

- NOTES:**
- EXISTING AND TEMPORARY LIGHTING UNITS ALONG I-80 TO REMAIN IN PLACE SHALL BE PROVIDED WITH A NEW IDENTIFICATION DECAL AS INDICATED ON THE PLANS AFTER CUTOVER TO NEW CONTROLLER "S." THE COST OF THIS WORK IS INCLUDED IN THE PRICE OF THE ITEM "LIGHTING UNIT IDENTIFICATION DECAL".
  - PROVIDE EMPTY 4" PVC CONDUIT WITH PULL TAPE EMBEDDED IN PERMANENT MEDIAN BARRIER BASE AND IN STEM WALL OF MEDIAN BARRIER RETAINING WALL. (STA. 743+00 TO STA. 758+00) FOR FUTURE USE.
  - EXCHANGE EXISTING LUMINAIRES WITH 240V LED LUMINAIRES. THE COST OF THIS WORK IS INCLUDED IN THE PRICE OF THE ITEM "TEMPORARY LUMINAIRE, LED, HORIZONTAL MOUNT, OUTPUT DESIGNATION H".
  - JUNCTION BOX SHALL BE EMBEDDED IN STRUCTURE.
  - JUNCTION BOX ATTACHED TO STRUCTURE SHALL BE PROVIDED WITH UNDERGROUND STUBOUT IN ACCORDANCE WITH THE "UNDERGROUND TO EMBEDDED CONDUIT TRANSITION AT BRIDGE PARAPET" DETAIL (SEE SHEET NO209 FOR DETAILS).

CONTROLLER "S" CIRCUITING

CIRCUIT	VOLTAGE	POLES
A	480V	2P
B	480V	2P
C	240V	1P
D	240V	1P
E	240V	1P
F	240V	1P
G	240V	1P
H	240V	1P
J	480V	2P
K	240V	1P
L	240V	1P

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	DRAWN - MRT	REVISED -
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PLOT DATE = 6/25/2020	DATE - 6/25/2020	REVISED -
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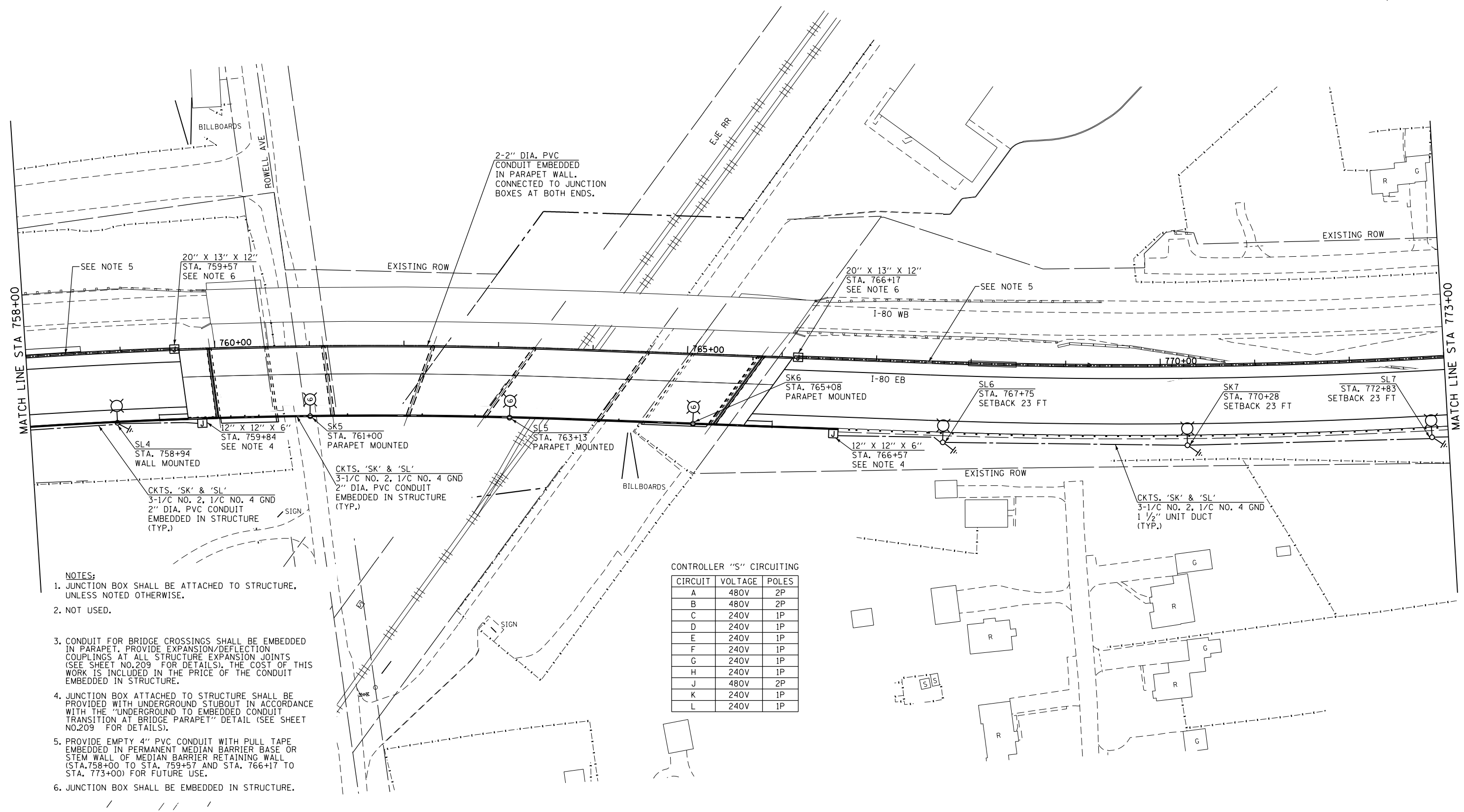


**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**I-80 FROM GARDNER STREET TO ROWELL AVENUE  
PROPOSED LIGHTING PLAN**

SCALE: 1"=50' SHEET 4 OF 6 SHEETS STA. 743+00 TO STA. 758+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	201
CONTRACT NO. 60W34			ILLINOIS FED. AID PROJECT	



- NOTES:**
1. JUNCTION BOX SHALL BE ATTACHED TO STRUCTURE, UNLESS NOTED OTHERWISE.
  2. NOT USED.
  3. CONDUIT FOR BRIDGE CROSSINGS SHALL BE EMBEDDED IN PARAPET. PROVIDE EXPANSION/DEFLECTION COUPLINGS AT ALL STRUCTURE EXPANSION JOINTS (SEE SHEET NO.209 FOR DETAILS). THE COST OF THIS WORK IS INCLUDED IN THE PRICE OF THE CONDUIT EMBEDDED IN STRUCTURE.
  4. JUNCTION BOX ATTACHED TO STRUCTURE SHALL BE PROVIDED WITH UNDERGROUND STUBOUT IN ACCORDANCE WITH THE "UNDERGROUND TO EMBEDDED CONDUIT TRANSITION AT BRIDGE PARAPET" DETAIL (SEE SHEET NO.209 FOR DETAILS).
  5. PROVIDE EMPTY 4" PVC CONDUIT WITH PULL TAPE EMBEDDED IN PERMANENT MEDIAN BARRIER BASE OR STEM WALL OF MEDIAN BARRIER RETAINING WALL (STA.758+00 TO STA. 759+57 AND STA. 766+17 TO STA. 773+00) FOR FUTURE USE.
  6. JUNCTION BOX SHALL BE EMBEDDED IN STRUCTURE.

**CONTROLLER "S" CIRCUITING**

CIRCUIT	VOLTAGE	POLES
A	480V	2P
B	480V	2P
C	240V	1P
D	240V	1P
E	240V	1P
F	240V	1P
G	240V	1P
H	240V	1P
J	480V	2P
K	240V	1P
L	240V	1P

USER NAME = default	DESIGNED - MEK	REVISED -
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PLOT SCALE = #SCALE#	CHECKED - MKR	REVISED -
PLOT DATE = 6/25/2020	DATE - 6/25/2020	REVISED -



**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

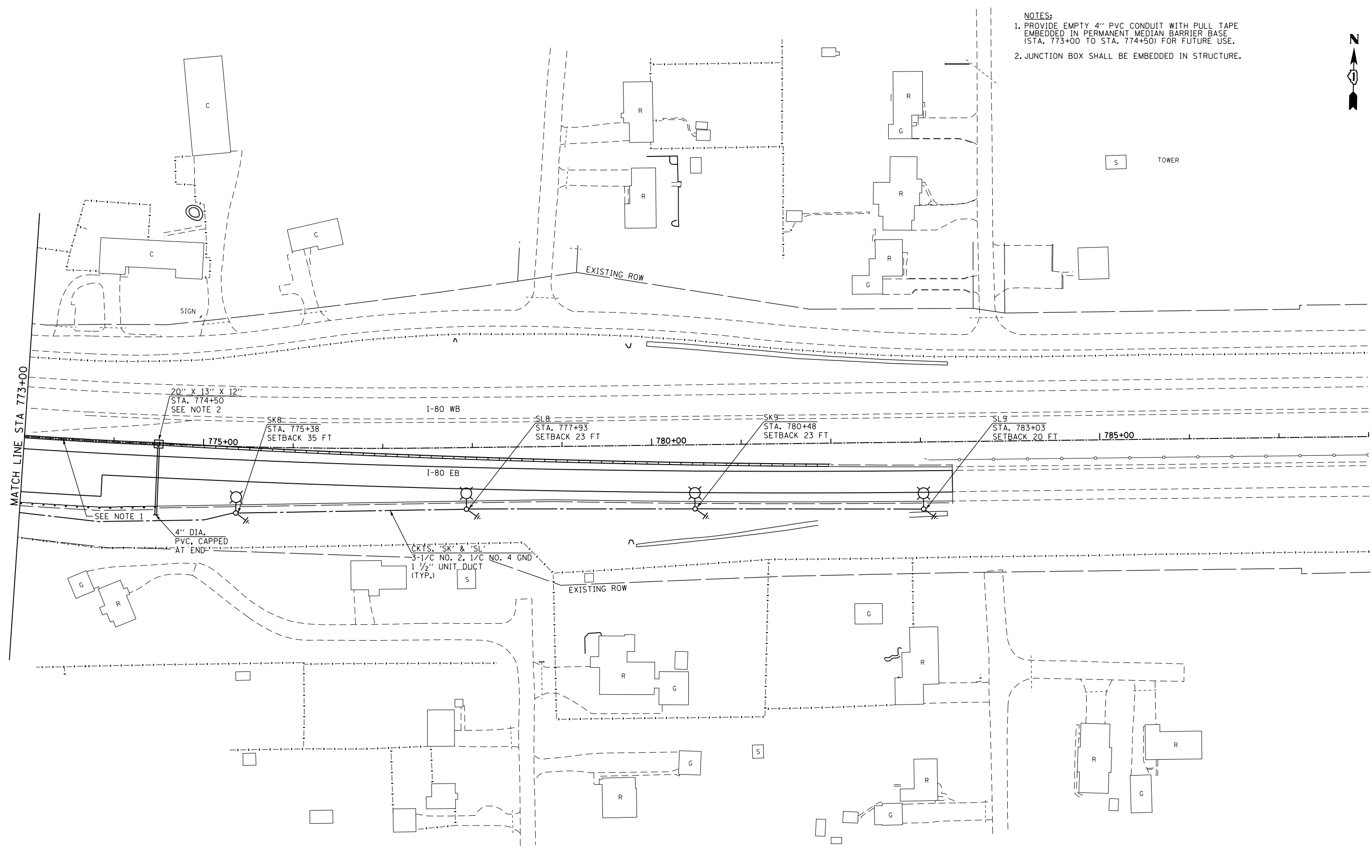
**I-80 FROM GARDNER STREET TO ROWELL AVENUE  
PROPOSED LIGHTING PLAN**

SCALE: 1"=50'    SHEET 5 OF 6 SHEETS    STA. 758+00 TO STA. 773+15

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	202
CONTRACT NO. 60W34				
ILLINOIS FED. AID PROJECT				

FILE NAME = D160W34-sht-Prop-light06.dgn

- NOTES:
1. PROVIDE EMPTY 4" PVC CONDUIT WITH PULL TAPE EMBEDDED IN PERMANENT MEDIAN BARRIER BASE (STA. 773+00 TO STA. 774+50) FOR FUTURE USE.
  2. JUNCTION BOX SHALL BE EMBEDDED IN STRUCTURE.



USER NAME = default	DESIGNED - MEK	REVISED -
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PLOT SCALE = #SCALE#	CHECKED - MKR	REVISED -
PLOT DATE = 6/25/2020	DATE - 6/25/2020	REVISED -



**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**I-80 FROM GARDNER STREET TO ROWELL AVENUE  
PROPOSED LIGHTING PLAN**

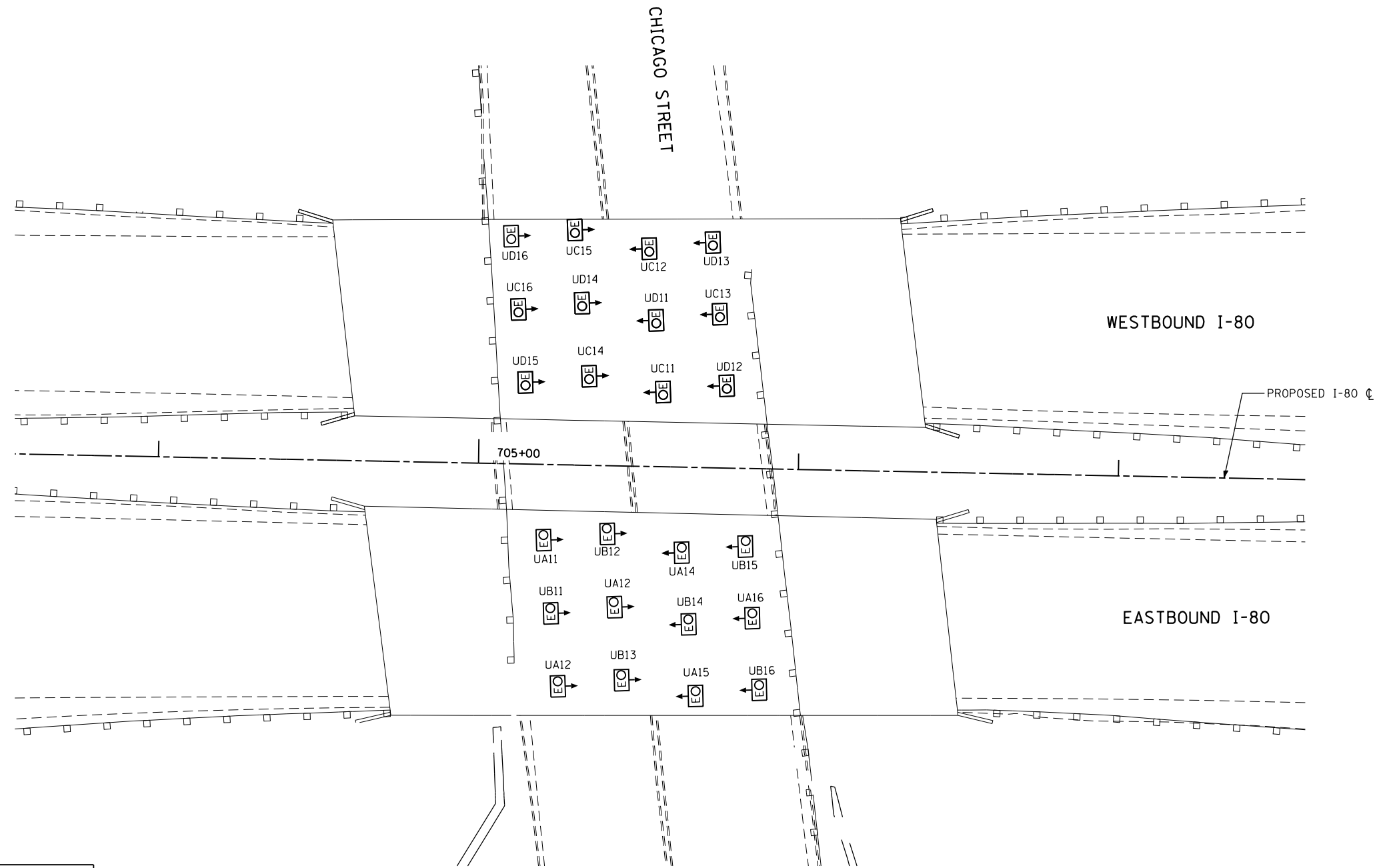
SCALE: 1"=50'      SHEET 6 OF 6 SHEETS      STA. 773+00 TO STA. 788+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	203
CONTRACT NO. 60W34				
ILLINOIS FED. AID PROJECT				

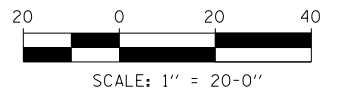
FILE NAME = D160W34-sht-Prop-light07.dgn

**NOTES:**

1. UNDERPASS LUMINAIRES ALONG WESTBOUND I-80 ARE FED FROM EXISTING LIGHT POLE 'UC3.'



**THIS SHEET IS FOR INFORMATION ONLY.  
NO WORK INCLUDED IN THIS CONTRACT.**



USER NAME = default	DESIGNED - MEK	REVISED -
	DRAWN - MRT	REVISED -
PLOT SCALE = #SCALE#	CHECKED - MKR	REVISED -
PLOT DATE = 6/25/2020	DATE - 6/25/2020	REVISED -



**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**I-80 FROM GARDNER STREET TO ROWELL AVENUE  
CHICAGO STREET UNDERPASS LIGHTING EXISTING CONDITIONS**

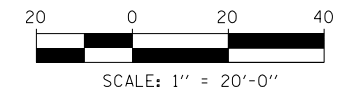
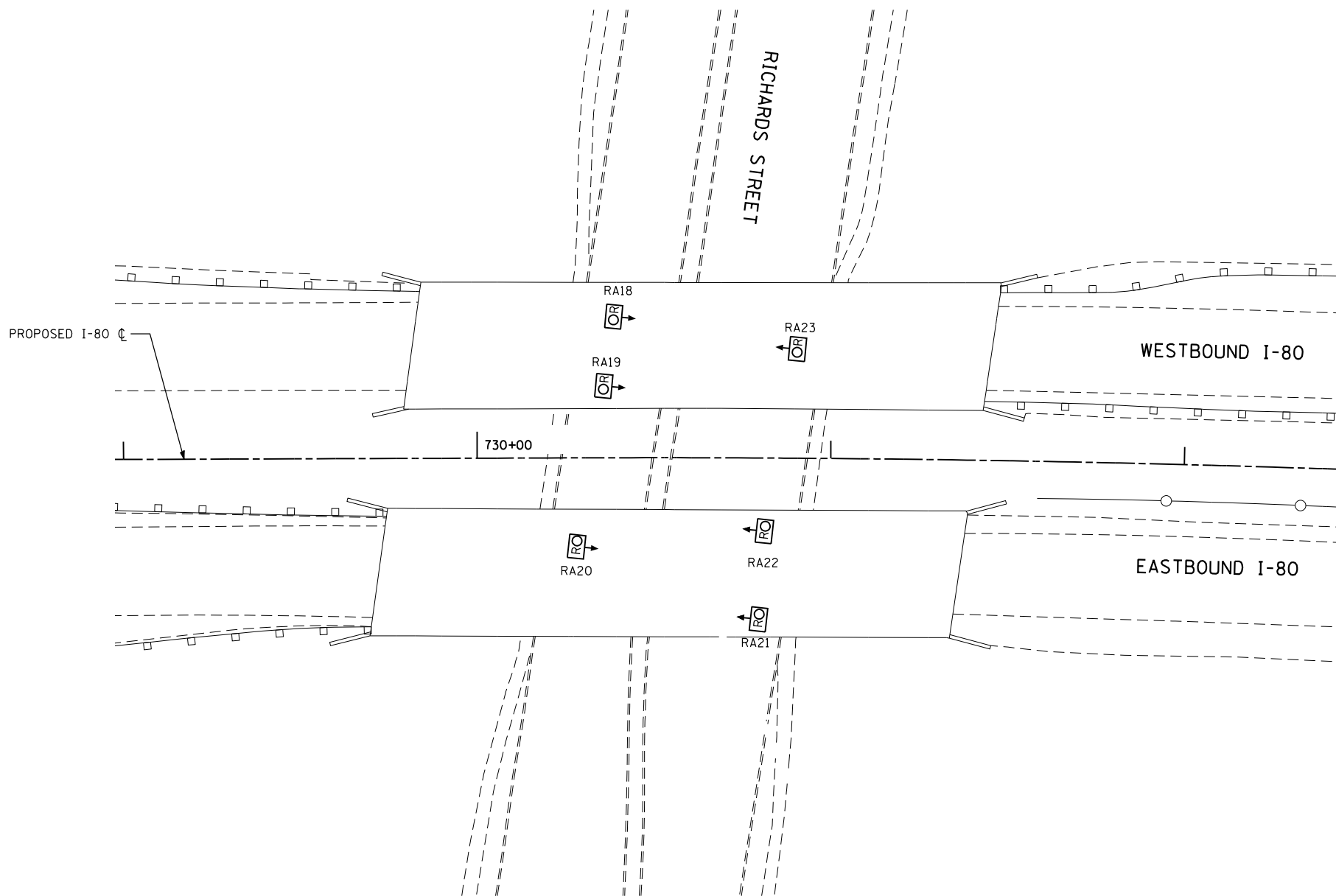
SCALE: 1"=20' SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	204
<b>CONTRACT NO. 60W34</b>				

ILLINOIS FED. AID PROJECT

**NOTES:**

1. THE REMOVAL OF EXISTING UNDERPASS LUMINAIRES SHALL INCLUDE THE REMOVAL OF ALL CABLE, BOXES, AND HARDWARE ASSOCIATED WITH THE EXISTING UNDERPASS LIGHTING. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT WILL BE INCLUDED IN THE COST OF THE ITEM "REMOVAL OF LIGHTING UNIT, NO SALVAGE."
2. UNDERPASS LIGHTING REMOVAL MUST BE COORDINATED WITH THE STAGED BRIDGE CONSTRUCTION. UNDERPASS LUMINAIRES SHALL NOT BE REMOVED UNTIL THE STAGE THEIR REMOVAL IS REQUIRED FOR BRIDGE CONSTRUCTION. PROPOSED UNDERPASS LUMINAIRES MUST BE INSTALLED AND ACTIVATED ONCE THE NEW BRIDGE DECK IS INSTALLED.



USER NAME = default	DESIGNED - MEK	REVISED -
	DRAWN - MRT	REVISED -
PLOT SCALE = #SCALE#	CHECKED - MKR	REVISED -
PLOT DATE = 6/25/2020	DATE - 6/25/2020	REVISED -



**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**I-80 FROM GARDNER STREET TO ROWELL AVENUE  
RICHARDS STREET UNDERPASS LIGHTING REMOVAL PLAN**

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	205
<b>CONTRACT NO. 60W34</b>				

ILLINOIS FED. AID PROJECT



CONDUIT/CABLE SCHEDULE

TAG	DESCRIPTION
①	2-1/C NO. 10, 1/C NO. 10 GND 1" DIA. PVCC RGSC ATTACHED TO STRUCTURE
②	3-1/C NO. 10, 1/C NO. 10 GND 1" DIA. PVCC RGSC ATTACHED TO STRUCTURE
③	2-1/C NO. 10, 1/C NO. 10 GND 3/4" DIA. LFMC AT LUMINAIRE

NOTES:

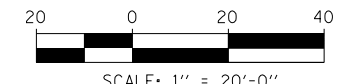
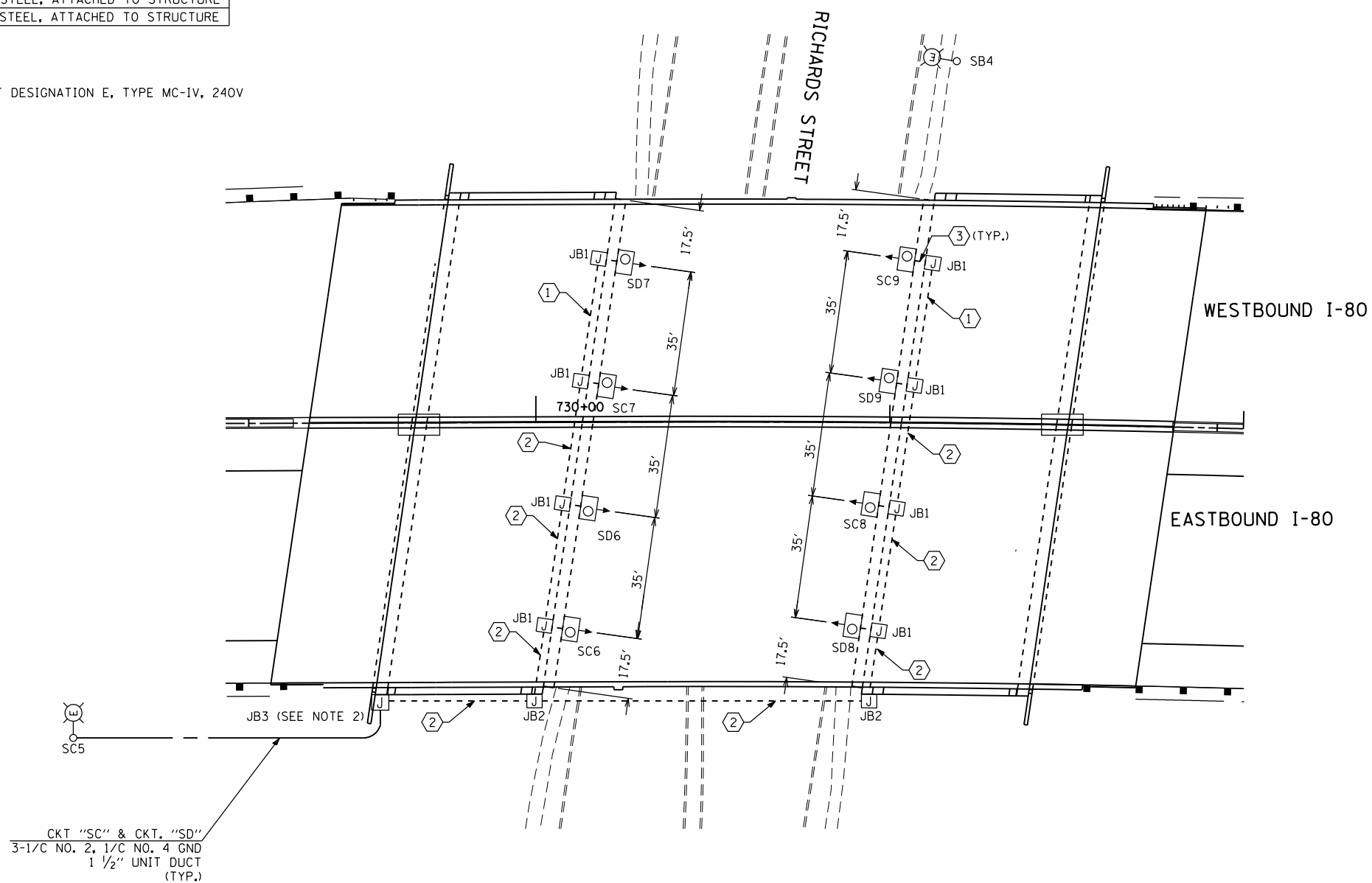
- UNDERPASS LUMINAIRES SHALL BE WALL MOUNTED TO THE PIER WALL.
- PROVIDE 30A FUSES WITH DISCONNECT TYPE FUSE HOLDERS FOR PHASE WIRES AND NEUTRAL SLUG IN JB3 JUNCTION BOX. THE COST OF THIS WORK IS INCLUDED IN THE PRICE OF THE JUNCTION BOX.

JUNCTION BOX SCHEDULE

DESIGNATION	DESCRIPTION
JB1	6" X 6" X 4", STAINLESS STEEL, ATTACHED TO STRUCTURE
JB2	12" X 10" X 6", STAINLESS STEEL, ATTACHED TO STRUCTURE
JB3	18" X 18" X 8", STAINLESS STEEL, ATTACHED TO STRUCTURE

LEGEND

○ PROPOSED UNDERPASS LUMINAIRE, LED, OUTPUT DESIGNATION E, TYPE MC-IV, 240V



USER NAME = default	DESIGNED - MEK	REVISED -
	DRAWN - MRT	REVISED -
PLOT SCALE = #SCALE#	CHECKED - MKR	REVISED -
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION







I-80 FROM GARDNER STREET TO ROWELL AVENUE  
RICHARDS STREET PROPOSED UNDERPASS LIGHTING PLAN

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	206
CONTRACT NO. 60W34				

ILLINOIS FED. AID PROJECT

**LEGEND**

-  EXISTING 400W HPS ROADWAY LUMINAIRE
-  EXISTING 200W HPS ROADWAY LUMINAIRE
-  EXISTING 310W HPS ROADWAY LUMINAIRE
-  EXISTING DUPLEX LIGHTING CONTROLLER
-  EXISTING ELECTRIC SERVICE LOCATION
-  EXISTING 55W HPS UNDERPASS LUMINAIRE, 240V

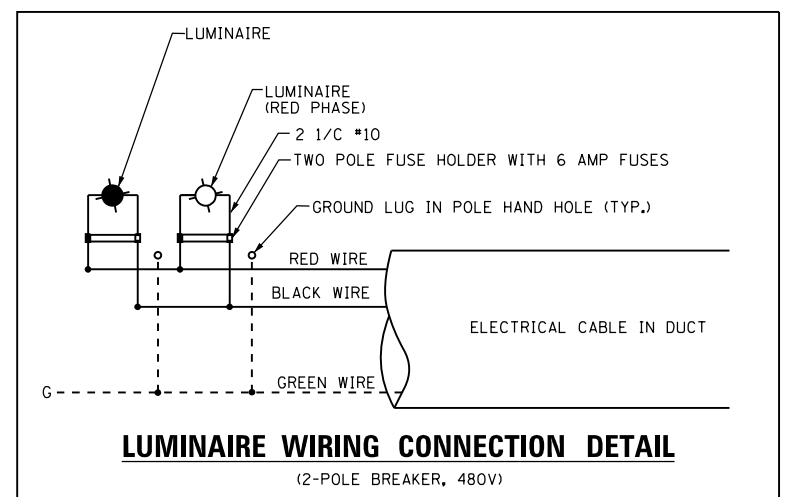
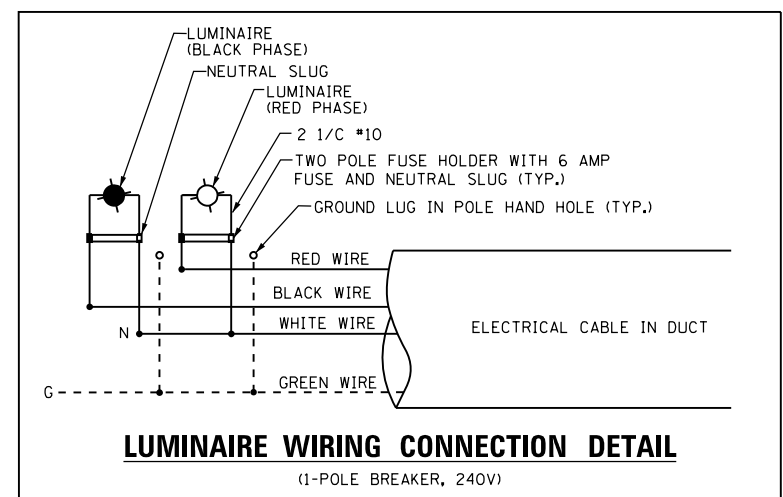
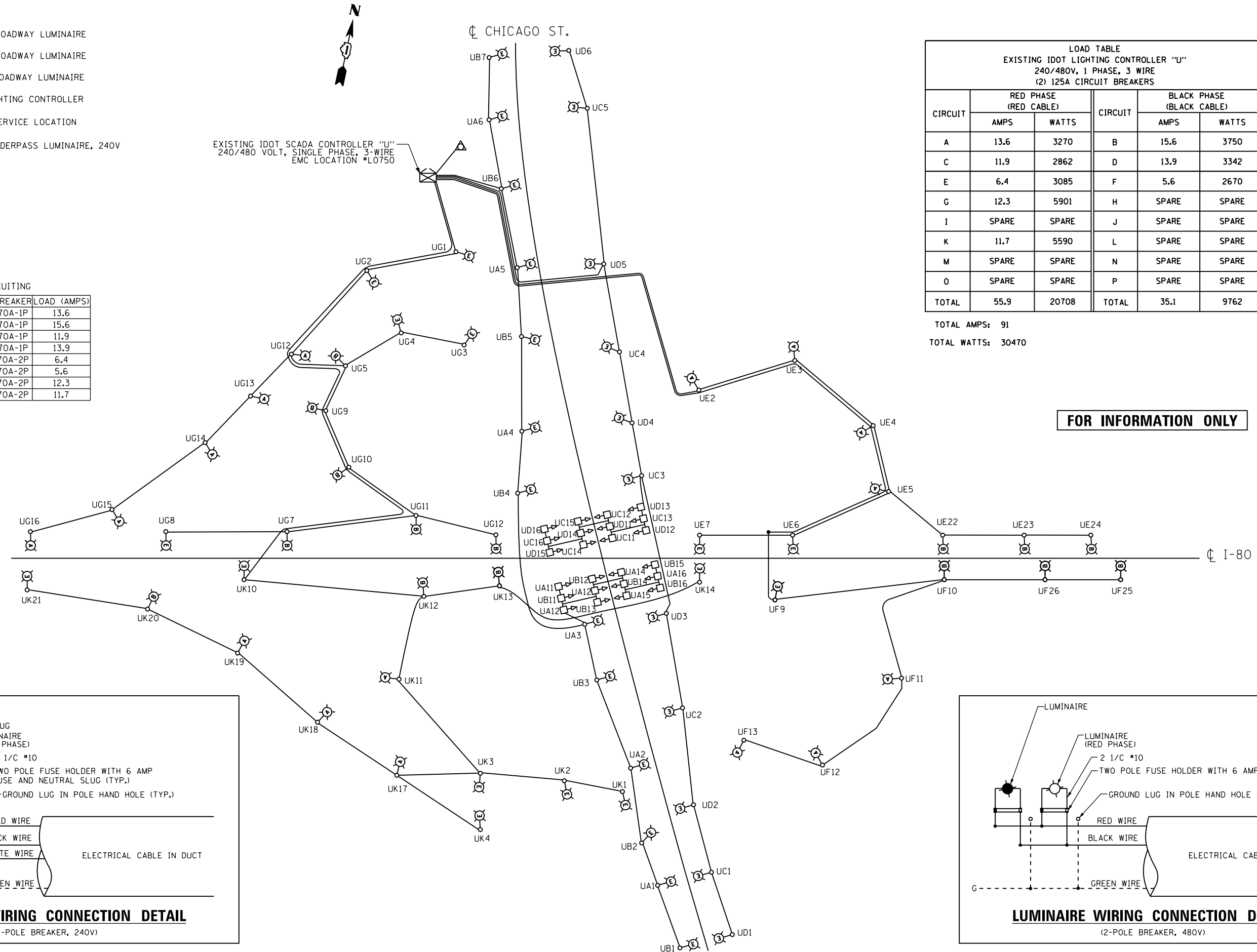
**CONTROLLER "U" CIRCUITING**

CIRCUIT	VOLTAGE	BREAKER	LOAD (AMPS)
A	240V	70A-1P	13.6
B	240V	70A-1P	15.6
C	240V	70A-1P	11.9
D	240V	70A-1P	13.9
E	480V	70A-2P	6.4
F	480V	70A-2P	5.6
G	480V	70A-2P	12.3
K	480V	70A-2P	11.7

CIRCUIT	RED PHASE (RED CABLE)		CIRCUIT	BLACK PHASE (BLACK CABLE)	
	AMPS	WATTS		AMPS	WATTS
A	13.6	3270	B	15.6	3750
C	11.9	2862	D	13.9	3342
E	6.4	3085	F	5.6	2670
G	12.3	5901	H	SPARE	SPARE
I	SPARE	SPARE	J	SPARE	SPARE
K	11.7	5590	L	SPARE	SPARE
M	SPARE	SPARE	N	SPARE	SPARE
O	SPARE	SPARE	P	SPARE	SPARE
<b>TOTAL</b>	<b>55.9</b>	<b>20708</b>	<b>TOTAL</b>	<b>35.1</b>	<b>9762</b>

TOTAL AMPS: 91  
TOTAL WATTS: 30470

**FOR INFORMATION ONLY**



**LEGEND**

- PROPOSED RETROFIT LED (U.N.O.) ROADWAY LUMINAIRE, OUTPUT DESIGNATION H, WIRED FOR 240V OR 480V PER PLANS
- PROPOSED LED ROADWAY LUMINAIRE, OUTPUT DESIGNATION H, 240V
- EXISTING TEMPORARY LED ROADWAY LUMINAIRE, OUTPUT DESIGNATION H, TO REMAIN IN PLACE, 240V
- EXISTING TEMPORARY LED HIGH MAST LUMINAIRE OUTPUT DESIGNATION I, TO REMAIN IN PLACE, 480V
- PROPOSED DUPLEX LIGHTING CONTROLLER
- PROPOSED ELECTRIC SERVICE LOCATION
- PROPOSED LED UNDERPASS LUMINAIRE, OUTPUT DESIGNATION E, 240V
- EXISTING TEMPORARY LED (U.N.O.) ROADWAY LUMINAIRE, OUTPUT DESIGNATION H, TO REMAIN IN PLACE, 480V



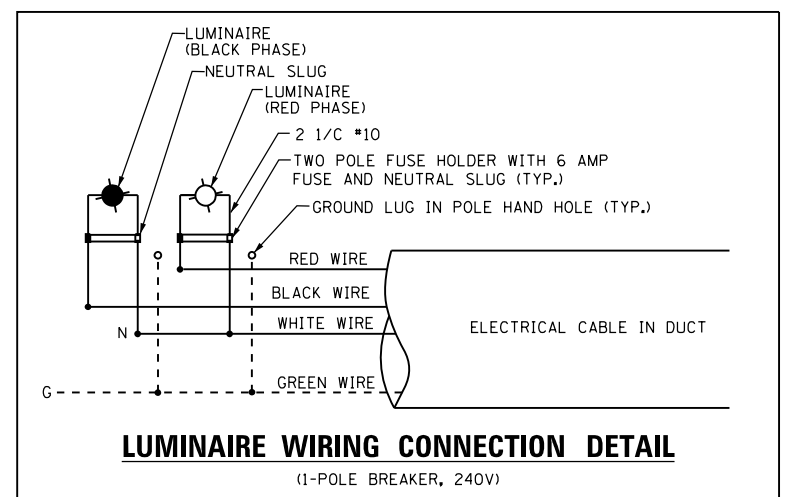
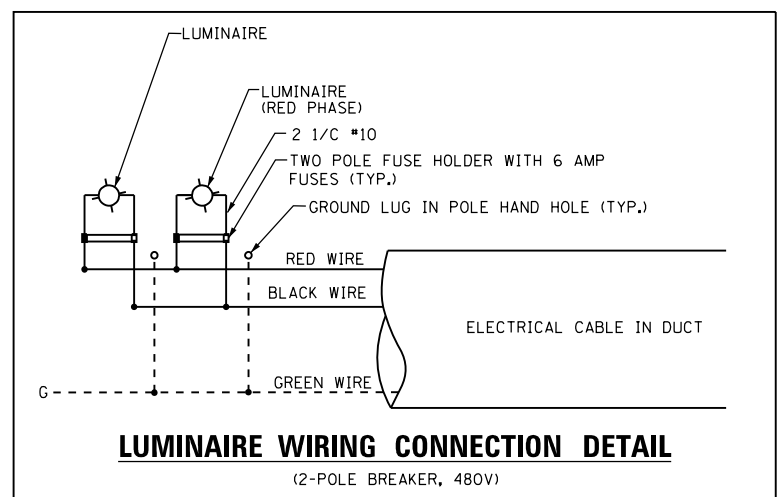
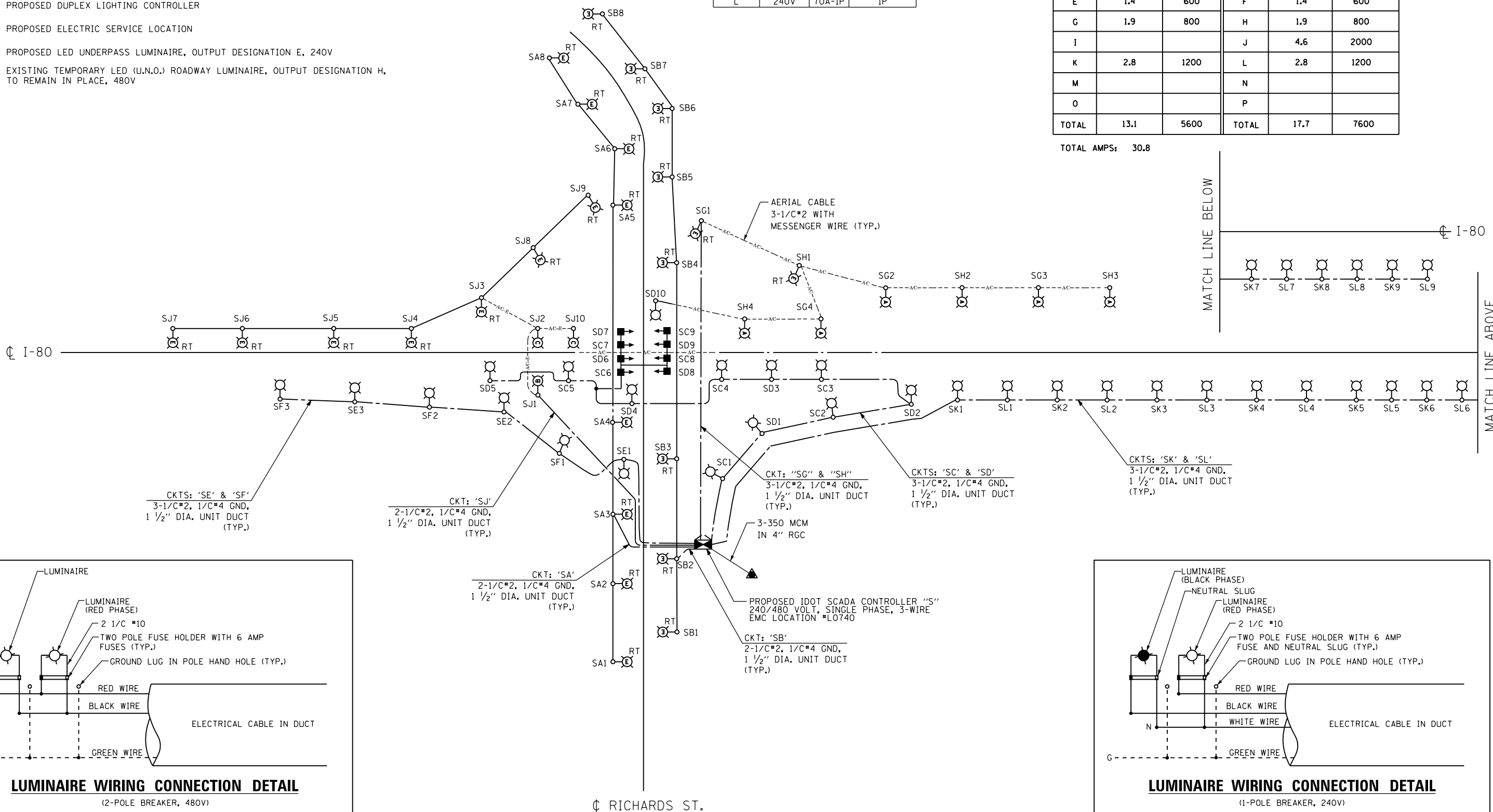
CONTROLLER "S" CIRCUITING

CIRCUIT	VOLTAGE	BREAKER	LOAD (AMPS)
A	480V	70A-2P	2P
B	480V	70A-2P	2P
C	240V	70A-1P	1P
D	240V	70A-1P	1P
E	240V	70A-1P	1P
F	240V	70A-1P	1P
G	240V	70A-1P	1P
H	240V	70A-1P	1P
J	480V	70A-2P	2P
K	240V	70A-1P	1P
L	240V	70A-1P	1P

LOAD TABLE  
PROPOSED IDOT LIGHTING CONTROLLER "S"

CIRCUIT	RED PHASE (RED CABLE)		CIRCUIT	BLACK PHASE (BLACK CABLE)	
	AMPS	WATTS		AMPS	WATTS
A	3.7	1600	B	3.7	1600
C	3.3	1400	D	3.3	1400
E	1.4	600	F	1.4	600
G	1.9	800	H	1.9	800
I			J	4.6	2000
K	2.8	1200	L	2.8	1200
M			N		
O			P		
<b>TOTAL</b>	<b>13.1</b>	<b>5600</b>	<b>TOTAL</b>	<b>17.7</b>	<b>7600</b>

TOTAL AMPS: 30.8



USER NAME = default	DESIGNED - MEK	REVISED -
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

I-80 FROM GARDNER STREET TO ROWELL AVENUE  
PROPOSED CONTROLLER "S" SINGLE LINE DIAGRAM

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	208
CONTRACT NO. 60W34				

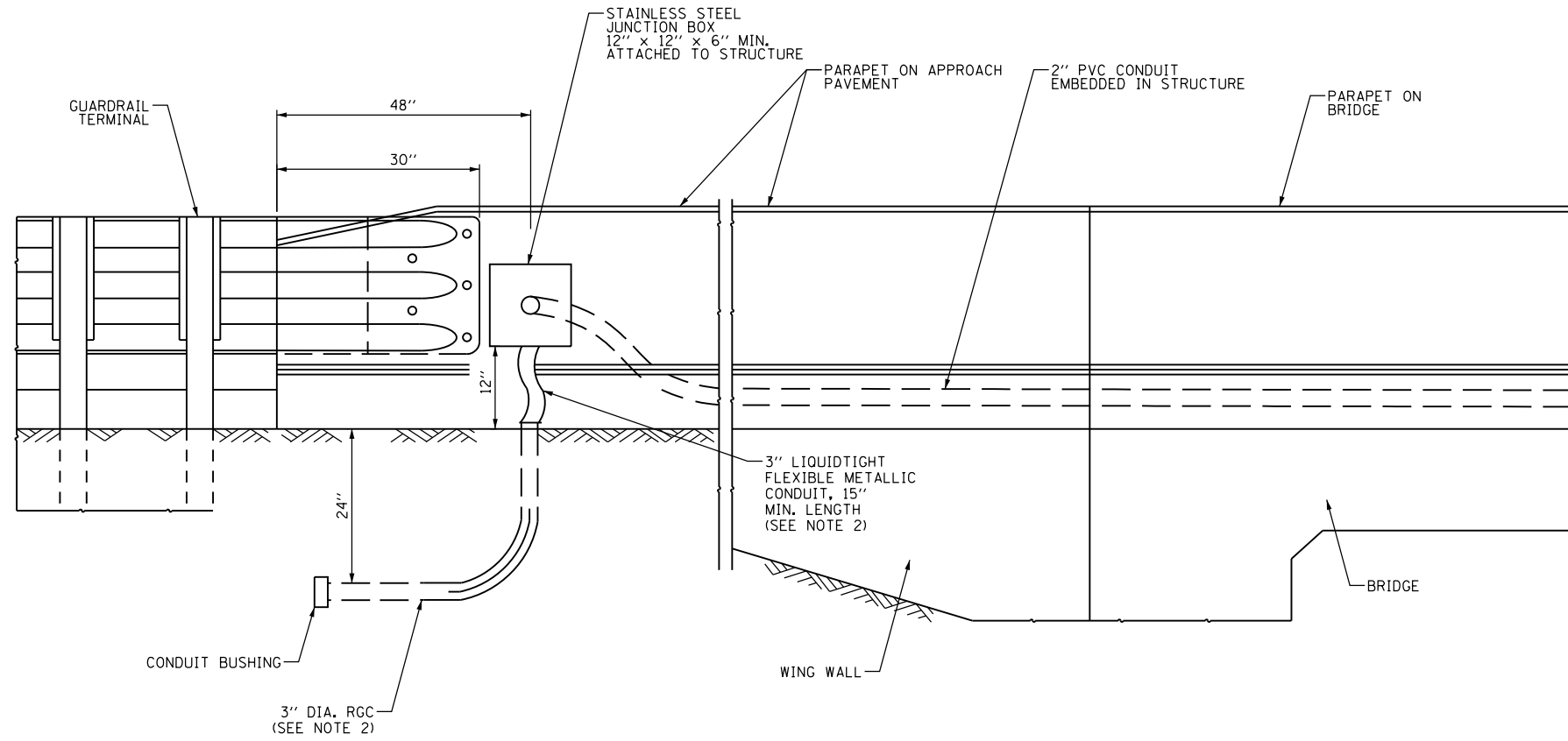
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ILLINOIS FED. AID PROJECT

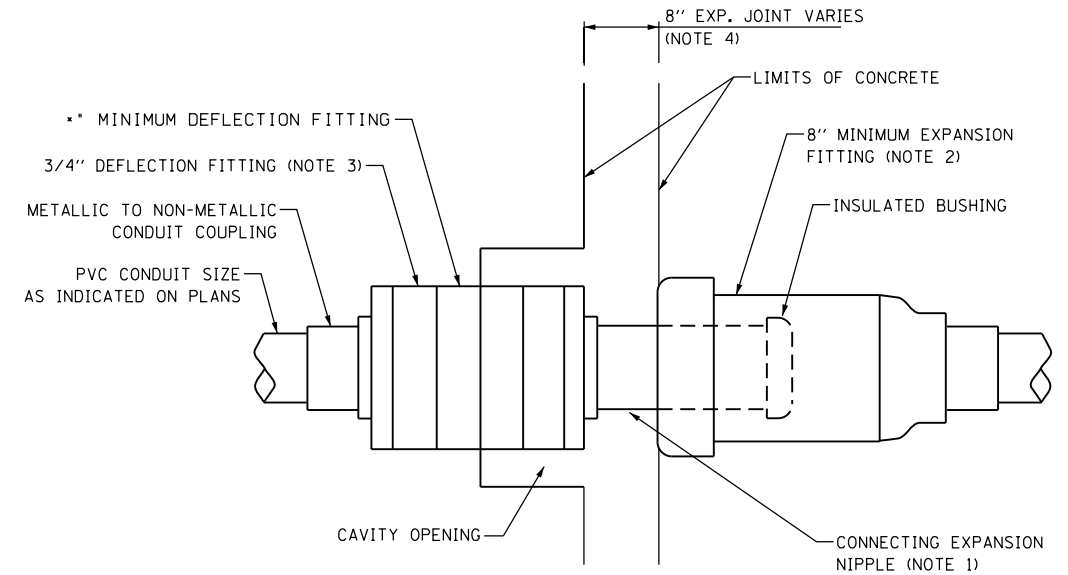


**NOTES:**

1. WITH THE APPROVAL OF THE ENGINEER, THE CONTRACTOR MAY SUBSTITUTE TWO 12" x 12" x 6" MIN. STAINLESS STEEL JUNCTION BOXES ATTACHED TO BACK OF WALL AND CONNECTED WITH LIQUIDTIGHT FLEXIBLE METALLIC CONDUIT FOR ALL EXPANSION JOINTS.
2. THE COST OF THE 3" DIA. RGC, ELBOW AND LENGTH OF LIQUIDTIGHT FLEXIBLE METALLIC CONDUIT ARE INCLUDED IN THE COST OF THE JUNCTION BOX.



**UNDERGROUND TO EMBEDDED CONDUIT  
TRANSITION AT BRIDGE PARAPET  
NOT TO SCALE**



**CONDUIT EXPANSION/DEFLECTING COUPLING  
NOT TO SCALE**

**NOTES:**

1. PROVIDE REQUIRED LENGTH OF CONNECTING EXPANSION NIPPLE. REFER TO STRUCTURAL DRAWINGS FOR THE EXPANSION JOINT CHARACTERISTICS.
2. THE BARREL OF THE FITTING SHALL BE FULLY EMBEDDED IN THE CONCRETE ON ONE SIDE OF THE EXPANSION JOINT.
3. A CAVITY OPENING, IF REQUIRED, SHALL BE 3" LARGER DIA. AND A MAX. DEPTH OF HALF OF THE DEFLECTION FITTING SHALL BE CENTERED IN THE OPENING AND EMBEDDED IN THE CONCRETE ONLY UP TO THE DEFLECTION FITTING CENTER.
4. REFER TO STRUCTURAL PLANS FOR EACH EXPANSION JOINT WIDTH, AND OTHER STRUCTURAL DETAILS.
5. THE COST OF INSTALLATION OF EXPANSION/DEFLECTION COUPLING DEVICES AND THE GALVANIZED CONDUIT CLAMPS AND SUPPORT/ ATTACHMENT APPARATUS SHALL BE CONSIDERED INCLUDED IN THE PAY ITEM "CONDUIT EMBEDDED IN STRUCTURE, 2" DIA., PVC".

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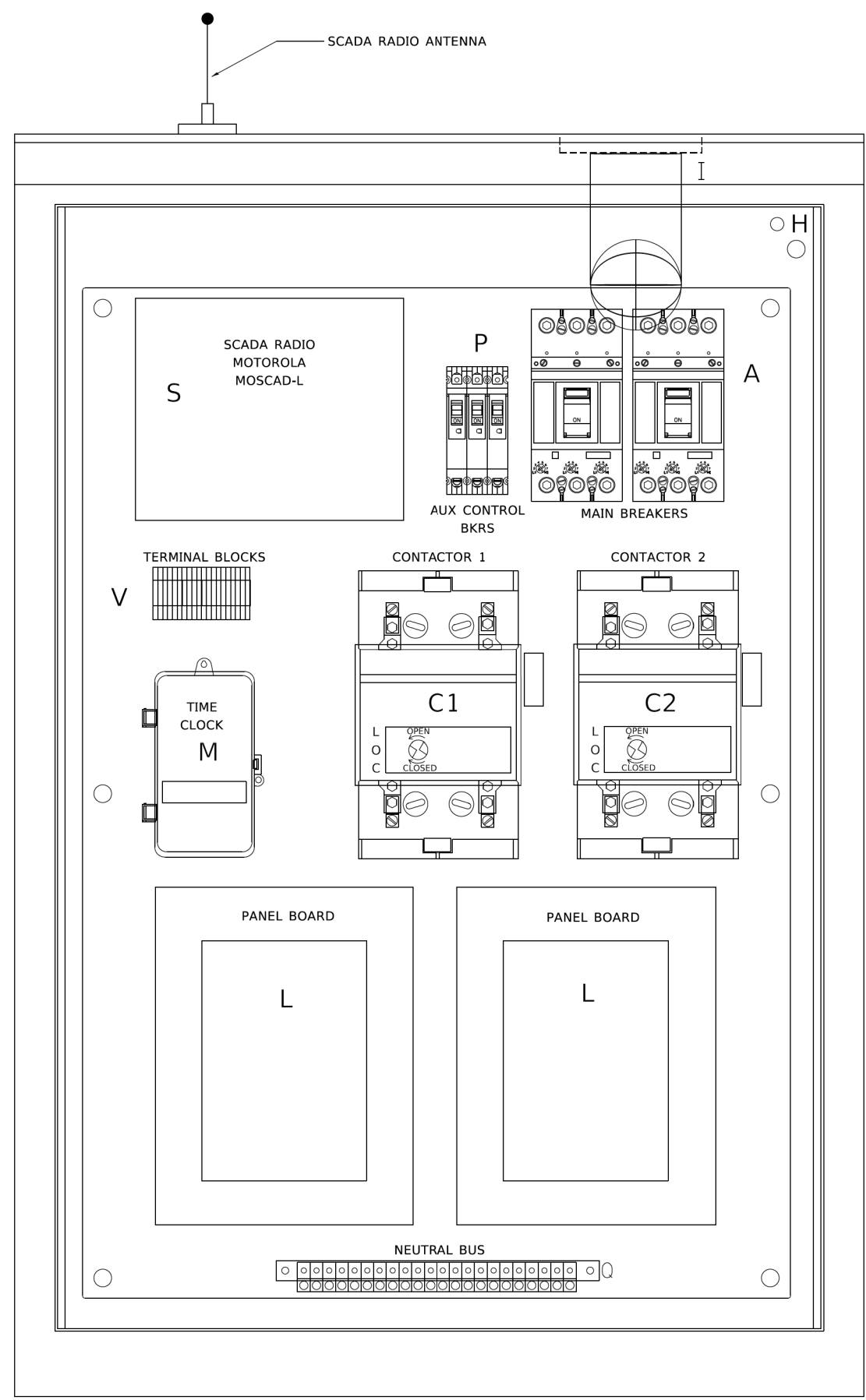
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**I-80 FROM GARDNER STREET TO ROWELL AVENUE  
ELECTRICAL DETAILS**

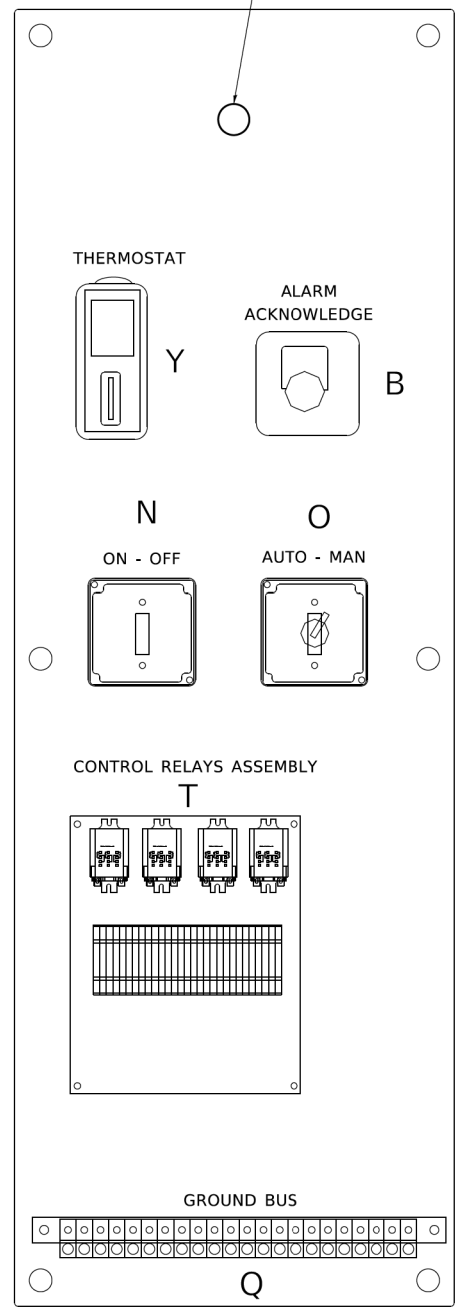
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	209
<b>CONTRACT NO. 60W34</b>				

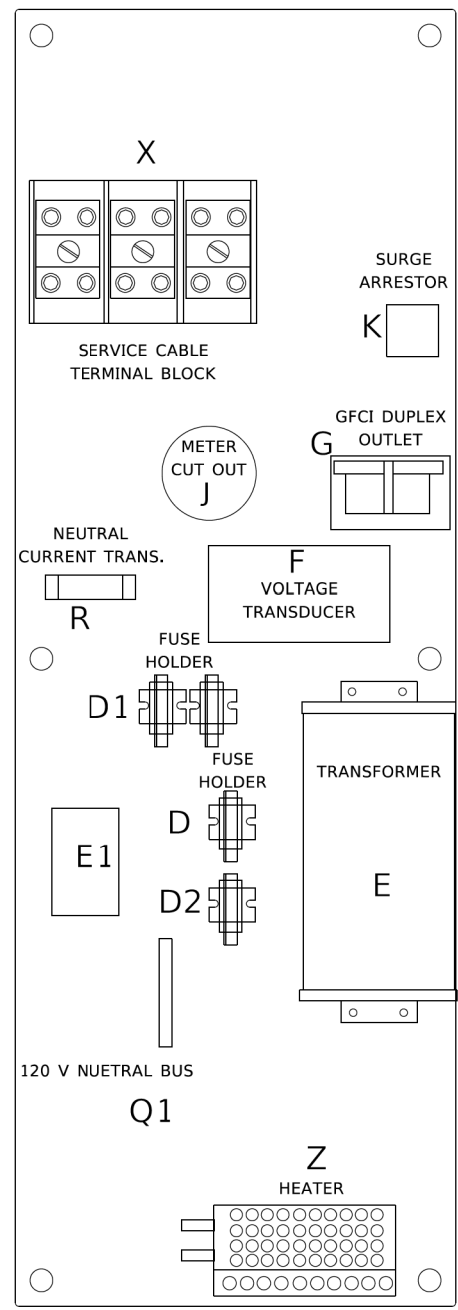
ILLINOIS FED. AID PROJECT



1" DIA. THROUGH BUSHING FOR FIBER OPTIC CABLE



**LEFT SIDE PANEL**



**RIGHT SIDE PANEL**

BILL OF MATERIALS		
ITEM	QTY	DESCRIPTION
A	2	MAIN CIRCUIT BREAKERS 2 POLE 200 AMP WITH AUX CONTACT
B	1	ACKNOWLEDGE SWITCH, PUSH BUTTON WITH YELLOW INSERT
C1, C2 *	2	CONTACTOR 2 POLE 200 AMP 240V COIL WITH AUX CONTACTS
D	1	FINGERSAFE FUSE HOLDER WITH KTK - 20A FUSE
D1	2	FINGERSAFE FUSE HOLDER WITH KTK - 1/2 A FUSE
D2	1	FINGERSAFE FUSE HOLDER WITH KTK - 2A FUSE
E	1	2.0 KVA 277V-240/120 TRANSFORMER
E1	1	0.25 KVA240/ 120 - 24 VAC TRANSFORMER
F	1	VOLTAGE TRANSDUCER WITH COVER TERMINALS
G	1	20 AMP GFCI DUPLEX OUTLET W/COVER
H	2	DOOR SWITCH
I	1	LIGHT FIXTURE
J	1	METER FITTING 1 PHASE 3 WIRE 200 AMP
K	1	SURGE ARRESTOR
L	2	PANEL BOARD 480/ 240V 1 PHASE, 250 AMP COPPER BUS
M	1	2 CHANNEL DIGITAL TIME CLOCK
N	1	MOMENTARY SWITCH ON - OFF
O	1	SQUARE D, 9001KS11BH13, 2 POSITION SWITCH IN 9001KY1 ENCLOSURE OR APPROVED EQUAL
P	2	BREAKER 1P 15A
Q	2	COPPER GROUND AND NEUTRAL BUS 1 X 16 X 1/4
Q1	1	COPPER NEUTRAL BUS WITH 1 #6 AND 8 #12 CONDUCTOR POINTS
R	1	CURRENT TRANSDUCER
S	1	MOTOROLA MOSCAD-L RADIO, 240 V
T *	1	CONTROL RELAY ASSEMBLY 240V COILS WITH 4 - 3PDT 25A RELAYS (W389ACX-15) (R1, R2, R3, R4). QTY 32 TERMINAL BLOCKS
V	20	TERMINAL BLOCKS
X *	1	620 AMP SPLICE BLOCK
Y	1	40-80 DEGREE THERMOSTAT
Z	1	375 WATT HEATER

\* TERMINALS SHALL BE COVERED WITH CLEAR PLEXIGLASS SHEET

MODEL: Default  
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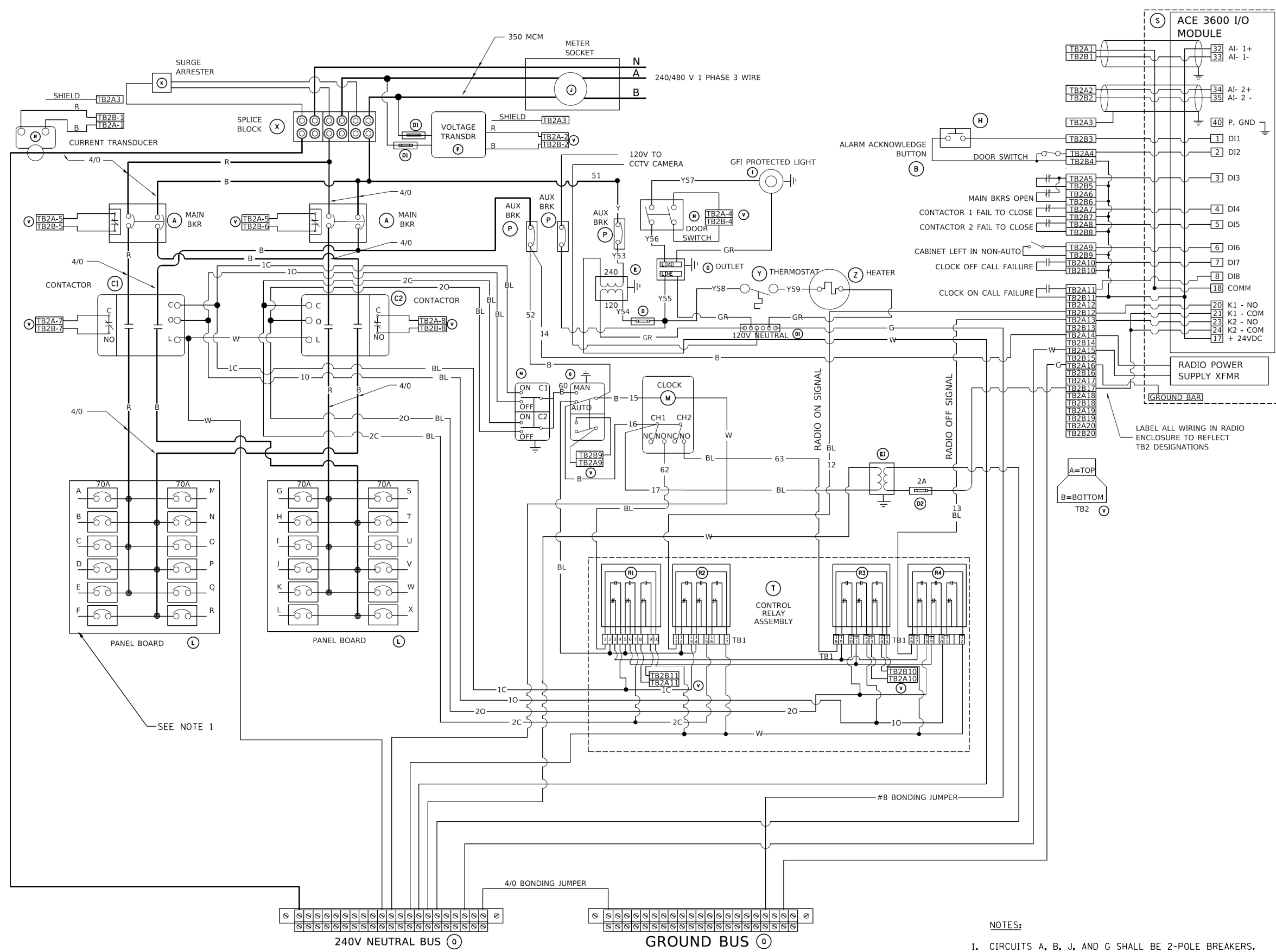
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DRAWN -	REVISOR -	
PLOT SCALE = 50.0000' / in.	CHECKED -	REVISOR -
PLOT DATE = 1/15/2020	DATE - 01-15-2020	REVISOR -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

LIGHTING CONTROLLER, BASE MOUNTED,  
480VOLT, 200AMP (DUAL) RADIO SCADA - FIBER OPTIC PROVISION

SCALE: NONE SHEET 1 OF 4 SHEETS STA. TO STA.

F.A. RTE. 80	SECTION 2013-008B	COUNTY WILL	TOTAL SHEETS 511	SHEET NO. 210
BE-206			CONTRACT NO. 60W34	
ILLINOIS FED. AID PROJECT				



BILL OF MATERIALS		
ITEM	QTY	DESCRIPTION
A	2	MAIN CIRCUIT BREAKERS 2 POLE 200 AMP WITH AUX CONTACT
B	1	ACKNOWLEDGE SWITCH, PUSH BUTTON WITH YELLOW INSERT
C1, C2*	2	CONTACTOR 2 POLE 200 AMP 240V COIL WITH AUX CONTACTS
D	1	FINGERSAFE FUSE HOLDER WITH KTK - 20A FUSE
D1	2	FINGERSAFE FUSE HOLDER WITH KTK - 1/2 A FUSE
D2	1	FINGERSAFE FUSE HOLDER WITH KTK - 2A FUSE
E	1	2.0 KVA 277V-240/120 TRANSFORMER
E1	1	0.25 KVA 240/ 120 - 24 VAC TRANSFORMER
F	1	VOLTAGE TRANSDUCER WITH COVER TERMINALS
G	1	20 AMP GFCI DUPLEX OUTLET W/COVER
H	2	DOOR SWITCH
I	1	LIGHT FIXTURE
J	1	METER FITTING 1 PHASE 3 WIRE 200 AMP
K	1	SURGE ARRESTER
L	2	PANEL BOARD 480/ 240V 1 PHASE, 250 AMP COPPER BUS
M	1	2 CHANNEL DIGITAL TIME CLOCK
N	1	MOMENTARY SWITCH ON - OFF
O	1	SQUARE D, 9001K511BH13, 2 POSITION SWITCH IN 9001KY1 ENCLOSURE OR APPROVED EQUAL
P	2	BREAKER 1P 15A
Q	2	COPPER GROUND AND NEUTRAL BUS 1 X 16 X 1/4
Q1	1	COPPER NEUTRAL BUS WITH 1 #6 AND 8 #12 CONDUCTOR POINTS
R	1	CURRENT TRANSDUCER
S	1	MOTOROLA MOSCAD-L RADIO, 240 V
T*	1	CONTROL RELAY ASSEMBLY 240V COILS WITH 4 - 3PDT 25A RELAYS (W389ACX-15) (R1, R2, R3, R4). QTY 32 TERMINAL BLOCKS
V	20	TERMINAL BLOCKS
X*	1	620 AMP SPLICE BLOCK
Y	1	40-80 DEGREE THERMOSTAT
Z	1	375 WATT HEATER

NOTES:  
1. CIRCUITS A, B, J, AND G SHALL BE 2-POLE BREAKERS.  
A SPARE 2-POLE BREAKER SHALL BE PROVIDED.

\* TERMINALS SHALL BE COVERED WITH CLEAR PLEXIGLASS SHEET

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FILE NAME = D160W34-sht-1light_detail02.B.dgn	DATE - 6/25/2020	REVISED -



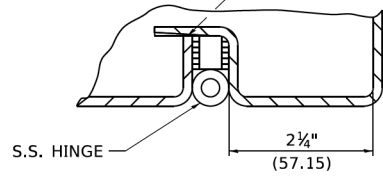
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

I-80 FROM GARDNER STREET TO ROWELL AVENUE  
ELECTRICAL DETAILS

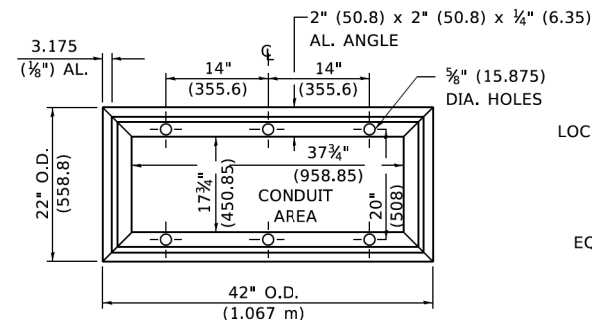
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	211
CONTRACT NO. 60W34			ILLINOIS FED. AID PROJECT	

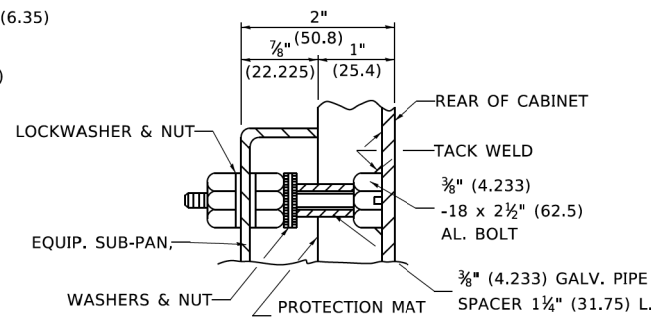
FULL GASKET ON DOOR OPENING  
PLACE 1 1/8" (58.575)  
GASKET BETWEEN HINGE LEAVES



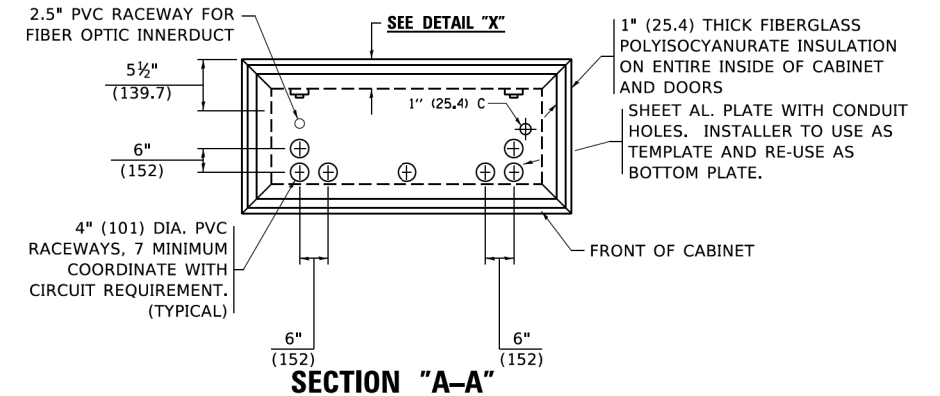
**DETAIL "Y"**



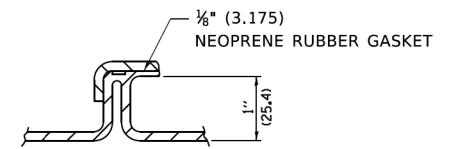
**BASE MTG. DETAIL**



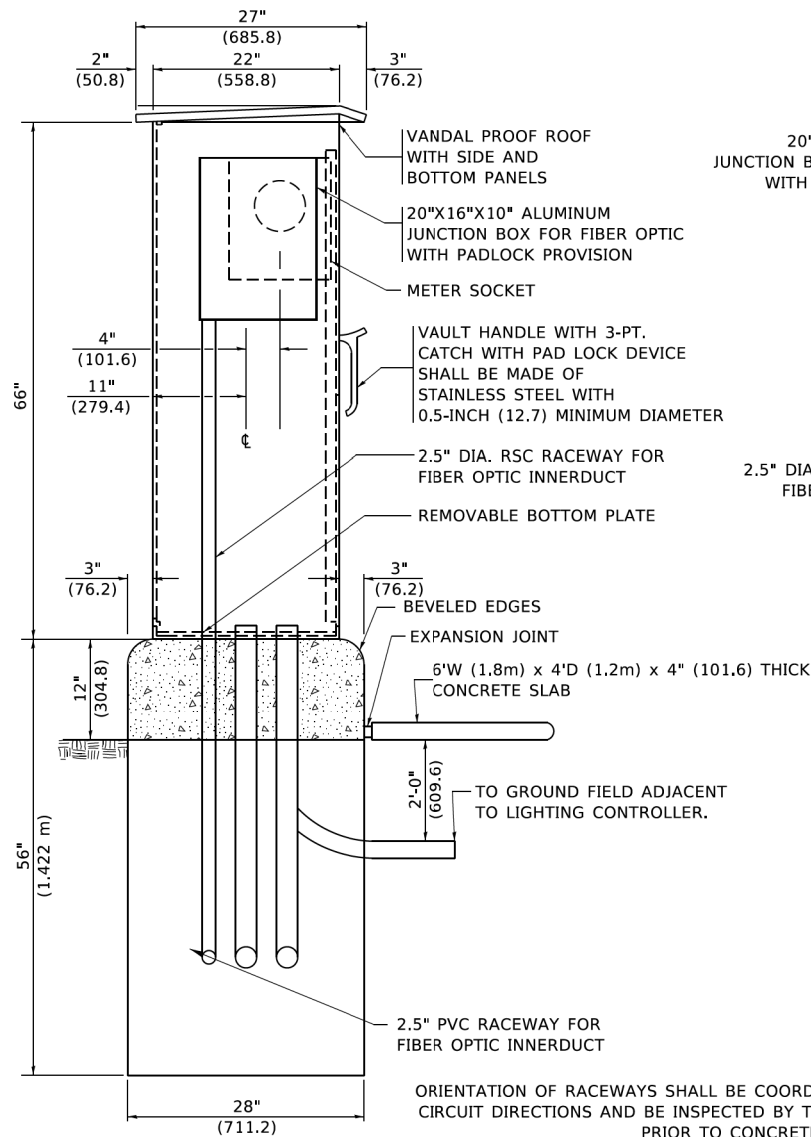
**DETAIL "X"**



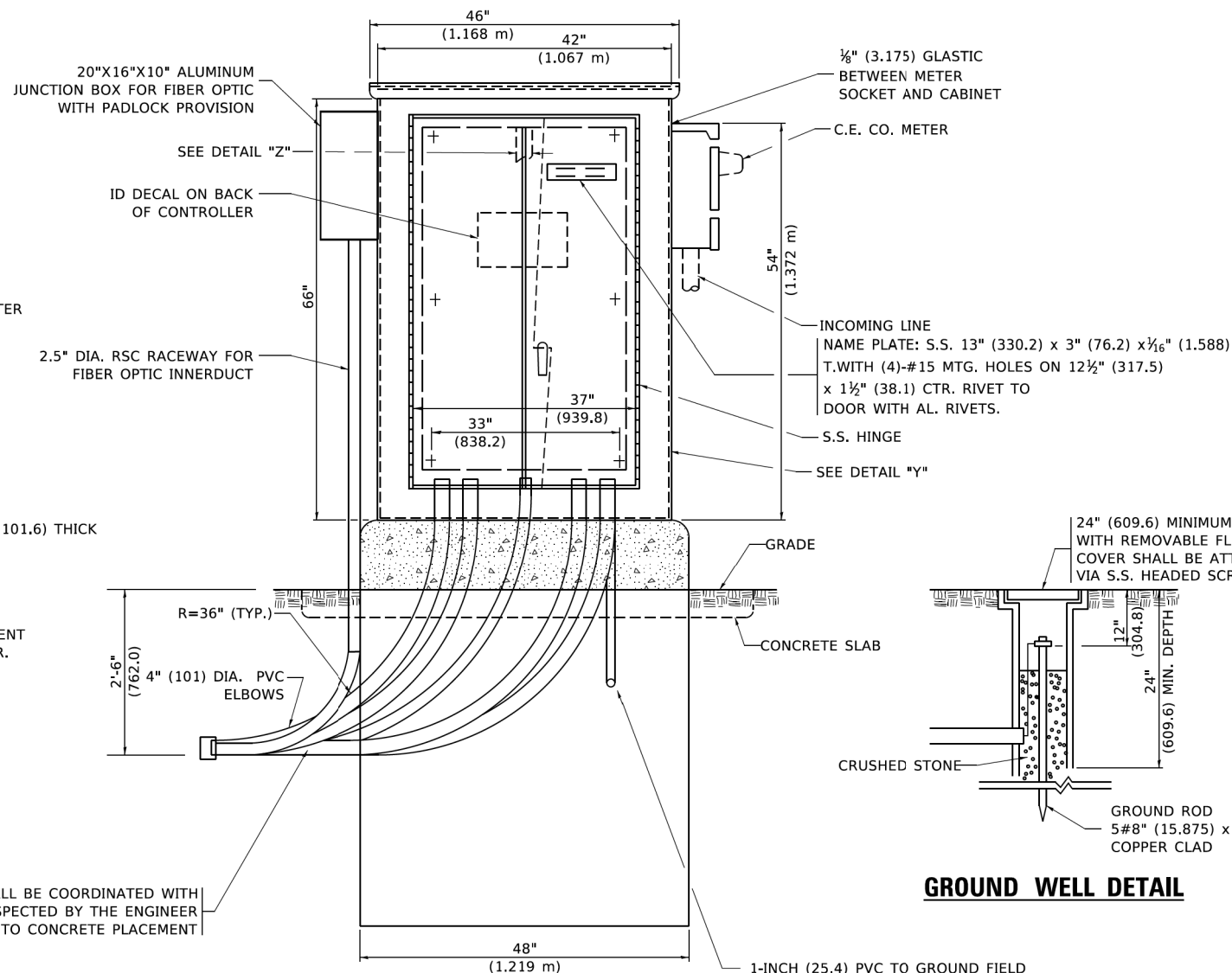
**SECTION "A-A"**



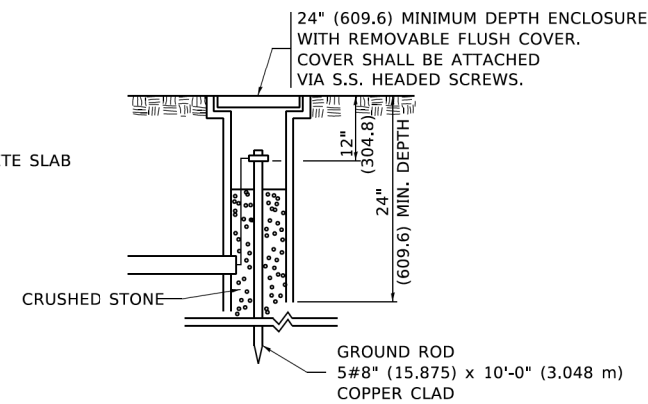
**DETAIL "Z"**



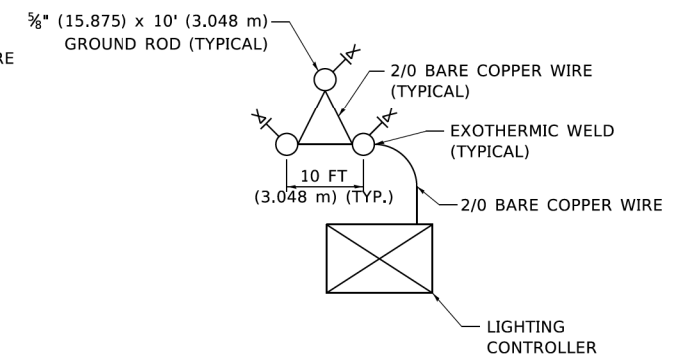
**LEFT SIDE ELEVATION**



**FRONT ELEVATION**



**GROUND WELL DETAIL**



**GROUND FIELD DETAIL (N.T.S.)**

THE CONTRACTOR SHALL VERIFY EXACT LOCATION WITH THE ENGINEER

1-INCH (25.4) PVC TO GROUND FIELD OF 3 GROUND RODS IN A 10 FT (3.048 m). TRIANGLE CONNECTED VIA BARE COPPER WIRE. VERIFY EXACT LOCATION OF GROUND FIELD WITH THE ENGINEER. NO GROUND WELL SHALL BE PLACED IN CONCRETE PAD IN FRONT OF CONTROLLER.

MODEL: Default; FILE: \\miller-prod\p\proj\DOT\Documents\DOT - Offices\District 1\Projects\DLH\51272-21\CADD\A\CADsheets\bs206.dgn

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PLOT DATE = 1/15/2020	DATE - 01-15-2020	REVISED -

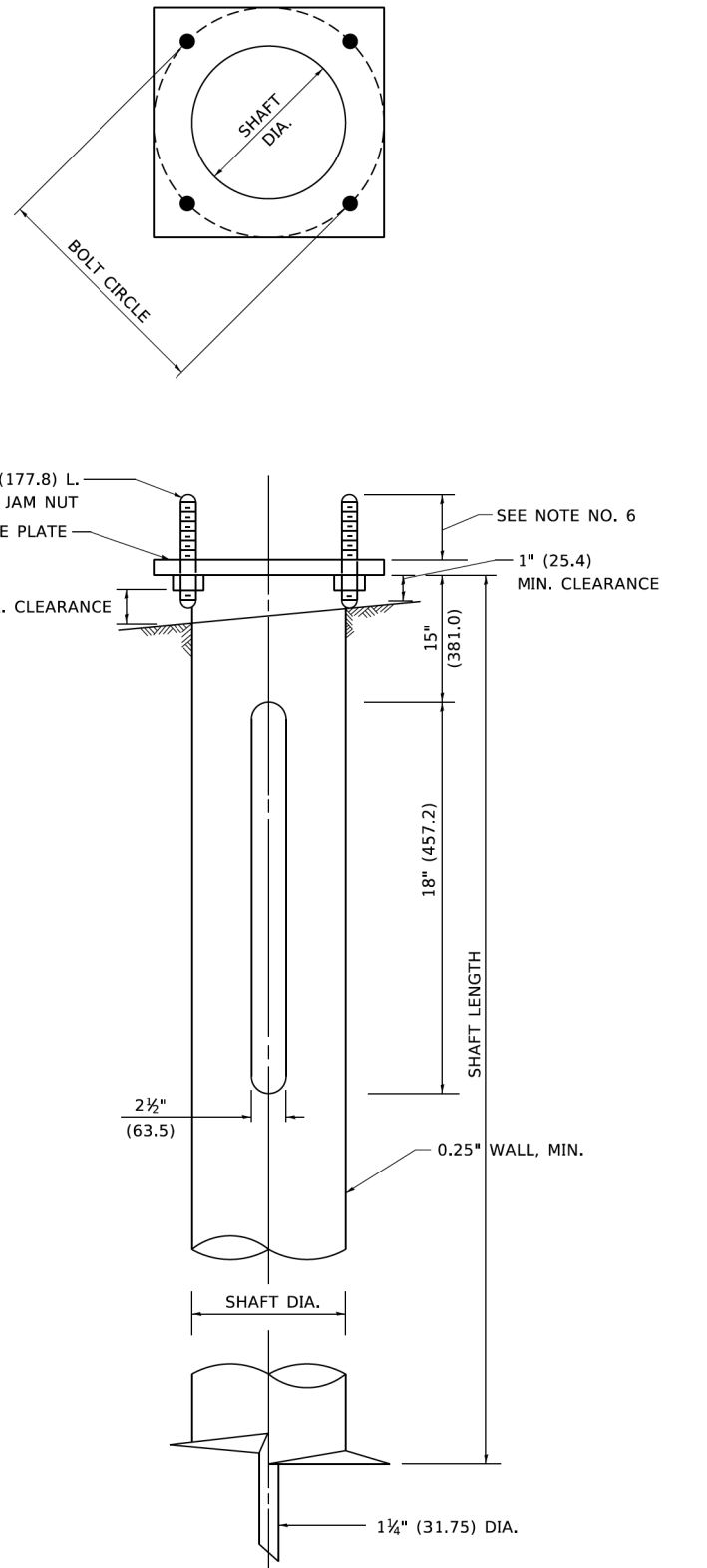
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**LIGHTING CONTROLLER, BASE MOUNTED,  
480VOLT, 200AMP (DUAL) RADIO SCADA - FIBER OPTIC PROVISION**

SCALE: NONE SHEET 3 OF 4 SHEETS STA. TO STA.

