFORCEMENT AND SHALL BE LAPPED WITH TENSION SPLICES, UNLESS NOTED OTHERWISE. TENSION SPLICE LENGTHS SHALL BE AS FOLLOWS:

TENSION SPLICE LENGTHS, (IN)									
BAR SIZE	CONCRETE STRENGTH, F _c (PSI)	CONCRETE STRENGTH, F _c (PSI)			BAR SIZE	CONCRETE STRENGTH, F _c (PSI)	CONCRETE STRENGTH, F _c (PSI)		
		3,000	4,000	5,000			3,000	4,000	5,000
#4	A	22	19	17	#7	A	48	41	37
	B	29	25	22		B	63	53	48
#5	A	28	24	21	#8	A	55	47	42
	B	36	31	28		B	72	61	55
#6	A	33	29	26	#9	A	62	53	47
	B	43	37	33		B	80	69	61

13. FOR HORIZONTAL REINFORCING WITH MORE THAN 12" OF CONCRETE BELOW, OR FOR VERTICAL REINFORCING, MULTIPLY THE SPLICE LENGTH INDICATED IN THE TABLE BY 1.3.
14. THE TENSION SPLICES INDICATED ABOVE ARE FOR UNCOATED AND GALVANIZED REINFORCING.

STRUCTURAL ALUMINUM NOTES:

1. REFERENCE STANDARDS:
EXCEPT AS INDICATED, ALL DESIGN, FABRICATION AND ERECTION OF STRUCTURAL ALUMINUM SHALL BE GOVERNED BY:
ALUMINUM ASSOC'S SPECIFICATION FOR ALUMINUM STRUCTURES, 2010.
AWS D1.2, STRUCTURAL WELDING CODE - ALUMINUM.
2. MATERIALS:
ALUMINUM STRUCTURAL SECTIONS: 6061-T6; F_u= 42KSI, F_y= 36KSI
STAINLESS STEEL BOLTS: ASTM A193, TYPE 316
STAINLESS STEEL NUTS: ASTM A194, TYPE 316
STAINLESS STEEL WASHERS: TYPE 316
STAINLESS STEEL ANCHOR RODS: ASTM A320, TYPE 316
WELD FILLER MATERIAL: 4043
3. ALL WELDED JOINTS SHALL BE IN ACCORDANCE WITH AWS D1.2. USE ONLY WELDERS CERTIFIED TO WELD ALUMINUM.
4. WHERE THE CONTACT OF DISSIMILAR METALS MAY CAUSE ELECTROLYSIS OR WHERE ALUMINUM WILL COME IN CONTACT WITH CONCRETE, MORTAR OR PLASTER, THE ALUMINUM CONTACT SURFACE SHALL BE COATED WITH 1 COAT OF ZINC CHROMATE PRIMER AND ONE HEAVY COAT OF ALUMINUM PIGMENTED ASPHALT PAINT.

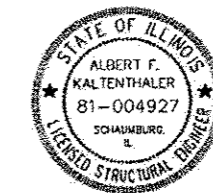
POST-INSTALLED ANCHORS:

1. REFERENCE STANDARD: ACI 318-05, APPENDIX D.
2. INSTALL ONLY WHERE SPECIFICALLY SHOWN IN THE PROJECT DETAILS.
3. ALL POST-INSTALLED ANCHOR TYPES SHALL BE APPROVED BY THE ENGINEER OF RECORD AND SHALL HAVE A CURRENT ICC-ESR THAT PROVIDES RELEVANT DESIGN VALUES TO VALIDATE THE AVAILABLE STRENGTH.
4. INSTALL ALL ANCHORS IN STRICT ACCORDANCE TO THE ICC-ESR AND MANUFACTURER'S INSTRUCTIONS.
5. SPECIAL INSPECTIONS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS INDICATED IN THE SCHEDULE OF SPECIAL INSPECTIONS UNDER 1704.4 CONCRETE CONSTRUCTION.
6. USE COMPRESSED AIR TO THOROUGHLY CLEAN THE ANCHOR HOLES.
7. PROVIDE EPOXY ADHESIVE TYPE ANCHORS WITH THE FOLLOWING MINIMUM ALLOWABLE CAPACITIES AND MINIMUM EMBEDMENTS.

POST-INSTALLED ANCHORS					
ANCHOR DIA (IN)	EMB (IN)	CONCRETE		CMU	
		TENSION (KIP)	SHEAR (KIP)	TENSION (KIP)	SHEAR (KIP)
0.375	3.375	3.06	4.46	0.880	1.13
0.500	4.500	4.98	7.93	1.06	1.74
0.625	5.625	8.41	12.4	1.37	2.12
0.750	6.750	9.98	17.8	1.58	2.20
1.000	9.000	14.8	24.3	-	-

NOTES:
1. ANCHOR DIAMETERS AND EMBEDMENTS ARE IN INCHES.
2. ALLOWABLE CAPACITIES ARE IN KIPS.
3. ALLOWABLE CAPACITIES ARE BASED ON MINIMUM ALLOWABLE EDGE DISTANCES AND SPACINGS AND F_c = 4,000 PSI AND F_m = 1,500 PSI.

8. ALL ANCHORS EMBEDDED IN CONCRETE OR MASONRY SHALL BE PROPORTIONED TO EXCEED THE STRENGTH OF THE CONNECTED HARDWARE. ALL ANCHORS SHALL BE SHOWN TO BE IN COMPLIANCE WITH ACI 318 APPENDIX D. MECHANICAL EXPANSION FASTENERS SHALL NOT BE USED IN CONDITIONS WHERE THEY WILL SEE TENSILE LOADS. POWDER DRIVEN ANCHORS SHALL NOT BE USED IN CONCRETE OR MASONRY.



Albert F. Kaltenthaler
ALBERT F. KALTENTHALER DATE
81-004927 LICENSE EXPIRES 11 / 30 / 2014
SCHAUMBURG, IL SHEET RANGE

PRELIMINARY NOT FOR CONSTRUCTION

GENERAL NOTES – CONTINUED:

STRUCTURAL STEEL NOTES:

