

FOR INDEX OF SHEETS, HIGHWAY STANDARDS, AND  
DETAILS SEE SHEET NO. 2

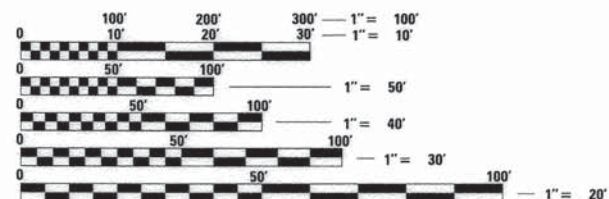
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**  
**DIVISION OF HIGHWAYS**  
**PLANS FOR PROPOSED**  
**FEDERAL AID HIGHWAY**  
**VARIOUS ROUTES**  
**EMERGENCY VEHICLE PREEMPTION INSTALLATION**  
**SECTION: 14-00034-00-TL**  
**PROJECT NO.: M-4003(474)**  
**VILLAGE OF CRESTWOOD**  
**COOK COUNTY**  
**JOB NO.: C-91-192-15**

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0B66	14-00034-00-TL	WILL	45	1
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO.	61C00	



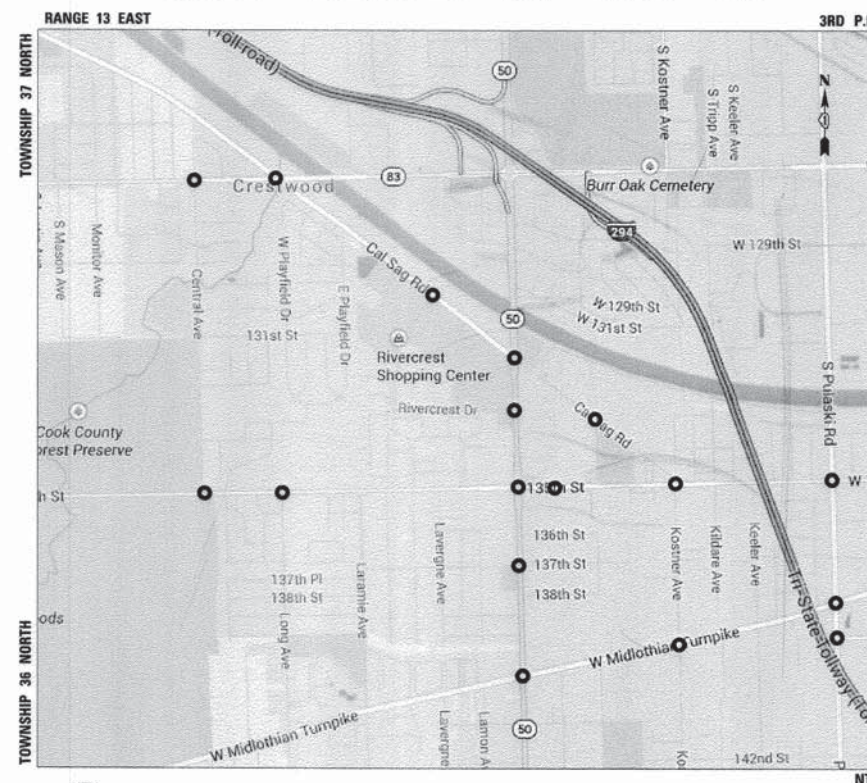
**TRAFFIC DATA**

FAU NOS.	INTERSECTION	SPEED (MPH)	ADT (2013)	CLASSIFICATION
390 & 1596	CICERO AVENUE FROM 135TH STREET TO MIDLOTHIAN TURNPIKE	35	44200	5 LANE OTHER PRINCIPAL ARTERIAL
390, 344, & 1596	CICERO AVENUE FROM CAL SAG ROAD TO 135TH STREET	35	39100	5 LANE OTHER PRINCIPAL ARTERIAL
1587, 344, & 390	127TH STREET FROM CAL SAG ROAD TO CICERO AVENUE	40	28900	5 LANE OTHER PRINCIPAL ARTERIAL
1596	PULASKI ROAD FROM 135TH STREET TO 139TH STREET	40	26900	4 LANE MINOR ARTERIAL
1587 & 344	127TH STREET FROM RIDGELAND AVENUE TO CAL SAG ROAD	35	17500	2 LANE MINOR ARTERIAL
390	MIDLOTHIAN TURNPIKE FROM CENTRAL AVENUE TO CICERO AVENUE	40	16000	4 LANE MAJOR COLLECTOR
1586 & 390	135TH STREET FROM CICERO AVENUE TO PULASKI ROAD	35	15100	3 LANE MINOR ARTERIAL
390	MIDLOTHIAN TURNPIKE FROM CICERO AVENUE TO PULASKI ROAD	35	12000	4 LANE MAJOR COLLECTOR
1596	135TH STREET FROM CENTRAL TO CICERO AVENUE	35	9700	2 LANE MINOR ARTERIAL
344, 1587, & 390	CAL SAG ROAD FROM 127TH STREET TO CICERO AVENUE	35	9650	4 LANE MINOR ARTERIAL
344, 390, & 1596	CAL SAG ROAD FROM CICERO AVENUE TO 135TH STREET	35	9650	4 LANE MAJOR COLLECTOR
1587 & 1596	CENTRAL AVENUE FROM 127TH STREET TO 135TH STREET	35	6700	2 LANE MAJOR COLLECTOR
1596	KOSTNER AVENUE FROM 135TH STREET TO MIDLOTHIAN TURNPIKE	20	4500	2 LANE MAJOR COLLECTOR



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

**J.U.L.I.E.**  
**JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION**  
**1-800-892-0123**  
**OR 811**



KEY:  
● PROJECT LOCATIONS

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**  
**DIVISION OF HIGHWAYS**

APPROVED 10/8 2015  
*[Signature]*  
VILLAGE OF CRESTWOOD

PASSED 10/21 2015  
*[Signature]*  
DISTRICT ONE ENGINEER OF LOCAL ROADS & STREETS

RELEASING FOR BID  
BASED ON LIMITED  
REVIEW October 21 2015  
*[Signature]*  
DEPUTY DIRECTOR OF HIGHWAYS, REGION 1 ENGINEER

**PRINTED BY THE AUTHORITY**  
**OF THE STATE OF ILLINOIS**

**CB** **CHRISTOPHER B. BURKE ENGINEERING, LTD.**  
9575 W. Higgins Road, Suite 600  
Rosemont, Illinois 60018  
(847) 823-0500  
PROFESSIONAL DESIGN FIRM NO.: 184-001742  
EXPIRATION DATE: 04-30-2017

*[Signature]* 10-02-2015  
ENGINEER DATE  
**GEORGE M. ZIEGLER**  
ILLINOIS REGISTRATION NO. 062-045853  
EXPIRATION DATE: 11-30-2015

DATE \_\_\_\_\_ BY \_\_\_\_\_  
 SURVEYED \_\_\_\_\_  
 ALIGNED \_\_\_\_\_  
 CHECKED \_\_\_\_\_  
 RT. OF WAY CHECKED \_\_\_\_\_  
 NO. \_\_\_\_\_ FILE NAME \_\_\_\_\_  
 DATE \_\_\_\_\_ BY \_\_\_\_\_  
 SURVEYED \_\_\_\_\_  
 GRADES CHECKED \_\_\_\_\_  
 E.M. NOTED \_\_\_\_\_  
 STRUCTURE NOTATIONS CHECKED \_\_\_\_\_

FEDERAL AID ENGINEER: FAWAD AQUEEL, P.E. (847) 705-4021 SCHAUMBURG, IL

**INDEX OF SHEETS**

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38-44	DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAILS
45	TRAFFIC CONTROL PROTECTION FOR SIDE ROADS, INTERSECTIONS AND DRIVEWAYS

**IDOT HIGHWAY STANDARDS**

STD. No.	DESCRIPTION
00001-06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001006	DECIMAL OF AN INCH AND OF A FOOT
701701-09	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701801-05	SIDEWALK, CORNER OR CROSSWALK CLOSURE
701901-04	TRAFFIC CONTROL DEVICES
814001-03	HANDHOLES
857001-01	STANDARD PHASE DESIGNATION DIAGRAMS AND PHASE SEQUENCES

**GENERAL NOTES**

- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION. THIS SHALL INCLUDE LOCATING THE MAST ARM FOUNDATIONS AND VERIFYING THE MAST ARMS LENGTHS.
- THE EXACT LOCATION OF ALL UTILITIES SHALL BE FIELD VERIFIED BY THE CONTRACTOR BEFORE ORDERING ANY MATERIALS AND STARTING ANY WORK. FOR LOCATIONS OF UTILITIES, LOCALLY OWNED EQUIPMENT, LEASED ENFORCEMENT CAMERA SYSTEM FACILITIES AND IDOT UNDERGROUND FACILITIES, CONTACT THE LOCAL COUNTIES, MUNICIPALITIES AND IDOT FOR LOCATES. THE CONTRACTOR SHALL CALL 'JULIE' AT (800) 892-0123 OR 811. IN THE CITY OF CHICAGO CONTACT DIGGER AT (312) 744-7000 FOR FIELD LOCATIONS OF BURIED UTILITIES (48 HOURS NOTIFICATION REQUIRED).
- THE CONTRACTOR SHALL CHECK THE PROPOSED TRAFFIC SIGNAL EQUIPMENT LOCATIONS FOR OVERHEAD UTILITY CONFLICTS. THE CONTRACTOR SHALL COORDINATE ANY CONFLICTS WITH THE UTILITY COMPANIES AND THE RESIDENT ENGINEER BEFORE ORDERING MATERIALS.
- THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES, LOCAL GOVERNMENT AGENCIES AND IDOT.
- THE CONTRACTOR SHALL CONTACT THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK ON ANY STATE ROUTE.

DATE	BY	DATE	BY
DATE	BY	DATE	BY
DATE	BY	DATE	BY

SURVEYED \_\_\_\_\_  
 PLOTTED \_\_\_\_\_  
 CHECKED \_\_\_\_\_  
 BY \_\_\_\_\_  
 DATE \_\_\_\_\_  
 STRUCTURE NOTATION CP103

PLAN \_\_\_\_\_  
 NOTE BOOK \_\_\_\_\_  
 NO. \_\_\_\_\_  
 DATE \_\_\_\_\_  
 BY \_\_\_\_\_

**CHRISTOPHER B. BURKE**  
 ENGINEERING LTD.  
 8575 West Higgins Road, Suite 600  
 Rosemont, Illinois 60018  
 (847) 823-0500



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

**INDEX OF SHEETS, HIGHWAY STANDARDS,  
 AND DETAILS**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	14-00034-00-TL	COOK	45	2
CONTRACT NO. 61C00				
FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT				

FILE NAME =	USER NAME = fpaceione	DESIGNED - TFS	REVISED -
N:\Crestwood\158252\Traffic\10X_STD_sheets\CrestwoodEVP.dgn		DRAWN - FPB	REVISED -
		CHECKED - GMZ	REVISED -
		DATE - 10-02-2015	REVISED -

SCALE: 1" = 1'	SHEET NO.	OF	SHEETS	STA.	TO	STA.
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# SUMMARY OF QUANTITIES

		CONSTRUCTION CODE: 0021																		
		SURFACE TRANSPORTATION PROGRAM URBAN (STU) FUNDS (80% FEDERAL/20% LOCAL)																		
CODE NO.	ITEM	UNIT	TOTAL	127th St. & IL Rte 83 (Cal Sag Rd.)	127th St. & Central Ave.	Cal Sag Rd. & Menards Entrance	Cal Sag Rd. & Rivercrest Dr.	Kostner Ave. & Midlothian Tpk.	135th St. & Cal Sag Rd. / Kostner Ave.	135th St. & Long Ave.	135th St. & Kilpatrick Ave. / Town Center Dr.	135th St. & Central Ave.	135th St. & Pulaski Rd.	139th St. & Pulaski Rd.	Midlothian Tpk. & Pulaski Rd.	IL Rte 50 / 83 (Cicero Ave.) & Cal Sag Rd.	IL Rte 50 / 83 (Cicero Ave.) & Rivercrest Dr.	IL Rte 50 / 83 (Cicero Ave.) & 135th St.	IL Rte 50 / 83 (Cicero Ave.) & 137th St.	IL Rte 50 / 83 (Cicero Ave.) & Midlothian Tpk.
67100100	MOBILIZATION	LSUM	1																	
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	LSUM	1																	
70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	LSUM	1																	
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	17	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	5405	641	392	523	313	232	273	211	78	272	208	354	296	408	384	294	256	270
87501400	TRAFFIC SIGNAL POST, 18 FT.	EACH	4						1	1				1			1			
88700200	LIGHT DETECTOR	EACH	34	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
88700300	LIGHT DETECTOR AMPLIFIER	EACH	17	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
89500100	RELOCATE EXISTING SIGNAL HEAD	EACH	4							1	1			1			1			
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	3	1	1			1												
X0324085	EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	5405	641	392	523	313	232	273	211	78	272	208	354	296	408	384	294	256	270
XX009055	FULL-ACTUATED CONTROLLER (SPECIAL)	EACH	2		1			1												

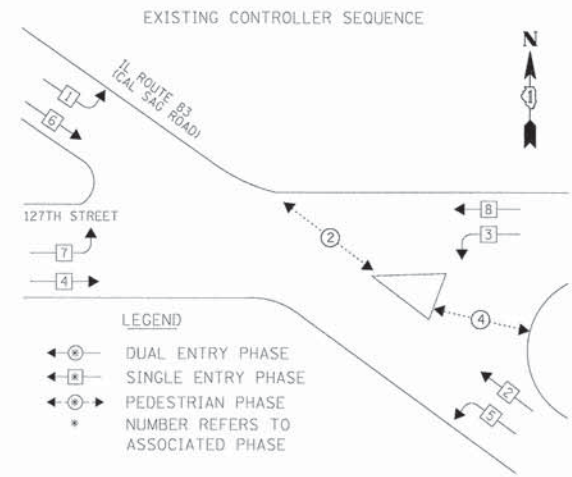
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 Rosemont, Illinois 60018  
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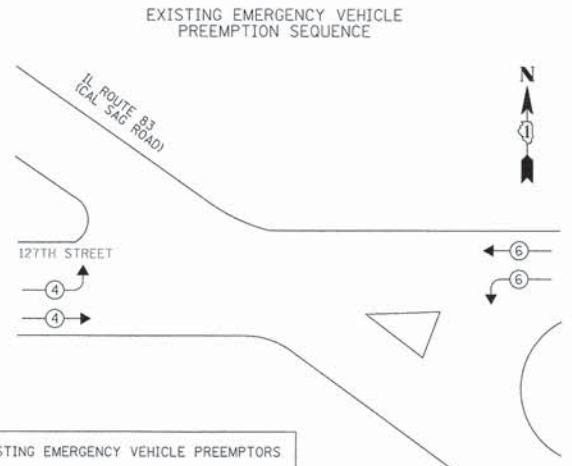
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 DATE: \_\_\_\_\_

CHRISTOPHER B. BURKE ENGINEERING LTD.  
 9576 West Higgins Road, Suite 600  
 Chicago, IL 60631  
 (847) 823-0900

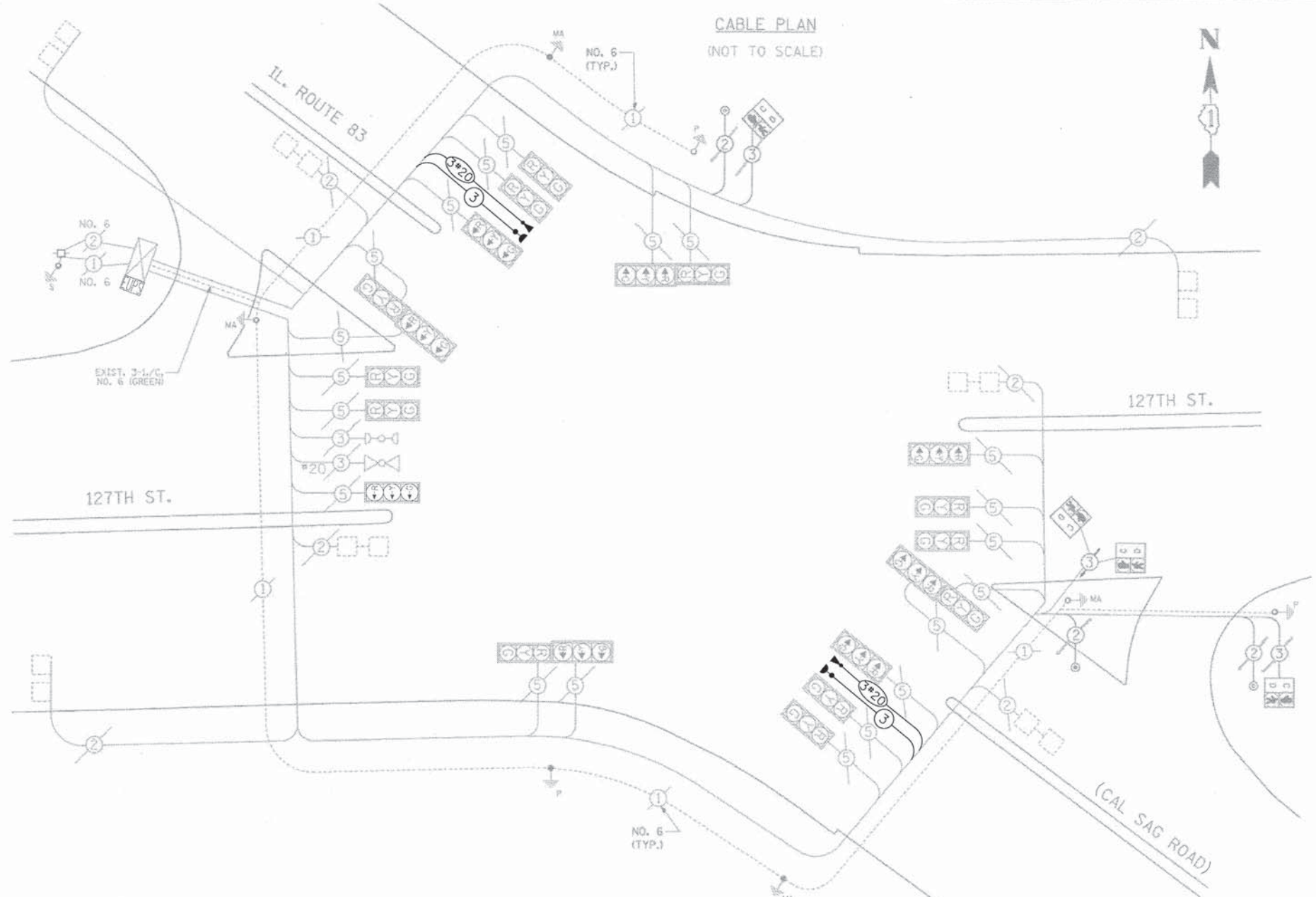


**LEGEND**  
 ◀ ⊙ ▶ DUAL ENTRY PHASE  
 ◀ □ ▶ SINGLE ENTRY PHASE  
 ◀ ⊙ ▶ PEDESTRIAN PHASE  
 \* NUMBER REFERS TO ASSOCIATED PHASE

PHASE DESIGNATION DIAGRAM



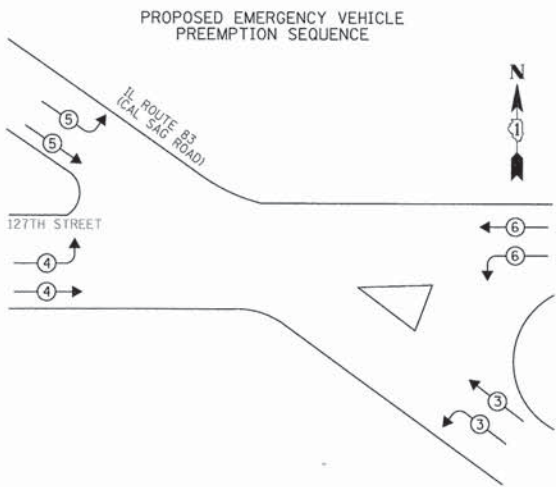
EMERGENCY VEHICLE PREEMPTOR	4	6
MOVEMENT	↔	↔



CABLE PLAN  
(NOT TO SCALE)

TYPE	NO. OF LAMPS	WATTAGE		X % OPERATION	TOTAL WATTAGE
		X INCAND.	LED		
SIGNAL (RED)	21		17	0.50	178.50
(YELLOW)	21		25	0.25	131.50
(GREEN)	21		15	0.25	93.75
ARROW	8		12	0.10	33.60
PED. SIGNAL	8		25	1.00	200.00
CONTROLLER	1		100	1.00	100.00
ILLUMINATED SIGN	-	25		0.05	-
VIDEO SYSTEM	1	150		1.00	150.00
LUMINAIRE	1	250		0.50	125.00
BATTERY BACKUP	1	25		1.00	25.00
FLASHER			0.50		
ENERGY COSTS TO:					TOTAL = 912.35

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAY/DISTRICT 1  
 201 WEST CENTER COURT/SCHAUMBURG, ILLINOIS 60196-1096  
 ENERGY SUPPLY: CONTACT: \_\_\_\_\_  
 PHONE: \_\_\_\_\_  
 COMPANY: \_\_\_\_\_



EMERGENCY VEHICLE PREEMPTOR	3	4	5	6
MOVEMENT	↔	↔	↔	↔

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	641
LIGHT DETECTOR	EACH	2
LIGHT DETECTOR AMPLIFIER	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	641

FILE NAME =	USER NAME = fpcione	DESIGNED - TFS	REVISED -
N:\Crestwood\150252\Traffic\01_127th-Calg_EVP2-cab.dgn		DRAWN - FPB	REVISED -
PLOT SCALE = 20"		CHECKED - GMZ	REVISED -
PLOT DATE = 10/29/2015		DATE - 10-02-2015	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION  
 DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE  
 127TH STREET AND IL ROUTE 83 (CAL SAG ROAD)  
 SCALE: 1" = 20'