F.A. RTE. = 80	SECTION = 2013-008B	COUNTY = WILL	TOTAL SHEETS = 511	SHEET NO. = 212
BE-206		CONTRACT NO. 60W34		
ILLINOIS FED. AID PROJECT				





**NOTES**

1. ALL DIMENSION IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
2. ALL MATERIAL SHALL BE GALVINIZED ACCORDING TO AASHTO M111, UNLESS OTHERWISE SPECIFIED.
3. ALL WELDS SHALL BE CONTINUOUS AND NOT LESS THAN 1#4" (6.35 mm) FILLET WELDS. THE WELDED FOUNDATION SHALL BE CAPABLE OF WITHSTANDING 10,000 FT/LBS (13558.18 n.m) OF INSTALLATION TORQUE APPLIED ABOUT THE AXIS OF THE FOUNDATION.
4. THE HELIX FOUNDATION SHAFT SHALL BE INSTALLED VERTICAL AND THE BASE PLATE SHALL BE IN LEVEL. THE BREAKAWAY COUPLINGS AND HARDWARE SHALL NOT BE USED TO ALIGN THE POLE INSTALLATION.
5. THE CABLE TRENCH SHALL BE BACKFILLED AND FIRMLY COMPACTED BEFORE THE INSTALLATION OF THE LIGHT POLE.
6. THE CONTRACTOR SHALL COORDINATE EXTENSION OF ANCHOR BOLTS ABOVE TOP OF THE BASE PLATE WITH THE BREAKAWAY DEVICE MANUFACTURER'S REQUIREMENTS.
7. ANY VOIDS WITHIN THE METAL FOUNDATION SHALL BE FILLED WITH FINE AGGREGATE.
8. METAL FOUNDATIONS SHALL BE INSTALLED IN UNDISTURBED SOIL. PREDRILLING A PILOT HOLE AND/OR BACKFILLING AROUND THE FOUNDATION IS NOT ALLOWED.
9. THE METAL FOUNDATION SHALL NOT BE INSTALLED TO A TORQUE WHICH EXCEEDS THE MANUFACTURER'S MAXIMUM TORQUE RATING NOR SHALL IT BE INSTALLED TO AN INSTALLATION TORQUE VALUE OF LESS THAN 3,500 FT LB (4,750 KNM). METAL FOUNDATIONS THAT ARE NOT INSTALLED TO FULL INSTALLATION DEPTH OR DO NOT ACHIEVE THE MINIMUM INSTALLATION TORQUE SHALL BE REMOVED AND REPLACED WITH A CONCRETE FOUNDATION AT NO ADDITIONAL COST.
10. THE BASEPLATE SHALL BE PERPENDICULAR TO THE SHAFT AXIS ( $\pm 1^\circ$ ) AND THE HOLE CENTERLINE SHALL BE CONCENTRIC ( $\pm 0.188$ ) TO THE SHAFT AXIS.
11. THE PILOT POINT AND SHAFT AXIS SHALL BE CONCENTRIC ( $\pm 0.125$ ) AND IN LINE ( $\pm 2^\circ$ ).
12. THE BASEPLATE SHALL BE STAMPED WITH THE MANUFACTURERS NAME AND DATE OF MANUFACTURE.

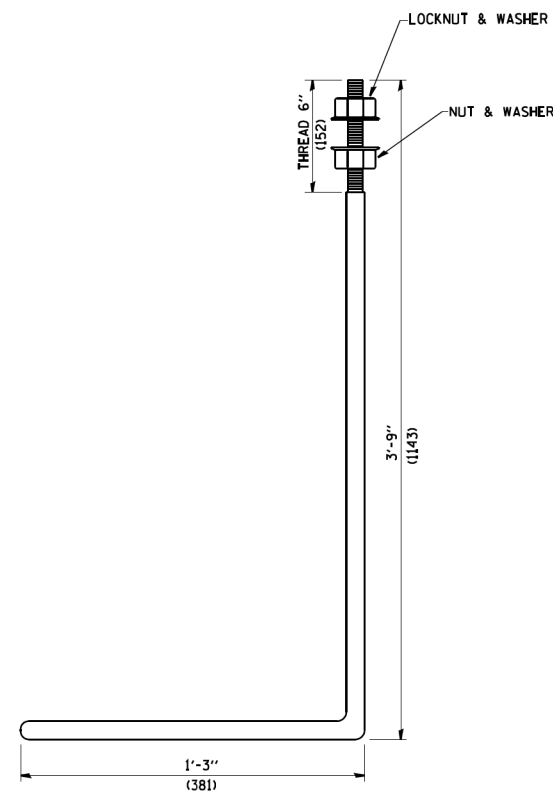
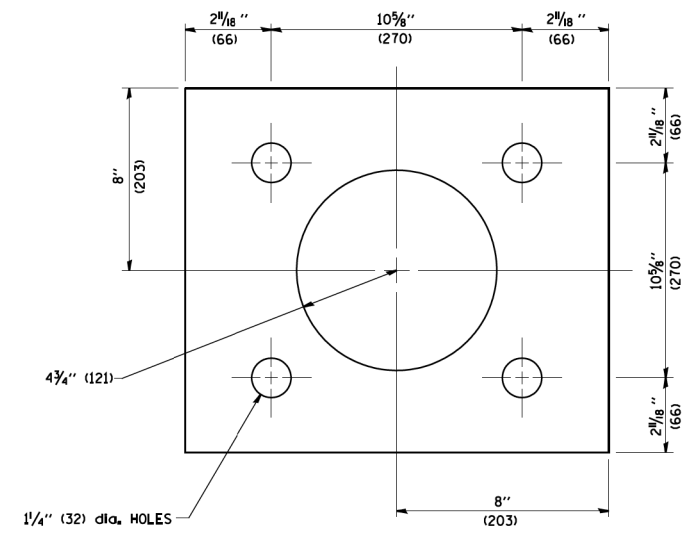
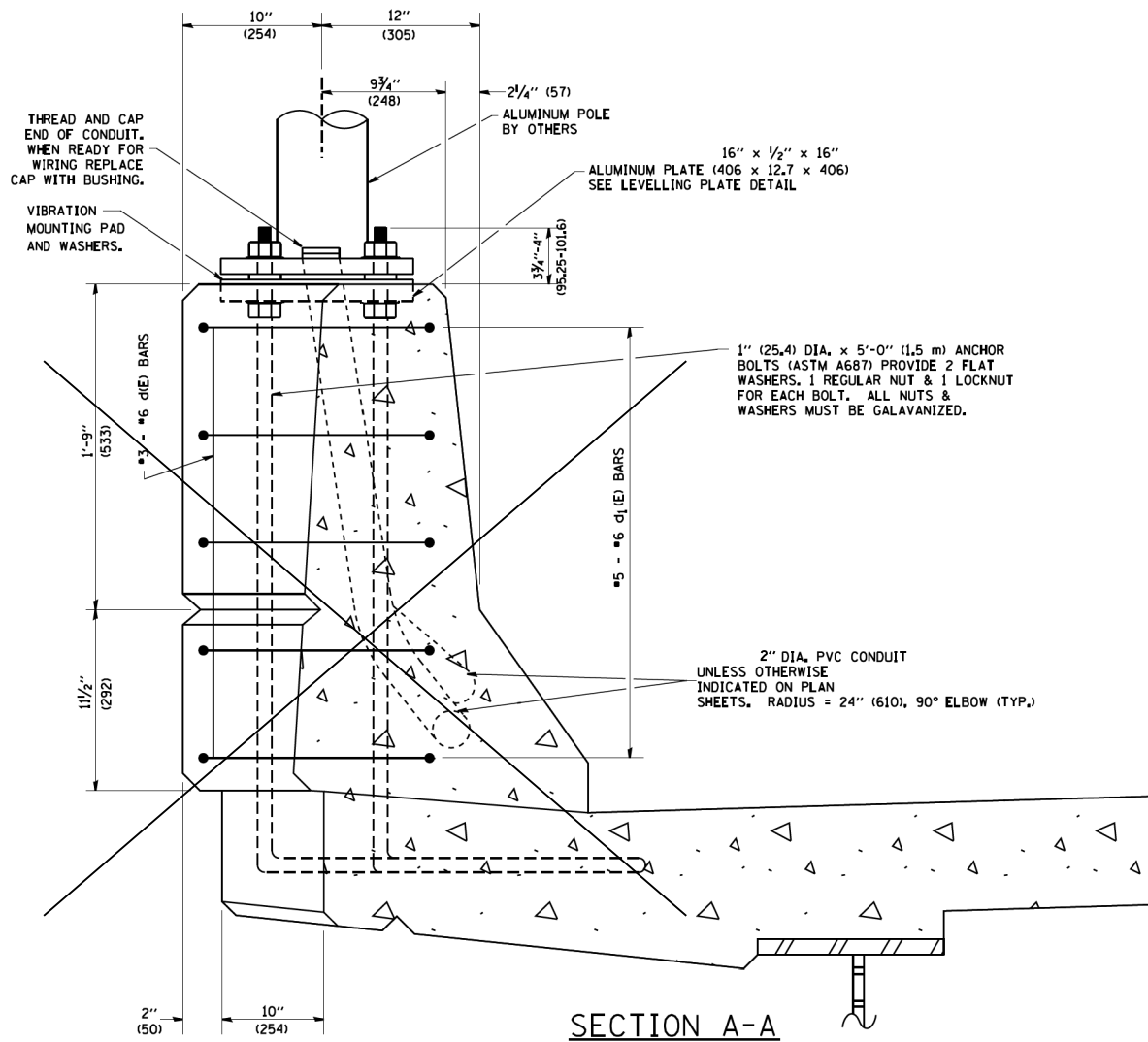
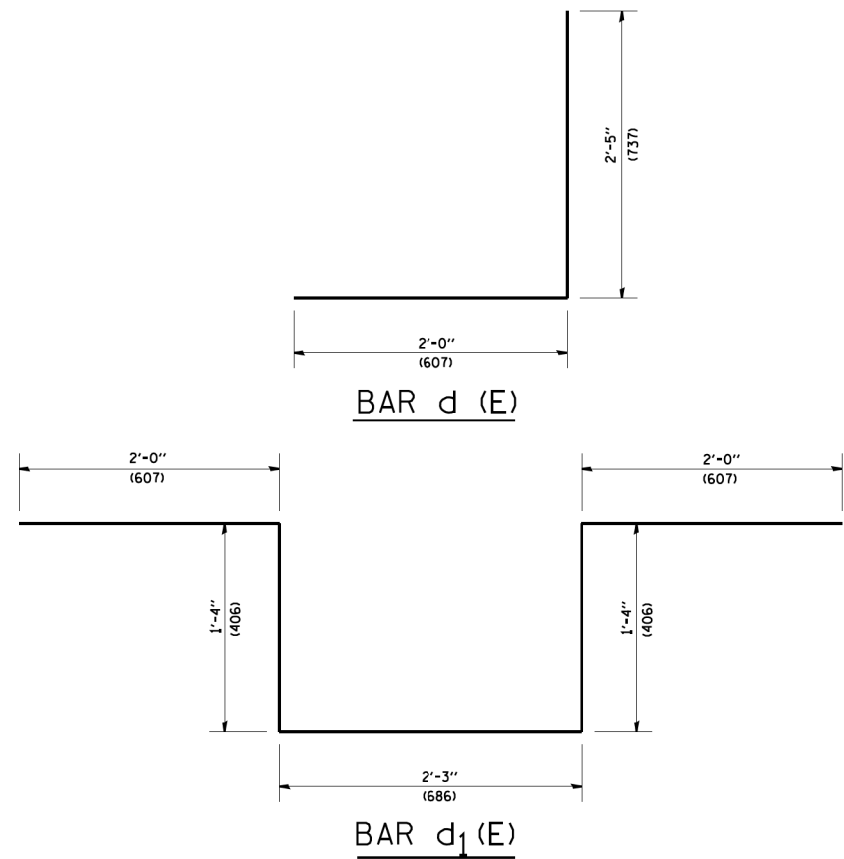
**HELIX FOUNDATION SIZE**

POLE MOUNTING HEIGHT	BOLT CIRCLE	SHAFT DIAMETER	SHAFT LENGTH	BASEPLATE
30 FT.	11½"	8⅝"	6 FT.	12"x12"x1"
31 FT.-35 FT.	11½"	8⅝"	6 FT.	12"x12"x1"
36 FT.-40FT.	15"	8⅝"	6 FT.	15"x15"x1¼"
41 FT.-45 FT.	15"	8⅝"	6 FT.	15"x15"x1¼"
46 FT.-50 FT.	15"	10"	8 FT.	15"x15"x1¼"

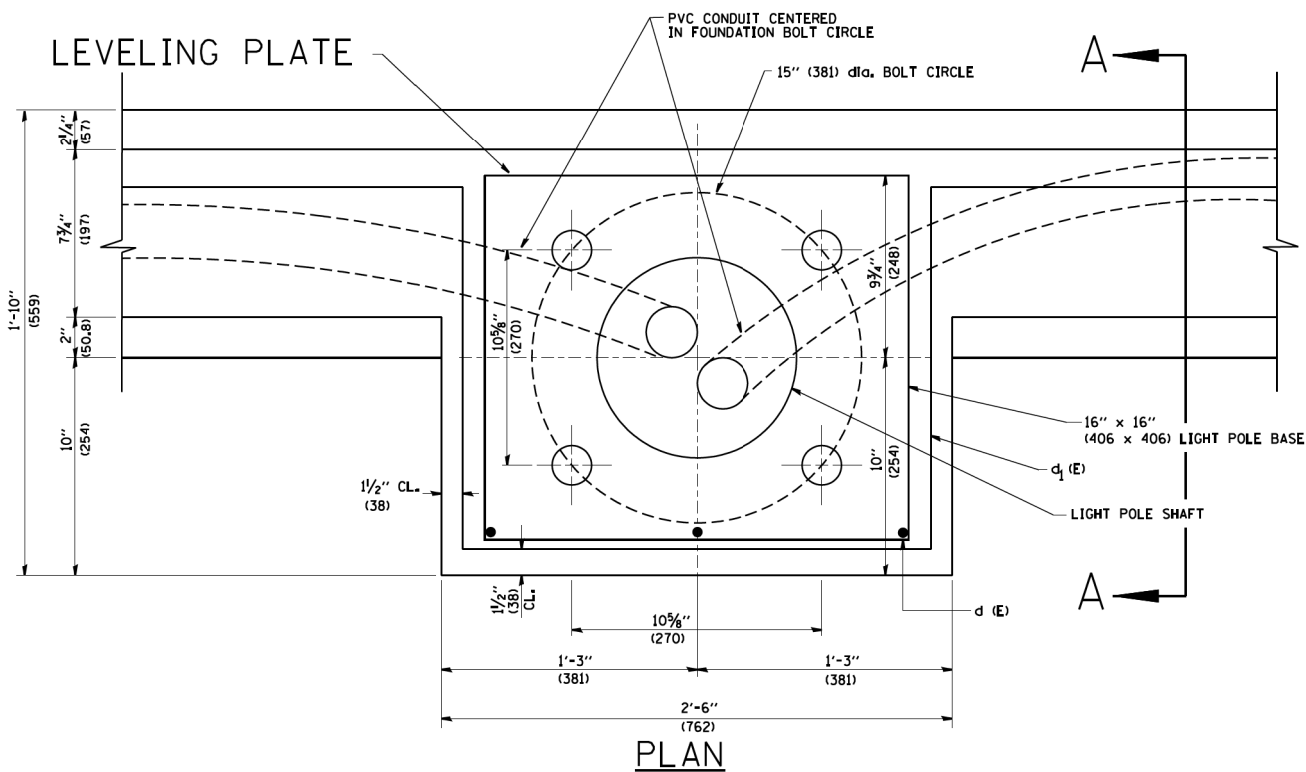
**METAL HELIX FOUNDATION MATERIALS**

ITEM	MATERIAL REQUIREMENT
BASEPLATE	AASHTO M 270M, GRADE 36 (M270M, GRADE 250)
SHAFT	ASTM A 252, GRADE 2 (PHOSPHOROUS 0.04% MAXIMUM, SULFUR 0.05% MAXIMUM)
HELIX SCREW	AASHTO M 183 (ASTM A 635)
PILOT POINT	AASHTO M 270 (ASTM A 575)
ANCHOR RODS/STUDS	AASHTO M 314 (ASTM F 1554)
HEXAGON NUTS	AASHTO M 291M (ASTM A 563) GRADE DH, OR AASHTO M 292 (ASTM A 194) GRADE 2H
WASHERS	AASHTO M 293 (ASTM F 436)

MODEL: Default  
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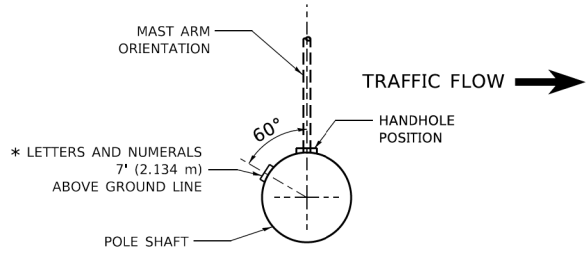


1" (25.4) dia. ANCHOR BOLT

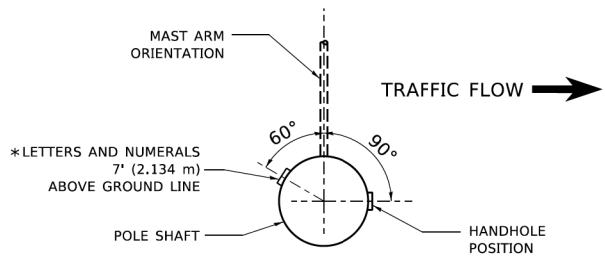


- NOTES**
1. ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
  2. LEVEL LIGHT POLE PLATES, USING THE FLANGE NUTS, PRIOR TO POURING THE PARAPET WALL. THE TOP OF THE PLATE SHALL BE AT THE SAME ELEVATION AS THE FINISHED CONCRETE PARAPET.
  3. THE COST OF ANCHOR BOLTS, CONDUIT, LEVELLING PLATE AND FOUNDATION IS INCLUDED IN THE COST OF THE BRIDGE STRUCTURE.
  4. SEE STRUCTURAL PLANS FOR CONSTANT SLOPE PARAPET WALL DETAILS.

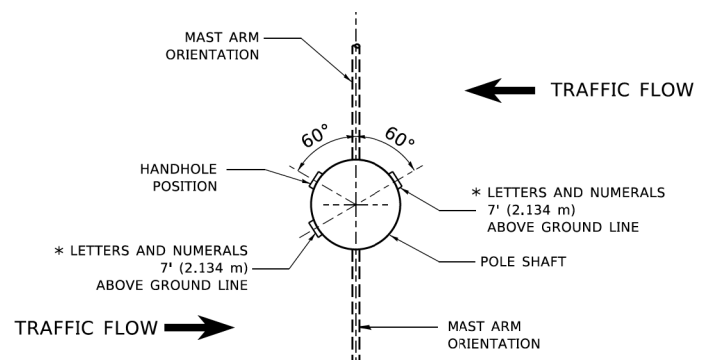
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PLOT SCALE = 50.0000' / IN.		CHECKED -	DATE -	SCALE: NONE		SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	<b>BE-330</b>		CONTRACT NO. 60W34		
PLOT DATE = 1/4/2008		DATE -	REVISED -	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT								



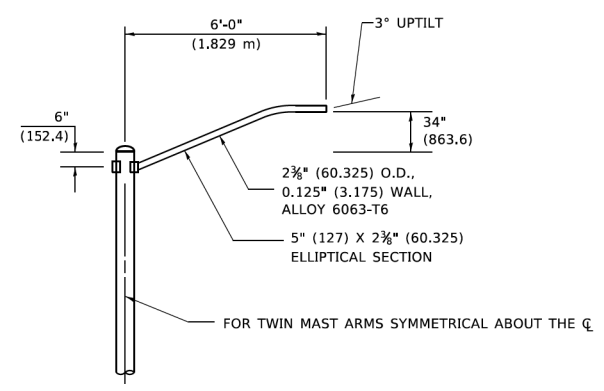
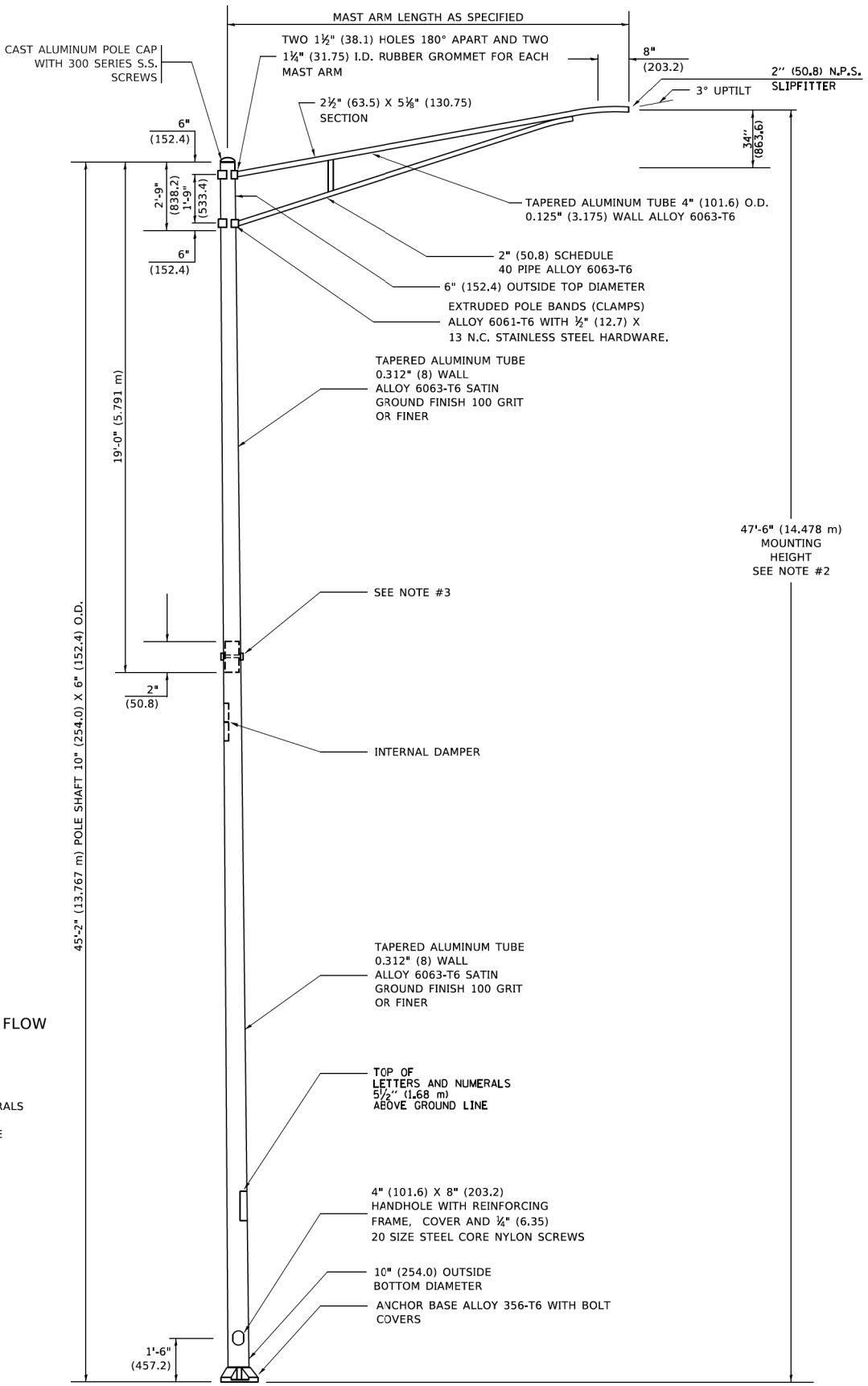
**POSITION OF HANDHOLE AND POLE NUMBER FOR SINGLE MAST ARM POLES MOUNTED ON BRIDGE PARAPET OR BARRIER WALL**



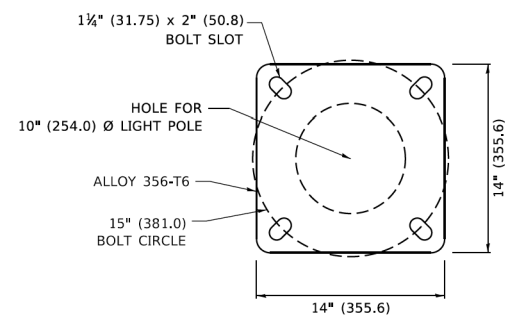
**POSITION OF HANDHOLE AND POLE NUMBER FOR SINGLE MAST ARM POLES**



**POSITION OF HANDHOLE AND POLE NUMBER FOR TWIN MAST ARM POLES**

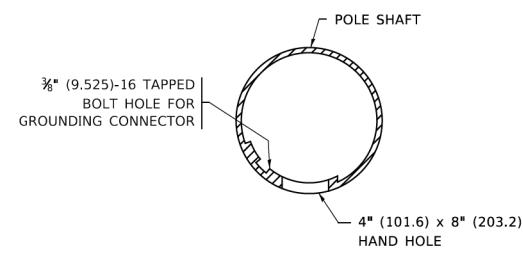


**6' (1.8 m) SINGLE MEMBER MAST ARM (N.T.S.)**



**LIGHT POLE BASE PLATE DETAIL**

15 INCH (381.0) BOLT CIRCLE



**HANDHOLE DETAIL (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.

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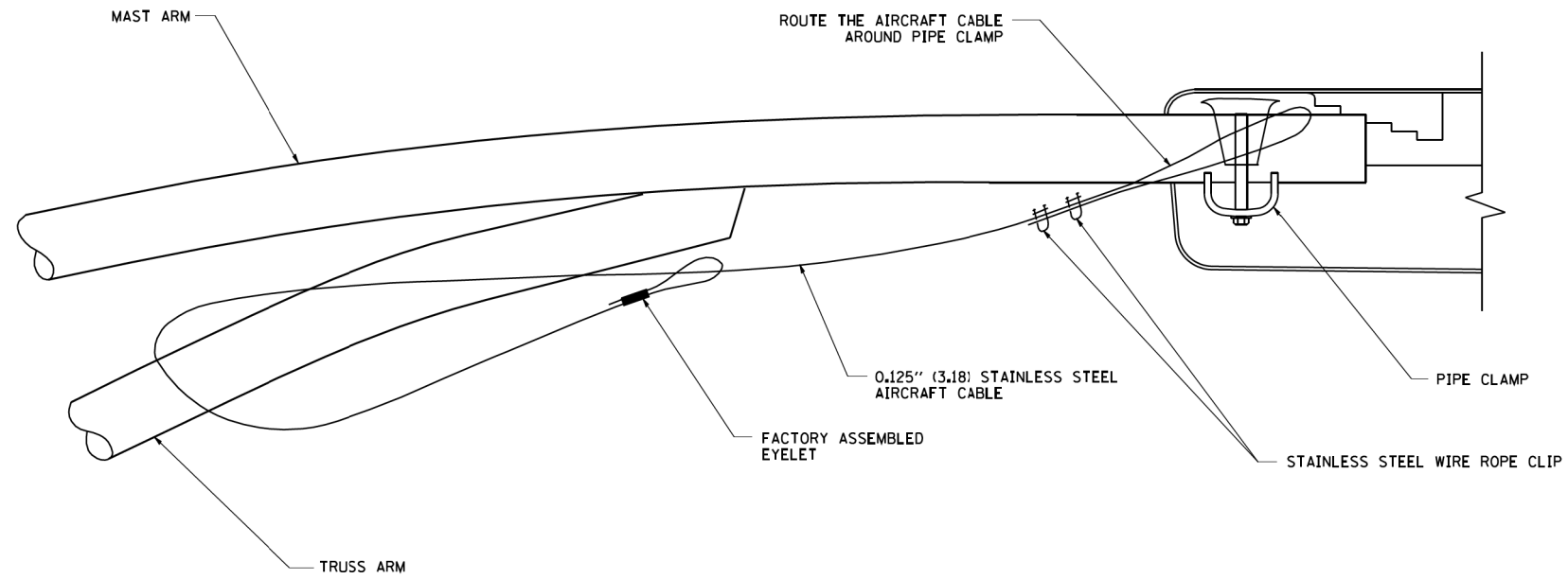
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	DRAWN -	REVISED - R. TOMSONS 09-03-03
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PLOT DATE = 4/19/2019	DATE -	REVISED - R. TOMSONS 03-18-15

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

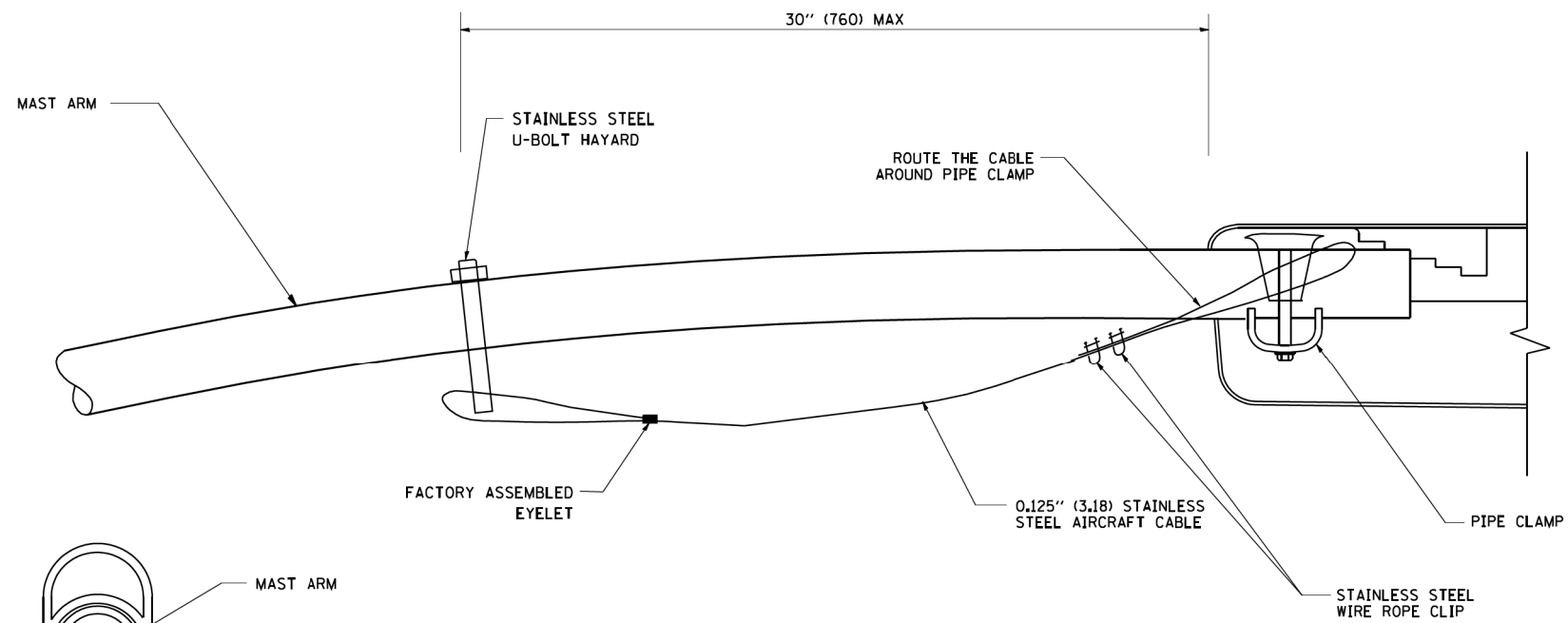
<b>ALUMINUM LIGHT POLE</b>	
<b>47'-6" (14.478 m) MOUNTING HEIGHT</b>	
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	216
<b>BE-400</b>		CONTRACT NO. 60W34		
ILLINOIS FED. AID PROJECT				

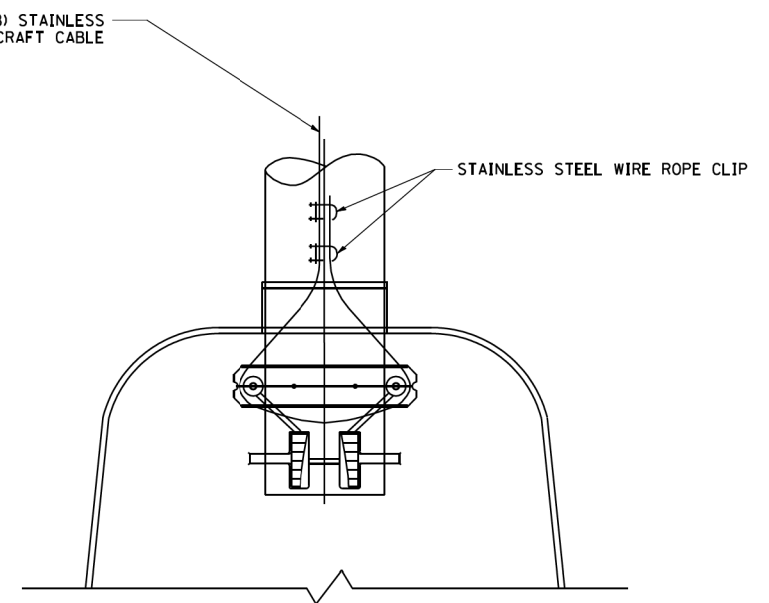
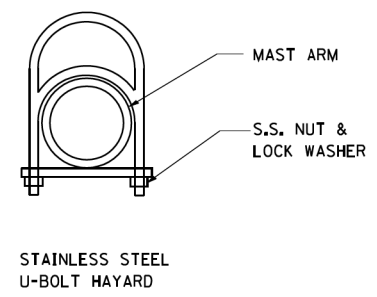




**SIDE VIEW (TRUSS ARM)**  
N.T.S.



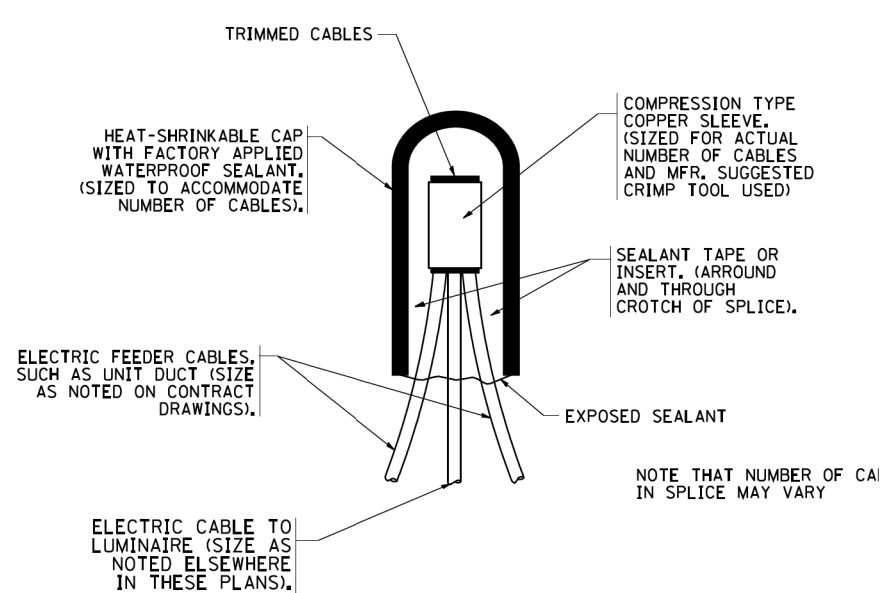
**SIDE VIEW (SINGLE MEMBER OR DAVIT ARM)**  
N.T.S.



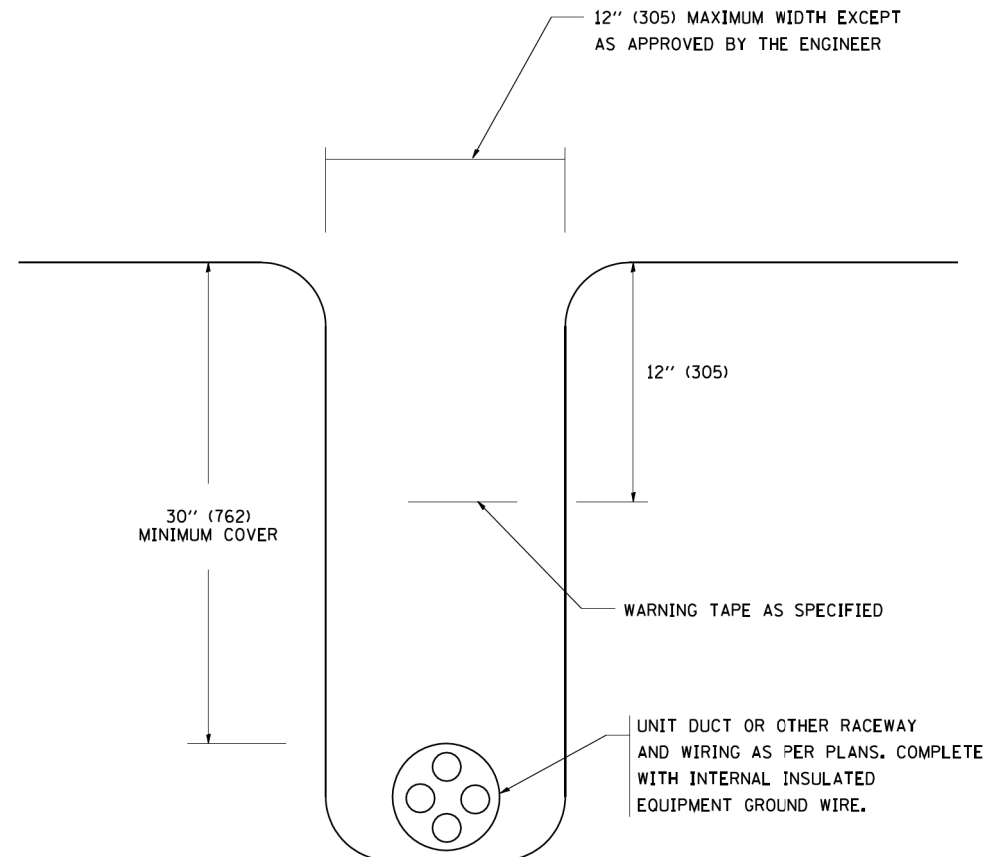
**BOTTOM VIEW**  
N.T.S.

- 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.

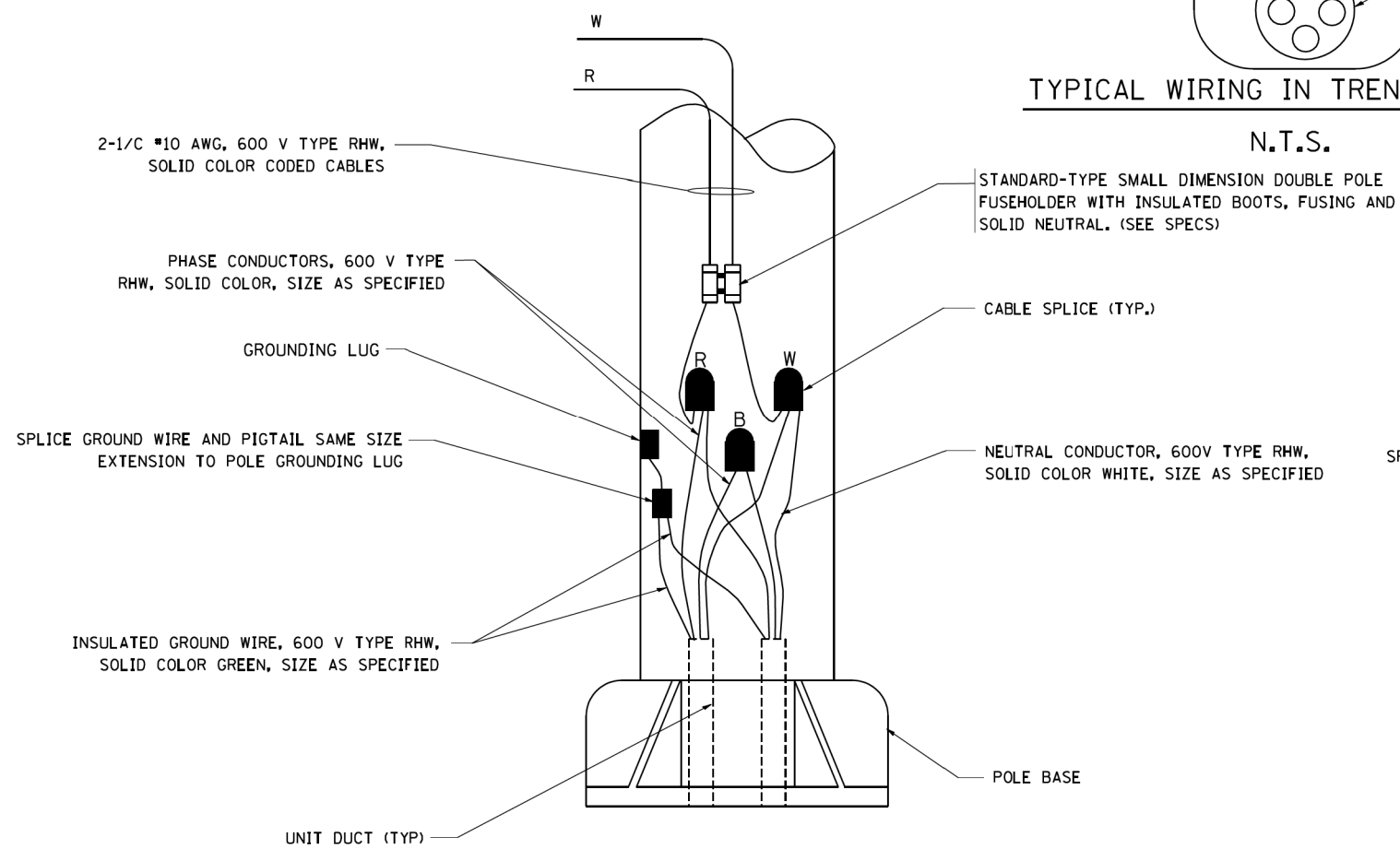
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					<small>FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT</small>							



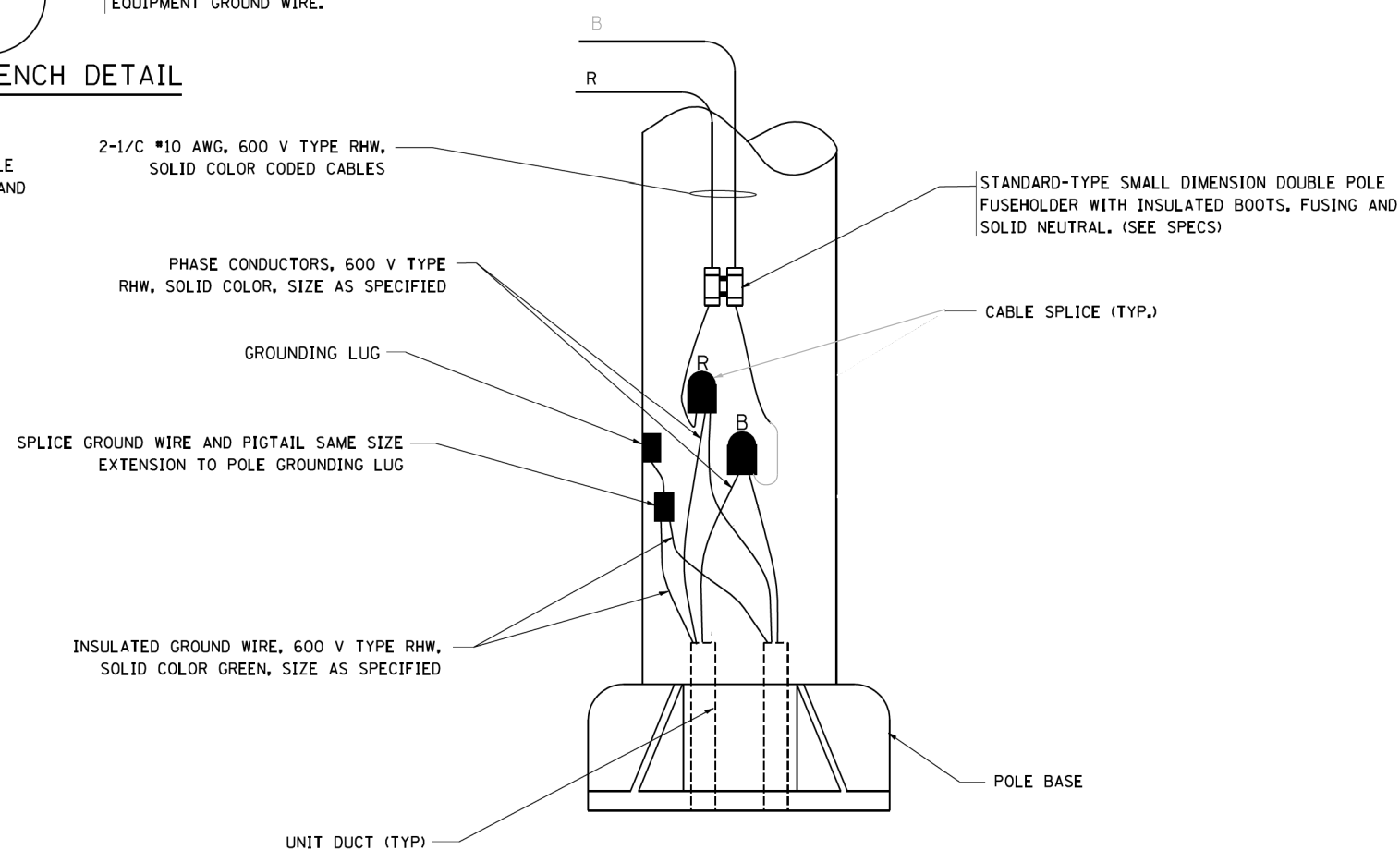
**TYPICAL SPLICE DETAIL**  
N.T.S.



**TYPICAL WIRING IN TRENCH DETAIL**  
N.T.S.



**POLE WIRING DETAIL, 240V**  
N.T.S.



**POLE WIRING DETAIL, 480V**  
N.T.S.

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PLOT DATE = 1/4/2008

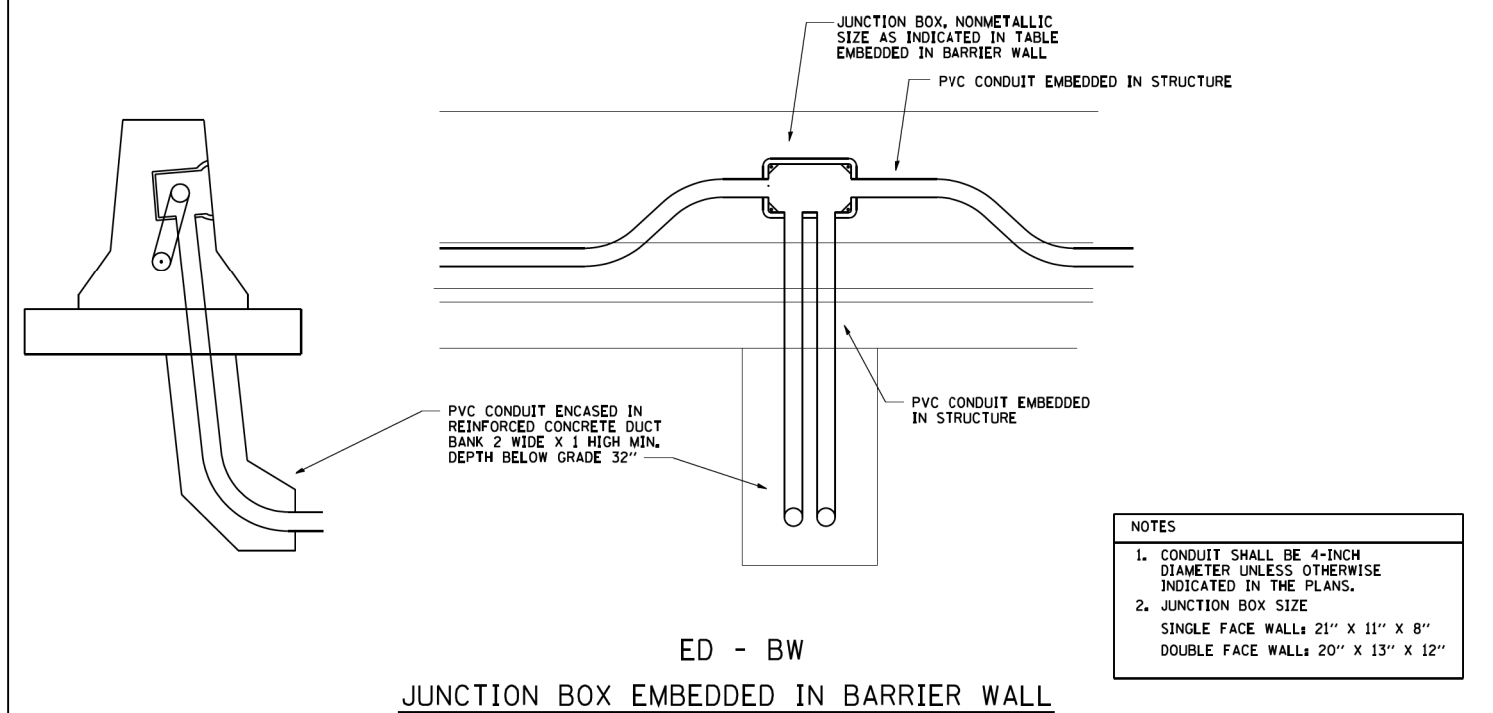
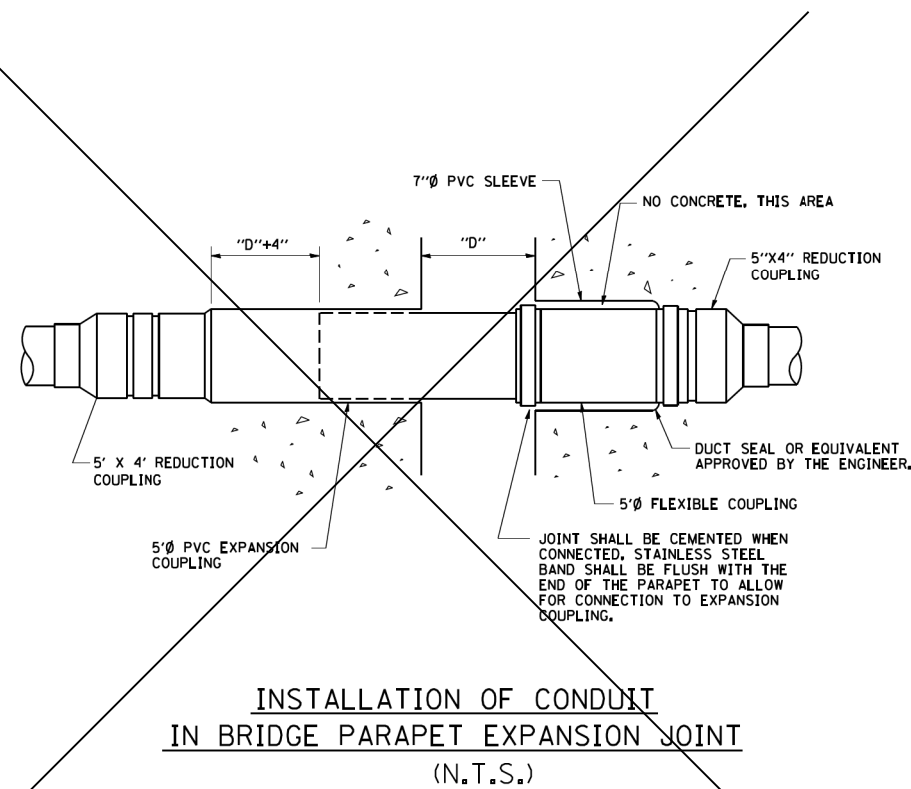
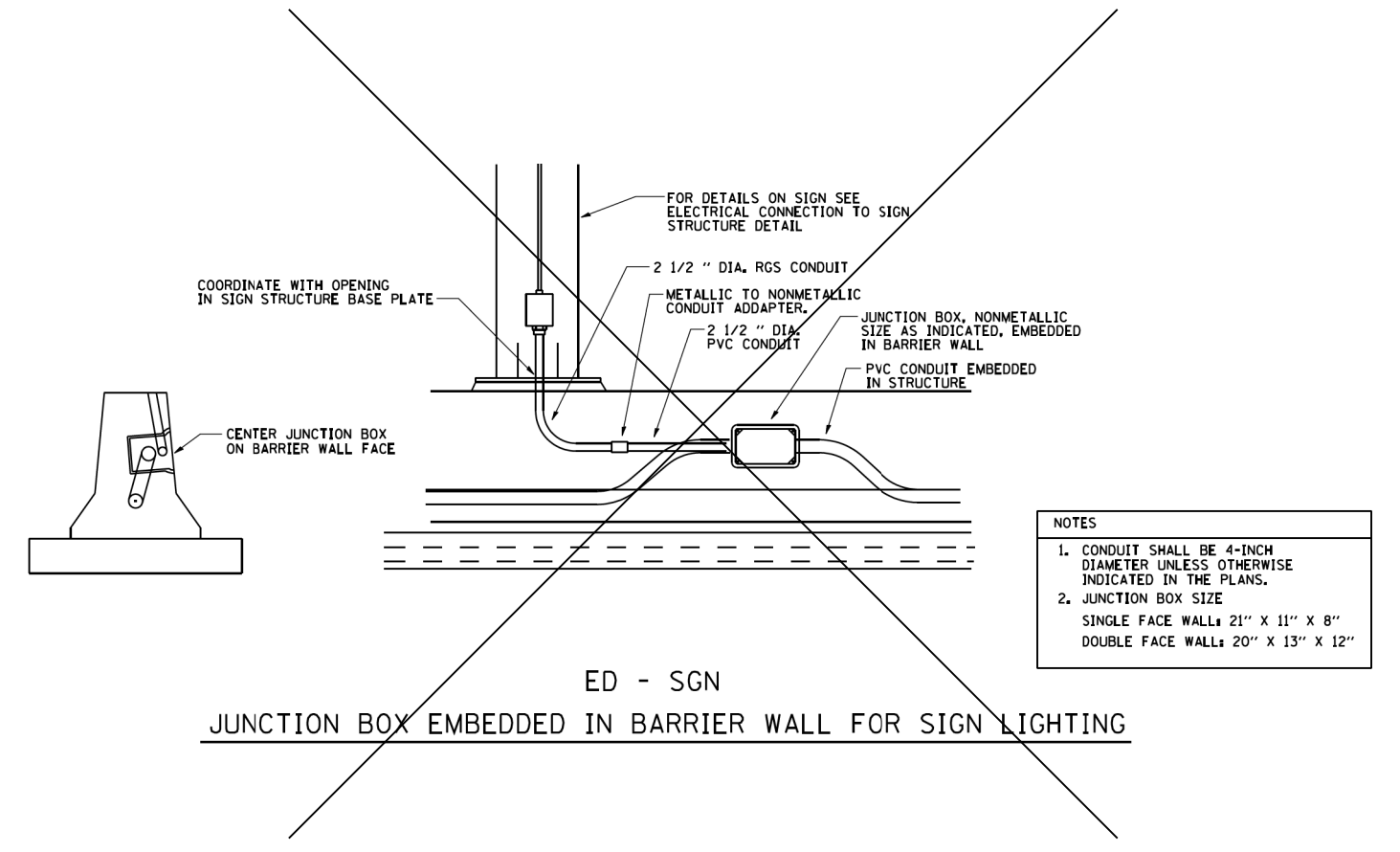
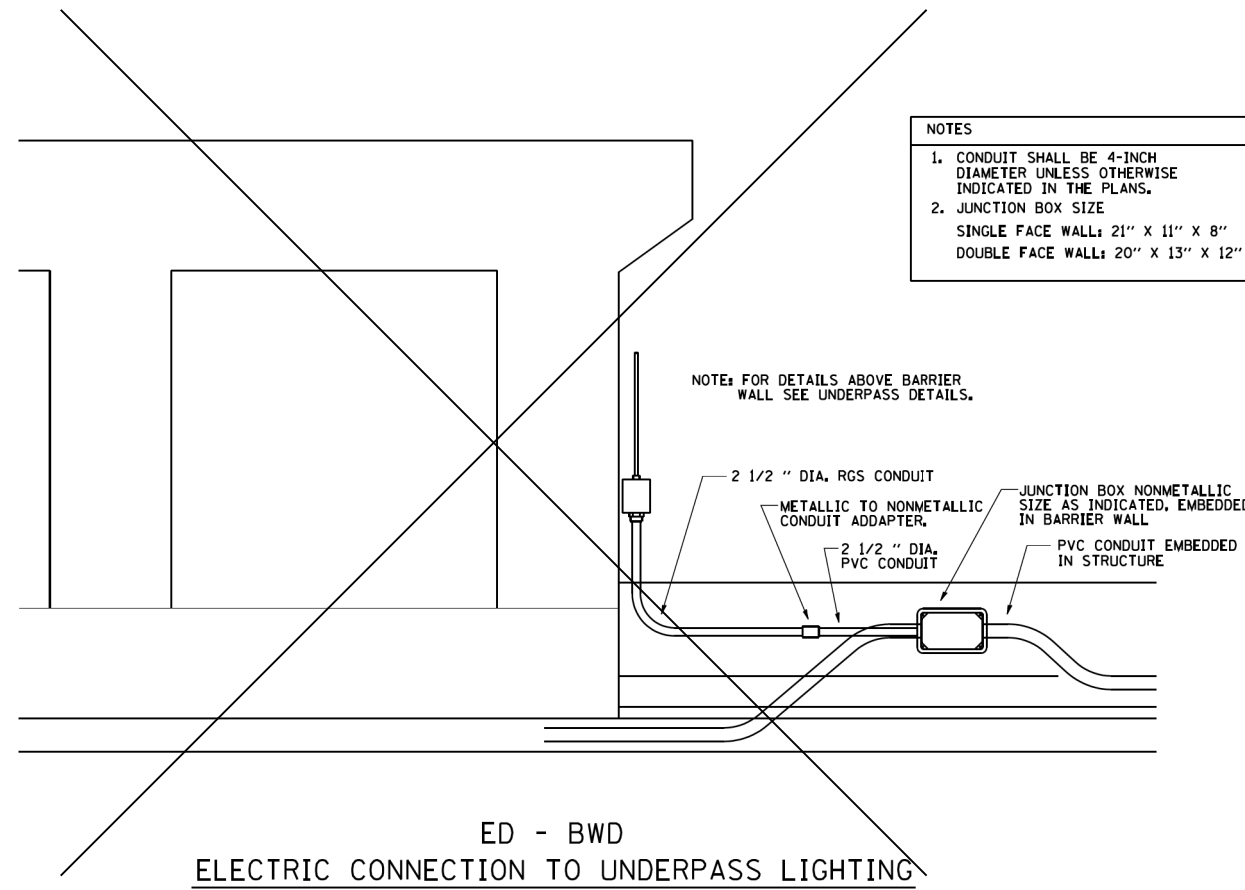
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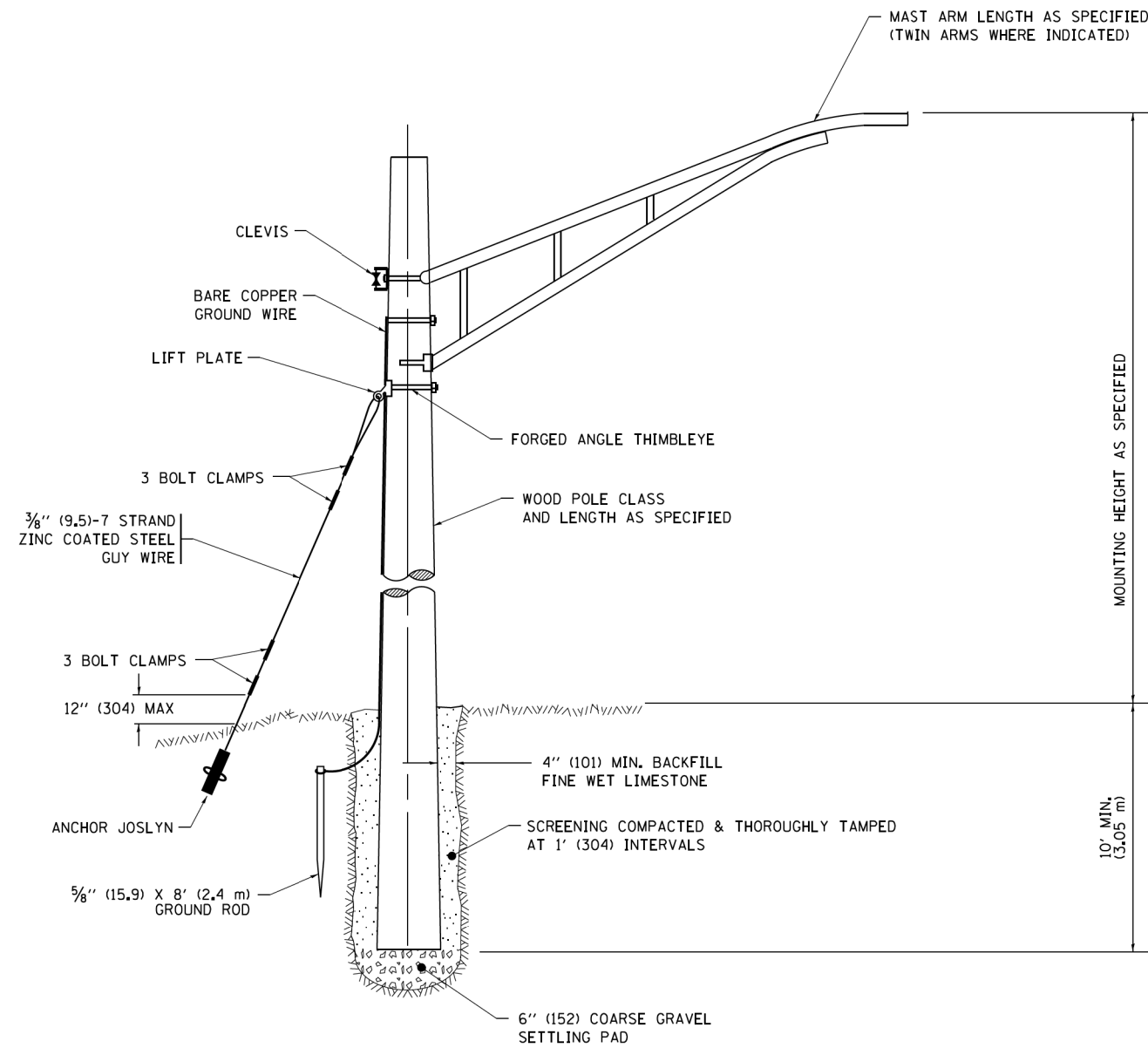
REVISED - 08-08-03  
REVISED -  
REVISED -  
REVISED -

**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.
80	2013-008B	WILL	511	218
BE-702			CONTRACT NO. 60W34	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

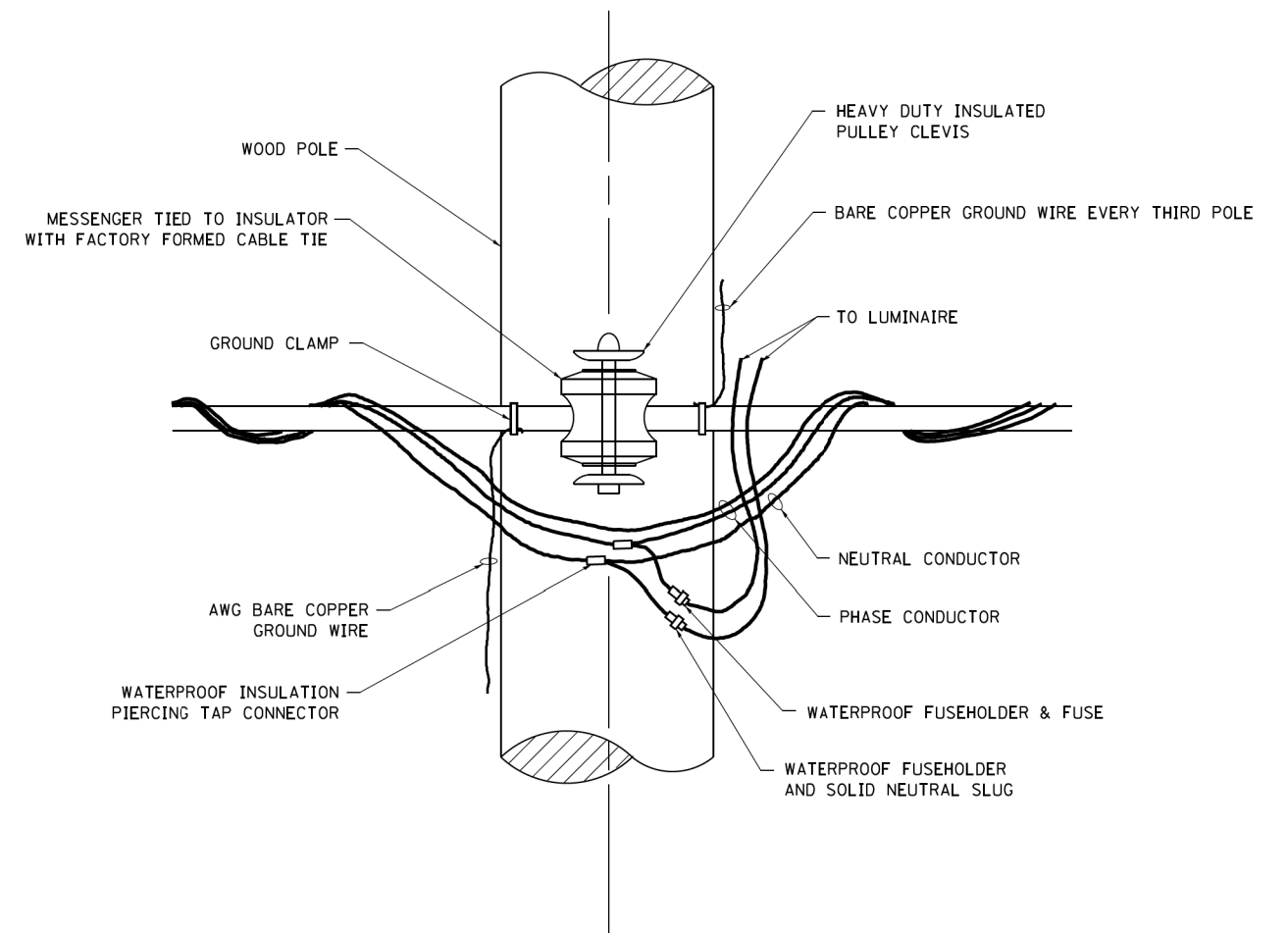




### TEMPORARY LIGHT POLE DETAIL

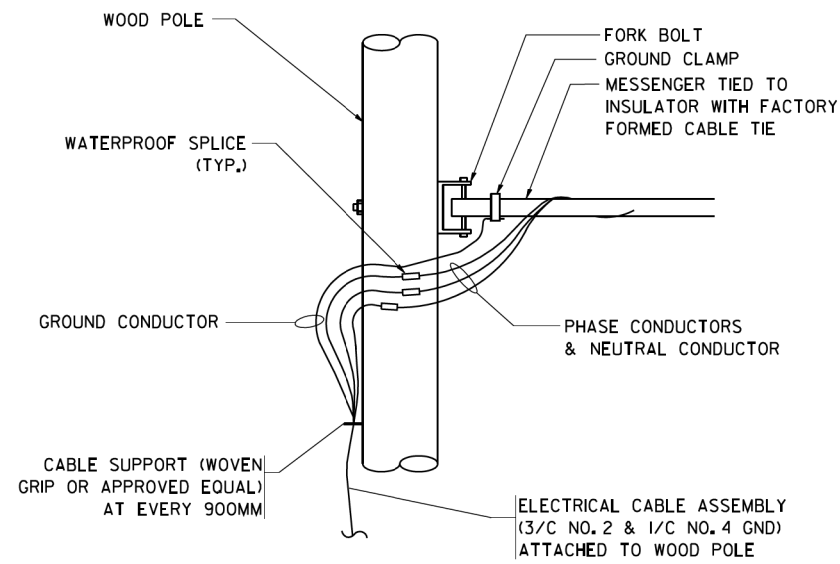
**NOTE:**

1. ALL DIMENSIONS IN INCHES (MILLIMETERS) UNLESS OTHERWISE INDICATED.
2. MAST ARM SHALL BE RATED FOR THE SPECIFIED MOUNTING HEIGHT.

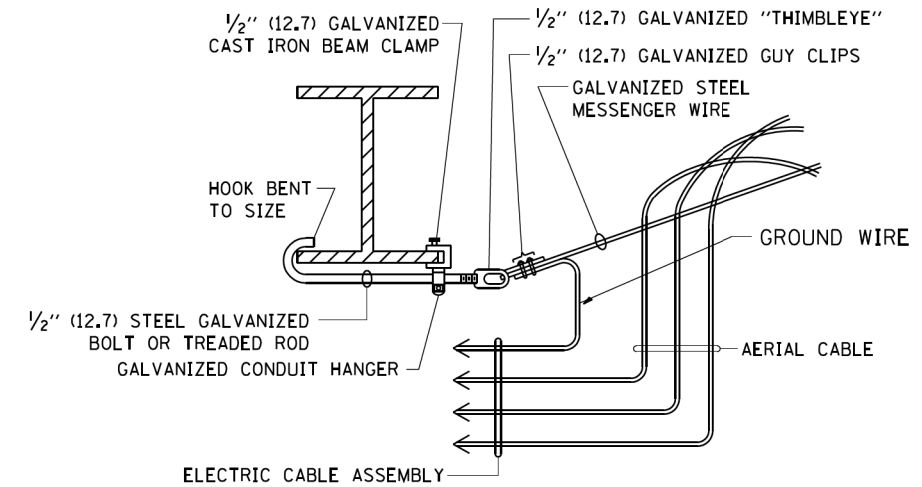


### TEMPORARY LIGHT POLE ATTACHMENT DETAIL

FILE NAME =	USER NAME = foatemj	DESIGNED -	REVISED - 08-08-03	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>TEMPORARY LIGHT POLE DETAILS</b>			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
pw\1\084EBID\INTEG\illinois.gov\PWIDOT\Documents\IDOT Offices\District 1\Projects\Dist 1\CAD\CAD\Drawings\be800.dgn	DRAWN	REVISION	REVISION					80	2013-008B	WILL	511	220
Default	PLOT SCALE = 50,000' / in.	CHECKED -	REVISION		<b>BE-800</b>			CONTRACT NO. 60W34				
	PLOT DATE = 9/1/2016	DATE -	REVISION		SCALE: NONE	SHEET 1 OF 1 SHEETS	STA. TO STA.	ILLINOIS FED. AID PROJECT				



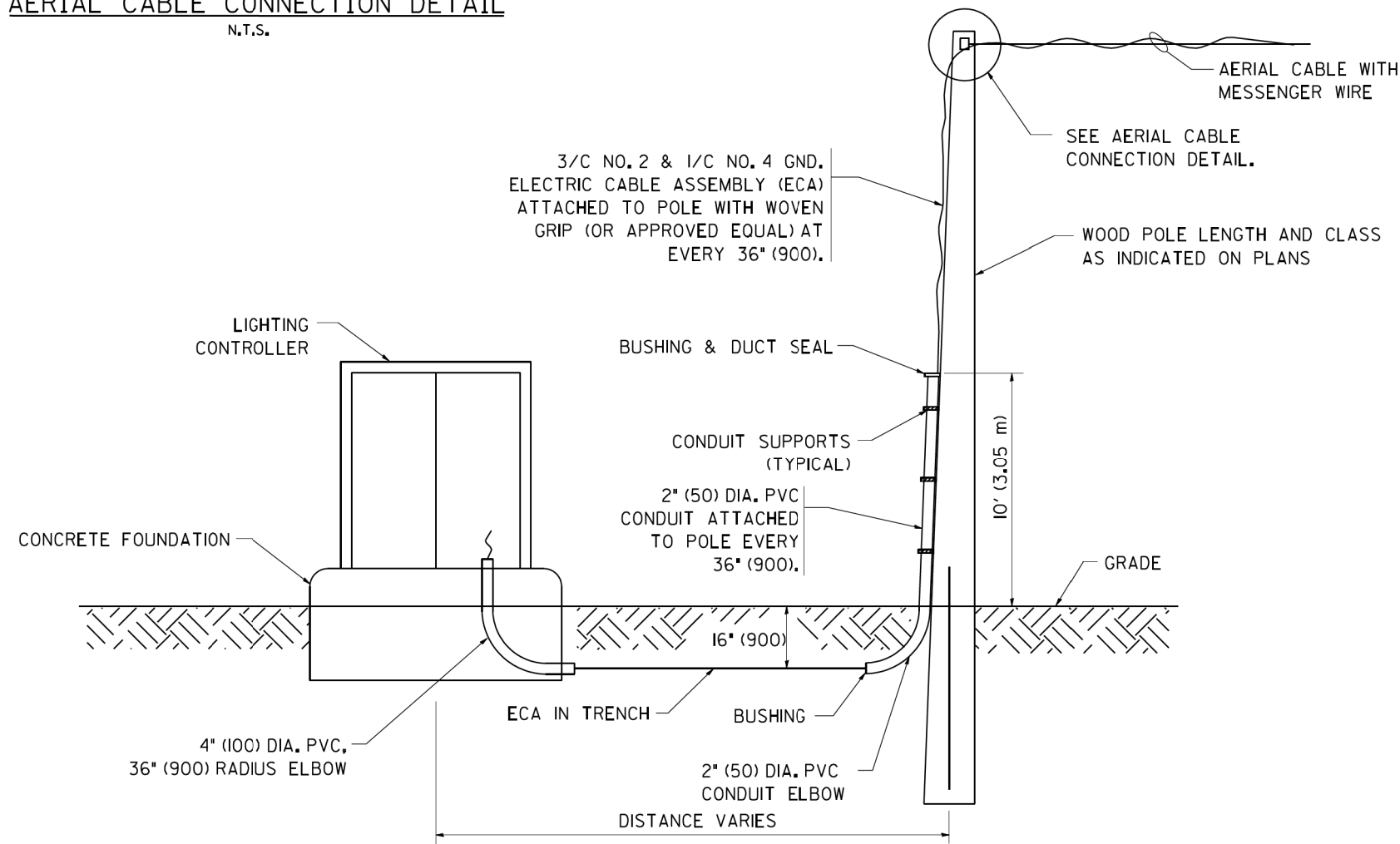
**AERIAL CABLE CONNECTION DETAIL**  
N.T.S.



**AERIAL CABLE ATTACHED TO STRUCTURE**  
NOT TO SCALE

**NOTES:**

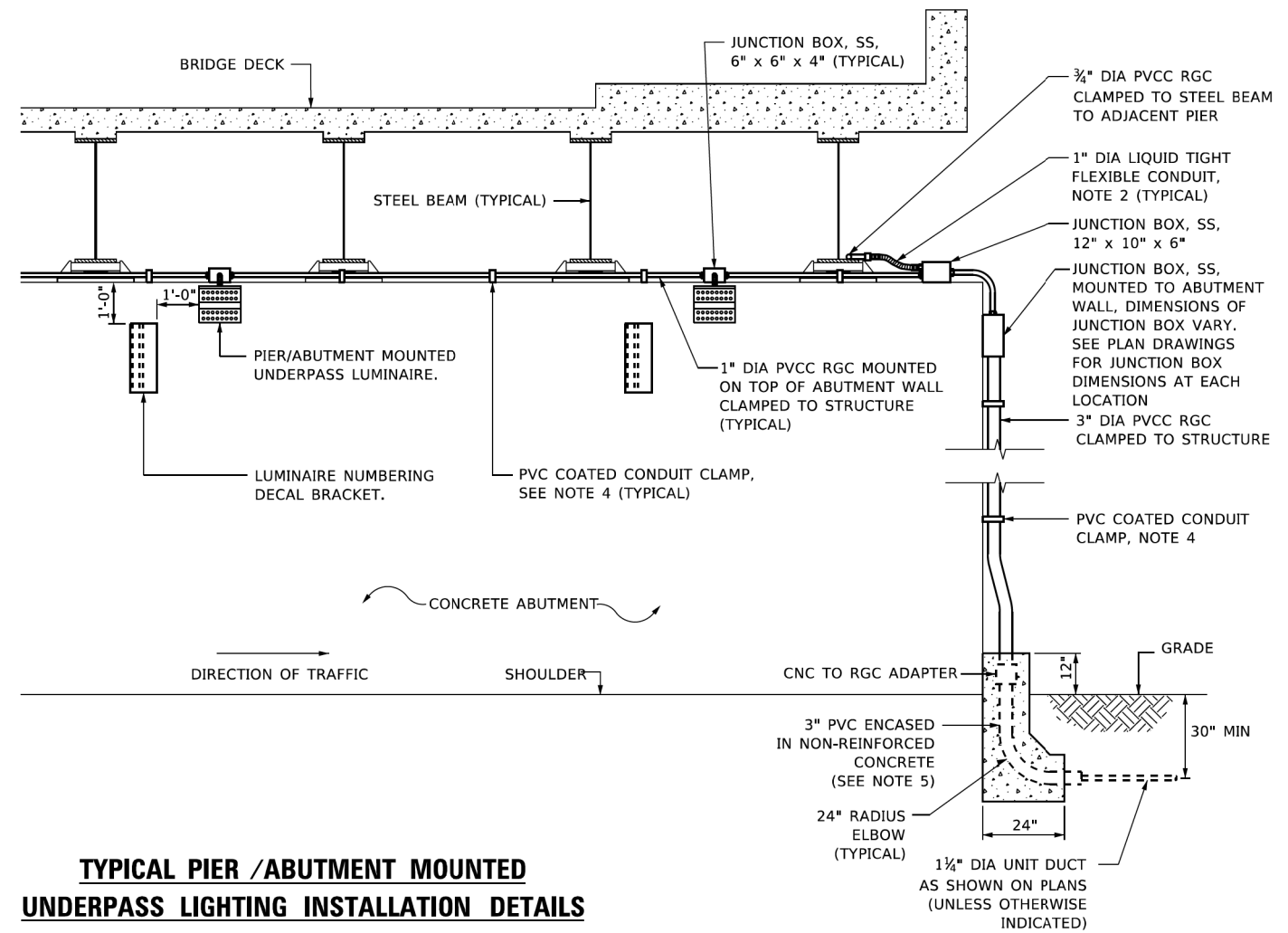
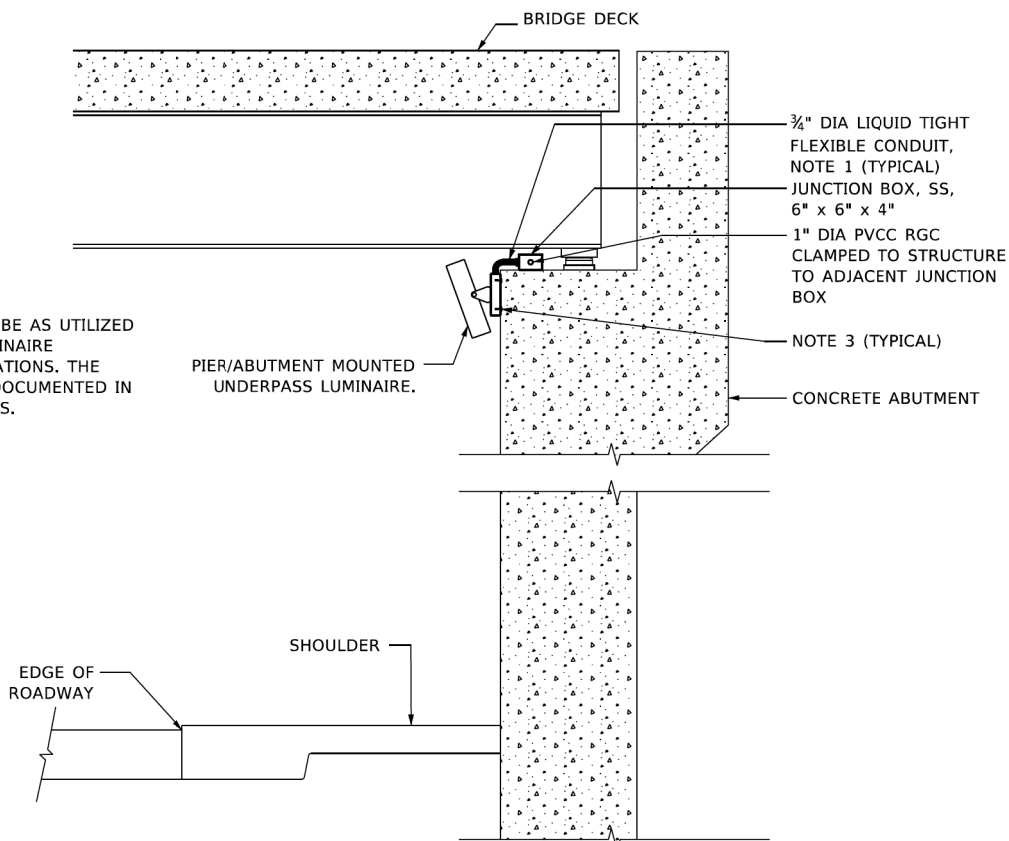
1. ALL DIMENSIONS IN INCHES (MILLIMETERS) UNLESS OTHERWISE INDICATED.
2. SEE PROPOSED LIGHTING PLAN FOR CONDUIT, CABLE AND ROUTING.
3. THE CONTRACTOR SHALL PROVIDE INTERMEDIATE SUPPORTS TO MAINTAIN MINIMUM CLEARANCES. REFER TO AERIAL AERIAL CABLE ATTACHED TO STRUCTURE DETAIL.
4. COST OF SPLICES AND MOUNTING HARDWARE SHALL BE INCLUDED IN THE UNIT PRICE FOR AERIAL CABLE.



**WOOD POLE TO LIGHTING CONTROLLER WIRING CONNECTION DETAIL**  
N.T.S.

FILE NAME = W:\diststd\22x34\be001.dgn	USER NAME = gaglianob	DESIGNED - DRAWN -	REVISED - 08-08-03 REVISED - REVISED - REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>TEMPORARY AERIAL CABLE INSTALLATION</b>			F.A. RTE. = 80	SECTION 2013-008B	COUNTY WILL	TOTAL SHEETS 511	SHEET NO. 221
PLOT SCALE = 50.000' / IN. PLOT DATE = 1/4/2008	CHECKED - DATE -	<b>SCALE: NONE</b>			SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	<b>BE-801</b>		<b>CONTRACT NO. 60W34</b>		
<small>FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT</small>												

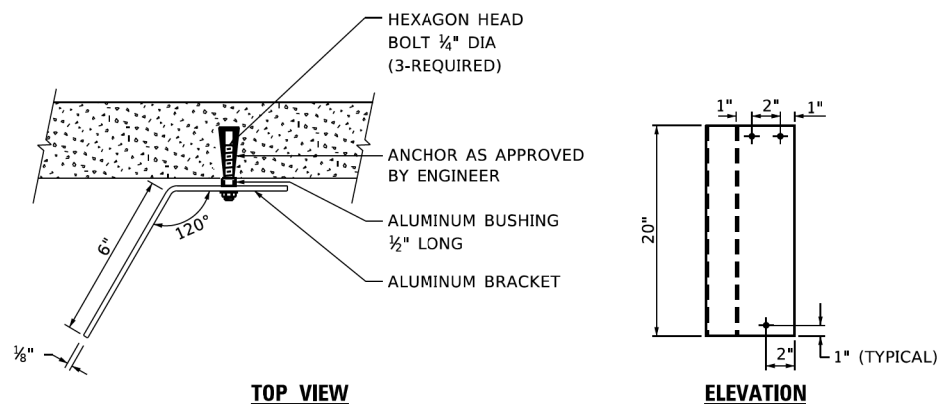
**NOTE:**  
LUMINAIRE TILT SHALL BE AS UTILIZED  
IN THE APPROVED LUMINAIRE  
PHOTOMETRIC CALCULATIONS. THE  
TILT ANGLE MUST BE DOCUMENTED IN  
THE RECORD DRAWINGS.



