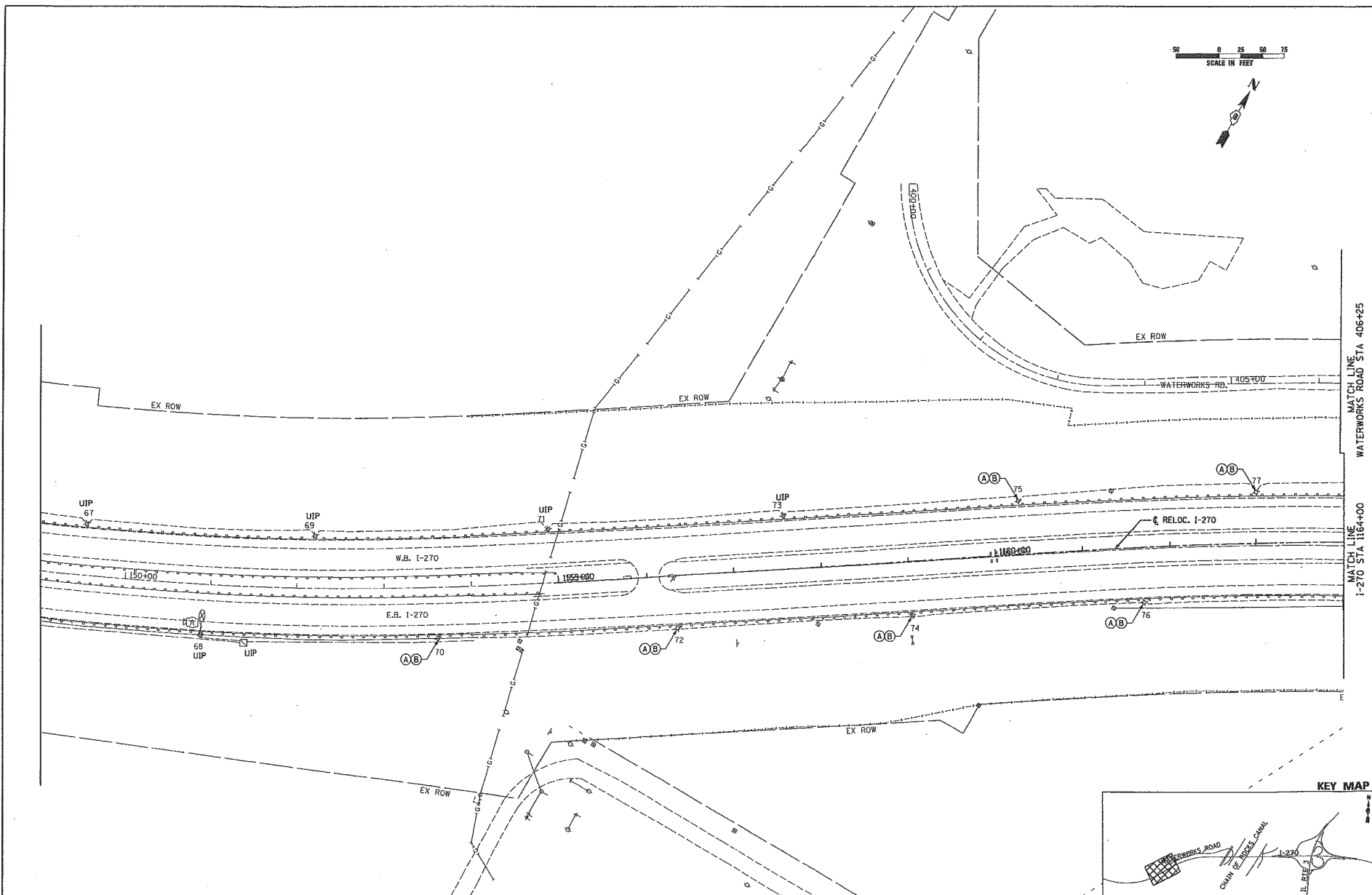
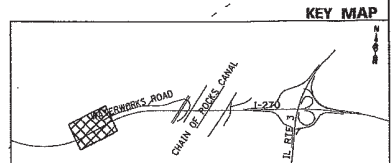


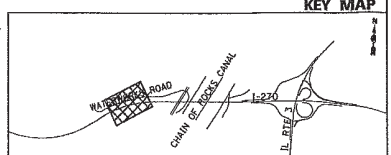
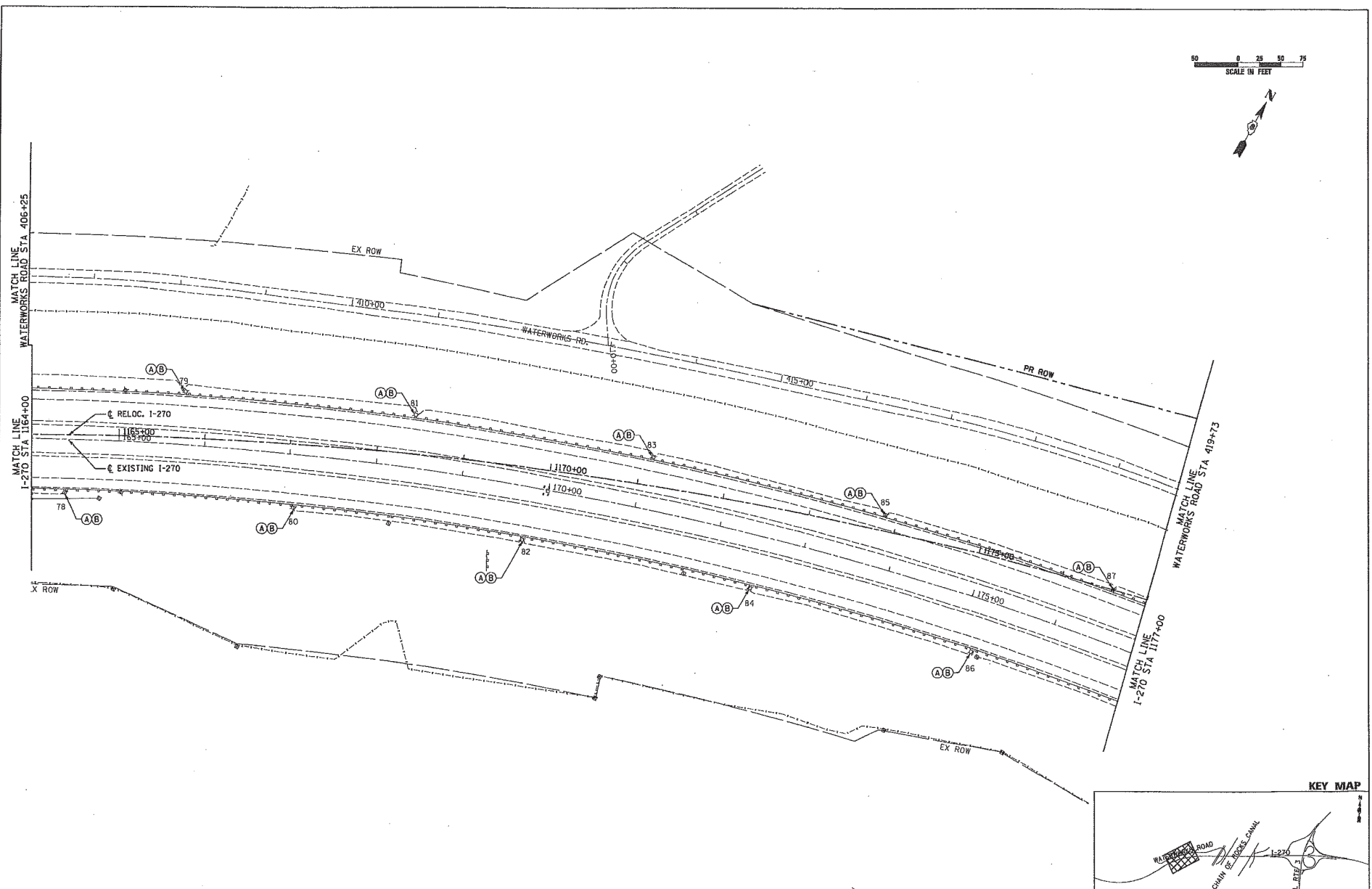
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#FILEL#		DRAWN -	REVISED -		270	60-1B-1	MADISON	712	322		
	PLOT SCALE = #SCALE#	CHECKED -	REVISED -		SCALE: 1" = 500'		SHEET NO. 1 OF 7 SHEETS		CONTRACT NO. 76A91		
	PLOT DATE = #DATE#	DATE 3/18/11	REVISED -		STA. _____ TO STA. _____		ILLINOIS FED. AID PROJECT				



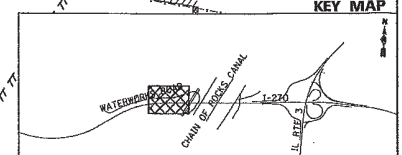
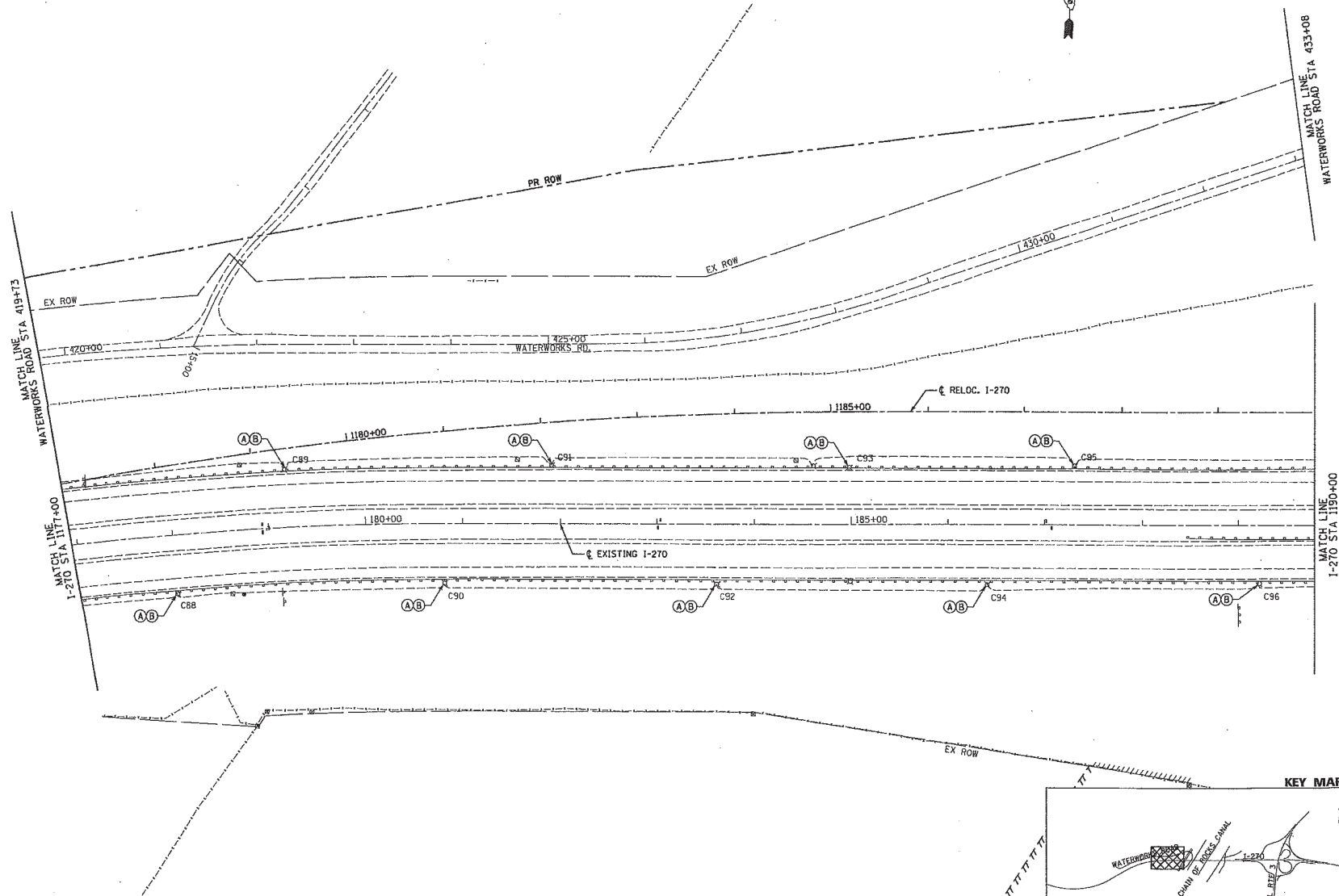
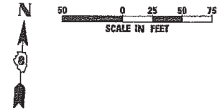
MATCH LINE WATERWORKS ROAD STA 406+25
 MATCH LINE I-270 STA 1164+00



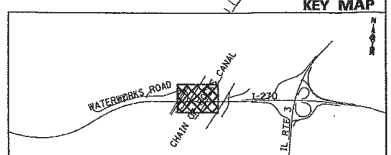
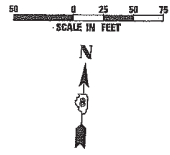
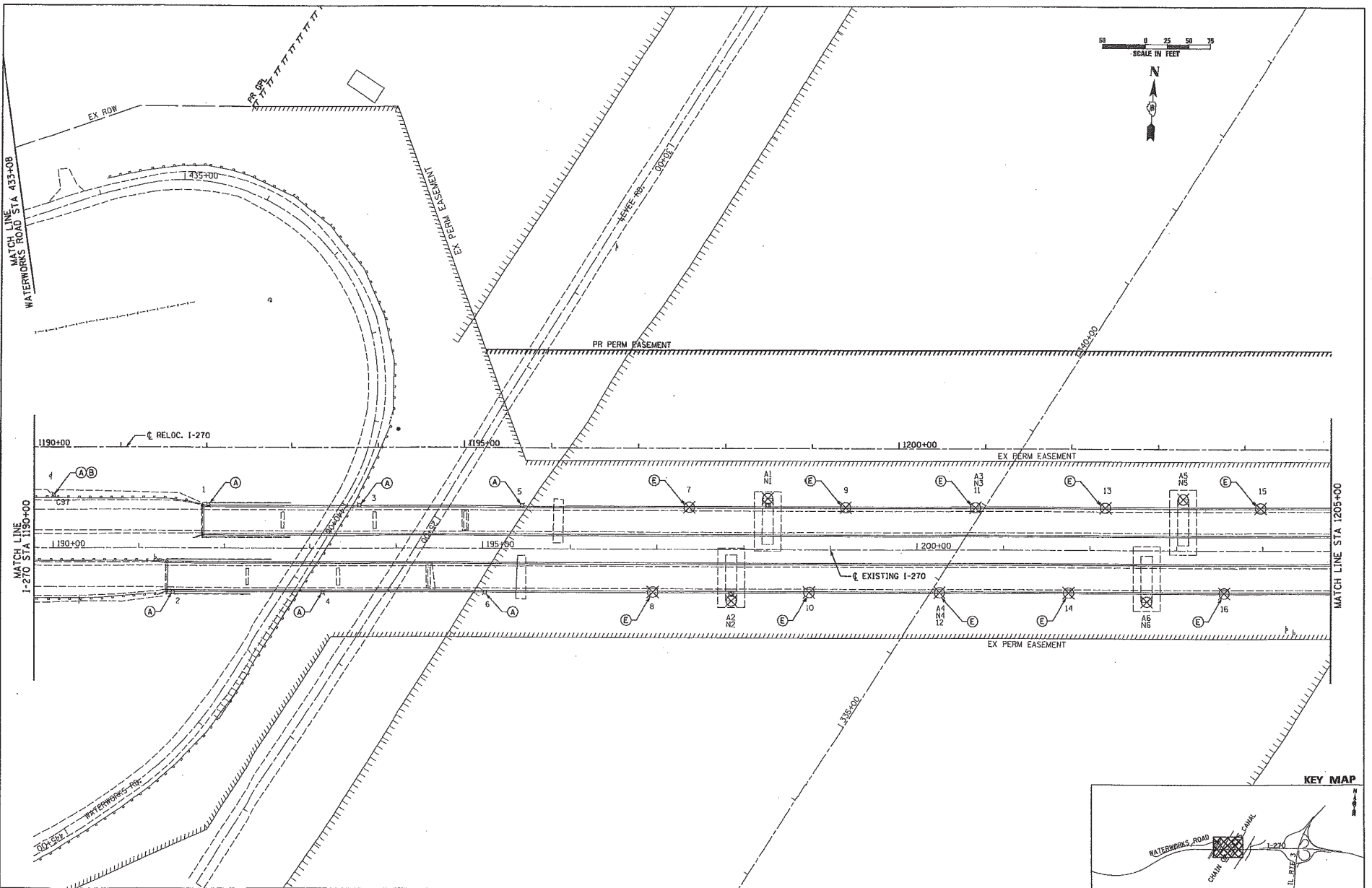
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#F.I.E.L.*	PLOT SCALE * #SCALE*	DRAWN SCR	REVISED -		SCALE: 1" = 50'	SHEET NO. 2 OF 7 SHEETS	STA. 1151+00	TO STA. 1164+00	270	60-1B-1	MADISON	T12 323
	PLOT DATE * #DATE*	CHECKED AAB	REVISED -									CONTRACT NO. 76A91
		DATE 3/18/11	REVISED -									ILLINOIS FED. AID PROJECT



