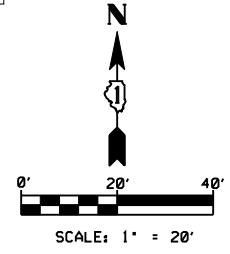
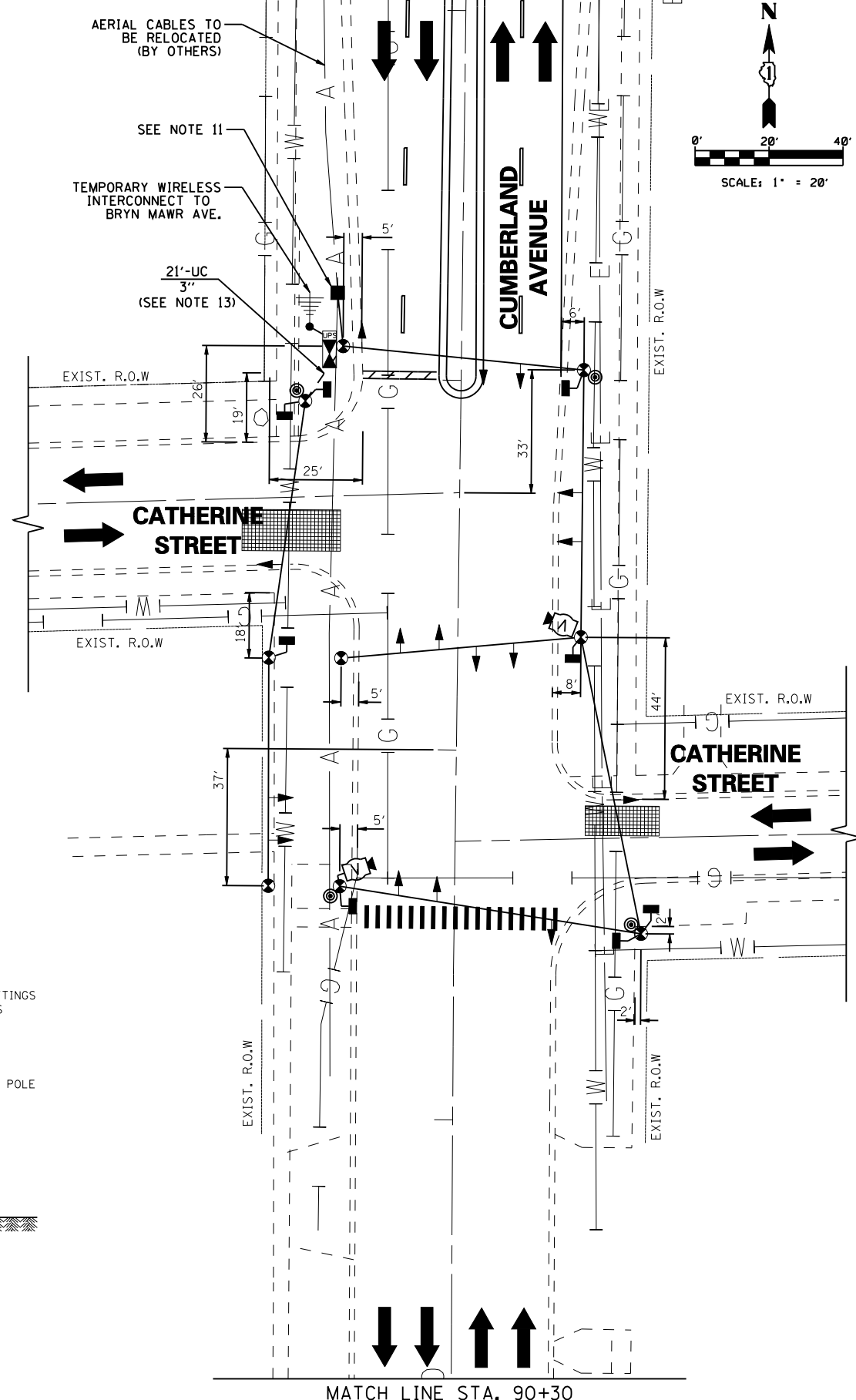
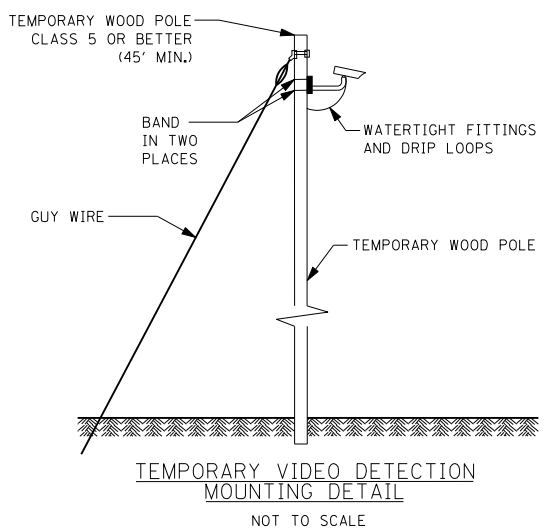


MATCHLINE STA. 94+04



- NOTES FOR TEMPORARY TRAFFIC SIGNALS:**
1. ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.
 2. ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1, INSTALLED IN A NEMA TS1 OR TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
 3. ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE LED AND 12" (300mm) DIAMETER. HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. PEDESTRIAN SIGNALS SHALL INCLUDE SOLID INTERNATIONAL SYMBOLS. PEDESTRIAN SIGNALS WITH COUNTDOWN TIMERS SHALL BE USED WHEN THE EXISTING INSTALLATION UTILIZES COUNTDOWN TYPE OR AS DIRECTED BY THE ENGINEER. COUNTDOWN TYPE PEDESTRIAN SIGNALS ARE NOT TO BE INSTALLED AT A RAILROAD INTERSECTION. THE CONTRACTOR SHALL FURNISH ENOUGH CABLE SLACK TO RELOCATE HEADS TO ANY POSITION ON THE SPAN WIRE OR AT LOCATIONS ILLUSTRATED ON THE PLANS FOR CONSTRUCTION STAGING. THE TEMPORARY TRAFFIC SIGNAL SHALL REMAIN IN OPERATION DURING ALL SIGNAL HEAD RELOCATIONS. EACH TEMPORARY TRAFFIC SIGNAL HEAD SHALL HAVE ITS OWN CABLE FROM THE CONTROLLER CABINET TO THE SIGNAL HEAD.
 4. ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES, RELOCATED AND SECURELY FASTENED TO THE SIGNAL SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.
 5. ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROL EQUIPMENT.
 6. THE TEMPORARY TRAFFIC SIGNAL SHALL HAVE THE SIGNAL HEAD DISPLAYS, SIGNAL HEAD PLACEMENTS AND CONTROLLER PHASING MATCH THE EXISTING TRAFFIC SIGNAL, AT THE TIME OF THE TURN ON, IF NO TRAFFIC STAGING IS IN PLACE OR WILL NOT BE STAGED ON THE DAY OF THE TURN ON.
 7. UNINTERRUPTABLE POWER SUPPLY (UPS) SYSTEMS SHALL BE INSTALLED AND MADE OPERATIONAL AT TEMPORARY TRAFFIC SIGNAL INSTALLATIONS WHERE UPS IS INSTALLED AT THE EXISTING TRAFFIC SIGNAL. TEMPORARY TRAFFIC SIGNALS AT RAILROAD INTERSECTIONS, AND TEMPORARY TRAFFIC SIGNALS AT INTERSECTIONS WITH FIRE STATION ACTUATED EMERGENCY VEHICLE PRE-EMPTION, OR WHEN INDICATED ON THE PLANS.
 8. TRAFFIC SIGNAL MANAGEMENT SYSTEMS SHALL BE MAINTAINED IN OPERATION AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER. REQUIRED EQUIPMENT SHALL BE AS SHOWN ON THE PLANS AND THE CONTRACTOR SHALL PLACE THE EQUIPMENT IN OPERATION TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE TRAFFIC SIGNAL MANAGEMENT SYSTEM.
 9. DETECTION AT TEMPORARY TRAFFIC SIGNALS SHALL BE INCLUDED FOR ALL APPROACHES OF THE INTERSECTION UNLESS INDICATED OTHERWISE ON THE PLANS. THE DETECTION SYSTEM MUST MEET THE SPECIFICATIONS OF DISTRICT 1 AND THE CONTRACTOR SHALL PLACE THE DETECTORS INTO OPERATION TO THE SATISFACTION OF THE ENGINEER.
 10. WHEN PAN, TILT, ZOOM CAMERAS ARE INSTALLED AT THE EXISTING INTERSECTION OR ARE CALLED FOR IN THE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING THE CAMERAS TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE CAMERAS.
 11. ELECTRICAL AERIAL LINES SHALL BE RELOCATED PRIOR TO CONTRACT BY SERVICE OWNER. LOCATION OF SERVICE IS APPROXIMATE AND SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER. REMOVE TEMPORARY SERVICE INSTALLATION UPON REMOVAL OF TEMPORARY TRAFFIC SIGNALS.
 12. REFER TO SHEET TS-44 FOR REMOVAL OF EXISTING SIGNAL EQUIPMENT.
 13. INSTALL UNDERGROUND CONDUIT WITH RISERS TO A HEIGHT OF 17 FT. ALONG WOOD POLES, BANDED EVERY 5 FT. THIS WORK IS INCLUDED IN THE COST OF TEMPORARY TRAFFIC SIGNAL INSTALLATION.
 14. SYMBOLOLOGY USED ON THIS SHEET IS IN ACCORDANCE WITH SHEET TS-07.
 15. CONTRACTOR SHALL COORDINATE WITH COMED FOR ALL WORK WITHIN 15 FEET OF AERIAL UTILITY. CONTRACTOR SHALL CONDUCT WORK WITH CARE OBSERVING ALL SAFETY PRECAUTIONS AND PROVIDING NECESSARY PROTECTION OF ELECTRICAL LINES.



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, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

MATCH LINE STA. 90+30

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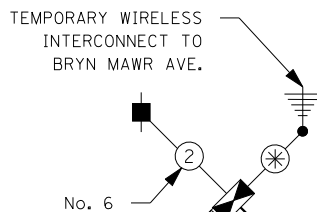
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY TRAFFIC SIGNAL INSTALLATION (ALL STAGES)
IL RTE 171 (CUMBERLAND AVENUE) AT CATHERINE STREET**

SCALE: 1" = 20' SHEET NO. OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	201
CONTRACT NO. 60J14				
ILLINOIS FED. AID PROJECT				

TS-42



CATHERINE STREET

CATHERINE STREET

IL ROUTE 171
(CUMBERLAND AVE)

LEGEND
* VENDOR CABLE FOR WIRELESS INTERCONNECT SYSTEM

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I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					
TYPE	NO. OF LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	16	135	17	0.50	136.00
(YELLOW)	16	135	25	0.25	100.00
(GREEN)	16	135	15	0.25	60.00
ARROW	4	135	12	0.10	4.80
PED. SIGNAL	8	90	25	1.00	200.00
CONTROLLER	1	100	100	1.00	100.00
ILLUM. SIGN			25	0.50	
VIDEO SYSTEM	1	150		1.00	150.00

ENERGY COSTS TO: TOTAL = 750.80
ILLINOIS DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS/DISTRICT 1
 201 WEST CENTER COURT/SCHAUMBURG, IL 60196
 ENERGY SUPPLY: CONTACT: MARY INFANTI
 PHONE: (847) 816-5322
 COMPANY: COM ED

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, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

**TEMPORARY CABLE PLAN
(ALL STAGES)**

- NOTES:
- SYMBOLGY USED ON THIS SHEET IS IN ACCORDANCE WITH SHEET TS-41.
 - CONTRACTOR SHALL INSTALL CDOT APPROVED SIGNAL TIMING FOR TEMPORARY SIGNAL OPERATIONS AT THIS LOCATION. THIS WORK SHALL BE INCLUDED IN THE COST OF TEMPORARY TRAFFIC SIGNAL INSTALLATION. ANY ADJUSTMENTS TO THE SIGNAL TIMINGS AS REQUIRED BY THE ENGINEER SHALL BE INCLUDED IN THE COST OF TEMPORARY TRAFFIC SIGNAL INSTALLATION. SEE TEMPORARY TRAFFIC SIGNAL TIMING SCHEDULE ON SHEET TS-60.

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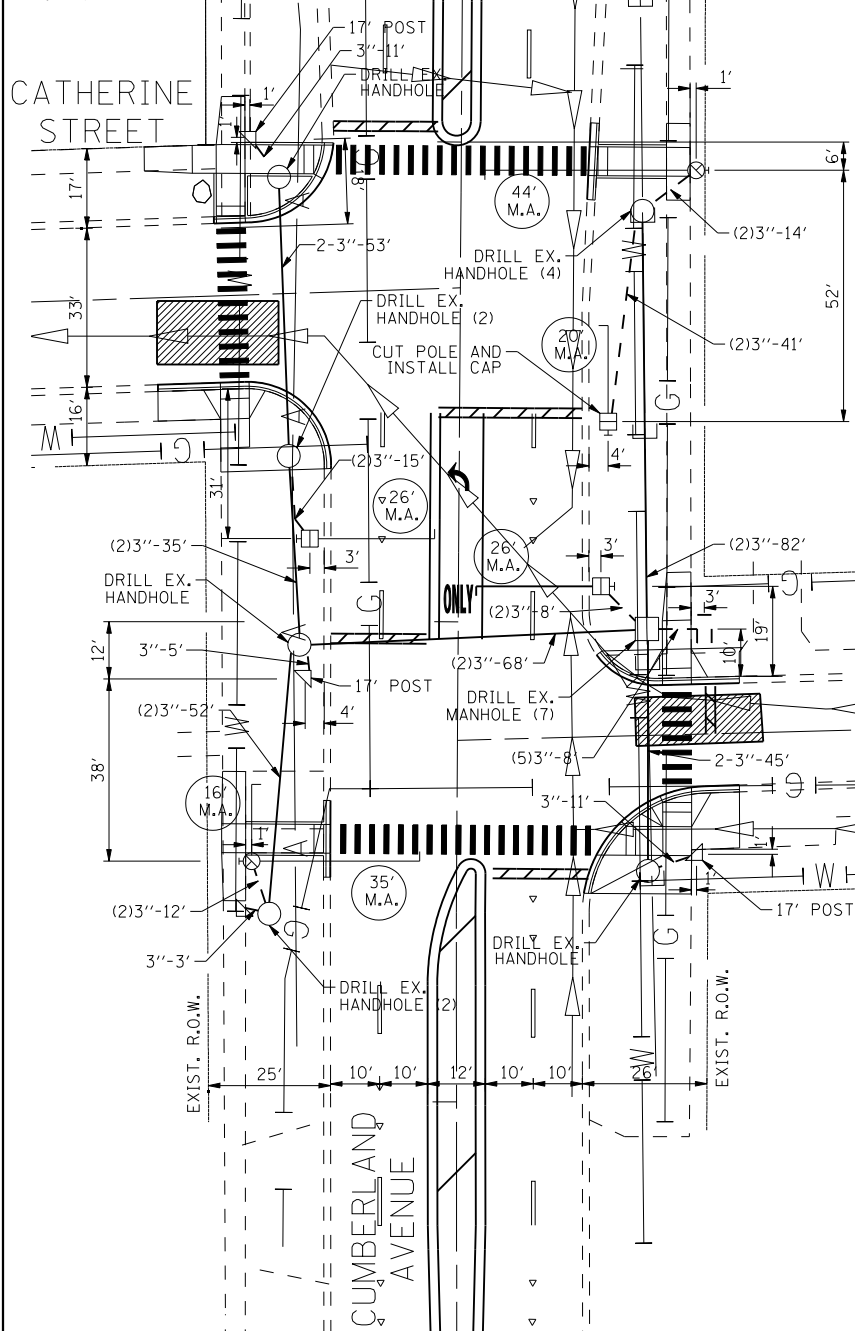
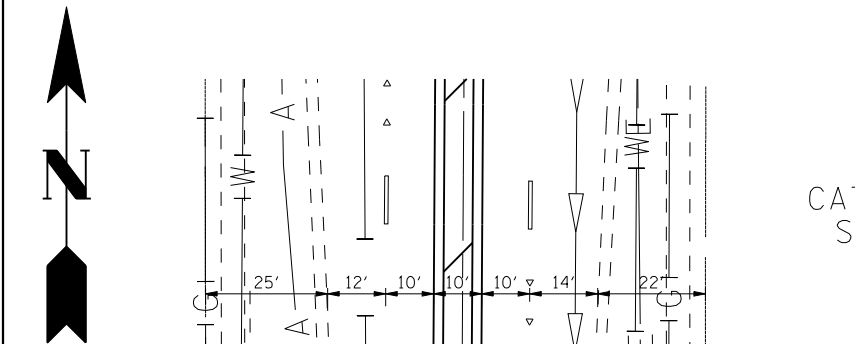


**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

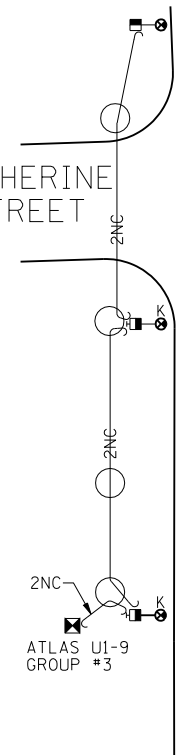
**TEMPORARY CABLE PLAN
ALL STAGES
IL RTE 171 (CUMBERLAND AVE) AT CATHERINE STREET**
 SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	202
CONTRACT NO. 60J14				
ILLINOIS FED. AID PROJECT				

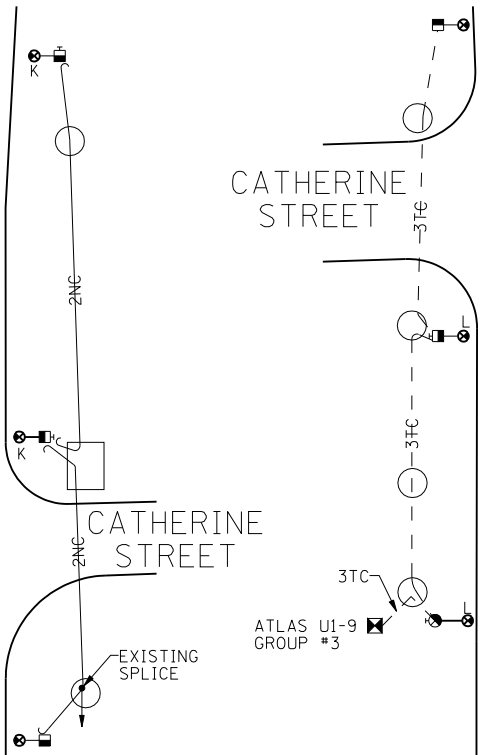
TS-43



FOUNDATION AND CONDUIT PLAN
SCALE: 1"=20'

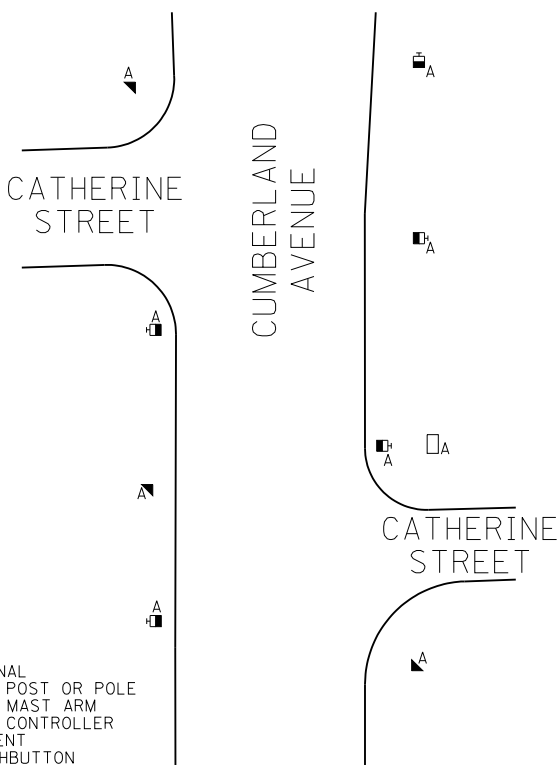


STREET LIGHTING REMOVAL PLAN
NO SCALE

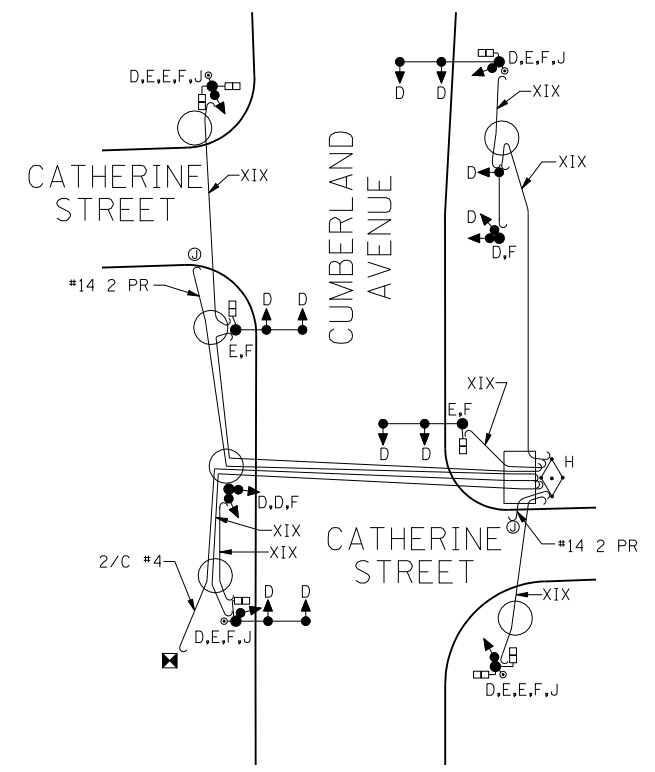


STREET LIGHTING INSTALLATION PLAN
NO SCALE

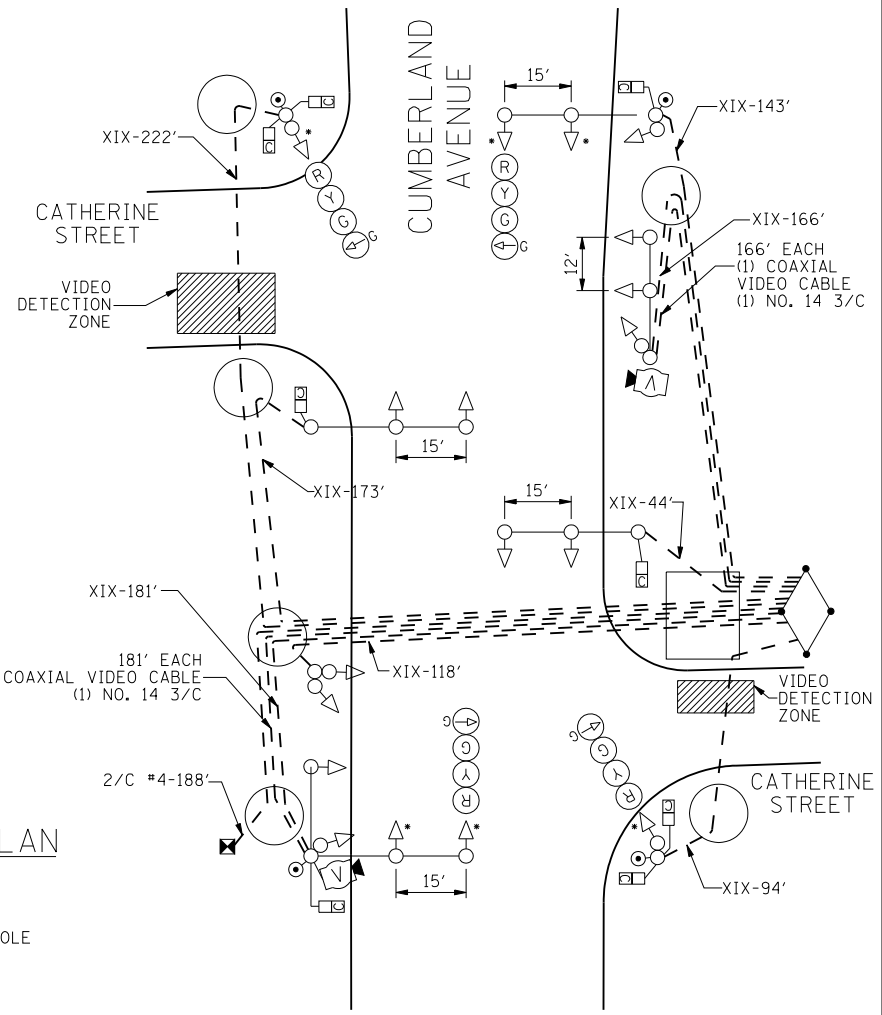
- REMOVAL LEGEND:
- A - BREAK DOWN FOUNDATION
 - B - BREAK DOWN MANHOLE
 - C - BREAK DOWN HANDHOLE
 - D - REMOVE TRAFFIC SIGNAL
 - E - REMOVE PEDESTRIAN SIGNAL
 - F - REMOVE TRAFFIC SIGNAL POST OR POLE
 - G - REMOVE TRAFFIC SIGNAL MAST ARM
 - H - REMOVE TRAFFIC SIGNAL CONTROLLER
 - I - REMOVE SERVICE EQUIPMENT
 - J - REMOVE PEDESTRIAN PUSHBUTTON



FOUNDATION REMOVAL PLAN
NO SCALE



SIGNAL AND CABLE REMOVAL PLAN
NO SCALE



SIGNAL AND CABLE PLAN
NO SCALE

- NOTE:
• - DENOTES OPTICALLY PROGRAMMED SIGNAL HEAD
- LEGEND:
 - VIDEO DETECTION CAMERA
 - LED PEDESTRIAN SIGNAL HEAD WITH COUNTDOWN TIMER

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	DATE - 12-10-2012	REVISED -



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

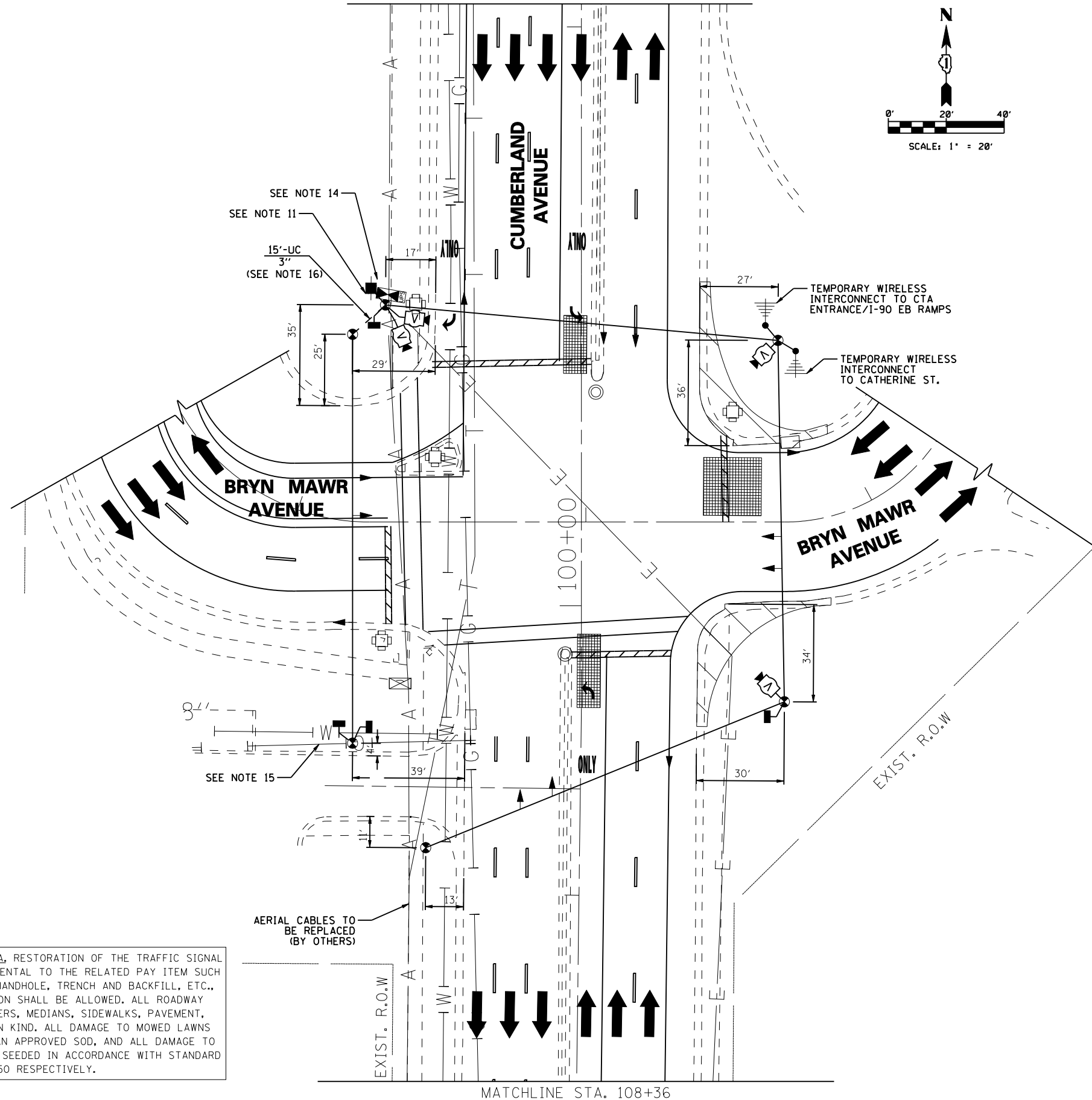
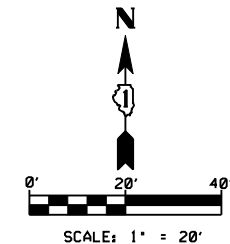
TRAFFIC CONTROL SIGNALS
IL RTE 171 (CUMBERLAND AVENUE) AT CATHERINE STREET

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

DATE		REVISION	
SUPERSEDES DRAWING NO.: 23616 DATED: 2-1-94			
TRAFFIC CONTROL SIGNALS N. CUMBERLAND AVE AND W. CATHERINE ST			
CITY OF CHICAGO DEPARTMENT OF TRANSPORTATION DIVISION OF ELECTRICAL OPERATIONS			
DRAFTSMAN:	CHIEF DRAFTSMAN:	ENGINEER: R. SWANSON	
SUPERVISING ENGINEER: ELEC. DESIGN ENGR.		DWG. NO. 23616	
ENGINEER OF ELECTRICITY:		DEPUTY COMMISSIONER:	
GEN'L Supt. OF ELECTRICITY:		DATE:	
SIZE:	SCALE: AS NOTED	DATE:	
F.A.U. RTE. 2746	SECTION 1616B	COUNTY COOK	TOTAL SHEETS 404 SHEET NO. 203
CONTRACT NO. 60J14			
ILLINOIS FED. AID PROJECT			

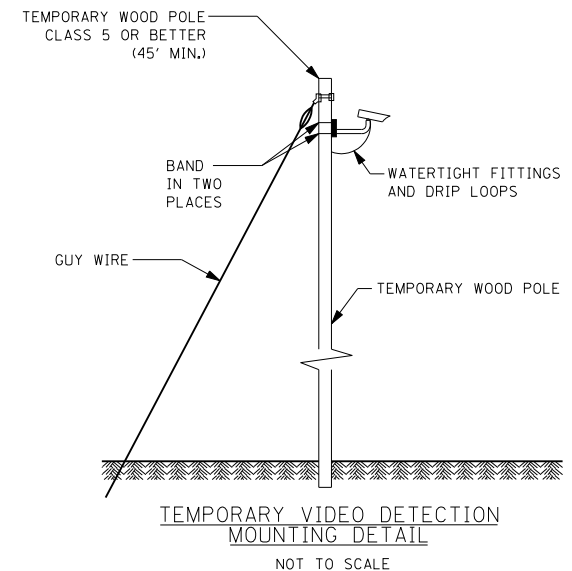
TS-44

MATCHLINE STA. 102+08



NOTES FOR TEMPORARY TRAFFIC SIGNALS:

1. ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.
2. ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1, INSTALLED IN A NEMA TS1 OR TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
3. ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE LED AND 12" (300mm) DIAMETER. HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. PEDESTRIAN SIGNALS SHALL INCLUDE SOLID INTERNATIONAL SYMBOLS. PEDESTRIAN SIGNALS WITH COUNTDOWN TIMERS SHALL BE USED WHEN THE EXISTING INSTALLATION UTILIZES COUNTDOWN TYPE OR AS DIRECTED BY THE ENGINEER. COUNTDOWN TYPE PEDESTRIAN SIGNALS ARE NOT TO BE INSTALLED AT A RAILROAD INTERSECTION. THE CONTRACTOR SHALL FURNISH ENOUGH CABLE SLACK TO RELOCATE HEADS TO ANY POSITION ON THE SPAN WIRE OR AT LOCATIONS ILLUSTRATED ON THE PLANS FOR CONSTRUCTION STAGING. THE TEMPORARY TRAFFIC SIGNAL SHALL REMAIN IN OPERATION DURING ALL SIGNAL HEAD RELOCATIONS. EACH TEMPORARY TRAFFIC SIGNAL HEAD SHALL HAVE ITS OWN CABLE FROM THE CONTROLLER CABINET TO THE SIGNAL HEAD.
4. ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES, RELOCATED AND SECURELY FASTENED TO THE SIGNAL SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.
5. ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROL EQUIPMENT.
6. THE TEMPORARY TRAFFIC SIGNAL SHALL HAVE THE SIGNAL HEAD DISPLAYS, SIGNAL HEAD PLACEMENTS AND CONTROLLER PHASING MATCH THE EXISTING TRAFFIC SIGNAL, AT THE TIME OF THE TURN ON. IF NO TRAFFIC STAGING IS IN PLACE OR WILL NOT BE STAGED ON THE DAY OF THE TURN ON.
7. UNINTERRUPTIBLE POWER SUPPLY (UPS) SYSTEMS SHALL BE INSTALLED AND MADE OPERATIONAL AT TEMPORARY TRAFFIC SIGNAL INSTALLATIONS WHERE UPS IS INSTALLED AT THE EXISTING TRAFFIC SIGNAL. TEMPORARY TRAFFIC SIGNALS AT RAILROAD INTERSECTIONS, AND TEMPORARY TRAFFIC SIGNALS AT INTERSECTIONS WITH FIRE STATION ACTUATED EMERGENCY VEHICLE PRE-EMPTION, OR WHEN INDICATED ON THE PLANS.
8. TRAFFIC SIGNAL MANAGEMENT SYSTEMS SHALL BE MAINTAINED IN OPERATION AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER. REQUIRED EQUIPMENT SHALL BE AS SHOWN ON THE PLANS AND THE CONTRACTOR SHALL PLACE THE EQUIPMENT IN OPERATION TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE TRAFFIC SIGNAL MANAGEMENT SYSTEM.
9. DETECTION AT TEMPORARY TRAFFIC SIGNALS SHALL BE INCLUDED FOR ALL APPROACHES OF THE INTERSECTION UNLESS INDICATED OTHERWISE ON THE PLANS. THE DETECTION SYSTEM MUST MEET THE SPECIFICATIONS OF DISTRICT 1 AND THE CONTRACTOR SHALL PLACE THE DETECTORS INTO OPERATION TO THE SATISFACTION OF THE ENGINEER.
10. WHEN PAN, TILT, ZOOM CAMERAS ARE INSTALLED AT THE EXISTING INTERSECTION OR ARE CALLED FOR IN THE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING THE CAMERAS TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE CAMERAS.
11. ELECTRICAL AERIAL LINES SHALL BE RELOCATED PRIOR TO CONTRACT BY SERVICE OWNER. LOCATION OF SERVICE IS APPROXIMATE AND SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER. REMOVE TEMPORARY SERVICE INSTALLATION UPON REMOVAL OF TEMPORARY TRAFFIC SIGNALS.
12. REFER TO SHEET TS-49 FOR REMOVAL OF EXISTING SIGNAL EQUIPMENT.
13. SYMBOLOGY USED ON THIS SHEET IS IN ACCORDANCE WITH SHEET TS-07.
14. CONTRACTOR SHALL COORDINATE WITH COMED FOR ALL WORK WITHIN 15 FEET OF AERIAL UTILITY. CONTRACTOR SHALL CONDUCT WORK WITH CARE OBSERVING ALL SAFETY PRECAUTIONS AND PROVIDING NECESSARY PROTECTION OF ELECTRICAL LINES.
15. UNDERGROUND GAS LINE TO BE ABANDONED BY OTHERS. CONTRACTOR SHALL FOLLOW COORDINATION WITH THE ENGINEER.
16. INSTALL UNDERGROUND CONDUIT WITH RISERS TO A HEIGHT OF 17 FT. ALONG WOOD POLES, BANDED EVERY 5 FT. THIS WORK IS INCLUDED IN THE COST OF TEMPORARY TRAFFIC SIGNAL INSTALLATION.



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, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

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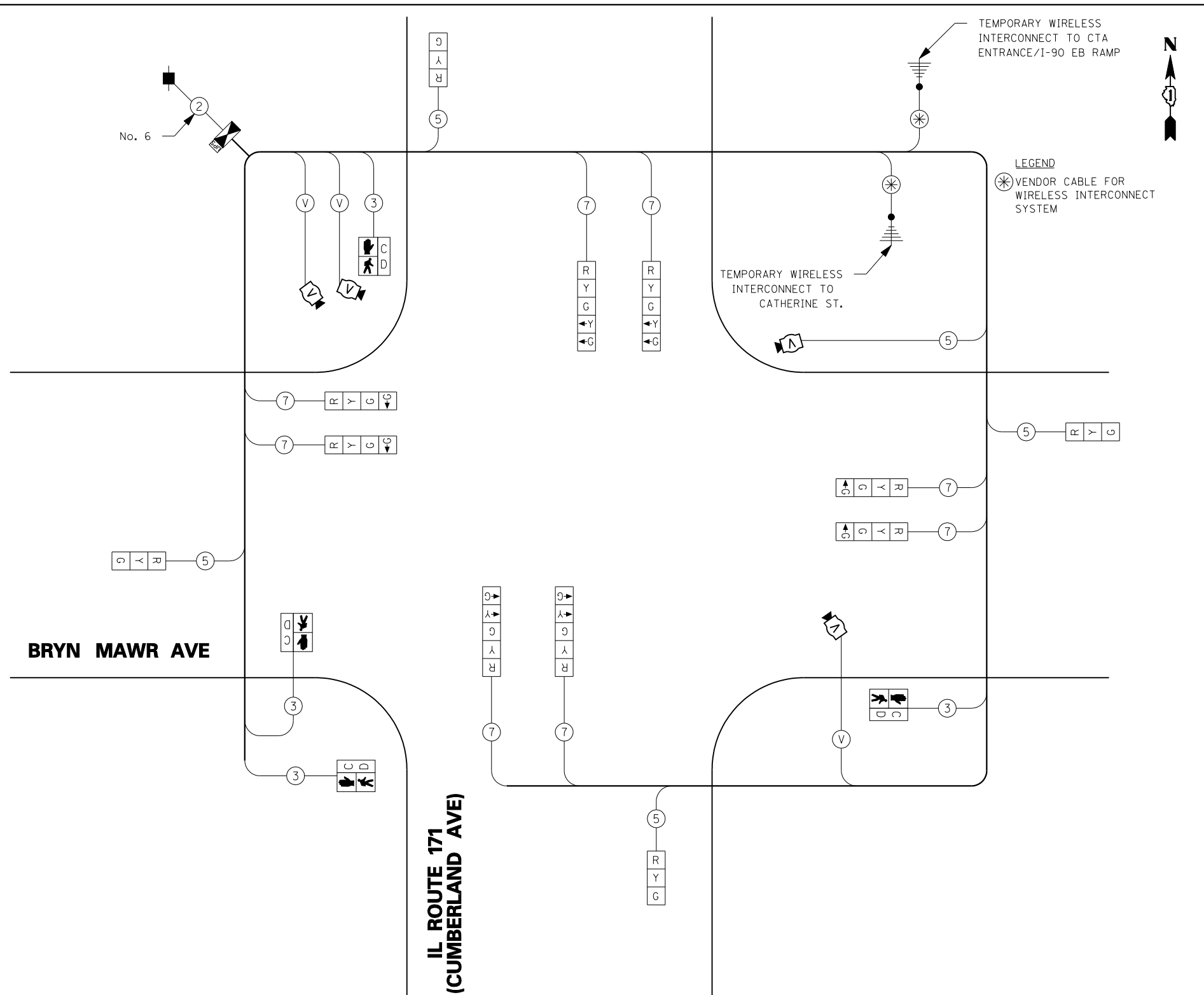
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY TRAFFIC SIGNAL INSTALLATION (PRE-STAGE AND STAGE 1)
IL RTE 171 (CUMBERLAND AVENUE) AT BRYN MAWR AVENUE**

SCALE: 1" = 20' SHEET NO. OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	204
CONTRACT NO. 60J14				
ILLINOIS FED. AID PROJECT				

TS-45



LEGEND
 ⊛ VENDOR CABLE FOR WIRELESS INTERCONNECT SYSTEM

**TEMPORARY CABLE PLAN
 (ALL STAGES)**

- NOTES:**
- SYMBOLGY USED ON THIS SHEET IS IN ACCORDANCE WITH SHEET TS-41.
 - CONTRACTOR SHALL INSTALL CDOT APPROVED SIGNAL TIMING FOR TEMPORARY SIGNAL OPERATIONS AT THIS LOCATION. THIS WORK SHALL BE INCLUDED IN THE COST OF TEMPORARY TRAFFIC SIGNAL INSTALLATION. ANY ADJUSTMENTS TO THE SIGNAL TIMINGS AS REQUIRED BY THE ENGINEER SHALL BE INCLUDED IN THE COST OF TEMPORARY TRAFFIC SIGNAL INSTALLATION. SEE TEMPORARY TRAFFIC SIGNAL TIMING SCHEDULE ON SHEET TS-60.

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I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					
TYPE	NO. OF LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	12	135	17	0.50	102.00
(YELLOW)	12	135	25	0.25	75.00
(GREEN)	12	135	15	0.25	45.00
ARROW	12	135	12	0.10	14.40
PED. SIGNAL	4	90	25	1.00	100.00
CONTROLLER	1	100	100	1.00	100.00
ILLUM. SIGN			25	0.50	
VIDEO SYSTEM	1	150		1.00	150.00

ENERGY COSTS TO: TOTAL = 586.40

ILLINOIS DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS/DISTRICT 1
 201 WEST CENTER COURT/SCHAUMBURG, IL 60196

ENERGY SUPPLY: CONTACT: MARY INFANTI
 PHONE: (847) 816-5322
 COMPANY: COM ED

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, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

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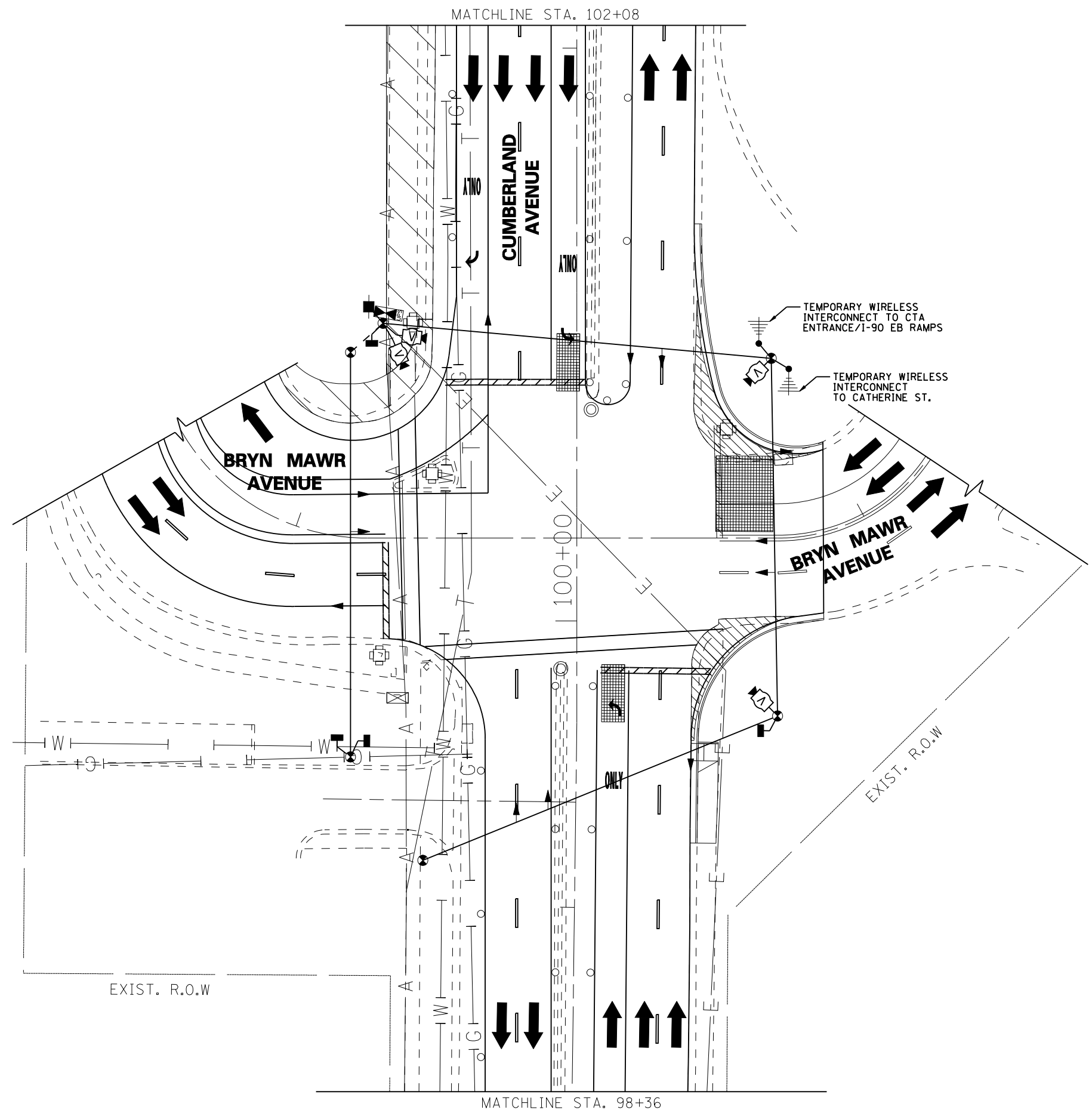
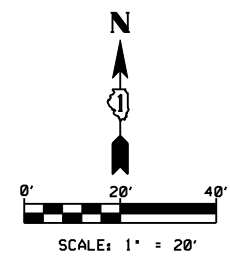
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**TEMPORARY CABLE PLAN
 ALL STAGES
 IL RTE 171 (CUMBERLAND AVE) AT BRYN MAWR AVE**

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	205
CONTRACT NO. 60J14				
ILLINOIS FED. AID PROJECT				

TS-46



NOTES:
 1. SYMBOLOGY USED ON THIS SHEET IS IN ACCORDANCE WITH SHEET TS-07.

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PLOT DATE =	DATE - 2/18/2013	REVISED -

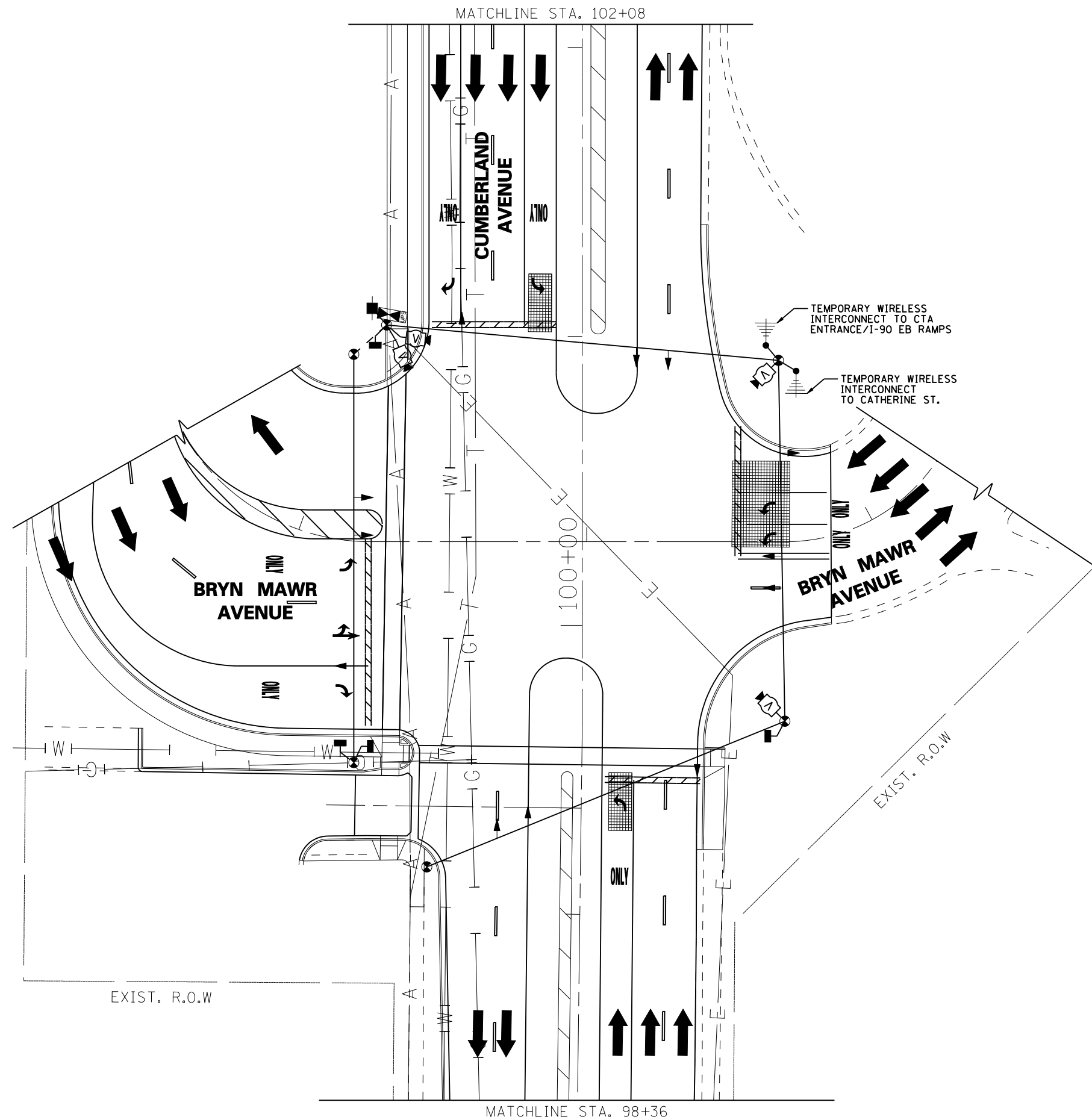
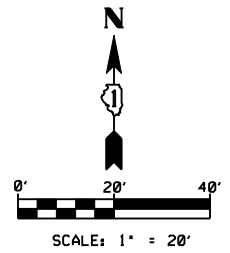


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL INSTALLATION (STAGE 2)
IL RTE 171 (CUMBERLAND AVENUE) AT BRYN MAWR AVENUE
 SCALE: 1" = 20' SHEET NO. OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	206
CONTRACT NO. 60J14				
ILLINOIS FED. AID PROJECT				

TS-47



NOTES:
 1. SYMBOLOGY USED ON THIS SHEET IS IN ACCORDANCE WITH SHEET TS-07.

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	DRAWN - GR	REVISED -
PLOT SCALE =	CHECKED - CG	REVISED -
PLOT DATE =	DATE - 2/18/2013	REVISED -



**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

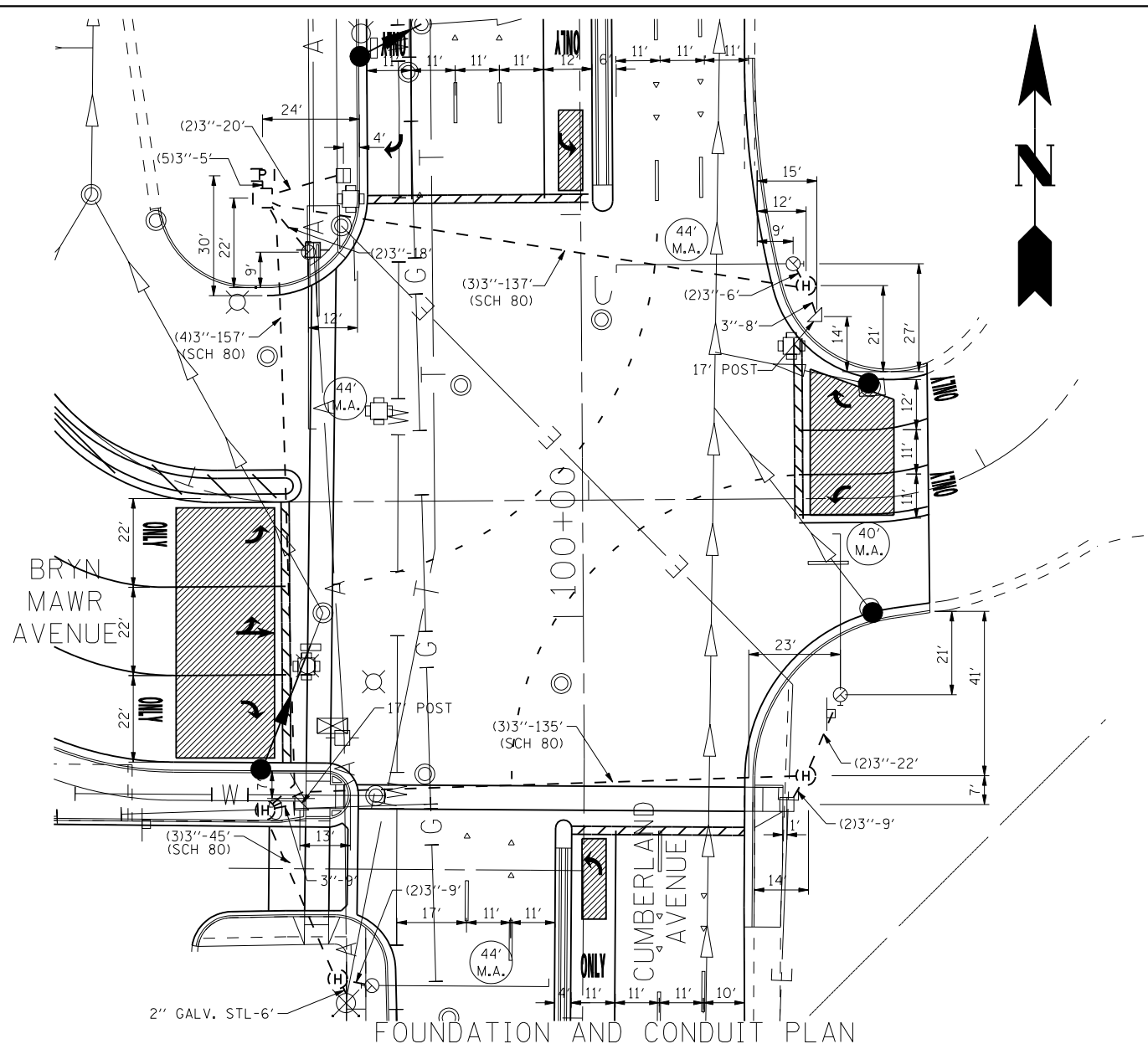
**TEMPORARY TRAFFIC SIGNAL INSTALLATION (STAGE 3)
 IL RTE 171 (CUMBERLAND AVENUE) AT BRYN MAWR AVENUE**

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	207
CONTRACT NO. 60J14				
ILLINOIS FED. AID PROJECT				

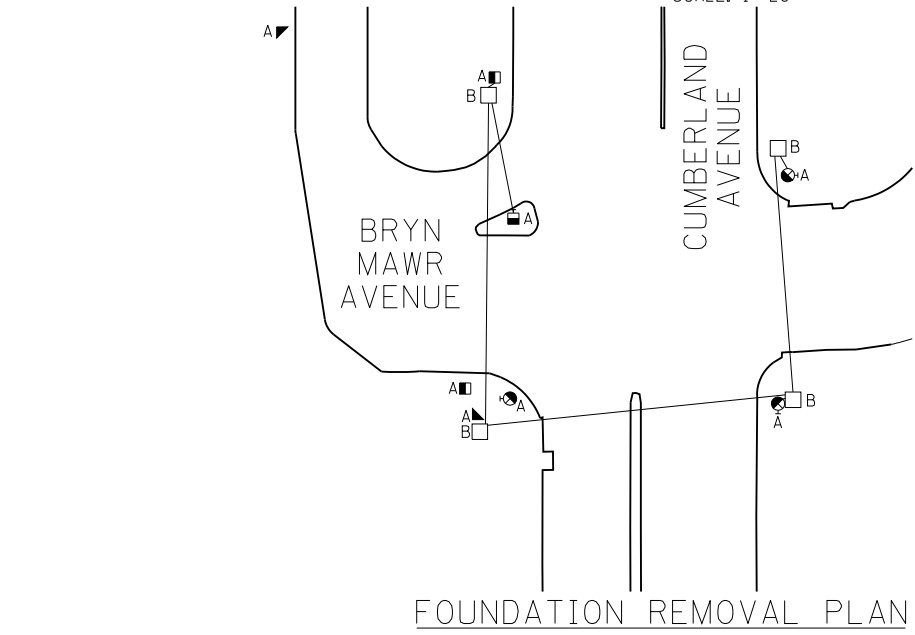
TS-48

SCALE: 1" = 20' SHEET NO. OF SHEETS STA. TO STA.

FIBER OPTIC HYBRID CABLE 6MM/24SM,
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C.
INTERCONNECT TO CTA ENTRANCE/I-90 RAMP.

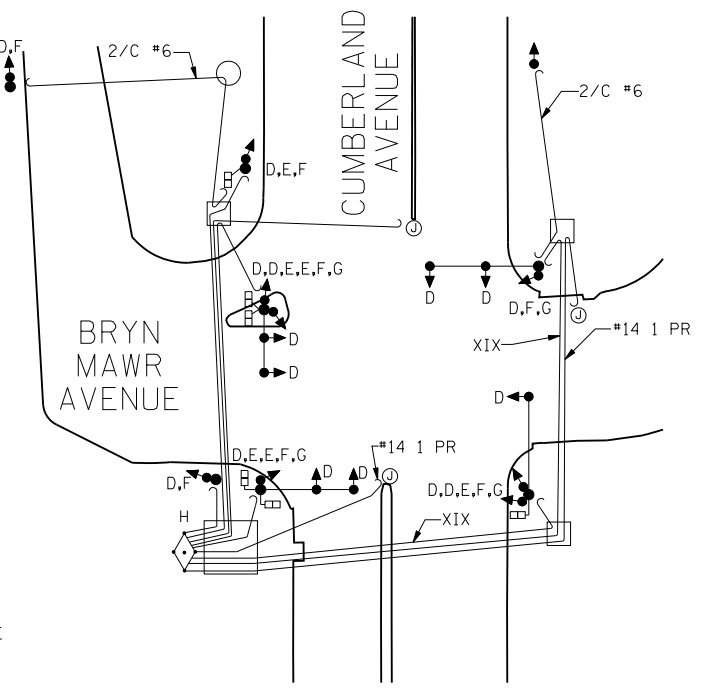


FOUNDATION AND CONDUIT PLAN
SCALE: 1"=20'

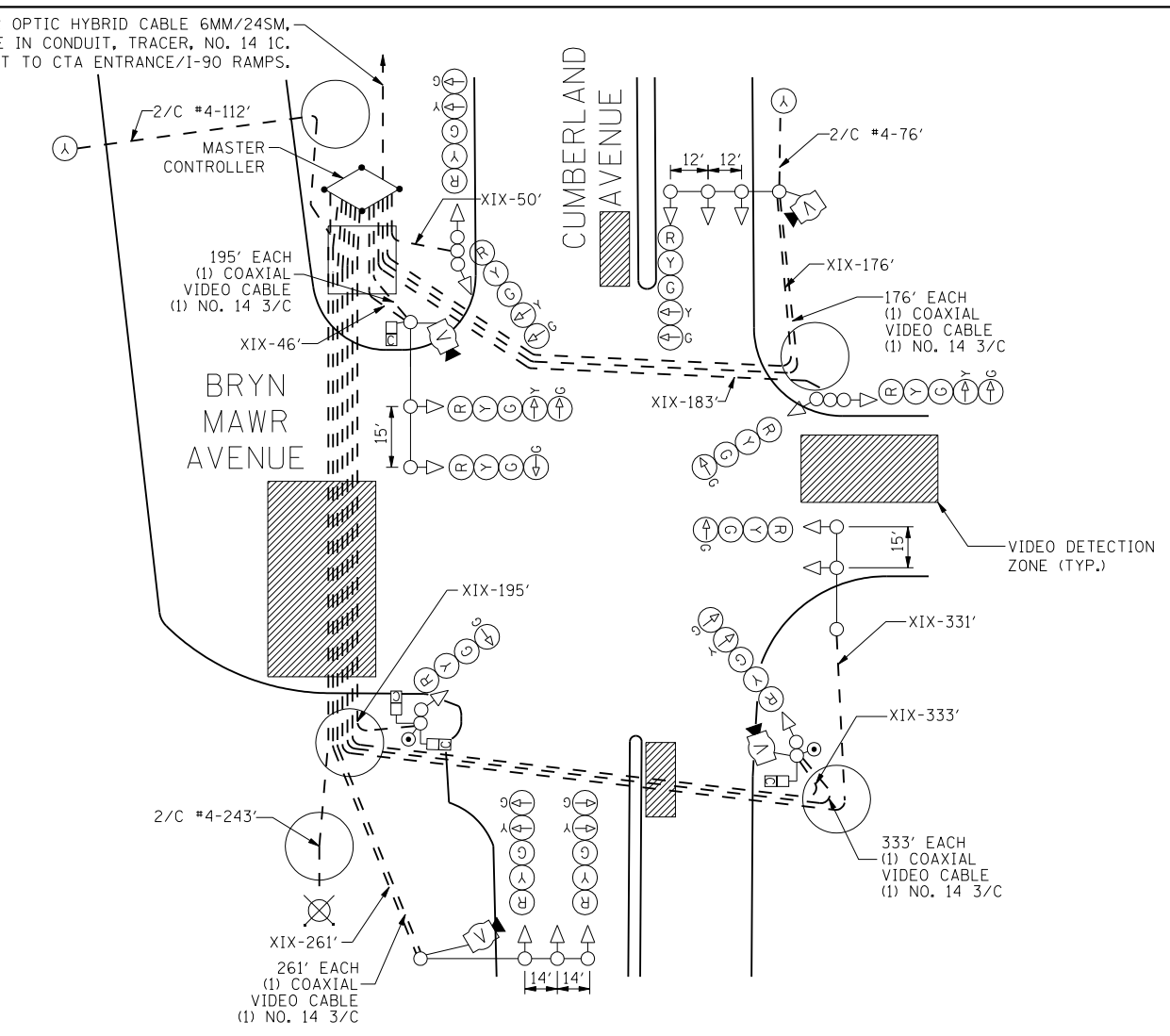


FOUNDATION REMOVAL PLAN
NO SCALE

- REMOVAL LEGEND:**
 A - BREAK DOWN FOUNDATION
 B - BREAK DOWN MANHOLE
 C - BREAK DOWN HANDHOLE
 D - REMOVE TRAFFIC SIGNAL
 E - REMOVE PEDESTRIAN SIGNAL
 F - REMOVE TRAFFIC SIGNAL POST OR POLE
 G - REMOVE TRAFFIC SIGNAL MAST ARM
 H - REMOVE TRAFFIC SIGNAL CONTROLLER
 I - REMOVE SERVICE EQUIPMENT



SIGNAL AND CABLE REMOVAL PLAN
NO SCALE



SIGNAL AND CABLE PLAN
NO SCALE

- LEGEND:**
 [V] - VIDEO DETECTION CAMERA
 [P] - LED PEDESTRIAN SIGNAL HEAD WITH COUNTDOWN TIMER
 [Y] - LED FLASHING BEACON ASSEMBLY

DATE		REVISION	
SUPERSEDES DRAWING NO.: 22908 DATED: 12-21-1990			
TRAFFIC CONTROL SIGNALS N. CUMBERLAND AVE AND W. BRYN MAWR AVE			
CITY OF CHICAGO DEPARTMENT OF TRANSPORTATION DIVISION OF ELECTRICAL OPERATIONS			
DRAFTSMAN:	CHIEF DRAFTSMAN:	ENGINEER: R. SWANSON	
SUPERVISING ENGINEER:	ELEC. DESIGN ENGR.		DWG. NO.
ENGINEER OF ELECTRICITY:			22908
GEN'L SUPT. OF ELECTRICITY:			
DEPUTY COMMISSIONER:			
SIZE:	SCALE: AS NOTED	DATE:	

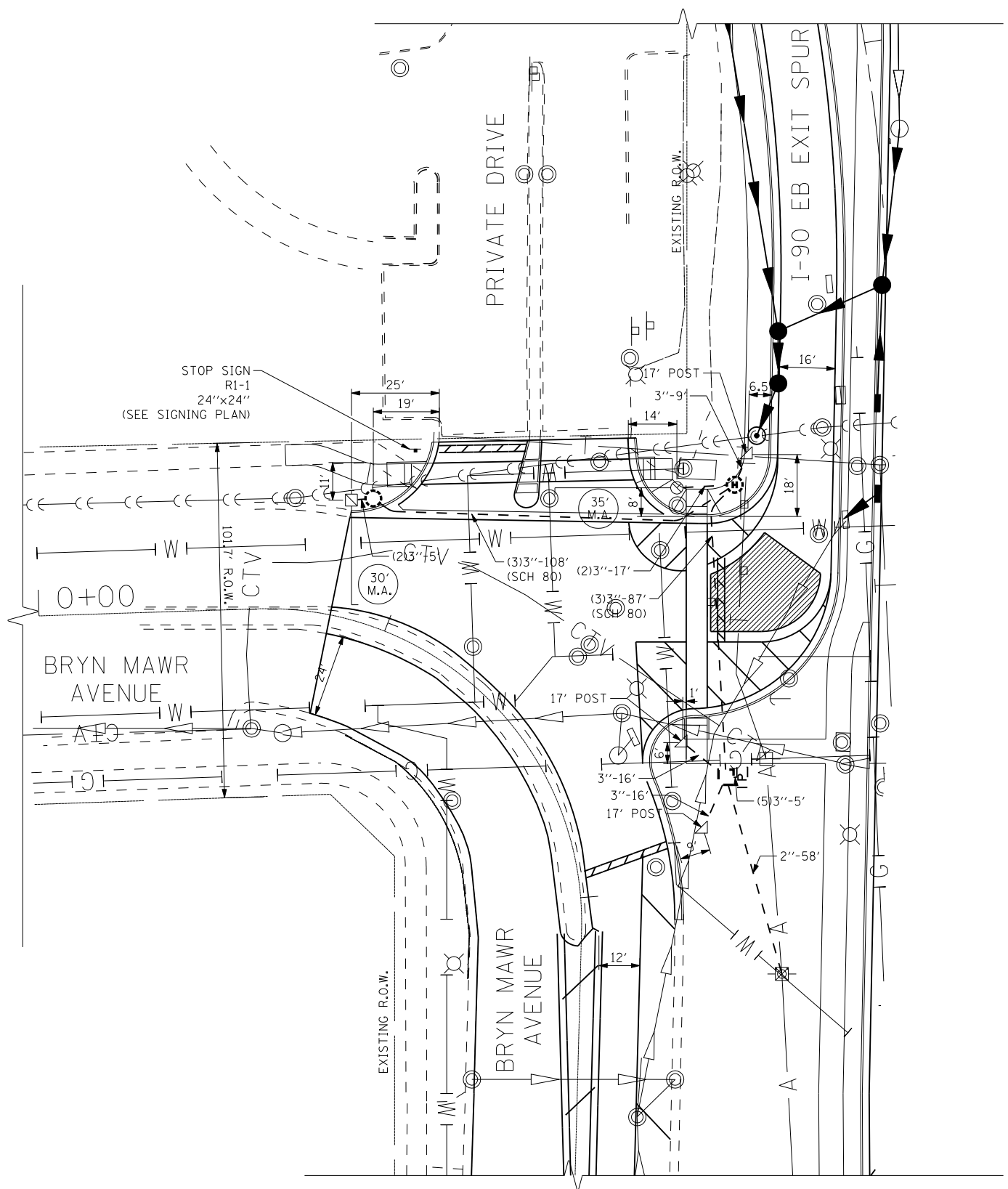
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PLOT SCALE =	DRAWN - GR	REVISED -
PLOT DATE =	CHECKED - CG	REVISED -
	DATE - 12-10-2012	REVISED -



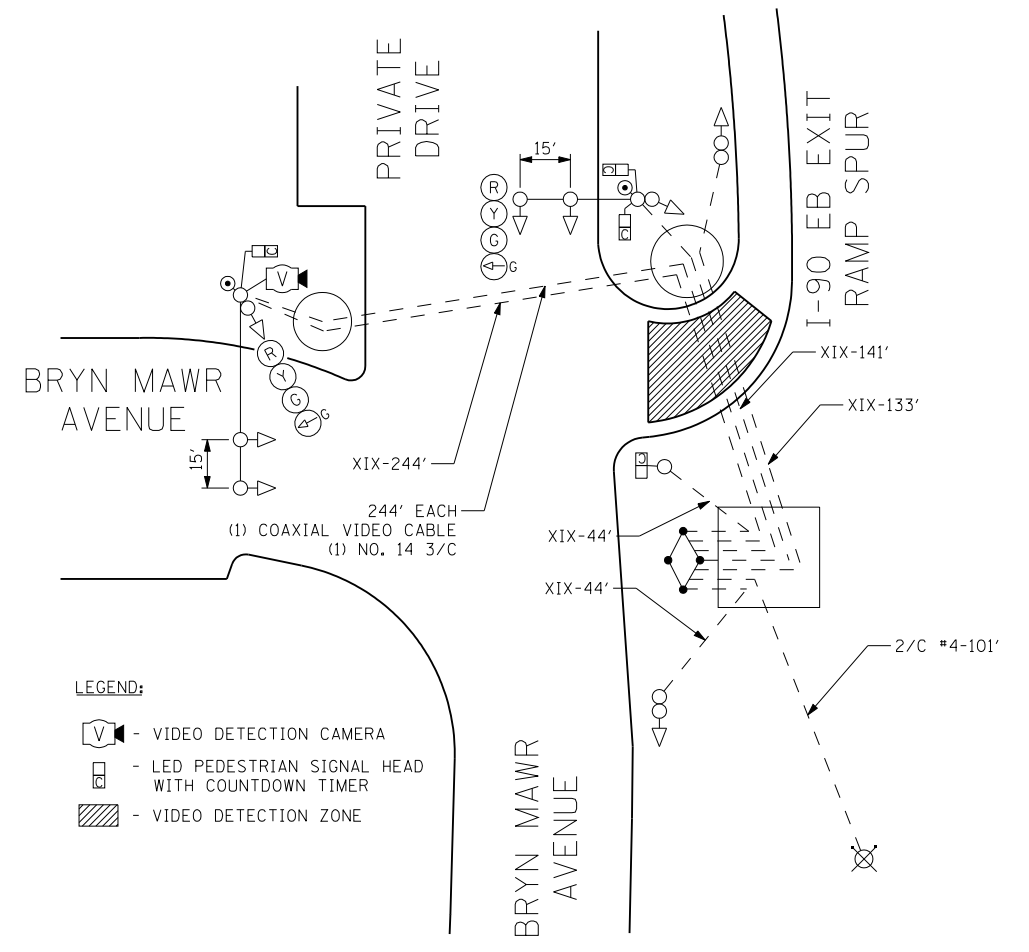
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SIGNALS
IL RTE 171 (CUMBERLAND AVENUE) AT BRYN MAWR AVENUE
SCALE: AS NOTED SHEET NO. OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	208
CONTRACT NO. 60J14				
ILLINOIS FED. AID PROJECT				



FOUNDATION AND CONDUIT PLAN
SCALE: 1" = 20'



SIGNAL AND CABLE PLAN
NO SCALE

- LEGEND:
- VIDEO DETECTION CAMERA
 - LED PEDESTRIAN SIGNAL HEAD WITH COUNTDOWN TIMER
 - VIDEO DETECTION ZONE

A	
DATE	REVISION
TRAFFIC CONTROL SIGNALS I-90 EASTBOUND EXIT RAMP SPUR AND W. BRYN MAWR AVE	
CITY OF CHICAGO DEPARTMENT OF TRANSPORTATION DIVISION OF ELECTRICAL OPERATIONS	
DRAFTSMAN:	CHIEF DRAFTSMAN: ENGINEER: R. SWANSON
SUPERVISING ENGINEER: ELEC. DESIGN ENGR.	DWG. NO. 23974
ENGINEER OF ELECTRICITY:	
GEN'L SUPT. OF ELECTRICITY:	
DEPUTY COMMISSIONER:	
SIZE:	SCALE: AS NOTED DATE:

USER NAME =	DESIGNED - GR	REVISED -
PLOT SCALE =	DRAWN - GR	REVISED -
PLOT DATE =	CHECKED - CG	REVISED -
	DATE - 12-10-2012	REVISED -

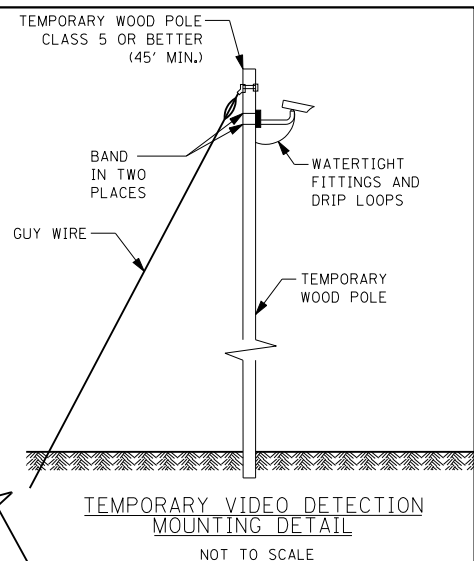
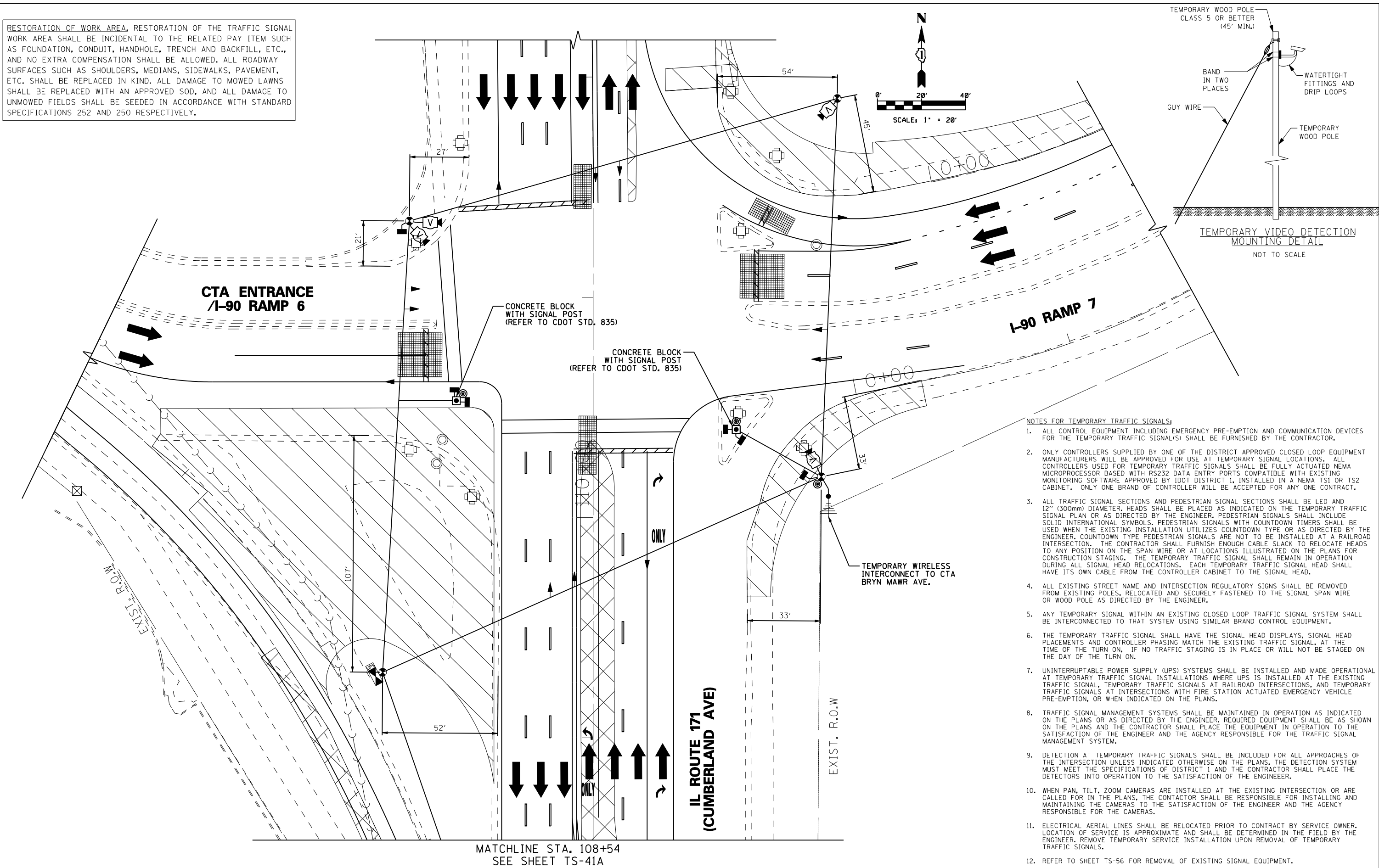


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SIGNALS
BRYN MAWR AVENUE AT I-90 EASTBOUND
EXIT RAMP SPUR
SCALE: AS NOTED SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	209
CONTRACT NO. 60J14				
ILLINOIS FED. AID PROJECT				

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, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDING IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.



- NOTES FOR TEMPORARY TRAFFIC SIGNALS:**
1. ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.
 2. ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1, INSTALLED IN A NEMA TS1 OR TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
 3. ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE LED AND 12" (300mm) DIAMETER. HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. PEDESTRIAN SIGNALS SHALL INCLUDE SOLID INTERNATIONAL SYMBOLS. PEDESTRIAN SIGNALS WITH COUNTDOWN TIMERS SHALL BE USED WHEN THE EXISTING INSTALLATION UTILIZES COUNTDOWN TYPE OR AS DIRECTED BY THE ENGINEER. COUNTDOWN TYPE PEDESTRIAN SIGNALS ARE NOT TO BE INSTALLED AT A RAILROAD INTERSECTION. THE CONTRACTOR SHALL FURNISH ENOUGH CABLE SLACK TO RELOCATE HEADS TO ANY POSITION ON THE SPAN WIRE OR AT LOCATIONS ILLUSTRATED ON THE PLANS FOR CONSTRUCTION STAGING. THE TEMPORARY TRAFFIC SIGNAL SHALL REMAIN IN OPERATION DURING ALL SIGNAL HEAD RELOCATIONS. EACH TEMPORARY TRAFFIC SIGNAL HEAD SHALL HAVE ITS OWN CABLE FROM THE CONTROLLER CABINET TO THE SIGNAL HEAD.
 4. ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES, RELOCATED AND SECURELY FASTENED TO THE SIGNAL SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.
 5. ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROL EQUIPMENT.
 6. THE TEMPORARY TRAFFIC SIGNAL SHALL HAVE THE SIGNAL HEAD DISPLAYS, SIGNAL HEAD PLACEMENTS AND CONTROLLER PHASING MATCH THE EXISTING TRAFFIC SIGNAL AT THE TIME OF THE TURN ON, IF NO TRAFFIC STAGING IS IN PLACE OR WILL NOT BE STAGED ON THE DAY OF THE TURN ON.
 7. UNINTERRUPTIBLE POWER SUPPLY (UPS) SYSTEMS SHALL BE INSTALLED AND MADE OPERATIONAL AT TEMPORARY TRAFFIC SIGNAL INSTALLATIONS WHERE UPS IS INSTALLED AT THE EXISTING TRAFFIC SIGNAL. TEMPORARY TRAFFIC SIGNALS AT RAILROAD INTERSECTIONS, AND TEMPORARY TRAFFIC SIGNALS AT INTERSECTIONS WITH FIRE STATION ACTUATED EMERGENCY VEHICLE PRE-EMPTION, OR WHEN INDICATED ON THE PLANS.
 8. TRAFFIC SIGNAL MANAGEMENT SYSTEMS SHALL BE MAINTAINED IN OPERATION AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER. REQUIRED EQUIPMENT SHALL BE AS SHOWN ON THE PLANS AND THE CONTRACTOR SHALL PLACE THE EQUIPMENT IN OPERATION TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE TRAFFIC SIGNAL MANAGEMENT SYSTEM.
 9. DETECTION AT TEMPORARY TRAFFIC SIGNALS SHALL BE INCLUDED FOR ALL APPROACHES OF THE INTERSECTION UNLESS INDICATED OTHERWISE ON THE PLANS. THE DETECTION SYSTEM MUST MEET THE SPECIFICATIONS OF DISTRICT 1 AND THE CONTRACTOR SHALL PLACE THE DETECTORS INTO OPERATION TO THE SATISFACTION OF THE ENGINEER.
 10. WHEN PAN, TILT, ZOOM CAMERAS ARE INSTALLED AT THE EXISTING INTERSECTION OR ARE CALLED FOR IN THE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING THE CAMERAS TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE CAMERAS.
 11. ELECTRICAL AERIAL LINES SHALL BE RELOCATED PRIOR TO CONTRACT BY SERVICE OWNER. LOCATION OF SERVICE IS APPROXIMATE AND SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER. REMOVE TEMPORARY SERVICE INSTALLATION UPON REMOVAL OF TEMPORARY TRAFFIC SIGNALS.
 12. REFER TO SHEET TS-56 FOR REMOVAL OF EXISTING SIGNAL EQUIPMENT.
 13. SYMBOLOGY USED ON THIS SHEET IS IN ACCORDANCE WITH SHEET TS-07.

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 2/18/2013

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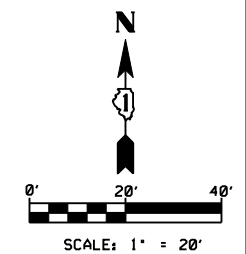
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY TRAFFIC SIGNAL INSTALLATION (PRE-STAGE AND STAGE 1)
IL RTE 171 (CUMBERLAND AVENUE) AT CTA ENTRANCE-I-90 RAMPS**

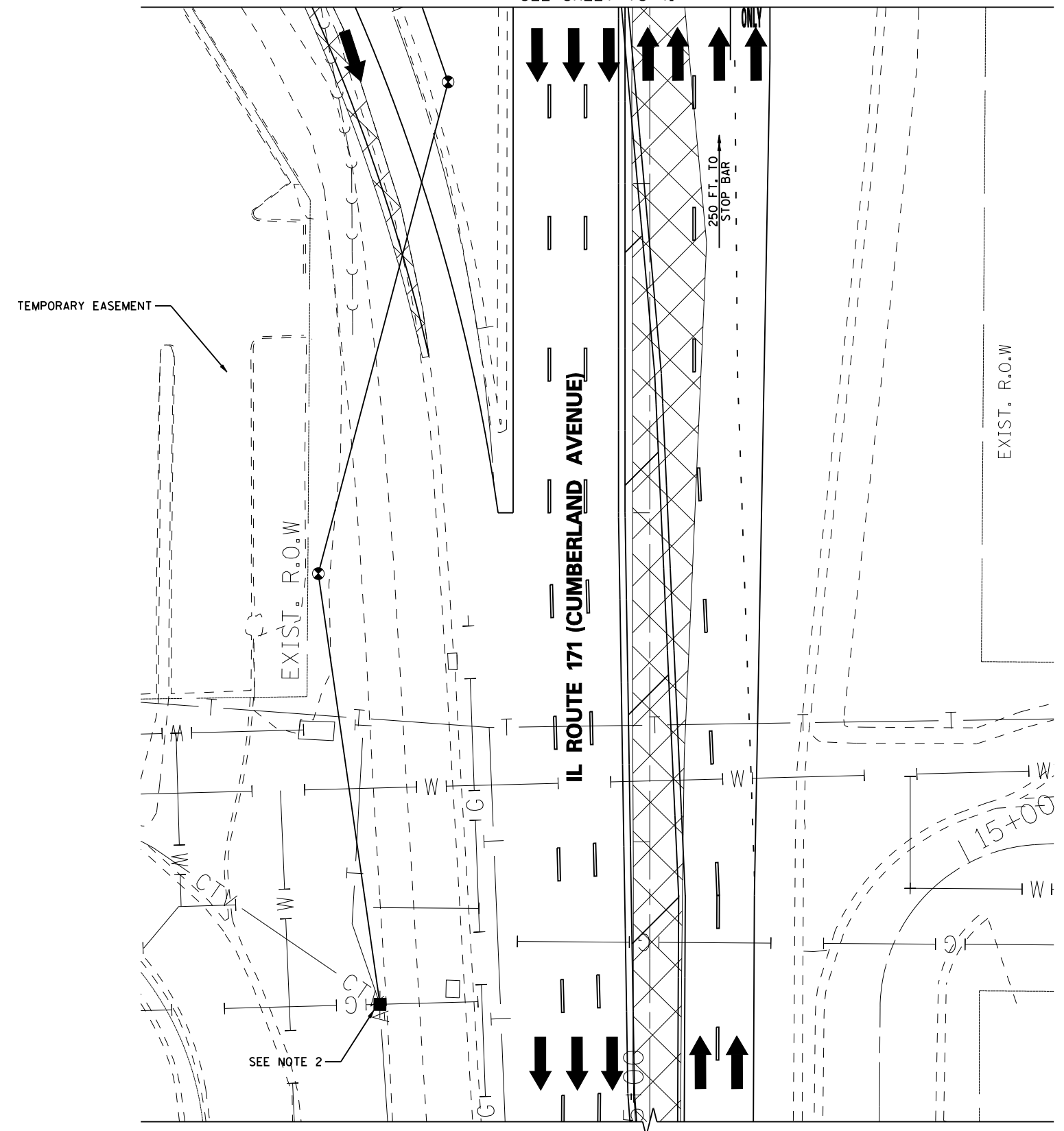
SCALE: 1" = 20' SHEET NO. OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	210
CONTRACT NO. 60J14				
ILLINOIS FED. AID PROJECT				

TS-51



MATCHLINE STA. 108+54
SEE SHEET TS-41



NOTES:

1. SYMBOLOGY USED ON THIS SHEET IS IN ACCORDANCE WITH SHEET TS-07.
2. ELECTRICAL AERIAL LINES SHALL BE RELOCATED PRIOR TO CONTRACT BY SERVICE OWNER. LOCATION OF SERVICE IS APPROXIMATE AND SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER. REMOVE TEMPORARY SERVICE INSTALLATION UPON REMOVAL OF TEMPORARY TRAFFIC SIGNALS.