### TYPICAL PIER /ABUTMENT MOUNTED UNDERPASS LIGHTING INSTALLATION DETAILS

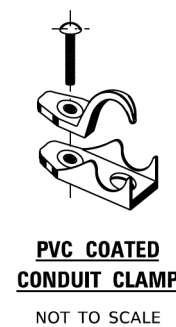
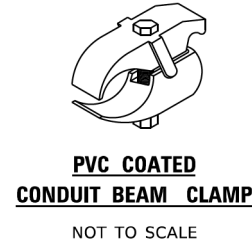
**NOTES:**

- 1. LIQUID TIGHT FLEXIBLE METAL CONDUIT, MAXIMUM LENGTH 6'-0", TYPICAL FOR EACH INSTANCE AS SHOWN. PROVIDE PVC COATED RIGID GALVANIZED STEEL CONDUIT AS REQUIRED NOT TO EXCEED 6'-0" OF FLEXIBLE LIQUID TIGHT METAL CONDUIT. LIQUID TIGHT FLEXIBLE METAL CONDUIT WILL BE INCLUDED IN THE COST OF THE CONDUIT ATTACHED TO STRUCTURE, OF THE CORRESPONDING DIA., GALVANIZED STEEL, PVC COATED PAY ITEM EXCEPT THAT THE COST OF THE " DIA. RIGID STEEL CONDUIT AND " DIA. FLEXIBLE CONDUIT SHALL BE INCLUDED IN THE LUMINAIRE INSTALLATION.
- 2. SEE UNDERPASS LIGHTING PLANS FOR INSTALLATION LOCATION OF UNDERPASS LIGHTING LUMINAIRES.
- 3. UNDERPASS LUMINAIRE MOUNTED TO FACE OF PIER OR ABUTMENT WALL WITH ½" ALUMINUM SPACERS. MOUNTING HEIGHT OF 1" BELOW THE TOP OF PIER OR ABUTMENT WALL TYPICAL FOR ALL PIER/ABUTMENT MOUNTED UNDERPASS LUMINAIRES UNLESS OTHERWISE NOTED.
- 4. EXPANSION ANCHOR, POWDER ACTUATED FASTENERS WILL NOT BE ALLOWED. EXPANSION ANCHOR MUST BE SIZED IN ACCORDANCE WITH MANUFACTURERS REQUIREMENTS.
- 5. SECURE THE CONDUIT WITH PVC COATED CONDUIT CLAMPS OR CONDUIT BEAM CLAMPS AS SHOWN AT 5'-0" INTERVALS FOR LATERALS AND WITHIN 2'-0" MAXIMUM FROM ANY JUNCTION BOX, FLEXIBLE CONDUIT, OR CHANGE IN DIRECTION. ALL PVC COATED CONDUIT CLAMPS OR BEAM CLAMPS SHALL BE INCLUDED WITH THE COST OF THE "CONDUIT ATTACHED TO STRUCTURE, OF THE CORRESPONDING DIA., GALVANIZED STEEL, PVC COATED" PAY ITEM.
- 6. THE CONCRETE ENCASED CONDUIT TRANSITION SHALL BE INCLUDED IN THE COST OF THE GALVANIZED RIGID STEEL CONDUIT PAY ITEMS.
- 7. ALL CONDUIT ATTACHED TO STRUCTURE SHALL BE PVC COATED RIGID STEEL CONDUIT (PVCC RGC) TYPICAL.



### LUMINAIRE NUMBERING DECAL BRACKET

NOT TO SCALE



**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PIER /ABUTMENT MOUNTED LED UNDERPASS  
LUMINAIRE INSTALLATION DETAILS**

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	222
<b>BE-903</b>		<b>CONTRACT NO. 60W34</b>		

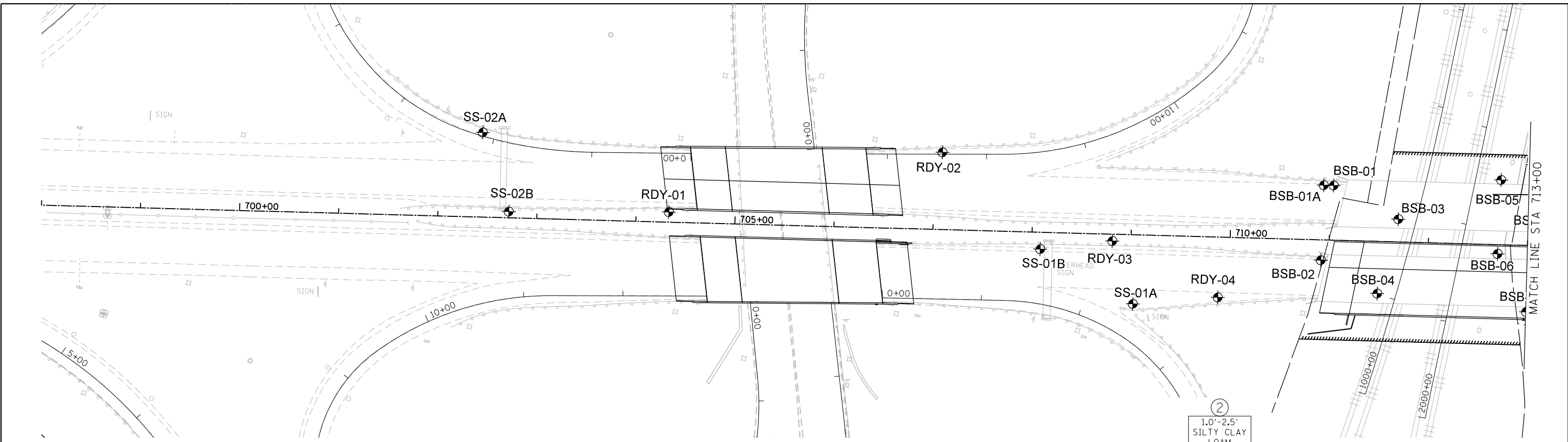
ILLINOIS FED. AID PROJECT

MODEL - Default  
FILE - Model1 - Project\PIEDOT\Documents\DOT - Offices\District 1\Projects\Dist5\22-21\CAD\Drawings\CAD Sheets\be-903.dgn

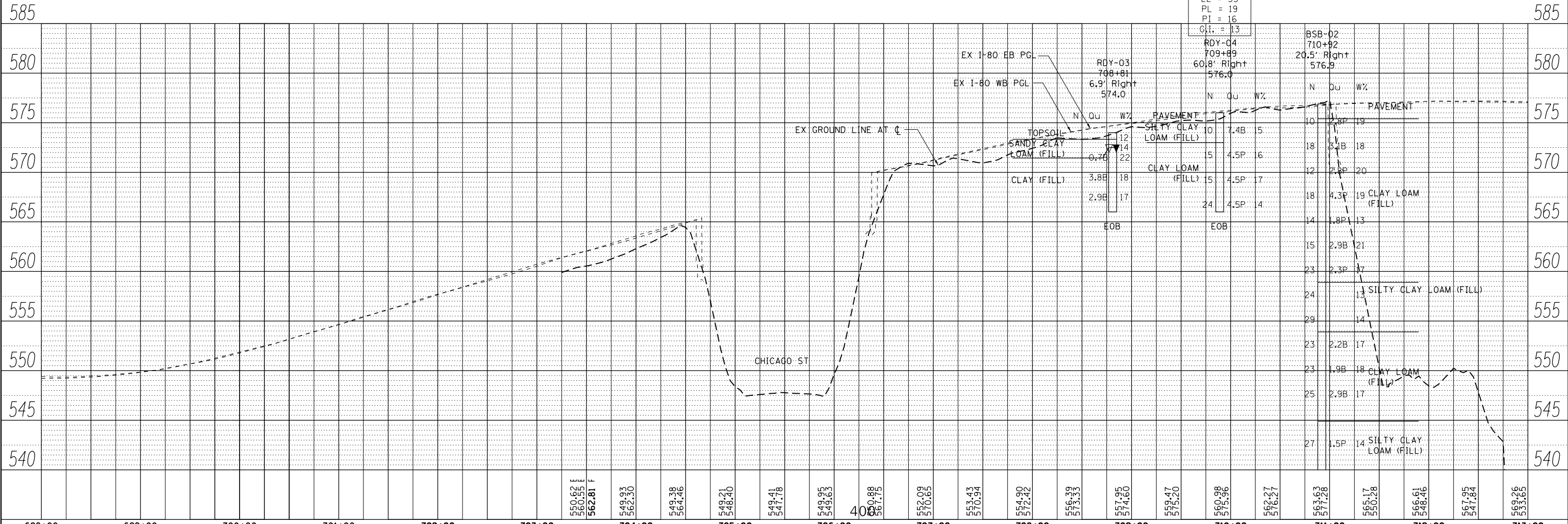
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	DRAWN -	REVIS	-
PLOT SCALE = 100,0000' / in.	CHECKED -	REVIS	-
PLOT DATE = 1/15/2020	DATE -	REVIS	-

PLAN	SURVEYED	BY	DATE
	PLOTTED		
	NOTE BOOK		
	NO.		
	CADD FILE NAME		

PROFILE	SURVEYED	BY	DATE
	GRADES CHECKED		
	STRUCTURE		
	NOT AT THIS OFFICE		
	NO.		



②  
1.0'-2.5'  
SILTY CLAY  
LOAM  
(A-6)  
LL = 35  
PL = 19  
PI = 16  
Cl = 13



698+00	699+00	700+00	701+00	702+00	703+00	704+00	705+00	706+00	707+00	708+00	709+00	710+00	711+00	712+00	713+00
550.62 E	560.55 E	562.81 F	549.93	562.30	549.38	561.26	549.21	548.40	549.41	547.78	549.95	549.23	549.88	549.15	552.09
553.43	570.94	554.90	572.22	556.39	573.33	555.95	574.60	559.47	575.20	560.98	575.96	562.27	576.27	565.17	577.28
562.81	562.30	562.81	562.30	562.81	562.30	562.81	562.30	562.81	562.30	562.81	562.30	562.81	562.30	562.81	562.30



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EB I-80 FROM GARDNER STREET TO ROWELL AVENUE  
STATION 703+30 TO 786+00  
SOIL BORING PLAN & PROFILE

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	223
CONTRACT NO. 60W34				

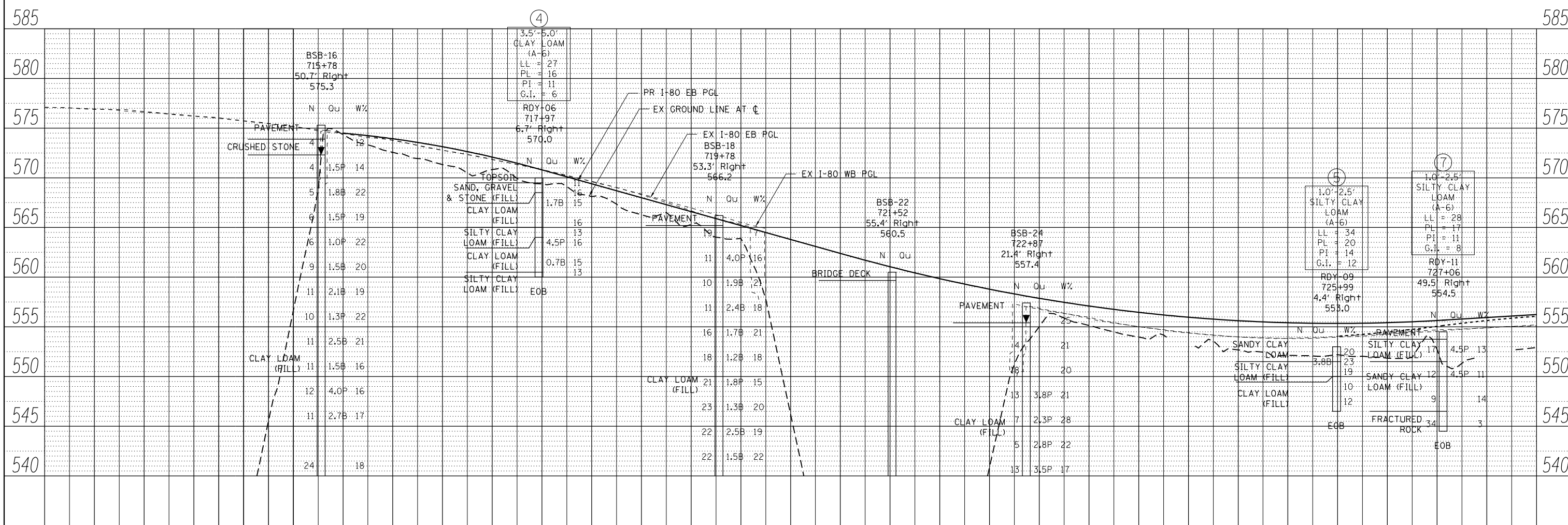
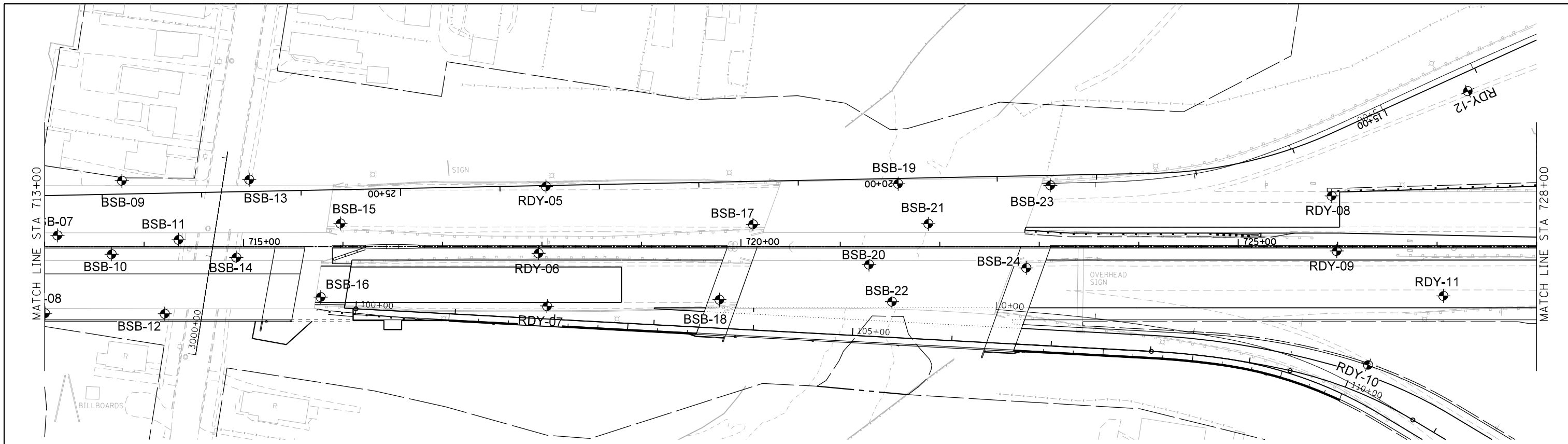
SCALE: SHEET 1 OF 13 SHEETS STA. 698+00 TO STA. 713+00

ILLINOIS FED. AID PROJECT

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

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



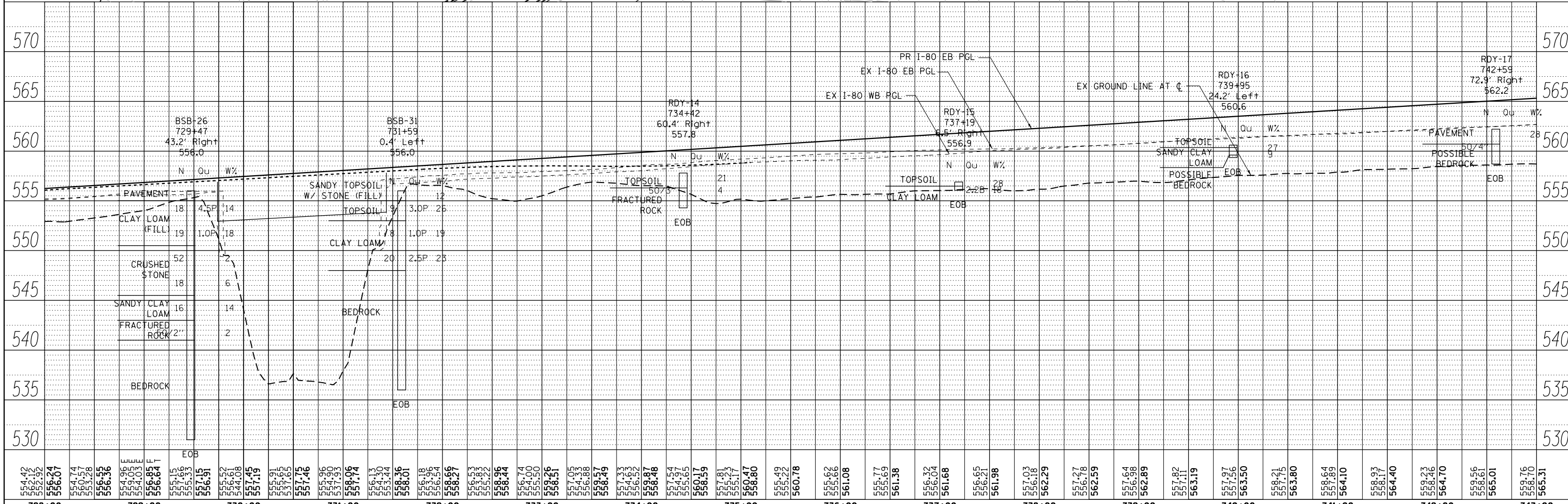
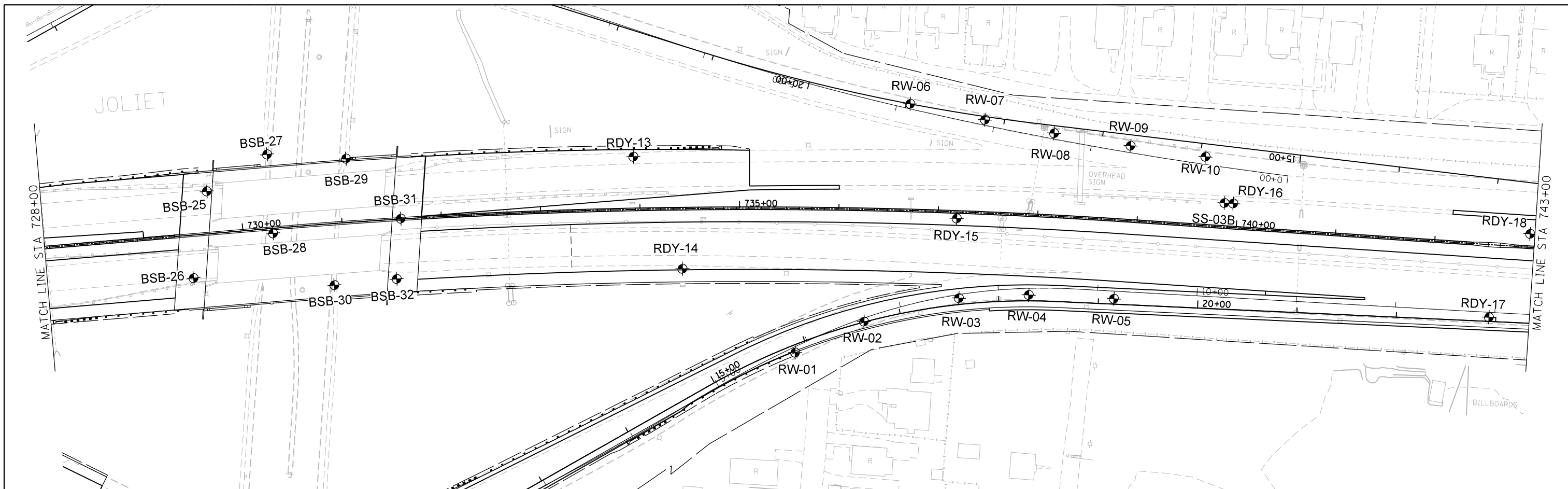
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PLOT SCALE = #SCALE#	CHECKED - DF	REVISED -		SCALE: SHEET 2 OF 13 SHEETS STA. 713+00 TO STA. 728+00			CONTRACT NO. 60W34 ILLINOIS FED. AID PROJECT				
PLOT DATE = 6/24/2020	DATE = 6/25/2020	REVISED -									

FILE NAME = C:\Users\lmueller\Desktop\I-80\Exported\Cadd\160W34-shr-soil02.dgn



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	PLOTTED	BY
	ALIGNMENT CHECKED	
	GRADE CHECKED	
	STRUCTURE NOTED	
	FILE NAME	
	NO.	

PROFILE	SURVEYED	DATE
	PLOTTED	BY
	GRADES CHECKED	
	STRUCTURE NOTED	
	FILE NAME	
	NO.	



728+00	729+00	730+00	731+00	732+00	733+00	734+00	735+00	736+00	737+00	738+00	739+00	740+00	741+00	742+00	743+00
USER NAME = default	DESIGNED - -	REVISED - -													
	DRAWN - LAM	REVISED - -													
PLOT SCALE = *SCALE*	CHECKED - DF	REVISED - -													
PLOT DATE = 6/24/2020	DATE - 6/25/2020	REVISED - -													



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EB I-80 FROM GARDNER STREET TO ROWELL AVENUE  
STATION 703+30 TO 786+00  
SOIL BORING PLAN & PROFILE

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	225
CONTRACT NO. 60W34				

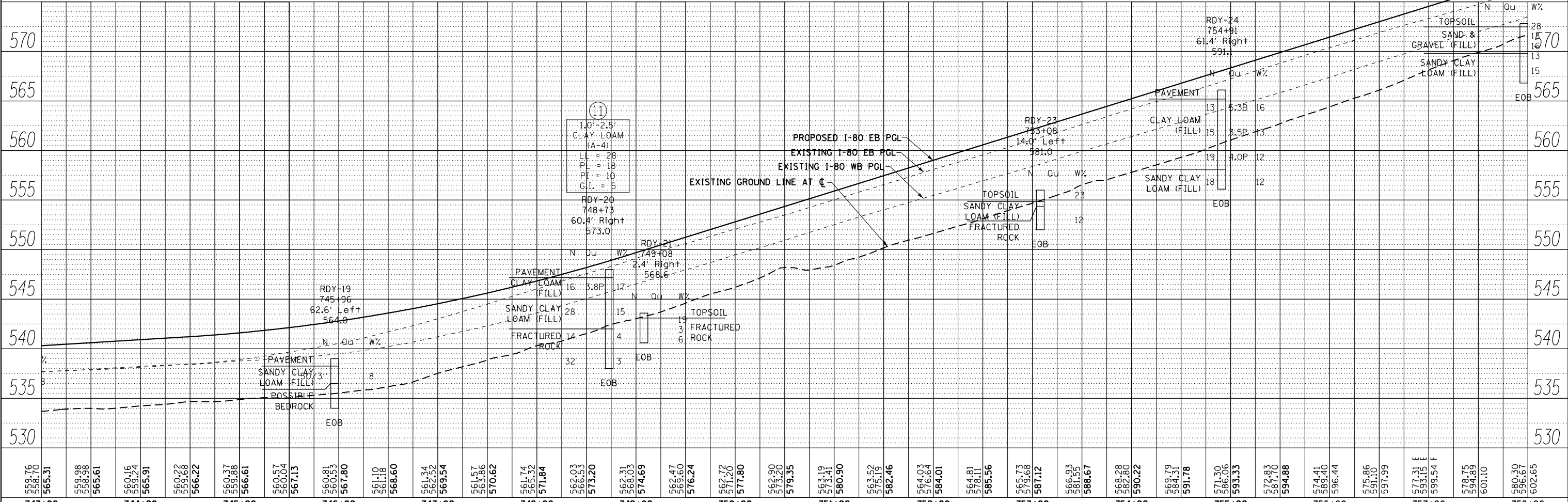
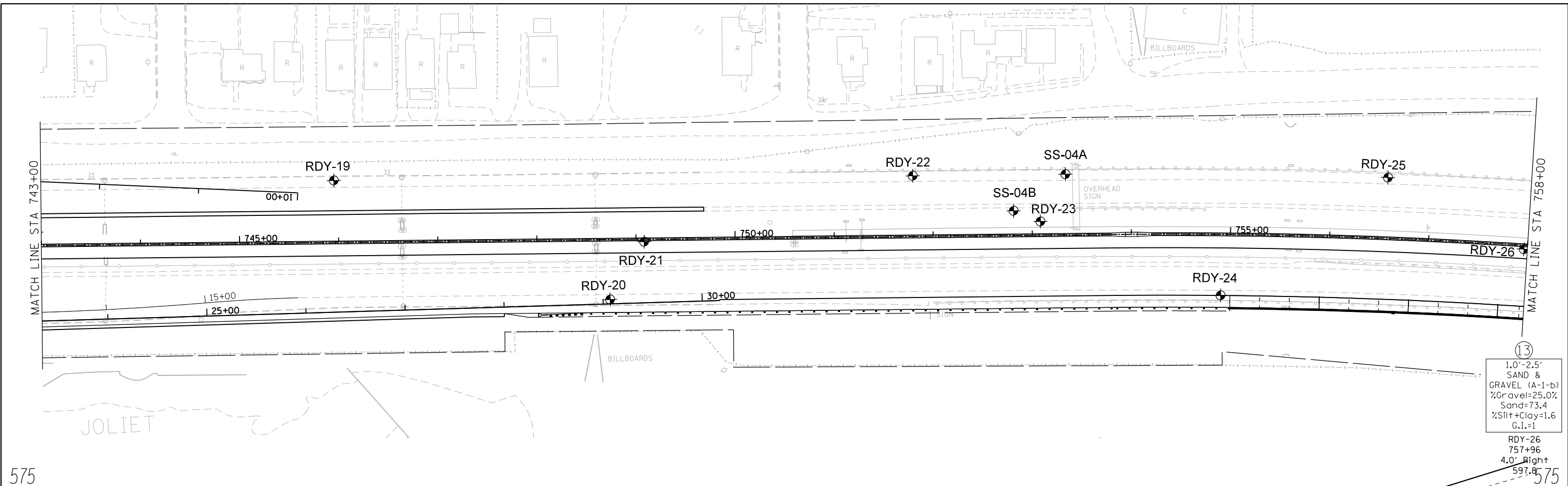
SCALE: SHEET 3 OF 13 SHEETS STA. 728+00 TO STA. 743+00

ILLINOIS FED. AID PROJECT

FILE NAME = C:\Users\lmueller\Desktop\I-80\Exported\Cadd\160W34-sht-soil03.dgn

PLAN	SURVEYED	DATE
	PLOTTED	BY
	ALIGNED	CHECKED
	FILED	NO.
	NO.	

PROFILE	SURVEYED	DATE
	PLOTTED	BY
	GRADES	CHECKED
	STRUCTURE	NOT AT THIS OFFICE
	NO.	



559.76	558.70	565.31	559.98	558.98	565.61	560.16	559.24	565.91	560.22	560.37	559.88	566.61	560.57	560.04	567.13	560.81	560.33	567.80	561.10	561.18	566.60	561.34	562.52	569.54	561.57	563.86	570.62	561.74	565.32	571.84	562.03	566.53	573.20	562.31	568.03	574.69	562.47	566.60	576.24	562.72	571.20	577.80	562.90	573.20	579.35	563.19	573.41	580.90	563.52	575.19	582.46	564.03	576.64	584.01	564.81	578.11	585.56	565.73	579.68	587.12	566.93	581.55	588.67	568.28	582.80	590.22	569.79	582.31	591.78	571.30	586.06	593.33	572.83	587.70	594.88	574.41	589.40	596.44	575.86	591.10	597.99	577.31 E	593.15 E	594.54 F	578.75	594.89	601.10	580.30	596.26	602.65
743+00	744+00	745+00	746+00	747+00	748+00	749+00	750+00	751+00	752+00	753+00	754+00	755+00	756+00	757+00	758+00																																																																											
USER NAME = default										DESIGNED - -		REVISED - -																																																																														
DRAWN - LAM										CHECKED - DF		REVISED - -																																																																														
PLOT SCALE = #SCALE#										DATE - 6/25/2020		REVISED - -																																																																														
PLOT DATE = 6/24/2020										DATE - 6/25/2020		REVISED - -																																																																														
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

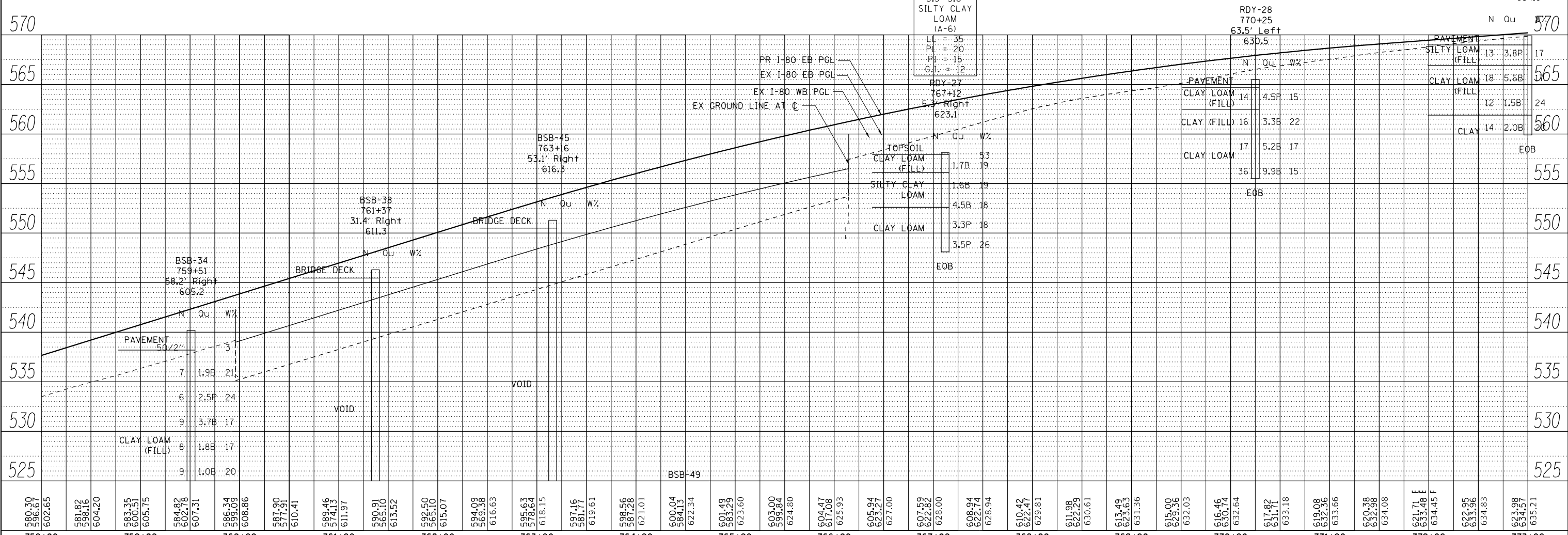
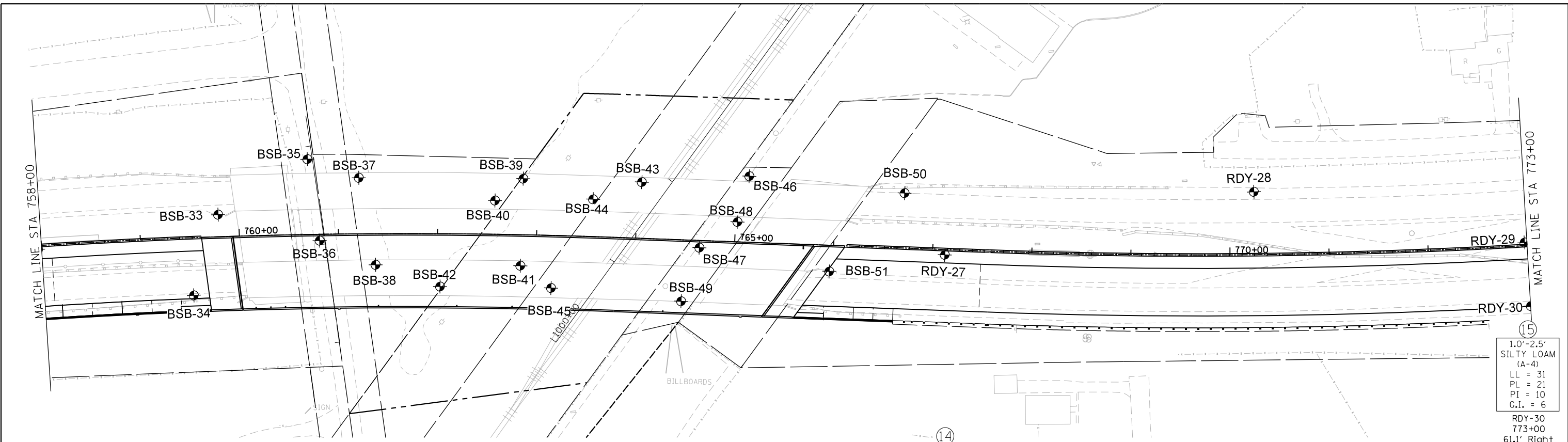
EB I-80 FROM GARDNER STREET TO ROWELL AVENUE  
STATION 703+30 TO 786+00  
SOIL BORING PLAN & PROFILE

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	226
CONTRACT NO. 60W34			ILLINOIS FED. AID PROJECT	

SCALE: SHEET 4 OF 13 SHEETS STA. 743+00 TO STA. 758+00

PLAN	SURVEYED	DATE
	PLOTTED	BY
	ALIGNED	
	CHECKED	
	FILED	
	NO.	

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



758+00	759+00	760+00	761+00	762+00	763+00	764+00	765+00	766+00	767+00	768+00	769+00	770+00	771+00	772+00	773+00
USER NAME = default			DESIGNED - -	REVISED -											
DRAWN - LAM			REVISED -												
PLOT SCALE = #SCALE#			CHECKED - DF	REVISED -											
PLOT DATE = 6/24/2020			DATE - 6/25/2020	REVISED -											
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

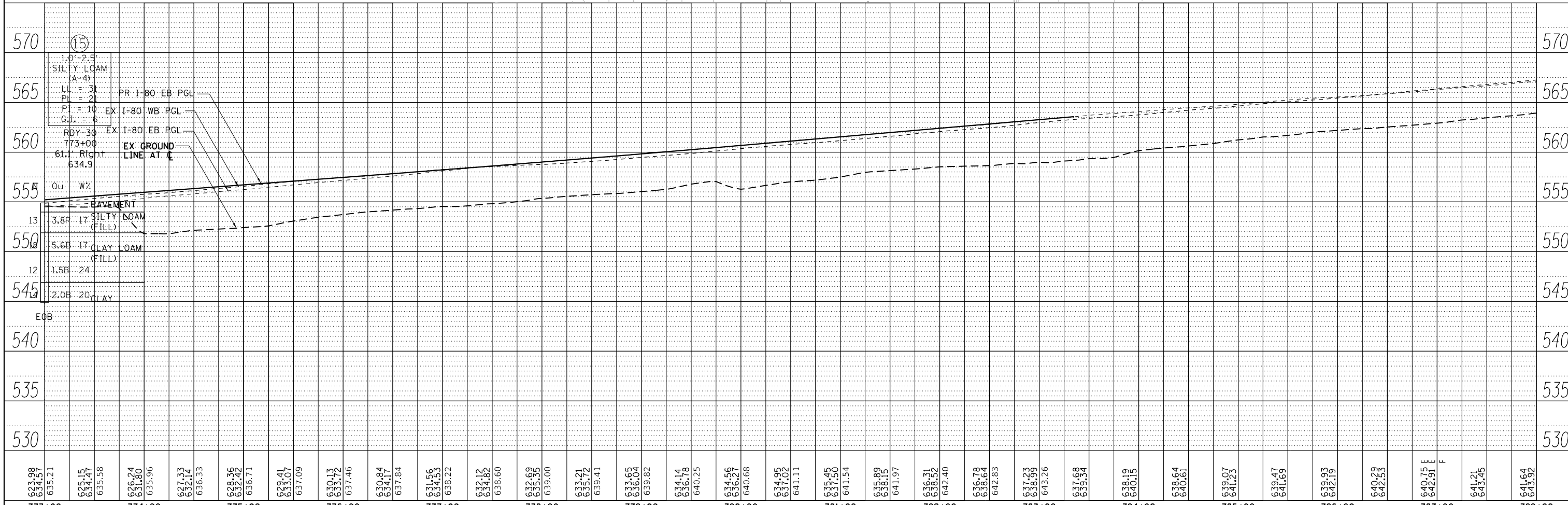
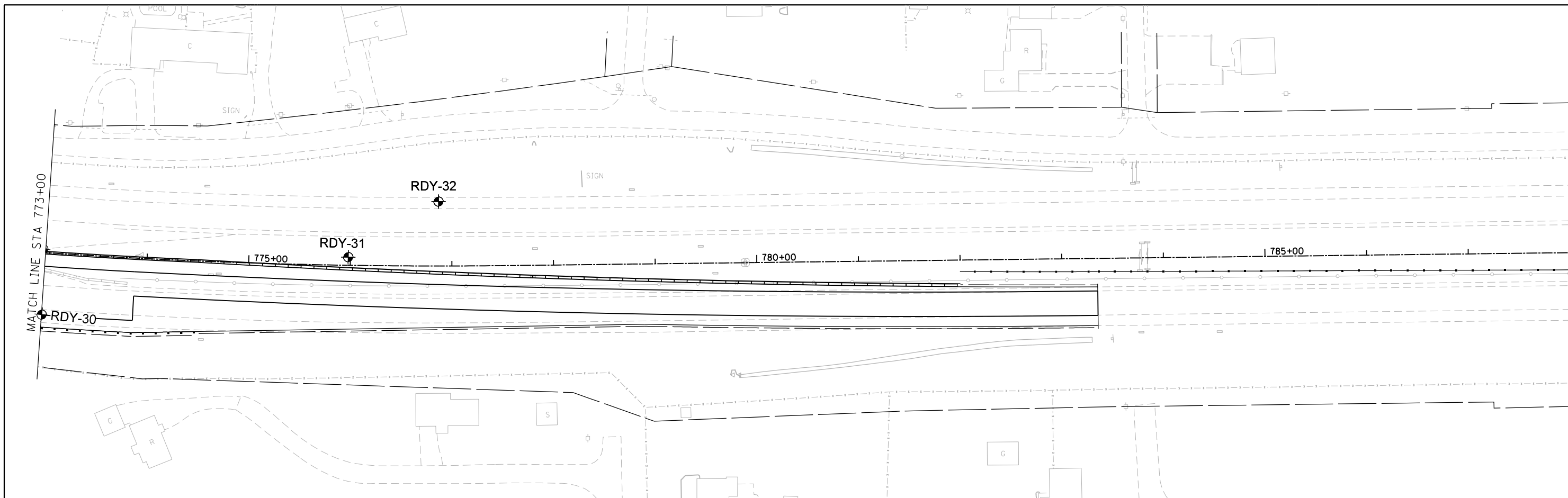
EB I-80 FROM GARDNER STREET TO ROWELL AVENUE  
STATION 703+30 TO 786+00  
SOIL BORING PLAN & PROFILE

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	227
CONTRACT NO. 60W34				
ILLINOIS FED. AID PROJECT				

SCALE: SHEET 5 OF 13 SHEETS STA. 758+00 TO STA. 773+00

PLAN	SURVEYED	DATE
	PLOTTED	BY
	ALIGNED	
	CHECKED	
	FILED	
	FILE NAME	
	NO.	

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



773+00	774+00	775+00	776+00	777+00	778+00	779+00	780+00	781+00	782+00	783+00	784+00	785+00	786+00	787+00	788+00															
623.98 634.57 635.21	625.15 634.47 635.58	626.24 631.80 635.96	627.33 632.74 636.33	628.36 632.42 636.71	629.41 633.07 637.09	630.13 633.12 637.46	630.84 634.17 637.84	631.56 634.53 638.22	632.12 634.82 638.60	632.69 635.95 639.00	633.21 635.72 639.41	633.65 636.04 639.82	634.14 636.78 640.25	634.56 636.27 640.68	634.95 637.02 641.11	635.45 637.50 641.54	635.89 638.15 641.97	636.31 638.52 642.40	636.78 638.64 642.83	637.23 638.99 643.26	637.68 639.34	638.19 640.15	638.64 640.61	639.07 641.23	639.47 641.69	639.93 642.19	640.29 642.53	640.75 E 642.91 E	641.21 643.45	641.64 643.92

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	DRAWN - LAM	REVISED -
PLOT SCALE = *SCALE*	CHECKED - DF	REVISED -
PLOT DATE = 6/24/2020	DATE - 6/25/2020	REVISED -



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EB I-80 FROM GARDNER STREET TO ROWELL AVENUE  
STATION 703+30 TO 786+00  
SOIL BORING PLAN & PROFILE

SCALE: SHEET 6 OF 13 SHEETS STA. 773+00 TO STA. 788+00

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	228
CONTRACT NO. 60W34			ILLINOIS FED. AID PROJECT	

FILE NAME = C:\Users\lmueller\Desktop\I-80\Exported\Cadd\DI60W34-shr-soil06.dgn



### SOIL BORING LOG

GSI Job No. 13125  
Page 1 of 1  
Date 5/2/14

ROUTE F.A.I RTE. 80 DESCRIPTION I-80 Phase II (Near Term) LOGGED BY MD  
SECTION LOCATION SE 1/4, SEC. 16, TWP. T35N, RNG. R10E, 3<sup>rd</sup> PM  
COUNTY Will DRILLING METHOD Hand Auger HAMMER TYPE Manual

STRUCT. NO.	DEPTH	UCS	MOISTURE	Surface Water Elev.
RDY-01	704+33			n/a ft
	10.20ft Left			n/a ft
	Ground Surface Elev. 564.30			
8.0' TOPSOIL-black	563.63			
CLAY LOAM-brown, gray & black-stiff (A-6) (Fill)	562.30	1.6	19	
CLAY LOAM-brown & gray-very stiff to hard (Possible Fill)		3.6	20	
		5.2	16	
		4.5	14	
			16	
Auger Refusal @ 8.0'. End of boring. Boring backfilled with cuttings.	556.30			
	-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. 13125  
Page 1 of 1  
Date 5/2/14

ROUTE F.A.I RTE. 80 DESCRIPTION I-80 Phase II (Near Term) LOGGED BY MD  
SECTION LOCATION SW 1/4, SEC. 15, TWP. T35N, RNG. R10E, 3<sup>rd</sup> PM  
COUNTY Will DRILLING METHOD Hand Auger HAMMER TYPE Manual

STRUCT. NO.	DEPTH	UCS	MOISTURE	Surface Water Elev.
RDY-03	708+81			n/a ft
	6.90ft Right			n/a ft
	Ground Surface Elev. 574.00			
8.0' TOPSOIL-black	573.33		12	
SANDY CLAY LOAM with GRAVEL & STONE-gray & black (Fill)	572.50		14	
CLAY-brown-medium stiff to very stiff (Possible Fill)		0.7	22	
		3.8	18	
		2.9	17	
Auger Refusal @ 8.0'. End of boring. Boring backfilled with cuttings.	566.00			
	-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. 13125  
Page 1 of 1  
Date 4/23/14

ROUTE F.A.I RTE. 80 DESCRIPTION I-80 Phase II (Near Term) LOGGED BY NW  
SECTION LOCATION SW 1/4, SEC. 15, TWP. T35N, RNG. R10E, 3<sup>rd</sup> PM  
COUNTY Will DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO.	DEPTH	UCS	MOISTURE	Surface Water Elev.
RDY-04	709+89			n/a ft
	60.80ft Right			n/a ft
	Ground Surface Elev. 576.00			
11.0' ASPHALT	575.08			
SILTY CLAY LOAM-brown-hard (A-6) (Fill)		4	7.4	15
		6	B	
CLAY LOAM-brown & gray-hard (Fill)	573.00			
		7	4.5	16
		8	P	
		4		
		6	4.5	17
		9	P	
		7		
		10	4.5	14
		14	P	
End of boring @ -10.0'. Boring backfilled with cuttings.	566.00			
	-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)

USER NAME = default	DESIGNED - -	REVISED -
PLOT SCALE = #SCALE#	DRAWN - LAM	REVISED -
PLOT DATE = 6/24/2020	CHECKED - DF	REVISED -
FILE NAME = D160W34-sht-soil13.dgn	DATE - 6/25/2020	REVISED -



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EB I-80 FROM GARDNER STREET TO ROWELL AVENUE  
SOIL BORING LOGS I

SCALE: N.T.S. SHEET 7 OF 13 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	229
CONTRACT NO. 60W34				
ILLINOIS FED. AID PROJECT				











GSI Job No. 13125  
Page 1 of 1  
Date 4/24/14

### SOIL BORING LOG

ROUTE F.A.I RTE. 80 DESCRIPTION I-80 Phase II (Near Term) LOGGED BY NW  
SECTION LOCATION SE 1/4, SEC. 15, TWP. T35N, RNG. R10E, 3<sup>rd</sup> PM  
COUNTY Will DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO.	DEPTH	BULGE	UCS	M	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:
Station	ft	(/6")	(tsf)	(%)	n/a ft	n/a ft	First Encounter Upon Completion After Hrs.
RDY-20	748+73						Dry
Offset	80.40ft Right						Dry
Ground Surface Elev.	573.00						ft
5.0' ASPHALT, 5.0' CONCRETE	572.17						
CLAY LOAM-brown-very stiff (A-4) (Fill)	2						
	3	3.8		17			
	13	P					
SANDY CLAY LOAM with Gravel-dark brown-very dense (Fill)	570.00						
	8						
	20			15			
	8						
	.5						
FRACTURED ROCK-medium dense to dense	567.00						
	22						
	8			4			
	6						
	8						
	15			3			
	17						
End of boring @ -10.0'. Boring backfilled with cuttings.	563.00						
	-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)



GSI Job No. 13125  
Page 1 of 1  
Date 4/17/14

### SOIL BORING LOG

ROUTE F.A.I RTE. 80 DESCRIPTION I-80 Phase II (Near Term) LOGGED BY JB  
SECTION LOCATION SE 1/4, SEC. 15, TWP. T35N, RNG. R10E, 3<sup>rd</sup> PM  
COUNTY Will DRILLING METHOD Hand Auger HAMMER TYPE Manual

STRUCT. NO.	DEPTH	BULGE	UCS	M	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:
Station	ft	(/6")	(tsf)	(%)	n/a ft	n/a ft	First Encounter Upon Completion After Hrs.
RDY-21	749+08						Dry
Offset	2.40ft Right						Dry
Ground Surface Elev.	568.60						ft
6.0' TOPSOIL-black	568.10			19			
FRACTURED ROCK				3			
				6			
Auger refusal @ -3.0'. End of boring. Boring backfilled with cuttings.	565.60						
	-5						
	-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)



GSI Job No. 13125  
Page 1 of 1  
Date 4/17/14

### SOIL BORING LOG

ROUTE F.A.I RTE. 80 DESCRIPTION I-80 Phase II (Near Term) LOGGED BY JB  
SECTION LOCATION SE 1/4, SEC. 15, TWP. T35N, RNG. R10E, 3<sup>rd</sup> PM  
COUNTY Will DRILLING METHOD Hand Auger HAMMER TYPE Manual

STRUCT. NO.	DEPTH	BULGE	UCS	M	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:
Station	ft	(/6")	(tsf)	(%)	n/a ft	n/a ft	First Encounter Upon Completion After Hrs.
RDY-23	753+08						Dry
Offset	14.00ft Left						Dry
Ground Surface Elev.	581.00						ft
14.0' TOPSOIL-black				23			
	579.83						
SANDY CLAY LOAM with Gravel-brown	579.50						
FRACTURED ROCK				12			
Auger refusal @ -4.0'. End of boring. Boring backfilled with cuttings.	577.00						
	-5						
	-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)





GSI Job No. 13125

### SOIL BORING LOG

Page 1 of 1

Date 4/23/14

ROUTE F.A.I RTE. 80 DESCRIPTION I-80 Phase II (Near Term) LOGGED BY NW

SECTION LOCATION SW 1/4, SEC. 14, TWP. T35N, RNG. R10E, 3<sup>rd</sup> PM

COUNTY Will DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO.	Station	DEPTH	BULGE	UNCONSOLIDATED	MATERIAL	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After	Hrs.
		(ft)	(/6")	(tsf)	(%)	n/a	n/a	Dry	Dry	Dry	ft	
		633.67			7							
		14										
		18			8							
		27										
		631.00										
		12										
		10	1.8		20							
		5		B								
		4										
		8	2.5		21							
		10		B								
		4										
		7	3.3		25							
		10		P								
		-10										
		6										
		10	5.0		20							
		12		B								
		621.00										
		8										
		22	4.5		18							
		16		B								
		619.00	-15									
		-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)



GSI Job No. 13125

### SOIL BORING LOG

Page 1 of 1

Date 4/24/14

ROUTE F.A.I RTE. 80 DESCRIPTION I-80 Phase II (Near Term) LOGGED BY NW

SECTION LOCATION SW 1/4, SEC. 14, TWP. T35N, RNG. R10E, 3<sup>rd</sup> PM

COUNTY Will DRILLING METHOD Hollow Stem Auger HAMMER TYPE CME Automatic

STRUCT. NO.	Station	DEPTH	BULGE	UNCONSOLIDATED	MATERIAL	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After	Hrs.
		(ft)	(/6")	(tsf)	(%)	n/a	n/a	Dry	Dry	Dry	ft	
		633.98										
		8										
		6	3.8		17							
		7		P								
		631.90										
		5										
		8	5.6		17							
		10		B								
		4										
		5	1.5		24							
		7		B								
		626.90										
		4										
		7	2.0		20							
		7		B								
		624.90	-10									
		-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)



GSI Job No. 13125

### SOIL BORING LOG

Page 1 of 1

Date 4/17/14

ROUTE F.A.I RTE. 80 DESCRIPTION I-80 Phase II (Near Term) LOGGED BY JB

SECTION LOCATION SE 1/4, SEC. 15, TWP. T35N, RNG. R10E, 3<sup>rd</sup> PM

COUNTY Will DRILLING METHOD Hand Auger HAMMER TYPE Manual

STRUCT. NO.	Station	DEPTH	BULGE	UNCONSOLIDATED	MATERIAL	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:	First Encounter	Upon Completion	After	Hrs.
		(ft)	(/6")	(tsf)	(%)	0.00	n/a	Dry	n/a	n/a	ft	
		633.82			36							
		2.9			18							
		2.0		P								
		1.4		B								
		628.40										
		2.5		P								
		1.7		B								
		624.40	-10									
		-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)

Bench Mark: Iron rod with yellow cap at Sta. 722+92.37, 4.19' Rt. @ I-80, Elev. 556.54.

Existing Structure: S.N. 099-0062 (EB) was built in 1964 under F.A.I. Route 80 Project I-80-4(36)134, Section 99-4B-1. The structure was repaired in 1990, 1998, 2001, and 2011. The work included repair of the concrete deck and substructure, and replacement of the expansion joints, waterproofing membrane and bituminous overlay. Existing structure consists of three single span reinforced concrete deck on composite W36 rolled steel beams supported by pile bent abutments and multi-column concrete piers founded on spread footings. The approach slabs are supported on timber piles. The structure measures 265'-5" back to back of abutments. The out to out deck width varies from 48'-0" to 54'-5 1/2". Existing superstructure, concrete slopewalls, pier caps and approach slabs are to be removed and replaced. The substructure will remain, except the pier caps and abutment stems will be rebuilt.

Stage Construction will be utilized to maintain traffic.

No salvage

**WATERWAY INFORMATION**

Drainage Area = 109 sq.mi.		Low Grade Elev. 557.62 @ Sta. 722+72							
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Prop.	Nat. H.W.E.	Head - Ft. Exist.	Prop.	Headwater El. Exist.	Prop.
	2	3,710	597	597	521.13	0.62	0.32	521.75	521.45
	10	6,230	772	772	522.84	0.71	0.46	523.55	523.30
Design	50	10,660	1,163	1,163	526.31	0.52	0.45	526.83	526.76
Base	100	13,750	1,416	1,416	528.40	0.57	0.58	528.97	528.98
Overtopping	>500	-	-	-	-	-	-	-	-
Max. Calc.	500	23,203	2,197	2,197	534.02	1.00	1.00	535.02	535.02

**LOADING HL-93**  
Allow 50#/sq. ft. for future wearing surface.

**DESIGN SPECIFICATIONS**

**NEW CONSTRUCTION:**  
2012 AASHTO LRFD Bridge Design Specifications, 6th Edition, with 2013 Interims  
**EXISTING PIERS AND ABUTMENTS:**  
1995 FHWA Seismic Retrofitting Manual for Highway Bridges

**DESIGN STRESSES**  
**FIELD UNITS (NEW CONST.)**

f'c = 3,500 psi  
f'c = 4,000 psi (Superstructure)  
fy = 60,000 psi (Reinforcement)  
fy = 50,000 psi (M270 Grade 50)

**FIELD UNITS (EXIST. CONST.)**

f'c = 3,500 psi  
fy = 40,000 psi (Reinforcement)  
fy = 36,000 psi (Structural steel)

**SEISMIC DATA**

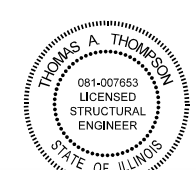
Seismic Performance Zone (SPZ) = 1  
Design Spectral Acceleration at 1.0 sec. (S<sub>D1</sub>) = 0.068g  
Design Spectral Acceleration at 0.2 sec. (S<sub>Ds</sub>) = 0.125g  
Soil Site Class = C

**ROADWAY TAPERS**

Location	Sta.	Offset
①	719+96.86	49'-6"
②	719+92.67	66'-9 1/8"
③	722+63.93	49'-6"
④	722+52.75	80'-7 3/4"

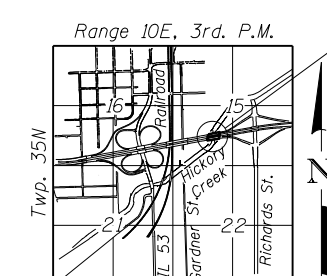
**DESIGN SCOUR ELEVATION TABLE**

W. Abut.	Pier 1	Pier 2	E. Abut.
551.51	514.40	514.40	547.81



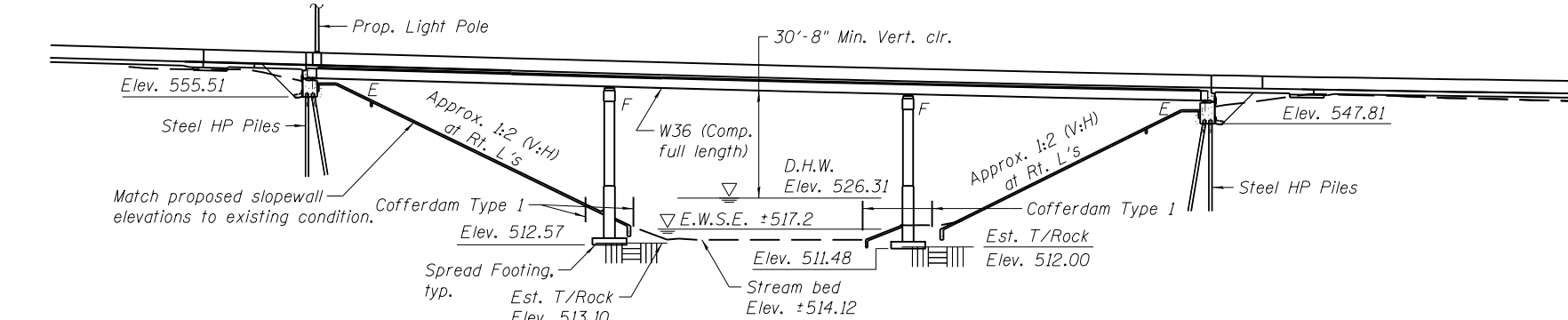
Signed: *Tom Thompson*  
Date: 6/26/2020  
Exp: 11/30/2020  
Sheets: 1 thru 54

**APPROVED**  
For Structural Adequacy Only  
*Dr. Carl Kuyper*  
Engineer of Bridges & Structures

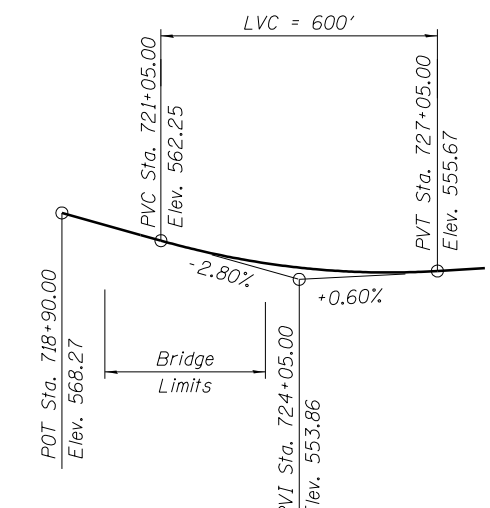


**LOCATION SKETCH**

**GENERAL PLAN AND ELEVATION**  
**I-80 OVER**  
**HICKORY CREEK**  
**F.A.I. RTE. 80 - SEC. 2013-008B**  
**WILL COUNTY**  
**STATION 721+49.17**  
**STRUCTURE NO. 099-0062 (EB)**



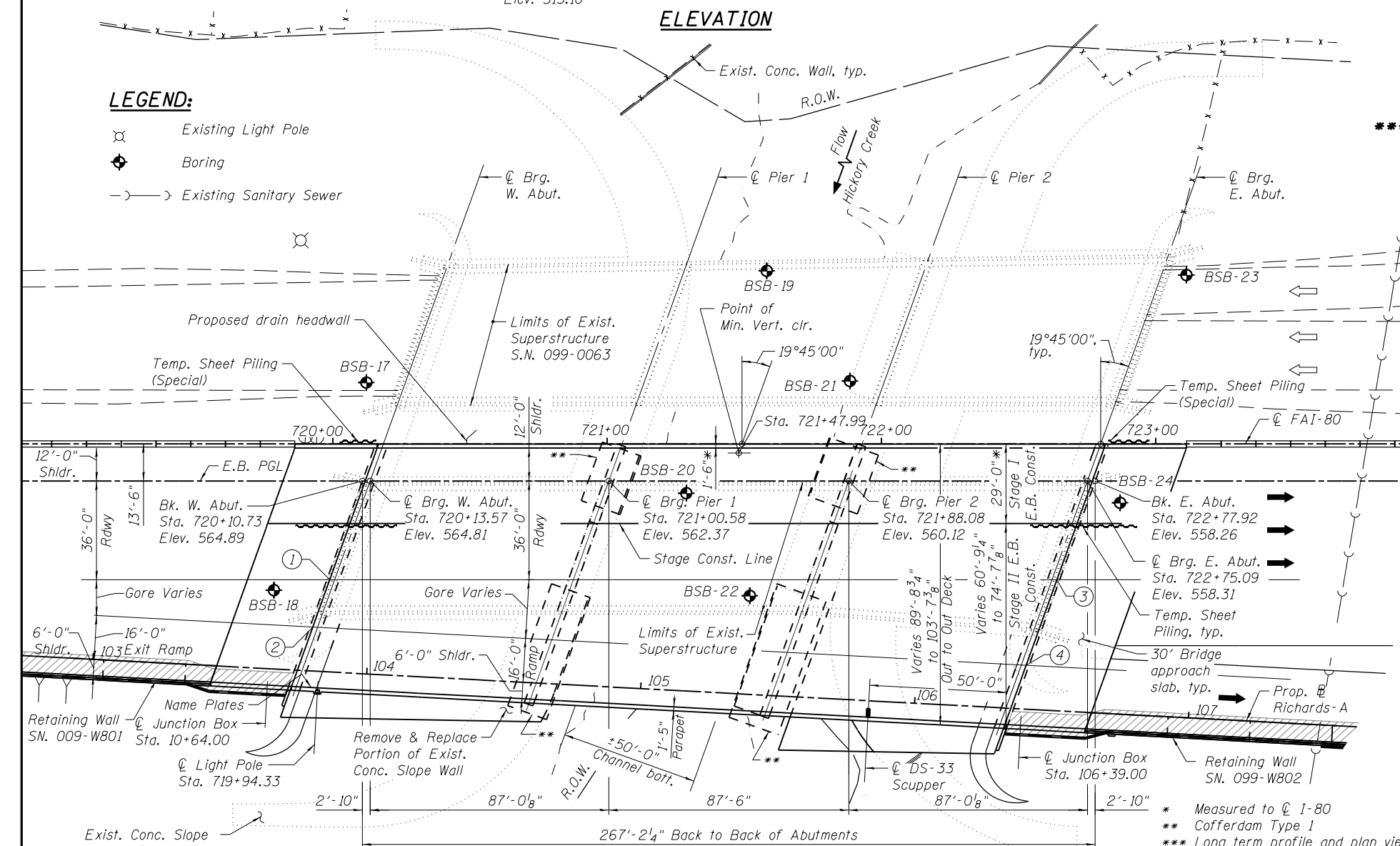
**ELEVATION**



**\*\*\* PROFILE GRADE PROP. I-80 EB**

**LEGEND:**

- ⊗ Existing Light Pole
- ⊕ Boring
- - - Existing Sanitary Sewer



**\*\*\* PLAN**

\* Measured to C I-80  
\*\* Cofferdam Type 1  
\*\*\* Long term profile and plan view lane configuration shown



USER NAME = mamiller	DESIGNED - ACF	REVISOR
	CHECKED - PCA	REVISOR
	DRAWN - LK	REVISOR
PLOT DATE = 9/29/2020	CHECKED - ACF/TAT	REVISOR

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	236
				CONTRACT NO. 60W34

**GENERAL NOTES**

Fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts.  
Bolts 7/8 in.  $\phi$ , holes 15/16 in.  $\phi$ , unless otherwise noted.

Calculated weight of Structural Steel = 1,082,790 pounds (AASHTO M270 Grade 50)  
68,300 pounds (AASHTO M270 Grade 36)

No field welding is permitted except as specified in the contract documents.

Reinforcement bars designated (E) shall be epoxy coated.

Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 1#8 inch (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.

The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.

The Organic Zinc Rich Primer / Epoxy / Urethane Paint System shall be used for painting of new structural steel except where otherwise noted. The entire system shall be shop applied, with the exception of the exterior surface and the bottom of the bottom flange of fascia beams, masked off connection surfaces, field installed fasteners and damaged areas shall be touched up in the field.  
The color of the final finish coat for all interior steel surfaces shall be Gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Reddish Brown, Munsell No. 2.5YR 3/4.

The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments.

Slipforming of the median parapet (adjacent to the centerline of I-80) is not allowed.

If the Contractor elects to use cantilever forming brackets on the exterior beams or girders, the brackets shall be placed at the same locations as required for the hardwood blocks in Article 503.06(b) of the Standard Specifications. If additional cantilever forming brackets are required, hardwood blocking shall be wedged between the exterior and first interior beam at each of these additional bracket locations.

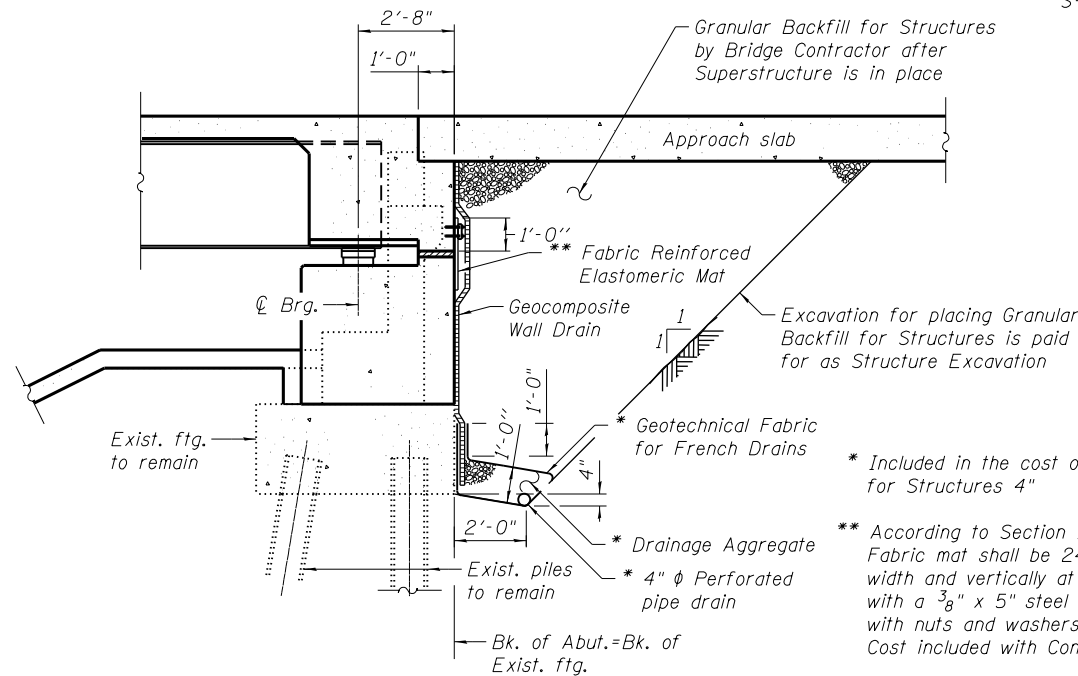
This Project requires a US Army Corps of Engineers (USACE) 404 permit. See General Note 25 on roadway plan sheet no. 4. Instream work plan will be required depicting any work within the Waters of the US (WOUS) noted on the plans. The Contractor shall develop and submit work plan as described in General Note 4 on sheet no. 4. Instream work plan may be required for the construction of proposed Pier 1 and Pier 2.

**INDEX OF SHEETS**

- S-1 General Plan & Elevation
- S-2 General Data
- S-3 Slope Wall Details
- S-4 Substructure & Sheet Piling Layout
- S-5 Sheet Piling Details
- S-6 Construction Staging
- S-7 Temporary Concrete Barrier For Stage Construction
- S-8 Top of Slab Elevations Layout
- S-9 Top of Slab Elevations - 1
- S-10 Top of Slab Elevations - 2
- S-11 Top of Slab Elevations - 3
- S-12 Top of Slab Elevations - 4
- S-13 Top of Slab Elevations - 5
- S-14 Top of Slab Elevations - 6
- S-15 Top of West Approach Slab Elevations
- S-16 Top of East Approach Slab Elevations
- S-17 Deck Plan
- S-18 Deck Sections - 1
- S-19 Deck Sections - 2
- S-20 Parapet Elevations
- S-21 Deck Details
- S-22 Superstructure Details
- S-23 West Abutment Diaphragm Details - 1
- S-24 West Abutment Diaphragm Details - 2
- S-25 East Abutment Diaphragm Details - 1
- S-26 East Abutment Diaphragm Details - 2
- S-27 Abutment Diaphragm Details
- S-28 Bridge Approach Slab Details - 1
- S-29 Bridge Approach Slab Details - 2
- S-30 Bridge Approach Slab Details - 3
- S-31 Drainage Scupper, DS-33
- S-32 Concrete Parapet Slipforming Option
- S-33 Framing Plan
- S-34 Beam Elevation
- S-35 Beam Details - 1
- S-36 Beam Details - 2
- S-37 Bearing Details
- S-38 Abutment Removal Details
- S-39 West Abutment
- S-40 East Abutment
- S-41 Abutment Details - 1
- S-42 Abutment Details - 2
- S-43 Pier Removal Details
- S-44 Pier 1 Details - 1
- S-45 Pier 1 Details - 2
- S-46 Pier 2 Details - 1
- S-47 Pier 2 Details - 2
- S-48 Pier Details
- S-49 HP Pile Details
- S-50 Bar Splicer Assembly & Mechanical Splicer Details
- S-51 Soil Boring Logs - 1
- S-52 Soil Boring Logs - 2
- S-53 Soil Boring Logs - 3
- S-54 Soil Boring Logs - 4

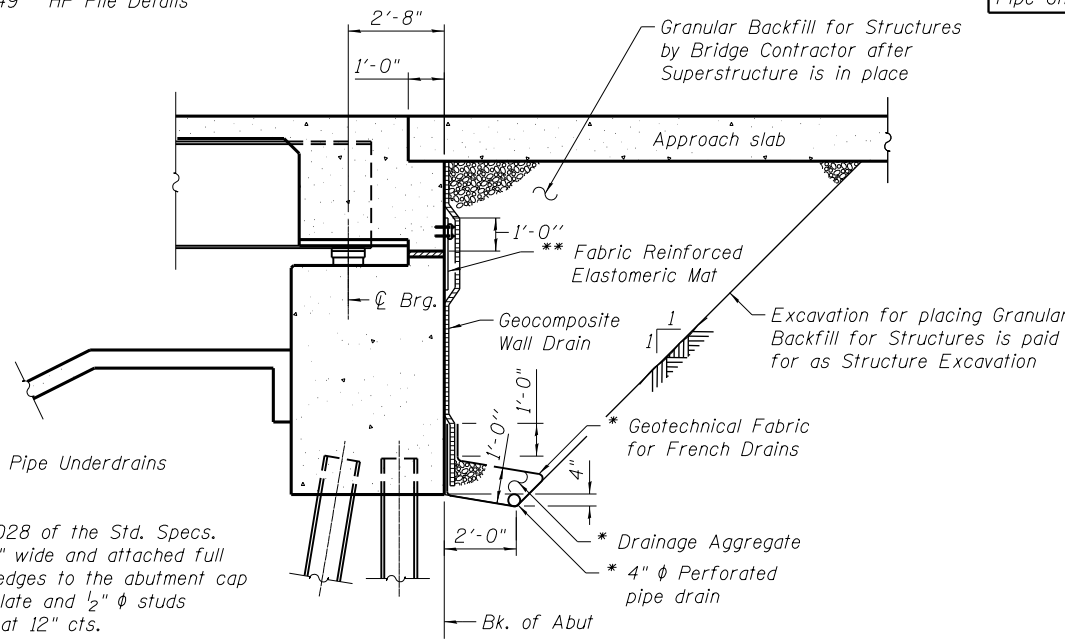
**TOTAL BILL OF MATERIAL**

ITEM	UNIT	SUPER	SUB	TOTAL
Removal of Existing Superstructures	Each	1		1
Concrete Removal	Cu Yd		113.3	113.3
Slope Wall Removal	Sq Yd		334	334
Structure Excavation	Cu Yd		928	928
Cofferdam Excavation	Cu Yd		115	115
Rock Excavation for Structures	Cu Yd		357	357
Cofferdam (Type 1) (Location - 1)	Each		1	1
Cofferdam (Type 1) (Location - 2)	Each		1	1
Cofferdam (Type 1) (Location - 3)	Each		1	1
Cofferdam (Type 1) (Location - 4)	Each		1	1
Concrete Structures	Cu Yd		790.5	790.5
Concrete Superstructure	Cu Yd	841.4		841.4
Bridge Deck Grooving	Sq Yd	3,389		3,389
Concrete Encasement	Cu Yd		114.9	114.9
Protective Coat	Sq Yd	3,708		3,708
Concrete Superstructure (Approach Slab)	Cu Yd	268.6		268.6
Furnishing and Erecting Structural Steel	L Sum	0.30		0.30
Stud Shear Connectors	Each	16,296		16,296
Reinforcement Bars, Epoxy Coated	Pound	317,440	95,320	412,760
Bar Splicers	Each	1,123	114	1,237
Mechanical Splicers	Each		20	20
Slope Wall 6 Inch	Sq Yd		992	992
Furnishing Steel Piles HP12x53	Foot		946	946
Driving Piles	Foot		946	946
Test Pile Steel HP12x53	Each		2	2
Name Plates	Each	1		1
Elastomeric Bearing Assembly, Type I	Each	30		30
Anchor Bolts, 1"	Each		120	120
Temporary Sheet Piling	Sq Ft		1,284	1,284
Temporary Sheet Piling (Special)	Sq Ft		634	634
Geocomposite Wall Drain	Sq Yd		203	203
Granular Backfill for Structures	Cu Yd		521	521
Drainage Scuppers, DS-33	Each	1		1
Pipe Underdrains for Structures 4"	Foot		240	240



**SECTION THRU SEMI-INTEGRAL ABUTMENT AT EXIST. ABUT.**

(Horiz. dim. at Rt. L's)



**SECTION THRU SEMI-INTEGRAL ABUTMENT AT ABUT. EXTENSION**

(Horiz. dim. at Rt. L's)

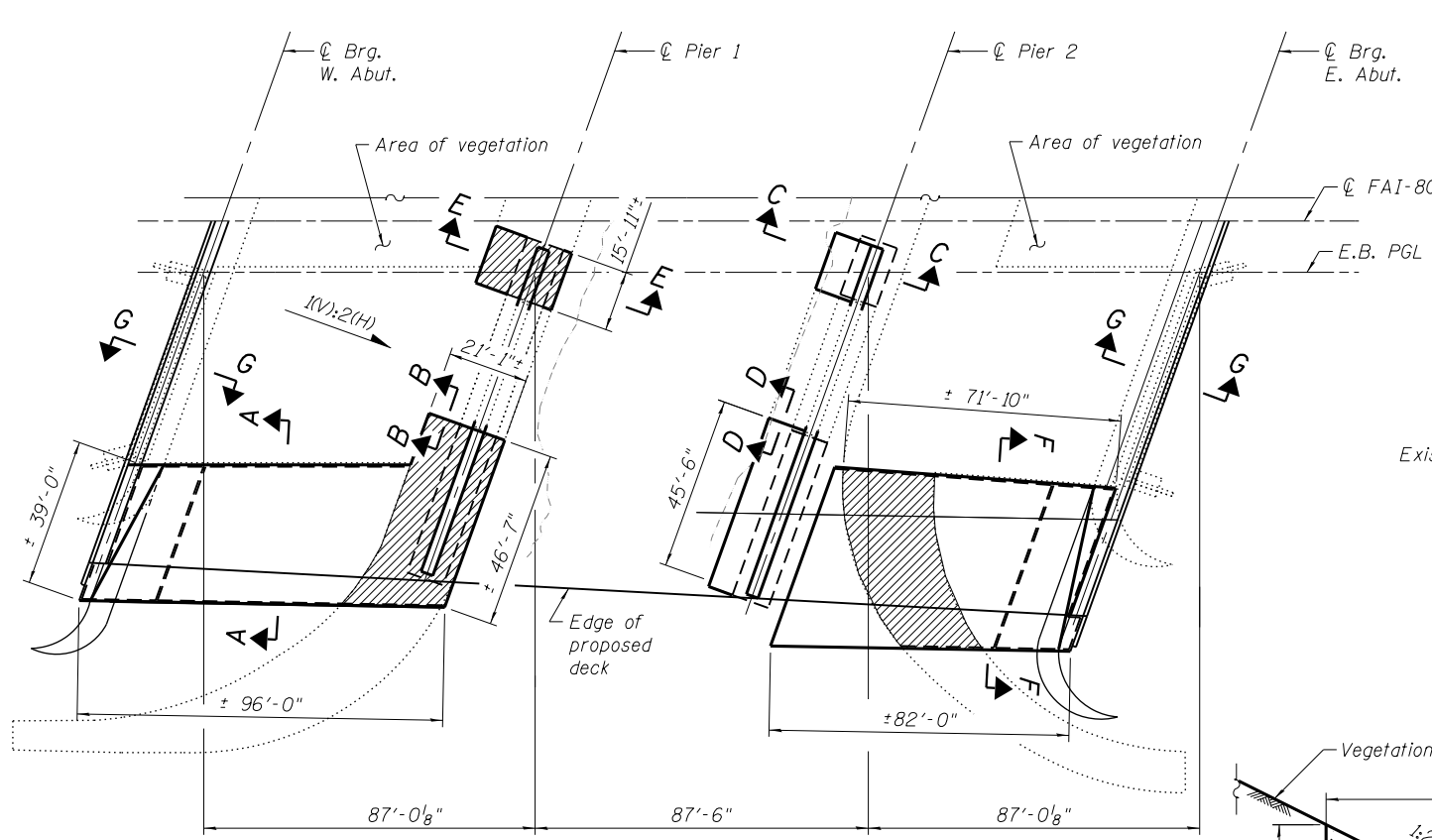
STATION 721+49.17  
BUILT 20\_\_ BY  
STATE OF ILLINOIS  
F.A.I. RTE. 80 SEC. 2013-008B  
LOADING HL-93  
STRUCTURE NO. 099-0062

**NAME PLATE**  
See Std. 515001

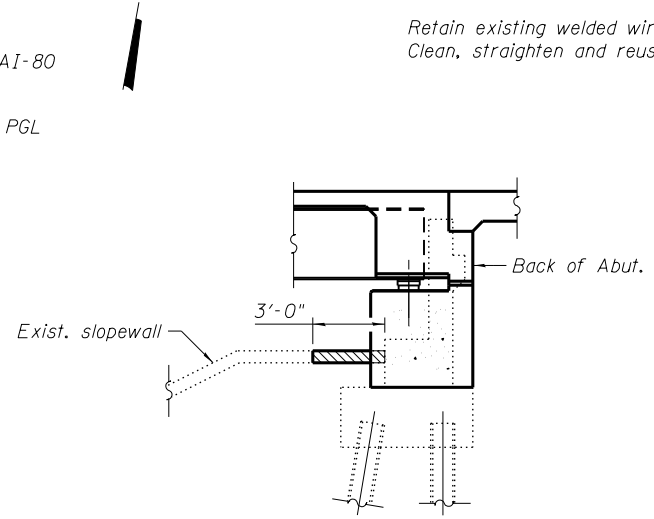
Existing Name Plate shall be cleaned and relocated next to new Name Plate. Cost included with Name Plates.

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

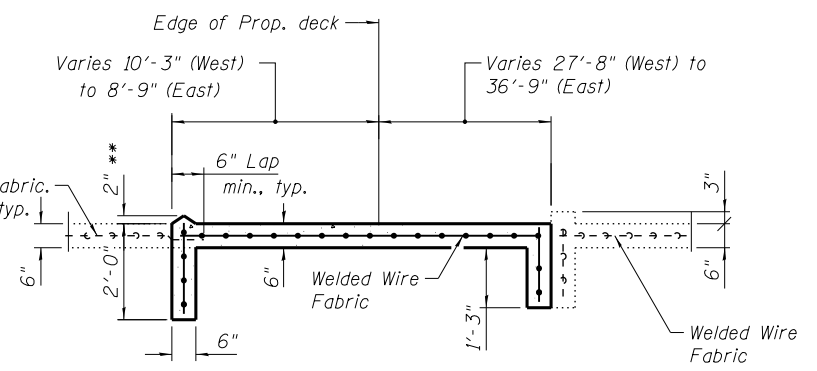
	USER NAME = eabueherah DESIGNED - ACF CHECKED - PCA DRAWN - LK CHECKED - PCA/TAT PLOT DATE = 6/25/2020	DESIGNED - ACF CHECKED - PCA DRAWN - LK CHECKED - PCA/TAT	REVISED REVISED REVISED REVISED	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>GENERAL DATA</b> <b>STRUCTURE NO. 099-0062</b>	SHEET NO. 2 OF 54 SHEETS	F.A.I. RTE. 80 SECTION 2013-008B COUNTY WILL TOTAL SHEETS 511 SHEET NO. 237	CONTRACT NO. 60W34 ILLINOIS FED. AID PROJECT		



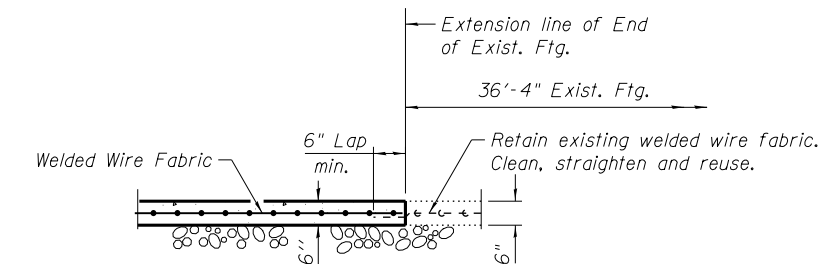
**PLAN**



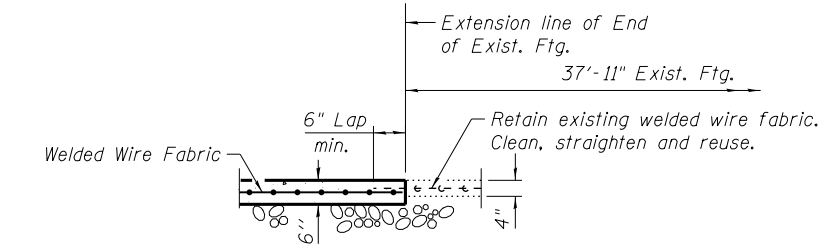
**SECTION G-G**



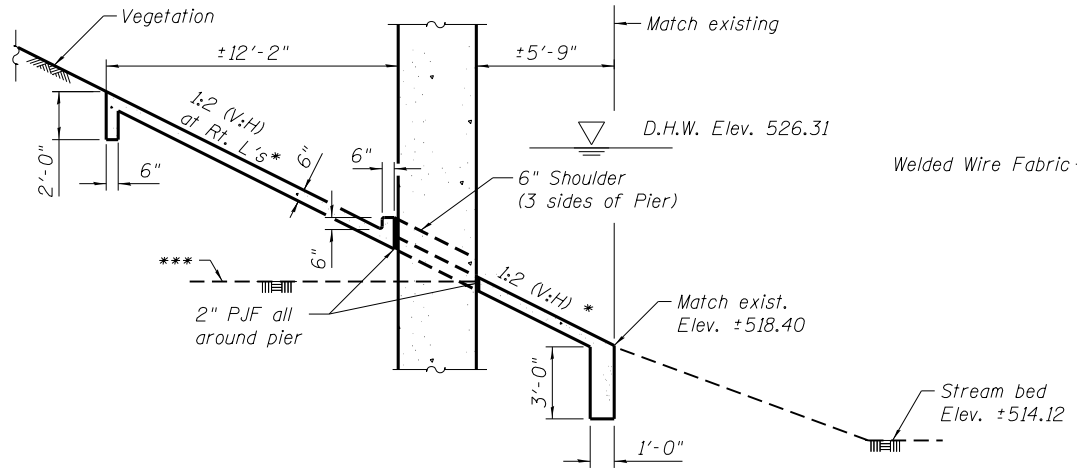
**SECTION A-A SHOWN  
SECTION F-F SIMILAR EXCEPT AS NOTED**



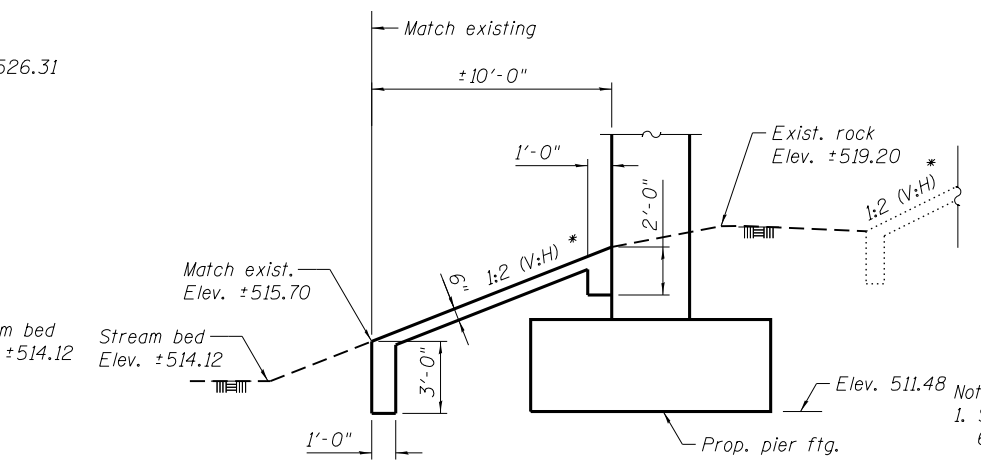
**SECTION B-B**



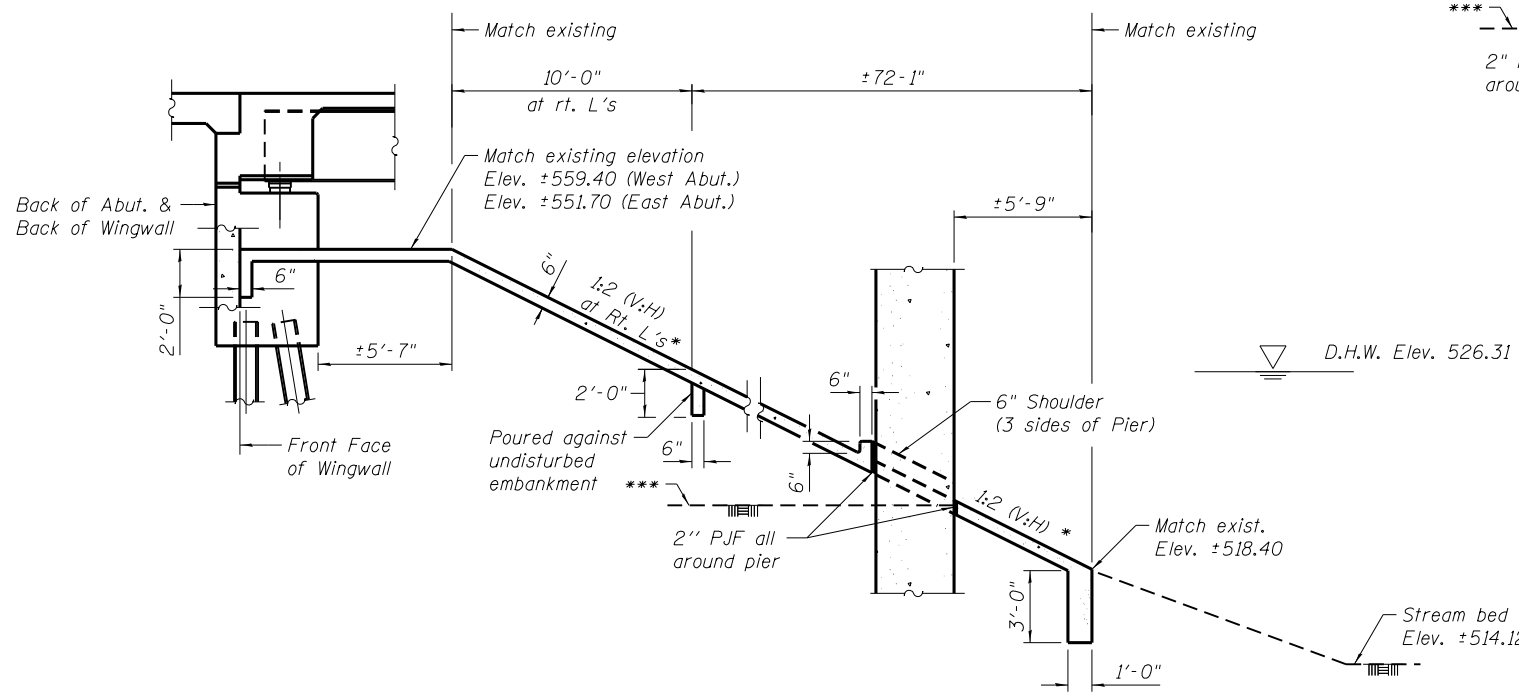
**SECTION D-D**



**SECTION E-E**



**SECTION C-C**



**SECTION THRU WEST CONCRETE SLOPEWALL AT SOUTH FASCIA**

East Slopewall at South fascia similar

**LEGEND:**

Slopewall removal & replacement

**BILL OF MATERIAL**

Item	Unit	Quantity
Slope Wall Removal	Sq Yd	334
Slope Wall 6 inch	Sq Yd	992

- Notes:
- 1. Slopewall shall be reinforced with welded wire fabric 6 in. x 6 in.-W4.0x4.0, weighing 58 lb per 100 sq ft.
  - \* Match slope of existing.
  - \*\* 0" at Section F-F
  - \*\*\* Top of Rock is approximately ±519.20 and varies to meet steam bottom.



