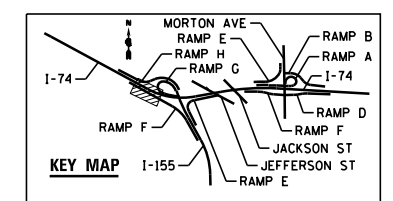
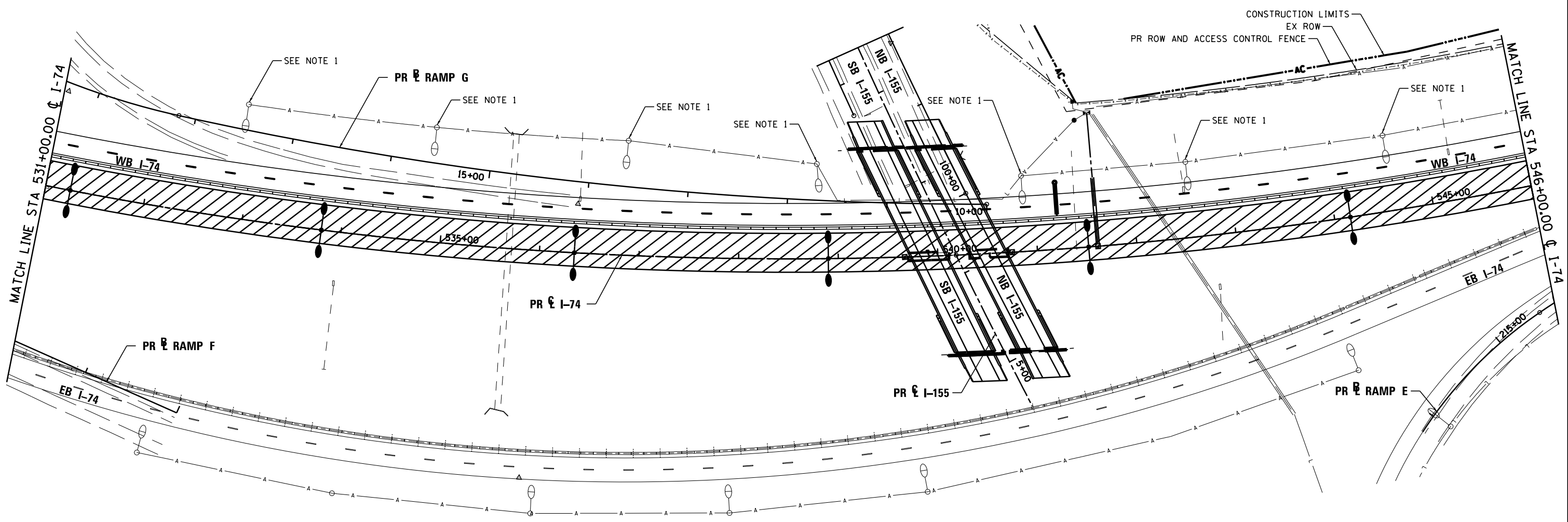


NOTES:

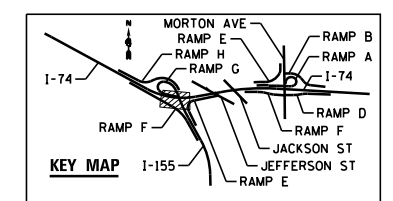
1. ITEMS SHOWN ON THE BILL OF MATERIALS ON THIS SHEET ARE SHOWN FOR INFORMATION ONLY. ALL MATERIALS AND LABOR NECESSARY FOR THE CONSTRUCTION AND REMOVAL OF TEMPORARY LIGHTING ITEMS SHALL BE PAID FOR WITH THE BID ITEM "TEMPORARY LIGHTING SYSTEM".
2. WOOD POLES SHALL BE EMBEDDED 20' BELOW EXISTING GRADE.
3. MULTI-MOUNT LUMINAIRES SHALL BE TILTED 25° OR AS DIRECTED BY THE ENGINEER.
4. PROPOSED LIGHTING SHALL BE INSTALLED AND OPERATIONAL PRIOR TO REMOVAL OF TEMPORARY LIGHTS.



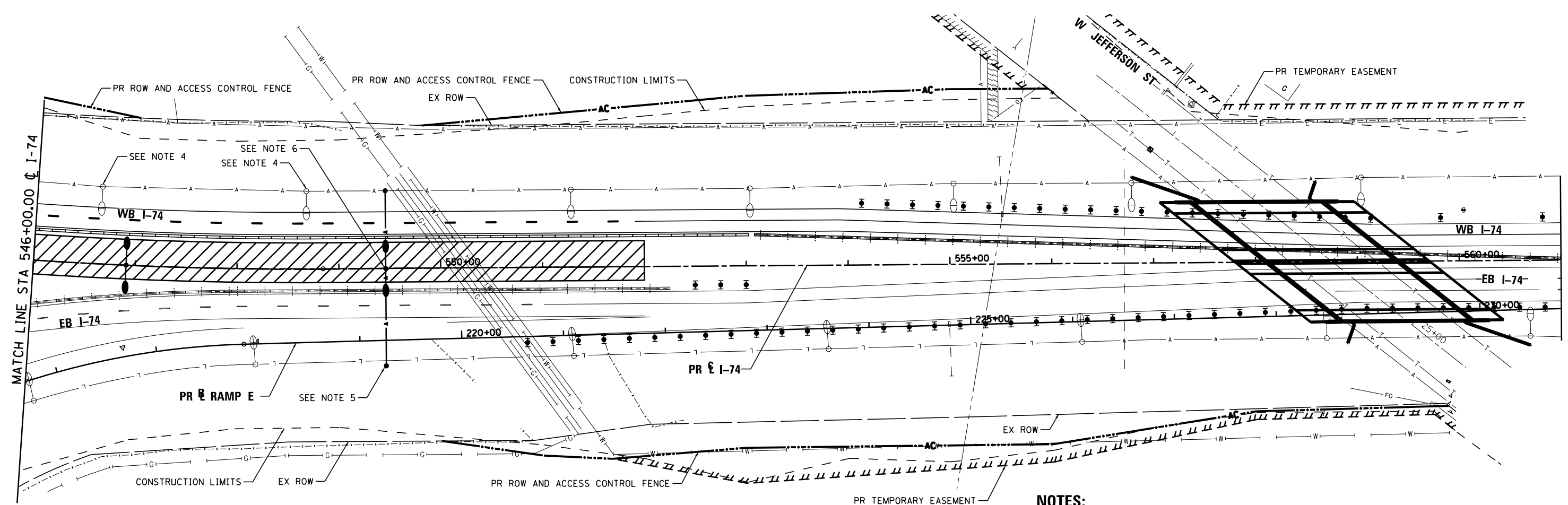
FILE NAME = ...\\D468620-sh-t-1-74-TempStgl0-1ight05.dgn	DESIGNED - BENESCH	REVISED -		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY LIGHTING		F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
USER NAME = tblank	DRAWN - NLH	REVISED -			CONSTRUCTION STAGE 10		90-114R(14HB-4,14,14HB)BRJ	TAZEWELL	2433	1801	
PLOT DATE = 9/5/2012	CHECKED - GHT	REVISED -			SCALE: 1"=50'	SHEET NO. 86 OF 138 SHEETS	STA.	TO STA.	CONTRACT NO. 68620		
DATE - JULY 20, 2012	REVISI	DATE							ILLINOIS FED. AID PROJECT		



NOTES:
 1. PROPOSED LIGHTING SHALL BE INSTALLED AND OPERATIONAL PRIOR TO REMOVAL OF EXISTING LIGHTS.

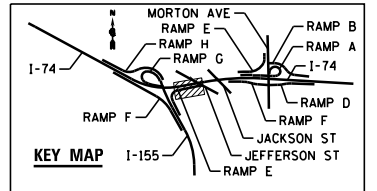


FILE NAME = ...D468620-sh1-1-74-TempStg10-light06.dgn	DESIGNED - BENESCH	REVISED -		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY LIGHTING CONSTRUCTION STAGE 10		F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
USER NAME = tblank	DRAWN - NLH	REVISED -					90-114R(14HB-4,14,14HVB)BRJ	TAZEWELL	2433	1802	
PLOT DATE = 9/5/2012	CHECKED - GHT	REVISED -					CONTRACT NO. 68620				
DATE - JULY 20, 2012	REVISED -	REVISED -	SCALE: 1"=50'		SHEET NO. 87 OF 138 SHEETS	STA. TO STA.	ILLINOIS FED. AID PROJECT				



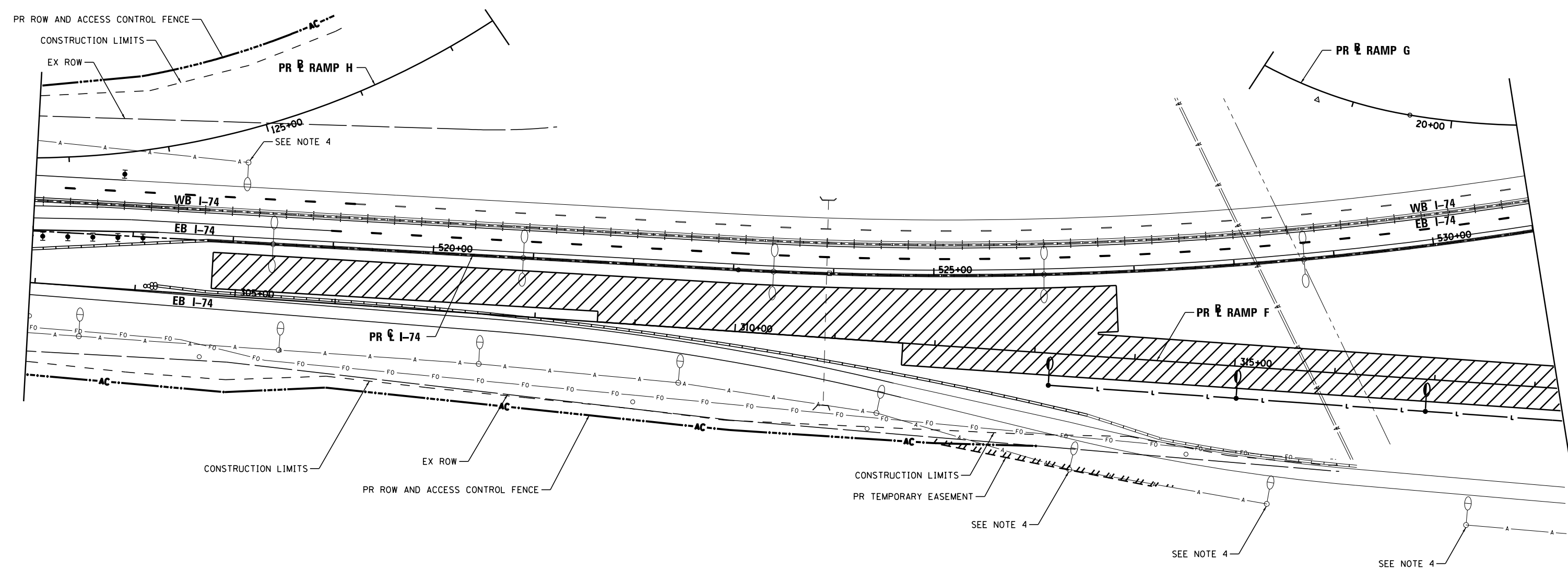
NOTES:

1. ITEMS SHOWN ON THE BILL OF MATERIALS ON THIS SHEET ARE SHOWN FOR INFORMATION ONLY. ALL MATERIALS AND LABOR NECESSARY FOR THE CONSTRUCTION AND REMOVAL OF TEMPORARY LIGHTING ITEMS SHALL BE PAID FOR WITH THE BID ITEM "TEMPORARY LIGHTING SYSTEM".
2. WOOD POLES SHALL BE EMBEDDED 20' BELOW EXISTING GRADE.
3. MULTI-MOUNT LUMINAIRES SHALL BE TILTED 25° OR AS DIRECTED BY THE ENGINEER.
4. TEMPORARY LIGHTING SHALL BE INSTALLED AND OPERATIONAL PRIOR TO REMOVAL OF EXISTING LIGHTS.
5. EMPTY MESSENGER WIRE END WOOD POLE TO BE SET TO OFFSET STRAIN ON POLE.
6. ATTACH WEATHER HEAD TO PROPOSED LIGHTING UNIT FOR AERIAL CABLE CONNECTION. THE WEATHER HEAD SHALL BE REMOVED IN STAGE 14 WITH THE REMOVAL OF THE AERIAL CABLE. THE WEATHER HEAD AND AERIAL CABLE CONNECTION AND DISCONNECTION SHALL BE PAID WITH THE BID ITEM "TEMPORARY LIGHTING SYSTEM".



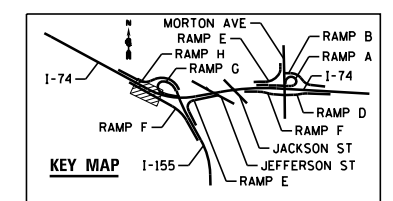
FILE NAME = ...D468620-sh1-1-74-TempStg10-light07.dgn	DESIGNED - BENESCH	REVISED -		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY LIGHTING CONSTRUCTION STAGE 10		F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
USER NAME = tblank	DRAWN - NLH	REVISED -			90-114R(14HB-4,14,14HVB)BRJ	TAZEWELL	2433	1803			
PLOT DATE = 9/5/2012	CHECKED - GHT	REVISED -			CONTRACT NO. 68620						
DATE - JULY 20, 2012	REVISED -	ILLINOIS FED. AID PROJECT									

SCALE: 1"=50' SHEET NO. 88 OF 138 SHEETS STA. TO STA.

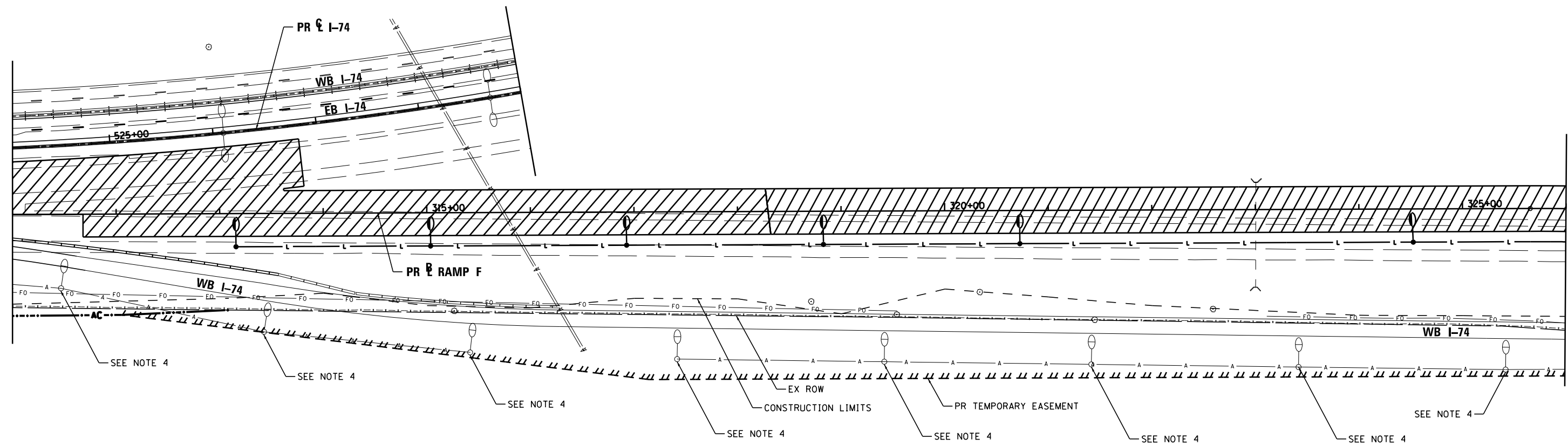


NOTES:

1. ITEMS SHOWN ON THE BILL OF MATERIALS ON THIS SHEET ARE SHOWN FOR INFORMATION ONLY. ALL MATERIALS AND LABOR NECESSARY FOR THE CONSTRUCTION AND REMOVAL OF TEMPORARY LIGHTING ITEMS SHALL BE PAID FOR WITH THE BID ITEM "TEMPORARY LIGHTING SYSTEM".
2. WOOD POLES SHALL BE EMBEDDED 20' BELOW EXISTING GRADE.
3. MULTI-MOUNT LUMINAIRES SHALL BE TILTED 25° OR AS DIRECTED BY THE ENGINEER.
4. TEMPORARY LIGHTING SHALL BE INSTALLED AND OPERATIONAL PRIOR TO REMOVAL OF EXISTING LIGHTS.

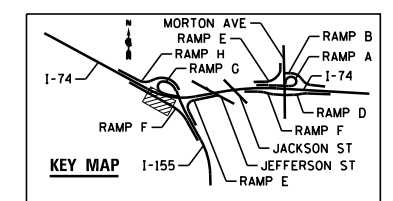


FILE NAME =	DESIGNED - BENESCH	REVISED -	 engineers · scientists · planners	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY LIGHTING CONSTRUCTION STAGE 11		F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
... \D468620-sh1-1-74-TempStg11-light05.dgn	DRAWN - NLH	REVISED -			90-114R(14HB-4,14,14HB)BRJ	TAZEWELL	2433	1804			
USER NAME = tblank	CHECKED - GHT	REVISED -			CONTRACT NO. 68620						
PLOT DATE = 9/5/2012	DATE - JULY 20, 2012	REVISED -			ILLINOIS FED. AID PROJECT						
					SCALE: 1"=50'	SHEET NO. 89 OF 138 SHEETS	STA.	TO STA.			



NOTES:

1. ITEMS SHOWN ON THE BILL OF MATERIALS ON THIS SHEET ARE SHOWN FOR INFORMATION ONLY. ALL MATERIALS AND LABOR NECESSARY FOR THE CONSTRUCTION AND REMOVAL OF TEMPORARY LIGHTING ITEMS SHALL BE PAID FOR WITH THE BID ITEM "TEMPORARY LIGHTING SYSTEM".
2. WOOD POLES SHALL BE EMBEDDED 20' BELOW EXISTING GRADE.
3. MULTI-MOUNT LUMINAIRES SHALL BE TILTED 25° OR AS DIRECTED BY THE ENGINEER.
4. TEMPORARY LIGHTING SHALL BE INSTALLED AND OPERATIONAL PRIOR TO REMOVAL OF EXISTING LIGHTS.



FILE NAME =	DESIGNED - BENESCH	REVISED -
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PLOT DATE = 9/5/2012	DATE - JULY 20, 2012	REVISED -

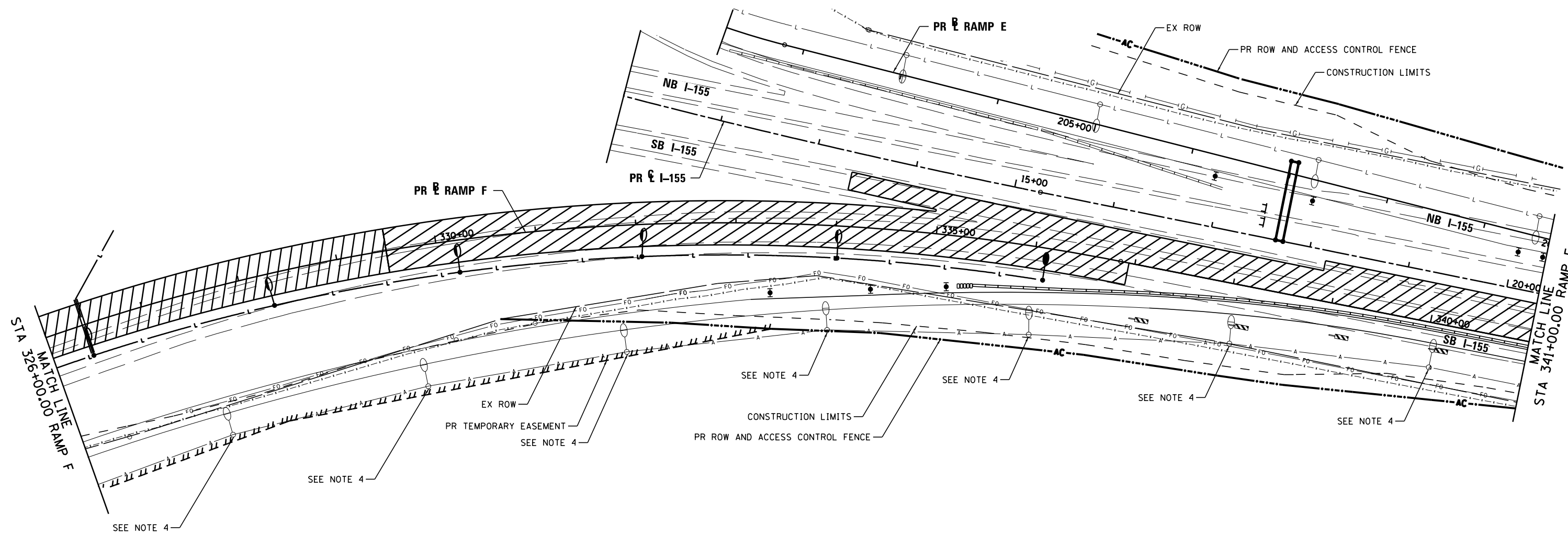
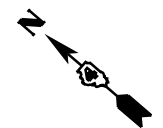


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY LIGHTING
CONSTRUCTION STAGE 11

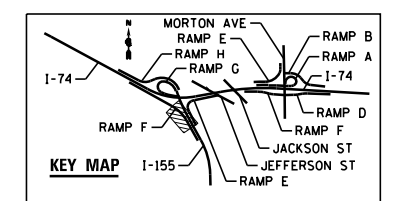
SCALE: 1"=50' SHEET NO. 90 OF 138 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90-114R(14HB-4,14,14HVB)BRJ		TAZEWELL	2433	1805
ILLINOIS FED. AID PROJECT			CONTRACT NO. 68620	

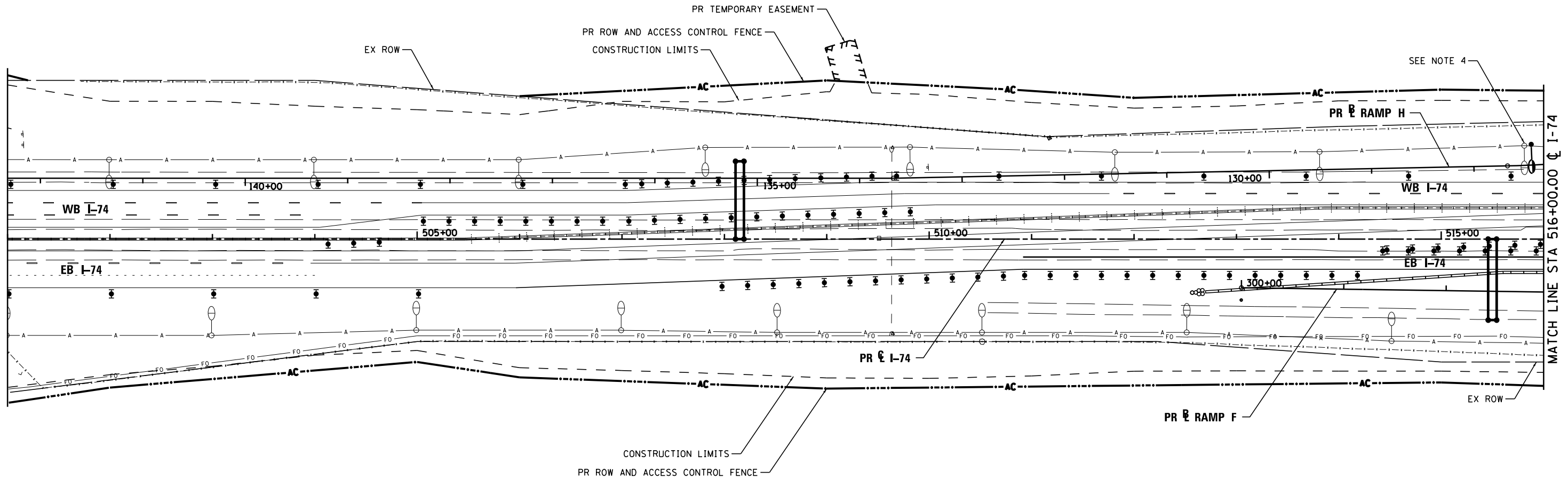


NOTES:

1. ITEMS SHOWN ON THE BILL OF MATERIALS ON THIS SHEET ARE SHOWN FOR INFORMATION ONLY. ALL MATERIALS AND LABOR NECESSARY FOR THE CONSTRUCTION AND REMOVAL OF TEMPORARY LIGHTING ITEMS SHALL BE PAID FOR WITH THE BID ITEM "TEMPORARY LIGHTING SYSTEM".
2. WOOD POLES SHALL BE EMBEDDED 20' BELOW EXISTING GRADE.
3. MULTI-MOUNT LUMINAIRES SHALL BE TILTED 25° OR AS DIRECTED BY THE ENGINEER.
4. TEMPORARY LIGHTING SHALL BE INSTALLED AND OPERATIONAL PRIOR TO REMOVAL OF EXISTING LIGHTS.

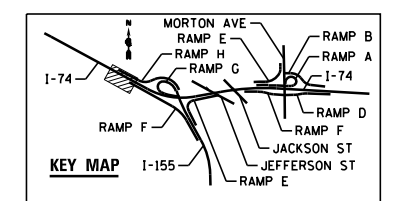


FILE NAME = ...D468620-sh1-1-155-TempStg11-light22.dgn	DESIGNED - BENESCH	REVISED -		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY LIGHTING		F.A.I. RTÉ.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
USER NAME = tblank	DRAWN - NLH	REVISED -			CONSTRUCTION STAGE 11		90-114R(14HB-4,14,14HVB)BRJ	TAZEWELL	2433	1806		
PLOT DATE = 9/5/2012	CHECKED - GHT	REVISED -			SCALE: 1"=50'	SHEET NO. 91 OF 138 SHEETS	STA.	TO STA.	CONTRACT NO. 68620			
	DATE - JULY 20, 2012	REVISED -			ILLINOIS FED. AID PROJECT							

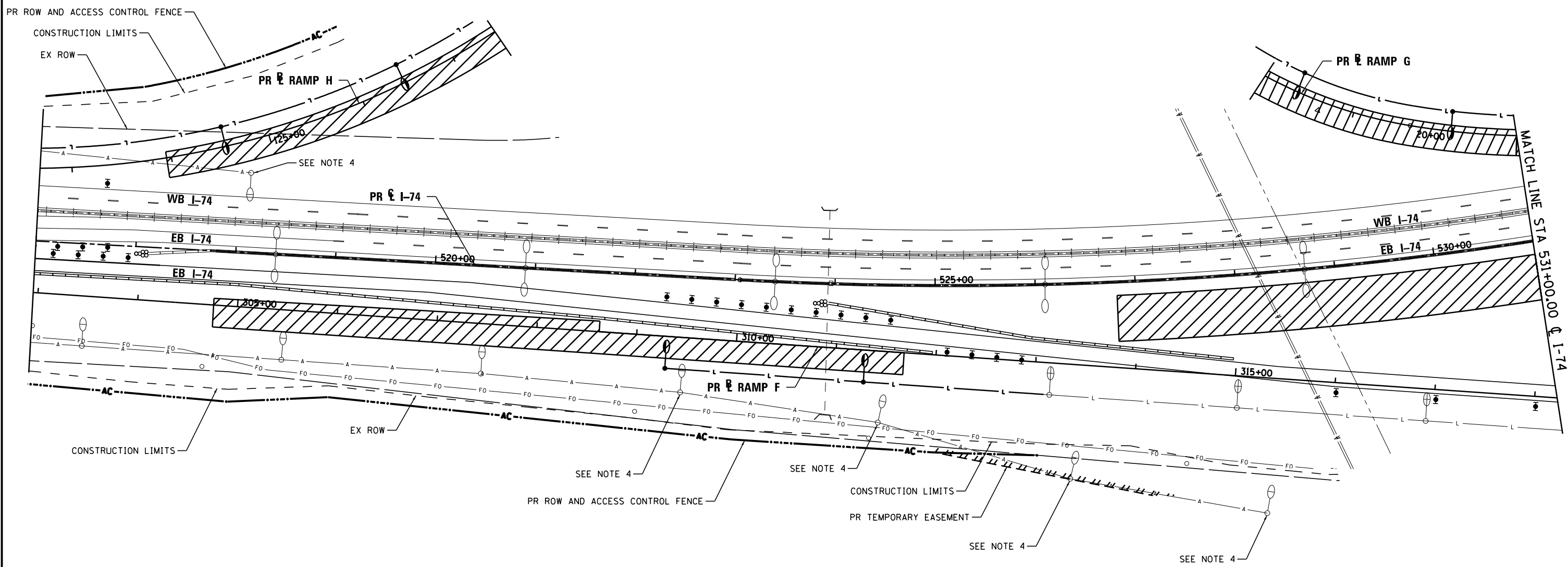


NOTES:

1. ITEMS SHOWN ON THE BILL OF MATERIALS ON THIS SHEET ARE SHOWN FOR INFORMATION ONLY. ALL MATERIALS AND LABOR NECESSARY FOR THE CONSTRUCTION AND REMOVAL OF TEMPORARY LIGHTING ITEMS SHALL BE PAID FOR WITH THE BID ITEM "TEMPORARY LIGHTING SYSTEM".
2. WOOD POLES SHALL BE EMBEDDED 20' BELOW EXISTING GRADE.
3. MULTI-MOUNT LUMINAIRES SHALL BE TILTED 25° OR AS DIRECTED BY THE ENGINEER.
4. TEMPORARY LIGHTING SHALL BE INSTALLED AND OPERATIONAL PRIOR TO REMOVAL OF EXISTING LIGHTS.

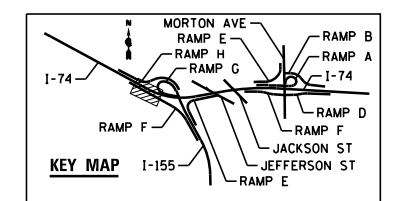


FILE NAME = ...ND468620-sh1-1-74-TempStgl2-light04.dgn	DESIGNED - BENESCH	REVISED -		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY LIGHTING		F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
USER NAME = tblank	DRAWN - NLH	REVISED -			CONSTRUCTION STAGE 12		90-114R(14HB-4,14,14HVB)BRJ	TAZEWELL	2433	1807	
PLOT DATE = 9/5/2012	CHECKED - GHT	REVISED -			SCALE: 1"=50'	SHEET NO. 92 OF 138 SHEETS	STA.	TO STA.	CONTRACT NO. 68620		
DATE - JULY 20, 2012	REVISI	REVISED -			ILLINOIS FED. AID PROJECT						



NOTES:

1. ITEMS SHOWN ON THE BILL OF MATERIALS ON THIS SHEET ARE SHOWN FOR INFORMATION ONLY. ALL MATERIALS AND LABOR NECESSARY FOR THE CONSTRUCTION AND REMOVAL OF TEMPORARY LIGHTING ITEMS SHALL BE PAID FOR WITH THE BID ITEM "TEMPORARY LIGHTING SYSTEM".
2. WOOD POLES SHALL BE EMBEDDED 20' BELOW EXISTING GRADE.
3. MULTI-MOUNT LUMINAIRES SHALL BE TILTED 25° OR AS DIRECTED BY THE ENGINEER.
4. TEMPORARY LIGHTING SHALL BE INSTALLED AND OPERATIONAL PRIOR TO REMOVAL OF EXISTING LIGHTS.



FILE NAME =	DESIGNED - BENESCH	REVISED -
...\\D468620-shr-1-74-TempStgl2-light05.dgn	DRAWN - NLH	REVISED -
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PLOT DATE = 9/5/2012	DATE - JULY 20, 2012	REVISED -

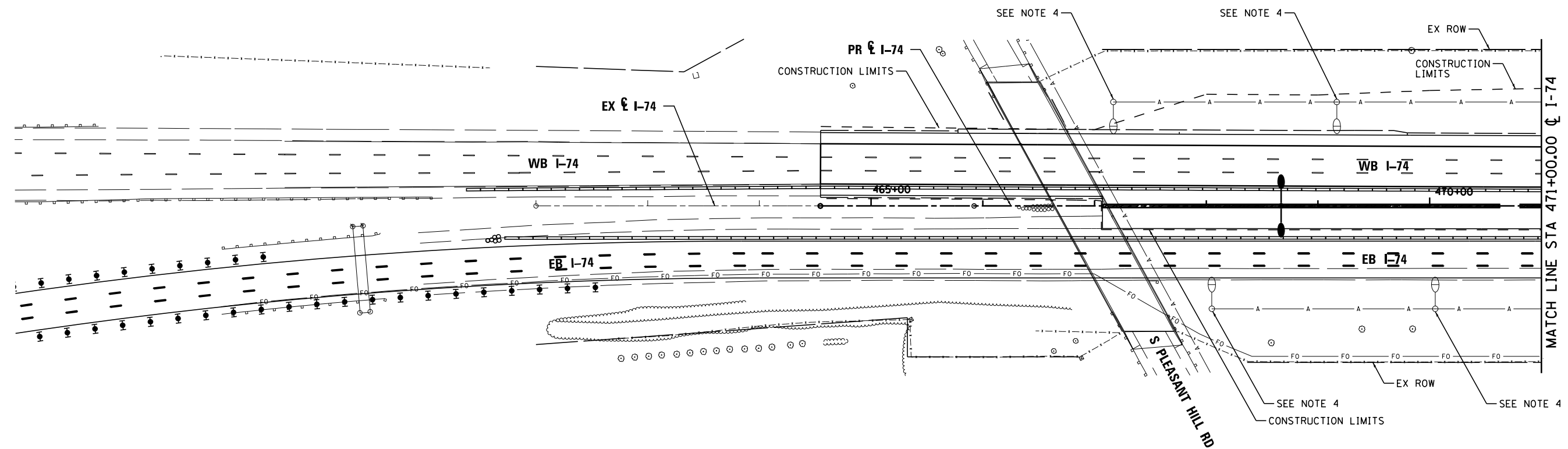
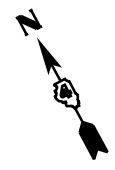


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY LIGHTING
CONSTRUCTION STAGE 12

SCALE: 1"=50' SHEET NO. 93 OF 138 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90-114R(14HB-4,14,14HVB)BRJ	TAZEWELL	ILLINOIS	2433	1808
CONTRACT NO. 68620				
ILLINOIS FED. AID PROJECT				

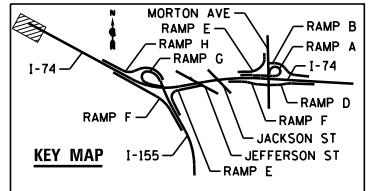


NOTES:

1. ITEMS SHOWN ON THE BILL OF MATERIALS ON THIS SHEET ARE SHOWN FOR INFORMATION ONLY. ALL MATERIALS AND LABOR NECESSARY FOR THE CONSTRUCTION AND REMOVAL OF TEMPORARY LIGHTING ITEMS SHALL BE PAID FOR WITH THE BID ITEM "TEMPORARY LIGHTING SYSTEM".
2. WOOD POLES SHALL BE EMBEDDED 20' BELOW EXISTING GRADE.
3. MULTI-MOUNT LUMINAIRES SHALL BE TILTED 25° OR AS DIRECTED BY THE ENGINEER.
4. TEMPORARY LIGHTING SHALL BE INSTALLED AND OPERATIONAL PRIOR TO REMOVAL OF EXISTING LIGHTS.

TEMPORARY LIGHTING SYSTEM – BILL OF MATERIAL – THIS SHEET

PAY ITEM	UNIT	QTY
LUMINAIRE, SODIUM VAPOR, MULTI-MOUNT, 400 WATT	EACH	0
LIGHT POLE, WOOD, 70 FOOT, CLASS 3	EACH	0
AERIAL CABLE, 2-1/8 NO. 2 WITH MESSENGER WIRE	FOOT	0



FILE NAME =	DESIGNED - BENESCH	REVISED -
...\\D468620-sh-t-1-74-TempStg14-light01.dgn	DRAWN - NLH	REVISED -
USER NAME = tblank	CHECKED - GHT	REVISED -
PLOT DATE = 9/5/2012	DATE - JULY 20, 2012	REVISED -

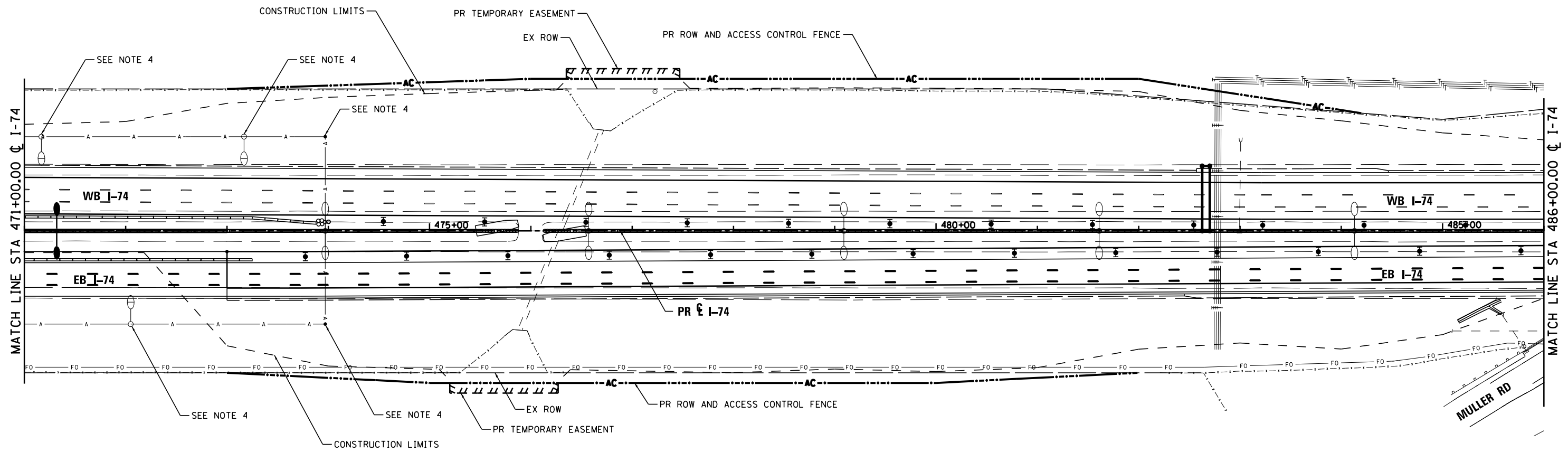


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY LIGHTING
CONSTRUCTION STAGE 14

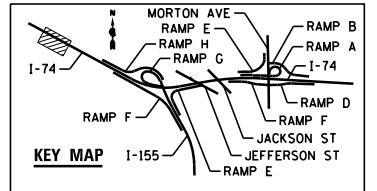
SCALE: 1"=50' SHEET NO. 94 OF 138 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90-114R(14HB-4,14,14HVB)BRJ	TAZEWELL	ILLINOIS	2433	1809
CONTRACT NO. 68620				



NOTES:

1. ITEMS SHOWN ON THE BILL OF MATERIALS ON THIS SHEET ARE SHOWN FOR INFORMATION ONLY. ALL MATERIALS AND LABOR NECESSARY FOR THE CONSTRUCTION AND REMOVAL OF TEMPORARY LIGHTING ITEMS SHALL BE PAID FOR WITH THE BID ITEM "TEMPORARY LIGHTING SYSTEM".
2. WOOD POLES SHALL BE EMBEDDED 20' BELOW EXISTING GRADE.
3. MULTI-MOUNT LUMINAIRES SHALL BE TILTED 25° OR AS DIRECTED BY THE ENGINEER.



FILE NAME =	DESIGNED - BENESCH	REVISED -
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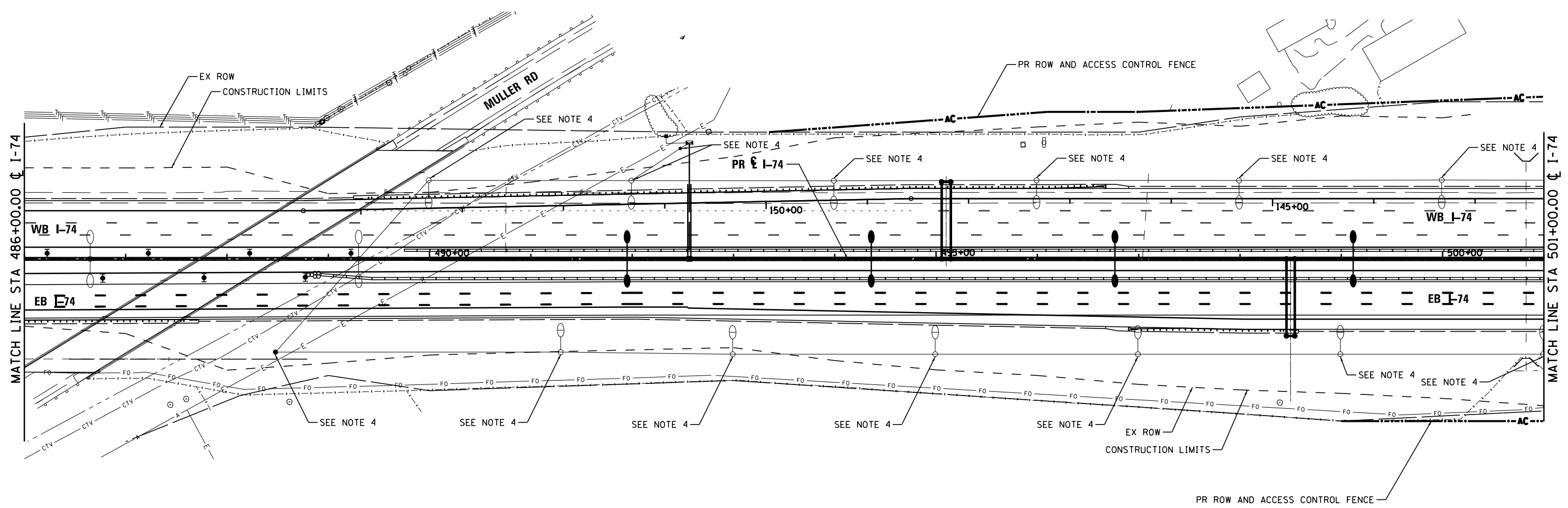


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY LIGHTING
CONSTRUCTION STAGE 14

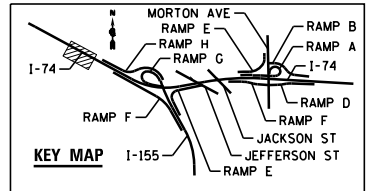
SCALE: 1"=50' SHEET NO. 95 OF 138 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90-[14R(14HB-4,14,14HB)BR]	TAZEWELL	ILLINOIS	2433	1810
CONTRACT NO. 68620				
ILLINOIS FED. AID PROJECT				

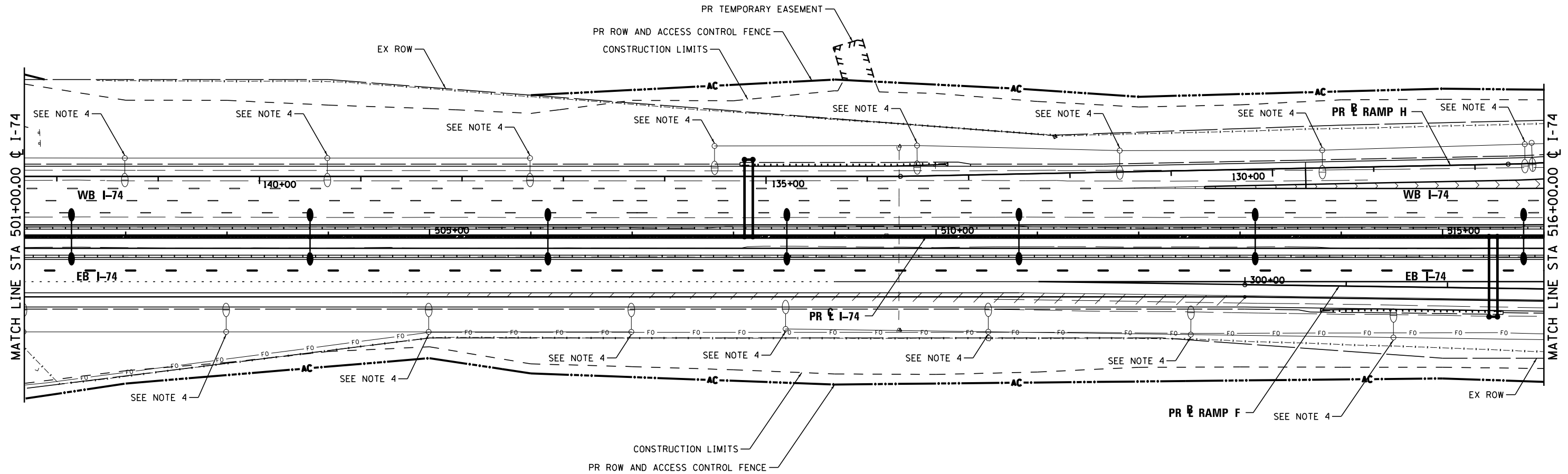


NOTES:

1. ITEMS SHOWN ON THE BILL OF MATERIALS ON THIS SHEET ARE SHOWN FOR INFORMATION ONLY. ALL MATERIALS AND LABOR NECESSARY FOR THE CONSTRUCTION AND REMOVAL OF TEMPORARY LIGHTING ITEMS SHALL BE PAID FOR WITH THE BID ITEM "TEMPORARY LIGHTING SYSTEM".
2. WOOD POLES SHALL BE EMBEDDED 20' BELOW EXISTING GRADE.
3. MULTI-MOUNT LUMINAIRES SHALL BE TILTED 25° OR AS DIRECTED BY THE ENGINEER.
4. TEMPORARY LIGHTING SHALL BE INSTALLED AND OPERATIONAL PRIOR TO REMOVAL OF EXISTING LIGHTS.



FILE NAME =	DESIGNED - BENESCH	REVISED -	 engineers · scientists · planners	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY LIGHTING CONSTRUCTION STAGE 14		F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
... \D468620-sh1-1-74-TempStg14-light03.dgn	DRAWN - NLH	REVISED -			• 90-114R(14HB-4,14,14HVB)BRJ	TAZEWELL	2433	1811			
USER NAME = tblank	CHECKED - GHT	REVISED -			CONTRACT NO. 68620						
PLOT DATE = 9/5/2012	DATE - JULY 20, 2012	REVISED -			ILLINOIS FED. AID PROJECT						

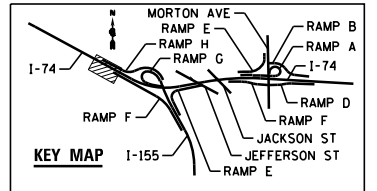


NOTES:

1. ITEMS SHOWN ON THE BILL OF MATERIALS ON THIS SHEET ARE SHOWN FOR INFORMATION ONLY. ALL MATERIALS AND LABOR NECESSARY FOR THE CONSTRUCTION AND REMOVAL OF TEMPORARY LIGHTING ITEMS SHALL BE PAID FOR WITH THE BID ITEM "TEMPORARY LIGHTING SYSTEM".
2. WOOD POLES SHALL BE EMBEDDED 20' BELOW EXISTING GRADE.
3. MULTI-MOUNT LUMINAIRES SHALL BE TILTED 25° OR AS DIRECTED BY THE ENGINEER.
4. TEMPORARY LIGHTING SHALL BE INSTALLED AND OPERATIONAL PRIOR TO REMOVAL OF EXISTING LIGHTS.

TEMPORARY LIGHTING SYSTEM – BILL OF MATERIAL – THIS SHEET

PAY ITEM	UNIT	QTY
LUMINAIRE, SODIUM VAPOR, MULTI-MOUNT, 400 WATT	EACH	0
LIGHT POLE, WOOD, 70 FOOT, CLASS 3	EACH	0
AERIAL CABLE, 4-1/8 NO. 2 WITH MESSENGER WIRE	FOOT	0



FILE NAME =	DESIGNED - BENESCH	REVISED -
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USER NAME = tblank	CHECKED - GHT	REVISED -
PLOT DATE = 9/5/2012	DATE - JULY 20, 2012	REVISED -

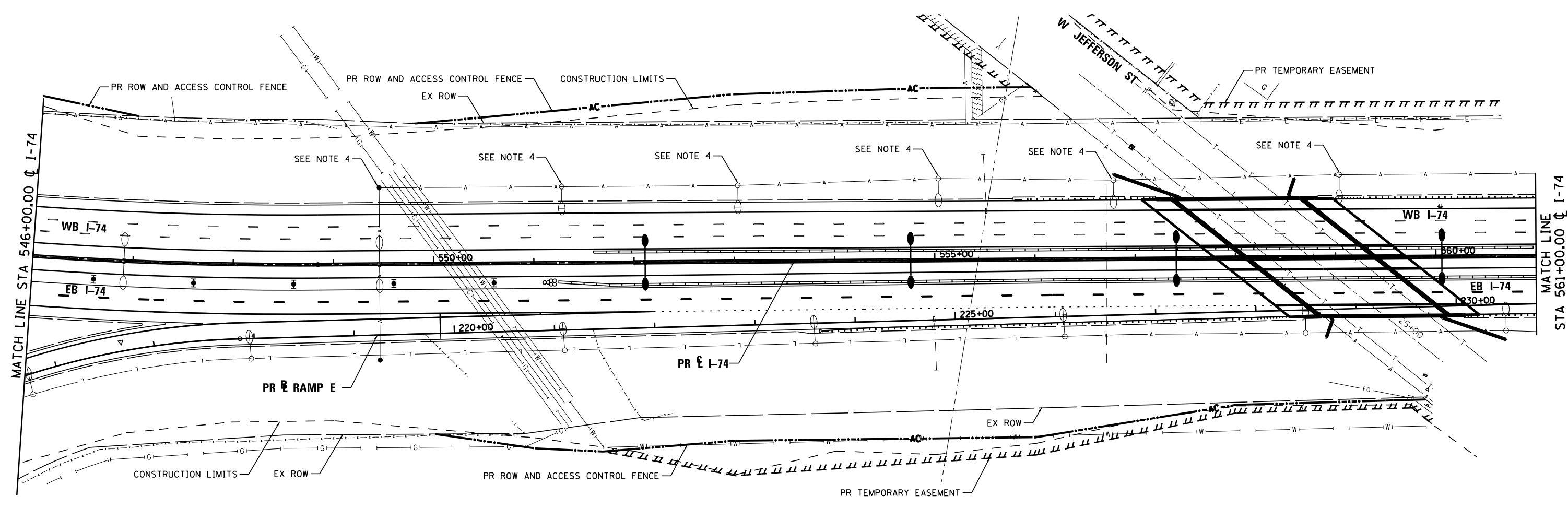


**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY LIGHTING
CONSTRUCTION STAGE 14**

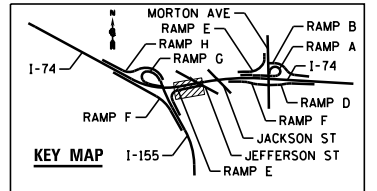
SCALE: 1"=50' SHEET NO. 97 OF 138 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90-114R(14HB-4,14,14HVB)BR	TAZEWELL	ILLINOIS	2433	1812
CONTRACT NO. 68620				



NOTES:

1. ITEMS SHOWN ON THE BILL OF MATERIALS ON THIS SHEET ARE SHOWN FOR INFORMATION ONLY. ALL MATERIALS AND LABOR NECESSARY FOR THE CONSTRUCTION AND REMOVAL OF TEMPORARY LIGHTING ITEMS SHALL BE PAID FOR WITH THE BID ITEM "TEMPORARY LIGHTING SYSTEM".
2. WOOD POLES SHALL BE EMBEDDED 20' BELOW EXISTING GRADE.
3. MULTI-MOUNT LUMINAIRES SHALL BE TILTED 25° OR AS DIRECTED BY THE ENGINEER.
4. TEMPORARY LIGHTING SHALL BE INSTALLED AND OPERATIONAL PRIOR TO REMOVAL OF EXISTING LIGHTS.



FILE NAME =	DESIGNED - BENESCH	REVISED -
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USER NAME = tblank	CHECKED - GHT	REVISED -
PLOT DATE = 9/5/2012	DATE - JULY 20, 2012	REVISED -

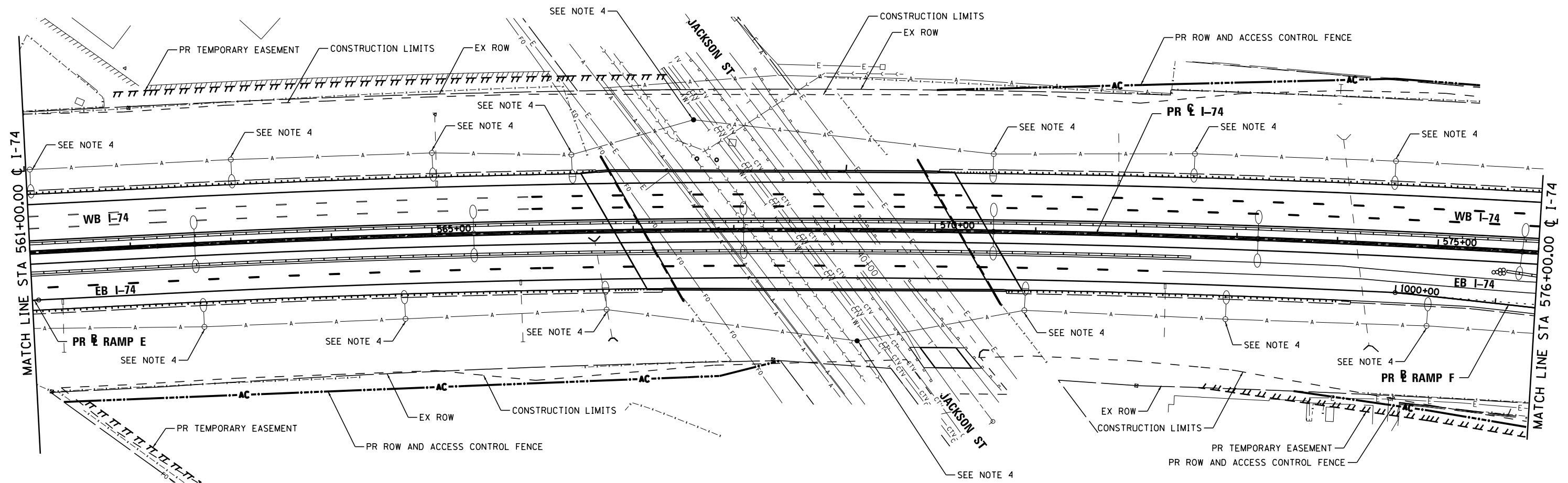


**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY LIGHTING
CONSTRUCTION STAGE 14**

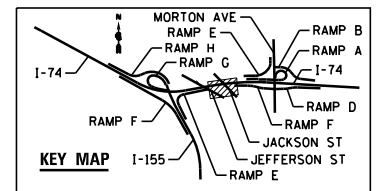
SCALE: 1"=50' SHEET NO. 98 OF 138 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90-114R(14HB-4,14,14HVB)BR	TAZEWELL	ILLINOIS	2433	1813
			CONTRACT NO. 68620	



NOTES:

1. ITEMS SHOWN ON THE BILL OF MATERIALS ON THIS SHEET ARE SHOWN FOR INFORMATION ONLY. ALL MATERIALS AND LABOR NECESSARY FOR THE CONSTRUCTION AND REMOVAL OF TEMPORARY LIGHTING ITEMS SHALL BE PAID FOR WITH THE BID ITEM "TEMPORARY LIGHTING SYSTEM".
2. WOOD POLES SHALL BE EMBEDDED 20' BELOW EXISTING GRADE.
3. MULTI-MOUNT LUMINAIRES SHALL BE TILTED 25° OR AS DIRECTED BY THE ENGINEER.
4. WOOD POLE SHALL BE 100' IN LENGTH. THE POLE SHALL BE EMBEDDED TO A DEPTH OF 20'.
5. CROSSING OF AERIAL CABLES SHALL BE COORDINATED WITH AMEREN/CILCO. CLEARANCE REQUIRED BY AMEREN/CILCO SHALL BE MAINTAINED.



FILE NAME =	DESIGNED - BENESCH	REVISED -
...\\D468620-sh1-1-74-TempStg14-light08.dgn	DRAWN - NLH	REVISED -
USER NAME = tblank	CHECKED - GHT	REVISED -
PLOT DATE = 9/5/2012	DATE - JULY 20, 2012	REVISED -

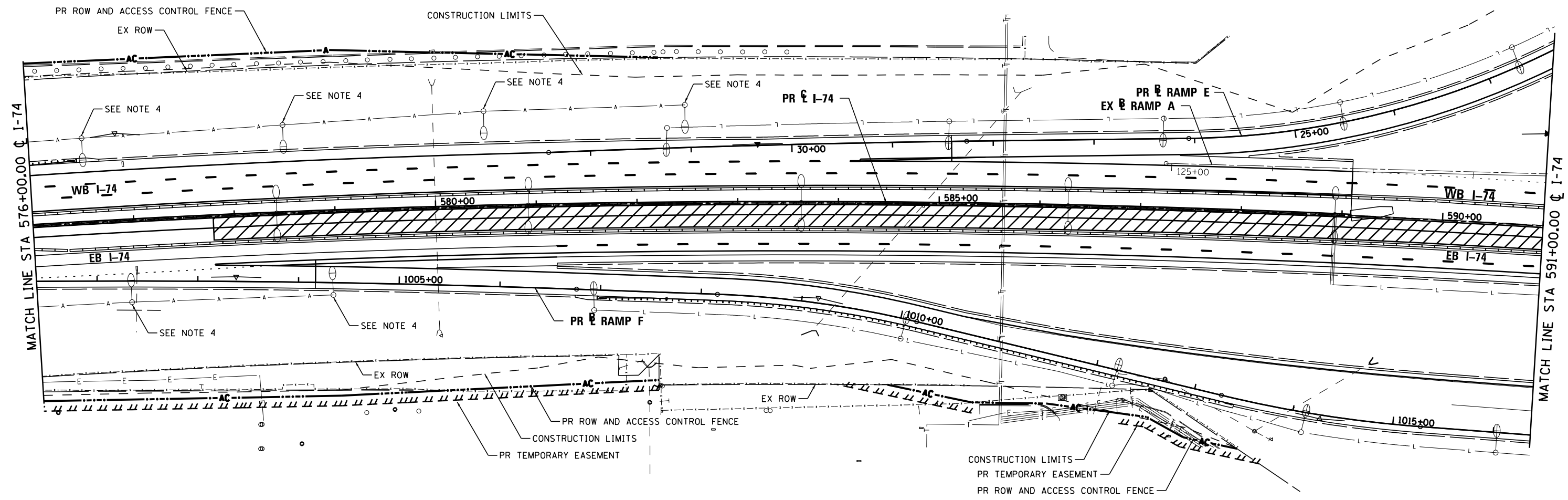


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY LIGHTING
CONSTRUCTION STAGE 14

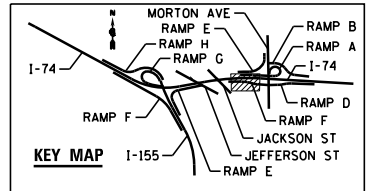
SCALE: 1"=50' SHEET NO. 99 OF 138 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90-114R(14HB-4,14,14HVB)BRJ		TAZEWELL	2433	1814
			CONTRACT NO. 68620	
ILLINOIS FED. AID PROJECT				



NOTES:

1. ITEMS SHOWN ON THE BILL OF MATERIALS ON THIS SHEET ARE SHOWN FOR INFORMATION ONLY. ALL MATERIALS AND LABOR NECESSARY FOR THE CONSTRUCTION AND REMOVAL OF TEMPORARY LIGHTING ITEMS SHALL BE PAID FOR WITH THE BID ITEM "TEMPORARY LIGHTING SYSTEM".
2. WOOD POLES SHALL BE EMBEDDED 20' BELOW EXISTING GRADE.
3. MULTI -MOUNT LUMINAIRES SHALL BE TILTED 25° OR AS DIRECTED BY THE ENGINEER.
4. TEMPORARY LIGHTING SHALL BE INSTALLED AND OPERATIONAL PRIOR TO REMOVAL OF EXISTING LIGHTS.



