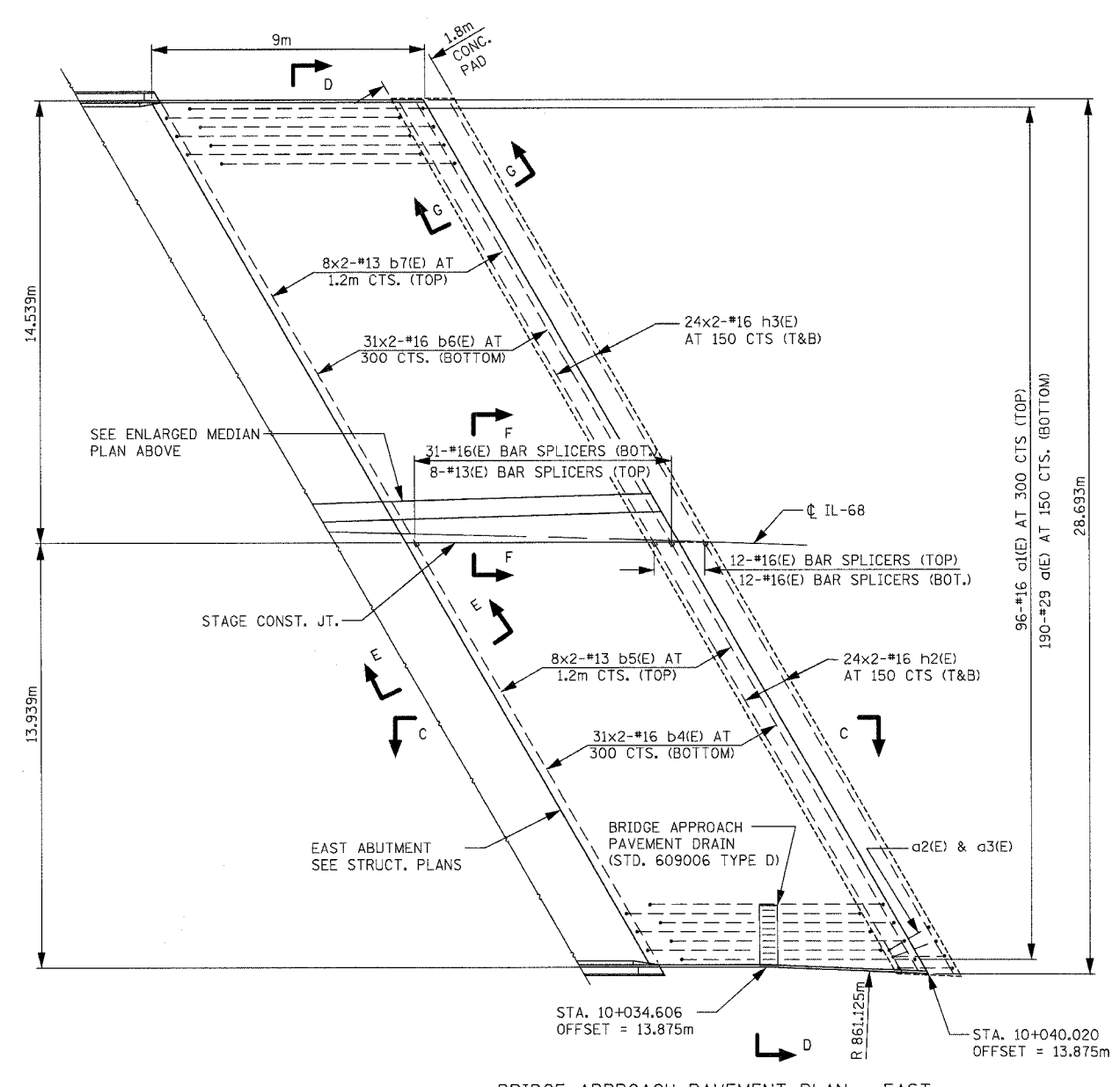
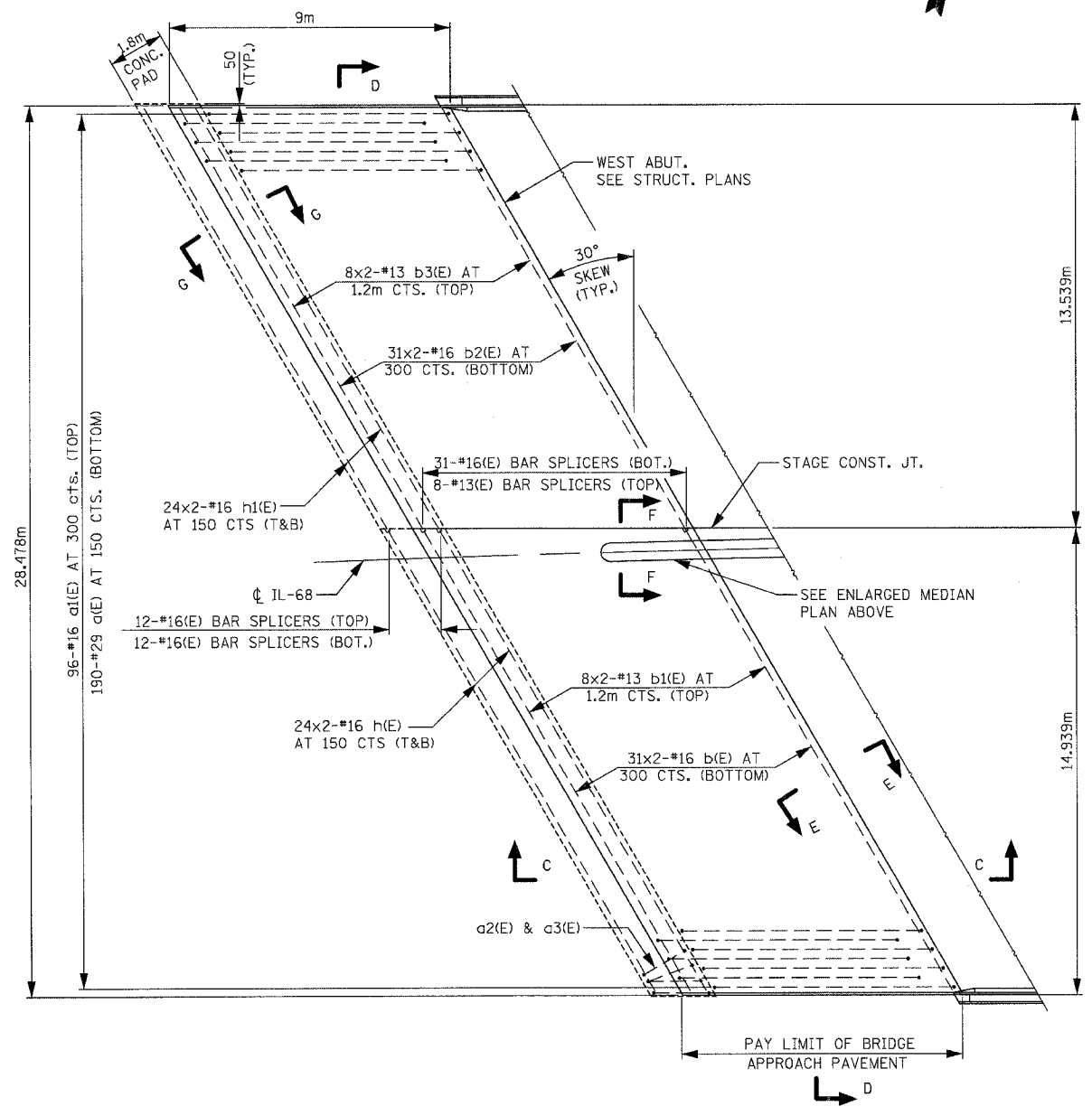
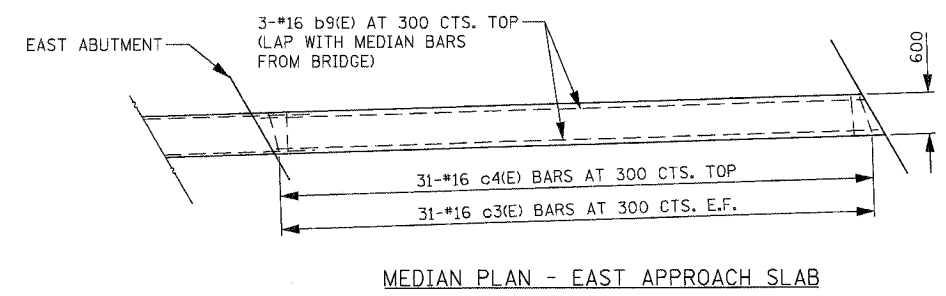
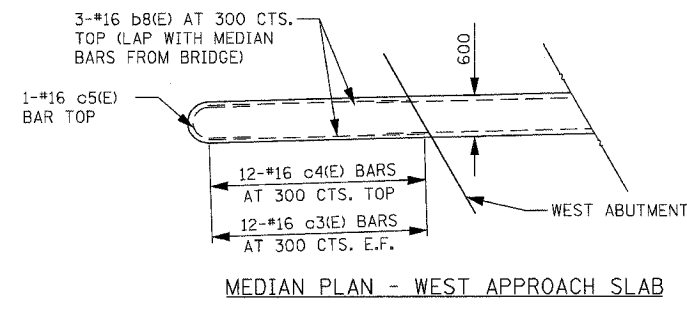


F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	*	COOK	283	101
STA. 9+713.000 TO STA. 10+151.000				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
* 70D-Y-B-R & 70HB-R-1 62897				



**GENERAL NOTES**

- SEE STANDARD 421001 FOR REINFORCEMENT DETAILS NOT SHOWN.
- SEE STANDARD 420001 FOR JOINT DETAILS NOT SHOWN.
- ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.
- BARS INDICATED THUS 31x2 - #16 ETC. INDICATES 31 LINES OF BARS WITH 2 LENGTHS PER LINE.
- E.F. = EACH FACE

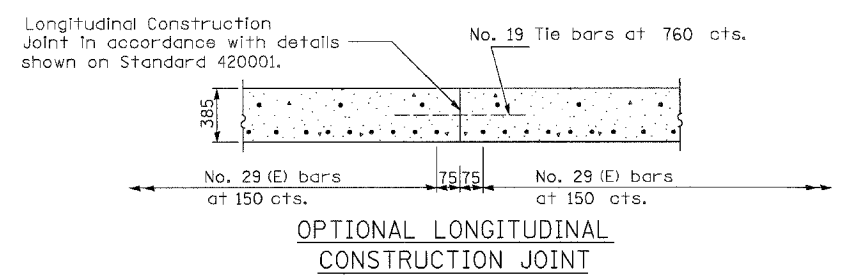
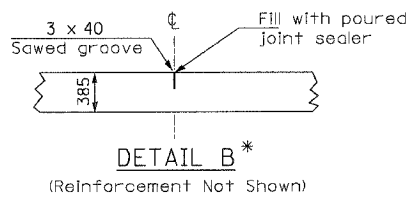
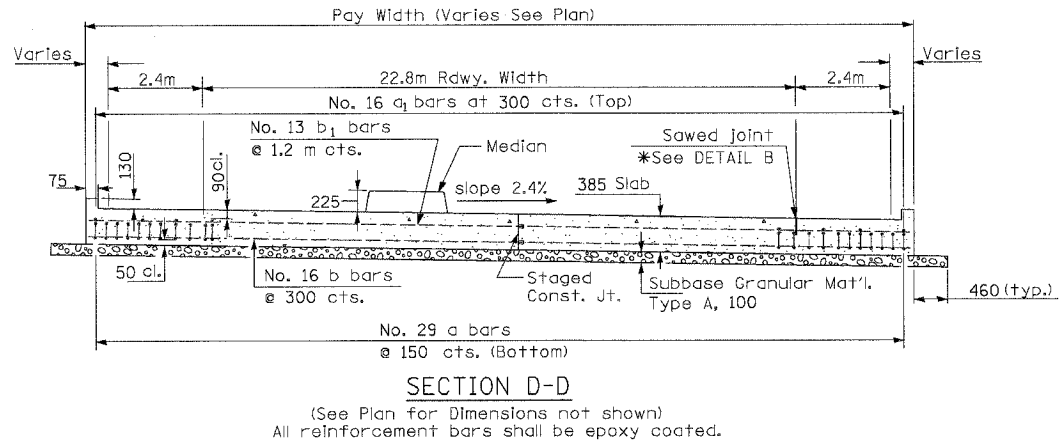
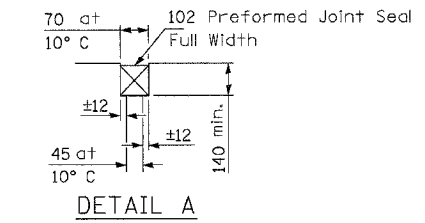
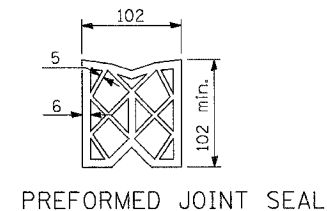
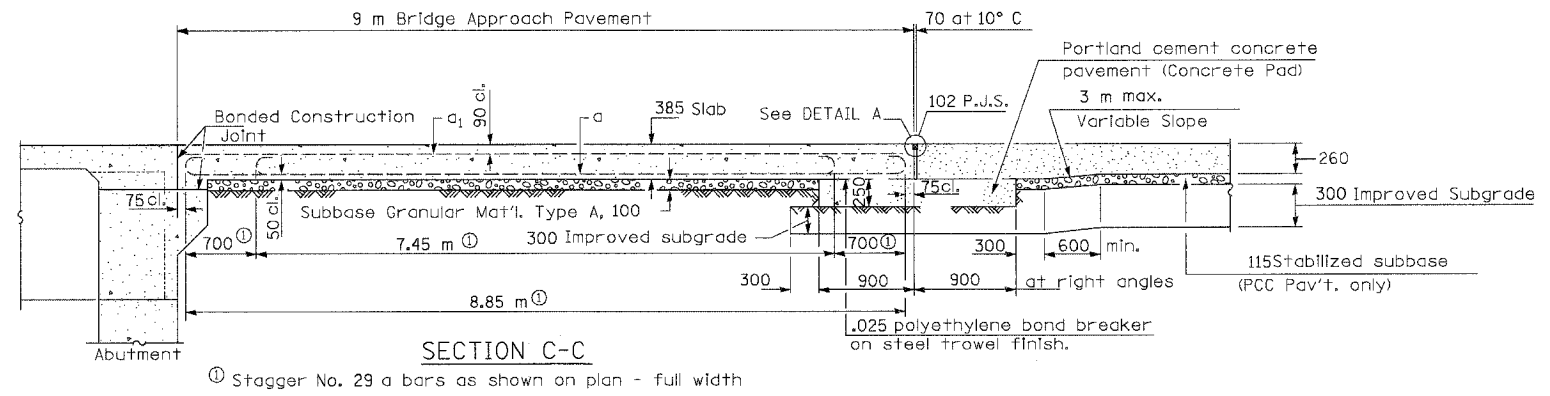
**MIN. BAR LAP**

- #13 = 450
- #16 = 640

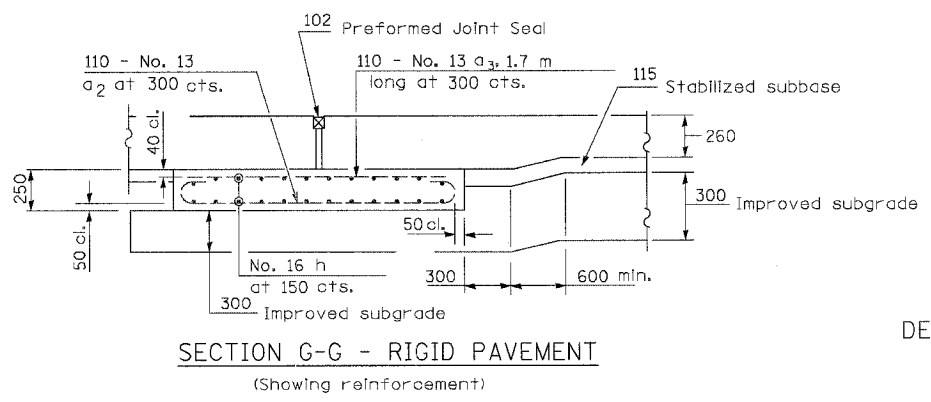
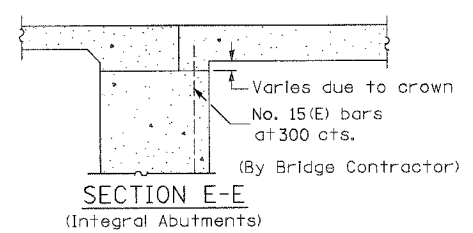
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
ILLINOIS ROUTE 68  
BRIDGE APPROACH PAVEMENT (SPECIAL)  
S.N. 016-2861  
SCALE N.T.S.  
DATE OCTOBER, 2006  
DRAWN BY BTO  
CHECKED BY JAN

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343		COOK	283	102
STA. 9+713.000 TO STA. 10+151.000				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
* 70D-Y-B-R & 70HB-R-1 62897				



As approved by the Engineer, the Contractor may elect to reduce the widths of pour by use of the Optional Longitudinal Construction Joint shown. Joints shall be located at the edge of a traffic lane.

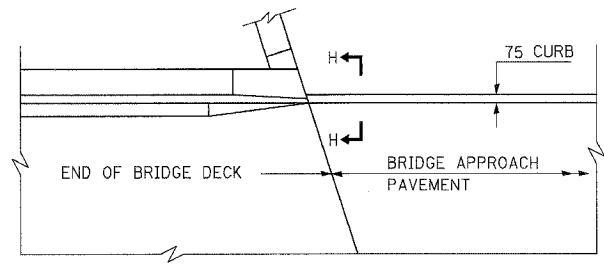


**DESIGN STRESSES**  
 $f_y = 400 \text{ MPa}$   
 $f'_c = 24 \text{ MPa}$   
 $n = 8.5$

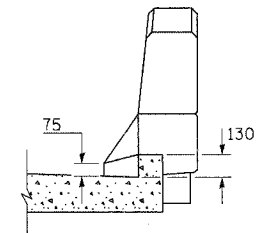
All dimensions are in millimeters unless otherwise shown.

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION ILLINOIS ROUTE 68
NAME	DATE	
		BRIDGE APPROACH PAVEMENT (SPECIAL) S.N. 016-2861
		SCALE N.T.S. DRAWN BY BTO
		DATE OCTOBER, 2006 CHECKED BY JAN

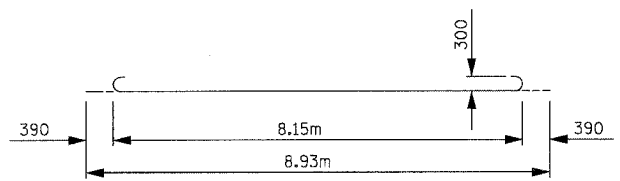
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	*	COOK	283	103
STA. 9+713.000		TO STA. 10+151.000		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		
* 700-Y-B-R & 70HB-R-1		62897		



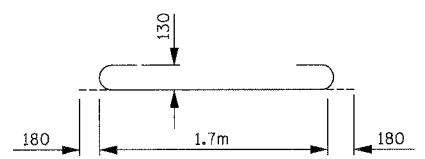
PARAPET TO CURB TRANSITION  
INTEGRAL ABUTMENT



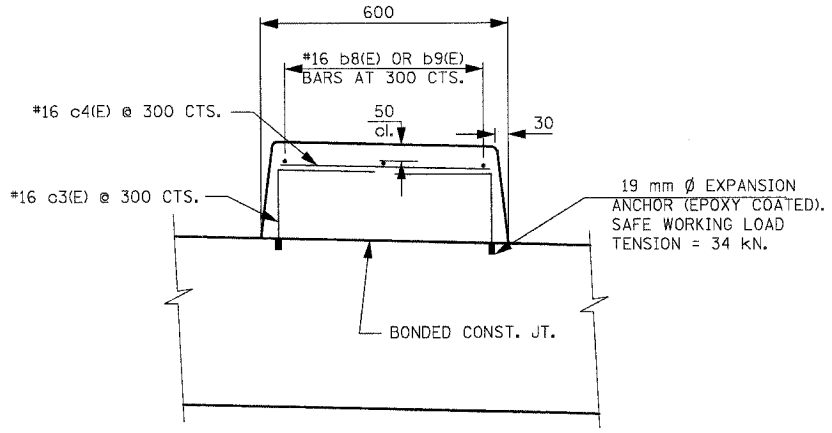
SECTION H - H



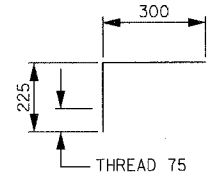
BAR a(E)



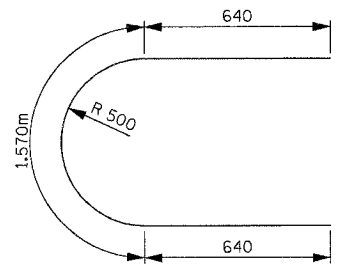
BAR a2(E)



SECTION F - F



BAR c3(E)\*\*



BAR c5(E)

BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
a(E)	380	#29	8.930m	U
a1(E)	192	#16	8.850m	U
a2(E)	220	#13	2.060m	U
a3(E)	220	#13	1.700m	U
b(E)	62	#16	8.920m	U
b1(E)	16	#13	8.920m	U
b2(E)	62	#16	8.110m	U
b3(E)	16	#13	8.110m	U
b4(E)	62	#16	8.340m	U
b5(E)	16	#13	8.340m	U
b6(E)	62	#16	8.690m	U
b7(E)	16	#13	8.690m	U
b8(E)	3	#16	2.950m	U
b9(E)	3	#16	8.850m	U
c3(E)	86	#16	525	L
c4(E)	43	#16	440	U
c5(E)	1	#16	2.850m	C
h(E)	48	#16	8.940m	U
h1(E)	48	#16	8.130m	U
h2(E)	48	#16	8.360m	U
h3(E)	48	#16	8.710m	U
BAR SPLICERS		EACH	126	
REINFORCEMENT BARS, EPOXY COATED		KG	28,090	
CONCRETE SUPERSTRUCTURES		CU M	1.6	
PREFORMED JOINT SEAL		METER	66.0	
CONCRETE PAD		SQ M	119.3	
POLYETHYLENE BOND BREAKER		SQ M	119.3	
BRIDGE APPROACH PAVEMENT (SPECIAL)		SQ M	513.1	

REINFORCEMENT BARS DESIGNATED (E) SHALL BE EPOXY COATED.

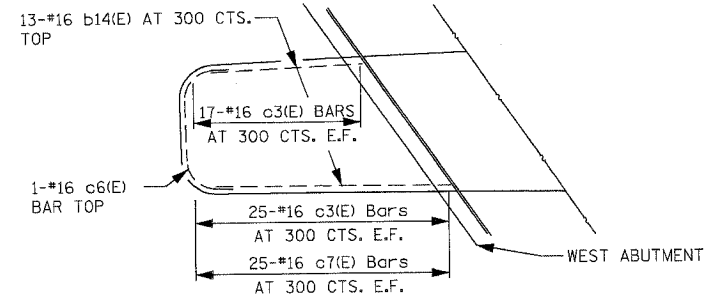
ITEMS INCLUDED IN THE COST FOR BRIDGE APPROACH PAVEMENT (SPECIAL).

\*\* COST OF MACHINING BAR c3(E) INCLUDED WITH BRIDGE APPROACH PAVEMENT (SPECIAL).

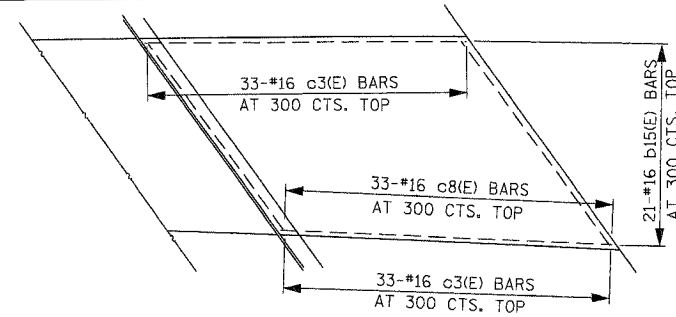
SHT. 3 OF 3

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION ILLINOIS ROUTE 68
NAME	DATE	
		BRIDGE APPROACH PAVEMENT (SPECIAL) S.N. 016-2861
SCALE N.T.S.	DATE OCTOBER, 2006	DRAWN BY BTO CHECKED BY JAN

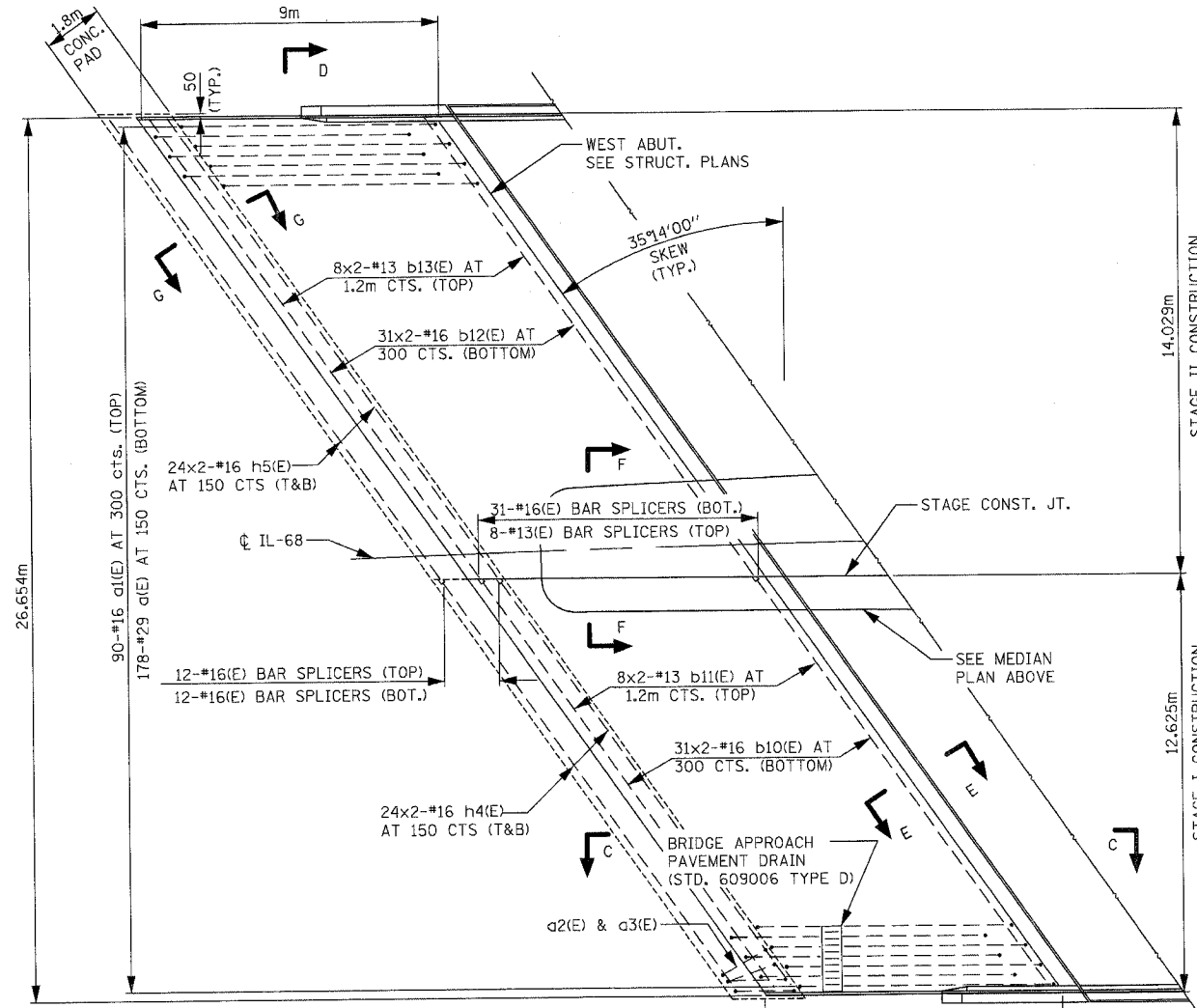
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	*	COOK	283	104
STA. 9+713.000		TO STA. 10+151.000		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		
* 70D-Y-B-R & 70H-B-R-1		62897		



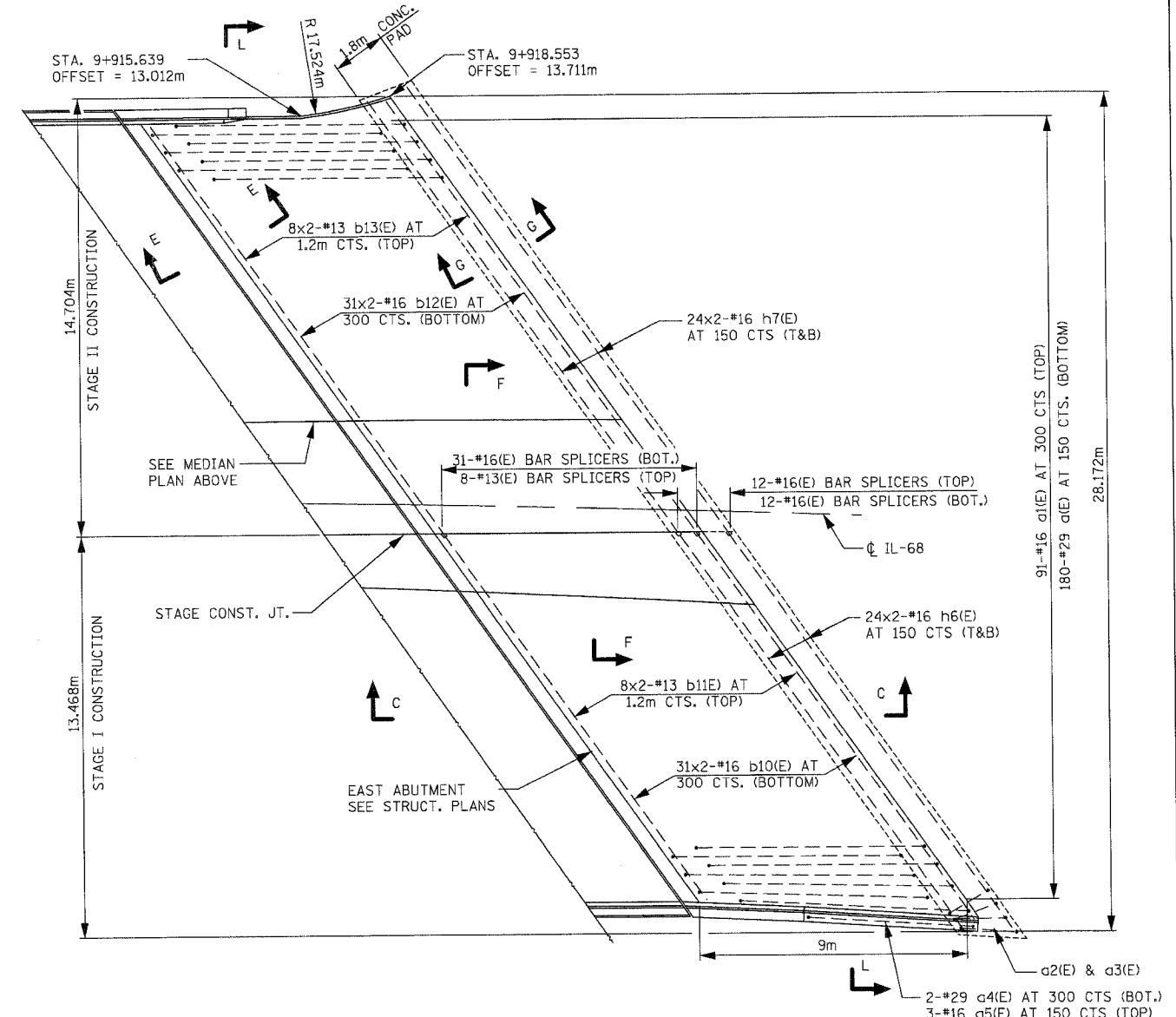
MEDIAN PLAN - WEST APPROACH SLAB



MEDIAN PLAN - EAST APPROACH SLAB



BRIDGE APPROACH PAVEMENT PLAN - WEST



BRIDGE APPROACH PAVEMENT PLAN - EAST

GENERAL NOTES

- SEE STANDARD 421001 FOR REINFORCEMENT DETAILS NOT SHOWN.
- SEE STANDARD 420001 FOR JOINT DETAILS NOT SHOWN.
- ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.
- BARS INDICATED THUS 31x2 - #16 ETC. INDICATES 31 LINES OF BARS WITH 2 LENGTHS PER LINE.
- E.F. = EACH FACE

MIN. BAR LAP

- #13 = 450
- #16 = 640

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
ILLINOIS ROUTE 68

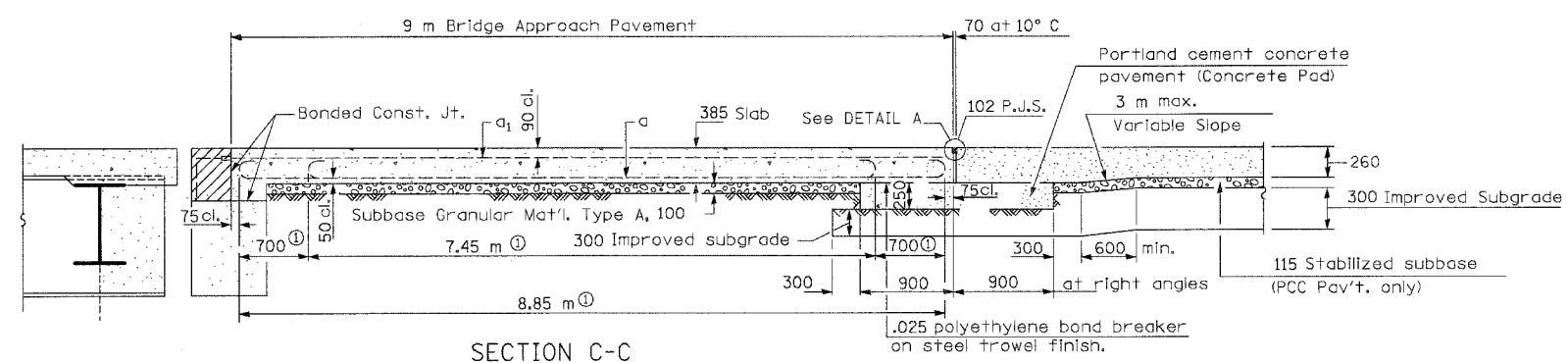
BRIDGE APPROACH PAVEMENT (SPECIAL)  
S.N. 016-2732

SCALE N.T.S.  
DATE OCTOBER, 2006

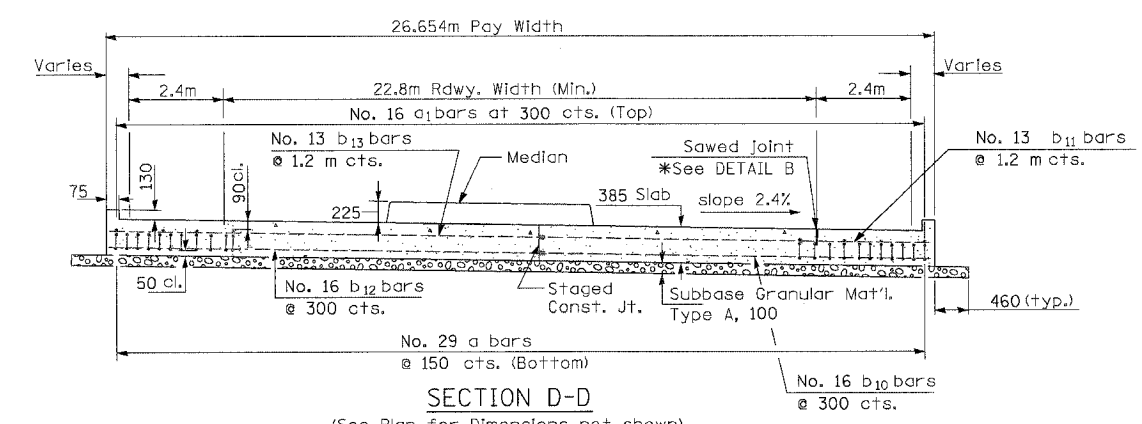
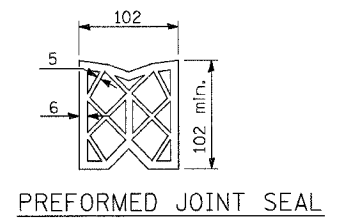
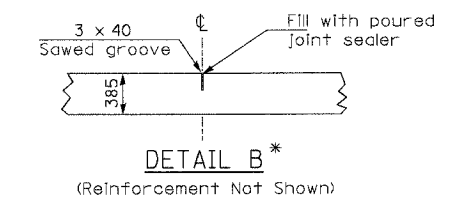
DRAWN BY BTO  
CHECKED BY JAN



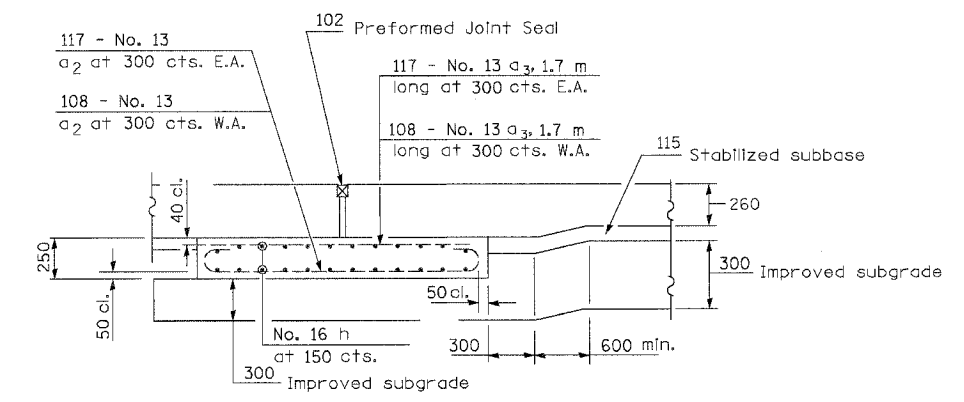
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343		COOK	283	105
STA. 9+713.000		TO STA. 10+151.000		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		
• 70D-Y-B-R & 70HB-R-1		62897		



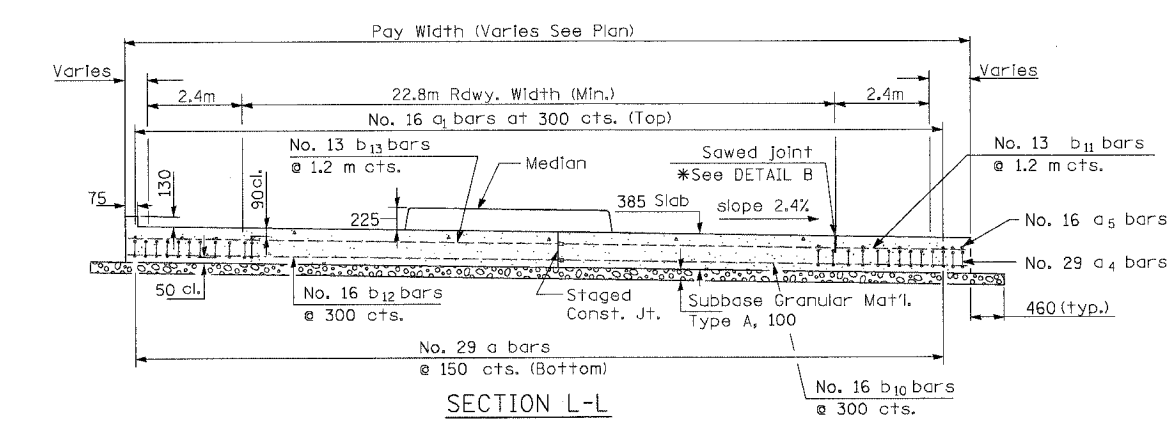
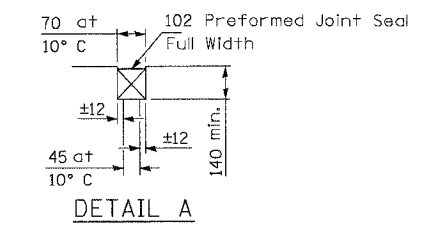
**SECTION C-C**  
 ⓐ Stagger No. 29 a bars as shown on plan - full width



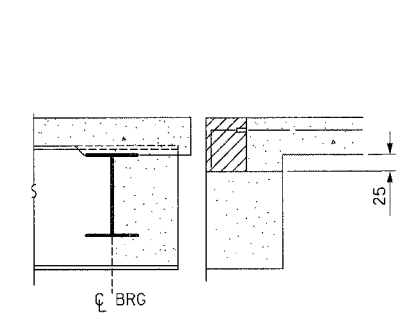
**SECTION D-D**  
 (See Plan for Dimensions not shown)  
 All reinforcement bars shall be epoxy coated.



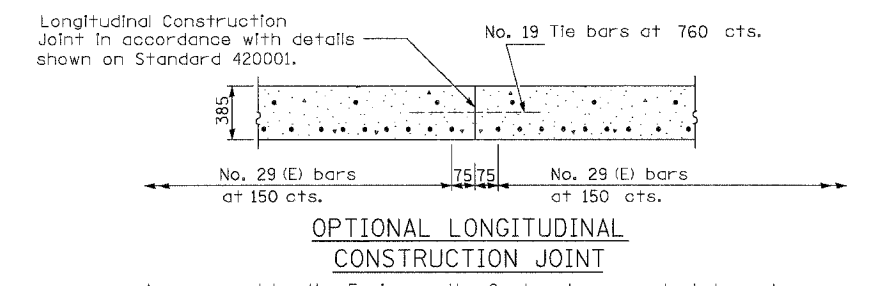
**SECTION G-G - RIGID PAVEMENT**  
 (Showing reinforcement)



**SECTION L-L**  
 (See Plan for Dimensions not shown)  
 All reinforcement bars shall be epoxy coated.



**SECTION E-E**



As approved by the Engineer, the Contractor may elect to reduce the widths of pour by use of the Optional Longitudinal Construction Joint shown. Joints shall be located at the edge of a traffic lane.

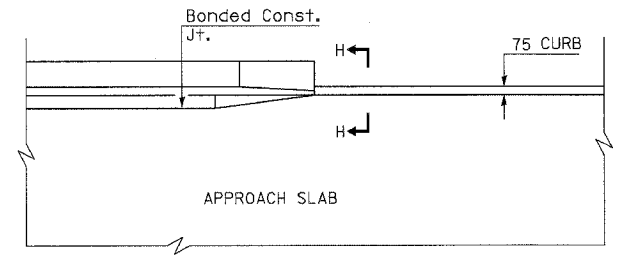
All dimensions are in millimeters unless otherwise shown.

**DESIGN STRESSES**  
 $f_y = 400 \text{ MPa}$   
 $f'_c = 24 \text{ MPa}$   
 $n = 8.5$

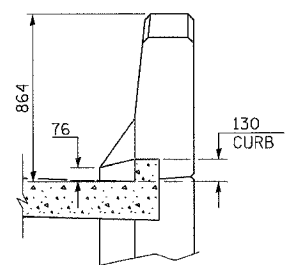
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 ILLINOIS ROUTE 68  
 BRIDGE APPROACH PAVEMENT (SPECIAL)  
 S.N. 016-2732  
 SCALE N.T.S. DRAWN BY BTO  
 DATE OCTOBER, 2006 CHECKED BY JAN

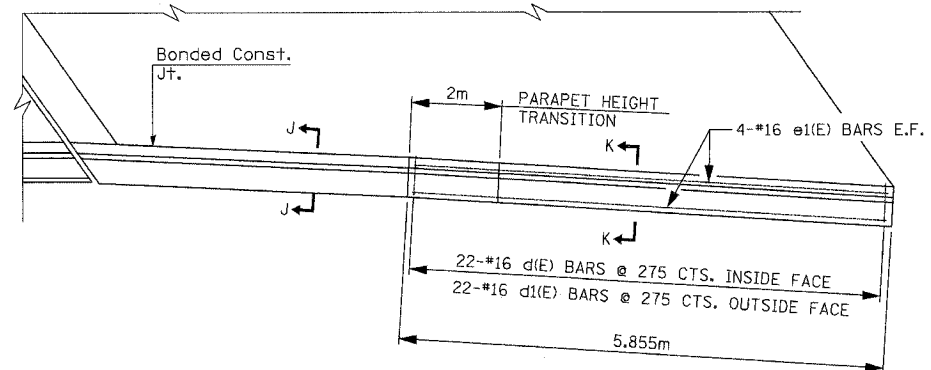
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343		COOK	283	106
STA. 9+713.000		TO STA. 10+151.000		
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	
70D-Y-B-R & 70HB-R-1		62897		



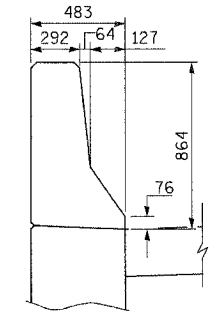
APPROACH SLAB PARAPET TO CURB TRANSITION (TYP.)



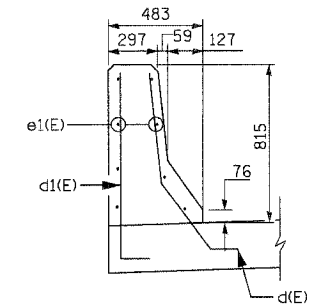
SECTION H - H



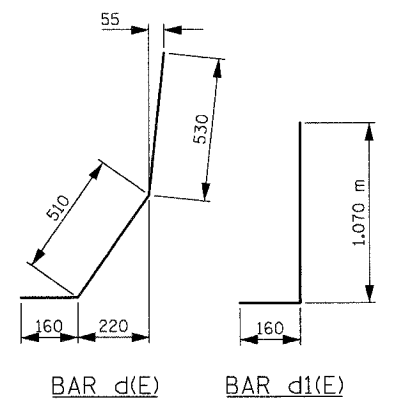
APPROACH SLAB PARAPET TRANSITION AT SOUTHEAST WINGWALL



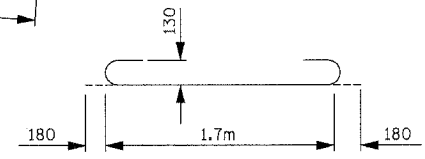
SECTION J - J



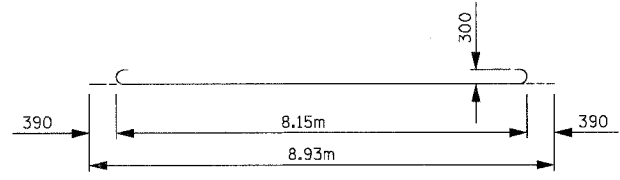
SECTION K - K



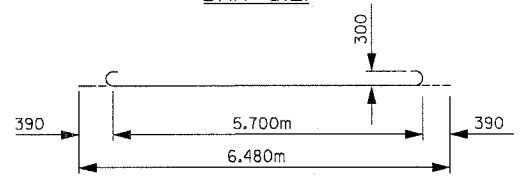
BAR d(E) BAR d1(E)



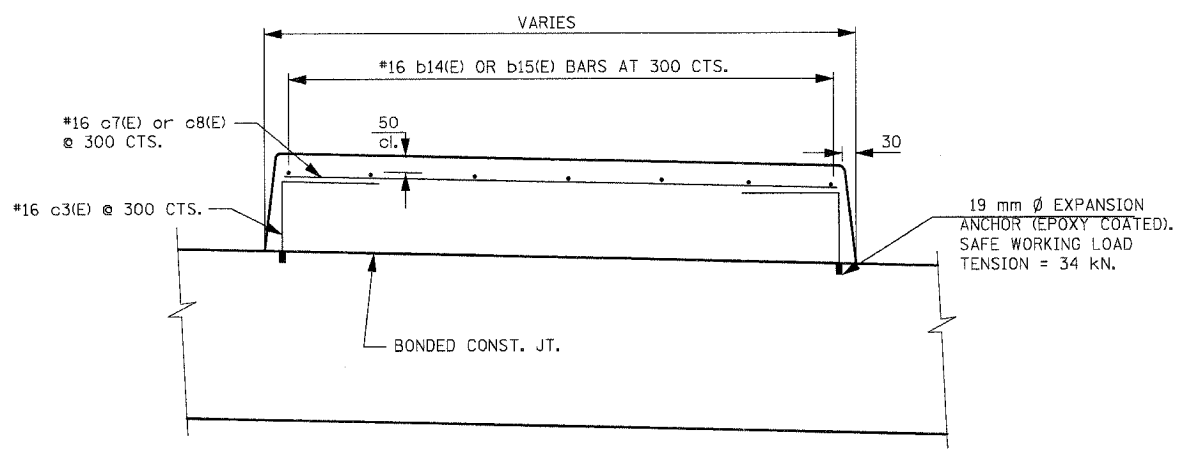
BAR a2(E)



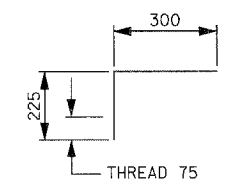
BAR a(E)



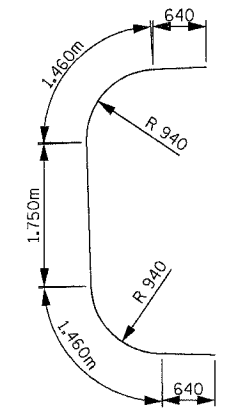
BAR a4(E)



SECTION F - F



BAR c3(E)\*\*



BAR c6(E)

BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
a(E)	358	#29	8.930m	U
a1(E)	181	#16	8.850m	U
a2(E)	225	#13	2.060m	U
a3(E)	225	#13	1.700m	U
a4(E)	2	#29	6.480m	U
a5(E)	3	#16	5.700m	U
b10(E)	124	#16	8.380m	U
b11(E)	32	#13	8.280m	U
b12(E)	124	#16	9.250m	U
b13(E)	32	#13	9.150m	U
b14(E)	13	#16	7.200m	U
b15(E)	21	#16	9.830m	U
c3(E)	108	#16	525	L
c6(E)	1	#16	5.950m	C
c7(E)	25	#16	3.800m	U
c8(E)	33	#16	7.550m	U
d(E)	22	#16	1.200m	U
d1(E)	22	#16	1.230m	U
e1(E)	8	#16	5.760m	U
h4(E)	48	#16	8.070m	U
h5(E)	48	#16	8.960m	U
h6(E)	48	#16	8.680m	U
h7(E)	48	#16	9.640m	U
BAR SPLICERS		EACH	126	
REINFORCEMENT BARS, EPOXY COATED		KG	28,650	
CONCRETE SUPERSTRUCTURES		CU M	20.4	
PREFORMED JOINT SEAL		METER	67.0	
CONCRETE PAD		SQ M	121.4	
POLYETHYLENE BOND BREAKER		SQ M	121.4	
BRIDGE APPROACH PAVEMENT (SPECIAL)		SQ M	482.3	

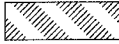

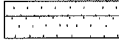

- \* REINFORCEMENT BARS DESIGNATED (E) SHALL BE EPOXY COATED.
- \* ITEMS INCLUDED IN THE COST FOR BRIDGE APPROACH PAVEMENT (SPECIAL).
- \*\* COST OF MACHINING BAR c3(E) INCLUDED WITH BRIDGE APPROACH PAVEMENT (SPECIAL).

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
ILLINOIS ROUTE 68  
BRIDGE APPROACH PAVEMENT (SPECIAL)  
S.N. 016-2732  
SCALE N.T.S. DRAWN BY BTO  
DATE OCTOBER, 2006 CHECKED BY JAN

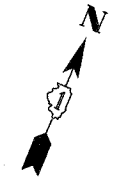
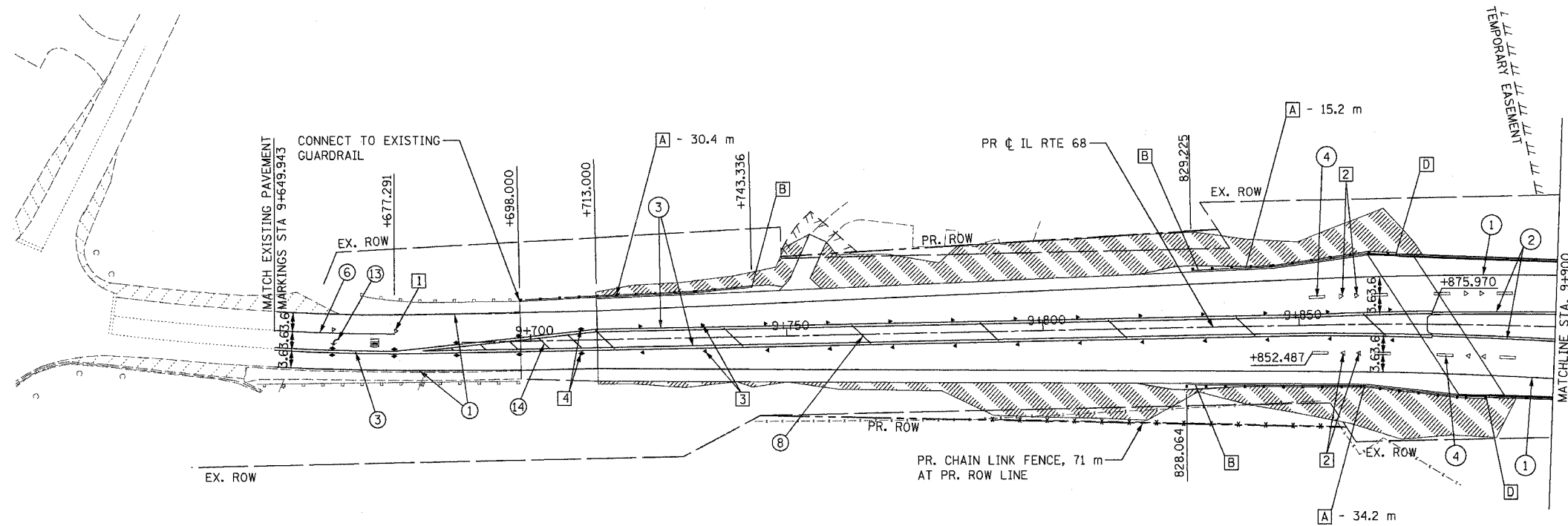
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343		COOK	283	107
STA. 9+713.000		TO STA. 10+151.000		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		
70D-Y-B-R & 70HB-R-1		62897		

**LANDSCAPING LEGEND**

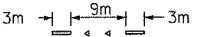
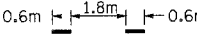
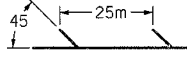
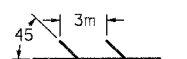
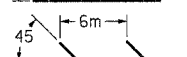


-  SODDING, SALT TOLERANT
-  SEEDING CLASS 2A
-  SEEDING, CLASS 4 WITH EROSION CONTROL BLANKET
-  EXISTING TREE TO REMAIN

**GUARDRAIL LEGEND**

- A** - STEEL PLATE BEAM GUARDRAIL, TYPE A
- B** - TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL)
- C** - TRAFFIC BARRIER TERMINAL, TYPE 2
- D** - TRAFFIC BARRIER TERMINAL, TYPE 6
- E** - STEEL PLATE BEAM GUARDRAIL, TYPE D



**PAVEMENT MARKING LEGEND**

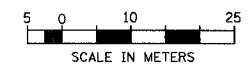
- ① 100 mm WHITE SOLID
- ② 100 mm YELLOW SOLID
- ③ 100 mm DOUBLE YELLOW SOLID
- ④ 100 mm WHITE SKIP-DASH 
- ⑤ 100 mm WHITE DASH 
- ⑥ 150 mm WHITE SOLID
- ⑦ 200 mm WHITE SOLID
- ⑧ 300 mm YELLOW DIAGONAL-25 m C-C 
- ⑨ 300 mm WHITE DIAGONAL-25 m C-C 
- ⑩ 300 mm WHITE DIAGONAL-3 m C-C 
- ⑪ 300 mm WHITE DIAGONAL-6 m C-C 
- ⑭ 300 mm YELLOW DIAGONAL-6 m C-C 
- ⑫ 600 mm STOP BAR
- ⑬ PAVEMENT MARKING LETTERS AND SYMBOLS

**RAISED REFLECTIVE PAVEMENT MARKER LEGEND**

- ① CRYSTAL ONE-WAY-12.2 m C-C
- ② CRYSTAL ONE-WAY-24.4 m C-C
- ③ AMBER ONE-WAY-12.2 m C-C
- ④ AMBER TWO-WAY-12.2 m C-C
- ⑤ CRYSTAL ONE-WAY-6 m C-C

**NOTE:**

1. ALL DIMENSIONS ARE IN METERS (m) UNLESS OTHERWISE NOTES.



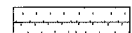



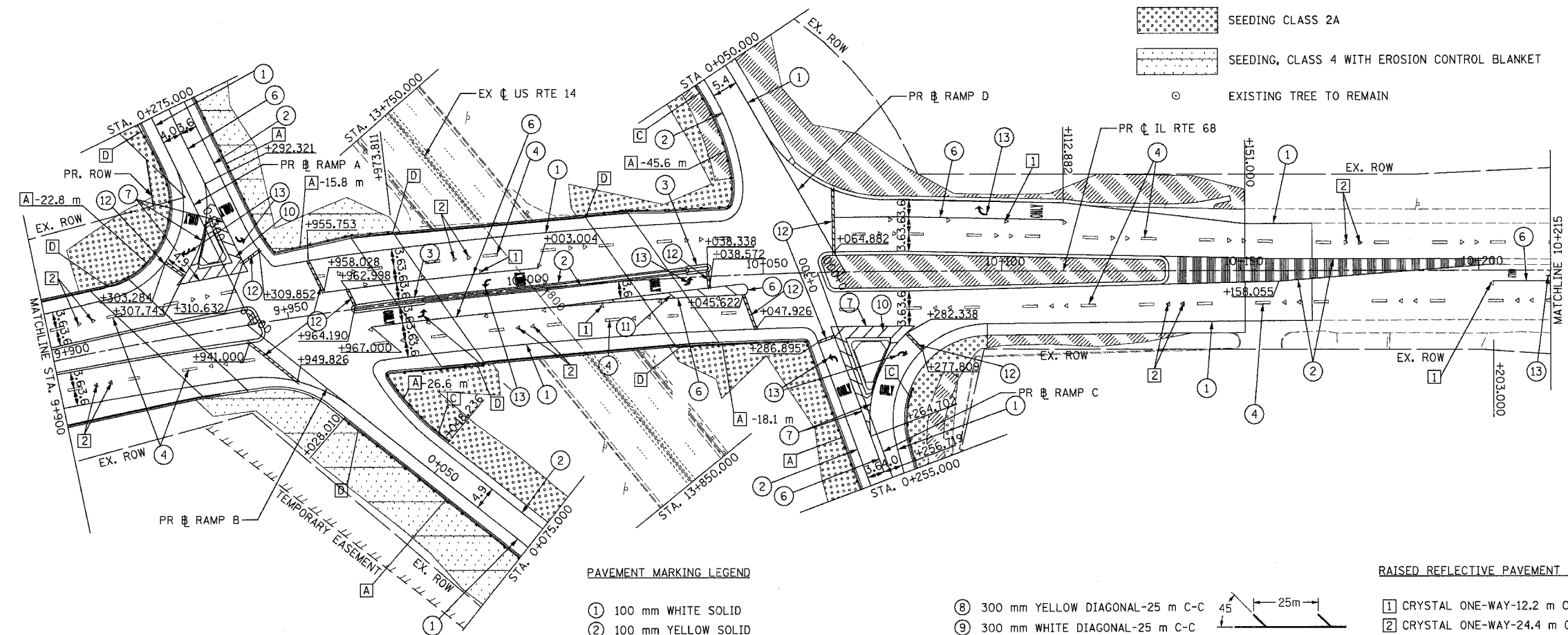
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
ILLINOIS ROUTE 68  
PAVEMENT MARKING AND  
LANDSCAPING PLAN  
STA. 9+649 TO STA. 9+900  
SCALE 1:500  
DATE OCTOBER, 2006  
DRAWN BY RDT  
CHECKED BY PK

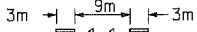
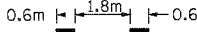
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	*	COOK	283	108
STA. 9+713.000		TO STA. 10+151.000		
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	
* 70D-Y-B-R & 70HB-R-1		62897		

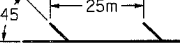
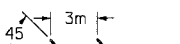
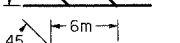
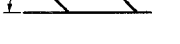


**LANDSCAPING LEGEND**

-  SODDING, SALT TOLERANT
-  SEEDING CLASS 2A
-  SEEDING, CLASS 4 WITH EROSION CONTROL BLANKET
-  EXISTING TREE TO REMAIN



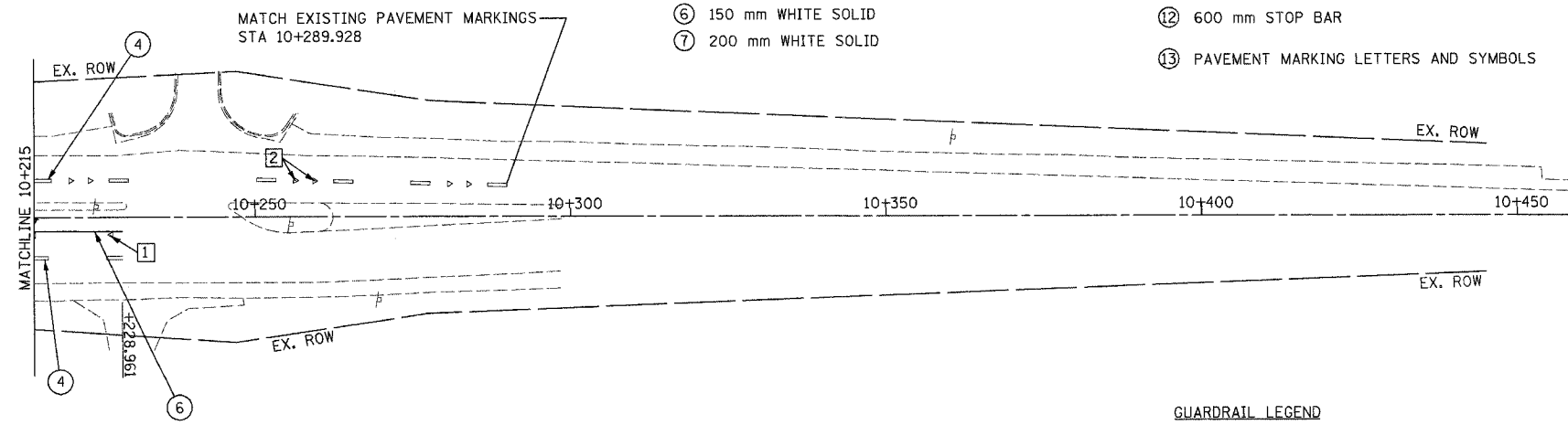
**PAVEMENT MARKING LEGEND**

- ① 100 mm WHITE SOLID
- ② 100 mm YELLOW SOLID
- ③ 100 mm DOUBLE YELLOW SOLID
- ④ 100 mm WHITE SKIP-DASH 
- ⑤ 100 mm WHITE DASH 
- ⑥ 150 mm WHITE SOLID
- ⑦ 200 mm WHITE SOLID

- ⑧ 300 mm YELLOW DIAGONAL-25 m C-C 
- ⑨ 300 mm WHITE DIAGONAL-25 m C-C 
- ⑩ 300 mm WHITE DIAGONAL-3 m C-C 
- ⑪ 300 mm WHITE DIAGONAL-6 m C-C 
- ⑬ 300 mm YELLOW DIAGONAL-6 m C-C 
- ⑫ 600 mm STOP BAR 
- ⑬ PAVEMENT MARKING LETTERS AND SYMBOLS

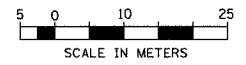
**RAISED REFLECTIVE PAVEMENT MARKER LEGEND**

- ① CRYSTAL ONE-WAY-12.2 m C-C
- ② CRYSTAL ONE-WAY-24.4 m C-C
- ③ AMBER ONE-WAY-12.2 m C-C
- ④ AMBER TWO-WAY-12.2 m C-C
- ⑤ CRYSTAL ONE-WAY-6 m C-C



**NOTE:**

1. ALL DIMENSIONS ARE IN METERS (m) UNLESS OTHERWISE NOTES.



**GUARDRAIL LEGEND**



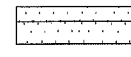

- A - STEEL PLATE BEAM GUARDRAIL, TYPE A
- B - TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL)
- C - TRAFFIC BARRIER TERMINAL, TYPE 2
- D - TRAFFIC BARRIER TERMINAL, TYPE 6
- E - STEEL PLATE BEAM GUARDRAIL, TYPE D

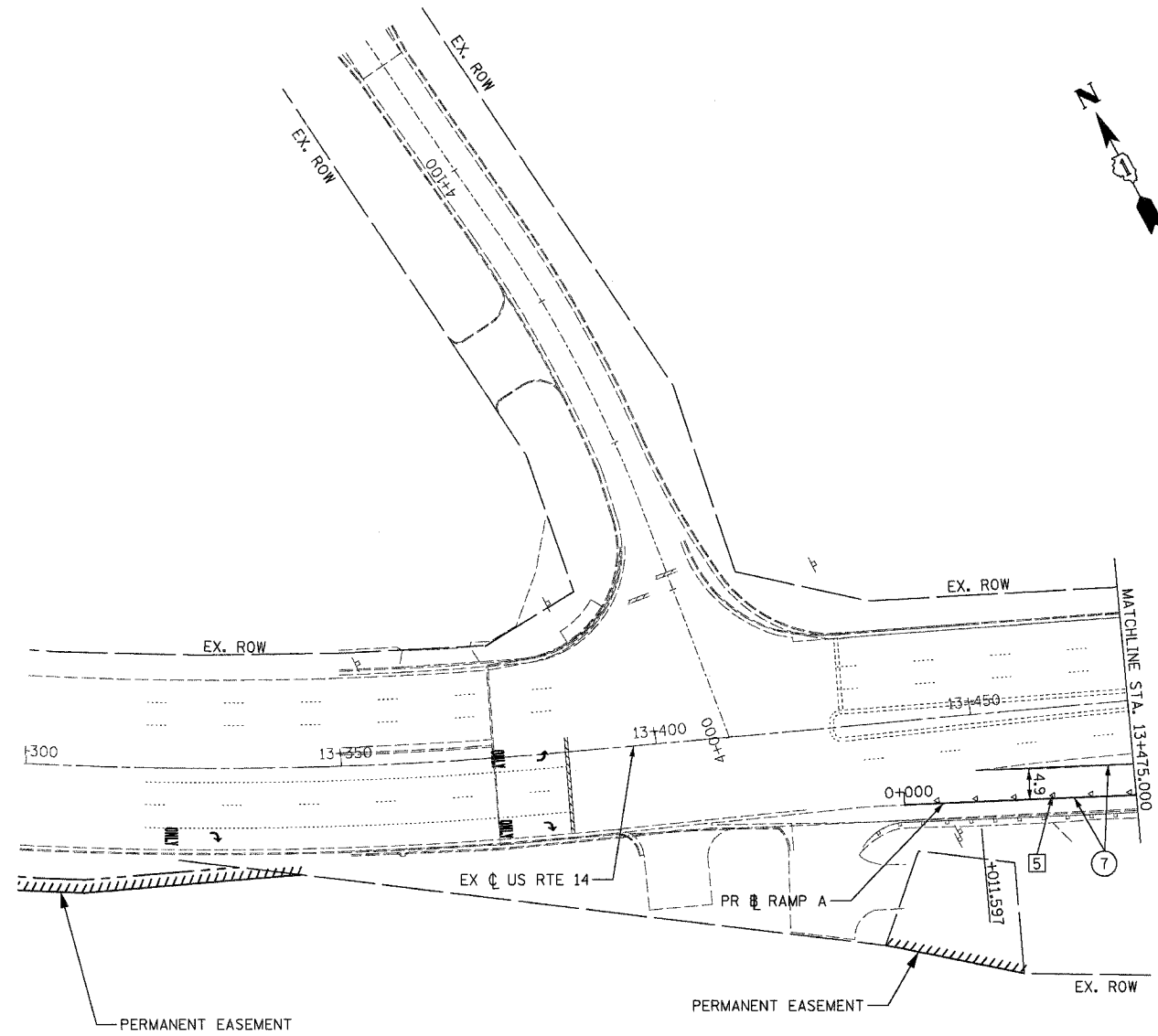
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
ILLINOIS ROUTE 68  
PAVEMENT MARKING AND  
LANDSCAPING PLAN  
STA. 9+900 TO STA. 10+290  
SCALE 1:500  
DATE OCTOBER, 2006  
DRAWN BY RDT  
CHECKED BY PK

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	*	COOK	283	109
STA. 9+713.000		TO STA. 10+151.000		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		
* 70D-Y-B-R & 70HB-R-1		62897		

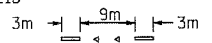
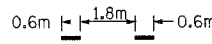
**LANDSCAPING LEGEND**

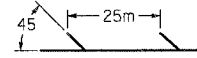
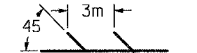
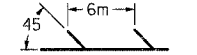

-  SODDING, SALT TOLERANT
-  SEEDING CLASS 2A
-  SEEDING, CLASS 4 WITH EROSION CONTROL BLANKET
-  EXISTING TREE TO REMAIN



NOTE:  
1. ALL DIMENSIONS ARE IN METERS (m) UNLESS OTHERWISE NOTES.

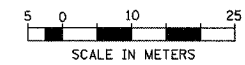
**PAVEMENT MARKING LEGEND**

- ① 100 mm WHITE SOLID
- ② 100 mm YELLOW SOLID
- ③ 100 mm DOUBLE YELLOW SOLID
- ④ 100 mm WHITE SKIP-DASH  

- ⑤ 100 mm WHITE DASH  

- ⑥ 150 mm WHITE SOLID
- ⑦ 200 mm WHITE SOLID

- ⑧ 300 mm YELLOW DIAGONAL-25 m C-C  

- ⑨ 300 mm WHITE DIAGONAL-25 m C-C
- ⑩ 300 mm WHITE DIAGONAL-3 m C-C  

- ⑪ 300 mm WHITE DIAGONAL-6 m C-C  

- ⑬ 600 mm STOP BAR  

- ⑬ PAVEMENT MARKING LETTERS AND SYMBOLS

**RAISED REFLECTIVE PAVEMENT MARKER LEGEND**

- 1 CRYSTAL ONE-WAY-12.2 m C-C
- 2 CRYSTAL ONE-WAY-24.4 m C-C
- 3 AMBER ONE-WAY-12.2 m C-C
- 4 AMBER TWO-WAY-12.2 m C-C
- 5 CRYSTAL ONE-WAY-6 m C-C



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
ILLINOIS ROUTE 68  
PAVEMENT MARKING AND  
LANDSCAPING PLAN  
STA. 13+300 TO STA. 13+475



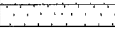

SCALE 1:500  
DATE OCTOBER, 2006

DRAWN BY RDT  
CHECKED BY PK

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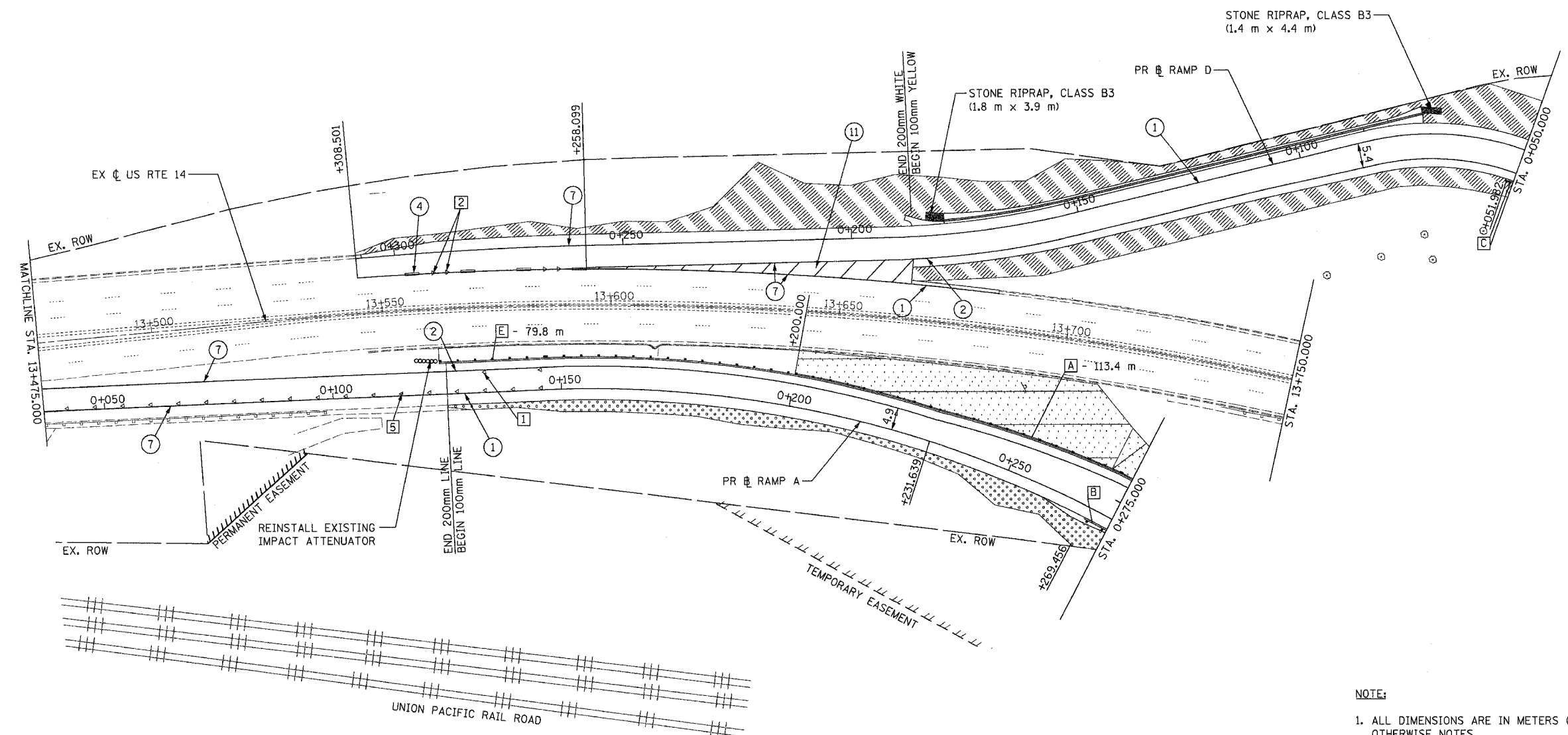
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	*	COOK	283	110
STA. 9+713.000		TO STA. 10+151.000		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
* 70D-Y-B-R & 70HB-R-1 62897				

**LANDSCAPING LEGEND**

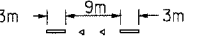
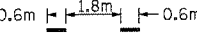
-  SODDING, SALT TOLERANT
-  SEEDING CLASS 2A
-  SEEDING, CLASS 4 WITH EROSION CONTROL BLANKET
-  EXISTING TREE TO REMAIN

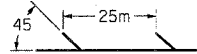
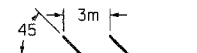
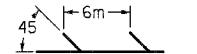


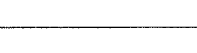
**GUARDRAIL LEGEND**

- A** - STEEL PLATE BEAM GUARDRAIL, TYPE A
- B** - TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL)
- C** - TRAFFIC BARRIER TERMINAL, TYPE 2
- D** - TRAFFIC BARRIER TERMINAL, TYPE 6
- E** - STEEL PLATE BEAM GUARDRAIL, TYPE D



**PAVEMENT MARKING LEGEND**

- ① 100 mm WHITE SOLID
- ② 100 mm YELLOW SOLID
- ③ 100 mm DOUBLE YELLOW SOLID
- ④ 100 mm WHITE SKIP-DASH 
- ⑤ 100 mm WHITE DASH 
- ⑥ 150 mm WHITE SOLID
- ⑦ 200 mm WHITE SOLID

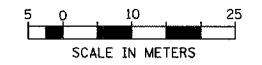
- ⑧ 300 mm YELLOW DIAGONAL-25 m C-C 
- ⑨ 300 mm WHITE DIAGONAL-25 m C-C 
- ⑩ 300 mm WHITE DIAGONAL-3 m C-C 
- ⑪ 300 mm WHITE DIAGONAL-6 m C-C 
- ⑭ 300 mm YELLOW DIAGONAL-6 m C-C 
- ⑫ 600 mm STOP BAR 
- ⑬ PAVEMENT MARKING LETTERS AND SYMBOLS

**RAISED REFLECTIVE PAVEMENT MARKER LEGEND**

- ① CRYSTAL ONE-WAY-12.2 m C-C
- ② CRYSTAL ONE-WAY-24.4 m C-C
- ③ AMBER ONE-WAY-12.2 m C-C
- ④ AMBER TWO-WAY-12.2 m C-C
- ⑤ CRYSTAL ONE-WAY-6 m C-C

**NOTE:**

1. ALL DIMENSIONS ARE IN METERS (m) UNLESS OTHERWISE NOTES.





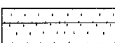

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 ILLINOIS ROUTE 68  
 PAVEMENT MARKING AND  
 LANDSCAPING PLAN  
 STA. 13+475 TO STA. 13+750

SCALE 1:500 DRAWN BY RDT  
 DATE OCTOBER, 2006 CHECKED BY PK

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	*	COOK	283	111
STA. 9+713.000		TO STA. 10+151.000		
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	
* 70D-Y-B-R & 70HB-R-1		62897		

**LANDSCAPING LEGEND**

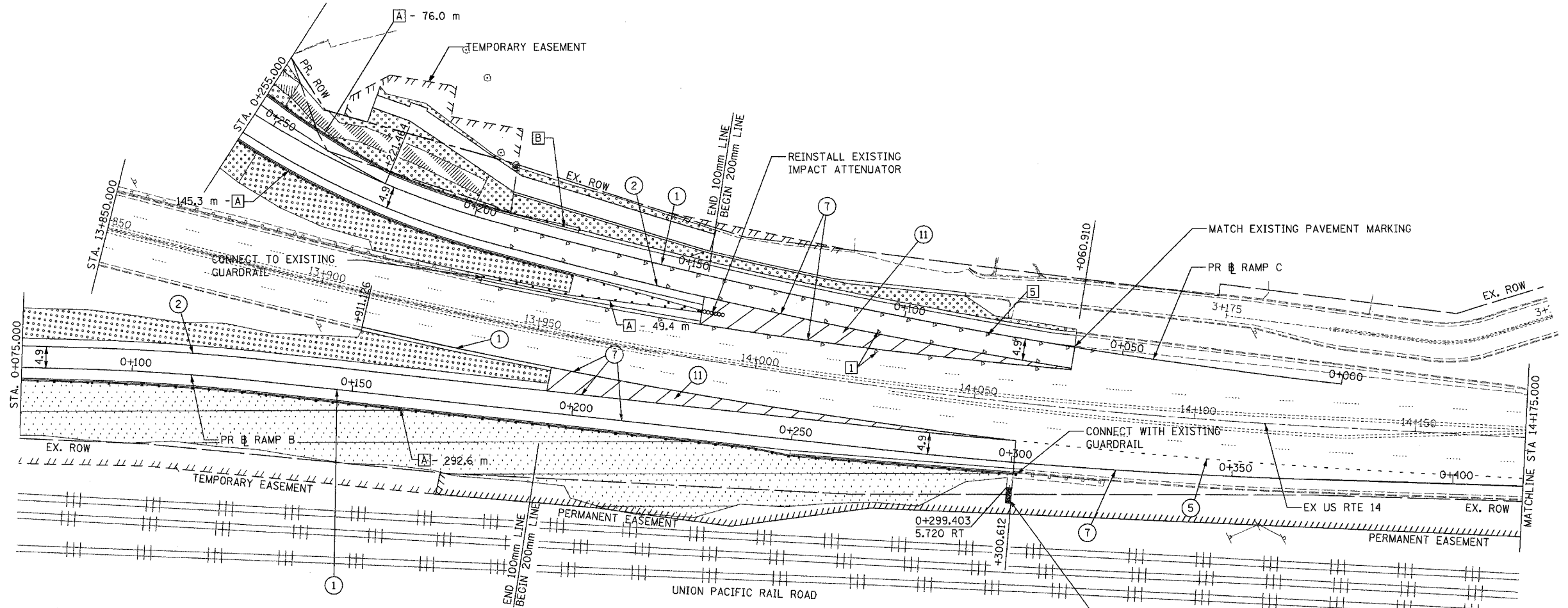
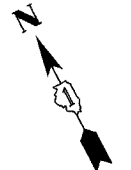
-  SODDING, SALT TOLERANT
-  SEEDING CLASS 2A
-  SEEDING, CLASS 4 WITH EROSION CONTROL BLANKET
-  EXISTING TREE TO REMAIN

**GUARDRAIL LEGEND**

- A** - STEEL PLATE BEAM GUARDRAIL, TYPE A
- B** - TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL)
- C** - TRAFFIC BARRIER TERMINAL, TYPE 2
- D** - TRAFFIC BARRIER TERMINAL, TYPE 6
- E** - STEEL PLATE BEAM GUARDRAIL, TYPE D

**NOTE:**

1. ALL DIMENSIONS ARE IN METERS (m) UNLESS OTHERWISE NOTES.

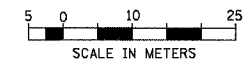


**PAVEMENT MARKING LEGEND**

- ① 100 mm WHITE SOLID
- ② 100 mm YELLOW SOLID
- ③ 100 mm DOUBLE YELLOW SOLID
- ④ 100 mm WHITE SKIP-DASH
- ⑤ 100 mm WHITE DASH
- ⑥ 150 mm WHITE SOLID
- ⑦ 200 mm WHITE SOLID
- ⑧ 300 mm YELLOW DIAGONAL-25 m C-C
- ⑨ 300 mm WHITE DIAGONAL-25 m C-C
- ⑩ 300 mm WHITE DIAGONAL-3 m C-C
- ⑪ 300 mm WHITE DIAGONAL-6 m C-C
- ⑫ 600 mm STOP BAR
- ⑬ PAVEMENT MARKING LETTERS AND SYMBOLS

**RAISED REFLECTIVE PAVEMENT MARKER LEGEND**

- ① CRYSTAL ONE-WAY-12.2 m C-C
- ② CRYSTAL ONE-WAY-24.4 m C-C
- ③ AMBER ONE-WAY-12.2 m C-C
- ④ AMBER TWO-WAY-12.2 m C-C
- ⑤ CRYSTAL ONE-WAY-6 m C-C



REVISIONS	
NAME	DATE



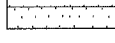

ILLINOIS DEPARTMENT OF TRANSPORTATION  
ILLINOIS ROUTE 68  
PAVEMENT MARKING AND  
LANDSCAPING PLAN  
STA. 13+850 TO STA. 14+175

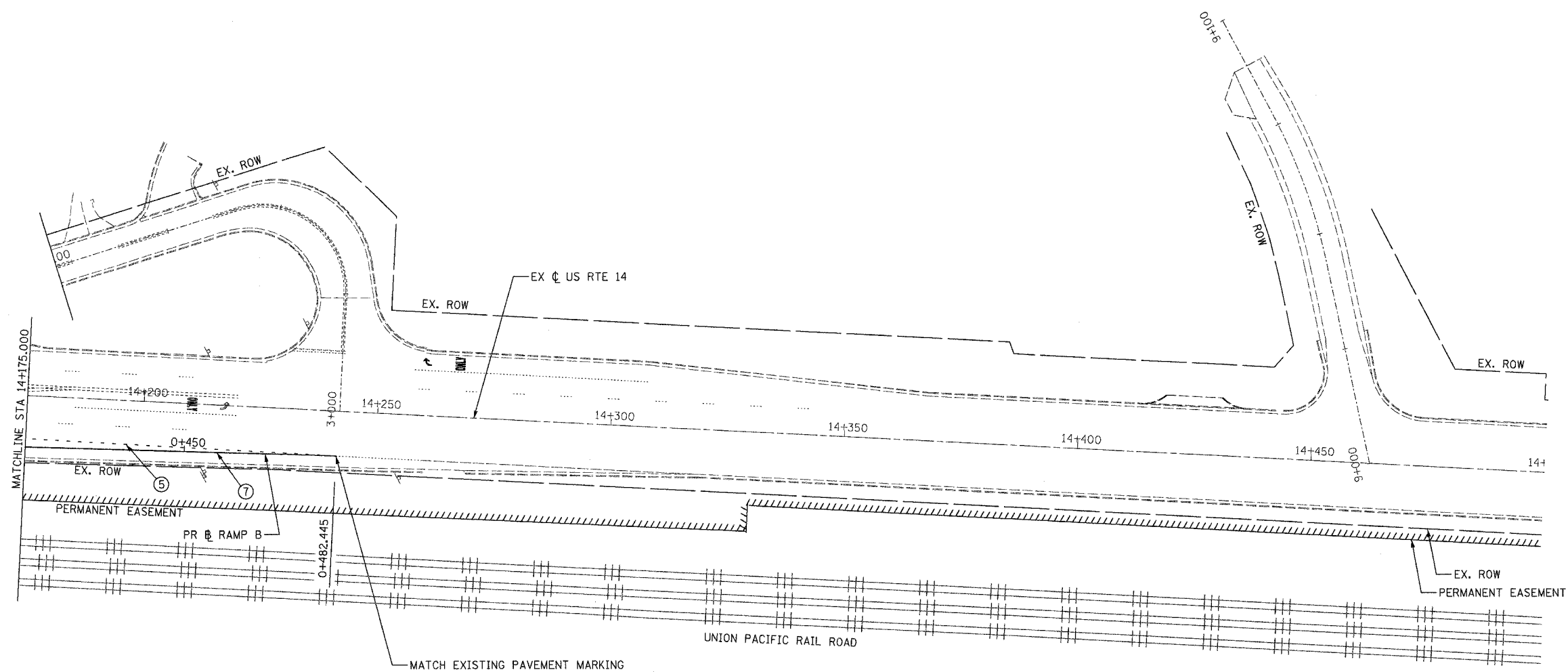
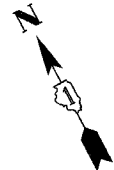
SCALE 1:500  
DATE OCTOBER, 2006

DRAWN BY RDT  
CHECKED BY PK

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	*	COOK	283	112
STA. 9+713.000		TO STA. 10+151.000		
FED. ROAD DIST. NO. 1		ILLINOIS		FED. AID PROJECT
* 70D-Y-B-R & 70HB-R-1		62897		

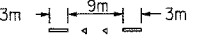
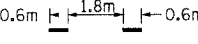
**LANDSCAPING LEGEND**

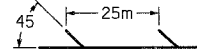
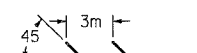
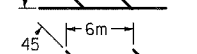
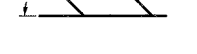

-  SODDING, SALT TOLERANT
-  SEEDING CLASS 2A
-  SEEDING, CLASS 4 WITH EROSION CONTROL BLANKET
-  EXISTING TREE TO REMAIN



**NOTE:**  
1. ALL DIMENSIONS ARE IN METERS (m) UNLESS OTHERWISE NOTES.

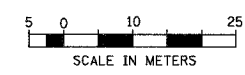
**PAVEMENT MARKING LEGEND**

- ① 100 mm WHITE SOLID
- ② 100 mm YELLOW SOLID
- ③ 100 mm DOUBLE YELLOW SOLID
- ④ 100 mm WHITE SKIP-DASH 
- ⑤ 100 mm WHITE DASH 
- ⑥ 150 mm WHITE SOLID
- ⑦ 200 mm WHITE SOLID

- ⑧ 300 mm YELLOW DIAGONAL-25 m C-C 
- ⑨ 300 mm WHITE DIAGONAL-25 m C-C 
- ⑩ 300 mm WHITE DIAGONAL-3 m C-C 
- ⑪ 300 mm WHITE DIAGONAL-6 m C-C 
- ⑭ 300 mm YELLOW DIAGONAL-6 m C-C 
- ⑫ 600 mm STOP BAR
- ⑬ PAVEMENT MARKING LETTERS AND SYMBOLS

**RAISED REFLECTIVE PAVEMENT MARKER LEGEND**

- ① CRYSTAL ONE-WAY-12.2 m C-C
- ② CRYSTAL ONE-WAY-24.4 m C-C
- ③ AMBER ONE-WAY-12.2 m C-C
- ④ AMBER TWO-WAY-12.2 m C-C



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
ILLINOIS ROUTE 68  
PAVEMENT MARKING AND  
LANDSCAPING PLAN  
STA. 14+175 TO STA. 14+500  
SCALE 1:500  
DATE OCTOBER, 2006  
DRAWN BY RDT  
CHECKED BY PK



# TRAFFIC SIGNALS SCHEDULE OF QUANTITIES

		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.			
		343	*	COOK	283	113			
NOTE	ITEM.	UNIT	GRAND TOTAL	ELA RD & IL 68	IL 68 RAMP A&B	IL 68 RAMP C&D	ELA RD & US 14	INTERCONNECT	STA.
	TRAFFIC CONTROL AND PROTECTION, STANDARD 701411	L SUM	1						0 STA.
	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	L SUM	1						ILLINOIS FED. AID PROJECT
	TRAFFIC CONTROL AND PROTECTION, STANDARD 701601	L SUM	1						70B-Y-R
	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1						70B-Y-R
	SIGN PANEL - TYPE 2	SQ METER	4.64		2.32	2.32			
	HANDHOLE	EACH	10		4	4			
	HEAVY-DUTY HANDHOLE	EACH	9		3	4			
	DOUBLE HANDHOLE	EACH	2		1	1			
	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET	EACH	1		1				
	FULL-ACTUATED CONTROLLER AND TYPE V CABINET	EACH	1			1			
	MASTER CONTROLLER	EACH	1					1	
	TRANSCEIVER - FIBER OPTIC	EACH	4	1	1	1	1		
	DRILL EXISTING HANDHOLE	EACH	2					2	
	TRAFFIC SIGNAL BACKPLATE, LOUVERED	EACH	20		10	10			
	INDUCTIVE LOOP DETECTOR	EACH	14		7	7			
	CONDUIT IN TRENCH, 50MM DIA., GALVANIZED STEEL	METER	918.20		153.6	172.9		591.7	
	CONDUIT IN TRENCH, 65MM DIA., GALVANIZED STEEL	METER	124.00		36.8	87.2			
	CONDUIT PUSHED, 50MM DIA., GALVANIZED STEEL	METER	44.10			44.1			
	CONDUIT IN TRENCH, 100MM DIA., GALVANIZED STEEL	METER	42.70		7	35.7			
	CONDUIT PUSHED, 100MM DIA., GALVANIZED STEEL	METER	257.00		120.2	136.8			
	CONDUIT EMBEDDED IN STRUCTURE, 50MM DIA., PVC	METER	86.90		56.4	30.5			
	TRENCH AND BACKFILL FOR ELECTRICAL WORK	METER	1084.90		197.4	295.8		591.7	
	ELECTRIC CABLE IN TRENCH, SERVICE, NO. 6 2 C	METER	68.00		13	55			
	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	METER	1637.00		925	712			
	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	METER	412.50		189	223.5			
	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	METER	1056.77		526	530.77			
	TRAFFIC SIGNAL POST, GALVANIZED STEEL 4.25 METER	EACH	6		3	3			
	STEEL MAST ARM ASSEMBLY AND POLE 8.53 METER	EACH	2		1	1			
	STEEL MAST ARM ASSEMBLY AND POLE 9.14 METER	EACH	1			1			
	STEEL MAST ARM ASSEMBLY AND POLE WITH DUAL MAST ARMS, 8.53 METER AND 16.46 METER	EACH	1			1			
	STEEL MAST ARM ASSEMBLY AND POLE WITH DUAL MAST ARMS, 10.97 METER AND 6.09 METER	EACH	1		1				
	STEEL MAST ARM ASSEMBLY AND POLE 16.46 METER	EACH	1		1				
	CONCRETE FOUNDATION, TYPE A	METER	7.20		3.6	3.6			
	CONCRETE FOUNDATION, TYPE D	METER	2.40		1.2	1.2			
	CONCRETE FOUNDATION, TYPE E 750MM DIAMETER	METER	24.30		10.1	14.2			
	DETECTOR LOOP, PREFORMED	METER	391.00		201	190			
	ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	METER	1027.00					1027	
1	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3/C	METER	374.72		150.3	224.42			
1	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 20 3/C TWISTED SHIELDED	METER	375.08		150.6	224.48			
	FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F	METER	1027.00					1027	
	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	METER	447.40		195	252.4			
	CONCRETE FOUNDATION, TYPE E 900MM DIAMETER	METER	13.20		8.6	4.6			
	SERVICE INSTALLATION, 100 AMP 120/240V	EACH	2		1	1			
	RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM	L SUM	1					1	
	SIGNAL HEAD ,LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	18		9	9			
	SIGNAL HEAD ,LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	10		5	5			
	SIGNAL HEAD ,LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	2		1	1			
	SIGNAL HEAD ,LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	2		1	1			
1	LIGHT DETECTOR	EACH	6		3	3			
1	LIGHT DETECTOR AMPLIFIER	EACH	2		1	1			
	JUNCTION BOX, NON-METALIC, EMBEDDED IN STRUCTURE, 300MM X 300MM X 150MM	EACH	4		3	1			
	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	2	1			1		
	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 12.80 METER	EACH	1		1				
	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 10.36 METER	EACH	1			1			
	NOTES								
	1. 100% COST TO VILLAGE OF PALATINE								

TS-01 OF 13

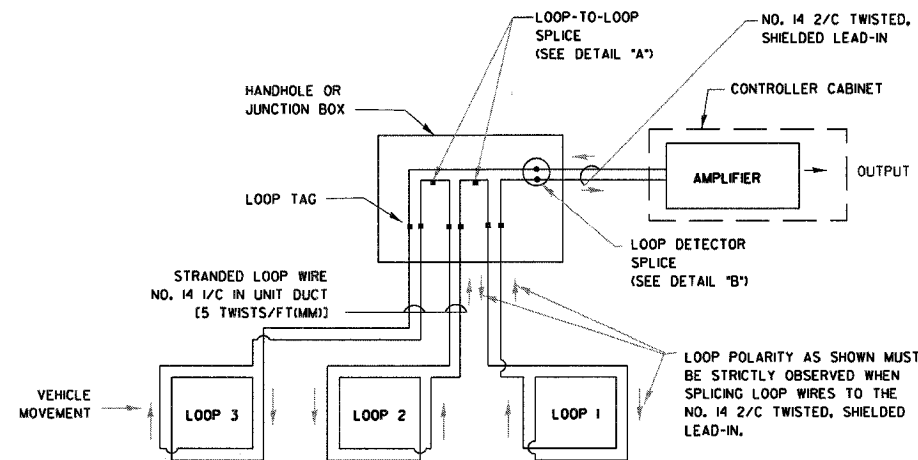
REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		TRAFFIC SIGNALS SCHEDULE OF QUANTITIES
SCALE		DRAWN BY R.P.J.
DATE		DESIGNED BY D.S.
		CHECKED BY A.D.O.