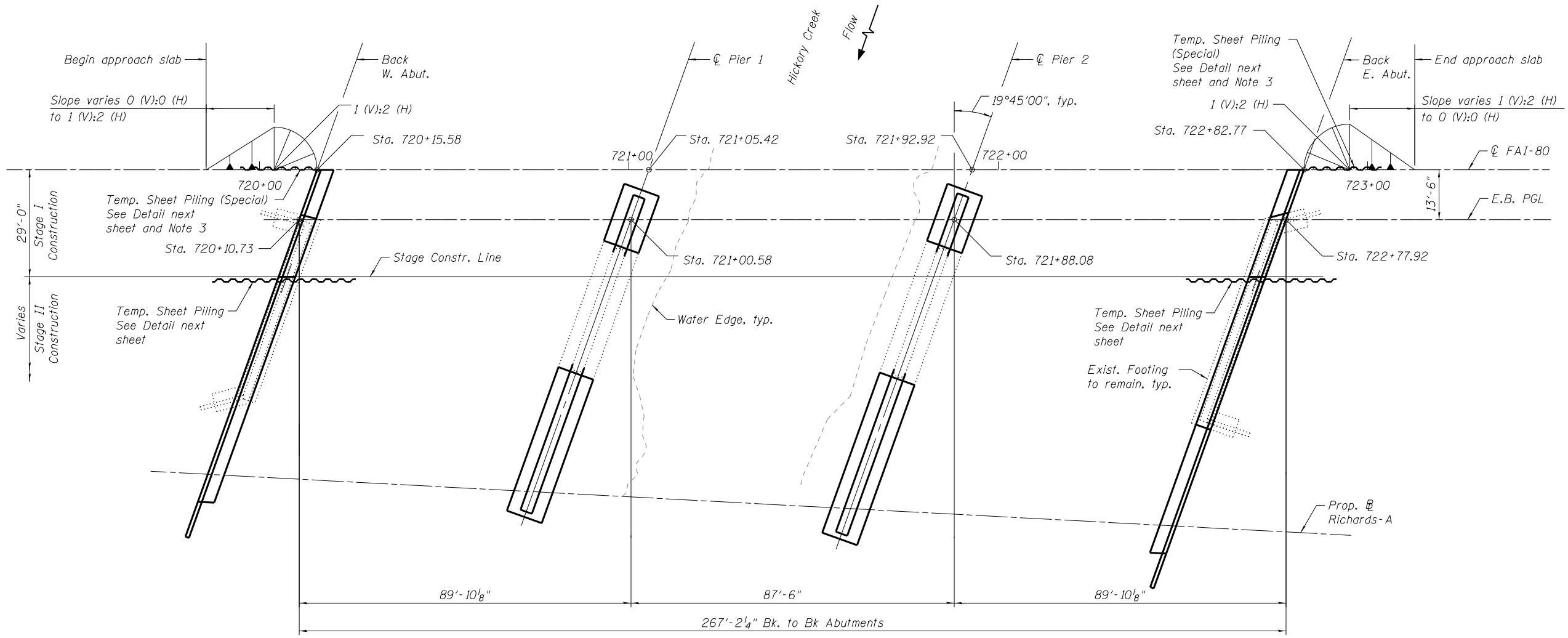
USER NAME = eabuerah	DESIGNED - PCA/TAT	REVISD
	CHECKED - APC/ACF	REVISD
	DRAWN - LK	REVISD
PLOT DATE = 6/25/2020	CHECKED - APC/ACF	REVISD

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SLOPE WALL DETAILS  
STRUCTURE NO. 099-0062**

SHEET NO. 3 OF 54 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	238
CONTRACT NO. 60W34			ILLINOIS FED. AID PROJECT	



**SUBSTRUCTURE & SHEET PILING LAYOUT PLAN**



USER NAME = eabueherah	DESIGNED - PCA/ACF	REVISED
	CHECKED - APC	REVISED
	DRAWN - LK	REVISED
PLOT DATE = 6/25/2020	CHECKED - APC/TAT	REVISED

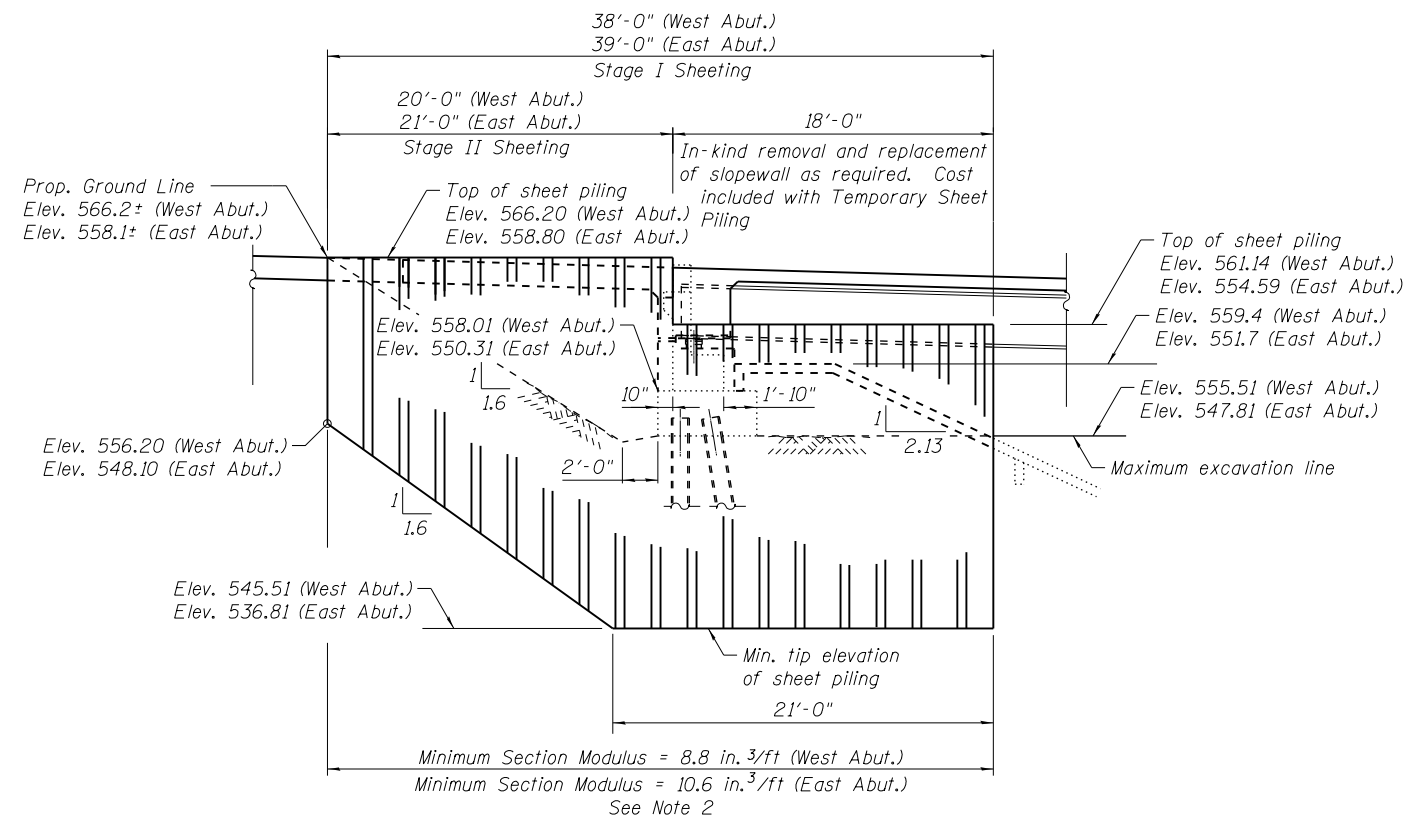
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SUBSTRUCTURE & SHEET PILING LAYOUT  
STRUCTURE NO. 099-0062**

SHEET NO. 4 OF 54 SHEETS

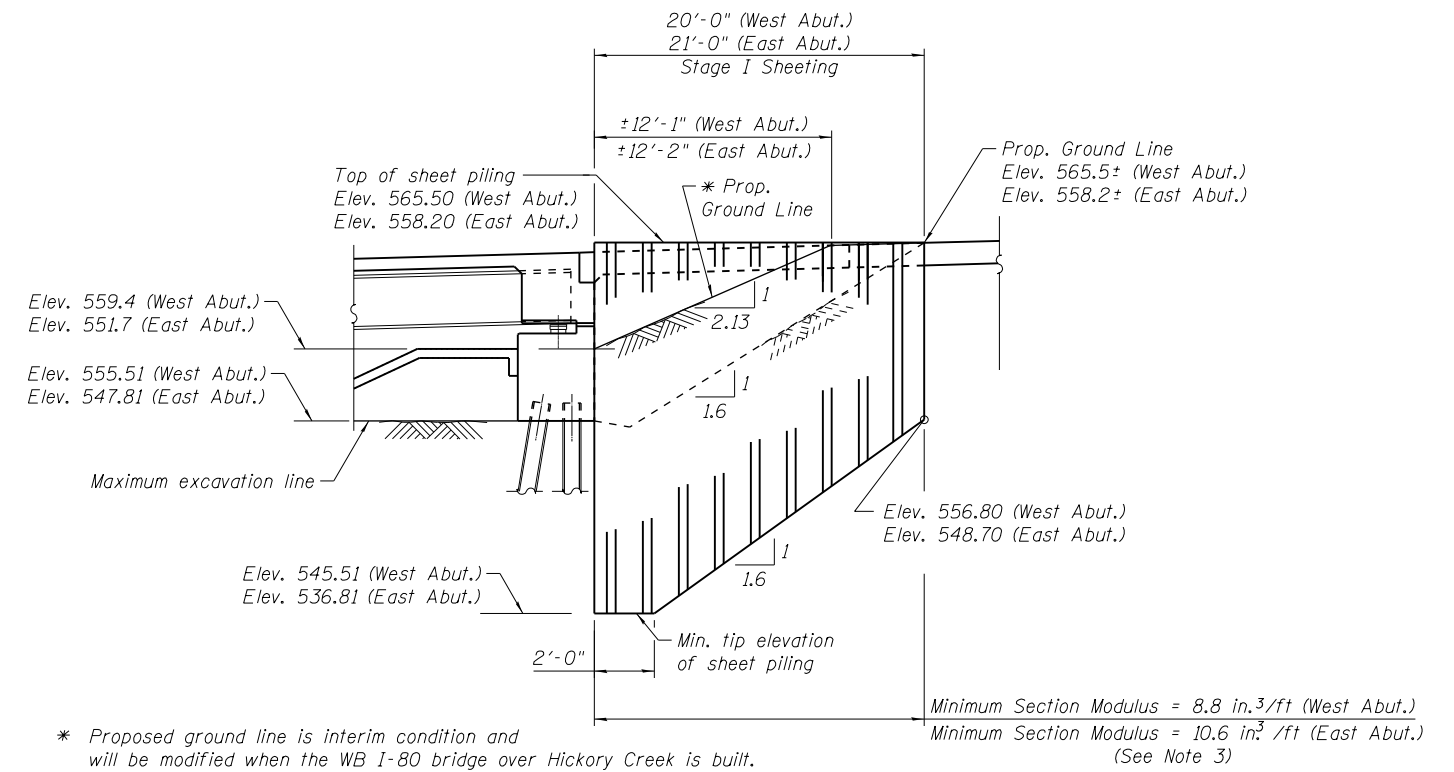
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	239
<b>CONTRACT NO. 60W34</b>				

ILLINOIS FED. AID PROJECT



**TEMPORARY SHEET PILING AT STAGE CONSTRUCTION LINE**

(West Abutment shown looking North.  
East Abutment looking South similar except as noted)



**TEMPORARY SHEET PILING (SPECIAL) AT C FAI-80**

(West Abutment shown looking South.  
East Abutment looking North similar except as noted)

- Notes:
1. If the Contractor chooses to alter the temporary cantilevered sheet piling design requirements shown on the plans, a design submittal including plan details and calculations will be required for review and acceptance by the Engineer.
  2. The Contractor shall connect the first sheet to the existing abutment wall to ensure stability of sheets driven to the top of the existing footing. This connection shall be reviewed and accepted by the Engineer and included in the cost for Temporary Sheet Piling.
  3. Temporary Sheet Piling (Special) shall be paid for as Temporary Sheet Piling (Special). It shall be in accordance with the standard specifications and Article 522.06(a) except it shall remain in place.

**BILL OF MATERIAL**

ITEM	UNIT	QUANTITY
Temporary Sheet Piling	Sq Ft	1,284
Temporary Sheet Piling (Special)	Sq Ft	634



USER NAME = eabutterah	DESIGNED - PCA/ACF	REVISED
	CHECKED - APC	REVISED
	DRAWN - LK	REVISED
PLOT DATE = 6/25/2020	CHECKED - APC/TAT	REVISED

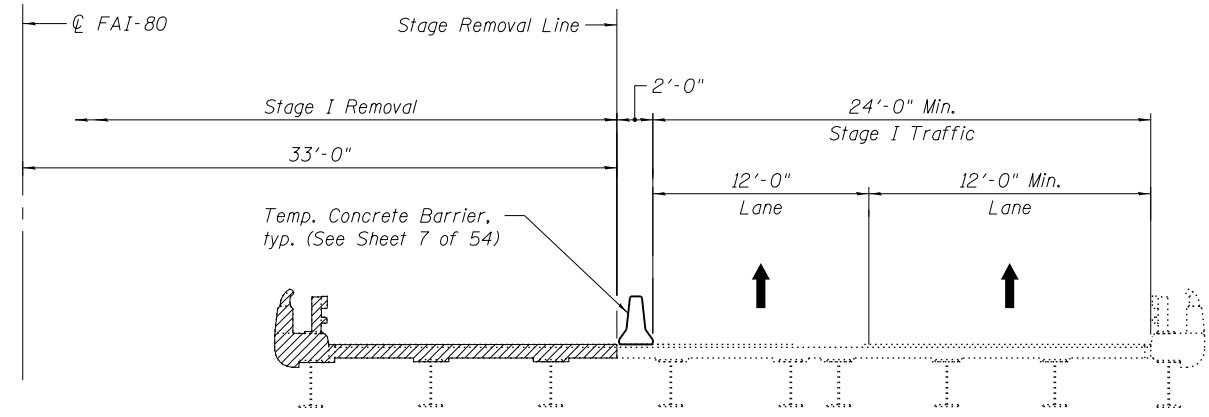
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SHEET PILING DETAILS  
STRUCTURE NO. 099-0062**

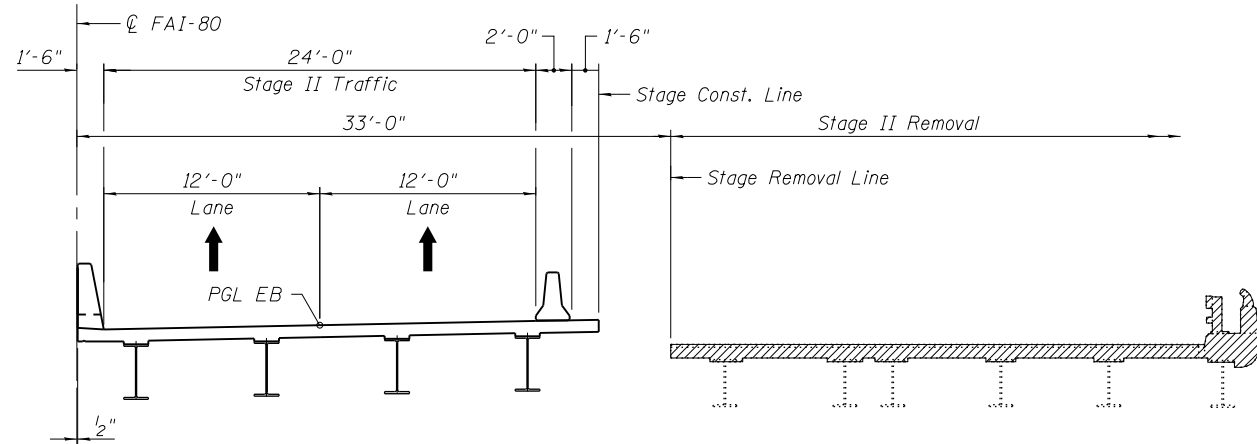
SHEET NO. 5 OF 54 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	240
CONTRACT NO. 60W34				
ILLINOIS FED. AID PROJECT				

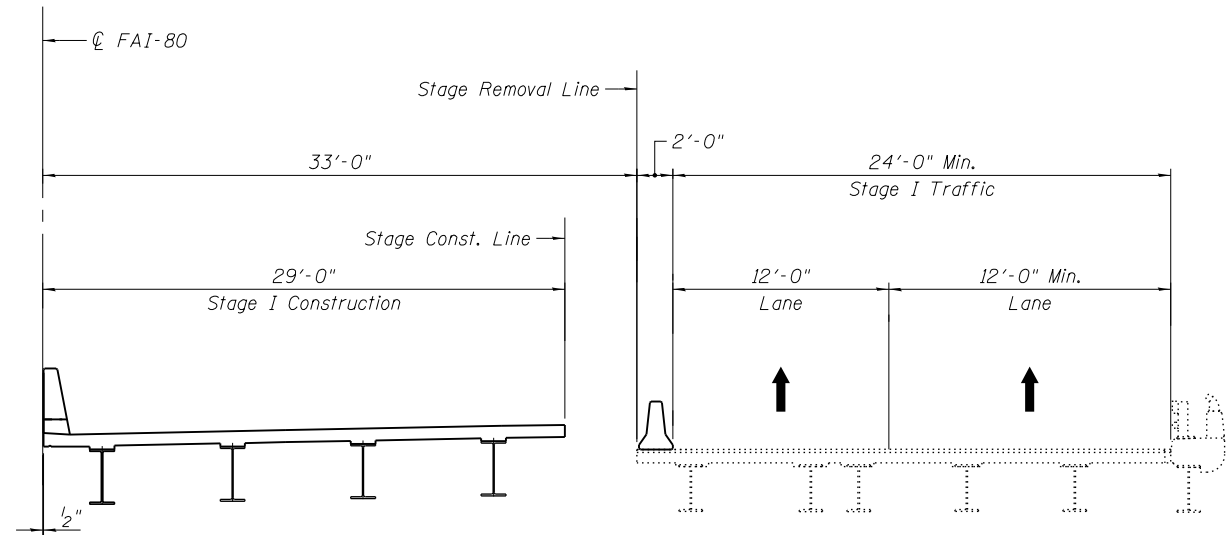




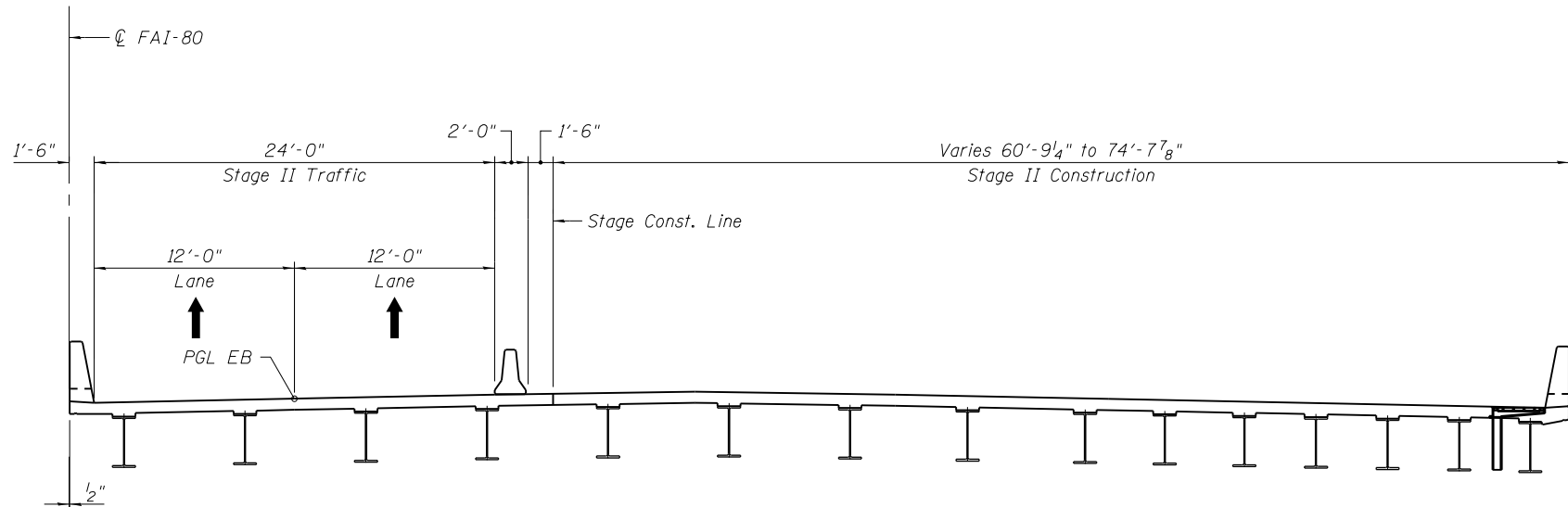
**STAGE I REMOVAL**



**STAGE II REMOVAL**



**STAGE I CONSTRUCTION**



**STAGE II CONSTRUCTION**

- Notes:
1. All views are looking East.
  2. Hatched areas indicates Removal of Existing Structures.
  3. All dimensions taken at Rt L's to CL I-80 except as noted.
  4. For Temporary Concrete Barrier quantity, see Roadway Plans.



USER NAME = eabutherah	DESIGNED - ACF	REVISED
	CHECKED - PCA	REVISED
	DRAWN - LK	REVISED
PLOT DATE = 6/25/2020	CHECKED - ACF	REVISED

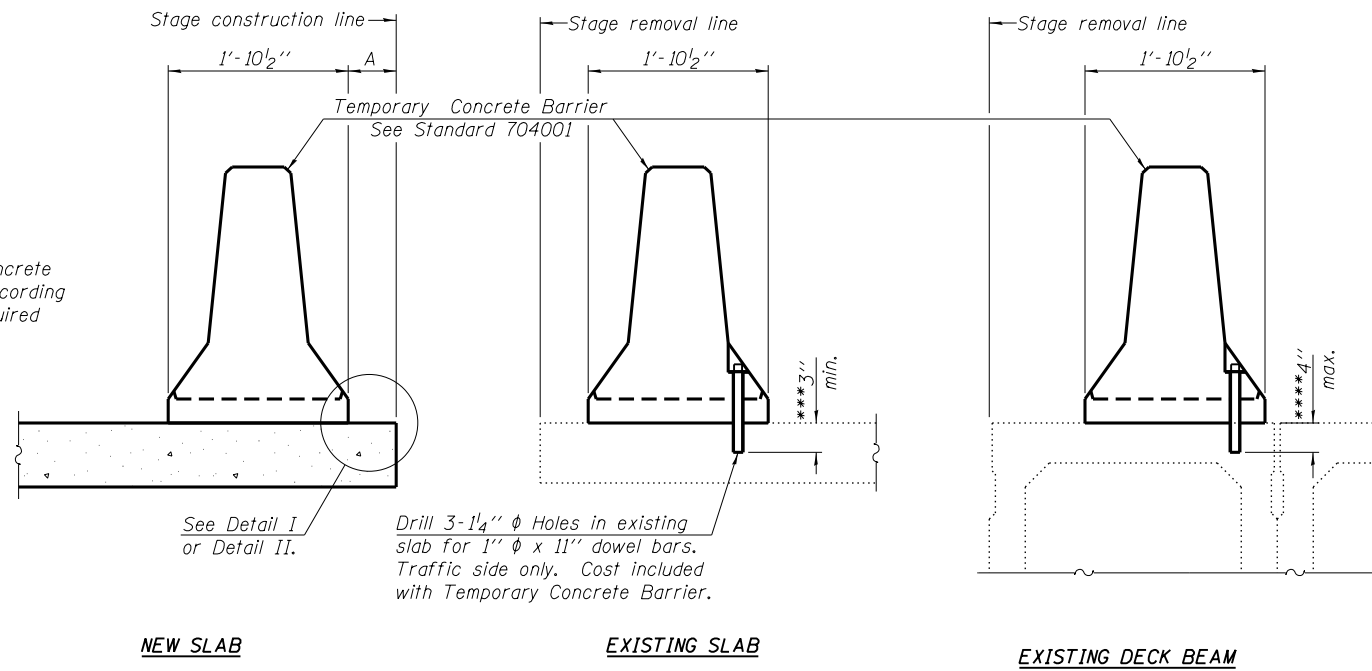
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CONSTRUCTION STAGING  
STRUCTURE NO. 099-0062**

SHEET NO. 6 OF 54 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	241
CONTRACT NO. 60W34				
ILLINOIS FED. AID PROJECT				

When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the new slab according to Detail I or Detail II. No anchorage is required when "A" is greater than 3'-6".



**SECTIONS THRU SLAB OR DECK BEAM**

**NOTES**

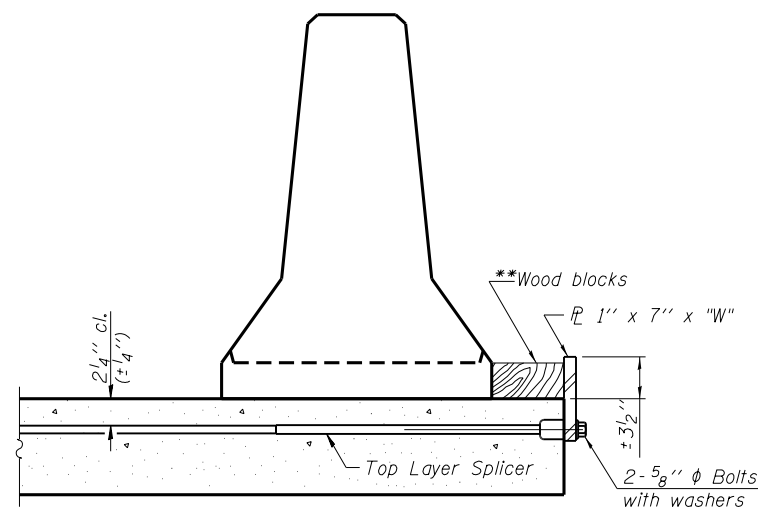
Detail I - With Bar Splicer or Couplers:  
Connect one (1) 1" x 7" x "W" steel PL to the top layer of couplers with 2-5/8" φ bolts screwed to coupler at approximate C of each barrier panel.

Detail II - With Extended Reinforcement Bars:  
Connect one (1) 1" x 7" x "W" steel PL to the concrete slab or concrete wearing surface with 2-5/8" φ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate C of each barrier panel.

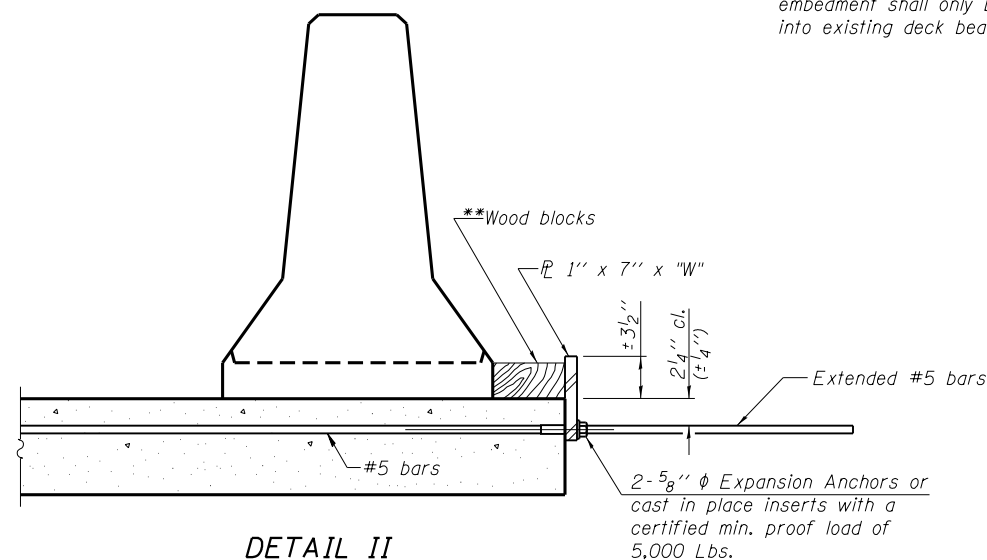
Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x "W" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

\*\*\* Dimension shown is minimum required embedment into concrete. If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.

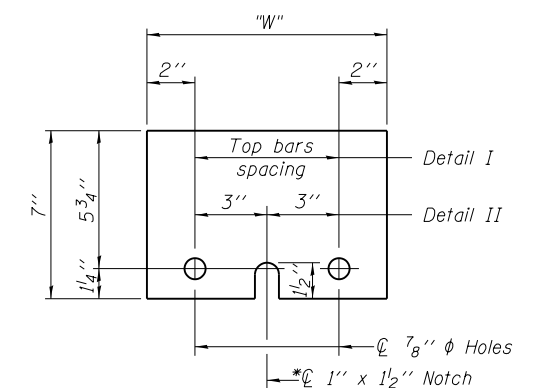
\*\*\*\* If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



**DETAIL I**



**DETAIL II**



**STEEL RETAINER PL 1" x 7" x "W"**

\* Required only with Detail II

\*\* Wood blocks may be omitted when required to provide minimum stage traffic lane width. When the wood blocks are omitted, the concrete barrier shall be in direct contact with the steel retainer plate.

"W" = Top bars spacing + 4"

R-27

7-1-10

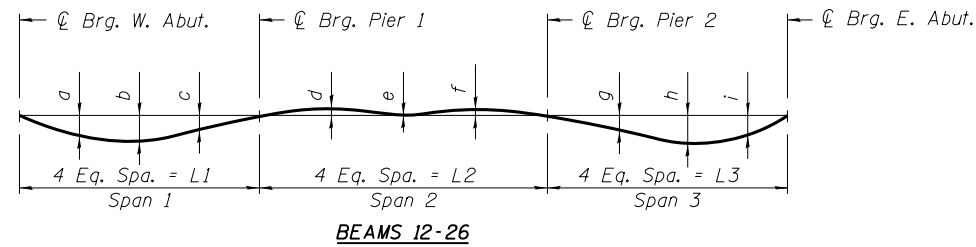
	USER NAME = eabuaetherah	DESIGNED - LK	REVISED	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION</b> <b>STRUCTURE NO. 099-0062</b>	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED - ACF	REVISED			80	2013-008B	WILL	511	242
	PLOT DATE = 6/25/2020	CHECKED - ACF	REVISED			CONTRACT NO. 60W34				

SHEET NO. 7 OF 54 SHEETS

ILLINOIS FED. AID PROJECT

**DEAD LOAD DEFLECTION TABLE**

Beam No.	Span 1				Span 2				Span 3			
	a	b	c	L1	d	e	f	L2	g	h	i	L3
12	1 1/8"	1 3/8"	3/4"	87'-0 1/8"	-1/8"	0"	-1/8"	87'-6"	3/4"	1 3/8"	1 1/4"	87'-0 1/8"
13-18	1 1/8"	1 1/2"	3/4"	87'-0 1/8"	-1/8"	0"	-1/8"	87'-6"	3/4"	1 1/2"	1 1/8"	87'-0 1/8"
19-20	1 1/8"	1 3/8"	3/4"	87'-0 1/8"	-1/8"	0"	-1/8"	87'-6"	3/4"	1 1/2"	1 1/8"	87'-0 1/8"
21	7/8"	1 1/8"	5/8"	86'-8 7/8"	0"	0"	-1/8"	87'-2 3/4"	3/4"	1 3/8"	1 1/8"	86'-8 7/8"
22	7/8"	1 1/8"	5/8"	86'-5 3/4"	0"	0"	-1/8"	86'-11 5/8"	3/4"	1 3/8"	1 1/8"	86'-5 3/4"
23	7/8"	1"	5/8"	86'-2 3/4"	0"	0"	-1/8"	86'-8 1/2"	3/4"	1 1/4"	1"	86'-2 3/4"
24	7/8"	1"	5/8"	85'-11 3/4"	0"	0"	0"	86'-5 1/2"	3/4"	1 1/4"	1"	85'-11 3/4"
25	7/8"	1"	5/8"	85'-8 3/4"	0"	0"	0"	86'-2 5/8"	5/8"	1 1/4"	1"	85'-8 3/4"
26	7/8"	1"	5/8"	85'-5 7/8"	0"	0"	0"	85'-11 5/8"	5/8"	1 1/8"	1"	85'-5 7/8"

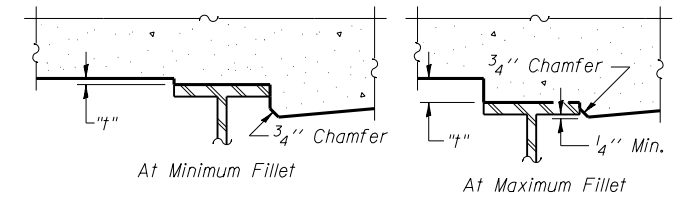


**DEAD LOAD DEFLECTION DIAGRAM**

(Includes weight of concrete only.)

Note:

The above deflections are not for use in the field if the Engineer is working from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection."

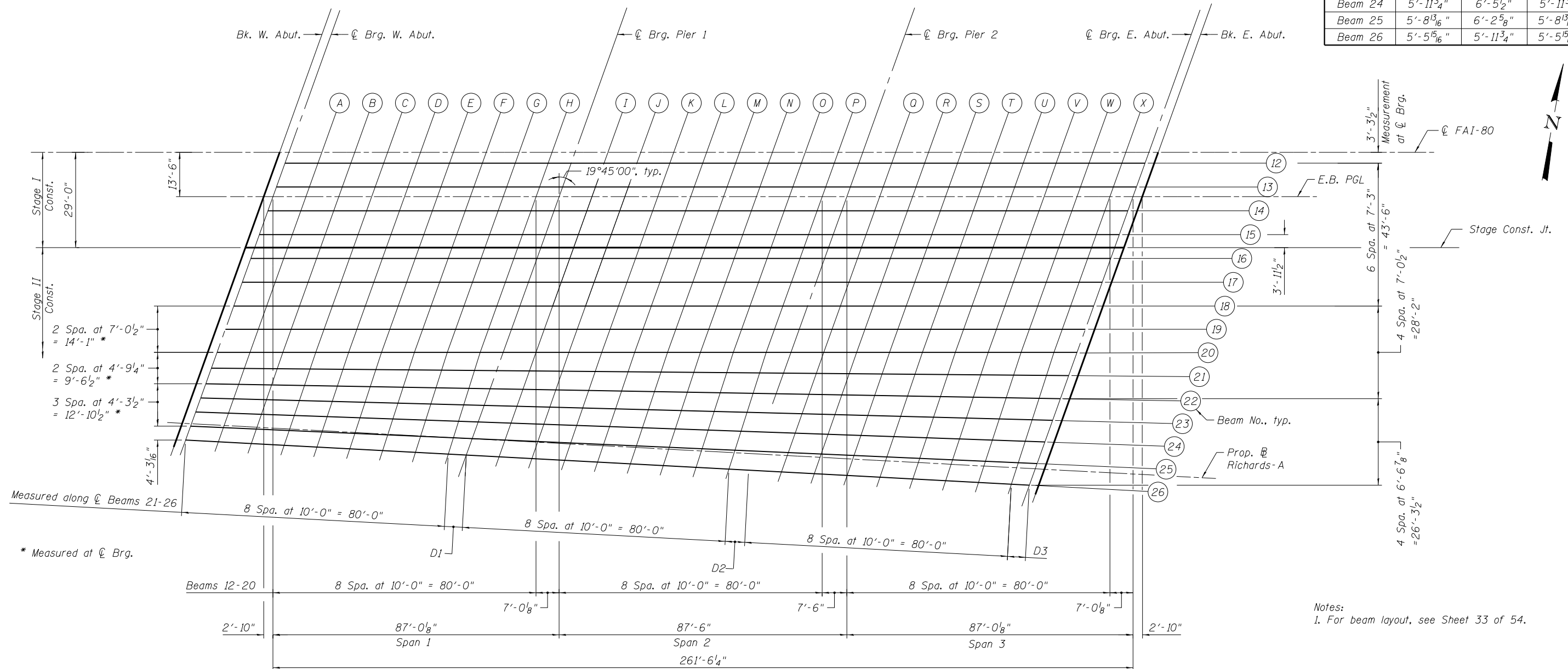


To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on Sheets 9 thru 14, minus slab thickness, equals the fillet heights "t" above top flange of beams.

**FILLET HEIGHTS**

**END SPAN DIMENSIONS**

Location	D1	D2	D3
Beam 12-20	7'-1/8"	7'-6"	7'-1/8"
Beam 21	6'-8 15/16"	7'-2 3/4"	6'-8 15/16"
Beam 22	6'-5 13/16"	6'-11 5/8"	6'-5 13/16"
Beam 23	6'-2 3/4"	6'-8 1/2"	6'-2 3/4"
Beam 24	5'-11 3/4"	6'-5 1/2"	5'-11 3/4"
Beam 25	5'-8 13/16"	6'-2 5/8"	5'-8 13/16"
Beam 26	5'-5 15/16"	5'-11 3/4"	5'-5 15/16"



**PLAN**

Notes:  
1. For beam layout, see Sheet 33 of 54.



USER NAME = eabuthera  
PLOT DATE = 6/25/2020

DESIGNED - EAA/PAB  
CHECKED - EAA/PAB  
DRAWN - LK  
CHECKED - EAA/PAB

REVISED  
REVISED  
REVISED  
REVISED

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS LAYOUT  
STRUCTURE NO. 099-0062

SHEET NO. 8 OF 54 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	243
CONTRACT NO. 60W34				
ILLINOIS FED. AID PROJECT				

**BEAM 12**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	720+14.40	3.29	564.58	564.58
☉ Brg. W. Abut.	720+17.23	3.29	564.50	564.50
A	720+27.23	3.29	564.22	564.27
B	720+37.23	3.29	563.94	564.03
C	720+47.23	3.29	563.66	563.77
D	720+57.23	3.29	563.38	563.50
E	720+67.23	3.29	563.10	563.21
F	720+77.23	3.29	562.83	562.91
G	720+87.23	3.29	562.55	562.59
H	720+97.23	3.29	562.27	562.28
☉ Brg. Pier 1	721+04.25	3.29	562.07	562.07
I	721+14.25	3.29	561.79	561.78
J	721+24.25	3.29	561.52	561.51
K	721+34.25	3.29	561.25	561.25
L	721+44.25	3.29	560.99	560.99
M	721+54.25	3.29	560.74	560.74
N	721+64.25	3.29	560.49	560.49
O	721+74.25	3.29	560.25	560.24
P	721+84.25	3.29	560.01	560.00
☉ Brg. Pier 2	721+91.75	3.29	559.83	559.83
Q	722+01.75	3.29	559.60	559.63
R	722+11.75	3.29	559.38	559.44
S	722+21.75	3.29	559.17	559.26
T	722+31.75	3.29	558.96	559.07
U	722+41.75	3.29	558.75	558.87
V	722+51.75	3.29	558.55	558.66
W	722+61.75	3.29	558.36	558.44
X	722+71.75	3.29	558.17	558.21
☉ Brg. E. Abut.	722+78.76	3.29	558.04	558.04
Bk. E. Abut.	722+81.59	3.29	557.99	557.99

**BEAM 13**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	720+11.79	10.54	564.80	564.80
☉ Brg. W. Abut.	720+14.63	10.54	564.72	564.72
A	720+24.63	10.54	564.44	564.49
B	720+34.63	10.54	564.16	564.25
C	720+44.63	10.54	563.88	564.00
D	720+54.63	10.54	563.60	563.72
E	720+64.63	10.54	563.32	563.43
F	720+74.63	10.54	563.05	563.13
G	720+84.63	10.54	562.77	562.82
H	720+94.63	10.54	562.49	562.50
☉ Brg. Pier 1	721+01.64	10.54	562.29	562.29
I	721+11.64	10.54	562.01	562.00
J	721+21.64	10.54	561.74	561.73
K	721+31.64	10.54	561.47	561.47
L	721+41.64	10.54	561.21	561.21
M	721+51.64	10.54	560.95	560.95
N	721+61.64	10.54	560.70	560.70
O	721+71.64	10.54	560.46	560.45
P	721+81.64	10.54	560.22	560.21
☉ Brg. Pier 2	721+89.14	10.54	560.04	560.04
Q	721+99.14	10.54	559.81	559.83
R	722+09.14	10.54	559.59	559.65
S	722+19.14	10.54	559.37	559.46
T	722+29.14	10.54	559.16	559.28
U	722+39.14	10.54	558.95	559.07
V	722+49.14	10.54	558.75	558.86
W	722+59.14	10.54	558.55	558.63
X	722+69.14	10.54	558.36	558.40
☉ Brg. E. Abut.	722+76.16	10.54	558.24	558.24
Bk. E. Abut.	722+78.99	10.54	558.18	558.18

**E.B. PGL**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	720+10.73	13.50	564.89	564.89
☉ Brg. W. Abut.	720+13.57	13.50	564.81	564.81
A	720+23.57	13.50	564.53	564.58
B	720+33.57	13.50	564.25	564.34
C	720+43.57	13.50	563.97	564.09
D	720+53.57	13.50	563.69	563.81
E	720+63.57	13.50	563.41	563.52
F	720+73.57	13.50	563.13	563.21
G	720+83.57	13.50	562.85	562.90
H	720+93.57	13.50	562.57	562.59
☉ Brg. Pier 1	721+00.58	13.50	562.38	562.38
I	721+10.58	13.50	562.10	562.09
J	721+20.58	13.50	561.82	561.81
K	721+30.58	13.50	561.56	561.56
L	721+40.58	13.50	561.29	561.29
M	721+50.58	13.50	561.04	561.04
N	721+60.58	13.50	560.79	560.78
O	721+70.58	13.50	560.54	560.53
P	721+80.58	13.50	560.30	560.29
☉ Brg. Pier 2	721+88.08	13.50	560.12	560.12
Q	721+98.08	13.50	559.89	559.91
R	722+08.08	13.50	559.67	559.73
S	722+18.08	13.50	559.45	559.54
T	722+28.08	13.50	559.24	559.36
U	722+38.08	13.50	559.03	559.15
V	722+48.08	13.50	558.83	558.94
W	722+58.08	13.50	558.63	558.71
X	722+68.08	13.50	558.44	558.47
☉ Brg. E. Abut.	722+75.09	13.50	558.31	558.31
Bk. E. Abut.	722+77.92	13.50	558.26	558.26

- Notes:  
 1. All Elevations and Offsets are in feet.  
 2. Offsets are measured with respect to ☉ FAI-80.

**BEAM 14**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	720+09.19	17.79	565.02	565.02
☉ Brg. W. Abut.	720+12.03	17.79	564.94	564.94
A	720+22.03	17.79	564.66	564.71
B	720+32.03	17.79	564.38	564.47
C	720+42.03	17.79	564.10	564.21
D	720+52.03	17.79	563.82	563.94
E	720+62.03	17.79	563.54	563.65
F	720+72.03	17.79	563.26	563.34
G	720+82.03	17.79	562.99	563.03
H	720+92.03	17.79	562.71	562.72
☉ Brg. Pier 1	720+99.04	17.79	562.51	562.51
I	721+09.04	17.79	562.23	562.22
J	721+19.04	17.79	561.95	561.95
K	721+29.04	17.79	561.68	561.68
L	721+39.04	17.79	561.42	561.42
M	721+49.04	17.79	561.16	561.17
N	721+59.04	17.79	560.91	560.90
O	721+69.04	17.79	560.66	560.66
P	721+79.04	17.79	560.42	560.42
☉ Brg. Pier 2	721+86.54	17.79	560.25	560.25
Q	721+96.54	17.79	560.02	560.04
R	722+06.54	17.79	559.79	559.85
S	722+16.54	17.79	559.57	559.66
T	722+26.54	17.79	559.36	559.47
U	722+36.54	17.79	559.15	559.27
V	722+46.54	17.79	558.95	559.06
W	722+56.54	17.79	558.75	558.83
X	722+66.54	17.79	558.56	558.59
☉ Brg. E. Abut.	722+73.55	17.79	558.43	558.43
Bk. E. Abut.	722+76.38	17.79	558.38	558.38

**BEAM 15**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	720+06.59	25.04	565.24	565.24
☉ Brg. W. Abut.	720+09.42	25.04	565.15	565.15
A	720+19.42	25.04	564.87	564.92
B	720+29.42	25.04	564.59	564.69
C	720+39.42	25.04	564.31	564.43
D	720+49.42	25.04	564.03	564.16
E	720+59.42	25.04	563.75	563.87
F	720+69.42	25.04	563.47	563.56
G	720+79.42	25.04	563.20	563.25
H	720+89.42	25.04	562.92	562.94
☉ Brg. Pier 1	720+96.44	25.04	562.72	562.72
I	721+06.44	25.04	562.44	562.43
J	721+16.44	25.04	562.16	562.16
K	721+26.44	25.04	561.89	561.89
L	721+36.44	25.04	561.63	561.63
M	721+46.44	25.04	561.37	561.37
N	721+56.44	25.04	561.12	561.12
O	721+66.44	25.04	560.87	560.86
P	721+76.44	25.04	560.63	560.62
☉ Brg. Pier 2	721+83.94	25.04	560.45	560.45
Q	721+93.94	25.04	560.22	560.25
R	722+03.94	25.04	559.99	560.05
S	722+13.94	25.04	559.77	559.87
T	722+23.94	25.04	559.55	559.67
U	722+33.94	25.04	559.34	559.47
V	722+43.94	25.04	559.14	559.25
W	722+53.94	25.04	558.94	559.02
X	722+63.94	25.04	558.75	558.79
☉ Brg. E. Abut.	722+70.95	25.04	558.62	558.62
Bk. E. Abut.	722+73.78	25.04	558.57	558.57

**LONGITUDINAL STAGE CONST. JT.**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	720+05.17	29.00	565.34	565.34
☉ Brg. W. Abut.	720+08.00	29.00	565.26	565.26
A	720+18.00	29.00	564.98	565.03
B	720+28.00	29.00	564.70	564.79
C	720+38.00	29.00	564.42	564.54
D	720+48.00	29.00	564.14	564.27
E	720+58.00	29.00	563.86	563.97
F	720+68.00	29.00	563.58	563.67
G	720+78.00	29.00	563.30	563.35
H	720+88.00	29.00	563.02	563.04
☉ Brg. Pier 1	720+95.02	29.00	562.82	562.82
I	721+05.02	29.00	562.54	562.53
J	721+15.02	29.00	562.26	562.26
K	721+25.02	29.00	561.99	561.99
L	721+35.02	29.00	561.73	561.73
M	721+45.02	29.00	561.47	561.47
N	721+55.02	29.00	561.21	561.21
O	721+65.02	29.00	560.96	560.95
P	721+75.02	29.00	560.72	560.71
☉ Brg. Pier 2	721+82.52	29.00	560.54	560.54
Q	721+92.52	29.00	560.31	560.34
R	722+02.52	29.00	560.08	560.14
S	722+12.52	29.00	559.86	559.96
T	722+22.52	29.00	559.64	559.76
U	722+32.52	29.00	559.43	559.56
V	722+42.52	29.00	559.23	559.34
W	722+52.52	29.00	559.03	559.11
X	722+62.52	29.00	558.84	558.88
☉ Brg. E. Abut.	722+69.53	29.00	558.71	558.71
Bk. E. Abut.	722+72.36	29.00	558.66	558.66

- Notes:  
 1. All Elevations and Offsets are in feet.  
 2. Offsets are measured with respect to ☉ FAI-80.

**BEAM 16**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	720+03.99	32.29	565.42	565.42
☉ Brg. W. Abut.	720+06.82	32.29	565.34	565.34
A	720+16.82	32.29	565.06	565.11
B	720+26.82	32.29	564.78	564.87
C	720+36.82	32.29	564.50	564.62
D	720+46.82	32.29	564.22	564.34
E	720+56.82	32.29	563.94	564.05
F	720+66.82	32.29	563.66	563.74
G	720+76.82	32.29	563.39	563.44
H	720+86.82	32.29	563.11	563.12
☉ Brg. Pier 1	720+93.83	32.29	562.91	562.91
I	721+03.83	32.29	562.63	562.62
J	721+13.83	32.29	562.35	562.34
K	721+23.83	32.29	562.08	562.07
L	721+33.83	32.29	561.81	561.81
M	721+43.83	32.29	561.55	561.55
N	721+53.83	32.29	561.30	561.29
O	721+63.83	32.29	561.05	561.04
P	721+73.83	32.29	560.81	560.80
☉ Brg. Pier 2	721+81.33	32.29	560.63	560.63
Q	721+91.33	32.29	560.39	560.41
R	722+01.33	32.29	560.16	560.22
S	722+11.33	32.29	559.94	560.03
T	722+21.33	32.29	559.73	559.84
U	722+31.33	32.29	559.52	559.64
V	722+41.33	32.29	559.31	559.42
W	722+51.33	32.29	559.11	559.19
X	722+61.33	32.29	558.92	558.95
☉ Brg. E. Abut.	722+68.35	32.29	558.78	558.78
Bk. E. Abut.	722+71.18	32.29	558.73	558.73

**BEAM 17**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	720+01.38	39.54	565.54	565.54
☉ Brg. W. Abut.	720+04.22	39.54	565.46	565.46
A	720+14.22	39.54	565.18	565.23
B	720+24.22	39.54	564.90	564.99
C	720+34.22	39.54	564.62	564.74
D	720+44.22	39.54	564.34	564.47
E	720+54.22	39.54	564.06	564.17
F	720+64.22	39.54	563.78	563.87
G	720+74.22	39.54	563.51	563.55
H	720+84.22	39.54	563.23	563.24
☉ Brg. Pier 1	720+91.23	39.54	563.03	563.03
I	721+01.23	39.54	562.75	562.74
J	721+11.23	39.54	562.47	562.46
K	721+21.23	39.54	562.20	562.19
L	721+31.23	39.54	561.93	561.93
M	721+41.23	39.54	561.67	561.67
N	721+51.23	39.54	561.41	561.40
O	721+61.23	39.54	561.16	561.15
P	721+71.23	39.54	560.92	560.91
☉ Brg. Pier 2	721+78.73	39.54	560.74	560.74
Q	721+88.73	39.54	560.50	560.52
R	721+98.73	39.54	560.27	560.33
S	722+08.73	39.54	560.05	560.14
T	722+18.73	39.54	559.83	559.94
U	722+28.73	39.54	559.62	559.74
V	722+38.73	39.54	559.41	559.52
W	722+48.73	39.54	559.21	559.29
X	722+58.73	39.54	559.01	559.04
☉ Brg. E. Abut.	722+65.74	39.54	558.87	558.87
Bk. E. Abut.	722+68.57	39.54	558.82	558.82

**BEAM 18**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	719+98.78	46.79	565.50	565.50
☉ Brg. W. Abut.	720+01.62	46.79	565.43	565.43
A	720+11.62	46.79	565.15	565.20
B	720+21.62	46.79	564.87	564.96
C	720+31.62	46.79	564.59	564.70
D	720+41.62	46.79	564.31	564.43
E	720+51.62	46.79	564.03	564.14
F	720+61.62	46.79	563.75	563.83
G	720+71.62	46.79	563.47	563.52
H	720+81.62	46.79	563.19	563.20
☉ Brg. Pier 1	720+88.63	46.79	562.99	562.99
I	720+98.63	46.79	562.71	562.70
J	721+08.63	46.79	562.43	562.42
K	721+18.63	46.79	562.16	562.16
L	721+28.63	46.79	561.89	561.89
M	721+38.63	46.79	561.63	561.63
N	721+48.63	46.79	561.37	561.37
O	721+58.63	46.79	561.12	561.11
P	721+68.63	46.79	560.87	560.86
☉ Brg. Pier 2	721+76.13	46.79	560.69	560.69
Q	721+86.13	46.79	560.45	560.47
R	721+96.13	46.79	560.22	560.28
S	722+06.13	46.79	559.99	560.08
T	722+16.13	46.79	559.77	559.89
U	722+26.13	46.79	559.56	559.68
V	722+36.13	46.79	559.35	559.46
W	722+46.13	46.79	559.15	559.23
X	722+56.13	46.79	558.95	558.98
☉ Brg. E. Abut.	722+63.14	46.79	558.82	558.82
Bk. E. Abut.	722+65.97	46.79	558.76	558.76

- Notes:  
 1. All Elevations and Offsets are in feet.  
 2. Offsets are measured with respect to ☉ FAI-80.

**BEAM 19**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	719+96.25	53.83	565.45	565.45
☉ Brg. W. Abut.	719+99.09	53.83	565.37	565.37
A	720+09.09	53.83	565.09	565.14
B	720+19.09	53.83	564.81	564.90
C	720+29.09	53.83	564.53	564.65
D	720+39.09	53.83	564.25	564.37
E	720+49.09	53.83	563.97	564.08
F	720+59.09	53.83	563.69	563.77
G	720+69.09	53.83	563.41	563.46
H	720+79.09	53.83	563.13	563.15
☉ Brg. Pier 1	720+86.10	53.83	562.93	562.93
I	720+96.10	53.83	562.65	562.64
J	721+06.10	53.83	562.37	562.36
K	721+16.10	53.83	562.10	562.10
L	721+26.10	53.83	561.83	561.83
M	721+36.10	53.83	561.56	561.56
N	721+46.10	53.83	561.30	561.30
O	721+56.10	53.83	561.05	561.04
P	721+66.10	53.83	560.80	560.79
☉ Brg. Pier 2	721+73.60	53.83	560.62	560.62
Q	721+83.60	53.83	560.38	560.41
R	721+93.60	53.83	560.15	560.21
S	722+03.60	53.83	559.92	560.01
T	722+13.60	53.83	559.70	559.82
U	722+23.60	53.83	559.48	559.60
V	722+33.60	53.83	559.27	559.38
W	722+43.60	53.83	559.07	559.15
X	722+53.60	53.83	558.87	558.91
☉ Brg. E. Abut.	722+60.61	53.83	558.74	558.74
Bk. E. Abut.	722+63.44	53.83	568.68	568.68

**BEAM 20**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	719+93.72	60.88	565.38	565.38
☉ Brg. W. Abut.	719+96.56	60.88	565.30	565.30
A	720+06.56	60.88	565.02	565.07
B	720+16.56	60.88	564.74	564.83
C	720+26.56	60.88	564.46	564.58
D	720+36.56	60.88	564.18	564.30
E	720+46.56	60.88	563.90	564.01
F	720+56.56	60.88	563.62	563.70
G	720+66.56	60.88	563.34	563.39
H	720+76.56	60.88	563.06	563.08
☉ Brg. Pier 1	720+83.57	60.88	562.86	562.86
I	720+93.57	60.88	562.58	562.57
J	721+03.57	60.88	562.30	562.29
K	721+13.57	60.88	562.03	562.03
L	721+23.57	60.88	561.75	561.75
M	721+33.57	60.88	561.49	561.49
N	721+43.57	60.88	561.23	561.23
O	721+53.57	60.88	560.97	560.96
P	721+63.57	60.88	560.72	560.71
☉ Brg. Pier 2	721+71.07	60.88	560.54	560.54
Q	721+81.07	60.88	560.30	560.33
R	721+91.07	60.88	560.06	560.12
S	722+01.07	60.88	559.84	559.93
T	722+11.07	60.88	559.61	559.73
U	722+21.07	60.88	559.40	559.52
V	722+31.07	60.88	559.19	559.30
W	722+41.07	60.88	558.98	559.06
X	722+51.07	60.88	558.78	558.82
☉ Brg. E. Abut.	722+58.08	60.88	558.64	558.64
Bk. E. Abut.	722+60.86	60.88	558.59	558.59

**BEAM 21**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	719+92.01	65.65	565.33	565.33
☉ Brg. W. Abut.	719+94.85	65.65	565.25	565.25
A	720+04.85	65.73	564.97	565.01
B	720+14.85	65.82	564.69	564.76
C	720+24.85	65.91	564.41	564.50
D	720+34.85	65.99	564.12	564.22
E	720+44.84	66.08	563.84	563.93
F	720+54.84	66.17	563.56	563.63
G	720+64.84	66.26	563.28	563.32
H	720+74.84	66.34	563.00	563.01
☉ Brg. Pier 1	720+81.59	66.40	562.81	562.81
I	720+91.59	66.49	562.53	562.52
J	721+01.59	66.58	562.25	562.24
K	721+11.59	66.66	561.97	561.97
L	721+21.59	66.75	561.69	561.69
M	721+31.59	66.84	561.42	561.42
N	721+41.59	66.92	561.16	561.15
O	721+51.58	67.01	560.90	560.89
P	721+61.58	67.10	560.65	560.64
☉ Brg. Pier 2	721+68.81	67.16	560.47	560.47
Q	721+78.81	67.25	560.23	560.25
R	721+88.81	67.34	559.99	560.05
S	721+98.81	67.42	559.76	559.85
T	722+08.81	67.51	559.53	559.64
U	722+18.81	67.60	559.31	559.43
V	722+28.81	67.68	559.10	559.20
W	722+38.81	67.77	558.89	558.96
X	722+48.81	67.86	558.69	558.72
☉ Brg. E. Abut.	722+55.56	67.92	558.55	558.55
Bk. E. Abut.	722+58.38	67.94	558.49	558.49

- Notes:  
 1. All Elevations and Offsets are in feet.  
 2. Offsets are measured with respect to ☉ FAI-80.

**BEAM 22**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	719+90.31	70.37	565.28	565.28
⊕ Brg. W. Abut.	719+93.13	70.42	565.21	565.21
A	720+03.13	70.59	564.92	564.96
B	720+13.13	70.77	564.64	564.70
C	720+23.13	70.94	564.35	564.44
D	720+33.13	71.12	564.07	564.16
E	720+43.13	71.29	563.79	563.87
F	720+53.12	71.47	563.51	563.57
G	720+63.12	71.64	563.22	563.26
H	720+73.12	71.82	562.94	562.95
⊕ Brg. Pier 1	720+79.60	71.93	562.76	562.76
I	720+89.60	72.10	562.47	562.47
J	720+99.60	72.28	562.19	562.19
K	721+09.60	72.45	561.91	561.91
L	721+19.60	72.63	561.63	561.63
M	721+29.60	72.80	561.35	561.35
N	721+39.59	72.98	561.09	561.09
O	721+49.59	73.15	560.83	560.82
P	721+59.59	73.33	560.57	560.57
⊕ Brg. Pier 2	721+66.56	73.45	560.40	560.40
Q	721+76.56	73.62	560.15	560.17
R	721+86.55	73.80	559.92	559.97
S	721+96.55	73.97	559.68	559.77
T	722+06.55	74.15	559.45	559.56
U	722+16.55	74.32	559.23	559.34
V	722+26.55	74.50	559.01	559.11
W	722+36.55	74.67	558.80	558.87
X	722+46.54	74.85	558.59	558.62
⊕ Brg. E. Abut.	722+53.03	74.96	558.46	558.46
Bk. E. Abut.	722+55.84	75.01	558.41	558.41

**BEAM 23**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	719+88.78	74.63	565.24	565.24
⊕ Brg. W. Abut.	719+91.59	74.71	565.16	565.16
A	720+01.59	74.97	564.88	564.92
B	720+11.58	75.23	564.59	564.66
C	720+21.58	75.50	564.31	564.40
D	720+31.58	75.76	564.02	564.11
E	720+41.57	76.02	563.74	563.82
F	720+51.57	76.29	563.45	563.51
G	720+61.57	76.55	563.17	563.20
H	720+71.56	76.81	562.88	562.89
⊕ Brg. Pier 1	720+77.79	76.98	562.70	562.70
I	720+87.78	77.24	562.42	562.41
J	720+97.78	77.51	562.13	562.13
K	721+07.78	77.77	561.85	561.85
L	721+17.77	78.03	561.57	561.57
M	721+27.80	78.30	561.29	561.29
N	721+37.77	78.56	561.03	561.03
O	721+47.76	78.82	560.76	560.75
P	721+57.76	79.09	560.50	560.49
⊕ Brg. Pier 2	721+64.47	79.26	560.33	560.33
Q	721+74.46	79.53	560.08	560.10
R	721+84.46	79.79	559.84	559.89
S	721+94.46	80.05	559.60	559.68
T	722+04.45	80.31	559.38	559.48
U	722+14.45	80.58	559.14	559.25
V	722+24.44	80.84	558.93	559.03
W	722+34.44	81.10	558.71	558.78
X	722+44.44	81.37	558.51	558.54
⊕ Brg. E. Abut.	722+50.66	81.53	558.38	558.38
Bk. E. Abut.	722+53.47	81.61	558.32	558.32

**BEAM 24**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	719+87.25	78.90	565.20	565.20
⊕ Brg. W. Abut.	719+90.05	79.00	565.12	565.12
A	720+00.04	79.35	564.83	564.87
B	720+10.04	79.70	564.55	564.62
C	720+20.03	80.06	564.26	564.34
D	720+30.02	80.41	563.97	564.06
E	720+40.02	80.76	563.68	563.76
F	720+50.01	81.11	563.40	563.46
G	720+60.00	81.47	563.11	563.14
H	720+70.00	81.82	562.82	562.83
⊕ Brg. Pier 1	720+75.97	82.03	562.65	562.65
I	720+85.97	82.38	562.36	562.35
J	720+95.96	82.73	562.08	562.08
K	721+05.95	83.09	561.79	561.79
L	721+15.95	83.44	561.51	561.51
M	721+25.94	83.79	561.23	561.23
N	721+35.93	84.14	560.96	560.96
O	721+45.93	84.50	560.70	560.69
P	721+55.92	84.85	560.43	560.42
⊕ Brg. Pier 2	721+62.38	85.08	560.27	560.27
Q	721+72.37	85.43	560.02	560.04
R	721+82.37	85.78	559.77	559.82
S	721+92.36	86.13	559.53	559.61
T	722+02.35	86.48	559.29	559.39
U	722+12.34	86.84	559.07	559.18
V	722+22.34	87.19	558.84	558.94
W	722+32.33	87.54	558.62	558.69
X	722+42.32	87.89	558.42	558.45
⊕ Brg. E. Abut.	722+48.30	88.11	558.29	558.29
Bk. E. Abut.	722+51.10	88.20	558.24	558.24

- Notes:  
 1. All Elevations and Offsets are in feet.  
 2. Offsets are measured with respect to ⊕ FAI-80.



**BEAM 25**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	719+85.72	83.17	565.16	565.16
⊕ Brg. W. Abut.	719+88.51	83.29	565.08	565.08
A	719+98.50	83.73	564.79	564.84
B	720+08.49	84.18	564.50	564.59
C	720+18.48	84.62	564.21	564.32
D	720+28.47	85.06	563.92	564.04
E	720+38.46	85.50	563.64	563.74
F	720+48.45	85.94	563.35	563.43
G	720+58.44	86.38	563.06	563.10
H	720+68.43	86.83	562.77	562.78
⊕ Brg. Pier 1	720+74.16	87.08	562.60	562.60
I	720+84.15	87.52	562.32	562.32
J	720+94.14	87.96	562.03	562.04
K	721+04.13	88.41	561.73	561.75
L	721+14.12	88.85	561.45	561.47
M	721+24.11	89.29	561.17	561.19
N	721+34.10	89.73	560.90	560.91
O	721+44.09	90.17	560.63	560.63
P	721+54.08	90.61	560.36	560.36
⊕ Brg. Pier 2	721+60.29	90.89	560.20	560.20
Q	721+70.28	91.33	559.95	559.97
R	721+80.27	91.77	559.70	559.76
S	721+90.26	92.22	559.46	559.55
T	722+00.25	92.66	559.22	559.33
U	722+10.24	93.10	558.99	559.11
V	722+20.23	93.54	558.76	558.87
W	722+30.22	93.98	558.55	558.63
X	722+40.21	94.42	558.33	558.36
⊕ Brg. E. Abut.	722+45.94	94.68	558.20	558.20
Bk. E. Abut.	722+48.73	94.80	558.15	558.15

**BEAM 26**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	719+84.20	87.40	565.11	565.11
⊕ Brg. W. Abut.	719+86.98	87.55	565.03	565.03
A	719+96.97	88.08	564.74	564.78
B	720+06.95	88.61	564.45	564.52
C	720+16.94	89.15	564.16	564.25
D	720+26.92	89.68	563.87	563.96
E	720+36.91	90.21	563.58	563.66
F	720+46.89	90.75	563.29	563.35
G	720+56.88	91.28	563.00	563.03
H	720+66.87	91.81	562.71	562.72
⊕ Brg. Pier 1	720+72.35	92.11	562.55	562.55
I	720+82.34	92.64	562.26	562.25
J	720+92.33	93.17	561.97	561.97
K	721+02.31	93.71	561.68	561.68
L	721+12.30	94.24	561.39	561.39
M	721+22.28	94.77	561.11	561.11
N	721+32.27	95.31	560.83	560.83
O	721+42.26	95.84	560.56	560.55
P	721+52.24	96.37	560.29	560.28
⊕ Brg. Pier 2	721+58.21	96.69	560.14	560.14
Q	721+68.19	97.23	559.88	559.90
R	721+78.18	97.76	559.63	559.68
S	721+88.17	98.29	559.39	559.47
T	721+98.15	98.83	559.15	559.25
U	722+08.14	99.36	558.91	559.01
V	722+18.12	99.89	558.68	558.77
W	722+28.11	100.43	558.46	558.52
X	722+38.09	100.96	558.24	558.26
⊕ Brg. E. Abut.	722+43.58	101.25	558.13	558.13
Bk. E. Abut.	722+46.36	101.40	558.06	558.06

- Notes:  
 1. All Elevations and Offsets are in feet.  
 2. Offsets are measured with respect to ⊕ FAI-80.

**NORTH EDGE OF SHLDR.**

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Pav't.	719+86.11	1.50	565.34
A1	719+96.11	1.50	565.06
A2	720+06.11	1.50	564.78
E. End West Appr. Pav't.	720+16.11	1.50	564.50

**CROSS SLOPE BREAK 1**

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Pav't.	719+77.49	25.50	566.06
A1	719+87.49	25.50	565.78
A2	719+97.49	25.50	565.50
E. End West Appr. Pav't.	720+07.49	25.50	565.22

**CROSS SLOPE BREAK 2**

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Pav't.	719+73.18	37.50	566.36
A1	719+83.18	37.50	566.08
A2	719+93.18	37.50	565.80
E. End West Appr. Pav't.	720+03.18	37.50	565.52

**E.B. PGL**

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Pav't.	719+81.80	13.50	565.70
A1	719+91.80	13.50	565.42
A2	720+01.80	13.50	565.14
E. End West Appr. Pav't.	720+11.80	13.50	564.86

**STAGE CONST. JT.**

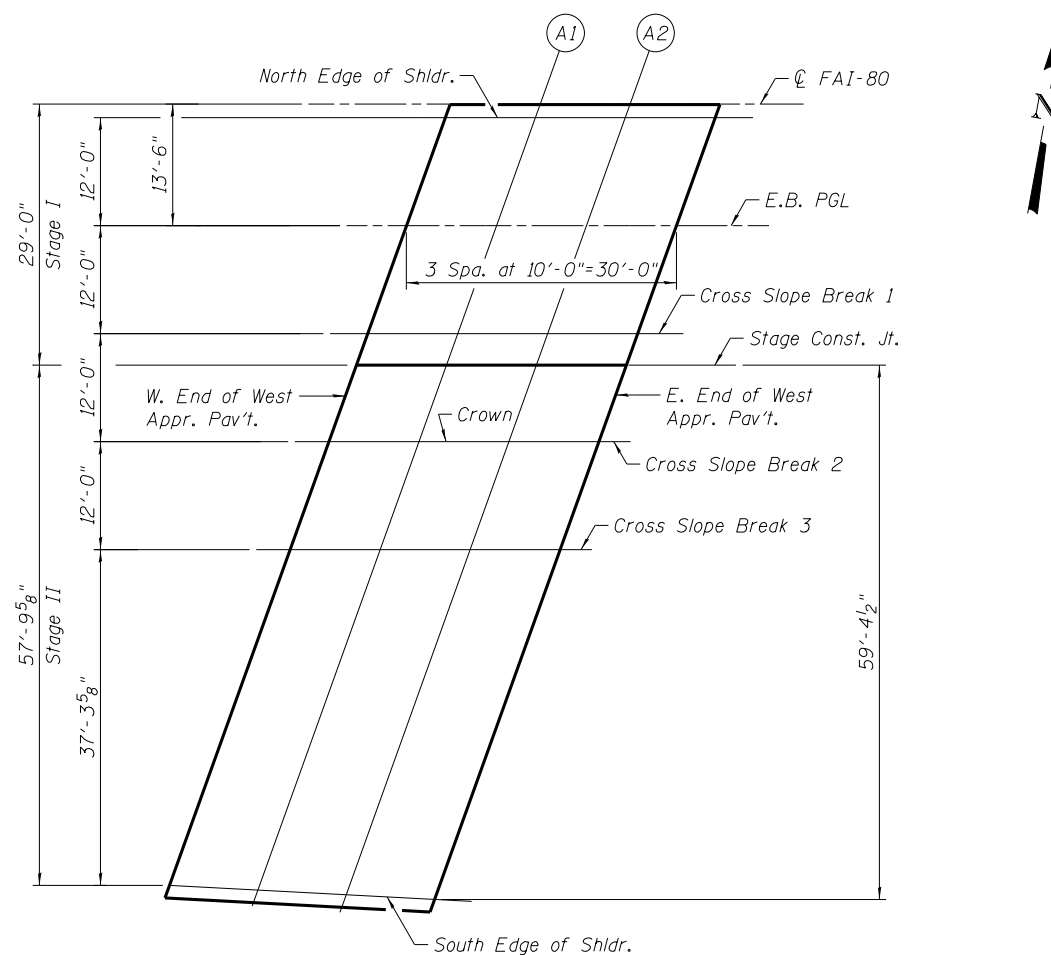
Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Pav't.	719+76.23	29.00	566.15
A1	719+86.23	29.00	565.87
A2	719+96.23	29.00	565.59
E. End West Appr. Pav't.	720+06.23	29.00	565.31

**CROSS SLOPE BREAK 3**

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Pav't.	719+68.87	49.50	566.30
A1	719+78.87	49.50	566.02
A2	719+88.87	49.50	565.74
E. End West Appr. Pav't.	719+98.87	49.50	565.46

**SOUTH EDGE OF SHLDR.**

Location	Station	Offset	Theoretical Grade Elevations
W. End West Appr. Pav't.	719+55.48	86.80	565.93
A1	719+65.29	87.33	565.64
A2	719+75.10	87.85	565.36
E. End West Appr. Pav't.	719+84.92	88.38	565.07



**PLAN**  
West Approach (E.B.)

Notes:  
1. All Elevations and Offsets are in feet.  
2. Offsets are measured with respect to  $\text{CL}$  FAI-80.

**NORTH EDGE OF SHLDR.**

Location	Station	Offset	Theoretical Grade Elevations
W. End East Appr. Pav't.	722+81.17	1.50	557.96
A3	722+91.17	1.50	557.79
A4	723+01.17	1.50	557.62
E. End East Appr. Pav't.	723+11.17	1.50	557.45

**CROSS SLOPE BREAK 1**

Location	Station	Offset	Theoretical Grade Elevations
W. End East Appr. Pav't.	722+72.56	25.50	558.60
A3	722+82.56	25.50	558.42
A4	722+92.56	25.50	558.24
E. End East Appr. Pav't.	723+02.56	25.50	558.07

**CROSS SLOPE BREAK 2**

Location	Station	Offset	Theoretical Grade Elevations
W. End East Appr. Pav't.	722+68.25	37.50	558.86
A3	722+78.25	37.50	558.68
A4	722+88.25	37.50	558.49
E. End East Appr. Pav't.	722+98.25	37.50	558.33

**E.B. PGL**

Location	Station	Offset	Theoretical Grade Elevations
W. End East Appr. Pav't.	722+76.86	13.50	558.28
A3	722+86.86	13.50	558.10
A4	722+96.86	13.50	557.92
E. End East Appr. Pav't.	723+06.86	13.50	557.76

**STAGE CONST. JT.**

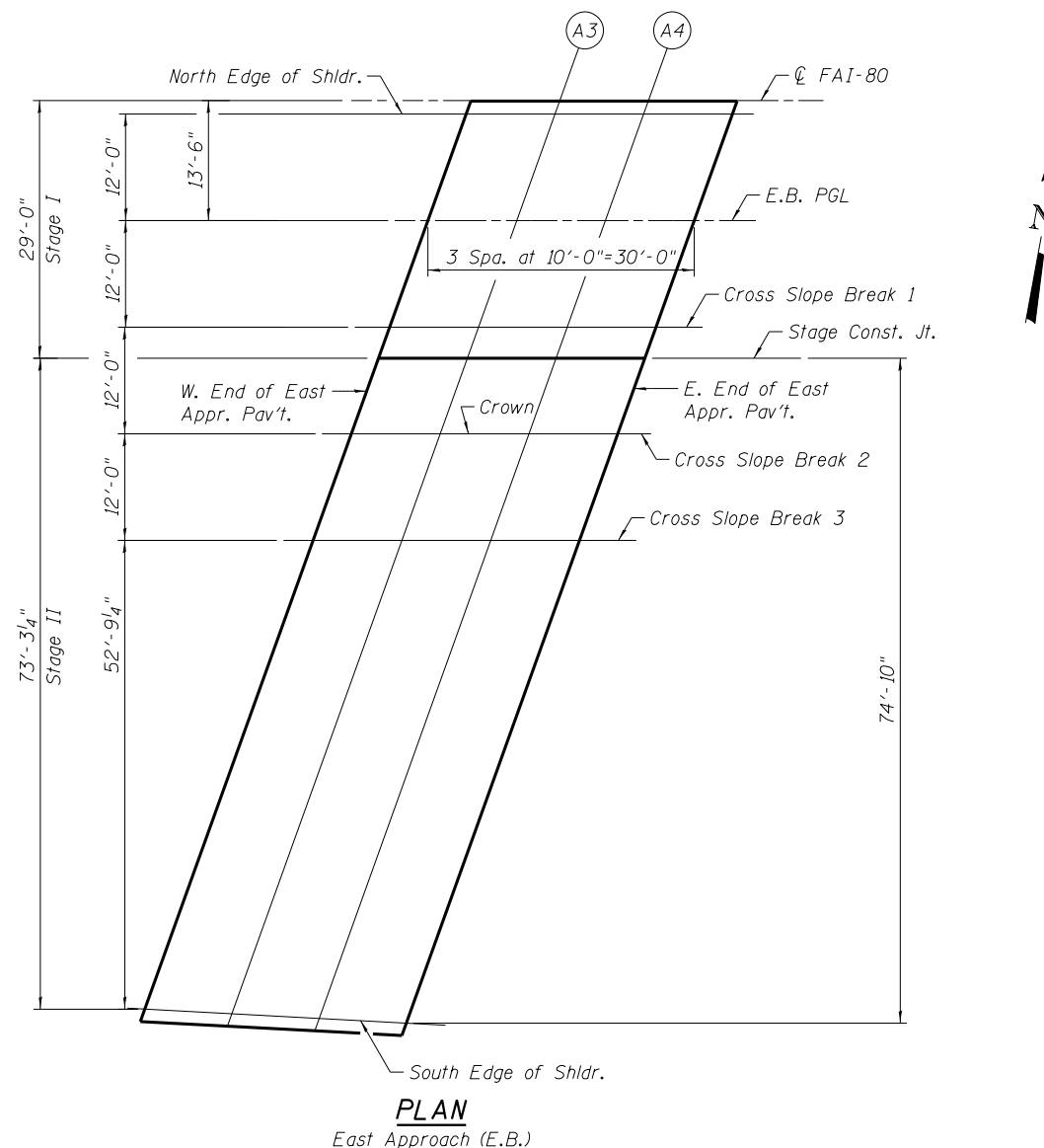
Location	Station	Offset	Theoretical Grade Elevations
W. End East Appr. Pav't.	722+71.30	29.00	558.68
A3	722+81.30	29.00	558.49
A4	722+91.30	29.00	558.32
E. End East Appr. Pav't.	723+01.30	29.00	558.15

**CROSS SLOPE BREAK 3**

Location	Station	Offset	Theoretical Grade Elevations
W. End East Appr. Pav't.	722+63.94	49.50	558.76
A3	722+73.94	49.50	558.57
A4	722+83.94	49.50	558.39
E. End East Appr. Pav't.	722+93.94	49.50	558.22

**SOUTH EDGE OF SHLDR.**

Location	Station	Offset	Theoretical Grade Elevations
W. End East Appr. Pav't.	722+44.99	102.27	558.07
A3	722+54.81	102.79	557.87
A4	722+64.62	103.31	557.67
E. End East Appr. Pav't.	722+74.43	103.84	557.48



- Notes:  
 1. All Elevations and Offsets are in feet.  
 2. Offsets are measured with respect to  $\text{CL}$  FAI-80.



USER NAME = eabutherah	DESIGNED - JLF	REVISED
	CHECKED - ACF/PAB	REVISED
	DRAWN - LK	REVISED
PLOT DATE = 6/25/2020	CHECKED - MMK/PAB	REVISED

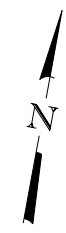
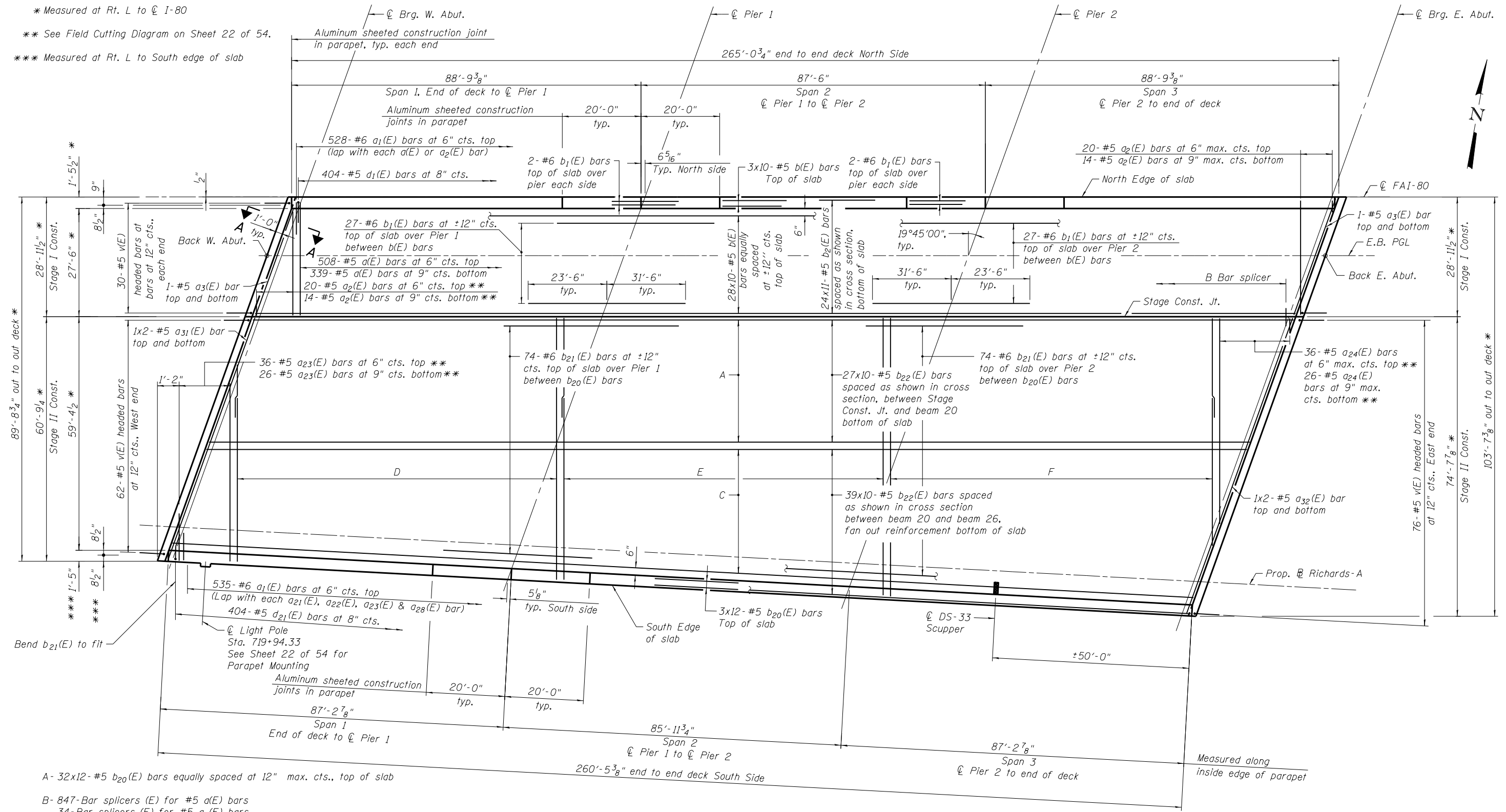
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TOP OF EAST APPROACH SLAB ELEVATIONS  
STRUCTURE NO. 099-0062

SHEET NO. 16 OF 54 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	251
CONTRACT NO. 60W34				
ILLINOIS FED. AID PROJECT				

\* Measured at Rt. L to  $\text{CL}$  I-80  
 \*\* See Field Cutting Diagram on Sheet 22 of 54.  
 \*\*\* Measured at Rt. L to South edge of slab



**PLAN**

**MINIMUM BAR LAP**  
 #5 bars = 3'-6"

- Notes:
1. For superstructure details and Bill of Material, see Sheet 22 of 54.
  2. Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.
  3. For parapet reinforcement, see Sheet 18 thru 22 of 54.
  4. For deck cross section, see Sheet 18 & 19 of 54.
  5. For Section A-A, see Sheet 27 of 54.
  6. For Bar Splicer details, see Sheet 50 of 54.