FILE NAME =	DESIGNED - BENESCH	REVISED -
...D468620-sh1-1-74-TempStg14-light09.dgn	DRAWN - NLH	REVISED -
USER NAME = tblank	CHECKED - GHT	REVISED -
PLOT DATE = 9/5/2012	DATE - JULY 20, 2012	REVISED -

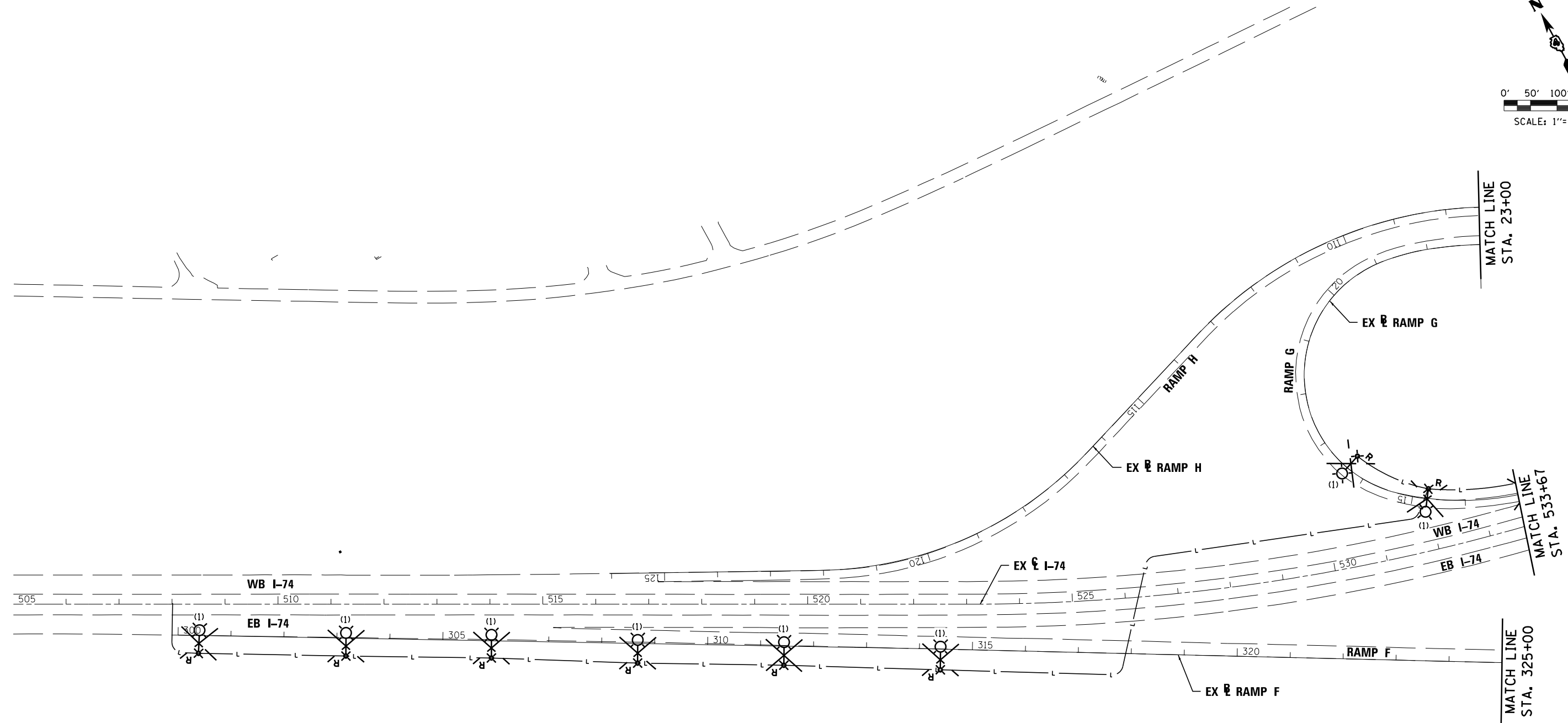
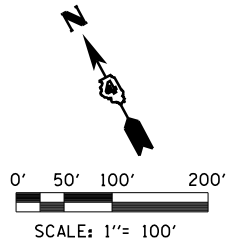


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY LIGHTING
CONSTRUCTION STAGE 14

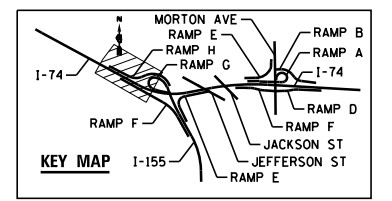
SCALE: 1"=50' SHEET NO.100 OF 138 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90-[14Rz(14HB-4,14,14HV)B]R	TAZEWELL	ILLINOIS	2433	1815
CONTRACT NO. 68620				

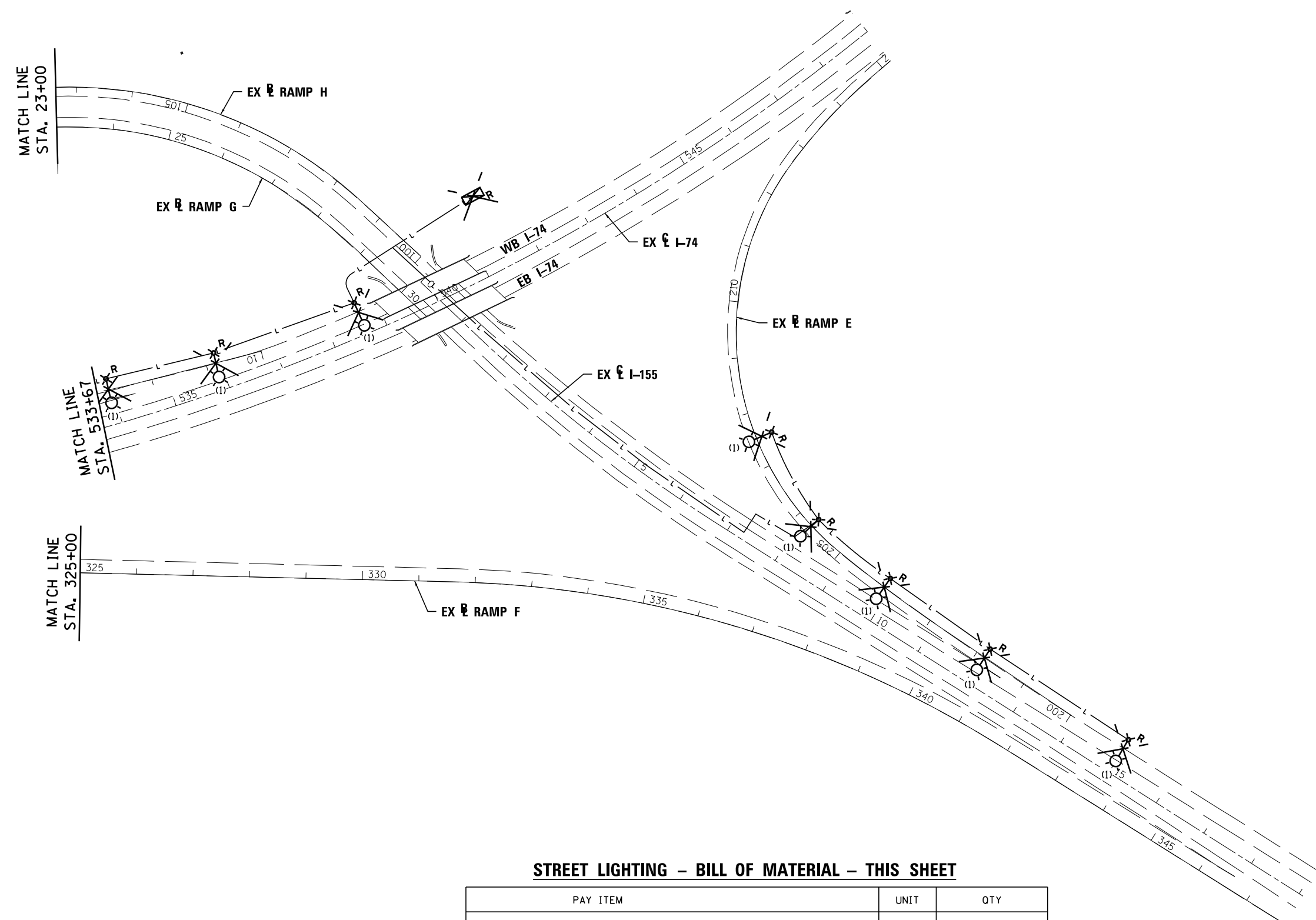
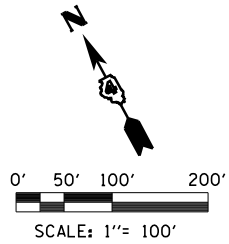


STREET LIGHTING - BILL OF MATERIAL - THIS SHEET

PAY ITEM	UNIT	QTY
REMOVAL OF LIGHTING UNIT, NO SALVAGE	EACH	8
REMOVAL OF POLE FOUNDATION	EACH	8

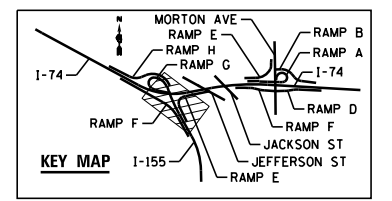


FILE NAME = ...D468620-shft-light-removals-01.dgn	DESIGNED - BENESCH	REVISED -		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	LIGHTING REMOVALS		F.A.I. RTÉ.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
USER NAME = tblank	DRAWN - NLH	REVISED -					90-[14R(14HB-4,14,14HVB)BR]	TAZEWELL	2433	1816		
PLOT DATE = 9/5/2012	CHECKED - GHT	REVISED -			SCALE: 1"=100'	SHEET NO. 101 OF 138 SHEETS	STA.	TO STA.	CONTRACT NO. 68620			
	DATE - JULY 20, 2012	REVISED -							ILLINOIS FED. AID PROJECT			



STREET LIGHTING – BILL OF MATERIAL – THIS SHEET

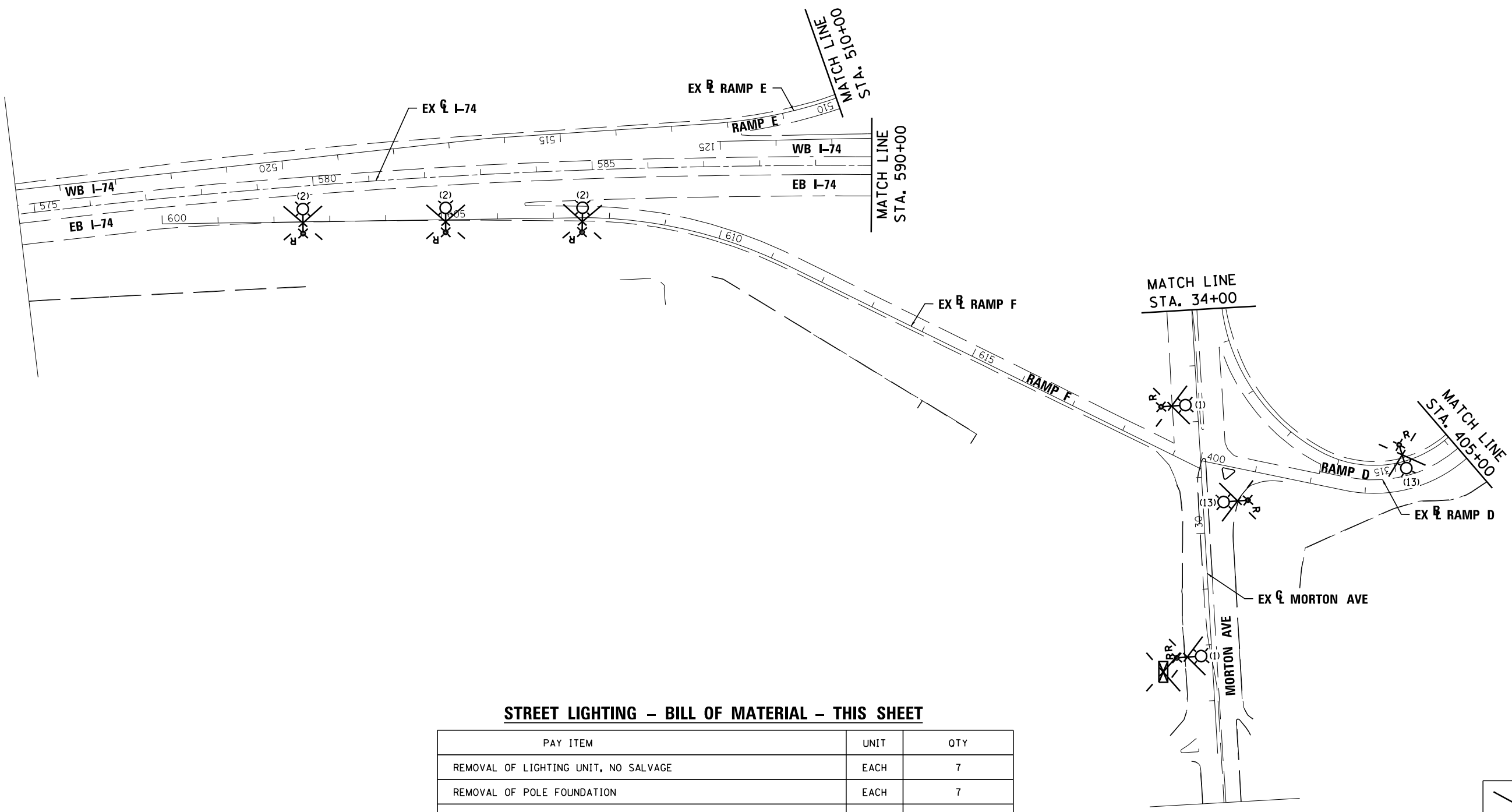
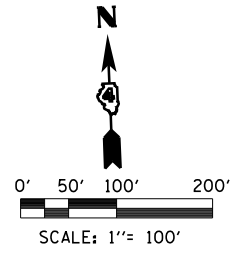
PAY ITEM	UNIT	QTY
REMOVAL OF LIGHTING UNIT, NO SALVAGE	EACH	8
REMOVAL OF POLE FOUNDATION	EACH	8
REMOVAL OF LIGHTING CONTROLLER	EACH	1
REMOVAL OF LIGHTING CONTROLLER FOUNDATION	EACH	1
REMOVAL OF ELECTRICAL SERVICE	EACH	1



FILE NAME = ...D468620-shit-light-removals-02.dgn	DESIGNED - BENESCH	REVISED -		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	LIGHTING REMOVALS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
USER NAME = tblank	DRAWN - NLH	REVISED -				90-114R(14HB-4,14,14HVB)BRJ	TAZEWELL	2433	1817	
PLOT DATE = 9/5/2012	CHECKED - GHT	REVISED -				CONTRACT NO. 68620				
DATE - JULY 20, 2012	REVISD -	REVISED -				ILLINOIS FED. AID PROJECT				

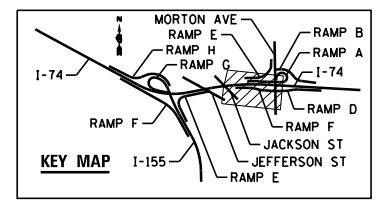
SCALE: 1"=100' SHEET NO.102 OF 138 SHEETS STA. TO STA.

• 74 & 155

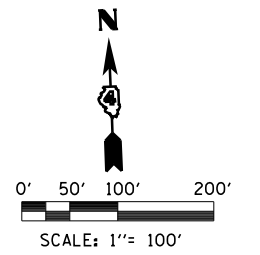


STREET LIGHTING – BILL OF MATERIAL – THIS SHEET

PAY ITEM	UNIT	QTY
REMOVAL OF LIGHTING UNIT, NO SALVAGE	EACH	7
REMOVAL OF POLE FOUNDATION	EACH	7
REMOVAL OF LIGHTING CONTROLLER	EACH	1
REMOVAL OF LIGHTING CONTROLLER FOUNDATION	EACH	1
REMOVAL OF ELECTRICAL SERVICE	EACH	1

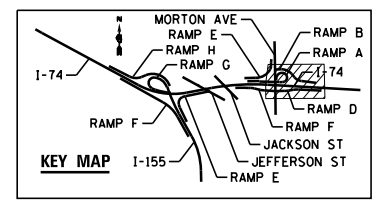
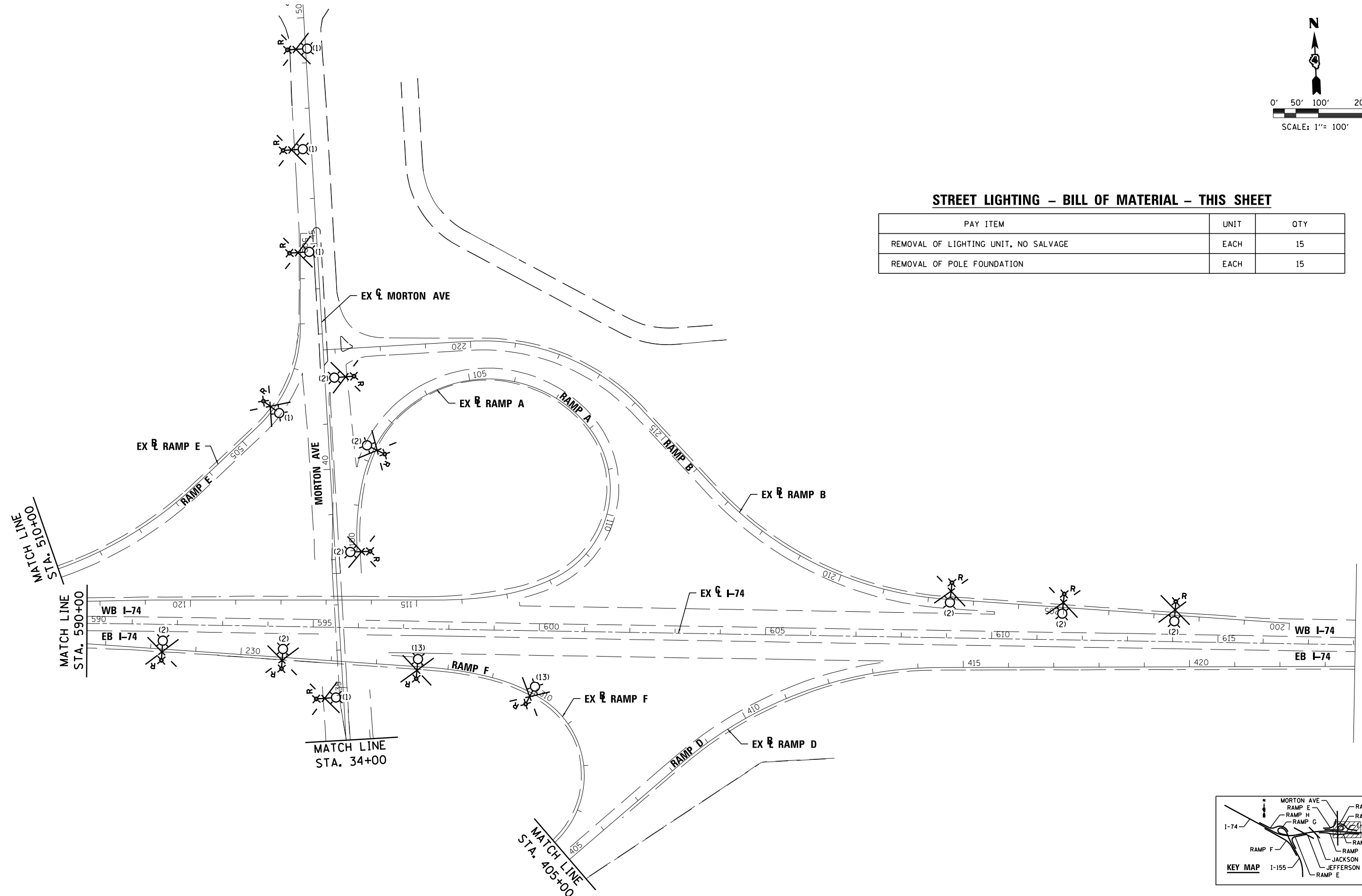


FILE NAME = ...D468620-shit-light-removals-03.dgn	DESIGNED - BENESCH	REVISED -		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	LIGHTING REMOVALS	F.A.I. RT. = 90-[14R(14HB-4,14,14HVB)BR]	SECTION = TAZEWELL	COUNTY =	TOTAL SHEETS = 2433	SHEET NO. = 1818			
USER NAME = tblank	DRAWN - NLH	REVISED -				SCALE: 1"=100'	SHEET NO. 103 OF 138 SHEETS	STA. TO STA.	CONTRACT NO. 68620				
PLOT DATE = 9/5/2012	CHECKED - GHT	REVISED -				ILLINOIS FED. AID PROJECT							
DATE = JULY 20, 2012	REVISIONS	REVISED -				• 74 & 155							



STREET LIGHTING – BILL OF MATERIAL – THIS SHEET

PAY ITEM	UNIT	QTY
REMOVAL OF LIGHTING UNIT, NO SALVAGE	EACH	15
REMOVAL OF POLE FOUNDATION	EACH	15



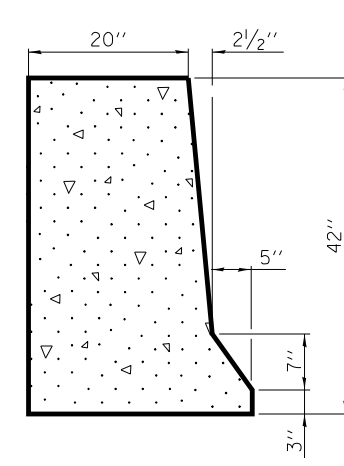
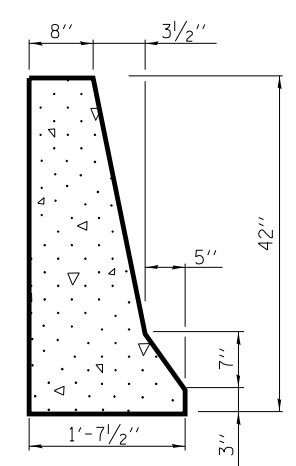
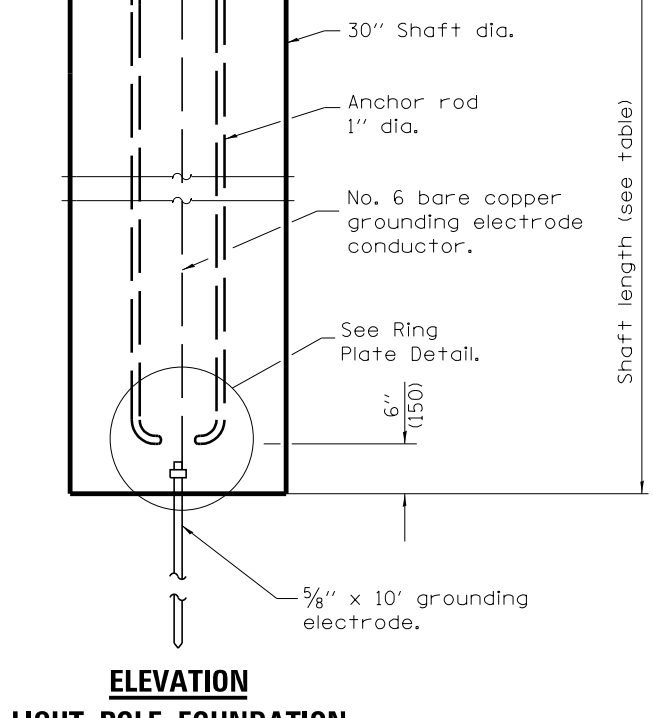
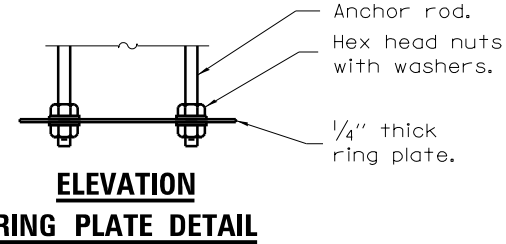
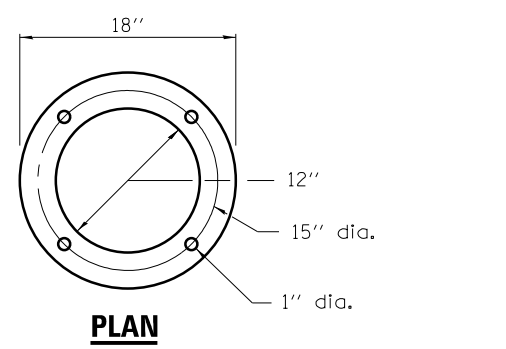
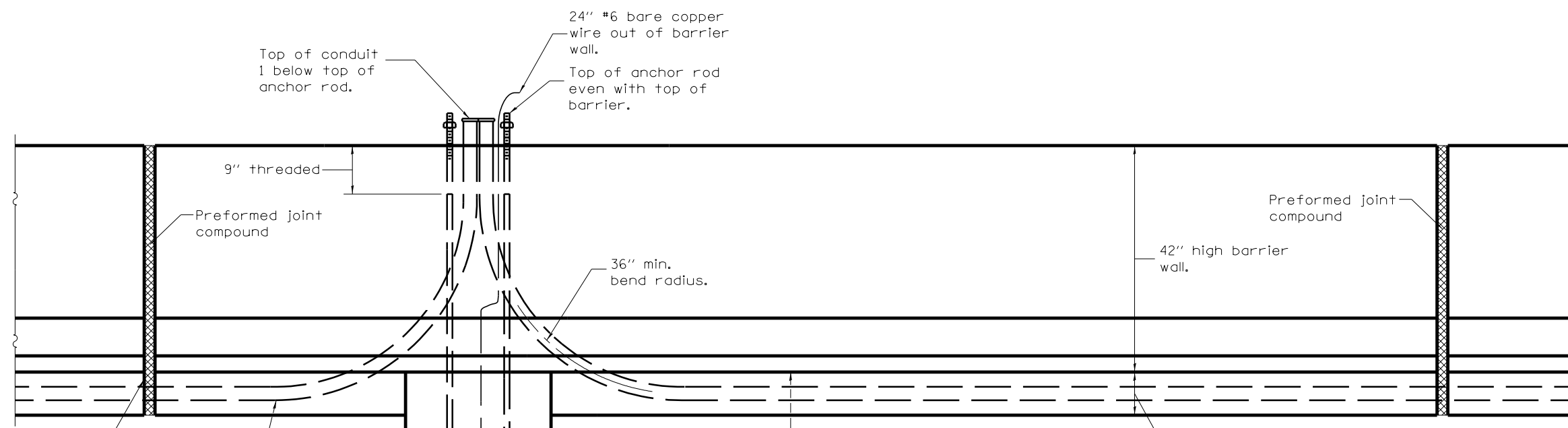
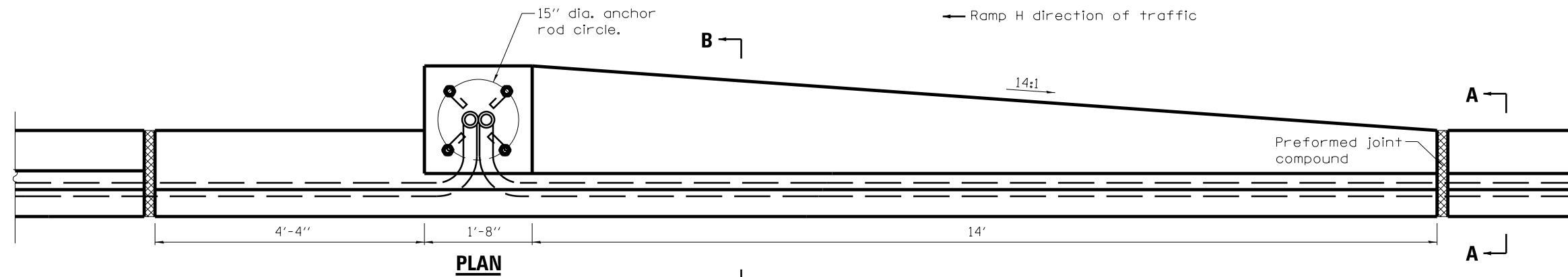
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USER NAME = tblank	CHECKED - GHT	REVISED -
PLOT DATE = 9/5/2012	DATE - JULY 20, 2012	REVISED -



**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

LIGHTING REMOVALS	
SCALE: 1"=100'	SHEET NO.104 OF 138 SHEETS
STA.	TO STA.

F.A.I. RTÉ.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
• 90-[14Rz(14HB-4,14,14HVB)BR]	TAZEWELL	ILLINOIS	2433	1819
CONTRACT NO. 68620				
ILLINOIS FED. AID PROJECT				



FOUNDATION TABLE				
LIGHT POLE MOUNTING HEIGHT	SHAFT DIAMETER	SHAFT DEPTH	ANCHOR ROD LENGTH (1)	ANCHOR ROD CIRCLE DIA.
≤30' (9.1 m)	24 (610)	36 (914)	6'-0" (1.83 m)	11 1/2 (292)
31'-35' (9.4 m - 10.7 m)	24 (610)	3'-6" (1.06 m)	6'-6" (1.98 m)	11 1/2 (292)
36'-40' (10.9 m - 12.2 m)	30 (762)	4'-0" (1.22 m)	7'-0" (2.13 m)	15 (381)
41'-45' (12.5 m - 13.7 m)	30 (762)	4'-6" (1.37 m)	7'-6" (2.29 m)	15 (381)
46'-50' (14.0 m - 15.2 m)	30 (762)	5'-0" (1.52 m)	8'-0" (2.44 m)	15 (381)

(1) Length does not include 4 (100) hook.

GENERAL NOTES

See standard 637006 for barrier wall details
 All dimensions are in inches (millimeters) unless otherwise shown.

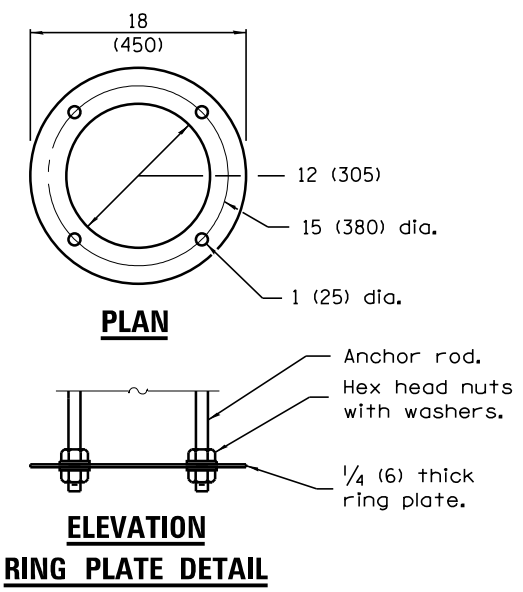
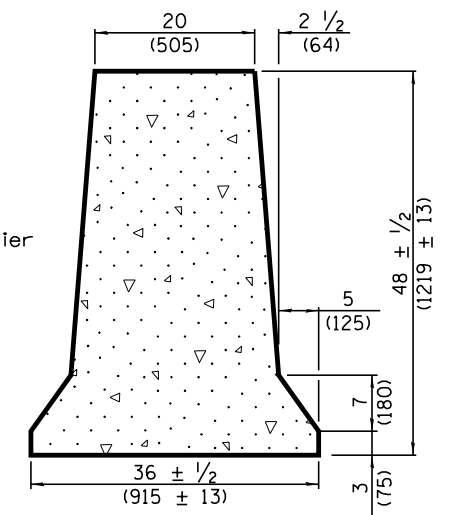
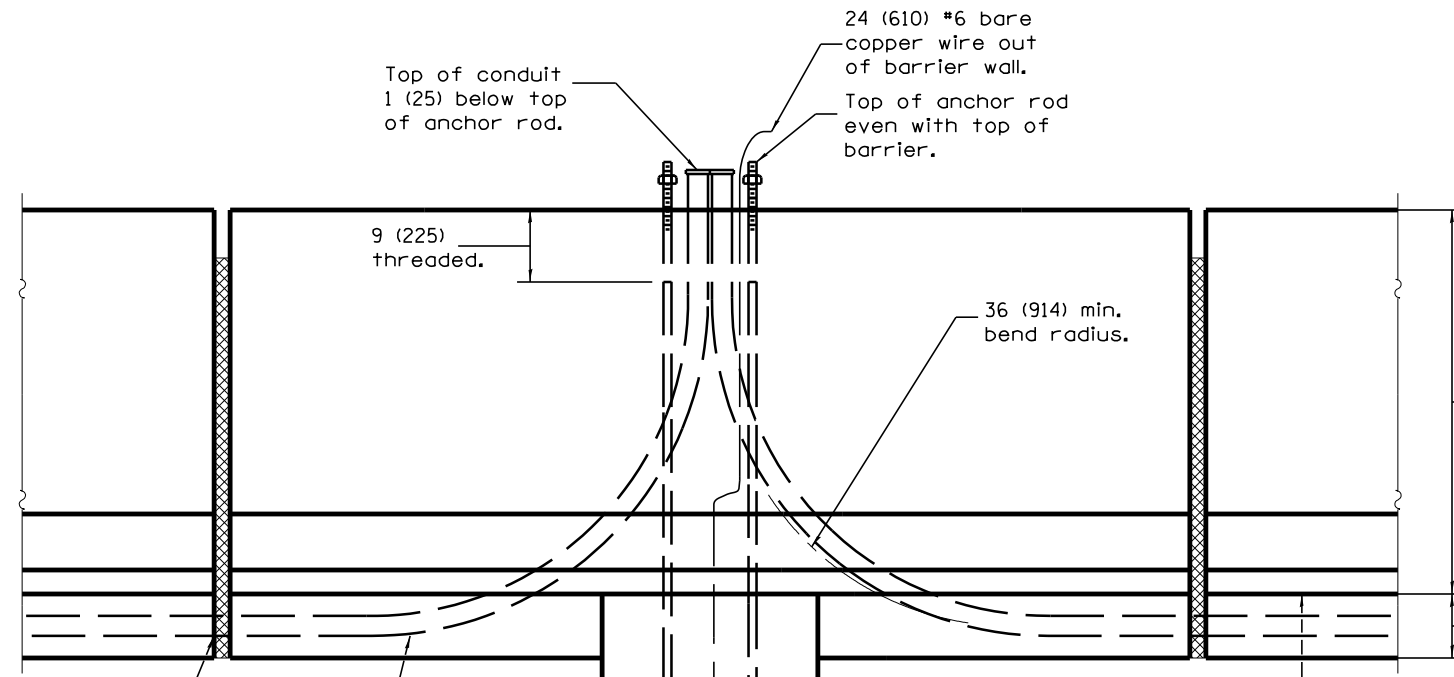
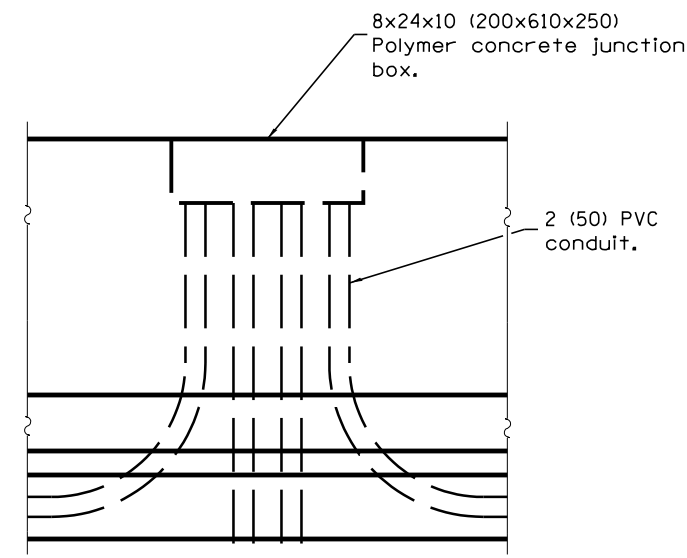
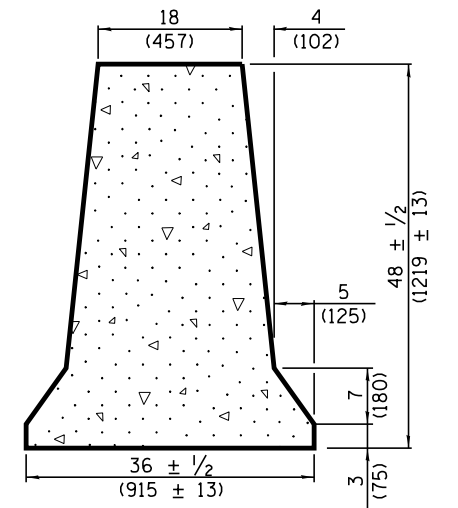
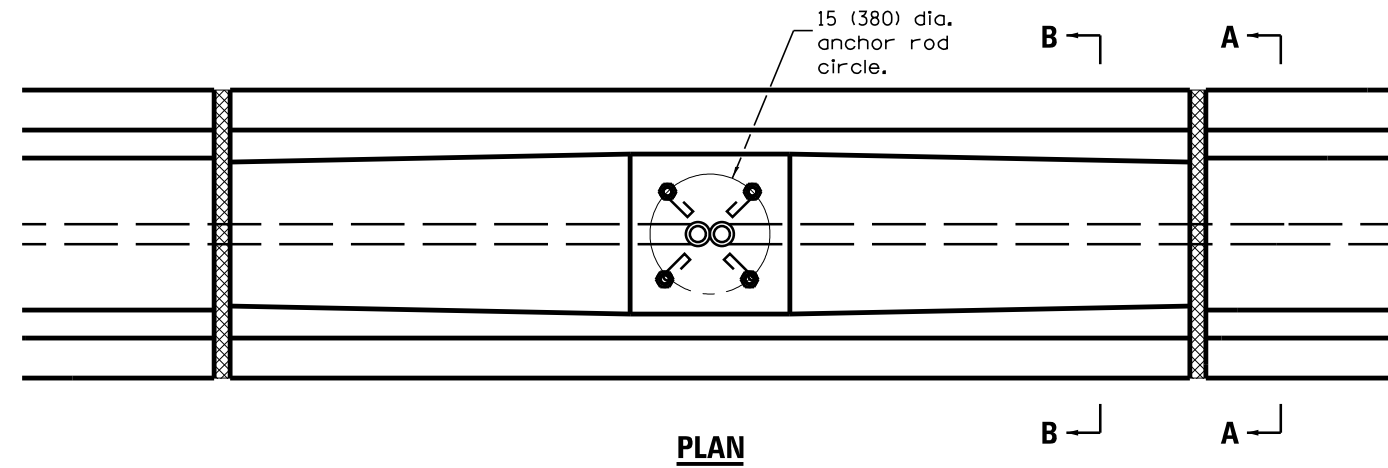
FILE NAME =	DESIGNED - BENESCH	REVISED -		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	LIGHT POLE FOUNDATION, 30" DIA., SPECIAL INTEGRAL WITH 42" SINGLE FACE BARRIER	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
...\\D468620-shit-Lighting-Details-LightPoleFound	DRAWN - NLH	REVISED -				90-114R(14HB-4,14,14HVB)BR	TAZEWELL	2433	1820	
USER NAME = tblank	CHECKED - GHT	REVISED -				CONTRACT NO. 68620				
PLOT DATE = 9/5/2012	DATE - JULY 20, 2012	REVISED -				ILLINOIS FED. AID PROJECT				

SCALE: SHEET NO.105 OF 138 SHEETS STA. TO STA.

• 74 & 155

FOUNDATION TABLE				
LIGHT POLE MOUNTING HEIGHT	SHAFT DIAMETER	SHAFT DEPTH	ANCHOR ROD LENGTH (1)	ANCHOR ROD CIRCLE DIA.
≤30' (9.1 m)	24 (610)	36 (914)	6'-6" (1.98 m)	11 1/2 (292)
31'-35' (9.4 m - 10.7 m)	24 (610)	3'-6" (1.06 m)	7'-0" (2.13 m)	11 1/2 (292)
36'-40' (10.9 m - 12.2 m)	30 (762)	4'-0" (1.22 m)	7'-6" (2.29 m)	15 (381)
41'-45' (12.5 m - 13.7 m)	30 (762)	4'-6" (1.37 m)	8'-0" (2.44 m)	15 (381)
46'-50' (14.0 m - 15.2 m)	30 (762)	5'-0" (1.52 m)	8'-6" (2.59 m)	15 (381)

① Length does not include 4 (100) hook.



GENERAL NOTES

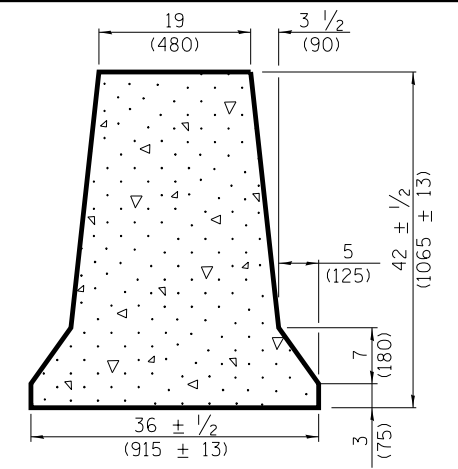
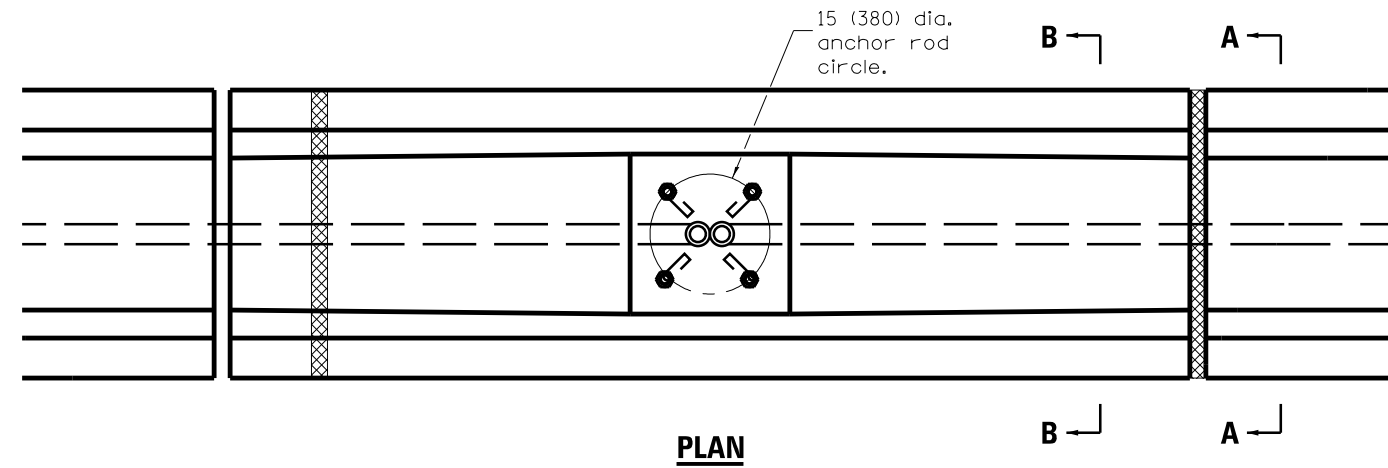
See standard 637006 for barrier wall details

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

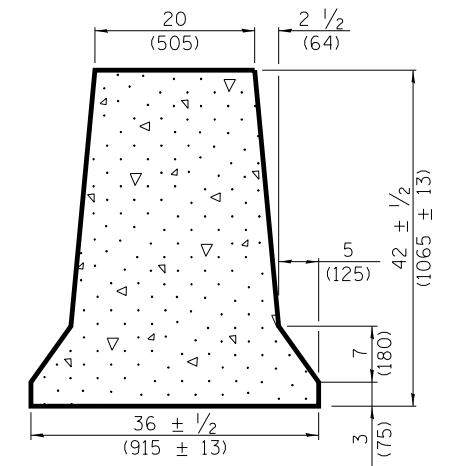
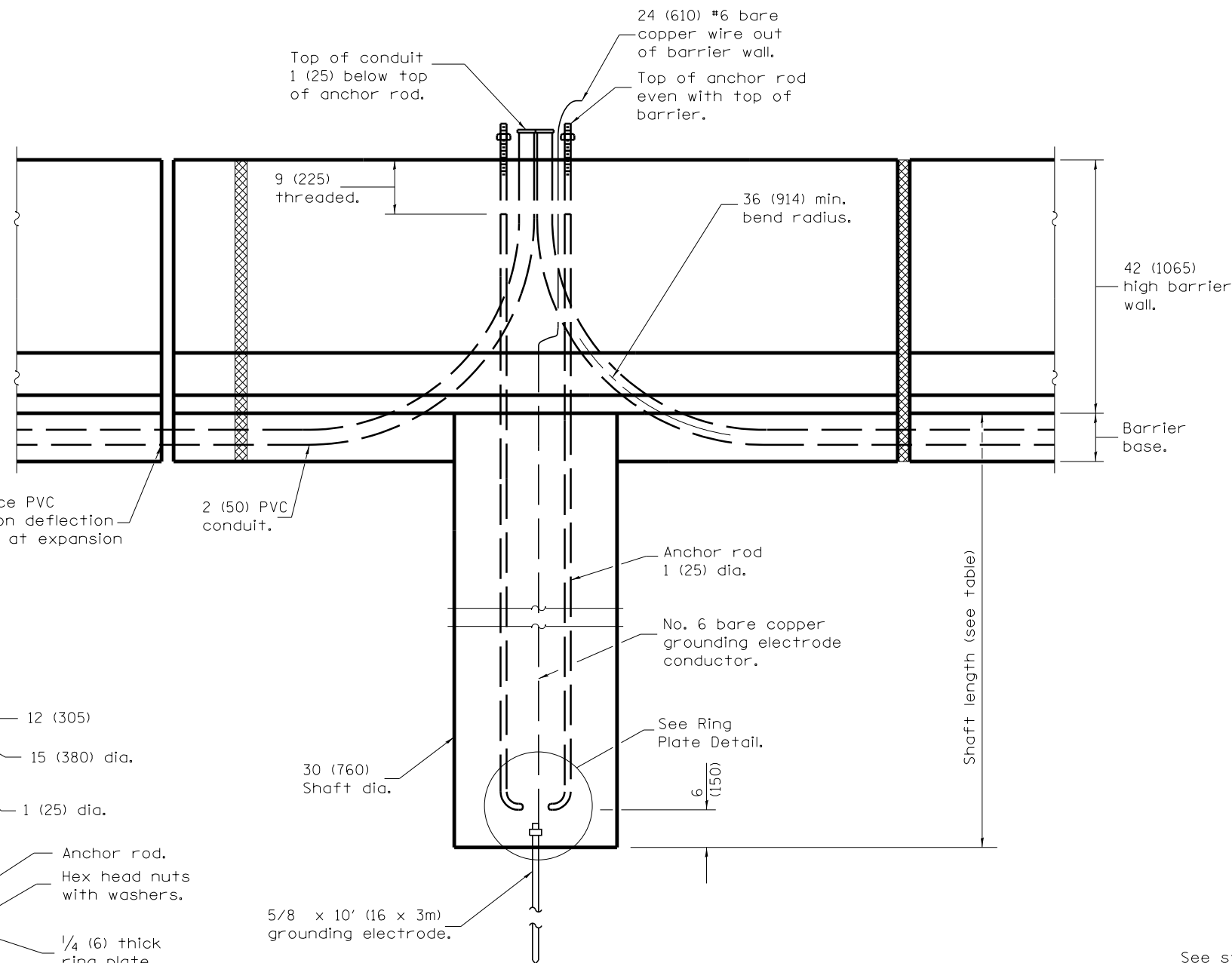
FILE NAME =	DESIGNED - BENESCH	REVISED -		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	LIGHT POLE FOUNDATION, SPECIAL INTEGRAL WITH 48" BARRIER	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
...ND468620-shit-Lighting-Details-LightPoleFound	DRAWN - NLH	REVISED -				90-114R(14HB-4,14,14HVB)BR	TAZEWELL	2433	1821	
USER NAME = tblank	CHECKED - GHT	REVISED -				CONTRACT NO. 68620				
PLOT DATE = 9/5/2012	DATE - JULY 20, 2012	REVISED -				ILLINOIS FED. AID PROJECT				
SCALE: SHEET NO.106 OF 138 SHEETS STA. TO STA.						• 74 & 155				

FOUNDATION TABLE				
LIGHT POLE MOUNTING HEIGHT	SHAFT DIAMETER	SHAFT DEPTH	ANCHOR ROD LENGTH (1)	ANCHOR ROD CIRCLE DIA.
<30'	24	36	6'-0"	11 1/2
(9.1 m)	(610)	(914)	(1.83 m)	(292)
31'-35'	24	3'-6"	6'-6"	11 1/2
(9.4 m - 10.7 m)	(610)	(1.06 m)	(1.98 m)	(292)
36'-40'	30	4'-0"	7'-0"	15
(10.9 m - 12.2 m)	(762)	(1.22 m)	(2.13 m)	(381)
41'-45'	30	4'-6"	7'-6"	15
(12.5 m - 13.7 m)	(762)	(1.37 m)	(2.29 m)	(381)
46'-50'	30	5'-0"	8'-0"	15
(14.0 m - 15.2 m)	(762)	(1.52 m)	(2.44 m)	(381)

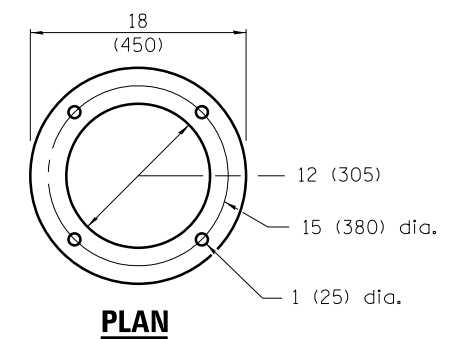
(1) Length does not include 4 (100) hook.



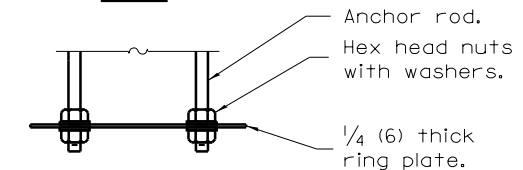
SECTION A-A



SECTION B-B



PLAN



ELEVATION

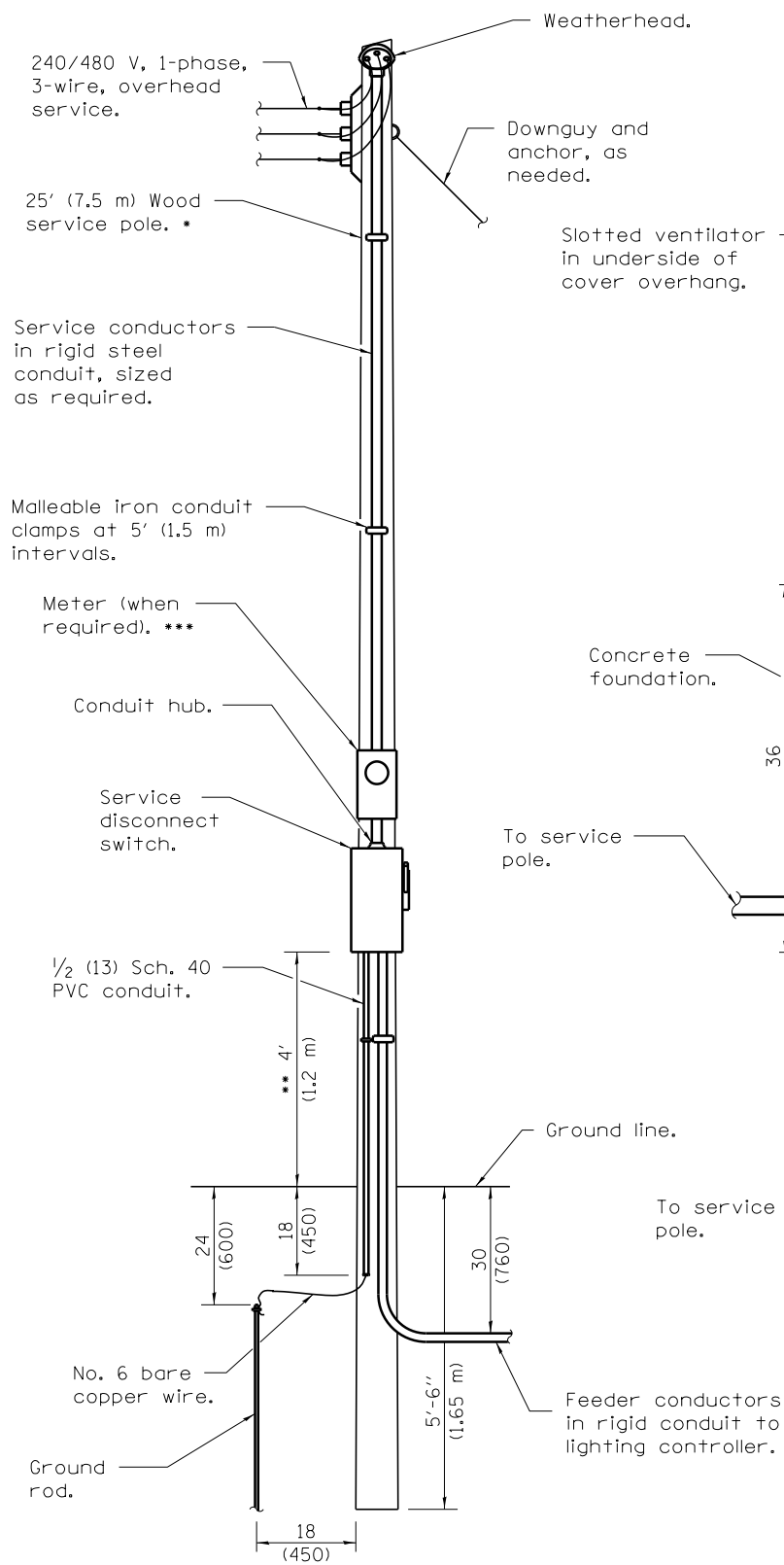
RING PLATE DETAIL

ELEVATION LIGHT POLE FOUNDATION

GENERAL NOTES

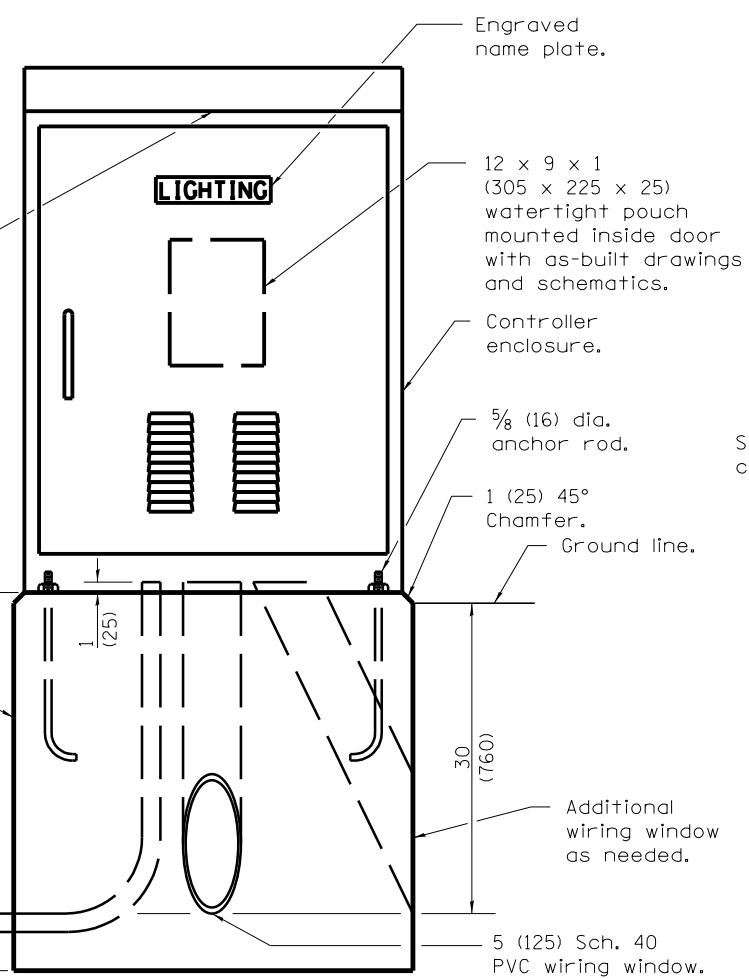
See standard 637006 for barrier wall details
 All dimensions are in inches (millimeters) unless otherwise shown.

FILE NAME =	DESIGNED - BENESCH	REVISED -		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	LIGHT POLE FOUNDATION, SPECIAL INTEGRAL WITH 42" BARRIER	F.A.I. RT.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
...D468620-sh1-Lighting-Details-LightPoleFound	DRAWN - NLH	REVISED -				90-114R(14HB-4,14,14HVB)BR	TAZEWELL	2433	1822	
USER NAME = tblank	CHECKED - GHT	REVISED -				CONTRACT NO. 68620				
PLOT DATE = 9/5/2012	DATE - JULY 20, 2012	REVISED -				ILLINOIS FED. AID PROJECT				
SCALE:						SHEET NO.107 OF 138 SHEETS	STA.	TO STA.		

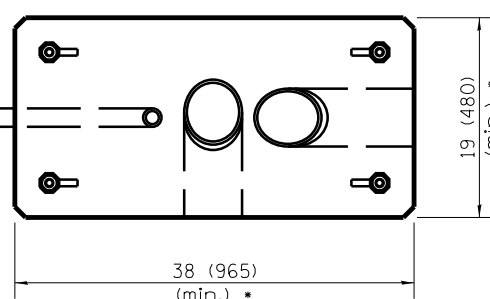


ELECTRIC SERVICE INSTALLATION

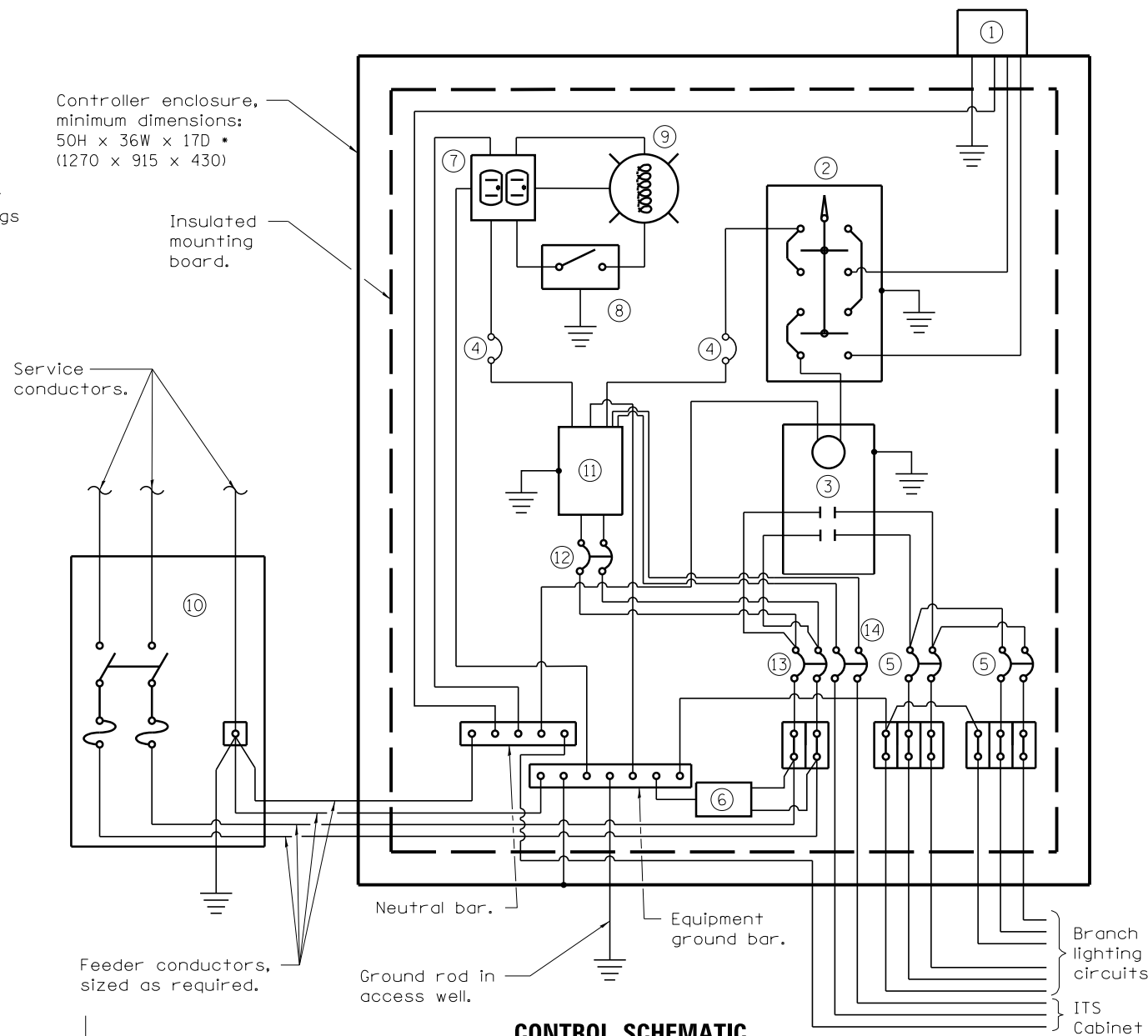
- * Size larger as needed.
- ** Or as directed by Utility Company.
- *** When cold sequencing is required, provide a meter disconnect switch as directed by Utility Company.



LIGHTING CONTROLLER



FOUNDATION (PLAN)
(Work pad not shown.)

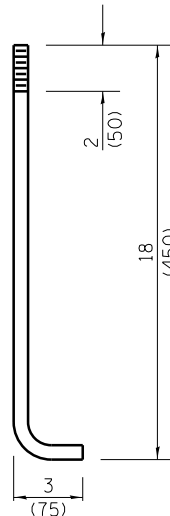


CONTROL SCHEMATIC

- ① Photocell with integral surge arrester.
- ② HAND-OFF-AUTO selector switch.
- ③ 100 amp*, electrically held contactor.
- ④ 15 amp, 1-pole circuit breaker.
- ⑤ 20 amp*, 2-pole circuit breaker (two spares required but not shown).
- ⑥ Surge arrester.
- ⑦ GFCI duplex receptacle.
- ⑧ Single-pole, single-throw switch.
- ⑨ Incandescent luminaire, enclosed and gasketed with 100 watt lamp.
- ⑩ Service disconnect switch - 2-pole, 3-wire, 100 amp*, fused at 100 amp*, solid neutral in NEMA 4X enclosure having lockable external handle.
- ⑪ Transformer - 1KVA*, 480V primary, 120/240V secondary, single-phase, 60Hz.
- ⑫ 15 amp, 2-pole circuit breaker.
- ⑬ 100 amp*, 2-pole circuit breaker.
- ⑭ 30 amp, 1-pole circuit breaker.

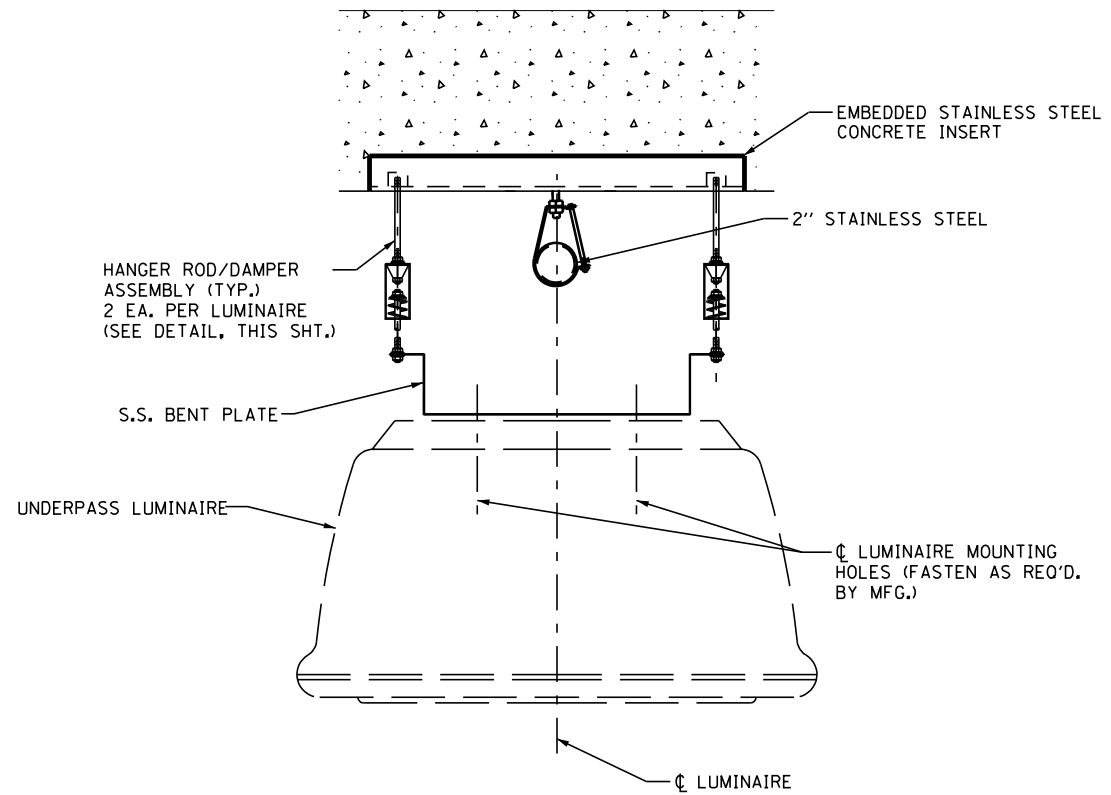
* Size larger as needed.