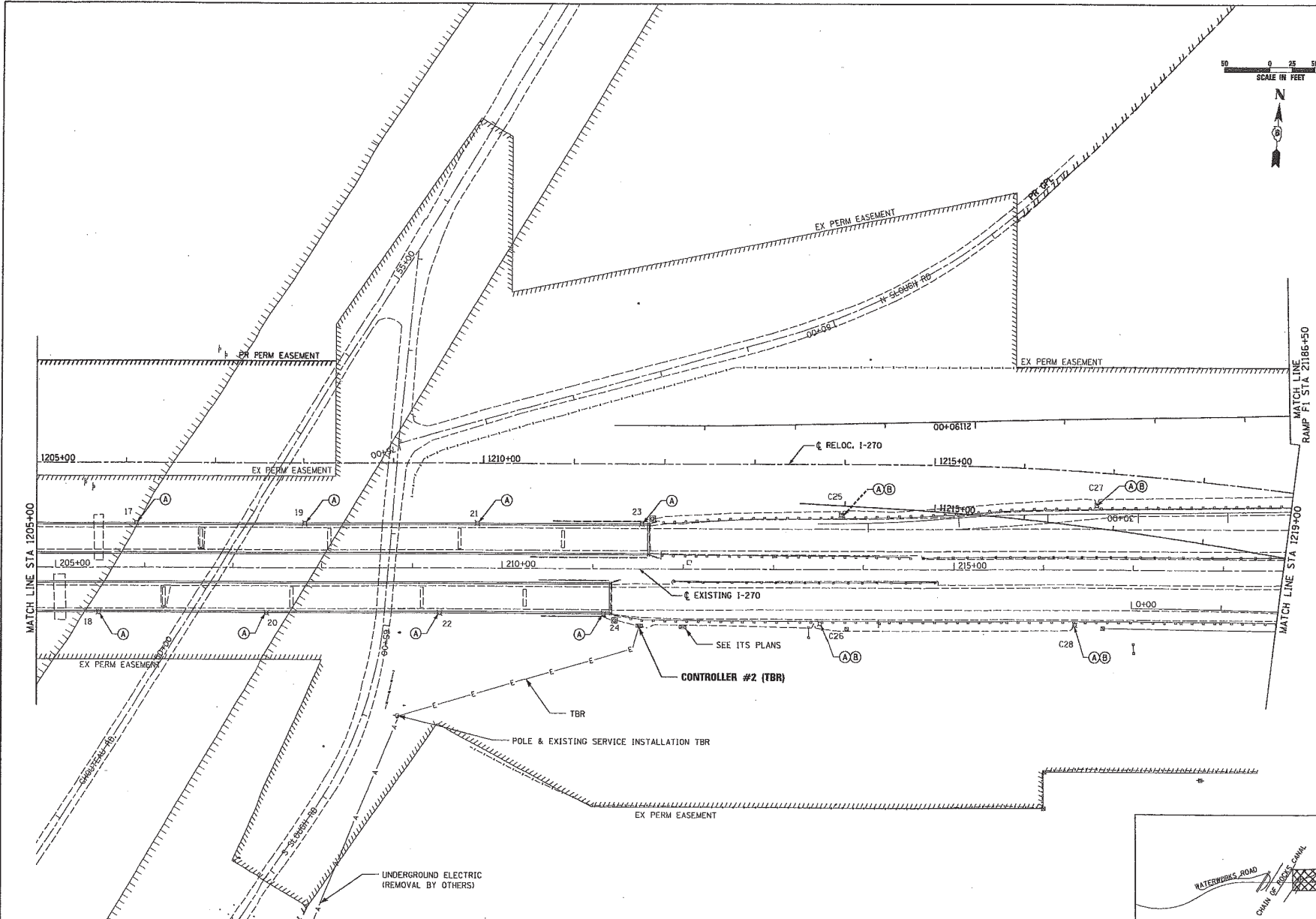
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		PLOT SCALE * #SCALE#	DRAWN SCR	REVISED -		270	60-18-1	MADISON	712	324		
		PLOT DATE * #DATE#	CHECKED AAB	REVISED -		SCALE: 1" = 50' SHEET NO. 3 OF 7 SHEETS STA. 1164+00 TO STA. 1177+00		CONTRACT NO. 76A91		ILLINOIS FED. AID PROJECT		
		DATE 3/18/11	DATE	REVISED -								



FILE NAME =	USER NAME = #USER#	DESIGNED FSM	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	HIGHWAY LIGHTING REMOVAL PLANS INTERSTATE 270		FAI	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
#FILE#		DRAWN SCR	REVISED -		270	60-18-1	MADISON	712	325		
		CHECKED AAB	REVISED -		SCALE: 1" = 50' SHEET NO. 4 OF 7 SHEETS STA. 1177+00 TO STA. 1190+00		CONTRACT NO. 76A91		ILLINOIS FED. AID PROJECT		
		DATE 3/18/11	REVISED -								



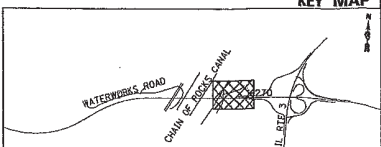
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		PLOT SCALE : #SCALE#	CHECKED : AAB	REVISD : -		270	60-18-1	MADISON	712	326		
		PLOT DATE : #DATE#	DATE : 3/18/11	REVISD : -		SCALE: 1" = 50' SHEET NO. 5 OF 7 SHEETS STA. 1190+00 TO STA. 1205+00		CONTRACT NO. 76A91		ILLINOIS/FBI, AIP PROJECT		



MATCH LINE STA 2186+50
RAMP I-270

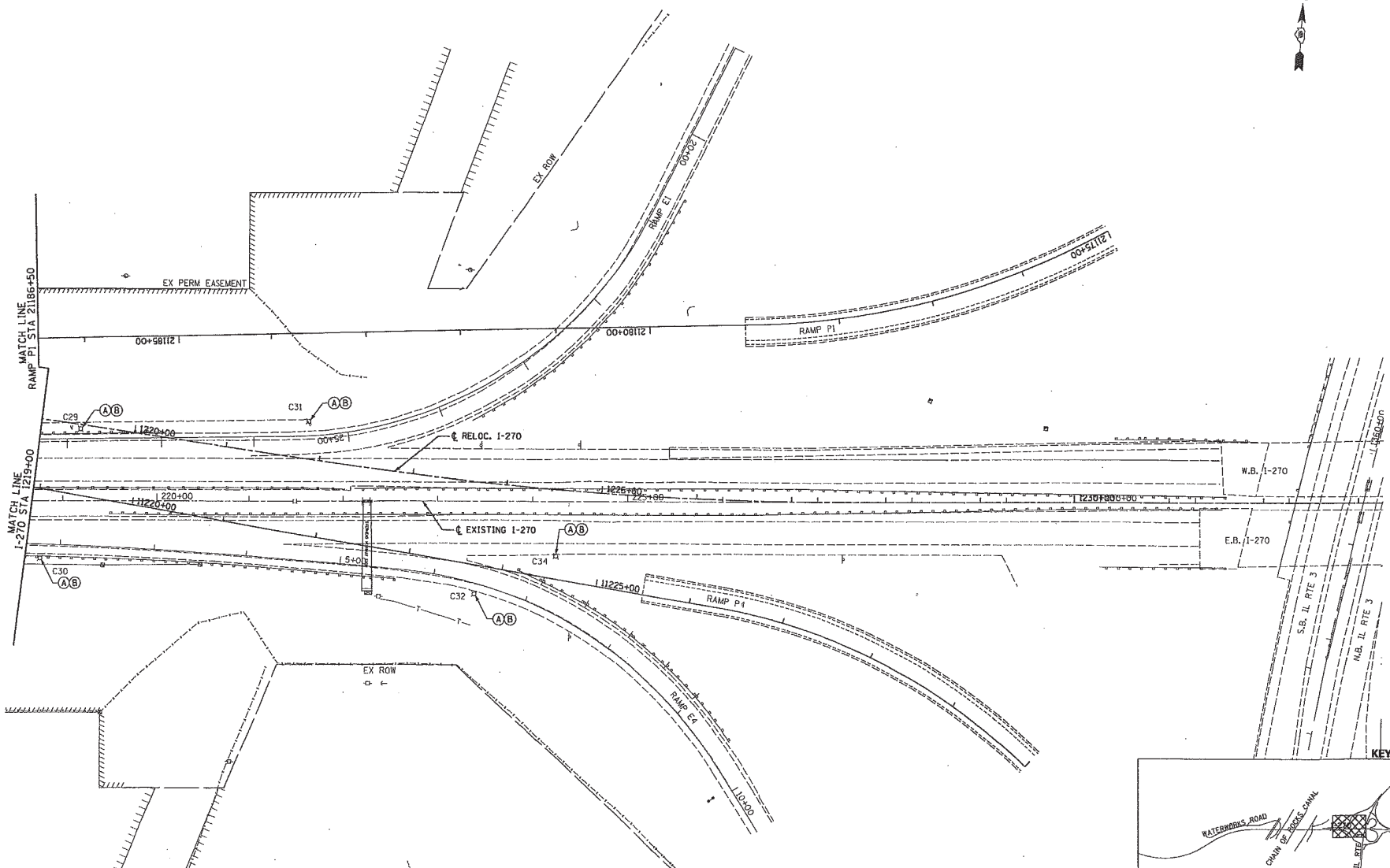
MATCH LINE STA 1205+00

MATCH LINE STA 1219+00



KEY MAP

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		PLOT DATE = #DATE#	CHECKED AAB	REVISED -		SCALE: 1" = 50' SHEET NO. 6 OF 7 SHEETS STA. 1205+00 TO STA. 1219+00		CONTRACT NO. 76A91 ILLINOIS FED. AID PROJECT				
		DATE 3/18/11	REVISOR	REVISED -								



FILE NAME =
#FRL2L4

ABNA
SIGNATURE

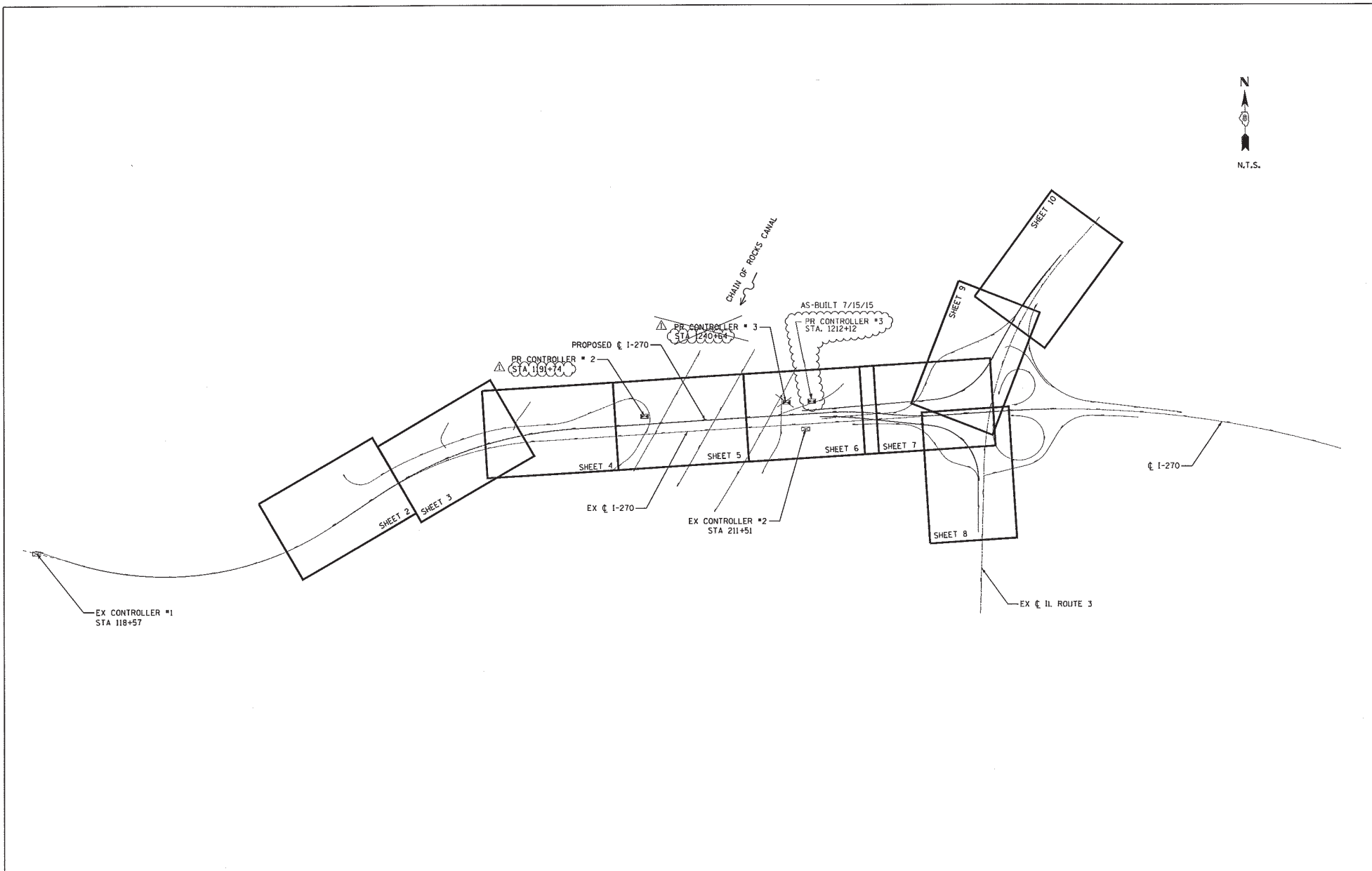
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CHECKED AAB	REVISED -	
DATE 3/18/11	REVISED -	