- A- 32x12-#5  $b_{20}(E)$  bars equally spaced at 12" max. cts., top of slab
- B- 847-Bar splicers (E) for #5  $a_1(E)$  bars  
34-Bar splicers (E) for #5  $a_2(E)$  bars
- C- 43x12-#5  $b_{20}(E)$  bars at 12" max. cts. top of slab. Fan out reinforcement to accommodate skew of the deck.
- D- 166-sets of #5  $a_{20}(E)$  lapped with #5  $a_{21}(E)$  at 6" max. cts. top  
111-sets of #5  $a_{25}(E)$  lapped with #5  $a_{29}(E)$  at 9" max. cts. bottom
- E- 166-sets of #5  $a_{20}(E)$  lapped with #5  $a_{22}(E)$  at 6" max. cts. top  
111-sets of #5  $a_{25}(E)$  lapped with #5  $a_{26}(E)$  at 9" max. cts. bottom
- F- 167-sets of #5  $a_{20}(E)$  lapped with #5  $a_{28}(E)$  at 6" max. cts. top  
111-sets of #5  $a_{25}(E)$  lapped with #5  $a_{27}(E)$  at 9" max. cts. bottom



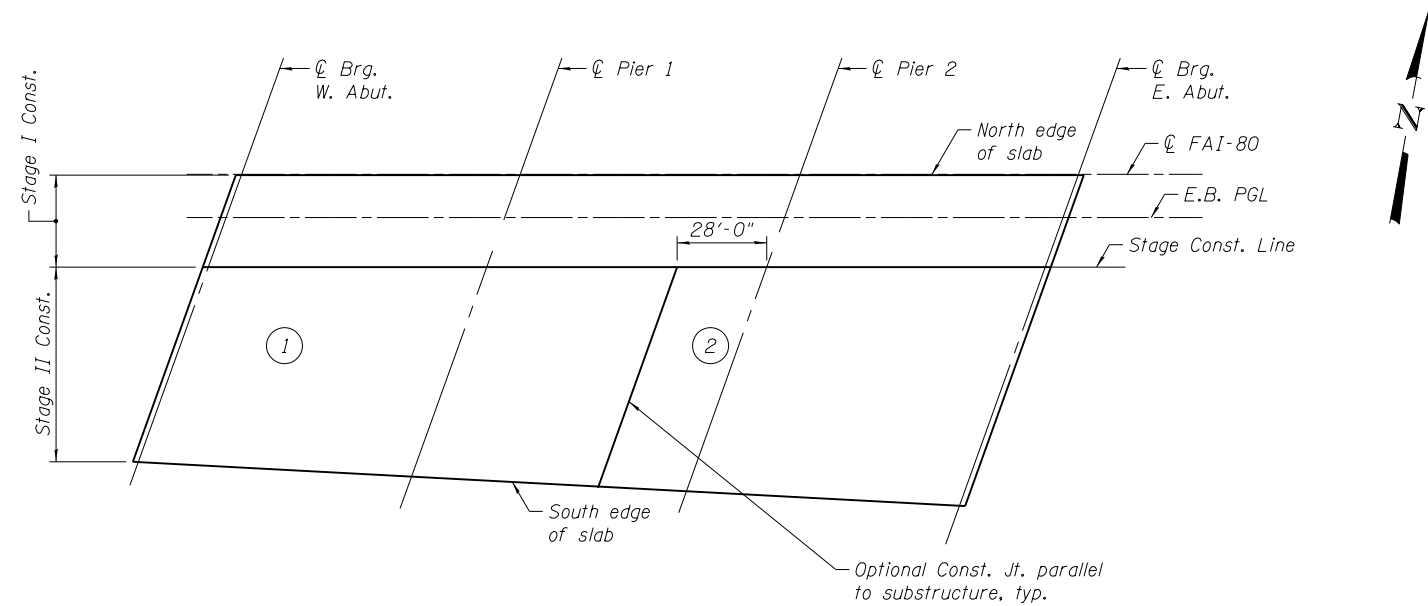
USER NAME = eabueherah	DESIGNED - MRI/MMK/PAB	REVISED
	CHECKED - ACF/TAT	REVISED
	DRAWN - LK	REVISED
PLOT DATE = 6/25/2020	CHECKED - ACF/TAT	REVISED

**STATE OF ILLINOIS  
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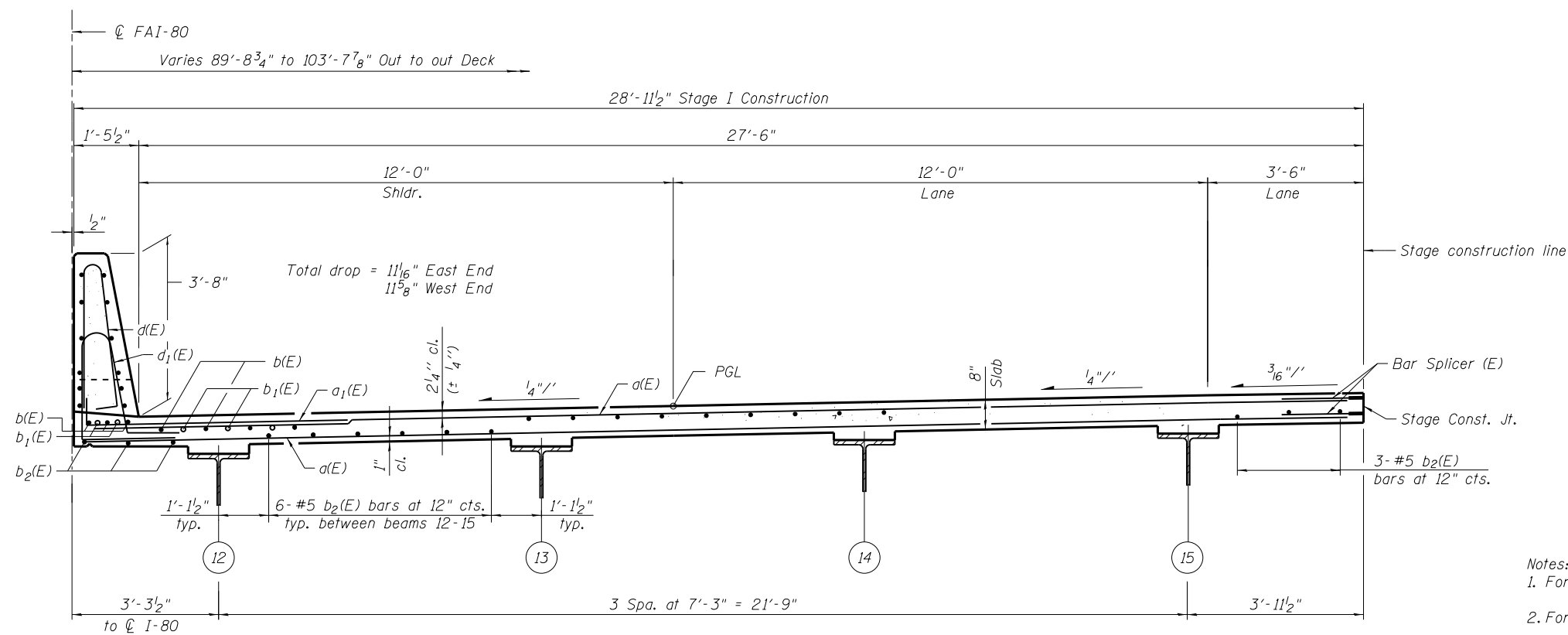
**DECK PLAN  
 STRUCTURE NO. 099-0062**

SHEET NO. 17 OF 54 SHEETS

F.A.I. RTE. 80	SECTION 2013-008B	COUNTY WILL	TOTAL SHEETS 511	SHEET NO. 252
CONTRACT NO. 60W34			ILLINOIS FED. AID PROJECT	



**DECK POUR SEQUENCE - STAGE II**



**NEAR PIER  
CROSS SECTION - STAGE I CONSTRUCTION**  
(Looking East)

**Notes:**

1. For notes, see Sheet 17 of 54.
2. For Parapet details, see Sheet 21 of 54.
3. For scupper details, see Sheet 31 of 54.
4. When the deck pour is stopped for the day at one or more transverse bonded construction joints in the deck pouring sequence as shown, the next pour shall be made until both of the following are met:  
At least 72 hours shall have elapsed from the end of the previous pour.  
The concrete strength shall have attained a minimum flexural strength of 675 psi or a minimum compressive strength of 4000 psi.



USER NAME = eabueherah	DESIGNED - MRI/MMK/PAB	REVISED
	CHECKED - ACF	REVISED
	DRAWN - LK	REVISED
PLOT DATE = 6/25/2020	CHECKED - ACF/TAT	REVISED

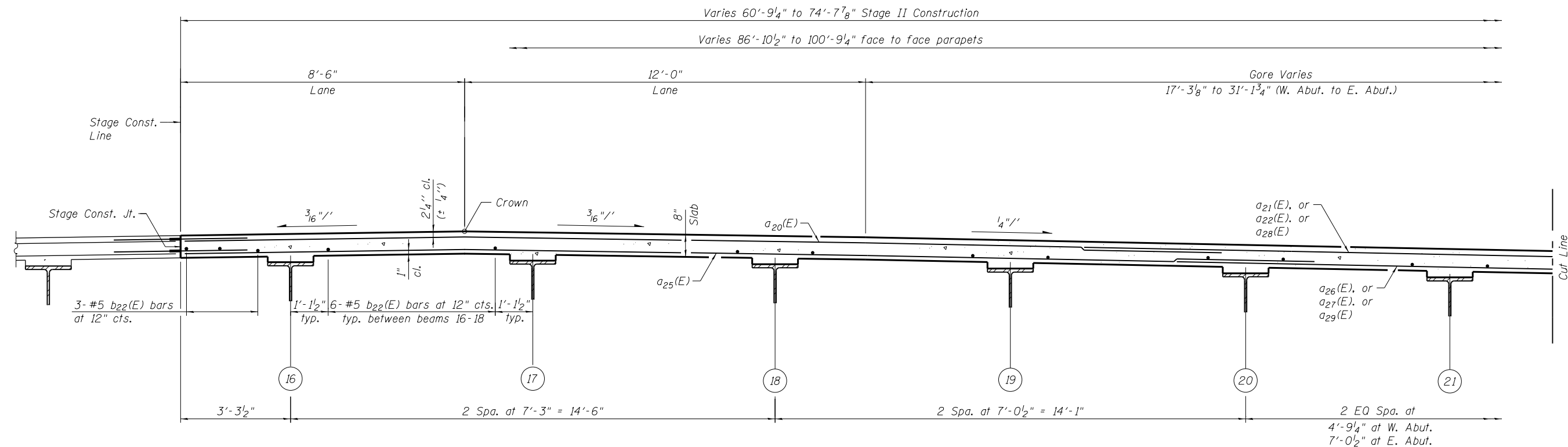
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**DECK SECTIONS - 1  
STRUCTURE NO. 099-0062**

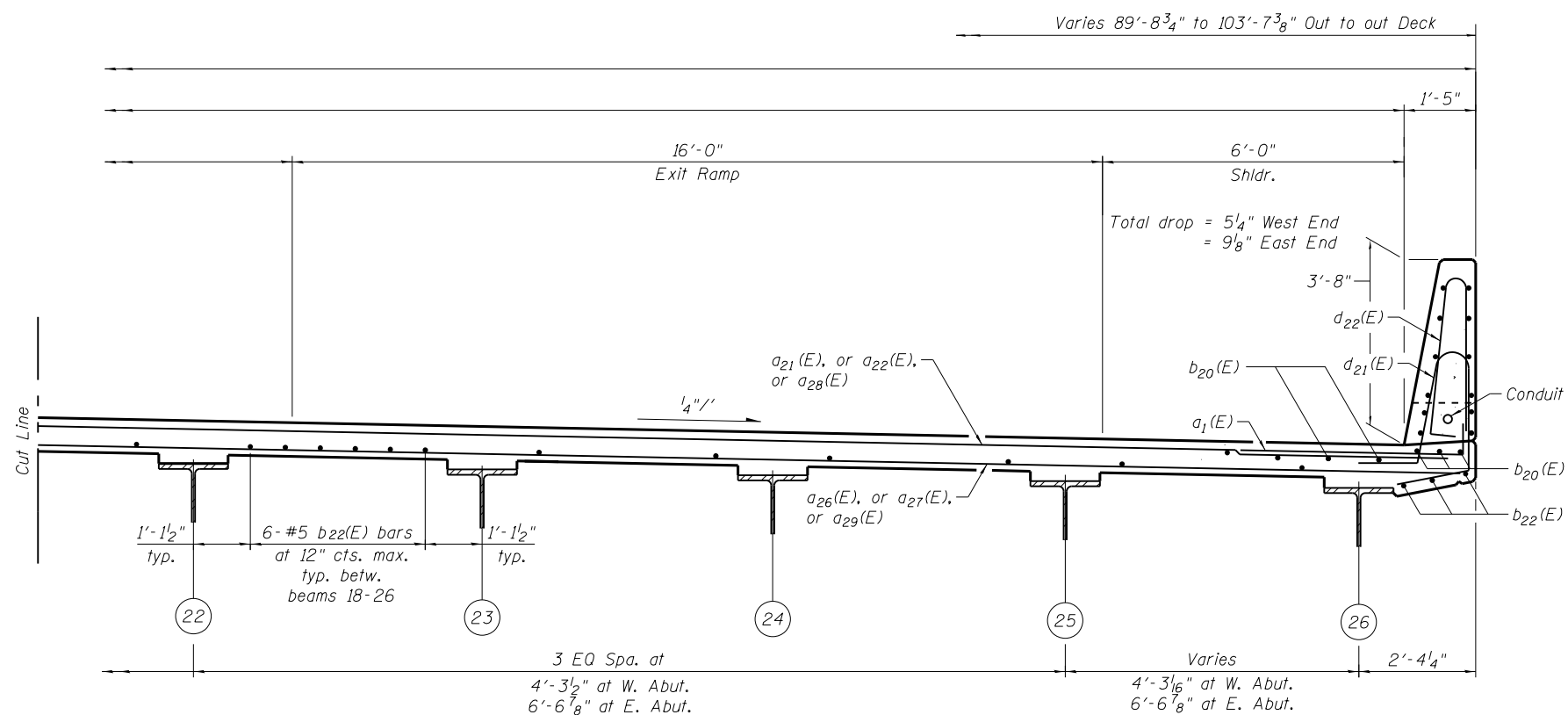
SHEET NO. 18 OF 54 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	253
<b>CONTRACT NO. 60W34</b>				

ILLINOIS FED. AID PROJECT



**CROSS SECTION - STAGE II CONSTRUCTION**  
(Looking East)



**CROSS SECTION - STAGE II CONSTRUCTION**  
(Looking East)

NEAR MIDSPAN

- Notes:
1. For notes, see Sheet 17 of 54.
  2. For Parapet details, see Sheet 21 of 54.
  3. For scupper details, see Sheet 31 of 54.



USER NAME = eabueherah	DESIGNED - MRI/MMK/PAB	REVISED
	CHECKED - ACF	REVISED
	DRAWN - LK	REVISED
PLOT DATE = 6/25/2020	CHECKED - ACF/TAT	REVISED

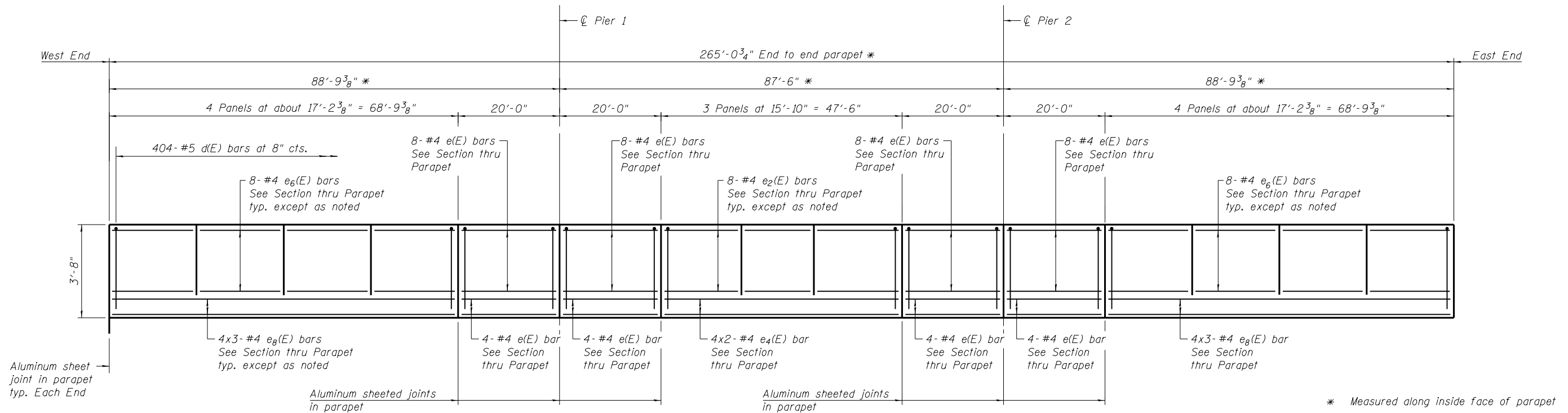
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DECK SECTIONS - 2  
STRUCTURE NO. 099-0062

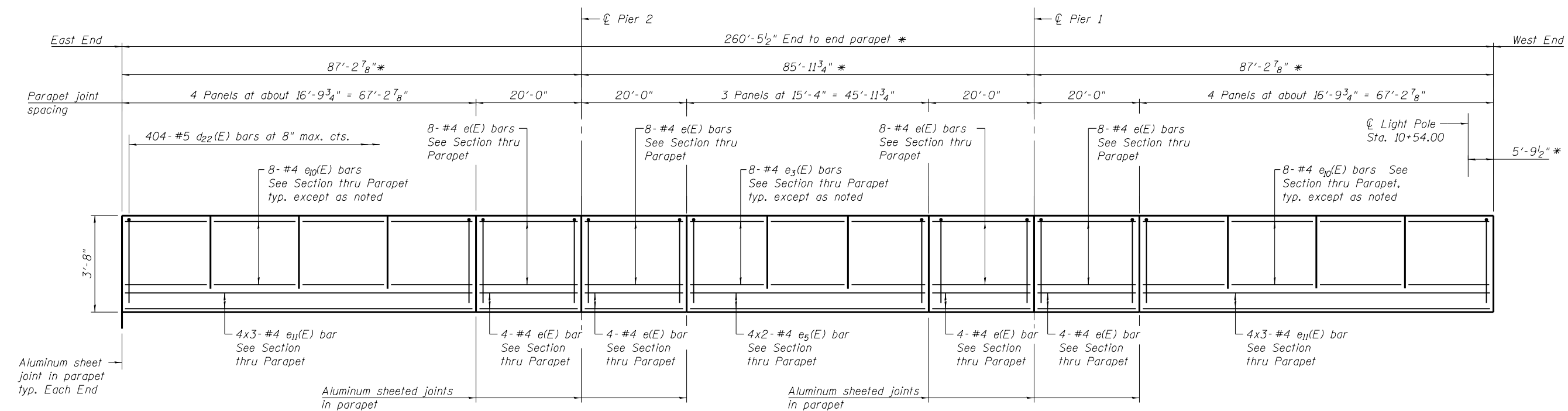
SHEET NO. 19 OF 54 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	254
CONTRACT NO. 60W34				

ILLINOIS FED. AID PROJECT



**INSIDE ELEVATION OF NORTH PARAPET**



**INSIDE ELEVATION OF SOUTH PARAPET**

**MINIMUM BAR LAP**  
(Parapet)

#4 bar = 2'-8"

Notes:  
1. Bars indicated thus "4x3- #4 etc." indicates 4 lines of bars with 3 lengths per line.



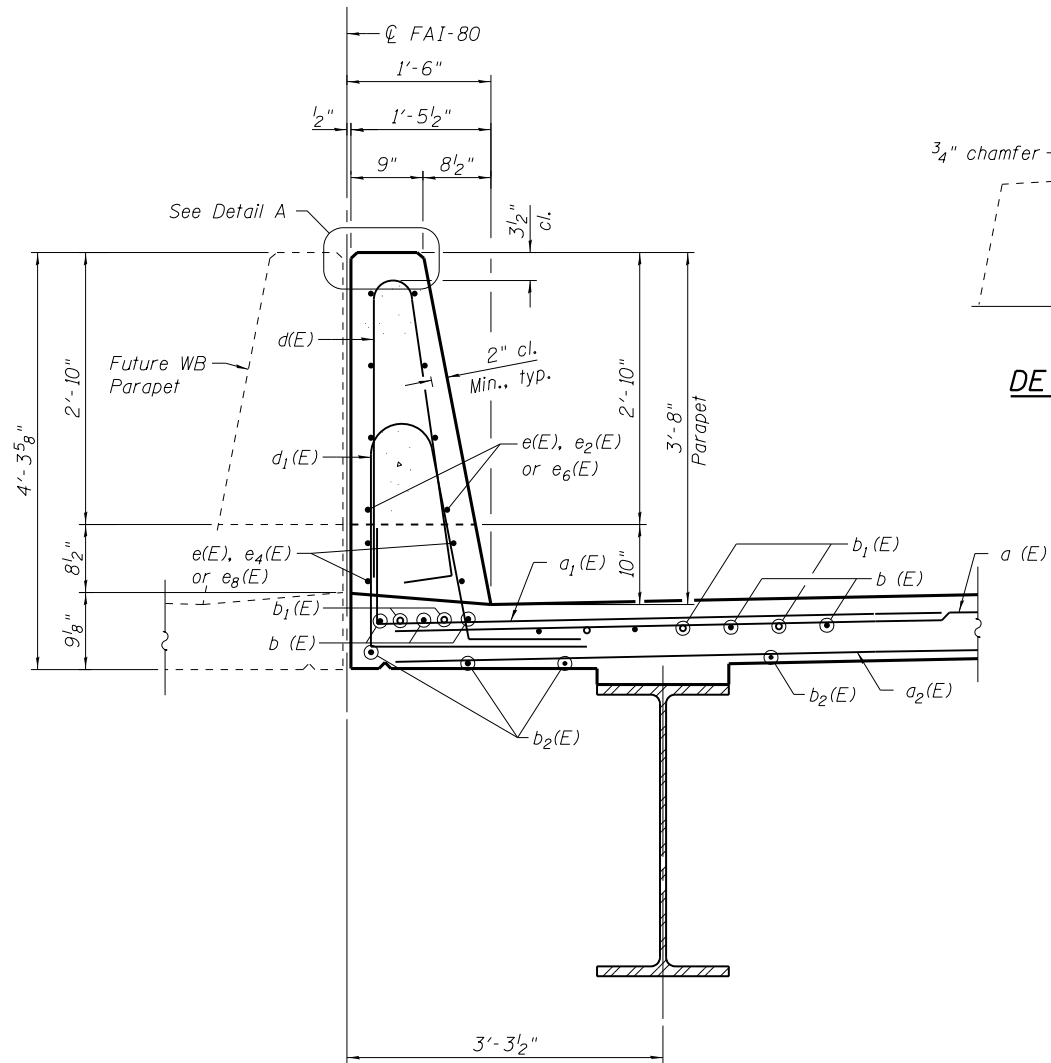
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	CHECKED - ACF	REVISED
	DRAWN - LK	REVISED
PLOT DATE = 6/25/2020	CHECKED - ACF/TAT	REVISED

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

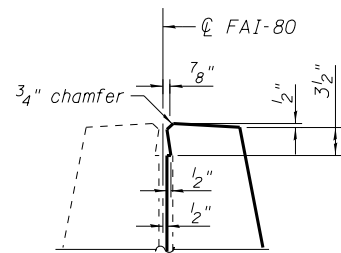
PARAPET ELEVATIONS  
STRUCTURE NO. 099-0062

SHEET NO. 20 OF 54 SHEETS

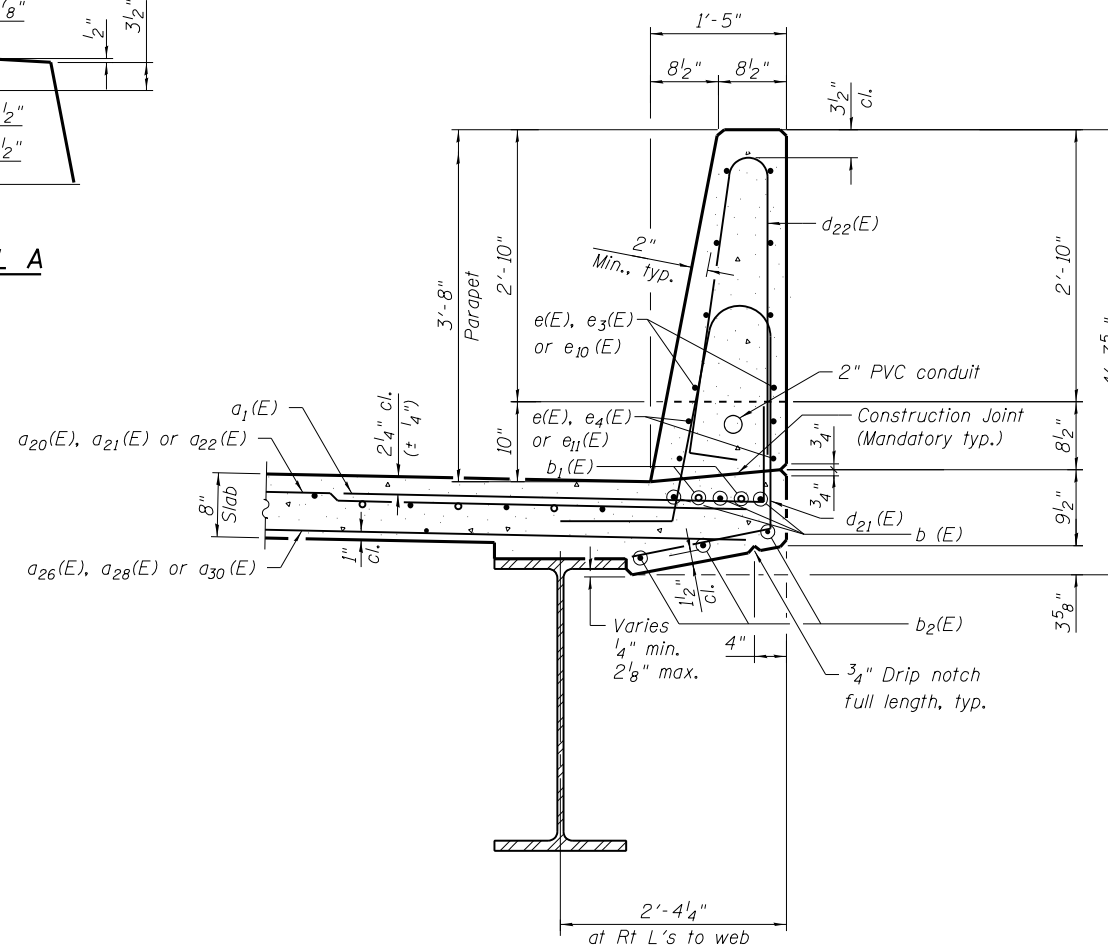
F.A.I. RTE. 80	SECTION 2013-008B	COUNTY WILL	TOTAL SHEETS 511	SHEET NO. 255
			CONTRACT NO. 60W34	
ILLINOIS FED. AID PROJECT				



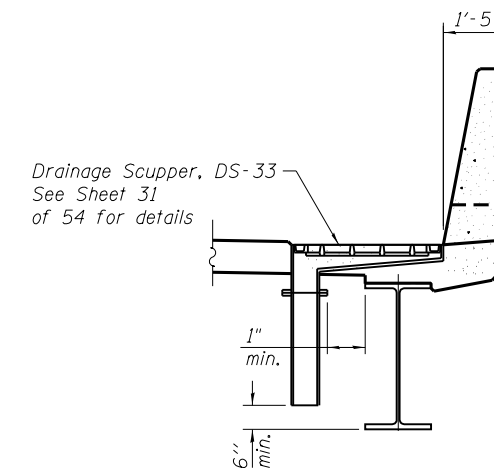
**SECTION THRU PARAPET**  
North Parapet



**DETAIL A**



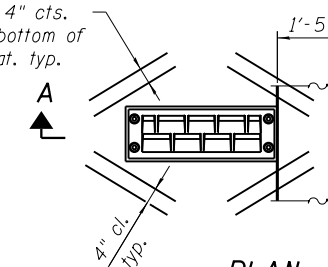
**SECTION THRU PARAPET**  
South Parapet



Drainage Scupper, DS-33  
See Sheet 31  
of 54 for details

**SECTION A-A**

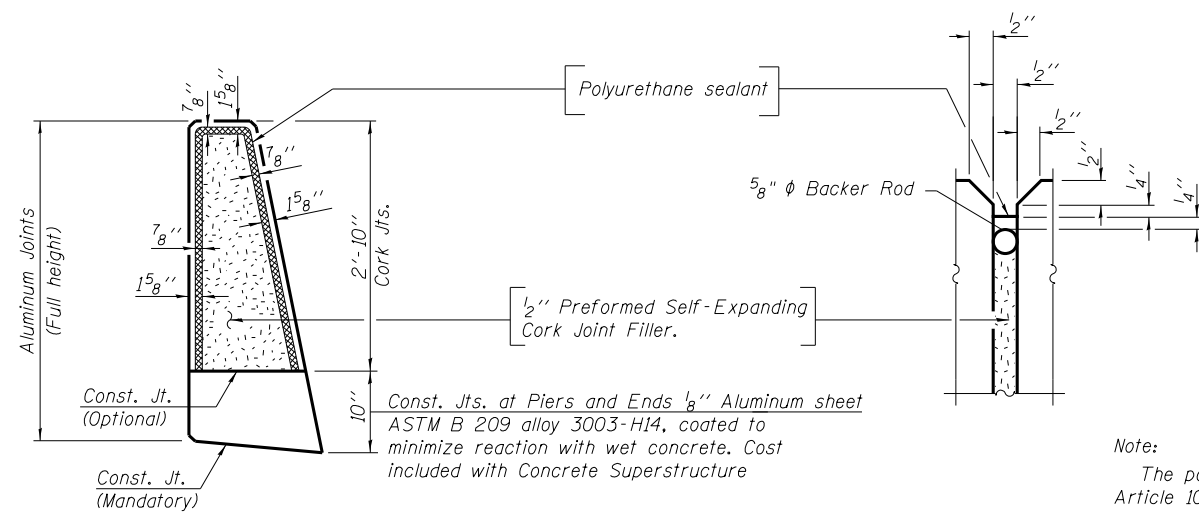
2-#5 a4(E) bars at 4" cts.  
(2'-0" long) tied to bottom of  
top reinforcement mat. typ.



**PLAN**

Note:  
Cut longitudinal reinforcement to  
clear drainage scuppers.

**DETAIL AT SCUPPER**



**PARAPET JOINT DETAILS**

Note:  
The polyurethane sealant shall be according to  
Article 1050.04 of the Standard Specifications  
and the color shall be gray.



USER NAME = eabuerah	DESIGNED - MRI/MMK/PAB	REVISED
	CHECKED - ACF	REVISED
	DRAWN - LK	REVISED
PLOT DATE = 6/25/2020	CHECKED - ACF/TAT	REVISED

STATE OF ILLINOIS  
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DECK DETAILS  
STRUCTURE NO. 099-0062

SHEET NO. 21 OF 54 SHEETS

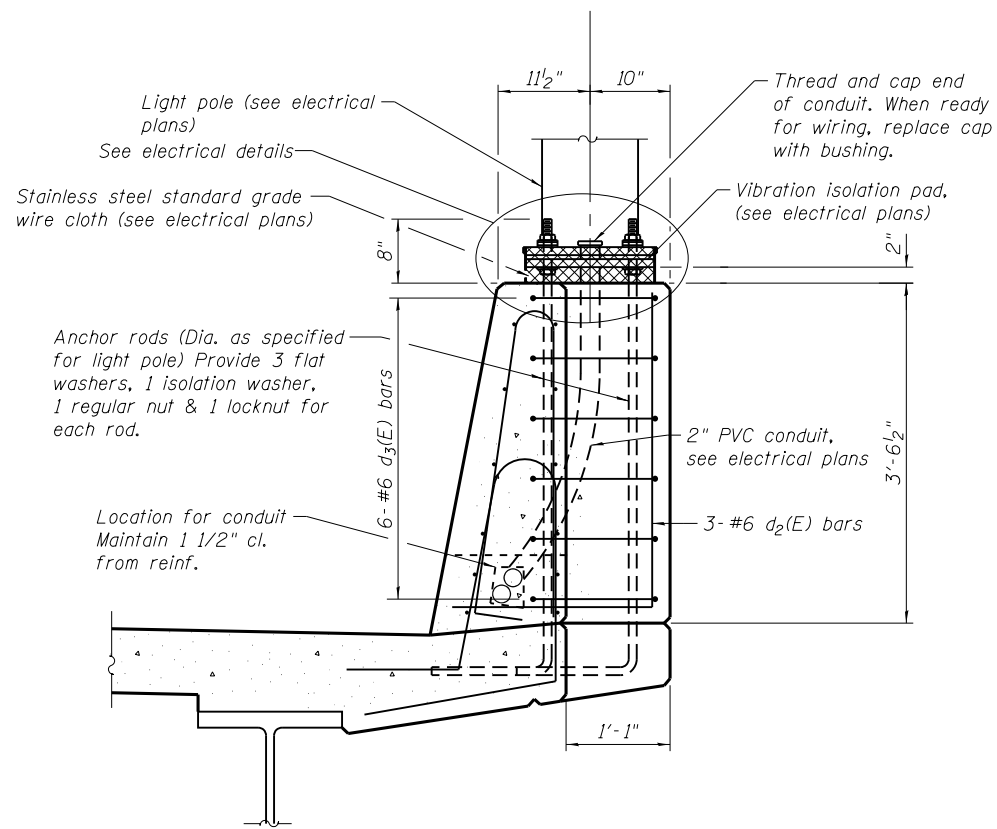
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	256
CONTRACT NO. 60W34				

ILLINOIS FED. AID PROJECT

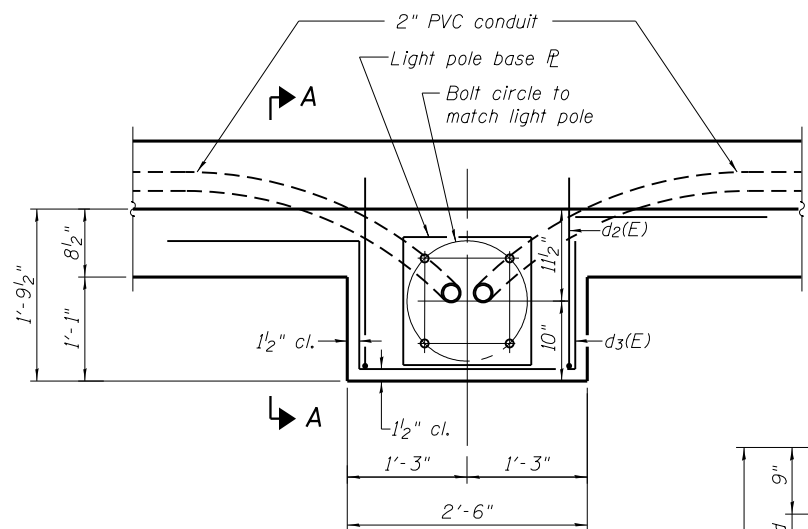


**SUPERSTRUCTURE  
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a(E)	847	#5	28'-8"	—
a1(E)	1063	#6	8'-4"	—
a2(E)	34	#5	31'-8"	—
a3(E)	4	#5	30'-5"	—
a4(E)	8	#5	2'-0"	—
a20(E)	499	#5	30'-0"	—
a21(E)	166	#5	39'-5"	—
a22(E)	166	#5	43'-11"	—
a23(E)	31	#5	55'-0"	—
a24(E)	31	#5	55'-0"	—
a25(E)	333	#5	33'-6"	—
a26(E)	111	#5	40'-4"	—
a27(E)	111	#5	44'-5"	—
a28(E)	167	#5	47'-11"	—
a29(E)	111	#5	35'-11"	—
a31(E)	4	#5	33'-11"	—
a32(E)	4	#5	41'-4"	—
b(E)	310	#5	29'-8"	—
b1(E)	62	#6	55'-0"	—
b2(E)	264	#5	27'-3"	—
b20(E)	936	#5	25'-4"	—
b21(E)	148	#6	55'-0"	—
b22(E)	660	#5	29'-8"	—
d(E)	404	#5	6'-11"	—
d1(E)	404	#5	8'-5"	—
d2(E)	3	#6	5'-3"	—
d3(E)	6	#6	8'-11"	—
d21(E)	404	#5	8'-4"	—
d22(E)	404	#5	6'-11"	—
e(E)	96	#4	19'-8"	—
e2(E)	24	#4	15'-6"	—
e3(E)	24	#4	14'-11"	—
e4(E)	8	#4	25'-0"	—
e5(E)	8	#4	24'-2"	—
e6(E)	64	#4	16'-10"	—
e8(E)	24	#4	24'-11"	—
e10(E)	64	#4	16'-5"	—
e11(E)	24	#4	24'-2"	—
m(E)	10	#6	30'-5"	—
m1(E)	10	#6	34'-3"	—
m2(E)	36	#6	7'-4"	—
m3(E)	12	#6	7'-7"	—
m4(E)	4	#4	30'-5"	—
m5(E)	18	#6	7'-1"	—
m6(E)	6	#6	4'-8"	—
m7(E)	12	#6	4'-2"	—
m8(E)	12	#6	6'-7"	—
m10(E)	15	#6	29'-0"	—
m11(E)	4	#4	33'-7"	—
m12(E)	6	#4	28'-2"	—
m13(E)	36	#6	7'-4"	—
m14(E)	12	#6	3'-2"	—
m15(E)	18	#6	7'-1"	—
m16(E)	6	#6	4'-8"	—
m17(E)	12	#6	4'-2"	—
m18(E)	12	#6	6'-7"	—
s(E)	162	#5	6'-7"	—
s1(E)	162	#5	10'-1"	—
u(E)	162	#4	4'-8"	—
v(E)	198	#5	3'-1"	—
Reinforcement Bars, Epoxy Coated	Pound	211,850		
Concrete Superstructure	Cu Yd	824.3		

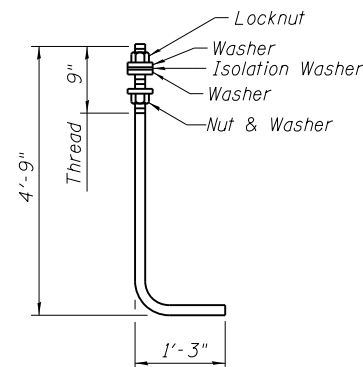


**SECTION A-A**



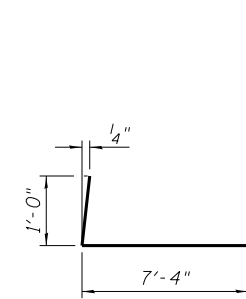
**PLAN**

Note:  
Cost of anchor rods is included with Concrete Superstructure.

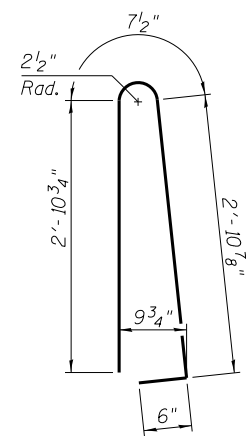


**ANCHOR ROD**

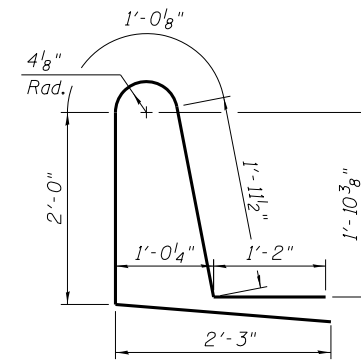
Diameter as specified for light poles.  
(ASTM F 1554 Grade 105)  
Full length hot dipped galvanized



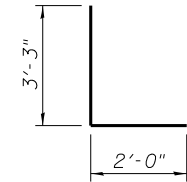
**BAR a1(E)**



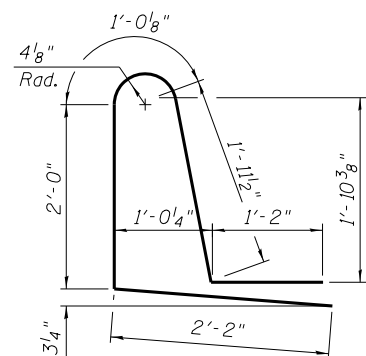
**BAR d(E)**



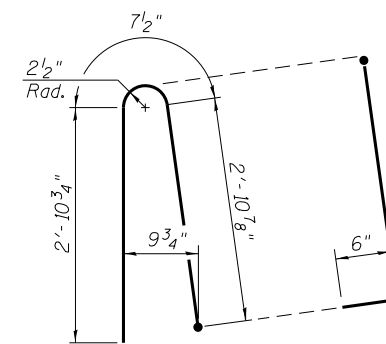
**BAR d1(E)**



**BAR d2(E)**

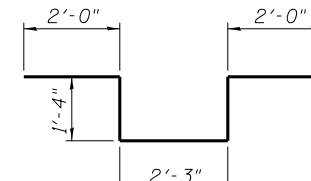


**BAR d21(E)**

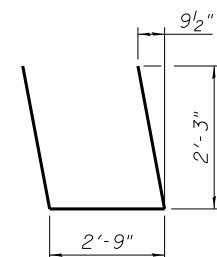


**BAR d22(E)**

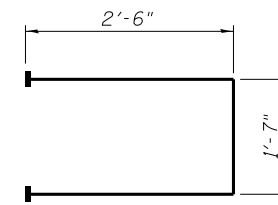
(South Parapet)



**BAR d3(E)**

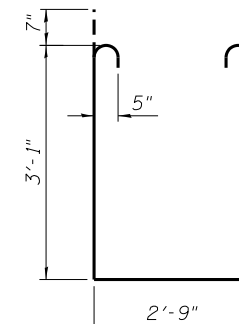


**BAR m3(E)**

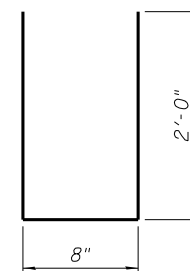


**BAR s(E)**

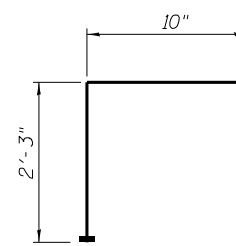
(Headed)



**BAR s1(E)**

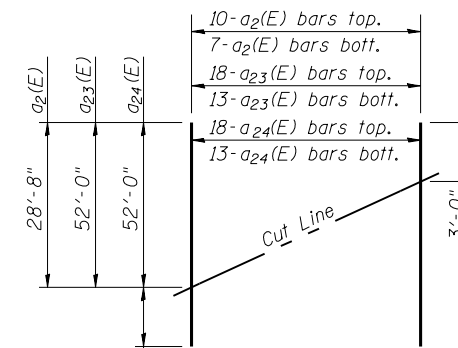


**BAR u(E)**



**BAR v(E)**

(Headed)



**FIELD CUTTING DIAGRAM**



USER NAME = eabueherah	DESIGNED - MRI/MMK/PAB	REVISED
	CHECKED - ACF	REVISED
	DRAWN - LK	REVISED
PLOT DATE = 6/25/2020	CHECKED - ACF/TAT	REVISED

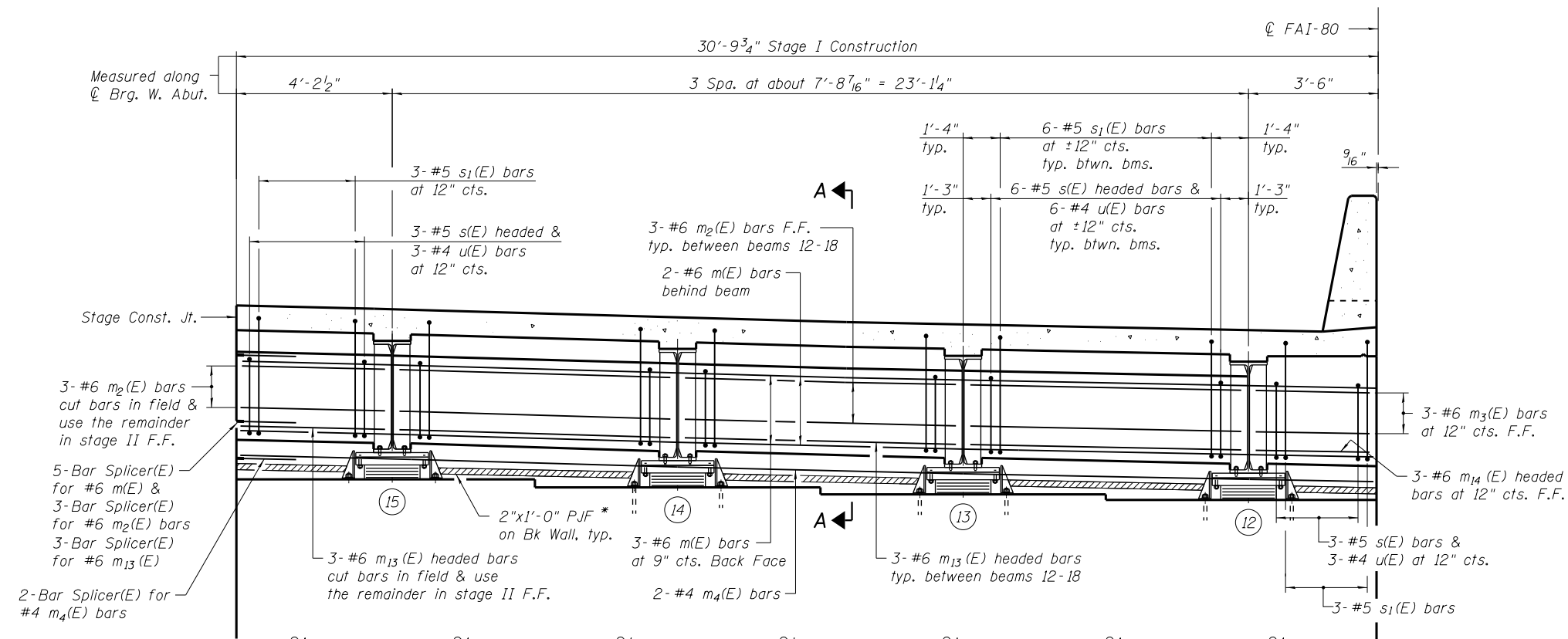
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SUPERSTRUCTURE DETAILS  
STRUCTURE NO. 099-0062**

SHEET NO. 22 OF 54 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	257
				CONTRACT NO. 60W34

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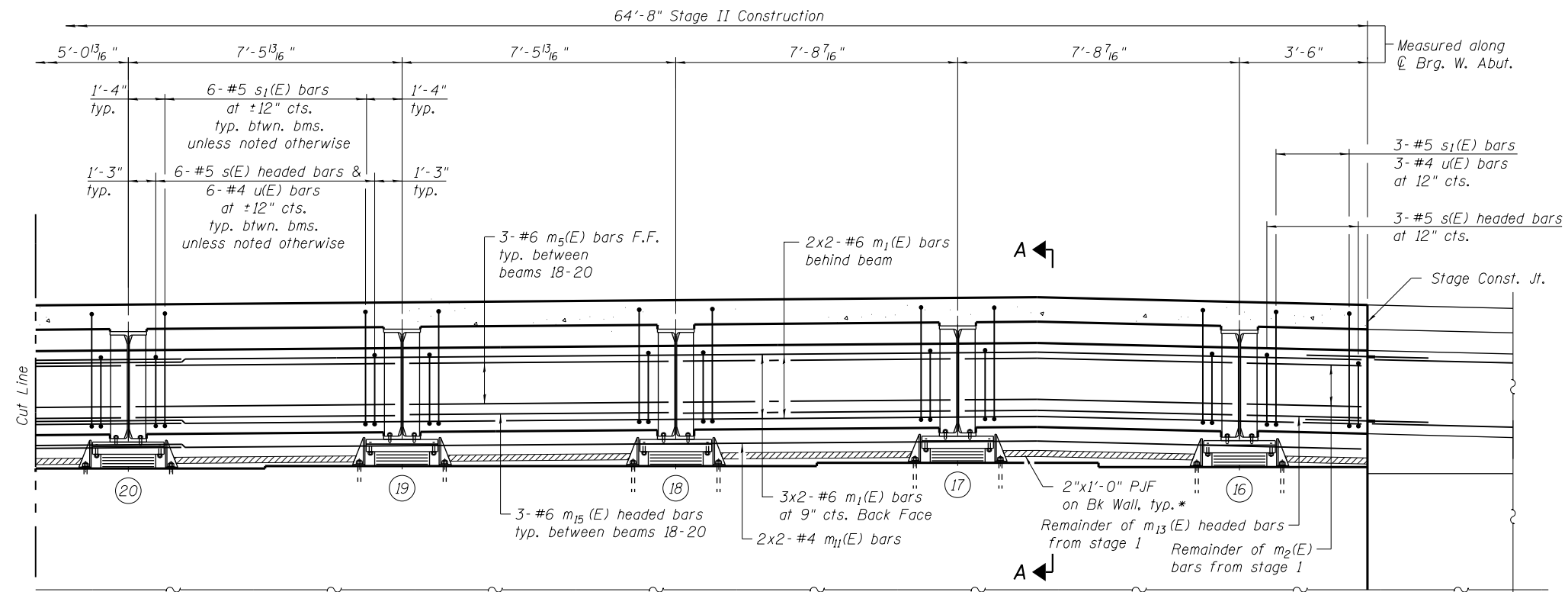
**CONCRETE DIAPHRAGM ELEVATION AT WEST ABUTMENT - STAGE I CONSTRUCTION**

**MIN. BAR LAP**

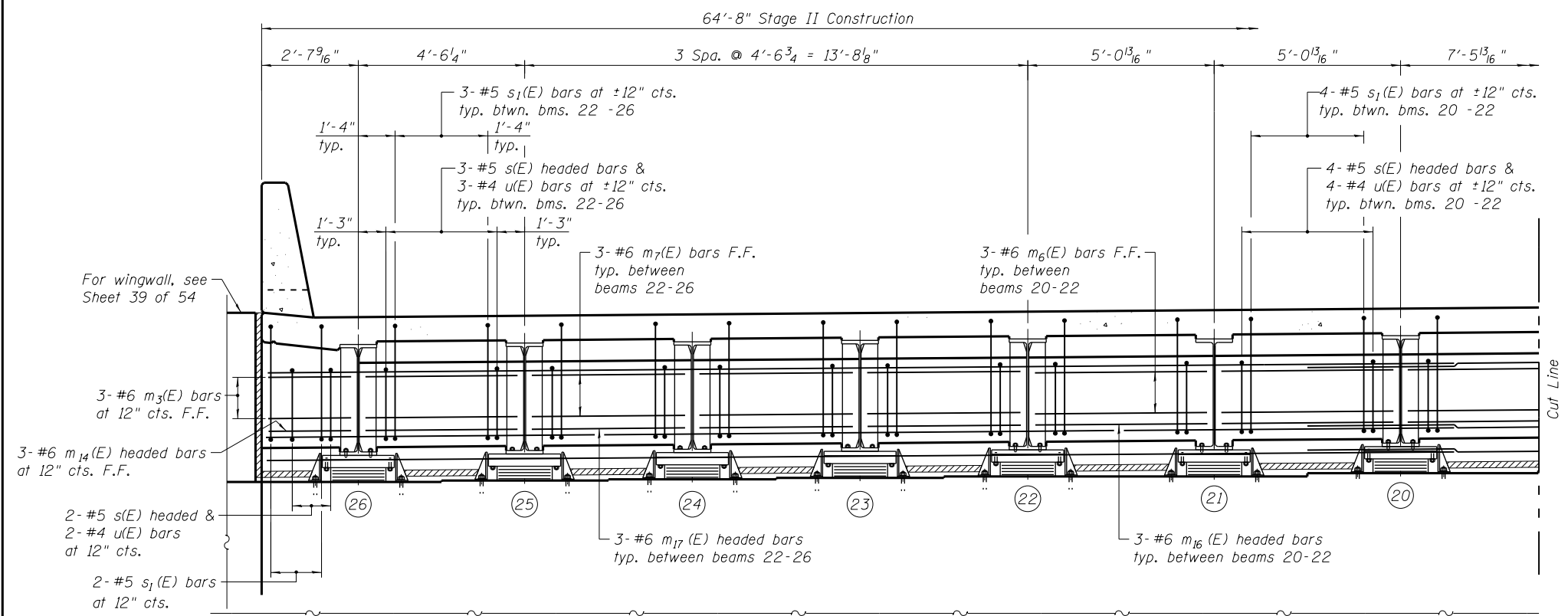
#4 bar = 2'-8"  
 #6 bar = 4'-0"

- Notes:  
 1. For notes see Sheet 27 of 54.  
 2. For Section A-A see Sheet 27 of 54.

	USER NAME = eabueherah	DESIGNED - MRI/PAB	REVISED	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>WEST ABUTMENT DIAPHRAGM DETAILS - 1</b> <b>STRUCTURE NO. 099-0062</b>	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		CHECKED - ACF	REVISED			80	2013-008B	WILL	511	258
	PLOT DATE = 6/25/2020	CHECKED - ACF/TAT	REVISED			CONTRACT NO. 60W34				
SHEET NO. 23 OF 54 SHEETS					ILLINOIS FED. AID PROJECT					



**CONCRETE DIAPHRAGM ELEVATION AT WEST ABUTMENT - STAGE II CONSTRUCTION**



**CONCRETE DIAPHRAGM ELEVATION AT WEST ABUTMENT - STAGE II CONSTRUCTION**

**MIN. BAR LAP**  
 #4 bar = 2'-8"  
 #6 bar = 4'-0"

- Notes:
- For notes see Sheet 27 of 54.
  - For Section A-A see Sheet 27 of 54.
  - Bars indicated thus 5 x 2-#6 etc. indicates 5 lines of bars with 2 lengths per line.



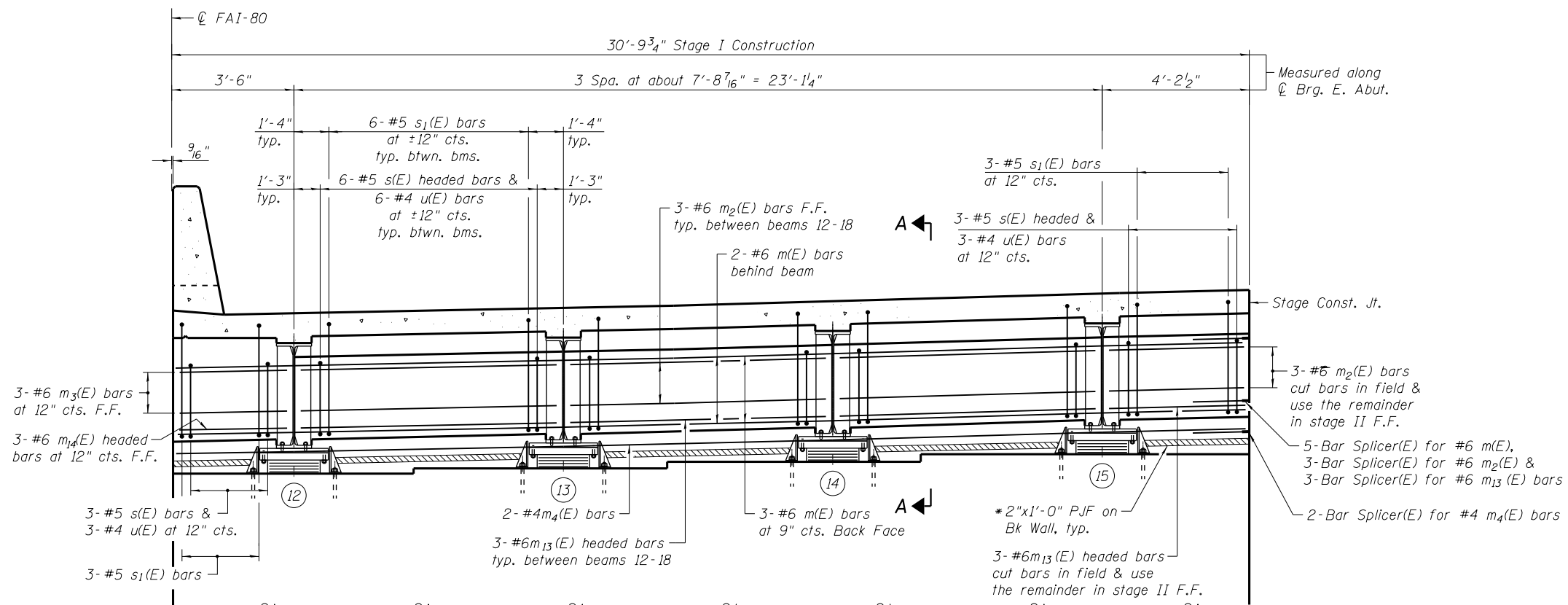
USER NAME = eabueherah	DESIGNED - MRI/PAB	REVISED
	CHECKED - ACF	REVISED
	DRAWN - LK	REVISED
PLOT DATE = 6/25/2020	CHECKED - ACF/TAT	REVISED

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**WEST ABUTMENT DIAPHRAGM DETAILS - 2  
 STRUCTURE NO. 099-0062**

SHEET NO. 24 OF 54 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	259
CONTRACT NO. 60W34				
ILLINOIS FED. AID PROJECT				



**CONCRETE DIAPHRAGM ELEVATION AT EAST ABUTMENT - STAGE I CONSTRUCTION**

**MIN. BAR LAP**

#4 bar = 2'-8"  
 #6 bar = 4'-0"

**Notes:**

1. For notes see Sheet 27 of 54.
2. For Section A-A, see Sheet 27 of 54.



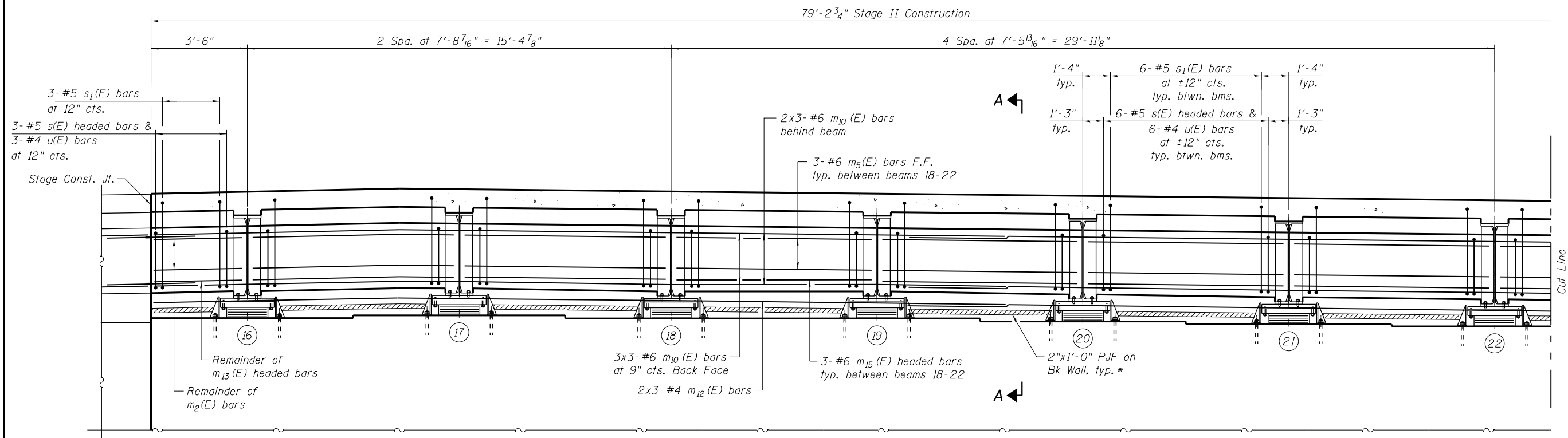
USER NAME = eabutherah	DESIGNED - MRI/PAB	REVISED
	CHECKED - ACF	REVISED
	DRAWN - LK	REVISED
PLOT DATE = 6/25/2020	CHECKED - ACF/TAT	REVISED

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

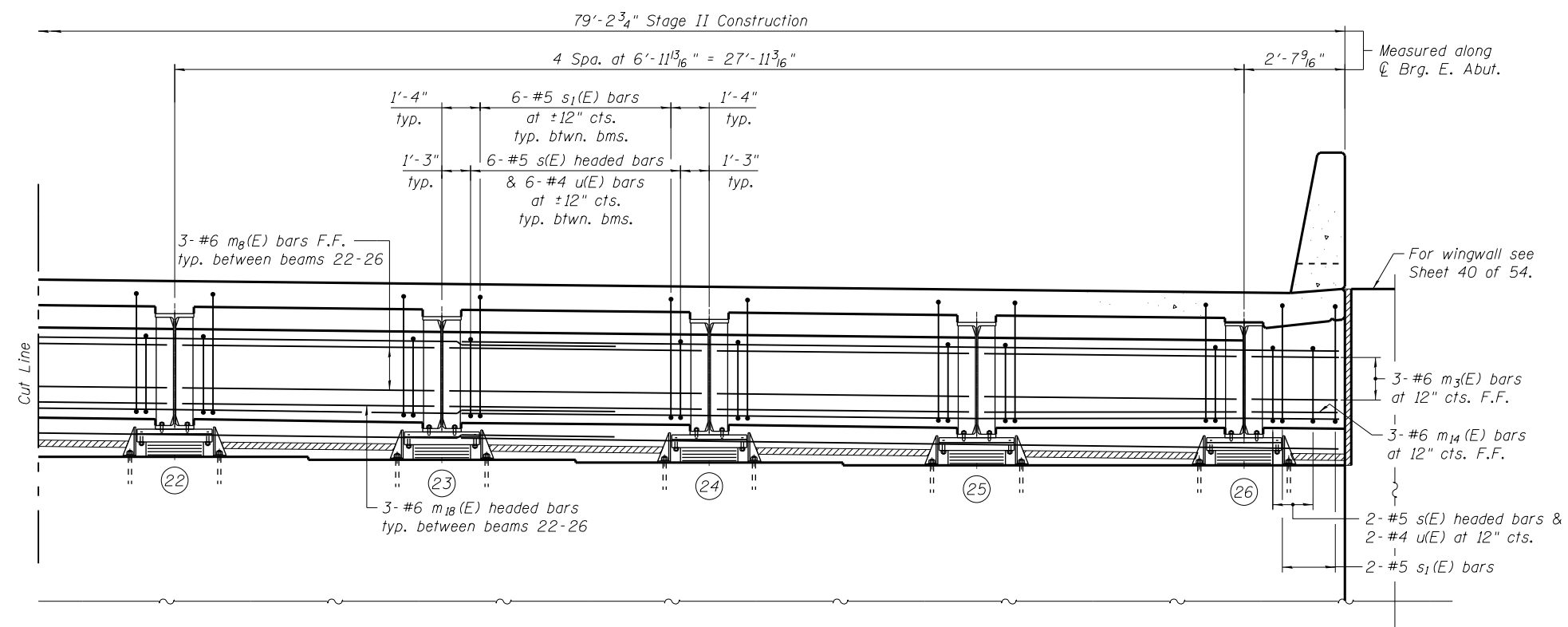
**EAST ABUTMENT DIAPHRAGM DETAILS - 1  
 STRUCTURE NO. 099-0062**

SHEET NO. 25 OF 54 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	260
CONTRACT NO. 60W34				
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CONCRETE DIAPHRAGM ELEVATION AT EAST ABUTMENT - STAGE II CONSTRUCTION



CONCRETE DIAPHRAGM ELEVATION AT EAST ABUTMENT - STAGE II CONSTRUCTION

**MIN. BAR LAP**

#4 bar = 2'-8"  
#6 bar = 4'-0"

**Notes:**

1. For notes see Sheet 27 of 54.
2. For Section A-A see Sheet 27 of 54.
3. Bars indicated thus 5 x 3-#6 etc. indicates 5 lines of bars with 3 lengths per line.



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PLOT DATE = 6/25/2020	CHECKED - ACF/TAT	REVISED

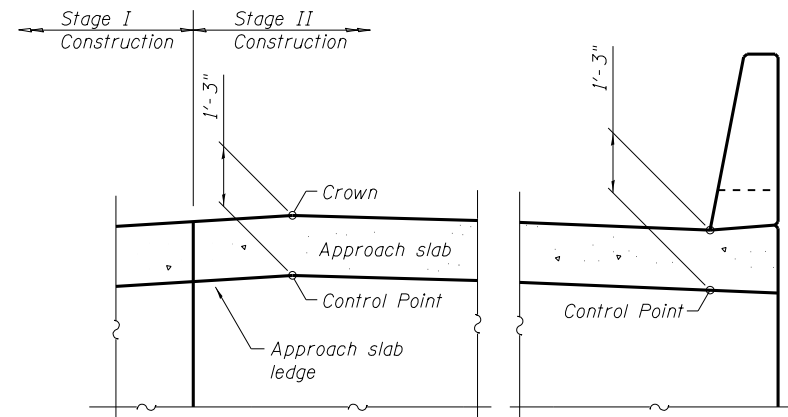
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

EAST ABUTMENT DIAPHRAGM DETAILS - 2  
STRUCTURE NO. 099-0062

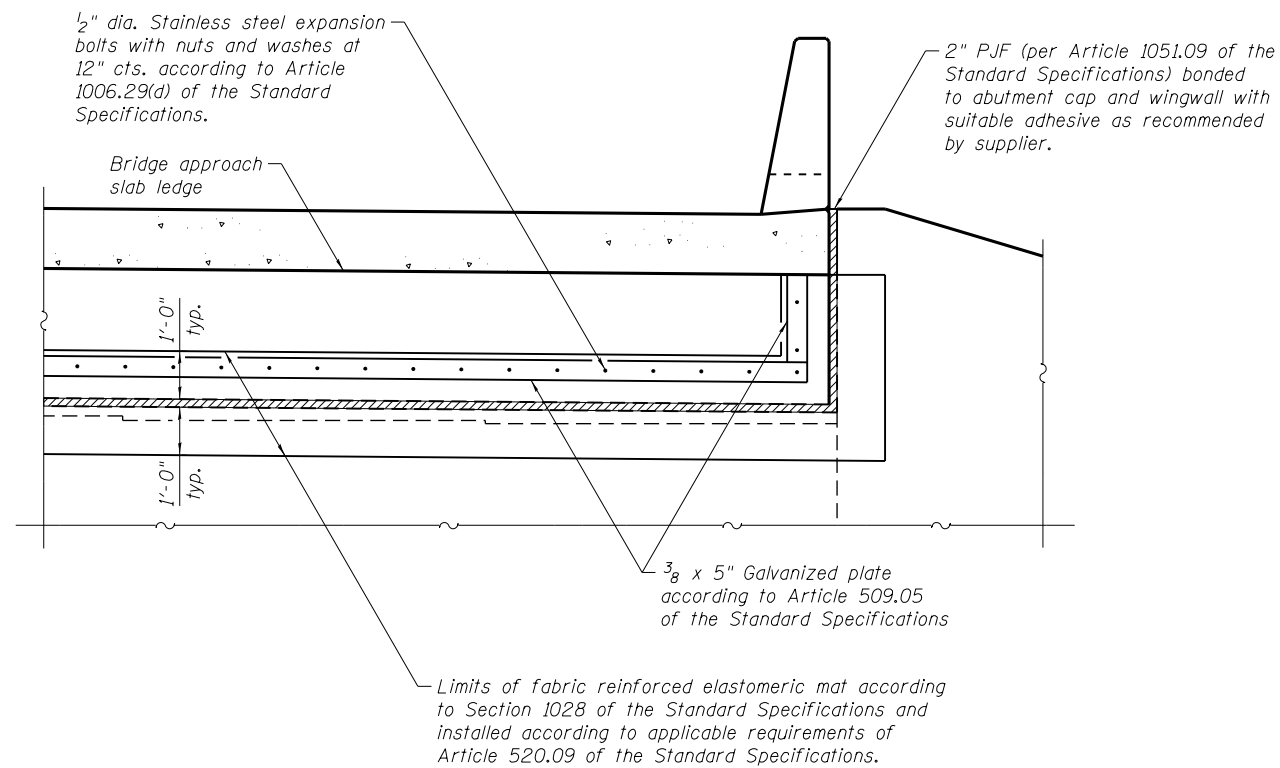
SHEET NO. 26 OF 54 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	261
CONTRACT NO. 60W34				

ILLINOIS FED. AID PROJECT

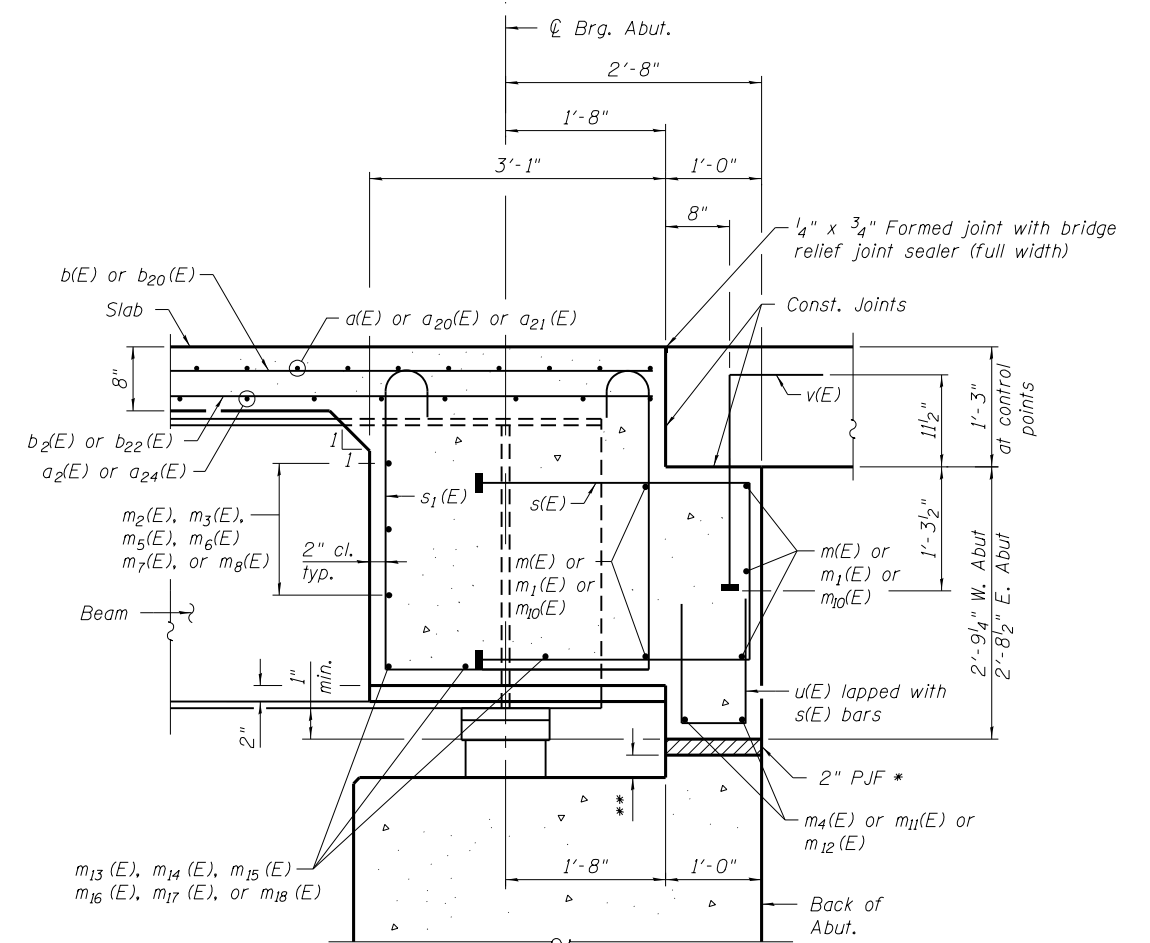


**DETAIL OF APPROACH SLAB LEDGE**  
(Looking East at back of abutment)



**ABUTMENT JOINT DETAILS - ELEVATION**  
(Looking East at back of abutment, west Abut. shown)

Note:  
Cost of fabric reinforced elastomeric mat, galvanized plate, stainless steel expansion bolts with nuts and washers and installation are included in the cost of Concrete Superstructure.



**SECTION A-A**  
Dimensions at right angles to abutment, except as shown.

- Notes:
1. Reinforcement bars in diaphragm are billed with superstructure on Sheet 22 of 54.
  2. Concrete in diaphragm is included with Concrete Superstructure on Sheet 22 of 54.
  3. For details of bars s(E), s<sub>1</sub>(E), u(E), & v(E) see Sheet 22 of 54.
  4. The s(E) and s<sub>1</sub>(E) bars shall be placed parallel to the beams. Spacing for these bars shall be at right angles to the beams.
  5. Provide 2" P.J.F. (per Article 1051.09 of the Standard Specifications) full width and vertically at edges bonded to abutment cap with suitable adhesive as recommended by supplier.
  6. For Bar Splicer details, see Sheet 50 of 54.
  7. Headed bars shall conform to ASTM A970 with threaded attachment; Class HA.
  8. Bearing stiffener with a required 1" thickness placed at right angles to beam web at centerline of bearing.
- \* Cost included with Concrete Superstructure  
\*\* Varies see Sheet 42 of 54.



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	DRAWN - LK	REVISED
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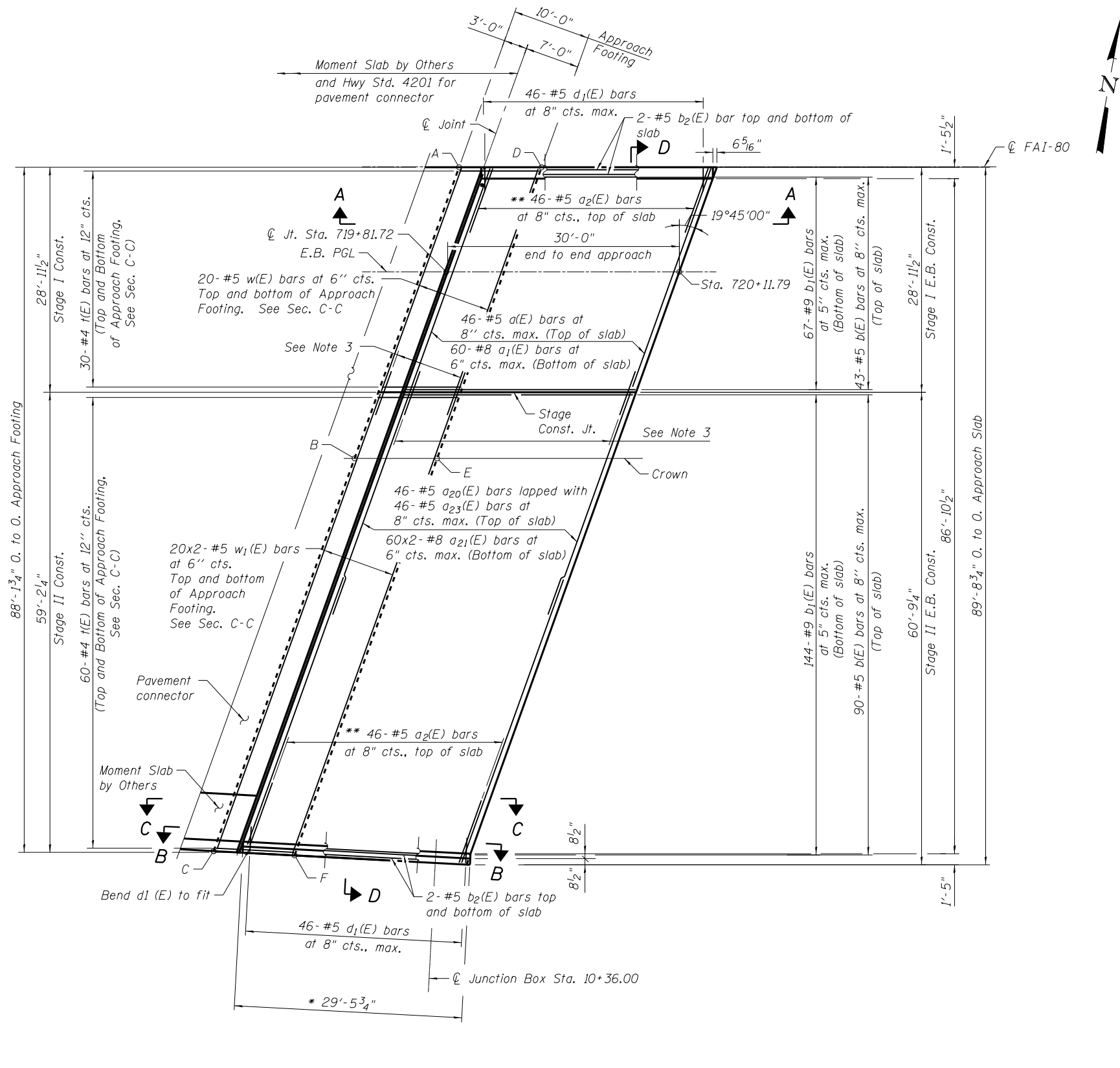
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ABUTMENT DIAPHRAGM DETAILS  
STRUCTURE NO. 099-0062

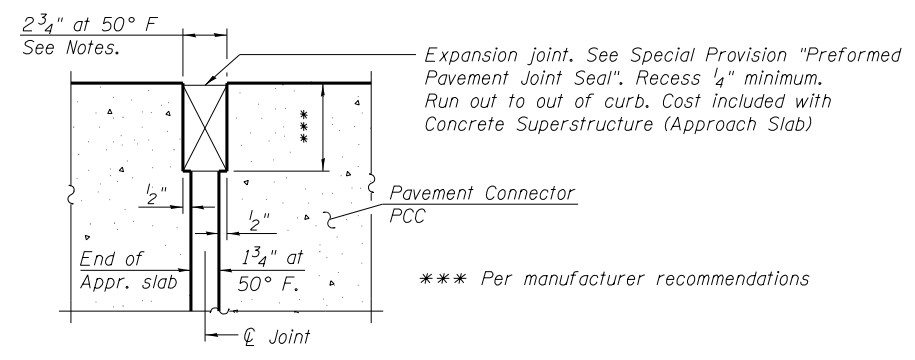
SHEET NO. 27 OF 54 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	262
CONTRACT NO. 60W34				

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PLAN - WEST APPROACH SLAB



DETAIL A  
(@ Rt. L's)

Point	West Approach	
	Top	Bottom
A	564.16	563.33
B	565.20	564.37
C	564.75	563.92
D	563.87	563.04
E	564.91	564.08
F	564.47	564.64

\* Measured along the back face of parapet.  
\*\* Lap with top #5 bars, typ.

**MIN. BAR LAP**

#5 = 3'-4"  
#8 = 5'-4"

- Notes:
- For Views A-A and B-B, Sections C-C and D-D, see Sheet 30 of 54.
  - The a(E) series bar spacings are measured along  $\bar{C}$  Rdwy.
  - 2x40-Bar splicers (E) for #5 w(E) bars top and bottom in footing, 2x46-Bar splicers (E) for #5 a(E) bars top, and 2x60-Bar splicers (E) for #8 a1(E) bars bottom.
  - Bars indicated thus 10x2 etc. indicates 10 lines of bars with 2 lengths per line.
  - For Bar Splicer details, see Sheet 50 of 54.
  - The joint opening shall be determined per Article 520.04 except that on jointless structures, the distance described as the bridge length between the nearest fixed bearings each way from the joint shall be taken as half the bridge length plus the approach slab length. The minimum dimension shall be 1'2" for installation purposes.



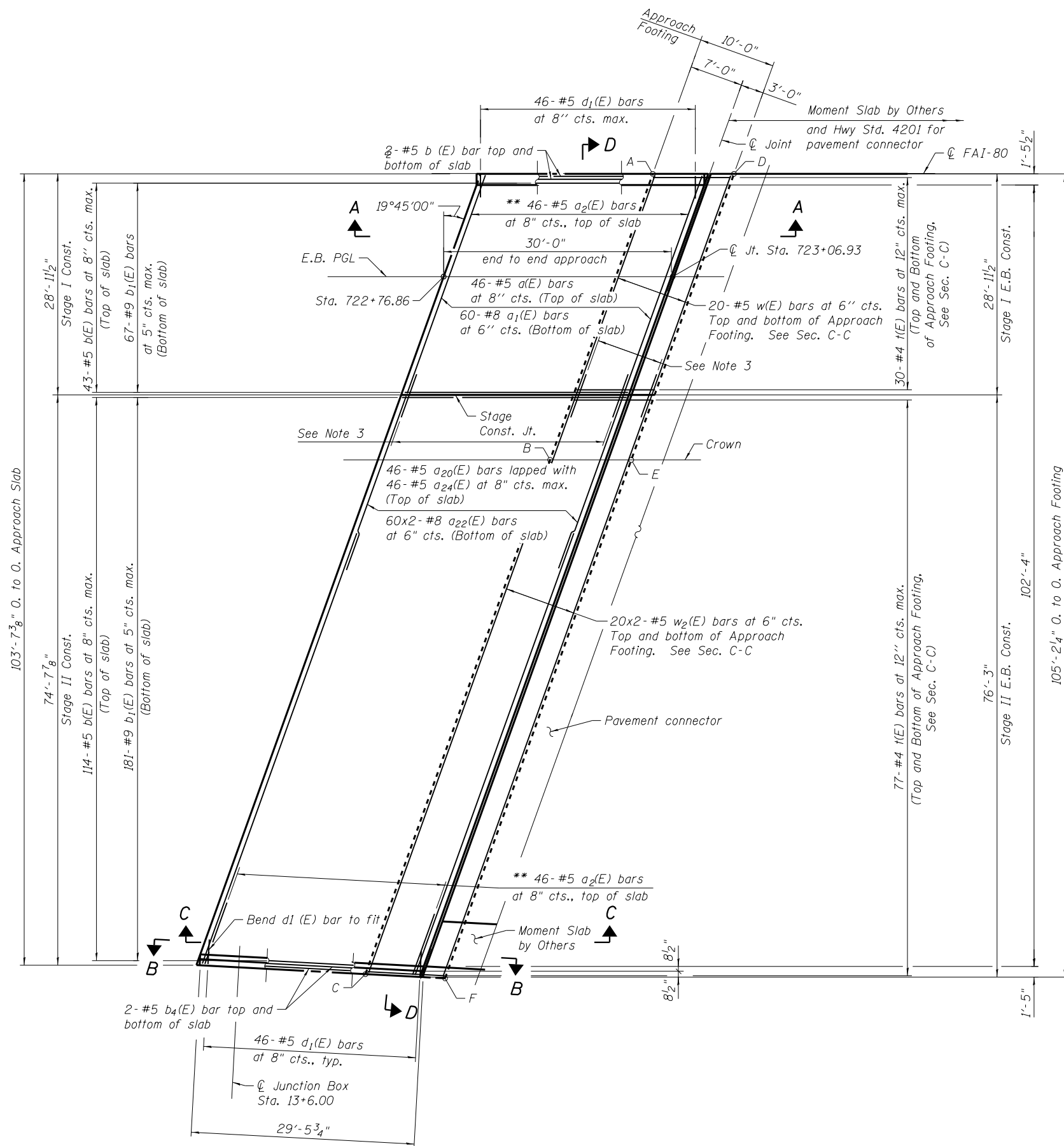
USER NAME = eabueherah	DESIGNED - EAA	REVISED
	CHECKED - EAA	REVISED
	DRAWN - LK	REVISED
PLOT DATE = 6/25/2020	CHECKED - EAA/TAT	REVISED

STATE OF ILLINOIS  
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BRIDGE APPROACH SLAB DETAILS - 1  
STRUCTURE NO. 099-0062

SHEET NO. 28 OF 54 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	263
CONTRACT NO. 60W34				
ILLINOIS FED. AID PROJECT				



PLAN - EAST APPROACH SLAB



Point	East Approach	
	Top	Bottom
A	556.30	555.47
B	557.20	556.37
C	556.37	555.54
D	556.12	555.29
E	557.02	556.19
F	556.13	555.30

**MIN. BAR LAP**

- #5 = 3'-4"
- #8 = 5'-4"

\* Measured along the back face of parapet  
 \*\* Lap with top #5 bars, typ.

- Notes:
- For Views A-A and B-B, and Sections C-C and D-D, see Sheet 30 of 54.
  - The a(E) series bar spacings are measured along  $\phi$  Rdwy.
  - 2x40-Bar splicers (E) for #5 w(E) bars top and bottom in footing, 2x46-Bar splicers (E) for #5 a(E) bars top, and 2x60-Bar splicers (E) for #8 a1(E) bars bottom.
  - Bars indicated thus 10x2 etc. indicates 10 lines of bars with 2 lengths per line.
  - For Bar Splicer details, see Sheet 50 of 54.



USER NAME = eabuerah	DESIGNED - MMK/PAB	REVISED
	CHECKED - ACF	REVISED
	DRAWN - LK	REVISED
PLOT DATE = 6/25/2020	CHECKED - ACF/TAT	REVISED

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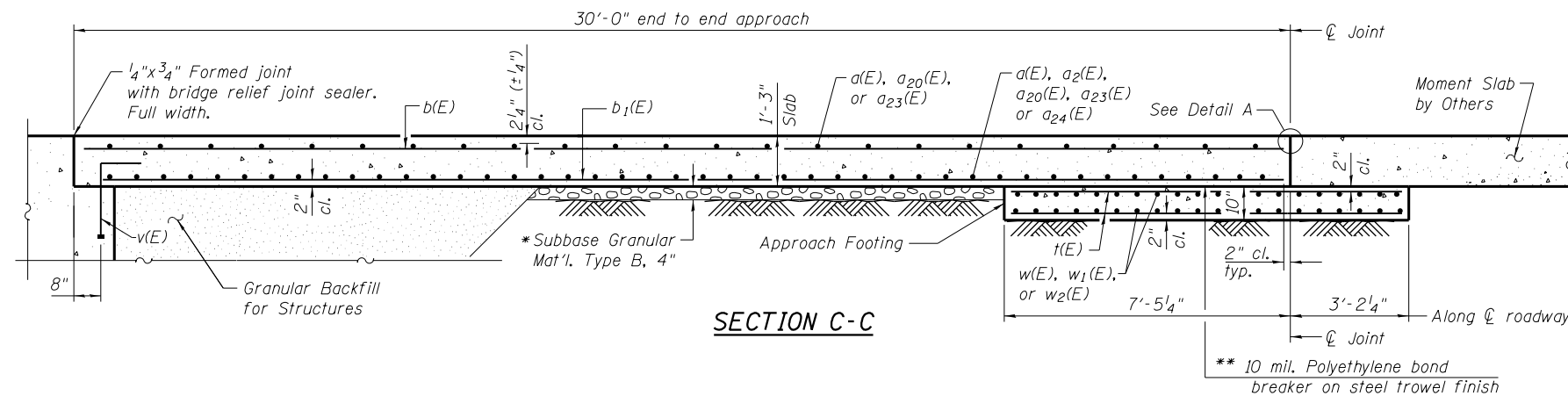
BRIDGE APPROACH SLAB DETAILS - 2  
 STRUCTURE NO. 099-0062

SHEET NO. 29 OF 54 SHEETS

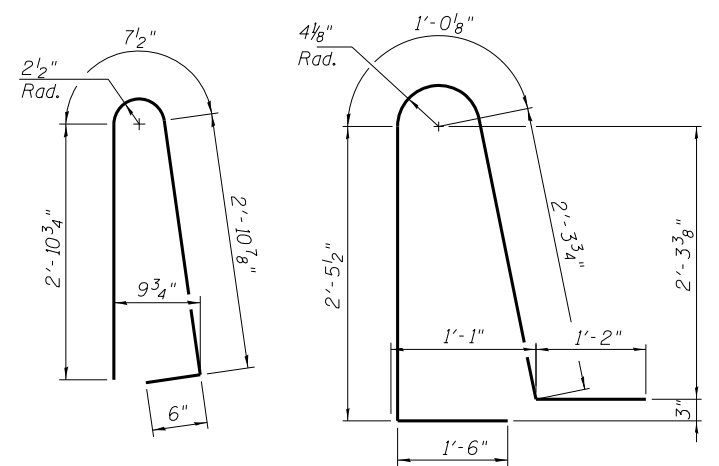
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	264
CONTRACT NO. 60W34				

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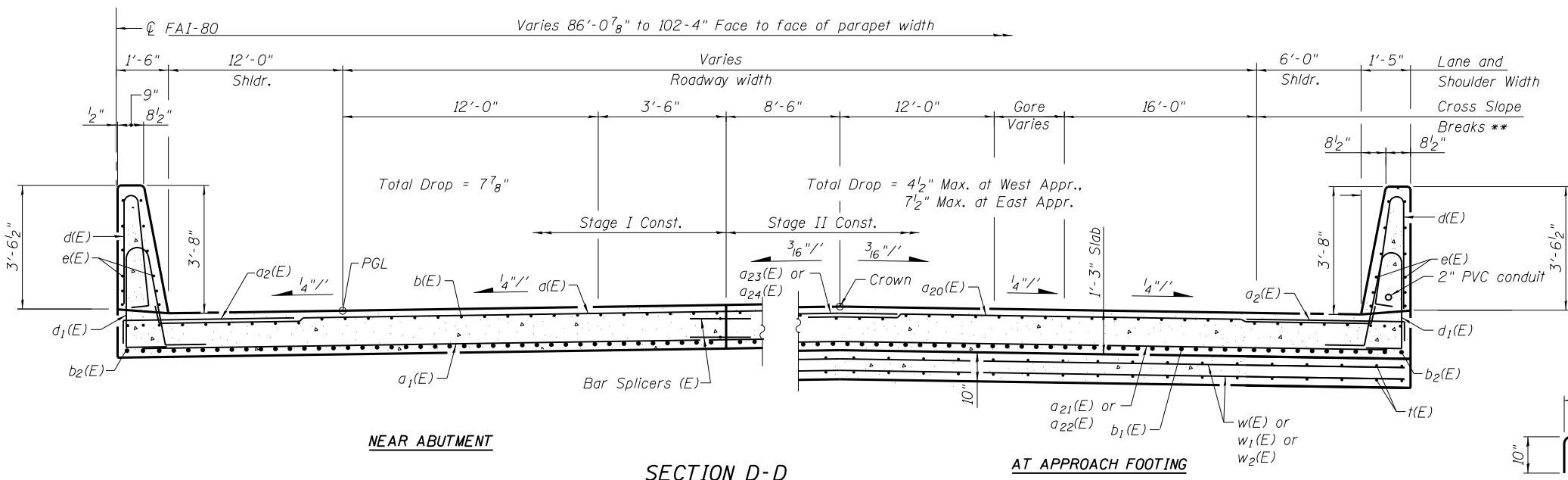
**SECTION C-C**



**BAR d(E)**

**BAR d1(E)**

\* Cost included with Concrete Superstructure (Approach Slab).

