

1-17-14 LETTING ITEM 017

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

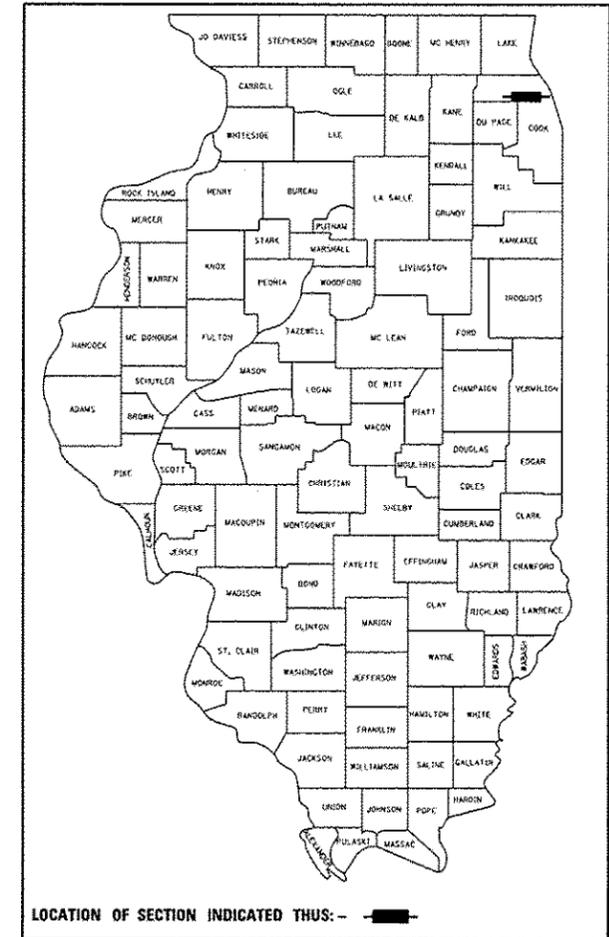
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2013-055TS	COOK	73	1

FOR INDEX OF SHEETS, SEE SHEET NO. 2

**PROPOSED  
HIGHWAY PLANS**

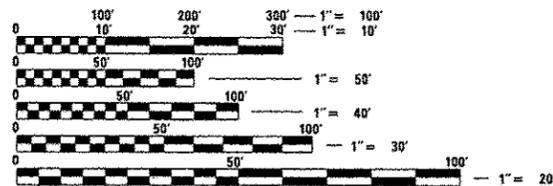
**VARIOUS LOCATIONS IN NORTH COOK COUNTY  
LIGHT EMITTING DIODE (LED) INSTALLATION  
CONTRACT #5**

**SECTION 2013-055TS  
COOK COUNTY  
C-91-021-14**



**HIGHWAY STANDARD**

- 701001-02 OFF-ROAD OPERATIONS, 2L, 2W, MORE THAN 15' (4.5 m) AWAY
- 701006-05 OFF-ROAD OPERATIONS, 2L, 2W, 15' (4.5m) TO 24" (600 mm) FROM PAVEMENT EDGE
- 701701-09 URBAN LANE CLOSURE, MULTILANE INTERSECTION
- 701901-03 TRAFFIC CONTROL DEVICES
- 720001-01 SIGN PANEL MOUNTING DETAILS
- 720006-04 SIGN PANEL ERECTION DETAIL
- 857001-01 STANDARD PHASE DESIGNATION DIAGRAMS AND PHASE SEQUENCES
- 862001-01 UNINTERRUPTABLE POWER SUPPLY
- 880006-01 TRAFFIC SIGNAL MOUNTING DETAILS

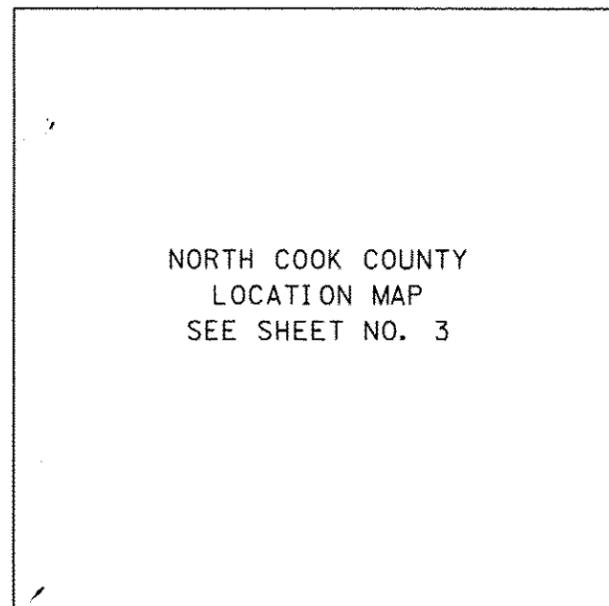


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

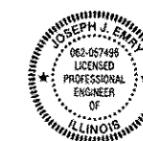
J.U.L.I.E.  
JOINT UTILITY LOCATING INFORMATION FOR EXCAVATORS  
1-800-892-0123  
OR 811

PROJECT ENGINEER: STEVEN NGUYEN (847) 705-4184  
PROJECT MANAGER: SUDUD MAHMOUD (847) 705-4420

CONTRACT NO. 60X16



LOCATION MAP



SIGNED *Joseph Emry*  
JOSEPH EMBRY, D.E. IL LIC. NO. 062-057496  
EXPIRES 11-30-2013  
DATE 10/10/13

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

SUBMITTED Oct 11 2013  
*John Furthman*  
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

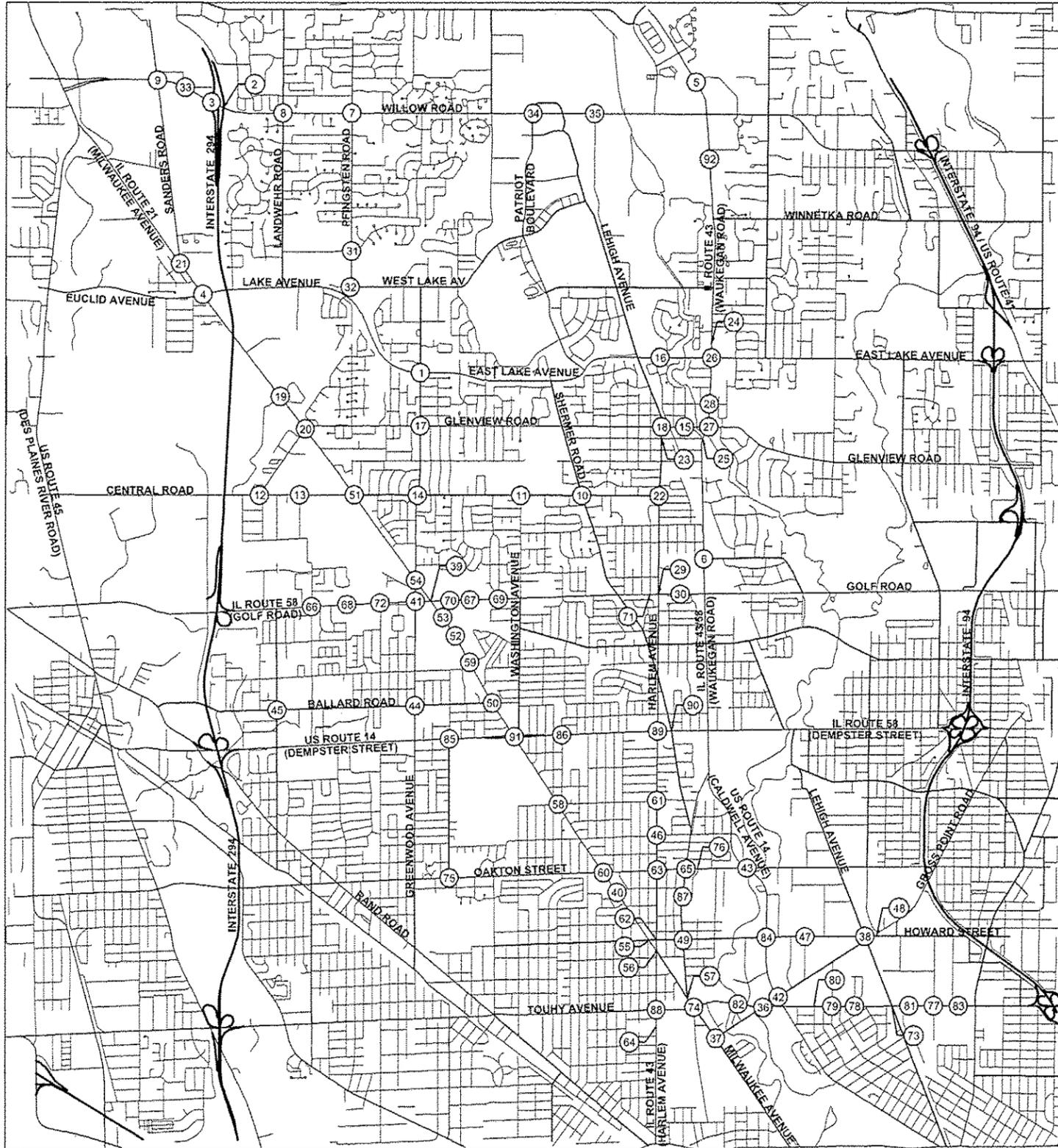
Dec 6 2013  
*John D. Baranella*, P.E.  
actg ENGINEER OF DESIGN AND ENVIRONMENT

Dec 6 2013  
*Omer Osman*, P.E.  
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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OF THE STATE OF ILLINOIS**

PLANS PREPARED BY:  
**CIVILTECH**  
450 E. Devon Ave, Suite 300 - Itasca, Illinois 60143  
Tel: 630.773.3900 - Fax: 630.773.3975  
www.civiltechinc.com





LOCATION NUMBER	TS #	INTERSECTION	
1	5235	GREENWOOD AVENUE AT EAST LAKE AVENUE	
2	140	I-294 EAST RAMP AT WILLOW ROAD	DELETED
3	145	I-294 WEST RAMP AT WILLOW ROAD	DELETED
4	2050	IL ROUTE 21 (MILWAUKEE AVENUE) AT EUCLID AVENUE / LAKE AVENUE	
5	10535	IL ROUTE 43 (WAUKEGAN ROAD) AT KRAFT FOOD/THREE LAKES	DELETED
6	21855	IL ROUTE 43 (WAUKEGAN ROAD) AT OVERLOOK DR/KRAFT FOOD ENT	DELETED
7	5655	PFINGSTEN ROAD AT WILLOW ROAD	DELETED
8	5920	WILLOW ROAD AT LANDWEHR ROAD	DELETED
9	5925	WILLOW ROAD AT SANDERS ROAD	DELETED
10	10925	CENTRAL ROAD AT SHERMER ROAD	DELETED
11	10885	CENTRAL ROAD AT WASHINGTON ROAD	DELETED
12	4742	CENTRAL ROAD AT DEARLOVE ROAD	
13	4740	CENTRAL ROAD AT DEE ROAD	
14	4745	CENTRAL ROAD AT GREENWOOD AVENUE	
15	10890	CHURCH STREET AT GLENVIEW ROAD	DELETED
16	10895	EAST LAKE AVENUE AT SCOTT FORESMAN ROAD	DELETED
17	5135	GLENVIEW ROAD AT GREENWOOD AVENUE	DELETED
18	10930	HARLEM AVENUE/LEHIGH AVENUE AT GLENVIEW ROAD	DELETED
19	2055	IL ROUTE 21 (MILWAUKEE AVENUE) AT CASTILLIAN COURT / ZENITH DRIVE	
20	2010	IL ROUTE 21 (MILWAUKEE AVENUE) AT DEARLOVE ROAD/ GLENVIEW ROAD	
21	2045	IL ROUTE 21 (MILWAUKEE AVENUE) AT SANDERS ROAD	
22	10600	HARLEM AVENUE AT CENTRAL ROAD	DELETED
23	10932	HARLEM AVENUE AT DEWES STREET	DELETED
24	10900	IL ROUTE 43 (WAUKEGAN ROAD) AT CARILLON SQUARE	
25	10880	IL ROUTE 43 (WAUKEGAN ROAD) AT DEWES STREET	
26	2300	IL ROUTE 43 (WAUKEGAN ROAD) AT EAST LAKE AVENUE	
27	10905	IL ROUTE 43 (WAUKEGAN ROAD) AT GLENVIEW ROAD	
28	10920	IL ROUTE 43 (WAUKEGAN ROAD) AT GROVE AVENUE	
29	2780	IL ROUTE 58 (GOLF ROAD) AT HARLEM AVENUE	
30	2800	IL ROUTE 58 (GOLF ROAD) AT KRAFT FOODS	
31	21600	PFINGSTEN ROAD AT GLENLAKE DRIVE/ GLENBROOK HOSPITAL	
32	11305	PFINGSTEN ROAD AT WEST LAKE AVENUE	DELETED
33	5927	WILLOW ROAD AT WATERVIEW DRIVE/PROTECTION PARKWAY	DELETED
34	5932	WILLOW ROAD AT PATRIOT BOULEVARD	
35	5931	WILLOW ROAD AT RAVINE WAY	
36	5260	GROSS POINT ROAD/ HARTS ROAD AT TOUHY AVENUE	
37	5285	GROSS POINT ROAD/HARTS ROAD AT MILWAUKEE AVENUE	DELETED
38	5335	HOWARD STREET AT LEHIGH AVENUE	DELETED
39	1995	IL ROUTE 21 (MILWAUKEE AVENUE) AT IL ROUTE 58 (GOLF ROAD)	
40	2035	IL ROUTE 21 (MILWAUKEE AVENUE) AT OAK MILL MALL	DELETED
41	2775	IL ROUTE 58 (GOLF ROAD) AT GREENWOOD AVENUE	DELETED
42	1215	US ROUTE 14 (CALDWELL AVENUE) AT GROSS POINT ROAD	
43	1260	US ROUTE 14 (CALDWELL AVENUE) AT OAKTON STREET	DELETED
44	4150	GREENWOOD AVENUE AT BALLARD ROAD	
45	4155	POTTER ROAD AT BALLARD ROAD	DELETED
46	11165	HARLEM AVENUE AT MONROE STREET/ CLEVELAND STREET	
47	11265	HOWARD STREET AT CRONAME ROAD	DELETED
48	5330	HOWARD STREET AT GROSS POINT ROAD/ MENARD AVENUE	
49	11260	HOWARD STREET AT WAUKEGAN ROAD	
50	2000	IL ROUTE 21 (MILWAUKEE AVENUE) AT BALLARD ROAD	
51	2005	IL ROUTE 21 (MILWAUKEE AVENUE) AT CENTRAL ROAD	DELETED
52	2060	IL ROUTE 21 (MILWAUKEE AVENUE) AT GOLF MILL CENTER ENTRANCE	
53	2065	IL ROUTE 21 (MILWAUKEE AVENUE) AT GOLF MILL NORTH ENTRANCE	
54	2015	IL ROUTE 21 (MILWAUKEE AVENUE) AT GREENWOOD ROAD	
55	2020	IL ROUTE 21 (MILWAUKEE AVENUE) AT HOWARD STREET	DELETED
56	1990	IL ROUTE 21 (MILWAUKEE AVENUE) AT IL ROUTE 43 (HARLEM AVENUE)	DELETED
57	5495	MILWAUKEE AVENUE AT WAUKEGAN ROAD	
58	2025	IL ROUTE 21 (MILWAUKEE AVENUE) AT MAIN STREET	DELETED
59	2030	IL ROUTE 21 (MILWAUKEE AVENUE) AT MARYLAND STREET / CHURCH STREET	
60	2040	IL ROUTE 21 (MILWAUKEE AVENUE) AT OAKTON STREET	DELETED



USER NAME = jrt  
 PLOT SCALE = 5000.0000' / in.  
 PLOT DATE = 12/2/2013

DESIGNED - BRD  
 DRAWN - JRT  
 CHECKED - JJE  
 DATE - 12/02/2013

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

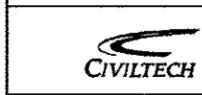
LOCATION MAP

NO SCALE | SHEET NO. 1 OF 2 SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2013-056TS	COOK	73	3
ILLINOIS FED. AID PROJECT			CONTRACT NO. 60X16	



SUMMARY OF QUANTITIES HEADING LEGEND																
COLUMN NUMBER	TS #	INTERSECTION	FUNDING PARTICIPATION													
			STATE	GLENVIEW	NILES	MORTON GROVE	MAINE TWP.	ITW	700 GOLF RD. LLC	MONTE CARLO PLAZA 1, LLC	MILWAUKEE GOLF MILL S.C.	INLAND COMM. PROP. MGMT.	THE PARK AT GOLF MILL	IMPERIAL REALTY	REGENCY CENTERS	DDR CORP
1	5235	GREENWOOD AV. AT EAST LAKE AV.	100%													
1	2050	IL ROUTE 21 (MILWAUKEE AV.) AT EUCLID AV./LAKE AV.	100%													
1	4742	CENTRAL RD. AT DEARLOVE RD.	100%													
3	4740	CENTRAL RD. AT DEE RD.	95%					5%								
1	4745	CENTRAL RD. AT GREENWOOD AV.	100%													
2	2055	IL ROUTE 21 (MILWAUKEE AV.) AT CASTILLIAN CT./ZENITH DR.	95%	5%												
4	2010	IL ROUTE 21 (MILWAUKEE AV.) AT DEARLOVE RD./GLENVIEW RD.	97.5%	2.5%												
5	2045	IL ROUTE 21 (MILWAUKEE AV.) AT SANDERS RD.	97.5%							2.5%						
2	10900	IL ROUTE 43 (WALKEGAN RD.) AT CARILLON SQUARE	95%	5%												
2	10890	IL ROUTE 43 (WALKEGAN RD.) AT DEWES ST.	95%	5%												
1	2300	IL ROUTE 43 (WALKEGAN RD.) AT EAST LAKE AV.	100%													
4	10905	IL ROUTE 43 (WALKEGAN RD.) AT GLENVIEW RD.	97.5%	2.5%												
2	10920	IL ROUTE 43 (WALKEGAN RD.) AT GROVE ST.	95%	5%												
2	2780	IL ROUTE 58 (GOLF RD.) AT HARLEM AV.	95%	5%												
6	2800	IL ROUTE 58 (GOLF RD.) AT KRAFT FOOD ENT.	96.7%						1.65%	1.65%						
2	21600	PFINGSTEN RD. AT GLENLAKE DR./GLENBROOK HOSPITAL ENT.	95%	5%												
2	5932	WILLOW RD. AT PATRIOT BLVD.	95%	5%												
7	5931	WILLOW RD. AT RAVINE WAY	96.7%	3.3%												
1	5260	GROSS POINT RD. AT TOUHY AV.	100%													
1	1995	IL ROUTE 21 (MILWAUKEE AV.) AT IL ROUTE 58 (GOLF RD.)	100%													
1	1215	U.S. ROUTE 14 (CALDWELL AV.) AT GROSS POINT RD.	100%													
8	4150	BALLARD RD. AT GREENWOOD AV.	97.5%		2.5%											
9	11165	HARLEM AV. AT CLEVELAND ST./MONROE ST.	95%		5%											
9	5330	HOWARD ST. AT GROSS POINT RD./MENARD AV.	95%		5%											
9	11260	HOWARD ST. AT WAUKEGAN RD.	95%		5%											
9	2000	IL ROUTE 21 (MILWAUKEE AV.) AT BALLARD RD.	95%		5%											
10	2060	IL ROUTE 21 (MILWAUKEE AV.) AT GOLF MILL CENTER DR.	95%							5%						
10	2065	IL ROUTE 21 (MILWAUKEE AV.) AT GOLF MILL NORTH DR.	95%							5%						
1	2015	IL ROUTE 21 (MILWAUKEE AV.) AT GREENWOOD AV.	100%													
1	5495	MILWAUKEE AV. AT WAUKEGAN RD.	100%													
9	2030	IL ROUTE 21 (MILWAUKEE AV.) AT MARYLAND ST./CHURCH ST.	95%		5%											
9	11160	HARLEM AV. AT MAIN ST.	95%		5%											
9	2411	IL ROUTE 43 (HARLEM AV.) AT PIONEER PARK ENT./BROOKS PARK ENT.	95%		5%											
12	2885	IL ROUTE 58 (GOLF RD.) AT FOUR FLAGS SHOPPING CENTER ENT.	96.7%									3.3%				



USER NAME = jrc  
 DESIGNED - BRD  
 DRAWN - JRT  
 CHECKED - JJE  
 DATE - 12/02/2013  
 PLOT SCALE = 40,000 / 1" = 1"  
 PLOT DATE = 12/2/2013

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES - LEGEND

NO SCALE SHEET NO. 1 OF 6 SHEETS STA. TO STA.

F.A.P. RTE. SECTION 2013-065TS COUNTY COOK TOTAL SHEETS 73 SHEET NO. 5  
 CONTRACT NO. 60X16  
 ILLINOIS FED. AID PROJECT

Rev.

SUMMARY OF QUANTITIES HEADING LEGEND															
COLUMN NUMBER	TS #	INTERSECTION	FUNDING PARTICIPATION												
			STATE	GLENVIEW	NILES	MORTON GROVE	MAINE TWP.	ITW	700 GOLF RD. LLC	MONTE CARLO PLAZA I, LLC	MILWAUKEE GOLF MILL S.C.	INLAND COMM. PROP. MGMT.	THE PARK AT GOLF MILL	IMPERIAL REALTY	REGENCY CENTERS
13	21125	IL ROUTE 58 (GOLF RD.) AT GOLF GLEN SHOPPING CENTER ENT.	95%											5%	
9	11170	IL ROUTE 58 (GOLF RD.) AT MICHAEL MANOR	95%		5%										
14	11210	IL ROUTE 58 (GOLF RD.) AT TOYS 'R US ENT./MILWAUKEE PLAZA DR.	95%										5%		
11	2850	IL ROUTE 58 (GOLF RD.) AT WASHINGTON RD.	95%		2.5%			2.5%							
1	5490	MILWAUKEE AV. AT TOUHY AV.	100%												
15	11263	OAKTON ST. AT CUMBERLAND AV.	96.7%		3.3%										
15	2087	OAKTON ST. AT CIVIC CENTER DR.	96.7%		3.3%										
9	11250	TOUHY AV. AT CENTRAL RD./VILLAGE CROSSING SHOPPING CENTER ENT.	95%		5%										
15	5841	TOUHY AV. AT MEADE AV.	96.7%		3.3%										
9	5843	TOUHY AV. AT MELVINA AV.	95%		5%										
9	5840	TOUHY AV. AT MOBILE AV.	95%		5%										
9	11161	TOUHY AV. AT NORTH POINT PLAZA ENT.	95%		5%										
15	5845	TOUHY AV. AT RIVERSIDE DR.	96.7%		3.3%										
19	20935	TOUHY AV. AT VILLAGE CROSSING SHOPPING CENTER ENT. C	95%												5%
9	1230	U.S. ROUTE 14 (CALDWELL AV.) AT HOWARD ST.	95%		5%										
9	1200	U.S. ROUTE 14 (DEMPSTER ST.) AT CUMBERLAND AV.	95%		5%										
16	1265	U.S. ROUTE 14 (DEMPSTER ST.) AT OZARK AV.	95%		2.5%		2.5%								
17	20555	WAUKEGAN RD. AT NILES CIVIC CENTER PLAZA ENT.	96.7%											3.3%	
1	2410	IL ROUTE 43 (HARLEM AV.) AT TOUHY AV.	100%												
18	1220	U.S. ROUTE 14 (DEMPSTER ST.) AT HARLEM AV.	97.5%				2.5%								
16	1295	U.S. ROUTE 14 (DEMPSTER ST.) AT SHERMER RD.	95%		2.5%		2.5%								
1	326	U.S. ROUTE 14 (DEMPSTER ST.) AT IL ROUTE 21 (MILWAUKEE AV.)	100%												
2	14480	IL ROUTE 43 (WAUKEGAN ROAD) AT WESTLEIGH DRIVE	95%	5%											

Rev.