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	14-00034-00-TL	COOK	45	5
CONTRACT NO. 61C00				

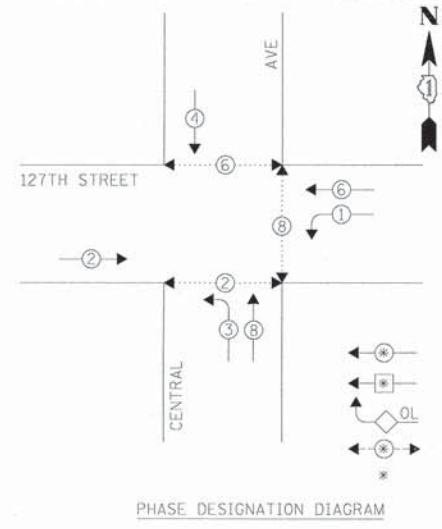
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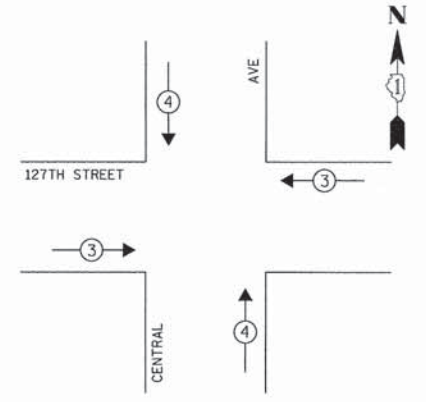
DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 PROFILE SURVEYED: \_\_\_\_\_ GRADES CHECKED: \_\_\_\_\_  
 NOTE BOOK NO.: \_\_\_\_\_ PLOT SCALE: 20'

CHRISTOPHER B. BURKE ENGINEERING LTD.  
 8075 West Higgins Road, Suite 600  
 Skokie, Illinois 60076  
 (847) 922-0800

EXISTING AND PROPOSED CONTROLLER SEQUENCE



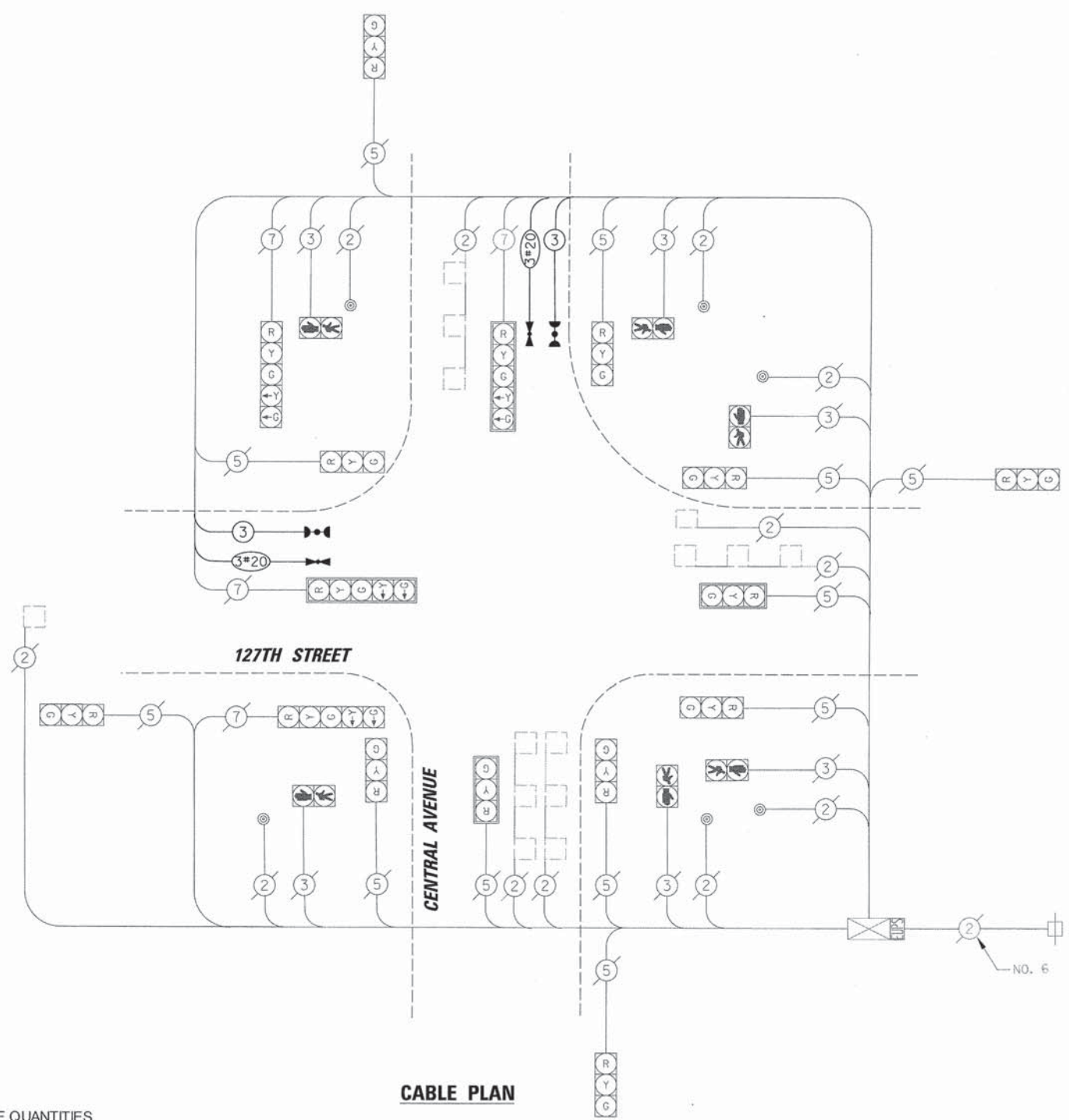
PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE



PROPOSED EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↔	↕

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE X INCAND. LED	X % OPERATION		
SIGNAL (RED)	15	17	0.50	127.5	
(YELLOW)	15	25	0.25	93.75	
(GREEN)	15	15	0.25	56.25	
ARROW	8	12	0.10	9.6	
PED. SIGNAL	6	25	1.00	190.0	
CONTROLLER	1	100	1.00	100.0	
LUMINAIRE	-	250	0.50	-	
ILLUMINATED SIGN	-	25	0.50	-	
VIDEO SYSTEM	-	150	1.00	-	
BATTERY BACKUP SYSTEM	1	25	1.00	25	
FLASHER	-	25	0.50	-	
ENERGY COSTS TO:				TOTAL =	562.1
Village of Crestwood 13840 S Cicero Avenue Crestwood, IL 60445					
ENERGY SUPPLY: PHONE: (866) 639-3532 COMPANY: COMED - New Business					

SCHEDULE OF QUANTITIES	
ITEM	UNIT QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH 1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT 386
LIGHT DETECTOR	EACH 2
LIGHT DETECTOR AMPLIFIER	EACH 1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH 1
EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT 386
FULL-ACTUATED CONTROLLER (SPECIAL)	EACH 1



CABLE PLAN

FILE NAME = N:\Crestwood\150252\Traffic\02-127th-Cr	USER NAME = fpciano	DESIGNED - TFS	REVISED -
	Drawn: EJP2-cab.dgn	DRAWN - FPB	REVISED -
	PLOT SCALE = 20'	CHECKED - GMZ	REVISED -
	PLOT DATE = 10/28/2015	DATE - 10-02-2015	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE			
127TH STREET AND CENTRAL AVENUE			
SCALE: 1" = 20'	SHEET NO. 40F	SHEETS	STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	14-00034-00-TL	COOK	45	7
CONTRACT NO. 61C00				
FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT				

TS #3385









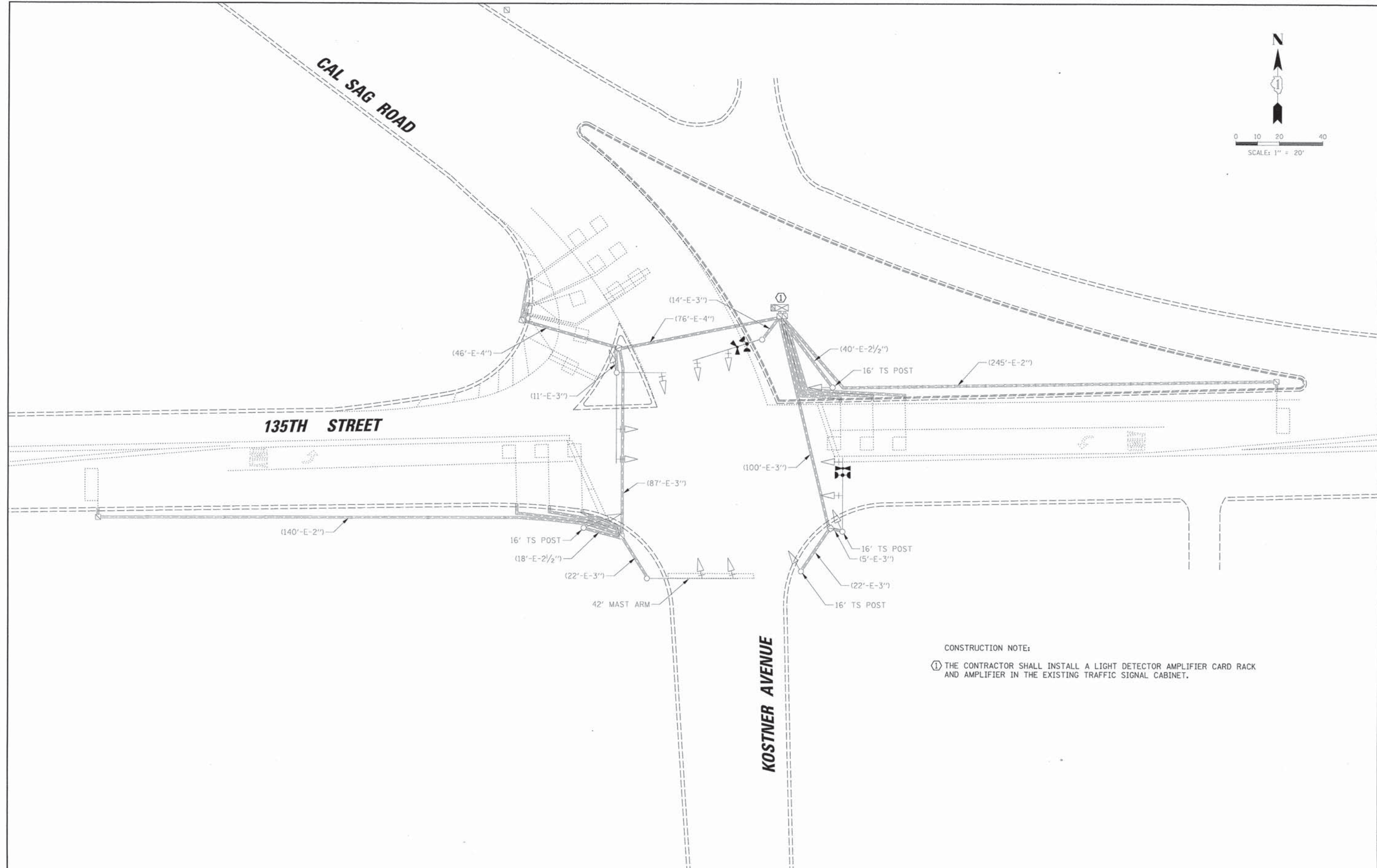
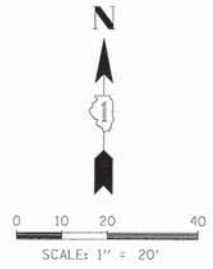






PROFILE	DATE	BY
SAVED		
PLotted		
NOTE BOOK		
NO.		
STRUCTURE NOTATIONS CHVD		
FILE NAME		
DATE		
BY		
SAVED		
PLotted		
NOTE BOOK		
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STRUCTURE NOTATIONS CHVD		
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SAVED		
PLotted		
NOTE BOOK		
NO.		
STRUCTURE NOTATIONS CHVD		

**CHRISTOPHER B. BURKE** ENGINEERING LTD.  
 9575 West Higgins Road, Suite 600  
 Rosemont, Illinois 60018  
 (847) 825-0500



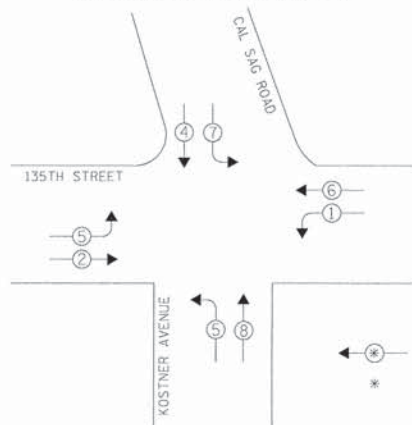
CONSTRUCTION NOTE:  
 ① THE CONTRACTOR SHALL INSTALL A LIGHT DETECTOR AMPLIFIER CARD RACK AND AMPLIFIER IN THE EXISTING TRAFFIC SIGNAL CABINET.

FILE NAME =	USER NAME = fpace	DESIGNED - TFS	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>EMERGENCY VEHICLE PREEMPTION INSTALLATION PLAN 135TH STREET AND CAL SAG ROAD / KOSTNER AVENUE</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
N:\Crestwood\150252\Traffic\06.135th-Cal\eg.EVPI1-sig.dgn	PLOT SCALE = 28'	DRAWN - FPB	REVISED -			14-00034-00-TL	COOK	45	14	
PLOT DATE = 10/28/2015	DATE = 10-02-2015	CHECKED - GMZ	REVISED -			CONTRACT NO. 61C00				
		DATE = 10-02-2015	REVISED -			FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT				
					SCALE: 1" = 20'	SHEET NO.	OF	SHEETS	STA.	TO STA.

PROFILE SUBMITTED BY DATE  
 CHECKED BY DATE  
 NOTE BOOK NO.  
 STRUCTURE NOTATION DFRD

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 9525 Monticello Road, Suite 600  
 Rosemont, Illinois 60018  
 (847) 822-0600

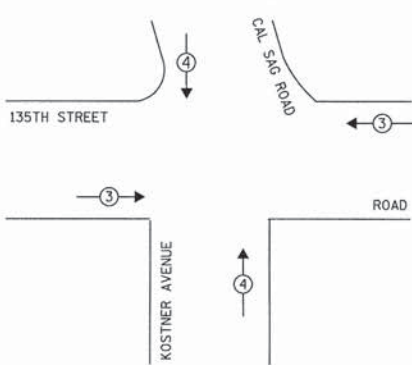
EXISTING CONTROLLER SEQUENCE



LEGEND  
 \* DUAL ENTRY PHASE  
 NUMBER REFERS TO ASSOCIATED PHASE

PHASE DESIGNATION DIAGRAM

PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE



PROPOSED EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	← →	↑ ↓

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE X INCAND. LED	X % OPERATION		
SIGNAL (RED)	14	135	0.50		945.0
(YELLOW)	14	135	0.25		472.5
(GREEN)	14	135	0.25		472.5
ARROW	16	135	0.10		216.0
PED. SIGNAL	-	90	1.00		-
CONTROLLER	1	100	1.00		100.0
LUMINAIRE	-	250	0.50		-
ILLUMINATED SIGN	-	25	0.50		-
VIDEO SYSTEM	-	150	1.00		-
BATTERY BACKUP SYSTEM	-	25	1.00		-
FLASHER	-	25	0.50		-
ENERGY COSTS TO:				TOTAL =	2206.0

Village of Crestwood  
 13840 S Cicero Avenue  
 Crestwood, IL 60445

ENERGY SUPPLY: PHONE: (866) 639-3532  
 COMPANY: COMED - New Business

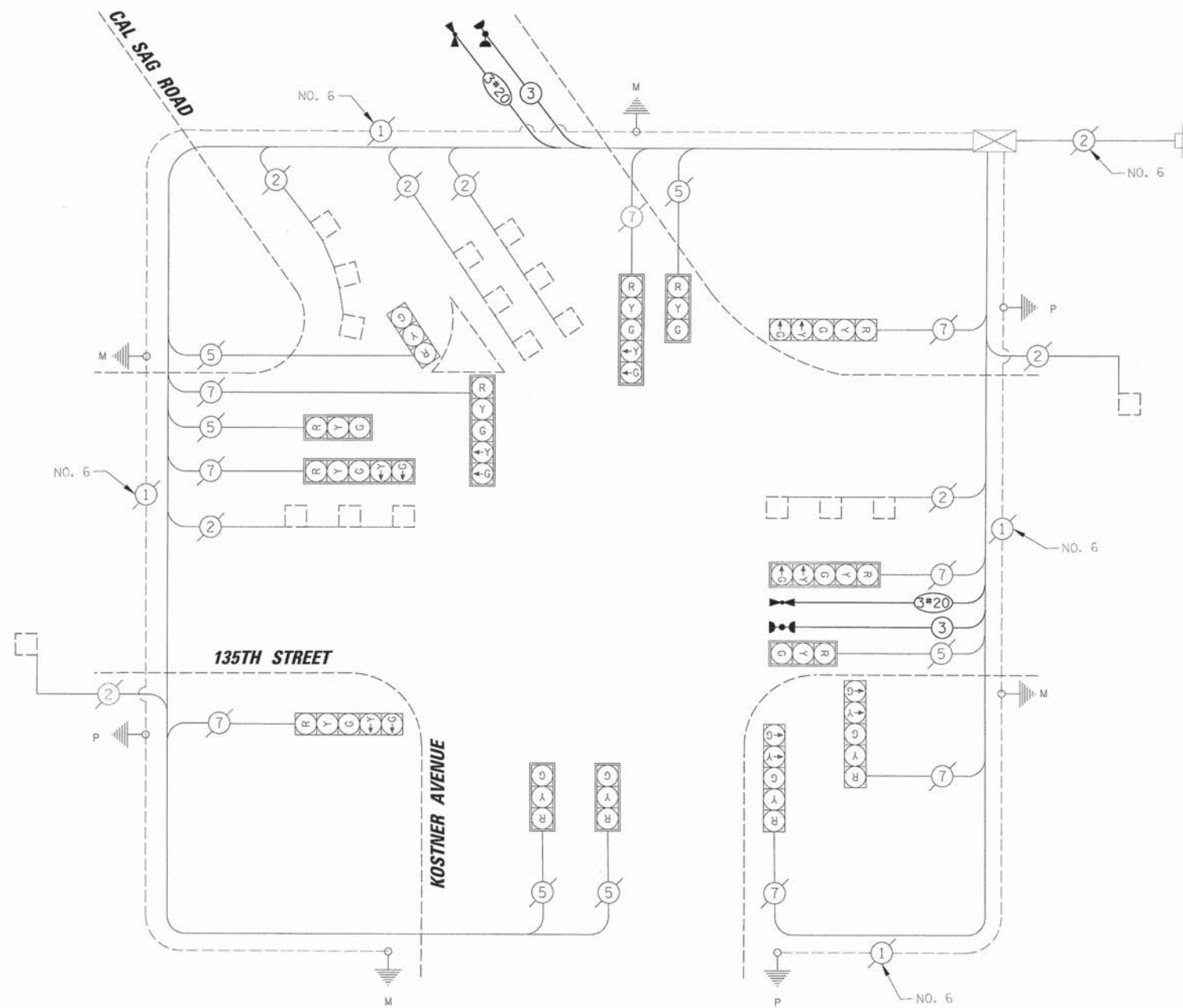
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N:\Crestwood\158252\Traffic\06_135th-Cal	log_EVP2-coh.dgn	DRAWN - FPB	REVISED -
	PLOT SCALE = 20'	CHECKED - GMZ	REVISED -
	PLOT DATE = 10/28/2015	DATE - 10-02-2015	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION  
 DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE  
 135TH STREET AND CAL SAG ROAD / KOSTNER AVENUE

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	14-00034-00-TL	COOK	45	15
CONTRACT NO. 61C00				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



CABLE PLAN

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	267
LIGHT DETECTOR	EACH	2
LIGHT DETECTOR AMPLIFIER	EACH	1
EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20' 3/C	FOOT	267