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**HIGHWAY LIGHTING REMOVAL PLANS
INTERSTATE 270**

SCALE: 1" = 80' SHEET NO. 7 OF 7 SHEETS STA. 1219+00 TO STA. 1233+00

FAI	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
270	60-1B-1	MADISON	112	328
			CONTRACT NO. 76A91	
ILLINOIS FED. AID PROJECT				

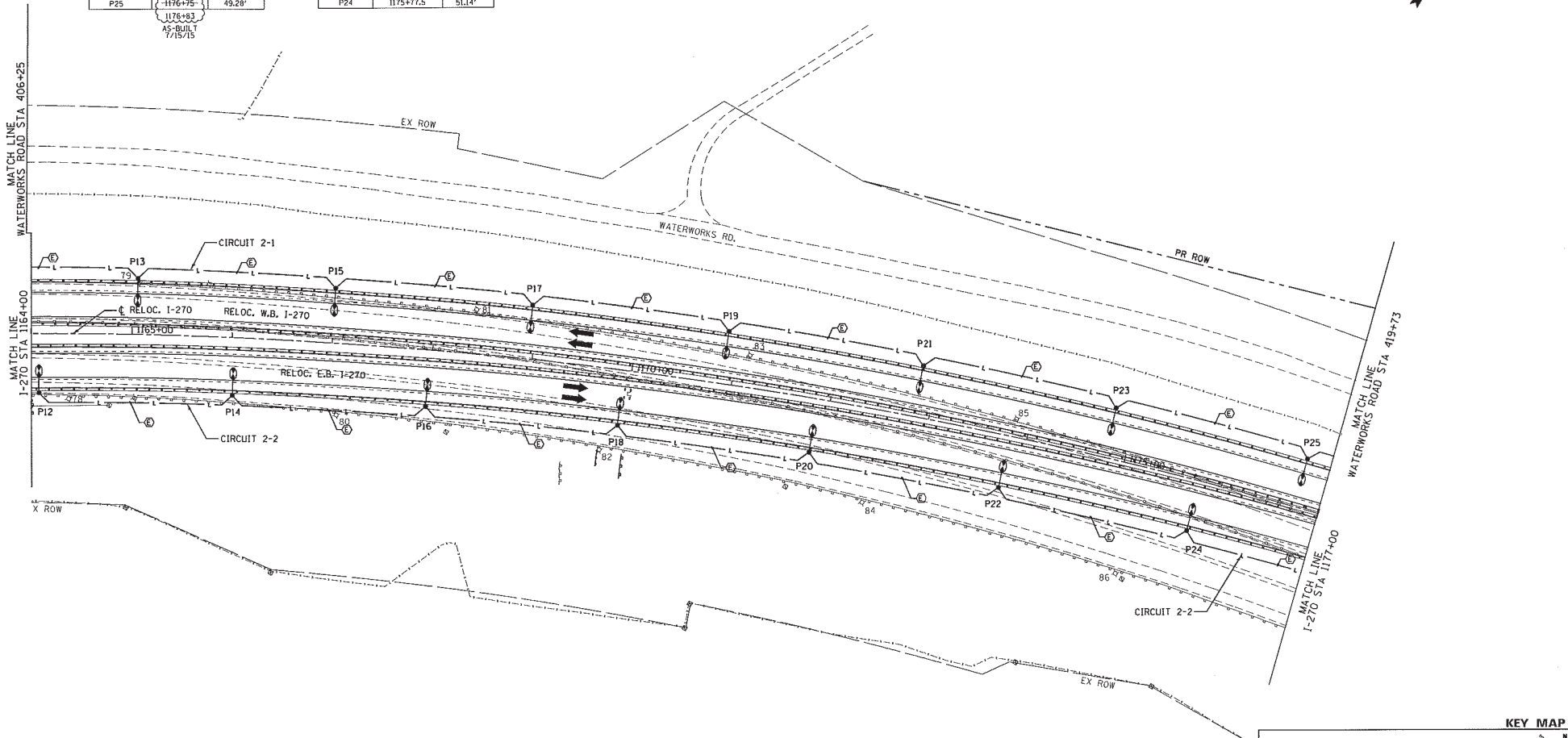
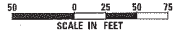


FILE NAME :	USER NAME :	DESIGNED :	REVISED :	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	HIGHWAY LIGHTING KEY MAP INTERSTATE 270	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
C:\ENR\11885-01-01\11885-01-01	11885-01-01	PR/ANN - RLD	REVISED -			270	60-1B-1	MADISON	712	323	
		CHECKED -	REVISED - 6/7/11 ADDENDUM Δ			CONTRACT NO. 76A91					
		DATE -	REVISED -			ILLINOIS FED. AID PROJECT					

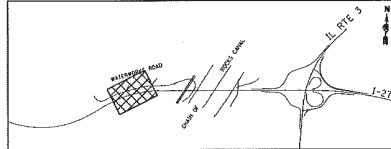
LEFT SIDE LIGHTS		
POLE NO.	STATION	OFFSET
P13	1165+05	55.59'
P15	1167+00	54.58'
P17	1168+95	53.54'
P19	1170+90	52.50'
P21	1172+85	51.43'
P23	1174+80	50.36'
P25	1176+75	49.28'

RIGHT SIDE LIGHTS		
POLE NO.	STATION	OFFSET
P12	1164+07.5	58.10'
P14	1166+02.5	57.49'
P16	1167+97.5	56.26'
P18	1169+92.5	55.00'
P20	1171+87.5	53.73'
P22	1173+82.5	52.44'
P24	1175+77.5	51.14'

1176+83
AS-BUILT
7/15/15



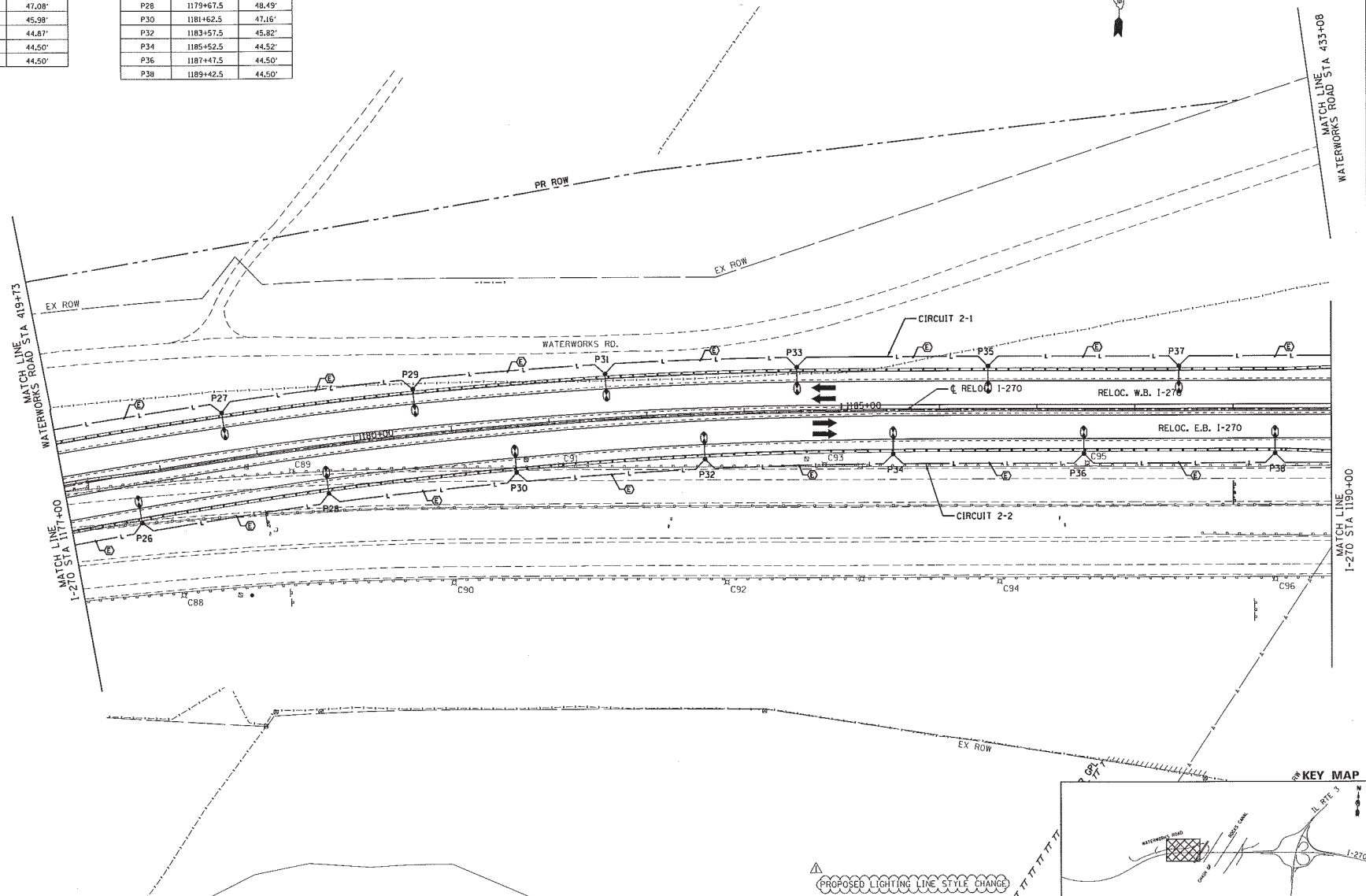
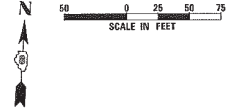
KEY MAP



FILE NAME : C:\CHTD\proj\U-D\11\11001\11856-01-06	USER NAME : spochlaxner	DESIGNED -	REVISION -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	HIGHWAY LIGHTING PLANS INTERSTATE 270	F.A.I. R.T.E. 270	SECTION 60-1B-1	COUNTY MADISON	TOTAL SHEETS 712	SHEET NO. 331		
	DRAWN : ds.dgr	CHECKED -	REVISION - 6/7/11 ADDENDUM A			SCALE: 1" = 50'	SHEET NO. 3 OF 10 SHEETS	STA. 1164+00	TO STA. 1177+00	[ILLINOIS] FED. AID PROJECT		
	PLOT SCALE = 1/8" = 100'	DATE -	REVISION -									
	PLOT DATE = 8/24/2015	DATE -	REVISION -									

LEFT SIDE LIGHTS		
POLE NO.	STATION	OFFSET
P27	1178+70	48.18'
P29	1180+65	47.08'
P31	1182+60	45.98'
P33	1184+55	44.87'
P35	1186+50	44.50'
P37	1188+45	44.50'

RIGHT SIDE LIGHTS		
POLE NO.	STATION	OFFSET
P26	1177+25.5	49.82'
P28	1179+67.5	48.49'
P30	1181+62.5	47.16'
P32	1183+57.5	45.82'
P34	1185+52.5	44.52'
P36	1187+47.5	44.50'
P38	1189+42.5	44.50'



FILE NAME : C:\NCPD\res\1-0-1\1107\1185-01-06	USER NAME : spacklinner	DESIGNED :	REVISED :	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	HIGHWAY LIGHTING PLANS INTERSTATE 270		F.A.I. SHEETS : 270	SECTION : 60-1B-1	COUNTY : MADISON	TOTAL SHEETS : 712	SHEET NO. : 332
	PLOT SCALE : 1/8" = 1'	CHECKED :	DATE :		6/7/11 ADDENDUM	SCALE: 1" = 50'	SHEET NO. 4 OF 10 SHEETS	STA. 1177+00 TO STA. 1190+00	ILLINOIS FED. AID PROJECT	CONTRACT NO. 76A91	

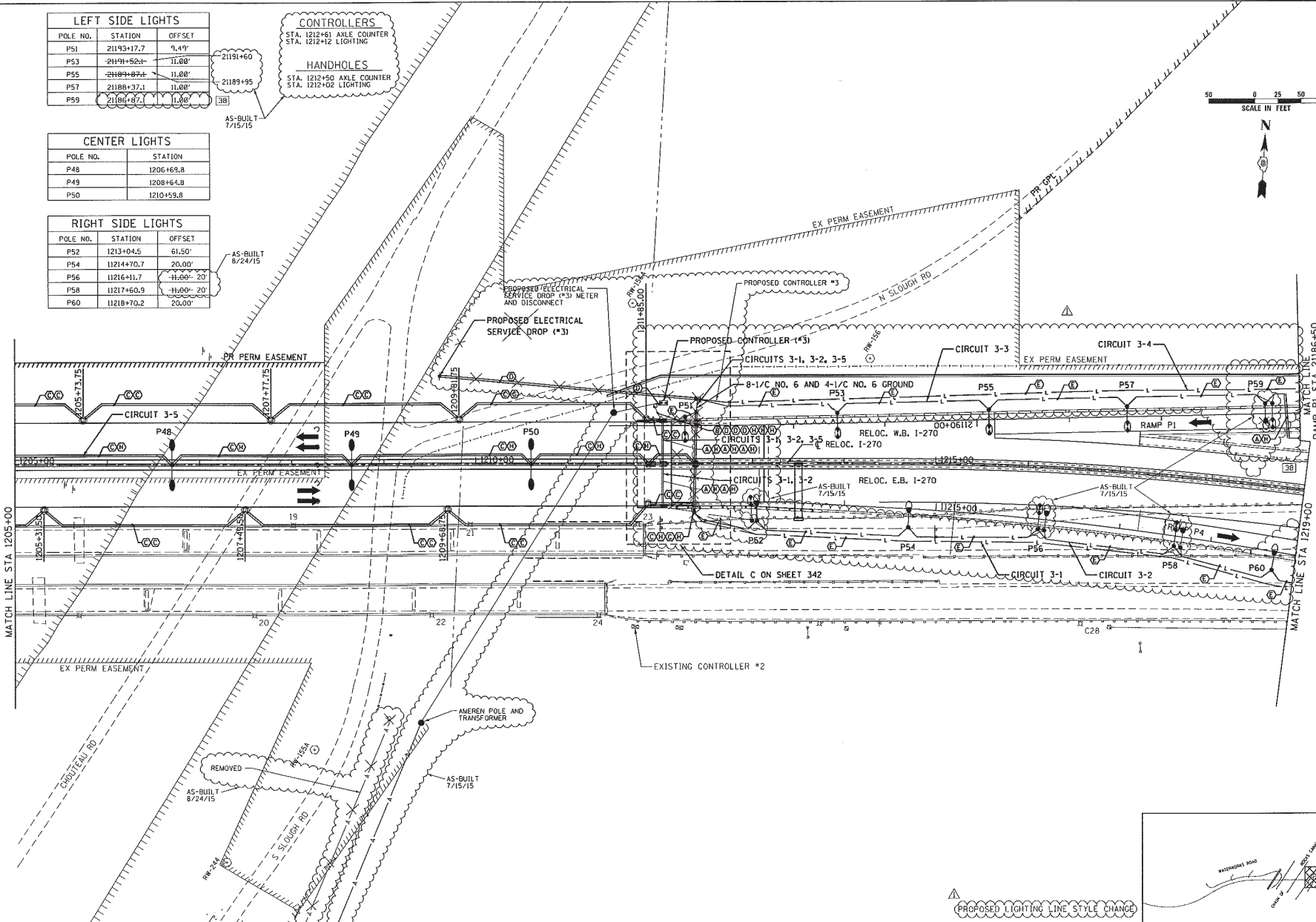
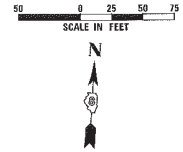
LEFT SIDE LIGHTS		
POLE NO.	STATION	OFFSET
P51	21193+17.7	9.49'
P53	21191+52.1	11.00'
P55	21189+87.4	11.00'
P57	21188+37.1	11.00'
P59	21186+87.1	11.00'