A,01 / C,01 / G,01 / C,02 / G,02 / G,03 / C,03 / C,04 / C,05 / G,04 / C,06 / G,05 / G,06 / G,07 / C,07 / C,08 / G,08 / C,09 / G,09

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE																		
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
				TRAFFIC SIGNAL																		
				0021																		
URBAN																						
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	8	8																		
67100100	MOBILIZATION	L SUM	1	1																		
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	1																		
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	57	13	8	1	2	1	1	1	1	14	2	1	1	1	1	4	2	1	1	1
85700200	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET	EACH	1															1				
87502440	TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.	EACH	1									1										
87502480	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	32	2	3				1			17	4		2			1	1			1
87502500	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	42		7		6		2			6	4	3	1		2		6	2		3
87502520	TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.	EACH	14		1							7	2		1				2	1		
88030020	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	54	10	11		4	1	3			10	4		3		2	3		3		
88030050	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	44		3			1	1			23	7	2	3			3		1		
88030070	SIGNAL HEAD, LED, 1-FACE, 4-SECTION, BRACKET MOUNTED	EACH	4					4														
88030100	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	22		2			1	2			2	3		1		4	3	2	2		
88030110	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	47	6	15		4		1			6	4	4	1		4	1		1		

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CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE																		
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
				TRAFFIC SIGNAL																		
				0021																		
URBAN																						
88030210	SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	18	2	3				1			9			1				2			
88030220	SIGNAL HEAD, LED, 2-FACE, 5-SECTION, BRACKET MOUNTED	EACH	3		2							1										
88030240	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	33	6	8		4	1	1		1	4	1	4				2	1			
88030310	SIGNAL HEAD, LED, 3-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1									1										
88030330	SIGNAL HEAD, LED, 3-FACE, 2-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	1		1																	
88055150	OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	3	2								1										
88055160	OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	18	14				2				2										
88055200	OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED	EACH	2	2																		
88060110	COMBINATION SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION OPTICALLY PROGRAMMED, 1-3 SECTION, BRACKET MOUNTED	EACH	3	2								1										
88060155	COMBINATION SIGNAL HEAD, LED, 2-FACE, 1-4 SECTION OPTICALLY PROGRAMMED, 1-5 SECTION, BRACKET MOUNTED	EACH	2	2																		
88060180	COMBINATION SIGNAL HEAD, LED, 2-FACE, 1-5 SECTION OPTICALLY PROGRAMMED, 1-3 SECTION, BRACKET MOUNTED	EACH	1	1																		
88102717	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	130	18	8	4		2	4		8	50	2	8		2		10	8	2	4	
88102747	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	49	10	9		4					15						2	4		4	1
88102757	PEDESTRIAN SIGNAL HEAD, LED, 3-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4	2	2																	

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE																		
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
				TRAFFIC SIGNAL																		
				0021																		
URBAN																						
88200210	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	119	30	26		8	3	4			18	8	4	4		6	4		4		
88500100	INDUCTIVE LOOP DETECTOR	EACH	5														5					
88800100	PEDESTRIAN PUSH-BUTTON	EACH	118	16	8	4	8	2	4		8	40	2	8		2		6	8	2		
89500100	RELOCATE EXISTING SIGNAL HEAD	EACH	14		4		2					1							3		4	
89502210	MODIFY EXISTING CONTROLLER CABINET	EACH	54	12	8	1	2	1	1	1	1	14	2	1	1	1	1	3	2	1	1	
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	52	9	8	1	2	1	1		1	14	2	1	1	1	1	4	2	1	1	1
89502385	REMOVE EXISTING CONCRETE FOUNDATION	EACH	1		1																	
X8620050	UNINTERRUPTABLE POWER SUPPLY, GROUND MOUNTED	EACH	2									2										
X8620200	UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	52	12	8	1	2	1	1	1	1	12	2	1	1	1	1	4	1	1		1
X8803040	SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED, RETROFIT	EACH	26	1	9		3				3	6						1	2			1
X8803042	SIGNAL HEAD, LED, 2-FACE, 1-4 SECTION, 1-5 SECTION, BRACKET MOUNTED, RETROFIT	EACH	1															1				
X8803060	SIGNAL HEAD, LED, 3-FACE, 3-SECTION BRACKET MOUNTED, RETROFIT	EACH	1															1				
X8803082	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT	EACH	49	4	4	2	2			4	3	16				2		9	2			1
X8803084	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	93	13	20	2	2			2	1	34				6		8	2			3

11



USER NAME =	DESIGNED - BRD	REVISED -
PLOT SCALE = 48.0000' / 1in.	DRAWN - JRT	REVISED -
PLOT DATE = 12/2/2013	CHECKED - JJE	REVISED -
	DATE - 12/02/2013	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES			
NO. SCALE	SHEET NO. 5 OF 6 SHEETS	STA.	TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2013-055TS	COOK	73	9
			CONTRACT NO. 60X16	
ILLINOIS/FED. AID PROJECT				

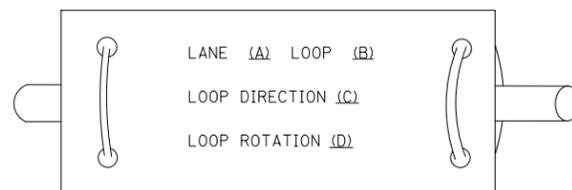
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE																		
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
				TRAFFIC SIGNAL																		
				0021																		
✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
X8803088	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	63	9	11	2	4			2	3	23			2		2	2		3		
X8803090	SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT	EACH	10	3	2	2			1		1						1					
X8803110	SIGNAL HEAD, LED, 1-FACE, 4-SECTION, BRACKET MOUNTED, RETROFIT	EACH	3													3						
X8803120	SIGNAL HEAD, LED, 1-FACE, 4-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	2	2																		
X8803210	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT	EACH	35	6	6	2	1			1	15			2						2		
X8803910	SIGNAL HEAD, LED, 2-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT	EACH	2						1		1											
X8880015	PEDESTRIAN PUSH-BUTTON, NON-LATCHING	EACH	81	14	19		4					25					6	4		4 5		
70076604	TRAINEES - TRAINING PROGRAM GRADUATE	HOURL	500	500																		

0042

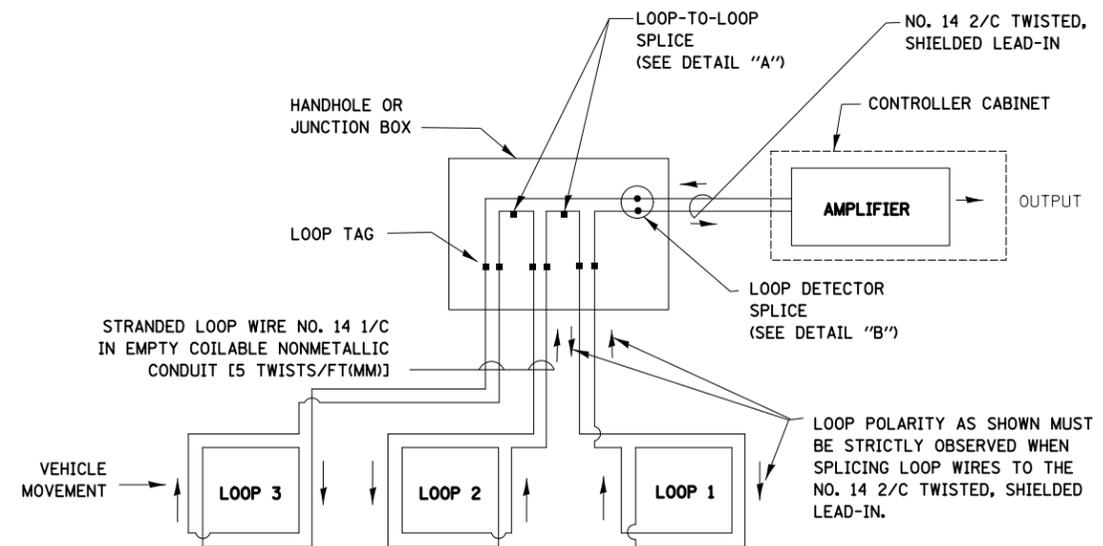
## LOOP DETECTOR NOTES

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

### LOOP LEAD-IN CABLE TAG

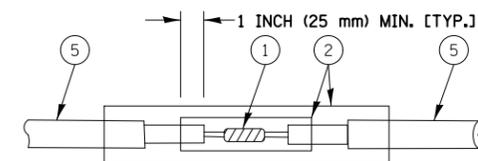


- LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- LOOP \*1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

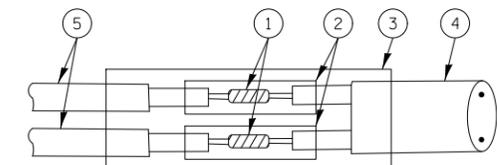


### DETECTOR LOOP WIRING SCHEMATIC

- 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.

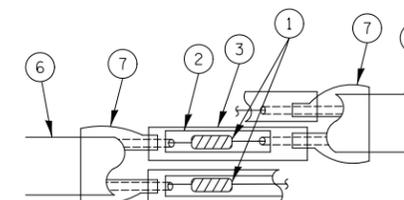


DETAIL "A"  
LOOP-TO-LOOP SPLICE

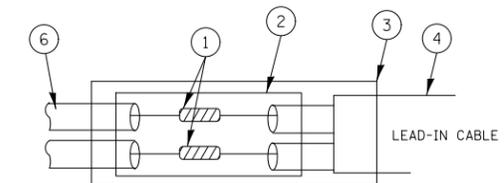


DETAIL "B"  
LOOP-TO-CONTROLLER SPLICE

### TYPE I LOOP



DETAIL "A"  
LOOP-TO-LOOP SPLICE



DETAIL "B"  
LOOP-TO-CONTROLLER SPLICE

### LOOP DETECTOR SPLICE

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



USER NAME = jrt	DESIGNED - DAD	REVISED -
	DRAWN - BCK	REVISED -
PLOT SCALE = 100.0000' / in.	CHECKED - DAD	REVISED -
PLOT DATE = 12/2/2013	DATE - 10-28-09	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

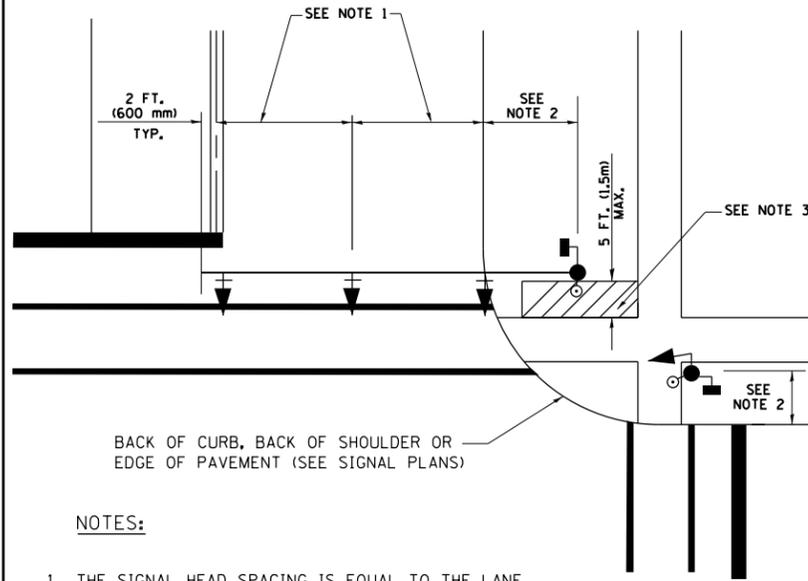
DISTRICT ONE  
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE SHEET NO. 1 OF 6 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2013-055TS	COOK	73	11
TS-05			CONTRACT NO. 60X16	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

**TRAFFIC SIGNAL MAST ARM AND SIGNAL POST**

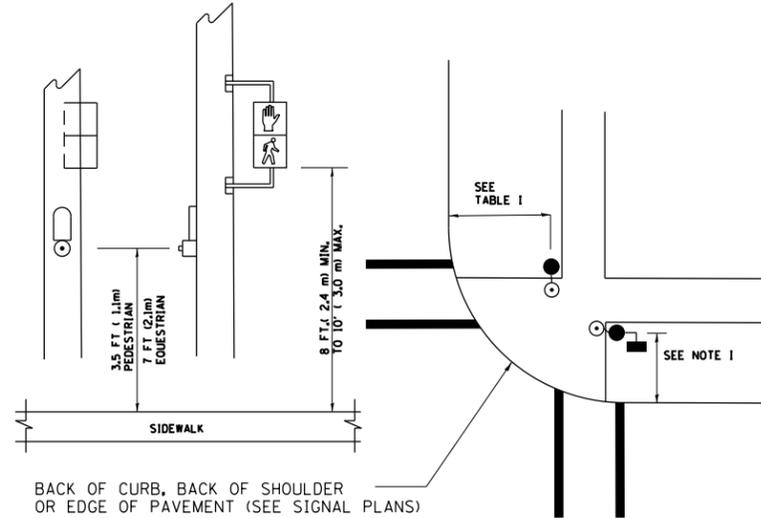
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.



**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."

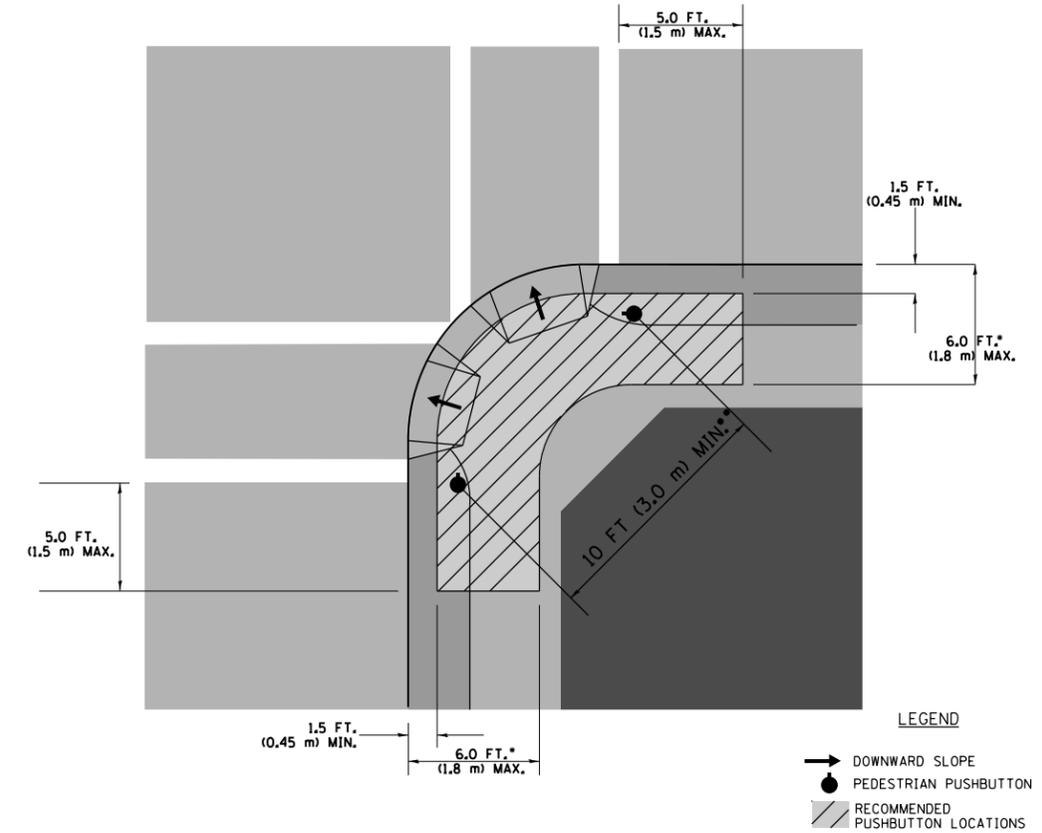
**PEDESTRIAN SIGNAL POST AND PEDESTRIAN PUSH BUTTON POST**



**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**



- 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.



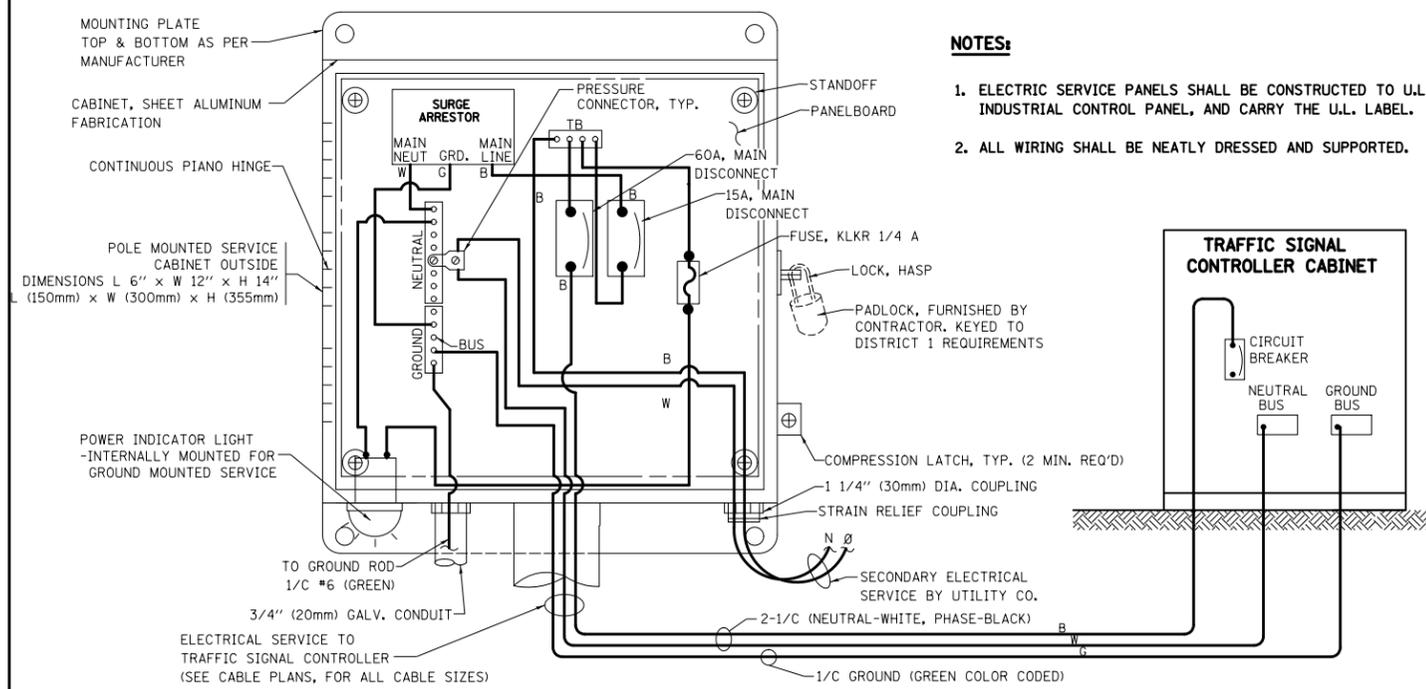
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

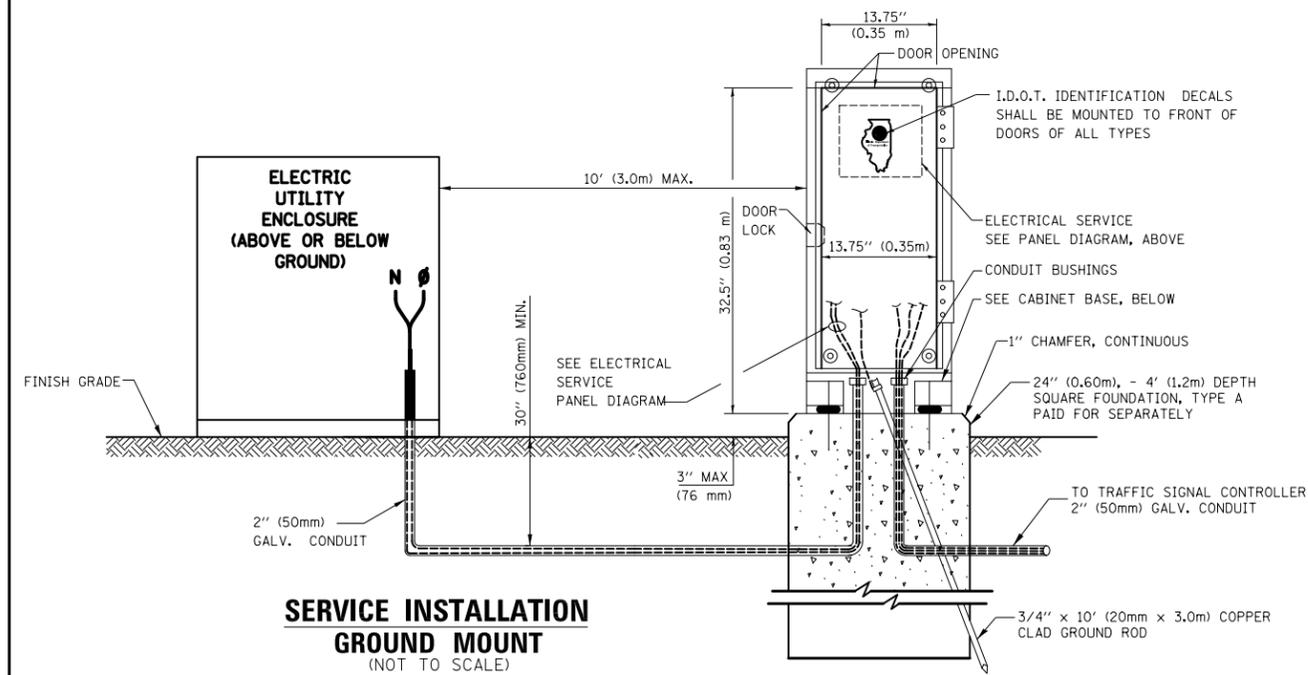
**DISTRICT ONE  
STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

SCALE: NONE SHEET NO. 2 OF 6 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2013-055TS	COOK	73	12
	TS-05		CONTRACT NO. 60X16	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

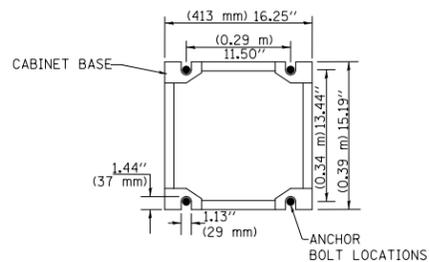


**ELECTRICAL SERVICE - PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)  
SERVICE INSTALLATION POLE MOUNT (SHOWN)  
(NOT TO SCALE)**



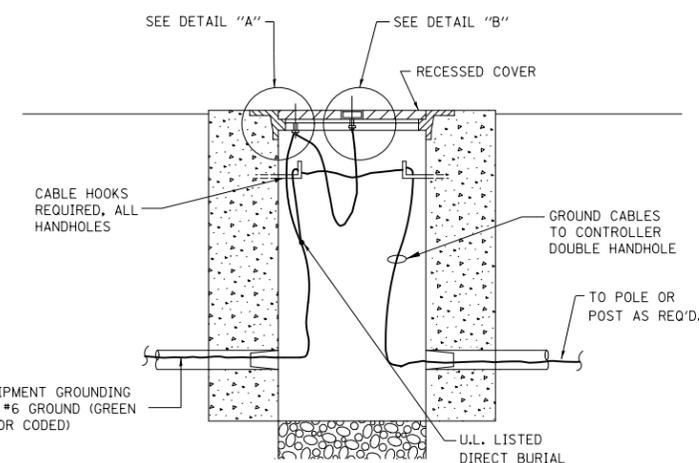
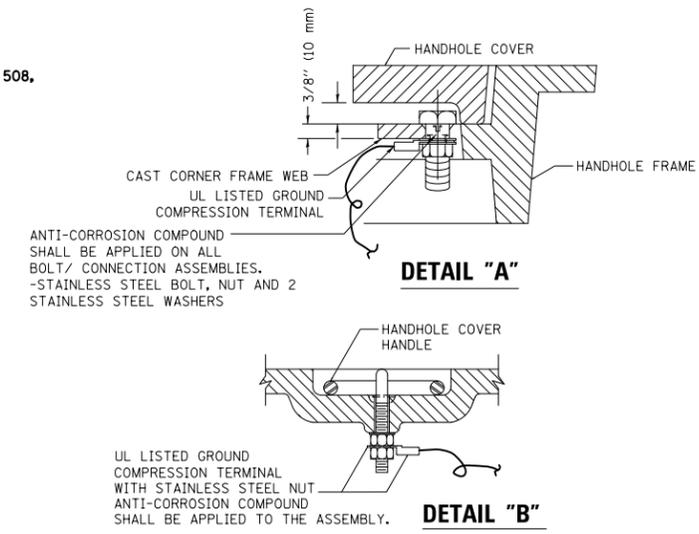
**SERVICE INSTALLATION  
GROUND MOUNT  
(NOT TO SCALE)**

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

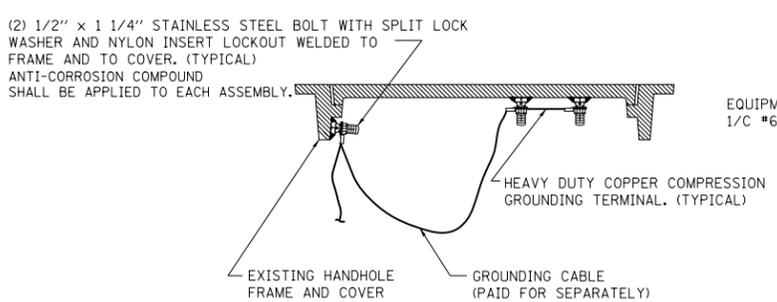


**NOTES:**

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



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

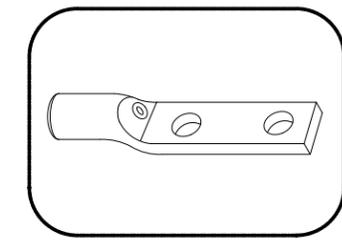


**EXISTING HANDHOLE COVER & FRAME - GROUNDING DETAIL  
(NOT TO SCALE)**

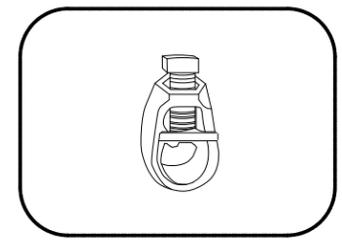
**NOTES:**

**GROUNDING SYSTEM**

1. THE GROUNDING SYSTEM SHALL CONSIST OF AN INSULATED CONDUCTOR TYPE XLP, NO. 6 A.W.G., STRANDED COPPER TO BE INSTALLED IN RACEWAYS. THE GROUNDING CABLE SHALL BE INSTALLED IN A CONTINUOUS MANNER AS SHOWN ON THE CABLE PLAN PROVIDED. ALL GROUNDING CONDUCTORS SHALL BE BONDED TO METAL ENCLOSURE (HANDHOLE, POST, MAST ARM, CONTROLLER, ETC.). GROUND ROD SHALL BE 3/4" DIA. x 10'-0" (20mm x 3.0m) LONG, COPPER CLAD. ONE GROUND ROD SHALL BE INSTALLED AT ALL POST FOUNDATIONS, POLE FOUNDATIONS, CONTROLLER CABINET FOUNDATION AND ELECTRICAL SERVICE INSTALLATION AS INDICATED ON THE CABLE PLAN. IF THERE ARE ANY SPECIAL CONDITIONS SUCH AS SUB-SURFACE CONDITIONS OR INSTALLATION PROBLEMS, THE RESIDENT ENGINEER SHALL BE NOTIFIED OR CONTACT THE BUREAU OF TRAFFIC, ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT ONE AT (847) 705-4139.
2. THE NEUTRAL CONDUCTOR AND THE GROUND CONDUCTOR SHALL BE CONNECTED IN THE SERVICE INSTALLATION. AT NO OTHER POINT IN THE TRAFFIC SIGNAL SYSTEM SHALL THE NEUTRAL AND GROUND CONDUCTORS BE CONNECTED.
3. ALL EQUIPMENT GROUNDING CONDUCTORS SHALL TERMINATE AT THE GROUND BUS IN THE CONTROLLER CABINET.
4. THE CONTRACTOR SHALL PROVIDE A GROUND CABLE WITH CONNECTORS BETWEEN THE HANDHOLE COVER AND HANDHOLE FRAME.