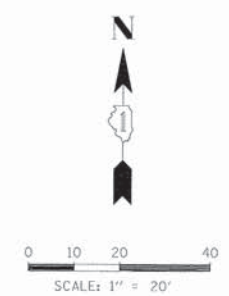
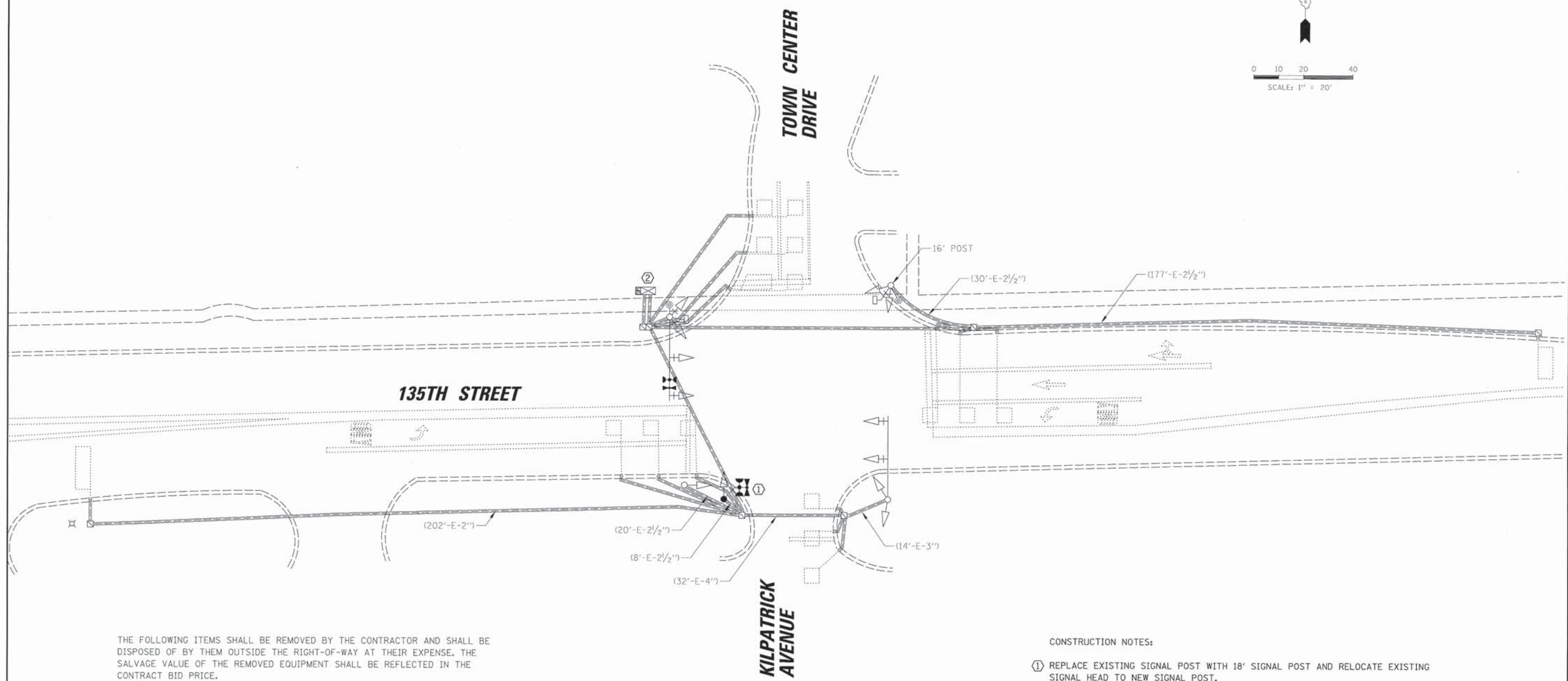






PROFILE SURVEYED BY DATE  
 GRADES CHECKED BY DATE  
 NOTE BOOK NO. OF MAY CHECKED  
 NO. ADD. FILE NAME

**CHRISTOPHER B. BURKE ENGINEERING LTD.**  
 5575 West Higgins Road, Suite 600  
 Rosemont, Illinois 60018  
 (847) 925-0000



THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

- 1 EACH SIGNAL POST

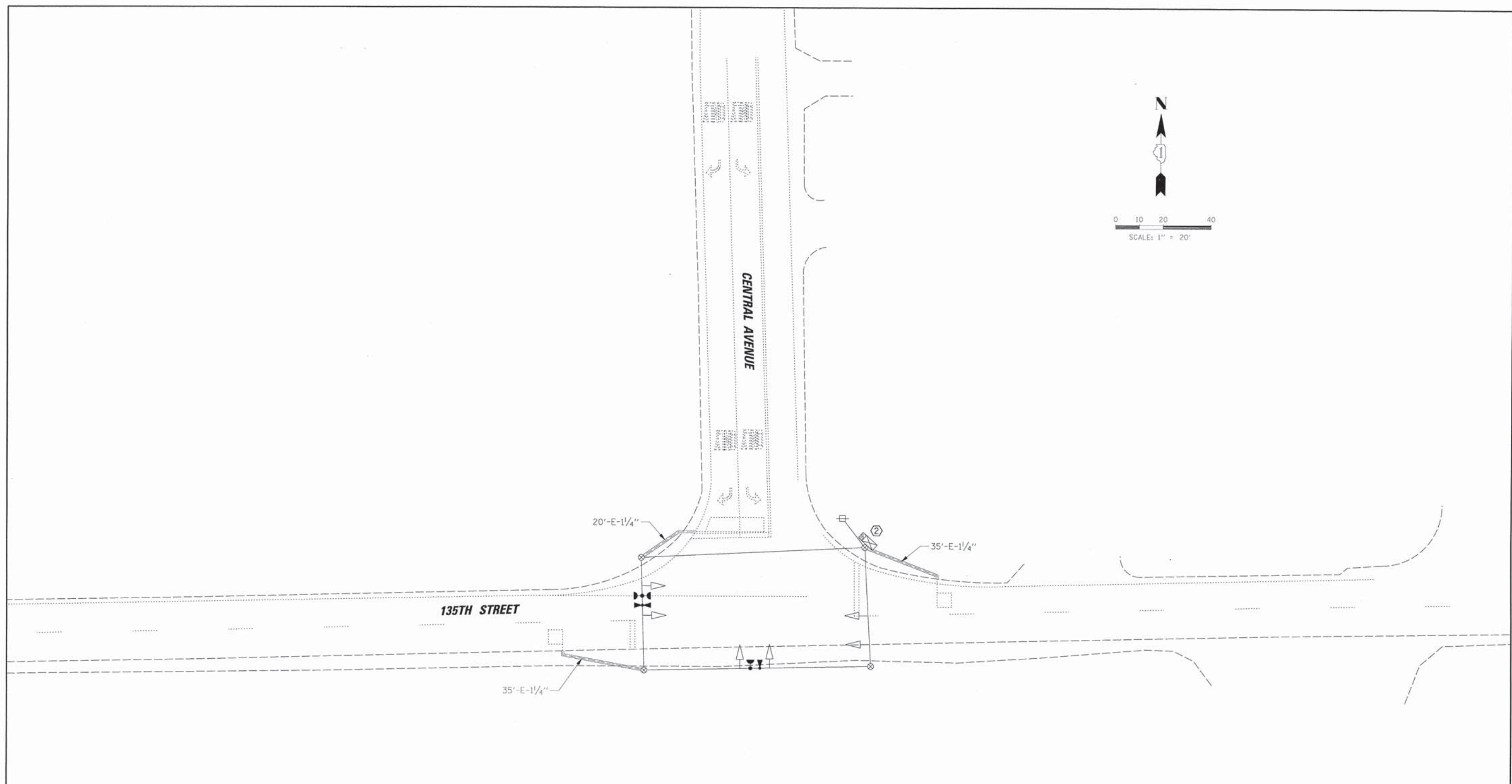
- CONSTRUCTION NOTES:
- ① REPLACE EXISTING SIGNAL POST WITH 18' SIGNAL POST AND RELOCATE EXISTING SIGNAL HEAD TO NEW SIGNAL POST.
  - ② THE CONTRACTOR SHALL INSTALL A LIGHT DETECTOR AMPLIFIER CARD RACK AND AMPLIFIER IN THE EXISTING TRAFFIC SIGNAL CABINET.

FILE NAME = N:\Crestwood\150252\Traffic\08_135th-Kilpatrick_EVPI-sig.dgn	USER NAME = fpacione	DESIGNED - TFS	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>EMERGENCY VEHICLE PREEMPTION INSTALLATION PLAN 13TH STREET AND KILPATRICK AVENUE /TOWN CENTER DRIVE</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - FPB	REVISED -			14-00034-00-TL	COOK	45	18	
		CHECKED - GMZ	REVISED -			CONTRACT NO. 61C00				
		DATE - 10-02-2015	REVISED -			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				
				SCALE: 1" = 20'		SHEET NO. OF SHEETS		STA. TO STA.		



PROFILE DRAWN BY DATE  
 NOTE BOOK NO. 18/28/2015  
 THIS USE NOTATIONS  
 CHANGES NOTED  
 GRADES CHECKED  
 SURVEYED  
 BY DATE  
 PLAN NOTE BOOK NO. 10/02/2015  
 SURVEYED BY DATE  
 NOTE BOOK NO. 10/02/2015  
 THIS USE NOTATIONS  
 CHANGES NOTED  
 GRADES CHECKED  
 SURVEYED  
 BY DATE

**CHRISTOPHER B. BURKE** ENGINEERING LTD.  
 9575 West Higgins Road, Suite 600  
 Skokie, Illinois 60076  
 (847) 823-0800



- CONSTRUCTION NOTE:
- ① THE CONTRACTOR SHALL RAISE THE HEIGHT OF THE EXISTING SPAN AND TETHER WIRE TO A MINIMUM HEIGHT OF 17 FEET.
  - ② THE CONTRACTOR SHALL INSTALL A LIGHT DETECTOR AMPLIFIER CARD RACK AND AMPLIFIER IN THE EXISTING TRAFFIC SIGNAL CABINET.

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	PLOT SCALE = 20'	CHECKED - GMZ	REVISED -
	PLOT DATE = 10/28/2015	DATE - 10-02-2015	REVISED -

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

**EMERGENCY VEHICLE PREEMPTION INSTALLATION PLAN**  
**135TH STREET AND CENTRAL AVENUE**  
 SCALE: 1" = 20' SHEET NO. OF SHEETS STA. TO STA.

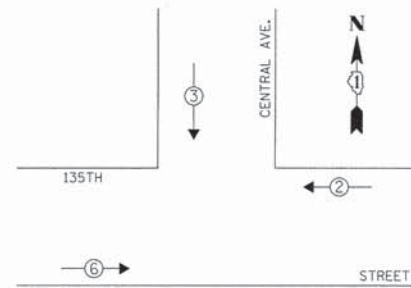
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	14-00034-00-TL	COOK	45	20
CONTRACT NO. 61C00				
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

TS #

DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 PROFILE: \_\_\_\_\_ GRADES CHECKED: \_\_\_\_\_  
 NOTE BOOK NO.: \_\_\_\_\_ STRUCTURE NOTATIONS: \_\_\_\_\_  
 DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 PLAN: \_\_\_\_\_ ENGINEERING LTD.  
 NOTE BOOK NO.: \_\_\_\_\_  
 ADD FILE NAME: \_\_\_\_\_

**CHRISTOPHER B. BURKE**  
 9575 West Higgins Road, Suite 600  
 Rosemont, Illinois 60018  
 (847) 822-0000

**CONTROLLER SEQUENCE**

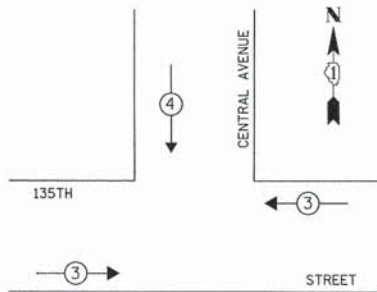


**LEGEND**

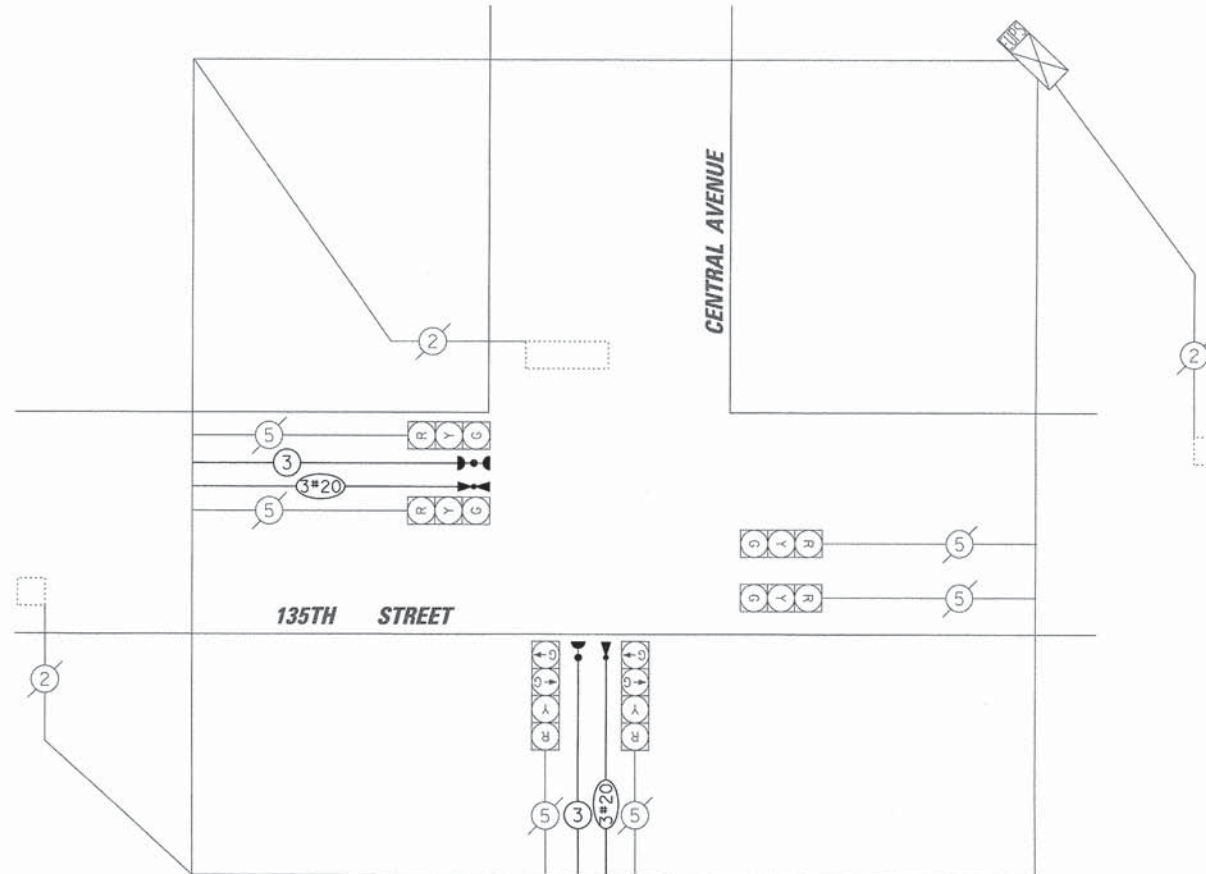
- ⊕ DUAL ENTRY PHASE
- ⊖ SINGLE ENTRY PHASE
- OL OVERLAP
- ⊙ PEDESTRIAN PHASE
- \* NUMBER REFERS TO ASSOCIATED PHASE

**PHASE DESIGNATION DIAGRAM**

**PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE**



PROPOSED EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	← →	↓



I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE X INCAND.	LED	% OPERATION	
SIGNAL (RED)	6	12	0.50		36.0
(YELLOW)	6	25	0.25		37.5
(GREEN)	6	15	0.25		22.5
ARROW	4	12	0.10		4.8
PED. SIGNAL	-	25	1.00		-
CONTROLLER	1	100	1.00		100.0
LUMINAIRE	-	250	0.50		-
ILLUMINATED SIGN	-	25	0.50		-
VIDEO SYSTEM	-	150	1.00		-
BATTERY BACKUP SYSTEM	1	25	1.00		25.0
FLASHER	-	25	0.50		-
ENERGY COSTS TO:					TOTAL = 225.8

Village of Crestwood  
 13840 S Cicero Avenue  
 Crestwood, IL 60445

ENERGY SUPPLY: PHONE: (866) 639-3532  
 COMPANY: COMED - New Business

**SCHEDULE OF QUANTITIES**

ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	266
LIGHT DETECTOR	EACH	2
LIGHT DETECTOR AMPLIFIER	EACH	1
EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	266

FILE NAME = N:\Crestwood\150252\Traffic\09_135th-Central.EVP2-cab.dgn	USER NAME = fpacione	DESIGNED - TFS	REVISED -
PLOT SCALE = 28'	PLOT DATE = 10/28/2015	DRAWN - FPB	REVISED -
		CHECKED - GMZ	REVISED -
		DATE - 10-02-2015	REVISED -

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

**SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE**  
**135TH STREET AND CENTRAL AVENUE**

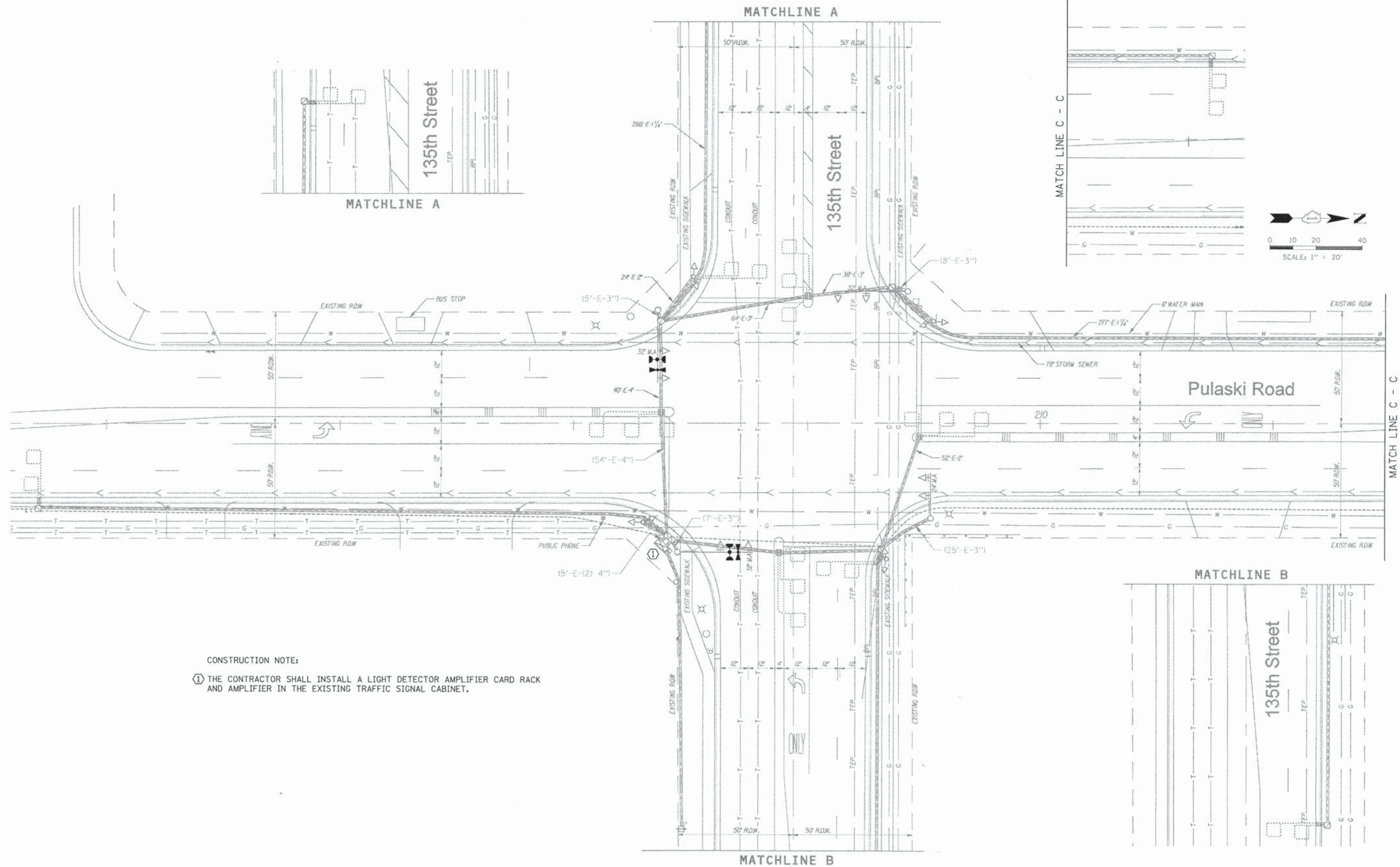
SCALE: 1" = 20' SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	14-00034-00-TL	COOK	45	21
CONTRACT NO. 61C00				
FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT				

TS # 4040

PROFILE	SURVEYED	DATE
NOTE BOOK NO.	BY	
STRUCTURE NOTATIONS CRD		
PLAN	SURVEYED	DATE
NOTE BOOK NO.	BY	
STRUCTURE NOTATIONS CRD		

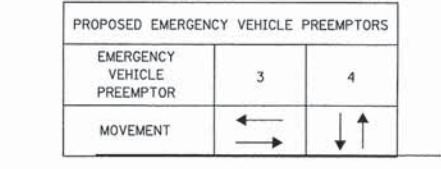
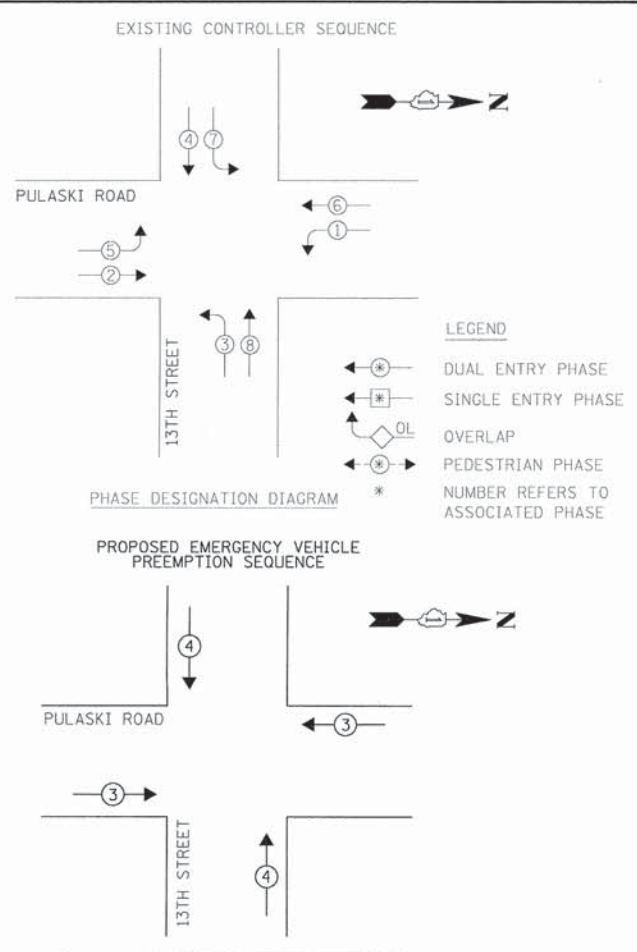
**CHRISTOPHER B. BURKE ENGINEERING LTD.**  
 375 West Higgins Road, Suite 600  
 Rosemont, Illinois 60018  
 (847) 823-0800



CONSTRUCTION NOTE:  
 ① THE CONTRACTOR SHALL INSTALL A LIGHT DETECTOR AMPLIFIER CARD RACK AND AMPLIFIER IN THE EXISTING TRAFFIC SIGNAL CABINET.