**ANCHOR ROD
DETAIL**

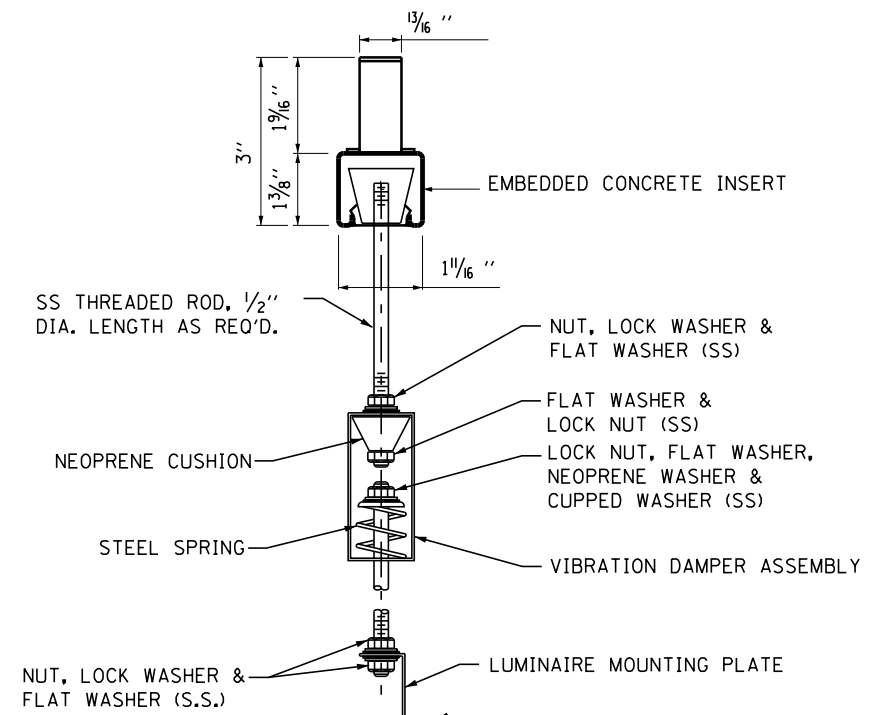
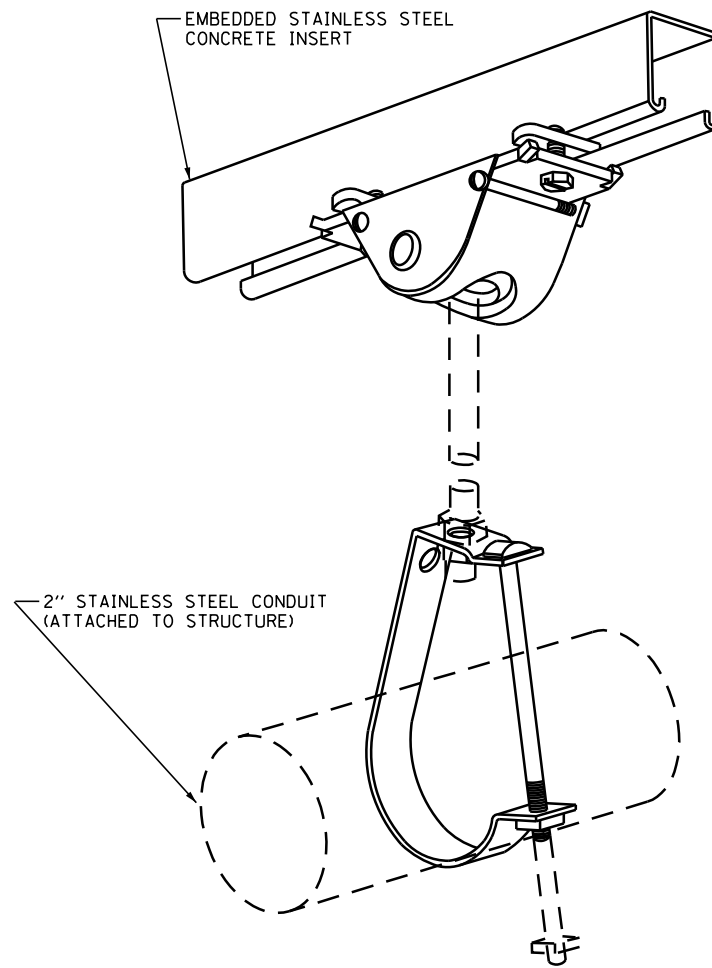


All dimensions are in inches (millimeters) unless otherwise shown.

FILE NAME =	DESIGNED - BENESCH	REVISED -		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	LIGHTING CONTROLLER BASE MOUNTED, 480V	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
...D468620-sh1-Lighting-Details-LightingCon	DRAWN - JLW	REVISED -				90-114R(14HB-4,14,14HB)BR	TAZEWELL	2433	1822A	
USER NAME = tblank	CHECKED - GHT	REVISED -				CONTRACT NO. 68620				
PLOT DATE = 9/5/2012	DATE - JULY 20, 2012	REVISED -				ILLINOIS FED. AID PROJECT				
SCALE:						SHEET NO.107AOF 138 SHEETS	STA.	TO STA.		



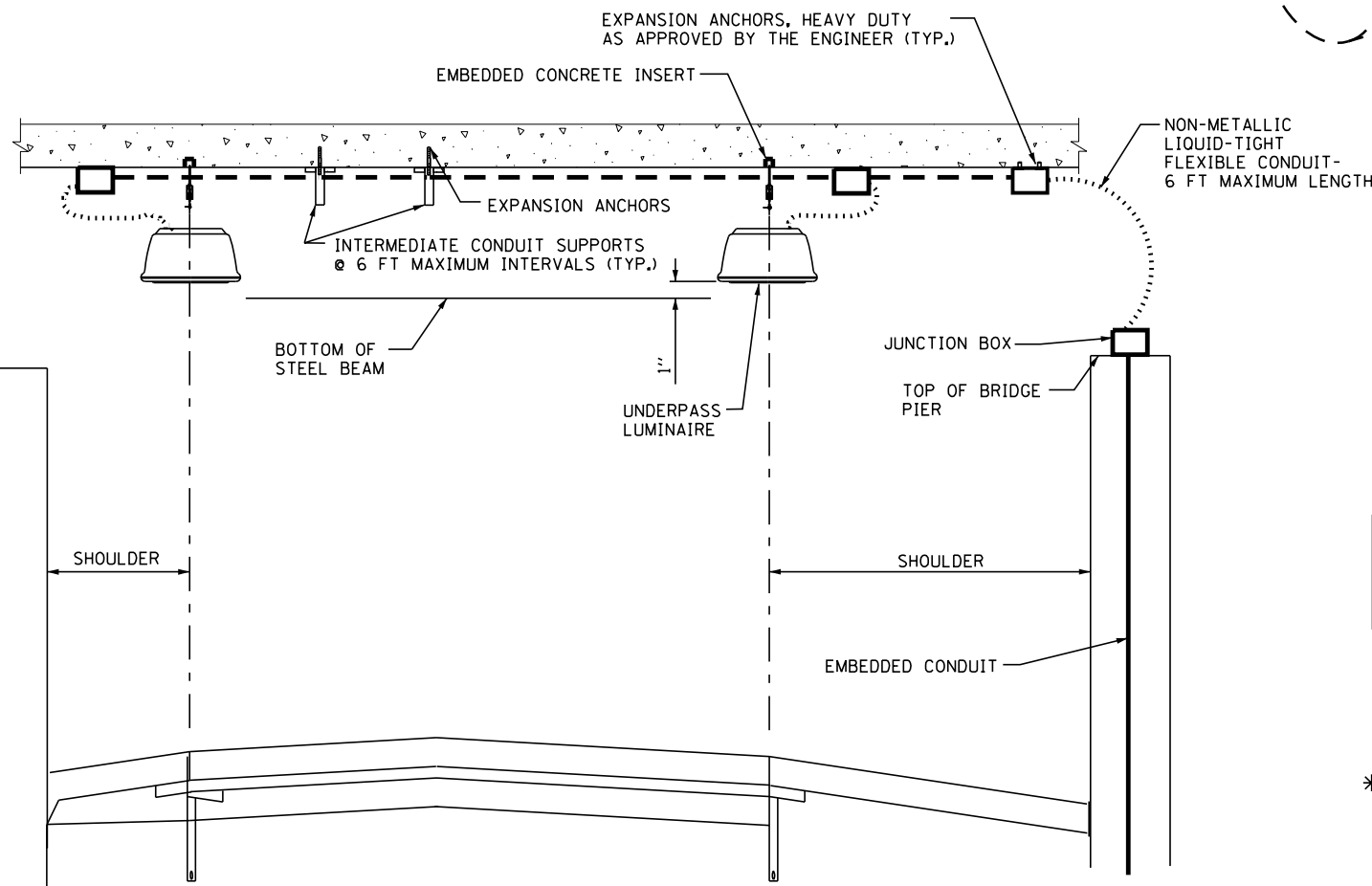
LUMINAIRE SUPPORT



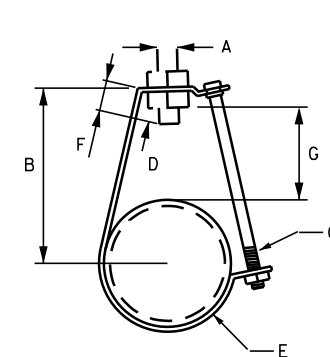
LUMINAIRE HANGER ASSEMBLY

N.T.S.

* THE COST OF THE LUMINAIRE HANGER ASSEMBLY SHALL BE INCLUDED IN THE PAY ITEM FOR UNDERPASS LUMINAIRE, (INSTALL ONLY). OTHER VIBRATION DAMPER ASSEMBLIES MAY BE USED IF APPROVED BY THE ENGINEER.



UNDERPASS LIGHTING DETAIL - SECTION VIEW (TYP.)



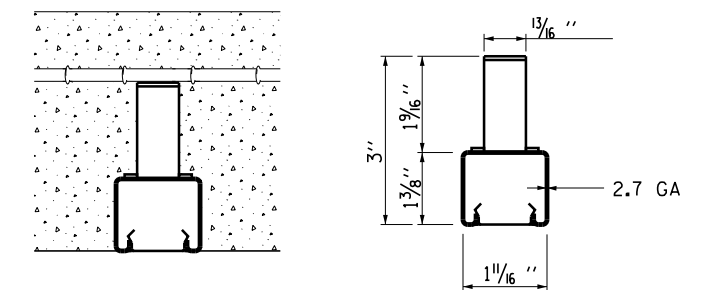
MEASUREMENTS (mm)

A	B	C	D	E	F	G
9.5	57.2	6.4x 69.9	10.3	3.2x 19.1	14.3	25.4

CONDUIT SUPPORT

N.T.S.

* THE COST OF THE CONDUIT SUPPORT SHALL BE INCLUDED IN THE PAY ITEM FOR THE CONDUIT ATTACHED TO STRUCTURE.



DETAIL 1 - 8" CONCRETE INSERT

N.T.S.

* THE CONCRETE INSERT SHALL BE ORIENTED WITH THE LONG DIMENSION PARALLEL TO TRAFFIC FLOW. THE COST OF CONCRETE INSERT SHALL BE INCLUDED IN THE PAY ITEM FOR THE EMBEDDED CONDUIT.

FILE NAME =	DESIGNED - BENESCH	REVISED -
...ND468620-sh1-Lighting_Details-Underdeck02	DRAWN - NLH	REVISED -
USER NAME = tblank	CHECKED - GHT	REVISED -
PLOT DATE = 9/5/2012	DATE - JULY 20, 2012	REVISED -

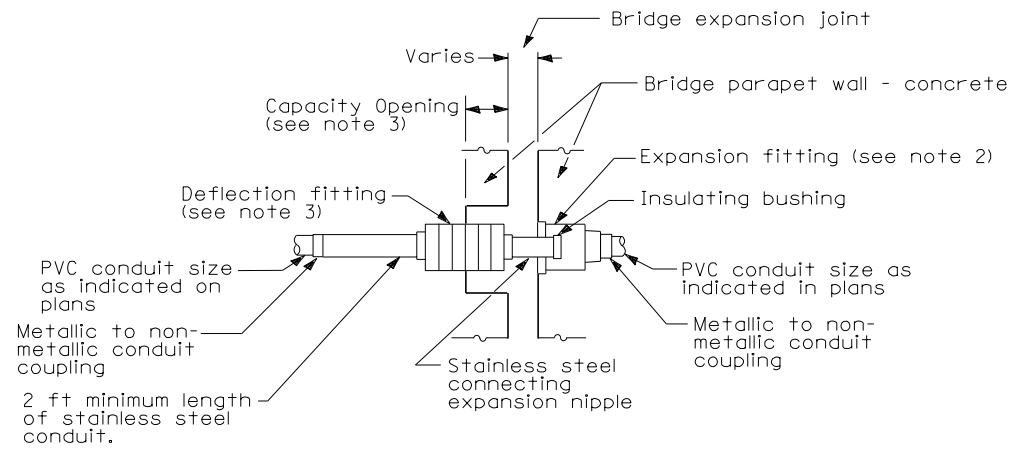


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LIGHTING DETAILS
UNDERDECK LIGHTING

SCALE: SHEET NO.108 OF 138 SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90-[14R(14HB-4,14,14HVB)BR]		TAZEWELL	2433	1823
			CONTRACT NO. 68620	
ILLINOIS FED. AID PROJECT				



**CONDUIT EXPANSION/
DEFLECTION COUPLING DETAIL**

GENERAL NOTES

The Contractor shall install a conduit expansion/deflection coupling at the joints in the concrete parapet on the bridge capable of accepting the longitudinal movement. All metallic parts of the coupling shall be made of stainless steel or as approved by the Engineer. Any non-stainless metal shall be hot dip galvanized and coated to prevent reaction with the concrete. The cost of the coupling shall be part of and incidental to the conduit system.

The barrel in the expansion fitting shall be fully embedded in the concrete on one side of the expansion joint. One half the length of the deflection fitting shall be embedded in the concrete on the other side of the coupling.

A cavity opening 3" larger in diameter than the deflection fitting shall be provided in the concrete to ensure proper performance of the coupling.

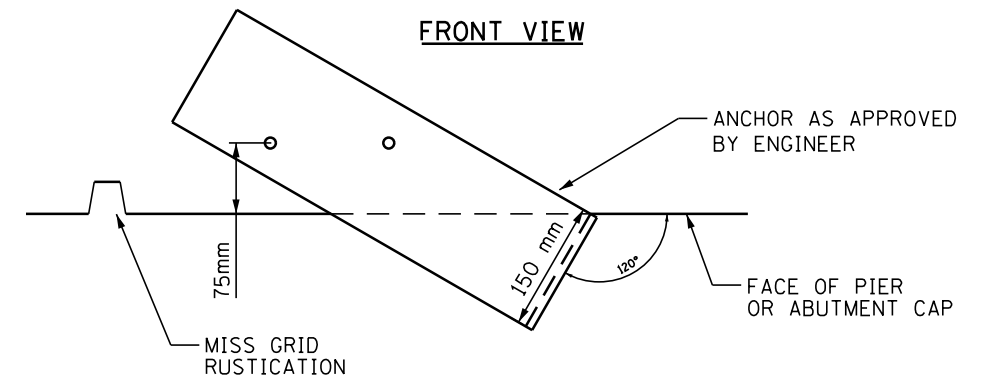
Careful attention to joint movement over a range of temperatures shall be coordinated with the selection and installation of the coupling to ensure the range of movement of the coupling is not exceeded at temperature extremes.

All manufacturer's installation instructions shall be carefully followed to ensure optimum performance of the expansion/deflection coupling.

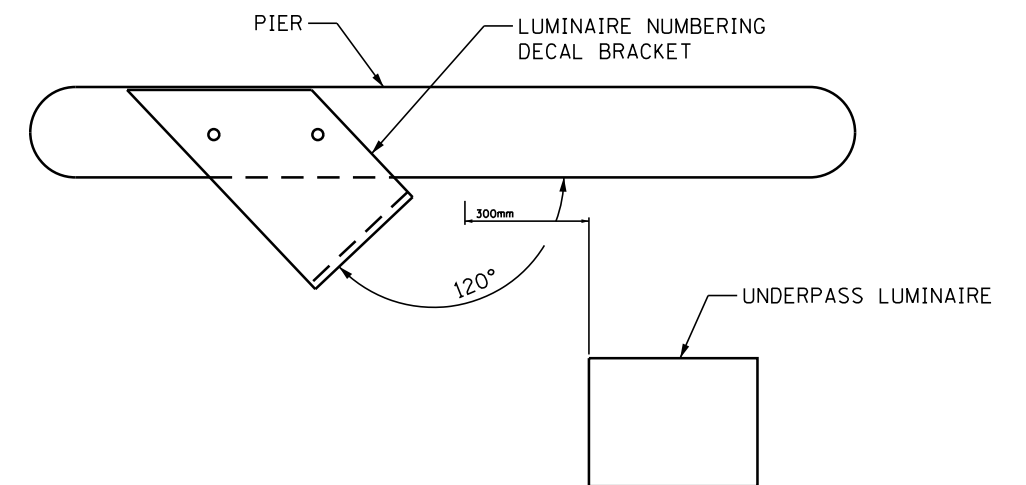
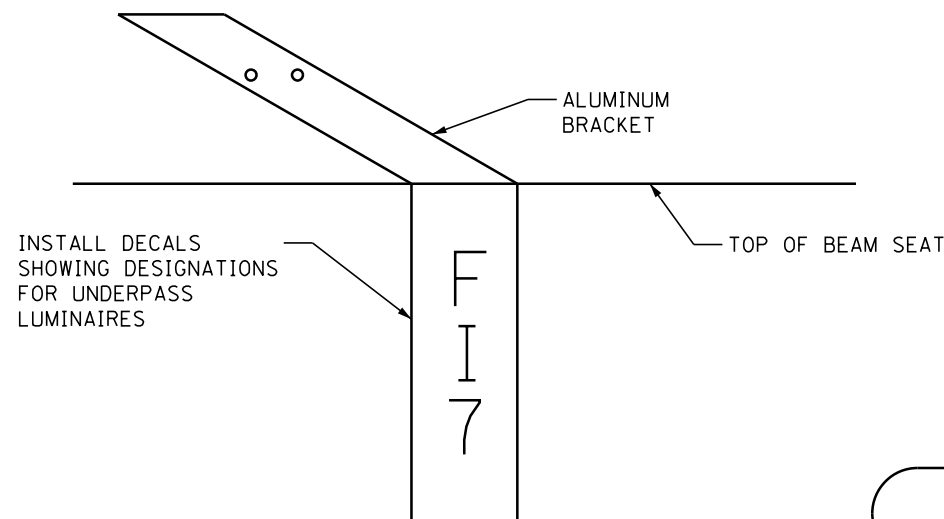
The Contractor shall install couplings at all bridge expansion joints and shall be responsible to determine the proper number of couplings required.

With the approval of the Engineer, the Contractor may substitute two (2) stainless steel junction boxes attached to the back of the wall and connected by a high grade of flexible non-metallic conduit for all expansion joints. This substitution shall be made at no cost to the Department.

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



**UNDERPASS LUMINAIRE
NUMBERING BRACKET DETAIL**



**UNDERPASS LUMINAIRE NUMBERING
BRACKET INSTALLATION DETAIL**

FILE NAME =	DESIGNED -	REVISED -		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	LIGHTING DETAILS UNDERDECK LIGHTING		F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
... \D468620-sh1-Lighting_Details-Underdeck02	DRAWN -	REVISED -					90-114R(14HB-4,14,14HVB)BRJ	TAZEWELL	2433	1824	
USER NAME = tblank	CHECKED -	REVISED -			CONTRACT NO. 68620		ILLINOIS FED. AID PROJECT				
PLOT DATE = 9/5/2012	DATE - JULY 20, 2012	REVISED -			SCALE:	SHEET NO. 109 OF 138 SHEETS	STA.	TO STA.			

Cable splices according to Art 1066.06 (b) with compression connectors appropriately taped.

Stainless steel standard grade wire cloth, 6x6 (1/4") mesh or less with #16 gauge (0.062") diameter or heavier wire.

Attach with 1/2" stainless steel banding or tie back on itself with stainless steel wire ties. Finished installation must prevent rodent entry.

Surge protectors (metal oxide-varistor type)

2-1/c #10 XLP-USE cable to each luminaire

For each luminaire use 2 pole fused quick disconnect. For receptacle circuit (not shown) use 2 pole fuseholder with solid neutral.

Pole ground lug

Pole base plate

1" leveling nuts

POLE WIRING DETAIL

NO SCALE

GENERAL NOTES

All cable splices shall be shrink tube unless another method has been specifically approved by the Engineer.

For example purposes the pole is shown on an anchor base. If the pole is required to be set on a breakaway base, consult the Standard Specifications.

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

FILE NAME =	DESIGNED -	REVISED -
...D468620-shd-Lighting-Details_PoleHandhold	DRAWN -	REVISED -
USER NAME = tblank	CHECKED -	REVISED -
PLOT DATE = 9/5/2012	DATE - JULY 20, 2012	REVISED -



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LIGHTING DETAILS
POLE WIRING DETAILS

SCALE: SHEET NO. 110 OF 138 SHEETS STA. TO STA.

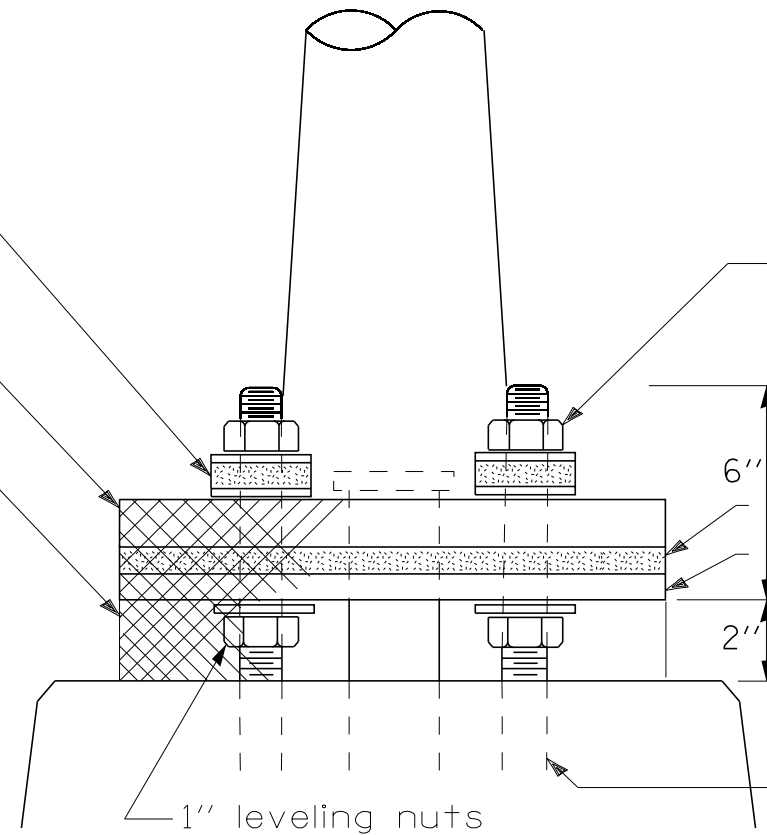
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
90-114R(14HB-4,14,14HVB)BR		TAZEWELL	2433	1825
ILLINOIS FED. AID PROJECT			CONTRACT NO. 68620	

2 1/2" O.D. x 1/4" galvanized steel flat washer either side of 2 1/2" O.D. x 1/2" isolation washer. See notes 3 and 5.

Pole base plate

Stainless steel standard grade wire cloth or perforated aluminum, 6x6 (1/4") mesh or less with #16 gauge (0.062") diameter or heavier wire.

Attach with 1/2" stainless steel banding or tie back on itself with stainless steel wire ties. Finished installation must prevent rodent entry.



1" self-locking nut or double nut. Install with torque wrench and torque to the isolation pad manufacturer's specifications.

1/2" min. isolation pad - see note 3.

1/2" min. galvanized steel leveling plate. Size to match pole base plate - see note 3.

1" high strength anchor bolts in bridge parapet.

Pole Mounted on Bridge Parapet Detail

GENERAL NOTES

1. Locate poles over bridge piers where possible.
2. The vibration isolation pad and leveling plate shall match the footprint of the pole base plate.
3. Thickness of isolation pad and washers shall be according to the isolation pad manufacturer's recommendations based upon pole height and loading.
4. Should the length of the exposed anchor bolts be too short on an existing bridge to mount the poles as shown, then the leveling plate shall be mounted directly on the concrete and leveled with stainless steel washers. Remove concrete as directed by the Engineer to fully thread the top nut.
5. The diameter of the flat washer on either side of the isolation washer shall be at least the same as the diameter of the isolation washer.

FILE NAME =	DESIGNED -	REVISED -	 engineers · scientists · planners	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	LIGHTING DETAILS LIGHT POLE ON BRIDGE PARAPET		F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
... \D468620-sh1-Lighting-Details_PoleMounted	DRAWN -	REVISED -			•	90-[14R;(14HB-4,14,14HVB)BR]	TAZEWELL	2433	1826		
USER NAME = tblank	CHECKED -	REVISED -			CONTRACT NO. 68620		ILLINOIS FED. AID PROJECT				
PLOT DATE = 9/5/2012	DATE - JULY 20, 2012	REVISED -			SCALE:	SHEET NO. 111 OF 138 SHEETS	STA.	TO STA.			

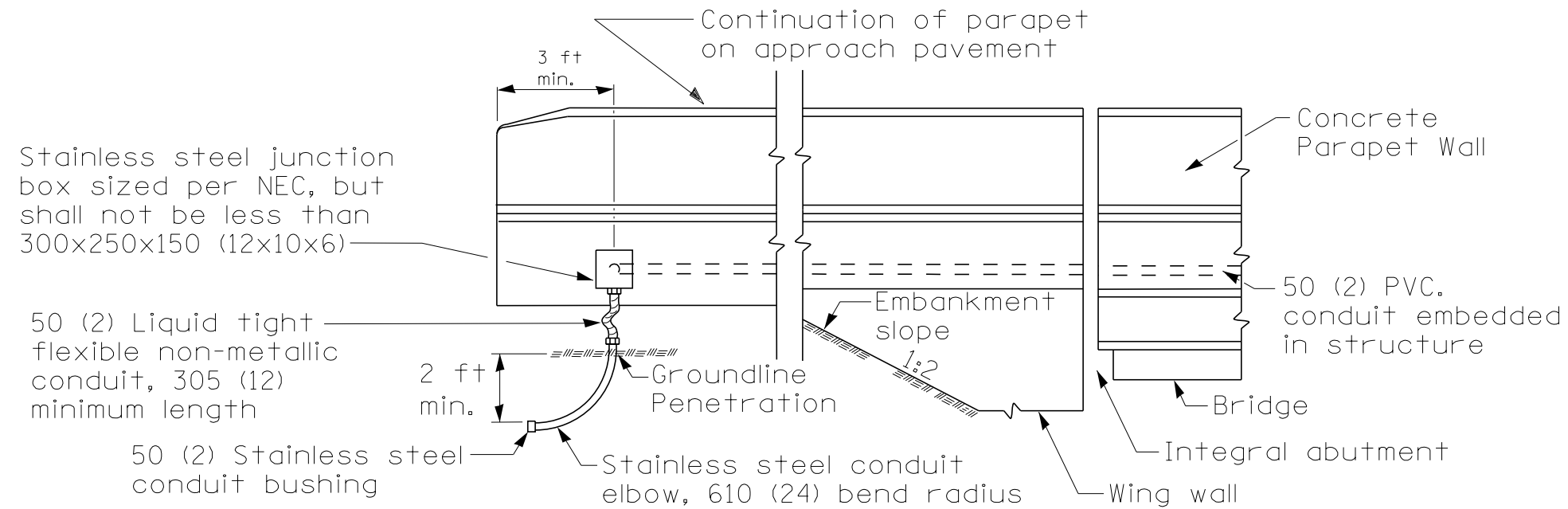
GENERAL NOTES

Stainless steel conduit, couplings, and elbows shall be according to Section 810 of the Standard Specifications, as applicable, shall be Type 304 or Type 316, and shall be manufactured according to UL Standard 6A and ANSI Standard C 80.1.

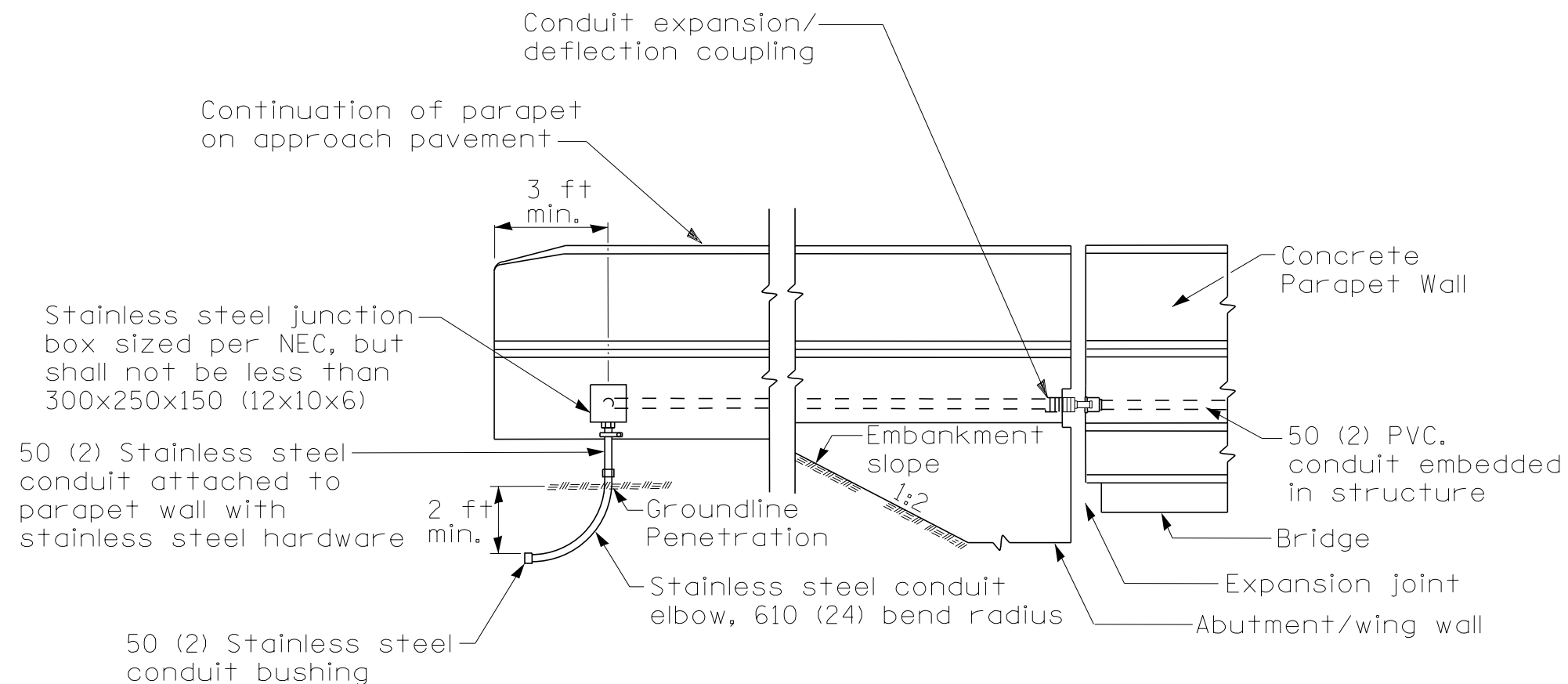
Conduit fittings shall be the threaded type, shall be Type 304 or Type 316 stainless steel, and shall be manufactured according to UL Standard 514B.

All stainless steel and liquid tight flexible non-metallic conduit, including all fittings, bushings, couplings, and elbows shall be included in the cost of the "Junction Box, Stainless Steel, Attached to Structure, 12" X 12" X 8" pay item.

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

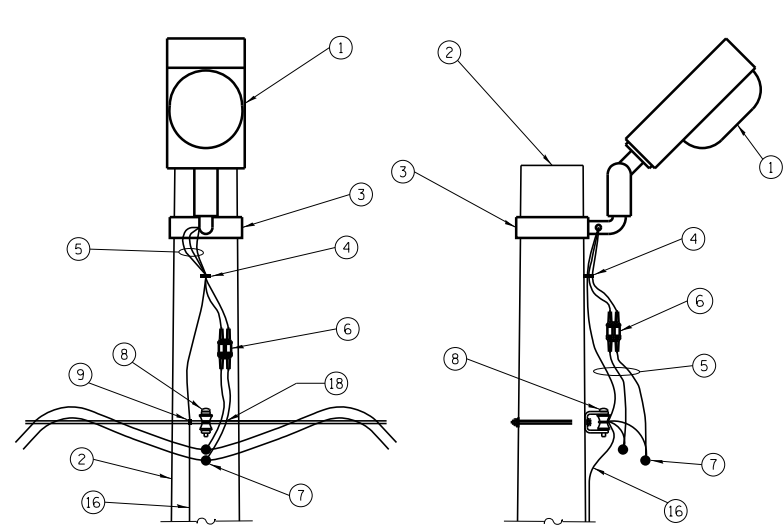


CONDUIT DETAIL
(Integral Abutment)

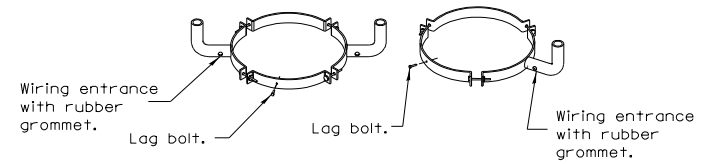


CONDUIT DETAIL
(Open Abutment)

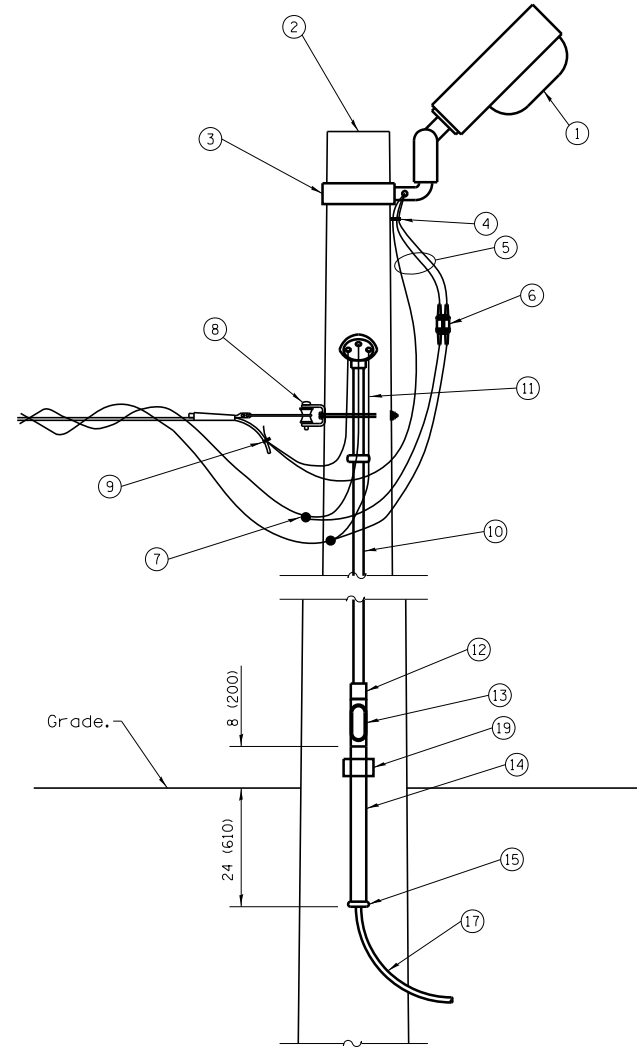
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... \D468620-shit-Lighting-Details-ConduitAppP	DRAWN -	REVISED -					90-[14Rz(14HB-4,14,14HVB)BR]	TAZEWELL	2433	1827	
USER NAME = tblank	CHECKED -	REVISED -			SCALE: SHEET NO. 112 OF 138 SHEETS STA. TO STA.		CONTRACT NO. 68620		ILLINOIS FED. AID PROJECT		
PLOT DATE = 9/5/2012	DATE - JULY 20, 2012	REVISED -					• 74 & 155				



FACING VIEW **SIDE VIEW**
LUMINAIRE
MOUNTING DETAILS
 50' (12.8 m) mounting height.

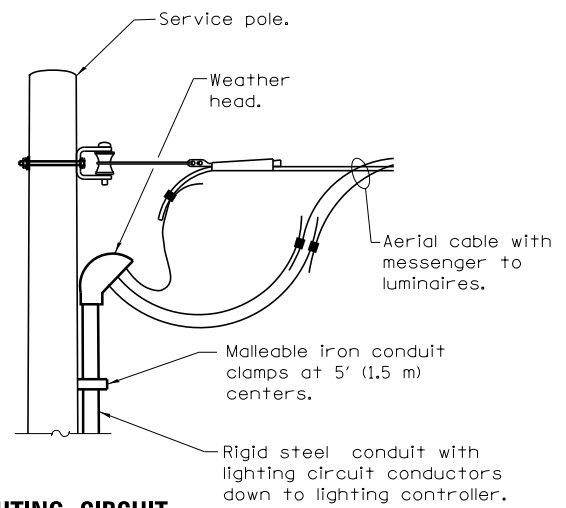


TWIN **SINGLE**
MOUNTING BRACKET DETAILS



LIGHT POLE WITH
CIRCUIT Routed
UNDERGROUND

- ① Luminaire.
- ② Wood light pole.
- ③ Luminaire mounting bracket.
- ④ Cable clamps on 24 (600) centers.
- ⑤ Three #10 XLP-USE cable.
- ⑥ Waterproof, two-pole fuse holder with fuses.
- ⑦ Waterproof insulation piercing tap connector.
- ⑧ Heavy duty insulated pulley clevis with mounting bolt and hardware.
- ⑨ Ground clamp.
- ⑩ 1 (25) rigid steel conduit.
- ⑪ Malleable iron conduit clamps, 5' (1.5 m) intervals.
- ⑫ Threaded conduit reducer.
- ⑬ "C" conduit, threaded.
- ⑭ 1/2 (40) rigid steel conduit.
- ⑮ Conduit bushing.
- ⑯ #6 Bare copper ground wire to 10 ft. ground rod, every third light pole.
- ⑰ Unit duct.
- Size larger as needed.
- ⑱ Wire tie
- ⑲ Malleable iron conduit clamp below "C" conduit



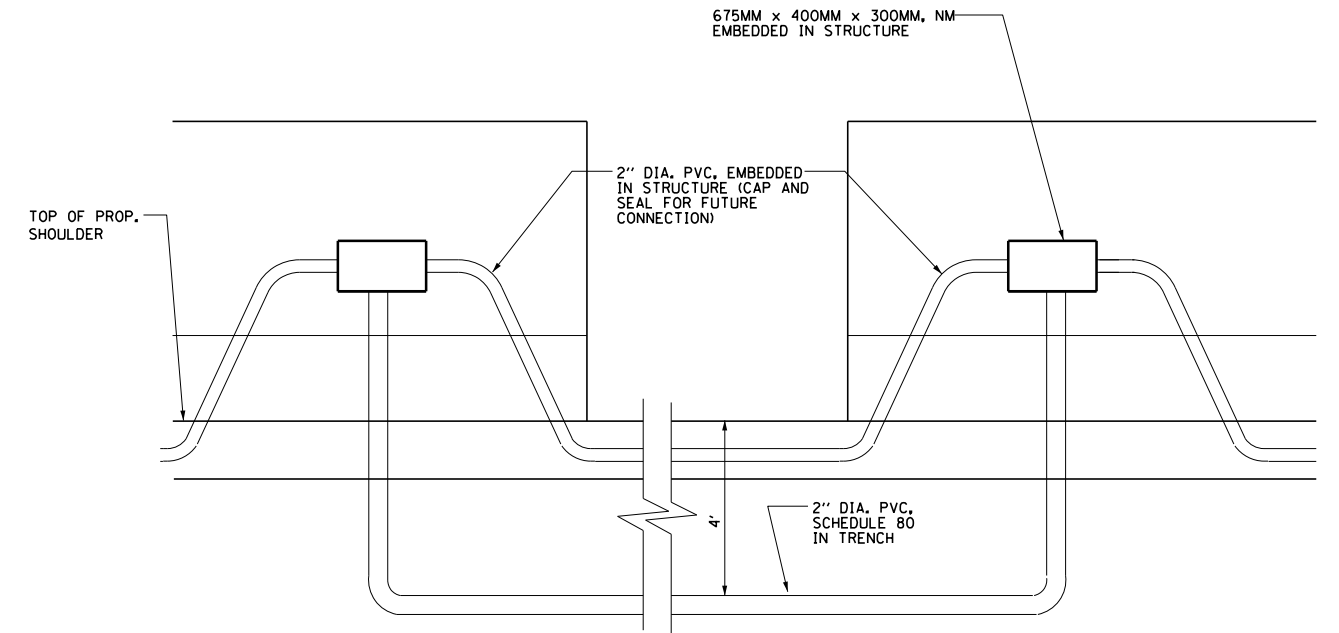
LIGHTING CIRCUIT
AT SERVICE/CONTROLLER
 See standard 825001 for service installation.

GENERAL NOTES

See plans for wire and unitduct sizes not shown.

Provide guy wires with strain insulators and anchors, as needed.

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



JUNCTION BOX EMBEDDED IN BARRIER WALL - DETAIL D

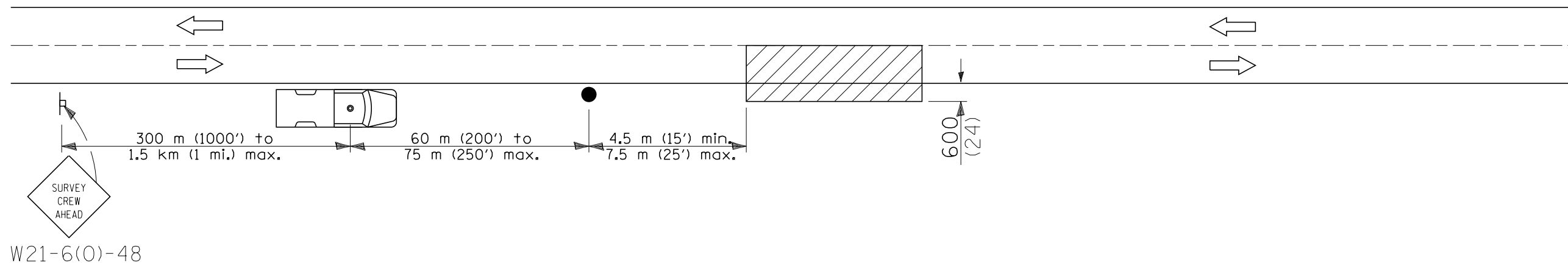
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...D468620-sh1-Lighting_Details-02.dgn	DRAWN -	REVISED -
USER NAME = tblank	CHECKED -	REVISED -
PLOT DATE = 9/5/2012	DATE - JULY 20, 2012	REVISED -



STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

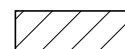
LIGHTING DETAILS		F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
MISCELLANEOUS DETAILS		• 90-[14R(14HB-4,14,14HVB)BR]	TAZEWELL	2433	1828	
SCALE:	SHEET NO. 113 OF 138 SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT		

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
• 90-[14R(14HB-4,14,14HVB)BR]	TAZEWELL	2433	1828	
CONTRACT NO. 68620				



W21-6(0)-48

SYMBOLS



Work area



Sign on portable or permanent support



Truck with flashing amber light and dual emergency flashers



Flagger with traffic control sign

TYPICAL APPLICATIONS

Utility operations

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

FILE NAME =	DESIGNED -	REVISED -		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	LIGHTING DETAILS TEMPORARY LIGHTING DETAILS		F.A.I. RTÉ.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
... \D468620-shit-Lighting-Details-NighttimeLighting.dwg	DRAWN -	REVISED -					90-[14Rz(14HB-4,14,14HVB)BR]	TAZEWELL	2433	1829	
USER NAME = tblank	CHECKED -	REVISED -			SCALE: SHEET NO. 114 OF 138 SHEETS STA. TO STA.		ILLINOIS FED. AID PROJECT		CONTRACT NO. 68620		
PLOT DATE = 9/5/2012	DATE - JULY 20, 2012	REVISED -									

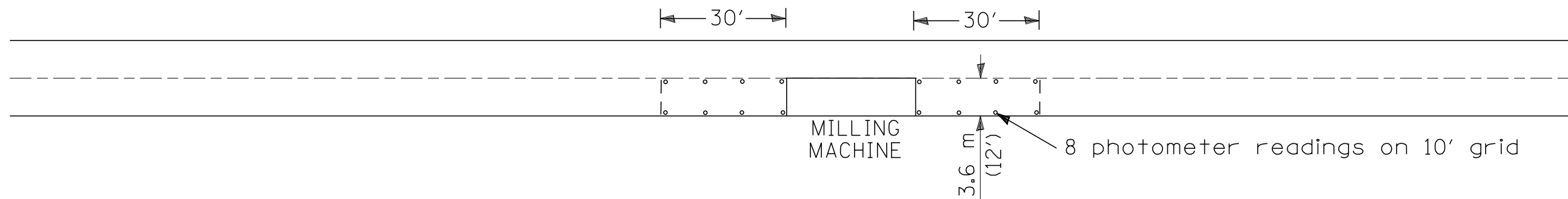
Example

Milling operation:

Required light level = 108 lux (10 footcandle) = E

Required distance = 9 m (30 ft)

Required lighting uniformity = 6:1 ratio



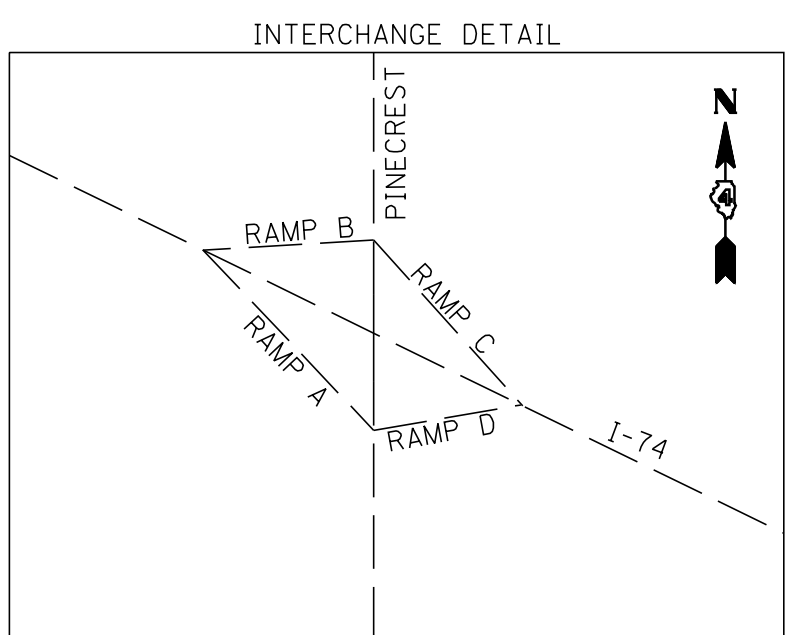
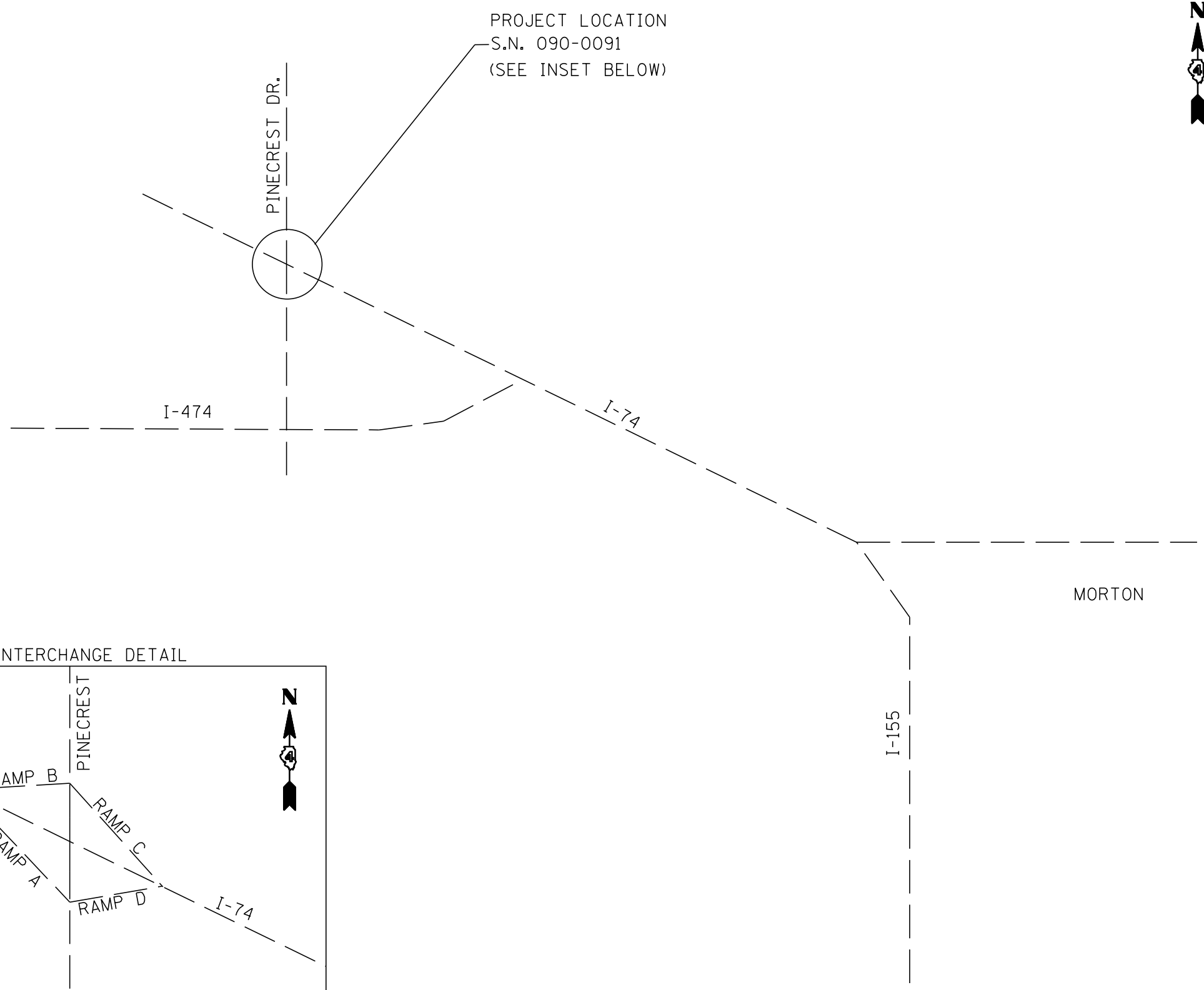
$$E_h = \text{Average Maintained Horizontal Illuminance} = \frac{8 \text{ readings}}{8}$$

$$\text{Average to Minimum Uniformity Ratio} = \frac{E_h}{\text{lowest of the 8 readings}}$$

Drawing not to scale

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

FILE NAME =	DESIGNED -	REVISED -		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	LIGHTING DETAILS NIGHTTIME LIGHTING INSPECTION		F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
... \D468620-shit-Lighting-Details-NighttimeLighting	DRAWN -	REVISED -					90-114R(14HB-4,14,14HVB)BR	TAZEWELL	2433	1830		
USER NAME = tblank	CHECKED -	REVISED -			SCALE:		SHEET NO. 115 OF 138 SHEETS	STA.	TO STA.	CONTRACT NO. 68620		
PLOT DATE = 9/5/2012	DATE - JULY 20, 2012	REVISED -			ILLINOIS FED. AID PROJECT							



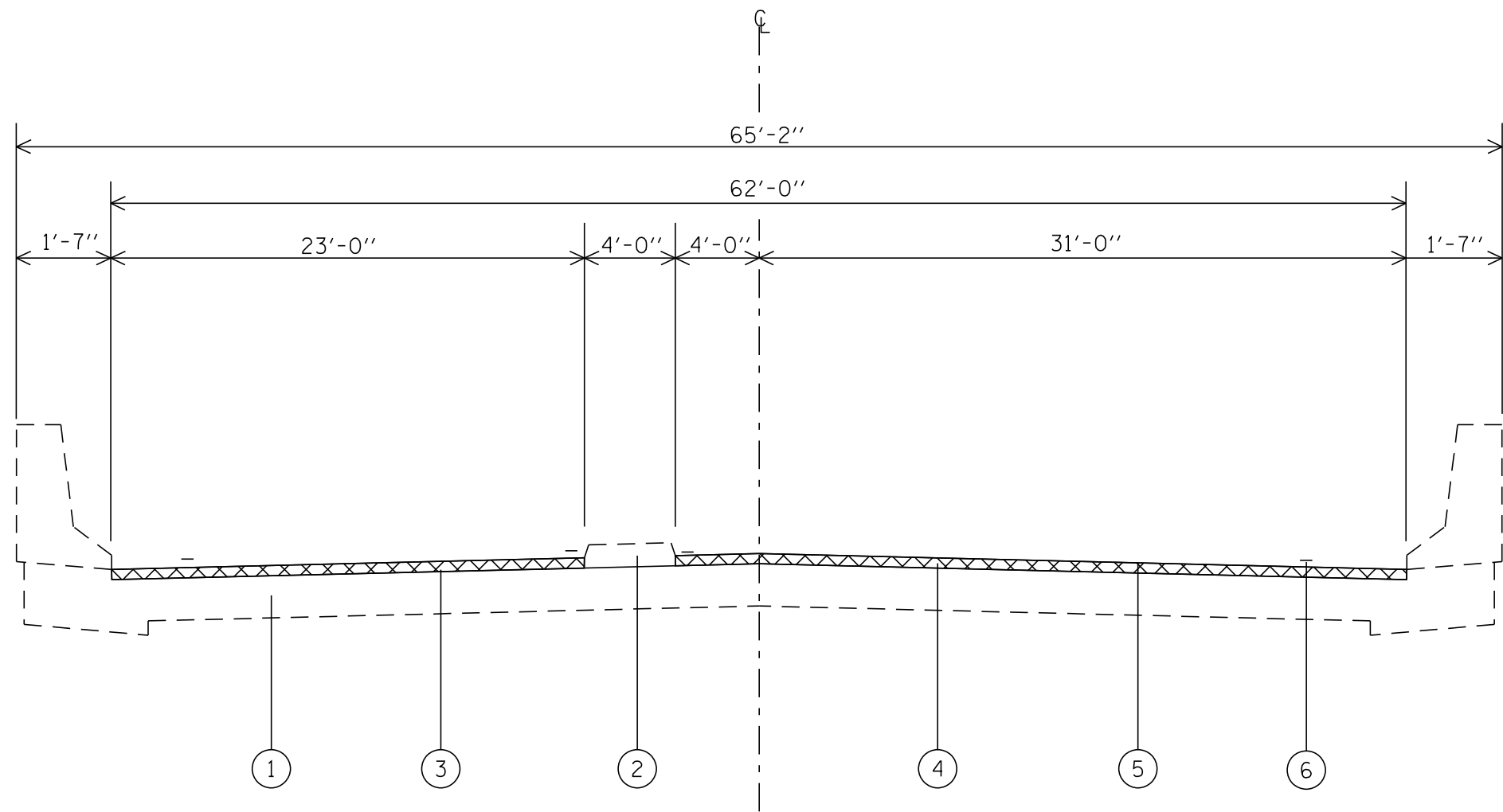
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		DRAWN - D CORP	REVISED -
	PLOT SCALE =	CHECKED -	REVISED -
	PLOT DATE = 7/17/2012	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**LINE DIAGRAM
PINECRST DRIVE INTERCHANGE**

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
665			2433	1854
			CONTRACT NO. 68620	
ILLINOIS FED. AID PROJECT				



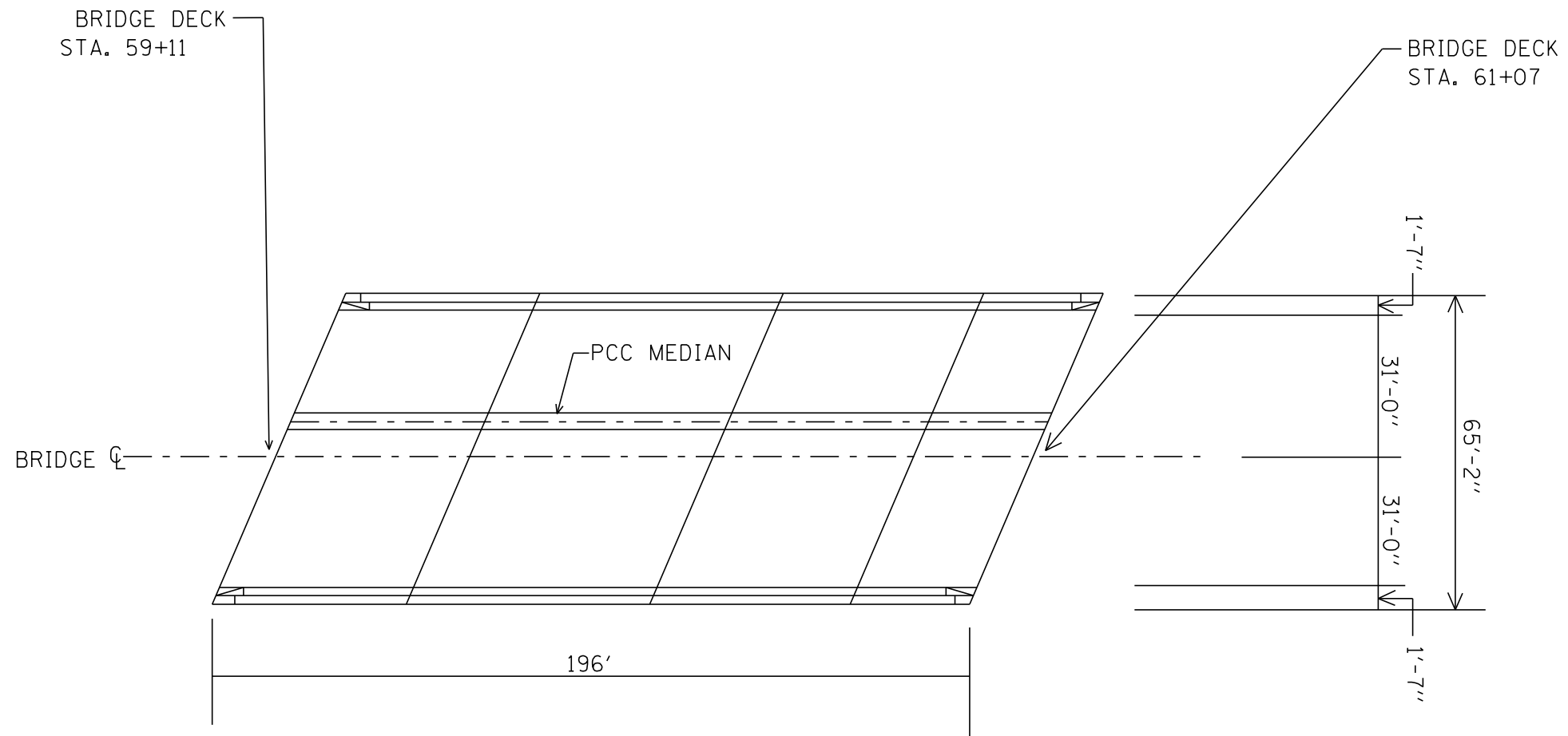
LEGEND

- ① EXISTING 7" PCC SLAB
- ② EXISTING PCC MEDIAN
- ③ EXISTING HMA OVERLAY
- ④ PROPOSED 1/4" HMA SURFACE REMOVAL
- ⑤ PROPOSED HMA SURF. CSE. MIX E N=50 1/4"
- ⑥ PROPOSED PAVEMENT MARKINGS

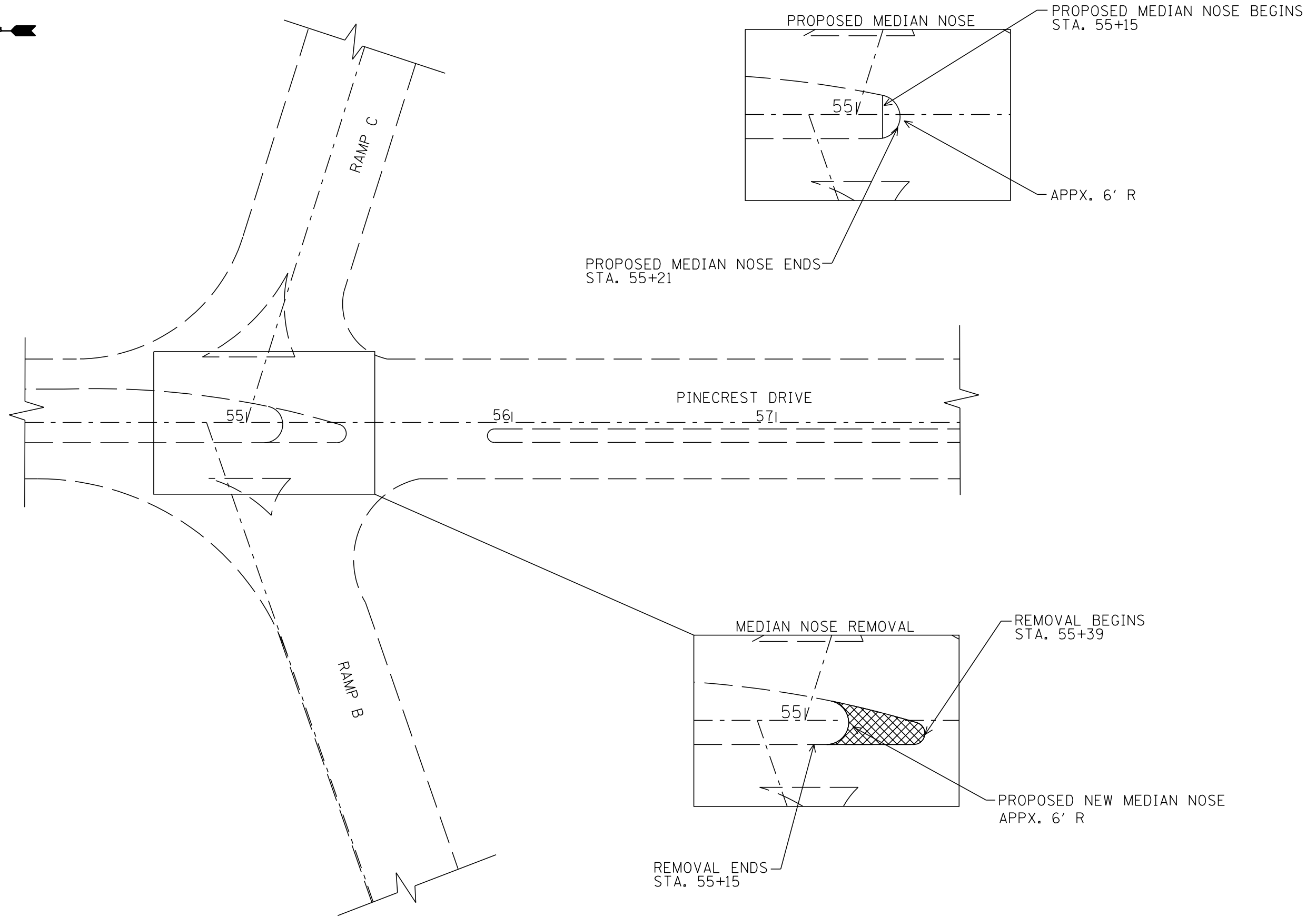
TYPICAL SECTION
STA. 59+11 TO 61+07

SEE SCHEDULE OF QUANTITIES

FILE NAME = ...D412345-sht-pinecrest-02.dgn	USER NAME = tblank	DESIGNED - D CORP	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PINECREST DRIVE S.N. 090-0091 TYPICAL SECTION PINECREST DRIVE INTERCHANGE			F.A.P. RTE. 665	SECTION	COUNTY	TOTAL SHEETS 2433	SHEET NO. 1855
	PLOT SCALE =	CHECKED -	REVISED -					CONTRACT NO. 68620				
PLOT DATE = 7/17/2012	DATE -	REVISED -	SCALE:		SHEET NO.	OF SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT			