CONTROLLERS
 STA. 1212+61 AXLE COUNTER
 STA. 1212+12 LIGHTING

HANDHOLES
 STA. 1212+50 AXLE COUNTER
 STA. 1212+02 LIGHTING

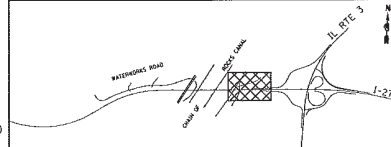
CENTER LIGHTS	
POLE NO.	STATION
P48	1206+69.8
P49	1208+64.8
P50	1210+59.8

RIGHT SIDE LIGHTS		
POLE NO.	STATION	OFFSET
P52	1213+04.5	61.50'
P54	11214+70.7	20.00'
P56	11216+11.7	11.00'-20'
P58	11217+60.9	11.00'-20'
P60	11218+70.2	20.00'

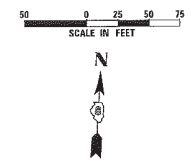


MATCH LINE STA. 21185+50
RAMP P1
MATCH LINE STA. 1219+00

KEY MAP

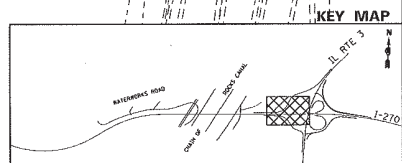
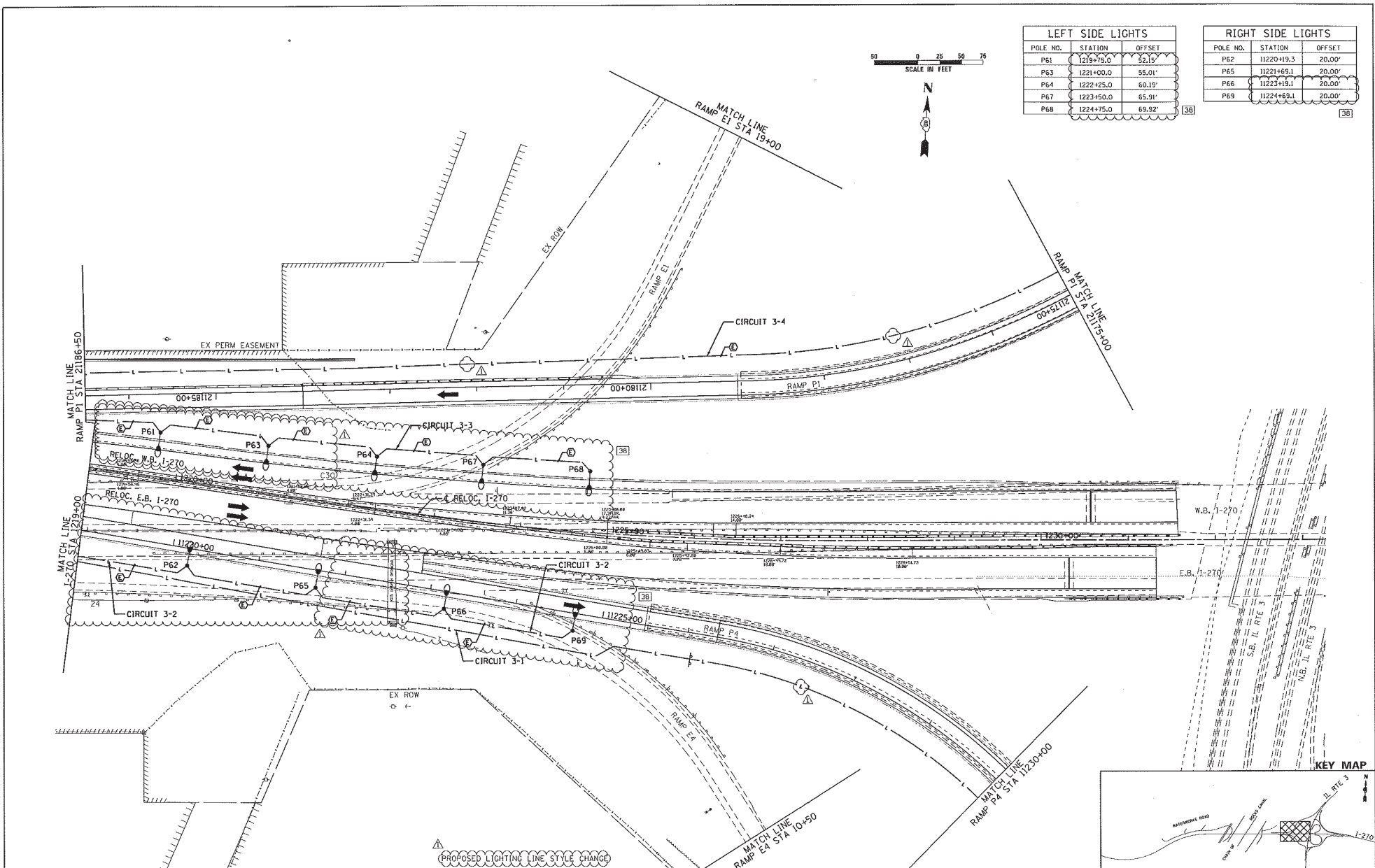


FILE NAME : C:\CD\118856-01\Drawings\1205+00\118856-01-06.dwg	USER NAME : jacob@state	DESIGNED : DRABY, M. J.	REVISIONS : REVISED - AMB 11/6/13 [38] REVISED - 5/24/11 ADDENDUM [A] REVISED - CR19 REV 6/22/12	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	HIGHWAY LIGHTING PLANS INTERSTATE 270	F.A.J. RTE. 270	SECTION 60-1B-1	COUNTY MADISON	TOTAL SHEETS 334	SHEET NO. 334
PLOT SCALE = 1/8" = 50'		CHECKED : DATE :	SCALE: 1" = 50'			SHEET NO. 6 OF 10 SHEETS	STA. 1205+00 TO STA. 1219+00	ILLINOIS FED. AID PROJECT		CONTRACT NO. 76A91

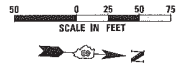


LEFT SIDE LIGHTS		
POLE NO.	STATION	OFFSET
P61	1219+75.0	52.15'
P63	1221+00.0	55.01'
P64	1222+25.0	60.19'
P67	1223+50.0	65.91'
P68	1224+75.0	69.92'

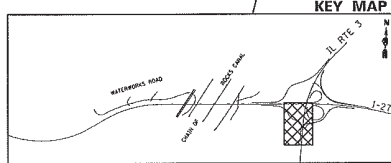
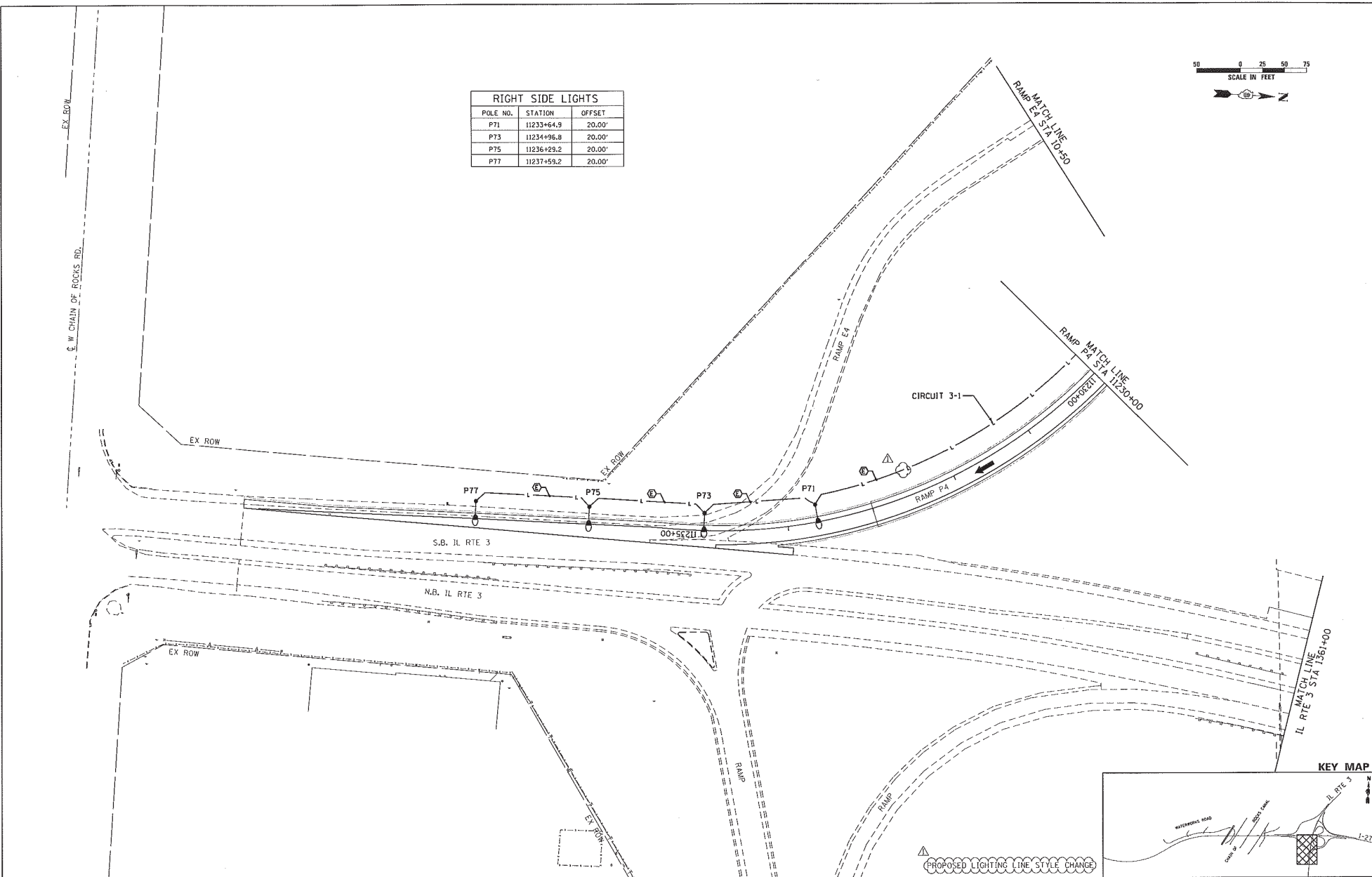
RIGHT SIDE LIGHTS		
POLE NO.	STATION	OFFSET
P62	11220+19.3	20.00'
P65	11221+69.1	20.00'
P66	11223+19.1	20.00'
P69	11224+69.1	20.00'



FILE NAME : C:\CHT0\res\UL-D\res\1001\11865-01-85.dwg	USER NAME : tpsnk@state.gov	DESIGNED - DRABIN, BT.dgn	REVISIONS	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	HIGHWAY LIGHTING PLANS INTERSTATE 270	F.A.I. RTE. 270	SECTION 60-1B-1	COUNTY MADISON	TOTAL SHEETS 335	SHEET NO. 38
		CHECKED -	REVISOR - AAB 11/6/13 [38]		SCALE: 1" = 50'					
		DATE -	REVISOR - 5/24/11 ADDENDUM [A]		SHEET NO. 7 OF 10 SHEETS	STA. 1219+00				
			REVISOR -			TO STA. 1235+00				
										ILLINOIS FED. AID PROJECT



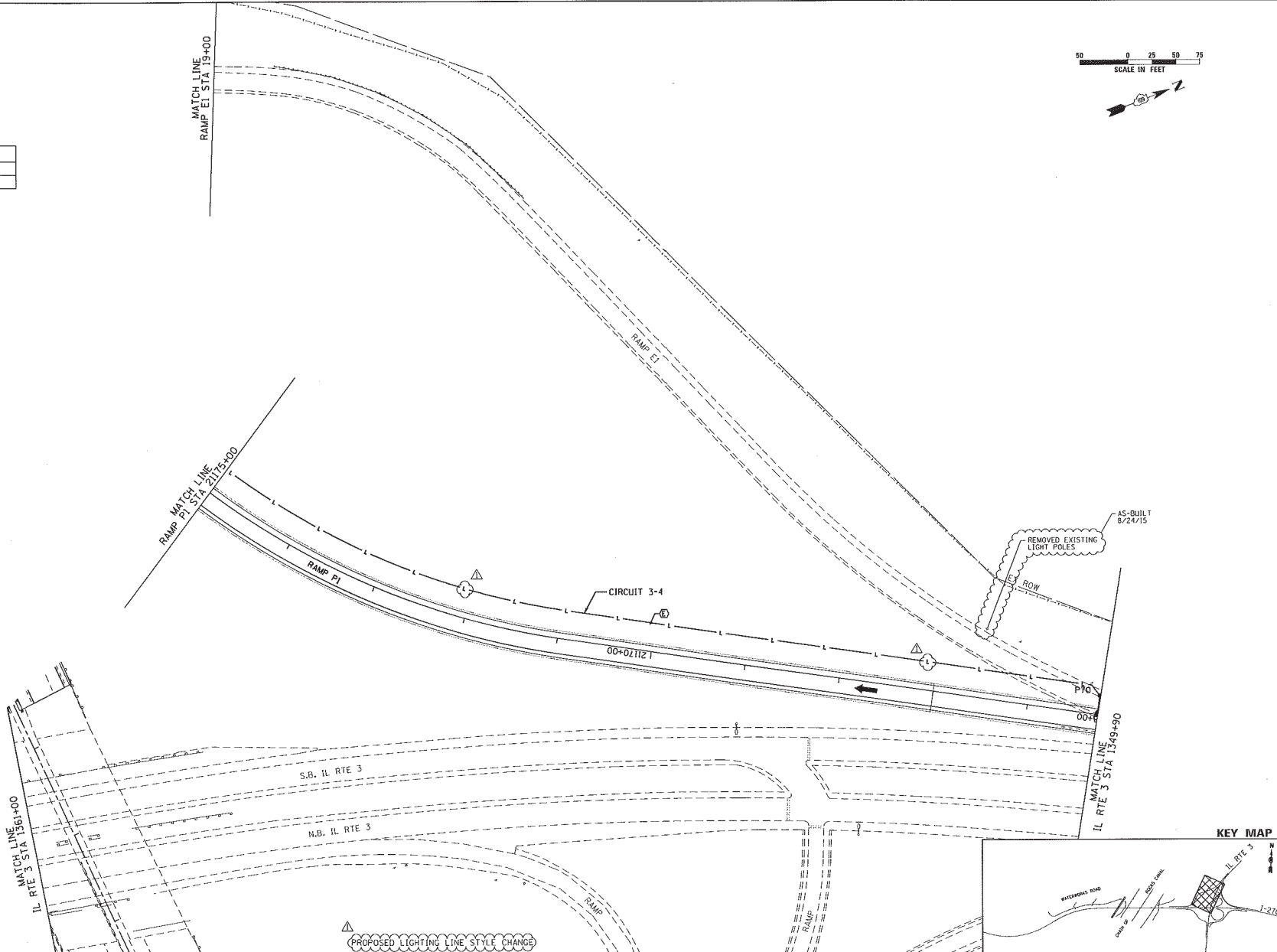
RIGHT SIDE LIGHTS		
POLE NO.	STATION	OFFSET
P71	11233+64.9	20.00'
P73	11234+96.8	20.00'
P75	11236+29.2	20.00'
P77	11237+59.2	20.00'