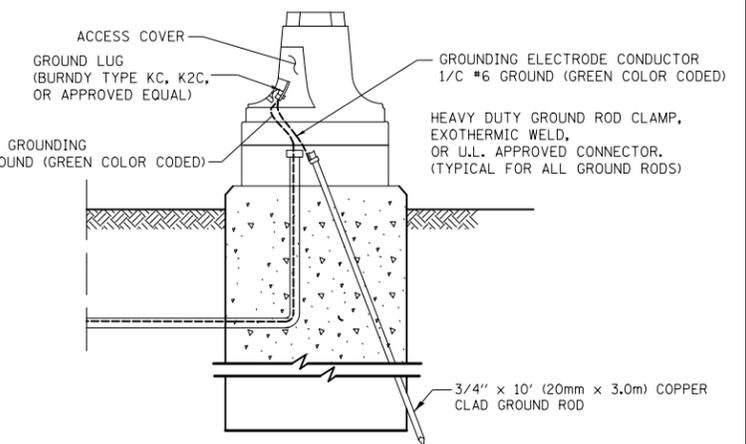
**HEAVY-DUTY COMPRESSION TERMINAL  
(BURNDY TYPE YGHA OR APPROVED EQUAL)**



**3/4" (20mm) HEAVY-DUTY GROUND ROD CLAMP  
(BURNDY TYPE GRC OR APPROVED EQUAL)**

**NOTES:**

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



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

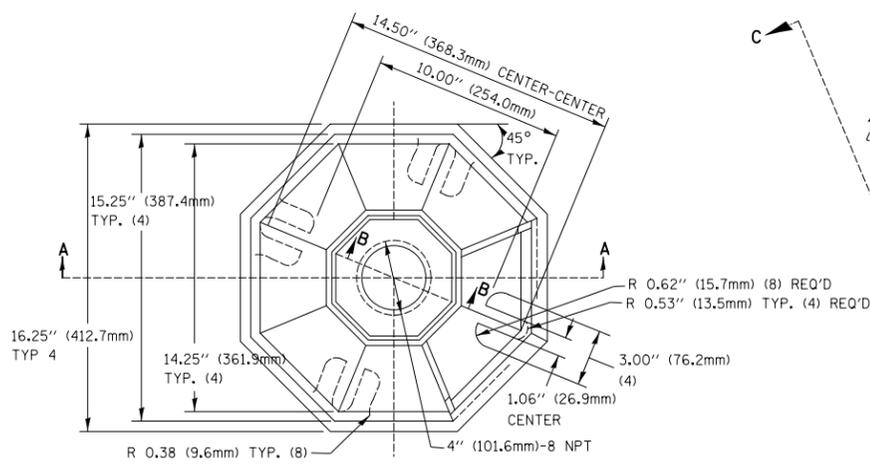


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	DATE - 10-28-09	REVISED -

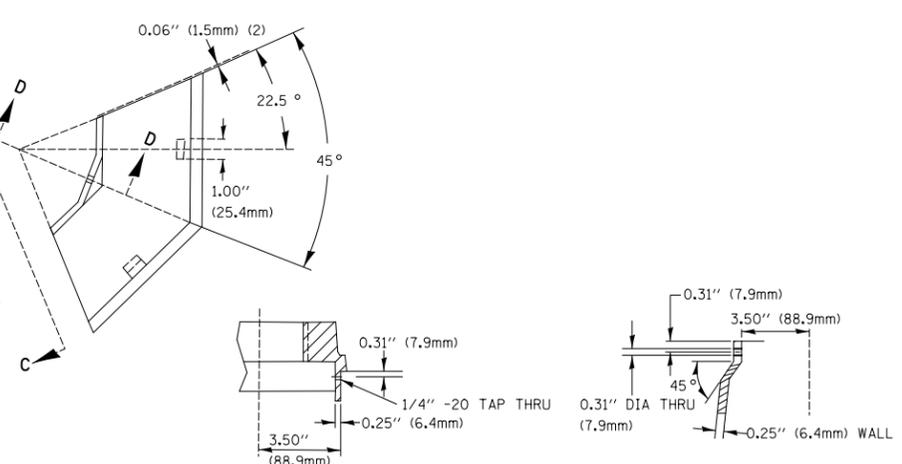
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>DISTRICT ONE</b>			
<b>STANDARD TRAFFIC SIGNAL DESIGN DETAILS</b>			
SCALE: NONE	SHEET NO. 3 OF 6 SHEETS	STA. TO STA.	

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2013-055TS	COOK	73	13
<b>TS-05</b>		<b>CONTRACT NO. 60X16</b>		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

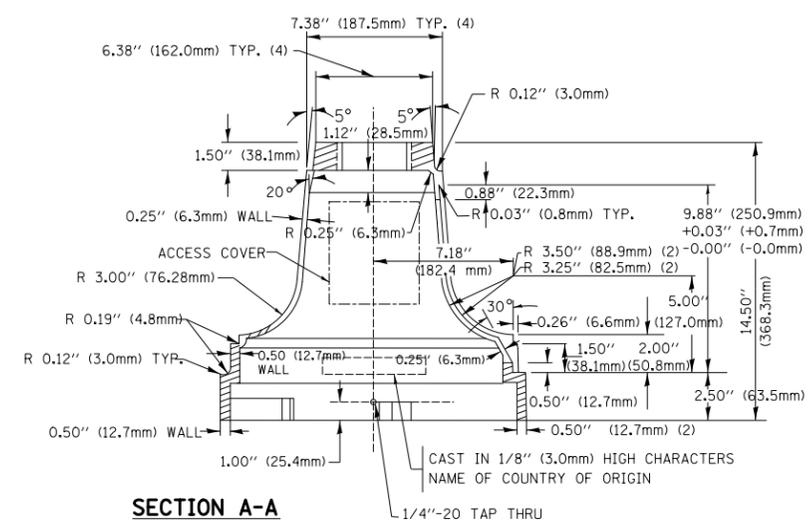


**TOP VIEW**

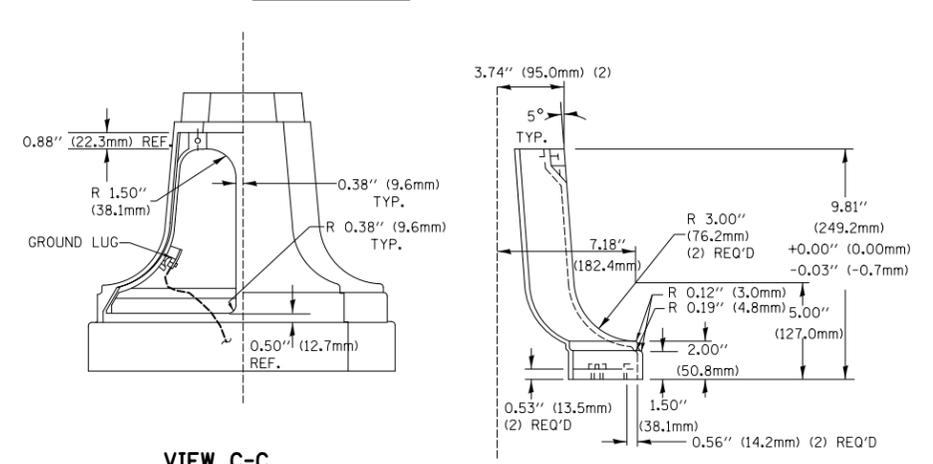


**SECTION B-B**

**SECTION D-D**

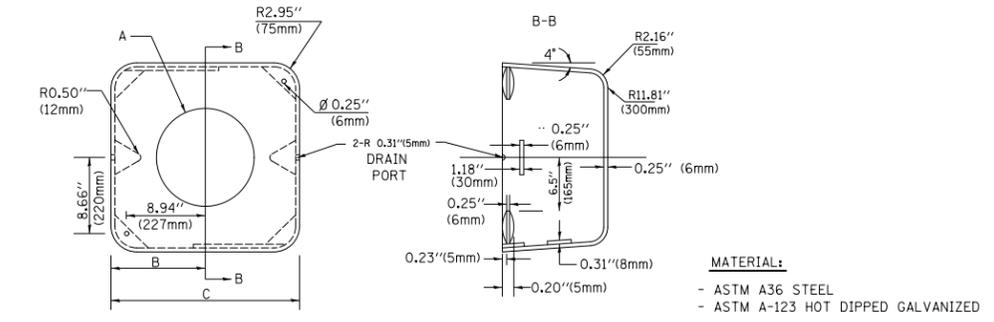


**SECTION A-A**



**VIEW C-C**

**TRAFFIC SIGNAL POST - MOUNTING BASE - TYPE A**



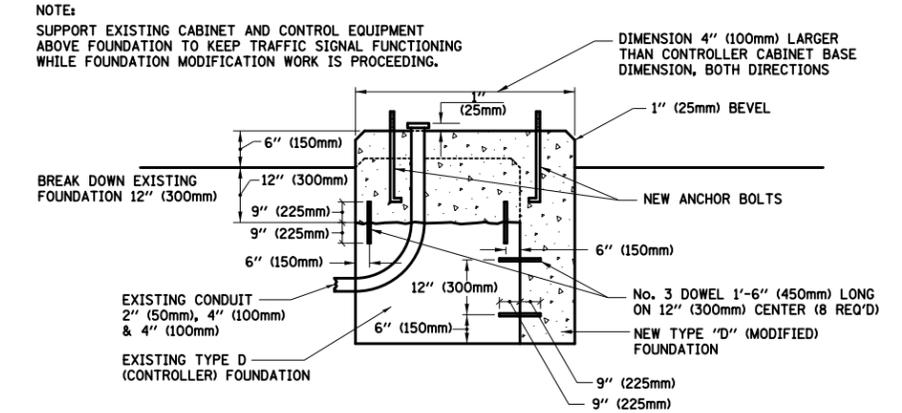
**MATERIAL:**  
 - ASTM A36 STEEL  
 - ASTM A-123 HOT DIPPED GALVANIZED

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

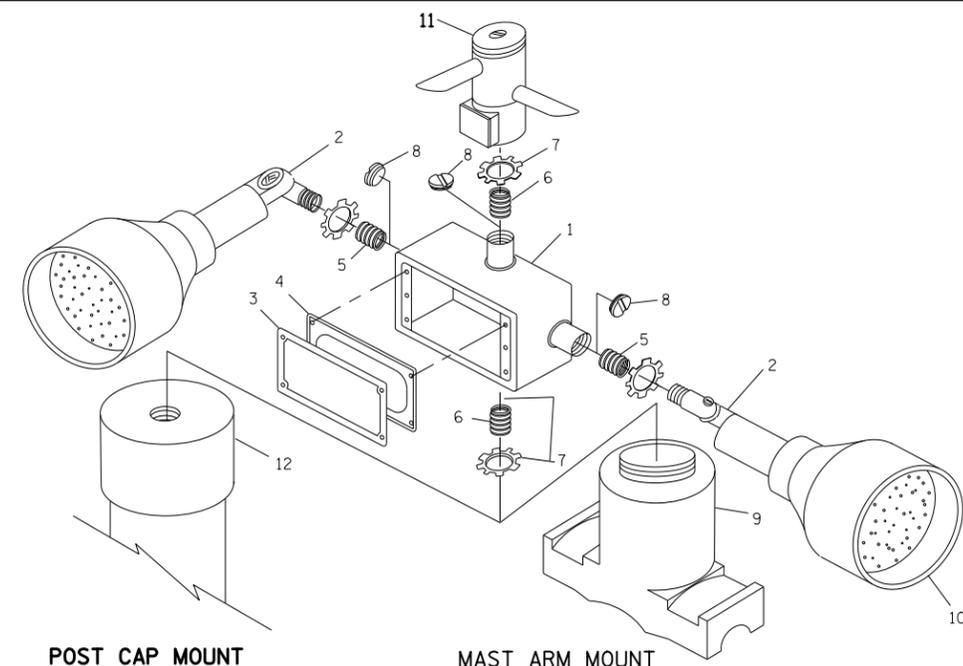
**SHROUD**

**NOTES:**

- 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.
- THE SUPPLIER SHALL VERIFY THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
- THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST ARM POLE BASE.



**MODIFY EXISTING TYPE "D" FOUNDATION**



**POST CAP MOUNT**

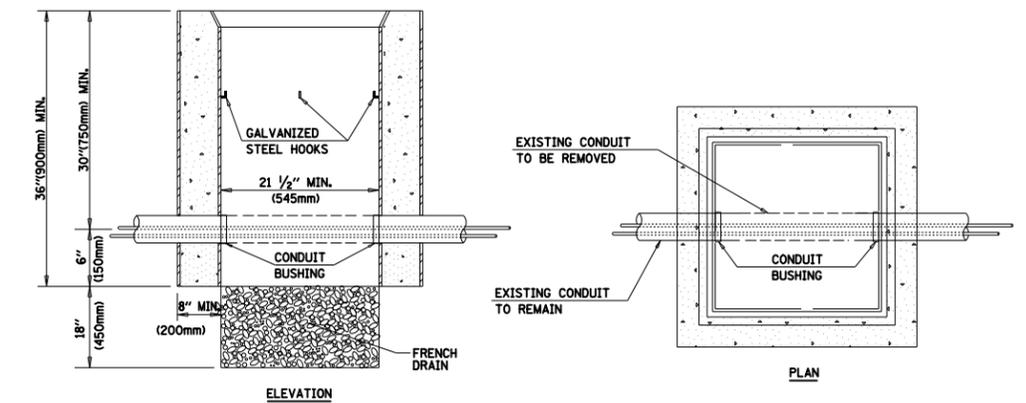
**MAST ARM MOUNT**

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

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:**

- ALL ELECTRICAL ITEMS, EXCEPT ITEMS #2 AND #11 SHALL BE ALUMINUM OR GALVANIZED
- 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
- 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.



**NOTES:**

- HANDHOLE CONSTRUCTED PER STATE STANDARD 814001.
- REMOVAL OF THE EXISTING CONDUIT FROM THE HANDHOLE AND THE INSTALLATION OF THE CONDUIT BUSHINGS SHALL BE INCIDENTAL TO THE HANDHOLE.

**HANDHOLE TO INTERCEPT EXISTING CONDUIT**

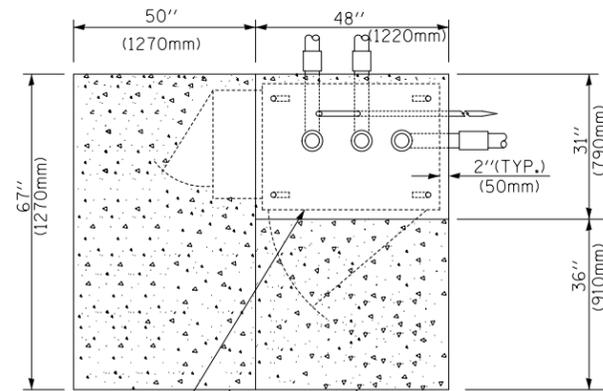


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PLOT SCALE = 100.0000' / in.	DRAWN - BCK	REVISED -
PLOT DATE = 12/2/2013	CHECKED - DAD	REVISED -
	DATE - 10-28-09	REVISED -

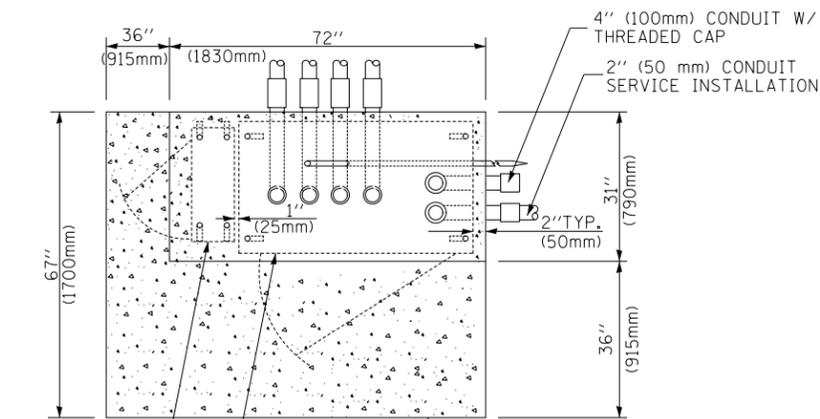
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

<b>DISTRICT ONE</b>			
<b>STANDARD TRAFFIC SIGNAL DESIGN DETAILS</b>			
SCALE: NONE	SHEET NO. 4 OF 6 SHEETS	STA. TO STA.	

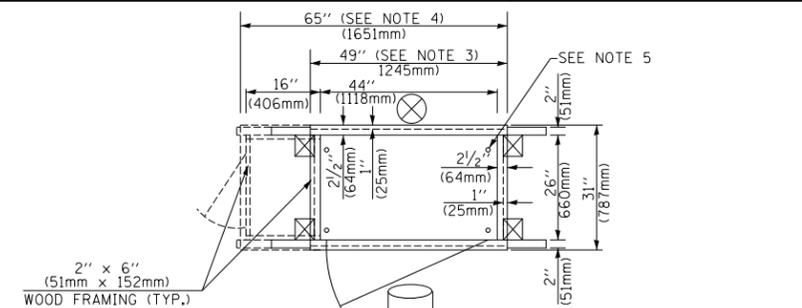
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2013-055TS	COOK	73	14
<b>TS-05</b>			<b>CONTRACT NO. 60X16</b>	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



TOP VIEW



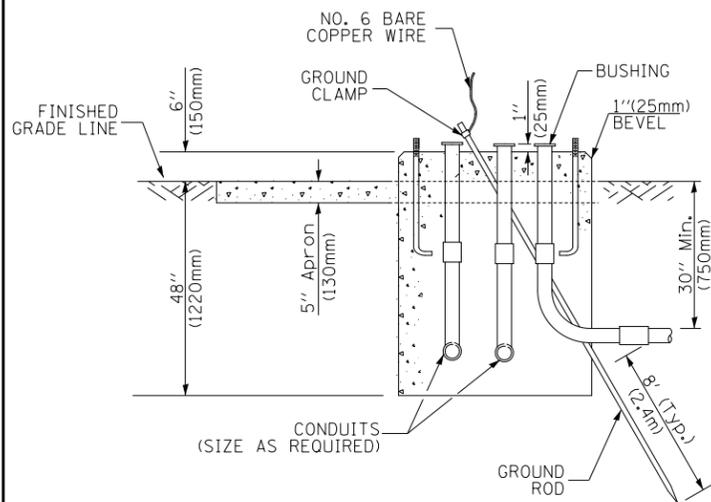
TOP VIEW



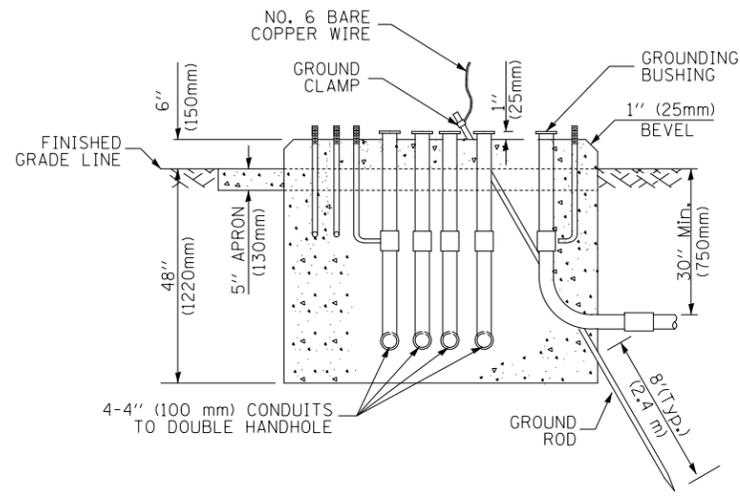
TEMPORARY SIGNAL CONTROLLER WOOD SUPPORT PLATFORM

NOTES:

1. 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.
2. 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.
3. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV.
4. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV AND UNINTERRUPTIBLE POWER SUPPLY CABINET.
5. 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.
6. FASTEN ALL SUPPORT WOOD FRAMING TO THE WOOD POSTS WITH 2 LAG SCREWS FOR EACH CONNECTION.



TYPE D FOR GROUND MOUNTED CONTROLLER CABINET AND UPS BATTERY CABINET



TYPE C FOR GROUND MOUNTED CONTROLLER CABINET AND UPS BATTERY CABINET

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

CABLE SLACK

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

VERTICAL CABLE LENGTH

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)

DEPTH OF FOUNDATION

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)
	11'-0" (3.4 m)	36" (900mm)	24" (750mm)	12	7(22)
Greater than or equal to 40' (12.2 m) and less than 50' (15.2 m)	13'-0" (4.0 m)	36" (900mm)	30" (750mm)	12	7(22)
	15'-0" (4.6 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 56' (16.8 m) and less than 65' (19.8 m)	21'-0" (6.4 m)	42" (1060mm)	36" (900mm)	16	8(25)
Greater than or equal to 65' (19.8 m) and up to 75' (22.9 m)	25'-0" (7.6 m)	42" (1060mm)	36" (900mm)	16	8(25)

NOTES:

1. 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.
2. Combination mast arm assemblies under 55 feet (16.8 m) shall use 36" (900 mm) diameter foundations.
3. Combination mast arm assemblies under 56 feet (16.8 m) through 75 feet (22.9 m) shall use 42" (1060 mm) diameter foundations.
4. For mast arm assemblies with dual arms refer to state standard 878001.

DEPTH OF MAST ARM FOUNDATIONS, TYPE E



USER NAME = jrt	DESIGNED - DAG	REVISED -
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	DATE - 10-28-09	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

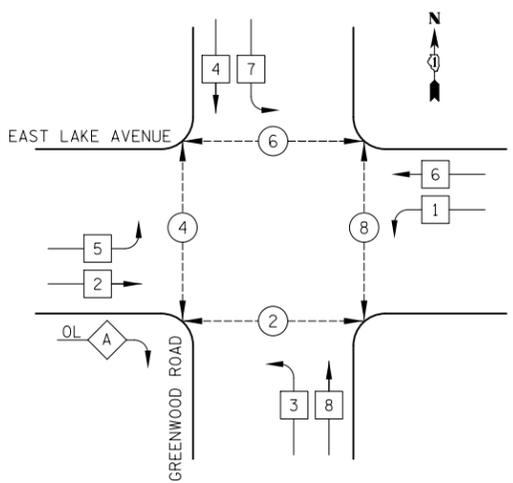
DISTRICT ONE	
STANDARD TRAFFIC SIGNAL DESIGN DETAILS	
SCALE: NONE	SHEET NO. 5 OF 6 SHEETS
STA.	TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2013-055TS	COOK	73	15
TS-05			CONTRACT NO. 60X16	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

# 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, MM12F			
UNINTERRUPTIBLE POWER SUPPLY				JUNCTION BOX				FIBER OPTIC CABLE NO. 62.5/125, MM12F SM12F			
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT				GALVANIZED STEEL CONDUIT IN TRENCH (T) OR PUSHED (P)				FIBER OPTIC CABLE NO. 62.5/125, MM12F SM212F			
TELEPHONE CONNECTION (P) POLE OR (G) GROUND MOUNT				TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE				FIBER OPTIC CABLE NO. 62.5/125, (NUMBER OF FIBERS & TYPE TO BE NOTED ON PLANS)			
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				EXISTING INTERSECTION LOOP DETECTOR PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR			
SIGNAL HEAD WITH BACKPLATE				SIGNAL FACE				EXISTING PREFORMED INTERSECTION LOOP DETECTOR PROPOSED INTERSECTION AND SAMPLING (SYSTEM) 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)				12" (300mm) PEDESTRIAN SIGNAL HEAD WALK/DON'T WALK SYMBOL				PREFORMED SAMPLING (SYSTEM) DETECTOR			
PEDESTRIAN SIGNAL HEAD				12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, OUTLINED				<b>RAILROAD SYMBOLS</b>			
PEDESTRIAN PUSHBUTTON DETECTOR				12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, SOLID				RAILROAD CONTROL CABINET			
ACCESSIBLE PEDESTRIAN PUSHBUTTON DETECTOR				PEDESTRIAN SIGNAL HEAD, INTERNATIONAL SYMBOL, WITH COUNTDOWN TIMER				RAILROAD CANTILEVER MAST ARM			
ILLUMINATED SIGN "NO LEFT TURN"				RADIO INTERCONNECT				FLASHING SIGNAL			
ILLUMINATED SIGN "NO RIGHT TURN"				RADIO REPEATER				CROSSING GATE			
DETECTOR LOOP, TYPE I				DENOTES NUMBER OF CONDUCTORS, ELECTRIC CABLE NO. 14, UNLESS NOTED OTHERWISE, ALL DETECTOR LOOP CABLE TO BE SHIELDED				CROSSBUCK			
PREFORMED DETECTOR LOOP				GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)							
MICROWAVE VEHICLE SENSOR											
VIDEO DETECTION CAMERA											
VIDEO DETECTION ZONE											
PAN, TILT, ZOOM CAMERA											
WIRELESS DETECTOR SENSOR											
WIRELESS ACCESS POINT											

CONTROLLER SEQUENCE



LEGEND

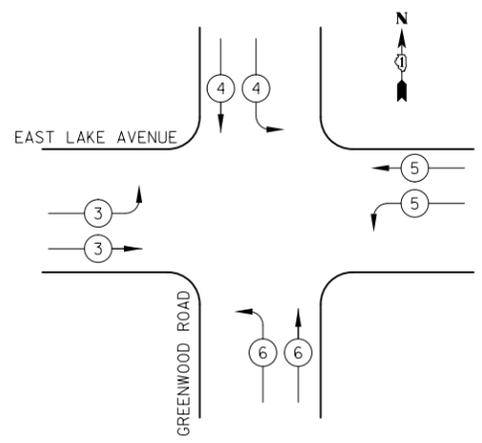
- DUAL ENTRY PHASE
- SINGLE ENTRY PHASE
- OVERLAP
- PEDESTRIAN PHASE
- NUMBER REFERS TO ASSOCIATED PHASE

PHASE DESIGNATION DIAGRAM

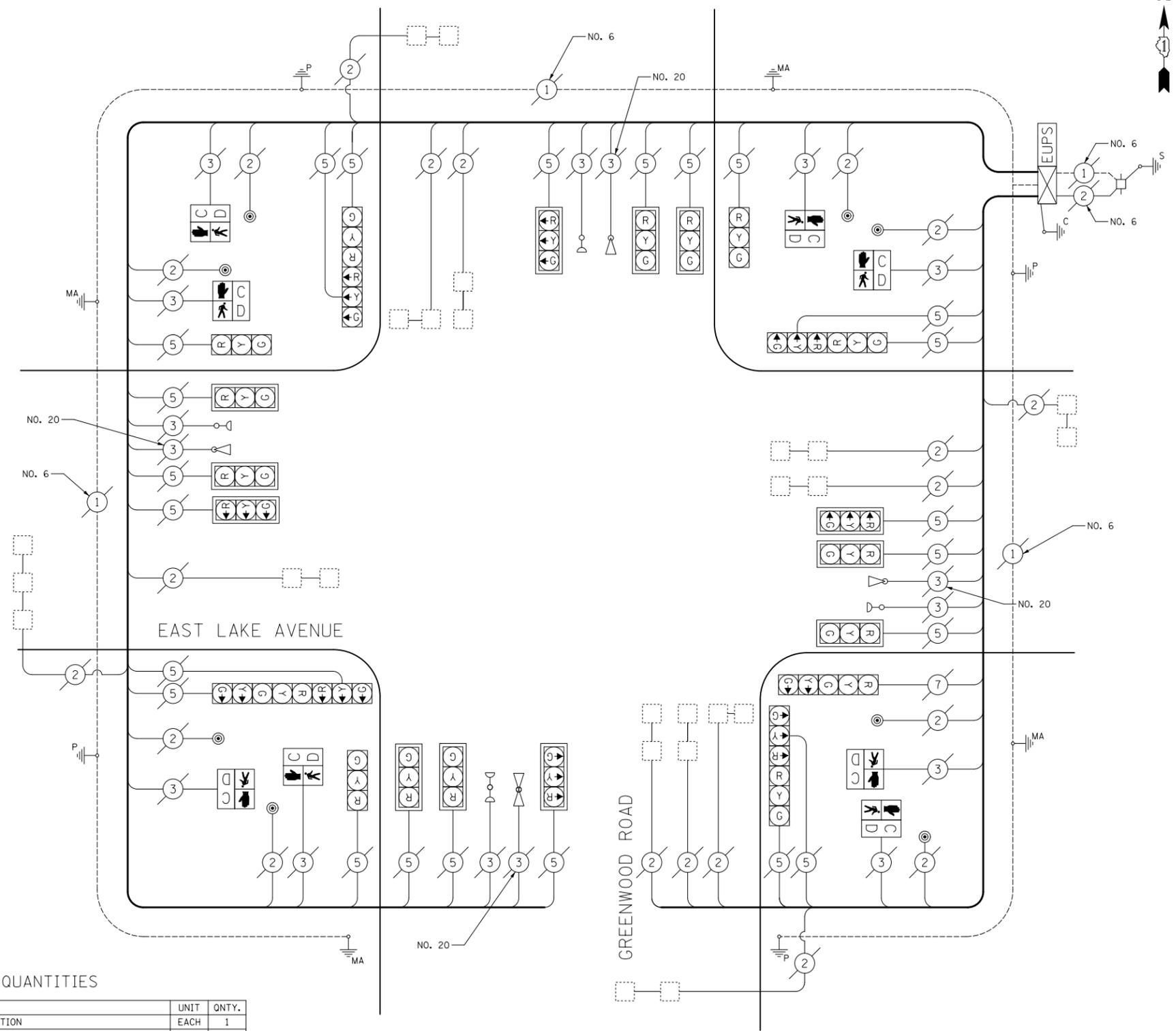
RIGHT TURN OVERLAP PHASE DESIGNATION

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
A	= 2	+ 3

EMERGENCY VEHICLE PREEMPTION SEQUENCE



EMERGENCY VEHICLE PREEMPTORS				
EMERGENCY VEHICLE PREEMPTOR	3	4	5	6
MOVEMENT				



CABLE PLAN  
NOT TO SCALE

SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QNTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	8
PEDESTRIAN PUSH-BUTTON	EACH	8
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1

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.