- REFERENCE STANDARDS:
EXCEPT AS INDICATED, ALL DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL BE GOVERNED BY:
AISC MANUAL OF STEEL CONSTRUCTION – 13TH EDITION, 2005.
AISC CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES, 2005.
AISC FCD QUALITY CERTIFICATION PROGRAM, 1995.
AWS D1.1, STRUCTURAL WELDING CODE – STEEL, 2004.
- MATERIALS:
WIDE FLANGE SHAPES: ASTM A992, $F_y = 50$ KSI
RECTANGULAR HSS: ASTM A500 GRADE B, $F_y = 46$ KSI
ROUND HSS: ASTM A500 GRADE B, $F_y = 42$ KSI
PIPE: ASTM A53 GRADE B, $F_y = 35$ KSI
CHANNELS: ASTM A36, $F_y = 36$ KSI
ANGLES: ASTM A36, $F_y = 36$ KSI
HIGH STRENGTH PLATES: ASTM A572, $F_y = 50$ KSI
PLATES AND MISCELLANEOUS STEEL: ASTM A36, $F_y = 36$ KSI
WELDING ELECTRODES: AWS A5.1 OR A5.5 SERIES E70
HIGH STRENGTH BOLTS: ASTM A 325
ANCHOR RODS: ASTM F 1554, GRADE 36
- PROVIDE CONNECTIONS FOR MEMBERS PER TYPICAL DETAILS INDICATED ON SHEET S-500.
- WELDING SHALL BE PERFORMED ONLY BY OPERATORS QUALIFIED BY THE AWS STANDARD QUALIFICATION PROCEDURE TO PERFORM THE PARTICULAR TYPE OF WORK REQUIRED.
- MINIMUM SIZE OF ALL FILLET WELDS SHALL CONFORM TO AISC SPECIFICATIONS.
- ALL WELDS ALONG LENGTHS OF MEMBERS INDICATED ON ARCHITECTURAL OR STRUCTURAL DRAWINGS BUT NOT SIZED SHALL BE A MINIMUM OF 3/16"x3" FILLET WELD.
- ALL FASTENERS USED FOR CONNECTIONS BETWEEN STRUCTURAL STEEL MEMBERS SHALL BE DIRECT TENSION INDICATING BOLTS. FASTENERS MAY NOT BE REUSED ONCE INSTALLED.
- PAINT AND PROTECTION:
TOUCH UP PAINT ON FASTENERS, WELDS AND ABRADED AREAS AFTER ERECTION. STEEL ITEMS EXPOSED TO WEATHER IN FINISHED STRUCTURE SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION, UNLESS OTHERWISE NOTED. ALL FASTENERS USED IN EXTERIOR APPLICATIONS SHALL BE GALVANIZED.
- PROVIDE APPROVAL FROM THE ENGINEER OF RECORD FOR ANY OPENINGS IN MEMBERS NOT INDICATED IN THESE DOCUMENTS.
- GROUT UNDER BEARING PLATES SHALL BE OF NON-SHRINK, NON-METALLIC COMPOSITION.
- ANGLE FRAME MEMBERS AROUND OPENINGS SHALL BE MITERED, WELDED AND GROUND SMOOTH.
- FABRICATE STRUCTURAL STEEL MEMBERS WITH NATURAL CAMBER UP EXCEPT AS INDICATED.
- PUNCH, SUB-PUNCH AND REAM OR DRILL ALL BOLT HOLES. DO NOT USE A CUTTING TORCH TO ENLARGE BOLT HOLES, UNLESS APPROVAL IS OBTAINED FROM THE ENGINEER OF RECORD.

STEEL DECK NOTES:

- REFERENCE STANDARDS:
EXCEPT AS INDICATED, DESIGN, MANUFACTURE AND ERECTION OF COMPOSITE FLOOR DECK, FORM DECK AND ROOF DECK SHALL BE GOVERNED BY:
SDI DESIGN MANUAL FOR COMP DECKS, FORM DECKS AND ROOF DECKS, 2007.
SDI DIAPHRAGM DESIGN MANUAL, 2ND EDITION, 2004.
AWS D1.3, STRUCTURAL WELDING CODE – SHEET STEEL, 1998.

MATERIALS:
CF: 1.5 TYPE C, 20 GAGE, STEEL FORM DECK
STEEL DECK: ASTM A 653, $F_y = 33$ KSI
WELDING ELECTRODES: AWS A5.1, A5.5, OR A5.18, SERIES E60

DECK TYPE	THICKNESS (IN)	I_p (IN ⁴)	I_n (IN ⁴)	S_p (IN ³)	S_n (IN ³)
CF	0.0358 (20 GA)	0.2220	0.1860	0.2310	0.2240

- ATTACH DECK TO SUPPORTING STRUCTURE AS INDICATED ON DECK ATTACHMENT SCHEDULES. ATTACHMENT MUST COMPLY WITH SDI DIAPHRAGM DESIGN MANUAL LOAD TABLES. ATTACHMENT SHALL BE BY PUDDLE WELDS, UNLESS NOTED OTHERWISE.
- PROVIDE 16 GA. (0.0598") TERMINATION STRIPS WHERE EDGE OF DECK DOES NOT CONTACT SUPPORTING STRUCTURE.
- FORM DECK SHALL BE CONTINUOUS OVER TWO SPANS WHERE POSSIBLE.

LOCATION OF INFORMATION

- FOR MATERIAL STRENGTHS, SEE GENERAL STRUCTURAL NOTES.
- VERIFY ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS PRIOR TO START OF CONSTRUCTION.
- FOR CLARITY, ALL EXTERIOR SLABS AND SIDEWALKS MAY NOT BE SHOWN. FOR EXACT DIMENSIONS, LOCATIONS, JOINT AND SCORE LINES, SEE CIVIL DRAWINGS.
- FOR CLARITY, ALL OPENINGS MAY NOT BE SHOWN ON FRAMING PLANS. FOR EXACT SIZE, NUMBER, AND LOCATION OF OPENINGS, SEE ARCHITECTURAL, MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS. FOR FRAMING AT OPENINGS, SEE TYPICAL STRUCTURAL DETAILS. VERIFY ALL SIZES, WEIGHTS AND LOCATIONS OF MECHANICAL EQUIPMENT WITH MECHANICAL ENGINEER AND MECHANICAL CONTRACTOR THROUGH ARCHITECT.
- DETAILS MARKED "TYPICAL" MAY NOT BE CUT ON PLANS.
- C.J. – AS SHOWN ON PLAN INDICATES LOCATION OF EITHER KEYED OR SAW CUT CONTROL JOINT IN SLAB ON GRADE AT CONTRACTOR'S OPTION, SEE GENERAL STRUCTURAL NOTES AND PLANS.
- FOR CLARITY, DETAILS MAY SHOW ONLY ONE SIDE OF FRAMING CONDITION.
- CONTRACTOR TO VERIFY, AND BE RESPONSIBLE FOR VARIATIONS IN CONCRETE QUANTITY DUE TO CAMBER, CONSTRUCTION DEAD LOAD DEFLECTIONS AND/OR TOLERANCES OF STRUCTURAL STEEL ELEMENTS (i.e. BEAMS, JOISTS, COMPOSITE JOISTS & BEAMS, STEEL DECK, ETC.) AND PRECAST CONCRETE ELEMENTS.
- ALL SCHEDULE MARK DESIGNATIONS MAY NOT NECESSARILY BE FOUND ON THE PLANS WHERE THE SCHEDULES OCCUR. SCHEDULES ARE TYPICAL TO THE PROJECT.