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	DRAWN - GR	REVISED -
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PLOT DATE =	DATE - 2/18/2013	REVISED -



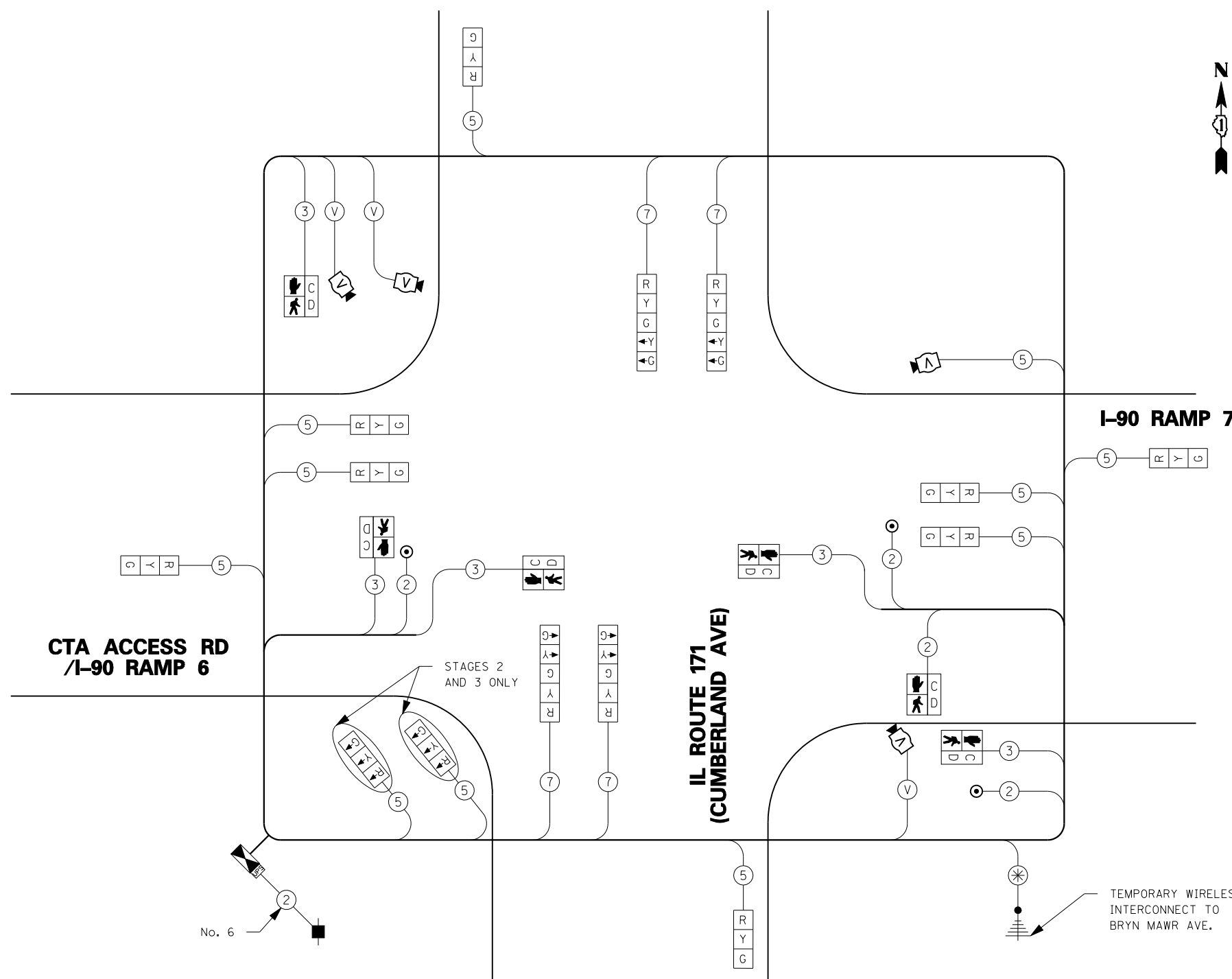
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY TRAFFIC SIGNAL INSTALLATION (STAGE 1)
IL RTE 171 (CUMBERLAND AVENUE) AT CTA ENTRANCE-90 RAMP**

SCALE: 1" = 20' SHEET NO. OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	211
CONTRACT NO. 60J14				
ILLINOIS FED. AID PROJECT				

TS-52



**TEMPORARY CABLE PLAN
(ALL STAGES)**

NOTES:

1. SYMBOLOGY USED ON THIS SHEET IS IN ACCORDANCE WITH SHEET TS-41.
2. CONTRACTOR SHALL INSTALL CDOT APPROVED SIGNAL TIMING FOR TEMPORARY SIGNAL OPERATIONS AT THIS LOCATION. THIS WORK SHALL BE INCLUDED IN THE COST OF TEMPORARY TRAFFIC SIGNAL INSTALLATION. ANY ADJUSTMENTS TO THE SIGNAL TIMINGS AS REQUIRED BY THE ENGINEER SHALL BE INCLUDED IN THE COST OF TEMPORARY TRAFFIC SIGNAL INSTALLATION. SEE TEMPORARY TRAFFIC SIGNAL TIMING SCHEDULE ON SHEET TS-60.

LEGEND
 (★) VENDOR CABLE FOR WIRELESS INTERCONNECT SYSTEM

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I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					
TYPE	NO. OF LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	12	135	17	0.50	102.00
(YELLOW)	12	135	25	0.25	75.00
(GREEN)	12	135	15	0.25	45.00
ARROW	8	135	12	0.10	9.60
PED. SIGNAL	6	90	25	1.00	150.00
CONTROLLER	1	100	100	1.00	100.00
ILLUM. SIGN			25	0.50	
VIDEO SYSTEM	1	150		1.00	150.00

ENERGY COSTS TO: TOTAL = 631.60

ILLINOIS DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS/DISTRICT 1
 201 WEST CENTER COURT/SCHAUMBURG, IL 60196

ENERGY SUPPLY: CONTACT: MARY INFANTI
 PHONE: (847) 816-5322
 COMPANY: COM ED

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, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDING IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

USER NAME =	DESIGNED - GR	REVISED -
	DRAWN - GR	REVISED -
PLOT SCALE =	CHECKED - CG	REVISED -
PLOT DATE =	DATE - 2/18/2013	REVISED -



**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

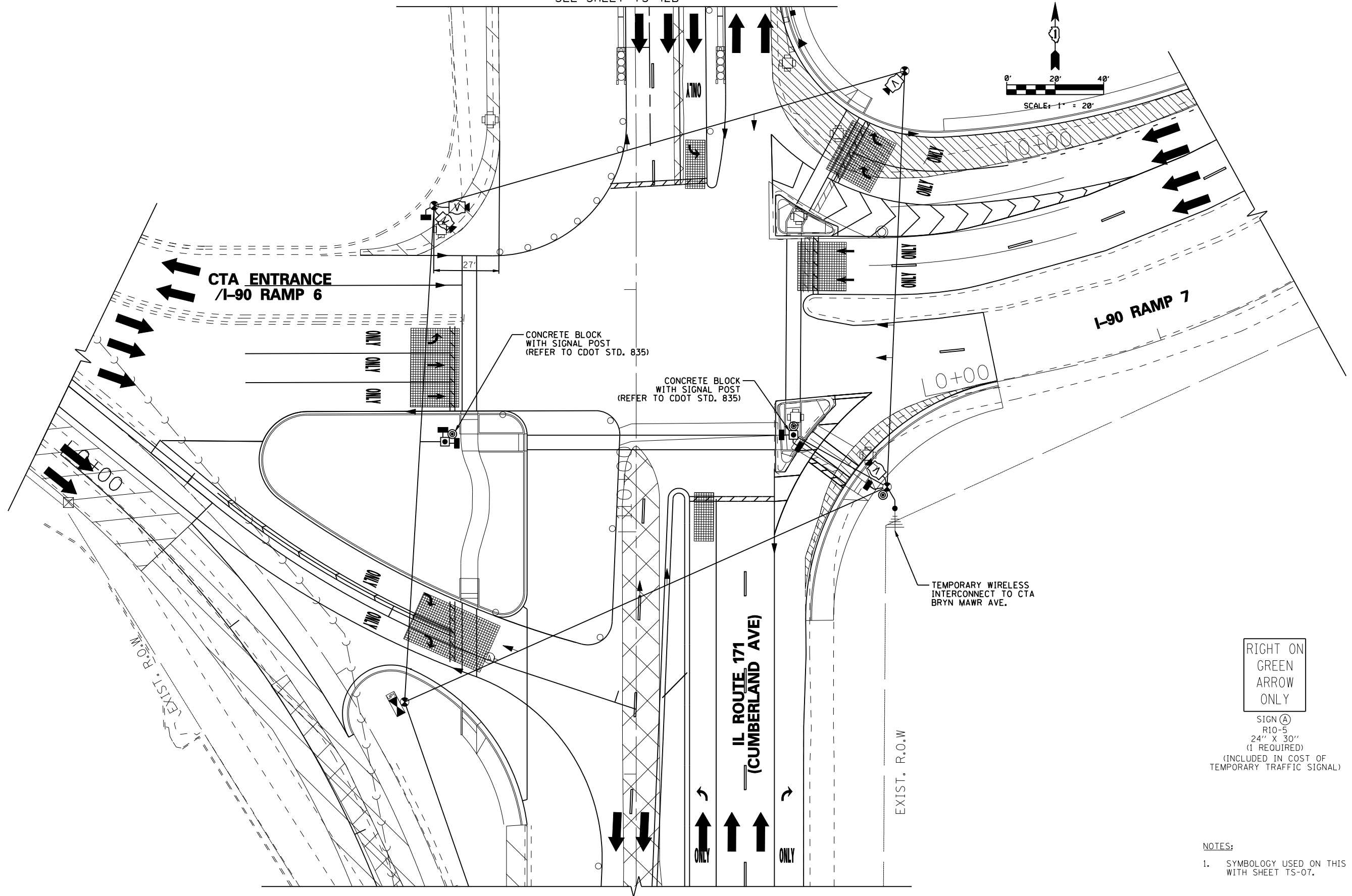
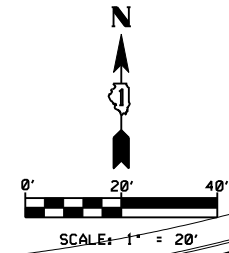
**TEMPORARY CABLE PLAN
ALL STAGES
IL RTE 171 (CUMBERLAND AVE) AT CTA ENTRANCE-I-90 RAMPS**

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	212
CONTRACT NO. 60J14				
ILLINOIS FED. AID PROJECT				

TS-53

MATCHLINE STA. 112+17
SEE SHEET TS-42B



RIGHT ON
GREEN
ARROW
ONLY

SIGN (A)
R10-5
24" X 30"
(1 REQUIRED)
(INCLUDED IN COST OF
TEMPORARY TRAFFIC SIGNAL)

NOTES:

1. SYMBOLOGY USED ON THIS SHEET IS IN ACCORDANCE WITH SHEET TS-07.

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USER NAME =	DESIGNED - GR	REVISED -
	DRAWN - GR	REVISED -
PLOT SCALE =	CHECKED - CG	REVISED -
PLOT DATE =	DATE - 2/18/2013	REVISED -



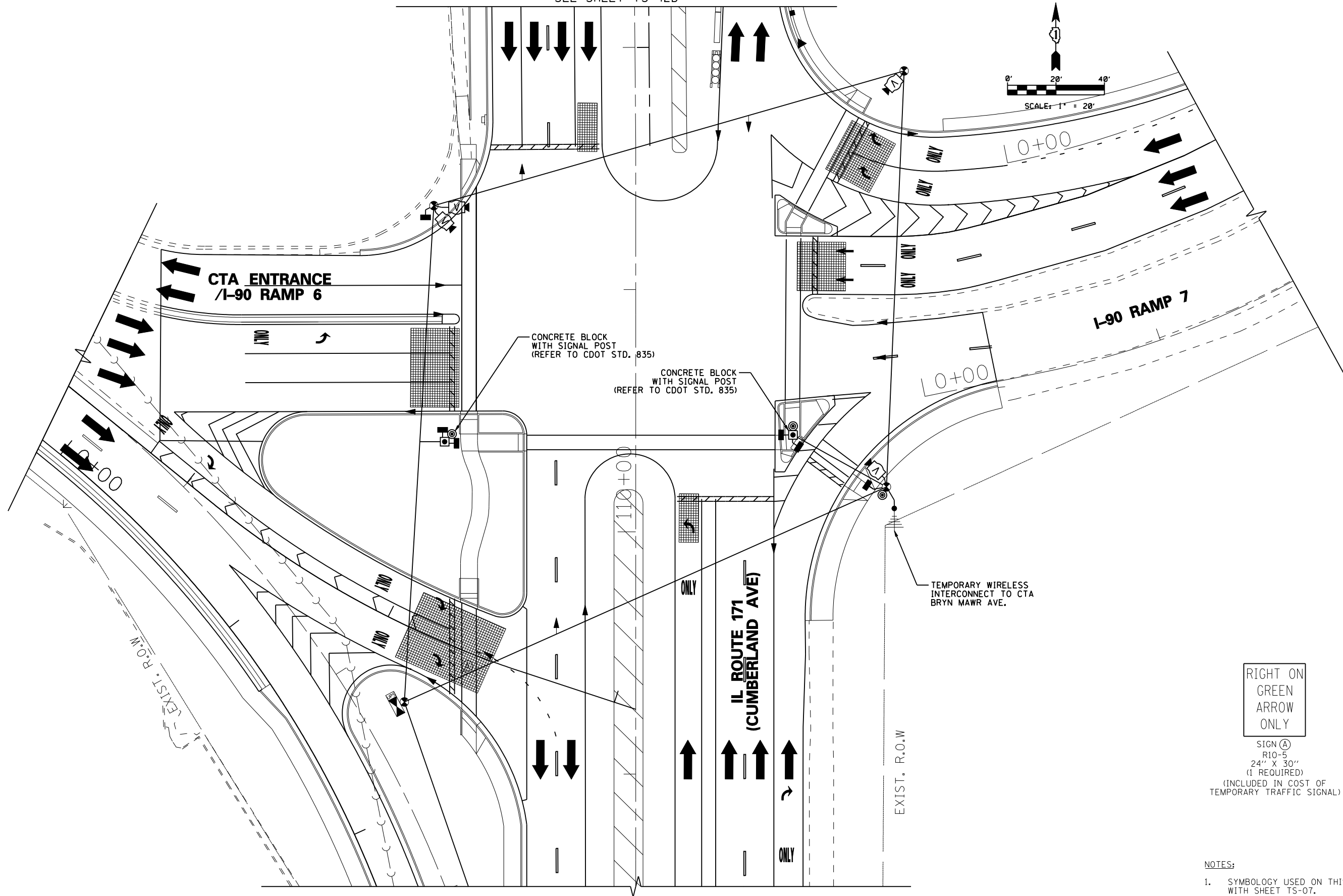
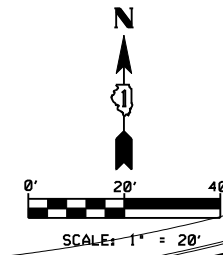
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL INSTALLATION (STAGE 2)
IL RTE 171 (CUMBERLAND AVENUE) AT CTA ENTRANCE-I-90 RAMPS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	213
CONTRACT NO. 60J14				
ILLINOIS FED. AID PROJECT				

TS-54

MATCHLINE STA. 112+17
SEE SHEET TS-42D



RIGHT ON
GREEN
ARROW
ONLY

SIGN (A)
R10-5
24" X 30"
(1 REQUIRED)
(INCLUDED IN COST OF
TEMPORARY TRAFFIC SIGNAL)

NOTES:

1. SYMBOLOGY USED ON THIS SHEET IS IN ACCORDANCE WITH SHEET TS-07.

TS-55

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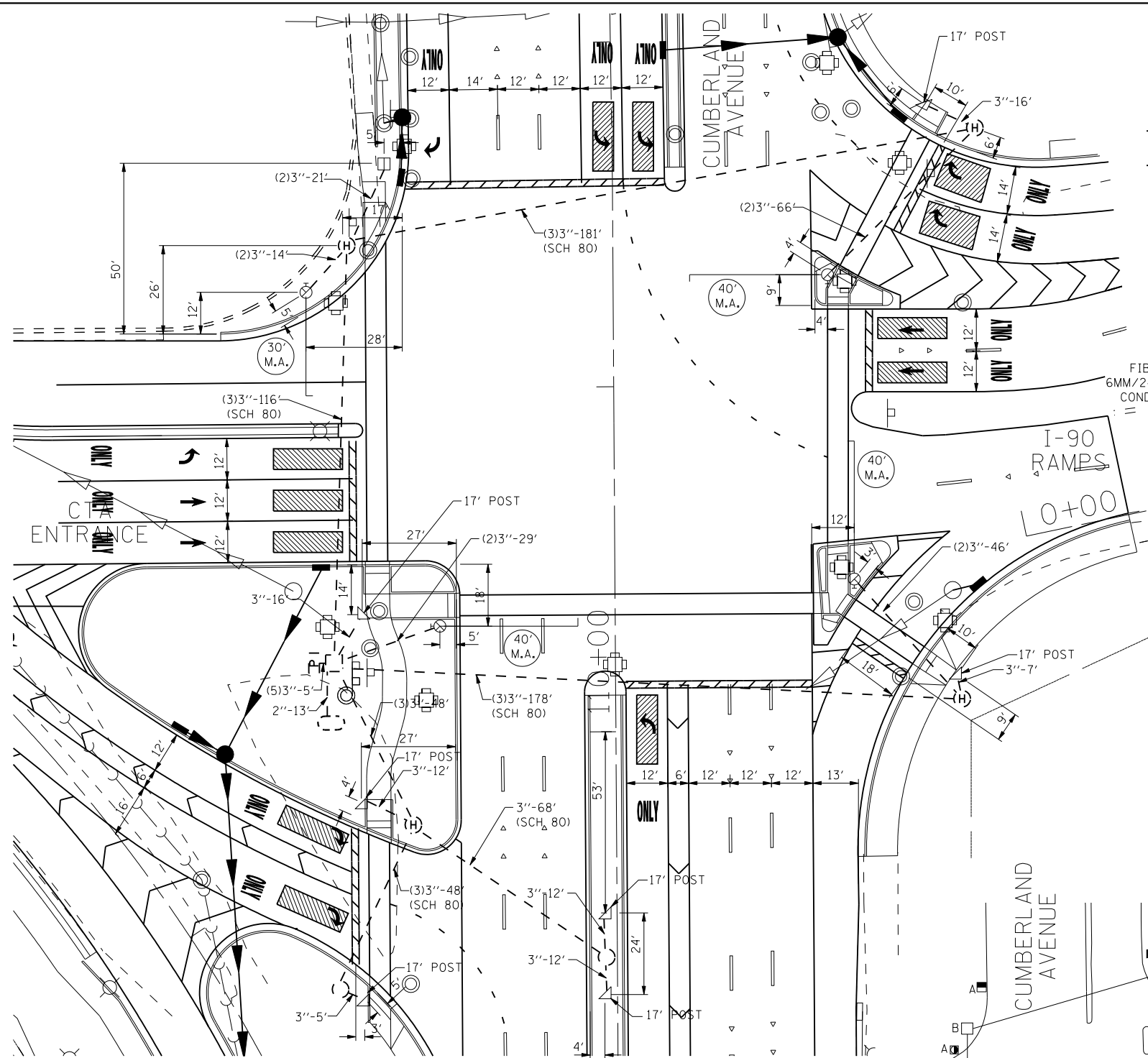
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PLOT DATE =	DATE - 2/18/2013	REVISED -



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

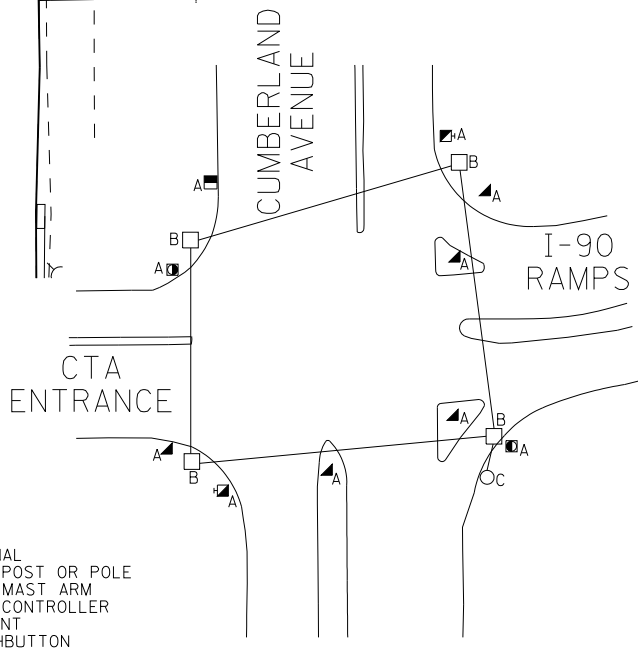
TEMPORARY TRAFFIC SIGNAL INSTALLATION (STAGE 3)
IL RTE 171 (CUMBERLAND AVENUE) AT CTA ENTRANCE-I-90 RAMPS
SCALE: 1" = 20' SHEET NO. OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	214
CONTRACT NO. 60J14				
ILLINOIS FED. AID PROJECT				

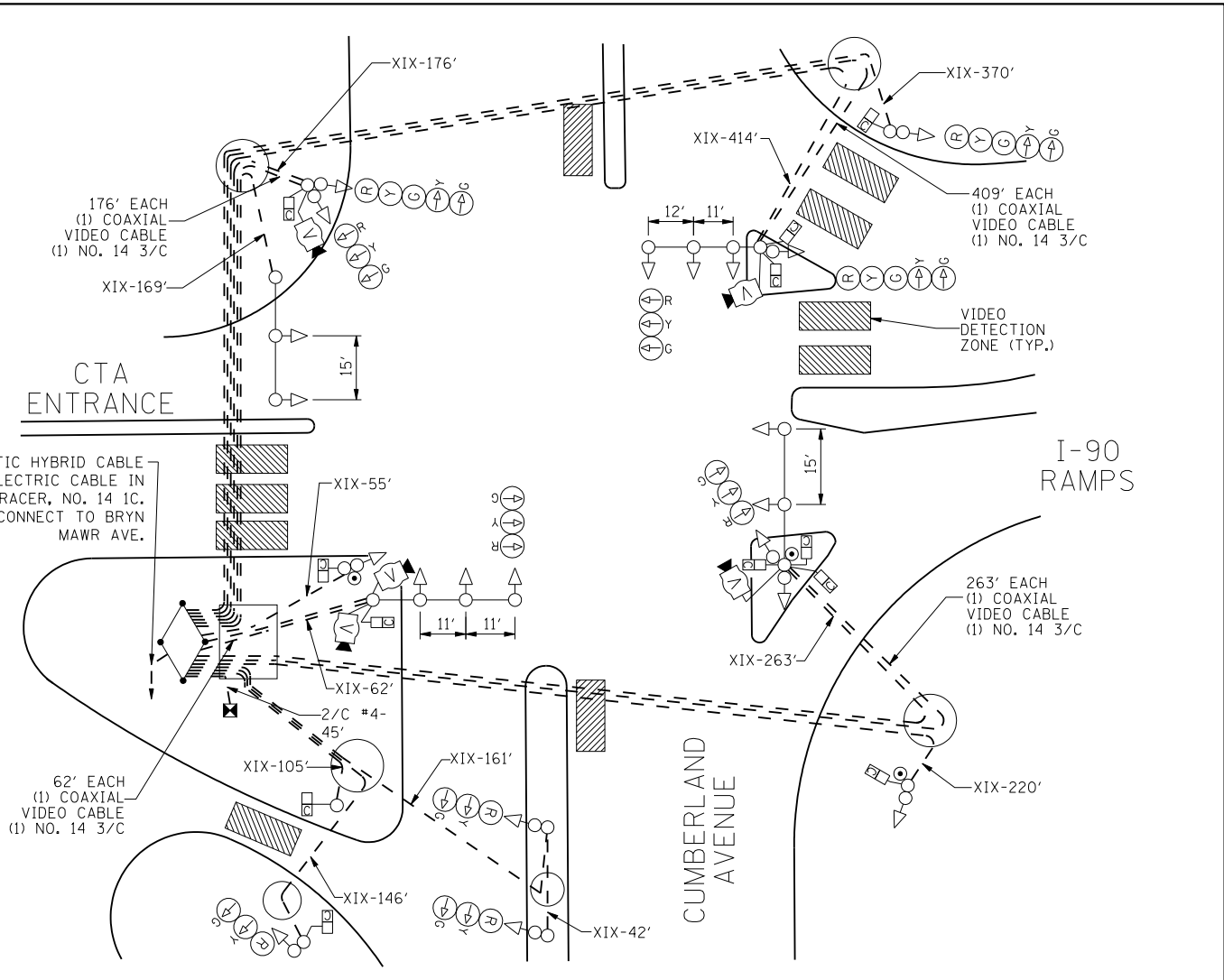


FOUNDATION AND CONDUIT PLAN
SCALE: 1"=20'

- REMOVAL LEGEND:**
- A - BREAK DOWN FOUNDATION
 - B - BREAK DOWN MANHOLE
 - C - BREAK DOWN HANDHOLE
 - D - REMOVE TRAFFIC SIGNAL
 - E - REMOVE PEDESTRIAN SIGNAL
 - F - REMOVE TRAFFIC SIGNAL POST OR POLE
 - G - REMOVE TRAFFIC SIGNAL MAST ARM
 - H - REMOVE TRAFFIC SIGNAL CONTROLLER
 - I - REMOVE SERVICE EQUIPMENT
 - J - REMOVE PEDESTRIAN PUSHBUTTON

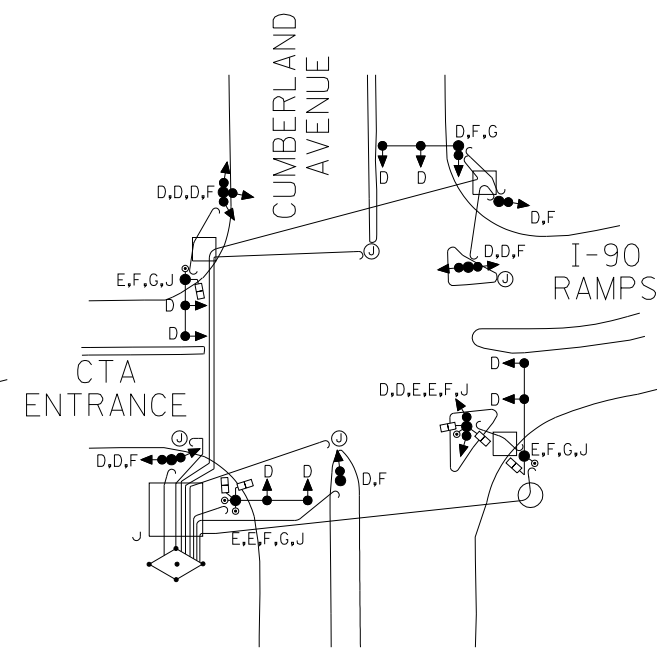


FOUNDATION REMOVAL PLAN
NO SCALE



SIGNAL AND CABLE PLAN
NO SCALE

- LEGEND:**
- VIDEO DETECTION CAMERA
 - LED PEDESTRIAN SIGNAL HEAD WITH COUNTDOWN TIMER



SIGNAL AND CABLE REMOVAL PLAN
NO SCALE
TS-56

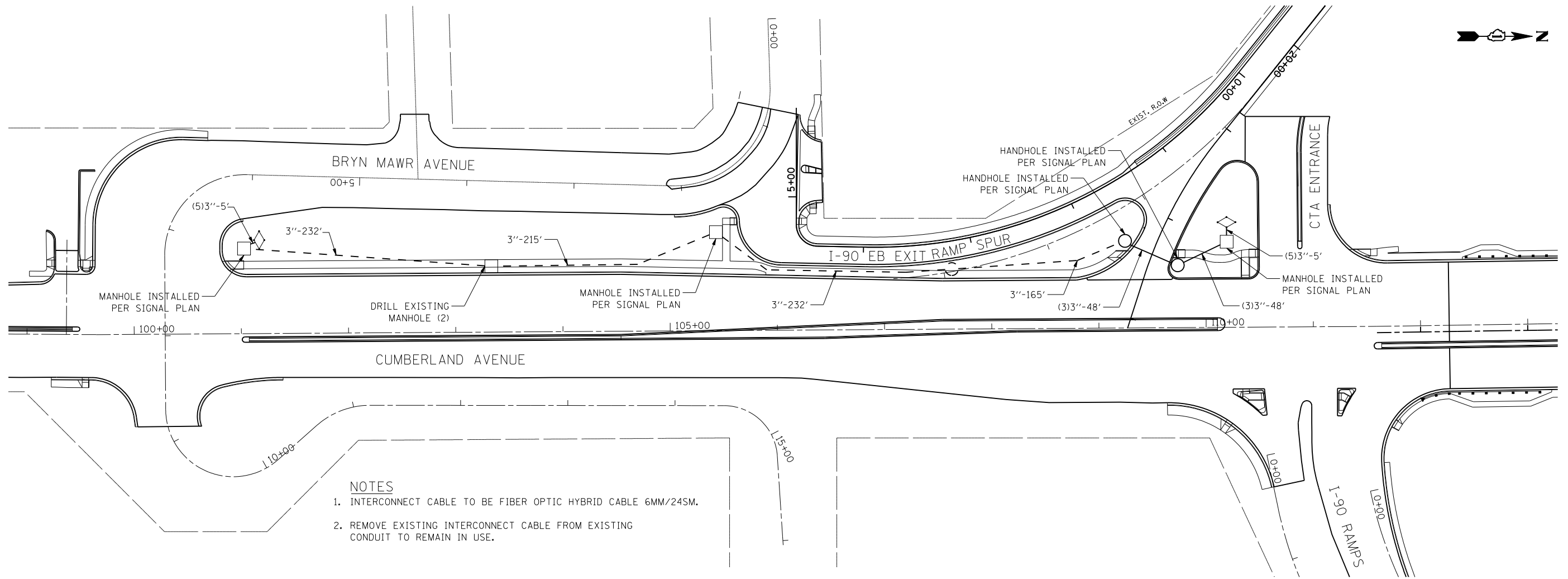
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PLOT SCALE =	DRAWN - GR	REVISED -
PLOT DATE =	CHECKED - CG	REVISED -
	DATE - 12-10-2012	REVISED -



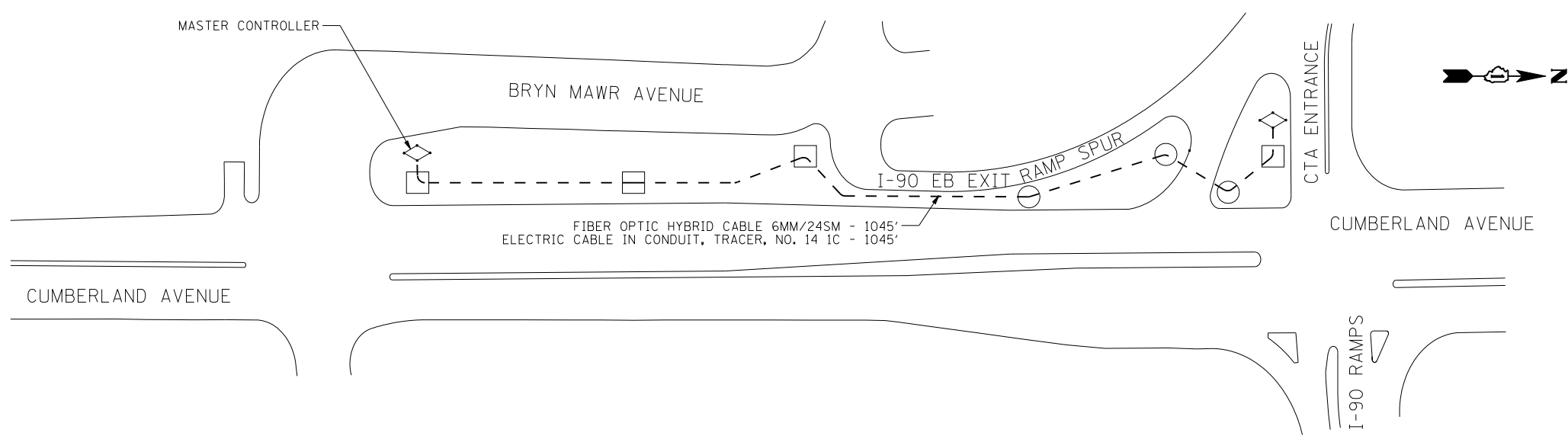
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SIGNALS
IL RTE 171 (CUMBERLAND AVENUE) AT CTA ENTRANCE/I-90 RAMPS
SCALE: AS NOTED SHEET NO. OF SHEETS STA. TO STA.

DATE		REVISION	
SUPERSEDES DRAWING NO.: 23396 DATED: 10-14-1982			
TRAFFIC CONTROL SIGNALS N. CUMBERLAND AVE AND CTA ENTRANCE/I-90 RAMPS			
CITY OF CHICAGO DEPARTMENT OF TRANSPORTATION DIVISION OF ELECTRICAL OPERATIONS			
DRAFTSMAN:	CHIEF DRAFTSMAN:	ENGINEER: R. SWANSON	
SUPERVISING ENGINEER: ELEC. DESIGN ENGR.		DWG. NO. 23396	
ENGINEER OF ELECTRICITY:			
GEN'L Supt. OF ELECTRICITY:			
DEPUTY COMMISSIONER:			
SIZE:	SCALE: AS NOTED	DATE:	
F.A.U. RTE. 2746	SECTION 1616B	COUNTY COOK	TOTAL SHEETS 404 SHEET NO. 215
CONTRACT NO. 60J14			
ILLINOIS FED. AID PROJECT			



- NOTES**
1. INTERCONNECT CABLE TO BE FIBER OPTIC HYBRID CABLE 6MM/24SM.
 2. REMOVE EXISTING INTERCONNECT CABLE FROM EXISTING CONDUIT TO REMAIN IN USE.



CABLE PLAN

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USER NAME =	DESIGNED - GR	REVISED -
	DRAWN - GR	REVISED -
PLOT SCALE =	CHECKED - CG	REVISED -
PLOT DATE =	DATE - 2/18/2013	REVISED -



**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL INTERCONNECT PLAN
CUMBERLAND AVENUE
BRYN MAWR AVENUE TO CTA ENTRANCE/I-90 RAMPS**

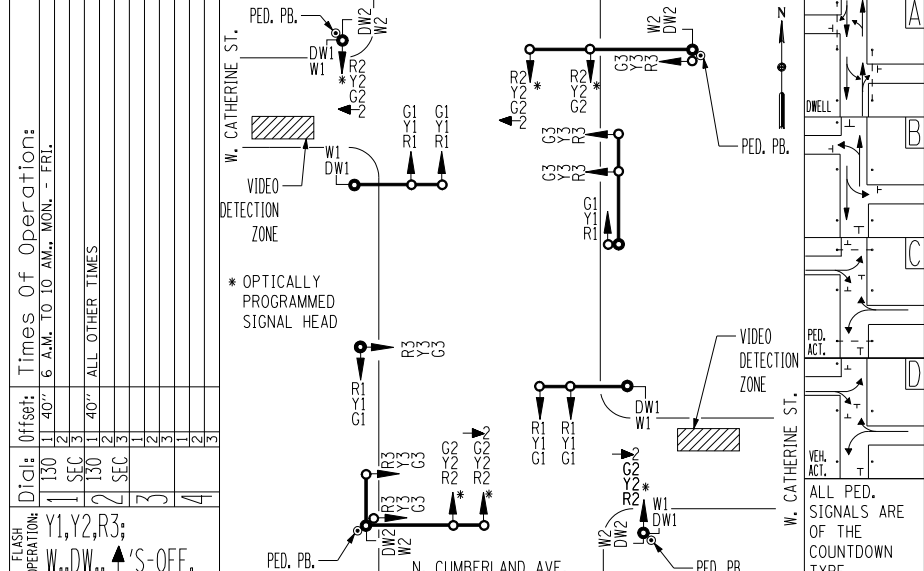
SCALE: 1" = 50' SHEET NO. OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	216
CONTRACT NO. 60J14				
ILLINOIS FED. AID PROJECT				

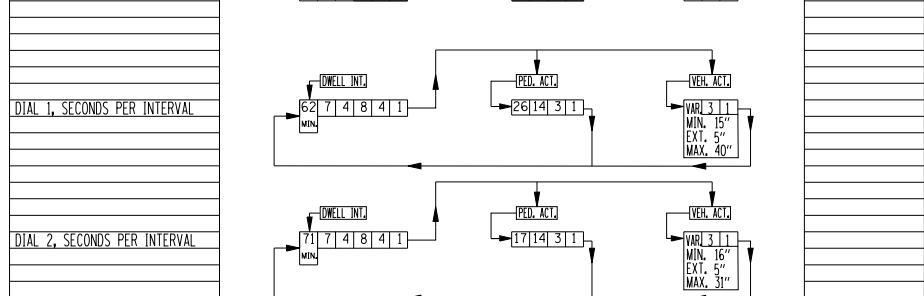
TS-57

DRAWN: G.R.
 DATE: 07-23-2012
 CHECKED: C.L.K.
 DATE: 07-30-2012

CITY OF CHICAGO
 DEPARTMENT OF TRANSPORTATION
 TRAFFIC SIGNAL TIMING SCHEDULE
 5400 N. / 8400 W.
 N. CUMBERLAND AVE. & W. CATHERINE ST.

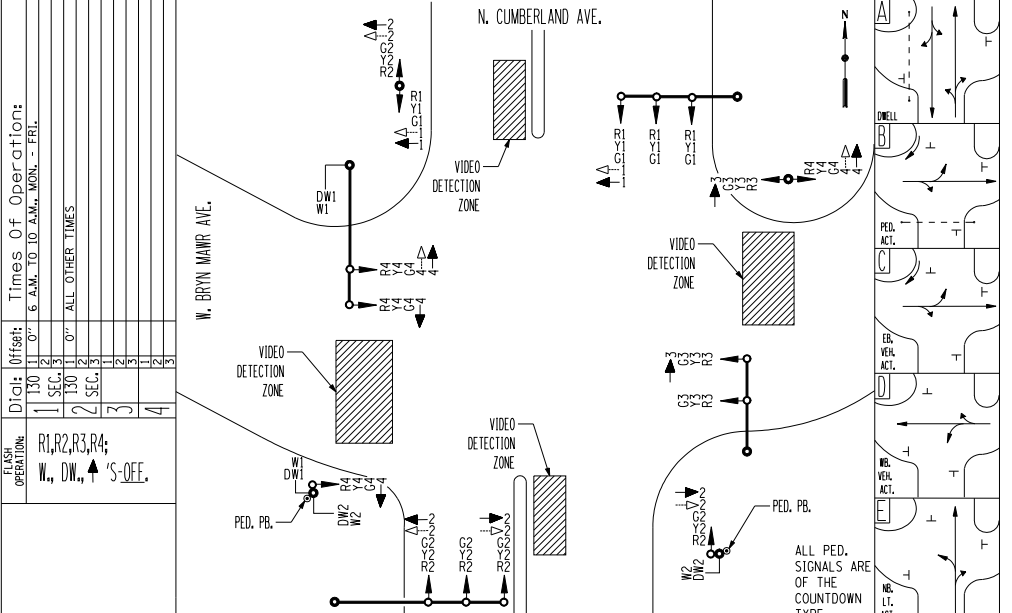


SIGNAL INDICATIONS:	PHASE:	INTERVAL:
CUMBERLAND AVE. (NB./SB. EXT.)	G1	
"	Y1	
"	R1	
CUMBERLAND AVE. (NB./SB. INT.)	G2	
"	Y2	
"	R2	
CATHERINE ST. (EB./WB.)	G3	
"	Y3	
"	R3	
WALK (NB./SB.)	W1	
DON'T WALK	DW1	
WALK (EB./WB.)	W2	
DON'T WALK	DW2	

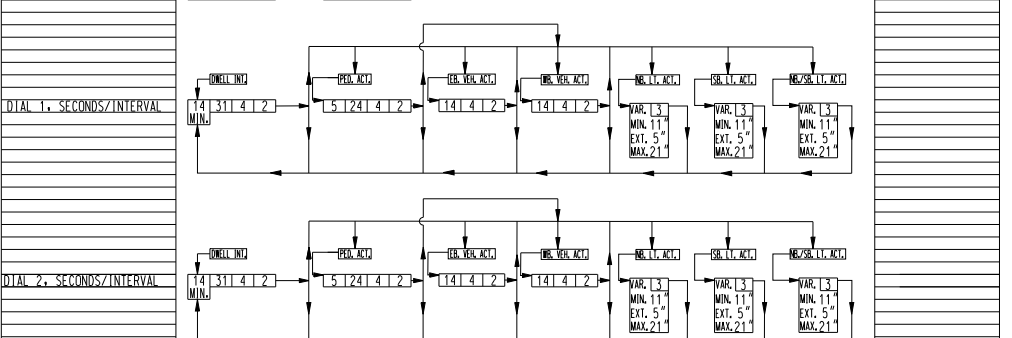


BoE1, Drwg. No. 23616

CITY OF CHICAGO
 DEPARTMENT OF TRANSPORTATION
 TRAFFIC SIGNAL TIMING SCHEDULE
 5600 N. / 8400 W.
 N. CUMBERLAND AVE. & W. BRYN MAWR AVE.



SIGNAL INDICATIONS:	PHASE:	INTERVAL:
CUMBERLAND AVE. (NB.)	G1	
"	Y1	
"	R1	
CUMBERLAND AVE. (SB.)	G2	
"	Y2	
"	R2	
BRYN MAWR AVE. (EB.)	G3	
"	Y3	
"	R3	
BRYN MAWR AVE. (WB.)	G4	
"	Y4	
"	R4	
WALK (W. XWALK)	W1	
DON'T WALK	DW1	
WALK (CS. XWALK)	W2	
DON'T WALK	DW2	



BoE1, Drwg. No. 22908

DATE	REVISION
SUPERSEDES DRAWING NO.: 23396 DATED: 10-14-1982	
PROPOSED TRAFFIC SIGNAL TIMING SCHEDULES	
CITY OF CHICAGO DEPARTMENT OF TRANSPORTATION DIVISION OF ELECTRICAL OPERATIONS	
DRAFTSMAN:	CHIEF DRAFTSMAN: ENGINEER: R. SWANSON
SUPERVISING ENGINEER: ELEC. DESIGN ENGR.	DWG. NO.
ENGINEER OF ELECTRICITY:	
GEN'L SUPT. OF ELECTRICITY:	
DEPUTY COMMISSIONER:	
SIZE:	SCALE: AS NOTED DATE:

USER NAME =	DESIGNED - GR	REVISED -
PLOT SCALE =	DRAWN - GR	REVISED -
PLOT DATE =	CHECKED - CG	REVISED -
	DATE - 12-10-2012	REVISED -



STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

PROPOSED TRAFFIC SIGNAL TIMING SCHEDULES
 SCALE: AS NOTED SHEET NO. OF SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	217
CONTRACT NO. 60J14				
ILLINOIS FED. AID PROJECT				

TS-58

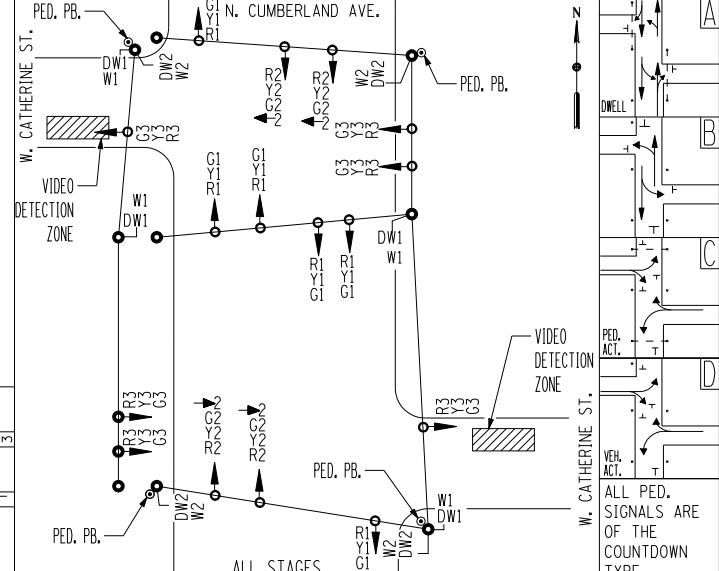
DRAWN: G.R.
 DATE: 07-23-2012
 CHECKED: C.L.K.
 DATE: 07-30-2012

CITY OF CHICAGO
 DEPARTMENT OF TRANSPORTATION
 TEMPORARY TRAFFIC SIGNAL TIMING SCHEDULE
 5400 N. / 8400 W.
 N. CUMBERLAND AVE. & W. CATHERINE ST.

Dial: Offset: Times Of Operation:

130	11	40"	6 A.M. TO 10 A.M., MON. - FRI.
130	2	40"	ALL OTHER TIMES
130	3	40"	ALL OTHER TIMES
130	4	40"	ALL OTHER TIMES

Flash Operation: Y1, Y2, R3; W, DW, ↑'S-OFF.



SIGNAL PHASE: INTERVAL:

CUMBERLAND AVE. (NB./SB. EXT.)	G1
"	Y1
"	R1
CUMBERLAND AVE. (NB./SB. INT.)	G2
"	Y2
"	R2
CATHERINE ST. (EB./WB.)	G3
"	Y3
"	R3
WALK (NB./SB.)	W1
DON'T WALK	DW1
WALK (EB./WB.)	W2
DON'T WALK	DW2

ALL STAGES

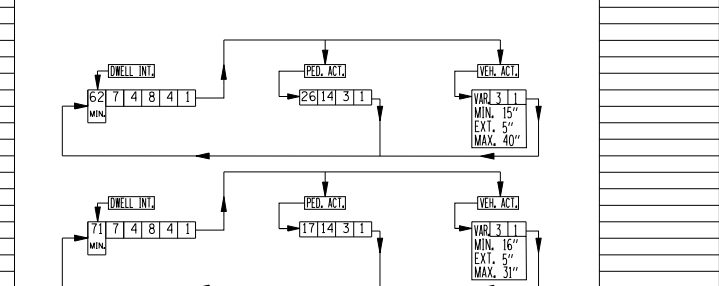
DATE	
SENT:	
INSTALLED:	

DIAL 1, SECONDS PER INTERVAL

MIN	5	2	7	4	8	4	1
-----	---	---	---	---	---	---	---

DIAL 2, SECONDS PER INTERVAL

MIN	7	1	4	8	4	1
-----	---	---	---	---	---	---



BoEl. Drwg. No. 23616

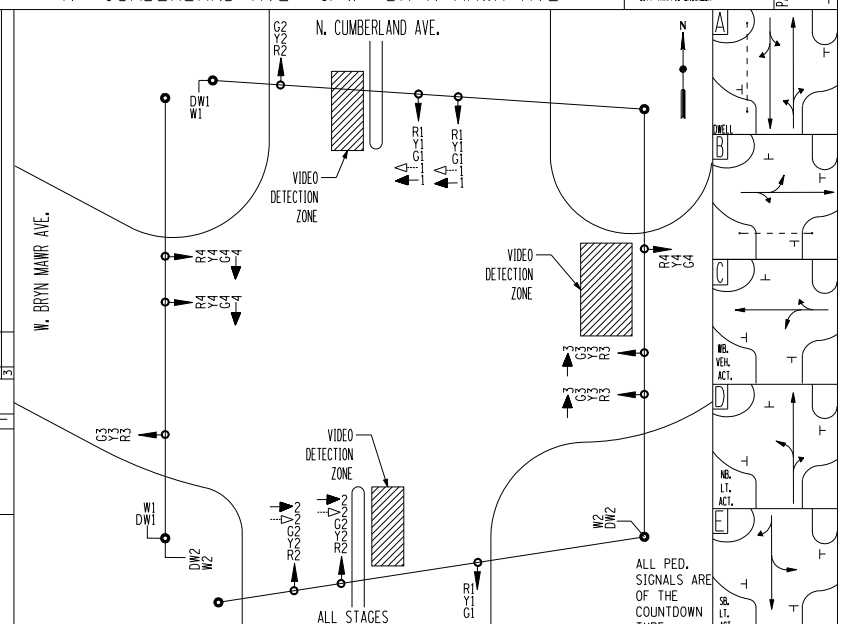
DRAWN: G.R.
 DATE: 07-23-2012
 CHECKED: C.L.K.
 DATE: 07-30-2012

CITY OF CHICAGO
 DEPARTMENT OF TRANSPORTATION
 TEMPORARY TRAFFIC SIGNAL TIMING SCHEDULE
 5600 N. / 8400 W.
 N. CUMBERLAND AVE. & W. BRYN MAWR AVE.

Dial: Offset: Times Of Operation:

130	1	40"	6 A.M. TO 10 A.M., MON. - FRI.
130	2	40"	ALL OTHER TIMES
130	3	40"	ALL OTHER TIMES
130	4	40"	ALL OTHER TIMES

Flash Operation: R1, R2, R3, R4; W, DW, ↑'S-OFF.



SIGNAL PHASE: INTERVAL:

CUMBERLAND AVE. (NB.)	G1
"	Y1
"	R1
CUMBERLAND AVE. (SB.)	G2
"	Y2
"	R2
BRYN MAWR AVE. (EB.)	G3
"	Y3
"	R3
BRYN MAWR AVE. (WB.)	G4
"	Y4
"	R4
WALK (N. XWALK)	W1
DON'T WALK	DW1
WALK (S. XWALK)	W2
DON'T WALK	DW2

ALL STAGES

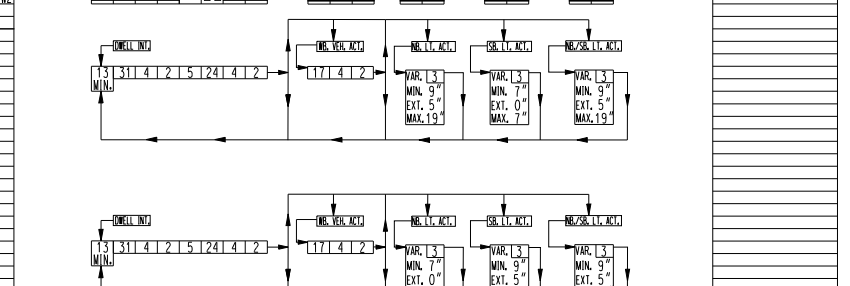
DATE	
SENT:	
INSTALLED:	

DIAL 1, SECONDS/INTERVAL

MIN	13	3	1	4	1	2	5	2	4	1	2
-----	----	---	---	---	---	---	---	---	---	---	---

DIAL 2, SECONDS/INTERVAL

MIN	13	3	1	4	1	2	5	2	4	1	2
-----	----	---	---	---	---	---	---	---	---	---	---



BoEl. Drwg. No. 22908

DATE	REVISION
SUPERSEDES DRAWING NO.: 23396 DATED: 10-14-1982	
TEMPORARY TRAFFIC SIGNAL TIMING SCHEDULES	
CITY OF CHICAGO DEPARTMENT OF TRANSPORTATION DIVISION OF ELECTRICAL OPERATIONS	
DRAFTSMAN:	ENGINEER: R. SWANSON
SUPERVISING ENGINEER: ELEC. DESIGN ENGR.	DWG. NO.
ENGINEER OF ELECTRICITY:	
GEN'L SUPT. OF ELECTRICITY:	
DEPUTY COMMISSIONER:	

USER NAME =	DESIGNED - GR	REVISED -
PLOT SCALE =	DRAWN - GR	REVISED -
PLOT DATE =	CHECKED - CG	REVISED -
	DATE - 12-10-2012	REVISED -

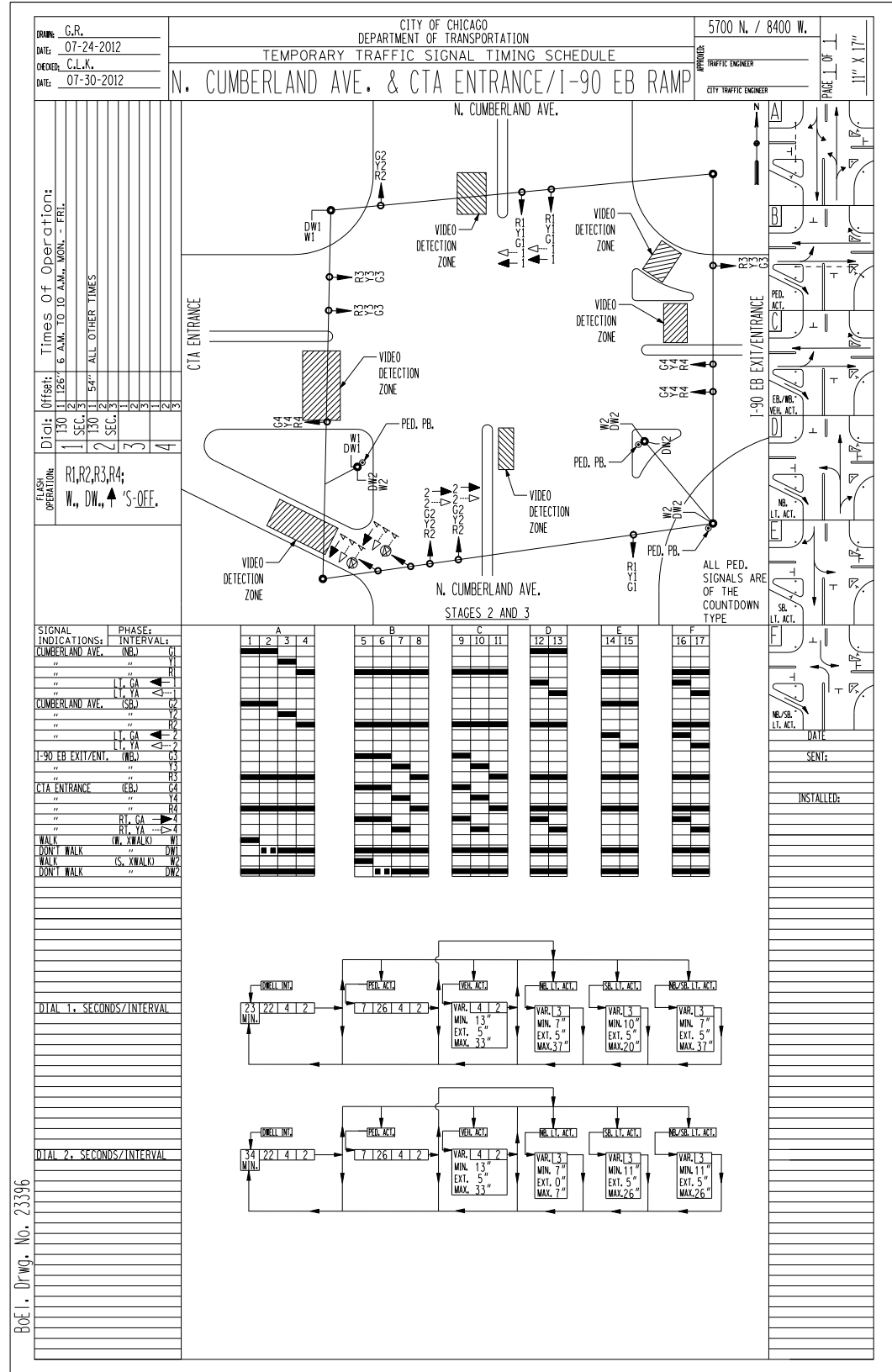
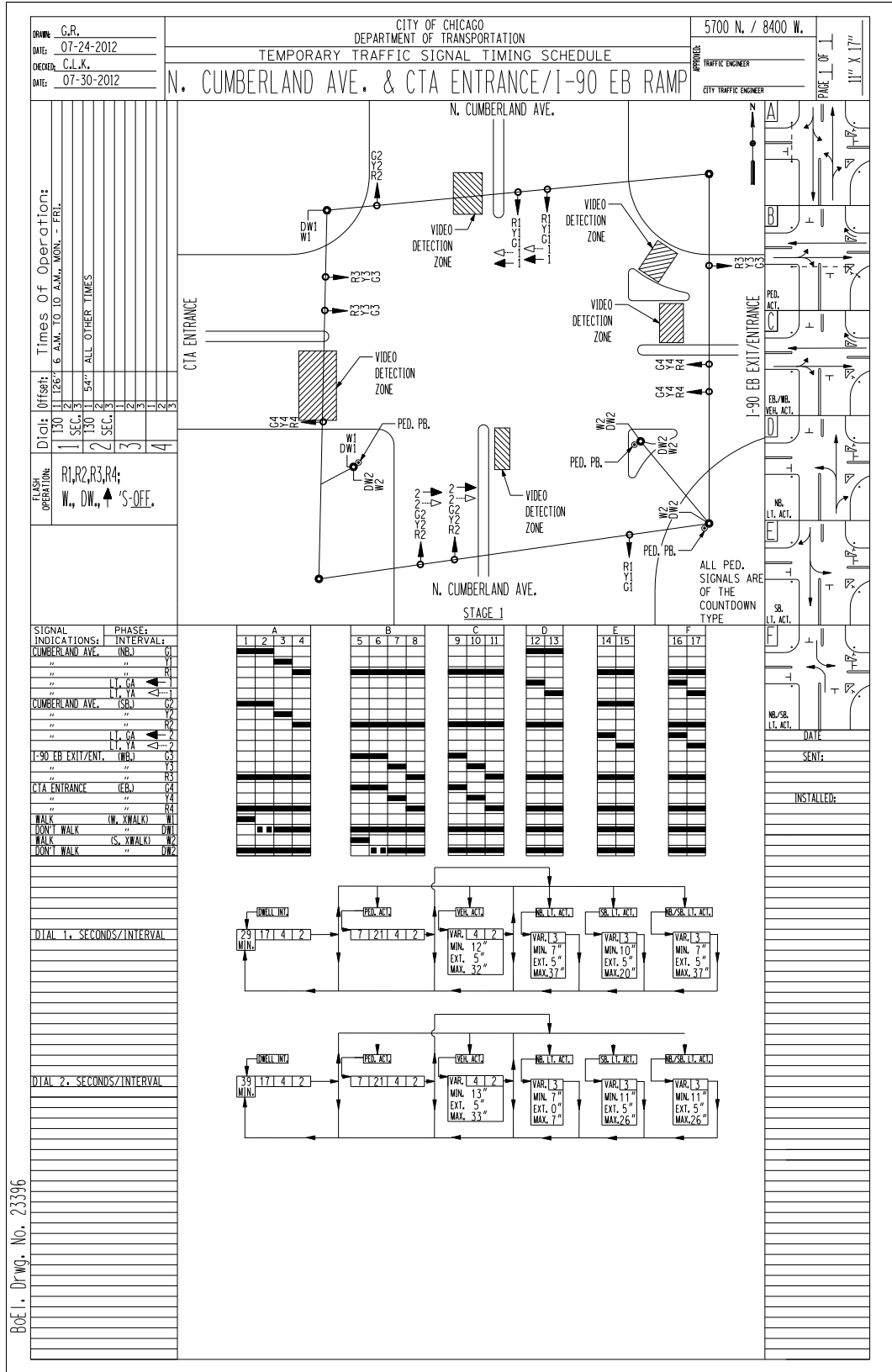


STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL TIMING SCHEDULES
 SCALE: AS NOTED SHEET NO. OF SHEETS STA. TO STA.

TS-60

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	219
CONTRACT NO. 60J14				
ILLINOIS FED. AID PROJECT				



BoE I. Drawg. No. 23396

BoE I. Drawg. No. 23396

A	DATE	REVISION
SUPERSEDES DRAWING NO.: 23396 DATED: 10-14-1982		
TEMPORARY TRAFFIC SIGNAL TIMING SCHEDULES		
CITY OF CHICAGO DEPARTMENT OF TRANSPORTATION DIVISION OF ELECTRICAL OPERATIONS		
DRAFTSMAN:	CHIEF DRAFTSMAN:	ENGINEER:
SUPERVISING ENGINEER:	ELEC. DESIGN ENGR.	R. SWANSON
ENGINEER OF ELECTRICITY:	DWG. NO.	
GEN'L SUPT. OF ELECTRICITY:		
DEPUTY COMMISSIONER:		

USER NAME =	DESIGNED - GR	REVISED -
PLOT SCALE =	CHECKED - CG	REVISED -
PLOT DATE =	DATE - 12-10-2012	REVISED -



**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

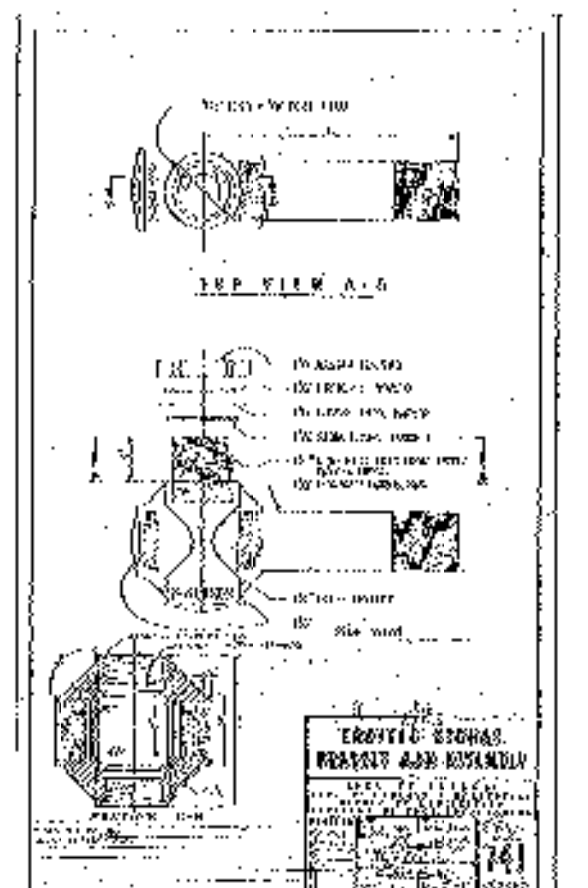
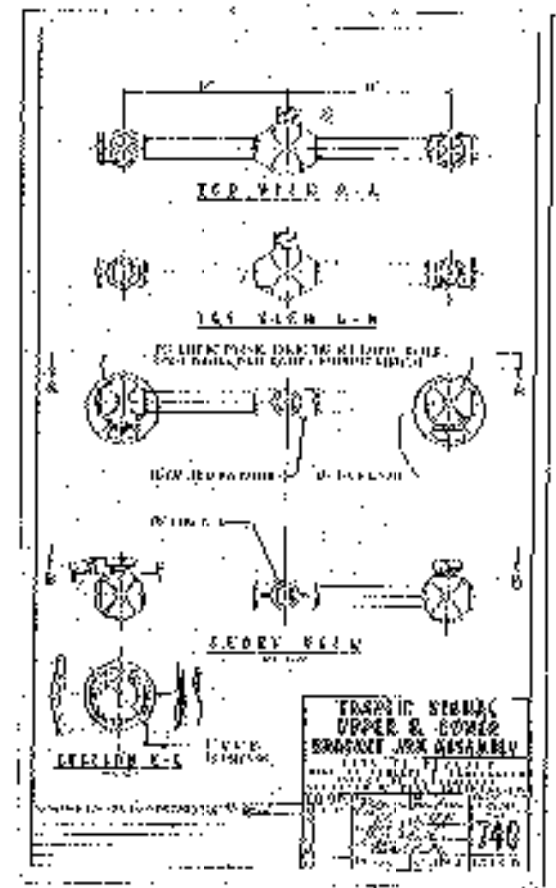
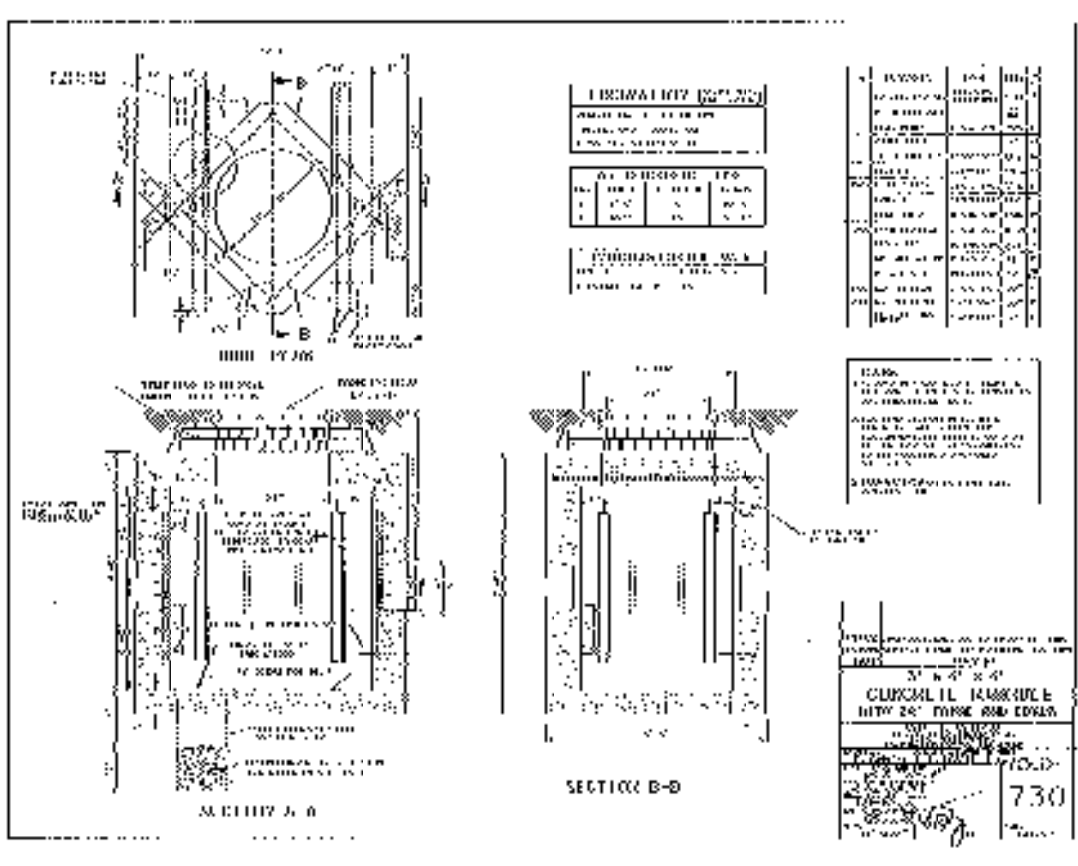
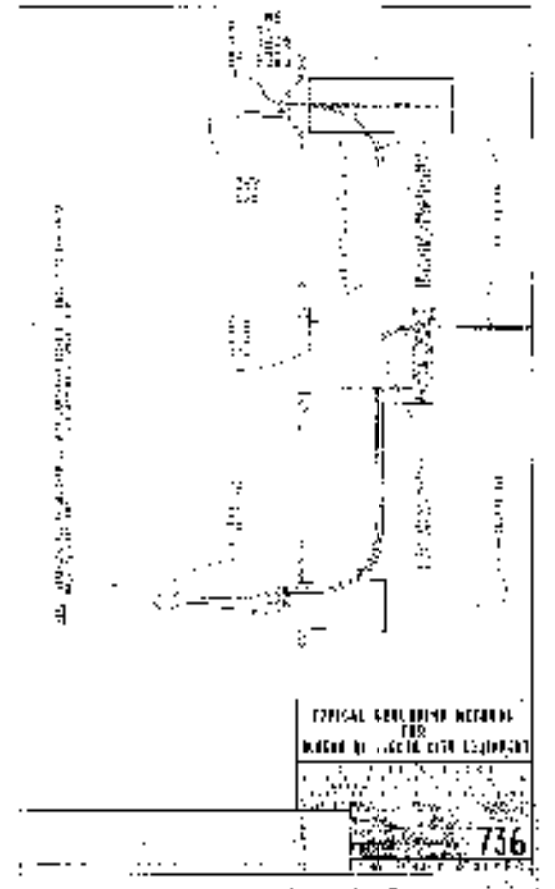
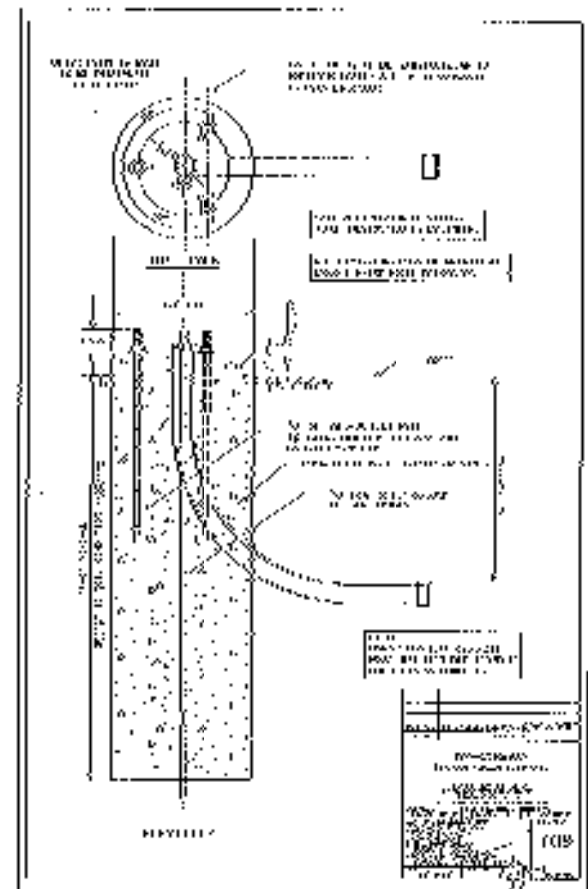
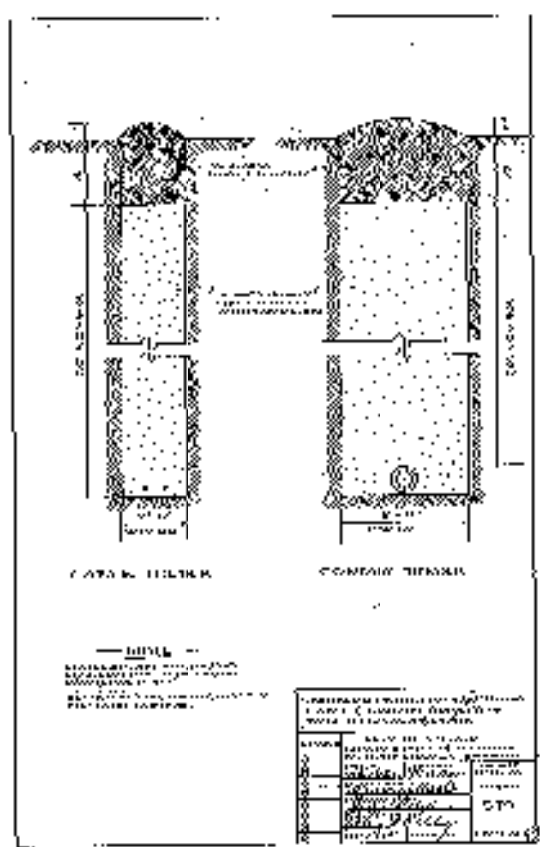
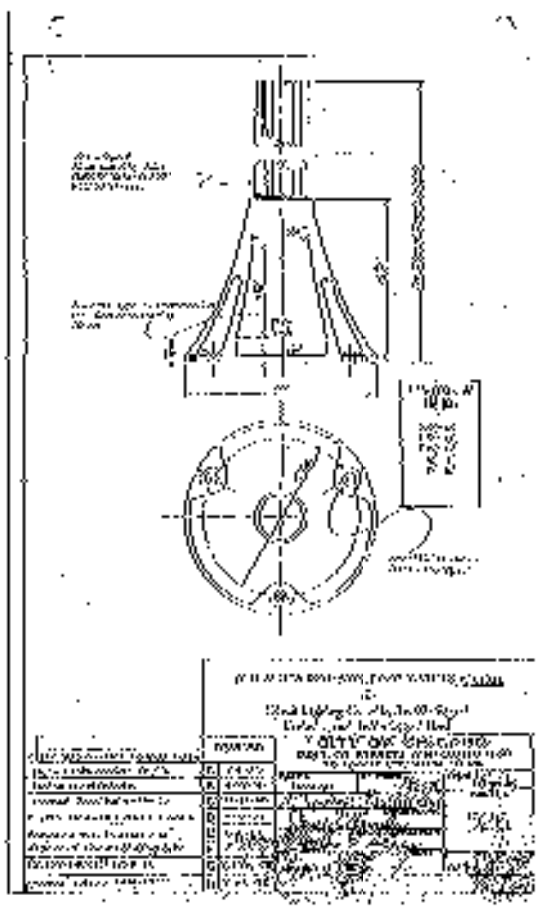
TEMPORARY TRAFFIC SIGNAL TIMING SCHEDULES

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

SIZE:	SCALE: AS NOTED	DATE:
F.A.U. RTE.	SECTION	COUNTY
2746	1616B	COOK
TOTAL SHEETS 404 SHEET NO. 220		
CONTRACT NO. 60J14		
ILLINOIS FED. AID PROJECT		

TS-61

2/18/2013 2:00:31 PM ...sheet\DI60J14-sht-ts_54.dgn



USER NAME =	DESIGNED - GR	REVISED -
PLOT SCALE =	DRAWN - GR	REVISED -
PLOT DATE =	CHECKED - CG	REVISED -
	DATE - 2/18/2013	REVISED -

EJM EJM ENGINEERING, INC.
411 South Wells Street Suite 1000
Chicago, Illinois 60607

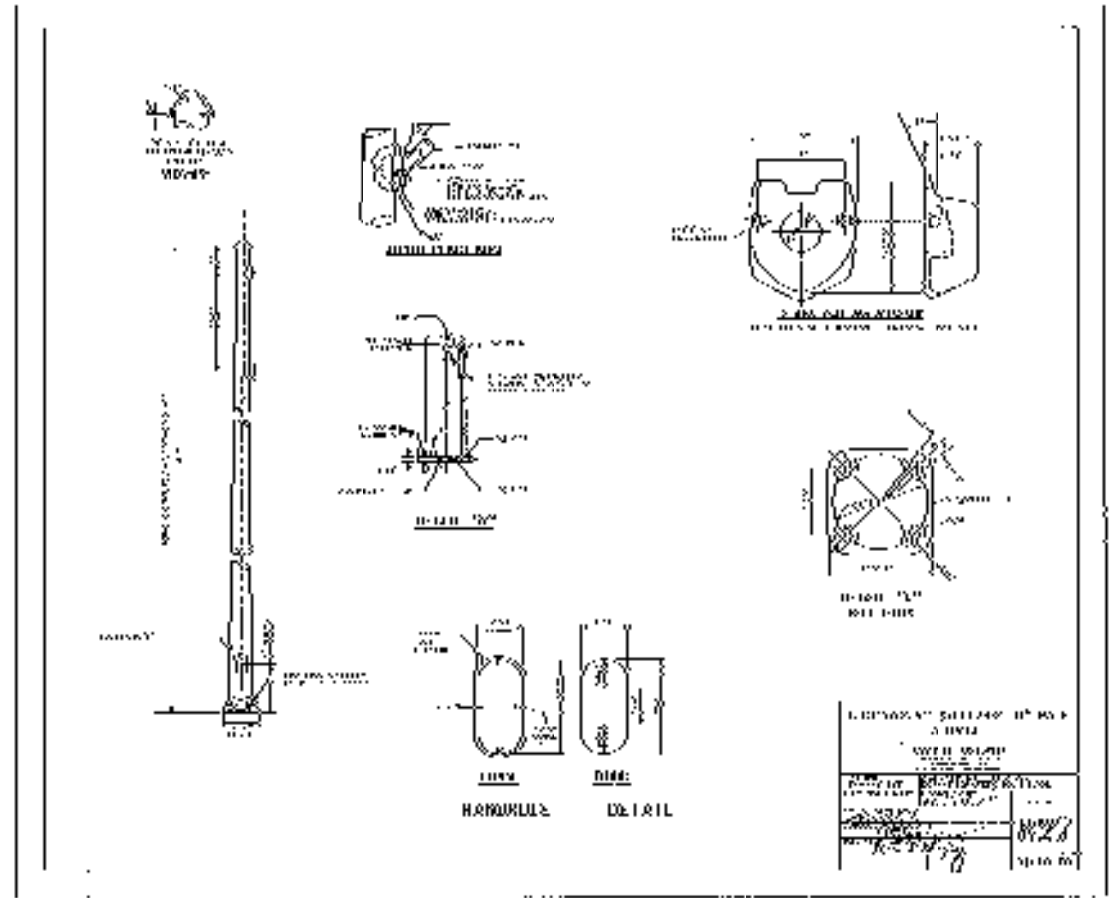
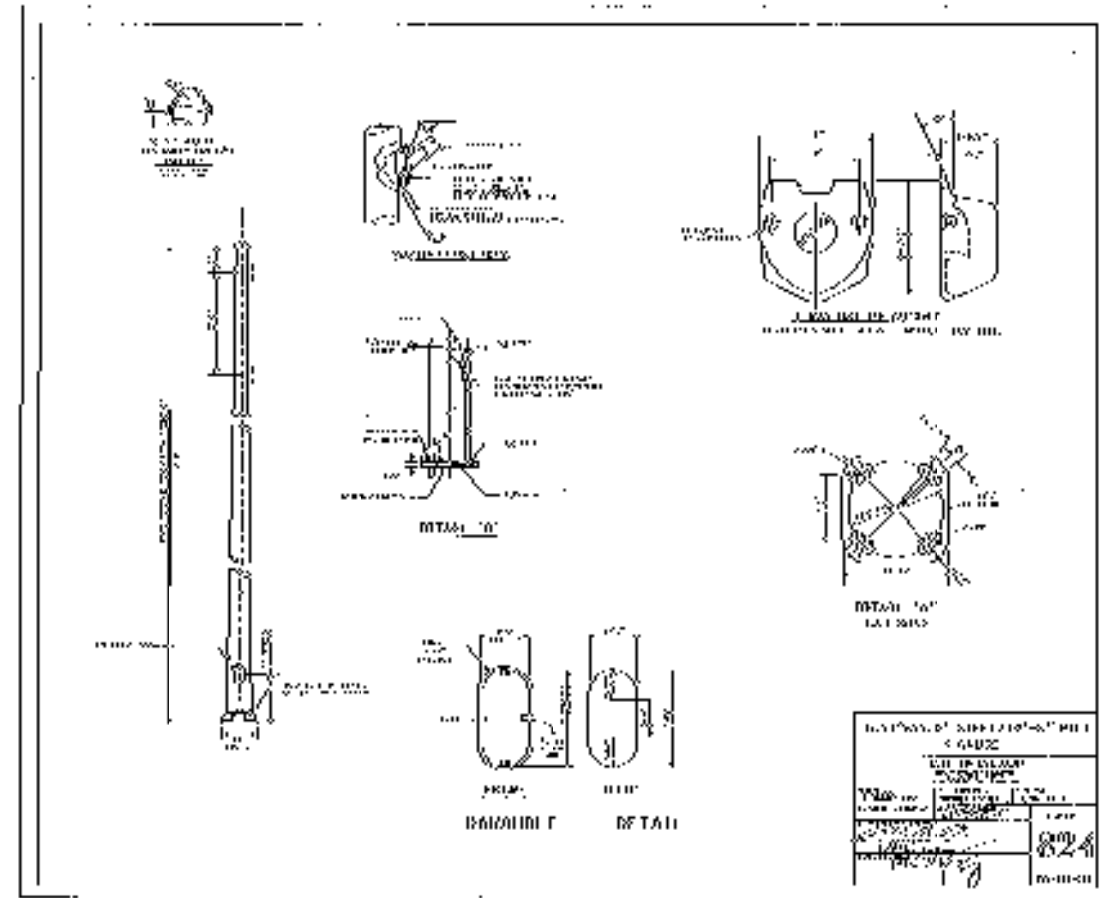
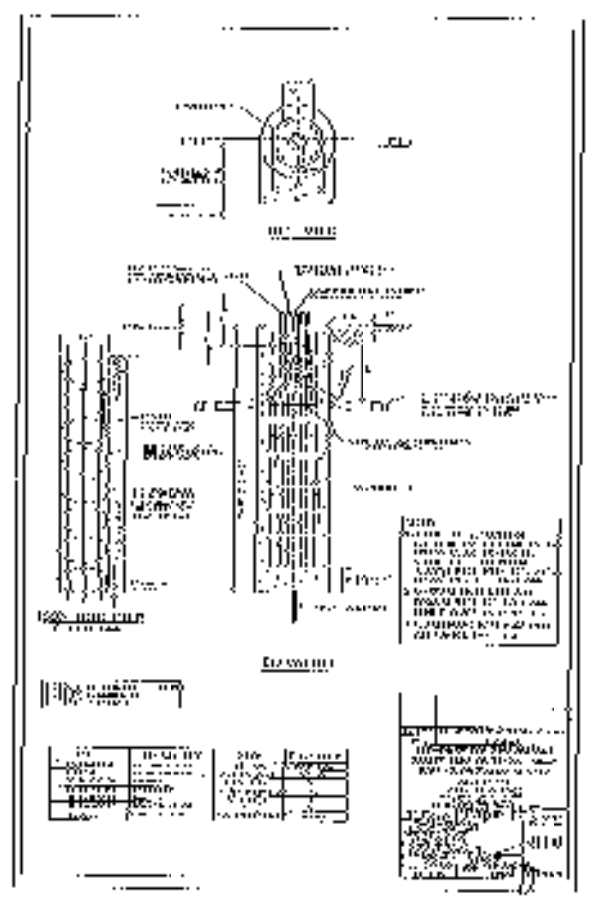
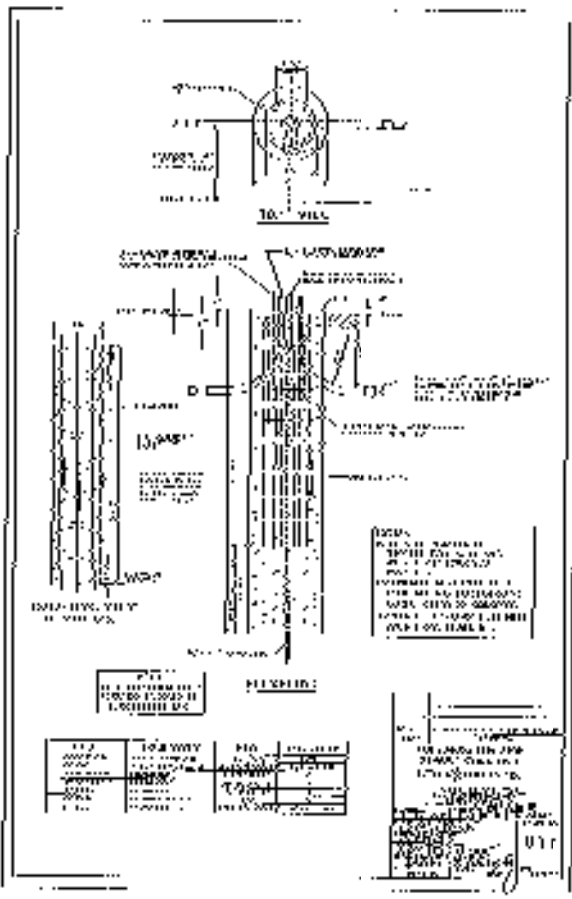
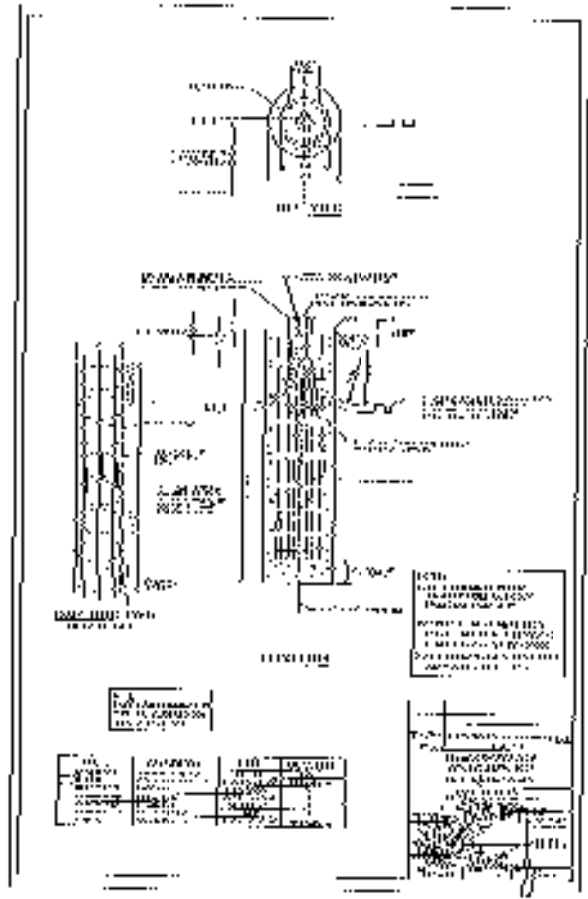
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CDOT STANDARD CODE FOR
TRAFFIC SIGNALS/STREET LIGHTING

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	221
CONTRACT NO. 60J14				
ILLINOIS FED. AID PROJECT				

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2/18/2013 2:00:57 PM ...sheet\DI60J14-sht-ts_56.dgn



USER NAME =	DESIGNED - GR	REVISED -
PLOT SCALE =	DRAWN - GR	REVISED -
PLOT DATE =	CHECKED - CG	REVISED -
	DATE - 2/18/2013	REVISED -