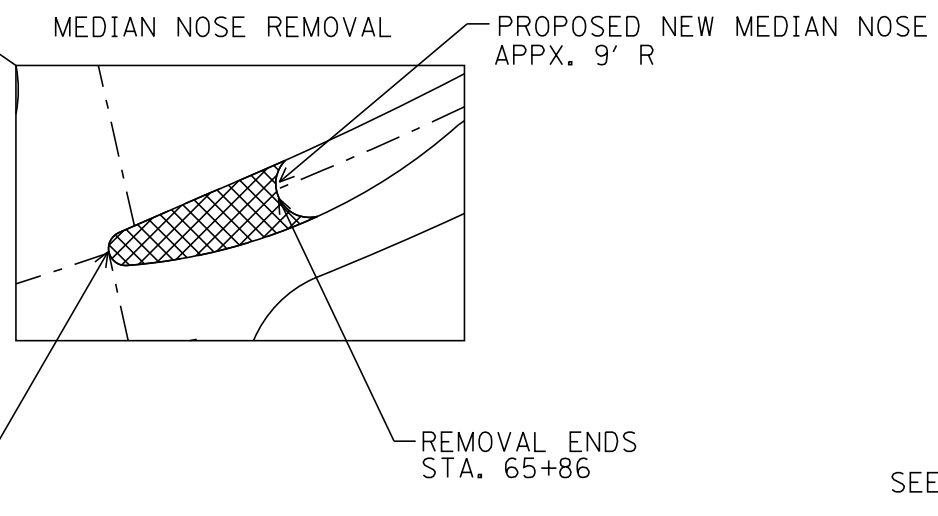
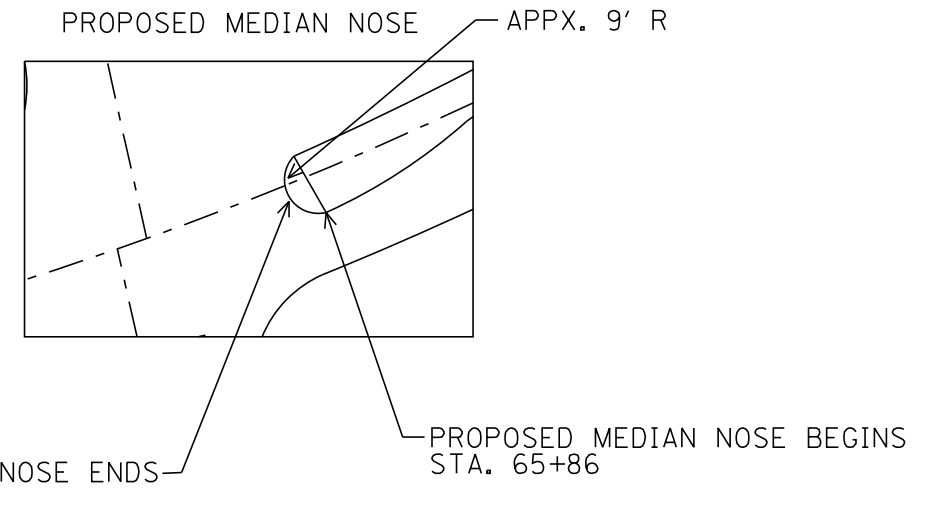
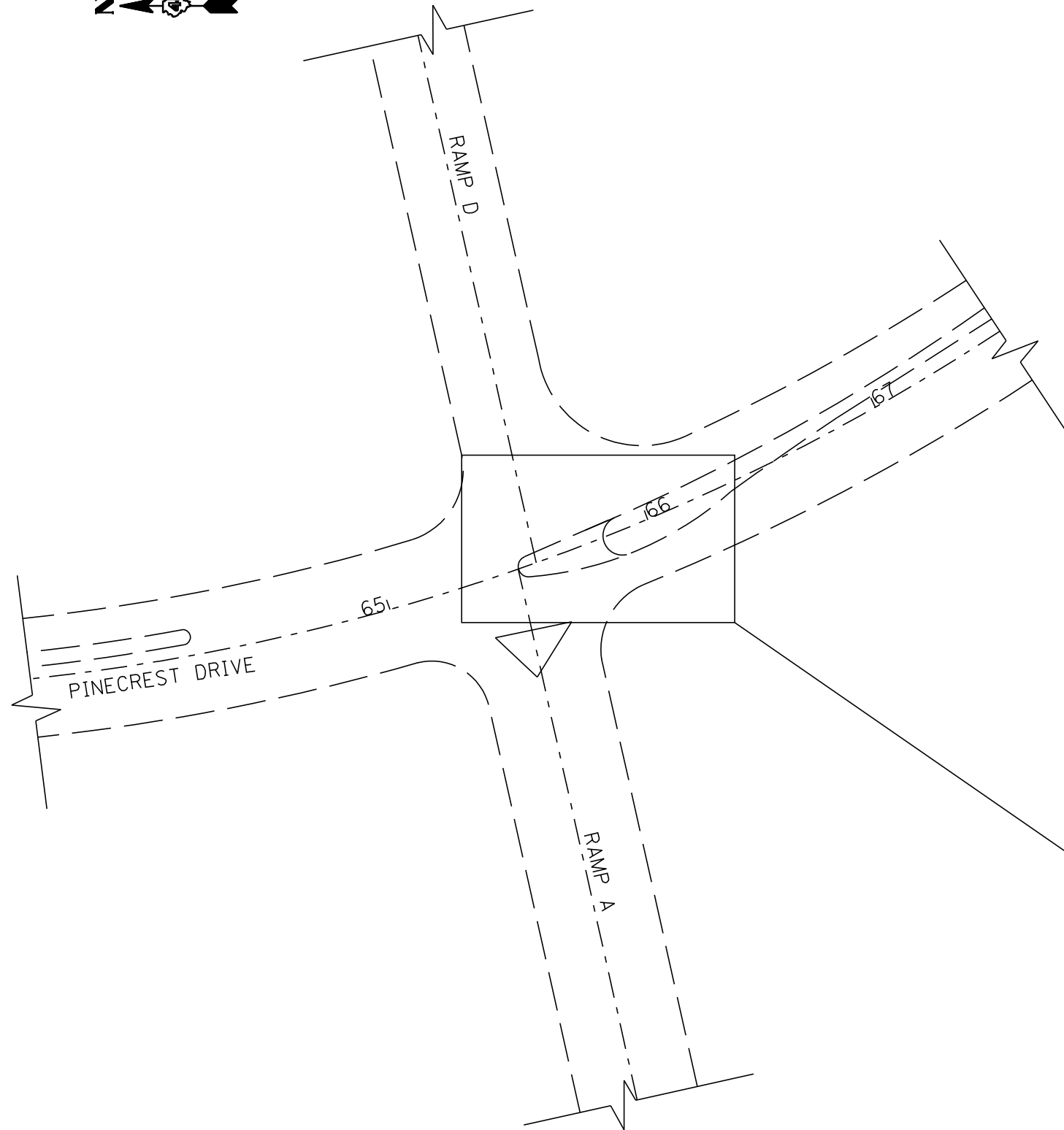


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	PLOT SCALE =	CHECKED -	REVISED -					665			2433	1856
PLOT DATE = 7/17/2012	DATE -	REVISED -	REVISED -		SCALE:	SHEET NO.	OF SHEETS	STA.	TO STA.	CONTRACT NO. 68620		
										ILLINOIS FED. AID PROJECT		



SEE SCHEDULE OF QUANTITIES

FILE NAME = ...D412345-sht-pinecrest-04.dgn	USER NAME = tblank	DESIGNED - D CORP	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	MEDIAN NOSE REMOVAL PINECREST DRIVE INTERCHANGE			F.A.P. RTE. 665	SECTION	COUNTY	TOTAL SHEETS 2433	SHEET NO. 1857
	PLOT SCALE =	DRAWN - D CORP	REVISED -		SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.	CONTRACT NO. 68620	
	PLOT DATE = 7/17/2012	CHECKED -	REVISED -		ILLINOIS FED. AID PROJECT							
		DATE -	REVISED -									



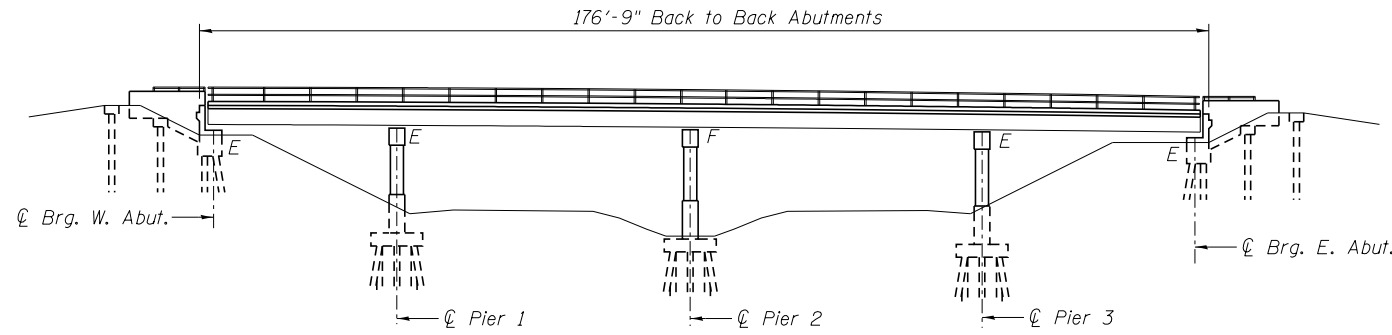
SEE SCHEDULE OF QUANTITIES

FILE NAME = ...D412345-sht-pinecrest-05.dgn	USER NAME = tblank	DESIGNED - D CORP	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	MEDIAN NOSE REMOVAL DETAIL—RAMPS A & D NOT TO SCALE			F.A.P. RTE. 665	SECTION	COUNTY	TOTAL SHEETS 2433	SHEET NO. 1858
	PLOT SCALE =	DRAWN - D CORP	REVISED -		SCALE:	SHEET NO.	OF SHEETS	STA.	TO STA.	CONTRACT NO. 68620		
	PLOT DATE = 7/17/2012	CHECKED -	REVISED -		ILLINOIS FED. AID PROJECT							
		DATE -	REVISED -									

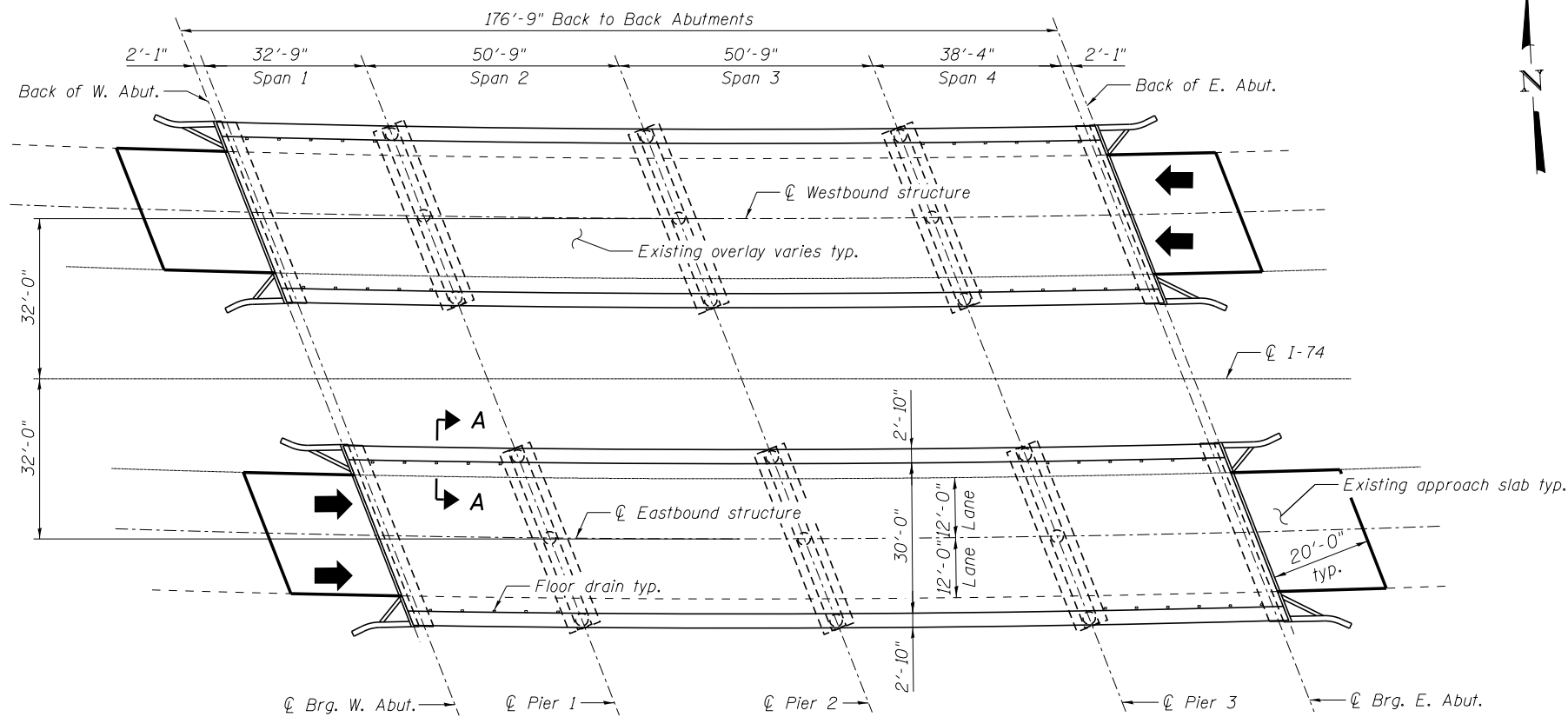
Bench Mark: Chiseled "L" on Crashwall of W.B.L. I-74 Bridge, C. Pier over Ramps for 155, Elev. 731.95

Existing Structures: S.N. 090-0012 (WB) and S.N. 090-0013 (EB), built 1961 as F.A.I. Route 74 over F.A.I. Route I-155, Section 90-14HB-4. Structure consists of dual 4-span continuous steel WF superstructures, skewed 21°23'12". Abutments are reinforced concrete stub abutments supported by concrete piles. The reinforced concrete multi-column piers are supported by creosoted timber piles. The existing total bridge lengths are 176'-9" back to back of abutments. The superstructure width for each structure is 35'-8". The contractor shall overlay the existing bridge decks. I-74 traffic to be maintained with one lane in each direction utilizing stage construction.

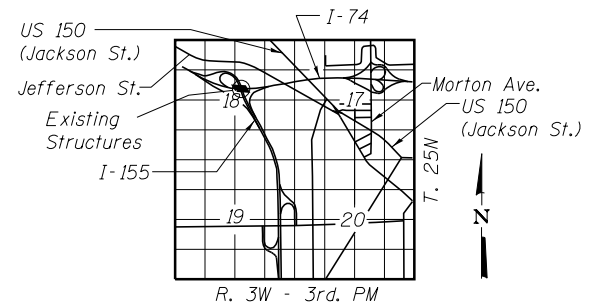
No salvage.



ELEVATION



PLAN



LOCATION SKETCH

INDEX OF SHEETS

- SE1 General Plan and Elevation
- SE2 Bridge Deck and Approach Slab Repairs

SCOPE OF WORK

1. Power brush bridge deck surface
2. Clean bridge deck drains
3. Place new 1/2" overlay

**GENERAL PLAN AND ELEVATION
I-74 OVER I-155
F.A.I. RTE. 74
SEC. 90-[14R;(14HB-4,14,14HB)BR]
TAZEWELL COUNTY
STATION 540+01.31
STRUCTURE NO. 090-0012 (WB)
STRUCTURE NO. 090-0013 (EB)**

benesch
engineers · scientists · planners
Alfred Benesch & Company
205 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-565-0450 Job No. 10056

FILE NAME = 0900012.68620.01.gpe.dgn
PLOT SCALE =
PLOT DATE = 7/16/2012

USER NAME = mbecker	DESIGNED - DMS	REVISED -
CHECKED - MRB	CHECKED - MRB	REVISED -
DRAWN - DMS	DRAWN - DMS	REVISED -
CHECKED - MRB	CHECKED - MRB	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**GENERAL PLAN AND ELEVATION
EXISTING STRUCTURE NO. 090-0012 / 0013**

SHEET NO. SE1 OF SE2 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R;(14HB-4,14,14HB)BR]	TAZEWELL	2433	1859
CONTRACT NO. 68620			ILLINOIS FED. AID PROJECT	

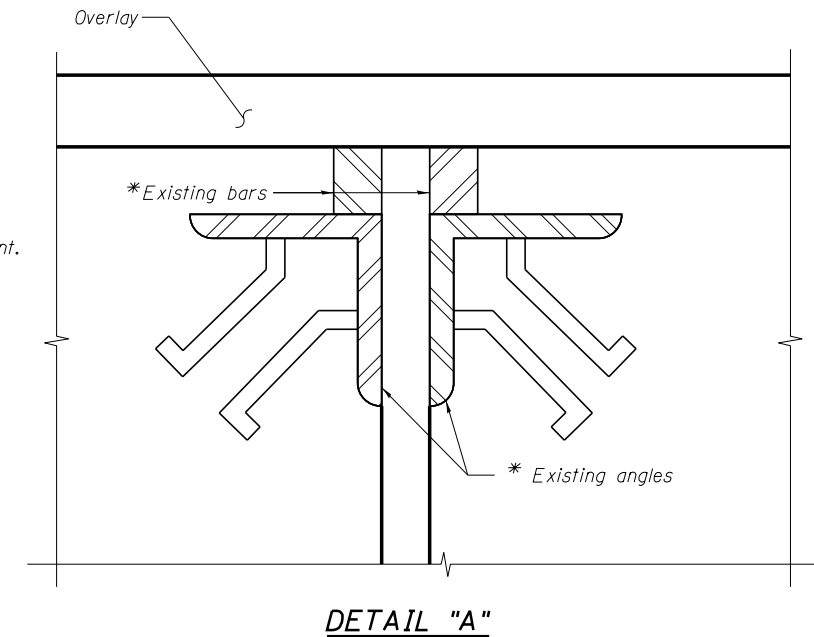
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GENERAL NOTES:

1. 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.
2. Work to be performed before Pre Stage-Sub Stage A of the MOT plans.
3. Work must be performed during off-peak hours and per the IDOT Highway Standards.
4. Deck drains (downspouts, floor drains, and scuppers) shall be cleaned prior to placement of the Hot-Mix Asphalt Surface Course overlay. Cost of cleaning the deck drains is included in Hot-Mix Asphalt Surface Course Mix "E", N50.
5. After placement of the bridge deck overlay, the Resident Engineer shall notify the District Bridge Maintenance Engineer of the "as constructed" overlay thickness for updating the Illinois Highway Information System.

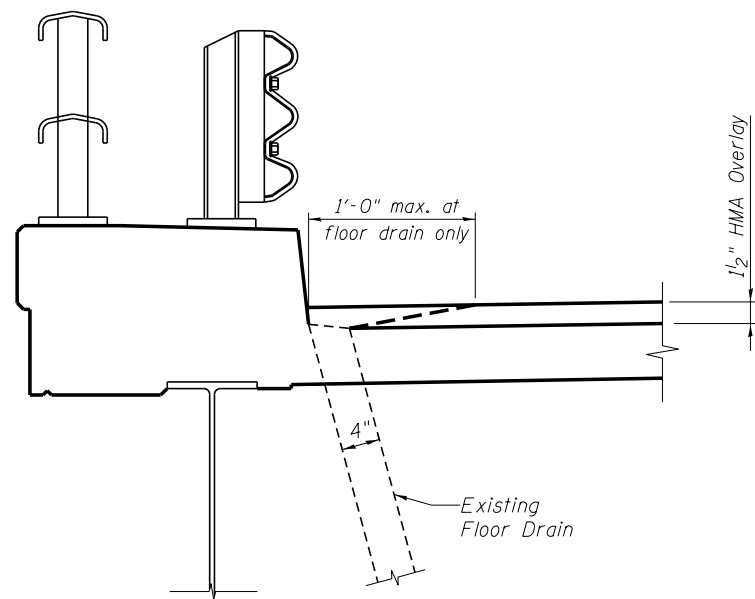
TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Polymerized Bituminous Materials (Prime Coat)	Ton	0.5		0.5
Hot-Mix Asphalt Surface Removal - Butt Joint	Sq. Yd.	800		800
Temporary Ramp	Sq. Yd.	134		134
Hot-Mix Asphalt Surface Course Mix "E", N50	Ton	166.2		166.2



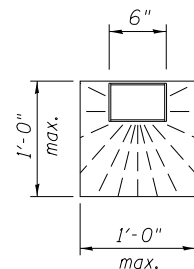
Note: Per inspection, the existing joint opening is closed. Contractor to pave over existing joint. Overlay may pop-out which may result in a minimum bump.

* Field conditions may vary.

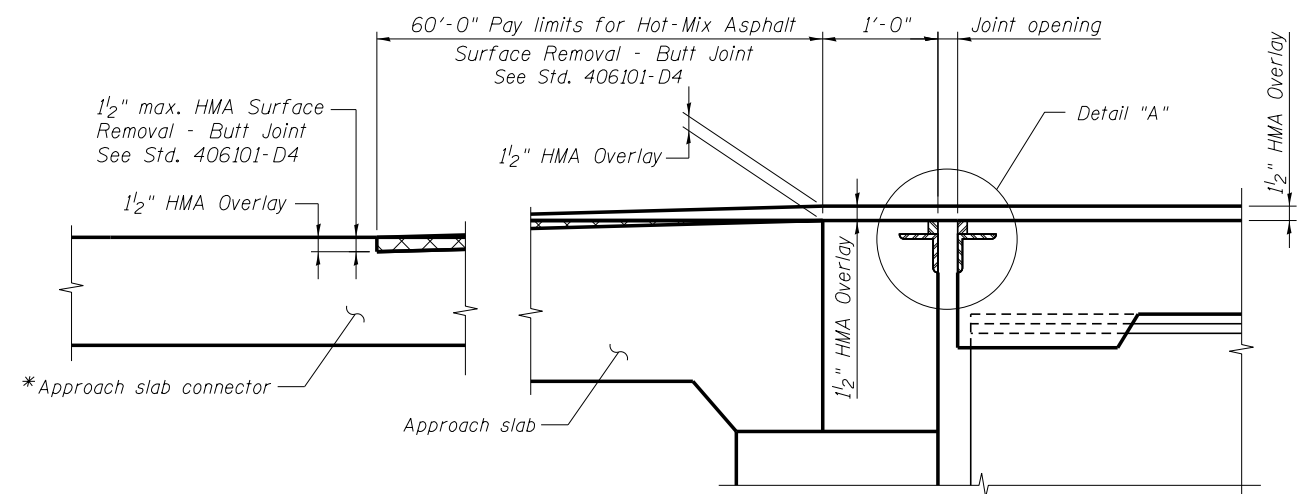


SECTION A-A

CONCRETE OVERLAY AT FLOOR DRAIN



***FLOOR DRAIN PLAN**



SURFACE REMOVAL & OVERLAY TRANSITION DETAIL

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Alfred Benesch & Company
205 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-565-0450 Job No. 10056

FILE NAME = 0900012.68620.02.brdr.dgn	USER NAME = mbecker	DESIGNED - DMS	REVISIONS -
		CHECKED - MRB	REVISIONS -
	PLOT SCALE =	DRAWN - DMS	REVISIONS -
	PLOT DATE = 7/16/2012	CHECKED - MRB	REVISIONS -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**BRIDGE DECK AND APPROACH SLAB REPAIRS
EXISTING STRUCTURE NO. 090-0012 / 0013**

SHEET NO. SE2 OF SE2 SHEETS

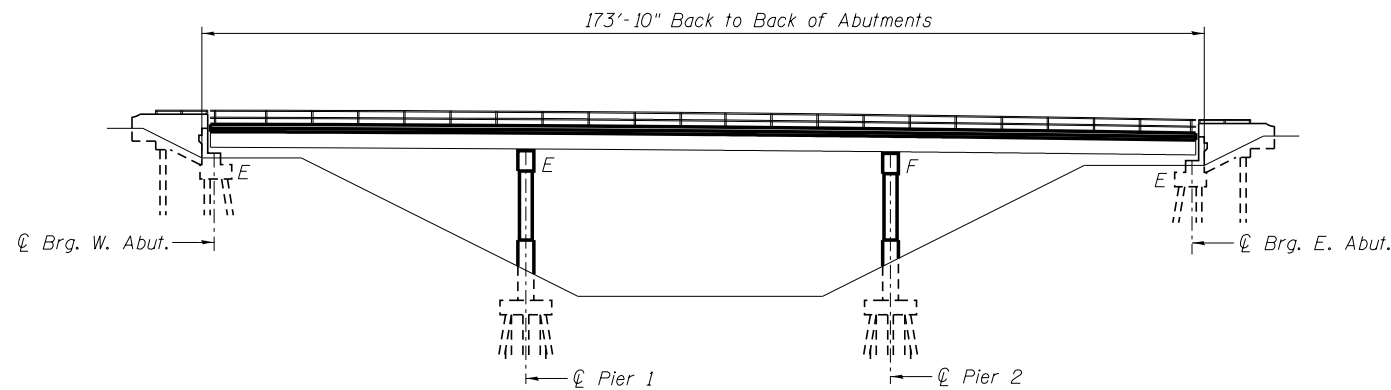
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R;14HB-4,14,14HVB]BR	TAZEWELL	2433	1860
			CONTRACT NO. 68620	
ILLINOIS FED. AID PROJECT				

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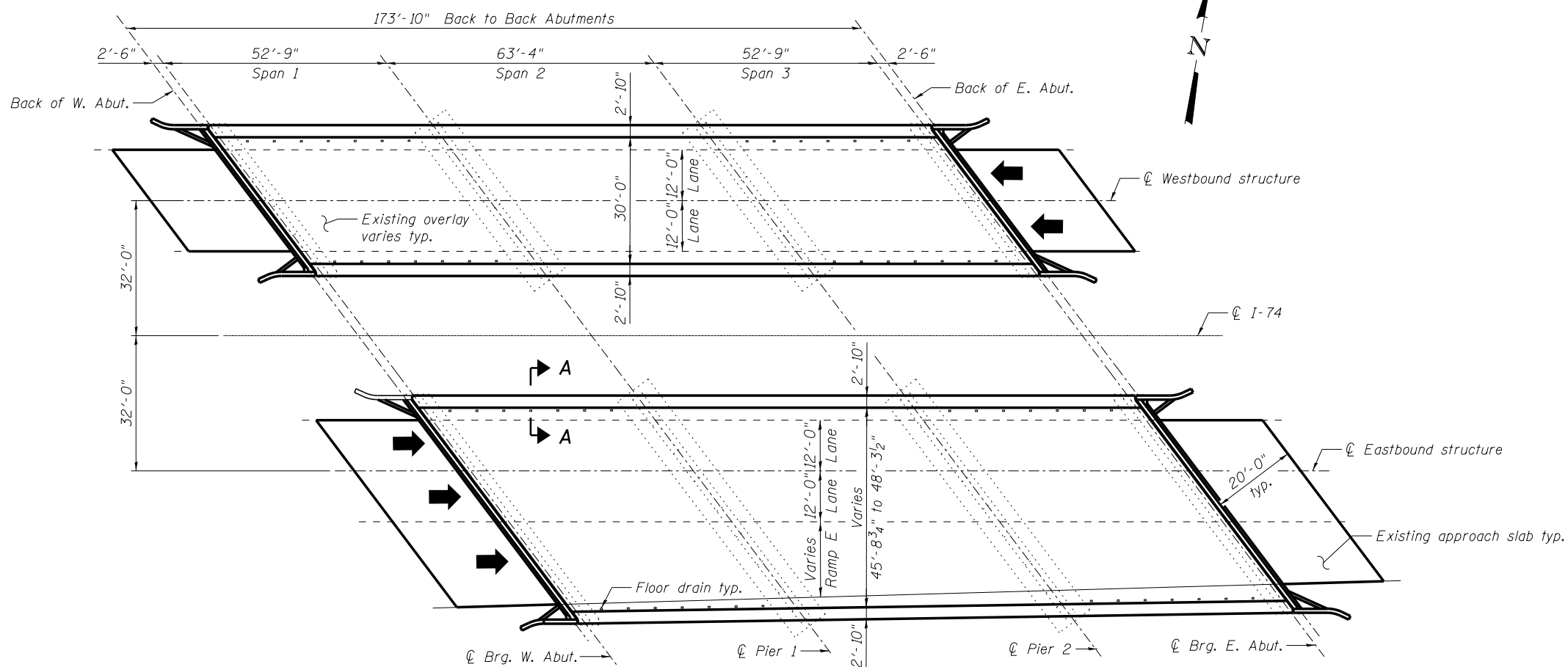
Bench Mark: Chiseled "□" on S.W. parapet of EB lane I-74 bridge (S.N. 090-0015), just E. of I-155, Elevation 757.24.

Existing Structures: S.N. 090-0014 (WB) and S.N. 090-0015 (EB) were originally built in 1961. Structure consists of dual 3-span continuous steel WF superstructures, skewed 36°59'00". Abutments are reinforced concrete stub abutments supported by concrete piles. The reinforced concrete multi-column piers are supported by creosoted timber piles. The existing total bridge lengths are 173'-10" back to back of abutments. The superstructure width is 35'-8" (WB) and varies from 51'-4³/₄" to 53'-11¹/₂" (EB). The contractor shall overlay the existing bridge decks. Stage construction shall be utilized to maintain traffic with one lane in each direction during construction. Ramp E shall remain open during overlay.

No salvage.



ELEVATION



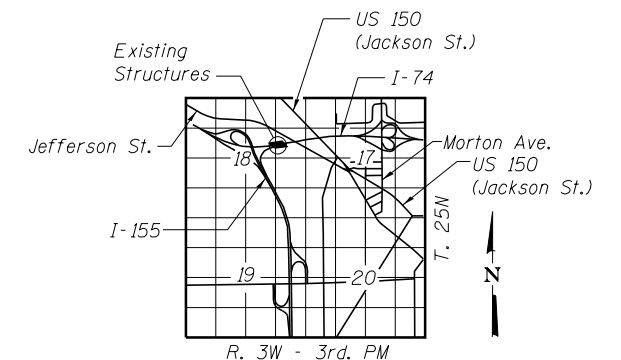
PLAN

INDEX OF SHEETS

- SF1 General Plan and Elevation
- SF2 Bridge Deck and Approach Slab Repairs

SCOPE OF WORK

1. Power brush bridge deck surface
2. Clean bridge deck drains
3. Place new 1¹/₂" overlay



LOCATION SKETCH

**GENERAL PLAN AND ELEVATION
I-74 OVER ABANDONED RAILROAD
F.A.I. RTE. 74
SEC. 90-[14R;(14HB-4,14,14HVB)BR]
TAZEWELL COUNTY
STATION 550+24.84
EXISTING STRUCTURE NO. 090-0014 (WB)
EXISTING STRUCTURE NO. 090-0015 (EB)**

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Alfred Benesch & Company
205 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-565-0450 Job No. 10056

FILE NAME =	0900014.68620.01.gpe.dgn
USER NAME =	mbecker
PLOT SCALE =	
PLOT DATE =	7/16/2012

DESIGNED -	DMS	REVISED -	
CHECKED -	MRB	REVISED -	
DRAWN -	PRT	REVISED -	
CHECKED -	MRB	REVISED -	

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**GENERAL PLAN AND ELEVATION
EXISTING STRUCTURE NO. 090-0014 / 0015**
SHEET NO. SF1 OF SF2 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R;(14HB-4,14,14HVB)BR]	TAZEWELL	2433	1861
			CONTRACT NO. 68620	
ILLINOIS FED. AID PROJECT				

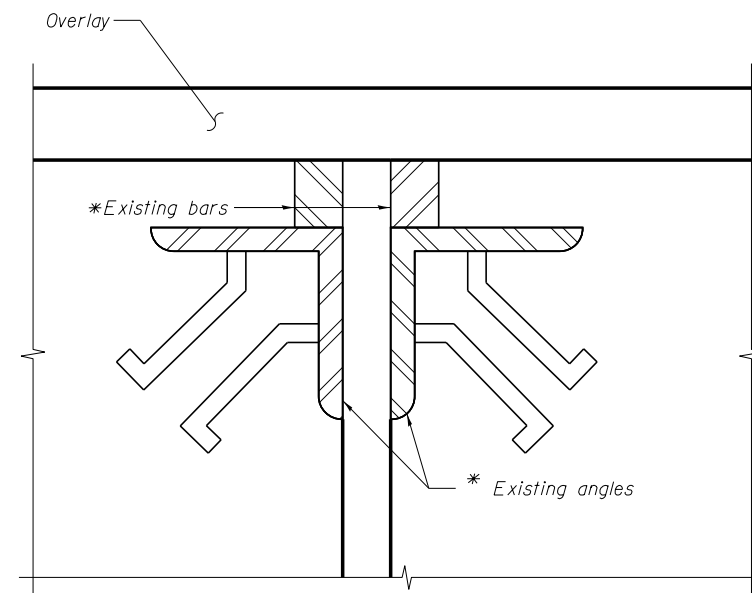
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 7/16/2012

GENERAL NOTES:

1. 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.
2. Work to be performed before Pre Stage-Sub Stage A of the MOT plans.
3. Work must be performed during off-peak hours and per the IDOT Highway Standards.
4. Deck drains (downspouts, floor drains, and scuppers) shall be cleaned prior to placement of the Hot-Mix Asphalt Surface Course overlay. Cost of cleaning the deck drains is included in Hot-Mix Asphalt Surface Course Mix "E", N50.
5. After placement of the bridge deck overlay, the Resident Engineer shall notify the District Bridge Maintenance Engineer of the "as constructed" overlay thickness for updating the Illinois Highway Information System.

TOTAL BILL OF MATERIAL

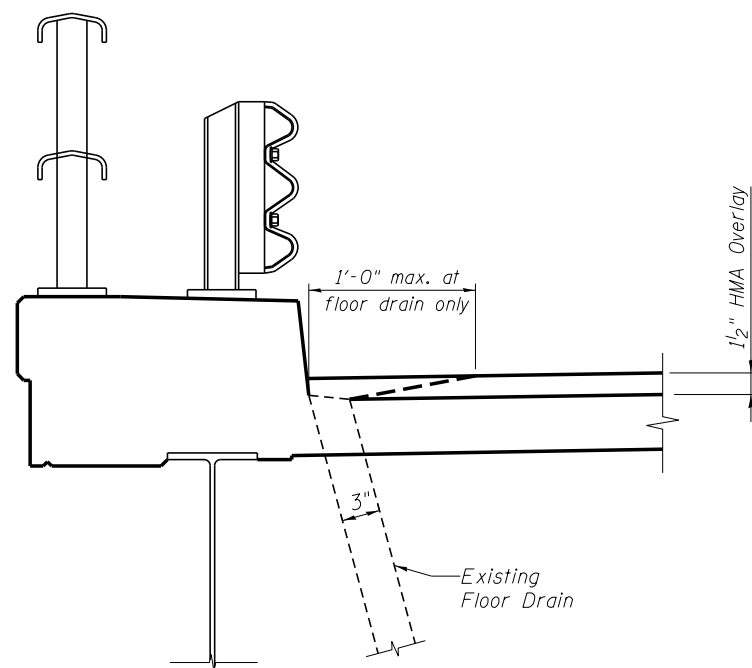
ITEM	UNIT	SUPER	SUB	TOTAL
Polymerized Bituminous Materials (Prime Coat)	Ton	0.6		0.6
Hot-Mix Asphalt Surface Removal - Butt Joint	Sq. Yd.	1,027		1,027
Temporary Ramp	Sq. Yd.	172		172
Hot-Mix Asphalt Surface Course Mix "E", N50	Ton	211.2		211.2



Note: Per inspection, the existing joint opening is closed. Contractor to pave over existing joint. Overlay may pop-out which may result in a minimum bump.

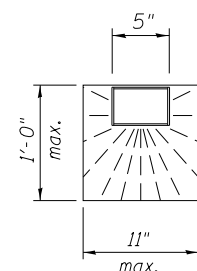
DETAIL "A"

* Field conditions may vary.

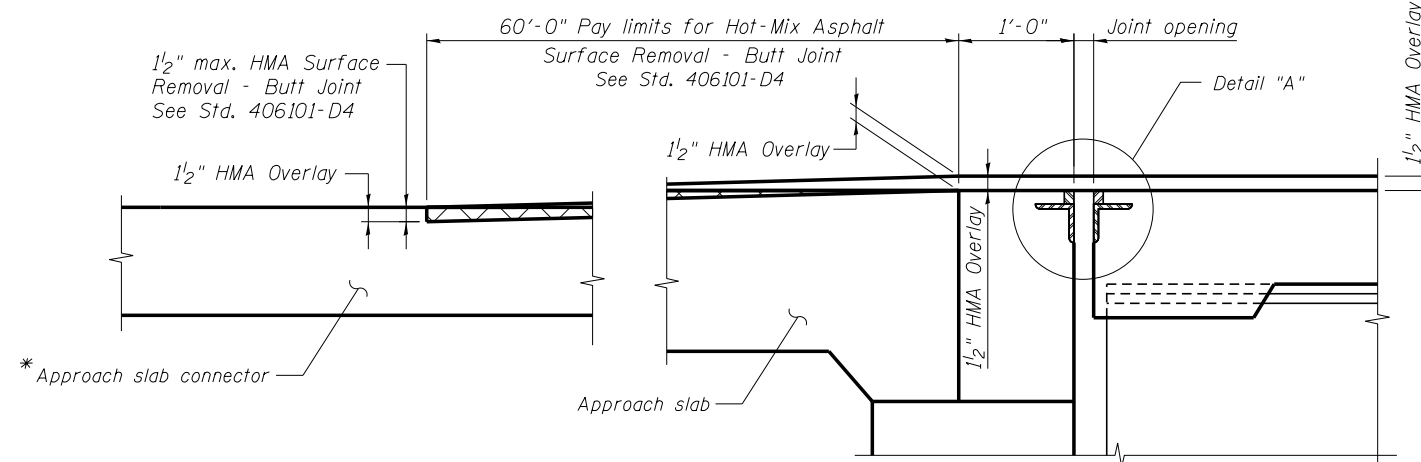


SECTION A-A

CONCRETE OVERLAY AT FLOOR DRAIN



***FLOOR DRAIN PLAN**



SURFACE REMOVAL & OVERLAY TRANSITION DETAIL



Alfred Benesch & Company
205 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-565-0450 Job No. 10056

FILE NAME =	USER NAME = mbecker	DESIGNED - DMS	REVISED -
		CHECKED - MRB	REVISED -
0900014_68620_02_brdkr.dgn	PLOT SCALE =	DRAWN - PRT	REVISED -
	PLOT DATE = 7/16/2012	CHECKED - MRB	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**BRIDGE DECK AND APPROACH SLAB REPAIRS
EXISTING STRUCTURE NO. 090-0014 / 0015**

SHEET NO. SF2 OF SF2 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14Rz(14HB-4,14,14HVB)BR]	TAZEWELL	2433	1862
			CONTRACT NO. 68620	
ILLINOIS FED. AID PROJECT				

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Bench Mark: Chiseled "□" on S.W. parapet of E.B.L. I-74 bridge over U.S. Route 150 (S.N. 090-0018), Elevation 749.62.

Existing Structures: S.N. 090-0017 (WB) and S.N. 090-0018 (EB). Built in 1961 as F.A.I. Route 74 over U.S. 150 & I.T.R.R., Section 90-14-HVB. Structures consist of dual 5 span WF superstructures, continuous from the West Abutment to Pier 4 and simple between Pier 4 and East Abutment. Substructures are reinforced concrete frame piers on piles and pile bent abutments. The existing total bridge lengths are 312'-2 1/4" (WB) and 313'-1 3/4" (EB) back to back of abutments measured along the profile grade lines. The superstructure widths are 36'-0" out-to-out measured radially. The contractor shall overlay the existing bridge decks. I-74 traffic to be maintained with one lane in each direction utilizing stage construction.

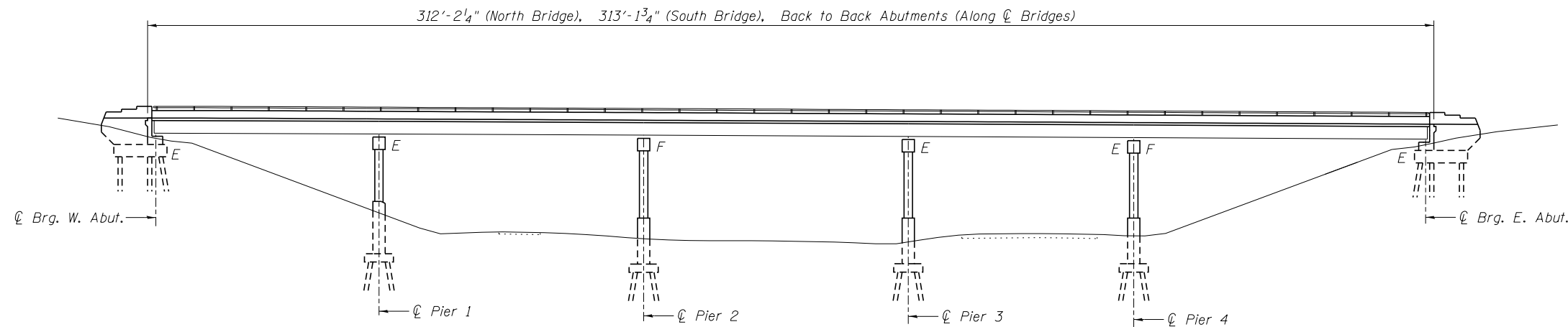
No salvage.

INDEX OF SHEETS

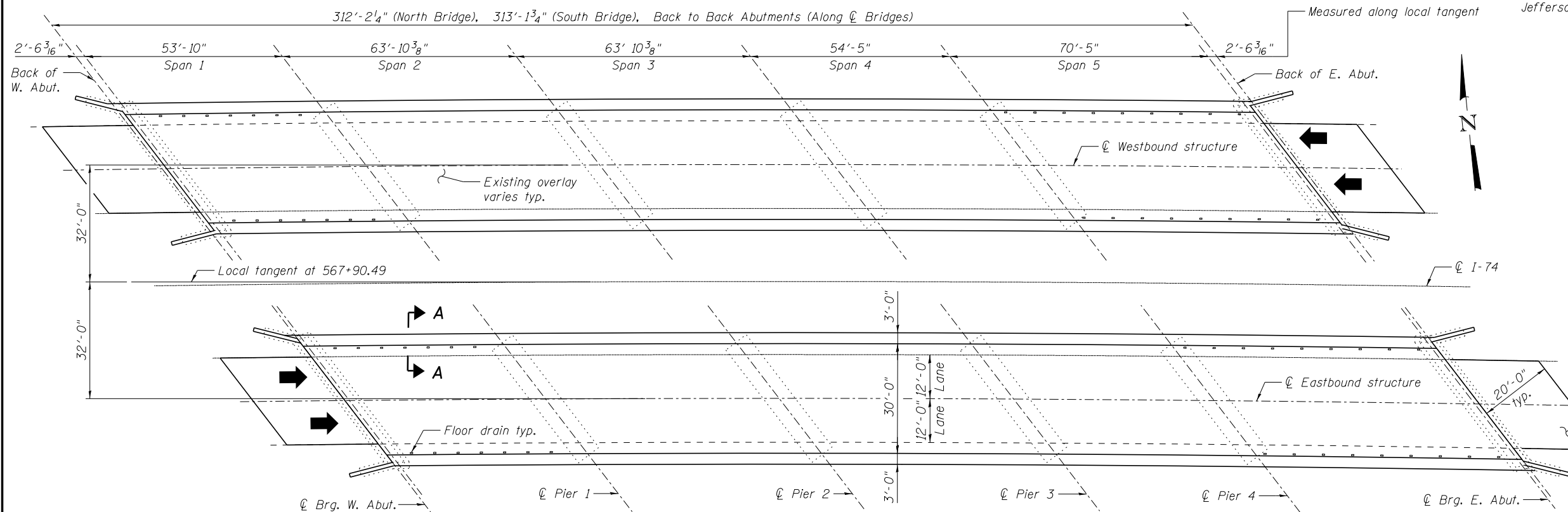
SG1 General Plan and Elevation
SG2 Bridge Deck and Approach Slab Repairs

SCOPE OF WORK

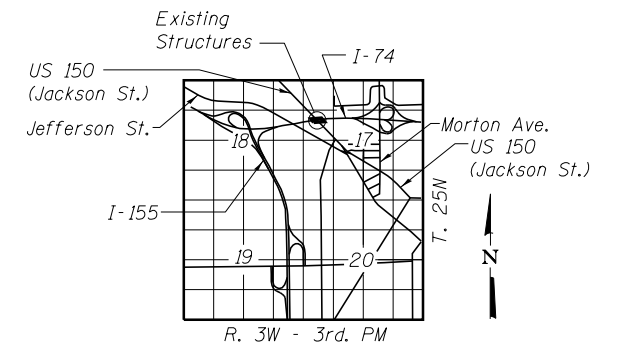
1. Power brush bridge deck surface
2. Clean bridge deck drains
3. Place new 1 1/2" overlay



ELEVATION



PLAN



LOCATION SKETCH

**GENERAL PLAN AND ELEVATION
I-74 OVER JACKSON
F.A.I. RTE. 74
SEC. 90-[14R;(14HB-4,14,14HVB)BR]
TAZEWELL COUNTY
STATION 568+65.40
STRUCTURE NO. 090-0017 (WB)
STRUCTURE NO. 090-0018 (EB)**

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Alfred Benesch & Company
205 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-565-0450 Job No. 10056

FILE NAME = 0900017.68620.01.gpe.dgn
PLOT SCALE =
PLOT DATE = 7/16/2012

USER NAME = mbecker	DESIGNED - DMS	REVISED -
	CHECKED - MRB	REVISED -
	DRAWN - PRT	REVISED -
	CHECKED - MRB	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**GENERAL PLAN AND ELEVATION
EXISTING STRUCTURE NO. 090-0017 / 0018**

SHEET NO. SG1 OF SG2 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R;(14HB-4,14,14HVB)BR]	TAZEWELL	2433	1863
			CONTRACT NO. 68620	

ILLINOIS FED. AID PROJECT

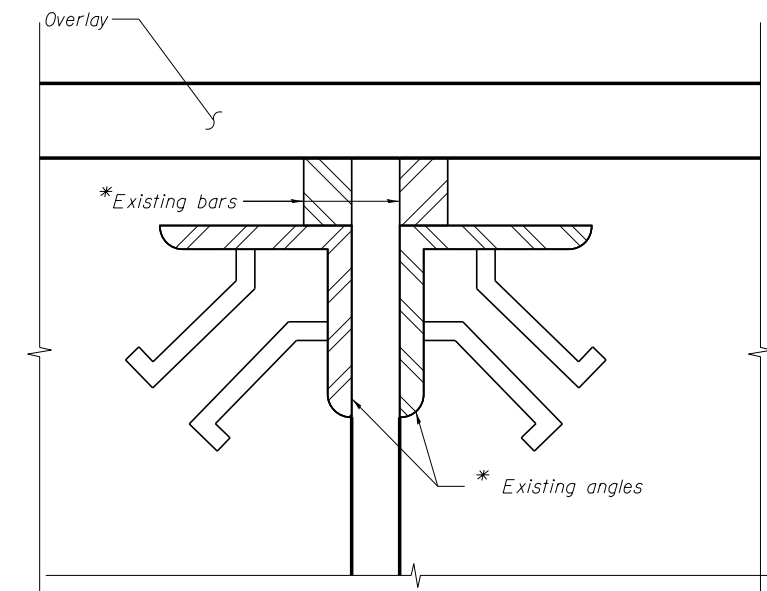
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GENERAL NOTES:

1. 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.
2. Work to be performed before Pre Stage-Sub Stage A of the MOT plans.
3. Work must be performed during off-peak hours and per the IDOT Highway Standards.
4. Deck drains (downspouts, floor drains, and scuppers) shall be cleaned prior to placement of the Hot-Mix Asphalt Surface Course overlay. Cost of cleaning the deck drains is included in Hot-Mix Asphalt Surface Course Mix "E", N50.
5. After placement of the bridge deck overlay, the Resident Engineer shall notify the District Bridge Maintenance Engineer of the "as constructed" overlay thickness for updating the Illinois Highway Information System.

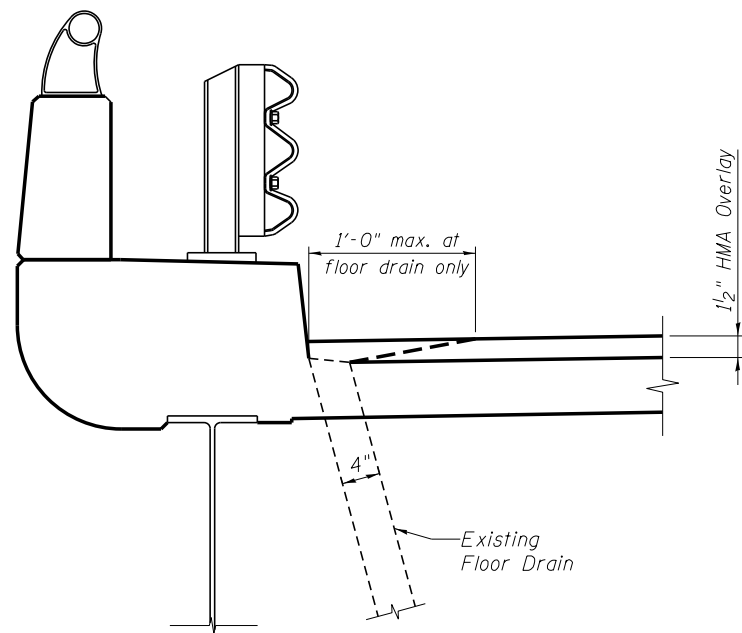
TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Polymerized Bituminous Materials (Prime Coat)	Ton	0.7		0.7
Hot-Mix Asphalt Surface Removal - Butt Joint	Sq. Yd.	800		800
Temporary Ramp	Sq. Yd.	134		134
Hot-Mix Asphalt Surface Course Mix "E", N50	Ton	242.3		242.3



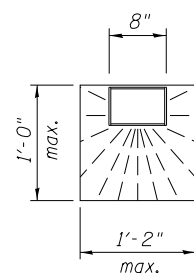
Note: Per inspection, the existing joint opening is closed. Contractor to pave over existing joint. Overlay may pop-out which may result in a minimum bump.

DETAIL "A"



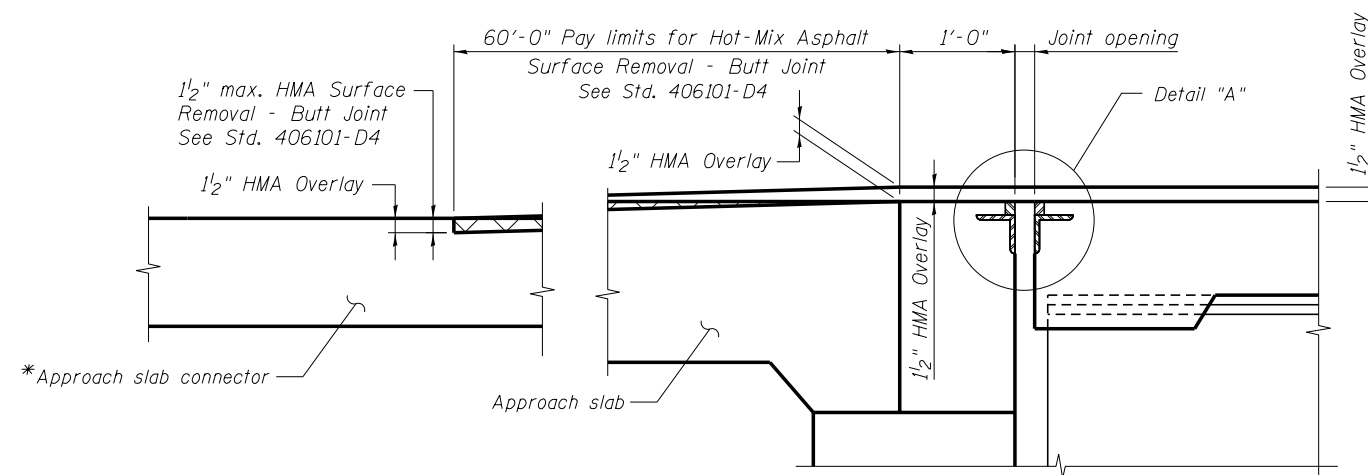
SECTION A-A

CONCRETE OVERLAY AT FLOOR DRAIN



FLOOR DRAIN PLAN

* Field conditions may vary.



SURFACE REMOVAL & OVERLAY TRANSITION DETAIL

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Alfred Benesch & Company
205 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-565-0450 Job No. 10056

FILE NAME =	USER NAME = mbecker	DESIGNED - DMS	REVISED -
		CHECKED - MRB	REVISED -
0900017.68620.02.br-dkr.dgn	PLOT SCALE =	DRAWN - PRT	REVISED -
	PLOT DATE = 7/16/2012	CHECKED - MRB	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**BRIDGE DECK AND APPROACH SLAB REPAIRS
EXISTING STRUCTURE NO. 090-0017 / 0018**

SHEET NO. S2 OF S22 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R;14HB-4,14,14HVB]BR	TAZEWELL	2433	1864
			CONTRACT NO. 68620	
ILLINOIS FED. AID PROJECT				

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 7/16/2012

Bench Mark: Chiseled "L" on Crashwall of W.B.L. I-74 Bridge, C, Pier over Ramps for I55, Elev. 731.95

Existing Structures: S.N. 090-0012 (W.B) and S.N. 090-0013 (E.B.), built 1961 as F.A.I. Route 74 over F.A.I. Route I-155, Section 90-14HB-4. Structure consists of dual 4-span continuous steel WF superstructures, skewed 21°23'12". Abutments are reinforced concrete stub abutments supported by concrete piles. The reinforced concrete multi-column piers are supported by creosoted timber piles. The existing total bridge lengths are 176'-9" back to back of abutments. The superstructure width for each structure is 35'-8". The contractor shall remove and replace these bridges with dual, two-span steel structures. Traffic on I-155 will be detoured during bridge construction. I-74 traffic to be maintained with two lanes in each direction utilizing a four-lane temporary runaround south of the I-74 & I-155 Interchange.

No salvage.

STATION 3+80.29
BUILT 20... BY
STATE OF ILLINOIS
F.A.I. RTE. 74
SEC. 90-[14R;(14HB-4.14.14HVB)BR]
LOADING HL-93
STRUCTURE NO. 090-0165

NAME PLATE
(See Sta. 515001)

STATION 3+80.29
BUILT 20... BY
STATE OF ILLINOIS
F.A.I. RTE. 74
SEC. 90-[14R;(14HB-4.14.14HVB)BR]
LOADING HL-93
STRUCTURE NO. 090-0166

NAME PLATE
(See Sta. 515001)

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

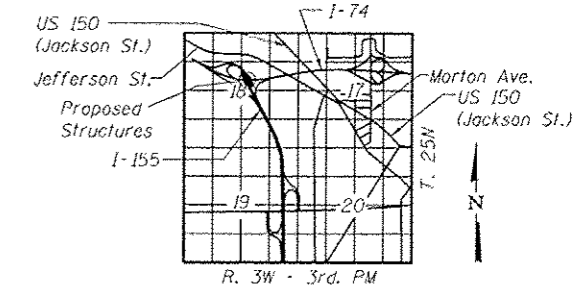
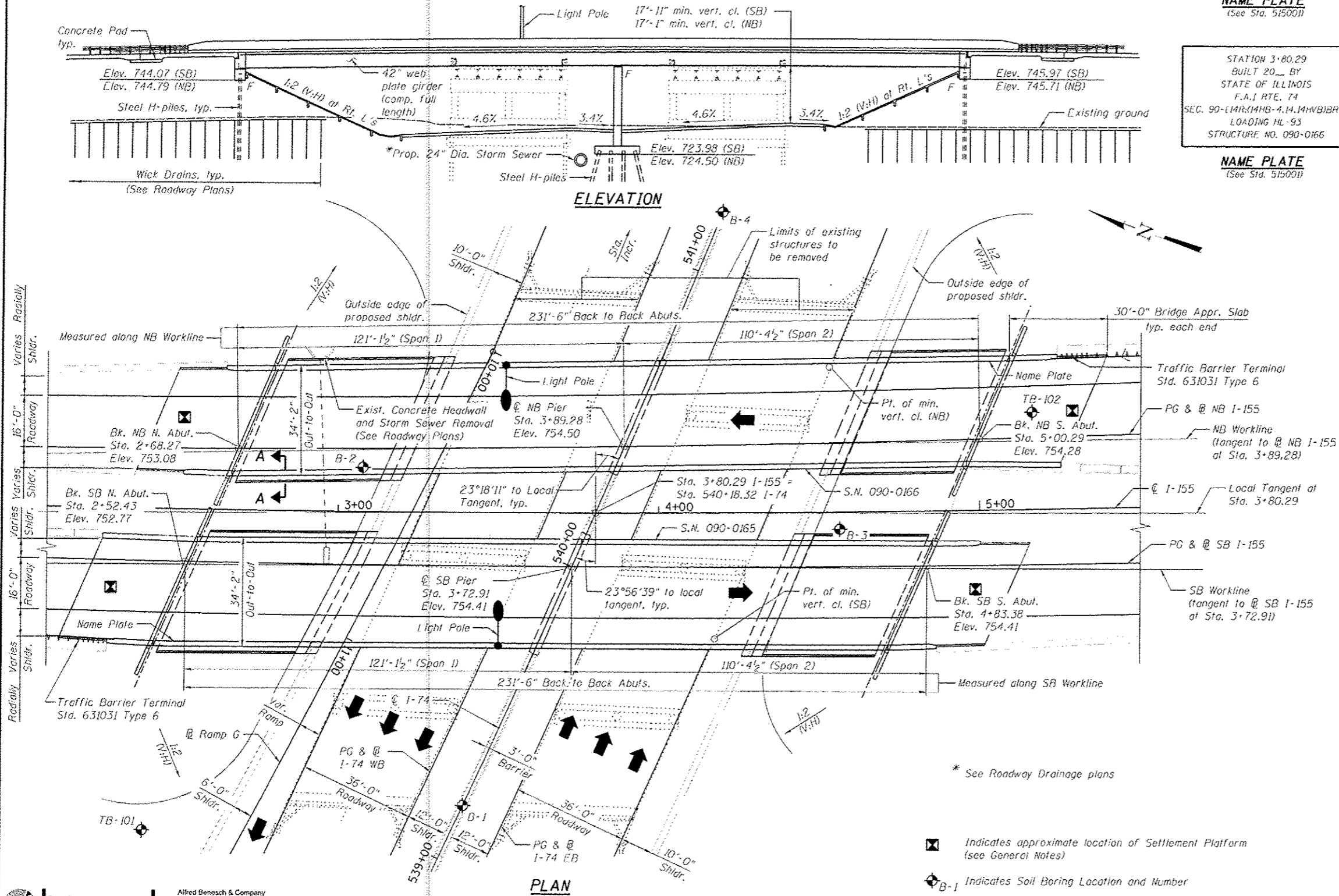
DESIGN SPECIFICATIONS
2010 AASHTO LRFD Bridge Design Specifications
with 2010 Interims

DESIGN STRESSES
FIELD UNITS

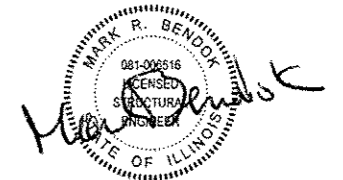
$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)
 $f_y = 50,000$ psi (M270 Grade 50)
 $f_y = 36,000$ psi (M270 Grade 36)

SEISMIC DATA

Seismic Performance Zone (SPZ) = 1
Design Spectral Acceleration at 1.0 sec. (S_{D1}) = 0.115g
Design Spectral Acceleration at 0.2 sec. (S_{D5}) = 0.183g
Soil Site Class = D



LOCATION SKETCH



EXPIRATION DATE 11-30-2012
DATE: 8/17/12

APPROVED
For Structural Adequacy Only

Mark R. Bendok
Engineer of Bridges & Structures

GENERAL PLAN AND ELEVATION
I-155 OVER I-74
F.A.I. RTE. 74
SEC. 90-[14R;(14HB-4.14.14HVB)BR]
TAZEWELL COUNTY
STATION 3+80.29
STRUCTURE NO. 090-0165 (SB)
STRUCTURE NO. 090-0166 (NB)

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Alfred Benesch & Company
205 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-565-0450 Job No. 10056

FILE NAME	USER NAME	DESIGNED	REVISIONS
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		DRAWN	PRT
		CHECKED	MRB

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN AND ELEVATION
STRUCTURE NO. 090-0165 / 0166
SHEET NO. 341 OF 347 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R;(14HB-4.14.14HVB)BR]	TAZEWELL	2433	1865
			CONTRACT NO. 68620	
ILLINOIS FED. AID PROJECT				

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GENERAL NOTES:

- Fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts. Bolts 3/4 in. dia., open holes 1/8 in. dia., unless otherwise noted.
- Calculated weight of Structural Steel:
M 270 Grade 36 = 48,500 pounds
M 270 Grade 50 = 490,570 pounds
- No field welding is permitted except as specified in the contract documents.
- Reinforcement bars designated (E) shall be epoxy coated.
- Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 1/8 in. (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.
- Concrete Sealer shall be applied to the exposed faces of the piers.
- The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on the project.
- 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 Blue, Munsell No. 10B 3/6.
- The embankment configuration shown shall be the minimum that must be placed and compacted prior to construction of the abutments.
- Slipforming of parapets is not allowed.
- Remove existing piers, abutments and wingwalls to 5' below proposed ground within outside edges of proposed I-74 and Ramp G shoulders, and to 2' below proposed ground elsewhere.
- Settlement platforms shall be utilized at the embankments for the proposed abutments to monitor rate of settlement. See Roadway plans and Special Provisions for more information.
- Proposed underdeck lighting shall be attached to the pier and underside of deck for each structure. Contractor shall coordinate the required concrete inserts with the electrical sub-contractor. The location of these inserts shall be submitted to the Engineer prior to installation for approval. See Lighting Plans for more information.

