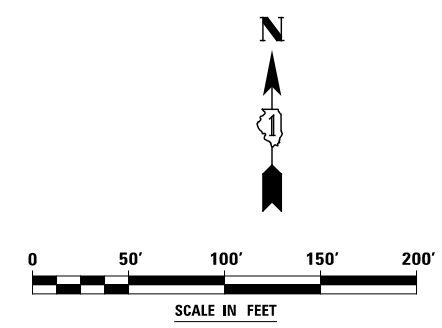
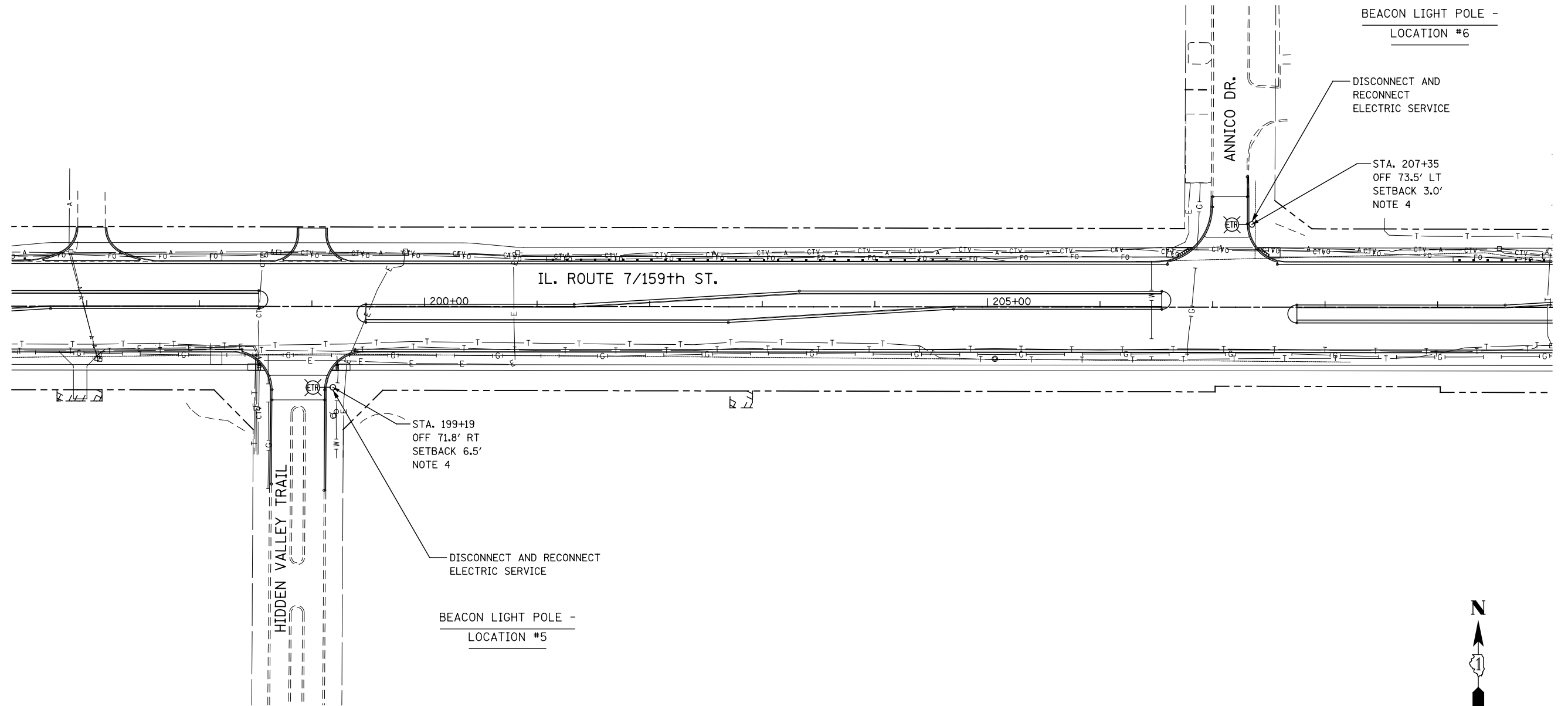


NOTES

1. FOR SYMBOL LIST AND ABBREVIATIONS, SEE SHEET LT-01.
2. UNIT DUCT, 600V, 3-1C NO.4, 1/C NO.6 GROUND, (XLP-TYPE USE), 1 1/4" DIA. POLYETHYLENE.
3. MINIMUM POLE SET-BACK SHALL BE 3 FT. FROM THE FACE OF THE CURB TO THE CENTERLINE OF THE POLE/BASE.
4. INTERCEPT EXISTING WIRING IN THE EXISTING LIGHT POLE AND USE IT TO WIRE THE RELOCATED LIGHT POLE.
5. COMBINATION TRAFFIC SIGNAL POLES SHALL BE INSTALLED UNDER TRAFFIC SIGNAL CONTROL WORK. SEE TRAFFIC SIGNAL PLANS FOR EXACT COMBINATION POLE LOCATION. COMBINATION POLE AND LIGHTING MAST ARMS ARE PART OF THE TRAFFIC SIGNAL PAY ITEMS.



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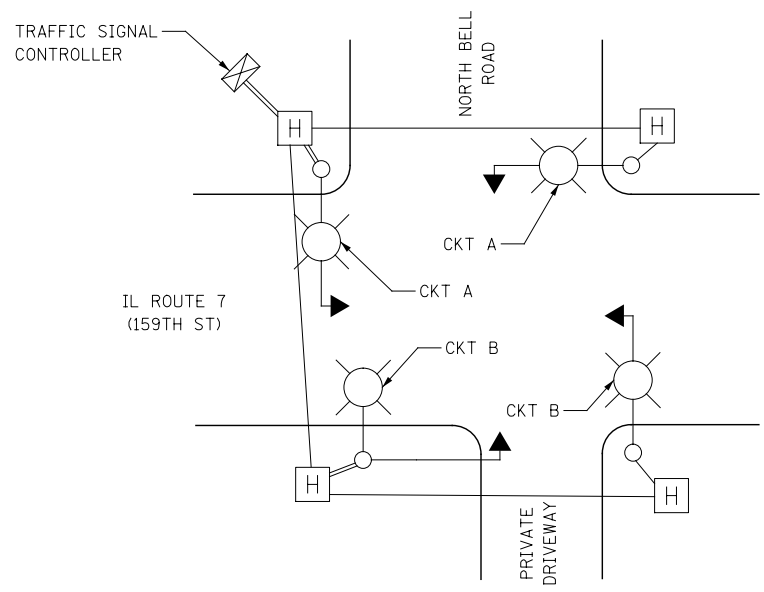
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**ILLINOIS ROUTE 7
LIGHTING PLAN**

SCALE: AS SHOWN SHEET NO. 8 OF 11 SHEETS STA. TO STA.

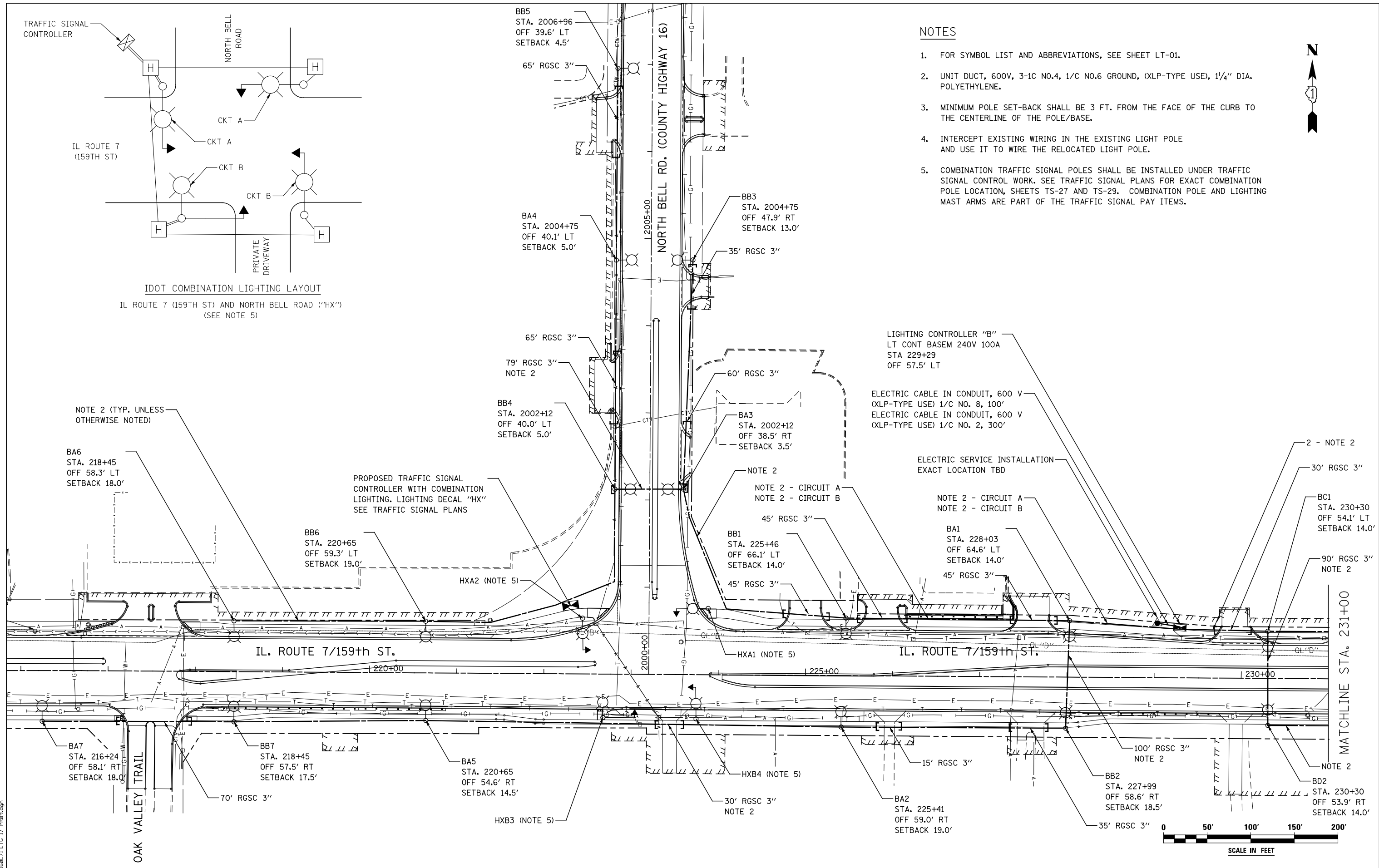
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	536-R-1	WILL	1232	801
LT-16			CONTRACT NO. 60L71	
ILLINOIS FED. AID PROJECT				



IDOT COMBINATION LIGHTING LAYOUT
 IL ROUTE 7 (159TH ST) AND NORTH BELL ROAD ("HX")
 (SEE NOTE 5)

NOTES

- FOR SYMBOL LIST AND ABBREVIATIONS, SEE SHEET LT-01.
- UNIT DUCT, 600V, 3-1C NO.4, 1/C NO.6 GROUND, (XLP-TYPE USE), 1/4" DIA. POLYETHYLENE.
- MINIMUM POLE SET-BACK SHALL BE 3 FT. FROM THE FACE OF THE CURB TO THE CENTERLINE OF THE POLE/BASE.
- INTERCEPT EXISTING WIRING IN THE EXISTING LIGHT POLE AND USE IT TO WIRE THE RELOCATED LIGHT POLE.
- COMBINATION TRAFFIC SIGNAL POLES SHALL BE INSTALLED UNDER TRAFFIC SIGNAL CONTROL WORK. SEE TRAFFIC SIGNAL PLANS FOR EXACT COMBINATION POLE LOCATION, SHEETS TS-27 AND TS-29. COMBINATION POLE AND LIGHTING MAST ARMS ARE PART OF THE TRAFFIC SIGNAL PAY ITEMS.



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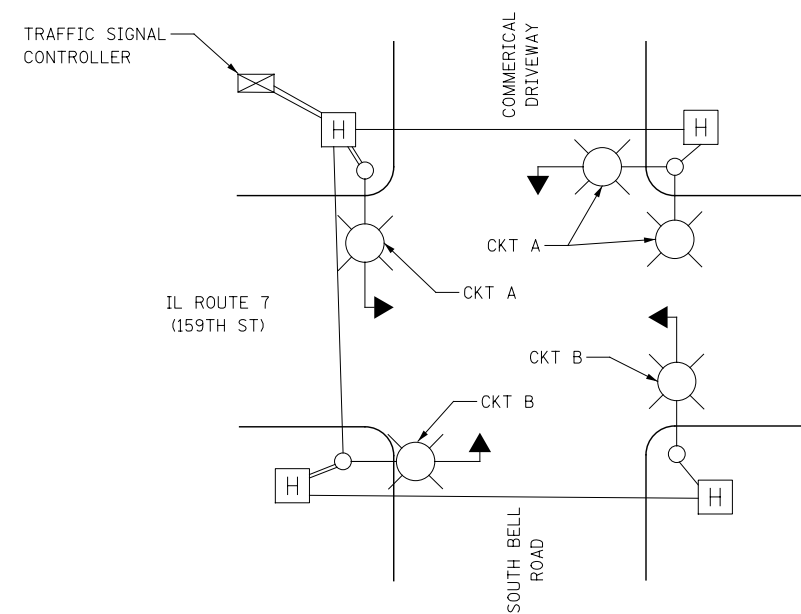
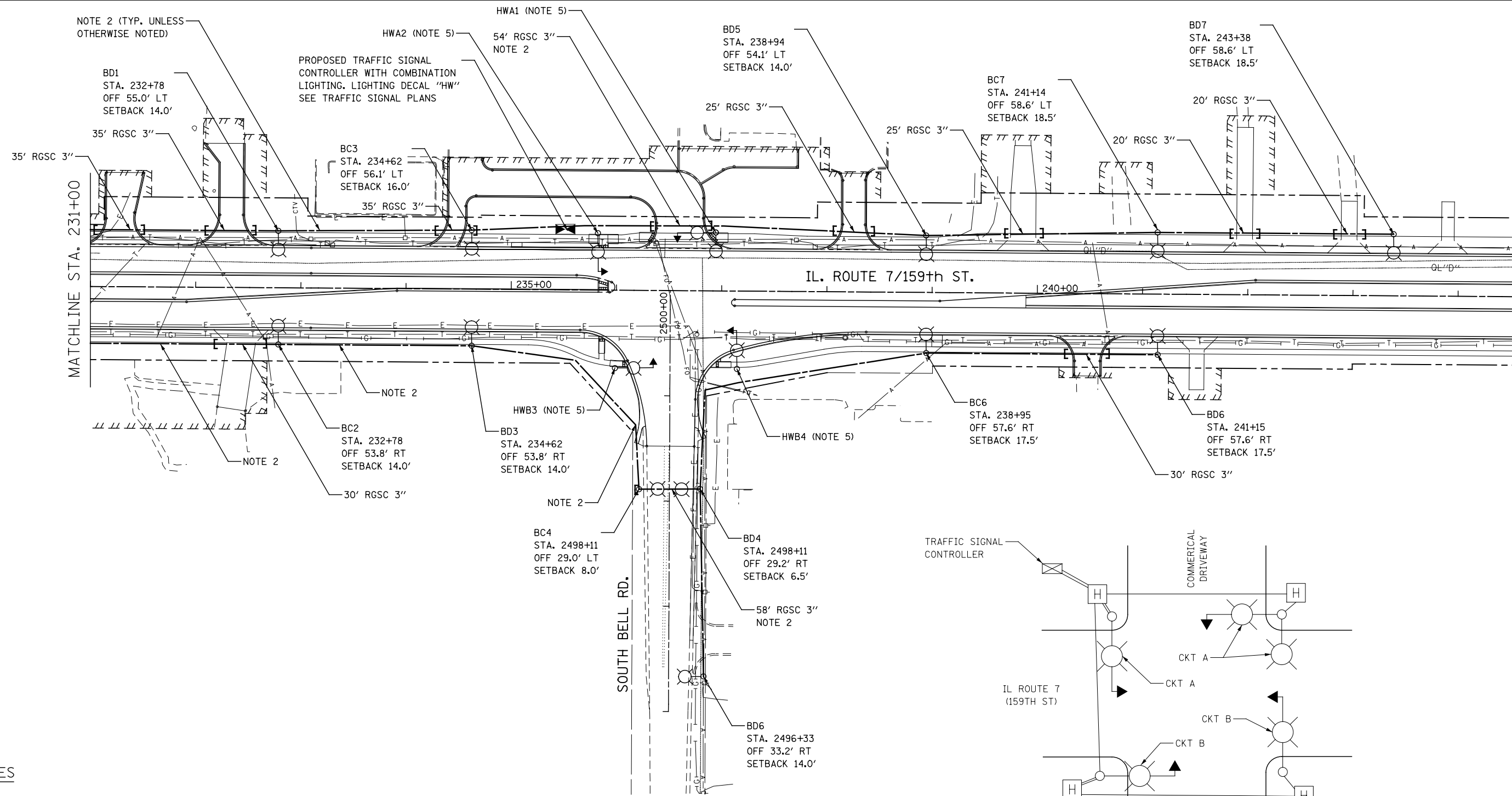
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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**ILLINOIS ROUTE 7
 LIGHTING PLAN**

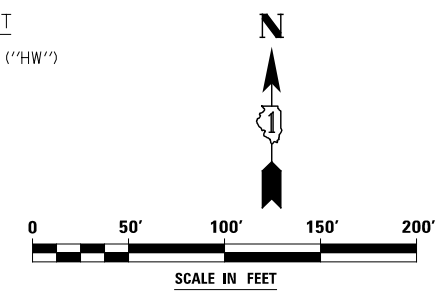
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	536-R-1	WILL	1232	802
LT-17		CONTRACT NO. 60L71		
ILLINOIS FED. AID PROJECT				



NOTES

1. FOR SYMBOL LIST AND ABBREVIATIONS, SEE SHEET LT-01.
2. UNIT DUCT, 600V, 3-1C NO.4, 1/C NO.6 GROUND, (XLP-TYPE USE), 1/4" DIA. POLYETHYLENE.
3. MINIMUM POLE SET-BACK SHALL BE 3 FT. FROM THE FACE OF THE CURB TO THE CENTERLINE OF THE POLE/BASE.
4. INTERCEPT EXISTING WIRING IN THE EXISTING LIGHT POLE AND USE IT TO WIRE THE RELOCATED LIGHT POLE.
5. COMBINATION TRAFFIC SIGNAL POLES SHALL BE INSTALLED UNDER TRAFFIC SIGNAL CONTROL WORK. SEE TRAFFIC SIGNAL PLANS FOR EXACT COMBINATION POLE LOCATION, SHEETS TS-35 AND TS-37. COMBINATION POLE AND LIGHTING MAST ARMS ARE PART OF THE TRAFFIC SIGNAL PAY ITEMS.



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	DATE 8/15/2014	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

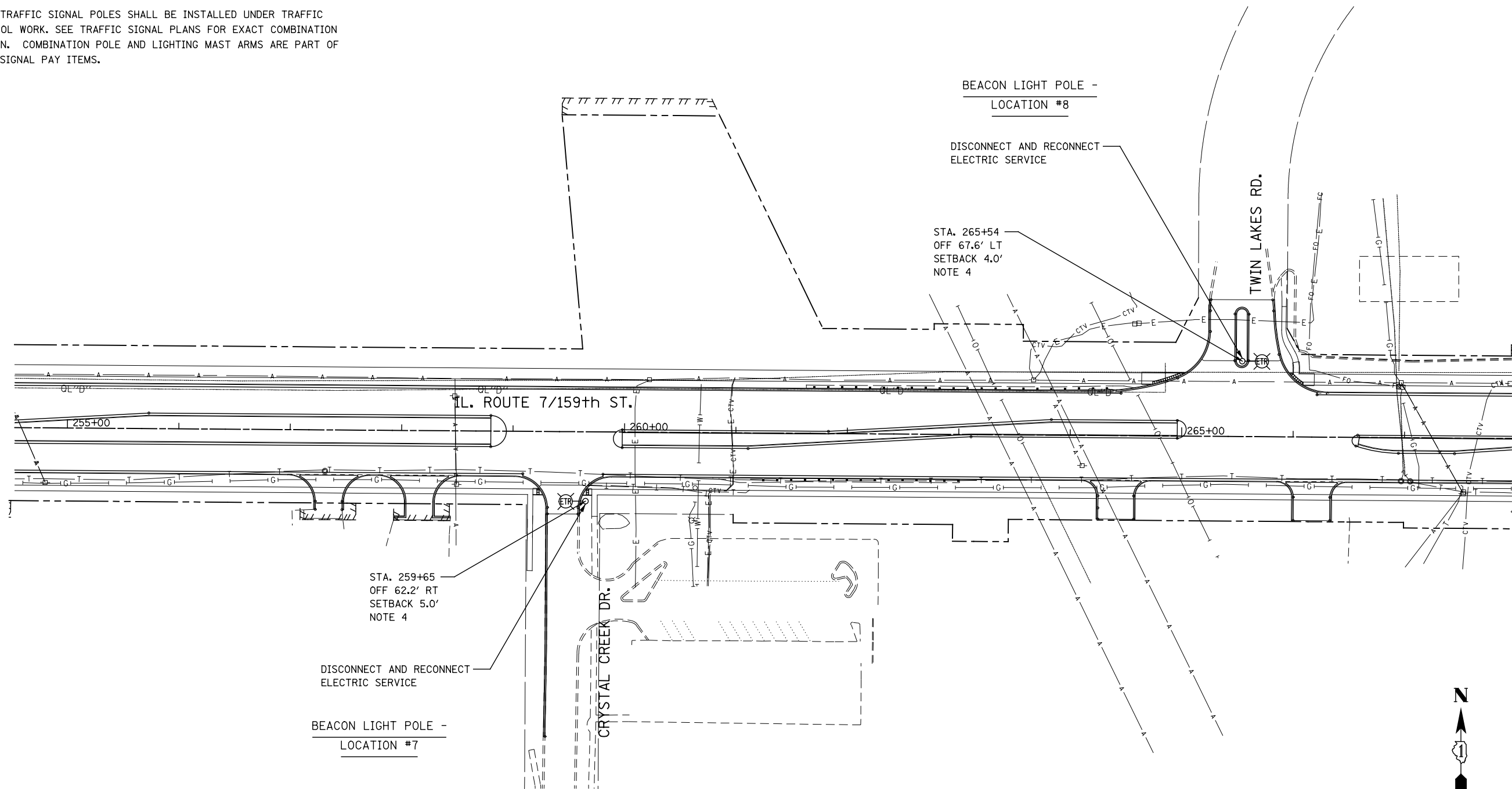
**ILLINOIS ROUTE 7
LIGHTING PLAN**

SCALE: AS SHOWN SHEET NO. 10 OF 11 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	536-R-1	WILL	1232	803
LT-18			CONTRACT NO. 60L71	
ILLINOIS FED. AID PROJECT				

NOTES

1. FOR SYMBOL LIST AND ABBREVIATIONS, SEE SHEET LT-01.
2. UNIT DUCT, 600V, 3-1C NO.4, 1/C NO.6 GROUND, (XLP-TYPE USE), 1/4" DIA. POLYETHYLENE.
3. MINIMUM POLE SET-BACK SHALL BE 3 FT. FROM THE FACE OF THE CURB TO THE CENTERLINE OF THE POLE/BASE.
4. INTERCEPT EXISTING WIRING IN THE EXISTING LIGHT POLE AND USE IT TO WIRE THE RELOCATED LIGHT POLE.
5. COMBINATION TRAFFIC SIGNAL POLES SHALL BE INSTALLED UNDER TRAFFIC SIGNAL CONTROL WORK. SEE TRAFFIC SIGNAL PLANS FOR EXACT COMBINATION POLE LOCATION. COMBINATION POLE AND LIGHTING MAST ARMS ARE PART OF THE TRAFFIC SIGNAL PAY ITEMS.



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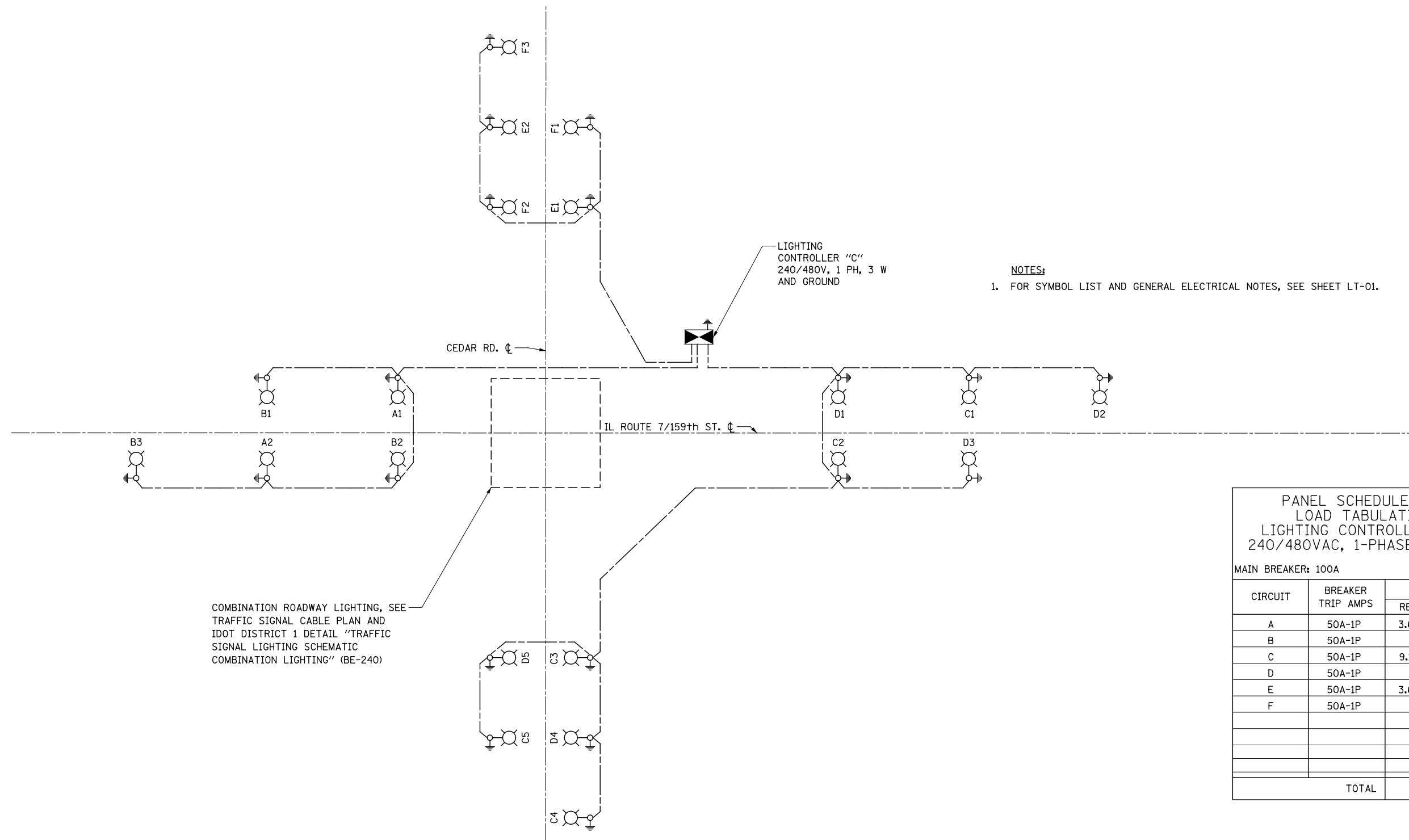
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**ILLINOIS ROUTE 7
LIGHTING PLAN**

SCALE: AS SHOWN SHEET NO. 11 OF 11 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	536-R-1	WILL	1232	804
LT-19			CONTRACT NO. 60L71	
ILLINOIS FED. AID PROJECT				



NOTES:
1. FOR SYMBOL LIST AND GENERAL ELECTRICAL NOTES, SEE SHEET LT-01.

PANEL SCHEDULE AND
LOAD TABULATION
LIGHTING CONTROLLER "C"
240/480VAC, 1-PHASE, 3-WIRE

MAIN BREAKER: 100A

CIRCUIT	BREAKER TRIP AMPS	AMPS	
		RED	BLACK
A	50A-1P	3.67	
B	50A-1P		5.5
C	50A-1P	9.16	
D	50A-1P		9.16
E	50A-1P	3.67	
F	50A-1P		5.5
TOTAL		39.66	

LIGHTING CONTROLLER "C" SINGLE LINE DIAGRAM
NOT TO SCALE

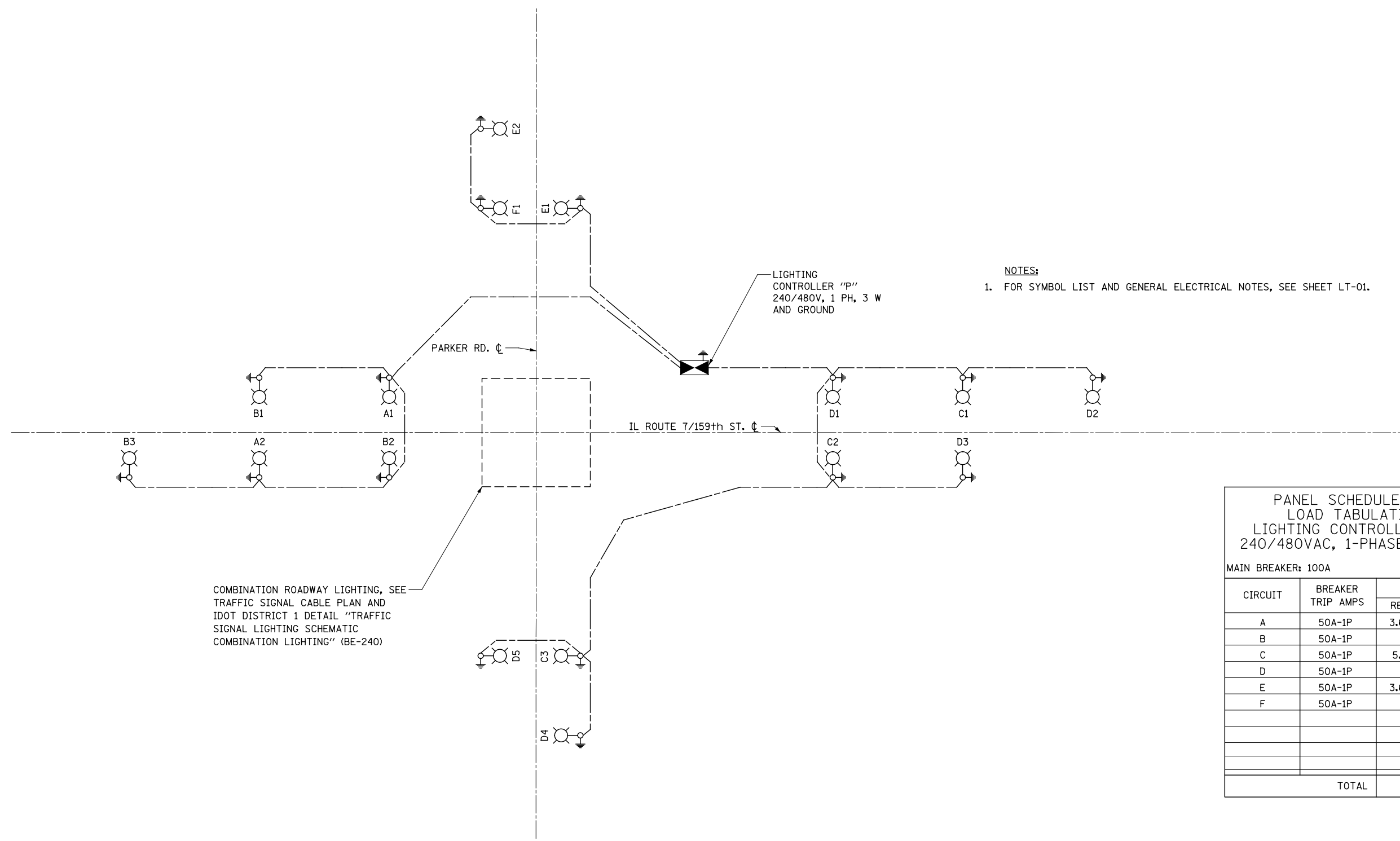
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

ILLINOIS ROUTE 7 SINGLE LINE DIAGRAM - LIGHTING CONTROLLER "C"	
SCALE: AS SHOWN	SHEET NO. 1 OF 1 SHEETS
STA. _____	TO STA. _____

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	536-R-1	WILL	1232	805
LT-20			CONTRACT NO. 60L71	
ILLINOIS FED. AID PROJECT				



NOTES:
 1. FOR SYMBOL LIST AND GENERAL ELECTRICAL NOTES, SEE SHEET LT-01.

COMBINATION ROADWAY LIGHTING, SEE TRAFFIC SIGNAL CABLE PLAN AND IDOT DISTRICT 1 DETAIL "TRAFFIC SIGNAL LIGHTING SCHEMATIC COMBINATION LIGHTING" (BE-240)

LIGHTING CONTROLLER "P"
 240/480V, 1 PH, 3 W AND GROUND

PANEL SCHEDULE AND LOAD TABULATION
 LIGHTING CONTROLLER "P"
 240/480VAC, 1-PHASE, 3-WIRE

MAIN BREAKER: 100A

CIRCUIT	BREAKER TRIP AMPS	AMPS	
		RED	BLACK
A	50A-1P	3.67	
B	50A-1P		5.5
C	50A-1P	5.5	
D	50A-1P		9.16
E	50A-1P	3.67	
F	50A-1P		1.83
TOTAL		29.33	

LIGHTING CONTROLLER "P" SINGLE LINE DIAGRAM
 NOT TO SCALE

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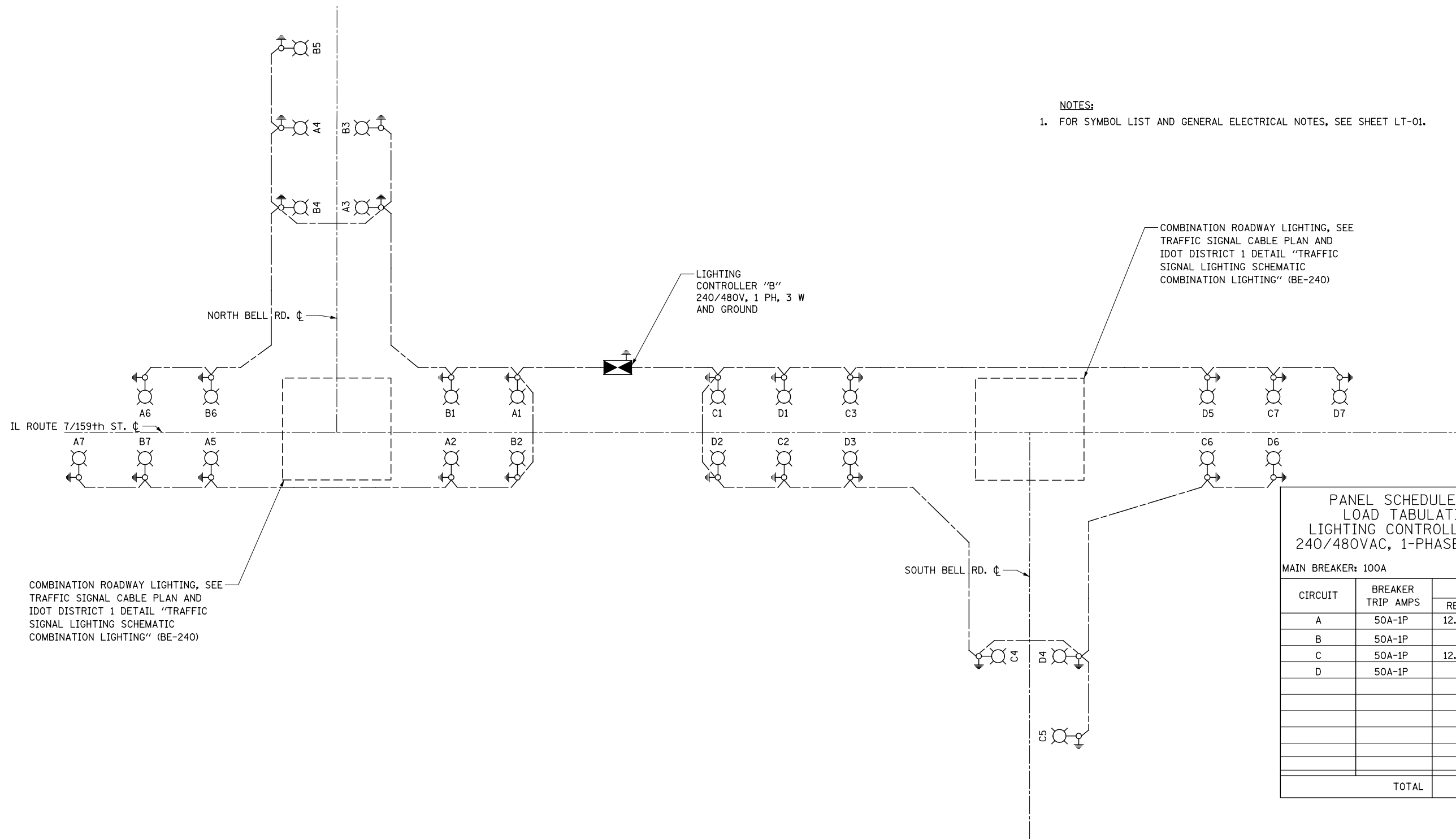
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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**ILLINOIS ROUTE 7
 SINGLE LINE DIAGRAM - LIGHTING CONTROLLER "P"**

SCALE: AS SHOWN | SHEET NO. 1 OF 1 SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	536-R-1	WILL	1232	806
LT-21			CONTRACT NO. 60L71	
ILLINOIS FED. AID PROJECT				



LIGHTING CONTROLLER "B" SINGLE LINE DIAGRAM
NOT TO SCALE

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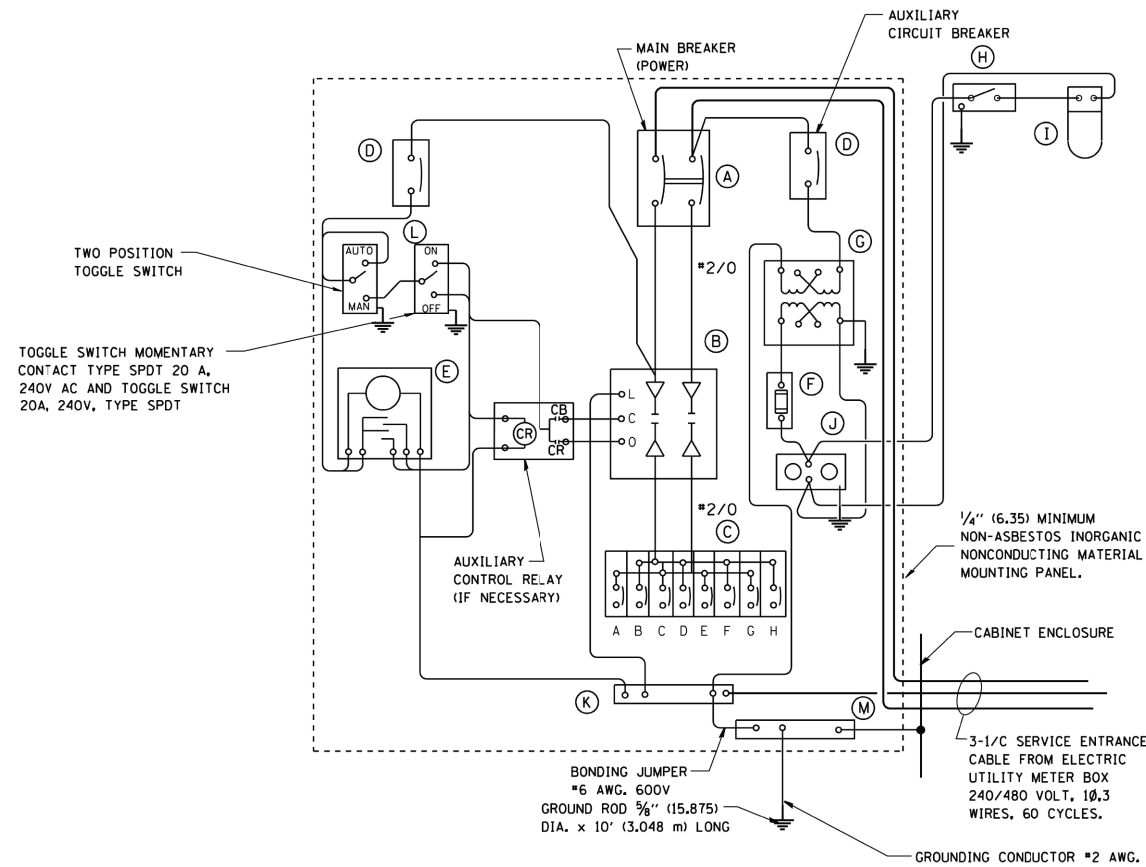
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**ILLINOIS ROUTE 7
SINGLE LINE DIAGRAM - LIGHTING CONTROLLER "B"**

SCALE: AS SHOWN SHEET NO. 1 OF 1 SHEETS STA. TO STA.

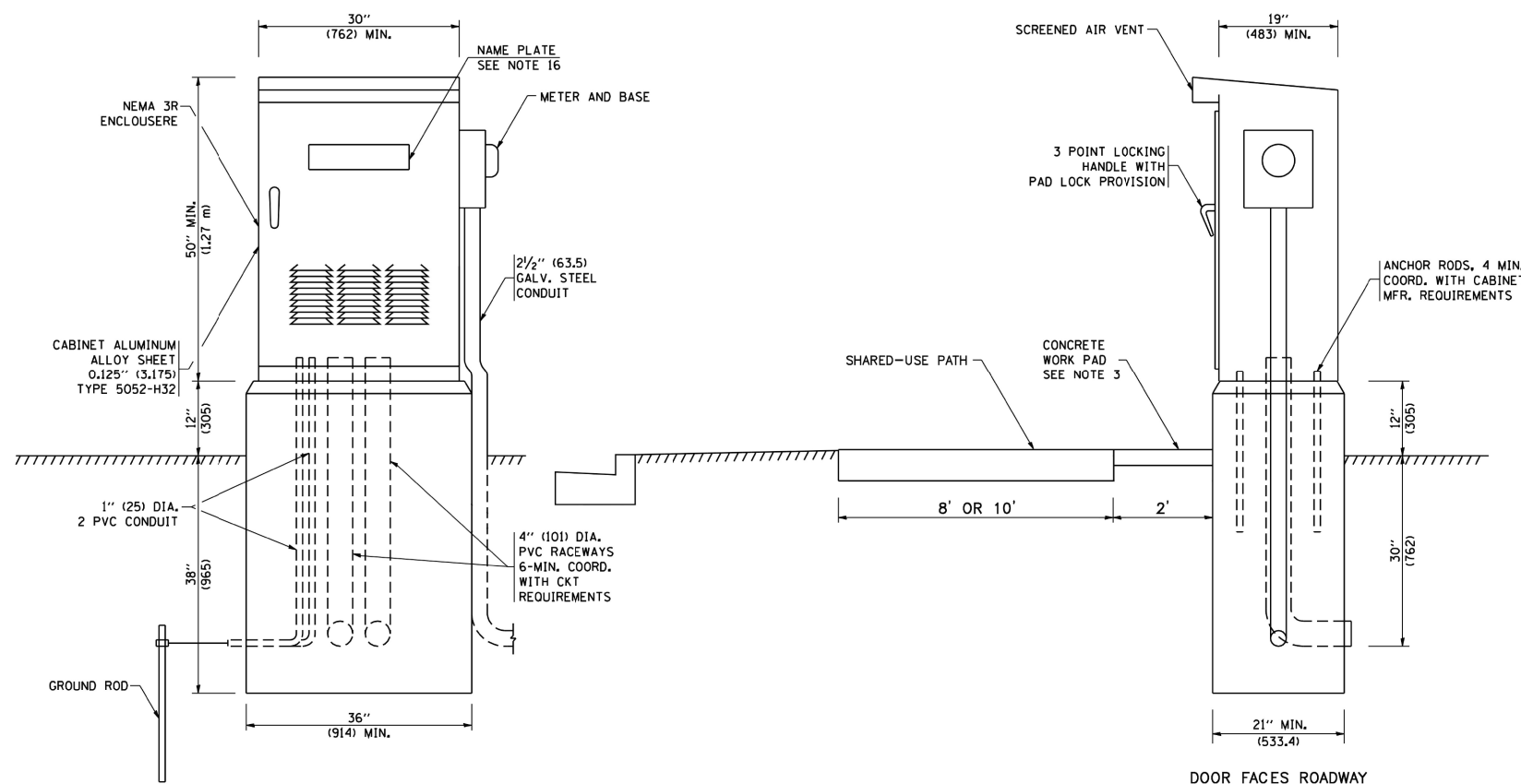
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351	536-R-1	WILL	1232	807
LT-22		CONTRACT NO. 60L71		
ILLINOIS FED. AID PROJECT				



PANEL WIRING DIAGRAM

PANEL EQUIPMENT

BILL OF MATERIAL		
ITEM	QUANTITY	DESCRIPTION
A	1	MAIN CIRCUIT BREAKER, 2 POLE, 600 VOLT 100 AMP. FRAME, 100 AMP. NON-INTERCHANGEABLE TRIP INTERRUPTING RATING NEMA-22000 AMP. AT 480 VOLT.
B	1	REMOTE CONTROL SWITCH, ELECTRICALLY OPERATED, MECHANICALLY HELD, 2 POLE, SINGLE THROW, 100 AMP., 600 VOLTS CONTROL CIRCUIT 240 VOLT.
C	8	CIRCUIT BREAKERS, 1 POLE, 100AMP. FRAME, 50 AMP. NON-INTERCHANGEABLE TRIP INTERRUPTING RATING NEMA-10,000 AMP. AT 240 V.
D	2	CONTROL CIRCUIT-CIRCUIT BREAKER, 1 POLE, 240 V., 100 AMP. FRAME, 15 AMP. NON-INTERCHANGEABLE TRIP INTERRUPTING RATING NEMA-5000 AMP. AT 240 V.
E	1	ASTRONOMIC MICROPROCESSOR-BASED 2-CHANNEL CONTROLLER [TIME SWITCH].
F	1	20 A., 120 V. FUSE.
G	1	1.5 KVA, SINGLE PHASE, ENCAPSULATED TRANSFORMER 240 X 480 / 120 X 240 VOLT, 60 HZ.
H	1	SPST 20A SWITCH ON DOOR, TO TURN LIGHT ON WHEN DOOR IS OPEN.
I	1	INCANDESCENT LIGHTING FIXTURE ENCLOSED AND GASKETED WITH 60 WATT, 120 V. LAMP.
J	1	20 A., 120 V., DUPLEX RECEPTACLE, GFCI.
K	1	COPPER GROUND BUS 1/4" (6.35) X 1" (25.4) X 12" (304.8 mm) LONG MOUNTED ON PANEL WITH LUGS AND 4 SPARE LUGS
L	1	TOGGLE SWITCHES MOUNTED IN 4" (101.6) X 4" (101.6 mm) BOX.
M	1	COPPER GROUND BUS 1/4" (6.35) X 1" (25.4) X 12" (304.8 mm) LONG MOUNTED ON PANEL WITH LUGS AND SPARE LUGS



NOTES:

- ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
- FOUNDATION SIZE SHALL BE COORDINATED WITH CABINET SIZE AND MFR.
- IN FRONT OF CONTROL CABINET DOOR, REMOVE VEGETATION AND 2" (50.8 mm) TOP SOIL, LEVEL THE AREA AND ON TOP, PLACE LENGTH WISE PARALLEL TO CONTROL CABINET, A CONCRETE PAD 36" (914.4 mm) x 24" (609.6 mm) x 4" (101 mm) MIN. SIZE. THE COST OF LABOR AND MATERIALS ARE INCLUDED IN THE COST OF LIGHTING CONTROLLER, BASE MOUNTED, 240VOLT, 100AMP
- DOOR SHALL BE CONSTRUCTED FROM SAME TYPE OF MATERIAL AND THICKNESS AS CABINET.
- DOOR SHALL BE EQUIPPED WITH THREE POINT LATCHING MECHANISM WITH NYLON ROLLERS AT TOP THE BOTTOM.
- DOOR HINGE SHALL BE A HEAVY GAUGE CONTINUOUS HINGE WITH A 1/4" (6.35 mm) DIA. STAINLESS STEEL HINGE PIN.
- ALL EXTERNAL HARDWARE SHALL BE STAINLESS STEEL.
- CONTROL WIRING TO BE #12 AWG, 600V, TYPE "SIS" GRAY SWITCH BOARD WIRE, STRANDED COPPER.
- METER BOX SHALL BE MOUNTED ON THE SIDE OF CONTROL CABINET, NEAR TO THE SERVICE POLE.
- CABINETS SHALL BE PRIMED AND PAINTED AS SPECIFIED.
- THE HEADS OF CONNECTOR SCREWS SHALL BE PAINTED WHITE FOR NEUTRAL BAR CONNECTION AND GREEN FOR GROUND BAR CONNECTORS.
- ALL WIRING WITHIN THE CABINET SHALL BE COLOR CODED AS INDICATED.
R = RED BL = BLUE W = WHITE
B = BLACK Y = YELLOW G = GREEN
- PROVIDE SEALING GROMMETS FOR ALL OPEN WIRING EXTENDED FROM DEVICES IN BOXES OR CABINETS WITHIN THE CONTROL CABINET.
- ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.
- THE CONTROLLER SHALL BE CONSTRUCTED TO U.L. STD. 508 AND BEAR THE U.L. LABEL "ENCLOSED INDUSTRIAL CONTROL PANEL".
- 12" (304.8) X 16" (406.4 mm) STAINLESS STEEL EXTERIOR NAMEPLATE SHALL BE ENGRAVED TO "VILLAGE OF HOMER GLEN" (PARKER ROAD, N. BELL ROAD AND S. BELL ROAD) OR "HOMER TOWNSHIP" (CEDAR ROAD) UNLESS OTHERWISE SPECIFIED.