- 8 EACH PEDESTRIAN PUSH-BUTTON
- 8 EACH PEDESTRIAN SIGNAL HEAD, 1-FACE

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	% OPERATION	
SIGNAL (RED)	24		17	0.50	204
(YELLOW)	24		25	0.25	150
(GREEN)	24		15	0.25	90
ARROW	4		12	0.10	5
PED. SIGNAL	8		25	1.00	200
CONTROLLER	1		100	1.00	100
TOTAL =					749

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, IL 60196-1096

ENERGY SUPPLY: CONTACT: COM ED  
PHONE: (866) 639-3532  
COMPANY: COM ED

NOTE:  
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

TS 5235  
GLENVIEW



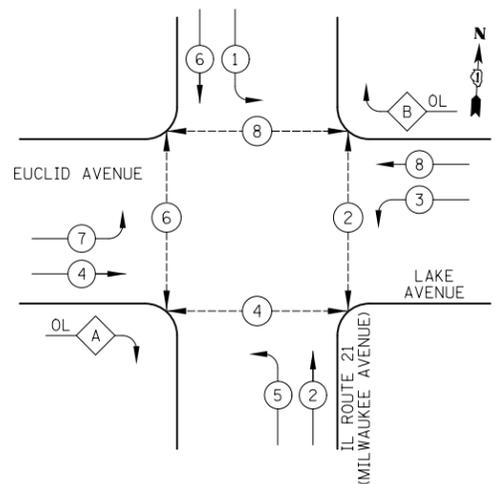
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PLOT SCALE = 40.0000' / in.	DRAWN - JRT	REVISED -
PLOT DATE = 12/2/2013	CHECKED - JJE	REVISED -
	DATE - 12/02/2013	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

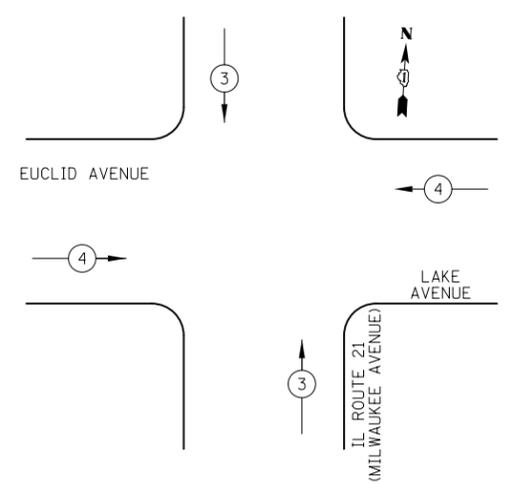
CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES GREENWOOD AVENUE AT EAST LAKE AVENUE			
NOT TO SCALE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2013-055TS	COOK	73	17
CONTRACT NO. 60X16				
ILLINOIS FED. AID PROJECT				

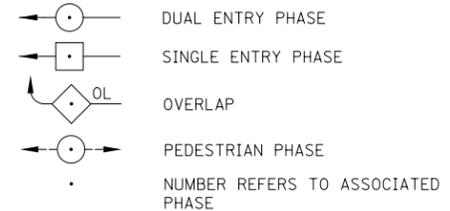
CONTROLLER SEQUENCE



EMERGENCY VEHICLE PREEMPTION SEQUENCE



LEGEND



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

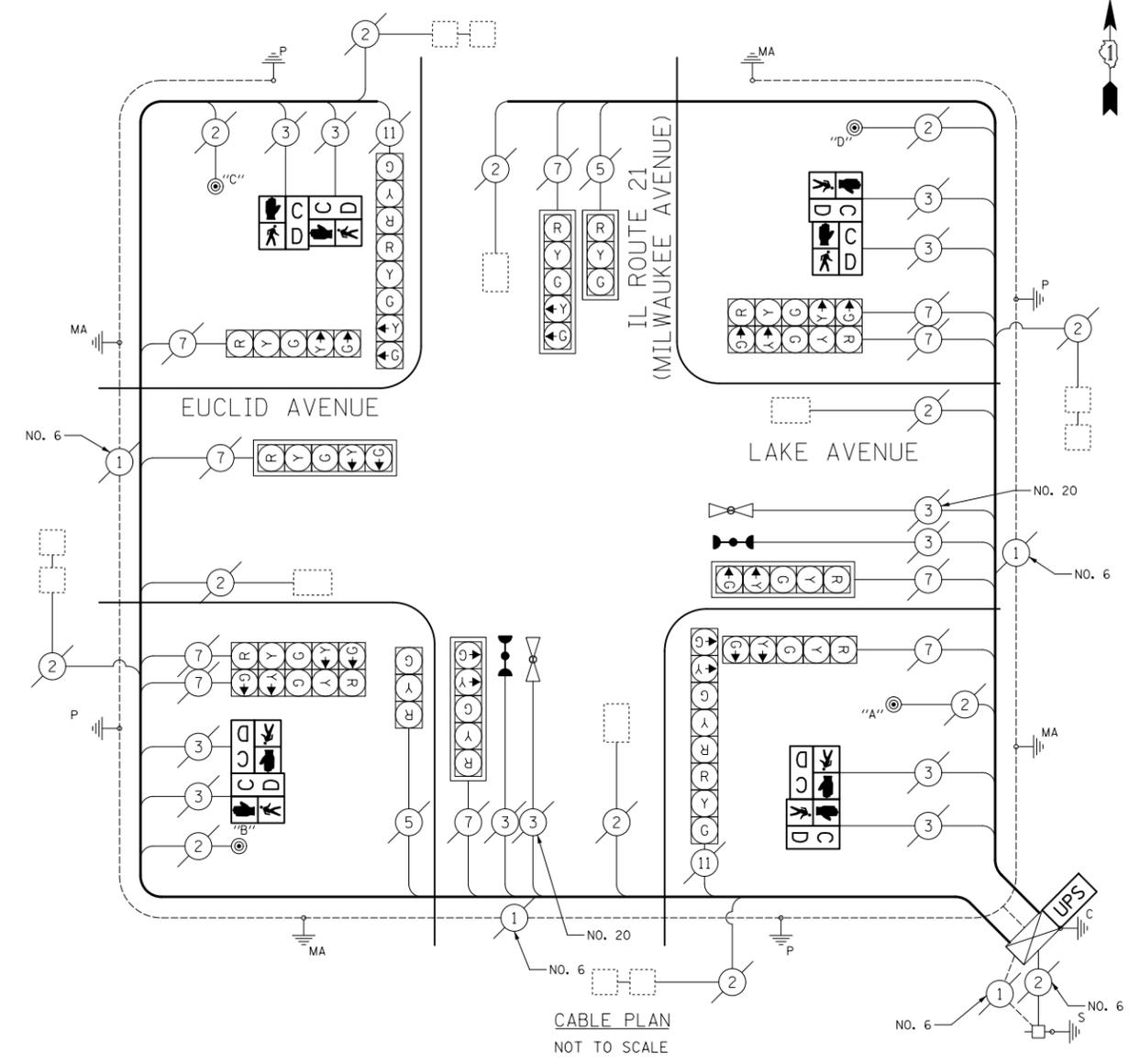
PHASE DESIGNATION DIAGRAM

RIGHT TURN OVERLAP PHASE DESIGNATION

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
A	= 4	+ 5
B	= 8	+ 1

NOTES

- REPLACEMENT OF THE EXISTING CONFIRMATION BEACONS WITH NEW LED CONFIRMATION BEACONS SHALL BE INCLUDED IN THE PAY ITEM "UNINTERRUPTABLE POWER SUPPLY, SPECIAL".



PUSHBUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4  
 PUSHBUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6  
 PUSHBUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8  
 PUSHBUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8

SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QNTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1
PEDESTRIAN PUSH-BUTTON, NON-LATCHING	EACH	4

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.

- 4 EACH PEDESTRIAN PUSH-BUTTON, NON-LATCHING
- 4 EACH PEDESTRIAN SIGNAL HEAD, 2-FACE

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	% OPERATION	
SIGNAL (RED)	16		17	0.50	136
(YELLOW)	16		25	0.25	100
(GREEN)	16		15	0.25	60
ARROW	24		12	0.10	29
PED. SIGNAL	8		25	1.00	200
CONTROLLER	1		100	1.00	100
TOTAL =					625

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION  
 201 WEST CENTER COURT  
 SCHAUMBURG, IL 60196-1096  
 ENERGY SUPPLY: CONTACT: COM ED  
 PHONE: (866) 639-3532  
 COMPANY: COM ED

NOTE: THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

TS 2050  
 GLENVIEW



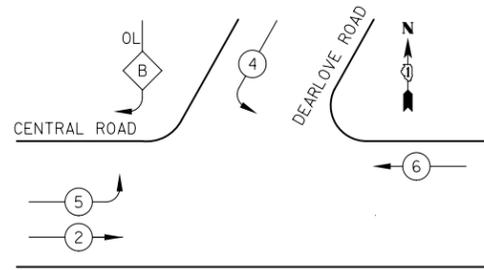
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PLOT SCALE = 40.0000' / in.	DRAWN - JRT	REVISED -
PLOT DATE = 12/2/2013	CHECKED - JJE	REVISED -
	DATE - 12/02/2013	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

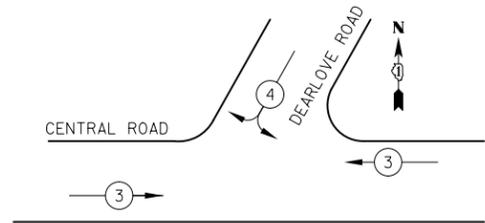
CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES  
 IL ROUTE 21 (MILWAUKEE AVENUE) AT EUCLID AVENUE / LAKE AVENUE  
 NOT TO SCALE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2013-055TS	COOK	73	18
CONTRACT NO. 60X16				
ILLINOIS FED. AID PROJECT				

CONTROLLER SEQUENCE

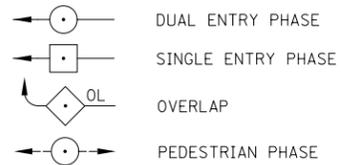


EMERGENCY VEHICLE PREEMPTION SEQUENCE



EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	←→	↘

LEGEND



PHASE DESIGNATION DIAGRAM

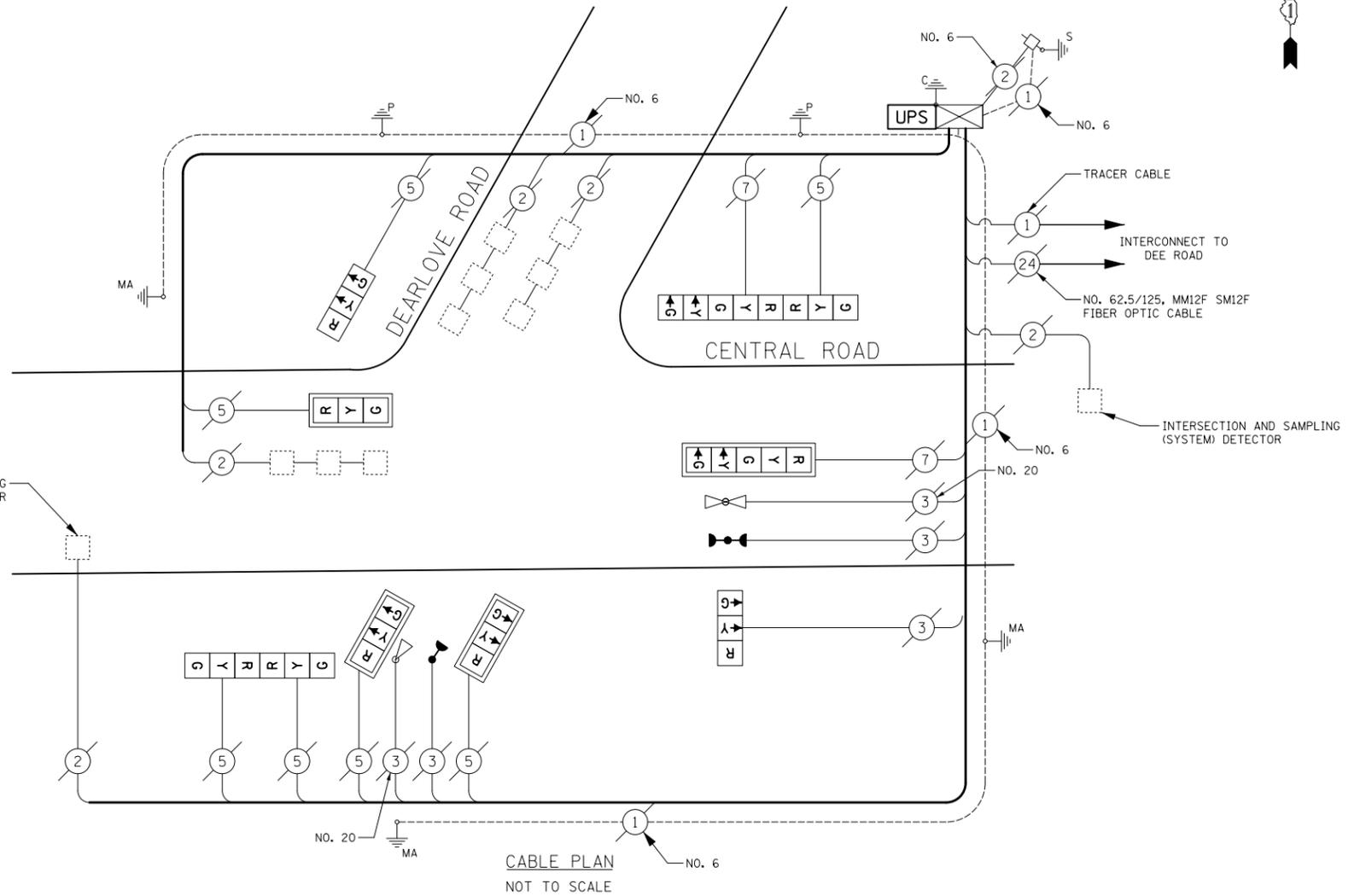
RIGHT TURN OVERLAP PHASE DESIGNATION

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
B	= 4	+ 5

NOTES

- REPLACEMENT OF THE EXISTING CONFIRMATION BEACONS WITH NEW LED CONFIRMATION BEACONS SHALL BE INCLUDED IN THE PAY ITEM "UNINTERRUPTABLE POWER SUPPLY, SPECIAL".

INTERSECTION AND SAMPLING (SYSTEM) DETECTOR



RETROFIT ALL EXISTING SIGNAL HEADS TO L.E.D.

SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QNTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1
SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED, RETROFIT	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT	EACH	2
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	3
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	1
SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT	EACH	1

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	% OPERATION	
SIGNAL (RED)	10		17	0.50	85
(YELLOW)	10		25	0.25	63
(GREEN)	10		15	0.25	38
ARROW	4		12	0.10	5
CONTROLLER	1		100	1.00	100
TOTAL =					291

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, IL 60196-1096  
ENERGY SUPPLY: CONTACT: COM ED  
PHONE: (866) 639-3532  
COMPANY: COM ED

NOTE: THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

TS 4742  
GLENVIEW



USER NAME = jrt	DESIGNED - BRD	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN - JRT	REVISED -
PLOT DATE = 12/2/2013	CHECKED - JJE	REVISED -
	DATE - 12/02/2013	REVISED -

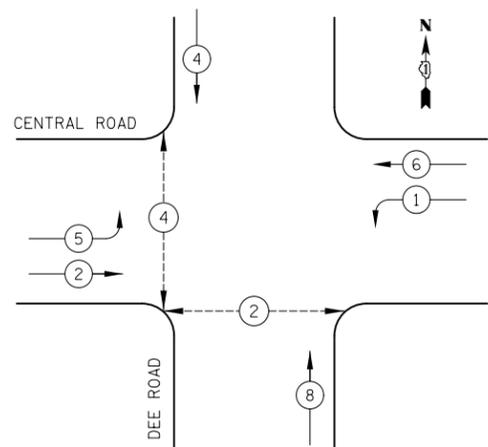
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES  
CENTRAL ROAD AT DEARLOVE ROAD

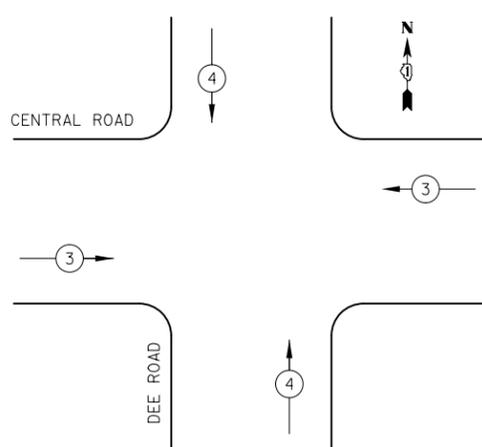
NOT TO SCALE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2013-055TS	COOK	73	19
CONTRACT NO. 60X16				
ILLINOIS FED. AID PROJECT				

EXISTING CONTROLLER SEQUENCE



EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE



LEGEND

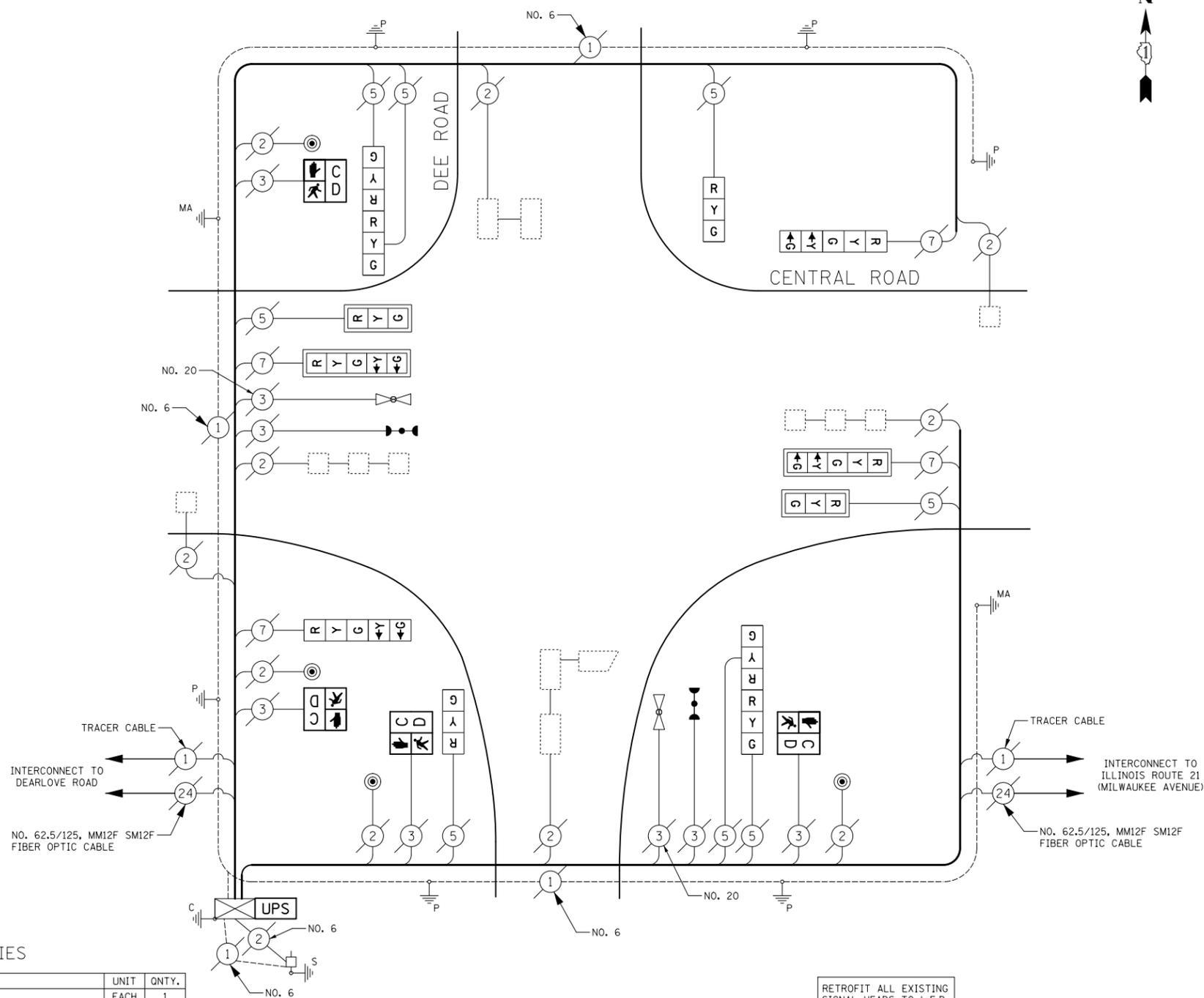
- DUAL ENTRY PHASE
- SINGLE ENTRY PHASE
- OVERLAP
- PEDESTRIAN PHASE
- NUMBER REFERS TO ASSOCIATED PHASE

PHASE DESIGNATION DIAGRAM

NOTES

1. REPLACEMENT OF THE EXISTING CONFIRMATION BEACONS WITH NEW LED CONFIRMATION BEACONS SHALL BE INCLUDED IN THE PAY ITEM "UNINTERRUPTABLE POWER SUPPLY, SPECIAL".

EXISTING AND PROPOSED EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT		



SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QNTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4
PEDESTRIAN PUSH-BUTTON	EACH	4
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT	EACH	2
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	2
SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT	EACH	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT	EACH	2

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

- 4 EACH PEDESTRIAN SIGNAL HEAD, 1-FACE
- 4 EACH PEDESTRIAN PUSH-BUTTON

RETROFIT ALL EXISTING SIGNAL HEADS TO L.E.D.

NOTE:  
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

TS 4740  
GLENVIEW

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	% OPERATION	
SIGNAL (RED)	12		17	0.50	102
(YELLOW)	12		25	0.25	75
(GREEN)	12		15	0.25	45
ARROW	8		12	0.10	10
PED. SIGNAL	4		25	1.00	100
CONTROLLER	1		100	1.00	100
TOTAL =					432

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, IL 60196-1096  
CONTACT: COM ED  
PHONE: (866) 639-3532  
COMPANY: COM ED

	USER NAME = jrt	DESIGNED - BRD	REVISED -
	PLOT SCALE = 40.0000' / in.	DRAWN - JRT	REVISED -
	PLOT DATE = 12/2/2013	CHECKED - JJE	REVISED -
		DATE - 12/02/2013	REVISED -

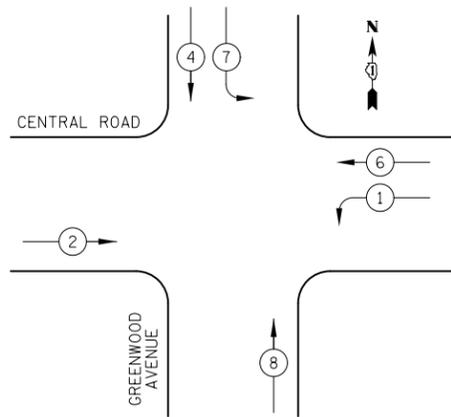
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES  
CENTRAL ROAD AT DEE ROAD

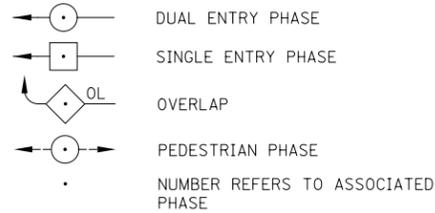
NOT TO SCALE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2013-055TS	COOK	73	20
CONTRACT NO. 60X16				
ILLINOIS FED. AID PROJECT				

CONTROLLER SEQUENCE



LEGEND

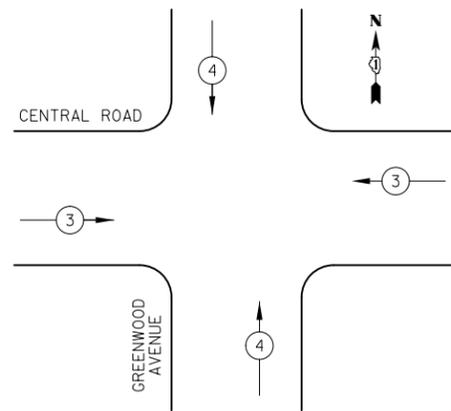


PHASE DESIGNATION DIAGRAM

NOTES

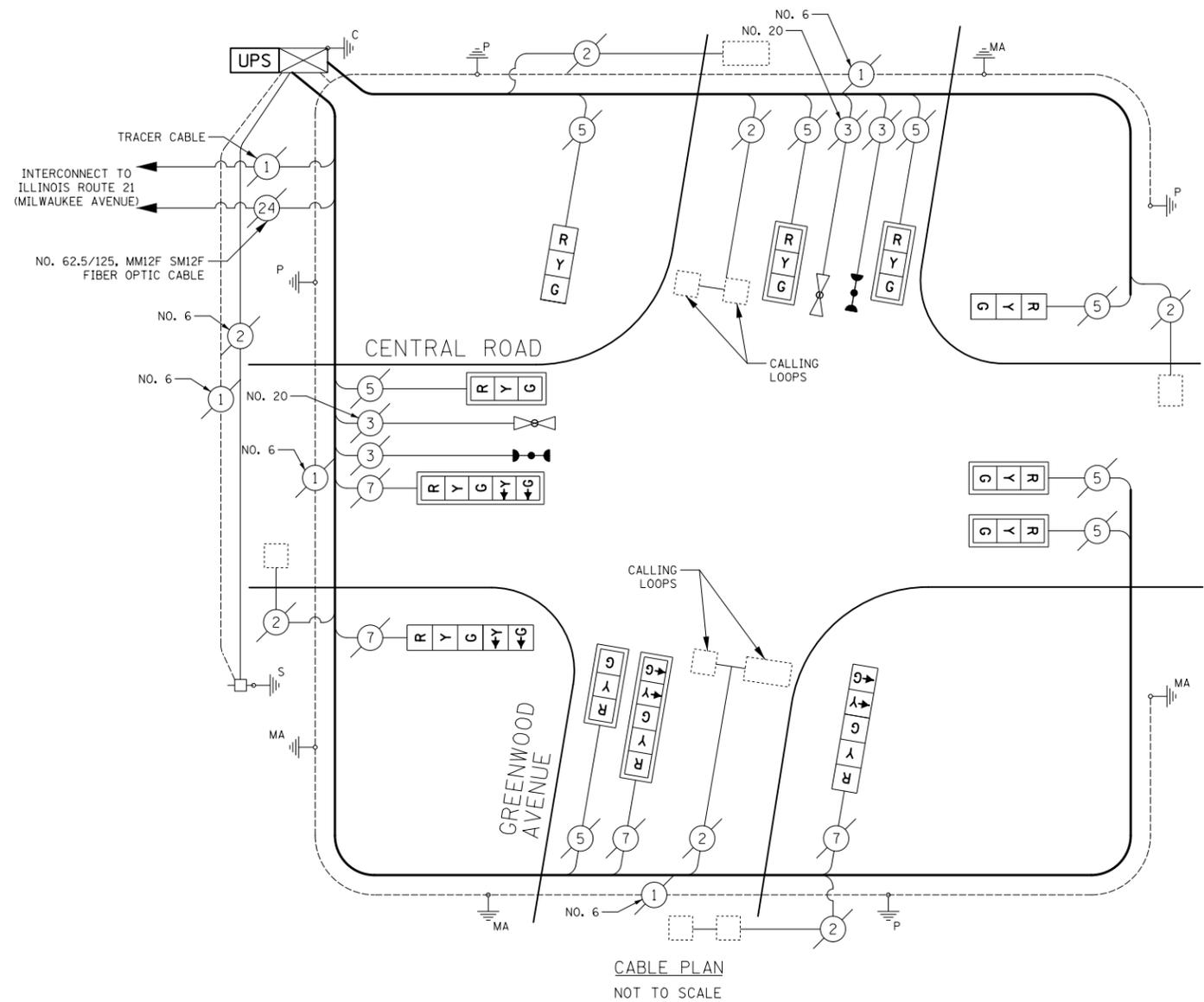
- 1. REPLACEMENT OF THE EXISTING CONFIRMATION BEACONS WITH NEW LED CONFIRMATION BEACONS SHALL BE INCLUDED IN THE PAY ITEM "UNINTERRUPTABLE POWER SUPPLY, SPECIAL".