FILE NAME =	USER NAME =	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	HIGHWAY LIGHTING PLANS IL RTE 3		F.A.I. RTE. 270	SECTION 60-1B-1	COUNTY MADISON	TOTAL SHEETS 112	SHEET NO. 8
C:\NCMTD\11866-01-06	11866-01-06	DR/AMW	6/7/11		SCALE: 1" = 50' SHEET NO. 8 OF 10 SHEETS STA. 1375+20 TO STA. 1361+00		ILLINOIS FED. AID PROJECT	CONTRACT NO. 76A91			
		CHECKED -	REVISED -								
		DATE -	REVISED -								



RIGHT SIDE LIGHTS		
POLE NO.	STATION	OFFSET
P70	21165+25.6	20.00'

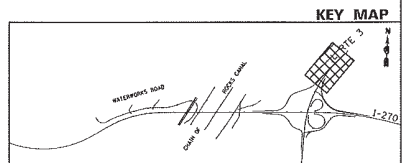
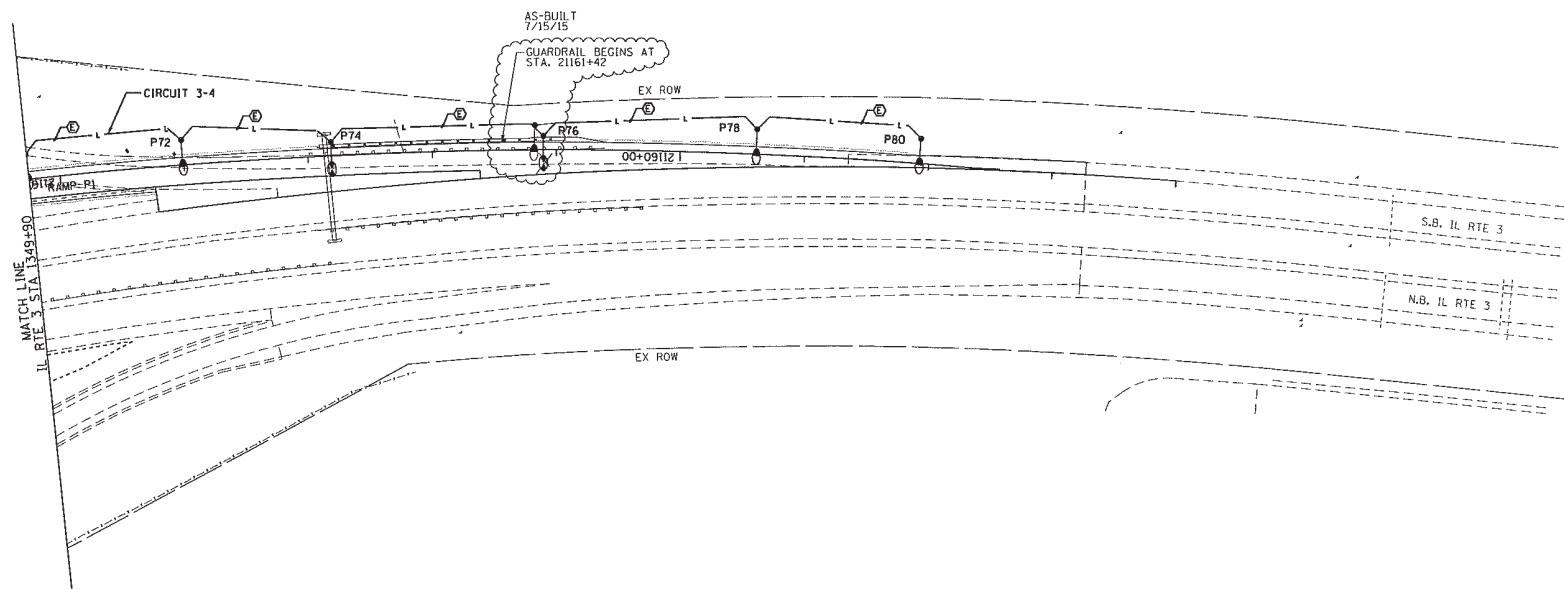
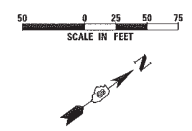


FILE NAME : C:\NCTD\work\11-Drive\1001\11865-01-26	USER NAME : gpc@state.gov	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	HIGHWAY LIGHTING PLANS IL RTE 3	F.A.I. RTE. : 270	SECTION : 60-1B-1	COUNTY : MADISON	TOTAL SHEETS : 712	SHEET NO. : 333		
CONTRACT NO. : 11865-01-26	PROJECT NO. : 11865-01-26	DRAWN : gpc	REVISED : 6/7/11 ADDENDUM A			SCALE : 1" = 50'	SHEET NO. : 9 OF 10 SHEETS	STA. : 1361+00 TO STA. 1349+90	ILLINOIS FED. AID PROJECT			
PLOT SCALE : 1/8" = 1' @ 11x17"		CHECKED : -	REVISED : -									
PLOT DATE : 8/24/2015		DATE : -	REVISED : -									

RIGHT SIDE LIGHTS		
POLE NO.	STATION	OFFSET
P72	21164+00.9	20.00'
P74	21162+01.2	11.00'
P76	21161+10.4	11.00'
P78	21159+39.0	20.00'
P80	21158+07.7	20.00'

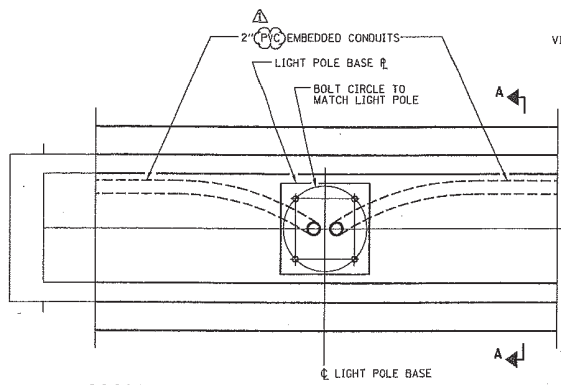
RIGHT SIDE LIGHTS		
POLE NO.	STATION	OFFSET
P72	21163+72.6	21.50'
P74	21162+19.6	20.00'
P76	21160+66.6	20.00'
P78	21159+13.6	20.00'
P80	21157+60.6	20.00'

AS-BUILT
7/15/15



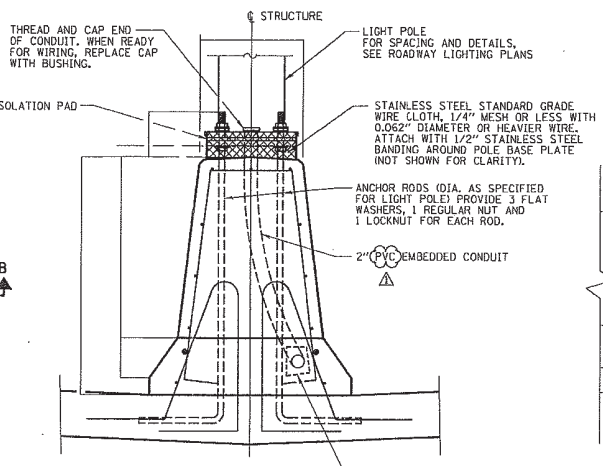
PROPOSED LIGHTING LINE STYLE CHANGE

FILE NAME : C:\MTO\river\1-Drive\1001\11866-01-06	USER NAME : tjpscklessner	DESIGNED - DRAWN - CHECKED - DATE -	REVISED - REVISED - REVISED - 6/7/11 ADDENDUM Δ REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	HIGHWAY LIGHTING PLANS IL RTE 3	F.A.I. RTE. 270	SECTION 60-19-1	COUNTY MADISON	TOTAL SHEETS 712	SHEET NO. 338	CONTRACT NO. 76A91
SCALE: 1" = 50'				SHEET NO. 10 OF 10 SHEETS		STA. 1349+90		TO STA. 1335+37		ILLINOIS FED. AID PROJECT	

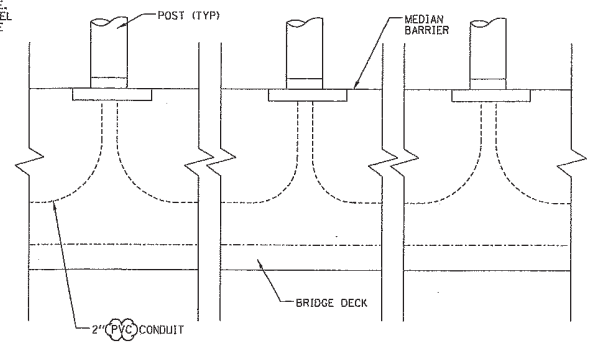


NOTE:
COST OF ANCHOR RODS IS INCLUDED WITH CONCRETE SUPERSTRUCTURE.

PLAN

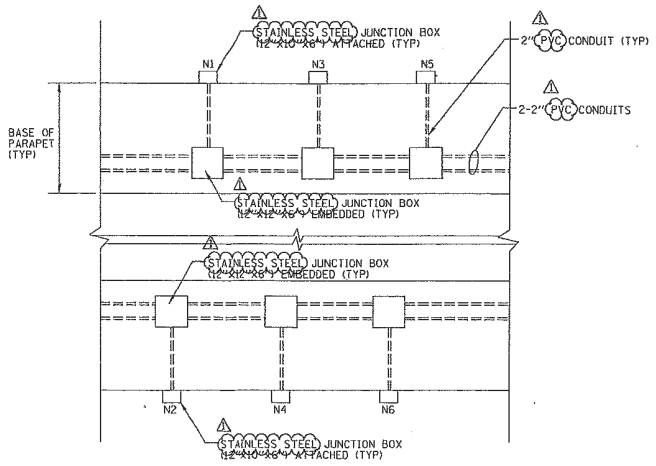


SECTION A-A

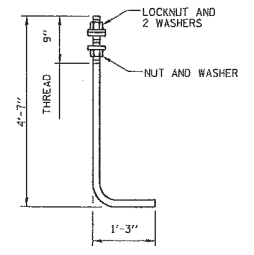


SECTION B-B

POLE LOCATION ON MEDIAN
(SEE NOTE 1) N.T.S.



DETAIL A
N.T.S.



ANCHOR ROD

DIAMETER AS SPECIFIED FOR LIGHT POLES.
(ASTM F 1554 GRADE 105)

NOTES:
1. SEE SHEET 340 FOR POLE BASE WIRING DETAIL.

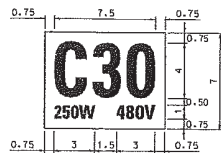
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ABNA (logo)	DRAWN - MNR	CHECKED - JAB	REVISED -
PLOT SCALE = #SCALE#	DATE = 3/18/11	REVISED - 6/7/11 ADDENDUM	
PLOT DATE = #DATE#		REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LIGHTING DETAILS		FAI	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
INTERSTATE 270		270	60-1B-1	MADISON	712	339
SCALE:	SHEET NO. 1 OF 10 SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT		

CONTRACT NO. 76A91

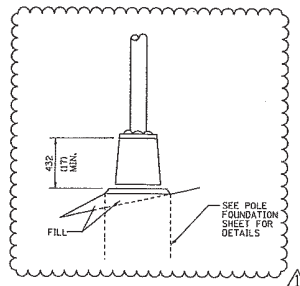
NO BORDER, BLACK ON WHITE;
 (C30) C 30# SPACING; (250W) C₁ (480V) C₂



THE CONTRACTOR SHALL FURNISH AND INSTALL A LIGHT POLE IDENTIFICATION OF EACH NEW LIGHT POLE, AS SHOWN ABOVE, AND CONFORMING TO THE REQUIREMENTS OF SECTION 830 AND ARTICLE 1069.06 OF THE STANDARD SPECIFICATIONS.
 THE LIGHT POLE IDENTIFICATION PANEL SHALL BE MOUNTED, APPROXIMATELY 7 FT. ABOVE THE ADJACENT PAVEMENT GRADE, VISIBLE TO APPROACHING TRAFFIC.

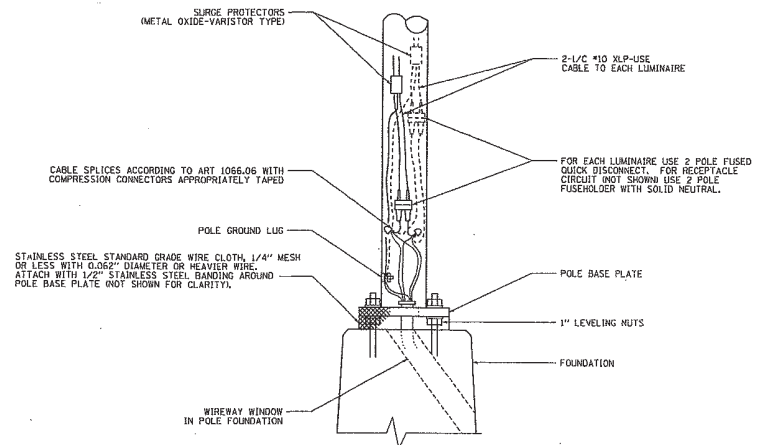
LIGHT POLE IDENTIFICATION

N.T.S.



TRANSFORMER BASE

▲



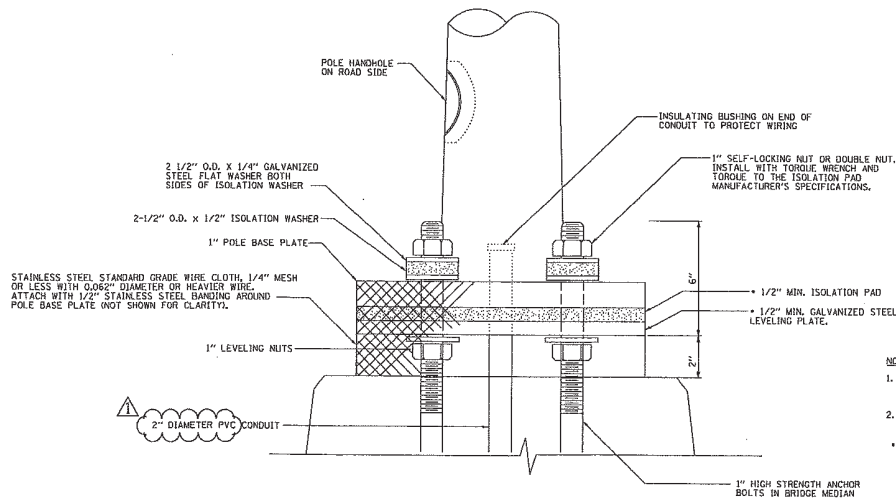
POLE BASE WIRING DETAIL

N.T.S.