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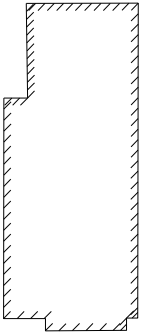
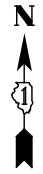
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

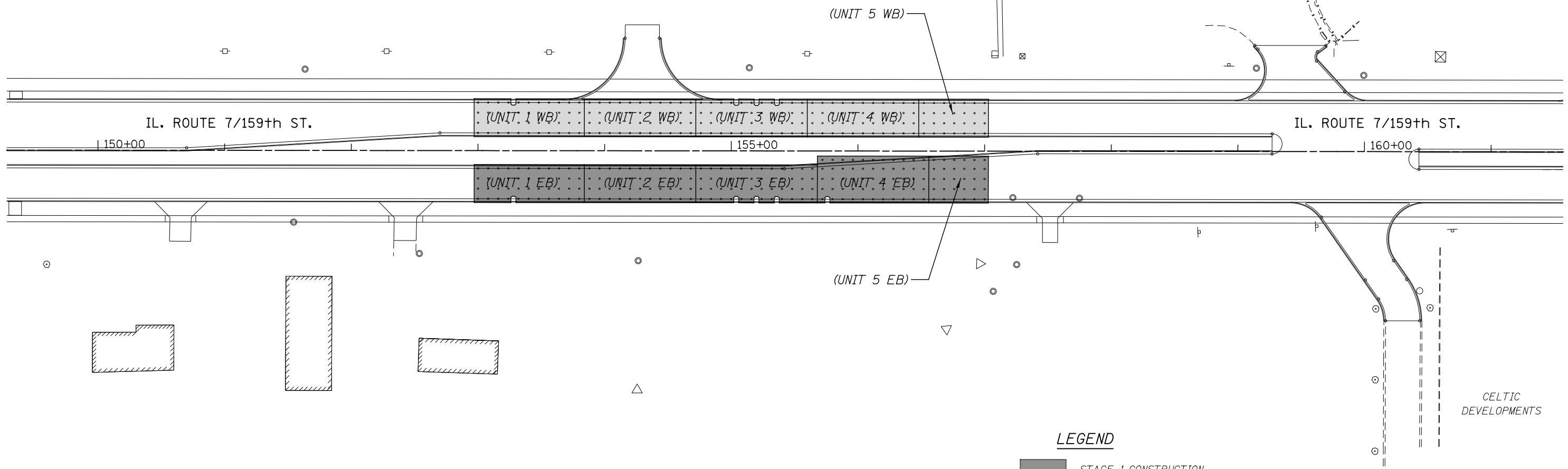
**LIGHTING CONTROLLER
SINGLE DOOR**

SCALE: AS SHOWN SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	536-R-1	WILL	1232	808
LT-23			CONTRACT NO. 60L71	
ILLINOIS FED. AID PROJECT				



T-TIME
GOLF
RANGE



LEGEND

- STAGE 1 CONSTRUCTION
- STAGE 2 CONSTRUCTION

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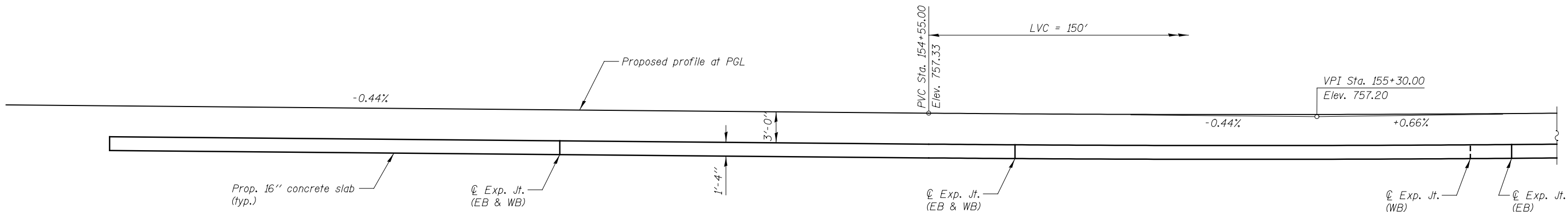
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

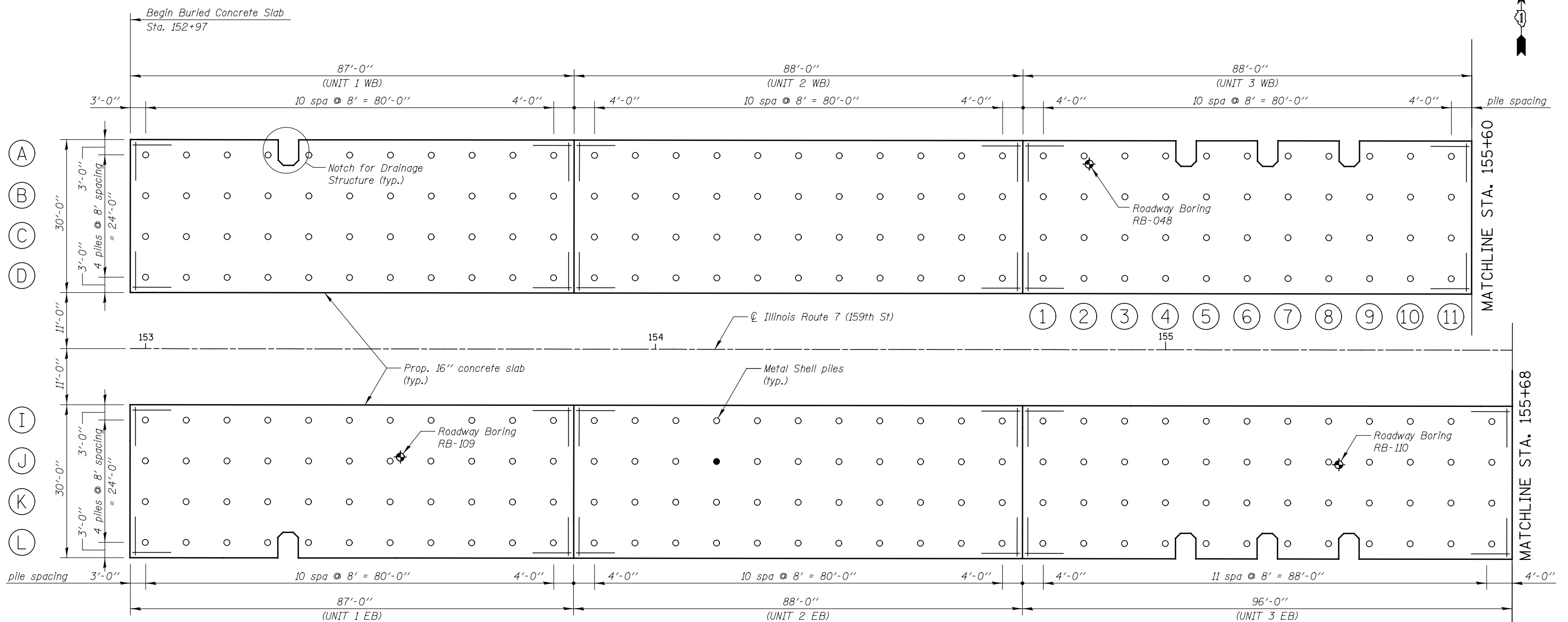
**PILE SUPPORTED BURIED CONCRETE SLAB
OVERALL KEY AND STAGING PLAN - LOCATION 1**

SCALE: AS SHOWN | SHEET NO. SD-1 OF SD-7 SHEETS | STA. 152+97 TO STA. 157+03

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	536-R-1	WILL	1232	809
CONTRACT NO. 60L71				
ILLINOIS FED. AID PROJECT				



ELEVATION



PLAN

PILE DATA

Type & Size: 14" x 0.312 Metal Shell
 Nominal Required Bearing: 153 kips
 Factored Allowable Resistance Available: 84 kips
 Estimated Length: 45 feet
 Test Pile: 1

Notes:
 For reinforcement of units, See Sheet SD-4

LEGEND

● Test Pile Location

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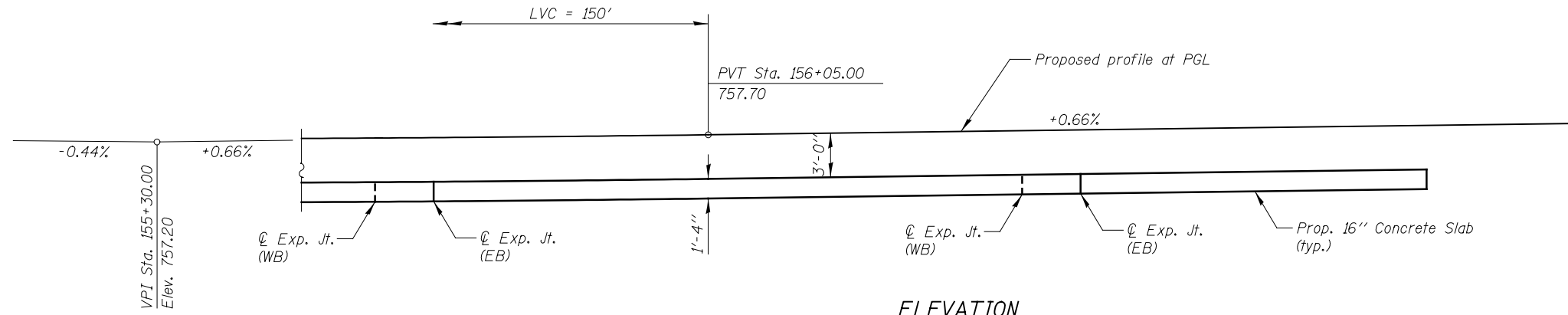
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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

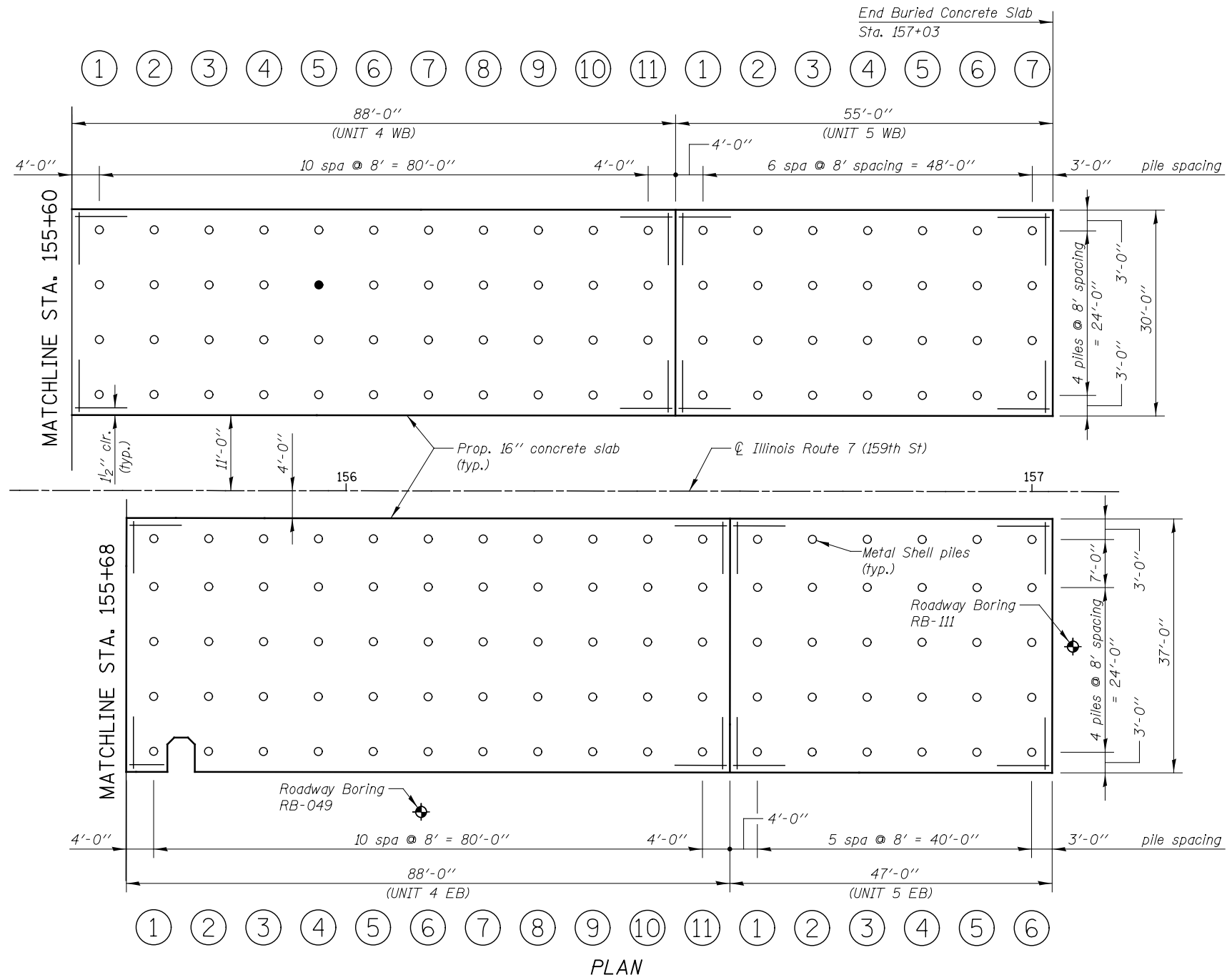
PILE SUPPORTED BURIED CONCRETE SLAB
 LOCATION 1
 (STA. 152 + 97 TO STA. 157 + 03)

SCALE: AS SHOWN SHEET NO. SD-2 OF SD-7 SHEETS STA. 152+97 TO STA. 155+68

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	536-R-1	WILL	1232	810
CONTRACT NO. 60L71				
ILLINOIS FED. AID PROJECT				



ELEVATION



PLAN

LEGEND

● Test Pile Location

Notes:

For reinforcement of units, See Sheet SD-4

PILE DATA

Type & Size: 14" x 0.312 Metal Shell
 Nominal Required Bearing: 153 kips
 Factored Allowable Resistance Available: 84 kips
 Estimated Length: 45 feet
 Test Pile: 1

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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

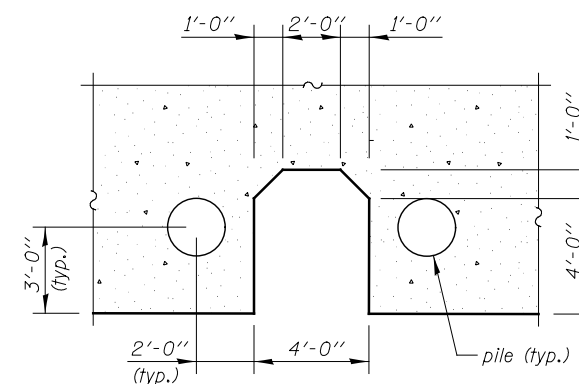
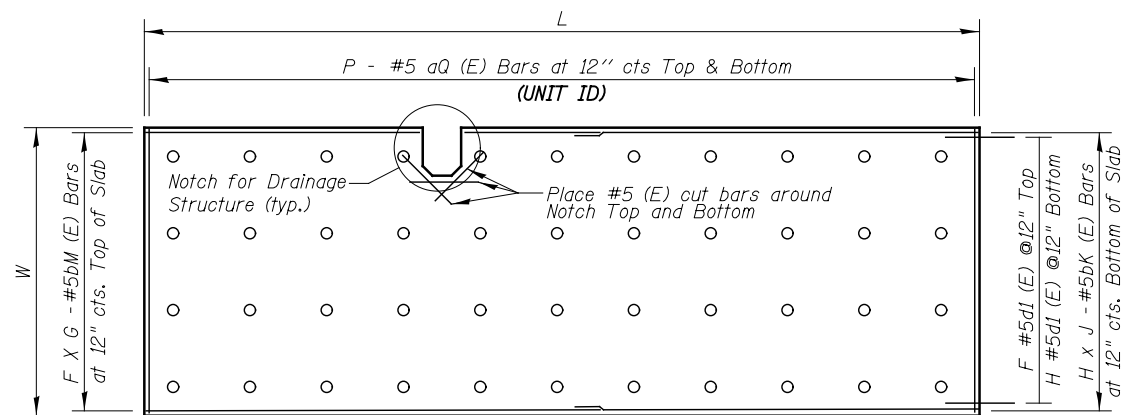
**PILE SUPPORTED BURIED CONCRETE SLAB
 LOCATION 1
 (STA. 152 + 97 TO STA. 157 + 03)**

SCALE: AS SHOWN SHEET NO. SD-30F SD-7 SHEETS STA. 155+60 TO STA. 157+03

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	536-R-1	WILL	1232	811
CONTRACT NO. 60L71				
ILLINOIS FED. AID PROJECT				

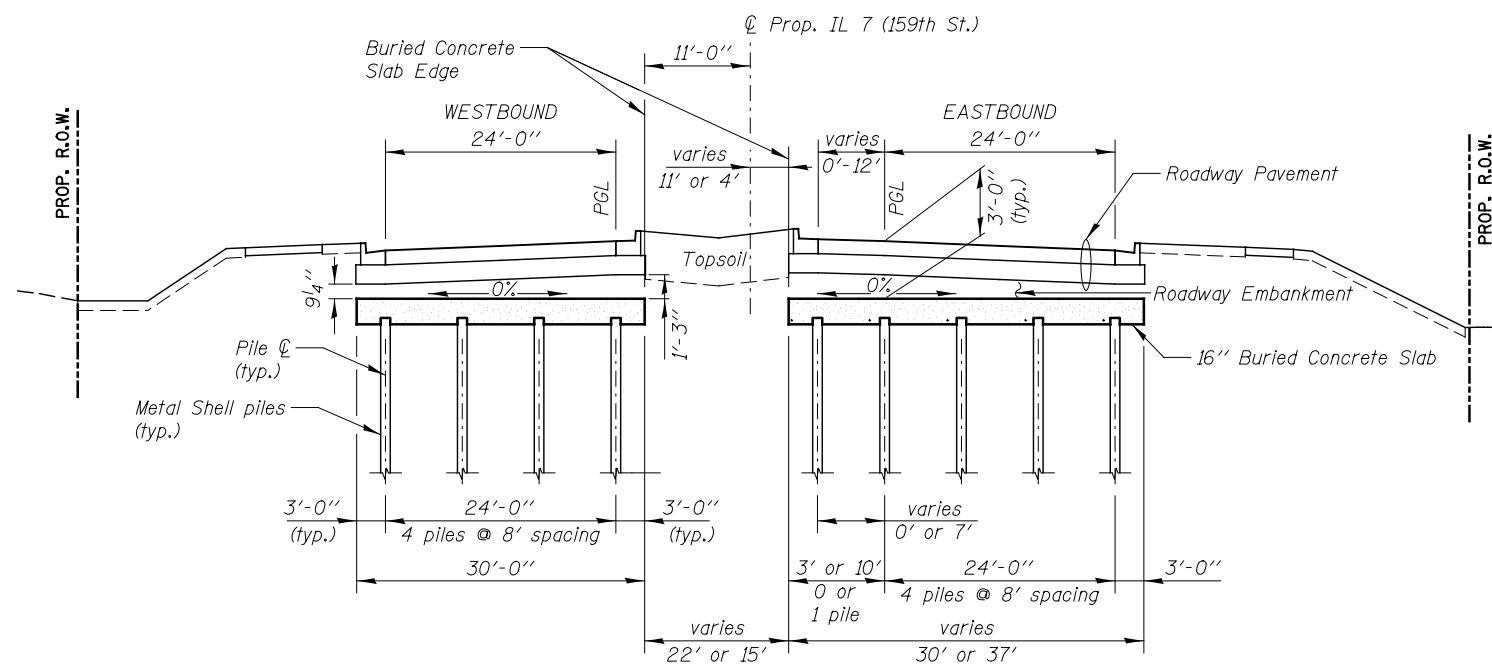
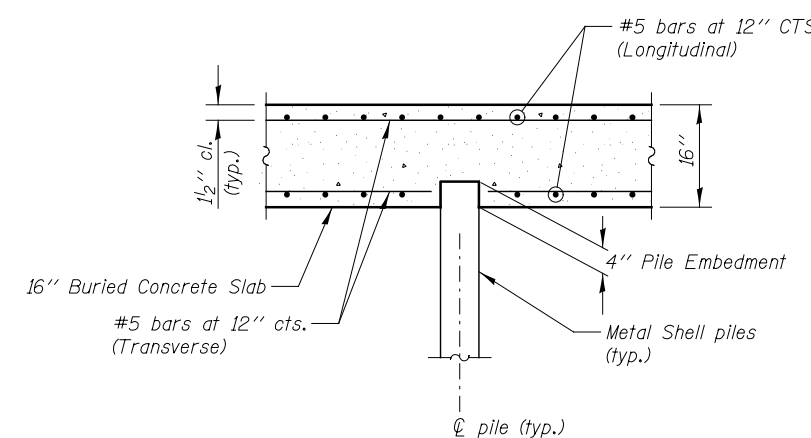
BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
a100(E)	548	#5	29'-9"	—
a101(E)	274	#5	36'-9"	—
a200(E)	822	#5	29'-9"	—
b100(E)	300	#5	31'-3"	—
b101(E)	124	#5	26'-3"	—
b102(E)	200	#5	45'-6"	—
b103(E)	62	#5	34'-0"	—
b105(E)	114	#5	17'-9"	—
b106(E)	76	#5	25'-0"	—
b200(E)	372	#5	31'-3"	—
b201(E)	248	#5	45'-6"	—
b203(E)	93	#5	20'-3"	—
b204(E)	62	#5	29'-0"	—
d1(E)	510	#5	6'-3"	—
Concrete Structures			Cu. Yd.	1250.0
Reinforcement Bars, Epoxy Coated			Pound	113030
Furnishing Metal Shell Piles 14" x 0.312"			Foot	18855.0
Driving Piles			Foot	18855.0
Test Piles Metal Shell			Each	2



NOTCH FOR DRAINAGE STRUCTURE TYPICAL DETAIL

UNIT ID	L	W	F	G	H	J	K	M	P	Q
1 EB	87'-0"	30'-0"	31	3	31	2	102	100	88	100
2 EB	88'-0"	30'-0"	31	3	31	2	102	100	89	100
3 EB	96'-0"	30'-0"	31	4	31	3	103	101	97	100
4 EB	88'-0"	37'-0"	38	3	38	2	102	100	89	101
5 EB	47'-0"	37'-0"	38	3	38	2	106	105	48	101
1 WB	87'-0"	30'-0"	31	3	31	2	201	200	88	200
2 WB	88'-0"	30'-0"	31	3	31	2	201	200	89	200
3 WB	88'-0"	30'-0"	31	3	31	2	201	200	89	200
4 WB	88'-0"	30'-0"	31	3	31	2	201	200	89	200
5 WB	55'-0"	30'-0"	31	3	31	2	204	203	56	200



TYPICAL SECTION

Note

All excavation required to construct the pile supported concrete slabs will be paid for as earth excavation. (See Roadway Cross-Section)

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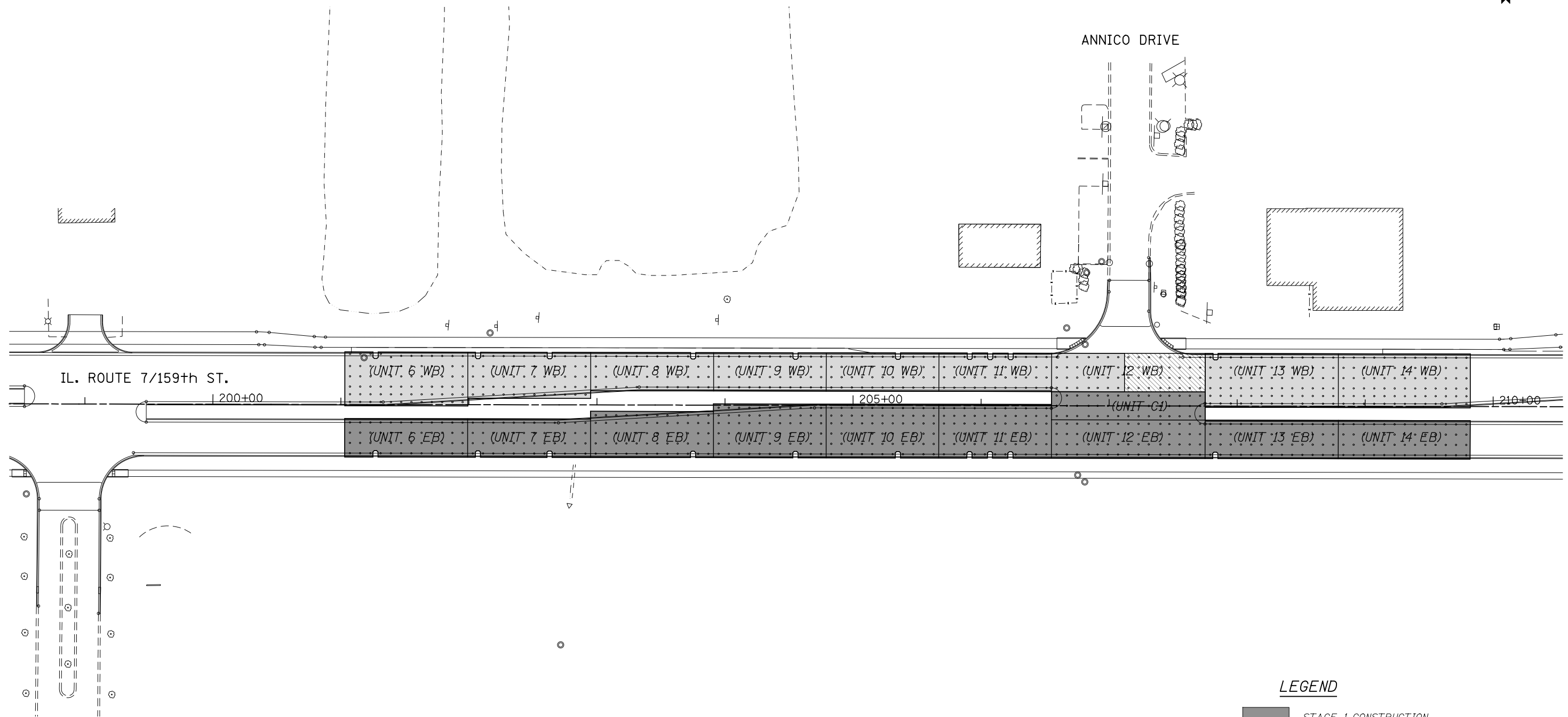
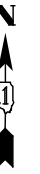
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DRAWN RTA		REVISED -
PLOT SCALE = 1:20.0001	CHECKED PJO	REVISED -
PLOT DATE = 10/20/2014	DATE 8/15/2014	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PILE SUPPORTED BURIED CONCRETE SLAB
REINFORCEMENT DETAILS LOCATION 1**

SCALE: AS SHOWN SHEET NO. SD-4 OF SD-7 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	536-R-1	WILL	1232	812
CONTRACT NO. 60L71				
ILLINOIS FED. AID PROJECT				

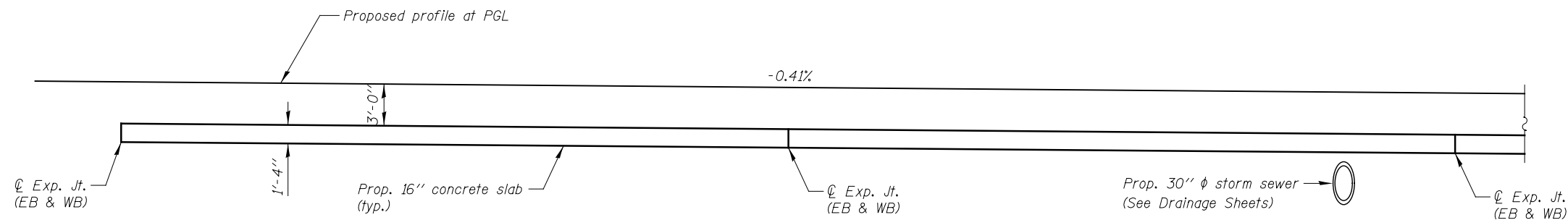


LEGEND

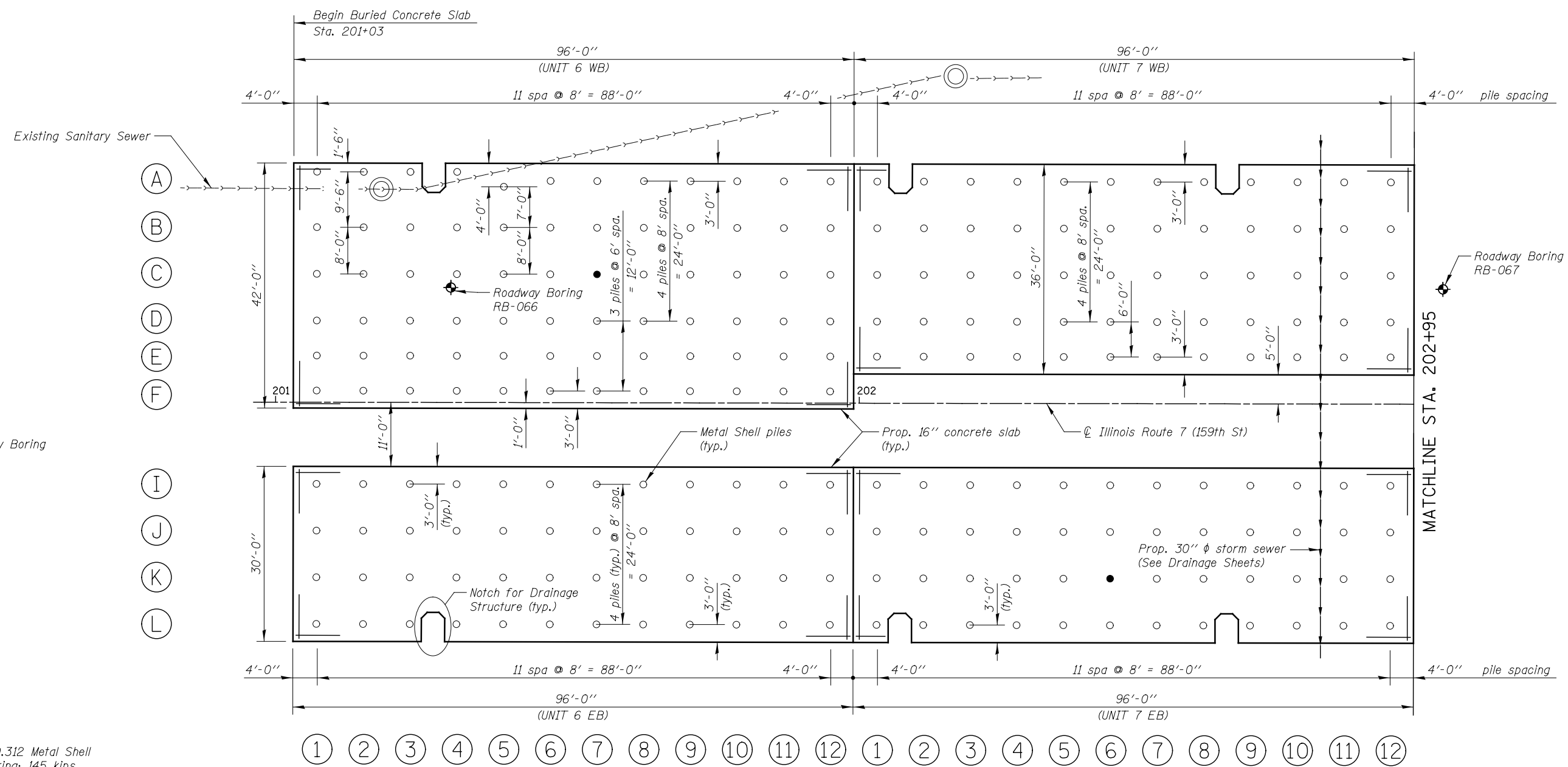
- STAGE 1 CONSTRUCTION
- STAGE 2 CONSTRUCTION
- STAGE 2A CONSTRUCTION

FILE NAME : D:\60L71-Sha-FILE-LOC2-01-GP-01.dgn

	USER NAME = mmaestra	DESIGNED WPM	REVISED - 10/21/2014	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PILE SUPPORTED BURIED CONCRETE SLAB OVERALL KEY AND STAGING PLAN - LOCATION 2	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		DRAWN RTA	REVISED -			351	536-R-1	WILL	1232	816	
	PLOT SCALE = 1:80,0005	CHECKED PJO	REVISED -			CONTRACT NO. 60L71					
	PLOT DATE = 10/20/2014	DATE 8/15/2014	REVISED -			ILLINOIS FED. AID PROJECT					
						SCALE: AS SHOWN		SHEET NO. SE-1 OF SE-9 SHEETS		STA. 201+03 TO STA. 209+82	



ELEVATION



PLAN

PILE DATA

Type & Size: 14" x 0.312 Metal Shell
 Nominal Required Bearing: 145 kips
 Factored Allowable Resistance Available: 80 kips
 Estimated Length: 38 feet
 Test Pile: 2

Notes:

For reinforcement of units, See Sheet SE-6

LEGEND

● Test Pile Location

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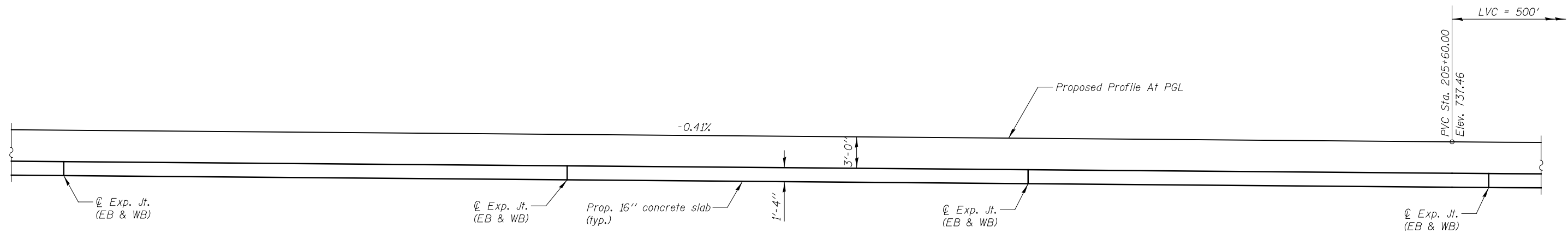
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DRAWN RTA		REVISED -
PLOT SCALE = 1:20.0001	CHECKED PJO	REVISED -
PLOT DATE = 10/20/2014	DATE 8/15/2014	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**PILE SUPPORTED BURIED CONCRETE SLAB
 LOCATION 2
 (STA. 201 + 03 TO STA. 209 + 82)**

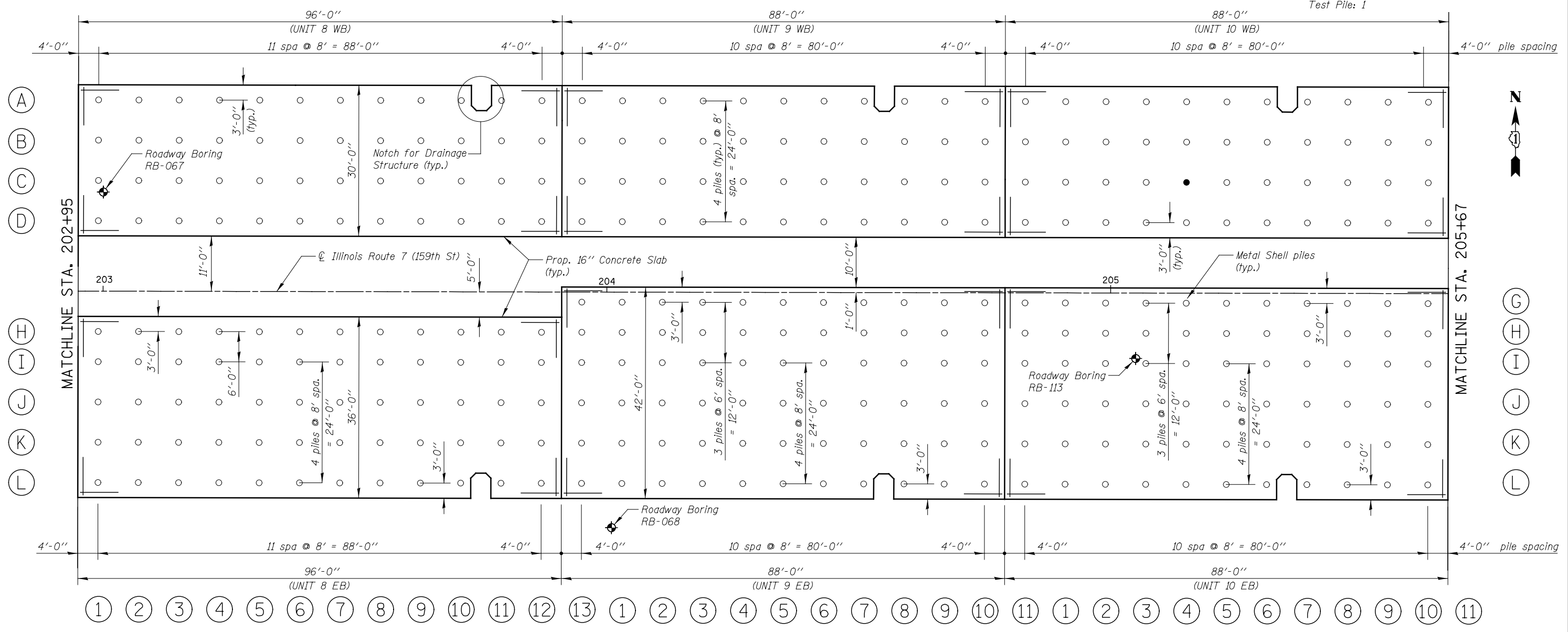
SCALE: AS SHOWN SHEET NO. SE-2 OF SE-9 SHEETS STA. 201+03 TO STA. 202+95

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	536-R-1	WILL	1232	817
CONTRACT NO. 60L71				
ILLINOIS FED. AID PROJECT				



ELEVATION

PILE DATA
 Type & Size: 14" x 0.312 Metal Shell
 Nominal Required Bearing: 153 kips
 Factored Allowable Resistance Available: 84 kips
 Estimated Length: 38 feet
 Test Pile: 1



PLAN

Notes:
 For reinforcement of units, See Sheet SE-6

LEGEND
 ● Test Pile Location

FILE NAME = D:\680\71-Shr-PILE-LOC2-03-Plan-02.dgn

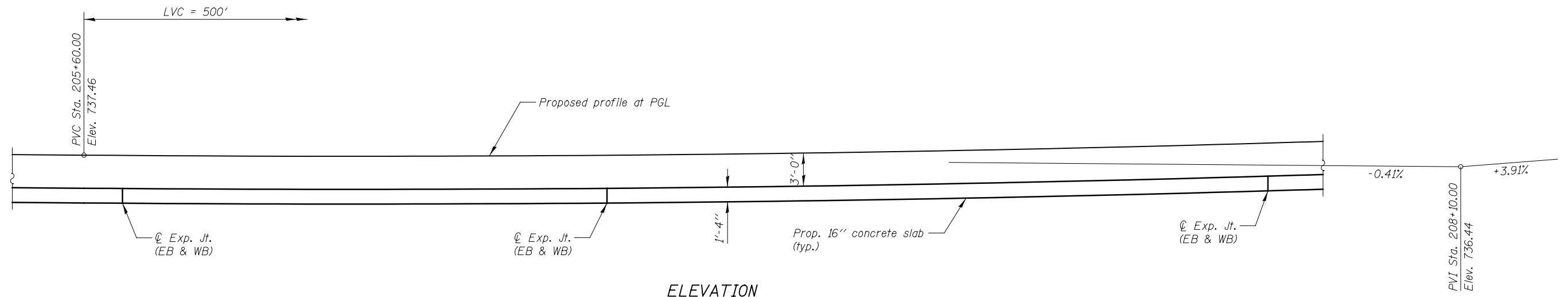
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DRAWN RTA		REVISED -
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PLOT DATE = 10/20/2014	DATE 8/15/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

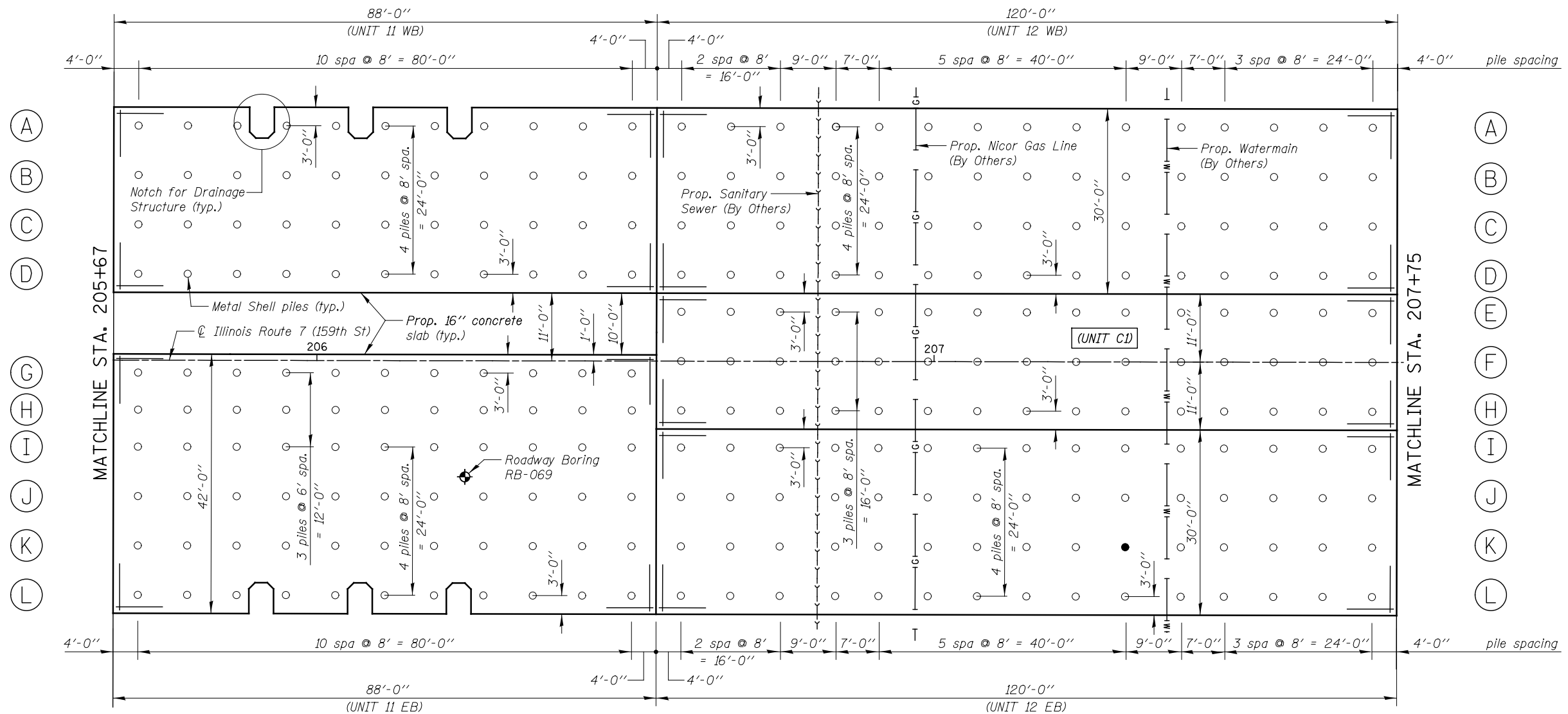
PILE SUPPORTED BURIED CONCRETE SLAB
LOCATION 2
(STA. 201 + 03 TO STA. 209 + 82)

SCALE: AS SHOWN SHEET NO. SE-3 OF SE-9 SHEETS STA. 202+95 TO STA. 205+67

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	536-R-1	WILL	1232	818
CONTRACT NO. 60L71				
ILLINOIS FED. AID PROJECT				



ELEVATION



PLAN

PILE DATA

Type & Size: 14" x 0.312 Metal Shell
 Nominal Required Bearing: 153 kips
 Factored Allowable Resistance Available: 84 kips
 Estimated Length: 38 feet
 Test Pile: 1

Notes:

For reinforcement of units, See Sheet SE-6

LEGEND

● Test Pile Location

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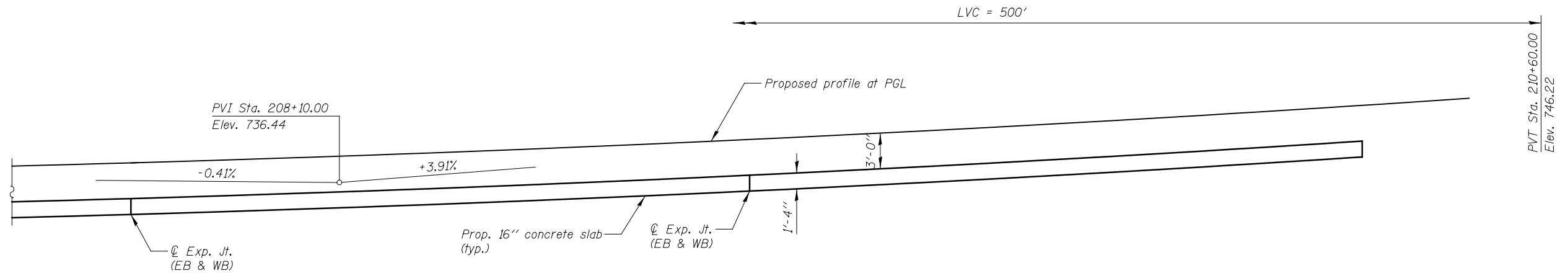
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DRAWN RTA		REVISED -
PLOT SCALE = 1:20,000	CHECKED PJO	REVISED -
PLOT DATE = 10/20/2014	DATE 8/15/2014	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

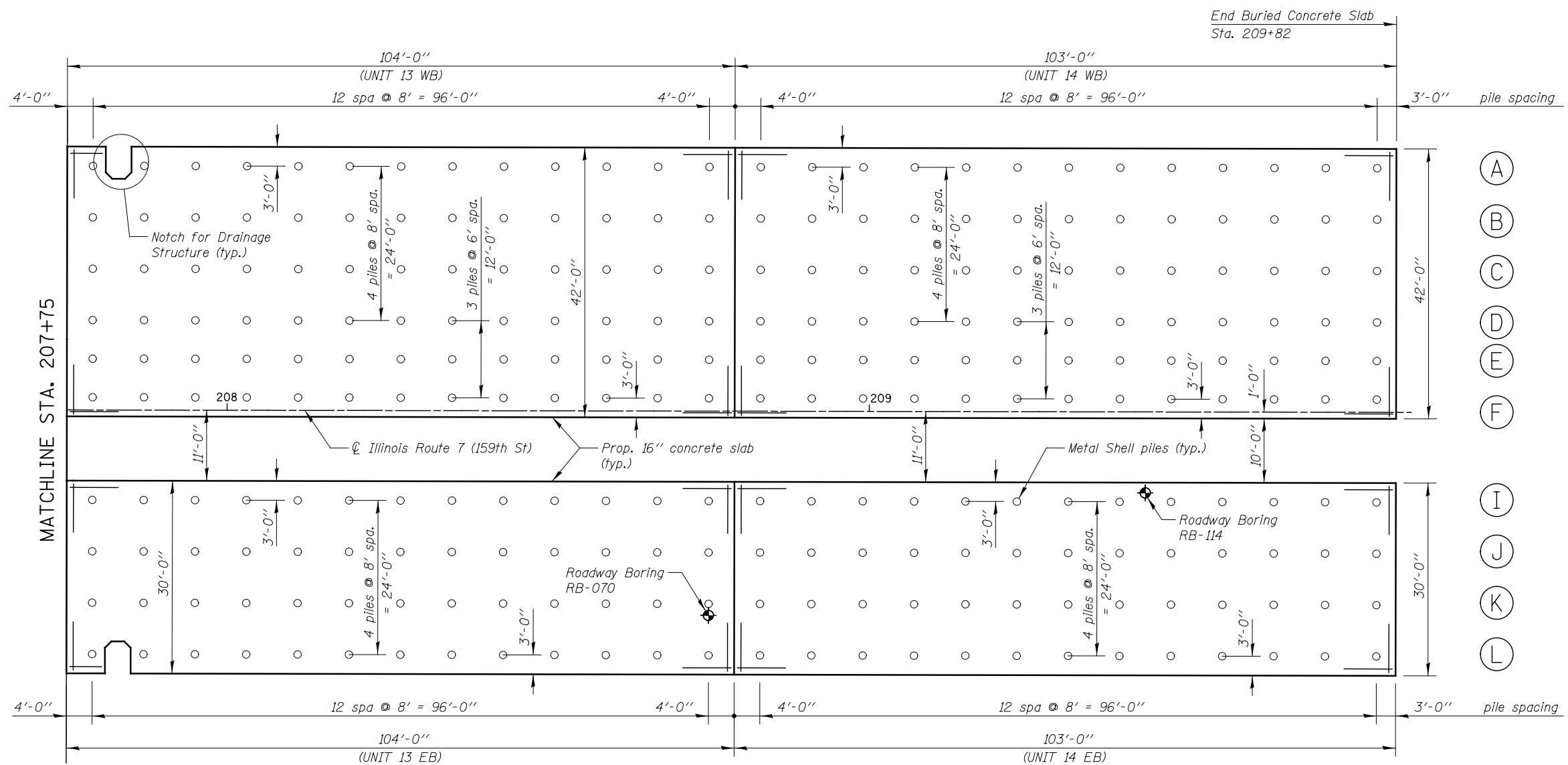
**PILE SUPPORTED BURIED CONCRETE SLAB
 LOCATION 2
 (STA. 201+03 TO STA. 209+82)**

SCALE: AS SHOWN SHEET NO. SE-4 OF SE-9 SHEETS STA. 205+67 TO STA. 207+75

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	536-R-1	WILL	1232	819
CONTRACT NO. 60L71				
ILLINOIS FED. AID PROJECT				



ELEVATION



MATCHLINE STA. 207+75

A
B
C
D
E
F
I
J
K
L

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫ ⑬ ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫ ⑬

PLAN

PILE DATA

Type & Size: 14" x 0.312 Metal Shell
 Nominal Required Bearing: 153 kips
 Factored Allowable Resistance Available: 84 kips
 Estimated Length: 38 feet

Notes:
 For reinforcement of units, See Sheet SE-6

FILE NAME = D:\60L71-Sht-PILE-LOC2-05-Plan-04.dgn

USER NAME = mmaestra	DESIGNED WPM	REVISED - 10/21/2014
DRAWN RTA		REVISED -
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PLOT DATE = 10/20/2014	DATE 8/15/2014	REVISED -

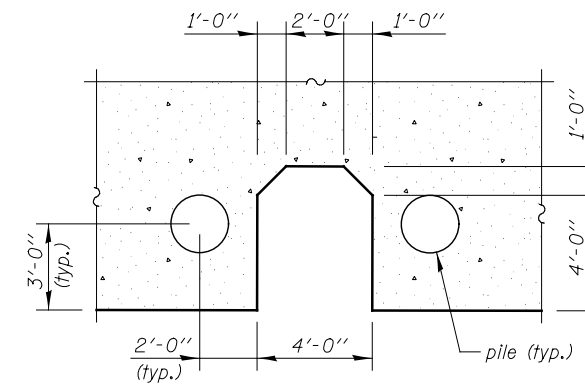
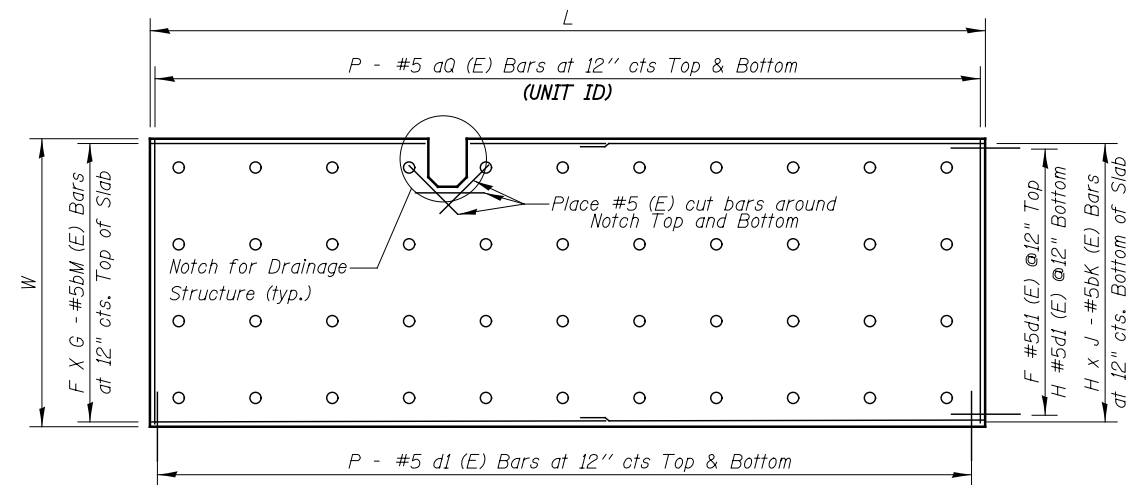
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**PILE SUPPORTED BURIED CONCRETE SLAB
 LOCATION 2
 (STA. 201+03 TO STA. 209+82)**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	536-R-1	WILL	1232	820
CONTRACT NO. 60L71				

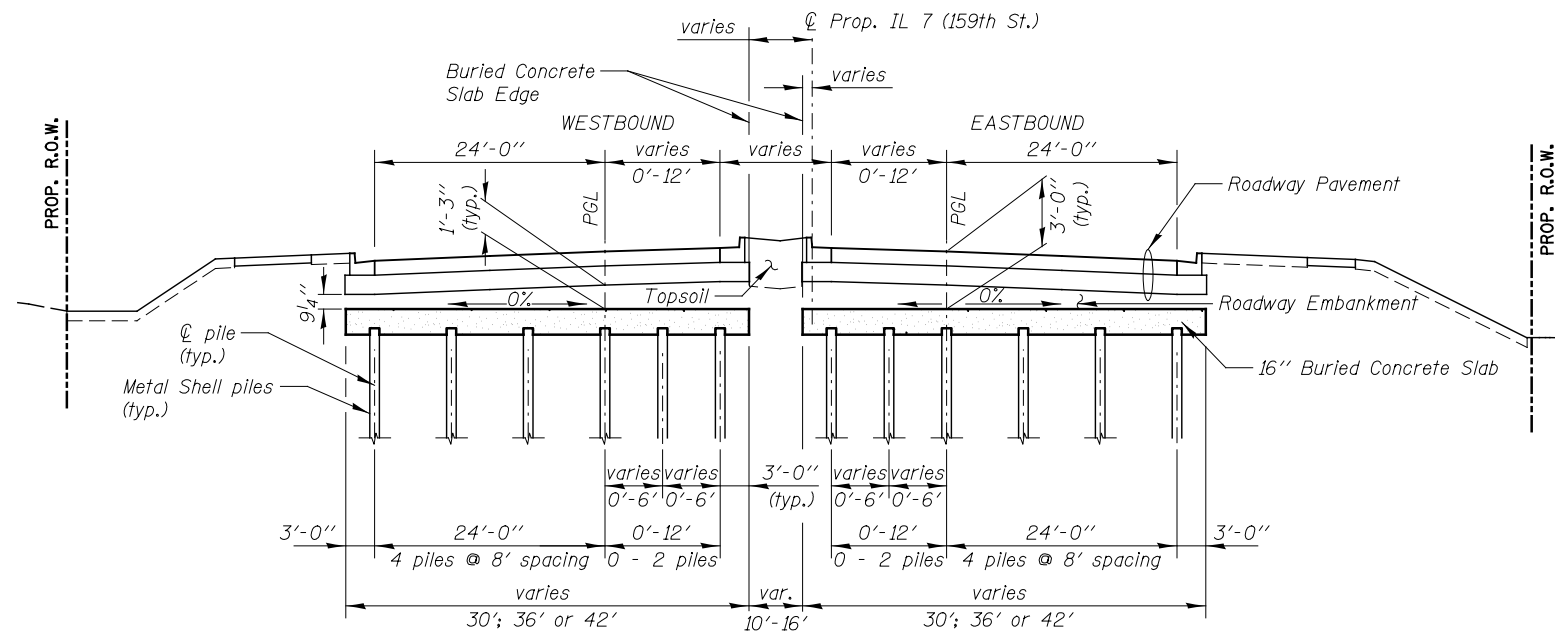
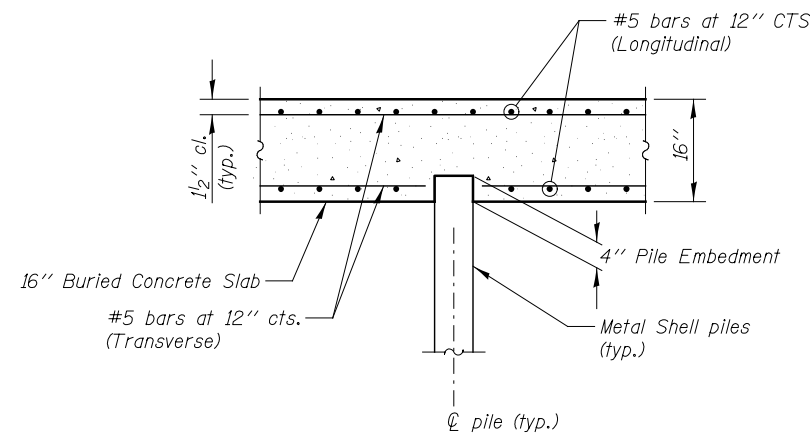
SCALE: AS SHOWN SHEET NO. SE-5 OF SE-9 SHEETS STA. 207+75 TO STA. 209+82

ILLINOIS FED. AID PROJECT



NOTCH FOR DRAINAGE STRUCTURE TYPICAL DETAIL

UNIT ID	L	W	F	G	H	J	K	M	P	Q
6 EB	96'-0"	30'-0"	31	4	31	3	103	101	97	100
7 EB	96'-0"	30'-0"	31	4	31	3	103	101	97	100
8 EB	96'-0"	36'-0"	37	4	37	3	103	101	97	102
9 EB	88'-0"	42'-0"	43	3	43	2	102	100	89	103
10 EB	88'-0"	42'-0"	43	3	43	2	102	100	89	103
11 EB	88'-0"	42'-0"	43	3	43	2	102	100	89	103
12 EB	120'-0"	30'-0"	31	4	31	3	108	107	121	100
13 EB	104'-0"	30'-0"	31	4	31	3	110	109	105	100
14 EB	103'-0"	30'-0"	31	4	31	3	110	109	104	100
6 WB	96'-0"	42'-0"	43	4	43	3	206	205	97	201
7 WB	96'-0"	36'-0"	37	4	37	3	206	205	97	202
8 WB	96'-0"	30'-0"	31	4	31	3	206	205	97	200
9 WB	88'-0"	30'-0"	31	3	31	2	201	200	89	200
10 WB	88'-0"	30'-0"	31	3	31	2	201	200	89	200
11 WB	88'-0"	30'-0"	31	3	31	2	201	200	89	200
12 WB	120'-0"	30'-0"	31	4	31	3	208	207	121	200
13 WB	104'-0"	42'-0"	43	4	43	3	210	209	105	201
14 WB	103'-0"	42'-0"	43	4	43	3	210	209	104	201
C1	120'-0"	22'-0"	23	4	23	3	108	107	121	105



TYPICAL SECTION

BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
a100(E)	1048	#5	29'-9"	—
a102(E)	194	#5	35'-9"	—
a103(E)	534	#5	41'-9"	—
a105(E)	242	#5	21'-9"	—
a200(E)	970	#5	29'-9"	—
a201(E)	612	#5	41'-9"	—
a202(E)	194	#5	35'-9"	—
b100(E)	387	#5	31'-3"	—
b101(E)	396	#5	26'-3"	—
b102(E)	258	#5	45'-6"	—
b103(E)	297	#5	34'-0"	—
b107(E)	216	#5	32'-3"	—
b108(E)	162	#5	43'-0"	—
b109(E)	248	#5	28'-3"	—
b110(E)	186	#5	36'-9"	—
b200(E)	279	#5	31'-3"	—
b201(E)	186	#5	45'-6"	—
b205(E)	444	#5	26'-3"	—
b206(E)	333	#5	34'-0"	—
b207(E)	124	#5	32'-3"	—
b208(E)	93	#5	42'-0"	—
b209(E)	344	#5	28'-3"	—
b210(E)	258	#5	36'-9"	—
d1(E)	1546	#5	6'-3"	—
Concrete Structures			Cu. Yd.	3128.0
Reinforcement Bars, Epoxy Coated			Pound	287920
Furnishing Metal Shell Piles 14" x 0.312"			Foot	41306.0
Driving Piles			Foot	41306.0
Test Piles Metal Shell			Each	4

Note

All excavation required to construct the pile supported concrete slabs will be paid for as earth excavation. (See Roadway Cross-Section)

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PLOT DATE = 10/20/2014	CHECKED PJO	REVISED -
	DATE 8/15/2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PILE SUPPORTED BURIED CONCRETE SLAB
REINFORCEMENT DETAILS LOCATION 2

SCALE: AS SHOWN SHEET NO. SE-6 OF SE-9 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	536-R-1	WILL	1232	821
CONTRACT NO. 60L71				
ILLINOIS FED. AID PROJECT				



SOIL BORING LOG

GSI Job No. 10194

Page 1 of 1

Date 5/13/13

ROUTE U.S. Route 6 / Il. Route 7 (159th Street) DESCRIPTION U.S. Route 6 / Il. Route 7 (159th Street) LOGGED BY DB

SECTION LOCATION SE 1/4, SEC. 14, TWP. T36N, RNG. R11E, 3rd PM

COUNTY Will & Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. Station	D E P T H	B L O W S	U C S	M O I S T	Surface Water Elev. Stream Bed Elev.	Groundwater Elev.: First Encounter Upon Completion After	ft	ft	ft	ft	ft	ft	(ft)	(ft)	(ft)	(tsf)	(%)	
																		(ft)
RB-069 206+24 18.80ft Right 736.80					n/a	726.3												
		2				721.8												
		2																
		1																
		2	1.0	26														
		3	P															
		2																
		2																
		1																
		2																
		2																
		1																
		2																
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		2																
		2																
		1																
		0																
		0																
		0																
		0																
		1	0.3	58														
		1	B															
		1																
		2																
		4																

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)



SOIL BORING LOG

GSI Job No. 10194

Page 1 of 1

Date 6/13/13

ROUTE U.S. Route 6 / Il. Route 7 (159th Street) DESCRIPTION U.S. Route 6 / Il. Route 7 (159th Street) LOGGED BY JB

SECTION LOCATION NE 1/4, SEC. 23, TWP. T36N, RNG. R11E, 3rd PM

COUNTY Will & Cook DRILLING METHOD Hand Auger HAMMER TYPE Manual

STRUCT. NO. Station	D E P T H	B L O W S	U C S	M O I S T	Surface Water Elev. Stream Bed Elev.	Groundwater Elev.: First Encounter Upon Completion After	ft	ft	ft	ft	ft	ft	(ft)	(ft)	(ft)	(tsf)	(%)	
																		(ft)
RB-070 208+75 31.80ft Right 737.30					n/a	735.3												
		1.5																
		P																
		1.3																
		P																
		1.0																
		P																
		112																
		67																
		10																
		15																
		20																

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)



SOIL BORING LOG

GSI Job No. 10194

Page 1 of 1

Date 3/31/14

ROUTE U.S. Route 6 / Il. Route 7 (159th Street) DESCRIPTION U.S. Route 6 / Il. Route 7 (159th Street) LOGGED BY TZ

SECTION LOCATION SE 1/4, SEC. 14, TWP. T36N, RNG. R11E, 3rd PM

COUNTY Will & Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO. Station	D E P T H	B L O W S	U C S	M O I S T	Surface Water Elev. Stream Bed Elev.	Groundwater Elev.: First Encounter Upon Completion After	ft	ft	ft	ft	ft	ft	(ft)	(ft)	(ft)	(tsf)	(%)	
																		(ft)
RB-112 200+40 13.00ft Right 739.40					n/a													
		2																
		4.3																
		P																
		2																
		1.5																
		P																
		4																
		7																
		1.4																
		B																
		2.0																
		B																
		9																
		3																
		6																
		1.6																
		B																
		7																
		35																
		6																
		1.9																
		B																
		8																

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PILE SUPPORTED BURIED CONCRETE SLAB
BORING LOGS - LOCATION 2
SCALE: AS SHOWN SHEET NO. SE-8 OF SE-9 SHEETS STA. TO STA.