SEQUENCE OF CONSTRUCTION:

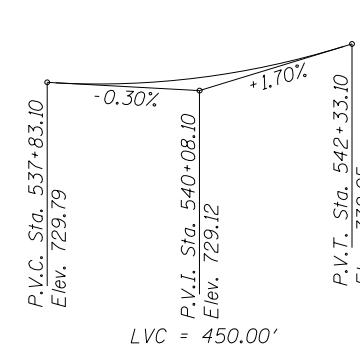
- Per MOT plans, embankment for the I-155 over I-74 bridge approaches shall be placed in Stage 5 at the start of the 2014 construction season. A free draining sand blanket is required across the base of the approach embankment to facilitate consolidation. Wick drains shall also be installed to minimize time required to achieve 90 percent consolidation. Settlement platforms shall be utilized to monitor rate of consolidation. See Roadway Plans for more information.
- Removal of the existing I-74 EB over I-155 structure (SN 090-0013) may begin in Stage 6 when I-74 EB traffic is transferred to the temporary runaround. Removal of the existing I-74 WB over I-155 structure (SN 090-0012) may begin in Stage 7 when I-74 WB traffic is transferred to the temporary runaround.
- Construction of the proposed piers may begin in Stage 7 when all I-74 traffic has been transferred to the temporary runaround.
- Construction of the proposed abutments may begin once 90 percent consolidation has occurred in the proposed embankments as well as the existing soil beneath the proposed embankments.
- Girder erection must be completed for both structures prior to the start of Stage 10 when the WB I-74 traffic is returned to mainline I-74.
- Protective shield shall be required in each deck span that is installed over live traffic. The limits of protective shield shall be out to out bridge width in the transverse direction and the entire length of the span with live traffic in the longitudinal direction.
- Construction of the south approach slabs may not begin until Stage 11 when all I-74 traffic has been returned to the mainline and the temporary runaround is no longer in use.
- Both proposed structures shall be completed at the end of Stage 12 when I-155 traffic returns to mainline I-155 prior to winter shutdown.

INDEX OF SHEETS

- SA1 General Plan and Elevation
- SA2 General Data 1 of 2
- SA3 General Data 2 of 2
- SA4 Footing Layout
- SA5 Top of Deck Elevation Layout
- SA6 Top of Deck Elevations 1 of 4
- SA7 Top of Deck Elevations 2 of 4
- SA8 Top of Deck Elevations 3 of 4
- SA9 Top of Deck Elevations 4 of 4
- SA10 Top of North Approach Slab Elevations
- SA11 Top of South Approach Slab Elevations
- SA12 Superstructure
- SA13 Superstructure Details 1 of 2
- SA14 Superstructure Details 2 of 2
- SA15 Diaphragm Details
- SA16 Bridge Approach Slab Details 1 of 3
- SA17 Bridge Approach Slab Details 2 of 3
- SA18 Bridge Approach Slab Details 3 of 3
- SA19 Framing Plan 1 of 2
- SA20 Framing Plan 2 of 2
- SA21 Girder Details 1 of 3
- SA22 Girder Details 2 of 3
- SA23 Girder Details 3 of 3
- SA24 NB North Abutment Details
- SA25 SB North Abutment Details
- SA26 NB South Abutment Details
- SA27 SB South Abutment Details
- SA28 NB Pier Details
- SA29 SB Pier Details
- SA30 HP Pile Details
- SA31 Bar Splicer Assembly Details
- SA32 Soil Boring Log 1 of 6
- SA33 Soil Boring Log 2 of 6
- SA34 Soil Boring Log 3 of 6
- SA35 Soil Boring Log 4 of 6
- SA36 Soil Boring Log 5 of 6
- SA37 Soil Boring Log 6 of 6
- SA38 Existing Plans
- SA39 Existing Plans
- SA40 Existing Plans
- SA41 Existing Plans
- SA42 Existing Plans
- SA43 Existing Plans
- SA44 Existing Plans
- SA45 Existing Plans
- SA46 Existing Plans
- SA47 Existing Plans

TOTAL BILL OF MATERIAL

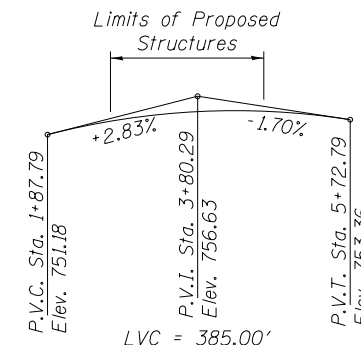
ITEM	UNIT	SUPER	SUB	TOTAL
Removal of Existing Structures No. 1	Each			1
Removal of Existing Structures No. 2	Each			1
Structure Excavation	Cu. Yd.		350	350
Concrete Structures	Cu. Yd.		332.8	332.8
Concrete Superstructure	Cu. Yd.	810.9		810.9
Bridge Deck Grooving	Sq. Yd.	1,865		1,865
Protective Coat	Sq. Yd.	2,515		2,515
Furnishing and Erecting Structural Steel	L Sum	0.20		0.20
Stud Shear Connectors	Each	8,550		8,550
Reinforcement Bars, Epoxy Coated	Pound	197,700	66,420	264,120
Mechanical Splicers	Each		212	212
Slope Wall 4 Inch	Sq. Yd.		872	872
Furnishing Steel Piles HP12X53	Foot		2,159	2,159
Furnishing Steel Piles HP14X89	Foot		4,015	4,015
Driving Piles	Foot		6,174	6,174
Test Pile Steel HP12X53	Each		2	2
Test Pile Steel HP14X89	Each		1	1
Name Plates	Each	2		2
Anchor Bolts, 1"	Each	40		40
Anchor Bolts, 1/4"	Each	20		20
Concrete Sealer	Sq. Ft.		2,273	2,273
Geocomposite Wall Drain	Sq. Yd.		169	169
Pipe Underdrains for Structures 4"	Foot		246	246
Granular Backfill for Structures	Cu. Yd.		317	317



PROFILE GRADE
(@ I-74 EB & WB)

CURVE DATA @ I-74

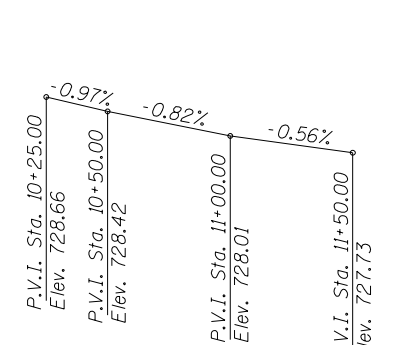
Δ = 38° 41' 45" (LT)
D = 1° 30' 00"
T = 1,341.24'
L = 2,579.73'
E = 228.64'
R = 3,819.72'
S.E. = 4.6%
P.C. = Sta. 523+04.86
P.T. = Sta. 548+84.59
P.I. = Sta. 536+46.10



PROFILE GRADE
(@ I-155 NB & SB)

CURVE DATA @ I-155

Δ = 10° 55' 46" (LT)
D = 0° 42' 58"
T = 765.35'
L = 1,526.05'
E = 36.53'
R = 8,000.00'
S.E. = NC
P.C. = Sta. 0+00.00
P.T. = Sta. 15+26.05
P.I. = Sta. 7+65.35



PROFILE GRADE
(@ Ramp G)

CURVE DATA RAMP G

Δ = 12° 27' 09" (RT)
D = 1° 31' 27"
T = 410.12'
L = 817.01'
E = 22.31'
R = 3,759.17'
S.E. = 4.6%
P.C. = Sta. 10+00.00
P.T. = Sta. 18+17.01
P.I. = Sta. 14+10.12



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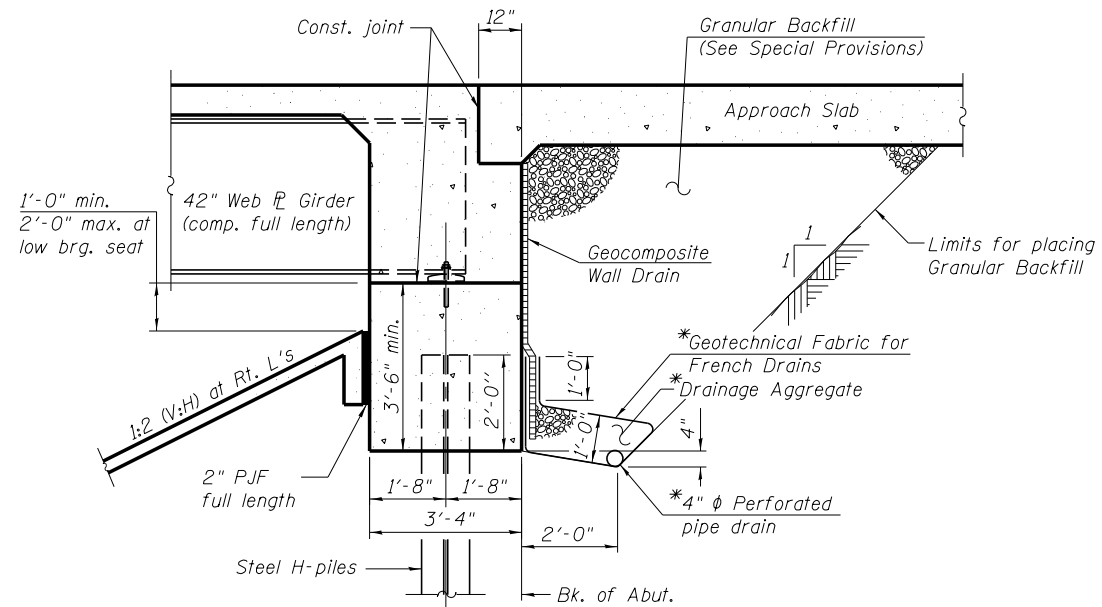
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL DATA 1 OF 2
STRUCTURE NO. 090-0165 / 0166

SHEET NO. SA2 OF SA47 SHEETS

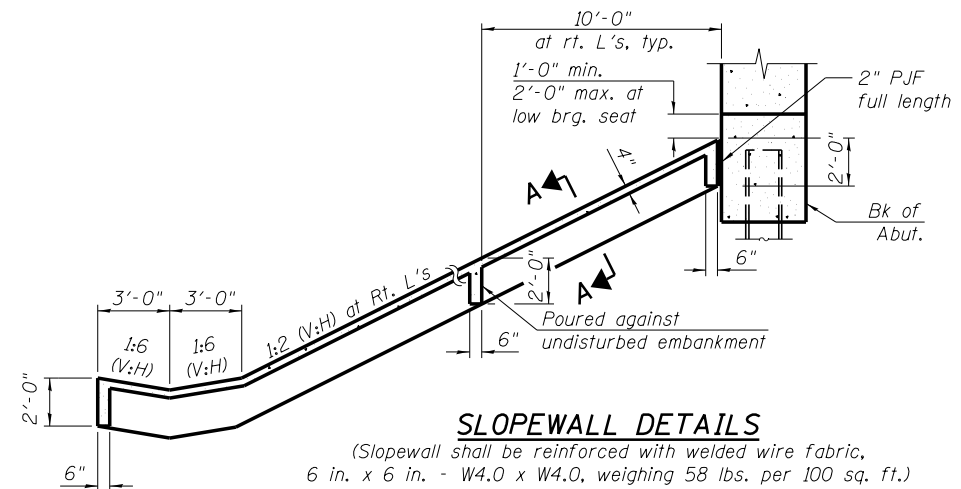
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R(14HB-4,14,14HB)BR]	TAZEWELL	2433	1866
CONTRACT NO. 68620				
ILLINOIS FED. AID PROJECT				



SECTION THRU ABUTMENT
(Horiz. dim. at Rt. L's)

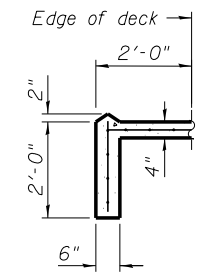
*Included in the cost of Pipe Underdrains for Structures.

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). All drainage system components shall be capped at median end and shall drain away from the median.

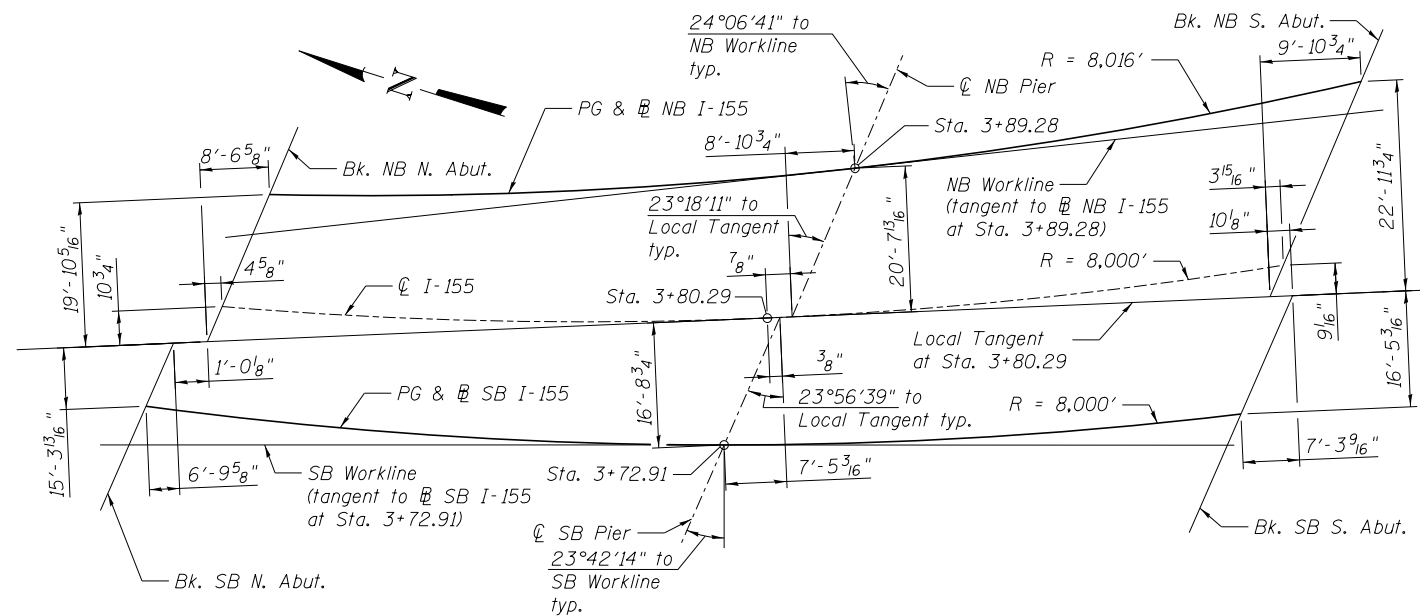


SLOPEWALL DETAILS

(Sloped 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.)



SECTION A-A



OFFSET SKETCH

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0900165.68620.03.gndt2.dgn

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PLOT SCALE =
PLOT DATE = 7/16/2012

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REVISION -
REVISION -
REVISION -
REVISION -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

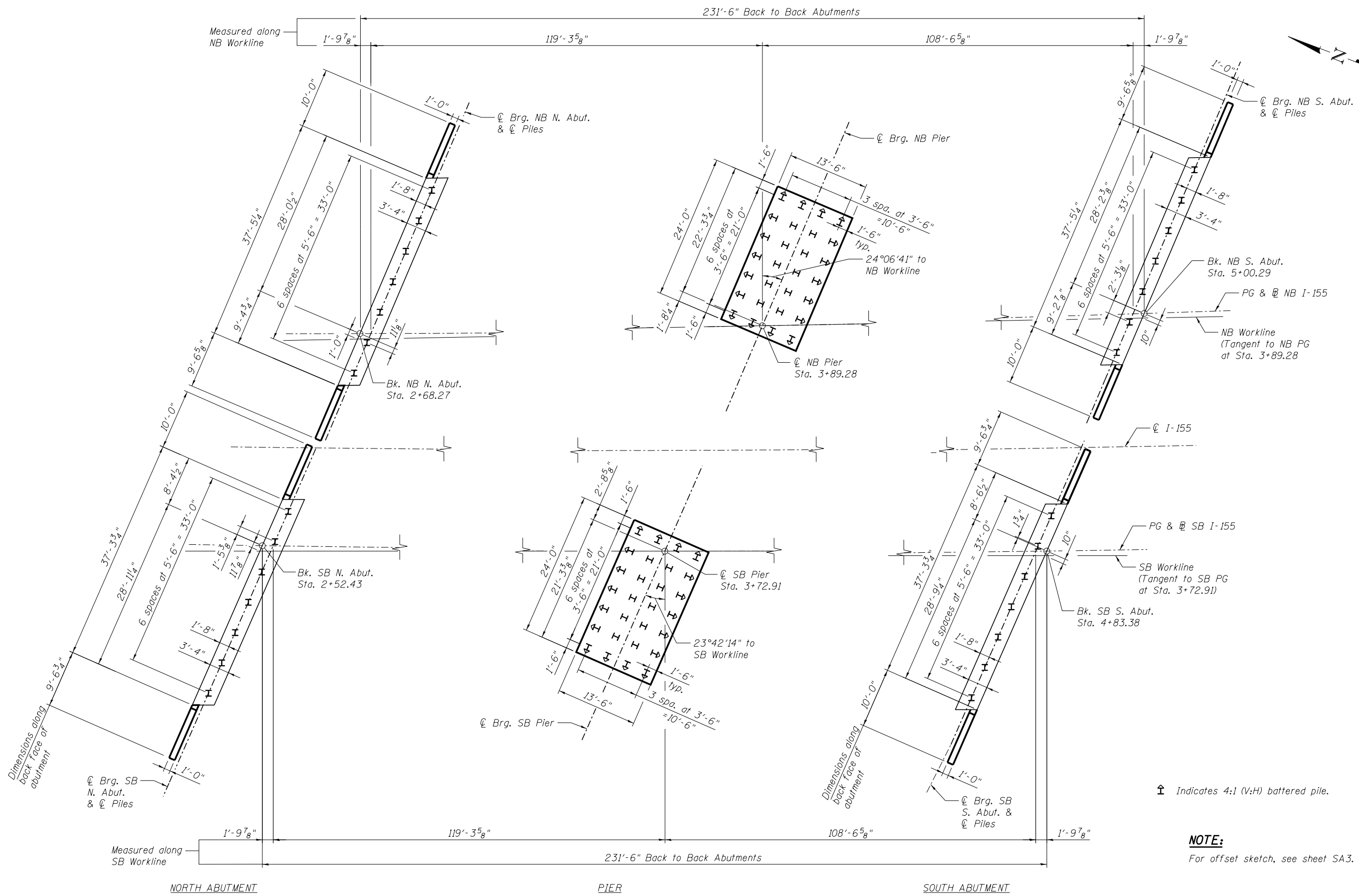
**GENERAL DATA 2 OF 2
STRUCTURE NO. 090-0165 / 0166**

SHEET NO. SA3 OF SA47 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R;14HB-4;14,14HVB]BRJ	TAZEWELL	2433	1867
CONTRACT NO. 68620				

ILLINOIS FED. AID PROJECT

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NOTE:
For offset sketch, see sheet SA3.

FOOTING LAYOUT

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FOOTING LAYOUT
STRUCTURE NO. 090-0165 / 0166

SHEET NO. SA4 OF SA47 SHEETS

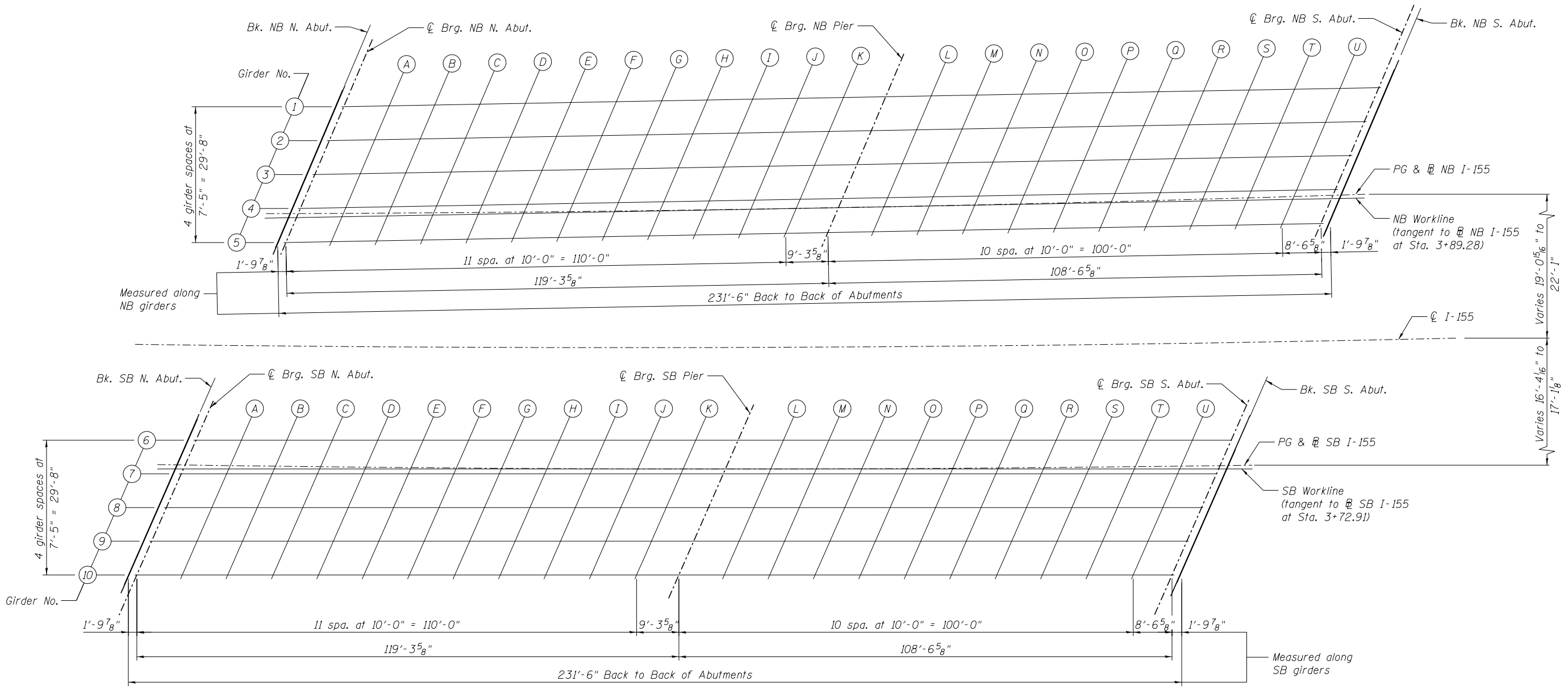
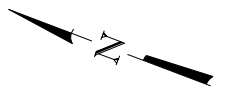
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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R]14HB-4,14,14HVB[BR]	TAZEWELL	2433	1868
CONTRACT NO. 68620				
ILLINOIS FED. AID PROJECT				

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PLAN

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REVISIED -
REVISIED -
REVISIED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

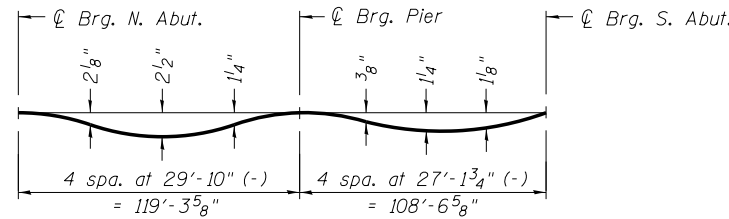
**TOP OF DECK ELEVATIONS LAYOUT
STRUCTURE NO. 090-0165 / 0166**

SHEET NO. SA5 OF SA47 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 68620				

ILLINOIS FED. AID PROJECT

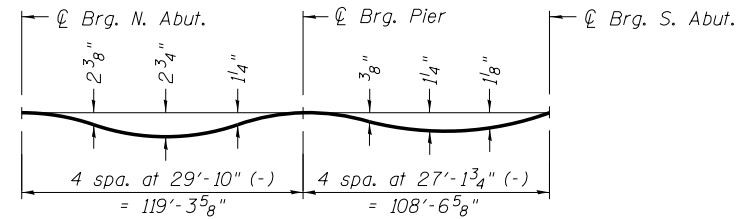
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DEAD LOAD DEFLECTION DIAGRAM (EXTERIOR GIRDERS)

(Includes weight of concrete only)

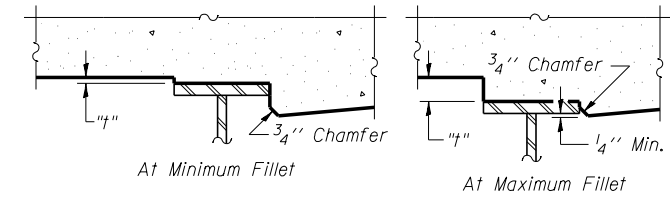
Note: The above deflections are not for use in the field if the Engineer is working from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" as shown below and on sheets SA7 thru SA9.



DEAD LOAD DEFLECTION DIAGRAM (INTERIOR GIRDERS)

(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" as shown below and on sheets SA7 thru SA9.



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

FILLET HEIGHTS

GIRDER 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	2+78.11	-42.70	752.85	752.85
☉ Brg. N. Abut.	2+79.94	-42.75	752.88	752.88
A	2+89.99	-43.01	753.05	753.12
B	3+00.04	-43.25	753.21	753.34
C	3+10.10	-43.49	753.35	753.53
D	3+20.15	-43.71	753.48	753.69
E	3+30.20	-43.92	753.60	753.82
F	3+40.26	-44.12	753.71	753.92
G	3+50.31	-44.30	753.81	753.99
H	3+60.36	-44.48	753.89	754.04
I	3+70.42	-44.63	753.97	754.06
J	3+80.47	-44.78	754.03	754.08
K	3+90.53	-44.92	754.08	754.10
☉ Brg. Pier	3+99.88	-45.03	754.12	754.12
L	4+09.93	-45.14	754.14	754.14
M	4+19.99	-45.24	754.16	754.17
N	4+30.05	-45.32	754.17	754.20
O	4+40.10	-45.40	754.16	754.22
P	4+50.16	-45.46	754.14	754.23
Q	4+60.22	-45.50	754.11	754.22
R	4+70.27	-45.54	754.07	754.18
S	4+80.33	-45.56	754.02	754.11
T	4+90.39	-45.57	753.95	754.02
U	5+00.45	-45.57	753.87	753.91
☉ Brg. S. Abut.	5+09.04	-45.56	753.80	753.80
Bk. S. Abut.	5+10.88	-45.55	753.78	753.78

GIRDER 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	2+74.98	-35.19	752.95	752.95
☉ Brg. N. Abut.	2+76.81	-35.24	752.98	752.98
A	2+86.85	-35.51	753.16	753.23
B	2+96.89	-35.76	753.31	753.46
C	3+06.93	-36.00	753.46	753.65
D	3+16.98	-36.22	753.60	753.82
E	3+27.02	-36.44	753.72	753.96
F	3+37.06	-36.64	753.83	754.06
G	3+47.11	-36.83	753.93	754.13
H	3+57.15	-37.00	754.02	754.18
I	3+67.20	-37.17	754.10	754.20
J	3+77.24	-37.32	754.17	754.22
K	3+87.29	-37.46	754.22	754.24
☉ Brg. Pier	3+96.63	-37.57	754.26	754.26
L	4+06.68	-37.69	754.29	754.29
M	4+16.72	-37.79	754.31	754.33
N	4+26.77	-37.88	754.32	754.36
O	4+36.82	-37.96	754.32	754.39
P	4+46.87	-38.02	754.30	754.40
Q	4+56.91	-38.07	754.28	754.39
R	4+66.96	-38.11	754.24	754.35
S	4+77.01	-38.14	754.19	754.29
T	4+87.06	-38.15	754.13	754.20
U	4+97.10	-38.15	754.06	754.09
☉ Brg. S. Abut.	5+05.69	-38.14	753.98	753.98
Bk. S. Abut.	5+07.53	-38.14	753.97	753.97

GIRDER 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	2+71.85	-27.69	753.01	753.01
☉ Brg. N. Abut.	2+73.68	-27.74	753.05	753.05
A	2+83.71	-28.01	753.22	753.30
B	2+93.74	-28.26	753.38	753.53
C	3+03.78	-28.50	753.53	753.73
D	3+13.81	-28.73	753.67	753.90
E	3+23.84	-28.95	753.80	754.04
F	3+33.88	-29.16	753.92	754.15
G	3+43.91	-29.35	754.02	754.22
H	3+53.95	-29.53	754.11	754.27
I	3+63.98	-29.70	754.20	754.30
J	3+74.02	-29.85	754.27	754.32
K	3+84.06	-30.00	754.32	754.34
☉ Brg. Pier	3+93.39	-30.12	754.37	754.37
L	4+03.43	-30.24	754.40	754.40
M	4+13.46	-30.34	754.43	754.44
N	4+23.50	-30.44	754.44	754.48
O	4+33.54	-30.52	754.44	754.51
P	4+43.58	-30.58	754.43	754.53
Q	4+53.61	-30.64	754.41	754.52
R	4+63.65	-30.68	754.37	754.49
S	4+73.69	-30.71	754.32	754.43
T	4+83.73	-30.73	754.27	754.34
U	4+93.77	-30.74	754.20	754.24
☉ Brg. S. Abut.	5+02.35	-30.73	754.13	754.13
Bk. S. Abut.	5+04.18	-30.73	754.11	754.11

NOTE:

All stations and offsets are measured from ☉ I-155.

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F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R(14HB-4,14,14HV)BR]	TAZEWELL	2433	1870
CONTRACT NO. 68620			ILLINOIS FED. AID PROJECT	

GIRDER 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	2+68.73	-20.18	753.07	753.07
☉ Brg. N. Abut.	2+70.56	-20.23	753.10	753.10
A	2+80.58	-20.50	753.28	753.36
B	2+90.60	-20.76	753.45	753.59
C	3+00.63	-21.01	753.60	753.80
D	3+10.65	-21.24	753.75	753.97
E	3+20.67	-21.47	753.88	754.12
F	3+30.70	-21.68	754.00	754.23
G	3+40.72	-21.87	754.11	754.30
H	3+50.75	-22.06	754.20	754.36
I	3+60.78	-22.23	754.29	754.39
J	3+70.80	-22.39	754.36	754.42
K	3+80.83	-22.53	754.42	754.44
☉ Brg. Pier	3+90.15	-22.66	754.47	754.47
L	4+00.18	-22.78	754.51	754.51
M	4+10.21	-22.89	754.54	754.55
N	4+20.24	-22.99	754.55	754.59
O	4+30.26	-23.07	754.56	754.63
P	4+40.29	-23.15	754.55	754.65
Q	4+50.32	-23.21	754.53	754.64
R	4+60.35	-23.25	754.50	754.62
S	4+70.38	-23.29	754.46	754.56
T	4+80.41	-23.31	754.40	754.48
U	4+90.44	-23.32	754.34	754.38
☉ Brg. S. Abut.	4+99.01	-23.32	754.27	754.27
Bk. S. Abut.	5+00.84	-23.32	754.26	754.26

PG & ☉ NB I-155

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	2+68.27	-19.08	753.08	753.08
☉ Brg. N. Abut.	2+70.09	-19.10	753.11	753.11
A	2+80.05	-19.23	753.29	753.37
B	2+90.01	-19.36	753.46	753.60
C	2+99.99	-19.49	753.62	753.81
D	3+09.96	-19.62	753.76	753.99
E	3+19.95	-19.75	753.90	754.13
F	3+29.94	-19.88	754.02	754.25
G	3+39.93	-20.01	754.13	754.33
H	3+49.93	-20.14	754.22	754.38
I	3+59.93	-20.27	754.31	754.42
J	3+69.95	-20.40	754.39	754.44
K	3+79.96	-20.53	754.45	754.47
☉ Brg. Pier	3+89.28	-20.65	754.50	754.50
L	3+99.31	-20.78	754.54	754.54
M	4+09.34	-20.91	754.56	754.58
N	4+19.38	-21.04	754.58	754.62
O	4+29.43	-21.17	754.59	754.66
P	4+39.48	-21.30	754.58	754.68
Q	4+49.54	-21.43	754.56	754.67
R	4+59.60	-21.56	754.53	754.64
S	4+69.67	-21.69	754.49	754.59
T	4+79.74	-21.82	754.43	754.51
U	4+89.82	-21.95	754.36	754.40
☉ Brg. S. Abut.	4+98.44	-22.06	754.30	754.30
Bk. S. Abut.	5+00.29	-22.08	754.28	754.28

GIRDER 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	2+65.61	-12.67	752.90	752.90
☉ Brg. N. Abut.	2+67.44	-12.73	752.93	752.93
A	2+77.45	-13.00	753.12	753.19
B	2+87.47	-13.26	753.29	753.42
C	2+97.48	-13.52	753.46	753.63
D	3+07.49	-13.75	753.61	753.82
E	3+17.51	-13.98	753.74	753.96
F	3+27.52	-14.19	753.87	754.08
G	3+37.54	-14.39	753.99	754.17
H	3+47.56	-14.58	754.09	754.23
I	3+57.57	-14.76	754.18	754.27
J	3+67.59	-14.92	754.26	754.31
K	3+77.61	-15.07	754.32	754.34
☉ Brg. Pier	3+86.92	-15.20	754.37	754.37
L	3+96.94	-15.33	754.42	754.41
M	4+06.96	-15.44	754.45	754.46
N	4+16.98	-15.54	754.46	754.50
O	4+27.00	-15.63	754.47	754.54
P	4+37.02	-15.71	754.47	754.56
Q	4+47.04	-15.77	754.45	754.55
R	4+57.06	-15.82	754.42	754.53
S	4+67.08	-15.86	754.38	754.47
T	4+77.10	-15.89	754.32	754.39
U	4+87.12	-15.90	754.26	754.29
☉ Brg. S. Abut.	4+95.68	-15.90	754.19	754.19
Bk. S. Abut.	4+97.51	-15.90	754.18	754.18

NOTE:

All stations and offsets are measured from ☉ I-155.



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312-565-0450 Job No. 10056

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PLOT SCALE =	CHECKED - AAY	REVISED -
PLOT DATE = 7/16/2012	DRAWN - PRT	REVISED -
	CHECKED - MRB	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF DECK ELEVATIONS 2 OF 4
STRUCTURE NO. 090-0165 / 0166

SHEET NO. SA7 OF SA47 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14Rz(14HB-4,14,14HVB)BR]	TAZEWELL	2433	1871
CONTRACT NO. 68620			ILLINOIS FED. AID PROJECT	

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GIRDER 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	2+54.74	10.89	752.70	752.70
⊘ Brg. N. Abut.	2+56.56	10.87	752.74	752.74
A	2+66.55	10.76	752.93	753.00
B	2+76.53	10.67	753.11	753.24
C	2+86.52	10.59	753.28	753.46
D	2+96.50	10.52	753.44	753.65
E	3+06.49	10.46	753.59	753.81
F	3+16.48	10.42	753.72	753.93
G	3+26.47	10.38	753.85	754.03
H	3+36.45	10.37	753.96	754.10
I	3+46.44	10.36	754.06	754.16
J	3+56.43	10.36	754.15	754.20
K	3+66.41	10.38	754.23	754.25
⊘ Brg. Pier	3+75.70	10.41	754.29	754.29
L	3+85.69	10.45	754.35	754.35
M	3+95.68	10.51	754.39	754.41
N	4+05.66	10.58	754.43	754.46
O	4+15.65	10.66	754.45	754.51
P	4+25.64	10.75	754.46	754.55
Q	4+35.62	10.85	754.46	754.56
R	4+45.61	10.97	754.44	754.55
S	4+55.59	11.10	754.42	754.51
T	4+65.58	11.24	754.38	754.45
U	4+75.56	11.40	754.34	754.37
⊘ Brg. S. Abut.	4+84.10	11.54	754.29	754.29
Bk. S. Abut.	4+85.92	11.57	754.28	754.28

PG & ⊘ SB I-155

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	2+52.43	16.34	752.77	752.77
⊘ Brg. N. Abut.	2+54.23	16.34	752.80	752.80
A	2+64.15	16.38	753.00	753.08
B	2+74.08	16.41	753.19	753.33
C	2+84.00	16.44	753.36	753.55
D	2+93.94	16.48	753.52	753.75
E	3+03.88	16.51	753.68	753.91
F	3+13.82	16.54	753.82	754.05
G	3+23.77	16.57	753.94	754.14
H	3+33.73	16.61	754.06	754.22
I	3+43.69	16.64	754.16	754.27
J	3+53.65	16.67	754.26	754.32
K	3+63.63	16.70	754.34	754.36
⊘ Brg. Pier	3+72.91	16.74	754.41	754.41
L	3+82.89	16.77	754.46	754.46
M	3+92.87	16.80	754.51	754.53
N	4+02.87	16.83	754.55	754.59
O	4+12.87	16.87	754.57	754.64
P	4+22.87	16.90	754.58	754.68
Q	4+32.88	16.93	754.58	754.70
R	4+42.89	16.96	754.57	754.69
S	4+52.91	17.00	754.55	754.65
T	4+62.94	17.03	754.52	754.59
U	4+72.97	17.06	754.47	754.51
⊘ Brg. S. Abut.	4+81.56	17.09	754.42	754.42
Bk. S. Abut.	4+83.38	17.10	754.41	754.41

GIRDER 7

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	2+51.58	18.34	752.72	752.72
⊘ Brg. N. Abut.	2+53.39	18.32	752.76	752.76
A	2+63.37	18.21	752.96	753.03
B	2+73.35	18.11	753.15	753.29
C	2+83.33	18.03	753.32	753.52
D	2+93.30	17.95	753.49	753.72
E	3+03.28	17.89	753.64	753.88
F	3+13.26	17.85	753.79	754.02
G	3+23.24	17.81	753.92	754.12
H	3+33.21	17.79	754.04	754.19
I	3+43.19	17.78	754.14	754.25
J	3+53.17	17.78	754.24	754.29
K	3+63.15	17.79	754.32	754.34
⊘ Brg. Pier	3+72.43	17.82	754.39	754.39
L	3+82.40	17.86	754.44	754.44
M	3+92.38	17.91	754.49	754.51
N	4+02.36	17.97	754.53	754.57
O	4+12.34	18.05	754.55	754.62
P	4+22.31	18.13	754.56	754.66
Q	4+32.29	18.23	754.56	754.68
R	4+42.27	18.35	754.55	754.67
S	4+52.24	18.47	754.53	754.63
T	4+62.22	18.61	754.49	754.57
U	4+72.20	18.76	754.45	754.48
⊘ Brg. S. Abut.	4+80.73	18.90	754.40	754.40
Bk. S. Abut.	4+82.54	18.93	754.38	754.38

NOTE:

All stations and offsets are measured from ⊘ I-155.

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		CHECKED -	AAV	REVISOR -			
		PLOT SCALE =		DRAWN -	PRT	REVISOR -	
		PLOT DATE =	7/16/2012	CHECKED -	MRB	REVISOR -	

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R;14HB-4;14,14HVB]BR	TAZEWELL	2433	1872
CONTRACT NO. 68620			ILLINOIS FED. AID PROJECT	

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GIRDER 8

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	2+48.42	25.80	752.53	752.53
⊘ Brg. N. Abut.	2+50.24	25.78	752.57	752.57
A	2+60.20	25.66	752.78	752.85
B	2+70.17	25.56	752.97	753.11
C	2+80.14	25.47	753.15	753.35
D	2+90.11	25.39	753.32	753.55
E	3+00.07	25.33	753.48	753.72
F	3+10.04	25.28	753.63	753.86
G	3+20.01	25.24	753.76	753.96
H	3+29.98	25.21	753.88	754.04
I	3+39.95	25.20	753.99	754.10
J	3+49.92	25.19	754.09	754.15
K	3+59.89	25.20	754.18	754.20
⊘ Brg. Pier	3+69.16	25.22	754.25	754.25
L	3+79.13	25.26	754.31	754.31
M	3+89.09	25.30	754.36	754.38
N	3+99.06	25.36	754.40	754.44
O	4+09.03	25.44	754.43	754.50
P	4+19.00	25.52	754.45	754.54
Q	4+28.97	25.62	754.45	754.56
R	4+38.93	25.73	754.44	754.56
S	4+48.90	25.85	754.42	754.53
T	4+58.87	25.98	754.39	754.47
U	4+68.83	26.13	754.35	754.39
⊘ Brg. S. Abut.	4+77.36	26.26	754.30	754.30
Bk. S. Abut.	4+79.17	26.29	754.29	754.29

GIRDER 9

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	2+45.27	33.26	752.35	752.35
⊘ Brg. N. Abut.	2+47.08	33.23	752.39	752.39
A	2+57.04	33.11	752.59	752.67
B	2+67.00	33.01	752.79	752.94
C	2+76.96	32.91	752.98	753.17
D	2+86.92	32.83	753.15	753.38
E	2+96.87	32.77	753.31	753.55
F	3+06.83	32.71	753.46	753.69
G	3+16.79	32.67	753.60	753.80
H	3+26.75	32.63	753.73	753.88
I	3+36.71	32.62	753.84	753.95
J	3+46.67	32.61	753.94	754.00
K	3+56.63	32.62	754.03	754.06
⊘ Brg. Pier	3+65.89	32.63	754.11	754.11
L	3+75.85	32.66	754.18	754.17
M	3+85.81	32.70	754.23	754.25
N	3+95.77	32.76	754.27	754.32
O	4+05.73	32.83	754.31	754.38
P	4+15.69	32.91	754.33	754.42
Q	4+25.65	33.00	754.33	754.45
R	4+35.61	33.10	754.33	754.45
S	4+45.56	33.22	754.31	754.42
T	4+55.52	33.35	754.29	754.36
U	4+65.48	33.49	754.25	754.28
⊘ Brg. S. Abut.	4+73.99	33.63	754.20	754.20
Bk. S. Abut.	4+75.81	33.65	754.19	754.19

GIRDER 10

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	2+42.12	40.71	752.12	752.12
⊘ Brg. N. Abut.	2+43.93	40.69	752.16	752.16
A	2+53.88	40.57	752.38	752.45
B	2+63.83	40.46	752.58	752.71
C	2+73.78	40.36	752.77	752.94
D	2+83.73	40.28	752.94	753.15
E	2+93.68	40.20	753.11	753.33
F	3+03.63	40.14	753.26	753.47
G	3+13.58	40.09	753.40	753.59
H	3+23.53	40.06	753.53	753.68
I	3+33.48	40.04	753.65	753.75
J	3+43.43	40.03	753.76	753.81
K	3+53.38	40.03	753.85	753.87
⊘ Brg. Pier	3+62.64	40.04	753.93	753.93
L	3+72.59	40.07	754.00	754.00
M	3+82.54	40.11	754.06	754.07
N	3+92.49	40.16	754.11	754.14
O	4+02.44	40.22	754.14	754.21
P	4+12.39	40.30	754.17	754.26
Q	4+22.33	40.38	754.18	754.28
R	4+32.28	40.49	754.18	754.28
S	4+42.23	40.60	754.17	754.26
T	4+52.18	40.72	754.14	754.21
U	4+62.13	40.86	754.11	754.14
⊘ Brg. S. Abut.	4+70.64	40.99	754.07	754.07
Bk. S. Abut.	4+72.45	41.02	754.06	754.06

NOTE:

All stations and offsets are measured from ⊘ I-155.

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		CHECKED -	AAV	REVISED -			
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		PLOT DATE =	7/16/2012	CHECKED -	MRB	REVISED -	

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14Rz(14HB-4,14,14HVB)BR]	TAZEWELL	2433	1873
CONTRACT NO. 68620			ILLINOIS FED. AID PROJECT	

NB EDGE OF OUTSIDE SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
N. End of N. Appr. Slab	2+49.46	-42.83	752.29
N1	2+59.38	-43.03	752.49
N2	2+69.39	-43.22	752.68
S. End of N. Appr. Slab	2+79.49	-43.40	752.86

NB OUTSIDE EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
N. End of N. Appr. Slab	2+46.14	-34.79	752.38
N1	2+56.01	-34.92	752.59
N2	2+65.99	-35.05	752.79
S. End of N. Appr. Slab	2+76.06	-35.18	752.97

PG & @ NB I-155 & NB INSIDE EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
N. End of N. Appr. Slab	2+39.51	-18.70	752.49
N1	2+49.37	-18.83	752.70
N2	2+59.31	-18.96	752.91
S. End of N. Appr. Slab	2+69.36	-19.09	753.10

SB EDGE OF INSIDE SHOULDER

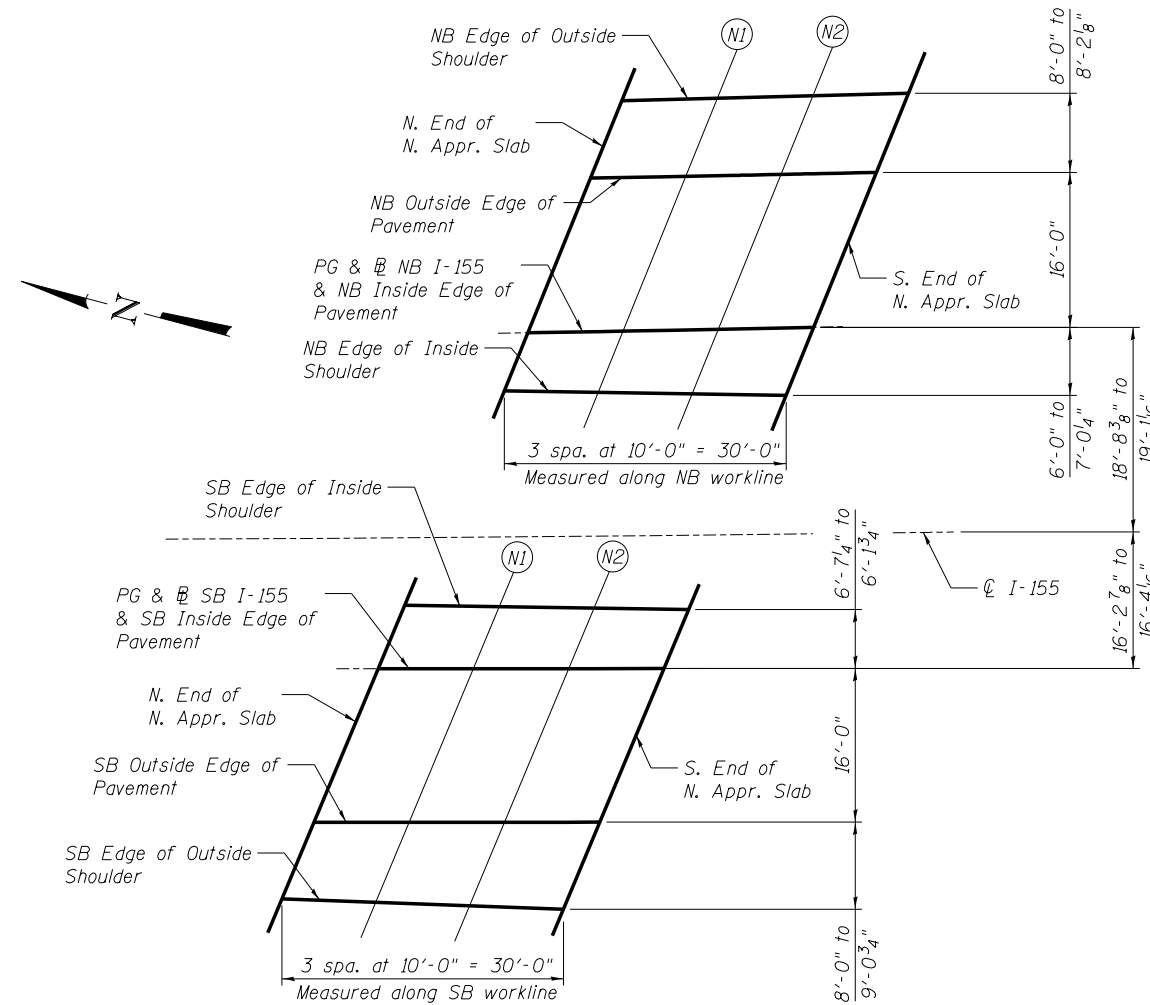
Location	Station	Offset	Theoretical Grade Elevations
N. End of N. Appr. Slab	2+26.56	9.65	752.05
N1	2+36.32	9.82	752.28
N2	2+46.18	10.01	752.50
S. End of N. Appr. Slab	2+56.12	10.21	752.71

PG & @ SB I-155 & SB INSIDE EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
N. End of N. Appr. Slab	2+23.79	16.24	752.13
N1	2+33.60	16.28	752.36
N2	2+43.51	16.31	752.58
S. End of N. Appr. Slab	2+53.51	16.34	752.79

SB OUTSIDE EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
N. End of N. Appr. Slab	2+17.09	32.22	751.71
N1	2+26.88	32.25	751.95
N2	2+36.77	32.29	752.18
S. End of N. Appr. Slab	2+46.75	32.32	752.40



PLAN
(North Approach Slabs)

NB EDGE OF INSIDE SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
N. End of N. Appr. Slab	2+37.03	-12.67	752.31
N1	2+46.74	-12.47	752.52
N2	2+56.54	-12.26	752.71
S. End of N. Appr. Slab	2+66.43	-12.03	752.90

SB EDGE OF OUTSIDE SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
N. End of N. Appr. Slab	2+13.75	40.21	751.46
N1	2+23.39	40.58	751.69
N2	2+33.12	40.97	751.91
S. End of N. Appr. Slab	2+42.93	41.37	752.13

NOTE:
All stations and offsets are measured from @ I-155.

NB EDGE OF OUTSIDE SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
N. End of S. Appr. Slab	5+10.08	-46.22	753.78
S1	5+20.31	-46.36	753.67
S2	5+30.44	-46.49	753.56
S. End of S. Appr. Slab	5+40.48	-46.60	753.43

NB OUTSIDE EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
N. End of S. Appr. Slab	5+06.44	-38.16	753.98
S1	5+16.64	-38.29	753.88
S2	5+26.77	-38.42	753.77
S. End of S. Appr. Slab	5+36.81	-38.55	753.64

PG & @ NB I-155 & NB INSIDE EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
N. End of S. Appr. Slab	4+99.18	-22.07	754.29
S1	5+09.37	-22.20	754.20
S2	5+19.46	-22.33	754.10
S. End of S. Appr. Slab	5+29.48	-22.46	753.98

SB EDGE OF INSIDE SHOULDER

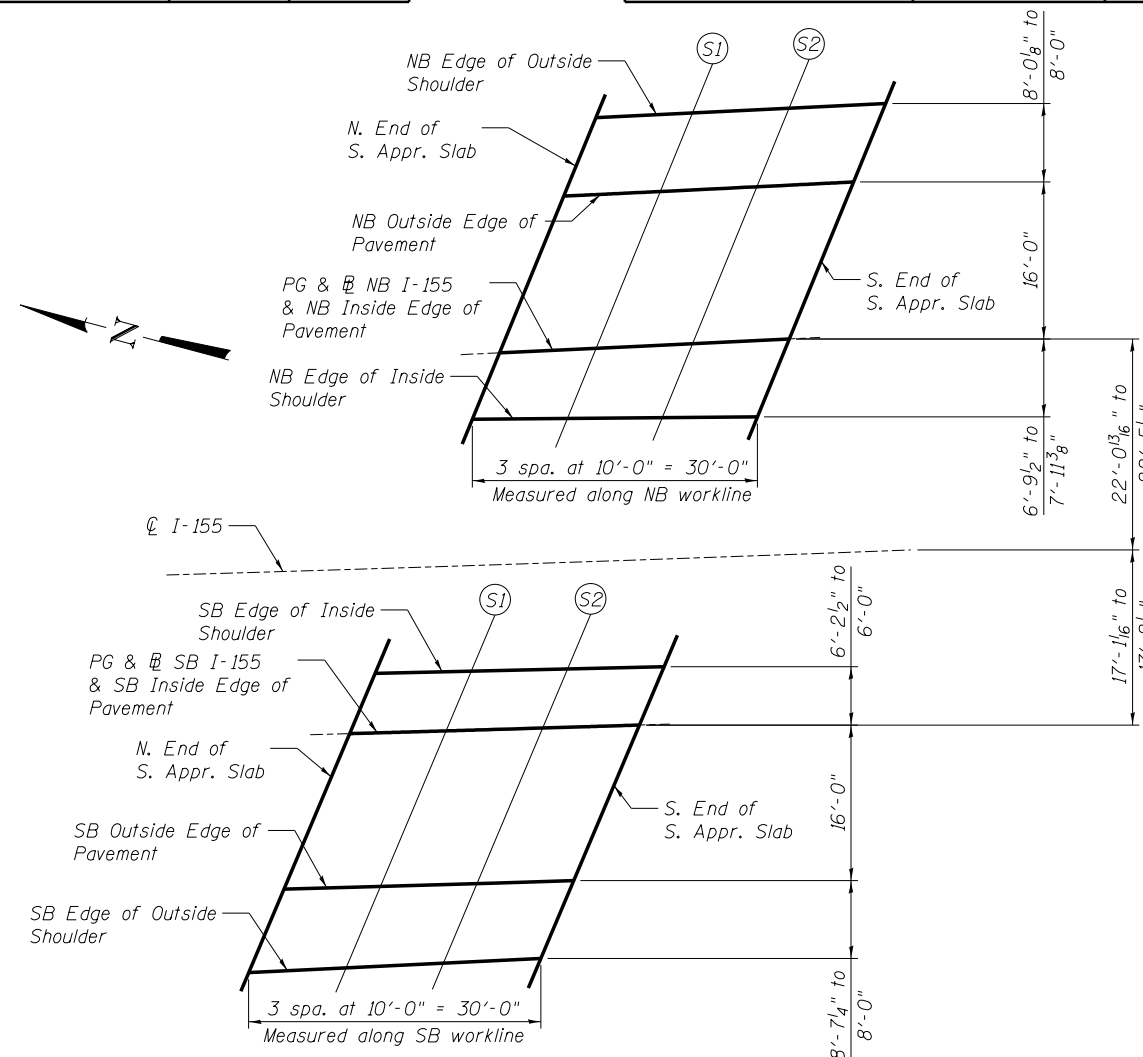
Location	Station	Offset	Theoretical Grade Elevations
N. End of S. Appr. Slab	4+85.13	10.89	754.27
S1	4+95.25	10.98	754.19
S2	5+05.27	11.08	754.11
S. End of S. Appr. Slab	5+15.21	11.20	754.02

PG & @ SB I-155 & SB INSIDE EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
N. End of S. Appr. Slab	4+82.29	17.09	754.41
S1	4+92.42	17.12	754.34
S2	5+02.47	17.16	754.26
S. End of S. Appr. Slab	5+12.43	17.19	754.17

SB OUTSIDE EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
N. End of S. Appr. Slab	4+74.98	33.07	754.21
S1	4+85.09	33.10	754.15
S2	4+95.11	33.13	754.07
S. End of S. Appr. Slab	5+05.05	33.17	753.99



PLAN
(South Approach Slabs)

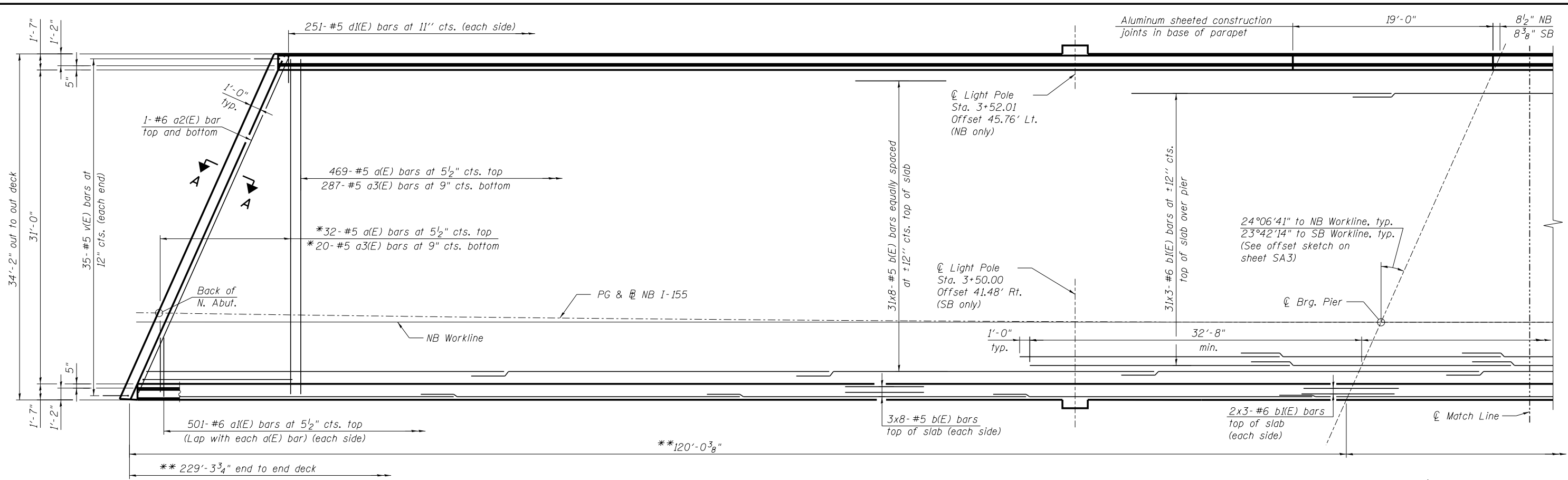
NB EDGE OF INSIDE SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
N. End of S. Appr. Slab	4+96.11	-15.24	754.17
S1	5+06.12	-14.99	754.08
S2	5+16.03	-14.73	753.98
S. End of S. Appr. Slab	5+25.85	-14.46	753.86

SB EDGE OF OUTSIDE SHOULDER

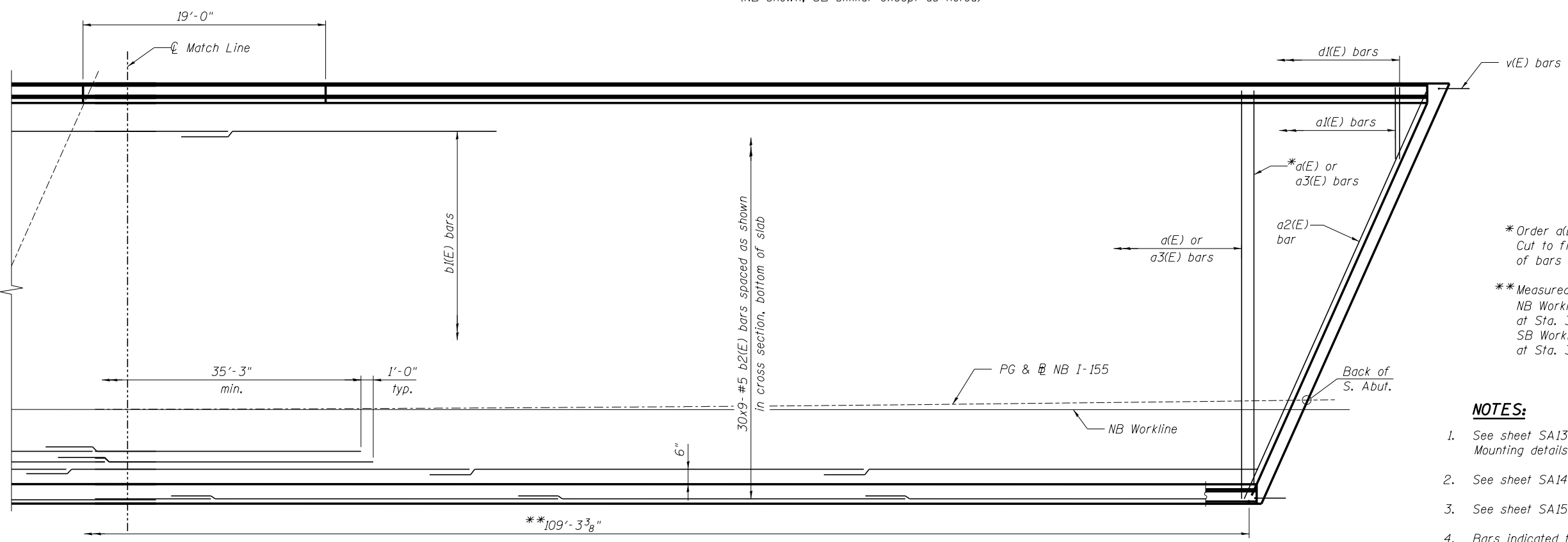
Location	Station	Offset	Theoretical Grade Elevations
N. End of S. Appr. Slab	4+71.06	41.66	754.05
S1	4+81.26	41.48	754.00
S2	4+91.36	41.31	753.93
S. End of S. Appr. Slab	5+01.37	41.15	753.86

NOTE:
All stations and offsets are measured from @ I-155.



PLAN

(NB shown, SB similar except as noted)



MINIMUM BAR LAP

(Deck)
 #5 bar = 3'-3"
 #6 bar = 3'-10"

* Order a(E) and a3(E) bars full length. Cut to fit skew and use remainder of bars in opposite end.

** Measured along NB or SB Workline
 NB Workline tangent to NB I-155 at Sta. 3+89.28
 SB Workline tangent to SB I-155 at Sta. 3+72.91

NOTES:

1. See sheet SA13 for Cross Section and Light Pole Mounting details.
2. See sheet SA14 for Parapet Details and Bill of Material.
3. See sheet SA15 for Section A-A.
4. Bars indicated thus 20x3-#5 etc. indicate 20 lines of bars with 3 lengths per line.