**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

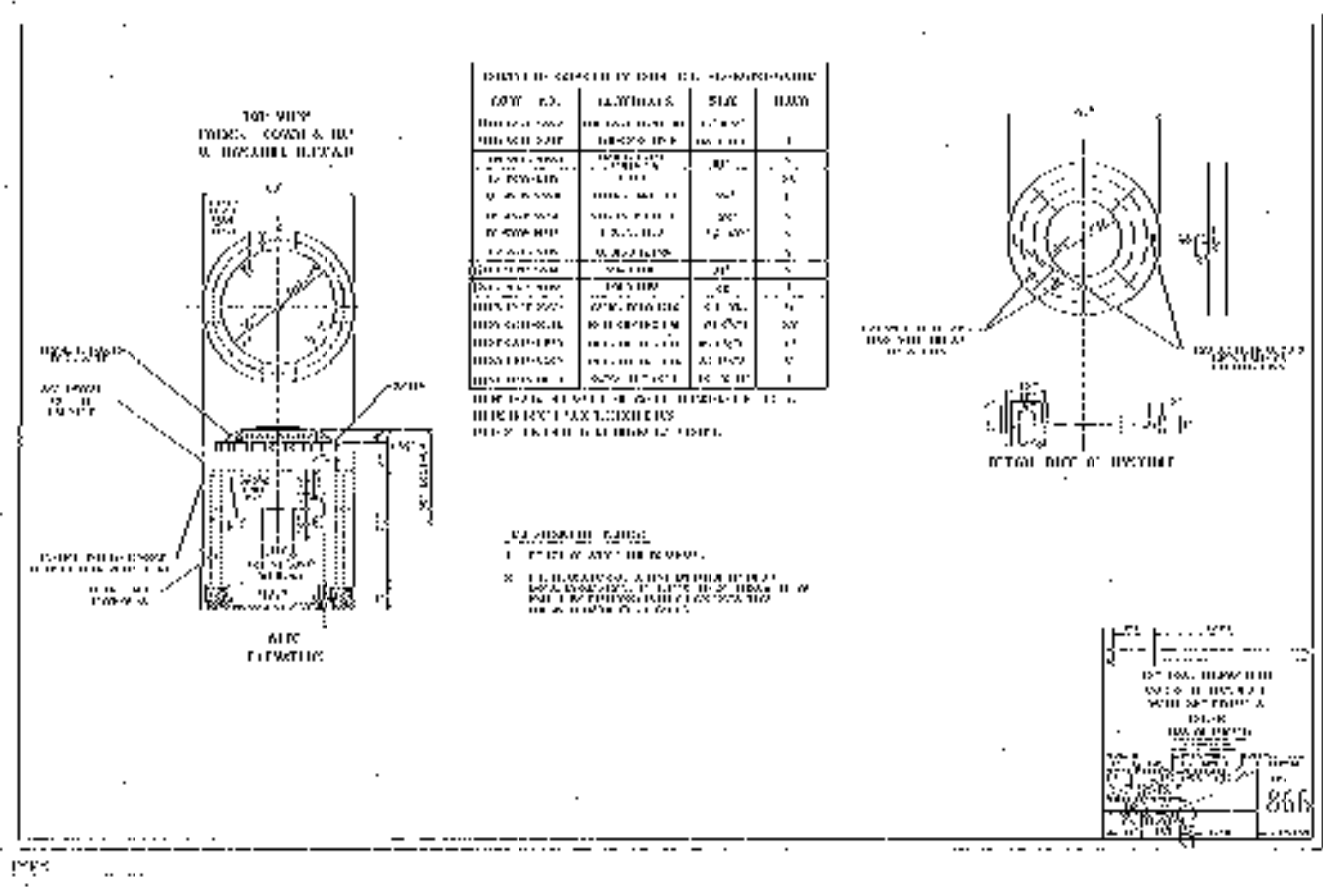
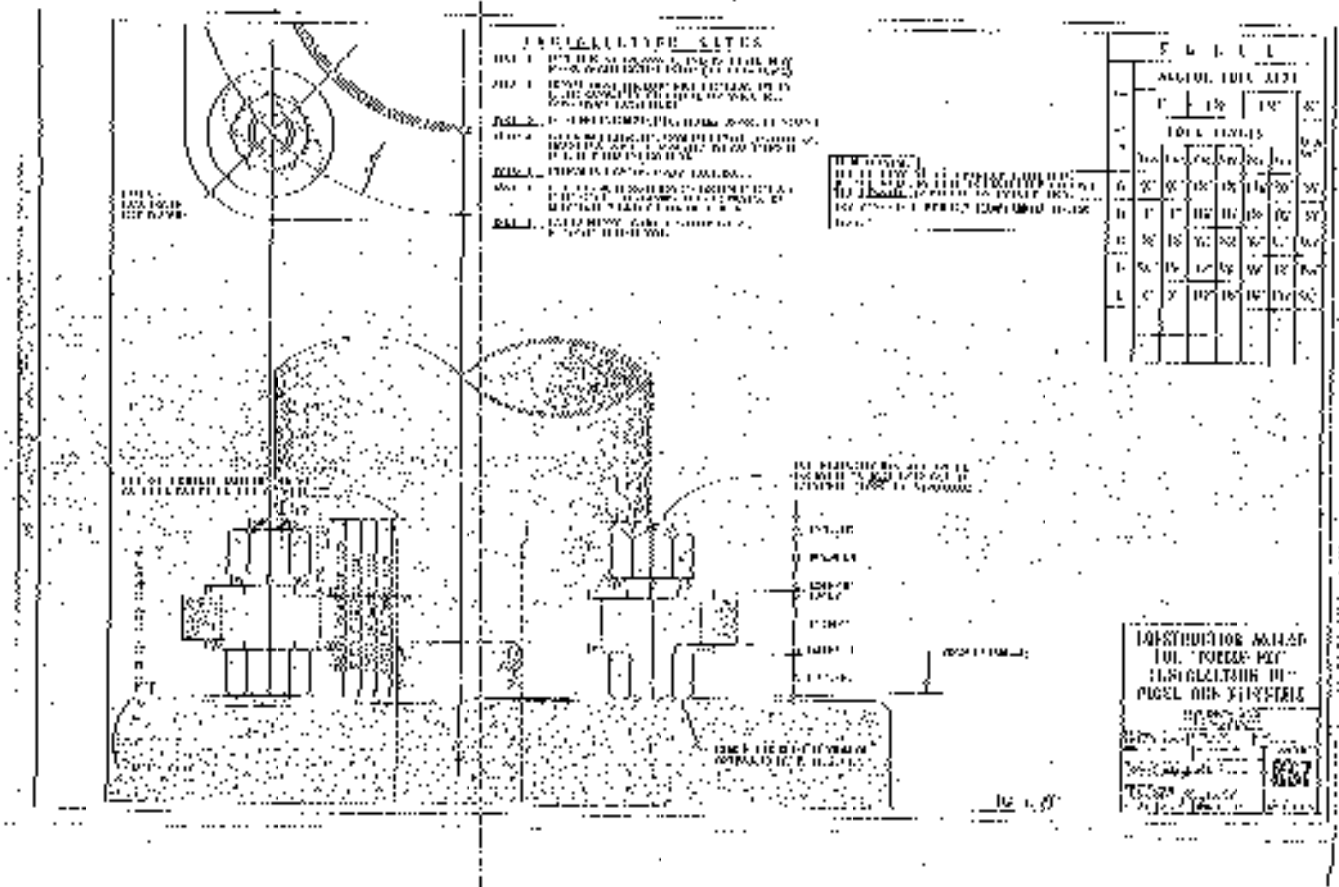
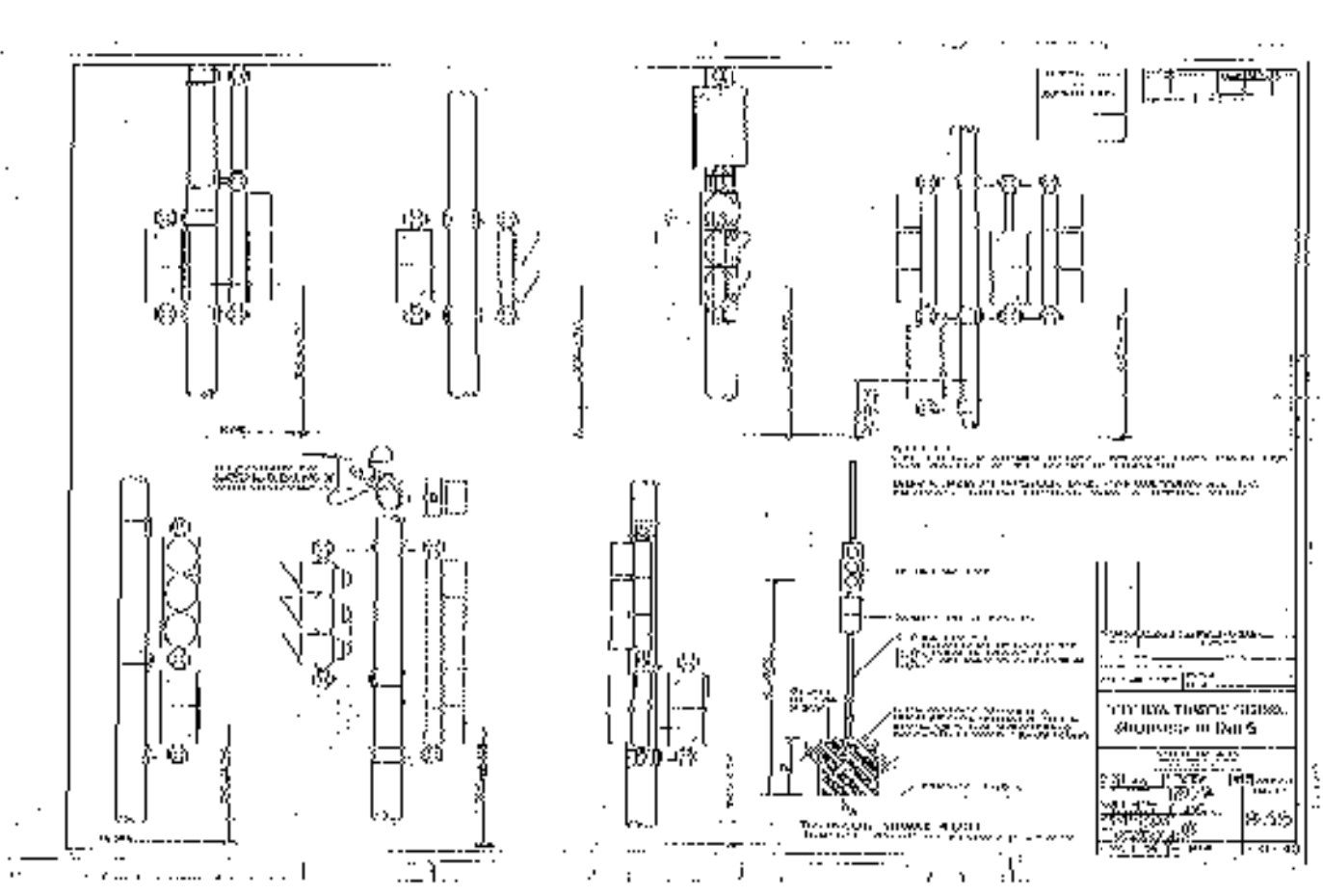
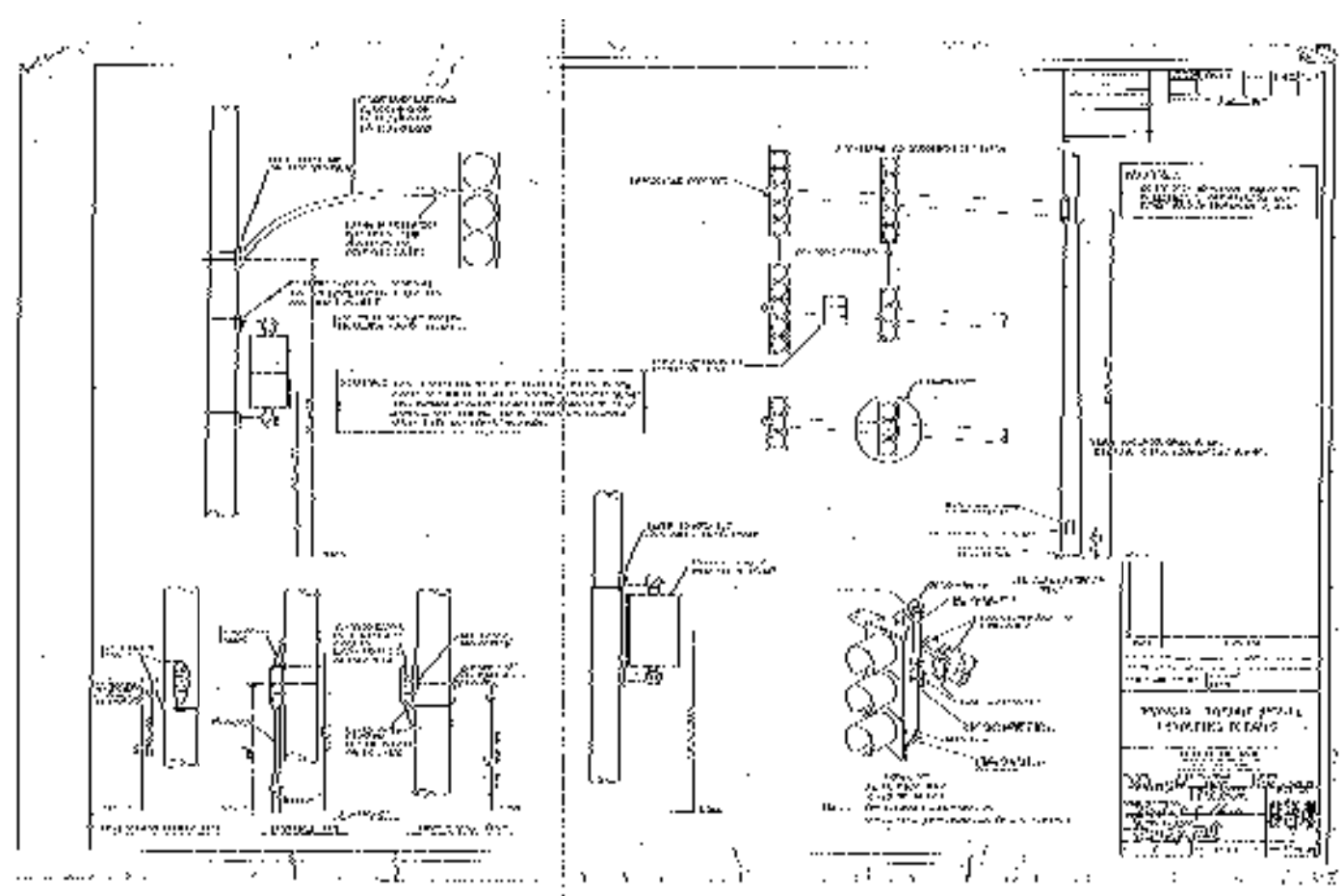
**CDOT STANDARD CODE FOR
TRAFFIC SIGNALS/STREET LIGHTING**

SCALE: NONE	SHEET NO. OF SHEETS	STA. TO STA.
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F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	223
CONTRACT NO. 60J14				
ILLINOIS FED. AID PROJECT				

TS-64

2/18/2013 2:01:08 PM ...sheet\160J14-sht-ts_57.dgn



USER NAME =	DESIGNED - GR	REVISED -
PLOT SCALE =	DRAWN - GR	REVISED -
PLOT DATE =	CHECKED - CG	REVISED -
	DATE - 2/18/2013	REVISED -

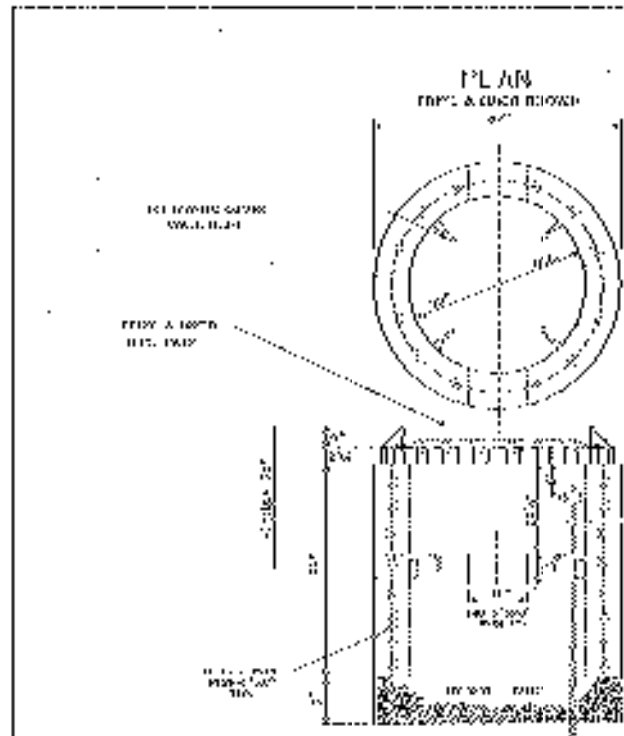


**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CDOT STANDARD CODE FOR
TRAFFIC SIGNALS/STREET LIGHTING**

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	224
CONTRACT NO. 60J14				
ILLINOIS FED. AID PROJECT				

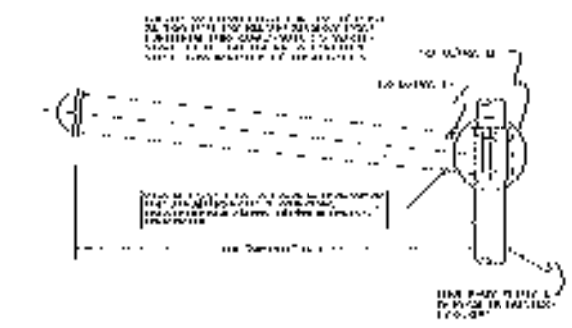
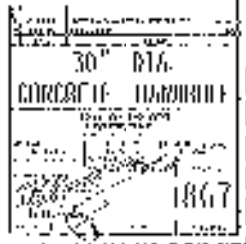


CIRCULAR FOUNDATION CODE 104-05-8690-001007

CODE	DATE	ISSUE	SIZE	NO.
104-05-8690-001007	05/18/13	ISSUE	30" DIA.	1
104-05-8690-001007	05/18/13	ISSUE	30" DIA.	2
104-05-8690-001007	05/18/13	ISSUE	30" DIA.	3
104-05-8690-001007	05/18/13	ISSUE	30" DIA.	4
104-05-8690-001007	05/18/13	ISSUE	30" DIA.	5
104-05-8690-001007	05/18/13	ISSUE	30" DIA.	6
104-05-8690-001007	05/18/13	ISSUE	30" DIA.	7
104-05-8690-001007	05/18/13	ISSUE	30" DIA.	8
104-05-8690-001007	05/18/13	ISSUE	30" DIA.	9
104-05-8690-001007	05/18/13	ISSUE	30" DIA.	10

1. THE FOUNDATION SHALL BE CONCRETE ON GRADE.
 2. THE FOUNDATION SHALL BE 30" DIA. AND 18" DEEP.

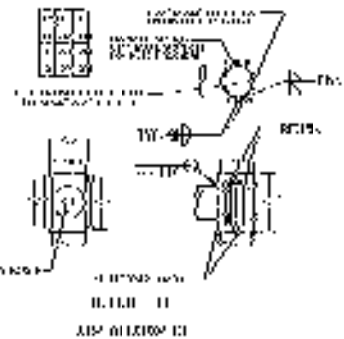
- NOTES:**
1. THE FOUNDATION SHALL BE CONCRETE ON GRADE.
 2. THE FOUNDATION SHALL BE 30" DIA. AND 18" DEEP.



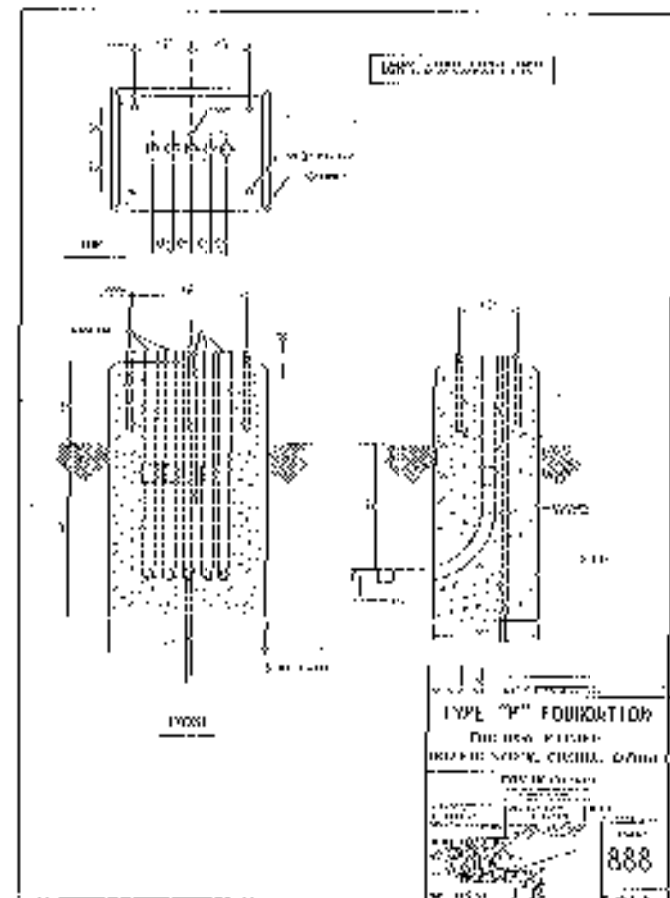
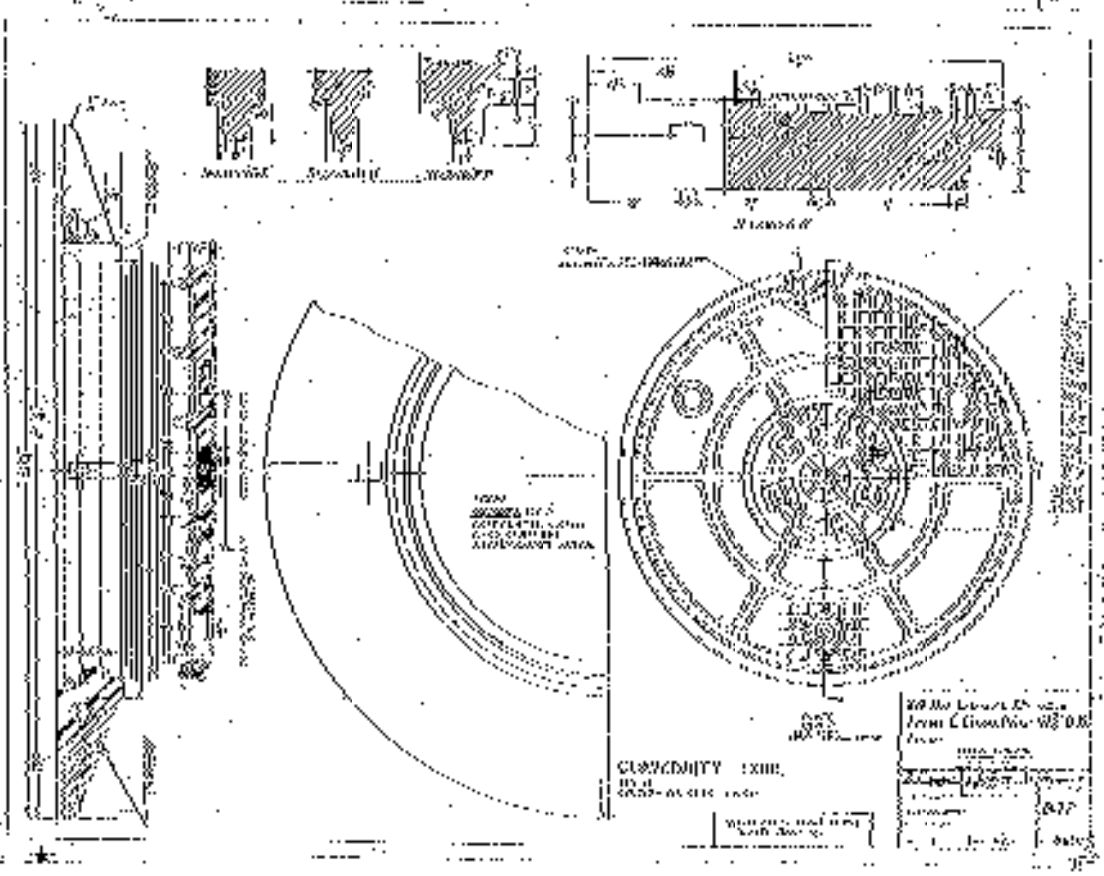
ANY DATE

DATE	TIME	TEMP	WIND	MOON	PHASE	STATION	LOCATION
05/18/13	10:00	75	10	0	NEW	1616B	COOK
05/18/13	11:00	75	10	0	NEW	1616B	COOK
05/18/13	12:00	75	10	0	NEW	1616B	COOK
05/18/13	13:00	75	10	0	NEW	1616B	COOK
05/18/13	14:00	75	10	0	NEW	1616B	COOK
05/18/13	15:00	75	10	0	NEW	1616B	COOK
05/18/13	16:00	75	10	0	NEW	1616B	COOK
05/18/13	17:00	75	10	0	NEW	1616B	COOK
05/18/13	18:00	75	10	0	NEW	1616B	COOK
05/18/13	19:00	75	10	0	NEW	1616B	COOK
05/18/13	20:00	75	10	0	NEW	1616B	COOK
05/18/13	21:00	75	10	0	NEW	1616B	COOK
05/18/13	22:00	75	10	0	NEW	1616B	COOK
05/18/13	23:00	75	10	0	NEW	1616B	COOK

- NOTES:**
1. THE FOUNDATION SHALL BE CONCRETE ON GRADE.
 2. THE FOUNDATION SHALL BE 30" DIA. AND 18" DEEP.



DATE	TIME	TEMP	WIND	MOON	PHASE	STATION	LOCATION
05/18/13	10:00	75	10	0	NEW	1616B	COOK
05/18/13	11:00	75	10	0	NEW	1616B	COOK
05/18/13	12:00	75	10	0	NEW	1616B	COOK
05/18/13	13:00	75	10	0	NEW	1616B	COOK
05/18/13	14:00	75	10	0	NEW	1616B	COOK
05/18/13	15:00	75	10	0	NEW	1616B	COOK
05/18/13	16:00	75	10	0	NEW	1616B	COOK
05/18/13	17:00	75	10	0	NEW	1616B	COOK
05/18/13	18:00	75	10	0	NEW	1616B	COOK
05/18/13	19:00	75	10	0	NEW	1616B	COOK
05/18/13	20:00	75	10	0	NEW	1616B	COOK
05/18/13	21:00	75	10	0	NEW	1616B	COOK
05/18/13	22:00	75	10	0	NEW	1616B	COOK
05/18/13	23:00	75	10	0	NEW	1616B	COOK



2/18/2013 2:01:18 PM ...sheet\DI60J14-sht-ts_58.dgn

USER NAME	DESIGNED	GR	REVISED
	DRAWN	GR	REVISED
	CHECKED	CG	REVISED
	DATE	2/18/2013	REVISED

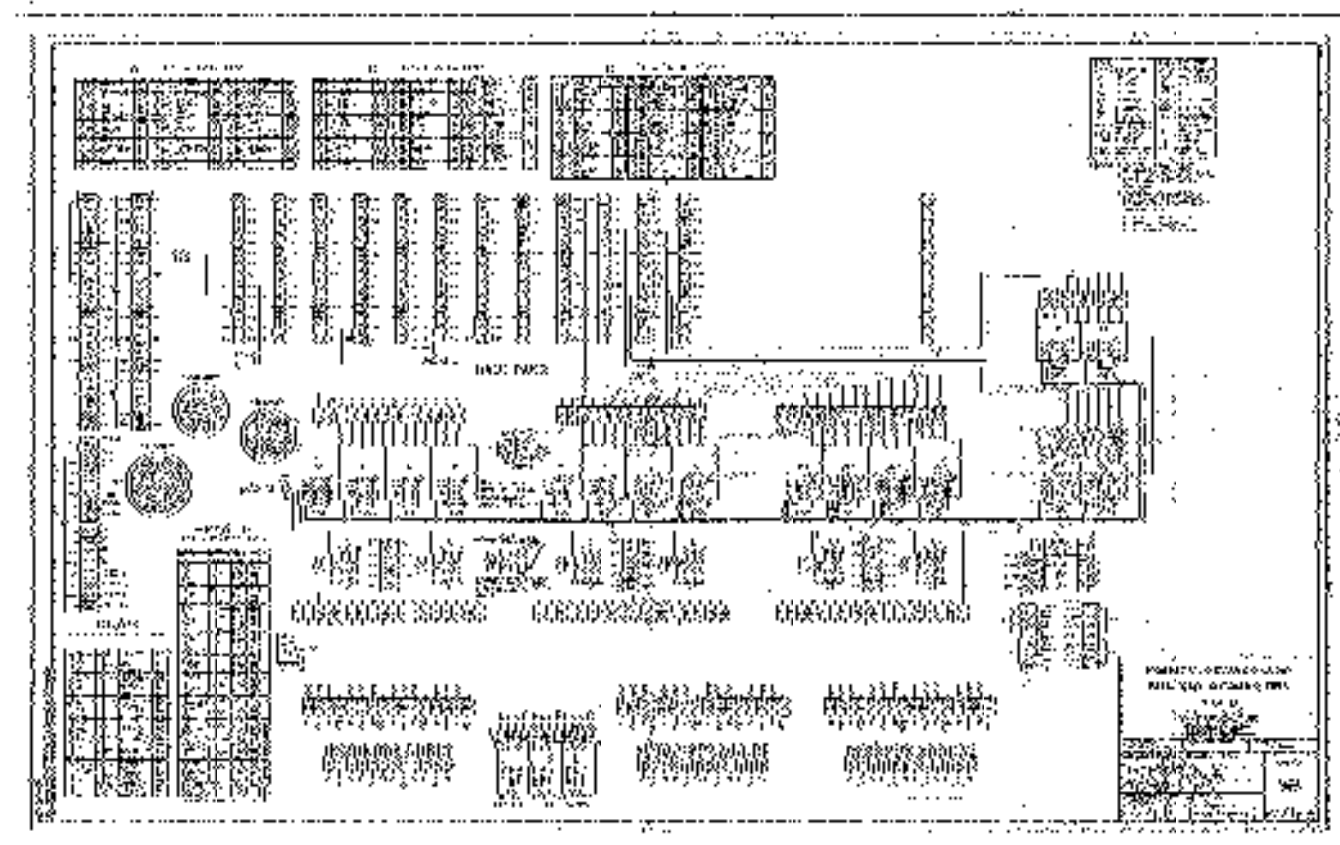
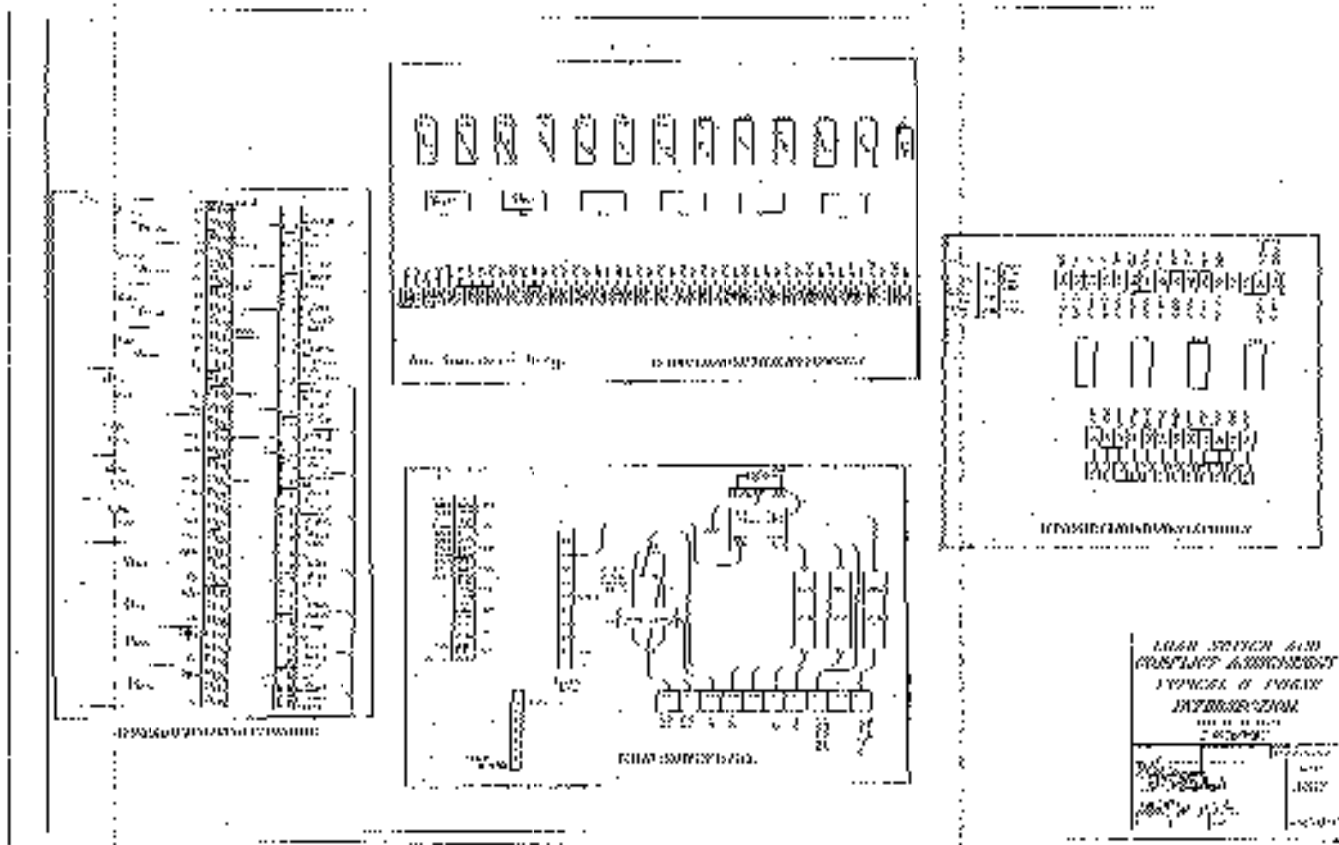
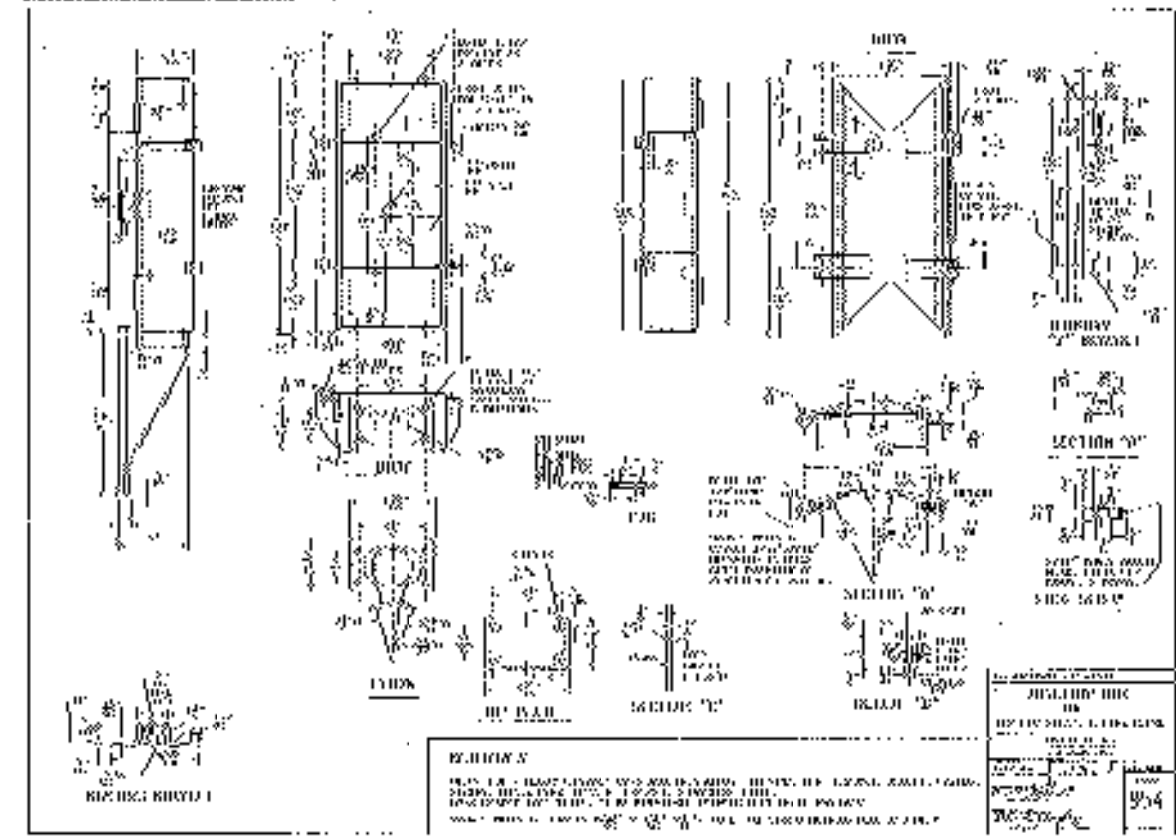
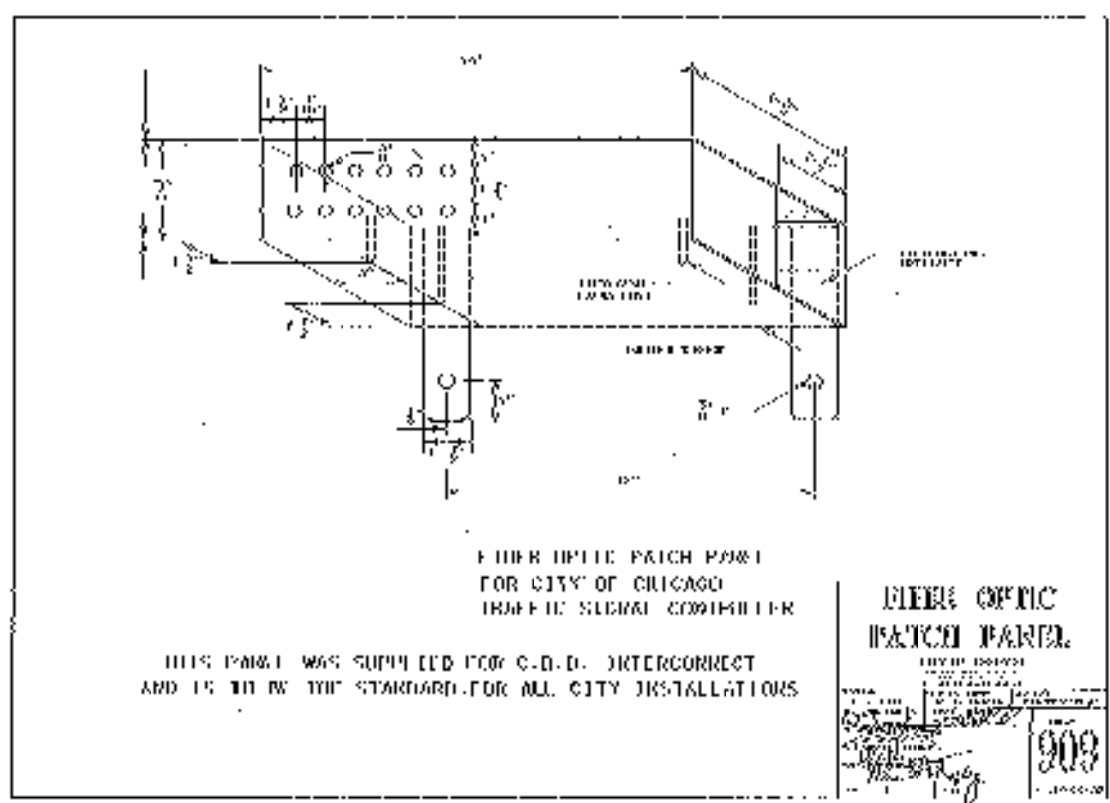


STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

CDOT STANDARD CODE FOR TRAFFIC SIGNALS/STREET LIGHTING

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	225
CONTRACT NO. 60J14				
ILLINOIS FED. AID PROJECT				

TS-66



2/18/2013 2:01:26 PM ...sheet\DI60J14-sht-ts_59.dgn

USER NAME =	DESIGNED - GR	REVISED -
PLOT SCALE =	DRAWN - GR	REVISED -
PLOT DATE =	CHECKED - CG	REVISED -
	DATE - 2/18/2013	REVISED -



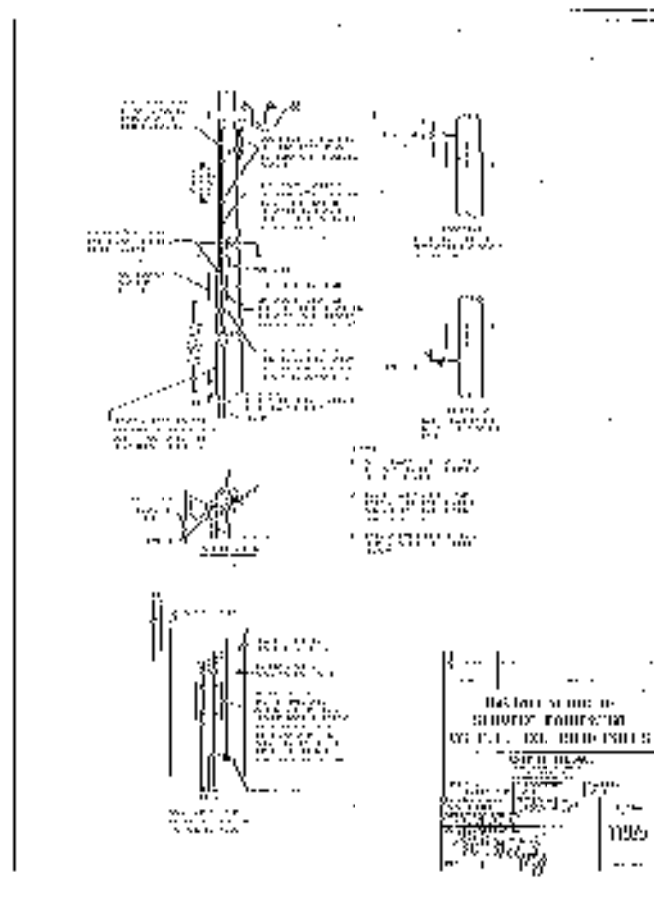
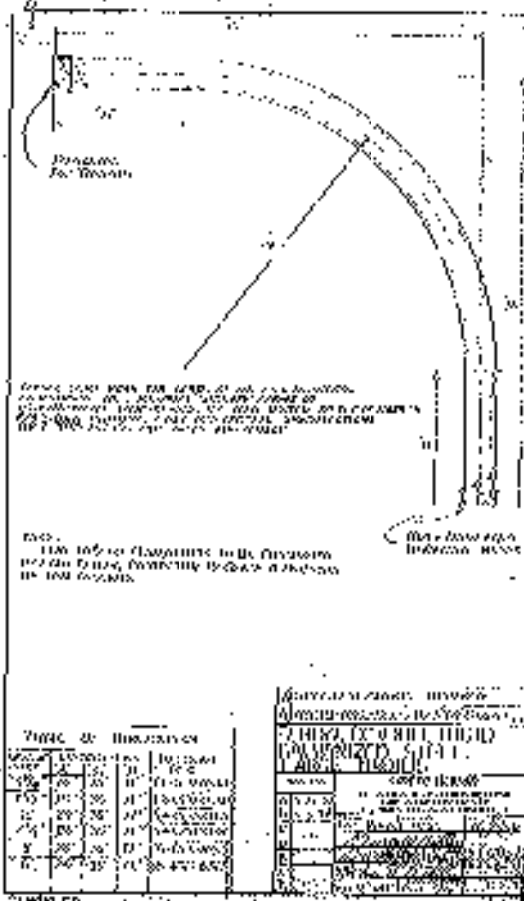
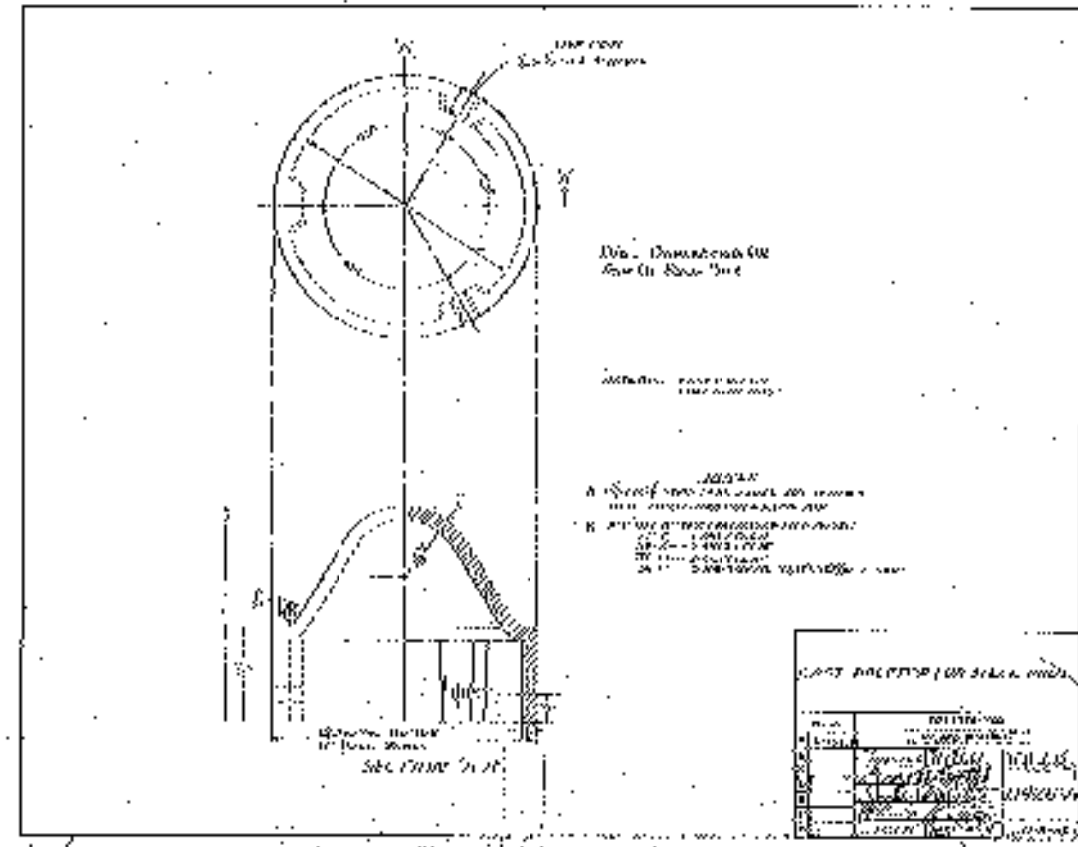
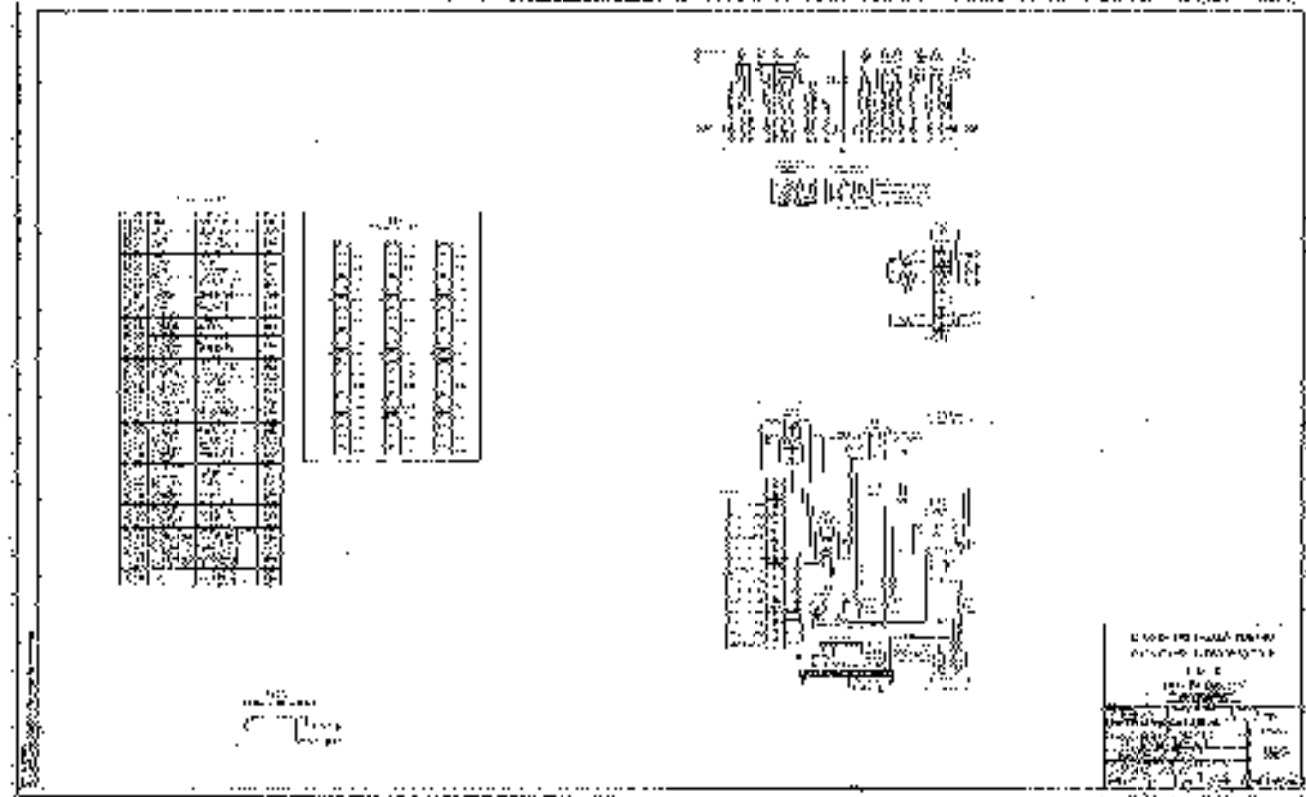
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CDOT STANDARD CODE FOR
TRAFFIC SIGNALS/STREET LIGHTING**

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	226
CONTRACT NO. 60J14				
ILLINOIS FED. AID PROJECT				

TS-67



TRAFFIC SIGNAL CODE		TRAFFIC SIGNAL CODE		TRAFFIC SIGNAL CODE	
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2.0	TRAFFIC SIGNAL CODE	2.0	TRAFFIC SIGNAL CODE	2.0	TRAFFIC SIGNAL CODE
3.0	TRAFFIC SIGNAL CODE	3.0	TRAFFIC SIGNAL CODE	3.0	TRAFFIC SIGNAL CODE
4.0	TRAFFIC SIGNAL CODE	4.0	TRAFFIC SIGNAL CODE	4.0	TRAFFIC SIGNAL CODE
5.0	TRAFFIC SIGNAL CODE	5.0	TRAFFIC SIGNAL CODE	5.0	TRAFFIC SIGNAL CODE
6.0	TRAFFIC SIGNAL CODE	6.0	TRAFFIC SIGNAL CODE	6.0	TRAFFIC SIGNAL CODE
7.0	TRAFFIC SIGNAL CODE	7.0	TRAFFIC SIGNAL CODE	7.0	TRAFFIC SIGNAL CODE
8.0	TRAFFIC SIGNAL CODE	8.0	TRAFFIC SIGNAL CODE	8.0	TRAFFIC SIGNAL CODE
9.0	TRAFFIC SIGNAL CODE	9.0	TRAFFIC SIGNAL CODE	9.0	TRAFFIC SIGNAL CODE
10.0	TRAFFIC SIGNAL CODE	10.0	TRAFFIC SIGNAL CODE	10.0	TRAFFIC SIGNAL CODE

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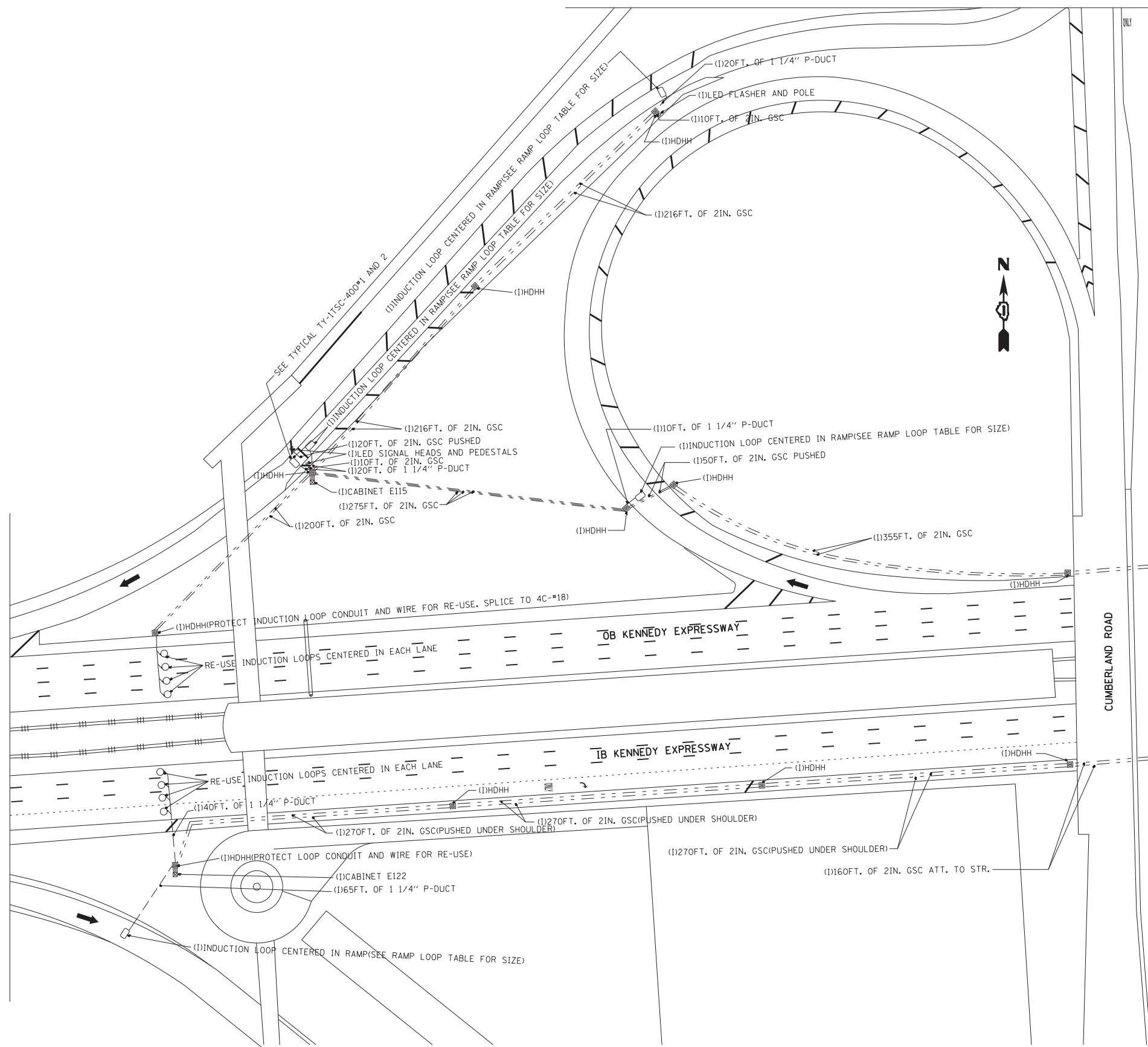
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CDOT STANDARD CODE FOR
TRAFFIC SIGNALS/STREET LIGHTING**

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

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	227
CONTRACT NO. 60J14				
ILLINOIS FED. AID PROJECT				

TS-68



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 CHECKED - J.G.
 DATE - 08/15/2012

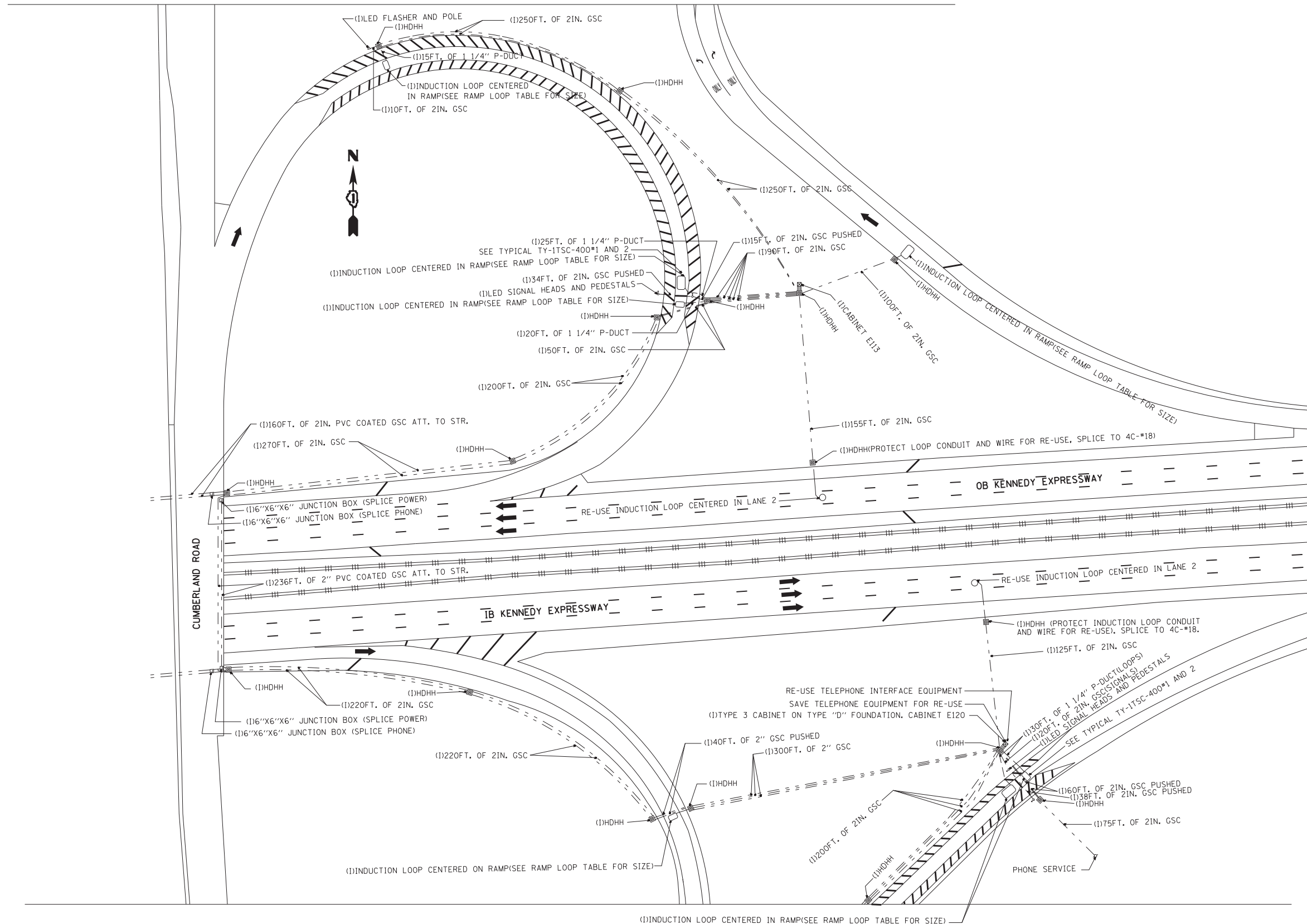
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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

CUMBERLAND TRAFFIC SURVEILLANCE EQUIPMENT
 PAGE 1 OF 3

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			404	228
CONTRACT NO.				
ILLINOIS FED. AID PROJECT				



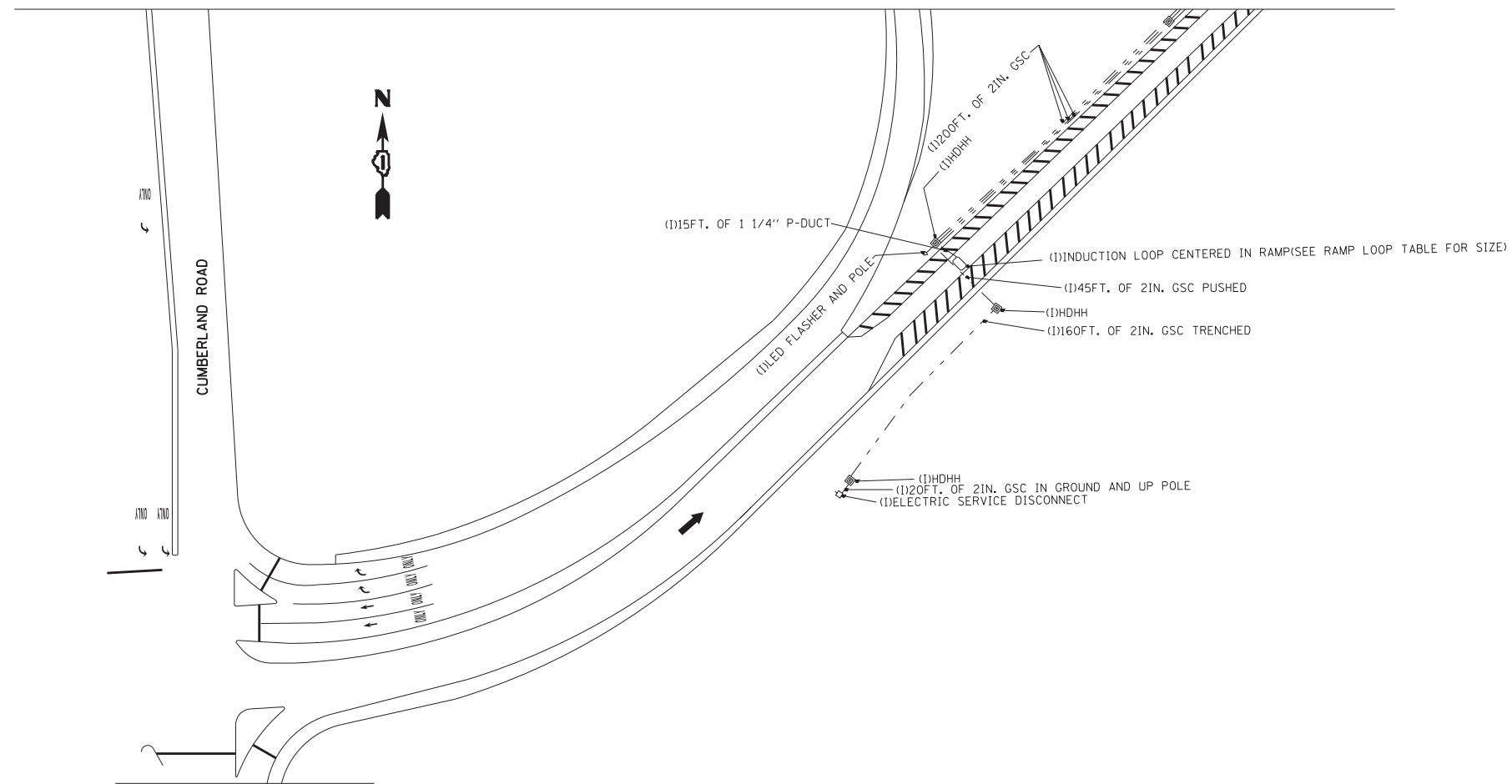
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DESIGNED - J.G.	REVISED -
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CHECKED - J.G.	REVISED -
DATE - 08/15/2012	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

CUMBERLAND TRAFFIC SURVEILLANCE EQUIPMENT			
PAGE 2 OF 3			
SCALE:	SHEET	OF SHEETS	STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			404	229
CONTRACT NO.				
ILLINOIS FED. AID PROJECT				



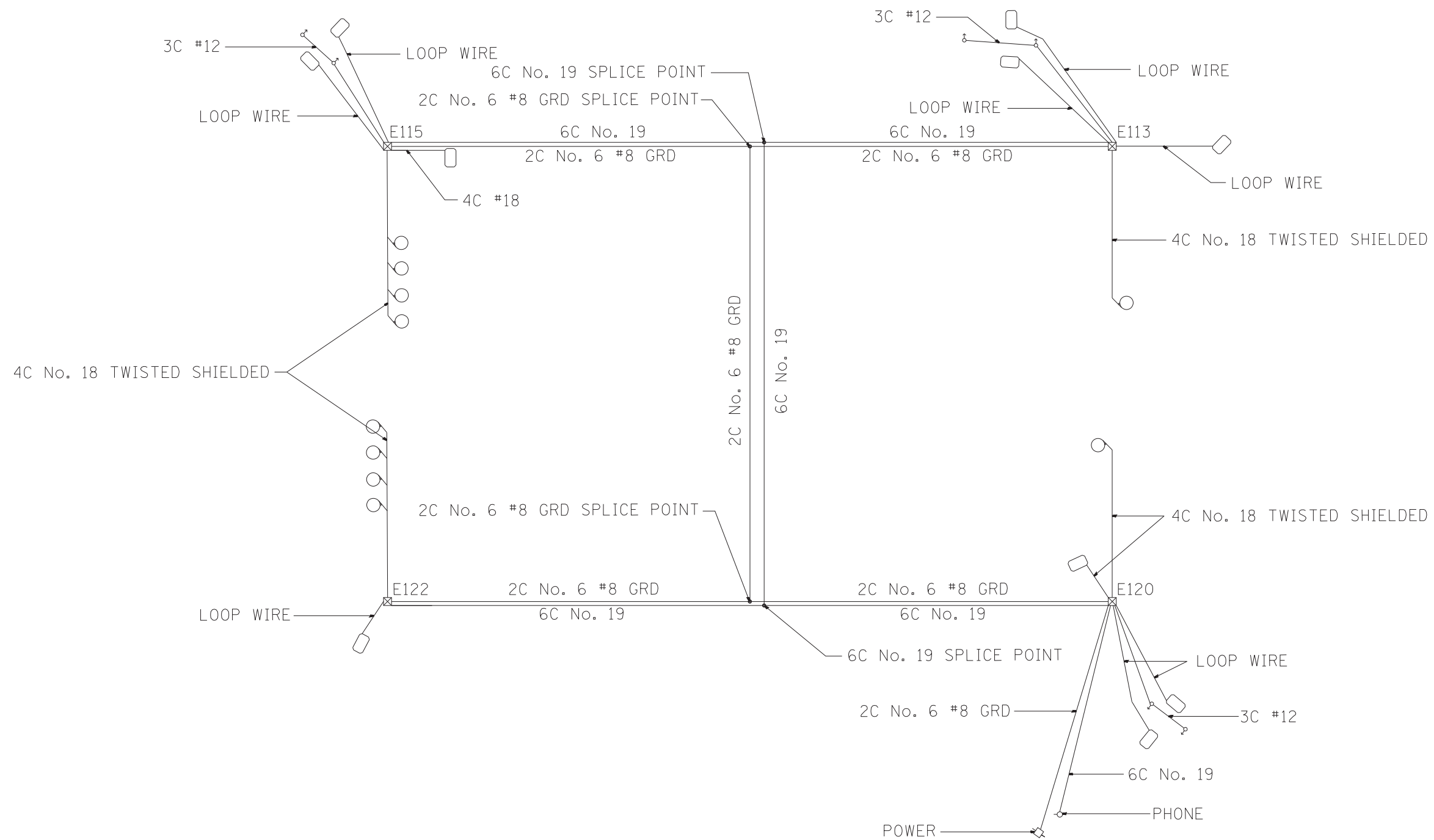
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CUMBERLAND TRAFFIC SURVEILLANCE EQUIPMENT
PAGE 3 OF 3**

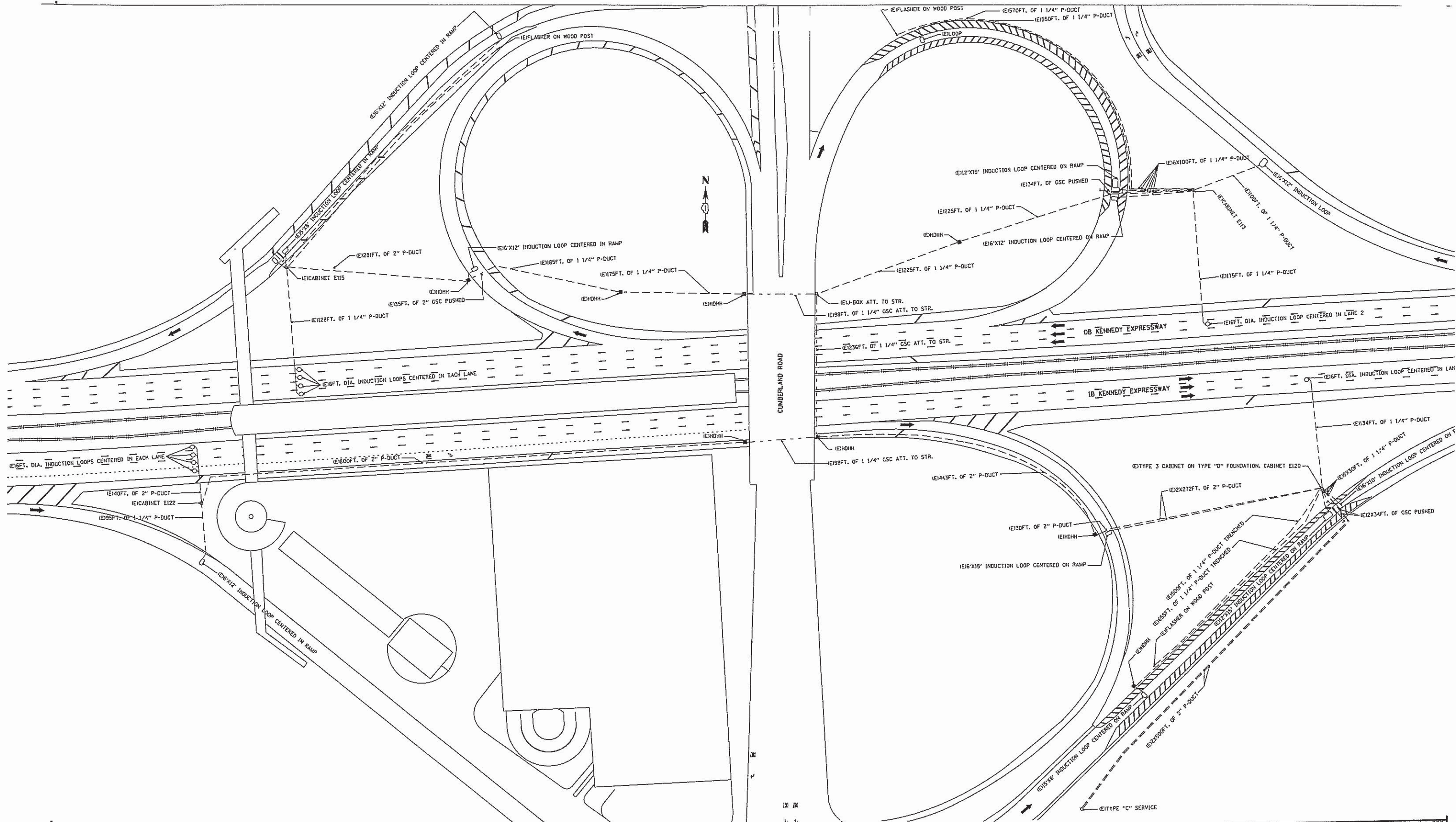
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			404	230
CONTRACT NO.				
ILLINOIS FED. AID PROJECT				



SURVEILLANCE WIRING DIAGRAM

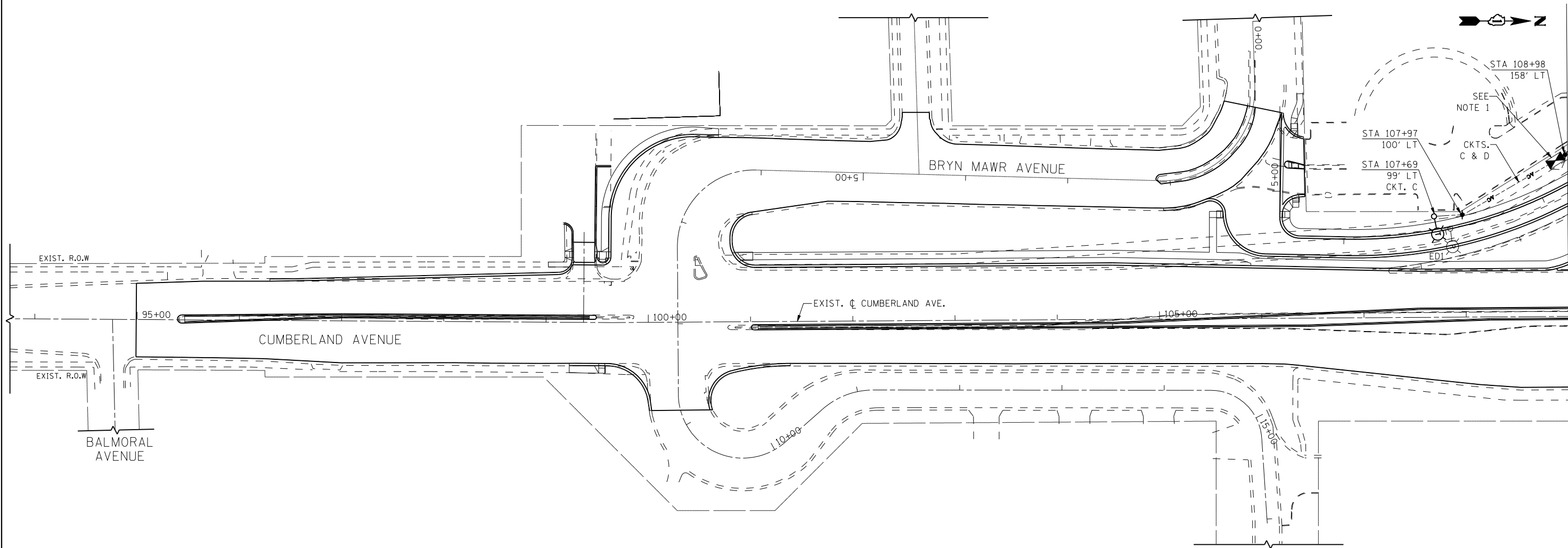
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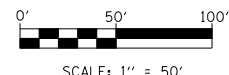
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	PLDT DATE * #DATE#	DATE -	REVISED -		ILLINOIS FED. AID PROJECT						

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- NOTES:**
- REMOVE EXISTING LIGHTING CONTROLLER "E" AND SALVAGE TO IDOT. CONTROLLER SHALL BE REPLACED WITH NEW CONTROLLER ON EXISTING FOUNDATION. SEE PROPOSED IDOT LIGHTING PLANS.
 - TEMPORARY WOOD POLES ALONG RAMP 6 SHALL BE FURNISHED WITH 400W TYPE M-C-III LUMINAIRES.



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PLOT DATE =	DATE - 2/18/2013	REVISED -



**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**IDOT TEMPORARY LIGHTING AND REMOVAL PLAN
CUMBERLAND AVENUE**

SCALE: 1" = 50' SHEET NO. 1 OF 2 SHEETS STA. 93+76 TO STA. 109+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	234
CONTRACT NO. 60J14				
ILLINOIS FED. AID PROJECT				

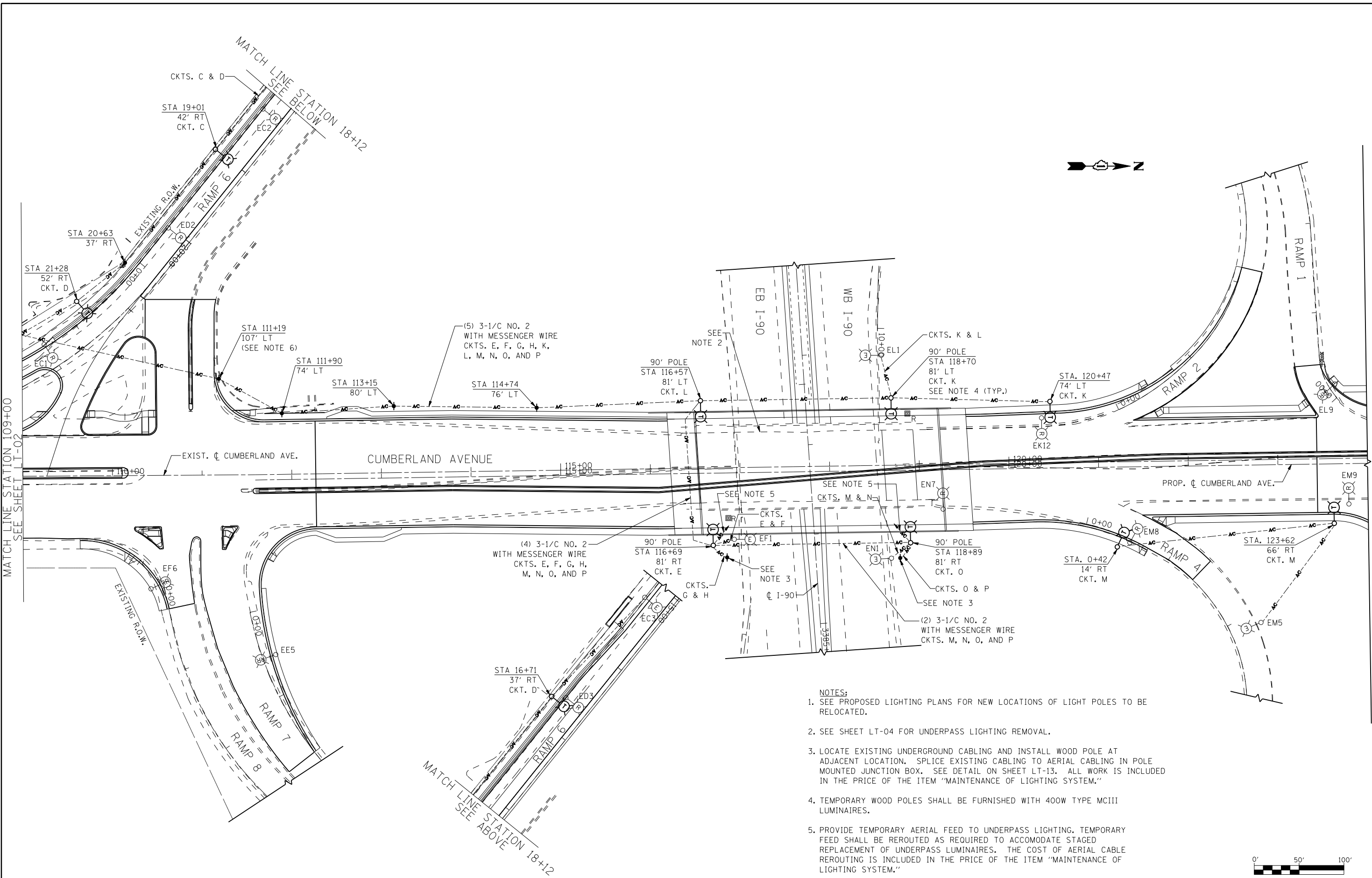
LT-02

MATCH LINE STATION 109+00
SEE SHEET LT-03

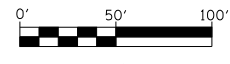
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- NOTES:**
1. SEE PROPOSED LIGHTING PLANS FOR NEW LOCATIONS OF LIGHT POLES TO BE RELOCATED.
 2. SEE SHEET LT-04 FOR UNDERPASS LIGHTING REMOVAL.
 3. LOCATE EXISTING UNDERGROUND CABLING AND INSTALL WOOD POLE AT ADJACENT LOCATION. SPLICE EXISTING CABLING TO AERIAL CABLING IN POLE MOUNTED JUNCTION BOX. SEE DETAIL ON SHEET LT-13. ALL WORK IS INCLUDED IN THE PRICE OF THE ITEM "MAINTENANCE OF LIGHTING SYSTEM."
 4. TEMPORARY WOOD POLES SHALL BE FURNISHED WITH 400W TYPE MCIII LUMINAIRES.
 5. PROVIDE TEMPORARY AERIAL FEED TO UNDERPASS LIGHTING. TEMPORARY FEED SHALL BE REROUTED AS REQUIRED TO ACCOMMODATE STAGED REPLACEMENT OF UNDERPASS LUMINAIRES. THE COST OF AERIAL CABLE REROUTING IS INCLUDED IN THE PRICE OF THE ITEM "MAINTENANCE OF LIGHTING SYSTEM."
 6. POLE OFFSET IS REFERENCED TO EXISTING CUMBERLAND AVENUE CENTERLINE.



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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**IDOT TEMPORARY LIGHTING AND REMOVAL PLAN
CUMBERLAND AVENUE**

SCALE: 1" = 50' SHEET NO. 2 OF 2 SHEETS STA. 109+00 TO STA. 124+00

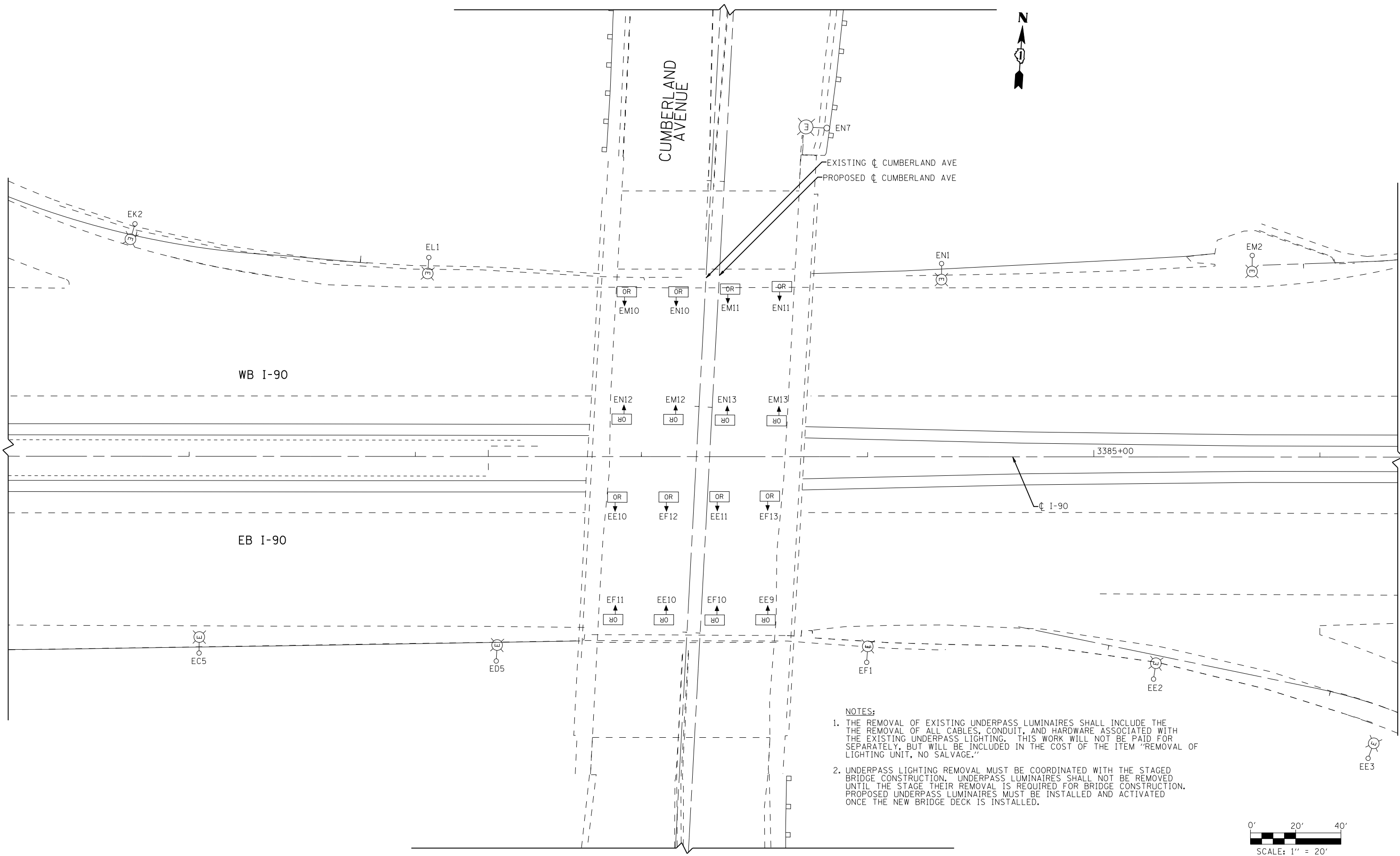
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	235
CONTRACT NO. 60J14				
ILLINOIS FED. AID PROJECT				

LT-03

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

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PLOT DATE =	DATE - 2/18/2013	REVISED -



**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**IDOT UNDERPASS LIGHTING REMOVAL PLAN
CUMBERLAND AVENUE OVER I-90**

SCALE: 1" = 20' SHEET NO. 1 OF 1 SHEETS STA. 116+04 TO STA. 119+76

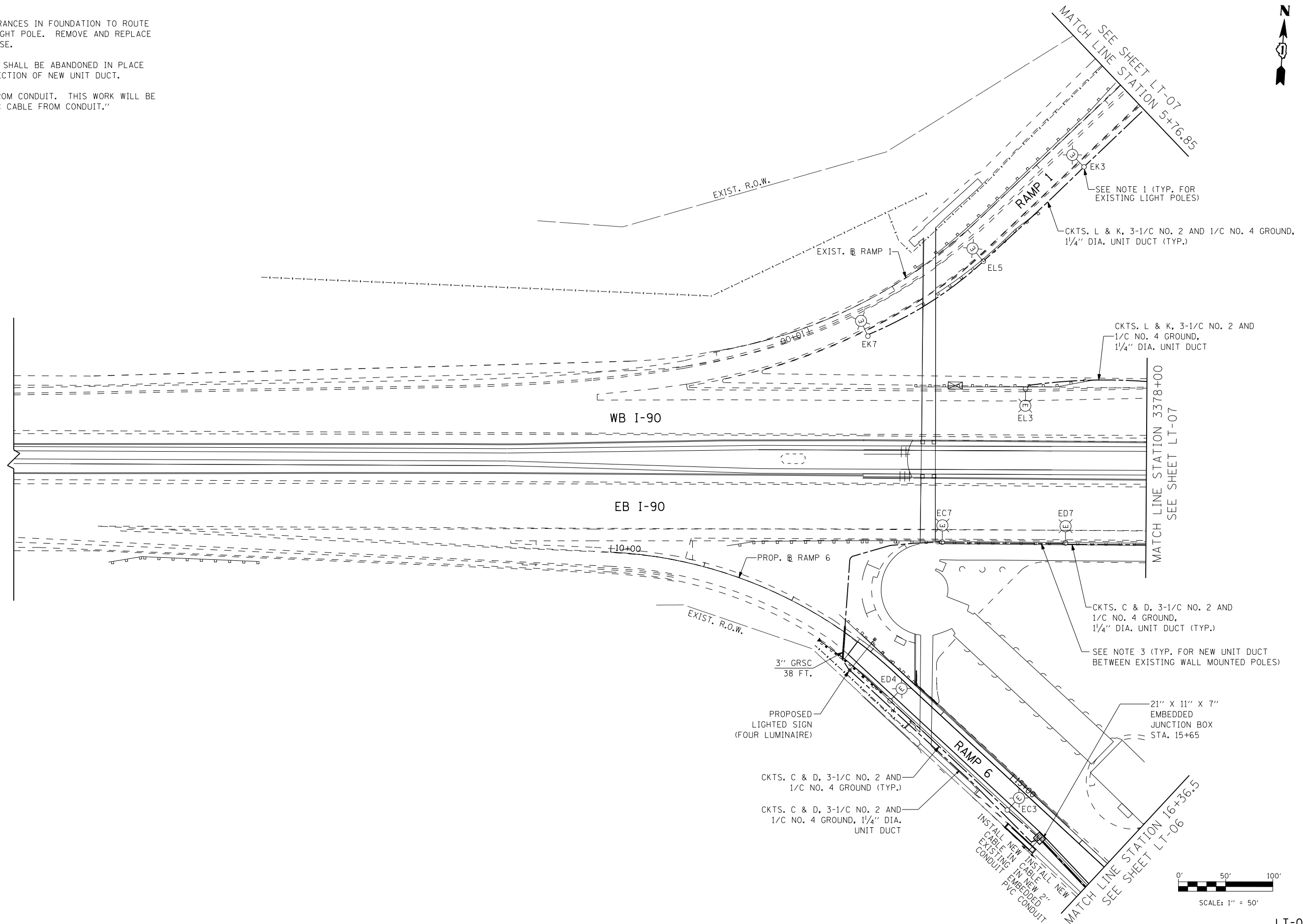
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	236
CONTRACT NO. 60J14				
ILLINOIS FED. AID PROJECT				

LT-04



NOTES:

1. UTILIZE EXISTING CONDUIT ENTRANCES IN FOUNDATION TO ROUTE NEW UNIT DUCT TO EXISTING LIGHT POLE. REMOVE AND REPLACE EXISTING FUSE KIT AT POLE BASE.
2. EXISTING DIRECT BURIAL CABLE SHALL BE ABANDONED IN PLACE AFTER INSTALLATION AND CONNECTION OF NEW UNIT DUCT.
3. REMOVE EXISTING UNIT DUCT FROM CONDUIT. THIS WORK WILL BE PAID FOR AS "REMOVE ELECTRIC CABLE FROM CONDUIT."