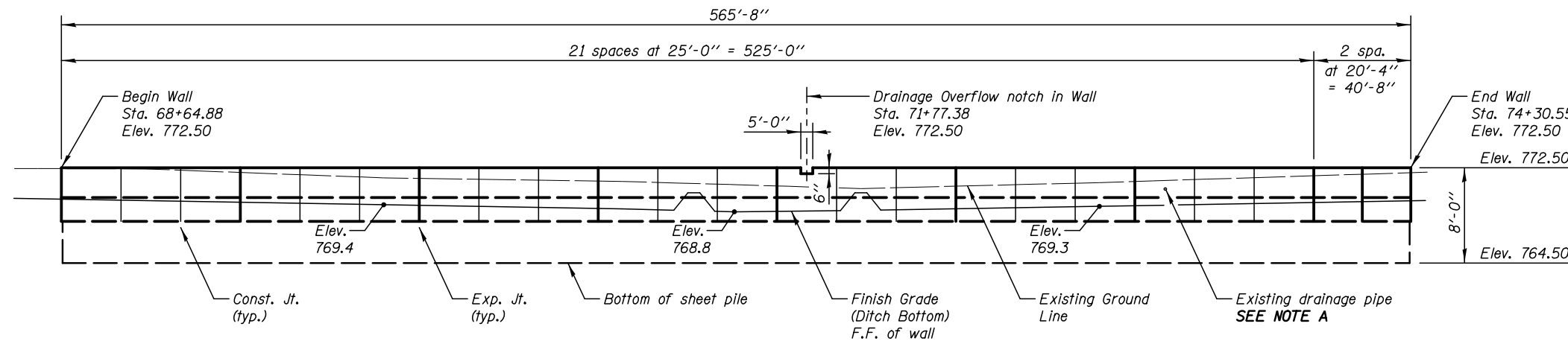
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	536-R-1	WILL	1232	823
CONTRACT NO. 60L71				
ILLINOIS FED. AID PROJECT				

Control Point: CP #138 68+77.67, 38.44' LT Capped iron rod Elev. 772.71

Existing Structure: None.

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Structure Excavation	Cu. Yd.	338.0
Concrete Structures	Cu. Yd.	129.0
Form Liner Textured Surface	Sq. Ft.	2020.0
Protective Coat	Sq. Yd.	554.0
Stud Shear Connectors	Each	567
Reinforcement Bars, Epoxy Coated	Pound	9260
Permanent Steel Sheet Piling	Sq. Ft.	4320.0



ELEVATION

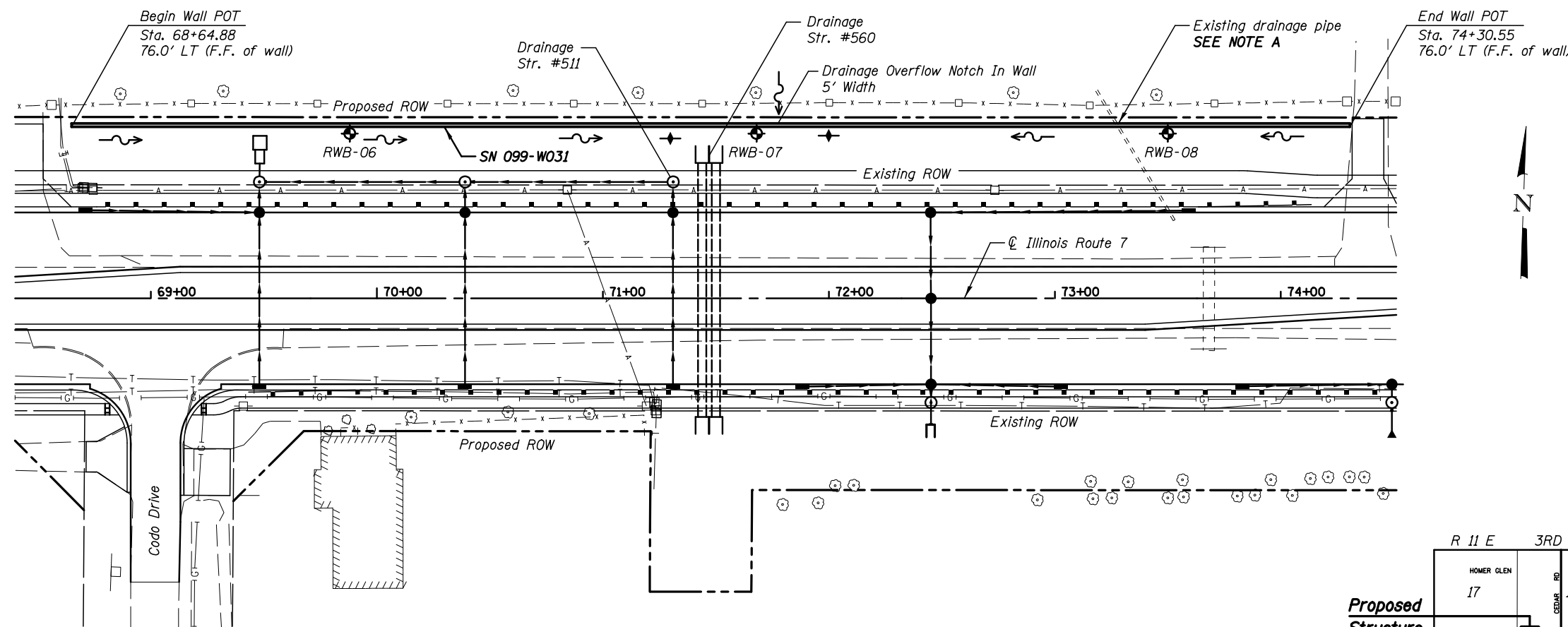
DESIGN SPECIFICATIONS
2012 AASHTO LRFD Bridge Design Specifications
6th Edition, with 2012 Interim Revisions

DESIGN STRESSES
FIELD UNITS

$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (reinforcement)
 $f_y = 38,500$ psi (steel sheet piling)

INDEX OF DRAWINGS

SHT NO.	TITLE
SA-1	General Plan and Elevation
SA-2	Typical Wall Section and Details
SA-3	Plan and Elevation - 1
SA-4	Plan and Elevation - 2
SA-5	Wall Sections and Details
SA-6	Architectural Finish and Joint Details
SA-7	Soil Boring Logs

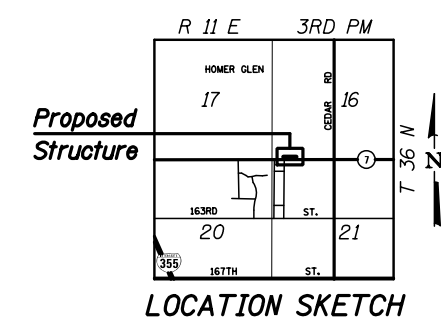


PLAN

Note
Existing and/or proposed overhead electric line will be live during construction. Sheet piling in this area may need to be spliced. Sheet pile splices required due to these live electric lines shall not be paid for separately but shall be included in the cost of Permanent Steel Sheet Piling.

Legend

- ◆ Soil Borings
- F.F. Front Face
- B.F. Back Face



NOTE A
Drainage pipe shall be partially cut back to install sheet piling, then reinstalled through sheet piling and terminated 3" beyond front face of concrete facing. Contractor shall maintain drainage flow during construction.

GENERAL PLAN AND ELEVATION
ILLINOIS ROUTE 7
F.A.P. RTE. 351 SEC. 536-R-1
WILL COUNTY
STA. 68+64.88 TO STA. 74+30.55
STRUCTURE NO. 099-W031

KNIGHT
Engineers & Architects

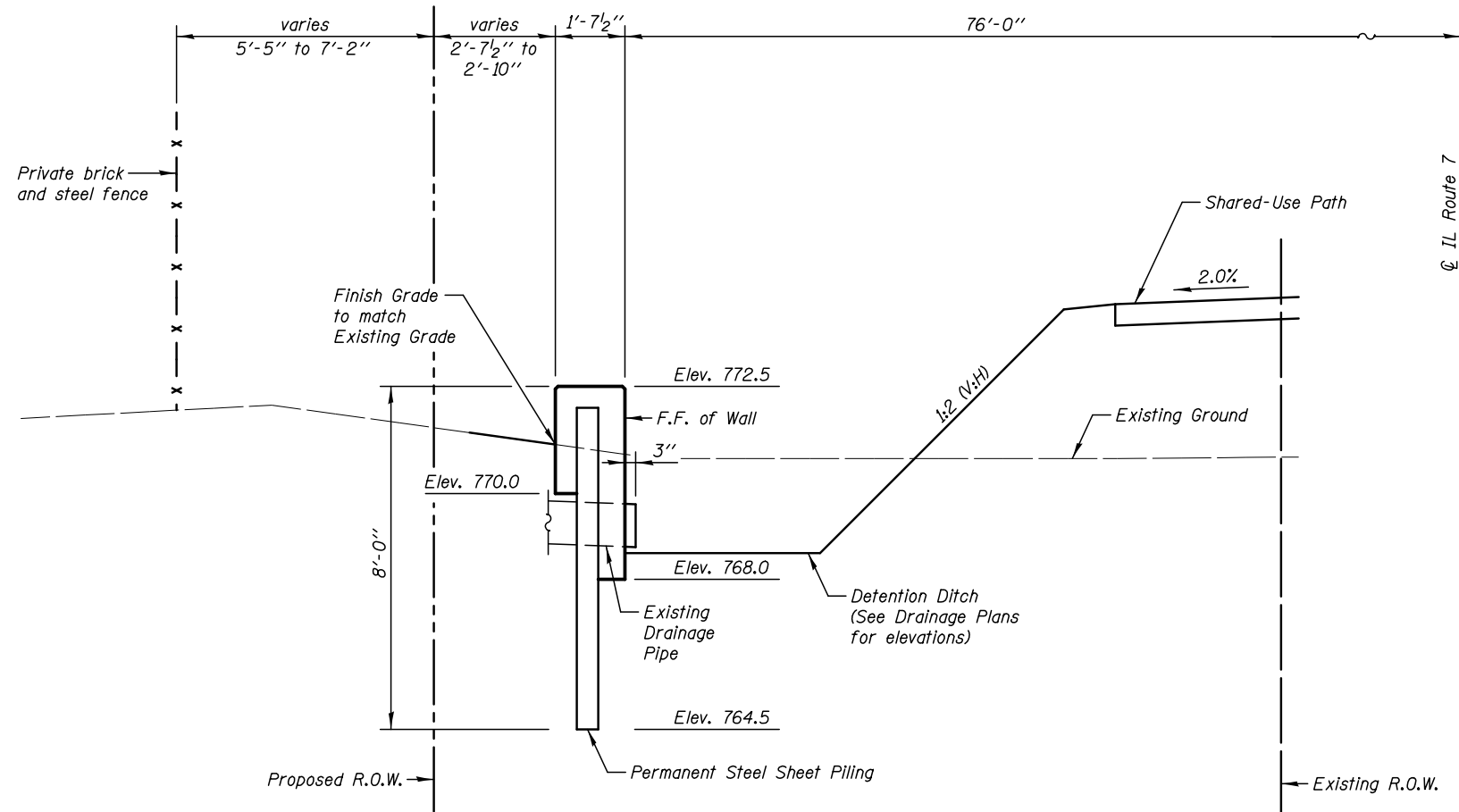
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CHECKED - WPM	REVISED
DRAWN - TB	REVISED
CHECKED - WPM	REVISED
SCALE - NONE	
DATE - 8/15/2014	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION
STRUCTURE NUMBER 099-W031
SHEET NO. SA-1 OF 7 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	536-R-1	WILL	1232	825
CONTRACT NO. 60L71				

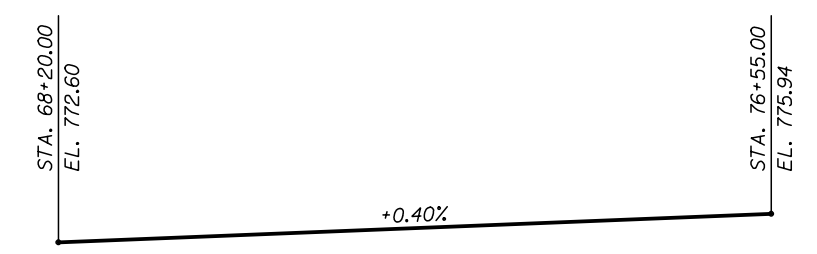
ILLINOIS FED. AID PROJECT



TYPICAL WALL SECTION
(For Details See Sht. SA-5)

GENERAL NOTES

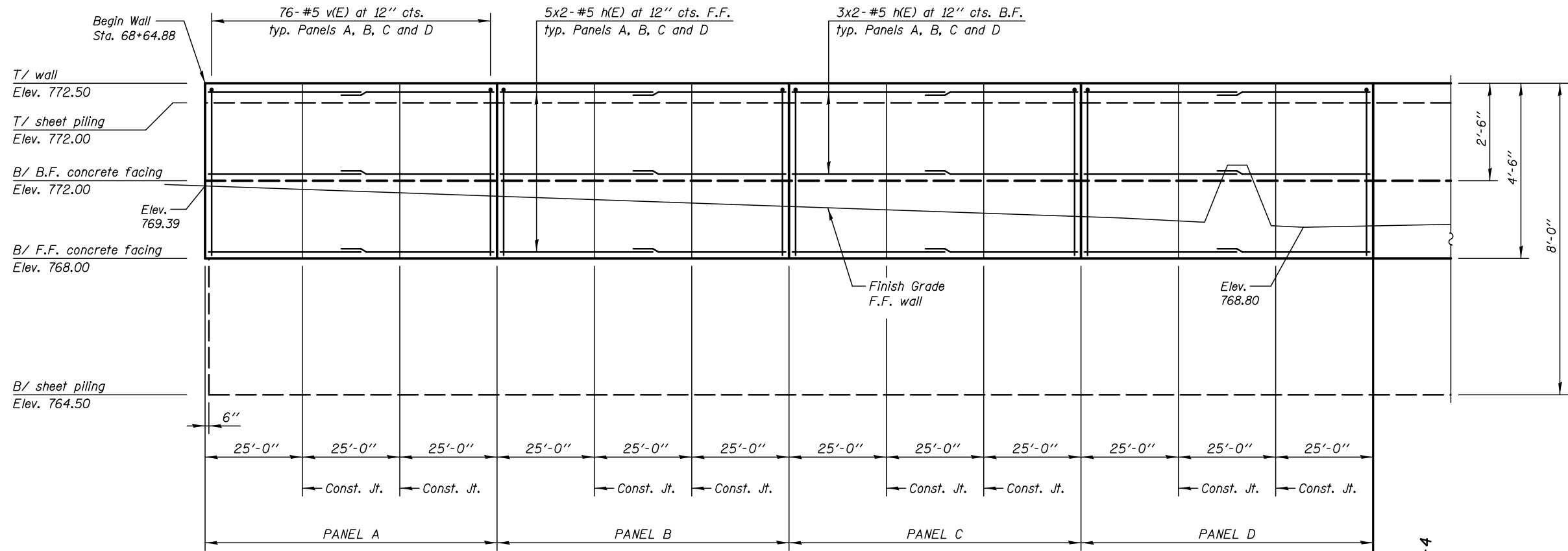
Permanent Steel Sheet shall have a minimum Section Modulus of 4.9 in.³ and Min Fy = 38.5 ksi
Reinforcement bars designated (E) shall be epoxy coated.



PROFILE GRADE - IL ROUTE 7

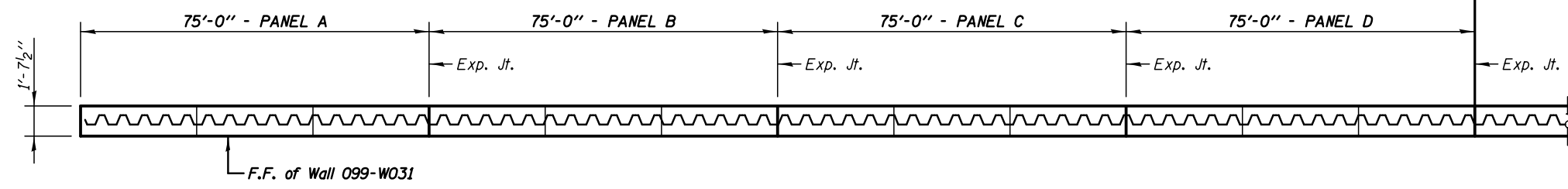
LEGEND:
E.F. Each Face
F.F. Front Face
B.F. Back Face

KNIGHT Engineers & Architects	DESIGNED - SMA	REVISED	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TYPICAL WALL SECTION AND DETAILS STRUCTURE NUMBER 099-W031	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	CHECKED - WPM	REVISED			351	536-R-1	WILL	1232	826
SCALE - NONE	DRAWN - TB	REVISED	SHEET NO. SA-2 OF 7 SHEETS		CONTRACT NO. 60L71				
DATE - 8/15/2014	CHECKED - WPM	REVISED			ILLINOIS FED. AID PROJECT				



ELEVATION - SOUTH FACE
(Looking North)

MATCH LINE
STA. 71+64.88
SEE SHEET SA-4



PLAN
(PANELS A, B, C AND D)



Notes:
 All Dimensions are along Inside Face of Wall.
 Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
 For Typical Sections & Bill of Material, SEE SHT. SA-5.

LEGEND
 E.F. Each Face
 F.F. Front Face
 B.F. Back Face
Min Bar Laps
 #5 Bars = 2'-5" (Horiz. Top Bars)

KNIGHT
Engineers & Architects

DESIGNED - SMA	REVIS
CHECKED - WPM	REVIS
DRAWN - TB	REVIS
CHECKED - WPM	REVIS
SCALE - NONE	
DATE - 8/15/2014	

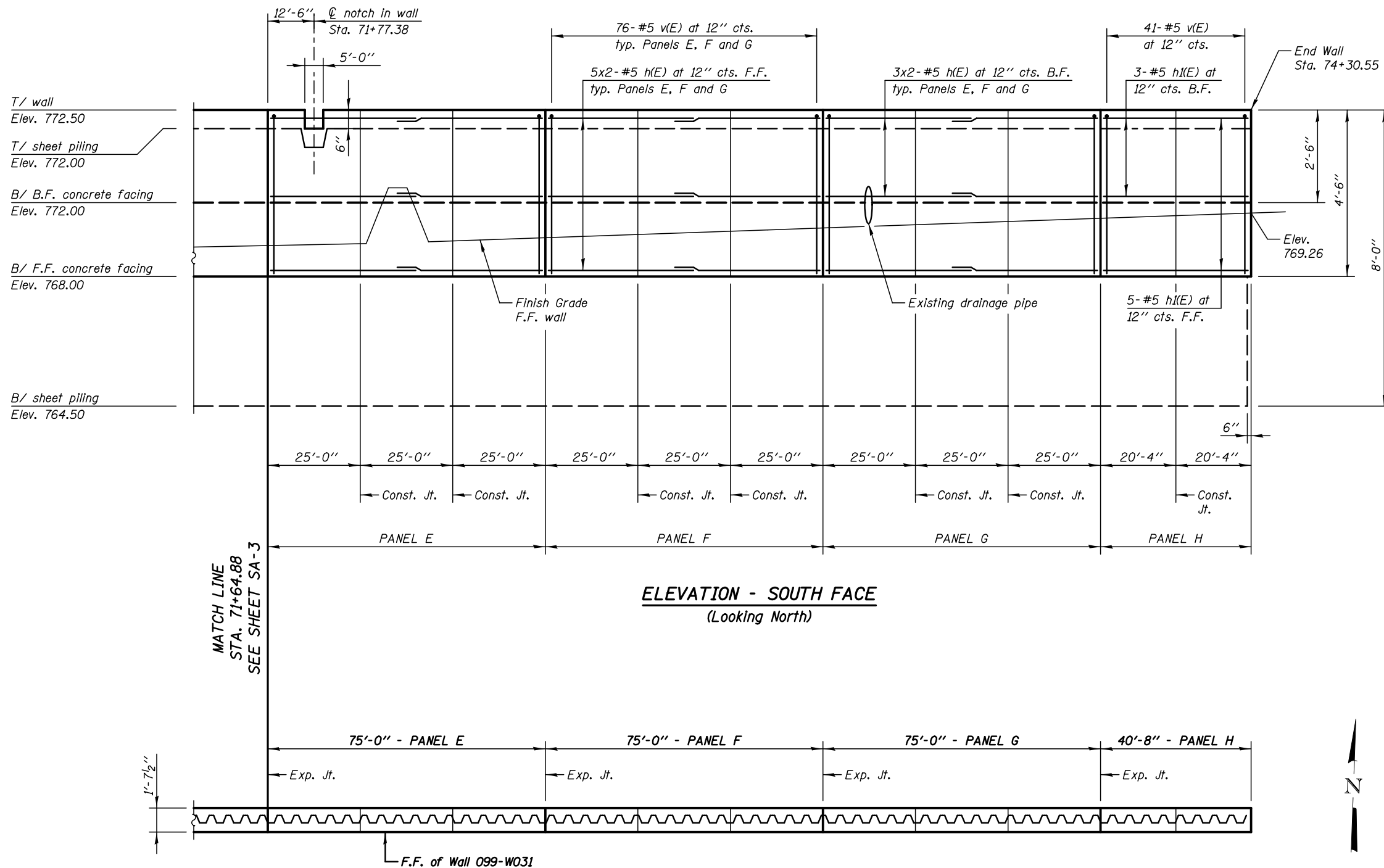
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN AND ELEVATION - 1
STRUCTURE NUMBER 099-W031

SHEET NO. SA-3 OF 7 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	536-R-1	WILL	1232	827
CONTRACT NO. 60L71				

ILLINOIS FED. AID PROJECT



KNIGHT
Engineers & Architects

DESIGNED - SMA	REVISIONS
CHECKED - WPM	REVISIONS
DRAWN - TB	REVISIONS
CHECKED - WPM	REVISIONS

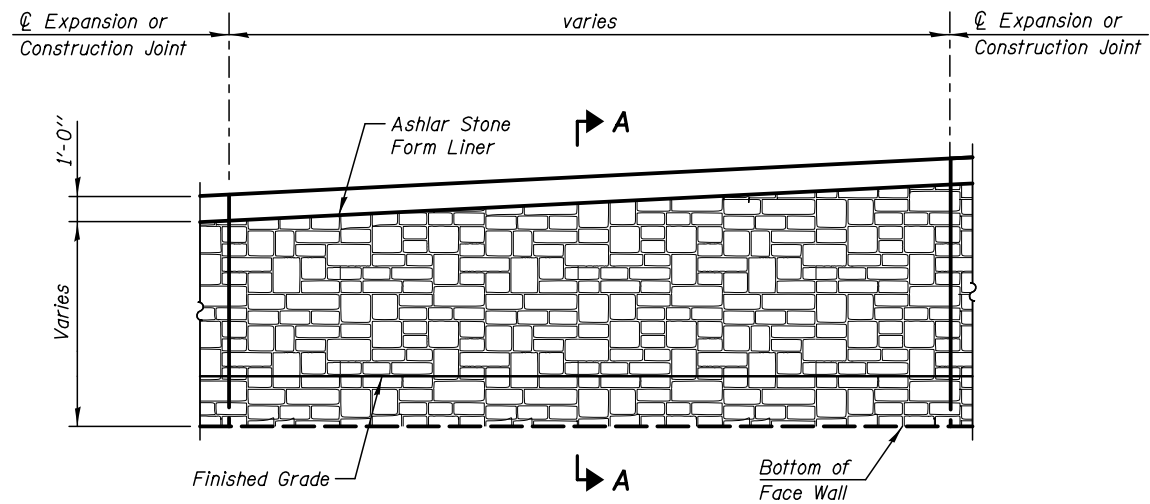
SCALE - NONE
DATE - 8/15/2014

DESIGNED - SMA	REVISIONS
CHECKED - WPM	REVISIONS
DRAWN - TB	REVISIONS
CHECKED - WPM	REVISIONS

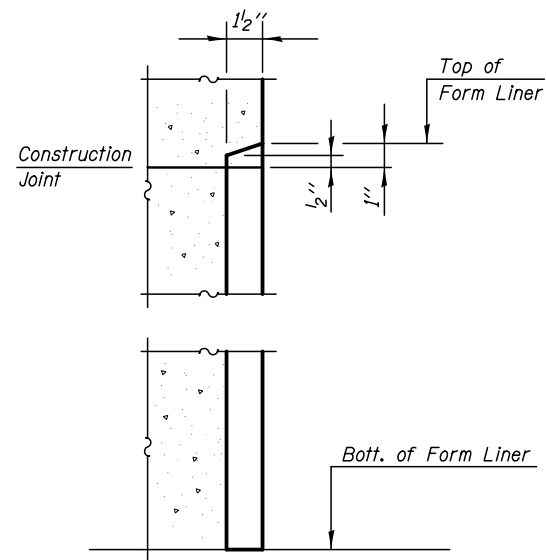
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN AND ELEVATION - 2
STRUCTURE NUMBER 099-W031
SHEET NO. SA-4 OF 7 SHEETS

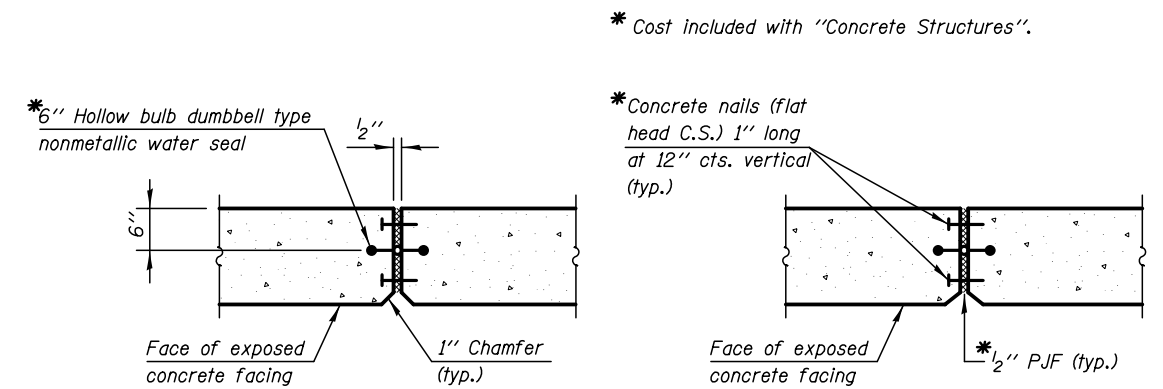
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	536-R-1	WILL	1232	828
CONTRACT NO. 60L71				
<small>ILLINOIS FED. AID PROJECT</small>				



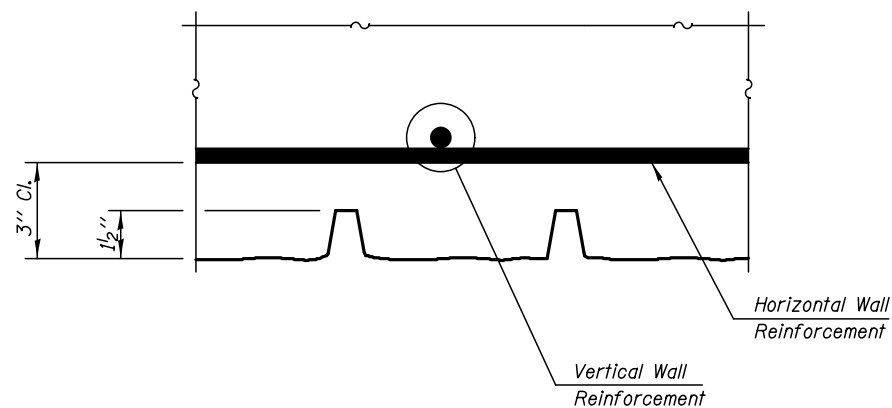
INSIDE ELEVATION - FORM LINER



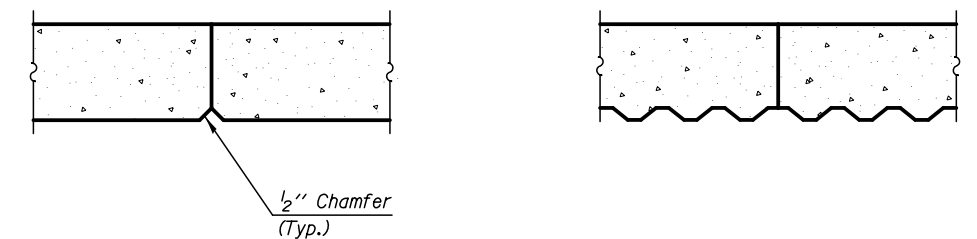
SECTION A-A



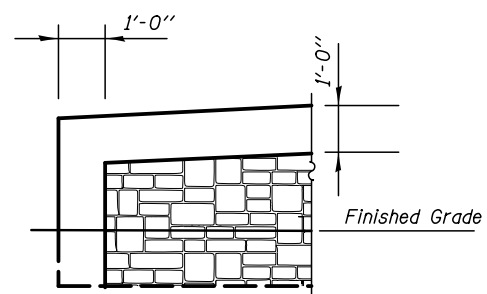
WALL EXPANSION JOINT DETAIL



PLAN - FORM LINER



WALL CONSTRUCTION JOINT DETAIL



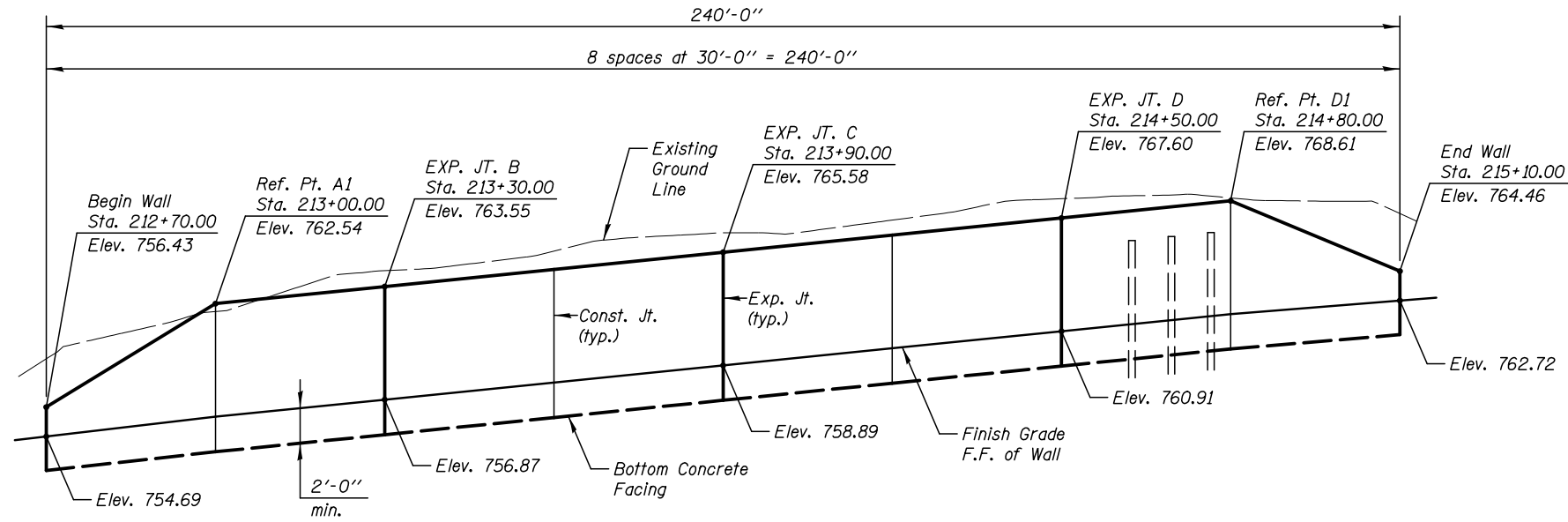
END FORM LINER DETAIL

Control Point: CP #111 209+48.45, 22.43' LT Capped iron rod Elev. 741.66

Existing Structure: None.

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Structure Excavation	Cu. Yd.	254.0
Concrete Structures	Cu. Yd.	87.0
Form Liner Textured Surface	Sq. Ft.	1745.0
Protective Coat	Sq. Yd.	166.0
Stud Shear Connectors	Each	444
Reinforcement Bars, Epoxy Coated	Pound	9210
Geocomposite Wall Drain	Sq. Yd.	174.0
Untreated Timber Lagging	Sq. Ft.	1561.0
Furnishing Soldier Piles (HP Section)	Foot	955.0
Pipe Underdrains for Structures 4"	Foot	275.0
Drilling And Setting Soldier Piles (In Soil)	Cu. Ft.	3453.0



ELEVATION

DESIGN SPECIFICATIONS

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

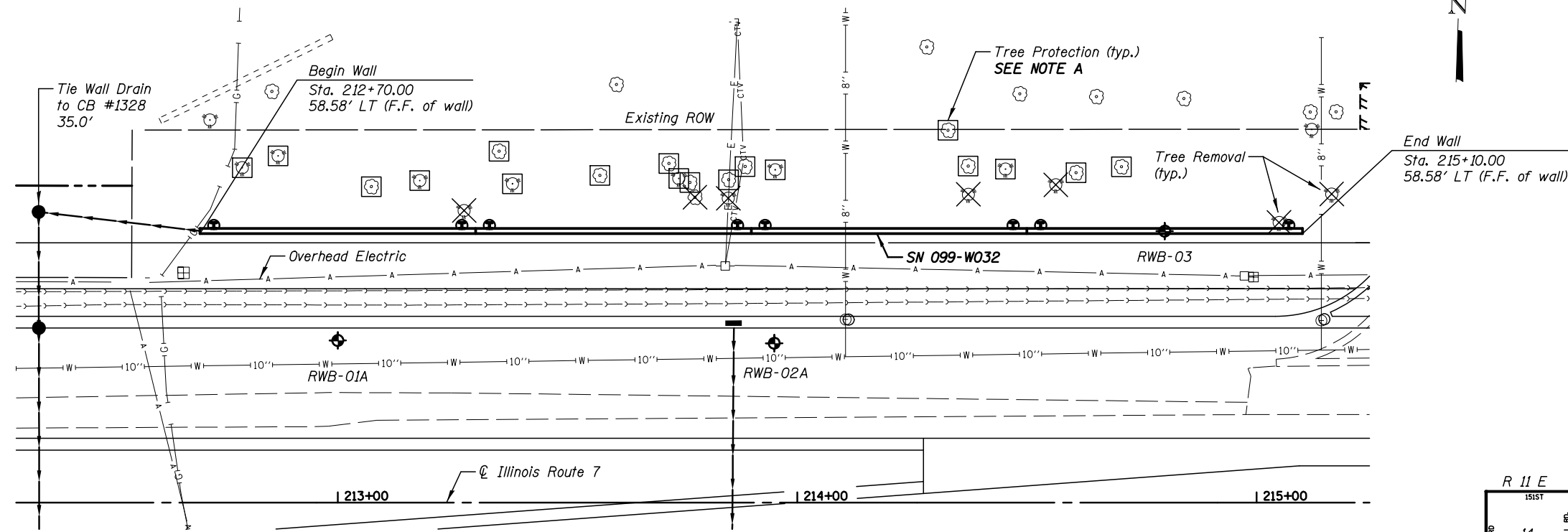
DESIGN STRESSES

FIELD UNITS

$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (reinforcement)
 $f_y = 50,000$ psi (AASHTO M270 Gr. 50)

INDEX OF DRAWINGS

SHT NO.	TITLE
SB-1	General Plan and Elevation
SB-2	Typical Wall Section and Details
SB-3	Plan and Elevation - Panels A & B
SB-4	Plan and Elevation - Panels C & D
SB-5	Wall Sections and Details
SB-6	Architectural Finish and Joint Details
SB-7	Pile Splice Details
SB-8	Soil Boring Logs

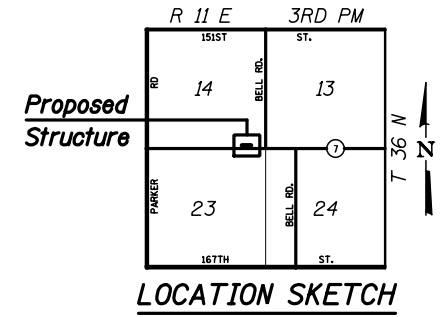


PLAN

Note
Overhead electric line will be live during construction. Piles in this area may need to be spliced. Pile splices required due to these live electric lines shall not be paid for separately but shall be included in the cost of Furnishing Soldier Piles.

Legend

- ◆ Soil Borings
- F.F. Front Face
- B.F. Back Face



LOCATION SKETCH

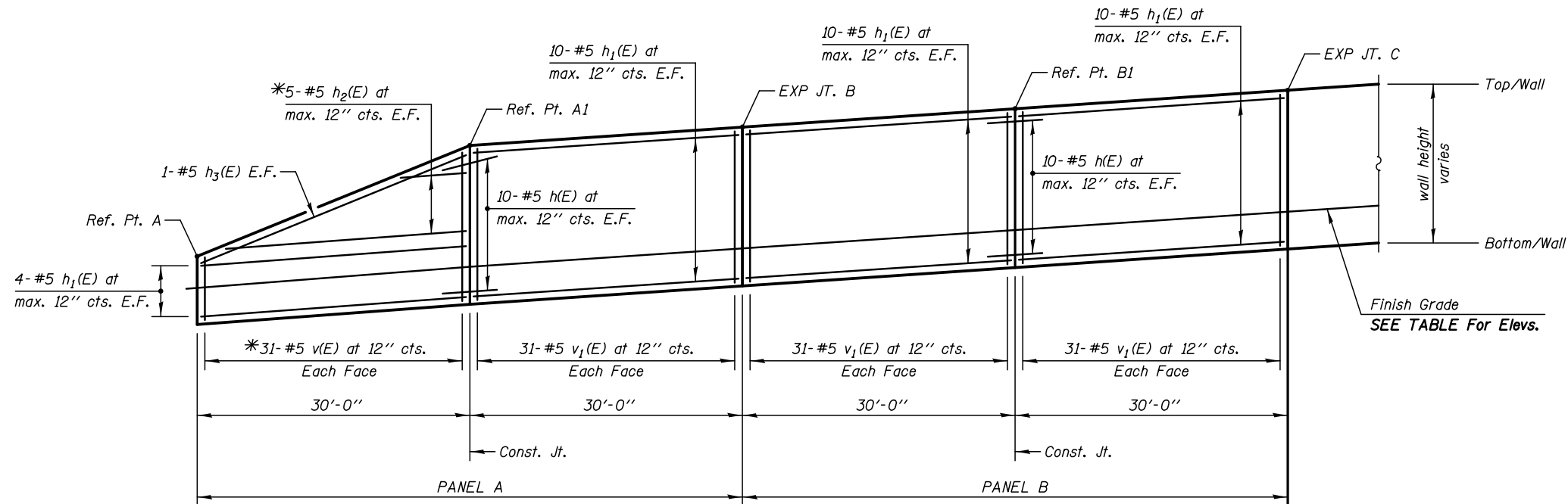
NOTE A
See Roadway Plans for additional Tree Protection details. Any modifications to the Tree Protection shown shall be approved by the Engineer.

GENERAL PLAN AND ELEVATION
ILLINOIS ROUTE 7
F.A.P. RTE. 351 SEC. 536-R-1
WILL COUNTY
STA. 212+70.00 TO STA. 215+10.00
STRUCTURE NO. 099-W032

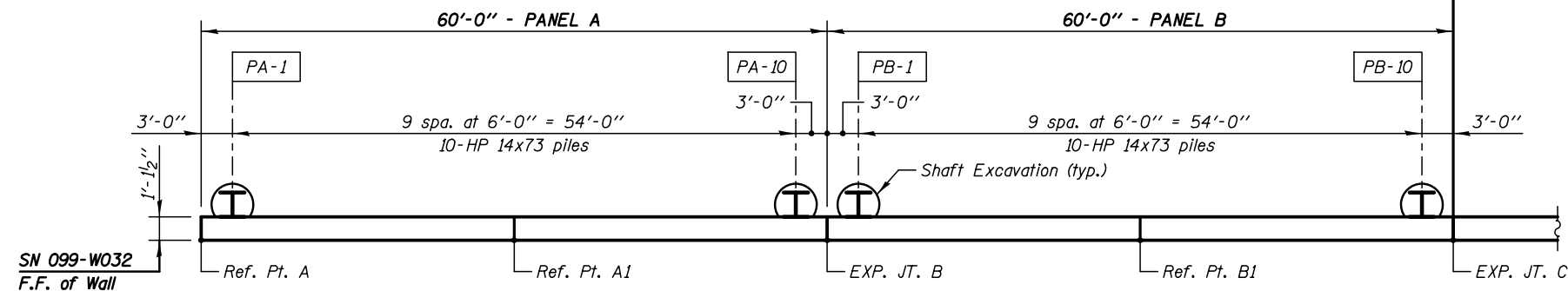
Note:
For Top/Wall Elevations, Bottom/Wall Elevations & Wall Height SEE TABLE.

PILE DATA:

Pile No.	Top Elev.	Bottom Elev.	Length Ft.	No of Studs
PA-1	755.29	738.29	17.00	6
PA-2	756.51	737.51	19.00	6
PA-3	757.74	736.74	21.00	8
PA-4	758.96	735.96	23.00	10
PA-5	760.18	736.18	24.00	10
PA-6	760.89	735.89	25.00	12
PA-7	761.09	736.09	25.00	12
PA-8	761.30	736.30	25.00	12
PA-9	761.50	736.50	25.00	12
PA-10	761.70	736.70	25.00	12
PB-1	761.90	736.90	25.00	12
PB-2	762.10	737.10	25.00	12
PB-3	762.31	737.31	25.00	12
PB-4	762.51	737.51	25.00	12
PB-5	762.71	737.71	25.00	12
PB-6	762.91	737.91	25.00	12
PB-7	763.12	738.12	25.00	12
PB-8	763.32	738.32	25.00	12
PB-9	763.52	738.52	25.00	12
PB-10	763.73	738.73	25.00	12



ELEVATION - SOUTH FACE
(Looking North)



PLAN
(PANELS A & B)

LEGEND

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

Min Bar Laps

#5 Bars = 2'-5" (Horiz. Top Bars)

WALL JOINT LOCATIONS, HEIGHTS & ELEVATIONS

Location Ref. Points	Station on IL 7	Wall Height	Top/Wall Elevation	Bottom/Wall Elevation	Finish Grade Elevation	Bottom/Liner Elevation
Begin Wall - A	212+70.00	3'-9"	756.43	752.68	754.69	752.68
C.J. - A1	213+00.00	8'-9"	762.54	753.79	755.86	753.79
Exp. Jt. - B	213+30.00	8'-9"	763.55	754.80	756.87	754.80
C.J. - B1	213+60.00	8'-9"	764.56	755.81	757.88	755.81
Exp. Jt. - C	213+90.00	8'-9"	765.58	756.83	758.89	756.83

SHAFT SIZES

Pile Size	Shaft Excavation Size
HP14	2'-0"

Notes:

All Dimensions are along Front Face of Wall.

For Typical Sections & Bill of Material, SEE SHT. SB-5.

*See Bar Cutting Diagram SHT. SB-5.

KNIGHT
Engineers & Architects

DESIGNED - SMA	REVISION
CHECKED - WPM	REVISION
SCALE - NONE	REVISION
DATE - 8/15/2014	REVISION
DRAWN - TB	REVISION
CHECKED - WPM	REVISION

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN AND ELEVATION - PANELS A & B
STRUCTURE NUMBER 099-W032

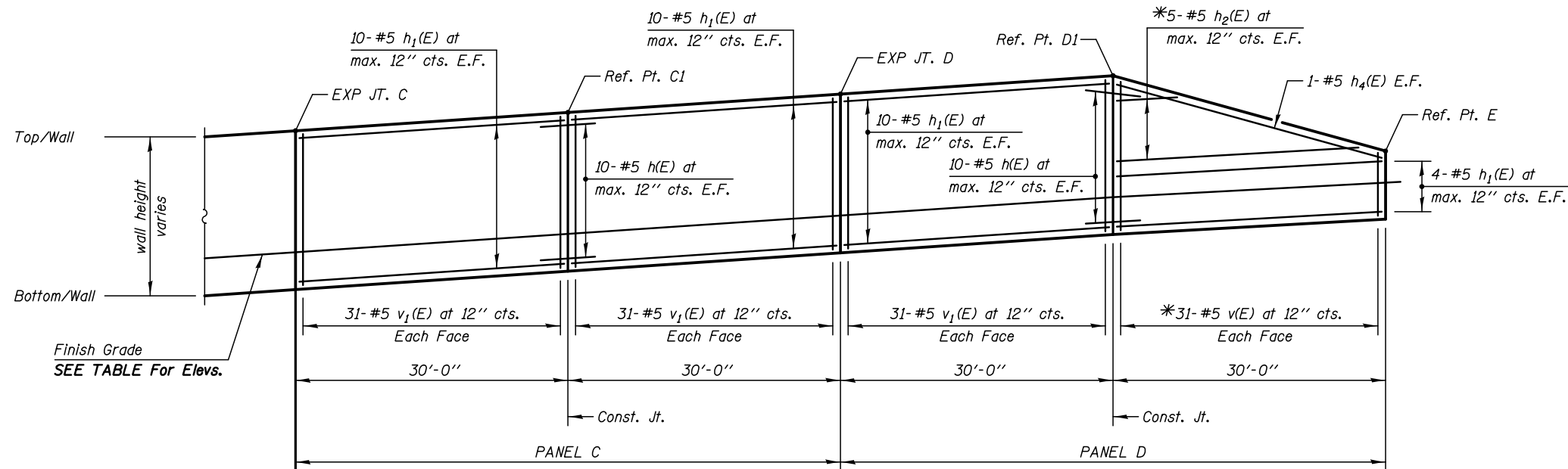
SHEET NO. SB-3 OF 8 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	536-R-1	WILL	1232	834
CONTRACT NO. 60L71				
ILLINOIS FED. AID PROJECT				

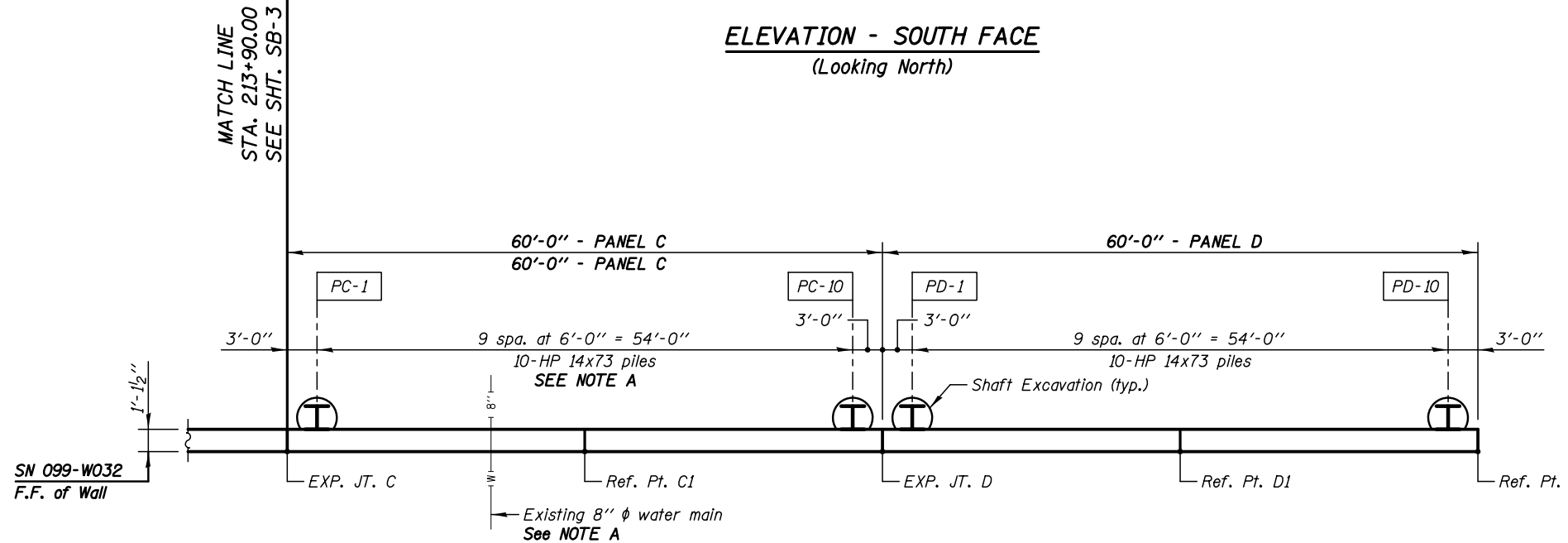
Note:
For Top/Wall Elevations, Bottom/Wall Elevations & Wall Height SEE TABLE.

PILE DATA:

Pile No.	Top Elev.	Bottom Elev.	Length Ft.	No of Studs
PC-1	763.93	738.93	25.00	12
PC-2	764.13	739.13	25.00	12
PC-3	764.34	739.34	25.00	12
PC-4	764.54	739.54	25.00	12
PC-5	764.74	739.74	25.00	12
PC-6	764.94	739.94	25.00	12
PC-7	765.14	740.14	25.00	12
PC-8	765.35	740.35	25.00	12
PC-9	765.55	740.55	25.00	12
PC-10	765.75	740.75	25.00	12
PD-1	765.95	740.95	25.00	12
PD-2	766.15	741.15	25.00	12
PD-3	766.36	741.36	25.00	12
PD-4	766.56	741.56	25.00	12
PD-5	766.76	741.76	25.00	12
PD-6	766.45	742.45	24.00	12
PD-7	765.62	743.62	22.00	10
PD-8	764.79	744.79	20.00	8
PD-9	763.96	745.96	18.00	8
PD-10	763.13	746.13	17.00	6



ELEVATION - SOUTH FACE
(Looking North)



PLAN
(PANELS C & D)

LEGEND

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

Min Bar Laps

#5 Bars = 2'-5" (Horiz. Top Bars)

NOTE A

Existing 8" ϕ water main is not shown on SUE. The location shown has been determined from Illinois American Water's utility atlas and is shown for illustration purposes only. The Contractor shall verify the location of the water main prior to drilling any drilled shafts in Panel C. If any drilled shafts will be in conflict with the water main, it shall be brought to the attention of the Engineer and any adjustments to the locations of the piles will be at the direction of the Engineer. Cost to verify water main location included in the cost of Drilling and Setting Soldier Piles (In Soil).

SHAFT SIZES

Pile Size	Shaft Excavation Size
HP14	2'-0"

Notes:

All Dimensions are along Front Face of Wall.

For Typical Sections & Bill of Material, SEE SHT. SB-5.

*See Bar Cutting Diagram SHT. SB-5.

WALL JOINT LOCATIONS, HEIGHTS & ELEVATIONS

Location Ref. Points	Station on IL 7	Wall Height	Top/Wall Elevation	Bottom/Wall Elevation	Finish Grade Elevation	Bott/Liner Elevation
Exp. Jt. - C	213+90.00	8'-9"	765.58	756.83	758.89	756.83
C.J. - C1	214+20.00	8'-9"	766.59	757.84	759.90	757.84
Exp. Jt. - D	214+50.00	8'-9"	767.60	758.85	760.91	758.85
C.J. - D1	214+80.00	8'-9"	768.61	759.86	761.92	759.86
End Wall - E	215+10.00	3'-9"	764.46	760.71	762.72	760.71

KNIGHT
Engineers & Architects

DESIGNED - SMA	REVISION 11/20/2014
CHECKED - WPM	REVISION
DRAWN - TB	REVISION
CHECKED - WPM	REVISION

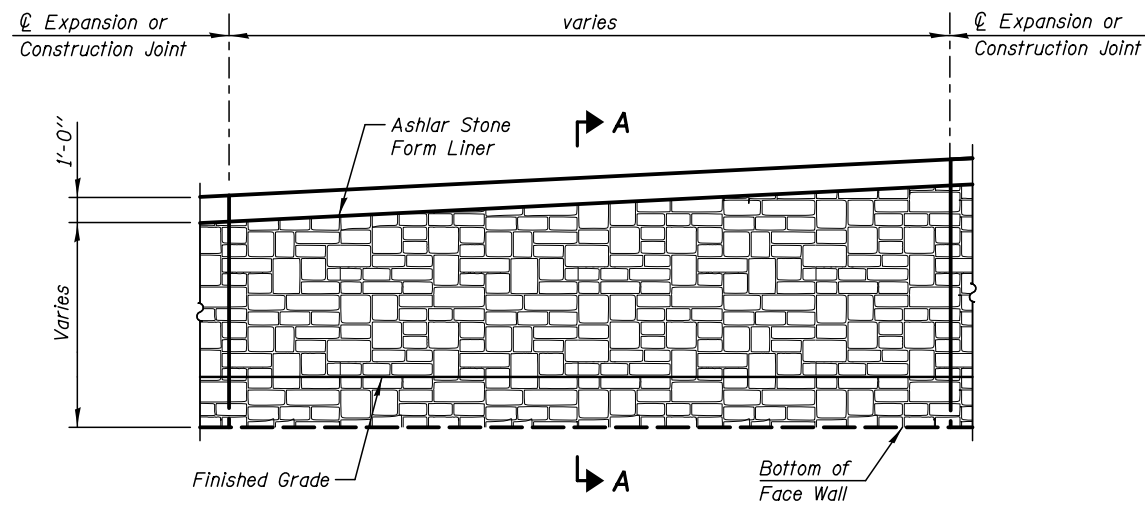
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN AND ELEVATION - PANELS C & D
STRUCTURE NUMBER 099-W032

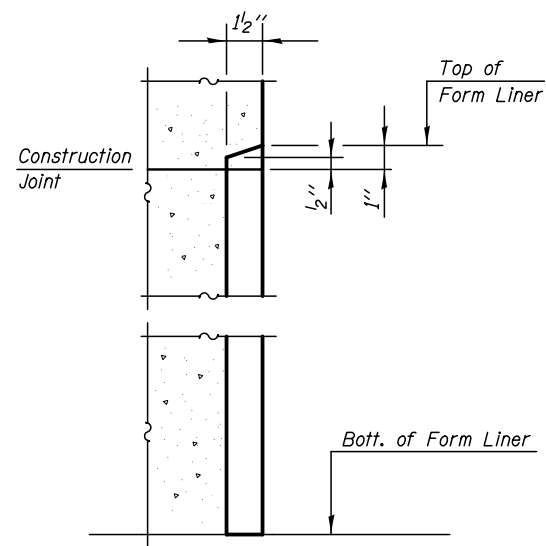
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	536-R-1	WILL	1232	835
CONTRACT NO. 60L71				

SHEET NO. SB-4 OF 8 SHEETS

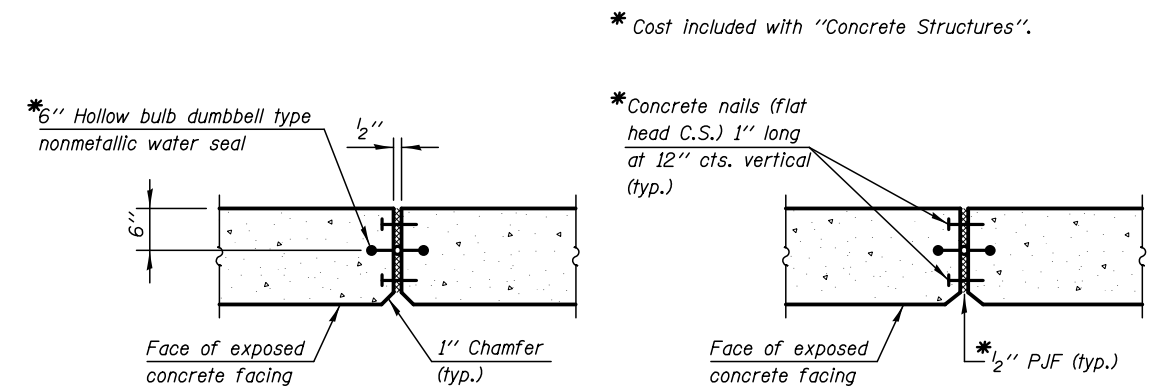
ILLINOIS FED. AID PROJECT



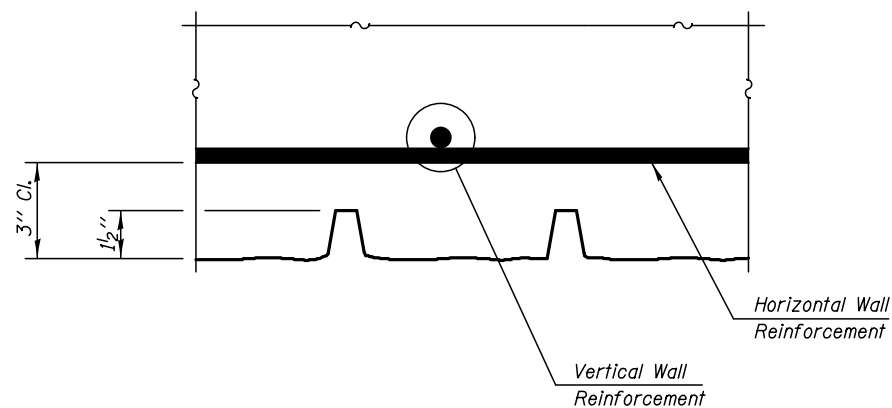
INSIDE ELEVATION - FORM LINER



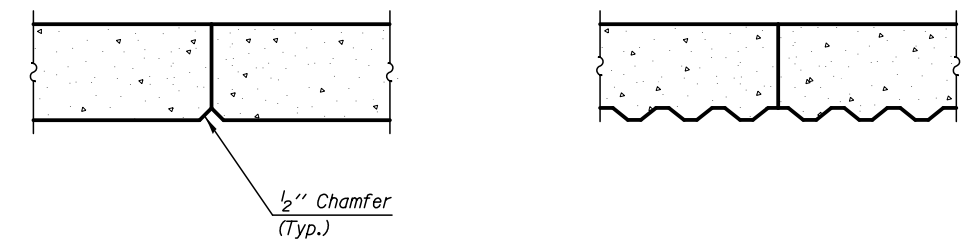
SECTION A-A



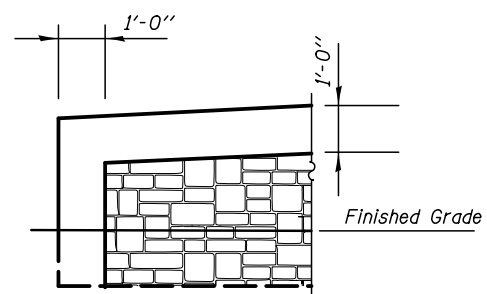
WALL EXPANSION JOINT DETAIL



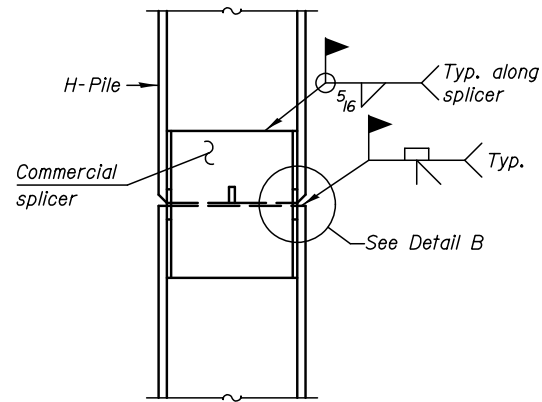
PLAN - FORM LINER



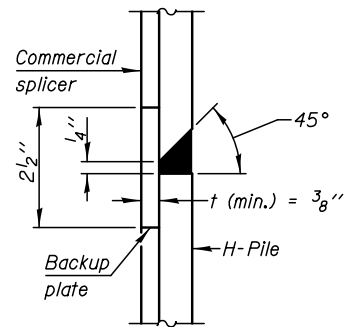
WALL CONSTRUCTION JOINT DETAIL



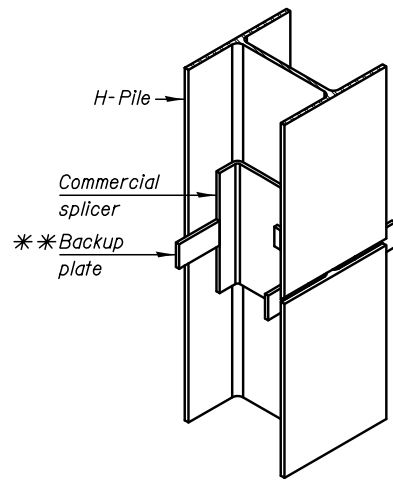
END FORM LINER DETAIL



ELEVATION

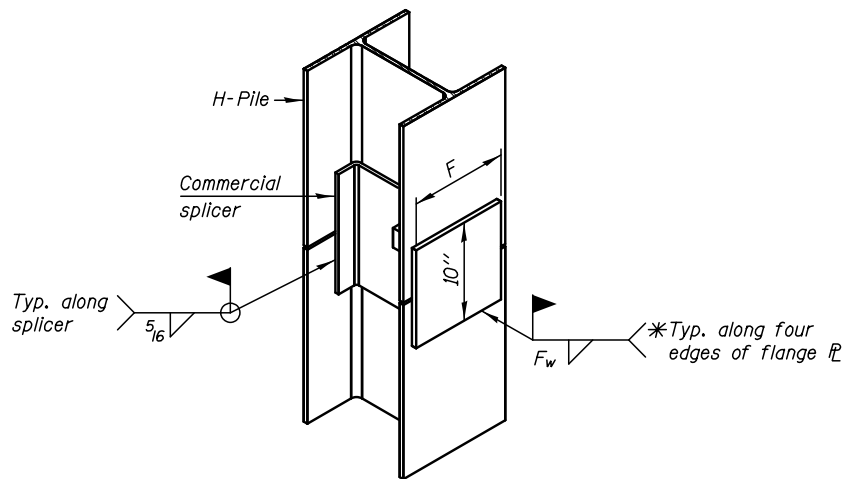


DETAIL B



ISOMETRIC VIEW

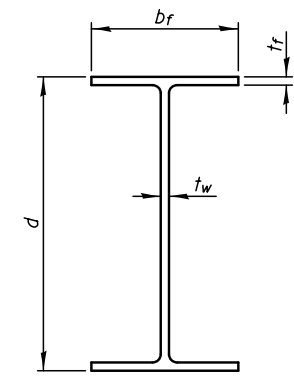
WELDED COMMERCIAL SPLICE



ISOMETRIC VIEW

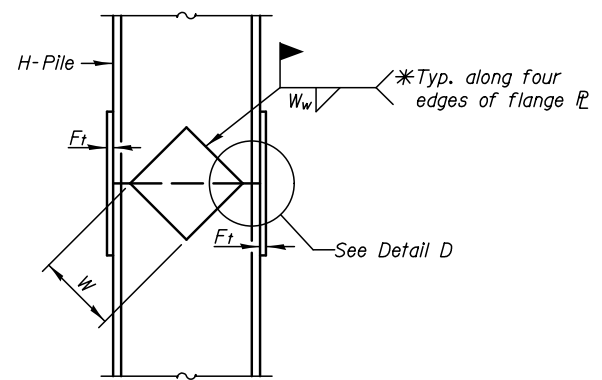
WELDED COMMERCIAL SPLICE ALTERNATE

- * Interrupt welds 1/4" from end of web and/or each flange.
- ** Remove portions of backup plates that extend outside the flanges.
- *** Weld size per pile shoe manufacturer (5/16" min.).