FILE NAME = N:\Crestwood\150252\Traffic\10_135th-Pulaski_EVPI-sig.dgn	USER NAME = fpacions	DESIGNED - TFS	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>EMERGENCY VEHICLE PREEMPTION INSTALLATION PLAN 135TH STREET AND PULASKI ROAD</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
PLOT SCALE = 20'	CHECKED - GMZ	REVISED -	SCALE: 1" = 20'			SHEET NO.	OF	SHEETS	STA.	TO	STA.
PLOT DATE = 10/26/2015	DATE - 10-02-2015	REVISED -									
						CONTRACT NO. 61C00					

PROFILE SURVEYED: 8/25/10  
 GRADES CHECKED: [ ]  
 NOTE BOOK NO.: [ ]  
 DATE: [ ]  
 BY: [ ]  
 PLAN SURVEYED: 8/25/10  
 NOTE BOOK NO.: [ ]  
 DATE: [ ]  
 BY: [ ]  
 ENGINEERING LTD.  
 8075 West Higgins Road, Suite 800  
 Rosemont, Illinois 60018  
 (847) 822-0000



COOK COUNTY DEPARTMENT OF TRANSPORTATION AND HIGHWAYS TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	16 x	17	0.50	136.0
(YELLOW)	16 x	25	0.05	20.0
(GREEN)	16 x	15	0.45	108.0
ARROW	8 x	12	0.10	9.6
PED. SIGNAL	- x	25	1.00	-
CONTROLLER	1 x	100	1.00	100.0
VEHICLE DET.	12 x	5	1.00	21.9
ILLUMINATED LED STREET NAME 8"	x	144	1.00	-
FLASHER			0.50	
TOTAL =				433.6

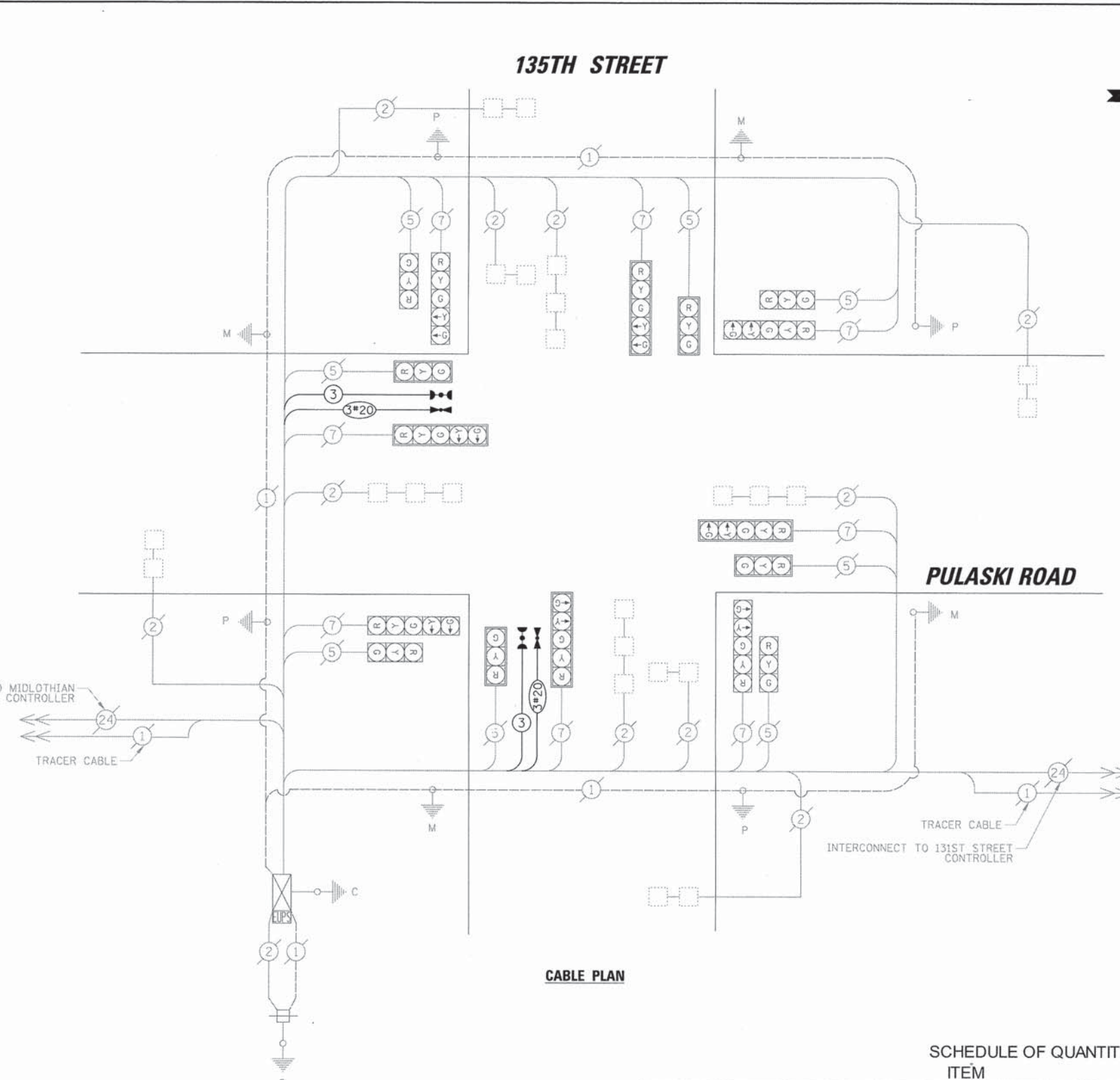
COOK COUNTY BUREAU OF ADMINISTRATION  
 118 N. CLARK STREET, ROOM 801  
 CHICAGO, IL. 60602

ACCOUNT NO. \_\_\_\_\_

ENERGY COSTS SHARE:  
 COOK COUNTY: 50%  
 VILLAGE OF CRESTWOOD: 12.5%  
 VILLAGE OF ROBBINS: 37.5%

ENERGY SUPPLY CONTACT: COMED - New Business  
 (866) 639-3532  
 COMPANY: COMED - New Business

FILE NAME = N:\Crestwood\150252\Traffic\10.135th-Pulaski\_EVP2-0ab.dgn  
 USER NAME = fpaions  
 DESIGNED - TFS  
 DRAWN - FPB  
 CHECKED - GMZ  
 PLOT DATE = 10/28/2015



SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	202
LIGHT DETECTOR	EACH	2
LIGHT DETECTOR AMPLIFIER	EACH	1
EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	202

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

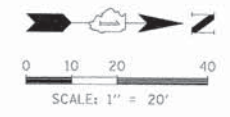
SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE  
 135TH STREET AND PULASKI ROAD

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	14-00034-00-TL	COOK	45	23

CONTRACT NO. 61C00

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

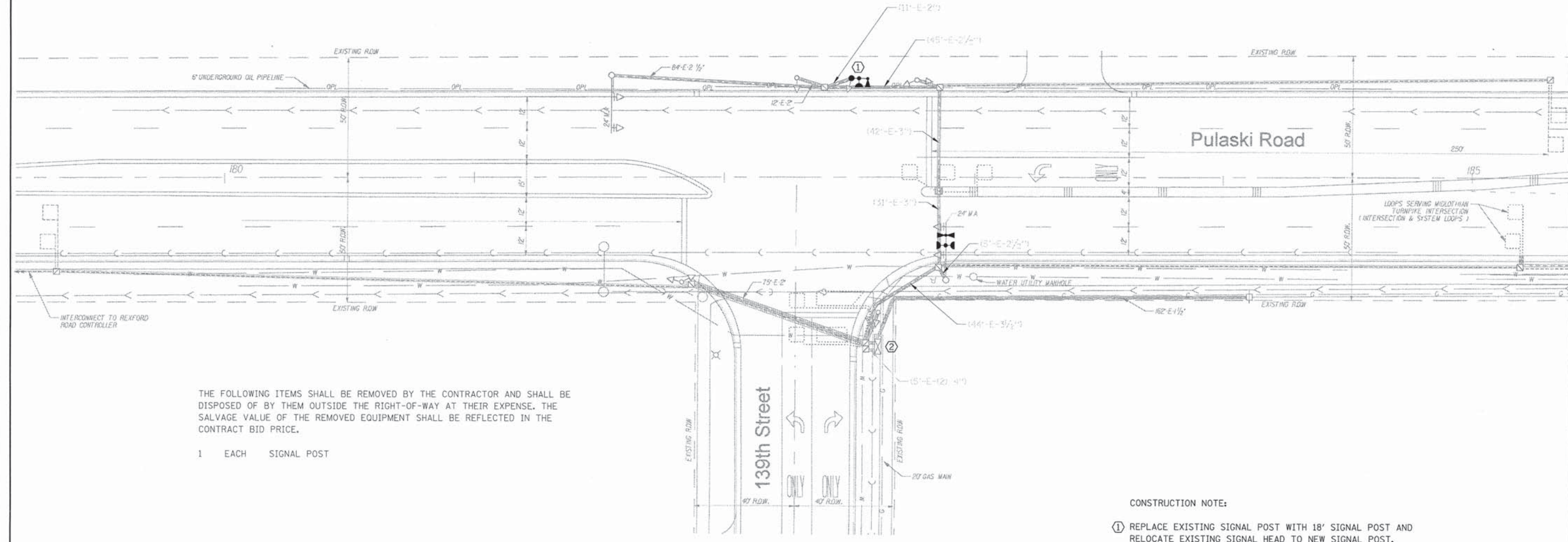
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT



DATE	BY	DATE	BY
DATE	BY	DATE	BY

**CHRISTOPHER B. BURKE** ENGINEERING LTD.  
 9576 West Higgins Road, Suite 600  
 Rosemont, Illinois 60018  
 (847) 823-0500

PROFILE	SURVEYED	
NOTE BOOK	PLOTTED	
NO.	NO.	



THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

- 1 EACH SIGNAL POST

- CONSTRUCTION NOTE:
- ① REPLACE EXISTING SIGNAL POST WITH 18' SIGNAL POST AND RELOCATE EXISTING SIGNAL HEAD TO NEW SIGNAL POST.
  - ② THE CONTRACTOR SHALL INSTALL A LIGHT DETECTOR AMPLIFIER CARD RACK AND AMPLIFIER IN THE EXISTING TRAFFIC SIGNAL CABINET.

FILE NAME =	USER NAME = fpacione	DESIGNED - TFS	REVISED -
Na\Crestwood\158252\Traffic\11_Pulaski-139th_EVPI-sig.dgn		DRAWN - FPB	REVISED -
		CHECKED - GMZ	REVISED -
		DATE - 10-02-2015	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**EMERGENCY VEHICLE PREEMPTION INSTALLATION PLAN  
 139TH STREET AND PULASKI ROAD**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	14-00034-00-TL	COOK	45	24
CONTRACT NO. 61C00				
SCALE: 1" = 20' SHEET NO. OF SHEETS STA. TO STA. FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT				



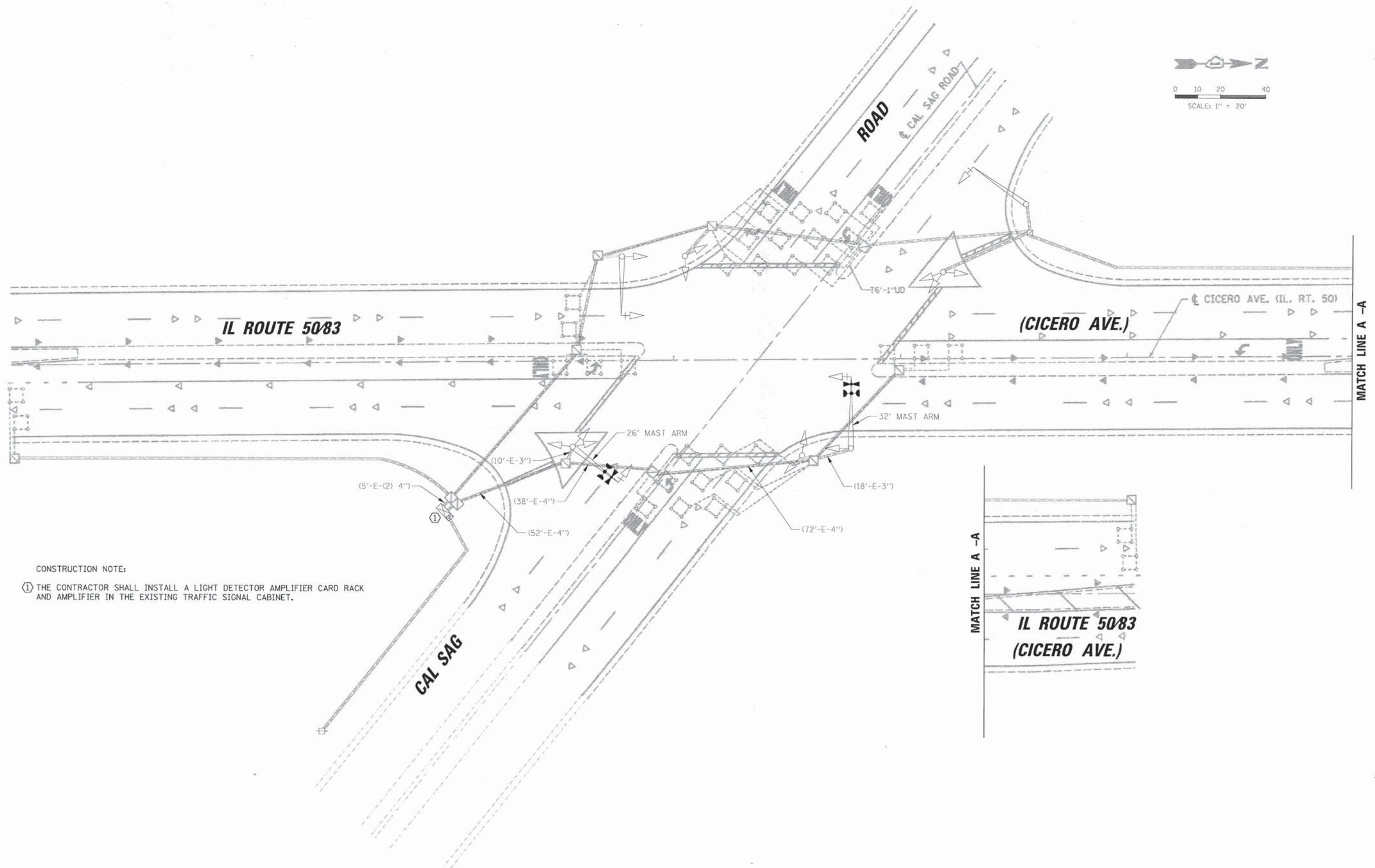
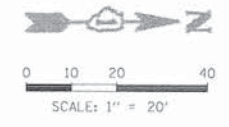






PROFILE	DATE	BY	DATE	BY
NOTED				
GRADES CHECKED				
STRUCTURE NOTATIONS CHECKED				
NOTE BOOK NO.				
PLAN	DATE	BY	DATE	BY
NOTED				
ALIGNED CHECKED				
FIELD FILE NAME				
NOTE BOOK NO.				

**CHRISTOPHER B. BURKE ENGINEERING LTD.**  
 8076 West Higgins Road, Suite 600  
 Chicago, IL 60631  
 (847) 823-0900

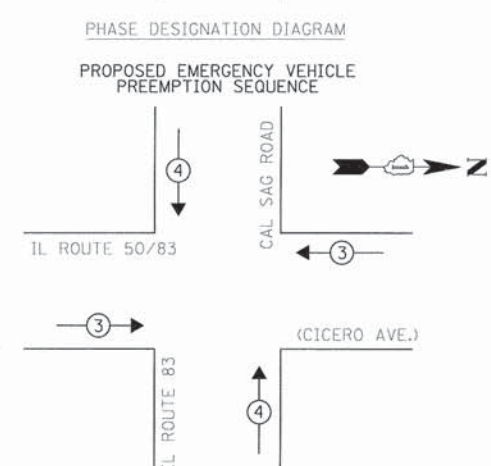
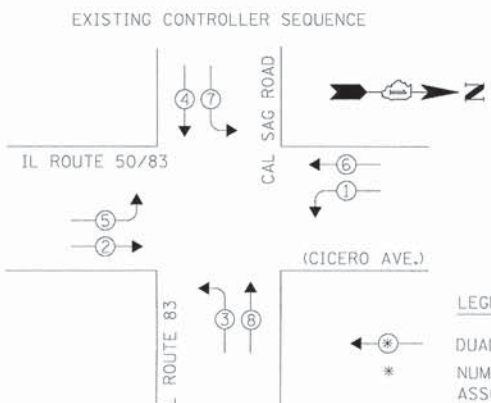


CONSTRUCTION NOTE:  
 ① THE CONTRACTOR SHALL INSTALL A LIGHT DETECTOR AMPLIFIER CARD RACK AND AMPLIFIER IN THE EXISTING TRAFFIC SIGNAL CABINET.



FILE NAME =	USER NAME = fpracione	DESIGNED - TFS	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>EMERGENCY VEHICLE PREEMPTION INSTALLATION PLAN IL ROUTE 5083 (CICERO AVENUE) AND CAL SAG ROAD</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
N:\Crestwood\150252\Tran\Fic\13.Cicero-Cal	ag_EVPI1-sig.dgn	DRAWN - FPB	REVISED -			14-00034-00-TL	COOK	45	28	
PLOT SCALE = 20'	CHECKED - GMZ	REVISED -				CONTRACT NO. 61C00				
PLOT DATE = 10/28/2015	DATE - 10-02-2015	REVISED -				FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				
					SCALE: 1" = 20'	SHEET NO. OF SHEETS		STA. TO STA.		TS #2645

PROFILE SURVEYED BY DATE  
 NOTE BOOK NO. DATE  
 STRUCTURE NOTATION CHNO  
 PLAN SURVEYED BY DATE  
 NOTE BOOK NO. DATE  
 STRUCTURE NOTATION CHNO  
**CHRISTOPHER B. BURKE** ENGINEERING LTD.  
 9575 West Higgins Road, Suite 600  
 Rosemont, Illinois 60018  
 (847) 823-0500

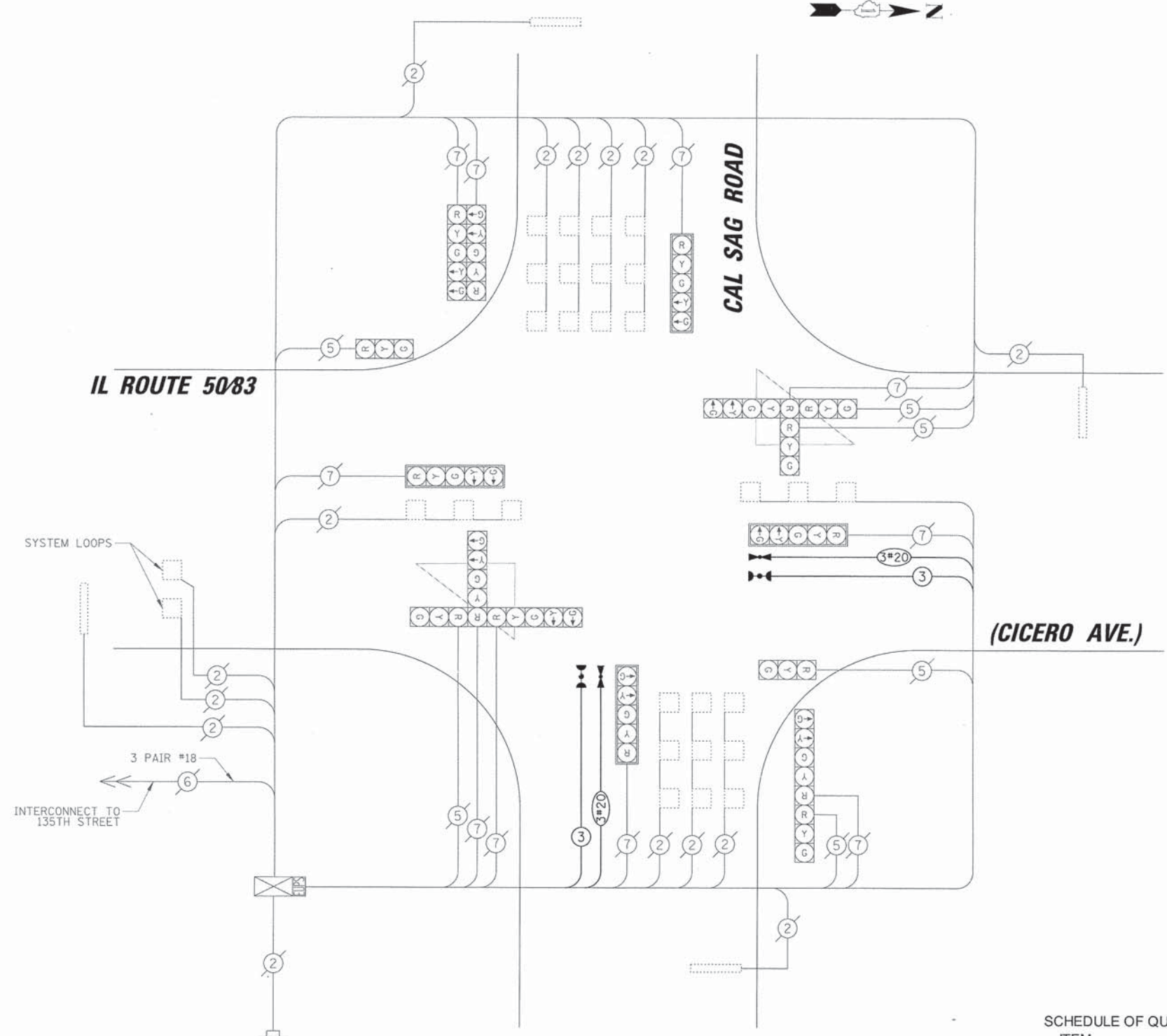


LEGEND

⊗ DUAL ENTRY PHASE  
 \* NUMBER REFERS TO ASSOCIATED PHASE

PROPOSED EMERGENCY VEHICLE PREEMPTORS

EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	← →	↓ ↑



I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	WATTAGE X INCAND. LED	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	16	12	0.50	96.0
(YELLOW)	16	25	0.25	100.0
(GREEN)	16	15	0.25	60.0
ARROW	20	12	0.10	24.0
PED. SIGNAL	-	25	1.00	-
CONTROLLER	1	100	1.00	100.0
LUMINAIRE	-	250	0.50	-
ILLUMINATED SIGN	-	25	0.50	-
VIDEO SYSTEM	-	150	1.00	-
BATTERY BACKUP SYSTEM	1	25	1.00	25.0
FLASHER	-	25	0.50	-
ENERGY COSTS TO:				TOTAL = 405.0