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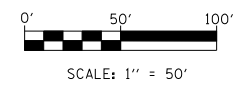


**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PROPOSED IDOT LIGHTING PLAN
I-90 AT CUMBERLAND AVENUE**

SCALE: 1" = 50' SHEET NO. 1 OF 6 SHEETS STA. 3366+00 TO STA. 3378+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	237
CONTRACT NO. 60J14				
ILLINOIS FED. AID PROJECT				



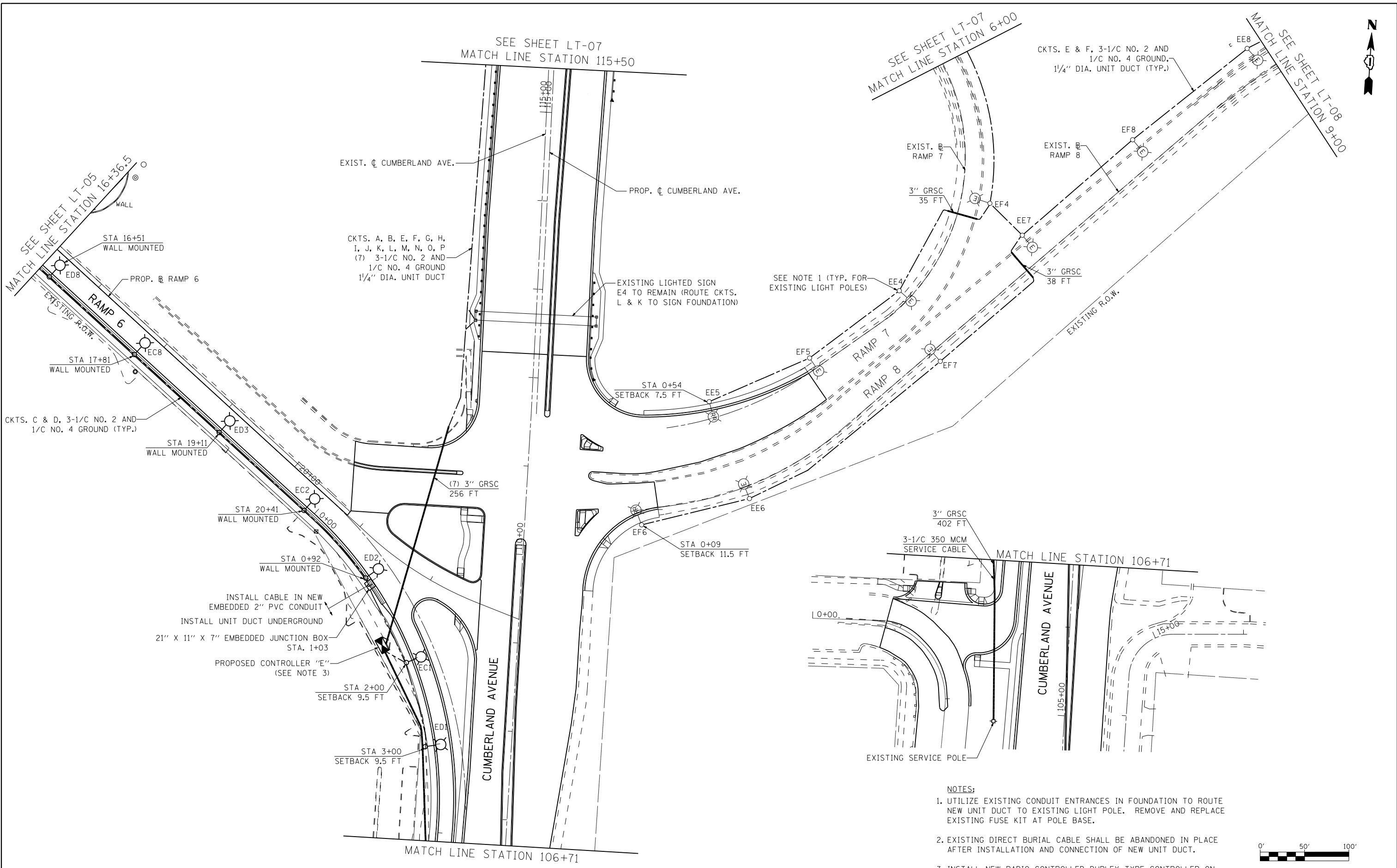
LT-05



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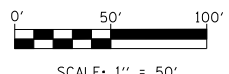
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INSTALL CABLE IN NEW EMBEDDED 2" PVC CONDUIT
 INSTALL UNIT DUCT UNDERGROUND
 21" X 11" X 7" EMBEDDED JUNCTION BOX STA. 1+03
 PROPOSED CONTROLLER "E" (SEE NOTE 3)

- NOTES:**
- UTILIZE EXISTING CONDUIT ENTRANCES IN FOUNDATION TO ROUTE NEW UNIT DUCT TO EXISTING LIGHT POLE. REMOVE AND REPLACE EXISTING FUSE KIT AT POLE BASE.
 - EXISTING DIRECT BURIAL CABLE SHALL BE ABANDONED IN PLACE AFTER INSTALLATION AND CONNECTION OF NEW UNIT DUCT.
 - INSTALL NEW RADIO CONTROLLED DUPLEX TYPE CONTROLLER ON EXISTING FOUNDATION.



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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**PROPOSED IDOT LIGHTING PLAN
 I-90 AT CUMBERLAND AVENUE**

SCALE: 1" = 50' SHEET NO. 2 OF 6 SHEETS STA. 106+71 TO STA. 115+50

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	238
CONTRACT NO. 60J14				
ILLINOIS FED. AID PROJECT				

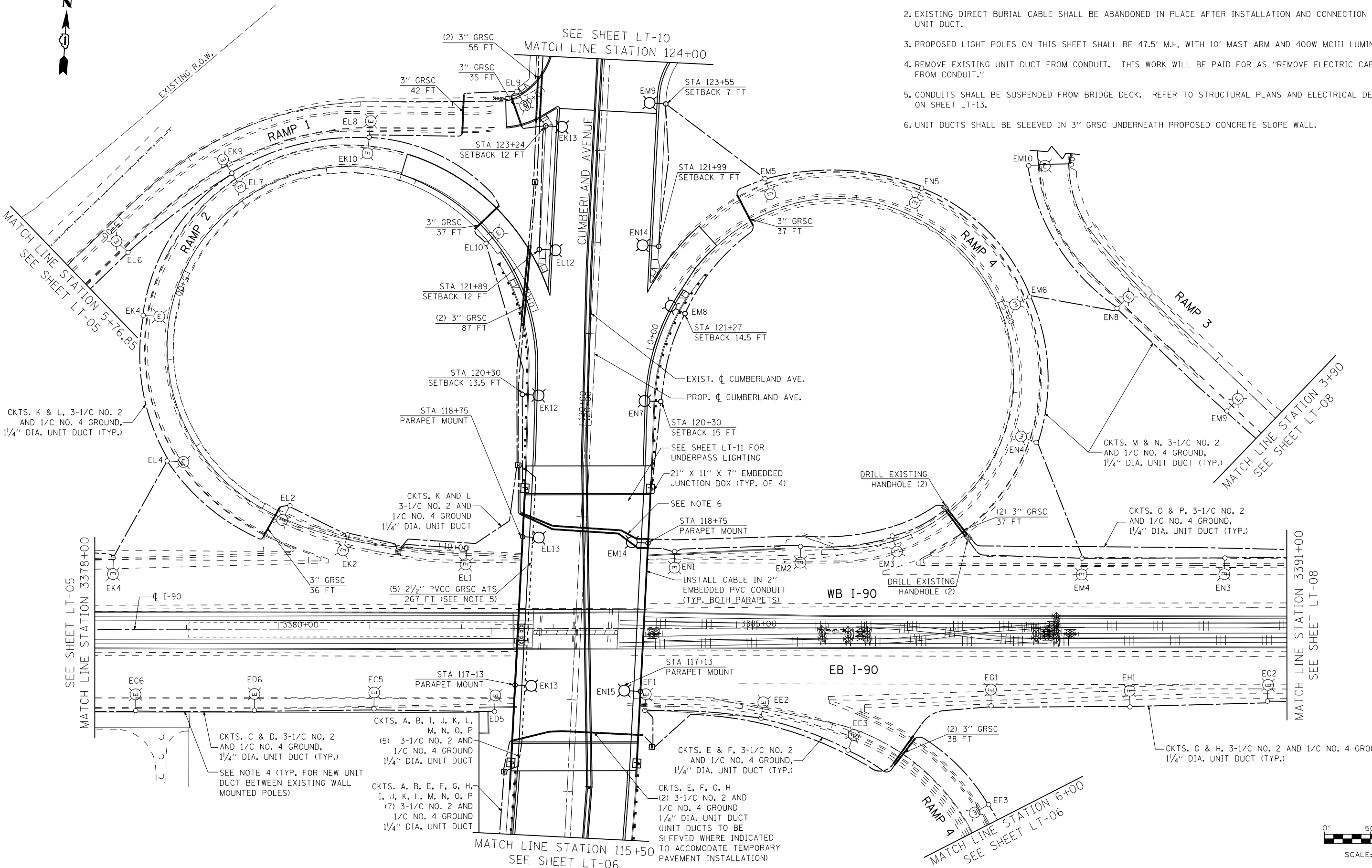
LT-06



NOTES:

1. UTILIZE EXISTING CONDUIT ENTRANCES IN FOUNDATION TO ROUTE NEW UNIT DUCT TO EXISTING LIGHT POLE. REMOVE AND REPLACE EXISTING FUSE KIT AT POLE BASE.
2. EXISTING DIRECT BURIAL CABLE SHALL BE ABANDONED IN PLACE AFTER INSTALLATION AND CONNECTION OF NEW UNIT DUCT.
3. PROPOSED LIGHT POLES ON THIS SHEET SHALL BE 47.5' M.H, WITH 10' MAST ARM AND 400W MCIII LUMINAIRE.
4. REMOVE EXISTING UNIT DUCT FROM CONDUIT. THIS WORK WILL BE PAID FOR AS "REMOVE ELECTRIC CABLE FROM CONDUIT."
5. CONDUITS SHALL BE SUSPENDED FROM BRIDGE DECK. REFER TO STRUCTURAL PLANS AND ELECTRICAL DETAILS ON SHEET LT-13.
6. UNIT DUCTS SHALL BE SLEEVED IN 3" GRSC UNDERNEATH PROPOSED CONCRETE SLOPE WALL.

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PROPOSED IDOT LIGHTING PLAN
I-90 AT CUMBERLAND AVENUE**

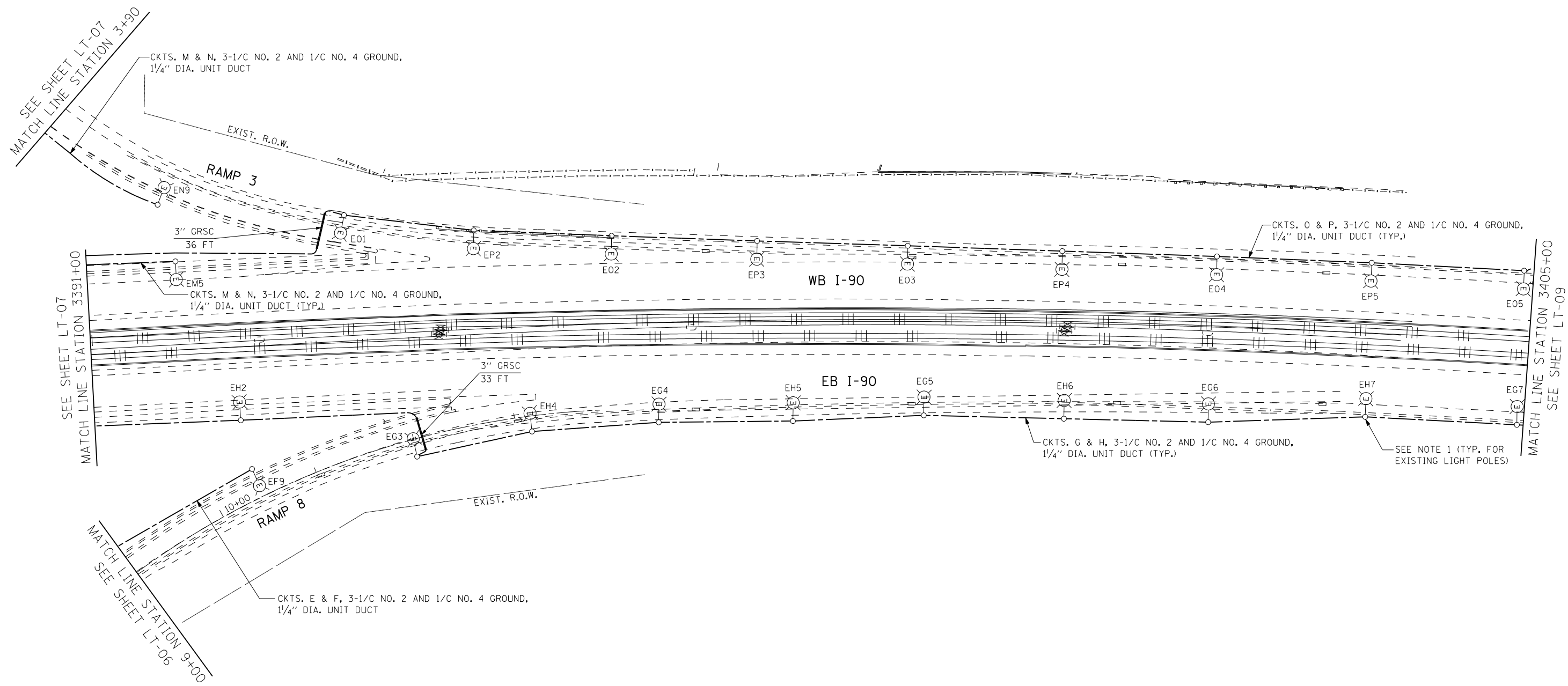
SCALE: 1" = 50' SHEET NO. 3 OF 6 SHEETS STA. 3378+00 TO STA. 3391+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	239
CONTRACT NO. 60J14				
ILLINOIS FED. AID PROJECT				

LT-07

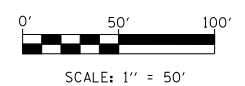


- NOTES:
1. UTILIZE EXISTING CONDUIT ENTRANCES IN FOUNDATION TO ROUTE NEW UNIT DUCT TO EXISTING LIGHT POLE. REMOVE AND REPLACE EXISTING FUSE KIT AT POLE BASE.
 2. EXISTING DIRECT BURIAL CABLE SHALL BE ABANDONED IN PLACE AFTER INSTALLATION AND CONNECTION OF NEW UNIT DUCT.



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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PROPOSED IDOT LIGHTING PLAN
I-90 AT CUMBERLAND AVENUE**

SCALE: 1" = 50' SHEET NO. 4 OF 6 SHEETS STA. 3391+00 TO STA. 3405+00

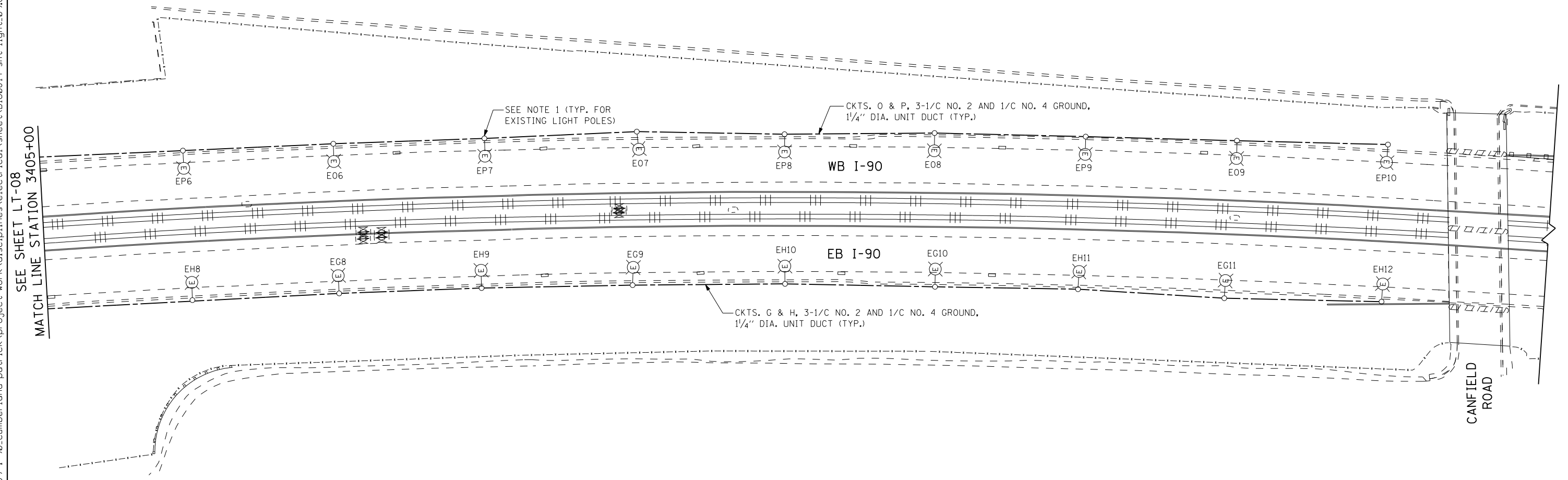
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	240
CONTRACT NO. 60J14				
ILLINOIS FED. AID PROJECT				

LT-08

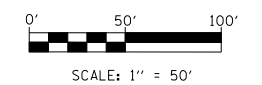


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- NOTES:**
- UTILIZE EXISTING CONDUIT ENTRANCES IN FOUNDATION TO ROUTE NEW UNIT DUCT TO EXISTING LIGHT POLE. REMOVE AND REPLACE EXISTING FUSE KIT AT POLE BASE.
 - EXISTING DIRECT BURIAL CABLE SHALL BE ABANDONED IN PLACE AFTER INSTALLATION AND CONNECTION OF NEW UNIT DUCT.



USER NAME =	DESIGNED - RAS	REVISED -
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PROPOSED IDOT LIGHTING PLAN
I-90 AT CUMBERLAND AVENUE**

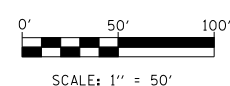
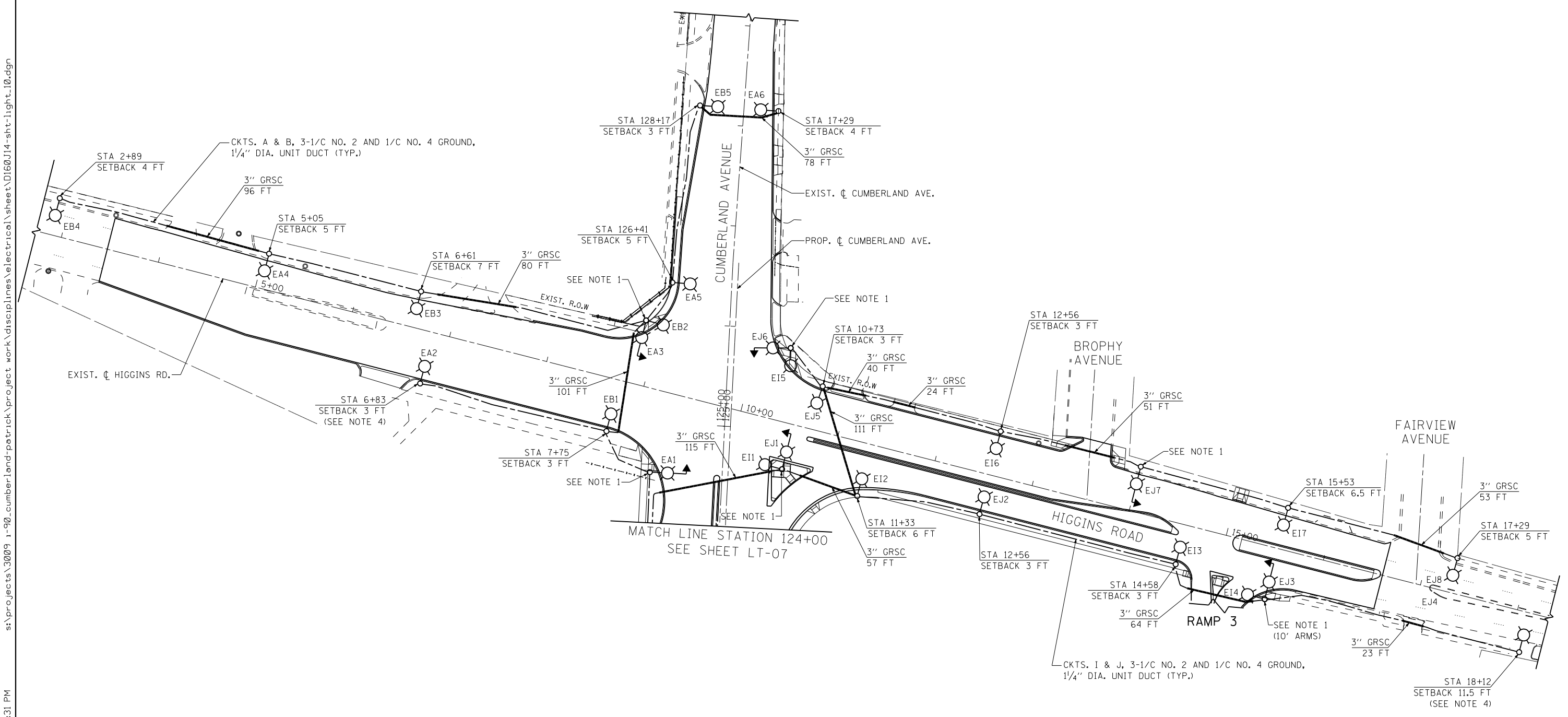
SCALE: 1" = 50' SHEET NO. 5 OF 6 SHEETS STA. 3405+00 TO STA. 3420+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	241
CONTRACT NO. 60J14				
ILLINOIS FED. AID PROJECT				

LT-09



- NOTES:**
- REFER TO TRAFFIC SIGNAL PLANS FOR LOCATIONS OF COMBINATION MAST ARM POLES.
 - PROPOSED LIGHT POLES ON THIS SHEET SHALL BE 47.5' M.H., WITH 8' MAST ARM AND 400W MCIII LUMINAIRE.
 - (3) EXISTING CITY OF PARK RIDGE EMBEDDED LIGHT POLES ALONG HIGGINS ROAD (LOCATED AT STA. 9+05, 59 FT LT, STA. 10+22, 58 FT LT, AND STA. 17+10, 46 FT LT) SHALL BE REMOVED. REMOVAL OF AERIAL CABLE CONNECTED TO THESE LIGHTING UNITS IS INCLUDED IN THE COST OF THE ITEM "REMOVAL OF LIGHTING UNIT, NO SALVAGE."
 - THE CONTRACTOR SHALL FIELD VERIFY THE LOCATIONS OF EXISTING CHICAGO DEPARTMENT OF WATER MANAGEMENT FACILITIES IN THIS AREA PRIOR TO PERFORMING ANY INSTALLATION WORK. THE PRECISE LOCATION OF THE FOUNDATION SHALL BE COORDINATED IN THE FIELD WITH A DEPARTMENT OF WATER MANAGEMENT REPRESENTATIVE.



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STATE OF ILLINOIS
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PROPOSED IDOT LIGHTING PLAN
CUMBERLAND AVENUE AT HIGGINS ROAD

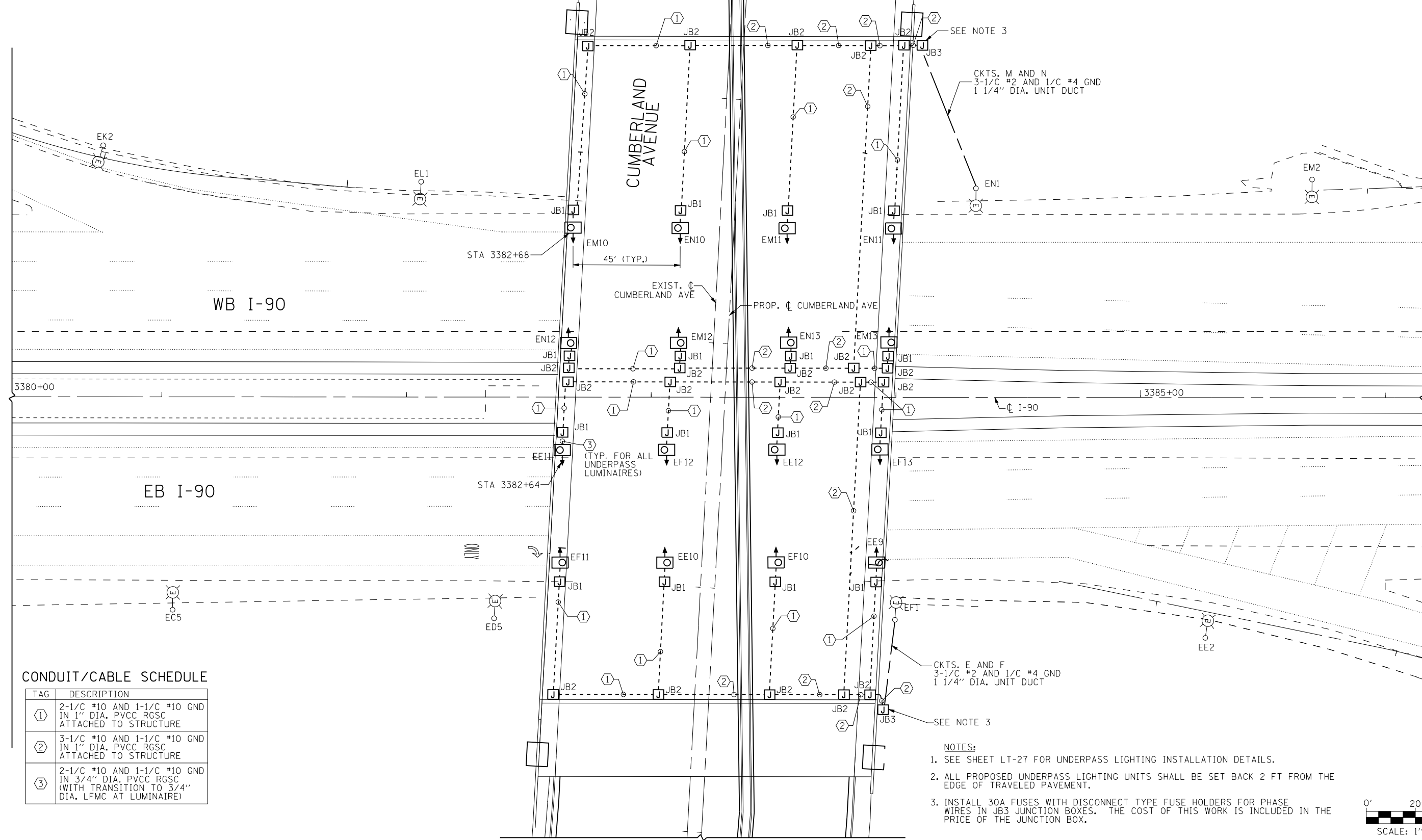
SCALE: 1" = 50' SHEET NO. 6 OF 6 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	242
CONTRACT NO. 60J14				
ILLINOIS FED. AID PROJECT				

LT-10

JUNCTION BOX SCHEDULE

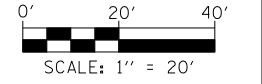
DESIGNATION	SIZE
JB1	6" X 6" X 4"
JB2	12" X 10" X 6"
JB3	16" X 14" X 6"



CONDUIT/CABLE SCHEDULE

TAG	DESCRIPTION
①	2-1/C #10 AND 1-1/C #10 GND IN 1" DIA. PVCC RGSC ATTACHED TO STRUCTURE
②	3-1/C #10 AND 1-1/C #10 GND IN 1" DIA. PVCC RGSC ATTACHED TO STRUCTURE
③	2-1/C #10 AND 1-1/C #10 GND IN 3/4" DIA. PVCC RGSC (WITH TRANSITION TO 3/4" DIA. LFMC AT LUMINAIRE)

- NOTES:
- SEE SHEET LT-27 FOR UNDERPASS LIGHTING INSTALLATION DETAILS.
 - ALL PROPOSED UNDERPASS LIGHTING UNITS SHALL BE SET BACK 2 FT FROM THE EDGE OF TRAVELED PAVEMENT.
 - INSTALL 30A FUSES WITH DISCONNECT TYPE FUSE HOLDERS FOR PHASE WIRES IN JB3 JUNCTION BOXES. THE COST OF THIS WORK IS INCLUDED IN THE PRICE OF THE JUNCTION BOX.



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USER NAME =	DESIGNED - RAS	REVISED -
	DRAWN - RAS	REVISED -
PLOT SCALE =	CHECKED - MKR	REVISED -
PLOT DATE =	DATE - 2/18/2013	REVISED -



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IDOT UNDERPASS LIGHTING PLAN
CUMBERLAND AVENUE OVER I-90

SCALE: 1" = 20' SHEET NO. 1 OF 1 SHEETS STA. 115+98 TO STA. 119+81

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	243
CONTRACT NO. 60J14				

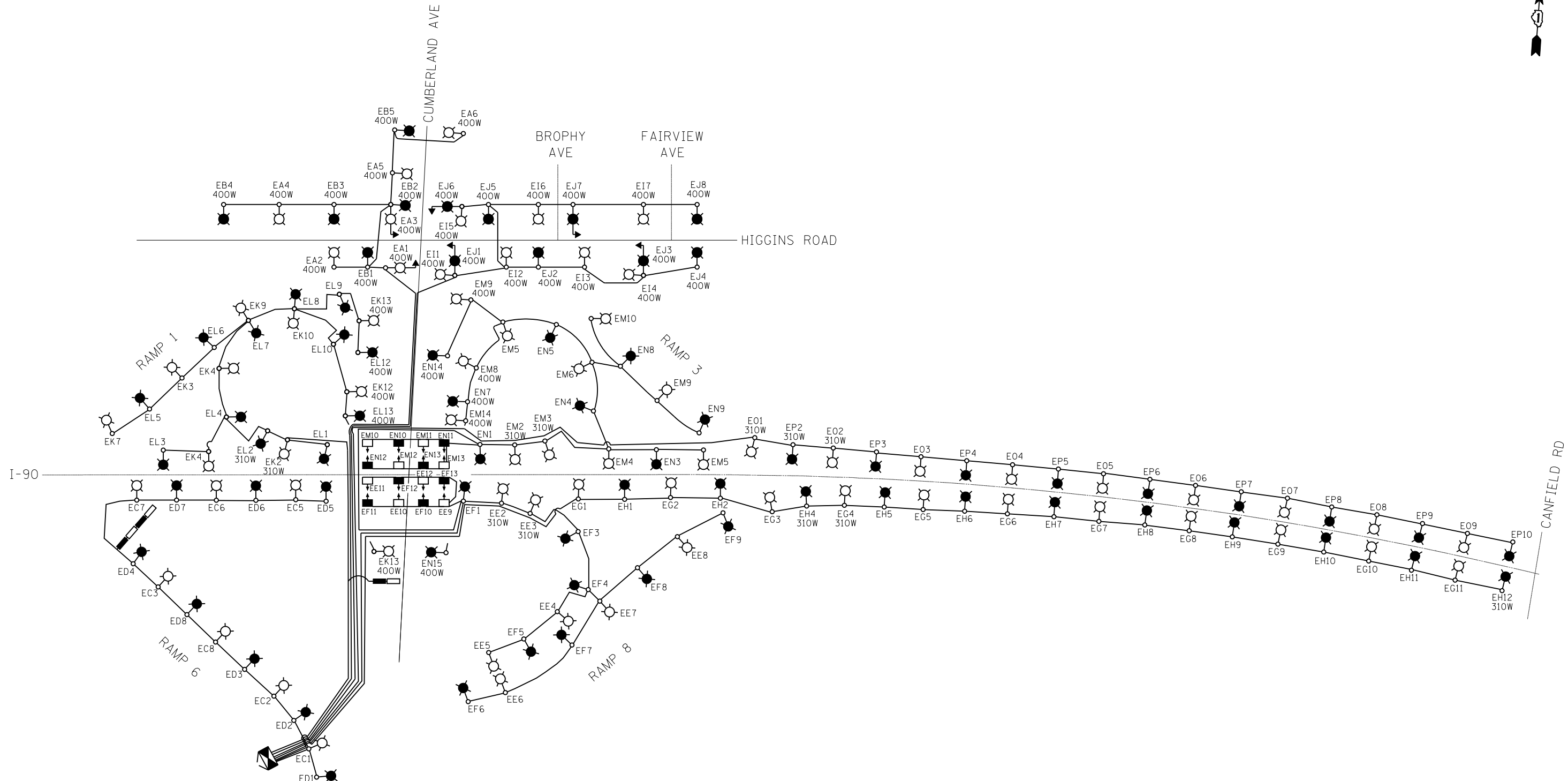
ILLINOIS FED. AID PROJECT

LT-11



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LEGEND

- ROADWAY LUMINAIRE ON RED PHASE
- ROADWAY LUMINAIRE ON BLACK PHASE
(ROADWAY LUMINAIRES ARE 200W U.N.O.)
- 100W UNDERPASS LUMINAIRE ON RED PHASE
- 100W UNDERPASS LUMINAIRE ON BLACK PHASE
- SIGN LUMINAIRE ON RED PHASE
- SIGN LUMINAIRE ON BLACK PHASE
- LIGHTING CONTROLLER

USER NAME =	DESIGNED - RAS	REVISED -
	DRAWN - RAS	REVISED -
PLOT SCALE =	CHECKED - MKR	REVISED -
PLOT DATE =	DATE - 2/18/2013	REVISED -



**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SINGLE LINE DIAGRAM
IDOT CONTROLLER "E"**

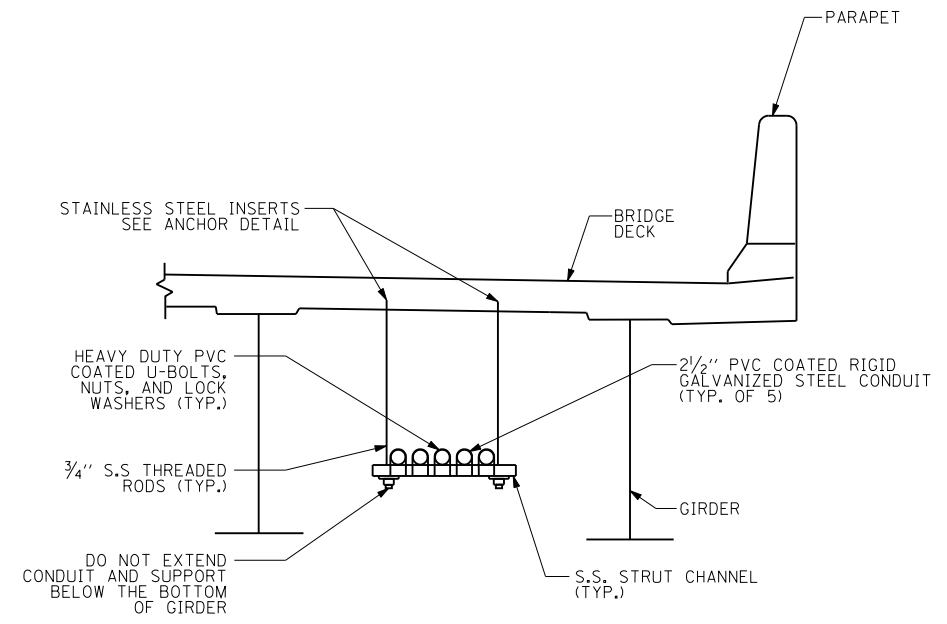
SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	244
CONTRACT NO. 60J14				
ILLINOIS FED. AID PROJECT				

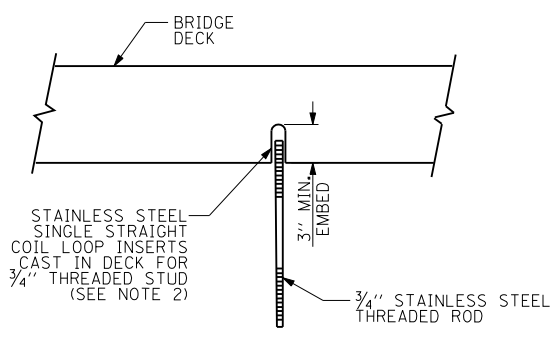
LT-12

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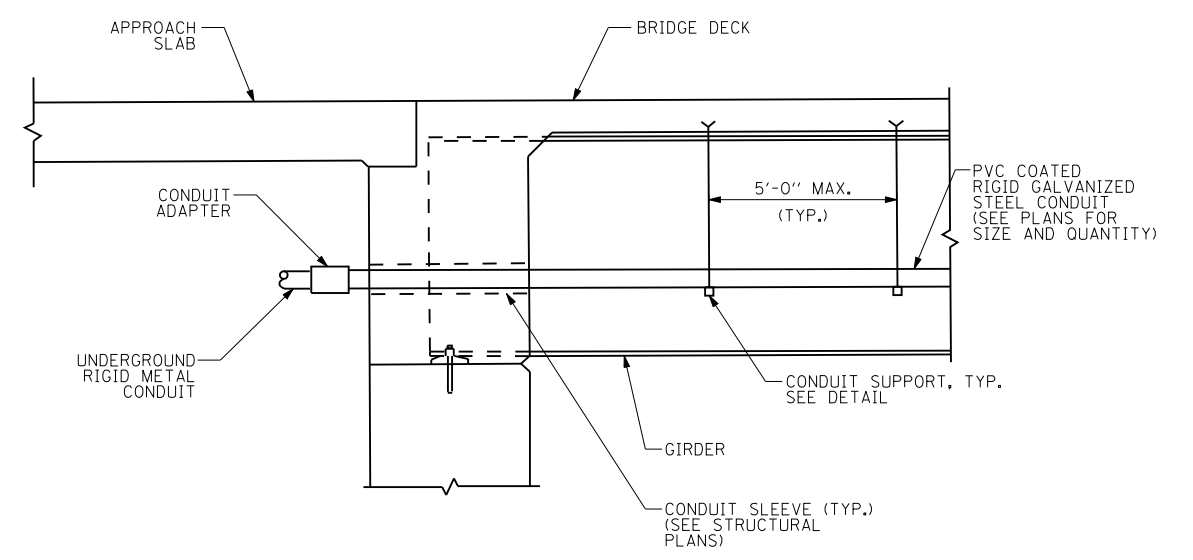
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TYPICAL CONDUIT SUPPORT ATTACHED TO BRIDGE DECK
NOT TO SCALE

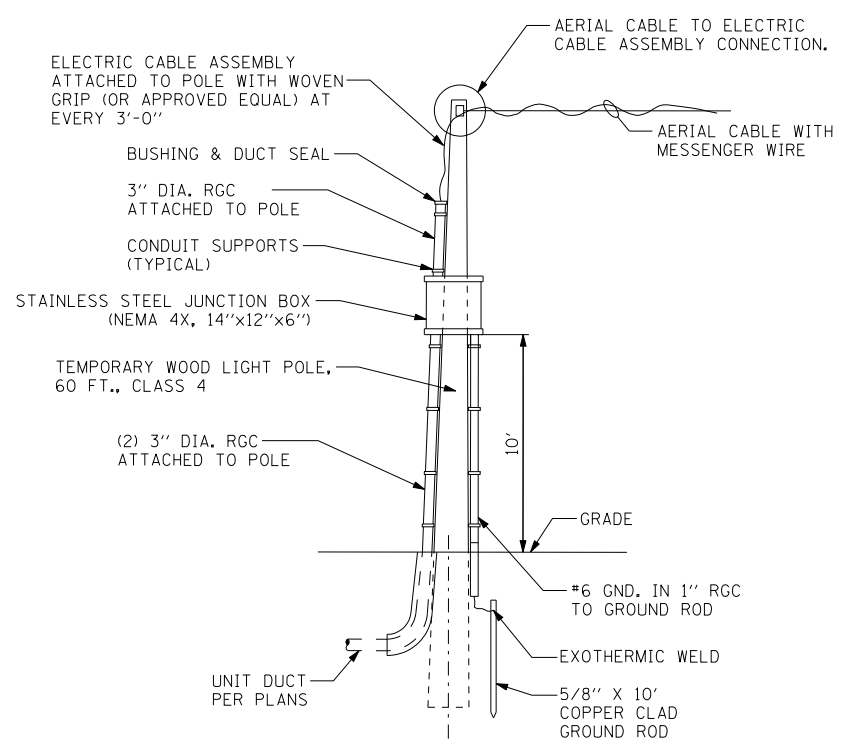


THREADED ROD INSTALLATION
NOT TO SCALE

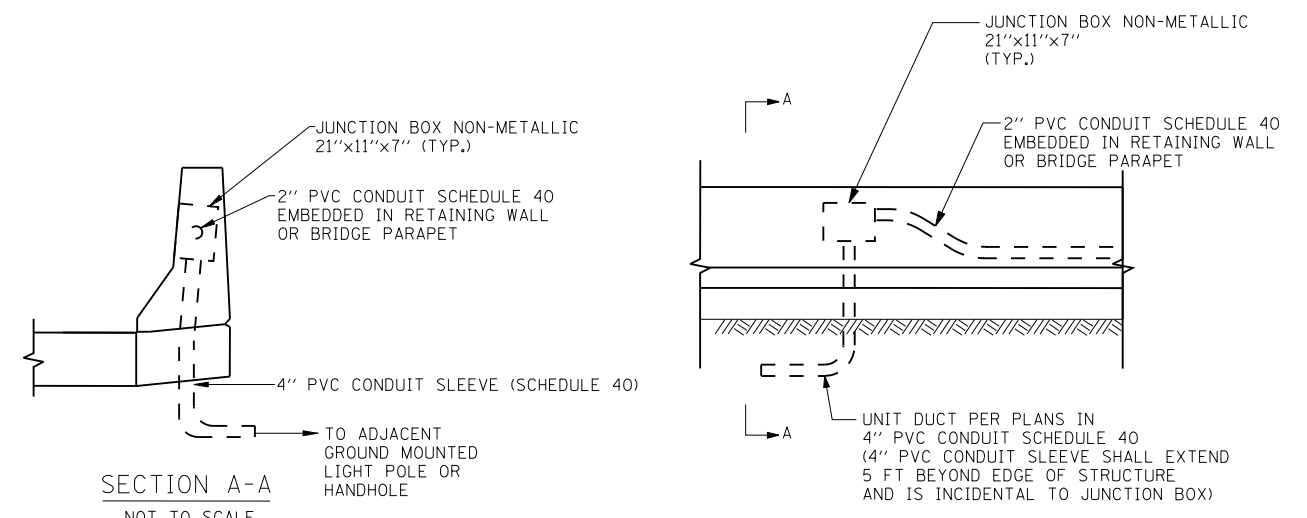


TYPICAL CONDUIT INSTALLATION THROUGH INTEGRAL ABUTMENT
NOT TO SCALE

NOTES:
1. ALL COMPONENTS OF THE CONDUIT SUPPORT SYSTEM ARE INCLUDED IN THE COST OF THE CONDUIT ATTACHED TO STRUCTURE.



AERIAL CABLE TO UNDERGROUND DUCT TRANSITION DETAIL
NOT TO SCALE



SECTION A-A
NOT TO SCALE
UNDERGROUND TO EMBEDDED CONDUIT TRANSITION
NOT TO SCALE

NOTES:
1. THE JUNCTION BOX, GROUND ROD, AND ALL CONDUITS ATTACHED TO THE WOOD POLE ARE INCLUDED IN THE COST OF THE ITEM "MAINTENANCE OF LIGHTING SYSTEM."

USER NAME =	DESIGNED - RAS	REVISED -
	DRAWN - RAS	REVISED -
PLOT SCALE =	CHECKED - MKR	REVISED -
PLOT DATE =	DATE - 2/18/2013	REVISED -

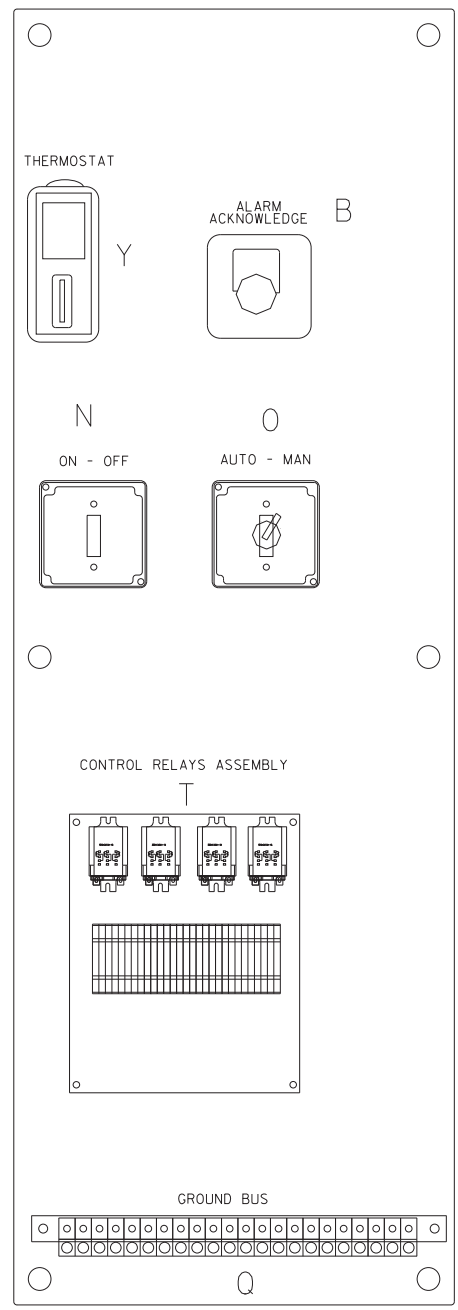
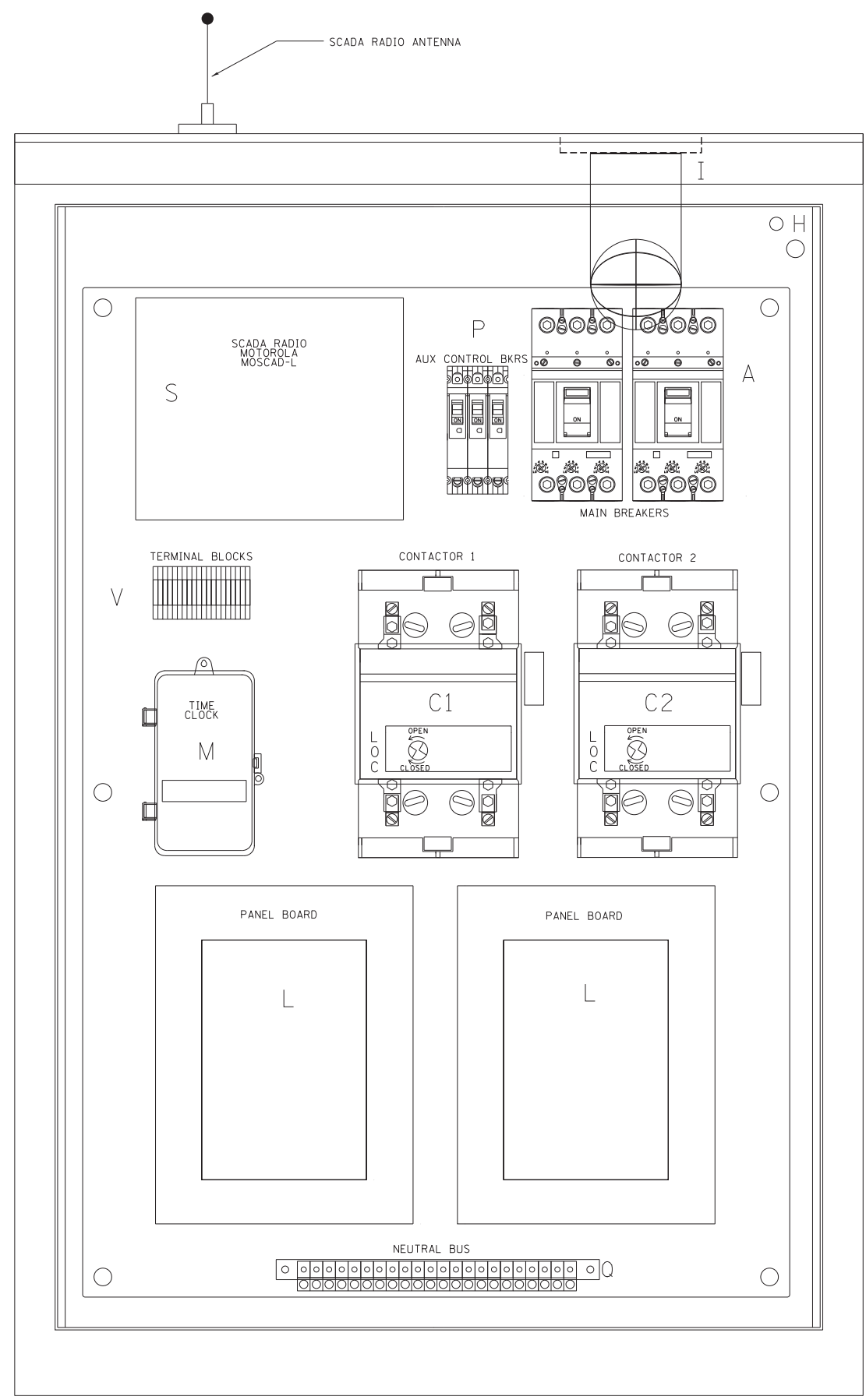


STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

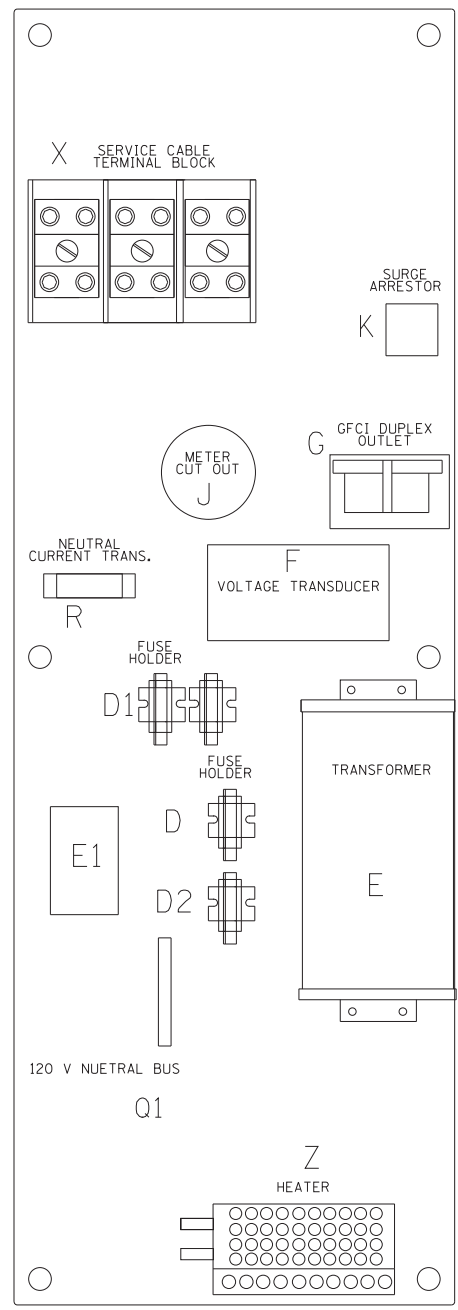
IDOT LIGHTING DETAILS
SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	245
CONTRACT NO. 60J14				
ILLINOIS FED. AID PROJECT				

LT-13



LEFT SIDE PANEL



RIGHT SIDE PANEL

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

* TERMINALS SHALL BE COVERED WITH CLEAR PLEXIGLASS SHEET

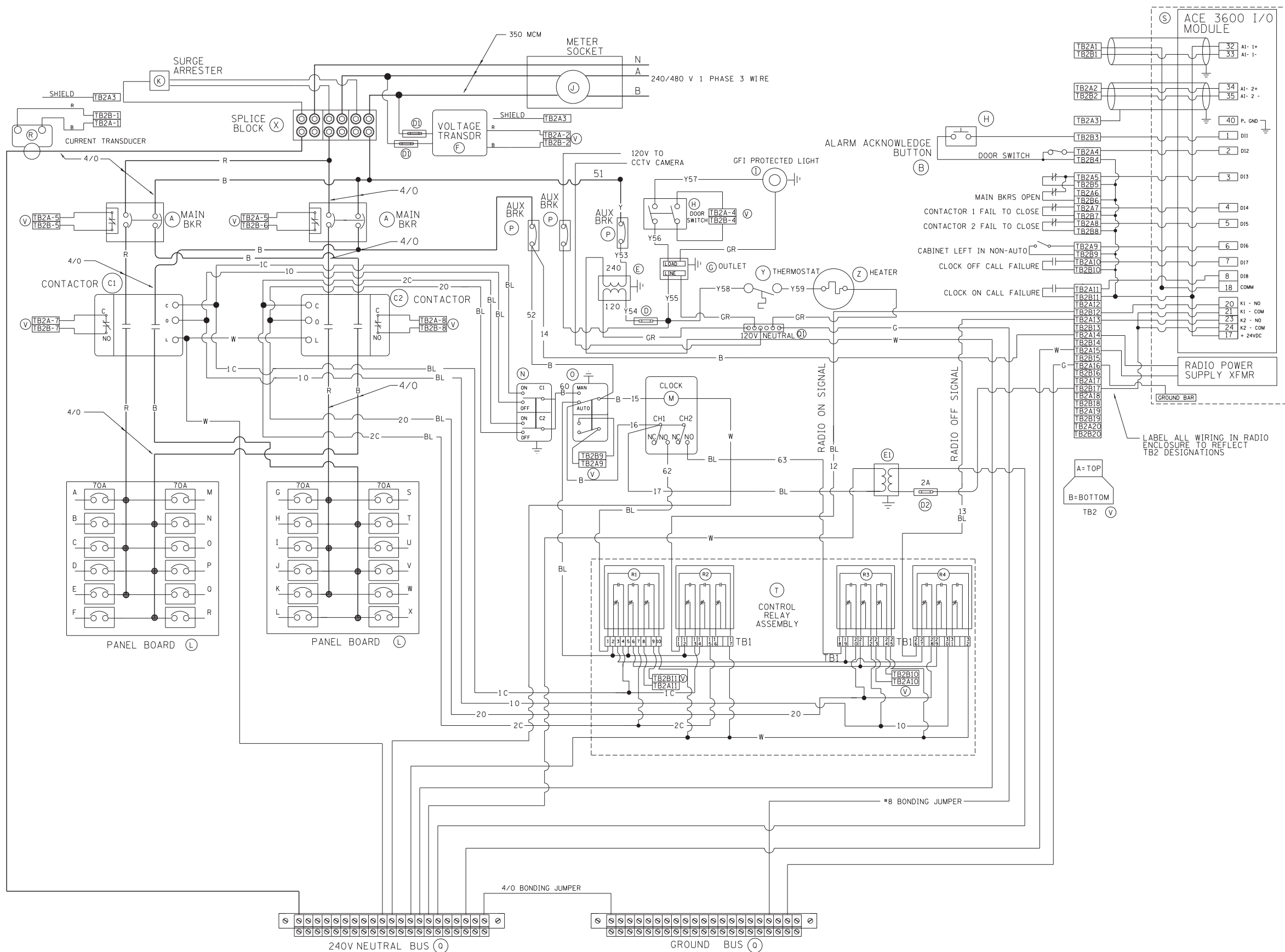
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		CHECKED -	REVISED - R. TOMSONS 03-10-10
		DATE -	REVISED - R. TOMSONS 03-29-12

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LIGHTING CONTROLLER, BASE MOUNTED, 480VOLT, 200AMP (DUAL) RADIO SCADA

SCALE: NONE SHEET NO. 1 OF 4 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	246
BE-205			CONTRACT NO. 60J14	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



BILL OF MATERIALS		
ITEM #	QTY	DESCRIPTION
A	2	MAIN CIRCUIT BREAKERS 2 POLE 200 AMP WITH AUX CONTACT
B	1	ACKNOWLEDGE SWITCH, PUSH BUTTON WITH YELLOW INSERT
C1, C2	2	CONTACTOR 2 POLE 200 AMP 240V COIL WITH AUX CONTACTS
D1	2	FINGERSAFE FUSE HOLDER WITH KTK-20A FUSE
D2	1	FINGERSAFE FUSE HOLDER WITH KTK- 2A FUSE
E	1	2.0 KVA 277V-240/120 TRANSFORMER
E1	1	0.25 KVA 240/120-24 VAC TRANSFORMER
F	1	VOLTAGE TRANSDUCER
G	1	15 AMP GFCI DUPLEX OUTLET W/COVER
H	2	DOOR SWITCH A-20G0-B7-K
I	1	LIGHT FIXTURE
J	1	METER FITTING 1 PHASE 3 WIRE 200 AMP
K	1	SURGE ARRESTER
L	2	PANEL BOARD 480/240V 1 PHASE, 250 AMP COPPER BUS
M	1	2 CHANNEL DIGITAL TIME CLOCK
N	1	MOMENTARY SWITCH ON - OFF
O	1	SQUARE D, 900IKS1BH13, 2 POSITION SWITCH IN 900IKY1 ENCLOSURE
P	2	BREAKER IP 15A
Q	2	COPPER GROUND AND NEUTRAL BUS 1 x 16 x 1/4
Q1	1	COPPER NEUTRAL BUS WITH 1 1/0 AND #6 CONDUCTOR POINTS
R	1	CURRENT TRANSDUCER
S	1	MOTOROLA ACE 3600
T	1	CONTROL RELAY ASSEMBLY 240V COILS WITH 4 3 PDT 25A RELAYS (W389ACX-15) (R1, R2, R3, R4) . QTY 32
V	20	TERMINAL BLOCKS
X	1	620 AMP SPLICE BLOCK
Y	1	40-80 DEG THERMOSTAT
Z	1	375 WATT HEATER

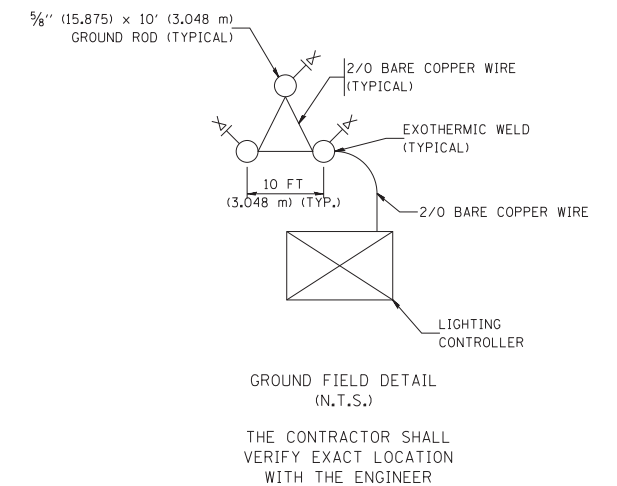
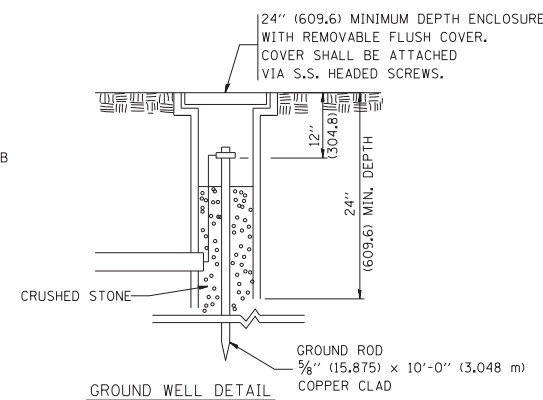
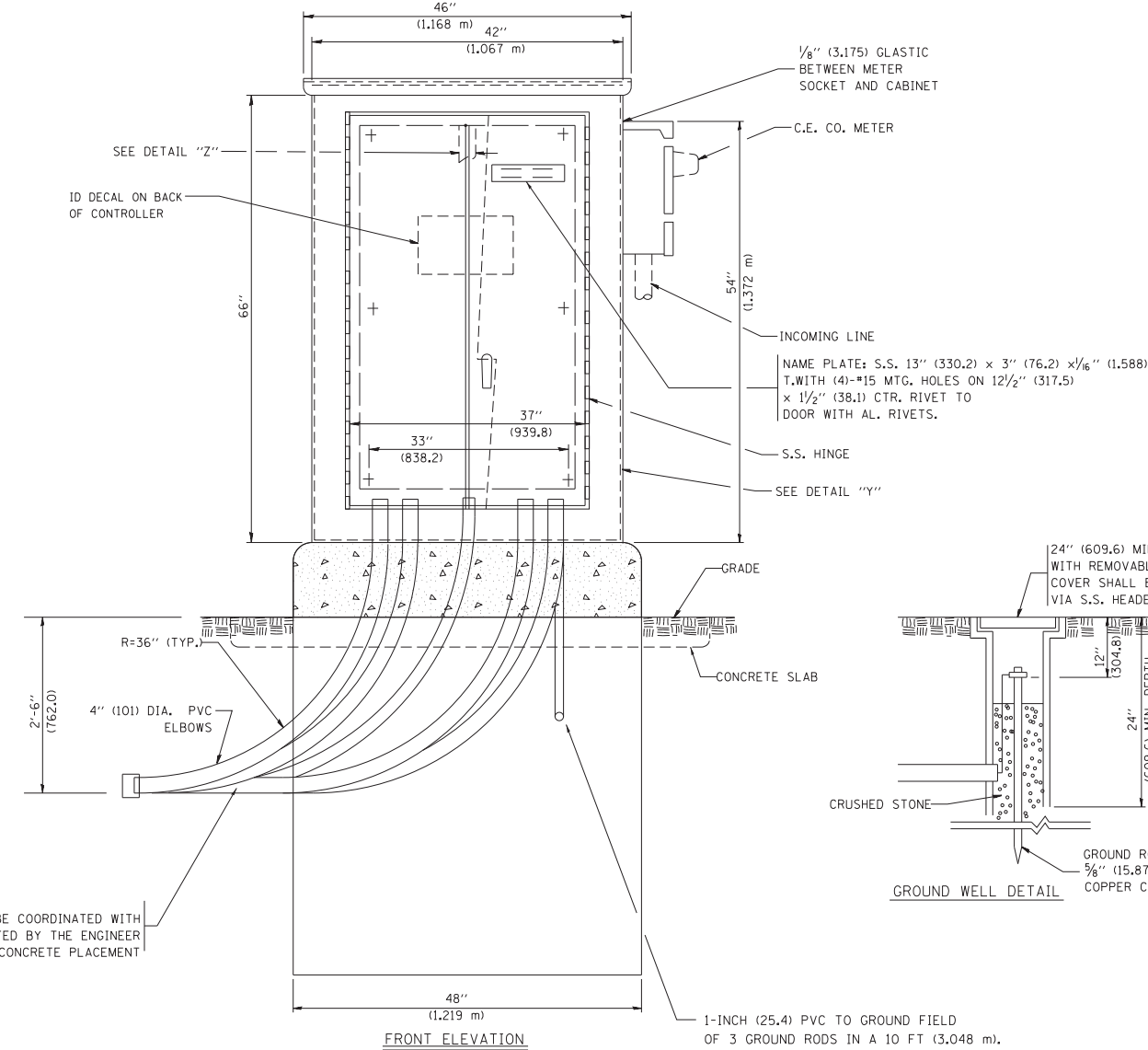
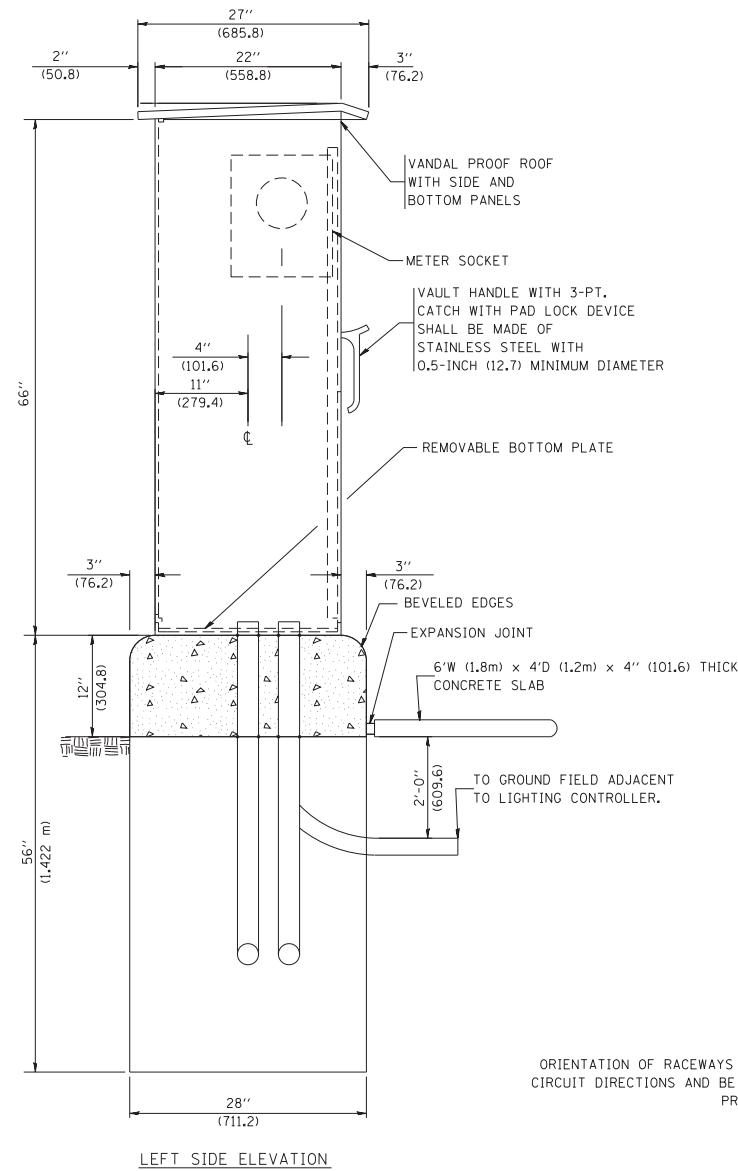
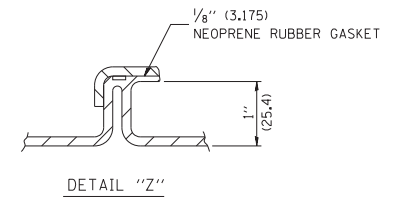
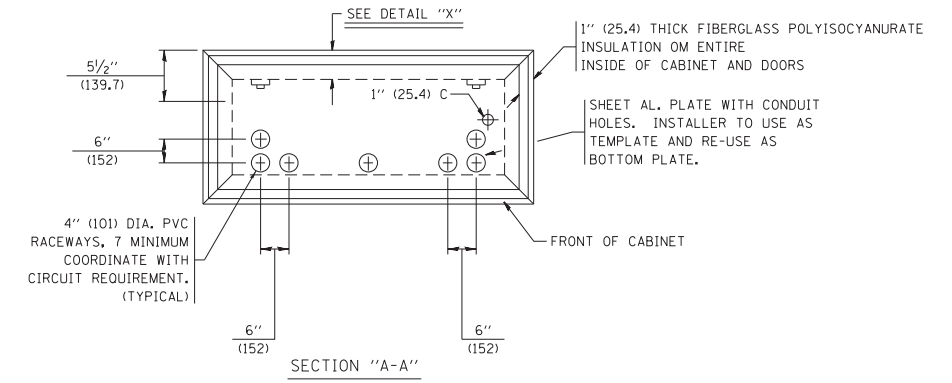
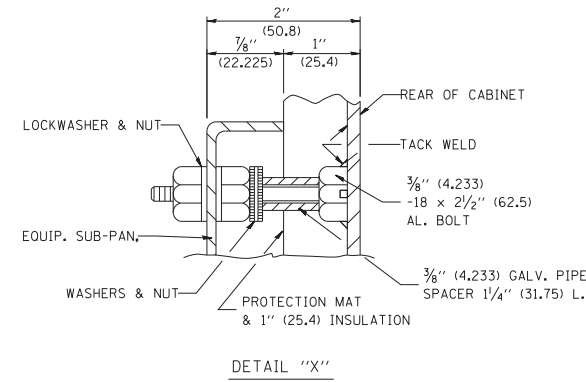
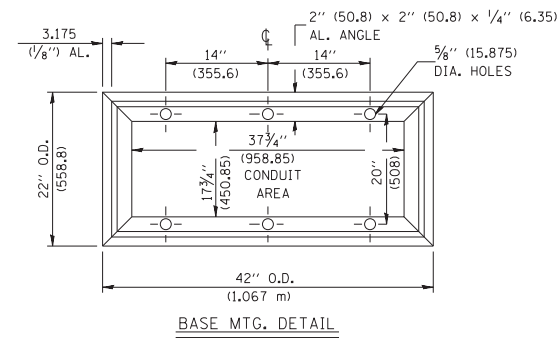
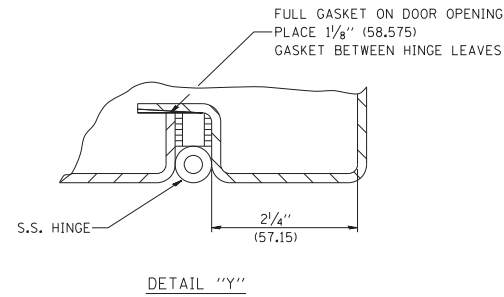
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		CHECKED -	REVISED - R. TOMSONS 03-10-10
		DATE -	REVISED - R. TOMSONS 03-29-12

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

LIGHTING CONTROLLER, BASE MOUNTED, 480VOLT, 200AMP (DUAL) RADIO SCADA

SCALE: NONE SHEET NO. 2 OF 4 SHEETS STA. TO STA.

F.A. RTE. 2746	SECTION 1616B	COUNTY COOK	TOTAL SHEETS 404	SHEET NO. 247
BE-205			CONTRACT NO. 60J14	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



ORIENTATION OF RACEWAYS SHALL BE COORDINATED WITH CIRCUIT DIRECTIONS AND BE INSPECTED BY THE ENGINEER PRIOR TO CONCRETE PLACEMENT

1-INCH (25.4) PVC TO GROUND FIELD OF 3 GROUND RODS IN A 10 FT (3,048 m). TRIANGLE CONNECTED VIA BARE COPPER WIRE. VERIFY EXACT LOCATION OF GROUND FIELD WITH THE ENGINEER. NO GROUND WELL SHALL BE PLACED IN CONCRETE PAD IN FRONT OF CONTROLLER.

FILE NAME =	USER NAME = drivakosgn	DESIGNED -	REVISED - R. TOMSONS 08-19-04
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		CHECKED -	REVISED - R. TOMSONS 03-10-10
		DATE -	REVISED - R. TOMSONS 03-29-12

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LIGHTING CONTROLLER, BASE MOUNTED, 480VOLT, 200AMP (DUAL) RADIO SCADA

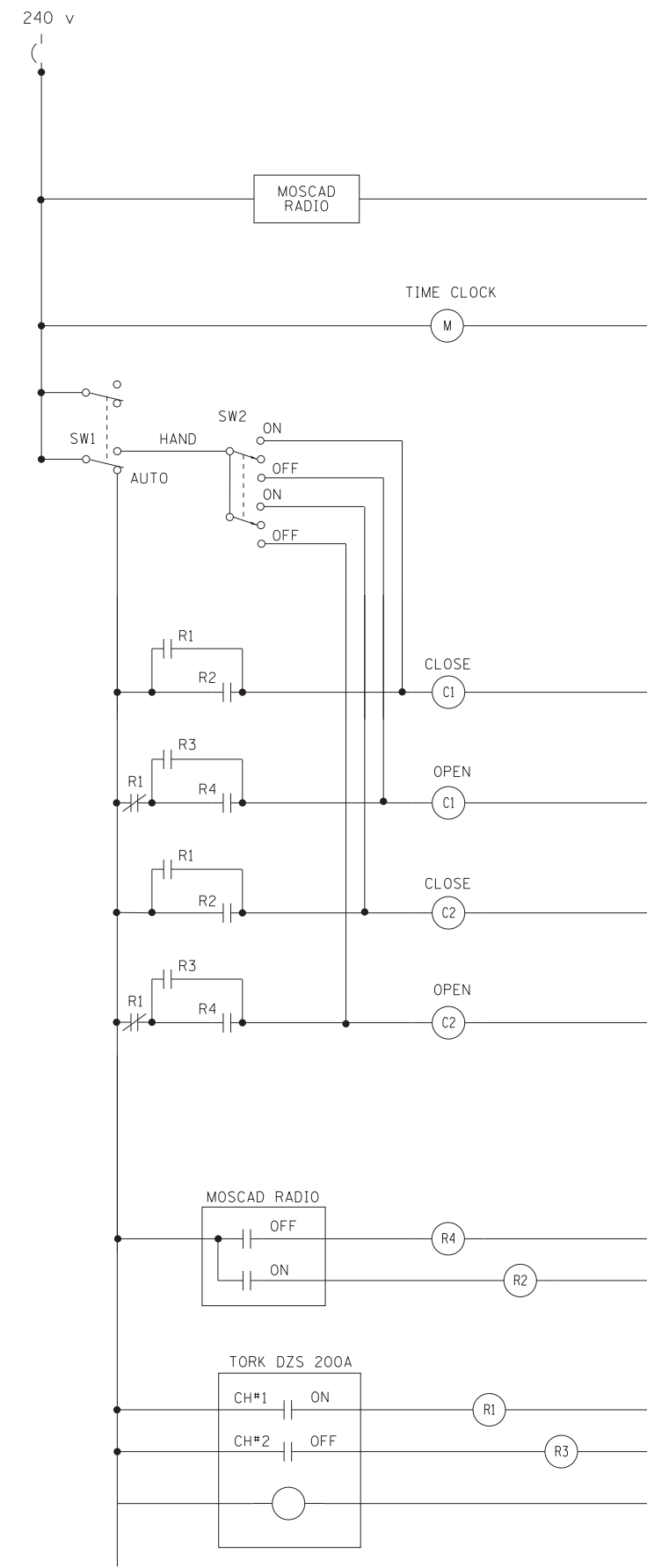
SCALE: NONE SHEET NO. 3 OF 4 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	248
BE-205		CONTRACT NO. 60J14		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

NOTES

- CABINET SHALL BE FABRICATED FROM 0.125-INCH (3.175) SHEET ALUMINUM #3003H14, FORMED AND ARC WELDED.
- ALL SCREWS AND HARDWARE SHALL BE PLATED, GALVANIZED, OR MADE OF BRASS, ALUMINUM OR STAINLESS STEEL, UNLESS OTHERWISE NOTED.
- NAME PLATE SHALL HAVE ENGRAVED 0.75-INCH (19.05) HIGH LETTERS FILLED IN BLACK: "STATE OF ILLINOIS LIGHTING CONTROLS" UNLESS OTHERWISE SPECIFIED.
- ONE INCH THICK POLYISOCYANURATE INSULATION SHALL BE INSTALL AND PERMANENTLY CEMENTED ON ALL SIDES OF THE CABINET AND DOORS.
- CABINET SHALL BE PRIMED AND PAINTED AS SPECIFIED.
- ELECTRIC UTILITY METER BOX SHALL BE MOUNTED ON THE SIDE OF CONTROL CABINET AS SHOWN ON THE PANEL LAYOUT DIAGRAM.
- THE COMPLETED CONTROLLER SHALL BE U.L. LISTED AS AN INDUSTRIAL CONTROL PANEL UNDER UL508.
- METAL MOUNTING PANEL SHALL BE FABRICATED FROM THE SAME MATERIAL AS THE CABINET AND SHALL BE FLANGED BACK 0.75-INCHES I.D. ON 4 SIDES.
- CIRCUIT BREAKERS AND CONTACTORS AND OTHER COMPONENTS SHALL BE MOUNTED ON 0.125-INCH (3.175) THICK GLASTIC INSULATION BACK PANEL.
- ALL DEVICES SHALL BE FRONT REMOVABLE.
- TIME CLOCK CHANNEL 1 N.O. CONTACT IS CLOSED NIGHT AND OPEN DAY (LIGHTS ON).
- SET LATITUDE TO 42 DEGREES, SET CH.1 TO 23 MINUTES AFTER ASTRONOMICAL SUNSET, 50 MINUTES BEFORE ASTRONOMICAL SUNRISE. SET CH.2 TO 60 MINUTES AFTER ASTRONOMICAL SUNSET (WITH A SIGNAL LENGTH OF 1 SECOND), +28 MINUTES AFTER ASTRONOMICAL SUNRISE (WITH A SIGNAL LENGTH OF 7 SECONDS.)
- BUS BAR SHALL HAVE 22 LUG TERMINALS SIZED TO ACCOMMODATE REQUIRED WIRE SIZES. 240V NEUTRAL BUS SHALL BE PAINTED WHITE, GROUND BUS SHALL BE PAINTED GREEN, AND THE 120V NEUTRAL BUS SHALL BE PAINTED GREY.
- ALL LUGS SHALL BE OF COPPER SCREWS AND CONNECTORS, SPRING HELD.
- ALL WIRING TERMINATIONS SHALL BE RATED NOT LESS THAN 75 DEGREE CENTIGRADE.
- ALL CONTROL WIRING SHALL BE 600V #12 TYPE MTW, SCADA WIRING SHALL BE #18.
- ALL POWER WIRING SHALL BE 600V TYPE RHH/RHW.
- ALL WIRING WITHIN THE CABINET SHALL BE COLOR CODED AS INDICATED:

R - RED	Y - YELLOW
B - BLACK	W - WHITE
BL - BLUE	G - GREEN
	GR - GREY
- MOSCAD I/O WIRING SHALL BE:
 - DIGITAL INPUT (DI) WIRING SHALL BE #18 MTW PURPLE.
 - ANALOG INPUT (AI) WIRING SHALL BE #18, 2/C SHIELDED.
 - AI AND DI WIRING MAY BE BUNDLED TOGETHER, BUT SHALL NOT BE BUNDLED WITH OTHER WIRING.
- ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE INDICATED.
- SCHEMATIC SHOWN WITH BREAKER OPEN, CONTACTOR OPEN, CABINET DOOR CLOSED, CLOCK NOT ACTIVE (DE-ENERGIZED STATE).
- A LAMINATED COPY OF THE CIRCUIT SCHEMATIC AND SCADA I/O DIAGRAM (NO SMALLER THAN 11"x17" EACH) SHALL BE ATTACHED TO THE INSIDE OF THE CONTROLLER WITH STAINLESS STEEL SCREWS.



CONTROL CIRCUIT LADDER LOGIC DIAGRAM

MOSCAD I/O ASSIGNMENTS		
TERM	MOSCAD DESTINATION	DESCRIPTION OF INPUT
1	DIGITAL INPUT 1	ALARM KNOWLEDGE
2	DIGITAL INPUT 2	DOOR OPEN
3	DIGITAL INPUT 3	MAINS) BREAKER OPEN
4	DIGITAL INPUT 4	CONTACTOR 1 OPEN
5	DIGITAL INPUT 5	CONTACTOR 2 OPEN
6	DIGITAL INPUT 6	CABINET IN NON-AUTO
7	DIGITAL INPUT 7	BACK-UP CLOCK OFF CALL
8	DIGITAL INPUT 8	BACK-UP CLOCK ON CALL
17	24 V+	24+VDC
18	DI COMMON	COMMON
21	K1 C	K1 COMMON
22	K1 NO	LIGHTS ON CALL
24	K2 C	K2 COMMON
25	K2 NO	LIGHTS OFF CALL
32	ANALOG INPUT 1 (+)	CABINET NEUTRAL CURRENT
33	ANALOG INPUT 1 (-)	CABINET NEUTRAL CURRENT
34	ANALOG INPUT 2 (+)	CABINET SERVICE VOLTAGE
35	ANALOG INPUT 2 (-)	CABINET SERVICE VOLTAGE
40	P. GROUND	GROUND

ALL ANALOG INPUTS WILL BE 4-20 MA ONLY. DIGITAL OUTPUT RELAYS WILL BE ELECTRICALLY ENERGIZED AND MOMENTARILY HELD
MIXED I/O MODULE MODEL NUMBER V436

FILE NAME =	USER NAME = drivakosgn	DESIGNED -	REVISED - R. TOMSONS 08-19-04
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	PLOT SCALE = 50.000' / in.	CHECKED -	REVISED - R. TOMSONS 03-10-10
	PLOT DATE = 3/29/2012	DATE -	REVISED - R. TOMSONS 03-29-12

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

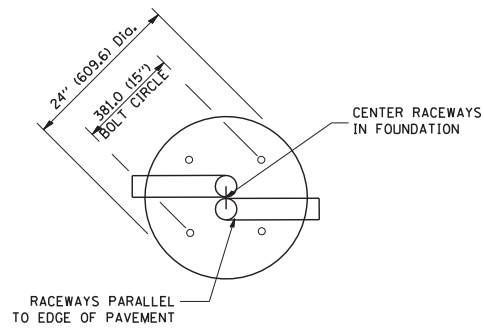
LIGHTING CONTROLLER, BASE MOUNTED, 480VOLT, 200AMP (DUAL) RADIO SCADA

SCALE: NONE SHEET NO. 4 OF 4 SHEETS STA. TO STA.