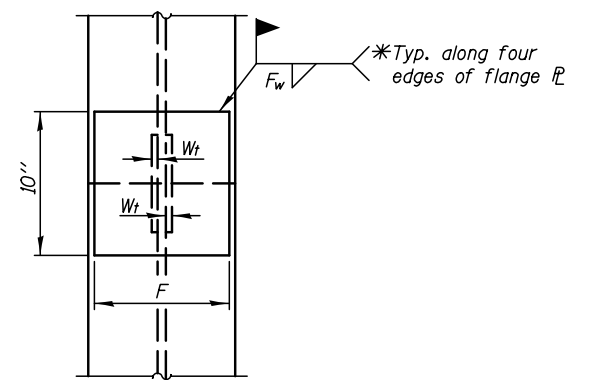


STEEL PILE

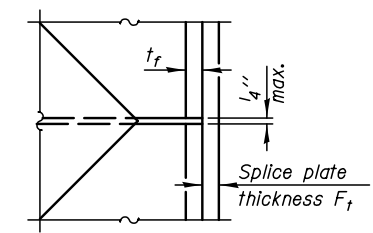
Designation	Depth d	Flange width b _f	Flange thickness t _f	Web thickness t _w	Encasement diameter A
HP14x73	13 ⁵ / ₈ "	14 ⁵ / ₈ "	1/2"	1/2"	24"



ELEVATION



END VIEW



DETAIL D

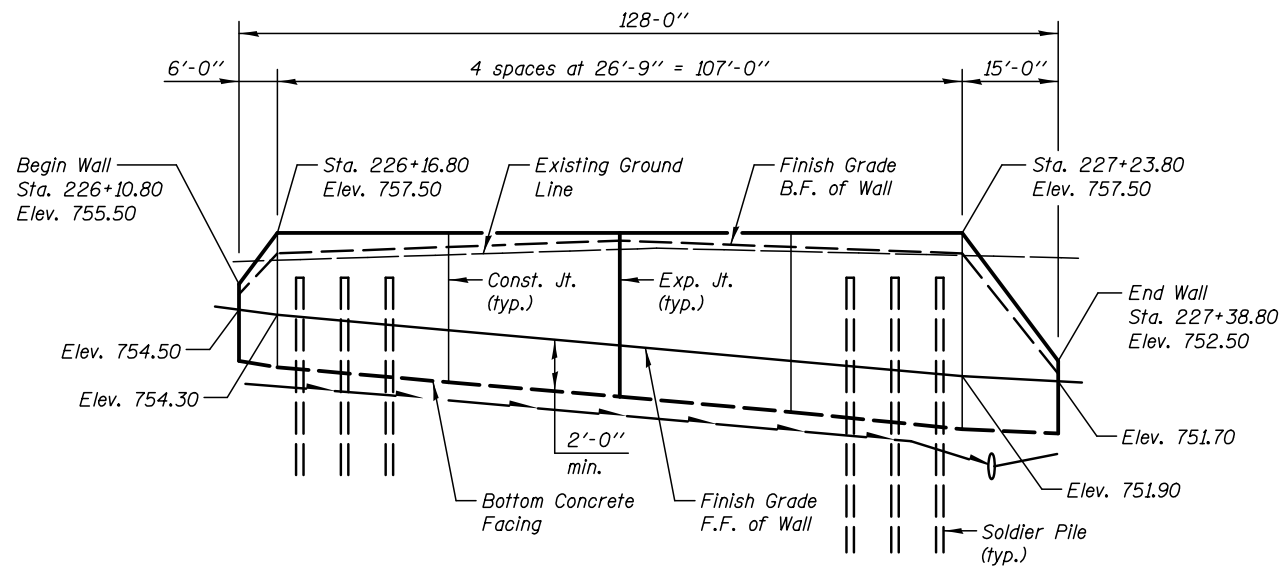
Designation	F	F _t	F _w	W	W _t	W _w
HP14x73	12 ¹ / ₂ "	5 ⁸ / ₁₆ "	9 ¹⁶ / ₁₆ "	7 ³ / ₄ "	5 ⁸ / ₁₆ "	1/2"

WELDED PLATE FIELD SPLICE

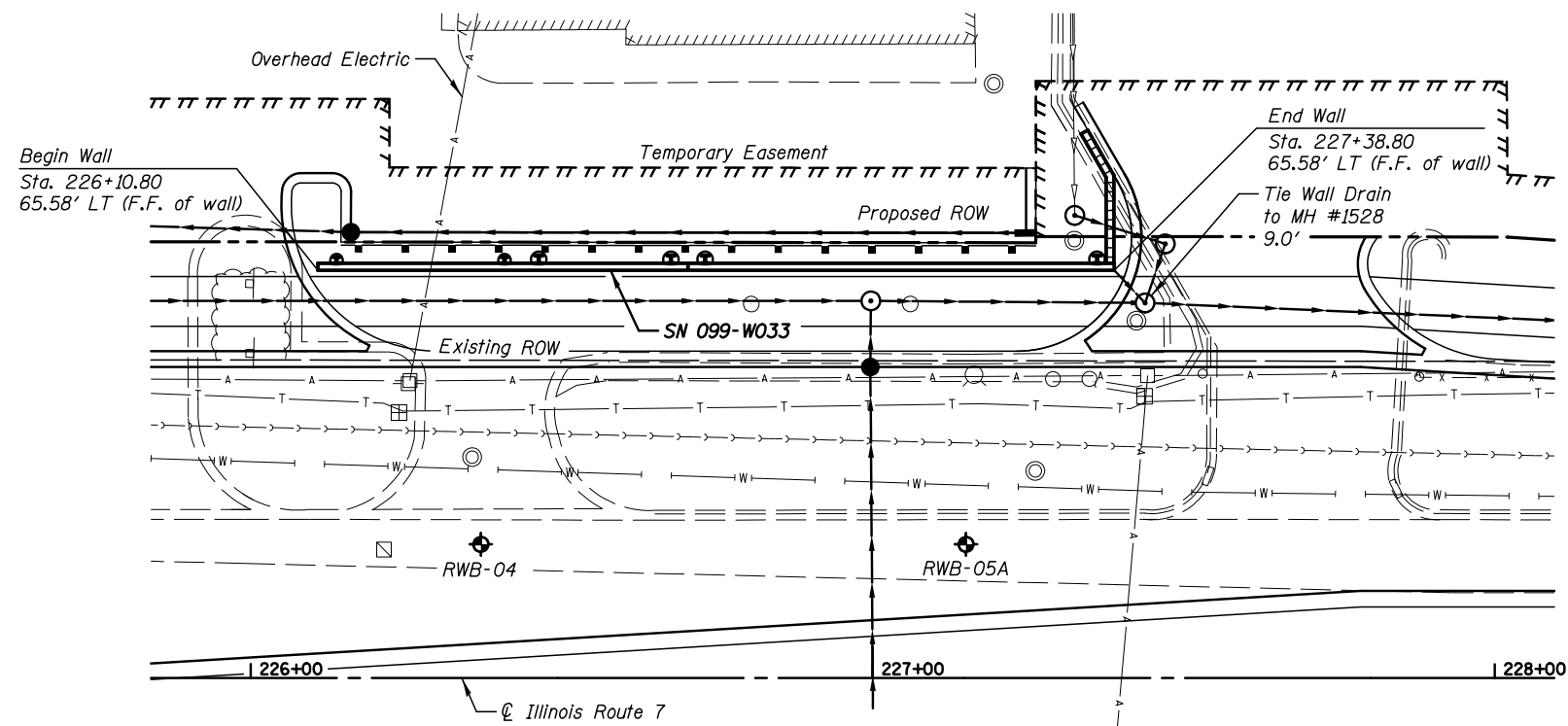
Notes:
The steel H-Pile shall be according to AASHTO M270 Grade 50.

Control Point: CP #107 232+57.76, 29.62' LT Capped iron rod Elev. 752.79

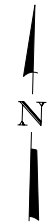
Existing Structure: None.



ELEVATION



PLAN



TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Structure Excavation	Cu. Yd.	78.0
Concrete Structures	Cu. Yd.	35.0
Form Liner Textured Surface	Sq. Ft.	678.0
Protective Coat	Sq. Yd.	62.0
Stud Shear Connectors	Each	168
Reinforcement Bars, Epoxy Coated	Pound	3920
Geocomposite Wall Drain	Sq. Yd.	42.0
Untreated Timber Lagging	Sq. Ft.	374.0
Furnishing Soldier Piles (HP Section)	Foot	445.0
Pipe Underdrains for Structures 4"	Foot	137.0
Drilling And Setting Soldier Piles (In Soil)	Cu. Ft.	1508.0

DESIGN SPECIFICATIONS

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

DESIGN STRESSES

FIELD UNITS

$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (reinforcement)
 $f_y = 50,000$ psi (AASHTO M270 Gr. 50)

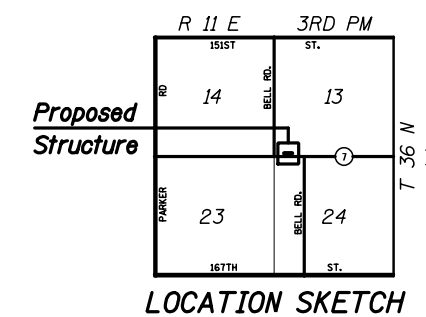
INDEX OF DRAWINGS

SHT NO.	TITLE
SC-1	General Plan and Elevation
SC-2	Typical Wall Section and Details
SC-3	Plan and Elevation
SC-4	Wall Sections and Details
SC-5	Architectural Finish and Joint Details
SC-6	Pile Splice Details
SC-7	Soil Boring Logs

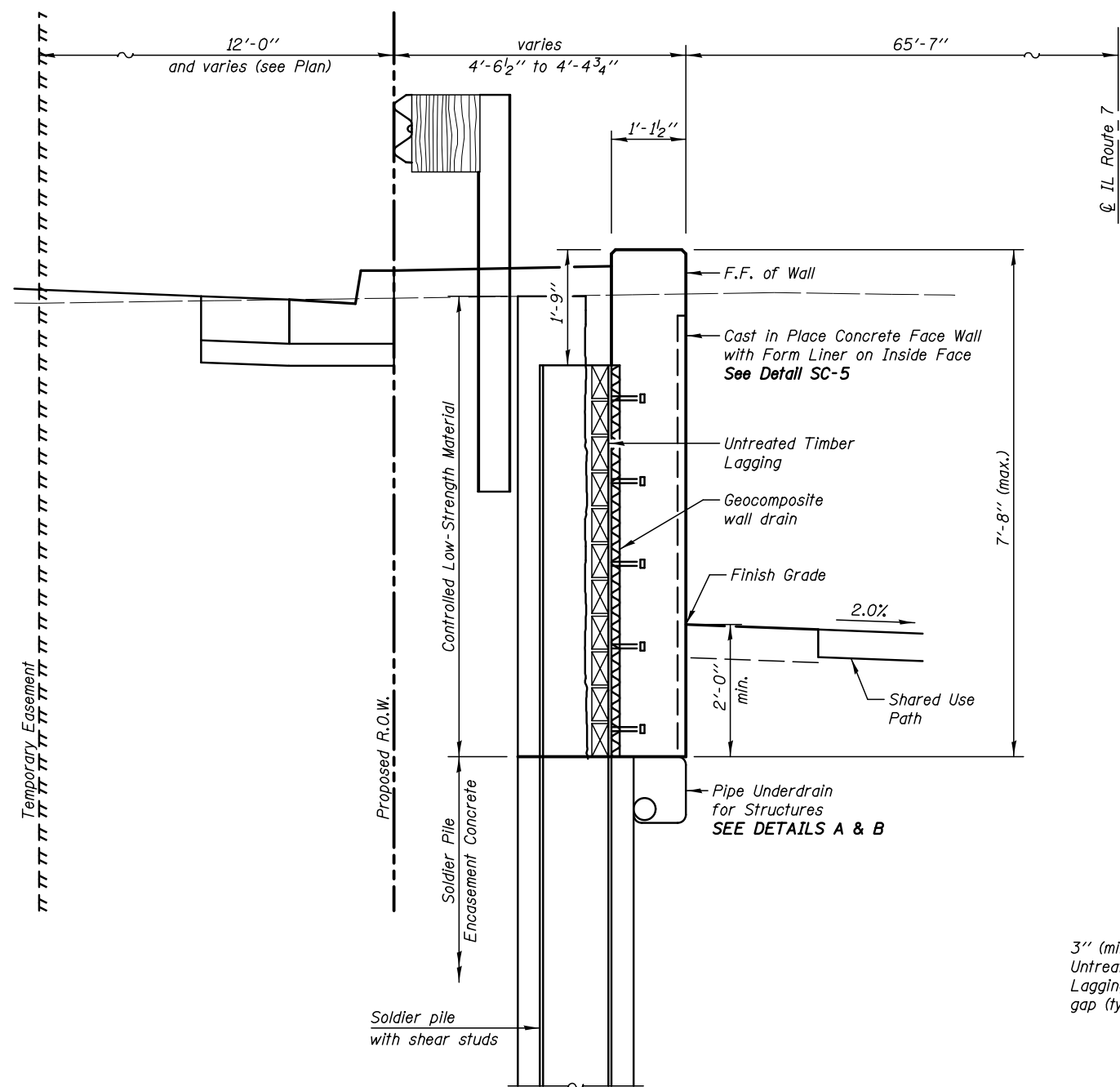
Note
Overhead electric line will be live during construction. Piles in this area may need to be spliced. Pile splices required due to these live electric lines shall not be paid for separately but shall be included in the cost of Furnishing Soldier Piles.

Legend

- ◆ Soil Borings
- F.F. Front Face
- B.F. Back Face



GENERAL PLAN AND ELEVATION
ILLINOIS ROUTE 7
F.A.P. RTE. 351 SEC. 536-R-1
WILL COUNTY
STA. 226+10.80 TO STA. 227+38.80
STRUCTURE NO. 099-W033



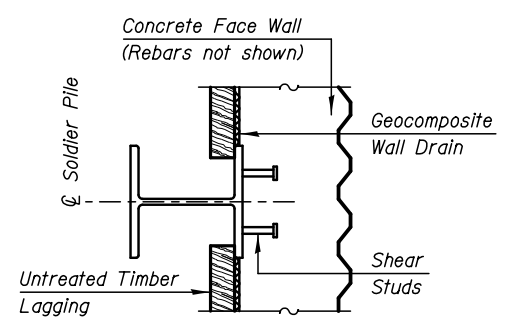
TYPICAL WALL SECTION
(For Details See Sht. SC-4)

GENERAL NOTES

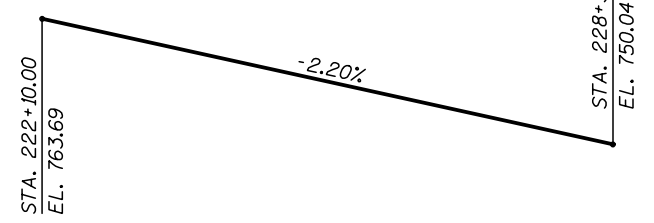
All structural steel shall conform to the requirements of AASHTO M 270 Grade 50 except as noted on plans.

Reinforcement bars designated (E) shall be epoxy coated.

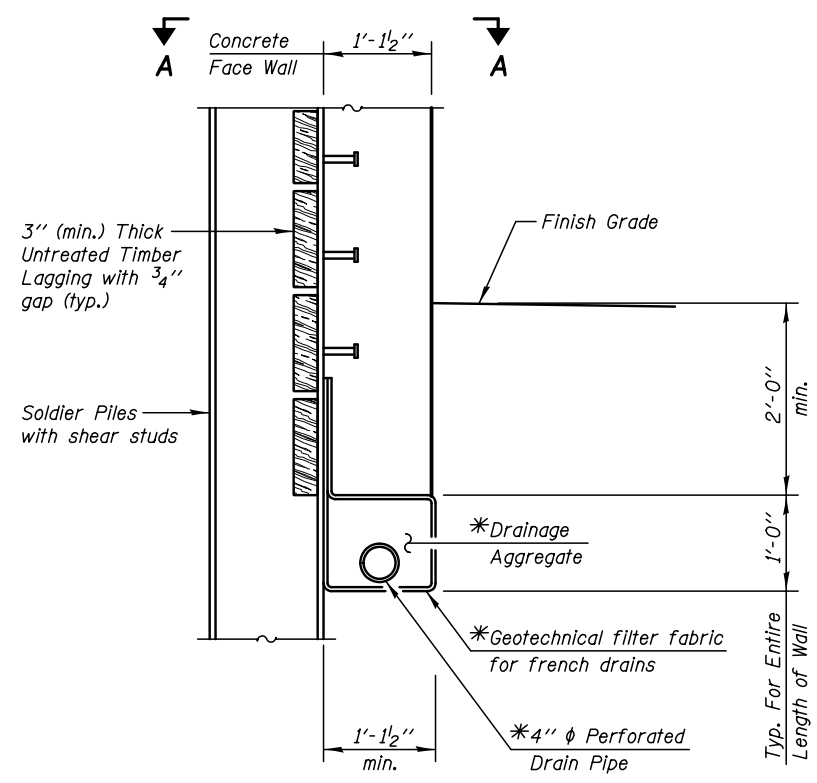
The Contractor is responsible for the design and performance of the timber lagging using no less than a 3 in. nominal rough-sawn thickness and timber with a minimum allowable bending stress of 1000 psi.



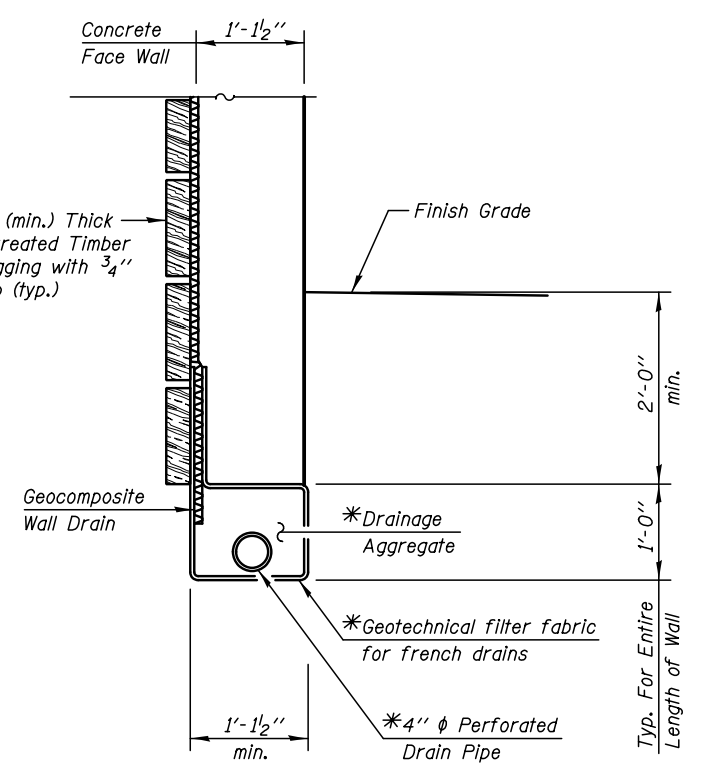
SECTION A-A - PLAN



PROFILE GRADE - IL ROUTE 7



DETAIL A
(At Soldier Piles)



DETAIL B
(Between Soldier Piles)

UNDERDRAIN DETAIL

*Cost Included with "Pipe Underdrains for Structures"

KNIGHT
Engineers & Architects

DESIGNED - SMA	REVISION
CHECKED - WPM	REVISION
DRAWN - TB	REVISION
CHECKED - WPM	REVISION
SCALE - NONE	
DATE - 8/15/2014	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

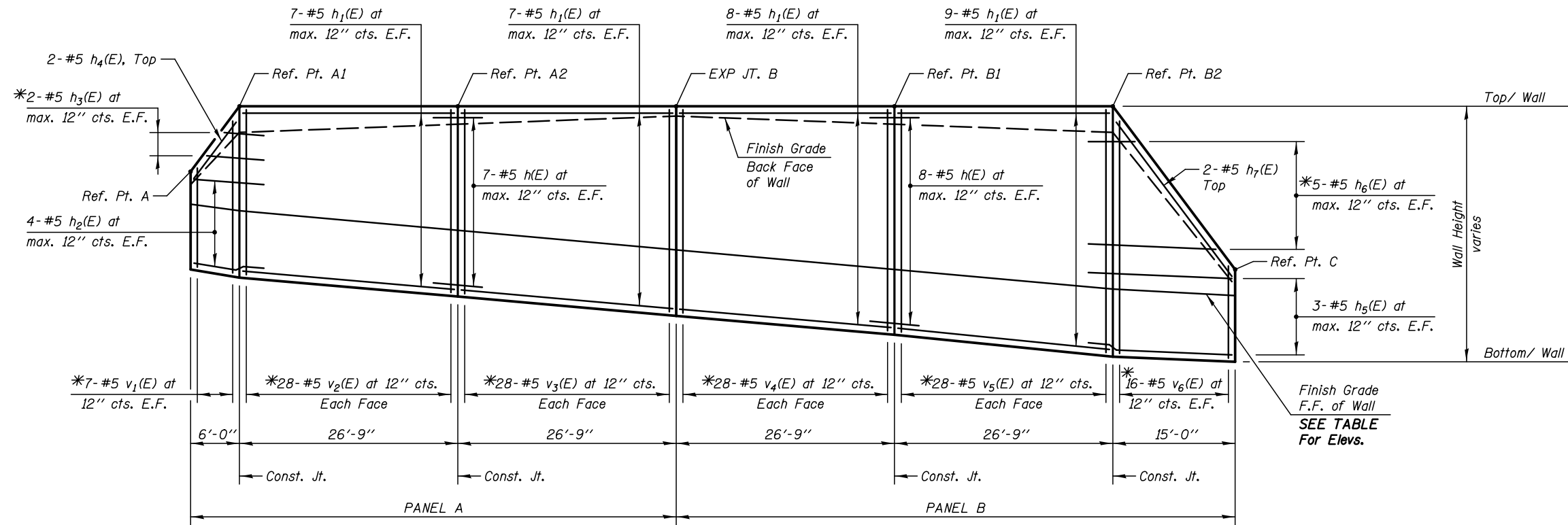
TYPICAL WALL SECTION AND DETAILS
STRUCTURE NUMBER 099-W033

SHEET NO. SC-2 OF 7 SHEETS

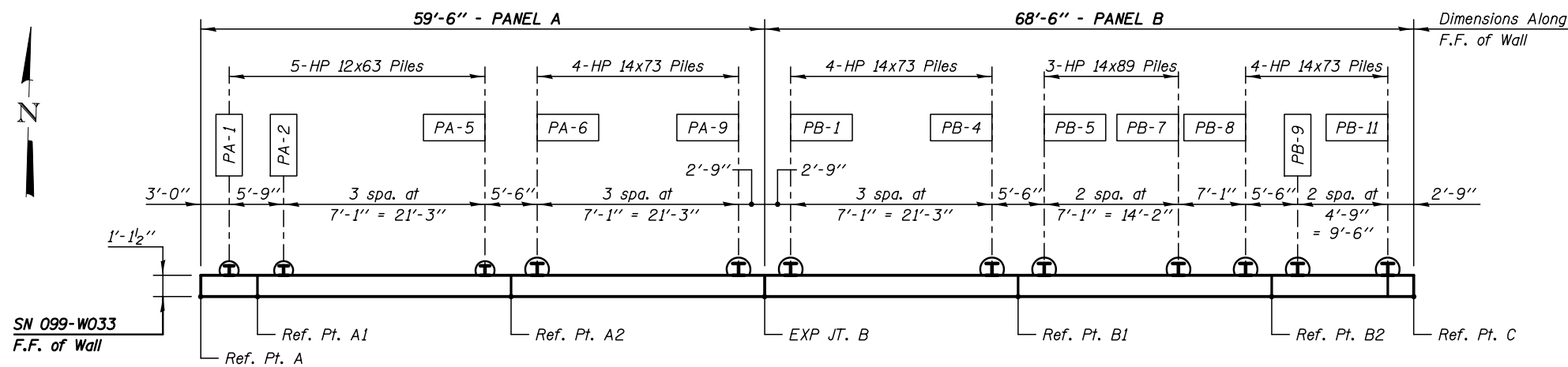
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	536-R-1	WILL	1232	841
CONTRACT NO. 60L71				

ILLINOIS FED. AID PROJECT

Note:
For Top/Wall Elevations, Bottom/Wall Elevations & Wall Height SEE TABLE.



ELEVATION - SOUTH FACE
(Looking North)



PLAN

SHAFT SIZES

Pile Size	Shaft Excavation Size
HP12	2'-0"
HP14	2'-0"

Notes:

All Dimensions are along Inside Face of Wall.

For Typical Sections & Bill of Material, SEE SHT. SC-4.

*See Bar Cutting Diagram SHT. SC-4.

PILE DATA:

Pile No.	Top Elev.	Bottom Elev.	Length Ft.	No of Studs
PA-1	754.75	735.75	19.00	6
PA-2	755.75	735.75	20.00	8
PA-3	755.75	734.75	21.00	8
PA-4	755.75	734.75	21.00	8
PA-5	755.75	734.75	21.00	8
PA-6	755.75	734.75	21.00	8
PA-7	755.75	733.75	22.00	8
PA-8	755.75	733.75	22.00	8
PA-9	755.75	732.75	23.00	8
PB-1	755.75	732.75	23.00	8
PB-2	755.75	732.75	23.00	8
PB-3	755.75	731.75	24.00	10
PB-4	755.75	731.75	24.00	10
PB-5	755.75	731.75	24.00	10
PB-6	755.75	731.75	24.00	10
PB-7	755.75	731.75	24.00	10
PB-8	755.75	731.75	24.00	10
PB-9	754.83	731.83	23.00	10
PB-10	753.25	731.25	22.00	8
PB-11	751.67	731.67	20.00	4

LEGEND

E.F. Each Face
F.F. Front Face

Min Bar Laps

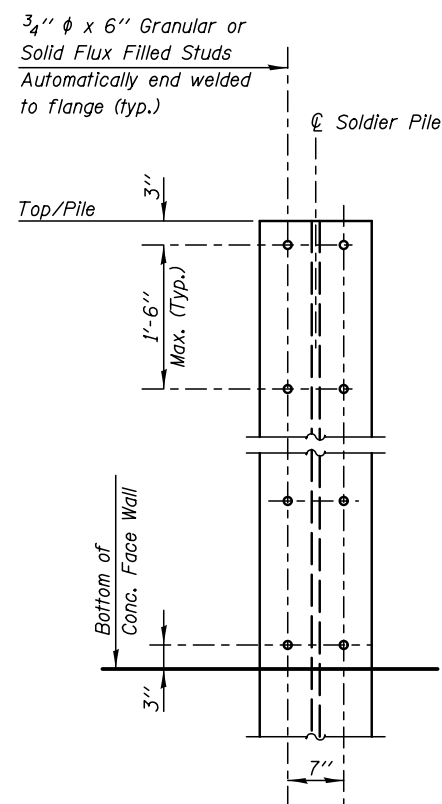
#5 Bars = 2'-5" (Horiz. Top Bars)

WALL JOINT LOCATIONS, HEIGHTS & ELEVATIONS

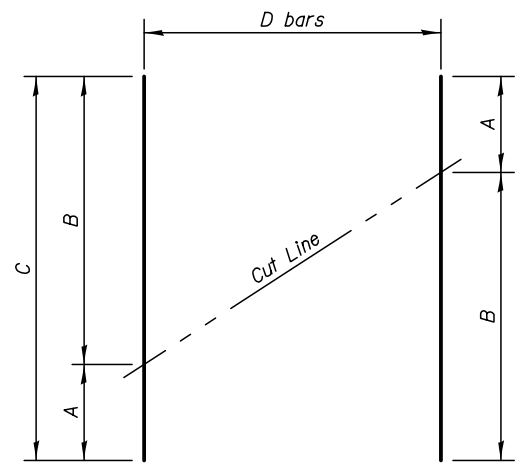
Location Ref. Points	Station on IL 7	Wall Height	Top/Wall Elevation	Bottom/Wall Elevation	Finish Grade Elevation	Bott/Liner Elevation
Begin Wall - A	226+10.80	3'-0"	755.50	752.50	754.50	752.50
C.J. - A1	226+16.80	5'-3"	757.50	752.25	754.30	752.25
C.J. - A2	226+43.55	5'-10"	757.50	751.67	753.70	751.67
Exp. Jt. - B	226+70.30	6'-5"	757.50	751.08	753.10	751.08
C.J. - B1	226+97.05	7'-0"	757.50	750.50	752.50	750.50
C.J. - B2	227+23.80	7'-8"	757.50	749.83	751.90	749.83
End Wall - C	227+38.80	2'-10"	752.50	749.67	751.70	749.67

BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
h(E)	30	#5	6'-2"	=====
h1(E)	62	#5	26'-5"	=====
h2(E)	8	#5	9'-0"	=====
h3(E)	2	#5	12'-0"	=====
h4(E)	2	#5	6'-0"	=====
h5(E)	6	#5	18'-0"	=====
h6(E)	5	#5	21'-0"	=====
h7(E)	2	#5	15'-10"	=====
v1(E)	7	#5	7'-7"	=====
v2(E)	28	#5	10'-5"	=====
v3(E)	28	#5	11'-7"	=====
v4(E)	28	#5	12'-9"	=====
v5(E)	28	#5	14'-0"	=====
v6(E)	16	#5	9'-10"	=====
Structure Excavation			Cu. Yd.	78.0
Concrete Structures			Cu. Yd.	35.0
Form Liner Textured Surface			Sq. Ft.	678.0
Protective Coat			Sq. Yd.	62.0
Stud Shear Connectors			Each	168
Reinforcement Bars, Epoxy Coated			Pound	3920
Drilling and Setting Soldier Piles (In Soil)			Cu. Ft.	1508.0
Furnishing Soldier Piles (HP12x63)			Foot	102.0
Furnishing Soldier Piles (HP14x73)			Foot	271.0
Furnishing Soldier Piles (HP14x89)			Foot	72.0

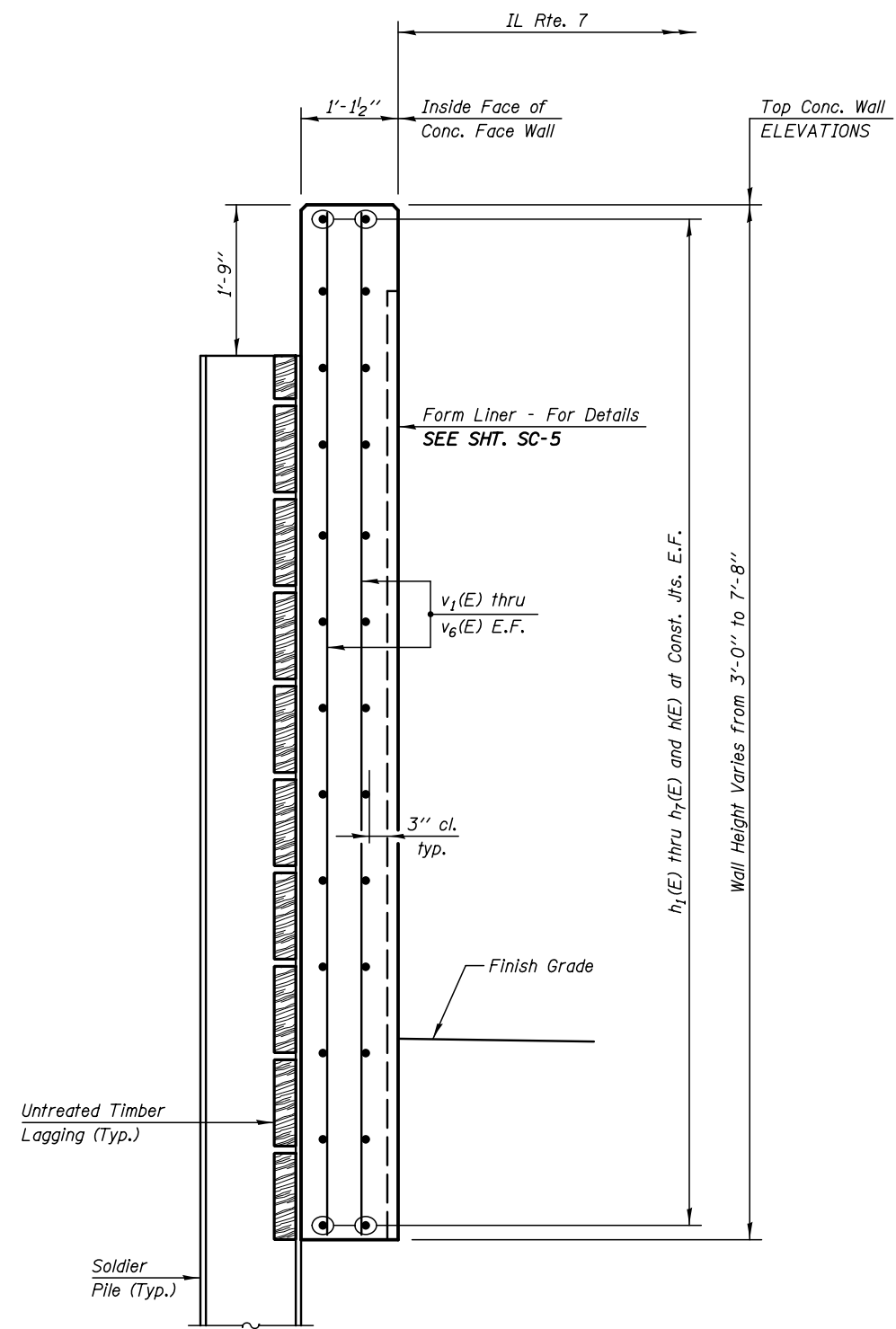


STUD SHEAR CONNECTORS LAYOUT



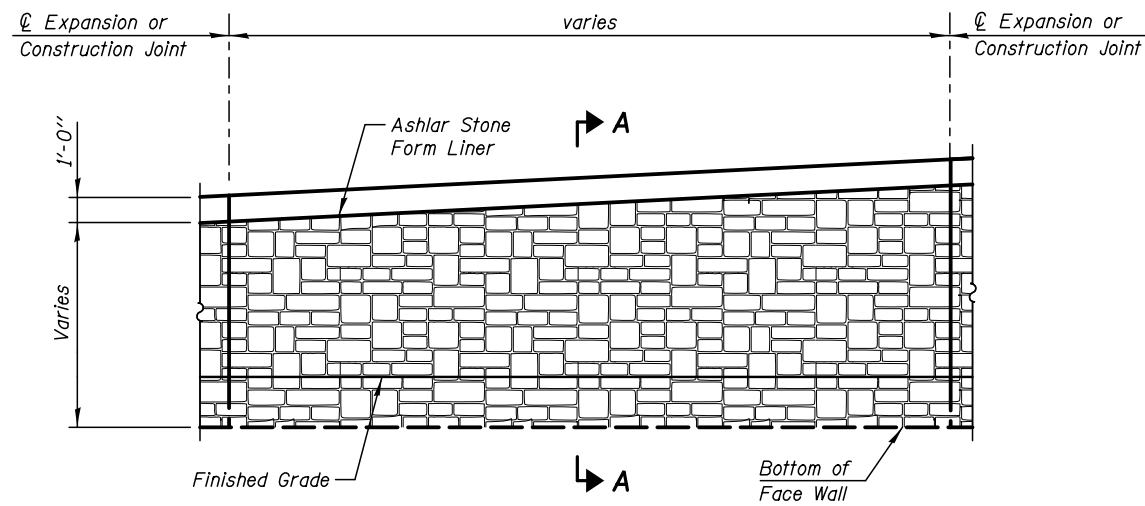
BAR CUTTING DIAGRAM
Order bars full length. Cut as shown and use remainder of bars in opposite face.

BAR	A	B	C	D
v1(E)	2'-8"	4'-11"	7'-7"	7
v2(E)	4'-11"	5'-6"	10'-5"	28
v3(E)	5'-6"	6'-1"	11'-7"	28
v4(E)	6'-1"	6'-8"	12'-9"	28
v5(E)	6'-8"	7'-4"	14'-0"	28
v6(E)	7'-4"	2'-6"	9'-10"	16
h3(E)	5'-0"	7'-0"	12'-0"	2
h6(E)	4'-6"	16'-6"	21'-0"	5

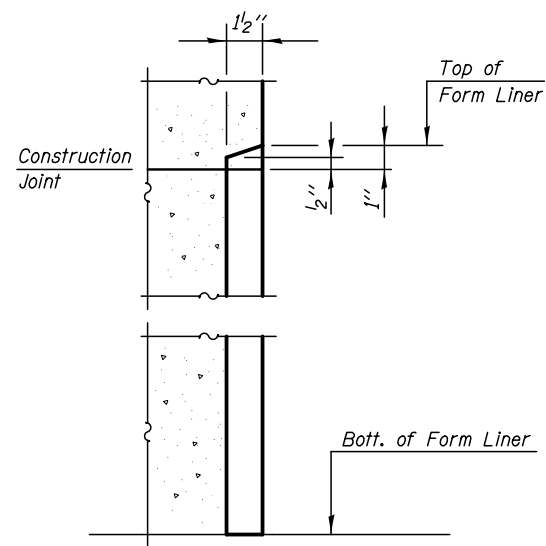


TYPICAL WALL SECTION

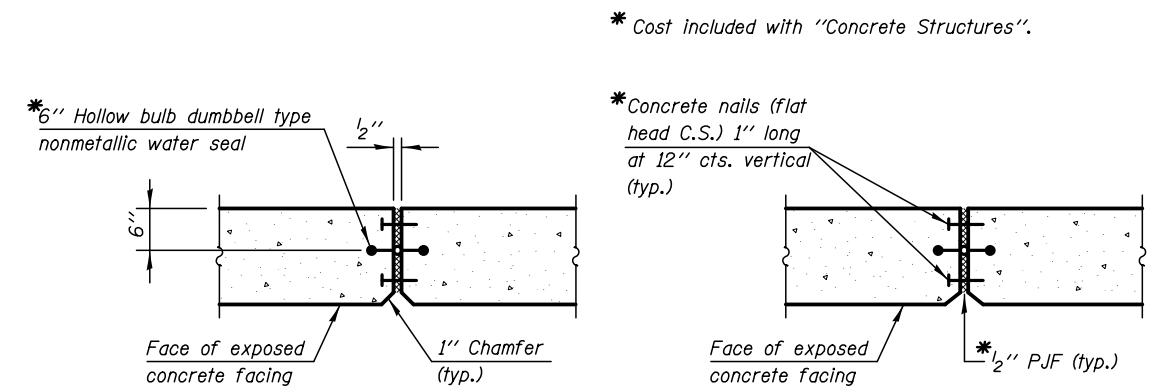
LEGEND:
E.F. Each Face



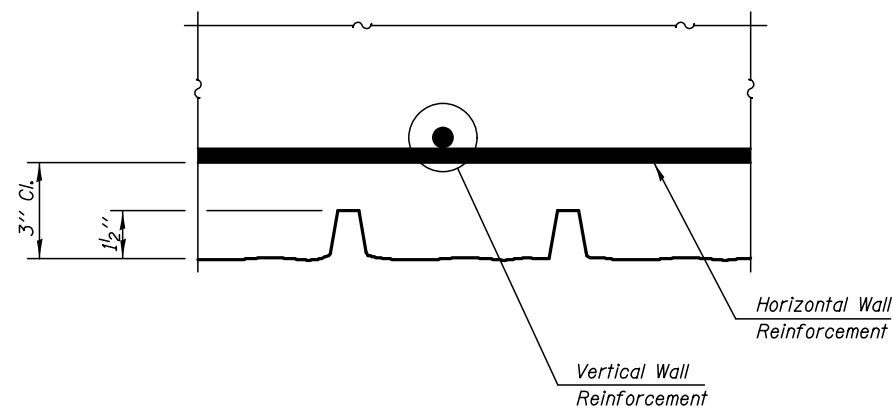
INSIDE ELEVATION - FORM LINER



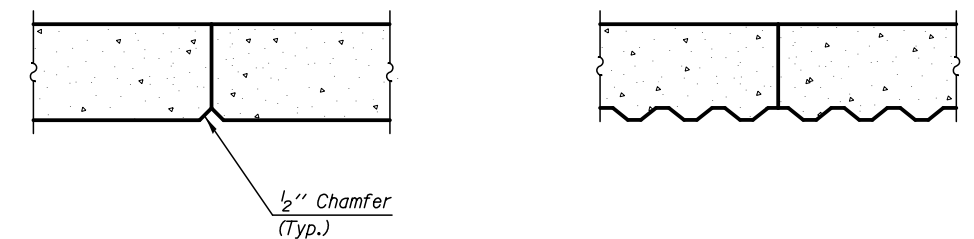
SECTION A-A



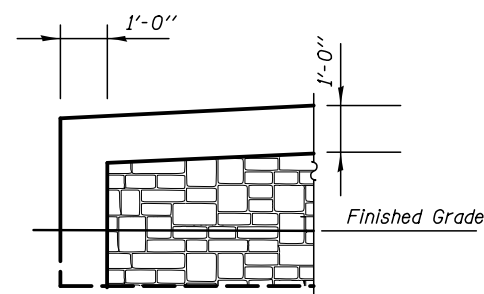
WALL EXPANSION JOINT DETAIL



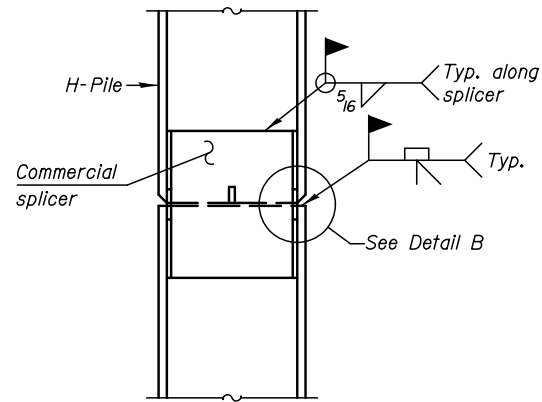
PLAN - FORM LINER



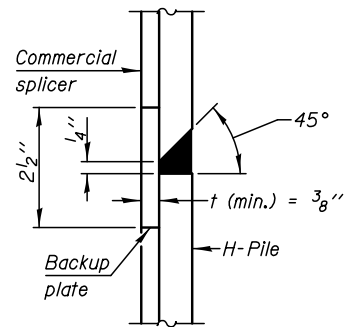
WALL CONSTRUCTION JOINT DETAIL



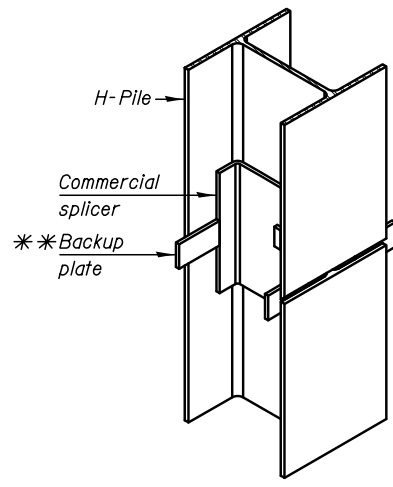
END FORM LINER DETAIL



ELEVATION

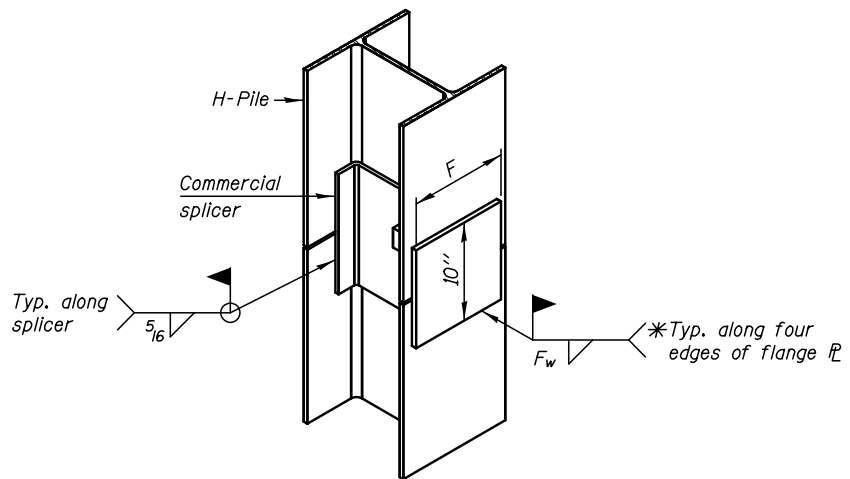


DETAIL B



ISOMETRIC VIEW

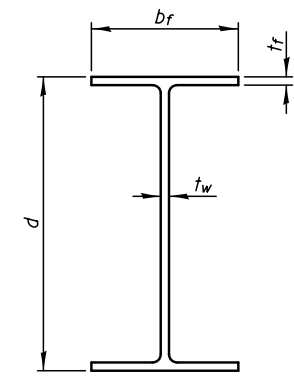
WELDED COMMERCIAL SPLICE



ISOMETRIC VIEW

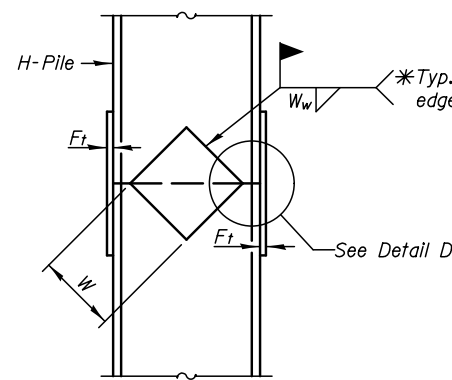
WELDED COMMERCIAL SPLICE ALTERNATE

- * Interrupt welds 1/4" from end of web and/or each flange.
- ** Remove portions of backup plates that extend outside the flanges.
- *** Weld size per pile shoe manufacturer (5/16" min.).

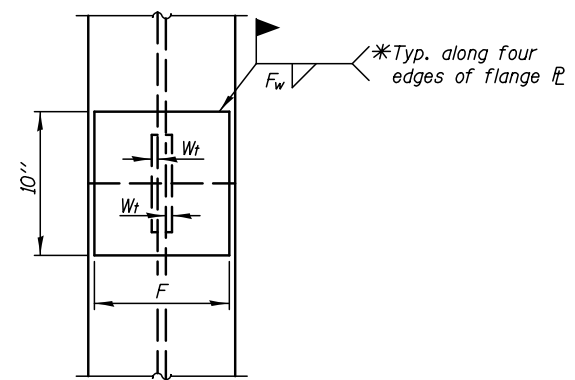


STEEL PILE

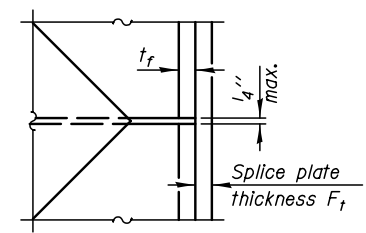
Designation	Depth d	Flange width b _f	Flange thickness t _f	Web thickness t _w	Encasement diameter A
HP12x63	12"	12 1/8"	1/2"	1/4"	24"
HP14x73	13 5/8"	14 5/8"	1/2"	1/4"	24"
HP14x89	13 7/8"	14 3/4"	5/8"	5/8"	24"



ELEVATION



END VIEW



DETAIL D

Designation	F	F _t	F _w	W	W _t	W _w
HP12x63	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
HP14x73	12 1/2"	5/8"	9/16"	7 3/4"	5/8"	1/2"
HP14x89	12 1/2"	3/4"	1/16"	7 3/4"	5/8"	1/2"

WELDED PLATE FIELD SPLICE

Notes:
The steel H-Pile shall be according to AASHTO M270 Grade 50.



GSI Job No. 10194

SOIL BORING LOG

Page 1 of 1

Date 5/17/13

ROUTE U.S. Route 6 / Il. Route 7 (159th Street) DESCRIPTION U.S. Route 6 / Il. Route 7 (159th Street) LOGGED BY DB

SECTION LOCATION SW 1/4, SEC. 13, TWP. T36N, RNG. R11E, 3rd PM

COUNTY Will & Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE Diedrich Automatic

STRUCT. NO. Station BORING NO. RWB-04 Station 226+37 Offset 21.50ft Left Ground Surface Elev. 751.50 ft

DEPTH (ft)	BLOWS	UCS (tsf)	MOISTURE (%)	DESCRIPTION
0.0				8.0" ASPHALT
750.83				CLAY LOAM-brown-very stiff to hard
2				
2	2.0		23	
4	B			
5				
6	2.1		15	
7	B			
8				
7	2.8		20	
8	B			
8				
20	4.5		13	
20	P			
741.00				CLAY-gray-stiff to hard
7				
11	4.7		17	
14	B			
3				
7	3.4		18	
11	B			
4				
5	1.3		14	
7	B			
4				
9	2.4		16	
11	B			
731.50				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)



GSI Job No. 10194

SOIL BORING LOG

Page 1 of 1

Date 5/18/13

ROUTE U.S. Route 6 / Il. Route 7 (159th Street) DESCRIPTION U.S. Route 6 / Il. Route 7 (159th Street) LOGGED BY DB

SECTION LOCATION SW 1/4, SEC. 13, TWP. T36N, RNG. R11E, 3rd PM

COUNTY Will & Cook DRILLING METHOD Hollow Stem Auger HAMMER TYPE Diedrich Automatic

STRUCT. NO. Station BORING NO. RWB-05A Station 227-15 Offset 21.50ft Left Ground Surface Elev. 749.50 ft

DEPTH (ft)	BLOWS	UCS (tsf)	MOISTURE (%)	DESCRIPTION
748.50				8.0" ASPHALT, 4.0" SAND & GRAVEL
5				CLAY LOAM-gray-very stiff (Fill)
5	3.5		19	
7	B			
746.50				CLAY LOAM-brown & gray-hard
4				
5	4.3		15	
10	B			
5				
14	6.1		16	
18	B			
7				
17	7.2		17	
19	B			
739.00				CLAY-gray-very stiff to hard
7				
14	4.3		14	
17	B			
7				
14	3.3		14	
15	P			
4				
9	2.7		16	
14	B			
8				
12	4.9		14	
16	B			
729.50				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)

KNIGHT
Engineers & Architects

DESIGNED - GSI	REVISED
CHECKED - WPM	REVISED
DRAWN - TB	REVISED
CHECKED - WPM	REVISED
SCALE - NONE	
DATE - 8/15/2014	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

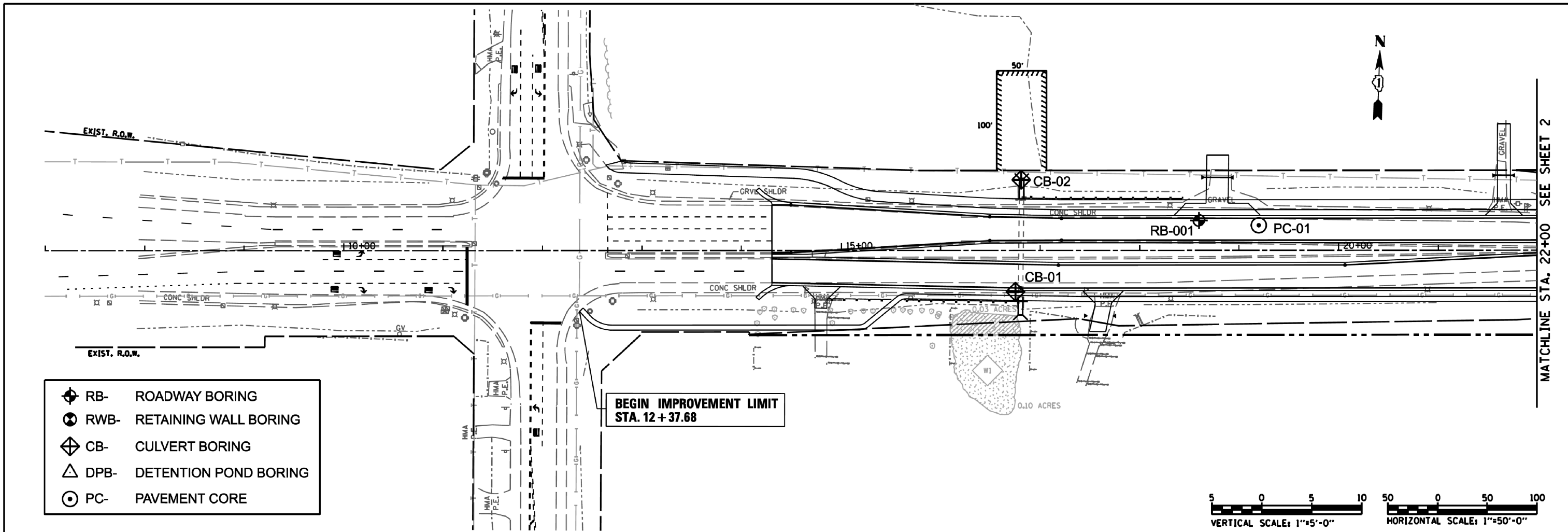
SOIL BORING LOGS
STRUCTURE NUMBER 099-W033

SHEET NO. SC-7 OF 7 SHEETS

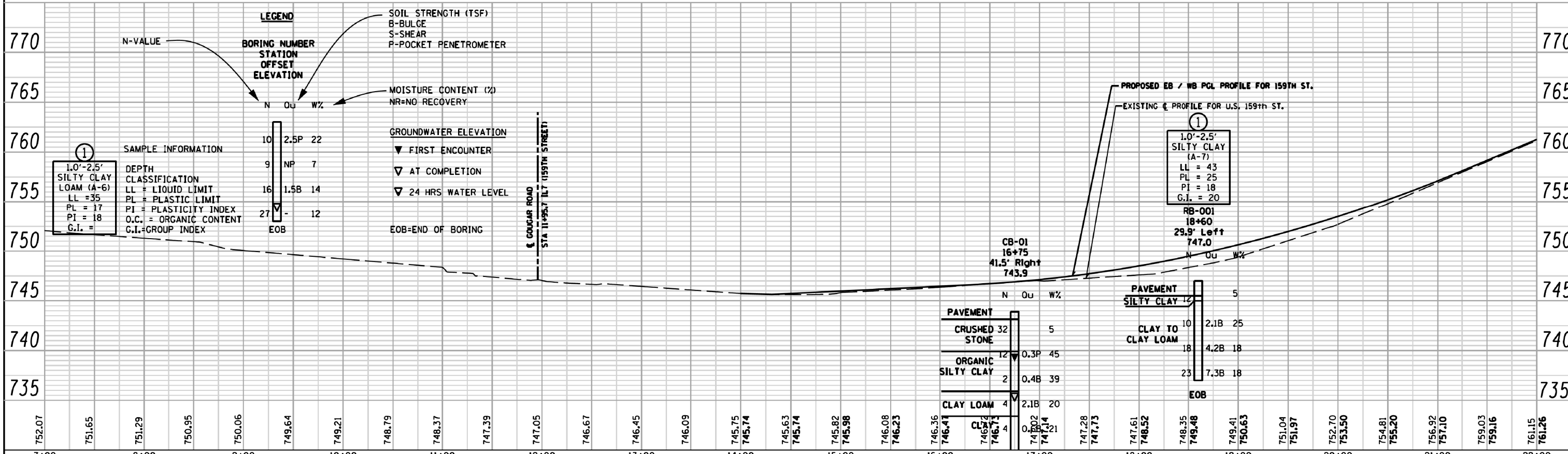
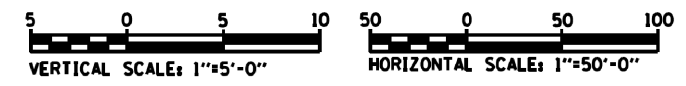
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	536-R-1	WILL	1232	846
CONTRACT NO. 60L71				
ILLINOIS FED. AID PROJECT				

PLAN	SURVEYED	BY	DATE
	PLOTTED		
	GRADES CHECKED		
	STRUCTURE NOTATIONS CHECKED		
	NOTE BOOK NO.		
	DATE		

PROFILE	SURVEYED	BY	DATE
	PLOTTED		
	GRADES CHECKED		
	STRUCTURE NOTATIONS CHECKED		
	NOTE BOOK NO.		
	DATE		



- ⊕ RB- ROADWAY BORING
- ⊗ RWB- RETAINING WALL BORING
- ⊕ CB- CULVERT BORING
- △ DPB- DETENTION POND BORING
- ⊙ PC- PAVEMENT CORE



LEGEND

N-VALUE
BORING NUMBER
STATION
OFFSET
ELEVATION

N	Qu	W%
10	2.5P	22
9	NP	7
16	1.5B	14
27	-	12

EOB

SAMPLE INFORMATION

1.0'-2.5'
SILTY CLAY
LOAM (A-6)
LL = 35
PL = 17
PI = 18
G.I. =

DEPTH
CLASSIFICATION
LL = LIQUID LIMIT
PL = PLASTIC LIMIT
PI = PLASTICITY INDEX
O.C. = ORGANIC CONTENT
G.I. = GROUP INDEX

SOIL STRENGTH (TSF)
B-BULGE
S-SHEAR
P-POCKET PENETROMETER

MOISTURE CONTENT (%)
NR=NO RECOVERY

GROUNDWATER ELEVATION
▼ FIRST ENCOUNTER
▼ AT COMPLETION
▼ 24 HRS WATER LEVEL

EOB=END OF BORING

PAVEMENT

CRUSHED 32 STONE	5
ORGANIC SILTY CLAY	12
CLAY LOAM	4

PAVEMENT SILTY CLAY 12

CLAY TO CLAY LOAM	10
	18
	23

EOB

PROPOSED EB / WB PGL PROFILE FOR 159TH ST.