EMERGENCY VEHICLE PREEMPTION SEQUENCE



PROPOSED EMERGENCY VEHICLE PREEMPTORS

EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	← →	↑ ↓



CABLE PLAN  
NOT TO SCALE

RETROFIT ALL EXISTING SIGNAL HEADS TO L.E.D.

SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QNTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT	EACH	2
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	6
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT	EACH	2

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE		% OPERATION	
		INCAND.	LED		
SIGNAL (RED)	12		17	0.50	102
(YELLOW)	12		25	0.25	75
(GREEN)	12		15	0.25	45
ARROW	8		12	0.10	10
CONTROLLER	1		100	1.00	100
TOTAL =					332

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, IL 60196-1096

ENERGY SUPPLY: CONTACT: COM ED  
PHONE: (866) 639-3532  
COMPANY: COM ED

NOTE:  
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

TS 4745  
GLENVIEW



USER NAME = jrt	DESIGNED - BRD	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN - JRT	REVISED -
PLOT DATE = 12/2/2013	CHECKED - JJE	REVISED -
	DATE - 12/02/2013	REVISED -

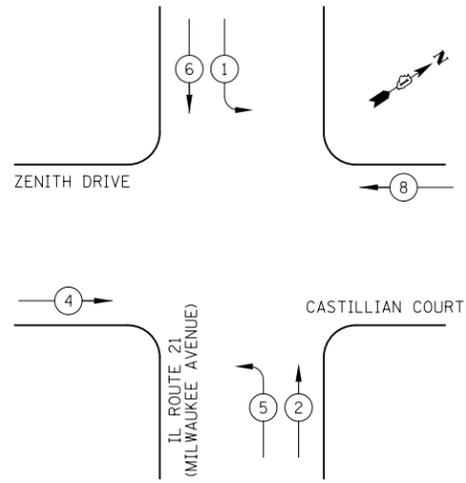
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES  
CENTRAL ROAD AT GREENWOOD AVENUE

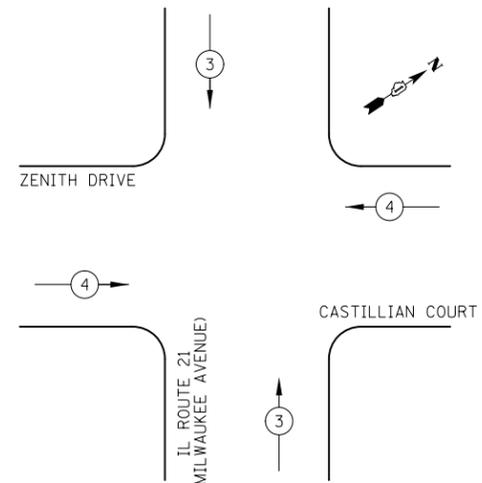
NOT TO SCALE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2013-055TS	COOK	73	21
CONTRACT NO. 60X16				
ILLINOIS FED. AID PROJECT				

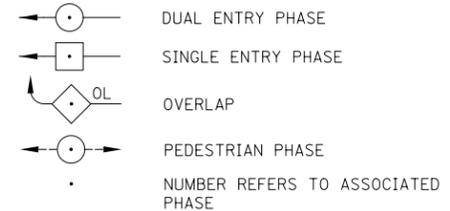
CONTROLLER SEQUENCE



EMERGENCY VEHICLE PREEMPTION SEQUENCE



LEGEND

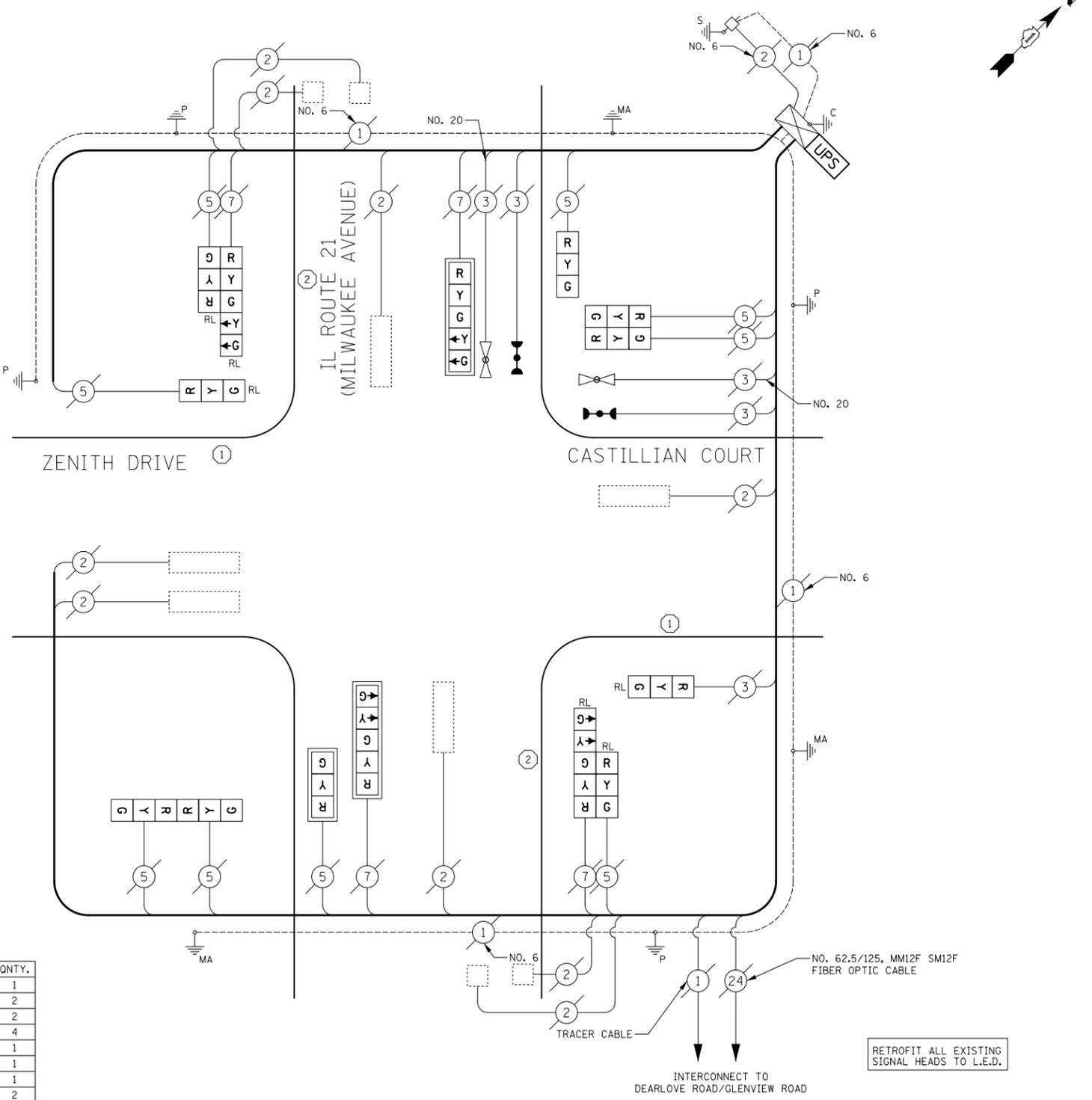


EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↑ ↓	← →

PHASE DESIGNATION DIAGRAM

NOTES

- REPLACEMENT OF THE EXISTING CONFIRMATION BEACONS WITH NEW LED CONFIRMATION BEACONS SHALL BE INCLUDED IN THE PAY ITEM "UNINTERRUPTABLE POWER SUPPLY, SPECIAL".
- THE PROPOSED UPS SHALL BE INSTALLED ON THE LEFT (EAST) SIDE OF THE CONTROLLER CABINET.



SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QNTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	2
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	2
RELOCATE EXISTING SIGNAL HEAD	EACH	4
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1
SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED, RETROFIT	EACH	2
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT	EACH	3
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	1
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	2
SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT	EACH	2

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.

4 EACH TRAFFIC SIGNAL POST

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	% OPERATION	
SIGNAL (RED)	14		17	0.50	119
(YELLOW)	14		25	0.25	88
(GREEN)	14		15	0.25	53
ARROW	8		12	0.10	10
CONTROLLER	1		100	1.00	100
TOTAL =					370

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, IL 60196-1096

ENERGY SUPPLY: CONTACT: COM ED  
PHONE: (866) 639-3532  
COMPANY: COM ED

CABLE PLAN  
NOT TO SCALE

- REPLACE PAINTED POST WITH 14 FT. POST, RE-USE EXISTING TYPE A FOUNDATION AND RELOCATE EXISTING SIGNAL HEAD
- REPLACE PAINTED POST WITH 16 FT. POST, RE-USE EXISTING TYPE A FOUNDATION AND RELOCATE EXISTING SIGNAL HEAD

NOTE:  
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.



USER NAME = jrt	DESIGNED - BRD	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN - JRT	REVISED -
PLOT DATE = 12/2/2013	CHECKED - JJE	REVISED -
	DATE - 12/02/2013	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

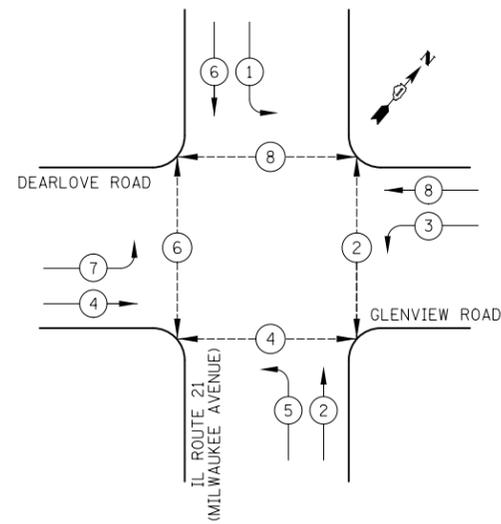
CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES  
IL ROUTE 21 (MILWAUKEE AVENUE) AT CASTILLIAN COURT /ZENITH DRIVE

NOT TO SCALE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

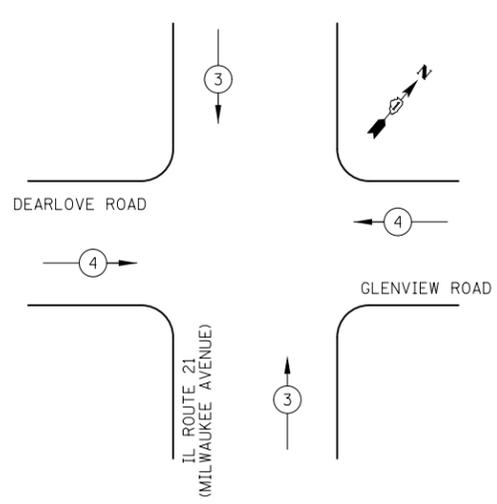
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2013-055TS	COOK	73	22
CONTRACT NO. 60X16				
ILLINOIS FED. AID PROJECT				

TS 2055  
GLENVIEW

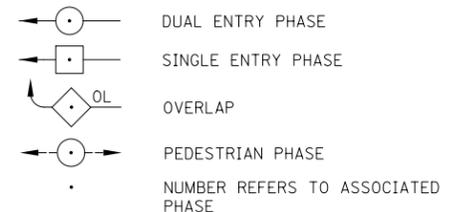
CONTROLLER SEQUENCE



EMERGENCY VEHICLE PREEMPTION SEQUENCE



LEGEND

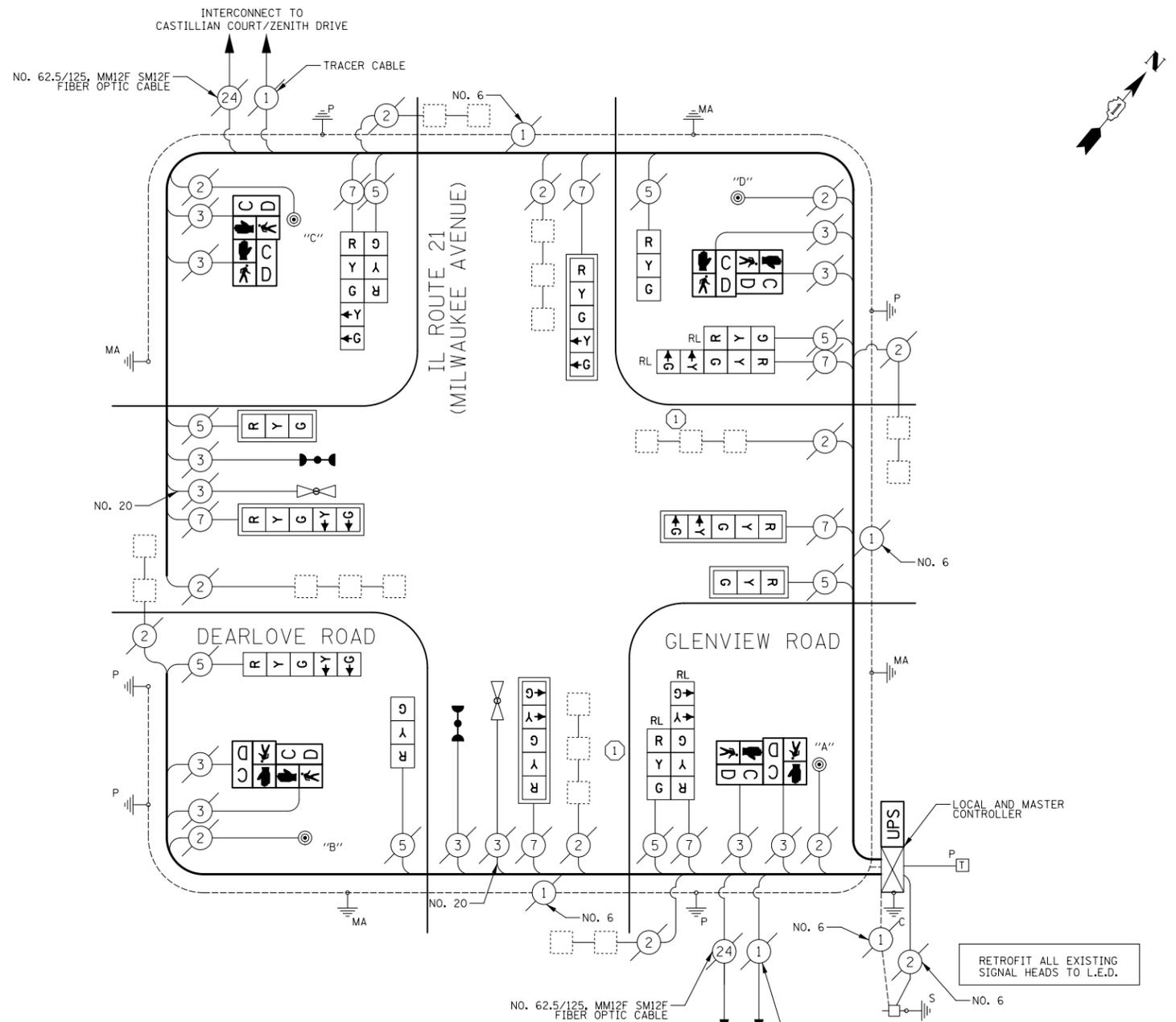


EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↑↑	←→

PHASE DESIGNATION DIAGRAM

NOTES

- REPLACEMENT OF THE EXISTING CONFIRMATION BEACONS WITH NEW LED CONFIRMATION BEACONS SHALL BE INCLUDED IN THE PAY ITEM "UNINTERRUPTABLE POWER SUPPLY, SPECIAL".



CABLE PLAN  
NOT TO SCALE

- PUSHBUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4
- PUSHBUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6
- PUSHBUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8
- PUSHBUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8

- REPLACE PAINTED POST WITH 16 FT. POST, RE-USE EXISTING TYPE A FOUNDATION AND RELOCATE EXISTING SIGNAL HEAD.

SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QNTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	2
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4
RELOCATE EXISTING SIGNAL HEAD	EACH	2
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1
SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED, RETROFIT	EACH	3
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT	EACH	2
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	4
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT	EACH	1
PEDESTRIAN PUSH-BUTTON, NON-LATCHING	EACH	4

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.

- 4 EACH PEDESTRIAN PUSH-BUTTON, NON-LATCHING
- 4 EACH PEDESTRIAN SIGNAL HEAD, 2-FACE
- 2 EACH TRAFFIC SIGNAL POST

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	% OPERATION	
SIGNAL (RED)	15		17	0.50	128
(YELLOW)	15		25	0.25	94
(GREEN)	15		15	0.25	56
ARROW	16		12	0.10	19
PED. SIGNAL	8		25	1.00	200
CONTROLLER	1		100	1.00	100
TOTAL =					597

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, IL 60196-1096

ENERGY SUPPLY: CONTACT: COM ED  
PHONE: (866) 639-3532  
COMPANY: COM ED

NOTE:  
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.



USER NAME = jrt	DESIGNED - BRD	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN - JRT	REVISED -
PLOT DATE = 12/2/2013	CHECKED - JJE	REVISED -
	DATE - 12/02/2013	REVISED -

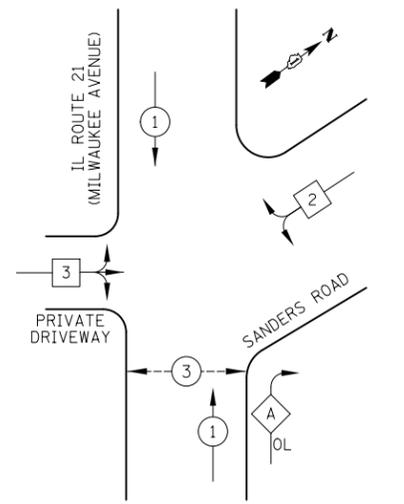
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES IL ROUTE 21 (MILWAUKEE AVENUE) AT DEARLOVE ROAD/GLENVIEW ROAD			
NOT TO SCALE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

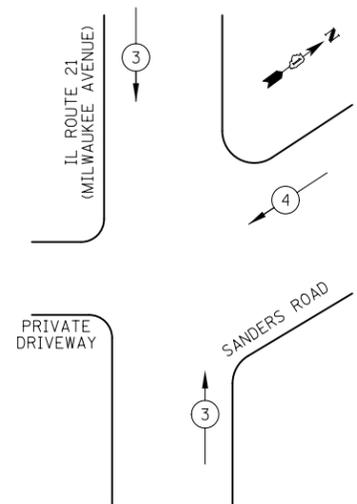
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2013-055TS	COOK	73	23
CONTRACT NO. 60X16				
ILLINOIS FED. AID PROJECT				

TS 2010  
GLENVIEW

CONTROLLER SEQUENCE



EMERGENCY VEHICLE PREEMPTION SEQUENCE



LEGEND

- DUAL ENTRY PHASE
- SINGLE ENTRY PHASE
- OVERLAP
- PEDESTRIAN PHASE
- NUMBER REFERS TO ASSOCIATED PHASE

EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↕	↗

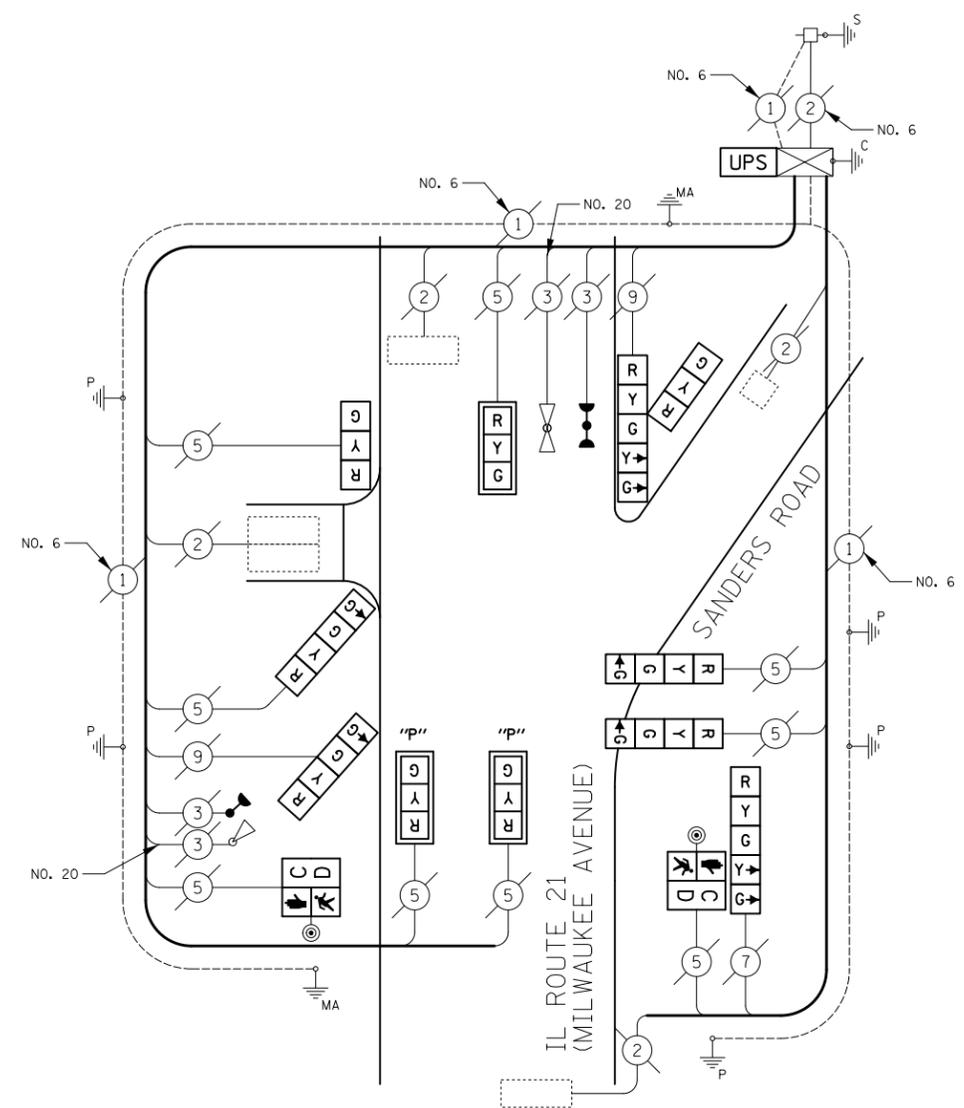
PHASE DESIGNATION DIAGRAM

RIGHT TURN OVERLAP PHASE DESIGNATION

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
A	= 1	+ 2

NOTES

- REPLACEMENT OF THE EXISTING CONFIRMATION BEACONS WITH NEW LED CONFIRMATION BEACONS SHALL BE INCLUDED IN THE PAY ITEM "UNINTERRUPTABLE POWER SUPPLY, SPECIAL".



CABLE PLAN  
NOT TO SCALE

SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QNTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, LED, 1-FACE, 4-SECTION, BRACKET MOUNTED	EACH	4
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	1
OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	2
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	3
PEDESTRIAN PUSH-BUTTON	EACH	2
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1

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.