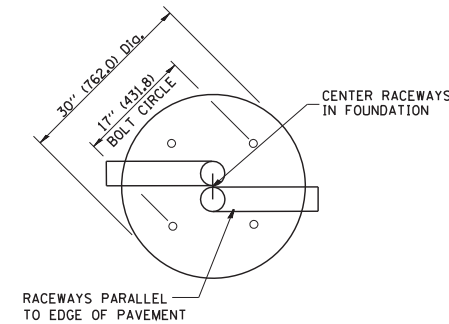
F.A. RTE. 2746	SECTION 1616B	COUNTY COOK	TOTAL SHEETS 404	SHEET NO. 249
BE-205		CONTRACT NO. 60J14		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

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

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



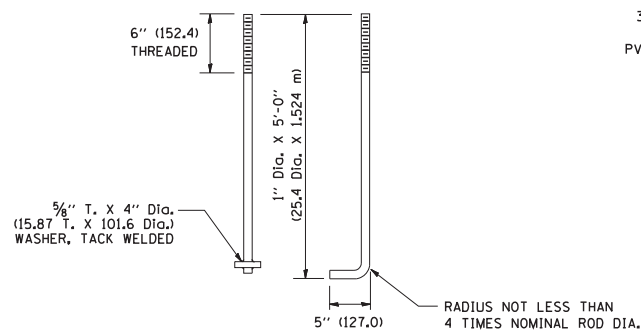
TOP VIEW



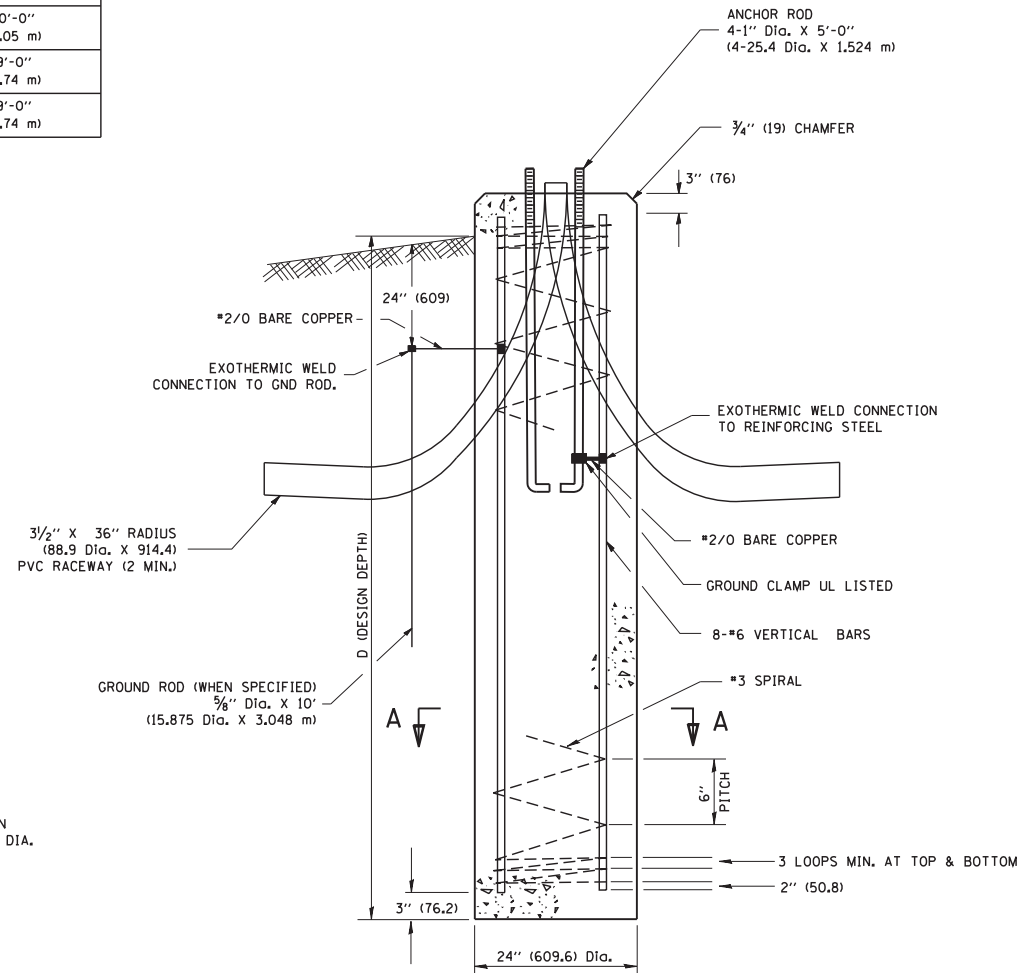
TOP VIEW

NOTES

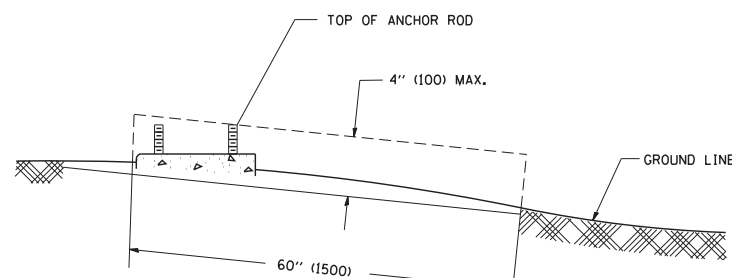
- ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
- THE ANCHOR RODS AND RACEWAYS SHALL BE PROPERLY SECURED IN PLACE BEFORE THE CONCRETE IS PLACED.
- THE FOUNDATION SHALL NOT PROTRUDE MORE THAN 100MM (4 IN.) ABOVE THE FINISHED GRADE WITHIN A 60 IN. (1.5 m) CHORD ACROSS THE FOUNDATION,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



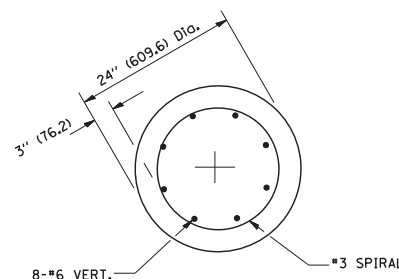
ANCHOR ROD DETAIL



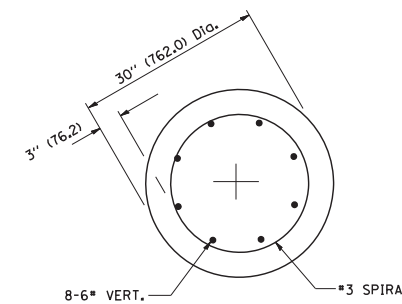
FOUNDATION DETAIL



FOUNDATION EXTENSION DETAIL



SECTION A-A



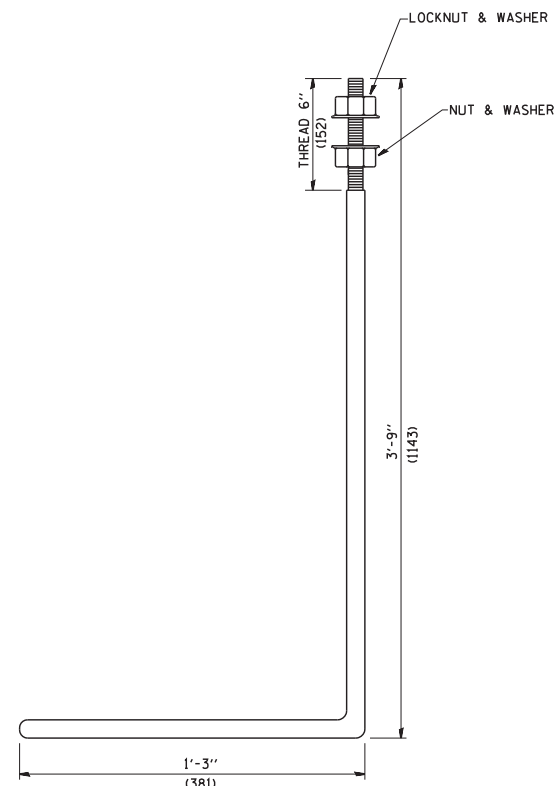
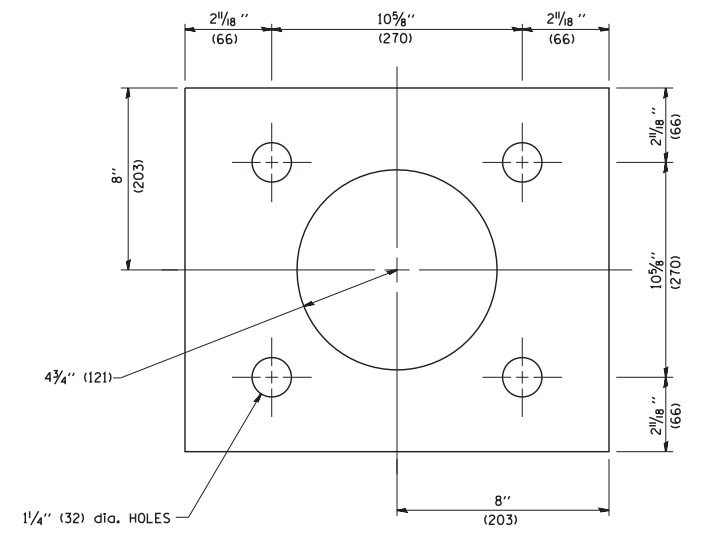
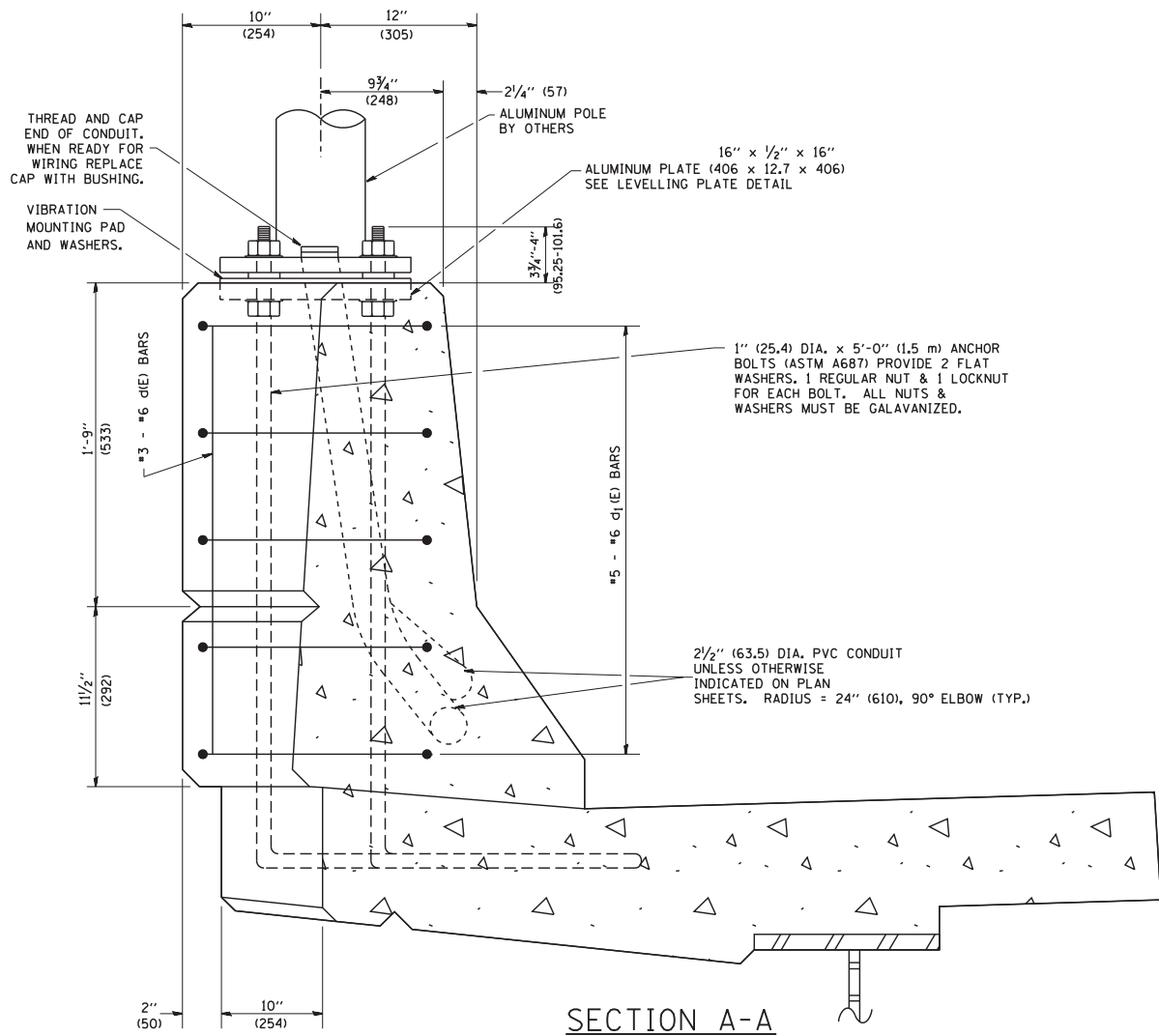
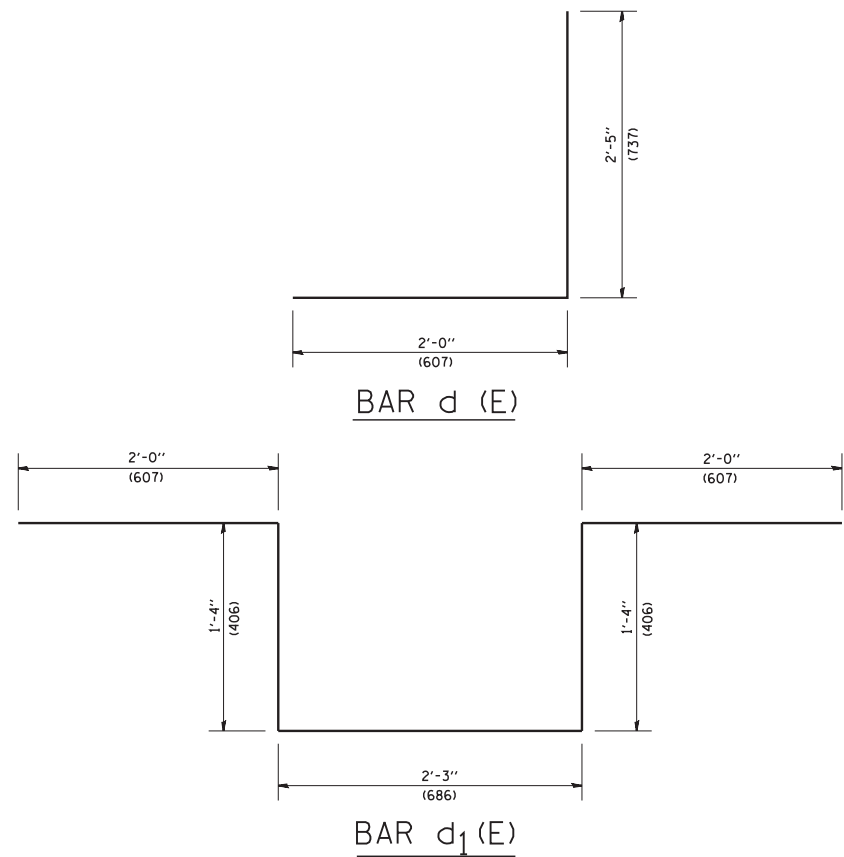
SECTION A-A

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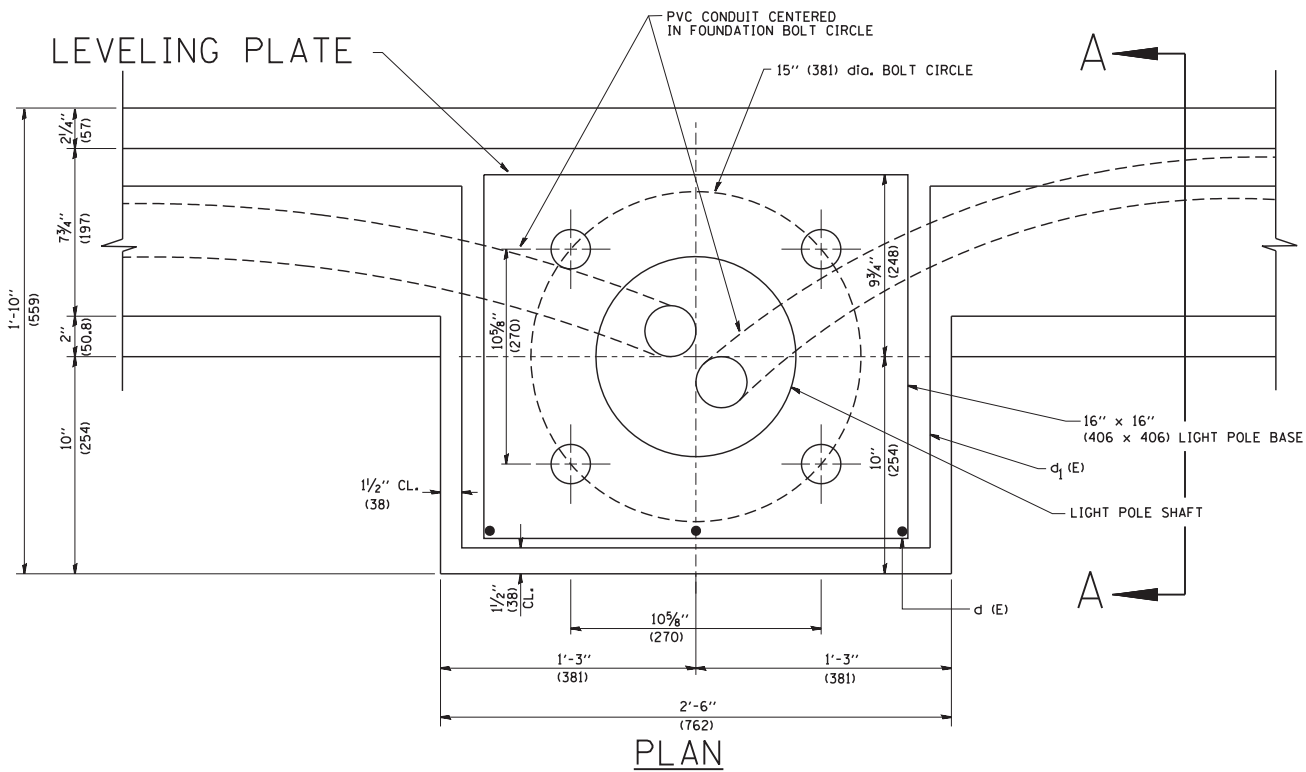
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	250
BE-301			CONTRACT NO. 60J14	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



1" (25.4) dia. ANCHOR BOLT



NOTES

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

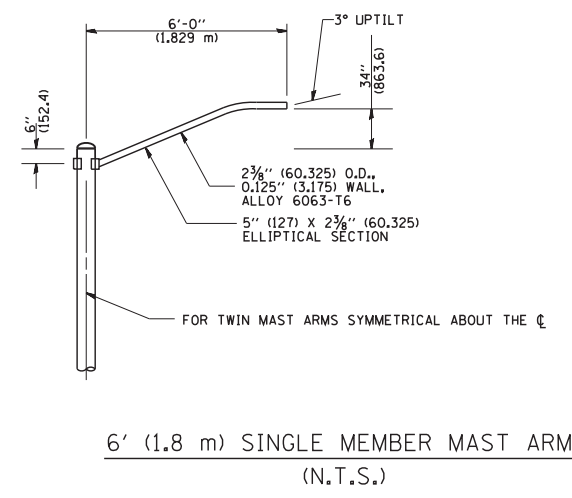
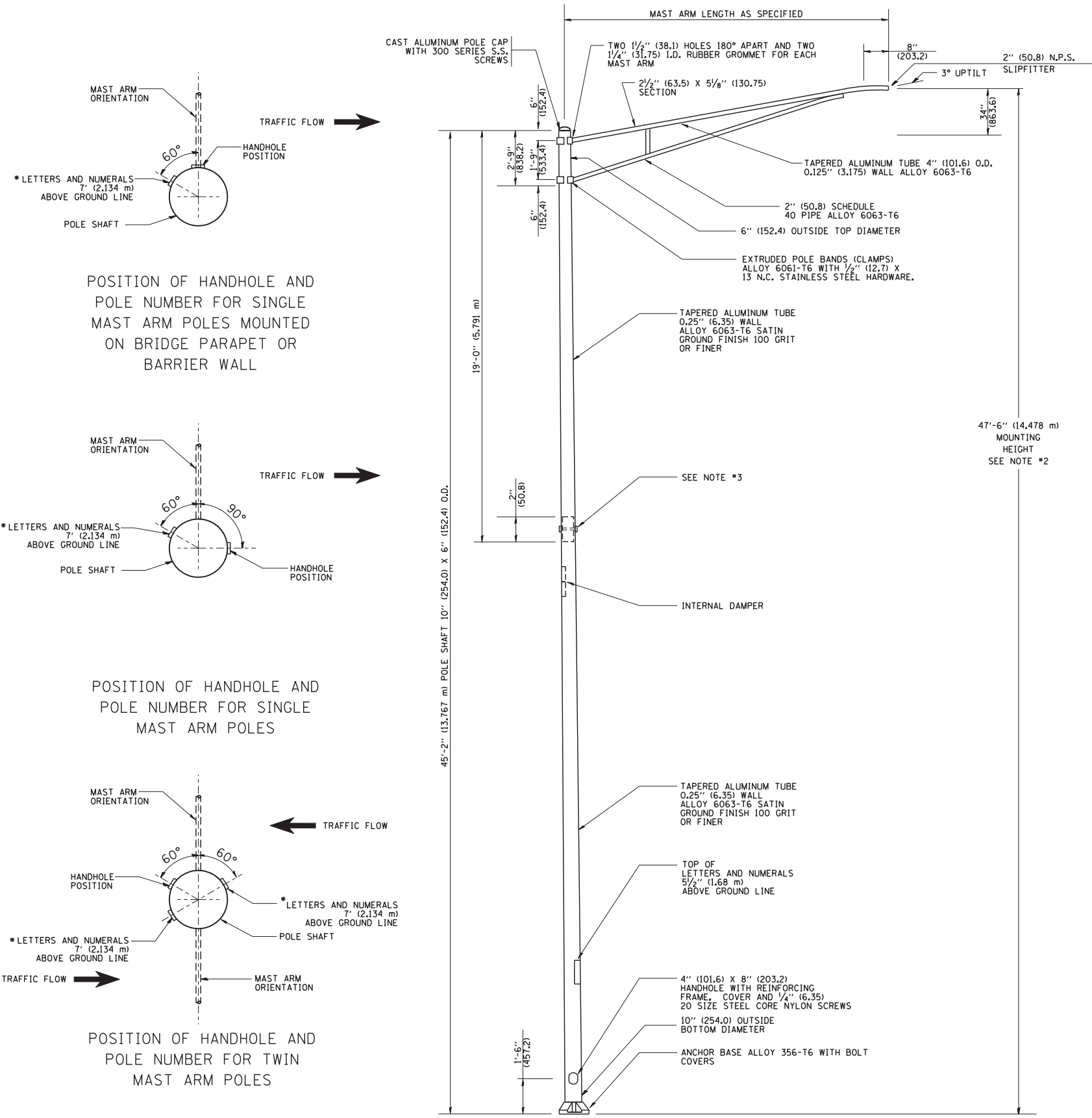
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		DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

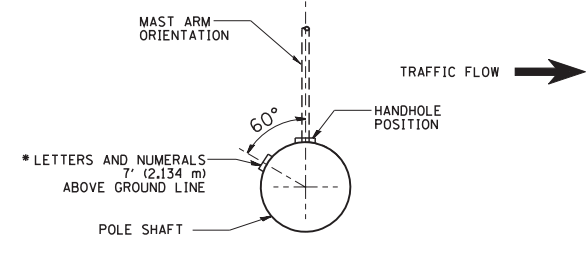
**LIGHT POLE MOUNTED ON CONCRETE PARAPET WALL
15" (381 mm) BOLT CIRCLE**

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

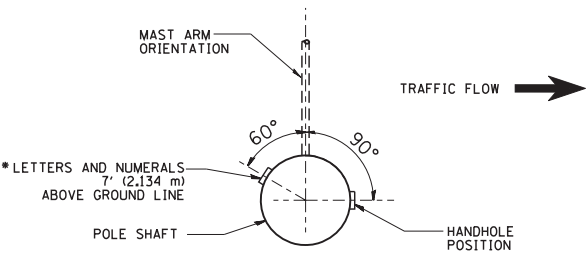
F.A. RTE. 2746	SECTION 1616B	COUNTY COOK	TOTAL SHEETS 404	SHEET NO. 251
BE-330			CONTRACT NO. 60J14	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



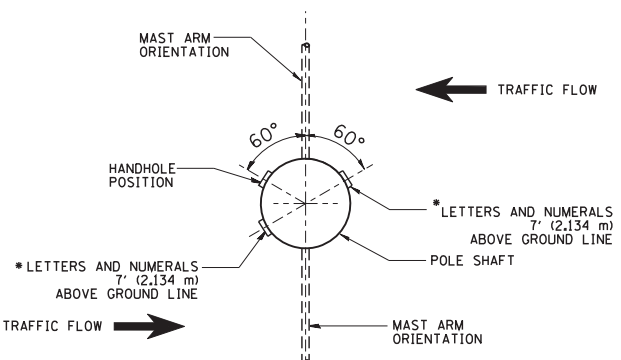
- NOTES:**
1. ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
 2. MOUNTING HEIGHT IS DEFINED AS THE DISTANCE FROM THE CENTERLINE OF THE TENON TO THE BOTTOM OF THE ANCHOR BASE.
 3. TWO PIECE SHAFT WILL BE MATCHED MARKED AND INTERCHANGEABLE BETWEEN DIFFERENT UNITS. FIELD DRILLING OF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



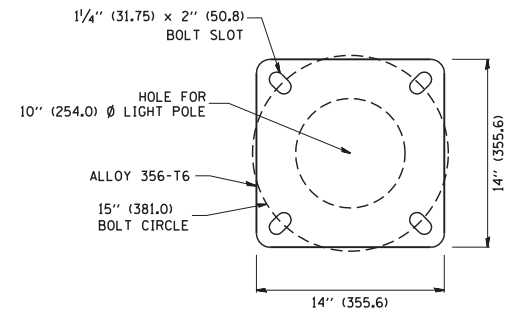
POSITION OF HANDHOLE AND POLE NUMBER FOR SINGLE MAST ARM POLES MOUNTED ON BRIDGE PARAPET OR BARRIER WALL



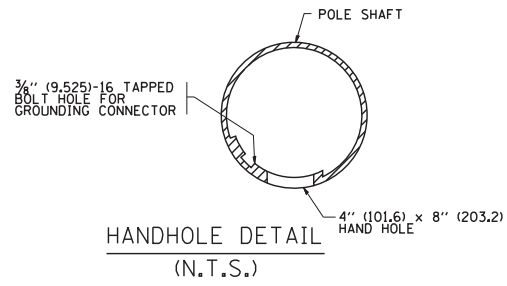
POSITION OF HANDHOLE AND POLE NUMBER FOR SINGLE MAST ARM POLES



POSITION OF HANDHOLE AND POLE NUMBER FOR TWIN MAST ARM POLES



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



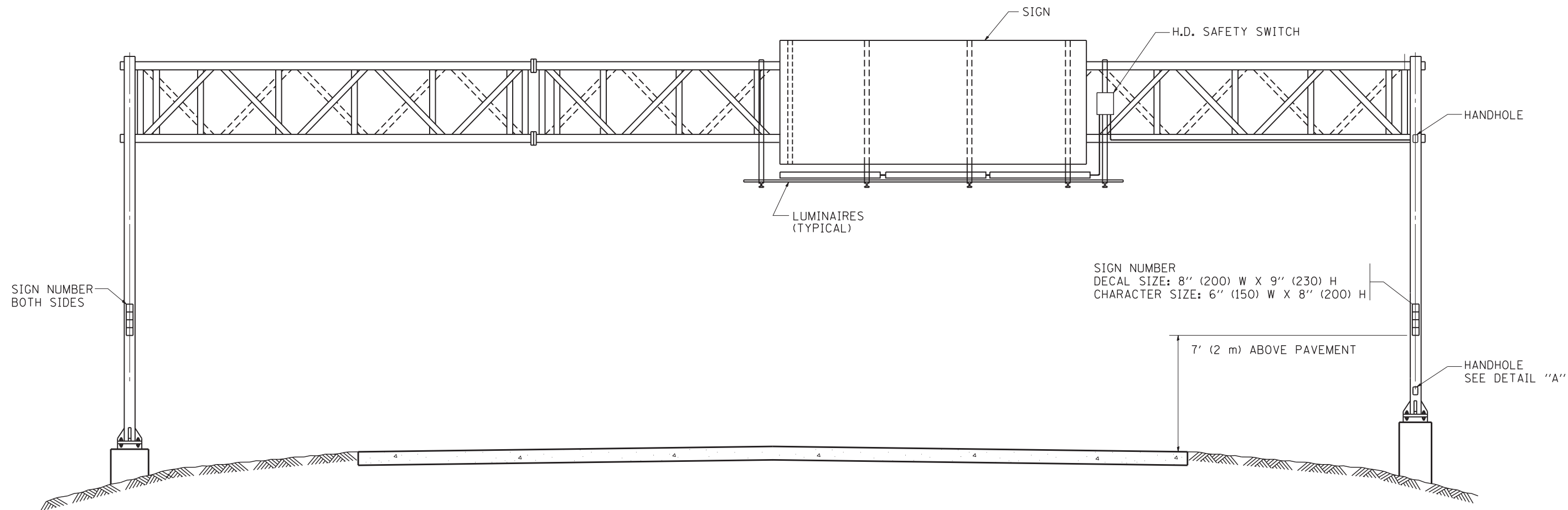
HANDHOLE DETAIL
(N.T.S.)

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	PLOT SCALE = 50.000' / IN.	CHECKED -	REVISED -
	PLOT DATE = 1/4/2008	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

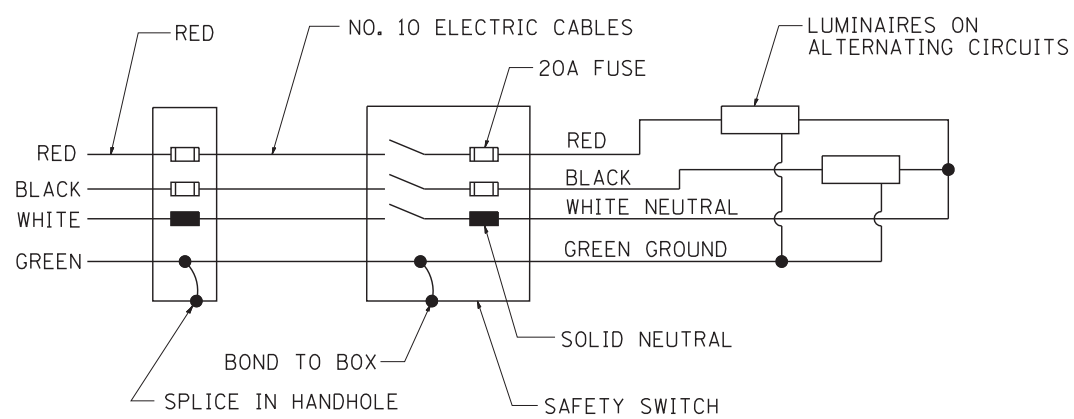
ALUMINUM LIGHT POLE			
47'-6" (14.478 m) MOUNTING HEIGHT			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

F.A. RTE. 2746	SECTION 1616B	COUNTY COOK	TOTAL SHEETS 404	SHEET NO. 252
BE-400			CONTRACT NO. 60J14	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

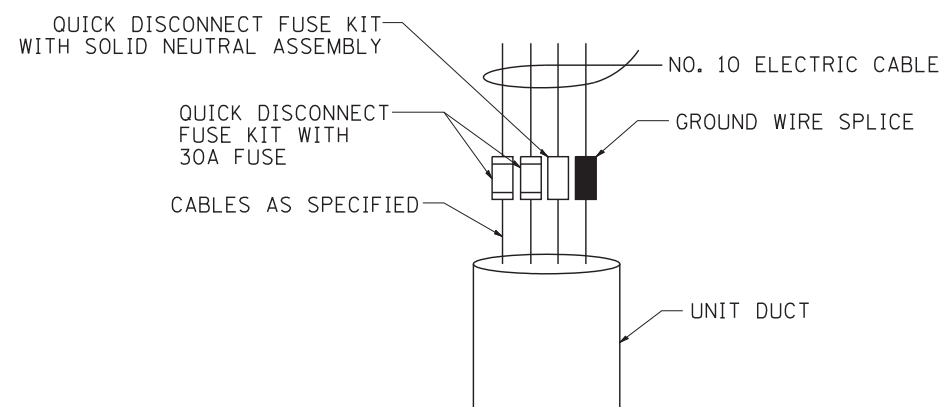


SIGN NUMBER
 DECAL SIZE: 8" (200) W X 9" (230) H
 CHARACTER SIZE: 6" (150) W X 8" (200) H

7' (2 m) ABOVE PAVEMENT



WIRING DIAGRAM



DETAIL A

NOTES:

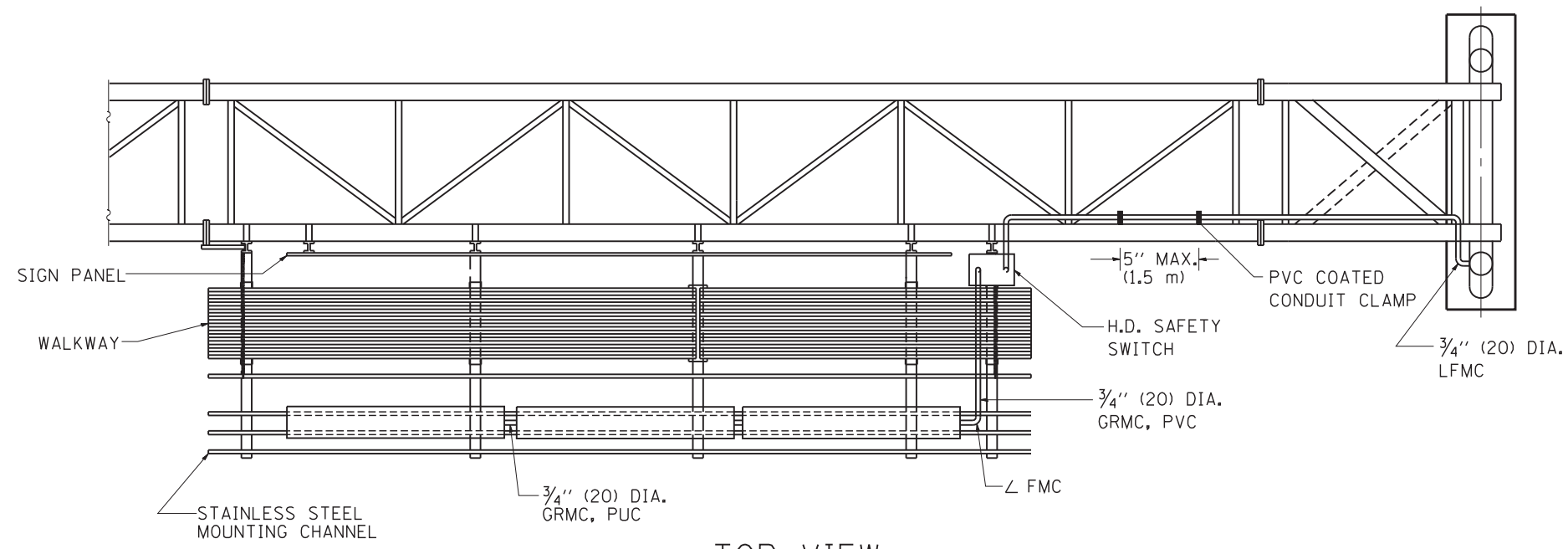
1. ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN
2. ALL CONDUIT ATTACHED TO STRUCTURE SHALL BE GALVANIZED RIGID METALIC CONDUIT, PVC COATED (GRMC, PVC)
3. THE USE OF LIQUID TIGHT METAL CONDUIT (TYPE LFMC) SHALL BE LIMITED TO LOCATIONS WHERE MOVEMENT IS ANTICIPATED AND SHALL NOT EXCEED 5' (1.5 m) IN LENGTH
4. ALL WORK INDICATED SHALL BE INCLUDED IN THE PAY ITEM FOR ELECTRIC CONNECTION TO SIGN STRUCTURE
5. THE SAFETY SWITCH SHALL BE LOCATED ON THE SIDE OF THE SIGN STRUCTURE WHICH IS CLOSEST TO THE SHOULDER, OR EDGE OF PAVEMENT.

FILE NAME = W:\diststd\22x34\be600.dgn	USER NAME = geglionobt	DESIGNED -	REVISED - 09-19-04
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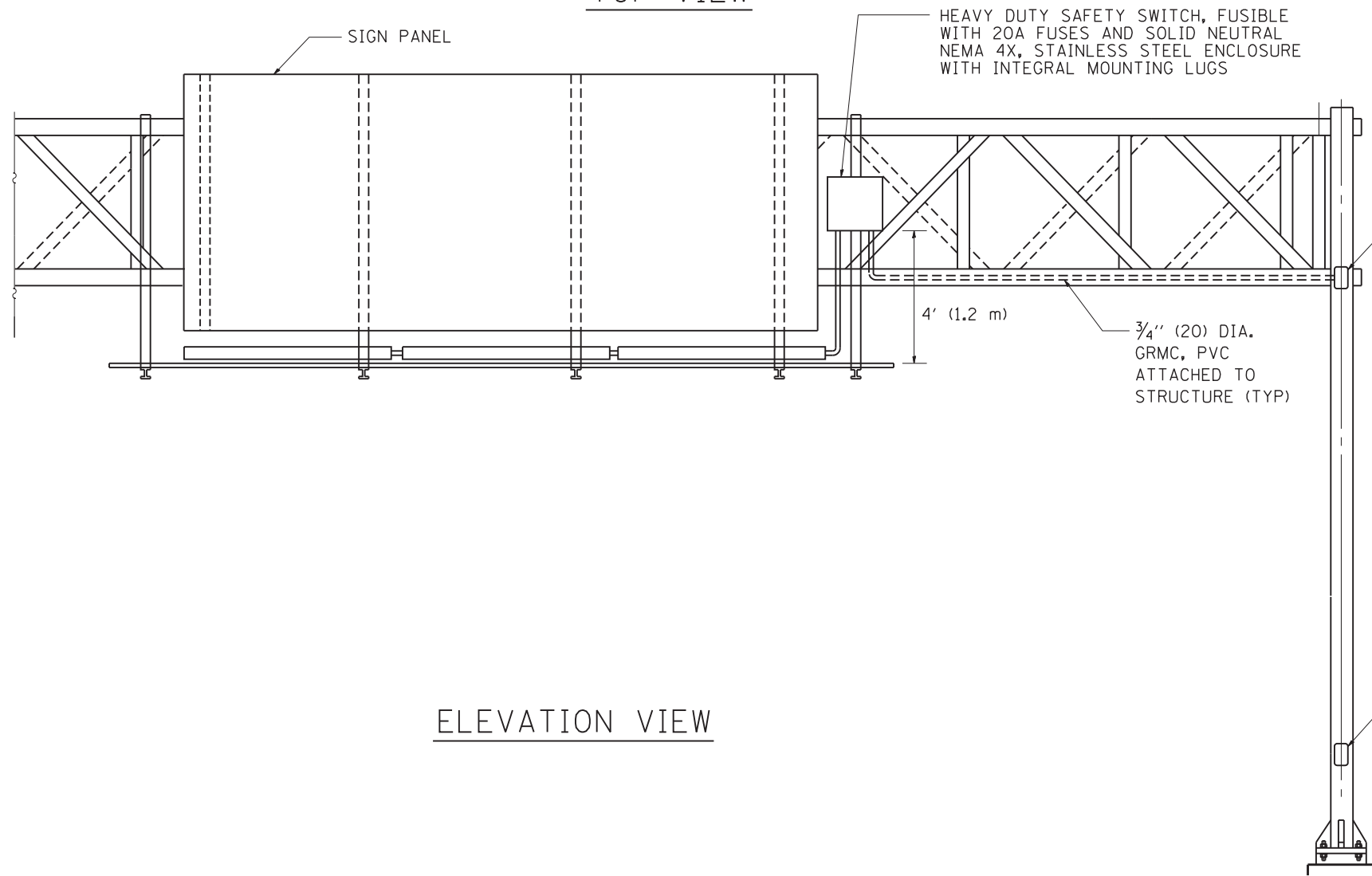
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

ELECTRIC CONNECTION TO SIGN STRUCTURE			
SPAN TYPE			
SCALE: NONE	SHEET NO. 1 OF 2 SHEETS	STA.	TO STA.

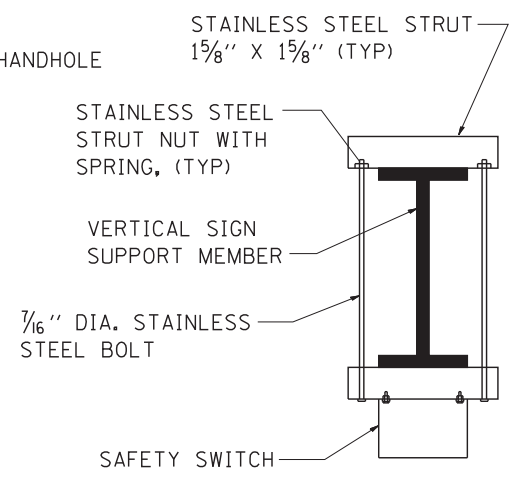
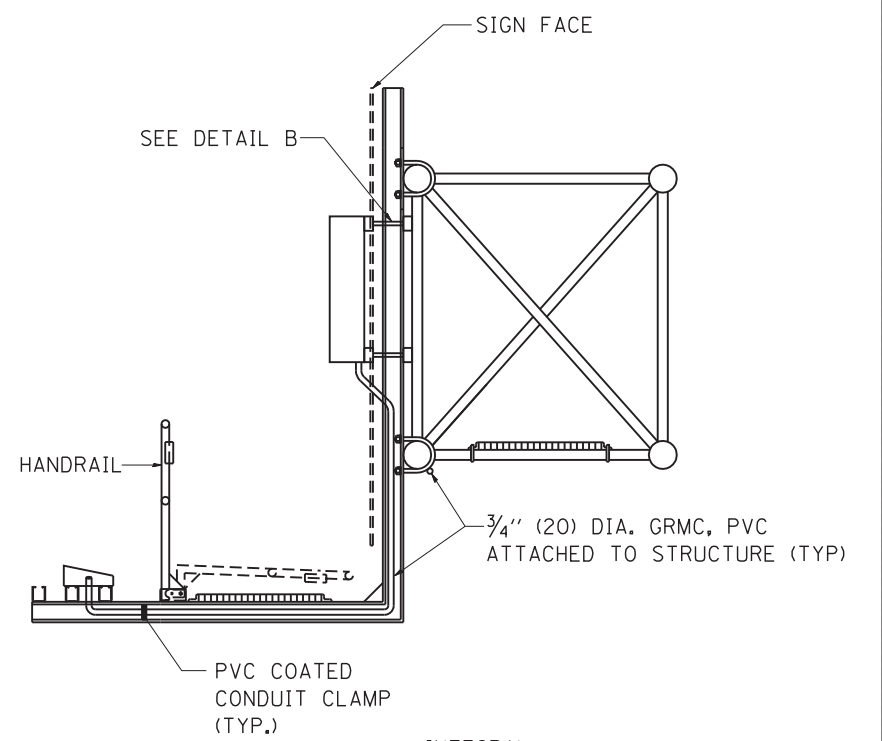
F.A. RTE. 2754	SECTION 1616B	COUNTY COOK	TOTAL SHEETS 404	SHEET NO. 253
CONTRACT NO. 60J14			BE-600	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



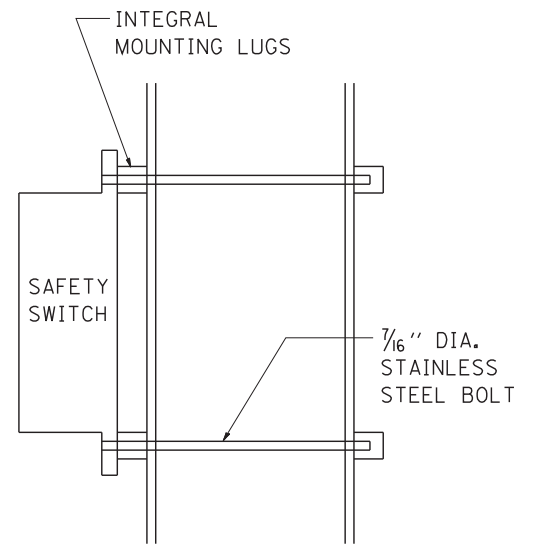
TOP VIEW



ELEVATION VIEW



TOP VIEW



SIDE VIEW

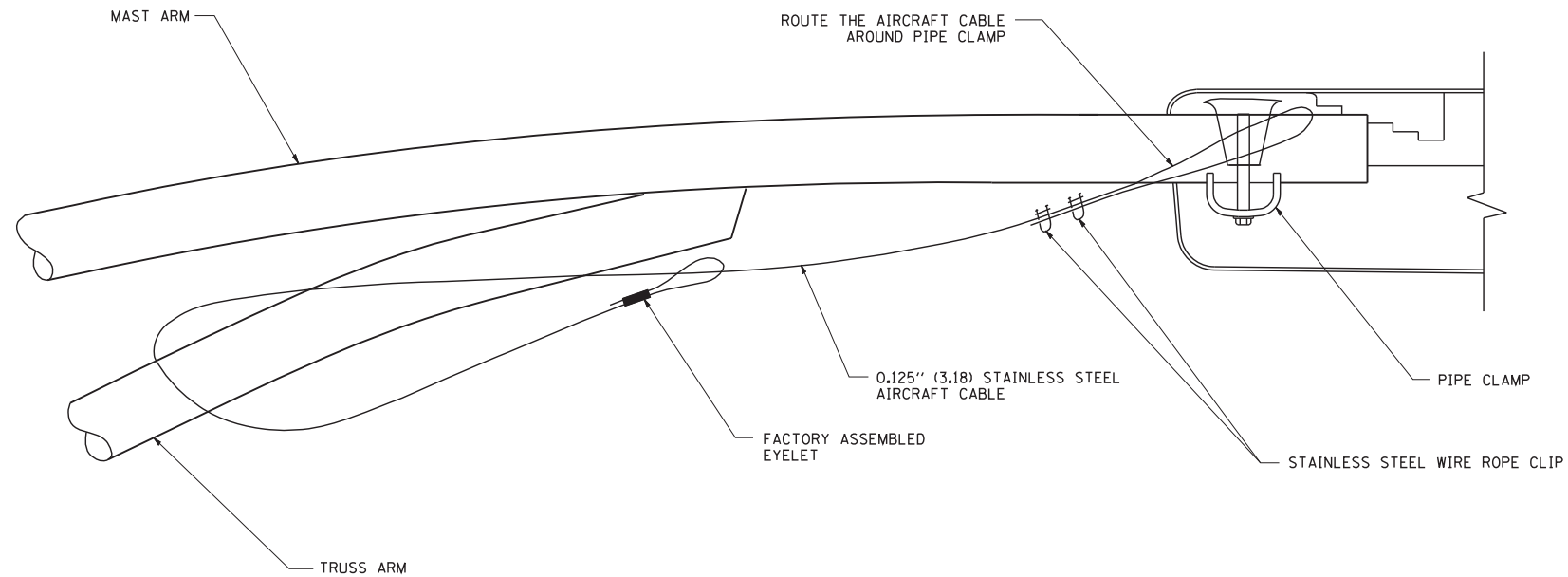
DETAIL B

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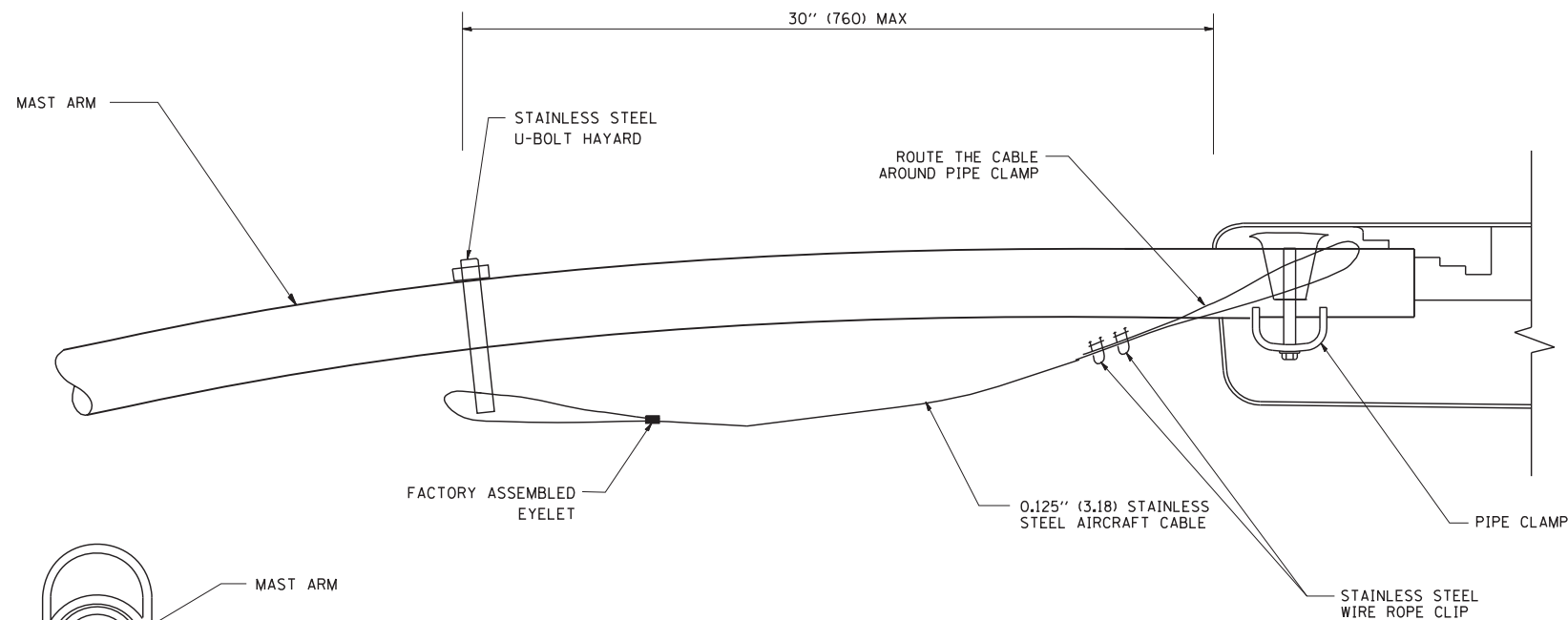
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ELECTRIC CONNECTION TO SIGN STRUCTURE			
SPAN TYPE			
SCALE: NONE	SHEET NO. 2 OF 2 SHEETS	STA.	TO STA.

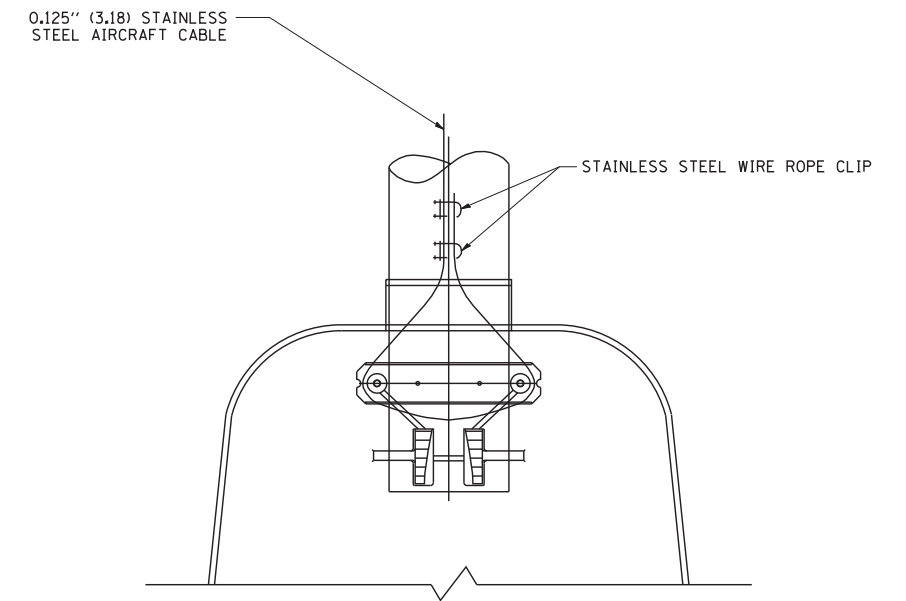
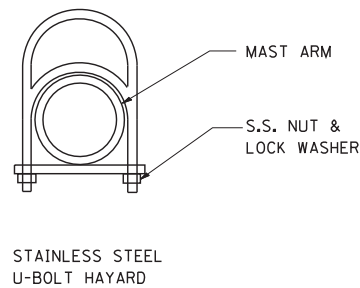
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BE-600			CONTRACT NO. 60J14	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



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



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



BOTTOM VIEW
N.T.S.

NOTES:

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

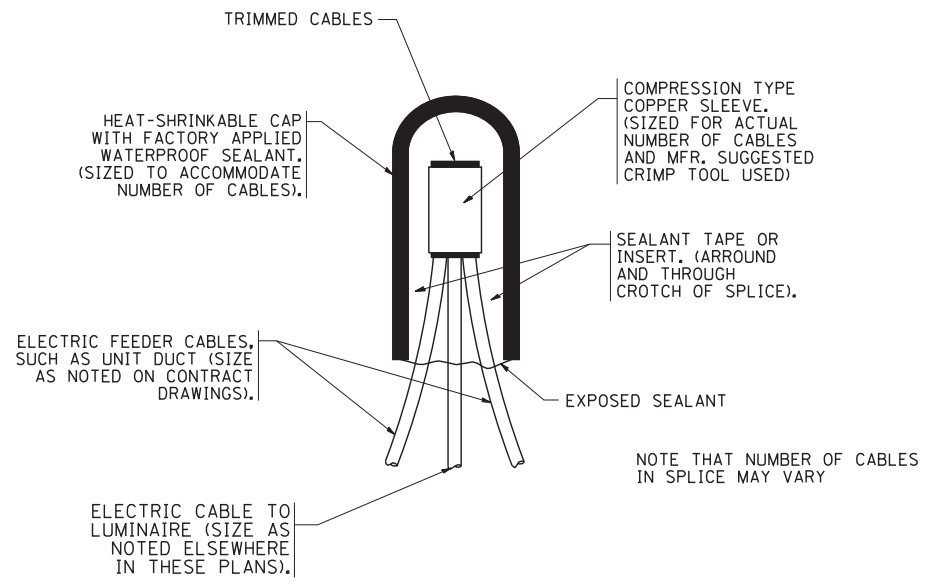
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	PLOT DATE = 1/4/2008	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

LUMINAIRE SAFETY CABLE ASSEMBLY

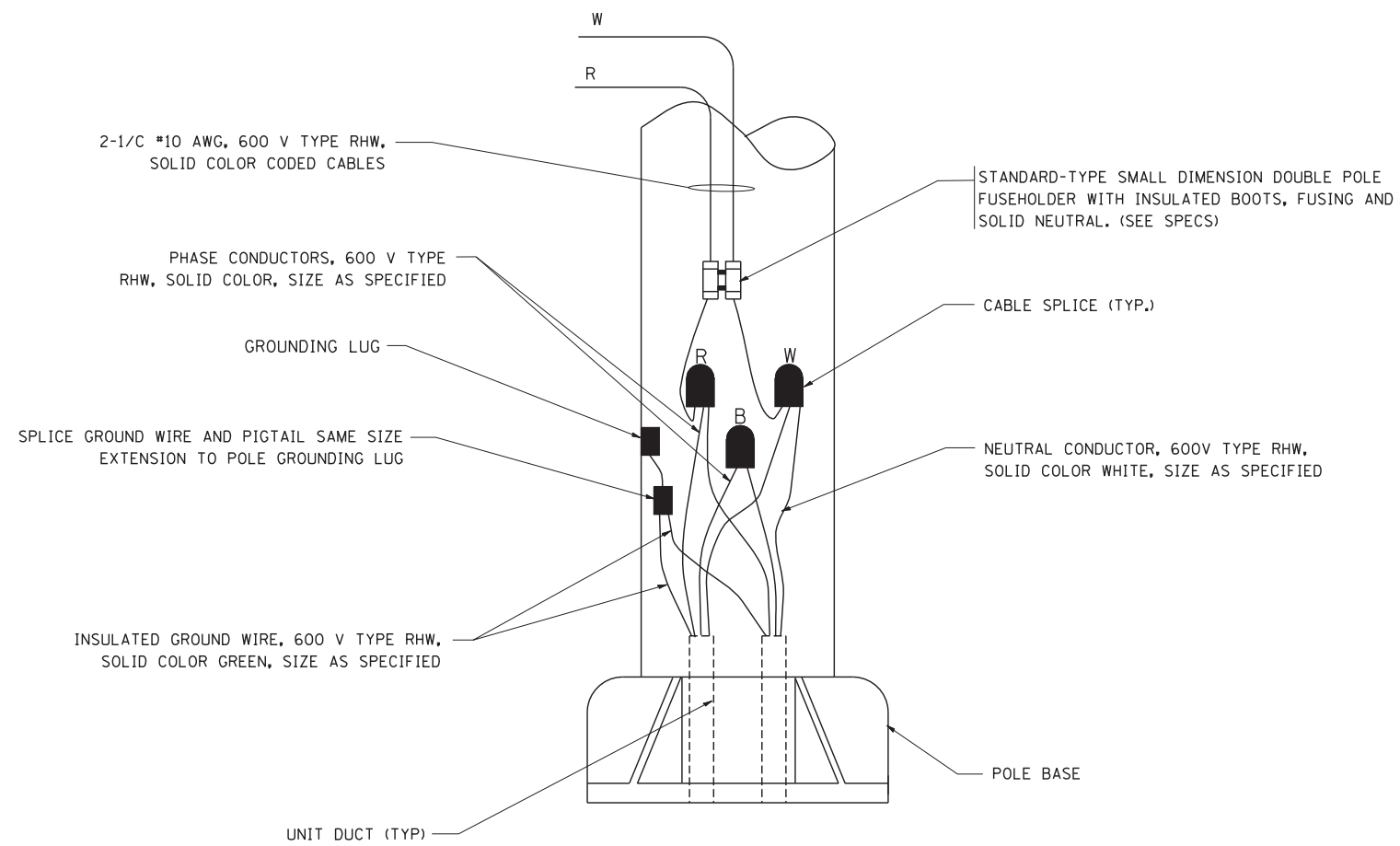
SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A. RTE. 2754	SECTION 1616B	COUNTY COOK	TOTAL SHEETS 404	SHEET NO. 255
BE-701			CONTRACT NO. 60J14	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



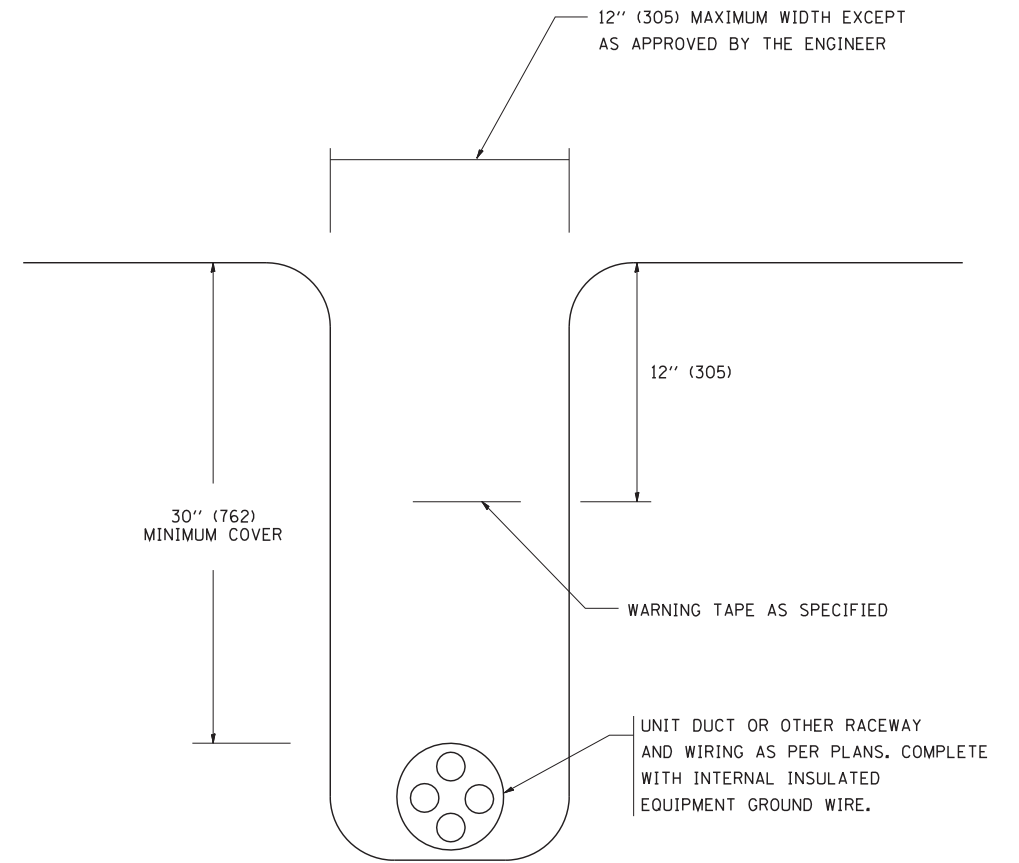
TYPICAL SPLICE DETAIL

N.T.S.



POLE WIRING DETAIL

N.T.S.



TYPICAL WIRING IN TRENCH DETAIL

N.T.S.

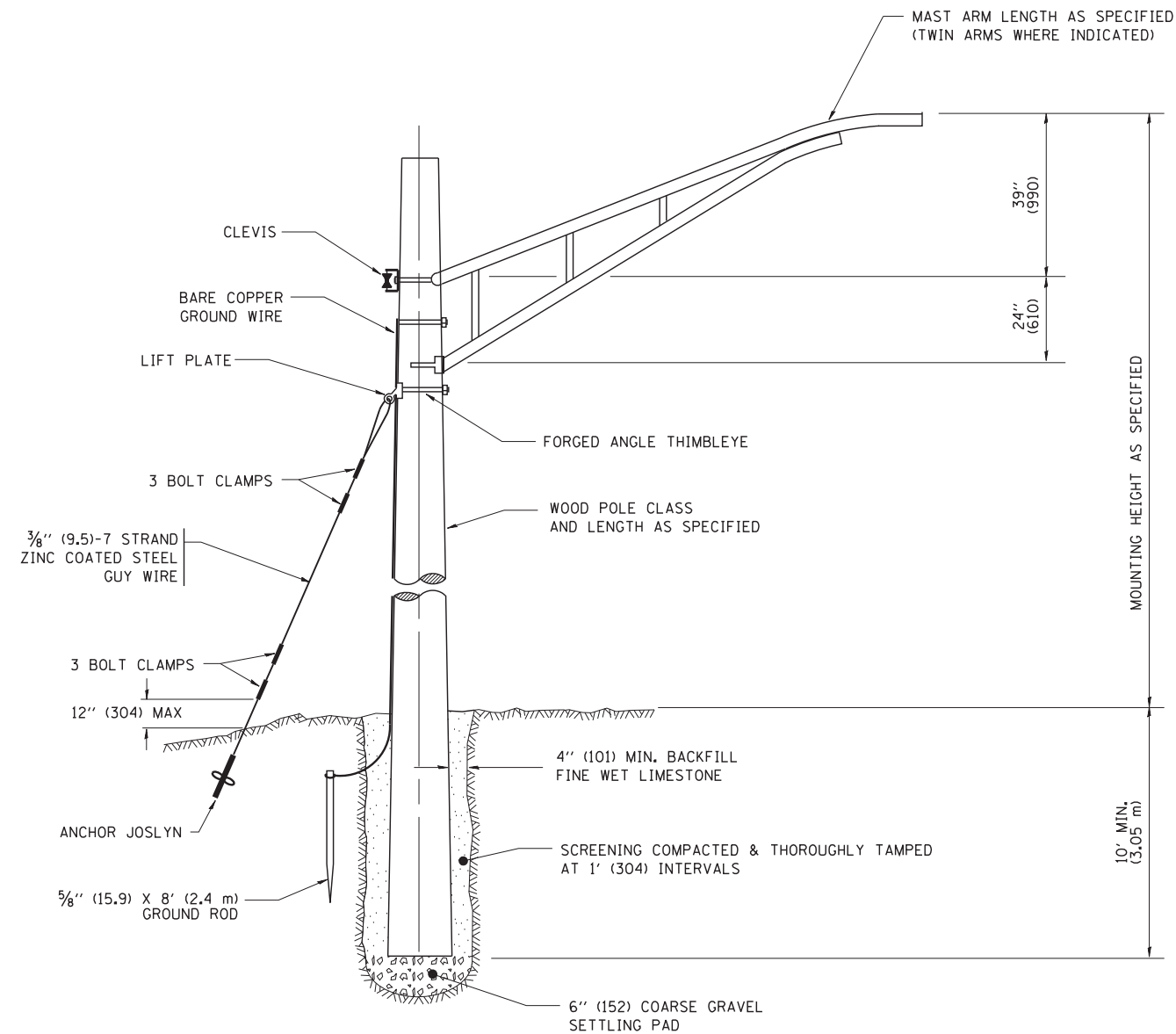
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PLOT DATE = 1/4/2008	

DESIGNED -	REVISED - 08-08-03
DRAWN -	REVISED -
CHECKED -	REVISED -
DATE -	REVISED -

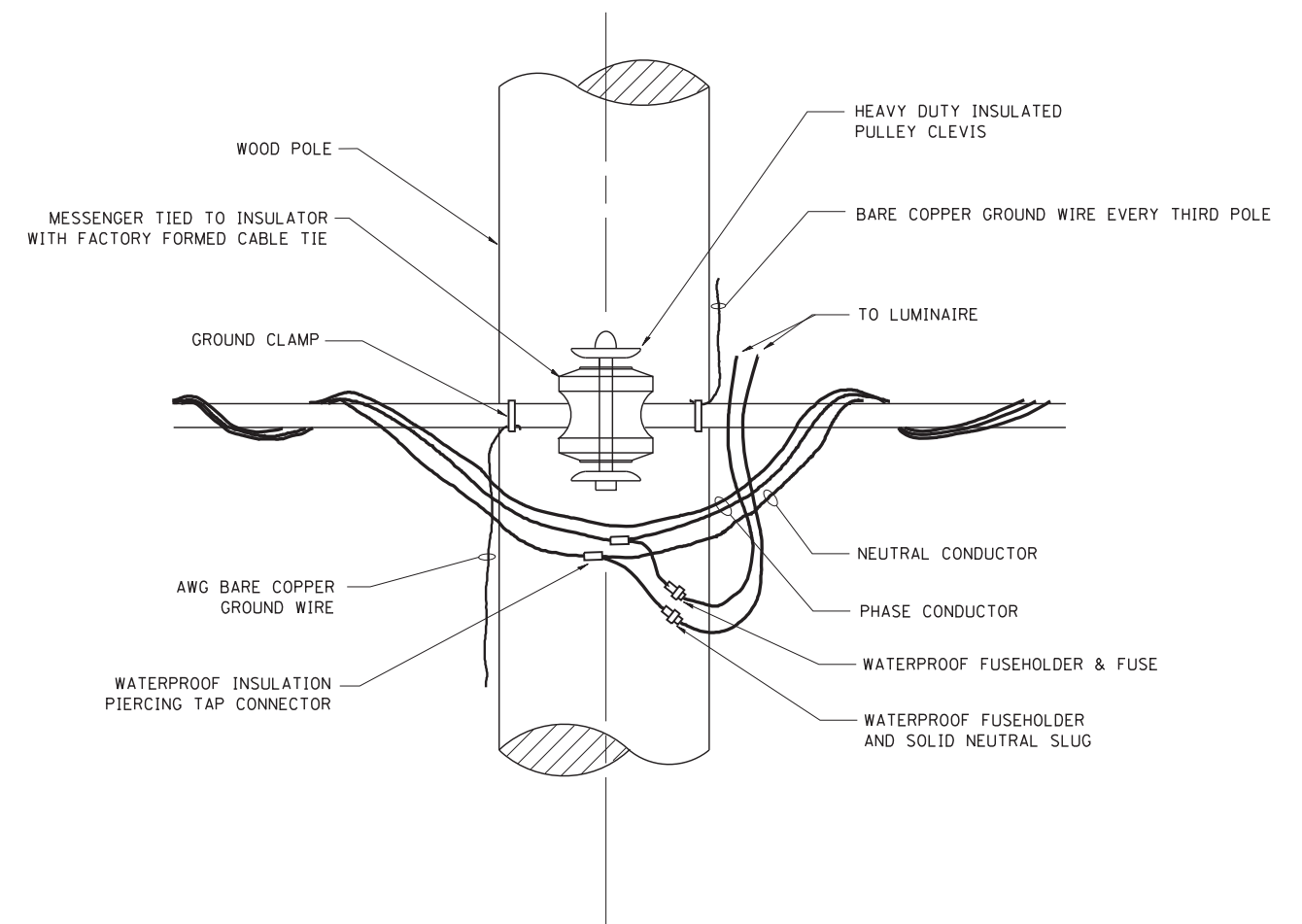
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

MISC. ELECTRICAL DETAILS			
SHEET A			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2754	1616B	COOK	404	256
BE-702			CONTRACT NO. 60J14	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



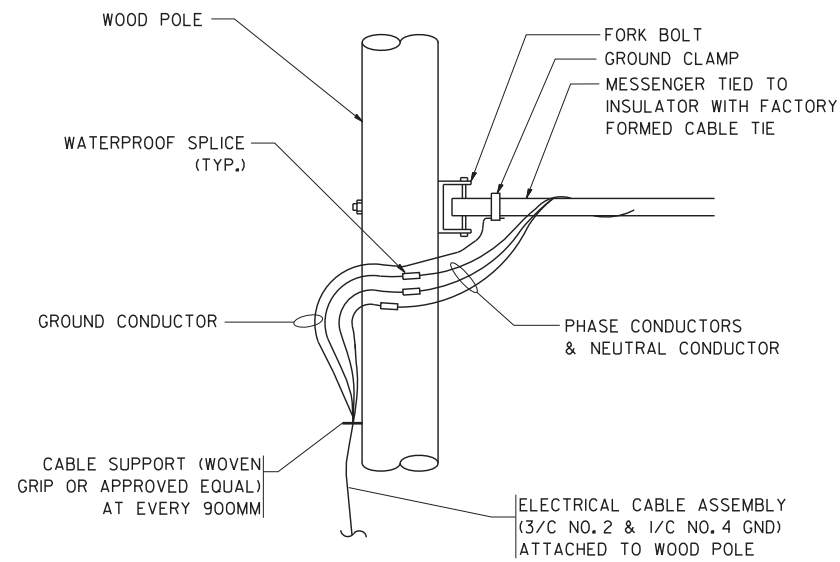
TEMPORARY LIGHT POLE DETAIL



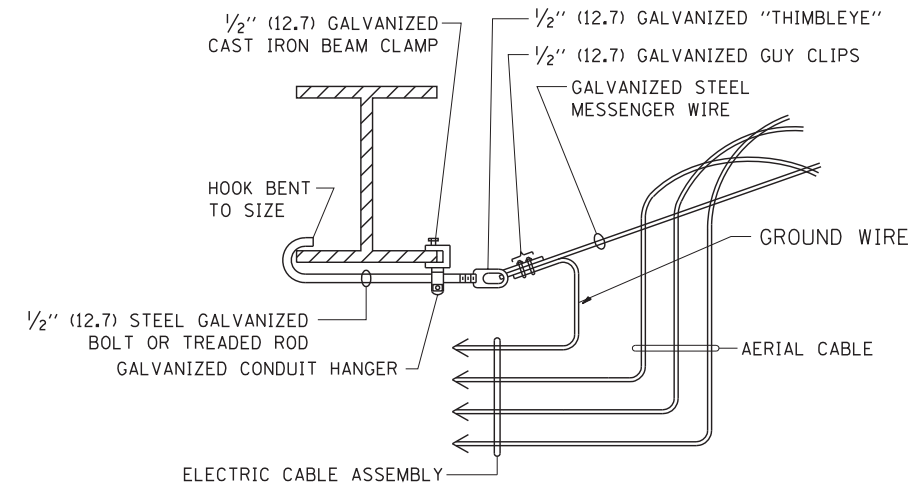
TEMPORARY LIGHT POLE ATTACHMENT DETAIL

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

FILE NAME = W:\diststd\22x34\be800.dgn	USER NAME = gaglionobt	DESIGNED -	REVISED - 08-08-03	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY LIGHT POLE DETAILS			F.A. RTE. 2754	SECTION 1616B	COUNTY COOK	TOTAL SHEETS 404	SHEET NO. 257
	PLOT SCALE = 50.000' / IN.	CHECKED -	REVISED -		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	BE-800		CONTRACT NO. 60J14	
PLOT DATE = 1/4/2008	DATE -	REVISED -						FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



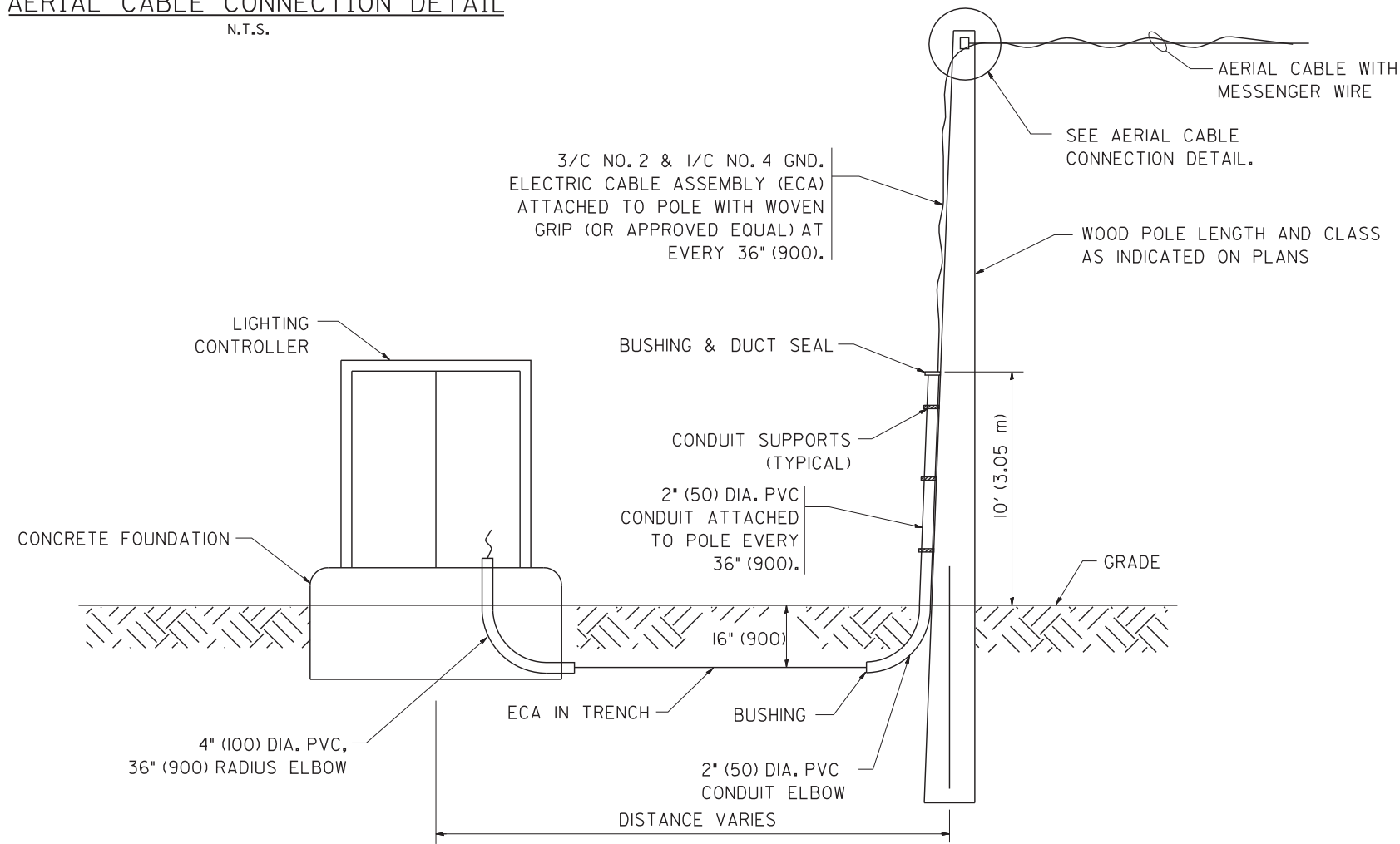
AERIAL CABLE CONNECTION DETAIL
N.T.S.



AERIAL CABLE ATTACHED TO STRUCTURE
NOT TO SCALE

NOTES:

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



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

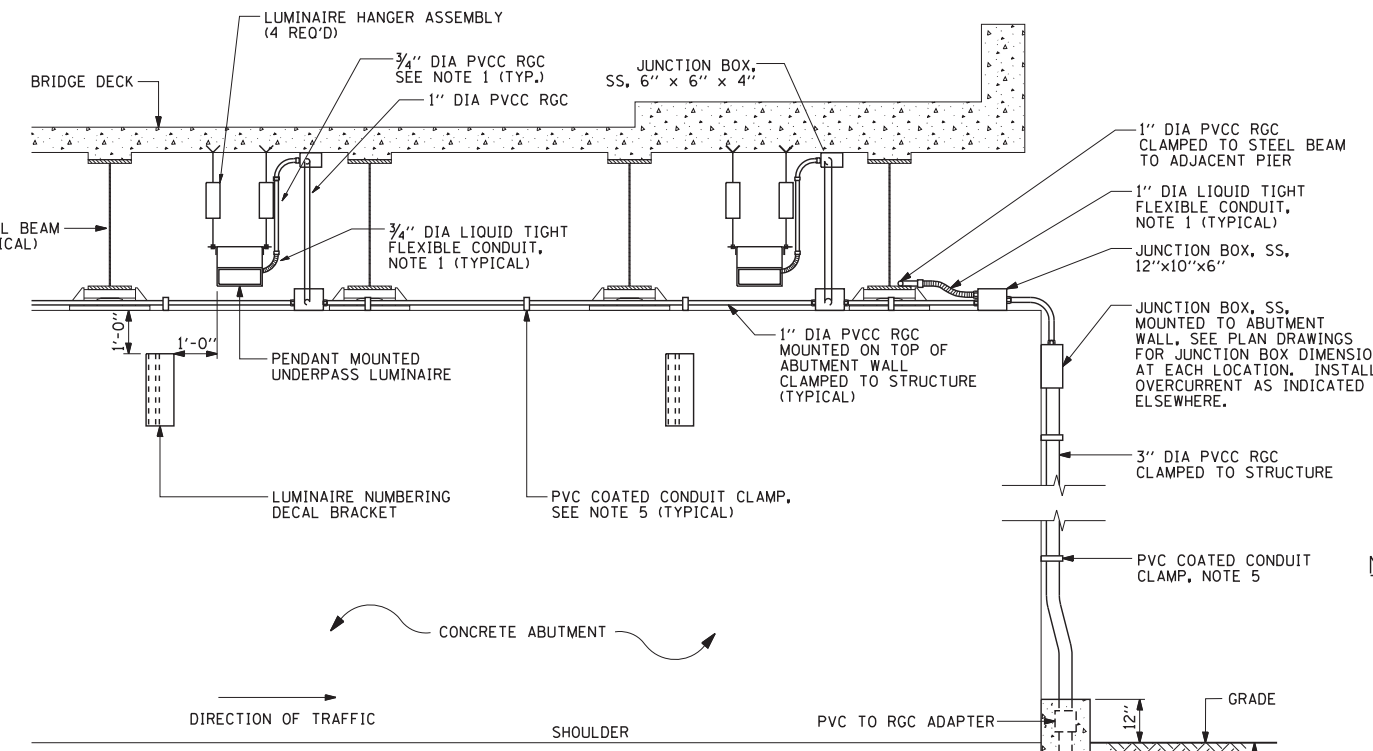
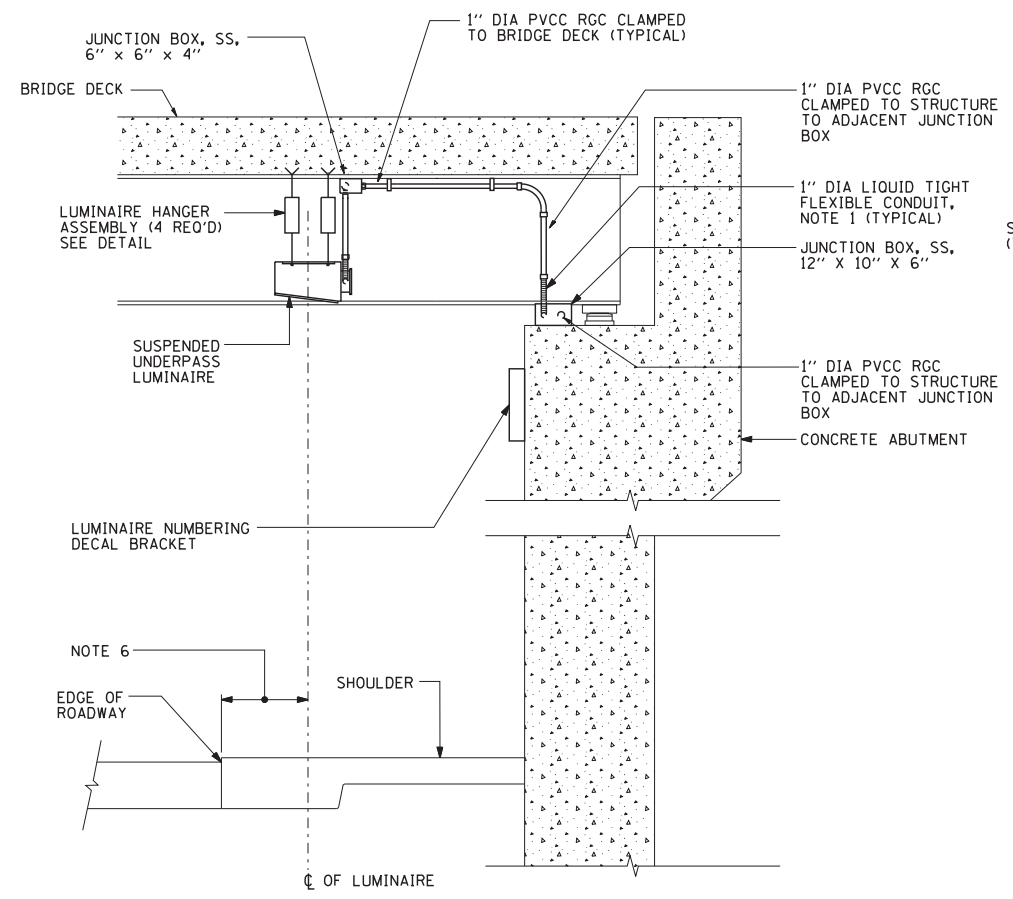
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PLOT DATE = 1/4/2008	DATE -	REVISIED -	

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

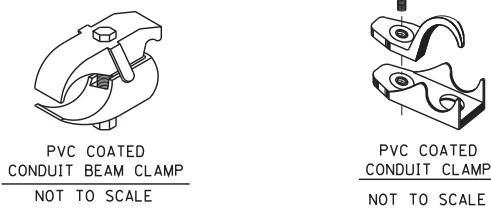
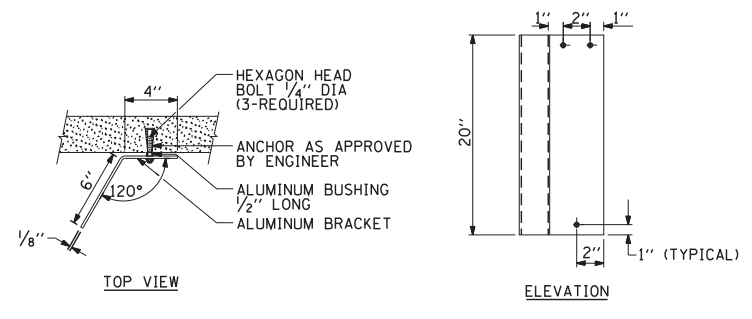
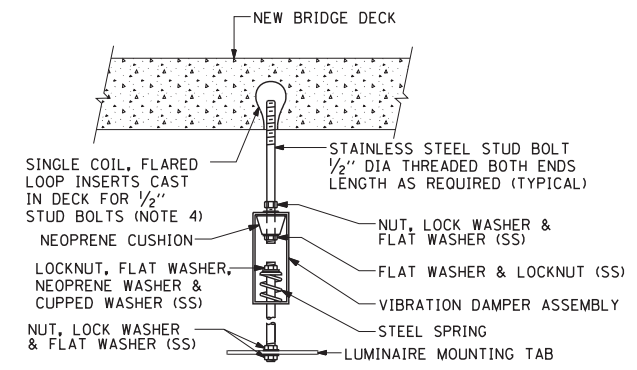
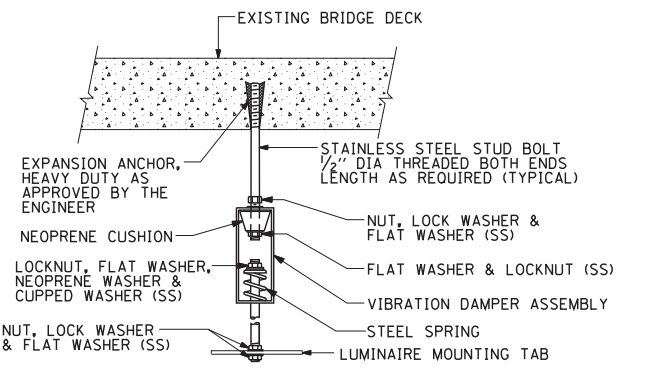
TEMPORARY AERIAL CABLE INSTALLATION

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

F.A. RTE. 2754	SECTION 1616B	COUNTY COOK	TOTAL SHEETS 404	SHEET NO. 258
BE-001			CONTRACT NO. 60J14	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



- NOTES:**
- LIQUID TIGHT FLEXIBLE METAL CONDUIT, MAXIMUM LENGTH 6'-0", TYPICAL FOR EACH INSTANCE AS SHOWN. PROVIDE PVC COATED RIGID GALVANIZED STEEL CONDUIT AS REQUIRED NOT TO EXCEED 6'-0" OF FLEXIBLE LIQUID TIGHT METAL CONDUIT. LIQUID TIGHT FLEXIBLE METAL CONDUIT WILL BE INCLUDED IN THE COST OF THE CONDUIT ATTACHED TO STRUCTURE OF THE CORRESPONDING DIA., GALVANIZED STEEL, PVC COATED PAY ITEM EXCEPT THAT 3/4" DIA. CONDUIT AND 3/4" DIA. FLEXIBLE CONDUIT SHALL BE INCLUDED IN THE COST OF UNDERPASS LUMINAIRE INSTALLATION.
 - SEE UNDERPASS LIGHTING PLANS FOR INSTALLATION LOCATION OF UNDERPASS LIGHTING LUMINAIRES.
 - THE CONTRACTOR SHALL USE APPROVED SINGLE COIL FLARED LOOP INSERTS WHEN SUSPENDED MOUNTING AN UNDERPASS LUMINAIRE TO A NEW BRIDGE DECK. THE FLARED LOOP INSERTS MUST BE CAST INTO THE CONCRETE DECK. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND COORDINATING THE INSERT LOCATIONS FOR MOUNTING THE UNDERPASS LIGHTING SYSTEM AS SHOWN ON THE PLANS WITH THE BRIDGE DECK CONTRACTOR. SEE DETAIL.
 - THE UNDERPASS LUMINAIRE HANGER ASSEMBLY COMPLETE WITH HEAVY DUTY ANCHORS/INSERTS AND ALL APPLICABLE HARDWARE SHALL BE INCLUDED IN THE COST OF THE UNDERPASS LUMINAIRE PAY ITEM.
 - SECURE THE CONDUIT WITH PVC COATED CONDUIT CLAMPS OR CONDUIT BEAM CLAMPS AS SHOWN AT 5'-0" INTERVALS FOR LATERALS AND WITHIN 2'-0" MAXIMUM FROM ANY JUNCTION BOX, FLEXIBLE CONDUIT, OR CHANGE IN DIRECTION. ALL PVC COATED CONDUIT CLAMPS OR BEAM CLAMPS SHALL BE INCLUDED WITH THE COST OF THE "CONDUIT ATTACHED TO STRUCTURE OF THE CORRESPONDING DIA., GALVANIZED STEEL, PVC COATED" PAY ITEM.
 - ALL UNDERPASS LUMINAIRES MUST BE CENTERED IN THE BEAM SPACE AS INDICATED ON THE PLANS UNLESS OTHERWISE DIRECTED BY THE ENGR. LUMINAIRE SETBACK SHALL BE AS INDICATED IN PLANS FOR EACH SPECIFIC UNDERPASS
 - THE CONCRETE ENCASED CONDUIT TRANSITION SHALL BE INCLUDED IN THE COST OF THE GALVANIZED RIGID STEEL CONDUIT PAY ITEMS.
 - ALL CONDUIT ATTACHED TO STRUCTURE SHALL BE PVC COATED RIGID STEEL CONDUIT (PVCC RGC) TYPICAL.