EXISTING G. PROFILE FOR U.S. 159TH ST.

1.0'-2.5'
SILTY CLAY (A-7)
LL = 43
PL = 25
PI = 18
G.I. = 20

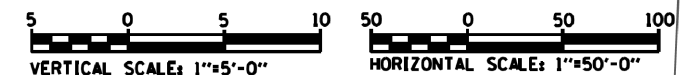
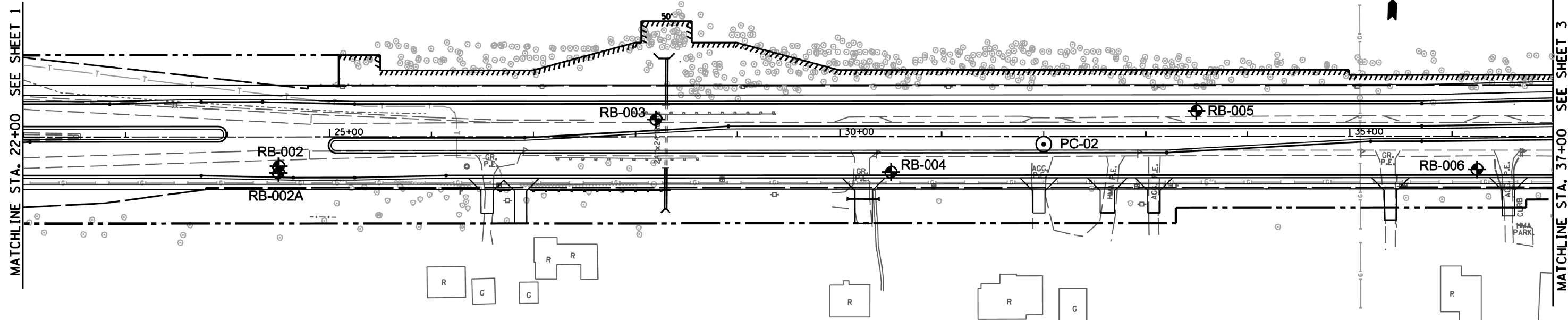
RB-001
18+60
29.9' Left
747.0

CB-01
16+75
41.5' Right
743.9

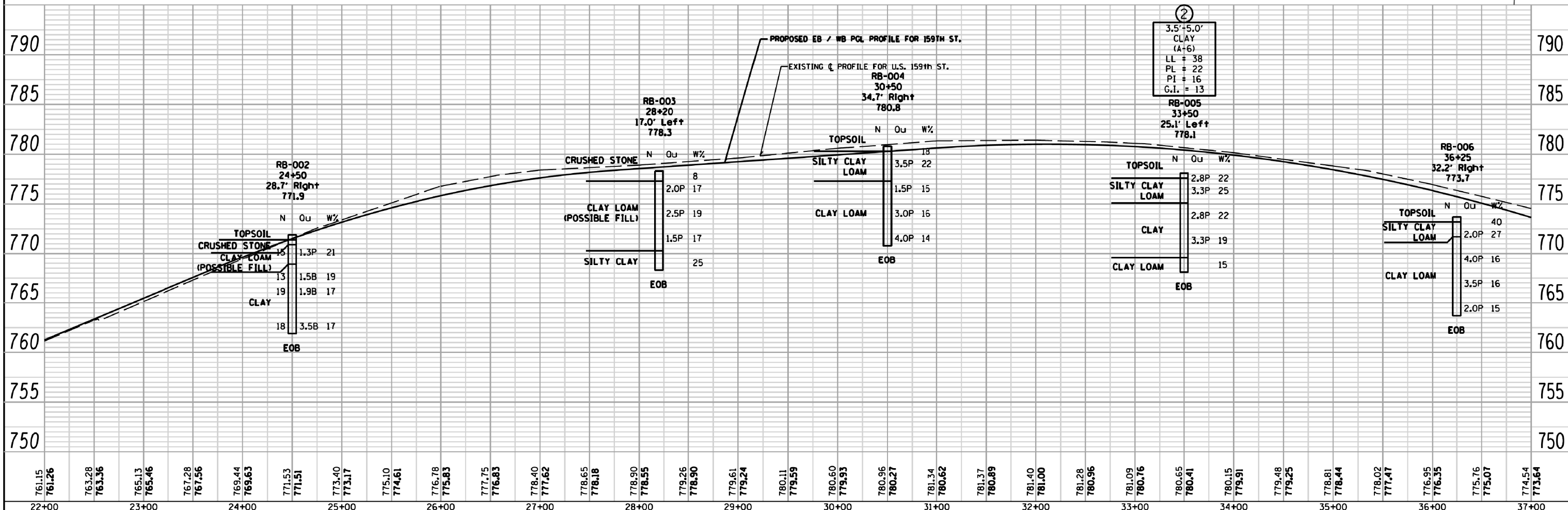
FIDDYMENT CREEK PRESERVE



PLAN	SURVEYED	BY	DATE
	PLOTTED		
	GRADES CHECKED		
	STRUCTURE NOTATIONS CHECKED		
	NOTE BOOK NO.		
	DATE		



PROFILE	SURVEYED	BY	DATE
	PLOTTED		
	GRADES CHECKED		
	STRUCTURE NOTATIONS CHECKED		
	NOTE BOOK NO.		
	DATE		



761.15	761.26	763.28	763.36	765.13	765.46	767.28	767.56	769.44	769.63	771.53	771.51	773.40	773.17	775.10	774.61	776.78	775.83	777.75	776.83	778.40	777.62	778.65	778.18	778.90	778.55	779.26	778.90	779.61	779.24	780.11	779.59	780.60	779.93	780.96	780.27	781.34	780.62	781.37	780.89	781.40	781.00	781.28	780.96	781.09	780.76	780.65	780.41	780.15	779.91	779.48	779.25	778.81	778.44	778.02	777.47	776.95	776.35	775.76	775.07	774.54	773.64
22+00	23+00	24+00	25+00	26+00	27+00	28+00	29+00	30+00	31+00	32+00	33+00	34+00	35+00	36+00	37+00																																														

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Amberst Court, Suite 204
Naperville, Illinois 60563
630.355.2838

USER NAME: *USERS*	DESIGNED: - RWC	REVISED: - 9/26/2013
	DRAWN: - RWC	REVISED: - 2/18/2014
PLOT SCALE: *SCALE*	CHECKED: - AJP	REVISED: -
PLOT DATE: *DATE*	DATE: - 9/11/2013	REVISED: -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

U.S. RTE. 6/IL. RTE. 7 (159TH ST.)
SOIL BORING PLAN & PROFILE
SCALE: 1"=50' 1"=5'

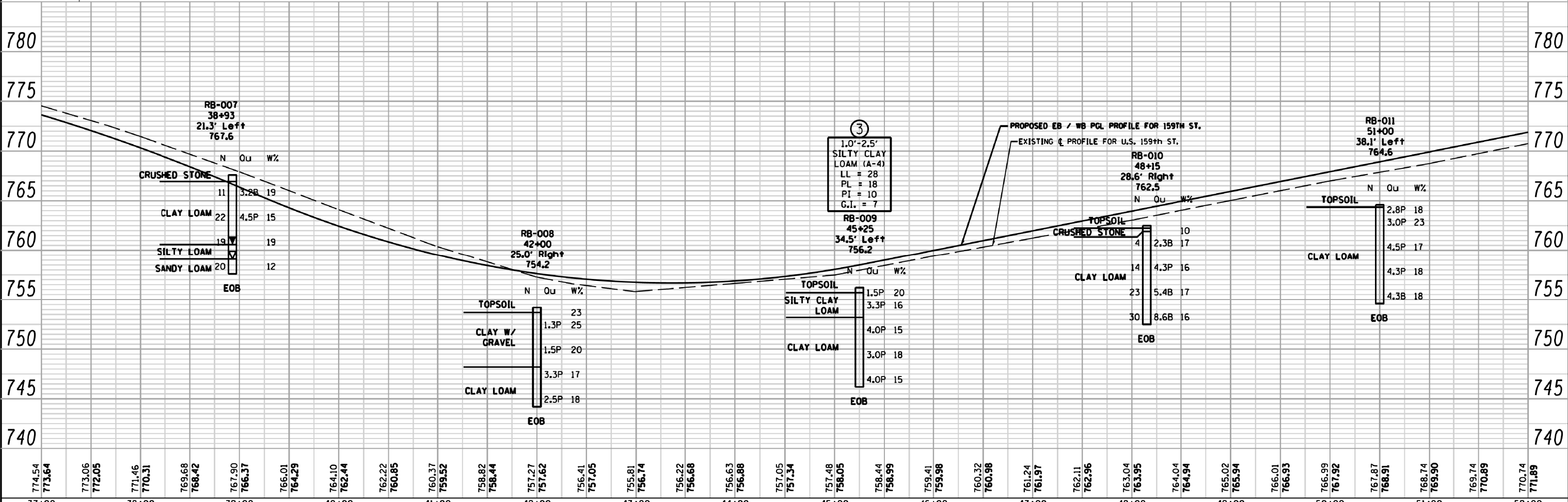
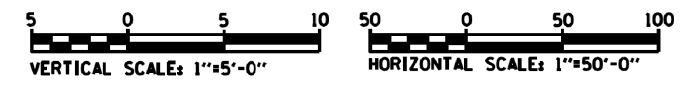
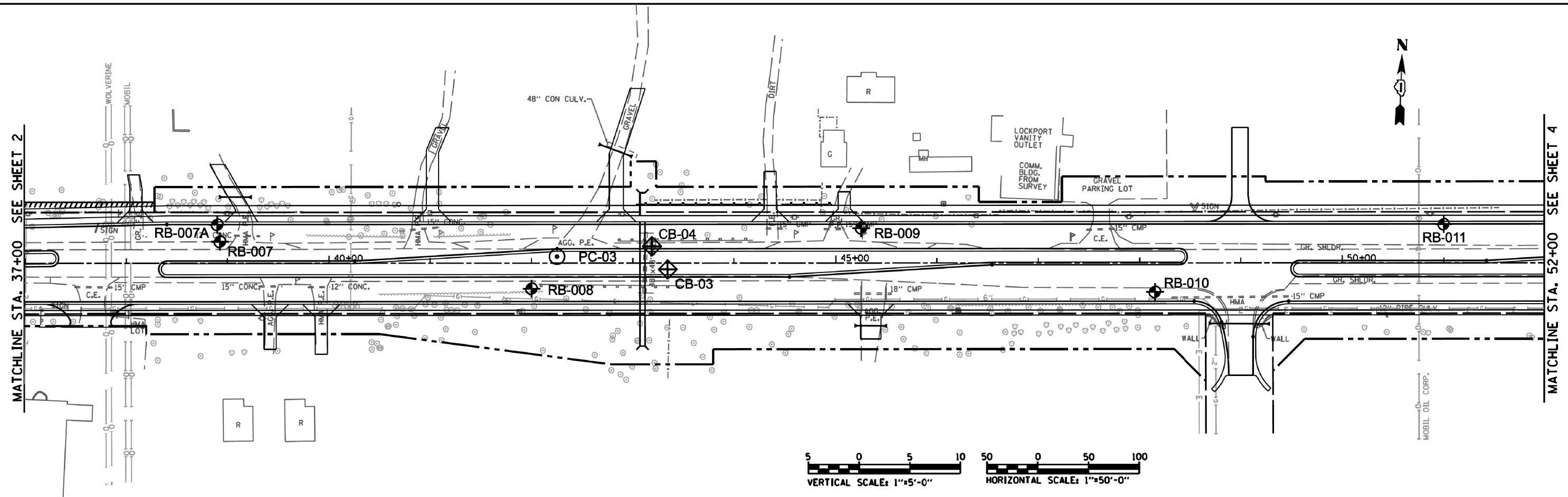
F.A.P. RTE. 351	SECTION 536-R-1	COUNTY WILL & COOK	TOTAL SHEETS 1232	SHEET NO. 848
CONTRACT NO. 60L71			ILLINOIS FED. AID PROJECT	

PLAN	SURVEYED	DATE
	PLOTTED	
	GRADES CHECKED	
	STRUCTURE NOTATIONS CHECKED	
	NOTE BOOK NO.	
	DATE	

PROFILE	SURVEYED	DATE
	PLOTTED	
	GRADES CHECKED	
	STRUCTURE NOTATIONS CHECKED	
	NOTE BOOK NO.	
	DATE	

MATCHLINE STA. 37+00 SEE SHEET 2

MATCHLINE STA. 52+00 SEE SHEET 4



774.54	773.64	773.06	772.05	771.46	770.31	769.68	768.42	767.90	766.37	766.01	764.29	764.10	762.44	762.22	760.85	760.37	759.52	758.82	758.44	757.27	757.62	756.41	757.05	755.81	756.74	756.22	756.68	756.63	756.88	757.05	757.34	757.48	758.05	758.44	758.99	759.41	759.98	760.32	760.98	761.24	761.97	762.11	762.96	763.04	763.95	764.04	764.94	765.02	765.94	766.01	766.93	766.99	767.92	767.87	768.91	768.74	769.90	769.74	770.89	770.74	771.89
37+00	38+00	39+00	40+00	41+00	42+00	43+00	44+00	45+00	46+00	47+00	48+00	49+00	50+00	51+00	52+00																																														

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Amberst Court, Suite 204
Naperville, Illinois 60563
630.355.2839

USER NAME * #USERS*	DESIGNED - RWC	REVISED - 9/26/2013
	DRAWN - RWC	REVISED - 2/18/2014
PLOT SCALE * #SCALE*	CHECKED - AJP	REVISED -
PLOT DATE * #DATE*	DATE - 9/11/2013	REVISED -

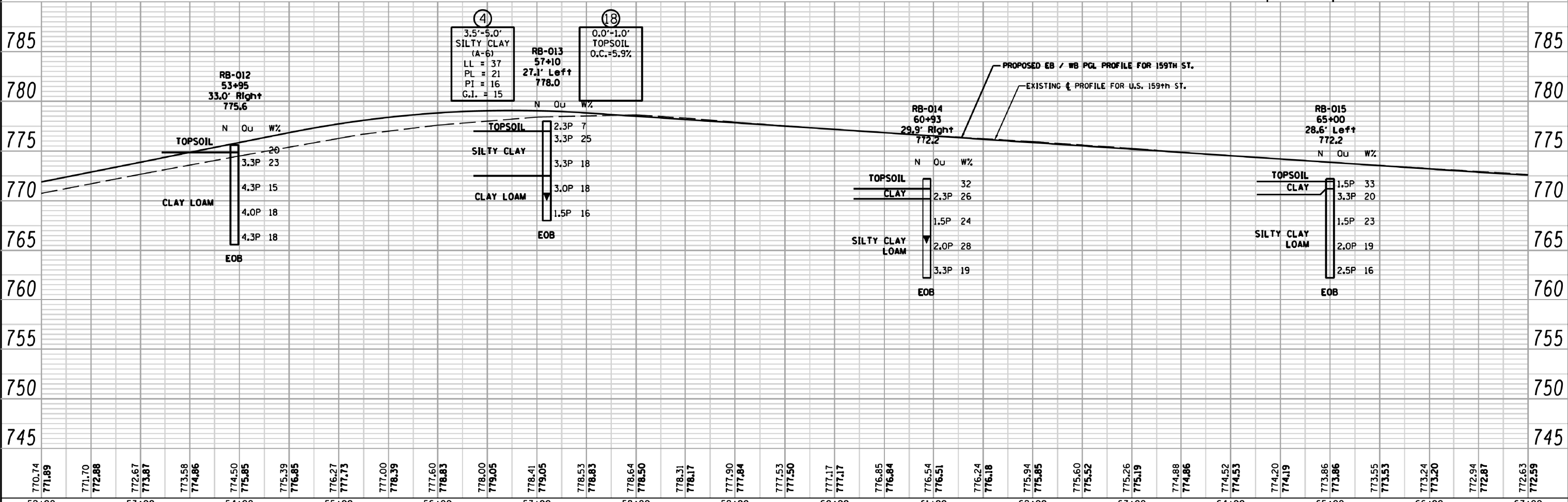
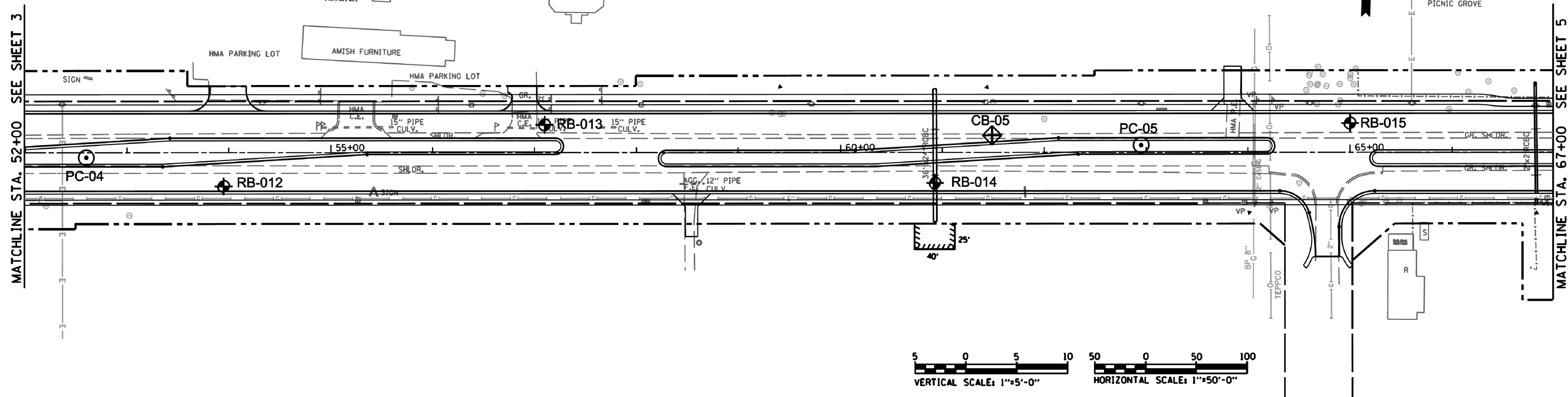
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

U.S. RTE. 6/IL. RTE. 7 (159TH ST.)
SOIL BORING PLAN & PROFILE
SCALE: 1"=50' 1"=5' SHEET NO. 3 OF 19 SHEETS STA. 37+00.00 TO STA. 52+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	536-R-1	WILL & COOK	1232	849
CONTRACT NO. 60L71			ILLINOIS FED. AID PROJECT	

PLAN	SURVEYED	DATE
	PC 010	
	NOTED	
	BY	
	NO.	

PROFILE	SURVEYED	DATE
	PC 010	
	NOTED	
	BY	
	NO.	



770.74	771.89	771.70	772.88	772.67	773.87	773.58	774.86	774.50	775.85	775.39	776.85	776.27	777.73	777.00	778.39	777.60	778.83	778.00	779.05	778.41	779.05	778.53	778.83	778.64	778.50	778.31	778.17	777.90	777.84	777.53	777.50	777.17	777.17	776.85	776.84	776.54	776.51	776.24	776.18	775.94	775.85	775.60	775.52	775.26	775.19	774.88	774.86	774.52	774.53	774.20	774.19	773.86	773.86	773.55	773.53	773.24	773.20	772.94	772.87	772.63	772.59
52+00	53+00	54+00	55+00	56+00	57+00	58+00	59+00	60+00	61+00	62+00	63+00	64+00	65+00	66+00	67+00																																														

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Amberst Court, Suite 204
Naperville, Illinois 60563
630.355.2839

USER NAME = *USERS*	DESIGNED - RWC	REVISED - 9/26/2013
	DRAWN - RWC	REVISED - 2/18/2014
PLOT SCALE = *SCALE*	CHECKED - AJP	REVISED -
PLOT DATE = *DATE*	DATE - 9/11/2013	REVISED -

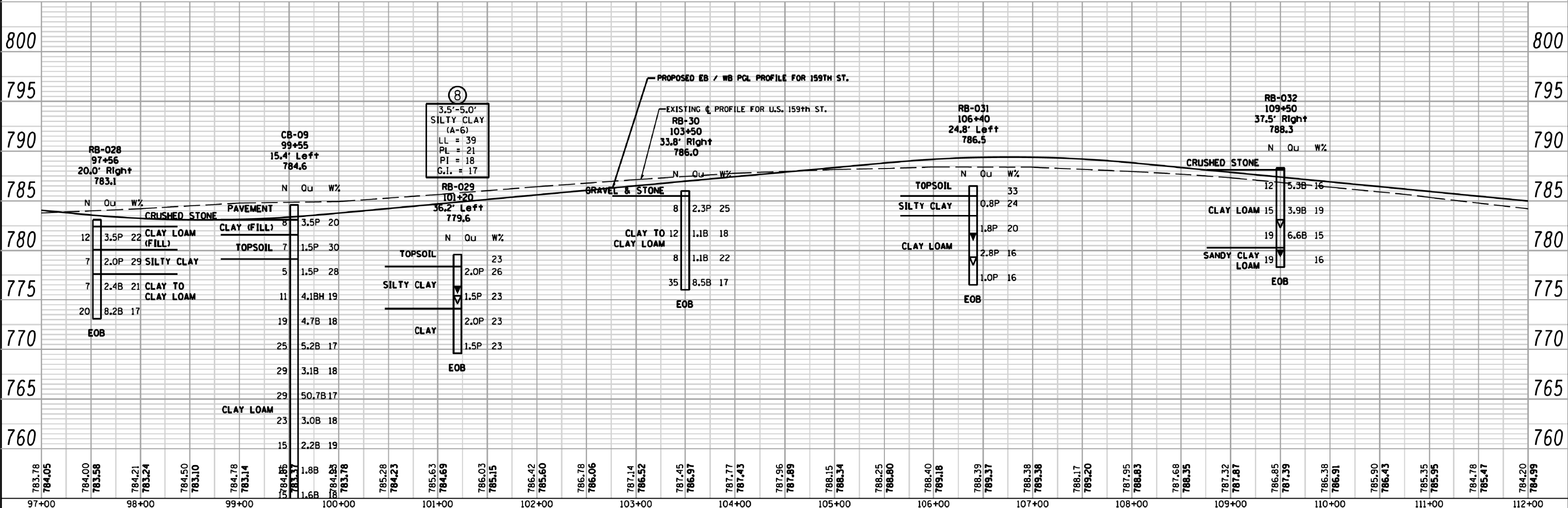
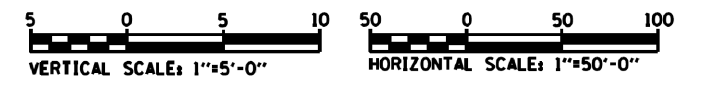
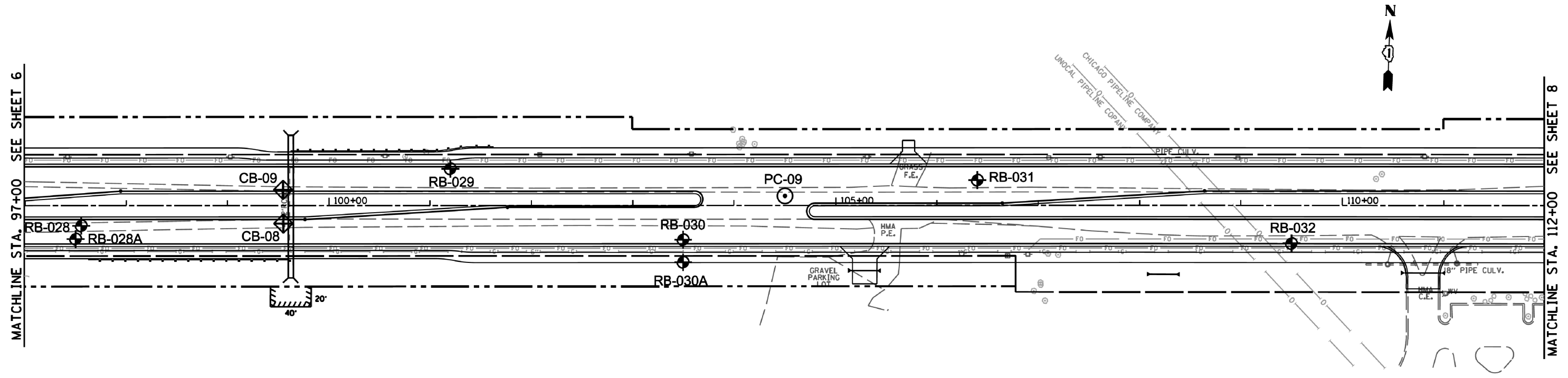
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

U.S. RTE. 6/L. RTE. 7 (159TH ST.)	
SOIL BORING PLAN & PROFILE	
SCALE: 1"=50' 1"=5'	SHEET NO. 4 OF 19 SHEETS
STA. 52+00.00	TO STA. 67+00.00

F.A.P. RTE. 351	SECTION 536-R-1	COUNTY WILL & COOK	TOTAL SHEETS 1232	SHEET NO. 850
CONTRACT NO. 60L71			ILLINOIS FED. AID PROJECT	

PLAN	SURVEYED	DATE
	PLOTTED	
	NOTES CHECKED	
	STRUCTURE NOTATIONS OK'D	
	NO.	

PROFILE	SURVEYED	DATE
	PLOTTED	
	NOTES CHECKED	
	STRUCTURE NOTATIONS OK'D	
	NO.	

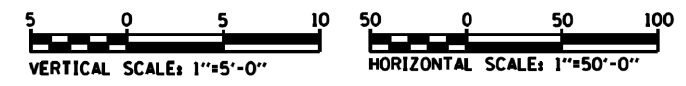


Geo Services, Inc. Geotechnical, Environmental, Civil Engineering 805 Amberst Court, Suite 204 Naperville, Illinois 60563 630.355.2839	USER NAME * #USERS*	DESIGNED - RWC	REVISED - 9/26/2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	U.S. RTE. 6/IL. RTE. 7 (159TH ST.) SOIL BORING PLAN & PROFILE		F.A.P. RTE. 351	SECTION 536-R-1	COUNTY WILL & COOK	TOTAL SHEETS 1232	SHEET NO. 853		
	PLOT SCALE * #SCALE*	CHECKED - AJP	REVISED - 2/18/2014		SCALE: 1"=50' 1"=5'		SHEET NO. 7 OF 19 SHEETS	STA. 97+00.00 TO STA. 112+00.00	CONTRACT NO. 60L71		ILLINOIS FED. AID PROJECT		
	PLOT DATE * #DATE*	DATE - 9/11/2013	REVISED -										

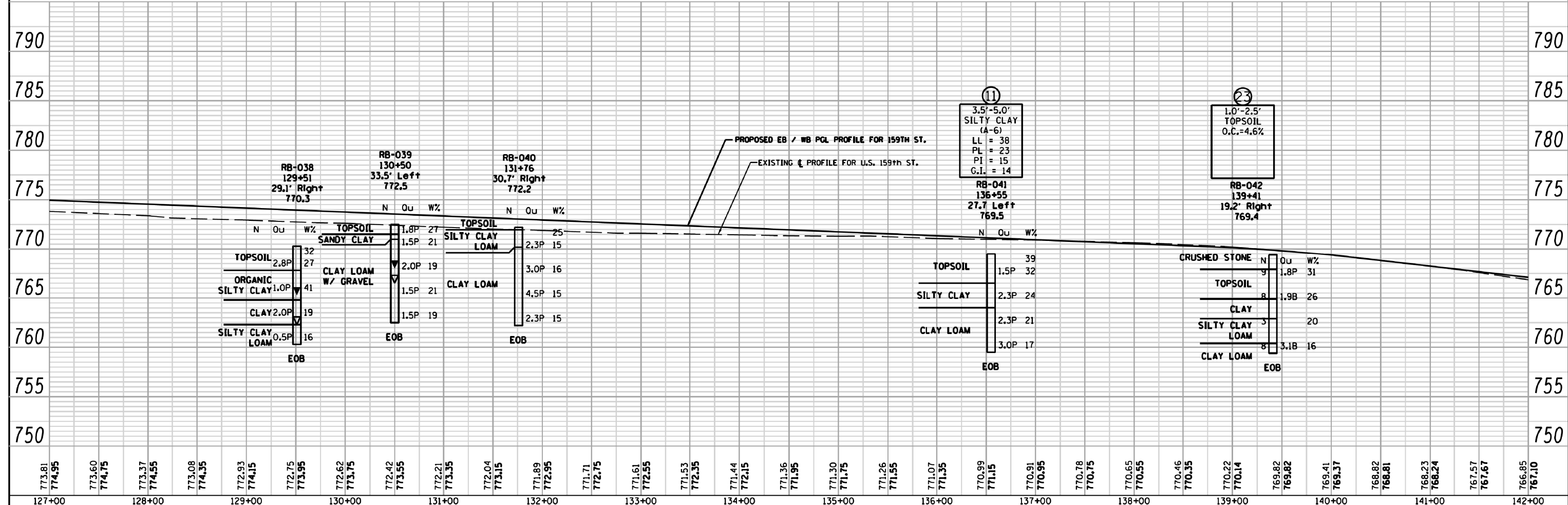
NOTE:
BUILDINGS ARE FROM OLDER AERIAL SURVEY
UNLESS NOTED, THE LOCATIONS
ARE APPROXIMATE



PLAN	SURVEYED	DATE
	PLOTTED	
	GRADES CHECKED	
	STRUCTURE NOTATIONS CHECKED	
	NOTE BOOK NO.	
	DATE	



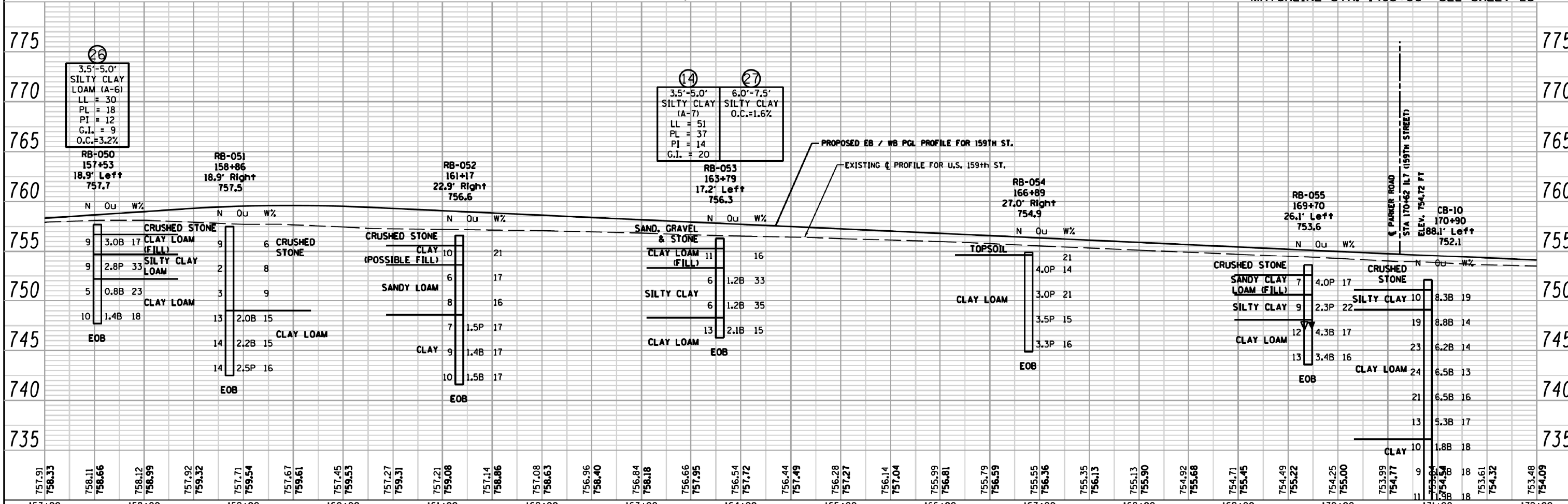
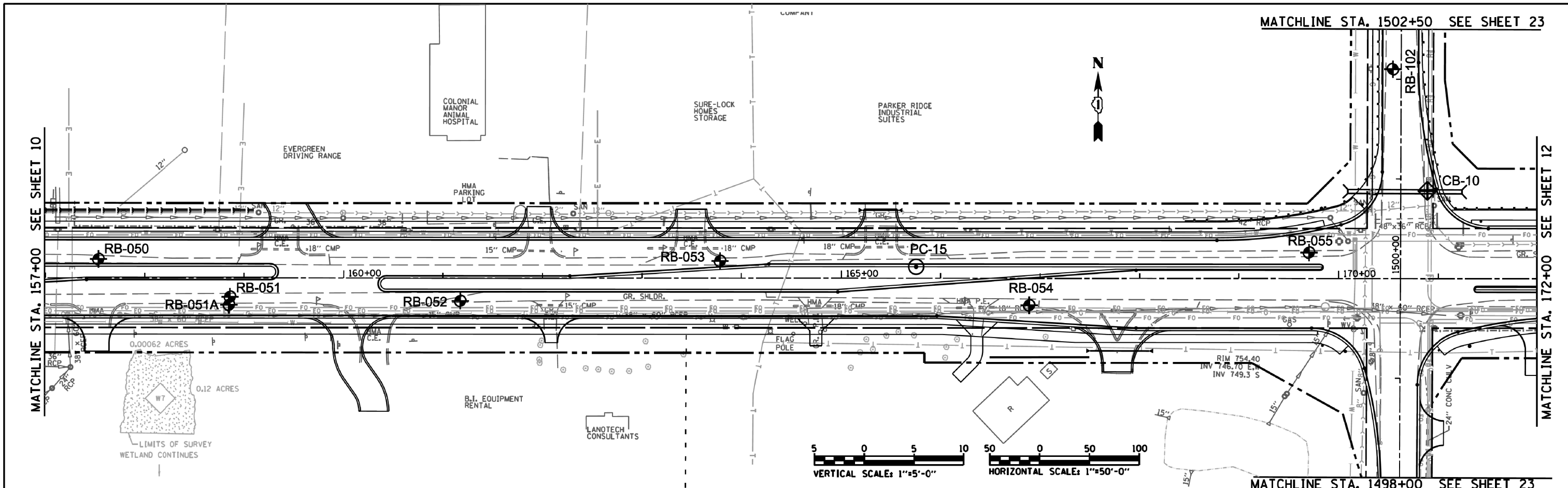
PROFILE	SURVEYED	DATE
	PLOTTED	
	GRADES CHECKED	
	STRUCTURE NOTATIONS CHECKED	
	NOTE BOOK NO.	
	DATE	



<p>Geo Services, Inc. Geotechnical, Environmental, Civil Engineering 805 Ashurst Court, Suite 204 Naperville, Illinois 60565 630.355.2838</p>	USER NAME = #USERS	DESIGNED - RWC	REVISED - 9/26/2013	<p align="center">STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</p>	<p align="center">U.S. RTE. 6/1. RTE. 7 (159TH ST.) SOIL BORING PLAN & PROFILE</p>	F.A.P. RTE. 351	SECTION 536-R-1	COUNTY WILL & COOK	TOTAL SHEETS 1232	SHEET NO. 855
	PLOT SCALE = #SCALE#	CHECKED - AJP	REVISED - 2/18/2014			SCALE: 1"=50' 1"=5'	SHEET NO. 9 OF 19 SHEETS	STA. 127+00.00 TO STA. 142+00.00	CONTRACT NO. 60L71	ILLINOIS FED. AID PROJECT
	PLOT DATE = #DATE#	DATE - 9/11/2013	REVISED -							

DATE	
BY	
PLAN	SURVEYED
	PLOTTED
	NOTED
	REVISIONS
	NO. DATE

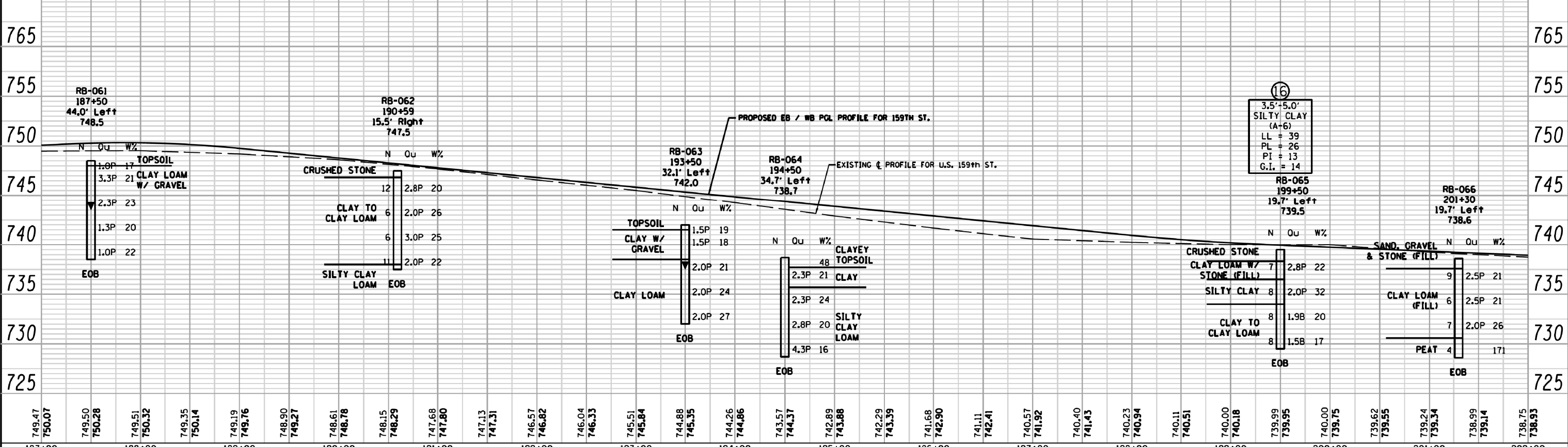
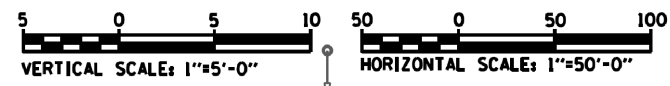
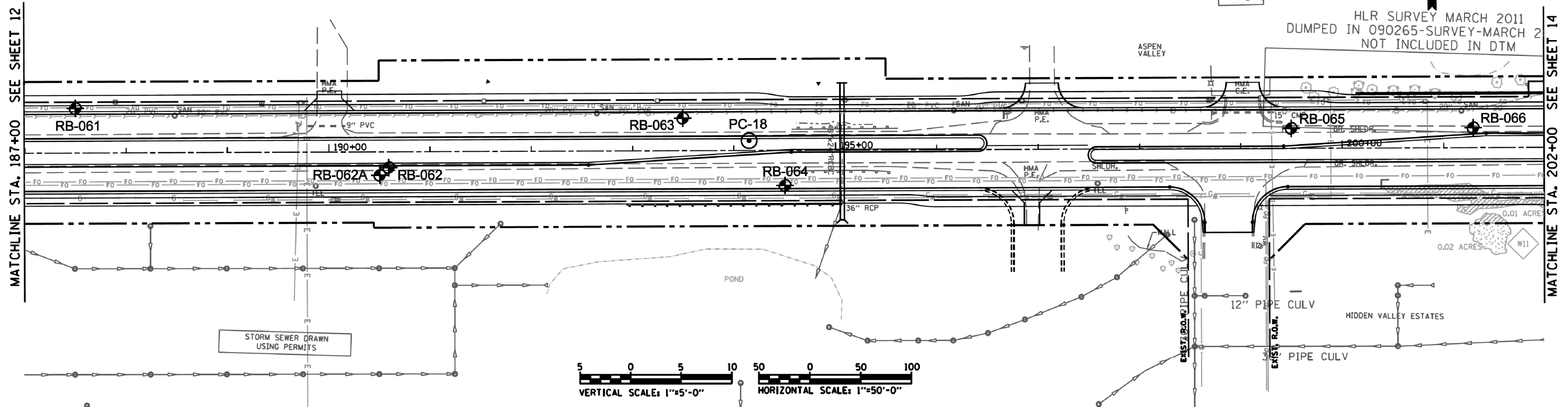
DATE	
BY	
PROFILE	SURVEYED
	PLOTTED
	NOTED
	REVISIONS
	NO. DATE



Geo Services, Inc. Geotechnical, Environmental & Civil Engineering 805 Amberst Court, Suite 204 Naperville, Illinois 60563 630.355.2838	USER NAME = #USERS	DESIGNED - RWC	REVISED - 9/26/2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	U.S. RTE. 6/IL. RTE. 7 (159TH ST.) SOIL BORING PLAN & PROFILE	F.A.P. RTE. 351	SECTION 536-R-1	COUNTY WILL & COOK	TOTAL SHEETS 1232	SHEET NO. 857
	PLOT SCALE = #SCALE#	CHECKED - AJP	REVISED - 2/18/2014			SCALE: 1"=50' 1"=5'	SHEET NO. 11 OF 19 SHEETS	STA. 157+00.00 TO STA. 172+00.00	CONTRACT NO. 60L71	ILLINOIS/FED. AID PROJECT
	PLOT DATE = #DATE#	DATE - 9/11/2013	REVISED -							

PLAN	SURVEYED	DATE
	PLOTTED	
	NOTE BOOK	
	NO. OF SHEETS	
	NO.	

PROFILE	SURVEYED	DATE
	PLOTTED	
	NOTE BOOK	
	NO. OF SHEETS	
	NO.	



749.47	750.07	749.50	750.28	749.51	750.32	749.35	750.14	749.19	749.76	748.90	749.27	748.61	748.78	748.15	748.29	747.68	747.80	747.13	747.31	746.57	746.82	746.04	746.33	745.51	745.84	744.88	745.35	744.26	744.86	743.57	744.37	742.89	743.88	742.29	743.39	741.68	742.90	741.11	742.41	740.57	741.92	740.40	741.43	740.23	740.94	740.11	740.51	740.00	740.18	739.99	739.95	740.00	739.75	739.62	739.55	739.24	739.34	738.99	739.14	738.75	738.93
187+00	188+00	189+00	190+00	191+00	192+00	193+00	194+00	195+00	196+00	197+00	198+00	199+00	200+00	201+00	202+00																																														

Geo Services, Inc.
Geotechnical, Environmental, Civil Engineering
805 Amberst Court, Suite 204
Naperville, Illinois 60565
630.355.2838

USER NAME * \$USERS*	DESIGNED - RWC	REVISED - 9/26/2013
	DRAWN - RWC	REVISED - 2/18/2014
PLOT SCALE * \$SCALE*	CHECKED - AJP	REVISED -
PLOT DATE * \$DATE*	DATE - 9/11/2013	REVISED -

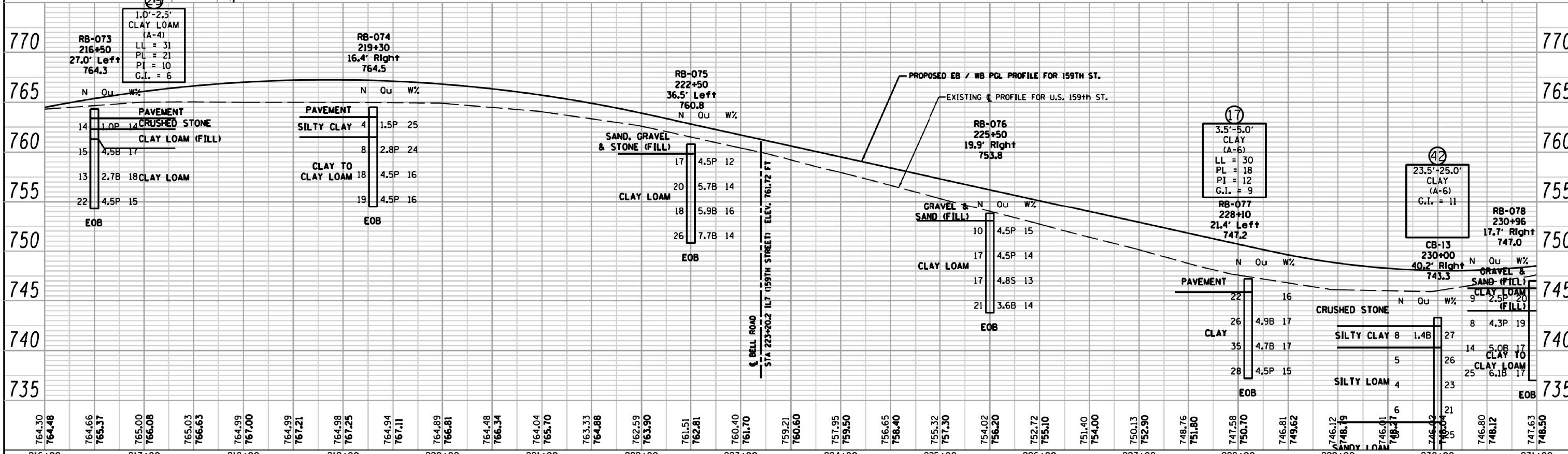
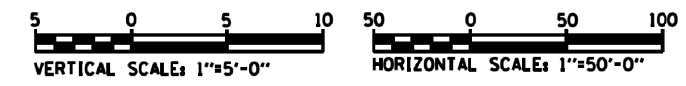
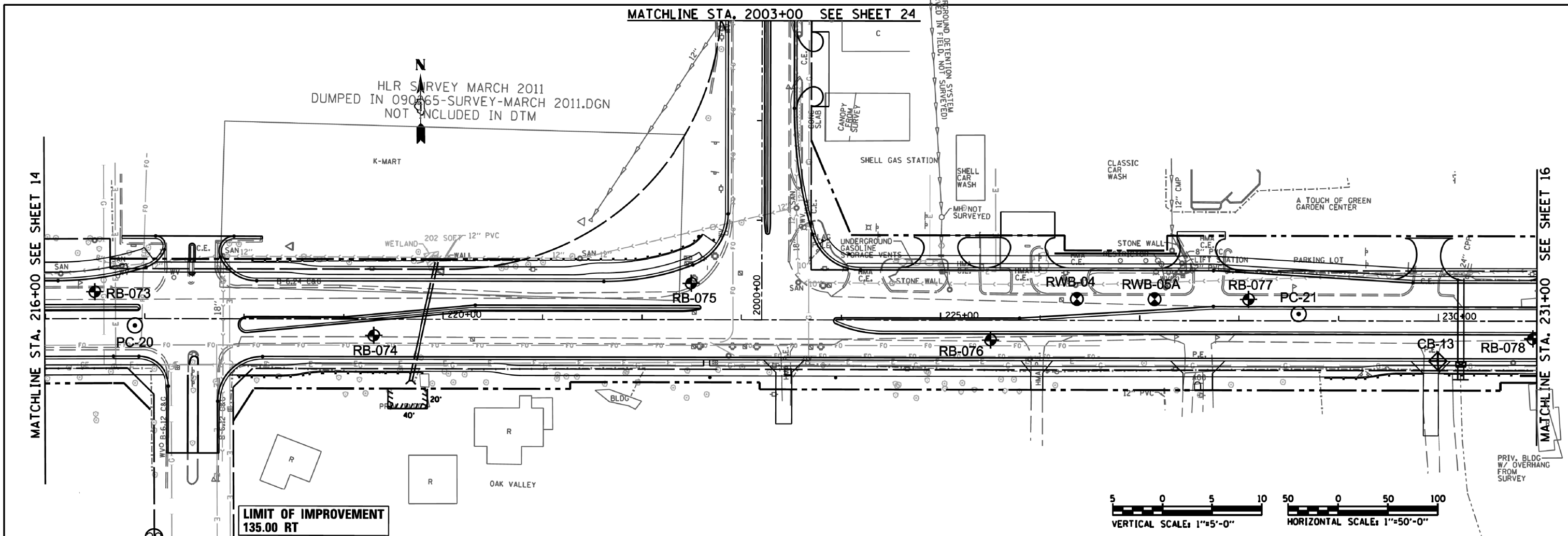
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

U.S. RTE. 6/1. RTE. 7 (159TH ST.)
SOIL BORING PLAN & PROFILE
SCALE: 1"=50' 1"=5' SHEET NO. 13 OF 19 SHEETS STA. 187+00.00 TO STA. 202+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	536-R-1	WILL & COOK	1232	859
CONTRACT NO. 60L71			ILLINOIS FED. AID PROJECT	

PLAN	SURVEYED	DATE
	PLOTTED	
	NOTES CHECKED	
	ALIGNED	
	BY	
	NO.	

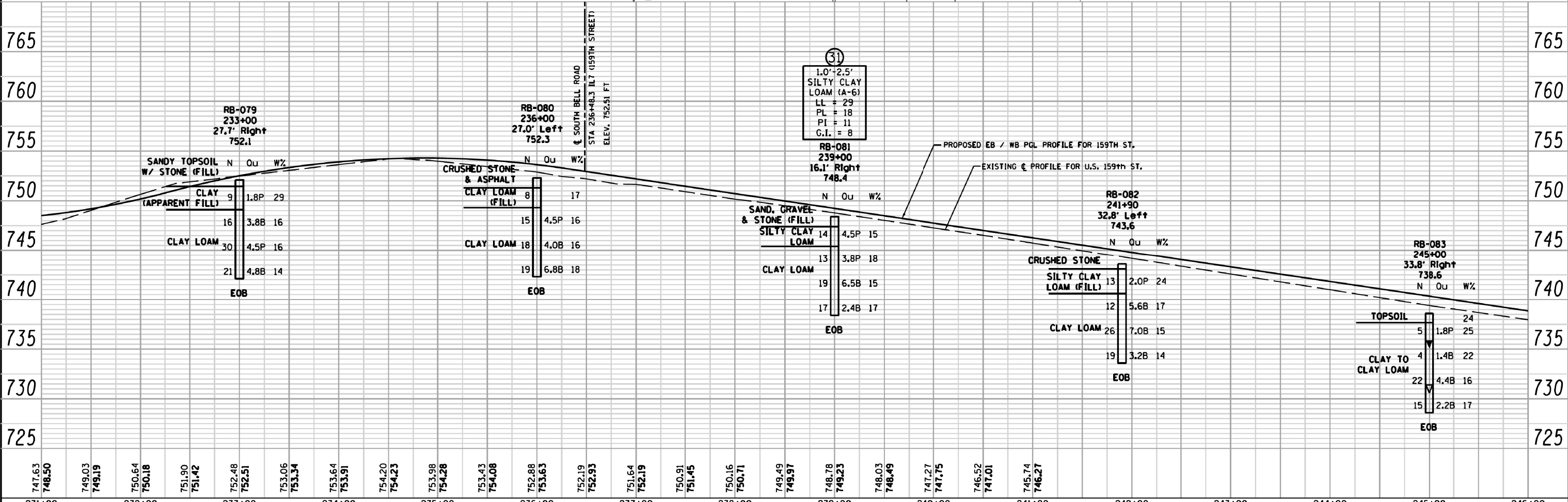
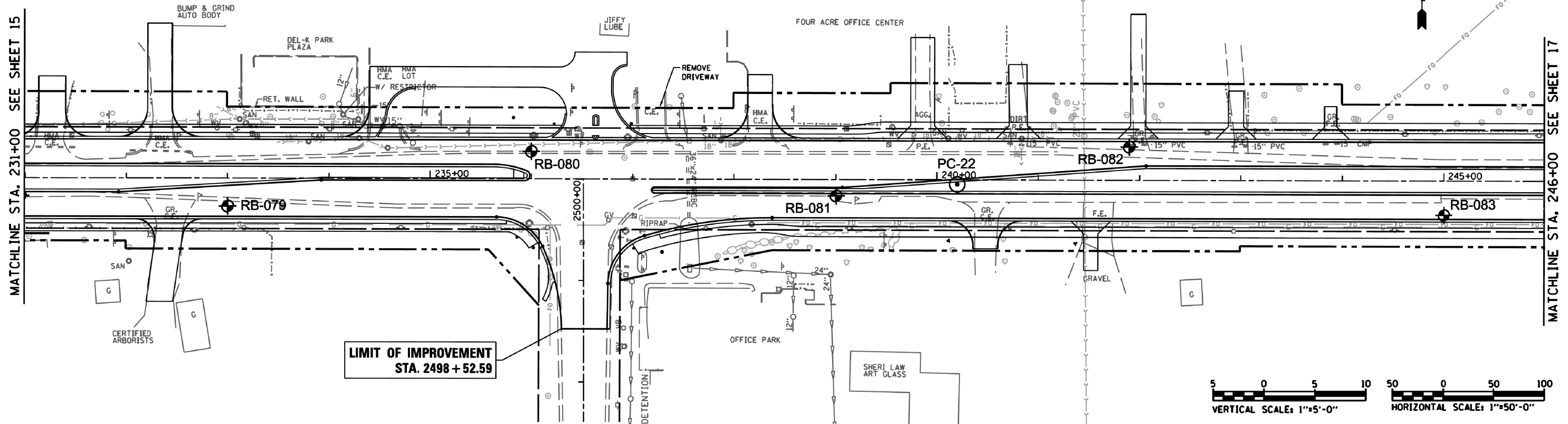
PROFILE	SURVEYED	DATE
	PLOTTED	
	GRADES CHECKED	
	STRUCTURE NOTATIONS OK'D	
	BY	
	NO.	