PLAN LEGEND

SYMBOL	DESCRIPTION	REMARKS
	SECTION CUT SHOWN ON PLANS	X= SECTION OR DETAIL NUMBER Y= SHEET REFERENCE
	DETAIL CALLOUT SHOWN ON PLANS	X= SECTION OR DETAIL NUMBER Y= SHEET REFERENCE
	ELEVATION CALLOUT SHOWN ON PLANS	X=ELEVATION NUMBER Y=SHEET REFERENCE
	ROOF TOP MECH EQUIP	SEE PLANS FOR LOCATIONS
	OPENING IN FLOOR, WALLS, OR FRAMING	VERIFY OPENING LOCATIONS W/ ARCH'L AND MECH DRAWINGS
	ARCH'L DOOR SIZE	REFER TO ARCH'L DRAWINGS FOR DOOR SCHEDULE.
	MOMENT CONNECTION	
	SLIP CONNECTION	
	BEAM CONTINUITY CONNECTION	
	SAG ROD	
	SPLICE LOCATION	
	BOTTOM FLANGE BRACE TO PARALLEL MEMBER	
	BOTTOM FLANGE BRACE TO PARALLEL MEMBER	
	SLOPES DOWN	
[XX]	SPOT ELEVATION	
(X)	QUANTITY OF WELDED SHEAR STUD CONNECTORS TO BE EVENLY SPACED IN THE SPAN INDICATED	

ABBREVIATIONS

ABC	AGGREGATE BASE COURSE	HSS	HOLLOW STRUCTURAL SECTION
AC	AIR CONDITIONER	IFW	INSIDE FACE OF WALL
AFF	ABOVE FINISHED FLOOR	K (KIP)	1,000 POUNDS
ALT	ALTERNATE	L	ANGLE
AB	ANCHOR BOLT	LL	LIVE LOAD
ARCH	ARCHITECT	LBS (#)	POUNDS
ARCH'L	ARCHITECTURAL	LLH	LONG LEG HORIZONTAL
@	AT (MEASUREMENT)	LLV	LONG LEG VERTICAL
BM	BEAM	LDH	LONG DIMENSION HORIZONTAL
BFF	BELOW FINISHED FLOOR	LDV	LONG DIMENSION VERTICAL
BOB	BOTTOM OF BEAM	MFR('S)	MANUFACTURER('S)
BOD	BOTTOM OF DECK	MCJ (MAS CJ)	MASONRY CONTROL JOINT
BOF	BOTTOM OF FOOTING	MECH	MECHANICAL
BRG	BEARING	N/A	NOT APPLICABLE
CIP	CAST IN PLACE	NTS	NOT TO SCALE
⊕	CENTERLINE	OC	ON CENTER
⊕ BM	CENTERLINE OF BEAM	OFW	OUTSIDE FACE OF WALL
⊕ COL	CENTERLINE OF COLUMN	OPP	OPPOSITE
⊕ FTG	CENTERLINE OF FOOTING	PC	PRECAST CONCRETE
⊕ WALL	CENTERLINE OF WALL	PLF	POUNDS PER LINEAR FOOT
CLR	CLEAR	PREFAB	PREFABRICATED
CONC	CONCRETE	PSF	POUNDS PER SQUARE FOOT
CONC CJ	CONCRETE CONTROL JOINT	PSI	POUNDS PER SQUARE INCH
CONC SJ	CONCRETE SAWCUT JOINT	RE:	REFERENCE TO
CMU	CONCRETE MASONRY UNIT	REINF	REINFORCING
CONN	CONNECTION	SLH	SHORT LEG HORIZONTAL
CONT	CONTINUOUS	SLV	SHORT LEG VERTICAL
DL	DEAD LOAD	SIM	SIMILAR
DIA, ⌀	DIAMETER	SQ	SQUARE
DN	DOWN	STD	STANDARD
DWG(S)	DRAWING(S)	TL	TOTAL LOAD
EOS	EDGE OF SLAB	TOB (T/ BM)	TOP OF BEAM
ELEV	ELEVATION	TOD	TOP OF DECK
EQ	EQUAL	TOF (T/ FTG)	TOP OF FOOTING
EQUIP	EQUIPMENT	TOL	TOP OF LEDGER
EXP BOLT	EXPANSION BOLT	TOM (T/ CMU)	TOP OF MASONRY
EXP JT (EJ)	EXPANSION JOINT	TOP (T/ P)	TOP OF PLATE
EW	EACH WAY	TOS (T/ STL)	TOP OF STEEL
FF	FINISHED FLOOR	TOW (T/ WALL)	TOP OF WALL
FOM	FACE OF MEMBER	TYP	TYPICAL
FOS	FACE OF STEEL	UNO	UNLESS NOTED OTHERWISE
FOW	FACE OF WALL	VERT	VERTICAL
GA	GAGE	WF	WIDE FLANGE
GALV	GALVANIZED	WWR	WELDED WIRE REINFORCING
GSN	GENERAL STRUCTURAL NOTES	W/	WITH
GLB	GLUED-LAMINATED BEAM	W/O	WITHOUT
HORZ	HORIZONTAL		

PRELIMINARY NOT FOR CONSTRUCTION



USER NAME = MAC	DESIGNED — KLT	REVISED —
PLOT SCALE =	CHECKED — AFK	REVISED —
PLOT DATE = 10/28/13	DRAWN — MAC	REVISED —
	CHECKED — AFK	REVISED —