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 engineers · scientists · planners
 Alfred Benesch & Company
 205 North Michigan Avenue, Suite 2400
 Chicago, Illinois 60601
 312-565-0450 Job No. 10056

FILE NAME =	USER NAME = mbecker	DESIGNED - MFB	REVISD -
0900165.68620.12.dkp11.dgn		CHECKED - MRB	REVISD -
	PLOT SCALE =	DRAWN - PRT	REVISD -
	PLOT DATE = 7/16/2012	CHECKED - MRB	REVISD -

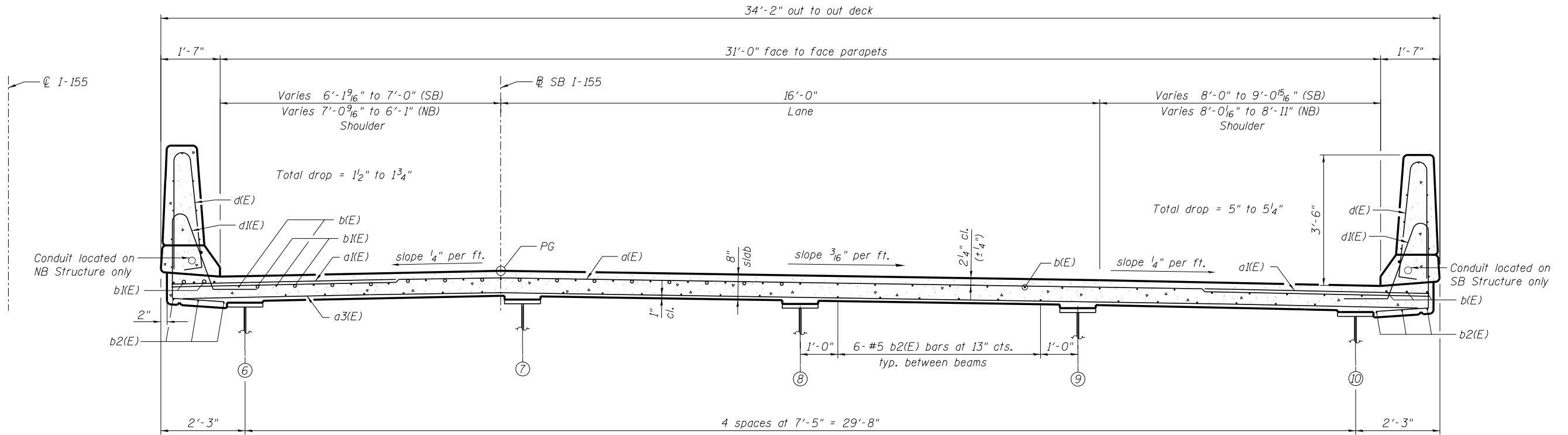
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE
STRUCTURE NO. 090-0165 / 0166

SHEET NO. SA12 OF SA47 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R]14HB-4,14,14HVB BR	TAZEWELL	2433	1876
			CONTRACT NO. 68620	
ILLINOIS FED. AID PROJECT				

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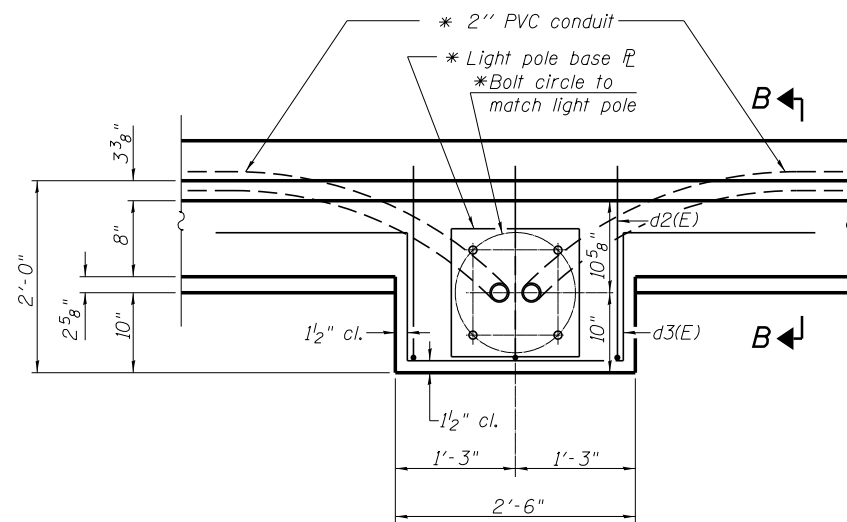


NEAR PIER

NEAR MIDSPAN

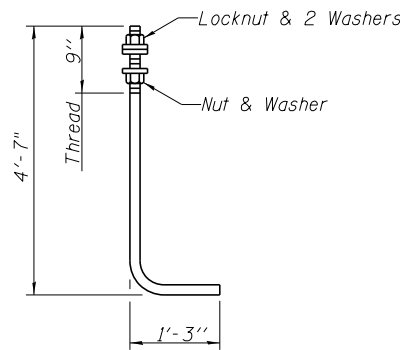
CROSS SECTION

(Looking Upstation)
(SB shown, NB opposite hand)



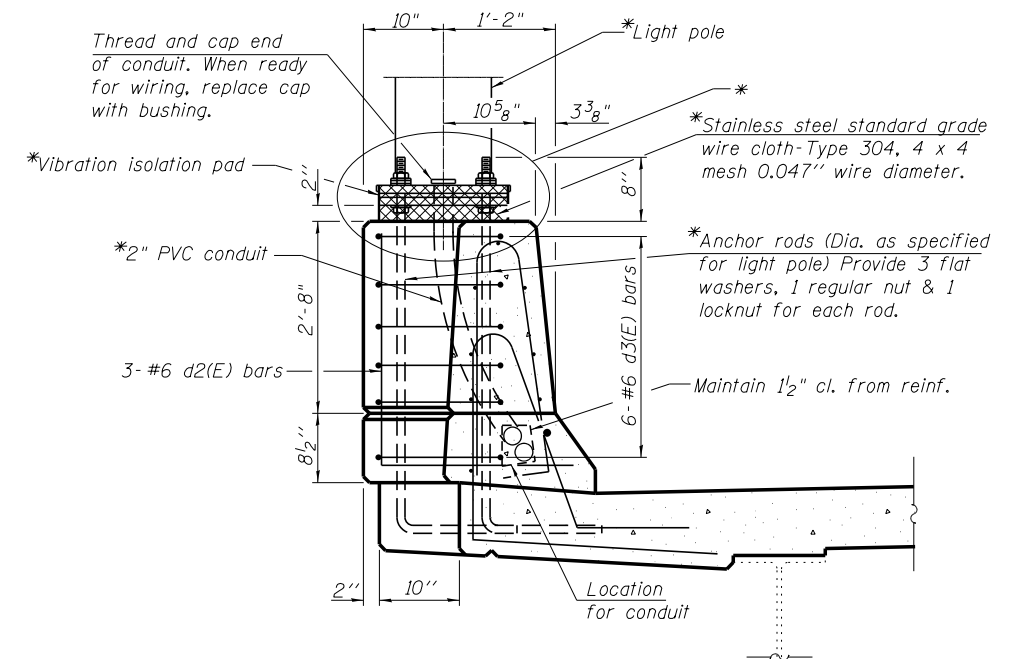
PLAN

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



ANCHOR ROD

*Diameter as specified for light poles.
(ASTM F 1554 Grade 105)



SECTION B-B

*See Lighting plans

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205 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-565-0450 Job No. 10056

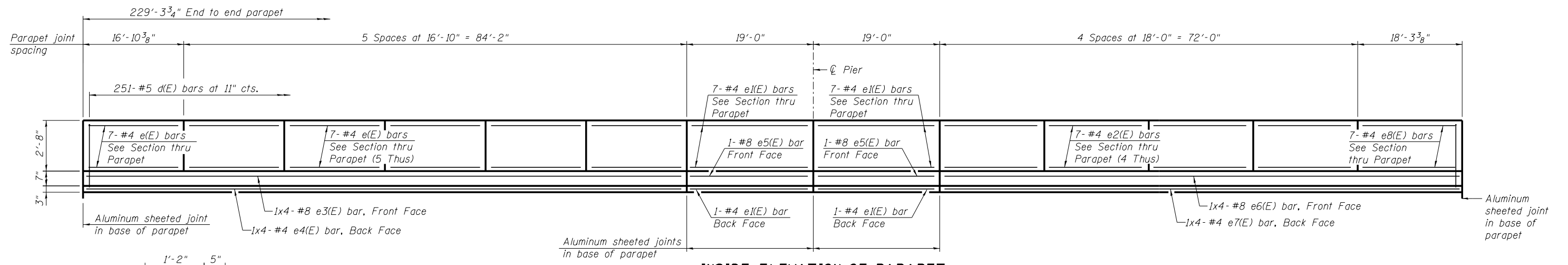
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	PLOT DATE = 7/16/2012	CHECKED - MRB	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

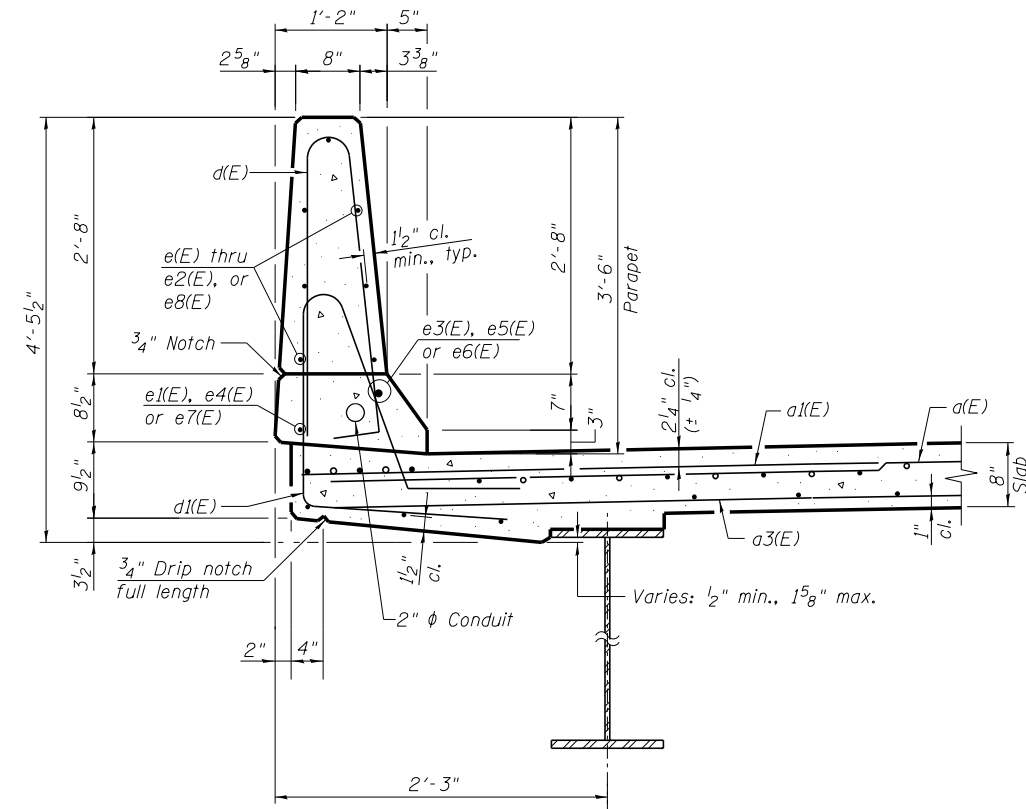
**SUPERSTRUCTURE DETAILS 1 OF 2
STRUCTURE NO. 090-0165 / 0166**

SHEET NO. SA13 OF SA47 SHEETS

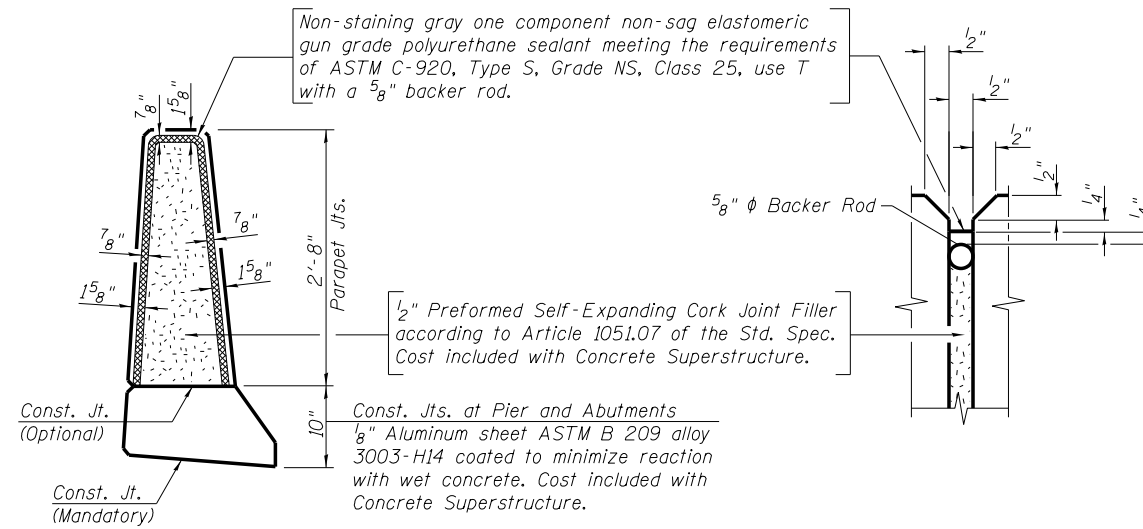
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R(14HB-4,14,14HVB)BR]	TAZEWELL	2433	1877
			CONTRACT NO. 68620	
ILLINOIS FED. AID PROJECT				



INSIDE ELEVATION OF PARAPET
(4 Thus)



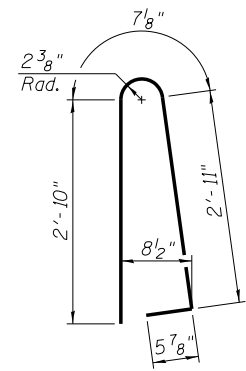
SECTION THRU PARAPET



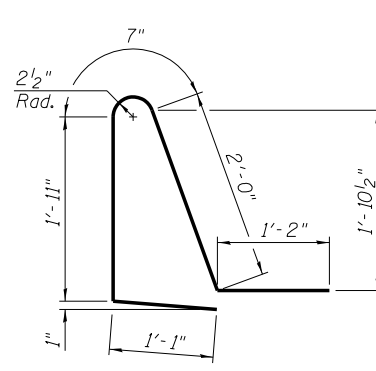
PARAPET JOINT DETAILS

MINIMUM BAR LAP

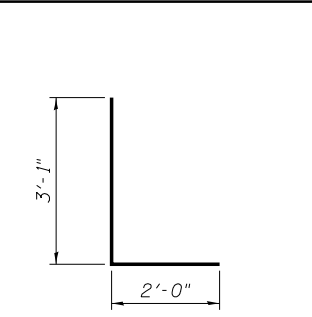
(Parapet)
#4 bar = 2'-0"
#8 bar = 5'-2"



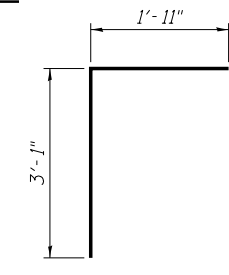
BAR d(E)



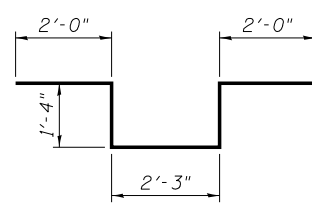
BAR d1(E)



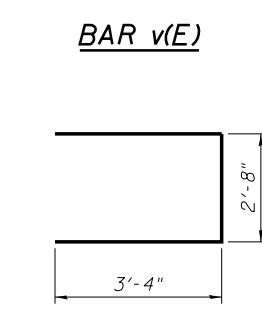
BAR d2(E)



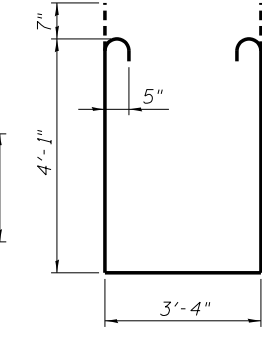
BAR v(E)



BAR d3(E)



BAR s(E)

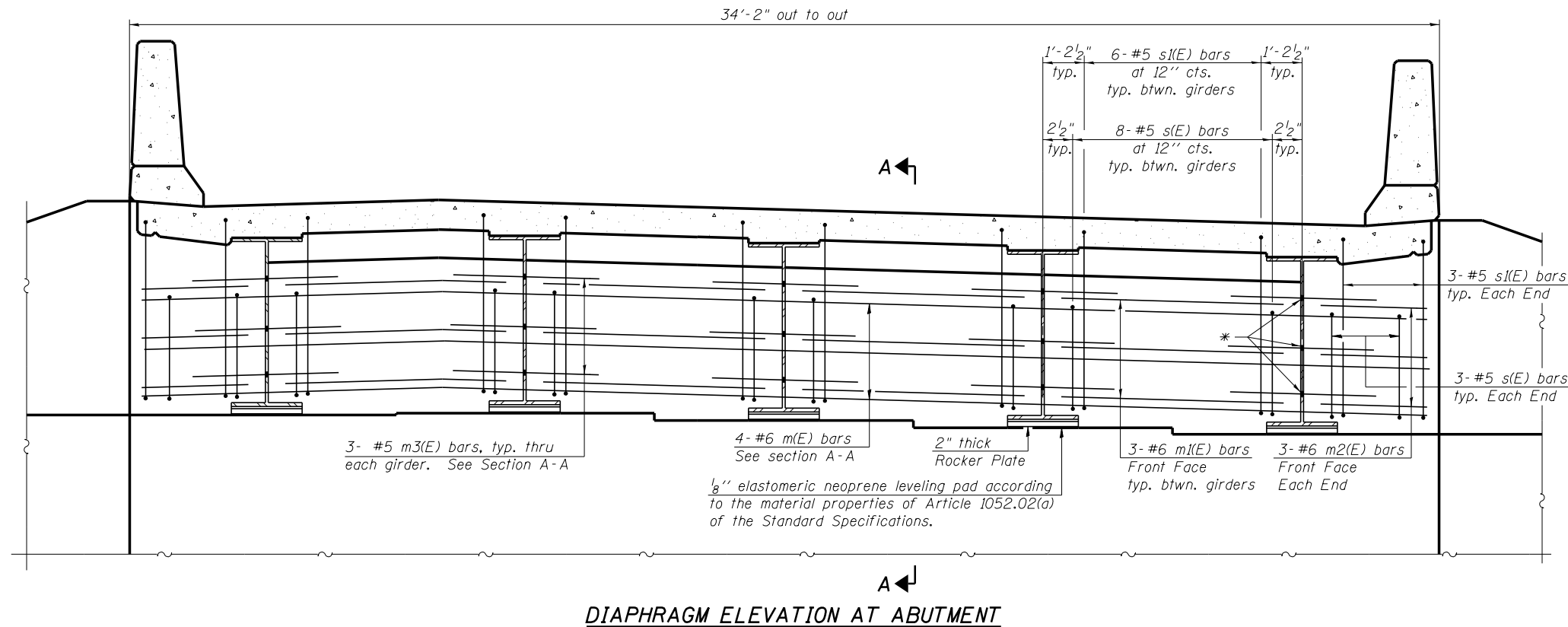


BAR s1(E)

**SUPERSTRUCTURE
BILL OF MATERIAL
(TWO DECKS)**

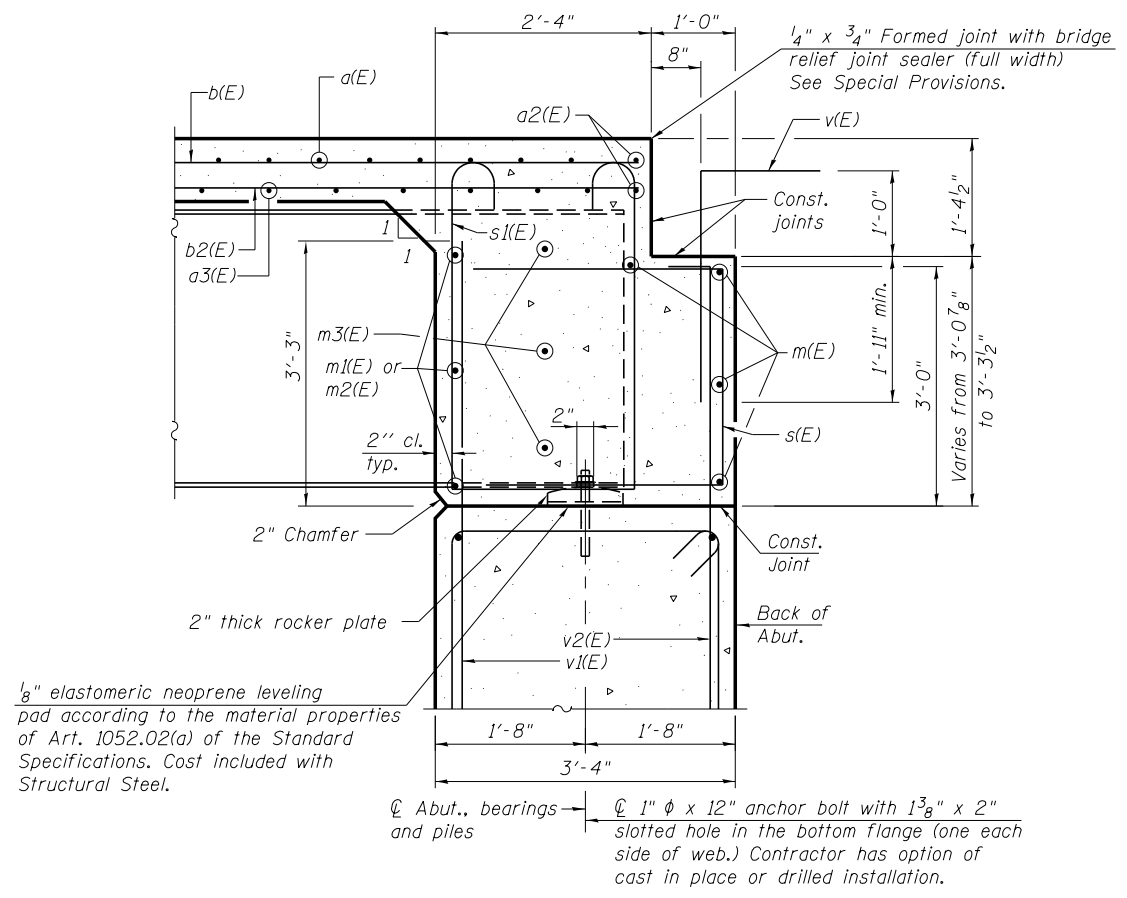
Bar	No.	Size	Length	Shape
a(E)	1002	#5	33'-6"	—
a1(E)	2004	#6	6'-6"	—
a2(E)	8	#6	36'-6"	—
a3(E)	614	#5	33'-0"	—
b(E)	592	#5	31'-6"	—
b1(E)	210	#6	25'-9"	—
b2(E)	540	#5	28'-6"	—
d(E)	1004	#5	6'-10"	⌋
d1(E)	1004	#5	6'-9"	⌋
d2(E)	6	#6	5'-1"	⌋
d3(E)	12	#6	8'-11"	⌋
e(E)	168	#4	16'-6"	—
e1(E)	64	#4	18'-8"	—
e2(E)	112	#4	17'-8"	—
e3(E)	16	#8	29'-3"	—
e4(E)	16	#4	27'-0"	—
e5(E)	8	#8	18'-8"	—
e6(E)	16	#8	26'-6"	—
e7(E)	16	#4	24'-0"	—
e8(E)	28	#4	17'-11"	—
m(E)	16	#6	36'-11"	—
m1(E)	48	#6	7'-9"	—
m2(E)	24	#6	2'-2"	—
m3(E)	60	#5	4'-0"	—
s(E)	152	#5	9'-4"	⌋
s1(E)	120	#5	12'-8"	⌋
v(E)	140	#5	5'-0"	⌋
Concrete Superstructure	Cu. Yd.		595.7	
Reinforcement Bars, Epoxy Coated	Pound		146,760	

Bars indicated thus 1x4-#4 etc. indicate 1 lines of bars with 4 lengths per line.



* 1" ϕ Holes thru web for m3(E) bars, typ.

DIAPHRAGM ELEVATION AT ABUTMENT



MINIMUM BAR LAP
#6 bar = 3'-4"

NOTES:

1. Reinforcement bars in diaphragm are billed with superstructure on sheet SA14.
2. Concrete in diaphragm is included with Concrete Superstructure on sheet SA14.
3. For details of bars s(E) & s(E) see sheet SA14.
4. The s(E) and s(E) bars shall be placed parallel to the girders. Spacing for these bars shall be at right angles to the girders.

SECTION A-A

(Dimensions at right angles to abutment, except as noted)

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USER NAME =	mbecker
PLOT SCALE =	
PLOT DATE =	7/16/2012

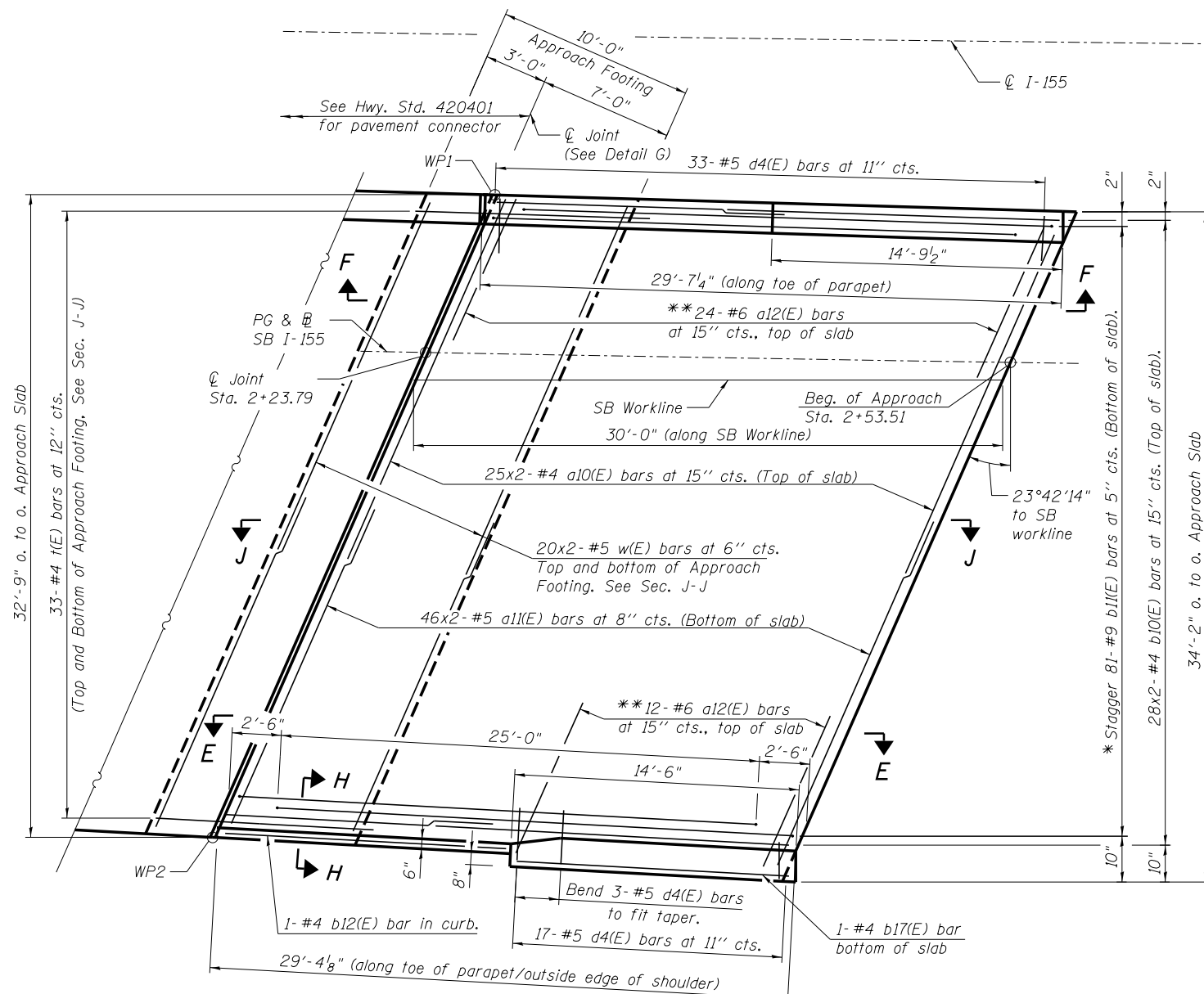
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CHECKED -	MRB	REVISED -	
DRAWN -	PRT	REVISED -	
CHECKED -	MRB	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

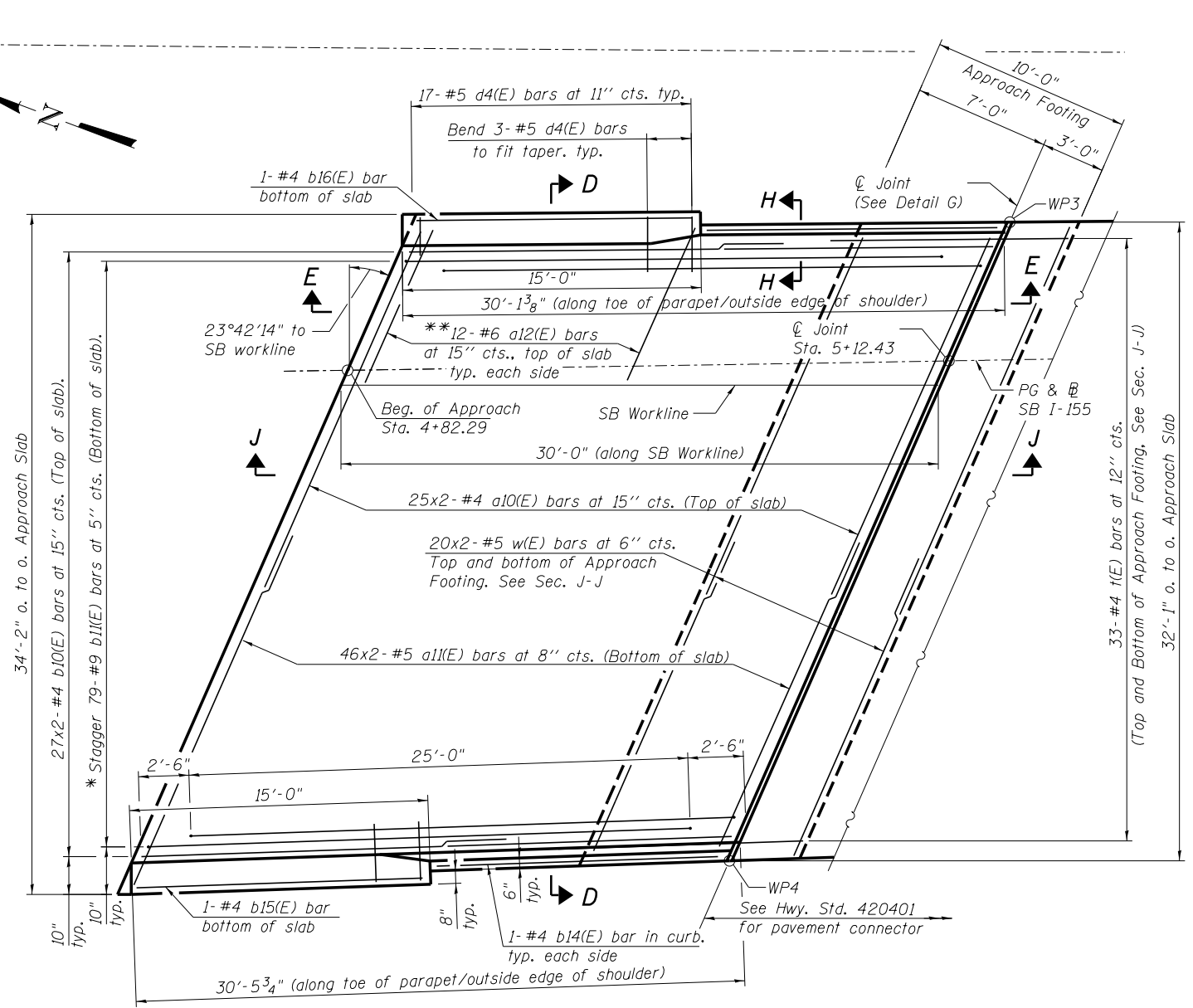
DIAPHRAGM DETAILS
STRUCTURE NO. 090-0165 / 0166
SHEET NO. SA15 OF SA47 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R(14HB-4,14,14HB)BR]	TAZEWELL	2433	1879
ILLINOIS FED. AID PROJECT			CONTRACT NO. 68620	

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NORTH APPROACH



SOUTH APPROACH

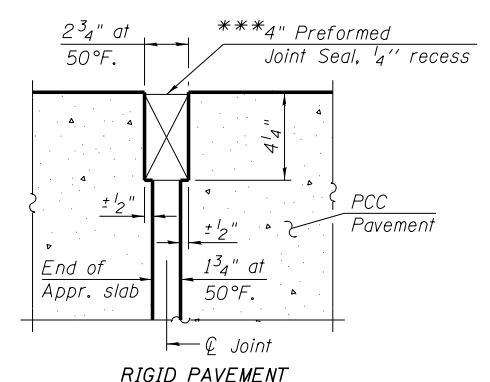
PLAN

(SB Approaches)

- * Tilt #9 b11(E) bars as required to maintain clearance.
- ** Space between a10(E) bars, typ. each parapet.

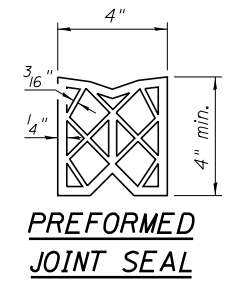
WORK POINTS

Point	Station	Offset
WP1	2+27.22	8.08' Rt.
WP2	2+13.38	41.11' Rt.
WP3	5+15.63	10.29' Rt.
WP4	5+00.95	42.08' Rt.



RIGID PAVEMENT

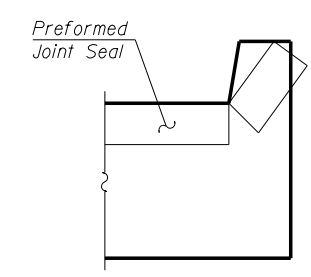
DETAIL G



PREFORMED JOINT SEAL

MINIMUM BAR LAP

(Approach Slab)
 #4 bar = 2'-7"
 #5 bar = 3'-3"



VIEW H-H

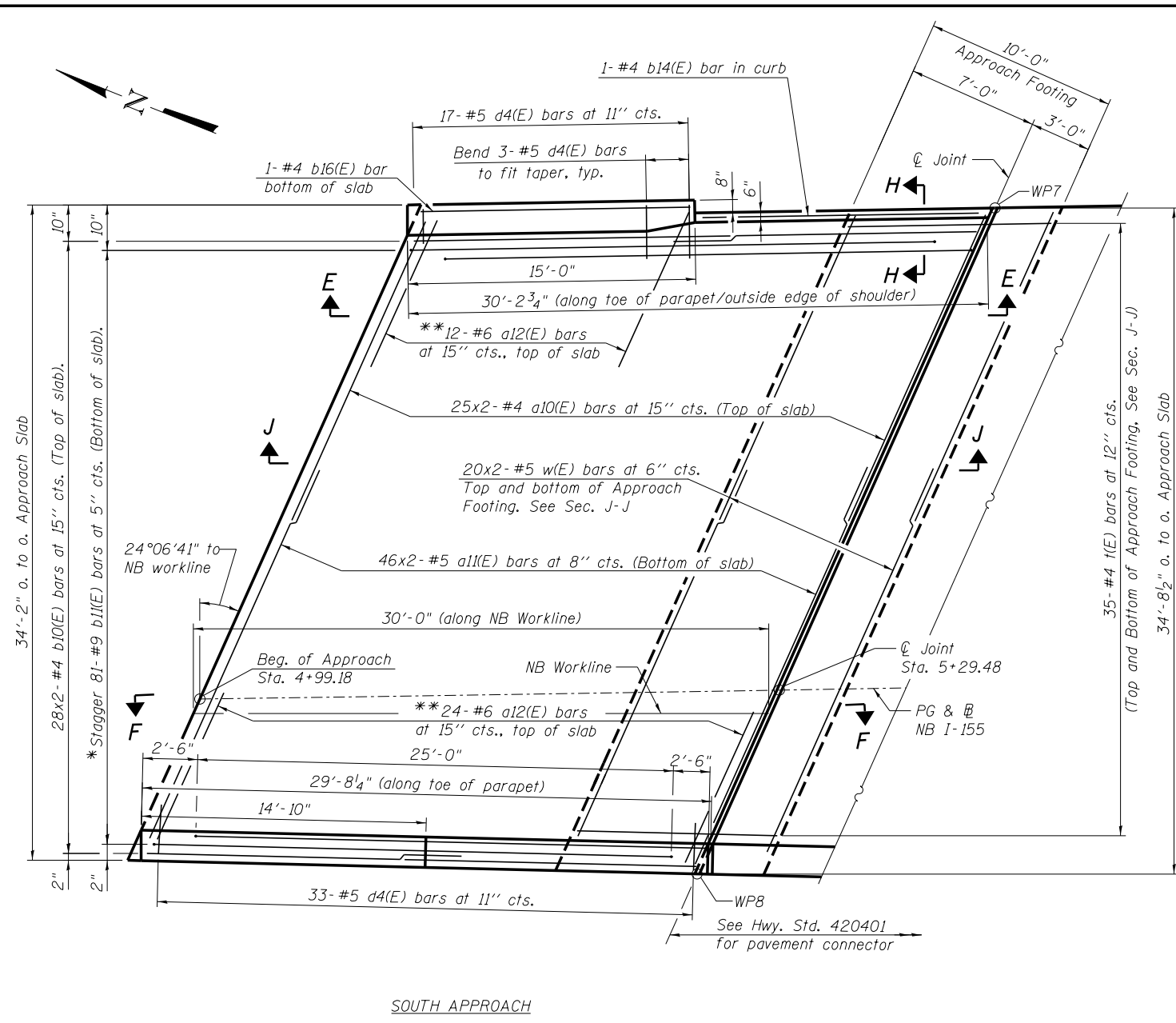
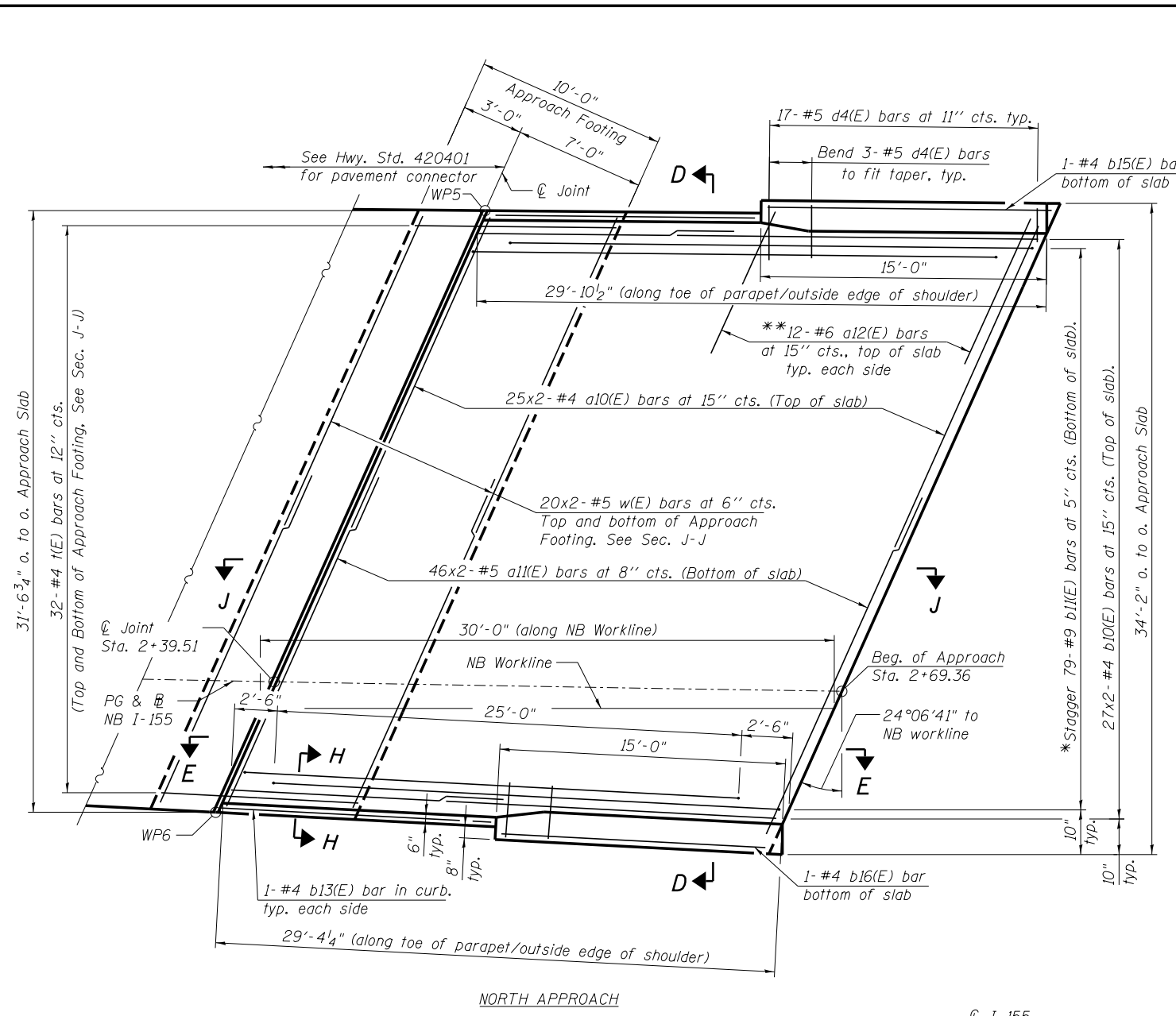
(Angle Preformed Joint Seal at 45° at curbs when req'd for drainage)

NOTES:

- See sheet SA18 for Sections and Views shown in Plan.
- a10(E) and a11(E) bar spaces are measured along SB Workline.
- b10(E) and b11(E) bar spaces are measured perpendicular to SB Workline.
- t(E) bar spaces are measured along skew of approach footing.
- Bars indicated 20x2-#5 etc. indicate 20 bars with 2 lengths per line.
- Stations and offsets are measured from C I-155 .

USER NAME = mbecker	DESIGNED - MFB/DTS	REVISED -
PLOT SCALE =	CHECKED - AAY	REVISED -
PLOT DATE = 7/16/2012	DRAWN - PRT	REVISED -
	CHECKED - AAY	REVISED -

F.A.I. RT.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R(14HB-4,14,14HVB)BR]	TAZEWELL	2433	1880
CONTRACT NO. 68620				



PLAN

(NB Approaches)

- * Tilt #9 b1(E) bars as required to maintain clearance.
- ** Space between a10(E) bars, typ. each parapet.

NOTES:

1. See sheet SA18 for Sections and Views shown in Plan.
2. a10(E) and a11(E) bar spacings are measured perpendicular to NB Workline.
3. b10(E) and b11(E) bar spaces are measured perpendicular to NB Workline.
4. t(E) bar spaces are measured along skew of approach footing.
5. Bars indicated 20x2-#5 etc. indicate 20 bars with 2 lengths per line.
6. Stations and offsets are measured from C I-155 .
7. See sheet SA16 for View H-H.

WORK POINTS

Point	Station	Offset
WP5	2+49.84	43.76' Lt.
WP6	2+36.66	11.76' Lt.
WP7	5+40.90	47.52' Lt.
WP8	5+25.14	12.90' Lt.

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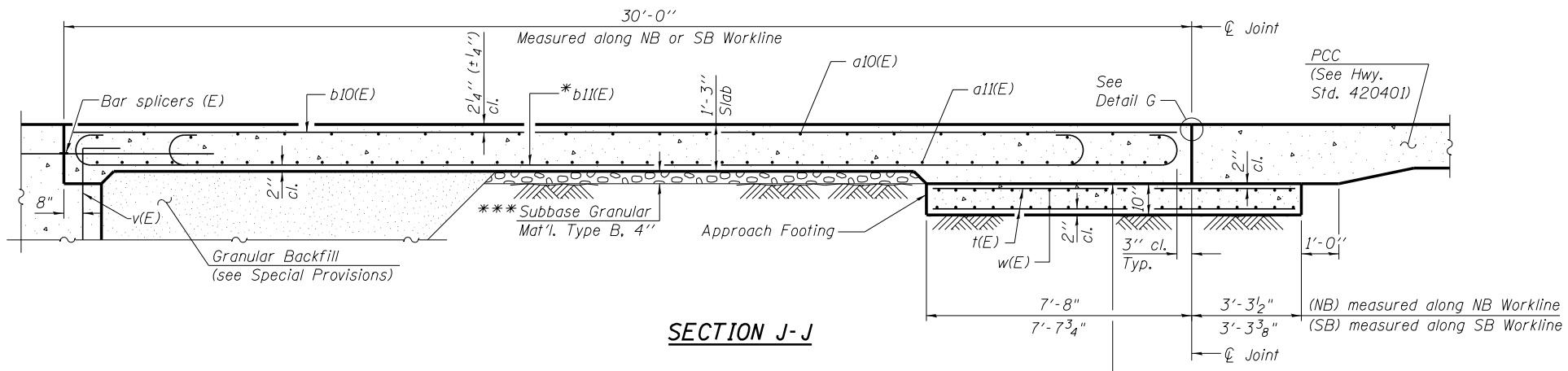
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**BRIDGE APPROACH SLAB DETAILS 2 OF 3
STRUCTURE NO. 090-0165 / 0166**

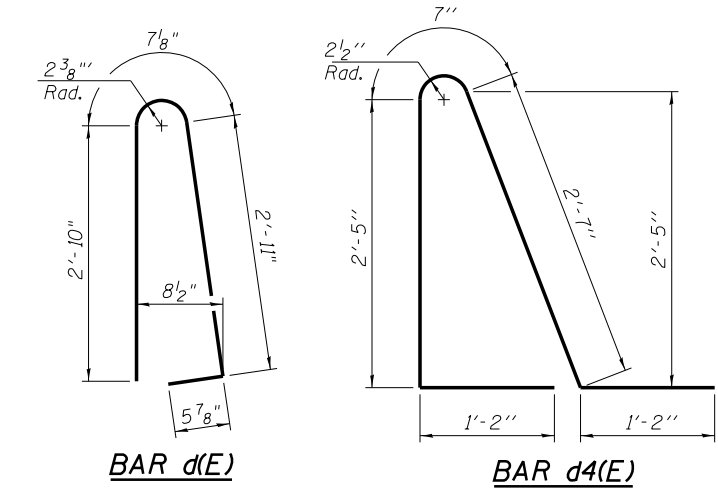
SHEET NO. SA17 OF SA47 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R(14HB-4,14,14HVB)BR]	TAZEWELL	2433	1881
CONTRACT NO. 68620			ILLINOIS FED. AID PROJECT	

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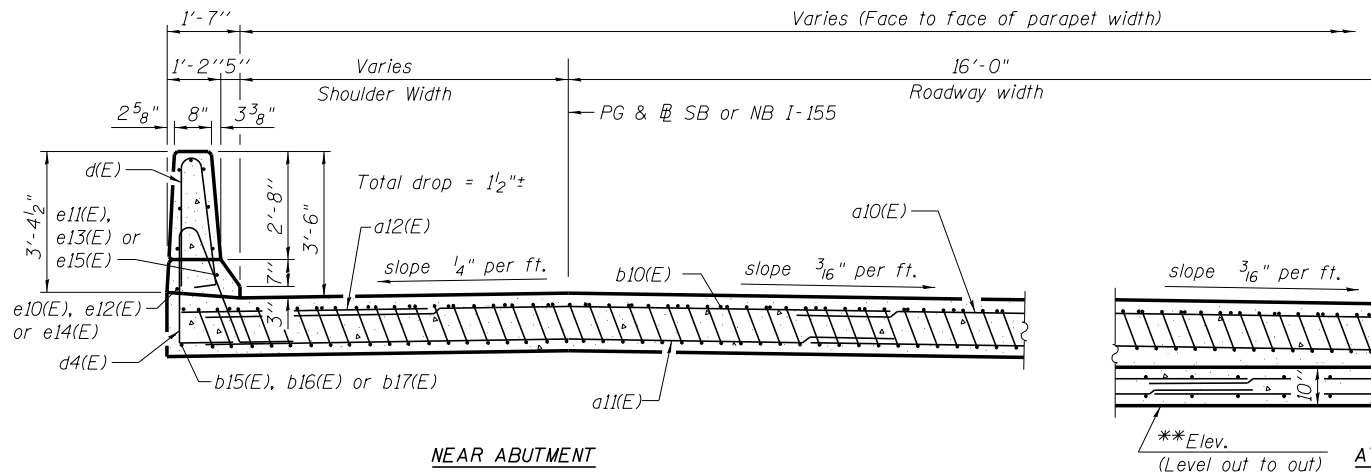
- NOTES:**
1. See sheet SA16 for Detail G.
 2. Approach slab and parapet concrete shall be paid for as Concrete Superstructure.
 3. Approach footing concrete shall be paid for as Concrete Structures.
 4. Reinforcement shall be paid for as Reinforcement Bars, Epoxy Coated.
 5. For v(E) bar details, see sheet SA15.
 6. The approach footing maximum applied service bearing pressure (Q_{max}) = 2.0 ksf.
 7. For bar splicer details, see sheet SA31.
 8. Cost of excavation for approach footing included with Concrete Structures.
 9. For Granular Backfill and drainage treatment details, see sheet SA3.
 10. For additional parapet details, see sheet SA14.



**FOUR APPROACHES
BILL OF MATERIAL**

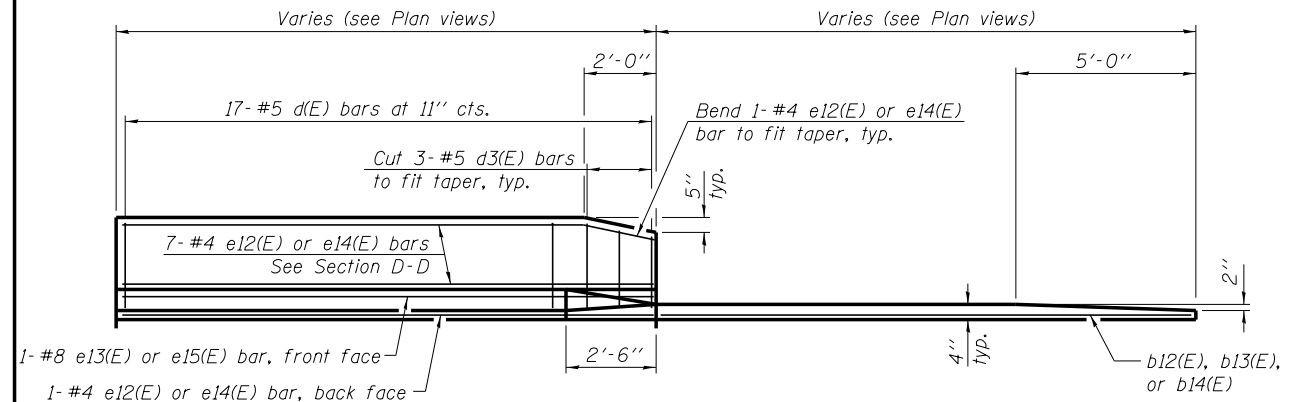
Bar	No.	Size	Length	Shape	
a10(E)	200	#4	20'-5"		
a11(E)	368	#5	20'-6"		
a12(E)	120	#6	6'-6"		
b10(E)	220	#4	16'-3"		
b11(E)	320	#9	30'-4"		
b12(E)	1	#4	14'-8"		
b13(E)	2	#4	14'-3"		
b14(E)	3	#4	14'-11"		
b15(E)	2	#4	15'-5"		
b16(E)	3	#4	14'-0"		
b17(E)	1	#4	13'-7"		
d(E)	168	#5	6'-10"		
d4(E)	168	#5	7'-11"		
e10(E)	28	#4	14'-6"		
e11(E)	2	#8	29'-3"		
e12(E)	8	#4	14'-2"		
e13(E)	1	#8	14'-2"		
e14(E)	40	#4	14'-8"		
e15(E)	5	#8	14'-8"		
e16(E)	2	#4	29'-4"		
t(E)	266	#4	10'-7"		
w(E)	320	#5	20'-6"		
Concrete Superstructure				Cu. Yd.	215.2
Concrete Structures				Cu. Yd.	44.4
Reinforcement Bars, Epoxy Coated				Pound	59,670

Bars indicated 20x2 - #5 etc. indicate 20 lines of bars with 2 lengths per line.

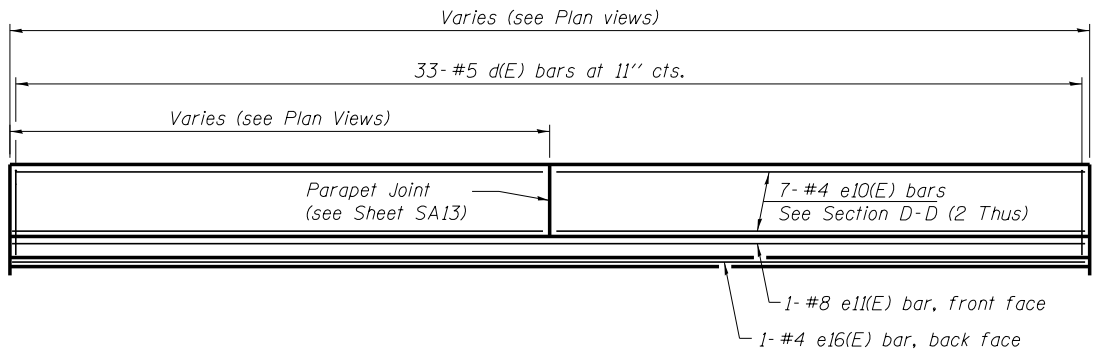


***Elev. (Level out to out) AT APPROACH FOOTING
 *Elev. 749.38 (SB N. App.)
 Elev. 751.78 (SB S. App.)
 Elev. 750.21 (NB N. App.)
 Elev. 751.35 (NB S. App.)

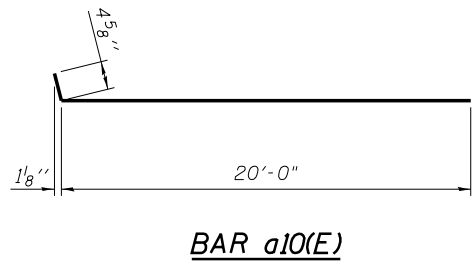
* Tilt #9 b11(E) bars as required to maintain clearance.
 *** Cost included with Concrete Superstructure.



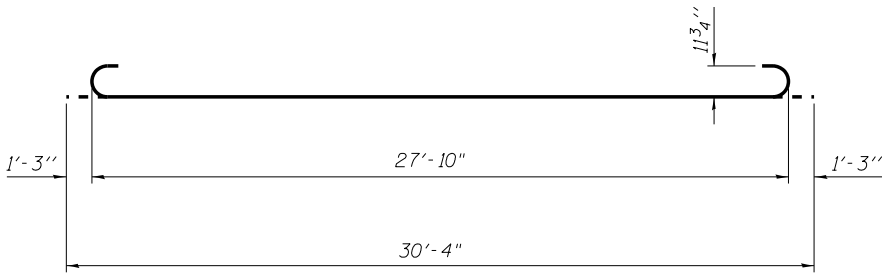
VIEW E-E
 e12(E) & e14(E) bars are located in 14'-6" length parapet
 e13(E) & e15(E) bars are located in 15'-0" length parapets



VIEW F-F



BAR a10(E)



BAR b11(E)

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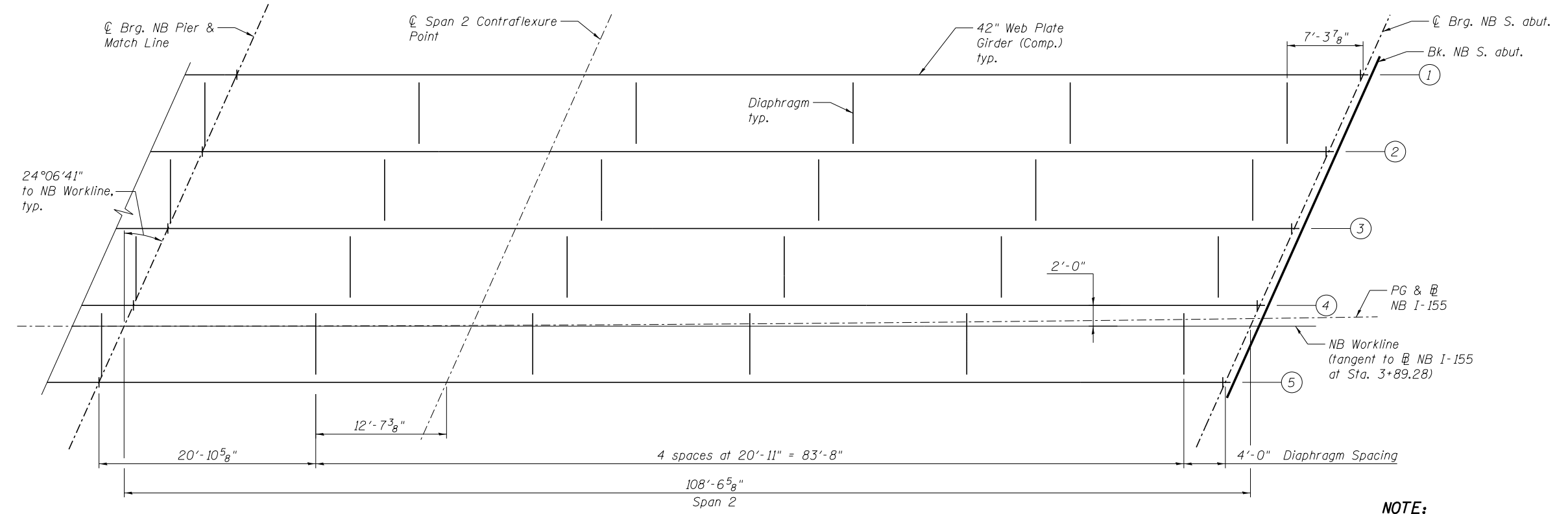
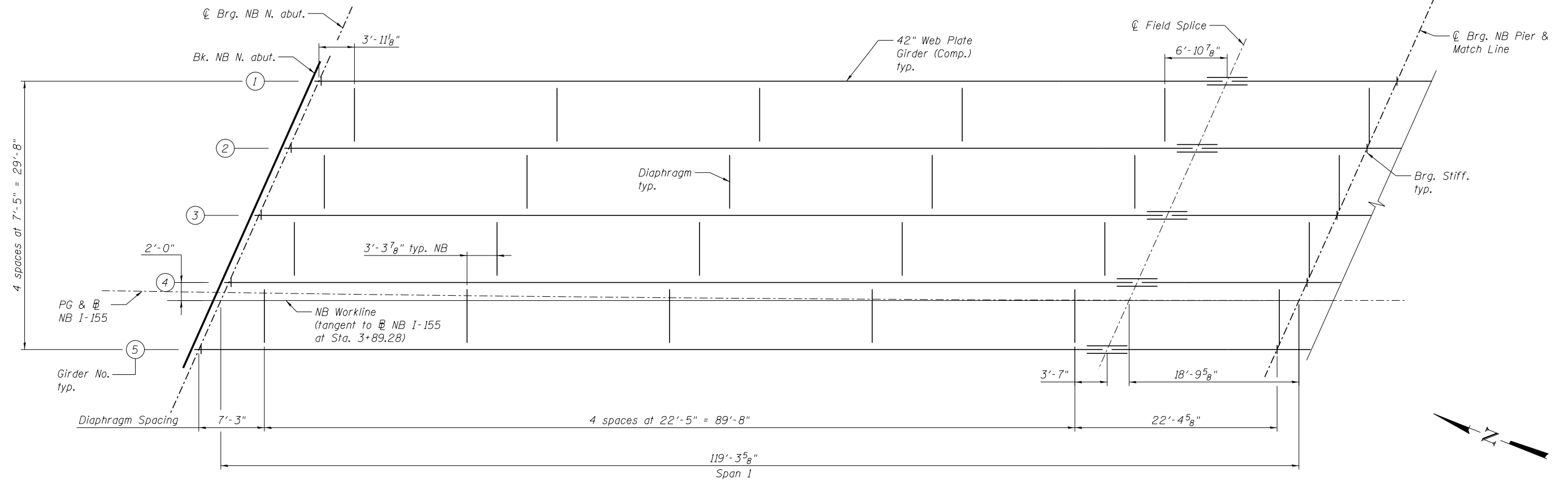
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**BRIDGE APPROACH SLAB DETAILS 3 OF 3
STRUCTURE NO. 090-0165 / 0166**

SHEET NO. SA18 OF SA47 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R]14HB-4,14,14HB[BR]	TAZEWELL	2433	1882
			CONTRACT NO. 68620	
ILLINOIS FED. AID PROJECT				

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FRAMING PLAN - NB

NOTE:
All longitudinal dimensions are measured along the NB Workline.

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PLOT DATE = 7/16/2012
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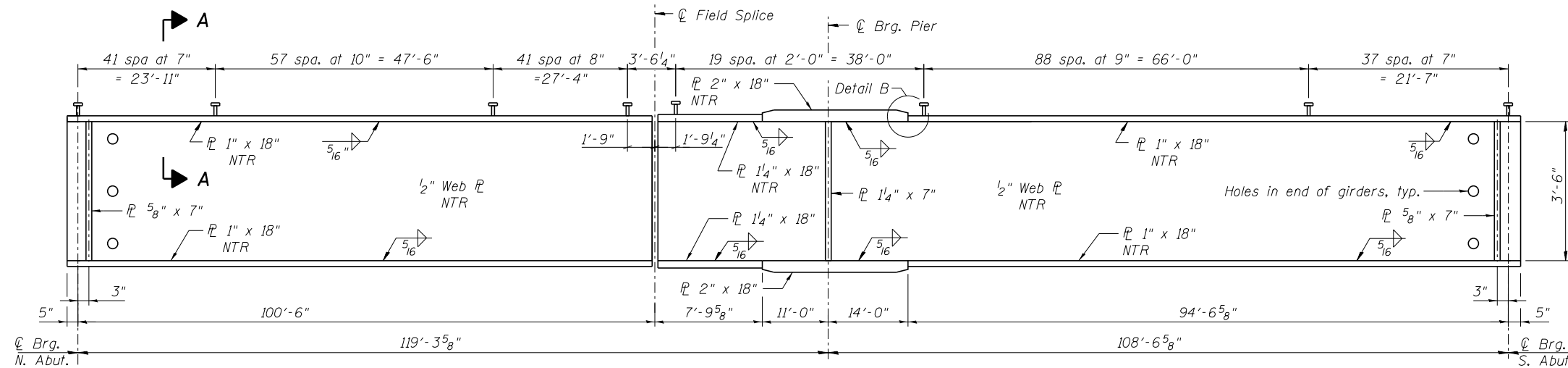
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**FRAMING PLAN 1 OF 2
STRUCTURE NO. 090-0165 / 0166**

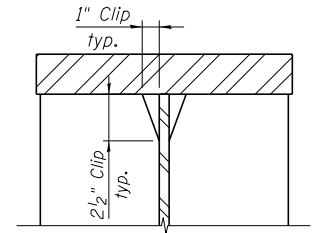
SHEET NO. SA19 OF SA47 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R(14HB-4,14,14HVB)BR]	TAZEWELL	2433	1883
CONTRACT NO. 68620				
ILLINOIS FED. AID PROJECT				

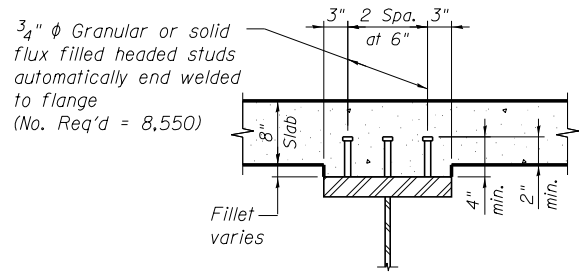
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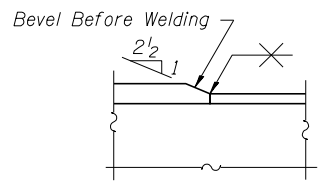
GIRDER ELEVATION



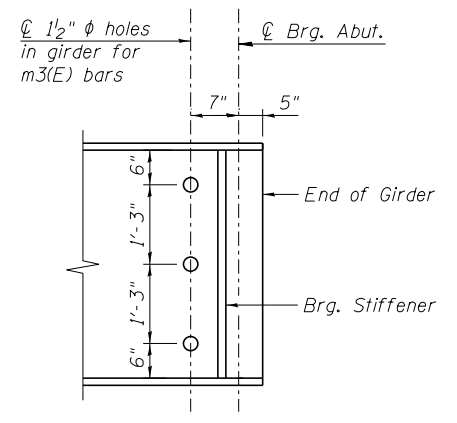
DETAIL C
(Typical top & bottom flanges)



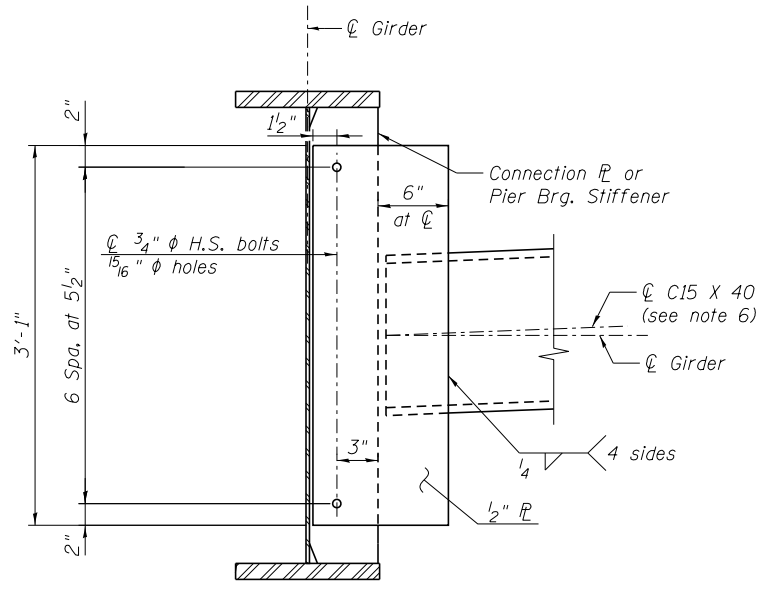
SECTION A-A



DETAIL B



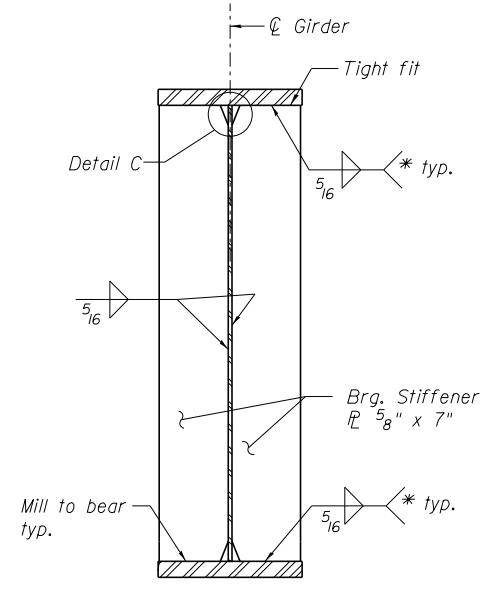
END OF GIRDER ELEVATION



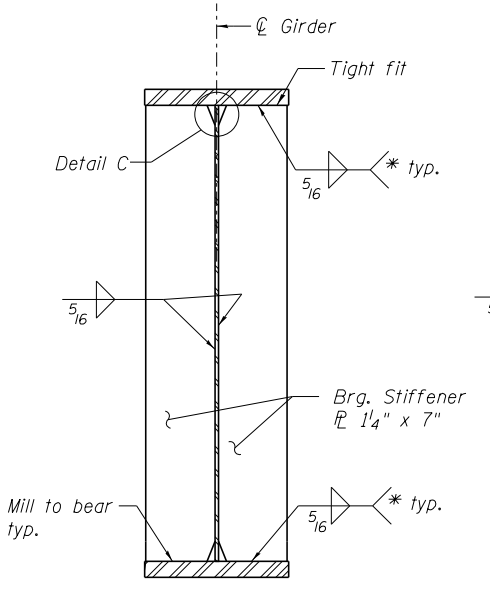
INTERIOR DIAPHRAGM
(No. diaphragms required = 88)

NOTES:

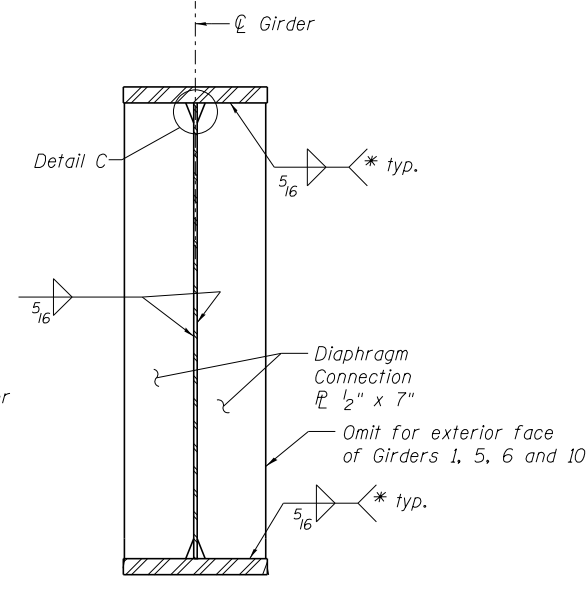
- All Girder webs and flanges shall be AASHTO M270 Grade 50 steel.
- All diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual diaphragms at supports may be temporarily disconnected to install bearing anchor rods.
- "NTR" denotes plates to which notch toughness requirements are applicable.
- Load carrying components designated "NTR" shall conform to the Impact Testing Requirements, Zone 2.
- Two hardened washers required for each set of oversized holes.
- Alternate channels C15x50 are permitted to facilitate material acquisition. Calculated weight of structural steel is based on C15x40 sections. The alternate, if utilized, shall be provided at no extra cost to the department.