NOTES:

1. ALL TAPED SPLICES SHALL USE 2 LAYERS OF ELECTRICAL TAPE OVER 3 LAYERS OF RUBBER TAPE AS REQUIRED BY THE STANDARD SPECIFICATIONS. COAT THE FINISHED TAPED SPLICE WITH BONDING COMPOUND.
2. ALL CABLE SPLICES SHALL BE TAPED UNLESS ANOTHER METHOD HAS BEEN SPECIFICALLY APPROVED BY THE ENGINEER.
3. FOR EXAMPLE PURPOSES, THE POLE IS SHOWN ON AN ANCHOR BASE; IF THE POLE IS REQUIRE TO BE SET ON A BREAKAWAY BASE, CONSULT THE STANDARD SPECIFICATIONS.

▲



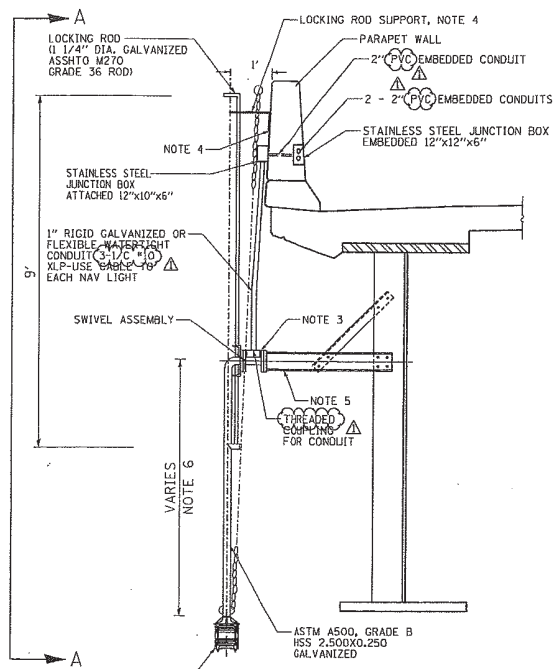
POLE MOUNTED ON BRIDGE MEDIAN DETAIL

N.T.S.

NOTES:

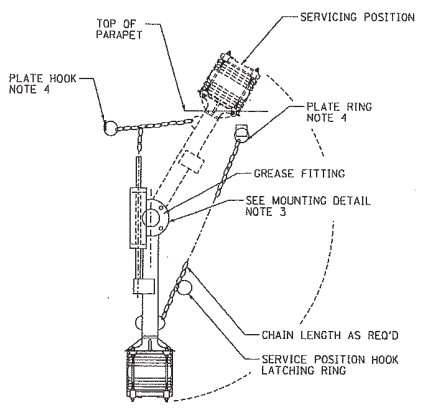
1. THICKNESS OF ISOLATION PAD AND WASHERS SHALL BE ACCORDING TO ISOLATION PAD MANUFACTURER'S RECOMMENDATIONS BASED UPON POLE HEIGHT AND LOADING.
2. ALL HARDWARE SHALL BE GALVANIZED OR STAINLESS STEEL, UNLESS NOTED OTHERWISE.
- * ISOLATION PAD AND LEVELING PLATE ARE TO MATCH THE FOOTPRINT OF THE POLE BASE PLATE

FILE NAME =	USER NAME = #USER#	DESIGNED - FSM	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	LIGHTING DETAILS INTERSTATE 270			FAJ	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
#FILE#		DRAWN - MAR	REVISED -					270	60-1B-1	MADISON	712	340
		CHECKED - AAB	REVISED - 6/7/11 ADDENDUM ▲					CONTRACT NO. T6A91				
		DATE - 3/18/11	REVISED -					ILLINOIS FED. AID PROJECT				
				SCALE: SHEET NO. 2 OF 10 SHEETS STA. TO STA.								

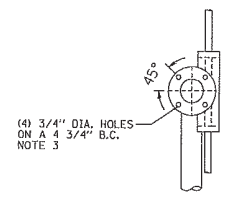


NAVIGATION LIGHT SUPPORT DETAIL
N.T.S.

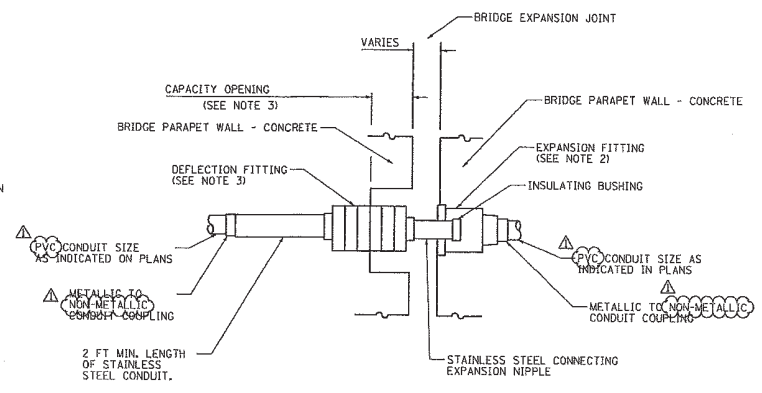
- NOTES:
1. ALL DIMENSIONS ARE IN INCHES UNLESS NOTED OTHERWISE.
 2. THE CONTRACTOR SHALL COORDINATE THE NAVIGATION LIGHT ASSEMBLY WITH THE STRUCTURAL STEEL SHOP DRAWINGS. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL OF THE NAVIGATION LIGHT ASSEMBLY.
 3. PIPE MOUNTING FLANGE TO HAVE (4) - 3/4" DIA. HOLES.
 4. DRILL & PROVIDE EXPANSION ANCHORS. SEE STRUCTURAL DRAWINGS FOR LOCKING ROD SUPPORT AND ANCHORS. LOCATE PLATE RING AND PLATE HOOK 2" FROM TOP SURFACE OF CONCRETE AS INDICATED ON DETAIL.
 5. FOR DIMENSIONS OF OTHER STRUCTURAL MEMBERS, REFER TO STRUCTURAL DRAWINGS.
 6. TOP OF NAVIGATION LIGHT HOUSING SHALL BE AT THE SAME ELEVATION AS THE BOTTOM OF ADJACENT GIRDER.



SECTION A-A NAVIGATION LIGHT FIXTURE AND SUPPORT ATTACHMENT
N.T.S.



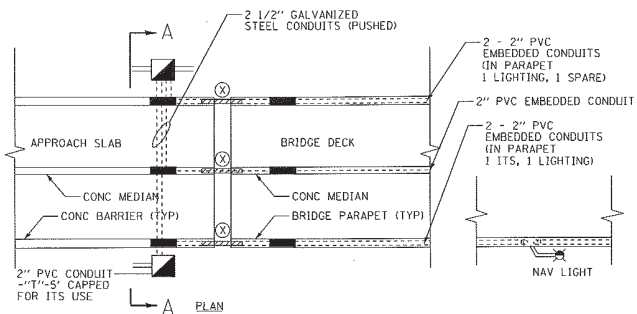
MOUNTING FLANGE DETAIL
N.T.S.



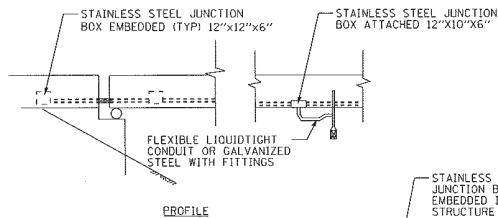
EXISTING CONDUIT EXPANSION / DEFLECTION COUPLING DETAIL
N.T.S.

- NOTES:
1. THE CONTRACTOR SHALL INSTALL A CONDUIT EXPANSION / DEFLECTION COUPLING AT THE JOINTS IN THE CONCRETE PARAPET ON THE BRIDGE CAPABLE OF ACCEPTING THE LONGITUDINAL MOVEMENT. THE METALLIC PARTS OF THE COUPLING SHALL BE MADE OF STAINLESS STEEL OR AS APPROVED BY THE ENGINEER. THE COST OF THE COUPLING SHALL BE A PART OF AND INCIDENTAL TO THE CONDUIT SYSTEM.
 2. THE BARREL IN THE EXPANSION FITTING SHALL BE FULLY EMBEDDED IN THE CONCRETE ON ONE SIDE OF THE EXPANSION JOINT.
 3. ONE HALF OF THE LENGTH OF THE DEFLECTION FITTING SHALL BE EMBEDDED IN THE CONCRETE ON THE OTHER SIDE OF THE EXPANSION JOINT. A CAVITY OPENING 3" LARGER THAN THE DIAMETER OF THE DEFLECTION SLEEVE LENGTH SHALL BE PROVIDED TO ENSURE PROPER PERFORMANCE OF THE COUPLING.
 4. CAREFUL ATTENTION TO JOINT MOVEMENT OVER A RANGE OF TEMPERATURES SHALL BE COORDINATED WITH THE SELECTION AND INSTALLATION OF THE COUPLING TO ENSURE THE RANGE OF MOVEMENT OF THE COUPLING IS NOT EXCEEDED AT THE TEMPERATURE EXTREMES.
 5. ALL MANUFACTURERS' INSTALLATION INSTRUCTIONS SHALL BE CAREFULLY FOLLOWED TO ENSURE OPTIMUM PERFORMANCE OF THE EXPANSION / DEFLECTION COUPLING.
 6. THE CONTRACTOR SHALL INSTALL COUPLINGS AT ALL BRIDGE EXPANSION JOINTS AND SHALL BE RESPONSIBLE TO DETERMINE THE PROPER NUMBER OF COUPLINGS REQUIRED.
 7. WITH THE APPROVAL OF THE ENGINEER, THE CONTRACTOR MAY SUBSTITUTE TWO (2) STAINLESS STEEL JOINT BOXES ATTACHED TO THE BACK OF THE WALL AND CONNECTED BY A HIGH GRADE OF FLEXIBLE NON-METALLIC CONDUIT FOR ALL EXPANSION JOINTS. THIS SUBSTITUTION SHALL BE MADE AT NO COST TO THE DEPARTMENT.

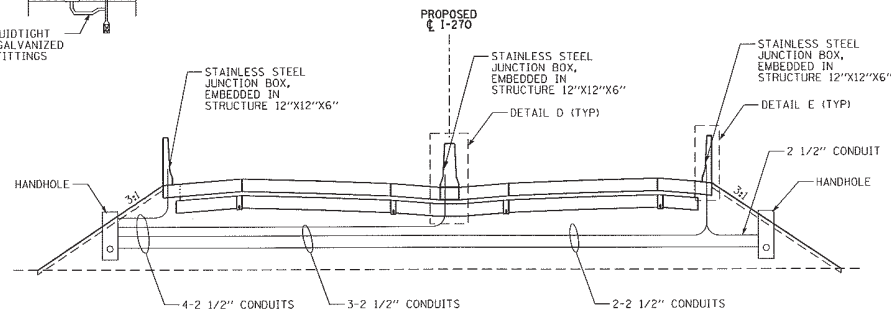
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#FILE#		DRAWN - MNR	REVISED -			270	60-18-1	MADISON	712	341	
		CHECKED - AAB	REVISED - 6/7/11 ADDENDUM			SCALE:		SHEET NO. 3 OF 10 SHEETS		STA.	TO STA.
		DATE - 3/16/11	REVISED -					ILLINOIS FED. AID PROJECT		CONTRACT NO. 76A91	



DETAIL A
N.T.S.

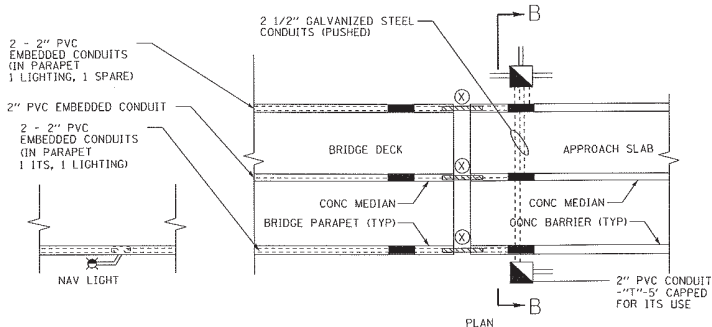


PROFILE

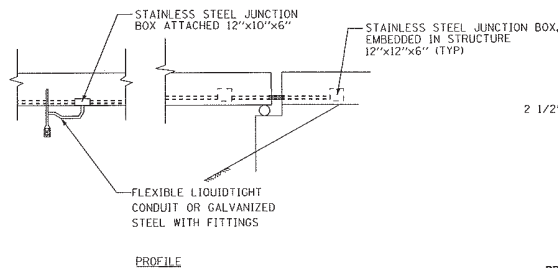


SECTION A-A
N.T.S.

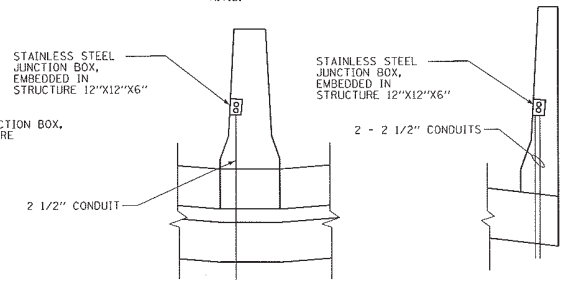
LEGEND
 (X) EXPANSION FITTING
 ■ JUNCTION BOX



DETAIL C
N.T.S.

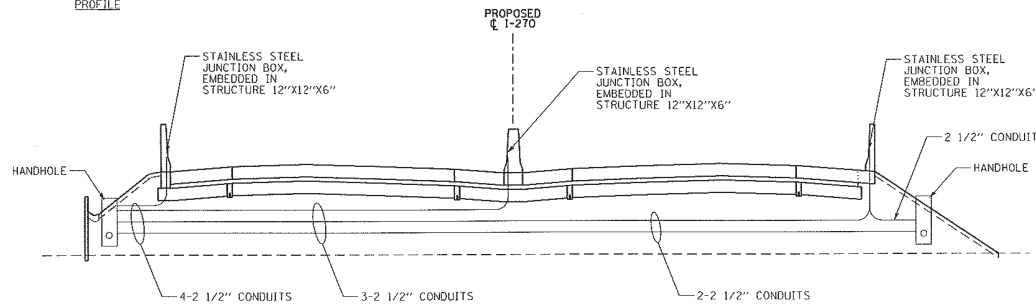


PROFILE



DETAIL D
N.T.S.

DETAIL E
N.T.S.



SECTION B-B
N.T.S.