Rick Johns  
 IDOT - District 01  
 02-05-IDOT-STV-03 - IL 68 over US 14  
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	*	COOK	283	114
STA.	TO STA.			
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	
		* 700-Y-R & 70HB-R-1		62897

**LOOP DETECTOR NOTES**

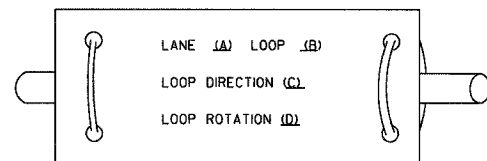
- EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE UNIT DUCT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). UNIT DUCT SHALL BE INCLUDED IN THE COST OF THE LOOP WIRE.
- THE NUMBER OF LOOP TURNS SHALL BE AS RECOMMENDED BY THE AMPLIFIER MANUFACTURER. ALL ADJACENT SIDES OF THE LOOPS SHALL BE INSTALLED IN SUCH A WAY THAT THE CURRENT FLOW IS IN THE SAME DIRECTION TO REINFORCE ITS MAGNETIC FIELDS FOR SMALL VEHICLE DETECTION.
- EACH LOOP LEAD-IN SHALL BE IDENTIFIED AND PERMANENTLY TAGGED IN THE HANDHOLE. EACH LEAD-IN CABLE TAG SHALL INDICATE THE LOCATION OF THE LOOP, LOOP ROTATION (CLOCKWISE/COUNTERCLOCKWISE), LOOP LEAD-IN DIRECTION (IN OR OUT), LOOP CABLE NUMBER AND LOCATION IN CABINET, AND NUMBER OF TURNS IN THE DETECTOR LOOPS IN WATER PROOF INK AS INDICATED ON THE DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAIL. THE CONTRACTOR SHALL MARK LOOP LOCATIONS ON RECORD DRAWINGS AND PRESENT TO THE ENGINEER AFTER FINAL INSPECTION. LOOPS SHALL BE MARKED BY LANE AND LOOP NUMBER. SEE DETAIL BELOW.
- ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.
- IN ASPHALT PAVEMENT, LOOPS SHOULD BE PLACED IN THE BINDER AND DIVEHOLES MARKED AT THE CURB WITH A SAW-CUT. THE SAW-CUT SHALL BE CUT IN ACCORDANCE WITH LOCAL AND E.P.A. DUST CONTROL REQUIREMENTS. DETECTOR LOOP(S) SHALL NOT BE INSTALLED IN WET CONDITIONS AND THE SAW-CUTS MUST BE FREE OF DEBRIS AND RESIDUE SUCH AS DUST AND WATER WHICH IS TO BE ACHIEVED BY THE USE OF COMPRESSED AIR, WIRE BRUSHING AND HEAT DRYING ACCORDING TO SEALANT MANUFACTURER REQUIREMENTS. THE DETECTOR WIRE SHALL BE HELD IN PLACE BY THE USE OF FORM WEDGES. WEDGES SHALL BE SPACED NO MORE THAN 18" (450 mm) APART.
- LOOP SPLICES SHALL BE SOLDERED USING A SOLDERING IRON. BLOW TORCHES OR OTHER DEVICES WHICH OXIDIZE COPPER CABLE SHALL NOT BE ALLOWED FOR SOLDERING OPERATIONS. SEE DETAIL BELOW RIGHT.
- PREFORMED DETECTOR LOOPS SHALL BE USED, AS SHOWN ON THE PLANS, WHERE NEW CONCRETE PAVEMENT IS PROPOSED. THE INSTALLATION OF PREFORMED LOOPS SHALL BE IN ACCORDANCE WITH THE DISTRICT 1 SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.



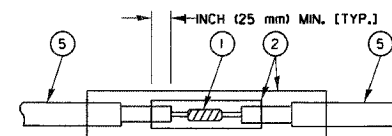
**DETECTOR LOOP WIRING SCHEMATIC**

- LOOPS SHALL BE SPLICED IN SERIES.
- SAW-CUTS SHALL BE A MINIMUM WIDTH OF 5/16" (8 mm).
- SAW-CUT DEPTHS SHALL BE 3" (75 mm), IF IN CONCRETE, THE SAW-CUT DEPTH SHALL BE TO THE TOP OF THE REINFORCEMENT.
- LOOP CORNERS SHALL BE DRILLED WITH A 2" (50 mm) DIAMETER CORE.

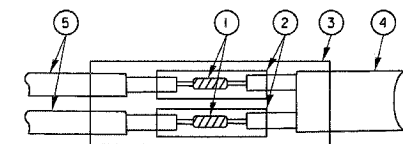
**LOOP LEAD-IN CABLE TAG**



- LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- LOOP "1" IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.



**DETAIL "A"  
LOOP-TO-LOOP SPLICE**



**DETAIL "B"  
LOOP-TO-CONTROLLER SPLICE**

**LOOP DETECTOR SPLICE**

- WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH.
- WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.
- WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGTH 6" (150 mm), UNDERWATER GRADE.
- NO. 14 2/C TWISTED, SHIELDED CABLE.
- LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.

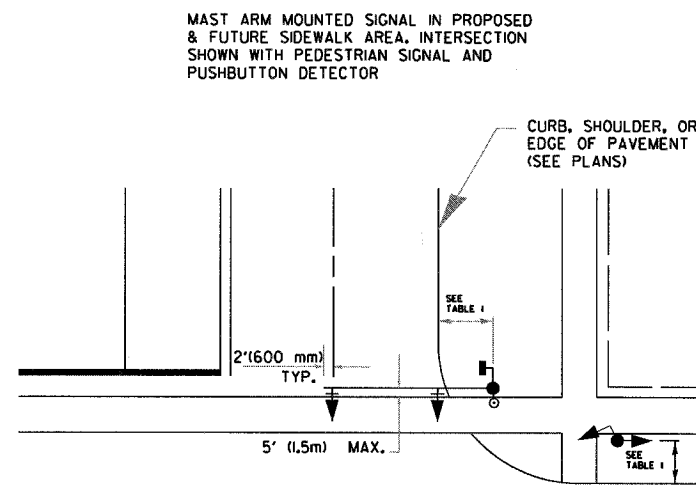
TS-02 OF 13

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAILS
SCALE	DATE	DRAWN BY RWP DESIGNED BY DAD CHECKED BY DAZ SHEET 1 OF 4

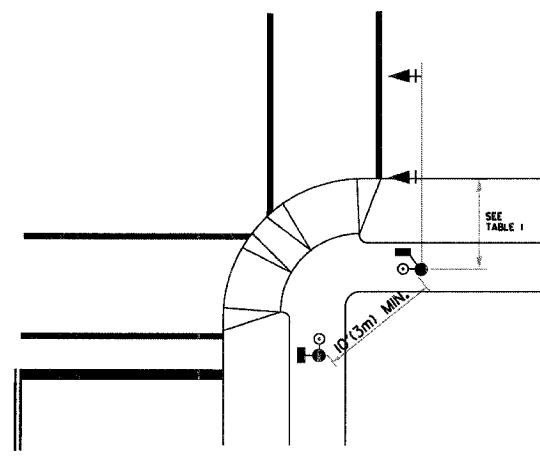
Rick Johns  
 IDOT - District 01  
 02-05-1001-STV-03 - IL 68 over US 14  
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 11/27/2006 3:41:00 PM 1.0000 M / M.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	*	COOK	283	115
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		
* 700-Y-R & 70HB-R-1		62897		

**TRAFFIC SIGNAL MAST ARM AND POST**



**PEDESTRIAN SIGNAL PUSHBUTTON**



RECOMMENDED PUSHBUTTON LOCATIONS FOR ACCESSIBLE PEDESTRIAN SIGNALS SHALL BE IN ACCORDANCE WITH THE CURRENT MUTCD (SEE NOTE 1). TO MEET MUTCD REQUIREMENTS, PEDESTRIAN SIGNAL PUSHBUTTONS MAY HAVE TO BE MOUNTED ON A SEPARATE POST.

**NOTES:**

- AT ACCESSIBLE PEDESTRIAN SIGNAL LOCATIONS WITH PEDESTRIAN ACTUATION, EACH PUSHBUTTON SHALL ACTIVATE BOTH THE WALK INTERVAL AND THE ACCESSIBLE PEDESTRIAN SIGNALS.  
 AT ACCESSIBLE PEDESTRIAN SIGNAL LOCATIONS, PUSHBUTTONS SHOULD CLEARLY INDICATE WHICH CROSSWALK SIGNAL IS ACTUATED BY EACH PUSHBUTTON. PUSHBUTTONS AND TACTILE ARROWS SHOULD HAVE HIGH VISUAL CONTRAST (SEE THE DEPARTMENT OF JUSTICE'S AMERICANS WITH DISABILITIES ACT STANDARDS FOR ACCESSIBLE DESIGN, 1991). TACTILE ARROWS SHOULD POINT IN THE SAME DIRECTION AS THE ASSOCIATED CROSSWALK. AT CORNERS OF SIGNALIZED LOCATIONS WITH ACCESSIBLE PEDESTRIAN SIGNALS WHERE PEDESTRIAN PUSHBUTTONS ARE PROVIDED, THE PUSHBUTTONS SHOULD BE SEPARATED BY THE DISTANCE OF AT LEAST 10 FT (3m). THIS ENABLES PEDESTRIANS WHO HAVE VISUAL DISABILITIES TO DISTINGUISH AND LOCATE THE APPROPRIATE PUSHBUTTON.  
 PUSHBUTTONS FOR ACCESSIBLE PEDESTRIAN SIGNALS SHOULD BE LOCATED AS FOLLOWS:  
 A: ADJACENT TO A LEVEL ALL-WEATHER SURFACE TO PROVIDE ACCESS FROM A WHEELCHAIR, AND WHERE THERE IS AN ALL-WEATHER SURFACE, WHEELCHAIR ACCESSIBLE ROUTE TO THE RAMP.  
 B: WITHIN 5 FT (1.5m) OF THE CROSSWALK EXTENDED.  
 C: WITHIN 10 FT (3m) OF THE EDGE OF CURB, SHOULDER, OR PAVEMENT.  
 D: PARALLEL TO THE CROSSWALK TO BE USED (SEE MUTCD FIGURE 4E-2).  
 E: NORMAL PEDESTRIAN PUSHBUTTON MOUNTING HEIGHT SHOULD BE 3.5 FT (1.05m) ABOVE ADJACENT SIDEWALK.
- PEDESTRIAN SIGNAL FACES SHALL BE MOUNTED WITH THE BOTTOM OF THE HOUSING NOT LESS THAN 8 FT (2.4m) NOR MORE THAN 10 FT (3.0m) ABOVE THE SIDEWALK LEVEL AND SO THERE IS A PEDESTRIAN INDICATION IN THE LINE OF PEDESTRIANS' VISION WHICH PERTAINS TO THE CROSSWALK BEING USED.
- THE BOTTOM OF THE HOUSING OF A VEHICLE SIGNAL FACE, NOT MOUNTED OVER A ROADWAY, SHALL BE AT LEAST 10 FT (3.0m) BUT NOT MORE THAN 15 FT (4.5m) ABOVE THE SIDEWALK OR, ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE HIGHWAY IF NO SIDEWALKS EXIST.
- THE BOTTOM OF THE HOUSING OF A VEHICLE SIGNAL FACE, MOUNTED OVER A ROADWAY, SHALL BE ACCORDING TO CURRENT STATE STANDARDS 877001 AND 877006, (6 FT (5m) MIN., 18 FT (5.5m) MAX., FROM HIGHEST POINT OF PAVEMENT)

**PEDESTRIAN SIGNAL POST**

PEDESTRIAN SIGNAL HEAD AND PEDESTRIAN PUSHBUTTON DETECTOR LOCATION

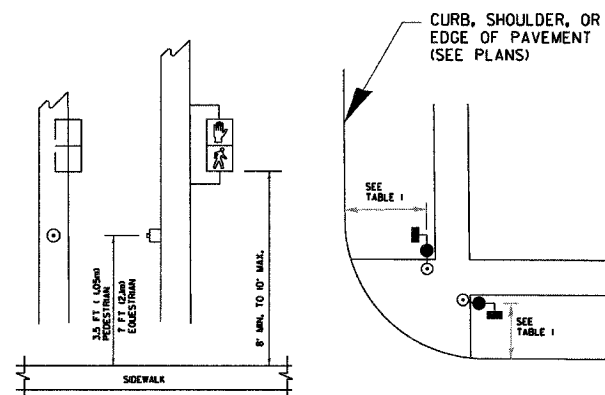


TABLE I

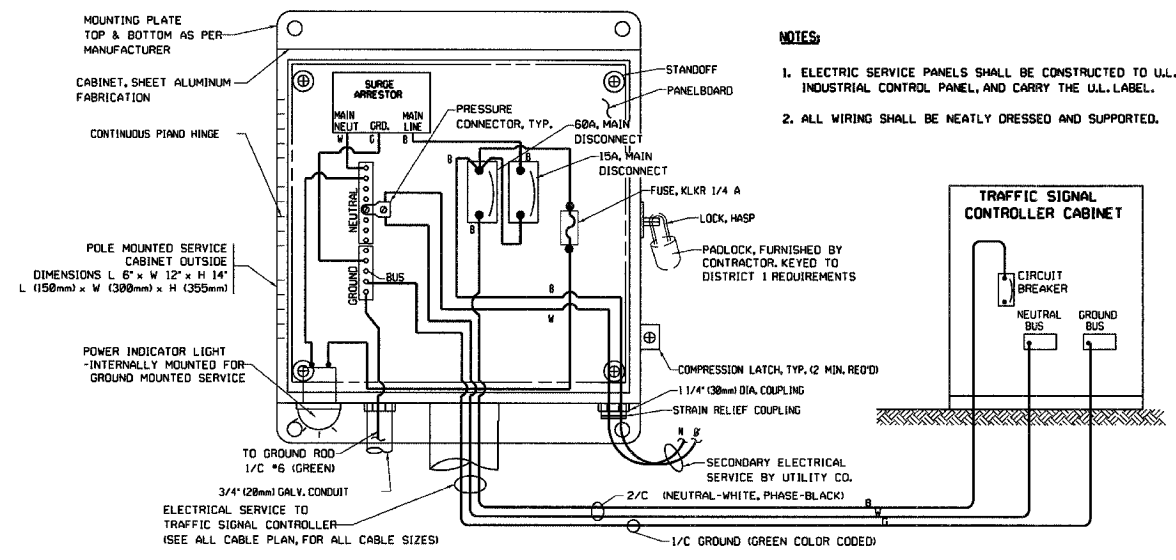
TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MIN. DIST. FROM BACK OF CURB)	SHOULDER/NON-CURBED AREA (MIN. DIST. FROM EDGE OF PAVEMENT)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2FT(0.6m), MINIMUM 10FT(3.0m)
TRAFFIC SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2FT(0.6m), MINIMUM 10FT(3.0m)
PEDESTRIAN SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2FT(0.6m), MINIMUM 10FT(3.0m)
PEDESTRIAN PUSHBUTTON	SEE NOTE 1	SEE NOTE 1

TS-03 OF 13

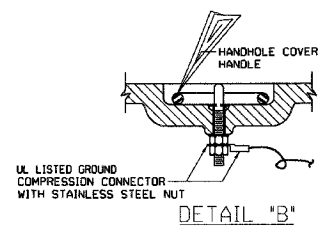
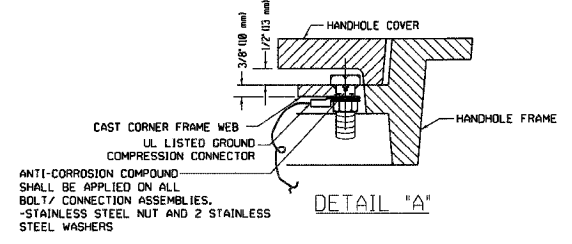
REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAILS DRAWN BY RWP DESIGNED BY DAD CHECKED BY DAZ SHEET 2 OF 4

Rick Johns  
 IDOT - District 01  
 02-05-IDOT-STV-03 - IL 68 over US 14  
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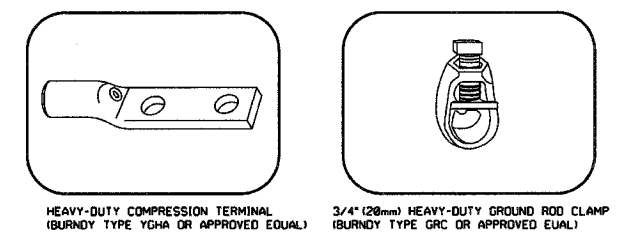
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	*	COOK	283	116
STA.	TO STA.			
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	
		* 70D-Y-R & 70HB-R-1		62897



- NOTES:**
1. ELECTRIC SERVICE PANELS SHALL BE CONSTRUCTED TO U.L. STD 508, INDUSTRIAL CONTROL PANEL, AND CARRY THE U.L. LABEL.
  2. ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.

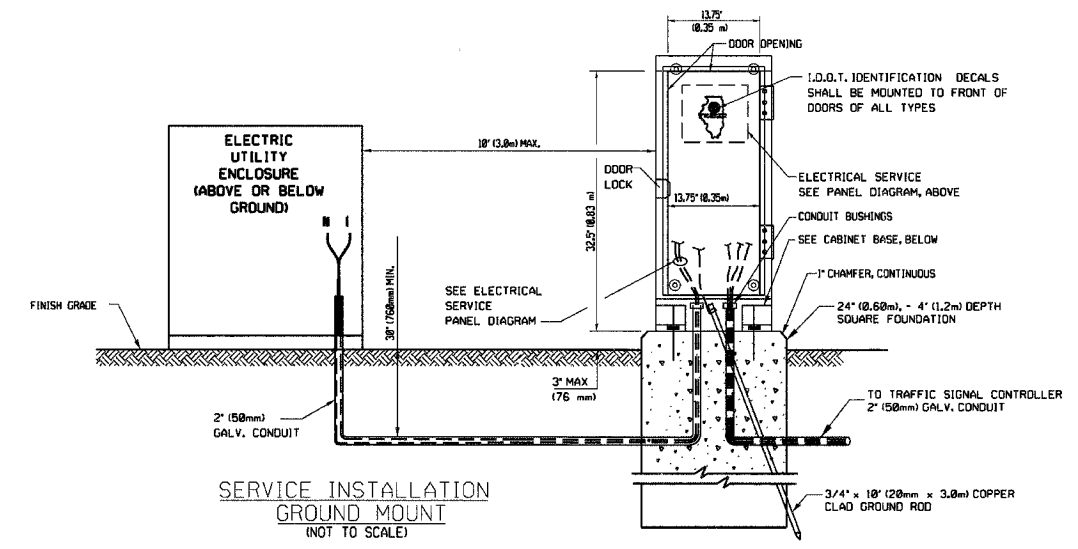


- GROUNDING SYSTEM**
1. THE GROUNDING SYSTEM SHALL CONSIST OF AN INSULATED CONDUCTOR TYPE XLP, NO. 6 A.W.G., STRANDED COPPER TO BE INSTALLED IN RACEWAYS. THE GROUNDING CABLE SHALL BE INSTALLED IN A CONTINUOUS MANNER AS SHOWN ON THE CABLE PLAN PROVIDED. ALL GROUNDING CONDUCTORS SHALL BE BONDED TO METAL ENCLOSURE (HANDHOLE, POST, MAST ARM, CONTROLLER, ETC.). GROUND ROD SHALL BE 3/4" DIA. x 10'-0" (20mm x 3.0m) LONG, COPPER CLAD, ONE GROUND ROD SHALL BE INSTALLED AT ALL POST FOUNDATIONS, POLE FOUNDATIONS, CONTROLLER CABINET FOUNDATION AND ELECTRICAL SERVICE INSTALLATION AS INDICATED ON THE CABLE PLAN. IF THERE ARE ANY SPECIAL CONDITIONS SUCH AS SUB-SURFACE CONDITIONS OR INSTALLATION PROBLEMS, THE RESIDENT ENGINEER SHALL BE NOTIFIED OR CONTACT THE BUREAU OF TRAFFIC, ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT ONE AT (847) 785-4139.
  2. THE NEUTRAL CONDUCTOR AND THE GROUND CONDUCTOR SHALL BE CONNECTED IN THE SERVICE INSTALLATION, AT NO OTHER POINT IN THE TRAFFIC SIGNAL SYSTEM SHALL THE NEUTRAL AND GROUND CONDUCTORS BE CONNECTED.
  3. ALL EQUIPMENT GROUNDING CONDUCTORS SHALL TERMINATE AT THE GROUND BUS IN THE CONTROLLER CABINET.
  4. THE CONTRACTOR SHALL PROVIDE A GROUND CABLE WITH CONNECTORS BETWEEN THE HANDHOLE COVER AND HANDHOLE FRAME.

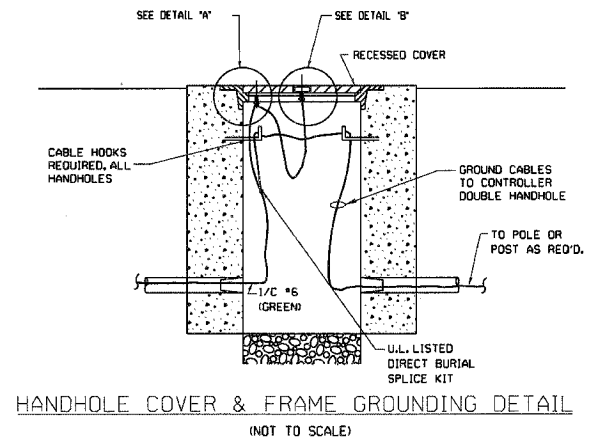


- NOTES:**
- \* ALL CLAMPS SHALL BE BRONZE OR COPPER, UL APPROVED.
  - \* GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES. 6.5' (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES. 13' (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES. 5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME AND COVER.

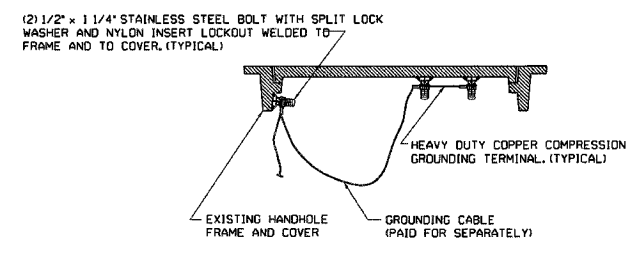
**ELECTRICAL SERVICE - PANEL DIAGRAM SERVICE INSTALLATION POLE MOUNT**  
(NOT TO SCALE)  
(TYPICAL FOR POLE AND GROUND MOUNTED SERVICE) (SHOWN)



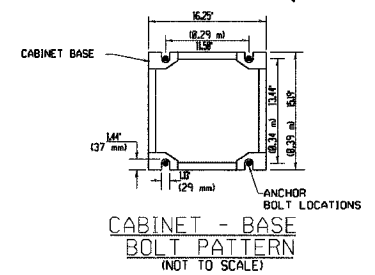
**SERVICE INSTALLATION GROUND MOUNT**  
(NOT TO SCALE)



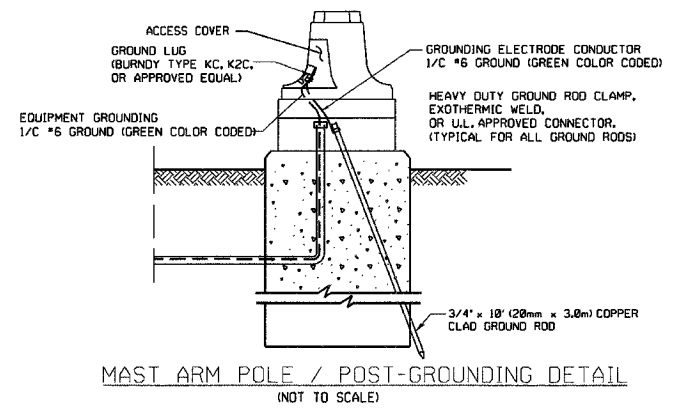
**HANDHOLE COVER & FRAME GROUNDING DETAIL**  
(NOT TO SCALE)



**EXISTING HANDHOLE COVER & FRAME GROUNDING DETAIL**  
(NOT TO SCALE)



**CABINET - BASE BOLT PATTERN**  
(NOT TO SCALE)

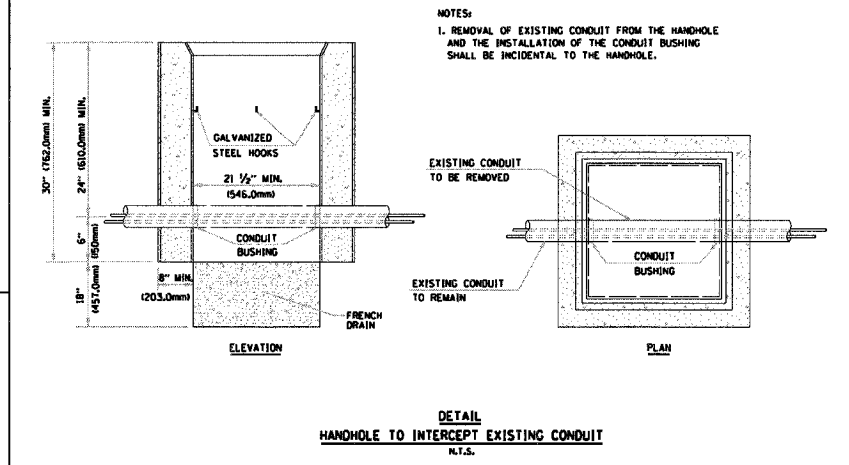
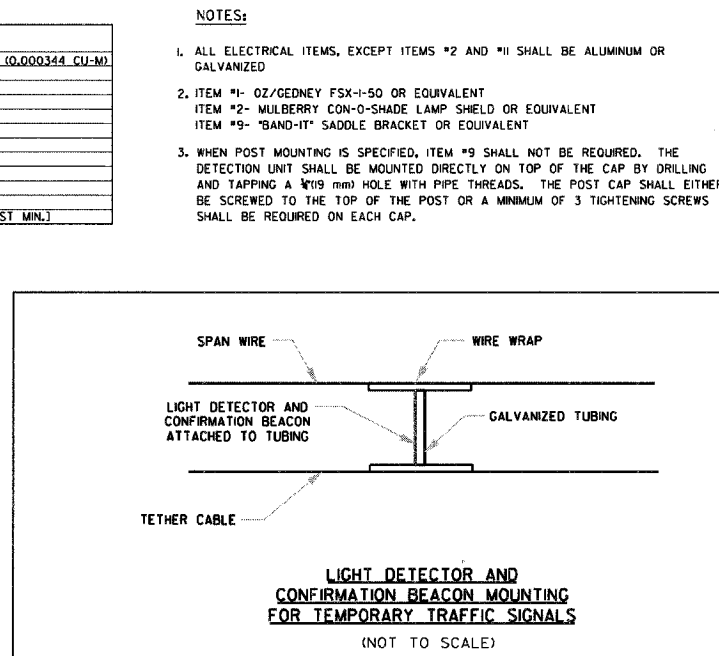
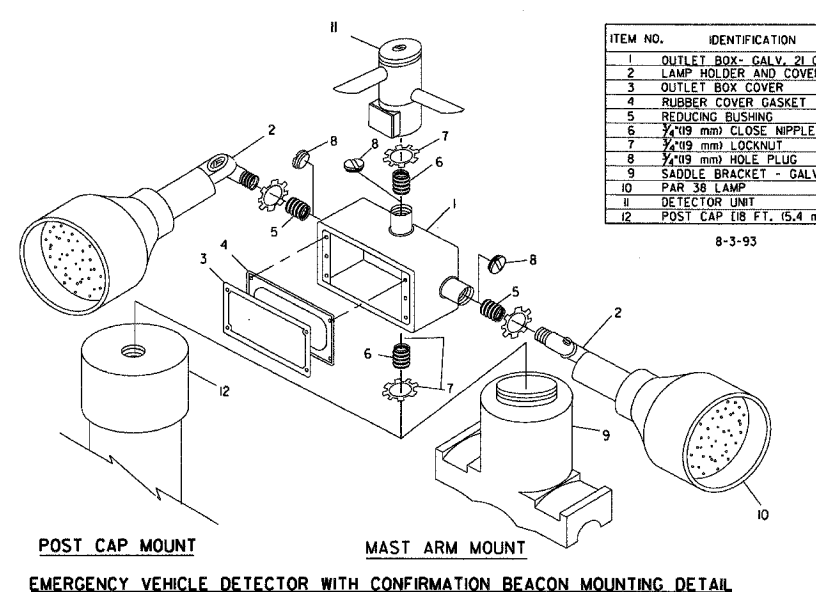
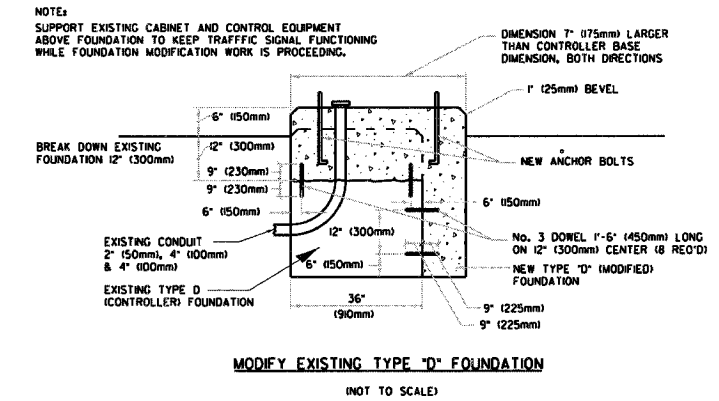
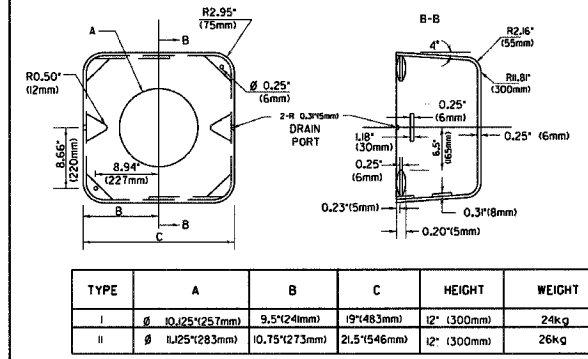
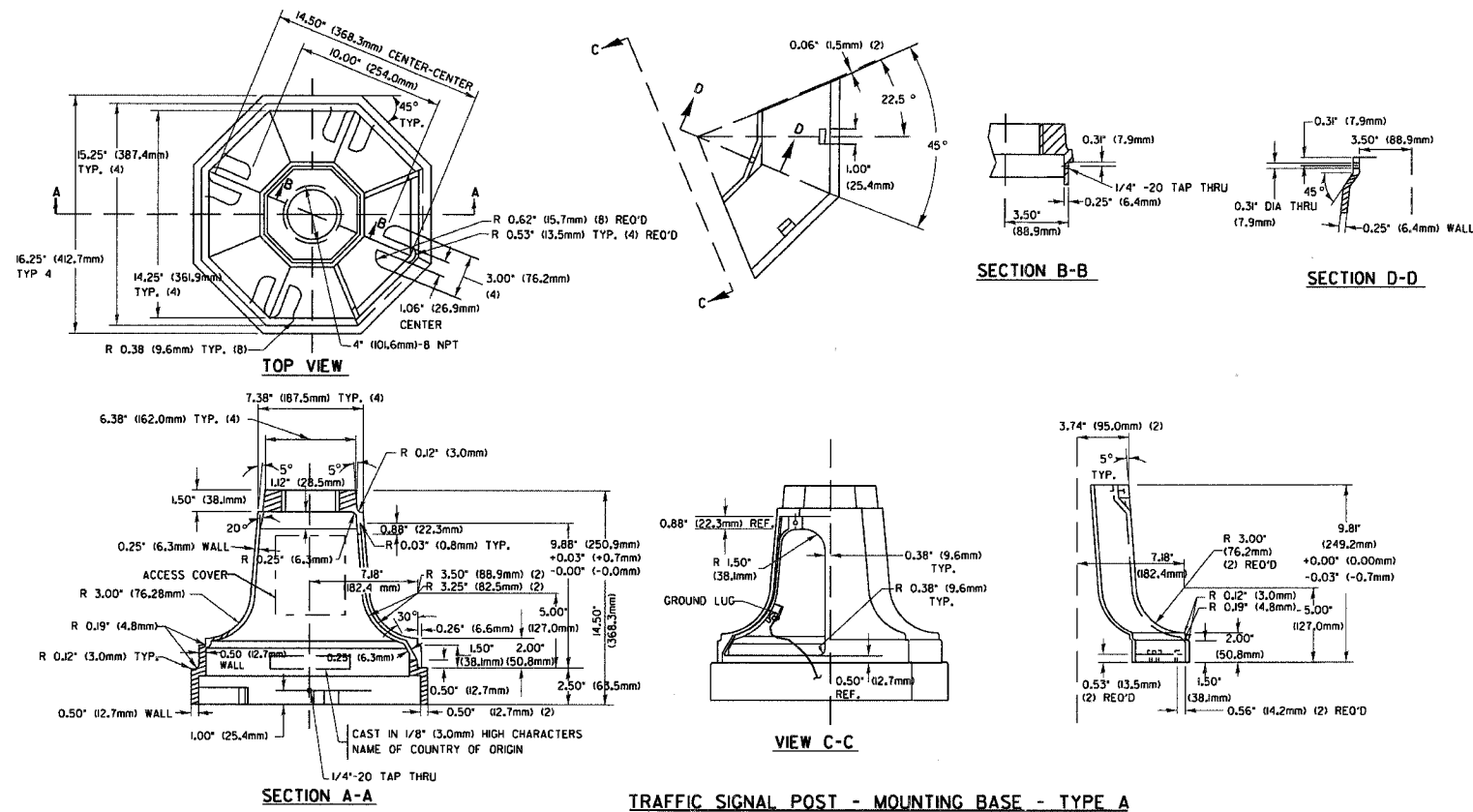


**MAST ARM POLE / POST-GROUNDING DETAIL**  
(NOT TO SCALE)

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAILS  SCALE DATE  DRAWN BY RWP DESIGNED BY DAD CHECKED BY DAZ SHEET 3 OF 4

Rick Johns - District 01  
 IDOT - District 03 - IL 68 over US 14  
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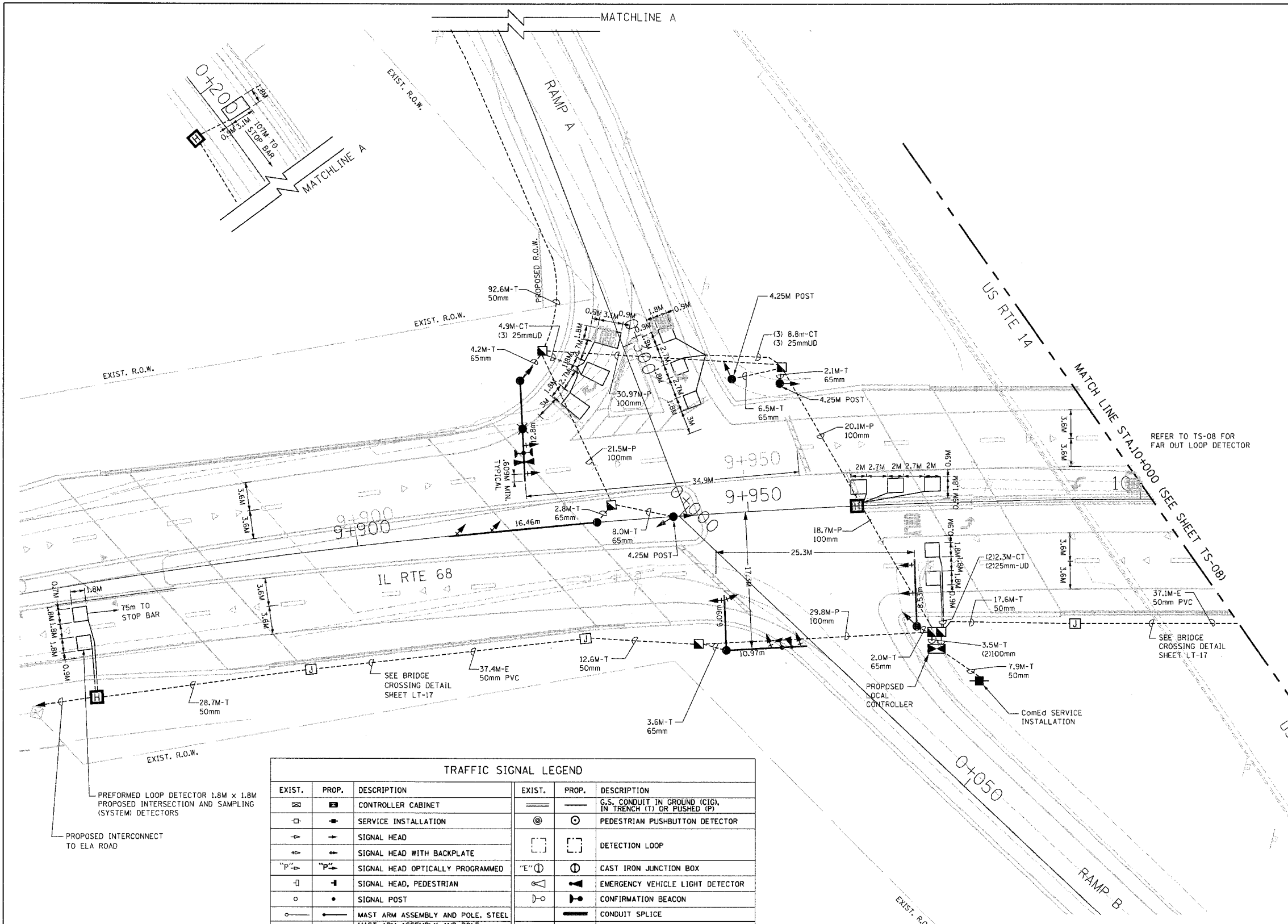
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	*	COOK	283	117
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		
		* 70D-Y-R & 70HB-R-1		62897



REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAILS
SCALE	DATE	DRAWN BY RWP DESIGNED BY DAD CHECKED BY DAZ SHEET 4 OF 4

Rick Johns - District 01  
 IDOT - District 01  
 02-05-IDOT-STV-03 - IL 68 over US 14  
 11/27/2006 3:41:37 PM  
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F.A.P. RTE. 343	SECTION *	COUNTY COOK	TOTAL SHEETS 283	SHEET NO. 118
STA. TO STA.				
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT * 700-Y-R & 70HB-R-1 62897		

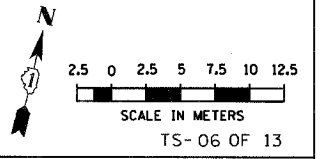


EXIST.	PROP.	DESCRIPTION	EXIST.	PROP.	DESCRIPTION
[Symbol]	[Symbol]	CONTROLLER CABINET	[Symbol]	[Symbol]	G.S. CONDUIT IN GROUND (CIG), IN TRENCH (T) OR PUSHED (P)
[Symbol]	[Symbol]	SERVICE INSTALLATION	[Symbol]	[Symbol]	PEDESTRIAN PUSHBUTTON DETECTOR
[Symbol]	[Symbol]	SIGNAL HEAD	[Symbol]	[Symbol]	DETECTION LOOP
[Symbol]	[Symbol]	SIGNAL HEAD WITH BACKPLATE	[Symbol]	[Symbol]	CAST IRON JUNCTION BOX
[Symbol]	[Symbol]	SIGNAL HEAD OPTICALLY PROGRAMMED	[Symbol]	[Symbol]	EMERGENCY VEHICLE LIGHT DETECTOR
[Symbol]	[Symbol]	SIGNAL HEAD, PEDESTRIAN	[Symbol]	[Symbol]	CONFIRMATION BEACON
[Symbol]	[Symbol]	SIGNAL POST	[Symbol]	[Symbol]	CONDUIT SPLICE
[Symbol]	[Symbol]	MAST ARM ASSEMBLY AND POLE, STEEL	[Symbol]	[Symbol]	WOOD POLE
[Symbol]	[Symbol]	MAST ARM ASSEMBLY AND POLE, ALUMINUM	[Symbol]	[Symbol]	RACEWAY FOR MAGNETIC DETECTOR, TYPE 1/TYPE 11
[Symbol]	[Symbol]	COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE	[Symbol]	[Symbol]	VEHICLE DETECTOR, NON-COMPENSATED MAGNETIC TYPE
[Symbol]	[Symbol]	UNIT DUCT	[Symbol]	[Symbol]	RAILROAD CONTROL CABINET
[Symbol]	[Symbol]	COMMON TRENCH	[Symbol]	[Symbol]	TELEPHONE INSTALLATION
[Symbol]	[Symbol]	HANDHOLE	[Symbol]	[Symbol]	ILLUMINATED SIGN "NO LEFT TURN"
[Symbol]	[Symbol]	DOUBLE HANDHOLE	[Symbol]	[Symbol]	ILLUMINATED SIGN "NO RIGHT TURN"
[Symbol]	[Symbol]	HEAVY DUTY HANDHOLE			

REFER TO TS-08 FOR FAR OUT LOOP DETECTOR

SEE BRIDGE CROSSING DETAIL SHEET LT-17

SEE BRIDGE CROSSING DETAIL SHEET LT-17



NO.	NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
ILLINOIS ROUTE 68 AT U.S. ROUTE 14  
RAMPS A & B  
PROPOSED TRAFFIC SIGNAL PLAN

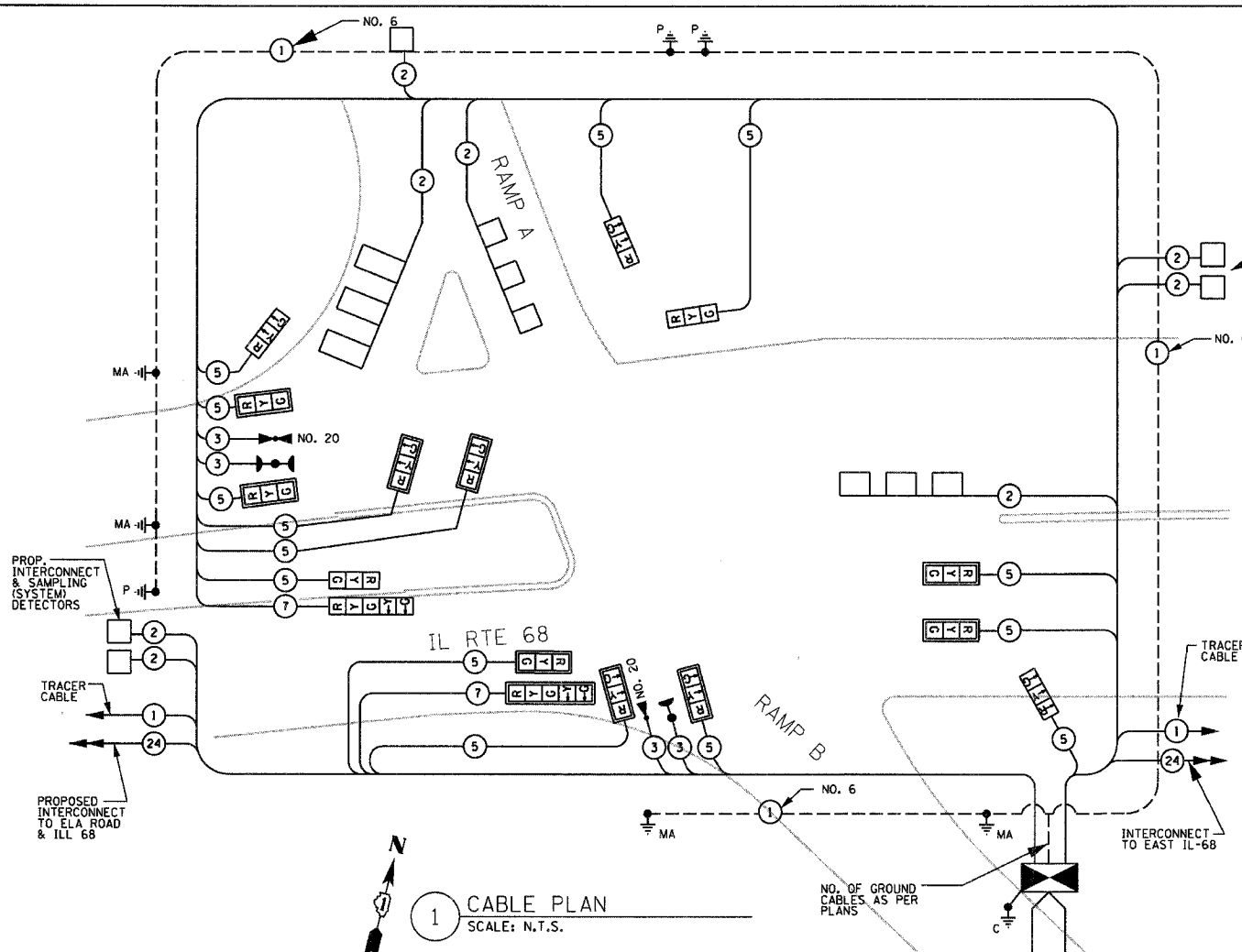
SCALE 1:250  
DATE NOVEMBER 2006

DRAWN BY R.P.J.  
DESIGNED BY D.S.  
CHECKED BY A.D.O.

Rick Johns  
 IDOT - District 01  
 02-05-1001-STV-03 - IL 68 over US 14  
 P:\02-05-1001-STV-03 - IL 68 over US 14\Working Files\Shr\TS-06 - Plan - West.dgn  
 11/27/2006 3:46:12 PM  
 250.0000 M / M.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	*	COOK	283	119
STA. TO STA.		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT		
		* 700-Y-R & 70HB-R-1 62897		

CABLE PLAN LEGEND		
EXIST.	PROP.	DESCRIPTION
(C)	(C)	8" (200mm) TRAFFIC SIGNAL SECTION
(R)	(R)	12" (300mm) TRAFFIC SIGNAL SECTION
(W)	(W)	12" (300mm) PEDESTRIAN SIGNAL SECTION
(P)	(P)	12" (300mm) PEDESTRIAN SIGNAL SECTION
(CB)	(CB)	CONTROLLER CABINET
(SI)	(SI)	SERVICE INSTALLATION
(TI)	(TI)	TELEPHONE INSTALLATION
(VD)	(VD)	VEHICLE DETECTOR, INDUCTION LOOP
(VDM)	(VDM)	VEHICLE DETECTOR, MAGNETIC
(VDP)	(VDP)	VEHICLE DETECTOR, PRIORITY (EMERG.)
(CB)	(CB)	CONFIRMATION BEACON
(PD)	(PD)	PUSHBUTTON DETECTOR
(2)	(1)	DENOTES NUMBER OF CONDUCTORS ALL CABLES NO. 14 AND SHIELDED EXCEPT AS INDICATED
(1)	(1)	GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
(24)	(24)	FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM12F
(R)	(R)	SIGNAL FACE WITH BACKPLATE: RED YELLOW GREEN YELLOW LEFT GREEN LEFT "P" INDICATES PROGRAMMED HEAD
(E)	(E)	RAILROAD CONTROL CABINET
(E)	(E)	ILLUMINATED SIGN "NO LEFT TURN"
(E)	(E)	ILLUMINATED SIGN "NO RIGHT TURN"
(H/C)	(H/C)	GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (HH) OR CONTROLLER (C)
(P)	(P)	GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
(S)	(S)	GROUND ROD AT ELECTRICAL SERVICE INSTALLATION



THE END OF TRACER CABLE SHALL BE CONTINUOUS & EXTENDED TO CONTROLLER CABINET

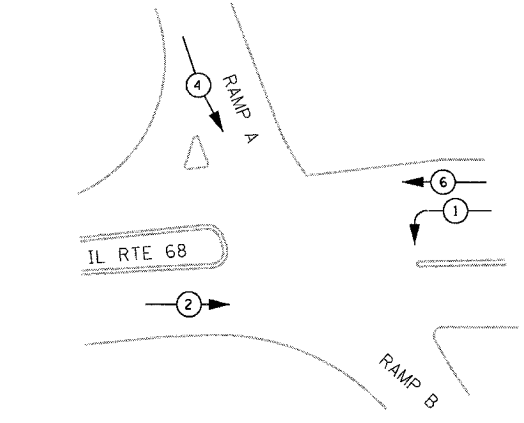
SCHEDULE OF QUANTITIES - RAMPS A & B		
ITEM	UNIT	QUANTITY
SIGN PANEL - TYPE 2	SQ METER	2.32
HANDHOLE	EACH	4
HEAVY-DUTY HANDHOLE	EACH	3
DOUBLE HANDHOLE	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET	EACH	1
TRANSCEIVER - FIBER OPTIC	EACH	1
TRAFFIC SIGNAL BACKPLATE, LOUVERED	EACH	10
INDUCTIVE LOOP DETECTOR	EACH	7
CONDUIT IN TRENCH, 50MM DIA., GALVANIZED STEEL	METER	153.8
CONDUIT IN TRENCH, 65MM DIA., GALVANIZED STEEL	METER	36.8
CONDUIT IN TRENCH, 100MM DIA., GALVANIZED STEEL	METER	7
CONDUIT PUSHED, 100MM DIA., GALVANIZED STEEL	METER	120.2
CONDUIT EMBEDDED IN STRUCTURE, 60MM DIA., PVC	METER	58.4
TRENCH AND BACKFILL FOR ELECTRICAL WORK	METER	197.4
ELECTRIC CABLE IN TRENCH, SERVICE, NO. 6 2 C	METER	13
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	METER	925
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	METER	189
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	METER	525
TRAFFIC SIGNAL POST, GALVANIZED STEEL 4.25 METER	EACH	3
STEEL MAST ARM ASSEMBLY AND POLE 8.93 METER	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE WITH DUAL MAST ARMS, 10.97 METER AND 6.09 METER	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 12.80 METER	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE 18.48 METER	EACH	1
CONCRETE FOUNDATION, TYPE A	METER	3.8
CONCRETE FOUNDATION, TYPE D	METER	1.2
CONCRETE FOUNDATION, TYPE E 750MM DIAMETER	METER	10.1
DETECTOR LOOP, PREFORMED	METER	201
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3/C	METER	150.3
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 20 3/C TWISTED SHIELDED	METER	150.6
ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	METER	195
CONCRETE FOUNDATION, TYPE E 900MM DIAMETER	METER	8.6
SERVICE INSTALLATION - 100 AMP 120/240V	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	9
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	5
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	1
LIGHT DETECTOR	EACH	3
LIGHT DETECTOR AMPLIFIER	EACH	1
JUNCTION BOX, NON-METALIC, EMBEDDED IN STRUCTURE, 300MM X 300MM X 150MM	EACH	3

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE INCAND.	L.E.D.	% OPERATION	
SIGNAL (RED)	16	135	17	0.50	136
(YELLOW)	9	135	25	0.25	56.25
(GREEN)	9	135	15	0.25	33.75
ARROW	18	135	12	0.10	21.6
PED. SIGNAL	-	90	25	1.00	-
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252		0.05	
FLASHER				0.50	
TOTAL					347.6

ENERGY COST TO:  
ILLINOIS DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAY/DISTRICT 1  
201 WEST CENTER COURT/SCHAUMBURG,  
ILLINOIS 60196-1096

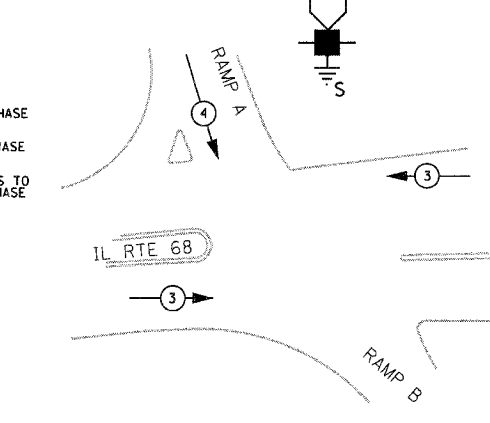
ENERGY SUPPLY:  
CONTACT: JOHN STRTZAK  
PHONE: 630-491-4363  
COMPANY: CmEd

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'+L-2' (6m+L-0.6m)
C - M.ARM, POLE		SIGNAL POST	2 (1.0)	BRACKET MOUNTED	13 (4.0)
30" (750MM)	15 (4.6)	CONTROLLER CAB.	1 (0.5)	PED. PUSHBUTTON	4 (1.2)
36" (900MM)	15 (4.6)	FIBER OPTIC	13 (4.0)	ELECTRICAL SERVICE	13.5 (4.1)
		ELECTRICAL SERVICE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
		GROUND CABLE	1 (0.5)	POST MOUNTED	6 (1.8)



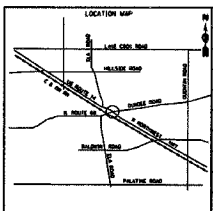
2 PHASE DESIGNATION DIAGRAM  
SCALE: N.T.S.

LEGEND  
 (H) DUAL ENTRY PHASE  
 (P) PEDESTRIAN PHASE  
 # NUMBER REFERS TO ASSOCIATED PHASE



3 EMERGENCY VEHICLE PREEMPTION SEQUENCE  
SCALE: N.T.S.

PROPOSED EMERGENCY VEHICLE PREEMPTIONS		
EMERGENCY VEHICLE PREEMPTIONS	3	4
MOVEMENT	←	↓



REVISIONS	
NAME	DATE

TS- 07 OF 13

ILLINOIS DEPARTMENT OF TRANSPORTATION  
ILLINOIS ROUTE 68 AT U.S. ROUTE 14  
RAMPS A & B  
SCHEDULE OF QUANTITIES, CABLE PLAN AND  
PHASE DESIGNATION DIAGRAM

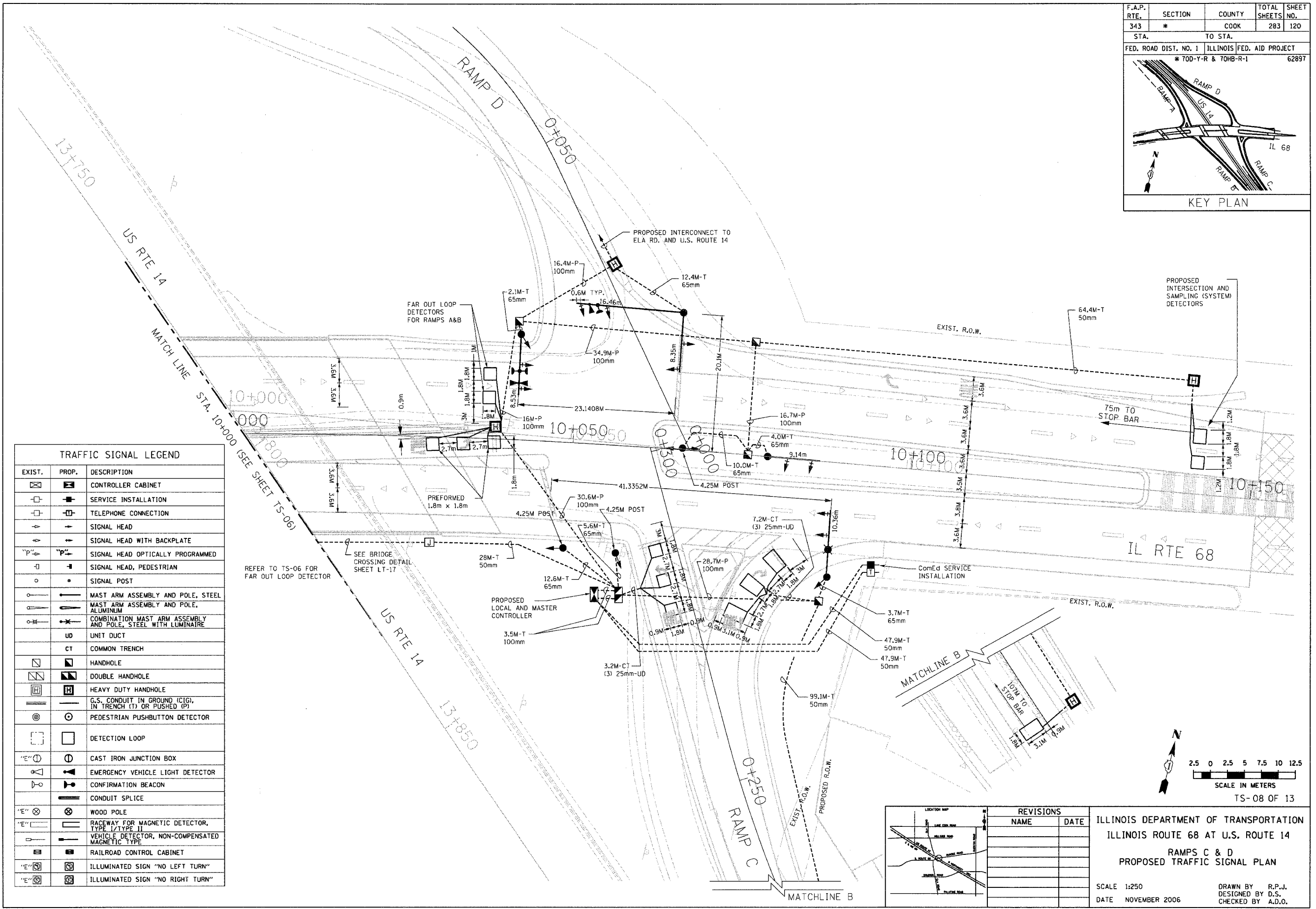
SCALE N.T.S. DRAWN BY R.P.J.  
DESIGNED BY D.S.  
DATE NOVEMBER 2006 CHECKED BY A.D.O.

Rick Johns - District 01  
 02-05-1001-STV-03 - IL 68 over US 14  
 P:02-05-1001-STV-03 - IL 68 over US 14  
 11/27/2006 3:45:50 PM 250.0000 M / M. - Cable Diagram - West.dgn



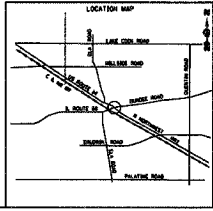
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	*	COOK	283	120
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		
* 70D-Y-R & 70HB-R-1		62897		

KEY PLAN



TRAFFIC SIGNAL LEGEND		
EXIST.	PROP.	DESCRIPTION
		CONTROLLER CABINET
		SERVICE INSTALLATION
		TELEPHONE CONNECTION
		SIGNAL HEAD
		SIGNAL HEAD WITH BACKPLATE
		SIGNAL HEAD OPTICALLY PROGRAMMED
		SIGNAL HEAD, PEDESTRIAN
		SIGNAL POST
		MAST ARM ASSEMBLY AND POLE, STEEL
		MAST ARM ASSEMBLY AND POLE, ALUMINUM
		COMBINATION MAST ARM ASSEMBLY AND POLE, STEEL WITH LUMINAIRE
		UNIT DUCT
		COMMON TRENCH
		HANDHOLE
		DOUBLE HANDHOLE
		HEAVY DUTY HANDHOLE
		G.S. CONDUIT IN GROUND (CIG), IN TRENCH (T) OR PUSHED (P)
		PEDESTRIAN PUSHBUTTON DETECTOR
		DETECTION LOOP
		CAST IRON JUNCTION BOX
		EMERGENCY VEHICLE LIGHT DETECTOR
		CONFIRMATION BEACON
		CONDUIT SPLICE
		WOOD POLE
		RACEWAY FOR MAGNETIC DETECTOR, TYPE I/TYPE II
		VEHICLE DETECTOR, NON-COMPENSATED MAGNETIC TYPE
		RAILROAD CONTROL CABINET
		ILLUMINATED SIGN "NO LEFT TURN"
		ILLUMINATED SIGN "NO RIGHT TURN"

Rick Johns  
 IDOT - District 01  
 02-05-IDOT-STV-03 - IL 68 over US 14  
 02-05-IDOT-STV-03 - IL 68 over US 14  
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REVISIONS	
NAME	DATE

TS- 08 OF 13

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 ILLINOIS ROUTE 68 AT U.S. ROUTE 14  
 PROPOSED RAMPS C & D  
 PROPOSED TRAFFIC SIGNAL PLAN

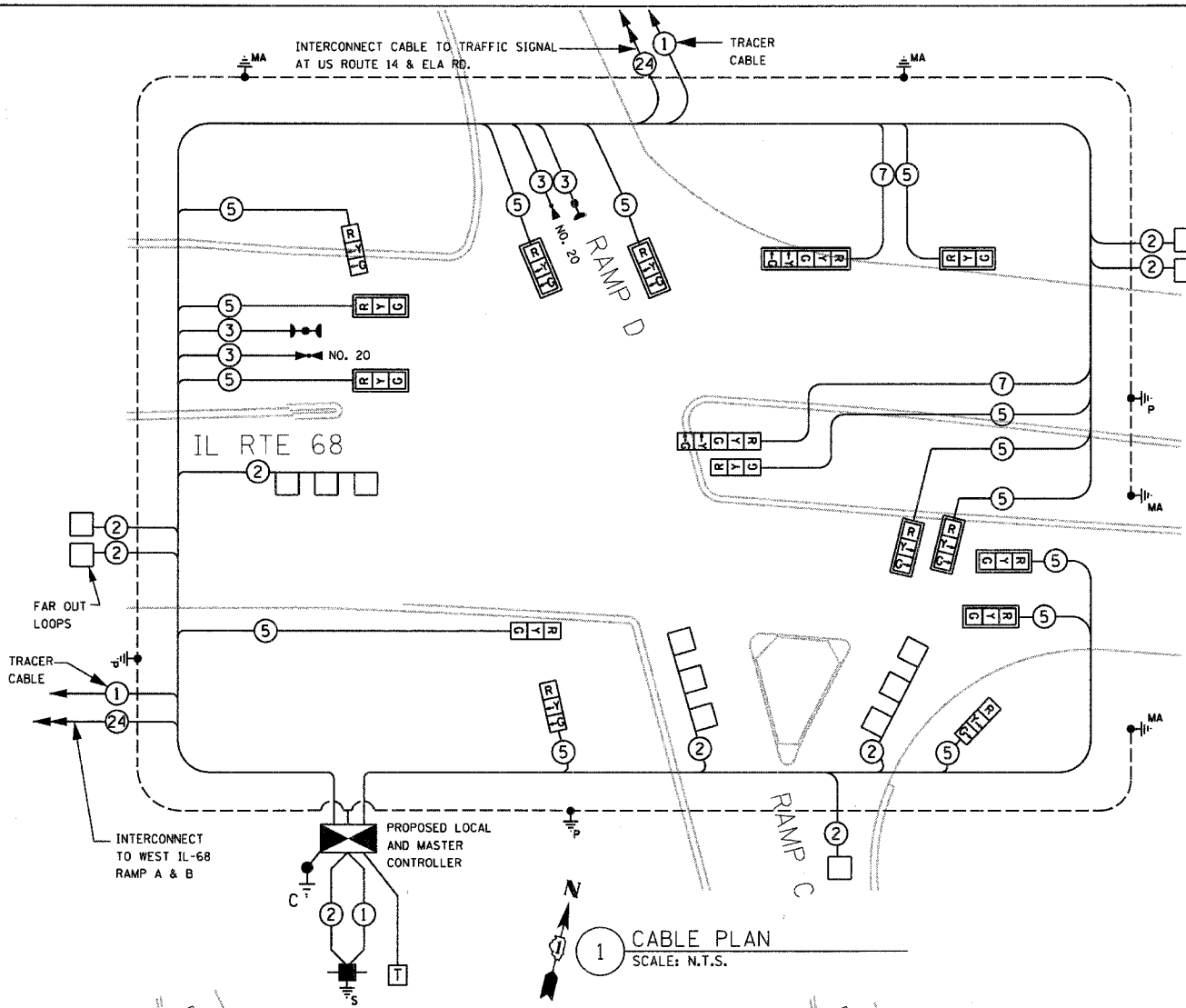
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 DATE NOVEMBER 2006

DRAWN BY R.P.J.  
 DESIGNED BY D.S.  
 CHECKED BY A.D.O.

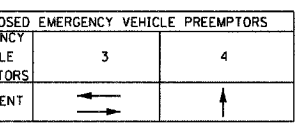
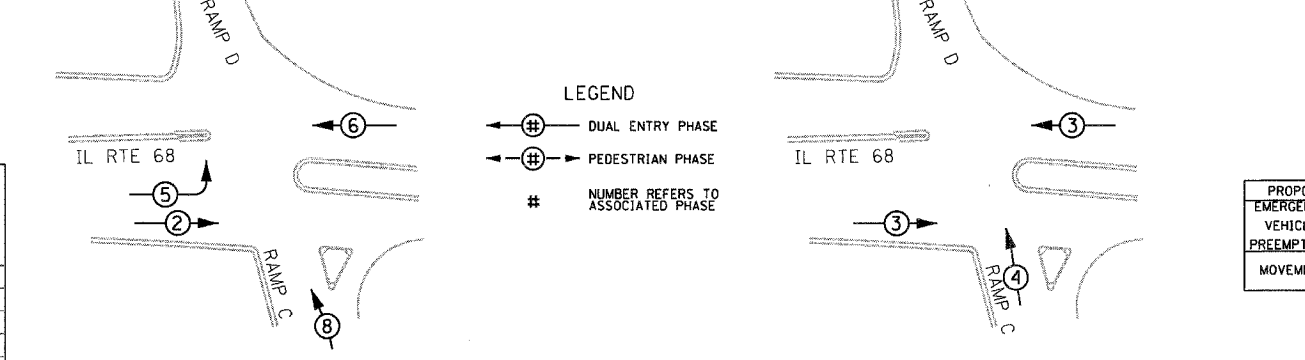


F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	*	COOK	283	121
STA. TO STA.		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT		
		* 700-Y-R & 70HB-R-1 62897		

CABLE PLAN LEGEND		
EXIST.	PROP.	DESCRIPTION
G	G	8"(1200mm)TRAFFIC SIGNAL SECTION
R	R	12"(300mm)TRAFFIC SIGNAL SECTION
W	W	12"(300mm)PEDESTRIAN SIGNAL SECTION
P	P	12"(300mm)PEDESTRIAN SIGNAL SECTION
CB	CB	CONTROLLER CABINET
SI	SI	SERVICE INSTALLATION
T	T	TELEPHONE INSTALLATION
VD	VD	VEHICLE DETECTOR, INDUCTION LOOP
VM	VM	VEHICLE DETECTOR, MAGNETIC
VP	VP	VEHICLE DETECTOR, PRIORITY (EMERG.)
CB	CB	CONFIRMATION BEACON
PD	PD	PUSHBUTTON DETECTOR
2		2 DENOTES NUMBER OF CONDUCTORS ALL CABLES NO. 14 AND SHIELDED EXCEPT AS INDICATED
1	1	GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
24	24	FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM12F
TR	TR	SIGNAL FACE WITH BACKPLATE: RED YELLOW GREEN YELLOW LEFT GREEN LEFT "P" INDICATES PROGRAMMED HEAD
RC	RC	RAILROAD CONTROL CABINET
IL	IL	ILLUMINATED SIGN "NO LEFT TURN"
IR	IR	ILLUMINATED SIGN "NO RIGHT TURN"
GR	GR	GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (HH) OR CONTROLLER (C)
GP	GP	GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
GS	GS	GROUND ROD AT ELECTRIC SERVICE INSTALLATION



SCHEDULE OF QUANTITIES - RAMPS C & D		
ITEM	UNIT	QUANTITY
SIGN PANEL - TYPE 2	SQ METER	2.32
HANDHOLE	EACH	4
HEAVY DUTY HANDHOLE	EACH	4
DOUBLE HANDHOLE	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE V CABINET	EACH	1
TRANSCIVER - FIBER OPTIC	EACH	1
TRAFFIC SIGNAL BACKPLATE, LOUVERED	EACH	10
INDUCTIVE LOOP DETECTOR	EACH	7
CONDUIT IN TRENCH, 50MM DIA., GALVANIZED STEEL	METER	172.9
CONDUIT IN TRENCH, 65MM DIA., GALVANIZED STEEL	METER	87.2
CONDUIT IN TRENCH, 100MM DIA., GALVANIZED STEEL	METER	35.7
CONDUIT PUSHED, 50MM DIA., GALVANIZED STEEL	METER	44.1
CONDUIT PUSHED, 100MM DIA., GALVANIZED STEEL	METER	136.8
CONDUIT EMBEDDED IN STRUCTURE, 50MM DIA., PVC	METER	30.5
TRENCH AND BACKFILL FOR ELECTRICAL WORK	METER	295.8
ELECTRIC CABLE IN TRENCH, SERVICE, NO. 6 2 C	METER	55
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3/C	METER	712
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7/C	METER	223.5
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	METER	530.77
TRAFFIC SIGNAL POST, GALVANIZED STEEL 4.25 METER	EACH	3
STEEL MAST ARM ASSEMBLY AND POLE 8.53 METER	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE 9.14 METER	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE WITH DUAL MAST ARMS, 8.53 METER AND 16.46 METER	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 10.36 METER	EACH	1
CONCRETE FOUNDATION, TYPE A	METER	3.6
CONCRETE FOUNDATION, TYPE D	METER	1.2
CONCRETE FOUNDATION, TYPE E 750MM DIAMETER	METER	14.2
CONCRETE FOUNDATION, TYPE E 900MM DIAMETER	METER	4.6
DETECTOR LOOP, PREFORMED	METER	190
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3/C	METER	224.42
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 20 3/C TWISTED SHIELDED	METER	224.48
ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	METER	252.4
SERVICE INSTALLATION, 100 AMP 120/240V	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	9
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	5
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	1
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	1
LIGHT DETECTOR	EACH	3
LIGHT DETECTOR AMPLIFIER	EACH	1
JUNCTION BOX, NON-METALLIC, EMBEDDED IN STRUCTURE, 300MM X 300MM X 150MM	EACH	1

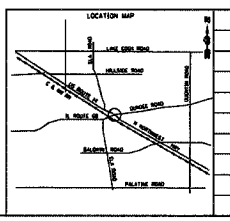


I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					
TYPE	NO. OF LAMPS	WATTAGE		% OPERATION	TOTAL WATTAGE
		INCAND.	L.E.D.		
SIGNAL (RED)	16	135	17	0.50	136
(YELLOW)	9	135	25	0.25	56.25
(GREEN)	9	135	15	0.25	33.75
ARROW	18	135	12	0.10	21.6
PED. SIGNAL	-	90	25	1.00	-
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252		0.05	
FLASHER				0.50	
TOTAL					347.6

ENERGY COST TO:  
ILLINOIS DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAY/DISTRICT 1  
201 WEST CENTER COURT/SCHAUMBURG,  
ILLINOIS 60196-1096

ENERGY SUPPLY:  
CONTACT: JOHN STRZAK  
PHONE: 630-491-4363  
COMPANY: CmEd

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'+L-2* (6m+L-0.6m)
C - M.ARM, POLE		SIGNAL POST	2 (1.0)	BRACKET MOUNTED	13 (4.0)
30" (750MM)	15 (4.6)	CONTROLLER CAB.	1 (0.5)	PED. PUSHBUTTON	4 (1.2)
36" (900MM)	15 (4.6)	FIBER OPTIC	13 (4.0)	ELECTRICAL SERVICE	13.5 (4.1)
		ELECTRICAL SERVICE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
		GROUND CABLE	1 (0.5)	POST MOUNTED	6 (1.8)



REVISIONS	
NAME	DATE

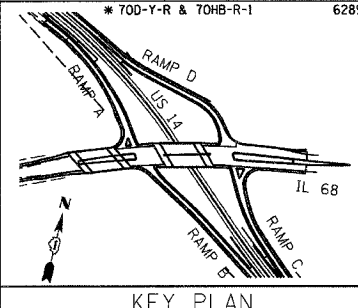
TS-09 OF 13

ILLINOIS DEPARTMENT OF TRANSPORTATION  
ILLINOIS ROUTE 68 AT U.S. ROUTE 14  
RAMPS C & D  
SCHEDULE OF QUANTITIES, CABLE PLAN AND  
PHASE DESIGNATION DIAGRAM

SCALE N.T.S. DRAWN BY R.P.J.  
DATE NOVEMBER 2006 DESIGNED BY D.S.  
CHECKED BY A.D.O.