 Geotechnical, Environmental, Civil Engineering 805 Amberst Court, Suite 204 Naperville, Illinois 60565 (630) 355-2838	USER NAME * #USERS	DESIGNED - RWC	REVISED - 9/26/2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	U.S. RTE. 6/1. RTE. 7 (159TH ST.) SOIL BORING PLAN & PROFILE		F.A.P. RTE. 351	SECTION 536-R-1	COUNTY WILL & COOK	TOTAL SHEETS 1232	SHEET NO. 861	
	PLOT SCALE * #SCALE*	CHECKED - AJP	REVISED - 2/18/2014		SCALE: 1"=50' 1"=5' SHEET NO. 15 OF 19 SHEETS STA. 216+00.00 TO STA. 231+00.00		CONTRACT NO. 60L71		ILLINOIS FED. AID PROJECT			
	PLOT DATE * #DATE*	DATE - 9/11/2013	REVISED -									

PLAN	SURVEYED	DATE
	PLOTTED	
	NOTES CHECKED	
	STRUCTURE NOTATIONS OK'D	
	NO. _____	

PROFILE	SURVEYED	DATE
	PLOTTED	
	GRADES CHECKED	
	STRUCTURE NOTATIONS OK'D	
	NO. _____	



747.63	748.50	749.03	749.19	750.64	750.18	751.90	751.42	752.48	752.51	753.06	753.34	753.64	753.91	754.20	754.23	753.98	754.28	753.43	754.08	752.88	753.63	752.19	752.93	751.64	752.19	750.91	751.45	750.16	750.71	749.49	749.97	748.78	749.23	748.03	748.49	747.27	747.75	746.52	747.01	745.74	746.27
231+00	232+00	233+00	234+00	235+00	236+00	237+00	238+00	239+00	240+00	241+00	242+00	243+00	244+00	245+00	246+00																										

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Amberst Court, Suite 204
Naperville, Illinois 60565
16301 355-2838

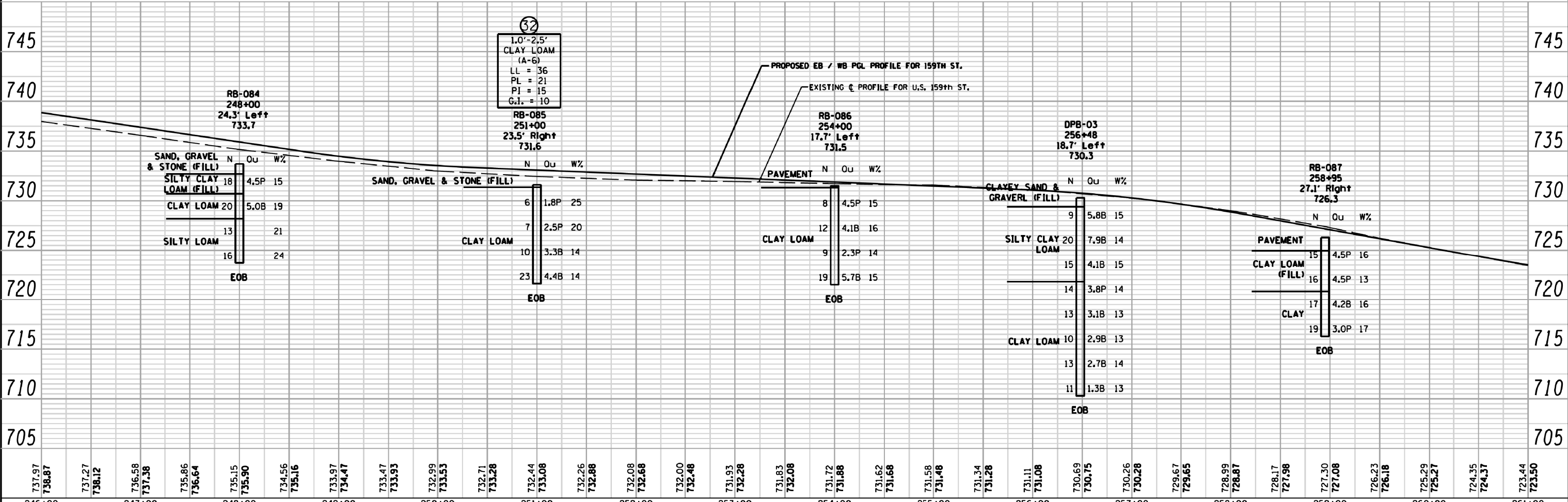
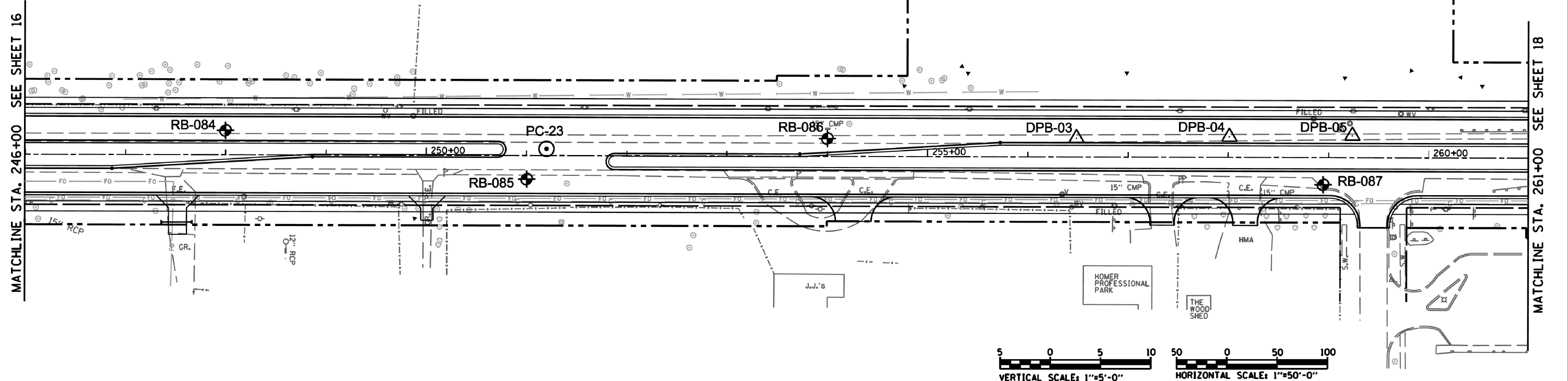
USER NAME * #USERS	DESIGNED - RWC	REVISED - 9/26/2013
	DRAWN - RWC	REVISED - 2/18/2014
PLOT SCALE * #SCALE*	CHECKED - AJP	REVISED -
PLOT DATE * #DATE*	DATE - 9/11/2013	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	536-R-1	WILL & COOK	1232	862
SCALE: 1"=50' 1"=5'			SHEET NO. 16 OF 19 SHEETS	
U.S. RTE. 6/1. RTE. 7 (159TH ST.)			STA. 231+00.00 TO STA. 246+00.00	
SOIL BORING PLAN & PROFILE			CONTRACT NO. 60L71	
ILLINOIS FED. AID PROJECT				

PLAN	SURVEYED	BY	DATE
	PLOTTED		
	GRADES CHECKED		
	STRUCTURE NOTATIONS OK'D		
	NOTE BOOK NO.		
	DATE		

PROFILE	SURVEYED	BY	DATE
	PLOTTED		
	GRADES CHECKED		
	STRUCTURE NOTATIONS OK'D		
	NOTE BOOK NO.		
	DATE		



737.97	738.87	737.27	738.12	736.58	737.38	735.86	736.64	735.15	735.90	734.56	735.16	733.97	734.47	733.47	733.93	732.99	733.53	732.71	733.28	732.44	733.08	732.26	732.88	732.08	732.68	732.00	732.48	731.93	732.28	731.83	732.08	731.72	731.88	731.62	731.68	731.58	731.48	731.34	731.28	731.11	731.08	730.69	730.75	730.26	730.28	729.67	729.65	728.99	728.87	728.17	727.98	727.30	727.08	726.23	726.18	725.29	725.27	724.35	724.37	723.44	723.50
246+00	247+00	248+00	249+00	250+00	251+00	252+00	253+00	254+00	255+00	256+00	257+00	258+00	259+00	260+00	261+00																																														

Geo Services, Inc.
Geotechnical, Environmental & Civil Engineering
805 Amberst Court, Suite 204
Naperville, Illinois 60565
16301355-2838

USER NAME * #USERS*	DESIGNED - RWC	REVISED - 9/26/2013
	DRAWN - RWC	REVISED - 2/18/2014
PLOT SCALE * #SCALE*	CHECKED - AJP	REVISED -
PLOT DATE * #DATE*	DATE - 9/11/2013	REVISED -

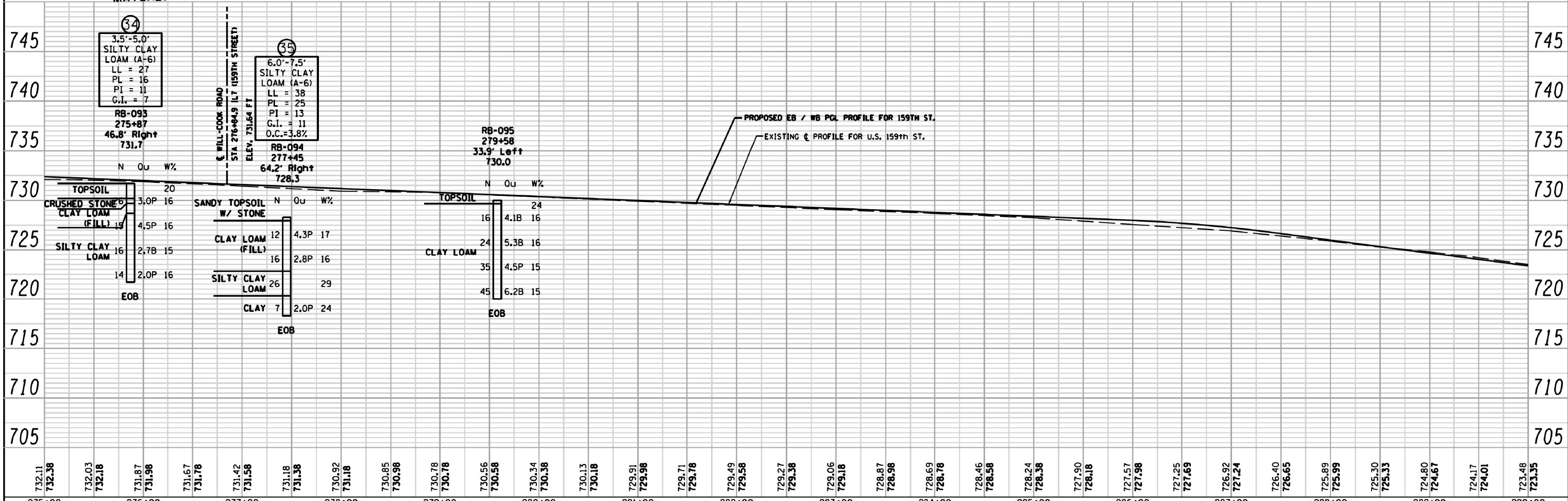
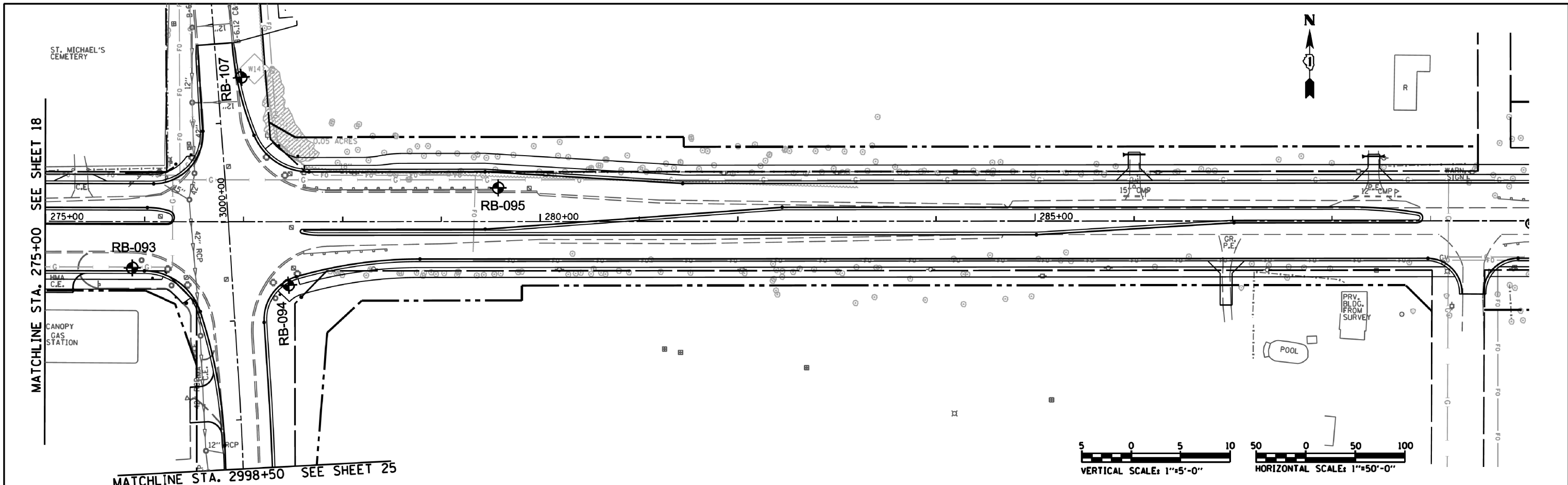
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	536-R-1	WILL & COOK	1232	863
SCALE: 1"=50' 1"=5'		SHEET NO. 17 OF 19 SHEETS		STA. 246+00.00 TO STA. 261+00.00

CONTRACT NO.	ILLINOIS FED. AID PROJECT
60L71	

PLAN	SURVEYED	DATE
	PLOTTED	
	GRADES CHECKED	
	STRUCTURE NOTATIONS OK'D	
	NOTE BOOK NO.	
	BY	

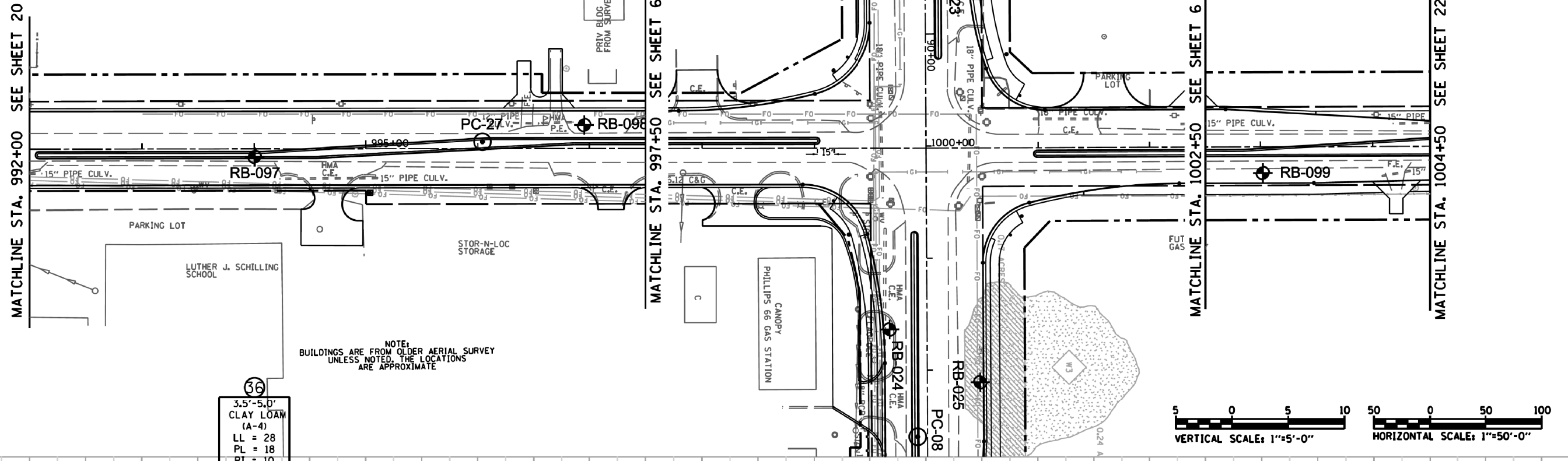
PROFILE	SURVEYED	DATE
	PLOTTED	
	GRADES CHECKED	
	STRUCTURE NOTATIONS OK'D	
	NOTE BOOK NO.	
	BY	



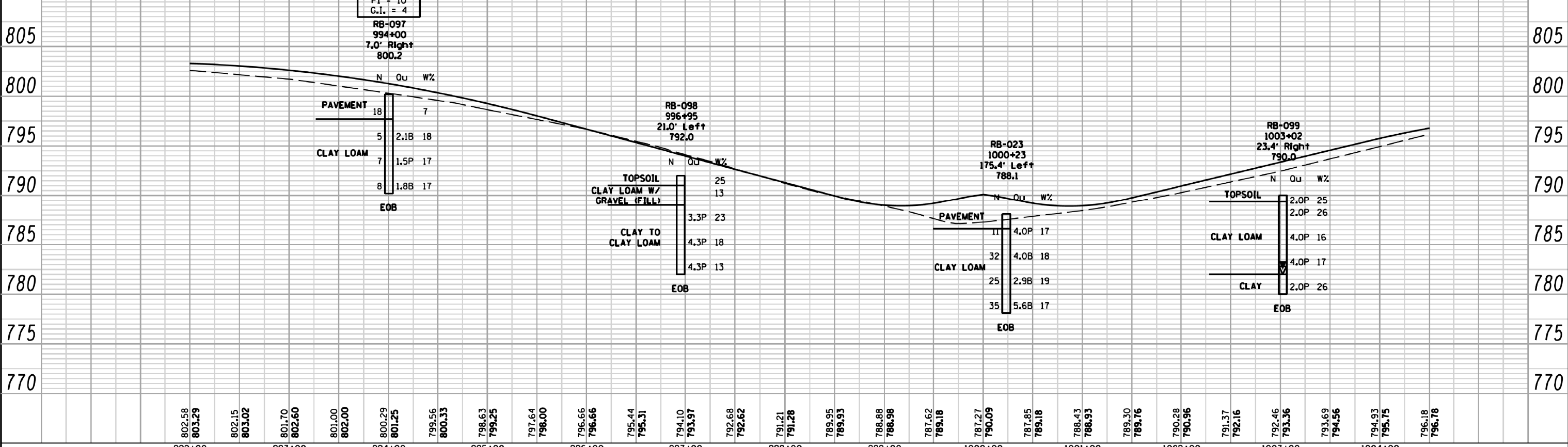
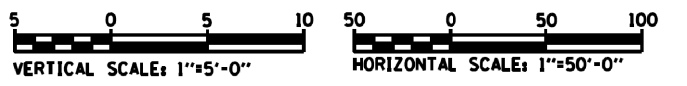
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275+00	276+00	277+00	278+00	279+00	280+00	281+00	282+00	283+00	284+00	285+00	286+00	287+00	288+00	289+00	290+00																																														

PLAN	SURVEYED	DATE
	PLOTTED	
	GRADES CHECKED	
	STRUCTURE NOTATIONS OK'D	
	NOTE BOOK NO.	
	BY	

PROFILE	SURVEYED	DATE
	PLOTTED	
	GRADES CHECKED	
	STRUCTURE NOTATIONS OK'D	
	NOTE BOOK NO.	
	BY	



36
3.5'-5.0'
CLAY LOAM
(A-4)
LL = 28
PL = 18
PI = 10
C.I. = 4



802.58 803.29	802.15 803.02	801.70 802.60	801.00 802.00	800.29 801.25	799.56 800.33	798.63 799.25	797.64 798.00	796.66 796.66	795.44 795.31	794.10 793.97	792.68 792.62	791.21 791.28	789.95 789.93	788.88 788.96	787.62 789.18	787.27 800.64	787.85 789.18	788.43 788.93	789.30 789.76	790.28 790.96	791.37 792.16	792.46 793.36	793.69 794.56	794.93 795.75	796.18 796.78	
992+00	993+00	994+00	995+00	996+00	997+00	998+00	999+00	1000+00	1001+00	1002+00	1003+00	1004+00														

Geo Services, Inc.
Geotechnical, Environmental, Civil Engineering
805 Amberst Court, Suite 204
Naperville, Illinois 60563
630.355.2838

USER NAME: *USERS*	DESIGNED - RWC	REVISED - 9/26/2013
	DRAWN - RWC	REVISED - 2/18/2014
PLOT SCALE: *SCALE*	CHECKED - AJP	REVISED -
PLOT DATE: *DATE*	DATE - 9/11/2013	REVISED -

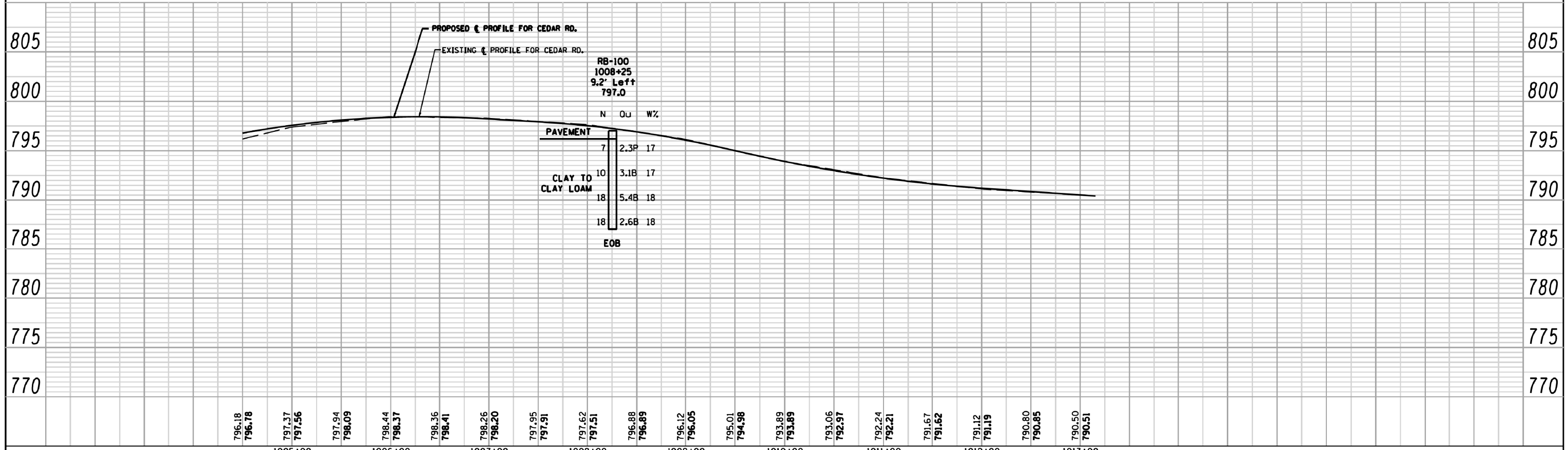
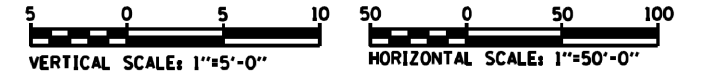
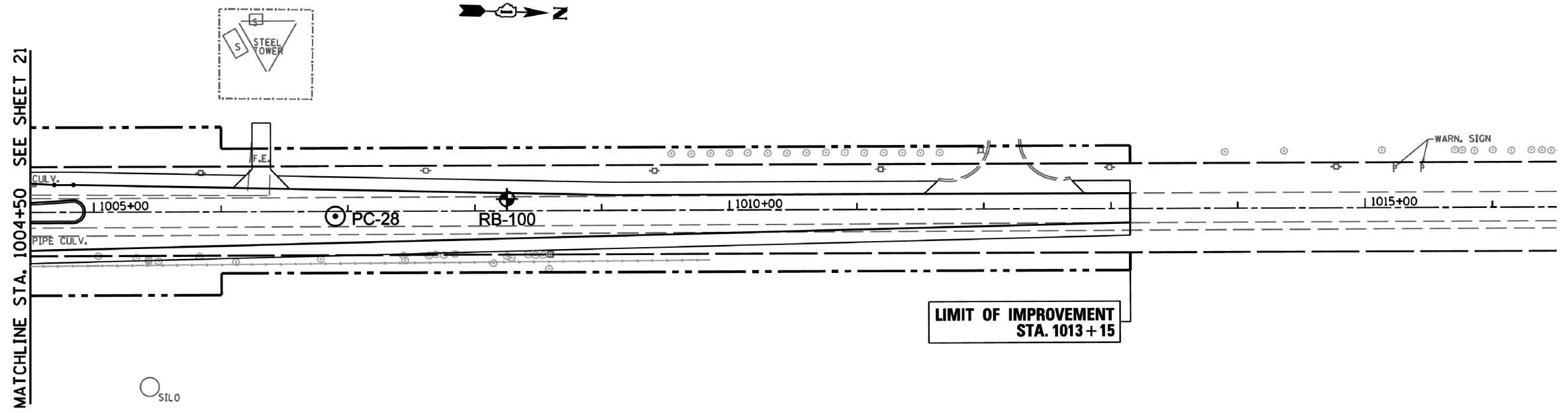
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CEDAR RD. AT U.S. RTE. 61L RTE. 7 (159TH ST.)
SOIL BORING PLAN & PROFILE
SCALE: 1"=50' HORIZ. 1"=5' VERT. SHEET NO. 2 OF 3 SHEETS STA. 992+00.00 TO STA. 1004+50.00

F.A.P. RTE. 351	SECTION 536-R-1	COUNTY WILL & COOK	TOTAL SHEETS 1232	SHEET NO. 867
CONTRACT NO. 60L71			ILLINOIS FED. AID PROJECT	

PLAN	SURVEYED	BY	DATE
	PLOTTED		
	GRADES CHECKED		
	STRUCTURE NOTATIONS CHECKED		
	NOTE BOOK NO.		
	DATE		

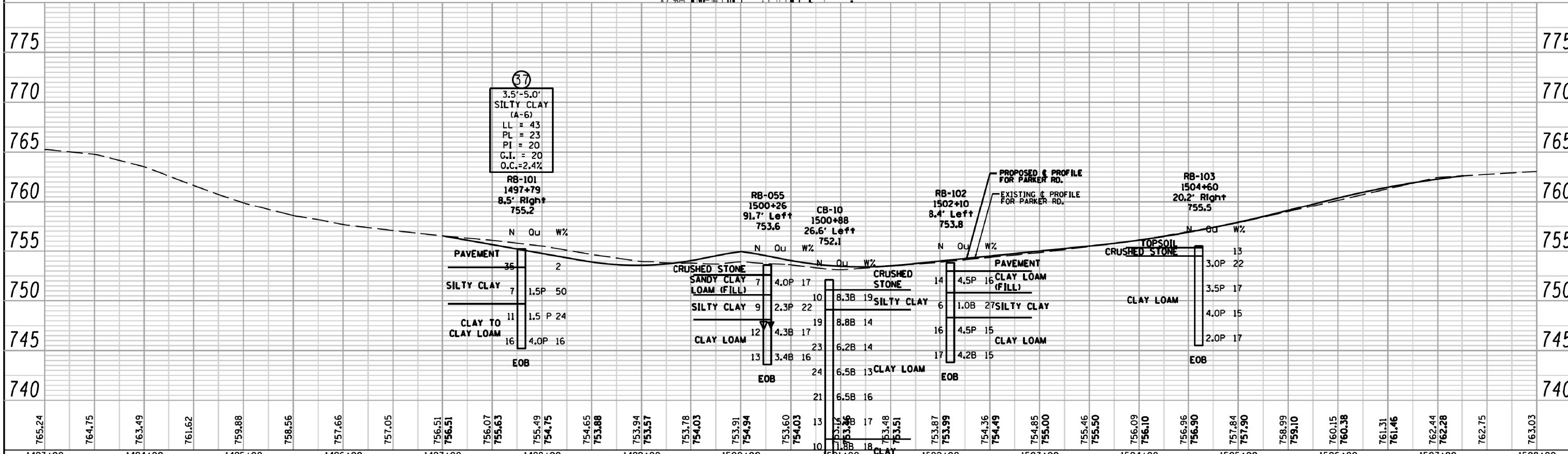
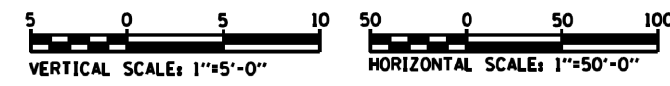
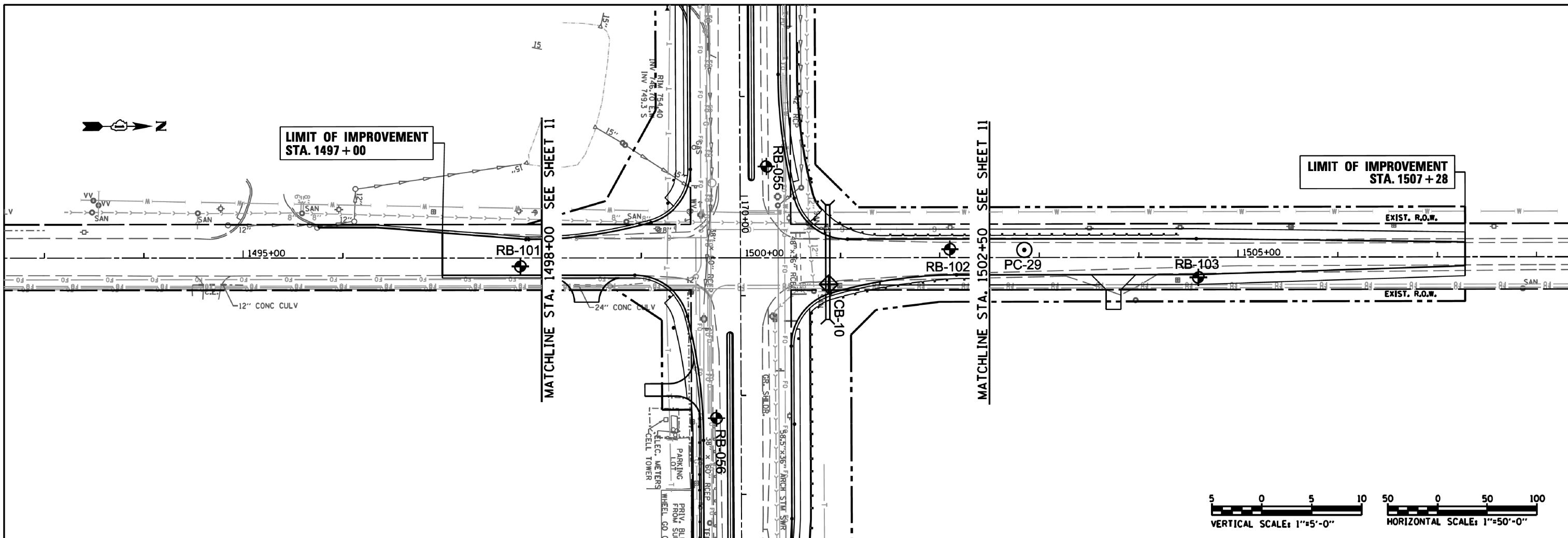
PROFILE	SURVEYED	BY	DATE
	PLOTTED		
	GRADES CHECKED		
	STRUCTURE NOTATIONS CHECKED		
	NOTE BOOK NO.		
	DATE		



Geo Services, Inc. Geotechnical, Environmental & Civil Engineering 805 Amberst Court, Suite 204 Naperville, Illinois 60565 630.355.2838	USER NAME * #USER*	DESIGNED - RWC	REVISED - 9/26/2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CEDAR RD. AT U.S. RTE. 61L. RTE. 7 (159TH ST.) SOIL BORING PLAN & PROFILE	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	DESIGNED - RWC	REVISED - 2/18/2014	351			536-R-1	WILL & COOK	1232	868	
	PLOT SCALE * #SCALE*	CHECKED - AJP	REVISED -			CONTRACT NO. 60L71				
	PLOT DATE * #DATE*	DATE - 9/11/2013	REVISED -			ILLINOIS FED. AID PROJECT				

PLAN	SURVEYED	BY	DATE
	PLOTTED		
	GRADES CHECKED		
	STRUCTURE NOTATIONS OK'D		
	NOTE BOOK NO.		
	DATE		

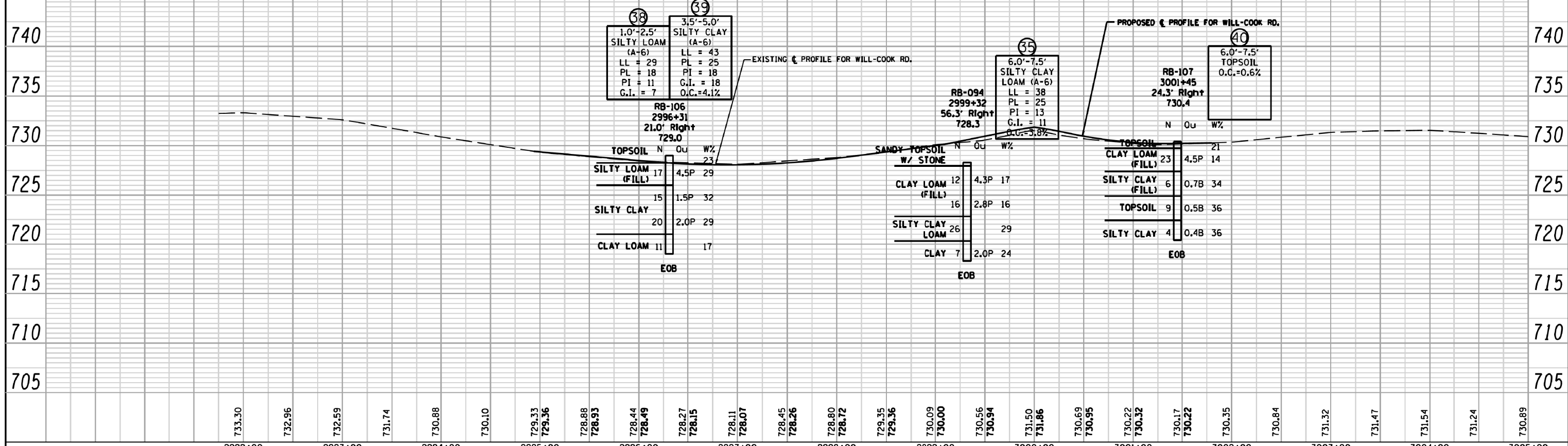
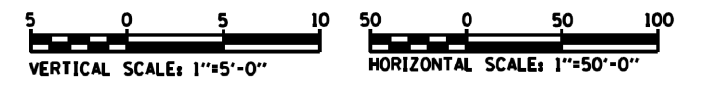
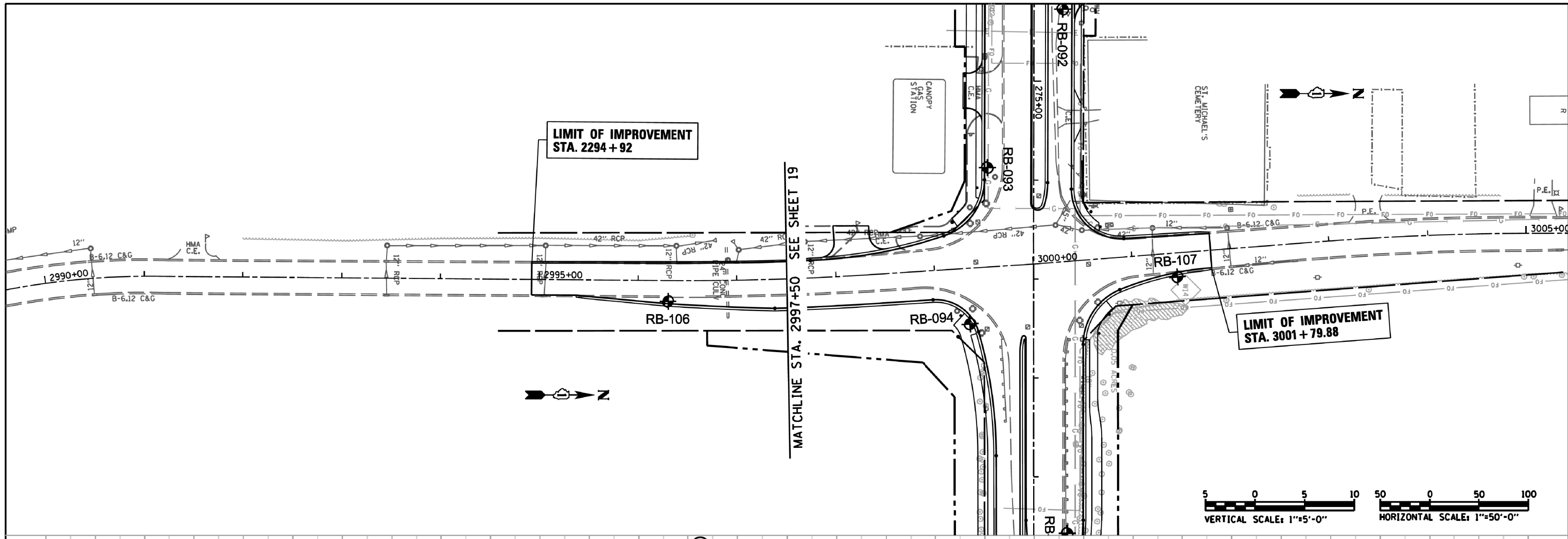
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	DATE		



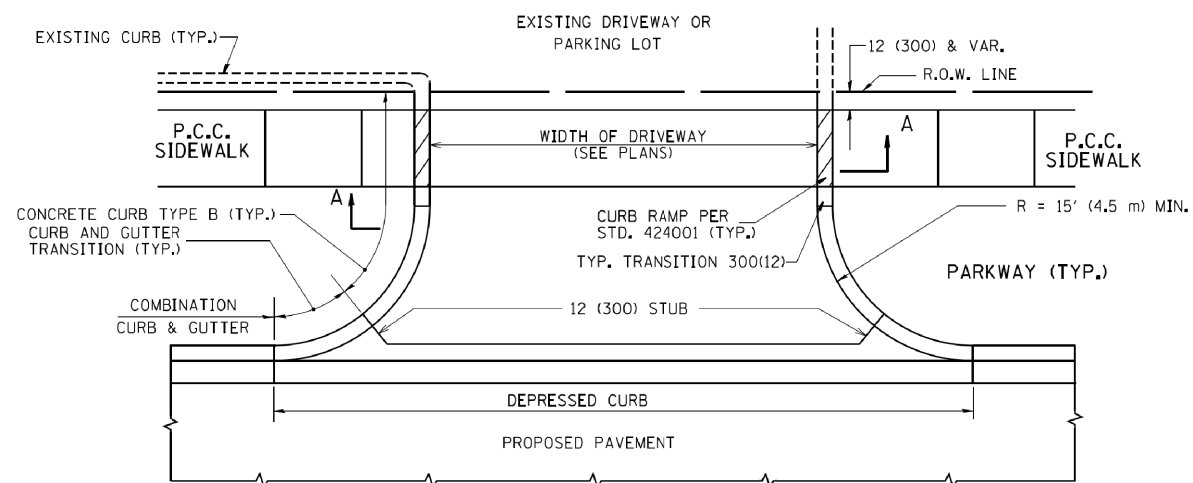
Geo Services, Inc. Geotechnical, Environmental, Civil Engineering 805 Amberst Court, Suite 204 Naperville, Illinois 60565 630.355.2838	USER NAME = #USERS	DESIGNED - RWC	REVISED - 9/26/2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PARKER RD. AT U.S. RTE. 61L RTE. 7 (159TH ST.) SOIL BORING PLAN & PROFILE	F.A.P. RTE. 351	SECTION 536-R-1	COUNTY WILL & COOK	TOTAL SHEETS 1232	SHEET NO. 869
	DRAWN - RWC	CHECKED - AJP	REVISED - 2/18/2014			CONTRACT NO. 60L71	ILLINOIS FED. AID PROJECT			
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PLAN	SURVEYED	BY	DATE
	PLOTTED		
	NOTED		
	NO. OF SHEETS		
	NO. OF SHEETS		
	NO. OF SHEETS		

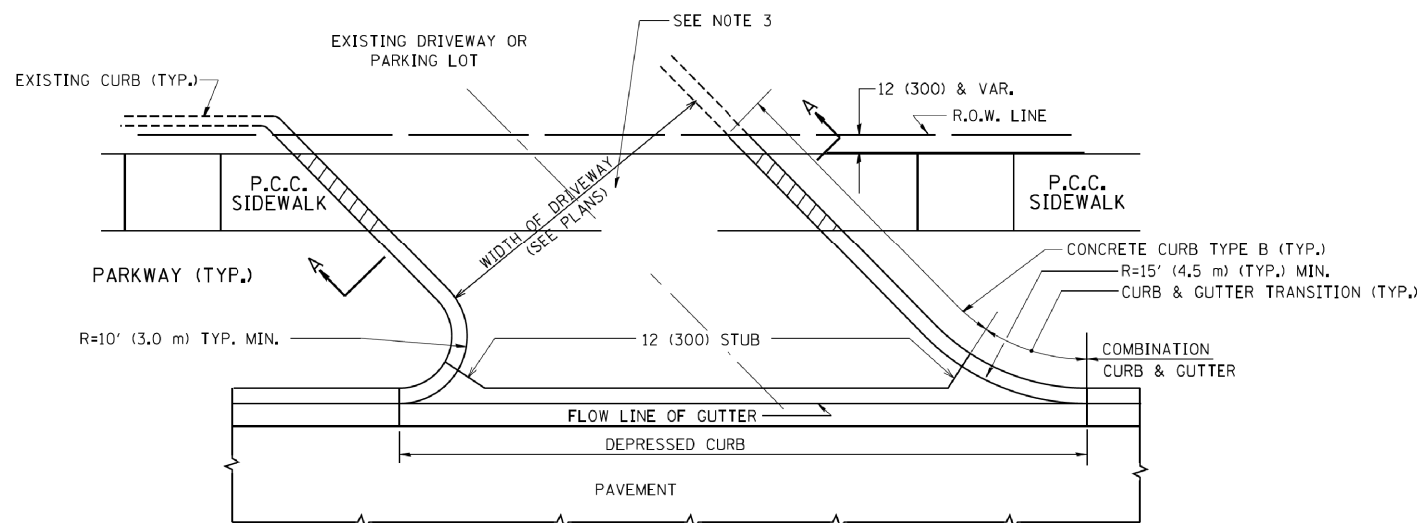
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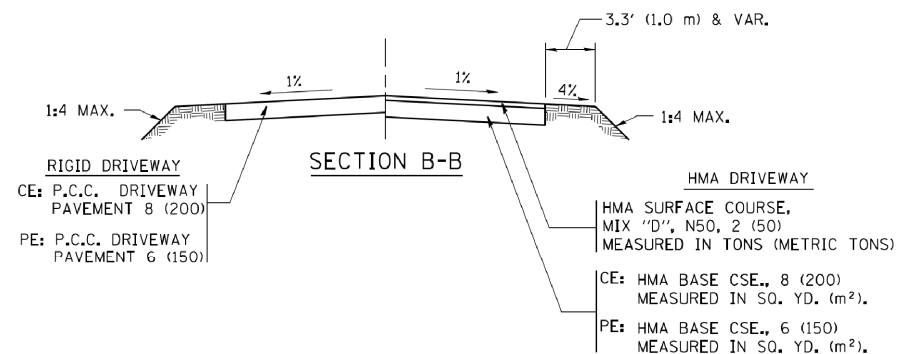
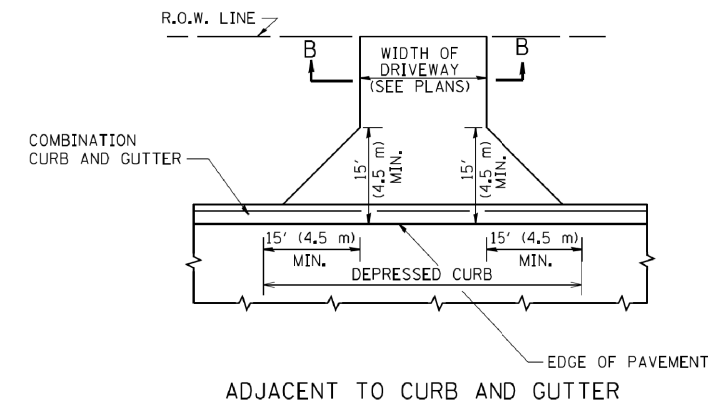
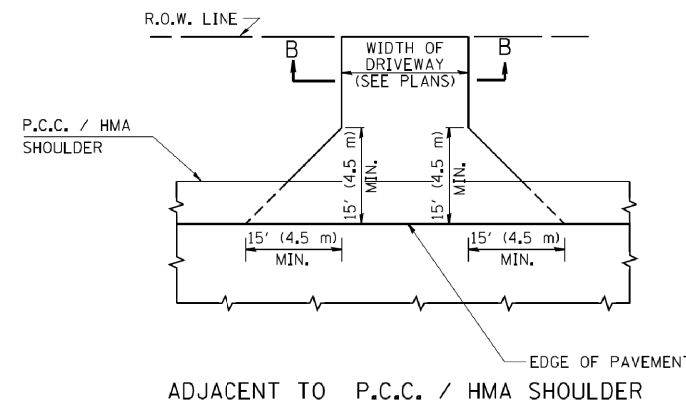
Geo Services, Inc. Geotechnical, Environmental & Civil Engineering 805 Amberst Court, Suite 204 Naperville, Illinois 60565 630.355.2838	USER NAME = #USERS	DESIGNED - RWC	REVISED - 9/26/2013	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	WILL-COOK RD. AT U.S. RTE. 61L RTE. 7 (159TH ST.) SOIL BORING PLAN & PROFILE	F.A.P. RTE. 351	SECTION 536-R-1	COUNTY WILL & COOK	TOTAL SHEETS 1232	SHEET NO. 871
	PLOT SCALE = #SCALE#	CHECKED - AJP	REVISED - 2/18/2014			CONTRACT NO. 60L71				
	PLOT DATE = #DATE#	DATE - 9/11/2013	REVISED -			ILLINOIS FED. AID PROJECT				
	SCALE: 1"=50' 1"=5'					SHEET NO. 1 OF 1 SHEETS		STA. 2992+00.00 TO STA. 3005+00.00		ILLINOIS FED. AID PROJECT



WITH CONCRETE CURB, TYPE B



WITH CONCRETE CURB, TYPE B



GENERAL NOTES:

DRIVEWAY SLOPES, LOCATIONS, & GEOMETRIC LAYOUT SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "HANDBOOK FOR POLICY ON PERMITS FOR ACCESS DRIVEWAYS TO STATE HIGHWAYS". FOR FURTHER LAYOUT REQUIREMENTS, REFER TO ILLUSTRATIONS IN THE PERMIT HANDBOOK. DRIVEWAYS SHALL BE REPLACED IN KIND, UNLESS OTHERWISE NOTED ON THE PLANS.

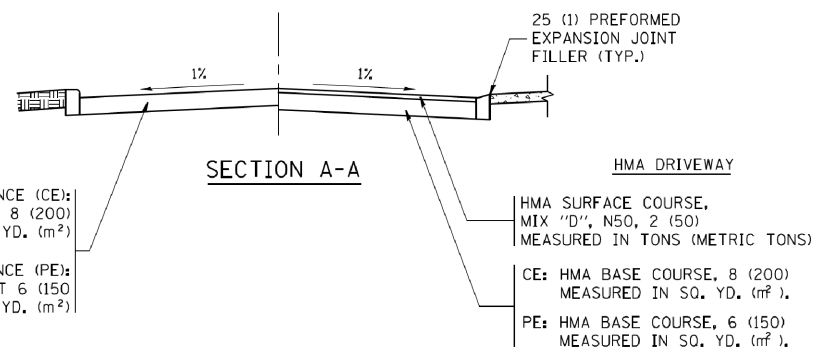
COMMERCIAL DRIVEWAYS SHALL BE CONSTRUCTED WITH CONCRETE CURB, TYPE B RETURNS EXCEPT WHEN THE SIDEWALK EDGE IS 4 FEET (1.2 METERS) OR LESS FROM THE BACK OF CURB, CONSTRUCT A FLARE DRIVEWAY WITHOUT CURB.

THE RESIDENT ENGINEER SHALL CONTACT THE TRAFFIC PERMIT OFFICE AT 847/ 705-4131 FOR ANY QUESTIONS ON DRIVEWAYS SHOWN IN THE PLANS; SPECIFICALLY IN REFERENCE TO ADDITIONAL AND/OR RELOCATION/REMOVAL OF A DRIVEWAY.

COMBINATION CONCRETE CURB & GUTTER SHALL BE MEASURED STRAIGHT ACROSS THE DRIVEWAY. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR THE CURB & GUTTER TRANSITION.

1 (25) PREFORMED EXPANSION JOINT FILLER WILL NOT BE PAID SEPARATELY, BUT SHALL BE CONSIDERED INCLUDED IN THE COST OF THE P.C.C. DRIVEWAY PAVEMENT OR P.C.C. SIDEWALK.

WHEN THE P.C.C. SIDEWALK EXTENDS THROUGH THE DRIVEWAY, THE THICKNESS OF THE SIDEWALK IN THE DRIVEWAY AREA SHALL BE THE SAME AS THE DRIVEWAY THICKNESS. SIDEWALK WILL BE PAID FOR AS P.C.C. SIDEWALK OF THE THICKNESS SPECIFIED. SIDEWALK CROSS SLOPE THRU DRIVEWAY AREA TO BE A MAXIMUM OF 1:50.



SECTION A-A

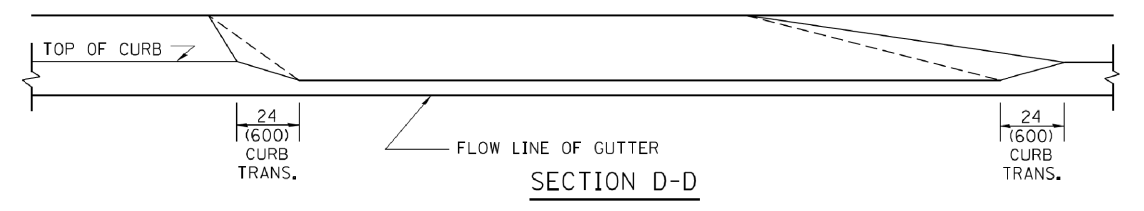
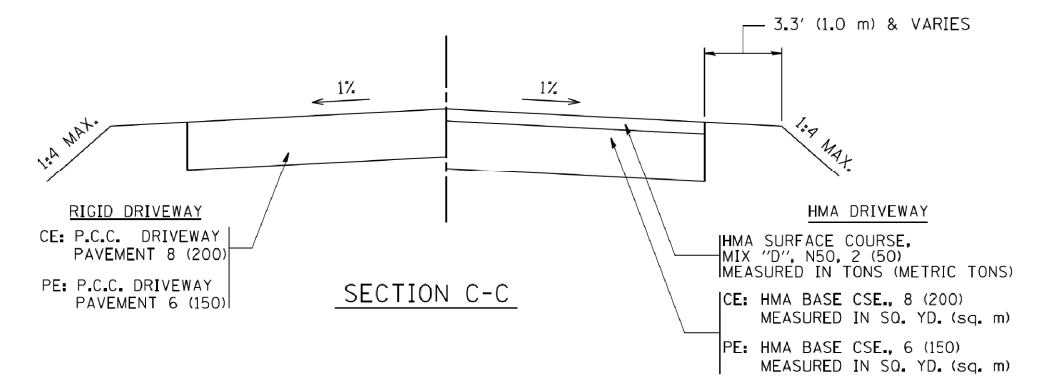
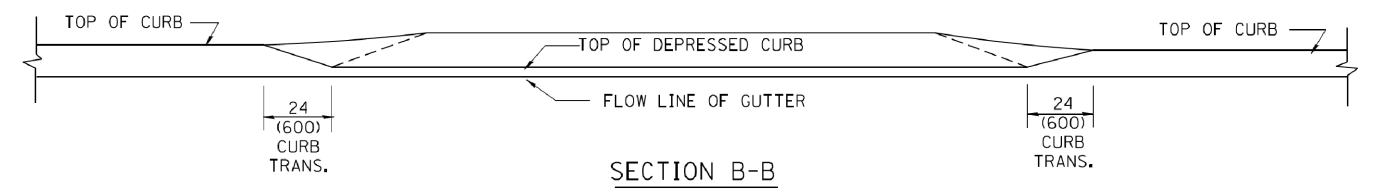
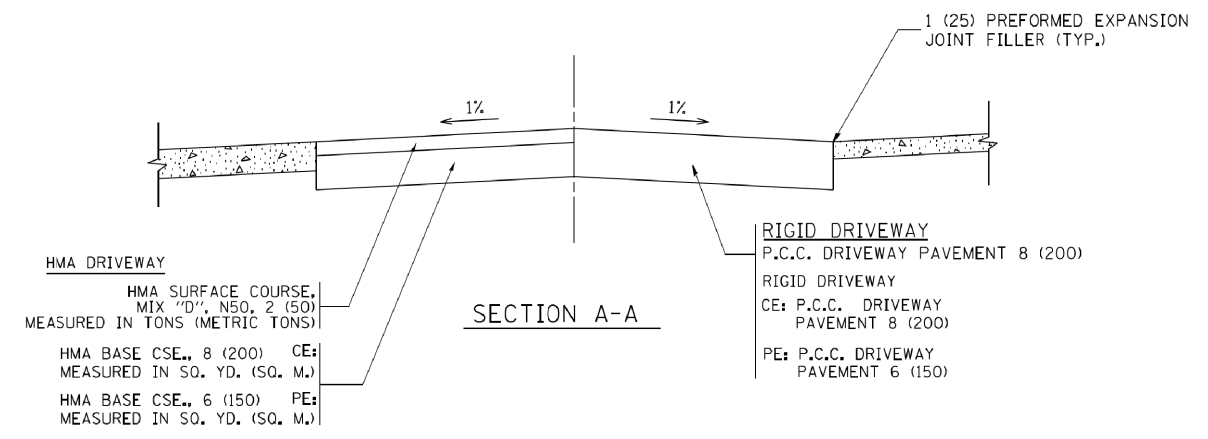
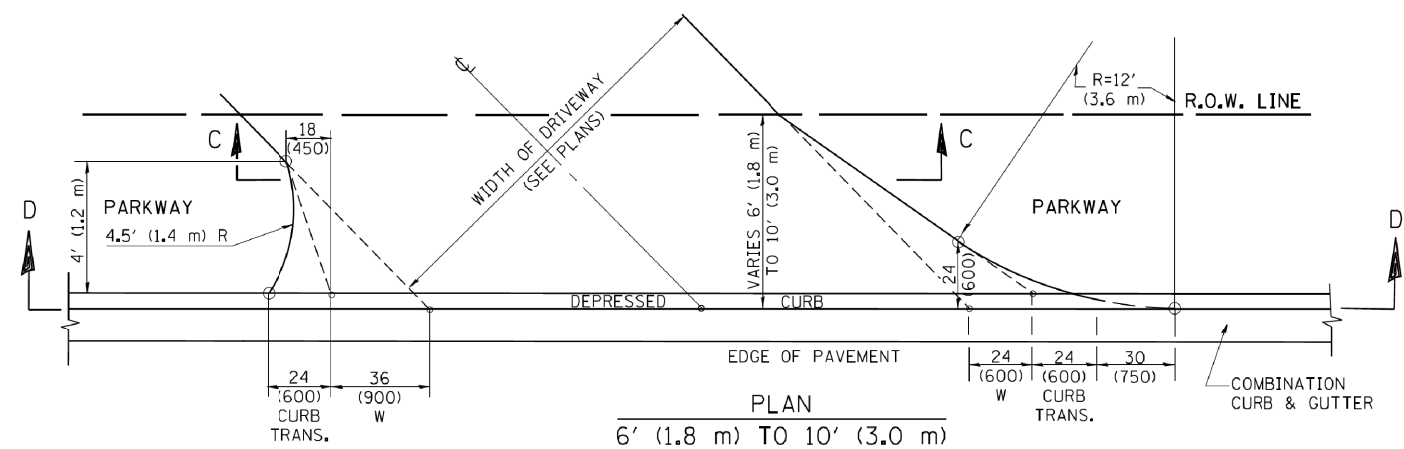
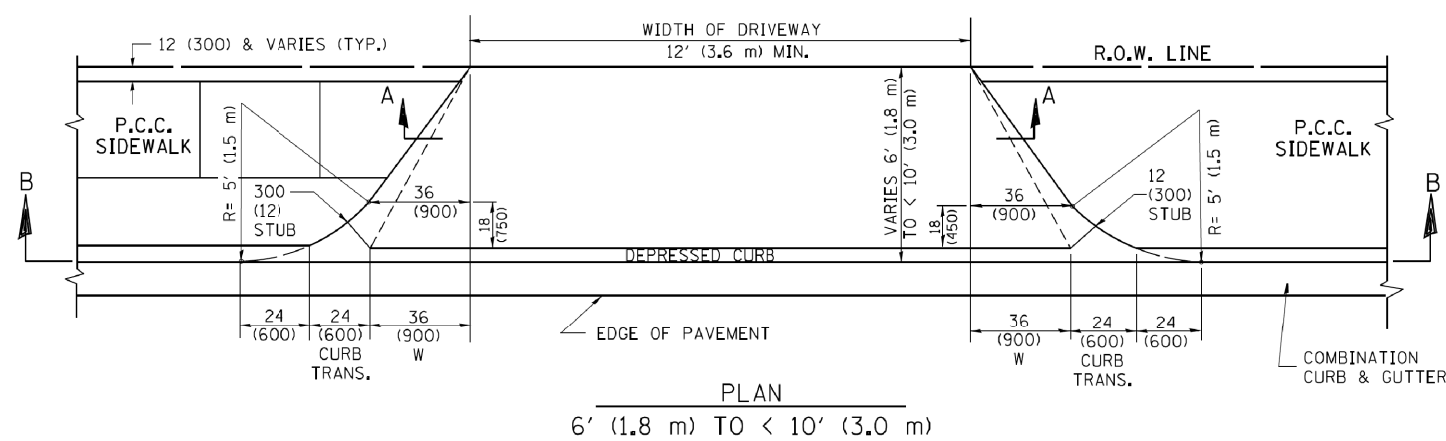
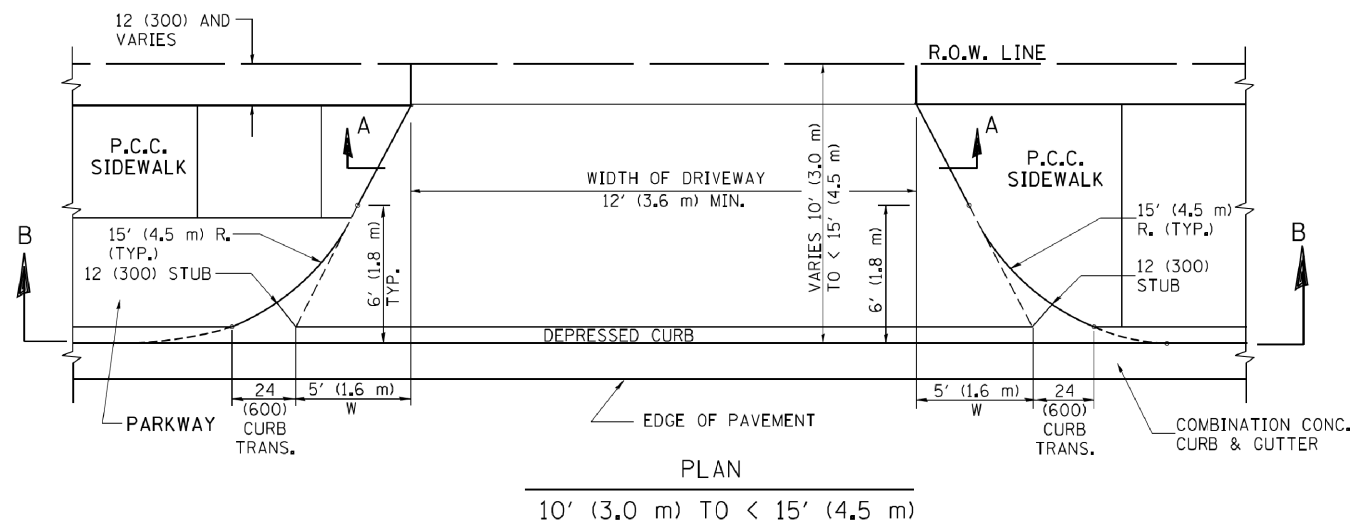
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	PLOT DATE = 9/6/2011	DATE - 11-04-95	REVISED - R. BORO 09-06-11

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DRIVEWAY DETAILS - DISTANCE BETWEEN R.O.W.
AND FACE OF CURB & EDGE OF SHOULDER >= 15' (4.5 m)**

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	536-R-1	WILL/COOK	1232	872
BD0156-07 (BD-01)			CONTRACT NO. 60L71	
FED. ROAD DIST. NO. 1 ILLINOIS/FED. AID PROJECT				



GENERAL NOTES

DRIVEWAY SLOPES, LOCATIONS, & GEOMETRIC LAYOUT SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "HANDBOOK FOR POLICY ON PERMITS FOR ACCESS DRIVEWAYS TO STATE HIGHWAYS". FOR FURTHER LAYOUT REQUIREMENTS, REFER TO ILLUSTRATION 10 IN THE PERMIT HANDBOOK. WHERE SIDEWALKS EXIST, DRIVEWAYS SHALL BE REPLACED WITH RIGID PAVEMENT. WHERE NO SIDEWALKS EXIST, DRIVEWAYS SHALL BE REPLACED IN KIND. SIDEWALK CROSS SLOPE THRU DRIVEWAY AREA TO BE A MAXIMUM OF 1:50.