Village of Crestwood  
 13840 S Cicero Avenue  
 Crestwood, IL 60445

ENERGY SUPPLY: PHONE: (866) 639-3532  
 COMPANY: COMED - New Business

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	402
LIGHT DETECTOR	EACH	2
LIGHT DETECTOR AMPLIFIER	EACH	1
EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	402

FILE NAME =	USER NAME = gproone	DESIGNED - TFS	REVISED -
N:\Crestwood\150252\Traffic\13.Cicero-Cal	sag_EVP2-cobdgn	DRAWN - FPB	REVISED -
	PLDT SCALE = 28"	CHECKED - GMZ	REVISED -
	PLDT DATE = 10/28/2015	DATE - 10-02-2015	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION  
 DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE  
 IL ROUTE 5083 (CICERO AVENUE) AND CAL SAG ROAD

SCALE: 1" = 20'

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	14-00034-00-TL	COOK	45	29
CONTRACT NO. 61C00				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

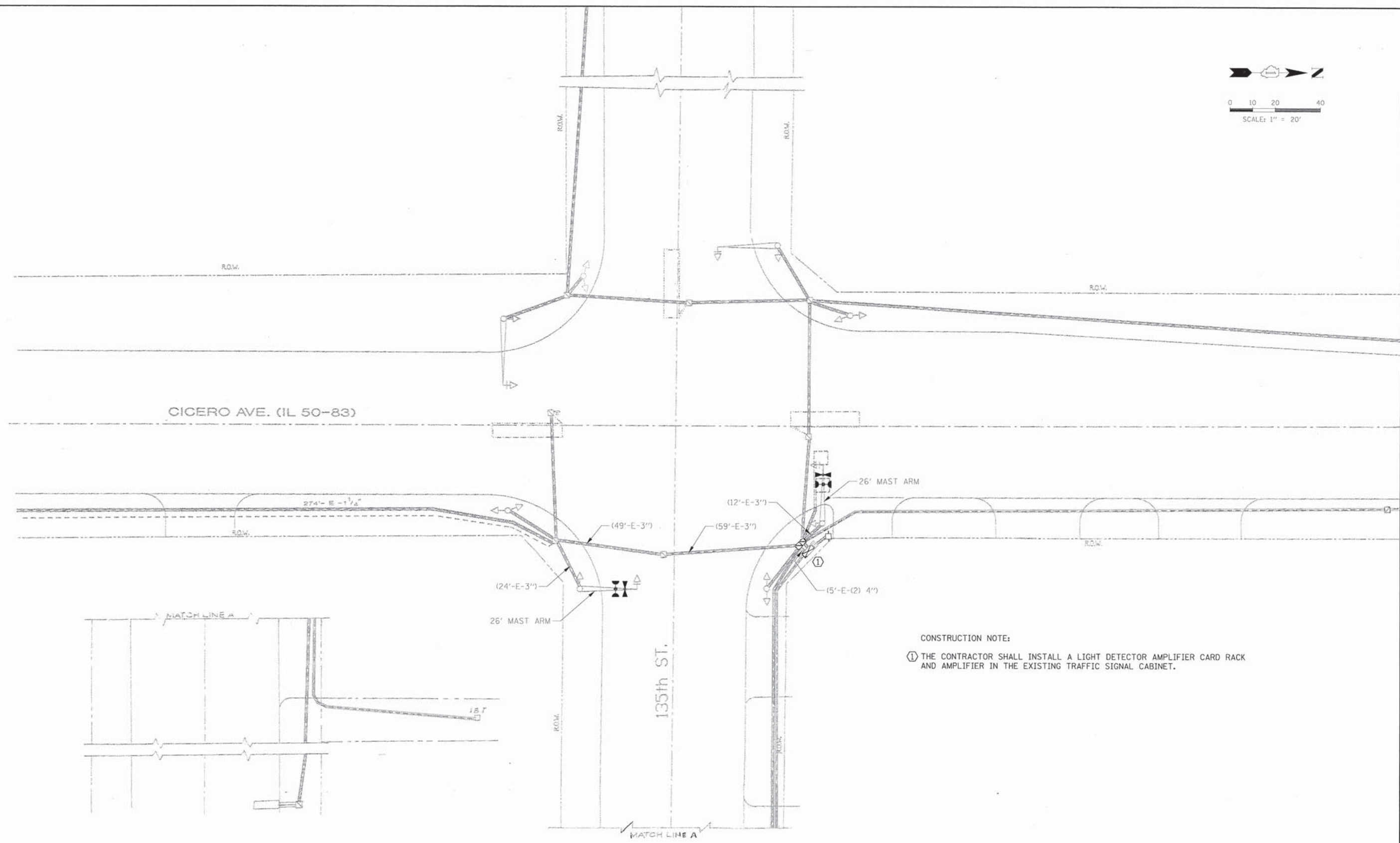
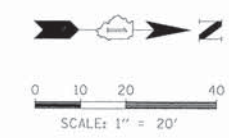
TS #2645





PROFILE	SAVED	DATE
NOTE BOOK	BY: NOTED	
	STRUCTURE NOTATIONS	
PLAN	SAVED	DATE
NOTE BOOK	BY: NOTED	
	STRUCTURE NOTATIONS	

**CHRISTOPHER B. BURKE ENGINEERING LTD.**  
 9575 West Higgins Road, Suite 600  
 Rosemont, Illinois 60018  
 (847) 825-0300



CONSTRUCTION NOTE:  
 ① THE CONTRACTOR SHALL INSTALL A LIGHT DETECTOR AMPLIFIER CARD RACK AND AMPLIFIER IN THE EXISTING TRAFFIC SIGNAL CABINET.

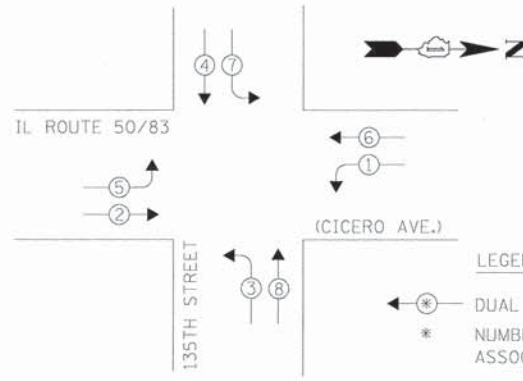
TS #2650

FILE NAME =	USER NAME = fpcione	DESIGNED - TFS	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>EMERGENCY VEHICLE PREEMPTION INSTALLATION PLAN IL ROUTE 50/83 (CICERO AVENUE) AND 135TH STREET</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
N:\Crestwood\150252\Tran\15_Cicero-135th_EVPI-1.dgn		DRAWN - FPB	REVISED -			14-00034-00-TL	COOK	45	32	
PLOT SCALE = 28'		CHECKED - GMZ	REVISED -			CONTRACT NO. 61C00				
PLOT DATE = 10/28/2015		DATE - 10-02-2015	REVISED -			FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT				



PROFILE SURVEYED BY DATE  
 PLOTTED BY DATE  
 NOTE BOOK NO. DATE  
 STRUCTURE NOTATION CHNO  
 PLAN SURVEYED BY DATE  
 NOTE BOOK NO. DATE  
 STRUCTURE NOTATION CHNO  
**CHRISTOPHER B. BURKE** ENGINEERING LTD.  
 8575 West Higgins Road, Suite 600  
 Rosemont, Illinois 60018  
 (847) 823-0000

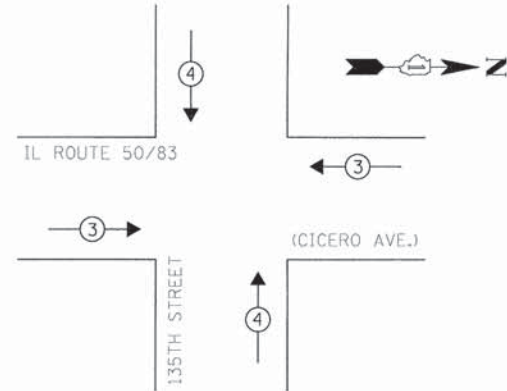
EXISTING CONTROLLER SEQUENCE



LEGEND  
 \* DUAL ENTRY PHASE  
 NUMBER REFERS TO ASSOCIATED PHASE

PHASE DESIGNATION DIAGRAM

PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE



PROPOSED EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	← →	↑ ↓

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE			
SIGNAL (RED)	16	INCAND.	12	0.50	96.0
(YELLOW)	16		15	0.25	60.0
(GREEN)	16		25	0.25	100.0
ARROW	20		12	0.10	24.0
PED. SIGNAL	-		25	1.00	-
CONTROLLER	1		100	1.00	100.0
LUMINAIRE	-		250	0.50	-
ILLUMINATED SIGN	-		25	0.50	-
VIDEO SYSTEM	-		150	1.00	-
BATTERY BACKUP SYSTEM	1		25	1.00	25.0
FLASHER	-		25	0.50	-
ENERGY COSTS TO:				TOTAL =	405.0

Village of Crestwood  
 13840 S Cicero Avenue  
 Crestwood, IL 60445

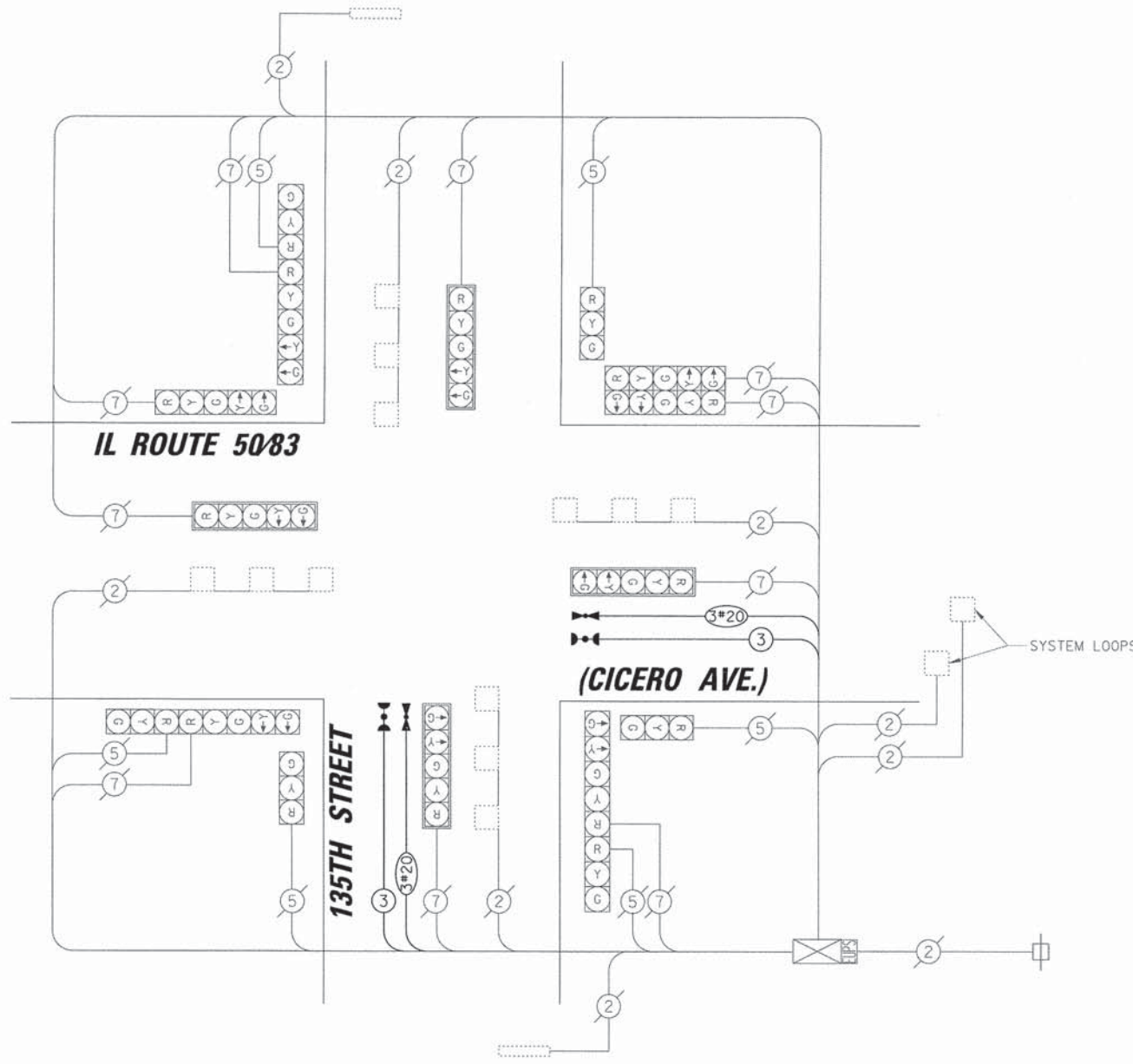
ENERGY SUPPLY: PHONE: (866) 639-3532  
 COMPANY: COMED - New Business

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		CHECKED - GMZ	REVISED -
		DATE - 10-02-2015	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION  
 DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE  
 IL ROUTE 50/83 (CICERO AVENUE) AND 135TH STREET  
 SCALE: 1" = 20' SHEET NO. OF SHEETS STA. TO STA.

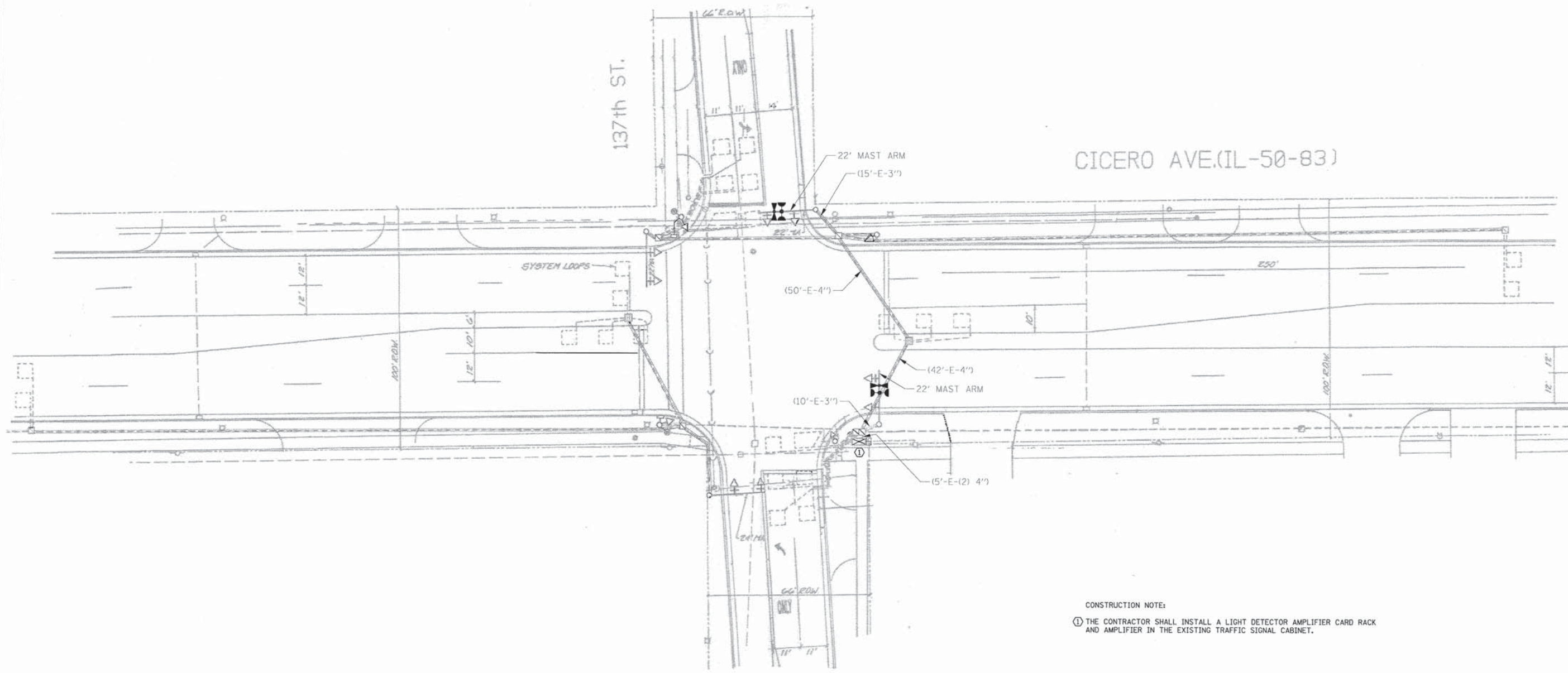
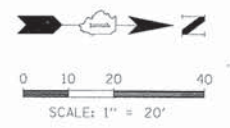
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	14-00034-00-TL	COOK	45	33
CONTRACT NO. 61C00				



SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	288
LIGHT DETECTOR	EACH	2
LIGHT DETECTOR AMPLIFIER	EACH	1
EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	288

TS #2650



CONSTRUCTION NOTE:  
 ① THE CONTRACTOR SHALL INSTALL A LIGHT DETECTOR AMPLIFIER CARD RACK AND AMPLIFIER IN THE EXISTING TRAFFIC SIGNAL CABINET.

PROFILE	DATE	BY	DATE	BY	DATE
DATE	DATE	DATE	DATE	DATE	DATE
BY	BY	BY	BY	BY	BY
DATE	DATE	DATE	DATE	DATE	DATE

CHRISTOPHER B. BURKE ENGINEERING LTD.  
 8575 West Higgins Road, Suite 600  
 Rosemont, Illinois 60018  
 (817) 624-0080

FILE NAME = N:\Crestwood\150252\Traffic\16_Cicero-137	USER NAME = fpacione	DESIGNED - TFS	REVISED -
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PLOT SCALE = 20'		CHECKED - GMZ	REVISED -
PLOT DATE = 10/28/2015		DATE - 10-02-2015	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**EMERGENCY VEHICLE PREEMPTION INSTALLATION PLAN  
 IL ROUTE 5083 (CICERO AVENUE) AND 137TH STREET**

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	14-00034-00-TL	COOK	45	34
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		CONTRACT NO. 61C00

TS #20366



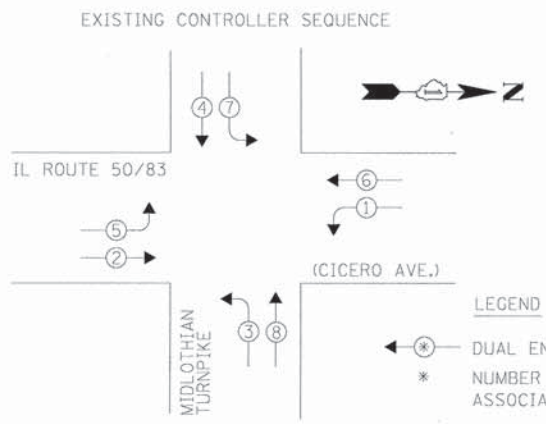


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 DATE \_\_\_\_\_  
 BY \_\_\_\_\_

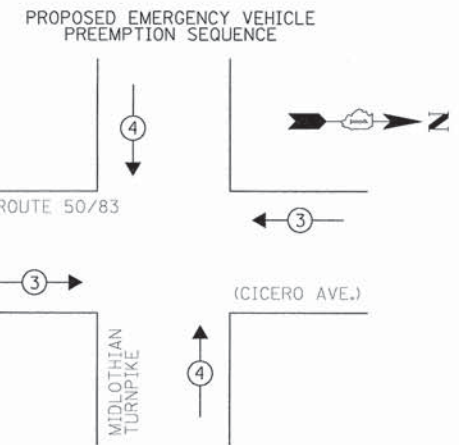
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 DATE \_\_\_\_\_  
 BY \_\_\_\_\_

REVIEWED PLOTTED ALIGNED CHECKED  
 FLD. FILE NAME \_\_\_\_\_  
 DATE \_\_\_\_\_  
 BY \_\_\_\_\_

**CHRISTOPHER B. BURKE** ENGINEERING LTD.  
 635 S. Cicero Avenue, Suite 600  
 Rosemont, Illinois 60018  
 (847) 823-0500