EXISTING BRIDGE DECK INSTALLATION

NEW BRIDGE DECK INSTALLATION

TYPICAL LUMINAIRE HANGER ASSEMBLY DETAILS

FILE NAME =	USER NAME = gaglianobt	DESIGNED -	REVISED - 12-12-05
W:\diststd\22x34\be900.dgn		DRAWN -	REVISED -
	PLOT SCALE = 50.000' / IN.	CHECKED -	REVISED -
	PLOT DATE = 1/4/2008	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUSPENDED MOUNT UNDERPASS LUMINAIRE INSTALLATION DETAILS			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	259
BE-900			CONTRACT NO. 60J14	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

CDOT LIGHTING SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	574
UNDERGROUND CONDUIT, PVC, 2" DIA.	FOOT	2835
UNDERGROUND CONDUIT, PVC, 3" DIA.	FOOT	60
REMOVAL OF LIGHTING UNIT, NO SALVAGE	EACH	10
REMOVAL OF POLE FOUNDATION	EACH	26
RELOCATE EXISTING LIGHTING UNIT	EACH	16
REMOVAL OF LIGHTING CONTROLLER FOUNDATION	EACH	2
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	10634
MAINTENANCE OF STREET LIGHTING SYSTEM (CITY OF CHICAGO)	L SUM	1
CABLE IN CONDUIT, TRIPLEX, 2-1/C NO. 6 AND 1-1/C NO. 8 GROUND	FOOT	5266
REMOVE AND RELOCATE EXISTING LIGHTING CONTROLLER	EACH	2
CONCRETE FOUNDATION, 20" DIAMETER, 3/4" ANCHOR RODS, 13" BOLT CIRCLE	FOOT	10
CONCRETE FOUNDATION, 24" DIAMETER, 1 1/4" ANCHOR RODS, 15" BOLT CIRCLE	FOOT	161
ELECTRIC CABLE IN CONDUIT NO. 2/0 3/C	FOOT	776
INSTALL LIGHT POLE, MAST ARM, AND LUMINAIRE (CHICAGO)	EACH	7
REMOVE AND RELOCATE EXISTING LUMINAIRE AND MAST ARM	EACH	10
SERVICE INSTALLATION, 200 AMPERE	EACH	2
UNDERGROUND CONDUIT, PVC, 2" DIA. (SCHEDULE 80)	FOOT	96
UNDERGROUND CONDUIT, PVC, 3" DIA. (SCHEDULE 80)	FOOT	480

ABBREVIATIONS

A.R.	ANCHOR RODS
B.C.	BOLT CIRCLE
CKT	CIRCUIT
DOEO	DIVISION OF ELECTRICAL OPERATIONS
GALV.	GALVANIZED
GND	GROUND
GRSC	GALVANIZED RIGID STEEL CONDUIT
HPS	HIGH PRESSURE SODIUM
JB	JUNCTION BOX
LFMC	LIQUIDTIGHT FLEXIBLE METALLIC CONDUIT
PVCC	PVC COATED
U.N.O.	UNLESS NOTED OTHERWISE
W	WATT

GENERAL NOTES

1. A NOMINAL QUANTITY IS PROVIDED FOR REPLACEMENT OF EXISTING POLES WITH NEW CITY-FURNISHED POLES. THE FINAL QUANTITY OF POLES TO BE REPLACED IN LIEU OF RELOCATION SHALL BE AS DETERMINED BY THE ENGINEER.
2. REMOVAL OF EXISTING AERIAL CABLES CONNECTED TO LIGHT POLES TO BE RELOCATED OR REMOVED IS INCIDENTAL TO THE LIGHT POLE RELOCATION OR REMOVAL, AS APPLICABLE.
3. LOCATIONS OF LIGHTING CONDUITS AND FOUNDATIONS IN CLOSE PROXIMITY TO EXISTING CHICAGO DEPARTMENT OF WATER MANAGEMENT FACILITIES MUST BE COORDINATED IN THE FIELD WITH A DEPARTMENT OF WATER MANAGEMENT REPRESENTATIVE. ALL EXCAVATION IN THESE AREAS MUST BE PERFORMED BY HAND.

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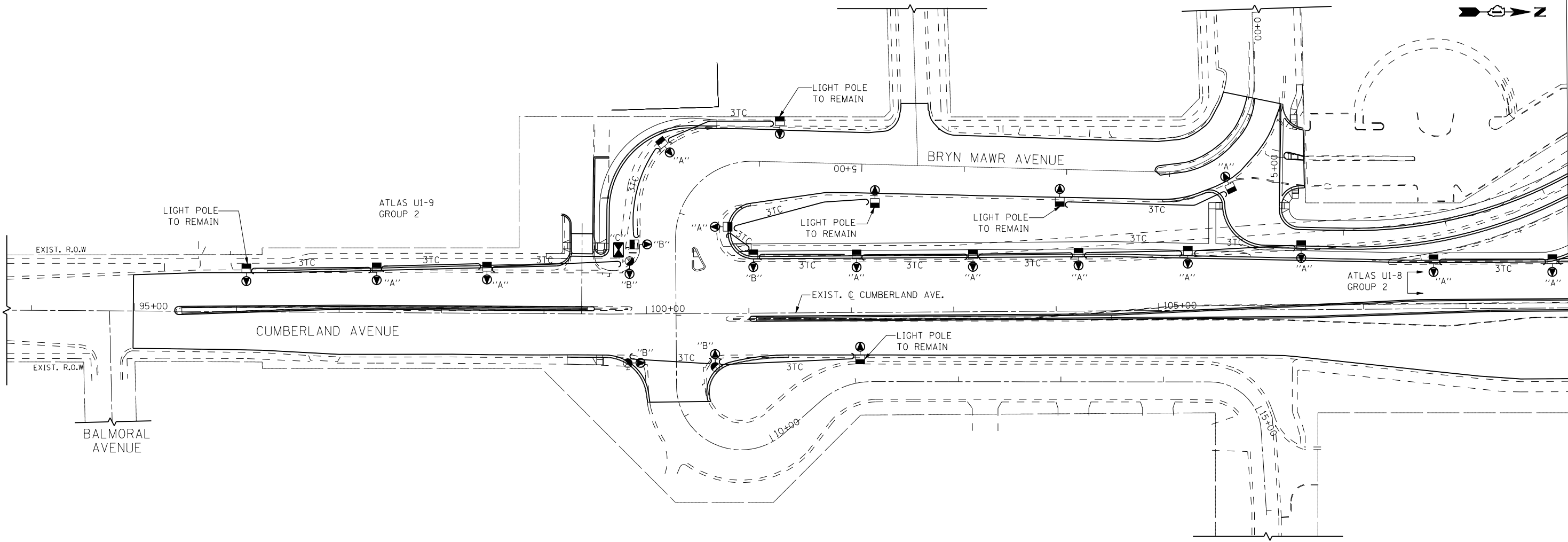
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USER NAME =	DESIGNED - RAS	REVISED -	 <p align="center">STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</p>	<p align="center">CDOT ROADWAY LIGHTING GENERAL NOTES AND SCHEDULE OF QUANTITIES CUMBERLAND AVENUE</p>	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PLOT SCALE =	DRAWN - RAS	REVISED -			2746	1616B	COOK	404	260
PLOT DATE =	CHECKED - MKR	REVISED -			CONTRACT NO. 60J14				
PLOT DATE =	DATE - 2/18/2013	REVISED -	SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT		

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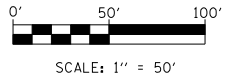
MATCH LINE STATION 109+00
SEE SHEET LT-30

KEY

- "A"- REMOVE EXISTING CITY OF CHICAGO LIGHT POLE AND LUMINAIRE FOR RELOCATION TO NEW FOUNDATION. REMOVE EXISTING POLE FOUNDATION.
- "B"- REMOVE EXISTING CITY OF CHICAGO MAST ARM AND LUMINAIRE FROM COMBINATION TRAFFIC POLE FOR RELOCATION TO NEW COMBINATION TRAFFIC POLE.
- "C"- REMOVE EXISTING CITY OF CHICAGO LIGHTING CONTROLLER FOR RELOCATION TO NEW FOUNDATION. REMOVE EXISTING CONTROLLER FOUNDATION.

NOTES:

1. SEE PROPOSED LIGHTING PLANS FOR NEW LOCATIONS OF LIGHT POLES AND CONTROLLERS TO BE RELOCATED.
2. THE CONTRACTOR MUST PROVIDE ANY TEMPORARY WIRING REQUIRED TO MAINTAIN OPERATION OF THE LIGHTING SYSTEM DURING REMOVAL AND RELOCATION OPERATIONS. THE COST OF THIS WORK IS INCLUDED IN THE PRICE OF THE ITEM "MAINTENANCE OF STREET LIGHTING SYSTEM (CITY OF CHICAGO)."



USER NAME =	DESIGNED - RAS	REVISED -
	DRAWN - RAS	REVISED -
PLOT SCALE =	CHECKED - MKR	REVISED -
PLOT DATE =	DATE - 2/18/2013	REVISED -



**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CDOT ROADWAY LIGHTING REMOVAL PLAN
CUMBERLAND AVENUE**

SCALE: 1" = 50' SHEET NO. 1 OF 3 SHEETS STA. 93+76 TO STA. 109+00

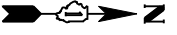
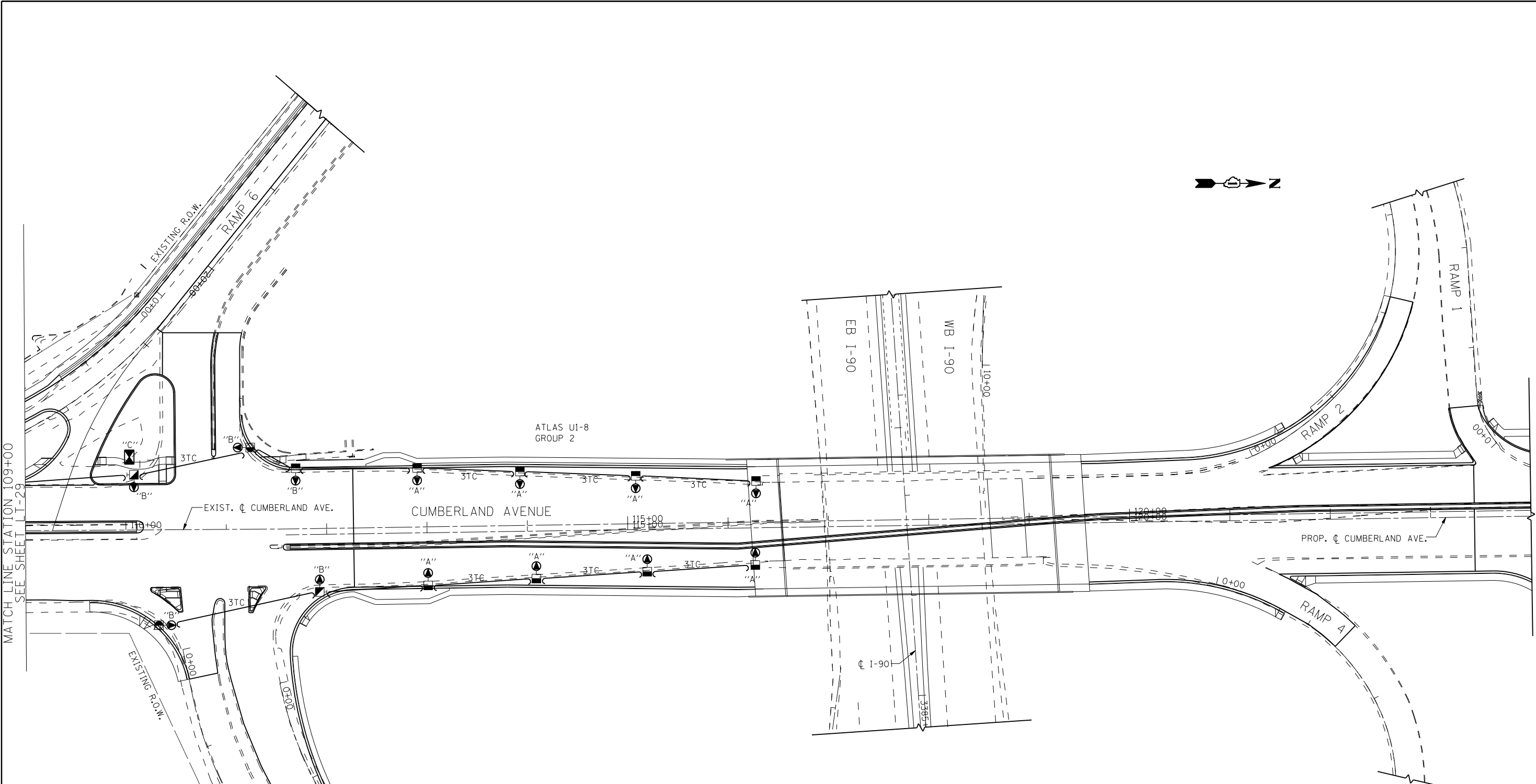
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	261
CONTRACT NO. 60J14				
ILLINOIS FED. AID PROJECT				

LT-29

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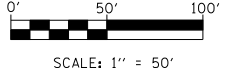
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NOTES:
 1. SEE PROPOSED LIGHTING PLANS FOR NEW LOCATIONS OF LIGHT POLES AND CONTROLLERS TO BE RELOCATED.
 2. THE CONTRACTOR MUST PROVIDE ANY TEMPORARY WIRING REQUIRED TO MAINTAIN OPERATION OF THE LIGHTING SYSTEM DURING REMOVAL AND RELOCATION OPERATIONS. THE COST OF THIS WORK IS INCLUDED IN THE PRICE OF THE ITEM "MAINTENANCE OF STREET LIGHTING SYSTEM (CITY OF CHICAGO)."

KEY
 "A"-- REMOVE EXISTING CITY OF CHICAGO LIGHT POLE AND LUMINAIRE FOR RELOCATION TO NEW FOUNDATION. REMOVE EXISTING POLE FOUNDATION.
 "B"-- REMOVE EXISTING CITY OF CHICAGO MAST ARM AND LUMINAIRE FROM COMBINATION TRAFFIC POLE FOR RELOCATION TO NEW COMBINATION TRAFFIC POLE.
 "C"-- REMOVE EXISTING CITY OF CHICAGO LIGHTING CONTROLLER FOR RELOCATION TO NEW FOUNDATION. REMOVE EXISTING CONTROLLER FOUNDATION.



USER NAME =	DESIGNED - RAS	REVISED -
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PLOT SCALE =	CHECKED - MKR	REVISED -
PLOT DATE =	DATE - 2/18/2013	REVISED -



**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**CDOT ROADWAY LIGHTING REMOVAL PLAN
 CUMBERLAND AVENUE**
 SCALE: 1" = 50' SHEET NO. 2 OF 3 SHEETS STA. 109+00 TO STA. 124+00

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	262
CONTRACT NO. 60J14				
ILLINOIS FED. AID PROJECT				

LT-30

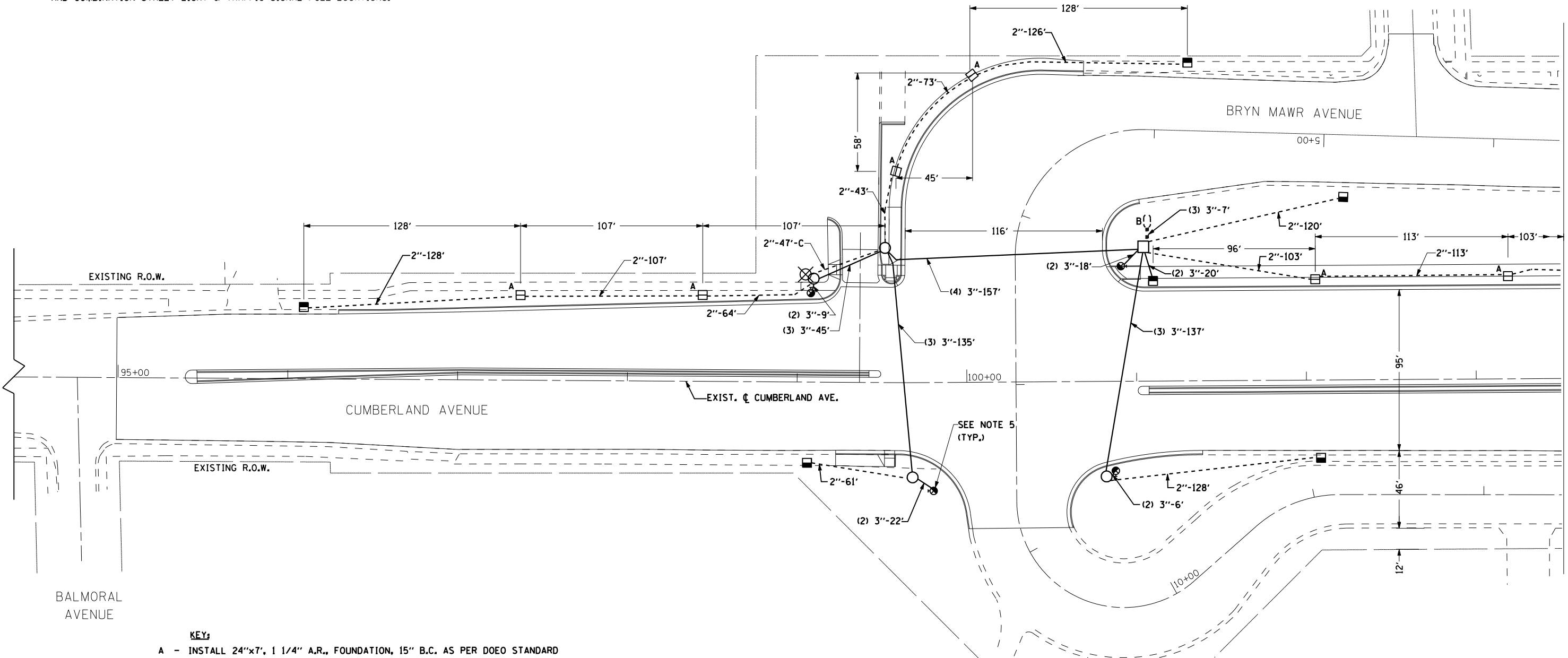
NOTES:

1. ALL CONDUIT TO BE PVC SCHEDULE 40, UNLESS NOTED OTHERWISE. SIZE AS NOTED.
2. ALL LIGHT POLE FOUNDATIONS SHALL BE INSTALLED MINIMUM 3 FT FROM THE FACE OF CURB.
3. REFER TO DOE0 STANDARD DRAWING 826 FOR SYMBOLS.
4. THE CONTRACTOR SHALL MAKE HIS OWN INVESTIGATION TO DETERMINE THE EXACT LOCATION OF ALL UTILITY LINES AND APPURTENANCES WITHIN THE LIMITS OF THIS IMPROVEMENT. THE COST OF THIS WORK WILL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
5. REFER TO CUMBERLAND AVE AND BRYN MAWR AVE TRAFFIC SIGNAL PLAN FOR CONDUIT, HANDHOLE AND COMBINATION STREET LIGHT & TRAFFIC SIGNAL POLE LOCATIONS.



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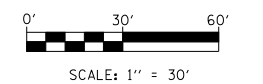
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KEY:

- A - INSTALL 24"x7", 1 1/4" A.R., FOUNDATION, 15" B.C. AS PER DOE0 STANDARD DRAWING NO. 818 (RELOCATED LIGHT POLE FOUNDATION)
- B - INSTALL CONCRETE FOUNDATION FOR STREET LIGHT CONTROLLER AS PER DOE0 STANDARD DRAWING NO. 709
- C - INSTALL 2" GALVANIZED STEEL CONDUIT

MATCH LINE STATION 103+50
SEE SHEET LT-33



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	DRAWN - RAS	REVISED -
PLOT SCALE =	CHECKED - MKR	REVISED -
PLOT DATE =	DATE - 2/18/2013	REVISED -



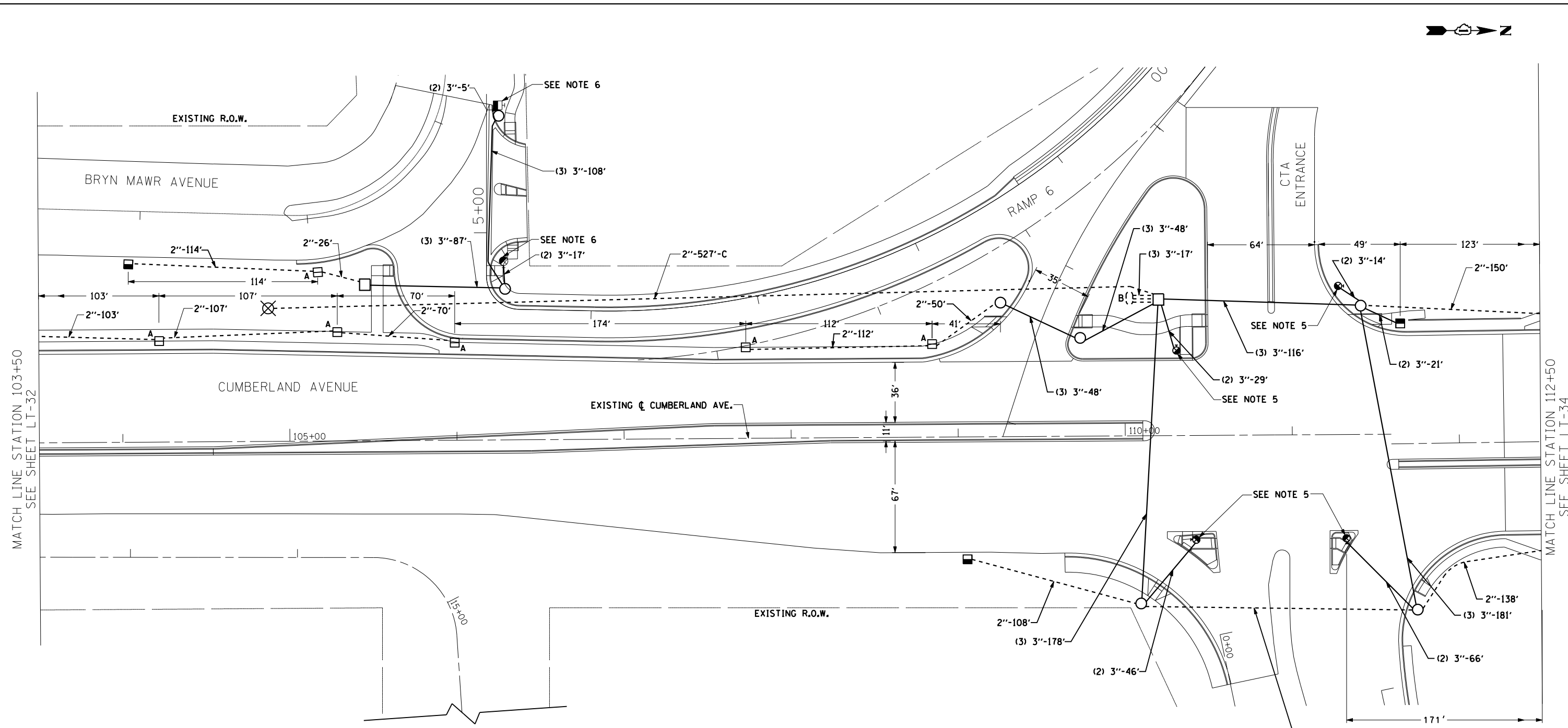
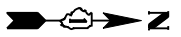
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CDOT ROADWAY LIGHTING FOUNDATION AND
UNDERGROUND FACILITIES PLAN
CUMBERLAND AVENUE**

SCALE: 1" = 30' SHEET NO. 1 OF 3 SHEETS STA. 94+38 TO STA. 103+50

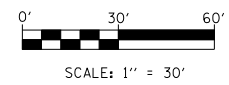
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	264
CONTRACT NO. 60J14				
ILLINOIS FED. AID PROJECT				

LT-32



- NOTES:**
1. ALL CONDUIT TO BE PVC SCHEDULE 40, UNLESS NOTED OTHERWISE. SIZE AS NOTED.
 2. ALL LIGHT POLE FOUNDATIONS SHALL BE INSTALLED MINIMUM 3FT FROM THE FACE OF CURB.
 3. REFER TO DOEO STANDARD DRAWING 826 FOR SYMBOLS.
 4. THE CONTRACTOR SHALL MAKE HIS OWN INVESTIGATION TO DETERMINE THE EXACT LOCATION OF ALL UTILITY LINES AND APPURTENANCES WITHIN THE LIMITS OF THIS IMPROVEMENT. THE COST OF THIS WORK WILL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
 5. REFER TO CUMBERLAND AVE AND CTA ENTRANCE/I-90 RAMPS TRAFFIC SIGNAL PLAN FOR CONDUIT, HANDHOLE AND COMBINATION STREET LIGHT & TRAFFIC SIGNAL POLE LOCATIONS.
 6. REFER TO BRYN MAWR AVE AND I-90 RAMP SPUR TRAFFIC SIGNAL PLAN FOR CONDUIT, HANDHOLE, AND COMBINATION STREET LIGHT & TRAFFIC SIGNAL POLE LOCATIONS.

- KEY:**
- A - INSTALL 24"x7', 1 1/4" A.R., FOUNDATION, 15" B.C. AS PER DOEO STANDARD DRAWING NO. 818 (RELOCATED LIGHT POLE FOUNDATION)
 - B - INSTALL CONCRETE FOUNDATION FOR STREET LIGHT CONTROLLER AS PER DOEO STANDARD DRAWING NO. 709
 - C - INSTALL 2" GALVANIZED STEEL CONDUIT



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PLOT DATE =	DATE - 2/18/2013	REVISED -



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CDOT ROADWAY LIGHTING FOUNDATION AND UNDERGROUND FACILITIES PLAN
CUMBERLAND AVENUE
 SCALE: 1"=30' SHEET NO. 2 OF 3 SHEETS STA. 103+50 TO STA. 112+50

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	265
CONTRACT NO. 60J14				
ILLINOIS FED. AID PROJECT				

LT-33

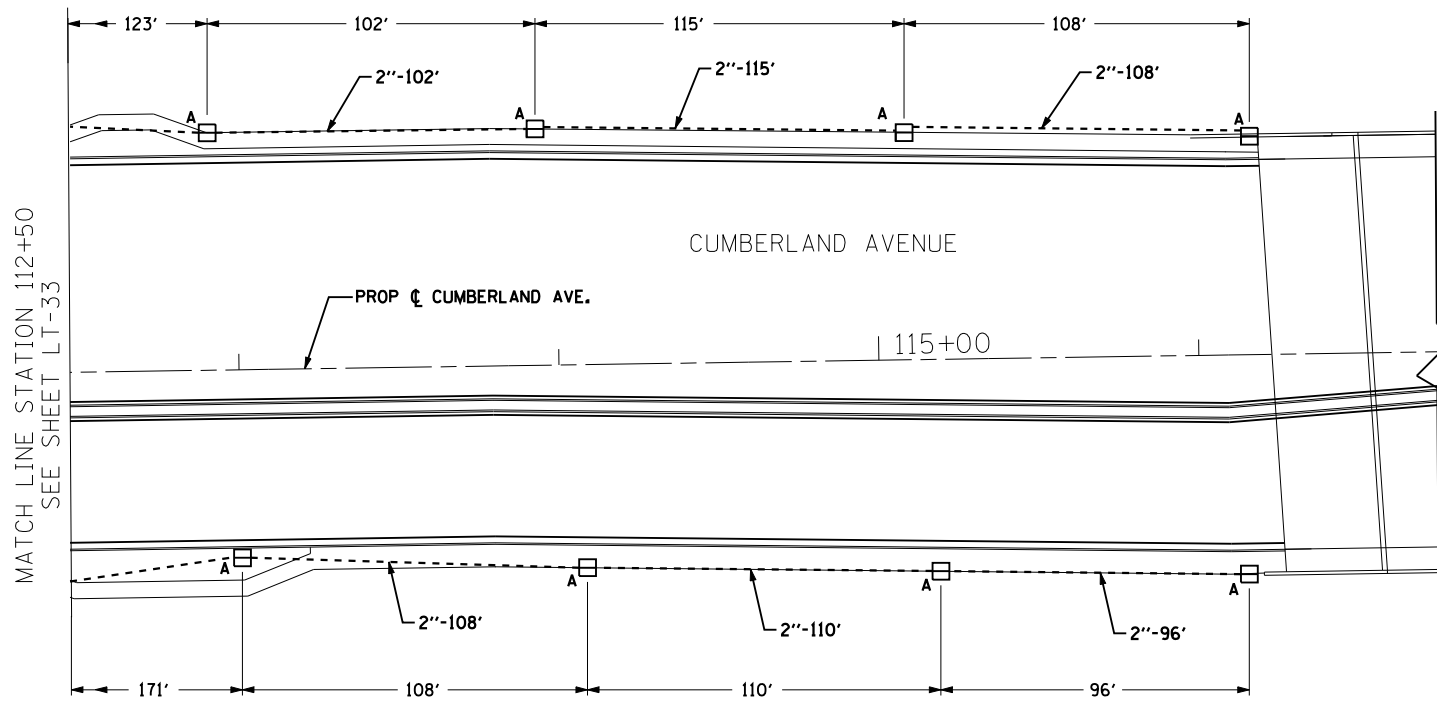


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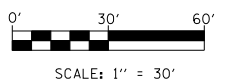
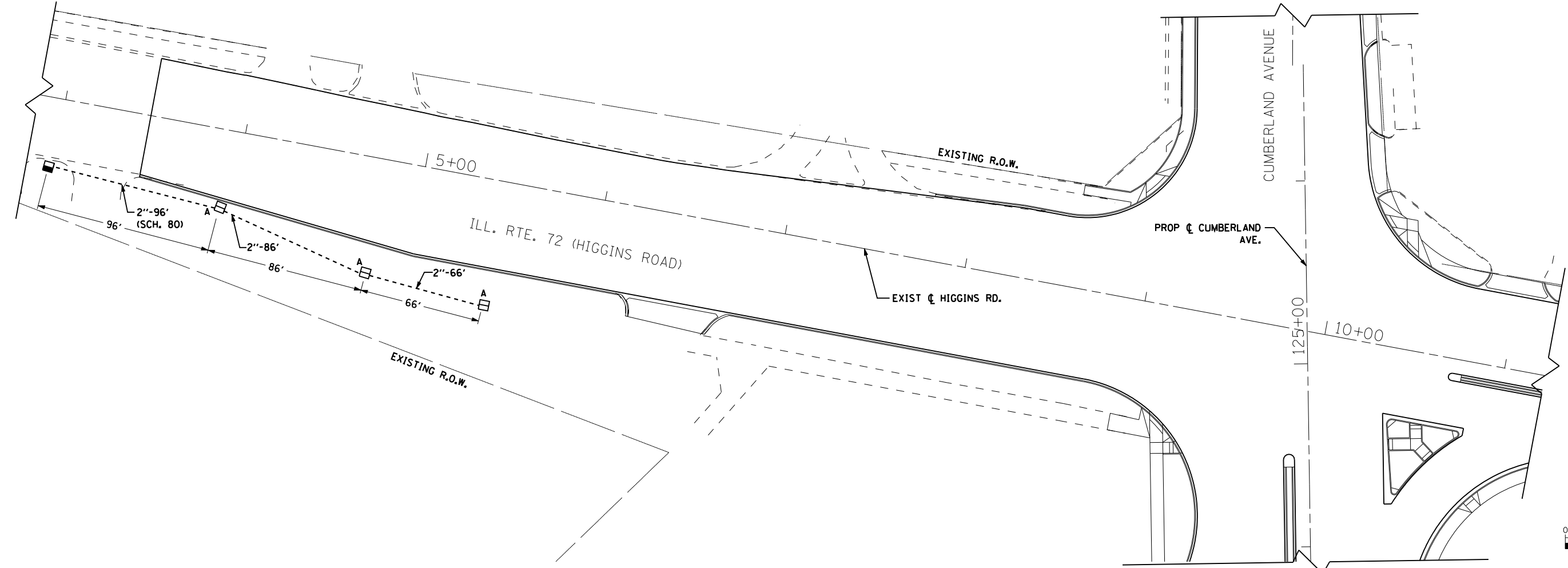
1. ALL CONDUIT TO BE PVC SCHEDULE 40, UNLESS NOTED OTHERWISE. SIZE AS NOTED.
2. ALL LIGHT POLE FOUNDATIONS SHALL BE INSTALLED MINIMUM 3 FT FROM THE FACE OF CURB.
3. REFER TO DOEO STANDARD DRAWING 826 FOR SYMBOLS.
4. THE CONTRACTOR SHALL MAKE HIS OWN INVESTIGATION TO DETERMINE THE EXACT LOCATION OF ALL UTILITY LINES AND APPURTENANCES WITHIN THE LIMITS OF THIS IMPROVEMENT. THE COST OF THIS WORK WILL BE CONSIDERED INCIDENTAL TO THE CONTRACT.

KEY:

- A - INSTALL 24"x7", 1 1/4" A.R., FOUNDATION, 15" B.C. AS PER DOEO STANDARD DRAWING NO. 818 (RELOCATED LIGHT POLE FOUNDATION)



MATCH LINE STATION 112+50
SEE SHEET LT-33



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	DRAWN - RAS	REVISED -
PLOT SCALE =	CHECKED - MKR	REVISED -
PLOT DATE =	DATE - 2/18/2013	REVISED -



**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CDOT ROADWAY LIGHTING FOUNDATION AND
UNDERGROUND FACILITIES PLAN
CUMBERLAND AVENUE**

SCALE: 1" = 30' SHEET NO. 3 OF 3 SHEETS STA. TO STA.

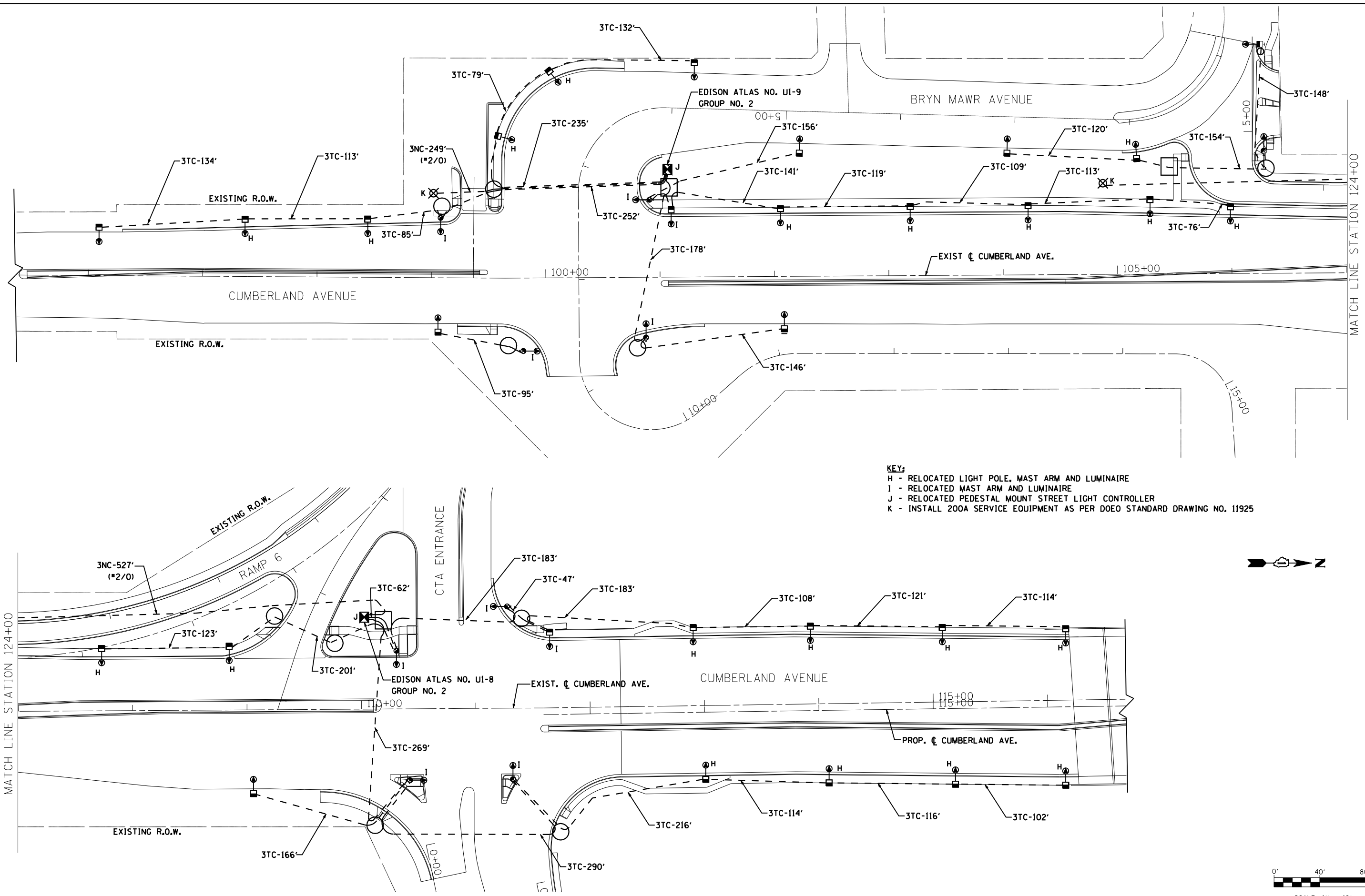
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	266
CONTRACT NO. 60J14				
ILLINOIS FED. AID PROJECT				

LT-34

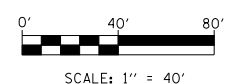
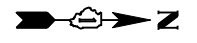
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2/18/2013



KEY:
 H - RELOCATED LIGHT POLE, MAST ARM AND LUMINAIRE
 I - RELOCATED MAST ARM AND LUMINAIRE
 J - RELOCATED PEDESTAL MOUNT STREET LIGHT CONTROLLER
 K - INSTALL 200A SERVICE EQUIPMENT AS PER DOEO STANDARD DRAWING NO. 11925



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PLOT SCALE =	CHECKED - MKR	REVISED -
PLOT DATE =	DATE - 2/18/2013	REVISED -



**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**CDOT ROADWAY LIGHTING INSTALLATION PLAN
 CUMBERLAND AVENUE**

SCALE: 1" = 40' SHEET NO. 1 OF 2 SHEETS STA. 95+37 TO STA. 116+69

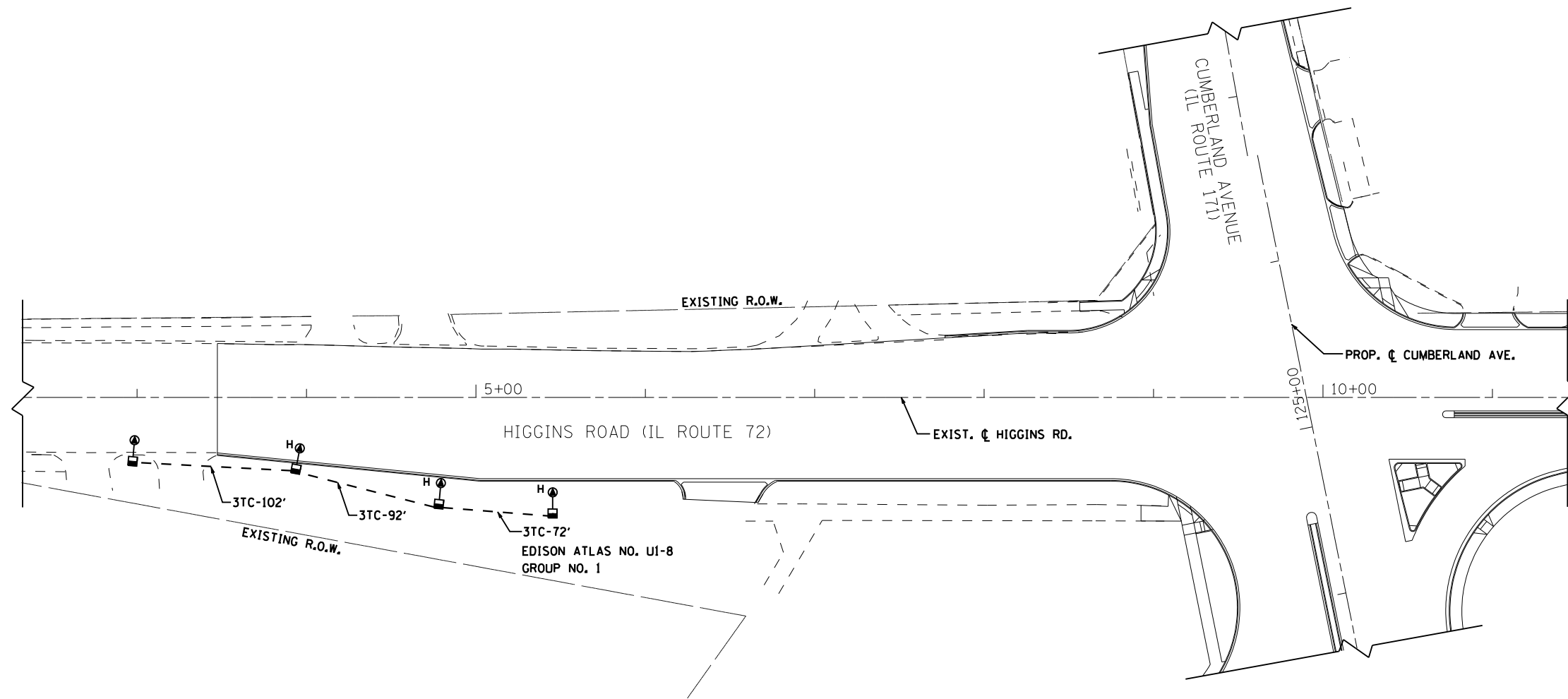
F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	267
CONTRACT NO. 60J14				
ILLINOIS FED. AID PROJECT				

LT-35

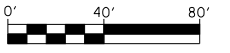
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2/18/2013



KEY:
H - RELOCATED LIGHT POLE, MAST ARM AND LUMINAIRE



SCALE: 1" = 40'

LT-36

USER NAME =	DESIGNED - RAS	REVISED -
	DRAWN - RAS	REVISED -
PLOT SCALE =	CHECKED - MKR	REVISED -
PLOT DATE =	DATE - 2/18/2013	REVISED -



**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CDOT ROADWAY LIGHTING INSTALLATION PLAN
HIGGINS ROAD**

SCALE: 1" = 40' SHEET NO. 2 OF 2 SHEETS STA. 2+32 TO STA. 11+44

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	268
CONTRACT NO. 60J14				
ILLINOIS FED. AID PROJECT				

INDEX OF SHEETS

- S1 GENERAL PLAN
- S2 GENERAL NOTES, INDEX OF SHEETS, AND TOTAL B.O.M.
- S3 SUBSTRUCTURE LAYOUT
- S4 STAGE CONSTRUCTION
- S5 REMOVAL DETAILS
- S6 TEMPORARY SHEET PILING AND SOIL RETENTION SYSTEM
- S7 TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
- S8 TOP OF SLAB ELEVATIONS LAYOUT
- S9 TOP OF SLAB ELEVATIONS (1 OF 8)
- S10 TOP OF SLAB ELEVATIONS (2 OF 8)
- S11 TOP OF SLAB ELEVATIONS (3 OF 8)
- S12 TOP OF SLAB ELEVATIONS (4 OF 8)
- S13 TOP OF SLAB ELEVATIONS (5 OF 8)
- S14 TOP OF SLAB ELEVATIONS (6 OF 8)
- S15 TOP OF SLAB ELEVATIONS (7 OF 8)
- S16 TOP OF SLAB ELEVATIONS (8 OF 8)
- S17 APPROACH SLAB ELEVATIONS
- S18 DECK PLAN AND SECTION
- S19 DECK DETAILS I
- S20 DECK DETAILS II
- S21 PREFORMED JOINT STRIP SEAL
- S22 BRIDGE APPROACH SLAB
- S23 BRIDGE APPROACH SLAB DETAILS
- S24 FRAMING PLAN
- S25 GIRDER ELEVATION (GIRDERS 1 THRU 9 & 12 THRU 20)
- S26 GIRDER ELEVATION (GIRDERS 10 & 11)
- S27 MOMENT AND REACTION TABLES
- S28 DIAPHRAGM DETAILS
- S29 FIELD SPLICE (GIRDERS 1 THRU 9 & 12 THRU 20)
- S30 FIELD SPLICE (GIRDERS 10 & 11)
- S31 BEARING DETAILS (GIRDERS 1 THRU 9 & 12 THRU 20)
- S32 BEARING DETAILS (GIRDERS 10 & 11)
- S33 SOUTH ABUTMENT PLAN
- S34 SOUTH ABUTMENT ELEVATION
- S35 SOUTH ABUTMENT DETAILS I
- S36 SOUTH ABUTMENT DETAILS II
- S37 NORTH ABUTMENT PLAN
- S38 NORTH ABUTMENT ELEVATION
- S39 NORTH ABUTMENT DETAILS
- S40 PIER DETAILS I
- S41 PIER DETAILS II
- S42 DRILLED SHAFT DETAILS
- S43 BARRIER WALL
- S44 PILE DETAILS
- S45 BRIDGE RAILING DETAILS
- S46 DRAINAGE SCUPPER, DS-12
- S47 DECK DRAINAGE SYSTEM
- S48 BAR SPLICER ASSEMBLY DETAILS
- S49 SOIL BORING LOGS (1 OF 11)
- S50 SOIL BORING LOGS (2 OF 11)
- S51 SOIL BORING LOGS (3 OF 11)
- S52 SOIL BORING LOGS (4 OF 11)
- S53 SOIL BORING LOGS (5 OF 11)
- S54 SOIL BORING LOGS (6 OF 11)
- S55 SOIL BORING LOGS (7 OF 11)
- S56 SOIL BORING LOGS (8 OF 11)
- S57 SOIL BORING LOGS (9 OF 11)
- S58 SOIL BORING LOGS (10 OF 11)
- S59 SOIL BORING LOGS (11 OF 11)

GENERAL NOTES

1. Fasteners shall be ASTM A325 Type 1, mechanically galvanized bolts. Bolts - 7/8 in. ϕ , holes - 15/16 in. ϕ , unless otherwise noted.
2. Calculated weight of Structural Steel:
Grade 50 = 1,346,830 pounds
Grade 36 = 149,380 pounds (includes wt. of bolts)
3. No field welding is permitted except as specified in the contract documents.
4. Reinforcement bars designated (E) shall be epoxy coated.
5. Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 1/8 inch (0.01 ft.). Adjustment shall be made either by grinding the surface or by shimming the bearings.
6. Concrete Sealer shall be applied to the designated areas of the abutment backwalls, bridge seats, and front faces of pile caps, and all exposed surface areas of the pier.
7. The Inorganic Zinc Rich Primer / Acrylic / Acrylic Paint System shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the final finish coat for all interior steel surfaces shall be gray, Munsell No. 5B 7/1. The color of the final finish coat for the exterior and bottom flange of the fascia beams shall be Interstate Green, Munsell No. 7.5G 4/8.
8. Detailed Demolition Plans for work performed on or over C.T.A. R.O.W. shall be submitted to the C.T.A. and the Engineer for review and approval. All track components shall be protected during demolition activities and plywood shall be placed on the third rail to prevent debris from falling on this track. See the special provision "CTA Coordination".
9. The existing bridge railing shall be salvaged and delivered to IDOT's maintenance facility at the following address:

1101 Blesterfield Road, Elk Grove Village, IL 60007

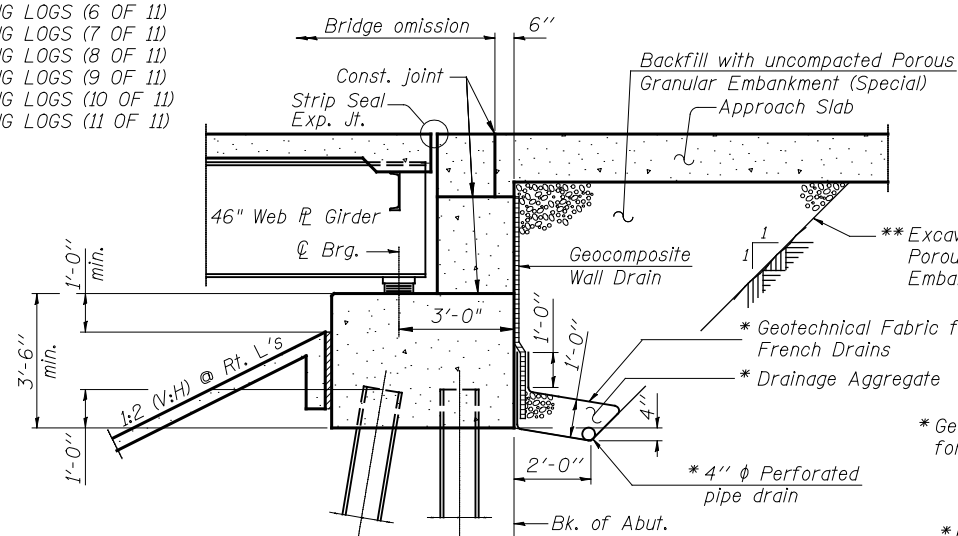
Cost to be included with Removal of Existing Structures.

STATION 117+78.10
BUILT 2014 BY
STATE OF ILLINOIS
IL RT. 171 SEC. 1616B
LOADING HL-93
STR. NO. 016-1250

NAME PLATE
See Std. 515001

TOTAL BILL OF MATERIAL

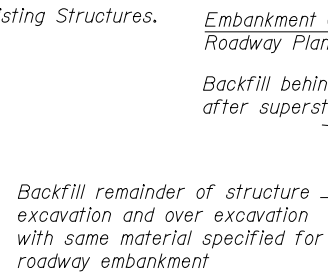
ITEM	UNIT	SUPER	SUB	TOTAL
Removal of Existing Structures	EACH		1	1
Slope Wall Removal	SQ YD		831	831
Protective Shield	SQ YD	2,530		2,530
Structure Excavation	CU YD		4,206	4,206
Concrete Structures	CU YD		1,602.8	1,602.8
Concrete Superstructure	CU YD	660.3		660.3
Bridge Deck Grooving	SQ YD	4,176		4,176
Concrete Encasement	CU YD		14.0	14.0
Protective Coat	SQ YD	5,369		5,369
Furnishing and Erecting Structural Steel	L SUM	1		1
Stud Shear Connectors	EACH	22,500		22,500
Reinforcement Bars, Epoxy Coated	POUND	351,280	259,290	610,570
Bar Splicers	EACH	2,038	796	2,834
Mechanical Splicers	EACH		504	504
Bridge Fence Railing	FOOT	645		645
Slope Wall 4"	SQ YD		562	562
Furnishing Steel Piles, HP12x53	FOOT		7,308	7,308
Driving Piles	FOOT		7,308	7,308
Test Pile Steel, HP 12x53	EACH		4	4
Name Plates	EACH	1		1
Permanent Casing	FOOT		1,093	1,093
Drilled Shaft In Soil	CU YD		389.5	389.5
Drilled Shaft In Rock	CU YD		44.0	44.0
Prefomed Joint Strip Seal	FOOT	282		282
Elastomeric Bearing Assembly, Type I	EACH	40		40
Anchor Bolts, 1"	EACH	80		80
Anchor Bolts, 1 1/2"	EACH	40		40
Concrete Sealer	SQ FT		12,025	12,025
Geocomposite Wall Drain	SQ YD		841	841
Pile Extraction	EACH		96	96
Barrier Wall Removal	FOOT		185	185
Braced Excavation	CU YD		87	87
Porous Granular Embankment, Special	CU YD		1,047	1,047
Bridge Deck (Shrinkage Reducing Admixture)	CU YD	966.6		966.6
Concrete Barrier Wall (Special)	FOOT		47	47
Drainage Scuppers, DS-12	EACH	10		10
Drainage System	L SUM	1		1
Silicone Joint Sealer, 1"	FOOT	335		335
Temporary Sheet Piling	SQ FT		1,248	1,248
Pipe Underdrains For Structures, 4"	FOOT		430	430
Temporary Soil Retention System	SQ FT		1,908	1,908



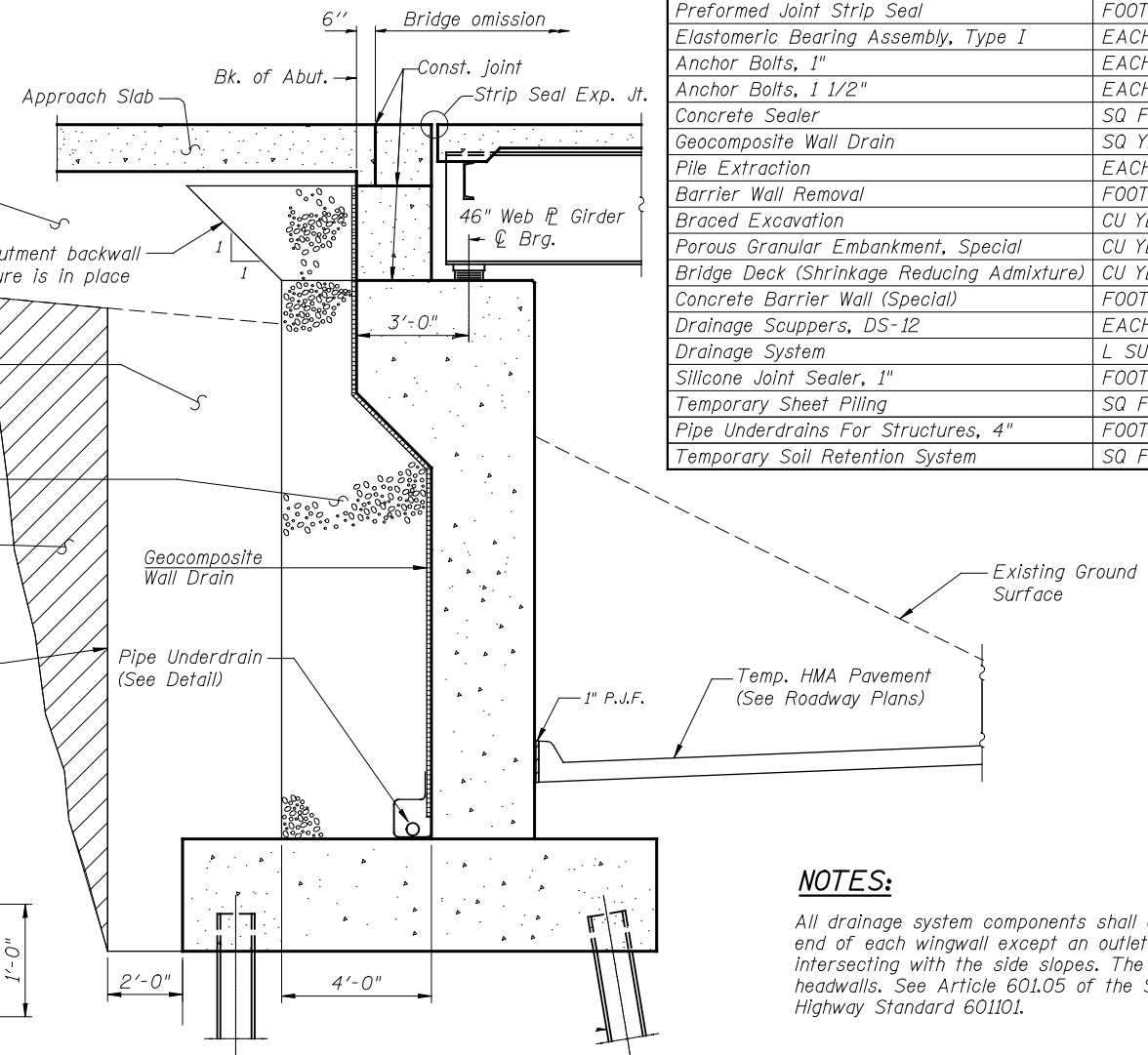
*Included in the cost of "Pipe Underdrains for Structures"
**Paid for as "Structure Excavation"

SECTION THRU NORTH ABUTMENT

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



PIPE UNDERDRAIN DETAIL



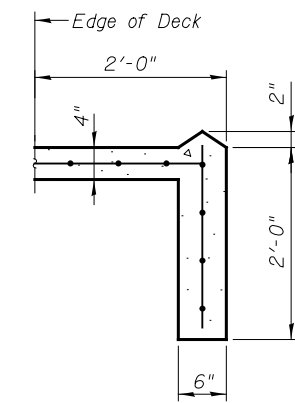
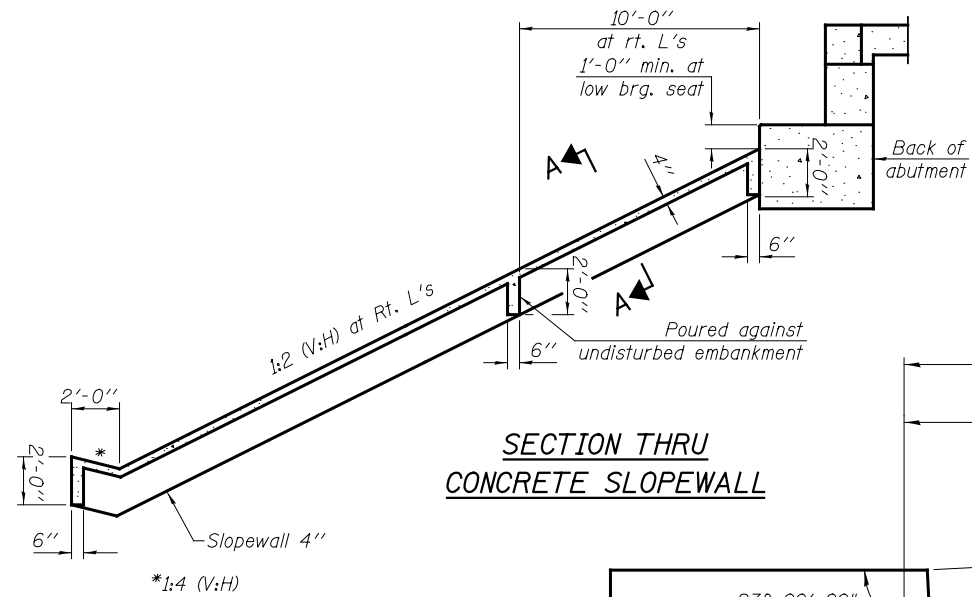
SECTION THRU SOUTH ABUTMENT

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

NOTES:

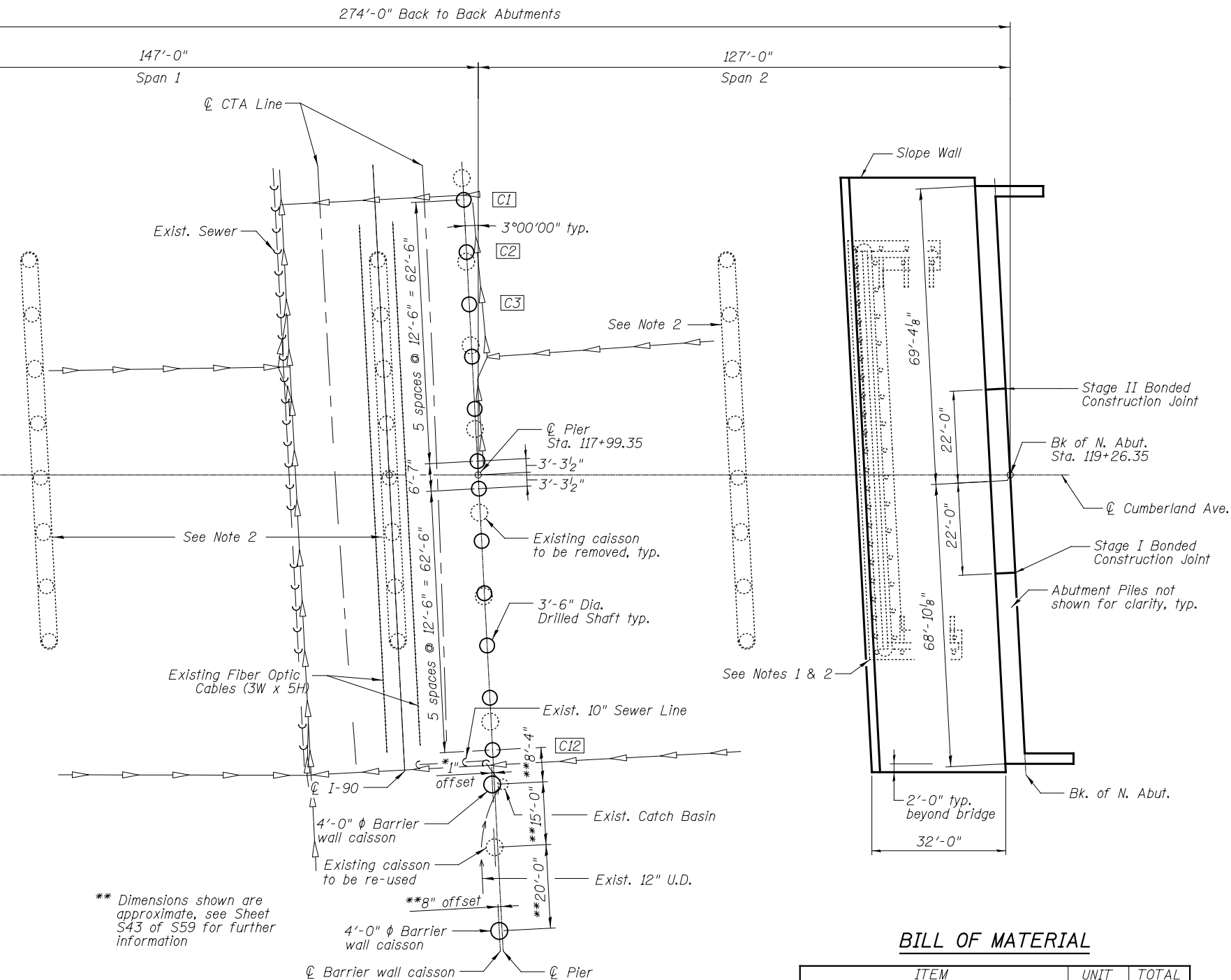
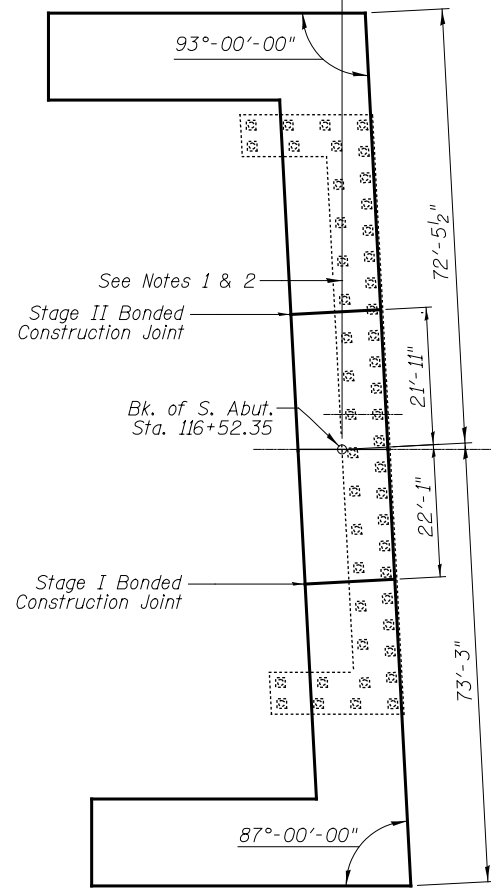
All drainage system components shall extend to 2'-0" from the end of each wingwall except an outlet pipe shall extend until intersecting with the side slopes. The pipe shall drain into concrete headwalls. See Article 601.05 of the Standard Specifications and Highway Standard 601101.

<p>PATRICK ENGINEERING INC. 4870 VARSITY DRIVE LISLE, IL 60532 patrickengineering.com</p>	USER NAME =	DESIGNED - AY	REVISED	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL NOTES, INDEX OF SHEETS, AND TOTAL BILL OF MATERIALS STRUCTURE NO. 016-1250	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE =	DRAWN - AY	REVISED			2746	1616B	COOK	404	271
	PLOT DATE =	CHECKED - RLD	REVISED			CONTRACT NO. 60J14				
		DATE - 2/18/2013	REVISED			ILLINOIS FED. AID PROJECT				

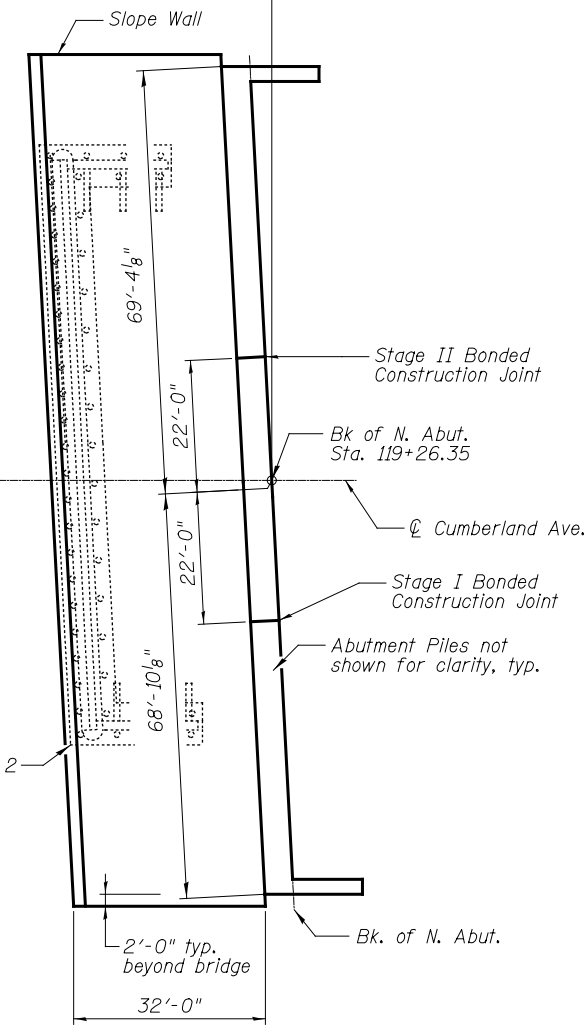


SECTION A-A

SECTION THRU CONCRETE SLOPEWALL



FOOTING LAYOUT PLAN



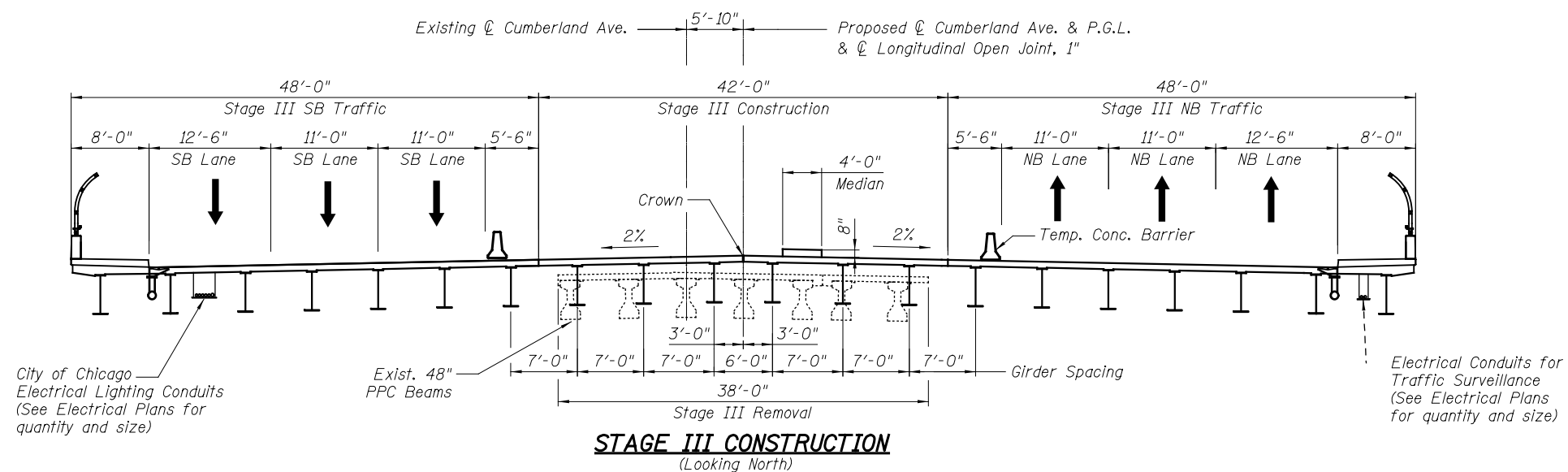
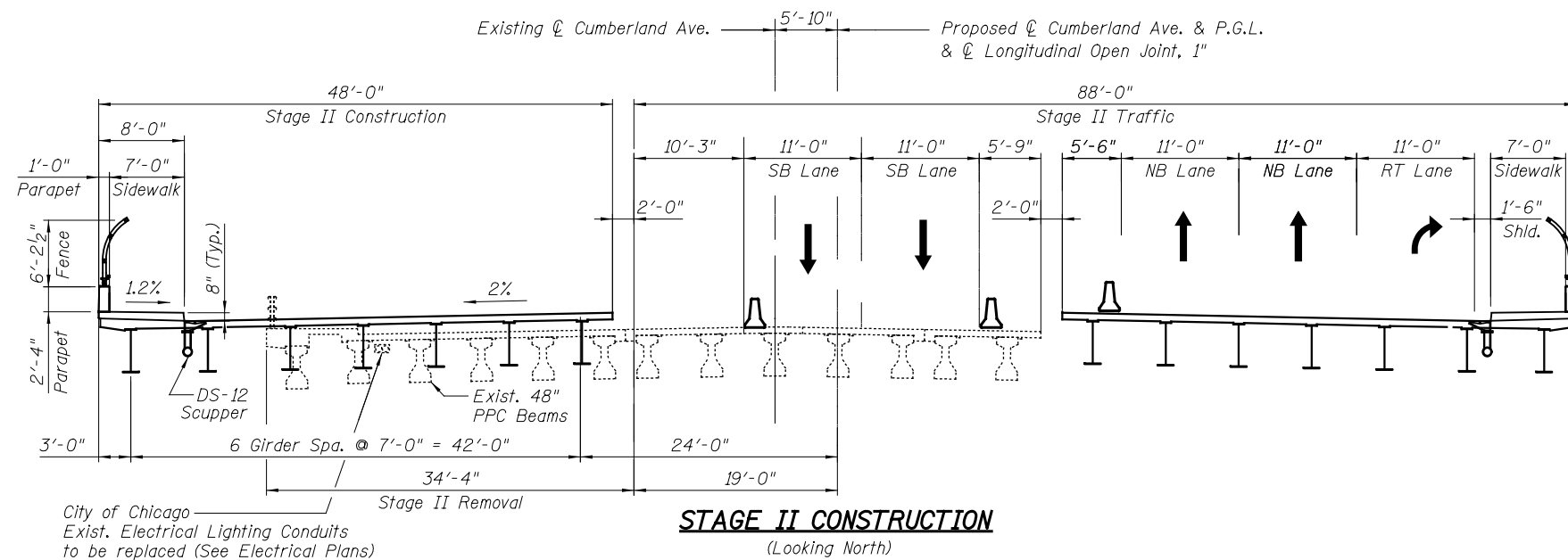
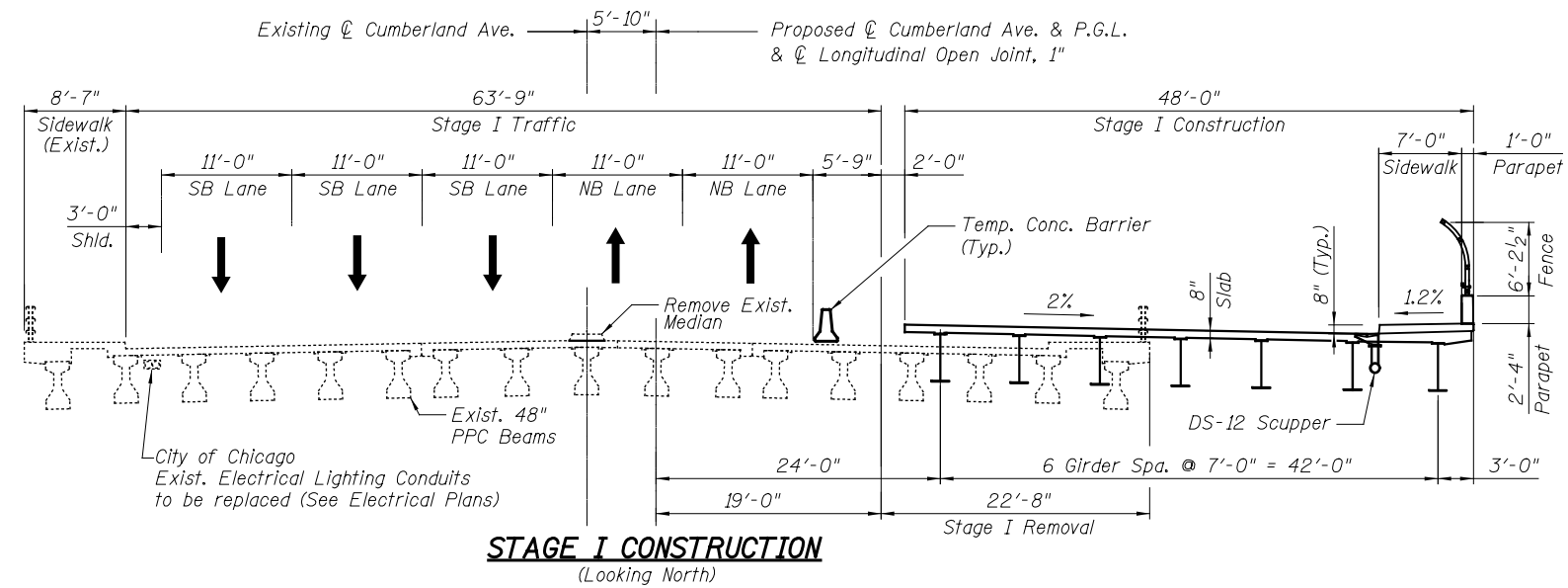
BILL OF MATERIAL

ITEM	UNIT	TOTAL
Slope Wall 4"	Sq. Yd.	562

NOTES:

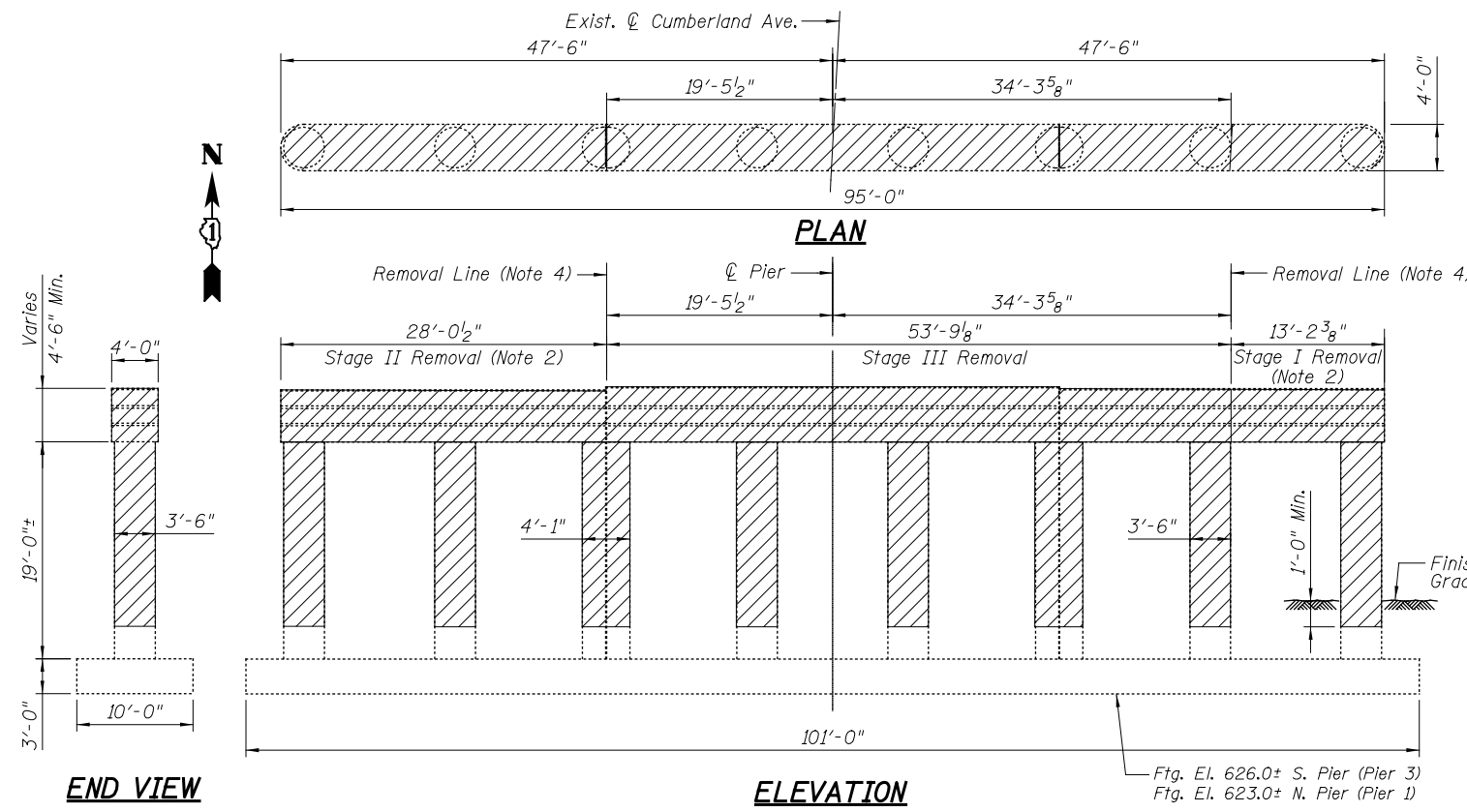
1. Abutment, barrier wall caissons and retaining wall piles in conflict with proposed foundation shall be removed in their entirety and the ensuing cavity shall be filled with sand.
2. See Sheet S5 for Removal Details.
3. Slope wall shall be reinforced with welded wire fabric, 6 in. x 6 in. - W4.0 x W4.0, weighing 58 lbs. per 100 sq. ft.

** Dimensions shown are approximate, see Sheet S43 of S59 for further information

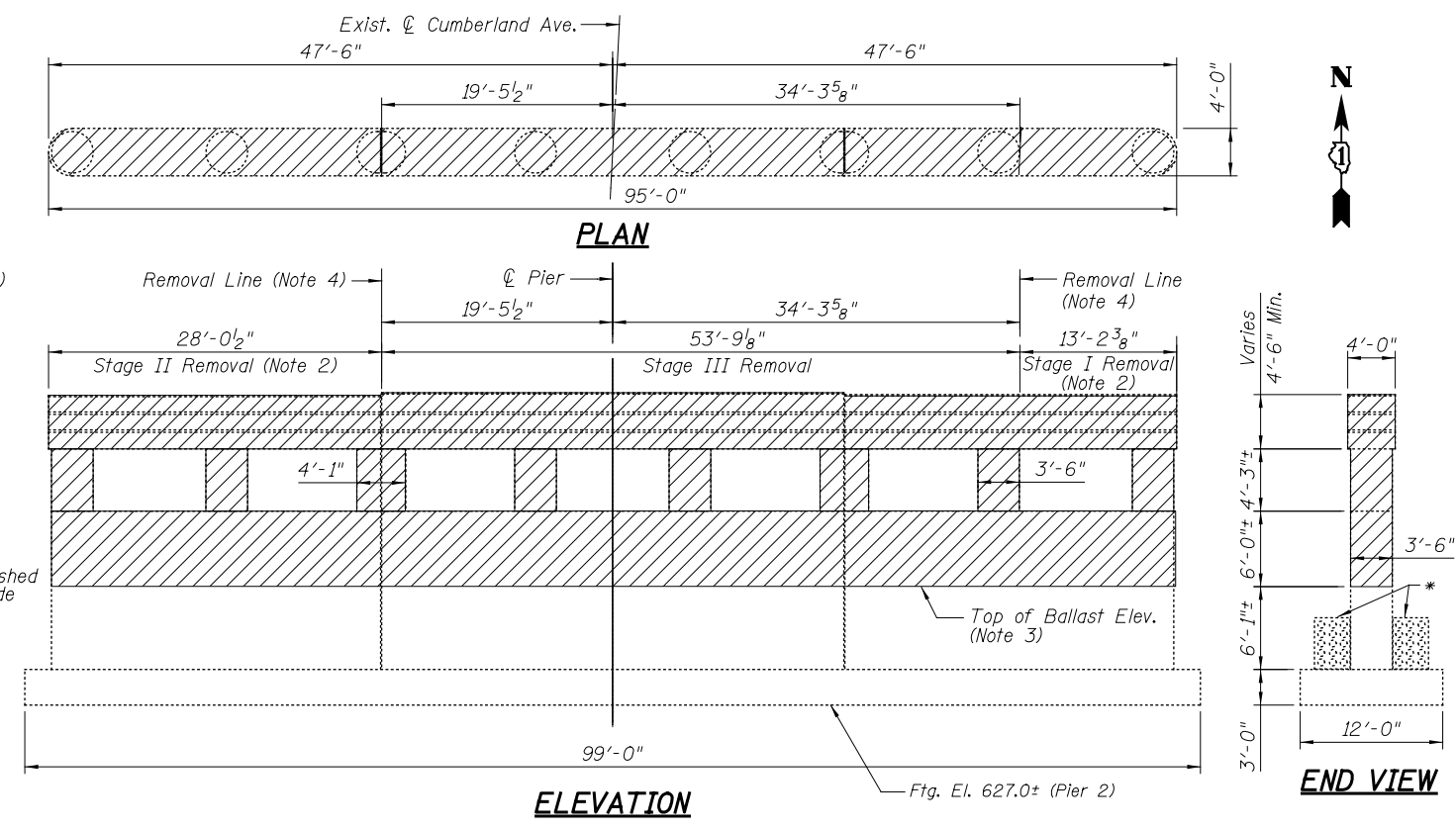


Note:
Installation of Electrical Conduits may be required at any Stage of Construction as directed by the Engineer.

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	PLOT SCALE =	DRAWN - AY	REVISED			2746	1616B	COOK	404	273
	PLOT DATE =	CHECKED - RLD	REVISED			CONTRACT NO. 60J14				
	DATE - 2/18/2013	REVIS	REVISED			ILLINOIS FED. AID PROJECT				
SCALE: NONE					SHEET NO. S4 OF S59 SHEETS					

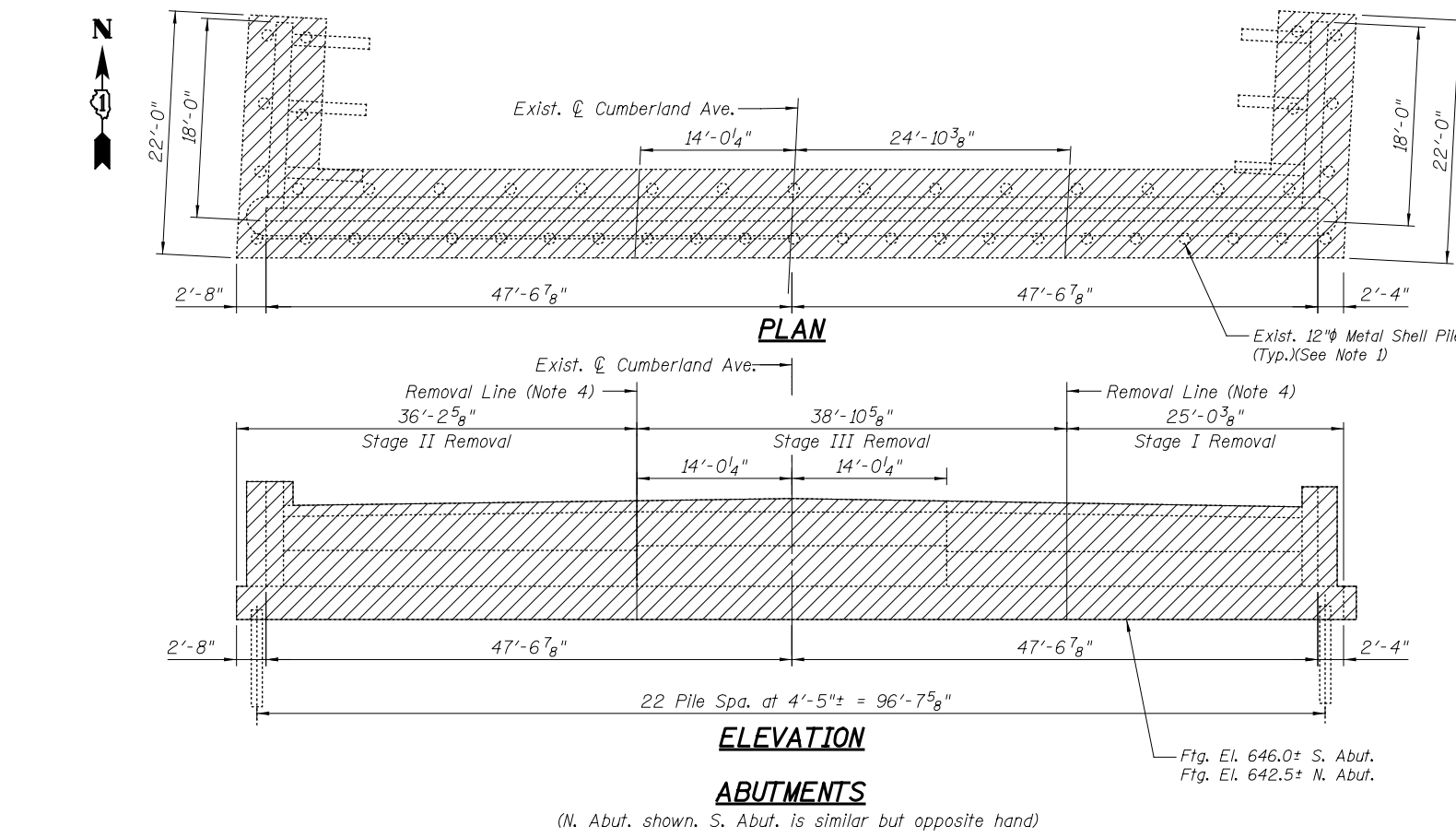


SHOULDER PIERS

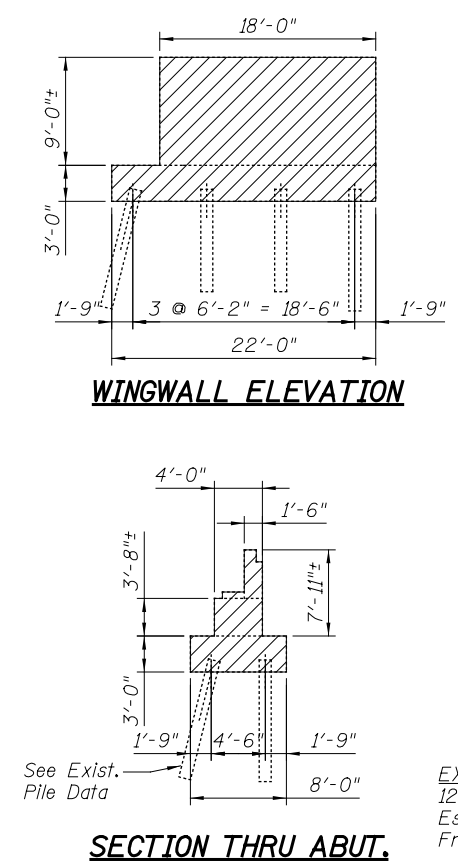


CENTER PIER
(Note 3)

* Exist. CTA Utility Banks (Note 3)



ABUTMENTS



LEGEND

Structure Removal

- NOTES:**
- Existing Metal Shell Piles at the abutments shall be removed. See the special provision "Pile Extraction".
 - Portions of the existing piers that do not interfere with Stage I and Stage II of the proposed construction may be removed in Stage III as directed by the Engineer.
 - The existing center pier shall be removed to top of ballast. The existing CTA track components and utility banks shall be protected. See the General Note 8 on Sheet S2 of S59.
 - Removal and stage construction lines are different for the superstructure and substructure.