Rick Johns  
 ID01 - District 01  
 02-05-ID01-STV-03 - IL 68 over US 14  
 P:02-05-ID01-STV-03 - IL 68 over US 14  
 11/27/2006 3:45:11 PM  
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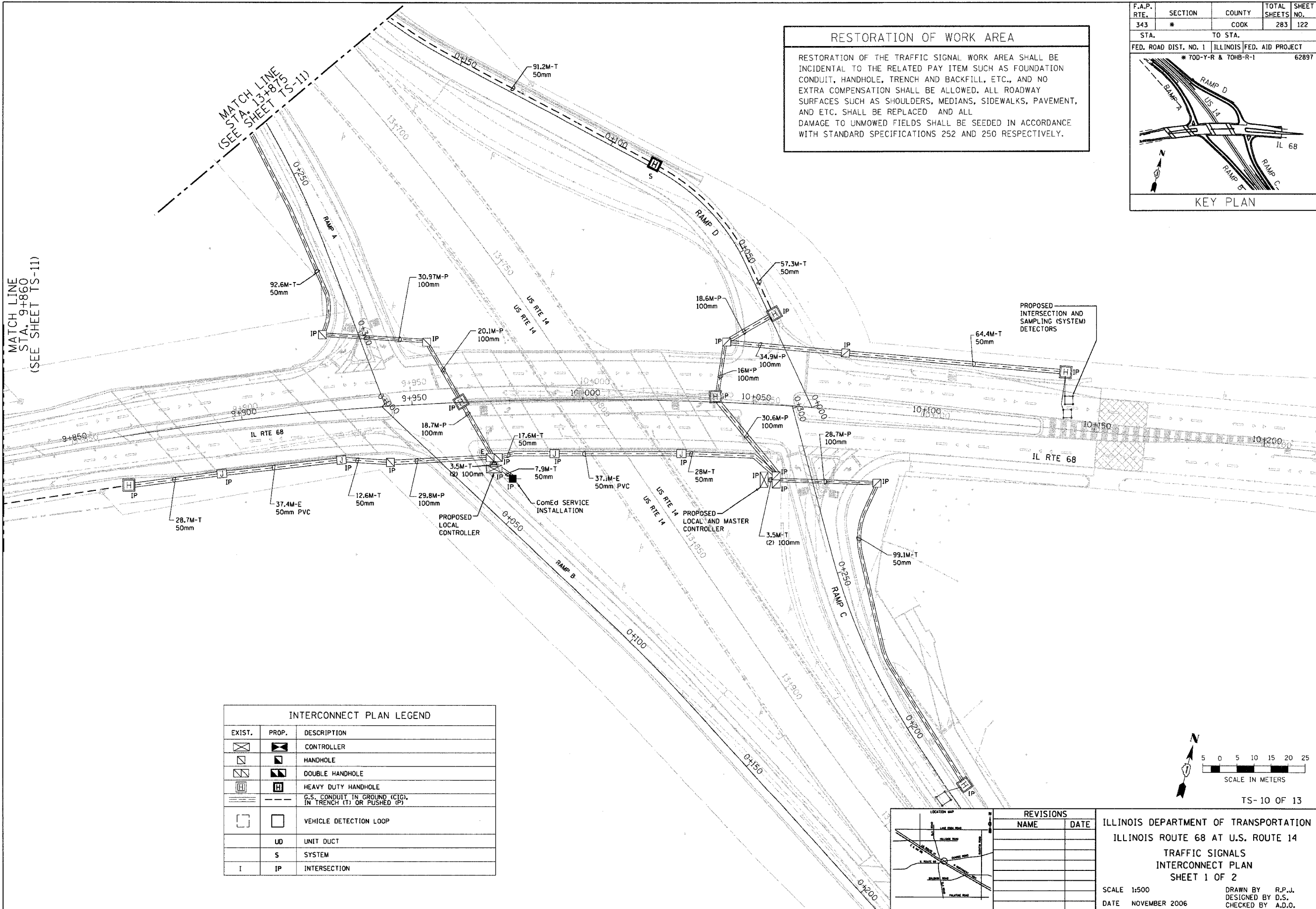
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	*	COOK	283	122
STA. #		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	
		* 700-Y-R & 70HB-R-1		62897



KEY PLAN

**RESTORATION OF WORK AREA**

RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, AND ETC. SHALL BE REPLACED AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

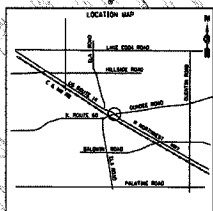
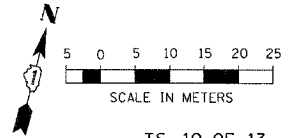


MATCH LINE  
STA. 9+860  
(SEE SHEET TS-11)

MATCH LINE  
STA. 13+875  
(SEE SHEET TS-11)

INTERCONNECT PLAN LEGEND		
EXIST.	PROP.	DESCRIPTION
		CONTROLLER
		HANDHOLE
		DOUBLE HANDHOLE
		HEAVY DUTY HANDHOLE
		G.S. CONDUIT IN GROUND (CIG) IN TRENCH (T) OR PUSHED (P)
		VEHICLE DETECTION LOOP
	UD	UNIT DUCT
	S	SYSTEM
I	IP	INTERSECTION

Rick Johns  
 IDOT - District 01  
 02-05-1001-STV-03 - IL 68 over US 14  
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REVISIONS	
NAME	DATE

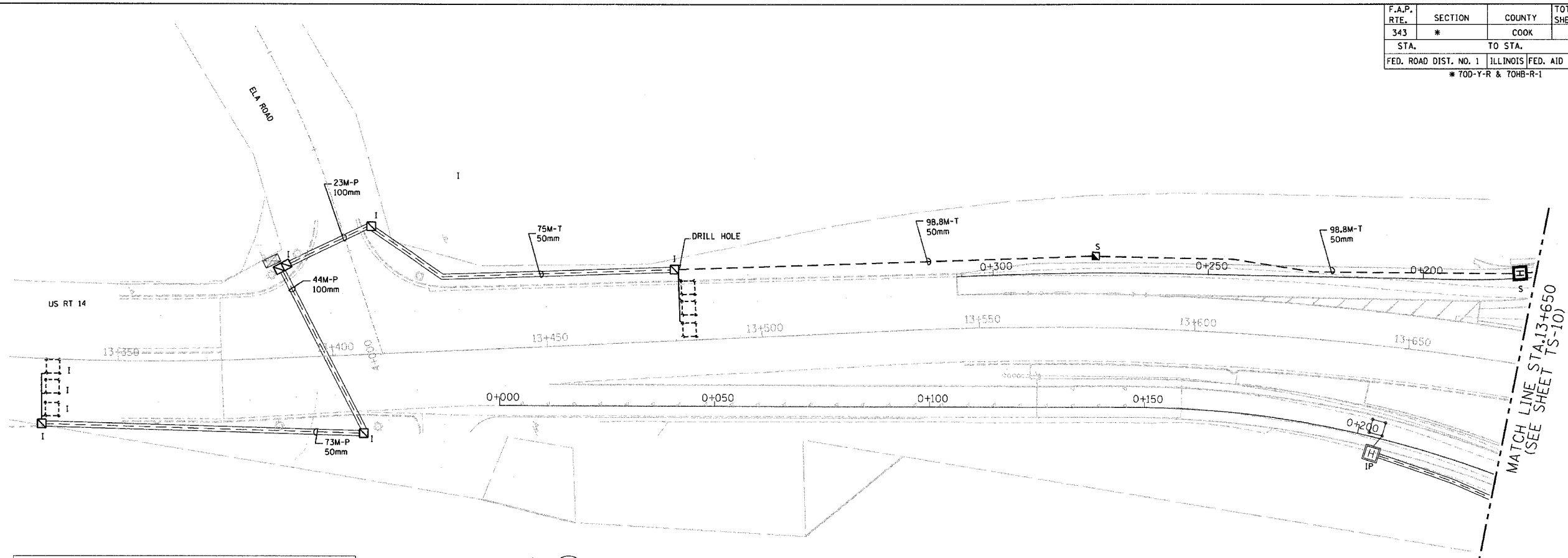
TS- 10 OF 13

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 ILLINOIS ROUTE 68 AT U.S. ROUTE 14  
 TRAFFIC SIGNALS  
 INTERCONNECT PLAN  
 SHEET 1 OF 2

SCALE 1:500  
 DATE NOVEMBER 2006

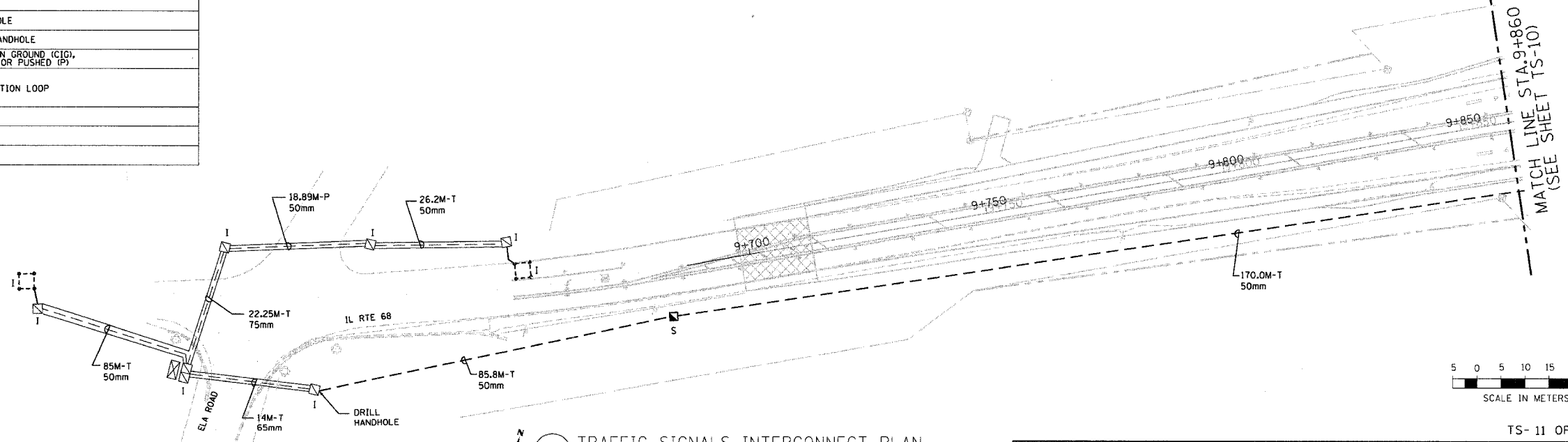
DRAWN BY R.P.J.  
 DESIGNED BY D.S.  
 CHECKED BY A.D.O.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	*	COOK	283	123
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		
* 70D-Y-R & 70HB-R-1			62897	

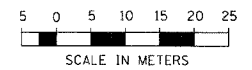


INTERCONNECT PLAN LEGEND		
EXIST.	PROP.	DESCRIPTION
[Symbol]	[Symbol]	CONTROLLER
[Symbol]	[Symbol]	HANDHOLE
[Symbol]	[Symbol]	DOUBLE HANDHOLE
[Symbol]	[Symbol]	HEAVY DUTY HANDHOLE
[Symbol]	[Symbol]	G.S. CONDUIT IN GROUND (IG), IN TRENCH (T) OR PUSHED (P)
[Symbol]	[Symbol]	VEHICLE DETECTION LOOP
	UD	UNIT DUCT
	S	SYSTEM
I	IP	INTERSECTION

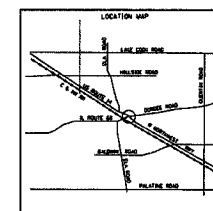
1 TRAFFIC SIGNALS INTERCONNECT PLAN  
SCALE: 1 : 500



2 TRAFFIC SIGNALS INTERCONNECT PLAN  
SCALE: 1 : 500



TS- 11 OF 13



REVISIONS	
NAME	DATE

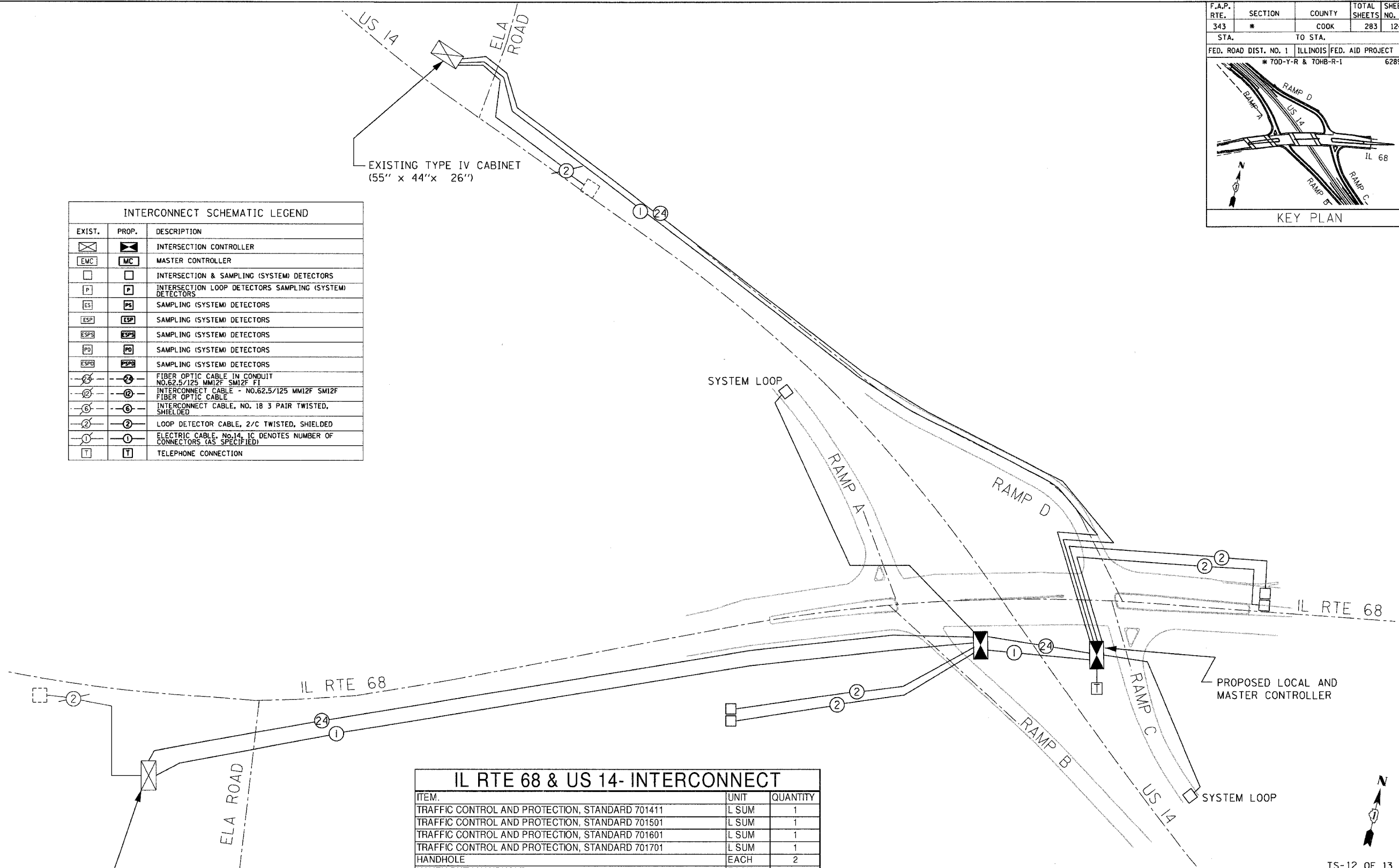
ILLINOIS DEPARTMENT OF TRANSPORTATION  
ILLINOIS ROUTE 68 AT U.S. ROUTE 14  
TRAFFIC SIGNALS  
INTERCONNECT PLAN  
SHEET 2 OF 2  
SCALE 1:500  
DATE NOVEMBER 2006  
DRAWN BY R.P.J.  
DESIGNED BY D.S.  
CHECKED BY A.D.O.

Rick Johns  
 IDOT - District 01  
 02-05-IDOT-STV-03 - IL 68 over US 14  
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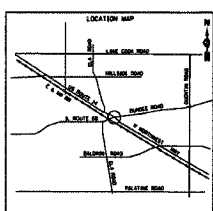
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	*	COOK	283	124
STA.	TO STA.			
	ILLINOIS		FED. AID PROJECT	
FED. ROAD DIST. NO. 1		* 700-Y-R & 704B-R-1		62897

KEY PLAN

EXIST.	PROP.	DESCRIPTION
		INTERSECTION CONTROLLER
		MASTER CONTROLLER
		INTERSECTION & SAMPLING (SYSTEM) DETECTORS
		INTERSECTION LOOP DETECTORS SAMPLING (SYSTEM) DETECTORS
		SAMPLING (SYSTEM) DETECTORS
		SAMPLING (SYSTEM) DETECTORS
		SAMPLING (SYSTEM) DETECTORS
		SAMPLING (SYSTEM) DETECTORS
		SAMPLING (SYSTEM) DETECTORS
		SAMPLING (SYSTEM) DETECTORS
		FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 MM12F SM12F F1
		INTERCONNECT CABLE - NO. 62.5/125 MM12F SM12F FIBER OPTIC CABLE
		INTERCONNECT CABLE, NO. 18 3 PAIR TWISTED, SHIELDED
		LOOP DETECTOR CABLE, 2/C TWISTED, SHIELDED
		ELECTRIC CABLE, NO. 14, 1C DENOTES NUMBER OF CONNECTORS (AS SPECIFIED)
		TELEPHONE CONNECTION



IL RTE 68 & US 14- INTERCONNECT		
ITEM.	UNIT	QUANTITY
TRAFFIC CONTROL AND PROTECTION, STANDARD 701411	L SUM	1
TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	L SUM	1
TRAFFIC CONTROL AND PROTECTION, STANDARD 701601	L SUM	1
TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1
HANDHOLE	EACH	2
HAVEY-DUTY HANDHOLE	EACH	1
MASTER CONTROLLER	EACH	1
DRILL EXISTING HANDHOLE	EACH	2
RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM	LUM. SUM	1
CONDUIT IN TRENCH, 50MM DIA., GALVANIZED STEEL	METER	591.7
TRENCH AND BACKFILL FOR ELECTRICAL WORK	METER	591.7
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	METER	1027
FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM12F	METER	1027



REVISIONS	
NAME	DATE

TS-12 OF 13

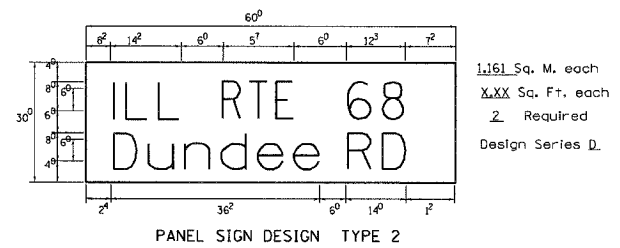
ILLINOIS DEPARTMENT OF TRANSPORTATION  
ILLINOIS ROUTE 68 AT U.S. ROUTE 14  
INTERCONNECT SCHEMATIC

SCALE N.T.S.  
DATE NOVEMBER 2006

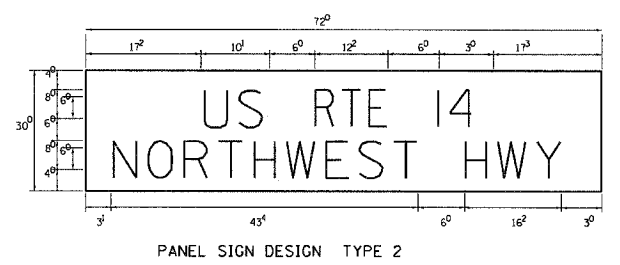
DRAWN BY R.P.J.  
DESIGNED BY D.S.  
CHECKED BY A.D.O.

Rick Johns  
 IDOT - District 01  
 02-05-IDOT-STV-03 - IL 68 over US 14  
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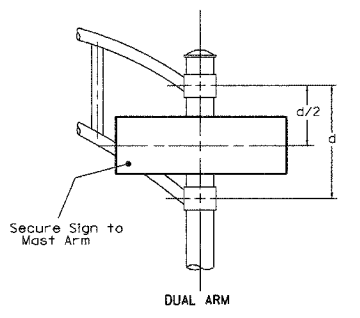
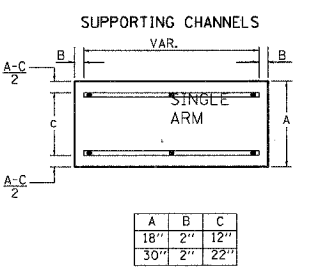
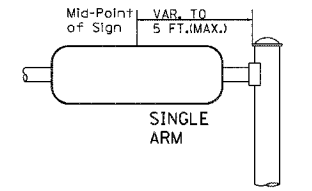
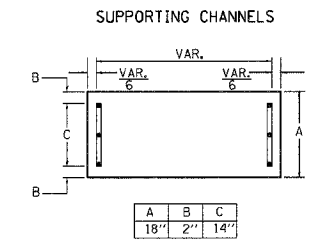
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	#	COOK	283	125
STA. TO STA.		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT		
		* 700-Y-R & 70HB-R-1 62897		



1.161 Sq. M. each  
 X.XX Sq. Ft. each  
 2 Required  
 Design Series D.



1.161 Sq. M. each  
 X.XX Sq. Ft. each  
 2 Required  
 Design Series C.



SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM  
 Shall be used. See Note #5.

Upper Case To Lower Case  
 Spacing Chart 8-6 Inch Series "C & D"

SERIES	SECOND LETTER															
	a c d e		b h i k l				f w		j		s t		v y		x z	
	g o q	m n p r														
A W X	12	14	14	15	12	14	06	10	11	14	06	10	11	12	14	
B	14	15	20	21	14	15	12	14	15	12	14	14	15	14	15	
C E G	14	15	20	21	14	15	06	10	12	14	12	14	14	15	14	
D O Q R	14	15	20	21	14	15	06	10	12	14	12	14	14	15	14	
F	05	06	14	15	06	10	05	06	10	06	10	06	10	11	12	
H I M N	20	21	22	24	20	21	14	15	16	17	16	17	20	21	20	
J U	20	21	20	21	16	17	14	15	16	17	16	17	16	17	20	
K L	11	12	16	17	12	14	05	06	11	12	11	12	11	12	14	
P	12	14	14	15	12	14	05	06	11	12	11	12	12	14	14	
S	12	14	16	17	12	14	06	10	12	14	12	14	12	14	14	
T	11	12	16	17	06	10	06	10	11	12	11	12	11	12	14	
V	06	10	14	15	11	12	06	10	12	14	12	14	12	14	14	
Y	05	06	14	15	06	10	05	06	10	05	07	05	06	10	11	
Z	16	17	22	24	16	17	12	14	16	17	16	17	16	17	20	

Lower Case To Lower Case  
 Spacing Chart 6 Inch Series "C & D"

SERIES	SECOND LETTER															
	a c d e		b h i k l				f w		j		s t		v y		x z	
	g o q	m n p r														
a d h g i j	16	17	22	24	16	17	12	14	14	15	14	15	16	17	16	
l m n q u																
b f k o p s	12	14	16	17	11	12	05	06	11	12	11	12	12	14	14	
c e	12	14	16	17	12	14	06	10	12	14	12	14	12	14	14	
r	06	10	12	14	06	10	03	03	05	06	05	06	10	06	10	
t z	12	14	16	17	12	14	06	10	11	12	11	12	12	14	14	
v y	11	12	14	15	11	12	06	06	10	06	10	11	12	11	12	
w	11	12	14	15	11	12	05	06	11	12	11	12	11	12	14	
x	12	14	16	17	11	12	05	06	11	12	11	12	11	12	14	

Number To Number  
 Spacing Chart 6 Inch Series "C & D"

SERIES	SECOND NUMBER														
	0	1	2	3	4	5	6	7	8	9					
	0 9	16	17	16	17	14	15	12	14	14	15	15	16	17	16
1	20	21	20	21	20	21	16	17	14	15	20	21	14	15	20
2 3 4	14	15	14	15	14	15	12	14	14	15	14	15	11	12	14
5	14	15	14	15	14	15	11	12	11	12	14	15	11	12	14
6	16	17	14	15	14	15	12	14	14	15	14	15	11	12	14
7	12	14	14	15	12	14	05	06	12	14	14	15	11	12	14
8	16	17	16	17	14	15	12	14	14	15	16	17	12	14	14

UPPER AND LOWER CASE  
 LETTER WIDTHS

LETTERS	6 INCH UPPER CASE LETTERS				8 INCH UPPER CASE LETTERS				6 INCH LOWER CASE LETTERS			
	SERIES		SERIES		SERIES		SERIES		SERIES		SERIES	
	C	D	C	D	C	D	C	D	C	D	C	D
A	36	50	50	65	a	35	42					
B	32	40	43	53	b	35	42					
C	32	40	43	53	c	35	41					
D	32	40	43	53	d	35	42					
E	30	35	40	47	e	35	42					
F	30	35	40	47	f	35	42					
G	32	40	43	53	g	35	42					
H	32	40	43	53	h	35	42					
I	07	07	11	12	i	11	11					
J	30	36	40	50	j	20	22					
K	32	41	43	54	k	35	42					
L	30	35	40	47	l	11	11					
M	37	45	51	61	m	60	70					
N	32	40	43	53	n	35	42					
O	34	42	45	55	o	36	43					
P	32	40	43	53	p	35	42					
Q	34	42	45	55	q	35	42					
R	32	40	43	53	r	26	32					
S	32	40	43	53	s	36	42					
T	30	35	40	47	t	27	32					
U	32	40	43	53	u	35	42					
V	35	44	47	60	v	42	47					
W	44	52	60	70	w	55	64					
X	34	40	45	53	x	44	51					
Y	36	50	50	66	y	46	53					
Z	32	40	43	53	z	36	43					

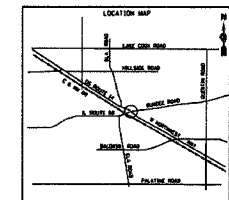
NUMBER	6 INCH SERIES		8 INCH SERIES	
	C	D	C	D
1	12	14	15	20
2	32	40	43	53
3	32	40	43	53
4	35	43	47	57
5	32	40	43	53
6	32	40	43	53
7	32	40	43	53
8	32	40	43	53
9	32	40	43	53
0	34	42	45	55

EXAMPLE, 2 ③ DENOTES 3/8"

NOTE:  
 ALL DIMENSIONS ARE IN ENGLISH SYSTEM.  
 CONTRACTOR  
 TO USE PROPER CONVERSION TO METRIC SYSTEM.

- GENERAL NOTES**
- WHERE MAST ARM MOUNTED STREET NAME SIGNS ARE SPECIFIED, THE MAST ARM ASSEMBLY AND POLES SHALL BE DESIGNED TO SUPPORT THE LOADINGS CALLED FOR ON STANDARDS 834001, 834006 AND 834011, AS APPLICABLE, PLUS TWO (2) SIGN PANELS 2'-6" X 6'-0" MOUNTED AS SHOWN. THE DESIGN SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS" AS PUBLISHED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS FOR 80 M.P.H. WIND VELOCITY.
  - ALL SIGNS SHALL HAVE A WHITE REFLECTORIZED LEGEND AND BORDER ON A GREEN REFLECTORIZED BACKGROUND, TYPE A SHEETING.
  - THE SIGN LENGTH SHOULD BE INCREASED IN 6-INCH INCREMENTS, BUT THE OVERALL LENGTH SHOULD NOT EXCEED 6'-0".
  - ALL BORDERS SHALL BE 3/4" WIDE AND CORNER RADIUS SHALL BE 2-1/4".
- SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM SHALL BE USED FOR ALL SIGNS ATTACHED TO SIGNAL POLES AND POSTS. LOCAL SUPPLIERS OF THE SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM ARE:
- \* A.K.T. CORPORATION, SCHAUMBURG, IL
  - \* AMERICAN FABRICATION CO., CHICAGO HEIGHTS, IL
  - \* TUCKER COMPANY, INC., WAUWATOSA, WI
  - \* WESTERN TRAFFIC CONTROL INC., CICERO, IL

- PARTS LISTING:**
- SIGN CHANNEL PART #HPN053 (MED. CHANNEL)
  - SIGN SCREWS 1/4" x 14 x 1" H.W.H. #3
  - BRACKETS SELF TAPPING WITH NEOPRENE WASHER
  - PART #HPN034 (UNIVERSAL)
  - CHANNEL CLAMPS WITH STAINLESS STEEL STRAPPING
- OTHER BRANDS OF MOUNTING HARDWARE ARE ACCEPTABLE, BASED UPON THE DEPARTMENT'S APPROVAL AND COMPATIBILITY WITH THE CHANNEL/BRACKET OF THE ABOVE PRODUCT.



REVISIONS	
NAME	DATE

TS- 13 OF 13

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 ILLINOIS ROUTE 68 AT U.S. ROUTE 14  
 MAST ARM MOUNTED  
 STREET NAME SIGNS

SCALE NONE  
 DATE NOVEMBER 2006

DRAWN BY R.P.J.  
 DESIGNED BY D.S.  
 CHECKED BY A.D.O.

Rick Johns  
 1007 - District 01  
 02-05-1001-STV-03 - IL 68 over US 14  
 02-05-1001-STV-03 - IL 68 over US 14  
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Rick Johns  
 IDOT - District 01  
 02-05-1001-STV-03 - IL 68 over US 14  
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ROADWAY LIGHTING LEGEND				
DESCRIPTION	PROPOSED	EXISTING	DEMOLITION	TEMPORARY
<b>LIGHT UNIT</b> E - EXISTING FIXTURE TO REMAIN R - EXISTING FIXTURE TO BE REMOVED RR - EXISTING FIXTURE TO BE REMOVED AND RELOCATED ER - RELOCATED EXISTING FIXTURE T - TEMPORARY FIXTURE				
<b>LIGHT UNIT COMBINATION TRAFFIC SIGNAL</b>				
<b>UNDERPASS LUMINAIRE</b> R - EXISTING FIXTURE TO BE REMOVED				
<b>LIGHTING CONTROLLER</b>				
<b>UNIT DUCT</b>				
<b>CONDUIT, EMBEDDED</b>				
<b>UNIT DUCT TO BE ABANDONED</b>				
<b>CONCEALED RIGID GALVANIZED STEEL CONDUIT, PUSHED CONTAINING PULLED-IN UNIT DUCT</b>				
<b>RIGID GALVANIZED STEEL CONDUIT, ATTACHED TO STRUCTURE</b>				
<b>AERIAL CABLE</b>				
<b>WOOD POLE</b>				
<b>JUNCTION BOX</b>				
<b>JUNCTION BOX; STAINLESS STEEL</b>				
<b>HANDHOLE</b>				
<b>GROUND ROD</b>				
<b>ELEC UTILITY POLE</b>				

ABBREVIATIONS	
	DESCRIPTION
A	AMPS
DIA.	DIAMETER
EB	EMBEDDED IN CONCRETE
GND	GROUND
HPS	HIGH PRESSURE SODIUM
IDOT	ILLINOIS DEPARTMENT OF TRANSPORTATION
LED	LIGHT EMITTING DIODE
M.V.	MERCURY VAPOR
P	PUSHED
PH	PHASE
PVC	POLYVINYL CHLORIDE
RGS	RIGID GALVANIZED STEEL CONDUIT
STA	STATION
SW	DISCONNECT SWITCH
TR	TRANSFORMER
U.N.O.	UNLESS NOTED OTHERWISE
V	VOLTS
W	WIRE

**ROADWAY LIGHTING INDEX OF SHEETS**

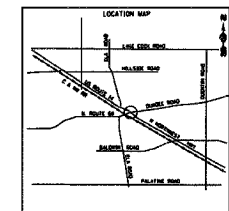
- LT-01 ROADWAY LIGHTING LEGENDS & SHEET INDEX
- LT-02 ROADWAY LIGHTING GENERAL NOTES
- LT-03 ROADWAY LIGHTING SCHEDULE OF QUANTITIES
- LT-04 ROADWAY LIGHTING PROPOSED PLAN US 14 STA. 13+400 TO STA. 13+725
- LT-05 ROADWAY LIGHTING PROPOSED PLAN IL 68 STA. 9+910 TO STA. 10+120  
US 14 STA. 13+725 TO STA. 14+100
- LT-06 ROADWAY LIGHTING PROPOSED PLAN IL 68 STA. 9+620 TO STA. 9+910
- LT-07 ROADWAY LIGHTING PROPOSED PLAN IL 68 STA. 010+120 TO STA. 10+415
- LT-08 ROADWAY LIGHTING DEMOLITION PLAN US 14 STA. 13+400 TO STA. 13+725
- LT-09 ROADWAY LIGHTING DEMOLITION PLAN IL 68 STA. 9+910 TO STA. 10+120  
US 14 STA. 13+725 TO STA. 14+100
- LT-10 ROADWAY LIGHTING DEMOLITION PLAN IL 68 STA. 9+620 TO STA. 9+910
- LT-11 ROADWAY LIGHTING DEMOLITION PLAN IL 68 STA. 010+120 TO STA. 10+415
- LT-12 ROADWAY LIGHTING TEMPORARY PLAN US 14 STA. 13+400 TO STA. 13+725
- LT-13 ROADWAY LIGHTING TEMPORARY PLAN IL 68 STA. 9+910 TO STA. 10+120  
US 14 STA. 13+725 TO STA. 14+100
- LT-14 ROADWAY LIGHTING TEMPORARY PLAN IL 68 STA. 9+620 TO STA. 9+910
- LT-15 ROADWAY LIGHTING TEMPORARY PLAN IL 68 STA. 010+120 TO STA. 10+415
- LT-16 ROADWAY LIGHTING SINGLE LINE DIAGRAM
- LT-17 ROADWAY LIGHTING BRIDGE CROSSING DETAILS
- LT-18 US-14 UNDERPASS LIGHTING DETAILS
- \*LT-19 LIGHTING CONTROLLER SINGLE DOOR

**IDOT DISTRICT 1 DETAILS**

- \*BE-215 LIGHTING CONTROLLER SINGLE DOOR
- BE-220 ELECTRIC SERVICE INSTALLATION, AERIAL REMOTE DISCONNECT.
- BE-301 LIGHT POLE FOUNDATION 12.19M (40') TO 14.478M (47 1/2') M.H. 381 (15") BOLT CIRCLE
- BE-330 LIGHT POLE MOUNTED ON CONCRETE PARAPET WALL
- BE-400 ALUMINUM LIGHT POLE 14.478 m (47'-6") MOUNTING HEIGHT
- BE-701 LUMINAIRE SAFETY CABLE ASSEMBLY
- BE-702 MISC. ELECTRICAL DETAILS SHEET A
- BE-800 TEMPORARY LIGHT POLE DETAILS
- BE-801 TEMPORARY AERIAL CABLE INSTALLATION
- BE-900 SUSPENDED MOUNT UNDERPASS LUMINAIRE INSTALLATION DETAILS
- \*STANDARD DETAIL BE-215 MODIFIED, AS SHEET LT-19, FOR THIS PROJECT. REFER TO NOTE 35, SHEET LT-02.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	*	COOK	283	126
STA.	TO STA.			
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	
* 700-Y-R & 70HB-R-1		62897		

KEY PLAN



REVISIONS	
NAME	DATE

LT-01 OF 19

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 ILLINOIS ROUTE 68 AT U.S. ROUTE 14  
 ROADWAY LIGHTING  
 LEGENDS & SHEET INDEX

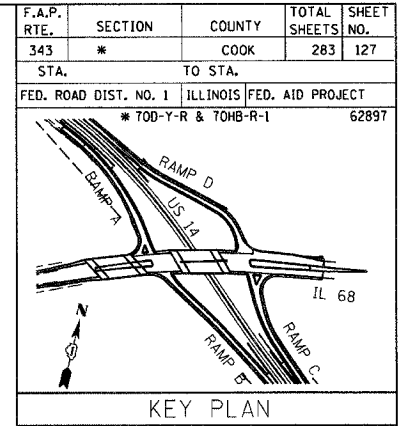
SCALE NONE  
 DATE NOVEMBER 2006

DRAWN BY R.P.J.  
 DESIGNED BY I.B.  
 CHECKED BY A.D.O.

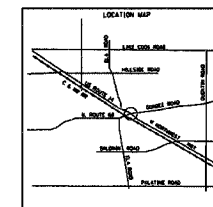
## GENERAL NOTES - ROADWAY LIGHTING

1. SPLICING OF CONDUCTORS SHALL BE IN POLE BASES OR WEATHER TIGHT JUNCTION BOXES ONLY. SPLICES BELOW GRADE WILL NOT BE PERMITTED.
2. LIGHTING CIRCUITS SHALL BE WIRED IN ACCORDANCE WITH THE WIRING DIAGRAMS SHOWN IN THE PLANS. DEVIATIONS WILL NOT BE PERMITTED WITHOUT PRIOR APPROVAL OF THE ENGINEER.
3. THE COST OF NUTS AND WASHERS FOR MOUNTING LIGHT POLES ON NEW OR EXISTING CONCRETE FOUNDATIONS SHALL BE INCIDENTAL TO THE CONTRACT UNIT PRICE FOR THE LIGHT POLES.
4. THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO RESTORE ANY SPECIALIZED LANDSCAPING (DECORATIVE ROCKS, PLANTS, ETC).
5. EACH LIGHT POLE AND SHALL BE WIRED AS SHOWN IN THE SINGLE LINE DIAGRAM (SHEET LT-16).
6. NEW LIGHT POLE FOUNDATIONS SHALL BE SETBACK AS INDICATED ON THE ROADWAY PLANS. SETBACK SHALL BE MEASURED FROM THE EDGE OF THE TRAVELED PAVEMENT OR BACK OF BARRIER CURB TO THE NEAR FACE OF THE TRANSFORMER BASE.
7. ALL LIGHT POLE FOUNDATIONS TO BE CONSTRUCTED BY THIS CONTRACT SHALL BE CONCRETE.
8. BURIED UTILITY LOCATIONS SHOWN ON THE PLAN SHEETS ARE APPROXIMATE ONLY.
9. NOT USED.
10. ALL LUMINARIES FOR ROADWAY LIGHTING SHALL HAVE M-C-III DISTRIBUTION.
11. ABANDON EXISTING UNIT DUCTS IN PLACE, AND REMOVE CABLES AS SHOWN ON PLANS.
12. TRENCH CABLE RUNS SHALL BE IN A STRAIGHT LINE BETWEEN TERMINAL POINTS WHERE FEASIBLE. TO PREVENT EROSION OF EMBANKMENTS INVOLVING HIGH FILLS AND STEEP SIDE SLOPES, THE CONTRACTOR SHALL NOT TRENCH DIRECTLY FROM POLE TO POLE, RATHER, AS DIRECTED BY THE ENGINEER, THE TRENCH SHALL EXTEND FROM THE POLE STRAIGHT DOWN THE SIDE SLOPE, RUN ALONG THE TOE OF THE SLOPE, AND THEN STRAIGHT UP THE SIDE SLOPE TO THE NEXT POLE. THE CONTRACTOR WILL BE COMPENSATED FOR THIS ADDITIONAL UNIT DUCT AT ITS AGREED CONTRACT UNIT PRICE.
13. IN ACCORDANCE WITH SPECIFICATION M8030010 THE CONTRACTOR WILL BE PAID TO LOCATE APPLICABLE CABLE RUNS OF THE EXISTING LIGHTING SYSTEM THAT WILL REMAIN IN SERVICE DURING CONSTRUCTION AND UPON THE COMPLETION OF THIS PROJECT. THE CONTRACTOR SHALL NOT LOCATE ANY CABLE RUNS THAT ARE TO BE ABANDONED UPON THE COMPLETION OF THIS PROJECT. IN THE EVENT THE CONTRACTOR DISRUPTS A CABLE THAT IS TO BE ABANDONED BUT IS CURRENTLY SERVICING AN EXISTING LUMINAIRE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR SPLICING THE CABLE. IN THIS CASE PROPER WATERPROOF SPLICES BELOW GRADE WILL BE PERMITTED.
14. ALL NEW UNIT DUCT AND UNDERGROUND CONDUIT SHALL BE PLACED A MINIMUM OF MINIMUM OF 760MM (30") BENEATH THE GROUND SURFACE.
15. THE CONTRACTOR SHALL REQUEST A FORMAL MAINTENANCE TRANSFER BEFORE ANY WORK BEGINS. THE CONTRACTOR SHALL CONTACT THE ELECTRICAL MAINTENANCE OFFICE AT (847) 221-3079.
16. ALL WORK SHALL CONFORM TO THE LATEST IDOT AND IDOT DISTRICT 1 STANDARDS, SPECIAL PROVISIONS, SUPPLEMENTAL SPECIFICATIONS AND THE NATIONAL ELECTRICAL CODE.
17. THE CONTRACTOR SHALL VERIFY LOCATIONS OF ALL UNDERGROUND UTILITIES BEFORE STARTING WORK.
18. ALL ELECTRICAL EQUIPMENT SHALL BE UL LISTED AND LABELED.
19. ALL CONDUITS SHALL BE SEALED.

20. ALL CIRCUIT WIRES SHALL BE LABELED WITH CIRCUIT IDENTIFICATION.
21. CIRCUITS SHALL BE TESTED PER SPECIFICATION.
22. ALL LAMPS SHALL BE FURNISHED AS PART OF THE CONTRACT.
23. THE LOCATIONS OF ALL PROPOSED EQUIPMENT ARE ILLUSTRATED DIAGRAMMATICALLY. THE ACTUAL LOCATION IN THE FIELD SHALL MEET THE APPROVAL OF THE ENGINEER.
24. ALL MEASUREMENTS ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY MEASUREMENTS IN THE FIELD.
25. THE LIGHTING SYSTEM VOLTAGE IS 240/480V, 1-PHASE, 3-WIRE. LUMINAIRE VOLTAGE IS 240V.
26. THE CONTRACTOR SHALL CONTACT THE ELECTRIC UTILITY COMPANY TO COORDINATE THE ELECTRICAL SERVICE WORK.
27. TO MAINTAIN THE STRUCTURAL INTEGRITY OF THE LIGHT POLES, THE LIGHT POLES SHALL NOT BE ERECTED AND/OR LEFT TO STAND WITHOUT LUMINAIRES.
28. INDEPENDENT TESTING OF LUMINAIRES IS REQUIRED WHEN THE QUANTITY INDICATED IN THE SUMMARY OF QUANTITIES IS 50 OR MORE FOR A GIVEN PAY ITEM. TESTING SHALL BE IN ACCORDANCE WITH ARTICLE 1067.01.A.7 OF THE STANDARD SPECIFICATIONS.
29. THE EXISTING LIGHTING CONTROLLER SHALL BE REPLACED IN APPROXIMATELY THE SAME LOCATION. THE NEW SERVICE CONDUCTORS SHALL BE 3-1/2" GALVANIZED STEEL CONDUIT.
30. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXISTING INSTALLATIONS AND DATA PRIOR TO BIDDING. THE NEW CONTROLLER SHALL BE INSTALLED DURING CONSTRUCTION ON PHASE 2.
31. DURING STAGE 1A EXISTING AND TEMPORARY LIGHTING SHALL BE CONNECTED TO THE EXISTING CONTROLLER AG UNTIL THE NEW CONTROLLER AG IS OPERATIONAL.
32. TEMPORARY LIGHTING SHALL REMAIN IN SERVICE UNTIL THE NEW PERMANENT LIGHTING SYSTEM IS OPERATIONAL.
33. THE CONTRACTOR SHALL RELABEL POLE NUMBERS ON RELOCATED POLES AND EXISTING POLES REMAINING IN PLACE INCIDENTAL TO THE RELOCATION ITEM IN ACCORDANCE WITH SHEET NO. LT-16.
34. CONTRACTOR MUST MAINTAIN SAFE EQUIPMENT AND WORKING CLEARANCES FROM THE EXISTING COMED'S LINES. CONTRACTOR SHALL PLAN HIS WORK CONSIDERING COMED'S LINES TO BE IN SERVICE AND ENERGIZED THROUGHOUT THE CONSTRUCTION PERIOD.
35. PROPOSED LIGHTING CONTROLLER "AG" SHALL BE PER ILLINOIS DEPARTMENT OF TRANSPORTATION (IDOT) DISTRICT 1 STANDARD BE-215, DATED 2/15/2006. EXCEPT, AS PART OF THIS PAY ITEM, MAIN BREAKER SHALL BE 125A TRIP, 25,000 AMP INTERRUPTING RATING, CONTACTOR SHALL BE RATED AT 200A., AND SURGE ARRESTER SHALL BE PROVIDED. SURGE ARRESTER SHALL BE GE "TRANQUELL" CAT #9L15ECB001.
36. ALL GROUND MOUNTED LIGHT POLE FOUNDATIONS SHALL BE 750MM DIAMETER.



Rick Johns  
 IDOT - District 01  
 02-05-1001-STV-03 - IL 68 over US 14  
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REVISIONS	
NAME	DATE

LT-02 OF 19

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 ILLINOIS ROUTE 68 AT U.S. ROUTE 14  
 ROADWAY LIGHTING  
 GENERAL NOTES

SCALE NONE  
 DATE NOVEMBER 2006

DRAWN BY R.P.J.  
 DESIGNED BY I.B.  
 CHECKED BY A.D.O.

Rick Johns  
 1001 - District 01  
 02-05-IDOT-STV-03 - IL 68 over US 14  
 P:02-05-IDOT-STV-03 - IL 68 over US 14  
 Working Files: Drawing Files: Sht: LT-03 - Schedule of Quantities.dgn  
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### ROADWAY LIGHTING SCHEDULE OF QUANTITIES

ITEM	UNIT	QTY	100% IDOT	TOTAL QUANTITIES
MODULIZATION	L SUM	1		1
ELECTRIC SERVICE INSTALLATION	EACH	1		1
LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 400 WATT	EACH	2		2
UNDERPASS LUMINAIRE, 70 WATT, HIGH PRESSURE SODIUM VAPOR	EACH	6		6
UNDERPASS LUMINAIRE, 100 WATT, HIGH PRESSURE SODIUM VAPOR	EACH	6		6
LIGHTING CONTROLLER, CONSOLE, TYPE CB-RS	EACH	1		1
REMOVAL OF EXISTING LIGHTING UNIT, SALVAGE	EACH	4		4
LIGHTING FOUNDATION REMOVAL	EACH	4		4
RELOCATE EXISTING LIGHTING UNIT	EACH	26		26
REMOVAL OF LIGHTING CONTROLLER	EACH	1		1
REMOVAL OF LIGHTING CONTROLLER FOUNDATION	EACH	1		1
REMOVE EXISTING HANDHOLE	EACH	1		1
LOCATING UNDERGROUND CABLE	METER	1498		1498
GROUND ROD, 16MM DIA. X 3.0M	EACH	25		25
LIGHT POLE, WOOD, 9.14 METER, CLASS 4	EACH	2		2
LIGHT POLE, WOOD, 12.19 METER, CLASS 4	EACH	2		2
LIGHT POLE, WOOD, 18.30 METER, CLASS 4	EACH	4		4
LIGHT POLE, WOOD, 18.30 METER, CLASS 4, 4.5 METER MAST ARM	EACH	8		8
CONDUIT IN TRENCH, RIGID GALVANIZED STEEL, 75MM DIA.	METER	21		21
CONDUIT PUSHED, RIGID GALVANIZED STEEL, 75MM DIA.	METER	538		538
CONDUIT EMBEDDED IN STRUCTURE, PVC, 50 MM DIA.	METER	41		41
CONDUIT EMBEDDED IN STRUCTURE, PVC, 65 MM DIA.	METER	41		41
JUNCTION BOX, ATTACHED TO STRUCTURE, STAINLESS STEEL, 150MM X 150MM X 100MM	EACH	14		14
JUNCTION BOX, ATTACHED TO STRUCTURE, STAINLESS STEEL, 300MM X 250MM X 150MM	EACH	8		8
JUNCTION BOX, ATTACHED TO STRUCTURE, STAINLESS STEEL, 450MM X 450MM X 200MM	EACH	1		1
JUNCTION BOX, EMBEDDED IN STRUCTURE, NON-METALLIC, 300MM X 300MM X 150MM	EACH	4		4
ELECTRIC CABLE IN CONDUIT, 600V (EPR-TYPE RHW) 1/C NO. 10	METER	556		556
ELECTRIC CABLE IN CONDUIT, 600V (EPR-TYPE RHW) 1/C NO. 4	METER	405		405
ELECTRIC CABLE IN CONDUIT, 600V (EPR-TYPE RHW) 1/C NO. 6	METER	153		153
ELECTRIC CABLE IN CONDUIT, 600V (EPR-TYPE USE) 1/C NO. 3/0	METER	19		19
TRENCH AND BACKFILL FOR ELECTRICAL WORK	METER	1323		1323
UNIT DUCT, 600V, WITH 3-1/C NO. 4 AND 1/C NO. 6 GROUND (EPR-TYPE RHW), 30MM DIA., POLYETHYLENE, SC	METER	2436		2436
AERIAL CABLE WITH MESSENGER WIRE, 3-1/C NO. 2 ALUMINUM	METER	1048		1048
LIGHT POLE, ALUMINUM, 15.2M M.H., 3.5M MAST ARM	EACH	1		1
LIGHT POLE FOUNDATION, 750MM DIAMETER	METER	24		24
CONDUIT ATTACHED TO STRUCTURE, 25MM DIA. RIGID GALVANIZED STEEL, PVC COATED	METER	56		56
REMOVE EXISTING CONDUIT ATTACHED TO STRUCTURE	METER	110		110
TEMPORARY UNDERPASS LIGHTING INSTALLATION AND REMOVAL	L SUM	1		1
REMOVE LUMINAIRE FROM UNDERPASS	EACH	4		4
REMOVE EXISTING SERVICE INSTALLATION	EACH	1		1
MAINTENANCE OF LIGHTING SYSTEM	CAL MO	1		1
LUMINAIRE SAFETY CABLE ASSEMBLY	EACH	34		34
REMOVE TEMPORARY LIGHTING UNITS	LSUM	1		1
MAINTENANCE OF TEMPORARY LIGHTING SYSTEM	LSUM	1		1

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	*	COOK	283	128
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		IL 68
# 700-Y-R & 70HB-R-1		62897		

KEY PLAN

LT-03 OF 19

REVISIONS	NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 ILLINOIS ROUTE 68 AT U.S. ROUTE 14  
 ROADWAY LIGHTING  
 SCHEDULE OF QUANTITIES

SCALE NONE  
 DATE NOVEMBER 2006

DRAWN BY R.P.J.  
 DESIGNED BY I.B.  
 CHECKED BY A.O.O.

Rev. 1-8-07

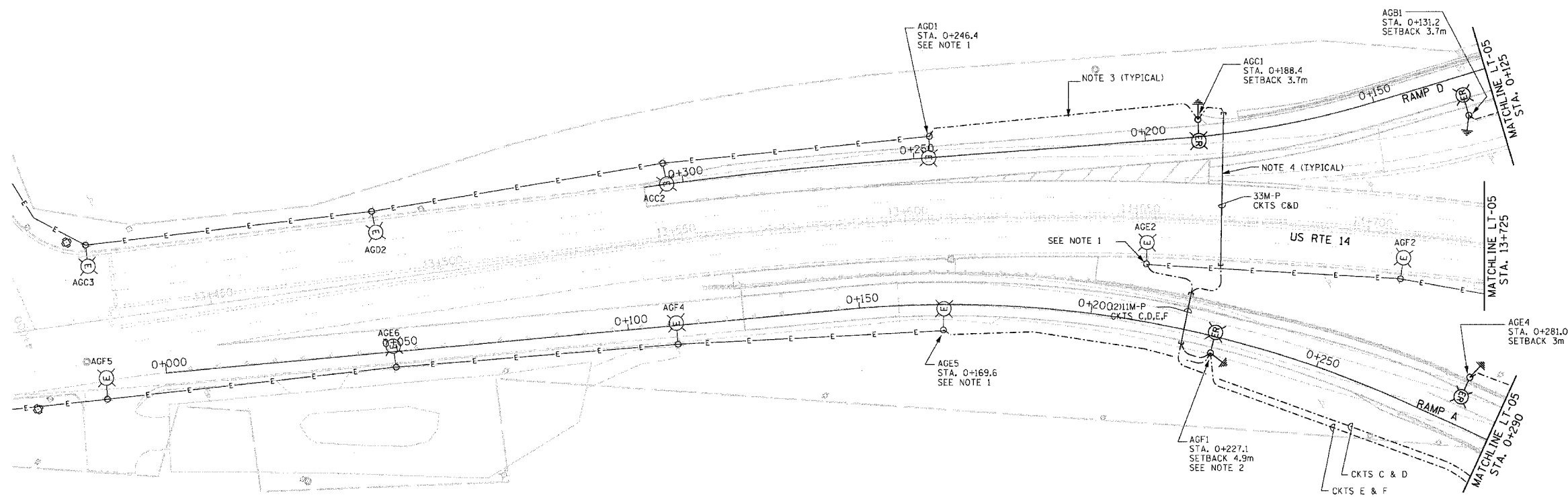


F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	*	COOK	283	129
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS FED. AID PROJECT			
* 700-Y-R & 70HB-R-1			62897	

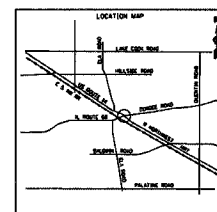
KEY PLAN

**NOTES:**

1. CONNECT EXISTING CIRCUITS TO NEW CONDUCTORS AT BASE OF POLE THROUGH EXISTING RACEWAY.
2. FOUNDATION REQUIRES THREE (3) CONDUITS FOR UNIT DUCTS.
3. ALL PROPOSED UNIT DUCTS ARE 30MM DIA. POLYETHYLENE WITH (3) 1/2 #4 & (1) 1/2 #6 GND (EPR-TYPE RHW).
4. ALL PROPOSED PUSHED CONDUITS ARE 75MM DIA. RGS.



**1 PROPOSED ROADWAY LIGHTING PLAN**  
 SCALE: 1 : 500  
 5 0 5 10 15 20 25  
 SCALE IN METERS



REVISIONS	
NAME	DATE

LT-04 OF 19  
 ILLINOIS DEPARTMENT OF TRANSPORTATION  
 ILLINOIS ROUTE 68 AT U.S. ROUTE 14  
 ROADWAY LIGHTING PROPOSED PLAN  
 US 14 STA. 13+400 TO STA. 13+725  
 SCALE 1:500  
 DATE NOVEMBER 2006  
 DRAWN BY R.P.J.  
 DESIGNED BY I.B.  
 CHECKED BY A.D.O.

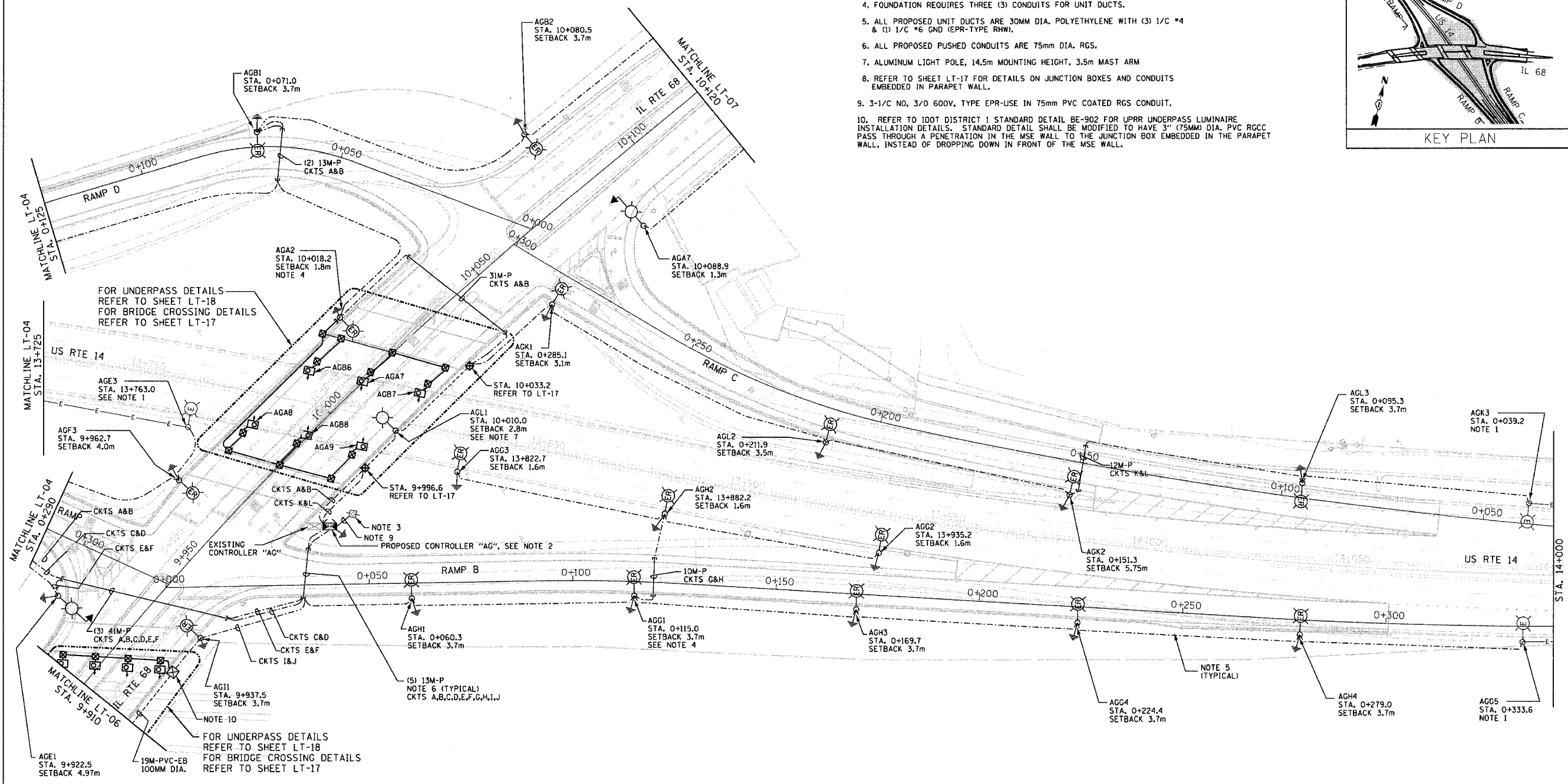
Rick Johns  
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	*	COOK	283	130
STA. * TO STA.		ILLINOIS FED. AID PROJECT		
FED. ROAD DIST. NO. 1		* 700-Y-R & 70HB-R-1		
		62897		

KEY PLAN

**NOTES:**

- CONNECT EXISTING CIRCUITS TO NEW CONDUCTORS AT BASE OF POLE.
- EXISTING 100A CONTROLLER TO BE REPLACED WITH NEW 200A CONTROLLER
- RELOCATED ComEd SERVICE DROP.
- FOUNDATION REQUIRES THREE (3) CONDUITS FOR UNIT DUCTS.
- ALL PROPOSED UNIT DUCTS ARE 30MM DIA. POLYETHYLENE WITH (3) 1/C #4 & (1) 1/C #6 GND (EPR-TYPE RHW).
- ALL PROPOSED PUSHED CONDUITS ARE 75mm DIA. RGS.
- ALUMINUM LIGHT POLE, 14.5m MOUNTING HEIGHT, 3.5m MAST ARM
- REFER TO SHEET LT-17 FOR DETAILS ON JUNCTION BOXES AND CONDUITS EMBEDDED IN PARAPET WALL.
- 3-1/C NO. 3/0 600V, TYPE EPR-USE IN 75mm PVC COATED RGS CONDUIT.
- REFER TO IDOT DISTRICT 1 STANDARD DETAIL BE-902 FOR UPRR UNDERPASS LUMINAIRE INSTALLATION DETAILS. STANDARD DETAIL SHALL BE MODIFIED TO HAVE 3" (75MM) DIA. PVC RGCC PASS THROUGH A PENETRATION IN THE MSE WALL TO THE JUNCTION BOX EMBEDDED IN THE PARAPET WALL, INSTEAD OF DROPPING DOWN IN FRONT OF THE MSE WALL.

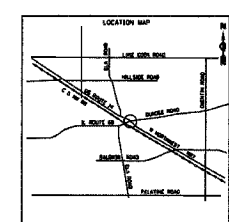
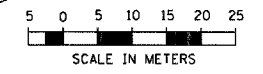


FOR UNDERPASS DETAILS REFER TO SHEET LT-18  
FOR BRIDGE CROSSING DETAILS REFER TO SHEET LT-17

FOR UNDERPASS DETAILS REFER TO SHEET LT-18  
FOR BRIDGE CROSSING DETAILS REFER TO SHEET LT-17



**1 PROPOSED ROADWAY LIGHTING PLAN**  
SCALE: 1 : 500



REVISIONS	
NAME	DATE

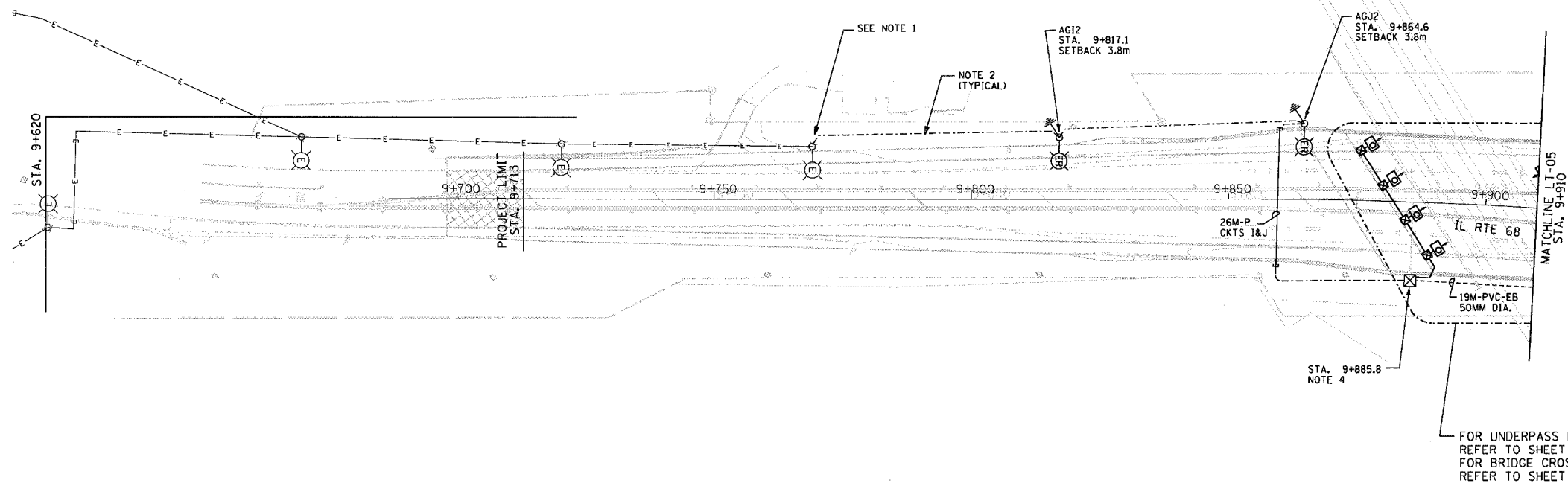
ILLINOIS DEPARTMENT OF TRANSPORTATION  
ILLINOIS ROUTE 68 AT U.S. ROUTE 14  
ROADWAY LIGHTING PROPOSED PLAN  
IL 68 STA. 9+910 TO STA. 10+120  
US 14 STA. 13+725 TO STA. 14+100  
SCALE 1:500  
DATE NOVEMBER 2006  
DRAWN BY R.P.J.  
DESIGNED BY I.B.  
CHECKED BY A.D.O.

Rick Johns  
 IDOT - District 01  
 02-05-IDOT-STV-03 - IL 68 over US 14  
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	*	COOK	283	131
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		
* 700-Y-R & 70HB-R-1		62897		

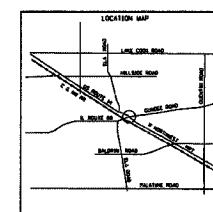
KEY PLAN

- NOTE
- CONNECT EXISTING CIRCUITS TO NEW CONDUCTORS AT BASE OF POLE.
  - ALL PROPOSED UNIT DUCTS ARE 30MM DIA. POLYETHYLENE WITH (3) 1/C #4 & (1) 1/C #6 GND (EPR-TYPE RHW).
  - ALL PROPOSED PUSHED CONDUITS ARE 75MM DIA. RGS.
  - REFER TO IDOT DISTRICT 1 STANDARD DETAIL BE-902 FOR UPRR UNDERPASS LUMINAIRE INSTALLATION DETAILS. STANDARD DETAIL SHALL BE MODIFIED TO HAVE 3" (75MM) DIA. PVC RGCC PASS THROUGH A PENETRATION IN THE MSE WALL TO THE JUNCTION BOX EMBEDDED IN THE PARAPET WALL, INSTEAD OF DROPPING DOWN IN FRONT OF THE MSE WALL.



1 PROPOSED ROADWAY LIGHTING PLAN  
SCALE: 1 : 500

SCALE IN METERS



REVISIONS	
NAME	DATE

LT-06 OF 19

ILLINOIS DEPARTMENT OF TRANSPORTATION  
ILLINOIS ROUTE 68 AT U.S. ROUTE 14  
ROADWAY LIGHTING PROPOSED PLAN  
IL 68 STA. 9+620 TO STA. 9+910

SCALE 1:500  
DATE NOVEMBER 2006

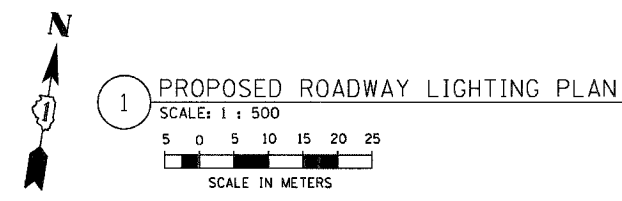
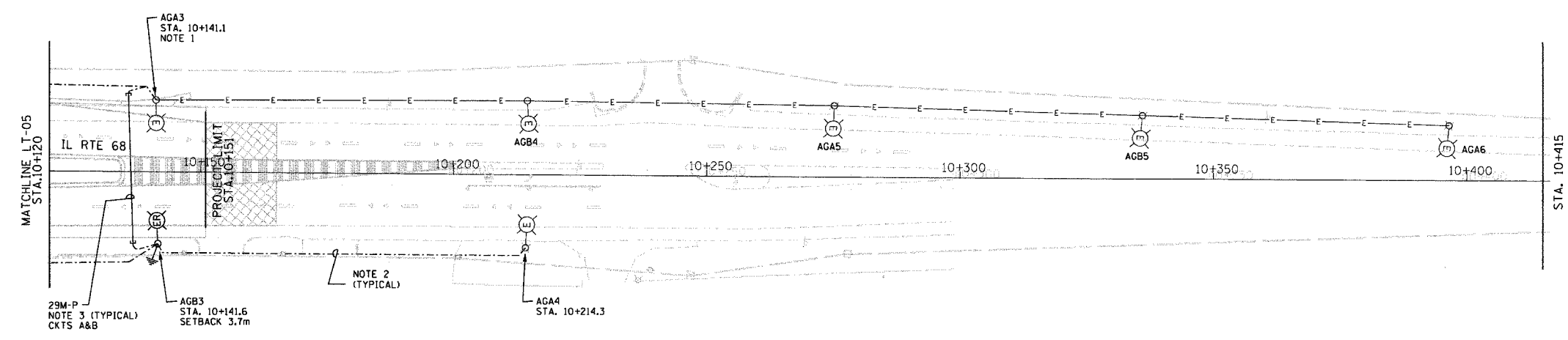
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DESIGNED BY I.B.  
CHECKED BY A.D.O.

Rick Johns  
ID01 - District 01  
02-05-1001-STV-03 - IL 68 over US 14  
P102-05-ID01-STV-03 - IL 68 over US 14  
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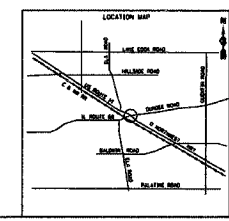
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	*	COOK	283	132
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		
	* 70D-Y-R & 70HB-R-1		62897	

KEY PLAN

NOTE  
 1. CONNECT EXISTING CIRCUITS TO NEW CONDUCTORS AT BASE OF POLE.  
 2. ALL PROPOSED UNIT DUCTS ARE 30MM DIA. POLYETHYLENE WITH (3) 1/C #4 & (1) 1/C #6 GND (EPR-TYPE RHW).  
 3. ALL PROPOSED PUSHED CONDUITS ARE 75mm DIA, RGS.



Rick Johns  
 IDOT - District 01  
 02-05-1001-STV-03 - IL 68 over US 14  
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REVISIONS	
NAME	DATE

LT-07 OF 19

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 ILLINOIS ROUTE 68 AT U.S. ROUTE 14  
 ROADWAY LIGHTING PROPOSED PLAN  
 IL 68 STA. 10+120 TO STA. 10+415

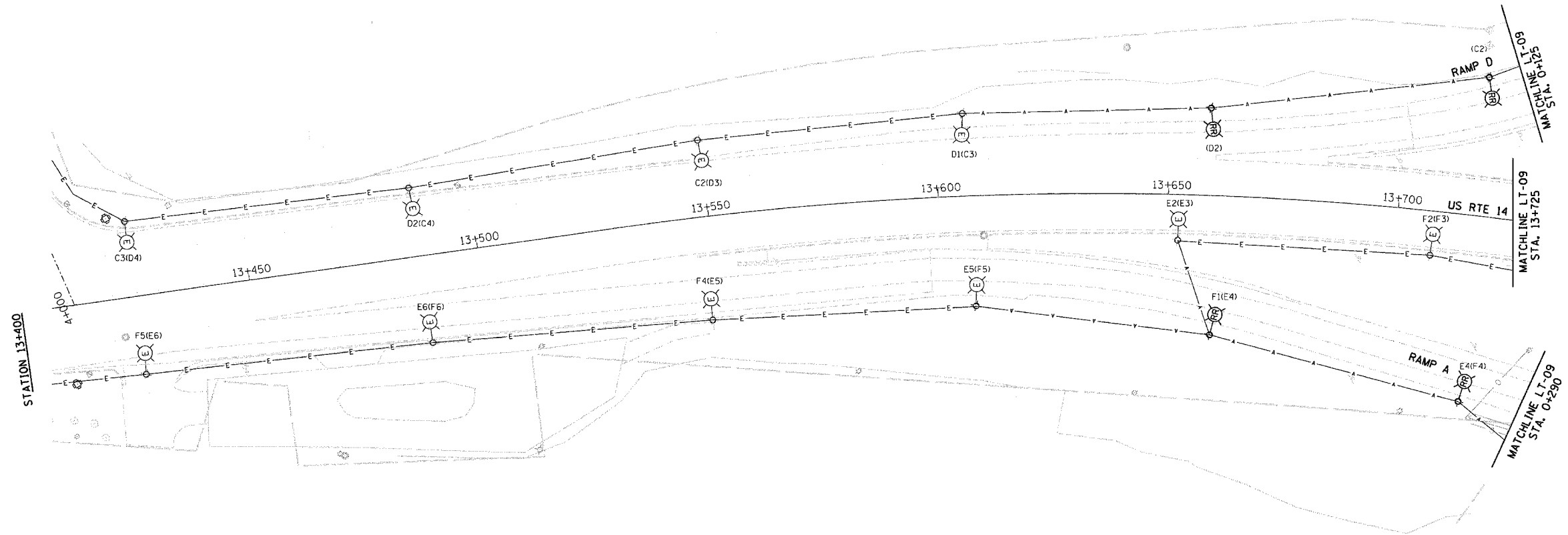
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 DATE NOVEMBER 2006

DRAWN BY R.P.J.  
 DESIGNED BY I.B.  
 CHECKED BY A.D.O.

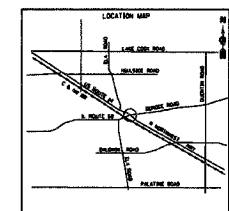
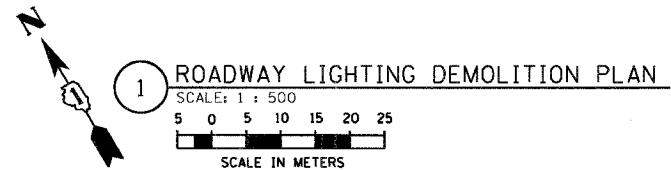
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	*	COOK	283	133
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		
* 70D-Y-R & 70HB-R-1		62897		

KEY PLAN

NOTES:  
 1. CIRCUIT/POLE NUMBERS OUTSIDE OF PRENTHESES ARE PROPOSED,  
 CIRCUIT/POLE NUMBERS IN PRENTHESES ARE EXISTING NUMBERS AND SHALL BE  
 REPLACED IN ACCORDANCE WITH GENERAL NOTE \*34, SHEET LT-02.



Rick Johns  
 ID01 - District 01  
 02-05-ID01-STV-03 - IL 68 over US 14  
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REVISIONS	
NAME	DATE

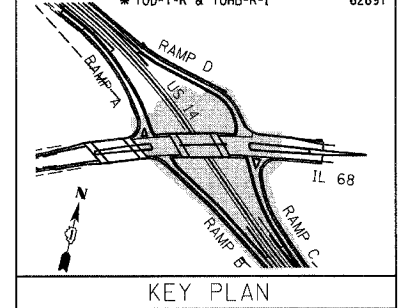
LT-08 OF 19

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 ILLINOIS ROUTE 68 AT U.S. ROUTE 14  
 ROADWAY LIGHTING DEMOLITION PLAN  
 US 14 STA. 13+400 TO STA. 13+725

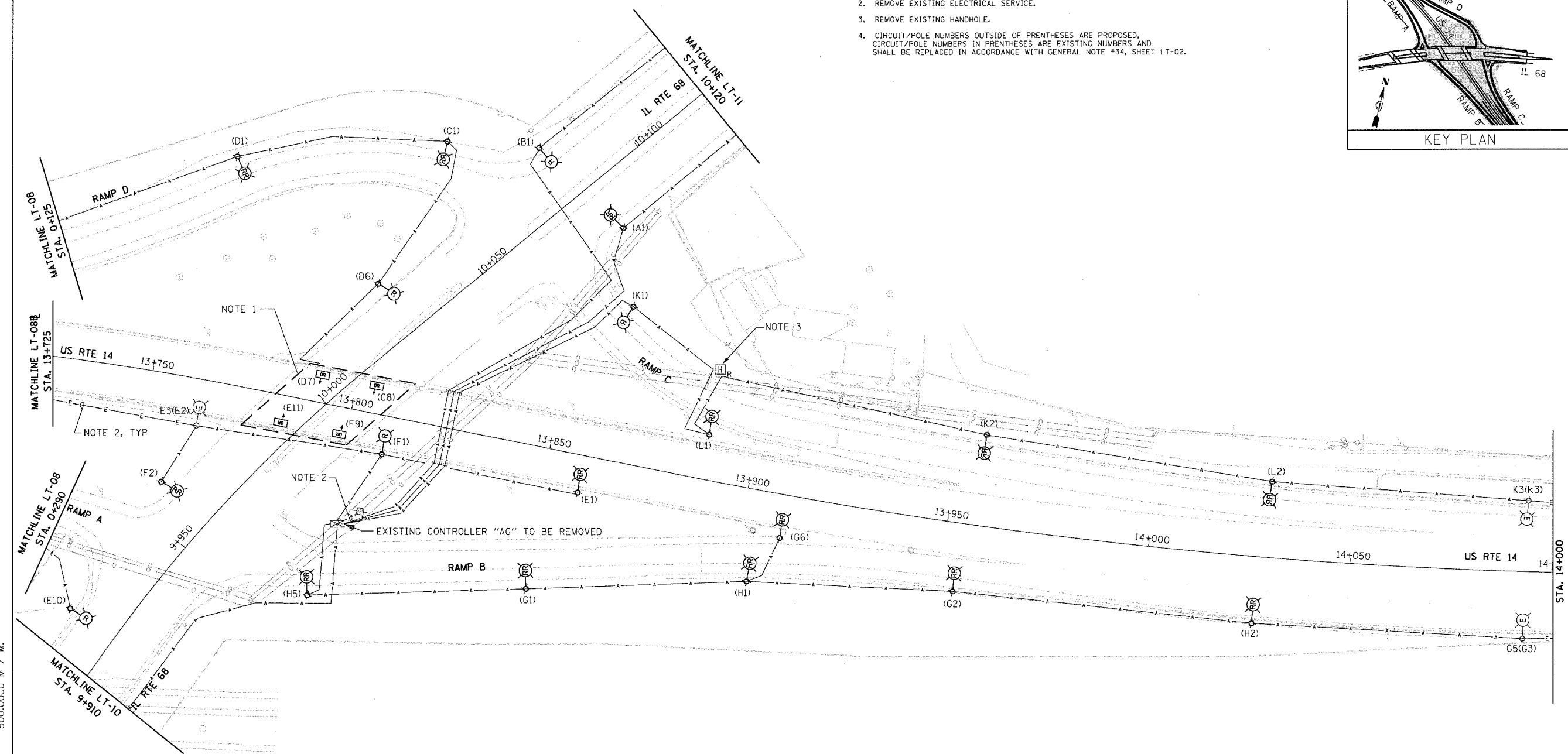
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DRAWN BY R.P.J.  
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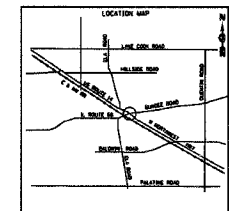
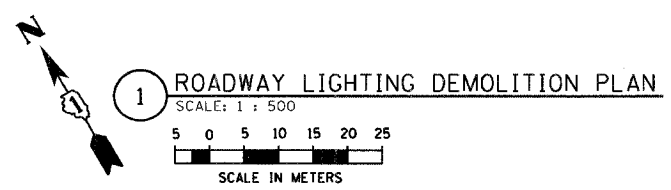
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	*	COOK	283	134
STA. TO STA.		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT		
		* 70D-Y-R & 70HB-R-1 62897		



- NOTES:
1. REMOVE ALL EXISTING UNDERPASS LUMINARIES & ASSOCIATED JUNCTION BOXES. EXISTING UNDERPASS LUMINAIRES ON NORTH SIDE OF US-14 BRIDGE SHALL BE MAINTAINED IN SERVICE THROUGH CONSTRUCTION STAGE 1.
  2. REMOVE EXISTING ELECTRICAL SERVICE.
  3. REMOVE EXISTING HANDHOLE.
  4. CIRCUIT/POLE NUMBERS OUTSIDE OF PRENTHESES ARE PROPOSED, CIRCUIT/POLE NUMBERS IN PRENTHESES ARE EXISTING NUMBERS AND SHALL BE REPLACED IN ACCORDANCE WITH GENERAL NOTE \*34, SHEET LT-02.



Rick Johns  
 IDOT - District 01  
 02-05-1001-STV-03 - IL 68 over US 14  
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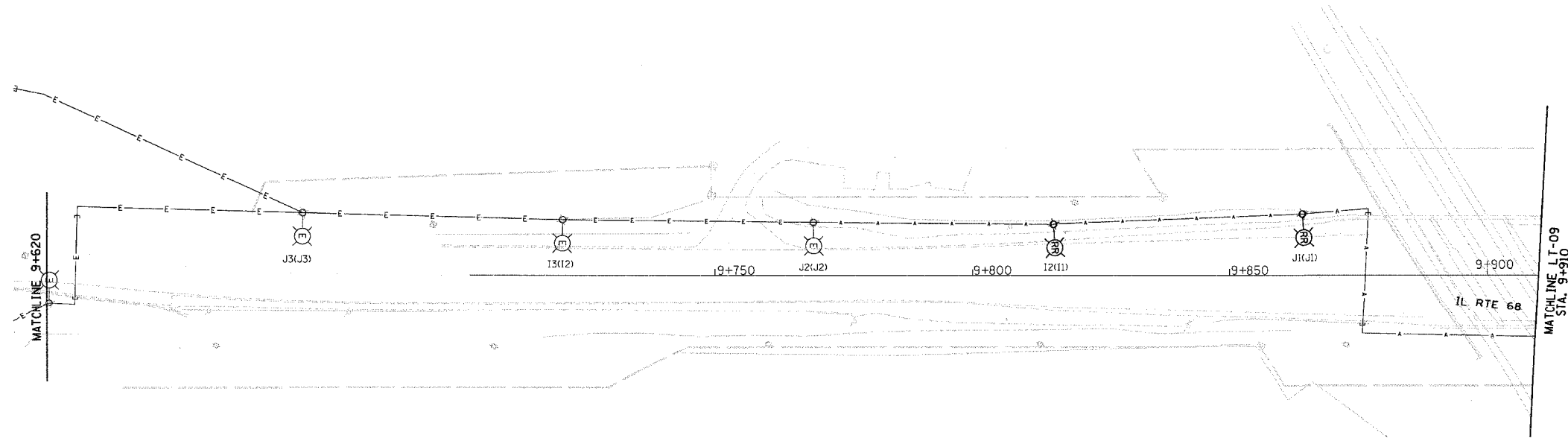
REVISIONS	
NAME	DATE

LT-09 OF 19  
 ILLINOIS DEPARTMENT OF TRANSPORTATION  
 ILLINOIS ROUTE 68 AT U.S. ROUTE 14  
 ROADWAY LIGHTING DEMOLITION PLAN  
 IL 68 STA. 9+910 TO STA. 10+120  
 US 14 STA. 13+725 TO STA. 14+100  
 SCALE 1:500  
 DATE NOVEMBER 2006  
 DRAWN BY R.P.J.  
 DESIGNED BY I.B.  
 CHECKED BY A.D.O.

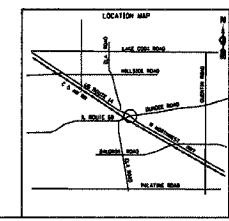
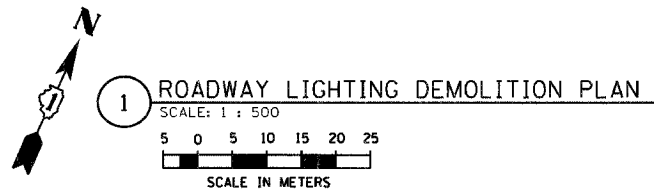
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	*	COOK	283	135
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	
* 70D-Y-R & 70HB-R-1		62897		

KEY PLAN

NOTES:  
 1. CIRCUIT/POLE NUMBERS OUTSIDE OF PRENTHESES ARE PROPOSED.  
 CIRCUIT/POLE NUMBERS IN PRENTHESES ARE EXISTING NUMBERS AND SHALL BE REPLACED IN ACCORDANCE WITH GENERAL NOTE \*34, SHEET LT-02.



Rick Johns  
 IDOT - District 01  
 02-05-1001-STV-03 - IL 68 over US 14  
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REVISIONS	
NAME	DATE

LT-10 OF 19

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 ILLINOIS ROUTE 68 AT U.S. ROUTE 14  
 ROADWAY LIGHTING DEMOLITION PLAN  
 IL 68 STA. 9+620 TO STA. 9+910

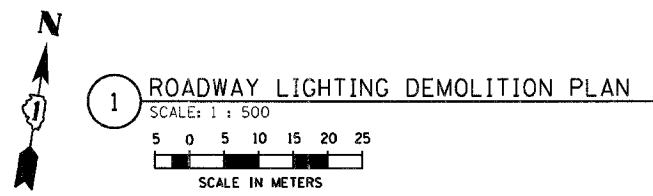
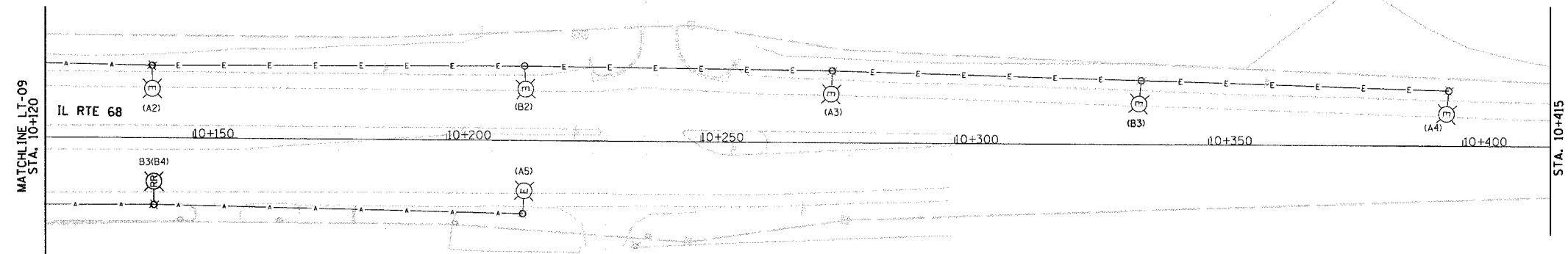
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 DATE NOVEMBER 2006

DRAWN BY R.P.J.  
 DESIGNED BY I.B.  
 CHECKED BY A.O.O.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	*	COOK	283	136
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		
		* 700-Y-R & 704B-R-1	62897	

KEY PLAN

NOTES:  
 1. CIRCUIT/POLE NUMBERS OUTSIDE OF PRENTHESES ARE PROPOSED.  
 CIRCUIT/POLE NUMBERS IN PRENTHESES ARE EXISTING NUMBERS AND SHALL BE REPLACED IN ACCORDANCE WITH GENERAL NOTE #34, SHEET LT-02.



Rick Johns  
 ID01 - District 01  
 02-05-ID01-STV-03 - IL 68 over US 14  
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	REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION ILLINOIS ROUTE 68 AT U.S. ROUTE 14 ROADWAY LIGHTING DEMOLITION PLAN IL 68 STA. 10+120 TO STA. 10+415  SCALE 1:500 DATE NOVEMBER 2006  DRAWN BY R.P.J. DESIGNED BY I.B. CHECKED BY A.D.O.
	NAME	DATE	

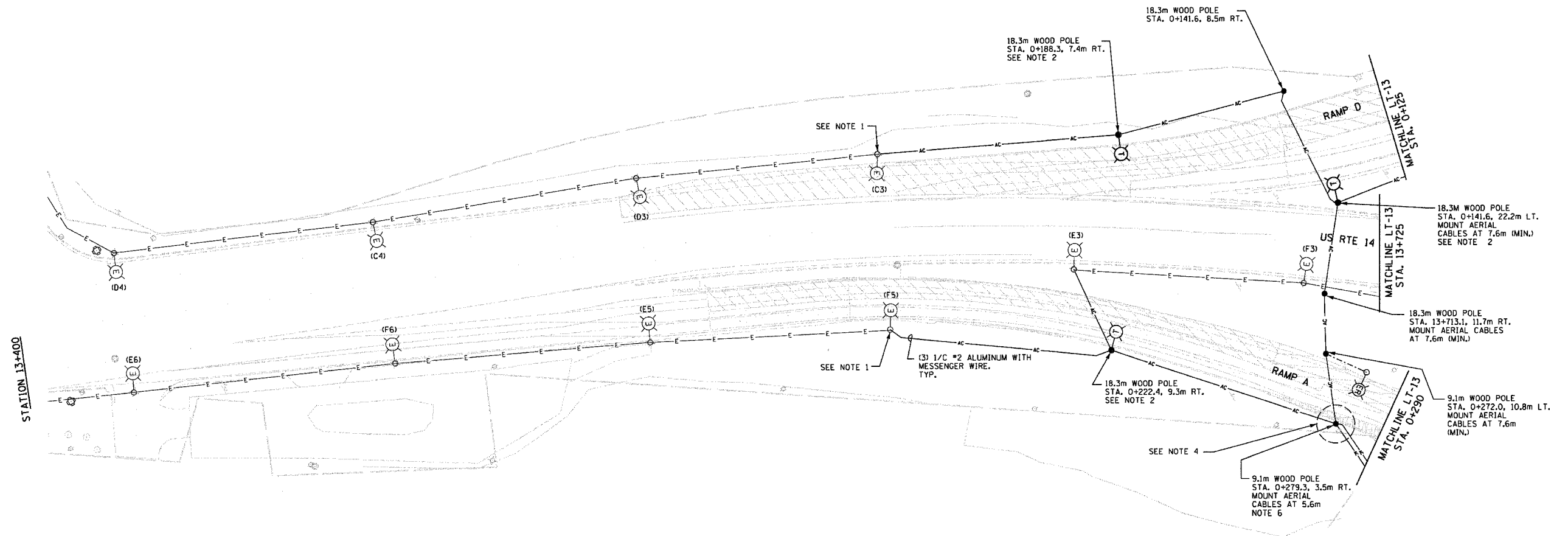


F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	*	COOK	283	137
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		
* 70D-Y-R & 70HB-R-1		62897		

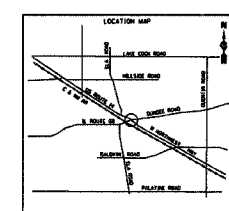
KEY PLAN

NOTES:

1. SECURE AERIAL CABLE ATTACHMENT TO POLE WITH A POLE BAND. INSERT CONDUCTORS THROUGH THE 38mm GROMMETED HOLE IN THE TOP PORTION OF THE SHAFT.
2. WITH 4.5 MAST ARM, MOUNT TEMPORARY LUMINAIRE AT 14.5M ABOVE ROADWAY.
3. ALL TEMPORARY AERIAL CABLE SHALL BE (3) 1/C #2 ALUMINUM WITH MESSENGER WIRE.
4. ComEd TO RAISE NEUTRAL TO ALLOW FOR TEMPORARY AERIAL CABLES TO CROSS UNDER THE DISTRIBUTION LINES.
5. CIRCUIT/POLE NUMBERS OUTSIDE OF PRENTHESES ARE PROPOSED. CIRCUIT/POLE NUMBERS IN PRENTHESES ARE EXISTING NUMBERS AND SHALL BE REPLACED IN ACCORDANCE WITH GENERAL NOTE \*34, SHEET LT-02.
6. PROVIDE TEMPORARY IMPACT ATTENUATOR AT TEMPORARY WOOD POLE. COST OF THE TEMPORARY IMPACT ATTENUATOR SHALL BE INCIDENTAL TO THE PAY ITEM FOR THE WOOD POLE.
7. MAINTAIN A MINIMUM OF 4.9M CLEARANCE TO GRADE FOR ALL AERIAL CABLES.



1 ROADWAY TEMPORARY LIGHTING PLAN  
SCALE: 1 : 500  
SCALE IN METERS



REVISIONS	
NAME	DATE

LT-12 OF 19

ILLINOIS DEPARTMENT OF TRANSPORTATION  
ILLINOIS ROUTE 68 AT U.S. ROUTE 14  
ROADWAY TEMPORARY LIGHTING PLAN  
US 14 STA. 13+400 TO STA. 13+725

SCALE 1:500  
DATE NOVEMBER 2006

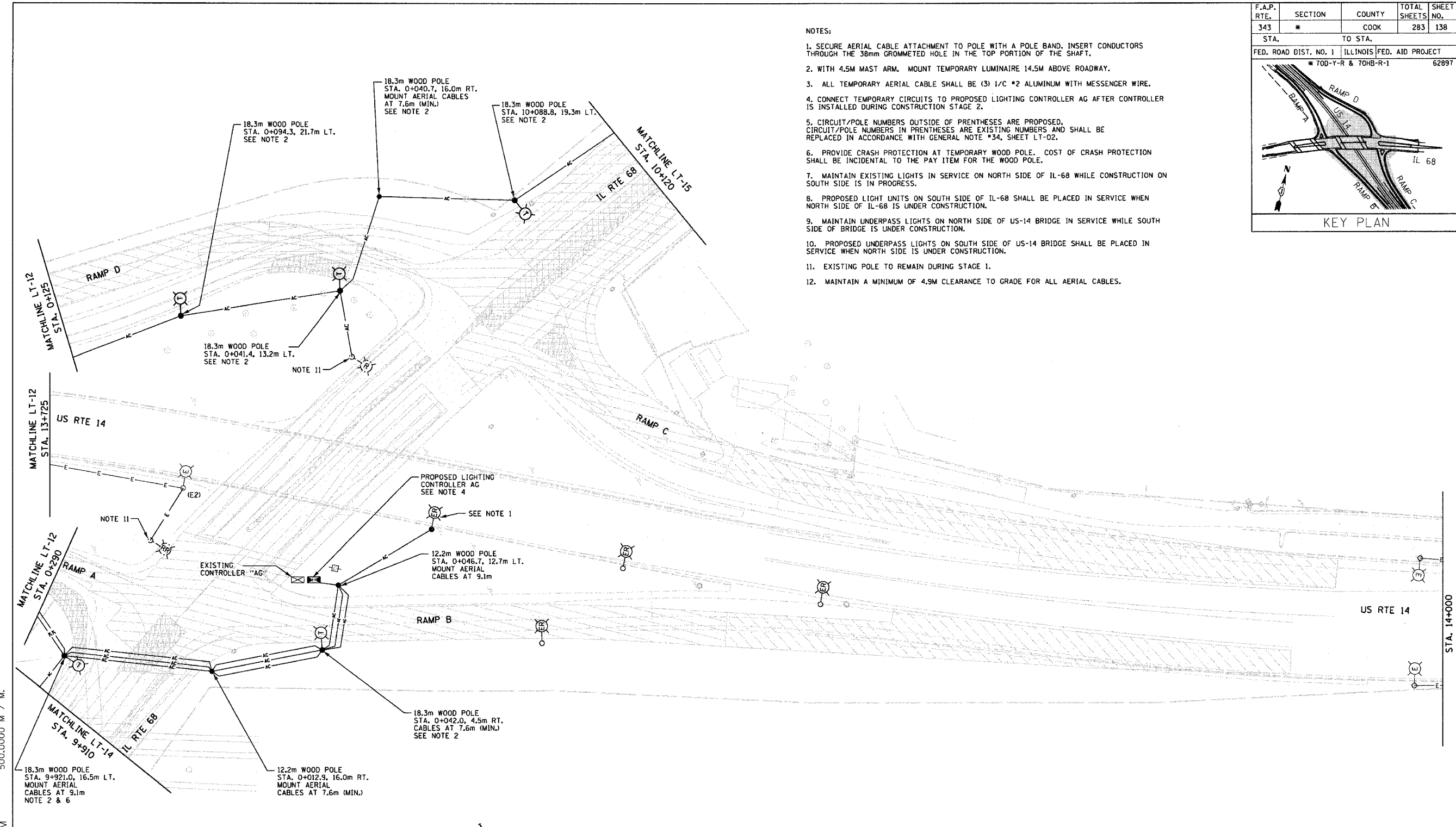
DRAWN BY R.P.J.  
DESIGNED BY I.B.  
CHECKED BY A.D.O.