PHASE DESIGNATION DIAGRAM



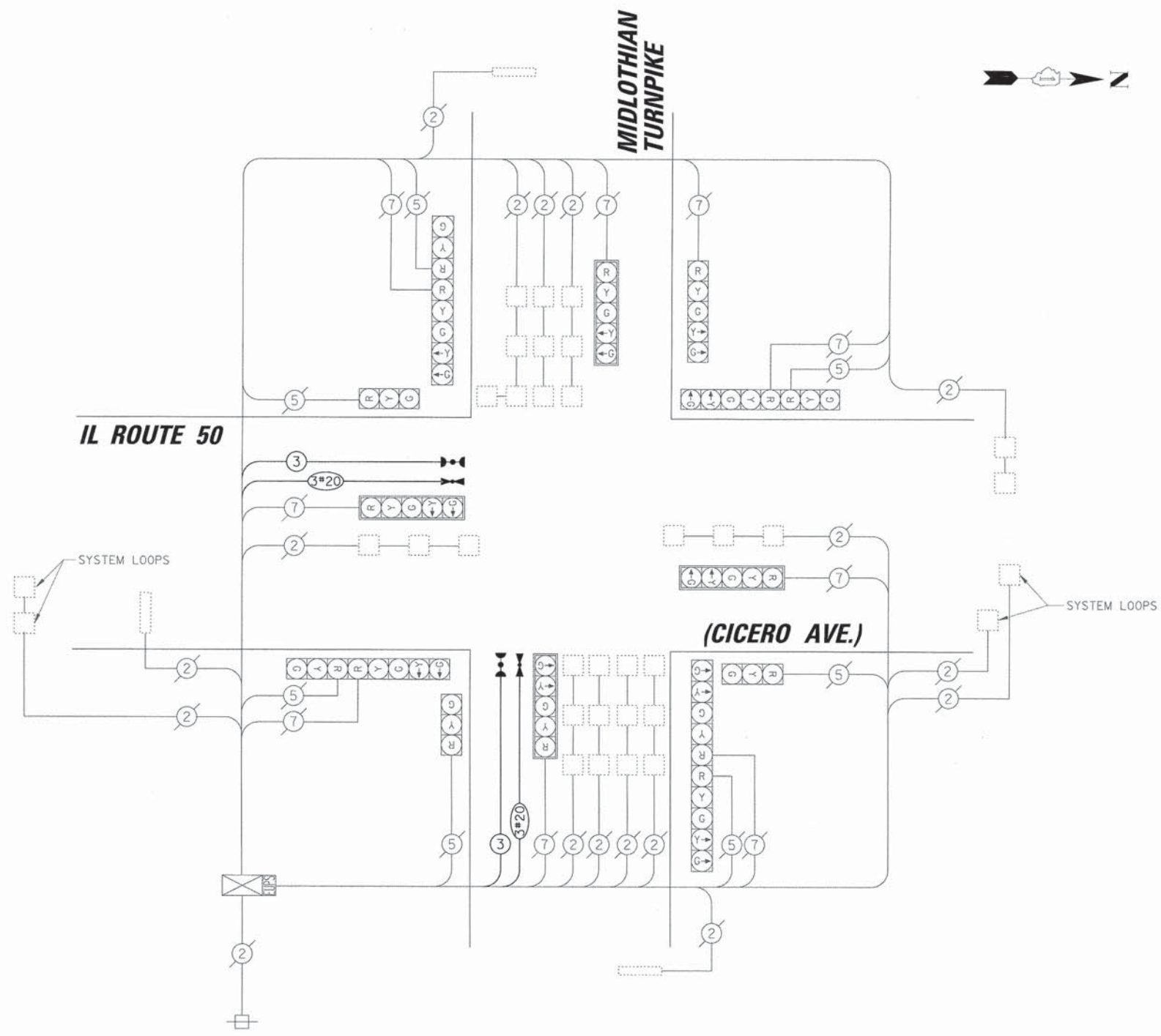
PROPOSED EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	← →	↑ ↓

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE		% OPERATION	
SIGNAL (RED)	16	INCAND.	12	0.50	96.0
(YELLOW)	16		25	0.25	100.0
(GREEN)	16		15	0.25	60.0
ARROW	20		12	0.10	24.0
PED. SIGNAL	-		25	1.00	-
CONTROLLER	1		100	1.00	100.0
LUMINAIRE	-		250	0.50	-
ILLUMINATED SIGN	-		25	0.50	-
VIDEO SYSTEM	-		150	1.00	-
BATTERY BACKUP SYSTEM	1		25	1.00	25.0
FLASHER	-		25	0.50	-

ENERGY COSTS TO: TOTAL = 405.0

Village of Crestwood  
 13840 S Cicero Avenue  
 Crestwood, IL 60445

ENERGY SUPPLY: PHONE: (866) 639-3532  
 COMPANY: COMED - New Business



SCHEDULE OF QUANTITIES		UNIT	QUANTITY
ITEM			
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1	
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	264	
LIGHT DETECTOR	EACH	2	
LIGHT DETECTOR AMPLIFIER	EACH	1	
EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	264	

TS #2655

# TRAFFIC SIGNAL LEGEND

ITEM	REMOVAL	EXISTING	PROPOSED	ITEM	REMOVAL	EXISTING	PROPOSED	ITEM	REMOVAL	EXISTING	PROPOSED
CONTROLLER CABINET				EMERGENCY VEHICLE LIGHT DETECTOR				ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1/C, UNLESS NOTED OTHERWISE			
RAILROAD CONTROL CABINET				CONFIRMATION BEACON				COAXIAL CABLE			
COMMUNICATIONS CABINET				HANDHOLE				VENDOR CABLE FOR CAMERA			
MASTER CONTROLLER				HEAVY DUTY HANDHOLE				COPPER INTERCONNECT CABLE, NO. 18 3 PAIR TWISTED, SHIELDED			
MASTER MASTER CONTROLLER				DOUBLE HANDHOLE				FIBER OPTIC CABLE NO. 62.5/125, MMI2F			
UNINTERRUPTABLE POWER SUPPLY				JUNCTION BOX				FIBER OPTIC CABLE NO. 62.5/125, MMI2F SM12F			
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT				UNDERGROUND CONDUIT, GALVANIZED STEEL (UC)				FIBER OPTIC CABLE NO. 62.5/125, MMI2F SM24F			
TELEPHONE CONNECTION (P) POLE OR (G) GROUND MOUNT				TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE				FIBER OPTIC CABLE NO. 62.5/125, MMI2F SM24F			
STEEL MAST ARM ASSEMBLY AND POLE				COMMON TRENCH				GROUND ROD AT (C) CONTROLLER, (H) HANDHOLE, (P) POST, (M) MAST ARM, OR (S) SERVICE			
ALUMINUM MAST ARM ASSEMBLY AND POLE				COILABLE NONMETALLIC CONDUIT (EMPTY)				CONTROLLER CABINET AND FOUNDATION TO BE REMOVED			
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE				SYSTEM ITEM		S	S	STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED			
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH PTZ CAMERA				INTERSECTION ITEM		I	IP	ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED			
SIGNAL POST				REMOVE ITEM	R			STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE AND FOUNDATION TO BE REMOVED			
TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM				RELOCATE ITEM	RL			SIGNAL POST AND FOUNDATION TO BE REMOVED			
GUY WIRE				ABANDON ITEM	A			INTERSECTION & SAMPLING (SYSTEM) DETECTOR			
SIGNAL HEAD				12" (300mm) TRAFFIC SIGNAL SECTION				SAMPLING (SYSTEM) DETECTOR			
SIGNAL HEAD CONSTRUCTION STAGES (NUMBERS INDICATE THE CONSTRUCTION STAGE)				12" (300mm) RED WITH 8" (200mm) YELLOW AND GREEN TRAFFIC SIGNAL FACE				QUEUE DETECTOR			
SIGNAL HEAD WITH BACKPLATE				SIGNAL FACE				PREFORMED QUEUE DETECTOR			
SIGNAL HEAD OPTICALLY PROGRAMMED				SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD				PREFORMED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR			
FLASHER INSTALLATION (S DENOTES SOLAR POWER)				"RB" INDICATES REFLECTIVE BACKPLATE				PREFORMED SAMPLING (SYSTEM) DETECTOR			
PEDESTRIAN SIGNAL HEAD				12" (300mm) PEDESTRIAN SIGNAL HEAD WALK/DON'T WALK SYMBOL				<b>RAILROAD SYMBOLS</b>			
PEDESTRIAN PUSHBUTTON DETECTOR				12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, OUTLINED				EXISTING		PROPOSED	
ACCESSIBLE PEDESTRIAN PUSHBUTTON DETECTOR				12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, SOLID				RAILROAD CONTROL CABINET			
ILLUMINATED SIGN "NO LEFT TURN"				PEDESTRIAN SIGNAL HEAD, INTERNATIONAL SYMBOL, WITH COUNTDOWN TIMER				RAILROAD CANTILEVER MAST ARM			
ILLUMINATED SIGN "NO RIGHT TURN"				RADIO INTERCONNECT				FLASHING SIGNAL			
DETECTOR LOOP, TYPE 1				RADIO REPEATER				CROSSING GATE			
PREFORMED DETECTOR LOOP				DENOTES NUMBER OF CONDUCTORS, ELECTRIC CABLE NO. 14, UNLESS NOTED OTHERWISE, ALL DETECTOR LOOP CABLE TO BE SHIELDED				CROSSBUCK			
MICROWAVE VEHICLE SENSOR				GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)							
VIDEO DETECTION CAMERA											
VIDEO DETECTION ZONE											
PAN, TILT, ZOOM CAMERA											
WIRELESS DETECTOR SENSOR											
WIRELESS ACCESS POINT											

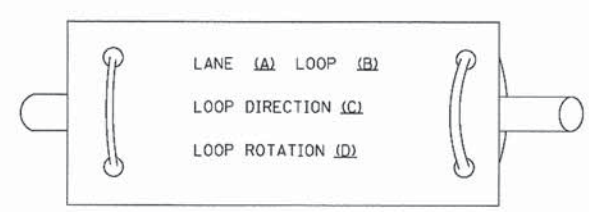
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 BY: \_\_\_\_\_  
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 NO. \_\_\_\_\_  
 PLAN  
 DATE: \_\_\_\_\_  
 BY: \_\_\_\_\_  
 CHECKED: \_\_\_\_\_  
 DATE: \_\_\_\_\_  
 ADD FILE NAME: \_\_\_\_\_  
 NO. \_\_\_\_\_  
**CHRISTOPHER B. BURKE** ENGINEERING LTD.  
 8575 West Higgins Road, Suite 800  
 Rosemont, Illinois 60018  
 (847) 823-0900

DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 SURVEYED: \_\_\_\_\_ CHECKED: \_\_\_\_\_  
 PLAN: \_\_\_\_\_ NOTE BOOK: \_\_\_\_\_  
 NO. \_\_\_\_\_  
**CHRISTOPHER B. BURKE** ENGINEERING LTD.  
 9575 West Higgins Road, Suite 600  
 Rosemont, Illinois 60018  
 (847) 822-0800  
 PROFILE: \_\_\_\_\_ CHECKED: \_\_\_\_\_  
 NOTE BOOK: \_\_\_\_\_  
 NO. \_\_\_\_\_

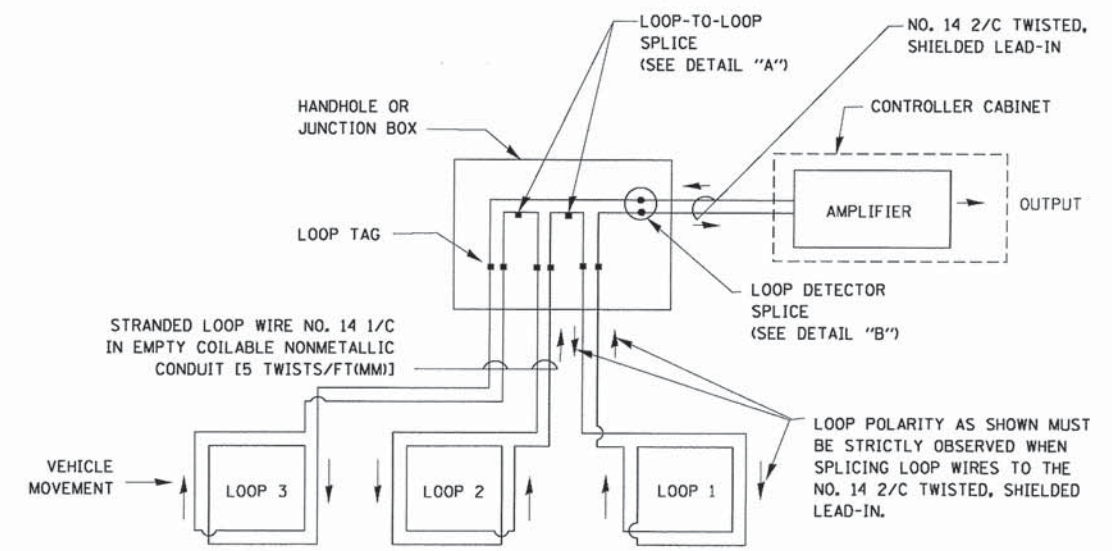
**LOOP DETECTOR NOTES**

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

**LOOP LEAD-IN CABLE TAG**

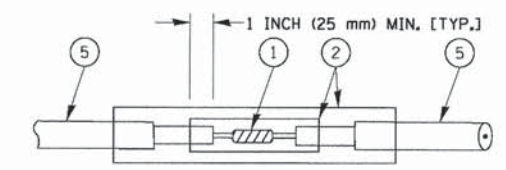


- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

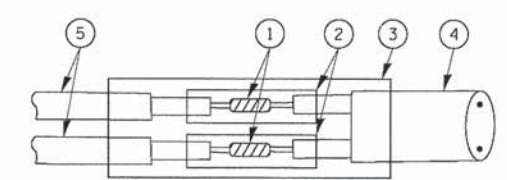


**DETECTOR LOOP WIRING SCHEMATIC**

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

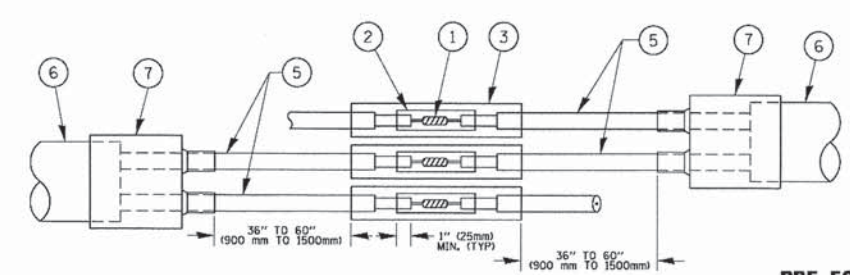


DETAIL "A"  
LOOP-TO-LOOP SPLICE

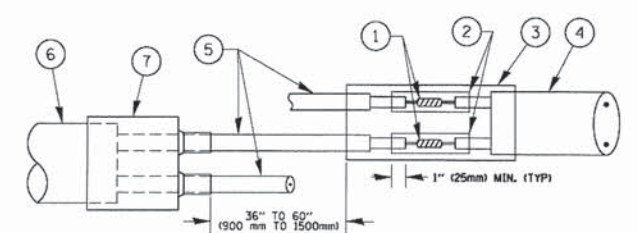


DETAIL "B"  
LOOP-TO-CONTROLLER SPLICE

**TYPE I LOOP**



DETAIL "A"  
LOOP-TO-LOOP SPLICE



DETAIL "B"  
LOOP-TO-CONTROLLER SPLICE

**PRE-FORMED LOOP**

**LOOP DETECTOR SPLICE**

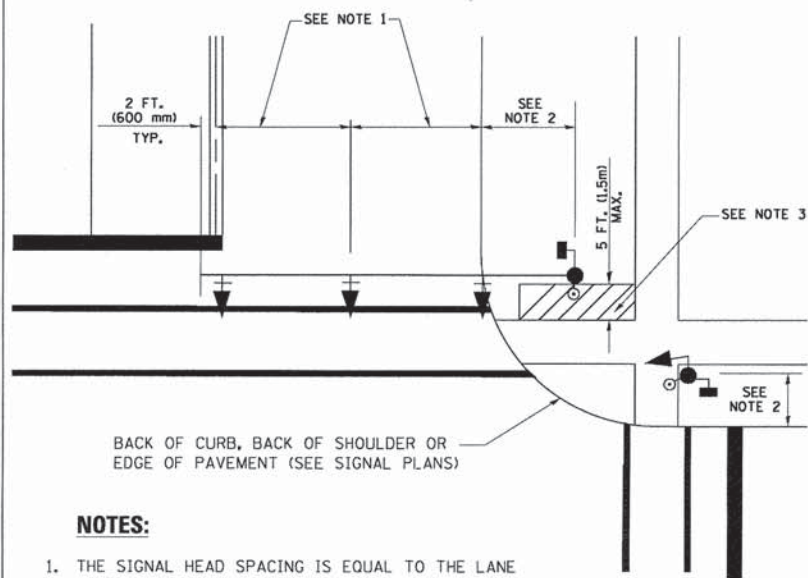
- 1 WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH. THE WESTERN UNION SPLICES SHALL BE STAGGERED.
- 2 WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.
- 3 WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGTH 6" (150 mm), UNDERWATER GRADE.
- 4 NO. 14 2/C TWISTED, SHIELDED CABLE.
- 5 LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.
- 6 PRE-FORMED LOOP
- 7 XL POLYOLEFIN 2 CONDUCTOR BREAKOUT SEALS. TYCO CBR-2 OR APPROVED EQUAL

FILE NAME =	USER NAME = footemj	DESIGNED - DAD	REVISED - DAG 1-1-14	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ct:\pw_work\p\p\dot\footem_j\d0128315\td09.dgn	DRAWN - BCK	REVISED -	14-00034-00-TL			COOK	45	39		
PLOT SCALE = 58,0000' / 1" =	CHECKED - DAD	REVISED -	<b>TS-05</b>			CONTRACT NO. 61C00				
PLOT DATE = 1/13/2014	DATE - 10-28-09	REVISED -	SCALE: NONE			SHEET NO. 2 OF 7 SHEETS STA. TO STA.				
						FED. ROAD DIST. NO. 1 [ILLINOIS] FED. AID PROJECT				

DATE: \_\_\_\_\_ BY: \_\_\_\_\_  
 PROFILE SURVEYED: \_\_\_\_\_ PLOTTED: \_\_\_\_\_  
 NOTE BOOK NO.: \_\_\_\_\_ DRAWN: \_\_\_\_\_  
 STRUCTURE INSTALLED: \_\_\_\_\_

CHRISTOPHER B. BURKE ENGINEERING LTD.  
 9575 West Higgins Road, Suite 600  
 Rosemont, Illinois 60018  
 (847) 823-0500

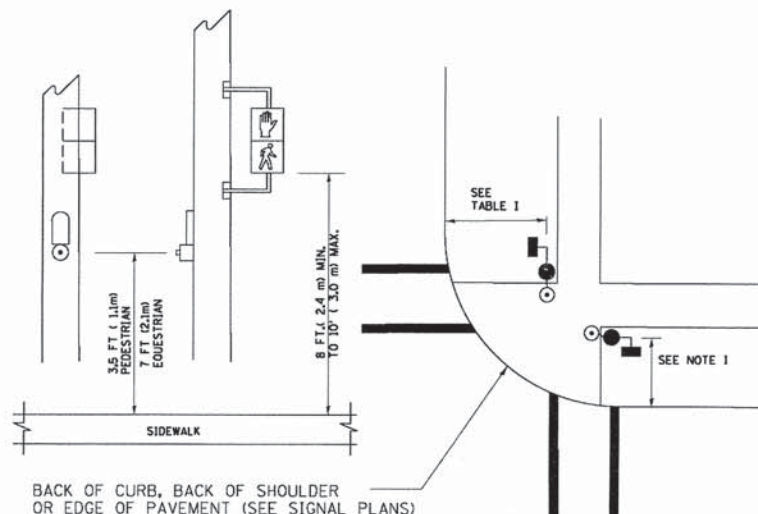
**TRAFFIC SIGNAL MAST ARM AND SIGNAL POST**  
**MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR**  
**FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN**  
**WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.**



**NOTES:**

1. THE SIGNAL HEAD SPACING IS EQUAL TO THE LANE WIDTH OR AS SHOWN ON THE TRAFFIC SIGNAL PLAN.
2. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
3. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE MAST ARM SHAFT OR THE SIGNAL POST.
4. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
5. THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."

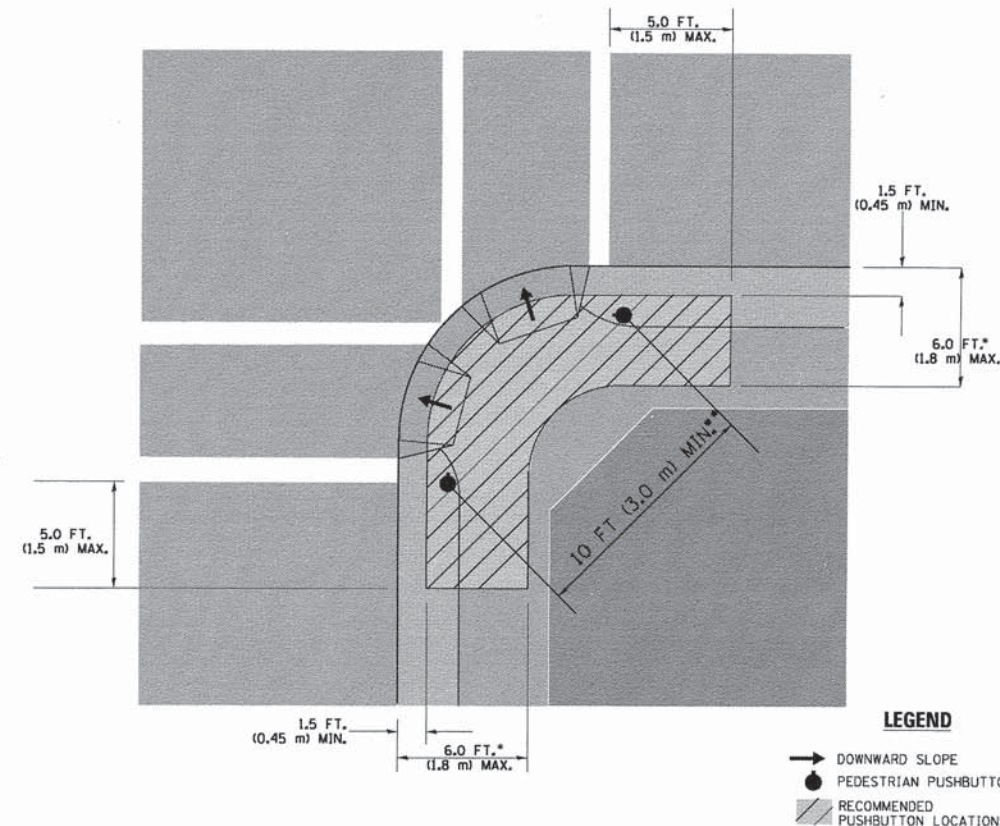
**PEDESTRIAN SIGNAL POST**  
**AND**  
**PEDESTRIAN PUSH BUTTON POST**



**NOTES:**

1. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
2. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE PEDESTRIAN SIGNAL POST OR THE PEDESTRIAN PUSH BUTTON POST.
3. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
4. THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."