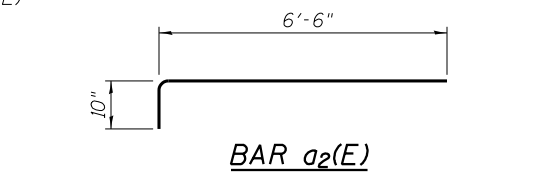


**SECTION D-D**

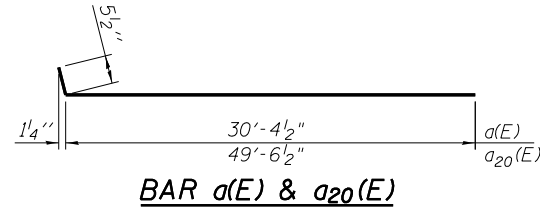
**NEAR ABUTMENT**

**AT APPROACH FOOTING**

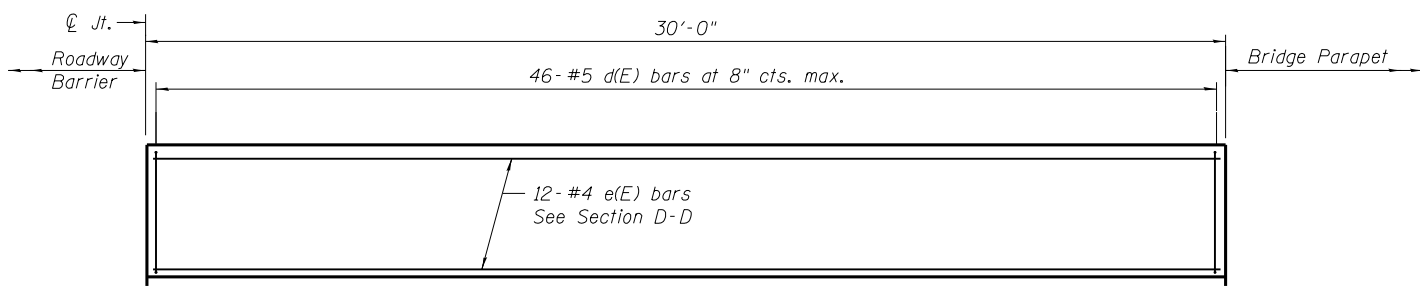
(See Plan for dimensions not shown)



**BAR a2(E)**



**BAR a(E) & a20(E)**



**VIEW A-A**

(View B-B similar)

- Notes:
- See Sheet 28 of 54 for Detail A.
  - Parapet concrete shall be paid for as Concrete Superstructure.
  - Approach slab concrete shall be paid for as Concrete Superstructure (Approach Slab).
  - Approach footing concrete shall be paid for as Concrete Structures.
  - Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
  - For v(E) bar details, see Sheet 22 of 54.
  - The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
  - For bar splicer details, see Sheet 50 of 54.
  - Cost of excavation for approach footing included with Concrete Structures.
  - For Granular Backfill for Structures and drainage treatment details, see Sheet 2 of 54.
  - For junction box details, see Electrical Details sheet in Roadway Plans.

**TWO APPROACHES  
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
a(E)	92	#5	30'-10"	U
a1(E)	120	#8	30'-5"	—
a2(E)	184	#5	7'-4"	U
a20(E)	92	#5	50'-0"	—
a21(E)	120	#8	34'-0"	—
a22(E)	120	#8	42'-3"	—
a23(E)	46	#5	17'-1"	—
a24(E)	46	#5	33'-6"	—
b(E)	290	#5	29'-8"	—
b1(E)	459	#9	29'-9"	—
b2(E)	16	#5	29'-8"	—
d(E)	184	#5	7'-0"	U
d1(E)	184	#5	8'-6"	U
e(E)	48	#4	29'-8"	—
t(E)	394	#4	10'-1"	—
w(E)	80	#5	30'-5"	—
w1(E)	80	#5	34'-9"	—
w2(E)	80	#5	43'-0"	—
Concrete Superstructure (Approach Slab)				Cu. Yd. 268.6
Concrete Structures				Cu. Yd. 63.4
Reinforcement Bars, Epoxy Coated				Pound 117,270
Concrete Superstructure				Cu. Yd. 17.1



USER NAME = eabuerah	DESIGNED - MMK/PAB	REVISED
	CHECKED - ACF	REVISED
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	CHECKED - ACF/TAT	REVISED
PLOT DATE = 6/25/2020		

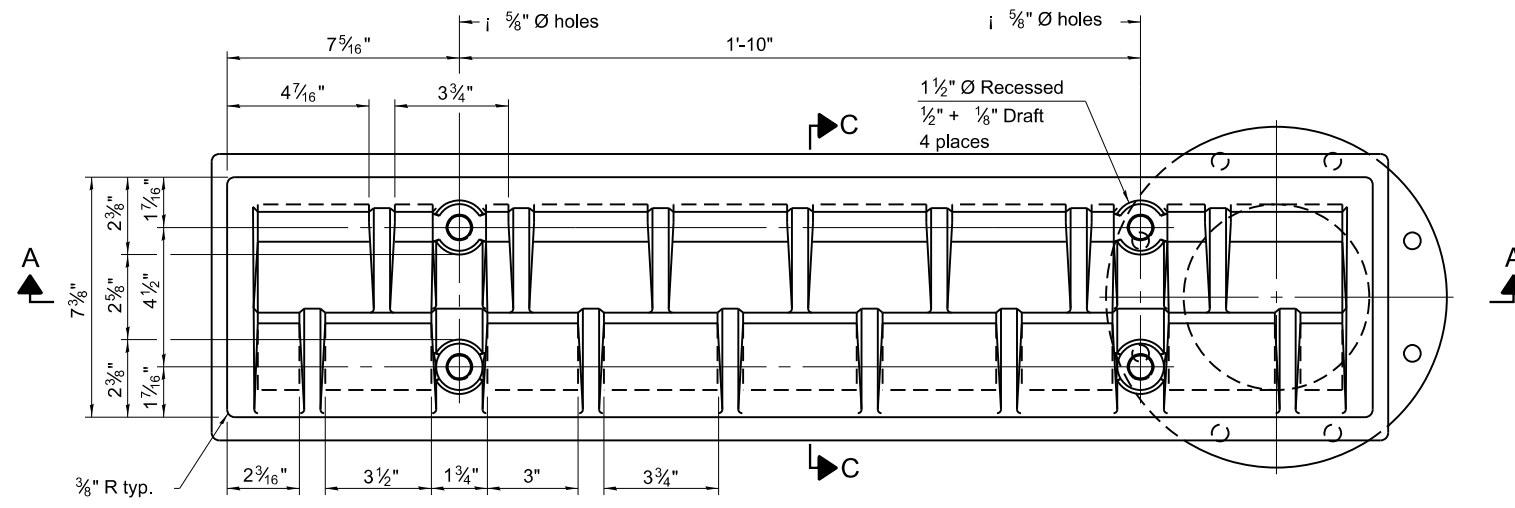
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**BRIDGE APPROACH SLAB DETAILS - 3  
STRUCTURE NO. 099-0062**

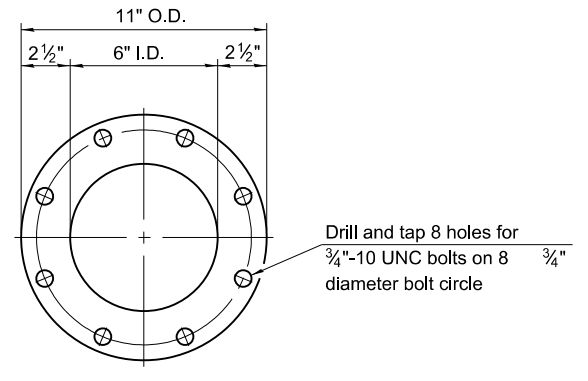
SHEET NO. 30 OF 54 SHEETS

F.A.I. RTE. 80	SECTION 2013-008B	COUNTY WILL	TOTAL SHEETS 511	SHEET NO. 265
CONTRACT NO. 60W34				

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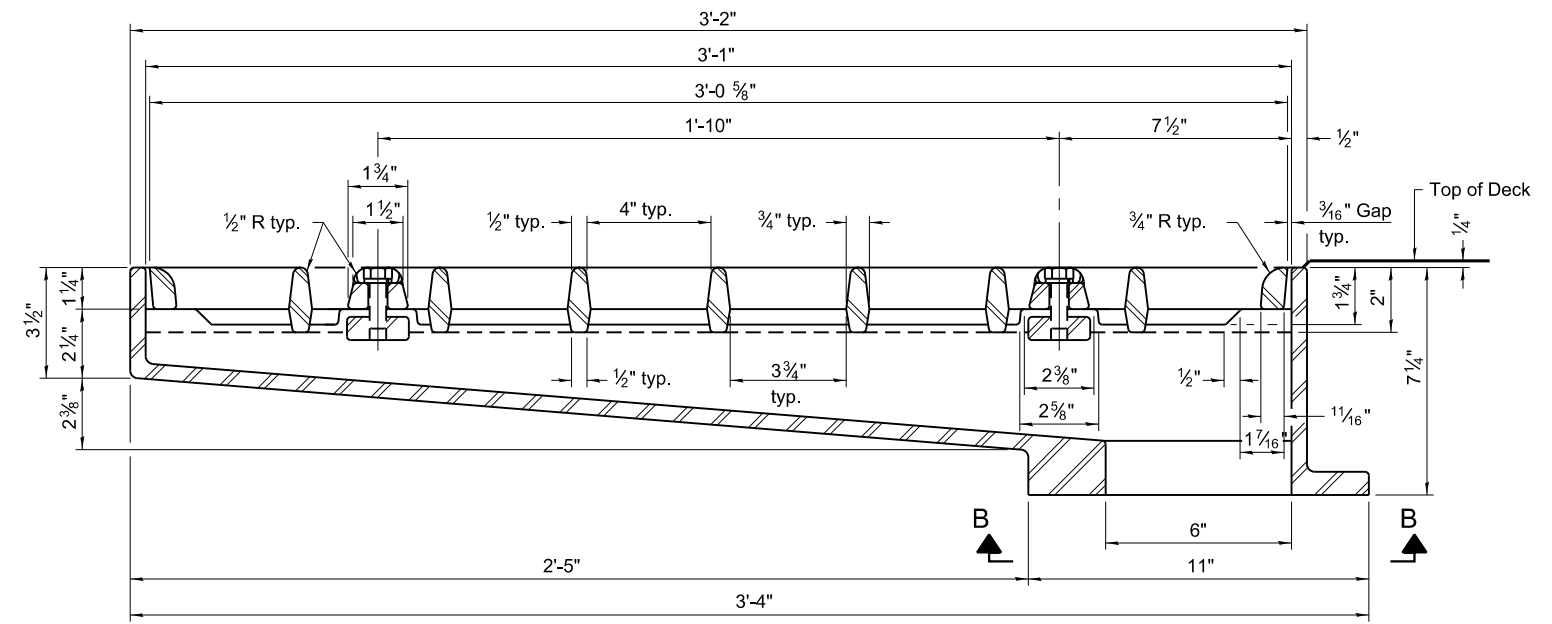


PLAN



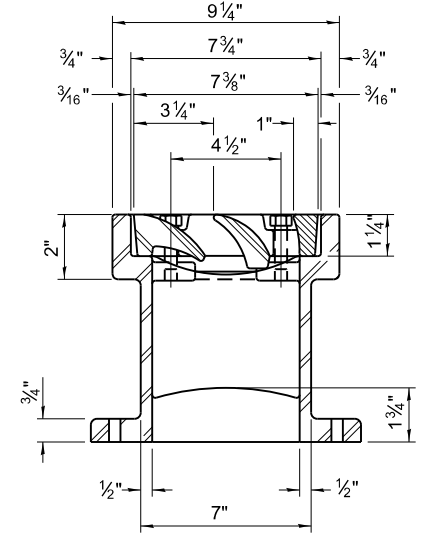
VIEW B-B

Drill and tap 8 holes for 3/4"-10 UNC bolts on 8 3/4" diameter bolt circle

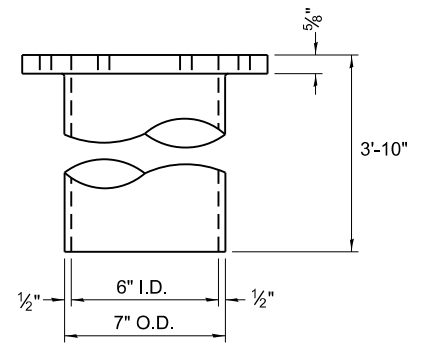
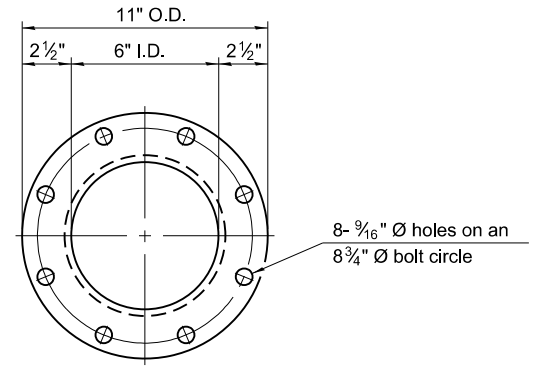


SECTION A-A

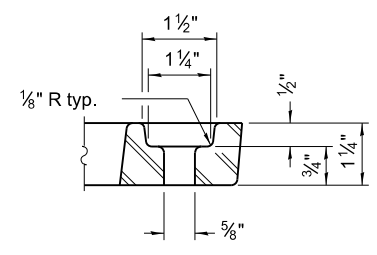
See sheet 21 of 54 for scupper location relative to parapet.



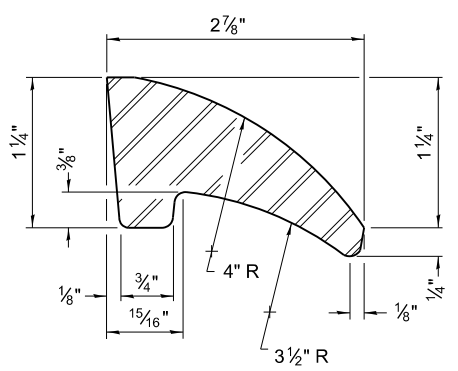
SECTION C-C



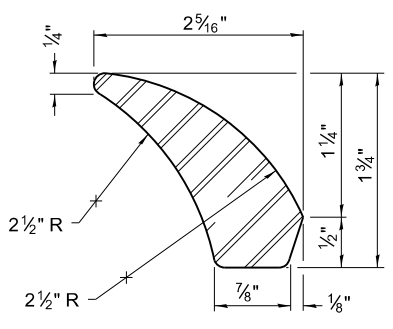
DOWNSPOUT



BOLT HOLE DETAIL



FIRST VANE DETAIL



SECOND VANE DETAIL

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Drainage Scupper, DS-33	Each	1

DS-33 2-17-2017



USER NAME = eabueherah	DESIGNED - LK	REVISED
	CHECKED - ACF	REVISED
	DRAWN - LK	REVISED
PLOT DATE = 6/25/2020	CHECKED - ACF	REVISED

STATE OF ILLINOIS  
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DRAINAGE SCUPPER, DS-33  
STRUCTURE NO. 099-0062

SHEET NO. 31 OF 54 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	266
				CONTRACT NO. 60W34
ILLINOIS FED. AID PROJECT				

**GENERAL NOTES**

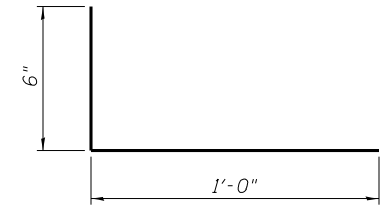
All dimensions shall remain the same as shown on superstructure details, except dimension A which is to be revised as shown. Additional concrete needed to revise dimension A = 0.00348 cu. yds./ft. for 44" parapet.

Place full depth aluminum sheet as shown on superstructure details.

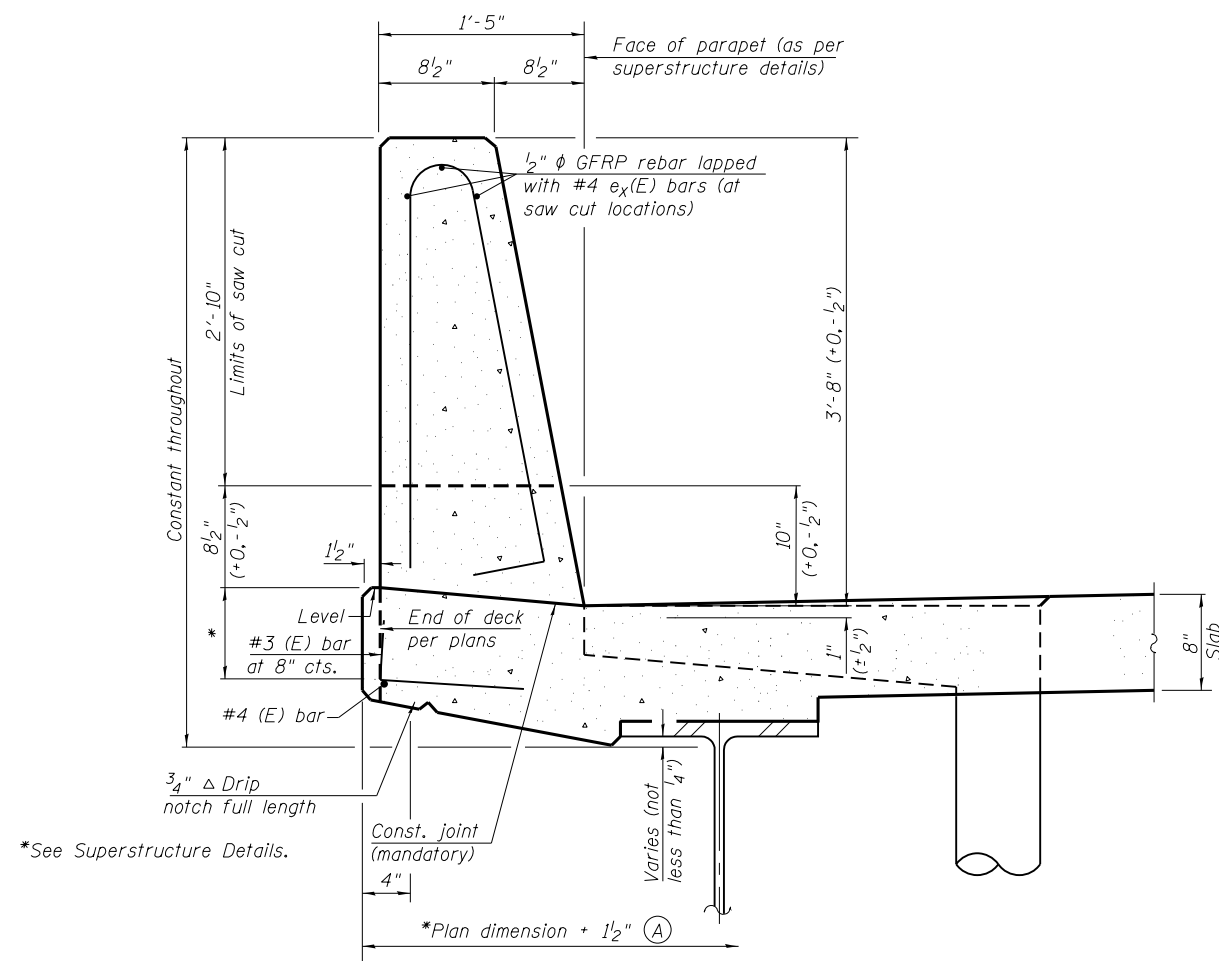
Replace all cork joint filler locations with a full thickness saw cut.

Steel superstructure shown. Other superstructure types similar.

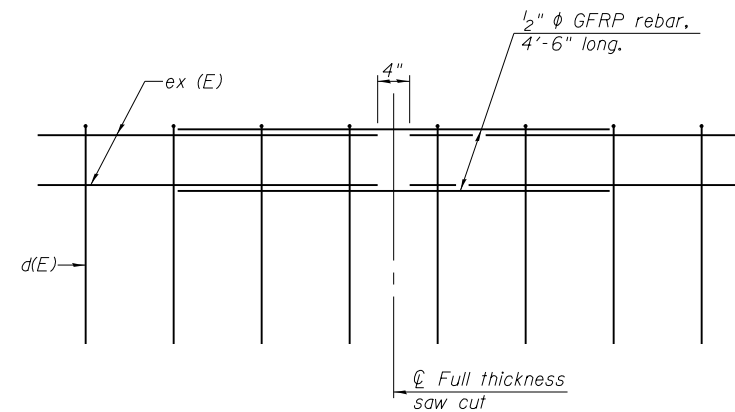
Slipforming of the median parapet (adjacent to the centerline of I-80) is not allowed.



**#3 (E) BAR**



**44" CONSTANT SLOPE PARAPET SECTION**  
(Showing dimensions, d(E), and 1/2" φ GFRP rebar)



**GFRP REBAR STIFFENING DETAIL**

(Place as shown in parapet section at each parapet joint location.)



USER NAME = eabueherah	DESIGNED - LK	REVISED
	CHECKED - ACF	REVISED
	DRAWN - LK	REVISED
PLOT DATE = 6/25/2020	CHECKED - ACF	REVISED

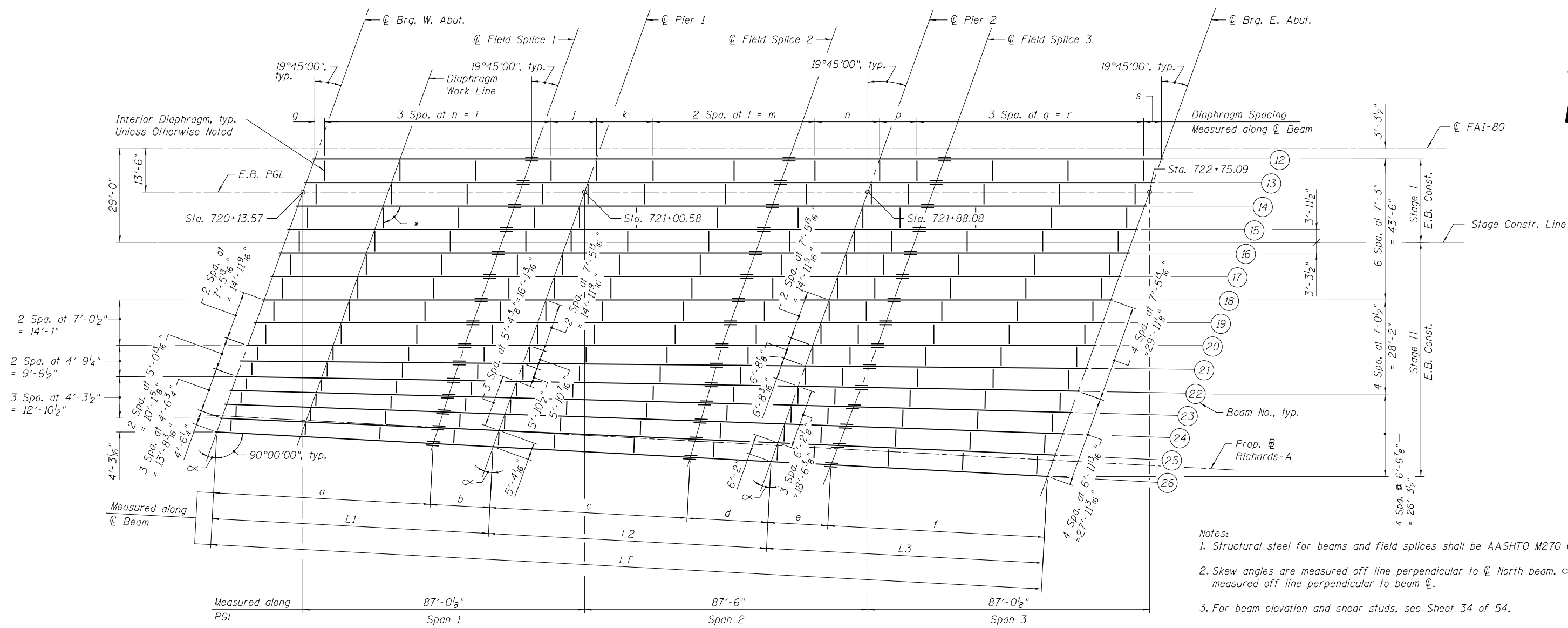
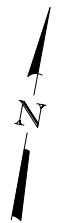
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CONCRETE PARAPET SLIPFORMING OPTION  
STRUCTURE NO. 099-0062**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	267
			CONTRACT NO. 60W34	

SHEET NO. 32 OF 54 SHEETS

ILLINOIS FED. AID PROJECT



**FRAMING PLAN**

**BEAM LENGTHS AND SKEW DIMENSIONS**

- Notes:
- Structural steel for beams and field splices shall be AASHTO M270 Grade 50.
  - Skew angles are measured off line perpendicular to  $\varnothing$  North beam.  $\alpha$  is measured off line perpendicular to beam  $\varnothing$ .
  - For beam elevation and shear studs, see Sheet 34 of 54.
  - All diaphragms between beams shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual diaphragms at supports may be temporarily disconnected to install bearing anchor rods.

**TOP OF BEAM ELEVATION (FOR FABRICATION ONLY)**

Beam No.	$\varnothing$ Brg. W. Abut.	$\varnothing$ Field Splice 1	$\varnothing$ Pier 1	$\varnothing$ Field Splice 2	$\varnothing$ Pier 2	$\varnothing$ Field Splice 3	$\varnothing$ Brg. E. Abut.
12	563.78	561.98	561.31	559.84	559.06	558.73	557.32
13	564.00	562.20	561.53	560.05	559.27	558.94	557.52
14	564.21	562.42	561.74	560.26	559.47	559.13	557.70
15	564.43	562.63	561.95	560.47	559.68	559.34	557.90
16	564.62	562.82	562.14	560.65	559.85	559.51	558.06
17	564.74	562.94	562.26	560.76	559.96	559.61	558.15
18	564.71	562.90	562.22	560.72	559.92	559.57	558.10
19	564.65	562.84	562.16	560.65	559.84	559.50	558.02
20	564.58	562.77	562.09	560.58	559.76	559.41	557.92
21	564.53	562.71	562.03	560.50	559.69	559.34	557.83
22	564.48	562.65	561.97	560.43	559.62	559.27	557.74
23	564.44	562.60	561.92	560.37	559.56	559.20	557.66
24	564.40	562.55	561.88	560.30	559.50	559.15	557.57
25	564.36	562.49	561.82	560.24	559.42	559.08	557.48
26	564.31	562.44	561.77	560.17	559.36	559.02	557.41

Beam No.	Beam Lengths									Skew Angle	
	Span 1			Span 2			Span 3				$\alpha$
	a	b	L1	c	d	L2	e	f	L3	LT	
12-20	67'-0"	20'-0 1/8"	87'-0 1/8"	59'-6"	28'-0"	87'-6"	20'-0 1/8"	67'-0"	87'-0 1/8"	261'-6 1/4"	19°45'00"
21	67'-0"	19'-8 15/16"	86'-8 15/16"	59'-9 3/16"	27'-5 9/16"	87'-2 3/4"	19'-8 15/16"	67'-0"	86'-8 15/16"	260'-8 5/8"	19°15'03"
22	67'-0"	19'-5 13/16"	86'-5 13/16"	60'-5 1/16"	26'-11 5/16"	86'-11 5/8"	19'-5 13/16"	67'-0"	86'-5 13/16"	259'-11 1/4"	18°44'54"
23	67'-0"	19'-2 3/4"	86'-2 3/4"	60'-3 3/8"	26'-5 1/8"	86'-8 1/2"	19'-2 3/4"	67'-0"	86'-2 3/4"	259'-2"	18°14'28"
24	67'-0"	18'-11 3/4"	85'-11 3/4"	60'-6 3/8"	25'-11 1/8"	86'-5 1/2"	18'-11 3/4"	67'-0"	85'-11 3/4"	258'-5"	17°43'51"
25	67'-0"	18'-8 13/16"	85'-8 13/16"	60'-9 5/16"	25'-5 5/16"	86'-2 5/8"	18'-8 13/16"	67'-0"	85'-8 13/16"	257'-8 4/16"	17°13'03"
26	67'-0"	18'-5 5/16"	85'-5 5/16"	61'-3 1/16"	24'-11 9/16"	85'-11 3/4"	18'-5 5/16"	67'-0"	85'-5 5/16"	256'-11 5/8"	16°41'34"

**BEAM DIMENSIONS**

Beam No.	g	h	i	j	k	l	m	n	p	q	r	s
12-20	3'-0 1/8"	23'-4"	70'-0"	14'-0"	17'-6"	25'-0"	50'-0"	20'-0"	11'-6"	23'-4"	70'-0"	5'-6 1/8"
21	3'-0"	23'-3 1/8"	69'-9 7/16"	13'-11 1/2"	17'-5 3/8"	24'-11 1/16"	49'-10 1/8"	19'-11 1/4"	11'-5 9/16"	23'-3 1/8"	69'-9 7/16"	5'-5 5/16"
22	2'-11 7/8"	23'-2 5/16"	69'-6 7/8"	13'-11"	17'-4 3/4"	24'-10 3/16"	49'-8 3/8"	19'-10 9/16"	11'-5 3/16"	23'-2 5/16"	69'-6 7/8"	5'-5 3/4"
23	2'-11 13/16"	23'-1 1/2"	69'-4 7/16"	13'-10 1/2"	17'-4 1/8"	24'-9 5/16"	49'-6 9/16"	19'-9 13/16"	11'-4 3/4"	23'-1 1/2"	69'-4 7/16"	5'-5 9/16"
24	2'-11 1/16"	23'-1/16"	69'-2"	13'-10"	17'-3 1/2"	24'-8 7/16"	49'-4 7/8"	19'-9 1/8"	11'-4 3/8"	23'-1/16"	69'-2"	5'-5 3/8"
25	2'-11 5/8"	22'-11 7/8"	68'-11 1/16"	13'-9 9/16"	17'-2 15/16"	24'-7 5/8"	49'-3 3/16"	19'-8 1/2"	11'-4"	22'-11 7/8"	68'-11 1/16"	5'-5 3/16"

\* Interior diaphragm perpendicular to northern beam, typ.



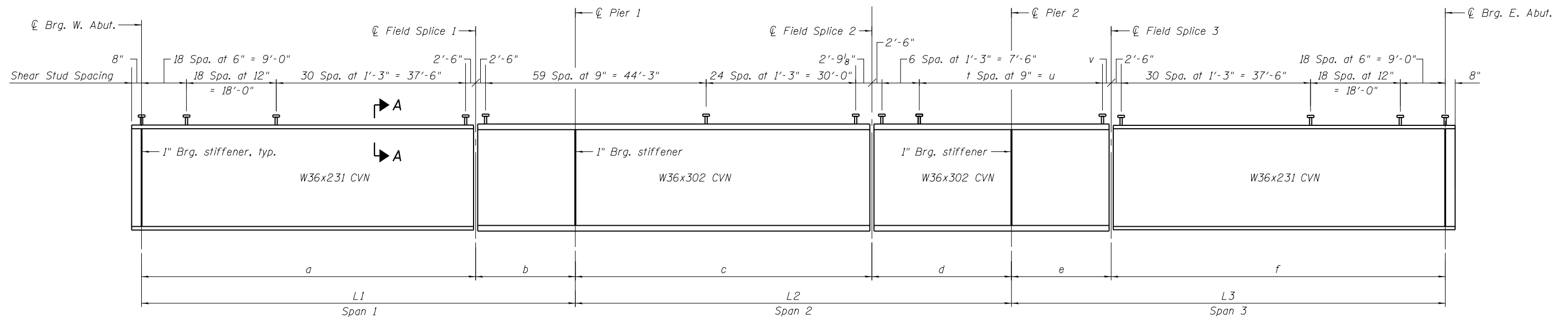
USER NAME = eabueherah	DESIGNED - ITC/PCA/PAB	REVISED
	CHECKED - JFA/ACF/AMK	REVISED
	DRAWN - LK	REVISED
PLOT DATE = 6/25/2020	CHECKED - JFA/AMK	REVISED

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

FRAMING PLAN  
STRUCTURE NO. 099-0062

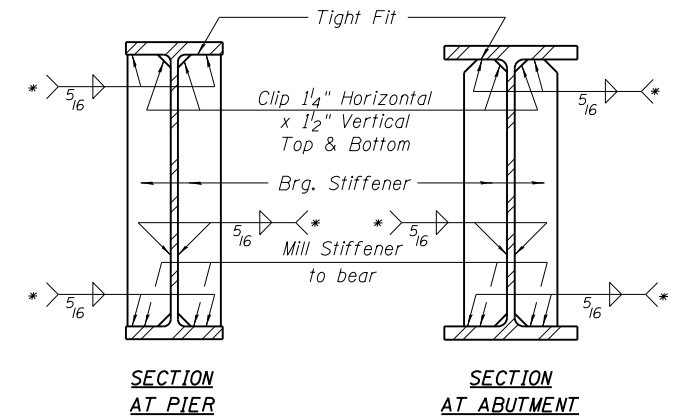
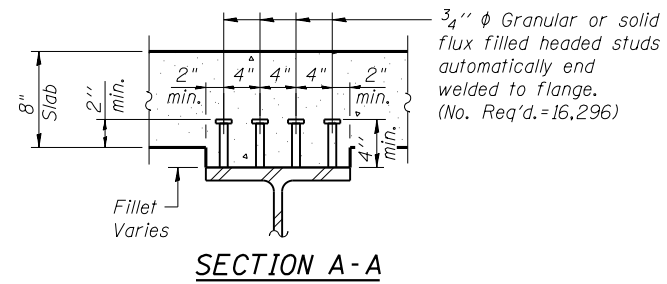
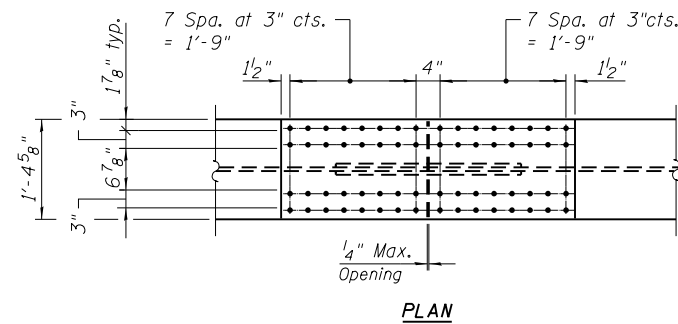
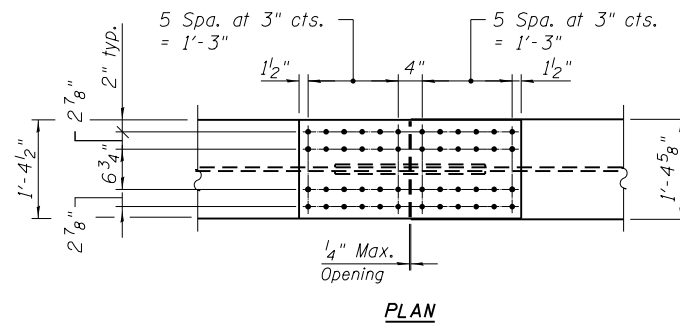
SHEET NO. 33 OF 54 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	268
CONTRACT NO. 60W34				
ILLINOIS FED. AID PROJECT				



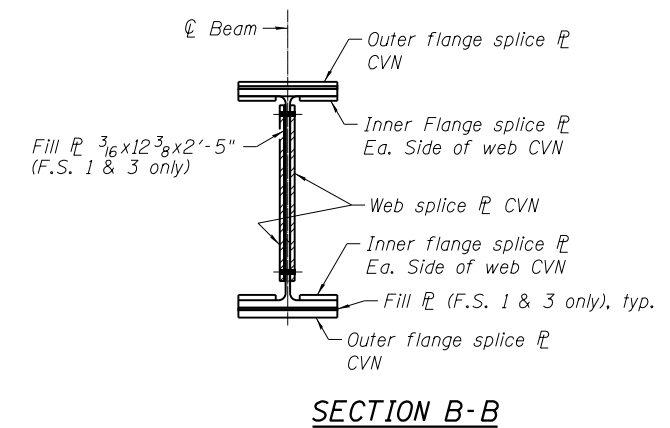
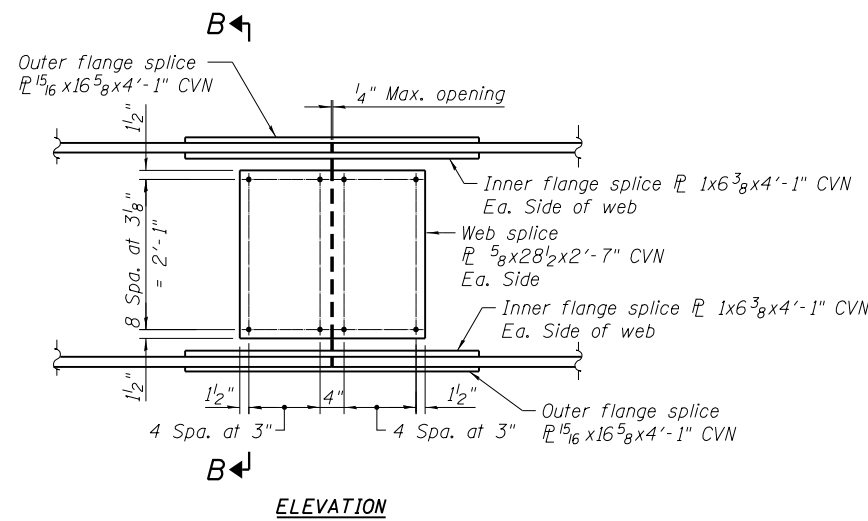
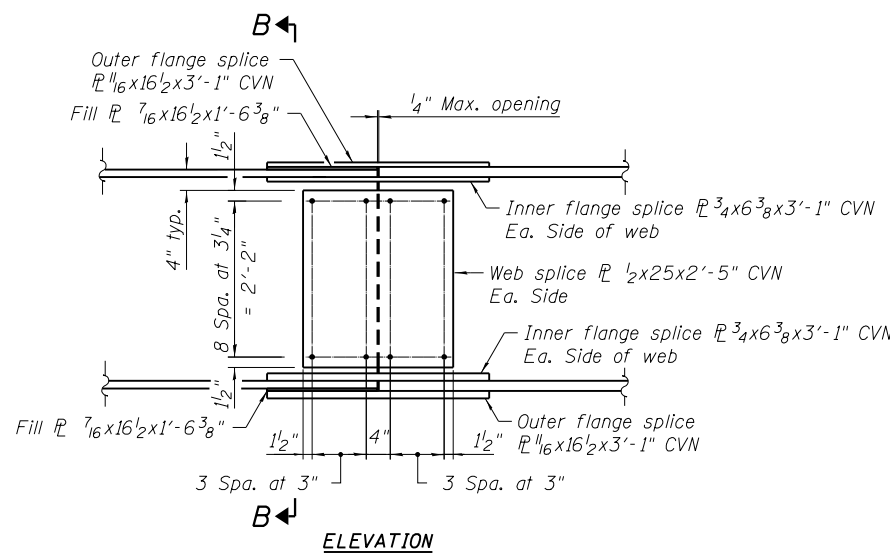
Beam No.	t	u	v
12-20	48	36'-0"	2'- $\frac{1}{8}$ "
21	47	35'-3"	1'- $11\frac{1}{2}$ "
22	46	34'-6"	1'- $11\frac{1}{6}$ "
23	45	33'-9"	1'- $10\frac{7}{8}$ "
24	44	33'-0"	1'- $10\frac{7}{8}$ "
25	43	32'-3"	1'- $11\frac{1}{8}$ "
26	42	31'-6"	1'- $11\frac{1}{2}$ "

BEAM 12-26 ELEVATION



\* Terminate 1/4" ( $\pm 1/8$ ") from the end of plate intersects.

BEARING STIFFENER



Notes:  
 1. Structural steel shall be AASHTO M270 Grade 50, except fill plates may be AASHTO M270 Grade 36 or 50.  
 2. "CVN" denotes Charpy-V-Notch impact energy requirements, zone 2.



USER NAME = eabuerah  
 DESIGNED - ITC/PCA/PAB  
 CHECKED - JFA/AMK  
 DRAWN - LK  
 CHECKED - JFA/AMK  
 PLOT DATE = 6/25/2020

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 REVISED

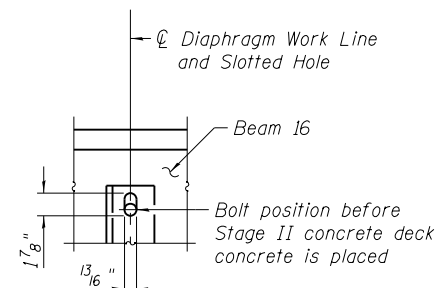
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

BEAM ELEVATIONS  
 STRUCTURE NO. 099-0062

SHEET NO. 34 OF 54 SHEETS

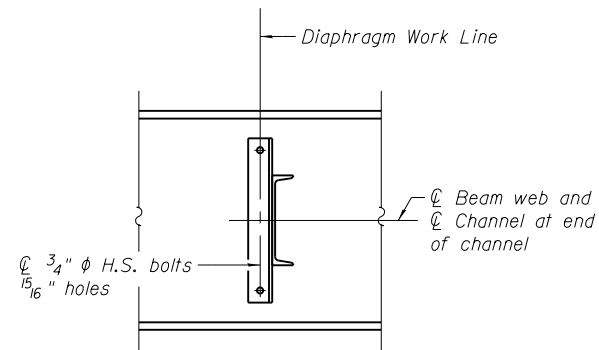
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	269
CONTRACT NO. 60W34				

ILLINOIS FED. AID PROJECT

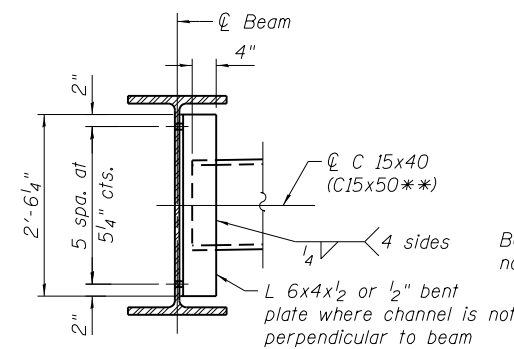


**DETAIL C**

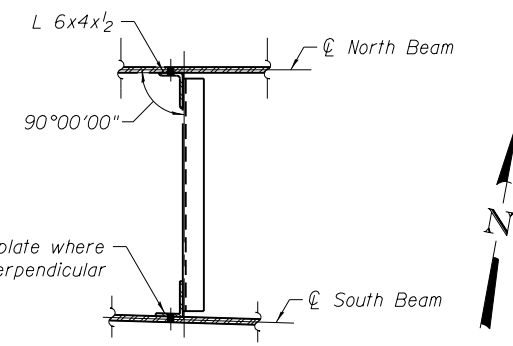
Bolts in slots shall be finger tight until the Stage II pour is complete. Position slots so bolts start at one end with no concrete load and finish near the opposite end under deck load as shown in Detail C.



**ELEVATION**



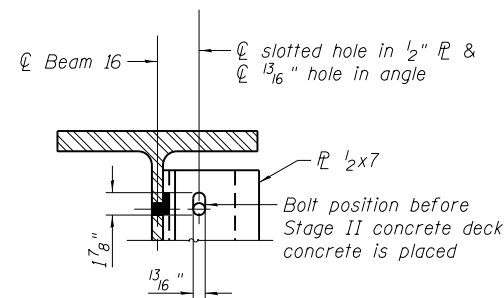
**SECTION**



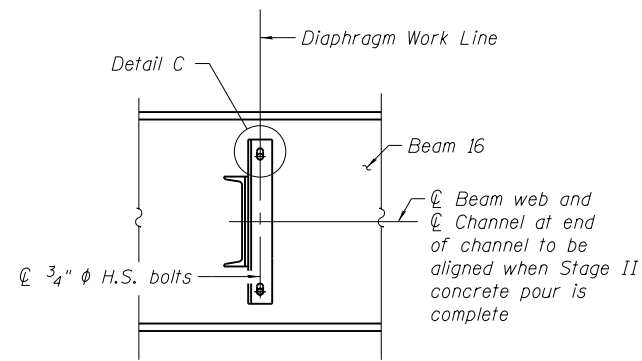
**PLAN**

**INTERIOR DIAPHRAGM**

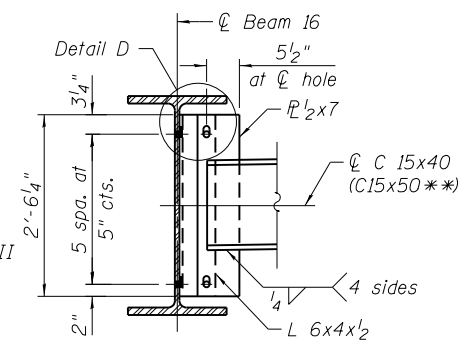
(Except at Stage Construction Joint)  
Two hardened washers required for each set of oversized holes.



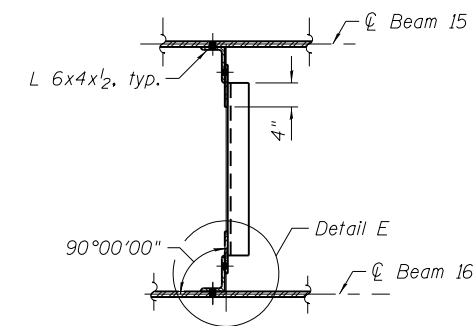
**DETAIL D**



**ELEVATION**



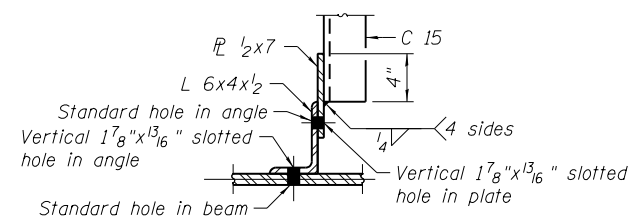
**SECTION**



**PLAN**

**INTERIOR DIAPHRAGM AT STAGE CONST. JT.**

Two hardened washers required for each set of oversized holes.



**DETAIL E**

(Beam 16 shown, Beam 15 similar except all holes shall be 15/16\"/>

\*\* Alternate channels are permitted to facilitate material acquisition. Calculated weight of structural steel is based on the lighter section. The alternate, if utilized, shall be provided at no extra cost to the Department.

- Notes:
- All Structural Steel for diaphragms may be AASHTO M270 Grade 36.
  - All diaphragms between beams shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual diaphragms at supports may be temporarily disconnected to install bearing anchor rods.
  - For Diaphragm work line spacing, see Sheet 33 of 54.



USER NAME = eabueherah	DESIGNED - PCA	REVISED
	CHECKED - JFA	REVISED
	DRAWN - LK	REVISED
PLOT DATE = 6/25/2020	CHECKED - JFA	REVISED

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

BEAM DETAILS - 1  
STRUCTURE NO. 099-0062

SHEET NO. 35 OF 54 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	270
CONTRACT NO. 60W34				

ILLINOIS FED. AID PROJECT

EXTERIOR BEAM MOMENT TABLE - BEAM 12						
	0.4 Sp. 1	Pier 1	0.5 Sp. 2	Pier 2	0.6 Sp. 3	
$I_s$	(in <sup>4</sup> )	15,600	21,100	21,100	21,100	15,600
$I_c(n)$	(in <sup>4</sup> )	36,524	45,003	45,002	45,003	36,524
$I_c(3n)$	(in <sup>4</sup> )	26,267	32,507	32,507	32,507	26,267
$I_c(cr)$	(in <sup>4</sup> )	17,690	24,800	23,208	24,800	17,690
$S_s$	(in <sup>3</sup> )	854	1,130	1,130	1,130	854
$S_c(n)$	(in <sup>3</sup> )	1,176	6,050	1,507	6,050	1,176
$S_c(3n)$	(in <sup>3</sup> )	1,055	2,459	1,350	2,459	1,055
$S_c(cr)$	(in <sup>3</sup> )	-	1,464	-	1,464	-
DC1	(k/')	0.98	1.06	1.06	1.06	0.98
M <sub>DC1</sub>	(k)	553	-811	181	-810	556
DC2	(k/')	0.57	0.57	0.57	0.57	0.57
M <sub>DC2</sub>	(k)	175	-336	103	-344	174
DW	(k/')	0.27	0.27	0.27	0.27	0.27
M <sub>DW</sub>	(k)	182	-229	44	-231	185
$M_{\xi} \cdot IM$	(k)	931	-1,088	881	-1,107	919
$M_u$ (Strength I)	(k)	2,812	-3,681	1,963	-3,726	2,799
$\phi_r M_n$	(k)	5,327	-5,349	6,801	-5,144	5,327
$f_s$ DC1	(ksi)	7.77	8.62	1.92	8.60	7.81
$f_s$ DC2	(ksi)	1.99	2.76	0.92	2.82	1.98
$f_s$ DW	(ksi)	2.07	1.88	0.39	1.90	2.10
$f_s$ ( $\xi+IM$ )	(ksi)	9.50	8.92	7.02	9.08	9.38
$f_s$ (Service II)	(ksi)	24.18	24.85	12.35	25.11	24.09
0.95R <sub>n</sub> F <sub>yt</sub>	(ksi)	47.50	47.50	47.50	47.50	47.50
$f_s$ (Total)(Strength I)	(ksi)	-	-	-	-	-
$\phi_r F_n$	(ksi)	-	-	-	-	-
V <sub>r</sub>	(k)	70.80	57.40	50.20	46.00	56.10

EXTERIOR BEAM REACTION TABLE - BEAM 12					
	W. Abut.	Pier 1	Pier 2	E. Abut.	
R <sub>DC1</sub>	(k)	63.9	98.2	98.2	63.9
R <sub>DC2</sub>	(k)	27.1	50.8	53.5	16.6
R <sub>DW</sub>	(k)	9.5	25.4	26.9	9.9
R $\xi \cdot IM$	(k)	98.2	120.1	122.4	54.0
R <sub>Total</sub>	(k)	198.7	294.4	301.0	144.4

Note: R<sub>DC1</sub> includes an approach slab load of 20.0 kips at each abutment.

INTERIOR BEAM MOMENT TABLE - BEAM 13-17						
	0.4 Sp. 1	Pier 1	0.5 Sp. 2	Pier 2	0.6 Sp. 3	
$I_s$	(in <sup>4</sup> )	15,600	21,100	21,100	21,100	15,600
$I_c(n)$	(in <sup>4</sup> )	37,057	45,696	45,695	45,696	37,057
$I_c(3n)$	(in <sup>4</sup> )	26,691	32,993	32,993	32,993	26,691
$I_c(cr)$	(in <sup>4</sup> )	17,414	24,612	22,930	24,612	17,414
$S_s$	(in <sup>3</sup> )	854	1,130	1,130	1,130	854
$S_c(n)$	(in <sup>3</sup> )	1,181	6,417	1,514	6,417	1,181
$S_c(3n)$	(in <sup>3</sup> )	1,061	2,539	1,357	2,539	1,061
$S_c(cr)$	(in <sup>3</sup> )	-	1,452	-	1,452	-
DC1	(k/')	0.98	1.06	1.06	1.06	0.98
M <sub>DC1</sub>	(k)	576	-845	190	-843	577
DC2	(k/')	0.57	0.57	0.57	0.57	0.57
M <sub>DC2</sub>	(k)	79	-98	36	-90	87
DW	(k/')	0.27	0.27	0.27	0.27	0.27
M <sub>DW</sub>	(k)	195	-267	53	-268	197
$M_{\xi} \cdot IM$	(k)	846	-1,016	781	-1,013	848
$M_u$ (Strength I)	(k)	2,592	-3,357	1,729	-3,342	2,609
$\phi_r M_n$	(k)	5,377	-5,377	6,857	-5,169	5,377
$f_s$ DC1	(ksi)	8.09	8.97	2.02	8.95	8.11
$f_s$ DC2	(ksi)	0.89	0.81	0.32	0.74	0.98
$f_s$ DW	(ksi)	2.21	2.20	0.47	2.22	2.22
$f_s$ ( $\xi+IM$ )	(ksi)	8.60	8.40	6.19	8.37	8.62
$f_s$ (Service II)	(ksi)	22.37	22.91	10.86	22.80	22.52
0.95R <sub>n</sub> F <sub>yt</sub>	(ksi)	47.50	47.50	47.50	47.50	47.50
$f_s$ (Total)(Strength I)	(ksi)	-	-	-	-	-
$\phi_r F_n$	(ksi)	-	-	-	-	-
V <sub>r</sub>	(k)	32.00	46.60	28.20	48.80	27.50

INTERIOR BEAM REACTION TABLE - BEAM 13-17					
	W. Abut.	Pier 1	Pier 2	E. Abut.	
R <sub>DC1</sub>	(k)	65.6	102.4	102.5	65.9
R <sub>DC2</sub>	(k)	-8.4	5.8	3.0	7.6
R <sub>DW</sub>	(k)	12.8	33.9	34.3	11.0
R $\xi \cdot IM$	(k)	79.2	127.3	127.0	80.6
R <sub>Total</sub>	(k)	149.2	269.4	266.7	165.1

Note: R<sub>DC1</sub> includes an approach slab load of 20.0 kips at each abutment.

- $I_s, S_s$ : Non-composite moment of inertia and section modulus of the steel section used for computing  $f_s$  (Total-Strength I, and Service II) due to non-composite dead loads (in<sup>4</sup> and in<sup>3</sup>).
- $I_c(n), S_c(n)$ : Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing  $f_s$  (Total-Strength I, and Service II) in uncracked sections due to short-term composite live loads (in<sup>4</sup> and in<sup>3</sup>).
- $I_c(3n), S_c(3n)$ : Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing  $f_s$  (Total-Strength I, and Service II) in uncracked sections, due to long-term composite (superimposed) dead loads (in<sup>4</sup> and in<sup>3</sup>).
- $I_c(cr), S_c(cr)$ : Composite moment of inertia and section modulus of the steel and longitudinal deck reinforcement, used for computing  $f_s$  (Total-Strength I and Service II) in cracked sections, due to both short-term composite live loads and long-term composite (superimposed) dead loads (in<sup>4</sup> and in<sup>3</sup>).
- DC1: Un-factored non-composite dead load (kips/ft.).
- M<sub>DC1</sub>: Un-factored moment due to non-composite dead load (kip-ft.).
- DC2: Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).
- M<sub>DC2</sub>: Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).
- DW: Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).
- M<sub>DW</sub>: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).
- $M_{\xi} \cdot IM$ : Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).
- $M_u$  (Strength I): Factored design moment (kip-ft.).  
1.25 (M<sub>DC1</sub> + M<sub>DC2</sub>) + 1.5 M<sub>DW</sub> + 1.75  $M_{\xi} \cdot IM$
- $\phi_r M_n$ : Compact composite positive moment capacity computed according to Article 6.10.7.1 or non-slender negative moment capacity according to Article A6.1.1 or A6.1.2 (kip-ft.).
- $f_s$  DC1: Un-factored stress at edge of flange for controlling steel flange due to vertical non-composite dead loads as calculated below (ksi).  
M<sub>DC1</sub> / S<sub>nc</sub>
- $f_s$  DC2: Un-factored stress at edge of flange for controlling steel flange due to vertical composite dead loads as calculated below (ksi).  
M<sub>DC2</sub> / S<sub>c(3n)</sub> or M<sub>DC2</sub> / S<sub>c(cr)</sub> as applicable.
- $f_s$  DW: Un-factored stress at edge of flange for controlling steel flange due to vertical composite future wearing surface loads as calculated below (ksi).  
M<sub>DW</sub> / S<sub>c(3n)</sub> or M<sub>DW</sub> / S<sub>c(cr)</sub> as applicable.
- $f_s$  ( $\xi+IM$ ): Un-factored stress at edge of flange for controlling steel flange due to vertical composite live load plus impact loads as calculated below (ksi).  
M $\xi \cdot IM$  / S<sub>c(n)</sub> or M $\xi \cdot IM$  / S<sub>c(cr)</sub> as applicable.
- $f_s$  (Service II): Sum of stresses as computed below (ksi).  
f<sub>sDC1</sub> + f<sub>sDC2</sub> + f<sub>sDW</sub> + 1.3 f<sub>s</sub> ( $\xi+IM$ )
- 0.95R<sub>n</sub>F<sub>yt</sub>: Composite stress capacity for Service II loading according to Article 6.10.4.2 (ksi).
- $f_s$  (Total)(Strength I): Sum of stresses as computed below on non-compact section (ksi).  
1.25 (f<sub>sDC1</sub> + f<sub>sDC2</sub>) + 1.5 f<sub>sDW</sub> + 1.75 f<sub>s</sub> ( $\xi+IM$ )
- $\phi_r F_n$ : Non-Compact composite positive or negative stress capacity for Strength I loading according to Article 6.10.7 or 6.10.8 (ksi).
- V<sub>r</sub>: Maximum factored shear range in span computed according to Article 6.10.10.

Note:

$M_{\xi}$  and R $\xi$  include the effects of centrifugal force and superelevation.



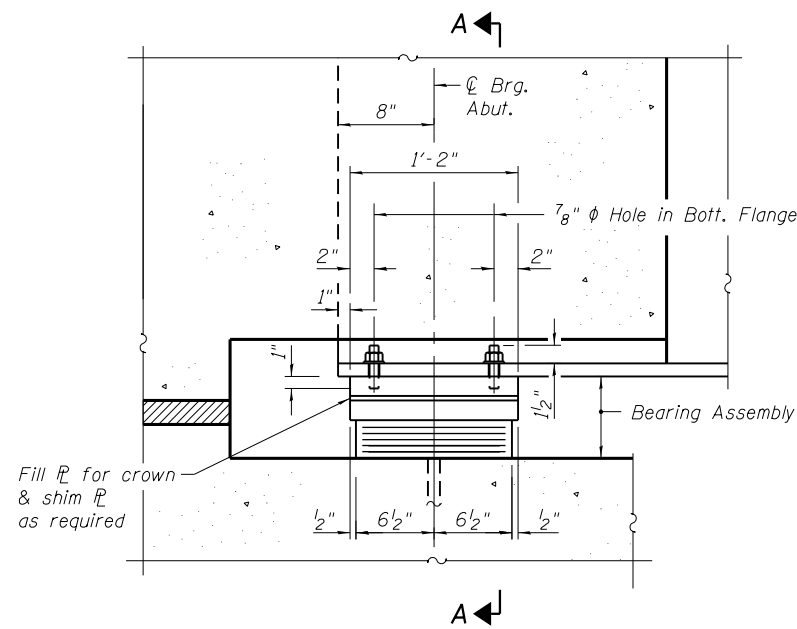
USER NAME = eabuaetherah	DESIGNED - ITC	REVISED
	CHECKED - JFA	REVISED
	DRAWN - LK	REVISED
PLOT DATE = 6/25/2020	CHECKED - JFA	REVISED

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

BEAM DETAILS - 2  
STRUCTURE NO. 099-0062

SHEET NO. 36 OF 54 SHEETS

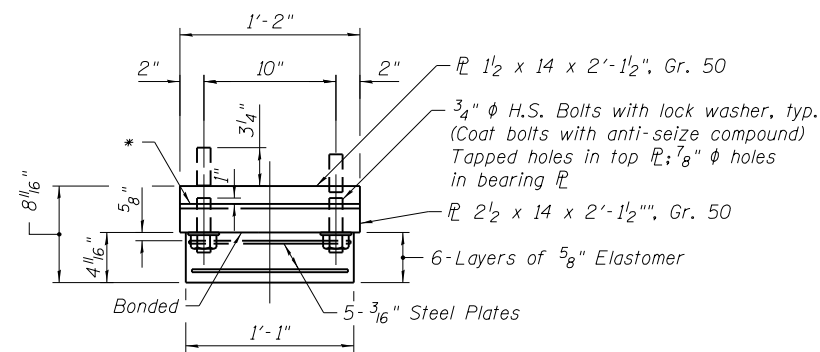
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	271
CONTRACT NO. 60W34				
ILLINOIS FED. AID PROJECT				



**ELEVATION AT ABUT.**

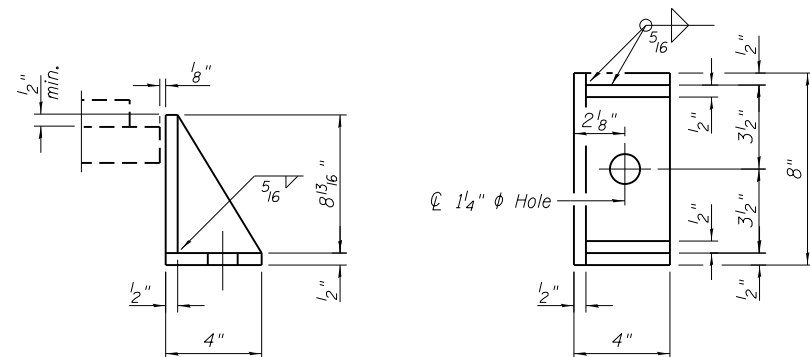
**TYPE I ELASTOMERIC EXP. BRG. AT ABUTMENTS**

(30 Required)



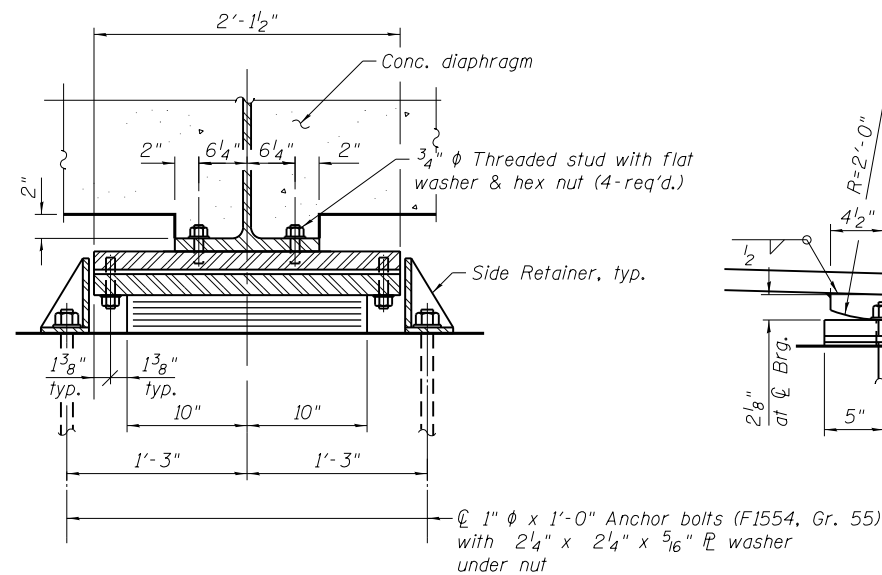
**TOP BEARING ASSEMBLY**

\* Fill plate and shim plate if req'd (1/8" max.)



**SIDE RETAINER**

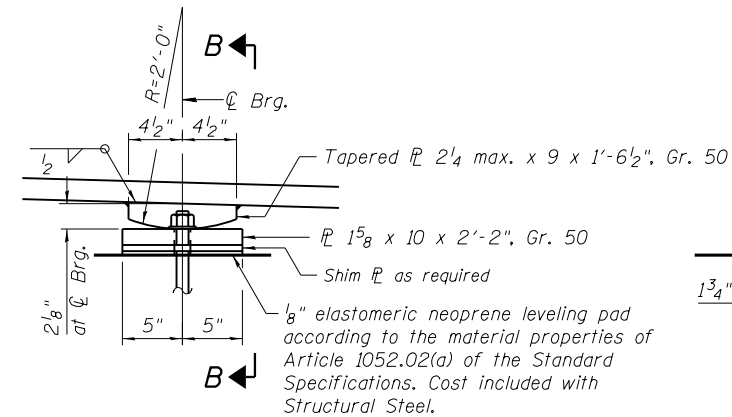
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



**SECTION A-A**

**MANDATORY FILL PLATE THICKNESSES**

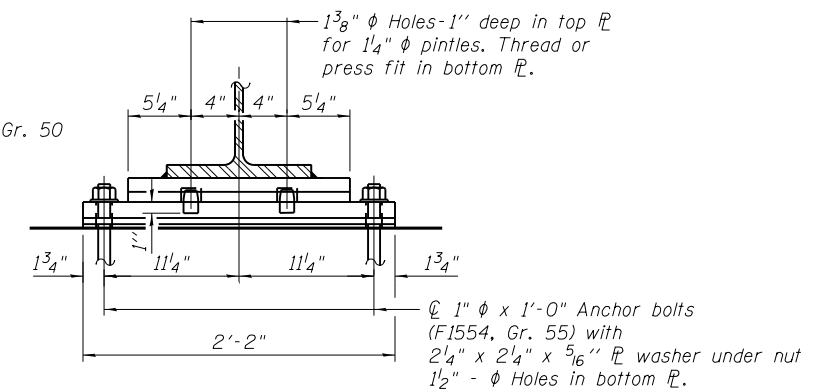
Location	Beam	Thickness
West Abut.	18	3/4"
	21	1/2"
	23	1/2"
	25	5/8"
Pier 1	18	3/8"
	21	5/8"
	23	5/8"
	24	1/8"
	25	5/16"
Pier 2	18	5/8"
	21	9/16"
	22	7/16"
	23	9/16"
	25	5/8"
East Abut.	18	7/8"



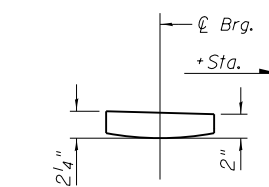
**ELEVATION**

**FIXED BEARING AT PIERS**

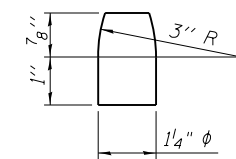
(30 Required)



**SECTION B-B**



**TAPERED TOP PLATE**



**PINTLE**

**Notes:**

- Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
- Side retainers and other steel members required for the elastomeric bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.
- Beams shall be braced for stability during erection and remain braced until deck is poured and cured.
- Anchor bolts and side retainers at all supports shall be installed as each member is erected unless an equivalent temporary means of lateral restraint is used.
- Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.
- The structural steel plates of the Bearing Assembly and the plates and pintles of the fixed bearing shall conform to the requirements of AASHTO M 270 Grade 50.

**BILL OF MATERIAL**

Item	Unit	Total
Elastomeric Bearing Assembly, Type I	Each	30
Anchor Bolts, 1"	Each	120



USER NAME = eabueherah  
PLOT DATE = 6/25/2020

DESIGNED - ACF/APC  
CHECKED - ITC/AMK  
DRAWN - LK  
CHECKED - APC

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REVISED

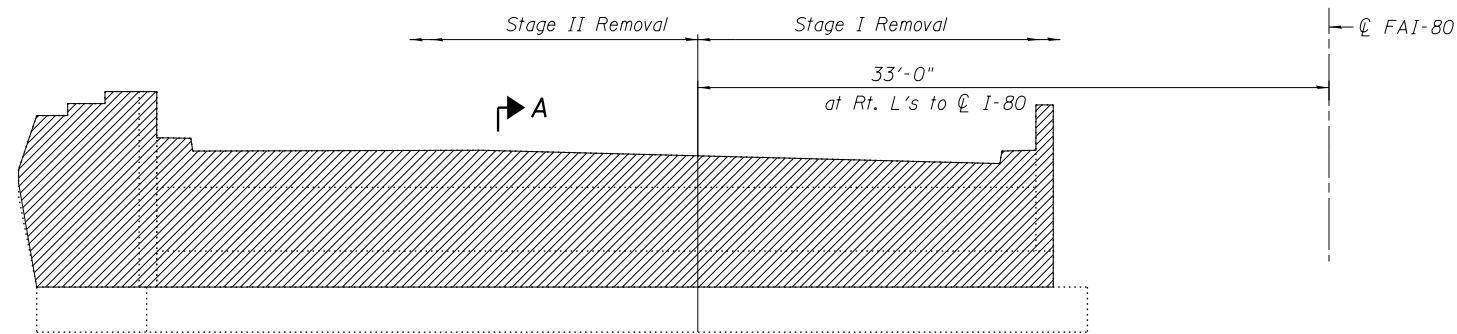
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

BEARING DETAILS  
STRUCTURE NO. 099-0062

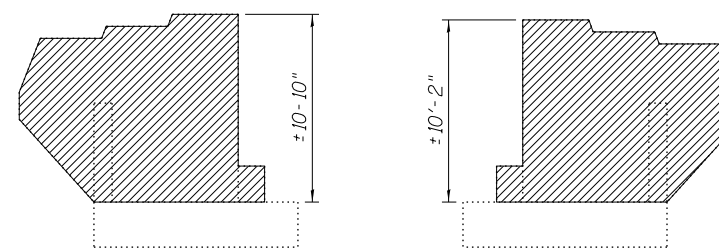
SHEET NO. 37 OF 54 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	272
CONTRACT NO. 60W34				
ILLINOIS FED. AID PROJECT				

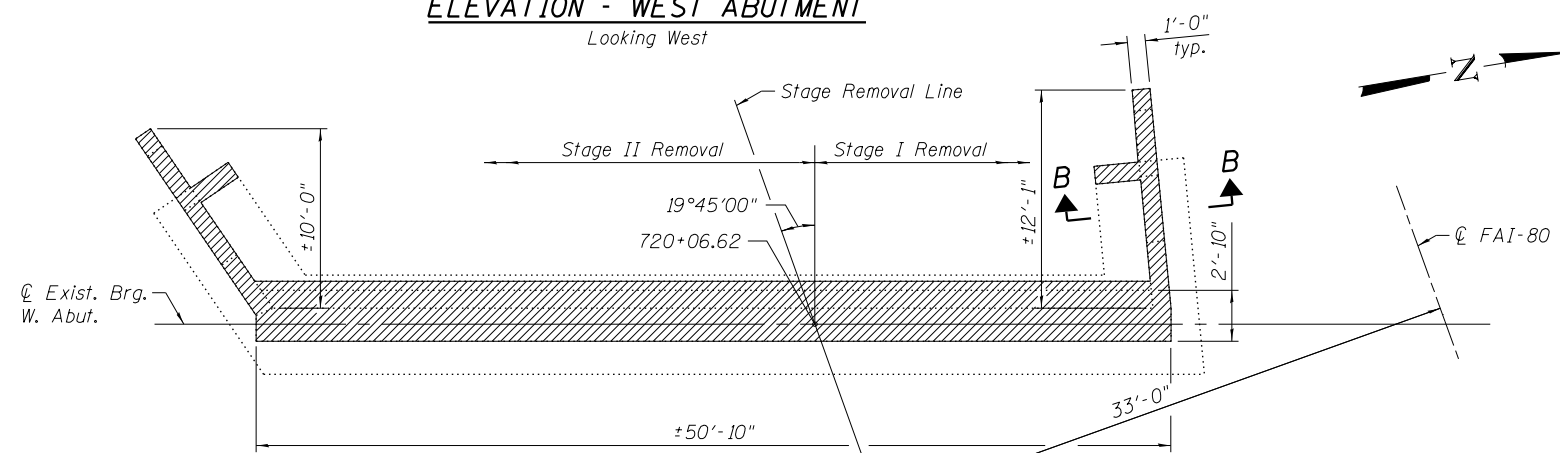




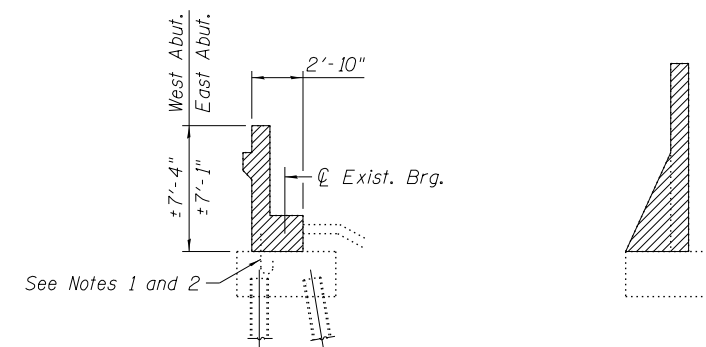
**ELEVATION - WEST ABUTMENT**  
Looking West



**ELEVATION - WEST ABUT. WINGWALLS**

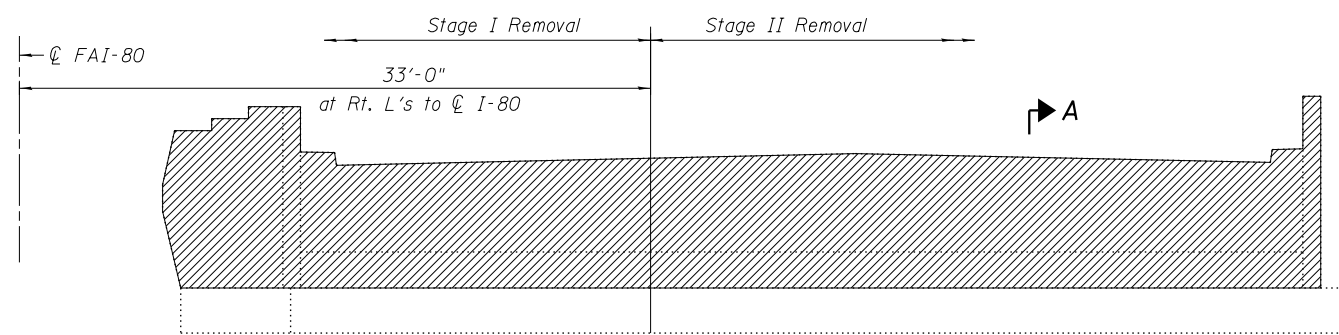


**PLAN - WEST ABUTMENT**

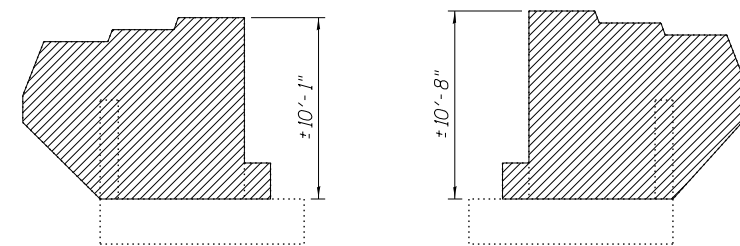


**SECTION A-A**

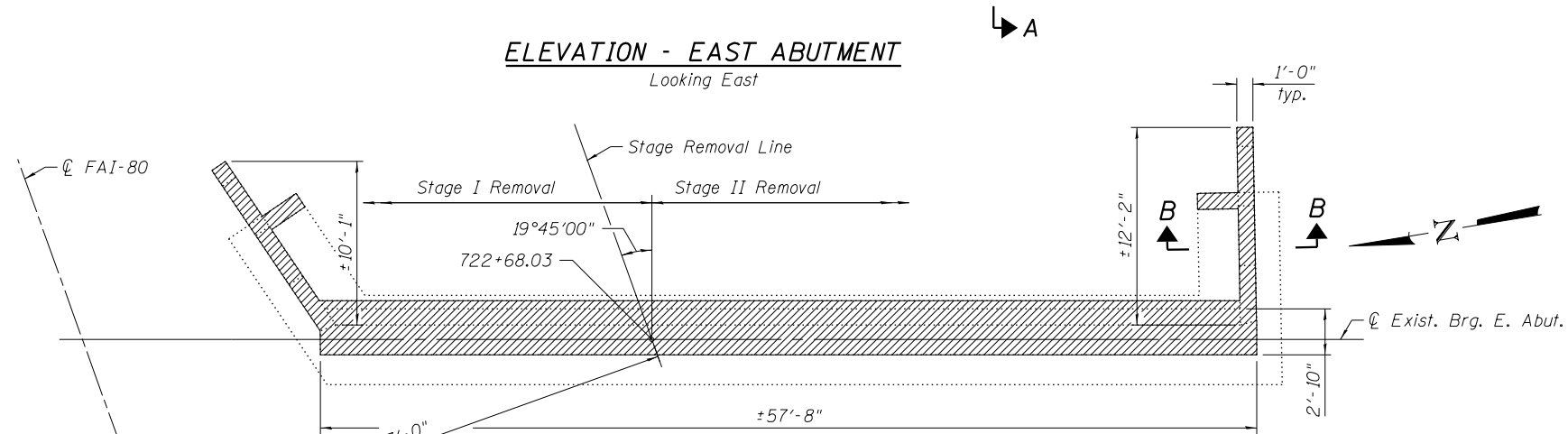
**SECTION B-B**



**ELEVATION - EAST ABUTMENT**  
Looking East



**ELEVATION - EAST ABUT. WINGWALLS**



**PLAN - EAST ABUTMENT**

**LEGEND:**

Concrete Removal

**BILL OF MATERIAL**

Item	Unit	Quantity
Concrete Removal	Cu. Yd.	68.2

- Notes:
- Contractor shall not cut or remove existing reinforcement bars extending from the footing.
  - Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.
  - Existing piles not shown.
  - Any reinforcement bars that are damaged during concrete removal operations shall be repaired or replaced using an approved bar splicer or anchorage system. Cost incidental to "Concrete Removal".
  - Any damage to portions of the existing structure to remain in service shall be repaired by the Contractor at no additional cost to the Department.



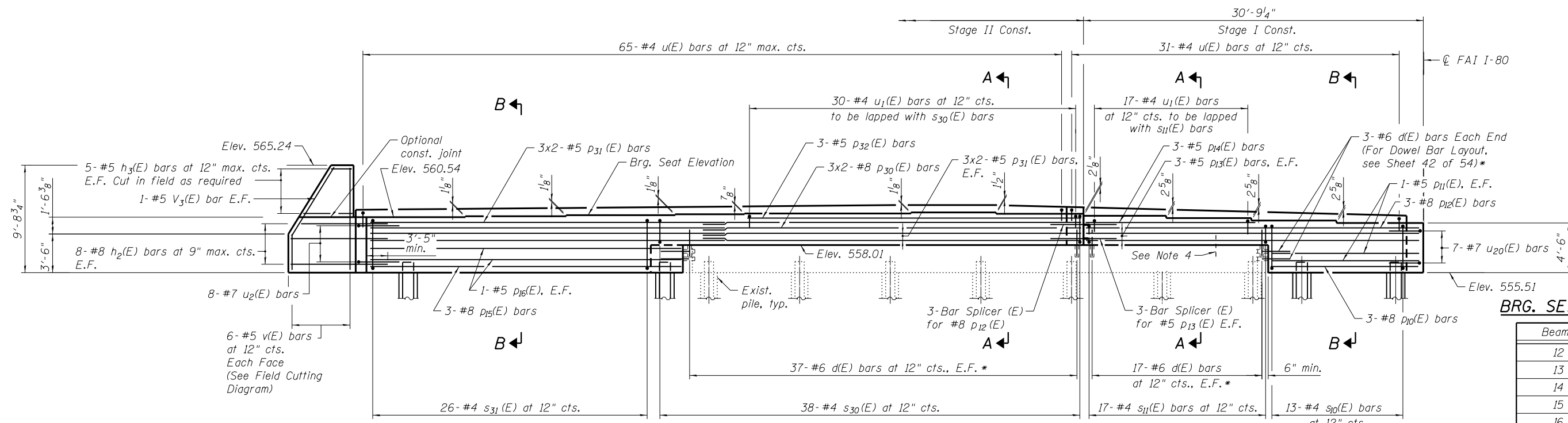
USER NAME = eabuerah	DESIGNED - ACF	REVISED
	CHECKED - TAT	REVISED
	DRAWN - LK	REVISED
	CHECKED - TAT	REVISED
PLOT DATE = 6/25/2020		

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**ABUTMENT REMOVAL DETAILS  
STRUCTURE NO. 099-0062**

SHEET NO. 38 OF 54 SHEETS

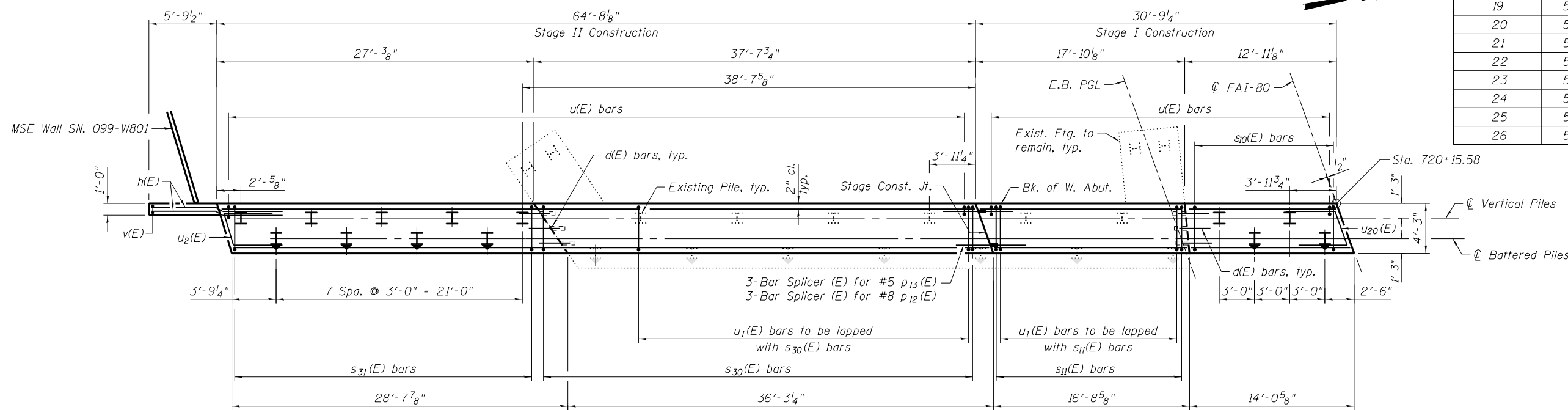
F.A.I. RTE. 80	SECTION 2013-008B	COUNTY WILL	TOTAL SHEETS 511	SHEET NO. 273
CONTRACT NO. 60W34				
ILLINOIS FED. AID PROJECT				



**ELEVATION**

**BRG. SEAT ELEVATIONS**

Beam	Elev.
12	560.01
13	560.23
14	560.45
15	560.67
16	560.85
17	560.97
18	560.88
19	560.88
20	560.81
21	560.72
22	560.72
23	560.63
24	560.63
25	560.54
26	560.54



**PLAN - PILE CAP**

**PILE DATA**

Type: HP 12x53  
 Nominal Required Bearing: 419 kips  
 Factored Resistance Available: 230 kips  
 Est. Length: 39 ft  
 No. Production Piles: 12  
 No. Test Piles: 1  
 Est. Top of Rock Elev.: 519.20

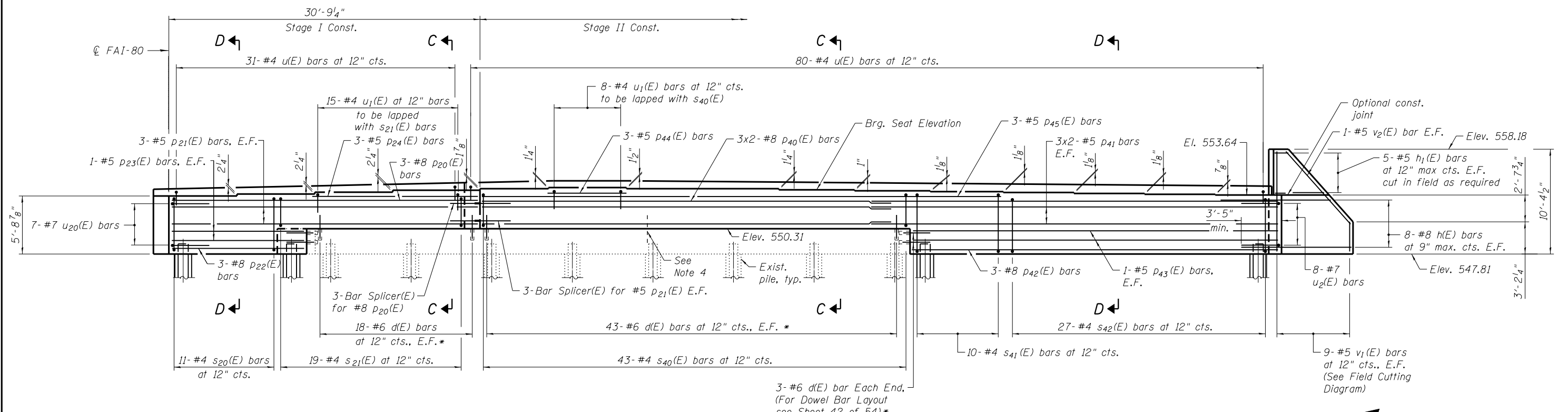
**MINIMUM BAR LAP**

#5 bars = 3'-8"  
 #8 bars = 7'-8"

\* Drill and grout bars according to Article 584 of the standard specifications with a minimum embedment of 1'-0". Cost included with Reinforcement Bars, Epoxy Coated.