Rick Johns  
 ID01 - District 01  
 02-05-ID01-STV-03 - IL 68 over US 14  
 PA02-05-ID01-STV-03 - IL 68 over US 14  
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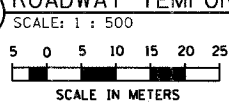
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	*	COOK	283	138
STA.	TO STA.			
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		
* 70D-Y-R & 70HB-R-1		62897		

KEY PLAN

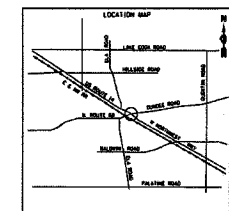
- NOTES:
1. SECURE AERIAL CABLE ATTACHMENT TO POLE WITH A POLE BAND. INSERT CONDUCTORS THROUGH THE 38mm GROMMETED HOLE IN THE TOP PORTION OF THE SHAFT.
  2. WITH 4.5M MAST ARM. MOUNT TEMPORARY LUMINAIRE 14.5M ABOVE ROADWAY.
  3. ALL TEMPORARY AERIAL CABLE SHALL BE (3) 1/C #2 ALUMINUM WITH MESSENGER WIRE.
  4. CONNECT TEMPORARY CIRCUITS TO PROPOSED LIGHTING CONTROLLER AG AFTER CONTROLLER IS INSTALLED DURING CONSTRUCTION STAGE 2.
  5. CIRCUIT/POLE NUMBERS OUTSIDE OF PRENTHESES ARE PROPOSED. CIRCUIT/POLE NUMBERS IN PRENTHESES ARE EXISTING NUMBERS AND SHALL BE REPLACED IN ACCORDANCE WITH GENERAL NOTE #34, SHEET LT-02.
  6. PROVIDE CRASH PROTECTION AT TEMPORARY WOOD POLE. COST OF CRASH PROTECTION SHALL BE INCIDENTAL TO THE PAY ITEM FOR THE WOOD POLE.
  7. MAINTAIN EXISTING LIGHTS IN SERVICE ON NORTH SIDE OF IL-68 WHILE CONSTRUCTION ON SOUTH SIDE IS IN PROGRESS.
  8. PROPOSED LIGHT UNITS ON SOUTH SIDE OF IL-68 SHALL BE PLACED IN SERVICE WHEN NORTH SIDE OF IL-68 IS UNDER CONSTRUCTION.
  9. MAINTAIN UNDERPASS LIGHTS ON NORTH SIDE OF US-14 BRIDGE IN SERVICE WHILE SOUTH SIDE OF BRIDGE IS UNDER CONSTRUCTION.
  10. PROPOSED UNDERPASS LIGHTS ON SOUTH SIDE OF US-14 BRIDGE SHALL BE PLACED IN SERVICE WHEN NORTH SIDE IS UNDER CONSTRUCTION.
  11. EXISTING POLE TO REMAIN DURING STAGE 1.
  12. MAINTAIN A MINIMUM OF 4.9M CLEARANCE TO GRADE FOR ALL AERIAL CABLES.



**1 ROADWAY TEMPORARY LIGHTING PLAN**



Rick Johns  
 IDOT - District 01  
 02-05-1001-STV-03 - IL 68 over US 14  
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REVISIONS	
NAME	DATE

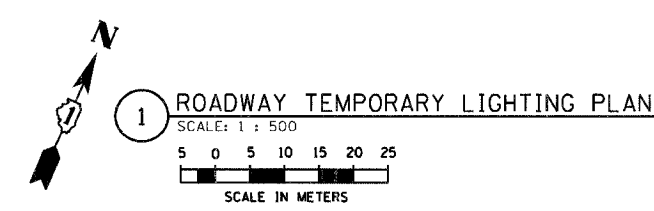
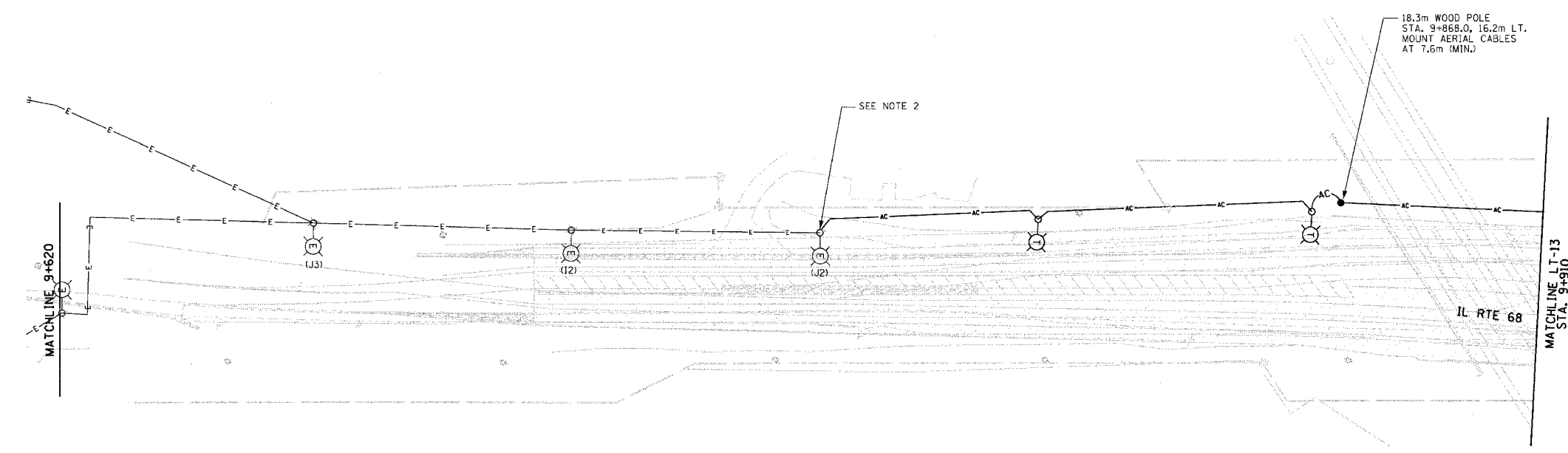
ILLINOIS DEPARTMENT OF TRANSPORTATION  
 ILLINOIS ROUTE 68 AT U.S. ROUTE 14  
 ROADWAY TEMPORARY LIGHTING PLAN  
 IL 68 STA. 9+910 TO STA. 10+120  
 US 14 STA. 13+725 TO STA. 14+100  
 SCALE 1:500  
 DATE NOVEMBER 2006

DRAWN BY R.P.J.  
 DESIGNED BY I.B.  
 CHECKED BY A.D.O.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	*	COOK	283	139
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS FED. AID PROJECT			
			* 70D-Y-R & 70HB-R-1	62897

KEY PLAN

- NOTES:
1. ALL TEMPORARY AERIAL CABLE SHALL BE (3) 1/C #2 ALUMINUM WITH MESSENGER WIRE.
  2. SECURE AERIAL CABLE ATTACHMENT TO POLE WITH A POLE BAND, INSERT CONDUCTORS THROUGH THE 38mm GROMMETED HOLE IN THE TOP PORTION OF THE SHAFT.
  3. CIRCUIT/POLE NUMBERS OUTSIDE OF PRENTHESES ARE PROPOSED. CIRCUIT/POLE NUMBERS IN PRENTHESES ARE EXISTING NUMBERS AND SHALL BE REPLACED IN ACCORDANCE WITH GENERAL NOTE #34, SHEET LT-02.
  4. MAINTAIN EXISTING LIGHTS IN SERVICE ON NORTH SIDE OF IL-68 WHILE CONSTRUCTION ON SOUTH SIDE IS IN PROGRESS.
  5. MAINTAIN A MINIMUM OF 4.9M CLEARANCE TO GRADE FOR ALL AERIAL CABLES.



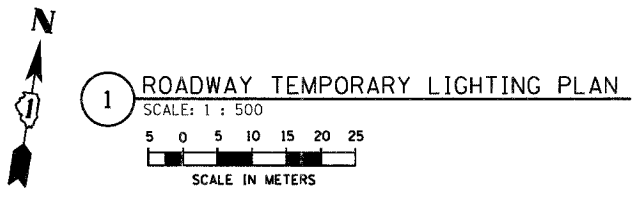
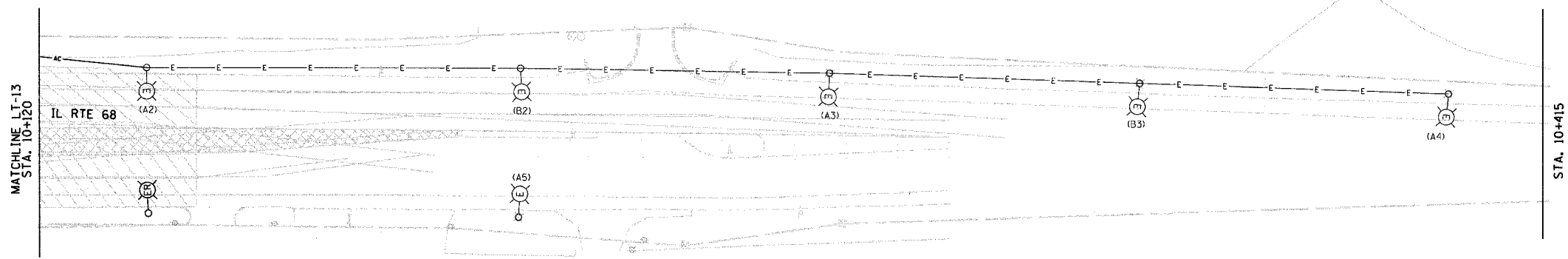
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	NAME	DATE	
			SCALE 1:500
			DATE NOVEMBER 2006
			DRAWN BY R.P.J. DESIGNED BY I.B. CHECKED BY A.O.O.

Rick Johns  
 IDOT - District 01  
 02-05-IDOT-STV-03 - IL 68 over US 14  
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	*	COOK	283	140
STA.	TO STA.			
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT		
		* 700-Y-R & 70HB-R-1	62897	

KEY PLAN

- NOTES:
1. ALL TEMPORARY AERIAL CABLE SHALL BE (3) 1/C #2 ALUMINUM WITH MESSENGER WIRE.
  2. CIRCUIT/POLE NUMBERS OUTSIDE OF PRENTHESES ARE PROPOSED. CIRCUIT/POLE NUMBERS IN PRENTHESES ARE EXISTING NUMBERS AND SHALL BE REPLACED IN ACCORDANCE WITH GENERAL NOTE #34, SHEET LT-02.
  3. MAINTAIN EXISTING LIGHTS IN SERVICE ON NORTH SIDE OF IL-68 WHILE CONSTRUCTION ON SOUTH SIDE IS IN PROGRESS.
  4. MAINTAIN A MINIMUM OF 4.9M CLEARANCE TO GRADE FOR ALL AERIAL CABLES.



Rick Johns  
 IDOT - District 01  
 02-05-1001-STV-03 - IL 68 over US 14  
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LT-15 OF 19

	REVISIONS	
	NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 ILLINOIS ROUTE 68 AT U.S. ROUTE 14  
 ROADWAY TEMPORARY LIGHTING PLAN  
 IL 68 STA. 10+120 TO STA. 10+415

SCALE 1:500  
 DATE NOVEMBER 2006

DRAWN BY R.P.J.  
 DESIGNED BY I.B.  
 CHECKED BY A.D.O.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	*	COOK	283	141
STA.	TO STA.			
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT	
* 700-Y-R & 70HB-R-1		62897		

KEY PLAN

ROADWAY LIGHTING LEGEND

- EXISTING ROADWAY LUMINAIRE TO BE RELABELLED
- RELOCATED EXISTING ROADWAY LUMINAIRE
- PROPOSED ROADWAY LUMINAIRE COMBINATION TRAFFIC SIGNAL
- PROPOSED UNDERPASS LUMINAIRE
- PROPOSED JUNCTION BOX
- PROPOSED LIGHTING CONTROLLER

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

MAIN BREAKER: 175A

CIRCUIT	BREAKER TRIP AMPS	BLACK KW	RED KW	AMPS @ 240V
A	50	3.54	--	15
B	50	--	3.05	13
C	50	1.98	--	8
D	50	--	1.49	6
E	50	4.46	--	19
F	50	--	3.96	17
G	50	3.47	--	14
H	50	--	2.97	12
I	50	2.97	--	12
J	50	--	2.48	10
K	50	2.48	--	10
L	50	--	2.48	10
SPACE	--	--	--	--
SPACE	--	--	--	--
SPACE	--	--	--	--
SPACE	--	--	--	--
SUBTOTAL	--	18.89	16.41	--
TOTAL	--	35.30	--	147

4 PROPOSED LIGHTING CONTROLLER "AG"  
SCALE: N.T.S.

1 PROPOSED ROADWAY LIGHTING SINGLE LINE DIAGRAM  
SCALE: N.T.S.

3 PROPOSED UPRR UNDERPASS SINGLE LINE DIAGRAM  
SCALE: N.T.S.

2 PROPOSED US-14 UNDERPASS SINGLE LINE DIAGRAM  
SCALE: N.T.S.

- NOTES:
- PROPOSED CONTROLLER "AG", 480/240V, 1 PHASE, 3 WIRE, 200A
  - ALL ROADWAY LIGHTING CONDUCTORS ARE #4 COPPER, 600V RHH/RHW/EPR AND #6 GROUND
  - ALL UNDERPASS LIGHTING CONDUCTORS ARE #10 COPPER, 600V
  - FUSES FOR UNDERPASS CIRCUITS A AND B ARE LOCATED IN JUNCTION BOX.
  - ALL LIGHT POLES ARE FUSED AT BASE.
  - US-14 UNDERPASS LUMINAIRES ARE 100W HPS.
  - UPSS UNDERPASS LUMINAIRES ARE 70W HPS.

Rick Johns - District 01  
 ID01 - District 01 - IL 68 over US 14  
 02-05-1001-STV-03 - IL 68 over US 14  
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REVISIONS	NAME	DATE

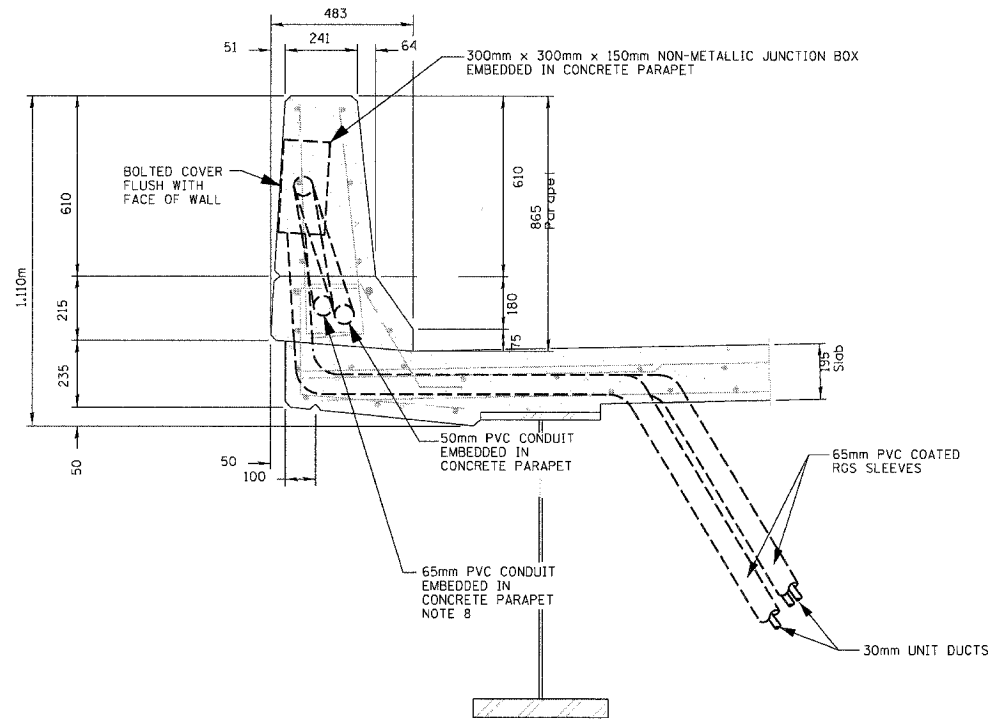
ILLINOIS DEPARTMENT OF TRANSPORTATION  
ILLINOIS ROUTE 68 AT U.S. ROUTE 14  
ROADWAY LIGHTING  
SINGLE LINE DIAGRAM

SCALE NONE  
DATE NOVEMBER 2006

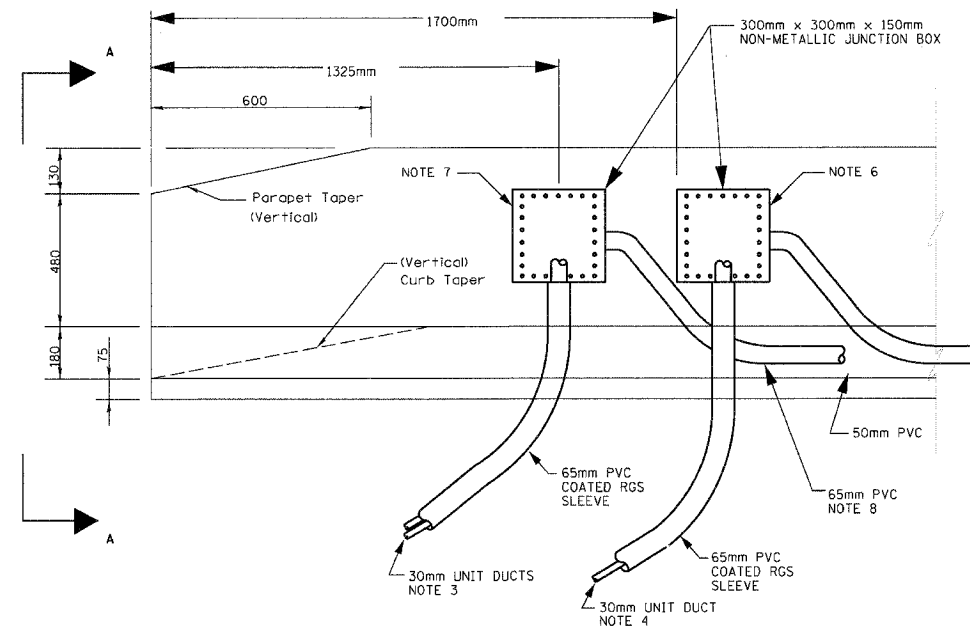
DRAWN BY R.P.J.  
DESIGNED BY I.B.  
CHECKED BY A.D.O.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	*	COOK	283	142
STA. TO STA.		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT		
* 70D-Y-R & 70HB-R-1		62897		

KEY PLAN



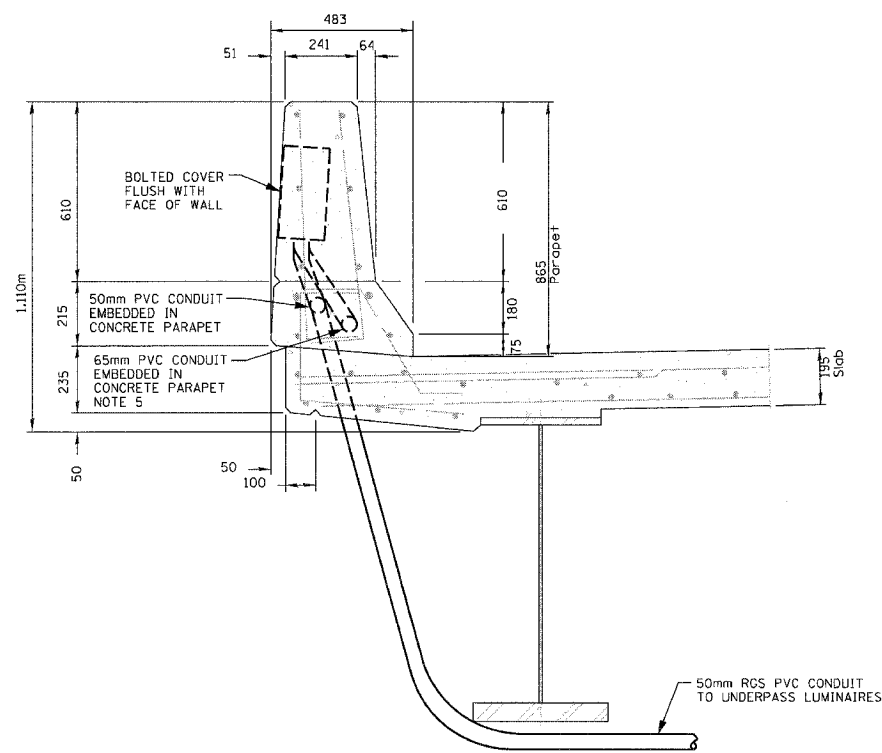
1 BRIDGE OVER US - 14 - SECTION A-A THRU PARAPET  
SCALE: N.T.S.



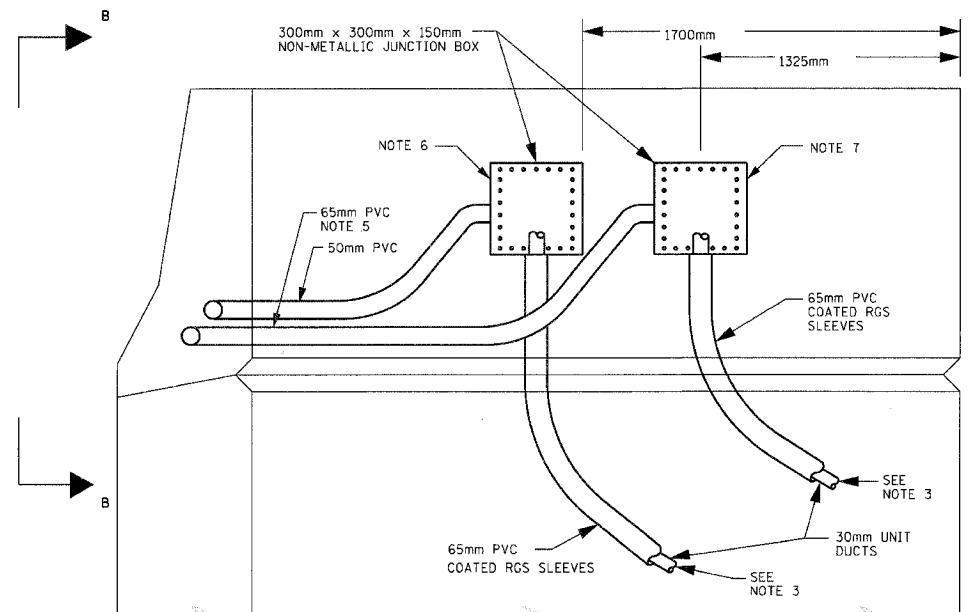
2 BRIDGE OVER US - 14 - END ELEVATION  
SCALE: N.T.S.

NOTES

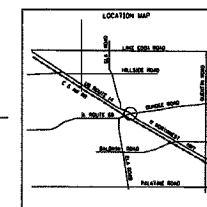
- 50mm EMBEDDED PVC CONDUITS SHALL BE PLACED IN THE LOWER CURBED PORTION OF THE PARAPET.
- COORDINATE WITH OTHER TRADES TO MAINTAIN 5mm CLEARANCE FROM ALL REINFORCEMENTS.
- UNIT DUCT WITH 3-1/2 NO. 4 AND 1-1/2 NO. 6 GRD. 600V TYPE RHH/RHW/EPR LIGHTING CONDUCTORS.
- UNIT DUCT WITH TRAFFIC SIGNAL FIBER OPTIC CABLES. REFER TO SHEETS TS-12 AND TS-13.
- 65mm EMBEDDED PVC CONDUITS WITH 3-1/2\*4 AND 1-1/2\*6 GROUND.
- JUNCTION BOX FOR TRAFFIC SIGNALS EMBEDDED IN PARAPET WALL.
- JUNCTION BOX FOR ELECTRIC EMBEDDED IN PARAPET WALL.
- 65 mm WITH 6-1/2\*4 AND 2-1/2\*6 GROUNDS.



3 BRIDGE OVER UPRR - SECTION B-B THRU PARAPET  
SCALE: N.T.S.



4 BRIDGE OVER UPRR - WING WALL, OUTSIDE FACE, END ELEVATION  
SCALE: N.T.S.



REVISIONS	
NAME	DATE

LT-17 OF 19

ILLINOIS DEPARTMENT OF TRANSPORTATION  
ILLINOIS ROUTE 68 AT U.S. ROUTE 14  
ROADWAY LIGHTING  
BRIDGE CROSSING DETAILS

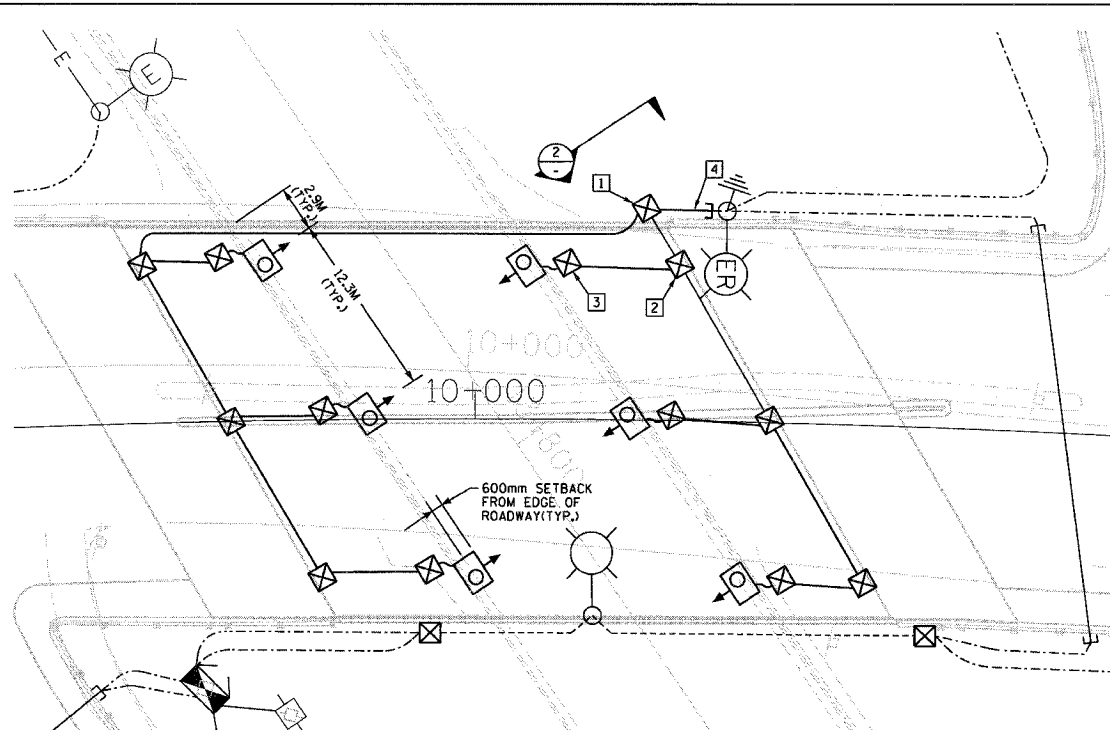
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DATE NOVEMBER 2006

DRAWN BY R.P.J.  
DESIGNED BY I.B.  
CHECKED BY A.D.O.

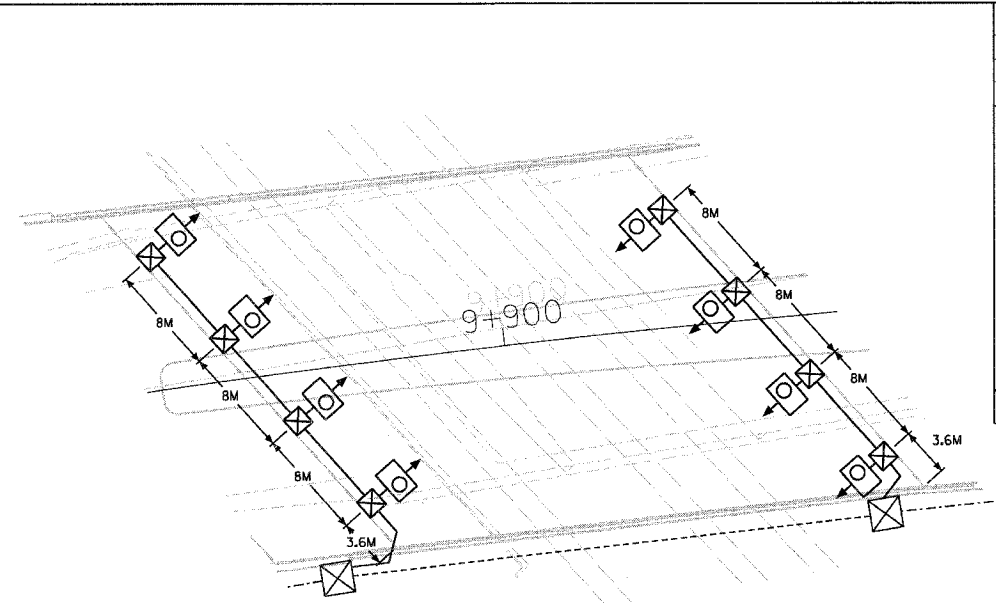
Rick Johns  
 IDOT - District 01  
 02-05-1001-STV-03 - IL 68 over US 14  
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	*	COOK	283	143
STA.	TO STA.			
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		
* 700-Y-R & 70HB-R-1		62897		

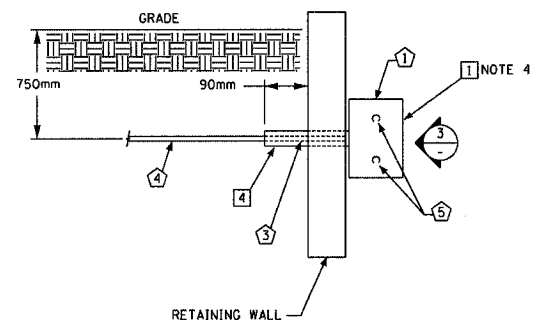
KEY PLAN



1 UNDERPASS LUMINAIRE WIRING DETAIL (US 14)  
N.T.S.



2 UNDERPASS LUMINAIRE WIRING DETAIL (UPRR)  
N.T.S.



1A PARTIAL ELEVATION (US 14)  
N.T.S.

NOTES

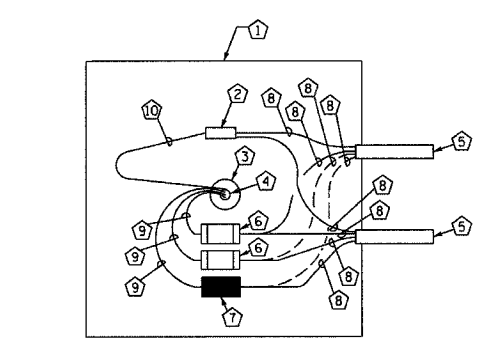
- REFER TO DRAWING BE-900 FOR SUSPENDED MOUNT UNDERPASS DETAILS.
- FUSE KITS AND GROUND WIRE SPLICE SHALL BE INCLUDED IN THE PAY ITEM FOR THE JUNCTION BOX.
- UNDERPASS LUMINAIRES SHALL BE MOUNTED 4.9m ABOVE THE SHOULDER.
- MOUNT JUNCTION BOX 5M ABOVE GRADE.
- ALL UNDERPASS LIGHTING CONDUITS ARE ATTACHED TO STRUCTURE.

EQUIPMENT LIST

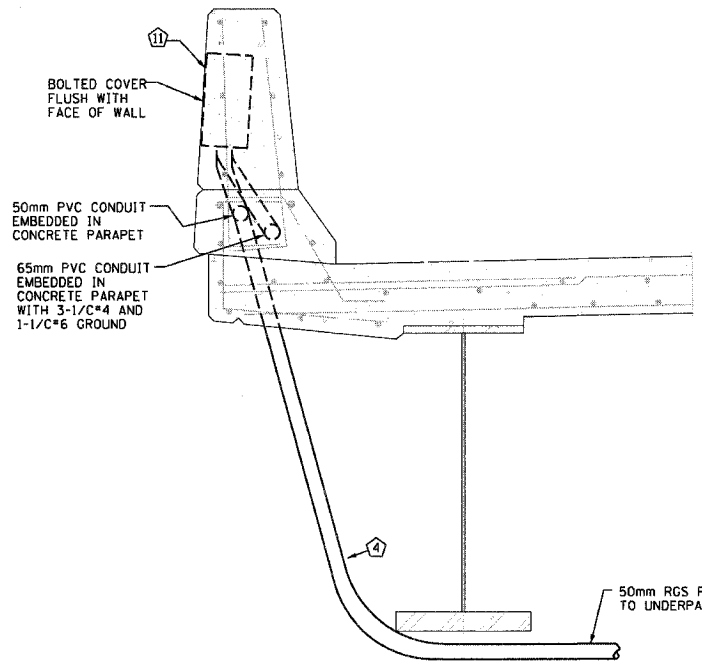
- 450mm x 450mm x 200mm STAINLESS STEEL JUNCTION BOX ATTACHED TO RETAINING WALL.
- 150mm x 150mm x 100mm STAINLESS STEEL JUNCTION BOX ATTACHED TO UNDERSIDE OF BRIDGE DECK, TYPICAL.
- 300mm x 250mm x 150mm STAINLESS STEEL JUNCTION BOX ATTACHED TO RETAINING WALL, TYPICAL.
- 75mm PVC COATED RGS SLEEVE WITH 30mm UNIT DUCT AND 3\*4 & 1\*6 GND CONDUCTORS

TAG NOTES

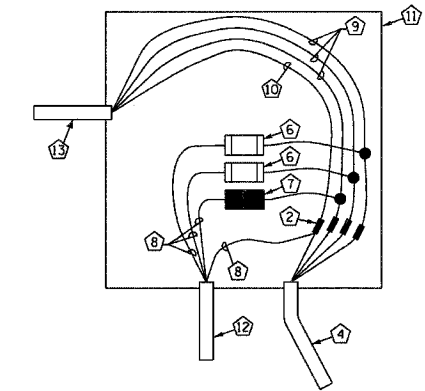
- 400mmx400mmx150mm STAINLESS STEEL JUNCTION BOX
- MECHANICAL SPLICE
- 75mm PVC COATED RGS SLEEVE
- 30mm UNIT DUCT
- 25mm PVC COATED RGS
- QUICK DISCONNECT FUSE KIT WITH 30A FUSE
- QUICK DISCONNECT FUSE KIT WITH SOLID NEUTRAL ASSEMBLY
- #10 COPPER, 600V
- #4 COPPER, 600V
- #6 COPPER GROUND
- 300mm x 300mm x 150mm NON-METALLIC JUNCTION BOX
- 50mm PVC COATED RGS CONDUIT
- 65 mm EMBEDDED PVC CONDUIT



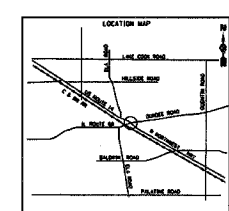
1B JUNCTION BOX WIRING DETAIL (US 14)  
N.T.S.



2A PARTIAL ELEVATION (UPRR)  
N.T.S.



2B JUNCTION BOX WIRING DETAIL (UPRR)  
N.T.S.



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
ILLINOIS ROUTE 68 AT U.S. ROUTE 14  
UNDERPASS LIGHTING DETAILS

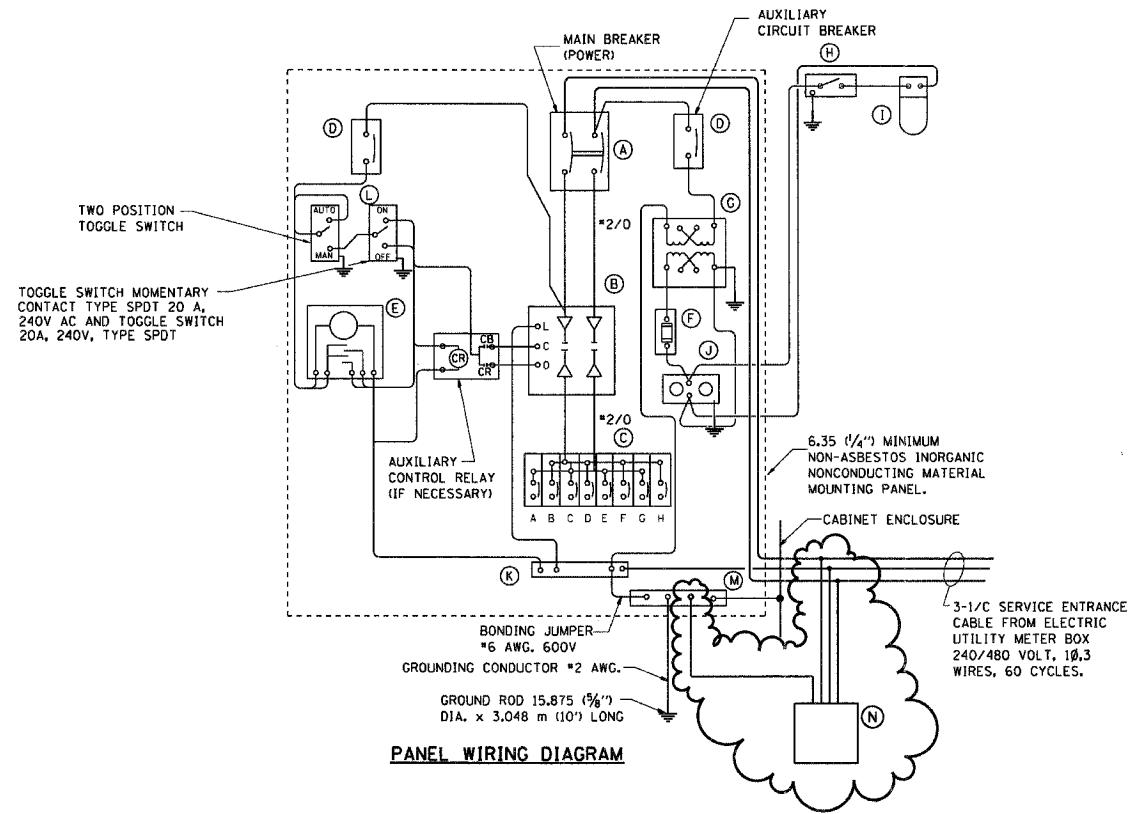
SCALE N.T.S.  
DATE NOVEMBER 2006

DRAWN BY R.P.J.  
DESIGNED BY I.B.  
CHECKED BY A.D.O.

Rick Johns  
 1001 - 01str1et 01  
 02-05-1001-STV-03 - IL 68 over US 14  
 11/27/2006 3:40:22 PM 250.000000 M / M.

\* PAGES 145-154 NOT USED \*

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	*	COOK	283	144
STA.		TO STA.		
FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		
* 700-Y-R & 70HB-R-1		62897		

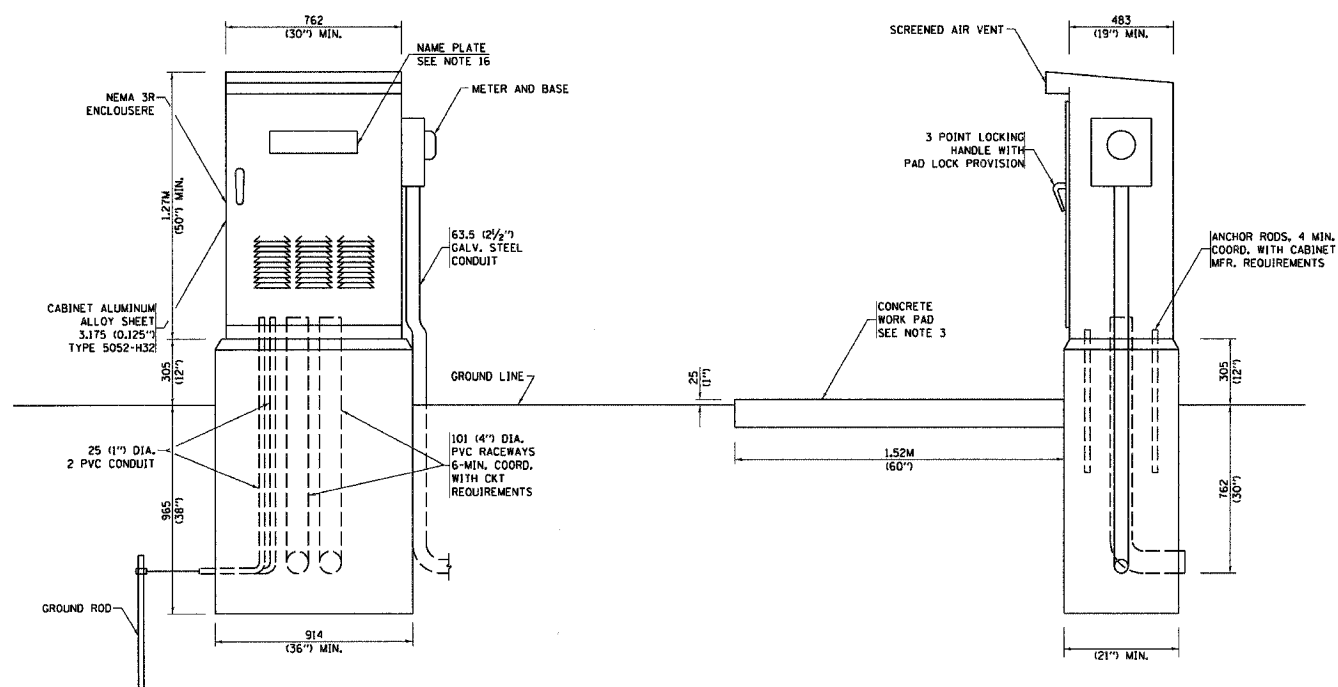


PANEL WIRING DIAGRAM

PANEL EQUIPMENT

BILL OF MATERIAL

ITEM	QUANTITY	DESCRIPTION
A	1	MAIN CIRCUIT BREAKER, 2 POLE, 600 VOLT 125AMP. FRAME, 100AMP. NON-INTERCHANGEABLE TRIP INTERRUPTING RATING NEMA-22000 AMP. AT 480 VOLT.
B	1	REMOTE CONTROL SWITCH, ELECTRICALLY OPERATED, MECHANICALLY HELD, 2 POLE, SINGLE THROW, 200 AMP., 600 VOLTS CONTROL CIRCUIT 240 VOLT.
C	8	CIRCUIT BREAKERS, 1 POLE, 100AMP. FRAME 50 AMP. NON-INTERCHANGEABLE TRIP INTERRUPTING RATING NEMA-10,000 AMP. AT 240 V.
D	2	CONTROL CIRCUIT-CIRCUIT BREAKER, 1 POLE, 240 V., 100AMP. FRAME, 15AMP. NON-INTERCHANGEABLE TRIP INTERRUPTING RATING NEMA-5000 AMP. AT 240 V.
E	1	ASTRONOMIC MICROPROCESSOR-BASED 2-CHANNEL CONTROLLER (TIME SWITCH).
F	1	20 A., 120 V. FUSE.
G	1	1.5 KVA, SINGLE PHASE, ENCAPSULATED TRANSFORMER 240 X 480 / 120 X 240 VOLT, 60 Hz.
H	1	SPST 20A SWITCH ON DOOR, TO TURN LIGHT ON WHEN DOOR IS OPEN.
I	1	INCANDESCENT LIGHTING FIXTURE ENCLOSED AND GASKETED WITH 60 WATT, 120 V. LAMP.
J	1	20 A., 120 V., DUPLEX RECEPTACLE, GFCI.
K	1	COPPER GROUND BUS 6.35 (1/4) X 25.4 (1") X 304.8 mm (12") LONG MOUNTED ON PANEL WITH LUGS AND 4 SPARE LUGS
L	1	TOGGLE SWITCHES MOUNTED IN 101.6 (4") X 101.6 mm (4") BOX.
M	1	COPPER GROUND BUS 6.35 (1/4) X 25.4 (1") X 304.8 mm (12") LONG MOUNTED ON PANEL WITH LUGS AND SPARE LUGS
N	1	BRACKET MOUNTED SURGE ARRESTER FOR 480/240V, 3W. SERVICE GE "TRANQUEL" CAT# 9L15ECB001

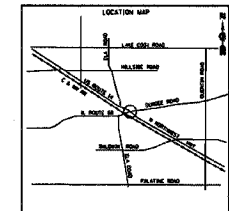


NOTES:

- ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE SHOWN.
- FOUNDATION SIZE SHALL BE COORDINATED WITH CABINET SIZE AND MFR.
- IN FRONT OF CONTROL CABINET DOOR, REMOVE VEGETATION AND 50.8 mm (2") TOP SOIL, LEVEL THE AREA AND ON TOP, PLACE LENGTH WISE PARALLEL TO CONTROL CABINET, A CONCRETE PAD 914.4 mm (36") x 18.288 m (60") x 101 mm (4") MIN. SIZE. THE COST OF LABOR AND MATERIALS ARE INCLUDED IN THE COST OF THE CONTROLLER.
- DOOR SHALL BE CONSTRUCTED FROM SAME TYPE OF MATERIAL AND THICKNESS AS CABINET.
- DOOR SHALL BE EQUIPPED WITH THREE POINT LATCHING MECHANISM WITH NYLON ROLLERS AT TOP THE BOTTOM.
- DOOR HINGE SHALL BE A HEAVY GAUGE CONTINUOUS HINGE WITH A 6.35 mm (1/4") DIA. STAINLESS STEEL HINGE PIN.
- ALL EXTERNAL HARDWARE SHALL BE STAINLESS STEEL.
- CONTROL WIRING TO BE #12 AWG, 600V, TYPE "SIS" GRAY SWITCH BOARD WIRE, STRANDED COPPER.
- METER BOX SHALL BE MOUNTED ON THE SIDE OF CONTROL CABINET, NEAR TO THE SERVICE POLE.
- CABINETS SHALL BE PRIMED AND PAINTED AS SPECIFIED
- THE HEADS OF CONNECTORS SCREWS SHALL BE PAINTED WHITE FOR NEUTRAL BAR CONNECTION AND GREEN FOR GROUND BAR CONNECTORS
- ALL WIRING WITHIN THE CABINET SHALL BE COLOR CODED AS INDICATED.  
R = RED      BL = BLUE      W = WHITE  
B = BLACK    Y = YELLOW    G = GREEN
- PROVIDE SEALING GROMMETS FOR ALL OPEN WIRING EXTENDED FROM DEVICES IN BOXES OR CABINETS WITHIN THE CONTROL CABINET.
- ALL WIRING SHALL BE NEATLY DRESSED AND SUPPORTED.
- THE CONTROLLER SHALL BE CONSTRUCTED TO U.L. STD. 508 AND BEAR THE U.L. LABEL "ENCLOSED INDUSTRIAL CONTROL PANEL"
- 304.8 (12") X 406.4 mm (16") STAINLESS STEEL EXTERIOR NAMEPLATE SHALL BE ENGRAVED TO "STATE OF ILLINOIS LIGHTING CONTROLS" UNLESS OTHERWISE SPECIFIED

MODIFIED BE-215

LT-19 OF 19



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
ILLINOIS ROUTE 68 AT U.S. ROUTE 14  
LIGHTING CONTROLLER  
SINGLE DOOR  
SCALE NONE  
DATE NOVEMBER 2006  
DRAWN BY R.P.J.  
DESIGNED BY I.B.  
CHECKED BY A.D.O.

Rick Johns  
 IDOT - District 01  
 02-05-1001-STV-03 - IL 68 over US 14  
 P:02-05-1001-STV-03 - IL 68 over US 14  
 11/21/2006 3:40:37 PM 500.0000 M / M. Modified BE-215.dgn



F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	70D-Y-B-R	COOK	283	155
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
CONTRACT NO. 62897				

**BENCH MARK**

Chiseled '□' NW Corner of West Abutment of IL-68 bridge over UPRR Elev. 269.746

**EXISTING STRUCTURE**

S.N. 016-0523 was built in 1931. The structure was widened, raised, and the superstructure replaced in 1967. In 1994, bituminous overlay was added. The three span structure rests on spread footings at the closed abutments and spread footings at the multi-column piers. The superstructure consists of 690mm deep concrete deck beams with 75mm of overlay. The concrete parapets have steel railings with a fence on the northside. The back to back abutment length is 42.52m and the deck is 23.16m out to out.

During construction of the new structure, staged construction will be utilized to maintain one lane of traffic in each direction.

No salvage.

**NOTES:**

- All dimensions in millimeters (mm) except as noted.
- No free fall deck drains will be permitted in the span over the tracks or within 3m of cross arms of a railroad pole line.
- The width between the guardrails shall be the width between the bridge rails or parapets which will require approach shoulder widening.

STATION 9+900.324  
BUILT 20 BY  
STATE OF ILLINOIS  
F.A.P. RT. 343 SEC 70D-Y-B-R  
COOK COUNTY  
LOADING HS20  
STR. NO. 016-2732

**NAME PLATE**  
See Std. 515001

**LOADING HS20-44**  
Allow 2.4 kN/m<sup>2</sup> future wearing surface

**DESIGN SPECIFICATION**  
2002 AASHTO Std. Spec, 17th edition

**DESIGN STRESSES**

**NEW CONSTRUCTION**

**FIELD UNITS**

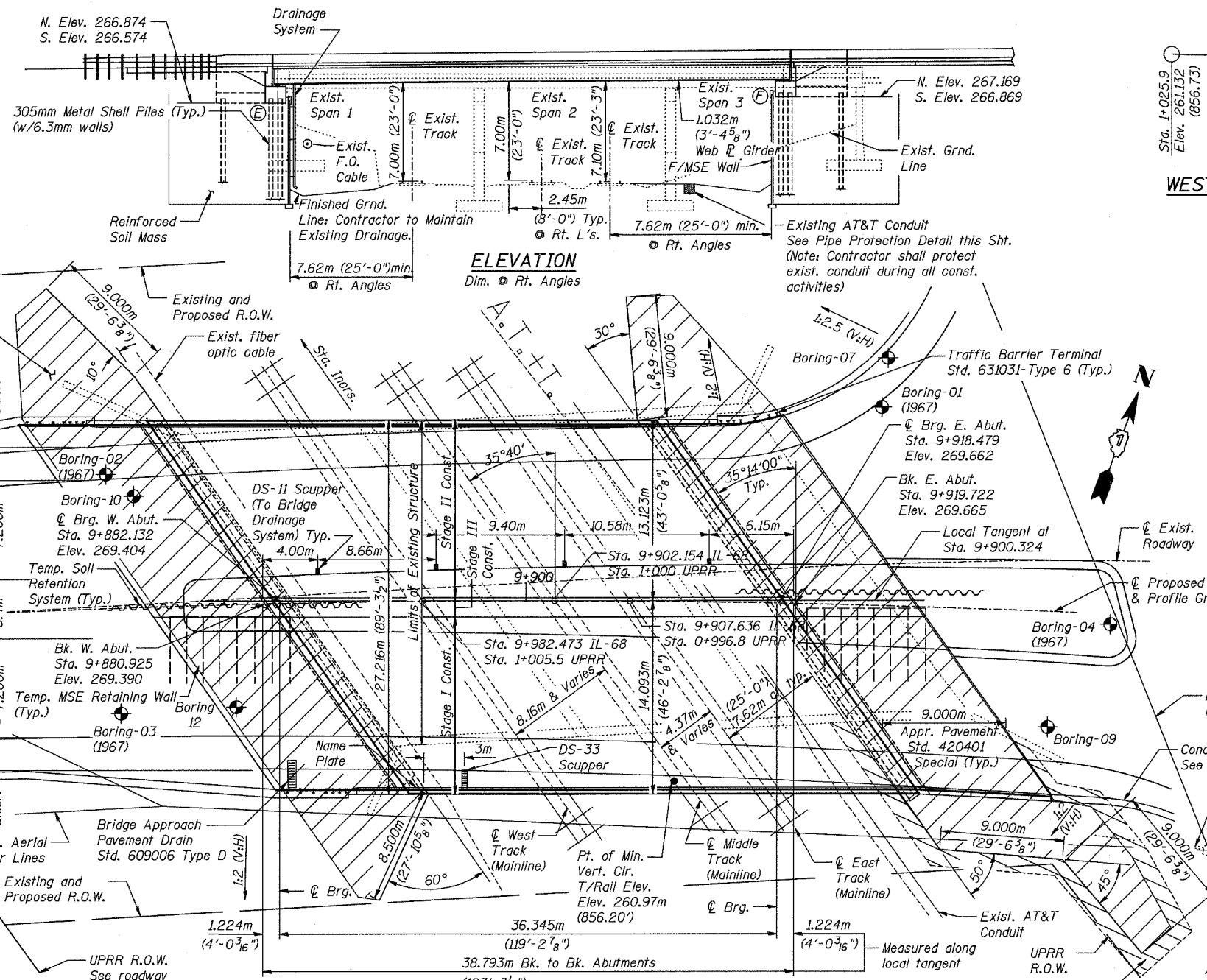
f'c = 24 MPa (concrete)  
Fy = 345 MPa (M270M, Gr. 345 Struc. Steel)  
fy = 400 MPa (reinforcement)

**SEISMIC DATA**

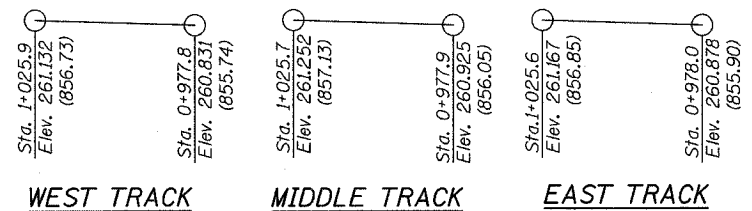
Seismic Performance Category (SPC) = A  
Bedrock Acceleration Coefficient (A) = 0.035g  
Site Coefficient (S) = 1.0

**HORIZONTAL CURVE DATA**  
Curve 68-1

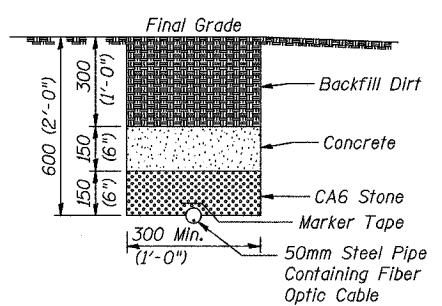
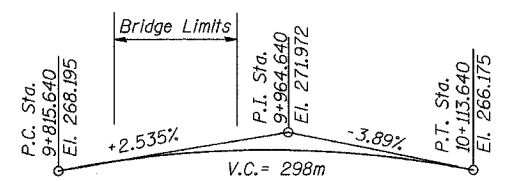
PI Sta. = 9+966.854 E = 7.453m  
L = 14°54'14" RT. S.E. = 2.4%  
R = 875.000m P.C. Sta. = 9+852.405  
T = 114.450m P.T. Sta. = 10+080.012  
L = 227.607m



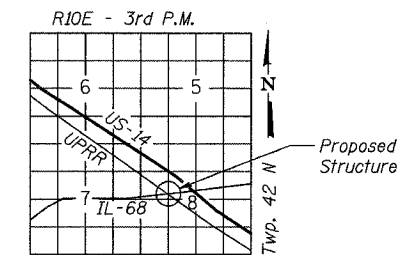
**ELEVATION**  
Dim. • Rt. Angles



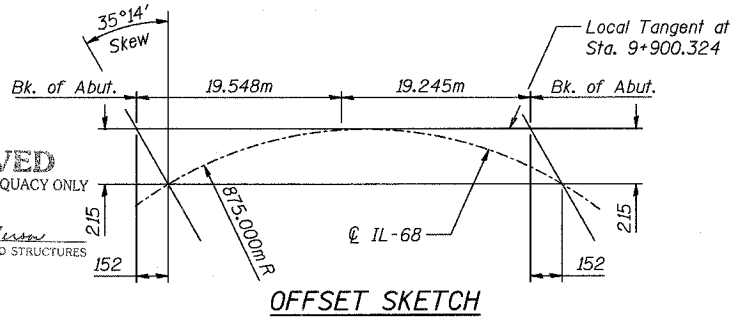
**PROFILE GRADE LINE**



**50MM STEEL PIPE PROTECTION DETAIL**



**LOCATION SKETCH**



**APPROVED**  
FOR STRUCTURAL ADEQUACY ONLY  
Robert E. Anderson  
ENGINEER OF BRIDGES AND STRUCTURES

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
IL ROUTE 68 OVER UPRR  
F.A.P. ROUTE 343 SECTION 70D-Y-B-R  
COOK COUNTY STATION 9+900.324  
STRUCTURE NO. 016-2732

GENERAL PLAN

DESIGNED: BTO DRAWN: BTO  
CHECKED: JAN CHECKED: JAN

DATE: 10/06

SHT. S-01 OF S-34

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	700-Y-B-R	COOK	283	156
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 62897

**GENERAL NOTES**

- Fasteners shall be high strength bolts. Bolts M22, open holes 24 mm  $\phi$ , unless otherwise noted.
- Calculated weight of Structural Steel:  
AASHTO (M270M GR 345) = 149,100 kg (Erection Only-Included in Beam Fabrication Contract)  
AASHTO (M270M GR 250) = 15,950 kg (Erection Only-Included in Beam Fabrication Contract)
- Field welding of construction accessories will not be permitted to girders.
- Anchor bolts shall be set before bolting diaphragms over supports.
- The main load carrying member components subject to tensile stress shall conform to the Supplemental Requirements for Notch Toughness Zone 2. These components are the tension flanges and webs of the plate girders.
- Reinforcement bars shall conform to the requirements of AASHTO M31M, M322M Grade 400.
- Metal Shell Piles at east abutment shall be driven in holes precored through the embankment according to Article 512.09(c) of the Standard Specifications.
- The contractor shall drive 2-305 mm metal shell test piles in a permanent location, one for each abutment as directed by the Engineer before ordering the remainder of the piles.
- All dimensions are in millimeters (mm) except as noted.
- Concrete Sealer shall be applied to the seat area of the Abutments.
- All construction joints shall be bonded.
- The organic zinc rich primer/epoxy/urethane paint system shall be used for painting of new structural steel except where otherwise noted. The entire system shall be shop applied, with the exception that masked off connection surfaces, field installed fasteners and damaged areas shall be touched up in the field. The color of the final finish coat for all interior steel surfaces shall be gray, Munsell No. 5HB 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Reddish Brown, Munsell No. 2.5YR 3/4. See Special Provision for "Cleaning and Painting New Metal Structures."
- Slipforming of parapets containing conduit is not allowed.

**UPRR NOTES**

- Railroad review and approval of shoring, demolition, erection, and falsework is required.
- All shoring systems that impacts the Railroad's operations and/or supports the Railroad's embankment shall be designed and constructed per current Union Pacific Railroad Guidelines for Temporary Shoring.
- All demolitions within the Railroad's right-of-way and/or demolition that may impact the Railroad's tracks or operations shall be in compliance with the Railroad's Demolition Guidelines.
- Erection over the Railroad's right-of-way shall be designed to cause no interruption to Railroad's operations. Erection over the Railroad's track shall be developed such that it enables the tracks to remain open to train traffic per Railroad's requirements.
- Minimum Construction Clearance Envelope of 21 feet vertical above the plane of top-of-rail and 12 feet horizontal at right angle from centerline of track shall be maintained at all time during construction.
- Falsework clearance shall comply with the Railroad's Minimum Construction Clearance Envelope.
- For Railroad coordination please refer to the Railroad Minimum Requirements as part of special provisions.
- The contractor must submit a proposed method of erosion and sediment control and have the method approved by the railroad.
- The proposed grade separation project shall not change the quantity and/or characteristics of the flow in the Railroad ditches and/or drainage structures.
- The elevation of the existing top-of-rail profile shall be verified before beginning construction. All discrepancies shall be brought to the attention of the Railroad prior to construction.

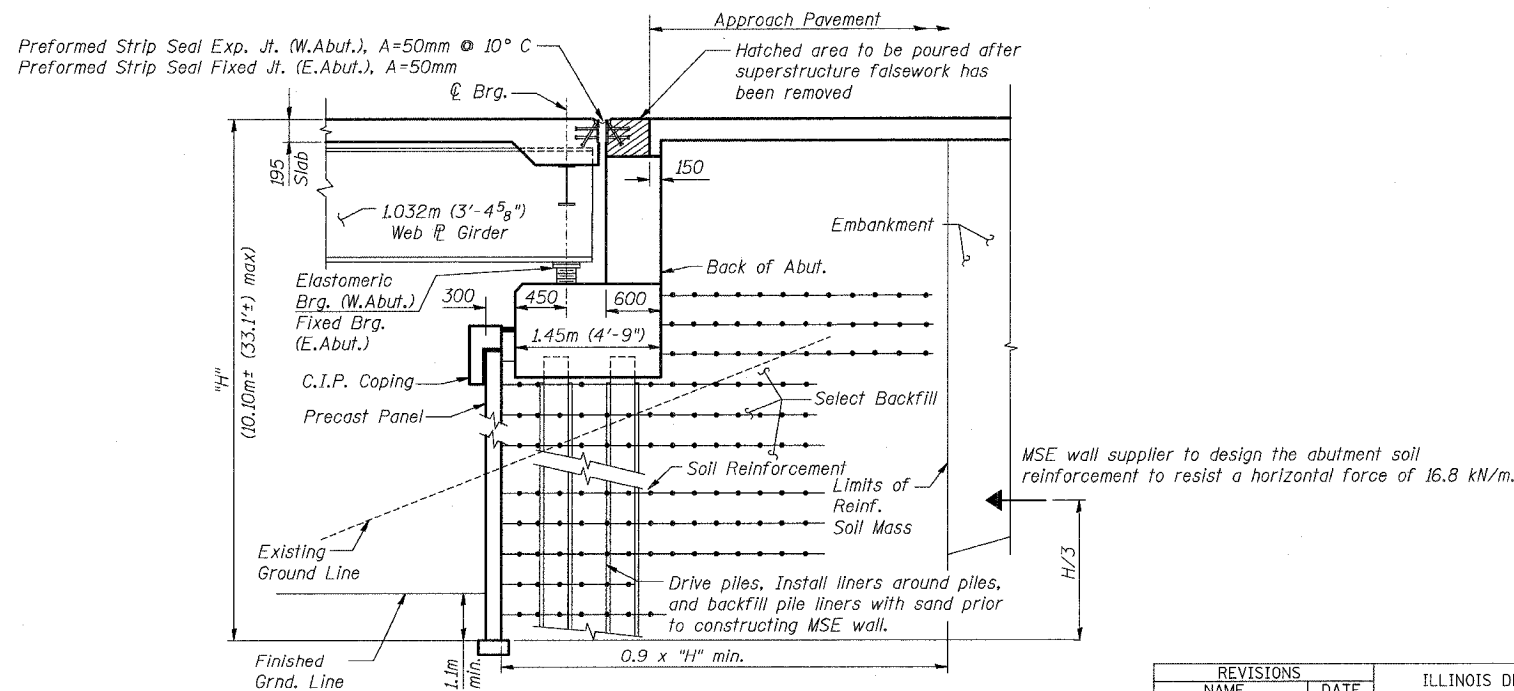
**TOTAL BILL OF MATERIAL**

ITEM	UNIT	SUB-STRUCT.	SUPER-STRUCT.	TOTAL
Removal and Disposal of Unsuitable Material	CU M	511		511
Porous Granular Embankment, Subgrade	CU M	511		511
Removal of Existing Structures	EACH			1
Structure Excavation	CU M	5279		5279
Concrete Structures	CU M	183.6		183.6
Concrete Superstructure	CU M		303.3	303.3
Bridge Deck Grooving	SQ M		747	747
Protective Coat	SQ M		1074	1074
Erecting Elastomeric Bearing Assembly, Type I	EACH		10	10
Erecting Structural Steel	L.S.		0.45	0.45
Stud Shear Connectors	EACH		2550	2550
Reinforcement Bars, Epoxy Coated	KG	10750	42390	53140
Furnishing Metal Shell Piles 305mm	METER	1396		1396
Driving Piles	METER	1396		1396
Anchor Bolts, M24	EACH	20		20
Anchor Bolts, M36	EACH	20		20
Test Pile Metal Shells	EACH	2		2
Temporary Soil Retention System	SQ M	218		218
Name Plates	EACH	1		1
Concrete Sealer	SQ M	57		57
Temporary Mechanically Stabilized Earth Retaining Wall	SQ M	255		255
Drainage Scuppers, DS-11	EACH		4	4
Drainage Scuppers, DS-33	EACH		1	1
Drainage System No. 2	EACH		1	1
Bar Splicers	EACH	256	519	775
Preformed Joint Strip Seal	METER		65.8	65.8
Mechanically Stabilized Earth Retaining Wall	SQ M	790		790
Erecting Precast Prestressed Concrete Deck Beam, (686 MM Depth)	SQ M		12.58	12.58
Hot-Mix Asphalt Replacement Over Patches	M TON		3.1	3.1
Protective Shield	SQ M		891	891
Asbestos Bearing Pad Removal	Each		100	100

\* Removal of Crib Wall in Front of Existing West Abutment is Included in "Removal of Existing Structures".

**INDEX OF SHEETS**

- S-01 General Plan
- S-02 General Notes, B.O.M., & Index of Sheets
- S-03 Foundation Plan
- S-04 Temp. Soil Retention System & Temp. MSE Wall
- S-05 Existing Structure Removal
- S-06 Stage Construction Deck Sections
- S-07 Temporary Concrete Barrier
- S-08 Screed Plan & Top of Deck Elevations
- S-09 Top of Deck Elevations
- S-10 Deck Plan
- S-11 Deck Cross Section
- S-12 Superstructure Details
- S-13 Parapet Elevations, Deck Details, & B.O.M.
- S-14 Strip Seal Joint
- S-15 Bridge Drainage System
- S-16 Drainage Scupper, DS-11
- S-17 Drainage Scupper, DS-33
- S-18 Framing Plan & Moment Table
- S-19 Girder Elevation & Steel Details
- S-20 Bearing Details
- S-21 Anchor Bolt Details
- S-22 East Abutment Plan & Elevation
- S-23 East Abutment Details
- S-24 East Abutment Wingwall Details
- S-25 West Abutment Plan & Elevation
- S-26 West Abutment Details & Pile Details
- S-27 West Abutment Wingwall Details
- S-28 Mechanically Stabilized Earth Retaining Walls
- S-29 Bar Splicer Assembly
- S-30 Boring Logs
- S-31 Boring Logs
- S-32 Existing SN 016-0523 Plan
- S-33 Deck Beam Removal & Replacement
- S-34 Deck Beam Details



**SECTION THRU ABUT.**

Dimensions at Right Angles

Bearing Capacity of soil below MSE Wall is 215 kPa with a corresponding Factor of Safety of 2.5.

REVISIONS	
NAME	DATE

SHT. S-02 OF S-34

ILLINOIS DEPARTMENT OF TRANSPORTATION  
IL ROUTE 68 OVER UPRR  
F.A.P. ROUTE 343 SECTION 700-Y-B-R  
COOK COUNTY STATION 9+900.324  
STRUCTURE NO. 016-2732

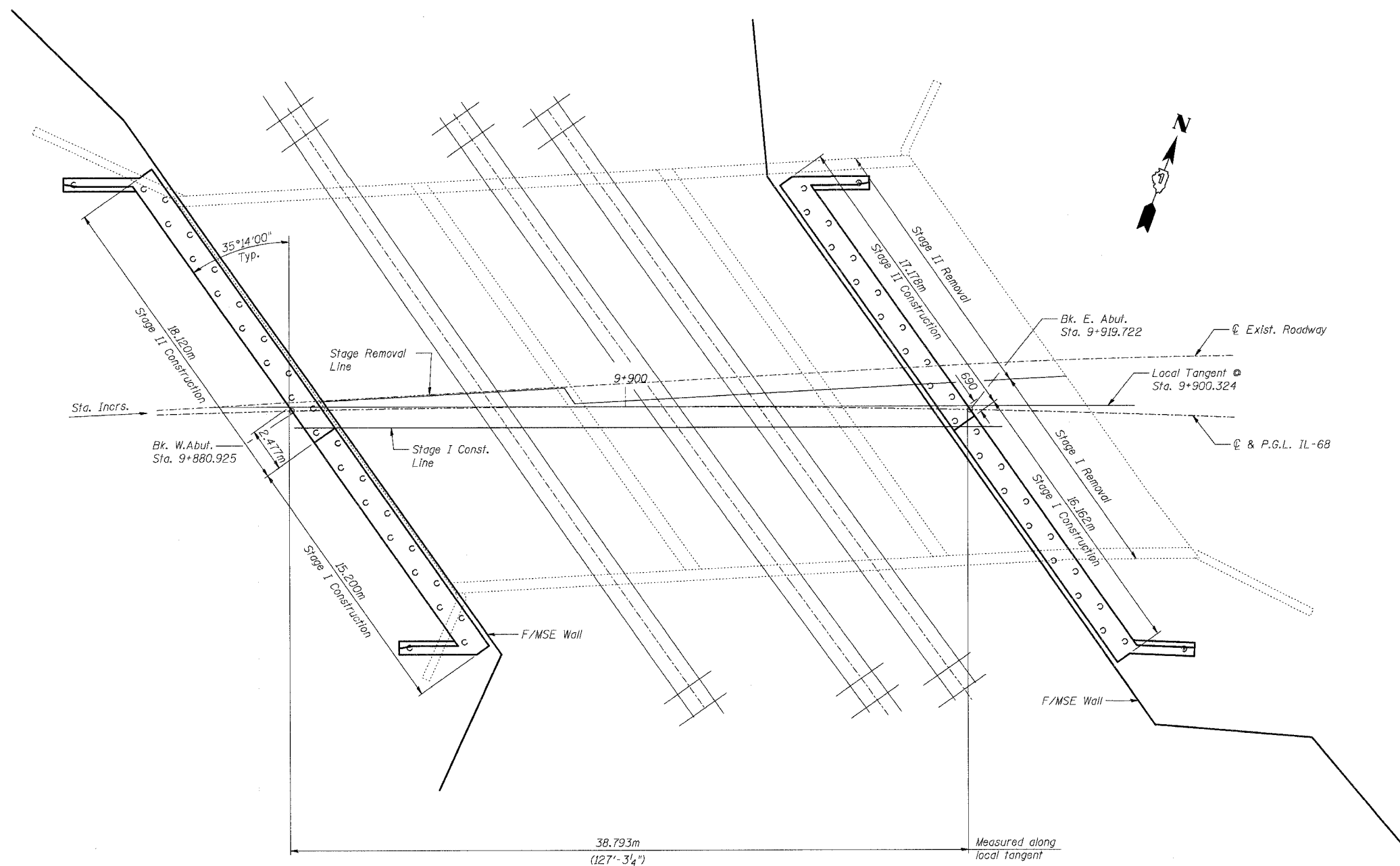
GENERAL NOTES, B.O.M., & INDEX OF SHEETS

DESIGNED: BTO  
CHECKED: JAN

DRAWN: BTO  
CHECKED: JAN

DATE: 10/06

F.A.P. RT.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	700-Y-B-R	COOK	283	157
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 62897				



**NOTE:**  
For Abutment pile layout,  
see shfs. S-23 & S-26 of S-34.

**PLAN**

SHT. S-03 OF S-34

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
IL ROUTE 68 OVER UPRR  
F.A.P. ROUTE 343 SECTION 700-Y-B-R  
COOK COUNTY STATION 9+900.324  
STRUCTURE NO. 016-2732  
**FOUNDATION PLAN**  
DESIGNED: BTO      DRAWN: BTO  
DATE: 10/06      CHECKED: JAN      CHECKED: JAN

11/15/06 10:54 AM 10/13/06 2:38:47 PM

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	70D-Y-B-R	COOK	283	158

STA.	TO STA.
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT

CONTRACT NO. 62897

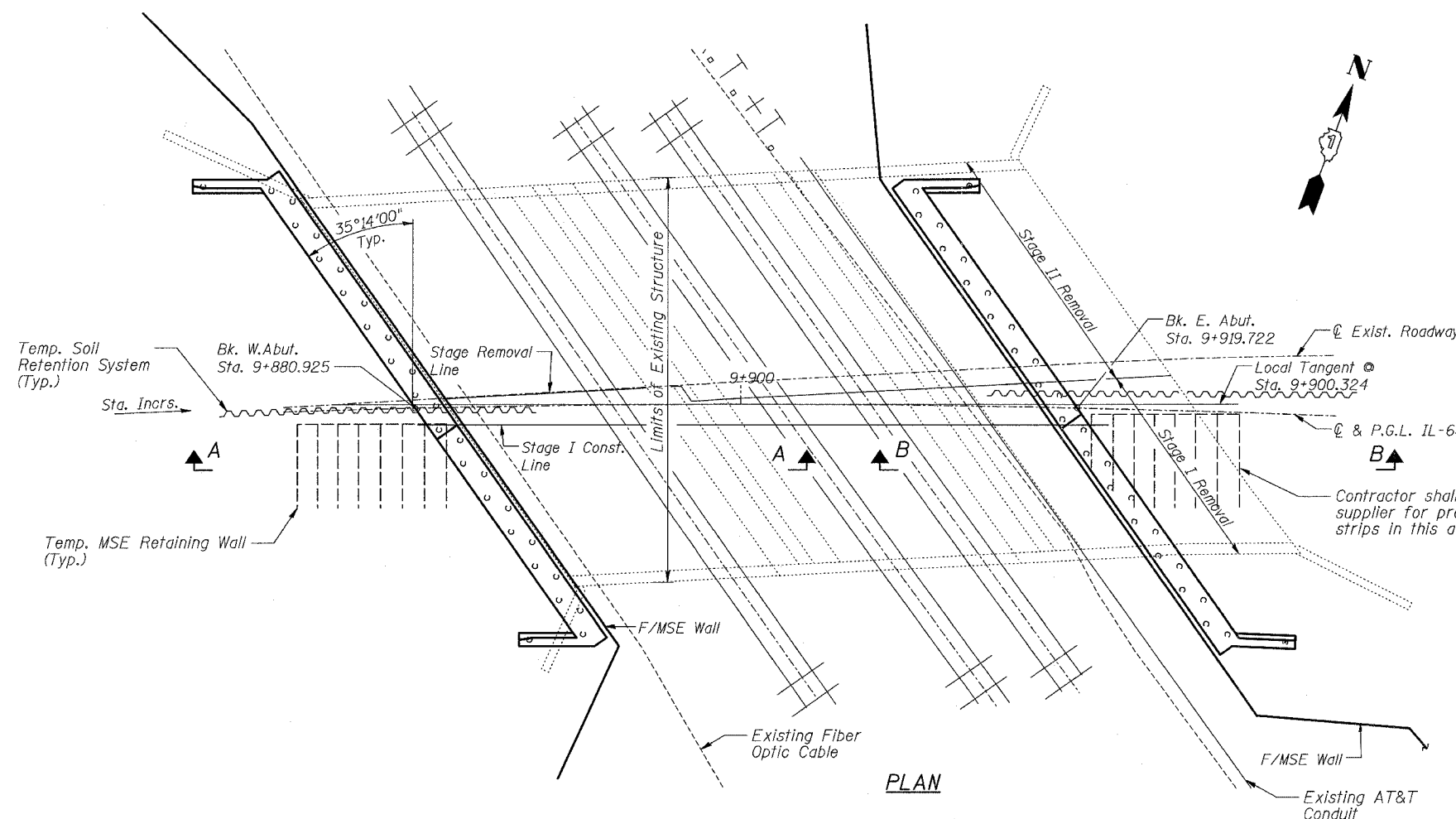
**BILL OF MATERIAL**

Item	Unit	Total
Temporary Soil Retention System	SQ M	218
Temporary Mechanically Stabilized Earth Retaining Wall	SQ M	255

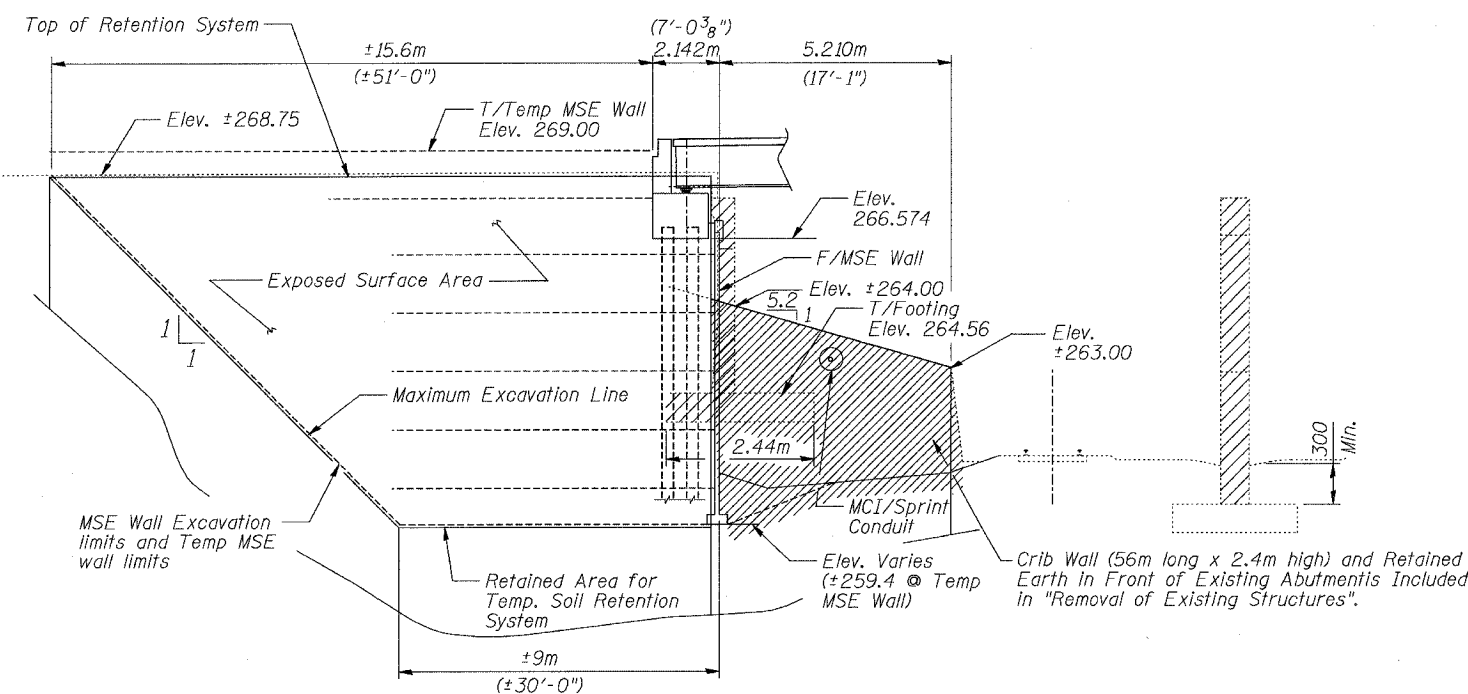
**NOTE:**

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

Contractor shall confirm with MSE retaining wall supplier for proper placement of soil reinforcement strips in this area (Typ.)

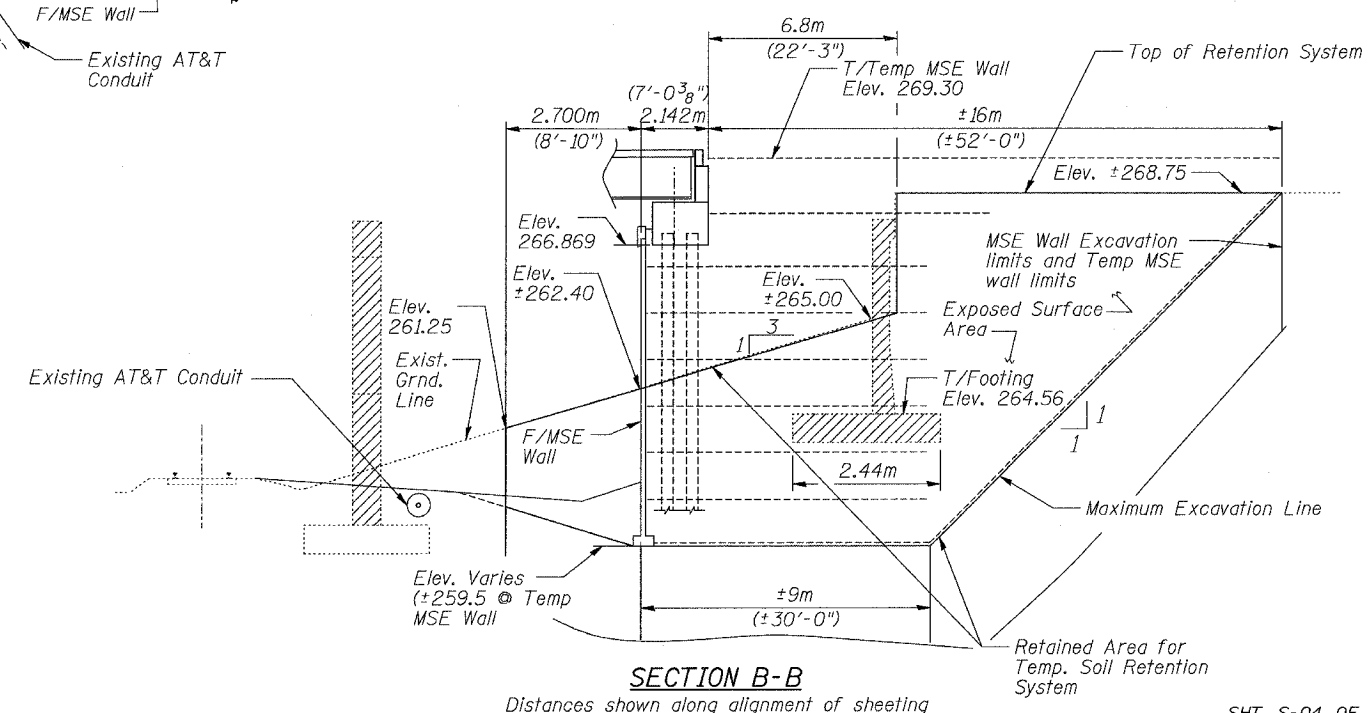


**PLAN**



**SECTION A-A**

Distances shown along alignment of sheeting



**SECTION B-B**

Distances shown along alignment of sheeting

SHT. S-04 OF S-34

**LEGEND**

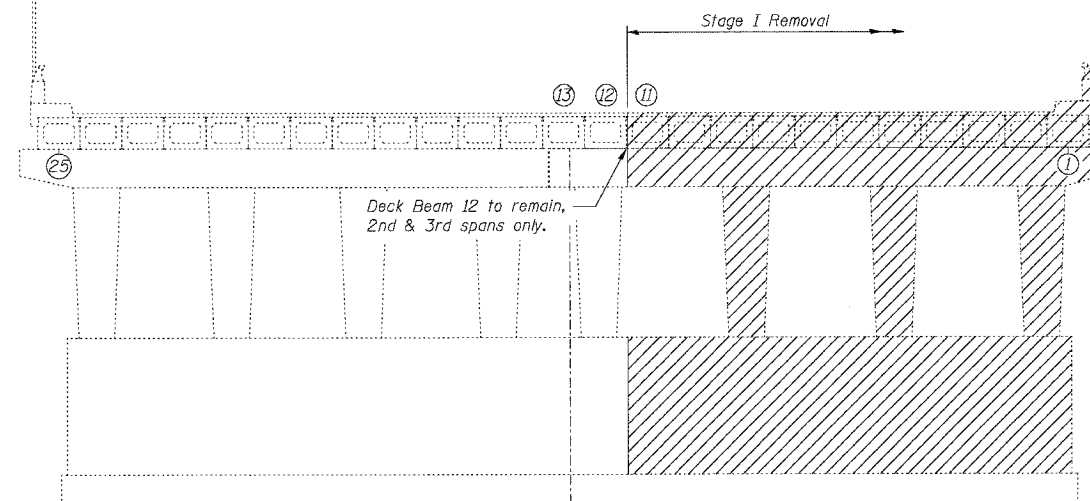
Structure Removal

REVISIONS	
NAME	DATE

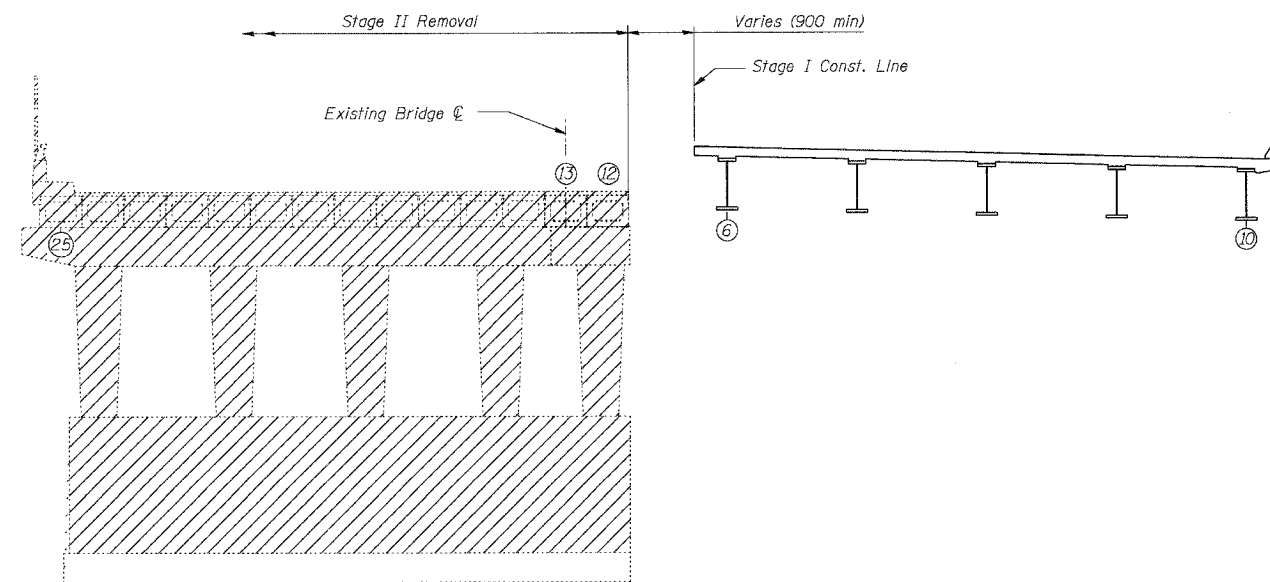
ILLINOIS DEPARTMENT OF TRANSPORTATION  
 IL ROUTE 68 OVER UPRR  
 F.A.P. ROUTE 343 SECTION 70D-Y-B-R  
 COOK COUNTY STATION 9+900.324  
 STRUCTURE NO. 016-2732  
 TEMPORARY SOIL RETENTION SYSTEM  
 AND TEMPORARY MSE WALL

DESIGNED: BTO      DRAWN: BTO  
 CHECKED: JAN      CHECKED: JAN  
 DATE: 10/06

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	70D-Y-B-R	COOK	283	159
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 62897				



**EXISTING PIER REMOVAL - STAGE I**  
(Looking East)



**EXISTING PIER REMOVAL - STAGE II**  
(Looking East)

**NOTES:**

1. Contractor to verify all dimensions in field prior to construction.
2. Removal of Existing Abutments similar. See also Sht. S-04.