**RECOMMENDED PUSHBUTTON LOCATIONS**



**LEGEND**

- DOWNWARD SLOPE
- PEDESTRIAN PUSHBUTTON
- ▨ RECOMMENDED PUSHBUTTON LOCATIONS

- WHERE THERE ARE CONSTRAINTS THAT MAKE IT IMPRACTICAL TO PLACE THE PEDESTRIAN PUSHBUTTON BETWEEN 1.5 FT (0.45 m) AND 6 FT (1.8 m) FROM THE EDGE OF THE CURB, SHOULDER, OR PAVEMENT, IT SHOULD NOT BE FURTHER THAN 10 FT (3 m) FROM THE EDGE OF CURB, SHOULDER, OR PAVEMENT.
- WHERE THERE ARE CONSTRAINTS ON A PARTICULAR CORNER THAT MAKE IT IMPRACTICAL TO PROVIDE THE 10 FT (3 m) SEPERATION BETWEEN THE TWO PEDESTRIAN PUSHBUTTONS, THE PUSHBUTTONS MAY BE PLACED CLOSER TOGETHER OR ON THE SAME POLE.

**NOTES:**

1. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 8 FT (2.4 m) OR MORE THAN 10 FT (3 m) ABOVE SIDEWALK LEVEL, AND SHALL BE POSITIONED AND ADJUSTED TO PROVIDE MAXIMUM VISIBILITY AT THE BEGINNING OF THE CONTROLLED CROSSWALK.
2. THE BOTTOM OF THE SIGNAL HOUSING (INCLUDING BRACKETS) OF A VEHICULAR SIGNAL FACE THAT IS NOT LOCATED OVER A HIGHWAY SHALL BE AT LEAST 8 FT (2.4 m) BUT NOT MORE THAN 19 FT (5.8 m) ABOVE THE SIDEWALK OR, IF THERE IS NO SIDEWALK, ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE ROADWAY.
3. THE BOTTOM OF THE SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARDS 877001, 877002, 877006, 877011 AND 877012 WITH A MINIMUM OF 16 FT (5.0 m) AND A MAXIMUM OF 18 FT. (5.5 m) FROM THE HIGHEST POINT OF PAVEMENT.
4. THE BOTTOM OF THE TEMPORARY SPAN WIRE MOUNTED SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARD 880001 WITH A MINIMUM OF 17 FT (5.18 m) FROM THE HIGHEST POINT OF PAVEMENT.
5. THE TOP OF THE SIGNAL HOUSING OF A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL NOT BE MORE THAN 25.6 FT (7.8 m) ABOVE THE PAVEMENT.

**TRAFFIC SIGNAL EQUIPMENT OFFSET**

TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MINIMUM DISTANCE FROM BACK OF CURB TO CENTERLINE OF FOUNDATION)	SHOULDER/NON-CURBED AREA (MINIMUM DISTANCE FROM EDGE OF PAVEMENT TO CENTERLINE OF FOUNDATION)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
TRAFFIC SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
PEDESTRIAN SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
PEDESTRIAN PUSHBUTTON POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
TEMPORARY WOOD POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
CONTROLLER CABINET	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3.
SERVICE INSTALLATION, GROUND MOUNT	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3.

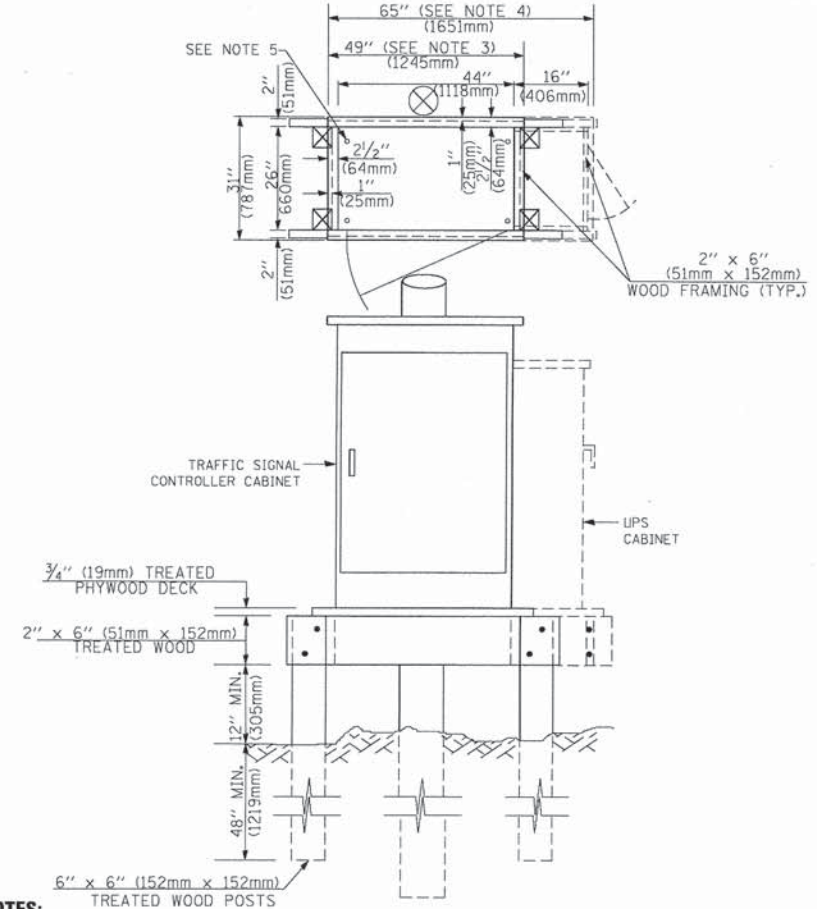
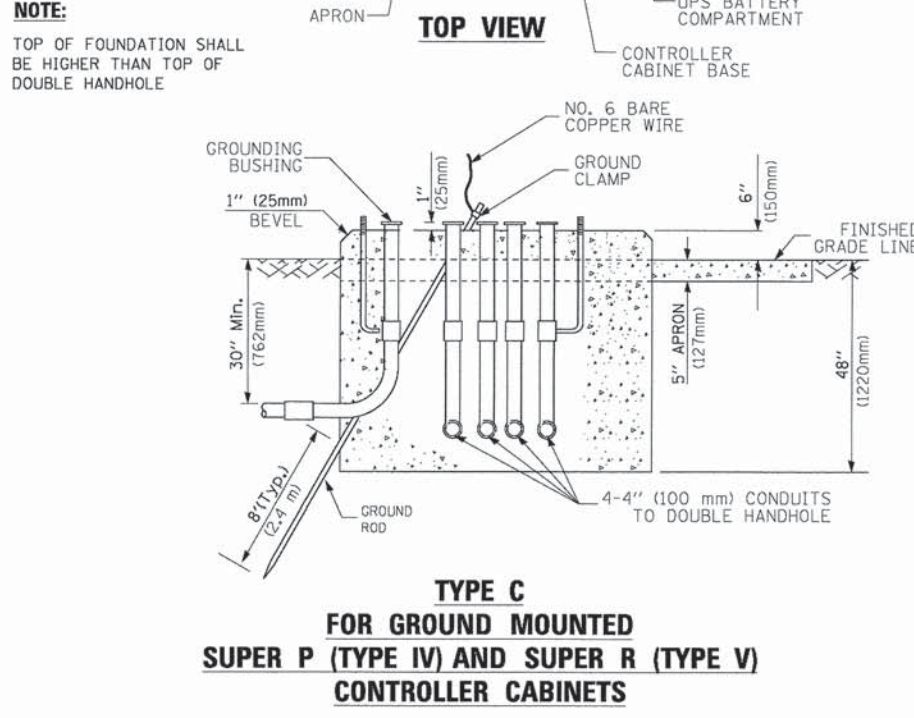
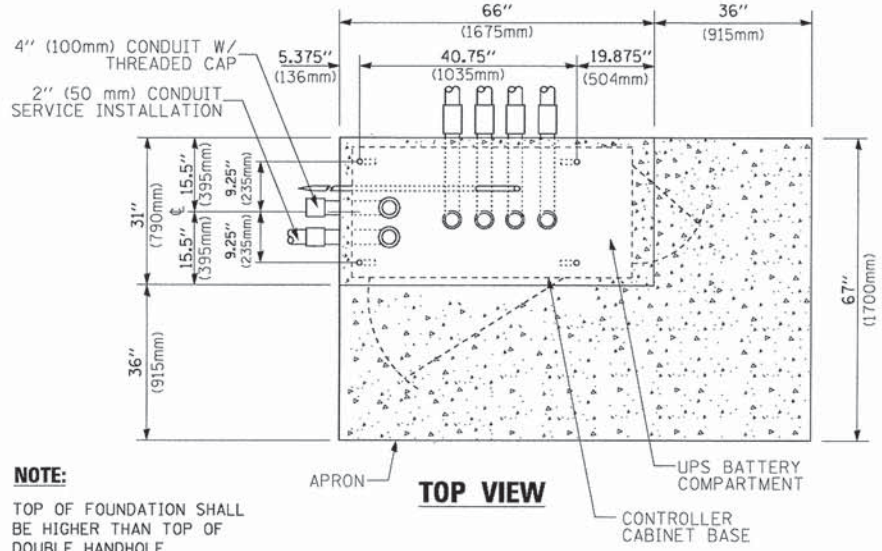
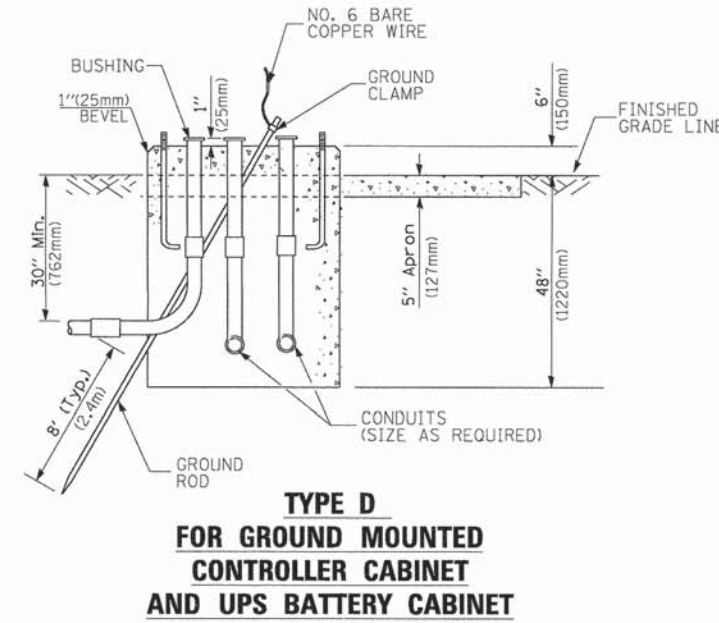
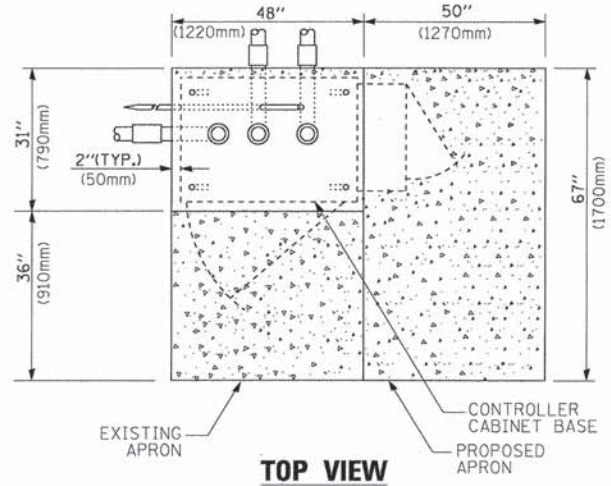
**NOTES:**

1. CONTACT THE "AREA TRAFFIC SIGNAL MAINTENANCE AND OPERATIONS ENGINEER" FOR ASSISTANCE IN LOCATING THE TRAFFIC SIGNAL EQUIPMENT WHEN THERE ARE CONFLICTS WITH DITCHES OR THE MINIMUM OFFSET DISTANCES CANNOT BE MET.
2. MINIMUM DISTANCE FROM THE BACK OF CURB TO THE ROADWAY SIDE OF THE FOUNDATION.
3. MINIMUM DISTANCE FROM THE EDGE OF PAVEMENT TO THE ROADWAY SIDE OF THE FOUNDATION.
4. ANY CHANGES TO THE OFFSETS OF THE FOUNDATIONS, FROM THE MINIMUM DISTANCES LISTED IN THE "TRAFFIC SIGNAL EQUIPMENT OFFSET" CHART AND THE TRAFFIC SIGNAL INSTALLATION PLAN, COULD EFFECT THE PLACEMENT OF THE SIGNAL HEADS, PEDESTRIAN SIGNAL HEADS AND THE PEDESTRIAN PUSHBUTTONS. THE SIGNAL HEAD PLACEMENT ON THE MAST ARMS SHALL REMAIN AS PER THE TRAFFIC SIGNAL INSTALLATION PLAN AND THE "TRAFFIC SIGNAL MAST ARM AND SIGNAL POST" DETAIL ABOVE. THE PROPOSED MAST ARM LENGTHS MAY NEED TO BE REVISED TO MEET THE ABOVE REQUIREMENTS. THE PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS MUST MEET THE REQUIREMENTS UNDER THE DETAILS ON THIS SHEET.





REVISIONS  
 NO. DATE BY  
 1 10/28/09 BCB  
 2 11/13/2014 BCB  
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- NOTES:**
- BASED ON CONTROLLER CABINET TYPE IV WITH BASE DIMENSIONS OF 26" x 44" (660mm x 1118mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
  - BASED ON UNINTERRUPTIBLE POWER SUPPLY CABINET WITH BASE DIMENSIONS OF 16" x 25" (406mm x 635mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
  - PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV.
  - PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV AND UNINTERRUPTIBLE POWER SUPPLY CABINET.
  - DRILLED HOLES THROUGH THE PLATFORM BASE TO MATCH THE CONTROLLER CABINET BOLT TEMPLATE. FASTEN THE CONTROLLER CABINET TO THE PLATFORM WITH CARRIAGE BOLTS, WASHERS AND NUTS.
  - FASTEN ALL SUPPORT WOOD FRAMING TO THE WOOD POSTS WITH 2 LAG SCREWS FOR EACH CONNECTION.

CABLE SLACK LENGTH	FEET	METER
HANDHOLE	6.5	2.0
DOUBLE HANDHOLE	13.0	4.0
SIGNAL POST	2.0	0.6
MAST ARM	2.0	0.6
CONTROLLER CABINET	1.5	0.5
FIBER OPTIC AT CABINET	13.0	4.0
ELECTRIC SERVICE AT (CABINET OR SERVICE LOCATION)	1.5	0.5
GROUND CABLE (SIGNAL POST, MAST ARM, CABINET)	1.5	0.5
GROUND CABLE (BETWEEN FRAME AND COVER)	5.0	1.6

VERTICAL CABLE LENGTH	FEET	METER
MAST ARM POLE (MAST ARM MOUNTED SIGNAL HEAD) (L = MAST ARM LENGTH - DISTANCE TO SIGNAL HEAD FROM END OF ARM)	20.0+L	6.0+L
BRACKET MOUNTED (MAST ARM POLE OR SIGNAL POLE)	13.0	4.0
PEDESTRIAN PUSH BUTTON	6.0	2.0
SERVICE INSTALLATION POLE MOUNT TO SERVICE DROP	13.5	4.1
SERVICE INSTALLATION POLE MOUNT TO GROUND	13.5	4.1
SERVICE INSTALLATION GROUND MOUNT	6.0	2.0
FOUNDATION (SIGNAL POST, MAST ARM POLE, CONTROLLER CABINET, SERVICE-GROUND MOUNT)	3.0	1.0

FOUNDATION	DEPTH
TYPE A - Signal Post	4'-0" (1.2m)
TYPE C - CONTROLLER W/ UPS	4'-0" (1.2m)
TYPE D - CONTROLLER	4'-0" (1.2m)
SERVICE INSTALLATION, GROUND MOUNT, TYPE A - SQUARE	4'-0" (1.2m)

Mast Arm Length	① Foundation Depth	Foundation Diameter	Spiral Diameter	Quantity of Rebars	Size of Rebars
Less than 30' (9.1 m)	10'-0" (3.0 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 30' (9.1 m) and less than 40' (12.2 m)	13'-6" (4.1 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 40' (12.2 m) and less than 50' (15.2 m)	11'-0" (3.4 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 50' (15.2 m) and up to 55' (16.8 m)	13'-0" (4.0 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 55' (16.8 m) and up to 65' (19.8 m)	15'-0" (4.6 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 65' (19.8 m) and less than 75' (22.9 m)	21'-0" (6.4 m)	42" (1060mm)	36" (900mm)	16	8(25)
Greater than or equal to 75' (22.9 m)	25'-0" (7.6 m)	42" (1060mm)	36" (900mm)	16	8(25)

- NOTES:**
- These foundation depths are for sites which have cohesive soils (clayey silt, sandy clay, etc.) along the length of the shaft, with an average Unconfined Compressive Strength (QU) > 1.0 tsf (100 kpa). This strength shall be verified by boring data prior to construction or with testing by the Engineer during foundation drilling. The Bureau of Bridges & Structures should be contacted for a revised design if other conditions are encountered.
  - Combination mast arm assemblies under 55 feet (16.8 m) shall use 36" (900 mm) diameter foundations.
  - Combination mast arm assemblies under 56 feet (16.8 m) through 75 feet (22.9 m) shall use 42" (1060 mm) diameter foundations.
  - For mast arm assemblies with dual arms refer to state standard 878001.

**DEPTH OF MAST ARM FOUNDATIONS, TYPE E**

FILE NAME =	USER NAME = f0atemj	DESIGNED - DAC	REVISED - DAC 1-1-14
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PLOT DATE = 1/13/2014		DATE - 10-28-09	REVISED -

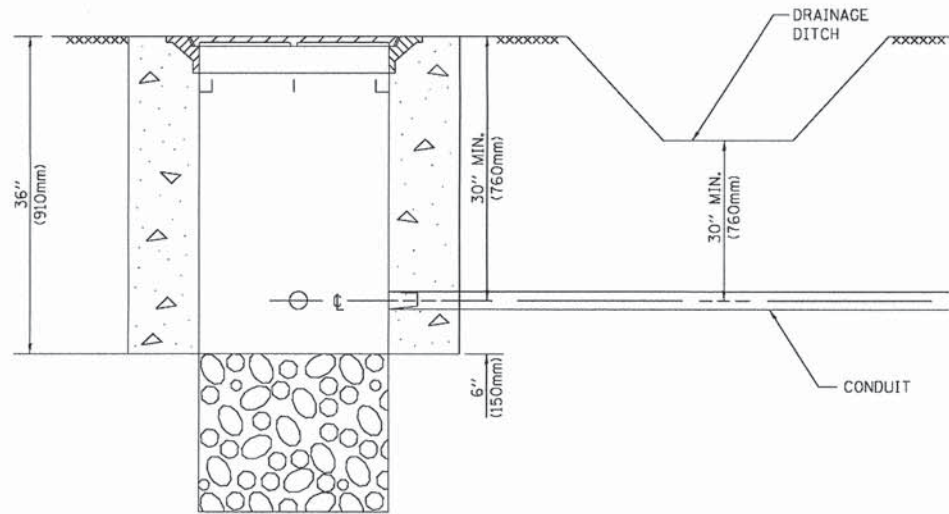
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE  
STANDARD TRAFFIC SIGNAL DESIGN DETAILS  
SCALE: NONE SHEET NO. 5 OF 7 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	14-00034-00-TL	COOK	45	42
TS-05		CONTRACT NO. 61C00		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

PROFILE BY: DATE:   
 CHECKED:   
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 STRUCTURE NOTATION:   
 DATE:   
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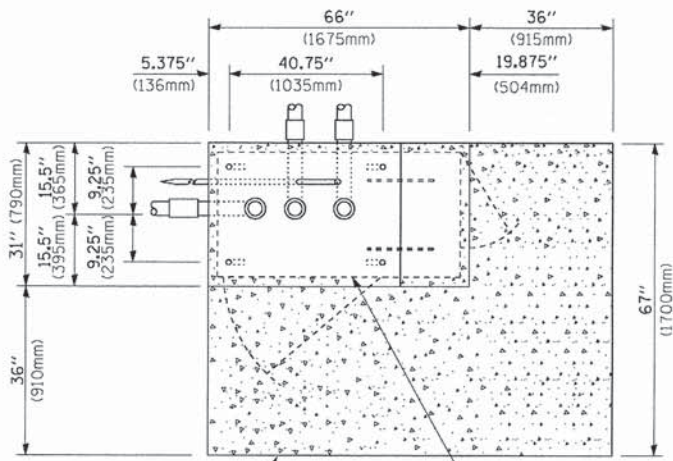
CHRISTOPHER B. BURKE ENGINEERING LTD.   
 Suite 600   
 Rosemont, Illinois 60018   
 (847) 823-0000



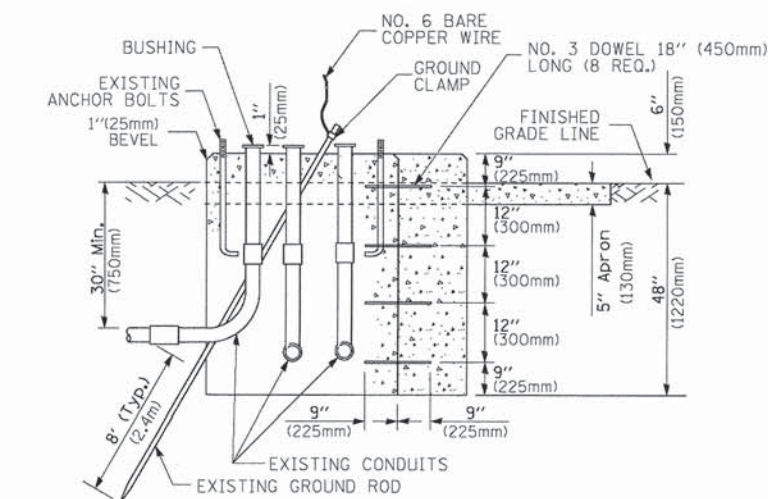
**NOTES:**

1. CONDUIT DEPTH SHALL BE A MINIMUM OF 30" (760mm) BELOW THE BOTTOM OF THE DRAINAGE DITCH OR ANY SLOPING GROUND
2. THE MINIMUM CONDUIT DEPTH APPLIES TO ALL CONDUIT PLACED UNDER ROADWAY PAVEMENT, MULTI-USE PATHS, SIDEWALKS AND SOIL SURFACES.
3. THE MINIMUM CONDUIT DEPTH APPLIES TO ALL HANDHOLES, HEAVY DUTY HANDHOLES AND DOUBLE HANDHOLES.