**Notes:**

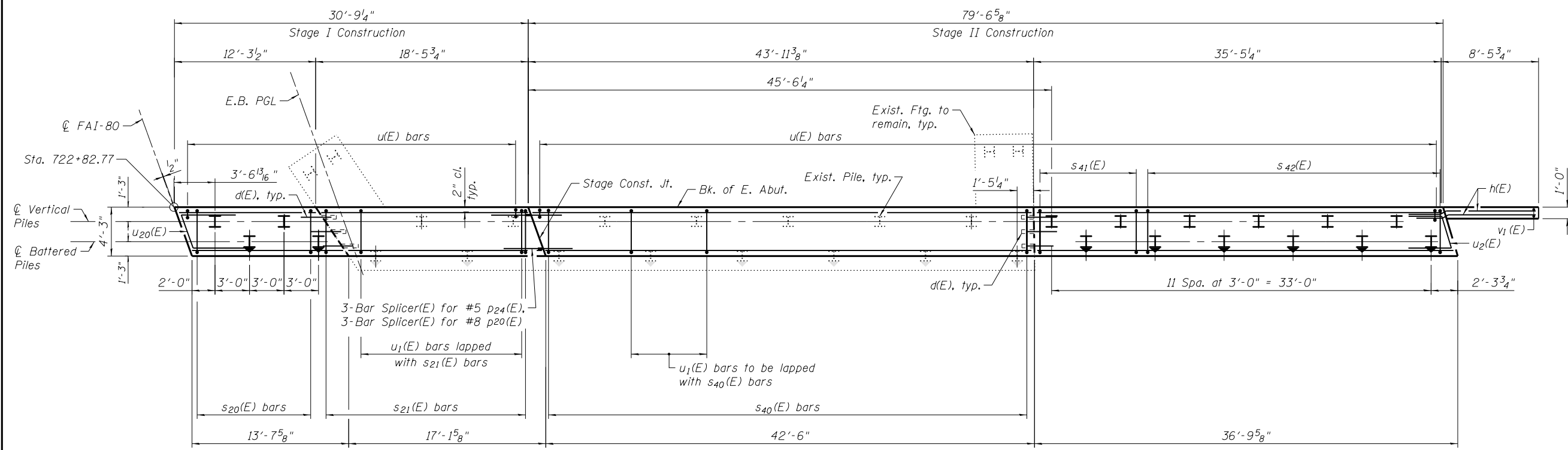
- Place reinforcement to clear piles, d(E) bars, and anchor bolt locations.
- For sections A-A and B-B, see Sheet 42 of 54.
- For bearing spacing details, see Sheet 41 of 54.
- Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.
- See Sheet 38 of 54 for Concrete Removal Details.
- Order Bars p<sub>10</sub>(E), p<sub>11</sub>(E), p<sub>14</sub>(E), p<sub>15</sub>(E), p<sub>16</sub>(E) and p<sub>32</sub>(E) full length. Cut bars in field to fit as needed.
- Piles shown as battered should be battered at 3H:12V.



**ELEVATION**

**BRG. SEAT ELEVATIONS**

Beam	Elev.
12	553.55
13	553.74
14	553.93
15	554.12
16	554.28
17	554.38
18	554.25
19	554.25
20	554.15
21	554.07
22	553.98
23	553.89
24	553.80
25	553.71
26	553.64



**PLAN - PILE CAP**

**PILE DATA**

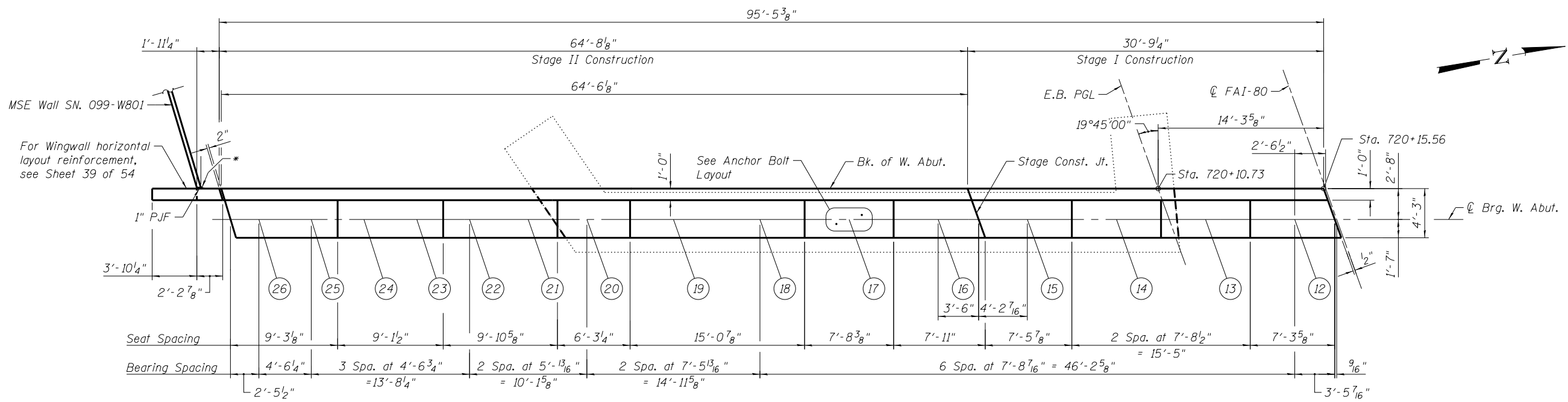
Type: HP 12x53  
 Nominal Required Bearing: 419 kips  
 Factored Resistance Available: 230 kips  
 Est. Length: 30 ft  
 No. Production Piles: 15  
 No. Test Piles: 1  
 Est. Top of Rock Elev.: 519.90

**MINIMUM BAR LAP**

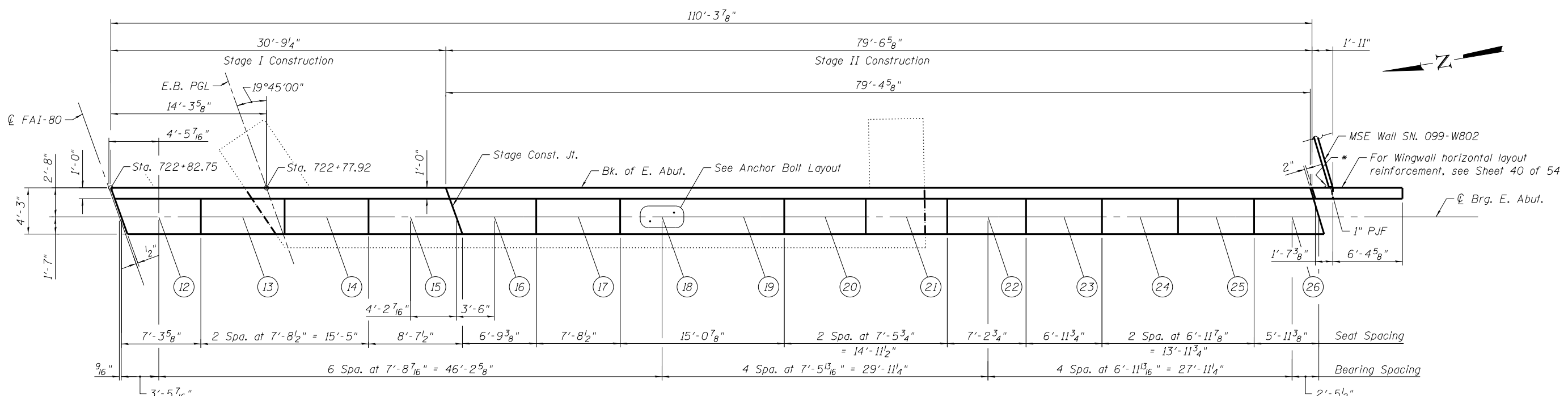
#5 bars = 3'-8"  
 #8 bars = 7'-8"

\* Drill and grout bars according to Article 584 of the standard specifications with a minimum embedment of 1'-0". Cost included with Reinforcement Bars, Epoxy Coated.

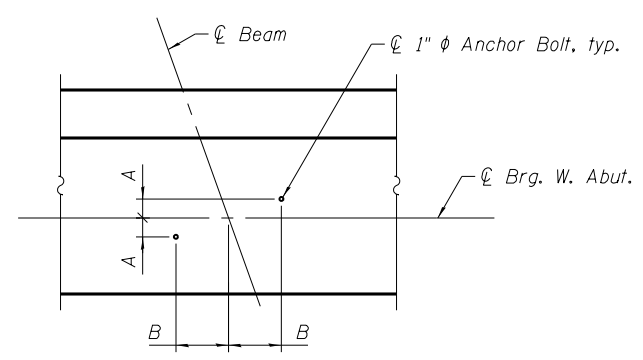
- Notes:
- Place reinforcement to clear piles, d(E) bars, and anchor bolt locations.
  - For sections C-C, D-D, see Sheet 42 of 54.
  - Order bars p<sub>22</sub>(E), p<sub>23</sub>(E), p<sub>24</sub>(E), p<sub>42</sub>(E), p<sub>43</sub>(E) and p<sub>45</sub>(E) full length. Cut bars in field to fit as needed.
  - Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.
  - Piles shown as battered should be battered at 3H:12V.
  - For bearing spacing details, see Sheet 41 of 54.
  - See Sheet 38 of 54 for Concrete Removal Details.



TOP PLAN - WEST ABUTMENT



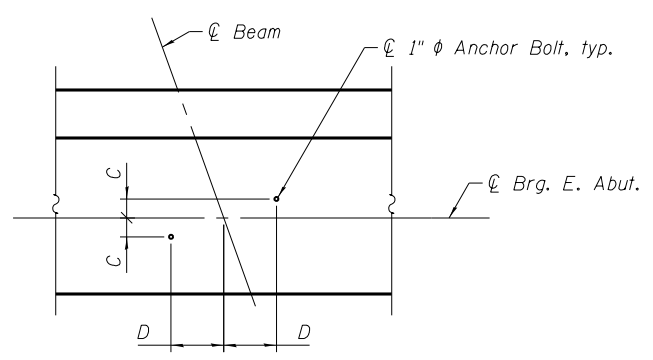
TOP PLAN - EAST ABUTMENT



ANCHOR BOLT LAYOUT - WEST ABUTMENT

A & B DIMENSIONS

Beam	A	B
12-20	5 1/16"	1'-2 1/8"
21	4 15/16"	1'-2 3/16"
22	4 13/16"	1'-2 3/16"
23	4 11/16"	1'-2 1/4"
24	4 9/16"	1'-2 5/16"
25	4 7/16"	1'-2 5/16"
26	4 15/16"	1'-2 3/8"



ANCHOR BOLT LAYOUT - EAST ABUTMENT

C & D DIMENSIONS

Beam	C	D
12-20	5 1/16"	1'-2 1/8"
21	4 15/16"	1'-2 3/16"
22	4 13/16"	1'-2 3/16"
23	4 11/16"	1'-2 1/4"
24	4 9/16"	1'-2 5/16"
25	4 7/16"	1'-2 5/16"
26	4 5/16"	1'-2 3/8"

\* Geotechnical Fabric for french drains attached full width and vertically at edges of MSE Wall and wingwall. Cost included. Cost included with "Pipe Underdrains for Structures 4"



USER NAME = eabuerah  
 DESIGNED - APC/ITC/NJM  
 CHECKED - ACF  
 DRAWN - LK  
 CHECKED - APC  
 PLOT DATE = 6/25/2020

DESIGNED - APC/ITC/NJM  
 CHECKED - ACF  
 DRAWN - LK  
 CHECKED - APC

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STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

ABUTMENT DETAILS - 1  
 STRUCTURE NO. 099-0062

SHEET NO. 41 OF 54 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	276
CONTRACT NO. 60W34				

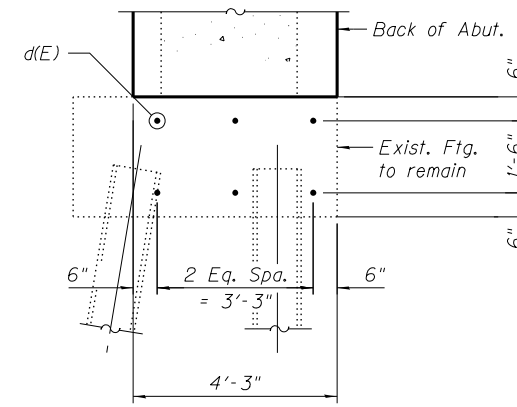
ILLINOIS FED. AID PROJECT

**WEST ABUTMENT  
BILL OF MATERIAL**

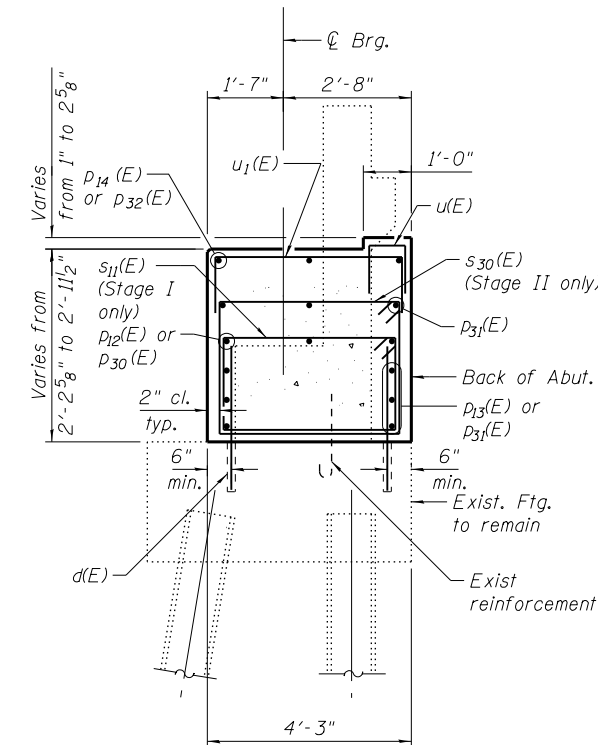
Bar	No.	Size	Length	Shape
d(E)	120	#6	3'-0"	
h <sub>2</sub> (E)	16	#8	9'-4"	
h <sub>3</sub> (E)	10	#5	4'-7"	
p <sub>10</sub> (E)	3	#8	13'-8"	
p <sub>11</sub> (E)	4	#5	13'-8"	
p <sub>12</sub> (E)	3	#8	30'-6"	
p <sub>13</sub> (E)	6	#5	30'-6"	
p <sub>14</sub> (E)	3	#5	16'-4"	
p <sub>15</sub> (E)	3	#8	28'-3"	
p <sub>16</sub> (E)	4	#5	28'-3"	
p <sub>30</sub> (E)	6	#8	36'-2"	
p <sub>31</sub> (E)	18	#5	34'-2"	
p <sub>32</sub> (E)	3	#5	30'-4"	
s <sub>10</sub> (E)	13	#4	16'-9"	□
s <sub>11</sub> (E)	17	#4	11'-11"	□
s <sub>30</sub> (E)	38	#4	12'-11"	□
s <sub>31</sub> (E)	26	#4	17'-9"	□
u(E)	96	#4	2'-10"	U
u <sub>1</sub> (E)	47	#4	7'-11"	U
u <sub>2</sub> (E)	8	#7	11'-8"	U
u <sub>20</sub> (E)	7	#7	11'-9"	U
v(E)	6	#5	12'-6"	
v <sub>3</sub> (E)	2	#5	7'-2"	
Structure Excavation	Cu Yd		461	
Concrete Structures	Cu Yd		58.1	
Concrete Encasement	Cu Yd		59.0	
Reinforcement Bars, Epoxy Coated	Pound		4,760	
Furnishing Steel Piles, HP 12x53	Foot		480	
Driving Piles	Foot		480	
Test Pile Steel HP12x53	Each		1	

**EAST ABUTMENT  
BILL OF MATERIAL**

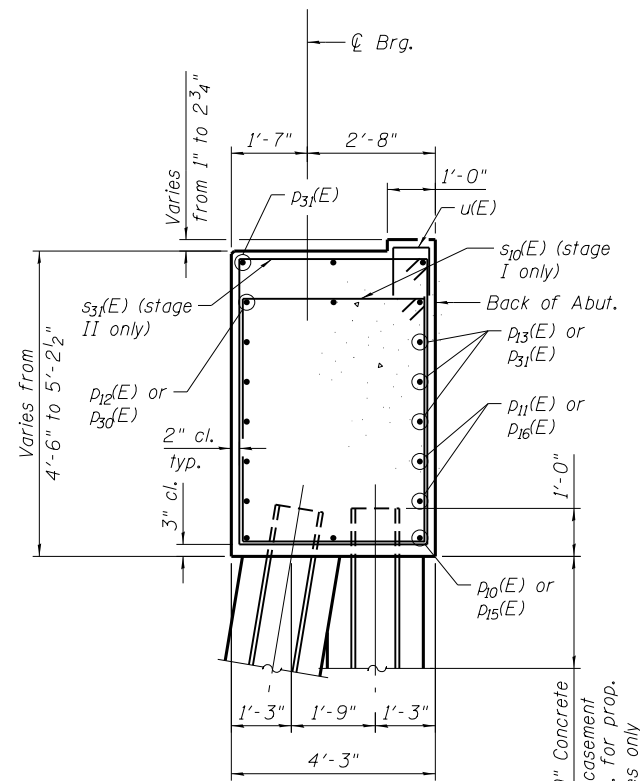
Bar	No.	Size	Length	Shape
d(E)	134	#6	3'-0"	
h(E)	16	#8	11'-4"	
h <sub>1</sub> (E)	10	#5	5'-8"	
p <sub>20</sub> (E)	3	#8	30'-6"	
p <sub>21</sub> (E)	6	#5	30'-6"	
p <sub>22</sub> (E)	3	#8	13'-4"	
p <sub>23</sub> (E)	4	#5	13'-4"	
p <sub>24</sub> (E)	3	#5	16'-0"	
p <sub>40</sub> (E)	6	#8	43'-6"	
p <sub>41</sub> (E)	12	#5	41'-6"	
p <sub>42</sub> (E)	3	#8	36'-5"	
p <sub>43</sub> (E)	4	#5	36'-5"	
p <sub>44</sub> (E)	3	#5	7'-4"	
p <sub>45</sub> (E)	3	#5	52'-7"	
s <sub>20</sub> (E)	11	#4	19'-3"	□
s <sub>21</sub> (E)	19	#4	14'-9"	□
s <sub>40</sub> (E)	43	#4	15'-3"	□
s <sub>41</sub> (E)	10	#4	20'-1"	□
s <sub>42</sub> (E)	27	#4	19'-5"	□
u(E)	111	#4	2'-10"	U
u <sub>1</sub> (E)	23	#4	7'-11"	U
u <sub>2</sub> (E)	8	#7	11'-8"	U
u <sub>20</sub> (E)	7	#7	11'-9"	U
v <sub>1</sub> (E)	9	#5	12'-10"	
v <sub>2</sub> (E)	2	#5	9'-6"	
Structure Excavation	Cu Yd		467	
Concrete Structures	Cu Yd		87.4	
Concrete Encasement	Cu Yd		55.9	
Reinforcement Bars, Epoxy Coated	Pound		5,730	
Furnishing Steel Piles, HP 12x53	Foot		466	
Driving Piles	Foot		466	
Test Pile Steel HP12x53	Each		1	



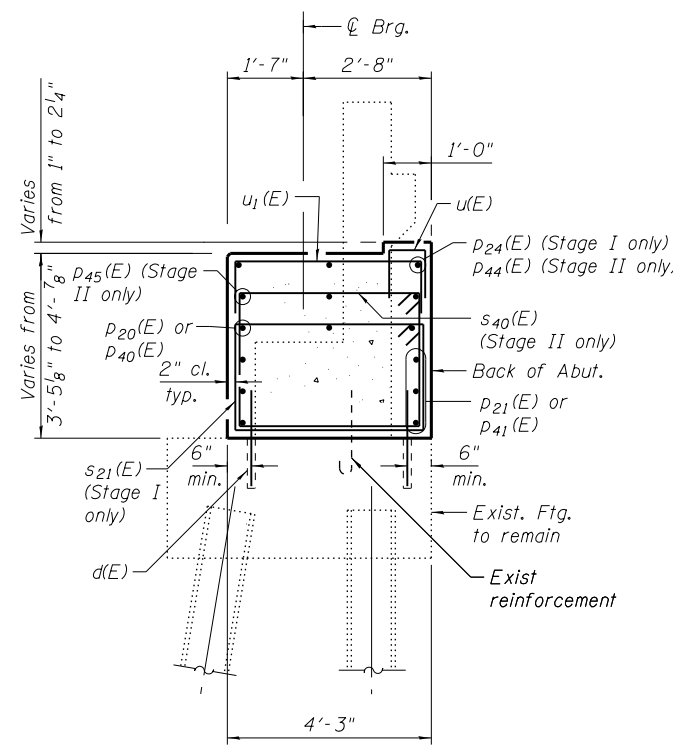
**d(E) BAR LAYOUT**



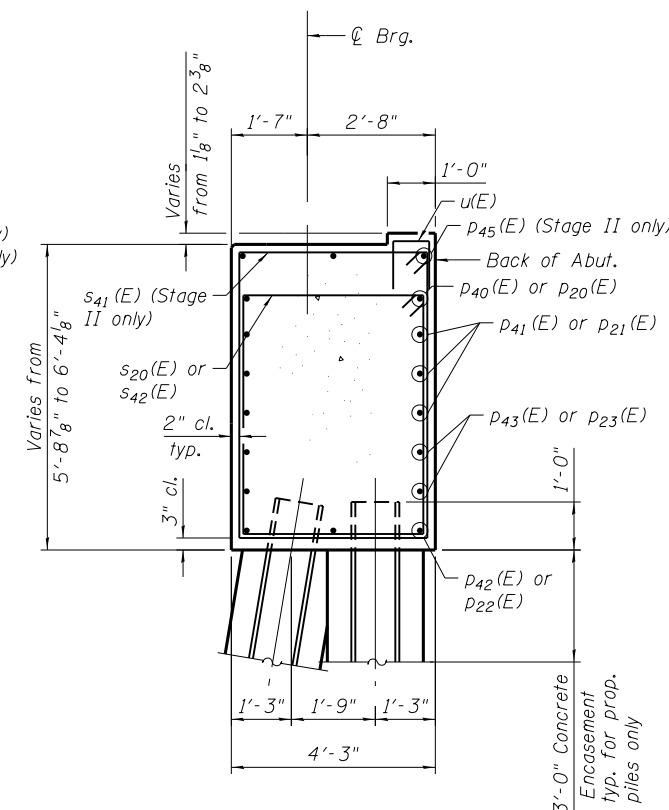
**SECTION A-A**



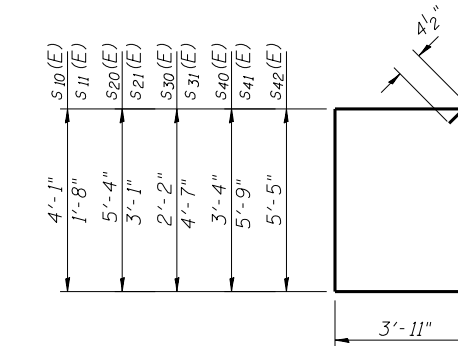
**SECTION B-B**



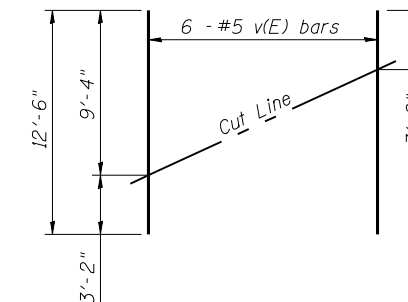
**SECTION C-C**



**SECTION D-D**

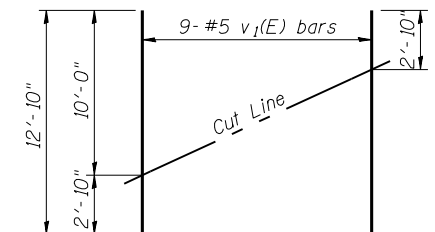


**BARS s<sub>10</sub>(E), s<sub>11</sub>(E), s<sub>20</sub>(E), s<sub>21</sub>(E), s<sub>30</sub>(E), s<sub>31</sub>(E), s<sub>40</sub>(E), s<sub>41</sub>(E), & s<sub>42</sub>(E)**



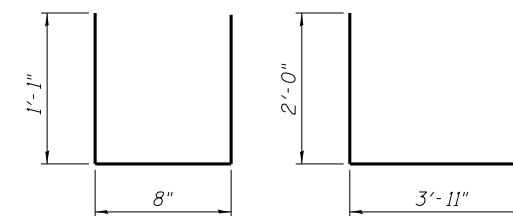
**FIELD CUTTING DIAGRAM**

Order v(E) full length. Cut as shown and use remainder of bars in opposite face.



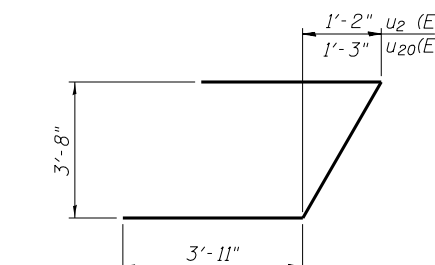
**FIELD CUTTING DIAGRAM**

Order v<sub>1</sub>(E) full length. Cut as shown and use remainder of bars in opposite face.



**BAR u(E)**

**BAR u<sub>1</sub>(E)**



**BAR u<sub>2</sub>(E) & u<sub>20</sub>(E)**



USER NAME = eabueherah  
PLOT DATE = 6/25/2020

DESIGNED - APC/ITC/NJM  
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DRAWN - LK  
CHECKED - APC

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REVISED  
REVISED

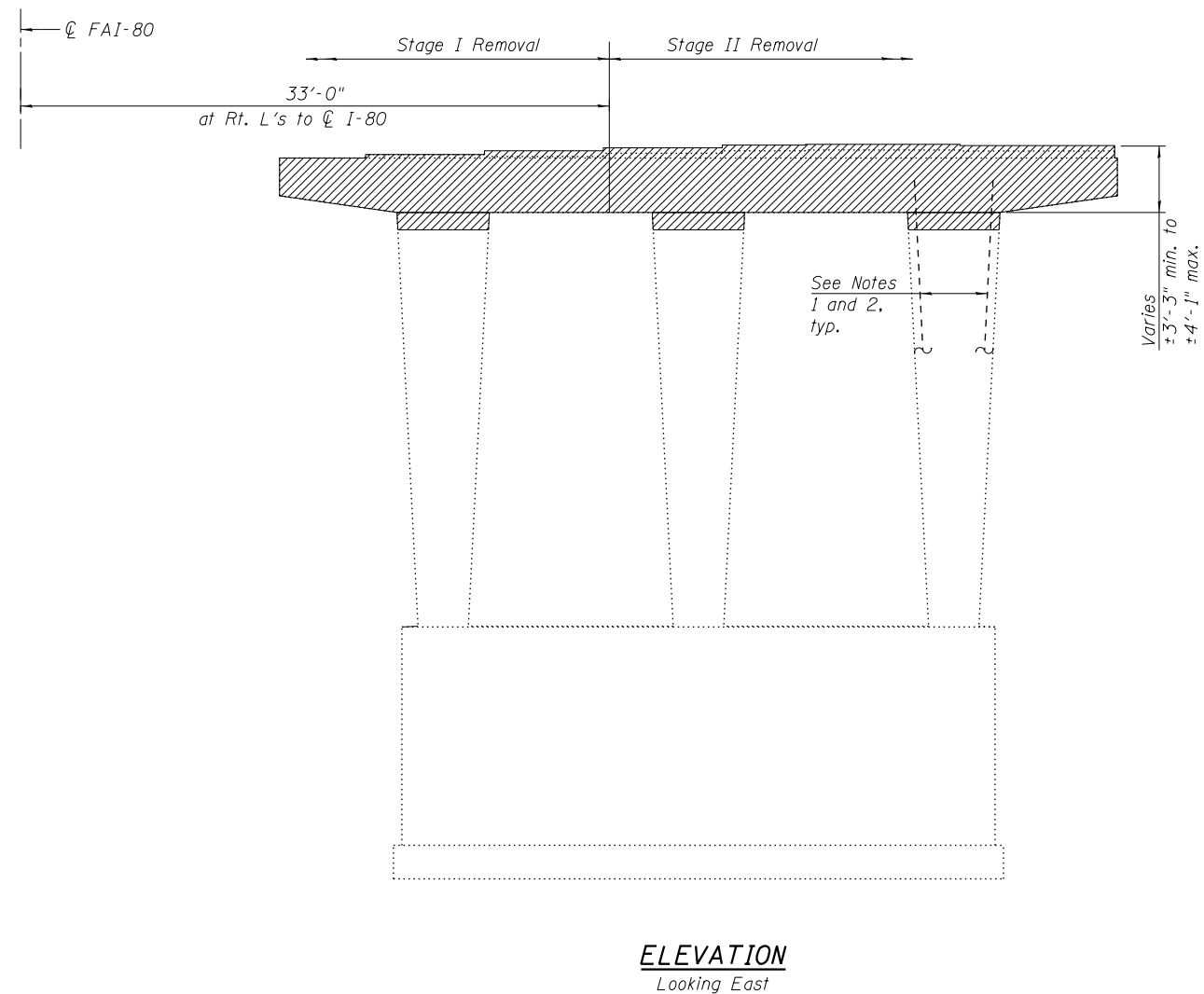
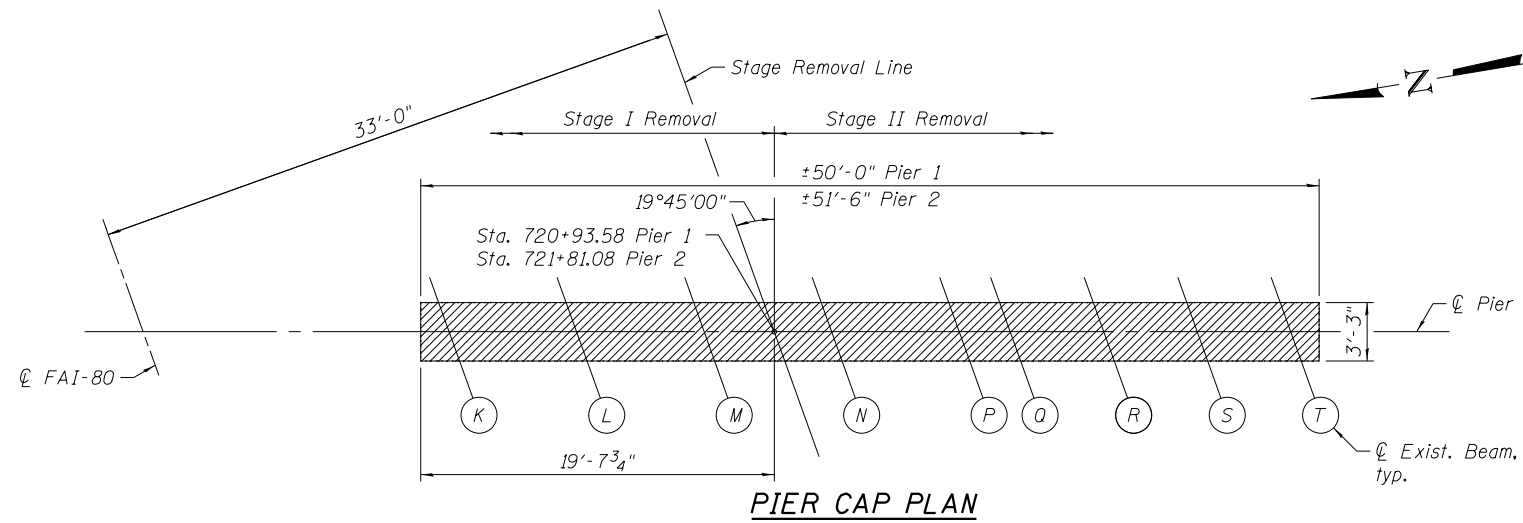
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**ABUTMENT DETAILS - 2  
STRUCTURE NO. 099-0062**

SHEET NO. 42 OF 54 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	277
CONTRACT NO. 60W34				

ILLINOIS FED. AID PROJECT



**BILL OF MATERIAL**

Item	Unit	Quantity
Concrete Removal	Cu. Yd.	45.1

**LEGEND:**

Concrete Removal

*Notes:*

1. Contractor shall not cut or remove existing reinforcement bars extending from the column.
2. Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.
3. Remove portion of existing columns as required to the bottom of the new pier cap elevations as determined in the following sheets. Cost included with Concrete Removal.
4. Any reinforcement bars that are damaged during concrete removal operations shall be repaired or replaced using an approved bar splicer or anchorage system. Cost incidental to "Concrete Removal".



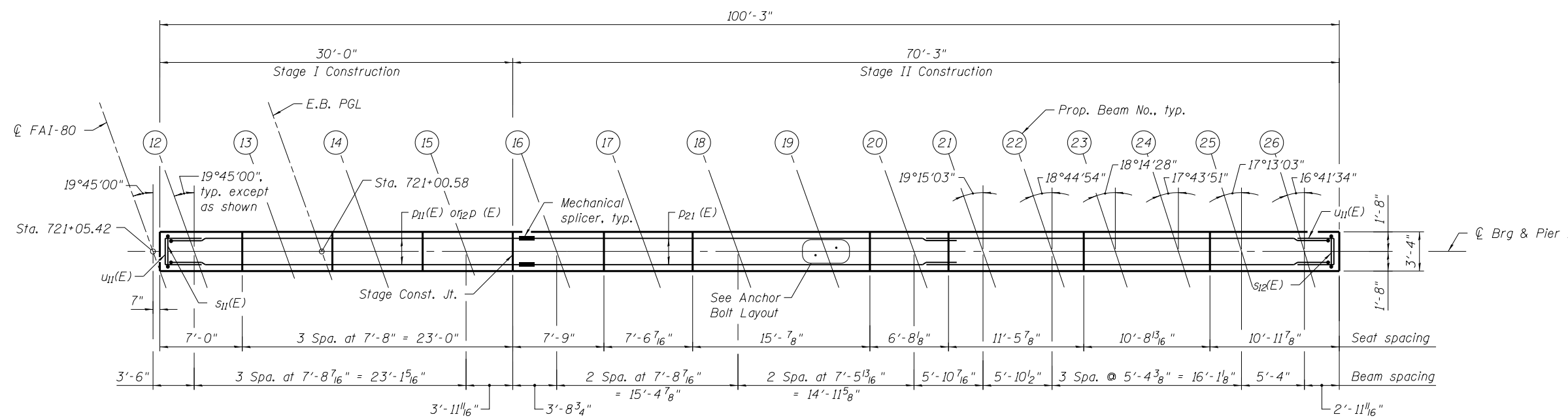
USER NAME = eabutherah	DESIGNED - ACF	REVISED
	CHECKED - TAT	REVISED
	DRAWN - LK	REVISED
PLOT DATE = 6/25/2020	CHECKED - TAT	REVISED

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

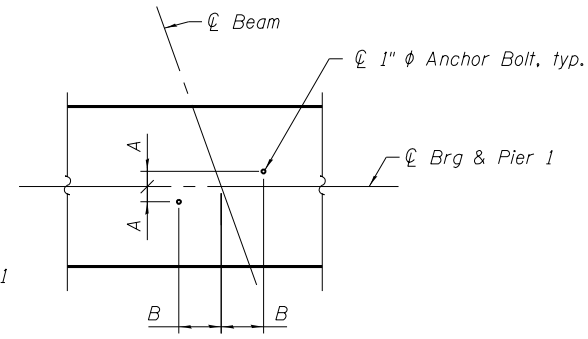
PIER REMOVAL DETAILS  
STRUCTURE NO. 099-0062

SHEET NO. 43 OF 54 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	278
CONTRACT NO. 60W34				
ILLINOIS FED. AID PROJECT				



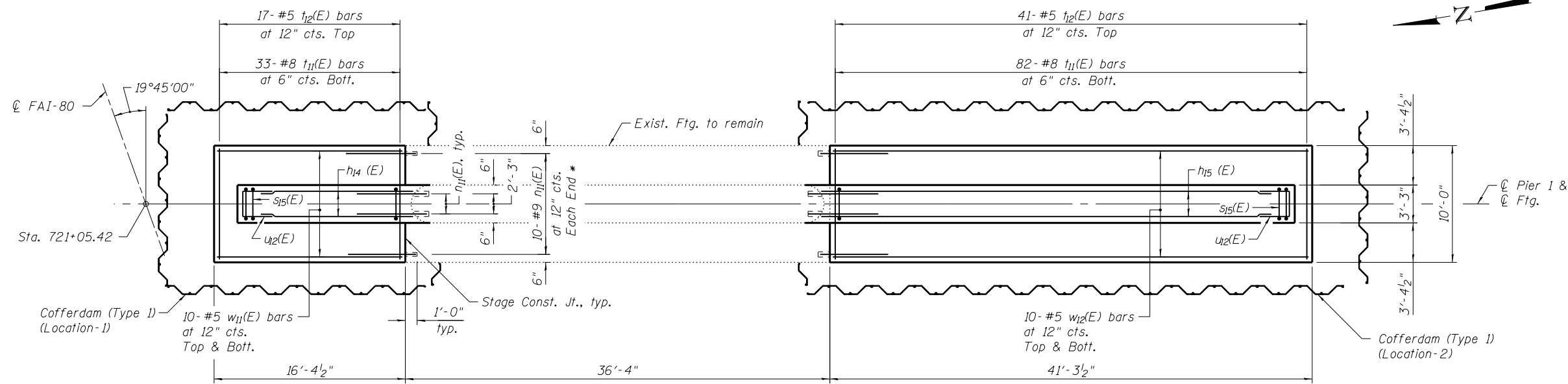
**TOP PLAN**



**ANCHOR BOLT LAYOUT**

**A & B DIMENSIONS**

Beam	A	B
12-20	3 <sup>3</sup> / <sub>16</sub> "	10 <sup>9</sup> / <sub>16</sub> "
21	3 <sup>11</sup> / <sub>16</sub> "	10 <sup>5</sup> / <sub>8</sub> "
22	3 <sup>5</sup> / <sub>8</sub> "	10 <sup>5</sup> / <sub>8</sub> "
23	3 <sup>1</sup> / <sub>2</sub> "	10 <sup>11</sup> / <sub>16</sub> "
24	3 <sup>7</sup> / <sub>16</sub> "	10 <sup>11</sup> / <sub>16</sub> "
25	3 <sup>5</sup> / <sub>16</sub> "	10 <sup>3</sup> / <sub>4</sub> "
26	3 <sup>1</sup> / <sub>4</sub> "	10 <sup>3</sup> / <sub>4</sub> "



**FOOTING PLAN**

- Notes:
1. Space reinforcement in cap to miss anchor bolts. Pour steps monolithically with cap.
  2. For Pier elevation see Sheet 45 of 54.
  3. For Bill of Material and bar bending diagram see Sheet 48 of 54.

\* Drill and grout bars according to Article 584 of the standard specifications with a minimum embedment of 1'-0". Cost included with Reinforcement Bars, Epoxy Coated.



USER NAME = eabueherah	DESIGNED - APC/MLK	REVISED
	CHECKED - PCA	REVISED
	DRAWN - LK	REVISED
PLOT DATE = 6/25/2020	CHECKED - APC/TAT	REVISED

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PIER 1 DETAILS - 1  
STRUCTURE NO. 099-0062**

SHEET NO. 44 OF 54 SHEETS

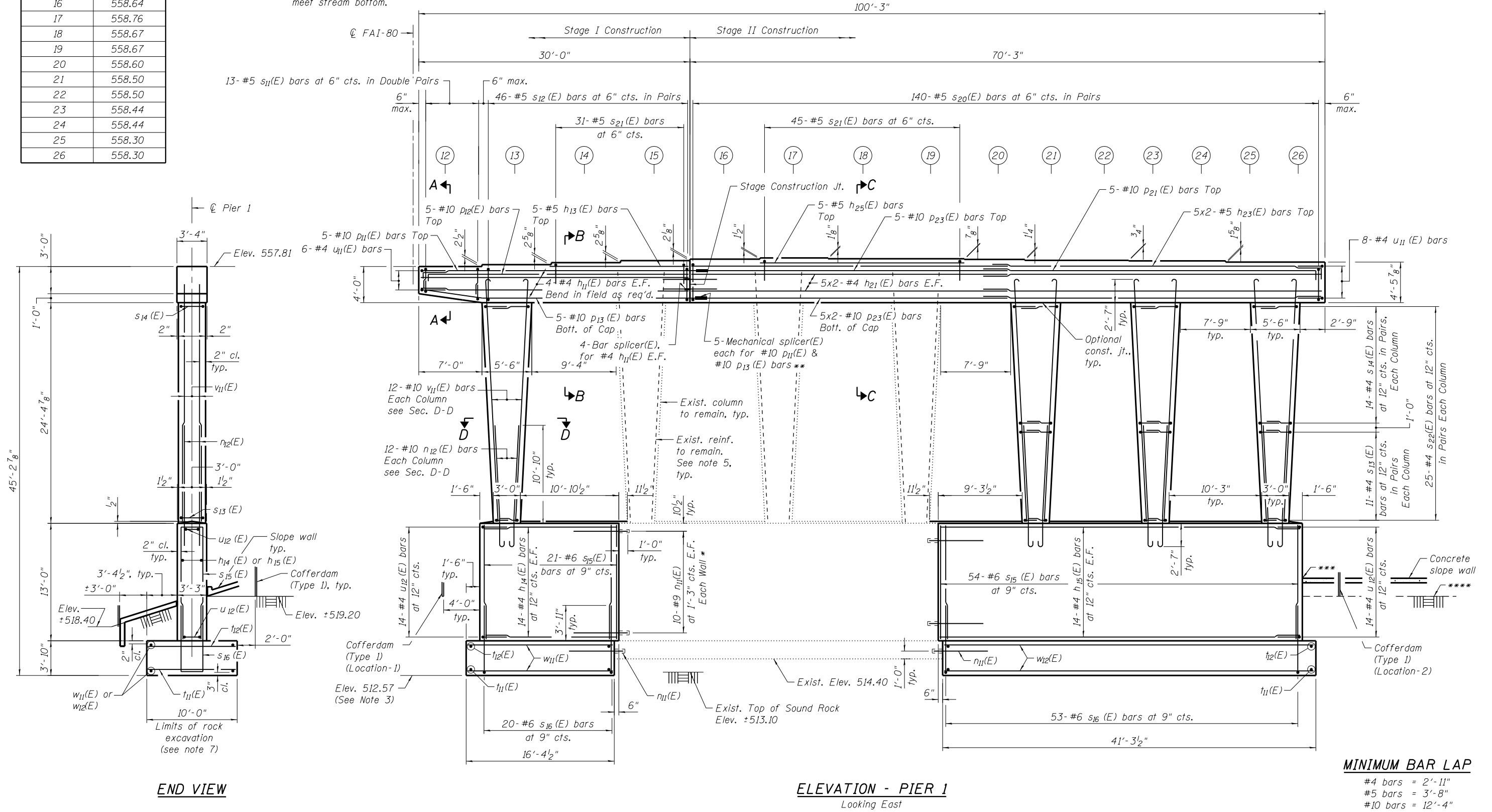
F.A.I. RTE. 80	SECTION 2013-008B	COUNTY WILL	TOTAL SHEETS 511	SHEET NO. 279
CONTRACT NO. 60W34			ILLINOIS FED. AID PROJECT	

**BRG. SEAT ELEVATIONS**

Beam	Elev.
12	557.81
13	558.02
14	558.24
15	558.46
16	558.64
17	558.76
18	558.67
19	558.67
20	558.60
21	558.50
22	558.50
23	558.44
24	558.44
25	558.30
26	558.30

- \* Drill and grout bars according to Article 584 of the standard specifications with a minimum embedment of 1'-0". Cost included with Reinforcement Bars, Epoxy Coated.
- \*\* The longitudinal bars in the pier cap are detailed with a 1 foot extension length beyond the stage construction joint to accommodate the mechanical couplers. Contractor shall adjust the extension length based on the selected mechanical splicer assembly.
- \*\*\* Elev. ±521.2 at East Face, match existing slope wall elevation.
- \*\*\*\* Top of Rock and bott. of Cofferdam Excavation is approximately Elev. ±519.20 and varies to meet stream bottom.

- Notes:
1. Space reinforcement in cap to miss anchor bolts.
  2. Pour steps monolithically with cap.
  3. The proposed bottom of footing elevations for all piers shall be located at the adjoining existing bottom of footing elevation or six inches below top of sound rock, whichever is lowest. The rock excavation shall be made with near-vertical sides at the plan dimensions to allow the sides and base of the embedded portion of the footing to be cast against undisturbed rock surfaces.
  4. For Bill of Material, sections and bar bending diagrams, see Sheet 48 of 54.
  5. Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.
  6. The maximum applied service bearing pressure  $Q_{max} = 8.3 \text{ ksf}$ .
  7. Limits of rock excavation shall include the removal of rock for pier foundation and slope wall.



**MINIMUM BAR LAP**  
 #4 bars = 2'-11"  
 #5 bars = 3'-8"  
 #10 bars = 12'-4"



USER NAME = #USER#	DESIGNED - APC/MLK	REVISED
	CHECKED - PCA	REVISED
	DRAWN - LK	REVISED
PLOT DATE = #DATE#	CHECKED - APC/TAT	REVISED

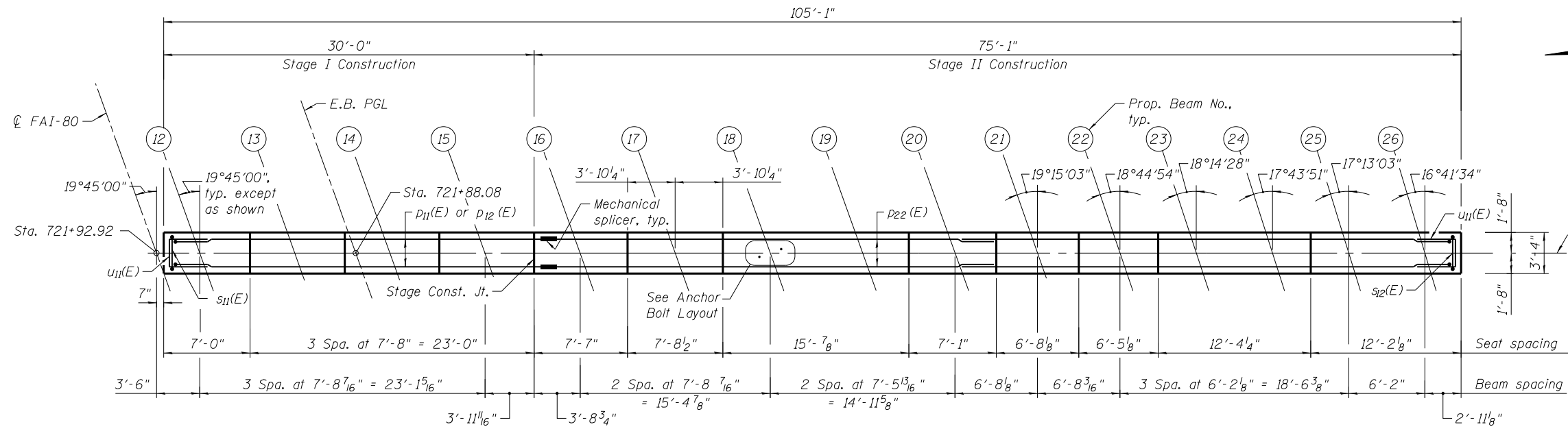
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PIER 1 DETAILS - 2  
STRUCTURE NO. 099-0062**

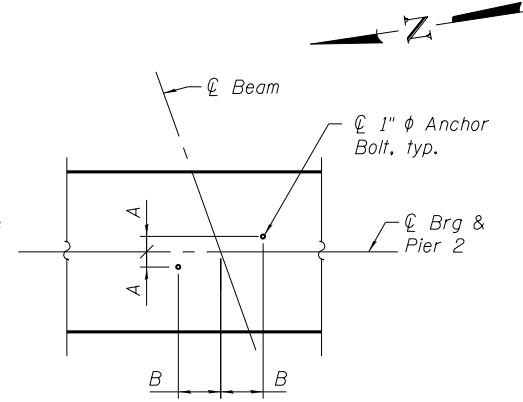
SHEET NO. 45 OF 54 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	280
CONTRACT NO. 60W34				
ILLINOIS FED. AID PROJECT				





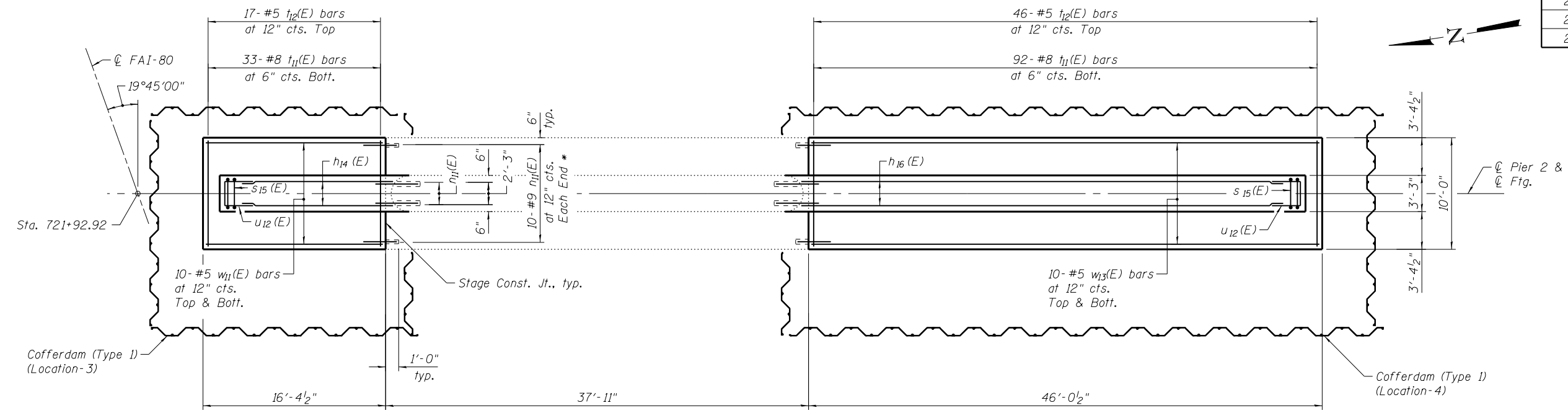
**TOP PLAN**



**ANCHOR BOLT LAYOUT**

**A & B DIMENSIONS**

Beam	A	B
12-20	3 <sup>13</sup> / <sub>16</sub> "	10 <sup>9</sup> / <sub>16</sub> "
21	3 <sup>11</sup> / <sub>16</sub> "	10 <sup>5</sup> / <sub>8</sub> "
22	3 <sup>5</sup> / <sub>8</sub> "	10 <sup>5</sup> / <sub>8</sub> "
23	3 <sup>7</sup> / <sub>16</sub> "	10 <sup>11</sup> / <sub>16</sub> "
24	3 <sup>5</sup> / <sub>16</sub> "	10 <sup>11</sup> / <sub>16</sub> "
25	3 <sup>1</sup> / <sub>4</sub> "	10 <sup>3</sup> / <sub>4</sub> "
26	3 <sup>1</sup> / <sub>4</sub> "	10 <sup>3</sup> / <sub>4</sub> "



**FOOTING PLAN**

\* Drill and grout bars according to Article 584 of the standard specifications with a minimum embedment of 1'-0". Cost included with Reinforcement Bars, Epoxy Coated.

- Notes:
- Space reinforcement in cap to miss anchor bolts. Pour steps monolithically with cap.
  - For Pier elevation see Sheet 47 of 54.
  - For Bill of Material and bar bending diagram see Sheet 48 of 54.



USER NAME = eabwetherah	DESIGNED - APC/MLK	REVISED
	CHECKED - PCA	REVISED
	DRAWN - LK	REVISED
PLOT DATE = 6/25/2020	CHECKED - APC/TAT	REVISED

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PIER 2 DETAILS - 1  
STRUCTURE NO. 099-0062**

SHEET NO. 46 OF 54 SHEETS

F.A.I. RTE. 80	SECTION 2013-008B	COUNTY WILL	TOTAL SHEETS 511	SHEET NO. 281
CONTRACT NO. 60W34			ILLINOIS FED. AID PROJECT	

**BRG. SEAT ELEVATIONS**

Beam	Elev.
12	555.57
13	555.78
14	555.98
15	556.19
16	556.36
17	556.47
18	556.36
19	556.36
20	556.28
21	556.21
22	556.14
23	556.07
24	556.07
25	555.88
26	555.88

\* Drill and grout bars according to Article 584 of the standard specifications with a minimum embedment of 1'-0". Cost included with Reinforcement Bars, Epoxy Coated.

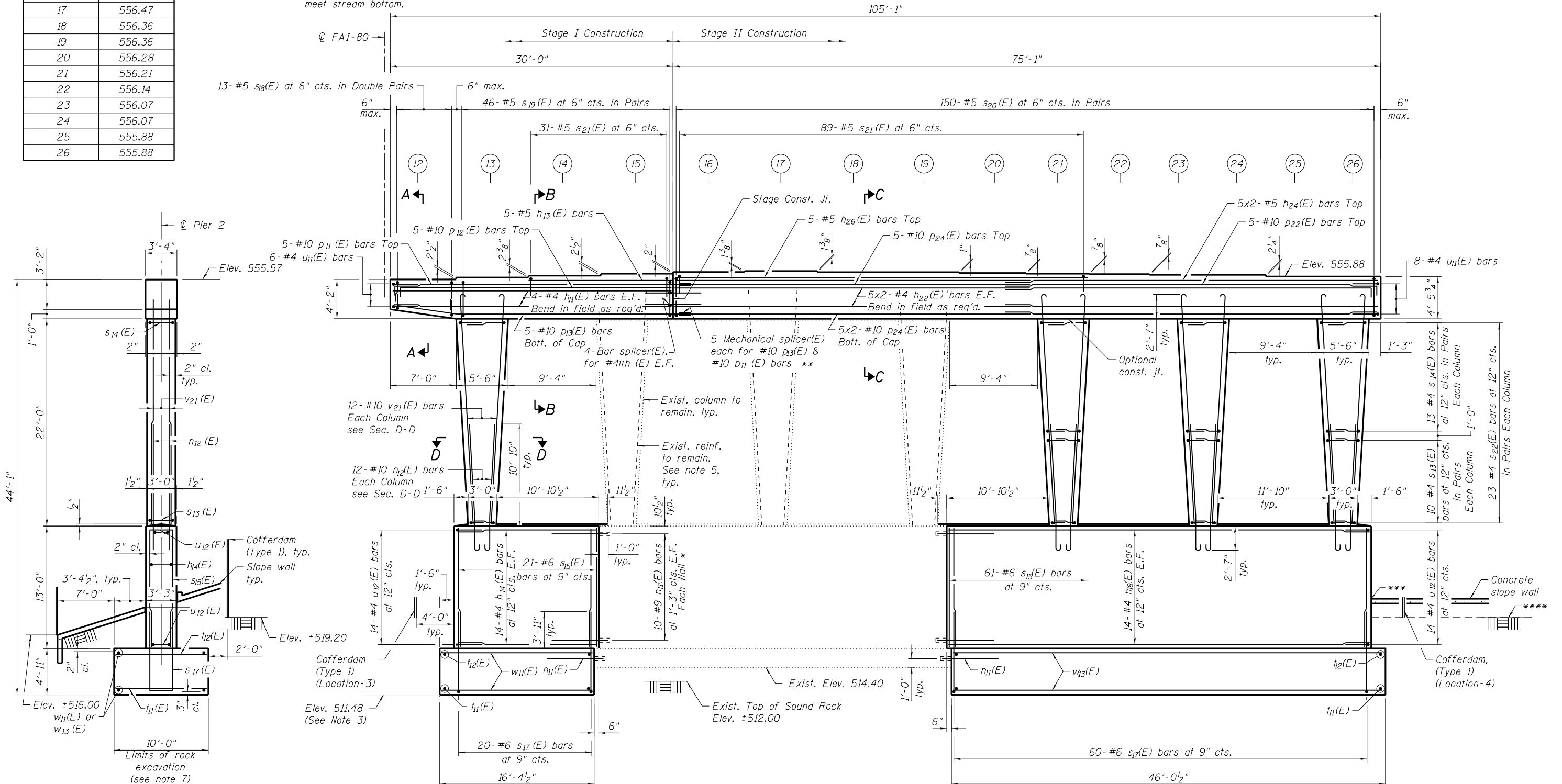
\*\* The longitudinal bars in the pier cap are detailed with a 1 foot extension length beyond the stage construction joint to accommodate the mechanical couplers. Contractor shall adjust the extension length based on the selected mechanical splicer assembly.

\*\*\* Elev. ±520.7 at West Face, match existing slope wall elevation.

\*\*\*\* Top of Rock and bott. of Cofferdam Excavation is approximately Elev. ±519.20 and varies to meet stream bottom.

**Notes:**

1. Space reinforcement in cap to miss anchor bolts.
2. Pour steps monolithically with cap.
3. The proposed bottom of footing elevations for all piers shall be located at the adjoining existing bottom of footing elevation or six inches below top of sound rock, whichever is lowest. The rock excavation shall be made with near-vertical sides at the plan dimensions to allow the sides and base of the embedded portion of the footing to be cast against undisturbed rock surfaces.
4. For Bill of Material, sections and bar bending diagrams, see Sheet 48 of 54.
5. Existing reinforcement shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.
6. The maximum applied service bearing pressure  $Q_{max} = 7.1$  ksf.
7. Limits of rock excavation shall include the removal of rock for the pier foundation and slope wall.



**END VIEW**

**ELEVATION - PIER 2**  
Looking East

**MINIMUM BAR LAP**

- #4 bars = 2'-11"
- #5 bars = 3'-8"
- #10 bars = 12'-4"



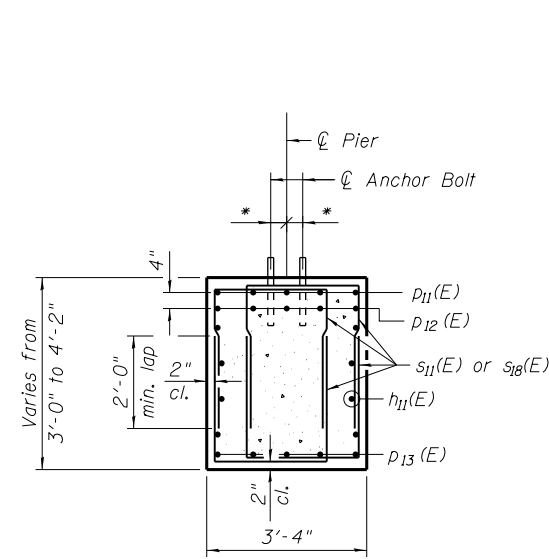
USER NAME = thompson	DESIGNED - APC/MLK	REVISED
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PLOT DATE = 9/28/2020	CHECKED - APC/TAT	REVISED

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

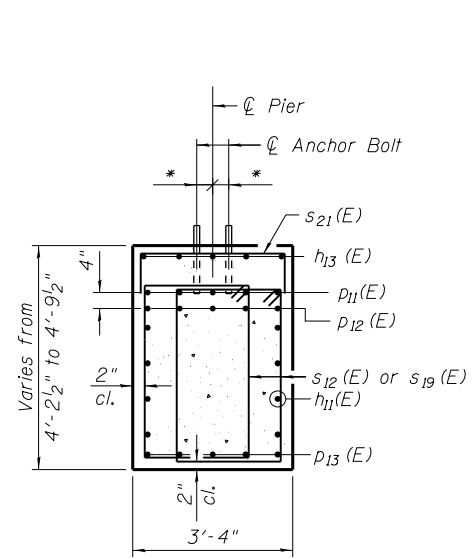
**PIER 2 DETAILS - 2**  
**STRUCTURE NO. 099-0062**

SHEET NO. 47 OF 54 SHEETS

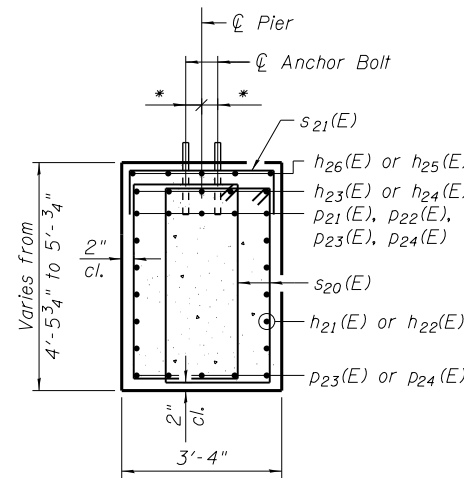
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	282
CONTRACT NO. 60W34				
ILLINOIS FED. AID PROJECT				



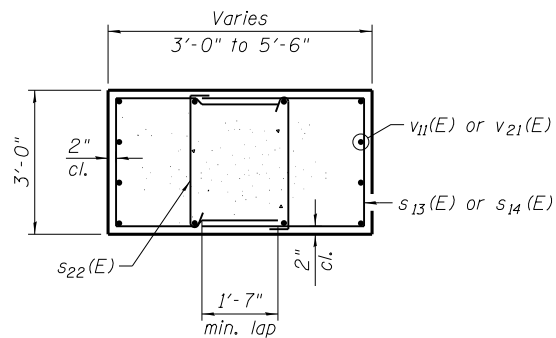
SECTION A-A



SECTION B-B

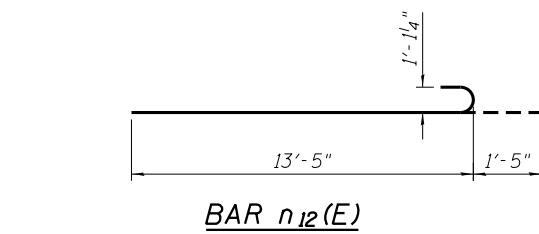


SECTION C-C

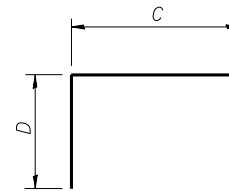


SECTION D-D

\* See Anchor Bolt Layout details



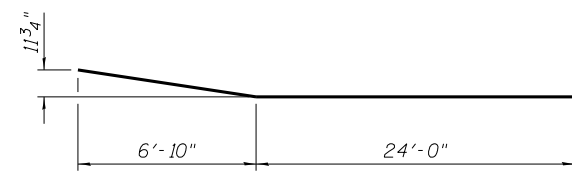
BAR n12(E)



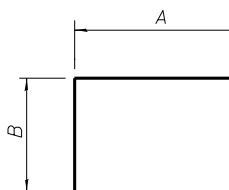
BARS p11(E), p12(E), p21(E) & p22(E)

C & D DIMENSIONS

Bar	C	D
p11(E)	30'-10"	1'-10"
p12(E)	29'-5"	1'-10"
p21(E)	40'-9"	1'-10"
p22(E)	43'-7"	1'-10"



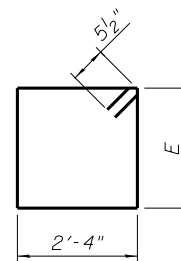
BAR p13(E)



BARS s11(E), s13(E), s14(E), s15(E), s16(E), s17(E), s18(E), s21(E), u11(E) & u12(E)

A & B DIMENSIONS

Bar	A	B
s11(E)	2'-4"	2'-10"
s13(E)	2'-8"	2'-8"
s14(E)	2'-8"	3'-6"
s15(E)	2'-11"	12'-11"
s16(E)	2'-11"	7'-6"
s17(E)	2'-11"	8'-7"
s18(E)	2'-4"	2'-11"
s21(E)	3'-0"	1'-6"
u11(E)	2'-10"	3'-0"
u12(E)	2'-9"	3'-0"



BAR s12(E), s19(E) & s20(E)

E DIMENSIONS

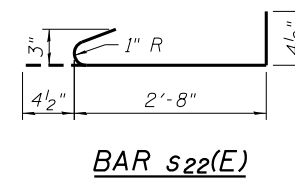
Bar	E
s12(E)	3'-8"
s19(E)	3'-10"
s20(E)	4'-1"

PIER 1 BILL OF MATERIAL

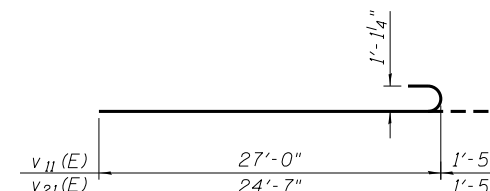
Bar	No.	Size	Length	Shape
h11(E)	8	# 4	29'-9"	—
h13(E)	5	# 5	15'-0"	—
h14(E)	28	# 4	15'-0"	—
h15(E)	28	# 4	39'-11"	—
h21(E)	20	# 4	36'-6"	—
h23(E)	10	# 5	36'-10"	—
h25(E)	5	# 5	22'-6"	—
n11(E)	60	# 9	5'-0"	—
n12(E)	48	# 10	14'-10"	—
p11(E)	5	# 10	32'-8"	—
p12(E)	5	# 10	31'-3"	—
p13(E)	5	# 10	30'-11"	—
p21(E)	5	# 10	42'-7"	—
p23(E)	15	# 10	40'-9"	—
s11(E)	52	# 5	8'-0"	□
s12(E)	92	# 5	12'-11"	□
s13(E)	88	# 4	8'-0"	□
s14(E)	112	# 4	9'-8"	□
s15(E)	75	# 6	28'-5"	□
s16(E)	73	# 6	17'-11"	□
s20(E)	280	# 5	13'-9"	□
s21(E)	76	# 5	6'-0"	□
s22(E)	200	# 4	3'-5"	□
t11(E)	115	# 8	9'-8"	—
t12(E)	58	# 5	9'-8"	—
u11(E)	14	# 4	8'-10"	□
u12(E)	28	# 4	8'-9"	□
v11(E)	48	# 10	28'-5"	—
w11(E)	20	# 5	16'-0"	—
w12(E)	20	# 5	40'-11"	—
Cofferdam Excavation	Cu Yd	75		
Cofferdam (Type 1) (Location-1)	Each	1		
Cofferdam (Type 1) (Location-2)	Each	1		
Concrete Structures	Cu Yd	271.5		
Reinforcement Bars, Epoxy Coated	Pound	35,760		
Rock Excavation	Cu Yd	164		

PIER 2 BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h11(E)	8	# 4	29'-9"	—
h13(E)	5	# 5	15'-0"	—
h14(E)	28	# 4	15'-0"	—
h16(E)	28	# 4	44'-9"	—
h22(E)	20	# 4	38'-10"	—
h24(E)	10	# 5	39'-3"	—
h26(E)	5	# 5	43'-9"	—
n11(E)	60	# 9	5'-0"	—
n12(E)	48	# 10	14'-10"	—
p11(E)	5	# 10	32'-8"	—
p12(E)	5	# 10	31'-3"	—
p13(E)	5	# 10	30'-11"	—
p22(E)	5	# 10	45'-5"	—
p24(E)	15	# 10	43'-7"	—
s13(E)	80	# 4	8'-0"	□
s14(E)	104	# 4	9'-8"	□
s15(E)	82	# 6	28'-5"	□
s17(E)	80	# 6	20'-1"	□
s18(E)	52	# 5	8'-2"	□
s19(E)	92	# 5	13'-3"	□
s20(E)	300	# 5	13'-9"	□
s21(E)	120	# 5	6'-0"	□
s22(E)	184	# 4	3'-5"	□
t11(E)	125	# 8	9'-8"	—
t12(E)	63	# 5	9'-8"	—
u11(E)	14	# 4	8'-10"	□
u12(E)	28	# 4	8'-9"	□
v21(E)	48	# 10	26'-0"	—
w11(E)	20	# 5	16'-0"	—
w13(E)	20	# 5	45'-8"	—
Cofferdam Excavation	Cu Yd	40		
Cofferdam (Type 1) (Location-3)	Each	1		
Cofferdam (Type 1) (Location-4)	Each	1		
Concrete Structures	Cu Yd	310.1		
Reinforcement Bars, Epoxy Coated	Pound	37,390		
Rock Excavation	Cu Yd	193		



BAR s22(E)



BAR v11(E) & v21(E)



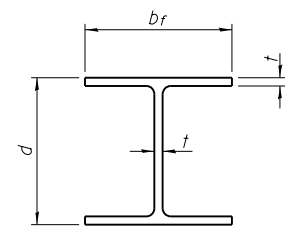
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PLOT DATE = 6/25/2020	CHECKED - APC/TAT	REVISED

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PIER DETAILS  
STRUCTURE NO. 099-0062

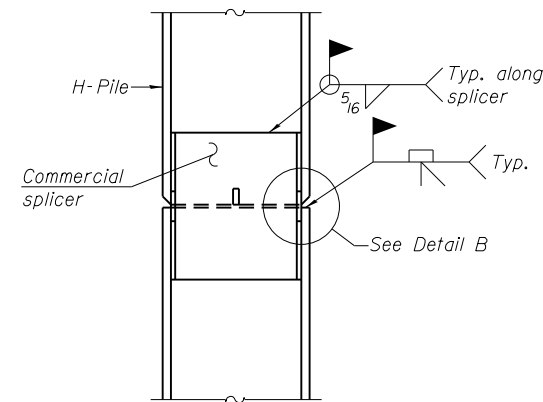
SHEET NO. 48 OF 54 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	283
CONTRACT NO. 60W34				
ILLINOIS FED. AID PROJECT				

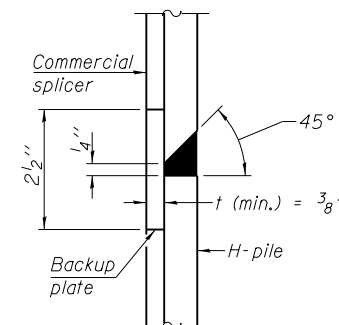


**STEEL PILE TABLE**

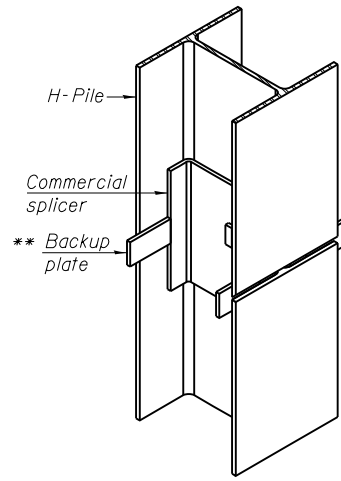
Designation	Depth d	Flange width br	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	1 3/16"	30"
x102	14"	14 3/4"	1/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53	11 3/4"	12"	7/16"	24"
HP 10x57	10"	10 1/4"	9/16"	24"
x42	9 3/4"	10 1/8"	7/16"	24"
HP 8x36	8"	8 1/8"	7/16"	18"



**ELEVATION**

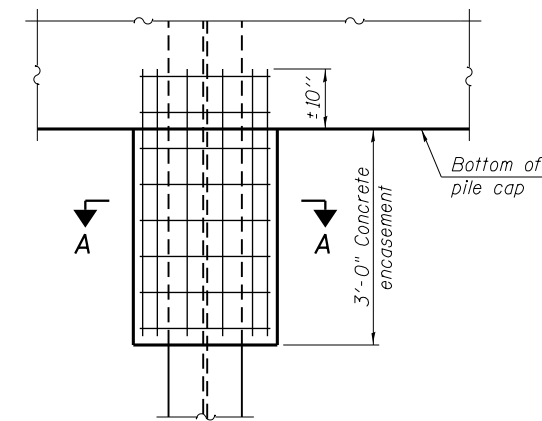


**DETAIL "B"**



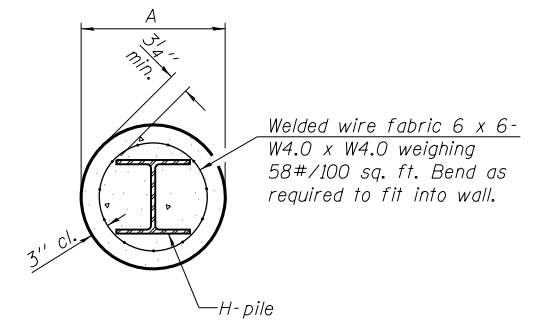
**ISOMETRIC VIEW**

**WELDED COMMERCIAL SPLICE**



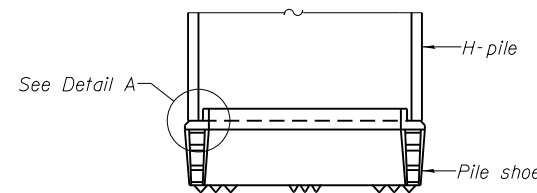
**ELEVATION**

**PILE ENCASEMENT**

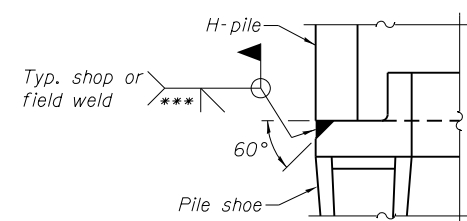


**SECTION A-A**

Note:  
Forms for encasement may be omitted when soil conditions permit.

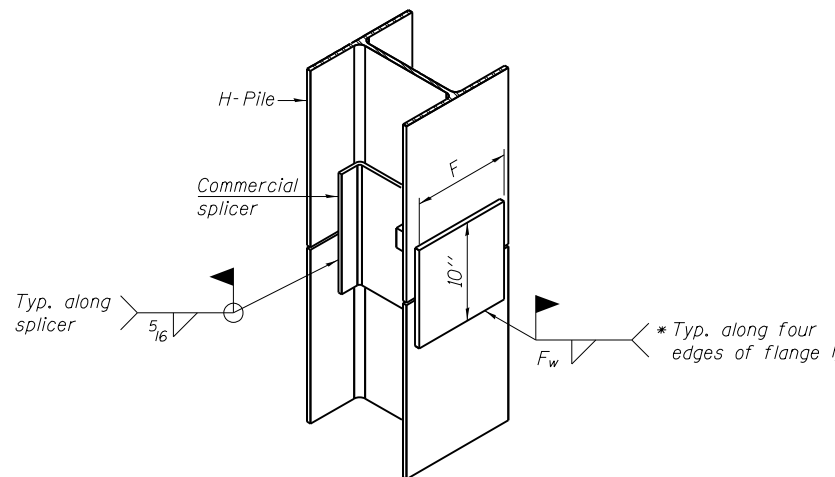


**ELEVATION**



**DETAIL A**

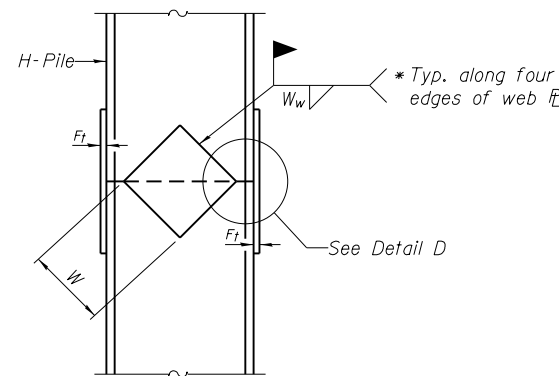
**H-PILE SHOE ATTACHMENT**



**ISOMETRIC VIEW**

**WELDED COMMERCIAL SPLICE ALTERNATE**

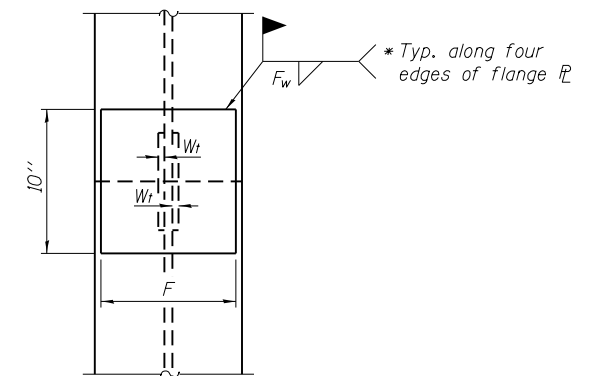
- \* Interrupt welds 1/4" from end of web and/or each flange.
- \*\* Remove portions of backup plates that extend outside the flanges.
- \*\*\* Weld size per pile shoe manufacturer (5/16" min.).



**ELEVATION**

**DETAIL D**

**WELDED PLATE FIELD SPLICE**



**END VIEW**

Designation	F	F <sub>t</sub>	F <sub>w</sub>	W	W <sub>t</sub>	W <sub>w</sub>
HP 14x117	12 1/2"	1"	7/8"	7 3/4"	5/8"	1/2"
x102	12 1/2"	7/8"	3/4"	7 3/4"	5/8"	1/2"
x89	12 1/2"	3/4"	1/16"	7 3/4"	5/8"	1/2"
x73	12 1/2"	5/8"	9/16"	7 3/4"	5/8"	1/2"
HP 12x84	10"	7/8"	1/16"	6 1/2"	5/8"	1/2"
x74	10"	7/8"	1/16"	6 1/2"	5/8"	1/2"
x63	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
x53	10"	5/8"	1/2"	6 1/2"	1/2"	3/8"
HP 10x57	8"	3/4"	9/16"	5 1/4"	1/2"	3/8"
x42	8"	5/8"	9/16"	5 1/4"	1/2"	3/8"
HP 8x36	7"	5/8"	7/16"	4 1/4"	1/2"	3/8"

Note:  
The steel H-piles shall be according to AASHTO M270 Grade 50.

F-HP 1-27-12



USER NAME = eabueherah  
PLOT DATE = 6/25/2020

DESIGNED - LK  
CHECKED - ACF  
DRAWN - LK  
CHECKED - ACF

REVISED  
REVISED  
REVISED  
REVISED

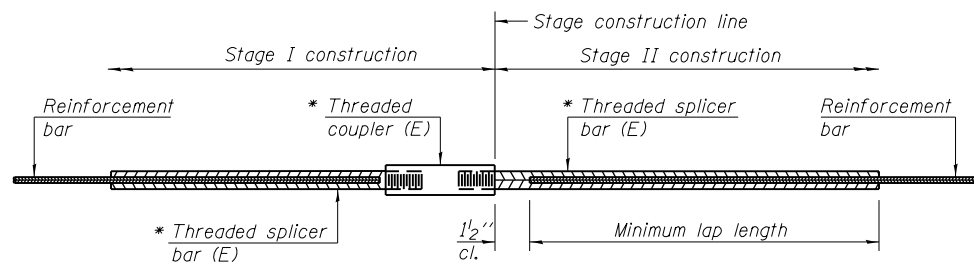
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

HP PILE DETAILS  
STRUCTURE NO. 099-0062

SHEET NO. 49 OF 54 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	284
				CONTRACT NO. 60W34

ILLINOIS FED. AID PROJECT

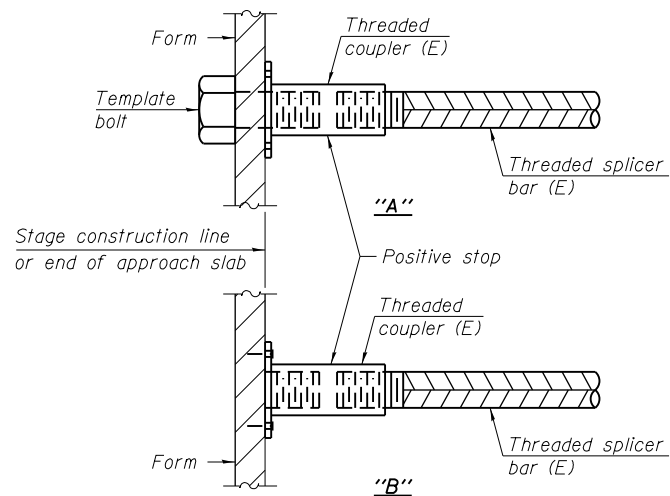


**STANDARD BAR SPLICER ASSEMBLY**

Threaded splicer bar length = min. lap length + 1 1/2" + thread length

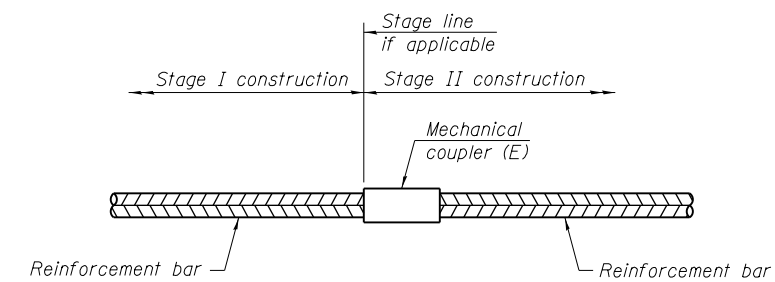
\* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Minimum lap length
Deck	#5	885	3'-6"
Approach slabs	#5	172	3'-4"
	#8	120	5'-4"
Abutments	#5	12	3'-8"
	#8	6	12'-4"
Piers	#4	16	2'-11"
Diaphragms	#4	4	2'-8"
	#6	22	4'-0"



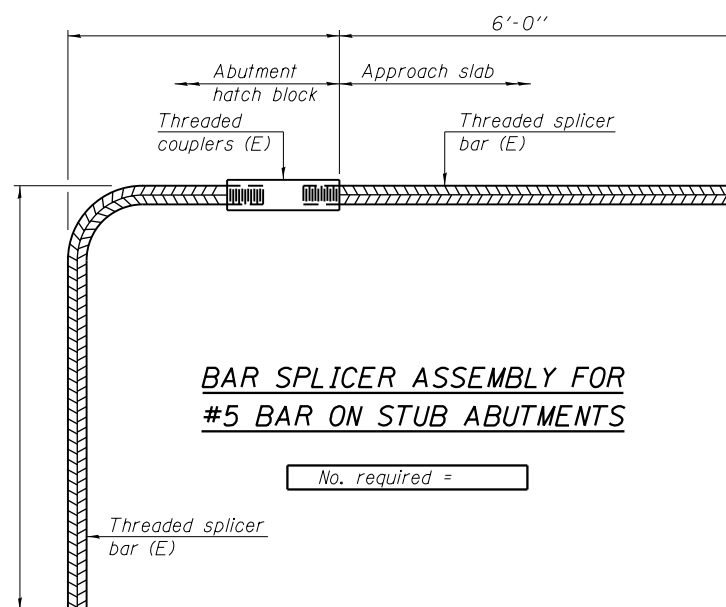
**INSTALLATION AND SETTING METHODS**

"A" : Set bar splicer assembly by means of a template bolt.  
 "B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.  
 (E) : Indicates epoxy coating.



**STANDARD MECHANICAL SPLICER**

Location	Bar size	No. assemblies required
Pier 1	#10	10
Pier 2	#10	10



**BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS**

No. required =

**NOTES**

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.  
 All reinforcement shall be lapped and tied to the splicer bars.  
 Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.  
 See approved list of bar splicer assemblies and mechanical splicers for alternatives.

BSD-1 2-17-2017



SOIL BORING LOG

GSI Job No. 13125
Page 1 of 2
Date 3/19/14

ROUTE F.A.I.R.T.E. 80 DESCRIPTION I-80 Phase II (Near Term)
SECTION LOCATION SW 1/4, SEC. 15, TWP. T35N, RNG. R10E, 3rd PM
COUNTY Will DRILLING METHOD Hollow Stem Auger/Rotary HAMMER TYPE CME Automatic

Table with columns: Depth (ft), Blows (6"), SPT (tsf), Moisture (%), UCS (psi), M-O-I-S, Description of soil layers including asphalt, gravel, and various loams.

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. 13125
Page 2 of 2
Date 3/19/14

ROUTE F.A.I.R.T.E. 80 DESCRIPTION I-80 Phase II (Near Term)
SECTION LOCATION SW 1/4, SEC. 15, TWP. T35N, RNG. R10E, 3rd PM
COUNTY Will DRILLING METHOD Hollow Stem Auger/Rotary HAMMER TYPE CME Automatic

Table with columns: Depth (ft), Blows (6"), SPT (tsf), Moisture (%), UCS (psi), M-O-I-S, Description of soil layers including loam with gravel and loam-gray.

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)

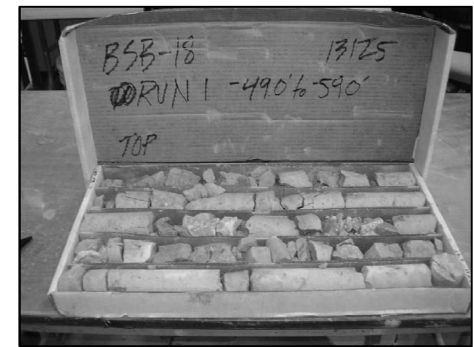
ROCK CORE LOG

PAGE 1 of 1
DATE 3/20/2014
LOGGED BY JK
GSI Job No. 13125

ROUTE ??? DESCRIPTION I-80 Reconstruction (Near Term Phase 2)
SECTION @@@@ LOCATION SEC. 15, T35N, R10E, SW 1/4, 3rd PM

COUNTY Will CORING METHOD Rotary Wash
CORING BARREL TYPE & SIZE NX Double Swivel-10 ft
Core Diameter 2.0 in
Top of Rock Elev. 519.2
Begin Core Elev. 517.2
Ground Surface Elev. 566.2

Table with columns: Depth (ft), Core Diameter (#), R-Q, R-Q, R-Q, R-Q, S-T-R-E-T-I-M-E-N-T-H, Description: SILURIAN SYSTEM, NIAGARAN SERIES DOLOMITE.