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

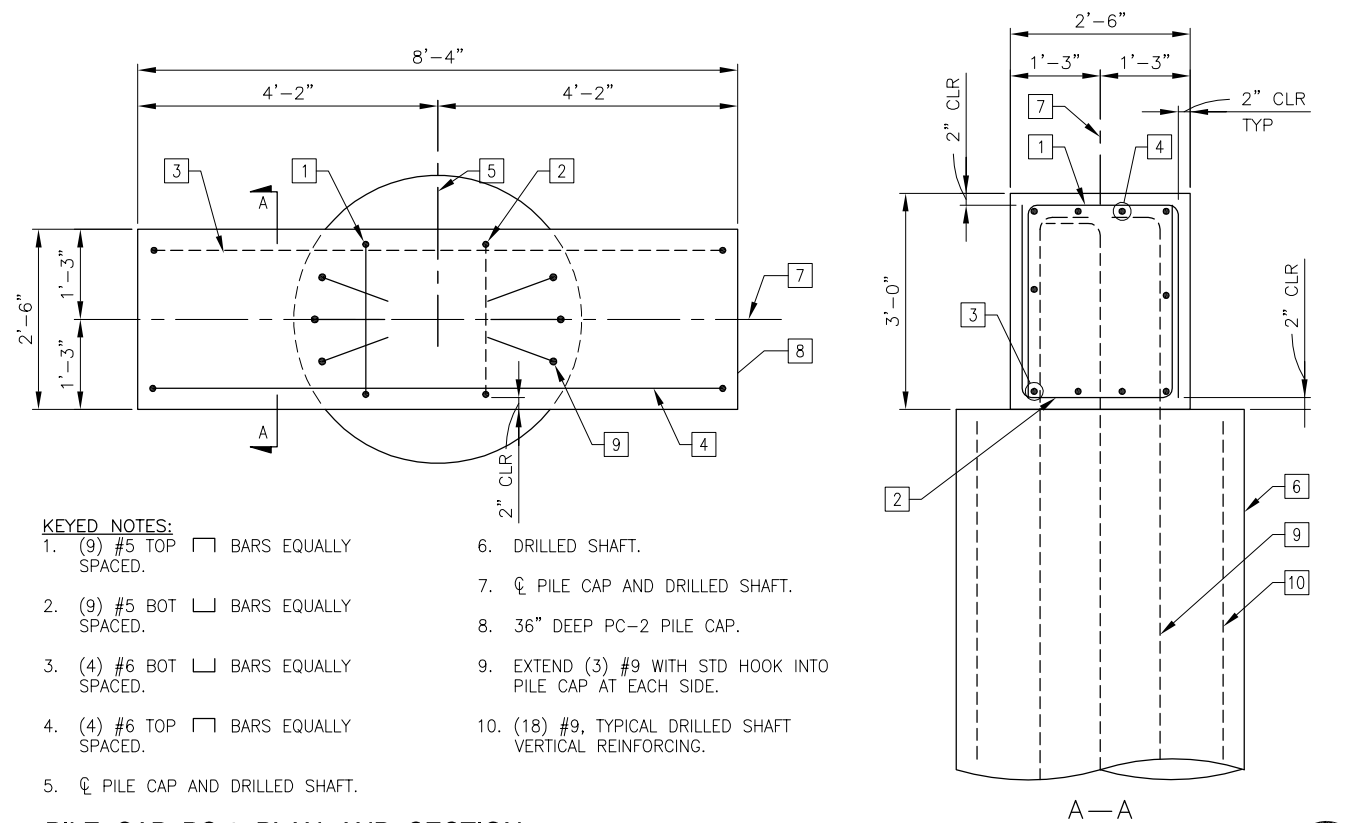
**PEORIA STREET STATION
GENERAL NOTES, ABBREVIATIONS & SYMBOLS**

SHEET NO. S-002 OF 117 SHEETS

MUN	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2090	2013-011R	COOK	356	193

CONTRACT NO. 60W29

ILLINOIS FED. AID PROJECT FED. AID PROJECT



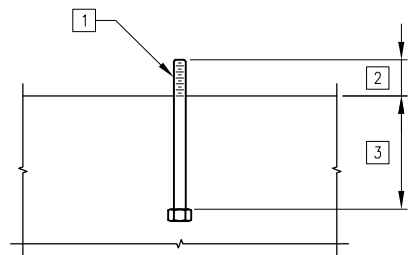
KEYED NOTES:

- 1. (9) #5 TOP \square BARS EQUALLY SPACED.
- 2. (9) #5 BOT \sqsubset BARS EQUALLY SPACED.
- 3. (4) #6 BOT \sqsubset BARS EQUALLY SPACED.
- 4. (4) #6 TOP \square BARS EQUALLY SPACED.
- 5. ϕ PILE CAP AND DRILLED SHAFT.
- 6. DRILLED SHAFT.
- 7. ϕ PILE CAP AND DRILLED SHAFT.
- 8. 36" DEEP PC-2 PILE CAP.
- 9. EXTEND (3) #9 WITH STD HOOK INTO PILE CAP AT EACH SIDE.
- 10. (18) #9, TYPICAL DRILLED SHAFT VERTICAL REINFORCING.

PILE CAP PC-2 PLAN AND SECTION

3/4" = 1'-0"

B1



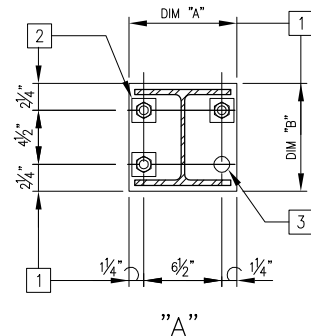
DETAIL KEYED NOTES:

- 1. HEAVY HEX HEADED, ASTM F1554 ANCHOR ROD.
- 2. PROJECTION AS REQUIRED.
- 3. EMBED PER BASE PLATE DETAILS.
- 4. J-TYPE AND L-TYPE ANCHOR RODS ARE PROHIBITED FROM USE.

B2 ANCHOR ROD DETAIL

1-1/2" = 1'-0"

BASE PLATE SCHEDULE										
MARK	SIZE AxB (INxIN)	THICK (IN)	NUMBER BOLTS "A" SIDE	NUMBER BOLTS "B" SIDE	BOLT DIAMETER (IN)	BOLT EDGE DISTANCE (IN)	BOLT EMBED LENGTH (IN)	BOLT HOLE DIAMETER (IN)	WASHER SIZE (INxIN)	WASHER THICK (IN)
A	9x9	3/4	2	2	3/4	1 1/4	20	1 5/16	2x2	1/4



DETAIL KEYED NOTES:

- 1. BOLT GAUGE AND EDGE DISTANCE.
- 2. ADDITIONAL SQUARE PLATE WASHER AT EACH BOLT. SEE SCHEDULE FOR SIZE AND THICKNESS.
- 3. SEE SCHEDULE FOR OVER SIZED HOLE DIAMETER.

C2 TYPICAL BASE PLATE DETAIL AND SCHEDULE

1-1/2" = 1'-0"



USER NAME = MAC	DESIGNED — KLT	REVISED — —
PLOT SCALE =	CHECKED — AFK	REVISED — —
PLOT DATE = 10/28/13	DRAWN — MAC	REVISED — —
	CHECKED — AFK	REVISED — —

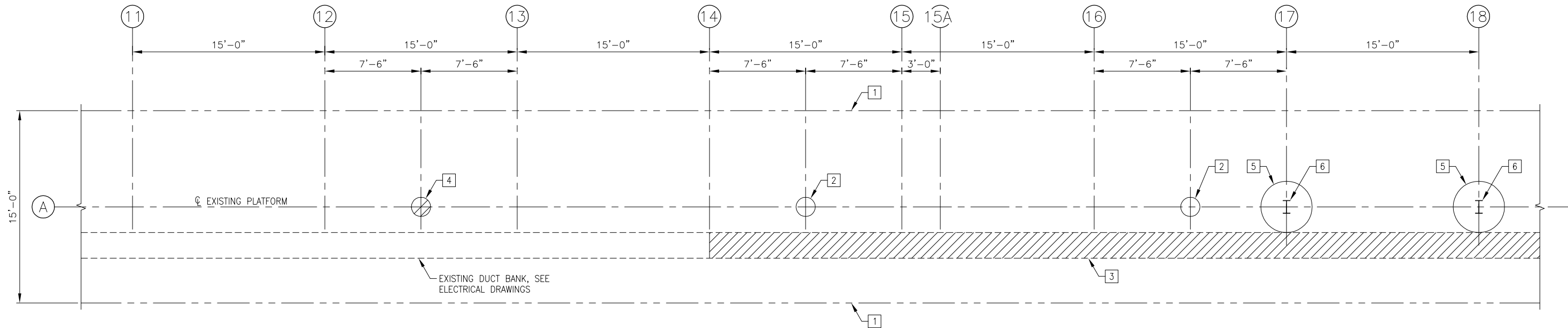
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PEORIA STREET STATION
DRILLED SHAFT AND PILE CAP DETAILS**