- 4 EACH SIGNAL HEAD, 1-FACE, 3-SECTION
- 4 EACH SIGNAL HEAD, 1-FACE, 4-SECTION
- 1 EACH SIGNAL HEAD, 1-FACE, 5-SECTION
- 1 EACH SIGNAL HEAD, 2-FACE, 1-3 SECTION, 1-5 SECTION
- 2 EACH PEDESTRIAN SIGNAL HEAD, 1-FACE
- 2 EACH PEDESTRIAN PUSH-BUTTON

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	% OPERATION	
SIGNAL (RED)	11		17	0.50	94
(YELLOW)	11		25	0.25	69
(GREEN)	15		15	0.25	56
ARROW	4		12	0.10	5
PED. SIGNAL	2		25	1.00	50
CONTROLLER	1		100	1.00	100
TOTAL =					374

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, IL 60196-1096

ENERGY SUPPLY: CONTACT: COM ED  
PHONE: (866) 639-3532  
COMPANY: COM ED

NOTE:  
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

TS 2045  
GLENVIEW

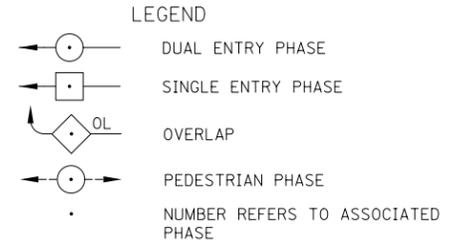
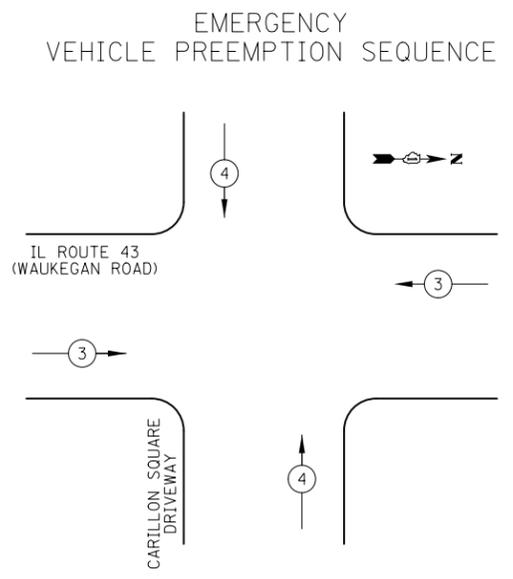
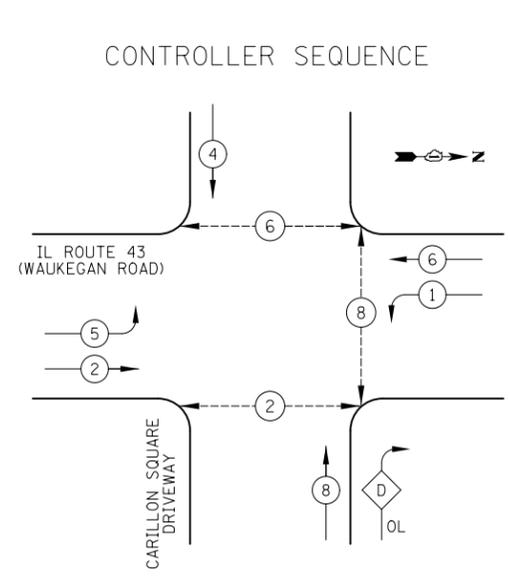


USER NAME = jrt	DESIGNED - BRD	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN - JRT	REVISED -
PLOT DATE = 12/2/2013	CHECKED - JJE	REVISED -
	DATE - 12/02/2013	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES IL ROUTE 21 (MILWAUKEE AVENUE) AT SANDERS ROAD			
NOT TO SCALE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2013-055TS	COOK	73	24
CONTRACT NO. 60X16				
ILLINOIS FED. AID PROJECT				



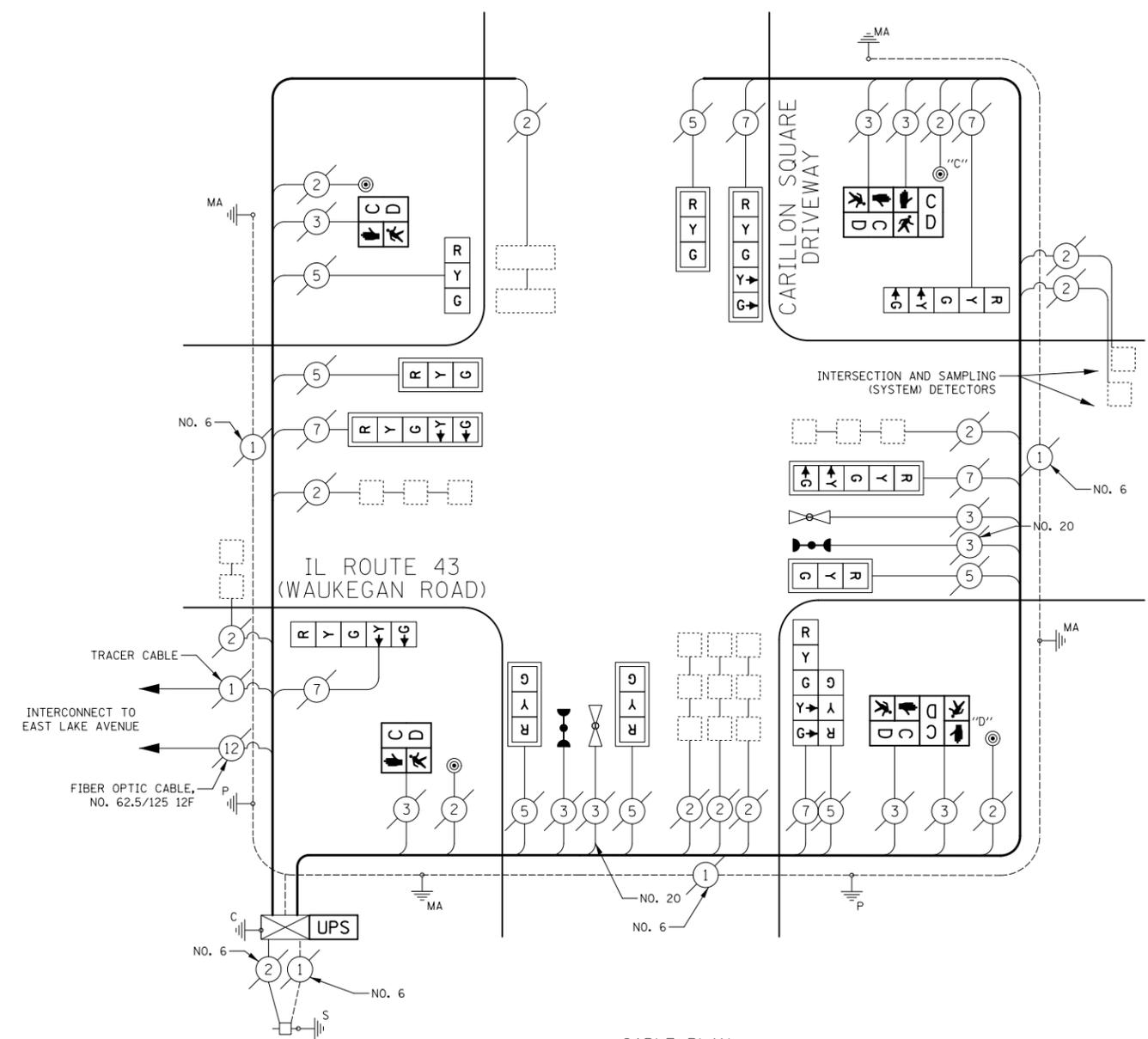
EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	← →	↑ ↓

### PHASE DESIGNATION DIAGRAM

#### RIGHT TURN OVERLAP PHASE DESIGNATION

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
D	= 8	+ 1

- ### NOTES
- REPLACEMENT OF THE EXISTING CONFIRMATION BEACONS WITH NEW LED CONFIRMATION BEACONS SHALL BE INCLUDED IN THE PAY ITEM "UNINTERRUPTABLE POWER SUPPLY, SPECIAL".



I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	% OPERATION	
SIGNAL (RED)	13		17	0.50	111
(YELLOW)	13		25	0.25	81
(GREEN)	13		15	0.25	49
ARROW	12		12	0.10	14
PED. SIGNAL	6		25	1.00	150
CONTROLLER	1		100	1.00	100
TOTAL =					505

### SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QNTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1
SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED, RETROFIT	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	5
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	3
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT	EACH	2
PEDESTRIAN PUSH-BUTTON, NON-LATCHING	EACH	4

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, IL 60196-1096

ENERGY SUPPLY: CONTACT: COM ED  
PHONE: (866) 639-3532  
COMPANY: COM ED

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.

4	EACH	PEDESTRIAN PUSH-BUTTON, NON-LATCHING
2	EACH	PEDESTRIAN SIGNAL HEAD, 1-FACE
2	EACH	PEDESTRIAN SIGNAL HEAD, 2-FACE



USER NAME = jrt	DESIGNED - BRD	REVISED -
	DRAWN - JRT	REVISED -
PLOT SCALE = 40.0000' / in.	CHECKED - JJE	REVISED -
PLOT DATE = 12/2/2013	DATE - 12/02/2013	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES  
IL ROUTE 43 (WAUKEGAN ROAD) AT CARILLON SQUARE

NOT TO SCALE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2013-055TS	COOK	73	25
CONTRACT NO. 60X16				
ILLINOIS FED. AID PROJECT				

RETROFIT ALL EXISTING SIGNAL HEADS TO L.E.D.

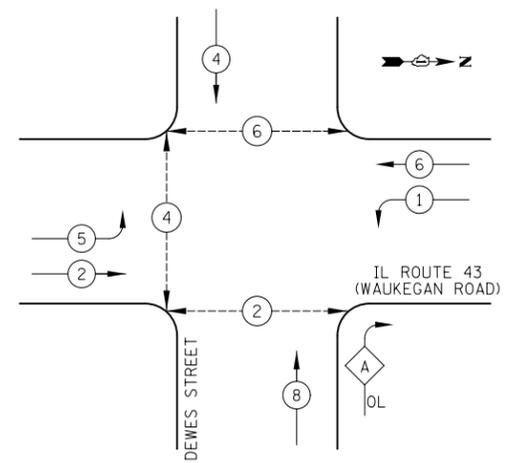
PUSHBUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8  
PUSHBUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8

NOTE:  
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

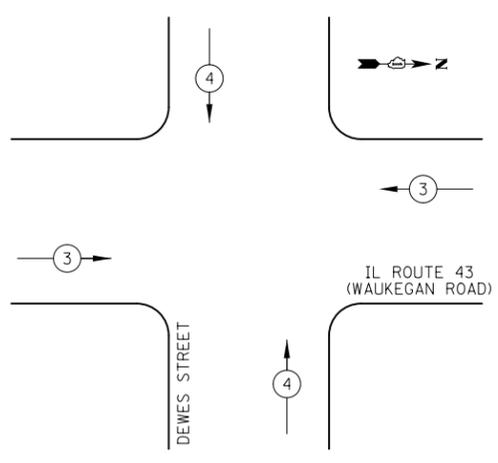
TS 10900  
GLENVIEW



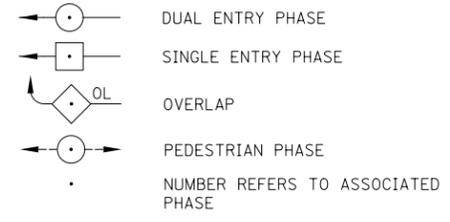
CONTROLLER SEQUENCE



EMERGENCY VEHICLE PREEMPTION SEQUENCE



LEGEND



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

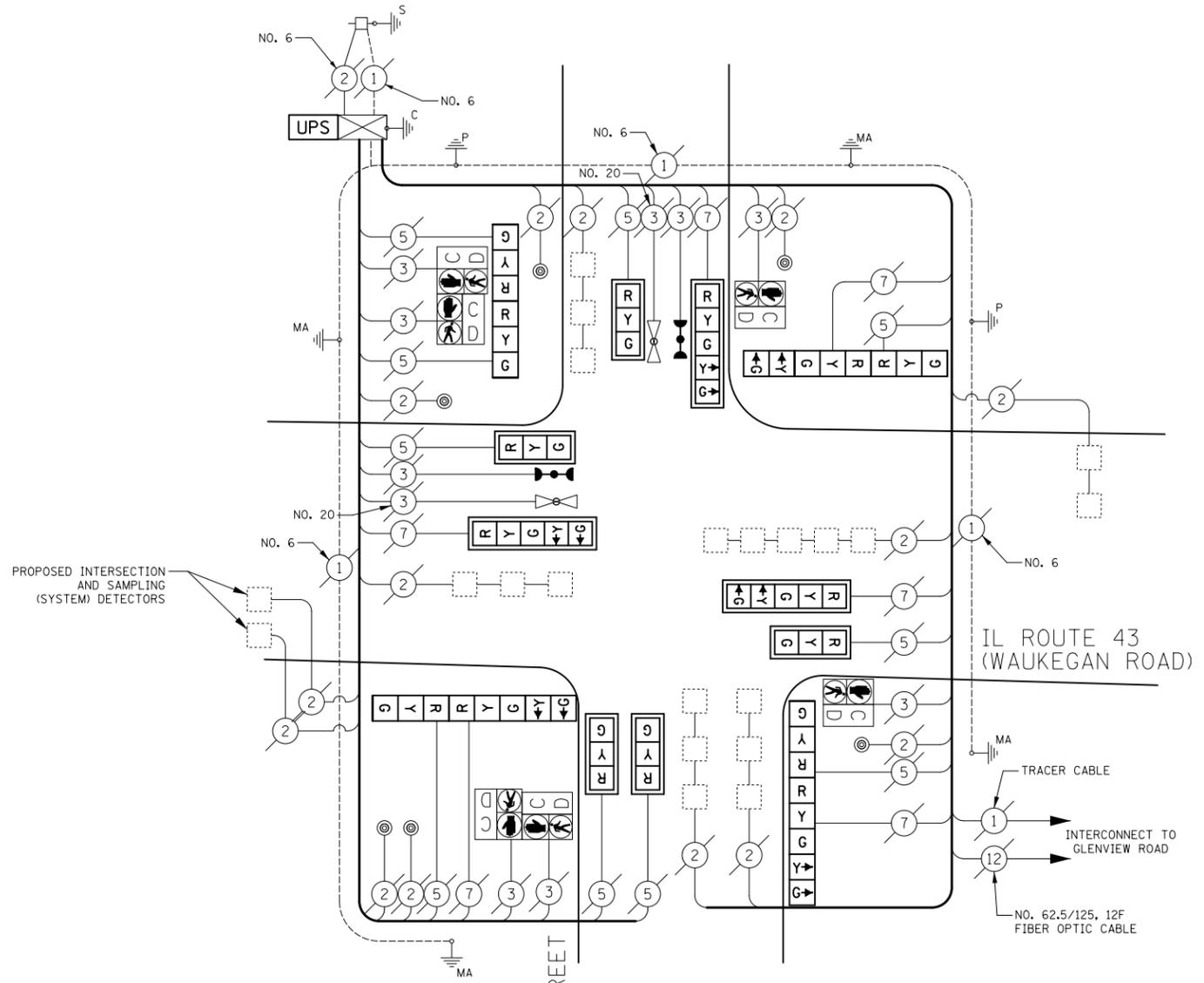
PHASE DESIGNATION DIAGRAM

RIGHT TURN OVERLAP PHASE DESIGNATION

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
A	= 8	+ 1

NOTES

- REPLACEMENT OF THE EXISTING CONFIRMATION BEACONS WITH NEW LED CONFIRMATION BEACONS SHALL BE INCLUDED IN THE PAY ITEM "UNINTERRUPTABLE POWER SUPPLY, SPECIAL".



CABLE PLAN  
NOT TO SCALE

SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QNTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	5
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	3
SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	3
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	8
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1

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.

- 5 EACH SIGNAL HEAD, 1-FACE, 3-SECTION
- 3 EACH SIGNAL HEAD, 1-FACE, 5-SECTION
- 1 EACH SIGNAL HEAD, 2-FACE, 3-SECTION
- 3 EACH SIGNAL HEAD, 2-FACE, 1-3 SECTION, 1-5 SECTION
- 8 EACH TRAFFIC SIGNAL BACKPLATE

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	% OPERATION	
SIGNAL (RED)	16		17	0.50	136
(YELLOW)	16		25	0.25	100
(GREEN)	16		15	0.25	60
ARROW	12		12	0.10	14
PED. SIGNAL	6		25	1.00	150
CONTROLLER	1		100	1.00	100
TOTAL =					560

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, IL 60196-1096

ENERGY SUPPLY: CONTACT: COM ED  
PHONE: (866) 639-3532  
COMPANY: COM ED

NOTE:  
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

TS 10880  
GLENVIEW



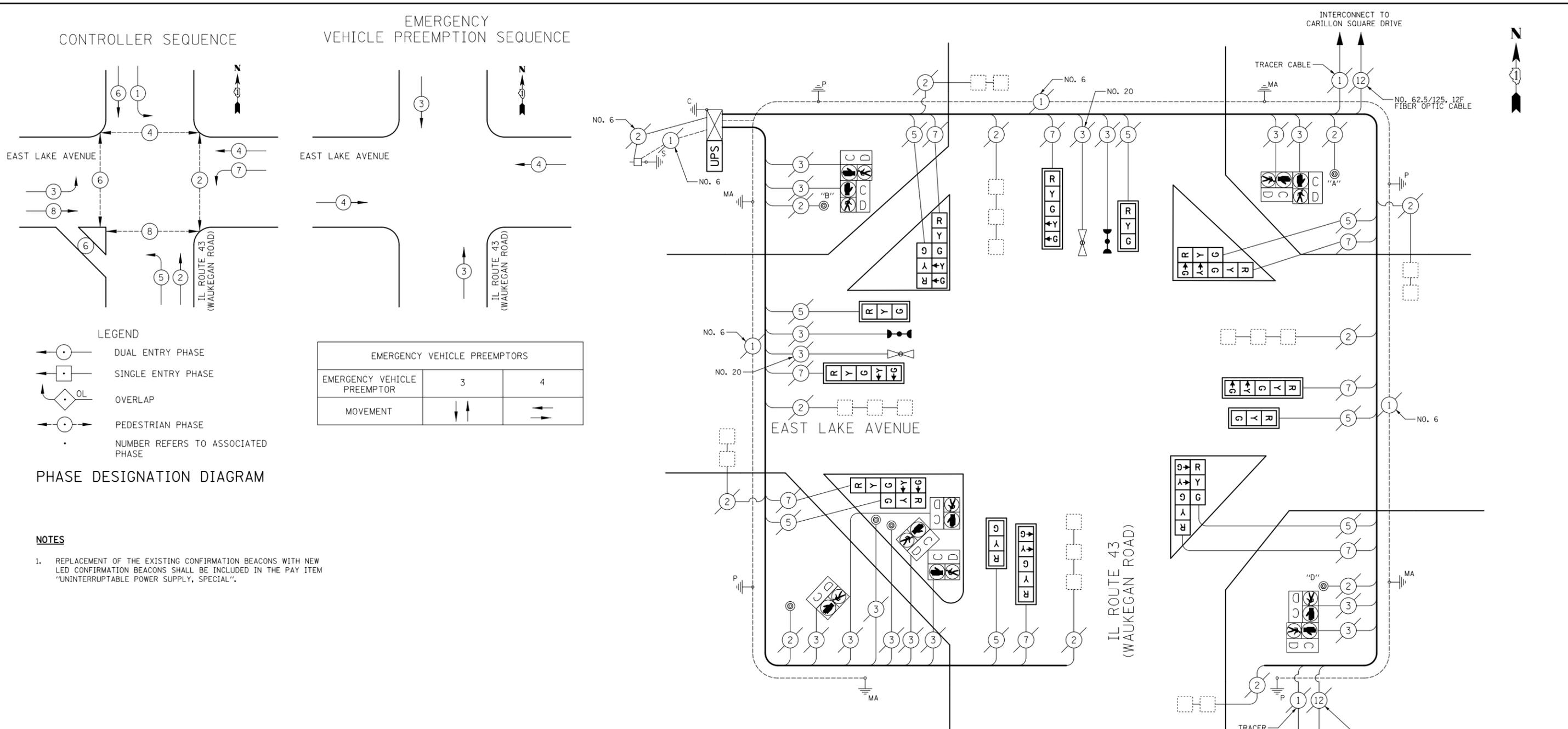
USER NAME = jrt	DESIGNED - BRD	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN - JRT	REVISED -
PLOT DATE = 12/2/2013	CHECKED - JJE	REVISED -
	DATE - 12/02/2013	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

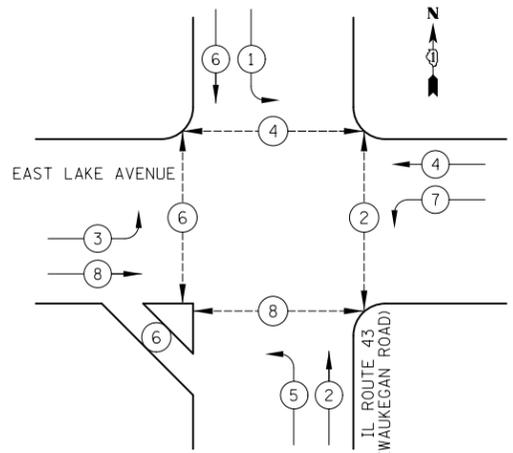
CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES  
IL ROUTE 43 (WAUKEGAN ROAD) AT DEWES STREET

NOT TO SCALE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

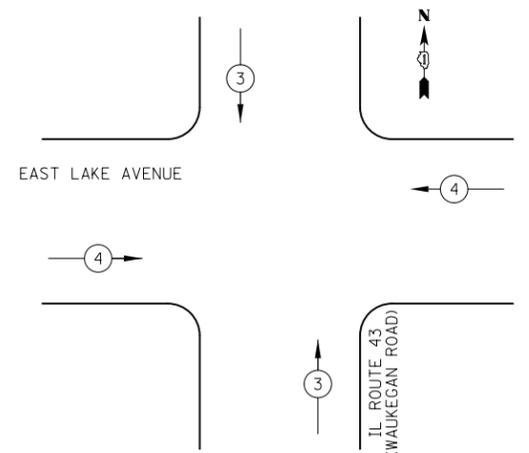
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2013-055TS	COOK	73	26
CONTRACT NO. 60X16				
ILLINOIS FED. AID PROJECT				



**CONTROLLER SEQUENCE**



**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



**LEGEND**

- ◐ DUAL ENTRY PHASE
- ◑ SINGLE ENTRY PHASE
- ◒ OVERLAP
- ◓ PEDESTRIAN PHASE
- NUMBER REFERS TO ASSOCIATED PHASE

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

**PHASE DESIGNATION DIAGRAM**

**NOTES**

1. REPLACEMENT OF THE EXISTING CONFIRMATION BEACONS WITH NEW LED CONFIRMATION BEACONS SHALL BE INCLUDED IN THE PAY ITEM "UNINTERRUPTABLE POWER SUPPLY, SPECIAL".

**SCHEDULE OF QUANTITIES**

PAY ITEM	UNIT	QNTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	4
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	4
SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	4
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	8
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1

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.

4	EACH	SIGNAL HEAD, 1-FACE, 3-SECTION
4	EACH	SIGNAL HEAD, 1-FACE, 5-SECTION
4	EACH	SIGNAL HEAD, 2-FACE, 1-3 SECTION, 1-5 SECTION
8	EACH	TRAFFIC SIGNAL BACKPLATE

**CABLE PLAN**  
NOT TO SCALE

PUSHBUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4  
 PUSHBUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6  
 PUSHBUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	% OPERATION	
SIGNAL (RED)	16		17	0.50	136
(YELLOW)	16		25	0.25	100
(GREEN)	16		15	0.25	60
ARROW	16		12	0.10	19
PED. SIGNAL	8		25	1.00	200
CONTROLLER	1		100	1.00	100
TOTAL =					615

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION  
 201 WEST CENTER COURT  
 SCHAUMBURG, IL 60196-1096

ENERGY SUPPLY: CONTACT: COM ED  
 PHONE: (866) 639-3532  
 COMPANY: COM ED

NOTE:  
 THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

TS 2300  
 GLENVIEW



USER NAME = jrt	DESIGNED - BRD	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN - JRT	REVISED -
PLOT DATE = 12/2/2013	CHECKED - JJE	REVISED -
	DATE - 12/02/2013	REVISED -

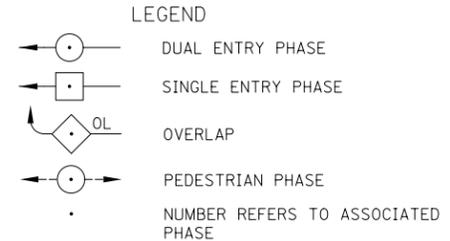
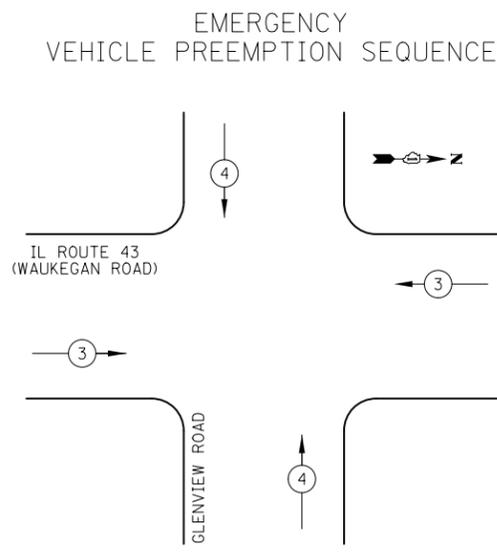
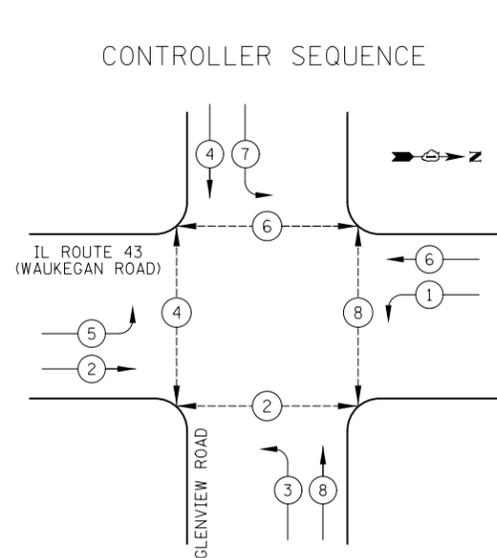
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES  
 IL ROUTE 43 (WAUKEGAN ROAD) AT EAST LAKE AVENUE**

NOT TO SCALE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2013-055TS	COOK	73	27

CONTRACT NO. 60X16  
 ILLINOIS FED. AID PROJECT

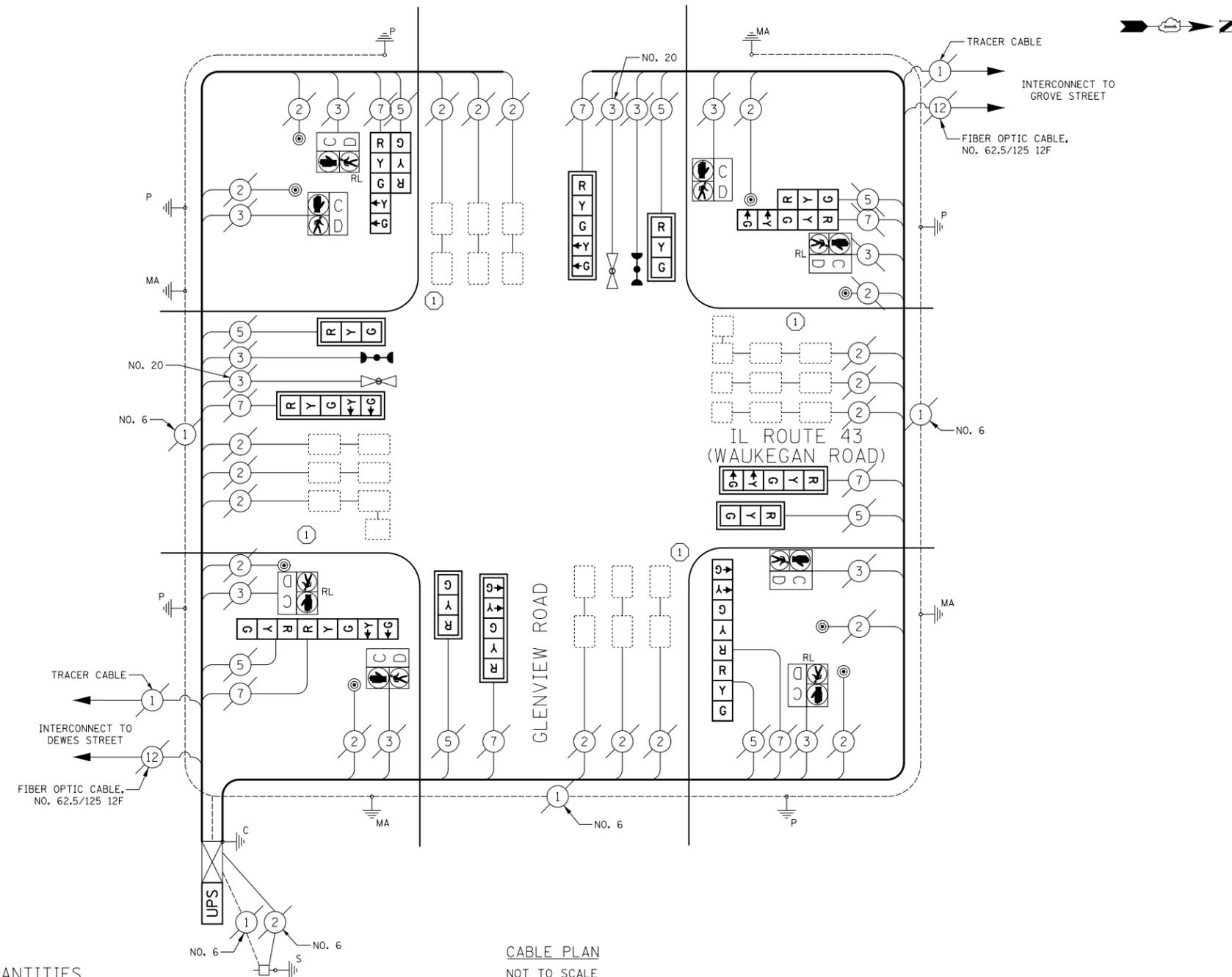


EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT		

### PHASE DESIGNATION DIAGRAM

### NOTES

- REPLACEMENT OF THE EXISTING CONFIRMATION BEACONS WITH NEW LED CONFIRMATION BEACONS SHALL BE INCLUDED IN THE PAY ITEM "UNINTERRUPTABLE POWER SUPPLY, SPECIAL".
- THE CONTRACTOR SHALL RELOCATE EXISTING COUNTDOWN PEDESTRIAN SIGNAL HEAD TO THE NEW TRAFFIC SIGNAL POST. THE COST OF THIS WORK SHALL BE INCLUDED IN THE PAY ITEM "TRAFFIC SIGNAL POST, GALVANIZED STEEL" OF THE HEIGHT SPECIFIED.



### SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QNTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	4
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	4
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	4
SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	4
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	8
PEDESTRIAN PUSH-BUTTON	EACH	8
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1

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.

8	EACH	PEDESTRIAN PUSH-BUTTON
4	EACH	TRAFFIC SIGNAL POST
4	EACH	SIGNAL HEAD, 1-FACE, 3-SECTION
4	EACH	SIGNAL HEAD, 1-FACE, 5-SECTION
4	EACH	SIGNAL HEAD, 2-FACE, 1-3 SECTION, 1-5 SECTION
8	EACH	TRAFFIC SIGNAL BACKPLATE

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	% OPERATION	
SIGNAL (RED)	16		17	0.50	136
(YELLOW)	16		25	0.25	100
(GREEN)	16		15	0.25	60
ARROW	16		12	0.10	19
PED. SIGNAL	8		25	1.00	200
CONTROLLER	1		100	1.00	100
TOTAL =					615

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, IL 60196-1096

ENERGY SUPPLY: CONTACT: COM ED  
PHONE: (866) 639-3532  
COMPANY: COM ED

1 REPLACE PAINTED POST WITH 16 FT. POST. RE-USE EXISTING TYPE A FOUNDATION, AND RELOCATE EXISTING PEDESTRIAN SIGNAL.

NOTE: THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.



USER NAME = jrt	DESIGNED - BRD	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN - JRT	REVISED -
PLOT DATE = 12/2/2013	CHECKED - JJE	REVISED -
	DATE - 12/02/2013	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES  
IL ROUTE 43 (WAUKEGAN ROAD) AT GLENVIEW ROAD

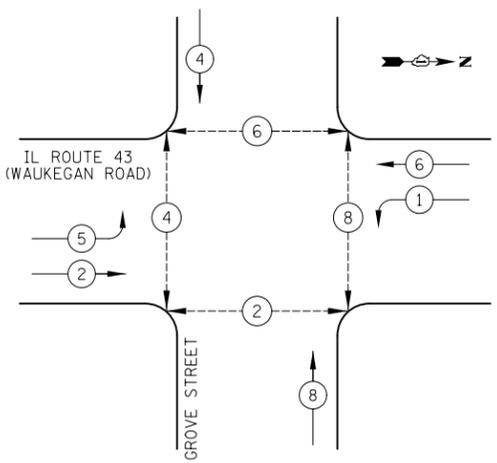
NOT TO SCALE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2013-055TS	COOK	73	28
CONTRACT NO. 60X16				
ILLINOIS FED. AID PROJECT				

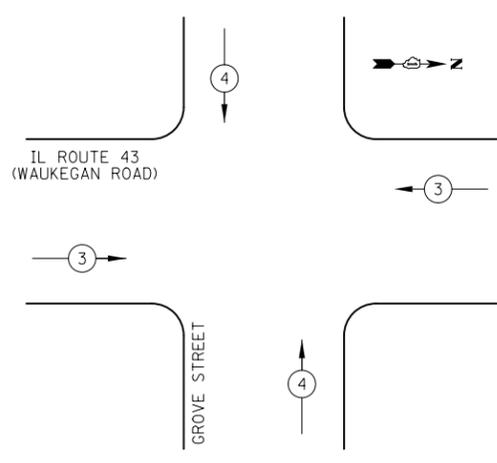
TS 10905  
GLENVIEW



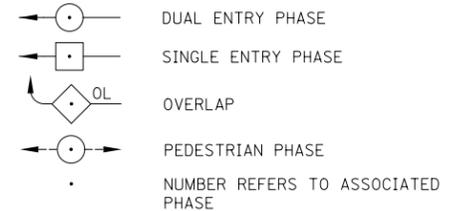
CONTROLLER SEQUENCE



EMERGENCY VEHICLE PREEMPTION SEQUENCE



LEGEND

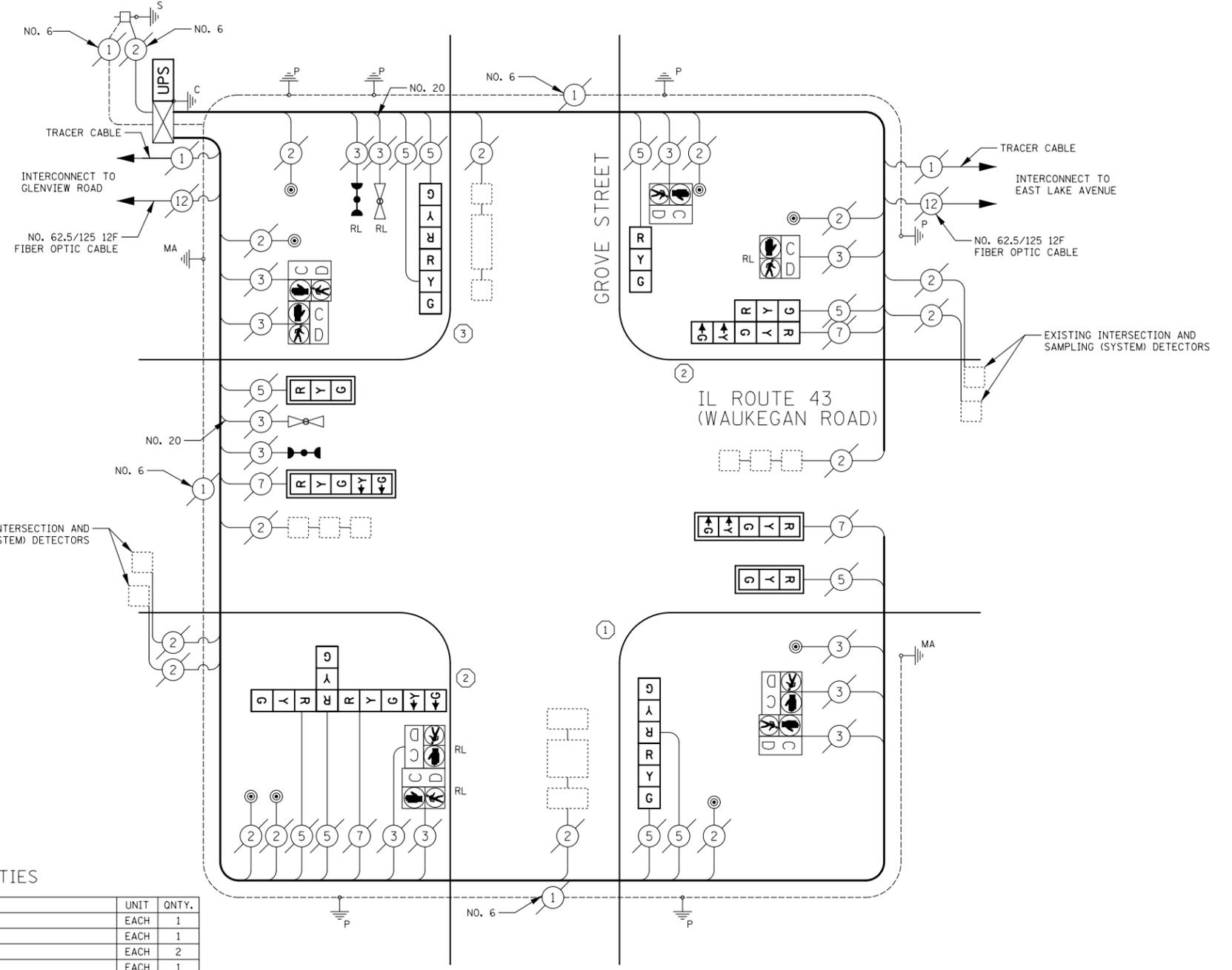


EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	← →	↑ ↓

PHASE DESIGNATION DIAGRAM

NOTES

- REPLACEMENT OF THE EXISTING CONFIRMATION BEACONS WITH NEW LED CONFIRMATION BEACONS SHALL BE INCLUDED IN THE PAY ITEM "UNINTERRUPTABLE POWER SUPPLY, SPECIAL".
- THE PROPOSED UPS SHALL BE INSTALLED ON THE LEFT (WEST) SIDE OF THE CONTROLLER CABINET.
- THE CONTRACTOR SHALL RELOCATE EXISTING COUNTDOWN PEDESTRIAN SIGNAL HEAD TO THE NEW TRAFFIC SIGNAL POST. THE COST OF THIS WORK SHALL BE INCLUDED IN THE PAY ITEM "TRAFFIC SIGNAL POST, GALVANIZED STEEL" OF THE HEIGHT SPECIFIED.
- THE CONTRACTOR SHALL RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, DETECTOR UNIT TO THE NEW TRAFFIC SIGNAL POST. THE COST OF THIS WORK SHALL BE INCLUDED IN THE PAY ITEM "TRAFFIC SIGNAL POST, GALVANIZED STEEL" OF THE HEIGHT SPECIFIED.



SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QNTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	2
TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	2
SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, LED, 3-FACE, 2-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	1
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	4
PEDESTRIAN PUSH-BUTTON	EACH	8
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1

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.

3	EACH	SIGNAL HEAD, 1-FACE, 3-SECTION
2	EACH	SIGNAL HEAD, 1-FACE, 5-SECTION
2	EACH	SIGNAL HEAD, 2-FACE, 3-SECTION
1	EACH	SIGNAL HEAD, 2-FACE, 1-3 SECTION, 1-5 SECTION
1	EACH	SIGNAL HEAD, 3-FACE, 2-3 SECTION, 1-5 SECTION
4	EACH	TRAFFIC SIGNAL BACKPLATE
8	EACH	PEDESTRIAN PUSH-BUTTON
4	EACH	TRAFFIC SIGNAL POST

CABLE PLAN  
NOT TO SCALE

- REPLACE PAINTED POST WITH 14 FT. POST AND RE-USE EXISTING TYPE A FOUNDATION.
- REPLACE PAINTED POST WITH 16 FT. POST, RE-USE EXISTING TYPE A FOUNDATION AND RELOCATE EXISTING PEDESTRIAN SIGNAL.
- REPLACE PAINTED POST WITH 18 FT. POST, RE-USE EXISTING TYPE A FOUNDATION AND RELOCATE EXISTING LIGHT DETECTOR.

NOTE: THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	% OPERATION	
SIGNAL (RED)	14		17	0.50	119
(YELLOW)	14		25	0.25	88
(GREEN)	14		15	0.25	53
ARROW	8		12	0.10	10
PED. SIGNAL	8		25	1.00	200
CONTROLLER	1		100	1.00	100
TOTAL =					570

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, IL 60196-1096  
ENERGY SUPPLY: CONTACT: COM ED  
PHONE: (866) 639-3532  
COMPANY: COM ED



USER NAME = jrt	DESIGNED - BRD	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN - JRT	REVISED -
PLOT DATE = 12/2/2013	CHECKED - JJE	REVISED -
	DATE - 12/02/2013	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

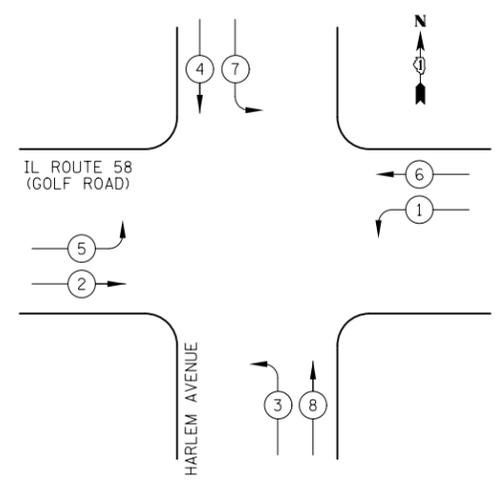
CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES  
IL ROUTE 43 (WAUKEGAN ROAD) AT GROVE AVENUE

NOT TO SCALE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

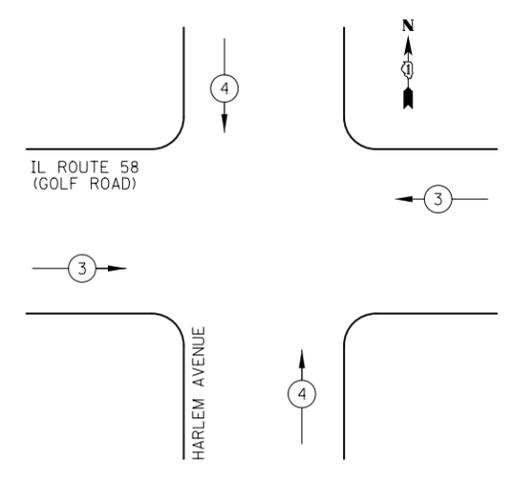
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2013-055TS	COOK	73	29
CONTRACT NO. 60X16				
ILLINOIS FED. AID PROJECT				

TS 10920  
GLENVIEW

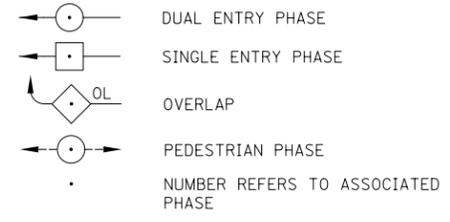
CONTROLLER SEQUENCE



EMERGENCY VEHICLE PREEMPTION SEQUENCE



LEGEND

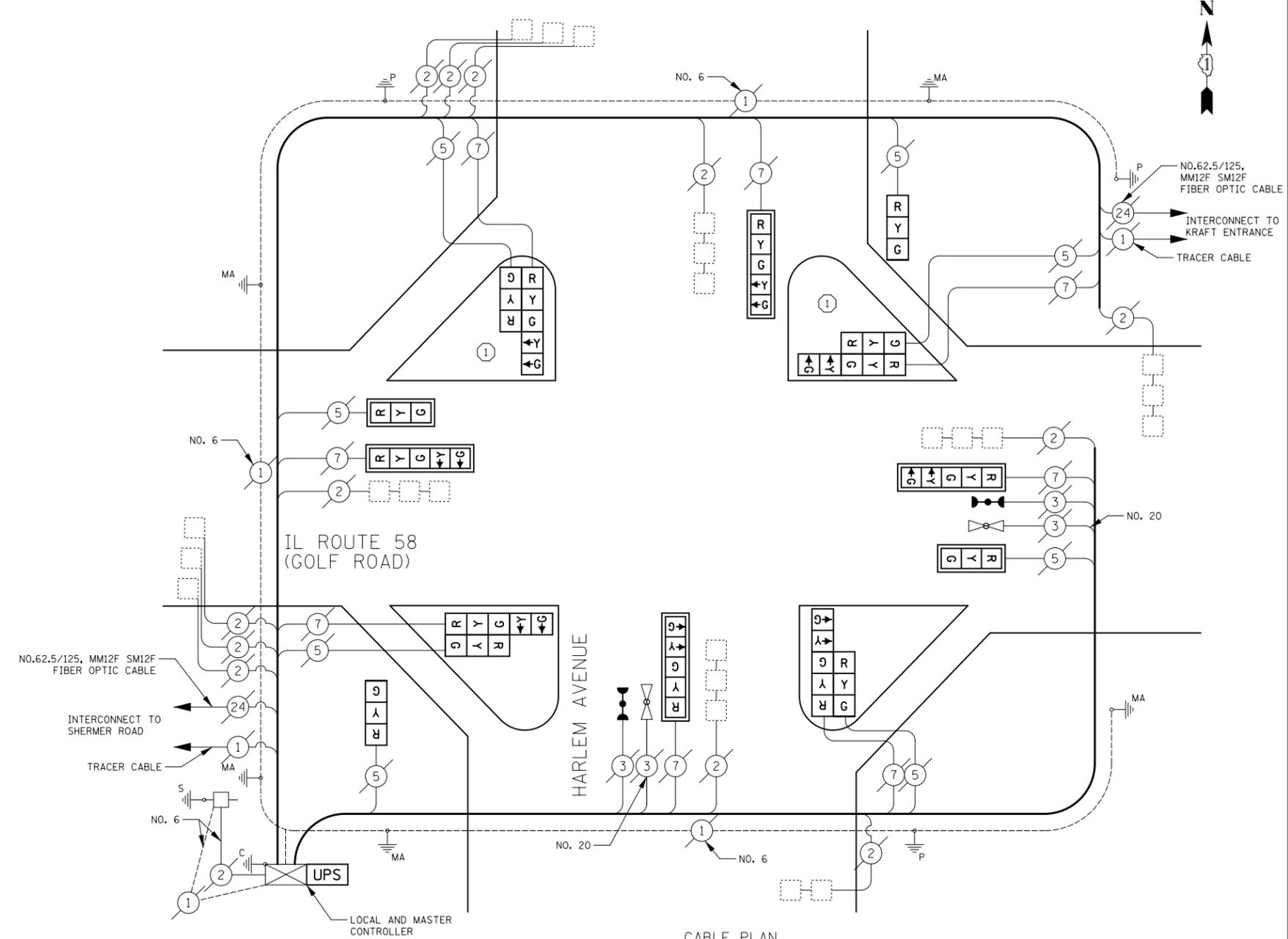


EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	← →	↑ ↓

PHASE DESIGNATION DIAGRAM

NOTES

- REPLACEMENT OF THE EXISTING CONFIRMATION BEACONS WITH NEW LED CONFIRMATION BEACONS SHALL BE INCLUDED IN THE PAY ITEM "UNINTERRUPTABLE POWER SUPPLY, SPECIAL".



CABLE PLAN  
NOT TO SCALE

1 REPLACE PAINTED POST WITH 16 FT. POST, RE-USE EXISTING TYPE A FOUNDATION

SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QNTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	2
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	4
SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	4
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	6
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1

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.

4	EACH	SIGNAL HEAD, 1-FACE, 3-SECTION
4	EACH	SIGNAL HEAD, 1-FACE, 5-SECTION
4	EACH	SIGNAL HEAD, 2-FACE, 1-3 SECTION
6	EACH	TRAFFIC SIGNAL BACKPLATE
2	EACH	TRAFFIC SIGNAL POST

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	% OPERATION	
SIGNAL (RED)	16		17	0.50	136
(YELLOW)	16		25	0.25	100
(GREEN)	16		15	0.25	60
ARROW	16		12	0.10	19
CONTROLLER	1		100	1.00	100
TOTAL =					415

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, IL 60196-1096

ENERGY SUPPLY: CONTACT: COM ED  
PHONE: (866) 639-3532  
COMPANY: COM ED

NOTE:  
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

TS 2780  
GLENVIEW



USER NAME = jrt	DESIGNED - BRD	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN - JRT	REVISED -
PLOT DATE = 12/2/2013	CHECKED - JJE	REVISED -
	DATE - 12/02/2013	REVISED -

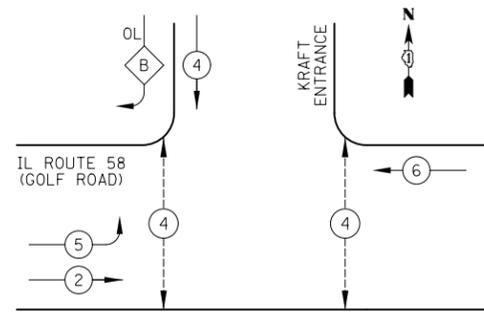
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES  
IL ROUTE 58 (GOLF ROAD) AT HARLEM AVENUE

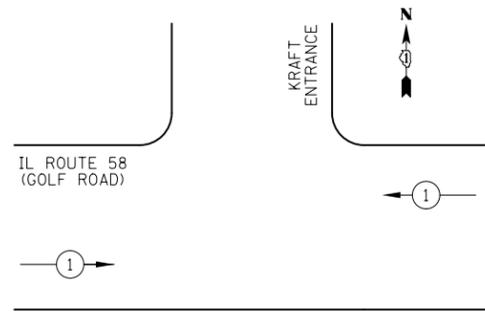
NOT TO SCALE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2013-055TS	COOK	73	30
CONTRACT NO. 60X16				
ILLINOIS FED. AID PROJECT				

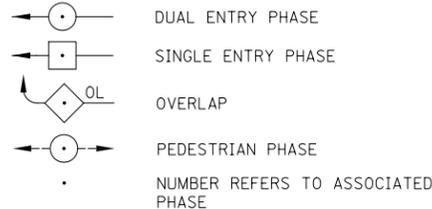
CONTROLLER SEQUENCE



EMERGENCY VEHICLE PREEMPTION SEQUENCE



LEGEND



EMERGENCY VEHICLE PREEMPTORS	
EMERGENCY VEHICLE PREEMPTOR	1
MOVEMENT	→

PHASE DESIGNATION DIAGRAM

RIGHT TURN OVERLAP PHASE DESIGNATION

OVERLAP PHASE	PERMISSIVE PHASE	PROTECTIVE PHASE
B	= 4	+ 5

NOTES

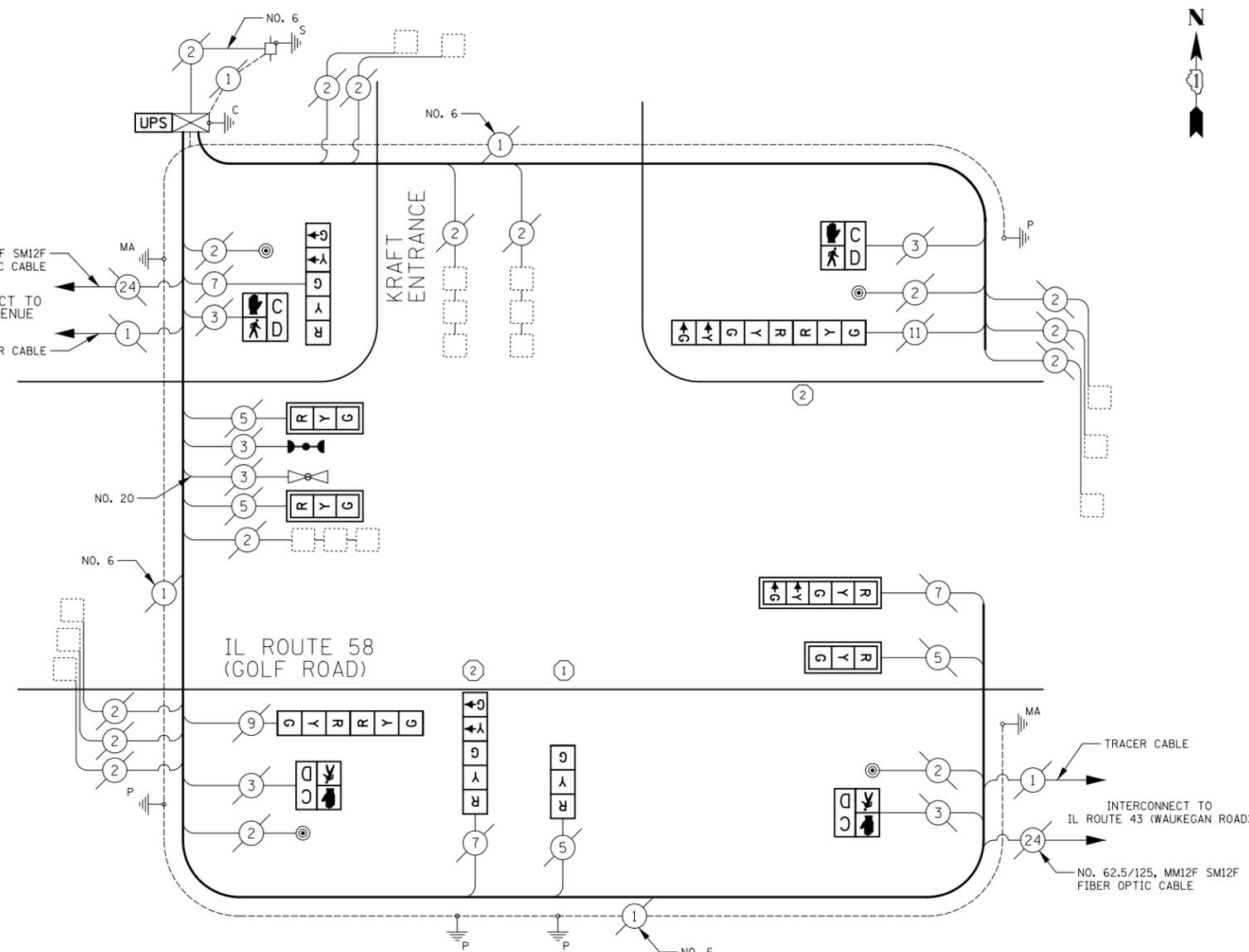
- REPLACEMENT OF THE EXISTING CONFIRMATION BEACONS WITH NEW LED CONFIRMATION BEACONS SHALL BE INCLUDED IN THE PAY ITEM "UNINTERRUPTABLE POWER SUPPLY, SPECIAL".

SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QNTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	2
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	3
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	1
SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	4
PEDESTRIAN PUSH-BUTTON	EACH	4
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1

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.