BILL OF MATERIAL

Item	Unit	Total
Pile Extraction	Each	96

EXIST. PIPE DATA:
12" Metal Shell Piles
Est. Length = 34 ft.
Front Pile Batter = 1:4

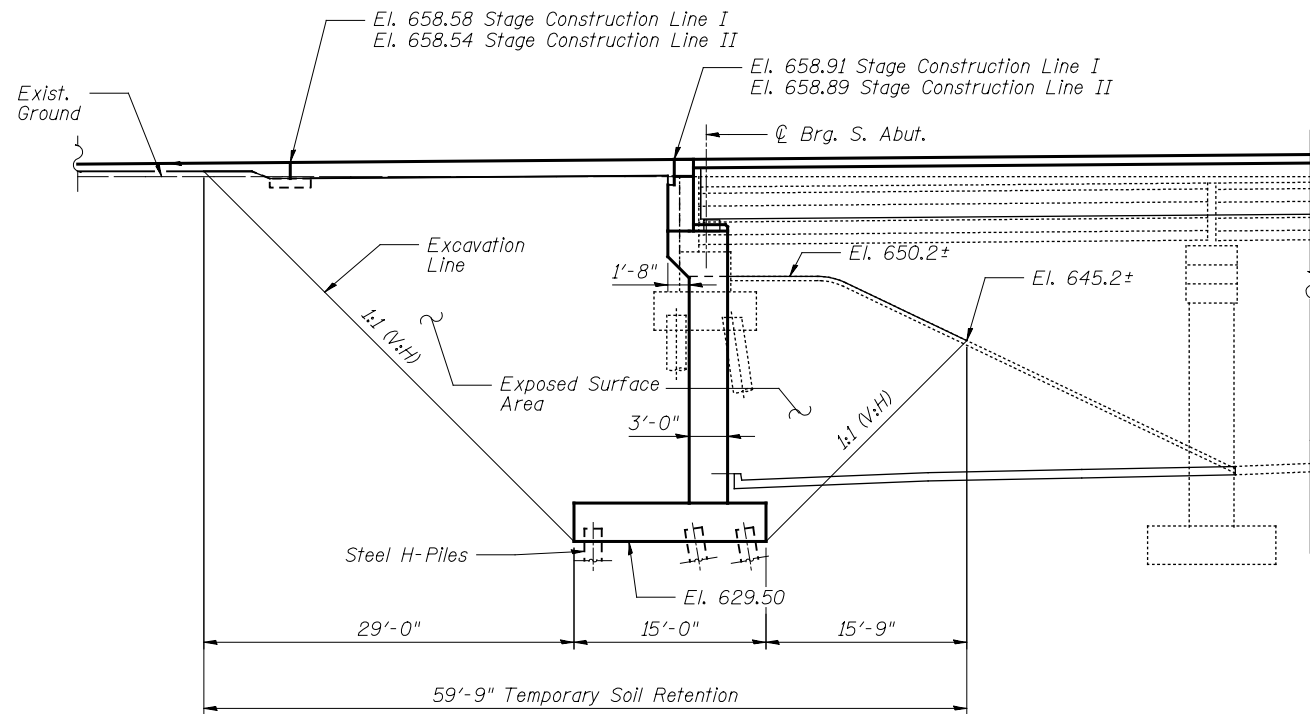
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LISLE, IL 60532
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USER NAME =	DESIGNED - AY	REVISED
PLOT SCALE =	DRAWN - AY	REVISED
PLOT DATE =	CHECKED - RLD	REVISED
	DATE - 2/18/2013	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

REMOVAL DETAILS
STRUCTURE NO. 016-1250
SCALE: NONE SHEET NO. S5 OF S59 SHEETS

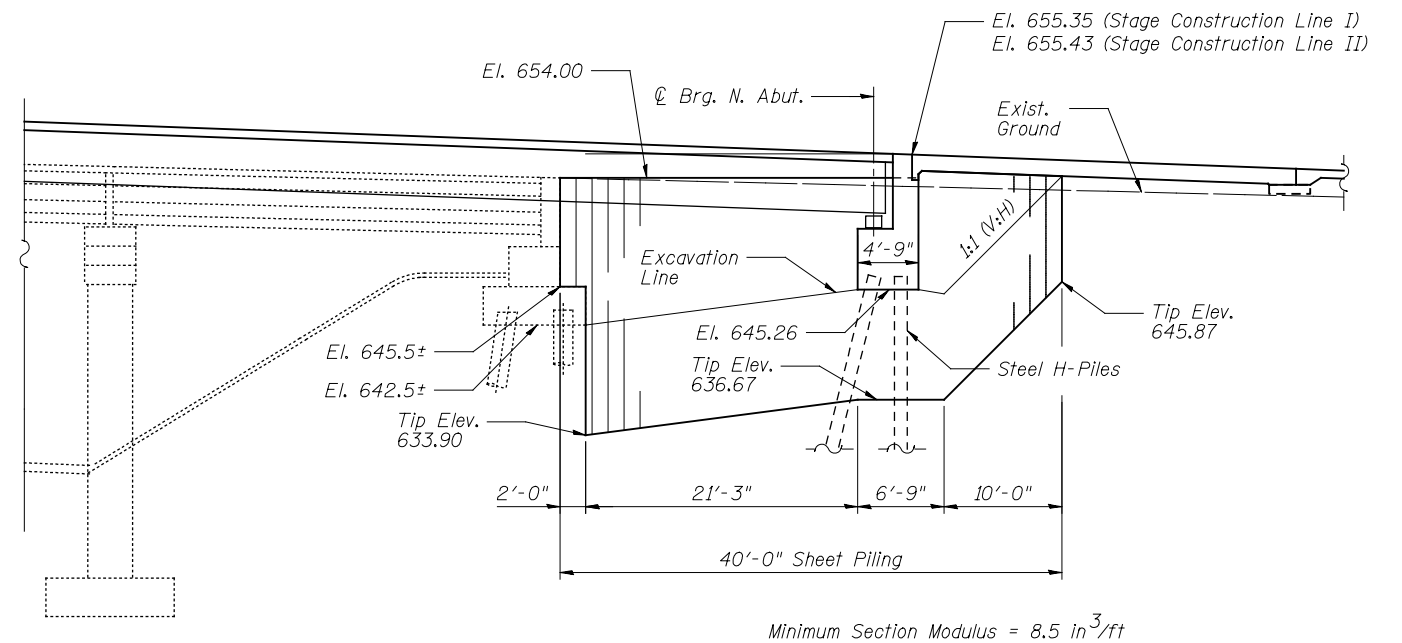
F.A.U. RTE. 2746	SECTION 1616B	COUNTY COOK	TOTAL SHEETS 404	SHEET NO. 274
ILLINOIS FED. AID PROJECT			CONTRACT NO. 60J14	



ELEVATION TEMPORARY SOIL RETENTION SYSTEM

Notes:

1. 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.



ELEVATION TEMPORARY SHEET PILING

Notes:

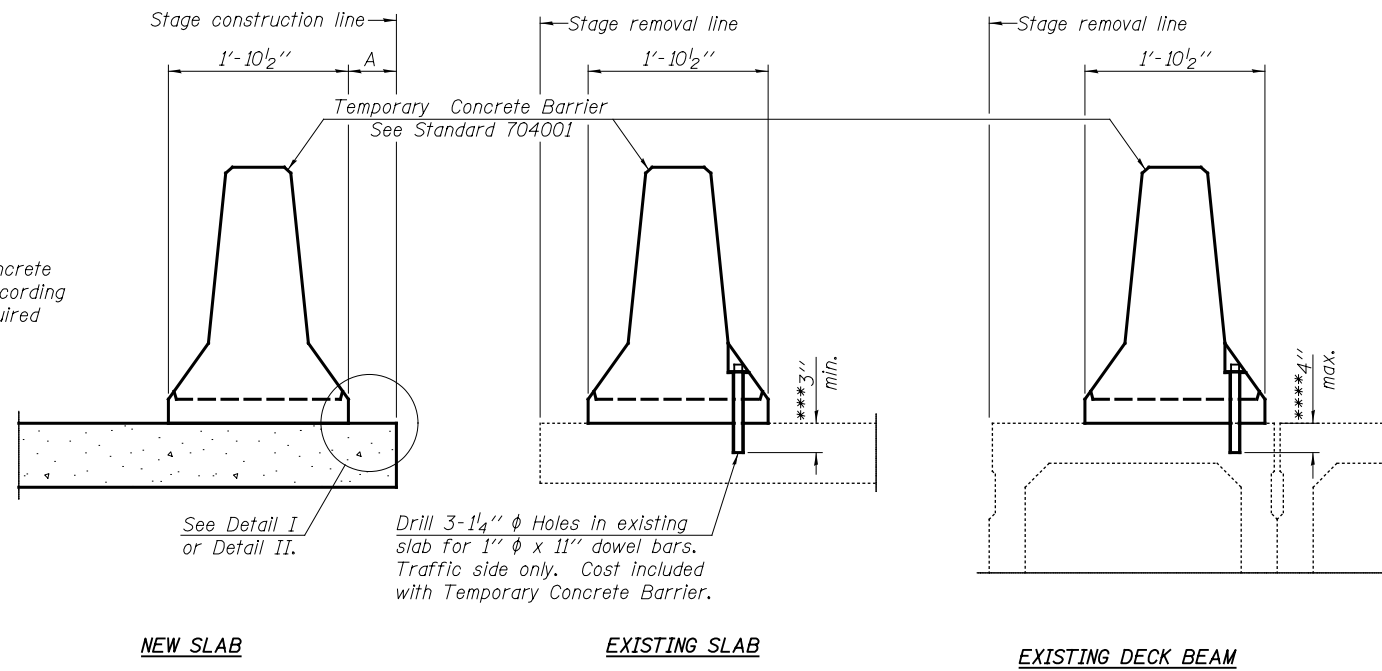
(North Abutment)

1. If the Contractor chooses to alter the temporary cantilevered sheet piling design requirements shown on the plans, a design submittal including plan details and calculations will be required for review and acceptance by the Engineer.
2. The Contractor shall connect the first sheet to the existing abutment wall to ensure stability of sheets driven to the top of the existing footing. This connection shall be reviewed and accepted by the Engineer and included in the cost for Temporary Sheet Piling.

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Temporary Sheet Piling	Sq. Ft.	1248
Temporary Soil Retention System	Sq. Ft.	1908

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



SECTIONS THRU SLAB OR DECK BEAM

NOTES

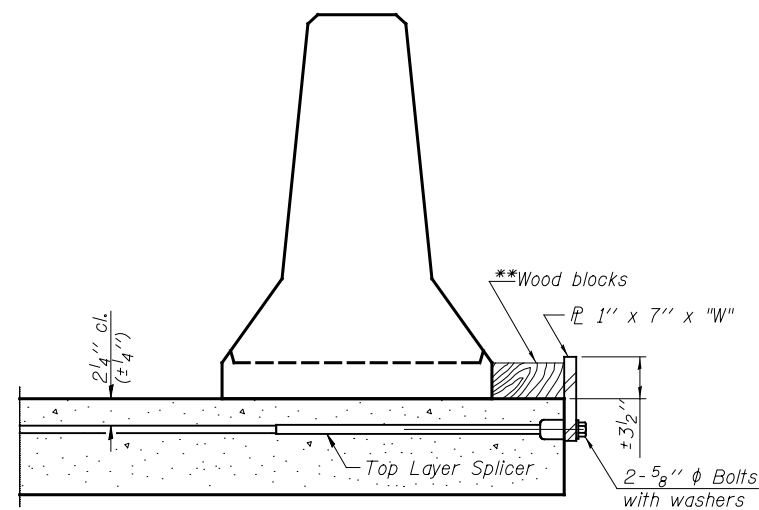
Detail I - With Bar Splicer or Couplers:
Connect one (1) 1" x 7" x "W" steel PL to the top layer of couplers with 2-5/8" φ bolts screwed to coupler at approximate C of each barrier panel.

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

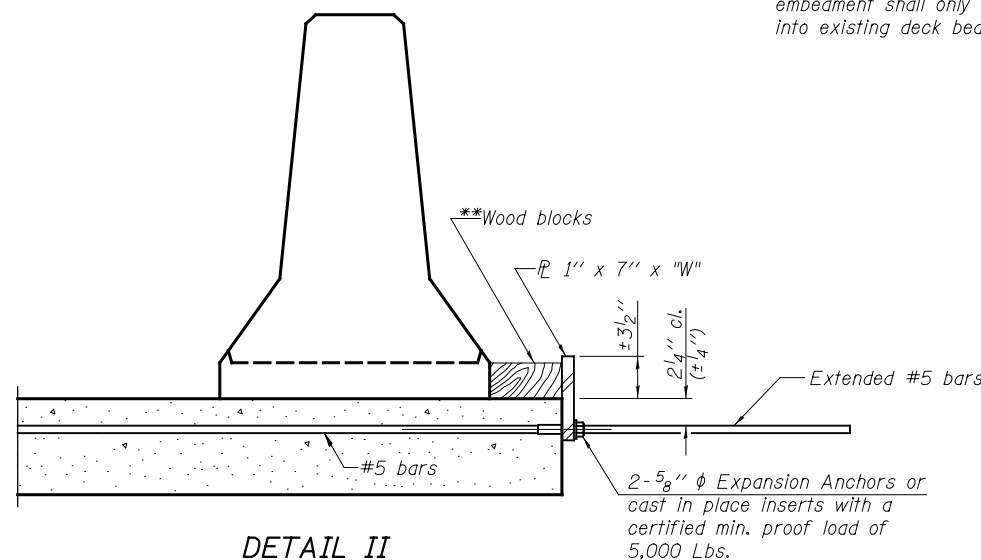
Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x "W" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

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

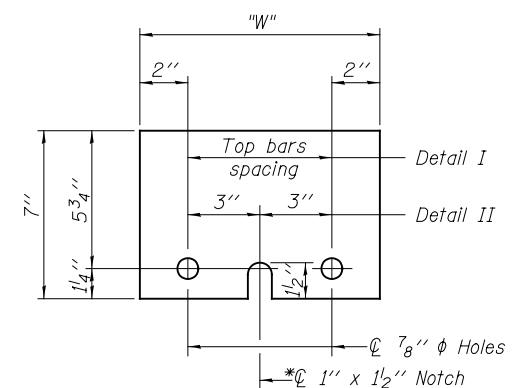
**** If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



DETAIL I



DETAIL II



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

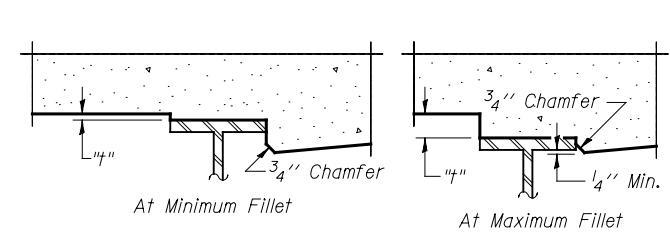
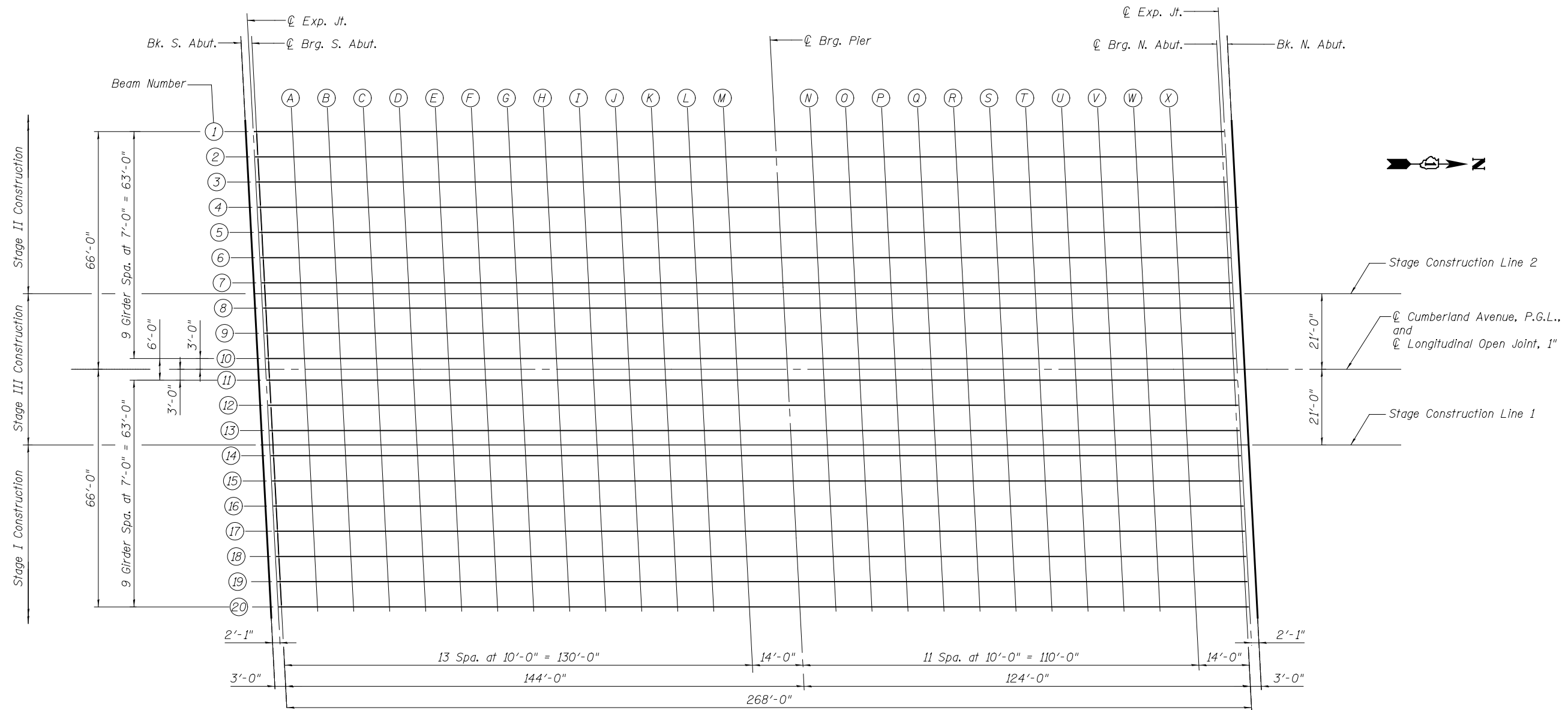
* Required only with Detail II

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

"W" = Top bars spacing + 4"

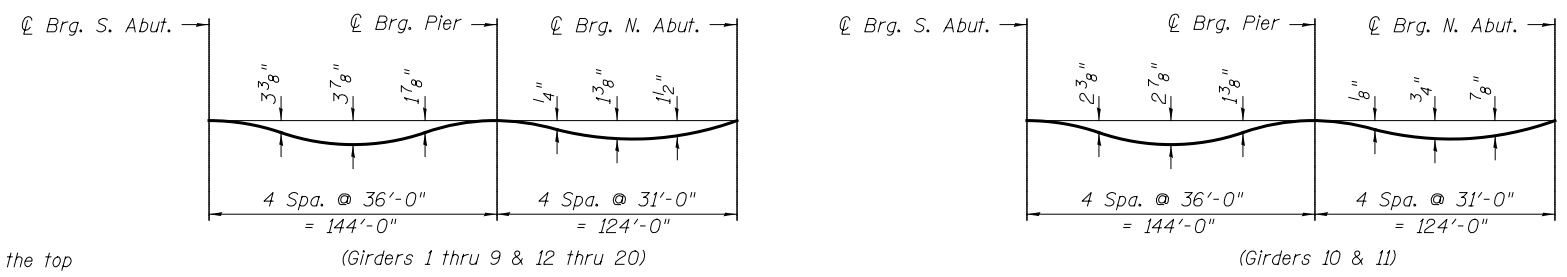
R-27 7-1-10

PATRICK ENGINEERING INC. 4970 VARSITY DRIVE LISLE, IL 60532 patrickengineering.com	USER NAME =	DESIGNED - AY	REVISED	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION STRUCTURE NO. 016-1250	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	DRAWN - AY	REVISED	2746			1616B	COOK	404	276	
PLOT SCALE =	CHECKED - RLD	REVISED				CONTRACT NO. 60J14		ILLINOIS FED. AID PROJECT		
PLOT DATE =	DATE - 2/18/2013	REVISED			SCALE: NONE	SHEET NO. S7 OF S59 SHEETS				



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

FILLET HEIGHTS



TYPICAL 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 below.

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USER NAME =	DESIGNED - AY	REVISED
PLOT SCALE =	DRAWN - AY	REVISED
PLOT DATE =	CHECKED - DM/AD	REVISED
	DATE - 2/18/2013	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TOP OF SLAB ELEVATIONS LAYOUT
STRUCTURE NO. 016-1250

SCALE: NONE SHEET NO. S8 OF S59 SHEETS

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2746	1616B	COOK	404	277
CONTRACT NO. 60J14			ILLINOIS FED. AID PROJECT	

BEAM 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. S. ABUT.	116+48.89	-66.00	657.99	657.99
@ EXP. JT.	116+50.97	-66.00	658.01	658.01
@ BRG. S. ABUT.	116+51.89	-66.00	658.02	658.02
A	116+61.89	-66.00	658.11	658.20
B	116+71.89	-66.00	658.17	658.35
C	116+81.89	-66.00	658.22	658.47
D	116+91.89	-66.00	658.26	658.56
E	117+01.89	-66.00	658.28	658.61
F	117+11.89	-66.00	658.28	658.62
G	117+21.89	-66.00	658.27	658.60
H	117+31.89	-66.00	658.24	658.54
I	117+41.89	-66.00	658.19	658.45
J	117+51.89	-66.00	658.13	658.33
K	117+61.89	-66.00	658.06	658.20
L	117+71.89	-66.00	657.96	658.05
M	117+81.89	-66.00	657.85	657.89
@ BRG. PIER	117+95.89	-66.00	657.67	657.67
N	118+05.89	-66.00	657.53	657.52
O	118+15.89	-66.00	657.36	657.36
P	118+25.89	-66.00	657.18	657.20
Q	118+35.89	-66.00	656.99	657.03
R	118+45.89	-66.00	656.78	656.85
S	118+55.89	-66.00	656.55	656.66
T	118+65.89	-66.00	656.31	656.43
U	118+75.89	-66.00	656.05	656.18
V	118+85.89	-66.00	655.77	655.90
W	118+95.89	-66.00	655.48	655.58
X	119+05.89	-66.00	655.17	655.24
@ BRG. N. ABUT.	119+19.89	-66.00	654.71	654.71
@ EXP. JT.	119+20.81	-66.00	654.68	654.68
BK. N. ABUT.	119+22.89	-66.00	654.61	654.61

BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. S. ABUT.	116+49.26	-59.00	658.14	658.14
@ EXP. JT.	116+51.34	-59.00	658.16	658.16
@ BRG. S. ABUT.	116+52.26	-59.00	658.17	658.17
A	116+62.26	-59.00	658.25	658.34
B	116+72.26	-59.00	658.31	658.49
C	116+82.26	-59.00	658.37	658.61
D	116+92.26	-59.00	658.40	658.70
E	117+02.26	-59.00	658.42	658.75
F	117+12.26	-59.00	658.42	658.76
G	117+22.26	-59.00	658.41	658.74
H	117+32.26	-59.00	658.38	658.68
I	117+42.26	-59.00	658.33	658.59
J	117+52.26	-59.00	658.27	658.47
K	117+62.26	-59.00	658.19	658.33
L	117+72.26	-59.00	658.10	658.19
M	117+82.26	-59.00	657.99	658.03
@ BRG. PIER	117+96.26	-59.00	657.81	657.81
N	118+06.26	-59.00	657.66	657.65
O	118+16.26	-59.00	657.50	657.49
P	118+26.26	-59.00	657.32	657.33
Q	118+36.26	-59.00	657.12	657.17
R	118+46.26	-59.00	656.91	656.99
S	118+56.26	-59.00	656.68	656.79
T	118+66.26	-59.00	656.44	656.56
U	118+76.26	-59.00	656.18	656.31
V	118+86.26	-59.00	655.90	656.03
W	118+96.26	-59.00	655.61	655.71
X	119+06.26	-59.00	655.30	655.37
@ BRG. N. ABUT.	119+20.26	-59.00	654.84	654.84
@ EXP. JT.	119+21.17	-59.00	654.81	654.81
BK. N. ABUT.	119+23.26	-59.00	654.74	654.74

BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. S. ABUT.	116+49.62	-52.00	658.28	658.28
@ EXP. JT.	116+51.71	-52.00	658.30	658.30
@ BRG. S. ABUT.	116+52.62	-52.00	658.31	658.31
A	116+62.62	-52.00	658.39	658.48
B	116+72.62	-52.00	658.46	658.63
C	116+82.62	-52.00	658.51	658.75
D	116+92.62	-52.00	658.54	658.84
E	117+02.62	-52.00	658.56	658.89
F	117+12.62	-52.00	658.56	658.90
G	117+22.62	-52.00	658.55	658.88
H	117+32.62	-52.00	658.52	658.82
I	117+42.62	-52.00	658.47	658.72
J	117+52.62	-52.00	658.41	658.61
K	117+62.62	-52.00	658.33	658.47
L	117+72.62	-52.00	658.24	658.32
M	117+82.62	-52.00	658.13	658.17
@ BRG. PIER	117+96.62	-52.00	657.94	657.94
N	118+06.62	-52.00	657.80	657.79
O	118+16.62	-52.00	657.63	657.63
P	118+26.62	-52.00	657.45	657.47
Q	118+36.62	-52.00	657.25	657.30
R	118+46.62	-52.00	657.04	657.12
S	118+56.62	-52.00	656.81	656.92
T	118+66.62	-52.00	656.57	656.69
U	118+76.62	-52.00	656.31	656.44
V	118+86.62	-52.00	656.03	656.16
W	118+96.62	-52.00	655.74	655.84
X	119+06.62	-52.00	655.43	655.49
@ BRG. N. ABUT.	119+20.62	-52.00	654.97	654.97
@ EXP. JT.	119+21.54	-52.00	654.94	654.94
BK. N. ABUT.	119+23.62	-52.00	654.87	654.87

BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. S. ABUT.	116+49.99	-45.00	658.42	658.42
@ EXP. JT.	116+52.07	-45.00	658.44	658.44
@ BRG. S. ABUT.	116+52.99	-45.00	658.45	658.45
A	116+62.99	-45.00	658.53	658.63
B	116+72.99	-45.00	658.60	658.78
C	116+82.99	-45.00	658.65	658.90
D	116+92.99	-45.00	658.68	658.98
E	117+02.99	-45.00	658.70	659.03
F	117+12.99	-45.00	658.70	659.04
G	117+22.99	-45.00	658.69	659.02
H	117+32.99	-45.00	658.66	658.96
I	117+42.99	-45.00	658.61	658.86
J	117+52.99	-45.00	658.55	658.74
K	117+62.99	-45.00	658.47	658.61
L	117+72.99	-45.00	658.37	658.46
M	117+82.99	-45.00	658.26	658.30
@ BRG. PIER	117+96.99	-45.00	658.08	658.08
N	118+06.99	-45.00	657.93	657.92
O	118+16.99	-45.00	657.76	657.76
P	118+26.99	-45.00	657.58	657.60
Q	118+36.99	-45.00	657.39	657.43
R	118+46.99	-45.00	657.17	657.25
S	118+56.99	-45.00	656.94	657.05
T	118+66.99	-45.00	656.70	656.82
U	118+76.99	-45.00	656.44	656.57
V	118+86.99	-45.00	656.16	656.29
W	118+96.99	-45.00	655.87	655.97
X	119+06.99	-45.00	655.56	655.62
@ BRG. N. ABUT.	119+20.99	-45.00	655.10	655.10
@ EXP. JT.	119+21.91	-45.00	655.06	655.06
BK. N. ABUT.	119+23.99	-45.00	654.99	654.99

BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. S. ABUT.	116+50.36	-38.00	658.57	658.57
@ EXP. JT.	116+52.44	-38.00	658.59	658.59
@ BRG. S. ABUT.	116+53.36	-38.00	658.60	658.60
A	116+63.36	-38.00	658.68	658.77
B	116+73.36	-38.00	658.74	658.92
C	116+83.36	-38.00	658.79	659.04
D	116+93.36	-38.00	658.82	659.12
E	117+03.36	-38.00	658.84	659.17
F	117+13.36	-38.00	658.84	659.18
G	117+23.36	-38.00	658.82	659.15
H	117+33.36	-38.00	658.79	659.09
I	117+43.36	-38.00	658.75	659.00
J	117+53.36	-38.00	658.68	658.88
K	117+63.36	-38.00	658.60	658.74
L	117+73.36	-38.00	658.51	658.59
M	117+83.36	-38.00	658.40	658.44
@ BRG. PIER	117+97.36	-38.00	658.21	658.21
N	118+07.36	-38.00	658.06	658.06
O	118+17.36	-38.00	657.90	657.89
P	118+27.36	-38.00	657.72	657.73
Q	118+37.36	-38.00	657.52	657.56
R	118+47.36	-38.00	657.30	657.38
S	118+57.36	-38.00	657.07	657.18
T	118+67.36	-38.00	656.83	656.96
U	118+77.36	-38.00	656.57	656.70
V	118+87.36	-38.00	656.29	656.41
W	118+97.36	-38.00	655.99	656.10
X	119+07.36	-38.00	655.68	655.75
@ BRG. N. ABUT.	119+21.36	-38.00	655.22	655.22
@ EXP. JT.	119+22.28	-38.00	655.19	655.19
BK. N. ABUT.	119+24.36	-38.00	655.12	655.12

BEAM 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. S. ABUT.	116+50.73	-31.00	658.71	658.71
@ EXP. JT.	116+52.81	-31.00	658.73	658.73
@ BRG. S. ABUT.	116+53.73	-31.00	658.74	658.74
A	116+63.73	-31.00	658.82	658.91
B	116+73.73	-31.00	658.88	659.06
C	116+83.73	-31.00	658.93	659.18
D	116+93.73	-31.00	658.96	659.26
E	117+03.73	-31.00	658.98	659.31
F	117+13.73	-31.00	658.98	659.32
G	117+23.73	-31.00	658.96	659.29
H	117+33.73	-31.00	658.93	659.23
I	117+43.73	-31.00	658.88	659.14
J	117+53.73	-31.00	658.82	659.02
K	117+63.73	-31.00	658.74	658.88
L	117+73.73	-31.00	658.64	658.73
M	117+83.73	-31.00	658.53	658.57
@ BRG. PIER	117+97.73	-31.00	658.35	658.35
N	118+07.73	-31.00	658.20	658.19
O	118+17.73	-31.00	658.03	658.03
P	118+27.73	-31.00	657.85	657.87
Q	118+37.73	-31.00	657.65	657.70
R	118+47.73	-31.00	657.44	657.51
S	118+57.73	-31.00	657.21	657.31
T	118+67.73	-31.00	656.96	657.09
U	118+77.73	-31.00	656.70	656.83
V	118+87.73	-31.00	656.42	656.54
W	118+97.73	-31.00	656.12	656.23
X	119+07.73	-31.00	655.81	655.88
@ BRG. N. ABUT.	119+21.73	-31.00	655.35	655.35
@ EXP. JT.	119+22.64	-31.00	655.32	655.32
BK. N. ABUT.	119+24.73	-31.00	655.25	655.25

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BEAM 7

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. S. ABUT.	116+51.09	-24.00	658.86	658.86
@ EXP. JT.	116+53.18	-24.00	658.87	658.87
@ BRG. S. ABUT.	116+54.09	-24.00	658.88	658.88
A	116+64.09	-24.00	658.96	659.05
B	116+74.09	-24.00	659.03	659.20
C	116+84.09	-24.00	659.07	659.32
D	116+94.09	-24.00	659.10	659.40
E	117+04.09	-24.00	659.12	659.45
F	117+14.09	-24.00	659.12	659.46
G	117+24.09	-24.00	659.10	659.43
H	117+34.09	-24.00	659.07	659.37
I	117+44.09	-24.00	659.02	659.28
J	117+54.09	-24.00	658.96	659.16
K	117+64.09	-24.00	658.88	659.02
L	117+74.09	-24.00	658.78	658.87
M	117+84.09	-24.00	658.67	658.71
@ BRG. PIER	117+98.09	-24.00	658.48	658.48
N	118+08.09	-24.00	658.33	658.32
O	118+18.09	-24.00	658.17	658.16
P	118+28.09	-24.00	657.98	658.00
Q	118+38.09	-24.00	657.78	657.83
R	118+48.09	-24.00	657.57	657.64
S	118+58.09	-24.00	657.34	657.44
T	118+68.09	-24.00	657.09	657.22
U	118+78.09	-24.00	656.83	656.96
V	118+88.09	-24.00	656.55	656.67
W	118+98.09	-24.00	656.25	656.36
X	119+08.09	-24.00	655.94	656.01
@ BRG. N. ABUT.	119+22.09	-24.00	655.48	655.48
@ EXP. JT.	119+23.01	-24.00	655.45	655.45
BK. N. ABUT.	119+25.09	-24.00	655.38	655.38

STAGE CONSTRUCTION LINE 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. S. ABUT.	116+51.25	-21.00	658.92	658.92
@ EXP. JT.	116+53.33	-21.00	658.94	658.94
@ BRG. S. ABUT.	116+54.25	-21.00	658.94	658.94
A	116+64.25	-21.00	659.02	659.11
B	116+74.25	-21.00	659.09	659.26
C	116+84.25	-21.00	659.13	659.38
D	116+94.25	-21.00	659.16	659.46
E	117+04.25	-21.00	659.18	659.51
F	117+14.25	-21.00	659.18	659.52
G	117+24.25	-21.00	659.16	659.49
H	117+34.25	-21.00	659.13	659.43
I	117+44.25	-21.00	659.08	659.34
J	117+54.25	-21.00	659.02	659.22
K	117+64.25	-21.00	658.94	659.08
L	117+74.25	-21.00	658.84	658.92
M	117+84.25	-21.00	658.73	658.77
@ BRG. PIER	117+98.25	-21.00	658.54	658.54
N	118+08.25	-21.00	658.39	658.38
O	118+18.25	-21.00	658.22	658.22
P	118+28.25	-21.00	658.04	658.06
Q	118+38.25	-21.00	657.84	657.88
R	118+48.25	-21.00	657.62	657.70
S	118+58.25	-21.00	657.39	657.50
T	118+68.25	-21.00	657.15	657.27
U	118+78.25	-21.00	656.88	657.02
V	118+88.25	-21.00	656.60	656.73
W	118+98.25	-21.00	656.31	656.41
X	119+08.25	-21.00	656.00	656.06
@ BRG. N. ABUT.	119+22.25	-21.00	655.53	655.53
@ EXP. JT.	119+23.17	-21.00	655.50	655.50
BK. N. ABUT.	119+25.25	-21.00	655.43	655.43

BEAM 8

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. S. ABUT.	116+51.46	-17.00	659.00	659.00
@ EXP. JT.	116+53.54	-17.00	659.02	659.02
@ BRG. S. ABUT.	116+54.46	-17.00	659.03	659.03
A	116+64.46	-17.00	659.10	659.20
B	116+74.46	-17.00	659.17	659.34
C	116+84.46	-17.00	659.21	659.46
D	116+94.46	-17.00	659.25	659.54
E	117+04.46	-17.00	659.26	659.59
F	117+14.46	-17.00	659.26	659.60
G	117+24.46	-17.00	659.24	659.57
H	117+34.46	-17.00	659.21	659.51
I	117+44.46	-17.00	659.16	659.41
J	117+54.46	-17.00	659.09	659.29
K	117+64.46	-17.00	659.01	659.15
L	117+74.46	-17.00	658.92	659.00
M	117+84.46	-17.00	658.80	658.84
@ BRG. PIER	117+98.46	-17.00	658.62	658.62
N	118+08.46	-17.00	658.47	658.46
O	118+18.46	-17.00	658.30	658.30
P	118+28.46	-17.00	658.12	658.13
Q	118+38.46	-17.00	657.92	657.96
R	118+48.46	-17.00	657.70	657.78
S	118+58.46	-17.00	657.47	657.57
T	118+68.46	-17.00	657.22	657.35
U	118+78.46	-17.00	656.96	657.09
V	118+88.46	-17.00	656.68	656.80
W	118+98.46	-17.00	656.38	656.48
X	119+08.46	-17.00	656.07	656.14
@ BRG. N. ABUT.	119+22.46	-17.00	655.61	655.61
@ EXP. JT.	119+23.38	-17.00	655.57	655.57
BK. N. ABUT.	119+25.46	-17.00	655.50	655.50

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BEAM 9

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. S. ABUT.	116+51.83	-10.00	659.14	659.14
@ EXP. JT.	116+53.91	-10.00	659.16	659.16
@ BRG. S. ABUT.	116+54.83	-10.00	659.17	659.17
A	116+64.83	-10.00	659.25	659.34
B	116+74.83	-10.00	659.31	659.49
C	116+84.83	-10.00	659.36	659.60
D	116+94.83	-10.00	659.39	659.68
E	117+04.83	-10.00	659.40	659.73
F	117+14.83	-10.00	659.40	659.74
G	117+24.83	-10.00	659.38	659.71
H	117+34.83	-10.00	659.35	659.65
I	117+44.83	-10.00	659.30	659.55
J	117+54.83	-10.00	659.23	659.43
K	117+64.83	-10.00	659.15	659.29
L	117+74.83	-10.00	659.05	659.14
M	117+84.83	-10.00	658.94	658.98
@ BRG. PIER	117+98.83	-10.00	658.75	658.75
N	118+08.83	-10.00	658.60	658.59
O	118+18.83	-10.00	658.43	658.43
P	118+28.83	-10.00	658.25	658.26
Q	118+38.83	-10.00	658.05	658.09
R	118+48.83	-10.00	657.83	657.91
S	118+58.83	-10.00	657.60	657.71
T	118+68.83	-10.00	657.35	657.48
U	118+78.83	-10.00	657.09	657.22
V	118+88.83	-10.00	656.81	656.93
W	118+98.83	-10.00	656.51	656.61
X	119+08.83	-10.00	656.20	656.26
@ BRG. N. ABUT.	119+22.83	-10.00	655.73	655.73
@ EXP. JT.	119+23.74	-10.00	655.70	655.70
BK. N. ABUT.	119+25.83	-10.00	655.63	655.63

BEAM 10

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. S. ABUT.	116+52.19	-3.00	659.29	659.29
@ EXP. JT.	116+54.28	-3.00	659.30	659.30
@ BRG. S. ABUT.	116+55.19	-3.00	659.31	659.31
A	116+65.19	-3.00	659.39	659.45
B	116+75.19	-3.00	659.45	659.58
C	116+85.19	-3.00	659.50	659.67
D	116+95.19	-3.00	659.53	659.74
E	117+05.19	-3.00	659.54	659.78
F	117+15.19	-3.00	659.54	659.79
G	117+25.19	-3.00	659.52	659.76
H	117+35.19	-3.00	659.49	659.71
I	117+45.19	-3.00	659.44	659.63
J	117+55.19	-3.00	659.37	659.52
K	117+65.19	-3.00	659.29	659.40
L	117+75.19	-3.00	659.19	659.26
M	117+85.19	-3.00	659.07	659.11
@ BRG. PIER	117+99.19	-3.00	658.89	658.89
N	118+09.19	-3.00	658.73	658.73
O	118+19.19	-3.00	658.57	658.56
P	118+29.19	-3.00	658.38	658.39
Q	118+39.19	-3.00	658.18	658.21
R	118+49.19	-3.00	657.96	658.01
S	118+59.19	-3.00	657.73	657.79
T	118+69.19	-3.00	657.48	657.56
U	118+79.19	-3.00	657.22	657.29
V	118+89.19	-3.00	656.94	657.01
W	118+99.19	-3.00	656.64	656.70
X	119+09.19	-3.00	656.33	656.36
@ BRG. N. ABUT.	119+23.19	-3.00	655.86	655.86
@ EXP. JT.	119+24.11	-3.00	655.83	655.83
BK. N. ABUT.	119+26.19	-3.00	655.76	655.76

PROFILE GRADE & @ OPEN JOINT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. S. ABUT.	116+52.35	0.00	659.35	659.35
@ EXP. JT.	116+54.43	0.00	659.37	659.37
@ BRG. S. ABUT.	116+55.35	0.00	659.37	659.37
A	116+65.35	0.00	659.45	659.52
B	116+75.35	0.00	659.51	659.64
C	116+85.35	0.00	659.56	659.73
D	116+95.35	0.00	659.59	659.80
E	117+05.35	0.00	659.60	659.84
F	117+15.35	0.00	659.60	659.85
G	117+25.35	0.00	659.58	659.82
H	117+35.35	0.00	659.55	659.77
I	117+45.35	0.00	659.49	659.69
J	117+55.35	0.00	659.43	659.58
K	117+65.35	0.00	659.35	659.45
L	117+75.35	0.00	659.25	659.31
M	117+85.35	0.00	659.13	659.16
@ BRG. PIER	117+99.35	0.00	658.95	658.95
N	118+09.35	0.00	658.79	658.79
O	118+19.35	0.00	658.62	658.62
P	118+29.35	0.00	658.44	658.45
Q	118+39.35	0.00	658.24	658.26
R	118+49.35	0.00	658.02	658.07
S	118+59.35	0.00	657.79	657.85
T	118+69.35	0.00	657.54	657.61
U	118+79.35	0.00	657.27	657.35
V	118+89.35	0.00	656.99	657.06
W	118+99.35	0.00	656.69	656.75
X	119+09.35	0.00	656.38	656.42
@ BRG. N. ABUT.	119+23.35	0.00	655.92	655.92
@ EXP. JT.	119+24.27	0.00	655.88	655.88
BK. N. ABUT.	119+26.35	0.00	655.81	655.81

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BEAM 11

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. S. ABUT.	116+52.51	3.00	659.29	659.29
@ EXP. JT.	116+54.59	3.00	659.31	659.31
@ BRG. S. ABUT.	116+55.51	3.00	659.31	659.31
A	116+65.51	3.00	659.39	659.46
B	116+75.51	3.00	659.45	659.58
C	116+85.51	3.00	659.50	659.67
D	116+95.51	3.00	659.53	659.74
E	117+05.51	3.00	659.54	659.78
F	117+15.51	3.00	659.54	659.79
G	117+25.51	3.00	659.52	659.76
H	117+35.51	3.00	659.48	659.71
I	117+45.51	3.00	659.43	659.62
J	117+55.51	3.00	659.37	659.52
K	117+65.51	3.00	659.28	659.39
L	117+75.51	3.00	659.19	659.25
M	117+85.51	3.00	659.07	659.10
@ BRG. PIER	117+99.51	3.00	658.88	658.88
N	118+09.51	3.00	658.73	658.72
O	118+19.51	3.00	658.56	658.56
P	118+29.51	3.00	658.38	658.38
Q	118+39.51	3.00	658.17	658.20
R	118+49.51	3.00	657.96	658.00
S	118+59.51	3.00	657.72	657.79
T	118+69.51	3.00	657.47	657.55
U	118+79.51	3.00	657.21	657.29
V	118+89.51	3.00	656.93	657.00
W	118+99.51	3.00	656.63	656.69
X	119+09.51	3.00	656.32	656.35
@ BRG. N. ABUT.	119+23.51	3.00	655.85	655.85
@ EXP. JT.	119+24.42	3.00	655.82	655.82
BK. N. ABUT.	119+26.51	3.00	655.75	655.75

BEAM 12

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. S. ABUT.	116+52.87	10.00	659.15	659.15
@ EXP. JT.	116+54.96	10.00	659.17	659.17
@ BRG. S. ABUT.	116+55.87	10.00	659.18	659.18
A	116+65.87	10.00	659.25	659.35
B	116+75.87	10.00	659.32	659.49
C	116+85.87	10.00	659.36	659.61
D	116+95.87	10.00	659.39	659.69
E	117+05.87	10.00	659.40	659.73
F	117+15.87	10.00	659.40	659.74
G	117+25.87	10.00	659.38	659.71
H	117+35.87	10.00	659.34	659.64
I	117+45.87	10.00	659.29	659.55
J	117+55.87	10.00	659.22	659.42
K	117+65.87	10.00	659.14	659.28
L	117+75.87	10.00	659.04	659.13
M	117+85.87	10.00	658.93	658.97
@ BRG. PIER	117+99.87	10.00	658.74	658.74
N	118+09.87	10.00	658.58	658.58
O	118+19.87	10.00	658.41	658.41
P	118+29.87	10.00	658.23	658.24
Q	118+39.87	10.00	658.03	658.07
R	118+49.87	10.00	657.81	657.88
S	118+59.87	10.00	657.57	657.68
T	118+69.87	10.00	657.32	657.45
U	118+79.87	10.00	657.06	657.19
V	118+89.87	10.00	656.78	656.90
W	118+99.87	10.00	656.48	656.58
X	119+09.87	10.00	656.16	656.23
@ BRG. N. ABUT.	119+23.87	10.00	655.70	655.70
@ EXP. JT.	119+24.79	10.00	655.67	655.67
BK. N. ABUT.	119+26.87	10.00	655.59	655.59

BEAM 13

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. S. ABUT.	116+53.24	17.00	659.01	659.01
@ EXP. JT.	116+55.32	17.00	659.03	659.03
@ BRG. S. ABUT.	116+56.24	17.00	659.04	659.04
A	116+66.24	17.00	659.12	659.21
B	116+76.24	17.00	659.18	659.35
C	116+86.24	17.00	659.22	659.47
D	116+96.24	17.00	659.25	659.55
E	117+06.24	17.00	659.26	659.59
F	117+16.24	17.00	659.26	659.60
G	117+26.24	17.00	659.24	659.57
H	117+36.24	17.00	659.20	659.50
I	117+46.24	17.00	659.15	659.40
J	117+56.24	17.00	659.08	659.28
K	117+66.24	17.00	659.00	659.14
L	117+76.24	17.00	658.90	658.98
M	117+86.24	17.00	658.78	658.82
@ BRG. PIER	118+00.24	17.00	658.59	658.59
N	118+10.24	17.00	658.44	658.43
O	118+20.24	17.00	658.27	658.26
P	118+30.24	17.00	658.08	658.10
Q	118+40.24	17.00	657.88	657.92
R	118+50.24	17.00	657.66	657.74
S	118+60.24	17.00	657.43	657.53
T	118+70.24	17.00	657.17	657.30
U	118+80.24	17.00	656.91	657.04
V	118+90.24	17.00	656.63	656.75
W	119+00.24	17.00	656.33	656.43
X	119+10.24	17.00	656.01	656.08
@ BRG. N. ABUT.	119+24.24	17.00	655.54	655.54
@ EXP. JT.	119+25.16	17.00	655.51	655.51
BK. N. ABUT.	119+27.24	17.00	655.44	655.44

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STAGE CONSTRUCTION LINE 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. S. ABUT.	116+53.45	21.00	658.94	658.94
@ EXP. JT.	116+55.53	21.00	658.95	658.95
@ BRG. S. ABUT.	116+56.45	21.00	658.96	658.96
A	116+66.45	21.00	659.04	659.13
B	116+76.45	21.00	659.10	659.27
C	116+86.45	21.00	659.14	659.39
D	116+96.45	21.00	659.17	659.47
E	117+06.45	21.00	659.18	659.51
F	117+16.45	21.00	659.18	659.52
G	117+26.45	21.00	659.16	659.49
H	117+36.45	21.00	659.12	659.42
I	117+46.45	21.00	659.07	659.32
J	117+56.45	21.00	659.00	659.20
K	117+66.45	21.00	658.92	659.06
L	117+76.45	21.00	658.82	658.90
M	117+86.45	21.00	658.70	658.74
@ BRG. PIER	118+00.45	21.00	658.51	658.51
N	118+10.45	21.00	658.35	658.35
O	118+20.45	21.00	658.18	658.18
P	118+30.45	21.00	658.00	658.01
Q	118+40.45	21.00	657.79	657.84
R	118+50.45	21.00	657.58	657.65
S	118+60.45	21.00	657.34	657.45
T	118+70.45	21.00	657.09	657.22
U	118+80.45	21.00	656.82	656.96
V	118+90.45	21.00	656.54	656.67
W	119+00.45	21.00	656.24	656.34
X	119+10.45	21.00	655.93	655.99
@ BRG. N. ABUT.	119+24.45	21.00	655.46	655.46
@ EXP. JT.	119+25.37	21.00	655.43	655.43
BK. N. ABUT.	119+27.45	21.00	655.35	655.35

BEAM 14

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. S. ABUT.	116+53.61	24.00	658.88	658.88
@ EXP. JT.	116+55.69	24.00	658.90	658.90
@ BRG. S. ABUT.	116+56.61	24.00	658.90	658.90
A	116+66.61	24.00	658.98	659.07
B	116+76.61	24.00	659.04	659.21
C	116+86.61	24.00	659.08	659.33
D	116+96.61	24.00	659.11	659.41
E	117+06.61	24.00	659.12	659.45
F	117+16.61	24.00	659.12	659.46
G	117+26.61	24.00	659.10	659.43
H	117+36.61	24.00	659.06	659.36
I	117+46.61	24.00	659.01	659.26
J	117+56.61	24.00	658.94	659.14
K	117+66.61	24.00	658.85	658.99
L	117+76.61	24.00	658.75	658.84
M	117+86.61	24.00	658.64	658.68
@ BRG. PIER	118+00.61	24.00	658.45	658.45
N	118+10.61	24.00	658.29	658.28
O	118+20.61	24.00	658.12	658.12
P	118+30.61	24.00	657.93	657.95
Q	118+40.61	24.00	657.73	657.78
R	118+50.61	24.00	657.51	657.59
S	118+60.61	24.00	657.28	657.38
T	118+70.61	24.00	657.03	657.15
U	118+80.61	24.00	656.76	656.89
V	118+90.61	24.00	656.47	656.60
W	119+00.61	24.00	656.18	656.28
X	119+10.61	24.00	655.86	655.93
@ BRG. N. ABUT.	119+24.61	24.00	655.39	655.39
@ EXP. JT.	119+25.52	24.00	655.36	655.36
BK. N. ABUT.	119+27.61	24.00	655.29	655.29

BEAM 15

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. S. ABUT.	116+53.97	31.00	658.74	658.74
@ EXP. JT.	116+56.06	31.00	658.76	658.76
@ BRG. S. ABUT.	116+56.97	31.00	658.77	658.77
A	116+66.97	31.00	658.84	658.93
B	116+76.97	31.00	658.90	659.08
C	116+86.97	31.00	658.94	659.19
D	116+96.97	31.00	658.97	659.27
E	117+06.97	31.00	658.98	659.31
F	117+16.97	31.00	658.98	659.32
G	117+26.97	31.00	658.96	659.29
H	117+36.97	31.00	658.92	659.22
I	117+46.97	31.00	658.87	659.12
J	117+56.97	31.00	658.80	658.99
K	117+66.97	31.00	658.71	658.85
L	117+76.97	31.00	658.61	658.70
M	117+86.97	31.00	658.49	658.53
@ BRG. PIER	118+00.97	31.00	658.30	658.30
N	118+10.97	31.00	658.15	658.14
O	118+20.97	31.00	657.97	657.97
P	118+30.97	31.00	657.79	657.80
Q	118+40.97	31.00	657.58	657.63
R	118+50.97	31.00	657.36	657.44
S	118+60.97	31.00	657.13	657.23
T	118+70.97	31.00	656.88	657.00
U	118+80.97	31.00	656.61	656.74
V	118+90.97	31.00	656.32	656.45
W	119+00.97	31.00	656.02	656.13
X	119+10.97	31.00	655.71	655.77
@ BRG. N. ABUT.	119+24.97	31.00	655.24	655.24
@ EXP. JT.	119+25.89	31.00	655.21	655.21
BK. N. ABUT.	119+27.97	31.00	655.13	655.13

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BEAM 16

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. S. ABUT.	116+54.34	38.00	658.60	658.60
@ EXP. JT.	116+56.42	38.00	658.62	658.62
@ BRG. S. ABUT.	116+57.34	38.00	658.63	658.63
A	116+67.34	38.00	658.70	658.80
B	116+77.34	38.00	658.76	658.94
C	116+87.34	38.00	658.80	659.05
D	116+97.34	38.00	658.83	659.13
E	117+07.34	38.00	658.84	659.17
F	117+17.34	38.00	658.84	659.18
G	117+27.34	38.00	658.81	659.14
H	117+37.34	38.00	658.78	659.08
I	117+47.34	38.00	658.72	658.98
J	117+57.34	38.00	658.65	658.85
K	117+67.34	38.00	658.57	658.71
L	117+77.34	38.00	658.47	658.55
M	117+87.34	38.00	658.35	658.39
@ BRG. PIER	118+01.34	38.00	658.16	658.16
N	118+11.34	38.00	658.00	657.99
O	118+21.34	38.00	657.83	657.82
P	118+31.34	38.00	657.64	657.66
Q	118+41.34	38.00	657.44	657.48
R	118+51.34	38.00	657.21	657.29
S	118+61.34	38.00	656.98	657.08
T	118+71.34	38.00	656.73	656.85
U	118+81.34	38.00	656.46	656.59
V	118+91.34	38.00	656.17	656.30
W	119+01.34	38.00	655.87	655.98
X	119+11.34	38.00	655.56	655.62
@ BRG. N. ABUT.	119+25.34	38.00	655.09	655.09
@ EXP. JT.	119+26.26	38.00	655.05	655.05
BK. N. ABUT.	119+28.34	38.00	654.98	654.98

BEAM 17

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. S. ABUT.	116+54.71	45.00	658.47	658.47
@ EXP. JT.	116+56.79	45.00	658.49	658.49
@ BRG. S. ABUT.	116+57.71	45.00	658.49	658.49
A	116+67.71	45.00	658.57	658.66
B	116+77.71	45.00	658.62	658.80
C	116+87.71	45.00	658.67	658.91
D	116+97.71	45.00	658.69	658.99
E	117+07.71	45.00	658.70	659.03
F	117+17.71	45.00	658.70	659.04
G	117+27.71	45.00	658.67	659.00
H	117+37.71	45.00	658.63	658.94
I	117+47.71	45.00	658.58	658.83
J	117+57.71	45.00	658.51	658.71
K	117+67.71	45.00	658.42	658.56
L	117+77.71	45.00	658.32	658.41
M	117+87.71	45.00	658.20	658.24
@ BRG. PIER	118+01.71	45.00	658.01	658.01
N	118+11.71	45.00	657.85	657.85
O	118+21.71	45.00	657.68	657.68
P	118+31.71	45.00	657.49	657.51
Q	118+41.71	45.00	657.29	657.33
R	118+51.71	45.00	657.07	657.14
S	118+61.71	45.00	656.83	656.94
T	118+71.71	45.00	656.58	656.70
U	118+81.71	45.00	656.31	656.44
V	118+91.71	45.00	656.02	656.15
W	119+01.71	45.00	655.72	655.82
X	119+11.71	45.00	655.40	655.47
@ BRG. N. ABUT.	119+25.71	45.00	654.93	654.93
@ EXP. JT.	119+26.63	45.00	654.90	654.90
BK. N. ABUT.	119+28.71	45.00	654.83	654.83

BEAM 18

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. S. ABUT.	116+55.08	52.00	658.33	658.33
@ EXP. JT.	116+57.16	52.00	658.35	658.35
@ BRG. S. ABUT.	116+58.08	52.00	658.36	658.36
A	116+68.08	52.00	658.43	658.52
B	116+78.08	52.00	658.49	658.66
C	116+88.08	52.00	658.53	658.77
D	116+98.08	52.00	658.55	658.85
E	117+08.08	52.00	658.56	658.89
F	117+18.08	52.00	658.56	658.90
G	117+28.08	52.00	658.53	658.86
H	117+38.08	52.00	658.49	658.79
I	117+48.08	52.00	658.44	658.69
J	117+58.08	52.00	658.37	658.57
K	117+68.08	52.00	658.28	658.42
L	117+78.08	52.00	658.18	658.26
M	117+88.08	52.00	658.06	658.10
@ BRG. PIER	118+02.08	52.00	657.87	657.87
N	118+12.08	52.00	657.71	657.70
O	118+22.08	52.00	657.53	657.53
P	118+32.08	52.00	657.34	657.36
Q	118+42.08	52.00	657.14	657.18
R	118+52.08	52.00	656.92	656.99
S	118+62.08	52.00	656.68	656.79
T	118+72.08	52.00	656.43	656.55
U	118+82.08	52.00	656.16	656.29
V	118+92.08	52.00	655.87	656.00
W	119+02.08	52.00	655.57	655.67
X	119+12.08	52.00	655.25	655.32
@ BRG. N. ABUT.	119+26.08	52.00	654.78	654.78
@ EXP. JT.	119+26.99	52.00	654.75	654.75
BK. N. ABUT.	119+29.08	52.00	654.68	654.68

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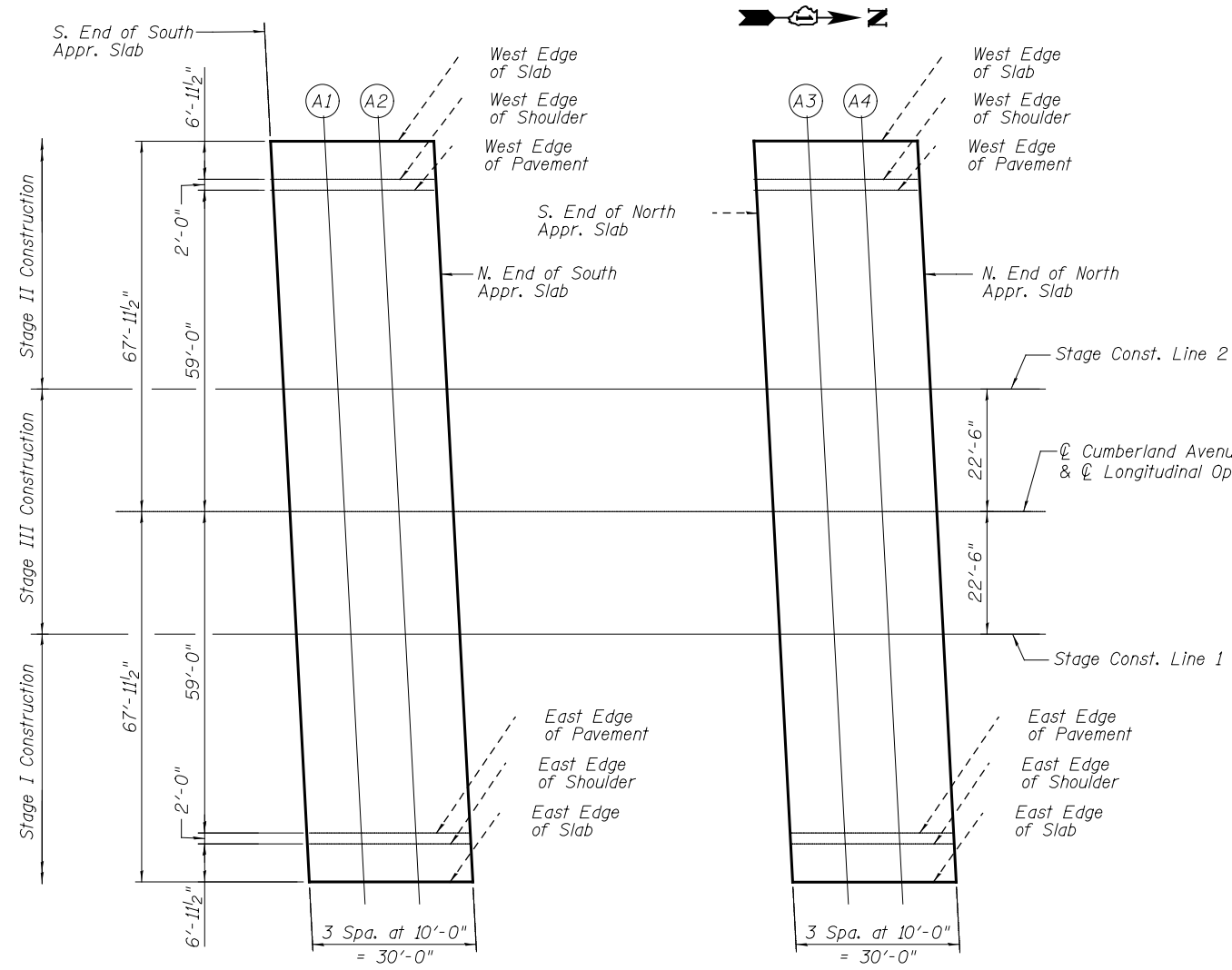
BEAM 19

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. S. ABUT.	116+55.44	59.00	658.19	658.19
@ EXP. JT.	116+57.53	59.00	658.21	658.21
@ BRG. S. ABUT.	116+58.44	59.00	658.22	658.22
A	116+68.44	59.00	658.29	658.38
B	116+78.44	59.00	658.35	658.52
C	116+88.44	59.00	658.39	658.64
D	116+98.44	59.00	658.41	658.71
E	117+08.44	59.00	658.42	658.75
F	117+18.44	59.00	658.41	658.76
G	117+28.44	59.00	658.39	658.72
H	117+38.44	59.00	658.35	658.65
I	117+48.44	59.00	658.30	658.55
J	117+58.44	59.00	658.22	658.42
K	117+68.44	59.00	658.14	658.28
L	117+78.44	59.00	658.03	658.12
M	117+88.44	59.00	657.91	657.95
@ BRG. PIER	118+02.44	59.00	657.72	657.72
N	118+12.44	59.00	657.56	657.55
O	118+22.44	59.00	657.39	657.38
P	118+32.44	59.00	657.20	657.21
Q	118+42.44	59.00	656.99	657.04
R	118+52.44	59.00	656.77	656.85
S	118+62.44	59.00	656.53	656.64
T	118+72.44	59.00	656.28	656.40
U	118+82.44	59.00	656.01	656.14
V	118+92.44	59.00	655.72	655.85
W	119+02.44	59.00	655.42	655.52
X	119+12.44	59.00	655.10	655.17
@ BRG. N. ABUT.	119+26.44	59.00	654.63	654.63
@ EXP. JT.	119+27.36	59.00	654.60	654.60
BK. N. ABUT.	119+29.44	59.00	654.52	654.52

BEAM 20

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. S. ABUT.	116+55.81	66.00	658.06	658.06
@ EXP. JT.	116+57.89	66.00	658.07	658.07
@ BRG. S. ABUT.	116+58.81	66.00	658.08	658.08
A	116+68.81	66.00	658.15	658.25
B	116+78.81	66.00	658.21	658.39
C	116+88.81	66.00	658.25	658.50
D	116+98.81	66.00	658.27	658.57
E	117+08.81	66.00	658.28	658.61
F	117+18.81	66.00	658.27	658.61
G	117+28.81	66.00	658.25	658.58
H	117+38.81	66.00	658.21	658.51
I	117+48.81	66.00	658.15	658.41
J	117+58.81	66.00	658.08	658.28
K	117+68.81	66.00	657.99	658.13
L	117+78.81	66.00	657.89	657.98
M	117+88.81	66.00	657.77	657.81
@ BRG. PIER	118+02.81	66.00	657.57	657.57
N	118+12.81	66.00	657.42	657.41
O	118+22.81	66.00	657.24	657.24
P	118+32.81	66.00	657.05	657.07
Q	118+42.81	66.00	656.84	656.89
R	118+52.81	66.00	656.62	656.70
S	118+62.81	66.00	656.38	656.49
T	118+72.81	66.00	656.13	656.25
U	118+82.81	66.00	655.86	655.99
V	118+92.81	66.00	655.57	655.70
W	119+02.81	66.00	655.27	655.37
X	119+12.81	66.00	654.95	655.01
@ BRG. N. ABUT.	119+26.81	66.00	654.48	654.48
@ EXP. JT.	119+27.73	66.00	654.44	654.44
BK. N. ABUT.	119+29.81	66.00	654.37	654.37

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WEST EDGE OF SHOULDER

Location	Station	Offset	Theoretical Grade Elevations
S. End South App'r Pav't.	116+19.65	-61.00	657.75
A1	116+29.65	-61.00	657.88
A2	116+39.65	-61.00	658.00
N. End South App'r Pav't.	116+49.65	-61.00	658.10
S. End North App'r Pav't.	119+22.65	-61.00	654.72
A3	119+32.65	-61.00	654.37
A4	119+42.65	-61.00	654.00
N. End North App'r Pav't.	119+52.65	-61.00	653.62

WEST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
S. End South App'r Pav't.	116+19.76	-59.00	657.79
A1	116+29.76	-59.00	657.92
A2	116+39.76	-59.00	658.04
N. End South App'r Pav't.	116+49.76	-59.00	658.14
S. End North App'r Pav't.	119+22.76	-59.00	654.76
A3	119+32.76	-59.00	654.40
A4	119+42.76	-59.00	654.04
N. End North App'r Pav't.	119+52.76	-59.00	653.66

STAGE CONSTRUCTION LINE 2

Location	Station	Offset	Theoretical Grade Elevations
S. End South App'r Pav't.	116+21.67	-22.50	658.54
A1	116+31.67	-22.50	658.68
A2	116+41.67	-22.50	658.79
N. End South App'r Pav't.	116+51.67	-22.50	658.89
S. End North App'r Pav't.	119+24.67	-22.50	655.42
A3	119+34.67	-22.50	655.07
A4	119+44.67	-22.50	654.70
N. End North App'r Pav't.	119+54.67	-22.50	654.31

ROADWAY, PROFILE GRADE & LONGITUDINAL OPEN JOINT

Location	Station	Offset	Theoretical Grade Elevations
S. End South App'r Pav't.	116+22.85	0.00	659.01
A1	116+32.85	0.00	659.14
A2	116+42.85	0.00	659.25
N. End South App'r Pav't.	116+52.85	0.00	659.35
S. End North App'r Pav't.	119+25.85	0.00	655.83
A3	119+35.85	0.00	655.47
A4	119+45.85	0.00	655.10
N. End North App'r Pav't.	119+55.85	0.00	654.71

STAGE CONSTRUCTION LINE 1

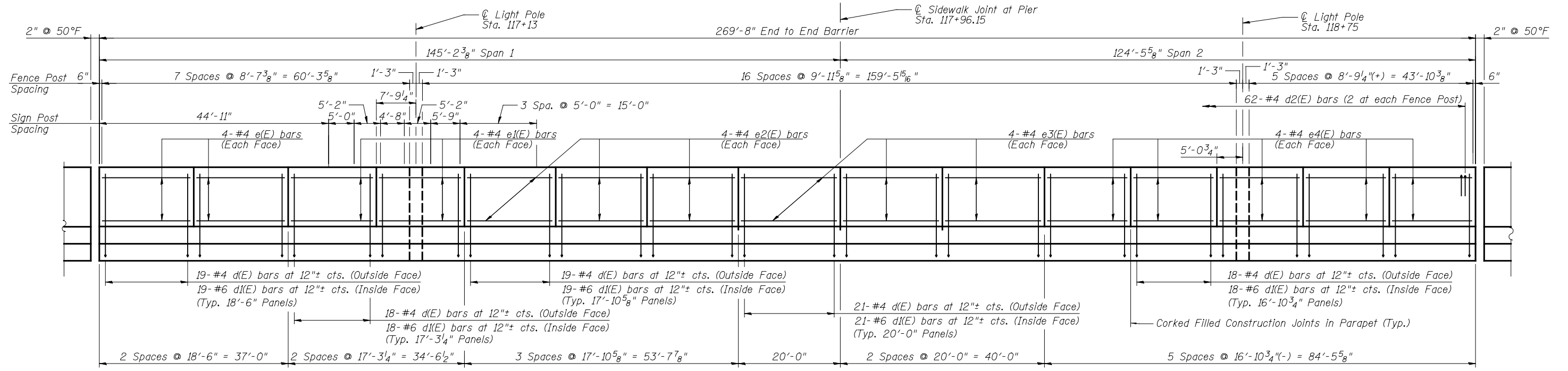
Location	Station	Offset	Theoretical Grade Elevations
S. End South App'r Pav't.	116+24.03	22.50	658.58
A1	116+34.03	22.50	658.70
A2	116+44.03	22.50	658.82
N. End South App'r Pav't.	116+54.03	22.50	658.91
S. End North App'r Pav't.	119+27.03	22.50	655.34
A3	119+37.03	22.50	654.98
A4	119+47.03	22.50	654.61
N. End North App'r Pav't.	119+57.03	22.50	654.22

EAST EDGE OF PAVEMENT

Location	Station	Offset	Theoretical Grade Elevations
S. End South App'r Pav't.	116+25.94	59.00	657.87
A1	116+35.94	59.00	658.00
A2	116+45.94	59.00	658.11
N. End South App'r Pav't.	116+55.94	59.00	658.20
S. End North App'r Pav't.	119+28.94	59.00	654.54
A3	119+38.94	59.00	654.18
A4	119+48.94	59.00	653.80
N. End North App'r Pav't.	119+58.94	59.00	653.41

EAST EDGE OF SHOULDER

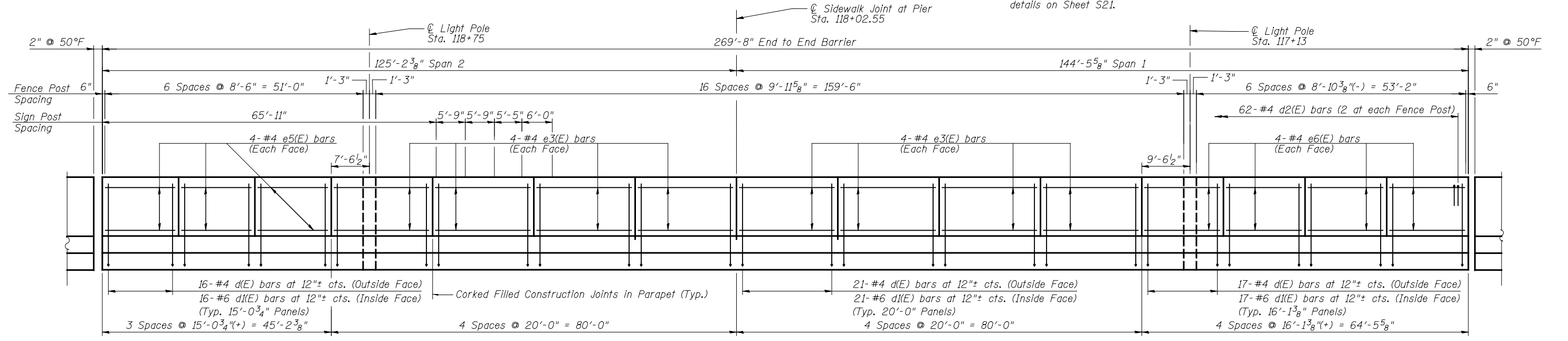
Location	Station	Offset	Theoretical Grade Elevations
S. End South App'r Pav't.	116+26.05	61.00	657.83
A1	116+36.05	61.00	657.96
A2	116+46.05	61.00	658.07
N. End South App'r Pav't.	116+56.05	61.00	658.16
S. End North App'r Pav't.	119+29.05	61.00	654.50
A3	119+39.05	61.00	654.14
A4	119+49.05	61.00	653.76
N. End North App'r Pav't.	119+59.05	61.00	653.37



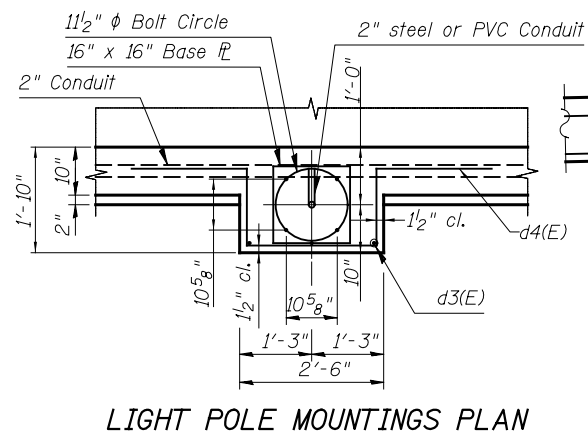
Note:
Dimensions shown are along inside face of parapet.

PARAPET ELEVATION
West Parapet Inside Face Shown

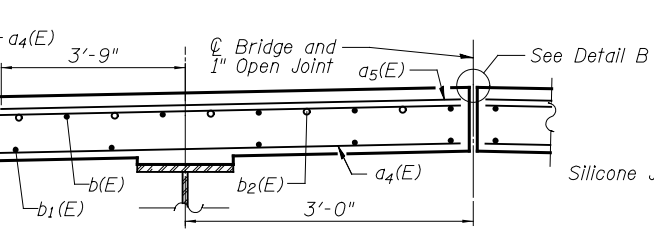
Note: Dimensions are base on a Rolled Rail Joint. If the contractor elects to use the Welded Rail Joint, the dimensions may require adjustments to satisfy the details on Sheet S21.



PARAPET ELEVATION
East Parapet Inside Face Shown

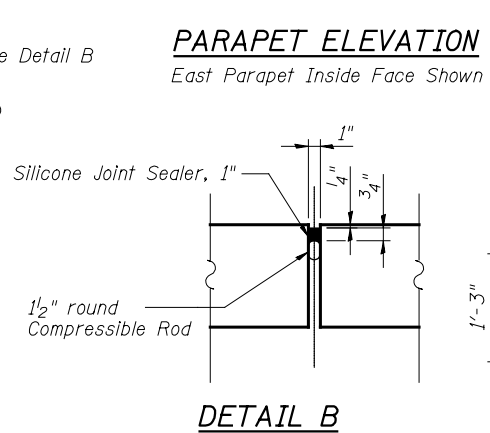


LIGHT POLE MOUNTINGS PLAN

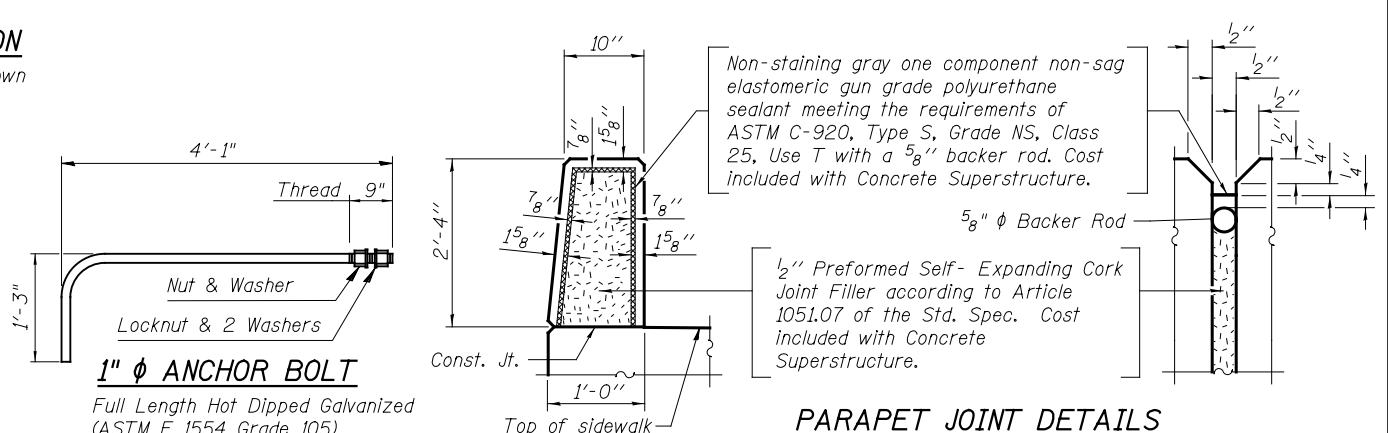


SECTION THRU OPEN JOINT

Notes:
1. Cost of anchor bolts & conduit is included with Concrete Superstructure.
2. Bars indicated thus: 4x2-#4 etc. indicates 4 lines of bars with 2 lengths per line.