SHEET NO. S-003 OF 117 SHEETS

PRELIMINARY NOT FOR CONSTRUCTION

MUN	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2090	2013-011R	COOK	356	194
ILLINOIS FED. AID PROJECT			FED. AID PROJECT	



B1 PARTIAL FOUNDATION DEMO PLAN
SCALE: 1/4"=1'-0"

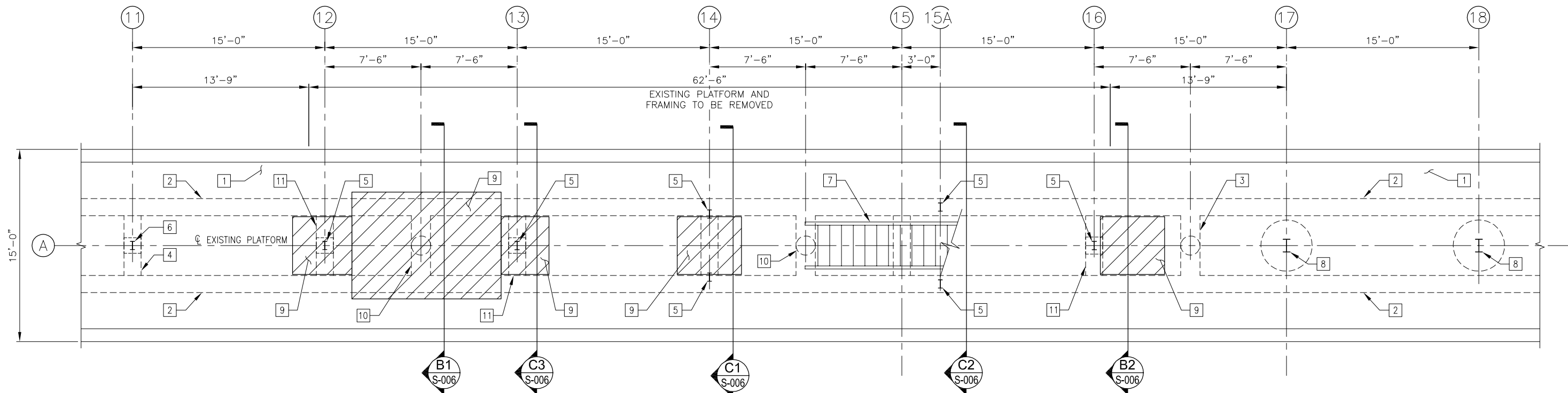


PLATFORM DEMO KEYED NOTES:

1. EDGE OF EXISTING PLATFORM ABOVE.
2. EXISTING CONCRETE DRILLED SHAFT TO REMAIN.
3. EXISTING DUCT BANK TO BE PARTIALLY REMOVED. SEE THE ELECTRICAL DRAWINGS FOR FULL EXTENT TO BE REMOVED.
4. EXISTING CONCRETE DRILLED SHAFT TO BE REMOVED TO 12" BELOW BOTTOM OF NEW ELEVATOR PIT MAT.
5. EXISTING 48" DRILLED SHAFT TO REMAIN.
6. EXISTING WF12 COLUMN TO REMAIN.

SHEET NOTES

1. ALL EXISTING DIMENSIONS ARE SHOWN FOR REFERENCE ONLY AND SHALL BE VERIFIED PRIOR TO COMMENCEMENT OF CONSTRUCTION TO DETERMINE ANY CRITICAL DIMENSIONS.



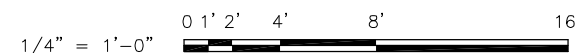
A1 PARTIAL PLATFORM DEMO PLAN
SCALE: 1/4"=1'-0"



PLATFORM DEMO KEYED NOTES:

1. EXISTING 8" CONCRETE PLATFORM SLAB TO REMAIN.
2. EXISTING 16" WIDE CONCRETE LONGITUDINAL PLATFORM BEAM TO REMAIN.
3. EXISTING CONCRETE HAUNCH AND DRILLED SHAFT TO REMAIN.
4. EXISTING CONCRETE TRANSFER BEAM BELOW PLATFORM TO REMAIN.
5. EXISTING ALUMINUM CANOPY COLUMN TO BE REMOVED.
6. EXISTING ALUMINUM CANOPY COLUMN TO REMAIN.
7. EXISTING STAIR TO BE REMOVED AND REINSTALLED.
8. EXISTING WF12 COLUMN TO REMAIN.
9. EXISTING 8" CONCRETE PLATFORM SLAB TO BE REMOVED.
10. EXISTING CONCRETE HAUNCH TO BE REMOVED.
11. EXISTING CONCRETE TRANSFER BEAM TO BE REMOVED.

GRAPHIC SCALE

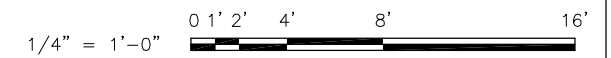


PRELIMINARY NOT FOR CONSTRUCTION

	USER NAME = MAC	DESIGNED — KLT	REVISED — — —	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PEORIA STREET STATION PARTIAL FOUNDATION & PLATFORM DEMO PLANS	MUN	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE =	CHECKED — AFK	REVISED — — —			2090	2013-011R	COOK	356	195
	PLOT DATE = 10/28/13	DRAWN — MAC	REVISED — — —			CONTRACT NO. 60W29			ILLINOIS FED. AID PROJECT FED. AID PROJECT	

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GRAPHIC SCALE



PRELIMINARY NOT FOR CONSTRUCTION



USER NAME = MAC	DESIGNED — KLT	REVISED — —
	CHECKED — AFK	REVISED — —
PLOT SCALE =	DRAWN — MAC	REVISED — —
PLOT DATE = 10/28/13	CHECKED — AFK	REVISED — —

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PEORIA STREET STATION
PLATFORM CANOPY DEMO PLAN**

SHEET NO. S-005 OF 117 SHEETS

MUN	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2090	2013-011R	COOK	356	196
CONTRACT NO. 60W29			ILLINOIS FED. AID PROJECT FED. AID PROJECT	

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USER NAME = MAC	DESIGNED — KLT	REVISED — — —
	CHECKED — AFK	REVISED — — —
PLOT SCALE =	DRAWN — MAC	REVISED — — —
PLOT DATE = 10/28/13	CHECKED — AFK	REVISED — — —