**LEGEND**

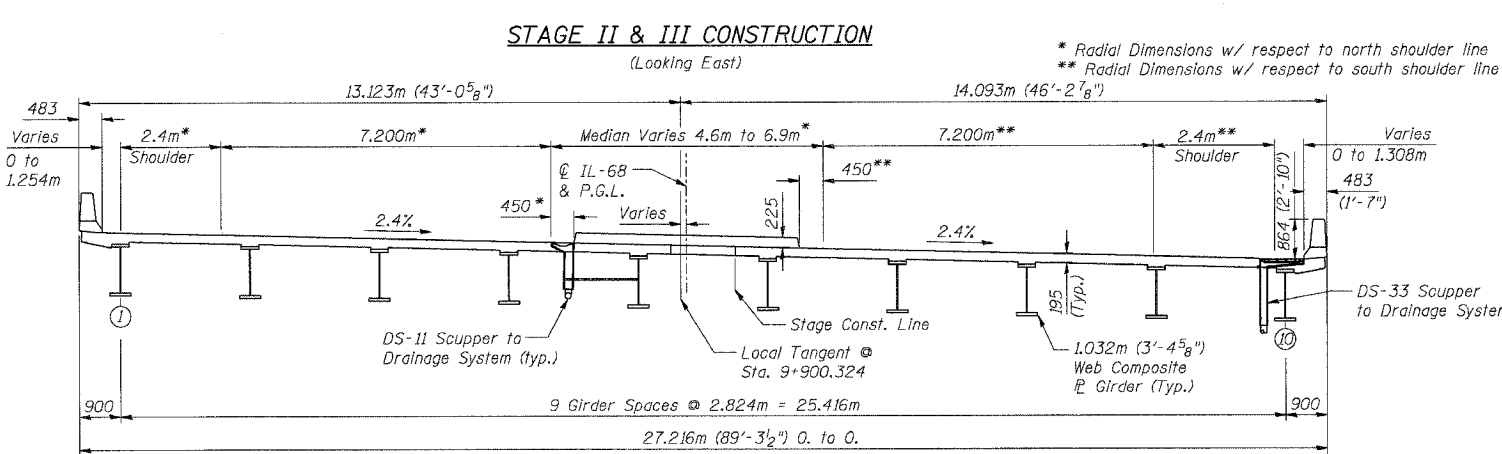
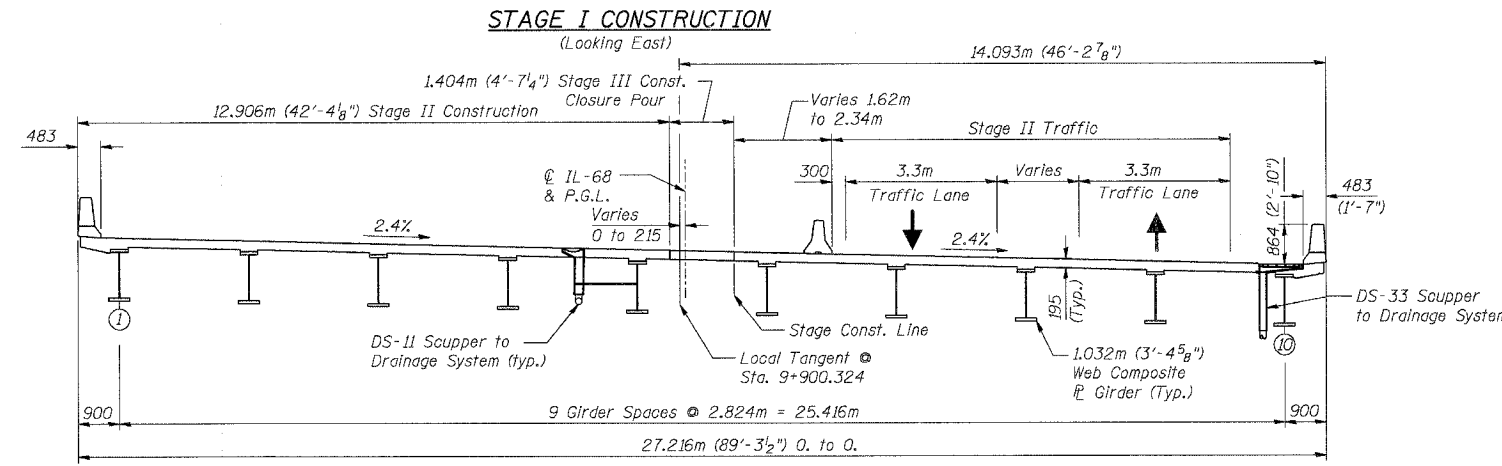
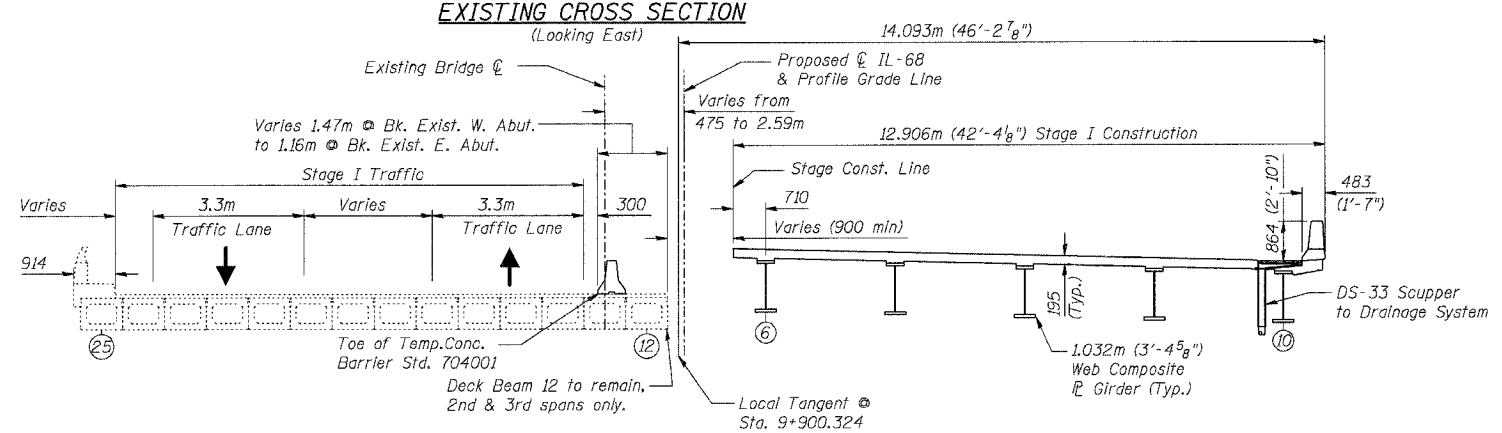
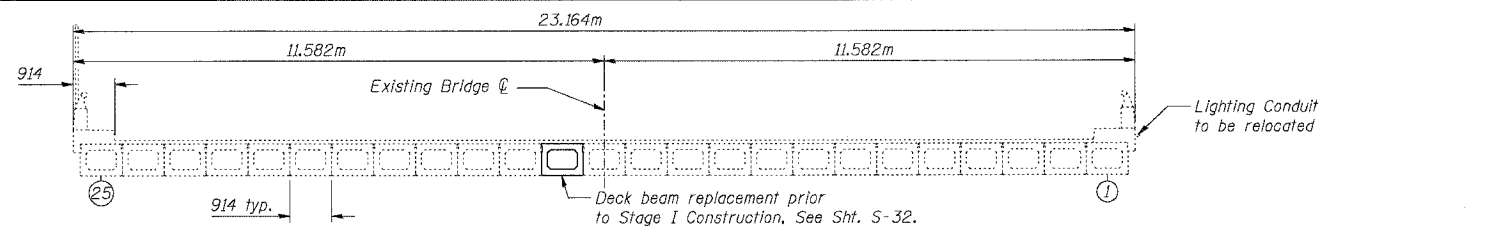
Structure Removal

SHT. S-05 OF S-34

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION IL ROUTE 68 OVER UPRR F.A.P. ROUTE 343 SECTION 70D-Y-B-R COOK COUNTY STATION 9+900.324 STRUCTURE NO. 016-2732  EXISTING STRUCTURE REMOVAL
NAME	DATE	
		DESIGNED: BTO      DRAWN: BTO CHECKED: JAN      CHECKED: JAN DATE: 10/06

11/15/2005 2:36:46 PM

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	70D-Y-B-R	COOK	283	160
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 62897				



**TYPICAL SECTION THRU BRIDGE DECK**  
(Looking East)  
(Horizontal Dimensions @ Rt. L's to Local Tangent unless noted otherwise.)

- NOTES:**
- See Sht. S-07 of S-34 for Temporary Concrete Barrier.
  - See Roadway Plans for quantity of Temporary Concrete Barrier.

REVISIONS	
NAME	DATE

SHT. S-06 OF S-34

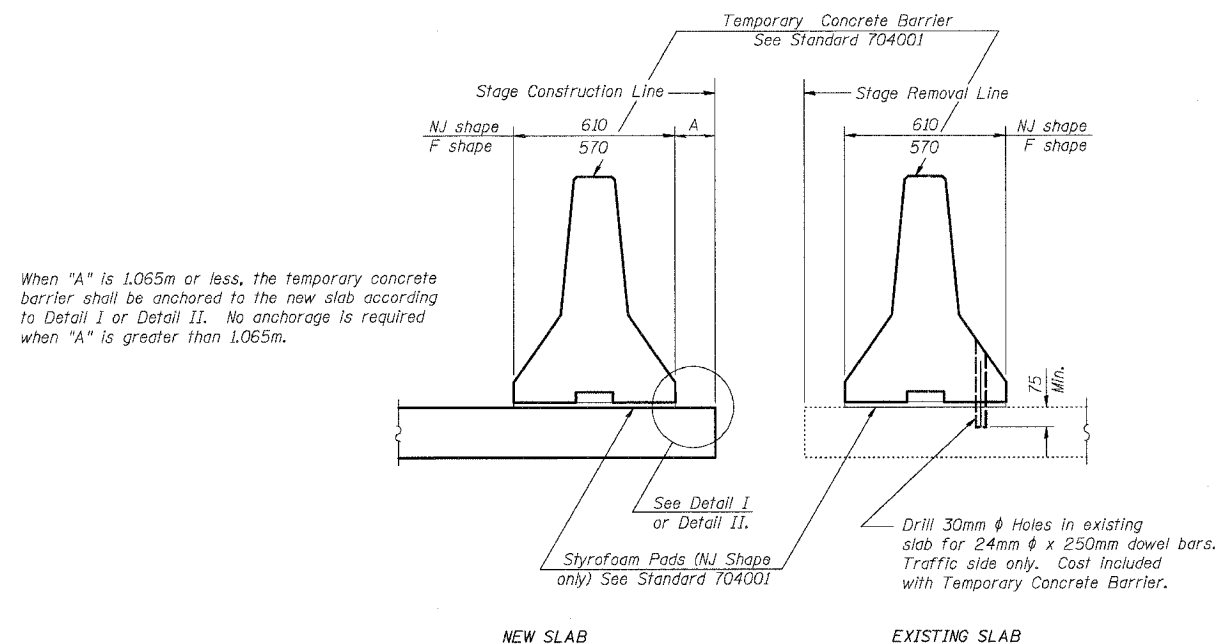
ILLINOIS DEPARTMENT OF TRANSPORTATION  
 IL ROUTE 68 OVER UPRR  
 F.A.P. ROUTE 343 SECTION 70D-Y-B-R  
 COOK COUNTY STATION 9+900.324  
 STRUCTURE NO. 016-2732

STAGE CONSTRUCTION DECK SECTIONS

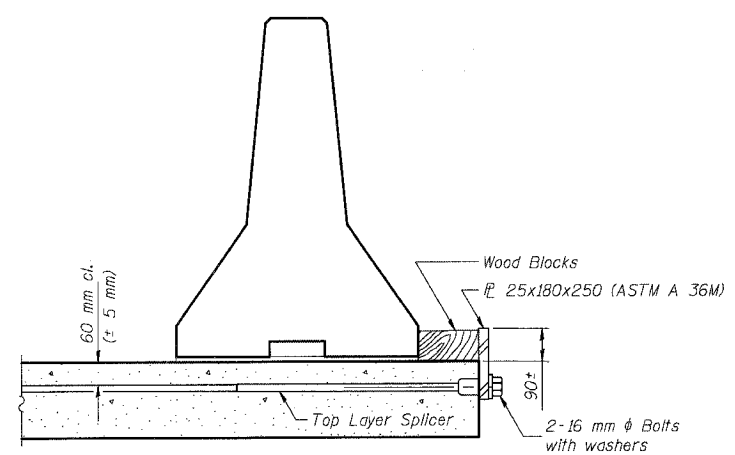
DESIGNED: BTO      DRAWN: BTO  
 DATE: 10/06      CHECKED: JAN      CHECKED: JAN

11/13/2006 2:36:56 PM

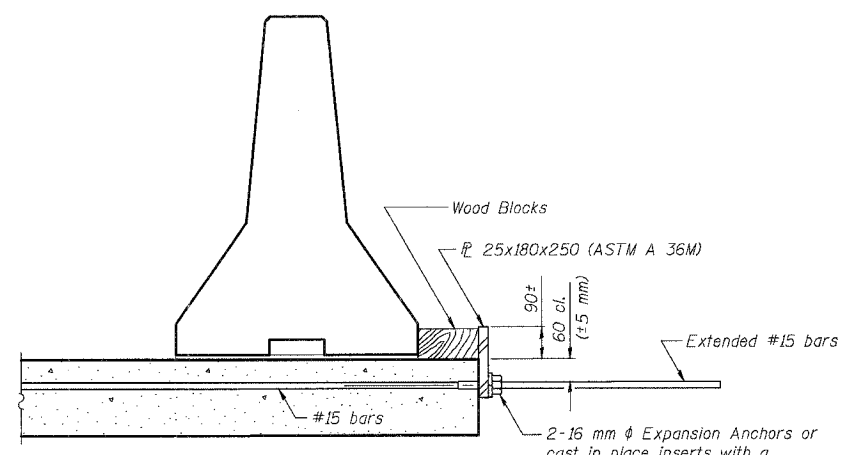
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	70D-Y-B-R	COOK	283	161
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 62897				



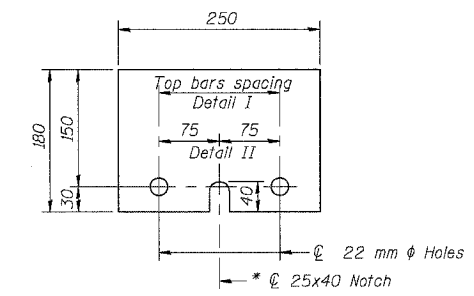
**SECTIONS THRU SLAB**



**DETAIL I**  
The 25x180x250 Plate shall not be removed until Stage II Construction forms and reinforcement bars are in place.



**DETAIL II**  
The 25x180x250 Plate shall not be removed until Stage II Construction forms and all reinforcement bars are in place and the concrete is ready to be placed.



**25x180x250**  
\* Required only with Detail II

**NOTES:**

- Detail I - With Bar Splicer or Couplers:  
Connect one (1) 25x180x250 steel plate to the top layer of couplers with 2-16 mm diameter bolts screwed to coupler at approximate center of each barrier panel.
  - Detail II - With Extended Reinforcement Bars:  
Connect one (1) 25x180x250 steel plate to the concrete slab with 2-16 mm diameter Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate center of each barrier panel.
- Cost of anchorage is included with Temporary Concrete Barrier.  
All dimensions are in millimeters (mm) except as noted.

R-27 (M) 9-01-03

REVISIONS	NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
IL ROUTE 68 OVER UPRR  
F.A.P. ROUTE 343 SECTION 70D-Y-B-R  
COOK COUNTY STATION 9+900.324  
STRUCTURE NO. 016-2732  
**TEMPORARY CONCRETE BARRIER**  
DESIGNED: BTO DRAWN: BTO  
DATE: 10/06 CHECKED: JAN CHECKED: JAN

SHT. S-07 OF S-34

10/13/2006 2:36:11 PM

**Girder 1**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abut.	9+872.539	-12.671	269.592	269.592
⊕ Brg. W. Abut.	9+873.746	-12.633	269.607	269.607
A	9+876.702	-12.547	269.642	269.680
B	9+879.659	-12.471	269.675	269.747
C	9+882.616	-12.405	269.707	269.809
D	9+885.574	-12.350	269.737	269.861
E	9+888.532	-12.304	269.765	269.904
F	9+891.490	-12.269	269.792	269.936
G	9+894.448	-12.243	269.817	269.957
H	9+897.407	-12.228	269.840	269.967
I	9+900.365	-12.223	269.862	269.967
J	9+903.324	-12.229	269.882	269.958
K	9+906.283	-12.244	269.901	269.943
⊕ Brg. E. Abut.	9+909.241	-12.273	269.919	269.919
Back E. Abut.	9+910.789	-12.287	269.926	269.926

**Girder 2**

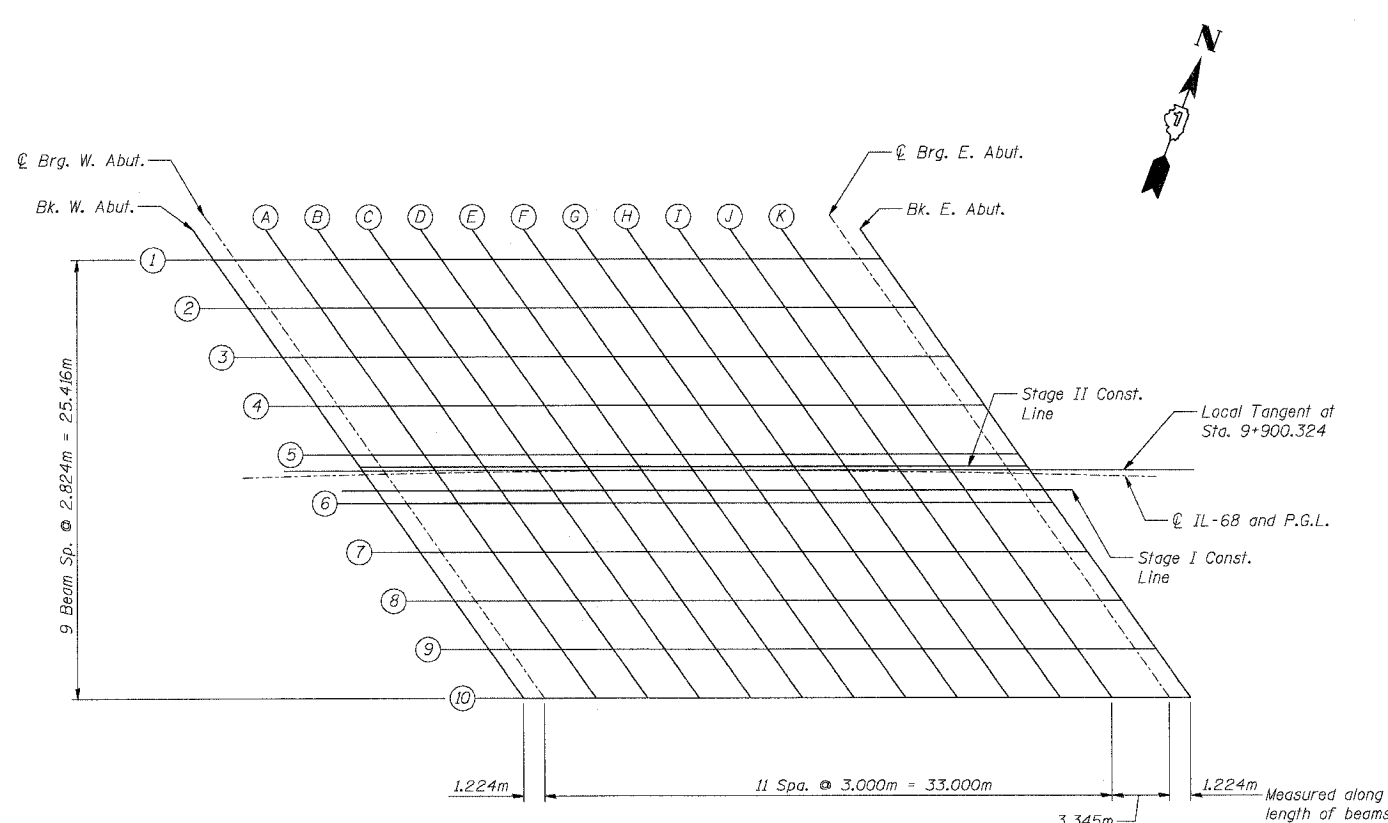
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abut.	9+874.422	-9.787	269.547	269.547
⊕ Brg. W. Abut.	9+875.632	-9.752	269.562	269.562
A	9+878.599	-9.672	269.596	269.634
B	9+881.565	-9.603	269.629	269.701
C	9+884.532	-9.543	269.659	269.761
D	9+887.499	-9.494	269.688	269.812
E	9+890.467	-9.456	269.715	269.854
F	9+893.435	-9.427	269.741	269.885
G	9+896.403	-9.408	269.765	269.905
H	9+899.371	-9.400	269.787	269.914
I	9+902.339	-9.402	269.808	269.913
J	9+905.307	-9.414	269.827	269.903
K	9+908.275	-9.436	269.844	269.886
⊕ Brg. E. Abut.	9+911.243	-9.473	269.862	269.862
Back E. Abut.	9+912.795	-9.489	269.868	269.868

**Girder 3**

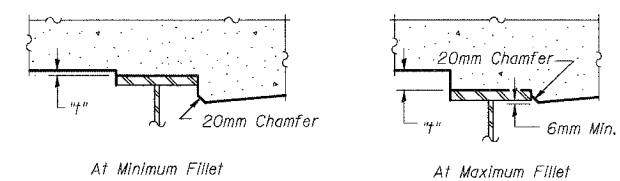
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abut.	9+876.317	-6.907	269.502	269.502
⊕ Brg. W. Abut.	9+877.532	-6.875	269.516	269.516
A	9+880.508	-6.802	269.549	269.587
B	9+883.484	-6.739	269.580	269.652
C	9+886.461	-6.686	269.610	269.712
D	9+889.438	-6.644	269.638	269.762
E	9+892.415	-6.611	269.664	269.803
F	9+895.392	-6.589	269.689	269.833
G	9+898.370	-6.578	269.712	269.852
H	9+901.347	-6.576	269.733	269.860
I	9+904.325	-6.585	269.753	269.858
J	9+907.303	-6.603	269.771	269.847
K	9+910.280	-6.633	269.787	269.829
⊕ Brg. E. Abut.	9+913.259	-6.677	269.804	269.804
Back E. Abut.	9+914.814	-6.696	269.809	269.809

**Girder 4**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abut.	9+878.225	-4.032	269.456	269.456
⊕ Brg. W. Abut.	9+879.443	-4.002	269.469	269.469
A	9+882.429	-3.935	269.501	269.539
B	9+885.415	-3.879	269.532	269.604
C	9+888.402	-3.833	269.561	269.663
D	9+891.388	-3.797	269.588	269.712
E	9+894.375	-3.772	269.613	269.752
F	9+897.362	-3.756	269.637	269.781
G	9+900.350	-3.751	269.659	269.799
H	9+903.337	-3.757	269.679	269.806
I	9+906.324	-3.772	269.698	269.803
J	9+909.311	-3.798	269.715	269.791
K	9+912.298	-3.834	269.730	269.772
⊕ Brg. E. Abut.	9+915.286	-3.886	269.745	269.745
Back E. Abut.	9+916.846	-3.908	269.750	269.750

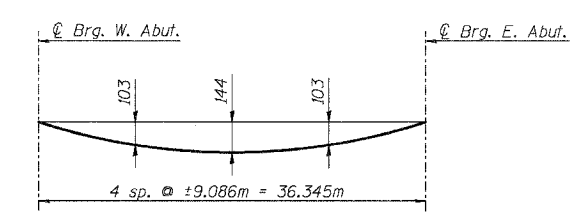


**SCREED PLAN**



To determine fillet height "f", measure elevations at intervals as shown after all steel has been erected. Add this number to the slab thickness and subtract the sum from the "Theoretical Grade Elev. Adjusted for Dead Load Deflection." This equals the fillet height above the girders.

**FILLET HEIGHTS**



**DEAD LOAD DEFLECTION DIAGRAM**

(Includes weight of concrete only)  
 Note: The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown above.

REVISIONS	
NAME	DATE

SHT. S-08 OF S-34

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 IL ROUTE 68 OVER UPRR  
 F.A.P. ROUTE 343 SECTION 70D-Y-B-R  
 COOK COUNTY STATION 9+900.324  
 STRUCTURE NO. 016-2732

SCREED PLAN & TOP OF DECK ELEVATIONS

DESIGNED: BTO      DRAWING: BTO  
 DATE: 10/06      CHECKED: JAN      CHECKED: JAN



Girder 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abut.	9+880.145	-1.160	269.409	269.409
€ Brg. W. Abut.	9+881.367	-1.133	269.422	269.422
A	9+884.363	-1.073	269.453	269.491
B	9+887.359	-1.024	269.483	269.555
C	9+890.355	-0.984	269.511	269.613
D	9+893.352	-0.955	269.537	269.661
E	9+896.349	-0.936	269.561	269.700
F	9+899.345	-0.928	269.584	269.728
G	9+902.342	-0.930	269.605	269.745
H	9+905.339	-0.942	269.624	269.751
I	9+908.336	-0.964	269.641	269.746
J	9+911.332	-0.997	269.657	269.733
K	9+914.328	-1.040	269.672	269.714
€ Brg. E. Abut.	9+917.669	-1.100	269.685	269.685
Back E. Abut.	9+918.891	-1.125	269.690	269.690

Stage Construction Line II

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abut.	9+880.630	-0.439	269.397	269.397
€ Brg. W. Abut.	9+881.853	-0.412	269.411	269.411
A	9+884.851	-0.354	269.441	269.479
B	9+887.850	-0.306	269.471	269.543
C	9+890.849	-0.269	269.498	269.600
D	9+893.848	-0.241	269.524	269.648
E	9+896.847	-0.224	269.548	269.687
F	9+899.846	-0.218	269.570	269.714
G	9+902.845	-0.221	269.591	269.731
H	9+905.844	-0.235	269.610	269.737
I	9+908.843	-0.259	269.627	269.732
J	9+911.842	-0.293	269.643	269.719
K	9+914.841	-0.338	269.657	269.699
€ Brg. E. Abut.	9+918.184	-0.400	269.670	269.670
Back E. Abut.	9+919.407	-0.426	269.675	269.675

€ IL-68 &amp; P.G.L.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abut.	9+880.925	0.000	269.390	269.390
€ Brg. W. Abut.	9+882.132	0.000	269.404	269.404
A	9+885.092	0.000	269.435	269.473
B	9+888.060	0.000	269.465	269.537
C	9+891.034	0.000	269.493	269.595
D	9+894.015	0.000	269.519	269.643
E	9+897.004	0.000	269.544	269.683
F	9+899.999	0.000	269.566	269.710
G	9+903.002	0.000	269.587	269.727
H	9+906.012	0.000	269.605	269.732
I	9+909.030	0.000	269.622	269.727
J	9+912.055	0.000	269.637	269.713
K	9+915.088	0.000	269.650	269.692
€ Brg. E. Abut.	9+918.479	0.000	269.662	269.662
Back E. Abut.	9+919.722	0.000	269.665	269.665

Stage Construction Line I

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abut.	9+881.591	0.986	269.374	269.374
€ Brg. W. Abut.	9+882.816	1.012	269.387	269.387
A	9+885.819	1.066	269.417	269.455
B	9+888.823	1.111	269.446	269.518
C	9+891.826	1.145	269.473	269.575
D	9+894.830	1.169	269.498	269.622
E	9+897.834	1.183	269.522	269.661
F	9+900.838	1.186	269.544	269.688
G	9+903.842	1.179	269.564	269.704
H	9+906.846	1.162	269.582	269.709
I	9+909.850	1.135	269.599	269.704
J	9+912.854	1.097	269.614	269.690
K	9+915.857	1.049	269.627	269.669
€ Brg. E. Abut.	9+919.205	0.983	269.640	269.640
Back E. Abut.	9+920.431	0.956	269.644	269.644

Girder 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abut.	9+882.078	1.707	269.362	269.362
€ Brg. W. Abut.	9+883.304	1.731	269.375	269.375
A	9+886.310	1.785	269.405	269.443
B	9+889.316	1.827	269.433	269.505
C	9+892.322	1.860	269.460	269.562
D	9+895.328	1.882	269.485	269.609
E	9+898.335	1.894	269.508	269.647
F	9+901.341	1.896	269.530	269.674
G	9+904.348	1.887	269.550	269.690
H	9+907.354	1.868	269.568	269.695
I	9+910.360	1.839	269.585	269.690
J	9+913.366	1.800	269.599	269.675
K	9+916.372	1.750	269.612	269.654
€ Brg. E. Abut.	9+919.723	1.682	269.625	269.625
Back E. Abut.	9+920.949	1.654	269.629	269.629

Girder 7

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abut.	9+884.023	4.570	269.314	269.314
€ Brg. W. Abut.	9+885.254	4.591	269.327	269.327
A	9+888.269	4.638	269.356	269.394
B	9+891.285	4.674	269.383	269.455
C	9+894.301	4.700	269.409	269.511
D	9+897.317	4.715	269.433	269.557
E	9+900.334	4.721	269.455	269.594
F	9+903.350	4.715	269.476	269.620
G	9+906.366	4.700	269.495	269.635
H	9+909.382	4.674	269.512	269.639
I	9+912.398	4.638	269.527	269.632
J	9+915.413	4.591	269.541	269.617
K	9+918.429	4.534	269.553	269.595
€ Brg. E. Abut.	9+918.429	4.534	269.564	269.564
Back E. Abut.	9+923.020	4.428	269.568	269.568

Girder 8

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abut.	9+885.981	7.428	269.266	269.266
€ Brg. W. Abut.	9+887.216	7.447	269.278	269.278
A	9+890.242	7.487	269.306	269.344
B	9+893.267	7.516	269.333	269.405
C	9+896.293	7.535	269.357	269.459
D	9+899.319	7.544	269.380	269.504
E	9+902.345	7.542	269.401	269.540
F	9+905.372	7.530	269.421	269.565
G	9+908.397	7.508	269.438	269.578
H	9+911.423	7.475	269.454	269.581
I	9+914.449	7.432	269.469	269.574
J	9+917.474	7.378	269.481	269.557
K	9+920.498	7.314	269.492	269.534
€ Brg. E. Abut.	9+923.871	7.230	269.502	269.502
Back E. Abut.	9+925.105	7.197	269.505	269.505

Girder 9

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abut.	9+887.953	10.282	269.217	269.217
€ Brg. W. Abut.	9+889.191	10.299	269.229	269.229
A	9+892.227	10.332	269.256	269.294
B	9+895.263	10.354	269.281	269.353
C	9+898.299	10.366	269.305	269.407
D	9+901.335	10.368	269.327	269.451
E	9+904.371	10.359	269.347	269.486
F	9+907.406	10.340	269.365	269.509
G	9+910.442	10.311	269.382	269.522
H	9+913.478	10.271	269.397	269.524
I	9+916.513	10.221	269.410	269.515
J	9+919.547	10.160	269.421	269.497
K	9+922.582	10.089	269.431	269.473
€ Brg. E. Abut.	9+925.964	9.997	269.439	269.439
Back E. Abut.	9+927.202	9.960	269.442	269.442

Girder 10

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abut.	9+889.937	13.132	269.168	269.168
€ Brg. W. Abut.	9+891.180	13.145	269.179	269.179
A	9+894.225	13.172	269.205	269.243
B	9+897.271	13.187	269.229	269.301
C	9+900.317	13.193	269.252	269.354
D	9+903.363	13.187	269.272	269.396
E	9+906.409	13.172	269.291	269.430
F	9+909.455	13.146	269.309	269.453
G	9+912.500	13.109	269.324	269.464
H	9+915.545	13.062	269.338	269.465
I	9+918.590	13.005	269.350	269.455
J	9+921.634	12.937	269.360	269.436
K	9+924.678	12.859	269.369	269.411
€ Brg. E. Abut.	9+928.072	12.759	269.376	269.376
Back E. Abut.	9+929.313	12.719	269.378	269.378

**NOTE:**

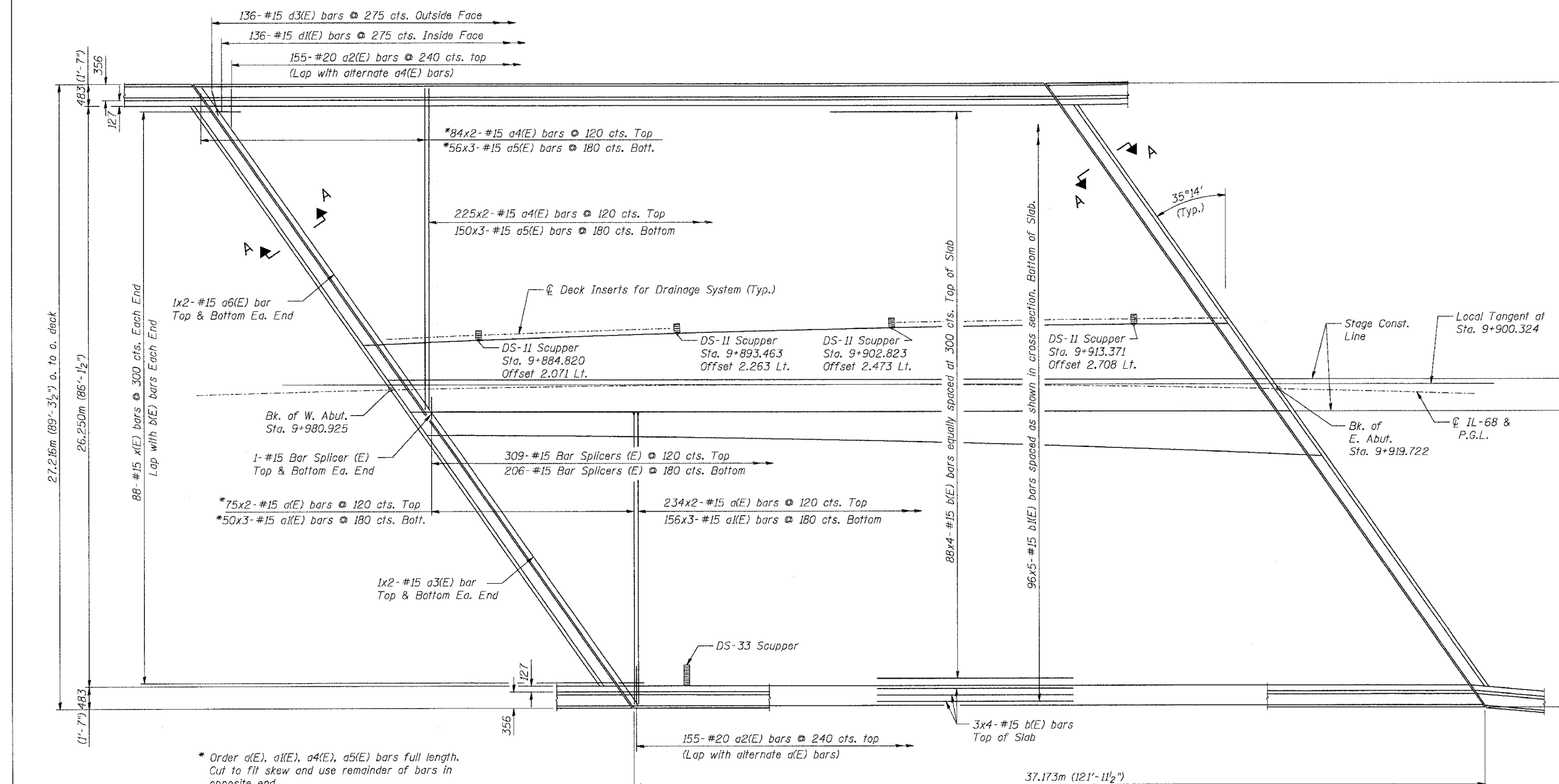
For Screenshot, see Sht. S-08 of S-34.

SHT. S-09 OF S-34

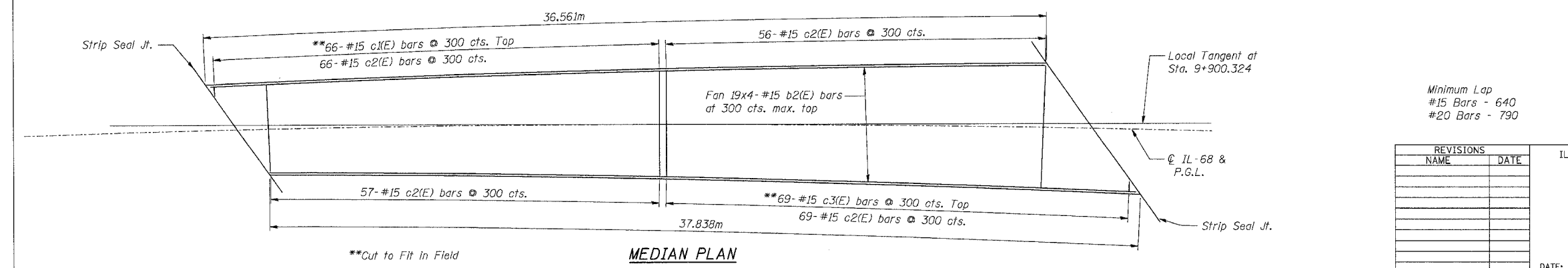
REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION IL ROUTE 68 OVER UPRR F.A.P. ROUTE 343 SECTION 700-Y-B-R COOK COUNTY STATION 9+900.324 STRUCTURE NO. 016-2732 TOP OF DECK ELEVATIONS
NAME	DATE	
DESIGNED: BTO	DRAWN: BTO	
DATE: 10/06	CHECKED: JAN	CHECKED: JAN

11/10/2006 2:06:50 PM

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	70D-Y-B-R	COOK	283	164
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
CONTRACT NO. 62897				



**DECK PLAN**



**MEDIAN PLAN**

**NOTES:**

1. Bars Indicated thus 88x4-#15 etc. indicates 88 lines of bars with 4 lengths per line.
2. Reinforcing Bar designated (E) Shall be Epoxy Coated.
3. Expansion Anchors Required at Medians See Sht. S-11 of S-34 for Superimposed Median Details.
4. For Sections A-A, see Sht. S-12 of S-34.
5. Drainage Scuppers Shall be Located Clear of All Framing Diaphragms

Minimum Lap  
 #15 Bars - 640  
 #20 Bars - 790

SHT. S-10 OF S-34

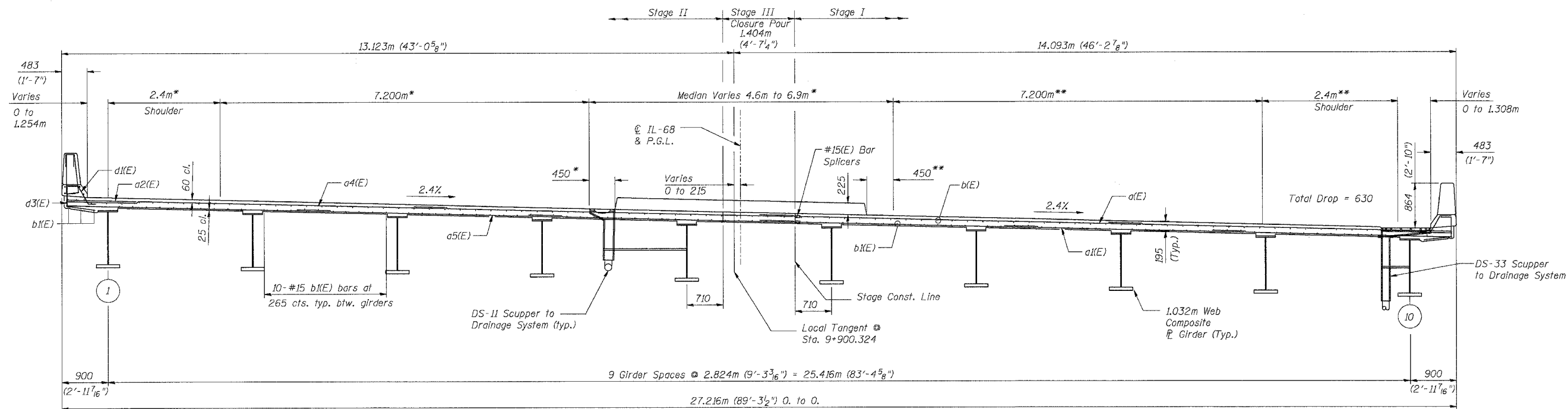
REVISIONS	NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 IL ROUTE 68 OVER UPRR  
 F.A.P. ROUTE 343 SECTION 70D-Y-B-R  
 COOK COUNTY STATION 9+900.324  
 STRUCTURE NO. 016-2732

DESIGNED: BTO      DRAWN: BTO  
 CHECKED: JAN      CHECKED: JAN

DATE: 10/06

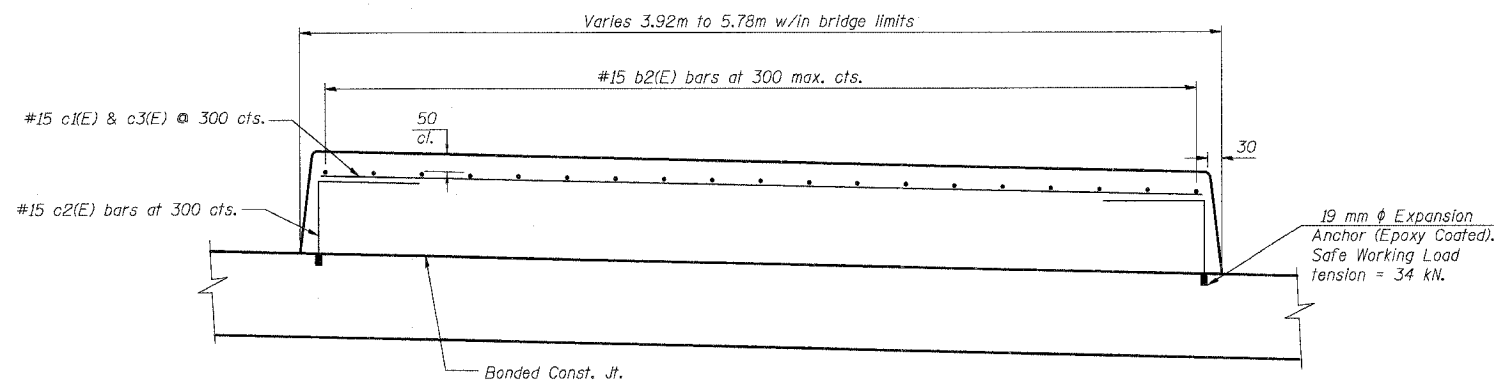
F.A.P. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	700-Y-B-R	COOK	283	165
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 62897				



**DECK CROSS SECTION**

(Looking East)  
(Horizontal Dimensions @ Rt. L's to Local Tangent unless noted otherwise.)

\* Radial Dimensions w/ respect to north shoulder line  
\*\* Radial Dimensions w/ respect to south shoulder line



**SUPERIMPOSED MEDIAN**

**NOTES:**

1. Reinforcement bars designated (E) shall be epoxy coated.
2. See Sht. S-12 of S-34 for superstructure details.
3. See Sht. S-13 of S-34 for parapet reinforcement and bill of material.

REVISIONS	
NAME	DATE

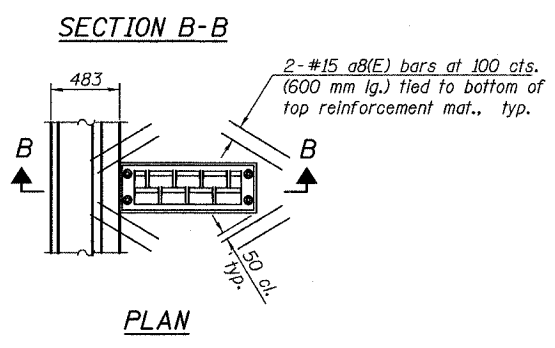
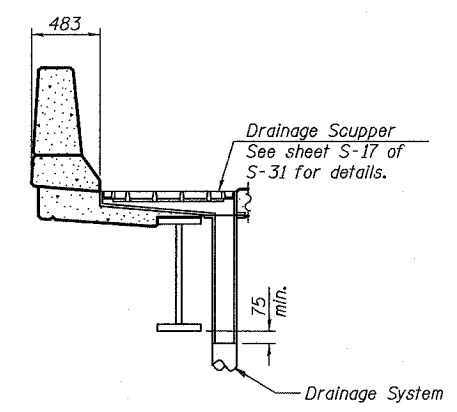
ILLINOIS DEPARTMENT OF TRANSPORTATION  
IL ROUTE 68 OVER UPRR  
F.A.P. ROUTE 343 SECTION 700-Y-B-R  
COOK COUNTY STATION 9+900.324  
STRUCTURE NO. 016-2732

DECK CROSS SECTION

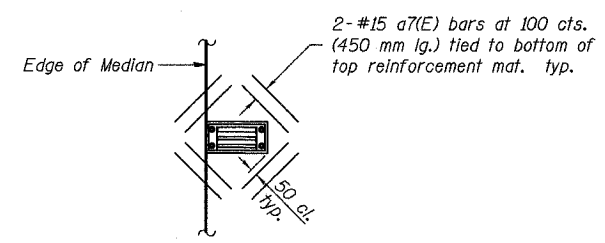
DESIGNED: BTO      DRAWN: BTO  
DATE: 10/06      CHECKED: JAN      CHECKED: JAN

SHT. S-11 OF S-34

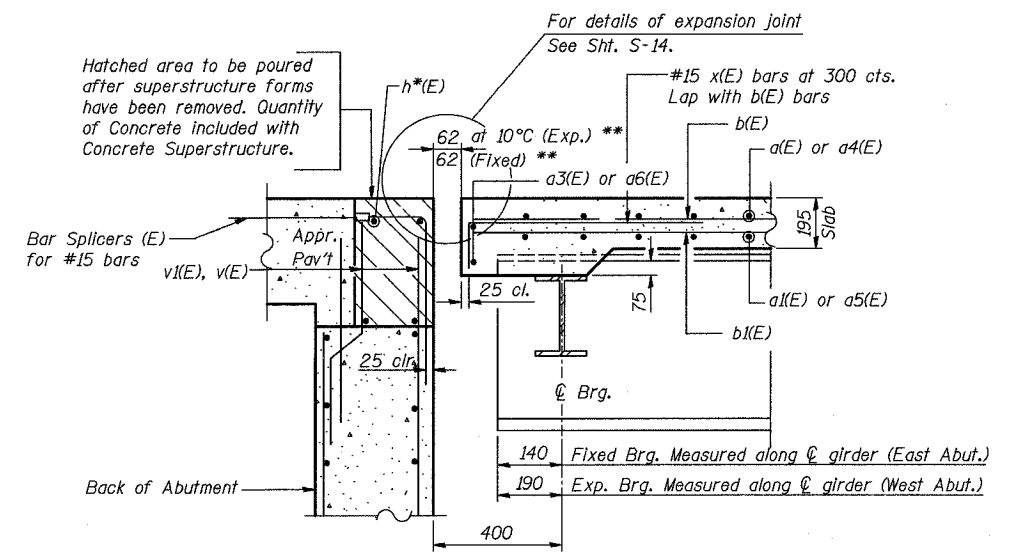
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	70D-Y-B-R	COOK	283	166
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
CONTRACT NO. 62897				



**DS-33 SCUPPER**



**DS-11 SCUPPER - PLAN**



**SECTION A-A**

\* See Abutment drawings for bar designation  
 \*\* Face to face of concrete & Locking Rail

**NOTES:**

1. For Superstructure B.O.M, see Sht. S-13 of S-34.
2. Reinforcement bars designated (E) shall be epoxy coated.

**MIN. BAR LAP**  
 #20 bar = 790

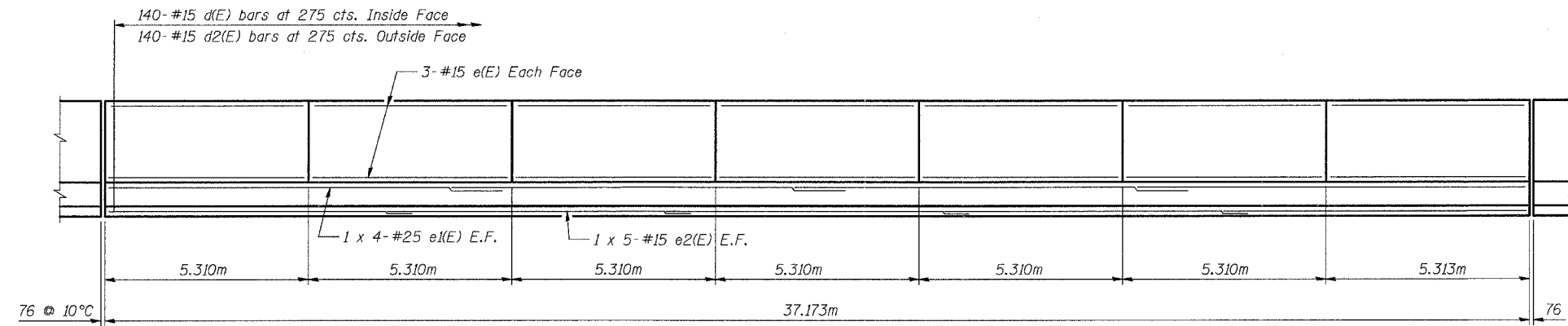
SHT. S-12 OF S-34

REVISIONS	
NAME	DATE

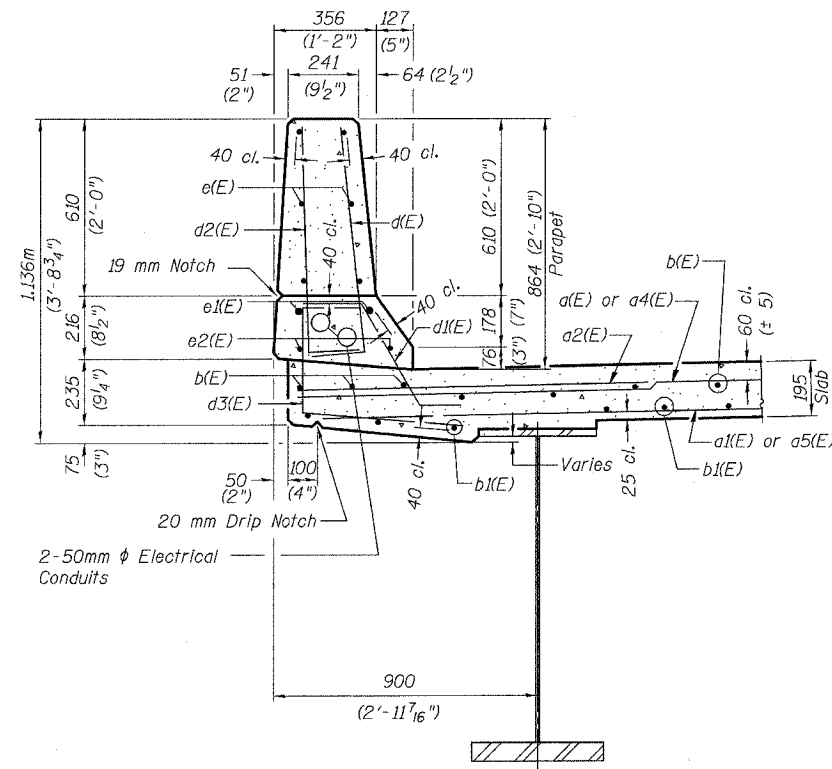
ILLINOIS DEPARTMENT OF TRANSPORTATION  
 IL ROUTE 68 OVER UPRR  
 F.A.P. ROUTE 343 SECTION 70D-Y-B-R  
 COOK COUNTY STATION 9+900.324  
 STRUCTURE NO. 016-2732  
 SUPERSTRUCTURE DETAILS

DESIGNED: BTO      DRAWN: BTO  
 DATE: 10/06      CHECKED: JAN      CHECKED: JAN

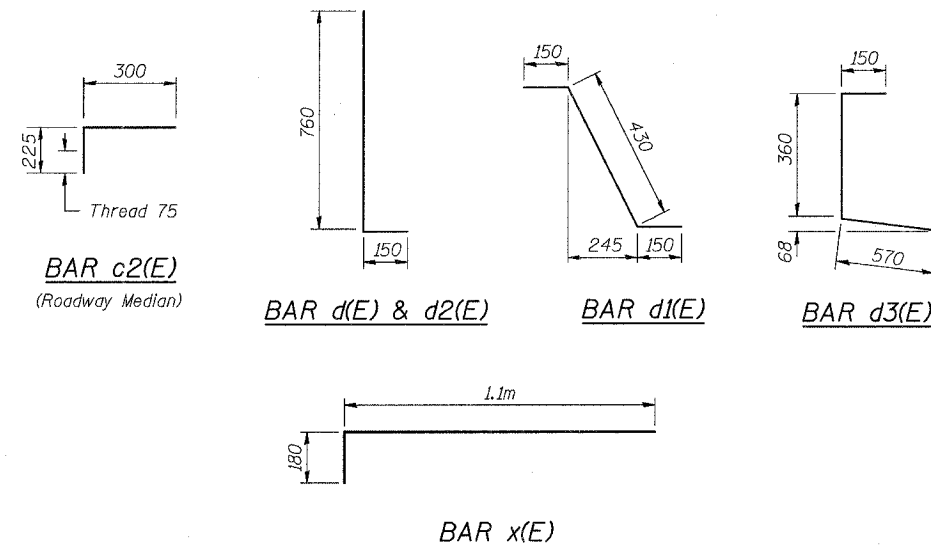
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	70D-Y-B-R	COOK	283	167
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
CONTRACT NO. 62897				



INSIDE ELEVATION OF PARAPET



SECTION THRU PARAPET



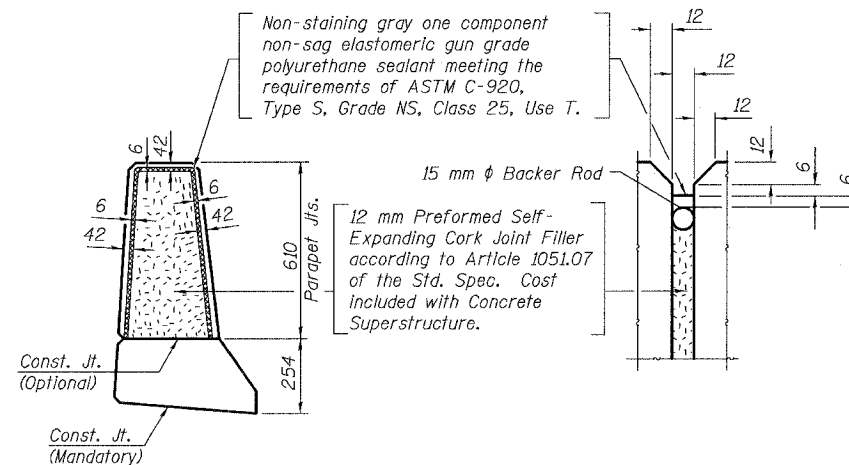
BAR c2(E)  
(Roadway Median)

BAR d(E) & d2(E)

BAR d1(E)

BAR d3(E)

BAR x(E)



PARAPET JOINT DETAILS

**SUPERSTRUCTURE  
BILL OF MATERIAL**

Bar	No.	Size	Length (m)	Shape
a(E)	618	15	6.700	—
a1(E)	618	15	4.680	—
a2(E)	310	20	1.400	—
a3(E)	8	15	8.160	—
a4(E)	618	15	7.420	—
a5(E)	618	15	5.160	—
a6(E)	8	15	9.010	—
a7(E)	32	15	0.450	—
a8(E)	8	15	0.600	—
b(E)	376	15	9.750	—
b1(E)	480	15	7.930	—
b2(E)	76	15	9.920	—
c1(E)	66	15	4.620	—
c2(E)	248	15	0.525	—
c3(E)	69	15	5.350	—
d(E)	280	15	0.910	—
d1(E)	272	15	0.730	—
d2(E)	280	15	0.910	—
d3(E)	272	15	1.080	—
e(E)	84	15	5.230	—
e1(E)	16	25	10.260	—
e2(E)	20	15	8.080	—
x(E)	176	20	1.280	—
Reinforcement Bars, Epoxy Coated			Kg	42,390
Concrete Superstructure			Cu M	303.3

**NOTES:**

1. Reinforcement bars designated (E) shall be epoxy coated.
2. All Expansion Anchors shall be Epoxy Coated and included in the cost of "Reinforcement Bars, Epoxy Coated".

**MIN. BAR LAP**

#15 bar = 640  
#25 bar = 1.320m

SHT. S-13 OF S-34

REVISIONS	NAME	DATE

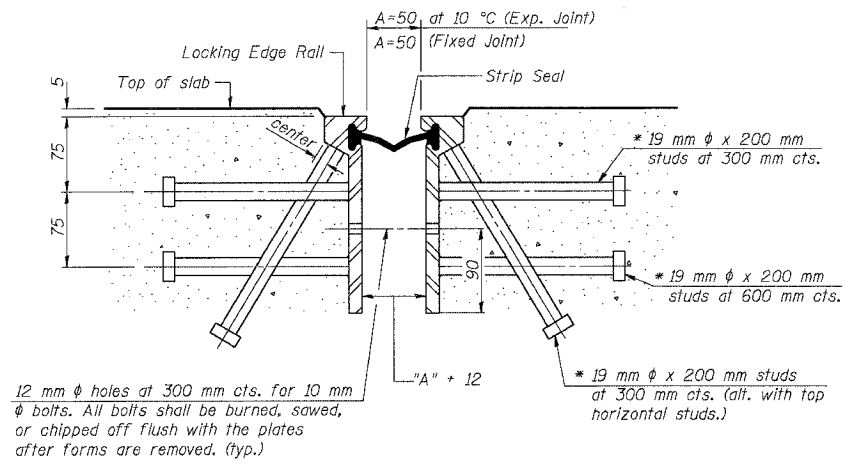
ILLINOIS DEPARTMENT OF TRANSPORTATION  
IL ROUTE 68 OVER UPRR  
F.A.P. ROUTE 343 SECTION 70D-Y-B-R  
COOK COUNTY STATION 9+900.324  
STRUCTURE NO. 016-2732

PARAPET ELEVATION, DECK DETAILS, & B.O.M.

DESIGNED: BTO  
CHECKED: JAN  
DRAWN: BTO  
CHECKED: JAN

DATE: 10/06

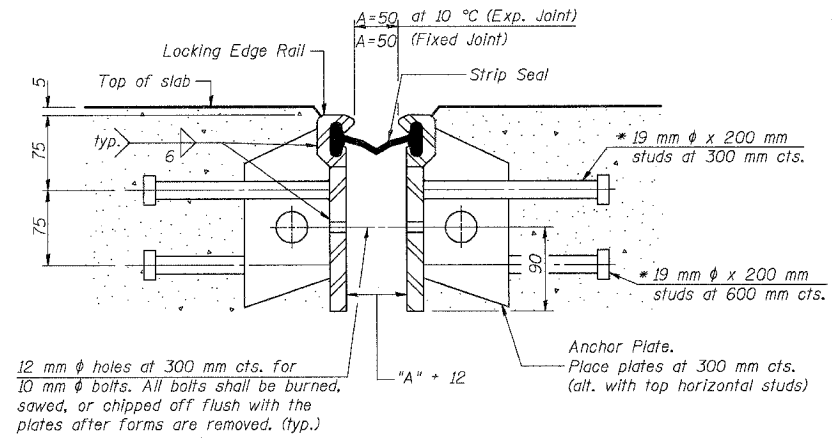
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	70D-Y-B-R	COOK	283	168
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 62897				



**SECTION THRU ROLLED RAIL JOINT**

(444-Studs Required Exp. Joint  
444-Studs Required Fixed Joint)

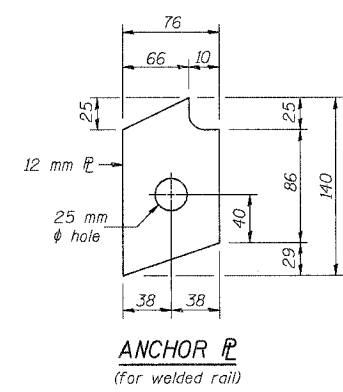
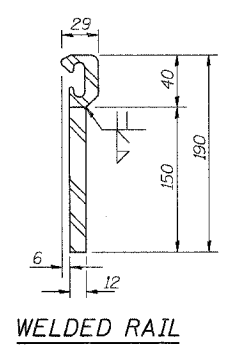
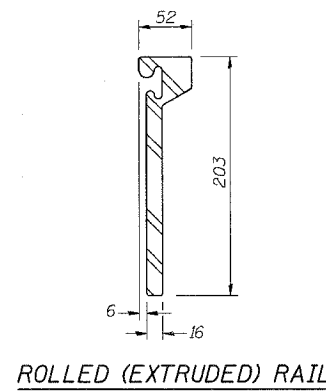
\* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.



**SECTION THRU WELDED RAIL JOINT**

(334-Studs Required - Exp. Jt.  
334-Studs Required - Fixed Jt.)  
(222-Anchor Plates Required - Exp. Jt.  
222-Anchor Plates Required - Fixed Jt.)

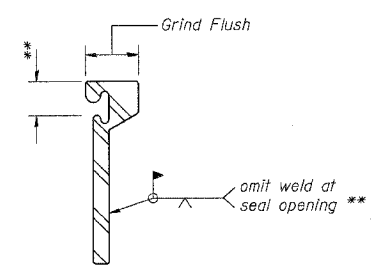
**GENERAL NOTES**  
The strip seal shall be made continuous and shall have a minimum thickness of 6 mm. The configuration of the strip seal shall match the configuration of the Locking Edge Rails.  
The height and thickness of the Locking Edge Rails shown are minimum dimensions. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed.  
Locking Edge Rails may be spliced at slope discontinuities and stage construction joints.  
The manufacturer's recommended installation methods shall be followed.  
All dimensions are in millimeters (mm) except as noted.



**BILL OF MATERIAL**

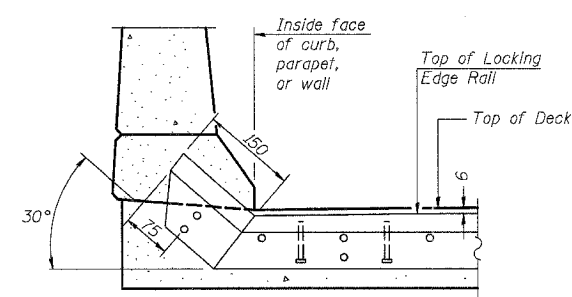
Item	Unit	Total
Preformed Joint Strip Seal	meter	65.8

**LOCKING EDGE RAILS**

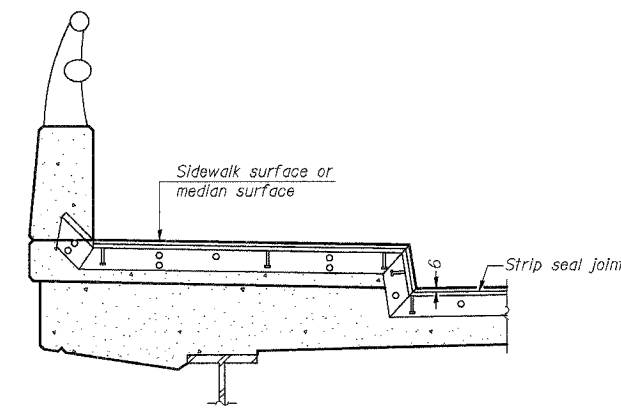


**LOCKING EDGE RAIL SPLICE**

The inside of the locking edge rail groove shall be free of weld residue.



**AT CURB, PARAPET, OR WALL**



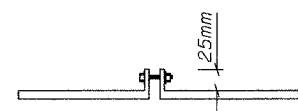
**AT SIDEWALK OR MEDIAN\***

\* Shorter plates with a single row of studs at 300 mm centers may be necessary on medians which are shallower than 225 mm. See manufacturer's recommendation.

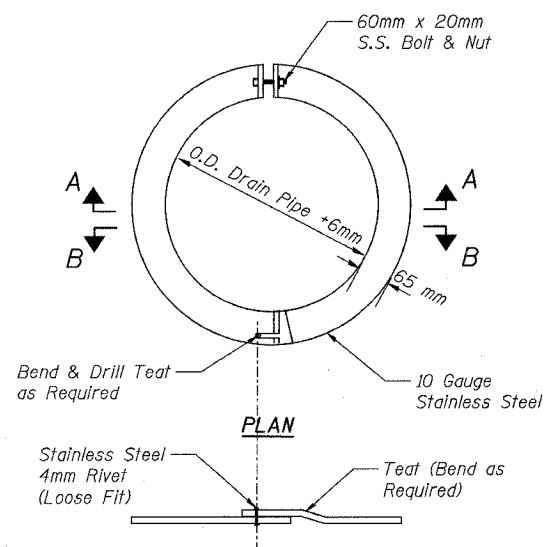
**TYPICAL END TREATMENTS**

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
IL ROUTE 68 OVER UPRR  
F.A.P. ROUTE 343 SECTION 70D-Y-B-R  
COOK COUNTY STATION 9+900.324  
STRUCTURE NO. 016-2732  
STRIP SEAL JOINT  
DESIGNED: BTO  
CHECKED: JAN  
DATE: 10/06  
DRAWN: BTO  
CHECKED: JAN

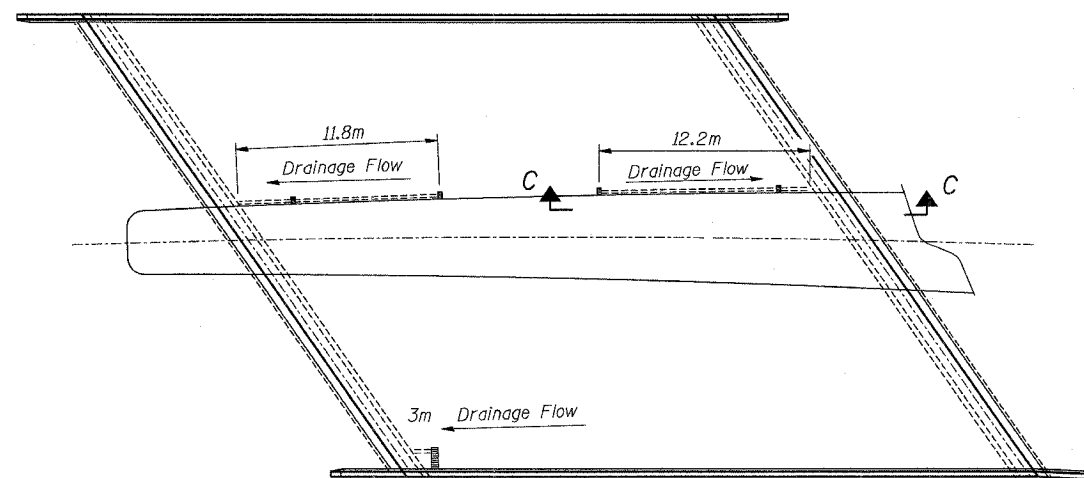


SECTION A-A



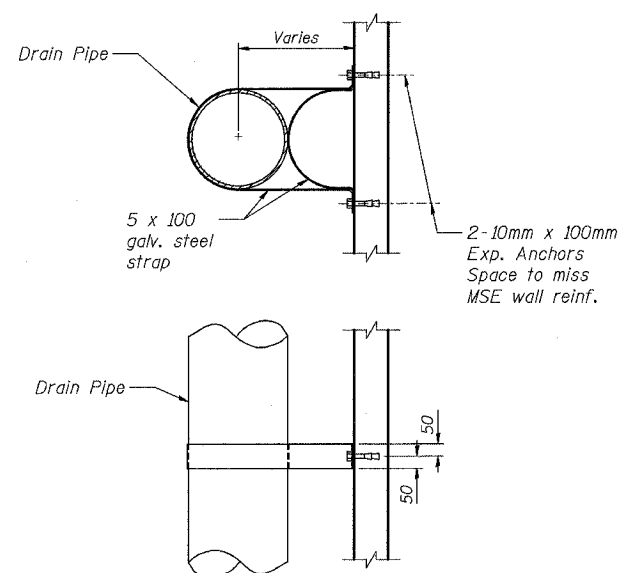
SECTION B-B

EXPANSION COLLAR DETAIL

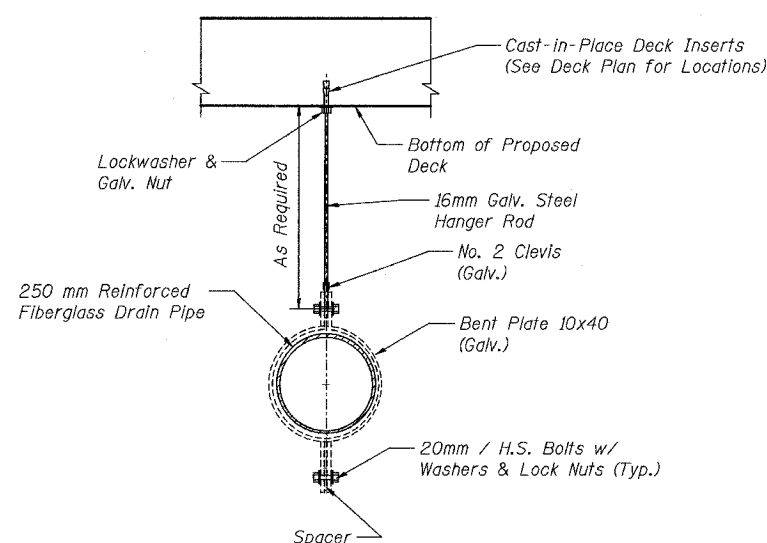


DRAINAGE SYSTEM PLAN

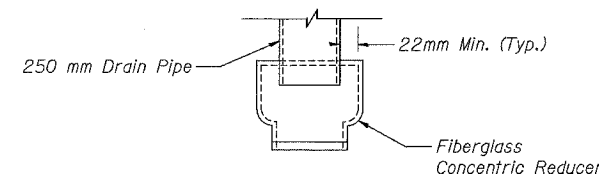
(See deck plan for location of drainage pipe deck inserts)



PIPE BRACKET DETAIL AT MSE WALL

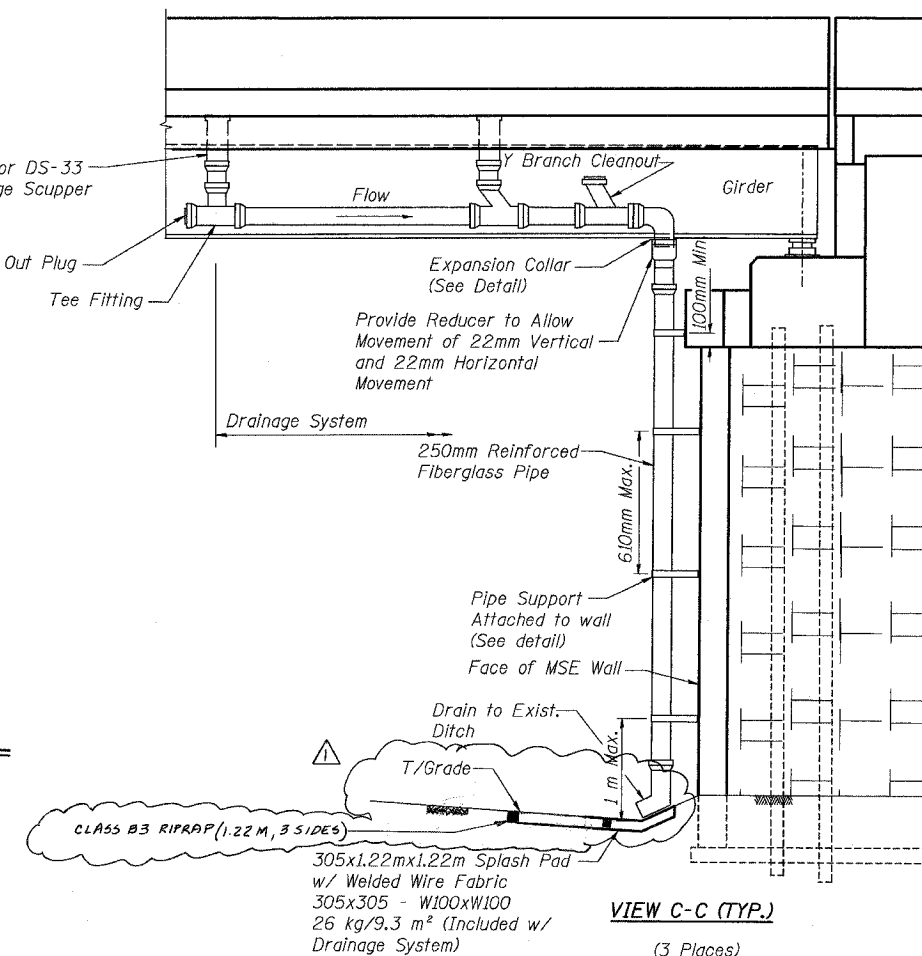


PIPE HANGER BELOW DECK



PIPE REDUCER DETAIL

NOTE:  
All dimensions are in millimeters (mm) except as noted.  
Rev. 1-8-07



VIEW C-C (TYP.)

(3 Places)

BILL OF MATERIAL

Item	Unit	Total
Drainage System No. 2	Each	1

SHT. S-15 OF S-34

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
IL ROUTE 68 OVER UPRR  
F.A.P. ROUTE 343 SECTION 70D-Y-B-R  
COOK COUNTY STATION 9+900.324  
STRUCTURE NO. 016-2732

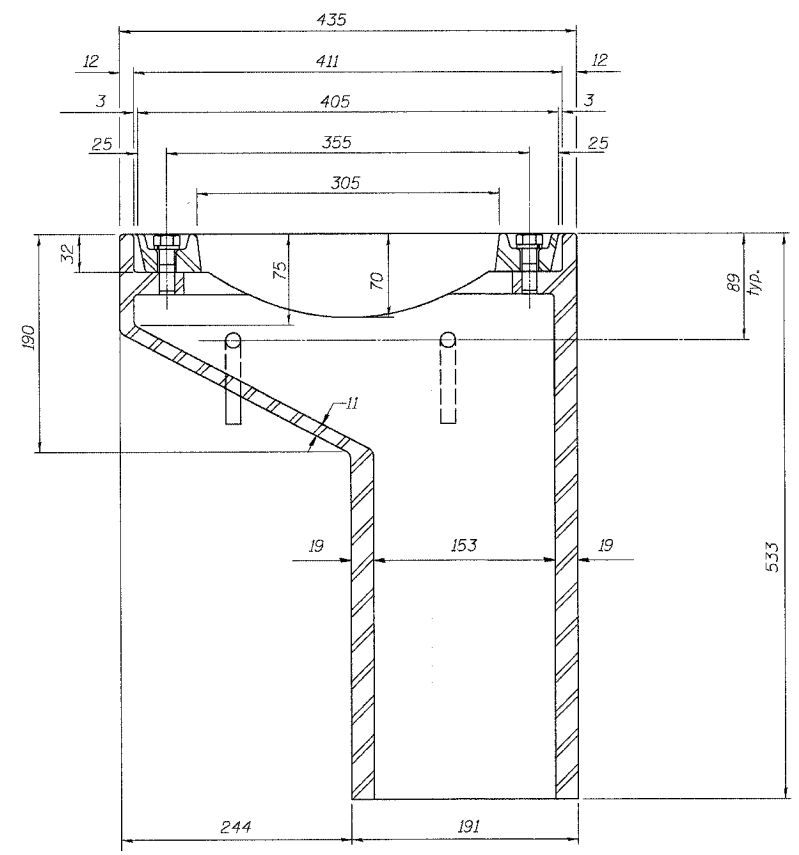
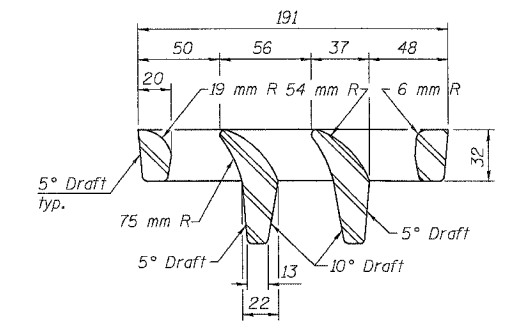
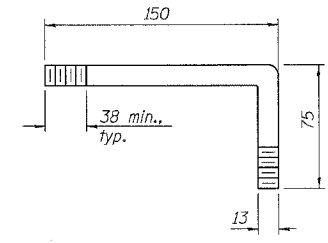
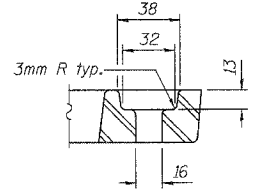
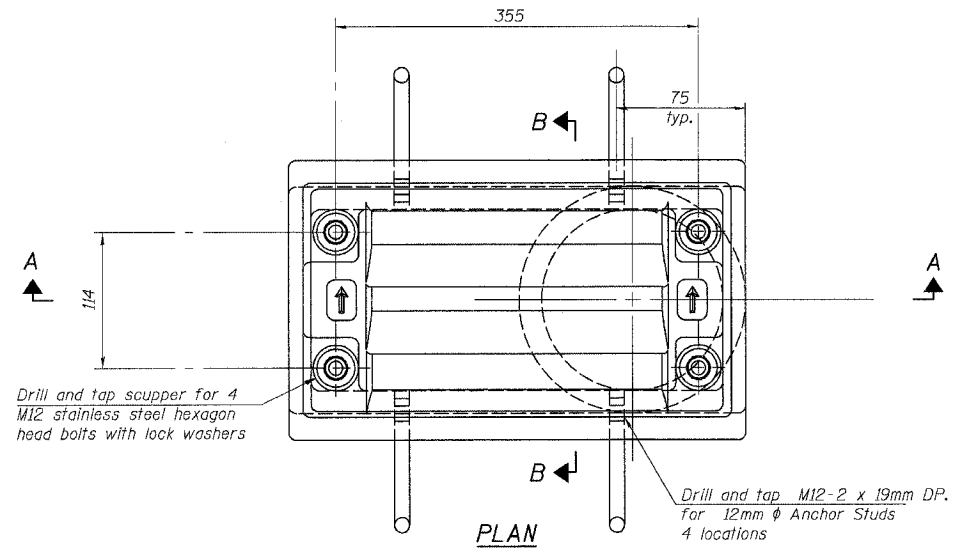
BRIDGE DRAINAGE SYSTEM

DESIGNED: JAN  
CHECKED: BTO

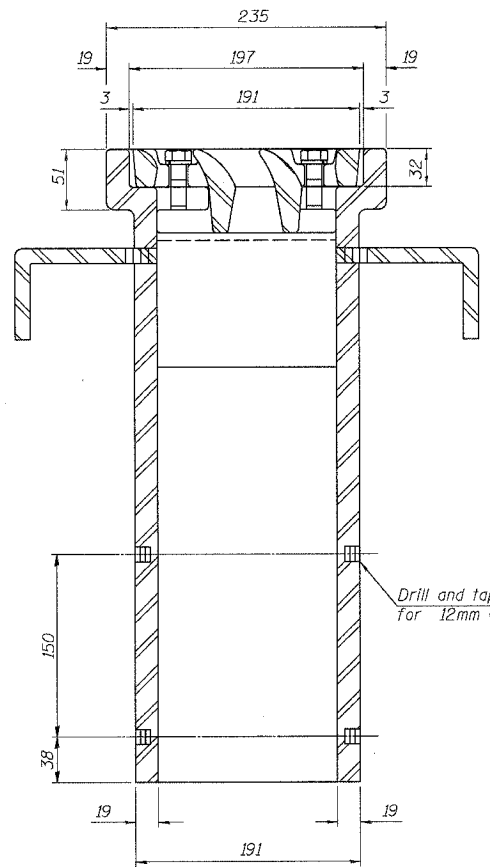
DRAWN: JAN  
CHECKED: BTO

DATE: 10/06

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	700-Y-B-R	COOK	283	170
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 62897				



SECTION A-A  
See Sht. S-10 for scupper location.



Drill and tap M12-2x 19 DP. for 12mm  $\phi$  bolts. (4 locations)

**NOTES:**

- All cast iron parts shall be gray iron conforming to the requirements of AASHTO M 105, Class 35B.
  - Bolts, anchor studs, washers and nuts shall conform to the requirements of ASTM A 307 and shall be galvanized according to AASHTO M 232.
  - The grate, frame and downspout shall be galvanized according to AASHTO M 111 and ASTM A 385. Downspouts located on the exterior side of a painted steel fascia beam shall be painted with the finish coat specified for the exterior side of the fascia beam.
  - As an alternate, bolts, anchor studs, washers and nuts may be stainless steel according to Article 1006.29(d) of the Standard Specifications.
  - Structural steel weldments of equal sections and of the same configuration may be substituted for cast iron. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval.
  - The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.
  - Cost of the Grate, Frame, Downspout, Anchor Studs, Bolts, Washers and Nuts including complete installation of the scupper shall be paid for at the contract unit price each for Drainage Scupper, DS-11.
- All dimensions are in millimeters (mm) except as noted.

**BILL OF MATERIAL**

ITEM	UNIT	QUANTITY
Drainage Scupper, DS-11	Each	4

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 IL ROUTE 68 OVER UPRR  
 F.A.P. ROUTE 343 SECTION 700-Y-B-R  
 COOK COUNTY STATION 9+900.324  
 STRUCTURE NO. 016-2732

**DRAINAGE SCUPPER, DS-11**

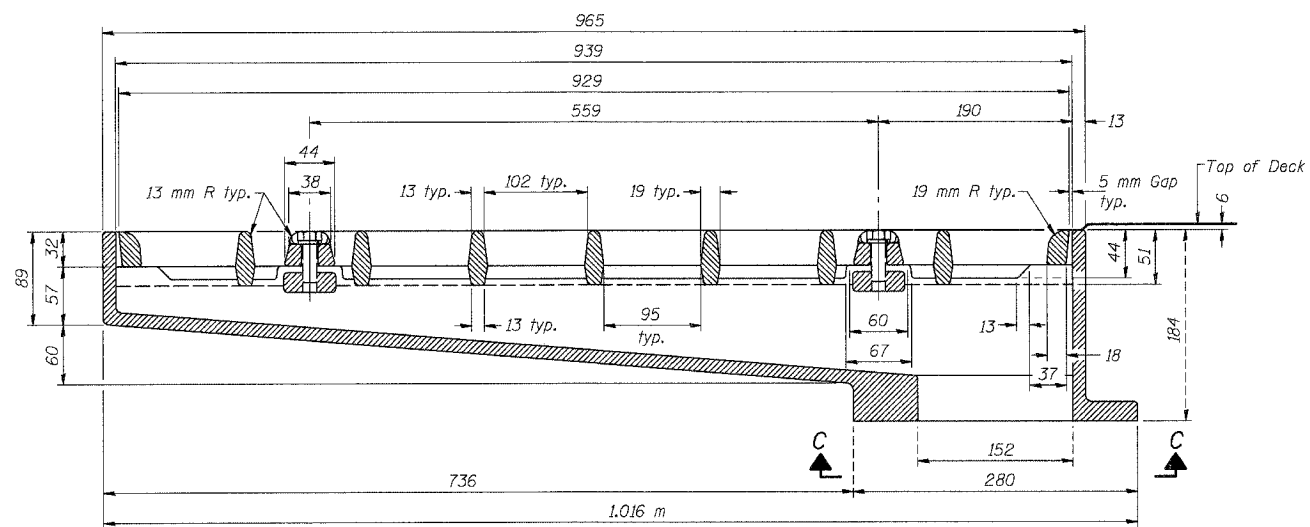
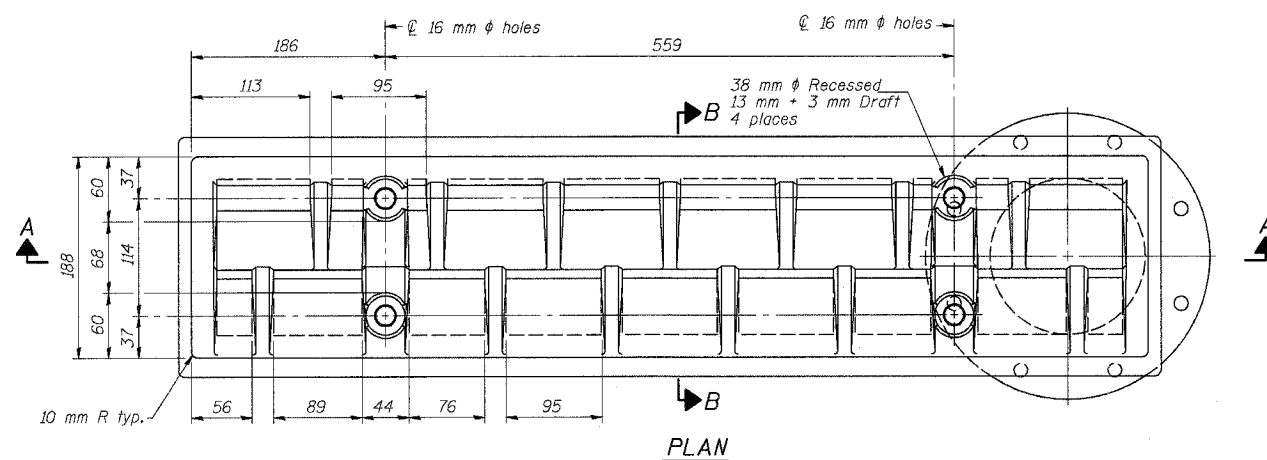
DESIGNED: BTO      DRAWN: BTO  
 DATE: 10/06      CHECKED: JAN      CHECKED: JAN

8-11-02

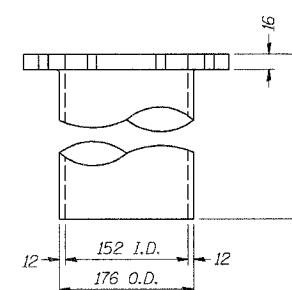
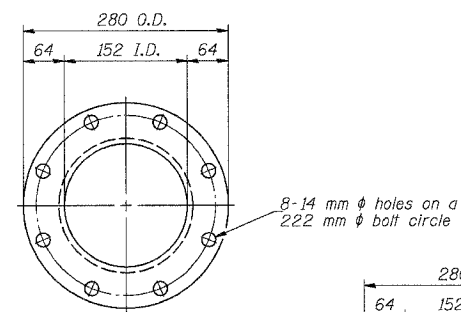
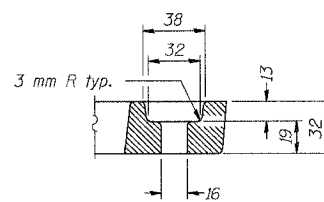
SHT. S-16 OF S-34



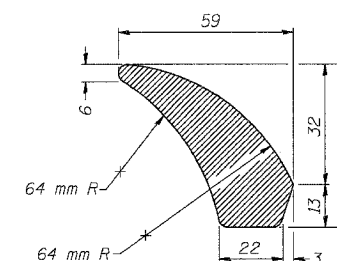
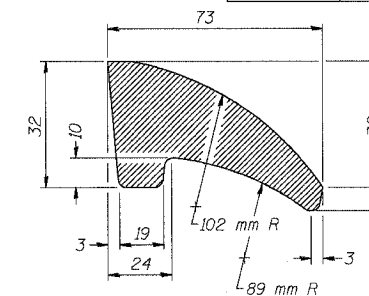
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	70D-Y-B-R	COOK	283	171
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
CONTRACT NO. 62897				



See sht. S-12 of S-34 for scupper location relative to parapet.