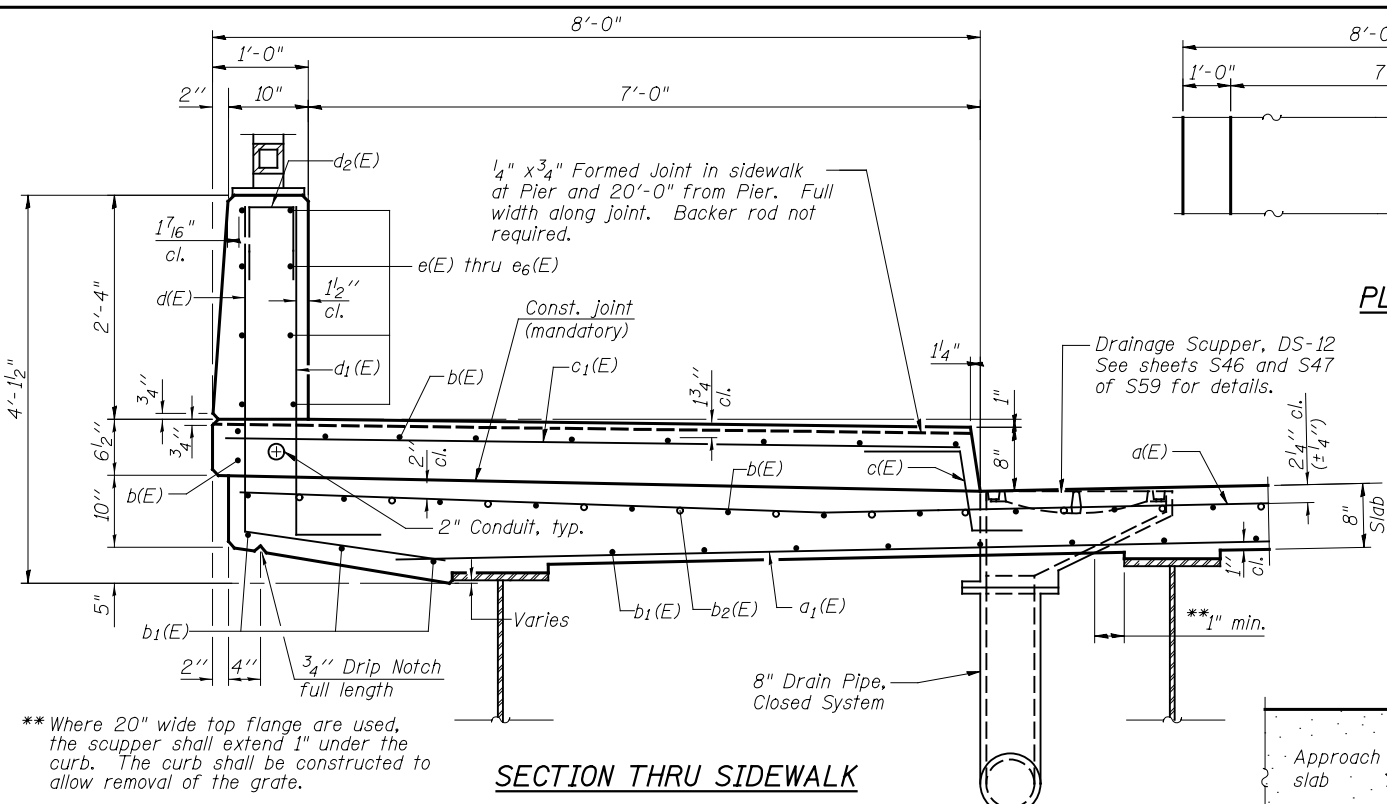
DETAIL B



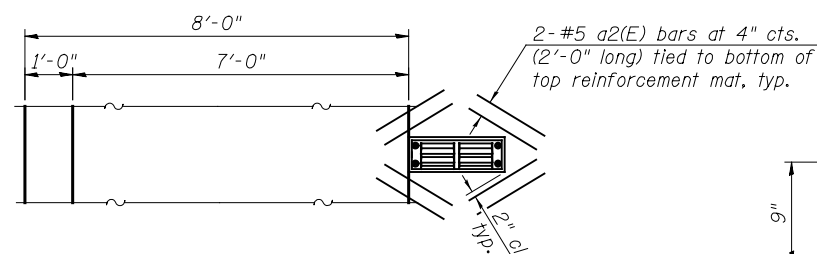
1" ANCHOR BOLT
Full Length Hot Dipped Galvanized (ASTM F 1554 Grade 105)

PARAPET JOINT DETAILS

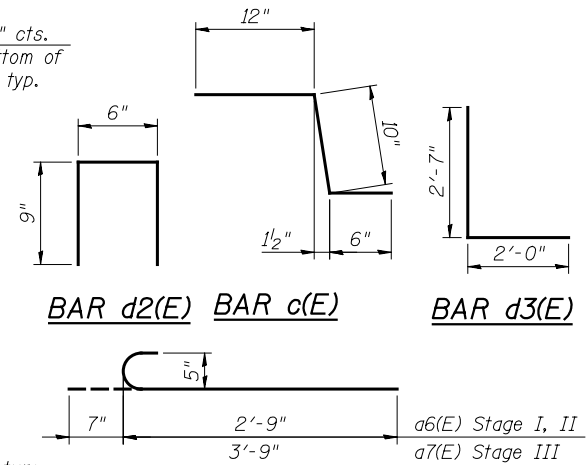
PATRICK ENGINEERING INC. 4970 VARSITY DRIVE LISLE, IL 60532 patrickengineering.com	USER NAME =	DESIGNED - RLD	REVISED	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DECK DETAILS I STRUCTURE NO. 016-1250	F.A.U. RTE. =	SECTION =	COUNTY =	TOTAL SHEETS =	SHEET NO. =
	PLOT SCALE =	DRAWN - DN	REVISED			2746	1616B	COOK	404	288
	PLOT DATE =	CHECKED - RDW	REVISED			CONTRACT NO. 60J14				
	DATE - 2/18/2013	DATE - 2/18/2013	REVISED			ILLINOIS FED. AID PROJECT				



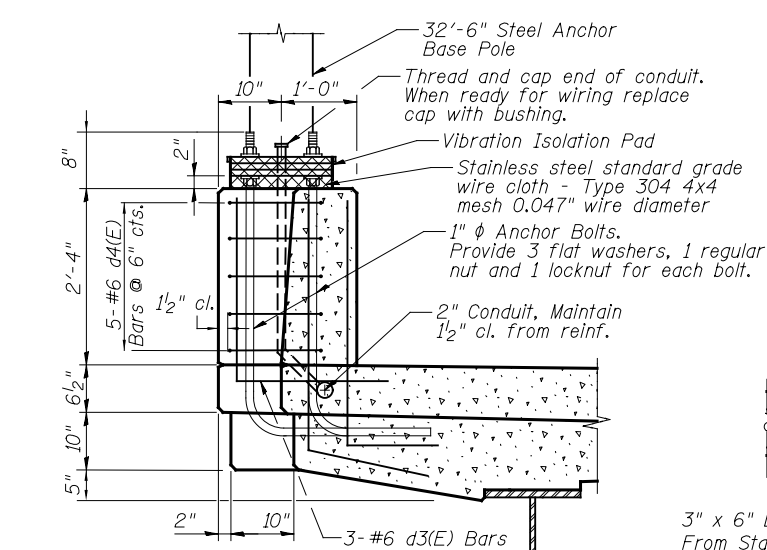
SECTION THRU SIDEWALK



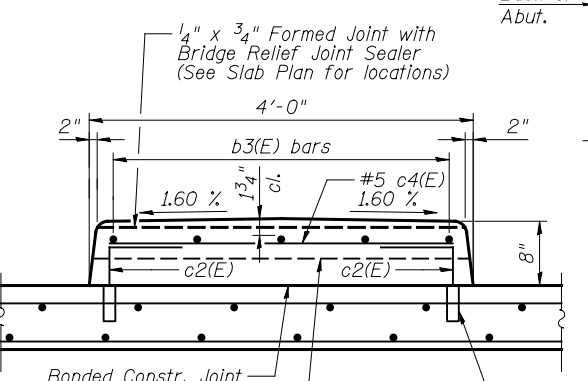
PLAN AT SCUPPER LOCATIONS



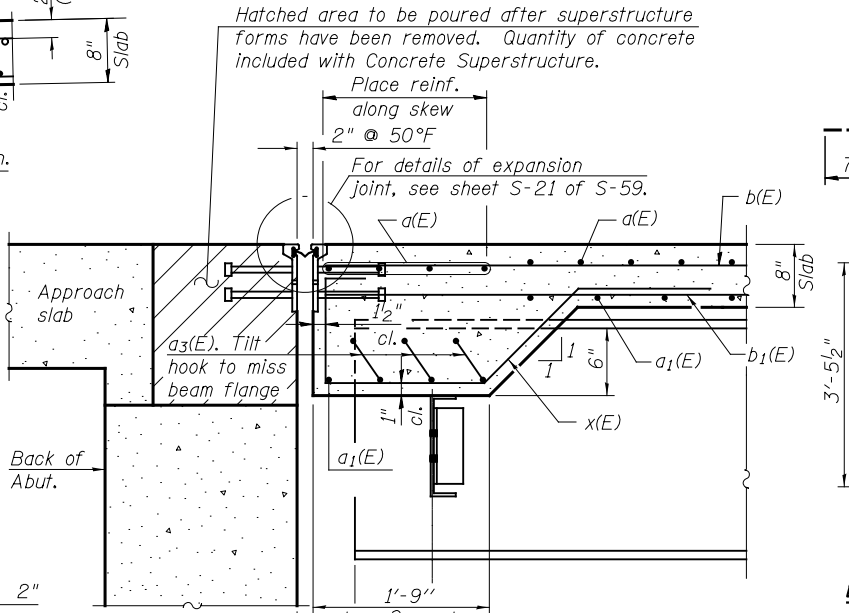
BAR d2(E) BAR c(E) BAR d3(E)



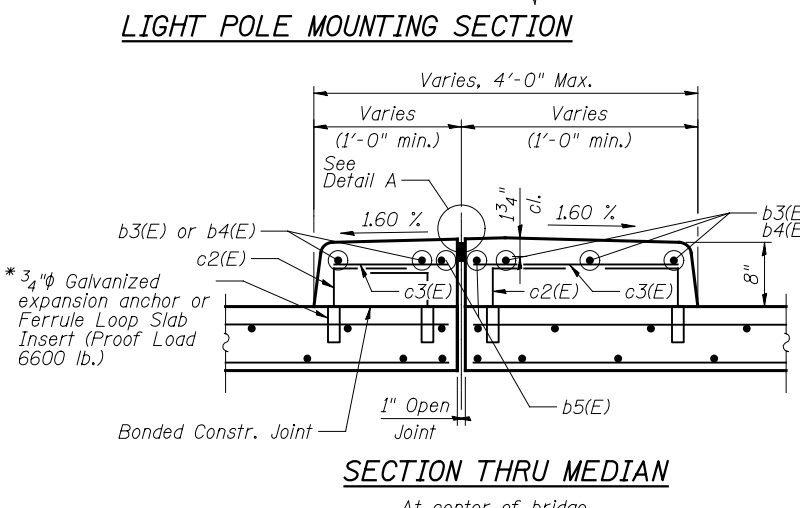
LIGHT POLE MOUNTING SECTION



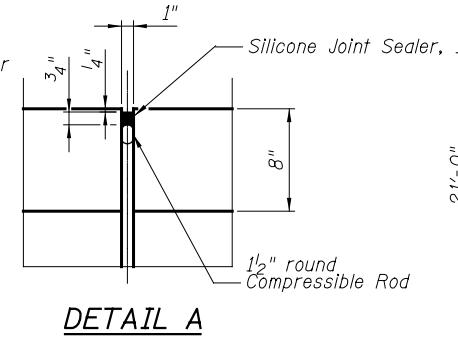
SECTION THRU MEDIAN



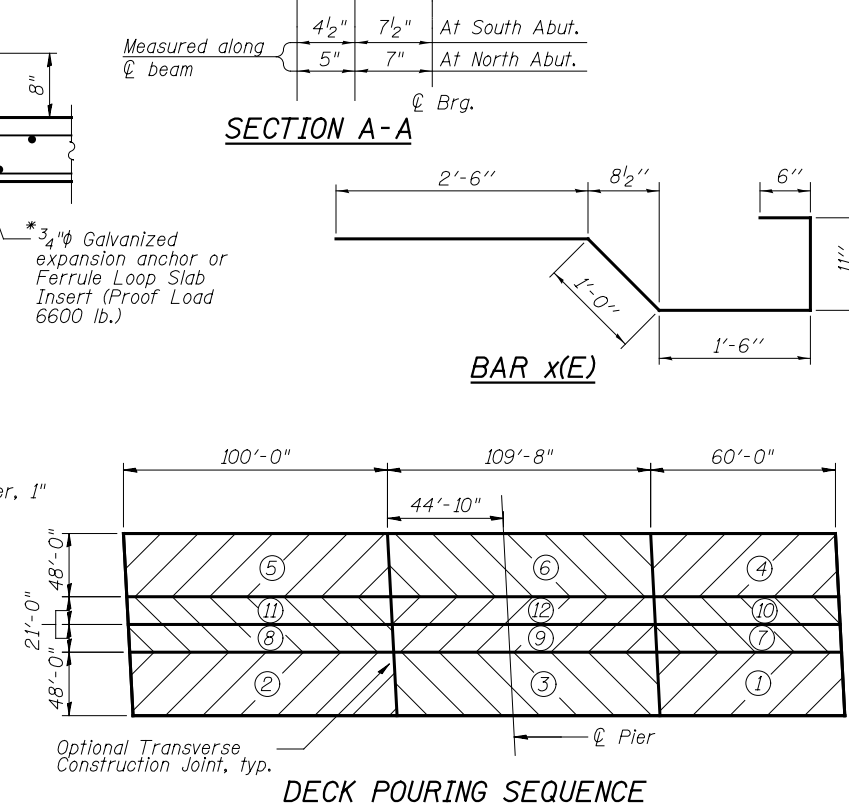
SECTION A-A



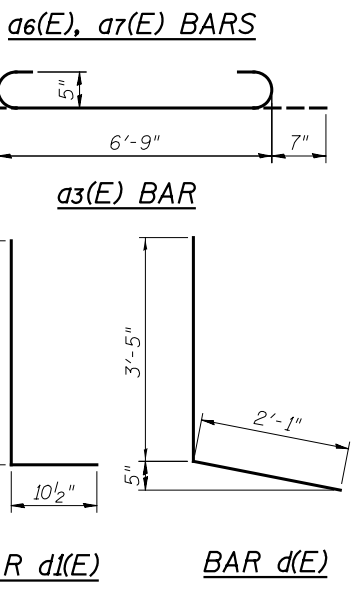
SECTION THRU MEDIAN At center of bridge



DETAIL A



DECK POURING SEQUENCE



BAR d1(E) BAR d(E)

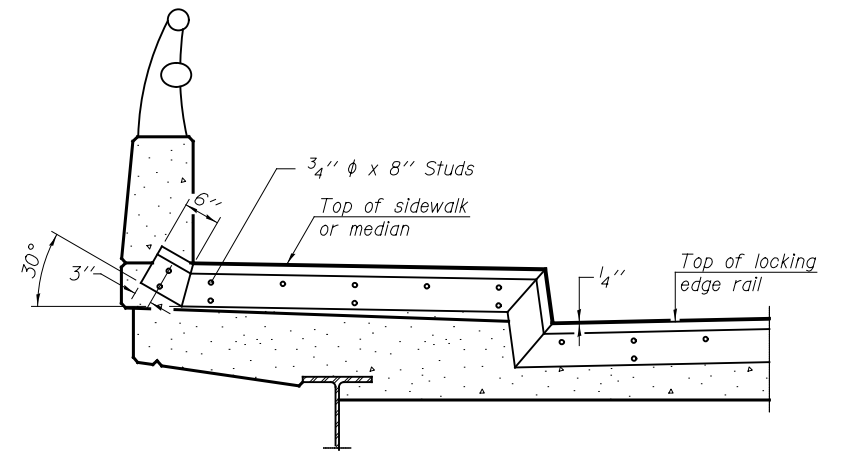
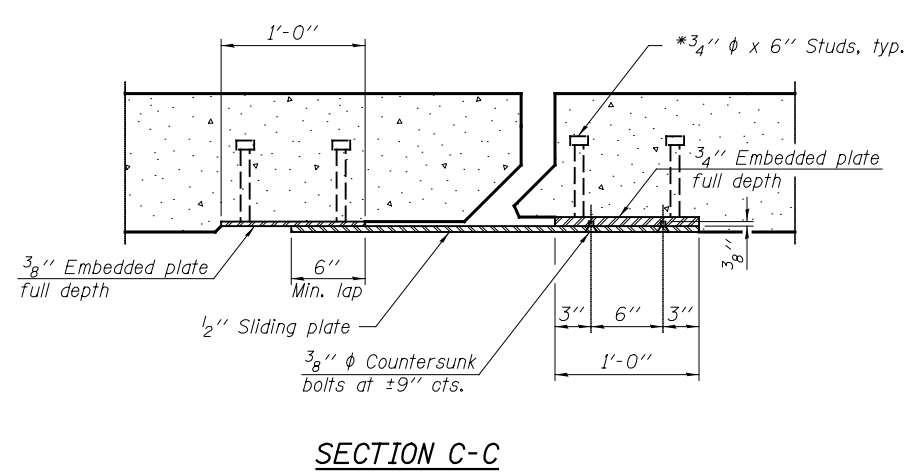
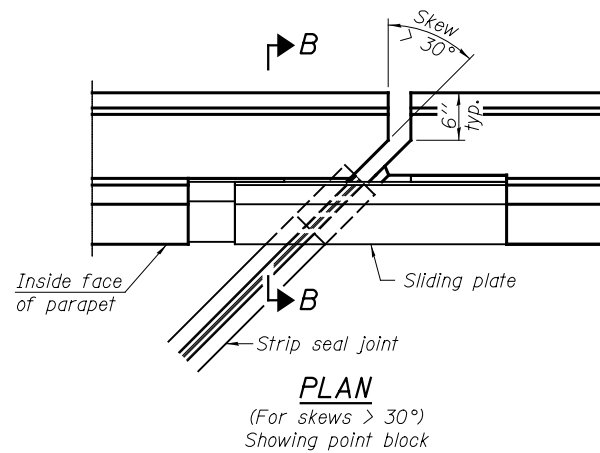
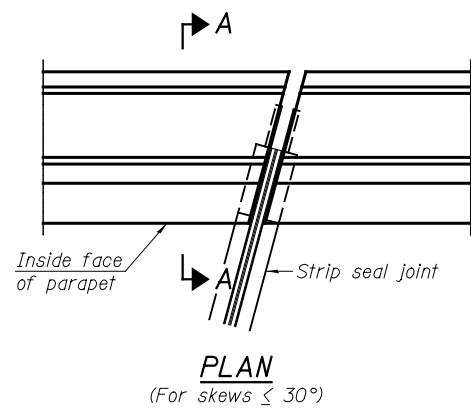
BAR c2(E)

BAR d4(E)

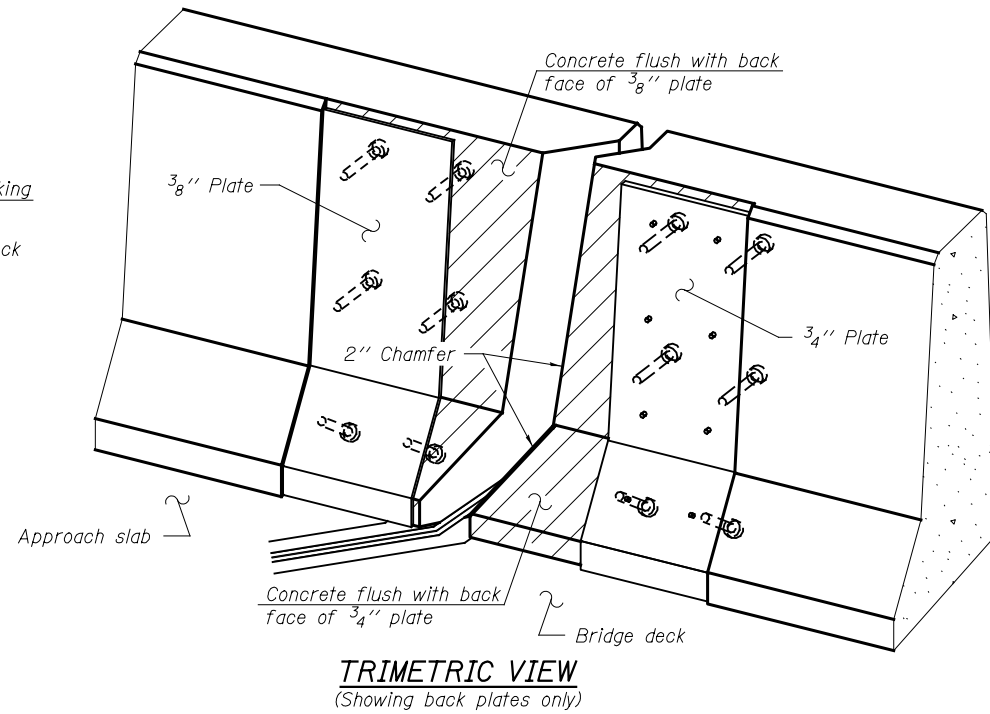
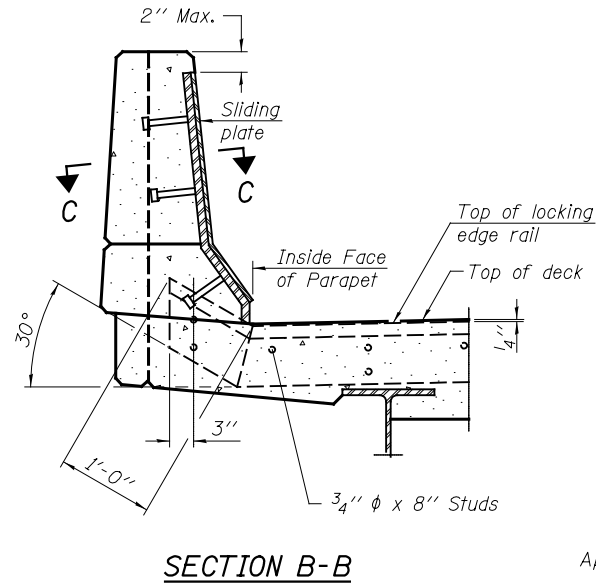
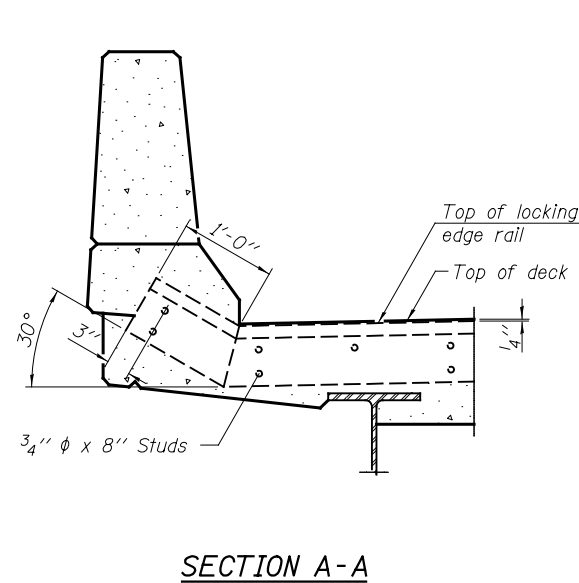
SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	1096	#5	47'-6"	
a1(E)	652	#5	46'-0"	
a2(E)	80	#5	2'-0"	
a3(E)	96	#5	7'-11"	
a4(E)	1748	#5	20'-7"	
a5(E)	1080	#5	6'-6"	
a6(E)	12	#5	3'-4"	
a7(E)	12	#5	4'-4"	
b(E)	1600	#5	29'-4"	
b1(E)	1342	#5	26'-10"	
b2(E)	414	#6	34'-11"	
b3(E)	45	#5	28'-11"	
b4(E)	15	#5	21'-7"	
b5(E)	2	#5	44'-7"	
c(E)	540	#5	2'-4"	
c1(E)	540	#5	7'-8"	
c2(E)	600	#5	1'-5"	
c3(E)	44	#5	28'-6"	
c4(E)	212	#5	3'-5"	
d(E)	568	#4	5'-6"	
d1(E)	568	#6	4'-4"	
d2(E)	124	#4	2'-0"	
d3(E)	12	#6	4'-7"	
d4(E)	20	#6	8'-11"	
e(E)	16	#4	18'-2"	
e1(E)	16	#4	16'-11"	
e2(E)	24	#4	17'-6"	
e3(E)	88	#4	19'-8"	
e4(E)	40	#4	16'-6"	
e5(E)	24	#4	14'-8"	
e6(E)	32	#4	15'-9"	
x(E)	264	#5	6'-5"	
Concrete Superstructure			Cu. Yd.	204.7
Bridge Deck Grooving			Sq. Yd.	3,416
Protective Coat			Sq. Yd.	4,403
Reinforcement Bars, Epoxy Coated			Pound	259,830
Silicone Joint Sealer, 1"			Foot	275
Bar Splicers			Each	1754
Bridge Deck (Shrinkage Reducing Admixture)			Cu. Yd.	966.6

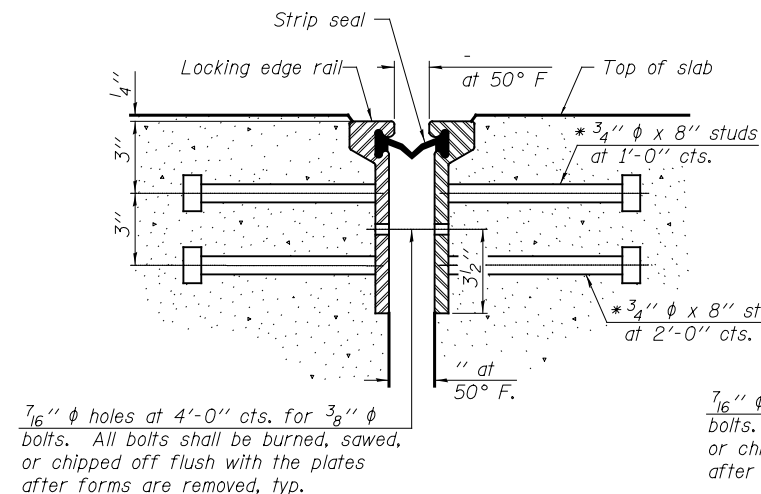
Notes:
 Deck concrete is included with the pay item "Bridge Deck (Shrinkage Reducing Admixture)". Concrete for parapets, sidewalks, and median barrier is included with the pay item "Concrete Superstructure".
 When the deck pour is stopped for the day at one or more of the transverse bonded construction joints in the deck pouring sequence as shown, the next pour shall not be made until both of the following are met:
 1) At least 72 hours shall have elapsed from the end of the previous pour.
 2) The concrete strength shall have attained a minimum flexural strength of 650 psi and a minimum compressive strength of 3500 psi.
 3) Sections ⑦ & ⑩, ⑨ & ⑫, and ⑧ & ⑪ can be poured at the same time.



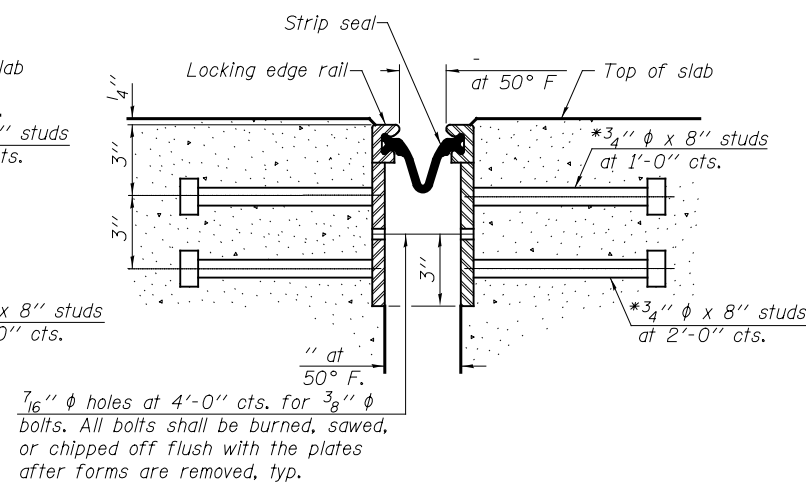
TYPICAL END TREATMENT AT SIDEWALK OR MEDIAN
 Shorter plates with a single row of studs at 12" cts. may be necessary on medians which are shallower than 9". See manufacturer's recommendation.



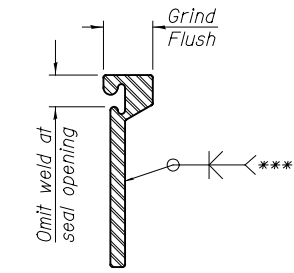
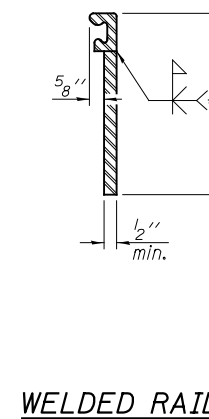
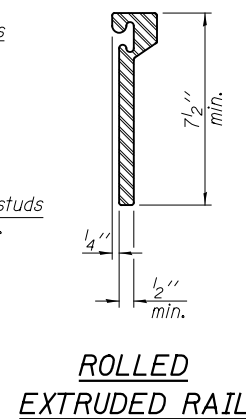
Notes:
 The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the Locking Edge Rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.
 The Locking Edge Rails depicted are conceptual only, except for the minimum dimensions shown. 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.
 The manufacturer's recommended installation methods shall be followed.
 The joint opening and deck dimensions detailed on the superstructure are based on a rolled rail expansion joint. If the Contractor elects to use the welded rail expansion joint, the opening and deck dimensions shall be modified according to the dimensions detailed on this sheet. Required modifications shall be made at no additional cost to the State.
 All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.
 Maximum space between rail segments shall be 3/16", sealed with a suitable sealant. Joints in rails within 10 ft. of curbs shall be welded.
 Parapet plates and anchorage studs for skews > 30° included in the cost of Preformed Joint Strip Seal.



SECTION THRU ROLLED RAIL JOINT



SECTION THRU WELDED RAIL JOINT



*** Back gouge not required if complete joint penetration is verified by mock-up.

LOCKING EDGE RAIL SPLICE

The inside of the locking edge rail groove shall be free of weld residue.
 Rolled rail shown, welded rail similar.

LOCKING EDGE RAILS

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	282

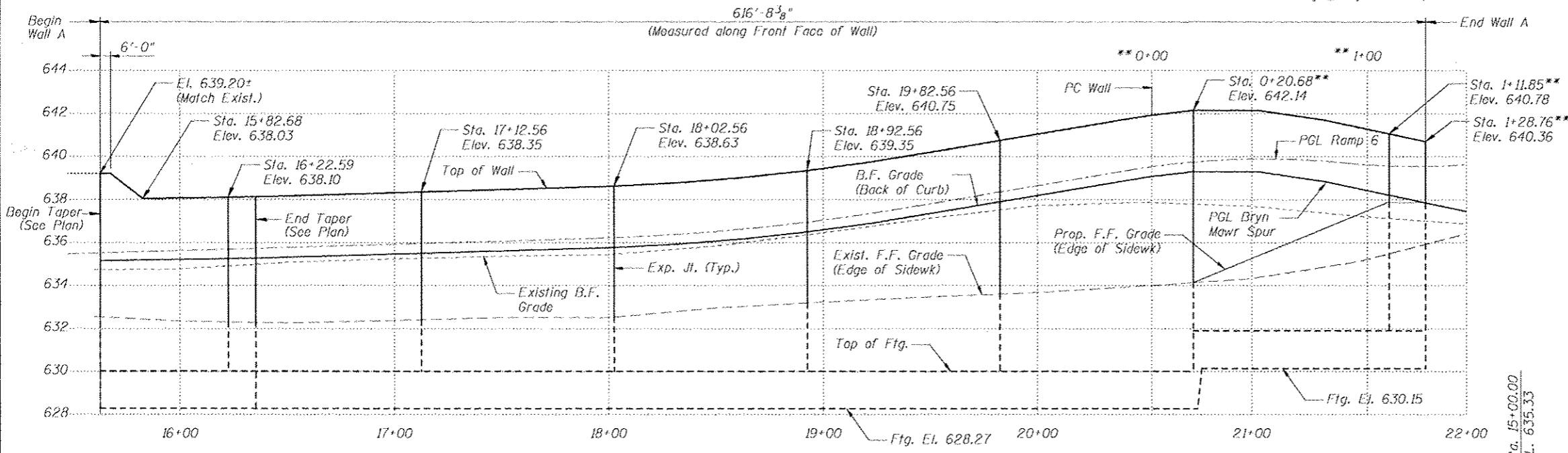
EJ-SSJ

1-27-12

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

PATRICK ENGINEERING INC. 4970 VARSITY DRIVE LISLE, IL 60532 patrickengineering.com	USER NAME = PLOT SCALE = PLOT DATE =	DESIGNED - AD DRAWN - AD CHECKED - AY DATE - 2/18/2013	REVISED REVISED REVISED REVISED	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PREFORMED JOINT STRIP SEAL STRUCTURE NO. 016-1250	F.A.U R.T.E. = 2746	SECTION = 1616B	COUNTY = COOK	TOTAL SHEETS = 404	SHEET NO. = 290
	SCALE: NONE					SHEET NO. S21 OF S59 SHEETS			CONTRACT NO. 60J14 ILLINOIS FED. AID PROJECT	

Benchmark: Cut Cross on ball for traffic signal at northeast corner of Cumberland Avenue and the ramp from northbound Cumberland to Eastbound I-90. Mark is 40 feet north of centerline of the intersection, Elevation 645.68.
No Salvage.



ELEVATION

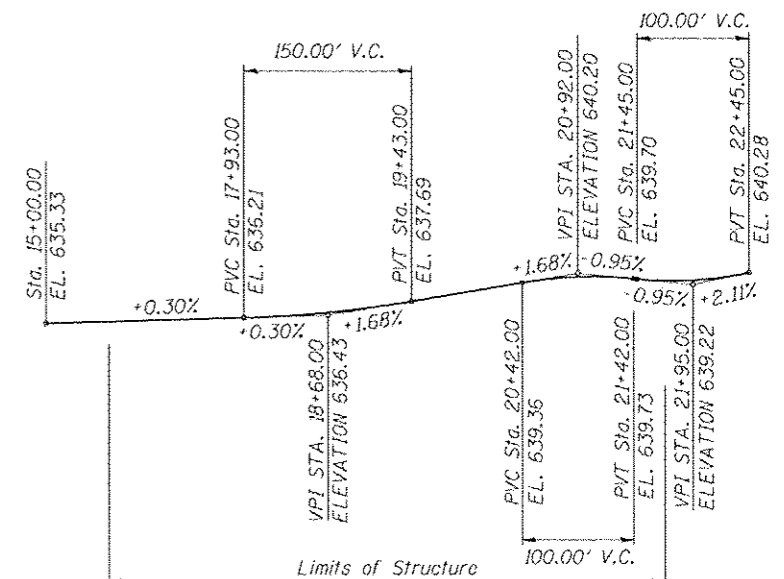
INDEX OF SHEETS

- SA-1 General Plan & Elevation
- SA-2 Plan & Elevation 1
- SA-3 Plan & Elevation 2
- SA-4 Plan & Elevation 3
- SA-5 Plan & Elevation 4
- SA-6 Wall Details & Bill of Materials
- SA-7 Boring Logs 1
- SA-8 Boring Logs 2

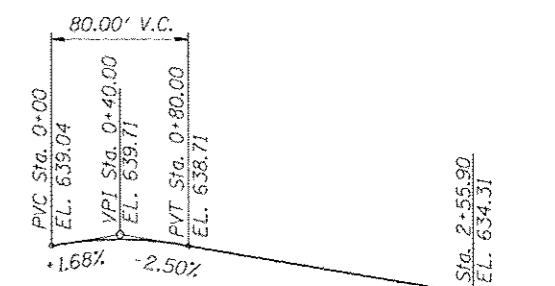
DESIGN SPECIFICATIONS
2010 AASHTO LRFD Bridge Design Specifications, 5th Ed. with 2010 Interims

DESIGN STRESSES

FIELD UNITS
f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)



PROFILE GRADE OF RAMP 6



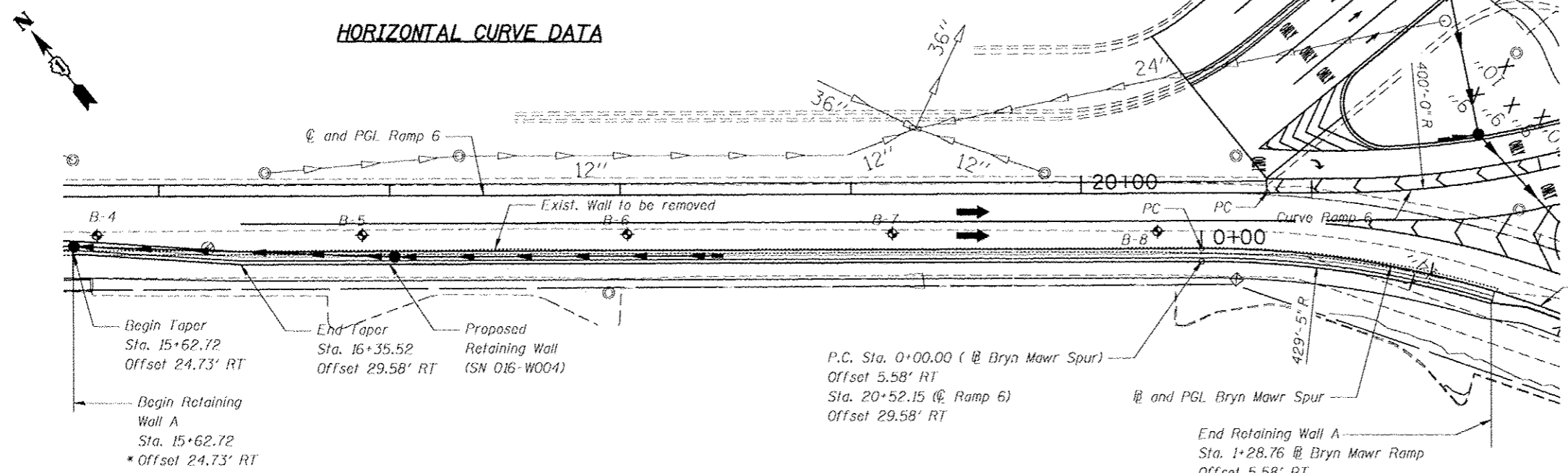
PROFILE GRADE OF BRYN MAWR SPUR

LEGEND

- ◆ Soil Boring
- F.F. Front Face of Wall
- B.F. Back Face of Wall

PROP. CURVE RAMP 6	PROP. CURVE BRYN MAWR SPUR
PI STA. = 21+86.97	PI STA. = 1+93.02
Δ = 20° 51' 00" (LT)	Δ = 47° 51' 25" (RT)
D = 14° 19' 26"	D = 13° 10' 17"
R = 400.00'	R = 435.00'
T = 73.59'	T = 193.02'
L = 145.56'	L = 363.34'
E = 6.71'	E = 40.90'
P.C. STA. = 21+13.38	P.C. STA. = 0+00.00
P.T. STA. = 22+58.94	P.T. STA. = 3+63.34

HORIZONTAL CURVE DATA



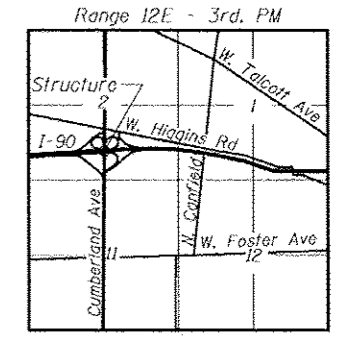
PLAN

* All offsets are to the front face of wall.

PATRICK ENGINEERING, INC.

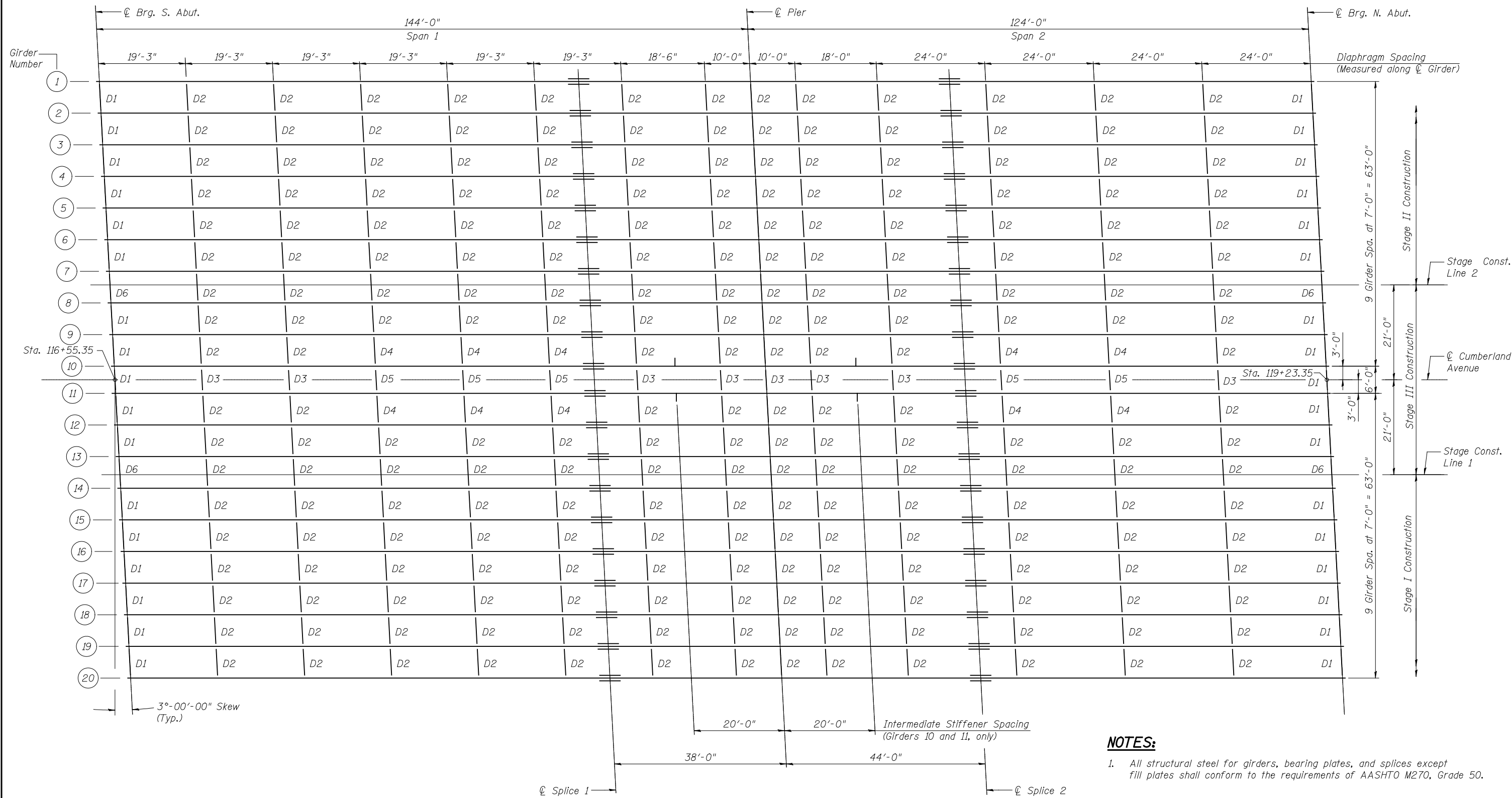
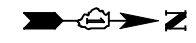


ATALAY YARGICOGLU, S.E.
081-005358
EXP 11/30/2014
DATE 12/10/2012



LOCATION SKETCH

PATRICK ENGINEERING INC. 4970 VARSITY DRIVE LISLE, IL 60532 patrickengineering.com	USER NAME = PLOT SCALE = PLOT DATE =	DESIGNED - AY DRAWN - AY CHECKED - AD DATE - 12/10/2012	REVISED REVISED REVISED REVISED	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL PLAN AND ELEVATION RETAINING WALL A STRUCTURE NO. 016-W004	F.A.U. RTE. = 2746	SECTION = 1616B	COUNTY = COOK	TOTAL SHEETS = 368	SHEET NO. = 292
	SCALE: NONE SHEET NO. SA1 OF SA8 SHEETS					CONTRACT NO. 60J14 ILLINOIS FED. AID PROJECT				



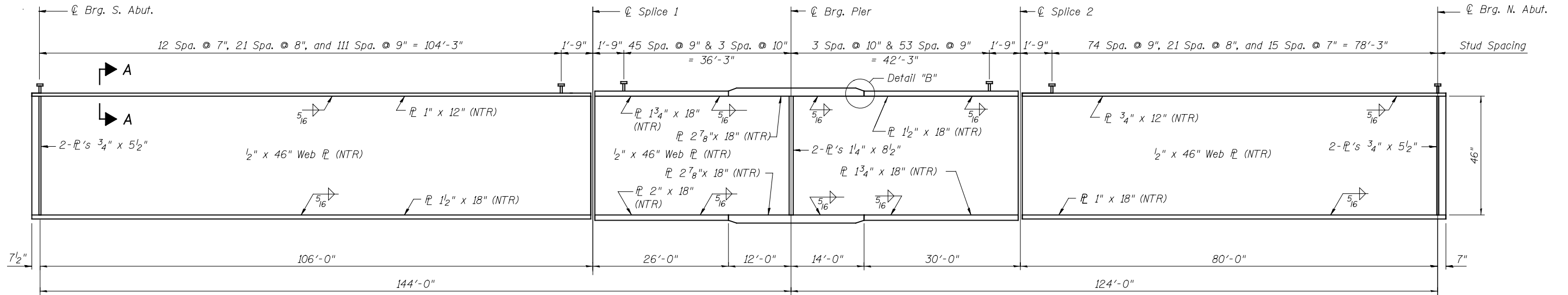
FRAMING PLAN

NOTES:

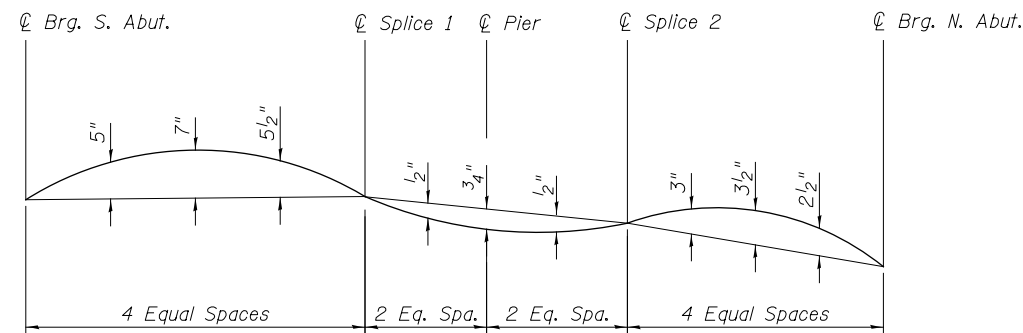
- All structural steel for girders, bearing plates, and splices except fill plates shall conform to the requirements of AASHTO M270, Grade 50.
- All diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual diaphragms at supports may be temporarily disconnected to install bearing anchor rods.

PATRICK ENGINEERING INC. 4970 VARSITY DRIVE LISLE, IL 60532 patrickengineering.com	USER NAME =	DESIGNED - AY	REVISED	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	FRAMING PLAN STRUCTURE NO. 016-1250	F.A. U	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	DRAWN - AY	REVISED	2746			1616B	290K	404	293	
	PLOT SCALE =	CHECKED - RDW	REVISED			CONTRACT NO. 60J14				
	PLOT DATE =	DATE - 2/18/2013	REVISED			ILLINOIS FED. AID PROJECT				

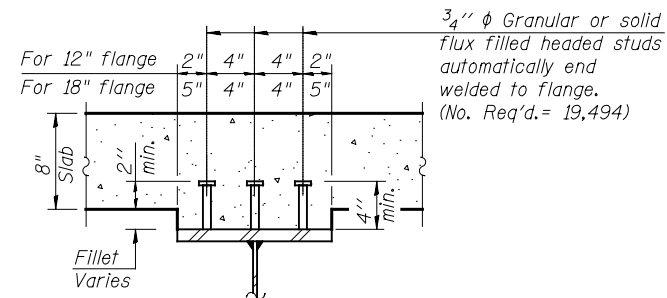
SCALE: NONE SHEET NO. S24 OF S59 SHEETS



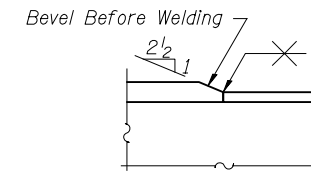
GIRDER ELEVATION
(Girders 1 thru 9 & 12 thru 20)



TYPICAL CAMBER DIAGRAM



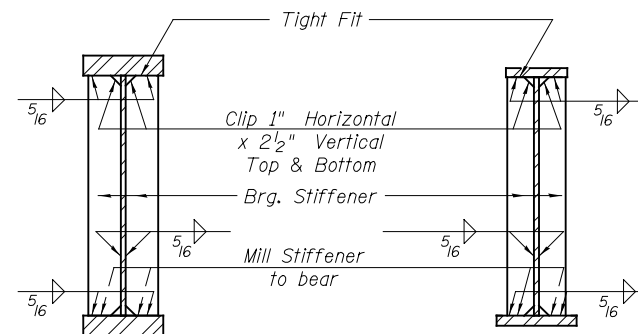
SECTION A-A



DETAIL "B"

TOP OF WEB ELEVATIONS
(For Fabrication Only)

Beam Number	Location				
	⌀ Brg. S. Abut.	⌀ Splice 1	⌀ Pier	⌀ Splice 2	⌀ Brg. N. Abut.
1	657.19	657.36	656.69	656.05	653.91
2	657.34	657.50	656.83	656.19	654.03
3	657.48	657.64	656.96	656.32	654.16
4	657.62	657.77	657.10	656.45	654.29
5	657.77	657.91	657.23	656.58	654.42
6	657.91	658.05	657.36	656.72	654.54
7	658.05	658.18	657.50	656.85	654.67
8	658.20	658.32	657.63	656.98	654.80
9	658.34	658.46	657.77	657.11	654.93
10	---	---	---	---	---
11	---	---	---	---	---
12	658.35	658.45	657.75	657.09	654.89
13	658.21	658.31	657.61	656.94	654.74
14	658.08	658.16	657.46	656.79	654.59
15	657.94	658.02	657.32	656.65	654.43
16	657.80	657.88	657.17	656.50	654.28
17	657.67	657.73	657.03	656.35	654.13
18	657.53	657.59	656.88	656.20	653.97
19	657.39	657.45	656.74	656.05	653.82
20	657.25	657.30	656.59	655.91	653.67



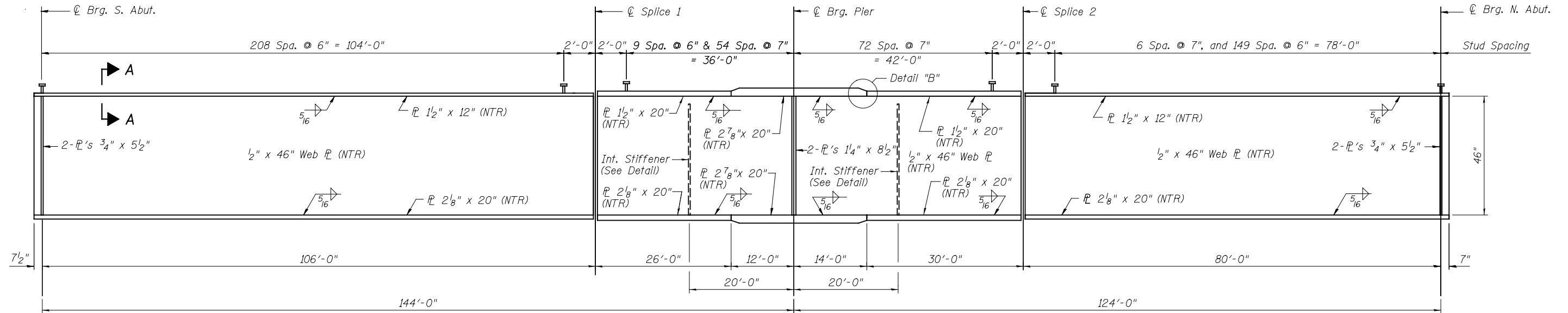
SECTION AT PIER

SECTION AT ABUTMENT

BEARING STIFFENERS

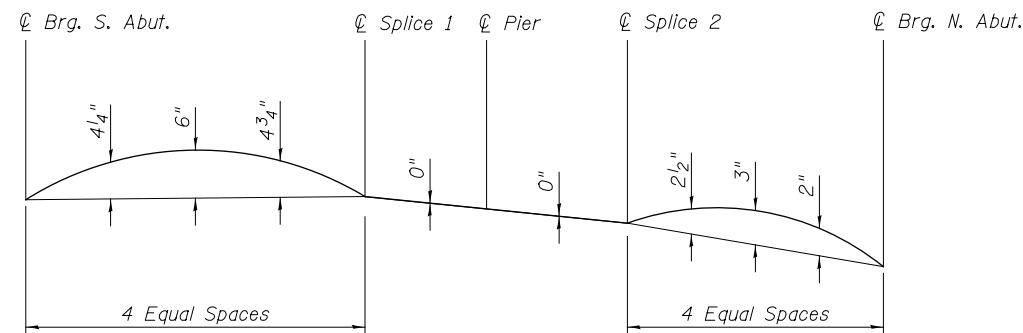
NOTES:

1. Load carrying components designated NTR shall conform to the Impact Testing Requirement, Zone 2.
2. Camber shown includes dead load deflection due to deck concrete and steel weight only.
3. See Framing Plan for diaphragm placement.
4. For bolt spacing and locations for sign attachments to fascia beams, see Bridge Mounted Sign Details.

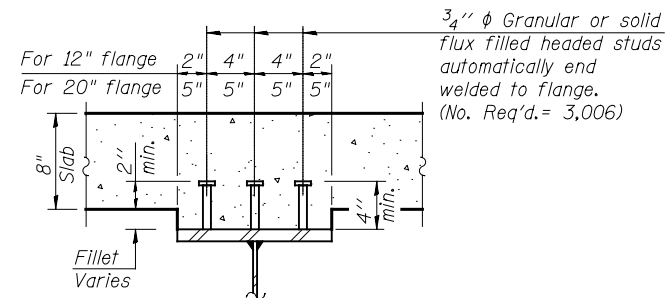


GIRDER ELEVATION

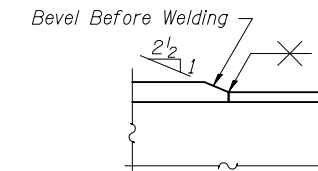
(Girders 10 is shown. Girder 11 is similar but the intermediate stiffeners are placed on the front side (east side) of the web)



TYPICAL CAMBER DIAGRAM



SECTION A-A

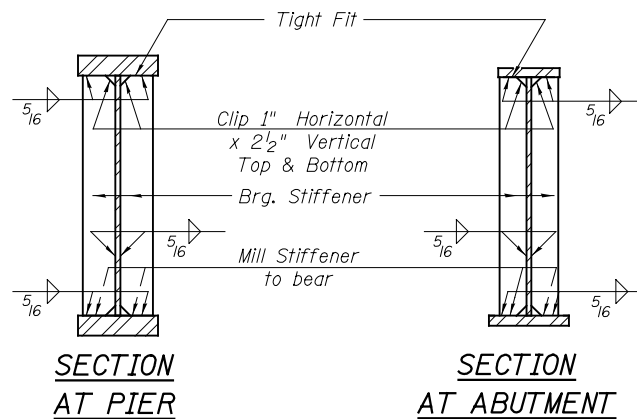


DETAIL "B"

TOP OF WEB ELEVATIONS

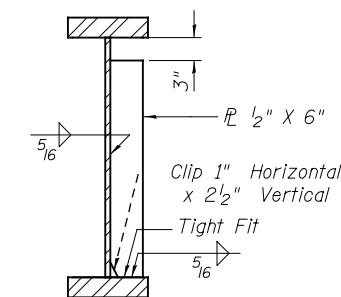
(For Fabrication Only)

Beam Number	Location				
	☉ Brg. S. Abut.	☉ Splice 1	☉ Pier	☉ Splice 2	☉ Brg. N. Abut.
1	---	---	---	---	---
2	---	---	---	---	---
3	---	---	---	---	---
4	---	---	---	---	---
5	---	---	---	---	---
6	---	---	---	---	---
7	---	---	---	---	---
8	---	---	---	---	---
9	---	---	---	---	---
10	658.44	658.53	657.90	657.18	654.99
11	658.45	658.52	657.90	657.18	654.98
12	---	---	---	---	---
13	---	---	---	---	---
14	---	---	---	---	---
15	---	---	---	---	---
16	---	---	---	---	---
17	---	---	---	---	---
18	---	---	---	---	---
19	---	---	---	---	---
20	---	---	---	---	---



SECTION AT PIER

SECTION AT ABUTMENT



INTERMEDIATE STIFFENER

Girder 10- Looking South
Girder 11- Looking North

NOTES:

1. Load carrying components designated NTR shall conform to the Impact Testing Requirement, Zone 2.
2. Camber shown includes dead load deflection due to deck concrete and steel weight only.
3. See Framing Plan for diaphragm placement.

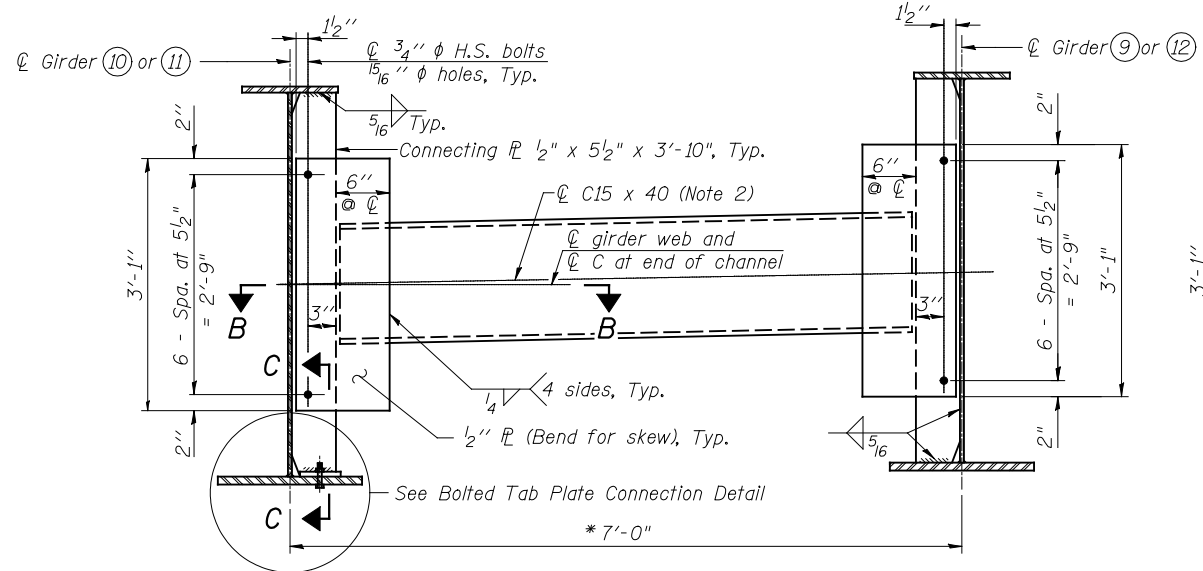
INTERIOR GIRDER MOMENT TABLE				
		0.4 Sp. 1	Pier	0.6 Sp. 2
I_s	(in ⁴)	23,837	65,936	18,011
$I_c(n)$	(in ⁴)	62,972	---	49,618
$I_c(3n)$	(in ⁴)	44,309	---	35,506
$I_c(cr)$	(in ⁴)	---	71,539	---
S_s	(in ³)	1,274	2,548	912
$S_c(n)$	(in ³)	1,693	---	1,268
$S_c(3n)$	(in ³)	1,559	---	1,163
$S_c(cr)$	(in ³)	---	2,608	---
DC1	(k/')	0.93	1.15	0.89
M _{DC1}	('k)	1325	-2925	635
DC2	(k/')	0.38	0.38	0.38
M _{DC2}	('k)	532	-1,003	291
DW	(k/')	0.30	0.30	0.30
M _{DW}	('k)	418	-789	229
$M_{\xi + IM}$	('k)	1,916	-2,270	1,568
M_u (Strength I)	('k)	6,302	---	4,245
$\phi_r M_n$	('k)	7,984	---	6,283
f_s DC1	(ksi)	12.48	13.77	8.36
f_s DC2	(ksi)	4.09	4.61	3.00
f_s DW	(ksi)	3.22	3.63	2.36
f_s ($\xi + IM$)	(ksi)	13.59	10.44	14.84
f_s (Service II)	(ksi)	37.45	35.59	33.00
0.95R _h F _{yf}	(ksi)	47.50	47.50	47.50
f_s (Total)(Strength I)	(ksi)	---	46.70	---
$\phi_r F_n$	(ksi)	---	50.00	---
V _f	(k)	61.5	61.5	61.5

INTERIOR GIRDER REACTION TABLE				
		S. Abut.	Pier	N. Abut.
R _{DC1}	(k)	51.9	177.7	37.1
R _{DC2}	(k)	20.0	65.3	15.2
R _{DW}	(k)	15.8	51.4	11.9
R $\xi + IM$	(k)	94.5	189.0	89.5
R _{Total}	(k)	182.2	483.4	153.7

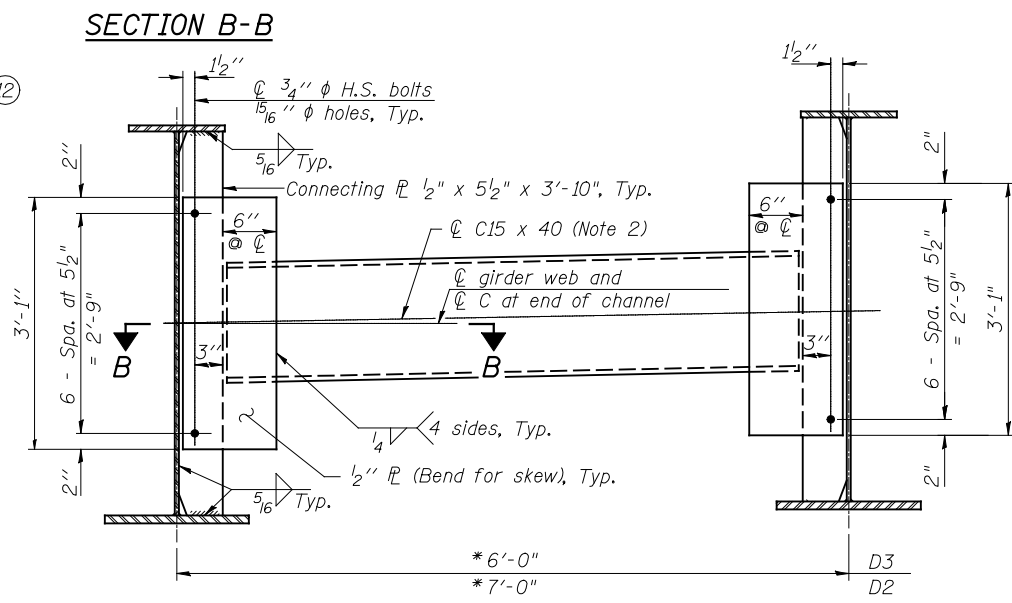
MOMENT TABLE FOR GIRDERS 10 & 11				
		0.4 Sp. 1	Pier	0.6 Sp. 2
I_s	(in ⁴)	34,594	72,812	34,594
$I_c(n)$	(in ⁴)	83,208	---	83,208
$I_c(3n)$	(in ⁴)	57,827	---	57,827
$I_c(cr)$	(in ⁴)	---	78,243	---
S_s	(in ³)	1,922	2,814	1,922
$S_c(n)$	(in ³)	2,431	---	2,431
$S_c(3n)$	(in ³)	2,244	---	2,244
$S_c(cr)$	(in ³)	---	2,873	---
DC1	(k/')	0.95	1.14	0.95
M _{DC1}	('k)	1432	-2734	789
DC2	(k/')	0.02	0.02	0.02
M _{DC2}	('k)	30	-50	17
DW	(k/')	0.30	0.30	0.30
M _{DW}	('k)	439	-737	249
$M_{\xi + IM}$	('k)	3,855	-3,908	3,235
M_u (Strength I)	('k)	9,232	---	7,042
$\phi_r M_n$	('k)	9,298	---	9,298
f_s DC1	(ksi)	8.94	11.66	4.93
f_s DC2	(ksi)	0.16	0.21	0.09
f_s DW	(ksi)	2.35	3.08	1.33
f_s ($\xi + IM$)	(ksi)	19.03	16.32	15.97
f_s (Service II)	(ksi)	36.19	36.16	27.11
0.95R _h F _{yf}	(ksi)	47.50	47.50	47.50
f_s (Total)(Strength I)	(ksi)	---	48.01	---
$\phi_r F_n$	(ksi)	---	50.00	---
V _f	(k)	99.0	100.5	102.0

REACTION TABLE FOR GIRDERS 10 & 11				
		S. Abut.	Pier	N. Abut.
R _{DC1}	(k)	54.1	178.6	41.2
R _{DC2}	(k)	1.1	3.4	0.8
R _{DW}	(k)	16.1	50.6	12.3
R $\xi + IM$	(k)	134.6	263.1	128.6
R _{Total}	(k)	205.9	495.7	182.9

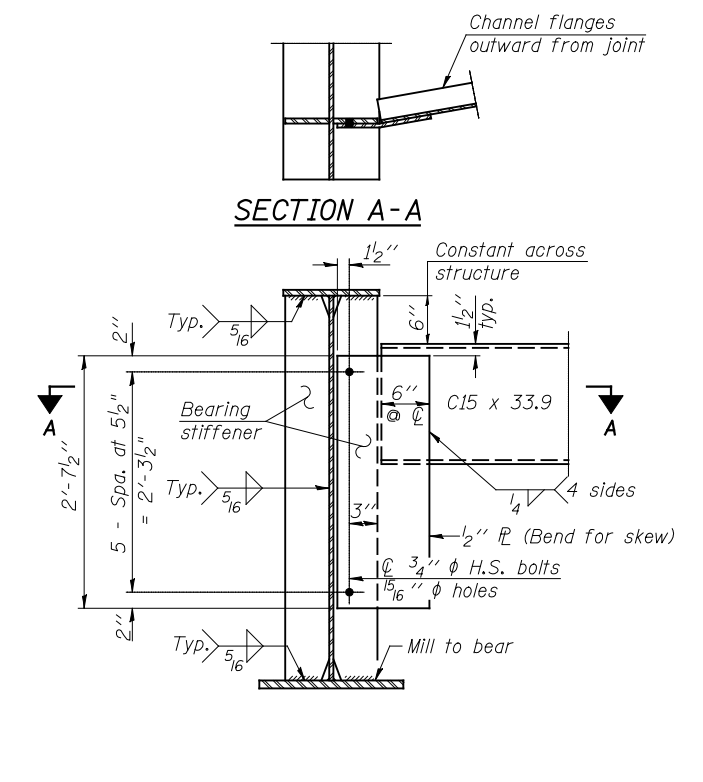
- I_s, S_s : Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total-Strength I, and Service II) due to non-composite dead loads (in⁴ and in³).
- $I_c(n), S_c(n)$: Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total-Strength I, and Service II) in uncracked sections, due to short-term composite live loads (in⁴ and in³).
- $I_c(3n), S_c(3n)$: Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing f_s (Total-Strength I, and Service II) in uncracked sections, due to long-term composite (superimposed) dead loads (in⁴ and in³).
- $I_c(cr), S_c(cr)$: Composite moment of inertia and section modulus of the steel and longitudinal deck reinforcement, used for computing f_s (Total-Strength I and Service II) in cracked sections, due to both short-term composite live loads and long-term composite (superimposed) dead loads (in⁴ and in³).
- DC1: Un-factored non-composite dead load (kips/ft.).
- M_{DC1}: Un-factored moment due to non-composite dead load (kip-ft.).
- DC2: Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).
- M_{DC2}: Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).
- DW: Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).
- M_{DW}: Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).
- $M_{\xi + IM}$: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).
- M_u (Strength I): Factored design moment (kip-ft.).
1.25 (M_{DC1} + M_{DC2}) + 1.5 M_{DW} + 1.75 $M_{\xi + IM}$
- $\phi_r M_n$: Compact composite positive moment capacity computed according to Article 6.10.7.1 (kip-ft.).
- f_s DC1: Un-factored stress at edge of flange for controlling steel flange due to vertical non-composite dead loads as calculated below (ksi).
M_{DC1} / S_{nc}
- f_s DC2: Un-factored stress at edge of flange for controlling steel flange due to vertical composite dead loads as calculated below (ksi).
M_{DC2} / S_{c(3n)} or M_{DC2} / S_{c(cr)} as applicable.
- f_s DW: Un-factored stress at edge of flange for controlling steel flange due to vertical composite future wearing surface loads as calculated below (ksi).
M_{DW} / S_{c(3n)} or M_{DW} / S_{c(cr)} as applicable.
- f_s ($\xi + IM$): Un-factored stress at edge of flange for controlling steel flange due to vertical composite live plus impact loads as calculated below (ksi).
M $\xi + IM$ / S_{c(3n)} or M $\xi + IM$ / S_{c(cr)} as applicable.
- f_s (Service II): Sum of stresses as computed below (ksi).
 $f_{sDC1} + f_{sDC2} + f_{sDW} + 1.3 f_s(\xi + IM)$
- 0.95R_hF_{yf}: Composite stress capacity for Service II loading according to Article 6.10.4.2 (ksi).
- f_s (Total)(Strength I): Sum of stresses as computed below on non-compact section (ksi).
1.25 (f_{sDC1} + f_{sDC2}) + 1.5 f_{sDW} + 1.75 f_s ($\xi + IM$)
- $\phi_r F_n$: Non-Compact composite positive or negative stress capacity for Strength I loading according to Article 6.10.7.2 or 6.10.8 (ksi).
- V_f: Maximum factored shear range in span computed according to Article 6.10.10.



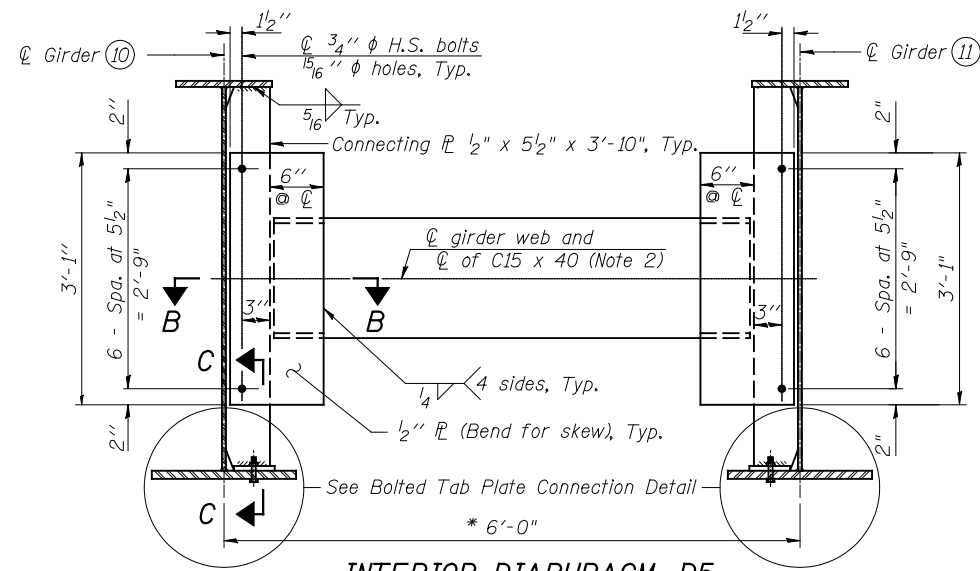
INTERIOR DIAPHRAGM, D4
10 Required



INTERIOR DIAPHRAGM, D2 & D3
224- D2 & 8- D3 Required

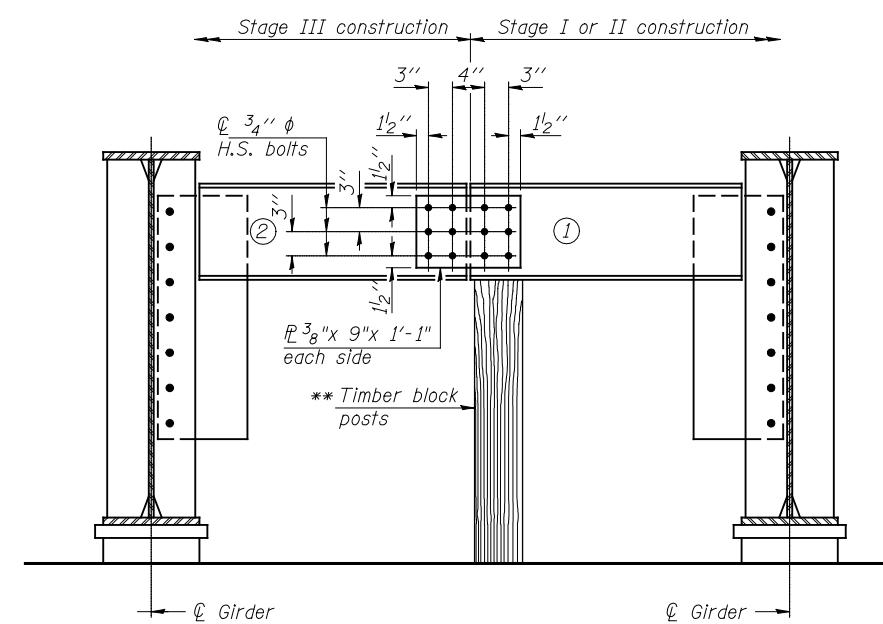


END DIAPHRAGM, D1 & D6
38 Required



INTERIOR DIAPHRAGM, D5
5 Required

* Girder Spacing



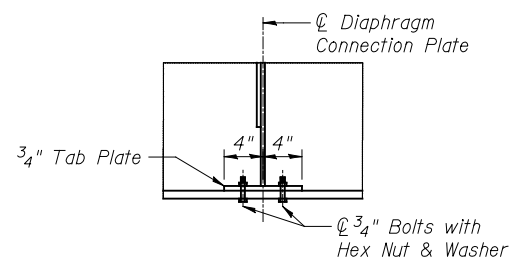
END DIAPHRAGM D6
STAGE CONSTRUCTION SEQUENCE

- Order diaphragm in two sections.
- Attach section ① of diaphragm to girder.
- Place timber block posts between section ① of diaphragm and abutment bearing section.
- Attach section ② of diaphragm to both girder and section ① of diaphragm during stage III construction with splice plates.
- Remove timber block posts.

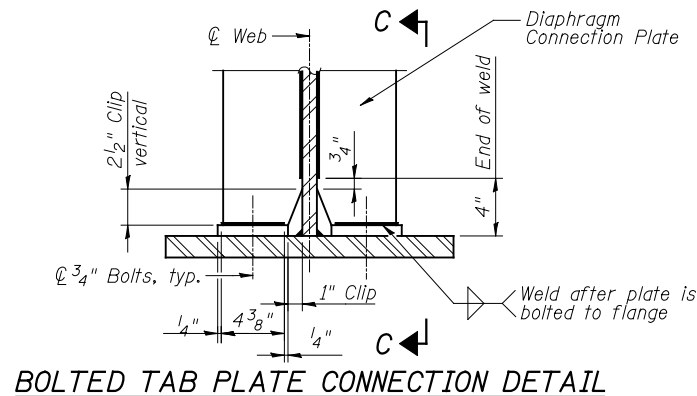
** Cost of Timber Block Posts is included with Structural Steel.

Notes:

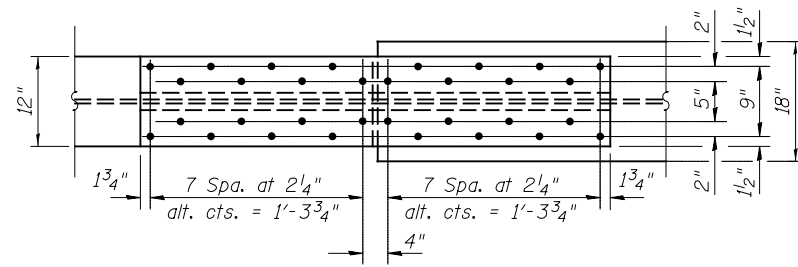
- Two hardened washers required for each set of oversized holes.
- Alternate channels C15x50 are permitted to facilitate material acquisition. Calculated weight of structural steel is based on C15x40 sections. The alternate, if utilized, shall be provided at no extra cost to the department.



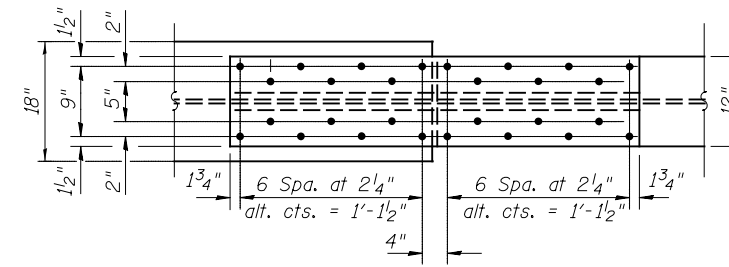
SECTION C-C



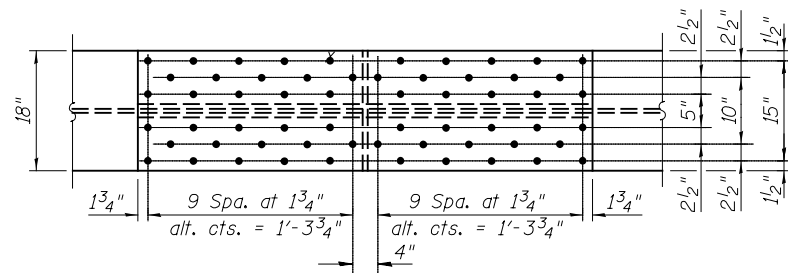
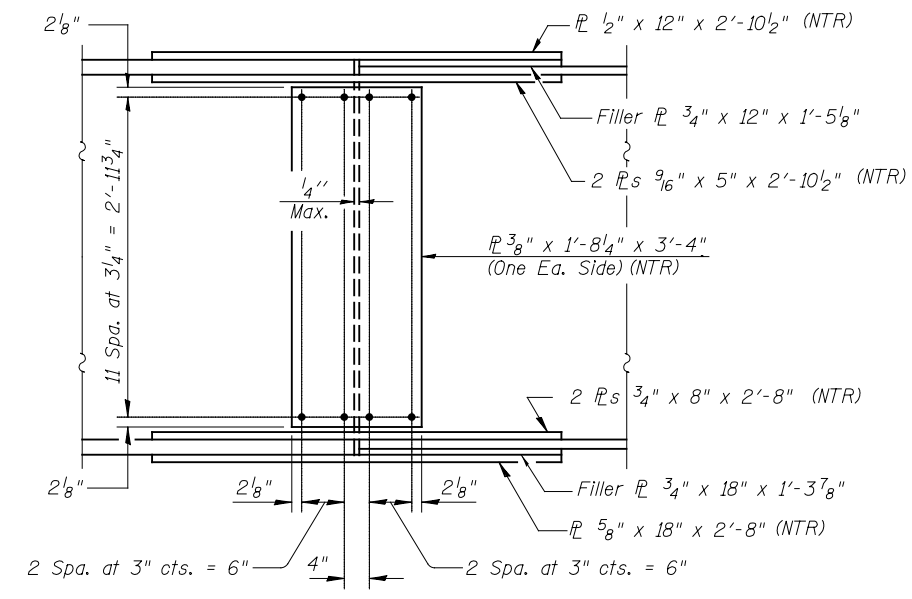
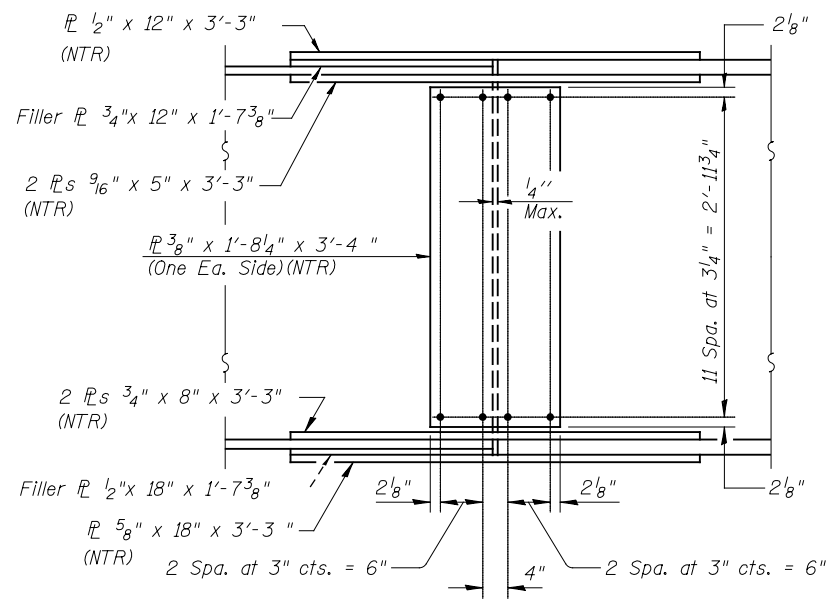
BOLTED TAB PLATE CONNECTION DETAIL



TOP PLATE



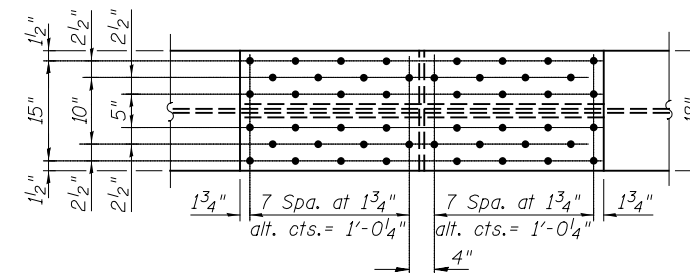
TOP PLATE



BOTTOM PLATE

FIELD SPLICE 1 DETAIL

18 Required



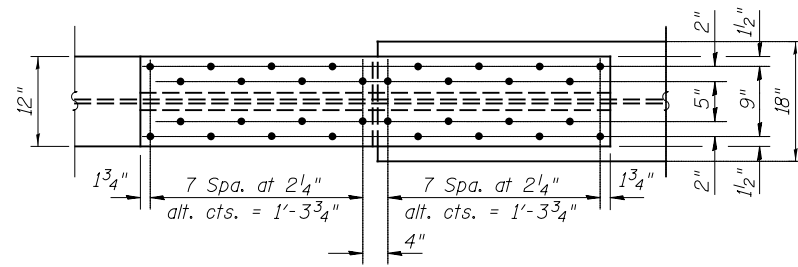
BOTTOM PLATE

FIELD SPLICE 2 DETAIL

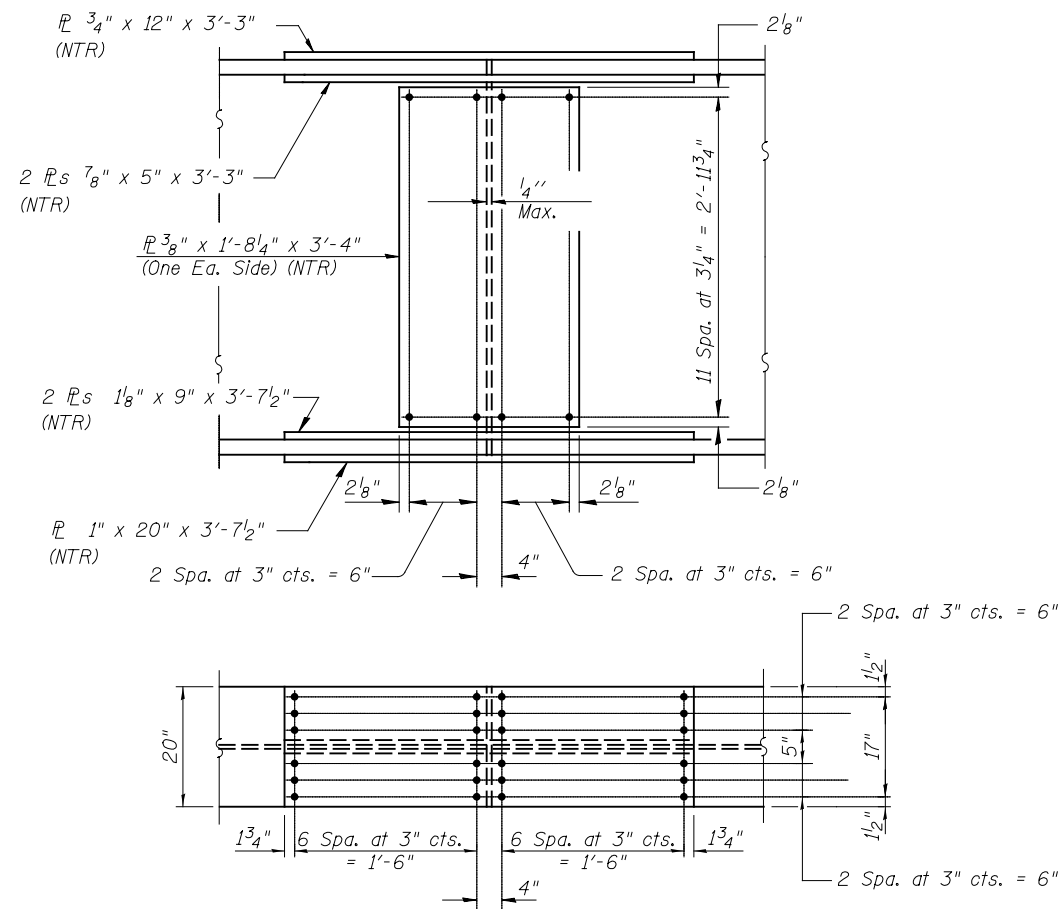
18 Required

NOTE

Load carrying components designated NTR shall conform to the Impact Testing Requirement, Zone 2.



TOP PLATE



BOTTOM PLATE

FIELD SPLICE DETAIL

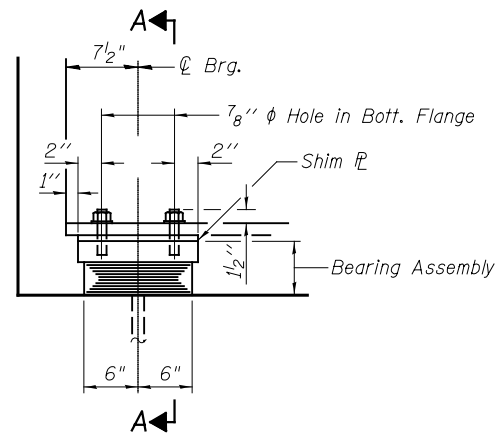
Splice 1 is shown. Splice 2 is similar but opposite hand.

4 Required

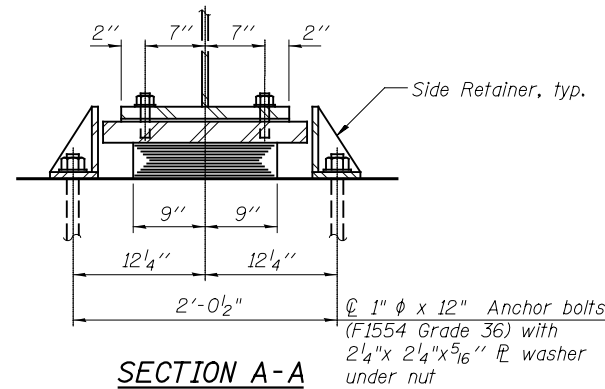
NOTE

Load carrying components designated NTR shall conform to the Impact Testing Requirement, Zone 2.

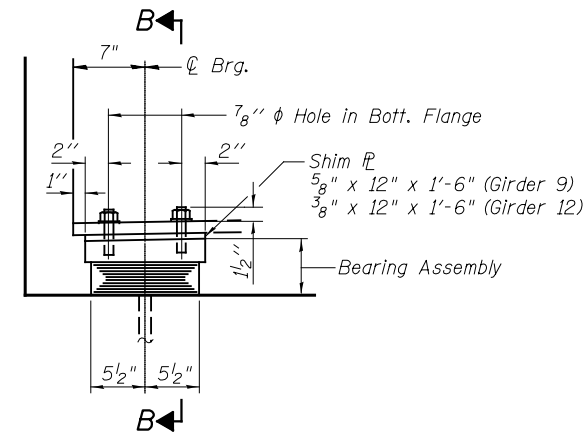
PATRICK ENGINEERING INC. 4970 VARSITY DRIVE LISLE, IL 60532 patrickengineering.com	USER NAME =	DESIGNED - AY	REVISED	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	FIELD SPLICE (GIRDERS 10 & 11) STRUCTURE NO. 016-1250	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	DRAWN - AY	REVISOR	2746			1616B	COOK	404	299	
	PLOT SCALE =	CHECKED - RDW	REVISOR			CONTRACT NO. 60J14				
	PLOT DATE =	DATE - 2/18/2013	REVISOR			ILLINOIS FED. AID PROJECT				
SCALE: NONE SHEET NO. S30 OF S59 SHEETS										



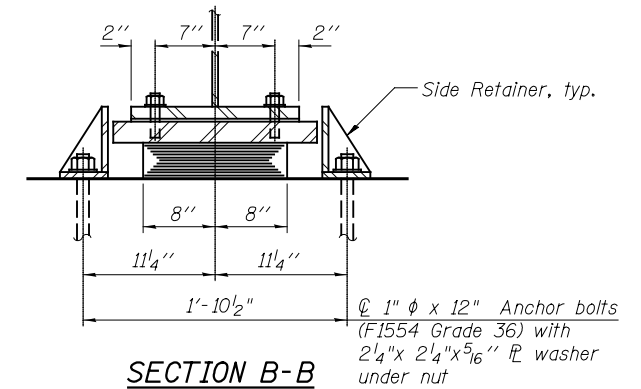
ELEVATION AT S. ABUT.
(Looking West)



SECTION A-A



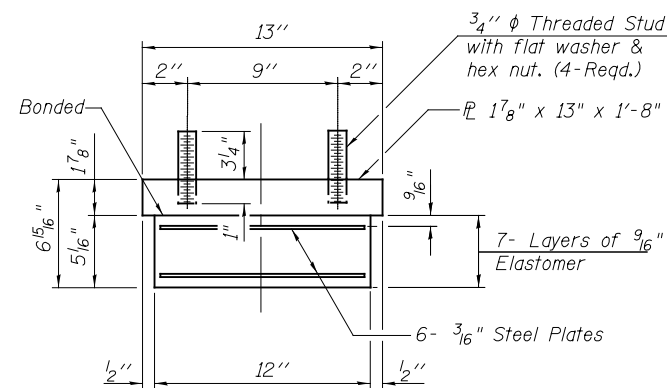
ELEVATION AT N. ABUT.
(Looking East)



SECTION B-B

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

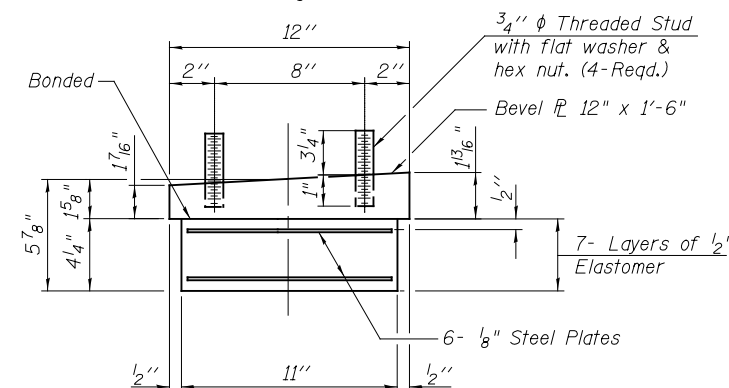
Note:
Shim plates shall not be placed under Bearing Assembly.



BEARING ASSEMBLY

TYPE I ELASTOMERIC EXP. BRG. AT SOUTH ABUTMENT

18 Required

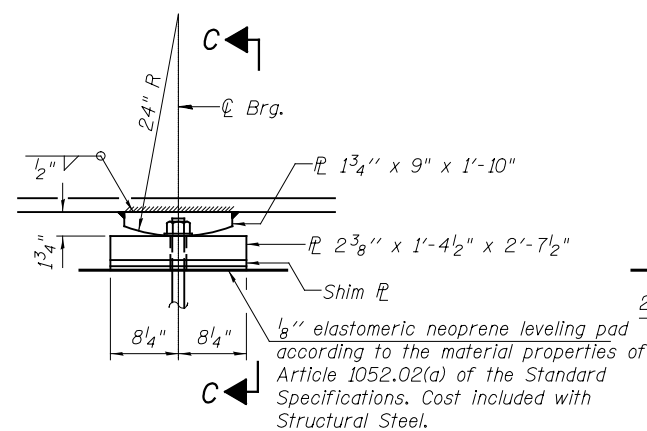


BEARING ASSEMBLY

TYPE I ELASTOMERIC EXP. BRG. AT NORTH ABUTMENT

18 Required

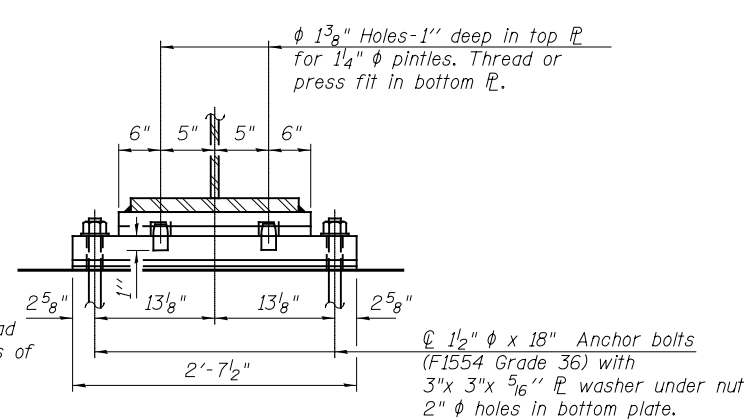
Notes:
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.
Anchor bolts for side retainers may be cast in place or installed in holes drilled before or after members are in place.
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
Side retainers and other steel members required for the elastomeric bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.
The structural steel plates of the Elastomeric and Fixed Bearing Assemblies, including pintles, shall conform to the requirements of AASHTO M 270 Grade 50.
Two 1/8 in. adjusting shims shall be provided for each bearing in addition to all other plates or shims and placed as shown on bearing details.



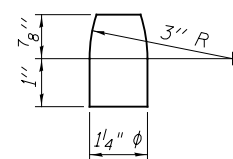
ELEVATION AT PIER

FIXED BEARING AT PIER

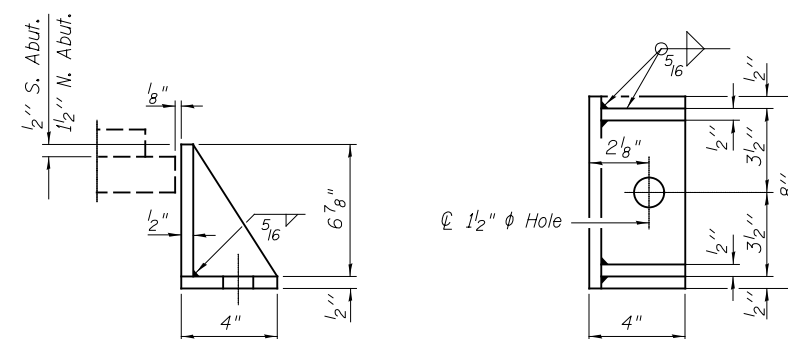
18 Required



SECTION C-C



PINTLE



SIDE RETAINER

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

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	36
Anchor Bolts, 1"	Each	72
Anchor Bolts, 1 1/2"	Each	36