GENERAL REVISIONS TO SHEET

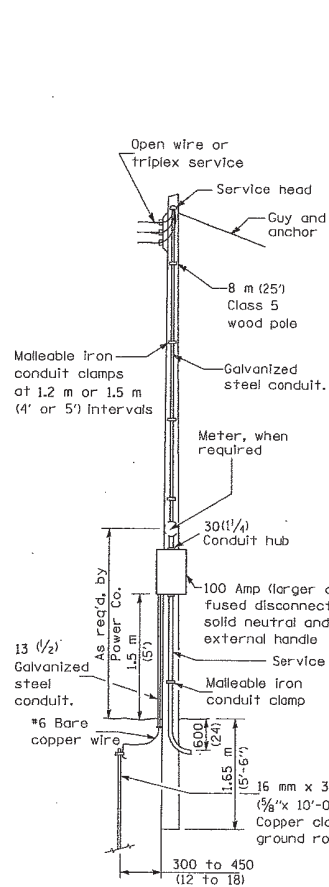
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Plot Scale : 1/8" = 1'-0"	Checked : -	DATE : -	REVISED : -
Plot Date : 6/24/2015	DATE : -	REVISED : -	REVISED : -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LIGHTING DETAILS
INTERSTATE 270

SCALE: SHEET NO. 4 OF 10 SHEETS STA. TO STA.

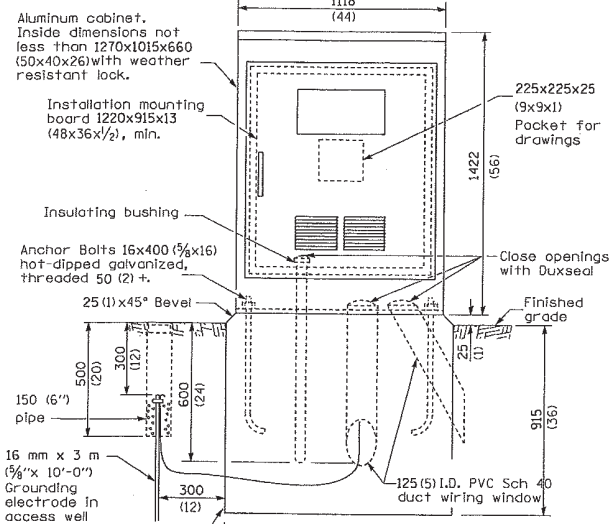
F.A.I. RTE. 270	SECTION 60-1B-1	COUNTY MADISON	TOTAL SHEETS 112	SHEET NO. 342
			CONTRACT NO. 76A91	
ILLINOIS FED. AID PROJECT				



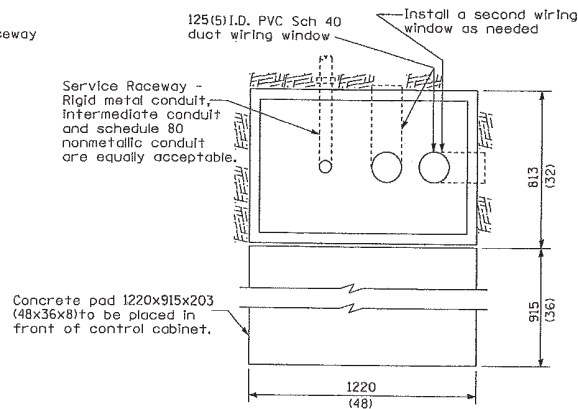
SERVICE POLE

CONTROLLER (DUAL) 2 NOTES

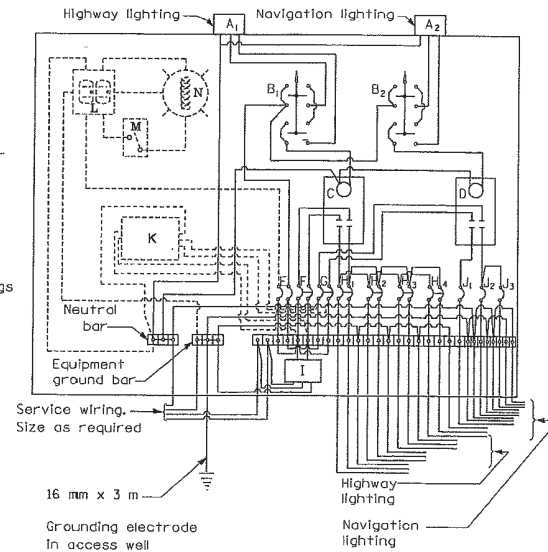
- The step down transformer shall be sized 2 KVA minimum.
- The roadway and navigation lighting shall be each on a separate main breaker, contactor and HOA switch. The main breaker and contactor for the roadway and navigation lighting shall be rated each at 100 amp, and 30 amp, respectively.



CONTROL INSTALLATION (FRONT VIEW)



CONTROLLER FOUNDATION (TOP VIEW)



- A1 Photocell (remote mount in urban areas)
 - A2
 - B1 3 position selector switch
 - B2
 - C, D 100 amp, 2 pole, electrically held contactors
 - E 15 amp, 1 pole, circuit breaker
 - F 100 amp, 2 pole, main circuit breaker
 - G 30 amp, 2 pole, main circuit breaker
 - H 30 amp, 2 pole, branch circuit breaker, 2 spare required, only 1 shown
 - I Surge arrester
 - J 20 amp, single pole circuit breaker, 2 spare
 - K Transformer (see notes), 2 KVA, 240/480V primary, 120/240V sec, single phase
 - L GFCI duplex receptacle
 - M Single pole, single throw switch
 - N Shielded security fixture with 100W lamp
- (* = Size larger as needed)

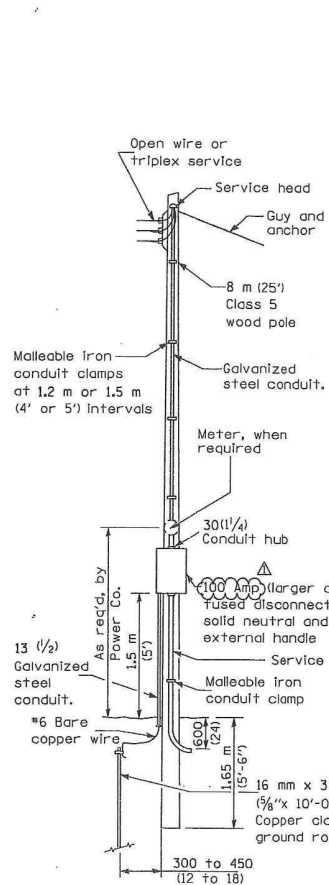
GENERAL NOTES

- This drawing depicts the basic configuration of the lighting controller. Branch circuit breakers shall be provided and oriented as required by the plan sheets and details.
- Wiring shall be panel board fashion. All bends shall be right angles. All runs shall be vertical or parallel to panel board. Wires shall be grouped or loaced.
- All control installation components shall be U.L. listed.
- Label equipment ground and neutral.
- Locate service pole and control installation adjacent to R.O.W. line with a minimum distance of 9 m (30') from the edge of pavement. See plans for approx. location, exact location shall be established by the Engineer.
- The underground service entrance wiring shall not exceed 46 m (150'). Total aerial and underground service between the control installation and primary transformer shall not exceed 76 m (250').
- Raceways shall terminate 75 mm (3 in.) above top of concrete foundation.
- For 480 V service, a step down transformer (dashed lines) is required.
- Add receptacle, light, and switch in control cabinet.
- Two (2) spare branch breakers are required but are not shown.

240 V. SERVICE
 480 V. SERVICE

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

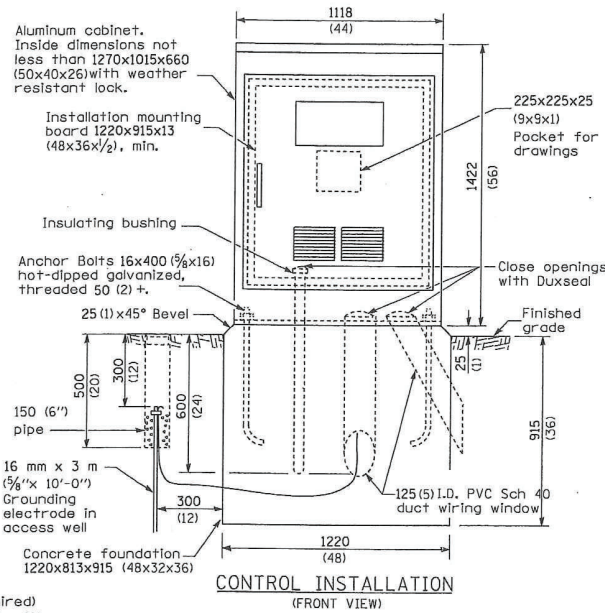
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		DATE - 3/18/11	REVISED -										



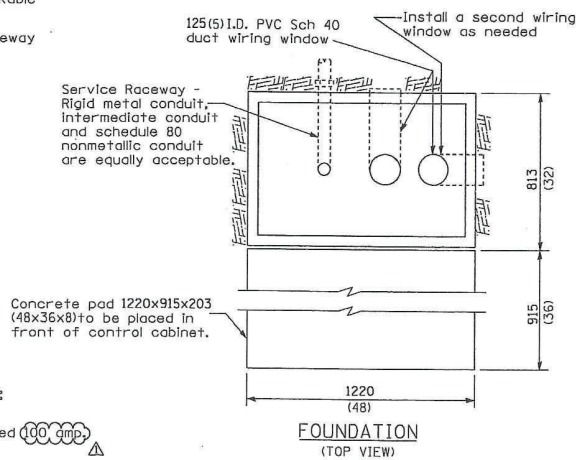
SERVICE POLE

CONTROLLER 3 NOTES:

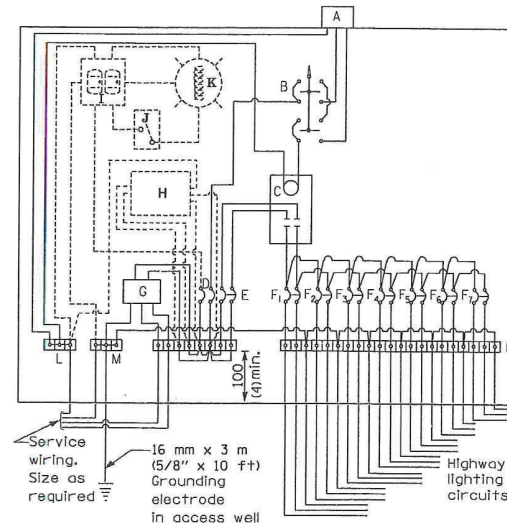
- The contactor in controller 3 shall be rated .



CONTROL INSTALLATION (FRONT VIEW)



FOUNDATION (TOP VIEW)



CONTROL SCHEMATIC CONTROLLER #3

MATERIALS

- A Photocell w/ integral surge arrester (remote mount in urban areas)
 - B 3 position selector switch HAND-OFF-AUTO
 - C 100 amp* electrically held contactor, 120V operating coil
 - D 15 amp, 1 pole, circuit breaker
 - E 100 amp*, 2 pole, main circuit breaker
 - F 30 amp*, 2 pole, branch circuit breaker (typ)
 - G Surge arrester
 - H Transformer (see notes), 1 KVA*, 240/480V primary, 120/240V sec, single phase
 - I GFCI duplex receptacle
 - J Single pole, single throw switch
 - K Shielded security fixture with 100W lamp
 - L Neutral bar
 - M Equipment ground bar
 - N Terminal block (typ)
- (* = Size larger as needed)

GENERAL NOTES

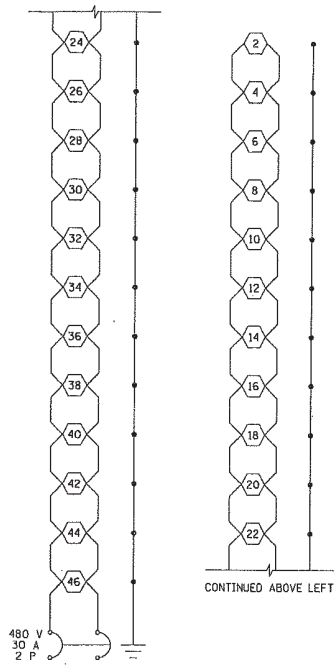
- This drawing depicts the basic configuration of the lighting controller. Branch circuit breakers shall be provided and oriented as required by the plan sheets and details.
- Locate service pole and control installation adjacent to R.O.W. line with a minimum distance of 9 m (30') from the edge of pavement. Locate in close proximity to the utility transformer so the service drop does not exceed 46 m (150ft) and the total distance of overhead and underground cable (utility transformer to lighting controller) does not exceed 76 m (250ft). Exact location shall be established by the Engineer.
- Wiring shall be panel board fashion. All bends shall be right angles. All runs shall be vertical or parallel to panel board. Wires shall be grouped or laced.
- All control installation components shall be U.L. listed.
- Add receptacle, light, and switch in control cabinet.
- For 480 V service, a step down transformer (dashed lines) is required.
- Raceways shall terminate 75 mm (3 in.) above top of concrete foundation.
- Label equipment ground buss and neutral buss.

- 240 V. SERVICE
- 480 V. SERVICE

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

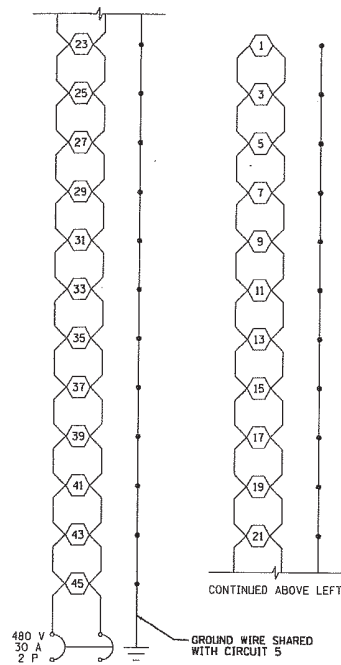
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#FILE#		DRAWN - MNR	REVISED -			270	60-18-1	MADISON	712	344	
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	PLOT DATE = #DATE#	DATE - 3/18/11	REVISED -			ILLINOIS FED. AID PROJECT					
					SCALE:	SHEET NO. 6 OF 10 SHEETS		STA.	TO STA.		