DOWNSPOUT



Notes: All cast iron parts shall be gray iron conforming to the requirements of AASHTO M 105, Class 35B.  
 Bolts, anchor studs, washers and nuts shall conform to the requirements of ASTM A 307 and shall be galvanized according to AASHTO M 232M.  
 The grate, frame and downspout shall be galvanized according to AASHTO M 111 and ASTM A 385. Downspouts located on the exterior side of a painted steel fascia beam shall be painted with the finish coat specified for the exterior side of the fascia beam.  
 As an alternate, bolts, anchor studs, washers and nuts may be stainless steel according to Article 1006.29(d) of the Standard Specifications.  
 Structural steel weldments of equal sections and of the same configuration may be substituted for cast iron. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval.  
 The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.  
 Cost of the Grate, Frame, Downspout, Anchor Studs, Bolts, Washers and Nuts including complete installation of the scupper shall be paid for at the contract unit price each for Drainage Scupper, DS-33.  
 All dimensions are in millimeters (mm) except as noted.

**BILL OF MATERIAL**

ITEM	UNIT	QUANTITY
Drainage Scupper, DS-33	Each	1

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 IL ROUTE 68 OVER UPRR  
 F.A.P. ROUTE 343 SECTION 70D-Y-B-R  
 COOK COUNTY STATION 9+900.324  
 STRUCTURE NO. 016-2732

DRAINAGE SCUPPER, DS-33  
 DESIGNED: BTO  
 CHECKED: JAN  
 DRAWN: BTO  
 CHECKED: JAN

SHT. S-17 OF S-34

8-1-2000

11/16/2006 10:11:00 AM E: 36 59 49

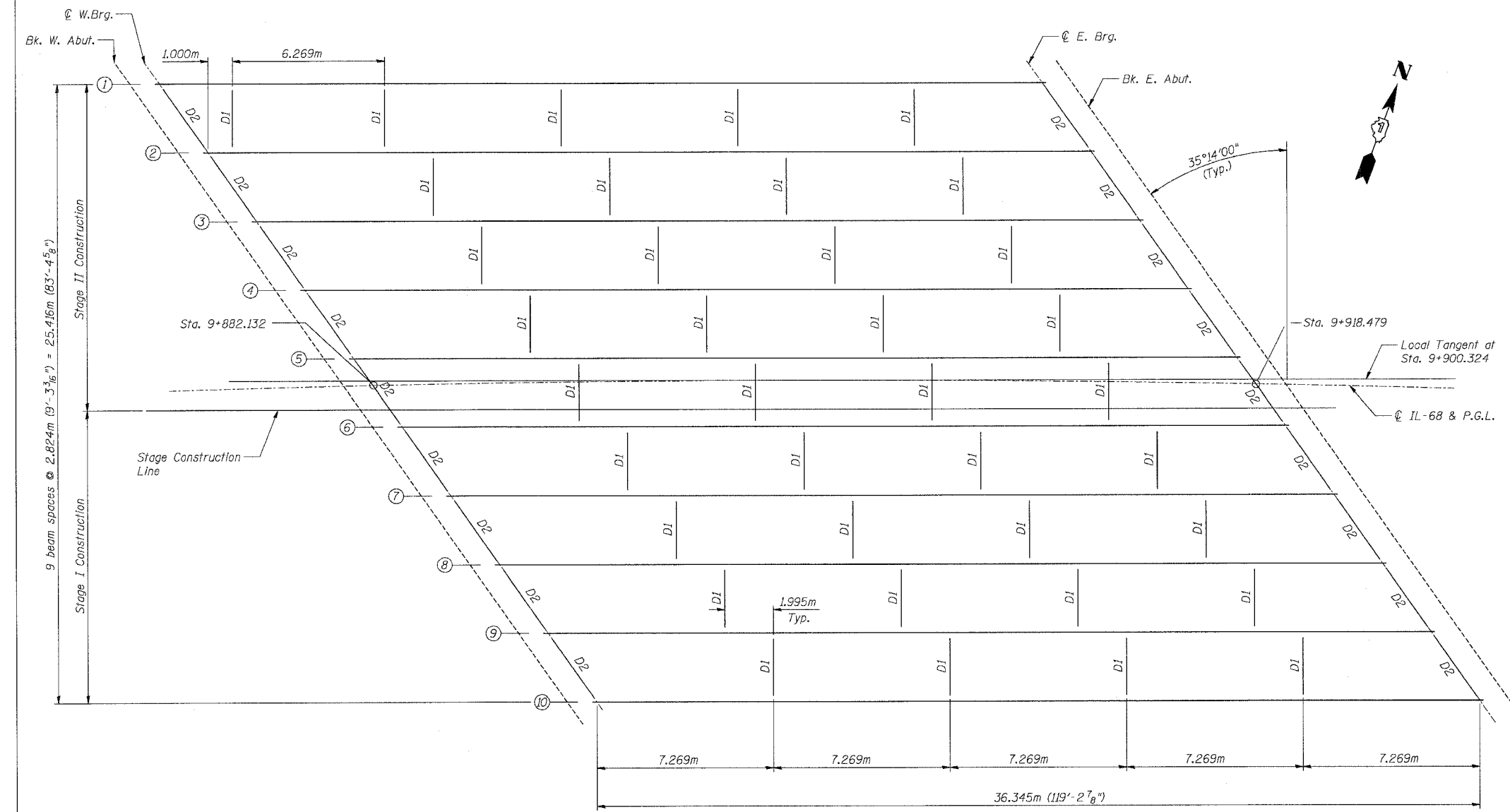
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	70D-Y-B-R	COOK	283	172
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 62897				

**MOMENT AND REACTION TABLES**

INTERIOR GIRDER MOMENT TABLE		
		0.5 Span
$I_s$	( $10^6 \text{ mm}^4$ )	10137
$I_o$ (n)	( $10^6 \text{ mm}^4$ )	28629
$I_o$ (3n)	( $10^6 \text{ mm}^4$ )	19316
$S_s$	( $10^3 \text{ mm}^3$ )	26763
$S_o$ (n)	( $10^3 \text{ mm}^3$ )	35632
$S_o$ (3n)	( $10^3 \text{ mm}^3$ )	32729
Z	( $10^3 \text{ mm}^3$ )	-
DL	(kN/m)	17.03
Mdl	(kN*m)	2813
s DL	(kN/m)	9.05
MsDL	(kN*m)	1494
MLL	(kN*m)	2134
M (Imp)	(kN*m)	437
5/3[MLL + M(Imp)]	(kN*m)	4285
Ma	(kN*m)	11869
Mu	(kN*m)	12806
fs DL non-comp	(MPa)	105.1
fs DL (comp)	(MPa)	46
fs 5/3[MLL + M(Imp)]	(MPa)	120
fs (Overload)	(MPa)	271
fs (total)	(MPa)	
VR	(kN)	300

INTERIOR GIRDER REACTION TABLE		
		Abut.
RDL	(kN)	474
RLL	(kN)	249
Imp.	(kN)	51
R (Total)	(kN)	774

$I_s$  and  $S_s$  are the moment of inertia and section modulus of the steel section used in computing  $f_s$  (Total & Overload).  
 $I_o(n)$  and  $S_o(n)$  are the moment of inertia and section modulus of the composite section used in computing stresses due to Live Load.  
 $I_o(3n)$  and  $S_o(3n)$  are the moment of inertia and section modulus of the composite section used in computing stresses due to superimposed dead loads. (see AASHTO 10.38)  
 VR is the maximum Live Load + Impact shear range in span.  
 Z is the plastic section modulus used to determine the fully plastic moments in the non-composite areas.  
 $M_a$  (Applied Moment) =  $1.3[M_L + M_S + 5/3(M_L + M_{Imp})]$ .  
 The Plastic Moment capacity ( $M_u$ ) is computed according to AASHTO 10.48.1 and 10.50.1.1.  
 $f_s$  (Overload) is the sum of the stresses due to  $M_L + M_S + 5/3(M_L + M_{Imp})$ .  
 $f_s$  (Total) (Non-compact section) is the sum of the stresses due to  $1.3[M_L + M_S + 5/3(M_L + M_{Imp})]$ .



**FRAMING PLAN**

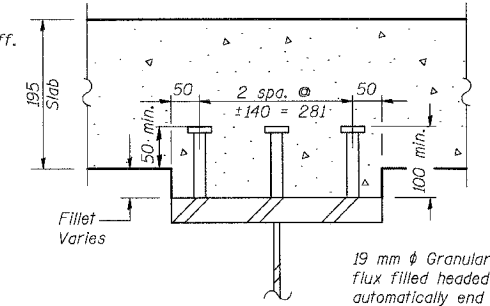
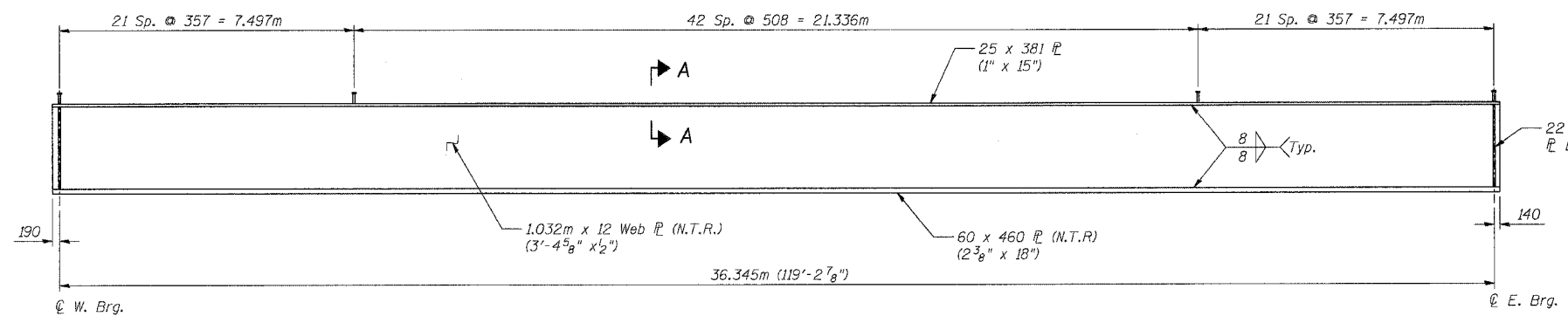
**NOTE:**  
 For Girder elevation, diaphragm details, and top of girder elevations see Sht. S-19 of S-34.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 IL ROUTE 68 OVER UPRR  
 F.A.P. ROUTE 343 SECTION 70D-Y-B-R  
 COOK COUNTY STATION 9+900.324  
 STRUCTURE NO. 016-2732  
**FRAMING PLAN & MOMENT TABLE**  
 DESIGNED: BTO DRAWN: BTO  
 DATE: 10/06 CHECKED: JAN CHECKED: JAN

SHT. S-18 OF S-34

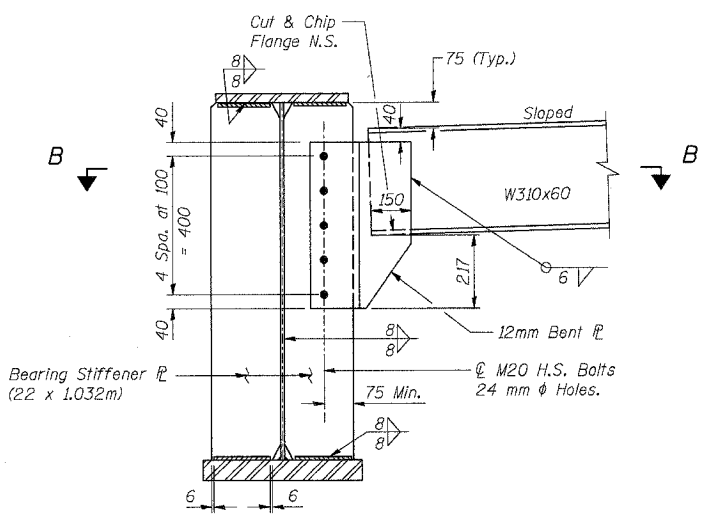
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	70D-Y-B-R	COOK	283	173
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
CONTRACT NO. 62897				



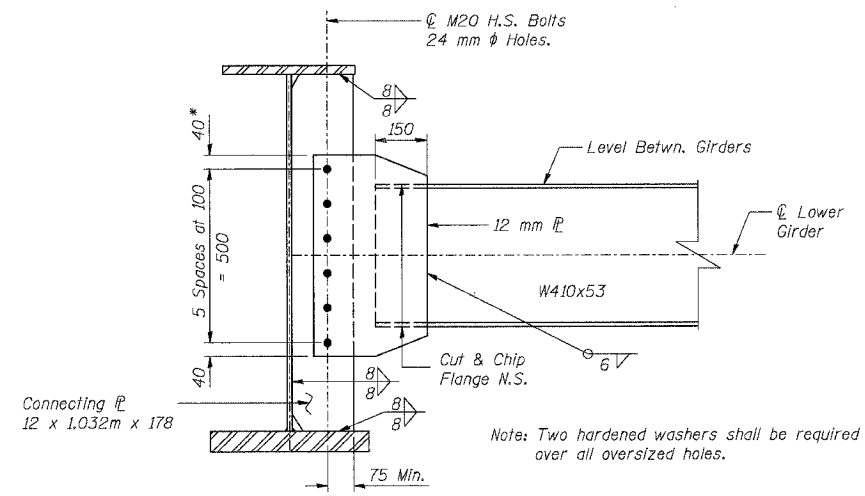
19 mm  $\phi$  Granular or solid flux filled headed studs automatically end welded to flange. (No. Req'd Per Girder = 255, Total No. Req'd = 2550)

**GIRDER ELEVATION**

**SECTION A-A**

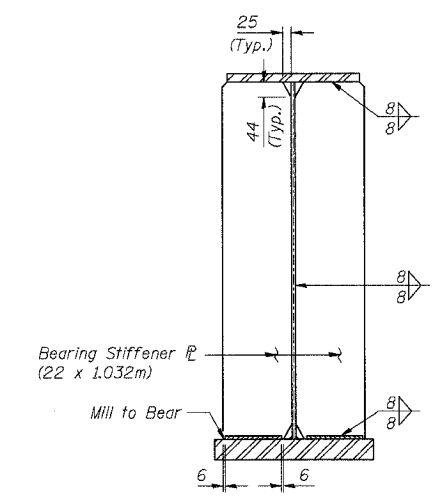


**END DIAPHRAGM D2**  
(18 Required)



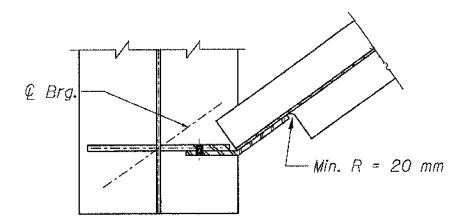
**DIAPHRAGM D1**  
(37 Required)

\* Provide 24 mm x 40 mm vertical slotted holes in 12 mm  $\bar{r}$  for diaphragms in stage construction bay, Stage II side. Increase 40 mm dimension to 60 mm in plate in stage construction bay, Stage II side. 8 mm structural plate washers shall be placed over slotted holes. Diaphragm in stage construction bay shall not be installed until after Stage II pour is completed. Slotted hole bolts shall be finger-tightened prior to the deck closure pour and fully-tightened after completion of the deck pour.

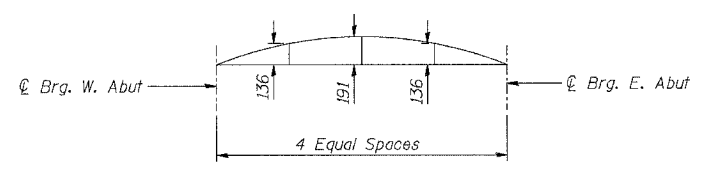


**BEARING STIFFENER**

FOR INFORMATION ONLY. INCLUDED IN BEAM FABRICATION CONTRACT EXCEPT STUD SHEAR CONNECTORS.



**SECTION B-B**



**CAMBER DIAGRAM**

GIRDER	WEST ABUT. BRG.	EAST ABUT. BRG.
1	269.368	269.680
2	269.323	269.623
3	269.277	269.565
4	269.230	269.506
5	269.183	269.446
6	269.136	269.386
7	269.088	269.325
8	269.039	269.263
9	268.990	269.200
10	268.940	269.137

**TOP OF WEB ELEVATIONS**  
(For Fabrication Use Only)

**BILL OF MATERIAL**

Item	Unit	Total
Stud Shear Connectors	Each	2550

**NOTES:**

- N.T.R. denotes members to which notch toughness requirements are applicable.
- All steel shown for the Girders and Bearing Stiffeners shall be AASHTO M270M Grade 345.
- All steel shown for the Diaphragm, Connecting Plates and Angles shall be AASHTO M270M Grade 250.

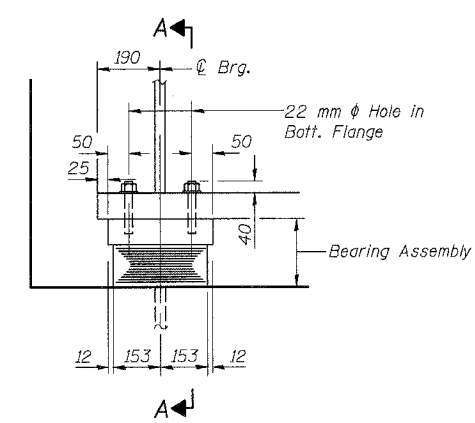
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
IL ROUTE 68 OVER UPRR  
F.A.P. ROUTE 343 SECTION 70D-Y-B-R  
COOK COUNTY STATION 9+900.324  
STRUCTURE NO. 016-2732  
**GIRDER ELEVATION & STEEL DETAILS**  
DESIGNED: JAN DRAWN: BTO  
DATE: 10/06 CHECKED: BTO CHECKED: JAN

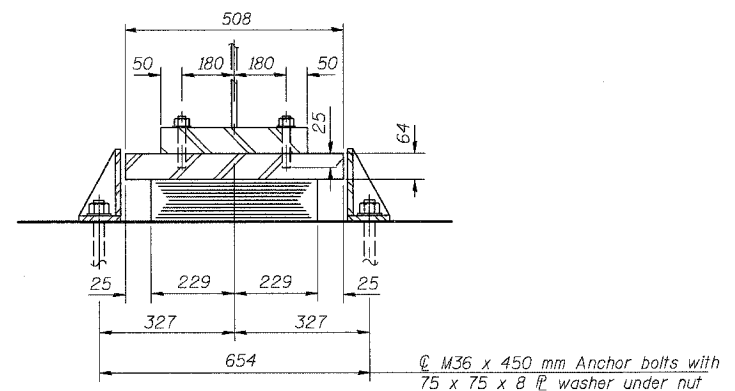
SHT. S-19 OF S-34

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	700-Y-B-R	COOK	283	174
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 62897

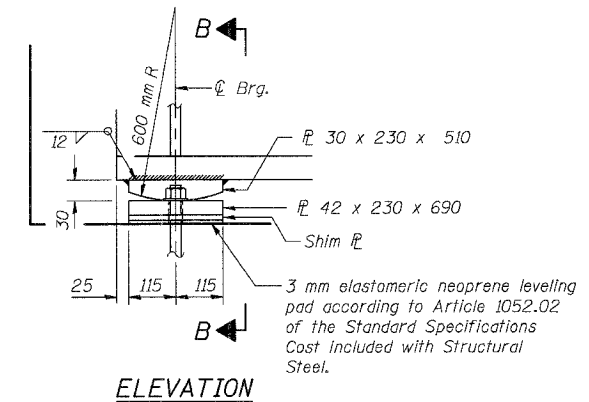


ELEVATION AT ABUT.



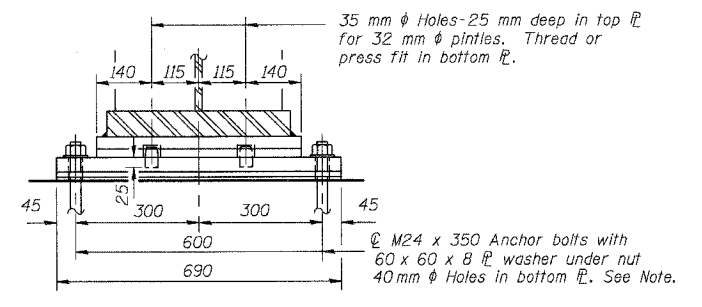
SECTION A-A

**TYPE I ELASTOMERIC EXP. BRG.**  
(West Abutment)

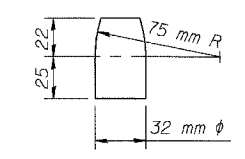


ELEVATION

**FIXED BEARING**  
(East Abutment)



SECTION B-B



PINTLE

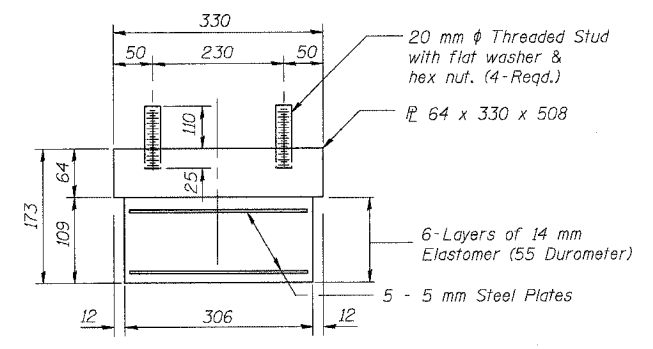
BEARINGS FABRICATED UNDER BEAM FABRICATION CONTRACT.

**BILL OF MATERIAL**

Item	Unit	Total
Erecting Elastomeric Bearing Assembly, Type I	Each	10

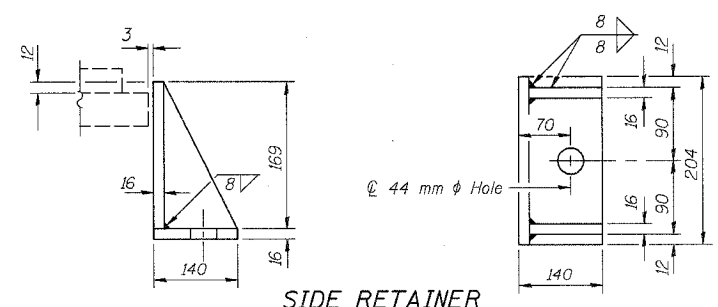
**NOTES:**

- Structural steel for bearing plates shall be AASHTO M270M, Grade 250.
- Anchor bolts at fixed bearings may be built into the masonry. See sheet S-21 of S-34 for Anchor Bolt installation.
- Estimated weight of anchors = 110 kg.



BEARING ASSEMBLY

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



SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates. Weight included with Structural Steel.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
IL ROUTE 68 OVER UPRR  
F.A.P. ROUTE 343 SECTION 700-Y-B-R  
COOK COUNTY STATION 9+900.324  
STRUCTURE NO. 016-2732

BEARING DETAILS

DESIGNED: BTO      DRAWN: BTO  
CHECKED: JAN      CHECKED: JAN

DATE: 10/06

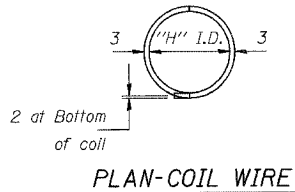
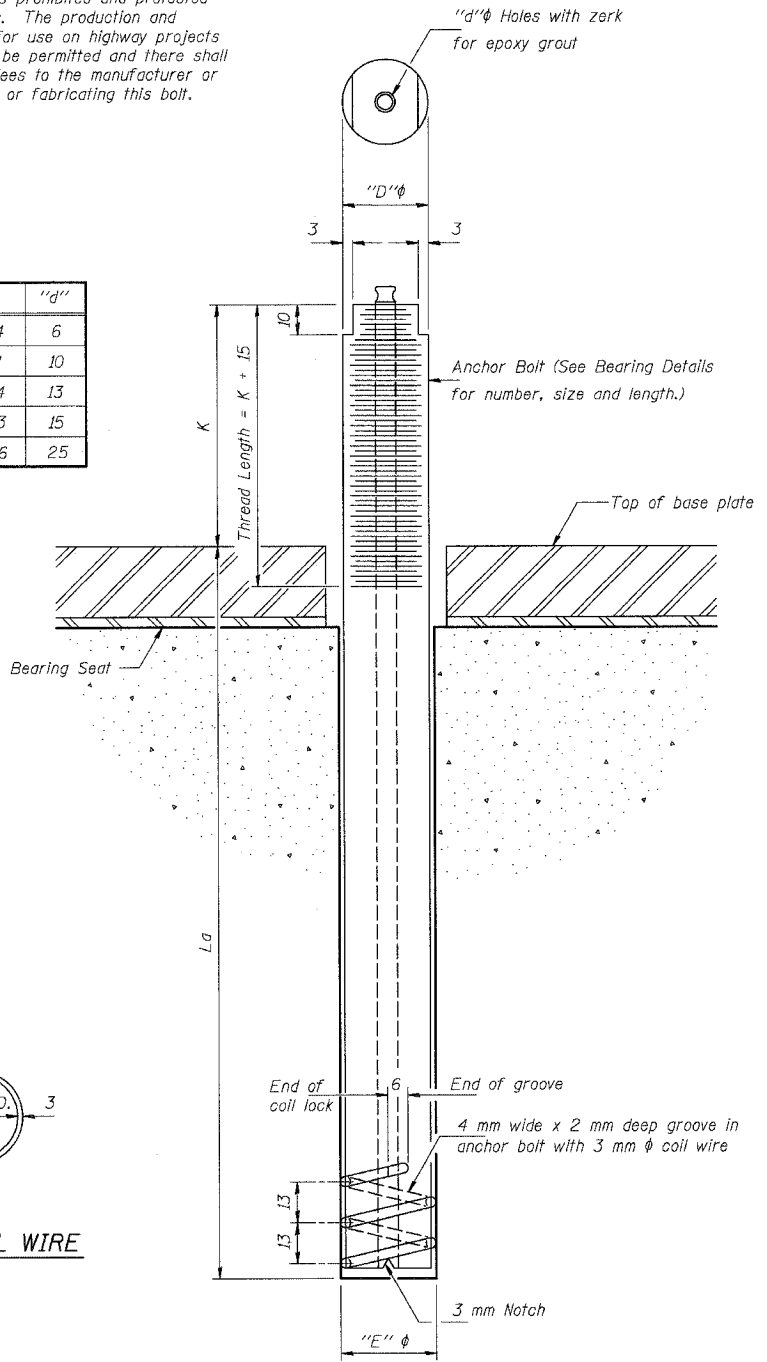
SHT. S-20 OF S-34

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	70D-Y-B-R	COOK	283	175
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

CONTRACT NO. 62897

The Illinois Coil-Lock Anchor Bolt is a proprietary item which is the property of the Illinois Department of Transportation. Use, reproduction or disclosure without express written permission is prohibited and protected under Federal copyright laws. The production and the fabrication of this bolt for use on highway projects in the State of Illinois shall be permitted and there shall be no incurred charges or fees to the manufacturer or the fabricator for producing or fabricating this bolt.

D	E	H	K	"d"
24	27	20	44	6
30	33	26	51	10
36	39	32	54	13
48	51	44	73	15
64	67	60	86	25



ILLINOIS COIL-LOCK ANCHOR BOLT

**MATERIALS FOR ILLINOIS COIL-LOCK ANCHOR BOLT**

The anchor bolt shall be fabricated from cold drawn or hot finished seamless carbon steel mechanical tubing conforming to ASTM A 519, Grade 1026, CW and supplied with hexagonal nuts and cut washers.  
 The coil wire shall be made of any suitable soft steel wire.  
 The finished anchor bolt shall be cleaned of rust and other foreign materials and wrapped or packaged to prevent contamination until they are installed.  
 The epoxy grout shall be a two-component, epoxy resin bonding system conforming to ASTM C 881, Type I, Grade 1 and of a Class suitable for the temperature at installation.

**INSTALLATION PROCEDURE for the ILLINOIS COIL-LOCK ANCHOR BOLT**

1. With the coil wire in place, the bolt shall be inserted into the hole and turned clockwise to a snug fit in the hole. Nut and washer shall be placed on the bolt. The nut shall be tensioned until the steel base plates are held securely to the concrete bearing seat.
2. Epoxy grout shall be pumped through the zerk fitting with a pressure gun. Pumping shall continue until the epoxy overflows the hole around the bolt shank. After pumping is discontinued, excess epoxy shall be immediately wiped off.

**ALTERNATE ANCHOR BOLTS**

The Contractor may use, at his option, the capsule or the adhesive cartridge type anchor rods that have been previously tested and given a prior approval by the Department. The Contractor shall install these anchor rods in pre-drilled holes according to the manufacturer's recommendations and procedures.  
 The capsule or the adhesive cartridge type anchor rods shall be a two part system composed of:  
 1. A threaded rod stud with nut and washer of the type specified.  
 2. A sealed glass capsule or a sealed glass adhesive cartridge containing premeasured amounts of the adhesive chemical.

Location	Diameter	*Length	Total	Type
E. Abut.	M24	350	20	ASTM A307
W. Abut.	M36	466	20	ASTM A307

\*Length = L<sub>a</sub>

ASTM F 1554 (F<sub>y</sub> = 724 MPa), ASTM A 449 and AASHTO M 314 (F<sub>y</sub> = 724 MPa) anchor bolts may be substituted for the anchor bolts shown above.

**GENERAL NOTES**

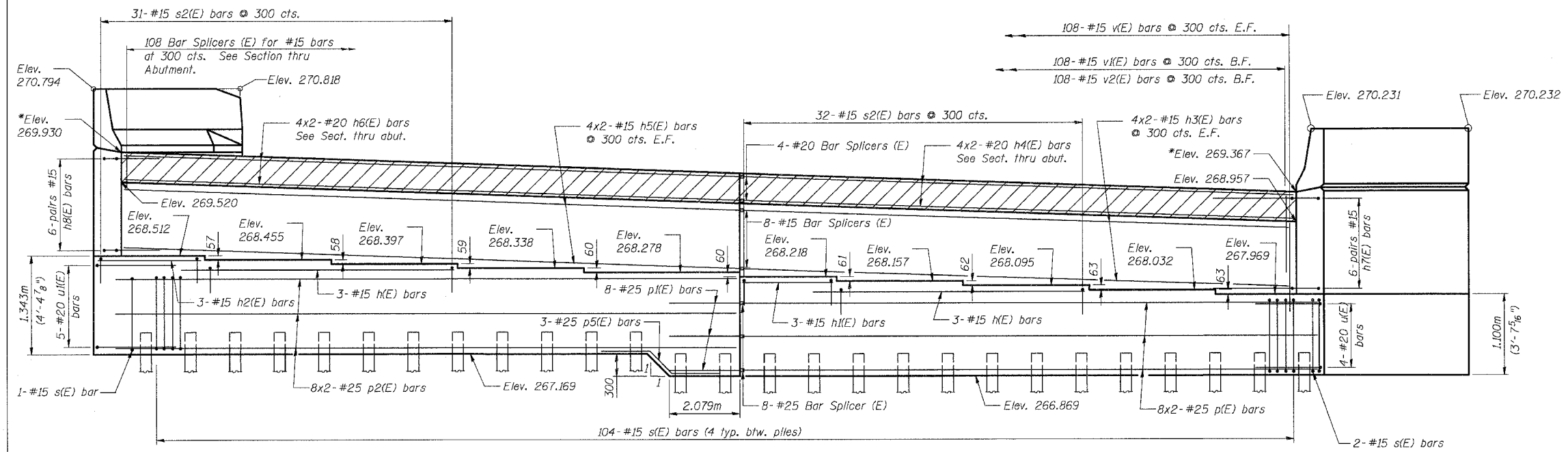
Holes in the masonry for anchor bolts shall be drilled through the base plates to the diameter and depth shown or according to the manufacturer's recommendation after beams or girders have been erected and adjusted.  
 Prior to setting the bolts, the holes shall be dry and all dust and loose particles shall be removed by the use of compressed air or vacuuming.  
 The anchor bolts, furnished and installed and including the epoxy grout or capsules shall not be paid for separately but shall be included in the unit bid price for "Erecting Structural Steel".  
 All dimensions are in millimeters (mm) except as noted.

SHT. S-21 OF S-34

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION IL ROUTE 68 OVER UPRR F.A.P. ROUTE 343 SECTION 70D-Y-B-R COOK COUNTY STATION 9+900.324 STRUCTURE NO. 016-2732  ANCHOR BOLT DETAILS
NAME	DATE	
DESIGNED: BTO	DRAWN: BTO	DATE: 10/06
CHECKED: JAN	CHECKED: JAN	

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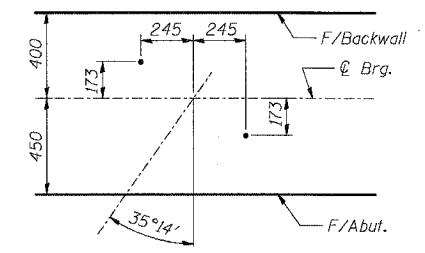
F.A.P. RT.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	TOD-Y-B-R	COOK	283	176
STA.		TO STA.		
ILLINOIS FED. AID PROJECT				
CONTRACT NO. 62897				



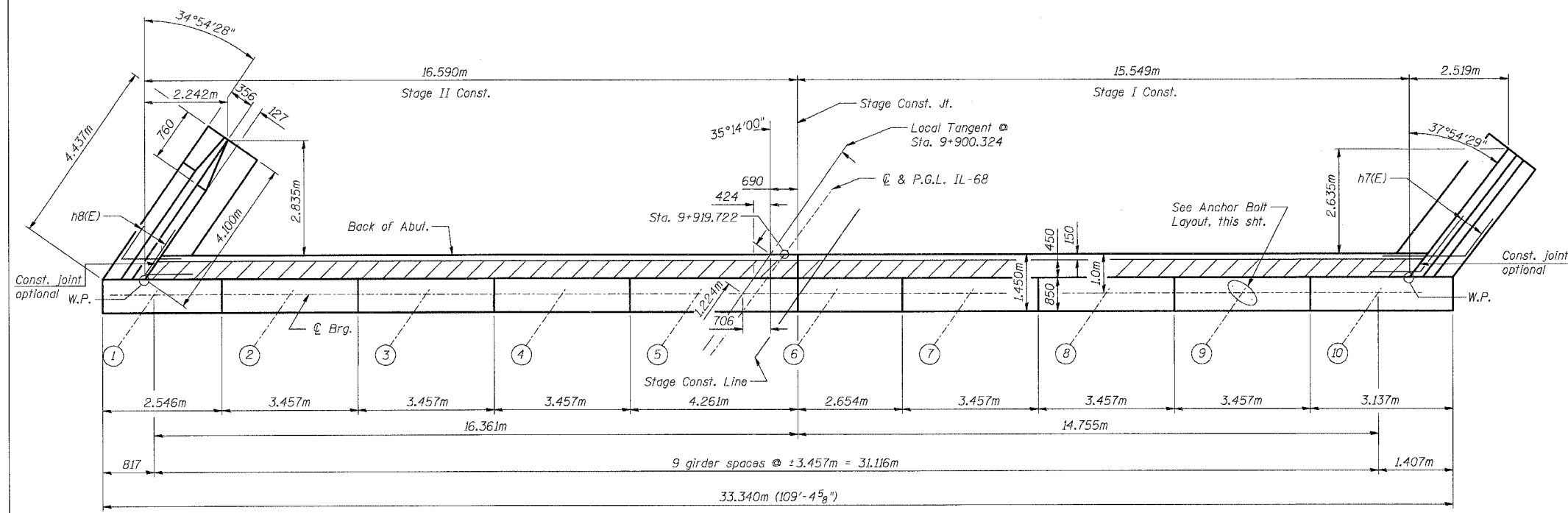
**ELEVATION**

\*At Front Face of hatch block

**MIN. BAR LAP**  
 #15 Bars = 640  
 #20 Bars = 790  
 #25 Bars = 1.320m

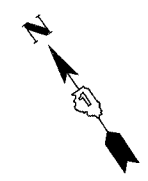


**ANCHOR BOLT LAYOUT**



**TOP VIEW**

- NOTES:**
- Hatched area to be poured after superstructure forms have been removed.
  - Space reinforcement in cap to miss anchor bolts.
  - Pour steps monolithically with cap.
  - Reinforcement bars designated (E) shall be epoxy coated.
  - Bars indicated thus 4x2-#15 etc. indicates 4 lines of bars with 2 lengths per line.
  - For anchor bolt details, see sht. S-21 of S-34.



REVISIONS		DATE
NAME		

SHT. S-22 OF S-34

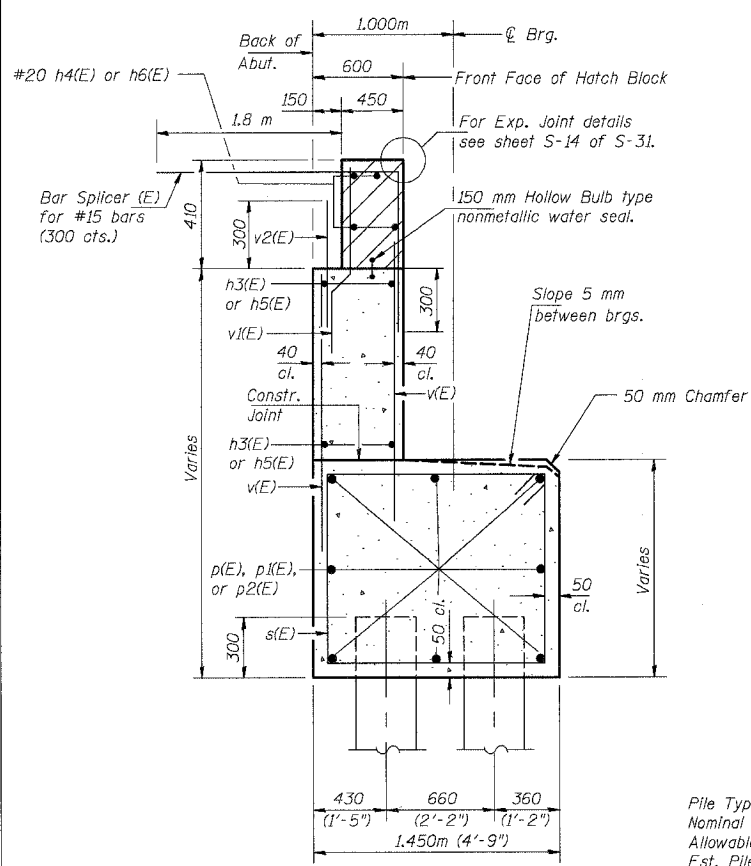
ILLINOIS DEPARTMENT OF TRANSPORTATION  
 IL ROUTE 68 OVER UPRR  
 F.A.P. ROUTE 343 SECTION 70D-Y-B-R  
 COOK COUNTY STATION 9+900.324  
 STRUCTURE NO. 016-2732

EAST ABUTMENT PLAN & ELEVATION

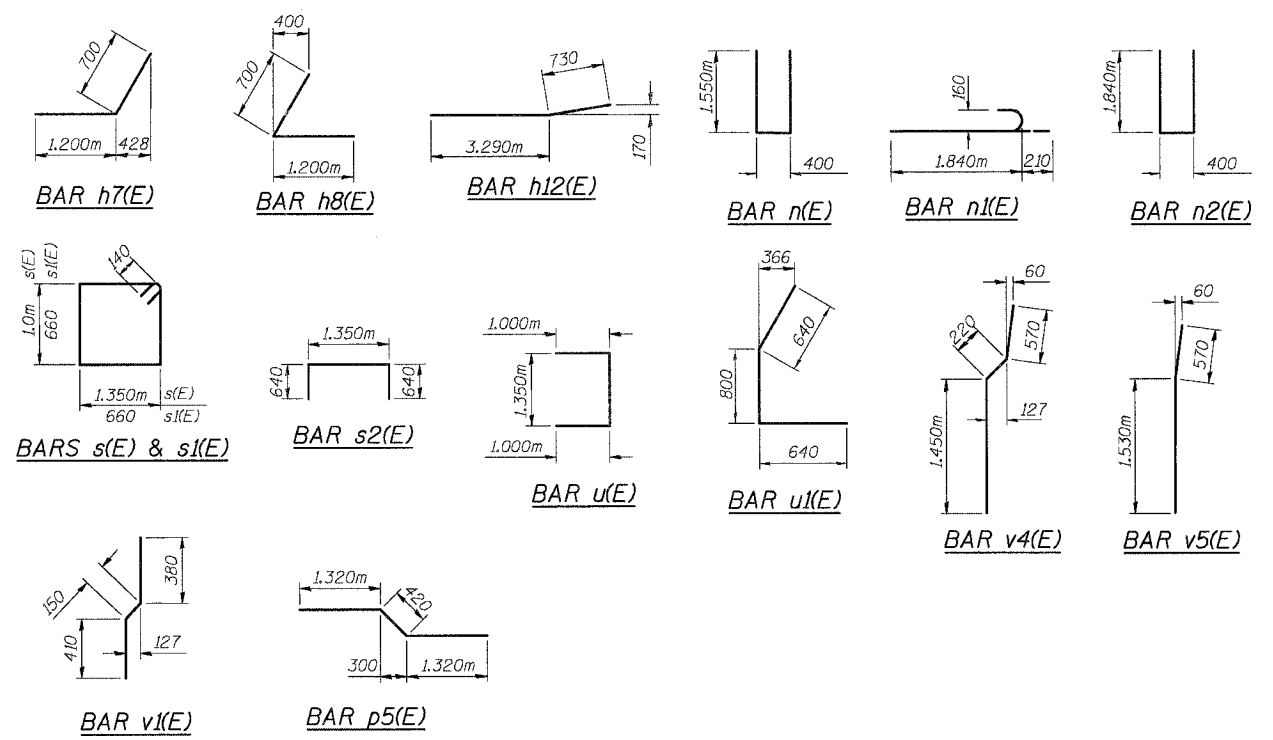
DESIGNED: BTO      DRAWN: BTO  
 DATE: 10/06      CHECKED: JAN      CHECKED: JAN

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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	70D-Y-B-R	COOK	283	177
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 62897				



**SEC. THRU ABUT.**



**PILE DATA**

Pile Type and Size: 305mm  $\phi$  Metal Shell, w/6.3mm wall  
 Nominal Required Bearing: 1500 KN  
 Allowable Resistance Available: 500KN  
 Est. Pile Length: 29.3m  
 No. of Production: 26  
 Number of Test Piles: 1  
 Piles Shall be driven through 457mm  $\phi$  pre-cored holes extending to Elev. 255.5 within the existing bridge width and Elev. 254.9 in the southern portion of the abutment.  
 The Metal Shell Piles shall be according to ASTM A252, Grade 3.

**BILL OF MATERIAL**

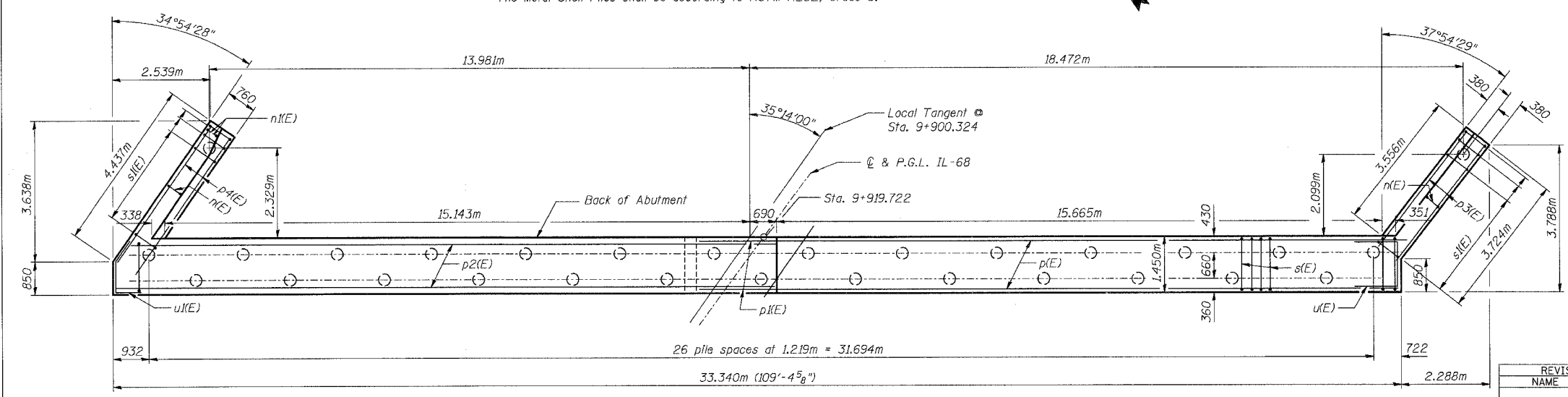
Bar	No.	Size	Length (m)	Shape
h(E)	6	15	7.500	—
h1(E)	3	15	2.550	—
h2(E)	3	15	2.450	—
h3(E)	16	15	8.280	—
h4(E)	8	20	8.310	—
h5(E)	16	15	8.570	—
h6(E)	8	20	8.650	—
h7(E)	12	15	1.900	—
h8(E)	12	15	1.900	—
h9(E)	9	15	3.640	—
h10(E)	12	15	4.020	—
h11(E)	9	15	4.360	—
h12(E)	6	15	4.020	—
n(E)	14	20	3.500	—
n1(E)	6	20	2.050	—
n2(E)	12	20	4.080	—
p(E)	16	25	8.920	—
p1(E)	8	25	2.000	—
p2(E)	16	25	9.200	—
p3(E)	6	25	4.250	—
p4(E)	6	25	4.330	—
p5(E)	3	25	3.060	—
s(E)	107	15	4.990	—
s1(E)	29	15	2.920	—
s2(E)	63	15	2.630	—
u(E)	4	20	3.350	—
u1(E)	5	20	2.080	—
v(E)	216	15	1.700	—
v1(E)	108	15	0.940	—
v2(E)	108	15	0.940	—
v3(E)	30	20	2.220	—
v4(E)	27	20	2.240	—
v5(E)	3	20	2.100	—
Concrete Structures	Cu. M	90.6		
Reinforcement Bars, Epoxy Coated	Kg	5,330		
Test Pile Metal Shells	Each	1		
Furnishing Metal Shell Piles 305mm	m	762		
Driving Piles	m	762		

**MIN. BAR LAP**

#15 Bars = 640  
 #20 Bars = 790  
 #25 Bars = 1,320m

**NOTES:**

- Hatched area to be poured after superstructure forms have been removed. Quantity of concrete included with Concrete Superstructure.
- Reinforcement bars designated (E) shall be epoxy coated.
- All dimensions are in millimeters (mm) except as noted.
- The test pile shall be driven to 110 percent of the Nominal Required Bearing Indicated in the pile data information.



**PLAN - PILE CAP**

REVISIONS	NAME	DATE

SHT. S-23 OF S-34

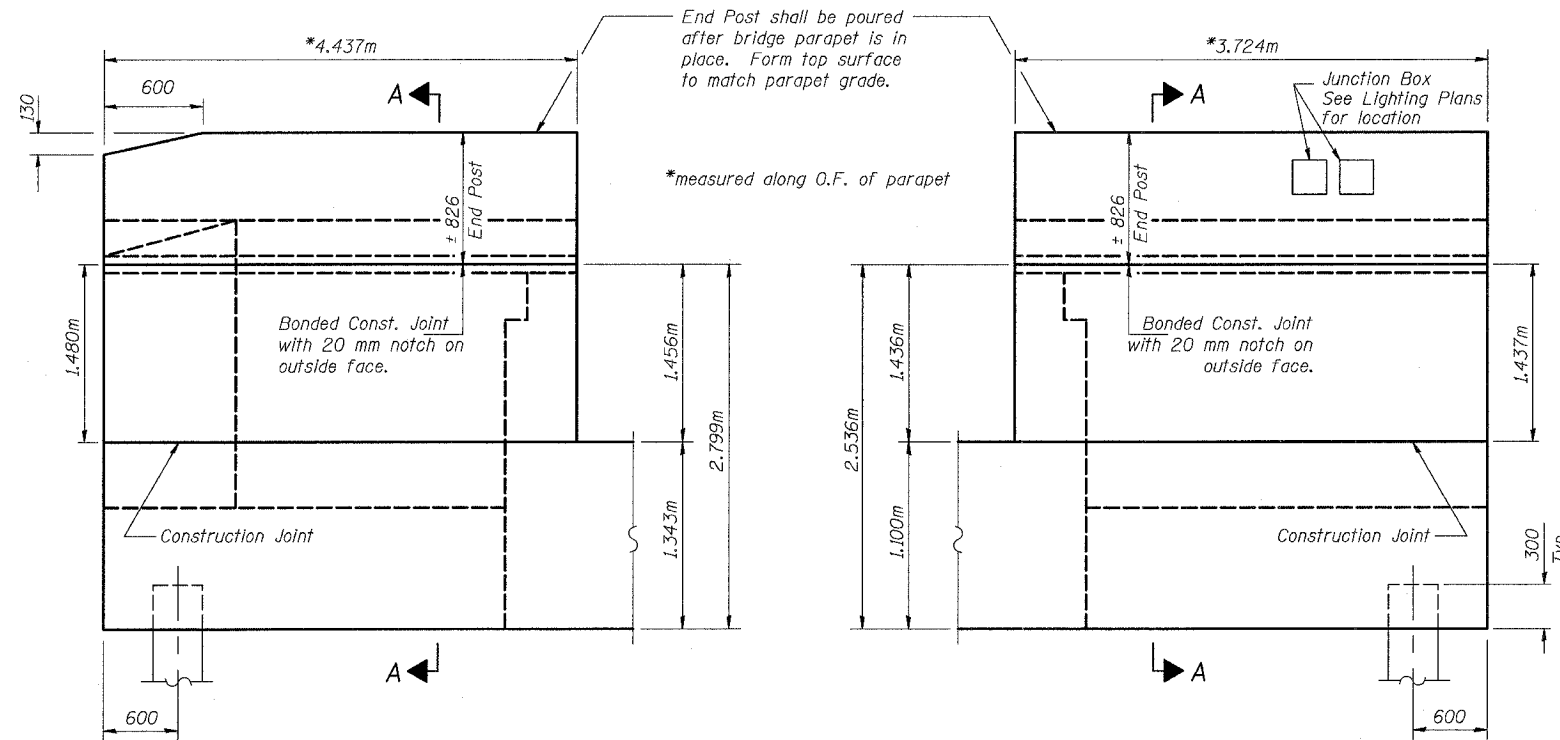
ILLINOIS DEPARTMENT OF TRANSPORTATION  
 IL ROUTE 68 OVER UPRR  
 F.A.P. ROUTE 343 SECTION 70D-Y-B-R  
 COOK COUNTY STATION 9+900.324  
 STRUCTURE NO. 016-2732

**EAST ABUTMENT DETAILS**

DESIGNED: BTO      DRAWN: BTO  
 DATE: 10/06      CHECKED: JAN      CHECKED: JAN

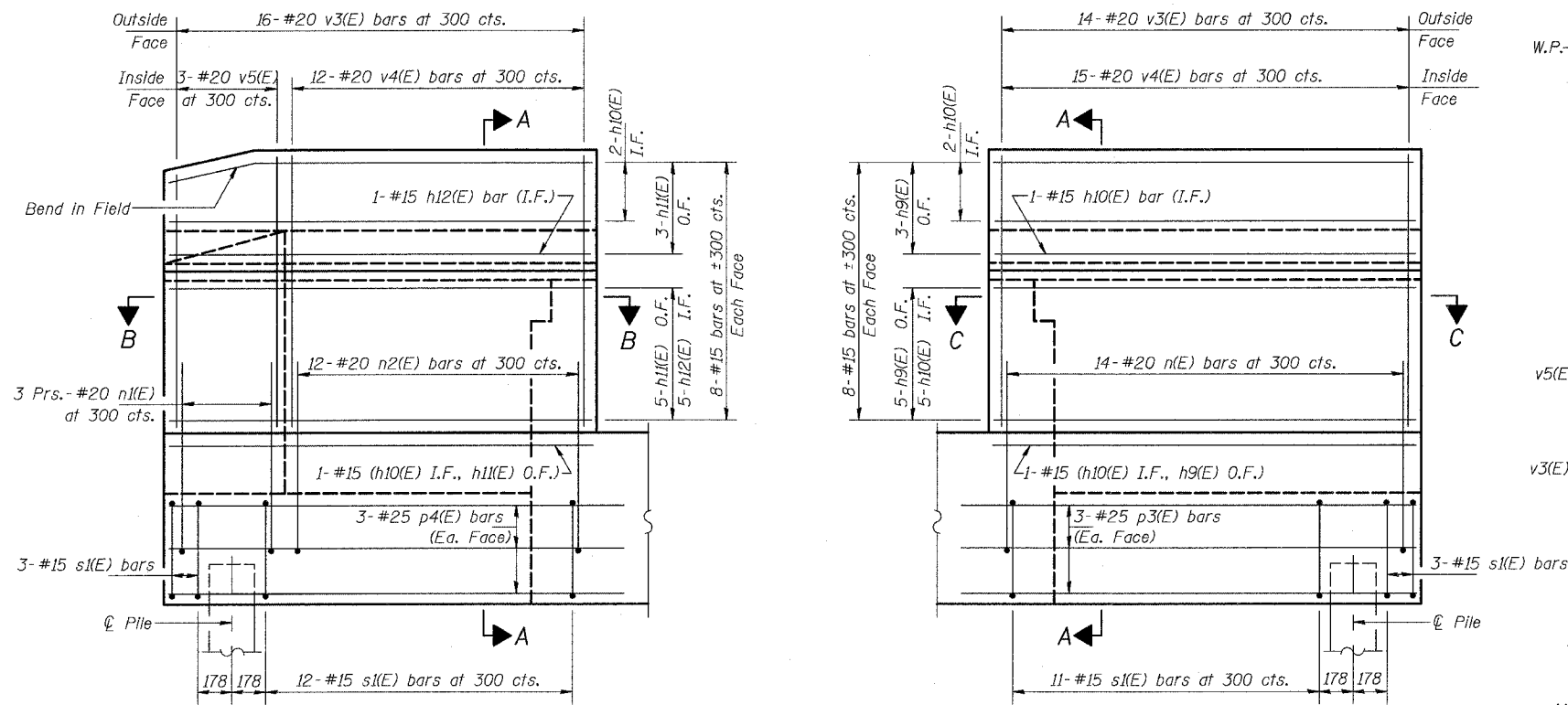
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	70D-Y-B-R	COOK	283	178
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

CONTRACT NO. 62897



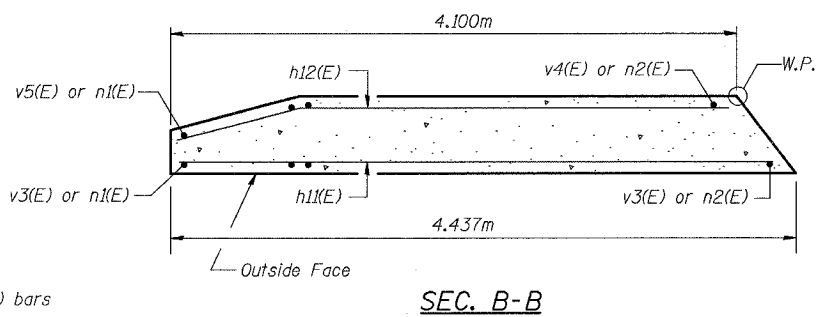
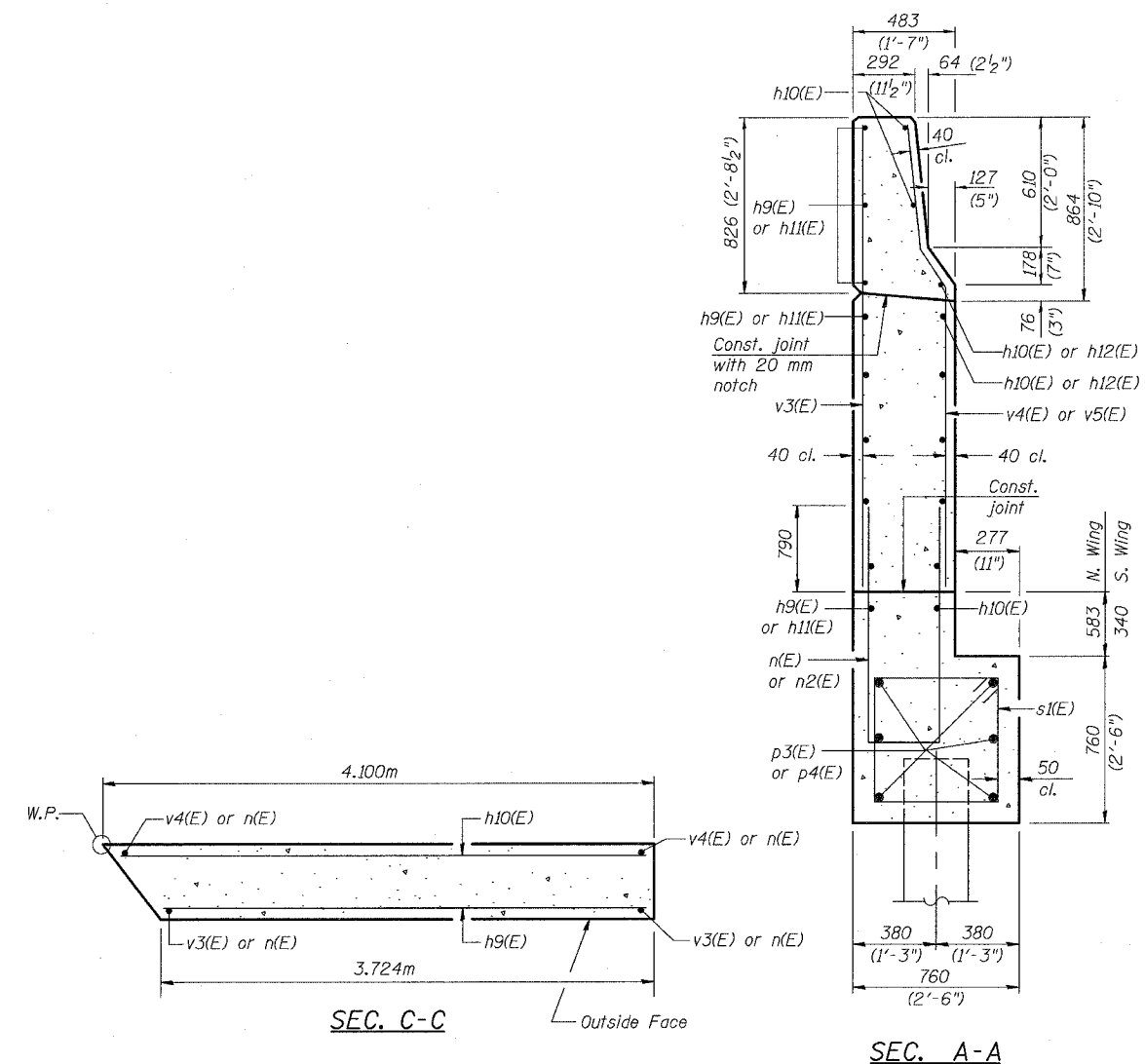
**NORTH WING WALL ELEVATION**  
Showing Dimensions (Looking South)

**SOUTH WING WALL ELEVATION**  
Showing Dimensions (Looking North)



**NORTH WING WALL ELEVATION**  
Showing Reinforcement (Looking South)

**SOUTH WING WALL ELEVATION**  
Showing Reinforcement (Looking North)



**NOTE:**  
Quantity of Concrete in end post included with concrete Superstructure on Sht. S-13 of S-34.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
IL ROUTE 68 OVER UPRR  
F.A.P. ROUTE 343 SECTION 70D-Y-B-R  
COOK COUNTY STATION 9+900.324  
STRUCTURE NO. 016-2732

**EAST ABUTMENT WINGWALL DETAILS**

DESIGNED: BTO  
CHECKED: JAN

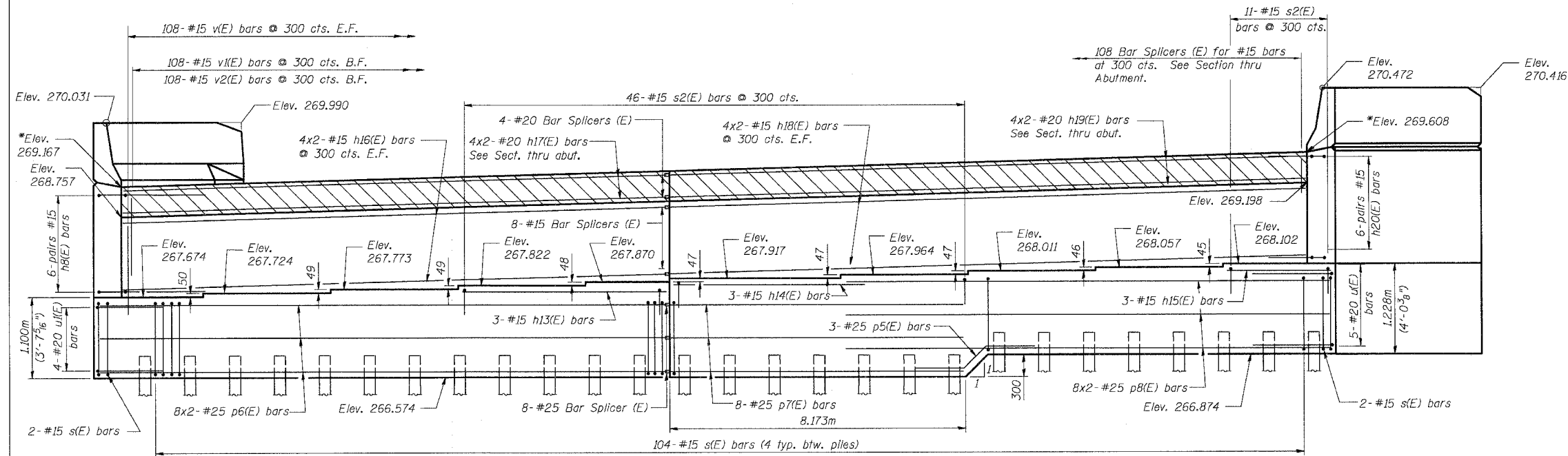
DRAWN: BTO  
CHECKED: JAN

DATE: 10/06

SHT. S-24 OF S-34

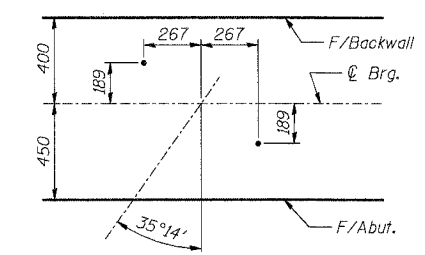


F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	70D-Y-B-R	COOK	283	179
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 62897				



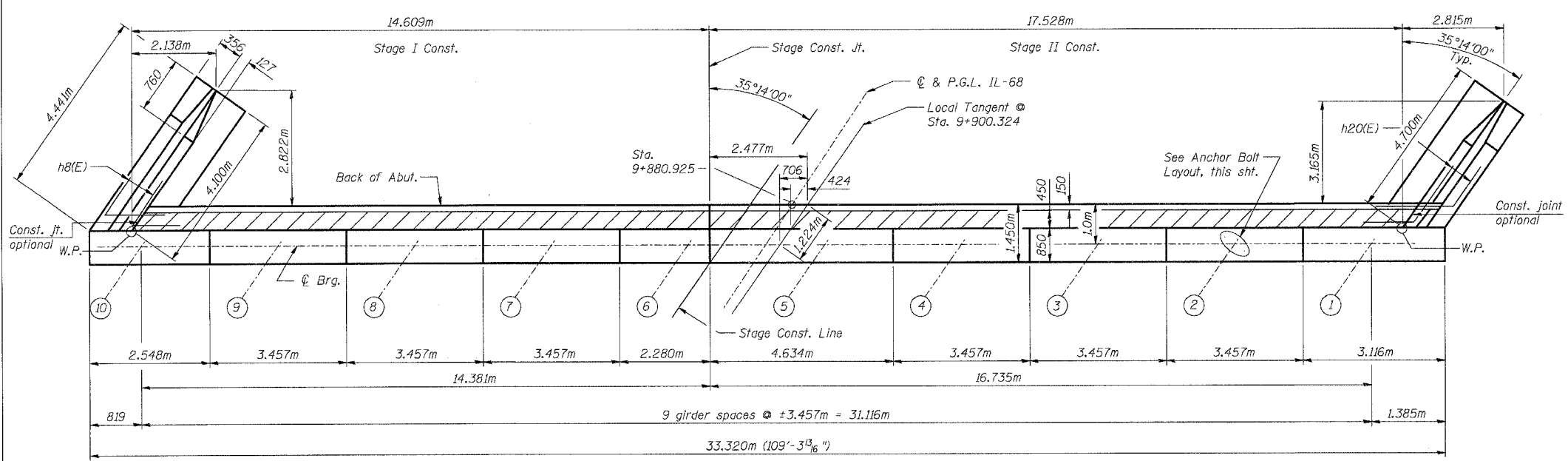
\*At Front Face of hatch block

**MIN. BAR LAP**  
 #15 Bars = 640  
 #20 Bars = 790  
 #25 Bars = 1.320m



**ANCHOR BOLT LAYOUT**

**ELEVATION**



**TOP VIEW**

- NOTES:**
1. Hatched area to be poured after superstructure forms have been removed.
  2. Space reinforcement in cap to miss anchor bolts.
  3. Pour steps monolithically with cap.
  4. Reinforcement bars designated (E) shall be epoxy coated.
  5. Bars indicated thus 4x2-#15 etc. indicates 4 lines of bars with 2 lengths per line.
  6. For anchor bolt details, see shf. S-21 of S-34.

SHT. S-25 OF S-34

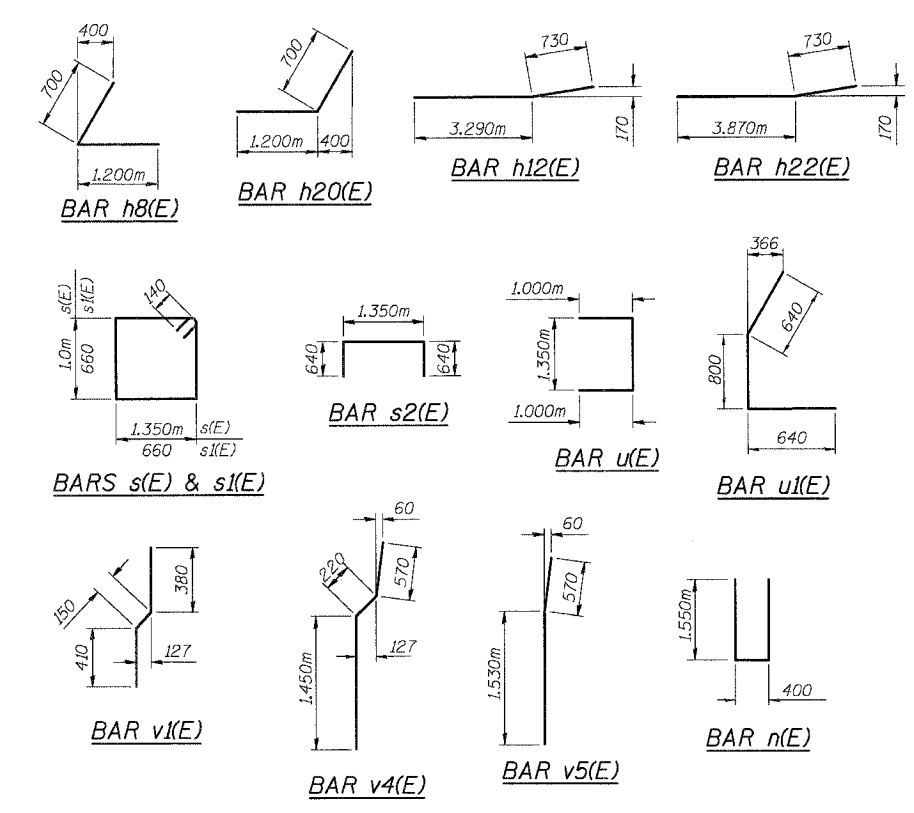
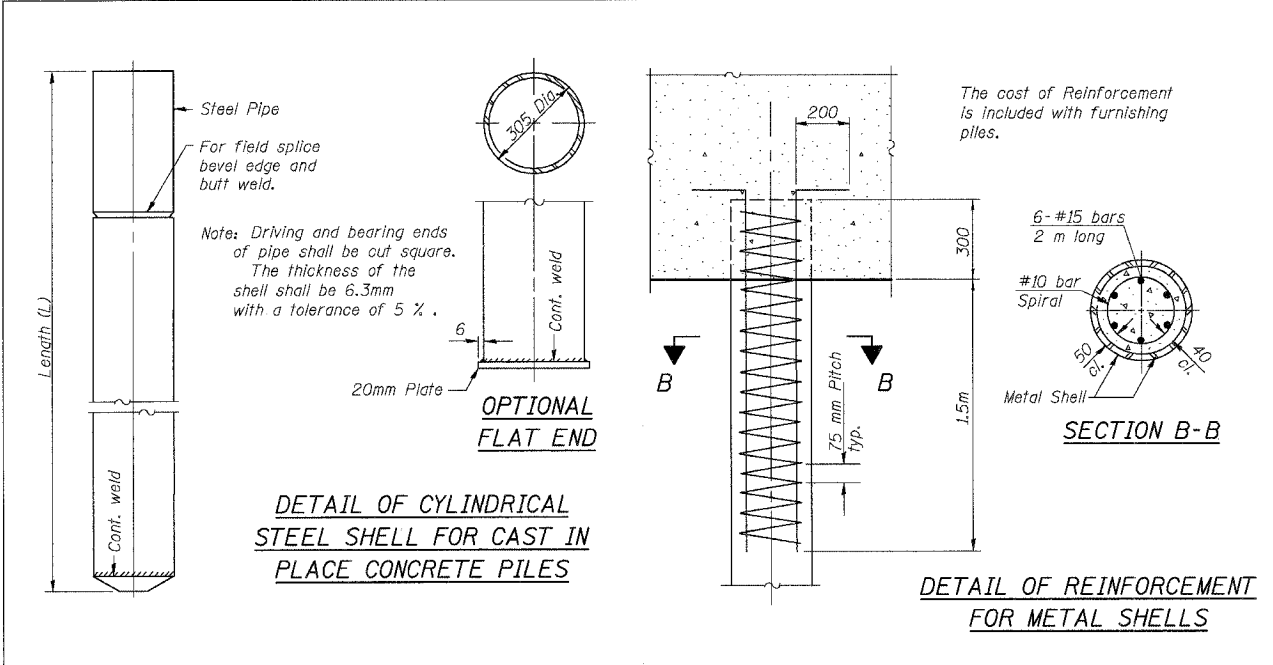
REVISIONS	NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 IL ROUTE 68 OVER UPRR  
 F.A.P. ROUTE 343 SECTION 70D-Y-B-R  
 COOK COUNTY STATION 9+900.324  
 STRUCTURE NO. 016-2732  
**WEST ABUTMENT PLAN & ELEVATION**  
 DESIGNED: BTO  
 CHECKED: JAN  
 DATE: 10/06  
 DRAWN: BTO  
 CHECKED: JAN



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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	70D-Y-B-R	COOK	283	180
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
CONTRACT NO. 62897				

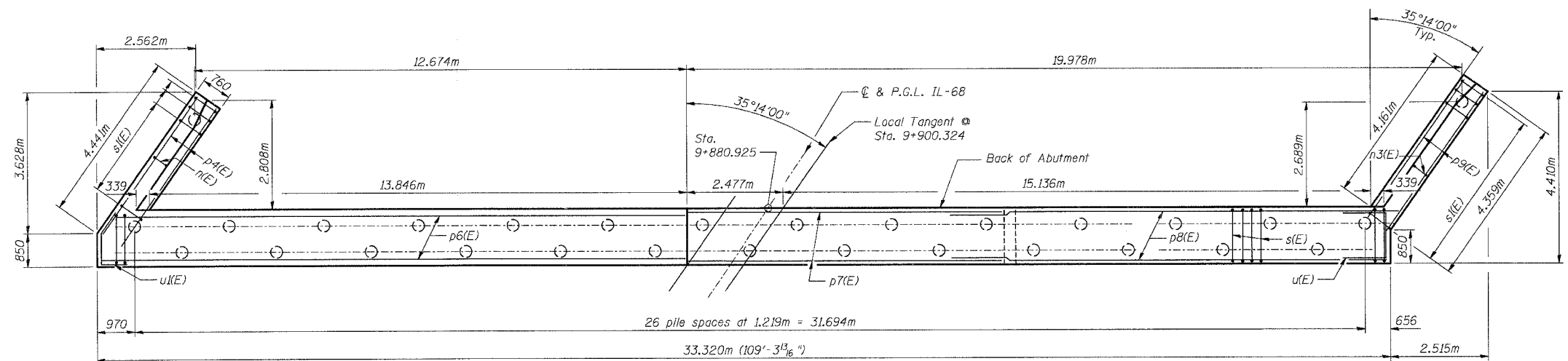
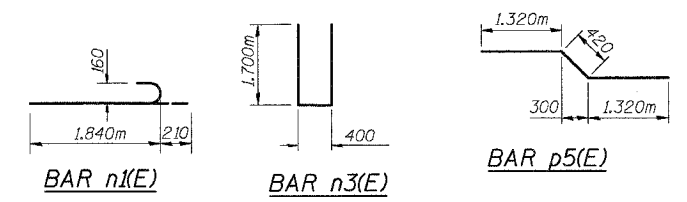


**BILL OF MATERIAL**

Bar	No.	Size	Length (m)	Shape
h8(E)	12	15	1.900	└
h10(E)	3	15	4.020	—
h11(E)	9	15	4.360	—
h12(E)	6	15	4.020	—
h13(E)	3	15	5.660	—
h14(E)	3	15	5.270	—
h15(E)	3	15	3.040	—
h16(E)	16	15	7.580	—
h17(E)	8	20	7.660	—
h18(E)	16	15	9.250	—
h19(E)	8	20	9.320	—
h20(E)	12	15	1.900	└
h21(E)	9	15	4.280	—
h22(E)	6	15	4.600	—
h23(E)	3	15	4.620	—
n(E)	12	20	3.500	└
n1(E)	12	20	2.050	└
n3(E)	14	20	3.800	└
p4(E)	6	25	4.330	—
p5(E)	3	25	3.060	—
p6(E)	16	25	8.220	—
p7(E)	8	25	8.100	—
p8(E)	16	25	7.510	—
p9(E)	6	25	5.000	—
s(E)	108	15	4.980	└
s1(E)	31	15	2.920	└
s2(E)	57	15	2.630	└
u(E)	5	20	3.350	└
u1(E)	4	20	2.080	└
v(E)	216	15	1.700	—
v1(E)	108	15	0.940	—
v2(E)	108	15	0.940	—
v3(E)	32	20	2.220	—
v4(E)	26	20	2.240	—
v5(E)	6	20	2.100	—
Concrete Structures	Cu. M		93.0	
Reinforcement Bars, Epoxy Coated	Kg		5,420	
Test Pile Metal Shells	Each		1	
Furnishing Metal Shell Piles 305mm	m		634	
Driving Piles	m		634	

**PILE DATA**

Pile Type and Size: 305mm  $\phi$  Metal Shell, w/6.3mm wall  
 Nominal Required Bearing: 1500 KN  
 Allowable Resistance Available: 500 KN  
 Est. Pile Length: 24.4m  
 No. of Production: 26  
 Number of Test Piles: 1  
 The Metal Shell Piles shall be according to ASTM A252, Grade 3.



**MIN. BAR LAP**

- #15 Bars = 640
- #20 Bars = 790
- #25 Bars = 1.320m

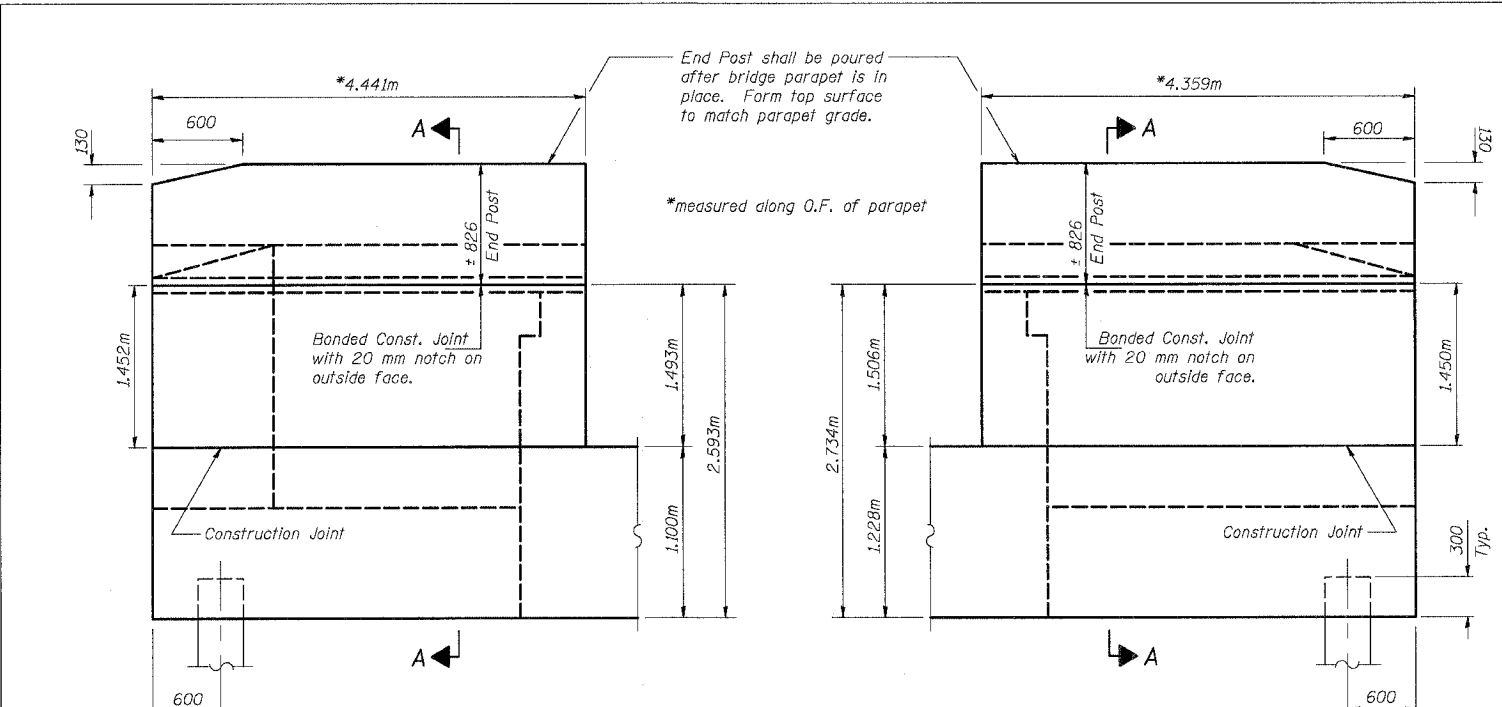
**NOTES:**

- Reinforcement bars designated (E) shall be epoxy coated.
- For details of Bar Splicers, see sheet S-29 of S-34.
- All dimensions are in millimeters (mm) except as noted.
- The test pile shall be driven to 110 percent of the Nominal Required Bearing indicated in the pile data information.

REVISIONS	NAME	DATE

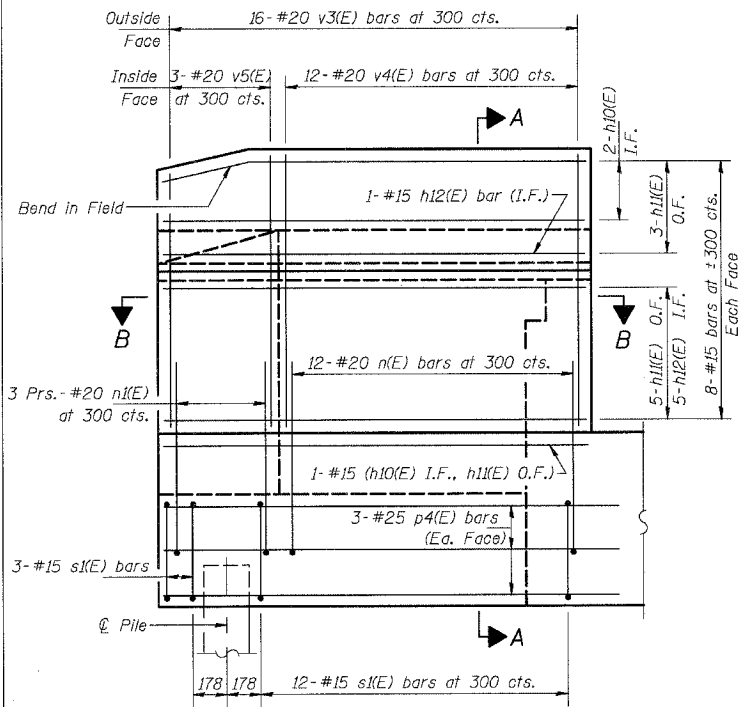
ILLINOIS DEPARTMENT OF TRANSPORTATION  
 IL ROUTE 68 OVER UPRR  
 F.A.P. ROUTE 343 SECTION 70D-Y-B-R  
 COOK COUNTY STATION 9+900.324  
 STRUCTURE NO. 016-2732  
 WEST ABUTMENT DETAILS & PILE DETAILS  
 DESIGNED: BTO DRAWN: BTO  
 CHECKED: JAN CHECKED: JAN  
 DATE: 10/06

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	70D-Y-B-R	COOK	283	181
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 62897				

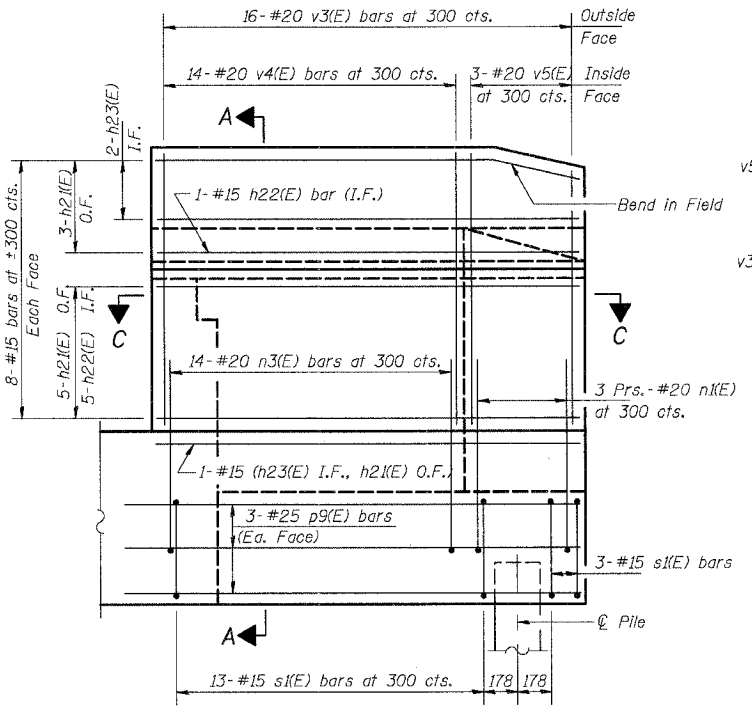


**SOUTH WING WALL ELEVATION**  
Showing Dimensions (Looking North)

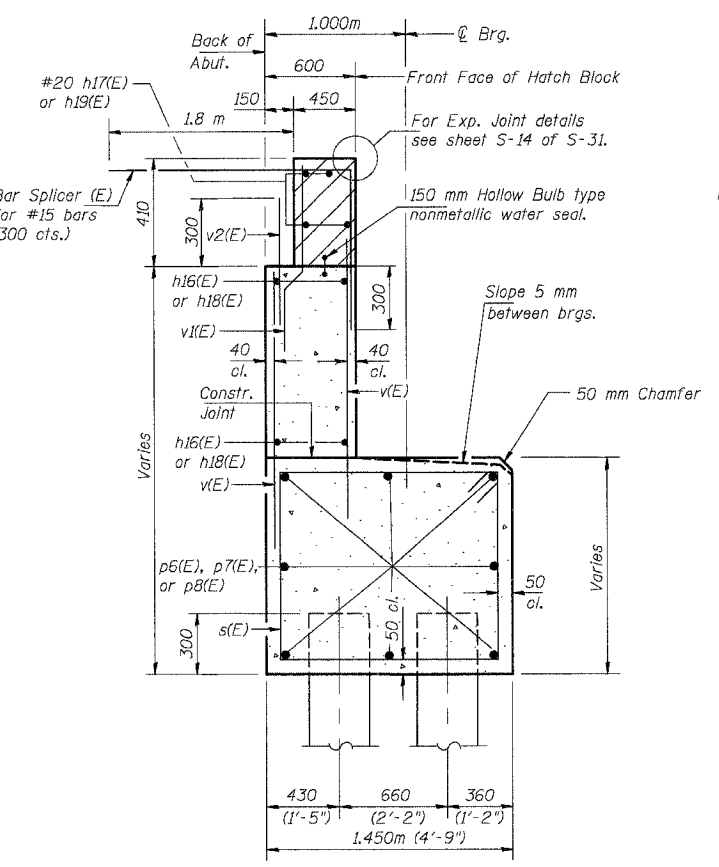
**NORTH WING WALL ELEVATION**  
Showing Dimensions (Looking South)



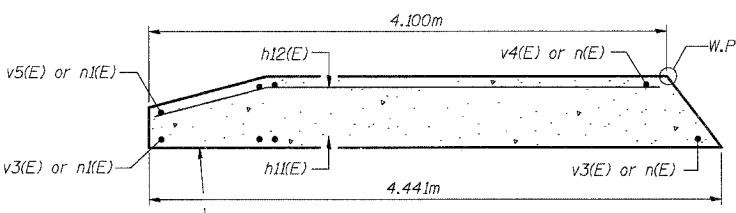
**SOUTH WING WALL ELEVATION**  
Showing Dimensions (Looking North)



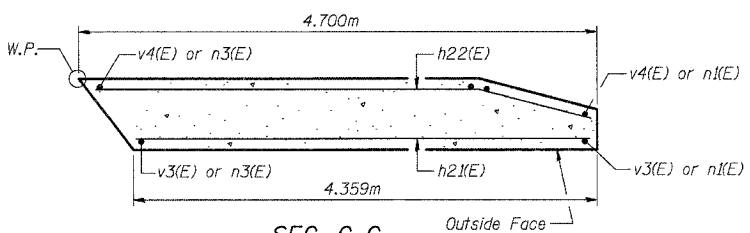
**NORTH WING WALL ELEVATION**  
Showing Dimensions (Looking South)



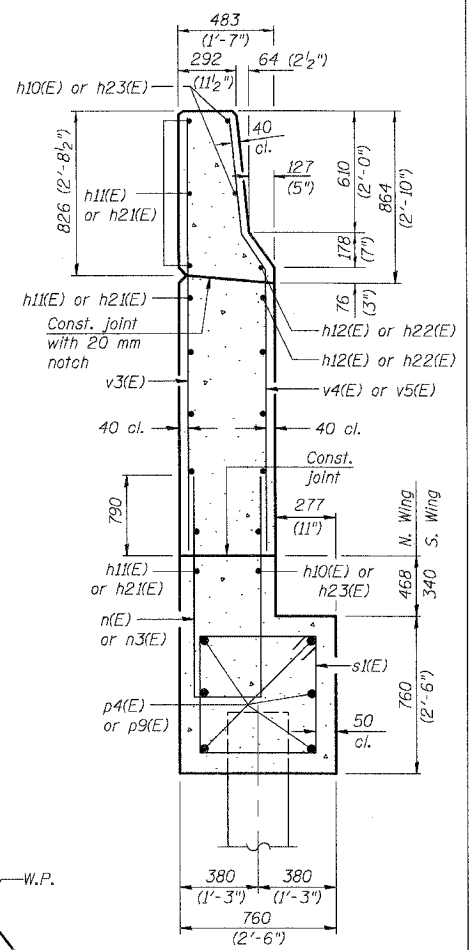
**SEC. THRU ABUT.**



**SEC. B-B**



**SEC. C-C**



**SEC. A-A**

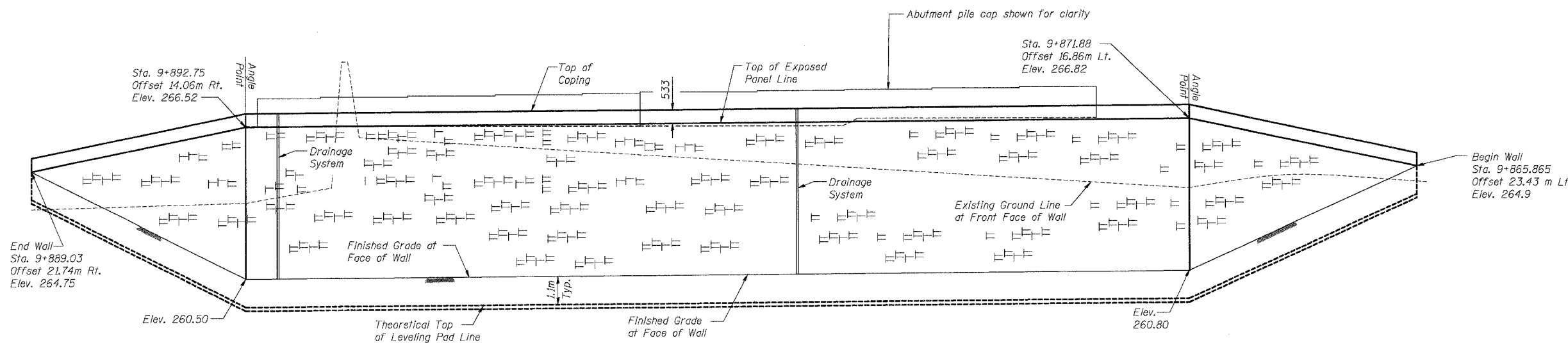
**NOTE:**  
Quantity of Concrete in end post included with concrete Superstructure on Sht. S-13 of S-34.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
IL ROUTE 68 OVER UPRR  
F.A.P. ROUTE 343 SECTION 70D-Y-B-R  
COOK COUNTY STATION 9+900.324  
STRUCTURE NO. 016-2732  
**WEST ABUTMENT WINGWALL DETAILS**  
DESIGNED: BTO  
CHECKED: JAN  
DATE: 10/06  
DRAWN: BTO  
CHECKED: JAN

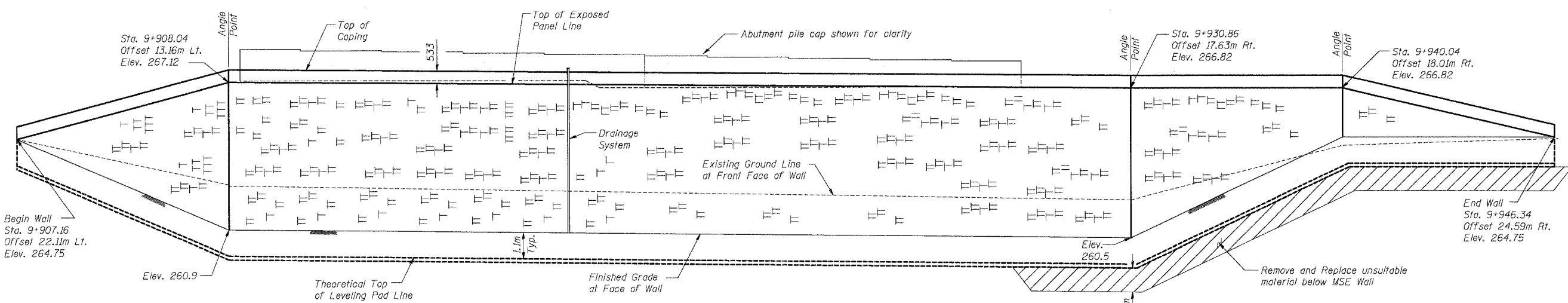
SHT. S-27 OF S-34

F.A.P. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	70D-Y-B-R	COOK	283	182
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 62897				



**WEST ABUTMENT WALL**  
(Unfolded Elevation View)

Stationing and Offsets from  $\phi$  IL-68.