BEARING STIFFENER AT ABUT.
(No. plates required = 40)

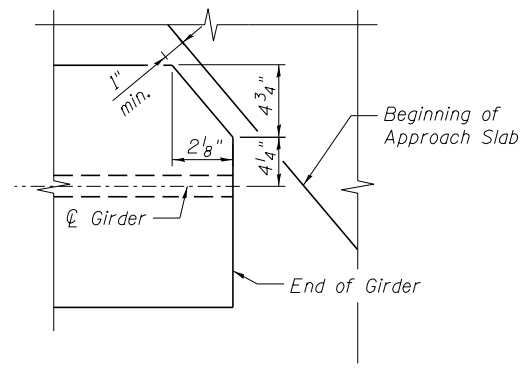


BEARING STIFFENER AT PIER
(No. plates required = 20)



CONNECTION PLATE
(No. plates required = 168)

* Terminate weld 1/4" from outside edges of plates



END OF GIRDER COPING DETAIL
(Top Flange Only)

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	DRAWN - PRT	REVISED -
	CHECKED - MRB	REVISED -

STATE OF ILLINOIS
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GIRDER DETAILS 1 OF 3
STRUCTURE NO. 090-0165 / 0166

SHEET NO. SA21 OF SA47 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R(14HB-4,14,14HVB)BR]	TAZEWELL	2433	1885
CONTRACT NO. 68620				

ILLINOIS FED. AID PROJECT

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INTERIOR GIRDER MOMENT TABLE			
	0.4 Sp. 1	Pier	0.6 Sp. 2
I_s	(in ⁴) 19,731	37,959	19,731
$I_c(n)$	(in ⁴) 42,549	69,544	42,549
$I_c(3n)$	(in ⁴) 32,059	53,077	32,059
$I_c(cr)$	(in ⁴) - - - -	43,130	- - - -
S_s	(in ³) 897	1650	897
$S_c(n)$	(in ³) 1147	1964	1147
$S_c(3n)$	(in ³) 1061	1833	1061
$S_c(cr)$	(in ³) - - - -	1721	- - - -
DC1	(k/ft) 0.993	1.127	0.993
MDC1	(k) 966	1831	679
DC2	(k/ft) 0.220	0.220	0.220
MDC2	(k) 217	397	152
DW	(k/ft) 0.310	0.310	0.310
MDW	(k) 306	560	214
$M_k + IM$	(k) 1602	1782	1482
M_u (Strength I)	(k) 4741	6,744	3953
$\phi_r M_n$	(k) 5,688	7,688	5,688
f_s DC1	(ksi) 12.9	13.3	9.1
f_s DC2	(ksi) 2.5	2.8	1.7
f_s DW	(ksi) 3.5	3.9	2.4
f_s ($k + IM$)	(ksi) 16.8	12.4	15.5
f_s (Service II)	(ksi) 40.6	36.1	33.4
$0.95R_n F_y f$	(ksi) 47.5	47.5	47.5
f_s (Total)(Strength I)	(ksi) - - - -	- - - -	- - - -
$\phi_r F_n$	(ksi) - - - -	- - - -	- - - -
V_r	(k) 60.9	60.9	65.1

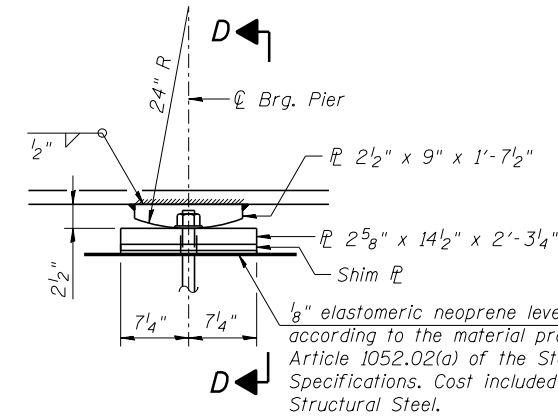
INTERIOR GIRDER REACTION TABLE			
	N. Abut.	Pier	S. Abut.
RDC1	(k) 60.1	148.5	53.3
RDC2	(k) 9.8	32.1	8.3
RDW	(k) 13.8	45.2	11.7
$R_k + IM$	(k) 99.9	178.1	97.6
R_{Total}	(k) 183.6	403.8	170.8

All reactions are unfactored.
Reactions at abutments include weight of diaphragm

NOTES:

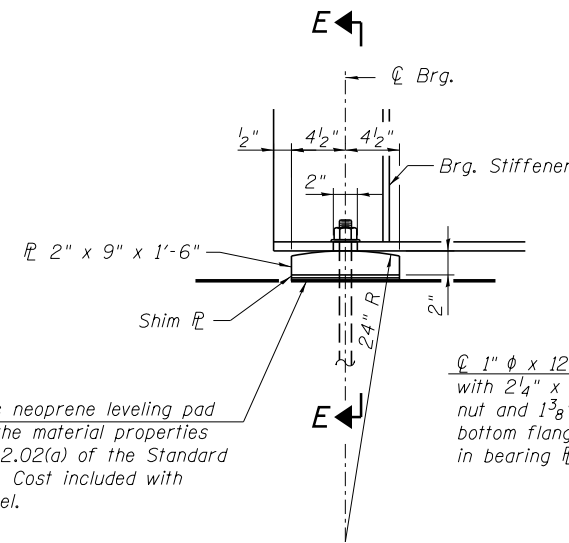
- Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 Gr. 36 anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy = 36ksi) at the pier.
- Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.
- Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
- 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.
- Steel members required for bearing assembly shall be included in the cost of structural steel.

- 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 (in⁴ and in³).
- $I_c(n), S_c(n)$: 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 (in⁴ and in³).
- $I_c(3n), S_c(3n)$: 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 (in⁴ and in³).
- $I_c(cr), S_c(cr)$: 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 dead loads (in⁴ and in³).
- DC1: Un-factored non-composite dead load (kips/ft.).
MDC1: 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.).
MDC2: 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.).
MDW: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).
 $M_k + IM$: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).
 M_u (Strength I): Factored design moment (kip-ft.).
 $1.25 (M_{DC1} + M_{DC2}) + 1.5 M_{DW} + 1.75 M_k + IM$
 $\phi_r M_n$: Compact composite positive moment capacity computed according to Article 6.10.7.1 or non-slender negative moment capacity according to Article A6.1.1 or A6.1.2 (kip-ft.).
 f_s DC1: Un-factored stress at edge of flange for controlling steel flange due to vertical non-composite dead loads as calculated below (ksi).
 M_{DC1} / S_{nc}
 f_s DC2: Un-factored stress at edge of flange for controlling steel flange due to vertical composite dead loads as calculated below (ksi).
 $M_{DC2} / S_c(3n)$ or $M_{DC2} / S_c(cr)$ as applicable.
 f_s DW: Un-factored stress at edge of flange for controlling steel flange due to vertical composite future wearing surface loads as calculated below (ksi).
 $M_{DW} / S_c(3n)$ or $M_{DW} / S_c(cr)$ as applicable.
 f_s ($k + IM$): Un-factored stress at edge of flange for controlling steel flange due to vertical composite live plus impact loads as calculated below (ksi).
 $M_k + IM / S_c(n)$ or $M_k + IM / S_c(cr)$ as applicable.
 f_s (Service II): Sum of stresses as computed below (ksi).
 $f_{sDC1} + f_{sDC2} + f_{sDW} + 1.3 f_s (k + IM)$
 $0.95R_n F_y f$: Composite stress capacity for Service II loading according to Article 6.10.4.2 (ksi).
 f_s (Total)(Strength I): Sum of stresses as computed below on non-compact section (ksi).
 $1.25 (f_{sDC1} + f_{sDC2}) + 1.5 f_{sDW} + 1.75 f_s (k + IM)$
 $\phi_r F_n$: Non-Compact composite positive or negative stress capacity for Strength I loading according to Article 6.10.7.2 (ksi).
 V_r : Maximum factored shear range in composite portion of span computed according to Article 6.10.10.



ELEVATION AT PIER

FIXED BEARING AT PIER



ELEVATION

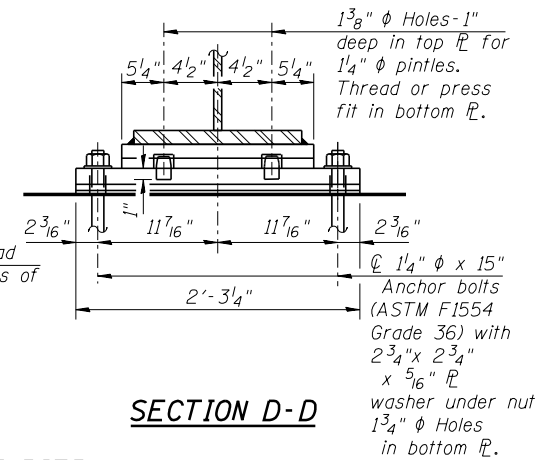
FIXED BEARING AT ABUTMENT

FILLER PLATE SCHEDULE

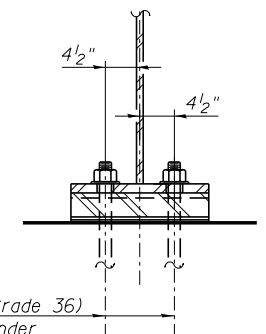
(In addition to adjustment shims, see General Notes)
Cost Included with Structural Steel

Location	Girder	Plate Thickness t
NB North Abut.	3	3/4"
SB North Abut.	7	1/4"

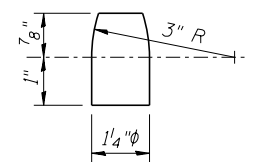
Fill plates to be the same horizontal dimensions as the bottom bearing plates.



SECTION D-D



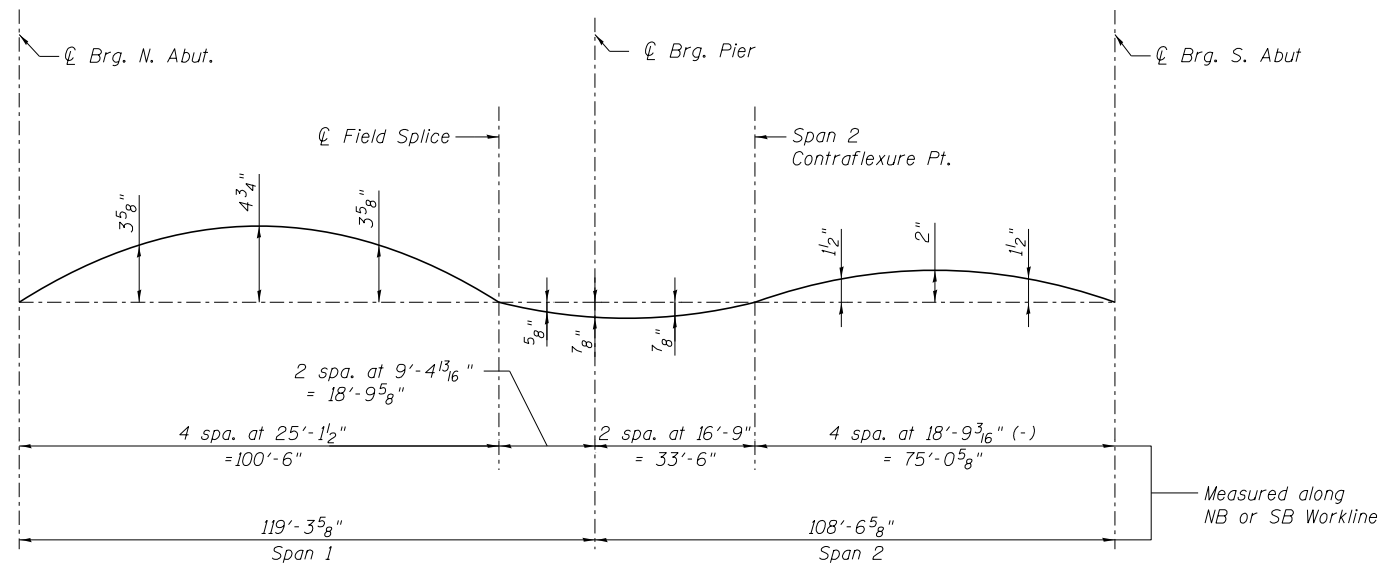
SECTION E-E



PINTLE

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Anchor Bolts, 1"	Each	40
Anchor Bolts, 1 1/4"	Each	20



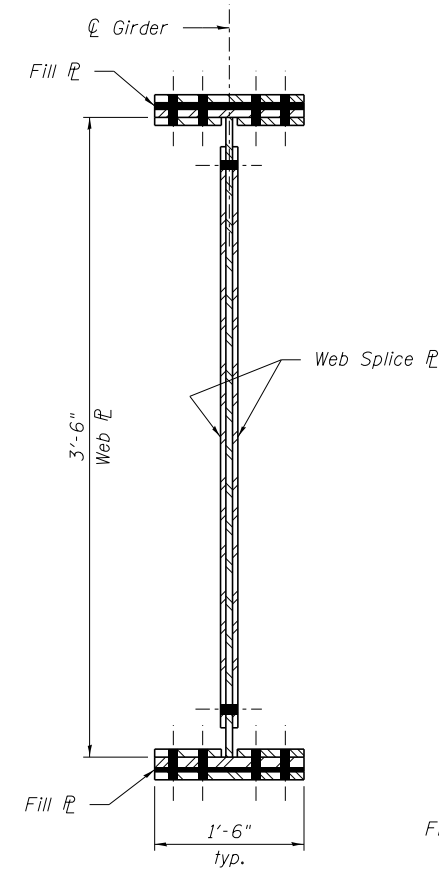
CAMBER DIAGRAM

TOP OF WEB ELEVATIONS

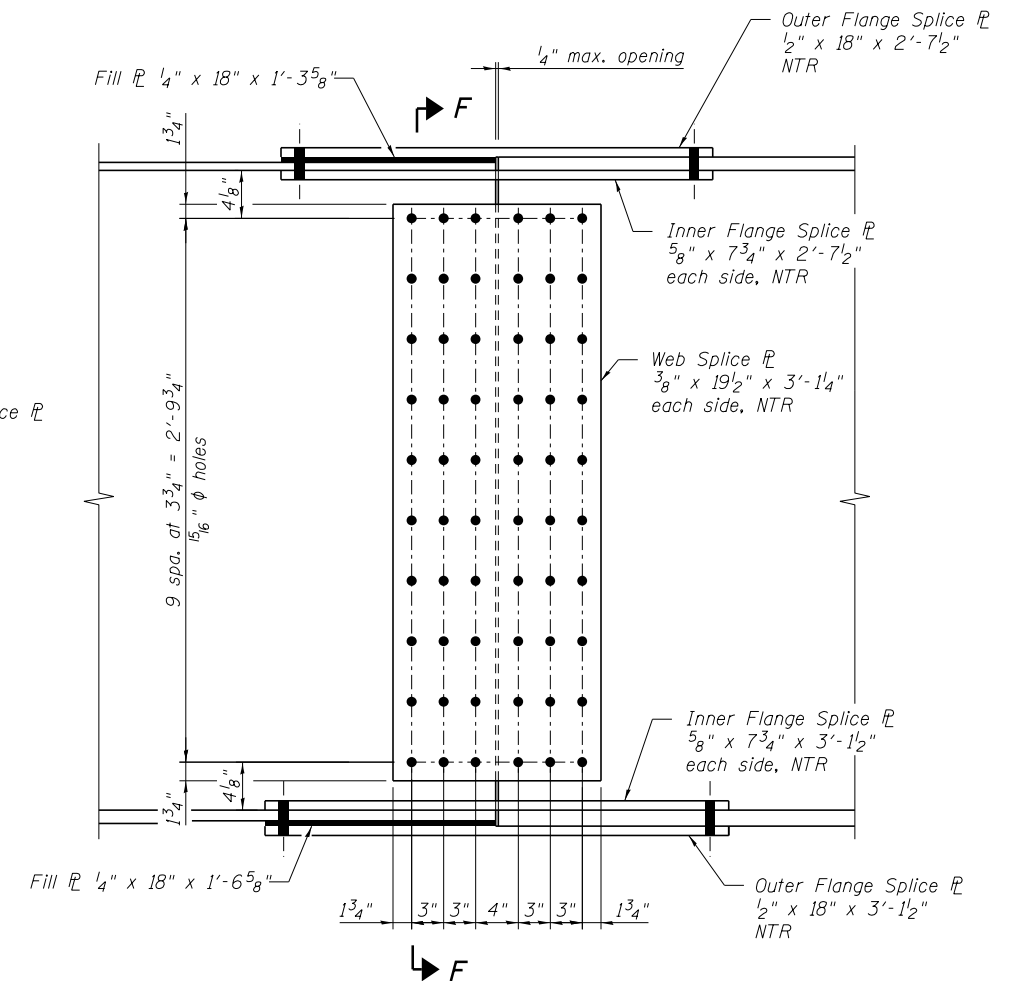
Location	Girder 1	Girder 2	Girder 3	Girder 4	Girder 5	Girder 6	Girder 7	Girder 8	Girder 9	Girder 10
Brg. N. Abut.	752.05	752.15	752.21	752.27	752.10	751.90	751.92	751.74	751.55	751.33
Field Splice	753.20	753.34	753.44	753.54	753.43	753.32	753.41	753.27	753.12	752.93
Brg. Pier	753.19	753.34	753.45	753.55	753.45	753.37	753.46	753.33	753.19	753.00
*Span 2 CF Pt.	753.39	753.55	753.67	753.79	753.69	753.66	753.77	753.64	753.52	753.35
Brg. S. Abut.	752.97	753.15	753.30	753.44	753.36	753.45	753.56	753.47	753.37	753.23

For fabricator use only.

*CF = Contraflexure

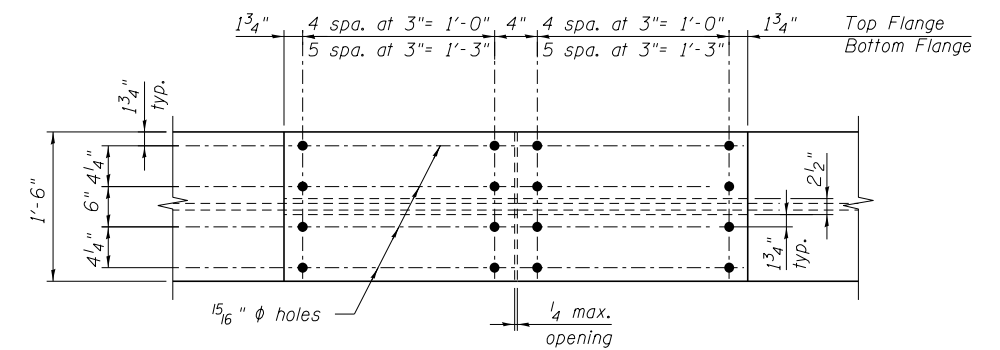


SECTION F-F



ELEVATION - FIELD SPLICE

(60 Bolts per Web Splice)

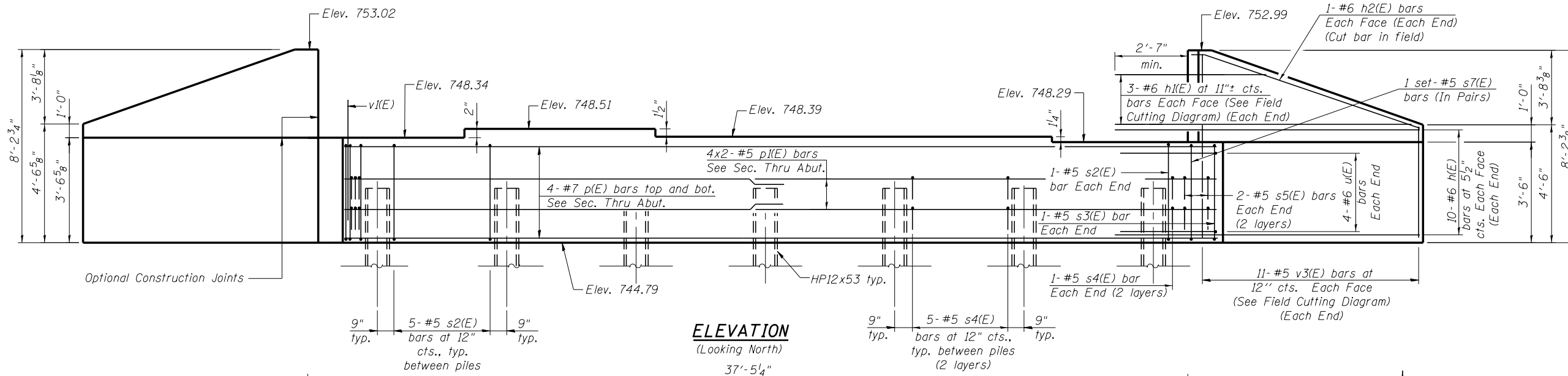


FLANGE SPLICE

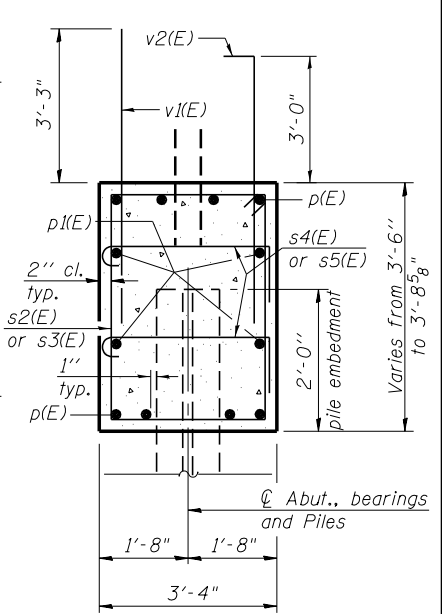
(40 bolts per Top Flange Splice)
(48 bolts per Bottom Flange Splice)

NOTES:

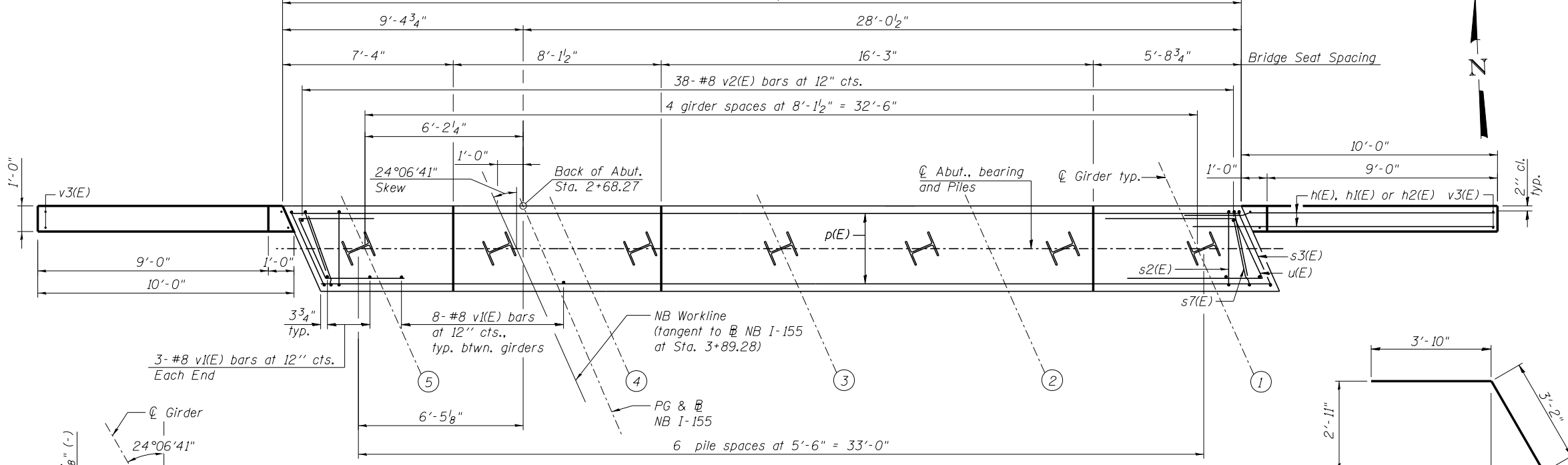
- All Splice Plates except fill plates shall be AASHTO M270 Grade 50.
- All Splice Bolts shall be 7/8" ϕ ASTM A325 High Strength with 15/16" ϕ holes.
- Load carrying components designated "NTR" shall conform to the Impact Testing Requirements, Zone 2.
- All splices are symmetrical about ϕ splice except for fill ϕ .



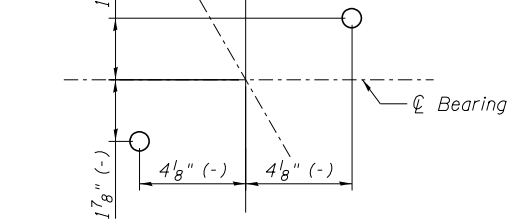
ELEVATION
(Looking North)



SEC. THRU ABUT.



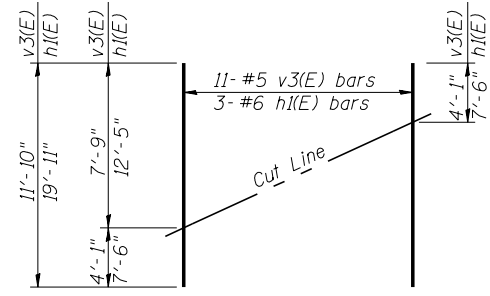
PLAN



ANCHOR BOLT DETAIL

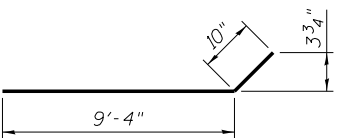
PILE DATA
Type: HP12x53
Nominal Required Bearing: 350 kips
Factored Resistance Available: 192 kips
Est. Length: 89 ft.
No. Production Piles: 7
No. Test Piles: 0

MIN BAR LAP
#5 bar = 3'-3"

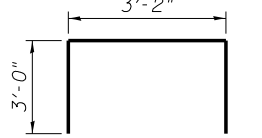


FIELD CUTTING DIAGRAM

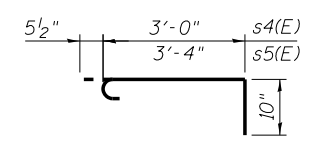
Order v3(E) & h1(E) full length. Cut as shown and use remainder of bars in opposite face.



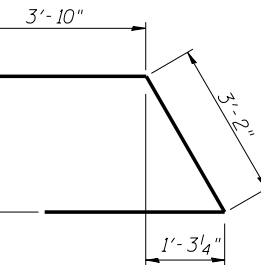
BAR h2(E)



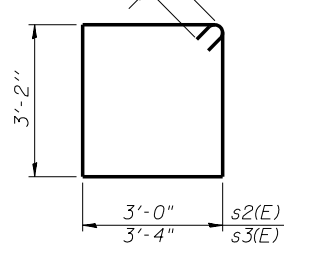
BAR s7(E)



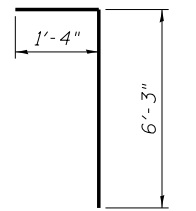
BARS s4(E) & s5(E)



BAR u(E)



BARS s2(E) & s3(E)



BAR v2(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	40	#6	12'-5"	—
h1(E)	6	#6	19'-11"	—
h2(E)	4	#6	10'-2"	—
p(E)	8	#7	36'-11"	—
p1(E)	8	#5	20'-1"	—
s2(E)	32	#5	13'-3"	□
s3(E)	2	#5	13'-11"	□
s4(E)	64	#5	4'-4"	□
s5(E)	8	#5	4'-8"	□
s7(E)	4	#5	9'-2"	□
u(E)	8	#6	10'-10"	□
v1(E)	38	#8	6'-6"	—
v2(E)	38	#8	7'-7"	—
v3(E)	22	#5	11'-10"	—
Concrete Structures	Cu. Yd.	21.4		
Reinforcement Bars, Epoxy Coated	Pound	4,430		
Furnishing Steel Piles HP12x53	Foot	623		
Driving Piles	Foot	623		

- NOTES:**
- For details of piles, see sheet SA30.
 - Pour steps monolithically with cap.
 - Adjust s7(E) bars in field to form a single closed stirrup between the s2(E) bar and the s3(E) bar.
 - h1(E) or h2(E) bars shall not be embedded in the approach slab.
 - Adjust bar spacing to avoid anchor bolt locations.

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Chicago, Illinois 60601
312-565-0450 Job No. 10056

FILE NAME =	USER NAME = mbecker	DESIGNED - DTS	REVISIONS -
0900165.68620.24_abut1.dgn		CHECKED - SLD	REVISIONS -
		PLOT SCALE =	REVISIONS -
		PLOT DATE = 7/16/2012	REVISIONS -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

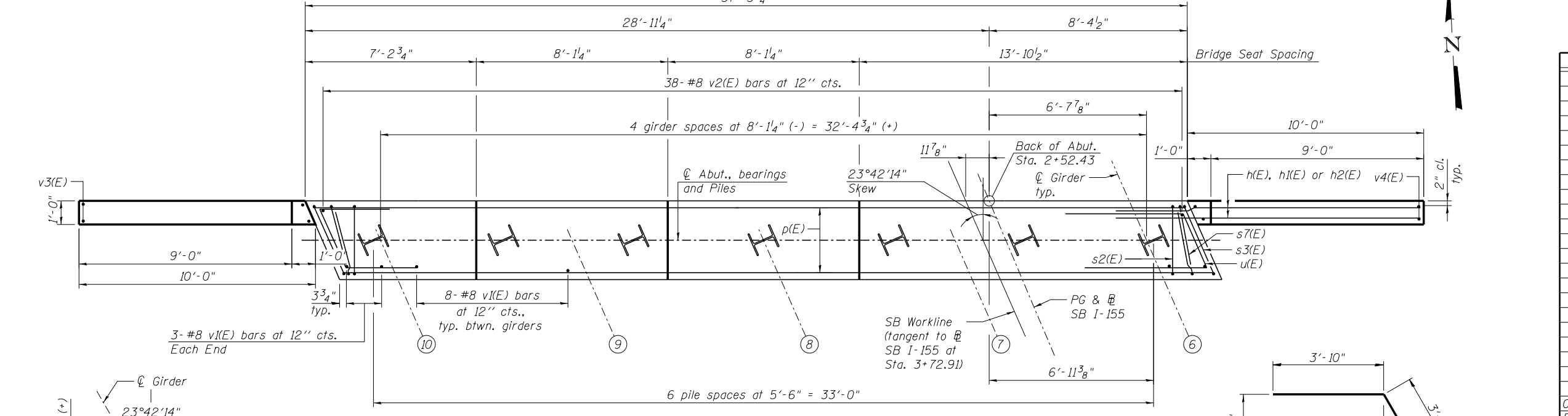
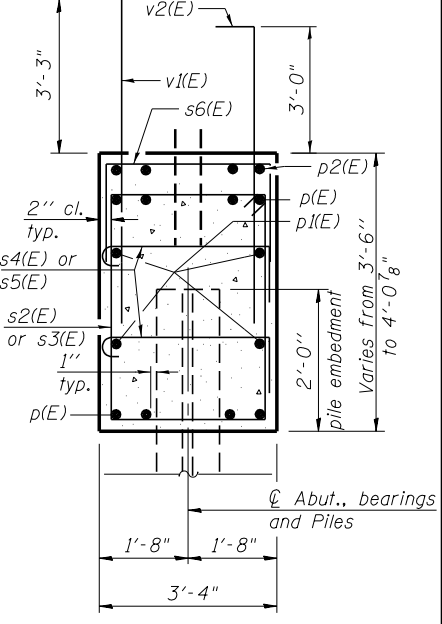
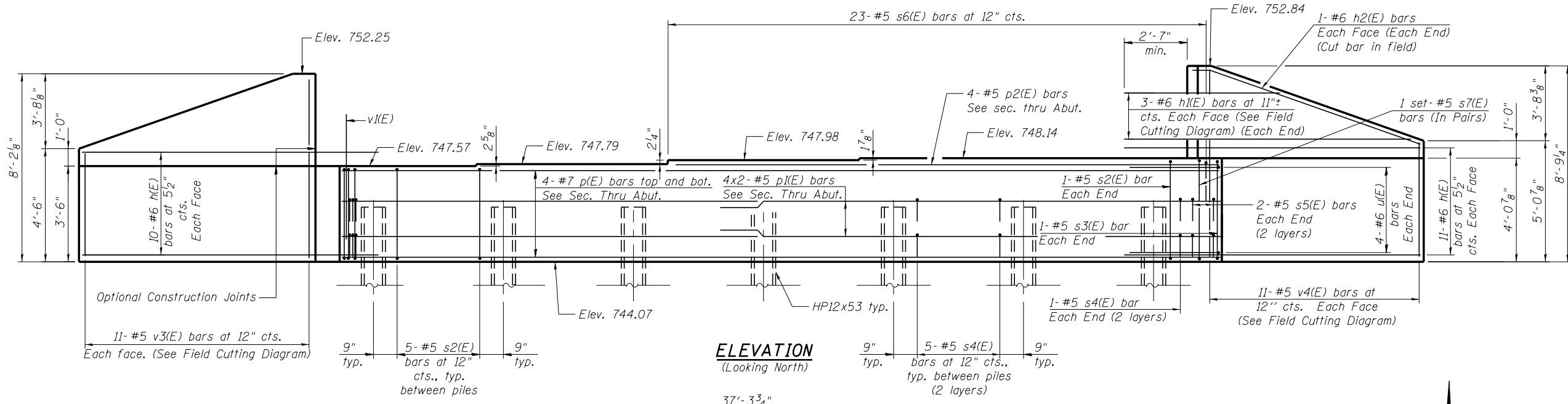
NB NORTH ABUTMENT DETAILS
STRUCTURE NO. 090-0165 / 0166

SHEET NO. SA24 OF SA47 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R(14HB-4,14,14HB)BR]	TAZEWELL	2433	1888
CONTRACT NO. 68620				

ILLINOIS FED. AID PROJECT

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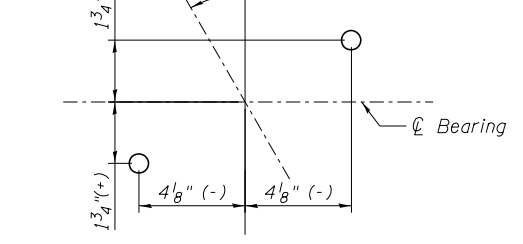


SEC. THRU ABUT.
BILL OF MATERIAL

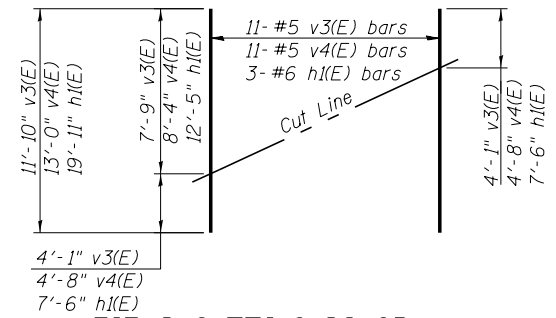
Bar	No.	Size	Length	Shape
h(E)	42	#6	12'-5"	—
h1(E)	6	#6	19'-11"	—
h2(E)	4	#6	10'-2"	—
p(E)	8	#7	36'-11"	—
p1(E)	8	#5	20'-1"	—
p2(E)	4	#5	21'-8"	—
s2(E)	32	#5	13'-3"	□
s3(E)	2	#5	13'-11"	□
s4(E)	64	#5	4'-4"	□
s5(E)	8	#5	4'-8"	□
s6(E)	23	#5	6'-10"	□
s7(E)	4	#5	9'-2"	□
u(E)	8	#6	10'-10"	┘
v1(E)	38	#8	6'-6"	—
v2(E)	38	#8	7'-7"	—
v3(E)	11	#5	11'-10"	—
v4(E)	11	#5	13'-0"	—
Concrete Structures		Cu. Yd.	22.7	
Reinforcement Bars, Epoxy Coated		Pound	4,740	
Furnishing Steel Piles HP12x53		Foot	534	
Driving Piles		Foot	534	
Test Pile Steel HP12x53		Each	1	

Bars indicated thus 4x2-#5 etc. indicates 4 lines of bars with 2 lengths per line.

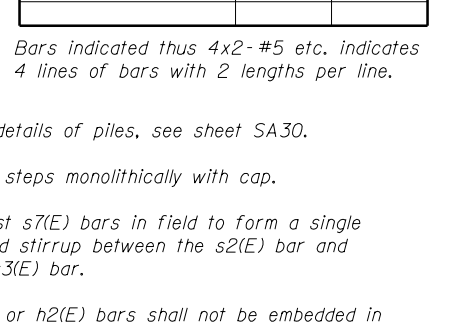
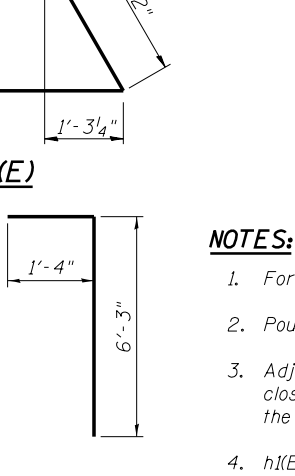
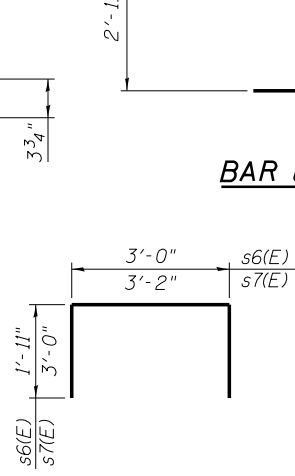
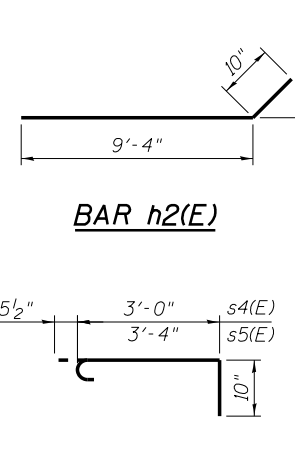
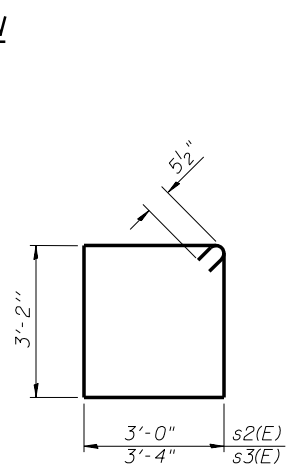
- NOTES:**
- For details of piles, see sheet SA30.
 - Pour steps monolithically with cap.
 - Adjust s7(E) bars in field to form a single closed stirrup between the s2(E) bar and the s3(E) bar.
 - h1(E) or h2(E) bars shall not be embedded in the approach slab.
 - Adjust bar spacing to avoid anchor bolt locations.



MIN. BAR LAP
#5 bar = 3'-3"



FIELD CUTTING DIAGRAM
Order v3(E), v4(E) and h1(E) full length. Cut as shown and use remainder of bars in opposite face.



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Chicago, Illinois 60601
312-565-0450 Job No. 10056

FILE NAME =	USER NAME = mbecker	DESIGNED - DTS	REVISIONS -
0900165.68620.25.abut2.dgn		CHECKED - SLD	REVISIONS -
		PLOT SCALE =	REVISIONS -
		PLOT DATE = 7/16/2012	REVISIONS -

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CHECKED - SLD	REVISIONS -
DRAWN - PRT	REVISIONS -
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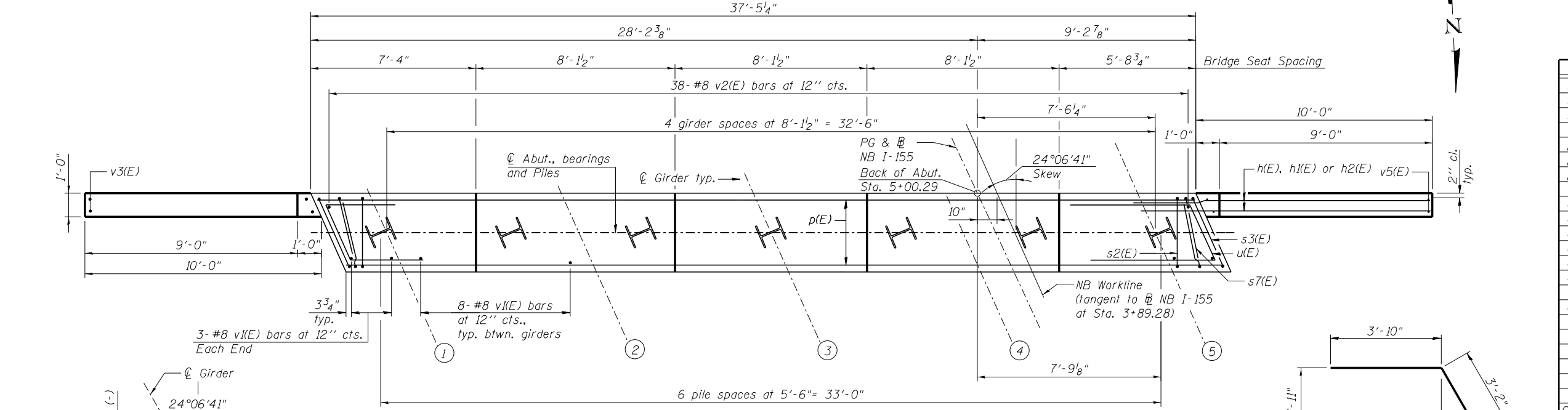
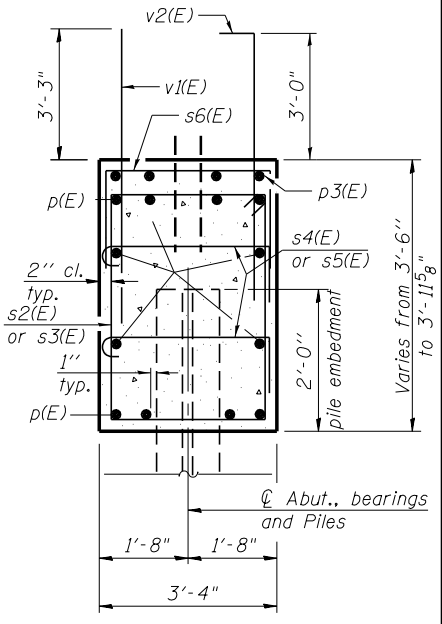
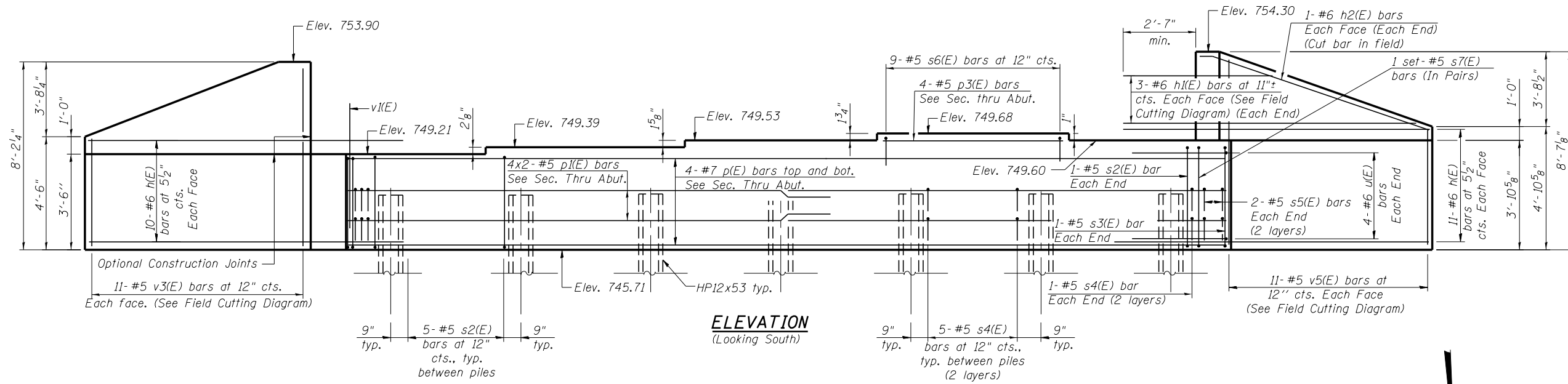
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SB NORTH ABUTMENT DETAILS
STRUCTURE NO. 090-0165 / 0166

SHEET NO. SA25 OF SA47 SHEETS

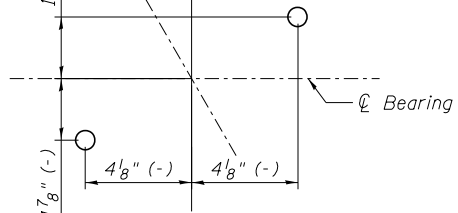
F.A.I. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R]14HB-4,14,14HB[BR]	TAZEWELL	2433	1889
CONTRACT NO. 68620				
ILLINOIS FED. AID PROJECT				

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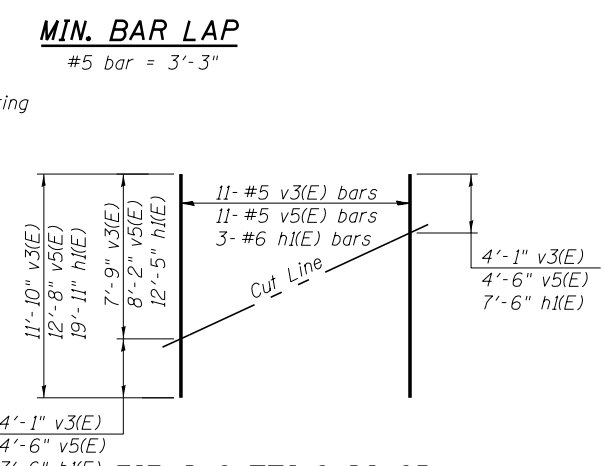
SEC. THRU ABUT.
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	42	#6	12'-5"	—
h1(E)	6	#6	19'-11"	—
h2(E)	4	#6	10'-2"	—
p(E)	8	#7	36'-11"	—
p1(E)	8	#5	20'-1"	—
p3(E)	4	#5	7'-9"	—
s2(E)	32	#5	13'-3"	□
s3(E)	2	#5	13'-11"	□
s4(E)	64	#5	4'-4"	□
s5(E)	8	#5	4'-8"	□
s6(E)	9	#5	6'-10"	□
s7(E)	4	#5	9'-2"	□
u(E)	8	#6	10'-10"	□
v1(E)	38	#8	6'-6"	—
v2(E)	38	#8	7'-7"	—
v3(E)	11	#5	11'-10"	—
v5(E)	11	#5	12'-8"	—
Concrete Structures		Cu. Yd.	22.4	
Reinforcement Bars, Epoxy Coated		Pound	4,570	
Furnishing Steel Piles HP12X53		Foot	546	
Driving Piles		Foot	546	

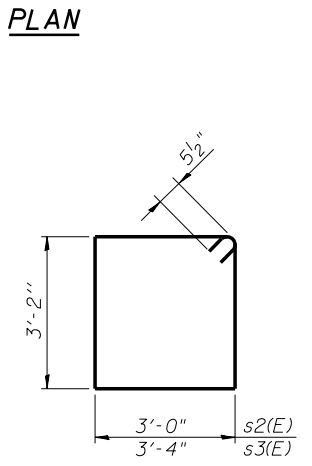


ANCHOR BOLT DETAIL

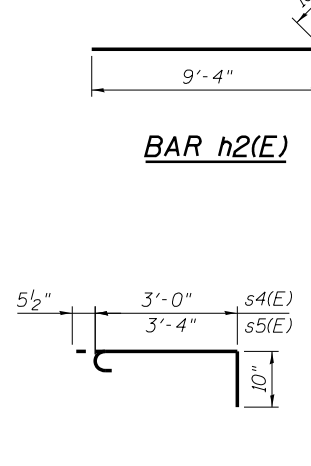
PILE DATA
Type: HP12x53
Nominal Required Bearing: 333 kips
Factored Resistance Available: 183 kips
Est. Length: 78 ft.
No. Production Piles: 7
No. Test Piles: 0



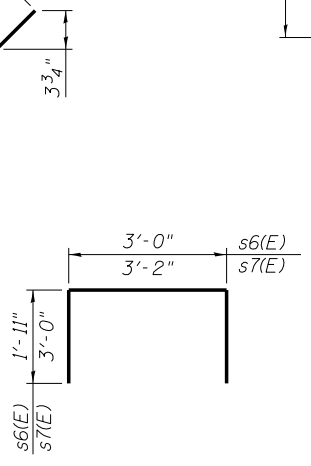
FIELD CUTTING DIAGRAM
Order v3(E), v5(E) and h1(E) full length. Cut as shown and use remainder of bars in opposite face.



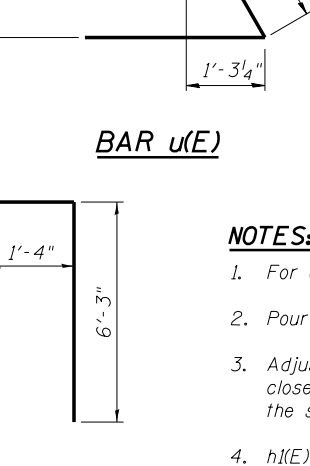
BARS s2(E) & s3(E)



BARS s4(E) & s5(E)



BARS s6(E) & s7(E)



BAR v2(E)

- NOTES:**
- For details of piles, see sheet SA30.
 - Pour steps monolithically with cap.
 - Adjust s7(E) bars in field to form a single closed stirrup between the s2(E) bar and the s3(E) bar.
 - h1(E) or h2(E) bars shall not be embedded in the approach slab.
 - Adjust bar spacing to avoid anchor bolt locations.



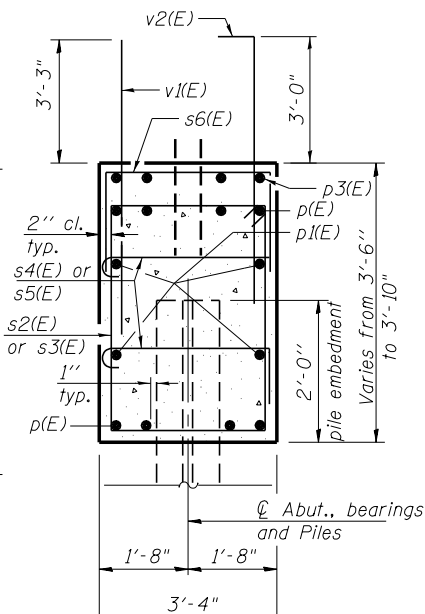
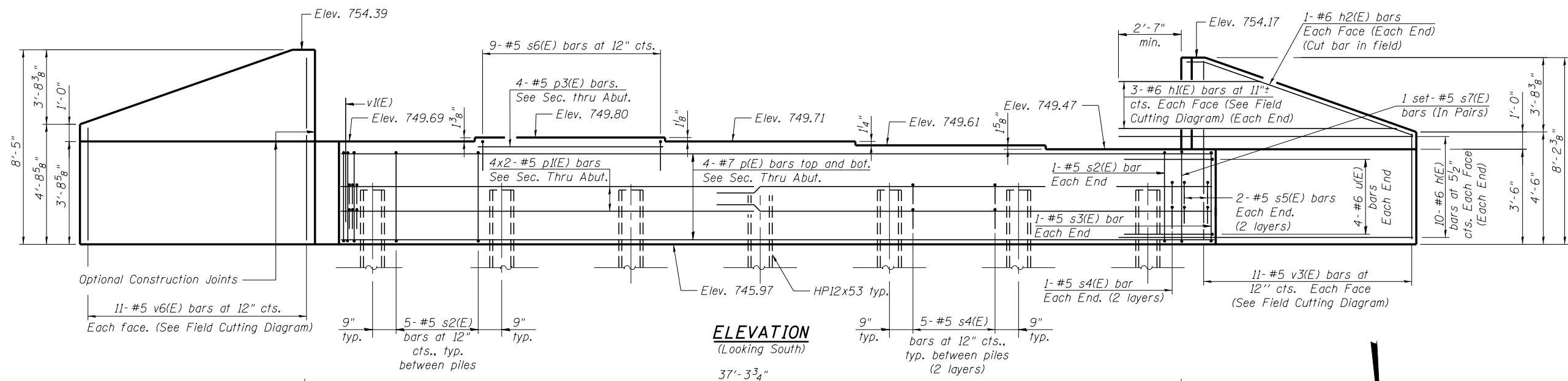
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		CHECKED - SLD	REVISIONS -
		DRAWN - PRT	REVISIONS -
		CHECKED - SLD	REVISIONS -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NB SOUTH ABUTMENT DETAILS
STRUCTURE NO. 090-0165 / 0166
SHEET NO. SA26 OF SA47 SHEETS

F.A.I. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R]14HB-4,14,14HB[BR]	TAZEWELL	2433	1890
CONTRACT NO. 68620				
ILLINOIS FED. AID PROJECT				

11:14:36 AM
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 7/16/2012



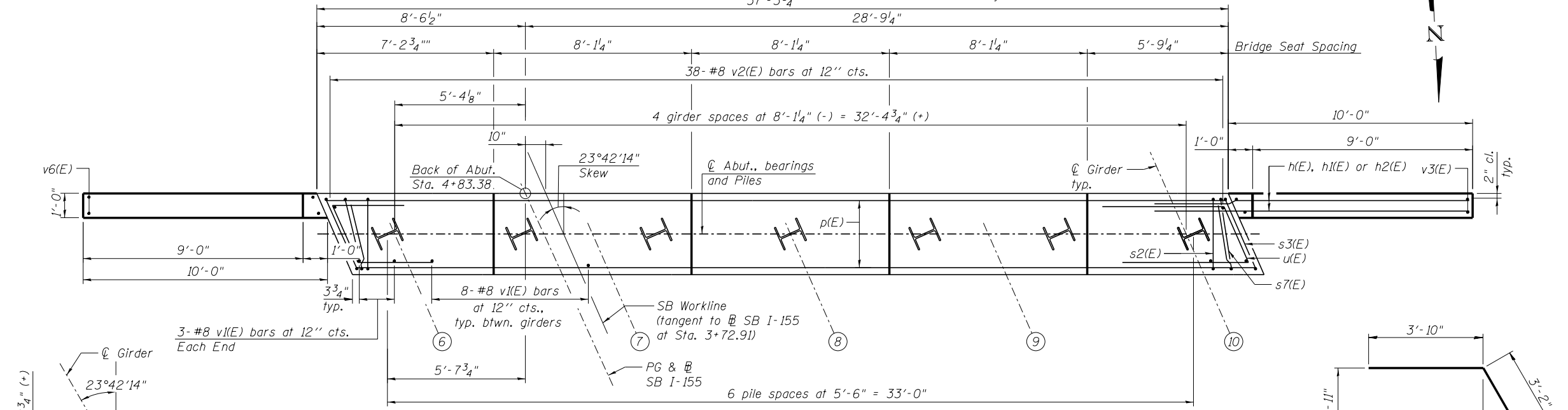
SEC. THRU ABUT.
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	40	#6	12'-5"	—
h1(E)	6	#6	19'-11"	—
h2(E)	4	#6	10'-2"	—
p(E)	8	#7	36'-11"	—
p1(E)	8	#5	20'-1"	—
p3(E)	4	#5	7'-9"	—
s2(E)	32	#5	13'-3"	□
s3(E)	2	#5	13'-11"	□
s4(E)	64	#5	4'-4"	┌
s5(E)	8	#5	4'-8"	┌
s6(E)	9	#5	6'-10"	┌
s7(E)	4	#5	9'-2"	┌
u(E)	8	#6	10'-10"	┌
v1(E)	38	#8	6'-6"	—
v2(E)	38	#8	7'-7"	—
v3(E)	11	#5	11'-10"	—
v6(E)	11	#5	12'-4"	—
Concrete Structures	Cu. Yd.		21.8	
Reinforcement Bars, Epoxy Coated	Pound		4,530	
Furnishing Steel Piles HP12x53	Foot		456	
Driving Piles	Foot		456	
Test Pile Steel HP12x53	Each		1	

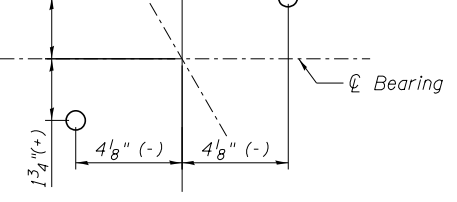
Bars indicated thus 4x2-#5 etc. indicates 4 lines of bars with 2 lengths per line.

NOTES:

- For details of piles, see sheet SA30.
- Pour steps monolithically with cap.
- Adjust s7(E) bars in field to form a single closed stirrup between the s2(E) bar and the s3(E) bar.
- h1(E) or h2(E) bars shall not be embedded in the approach slab.
- Adjust bar spacing to avoid anchor bolt locations.



PLAN

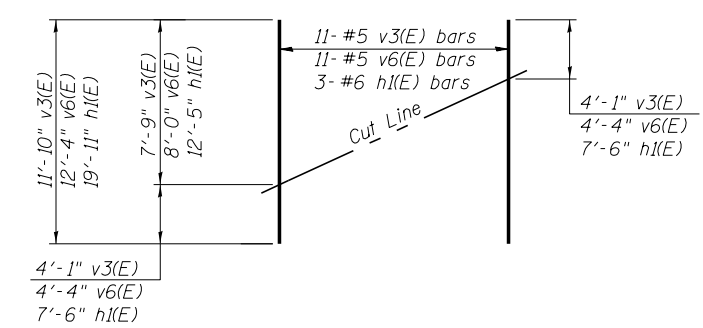


ANCHOR BOLT DETAIL

PILE DATA

Type: HP12x53
Nominal Required Bearing: 331 kips
Factored Resistance Available: 182 kips
Est. Length: 76 ft.
No. Production Piles: 6
No. Test Piles: 1

MIN. BAR LAP
#5 bars = 3'-3"



FIELD CUTTING DIAGRAM

Order v3(E), v6(E) and h1(E) full length. Cut as shown and use remainder of bars in opposite face.