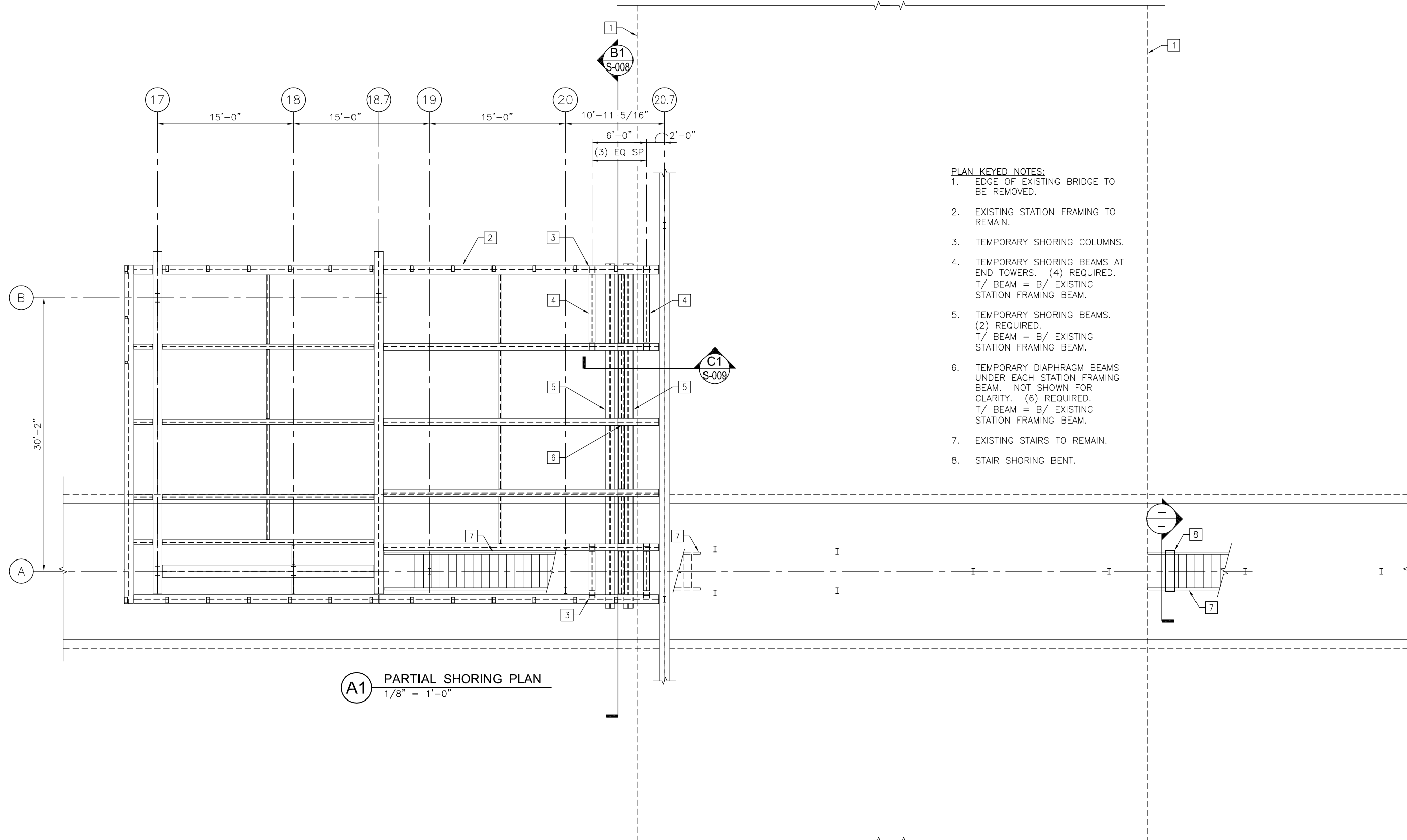
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PEORIA STREET STATION
PLATFORM SHORING SECTIONS**

SHEET NO. S-006 OF 117 SHEETS

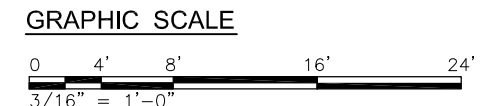
PRELIMINARY NOT FOR CONSTRUCTION

MUN	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2090	2013-011R	COOK	356	197
			CONTRACT NO. 60W29	
			ILLINOIS FED. AID PROJECT FED. AID PROJECT	



- PLAN KEYED NOTES:**
- EDGE OF EXISTING BRIDGE TO BE REMOVED.
 - EXISTING STATION FRAMING TO REMAIN.
 - TEMPORARY SHORING COLUMNS.
 - TEMPORARY SHORING BEAMS AT END TOWERS. (4) REQUIRED. T/ BEAM = B/ EXISTING STATION FRAMING BEAM.
 - TEMPORARY SHORING BEAMS. (2) REQUIRED. T/ BEAM = B/ EXISTING STATION FRAMING BEAM.
 - TEMPORARY DIAPHRAGM BEAMS UNDER EACH STATION FRAMING BEAM. NOT SHOWN FOR CLARITY. (6) REQUIRED. T/ BEAM = B/ EXISTING STATION FRAMING BEAM.
 - EXISTING STAIRS TO REMAIN.
 - STAIR SHORING BENT.

A1 PARTIAL SHORING PLAN
1/8" = 1'-0"



USER NAME = MAC	DESIGNED — KLT	REVISED — — —
	CHECKED — AFK	REVISED — — —
PLOT SCALE =	DRAWN — MAC	REVISED — — —
PLOT DATE = 10/28/13	CHECKED — AFK	REVISED — — —