CONTINUED BELOW RIGHT



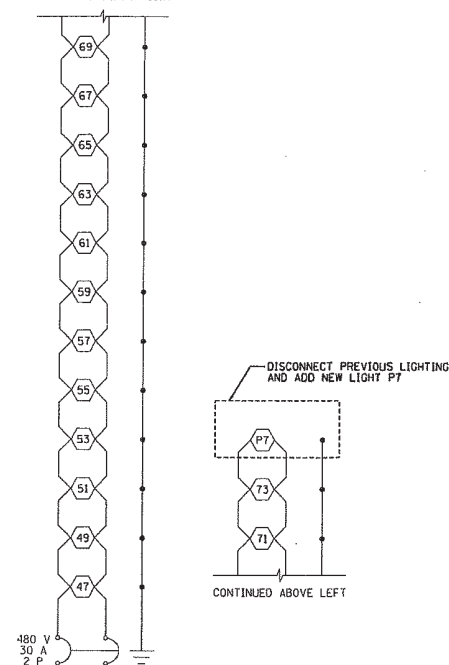
CONTROLLER 1 CIRCUIT 1

CONTINUED BELOW RIGHT



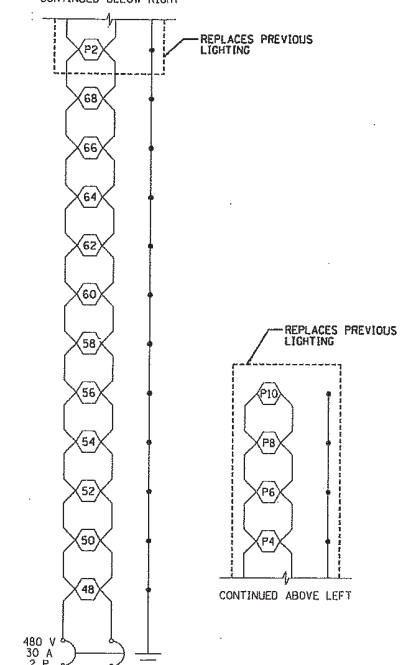
CONTROLLER 1 CIRCUIT 2

CONTINUED BELOW RIGHT



CONTROLLER 1 CIRCUIT 3

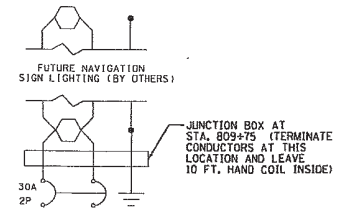
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CONTROLLER 1 CIRCUIT 4

NOTES:

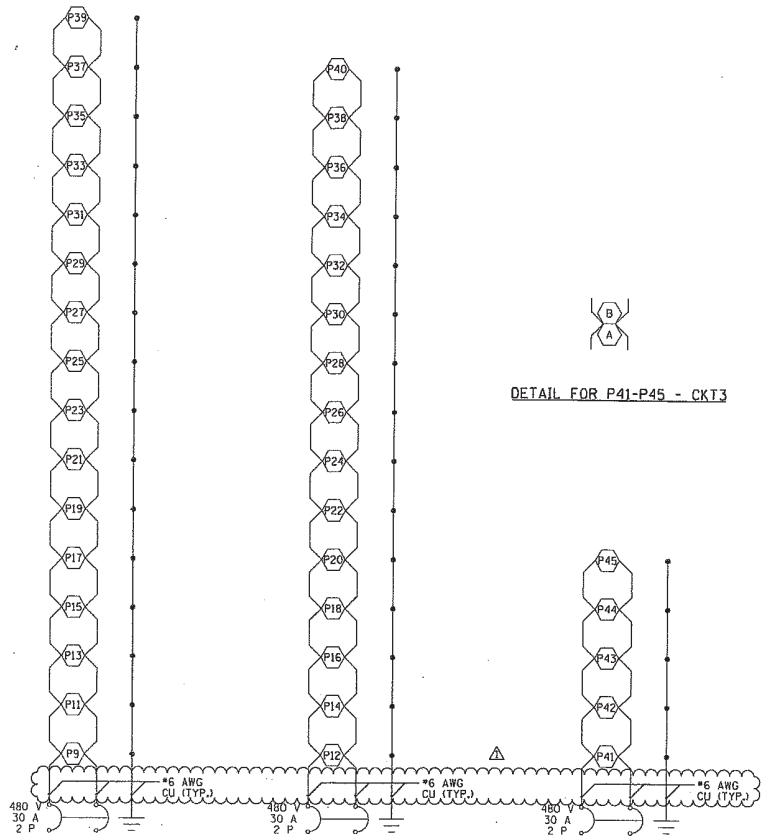
- THE THREE GROUND WIRES FROM THE CONTROLLER TO THE RIVER BRIDGE SHALL BE AS FOLLOWS:
 ONE FOR THE SOUTH SIDE OF THE RIVER BRIDGE
 ONE FOR THE NORTH SIDE OF THE RIVER BRIDGE
 ONE FOR THE GROUND MOUNTED POLES ON THE NORTH SIDE OF I-270



CONTROLLER 1 CKT 5
(AT RIVER BRIDGE)

EXISTING CONTROLLER 1 AT RIVER BRIDGE WIRING DIAGRAM

FILE NAME - #FIL.LLS	USER NAME - #USER#	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CONTROLLER WIRING DIAGRAM INTERSTATE 270	FAI	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		DRAWN -	REVISED -			270	60-1B-1	MADISON	712	345	
		CHECKED -	REVISED -			CONTRACT NO. 76A91					
		DATE 3/18/11	REVISED -			ILLINOIS FED. AID PROJECT					
					SCALE:	SHEET NO. 7 OF 10 SHEETS	STA.	TO STA.			



DETAIL FOR P41-P45 - CKT3

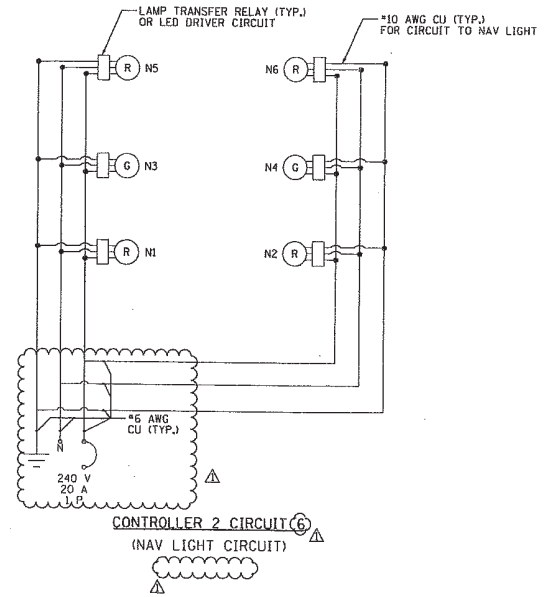
CONTROLLER 2 CIRCUIT 1

CONTROLLER 2 CIRCUIT 2

CONTROLLER 2 CIRCUIT 3

CONTROLLER 2 CIRCUIT 4

CONTROLLER 2 CIRCUIT 5



CONTROLLER 2 CIRCUIT 6 (NAV LIGHT CIRCUIT)

NEW CONTROLLER (DUAL) 2 WIRING DIAGRAM

FILE NAME *	USER NAME * #USER*	DESIGNED - FSM	REVISED -
#FILEL#		DRAWN - MNR	REVISED -
	PLOT SCALE = #SCALE*	CHECKED - AAB	REVISED - 6/7/11 ADDENDUM A
	PLOT DATE = #DATE*	DATE - 3/18/11	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

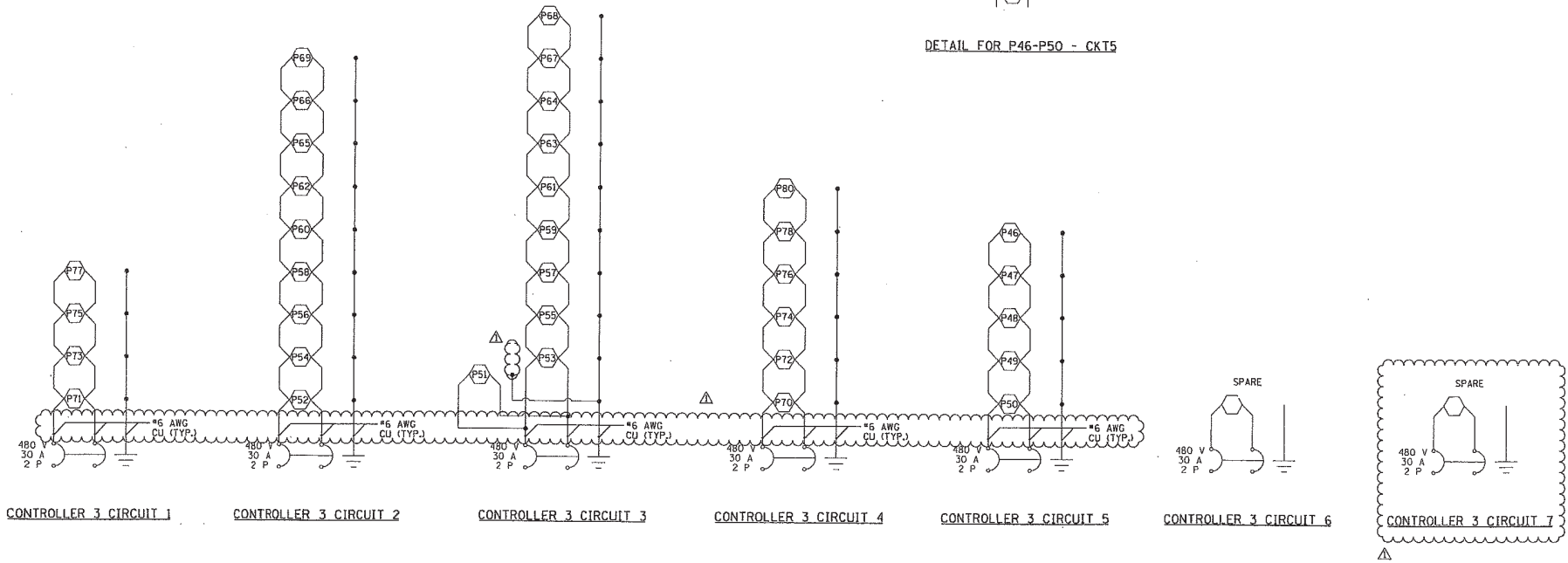
CONTROLLER WIRING DIAGRAM
INTERSTATE 270

FA1	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
270	60-1B-1	MADISON	712	346
CONTRACT NO. T6A91			ILLINOIS FED. AID PROJECT	

SCALE: SHEET NO. 8 OF 10 SHEETS STA. TO STA.



DETAIL FOR P46-P50 - CKT5



NEW CONTROLLER 3 WIRING DIAGRAM

FILE NAME = #FILE#		USER NAME = #USER#	DESIGNED - FSM	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CONTROLLER WIRING DIAGRAM INTERSTATE 270	FBI	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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						SCALE:	SHEET NO. 9 OF 10 SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT CONTRACT NO. 76A91	

ILLINOIS DEPARTMENT OF TRANSPORTATION
LUMINAIRE PERFORMANCE TABLE

I-270 Pole Mounted Luminaires

GIVEN CONDITIONS

ROADWAY DATA:	Pavement Width	34 FT
	Number of Lanes	4
	Median Width	40 FT
	IES Surface Classification	R3
	0-Zero Value	0.07
LIGHT POLE DATA:	Mounting Height	45 FT
	Pole Set-Back from Edge of Pavement	15 FT
	Aiming Angle	0 DEGREES
	Mast Arm	6 FT TWIN
LUMINAIRE DATA:	Lamp Type	HPS
	Lamp Lumens	27500
	IES Vertical Distribution	N
	IES Control Distribution	C
	IES Lateral Distribution	3 (III)
	Total Light Loss Factor	0.7
LAYOUT DATA:	Spacing	178 FT
	Configuration	STC
	Luminaire Overhang Over Edge of Pavement Lane	0 FT

NOTE: Variations from the above specified IES distribution pattern may be requested and accepted of variations will be subject to review by the Engineer based on how well the performance requirements are met.

PERFORMANCE REQUIREMENTS

NOTE: These performance requirements shall be the minimum acceptable standards of photometric performance for the luminaire, based on the given conditions listed above.

ILLUMINATION:	Average Horizontal Illumination, (E _{Ave})	0.9 FC
	Uniformity Ratio, (E _{Ave} /E _{Min})	3.0
LUMINANCE:	Average Luminance: (L _{Ave})	0.6
	Uniformity Ratios: (L _{Ave} /L _{Min})	3.5
	(L _{Max} /L _{Min})	6.0
	Maximum Veiling Luminance Ratio: (L _y /L _{Ave})	0.3

ILLINOIS DEPARTMENT OF TRANSPORTATION
LUMINAIRE PERFORMANCE TABLE

I-270 Canal Bridge Luminaires

GIVEN CONDITIONS

ROADWAY DATA:	Pavement Width	36 FT
	Number of Lanes	4
	Median Width	40 FT
	IES Surface Classification	R3
	0-Zero Value	0.07
LIGHT POLE DATA:	Mounting Height	48.5 FT
	Pole Set-Back from Edge of Pavement	MEDIAN
	Aiming Angle	0 DEGREES
	Mast Arm	6 FT TWIN
LUMINAIRE DATA:	Lamp Type	HPS
	Lamp Lumens	27500
	IES Vertical Distribution	N
	IES Control Distribution	C
	IES Lateral Distribution	3 (III)
	Total Light Loss Factor	0.7
LAYOUT DATA:	Spacing	195 FT
	Configuration	DUAL CTR
	Luminaire Overhang Over Edge of Pavement Lane	0 FT

NOTE: Variations from the above specified IES distribution pattern may be requested and accepted of variations will be subject to review by the Engineer based on how well the performance requirements are met.

PERFORMANCE REQUIREMENTS

NOTE: These performance requirements shall be the minimum acceptable standards of photometric performance for the luminaire, based on the given conditions listed above.

ILLUMINATION:	Average Horizontal Illumination, (E _{Ave})	0.9 FC
	Uniformity Ratio, (E _{Ave} /E _{Min})	3.0
LUMINANCE:	Average Luminance: (L _{Ave})	0.6
	Uniformity Ratios: (L _{Ave} /L _{Min})	3.5
	(L _{Max} /L _{Min})	6.0
	Maximum Veiling Luminance Ratio: (L _y /L _{Ave})	0.3

ILLINOIS DEPARTMENT OF TRANSPORTATION
LUMINAIRE PERFORMANCE TABLE

I-270 Canal Navigation Luminaires

GIVEN CONDITIONS

ROADWAY DATA:	Pavement Width	N/A
	Number of Lanes	N/A
	Median Width	N/A
	IES Surface Classification	N/A
	0-Zero Value	N/A
LIGHT POLE DATA:	Mounting Height	BELOW PARAPET
	Pole Set-Back from Edge of Pavement	N/A
	Aiming Angle	N/A
LUMINAIRE DATA:	Lamp Type	LED
	Lamp Lumens	USCG CRITERIA
	IES Vertical Distribution	N/A
	IES Control Distribution	FRESNAL LENS
	IES Lateral Distribution	RED 180 DEG.
	Total Light Loss Factor	GREEN 360 DEG.
LAYOUT DATA:	Spacing	CHANNEL LIMITS
	Configuration	N/A
	Luminaire Overhang Over Edge of Pavement Lane	N/A

NOTE: Variations from the above specified IES distribution pattern may be requested and accepted of variations will be subject to review by the Engineer based on how well the performance requirements are met.

PERFORMANCE REQUIREMENTS

NOTE: These performance requirements shall be the minimum acceptable standards of photometric performance for the luminaire, based on the given conditions listed above.

ILLUMINATION:	Average Horizontal Illumination, (E _{Ave})	USCG CRITERIA
	Uniformity Ratio, (E _{Ave} /E _{Min})	N/A
LUMINANCE:	Average Luminance: (L _{Ave})	N/A
	Uniformity Ratios: (L _{Ave} /L _{Min})	N/A
	(L _{Max} /L _{Min})	N/A
	Maximum Veiling Luminance Ratio: (L _y /L _{Ave})	N/A