**EAST ABUTMENT WALL**  
(Unfolded Elevation View)

**BILL OF MATERIAL**

Item	Unit	Total
Mechanically Stabilized Earth Retaining Wall	SQ M	790

**NOTES:**

Stationing and Offsets from  $\phi$  IL-68.  
 For Plan of Mechanically Stabilized Earth Retaining Walls see sheet S-01 of S-34.  
 For Section Through MSE Retaining Walls see sheet S-02 of S-34.  
 Bearing Capacity of soil below MSE Wall is 215 kPa with a corresponding Factor of Safety of 2.5.

REVISIONS	
NAME	DATE

SHT. S-28 OF S-34

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 IL ROUTE 68 OVER UPRR  
 F.A.P. ROUTE 343 SECTION 70D-Y-B-R  
 COOK COUNTY STATION 9+900.324  
 STRUCTURE NO. 016-2732

**MECHANICALLY STABILIZED EARTH RETAINING WALLS**

DESIGNED: BTO      DRAWN: BTO  
 DATE: 10/06      CHECKED: JAN      CHECKED: JAN

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	700-Y-B-R	COOK	283	183
STA.		TO STA.		
ILLINOIS		FED. AID PROJECT		

**NOTES**

Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.  
 Splicer rods shall be of minimum 400 MPa yield strength, threaded or coiled full length.  
 All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.  
 Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.

Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

- ① Minimum Capacity =  $1.25 \times 10^{-3} \times f_y \times A_s$   
(Tension in kN)
- ② Minimum \*Pull-out Strength =  $1.25 \times 10^{-3} \times f_{s,allow} \times A_s$   
(Tension in kN)

Where  $f_y$  = Yield strength of lapped reinforcement bars in MPa.  
 $f_{s,allow}$  = Allowable tensile stress in lapped reinforcement bars in MPa (Service Load)  
 $A_s$  = Tensile stress area of lapped reinforcement bars.  
 \* = 28 day concrete

BAR SPLICER ASSEMBLIES			
Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kN - tension	Min. Pull-Out Strength kN - tension
#10	510 mm	70	5.9
#15	610 mm	100	40
#20	790 mm	150	60
#25	1.04 m	250	100
#30	1.37 m	350	140

Bar splicer assemblies shall be according to Section 508 of the Standard Specifications, except as noted. The furnishing and installation of bar splicer assemblies will be measured and paid for at the contract unit price each for "BAR SPLICERS."

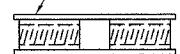
The diameter of this part is the same as the diameter of the bar spliced.

**ROLLED THREAD DOWEL BAR**



\*\* ONE PIECE

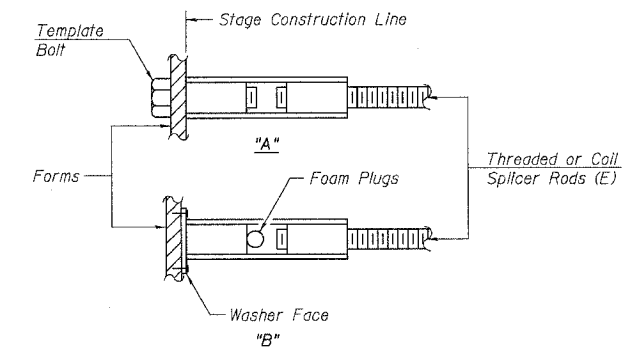
Wire Connector



WELDED SECTIONS

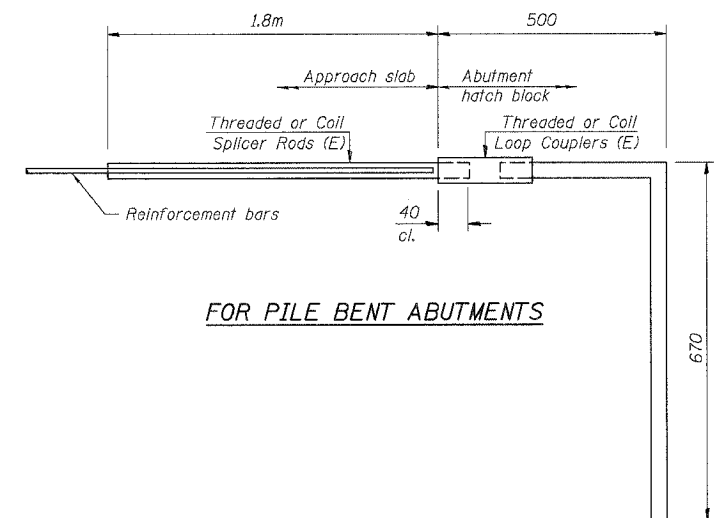
**BAR SPLICER ASSEMBLY ALTERNATIVES**

\*\* Heavy Hex Nuts conforming to ASTM A 563M, Grade C, D or DH may be used.



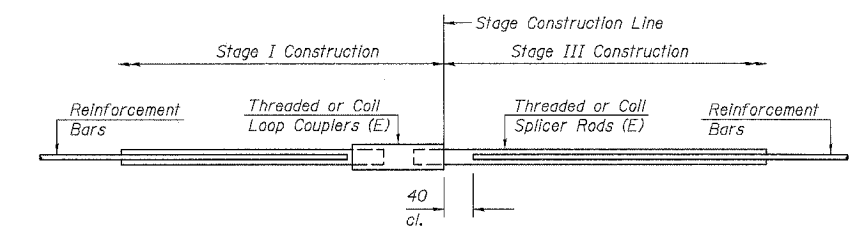
**INSTALLATION AND SETTING METHODS**

"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.



**FOR PILE BENT ABUTMENTS**

Bar Splicer for #15 bar	
Min. Capacity =	100 kN - tension
Min. Pull-out Strength =	40kN - tension
No. Required =	216



**STANDARD**

Bar Size	No. Assemblies Required	Location
#15	8	E. Abut.
#15	8	W. Abut.
#20	4	E. Abut.
#20	4	W. Abut.
#25	8	E. Abut.
#25	8	W. Abut.
#15	519	Deck

**BAR SPLICER ASSEMBLY DETAILS**

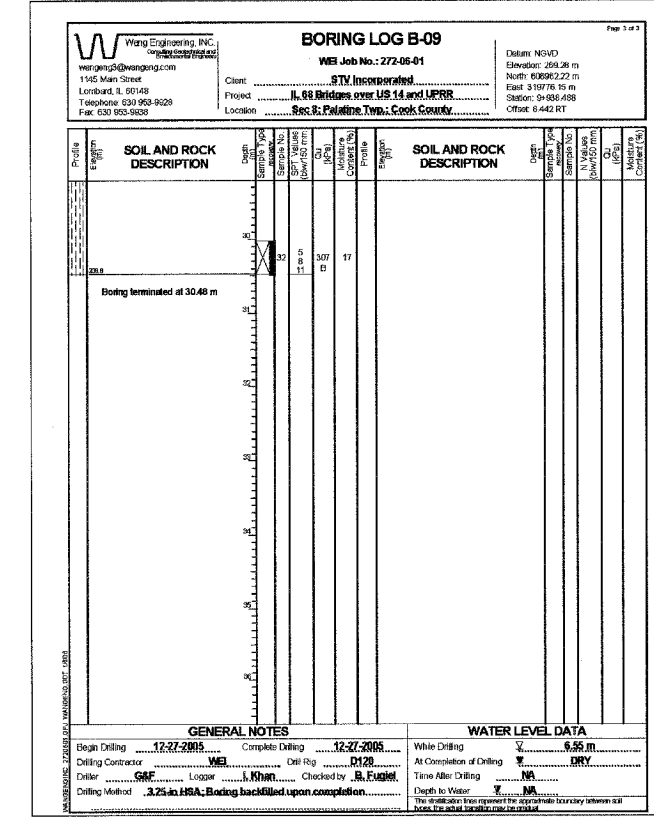
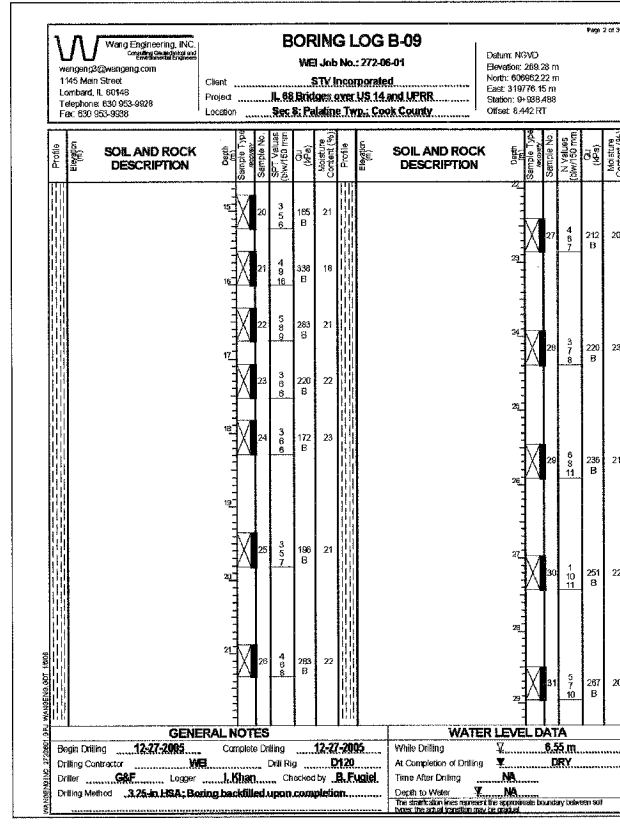
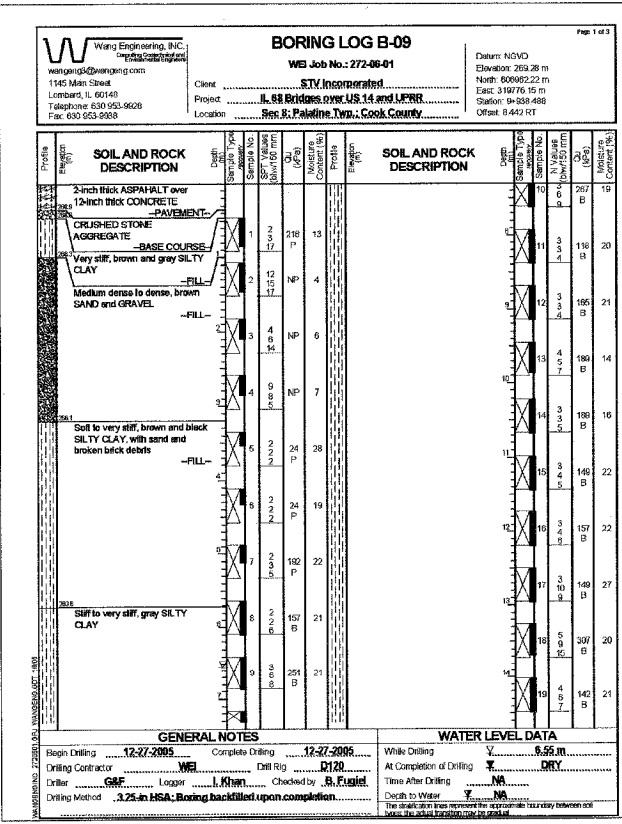
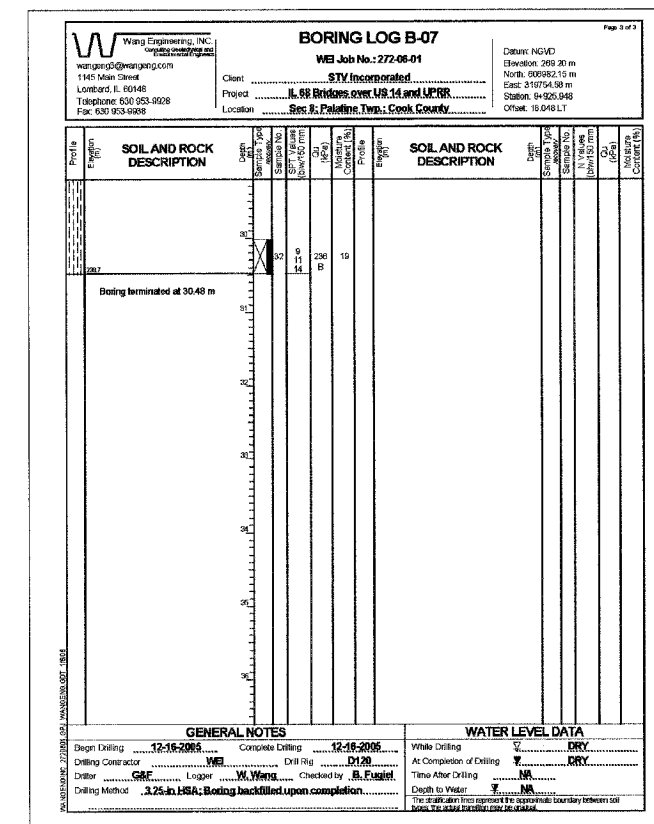
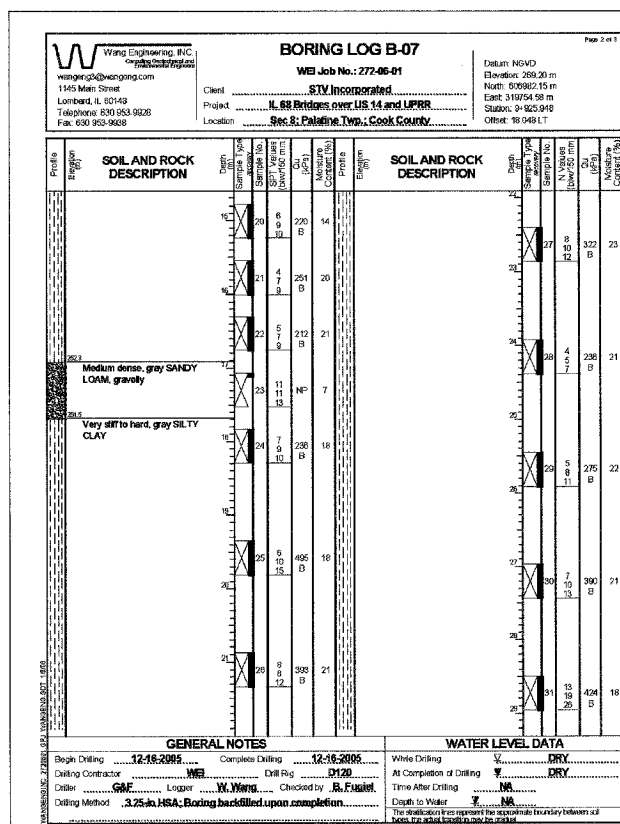
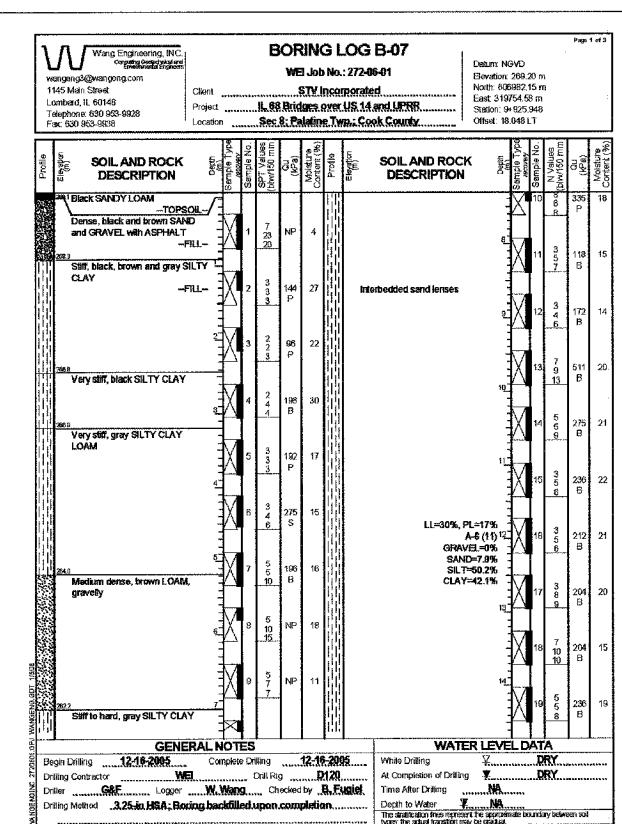
SHT. S-29 OF S-34

REVISIONS	NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 IL ROUTE 68 OVER UPRR  
 F.A.P. ROUTE 343 SECTION 700-Y-B-R  
 COOK COUNTY STATION 9+900.324  
 STRUCTURE NO. 016-2732  
**BAR SPLICER ASSEMBLY**  
 DESIGNED: BTO      DRAWN: BTO  
 DATE: 10/06      CHECKED: JAN      CHECKED: JAN

BSD-1 (M)

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	70D-Y-B-R	COOK	283	184
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 62897				



**NOTE:**  
 For 1967 Soil Borings, see existing bridge plans for SN 016-0523.

SHT. S-30 OF S-34

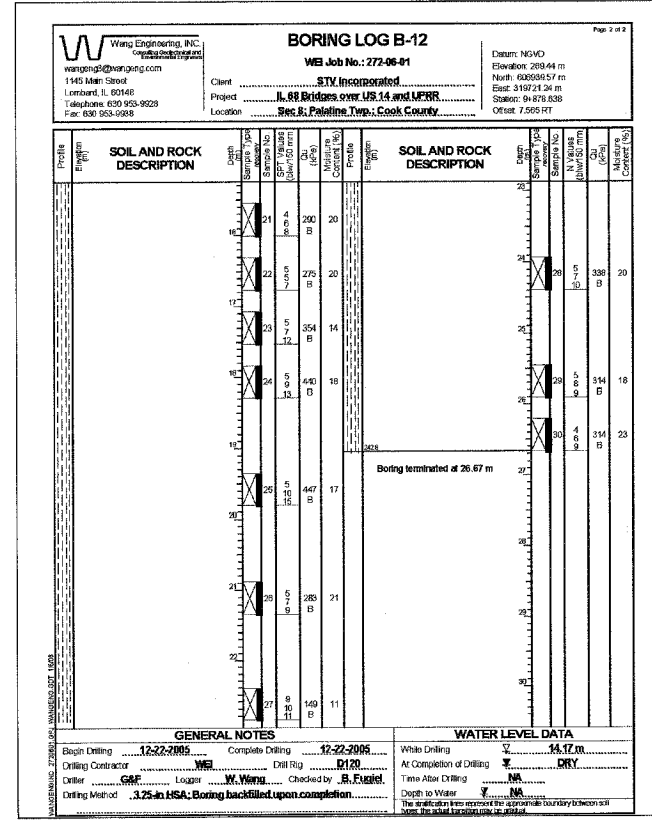
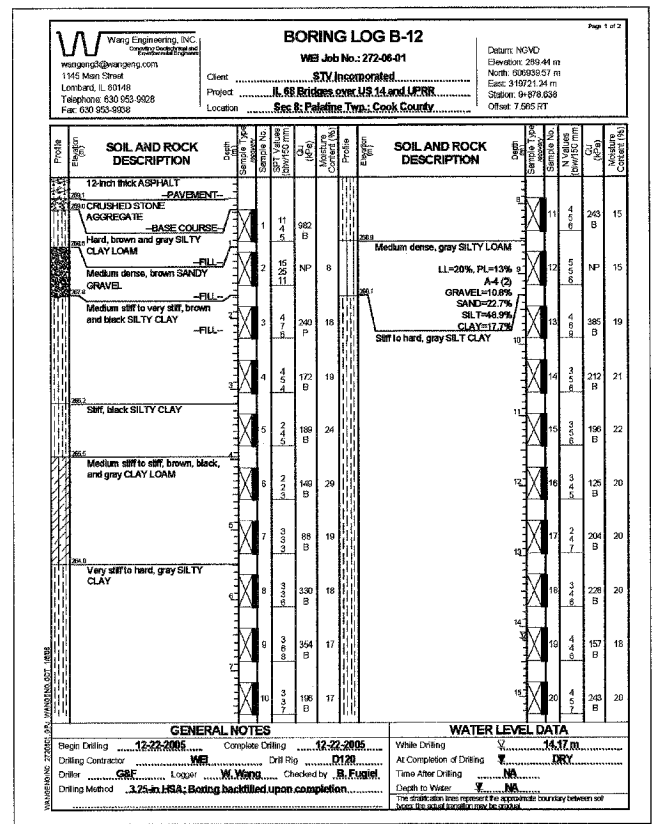
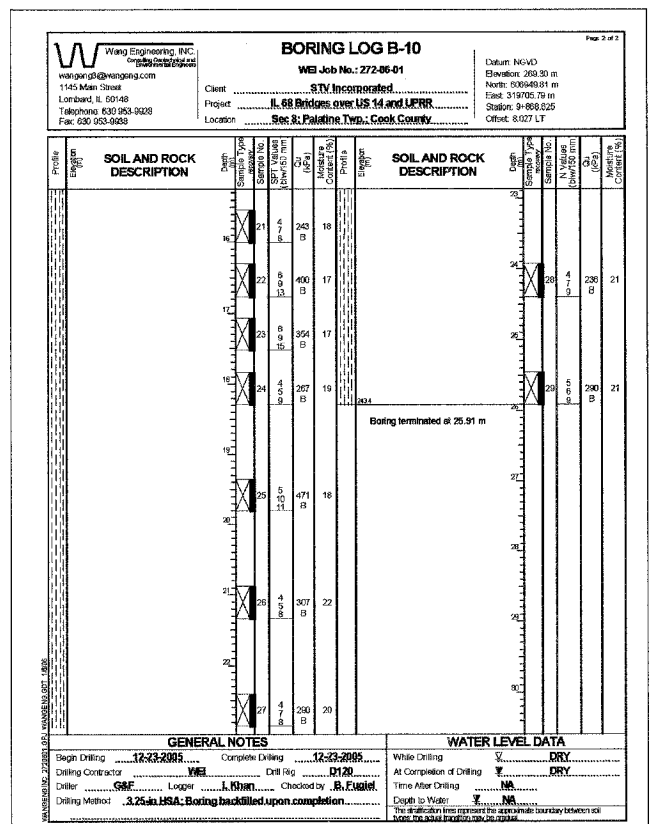
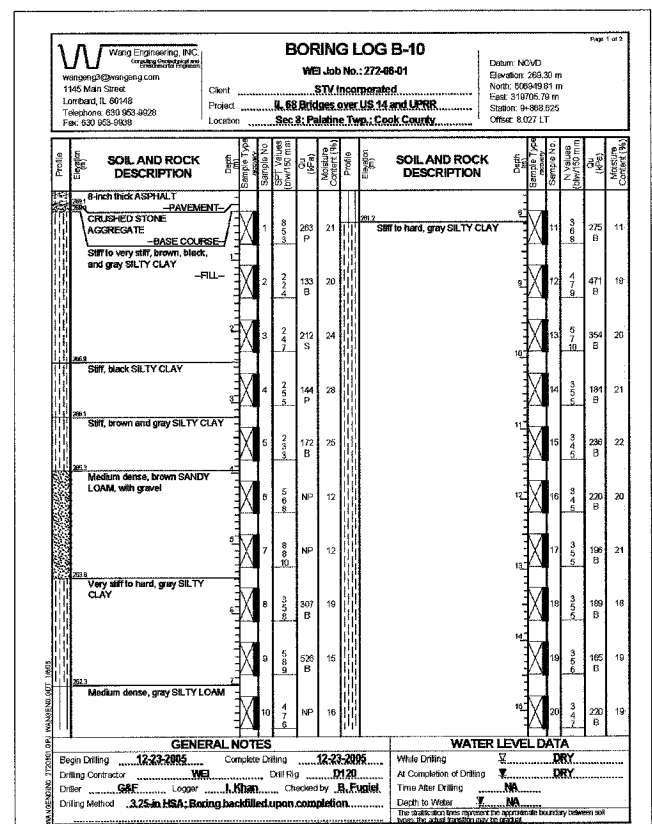
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 IL ROUTE 68 OVER UPRR  
 F.A.P. ROUTE 343 SECTION 70D-Y-B-R  
 COOK COUNTY STATION 9+900.324  
 STRUCTURE NO. 016-2732

BORING LOGS

DESIGNED: BTO      DRAWN: BTO  
 DATE: 10/06      CHECKED: JAN      CHECKED: JAN

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	70D-Y-B-R	COOK	283	185
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
CONTRACT NO. 62897				



**NOTE:**  
 For 1967 Soil Borings, see existing bridge plans for SN 016-0523.

SHT. S-31 OF S-34

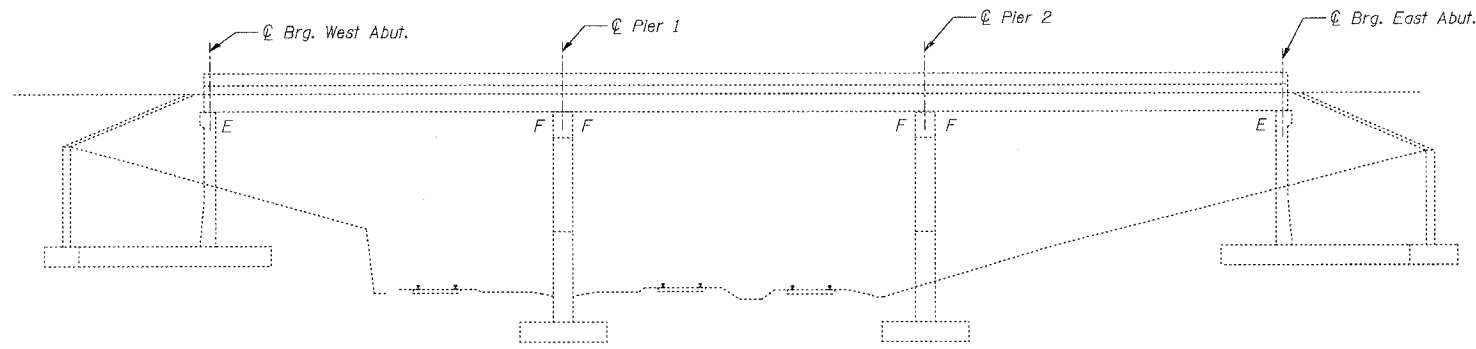
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 IL ROUTE 68 OVER UPRR  
 F.A.P. ROUTE 343 SECTION 70D-Y-B-R  
 COOK COUNTY STATION 9+800.324  
 STRUCTURE NO. 016-2732

BORING LOGS

DESIGNED: BTO DRAWN: BTO  
 DATE: 10/06 CHECKED: JAN CHECKED: JAN

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	70D-Y-B-R	COOK	283	185A
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 62897				



**ELEVATION**

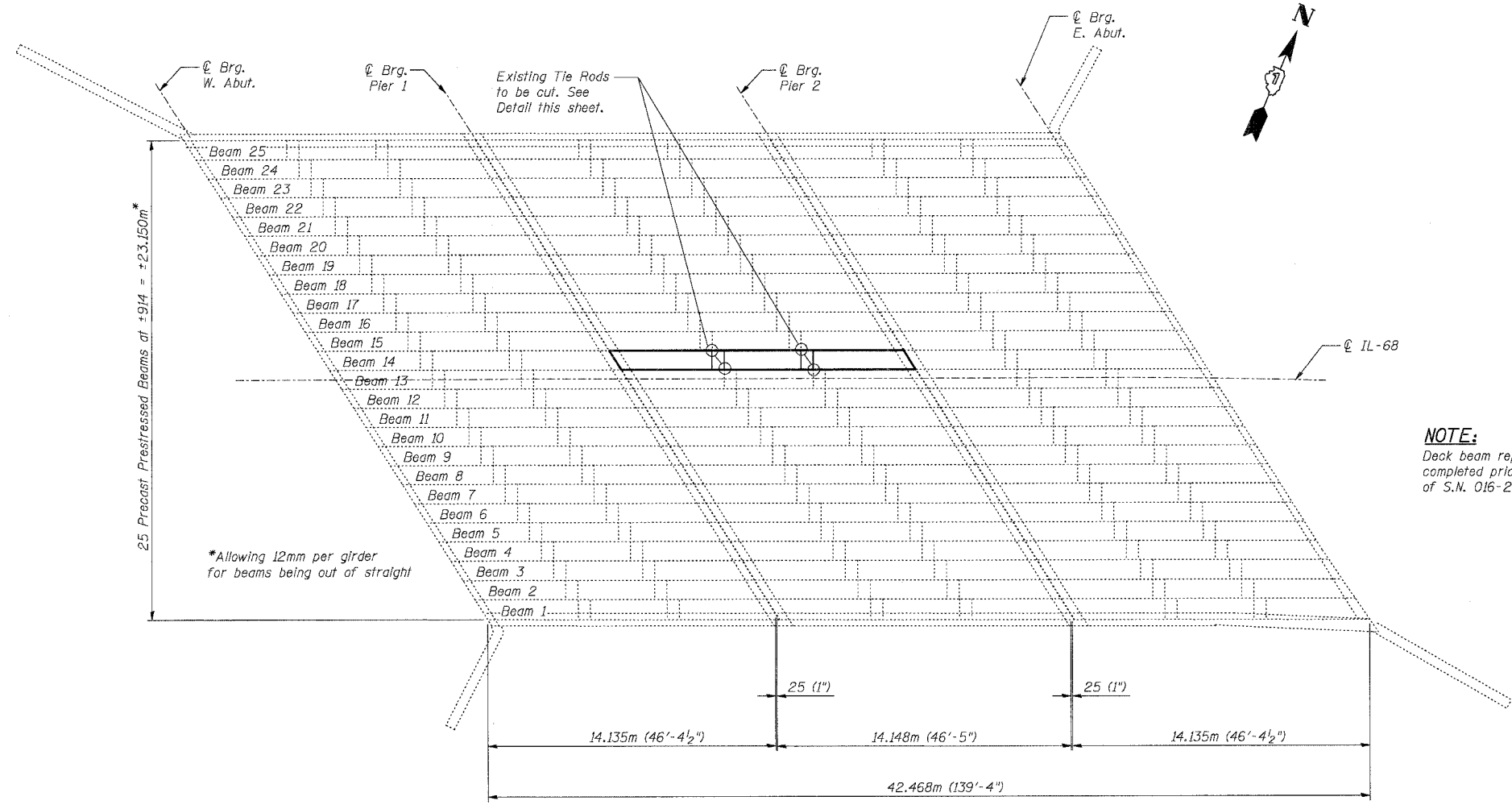
**GENERAL NOTES**

Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

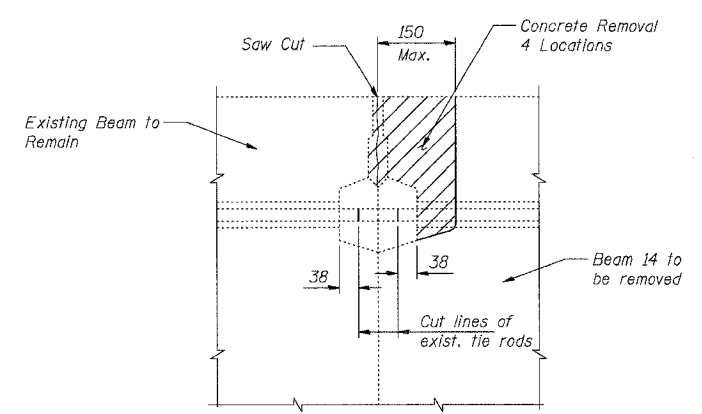
Any damage done to the bridge during beam removal shall be repaired by the Contractor. Cost of any damage and cost of removal of deck beam to be included in the cost of "Erecting Precast Prestressed Concrete Deck Beam (686 MM Depth)".

The top surface of the beams shall be finished in accordance with Article 504.06 of the Standard Specifications except that the surface shall be free of depressions or high spots with sharp corners, and the top edge of keys shall be rounded or chamfered a minimum of 6 mm.

The cut strands at each beam end shall be given two coats of zinc dust spray or paint meeting the requirements of ASTM A 780. The zinc dust spray or paint shall be applied before corrosion appears and allowed to dry according to the manufacturer's specifications prior to another coat of zinc.



**FRAMING PLAN**



**BEAM REMOVAL DETAIL AT TRANSVERSE TIES**

**NOTE:**

Deck beam replacement shall be completed prior to Stage I Construction of S.N. 016-2732.

**DESIGN STRESSES PRESTRESS UNITS**

- f'c = 35 MPa
- f'cl = 28 MPa
- f's = 1860 MPa (12.70mm  $\phi$  Strands)
- f'sl = 1302 MPa (12.70mm  $\phi$  Strands)

**BILL OF MATERIAL**

ITEM	UNIT	TOTAL
Erecting Precast Prestressed Concrete Deck Beam (686 MM Depth)	m <sup>2</sup>	12.58

Note: Bituminous Concrete Surface Removal is incidental to Erecting Precast Prestressed Concrete Deck Beam (686 MM Depth).

REVISIONS	
NAME	DATE

SHT. S-32 OF S-34

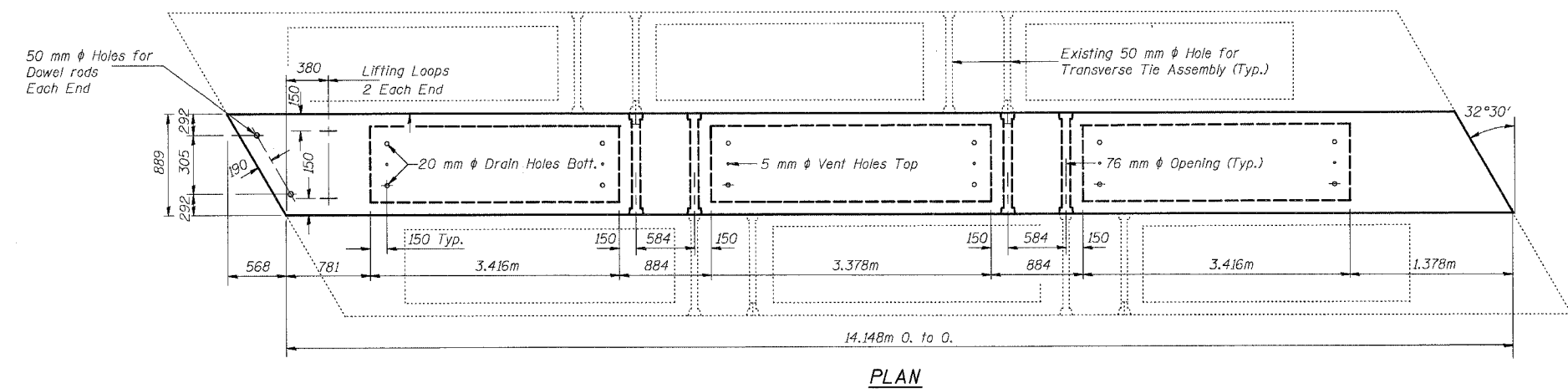
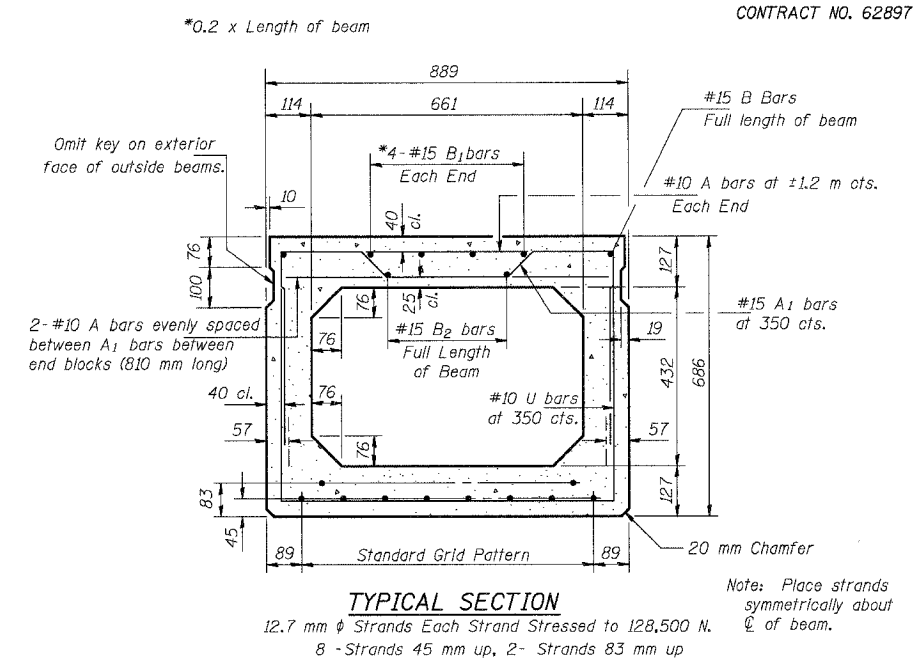
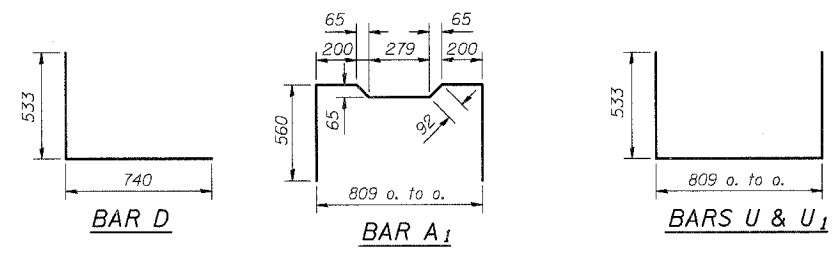
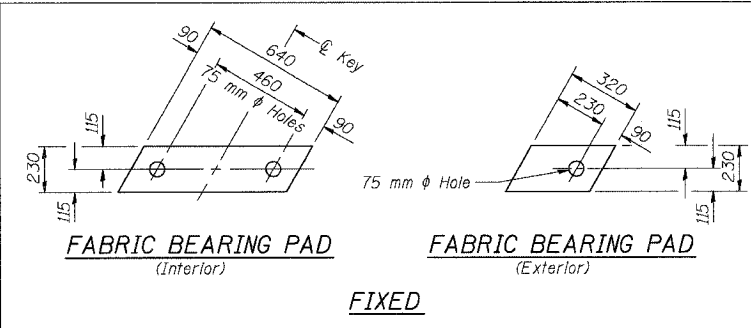
ILLINOIS DEPARTMENT OF TRANSPORTATION  
 IL ROUTE 68 OVER UPRR  
 F.A.P. ROUTE 343 SECTION 70D-Y-B-R  
 COOK COUNTY STATION 9+900.324  
 STRUCTURE NO. 016-2732

EXISTING SN 016-0523 PLAN

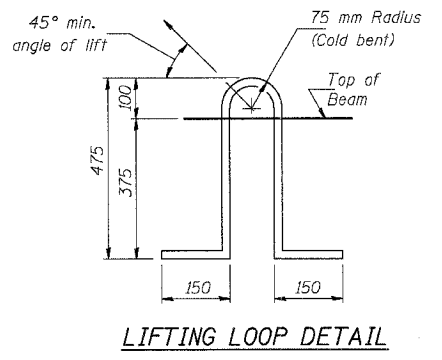
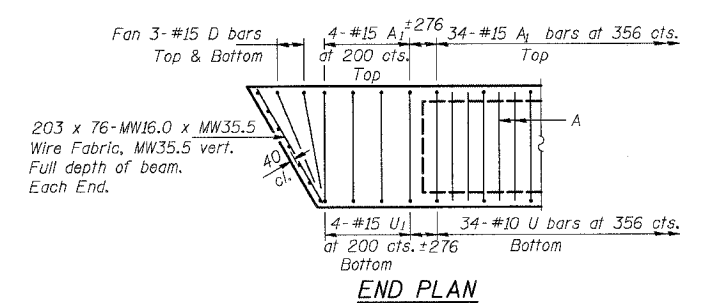
DESIGNED: BTO      DRAWN: BTO  
 DATE: 10/06      CHECKED: JAN      CHECKED: JAN



F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	70D-Y-B-R	COOK	283	185B
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 62897				



FOR INFORMATION ONLY:  
 INCLUDED IN BEAM  
 FABRICATION CONTRACT



**NOTES**

Prestressing steel shall be uncoated high strength, stress-relieved 7-wire strand ( $F_u=1860$  MPa). The nominal diameter shall be 12.7 mm and the nominal cross-sectional area shall be 98.71 mm<sup>2</sup>. Lifting loops shall be 2 - 12.7 mm strands ( $F_u=1860$  MPa) as shown. The 25 mm  $\phi$  rods in the transverse tie assembly shall be tightened to a snug fit and the threads set. Pockets that receive transverse tie bar on outside shall be filled with grout after transverse tie assembly is in place. The bearing seat surfaces shall be adjusted by shimming to assure firm and even bearing. Two 3 mm fabric adjusting shims of the dimensions of the Exterior Bearing Pad shall be provided for each bearing. Keyway surfaces shall be cleaned to remove form oil or other bond breaking material prior to shipment of the beams. Cleaning shall be done by sandblasting the keyway areas between top of the beam and the bottom edge of the key. Required Release Strength,  $f'_{ci}$ , shall be 28 MPa. An equal substitution of the low-relaxation strands for the stress-relieved strands will be permitted. All dimensions are in millimeters (mm) except as noted.

REVISIONS	
NAME	DATE

SHT. S-33 OF S-34

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 IL ROUTE 68 OVER UPRR  
 F.A.P. ROUTE 343 SECTION 70D-Y-B-R  
 COOK COUNTY STATION 9+900.324  
 STRUCTURE NO. 016-2732

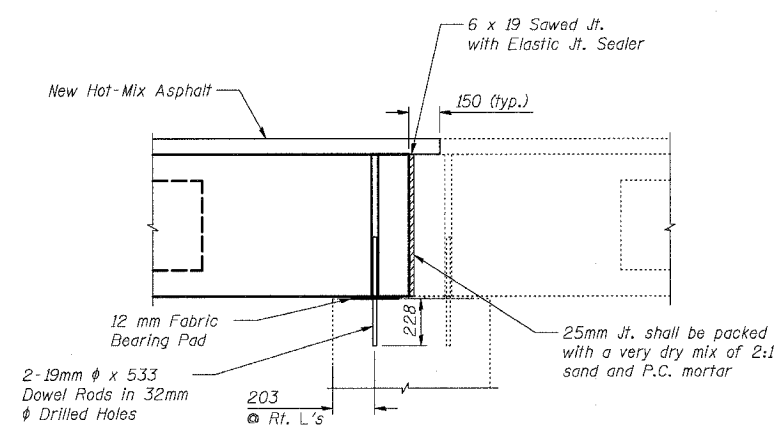
DECK BEAM REMOVAL AND REPLACEMENT

DESIGNED: BTO  
 CHECKED: JAN

DRAWN: BTO  
 CHECKED: JAN

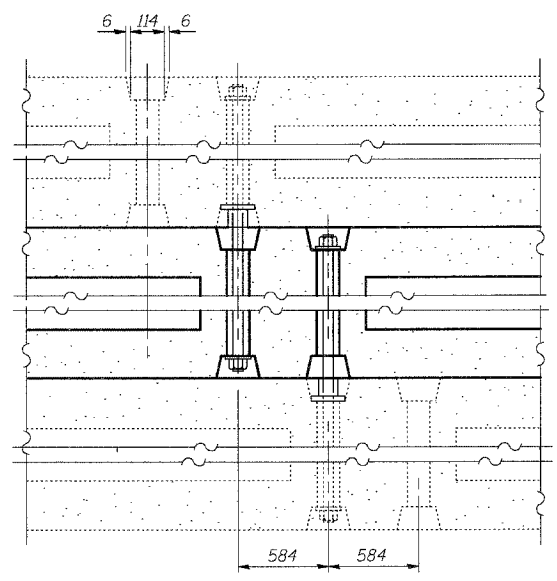
DATE: 10/06

F.A.P. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	70D-Y-B-R	COOK	283	185C
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 62897				

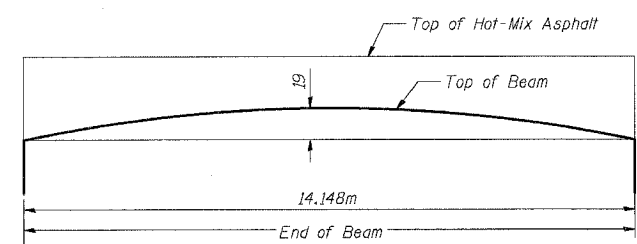
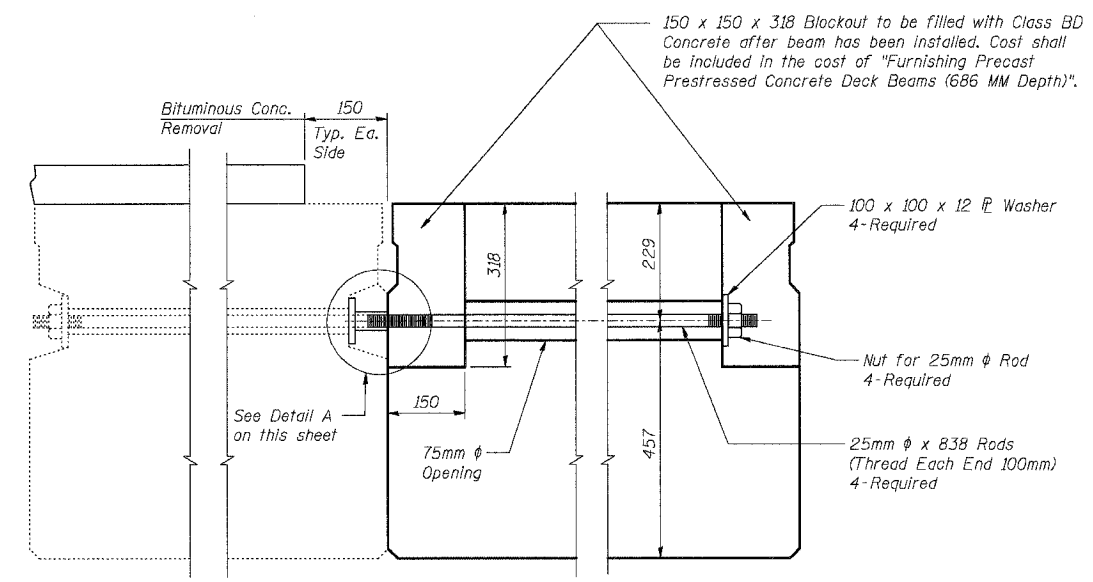


**SECTION AT PIERS**

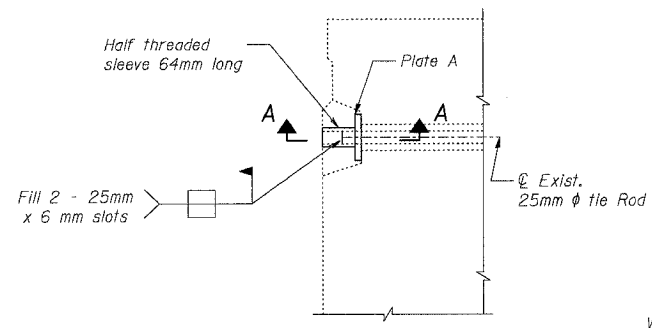
\* Existing Dowel Rods shall be cut off & ground flush with the top of the existing concrete. (Cost to be included in the cost of "Removal of Existing P.P.C. Deck Beams"). Proposed Dowel Rods shall be grouted after beam is in place and allowed to cure (min. 24 hrs.) prior to grouting shear keys.



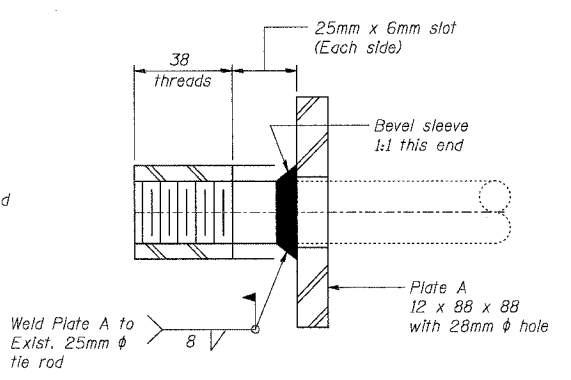
**TYPICAL TRANSVERSE TIE ASSEMBLY**



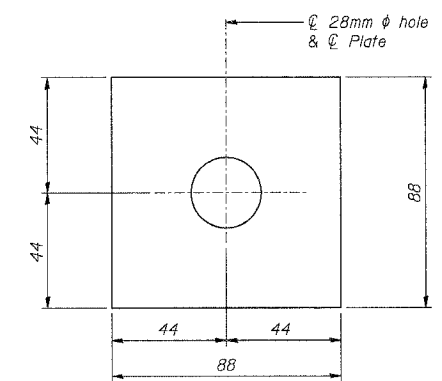
**ANTICIPATED INITIAL CAMBER DIAGRAM**



**DETAIL A**



**SECTION A-A**



**PLATE A**

SHT. S-34 OF S-34

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 IL ROUTE 68 OVER UPRR  
 F.A.P. ROUTE 343 SECTION 70D-Y-B-R  
 COOK COUNTY STATION 9+900.324  
 STRUCTURE NO. 016-2732  
**DECK BEAM DETAILS**  
 DESIGNED: BTO  
 CHECKED: JAN  
 DATE: 10/06  
 DRAWN: BTO  
 CHECKED: JAN

10/13/2006 2:37:23 PM

**BENCH MARK**

Chiseled '□' SE corner of East abutment of IL-68 bridge over US 14  
Elev. 269.205

**EXISTING STRUCTURE**

S.N. 016-2410 was built in 1974. The bearings were cleaned and painted in 1992. The three span structure rests on concrete spread footings at the abutments and treated timber piles at the concrete multi-column piers. The composite reinforced concrete deck is supported by 920mm deep continuous steel beams. The back to back abutment length is 62.76m and the deck is 23.16m out to out.

During construction of the new structure, staged construction will be utilized to maintain one lane of traffic in each direction.

No salvage.

STATION 10+001.778  
BUILT 20 BY  
STATE OF ILLINOIS  
F.A.P. RT. 343 SEC 70HB-R-1  
COOK COUNTY  
LOADING HS20  
STR. NO. 016-2861

**NAME PLATE**

See Std. 515001

**HORIZONTAL CURVE DATA**

Curve 68-1

PI Sta. = 9+966.854 E = 7.453m  
Δ = 14°54'14" RT. S.E. = 2.4%  
R = 875.000m P.C. Sta. = 9+852.405  
T = 114.450m P.T. Sta. = 10+080.012  
L = 227.607m

**LOADING HS20-44**

Allow 2.4 kN/m<sup>2</sup> future wearing surface

**DESIGN SPECIFICATION**

2002 AASHTO Std. Spec, 17th edition

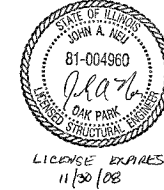
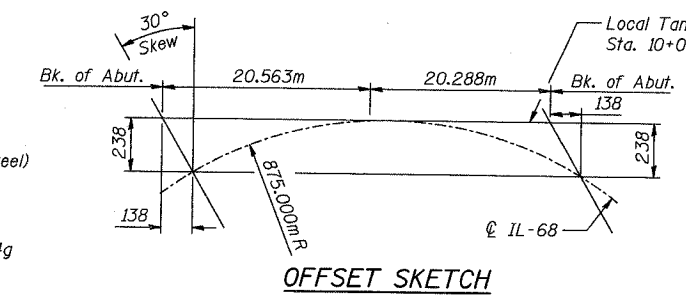
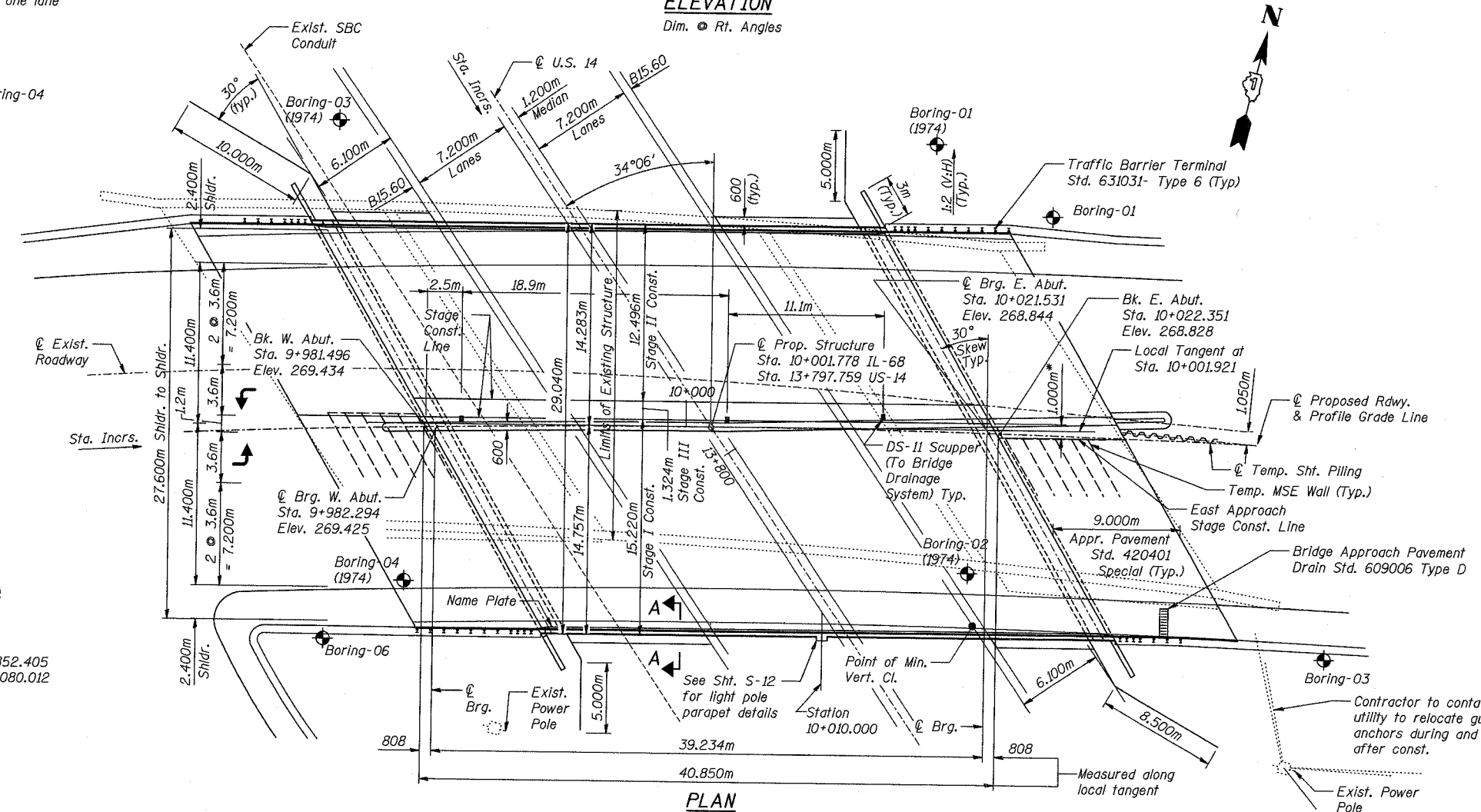
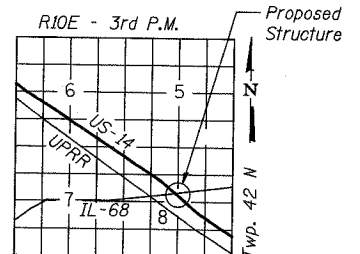
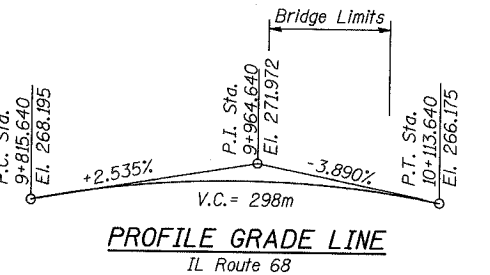
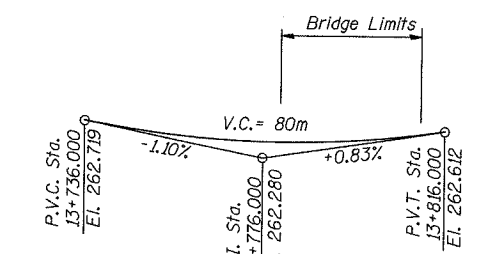
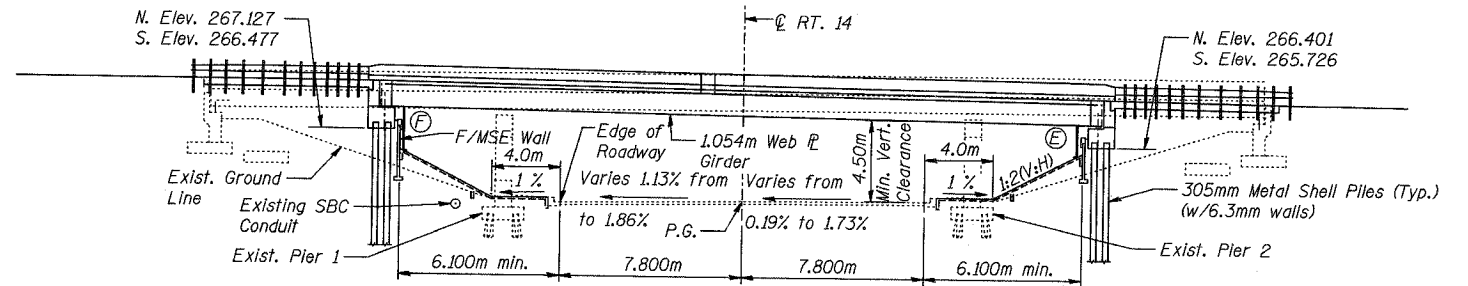
**DESIGN STRESSES**

**NEW CONSTRUCTION**

f<sub>c</sub> = 24 MPa (concrete)  
f<sub>y</sub> = 400 MPa (reinforcement)  
f<sub>y</sub> = 345 MPa  
(AASHTO M 270M, Gr. 345 struc. steel)

**SEISMIC DATA**

Seismic Performance Category (SPC) = A  
Bedrock Acceleration Coefficient (A) = 0.04g  
Site Coefficient (S) = 1.0



**APPROVED**  
FOR STRUCTURAL ADEQUACY ONLY  
*Robert E. Anderson*  
ENGINEER OF BRIDGES AND STRUCTURES



**NOTES:**

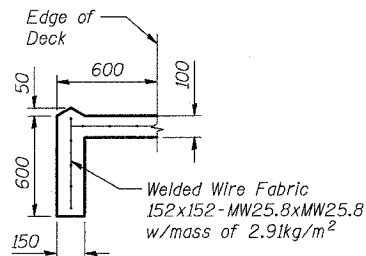
- All dimensions in millimeters (mm) except as noted.
- For section A-A, see Sht. S-02 of S-27.

REVISIONS	
NAME	DATE

SHT. S-01 OF S-27  
ILLINOIS DEPARTMENT OF TRANSPORTATION  
IL ROUTE 68 OVER US ROUTE 14  
F.A.P. ROUTE 343 SECTION 70HB-R-1  
COOK COUNTY STATION 10+001.778  
STRUCTURE NO. 016-2861  
GENERAL PLAN  
DESIGNED: BTO DRAWN: BTO  
CHECKED: JAN CHECKED: JAN  
DATE: 10/06

**GENERAL NOTES**

- Fasteners shall be high strength bolts. Bolts M22, open holes 24 mm  $\phi$ , unless otherwise noted.
- Calculated weight of Structural Steel:  
AASHTO (M270M GR 345) = 185,270 kg (Erection Only- Included in Beam Fabrication Contract)  
AASHTO (M270M GR 250) = 11,850 kg (Erection Only- Included in Beam Fabrication Contract)
- Field welding of construction accessories will not be permitted to girders.
- Anchor bolts shall be set before bolting diaphragms over supports.
- The main load carrying member components subject to tensile stress shall conform to the Supplemental Requirements for Notch Toughness Zone 2. These components are the tension flanges and webs of the plate girders.
- Reinforcement bars shall conform to the requirements of AASHTO M31M, M322M, Grade 400.
- Slope wall shall be reinforced with welded wire fabric, 152x152-MW25.8xMW25.8, w/mass of 2.91kg/m.
- The contractor shall drive 2-305 mm metal shell test piles in a permanent location, one for each abutment as directed by the Engineer before ordering the remainder of the piles.
- All dimensions are in millimeters (mm) except as noted.
- The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
- All construction joints shall be bonded.
- The organic zinc rich primer/epoxy/urethane paint system shall be used for painting of new structural steel except where otherwise noted. The entire system shall be shop applied, with the exception that masked off connection surfaces, field installed fasteners and damaged areas shall be touched up in the field. The color of the final finish coat for all interior steel surfaces shall be gray, Munsell No. 5HB 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Reddish Brown, Munsell No. 2.5YR 3/4. See Special Provision for "Cleaning and Painting New Metal Structures."
- Slipforming of parapets containing conduit is not allowed.

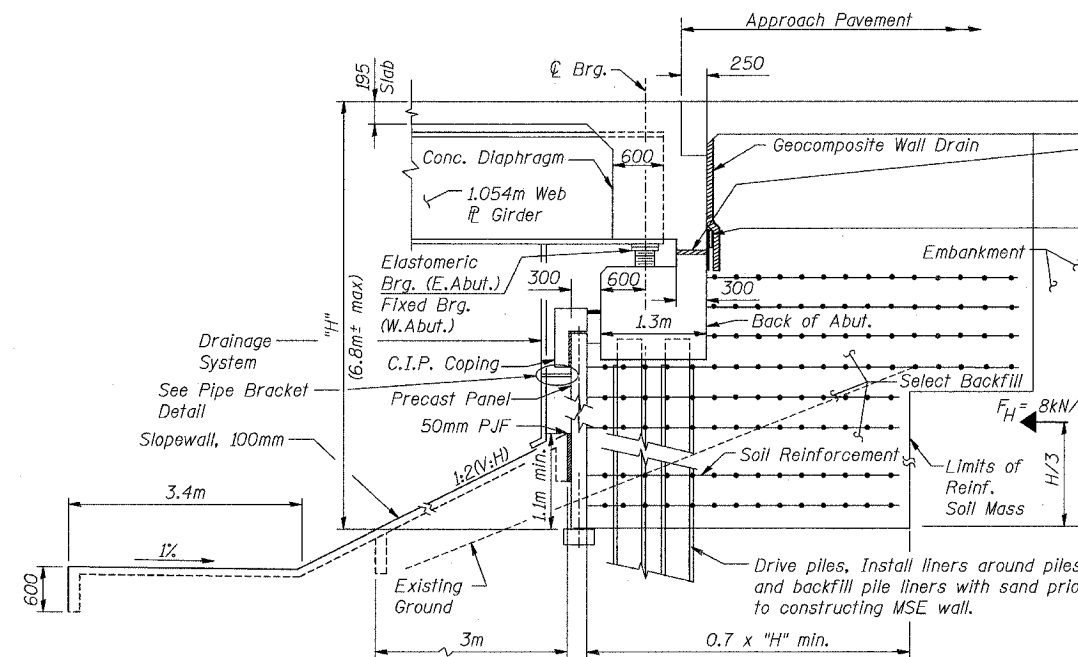


**TOTAL BILL OF MATERIAL**

ITEM	UNIT	SUB-STRUCT.	SUPER-STRUCT.	TOTAL
Removal of Existing Structures	EACH			1
Structure Excavation	CU M	701		701
Concrete Structures	CU M	111.2		111.2
Concrete Superstructure	CU M		345.2	345.2
Bridge Deck Grooving	SQ M		1083	1083
Protective Coat	SQ. M		1237	1237
Erecting Elastomeric Bearing Assembly, Type I	EACH		11	11
Erecting Structural Steel	L.S.		0.55	0.55
Stud Shear Connectors	EACH		2409	2409
Reinforcement Bars, Epoxy Coated	KG	6110	47590	53700
Furnishing Metal Shell Piles 305mm	METER	1276		1276
Driving Piles	METER	1276		1276
Test Pile Metal Shells	EACH	2		2
Temporary Sheet Piling	SQ M	11.9		11.9
Geocomposite Wall Drain	SQ M		75	75
Name Plates	EACH	1		1
Anchor Bolts, M24	EACH	44		44
Slopewall, 100MM	SQ M	638		638
Temporary Mechanically Stabilized Earth Retaining Wall	SQ M	61		61
Drainage Scuppers, DS-II	EACH		3	3
Drainage System No. 1	EACH		1	1
Bar Splicers	EACH	186	522	708
Mechanically Stabilized Earth Retaining Wall	SQ M	344		344
Protective Shield	SQ M		2468	2468

**INDEX OF SHEETS**

- S-01 General Plan
- S-02 General Notes, B.O.M., & Index of Sheets
- S-03 Foundation Plan
- S-04 Temp. Sheet Piling & Temp. MSE Wall
- S-05 Existing Structure Removal
- S-06 Stage Construction Deck Sections
- S-07 Temporary Concrete Barrier
- S-08 Screed Plan & Top of Deck Elevations
- S-09 Top of Deck Elevations
- S-10 Deck Plan
- S-11 Deck Cross Section
- S-12 Superstructure Details
- S-13 Parapet Elevations, Deck Details, & B.O.M.
- S-14 Drainage Scupper, DS-II
- S-15 Bridge Drainage System
- S-16 Framing Plan & Moment Table
- S-17 Girder Elevation & Steel Details
- S-18 Bearing Details
- S-19 Anchor Bolt Details
- S-20 East Abutment Plan & Elevation
- S-21 East Abutment Details & Pile Details
- S-22 West Abutment Plan & Elevation
- S-23 West Abutment Details
- S-24 Mechanically Stabilized Earth Retaining Walls
- S-25 Bar Splicer Assembly
- S-26 Boring Logs
- S-27 Boring Logs



**SECTION THRU SEMI-INTEGRAL ABUT.**

Dimensions at Right Angles  
\*Cost Included with Concrete Superstructure  
Allowable bearing pressure below MSE wall is 215 KPa with a Factor of Safety of 2.5

50mm Preformed Joint Filler (per Article 1051.08 of the Std. Specs.) full width and vertically at edges bonded to abutment cap with suitable adhesive as recommended by the supplier. \*

Fabric Reinforced Elastomeric Mat according to Section 1028 of the Std. Specs. Fabric mat shall be attached full width and vertically at edges to the abutment cap with a 9 mm x 13 mm steel plate and 13 mm  $\phi$  studs with nuts and washers at 300 mm cts.

MSE wall supplier to design the abutment soil reinforcement to resist a horizontal force of 8kN/m

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	70HB-R-1	COOK	283	187
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT	
CONTRACT NO. 62897				

REVISIONS	
NAME	DATE

SHT. S-02 OF S-27

ILLINOIS DEPARTMENT OF TRANSPORTATION  
IL ROUTE 68 OVER US ROUTE 14  
F.A.P. ROUTE 343 SECTION 70HB-R-1  
COOK COUNTY STATION 10+001.778  
STRUCTURE NO. 016-2861

GENERAL NOTES, B.O.M., & INDEX OF SHEETS

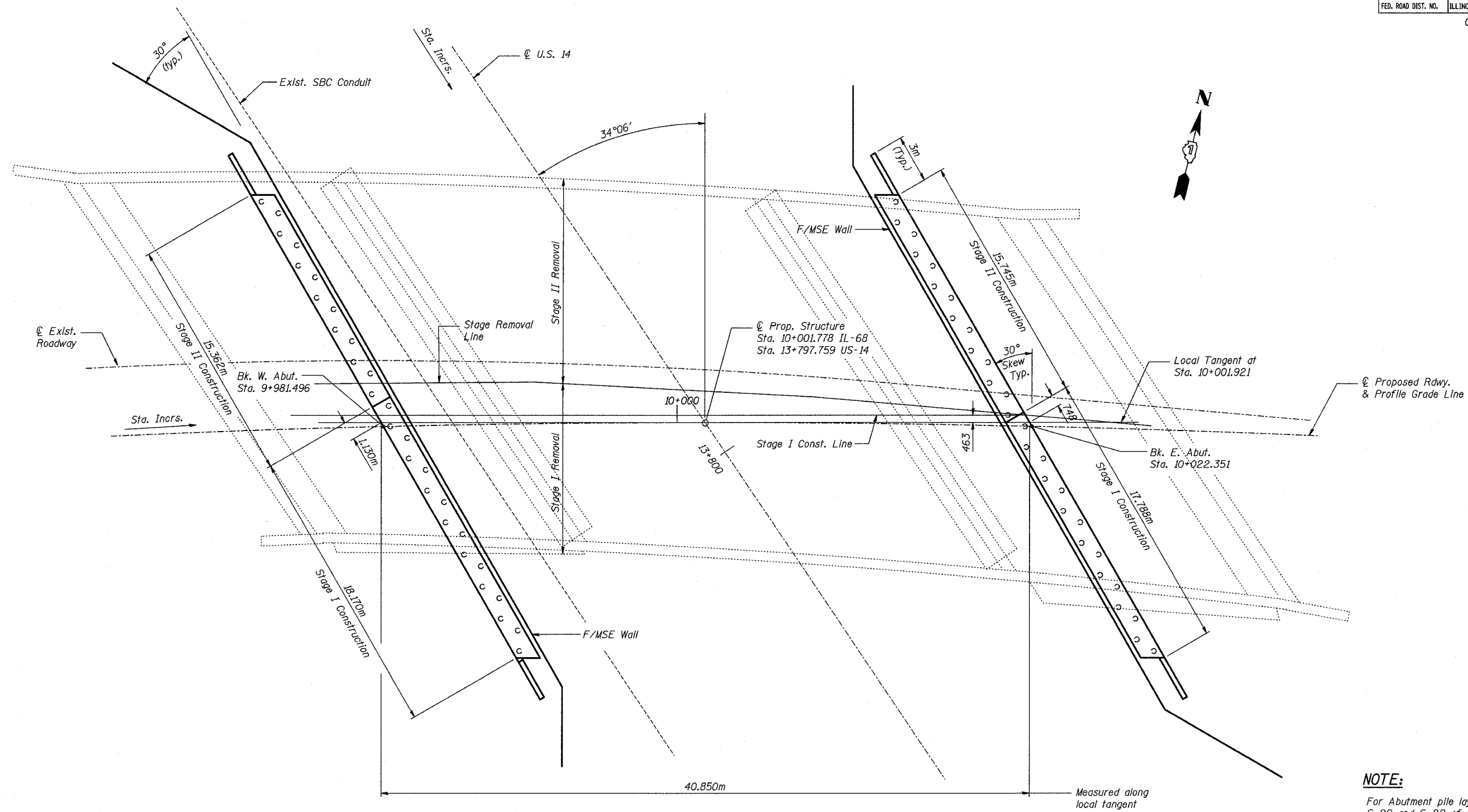
DESIGNED: BTO  
CHECKED: JAN

DRAWN: BTO  
CHECKED: JAN

DATE: 10/06



F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	70HB-R-1	COOK	283	188
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 62897				



**PLAN**

**NOTE:**  
For Abutment pile layout, see Shts. S-20 and S-22 of S-27.

SHT. S-03 OF S-27

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
IL ROUTE 68 OVER US ROUTE 14  
F.A.P. ROUTE 343 SECTION 70HB-R-1  
COOK COUNTY STATION 10+001.778  
STRUCTURE NO. 016-2861

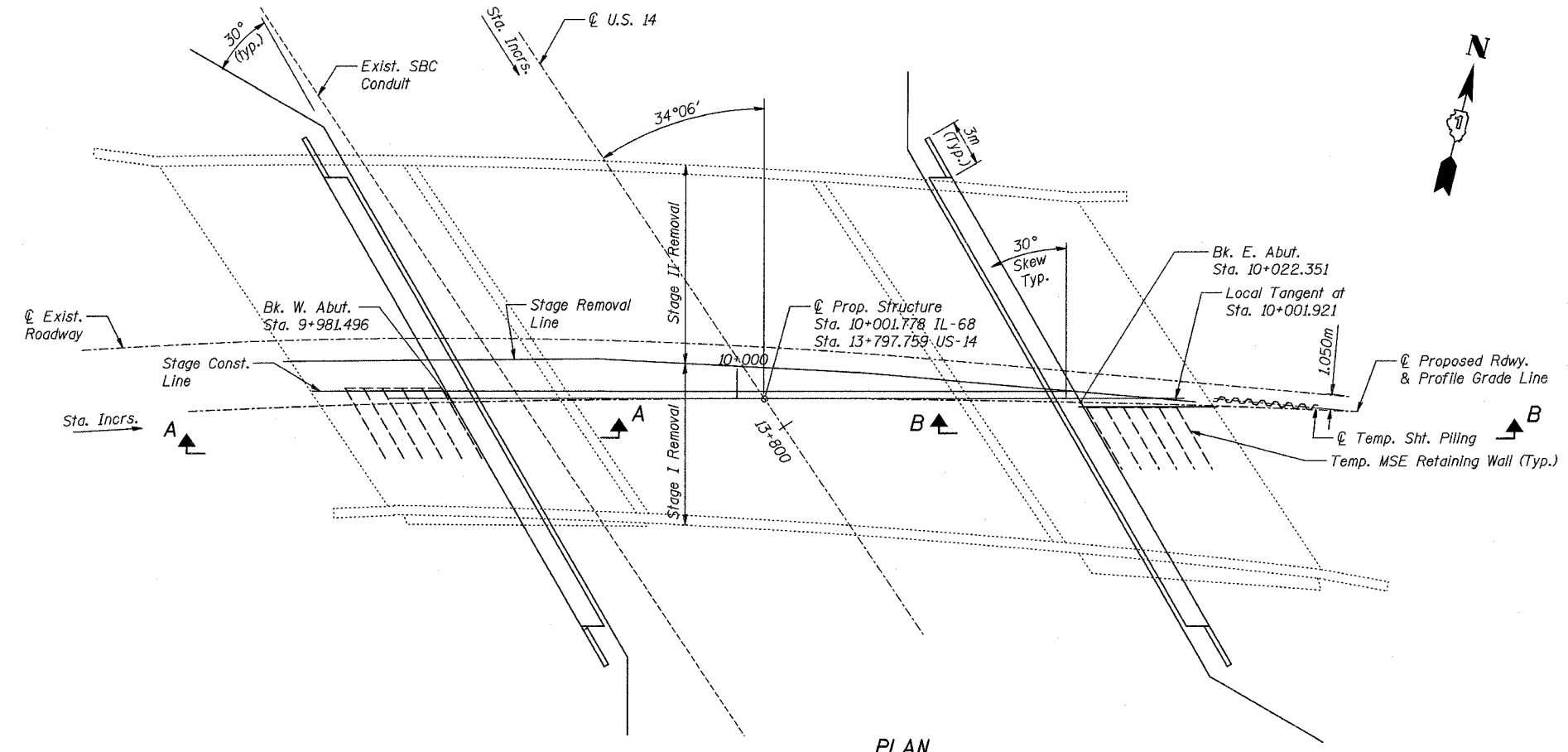
FOUNDATION PLAN

DESIGNED: BTO      DRAWN: BTO  
CHECKED: JAN      CHECKED: JAN

DATE: 10/06

**STV Incorporated**  
Engineers/Architects/Planners/Construction Managers  
 200 W. Monroe Street, Suite 1650  
 Chicago, IL 60606-5015  
 312/253-0655, FAX 312/253-0661

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	TOHB-R-1	COOK	283	189
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 62897				



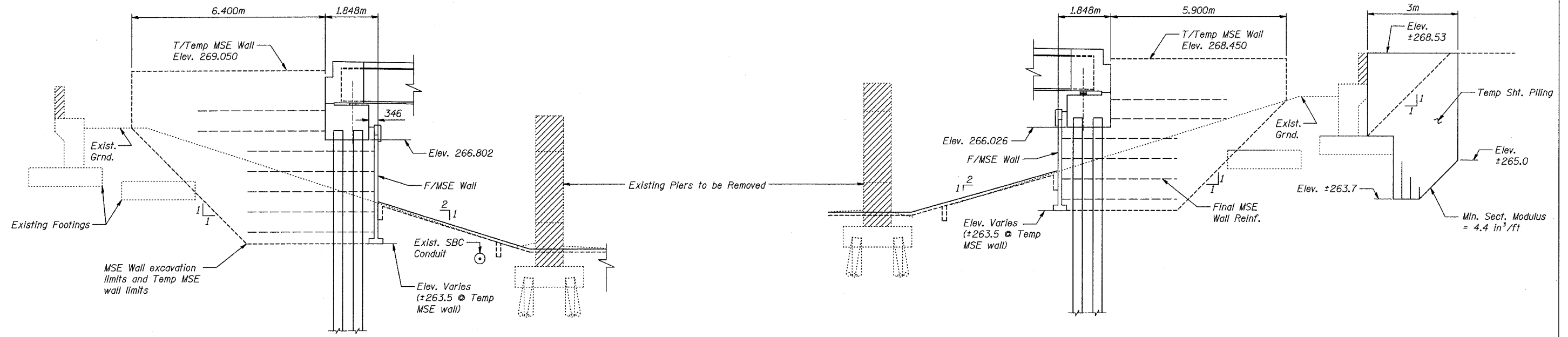
**PLAN**

**BILL OF MATERIAL**

Item	Unit	Total
Temporary Sheet Piling	SQ M	11.9
Temporary Mechanically Stabilized Earth Retaining Wall	SQ M	61.0

**NOTE:**

1. If the Contractor chooses to alter the temporary cantilevered sheet piling design requirements shown on the plans, a design submittal including plan details and calculations will be required for review and acceptance by the Engineer.
2. See roadway drawings for roadway soil retainage requirements.