WHEN THE DISTANCE BETWEEN R.O.W. AND THE BACK OF CURB IS EQUAL TO OR LESS THAN 8' (2.4 m), THE P.C.C. SIDEWALK SHALL EXTEND TO THE BACK OF CURB.

THE RESIDENT ENGINEER SHALL CONTACT THE TRAFFIC PERMIT OFFICE AT 847/ 705-4131 FOR ANY QUESTIONS ON DRIVEWAYS SHOWN IN THE PLANS; SPECIFICALLY IN REFERENCE TO ADDITIONAL AND/OR RELOCATION/REMOVAL OF A DRIVEWAY.

COMBINATION CONCRETE CURB & GUTTER SHALL BE MEASURED STRAIGHT ACROSS THE DRIVEWAY. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR THE CURB & GUTTER TRANSITION.

THE 1 (25) PREFORMED EXPANSION JOINT FILLER WILL NOT BE PAID SEPARATELY, BUT SHALL BE CONSIDERED INCLUDED IN THE COST OF THE P.C.C. DRIVEWAY PAVEMENT OR P.C.C. SIDEWALK.

"W" VARIES FROM 36 (900) TO 5' (1.5 m) PROPORTIONAL TO THE LENGTH (L), FROM 6' (1.8 m) TO 10' (3 m).

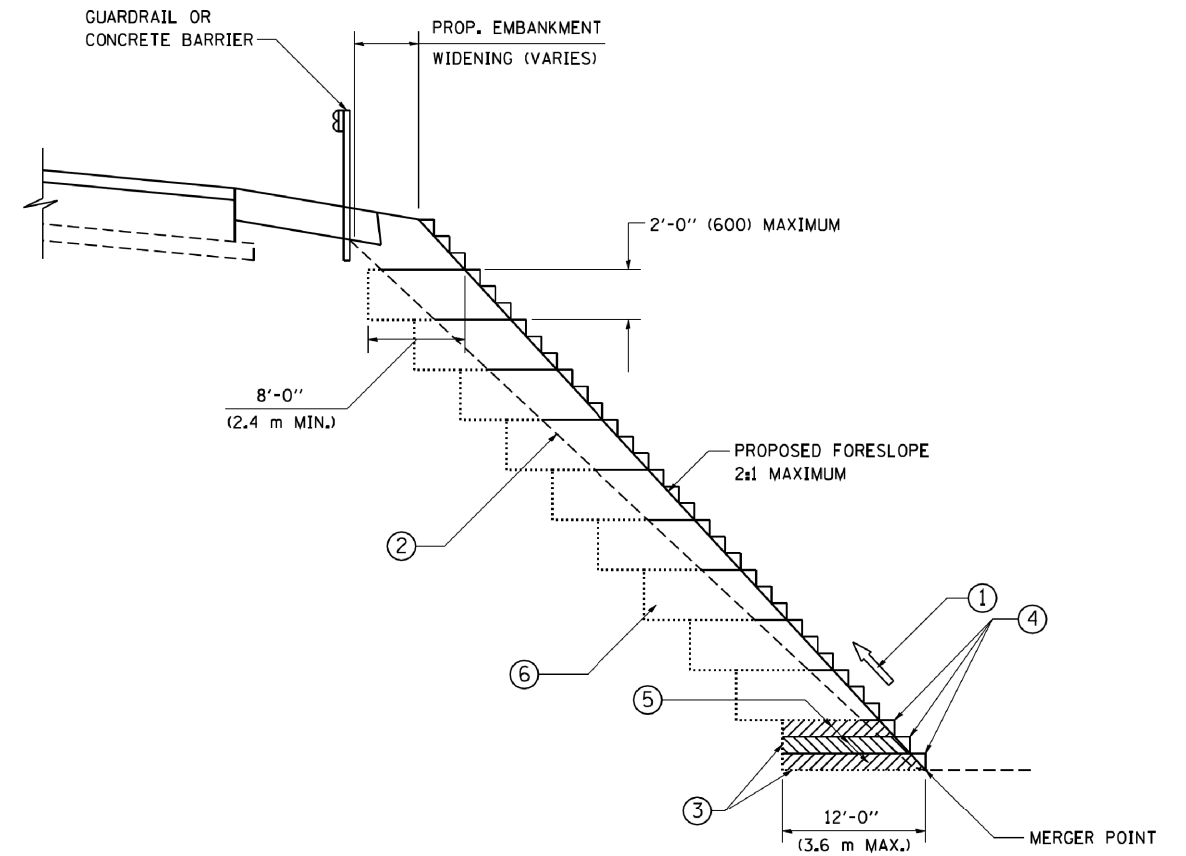
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE NOTED.

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	PLOT DATE = 10/28/2011	DATE - 11-06-95	REVISED - R. BORO 09-06-11

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

DRIVEWAY DETAILS	
DISTANCE BETWEEN ROW AND FACE OF CURB < 15' (4.5 m)	
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	536-R-1	WILL/COOK	1232	873
BD400-02 (BD-02)			CONTRACT NO. 60L71	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



**TYPICAL BENCHING DETAIL
FOR EMBANKMENT**

NOTES:

- ① CONSTRUCT SUCCEEDING BENCH CUTS AND EMBANKMENT PLACEMENT AND COMPACTION FROM BOTTOM TO TOP IN STAIRSTEP FASHION.
- ② EXISTING FORESLOPE PREPARED IN ACCORDANCE WITH ARTICLE 205.03 OF THE STANDARD SPECIFICATIONS.
- ③ BENCH CUT EXISTING SLOPE TYPICAL FOR EACH STEP.
- ④ TRIM TO FINAL SLOPE.
- ⑤ EQUAL 8-INCH (200) LIFTS OF EMBANKMENT COMPACTED IN ACCORDANCE WITH ARTICLE 205.05 OF THE STANDARD SPECIFICATIONS.
- ⑥ EXCAVATION OF BENCH CUTS WITHIN EXISTING EMBANKMENT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC METER OR CUBIC YARD FOR "EARTH EXCAVATION". THIS PRICE WILL INCLUDE ALL LABOR AND MATERIAL. NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- ⑦ SLOPES SHALL BE BENCHED ACCORDING TO THIS DETAIL WHEN THE SLOPE IS STEEPER THAN 4:1 AND THE HEIGHT IS GREATER THAN 5' (1.5 m).

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS)
UNLESS OTHERWISE SHOWN.

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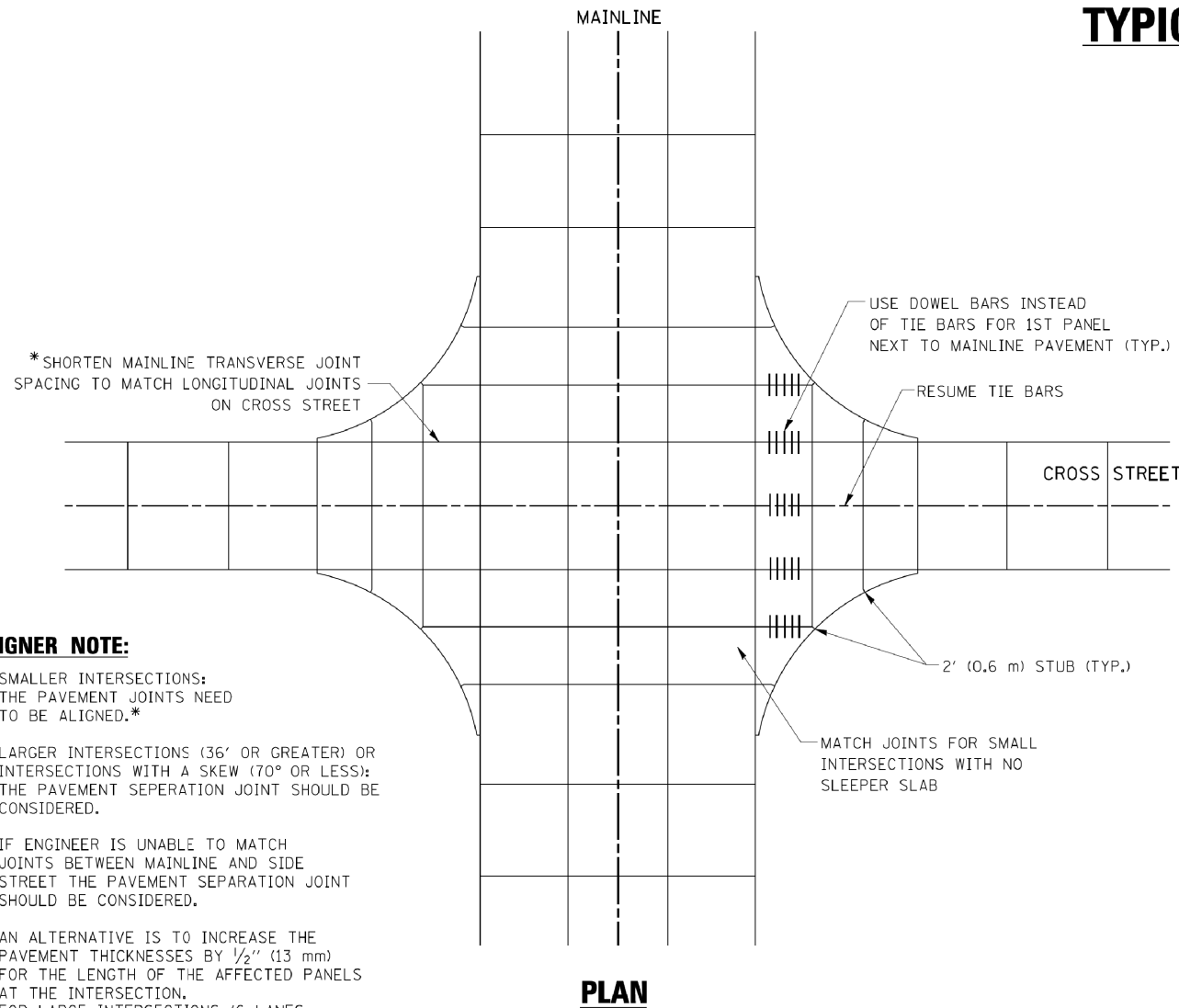
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

BENCHING DETAIL FOR EMBANKMENT WIDENING			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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BD-51		CONTRACT NO. 60L71		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

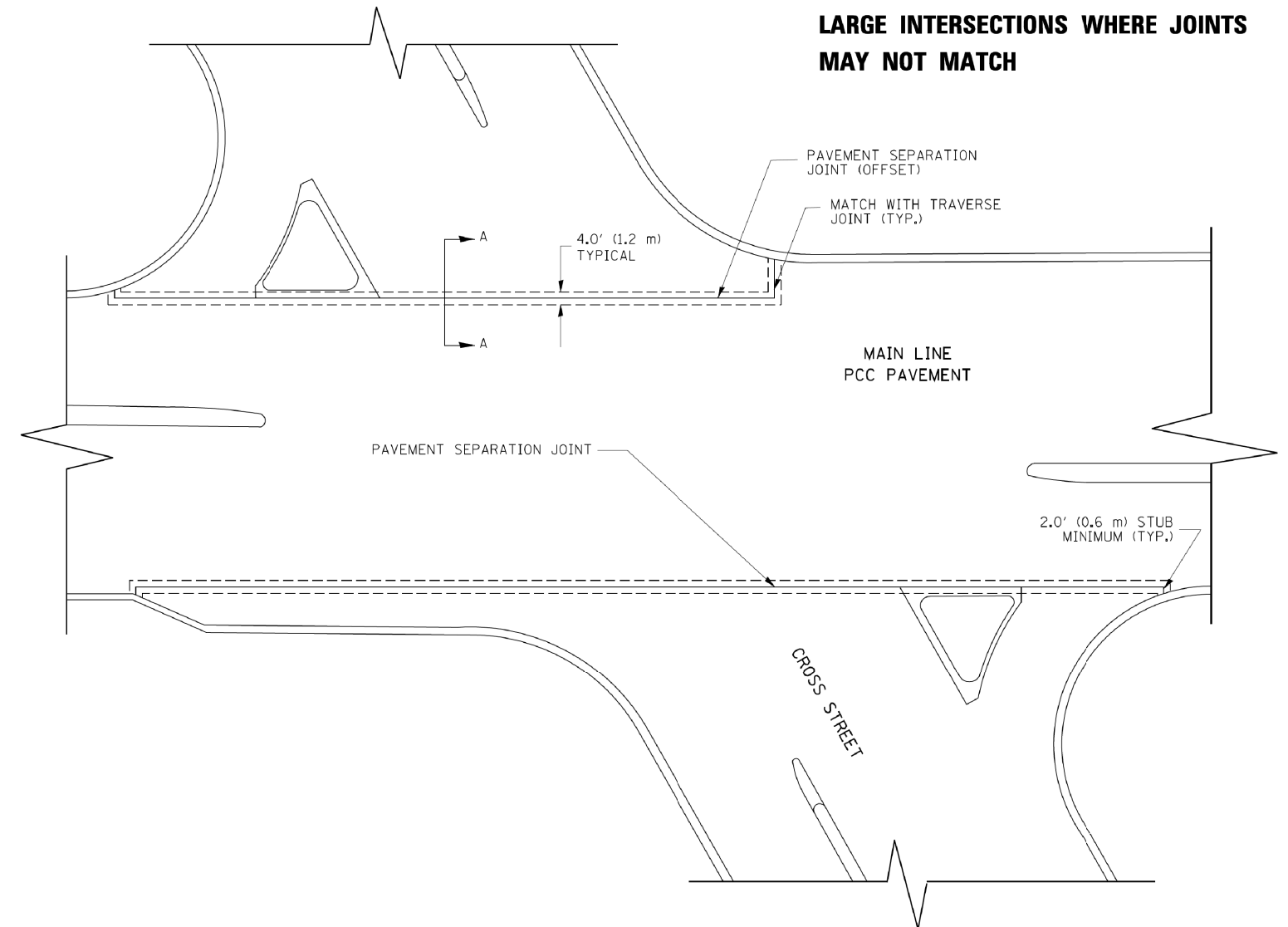
TYPICAL APPLICATION

THE USE OF CROSS STREET PAVEMENT SEPARATION JOINTS FOR SKEWED OR LARGE INTERSECTIONS WHERE JOINTS MAY NOT MATCH



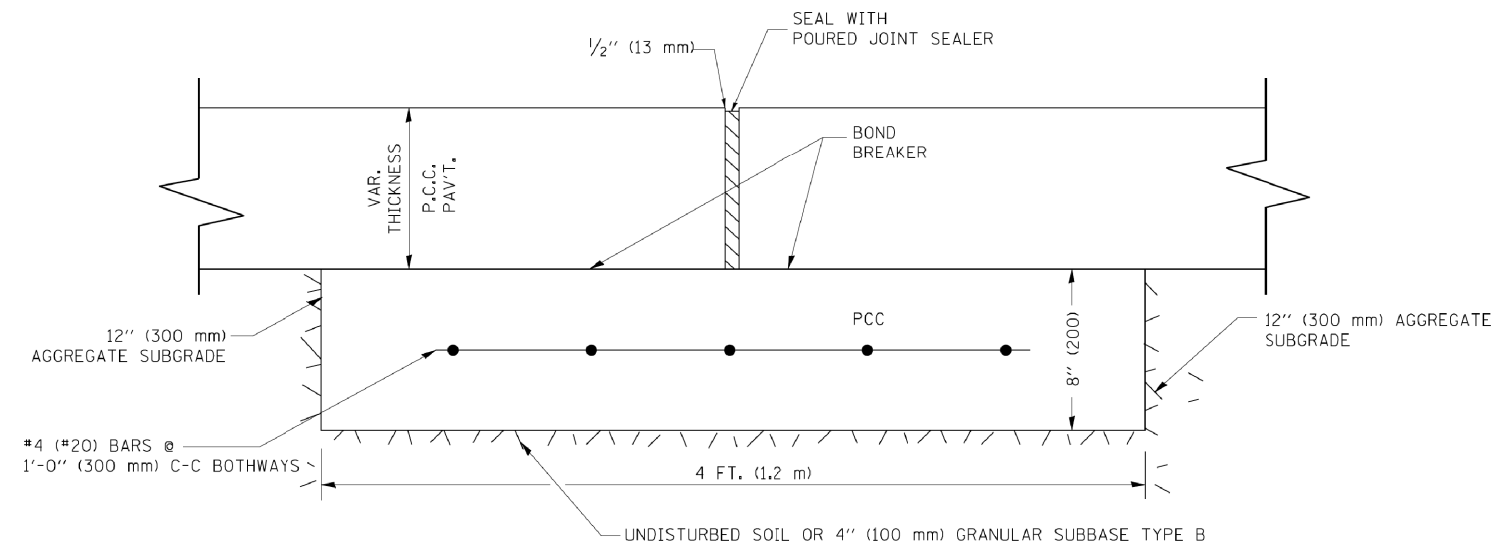
DESIGNER NOTE:

1. SMALLER INTERSECTIONS: THE PAVEMENT JOINTS NEED TO BE ALIGNED.*
2. LARGER INTERSECTIONS (36' OR GREATER) OR INTERSECTIONS WITH A SKEW (70° OR LESS): THE PAVEMENT SEPERATION JOINT SHOULD BE CONSIDERED.
3. IF ENGINEER IS UNABLE TO MATCH JOINTS BETWEEN MAINLINE AND SIDE STREET THE PAVEMENT SEPARATION JOINT SHOULD BE CONSIDERED.
4. AN ALTERNATIVE IS TO INCREASE THE PAVEMENT THICKNESSES BY 1/2" (13 mm) FOR THE LENGTH OF THE AFFECTED PANELS AT THE INTERSECTION. FOR LARGE INTERSECTIONS (6 LANES OR MORE) WHERE JOINTS CAN BE MATCHED, USE #8 (25) DOWEL BARS INSTEAD OF #8 (25) TIE BARS AT EDGE OF MAINLINE PAVEMENT WHEN NO PAVEMENT SEPARATION JOINTS USED.



NOTE:

1. JOINT FILLER SHALL CONSIST OF A SHEET OF 1/2" (13 mm) BITUMINOUS PREFORMED FIBER JOINT FILLER CONFORMING TO ARTICLE 1051.03 OF THE STANDARD SPECIFICATIONS.
2. THE JOINT SHALL BE SEALED WITH A HOT POUR JOINT SEALER CONFORMING TO ARTICLE 1050.02 OF THE STANDARD SPECIFICATIONS.
3. A SINGLE LAYER OF FELT ROOFING PAPER SHALL SERVE AS A BOND BREAKER.
4. JOINT SHALL CONTINUE THROUGH COMBINATION CURB & GUTTER OR PCC SHOULDER.
5. PAVEMENT SEPARATION JOINT IS TO BE PAID FOR AS "SLEEPER SLAB" AND IS TO BE MEASURED IN PLACE BY THE LINEAL FOOT.
6. BOND BREAKER AND 1/2" (13 mm) JOINT AND FILLER SHALL BE INCIDENTAL TO THE PAY ITEM "SLEEPER SLAB".



PROPOSED SECTION A-A

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		CHECKED -	REVISED -
		DATE -	REVISED -

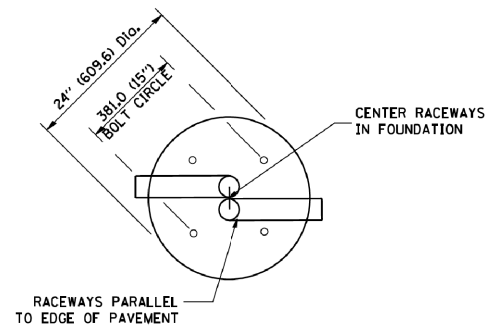
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

DETAIL OF PAVEMENT SEPARATION JOINT FOR JOINTED PCC PAVEMENTS AT INTERSECTIONS			
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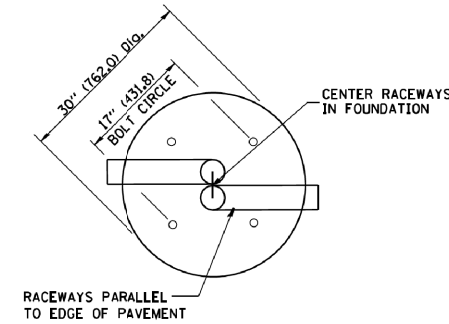
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351	536-R-1	WILL/COOK	1232	876
BD52		CONTRACT NO. 60L71		
ILLINOIS FED. AID PROJECT				

LIGHT POLE FOUNDATION DEPTH TABLE
40 FT. (12.192 m) TO 47.5 FT. (14.478 m) MOUNTING HEIGHT

SOIL CONDITIONS	DESIGN DEPTH "D" OF FOUNDATION	
	SINGLE ARM POLE	TWIN ARM POLE
SOFT CLAY O _u = 0.375 TON/SO. FT.	13'-0" (3.96 m)	15'-0" (4.57 m)
MEDIUM CLAY O _u = 0.75 TON/SO.FT	9'-6" (2.93 m)	10'-9" (3.23 m)
STIFF CLAY O _u = 1.50 TON/SO. FT.	7'-0" (2.13 m)	8'-0" (2.44 m)
LOOSE SAND φ = 34°	9'-0" (2.74 m)	10'-0" (3.05 m)
MEDIUM SAND φ = 37.5°	8'-3" (2.52 m)	9'-0" (2.74 m)
DENSE SAND φ = 40°	7'-9" (2.36 m)	7'-9" (2.36 m)



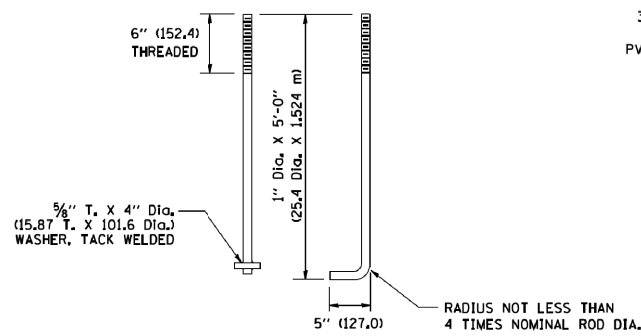
TOP VIEW



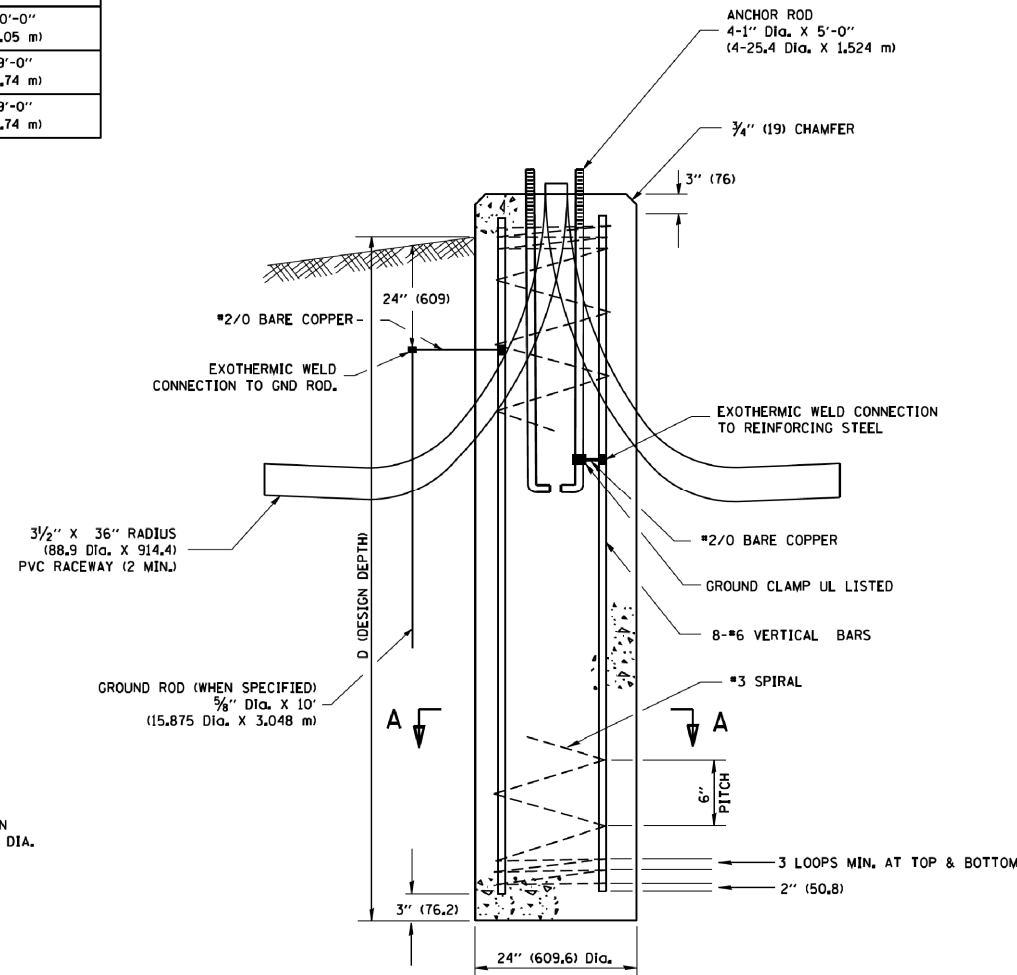
TOP VIEW

NOTES

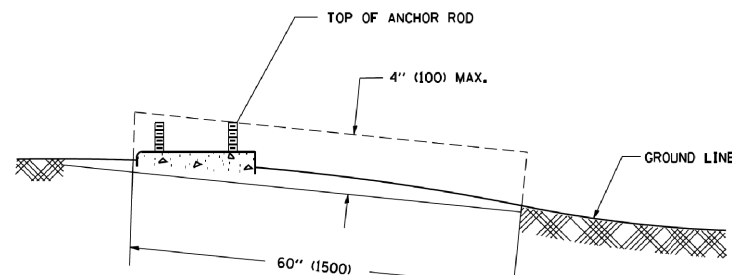
- ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
- THE ANCHOR RODS AND RACEWAYS SHALL BE PROPERLY SECURED IN PLACE BEFORE THE CONCRETE IS PLACED.
- THE FOUNDATION SHALL NOT PROTRUDE MORE THAN 100MM (4 IN.) ABOVE THE FINISHED GRADE WITHIN A 60 IN. (1.5 m) CHORD ACROSS THE FOUNDATION, WITH ANCHOR RODS INCLUDED, IN ACCORDANCE WITH AASHTO GUIDELINES. IF THE FOUNDATION HEIGHT, INCLUDING ANCHOR RODS, EXTENDS BEYOND THESE SPECIFIED LIMITS, THE FOUNDATION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. SEE FOUNDATION EXTENSION DETAIL.
- THE HOLE FOR THE FOUNDATION SHALL BE MADE BY DRILLING WITH AN AUGER, OF THE SAME DIAMETER AS THE FOUNDATION. IF SOIL CONDITIONS REQUIRE THE USE OF A LINER TO FORM THE HOLE, THE LINER SHALL BE WITHDRAWN AS THE CONCRETE IS DEPOSITED.
- THE TOP OF THE FOUNDATION SHALL BE CONSTRUCTED LEVEL. A LINER OR FORM SHALL BE USED TO PRODUCE A UNIFORM SMOOTH SIDE TO THE TOP OF THE FOUNDATION. FOUNDATION TOP SHALL BE CHAMFERED 3/4-IN. (20 mm).
- THE CONCRETE SHALL BE CLASS S1. CONCRETE SHALL CURE ACCORDING TO ARTICLE 1020.13 BEFORE LIGHT POLES ARE INSTALLED.
- THE ANCHOR ROD SHALL BE A HOOK ROD TYPE. COLD BENDING OF THE ANCHOR ROD WILL NOT BE ALLOWED. THE RADIUS OF THE HOOK BEND SHALL NOT BE LESS THAN 4 TIMES THE NOMINAL DIAMETER OF THE ANCHOR ROD. A TACK WELDED ANCHOR ROD MAY BE SUBSTITUTED WITH THE APPROVAL OF THE ENGINEER.
- THE ANCHOR RODS SHALL BE ACCORDING TO ASTM F1554 GRADE 725 (GRADE 105). NUTS SHALL BE HEXAGON NUTS ACCORDING TO ASTM A 194 2H OR ASTM A 563 DH, AND WASHERS SHALL BE ACCORDING TO ASTM F 436.
- ANCHOR RODS, NUTS AND WASHERS SHALL BE COMPLETELY GALVANIZED BY EITHER THE HOT-DIPPED PROCESS CONFORMING WITH AASHTO M 232, THE MECHANICAL PLATING METHOD CONFORMING TO AASHTO M 298, CLASS 50 WITH A MAXIMUM COATING THICKNESS OF 150 UMG MILS) OR THE ELECTROLYTIC PROCESS ACCORDING TO ASTM F 1136.
- THE ANCHOR RODS SHALL BE THREADED A MINIMUM OF 6 INCHES (150 mm) WITH A MINIMUM OF 3 INCHES (75 mm) OF THREADED ANCHOR ROD EMBEDDED IN THE FOUNDATION.
- ANCHOR RODS SHALL PROJECT 2 3/4" (69.9 mm) ABOVE THE TOP OF THE FOUNDATION. IF BREAKAWAY COUPLINGS ARE SPECIFIED, THE CONTRACTOR SHALL CAREFULLY COORDINATE THE ANCHOR ROD PROJECTION WITH THE INSTALLATION REQUIREMENTS OF THE BREAKAWAY COUPLINGS.
- THE CONTRACTOR SHALL USE A #3 SPIRAL AT 6" (152.4 mm) PITCH OR MAY SUBSTITUTE #3 TIES AT 12" (304.8 mm) O.C. WITH THE APPROVAL OF THE ENGINEER.
- THE CABLE TRENCHES AND FOUNDATION SHALL BE BACK FILLED AND COMPACTED AS SPECIFIED BEFORE THE LIGHT POLE IS ERECTED.
- THE RACEWAYS SHALL PROJECT 1" (25.4 mm) ABOVE THE TOP OF THE FOUNDATION.



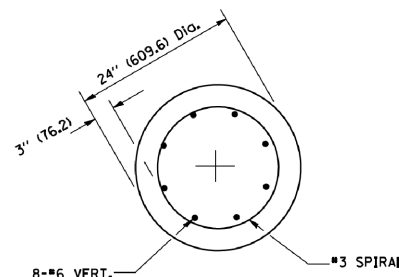
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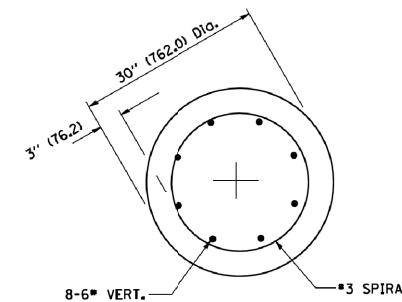
FOUNDATION DETAIL



FOUNDATION EXTENSION DETAIL



SECTION A-A



SECTION A-A

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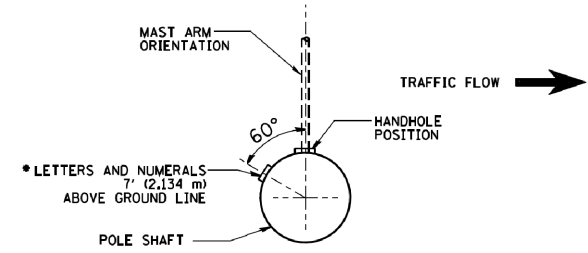
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DESIGNED -
DRAWN -
CHECKED -
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REVISED - 04-22-02
REVISED -
REVISED -
REVISED -

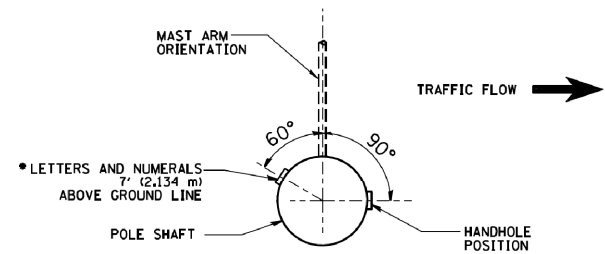
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LIGHT POLE FOUNDATION
40' (12.192 m) TO 47 1/2' (14.478 m) M.H. 15" (381 mm) BOLT CIRCLE
SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

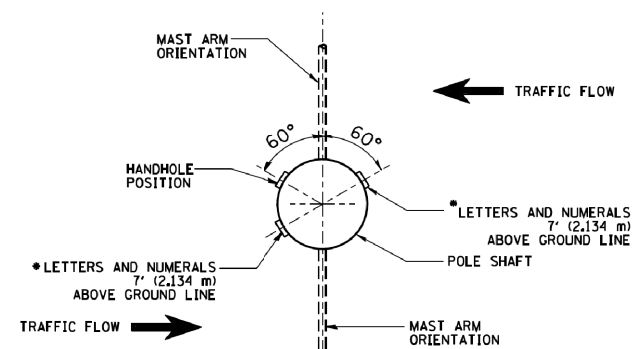
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351	536-R-1	WILL/COOK	1232	878
BE-301		CONTRACT NO. 60L71		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



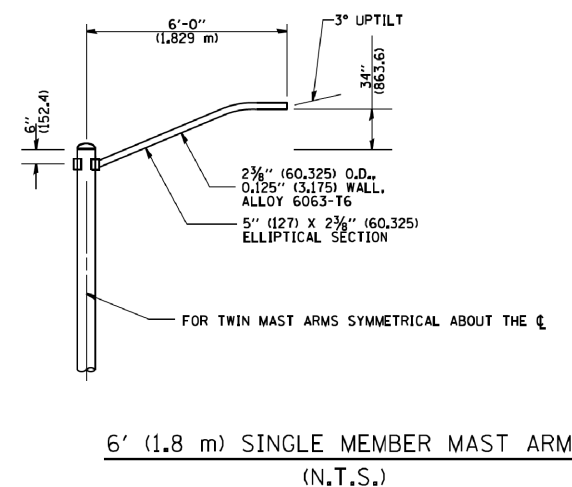
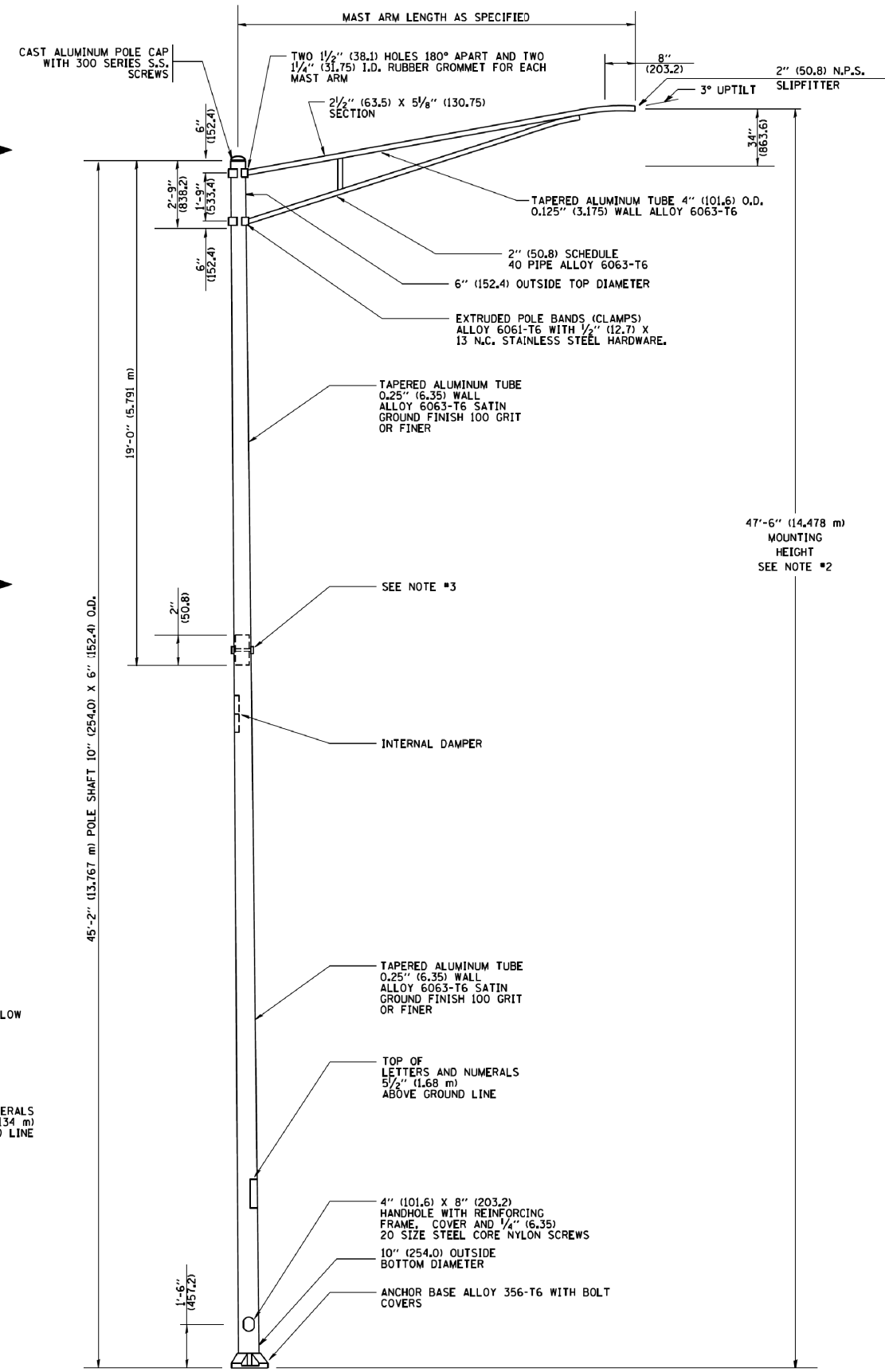
POSITION OF HANDHOLE AND POLE NUMBER FOR SINGLE MAST ARM POLES MOUNTED ON BRIDGE PARAPET OR BARRIER WALL



POSITION OF HANDHOLE AND POLE NUMBER FOR SINGLE MAST ARM POLES

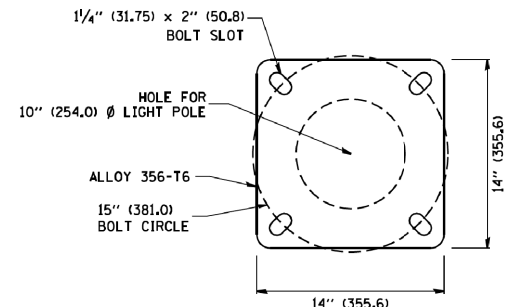


POSITION OF HANDHOLE AND POLE NUMBER FOR TWIN MAST ARM POLES

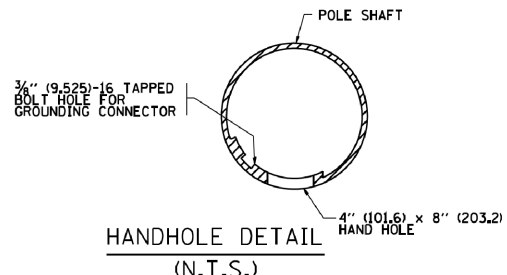


6' (1.8 m) SINGLE MEMBER MAST ARM (N.T.S.)

- NOTES:**
- ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
 - MOUNTING HEIGHT IS DEFINED AS THE DISTANCE FROM THE CENTERLINE OF THE TENON TO THE BOTTOM OF THE ANCHOR BASE.
 - TWO PIECE SHAFT WILL BE MATCHED MARKED AND INTERCHANGEABLE BETWEEN DIFFERENT UNITS. FIELD DRILLING OF THE HOLES WILL NOT BE ALLOWED.
 - THE LIGHT POLE WILL MEET AASHTO DESIGN CRITERIA AS SPECIFIED.
 - THE INSTALLING CONTRACTOR WILL PROVIDE A UL LISTED GROUNDING CONNECTOR, BURNDY K2C23, T&B SP4DL OR APPROVED EQUAL.
 - LIGHT POLES WILL NOT BE INSTALLED WITHOUT MAST ARMS AND LUMINAIRES.
 - LIGHT POLES WILL BE SET PLUMB ON THE FOUNDATION WITHOUT THE USE OF LEVELING NUTS, WASHERS OR SHIMS.
 - LIGHTING UNIT IDENTIFICATION NUMBERS SHALL BE INSTALLED BEFORE THE LIGHTING UNIT IS ENERGIZED.



LIGHT POLE BASE PLATE DETAIL
15 INCH (381.0) BOLT CIRCLE



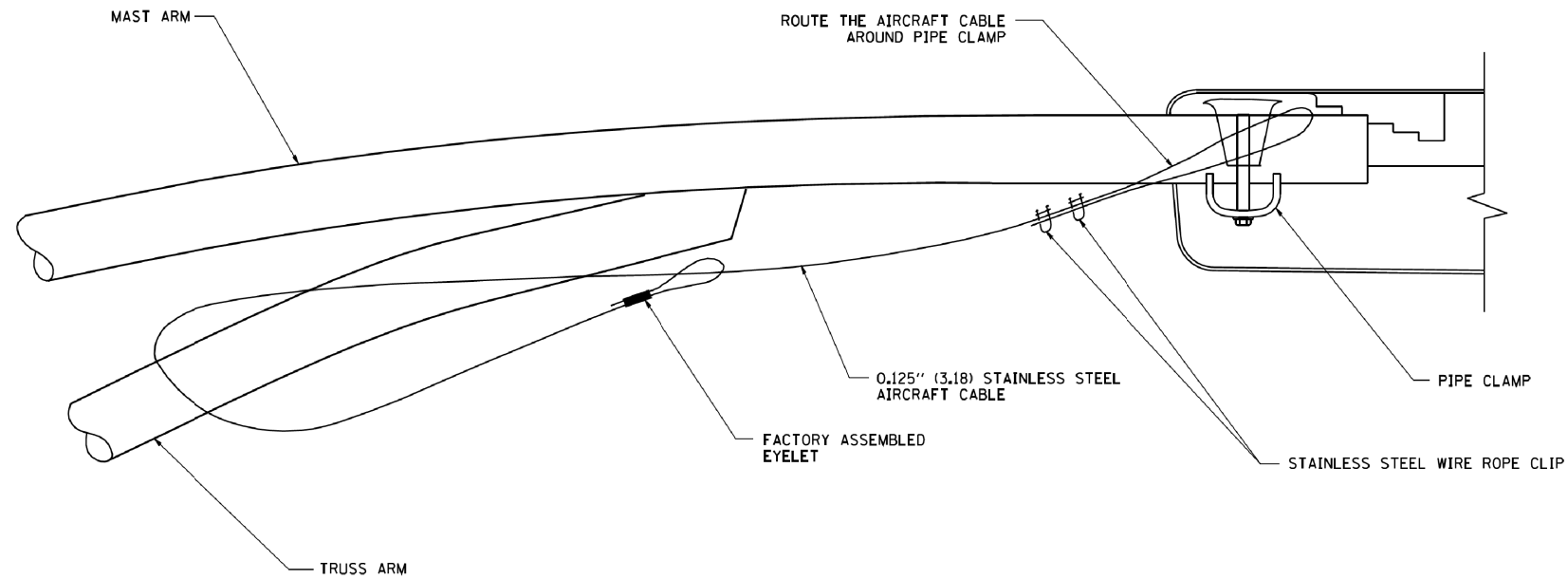
HANDHOLE DETAIL (N.T.S.)

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		DRAWN -	REVISED - R. TOMSONS 09-03-03
	PLOT SCALE = 50.000' / IN.	CHECKED -	REVISED -
	PLOT DATE = 1/4/2008	DATE -	REVISED -

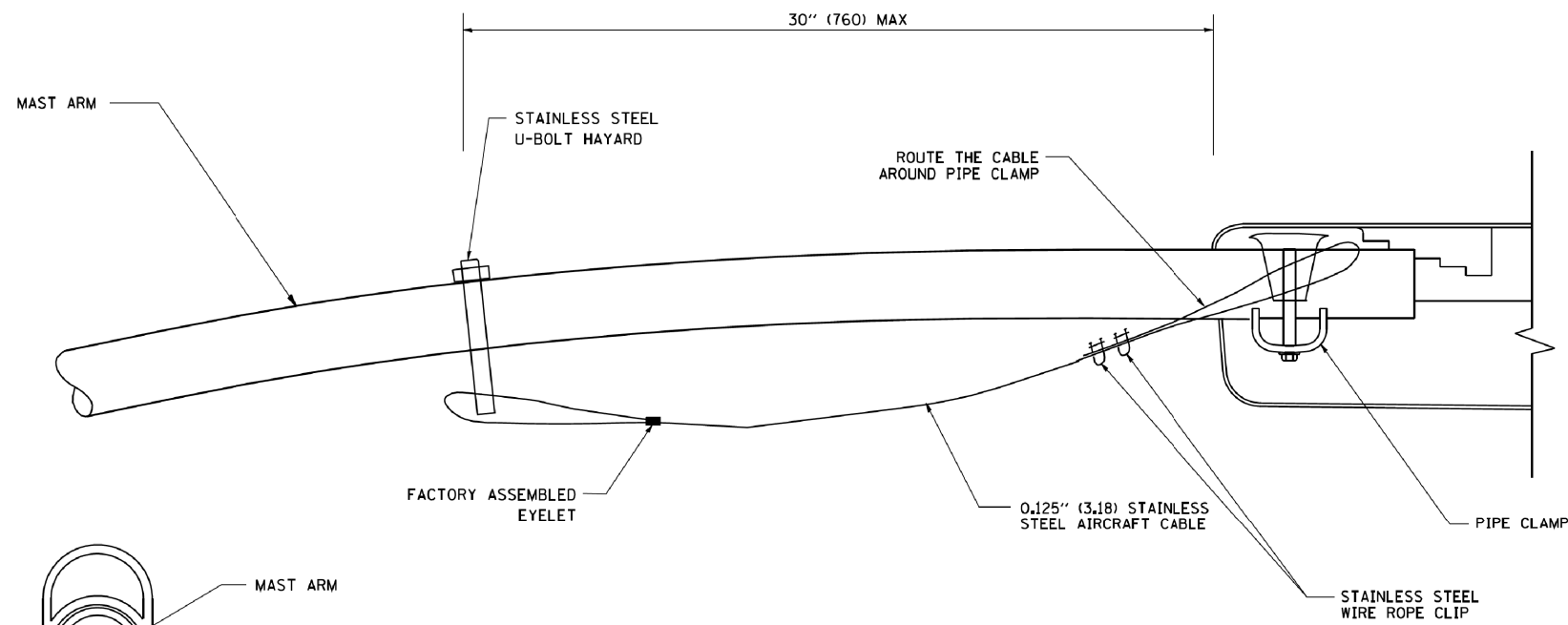
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

ALUMINUM LIGHT POLE			
47'-6" (14.478 m) MOUNTING HEIGHT			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

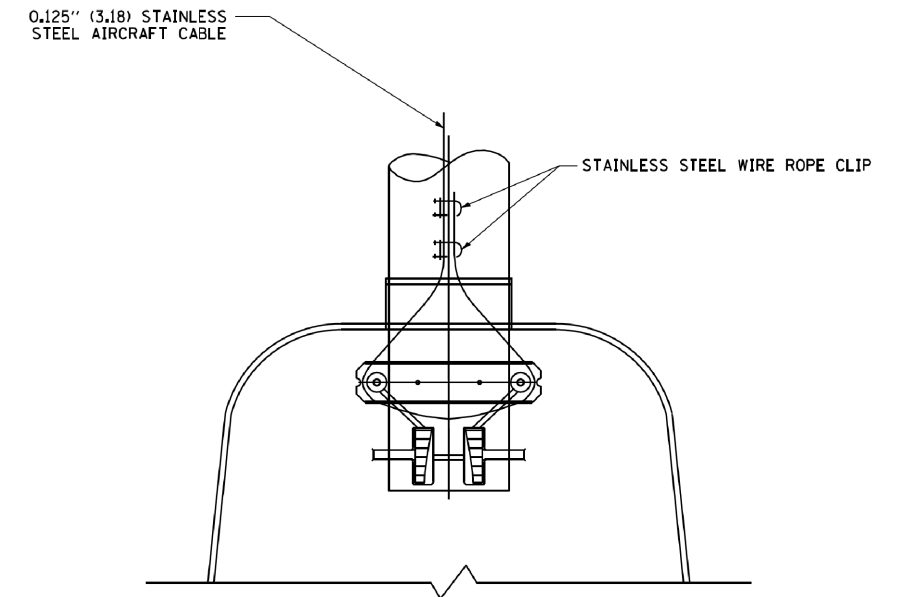
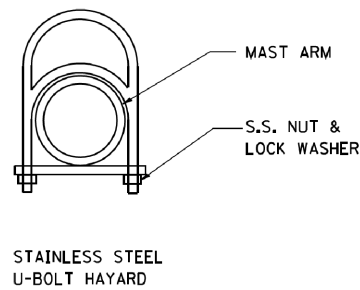
F.A. RTE. 351	SECTION 536-R-1	COUNTY WILL/COOK	TOTAL SHEETS 1232	SHEET NO. 879
BE-400		CONTRACT NO. 60L71		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



SIDE VIEW (TRUSS ARM)
N.T.S.



SIDE VIEW (SINGLE MEMBER OR DAVIT ARM)
N.T.S.

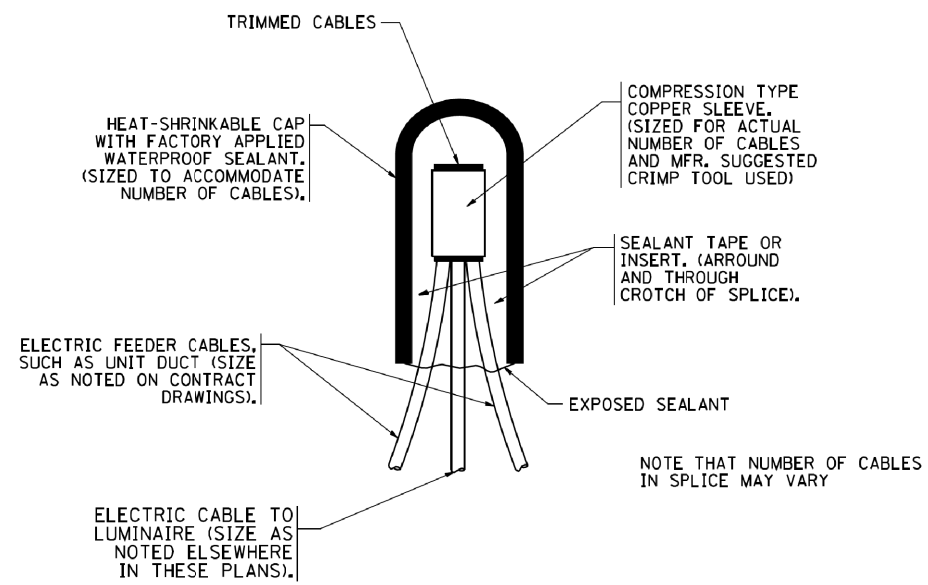


BOTTOM VIEW
N.T.S.

NOTES:

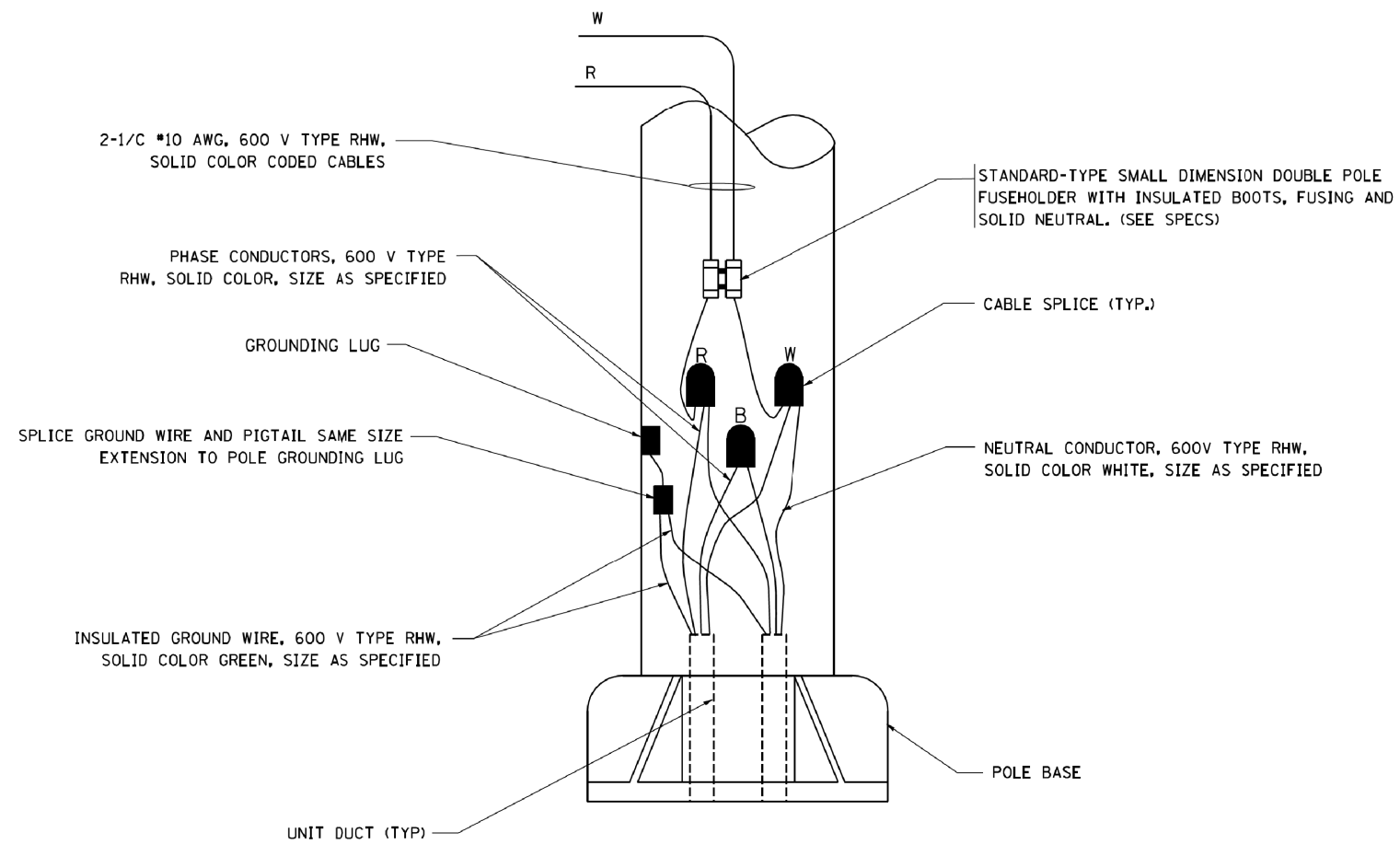
1. ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE SHOWN.
2. CONTRACTOR SHALL ADJUST THE WIRE CLIP TO ELIMINATE ANY SLACK FROM THE WIRE ROPE.
3. THE 0.125" (3.18) STAINLESS STEEL AIRCRAFT CABLE SHALL REMAIN VISIBLE FROM THE GROUND LEVEL.
4. THE BREAKING STRENGTH OF THE CABLE SHALL BE 1700 LBS. MIN.