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PEORIA STREET STATION
STATION SHORING PLAN**

SHEET NO. S-007 OF 117 SHEETS

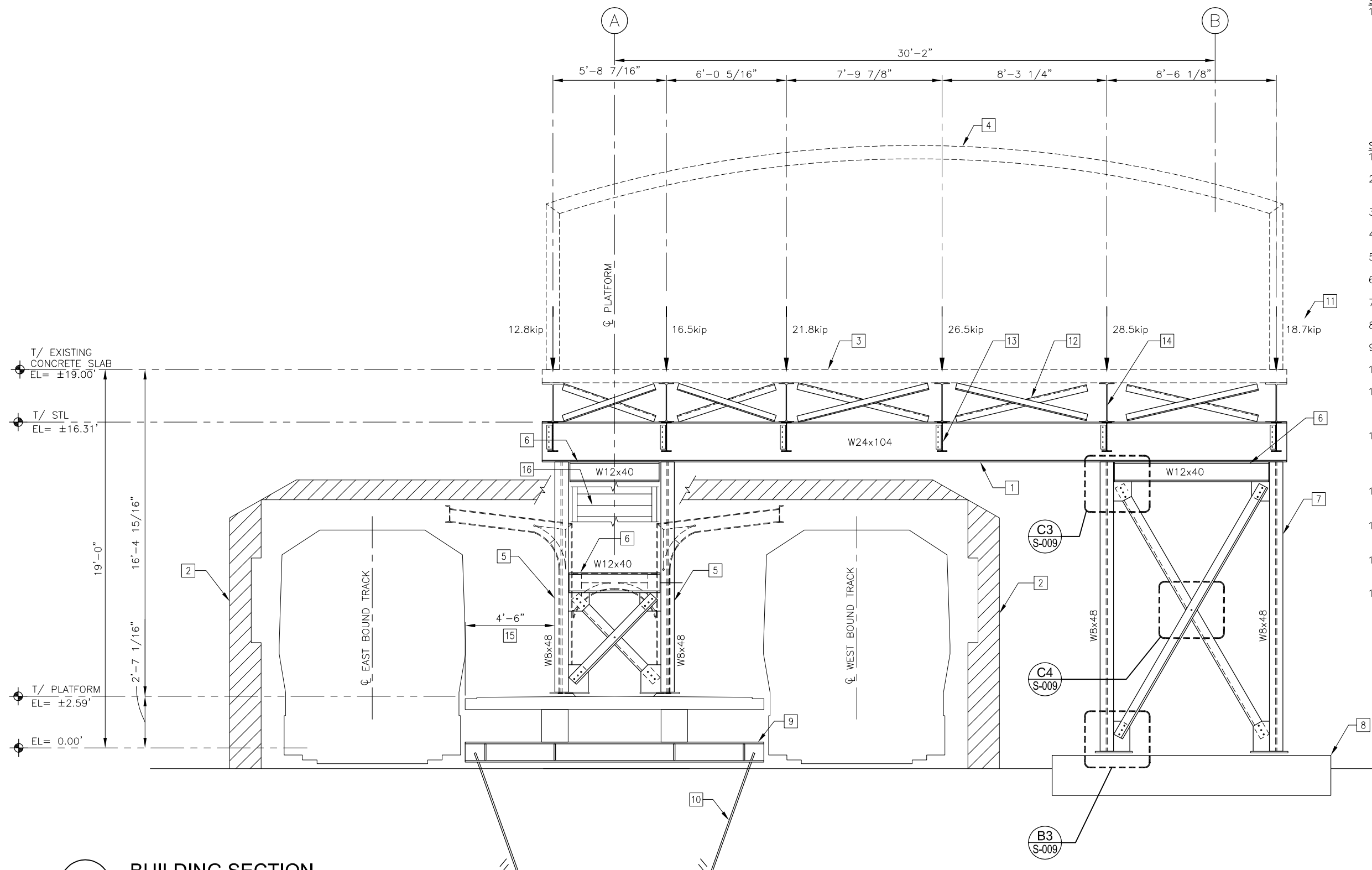
MUN	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2090	2013-011R	COOK	356	198

CONTRACT NO. 60W29
ILLINOIS FED. AID PROJECT FED. AID PROJECT

PRELIMINARY NOT FOR CONSTRUCTION

SHEET NOTES:
 1. ALL EXISTING DIMENSIONS ARE SHOWN FOR REFERENCE ONLY AND SHALL BE VERIFIED PRIOR TO COMMENCEMENT OF CONSTRUCTION TO DETERMINE ANY CRITICAL DIMENSIONS.

- SECTION KEYED NOTES:**
- W24x104 SHORING BEAM.
 - MAINTAIN CLEARANCE IN ACCORDANCE WITH CTA CLEARANCE DIAGRAMS CT-5201 AND CT-5202.
 - EXISTING CONCRETE DECK BEYOND.
 - EXISTING STATION FRAMING BEYOND TO REMAIN.
 - W8x48 SHORING COLUMN, (4) EACH END.
 - W12x40 SHORING BEAM, ONE AT EACH SIDE.
 - W8x48 SHORING COLUMN, (4) EACH END.
 - SHORING FOUNDATION.
 - SHORING BEAM.
 - BATTERED HELICAL MICRO-PILES AS REQUIRED.
 - MAXIMUM REACTION AT EACH SHORED BEAM. REACTIONS ARE BASED ON UNFACTORED, ALLOWABLE STRESS DESIGN LOADING.
 - TYPICAL L4x4 X-BRACING AT EAST END OF EXISTING STATION FLOOR FRAMING. BRACING SHALL BE INSTALLED PRIOR TO DISCONNECTING BEAMS FROM EXISTING BRIDGE GIRDER.
 - W18x35 DIAPHRAGM BEAM UNDER EXISTING STATION FRAMING BEAM, (6) LOCATIONS.
 - EXISTING 24WF STATION FRAMING BEAM, (6) LOCATIONS.
 - MAINTAIN MINIMAL PLATFORM CLEARANCE DURING CONSTRUCTION.
 - EXISTING STAIRS TO REMAIN.



B1 BUILDING SECTION
 3/8" = 1'-0"



PRELIMINARY NOT FOR CONSTRUCTION

MUN	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2090	2013-011R	COOK	356	199
CONTRACT NO. 60W29				
ILLINOIS		FED. AID PROJECT	FED. AID PROJECT	

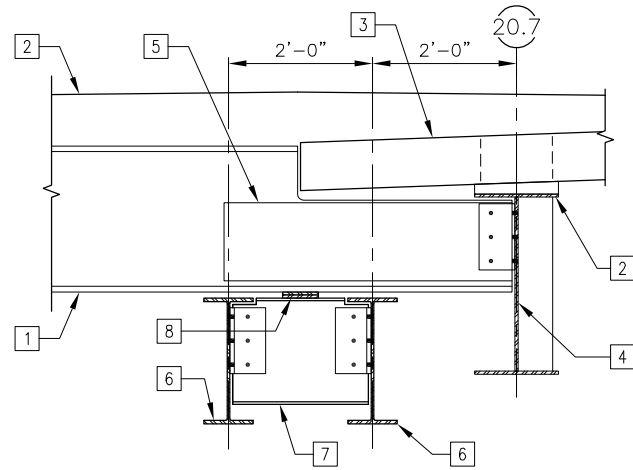


USER NAME = MAC	DESIGNED — KLT	REVISED — — —
	CHECKED — AFK	REVISED — — —
PLOT SCALE =	DRAWN — MAC	REVISED — — —
PLOT DATE = 10/28/13	CHECKED — AFK	REVISED — — —

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

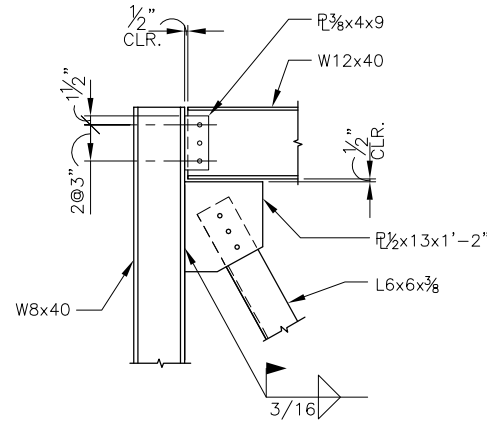
**PEORIA STREET STATION
 BUILDING SHORING SECTIONS**