**SECTION A-A**

Distances shown along alignment of sheeting

**SECTION B-B**

Distances shown along alignment of sheeting

**LEGEND**

Structure Removal

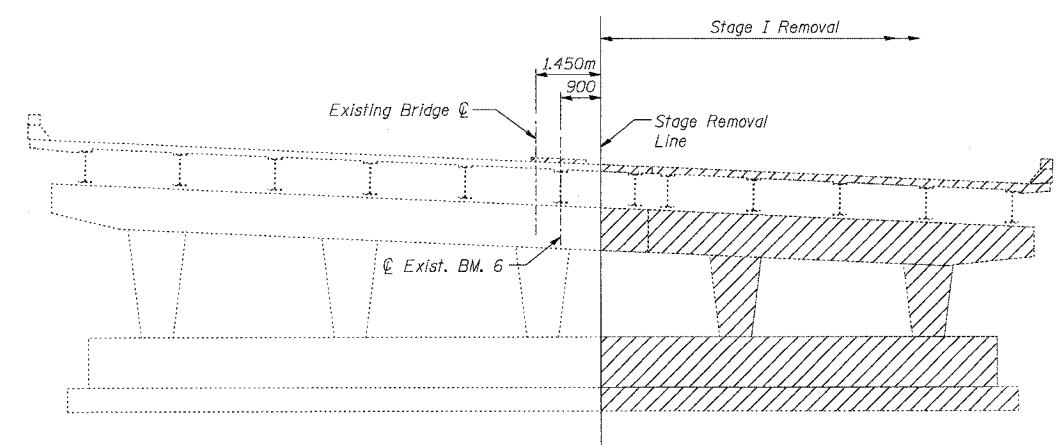
SHT. S-04 OF S-27

REVISIONS	
NAME	DATE

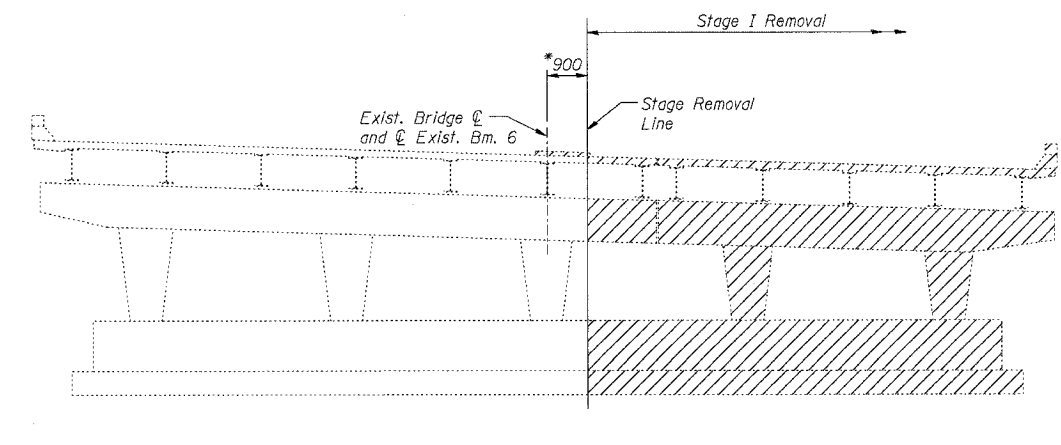
ILLINOIS DEPARTMENT OF TRANSPORTATION  
 IL ROUTE 68 OVER US ROUTE 14  
 F.A.P. ROUTE 343 SECTION TOHB-R-1  
 COOK COUNTY STATION 10+001.778  
 STRUCTURE NO. 016-2861  
**TEMPORARY SHEET PILING AND MSE WALL**  
 DESIGNED: BTO  
 CHECKED: JAN  
 DATE: 10/06  
 DRAWN: BTO  
 CHECKED: JAN

**STV Incorporated**  
 Engineers/Architects/Planners/Construction Managers  
 200 W. Monroe Street, Suite 1650  
 Chicago, IL 60606-5013  
 312/553-0653, FAX 312/553-0661

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	70HB-R-1	COOK	283	190
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
CONTRACT NO. 62897				

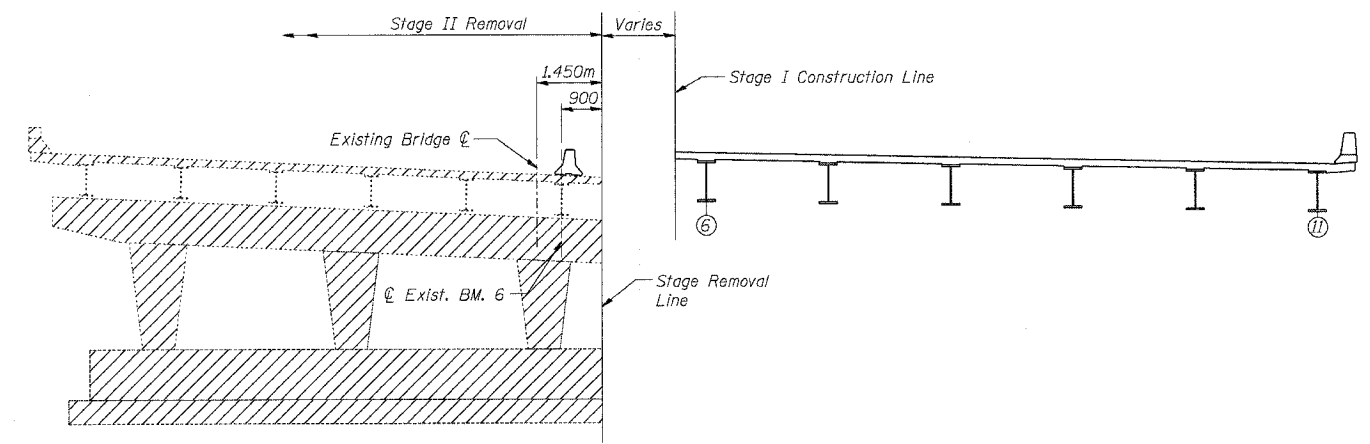


**EXISTING PIER 1 REMOVAL-STAGE I**  
(Looking East)

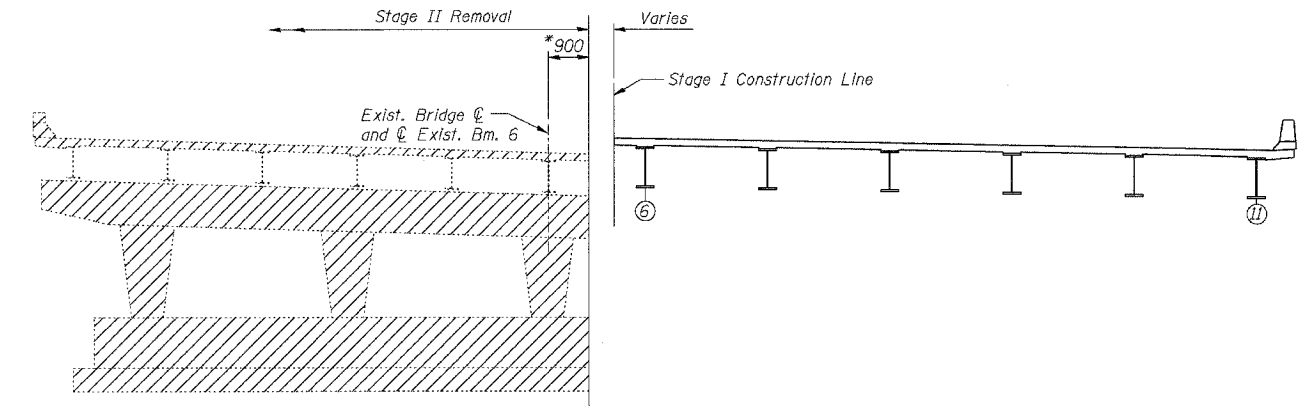


**EXISTING PIER 2 REMOVAL-STAGE I**  
(Looking East)

\* Vary as needed for deck removal at east abutment



**EXISTING PIER 1 REMOVAL-STAGE II**  
(Looking East)



**EXISTING PIER 2 REMOVAL-STAGE II**  
(Looking East)

**NOTES:**

1. Contractor to verify all dimensions in field prior to construction.
2. Removal of Existing Abutments similar.

SHT. S-05 OF S-27

REVISIONS	
NAME	DATE

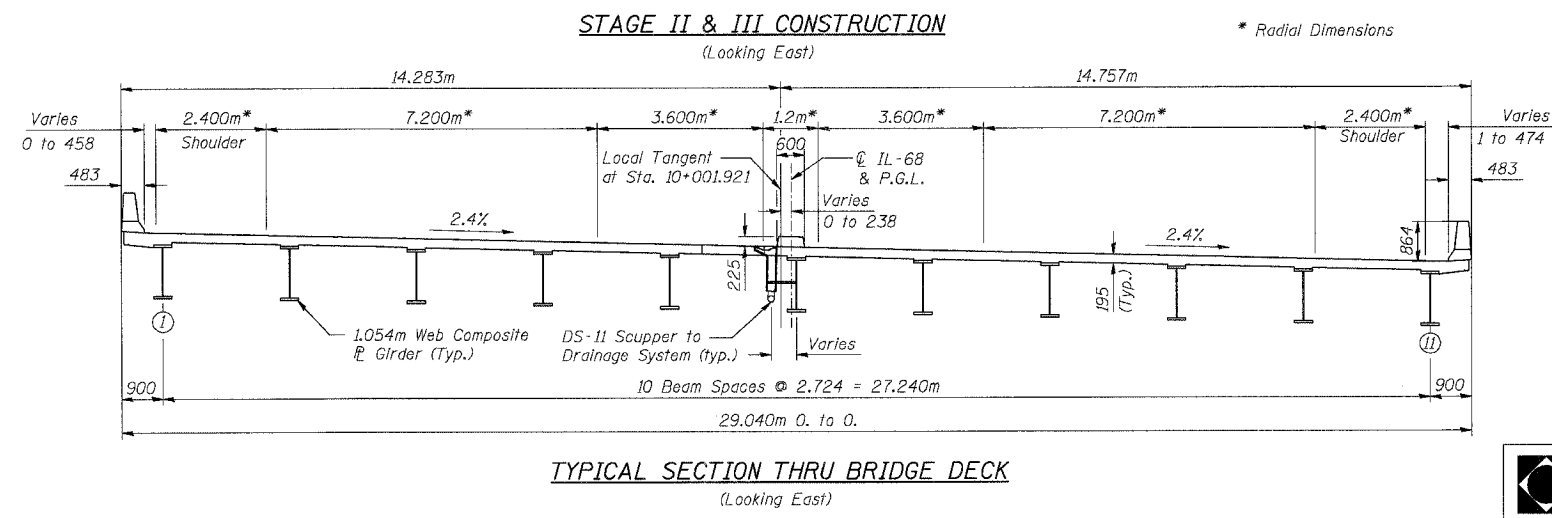
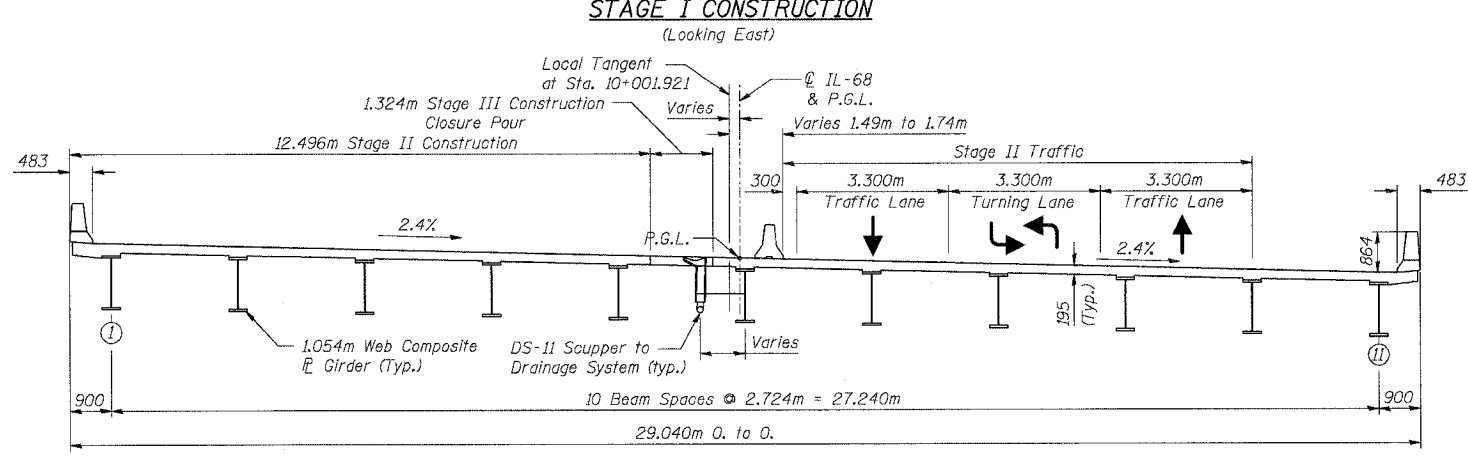
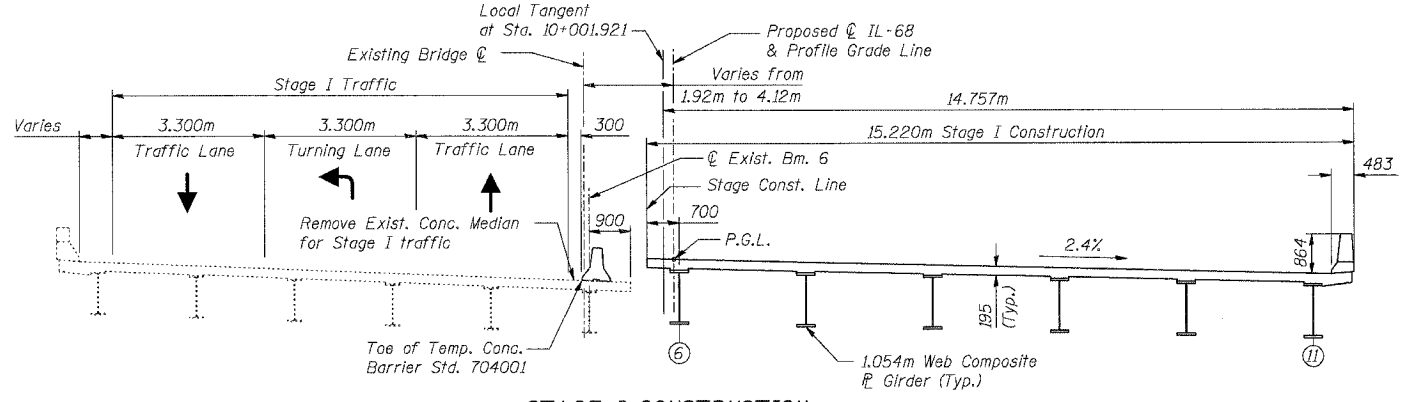
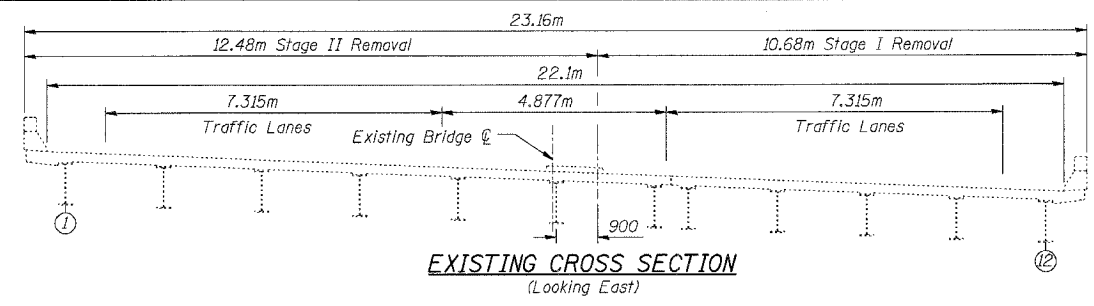
ILLINOIS DEPARTMENT OF TRANSPORTATION  
IL ROUTE 68 OVER US ROUTE 14  
F.A.P. ROUTE 343 SECTION 70HB-R-1  
COOK COUNTY STATION 10+001.778  
STRUCTURE NO. 016-2861

EXISTING STRUCTURE REMOVAL

DESIGNED: BTO      DRAWN: BTO  
DATE: 10/06      CHECKED: JAN      CHECKED: JAN



F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	70HB-R-1	COOK	283	191
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
CONTRACT NO. 62897				



- NOTES:**
1. See Sht. S-07 of S-27 for Temporary Concrete Barrier.
  2. See Roadway Plans for quantity of Temporary Concrete Barrier.

REVISIONS	
NAME	DATE

SHT. S-06 OF S-27

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 IL ROUTE 68 OVER US ROUTE 14  
 F.A.P. ROUTE 343 SECTION 70HB-R-1  
 COOK COUNTY STATION 10+001.778  
 STRUCTURE NO. 016-2861

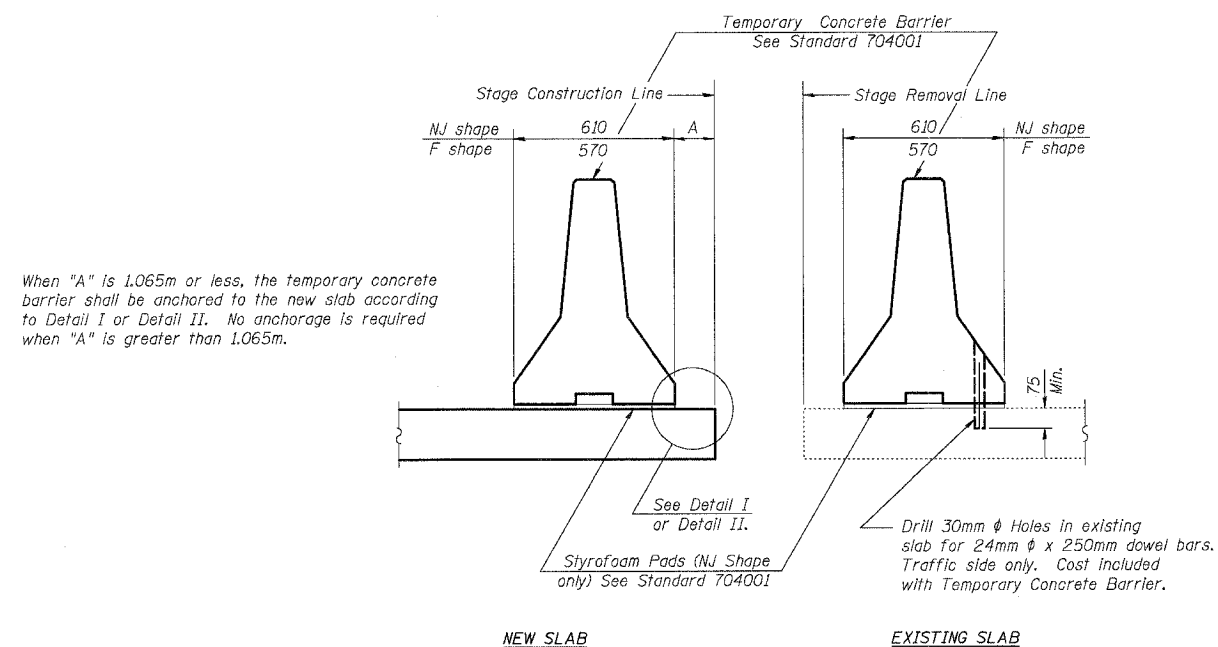
STAGE CONSTRUCTION DECK SECTIONS

DESIGNED: BTO      DRAWN: BTO  
 CHECKED: JAN      CHECKED: JAN  
 DATE: 10/06





F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	70HB-R-1	COOK	283	192
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 62897				

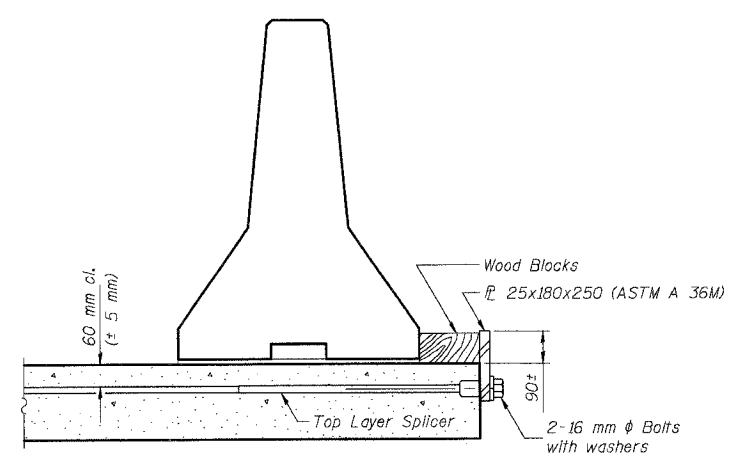


When "A" is 1.065m or less, the temporary concrete barrier shall be anchored to the new slab according to Detail I or Detail II. No anchorage is required when "A" is greater than 1.065m.

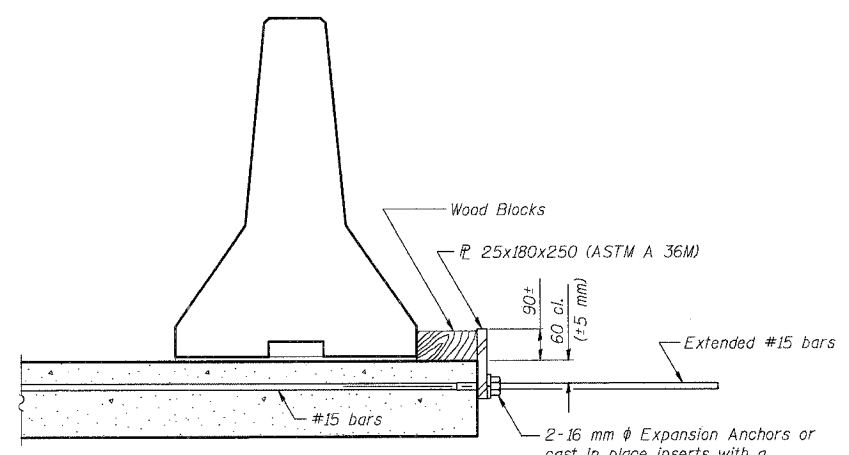
**SECTIONS THRU SLAB**

**NOTES:**

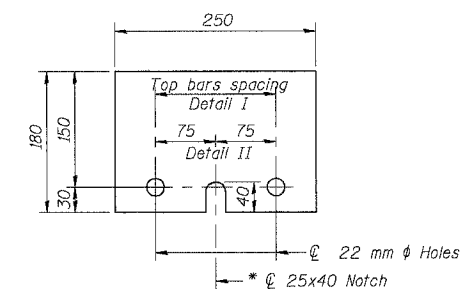
- Detail I - With Bar Splicer or Couplers:  
Connect one (1) 25x180x250 steel  $\bar{P}$  to the top layer of couplers with 2-16 mm  $\phi$  bolts screwed to coupler at approximate  $\bar{C}$  of each barrier panel.
  - Detail II - With Extended Reinforcement Bars:  
Connect one (1) 25x180x250 steel  $\bar{P}$  to the concrete slab with 2-16 mm  $\phi$  Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate  $\bar{C}$  of each barrier panel.
- Cost of anchorage is included with Temporary Concrete Barrier.  
All dimensions are in millimeters (mm) except as noted.



**DETAIL I**  
The 25x180x250 Plate shall not be removed until Stage II Construction forms and reinforcement bars are in place.



**DETAIL II**  
The 25x180x250 Plate shall not be removed until Stage II Construction forms and all reinforcement bars are in place and the concrete is ready to be placed.



**$\bar{P}$  25x180x250**  
\* Required only with Detail II

R-27 (M) 9-01-03



REVISIONS	
NAME	DATE

SHT. S-07 OF S-27  
ILLINOIS DEPARTMENT OF TRANSPORTATION  
IL ROUTE 68 OVER US ROUTE 14  
F.A.P. ROUTE 343 SECTION 70HB-R-1  
COOK COUNTY STATION 10+001.778  
STRUCTURE NO. 016-2861  
TEMPORARY CONCRETE BARRIER  
DESIGNED: BTO DRAWN: BTO  
DATE: 10/06 CHECKED: JAN CHECKED: JAN

10/17/2006 2:30:30 PM

**Girder 1**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abut.	9+974.069	-13.833	269.837	269.837
⊕ Brg. W. Abut.	9+974.865	-13.808	269.829	269.829
A	9+977.817	-13.720	269.800	269.841
B	9+980.770	-13.643	269.769	269.849
C	9+983.723	-13.575	269.736	269.850
D	9+986.677	-13.518	269.701	269.842
E	9+989.631	-13.471	269.665	269.825
F	9+992.585	-13.434	269.627	269.797
G	9+995.540	-13.407	269.588	269.759
H	9+998.494	-13.390	269.547	269.708
I	10+001.449	-13.383	269.504	269.647
J	10+004.404	-13.387	269.460	269.577
K	10+007.359	-13.400	269.414	269.497
L	10+010.313	-13.424	269.366	269.411
⊕ Brg. E. Abut.	10+013.498	-13.461	269.313	269.313
Back E. Abut.	10+014.294	-13.472	269.300	269.300

**Girder 2**

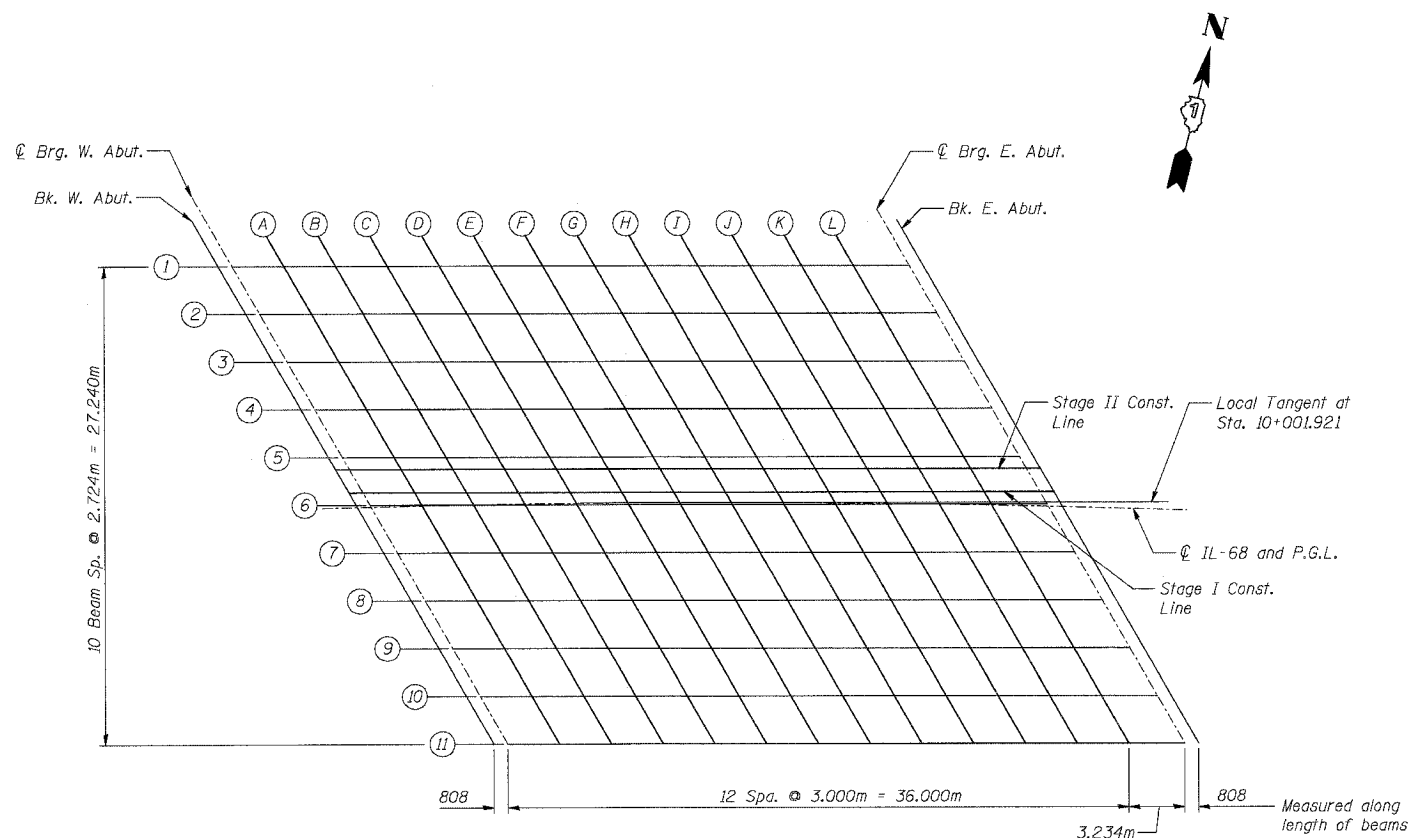
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abut.	9+975.536	-11.062	269.757	269.757
⊕ Brg. W. Abut.	9+976.334	-11.038	269.750	269.750
A	9+979.295	-10.955	269.719	269.760
B	9+982.258	-10.883	269.687	269.767
C	9+985.220	-10.820	269.653	269.767
D	9+988.183	-10.768	269.618	269.759
E	9+991.147	-10.726	269.581	269.741
F	9+994.110	-10.694	269.542	269.712
G	9+997.074	-10.673	269.502	269.673
H	10+000.038	-10.661	269.460	269.621
I	10+003.002	-10.660	269.416	269.559
J	10+005.965	-10.669	269.371	269.488
K	10+008.929	-10.687	269.324	269.407
L	10+011.893	-10.716	269.275	269.320
⊕ Brg. E. Abut.	10+015.088	-10.759	269.221	269.221
Back E. Abut.	10+015.886	-10.772	269.207	269.207

**Girder 3**

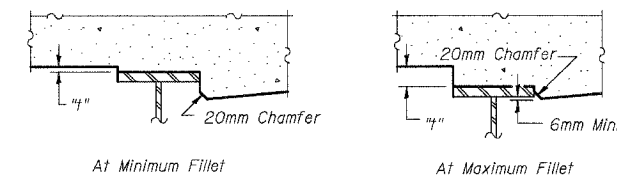
Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abut.	9+977.012	-8.293	269.677	269.677
⊕ Brg. W. Abut.	9+977.812	-8.270	269.669	269.669
A	9+980.783	-8.193	269.638	269.679
B	9+983.755	-8.125	269.605	269.685
C	9+986.727	-8.068	269.570	269.684
D	9+989.699	-8.021	269.534	269.675
E	9+992.672	-7.984	269.496	269.656
F	9+995.644	-7.958	269.456	269.626
G	9+998.617	-7.941	269.415	269.586
H	10+001.590	-7.935	269.371	269.532
I	10+004.563	-7.939	269.327	269.470
J	10+007.536	-7.953	269.280	269.397
K	10+010.509	-7.978	269.232	269.315
L	10+013.482	-8.012	269.183	269.228
⊕ Brg. E. Abut.	10+016.466	-8.061	269.127	269.127
Back E. Abut.	10+017.487	-8.075	269.113	269.113

**Girder 4**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abut.	9+978.497	-5.527	269.597	269.597
⊕ Brg. W. Abut.	9+979.300	-5.505	269.588	269.588
A	9+982.280	-5.433	269.556	269.597
B	9+985.261	-5.371	269.522	269.602
C	9+988.243	-5.319	269.486	269.600
D	9+991.224	-5.277	269.449	269.590
E	9+994.206	-5.245	269.410	269.570
F	9+997.188	-5.224	269.369	269.539
G	10+000.171	-5.213	269.327	269.498
H	10+003.153	-5.212	269.283	269.444
I	10+006.135	-5.221	269.237	269.380
J	10+009.117	-5.241	269.190	269.307
K	10+012.099	-5.271	269.141	269.224
L	10+015.081	-5.311	269.090	269.135
⊕ Brg. E. Abut.	10+018.295	-5.365	269.033	269.033
Back E. Abut.	10+019.098	-5.381	269.019	269.019

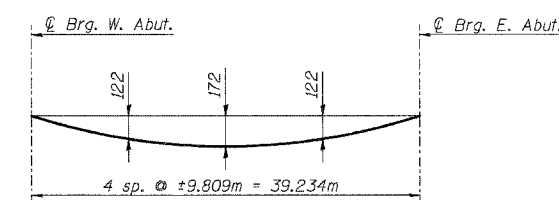


**SCREED PLAN**



To determine fillet height "h", measure elevations at intervals as shown after all steel has been erected. Add this number to the slab thickness and subtract the sum from the "Theoretical Grade Elev. Adjusted for Dead Load Deflection." This equals the fillet height above the girders.

**FILLET HEIGHTS**



**DEAD LOAD DEFLECTION DIAGRAM**

(Includes weight of concrete only)

Note: The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown above.

SHT. 5-08 OF 5-27

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 IL ROUTE 68 OVER US ROUTE 14  
 F.A.P. ROUTE 343 SECTION 70HB-R-1  
 COOK COUNTY STATION 10+001.778  
 STRUCTURE NO. 016-2861

SCREED PLAN & TOP OF DECK ELEVATIONS

DESIGNED: BTO      DRAWN: BTO  
 CHECKED: JAN      CHECKED: JAN

DATE: 10/06



F.A.P. SHEETS	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	70HB-R-1	COOK	283	194
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
CONTRACT NO. 62897				

**Girder 5**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abut.	9+979.991	-2.763	269.515	269.515
€ Brg. W. Abut.	9+980.797	-2.743	269.507	269.507
A	9+983.787	-2.676	269.474	269.515
B	9+986.777	-2.618	269.439	269.519
C	9+989.768	-2.572	269.402	269.516
D	9+992.759	-2.535	269.364	269.505
E	9+995.750	-2.509	269.324	269.484
F	9+998.742	-2.493	269.282	269.452
G	10+001.733	-2.487	269.239	269.410
H	10+004.725	-2.491	269.194	269.355
I	10+007.716	-2.506	269.147	269.290
J	10+010.708	-2.531	269.098	269.215
K	10+013.699	-2.566	269.048	269.131
L	10+016.689	-2.612	268.997	269.042
€ Brg. E. Abut.	10+019.913	-2.672	268.939	268.939
Back E. Abut.	10+020.719	-2.689	268.924	268.924

**Stage Construction Line II**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abut.	9+980.377	-2.053	269.495	269.495
€ Brg. W. Abut.	9+981.183	-2.033	269.486	269.486
A	9+984.176	-1.967	269.452	269.493
B	9+987.169	-1.912	269.417	269.497
C	9+990.162	-1.866	269.380	269.494
D	9+993.154	-1.866	269.342	269.483
E	9+996.149	-1.806	269.301	269.461
F	9+999.143	-1.791	269.259	269.429
G	10+002.137	-1.787	269.216	269.387
H	10+005.130	-1.793	269.171	269.332
I	10+008.124	-1.809	269.124	269.267
J	10+011.118	-1.835	269.075	269.192
K	10+014.111	-1.872	269.024	269.107
L	10+017.104	-1.919	268.972	269.017
€ Brg. E. Abut.	10+020.331	-1.981	268.914	268.914
Back E. Abut.	10+021.137	-1.998	268.900	268.900

**Stage Construction Line I**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abut.	9+981.108	-0.711	269.455	269.455
€ Brg. W. Abut.	9+981.915	-0.692	269.446	269.446
A	9+984.913	-0.628	269.412	269.453
B	9+987.910	-0.575	269.376	269.456
C	9+990.908	-0.532	269.339	269.453
D	9+993.906	-0.500	269.300	269.441
E	9+996.904	-0.477	269.259	269.419
F	09+999.902	-0.465	269.217	269.387
G	10+002.901	-0.464	269.173	269.344
H	10+005.899	-0.472	269.127	269.288
I	10+008.898	-0.491	269.079	269.222
J	10+011.896	-0.520	269.030	269.147
K	10+014.894	-0.559	268.979	269.062
L	10+017.891	-0.609	268.927	268.972
€ Brg. E. Abut.	10+021.122	-0.674	268.868	268.868
Back E. Abut.	10+021.930	-0.692	268.853	268.853

**€ IL-68 & P.G.L.**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abut.	9+981.496	0.000	269.434	269.434
€ Brg. W. Abut.	9+982.294	0.000	269.425	269.425
A	9+985.259	0.000	269.393	269.434
B	9+988.230	0.000	269.359	269.439
C	9+991.206	0.000	269.322	269.436
D	9+994.188	0.000	269.284	269.425
E	9+997.176	0.000	269.244	269.404
F	10+000.170	0.000	269.202	269.372
G	10+003.169	0.000	269.157	269.328
H	10+006.175	0.000	269.111	269.272
I	10+009.166	0.000	269.063	269.206
J	10+012.204	0.000	269.012	269.129
K	10+015.228	0.000	268.961	269.044
L	10+018.258	0.000	268.906	268.951
€ Brg. E. Abut.	10+021.531	0.000	268.844	268.844
Back E. Abut.	10+022.351	0.000	268.829	268.829

**Girder 6**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abut.	9+981.495	-0.001	269.434	269.434
€ Brg. W. Abut.	9+982.303	0.017	269.425	269.425
A	9+985.303	0.079	269.393	269.434
B	9+988.303	0.131	269.355	269.435
C	9+991.303	0.173	269.317	269.431
D	9+994.304	0.204	269.278	269.419
E	9+997.304	0.225	269.237	269.397
F	10+000.305	0.236	269.194	269.364
G	10+003.306	0.236	269.150	269.321
H	10+006.307	0.226	269.104	269.265
I	10+009.307	0.206	269.056	269.199
J	10+012.308	0.175	269.006	269.123
K	10+015.308	0.135	268.955	269.038
L	10+018.308	0.084	268.904	268.949
€ Brg. E. Abut.	10+021.542	0.017	268.844	268.844
Back E. Abut.	10+022.350	-0.001	268.829	268.829

**Girder 7**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abut.	9+983.009	2.757	269.352	269.352
€ Brg. W. Abut.	9+983.820	2.774	269.342	269.342
A	9+986.829	2.831	269.307	269.348
B	9+989.838	2.878	269.270	269.350
C	9+992.848	2.914	269.232	269.346
D	9+995.858	2.940	269.191	269.332
E	9+998.868	2.956	269.149	269.309
F	10+001.878	2.961	269.106	269.276
G	10+004.888	2.956	269.060	269.231
H	10+007.898	2.941	269.013	269.174
I	10+010.908	2.915	268.964	269.107
J	10+013.918	2.879	268.914	269.031
K	10+016.928	2.833	268.862	268.945
L	10+019.937	2.776	268.808	268.853
€ Brg. E. Abut.	10+023.180	2.704	268.748	268.748
Back E. Abut.	10+023.991	2.684	268.732	268.732

**Girder 8**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abut.	9+984.532	5.513	269.269	269.269
€ Brg. W. Abut.	9+985.345	5.529	269.259	269.259
A	9+988.364	5.581	269.223	269.264
B	9+991.383	5.622	269.185	269.265
C	9+994.402	5.653	269.146	269.260
D	9+997.422	5.673	269.104	269.245
E	10+000.441	5.684	269.061	269.221
F	10+003.461	5.684	269.017	269.187
G	10+006.480	5.673	268.970	269.141
H	10+009.500	5.652	268.922	269.083
I	10+012.519	5.621	268.872	269.015
J	10+015.538	5.580	268.821	268.938
K	10+018.557	5.528	268.767	268.850
L	10+021.575	5.466	268.712	268.757
€ Brg. E. Abut.	10+024.829	5.387	268.651	268.651
Back E. Abut.	10+025.642	5.366	268.635	268.635

**Girder 9**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abut.	9+986.065	8.267	269.186	269.186
€ Brg. W. Abut.	9+986.881	8.281	269.176	269.176
A	9+989.909	8.327	269.139	269.180
B	9+992.938	8.363	269.100	269.180
C	9+995.966	8.389	269.059	269.173
D	9+998.996	8.404	269.017	269.158
E	10+002.025	8.409	268.973	269.133
F	10+005.054	8.403	268.927	269.097
G	10+008.083	8.388	268.879	269.050
H	10+011.112	8.361	268.830	268.991
I	10+014.140	8.325	268.779	268.922
J	10+017.169	8.277	268.727	268.844
K	10+020.197	8.220	268.672	268.755
L	10+023.224	8.152	268.616	268.661
€ Brg. E. Abut.	10+026.487	8.067	268.554	268.554
Back E. Abut.	10+027.303	8.044	268.538	268.538

**Girder 10**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abut.	9+987.607	11.017	269.102	269.102
€ Brg. W. Abut.	9+988.426	11.030	269.092	269.092
A	9+991.464	11.071	269.054	269.095
B	9+994.502	11.102	269.014	269.094
C	9+997.541	11.122	268.972	269.086
D	10+000.579	11.132	268.929	269.070
E	10+003.618	11.131	268.884	269.044
F	10+006.657	11.120	268.837	269.007
G	10+009.695	11.099	268.798	268.959
H	10+012.733	11.067	268.758	268.899
I	10+015.771	11.025	268.686	268.829
J	10+018.809	10.972	268.632	268.749
K	10+021.846	10.909	268.576	268.659
L	10+024.883	10.836	268.519	268.564
€ Brg. E. Abut.	10+028.157	10.745	268.455	268.455
Back E. Abut.	10+028.974	10.720	268.439	268.439

**Girder 11**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back W. Abut.	9+989.159	13.765	269.017	269.017
€ Brg. W. Abut.	9+989.981	13.777	269.007	269.007
A	9+993.028	13.813	268.968	269.009
B	9+996.077	13.838	268.927	269.007
C	9+999.125	13.853	268.884	268.998
D	10+002.173	13.857	268.840	268.981
E	10+005.221	13.851	268.794	268.954
F	10+008.269	13.834	268.746	268.916
G	10+011.317	13.807	268.696	268.867
H	10+014.365	13.770	268.645	268.806
I	10+017.413	13.722	268.591	268.734
J	10+020.460	13.664	268.537	268.654
K	10+023.507	13.595	268.480	268.563
L	10+026.553	13.516	268.421	268.466
€ Brg. E. Abut.	10+029.836	13.419	268.357	268.357
Back E. Abut.	10+030.656	13.393	268.340	268.340

**NOTE:**  
For Smead Plan, see Sht. S-08 of S-27.

SHT. S-09 OF S-27

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
IL ROUTE 68 OVER US ROUTE 14  
F.A.P. ROUTE 343 SECTION 70HB-R-1  
COOK COUNTY STATION 10+001.778  
STRUCTURE NO. 016-2861

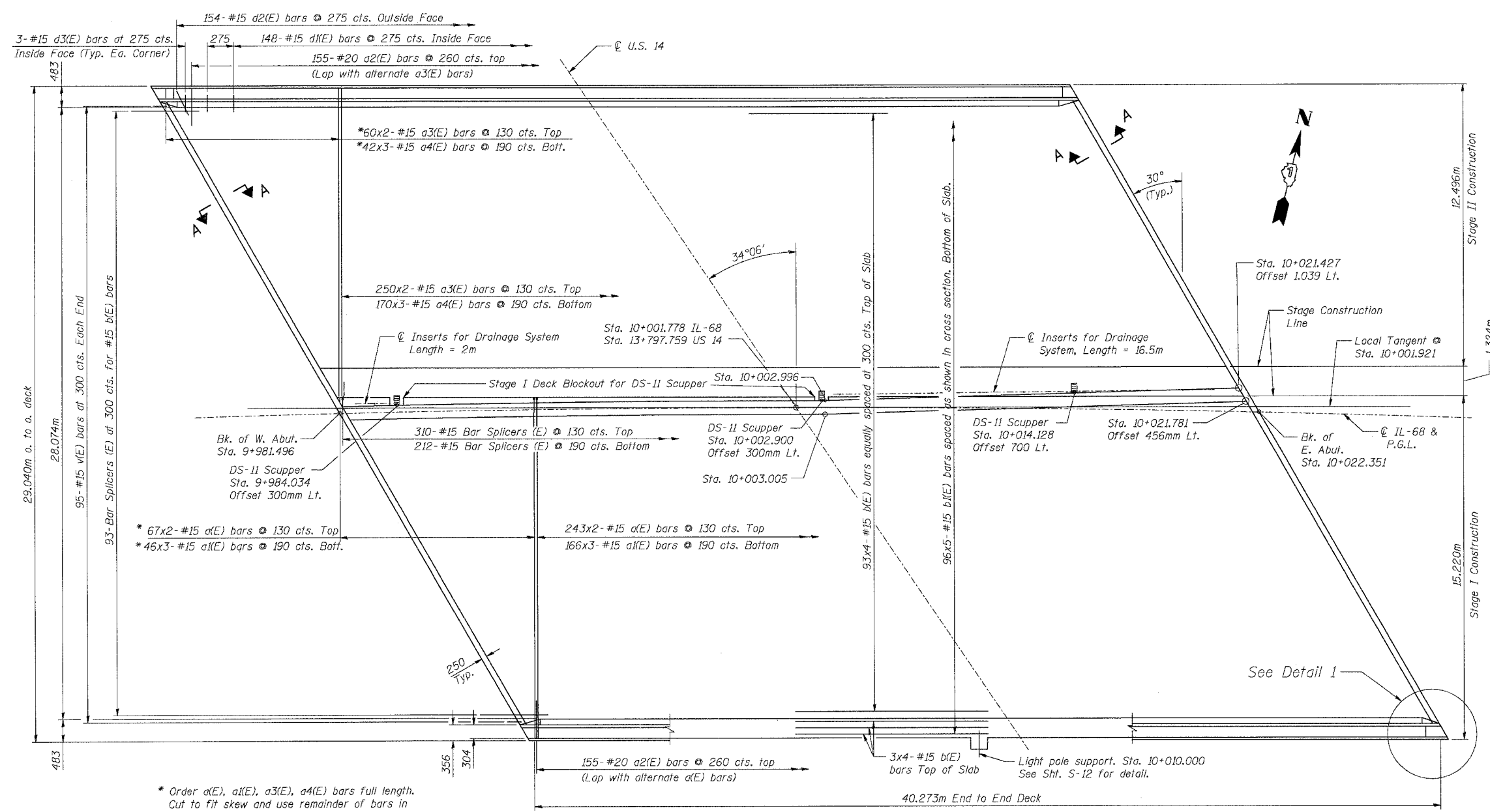
TOP OF DECK ELEVATIONS  
DESIGNED: BTO  
CHECKED: JAN  
DRAWN: BTO  
CHECKED: JAN

DATE: 10/06

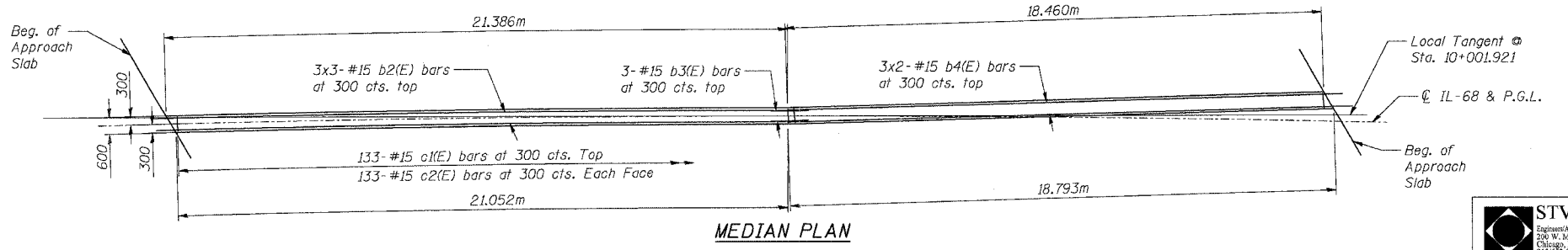


F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	70HB-R-1	COOK	283	195
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

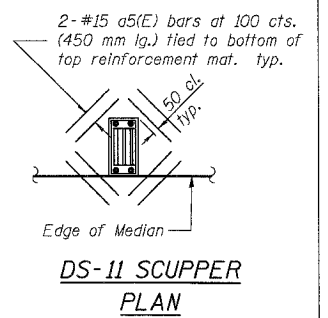
CONTRACT NO. 62897



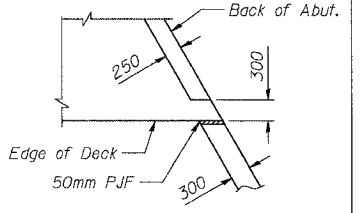
DECK PLAN



MEDIAN PLAN



DS-II SCUPPER PLAN



DETAIL 1

NOTES:

1. Bars Indicated thus 93x4-#15 etc. Indicates 93 lines of bars with 4 lengths per line.
  2. Reinforcing Bar designated (E) Shall be Epoxy Coated.
  3. Expansion Anchors Required at Medians See Sht. S-11 of S-27 for Superimposed Median Details.
  4. For Sections A-A, see Sht. S-12 of S-27.
- Minimum Lap  
#15 Bars - 640  
#20 Bars - 790

SHT. S-10 OF S-27

REVISIONS	NAME	DATE

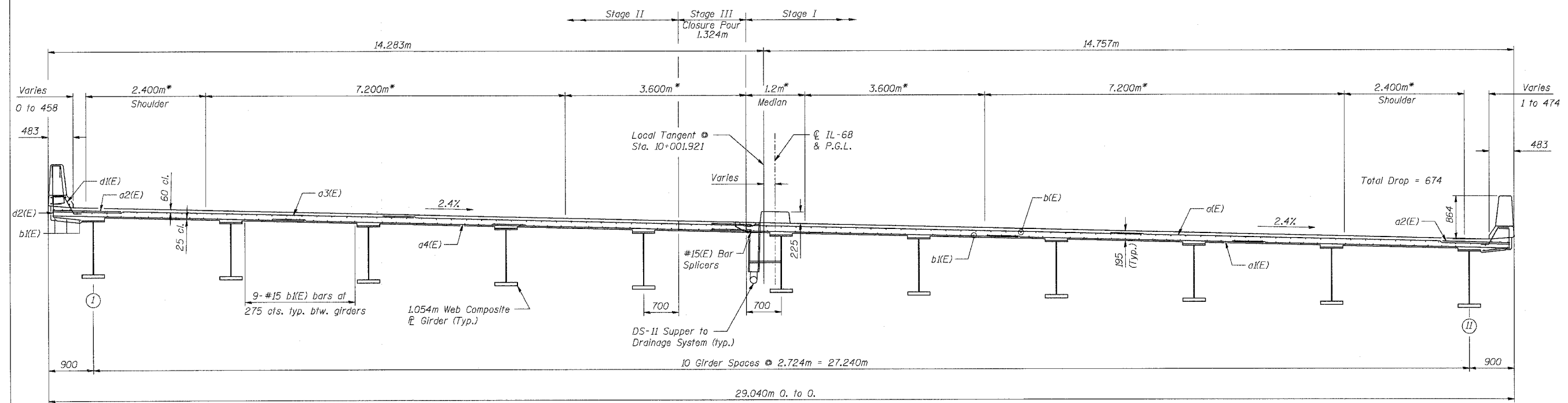


ILLINOIS DEPARTMENT OF TRANSPORTATION  
IL ROUTE 68 OVER US ROUTE 14  
F.A.P. ROUTE 343 SECTION 70HB-R-1  
COOK COUNTY STATION 10+001.778  
STRUCTURE NO. 016-2861

DECK PLAN  
DESIGNED: BTO  
CHECKED: JAN  
DATE: 10/06

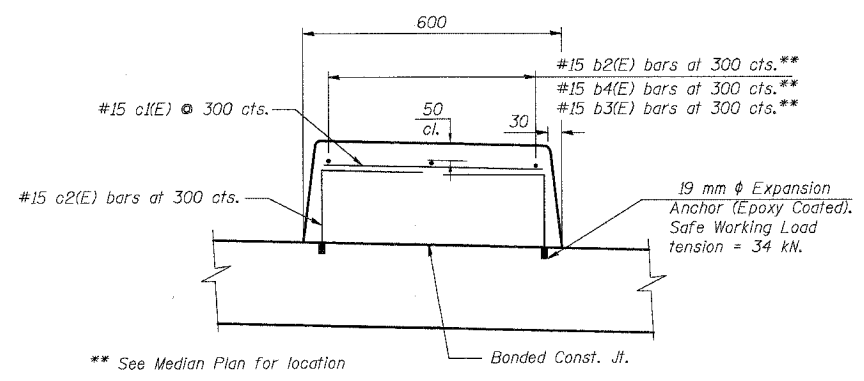
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	70HB-R-1	COOK	283	196
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			
CONTRACT NO. 62897				



**DECK CROSS SECTION**  
(Looking East)

\* Radial Dimensions



**NOTES:**

1. Reinforcement bars designated (E) shall be epoxy coated.
2. See Sht. S-12 of S-27 for superstructure details.
3. See Sht. S-13 of S-27 for parapet reinforcement and bill of material.

SHT. S-11 OF S-27

REVISIONS	
NAME	DATE

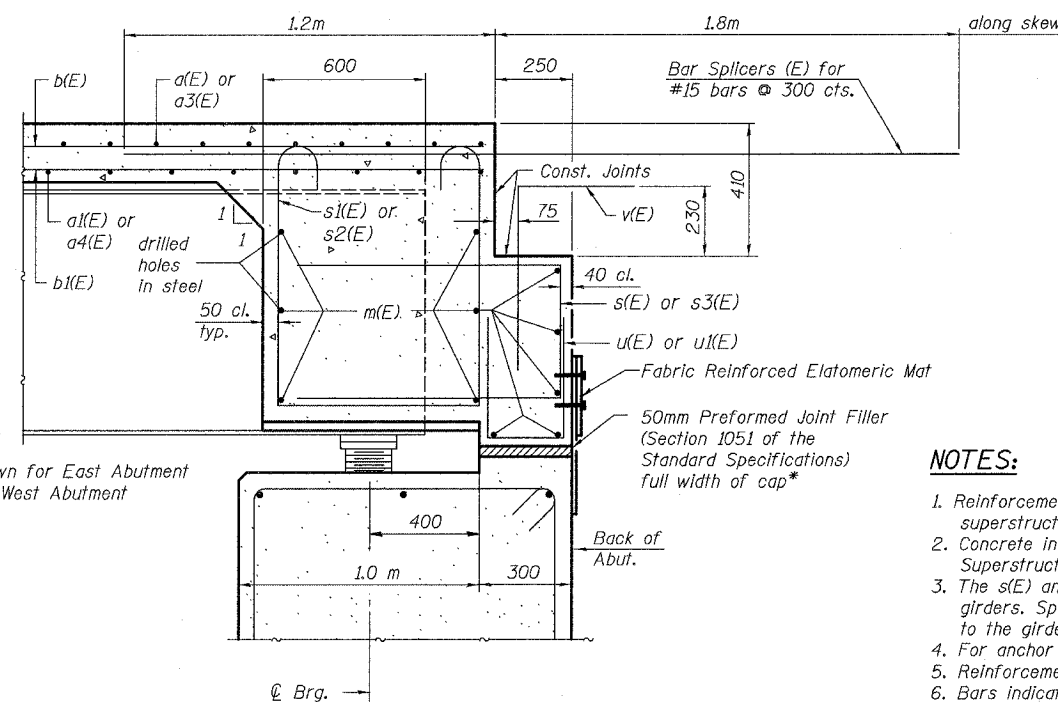
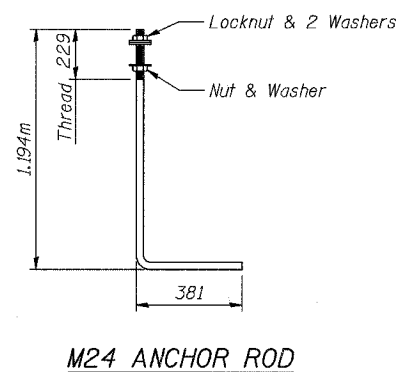
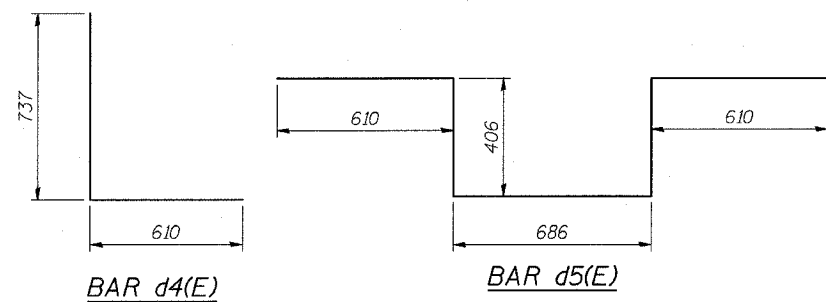
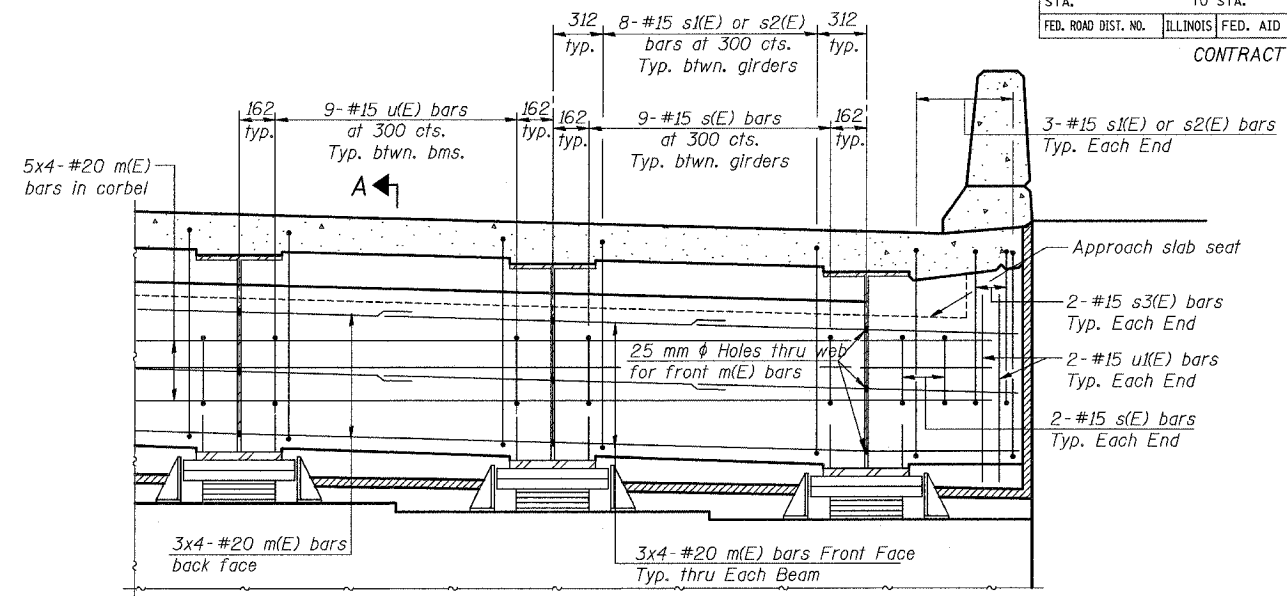
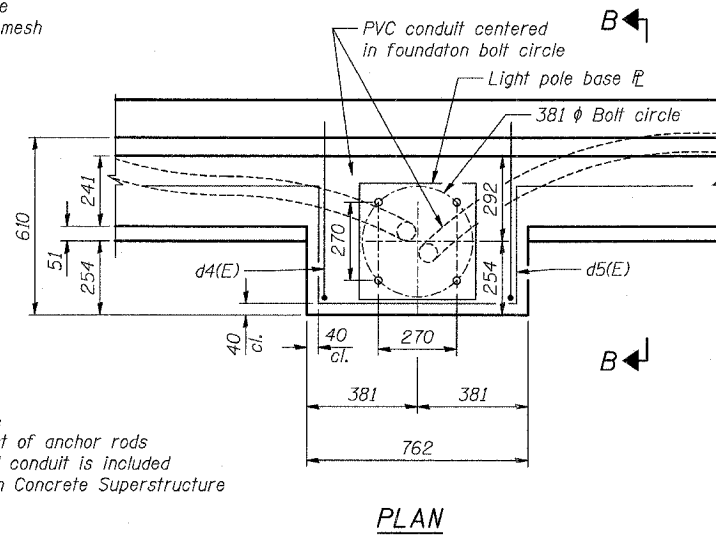
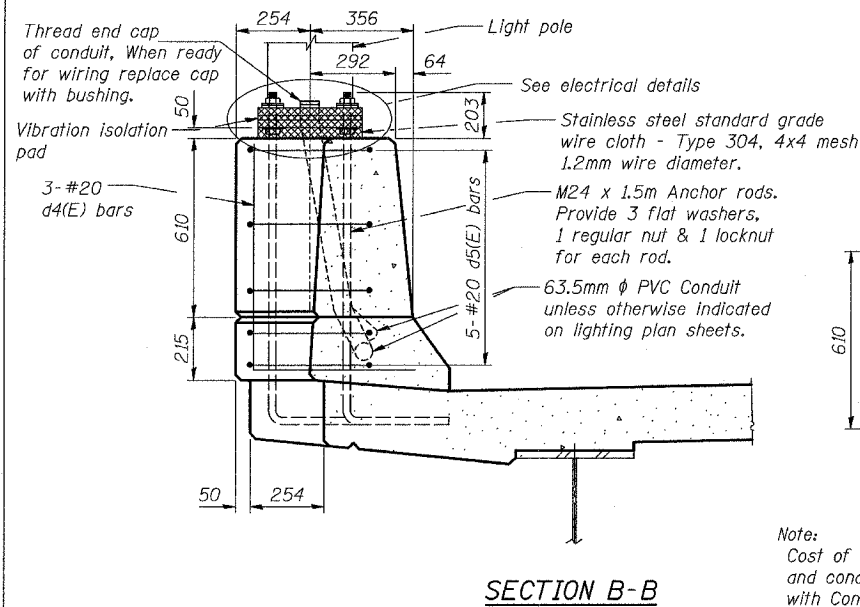
ILLINOIS DEPARTMENT OF TRANSPORTATION  
 IL ROUTE 68 OVER US ROUTE 14  
 F.A.P. ROUTE 343 SECTION 70HB-R-1  
 COOK COUNTY STATION 10+001.778  
 STRUCTURE NO. 016-2861

DECK CROSS SECTION

DESIGNED: BTO      DRAWN: BTO  
 CHECKED: JAN      CHECKED: JAN

DATE: 10/06





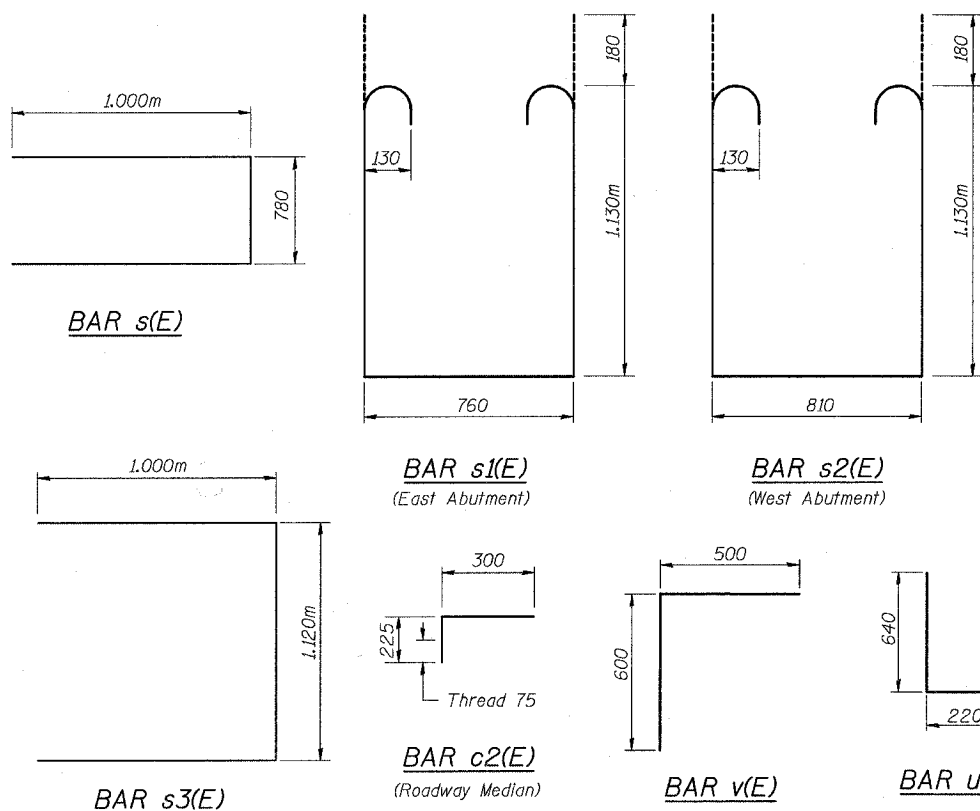
**NOTES:**

1. Reinforcement bars in diaphragm are billed with superstructure on sheet S-13 of S-27.
2. Concrete in diaphragm is included with Concrete Superstructure on sheet of S-13 of S-27.
3. The s(E) and s1(E) bars shall be placed parallel to the girders. Spacing for these bars shall be at right angles to the girders.
4. For anchor bolt details see sheet of S-19 of S-27.
5. Reinforcement bars designated (E) shall be epoxy coated.
6. Bars indicated thus 5x4 - #20 etc. indicates 5 lines of bars with 4 lengths per line.

**MIN. BAR LAP**

#20 bar = 790

SHT. S-12 OF S-27



Dimensions at right angles to abutment, except as shown.  
\* Cost included with Concrete Superstructure.



REVISIONS	
NAME	DATE

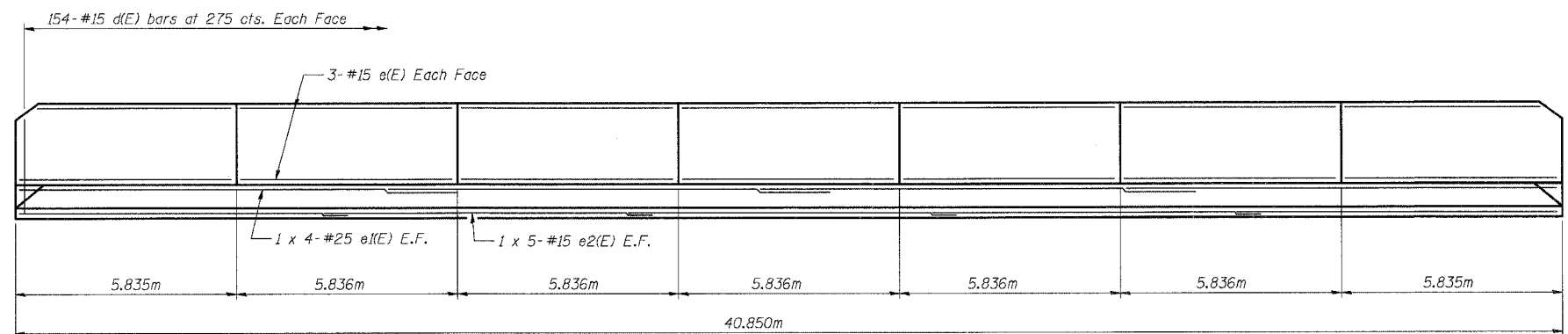
ILLINOIS DEPARTMENT OF TRANSPORTATION  
IL ROUTE 68 OVER US ROUTE 14  
F.A.P. ROUTE 343 SECTION 70HB-R-1  
COOK COUNTY STATION 10+001.778  
STRUCTURE NO. 016-2861

SUPERSTRUCTURE DETAILS

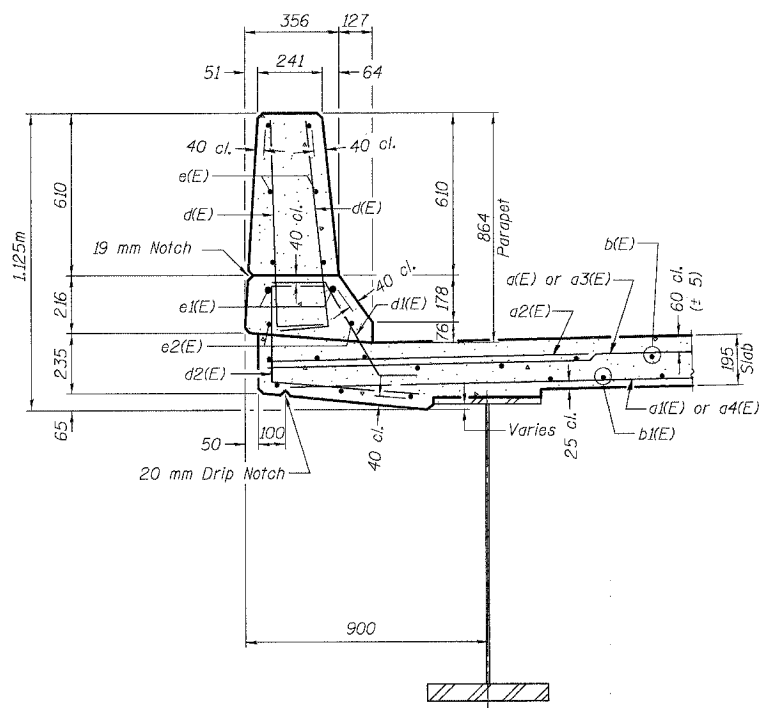
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CHECKED: JAN

DATE: 10/06

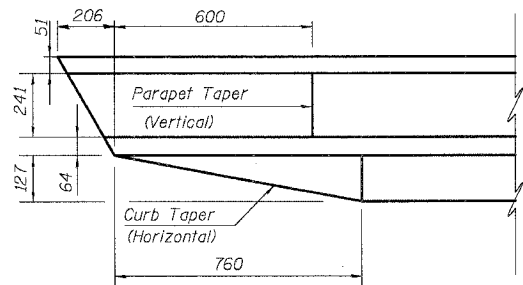
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	70HB-R-1	COOK	283	198
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 62897				



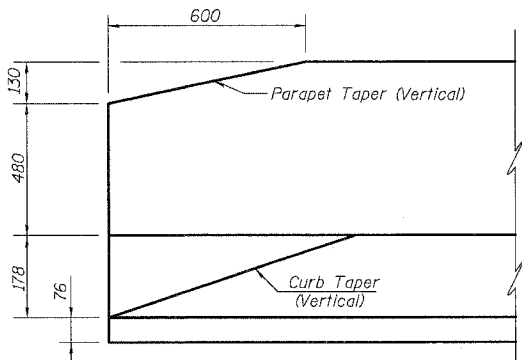
**INSIDE ELEVATION OF PARAPET**



**SECTION THRU PARAPET**



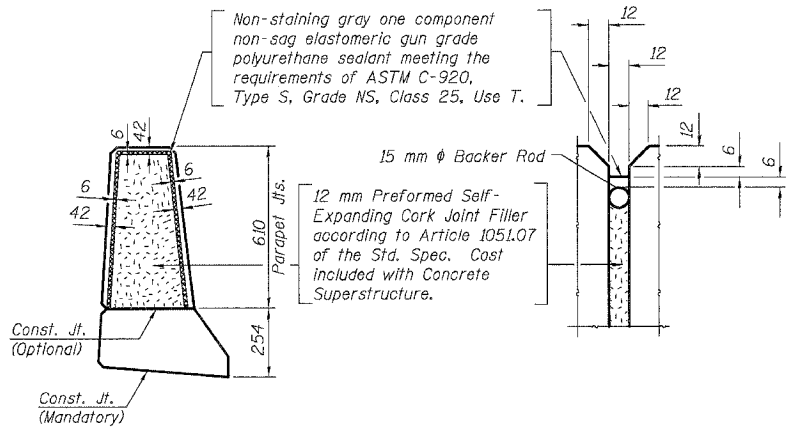
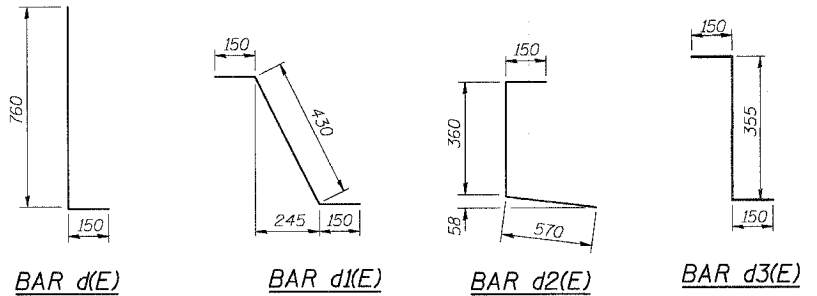
**END PLAN APPROACH**  
(West End Shown, East End Similar)



**END ELEVATION (Along I.F. Parapet)**

**SUPERSTRUCTURE  
BILL OF MATERIAL**

Bar	No.	Size	Length (m)	Shape
a(E)	620	15	7.880	—
a1(E)	636	15	5.470	—
a2(E)	310	20	1.400	—
a3(E)	620	15	7.155	—
a4(E)	636	15	4.990	—
a5(E)	24	15	0.450	—
b(E)	396	15	10.540	—
b1(E)	480	15	8.550	—
b2(E)	9	15	7.770	—
b3(E)	3	15	1.300	—
b4(E)	6	15	10.020	—
c(E)	133	15	0.440	—
c2(E)	266	15	0.525	—
d(E)	616	15	0.910	—
d1(E)	296	15	0.730	—
d2(E)	308	15	1.080	—
d3(E)	12	15	0.655	—
d4(E)	3	20	1.347	—
d5(E)	5	20	2.718	—
e(E)	84	15	5.760	—
e1(E)	16	25	11.180	—
e2(E)	20	15	8.670	—
m(E)	88	20	8.930	—
s(E)	192	15	2.780	—
s1(E)	86	15	3.380	—
s2(E)	86	15	3.430	—
s3(E)	8	15	3.120	—
u(E)	180	15	1.500	—
u1(E)	8	15	1.950	—
v(E)	190	15	1.100	—
Reinforcement Bars, Epoxy Coated		Kg	47,590	
Concrete Superstructure		Cu M	370.6	



**PARAPET JOINT DETAILS**

- NOTES:**
1. Reinforcement bars designated (E) shall be epoxy coated.
  2. All Expansion Anchors shall be Epoxy Coated and Included in the cost of "Reinforcement Bars, Epoxy Coated".

**MIN. BAR LAP**  
#15 bar = 640  
#25 bar = 1.320m

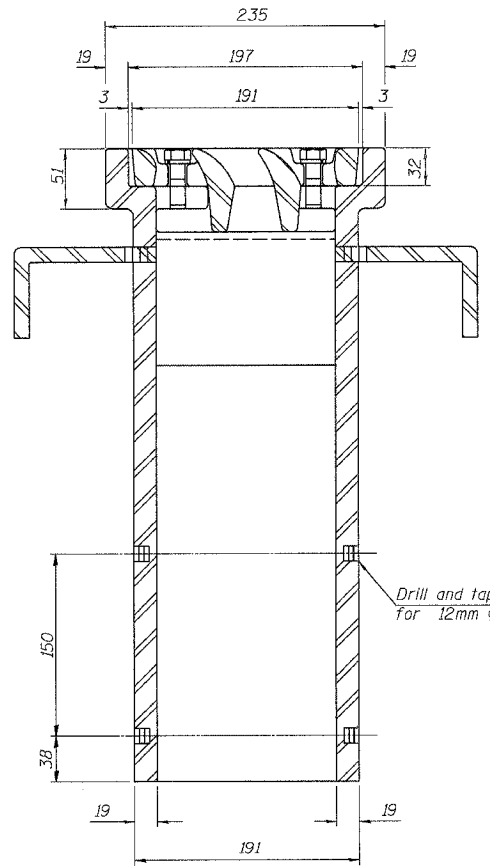
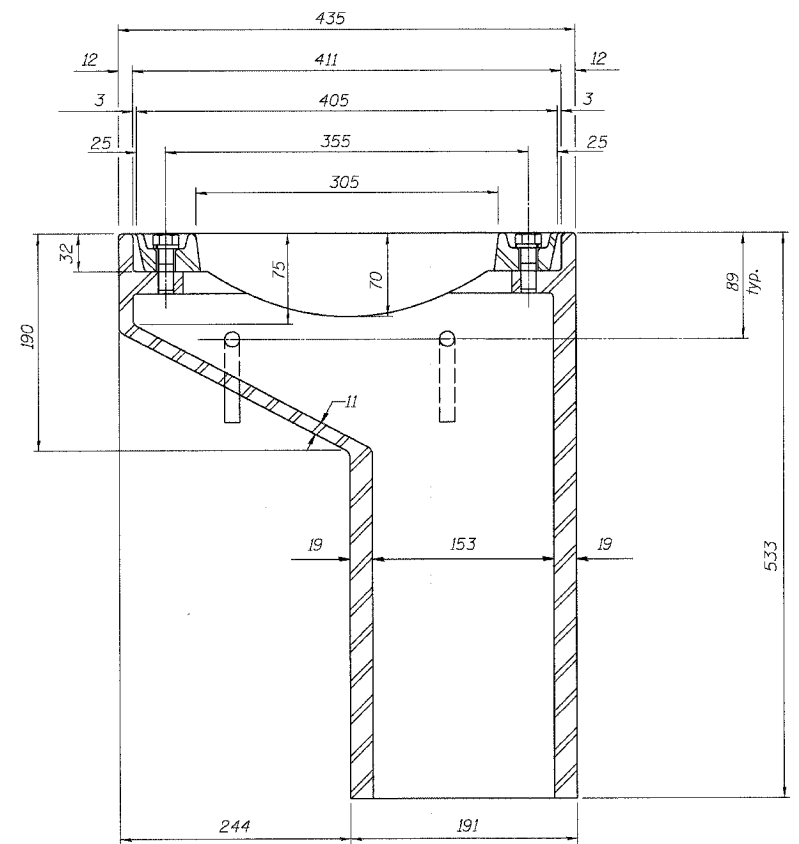
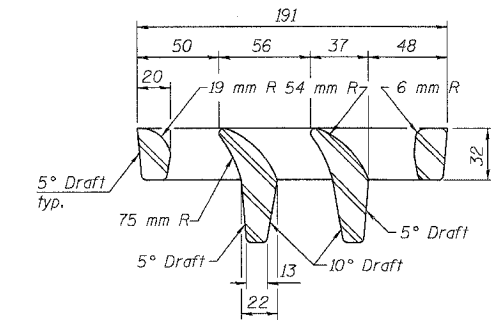
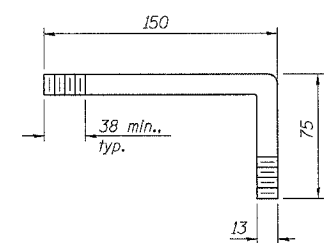
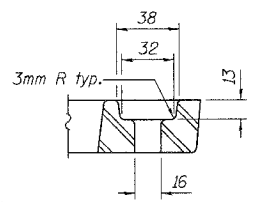
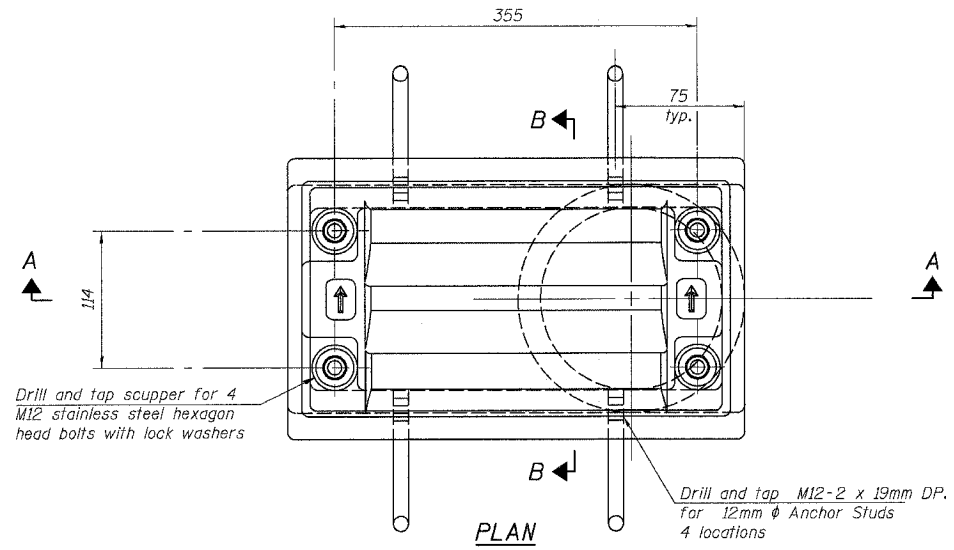
SHT. 5-13 OF 5-27

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
IL ROUTE 68 OVER US ROUTE 14  
F.A.P. ROUTE 343 SECTION 70HB-R-1  
COOK COUNTY STATION 10+001.778  
STRUCTURE NO. 016-2861  
PARAPET ELEVATION, DECK DETAILS, & B.O.M.  
DESIGNED: BTO DRAWN: BTO  
DATE: 10/06 CHECKED: JAN CHECKED: JAN



F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	70HB-R-1	COOK	283	199
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 62897				



**NOTES:**

All cast iron parts shall be gray iron conforming to the requirements of AASHTO M 105, Class 35B.

Bolts, anchor studs, washers and nuts shall conform to the requirements of ASTM A 307 and shall be galvanized according to AASHTO M 232.

The grate, frame and downspout shall be galvanized according to AASHTO M 111 and ASTM A 385. Downspouts located on the exterior side of a painted steel fascia beam shall be painted with the finish coat specified for the exterior side of the fascia beam.

As an alternate, bolts, anchor studs, washers and nuts may be stainless steel according to Article 1006.29(d) of the Standard Specifications.

Structural steel weldments of equal sections and of the same configuration may be substituted for cast iron. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval.

The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.

Cost of the Grate, Frame, Downspout, Anchor Studs, Bolts, Washers and Nuts including complete installation of the scupper shall be paid for at the contract unit price each for Drainage Scupper, DS-11.

All dimensions are in millimeters (mm) except as noted.

**BILL OF MATERIAL**

ITEM	UNIT	QUANTITY
Drainage Scupper, DS-11	Each	3

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 IL ROUTE 68 OVER US ROUTE 14  
 F.A.P. ROUTE 343 SECTION 70HB-R-1  
 COOK COUNTY STATION 10+001.778  
 STRUCTURE NO. 016-2861

**DRAINAGE SCUPPER, DS-11**

DESIGNED: BTO      DRAWN: BTO  
 CHECKED: JAN      CHECKED: JAN

DATE: 10/06



8-11-02

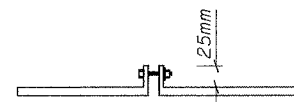
SHT. S-14 OF S-27

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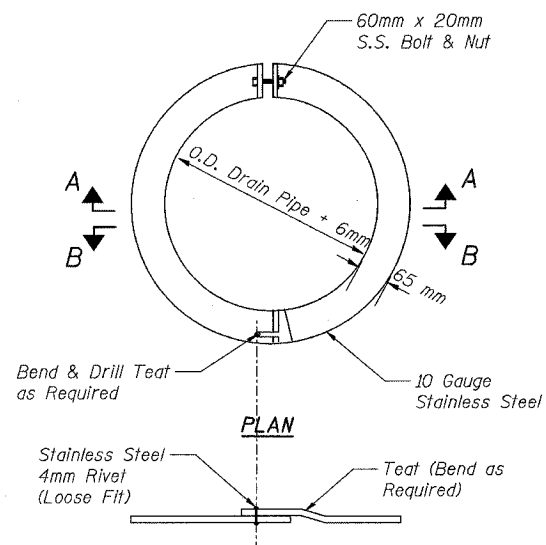


F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
343	70HB-R-1	COOK	283	200
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

CONTRACT NO. 62897

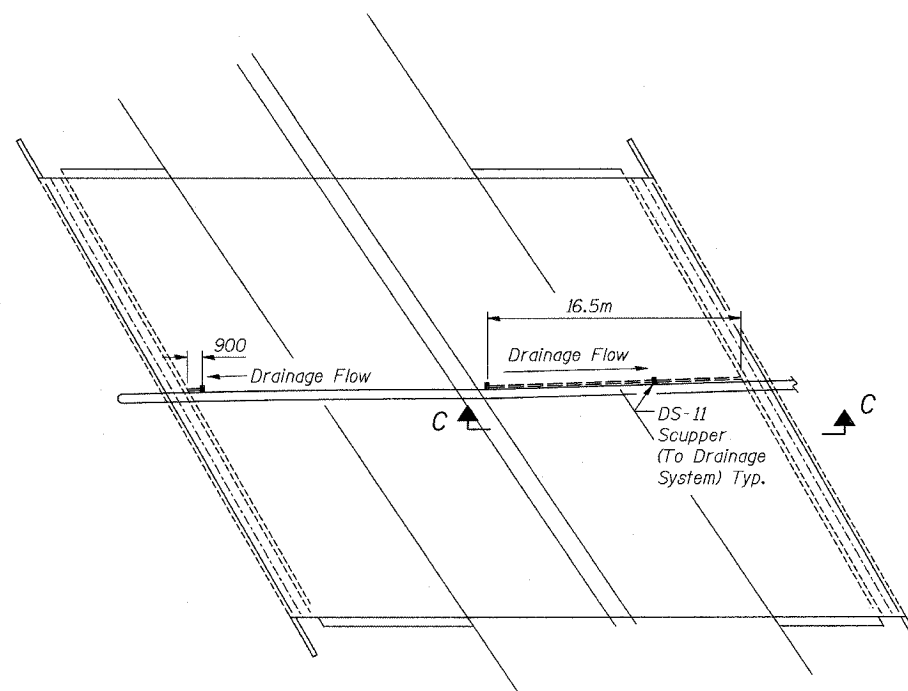


SECTION A-A



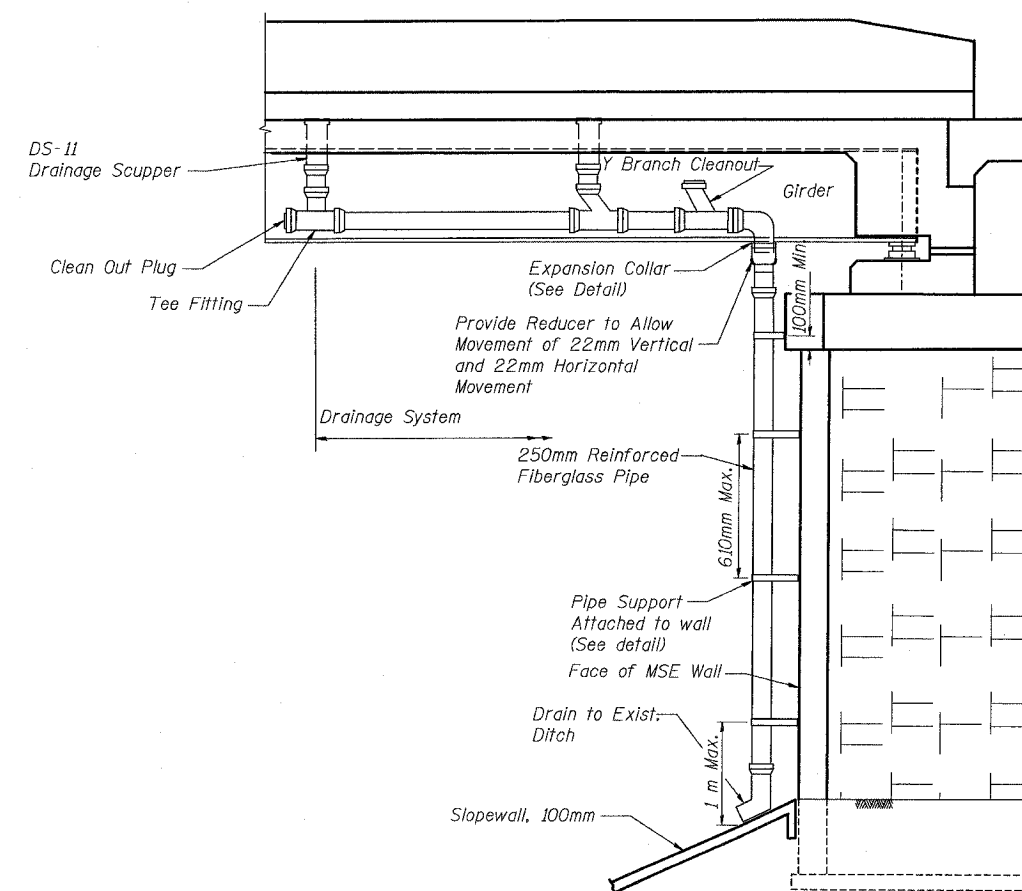
SECTION B-B

EXPANSION COLLAR DETAIL

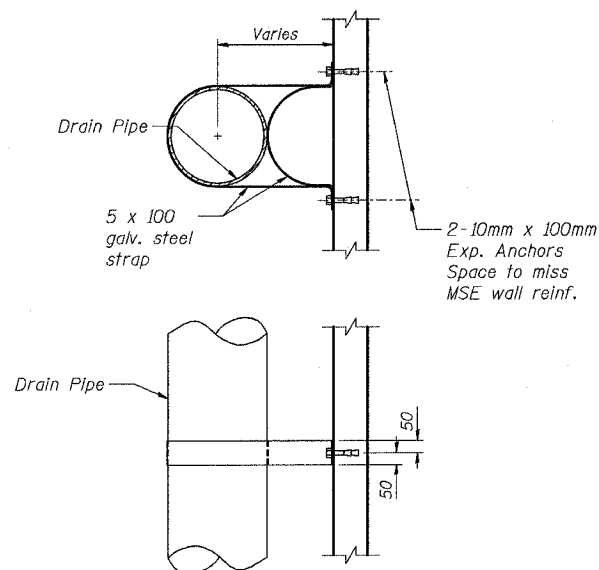


DRAINAGE SYSTEM PLAN

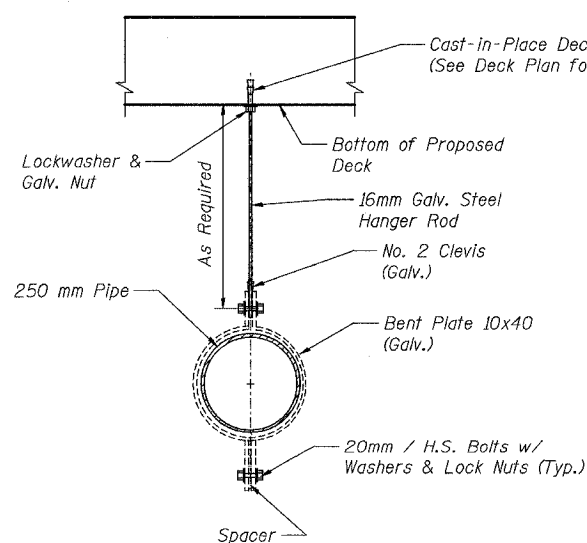
(See deck plan for location of drainage pipe deck inserts)



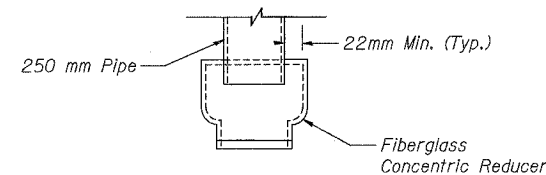
VIEW C-C (TYP.)  
(2 Places)



PIPE BRACKET DETAIL AT MSE WALL



PIPE HANGER BELOW DECK



PIPE REDUCER DETAIL

NOTE:

All dimensions are in millimeters (mm) except as noted.



BILL OF MATERIAL

Item	Unit	Total
Drainage System No. 1	Each	1

SHT. S-15 OF S-27

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
IL ROUTE 68 OVER US ROUTE 14  
F.A.P. ROUTE 343 SECTION 70HB-R-1  
COOK COUNTY STATION 10+001.778  
STRUCTURE NO. 016-2861

BRIDGE DRAINAGE SYSTEM

DESIGNED: JAN  
CHECKED: BTO  
DRAWN: JAN  
CHECKED: BTO  
DATE: 10/06