Color pictures of the cores Yes Cores will be stored for examination for -
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

Notes:
1. For location of soil boring, see Sheet 1 of 54.







**SOIL BORING LOG**

GSI Job No. 13125

Page 1 of 1

Date 3/20/14

ROUTE F.A.I.R.TE 80 DESCRIPTION I-80 Phase II (Near Term) LOGGED BY NW

SECTION \_\_\_\_\_ LOCATION SW 1/4, SEC. 15, TWP. T35N, RNG. R10E, 3rd PM

COUNTY Will DRILLING METHOD Hollow Stem Auger/Rotary HAMMER TYPE CME Automatic

STRUCT. NO. \_\_\_\_\_  
Station \_\_\_\_\_  
BORING NO. BSB-24  
Station 722+87  
Offset 21.40ft Right  
Ground Surface Elev. 557.40 ft

D E P T H ft (ft) (6") (tsf) (%)			Surface Water Elev. <u>n/a</u> ft Stream Bed Elev. <u>n/a</u> ft	D E P T H ft (ft) (6") (tsf) (%)		
6.0'	ASPHALT, 18.0" CONCRETE		CLAY LOAM-brown & gray-very stiff to hard (Fill) (continued)	7		
555.40 ▼		25		9	2.8	17
	CLAY LOAM-brown & gray-very stiff to hard (Fill)		534.40	10	P	
			SILTY CLAY LOAM-gray-medium dense	6		
2				9	4.5	16
2		21		13	P	
2			531.90	-25		
-5			CLAY LOAM-gray-medium dense to dense	4		
8				8		16
10		20		13		
8				8		
3				13		15
5	3.8	21		17		
8	P			-30		
-10			525.40			
3			SILTY SAND with Gravel-dark brown-loose	2		
3	2.3	28		3		24
4	P			5		
-15			520.90			
2			Driers Observation-Weathered & fractured rock.			
2	2.8	22				
3	P		519.90			
-15			Driers Observation-Apparent Bedrock			
3			518.90			
5			Borehole continued with rock coring.			
7	4.0	13				
7	P					
-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)

**ROCK CORE LOG**

PAGE 1 of 1

DATE 3/20/2014

LOGGED BY JK

GSI JOB No. 13125

ROUTE ???? DESCRIPTION I-80 Reconstruction (Near Term Phase 2)

SECTION @@@@ LOCATION SEC. 15, T35N, R10E, SW 1/4, 3rd PM

COUNTY Will CORING METHOD Rotary Wash

STRUCT. NO. XX CORING BARREL TYPE & SIZE NX Double Swivel-10 ft  
Station XX Core Diameter 2.0 in  
BORING NO. BSB-24 Top of Rock Elev. 519.9  
Station 722+87 Begin Core Elev. 518.9  
Offset 21.4" Right  
Ground Surface Elev. 557.4

D E P T H ft	C O R E D I A M E T E R in	R E C O V E R Y %	R E Q U I R E D C O R E L E N G T H ft	S T R E N G T H tsf
1	100.0	19.0	n/a	666
-43.5				
-48.5				



Color pictures of the cores Yes Cores will be stored for examination for -  
The "Strength" column represents the uniaxial compressive strength of the core sample (ASTM D-2938)

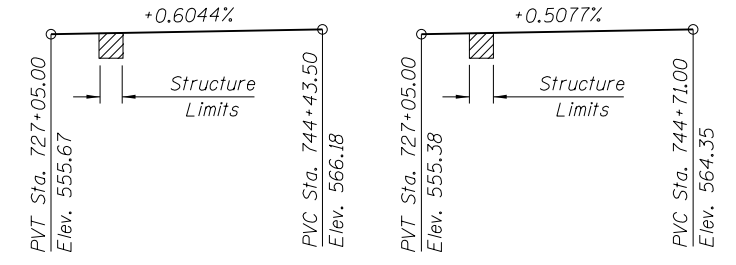
Notes:  
1. For location of soil boring, see Sheet 1 of 54.

Bench Mark: Square cut on middle step of S.E. wingwall of WB bridge over Richards St. Elev. = 558.98

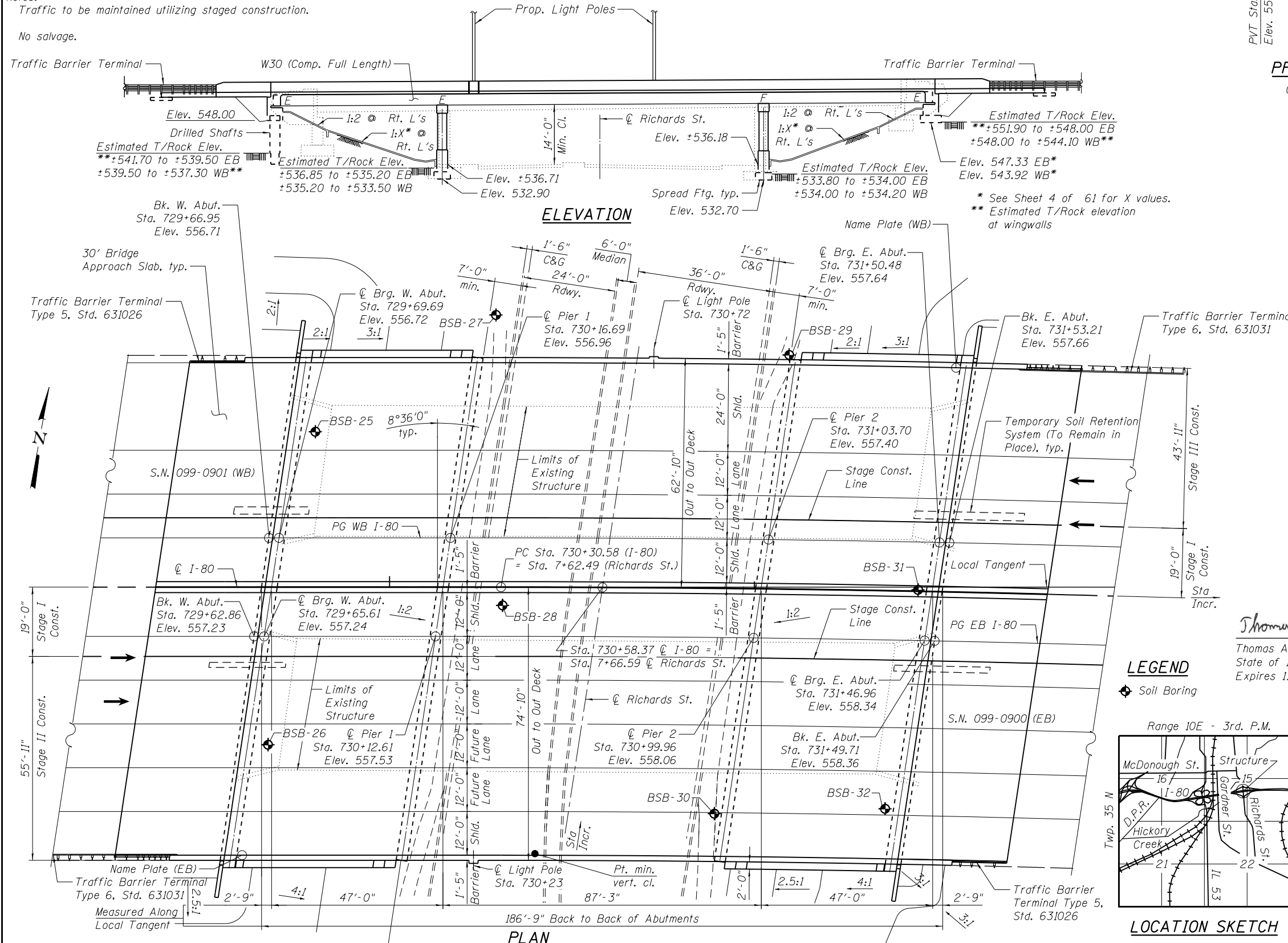
Existing Structure: S.N. 099-0064 (EB) and S.N. 099-0065 (WB) were built in 1963 under Federal Aid Interstate Route 80 Project I-80-4(38) Section 99-4HB-1. The structures were repaired in 1990 under Federal Aid Interstate Route I-80 Project C-91-169-88 Section 99-4RS-2 & 99 (3B, 4B-1, 4HB, 4HB-1, 4VB) BR-88. The structures were repaired in 1998 under Federal Aid Interstate Route 80 Project C-91-225-93 Section 99-4-IRS-3 and 99-4-IVB-1. The structures were repaired in 2001 under Federal Aid Interstate Route 80 Project C-91-507-00 Section (99 (1, 2, 3, 4) & 4-1) RS-7. The dual structures consist of 3 simple spans measuring 165'-9" back to back of abutments. Out to out deck width of 36'-0" at 08°-36'-00" skew (left forward) that is supported by two W36 beams (exterior) and four W30 beams (interior) at the end spans, and six W36 beams at the middle span. Spans are supported on concrete stub abutments and wing walls founded on spread footings, and two hammerhead piers founded on spread footings.

Notes:  
Traffic to be maintained utilizing staged construction.

No salvage.



**PROFILE GRADE**  
(Along PG EB I-80)      **PROFILE GRADE**  
(Along PG WB I-80)



**LOADING HL-93**  
Allow 50 psf for future wearing surface.

**DESIGN SPECIFICATIONS**  
2012 AASHTO LRFD Bridge Design Specifications, 6th Edition with 2013 Interims

**SEISMIC DATA**  
Seismic Performance Zone (SPZ) = 1  
Design Spectral Acceleration at 1.0 sec. ( $S_{D1}$ ) = 0.068g  
Design Spectral Acceleration at 0.2 sec. ( $S_{D5}$ ) = 0.125g  
Soil Site Class = C

**DESIGN STRESSES**

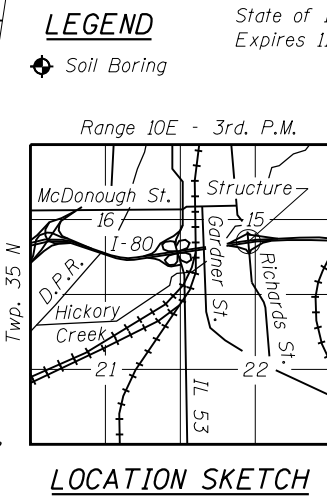
**FIELD UNITS**  
f'c = 3,500 psi  
f'c = 4,000 psi (Superstructure)  
fy = 60,000 psi (Reinforcement)  
fy = 50,000 psi (M270 Grade 50)



**APPROVED**  
For Structural Adequacy Only  
*Thomas A. Harroun*  
Engineer of Bridges & Structures

Thomas A. Harroun 10/1/2020  
Thomas A. Harroun P.E., S.E. Date  
State of Illinois No. 081007637  
Expires 11/30/2020

**CURVE DATA**  
(Along Proposed  $\phi$  I-80 Curve 9)  
PI Sta. = 734+61.07  
 $\Delta$  = 8° 35' 29" (Rt.)  
D = 0° 59' 59"  
R = 5,731.00'  
T = 430.49'  
L = 859.36'  
E = 16.15'  
e = 3.3%  
T.R. = 40'  
S.E. Run = 128'  
P.C. Sta. = 730+30.58  
P.T. Sta. = 738+89.94



**GENERAL PLAN & ELEVATION**  
**I-80 OVER F.A.U. RTE. 354 (RICHARDS ST.)**  
**F.A.I. RTE. 80 - SECTION 2013-008B**  
**WILL COUNTY**  
**STATION 730+58.37**  
**STRUCTURE NO. 099-0900 (EB)**  
**STRUCTURE NO. 099-0901 (WB)**

**INDEX OF SHEETS**

- 1 General Plan & Elevation
- 2 General Data
- 3 Footing Layout
- 4 Slopewall Plan
- 5 Temporary Soil Retention System
- 6 Stage Construction Details I
- 7 Stage Construction Details II
- 8 Stage Construction Details III
- 9 Temporary Concrete Barrier for Stage Construction
- 10 Top of Slab Elevations I
- 11 Top of Slab Elevations II
- 12 Top of Slab Elevations III
- 13 Top of Slab Elevations IV
- 14 Top of Slab Elevations V
- 15 Top of Slab Elevations VI
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- 17 Top of Approach Slab Elevations II
- 18 Top of Approach Slab Elevations III
- 19 Top of Approach Slab Elevations IV
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- 26 East Abutment Diaphragm Details
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- 54 Bar Splice Assembly & Mechanical Splicer Details
- 55 Concrete Parapet Slipforming Option
- 56 Boring Logs I
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- 59 Boring Logs IV
- 60 Boring Logs V
- 61 Boring Logs VI

**GENERAL NOTES**

Fasteners shall be ASTM A 325 Type 1, mechanically galvanized bolts. Bolts  $\frac{7}{8}$  in. dia., holes  $\frac{15}{16}$  in. dia., unless otherwise noted. Calculated weight of Structural Steel = 731,550 pounds (Grade 50) and 57,540 pounds (Grade 36). No field welding is permitted except as specified in the contract documents.

Reinforcement bars designated (E) shall be epoxy coated. If the Contractor elects to use cantilever forming brackets on the exterior beams or girders, the brackets shall be placed at the same locations as required for the hardwood blocks in Article 503.06(b) of the Standard Specifications. If additional cantilever forming brackets are required, hardwood blocking shall be wedged between the exterior and first interior beam at each of these additional bracket locations.

Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of  $\frac{1}{8}$  inch (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.

Concrete Sealer shall be applied to the designated areas of new abutments and new piers.

The existing structural steel coating contains lead. The contractor shall take appropriate precautions to deal with the presence of lead on this project.

In addition to the requirements of Standard Specifications Article 501.03, the Contractor shall evaluate the condition of the existing protective shield. Such evaluation shall be performed by an Illinois-licensed Structural Engineer. If structurally adequate, the existing protective shield shall remain in place for demolition of the existing bridge deck; if not, the protective shield shall be replaced prior to demolition. The cost of evaluation and any new protective shield is included in Protective Shield.

The removal and disposal of the existing protective shielding shall be included in the cost of Removal of Existing Structures No. 2.

The Inorganic Zinc Rich Primer / Acrylic / Acrylic Paint System shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the final finish coat for all interior steel surfaces shall be gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Reddish Brown, Munsell No. 2.5YR 3/4.

The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments.

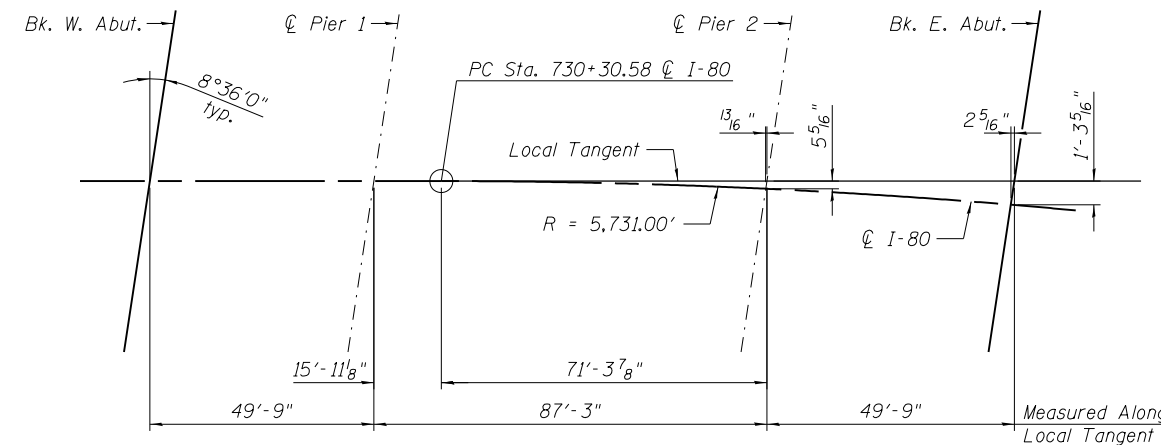
Slope wall shall be reinforced with welded wire fabric, 6 in. x 6 in. W4.0 x W4.0, weighing 58 lbs. per 100 sq. ft.

Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

Protective shield shall be installed under the superstructure to be removed for the full length of the bridge. The lateral width limits should be extended at minimum 2 ft. outside edge of the existing bridge.

**TOTAL BILL OF MATERIAL**

Item	Unit	S.N. 099-0900 (EB)		S.N. 099-0901 (WB)		Total
		Super	Sub	Super	Sub	
Removal of Existing Structures No. 1	Each	0.25	0.25	0.25	0.25	1
Protective Shield	Sq. Yd.	1,503		1,268		2,771
Structure Excavation	Cu. Yd.		1,411		1,281	2,692
Rock Excavation for Structures	Cu. Yd.		370		153	523
Concrete Structures	Cu. Yd.		682		597	1,279
Concrete Superstructure	Cu. Yd.	486		425		911
Bridge Deck Grooving	Sq. Yd.	1,903		1,573		3,476
Protective Coat	Sq. Yd.	2,367		2,115		4,482
Concrete Superstructure (Approach Slab)	Cu. Yd.	244		207		451
Furnishing and Erecting Structural Steel	L. Sum	0.1		0.1		0.2
Stud Shear Connectors	Each	13,248		11,040		24,288
Reinforcement Bars, Epoxy Coated	Pound	177,420	84,530	158,120	82,940	503,010
Bar Splicers	Each	884	194	884	192	2,154
Slope Wall 4 Inch	Sq. Yd.		810		700	1,510
Name Plates	Each	1		1		2
Drilled Shaft in Soil	Cu. Yd.		15		16	31
Drilled Shaft in Rock	Cu. Yd.		4		4	8
Preformed Joint Seal, 2 1/2"	Foot	93		93		186
Elastomeric Bearing Assembly, Type I	Each	36		30		66
Anchor Bolts, 1 1/4"	Each		96		80	176
Temporary Soil Retention System	Sq. Ft.		138		219	357
Granular Backfill for Structures	Cu. Yd.		397		358	755
Concrete Sealer	Sq. Ft.		8,092		6,668	14,760
Geocomposite Wall Drain	Sq. Yd.		165		143	308
Temporary Soil Retention System (To Remain In Place)	Sq. Ft.		113		211	324
Pipe Underdrains for Structures 4"	Foot		164		164	328
Temporary Support System	Each		2		2	4



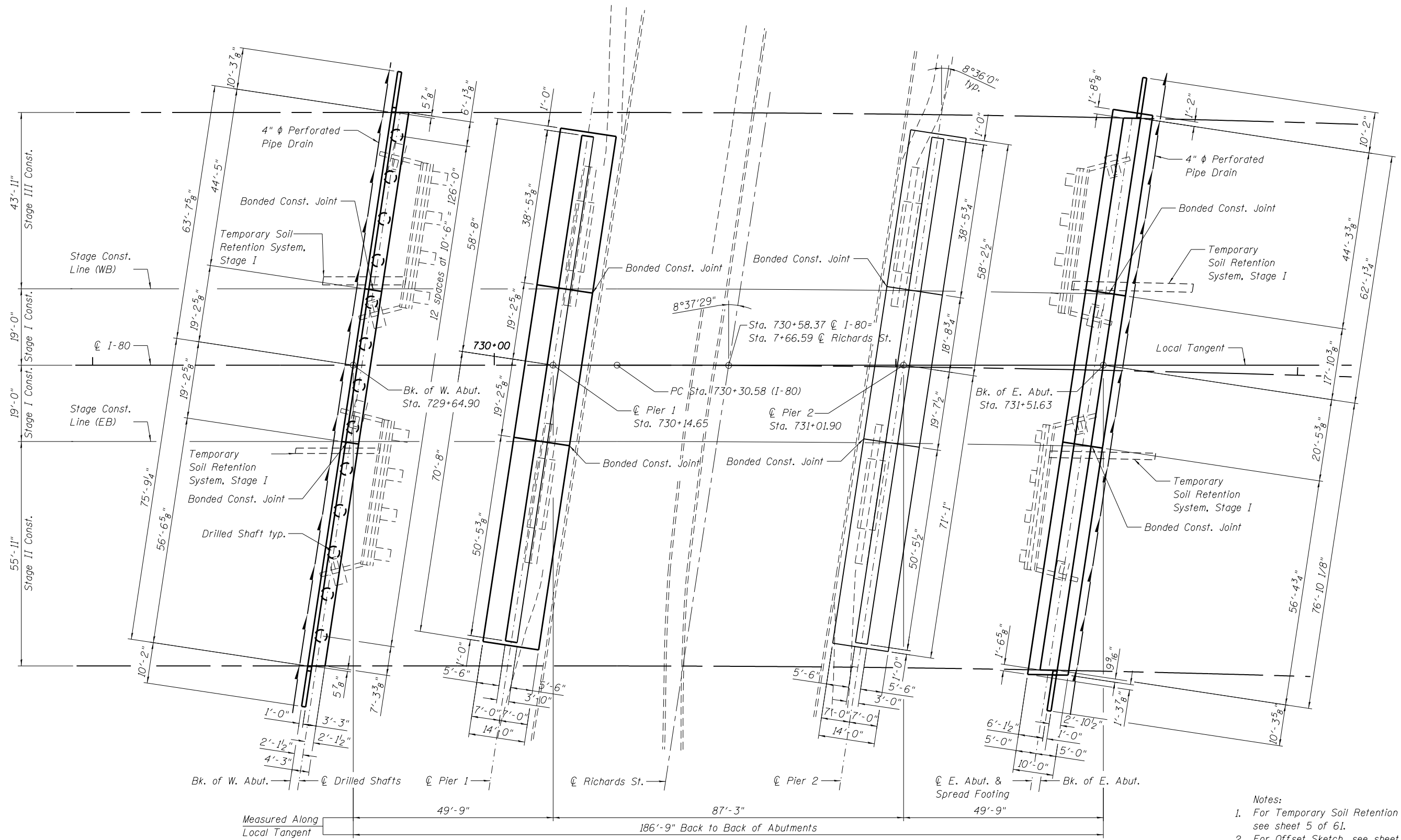
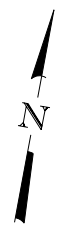
**OFFSET SKETCH**

STATION 730+58.37  
 BUILT 20\_\_ BY  
 STATE OF ILLINOIS  
 F.A.I. RTE. 80 SEC. 2013-008B  
 LOADING HL-93  
 STRUCTURE NO. 099-0900

**NAME PLATE (EB)**  
 See Std. 515001

STATION 730+58.37  
 BUILT 20\_\_ BY  
 STATE OF ILLINOIS  
 F.A.I. RTE. 80 SEC. 2013-008B  
 LOADING HL-93  
 STRUCTURE NO. 099-0901

**NAME PLATE (WB)**  
 See Std. 515001



**FOOTING LAYOUT PLAN**

- Notes:
1. For Temporary Soil Retention System, see sheet 5 of 61.
  2. For Offset Sketch, see sheet 2 of 61.
  3. For lighting and utilities, see Lighting Plans.
  4. For grading, see I-80 at Richards Street Bridge Grading Plan.



USER NAME = default	DESIGNED MSL	REVISED
CHECKED TAH	CHECKED TAH	REVISED
PLOT SCALE = NTS	DRAWN RMH	REVISED
PLOT DATE = 6/25/2020	CHECKED YC	REVISED

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**FOOTING LAYOUT  
STRUCTURE NOS. 099-0900 (E.B.) & 099-0901(W.B.)**

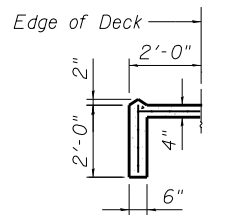
SHEET NO. 3 OF 61 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	292
CONTRACT NO. 60W34				

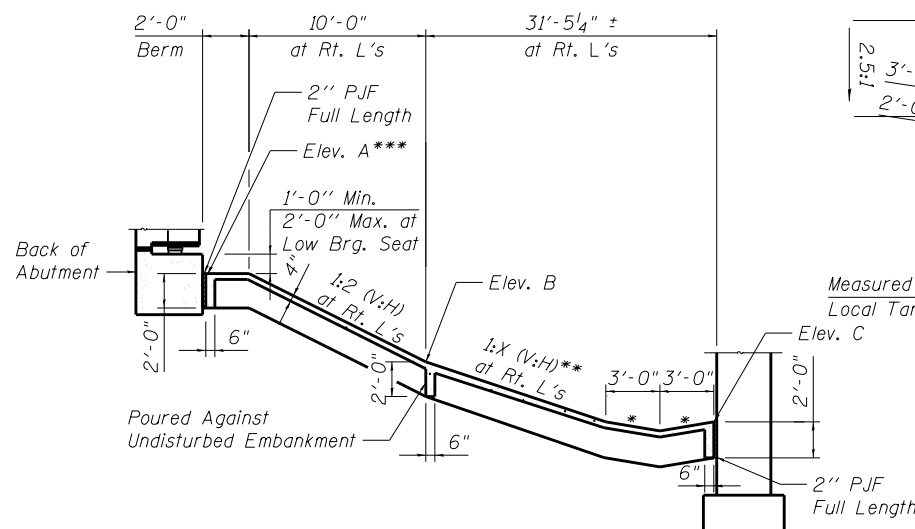
ILLINOIS FED. AID PROJECT

**SLOPE WALL ELEVATIONS**

Location	Elev. A	Elev. B	Elev. C
<b>West Slope Wall</b>			
South Edge	551.26	546.26	538.07
North Edge	552.05	547.05	538.07
<b>East Slope Wall</b>			
South Edge	551.76	546.76	537.87
Beam 10	552.36	547.36	537.87
North Edge	553.31	548.31	537.87

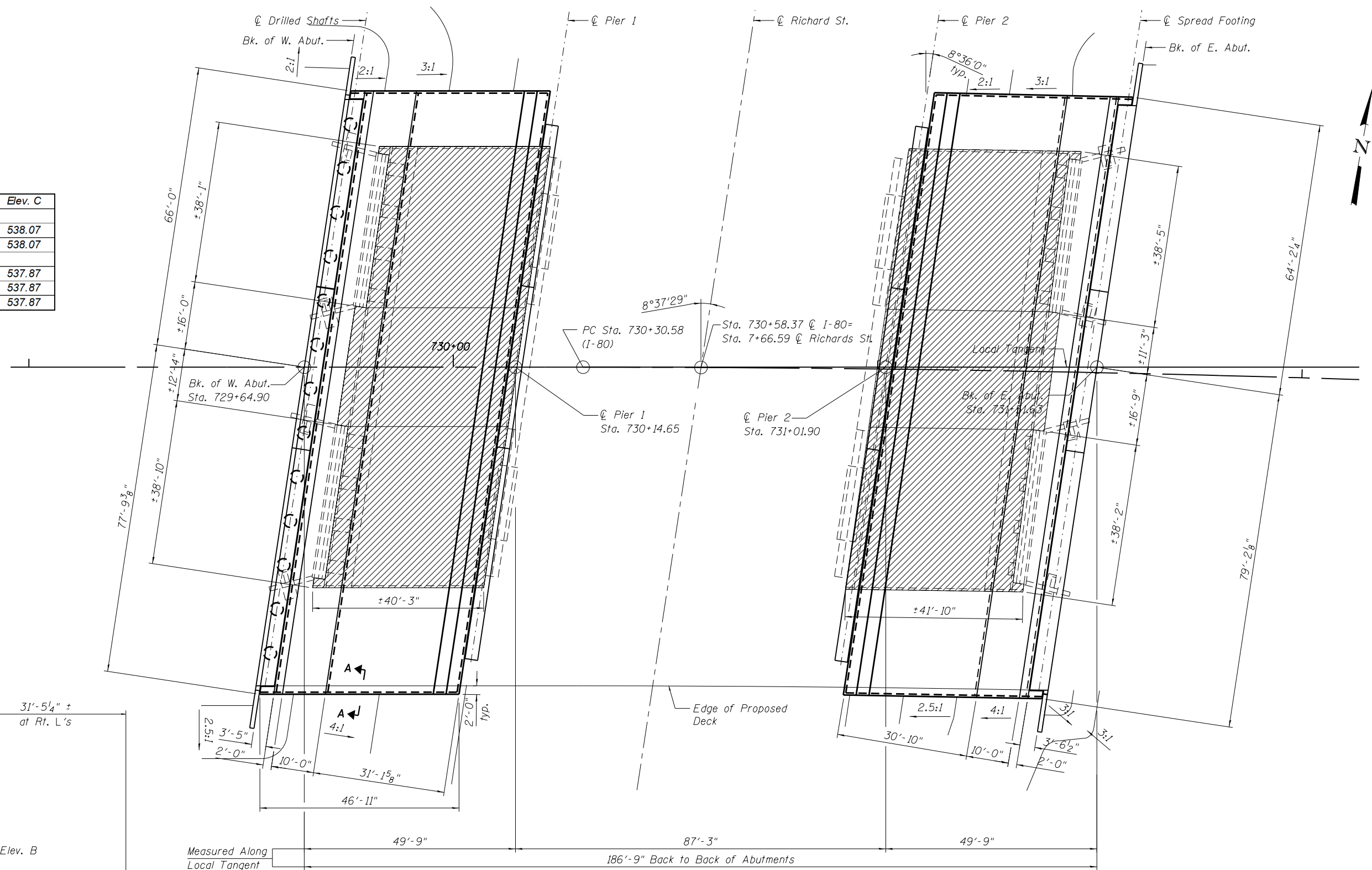


**SECTION A-A**



**SECTION THRU CONCRETE SLOPEWALL**

\* 1:6 (V:H)  
 \*\* X varies from 3.0 to 3.1 at West slope wall and from 2.4 to 2.8 at East slope wall.  
 \*\*\* The berm shall be sloped 1/2 in. per ft. to drain.



**SLOPEWALL PLAN**

**BILL OF MATERIAL**

Item	Unit	Total
Slope Wall 4 inch	Sy. Yd.	1,510

- Notes:
- Hatched areas indicate Slope Wall Removal.
  - Removal of the slope wall is included in the cost of REMOVAL OF EXISTING STRUCTURES NO. 1.
  - For grading, see I-80 at Richards Street Bridge Grading Plan.



USER NAME = default	DESIGNED MSL	REVISOR
PLOT SCALE = NTS	CHECKED TAH	REVISOR
PLOT DATE = 6/25/2020	DRAWN RMH	REVISOR
	CHECKED YC	REVISOR

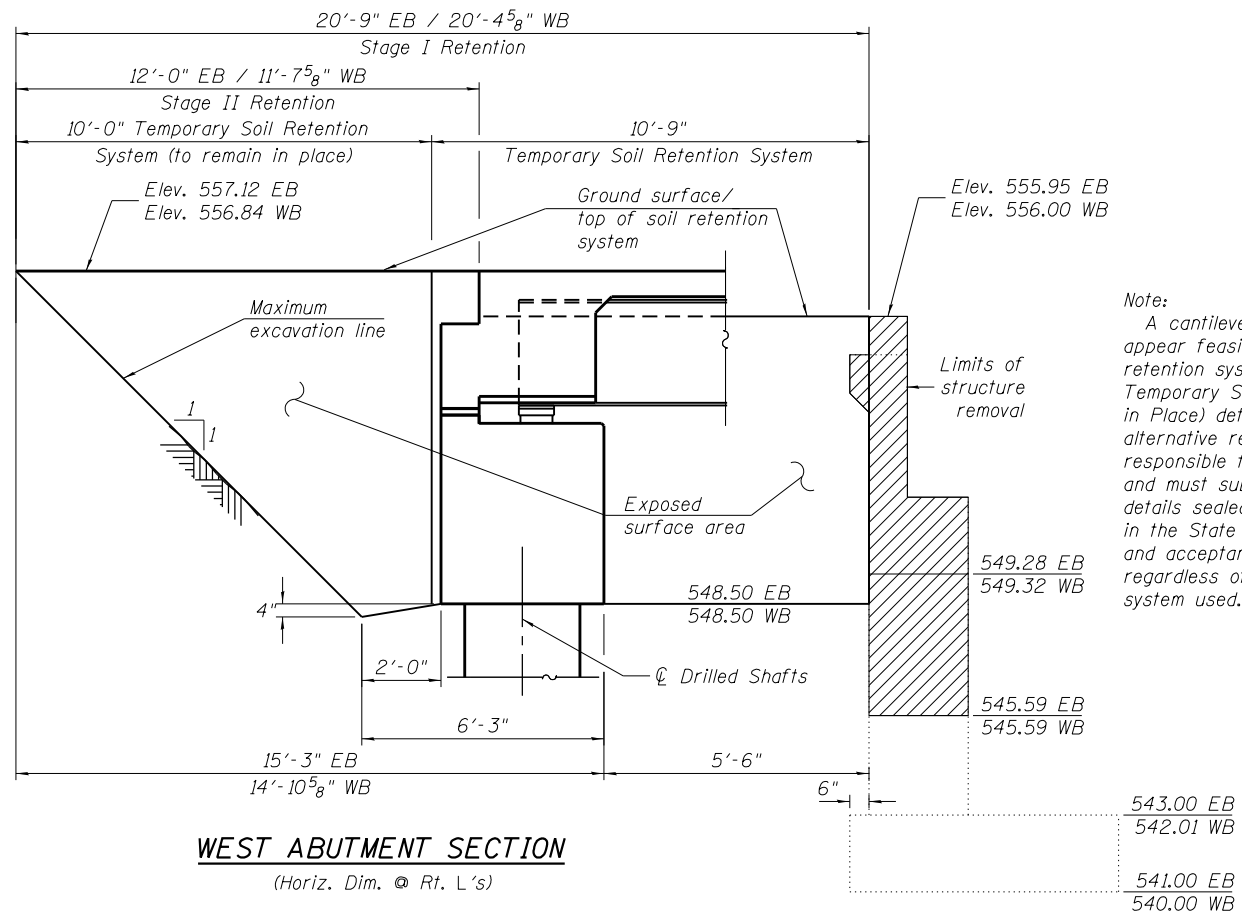
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**FOOTING LAYOUT  
 STRUCTURE NOS. 099-0900 (E.B.) & 099-0901(W.B.)**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	293
CONTRACT NO. 60W34				

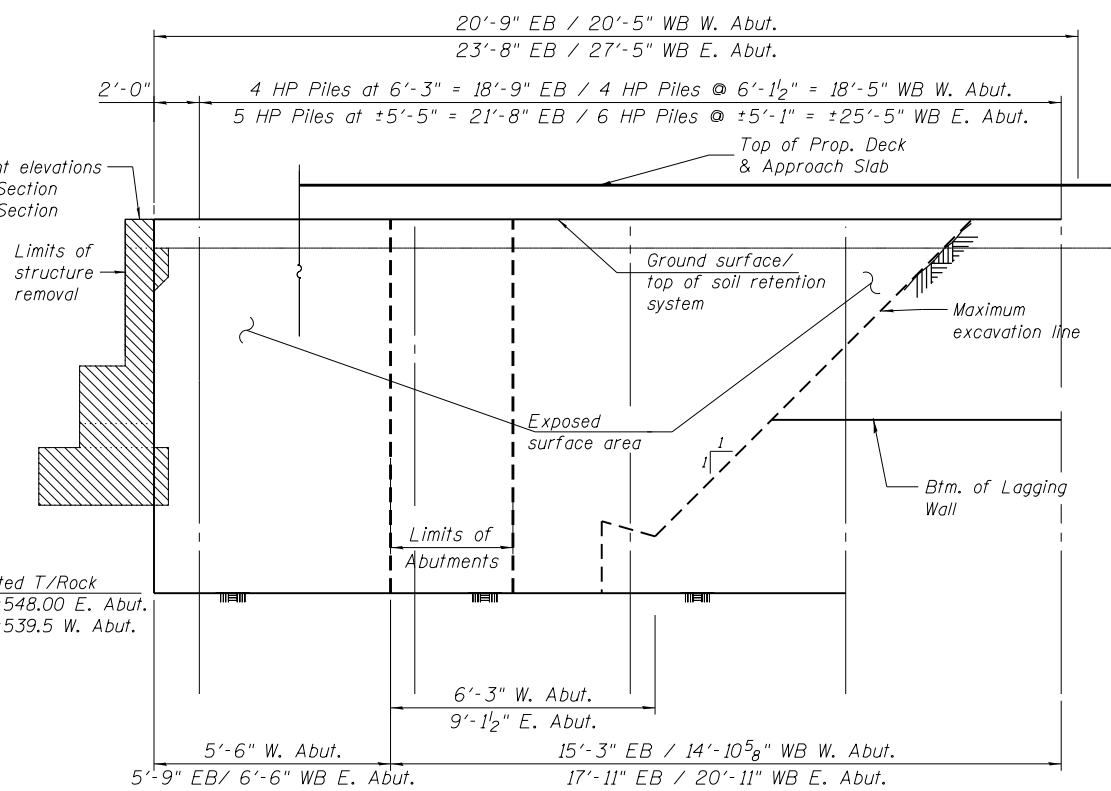
SHEET NO. 4 OF 61 SHEETS

ILLINOIS FED. AID PROJECT

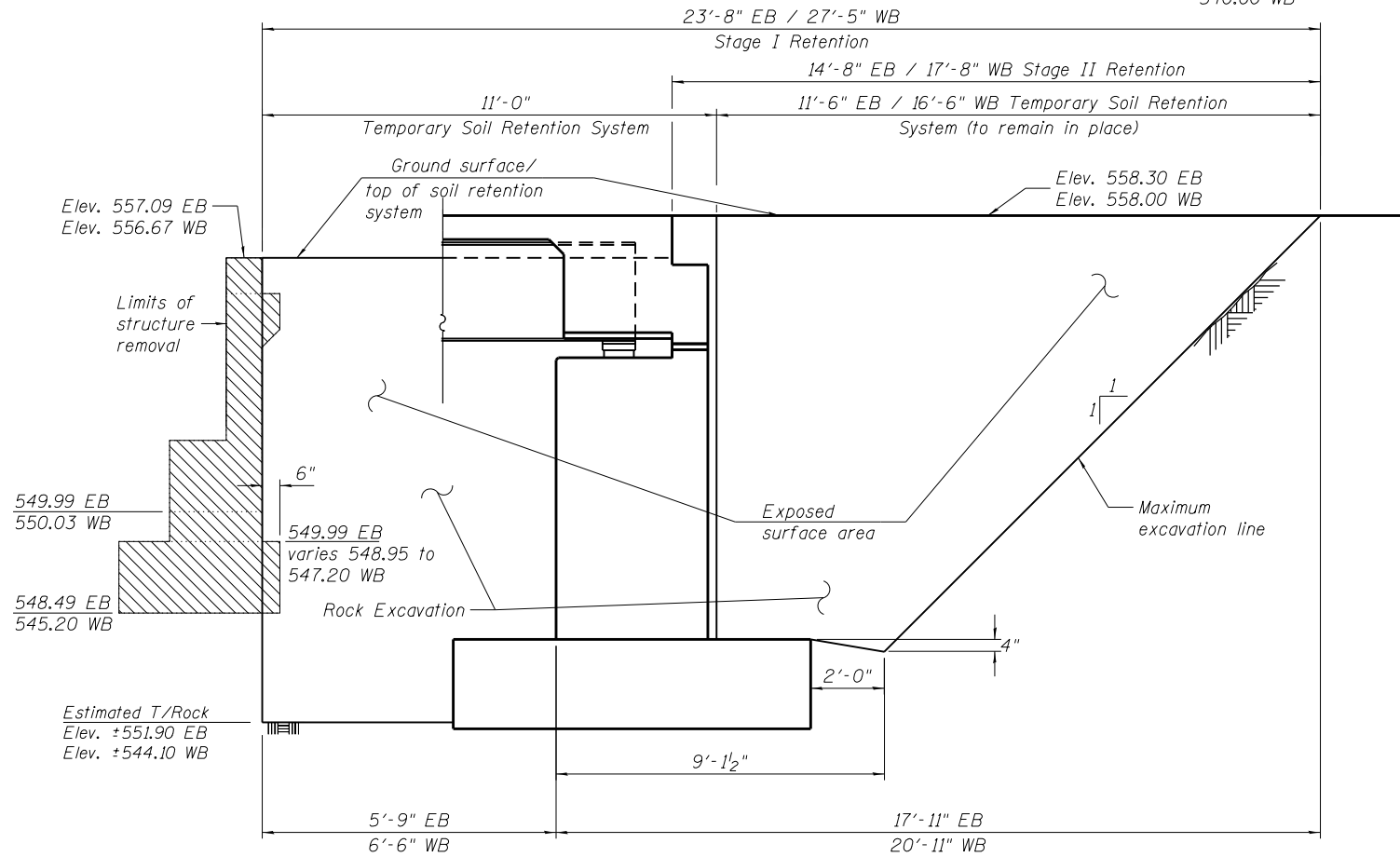


**WEST ABUTMENT SECTION**  
(Horiz. Dim. @ Rt. L's)

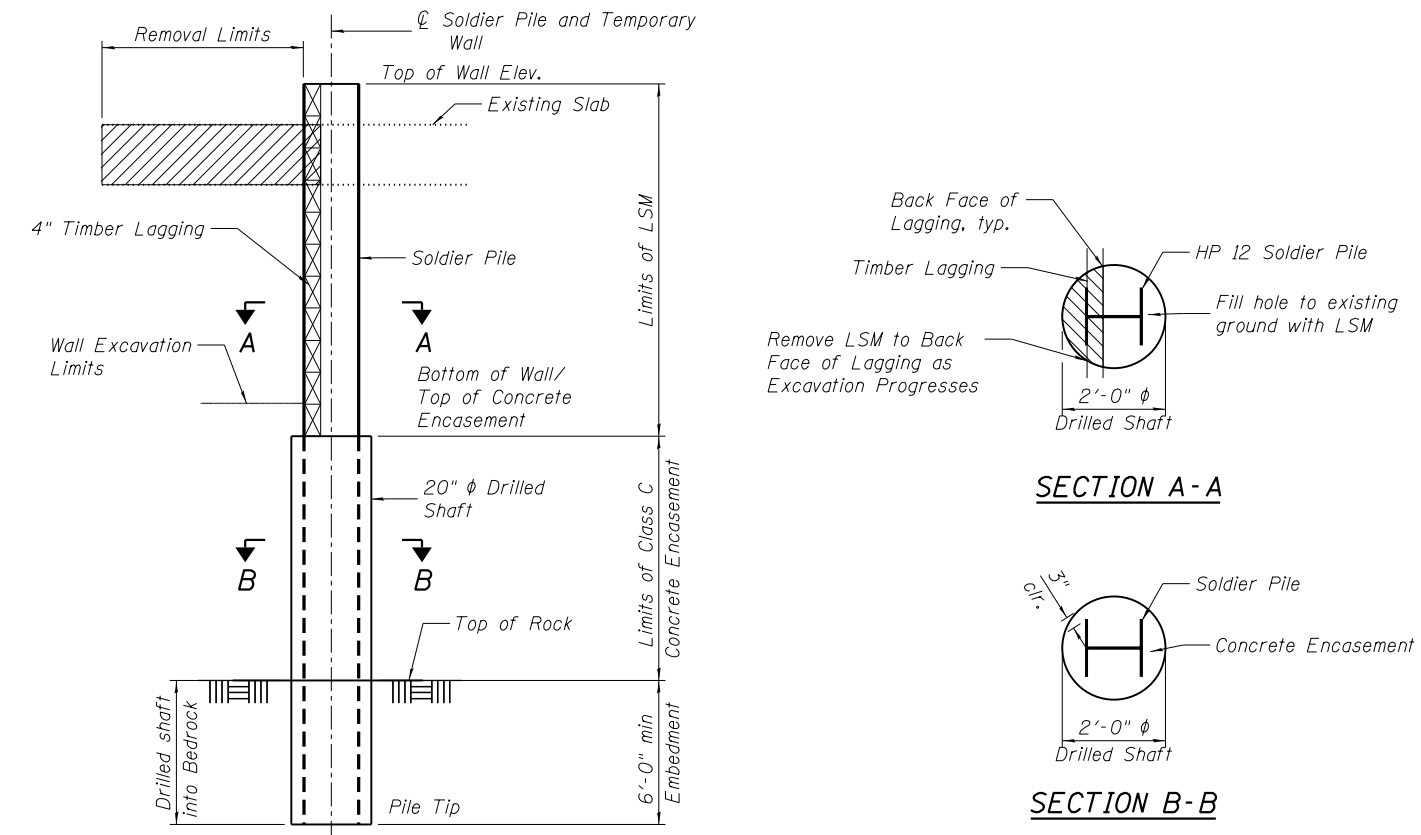
Note:  
A cantilevered sheet piling design does not appear feasible and additional members or other retention systems may be necessary. The Temporary Soil Retention System (To Remain in Place) detail shown on this sheet is a suggested alternative retention system but the Contractor is responsible for the design of the system and must submit the design calculations and details sealed by a licensed structural engineer in the State of Illinois to the Engineer for review and acceptance. This process must be followed regardless of the temporary soil retention system used.



**TEMPORARY SOIL RETENTION WALL ELEVATION**



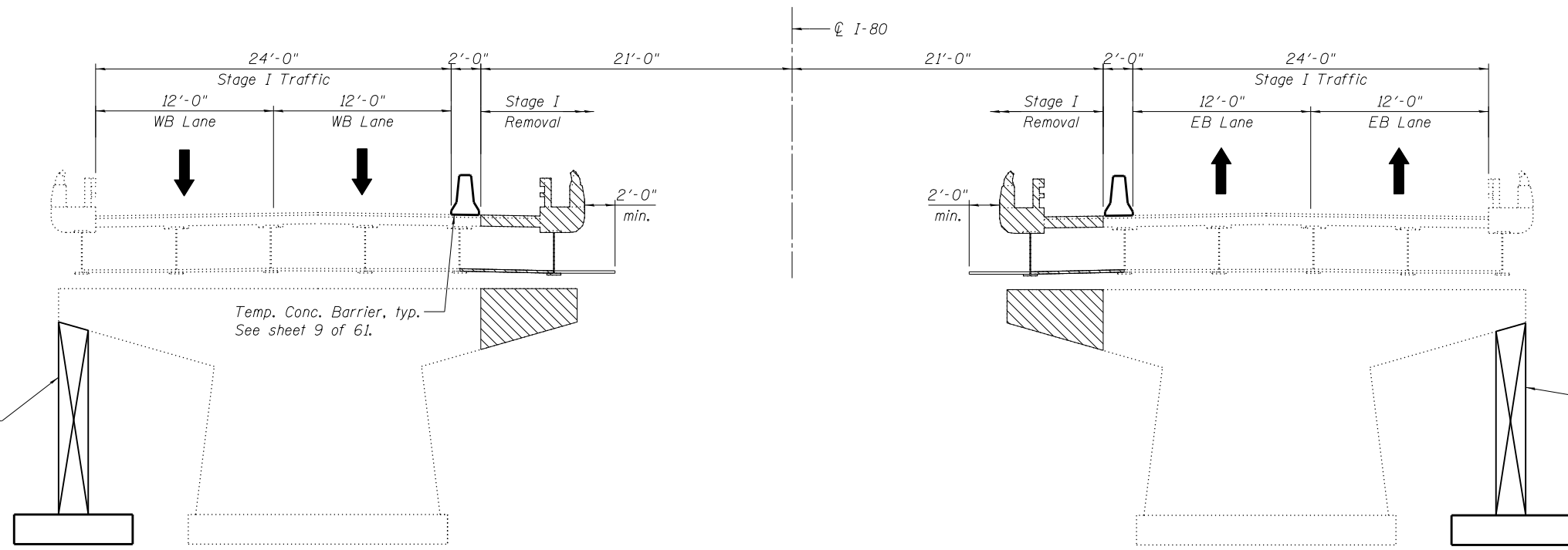
**EAST ABUTMENT SECTION**  
(Horiz. Dim. @ Rt. L's)



**TYPICAL SECTION**

Notes:  
1. Fill drilled shaft with low strength mortar backfill from existing ground line down to top of concrete encasement.  
2. All material, labor, equipment and any miscellaneous items necessary to complete the construction of temporary wall shall be included in lump sum price for Temporary Soil Retention System (To Remain in Place).

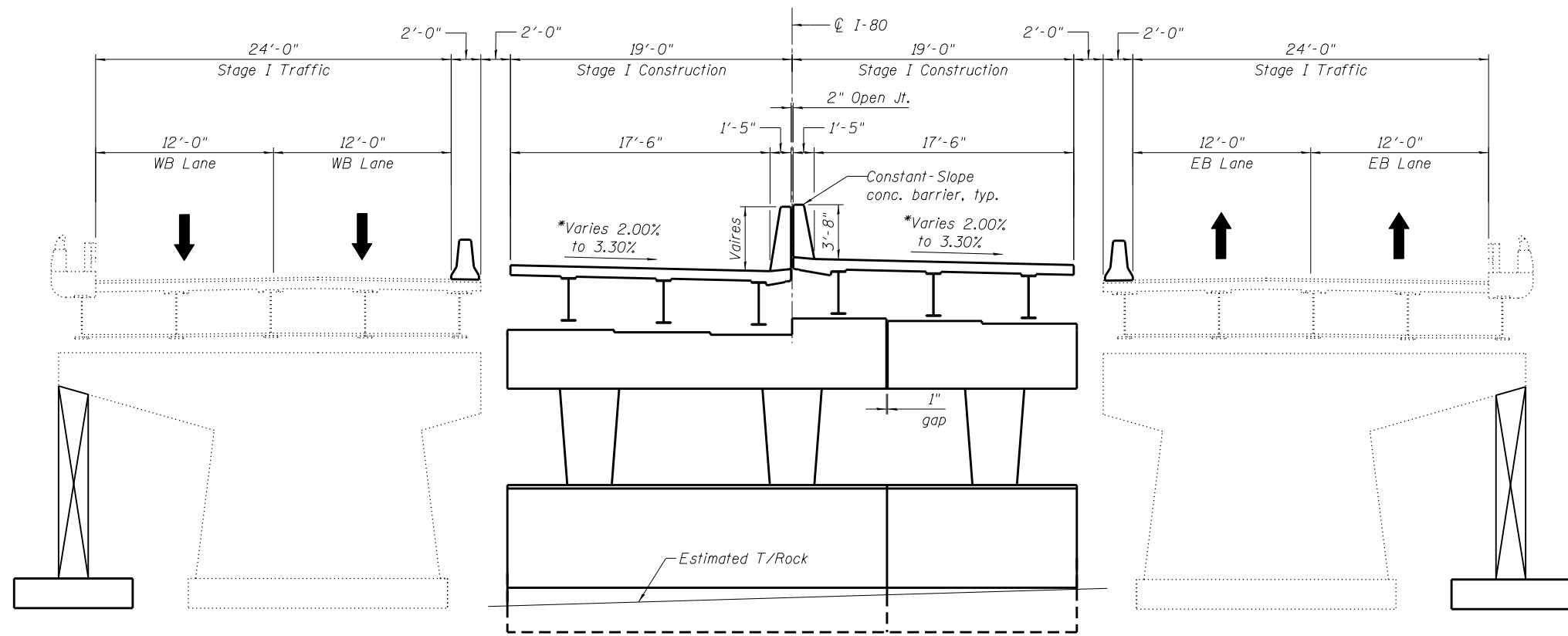
**SUGGESTED TEMPORARY SOIL RETENTION SYSTEM AT ABUTMENTS**



Provide Temporary Support System prior to Stage I Removal. See sheets 46 and 47 of 61 for additional information.

Provide Temporary Support System prior to Stage I Removal. See sheets 46 and 47 of 61 for additional information.

**STAGE I REMOVAL**



\* Slope varies due to superelevation transition from 2.00% at Sta. 729+55 to 3.30% full superelevation at Sta. 738+87

**STAGE I CONSTRUCTION**

- Notes:
1. All staging cross sections are looking East.
  2. For quantity of Temporary Concrete Barrier, see roadway plans.
  3. Hatched area indicates Removal of Existing Structures.



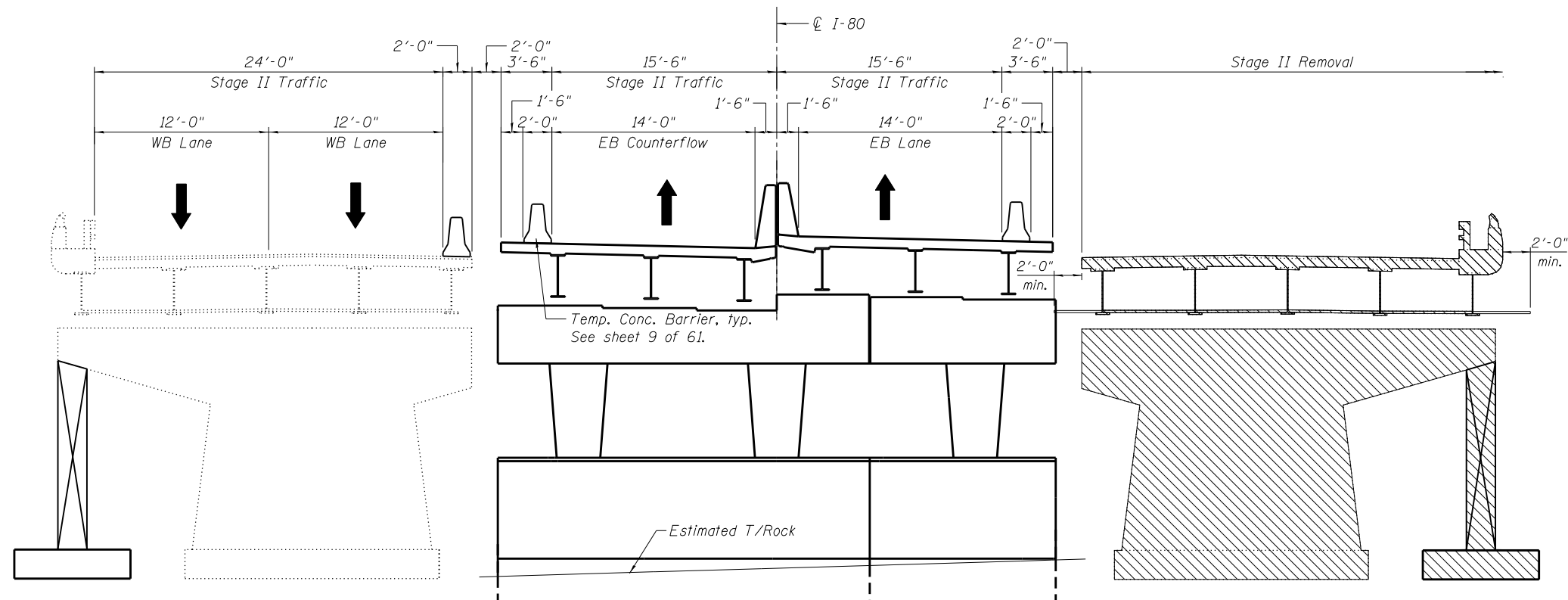
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	CHECKED CJW	REVISED
PLOT SCALE = NTS	DRAWN RMH	REVISED
PLOT DATE = 6/25/2020	CHECKED CY	REVISED

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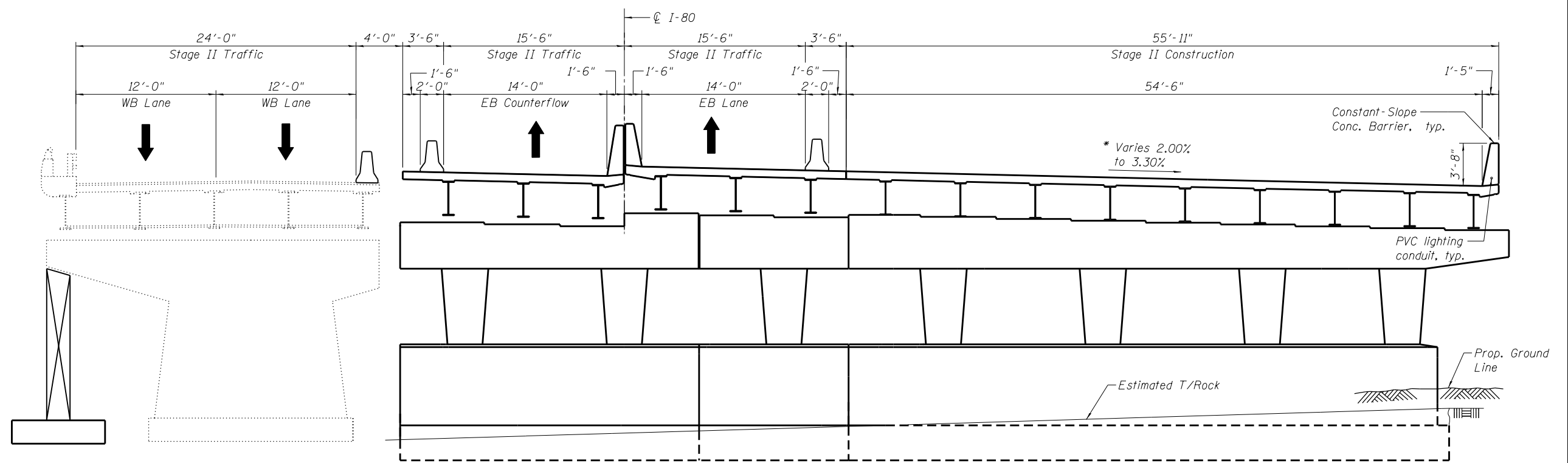
STAGE CONSTRUCTION DETAILS I  
STRUCTURE NOS. 099-0900 (E.B.) & 099-0901(W.B.)

SHEET NO. 6 OF 61 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	295
			CONTRACT NO. 60W34	
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**STAGE II REMOVAL**



**STAGE II CONSTRUCTION**

\* Slope varies due to superelevation transition from 2.00% at Sta. 729+55 to 3.30% full superelevation at Sta. 738+87

- Notes:
1. All staging cross sections are looking East.
  2. For quantity of Temporary Concrete Barrier, see roadway plans.
  3. Hatched area indicates Temporary Removal of Existing Structures.



USER NAME = default	DESIGNED YC	REVISED
	CHECKED CJW	REVISED
PLOT SCALE = NTS	DRAWN RMH	REVISED
PLOT DATE = 6/25/2020	CHECKED YC	REVISED

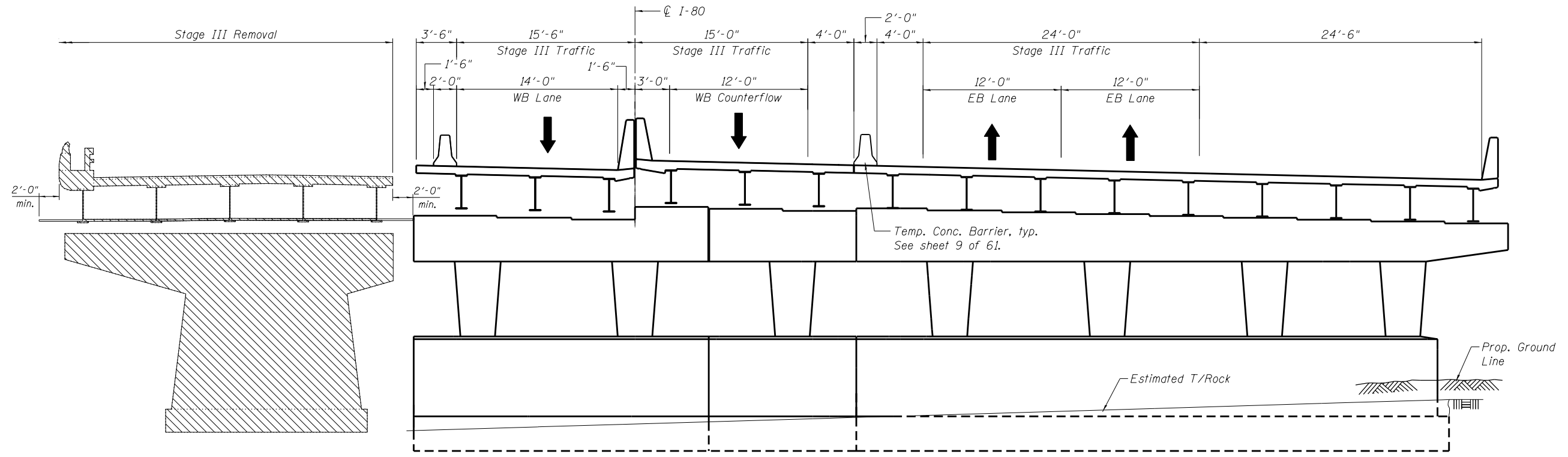
**STATE OF ILLINOIS  
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**STAGE CONSTRUCTION DETAILS II  
STRUCTURE NOS. 099-0900 (E.B.) & 099-0901(W.B.)**

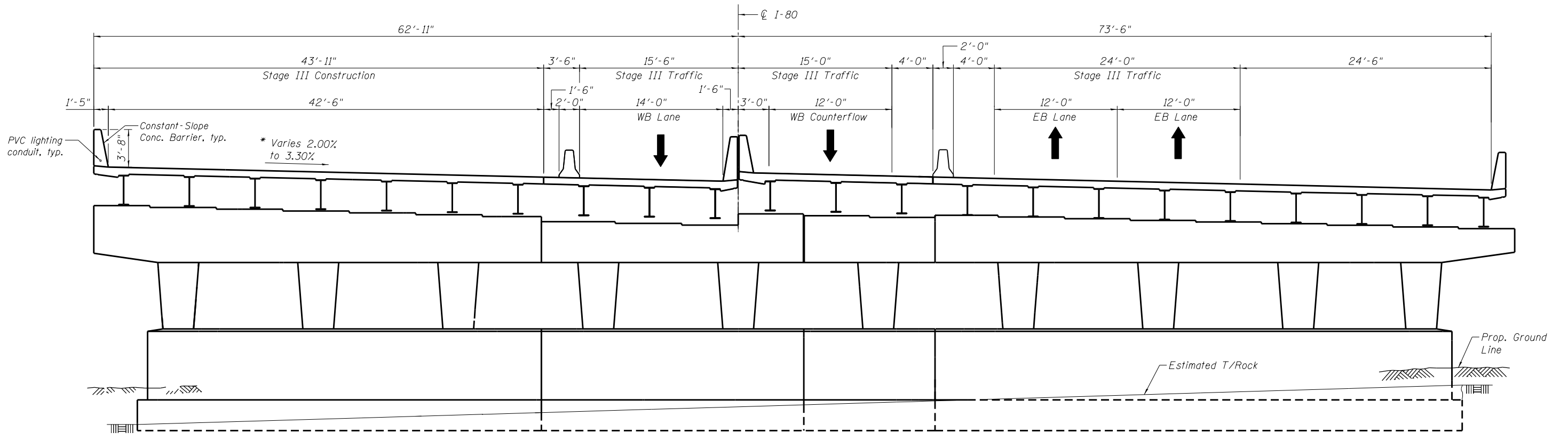
SHEET NO. 7 OF 61 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	296
CONTRACT NO. 60W34				





**STAGE III REMOVAL**



**STAGE III CONSTRUCTION**

\* Slope varies due to superelevation transition from 2.00% at Sta. 729+55 to 3.30% full superelevation at Sta. 738+87

- Notes:
1. All staging cross sections are looking East.
  2. For quantity of Temporary Concrete Barrier, see roadway plans.
  3. Hatched area indicates Removal of Existing Structures.



USER NAME = default	DESIGNED WJA	REVISED
	CHECKED TAH	REVISED
PLOT SCALE = NTS	DRAWN RMH	REVISED
PLOT DATE = 6/25/2020	CHECKED YC	REVISED

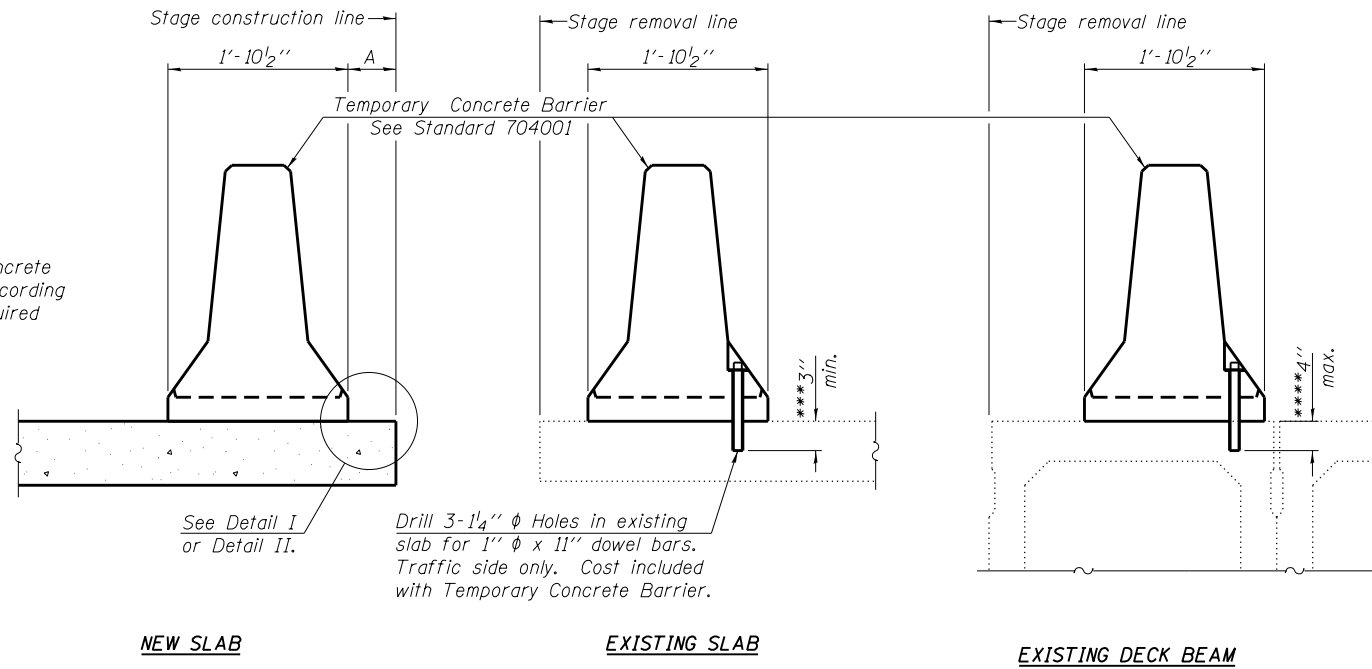
STATE OF ILLINOIS  
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STAGE CONSTRUCTION DETAILS III  
STRUCTURE NOS. 099-0900 (E.B.) & 099-0901(W.B.)

SHEET NO. 8 OF 61 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	297
			CONTRACT NO. 60W34	
ILLINOIS FED. AID PROJECT				

When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the new slab according to Detail I or Detail II. No anchorage is required when "A" is greater than 3'-6".



**SECTIONS THRU SLAB OR DECK BEAM**

**NOTES**

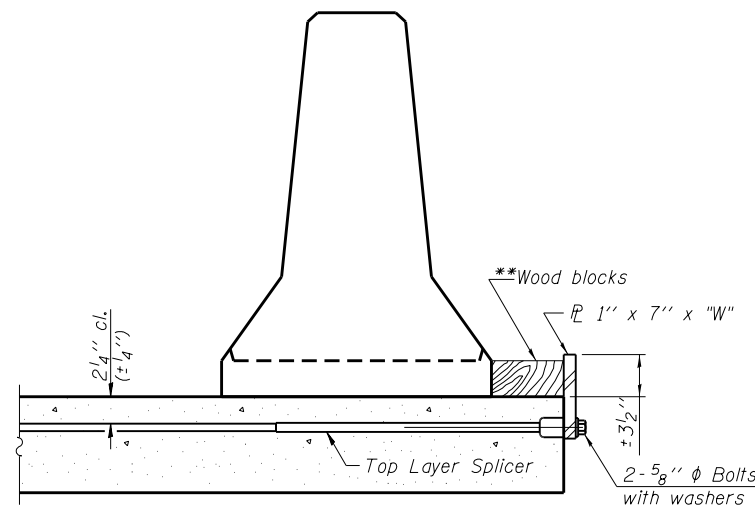
Detail I - With Bar Splicer or Couplers:  
Connect one (1) 1" x 7" x "W" steel  $\bar{L}$  to the top layer of couplers with 2-5/8"  $\phi$  bolts screwed to coupler at approximate  $\bar{C}$  of each barrier panel.

Detail II - With Extended Reinforcement Bars:  
Connect one (1) 1" x 7" x "W" steel  $\bar{L}$  to the concrete slab or concrete wearing surface with 2-5/8"  $\phi$  Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate  $\bar{C}$  of each barrier panel.

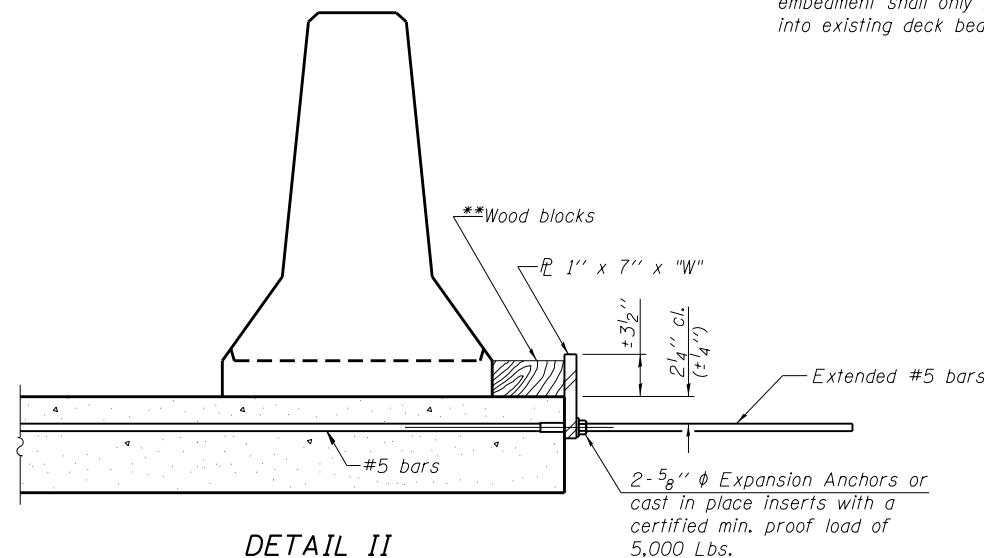
Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x "W" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

\*\*\* Dimension shown is minimum required embedment into concrete. If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.

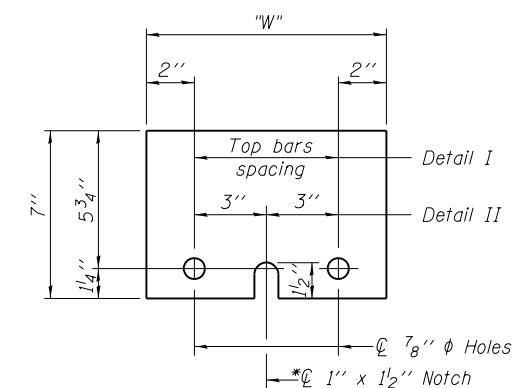
\*\*\*\* If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



**DETAIL I**



**DETAIL II**



**STEEL RETAINER  $\bar{L}$  1" x 7" x "W"**

\* Required only with Detail II

\*\* Wood blocks may be omitted when required to provide minimum stage traffic lane width. When the wood blocks are omitted, the concrete barrier shall be in direct contact with the steel retainer plate.

"W" = Top bars spacing + 4"

R-27

7-1-10



USER NAME = default	DESIGNED WJA	REVISED
	CHECKED TAH	REVISED
PLOT SCALE = NTS	DRAWN RMH	REVISED
PLOT DATE = 6/25/2020	CHECKED TAH	REVISED

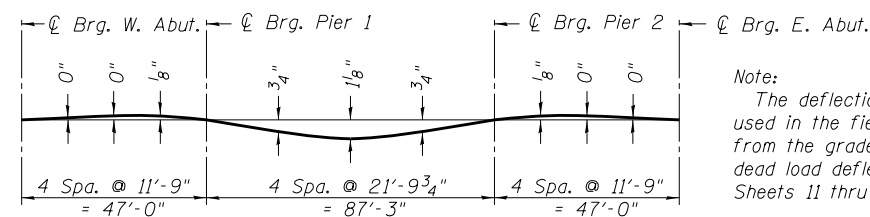
**STATE OF ILLINOIS  
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**TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION  
STRUCTURE NOS. 099-0900 (E.B.) & 099-0901(W.B.)**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	298
			CONTRACT NO. 60W34	

SHEET NO. 9 OF 61 SHEETS

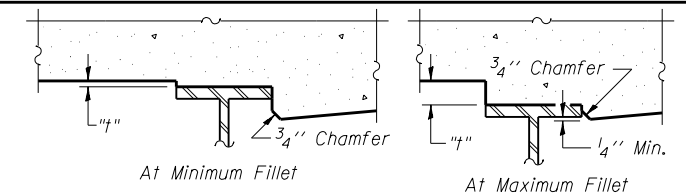
ILLINOIS FED. AID PROJECT



Note:  
The deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown on Sheets 11 thru 15 of 61.

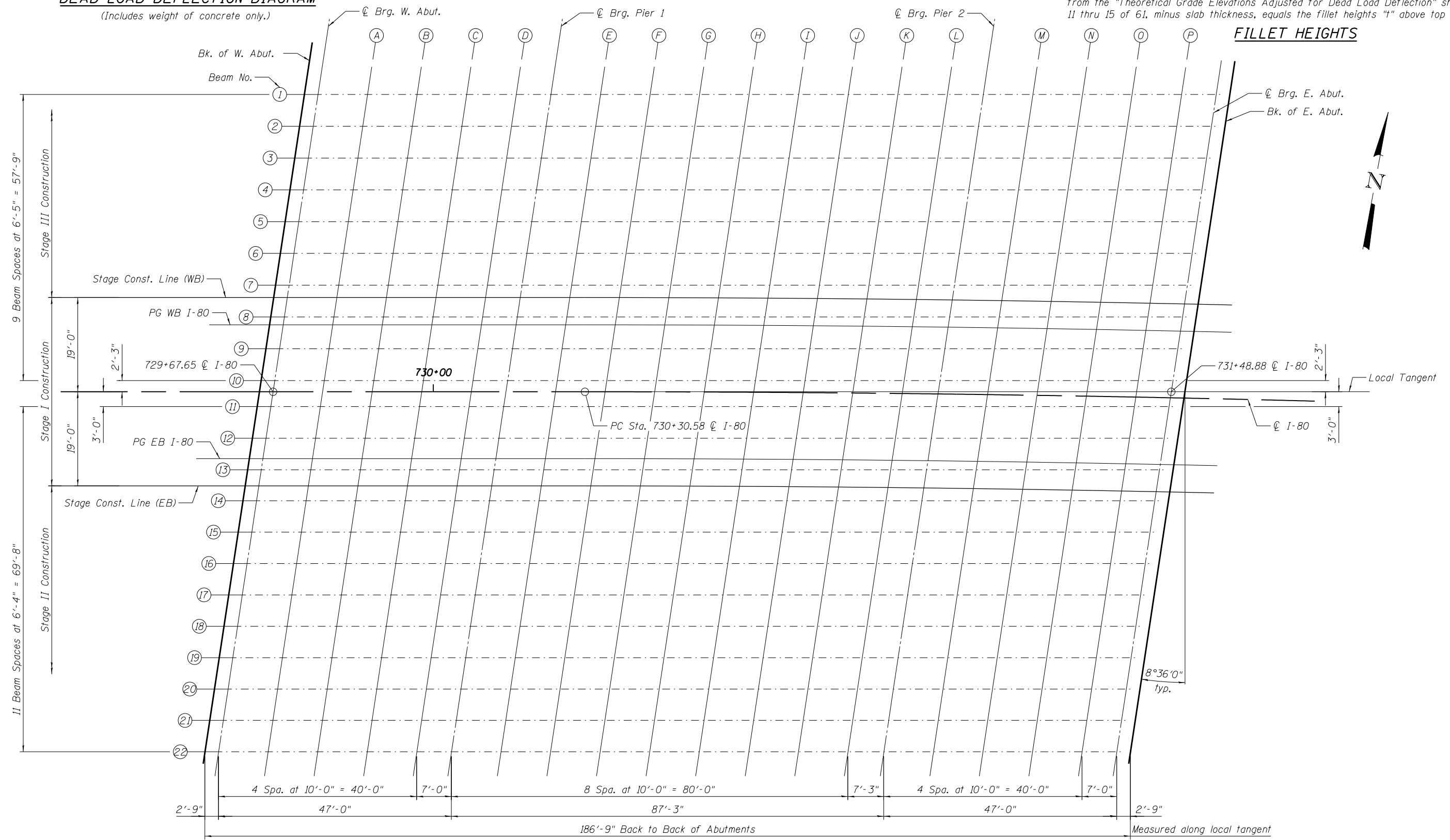
**DEAD LOAD DEFLECTION DIAGRAM**

(Includes weight of concrete only.)



Note:  
To determine "t": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown on this sheet. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on Sheets 11 thru 15 of 61, minus slab thickness, equals the fillet heights "t" above top flange of beams.

**FILLET HEIGHTS**



**PLAN**



USER NAME = default	DESIGNED TAH	REVISED
PLOT SCALE = NTS	CHECKED YC	REVISED
PLOT DATE = 6/25/2020	DRAWN RMH	REVISED
	CHECKED YC	REVISED

STATE OF ILLINOIS  
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TOP OF SLAB ELEVATIONS I  
STRUCTURE NOS. 099-0900 (E.B.) & 099-0901(W.B.)

SHEET NO. 10 OF 61 SHEETS

F.A.I. RTE. 80	SECTION 2013-008B	COUNTY WILL	TOTAL SHEETS 511	SHEET NO. 299
CONTRACT NO. 60W34				

ILLINOIS FED. AID PROJECT

**BEAM 1**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	729+73.97	-60.00	557.76	557.76
CL Brg. W. Abut.	729+76.72	-60.00	557.79	557.79
A	729+86.72	-60.00	557.89	557.89
B	729+96.72	-60.00	557.98	557.98
C	730+06.72	-60.00	558.08	558.07
D	730+16.72	-60.00	558.18	558.17
CL Brg. Pier 1	730+23.72	-60.00	558.24	558.24
E	730+33.69	-60.01	558.34	558.36
F	730+43.59	-60.02	558.44	558.49
G	730+53.48	-60.05	558.53	558.61
H	730+63.38	-60.10	558.63	558.72
I	730+73.28	-60.17	558.73	558.82
J	730+83.17	-60.25	558.83	558.90
K	730+93.07	-60.35	558.90	558.94
L	731+02.96	-60.47	558.95	558.97
CL Brg. Pier 2	731+10.13	-60.56	558.99	558.99
M	731+20.03	-60.71	559.04	559.04
N	731+29.93	-60.87	559.10	559.10
O	731+39.82	-61.05	559.16	559.16
P	731+49.71	-61.25	559.21	559.21
CL Brg. E. Abut.	731+56.63	-61.40	559.25	559.25
Bk. E. Abut.	731+59.35	-61.46	559.27	559.27

**BEAM 2**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	729+73.00	-53.58	557.61	557.61
CL Brg. W. Abut.	729+75.75	-53.58	557.64	557.64
A	729+85.75	-53.58	557.73	557.73
B	729+95.75	-53.58	557.82	557.82
C	730+05.75	-53.58	557.91	557.90
D	730+15.75	-53.58	558.00	557.99
CL Brg. Pier 1	730+22.75	-53.58	558.06	558.06
E	730+32.73	-53.59	558.15	558.18
F	730+42.64	-53.61	558.24	558.30
G	730+52.55	-53.63	558.33	558.41
H	730+62.46	-53.68	558.42	558.52
I	730+72.36	-53.74	558.52	558.60
J	730+82.27	-53.82	558.61	558.68
K	730+92.18	-53.92	558.68	558.73
L	731+02.08	-54.04	558.73	558.75
CL Brg. Pier 2	731+09.26	-54.13	558.77	558.77
M	731+19.17	-54.28	558.83	558.82
N	731+29.08	-54.44	558.88	558.88
O	731+38.98	-54.62	558.94	558.94
P	731+48.88	-54.82	559.00	559.00
CL Brg. E. Abut.	731+55.81	-54.97	559.04	559.04
Bk. E. Abut.	731+58.53	-55.02	559.05	559.05

**BEAM 3**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	729+72.03	-47.17	557.47	557.47
CL Brg. W. Abut.	729+74.78	-47.17	557.49	557.49
A	729+84.78	-47.17	557.57	557.57
B	729+94.78	-47.17	557.66	557.65
C	730+04.78	-47.17	557.74	557.73
D	730+14.78	-47.17	557.82	557.82
CL Brg. Pier 1	730+21.78	-47.17	557.88	557.88
E	730+31.77	-47.17	557.97	557.99
F	730+41.69	-47.19	558.05	558.10
G	730+51.61	-47.21	558.13	558.21
H	730+61.53	-47.26	558.22	558.31
I	730+71.45	-47.32	558.30	558.39
J	730+81.37	-47.40	558.39	558.46
K	730+91.28	-47.49	558.46	558.51
L	731+01.20	-47.61	558.52	558.53
CL Brg. Pier 2	731+08.39	-47.70	558.56	558.56
M	731+18.31	-47.85	558.61	558.60
N	731+28.22	-48.01	558.67	558.66
O	731+38.14	-48.19	558.72	558.72
P	731+48.05	-48.38	558.78	558.78
CL Brg. E. Abut.	731+54.99	-48.53	558.82	558.82
Bk. E. Abut.	731+57.71	-48.59	558.84	558.84

**BEAM 4**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	729+71.06	-40.75	557.32	557.32
CL Brg. W. Abut.	729+73.81	-40.75	557.34	557.34
A	729+83.81	-40.75	557.42	557.42
B	729+93.81	-40.75	557.50	557.49
C	730+03.81	-40.75	557.57	557.57
D	730+13.81	-40.75	557.65	557.64
CL Brg. Pier 1	730+20.81	-40.75	557.70	557.70
E	730+30.81	-40.76	557.78	557.81
F	730+40.74	-40.77	557.86	557.91
G	730+50.67	-40.79	557.94	558.02
H	730+60.60	-40.84	558.02	558.11
I	730+70.53	-40.90	558.10	558.19
J	730+80.46	-40.97	558.18	558.25
K	730+90.39	-41.07	558.25	558.29
L	731+00.31	-41.18	558.30	558.32
CL Brg. Pier 2	731+07.51	-41.27	558.34	558.34
M	731+17.44	-41.42	558.40	558.39
N	731+27.37	-41.58	558.45	558.45
O	731+37.30	-41.75	558.51	558.51
P	731+47.22	-41.95	558.56	558.56
CL Brg. E. Abut.	731+54.16	-42.09	558.60	558.60
Bk. E. Abut.	731+56.89	-42.15	558.62	558.62

**BEAM 5**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	729+70.09	-34.33	557.17	557.17
CL Brg. W. Abut.	729+72.84	-34.33	557.19	557.19
A	729+82.84	-34.33	557.26	557.26
B	729+92.84	-34.33	557.34	557.33
C	730+02.84	-34.33	557.41	557.40
D	730+12.84	-34.33	557.48	557.47
CL Brg. Pier 1	730+19.84	-34.33	557.53	557.53
E	730+29.84	-34.34	557.60	557.62
F	730+39.79	-34.35	557.67	557.72
G	730+49.73	-34.37	557.74	557.82
H	730+59.67	-34.41	557.81	557.91
I	730+69.61	-34.47	557.89	557.98
J	730+79.55	-34.55	557.96	558.03
K	730+89.49	-34.64	558.03	558.08
L	730+99.43	-34.75	558.08	558.10
CL Brg. Pier 2	731+06.63	-34.84	558.12	558.12
M	731+16.57	-34.98	558.18	558.17
N	731+26.51	-35.14	558.23	558.23
O	731+36.45	-35.32	558.29	558.29
P	731+46.39	-35.51	558.35	558.35
CL Brg. E. Abut.	731+53.34	-35.66	558.39	558.39
Bk. E. Abut.	731+56.07	-35.71	558.40	558.40

**BEAM 6**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. W. Abut.	729+69.12	-27.92	557.03	557.03
CL Brg. W. Abut.	729+71.87	-27.92	557.05	557.05
A	729+81.87	-27.92	557.11	557.11
B	729+91.87	-27.92	557.18	557.17
C	730+01.87	-27.92	557.24	557.24
D	730+11.87	-27.92	557.31	557.30
CL Brg. Pier 1	730+18.87	-27.92	557.35	557.35
E	730+28.87	-27.92	557.42	557.44
F	730+38.83	-27.93	557.48	557.54
G	730+48.78	-27.95	557.55	557.63
H	730+58.73	-27.99	557.61	557.71
I	730+68.69	-28.05	557.68	557.77
J	730+78.64	-28.12	557.75	557.82
K	730+88.59	-28.21	557.81	557.86
L	730+98.54	-28.33	557.87	557.88
CL Brg. Pier 2	731+05.75	-28.41	557.91	557.91
M	731+15.70	-28.55	557.96	557.95
N	731+25.65	-28.71	558.02	558.01
O	731+35.60	-28.89	558.07	558.07
P	731+45.55	-29.08	558.13	558.13
CL Brg. E. Abut.	731+52.51	-29.22	558.17	558.17
Bk. E. Abut.	731+55.24	-29.28	558.19	558.19

All offsets are measured from @ I-80.



USER NAME = default	DESIGNED YC	REVISED
PLOT SCALE = NTS	CHECKED WJA	REVISED
PLOT DATE = 6/25/2020	DRAWN RMH	REVISED
	CHECKED WJA	REVISED

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS II  
STRUCTURE NOS. 099-0900 (E.B.) & 099-0901(W.B.)

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	2013-008B	WILL	511	300
CONTRACT NO. 60W34				

SHEET NO. 11 OF 61 SHEETS

ILLINOIS FED. AID PROJECT