SHEET NO. S-008 OF 117 SHEETS

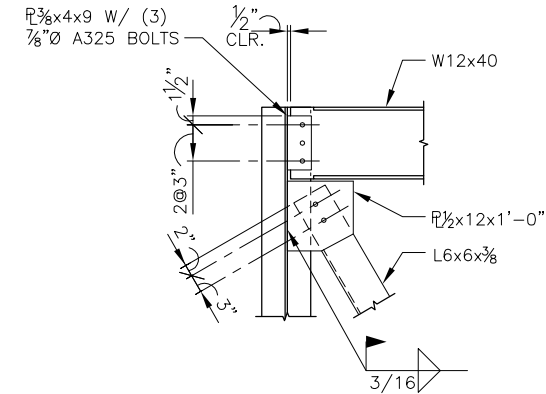


- DETAIL KEYED NOTES:**
- EXISTING STATION FLOOR FRAMING BEAM.
 - EXISTING TOPPING CONCRETE,
 - NEW PRECAST PLANKS.
 - NEW BRIDGE FASCIA PLATE GIRDER.
 - REINFORCED END CONDITION IN ACCORDANCE WITH SECTION B2/S-009.
 - W21x68 TEMPORARY SHORING BEAM.
 - W18x35 DIAPHRAGM BEAM UNDER EACH EXISTING STATION FLOOR FRAMING BEAM.
 - SHIM PLATES AS REQUIRED AT MID-DISTANCE BETWEEN W21x68 SHORING BEAM.

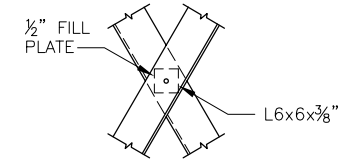
C1 CTA STATION CONNECTION
3/4" = 1'-0"



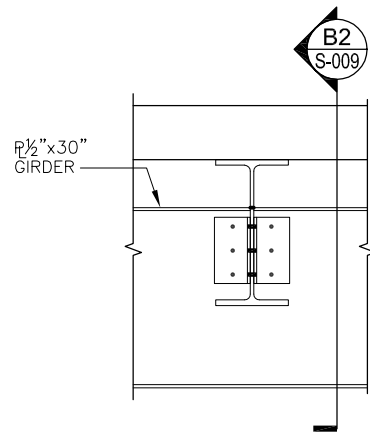
C2 DETAIL
3/4" = 1'-0"



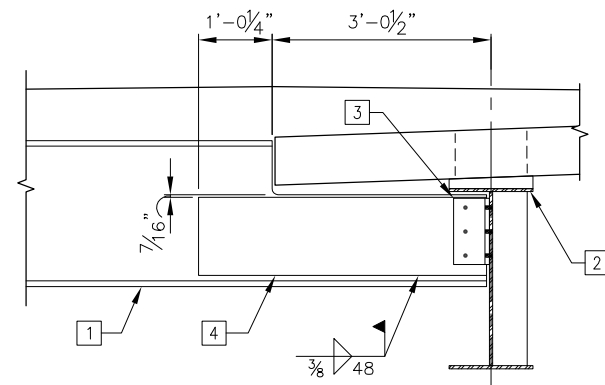
C3 DETAIL
3/4" = 1'-0"



C4 DETAIL
3/4" = 1'-0"

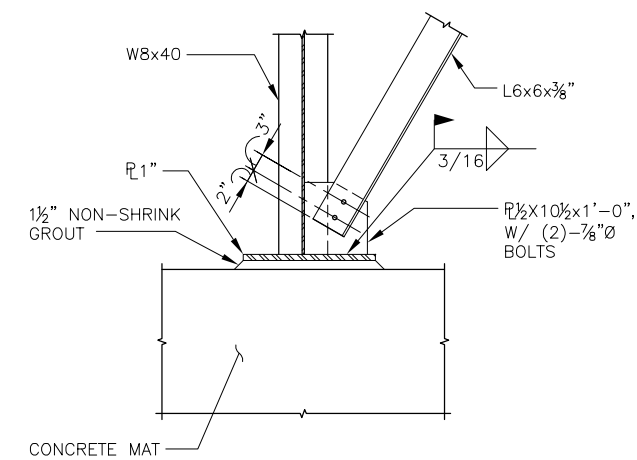


B1 CTA STATION CONNECTION
3/4" = 1'-0"

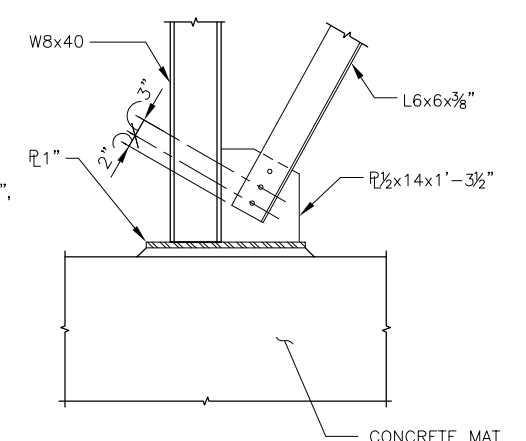


B2 CTA STATION CONNECTION
3/4" = 1'-0"

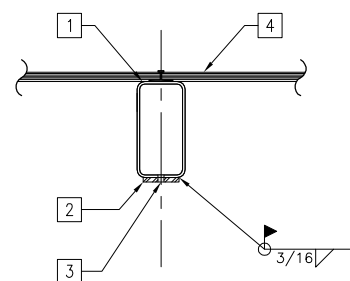
- DETAIL KEYED NOTES:**
- EXISTING 24WF120 STEEL BEAM.
 - NEW EXTERIOR FASCIA PLATE GIRDER BEAM. SEE THE NEW BRIDGE DESIGN DOCUMENTS FOR PLATE GIRDER SIZE,
 - NEW END BEAM SHEAR CONNECTION. SEE THE NEW BRIDGE DESIGN DOCUMENTS FOR CONNECTION DESIGN.
 - 1/2"x13" x 4'-0" DOUBLER PLATE, ONE SIDE.



B3 DETAIL
3/4" = 1'-0"



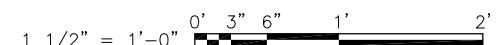
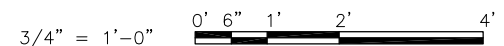
B4 DETAIL
3/4" = 1'-0"



- DETAIL KEYED NOTES:**
- EXISTING HSS8x4 BENT
 - R3/8x3x0'-3"
 - FIELD DRILL AND TAP HOLES FOR LIGHT FIXTURE HANGER RODS 1/4-20.
 - POLYCARBONATE CURVED ROOF PANELS. SEE ARCHITECTURAL DRAWINGS FOR CRITERIA.

A1 DETAIL
1 1/2" = 1'-0"

GRAPHIC SCALE



PRELIMINARY NOT FOR CONSTRUCTION

	USER NAME = MAC	DESIGNED — KLT	REVISED — — —	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PEORIA STREET STATION SHORING DETAILS	MUN	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE =	CHECKED — AFK	REVISED — — —			2090	2013-011R	COOK	356	200
	PLOT DATE = 10/28/13	DRAWN — MAC	REVISED — — —			CONTRACT NO. 60W29			ILLINOIS FED. AID PROJECT FED. AID PROJECT	