**HANDHOLE WITH MINIMUM CONDUIT DEPTH**  
(NOT TO SCALE)



**TOP VIEW**  
(NOT TO SCALE)

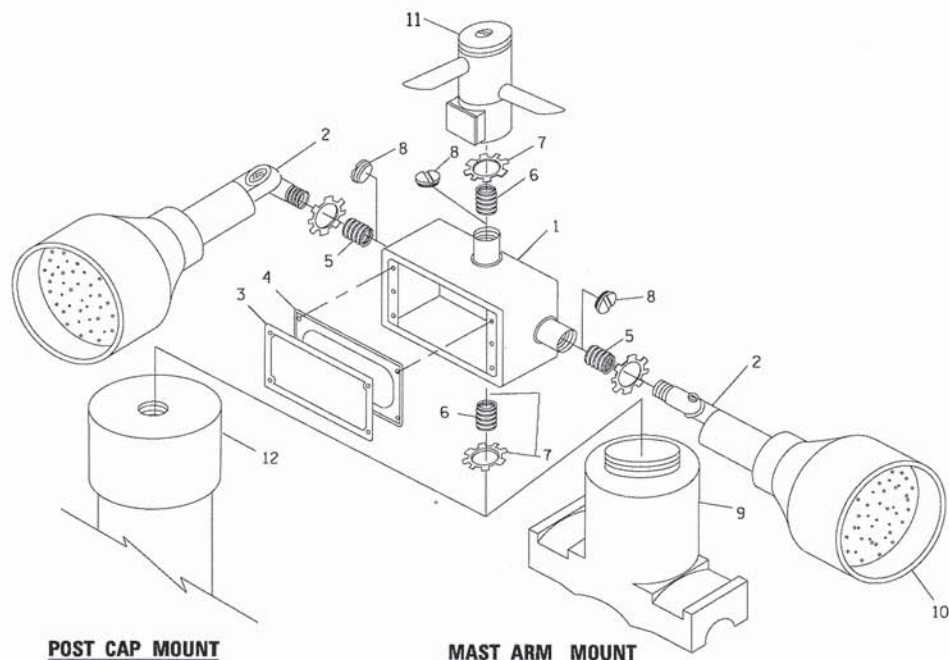


**MODIFY EXISTING TYPE "D" FOUNDATION TO TYPE "C" FOUNDATION**  
(NOT TO SCALE)

ITEM NO.	IDENTIFICATION
1	OUTLET BOX - GALV. 21 CU.IN. (0.000344 CU-M)
2	LAMP HOLDER AND COVER
3	OUTLET BOX COVER
4	RUBBER COVER GASKET
5	REDUCING BUSHING
6	3/4" (19 mm) CLOSE NIPPLE
7	3/4" (19 mm) LOCKNUT
8	3/4" (19 mm) HOLE PLUG
9	SADDLE BRACKET - GALV.
10	6 WATT PAR 38 LED FLOOD LAMP
11	DETECTOR UNIT
12	POST CAP [18 FT. (5.4 m) POST MIN.]

**NOTES:**

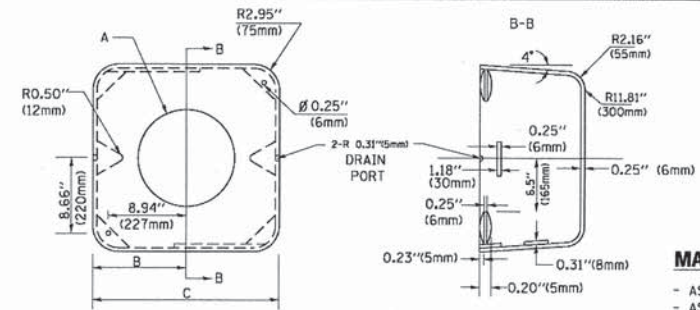
1. ALL ELECTRICAL ITEMS, EXCEPT ITEMS #2 AND #11 SHALL BE ALUMINUM OR GALVANIZED
2. ITEM #1- OZ/GEDNEY FSX-1-50 OR EQUIVALENT  
ITEM #2- MULBERRY CON-0-SHADE LAMP SHIELD OR EQUIVALENT  
ITEM #9- "BAND-IT" SADDLE BRACKET OR EQUIVALENT
3. WHEN POST MOUNTING IS SPECIFIED, ITEM #9 SHALL NOT BE REQUIRED. THE DETECTION UNIT SHALL BE MOUNTED DIRECTLY ON TOP OF THE CAP BY DRILLING AND TAPPING A 3/4" (19 mm) HOLE WITH PIPE THREADS. THE POST CAP SHALL EITHER BE SCREWED TO THE TOP OF THE POST OR A MINIMUM OF 3 TIGHTENING SCREWS SHALL BE REQUIRED ON EACH CAP.



**POST CAP MOUNT**

**MAST ARM MOUNT**

**EMERGENCY VEHICLE DETECTOR WITH CONFIRMATION BEACON MOUNTING DETAIL**



**MATERIAL:**  
 - ASTM A36 STEEL  
 - ASTM A-123 HOT DIPPED GALVANIZED

A	B	C	HEIGHT	WEIGHT
VARIES	9.5" (241mm)	19" (483mm)	7" (178mm) - 12" (300mm)	53 lbs (24kg)
VARIES	10.75" (273mm)	21.5" (546mm)	7" (178mm) - 12" (300mm)	68 lbs (31 kg)
VARIES	13.0" (330mm)	26" (660mm)	7" (178mm) - 12" (300mm)	81 lbs (37 kg)
VARIES	18.5" (470mm)	37" (940mm)	7" (178mm) - 12" (300mm)	126 lbs (57 kg)

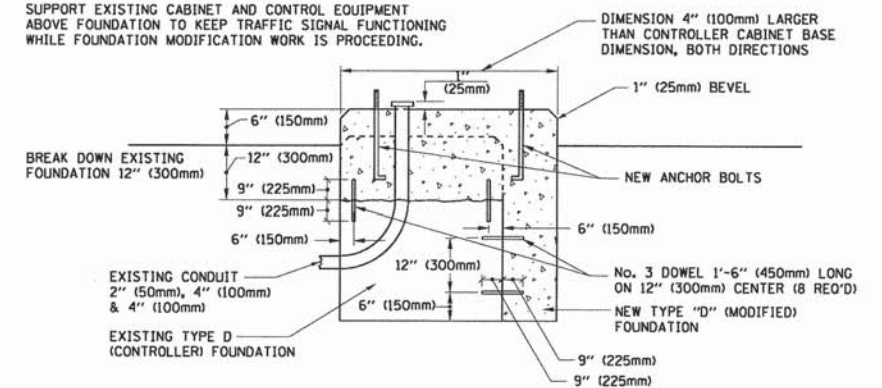
**SHROUD**

**NOTES:**

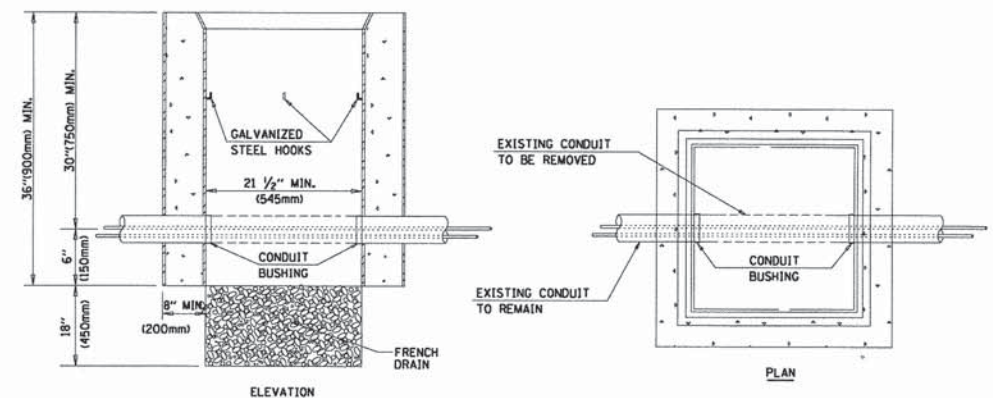
1. DIMENSION "A" IS EQUAL TO THE DIAMETER OF THE MAST ARM POLE AT THE TOP OF THE SHROUD. THE SHROUD SHALL BE TIGHT TO THE MAST ARM POLE.
2. THE SUPPLIER SHALL VERIFY THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
3. THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST ARM POLE BASE.

**NOTE:**

SUPPORT EXISTING CABINET AND CONTROL EQUIPMENT ABOVE FOUNDATION TO KEEP TRAFFIC SIGNAL FUNCTIONING WHILE FOUNDATION MODIFICATION WORK IS PROCEEDING.



**MODIFY EXISTING TYPE "D" FOUNDATION**



**NOTES:**

1. HANDHOLE CONSTRUCTED PER STATE STANDARD 814001.
2. REMOVAL OF THE EXISTING CONDUIT FROM THE HANDHOLE AND THE INSTALLATION OF THE CONDUIT BUSHINGS SHALL BE INCLUDED WITH THE COST OF THE HANDHOLE.

**HANDHOLE TO INTERCEPT EXISTING CONDUIT**

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	PLOT DATE = 1/13/2014	DATE - 10-28-09	REVISED -

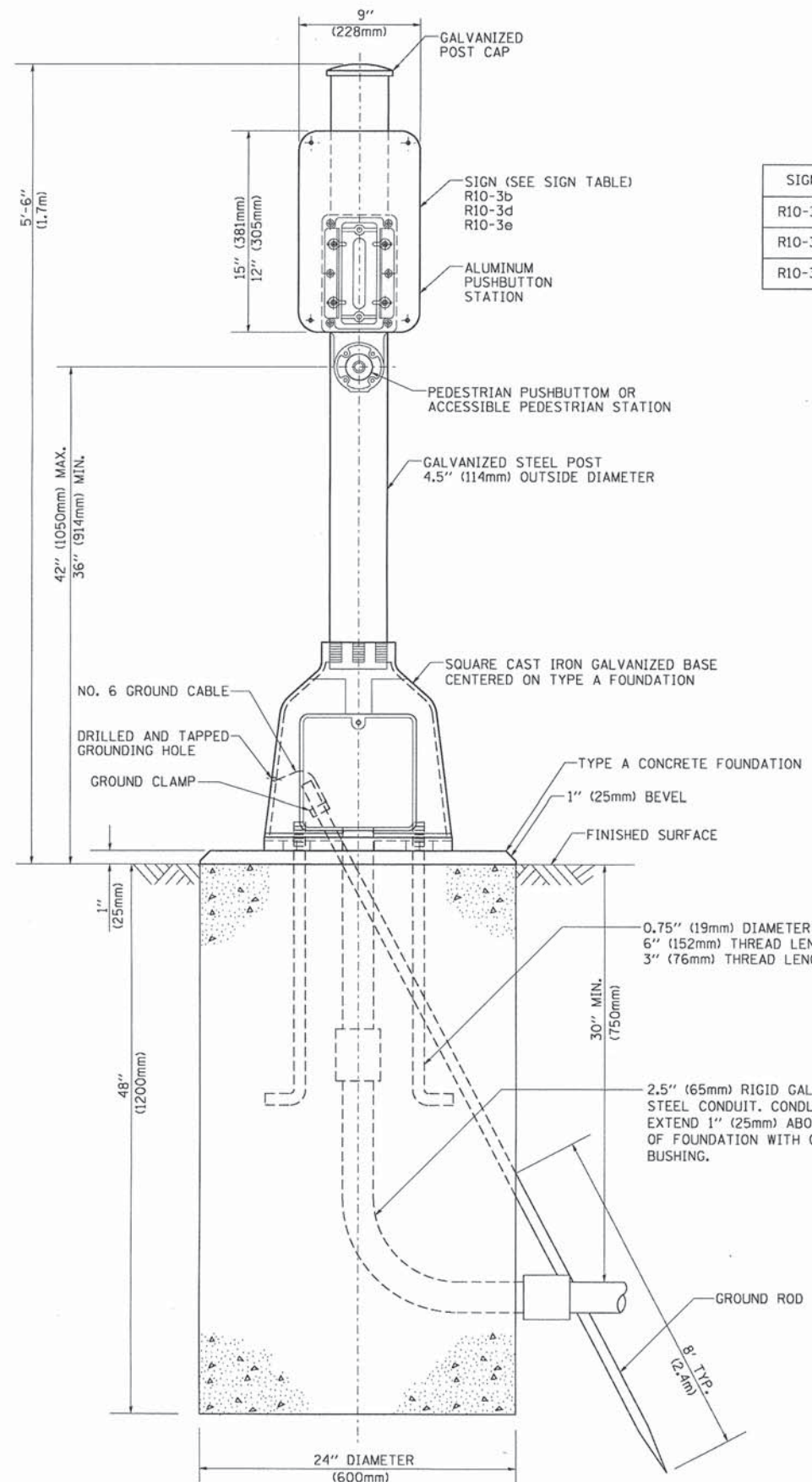
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

DISTRICT ONE  
 STANDARD TRAFFIC SIGNAL DESIGN DETAILS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	14-00034-00-TL	COOK	45	43
TS-05			CONTRACT NO. 61C00	
FED. ROAD DIST. NO. 1 [ILLINOIS] FED. AID PROJECT				

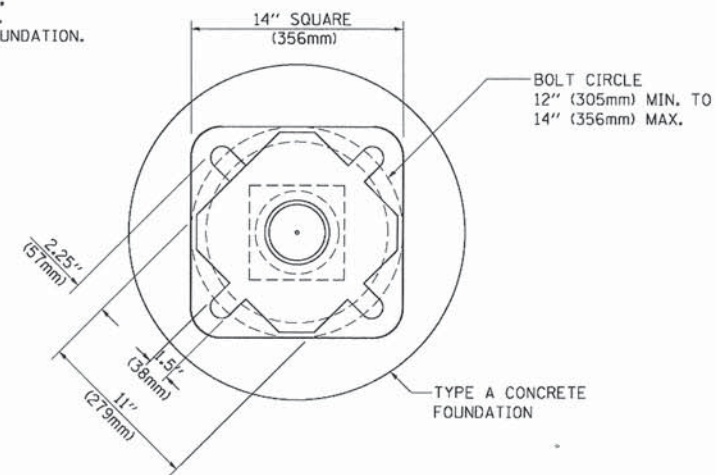
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PROFILE: DESIGNED BY: DATE: CHECKED BY: DATE: STRUCTURE NOTATION: CTRG  
 NOTE BOOK NO.: PLOTTED BY: DATE: CHECKED BY: DATE: STRUCTURE NOTATION: CTRG  
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**CHRISTOPHER B. BURKE** ENGINEERING LTD.  
 8575 West Higgins Road, Suite 600  
 Rosemont, Illinois 60018  
 (847) 823-0500



**SIGN TABLE**

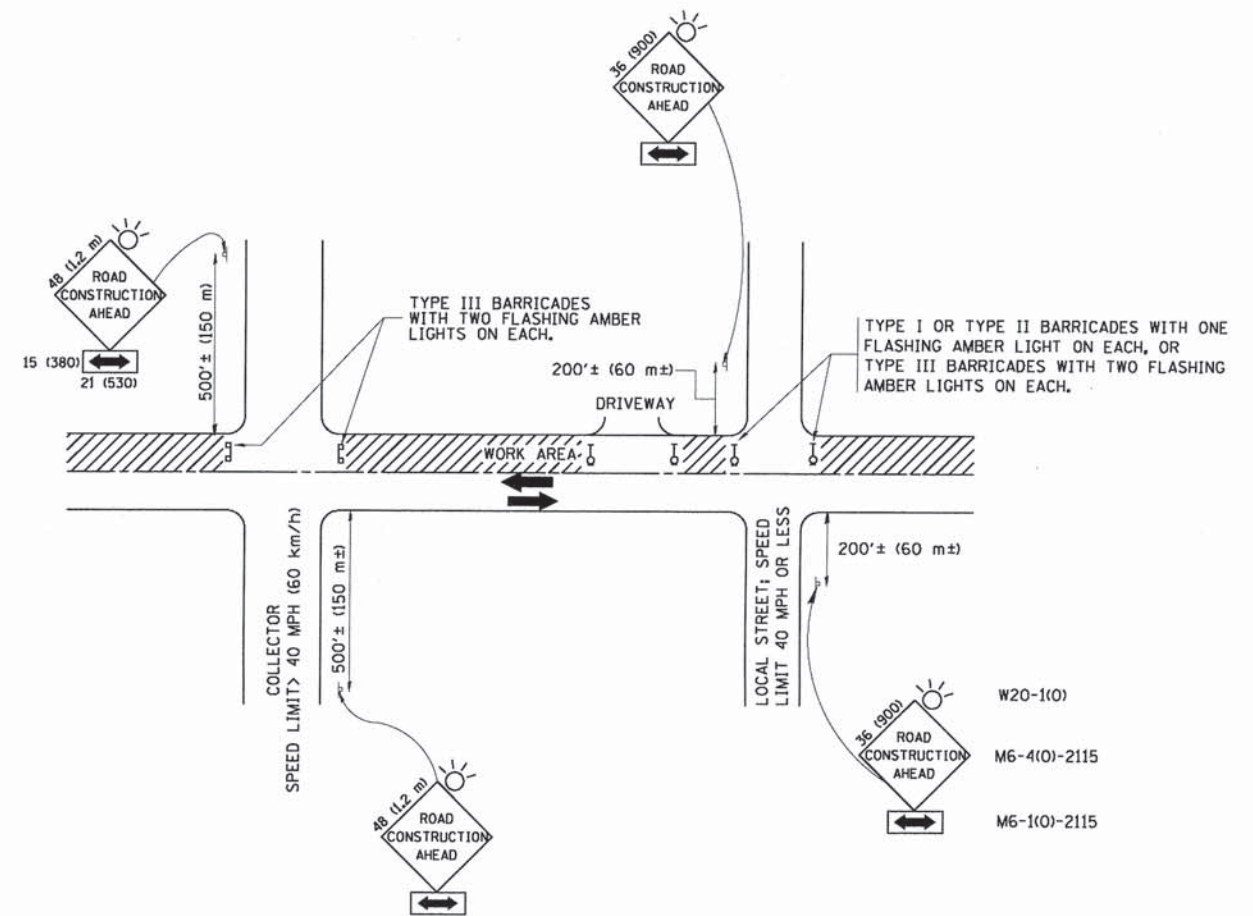
SIGN	DIMENSIONS
R10-3b	9" (228mm) X 12" (305mm)
R10-3d	9" (228mm) X 12" (305mm)
R10-3e	9" (228mm) X 15" (381mm)



**BOLT PATTERN**

**PEDESTRIAN PUSH BUTTON POST, TYPE A**

FILE NAME =	USER NAME = footemj	DESIGNED - DAG	REVISED - DAG 1-1-14	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS</b>			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ct:\pwork\p\dat\footemj\d2128315\ts25.dgn		DRAWN - GND	REVISED -		SCALE: NONE	SHEET NO. 7 OF 7 SHEETS	STA.	TO STA.	14-00034-00-TL	COOK	45	44
PLOT SCALE = 50.0000' / in.		CHECKED - DAD	REVISED -		<b>TS-05</b>			<b>CONTRACT NO. 61C00</b>				
PLOT DATE = 1/13/2014		DATE - 10/1/2012	REVISED -		FED. ROAD DIST. NO. 1 [ILLINOIS] FED. AID PROJECT							



TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

NOTES:

- A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS
  - 1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
    - a) ONE ROAD CONSTRUCTION AHEAD SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
    - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
  - 2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
    - a) ONE ROAD CONSTRUCTION AHEAD SIGN 48 x 48 (1,2 m x 1,2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
    - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
- 3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).
- B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:
  - USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.
- C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.
- D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

FILE NAME = W:\datastd\22x34\sc18.dgn	USER NAME = geglennob	DESIGNED - LHA	REVISED - J. OBERLE 10-18-95
	PLOT SCALE = 50,000' / IN.	DRAWN -	REVISED - A. HOUSEH 03-06-96
	PLOT DATE = 1/4/2008	CHECKED -	REVISED - A. HOUSEH 10-15-96
		DATE - 06-89	REVISED - T. RAMMACHER 01-06-00

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL AND PROTECTION FOR  
SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	14-00034-00-TL	COOK	45	45
TC-10			CONTRACT NO.	
FED. ROAD DIST. NO. 1 (ILLINOIS) FED. AID PROJECT				