FILE NAME = W:\diststd\22x34\be701.dgn	USER NAME = gaglanobt	DESIGNED -	REVISED - 08-08-03	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	LUMINAIRE SAFETY CABLE ASSEMBLY			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 50,000 ' / IN.	DRAWN -	REVISED -					351	536-R-1	WILL/COOK	1232	880
PLOT DATE = 1/4/2008	CHECKED -	REVISED -	SCALE: NONE		SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	CONTRACT NO. 60L71				
	DATE -	REVISED -	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT									



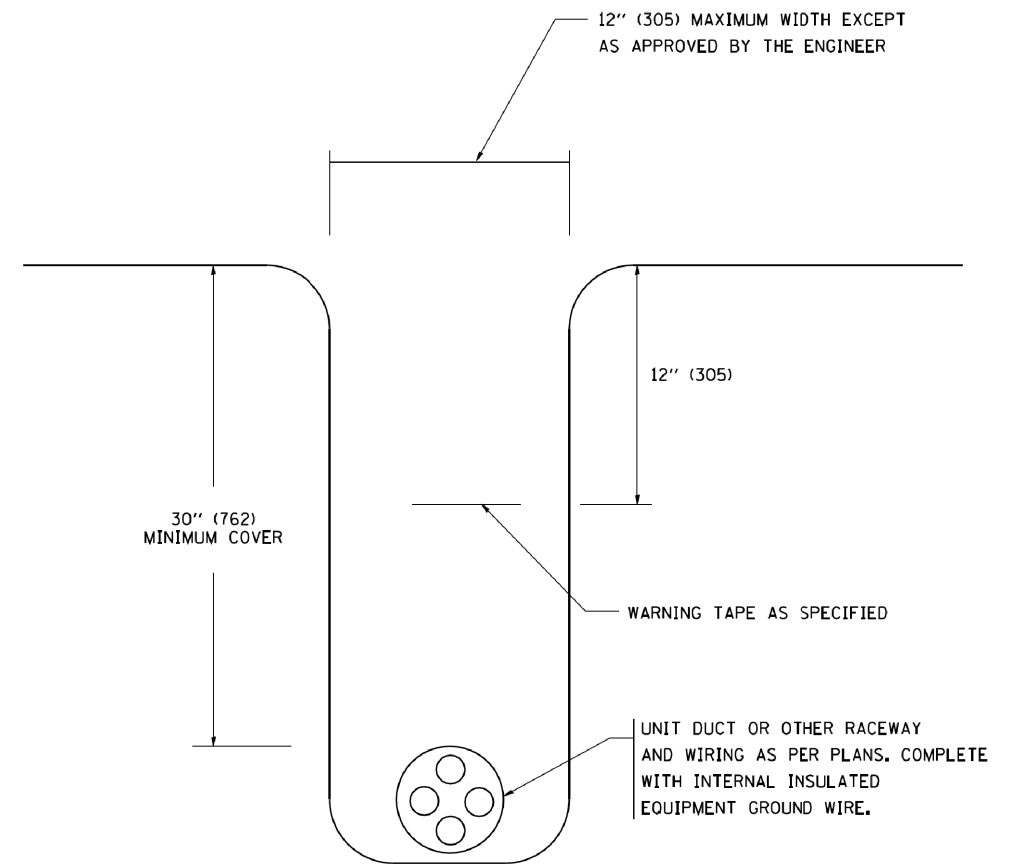
TYPICAL SPLICE DETAIL

N.T.S.



POLE WIRING DETAIL

N.T.S.



TYPICAL WIRING IN TRENCH DETAIL

N.T.S.

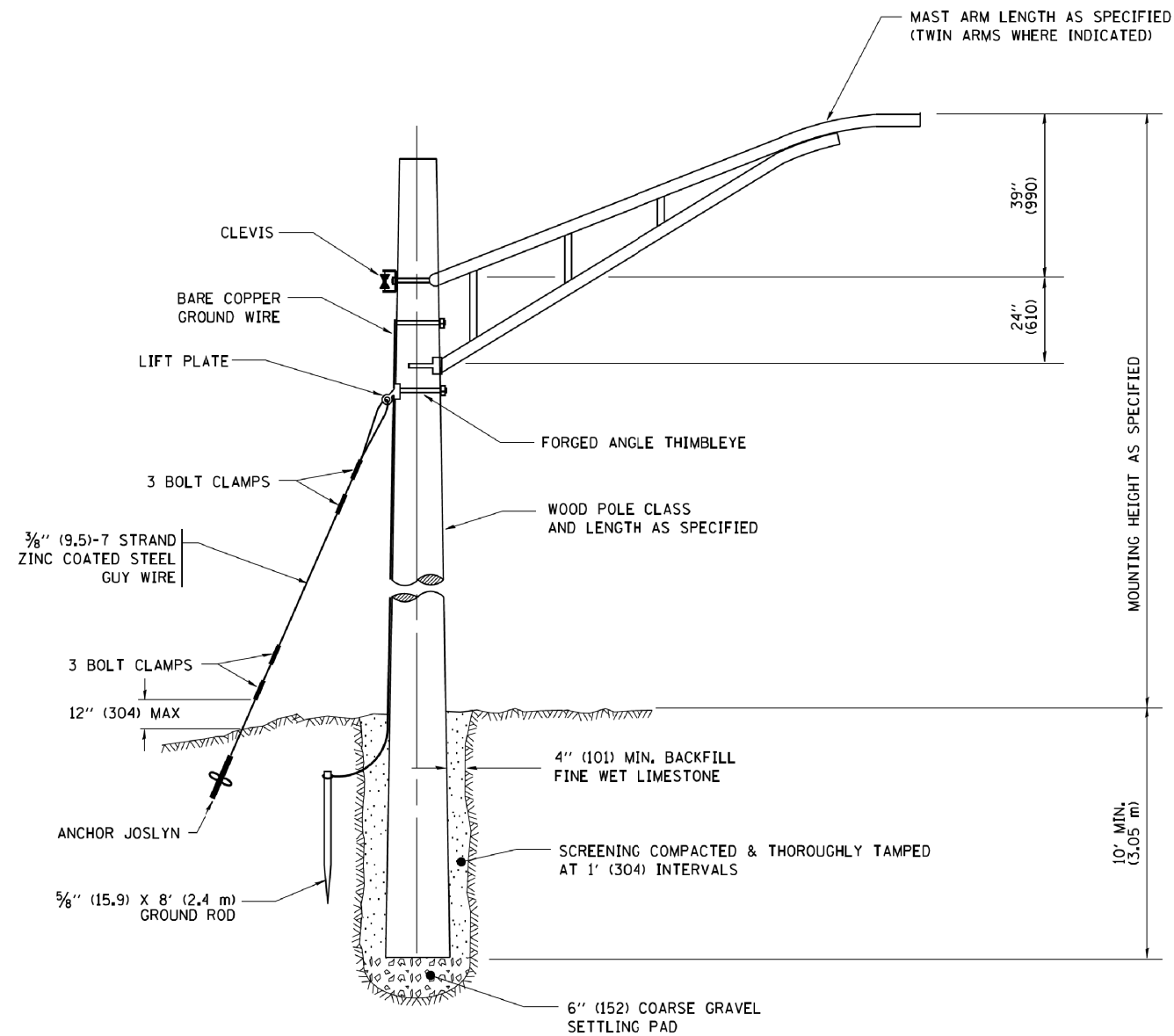
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

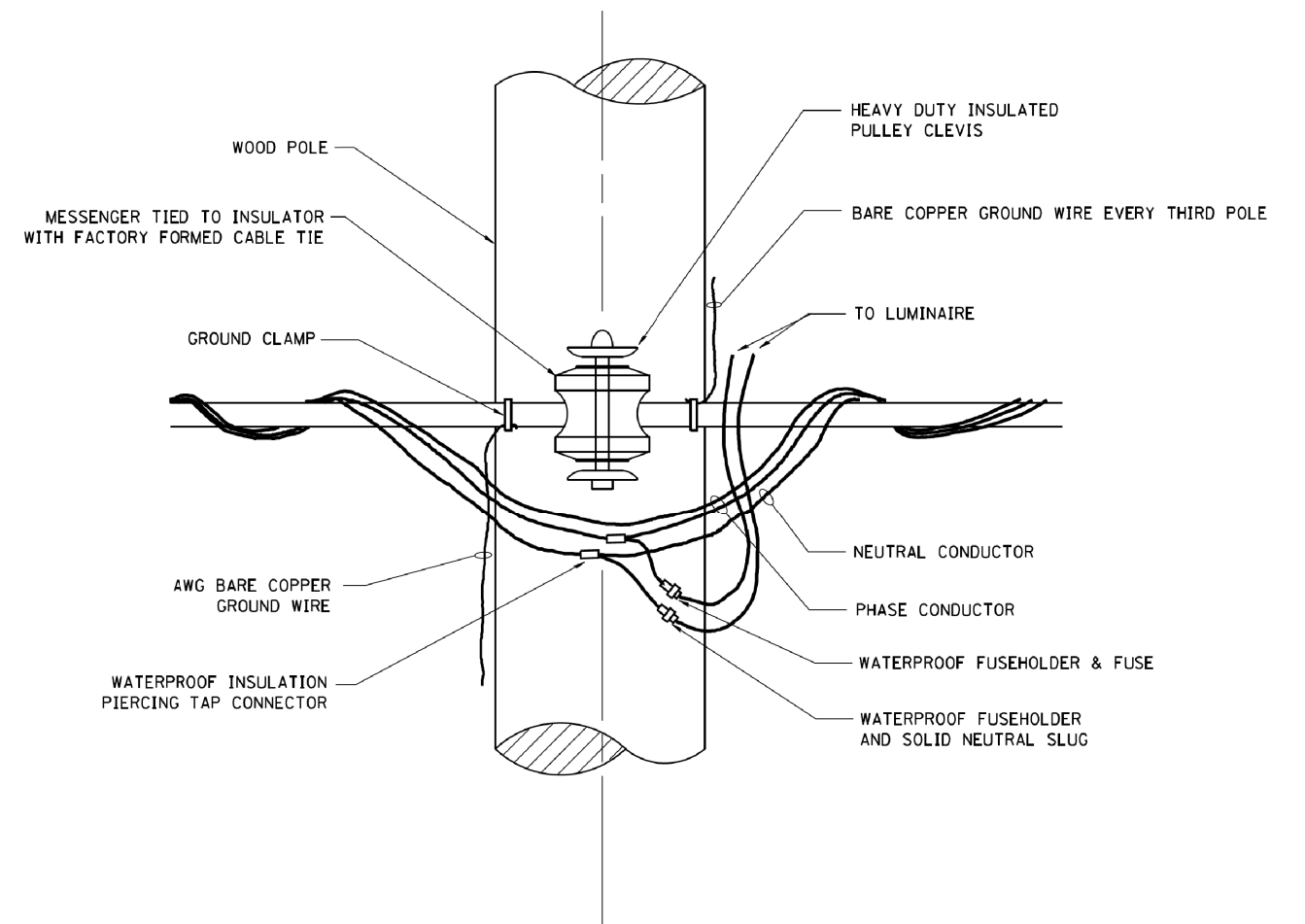
**MISC. ELECTRICAL DETAILS
SHEET A**

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	536-R-1	WILL/COOK	1232	881
BE-702		CONTRACT NO. 60L71		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



TEMPORARY LIGHT POLE DETAIL

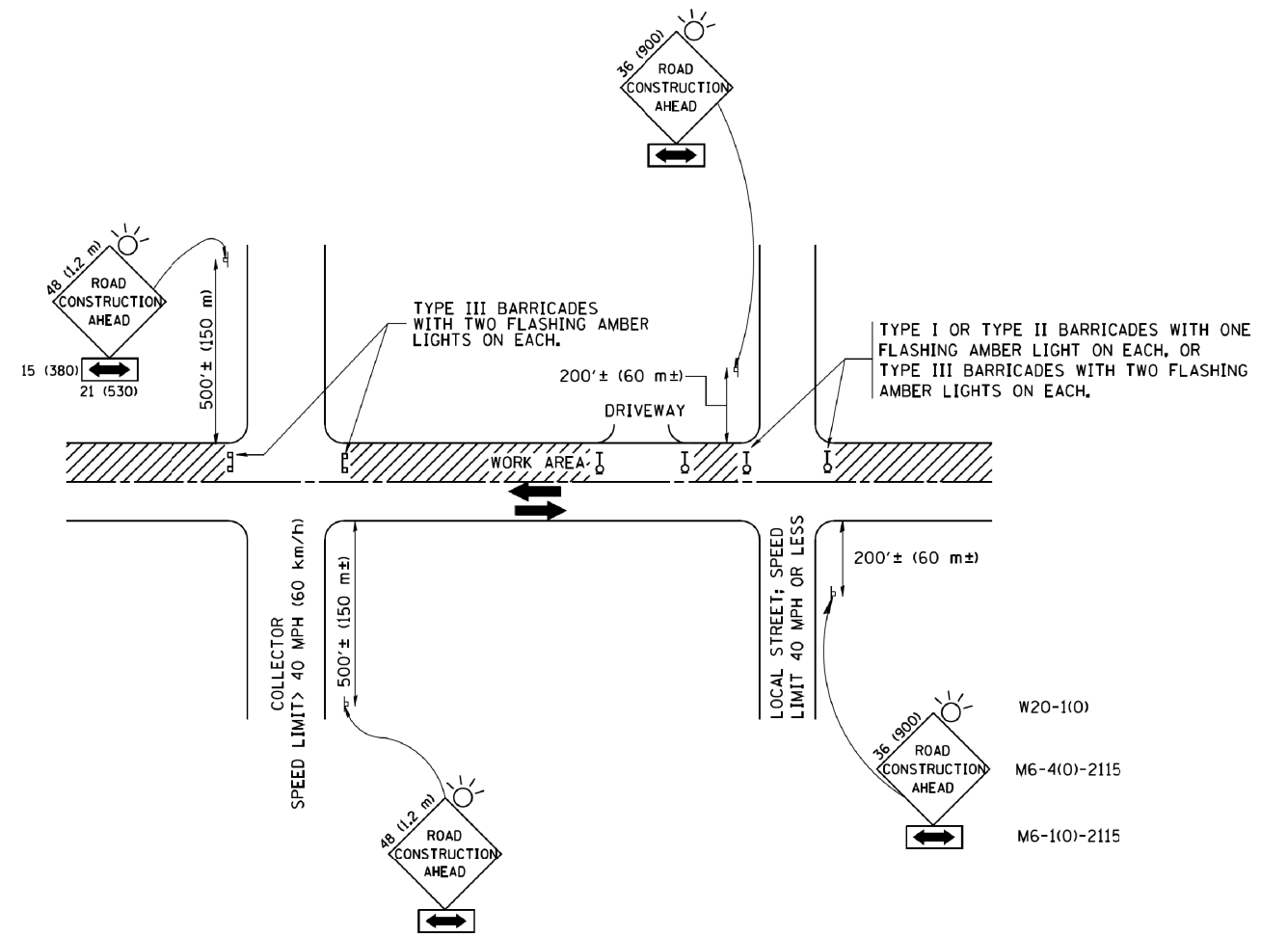


TEMPORARY LIGHT POLE ATTACHMENT DETAIL

NOTES:

1. ALL DIMENSIONS IN INCHES (MILLIMETERS) UNLESS OTHERWISE INDICATED

FILE NAME = W:\diststd\22x34\be800.dgn	USER NAME = gaglanobt	DESIGNED -	REVISED - 08-08-03	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY LIGHT POLE DETAILS			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 50,000' / IN.	CHECKED -	REVISED -					351	536-R-1	WILL/COOK	1232	882
PLOT DATE = 1/4/2008	DATE -	REVISED -		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	BE-800		CONTRACT NO. 60L71		
								FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

NOTES:

A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS

1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:

a) ONE ROAD CONSTRUCTION AHEAD SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.

b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.

2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:

a) ONE ROAD CONSTRUCTION AHEAD SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.

b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.

3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).

B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:

USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.

C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.

D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

All dimensions are in millimeters (inches) unless otherwise shown.

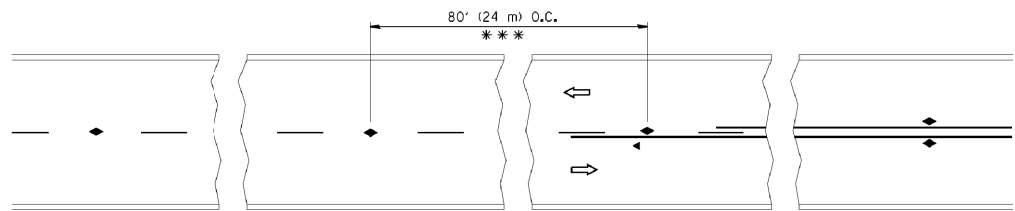
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		DRAWN -	REVISED - A. HOUSEH 03-06-96
	PLOT SCALE = 50,000' / IN.	CHECKED -	REVISED - A. HOUSEH 10-15-96
	PLOT DATE = 1/4/2008	DATE - 06-89	REVISED - T. RAMMACHER 01-06-00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL AND PROTECTION FOR
SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

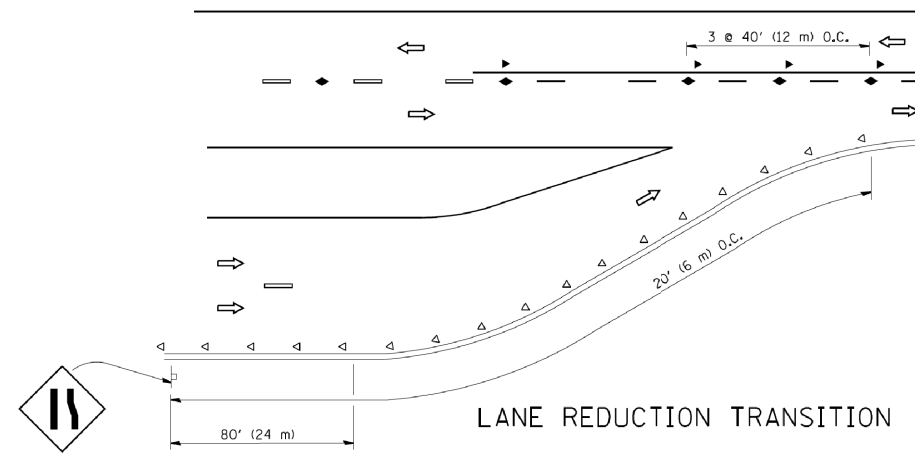
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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TC-10			CONTRACT NO. 60L71	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

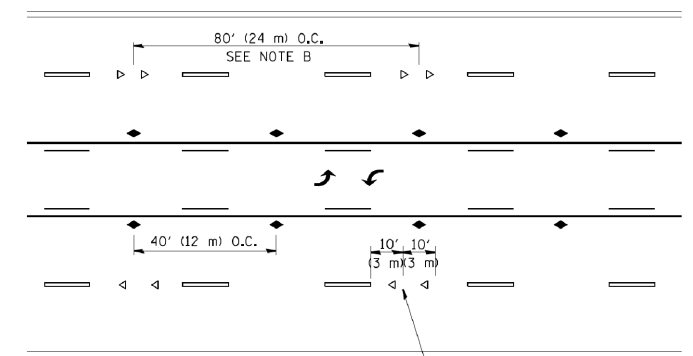


*** REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

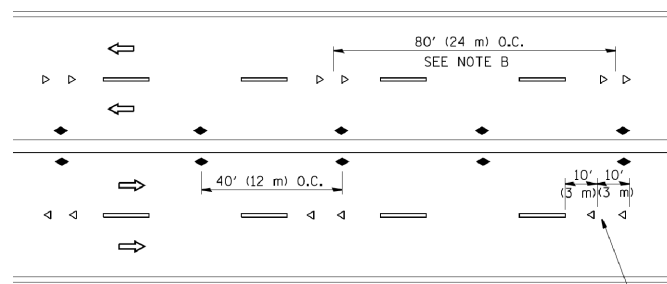
TWO-LANE/TWO-WAY



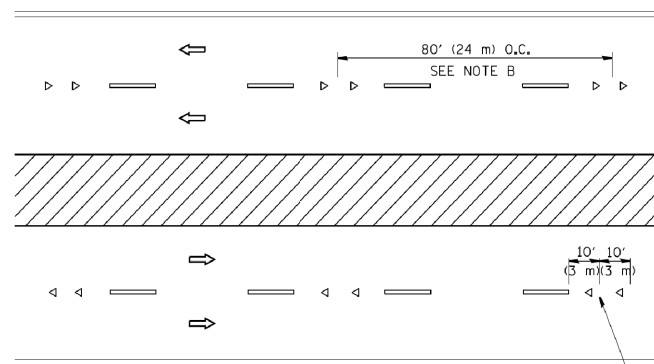
LANE REDUCTION TRANSITION



TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

1. MARKERS USED WITH DASHED LINES SHALL BE CENTERED IN THE GAP BETWEEN SEGMENTS.
2. MARKERS USED ADJACENT TO SOLID LINES SHALL BE OFFSET 2 TO 3 (50 TO 75) TOWARD TRAFFIC AS SHOWN.
3. MARKERS THROUGH TANGENTS LESS THAN 500' (150 m) IN LENGTH BETWEEN CURVES SHALL BE INSTALLED AT THE LESSER OF THE TWO CURVE SPACINGS.

SYMBOLS

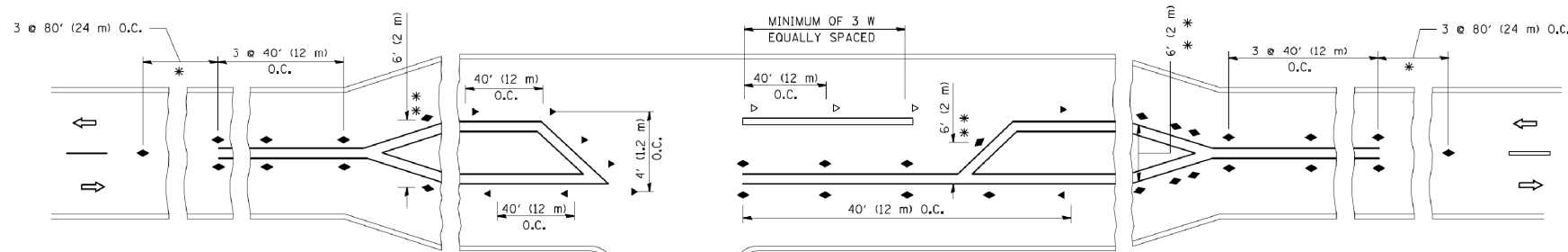
- YELLOW STRIPE
- WHITE STRIPE
- ◀ ONE-WAY AMBER MARKER
- ◁ ONE-WAY CRYSTAL MARKER (W/O)
- ◆ TWO-WAY AMBER MARKER

LANE MARKER NOTES

- A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.
- B. REDUCE TO 40' (12 m) O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 M.P.H. (20 km/h) LOWER THAN POSTED SPEEDS.

DESIGN NOTES

1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
2. EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY EXIT RAMP DETAIL, MARKERS ARE NOT TO BE SPECIFIED ON RIGHT EDGE LINES.
3. THE EXACT MARKER LIMITS, SPACING, AND COLOR SHALL BE INCLUDED IN THE PLANS WHEN STANDARD SPECIFICATIONS ARE NOT BEING USED.
4. MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY SHORT SECTIONS OF CURBS WHERE NOT MORE THAN TWO MARKERS WOULD BE INVOLVED.



* SEE TWO-LANE/TWO-WAY WHERE MARKERS CONTINUE
 ** WHERE THE MEDIAN WIDTH IS 6' (2 m) OR LESS USE TWO-WAY MARKERS.

LEFT TURN

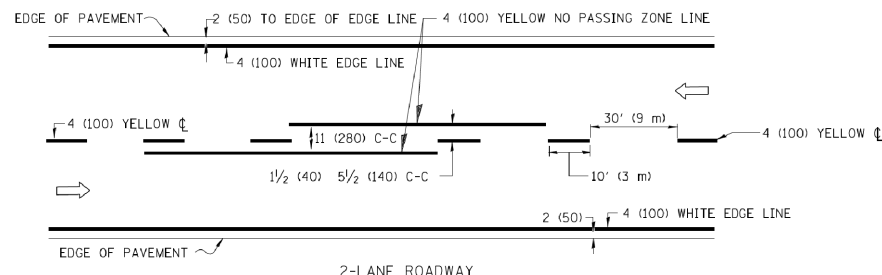
All dimensions are in inches (millimeters) unless otherwise shown.

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c:\pwwork\pwwork\lejso\0108315\11.dgn		DRAWN -	REVISED - T. RAMMACHER 03-12-99
	PLOT SCALE = 50.000' / IN.	CHECKED -	REVISED - T. RAMMACHER 01-06-00
	PLOT DATE = 3/2/2011	DATE -	REVISED - C. JUCIUS 09-09-09

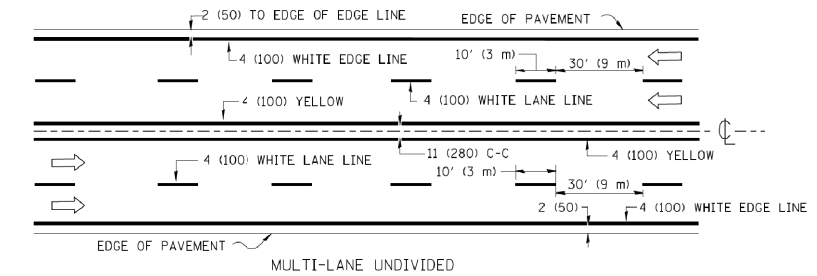
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

TYPICAL APPLICATIONS			
RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)			
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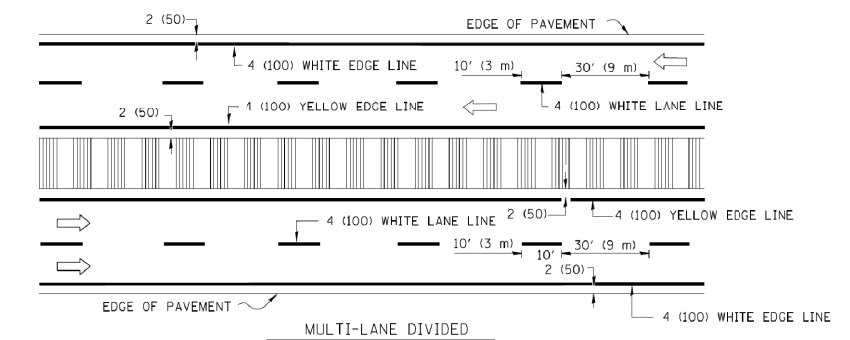
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	536-R-1	WILL/COOK	1232	885
TC-11		CONTRACT NO. 60L71		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



2-LANE ROADWAY



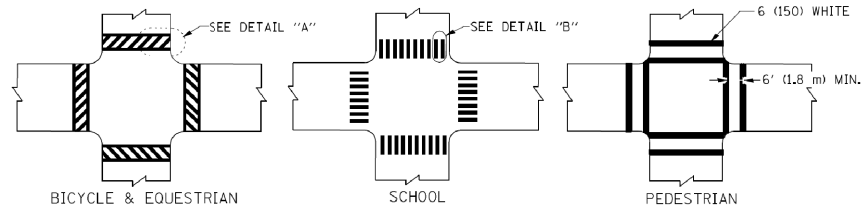
MULTI-LANE UNDIVIDED



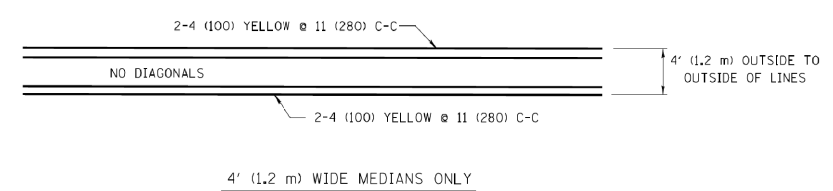
MULTI-LANE DIVIDED WITH MOUNTABLE MEDIAN

NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

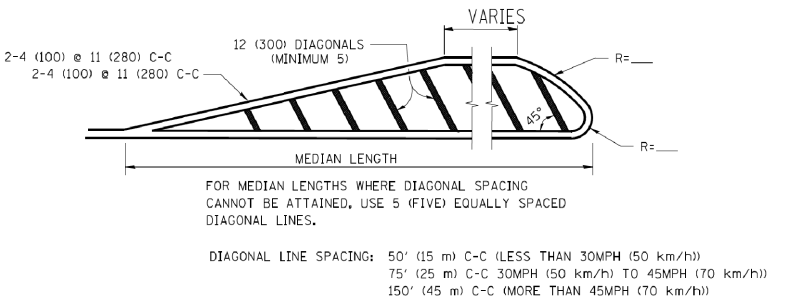
TYPICAL LANE AND EDGE LINE MARKING



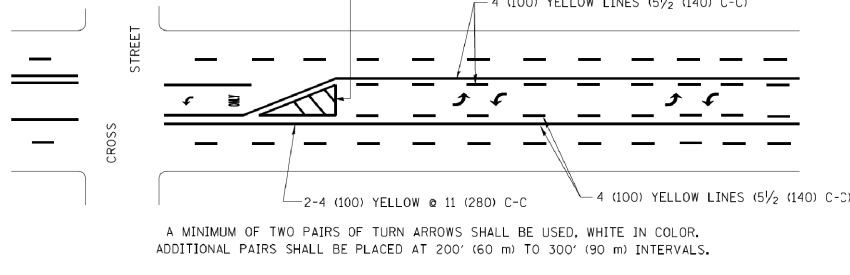
TYPICAL CROSSWALK MARKING



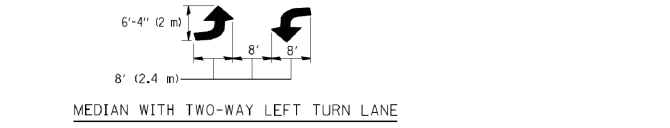
4' (1.2 m) WIDE MEDIANS ONLY



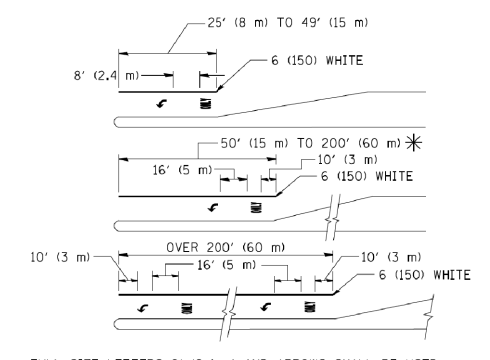
MEDIANS OVER 4' (1.2 m) WIDE



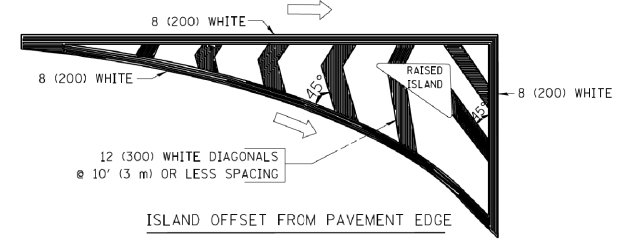
TYPICAL PAINTED MEDIAN MARKING



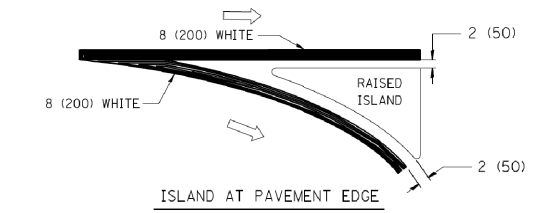
MEDIAN WITH TWO-WAY LEFT TURN LANE



TYPICAL TURN LANE MARKING



ISLAND OFFSET FROM PAVEMENT EDGE



ISLAND AT PAVEMENT EDGE

TYPICAL ISLAND MARKING

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	5/2 (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW; EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT, PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" 15' (4.5 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m ²) EACH "X"=54.0 SQ. FT. (5.0 m ²)
SHOULDER DIAGONALS	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

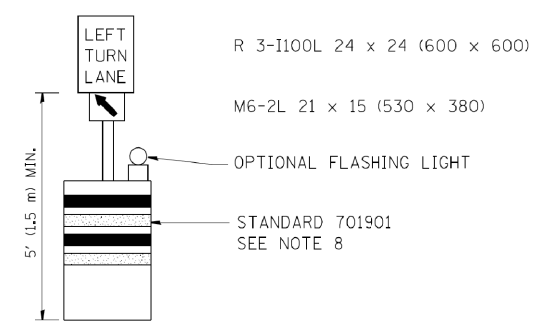
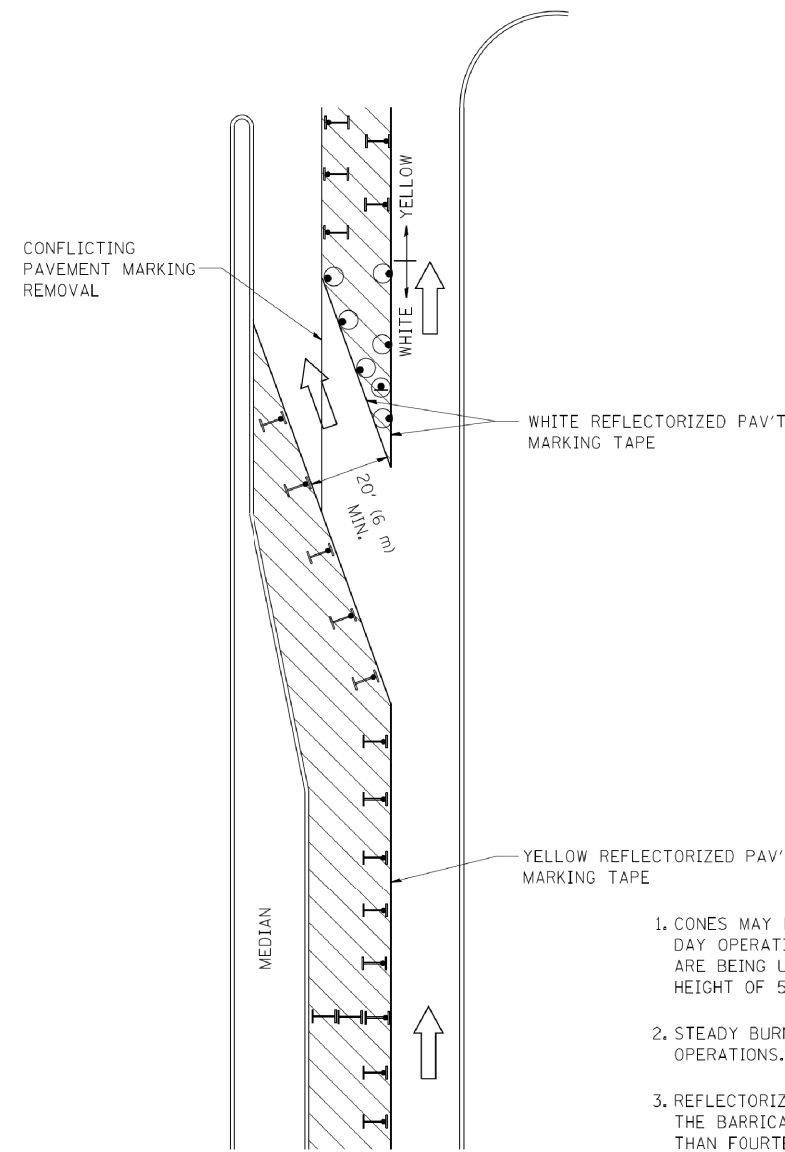
All dimensions are in inches (millimeters) unless otherwise shown.

FILE NAME =	USER NAME =	DESIGNED -	REVISED -
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		DRAWN -	REVISED -
			C. JUCIUS 09-09-09
		CHECKED -	REVISED -
		DATE -	REVISED -
		03-19-90	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TYPICAL PAVEMENT MARKINGS		351	536-R-1	WILL/COOK	1232	886
SCALE: NONE		SHEET NO. 1 OF 1 SHEETS		STA.	TO STA.	
		FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		

DISTRICT ONE		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TYPICAL PAVEMENT MARKINGS		351	536-R-1	WILL/COOK	1232	886
		TC-13		CONTRACT NO. 60L71		
		FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		



GENERAL NOTES

1. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT. WHEN CONES ARE BEING USED, THE "LEFT TURN LANE" SIGN MAY BE SKID MOUNTED AT A MINIMUM HEIGHT OF 5' (1.5 m).
2. STEADY BURNING LIGHTS WILL NOT BE REQUIRED ON BARRICADES OR DRUMS FOR DAY OPERATIONS. ALL LIGHTS SHALL BE MONODIRECTIONAL.
3. REFLECTORIZED TEMPORARY PAVEMENT MARKING TAPE SHALL BE PLACED THROUGHOUT THE BARRICADED AREA OF EACH TURN BAY WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN DAYS.
4. THIS APPLICATION ALSO APPLIES WHEN WORK IS BEING PERFORMED IN THE RIGHT LANE(S) AND THE RIGHT TURN BAY IS TO REMAIN OPEN. UNDER THIS CONDITION, "RIGHT TURN LANE" R3-100 24 x 24 (600 x 600) AND M6-2R 21 x 15 (530 x 380) SHALL BE USED.
5. THESE CONTROLS SHALL SUPPLEMENT MAINLINE TRAFFIC CONTROL FOR LANE CLOSURES.
6. LONGITUDINAL DIMENSIONS MAY BE ADJUSTED TO FIT FIELD CONDITIONS.
7. FORM OPER 725 IS REQUIRED.
8. IF A DRUM OR TYPE II BARRICADE WITH AN ATTACHED SIGN PANEL WHICH MEETS NCHRP 350 REQUIREMENTS IS NOT AVAILABLE, THE SIGNS SHALL BE MOUNTED, ABOVE THE BARRICADES, ON SEPARATE SIGNS SUPPORTS THAT MEET NCHRP 350 PREQUIREMENTS.
9. TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) SHALL BE INCLUDED IN THE COST SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

All dimensions are in inches (millimeters) unless otherwise shown.

LEGEND

- WORK AREA
- LANE OPEN TO TRAFFIC
- TYPE I OR II BARRICADE WITH STEADY BURN LIGHT
- DRUM WITH STEADY BURN LIGHT
- DRUM WITH SIGN (WITH OPTIONAL FLASHING LIGHT) SEE DETAIL
- TYPE I OR II CHECK BARRICADE WITH FLASHING LIGHT

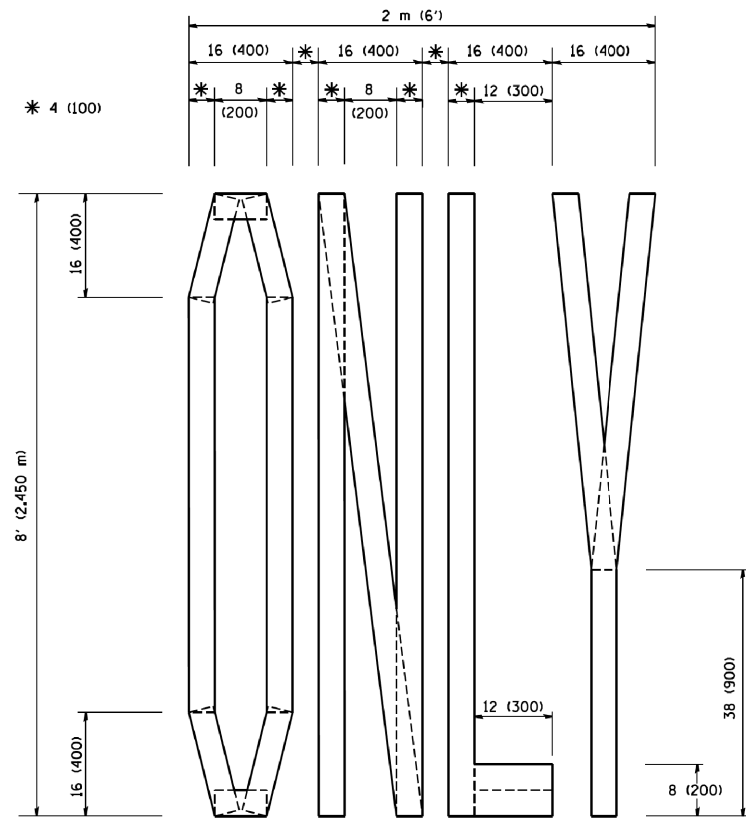
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	PLOT SCALE = 49.9999' / IN.	REVISED - A. HOUSEH 10-12-96	REVISED -
	PLOT DATE = 9/14/2009	REVISED - T. RAMMACHER 01-06-00	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

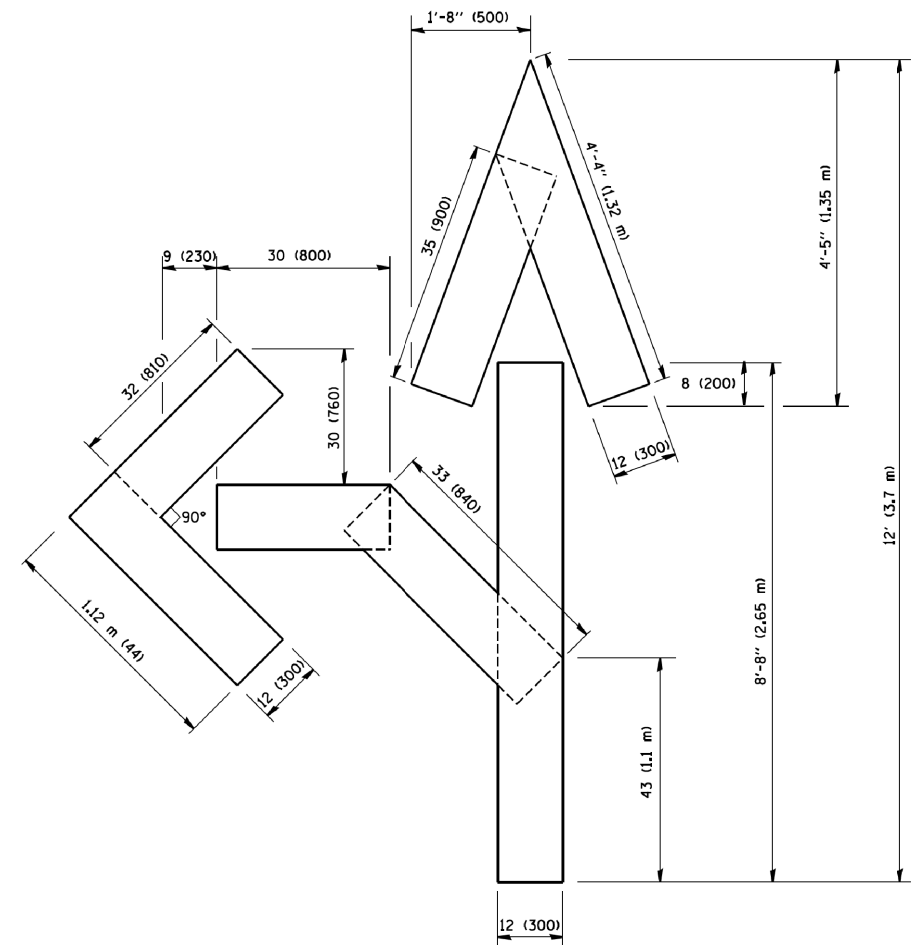
**TRAFFIC CONTROL AND PROTECTION AT TURN BAYS
(TO REMAIN OPEN TO TRAFFIC)**

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

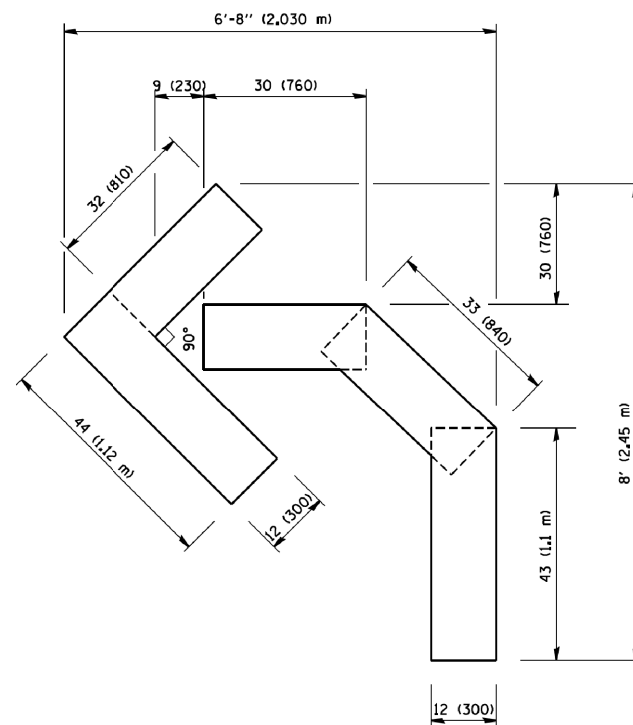
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	536-R-1	WILL/COOK	1232	887
TC-14		CONTRACT NO. 60L71		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



QUANTITY
4 (100) LINE = 64.1 ft. (19.7 m)
21.1 sq. ft. (1.97 sq. m)



QUANTITY
4 (100) LINE = 82.5 ft. (25.3 m)
27.5 sq. ft. (2.53 sq. m)



QUANTITY
4 (100) LINE = 45.5 ft. (13.9 m)
15.2 sq. ft. (1.39 sq. m)

All dimensions are in Inches (millimeters) unless otherwise shown.

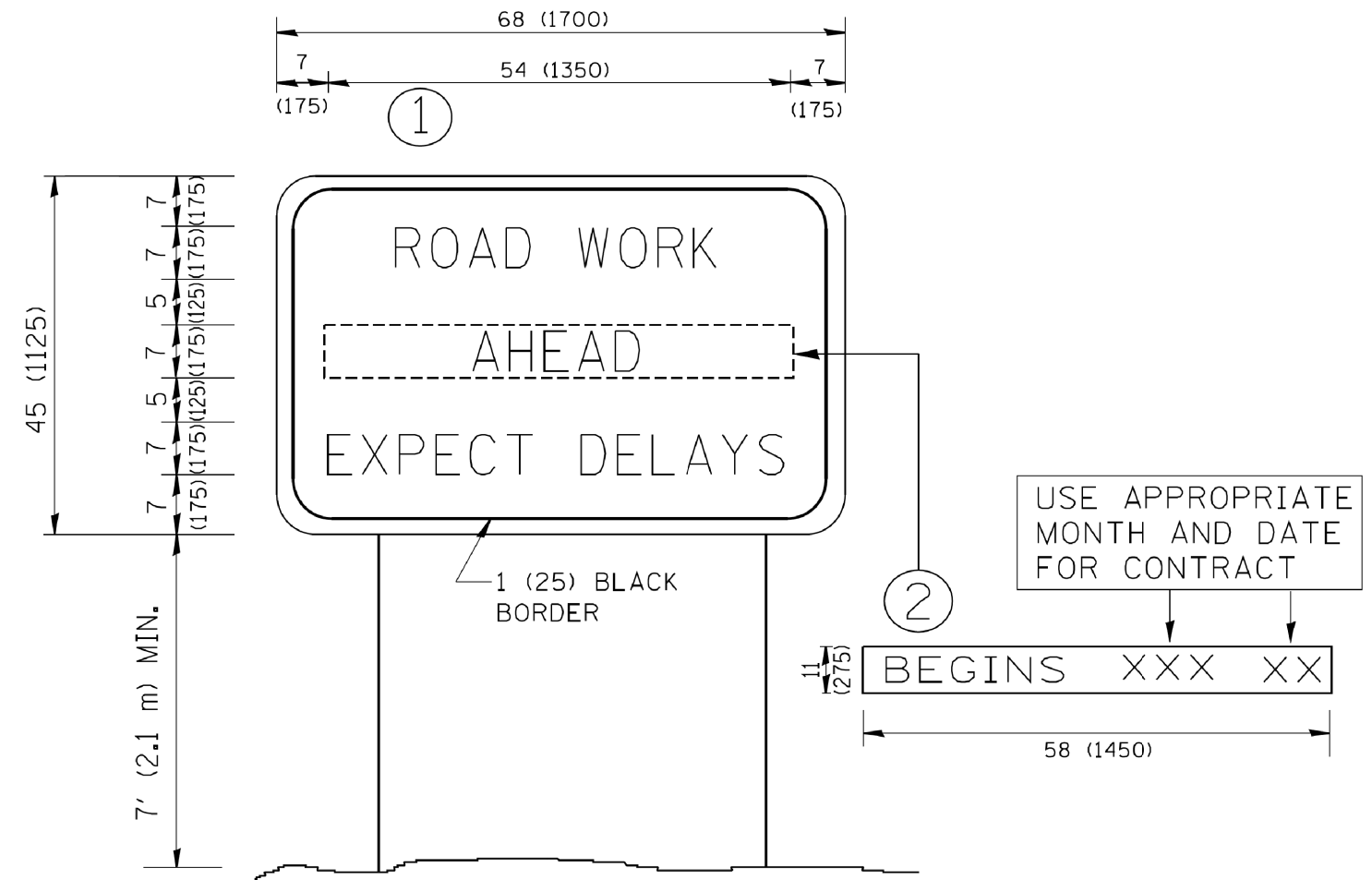
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PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED -T. RAMMACHER 03-02-98	
PLOT DATE = 1/4/2008	DATE - 09-18-94	REVISED -E. GOMEZ 08-28-00	

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PAVEMENT MARKING LETTERS AND SYMBOLS
FOR TRAFFIC STAGING

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A. RTE. 351	SECTION 536-R-1	COUNTY WILL/COOK	TOTAL SHEETS 1232	SHEET NO. 888
TC-16		CONTRACT NO. 60L71		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



NOTES:

1. USE BLACK LETTERING ON ORANGE BACKGROUND.
2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN ① WITH INSTALLED PANEL ② ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
4. REMOVE PANEL ② SOON AFTER THE START OF CONSTRUCTION.
5. SEE SPECIAL PROVISION FOR "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
6. ONE SIGN ASSEMBLY EQUALS 25.70 SQ. FT. (2.3 SQ. M.)
7. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

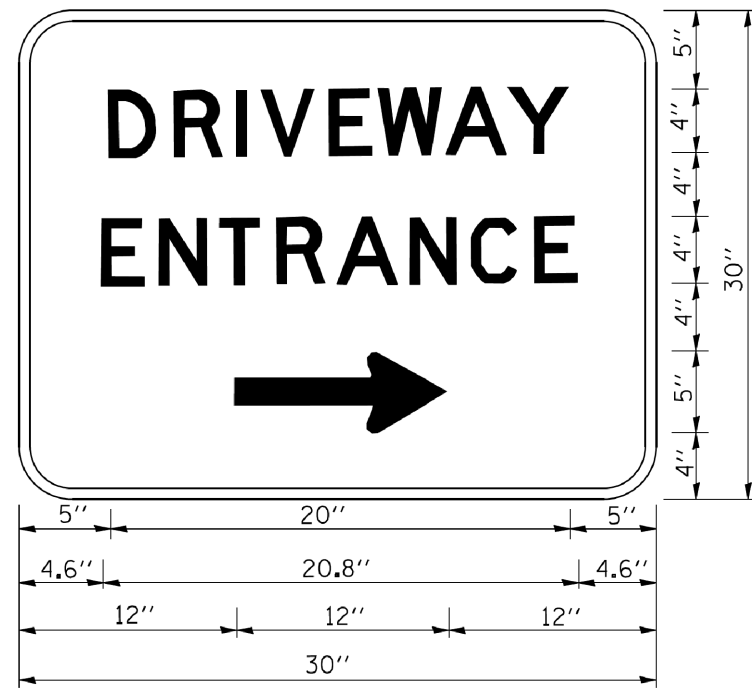
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

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		DRAWN -	REVISED - R. MIRS 12-11-97
	PLOT SCALE = 50,000' / IN.	CHECKED -	REVISED - T. RAMMACHER 02-02-99
	PLOT DATE = 1/4/2008	DATE -	REVISED - C. JUCIUS 01-31-07

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ARTERIAL ROAD INFORMATION SIGN	
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS
STA.	TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	536-R-1	WILL/COOK	1232	889
TC-22		CONTRACT NO. 60L71		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



3.0" RADIUS, 0.5" BORDER, WHITE ON GREEN; REFLECTORIZED
 "DRIVEWAY" D; "ENTRANCE" D; STANDARD ARROW CUSTOM 12.0" x 5.0"

NOTES:

1. HALF OF THE SIGNS WILL REQUIRE A LEFT HAND FACING ARROW.
2. TWO SIGNS SHALL BE USED AT EACH COMMERCIAL ENTRANCE PLACED BACK-TO-BACK; ONE WITH A RIGHT HAND ARROW (SHOWN) SHALL BE PLACED ON THE NEAR RIGHT SIDE THE DRIVEWAY AND ONE WITH A LEFT HAND ARROW SHALL BE PLACED ON THE FAR LEFT SIDE OF THE DRIVEWAY.
3. SIGNS TO BE PAID FOR AS ITEM "TEMPORARY INFORMATION SIGNING".

FILE NAME = W:\diststd\22x34\te26.dgn	USER NAME = gagianobt	DESIGNED -	REVISED - C. JUCIUS 02-15-07
		DRAWN -	REVISED -
	PLOT SCALE = 50,000 ' / IN.	CHECKED -	REVISED -
	PLOT DATE = 1/4/2008	DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

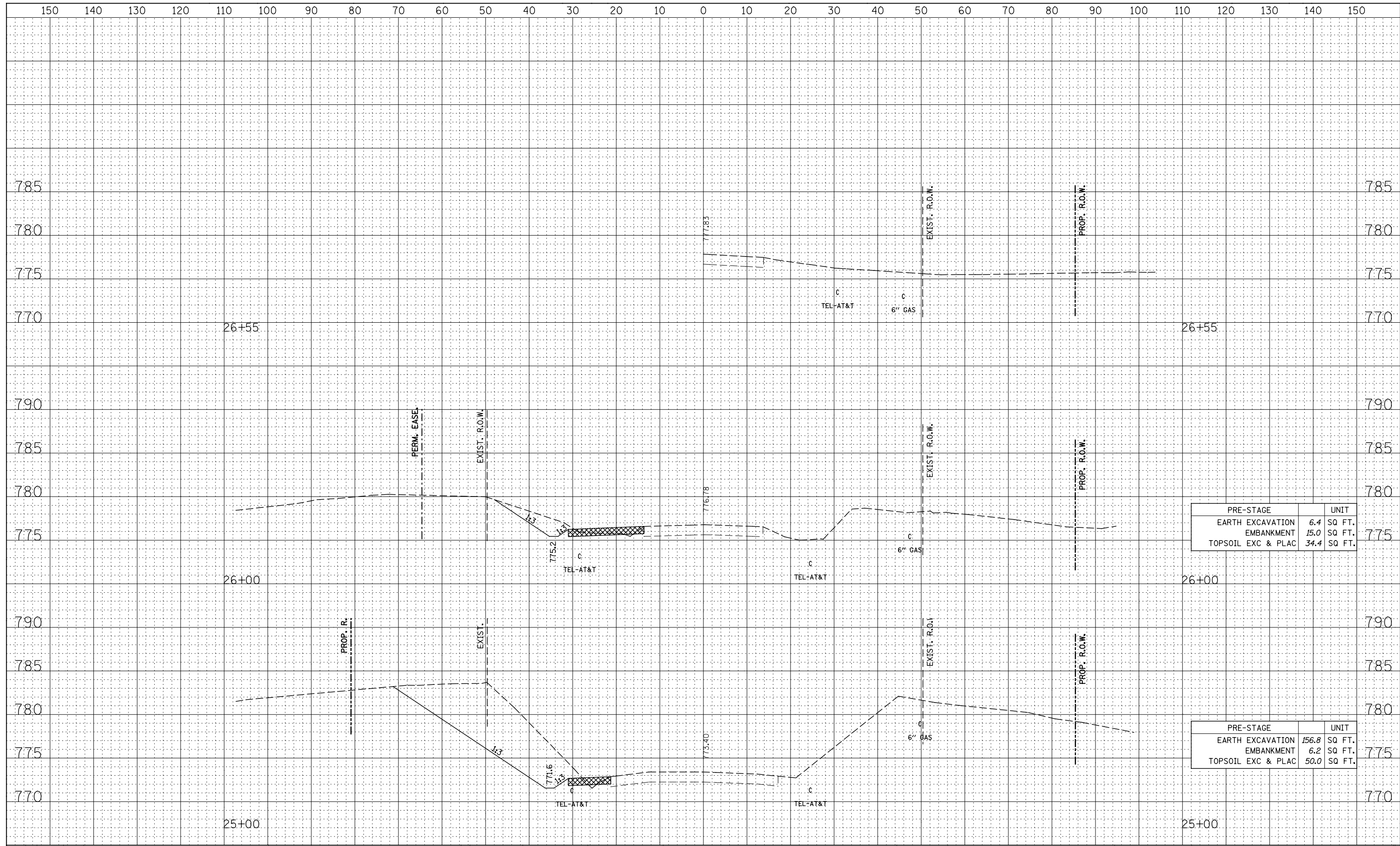
DRIVEWAY ENTRANCE SIGNING

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	536-R-1	WILL/COOK	1232	890
TC-26			CONTRACT NO. 60L71	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

FINAL SURVEY NO.	SURVEYED PLOTTED TEMPLATE AREAS CHECKED	BY	DATE

ORIGINAL SURVEY NO.	SURVEYED PLOTTED TEMPLATE AREAS CHECKED	BY	DATE



PRE-STAGE		UNIT
EARTH EXCAVATION	6.4	SQ FT.
EMBANKMENT	15.0	SQ FT.
TOPSOIL EXC & PLAC	34.4	SQ FT.

PRE-STAGE		UNIT
EARTH EXCAVATION	156.8	SQ FT.
EMBANKMENT	6.2	SQ FT.
TOPSOIL EXC & PLAC	50.0	SQ FT.