BARS s2(E) & s3(E)

BARS s4(E) & s5(E)

BARS s6(E) & s7(E)

BAR v2(E)



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Chicago, Illinois 60601
312-565-0450 Job No. 10056

FILE NAME = 0900165.68620.27.abut4.dgn	USER NAME = mbecker	DESIGNED - DTS	REVISIONS -
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		DRAWN - PRT	REVISIONS -
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			REVISIONS -

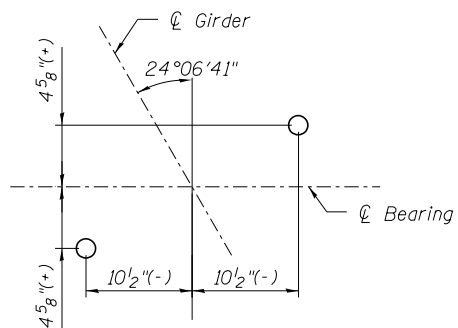
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SB SOUTH ABUTMENT DETAILS
STRUCTURE NO. 090-0165 / 0166

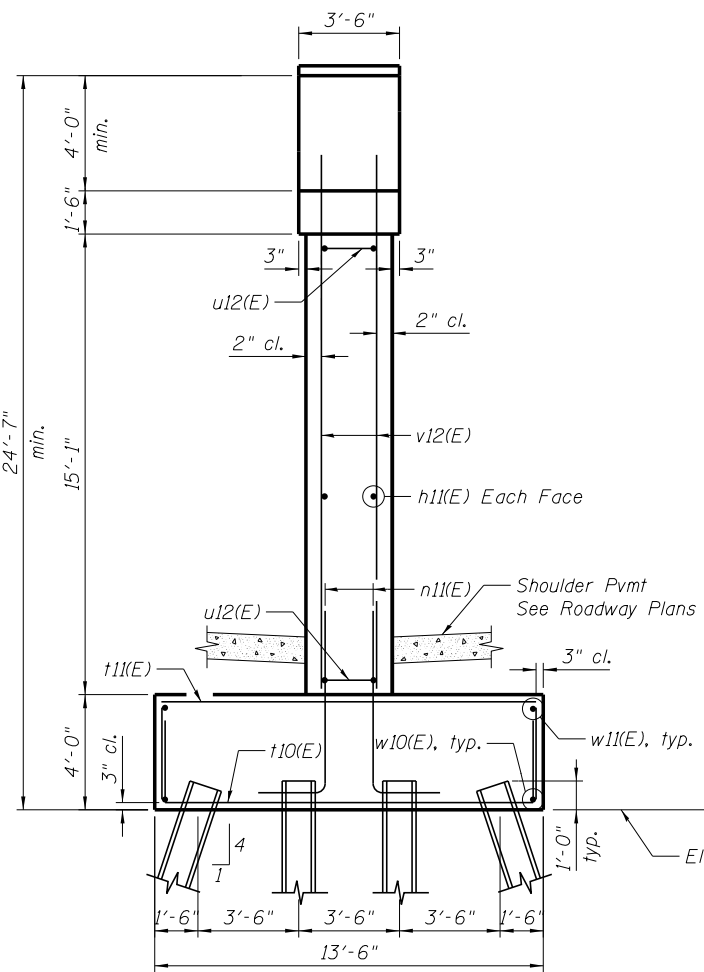
F.A.I. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R]14HB-4,14,14HV[B]BR	TAZEWELL	2433	1891
CONTRACT NO. 68620				
ILLINOIS FED. AID PROJECT				

SHEET NO. SA27 OF SA47 SHEETS

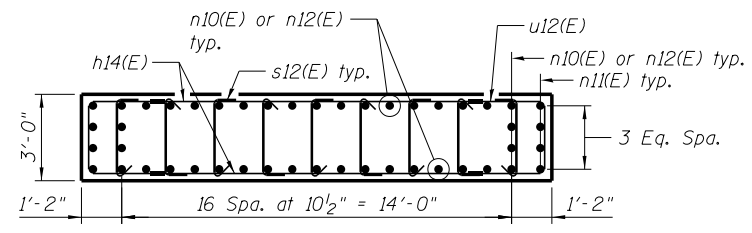
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ANCHOR BOLT DETAIL



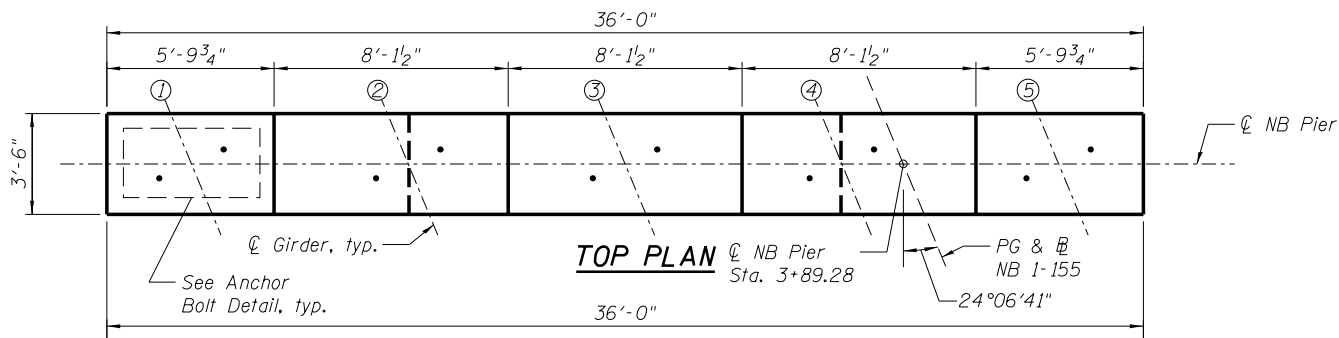
END VIEW



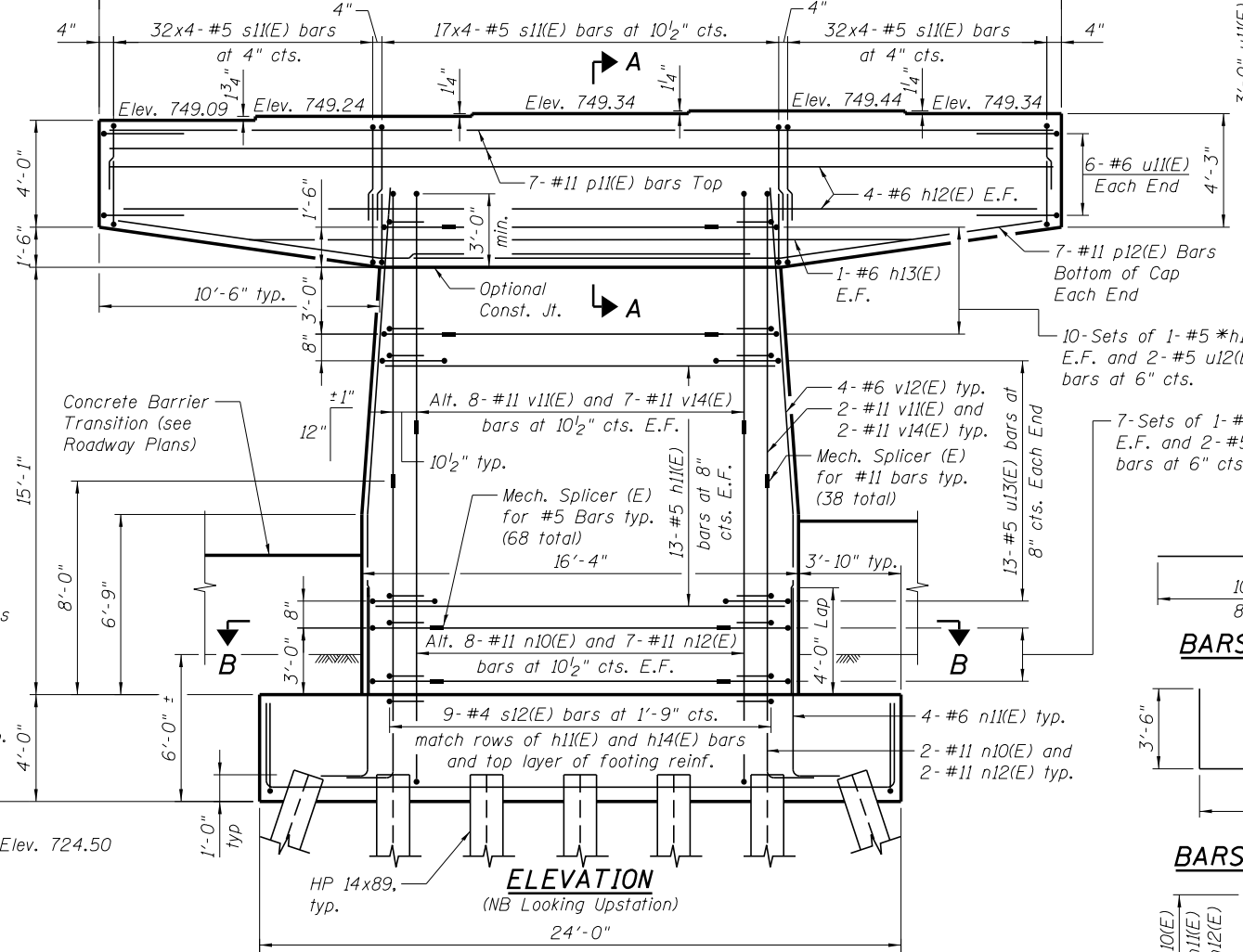
SECTION B-B

PILE DATA

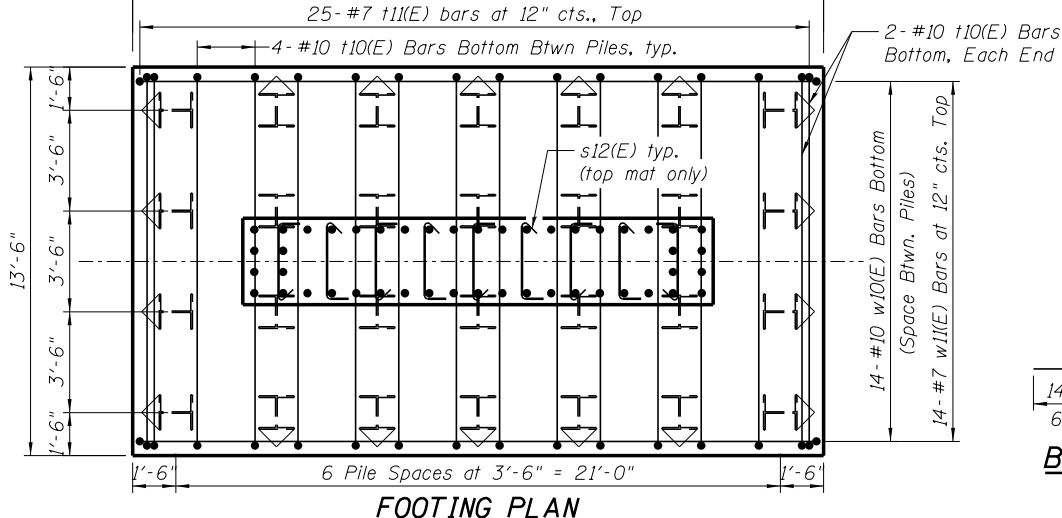
Type: HP14x89
 Nominal Required Bearing 344 kips
 Factored Resistance Available: 189 kips
 Est. Length: 73 ft.
 No. Production Piles: 28
 No. Test Piles: 0



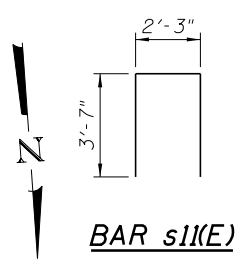
TOP PLAN



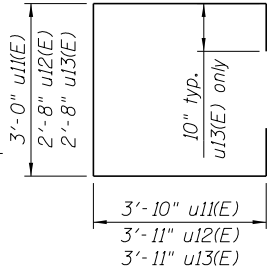
ELEVATION
(NB Looking Upstation)



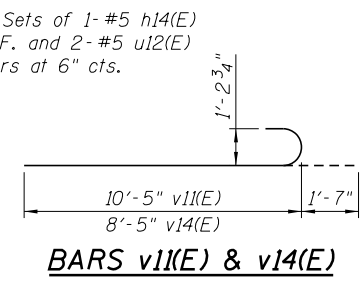
FOOTING PLAN
(Showing Bottom Reinforcing)



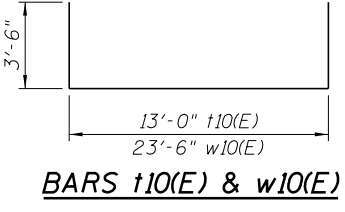
BAR s11(E)



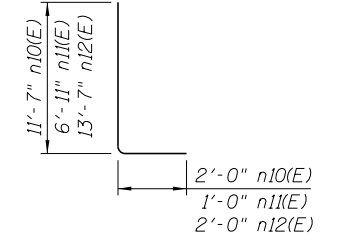
BARS u11(E), u12(E) & u13(E)



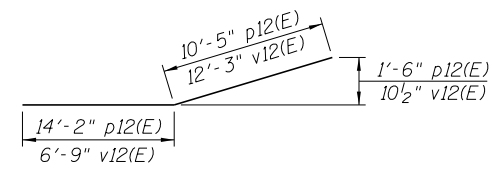
BARS v11(E) & v14(E)



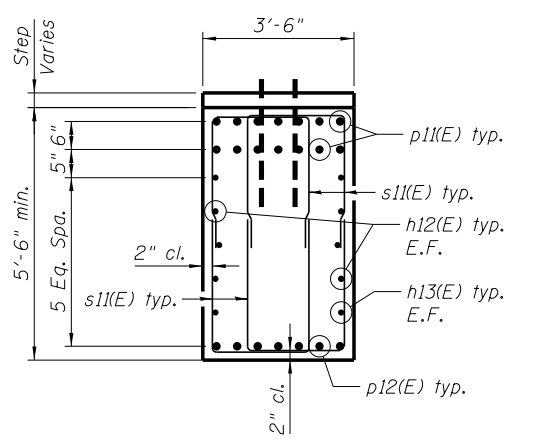
BARS t10(E) & w10(E)



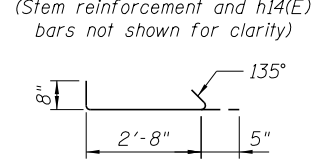
BARS n10(E), n11(E) & n12(E)



BARS p12(E) & v12(E)



SECTION A-A
(Stem reinforcement and h14(E) bars not shown for clarity)



BAR s12(E)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h11(E)	26	#5	15'-0"	
h12(E)	8	#6	35'-8"	
h13(E)	2	#6	25'-2"	
h14(E)	34	#5	8'-2"	
n10(E)	20	#11	13'-7"	
n11(E)	8	#6	7'-11"	
n12(E)	18	#11	15'-7"	
p11(E)	14	#11	35'-8"	
p12(E)	14	#11	24'-7"	
s11(E)	324	#5	9'-5"	
s12(E)	279	#4	3'-9"	
t10(E)	28	#10	20'-0"	
t11(E)	25	#7	13'-1"	
u11(E)	12	#6	10'-8"	
u12(E)	34	#5	10'-6"	
u13(E)	26	#5	12'-2"	
v11(E)	20	#11	12'-0"	
v12(E)	8	#6	19'-0"	
v14(E)	18	#11	10'-0"	
w10(E)	14	#10	30'-6"	
w11(E)	14	#7	23'-7"	
Structure Excavation		Cu. Yd.	164	
Concrete Structures		Cu. Yd.	99.8	
Reinforcement Bars, Epoxy Coated		Pound	19,710	
Furnishing Steel Piles HP14X89		Foot	2,044	
Driving Piles		Foot	2,044	

NOTES:

- Space reinforcement in cap to miss anchor bolts.
- Pour steps monolithically with cap.

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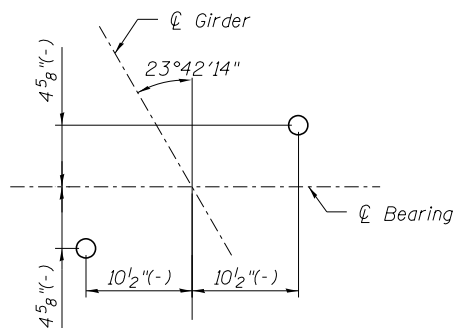
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

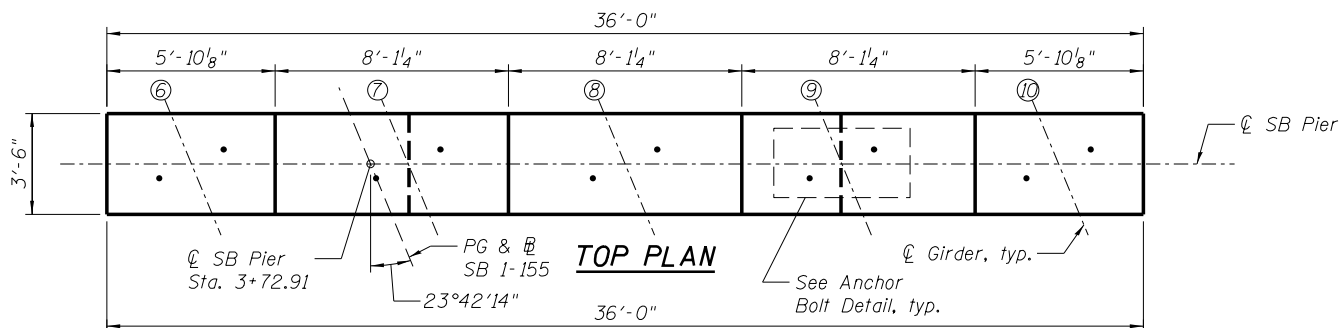
NB PIER DETAILS
STRUCTURE NO. 090-0165 / 0166
 SHEET NO. SA28 OF SA47 SHEETS

F.A.I. RT.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R;14HB-4,14,14HB]BR	TAZEWELL	2433	1892
			CONTRACT NO. 68620	
ILLINOIS FED. AID PROJECT				

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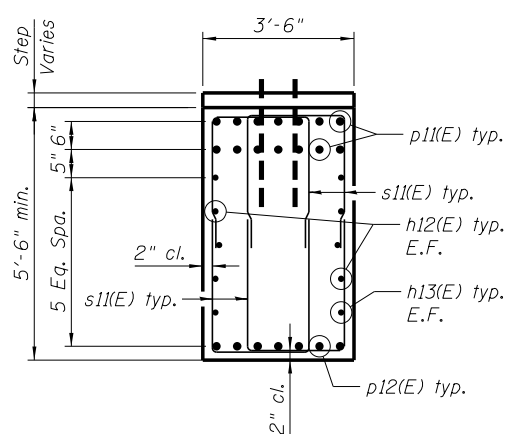


ANCHOR BOLT DETAIL



TOP PLAN

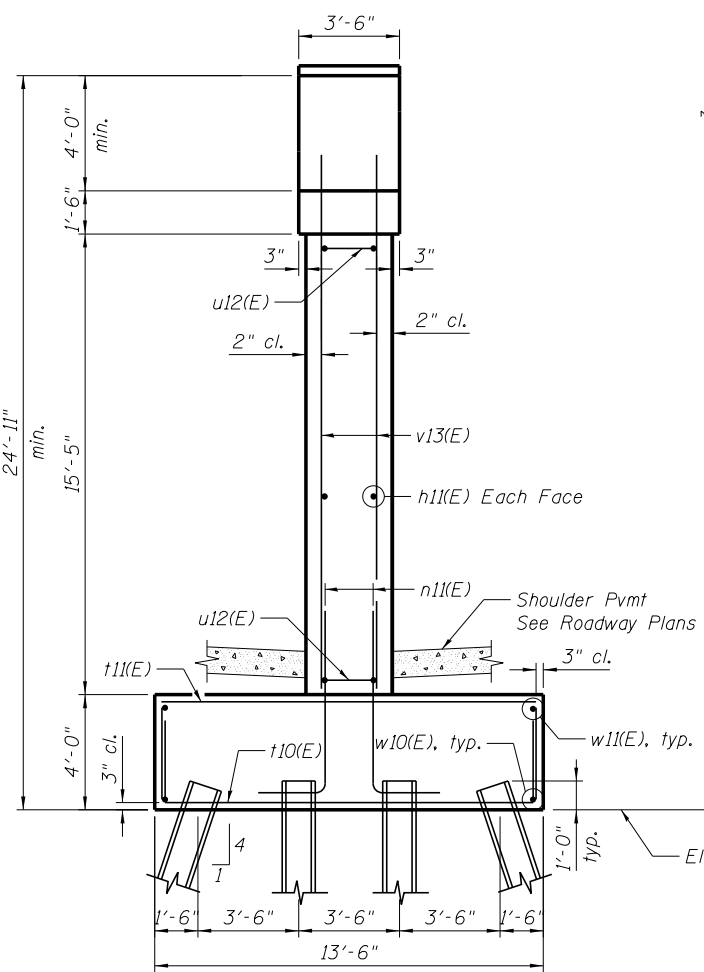
BAR s11(E)



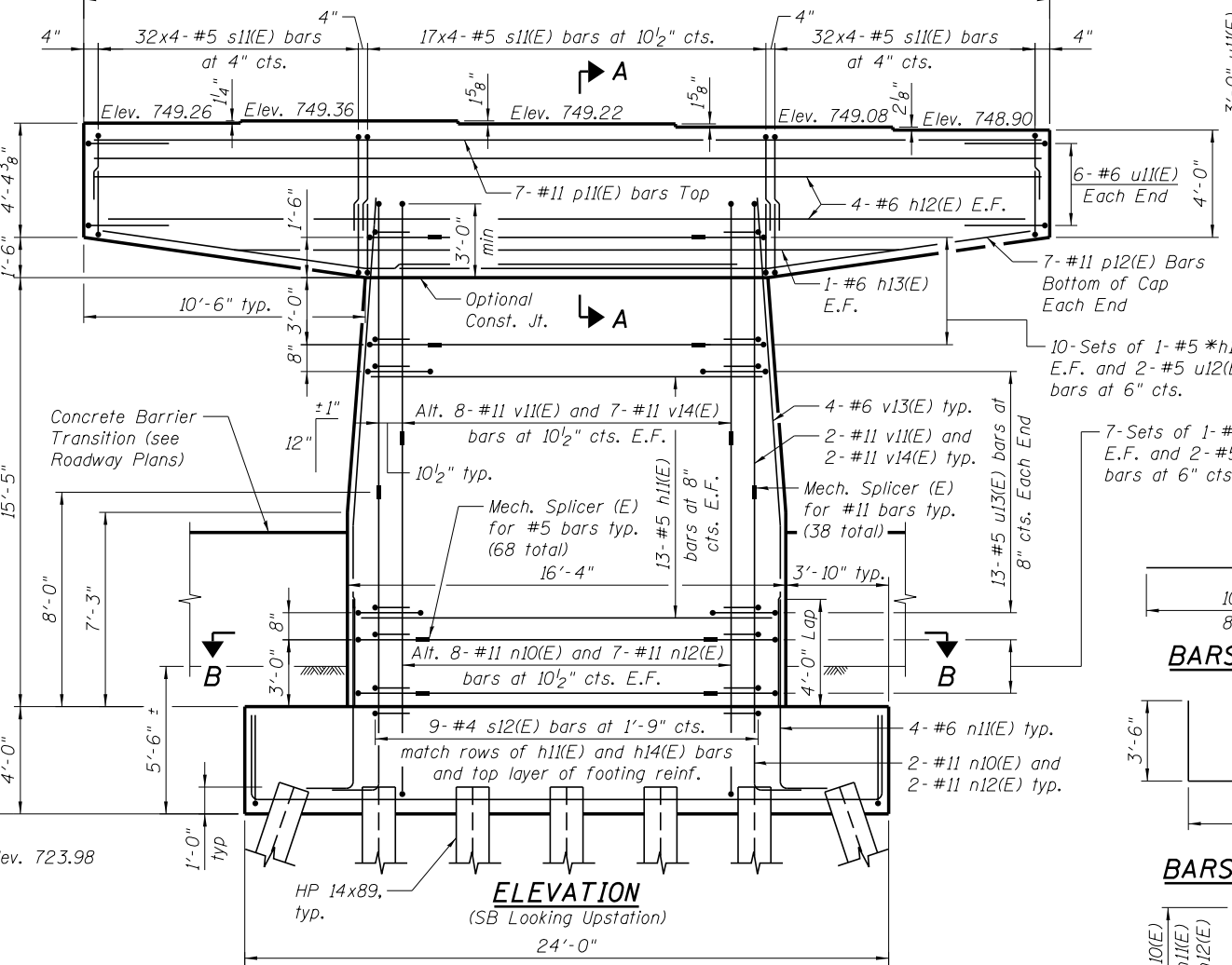
SECTION A-A

(Stem reinforcement and h14(E) bars not shown for clarity)

BAR s12(E)



END VIEW



ELEVATION

(SB Looking Upstation)

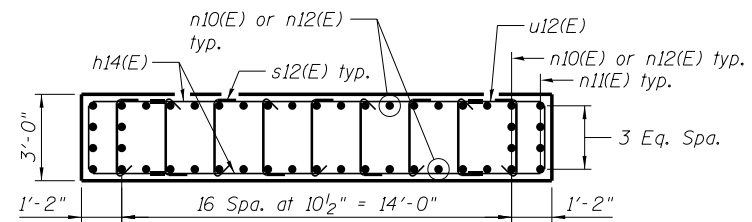
BARS u11(E), u12(E) & u13(E)

BARS v11(E) & v14(E)

BARS t10(E) & w10(E)

BARS n10(E), n11(E) & n12(E)

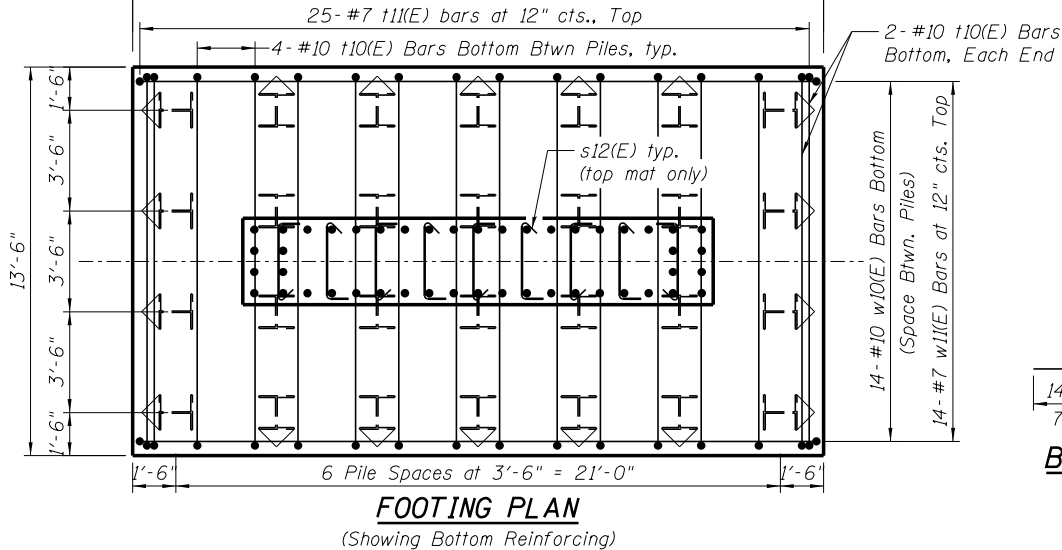
BARS p12(E) & v13(E)



SECTION B-B

PILE DATA

Type: HP14x89
Nominal Required Bearing 344 kips
Factored Resistance Available: 189 kips
Est. Length: 73 ft.
No. Production Piles: 27
No. Test Piles: 1



FOOTING PLAN

(Showing Bottom Reinforcing)

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h11(E)	26	#5	15'-0"	
h12(E)	8	#6	35'-8"	
h13(E)	2	#6	25'-2"	
h14(E)	34	#5	8'-2"	
n10(E)	20	#11	13'-7"	
n11(E)	8	#6	7'-11"	
n12(E)	18	#11	15'-7"	
p11(E)	14	#11	35'-8"	
p12(E)	14	#11	24'-7"	
s11(E)	324	#5	9'-5"	
s12(E)	279	#4	3'-9"	
t10(E)	28	#10	20'-0"	
t11(E)	25	#7	13'-1"	
u11(E)	12	#6	10'-8"	
u12(E)	34	#5	10'-6"	
u13(E)	26	#5	12'-2"	
v11(E)	20	#11	12'-0"	
v13(E)	8	#6	19'-1"	
v14(E)	18	#11	10'-0"	
w10(E)	14	#10	30'-6"	
w11(E)	14	#7	23'-7"	
Structure Excavation		Cu. Yd.	186	
Concrete Structures		Cu. Yd.	100.3	
Reinforcement Bars, Epoxy Coated		Pound	19,710	
Furnishing Steel Piles HP14X89		Foot	1,971	
Driving Piles		Foot	1,971	
Test Pile Steel HP14X89		Each	1	

NOTES:

- Space reinforcement in cap to miss anchor bolts.
- Pour steps monolithically with cap.

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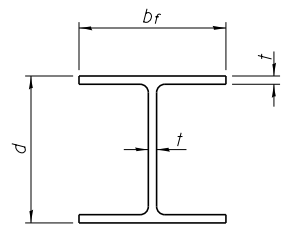
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		CHECKED - MRB	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SB PIER DETAILS
STRUCTURE NO. 090-0165 / 0166
SHEET NO. SA29 OF SA47 SHEETS

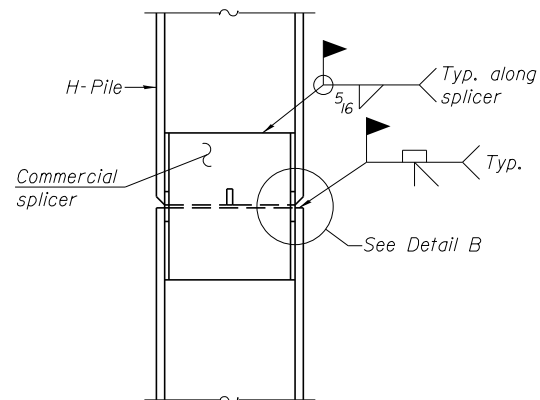
F.A.I. RT.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R]14HB-4,14,14HB[BR]	TAZEWELL	2433	1893
				CONTRACT NO. 68620
ILLINOIS FED. AID PROJECT				

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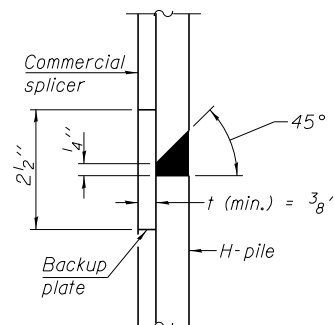


STEEL PILE TABLE

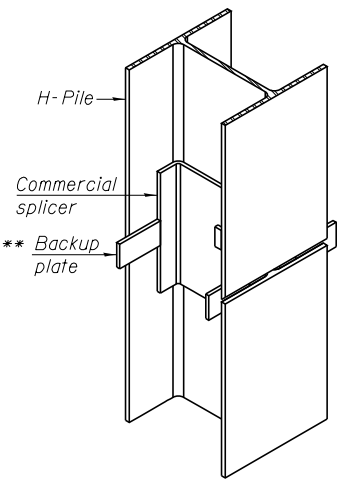
Designation	Depth d	Flange width br	Web and Flange thickness t	Encasement diameter A
HP 14x117	14 1/4"	14 7/8"	13/16"	30"
x102	14"	14 3/4"	1/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	1/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53	11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

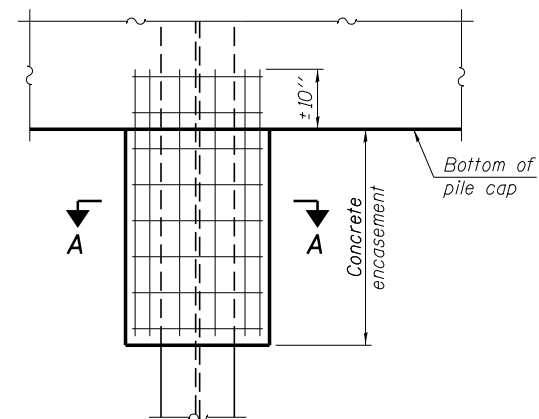


DETAIL "B"



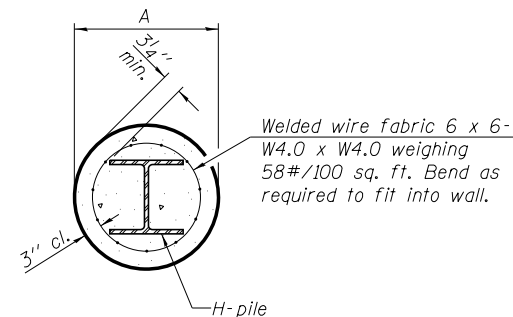
ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE



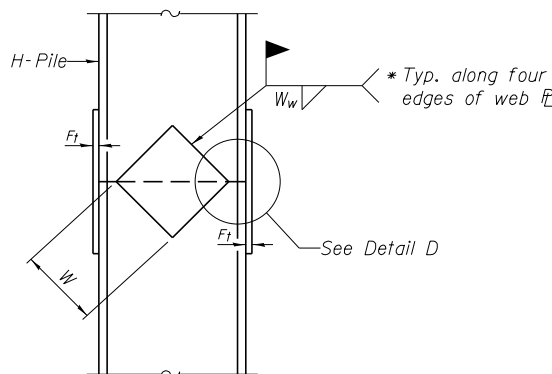
ELEVATION

PILE ENCASEMENT

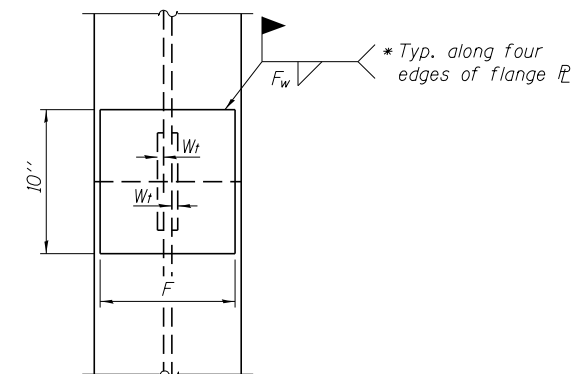


SECTION A-A

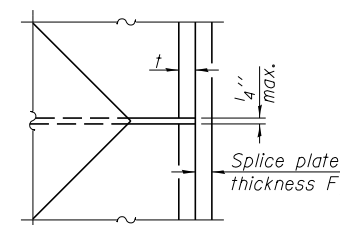
Note:
Forms for encasement may be omitted when soil conditions permit.



ELEVATION



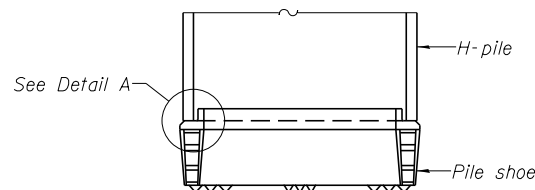
END VIEW



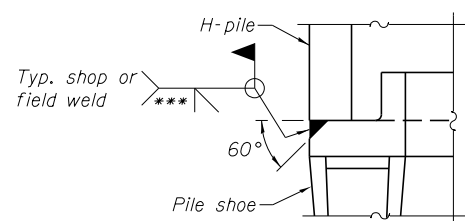
DETAIL D

WELDED PLATE FIELD SPLICE

Designation	F	F _t	F _w	W	W _t	W _w
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"

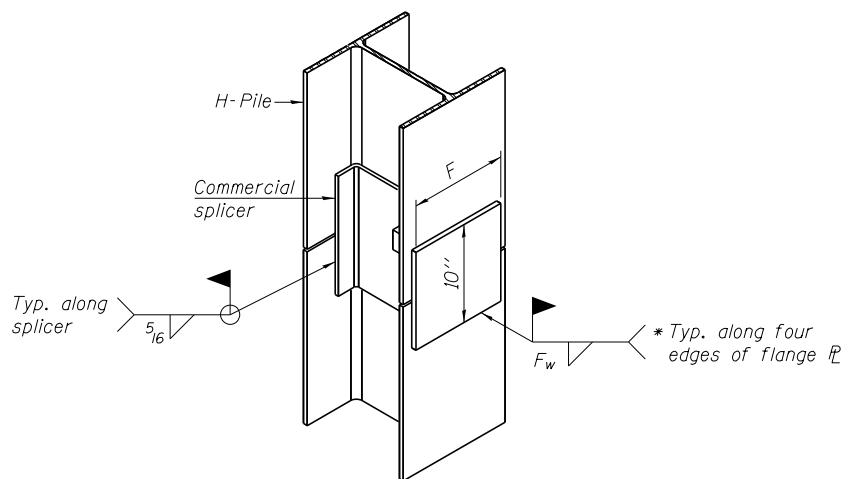


ELEVATION



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.).

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

F-HP 1-27-12
benesch Alfred Benesch & Company
 engineers · scientists · planners 205 North Michigan Avenue, Suite 2400
 Chicago, Illinois 60601
 312-565-0450 Job No. 10056

FILE NAME = 0900165.68620.30.pile.dgn

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 DESIGNED - MFB
 CHECKED - MRB
 PLOT SCALE =
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 CHECKED - MRB

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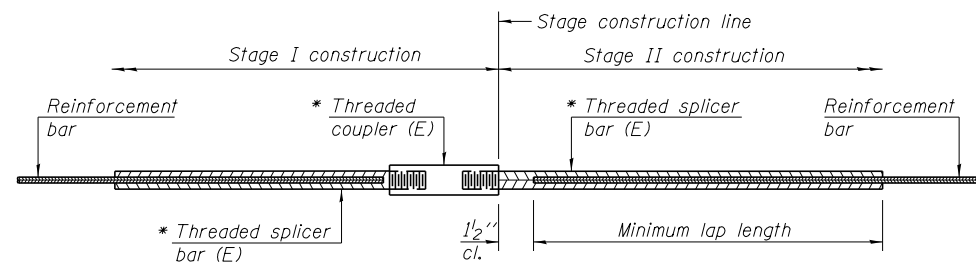
REVISED -
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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**HP PILE DETAILS
 STRUCTURE NO. 090-0165 / 0166**

SHEET NO. SA30 OF SA47 SHEETS

F.A.I. R.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R(14HB-4,14,14HVB)BR]	TAZEWELL	2433	1894
CONTRACT NO. 68620				
ILLINOIS FED. AID PROJECT				



STANDARD BAR SPLICER ASSEMBLY

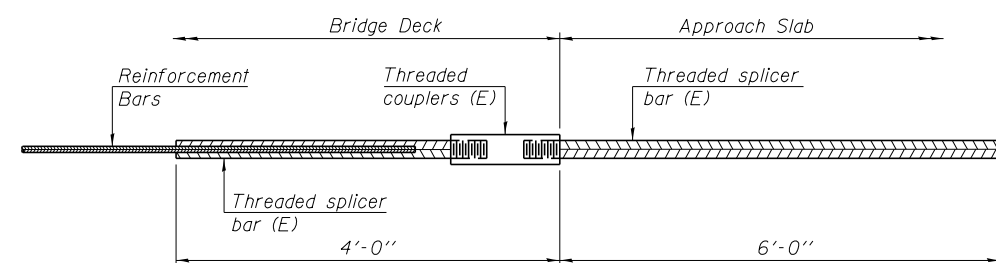
Minimum Lap Lengths						
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4	Table 5	Table 6
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-7"	2'-11"
5	1'-9"	2'-5"	2'-7"	2'-11"	3'-3"	3'-8"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-10"	4'-5"
7	2'-9"	3'-10"	4'-2"	4'-8"	5'-2"	5'-10"
8	3'-8"	5'-1"	5'-5"	6'-2"	6'-9"	7'-8"
9	4'-7"	6'-5"	6'-10"	7'-9"	8'-7"	9'-8"

- Table 1: Black bar, 0.8 Class C
- Table 2: Black bar, Top bar lap, 0.8 Class C
- Table 3: Epoxy bar, 0.8 Class C
- Table 4: Epoxy bar, Top bar lap, 0.8 Class C
- Table 5: Epoxy bar, Class C
- Table 6: Epoxy bar, Top bar top, Class C

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

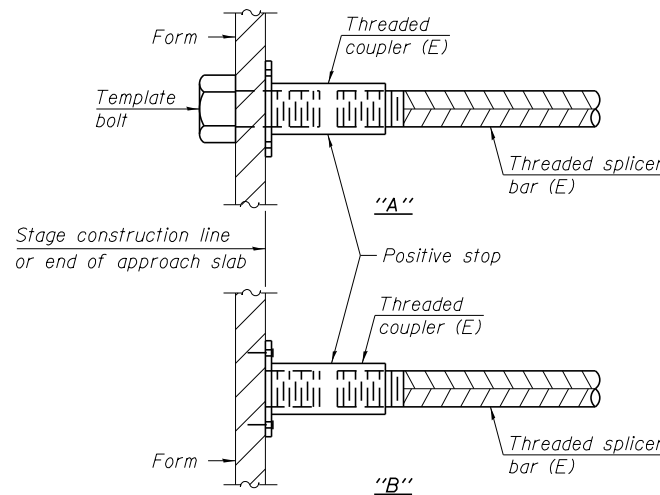
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length



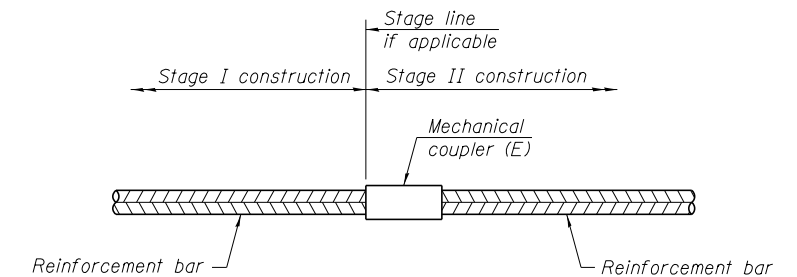
BAR SPLICER ASSEMBLY FOR #5 BAR ON INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

No. required =



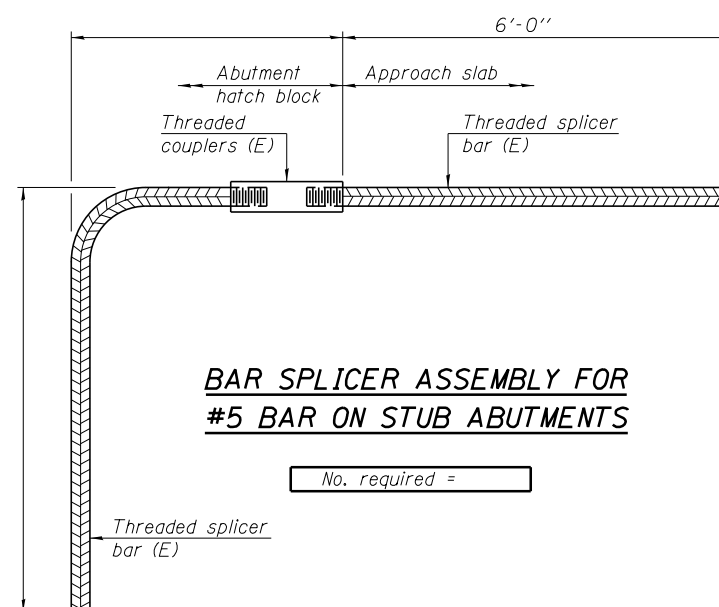
INSTALLATION AND SETTING METHODS

"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
SB Pier	#11	38
NB Pier	#11	38
SB Pier	#5	68
NB Pier	#5	68



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 1-27-12
benesch
 engineers · scientists · planners
 Alfred Benesch & Company
 205 North Michigan Avenue, Suite 2400
 Chicago, Illinois 60601
 312-565-0450 Job No. 10056

FILE NAME = 0900165.68620.31.brsplic.dgn	USER NAME = mbecker	DESIGNED - MFB	REVISED -
		CHECKED - MRB	REVISED -
	PLOT SCALE =	DRAWN - PRT/LLR	REVISED -
	PLOT DATE = 7/16/2012	CHECKED - MRB	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY DETAILS
 STRUCTURE NO. 090-0165 / 0166

SHEET NO. SA31 OF SA47 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R;14HB-4;14,14HVB]BRJ	TAZEWELL	2433	1895
CONTRACT NO. 68620				
ILLINOIS FED. AID PROJECT				

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 7/16/2012



Illinois Department of Transportation

SOIL BORING LOG

ROUTE FAI 74 (I-74)/FAI 155 (I-155) DESCRIPTION I-74 over I-155 LOGGED BY D.Reents Date 9/11/96

SECTION (90-14)R LOCATION Morton, IL, SEC. 18, TWP. 25 N, RNG. 3 W, 3rd PM. Latitude 40° 37' 14.88438" N, Longitude 89° 29' 4.62784" W COUNTY Tazewell DRILLING METHOD HSA HAMMER TYPE Automatic

Table with columns for Depth (ft), Blows (6"), SPT, and Soil Description. Includes data for Surface Water Elev., Stream Bed Elev., and Groundwater Elev. with blow counts and soil types like Gray CLAY LOAM and Dark Gray SILTY CLAY.

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, form 137 (Rev. 8-99)



Illinois Department of Transportation

SOIL BORING LOG

ROUTE FAI 74 (I-74)/FAI 155 (I-155) DESCRIPTION I-74 over I-155 LOGGED BY D.Reents Date 9/11/96

SECTION (90-14)R LOCATION Morton, IL, SEC. 18, TWP. 25 N, RNG. 3 W, 3rd PM. Latitude 40° 37' 14.88438" N, Longitude 89° 29' 4.62784" W COUNTY Tazewell DRILLING METHOD HSA HAMMER TYPE Automatic

Table with columns for Depth (ft), Blows (6"), SPT, and Soil Description. Includes data for Surface Water Elev., Stream Bed Elev., and Groundwater Elev. with blow counts and soil types like Gray CLAY LOAM Till and Dark Gray SILTY CLAY.

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, form 137 (Rev. 8-99)



Illinois Department of Transportation

SOIL BORING LOG

ROUTE FAI 74 (I-74)/FAI 155 (I-155) DESCRIPTION I-74 over I-155 LOGGED BY D.Reents Date 9/11/96

SECTION (90-14)R LOCATION Morton, IL, SEC. 18, TWP. 25 N, RNG. 3 W, 3rd PM. Latitude 40° 37' 14.88438" N, Longitude 89° 29' 4.62784" W COUNTY Tazewell DRILLING METHOD HSA HAMMER TYPE Automatic

Table with columns for Depth (ft), Blows (6"), SPT, and Soil Description. Includes data for Surface Water Elev., Stream Bed Elev., and Groundwater Elev. with blow counts and soil types like Gray CLAY LOAM Till and Dark Gray SILTY CLAY.

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, form 137 (Rev. 8-99)



Alfred Benesch & Company 205 North Michigan Avenue, Suite 2400 Chicago, Illinois 60601 312-565-0450 Job No. 10056

Table with columns for FILE NAME, USER NAME, DESIGNED, CHECKED, PLOT SCALE, PLOT DATE, REVISED, and REVISIONS.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS 1 OF 6 STRUCTURE NO. 090-0165 / 0166

SHEET NO. SA32 OF SA47 SHEETS

Table with columns for F.A.I. R.T.E., SECTION, COUNTY, TOTAL SHEETS, SHEET NO., and CONTRACT NO.

ILLINOIS FED. AID PROJECT



Illinois Department of Transportation
Division of Highways
DOT

SOIL BORING LOG

Page 1 of 3

Date 10/1/96

ROUTE FAI 74 (I-74)/FAI 155 (I-155) DESCRIPTION I-74 over I-155 LOGGED BY D.Reents

SECTION (90-14)R LOCATION Morton, IL, SEC. 18, TWP. 25 N, RNG. 3 W, 3rd PM, Latitude 40° 37' 15.53519" N, Longitude 89° 29' 3.48886" W

COUNTY Tazewell DRILLING METHOD HSA HAMMER TYPE Automatic

STRUCT. NO. EX 090-0012 (WB)
EX 090-0013 (EB)
Station 540+01.31

BORING NO. 2
Station 539+85.0
Offset 72.2ft LT
Ground Surface Elev. 731.25 ft

DEPTH (ft)	DEPTH (ft)	DEPTH (ft)	DEPTH (ft)	DEPTH (ft)	DEPTH (ft)	DEPTH (ft)	DEPTH (ft)	DEPTH (ft)	DEPTH (ft)
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)
710.75	7								
727.25	4	2.6	10						
724.75	3	1.0	27						
722.25	2	1.6	24						
719.75	1	0.2	29						
717.25	2	1.0	17						
714.75	1	0.7	17						
692.25	11								
	16								

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, form 137 (Rev. 8-99)
Page A6 of 14



Illinois Department of Transportation
Division of Highways
DOT

SOIL BORING LOG

Page 2 of 3

Date 10/1/96

ROUTE FAI 74 (I-74)/FAI 155 (I-155) DESCRIPTION I-74 over I-155 LOGGED BY D.Reents

SECTION (90-14)R LOCATION Morton, IL, SEC. 18, TWP. 25 N, RNG. 3 W, 3rd PM, Latitude 40° 37' 15.53519" N, Longitude 89° 29' 3.48886" W

COUNTY Tazewell DRILLING METHOD HSA HAMMER TYPE Automatic

STRUCT. NO. EX 090-0012 (WB)
EX 090-0013 (EB)
Station 540+01.31

BORING NO. 2
Station 539+85.0
Offset 72.2ft LT
Ground Surface Elev. 731.25 ft

DEPTH (ft)	DEPTH (ft)	DEPTH (ft)	DEPTH (ft)	DEPTH (ft)	DEPTH (ft)	DEPTH (ft)	DEPTH (ft)	DEPTH (ft)	DEPTH (ft)
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)
710.75	7								
687.25	7	1.5	15						
	11	1.7	13						
	3	1.7	13						
	5	1.9	14						
	6	1.4	14						
	3	1.9	14						
	5	2.3	13						
	11	2.3	13						
	3	1.4	14						
	5	1.4	14						

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, form 137 (Rev. 8-99)
Page A7 of 14



Illinois Department of Transportation
Division of Highways
DOT

SOIL BORING LOG

Page 3 of 3

Date 10/1/96

ROUTE FAI 74 (I-74)/FAI 155 (I-155) DESCRIPTION I-74 over I-155 LOGGED BY D.Reents

SECTION (90-14)R LOCATION Morton, IL, SEC. 18, TWP. 25 N, RNG. 3 W, 3rd PM, Latitude 40° 37' 15.53519" N, Longitude 89° 29' 3.48886" W

COUNTY Tazewell DRILLING METHOD HSA HAMMER TYPE Automatic

STRUCT. NO. EX 090-0012 (WB)
EX 090-0013 (EB)
Station 540+01.31

BORING NO. 2
Station 539+85.0
Offset 72.2ft LT
Ground Surface Elev. 731.25 ft

DEPTH (ft)	DEPTH (ft)	DEPTH (ft)	DEPTH (ft)	DEPTH (ft)	DEPTH (ft)	DEPTH (ft)	DEPTH (ft)	DEPTH (ft)	DEPTH (ft)
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)
710.75	7								
642.25	8	1.4	14						
	18	1.7	13						
	5	2.3	12						
	9	1.4	14						
	13	2.3	13						
	20	2.3	13						
	11	2.3	13						
	3	1.4	14						
	6	2.5	12						

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, form 137 (Rev. 8-99)
Page A8 of 14



Alfred Benesch & Company
205 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-565-0450 Job No. 10056

FILE NAME = 0900165.68620.33.log2.dgn
PLOT DATE = 7/16/2012

USER NAME = mbecker
DESIGNED - MFB
CHECKED - MRB
DRAWN - PRT
CHECKED - MRB

REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS 2 OF 6
STRUCTURE NO. 090-0165 / 0166

SHEET NO. SA33 OF SA47 SHEETS

F.A.I. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-[14R]14HB-4,14,14HB[BR]	TAZEWELL	2433	1897
CONTRACT NO. 68620				

ILLINOIS FED. AID PROJECT

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Illinois Department of Transportation

SOIL BORING LOG

Page 1 of 3

ROUTE FAI 74 (I-74)/FAI 155 (I-155) DESCRIPTION I-74 over I-155 LOGGED BY D.Reents Date 9/5/96

SECTION (90-14)R LOCATION Morton, IL, SEC. 18, TWP. 25 N, RNG. 3 W, 3rd PM Latitude 40° 37' 14.30443" N, Longitude 89° 29' 3.05147" W

COUNTY Tazewell DRILLING METHOD HSA HAMMER TYPE Automatic

STRUCT. NO. EX 090-0012 (WB) EX 090-0013 (EB) Station 540+01.31

BORING NO. 3 Station 540+26.0 Offset 50.2ft RT Ground Surface Elev. 728.78 ft (ft) (6") (tsf) (%)

Table with columns for soil type (Brown/Gray CLAY LOAM, Brown, Coarse SAND, Gray and Brown SILTY CLAY, Trace H2O, Gray and Brown SILTY CLAY LOAM, Brown w/ trace Gray LOAM, Gray CLAY LOAM Till) and blow count data (D, B, U, M, P, L, O, T, W, S, H, S, Qu, T).

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, form 137 (Rev. 8-99)



Illinois Department of Transportation

SOIL BORING LOG

Page 2 of 3

ROUTE FAI 74 (I-74)/FAI 155 (I-155) DESCRIPTION I-74 over I-155 LOGGED BY D.Reents Date 9/5/96

SECTION (90-14)R LOCATION Morton, IL, SEC. 18, TWP. 25 N, RNG. 3 W, 3rd PM Latitude 40° 37' 14.30443" N, Longitude 89° 29' 3.05147" W

COUNTY Tazewell DRILLING METHOD HSA HAMMER TYPE Automatic

STRUCT. NO. EX 090-0012 (WB) EX 090-0013 (EB) Station 540+01.31

BORING NO. 3 Station 540+26.0 Offset 50.2ft RT Ground Surface Elev. 728.78 ft (ft) (6") (tsf) (%)

Table with columns for soil type (Gray CLAY LOAM Till, Gray SILTY LOAM, Gray CLAY LOAM Till w/ Silt seams, Gray CLAY LOAM Till, Gray SILTY LOAM) and blow count data (D, B, U, M, P, L, O, T, W, S, H, S, Qu, T).

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, form 137 (Rev. 8-99)



Illinois Department of Transportation

SOIL BORING LOG

Page 3 of 3

ROUTE FAI 74 (I-74)/FAI 155 (I-155) DESCRIPTION I-74 over I-155 LOGGED BY D.Reents Date 9/5/96

SECTION (90-14)R LOCATION Morton, IL, SEC. 18, TWP. 25 N, RNG. 3 W, 3rd PM Latitude 40° 37' 14.30443" N, Longitude 89° 29' 3.05147" W

COUNTY Tazewell DRILLING METHOD HSA HAMMER TYPE Automatic

STRUCT. NO. EX 090-0012 (WB) EX 090-0013 (EB) Station 540+01.31

BORING NO. 3 Station 540+26.0 Offset 50.2ft RT Ground Surface Elev. 728.78 ft (ft) (6") (tsf) (%)

Table with columns for soil type (Gray CLAY LOAM Till, Gray CLAY LOAM Till w/ Silt seams, Gray CLAY LOAM Till, Gray SILTY LOAM) and blow count data (D, B, U, M, P, L, O, T, W, S, H, S, Qu, T).

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, form 137 (Rev. 8-99)



Alfred Benesch & Company 205 North Michigan Avenue, Suite 2400 Chicago, Illinois 60601 312-565-0450 Job No. 10056

Table with columns for FILE NAME, USER NAME, DESIGNED, CHECKED, PLOT SCALE, PLOT DATE, REVISIONS.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS 3 OF 6 STRUCTURE NO. 090-0165 / 0166

SHEET NO. SA34 OF SA47 SHEETS

Table with columns for F.A.I. RTE., SECTION, COUNTY, TOTAL SHEETS, SHEET NO., CONTRACT NO.

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SOIL BORING LOG

ROUTE FAI 74 (I-74)/FAI 155 (I-155) DESCRIPTION I-74 over I-155 LOGGED BY D.Reents Date 9/9/96

SECTION (90-14)R LOCATION Morton, IL, SEC. 18, TWP. 25 N, RNG. 3 W, 3rd PM. Latitude 40° 37' 14.76747" N, Longitude 89° 29' 2.01971" W COUNTY Tazewell DRILLING METHOD HSA HAMMER TYPE Automatic

Table with columns for Depth (ft), Blows (6"), SPT (tsf), and Soil Description. Includes data for Brown/Gray CLAY LOAM (Fill), Brown and Dark Brown w/ some Gray SILTY CLAY LOAM w/ Gray CLAY LOAM (Fill), Gray CLAY LOAM (Fill), Gray and Brown SILTY CLAY, Gray and Brown SILTY CLAY/SILTY CLAY LOAM, and Gray w/ some Brown CLAY LOAM (Fill).

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, form 137 (Rev. 8-99)



SOIL BORING LOG

ROUTE FAI 74 (I-74)/FAI 155 (I-155) DESCRIPTION I-74 over I-155 LOGGED BY D.Reents Date 9/9/96

SECTION (90-14)R LOCATION Morton, IL, SEC. 18, TWP. 25 N, RNG. 3 W, 3rd PM. Latitude 40° 37' 14.76747" N, Longitude 89° 29' 2.01971" W COUNTY Tazewell DRILLING METHOD HSA HAMMER TYPE Automatic

Table with columns for Depth (ft), Blows (6"), SPT (tsf), and Soil Description. Includes data for Gray CLAY LOAM Till (continued), Gray CLAY LOAM Till (continued), and Gray CLAY LOAM Till (continued).

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, form 137 (Rev. 8-99)



SOIL BORING LOG

ROUTE FAI 74 (I-74)/FAI 155 (I-155) DESCRIPTION I-74 over I-155 LOGGED BY D.Reents Date 9/9/96

SECTION (90-14)R LOCATION Morton, IL, SEC. 18, TWP. 25 N, RNG. 3 W, 3rd PM. Latitude 40° 37' 14.76747" N, Longitude 89° 29' 2.01971" W COUNTY Tazewell DRILLING METHOD HSA HAMMER TYPE Automatic

Table with columns for Depth (ft), Blows (6"), SPT (tsf), and Soil Description. Includes data for Gray CLAY LOAM Till (continued), Gray CLAY LOAM Till (continued), Blow count on a rock, and Rock stuck in end of spoon.

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, form 137 (Rev. 8-99)



Alfred Benesch & Company 205 North Michigan Avenue, Suite 2400 Chicago, Illinois 60601 312-565-0450 Job No. 10056

Table with columns for USER NAME, DESIGNED, CHECKED, DRAWN, PLOT DATE, REVISED, and REVISIONS.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS 4 OF 6 STRUCTURE NO. 090-0165 / 0166

SHEET NO. SA35 OF SA47 SHEETS

Table with columns for F.A.I. R.T.E., SECTION, COUNTY, TOTAL SHEETS, SHEET NO., CONTRACT NO., and ILLINOIS FED. AID PROJECT.

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Illinois Department of Transportation
Division of Highways
Weng Engineering, Inc.
FAI 74 (I-74)/FAI 155 (I-155)

SOIL BORING LOG

Page 1 of 3

Date 10/20/09

ROUTE I-74 over I-155 DESCRIPTION I-74 over I-155 LOGGED BY F. Bozga

SECTION (90-14)R LOCATION Morton, IL, SEC. 18, TWP. 25 N, RNG. 3 W, 3rd PM.

COUNTY Tazewell DRILLING METHOD HSA HAMMER TYPE Automatic

STRUCT. NO. EX 090-0012 (WB)
EX 090-0013 (EB)
Station 540+01.31

BORING NO. TB-101
Station 538+68.5
Offset 87.5 ft LT
Ground Surface Elev. 726.60 ft

DEPTH (ft)	SOIL DESCRIPTION	UCS (tsf)	B (ft)	S (ft)	P (ft)	MOISTURE (%)
0-2	2-inch thick, black CLAY LOAM -TOPSOIL-					
2-4	Very stiff, brown CLAY LOAM, trace gravel		4	3.8		11
4-5	-FILL-					
5-7	Very stiff, brown and gray SILTY LOAM		2	2.1		24
7-8			4			
8-10	Very soft to medium stiff, brown and gray SILTY LOAM		1	0.3		28
10-11			2			
11-12			1	< 0.3		32
12-13			1			
13-15	Medium dense, gray SANDY LOAM, little gravel		3	1.0		21
15-16			5			
16-17	Very stiff, gray SILTY LOAM to SILTY CLAY LOAM, trace gravel		3	1.0		16
17-18			3			
18-20	Stiff, gray SILTY CLAY LOAM, trace gravel		2	1.6		15
20-21			4			
21-22	-COBBLE at 19.0 ft bgs-		4	2.0		13
22-23			9			

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, form 137 (Rev. 8-99)

Page B1 of 8



Illinois Department of Transportation
Division of Highways
Weng Engineering, Inc.
FAI 74 (I-74)/FAI 155 (I-155)

SOIL BORING LOG

Page 2 of 3

Date 10/20/09

ROUTE I-74 over I-155 DESCRIPTION I-74 over I-155 LOGGED BY F. Bozga

SECTION (90-14)R LOCATION Morton, IL, SEC. 18, TWP. 25 N, RNG. 3 W, 3rd PM.

COUNTY Tazewell DRILLING METHOD HSA HAMMER TYPE Automatic

STRUCT. NO. EX 090-0012 (WB)
EX 090-0013 (EB)
Station 540+01.31

BORING NO. TB-101
Station 538+68.5
Offset 87.5 ft LT
Ground Surface Elev. 726.60 ft

DEPTH (ft)	SOIL DESCRIPTION	UCS (tsf)	B (ft)	S (ft)	P (ft)	MOISTURE (%)
0-5	Very stiff, gray SILTY LOAM to SILTY CLAY LOAM, trace gravel (continued)		5			
5-7			8	3.0		14
7-8			11			
8-10			5			
10-11			7	3.0		13
11-12			11			
12-14			4			
14-15			8	2.8		13
15-16			11			
16-18			4			
18-19			8	2.8		13
19-20			11			
20-22			4			
22-23			8	2.5		14
23-24			10			

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, form 137 (Rev. 8-99)

Page B2 of 8



Illinois Department of Transportation
Division of Highways
Weng Engineering, Inc.
FAI 74 (I-74)/FAI 155 (I-155)

SOIL BORING LOG

Page 3 of 3

Date 10/20/09

ROUTE I-74 over I-155 DESCRIPTION I-74 over I-155 LOGGED BY F. Bozga

SECTION (90-14)R LOCATION Morton, IL, SEC. 18, TWP. 25 N, RNG. 3 W, 3rd PM.

COUNTY Tazewell DRILLING METHOD HSA HAMMER TYPE Automatic

STRUCT. NO. EX 090-0012 (WB)
EX 090-0013 (EB)
Station 540+01.31

BORING NO. TB-101
Station 538+68.5
Offset 87.5 ft LT
Ground Surface Elev. 726.60 ft

DEPTH (ft)	SOIL DESCRIPTION	UCS (tsf)	B (ft)	S (ft)	P (ft)	MOISTURE (%)
0-11	Very stiff, gray SILTY LOAM to SILTY CLAY LOAM, trace gravel (continued)		11			
11-15			15	2.4		15
15-16			22			
16-18			5			
18-19			10	3.6		13
19-20			14			
20-21			5			
21-22			9	2.1		13
22-23			11			
23-24			8			
24-25			16	NP		12
25-26			21			
26-28	Dense, gray SILTY LOAM		8			
28-29			5			
29-30			9	2.7		13
30-31			13			
31-32			5			
32-33			9	2.5		14
33-34			13			

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, form 137 (Rev. 8-99)

Page B3 of 8



Alfred Benesch & Company
205 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-565-0450 Job No. 10056

FILE NAME = 0900165.68620.36.log5.dgn

USER NAME = mbecker
DESIGNED - MFB
CHECKED - MRB
PLOT SCALE =
DRAWN - PRT
PLOT DATE = 7/16/2012
CHECKED - MRB
REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS 5 OF 6
STRUCTURE NO. 090-0165 / 0166

SHEET NO. SA36 OF SA47 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	90-114R(14HB-4,14,14HB)BRJ	TAZEWELL	2433	1900
			CONTRACT NO.	68620

ILLINOIS FED. AID PROJECT

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7/16/2012