- 4 EACH SIGNAL HEAD, 1-FACE, 3-SECTION
- 3 EACH SIGNAL HEAD, 1-FACE, 5-SECTION
- 1 EACH SIGNAL HEAD, 2-FACE, 3-SECTION
- 1 EACH SIGNAL HEAD, 2-FACE, 1-3 SECTION, 1-5 SECTION
- 4 EACH TRAFFIC SIGNAL BACKPLATE
- 4 EACH PEDESTRIAN PUSH-BUTTON
- 4 EACH PEDESTRIAN SIGNAL HEAD, 1-FACE
- 3 EACH TRAFFIC SIGNAL POST



CABLE PLAN  
NOT TO SCALE

- ① REPLACE PAINTED POST WITH 14 FT. POST, RE-USE EXISTING TYPE A FOUNDATION
- ② REPLACE PAINTED POST WITH 16 FT. POST, RE-USE EXISTING TYPE A FOUNDATION

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	% OPERATION	
SIGNAL (RED)	11		17	0.50	94
(YELLOW)	11		25	0.25	67
(GREEN)	11		15	0.25	41
ARROW	8		12	0.10	10
PED. SIGNAL	4		25	1.00	100
CONTROLLER	1		100	1.00	100
TOTAL =					412

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, IL 60196-1096  
ENERGY SUPPLY: CONTACT: COM ED  
PHONE: (866) 639-3532  
COMPANY: COM ED

NOTE:  
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

TS 2800  
GLENVIEW



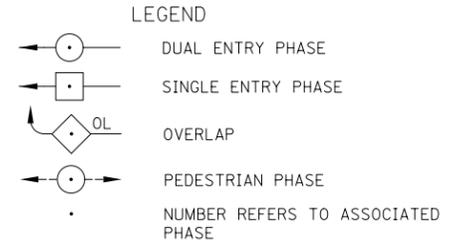
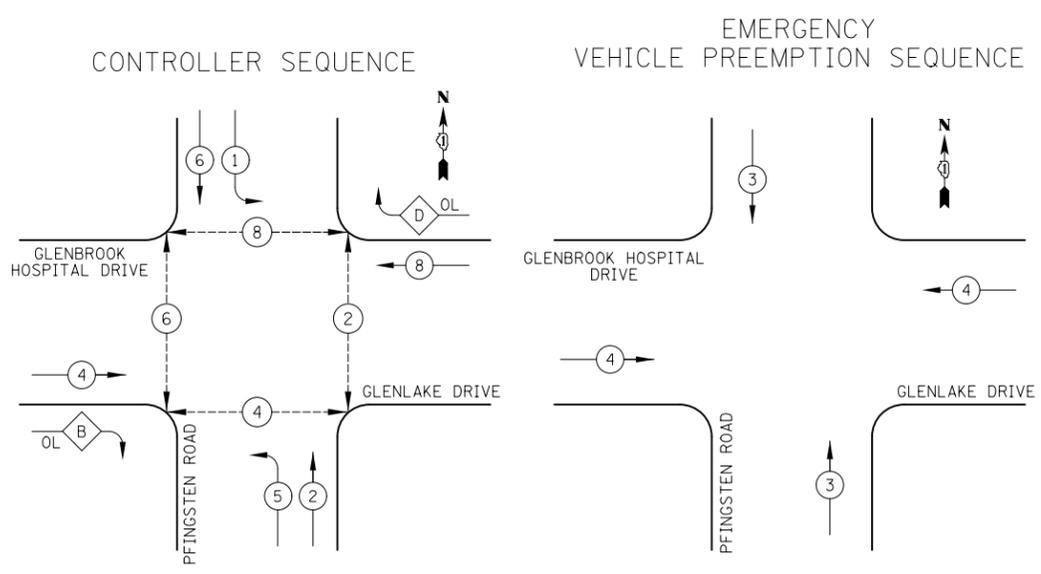
USER NAME = jrt	DESIGNED - BRD	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN - JRT	REVISED -
PLOT DATE = 12/2/2013	CHECKED - JJE	REVISED -
	DATE - 12/02/2013	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES  
IL ROUTE 58 (GOLF ROAD) AT KRAFT FOODS

NOT TO SCALE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2013-055TS	COOK	73	31
CONTRACT NO. 60X16				
ILLINOIS FED. AID PROJECT				



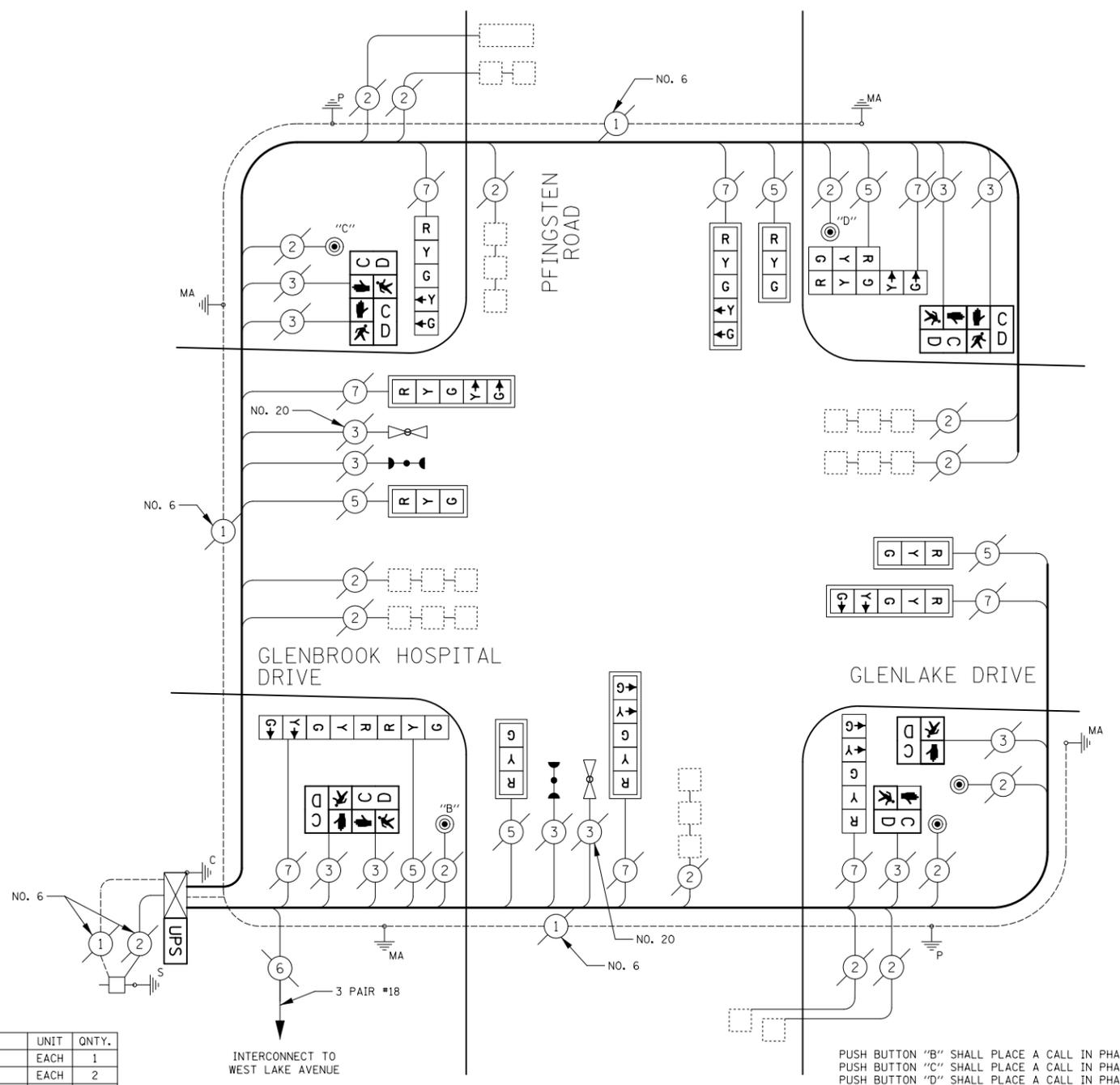
EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↑ ↓	← →

**PHASE DESIGNATION DIAGRAM**

**RIGHT TURN OVERLAP PHASE DESIGNATION**

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
B	= 4	+ 5
D	= 8	+ 1

- NOTES**
- REPLACEMENT OF THE EXISTING CONFIRMATION BEACONS WITH NEW LED CONFIRMATION BEACONS SHALL BE INCLUDED IN THE PAY ITEM "UNINTERRUPTABLE POWER SUPPLY, SPECIAL".



CABLE PLAN  
NOT TO SCALE

RETROFIT ALL EXISTING SIGNAL HEADS TO L.E.D.

PUSH BUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6  
PUSH BUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8  
PUSH BUTTON "D" SHALL PLACE A CALL IN PHASES 8 AND 2

**SCHEDULE OF QUANTITIES**

PAY ITEM	UNIT	QNTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	3
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1
SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED, RETROFIT	EACH	2
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	4
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	4
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT	EACH	2
PEDESTRIAN PUSH-BUTTON, NON-LATCHING	EACH	5

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

- 2 EACH PEDESTRIAN SIGNAL HEAD, 1-FACE
- 3 EACH PEDESTRIAN SIGNAL HEAD, 2-FACE
- 5 EACH PEDESTRIAN PUSH-BUTTON, NON-LATCHING

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	% OPERATION	
SIGNAL (RED)	14		17	0.50	119
(YELLOW)	14		25	0.25	88
(GREEN)	14		15	0.25	53
ARROW	16		12	0.10	19
PED. SIGNAL	8		25	1.00	200
CONTROLLER	1		100	1.00	100
TOTAL =					579

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, IL 60196-1096

ENERGY SUPPLY: CONTACT: COM ED  
PHONE: (866) 639-3532  
COMPANY: COM ED

NOTE:  
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

TS 21600  
GLENVIEW



USER NAME = jrt	DESIGNED - BRD	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN - JRT	REVISED -
PLOT DATE = 12/2/2013	CHECKED - JJE	REVISED -
	DATE - 12/02/2013	REVISED -

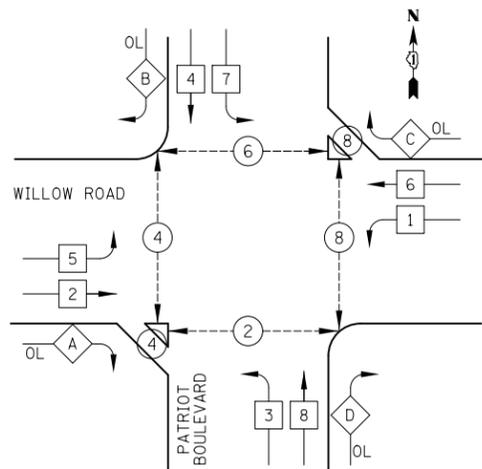
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES  
PFLINGSTEN ROAD AT GLENLAKE DRIVE/GLENBROOK HOSPITAL**

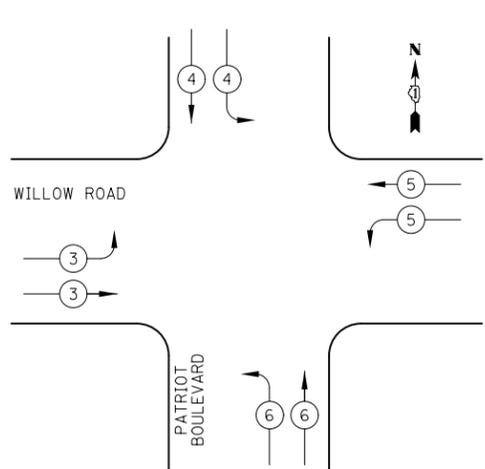
NOT TO SCALE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2013-055TS	COOK	73	32
CONTRACT NO. 60X16				
ILLINOIS FED. AID PROJECT				

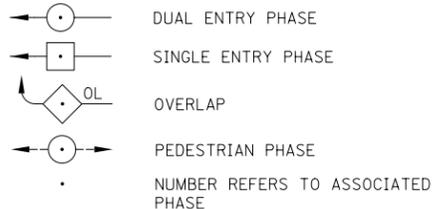
CONTROLLER SEQUENCE



EMERGENCY VEHICLE PREEMPTION SEQUENCE



LEGEND



EMERGENCY VEHICLE PREEMPTORS				
EMERGENCY VEHICLE PREEMPTOR	3	4	5	6
MOVEMENT				

PHASE DESIGNATION DIAGRAM

RIGHT TURN OVERLAP PHASE DESIGNATION

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
A	= 2	+ 3
B	= 4	+ 5
C	= 6	+ 7
D	= 8	+ 1

NOTES

- REPLACEMENT OF THE EXISTING CONFIRMATION BEACON WITH NEW LED CONFIRMATION BEACONS SHALL BE INCLUDED IN THE PAY ITEM "UNINTERRUPTABLE POWER SUPPLY, SPECIAL".

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	% OPERATION	
SIGNAL (RED)	22		17	0.50	187
(YELLOW)	22		25	0.25	138
(GREEN)	22		15	0.25	83
ARROW	16		12	0.10	19
PED. SIGNAL	12		25	1.00	300
CONTROLLER	1		100	1.00	100
TOTAL =					827

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, IL 60196-1096

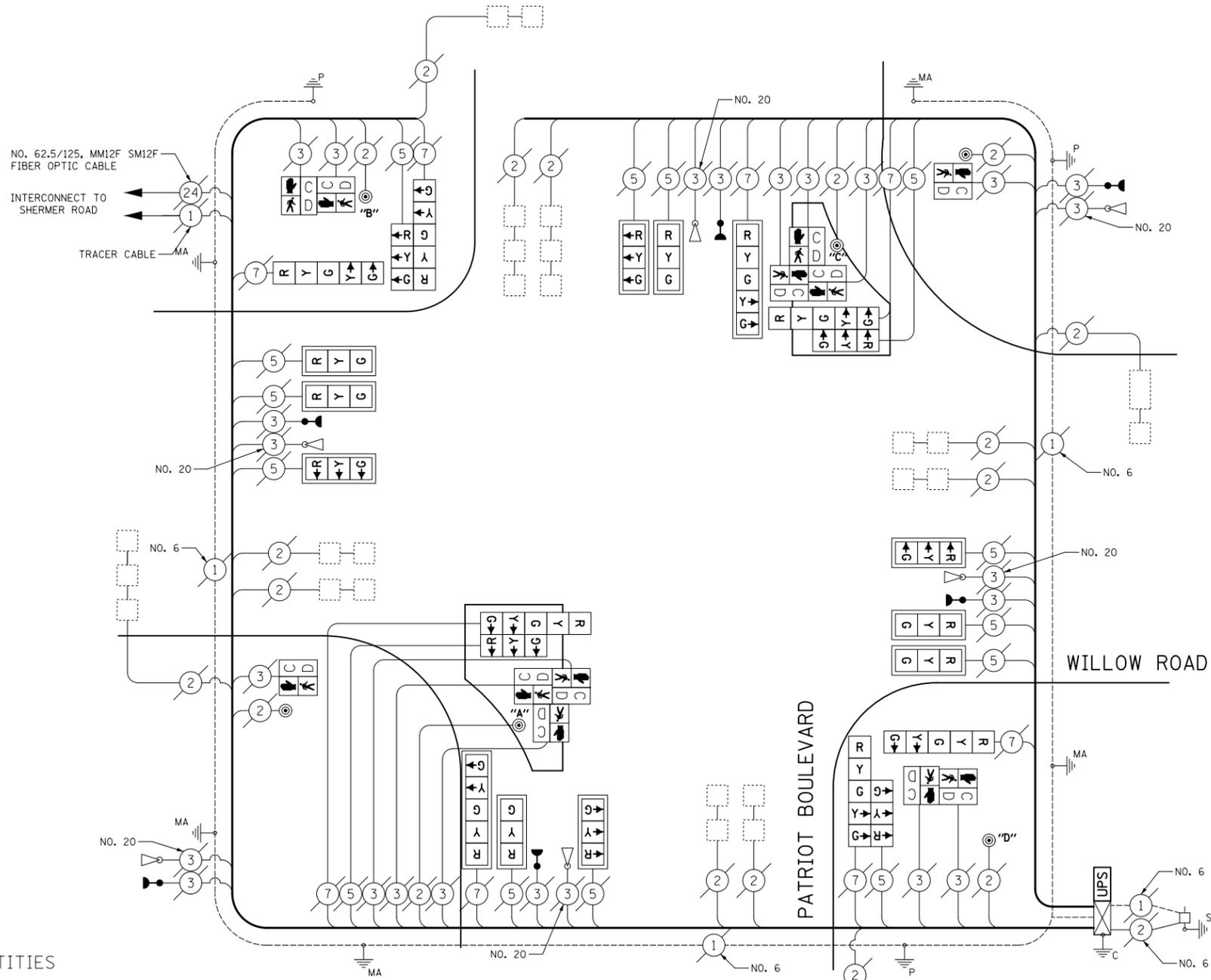
ENERGY SUPPLY: CONTACT: COM ED  
PHONE: (866) 639-3532  
COMPANY: COM ED

SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QNTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
PEDESTRIAN SIGNAL HEAD, LED, 3-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1
SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED, RETROFIT	EACH	4
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	10
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT	EACH	2
PEDESTRIAN PUSH-BUTTON, NON-LATCHING	EACH	6

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.

- 6 EACH PEDESTRIAN PUSHBUTTON, NON-LATCHING
- 2 EACH PEDESTRIAN SIGNAL HEAD, 1-FACE
- 2 EACH PEDESTRIAN SIGNAL HEAD, 2-FACE
- 2 EACH PEDESTRIAN SIGNAL HEAD, 3-FACE



PUSH BUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4  
PUSH BUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6  
PUSH BUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8  
PUSH BUTTON "D" SHALL PLACE A CALL IN PHASES 8 AND 2

NOTE:  
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.



USER NAME = jrt	DESIGNED - BRD	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN - JRT	REVISED -
PLOT DATE = 12/2/2013	CHECKED - JJE	REVISED -
	DATE - 12/02/2013	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES  
WILLOW ROAD AT PATRIOT BOULEVARD

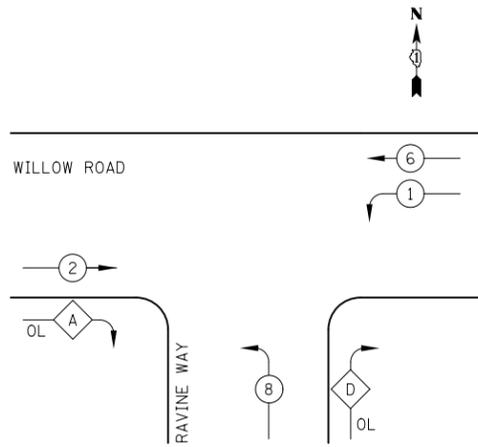
NOT TO SCALE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2013-055TS	COOK	73	33
CONTRACT NO. 60X16				
ILLINOIS FED. AID PROJECT				

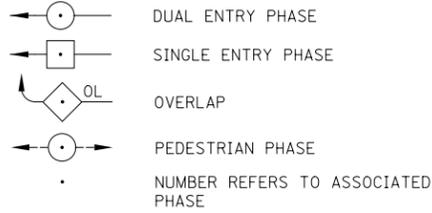


TS 5932  
GLENVIEW

CONTROLLER SEQUENCE



LEGEND



PHASE DESIGNATION DIAGRAM

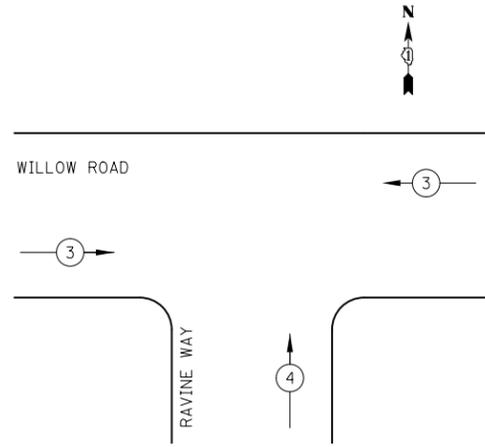
RIGHT TURN OVERLAP PHASE DESIGNATION

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
A	= 2	+ 3
D	= 8	+ 1

NOTES

- REPLACEMENT OF THE EXISTING CONFIRMATION BEACON WITH NEW LED CONFIRMATION BEACONS SHALL BE INCLUDED IN THE PAY ITEM "UNINTERRUPTABLE POWER SUPPLY, SPECIAL".

EMERGENCY VEHICLE PREEMPTION SEQUENCE



EMERGENCY VEHICLE PREEMPTORS

EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	← →	↑

SCHEDULE OF QUANTITIES

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	% OPERATION	
SIGNAL (RED)	12		17	0.50	102
(YELLOW)	12		25	0.25	75
(GREEN)	12		15	0.25	45
ARROW	8		12	0.10	10
CONTROLLER	1		100	1.00	100
TOTAL =					332

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, IL 60196-1096  
ENERGY SUPPLY: CONTACT: COM ED  
PHONE: (866) 639-3532  
COMPANY: COM ED

PAY ITEM	UNIT	QNTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT	EACH	4
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	2
SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT	EACH	1
SIGNAL HEAD, LED, 2-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT	EACH	1

RETROFIT ALL EXISTING SIGNAL HEADS TO L.E.D.

NOTE: THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

TS 5931  
GLENVIEW

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES  
WILLOW ROAD AT RAVINE WAY

NOT TO SCALE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2013-055TS	COOK	73	34
CONTRACT NO. 60X16				
ILLINOIS FED. AID PROJECT				



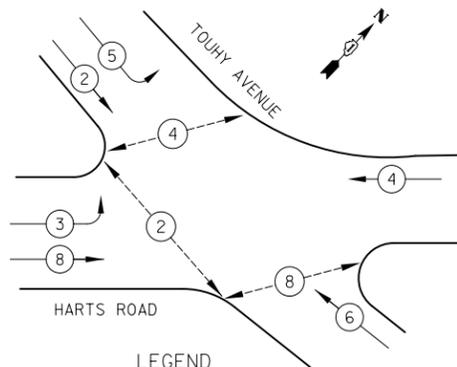
USER NAME = jrt  
DRAWN - JRT  
CHECKED - JJE  
PLOT DATE = 12/2/2013

DESIGNED - BRD  
REVISIONS: REVISED -  
REVISIONS: REVISED -  
REVISIONS: REVISED -  
DATE - 12/02/2013

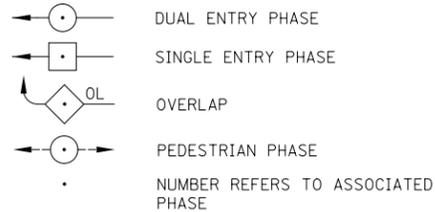
REVISIONS: REVISED -  
REVISIONS: REVISED -  
REVISIONS: REVISED -  
REVISIONS: REVISED -

ILLINOIS FED. AID PROJECT

CONTROLLER SEQUENCE

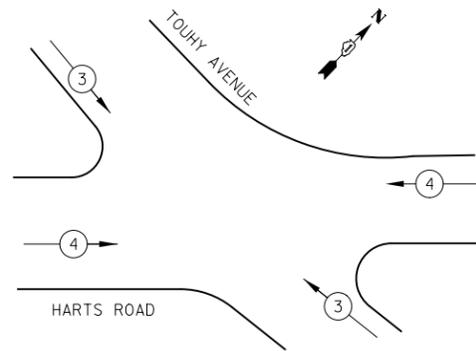


LEGEND



PHASE DESIGNATION DIAGRAM

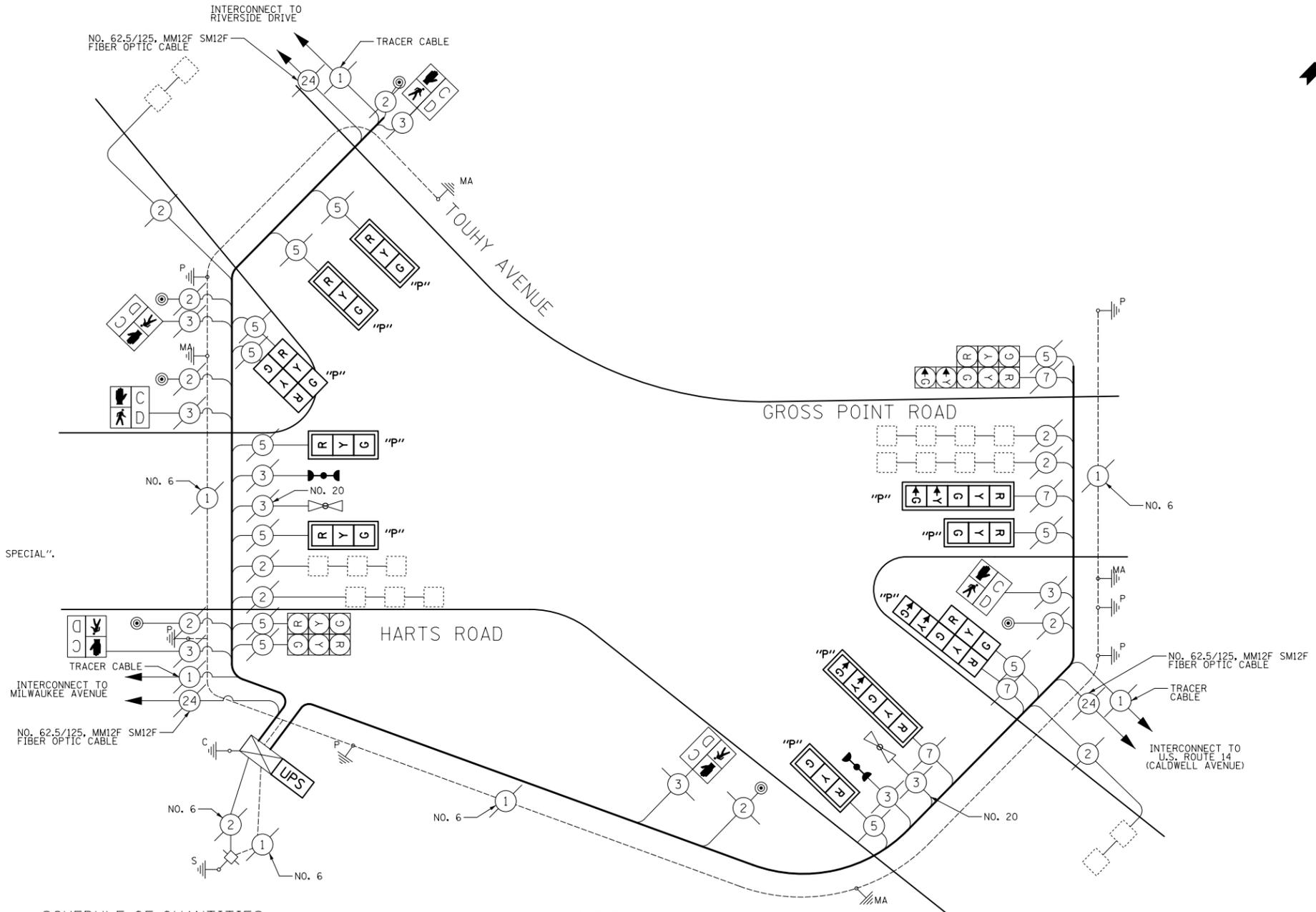
EMERGENCY VEHICLE PREEMPTION SEQUENCE



EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT		

NOTES

- REPLACEMENT OF THE EXISTING CONFIRMATION BEACONS WITH NEW LED CONFIRMATION BEACONS SHALL BE INCLUDED IN THE PAY ITEM "UNINTERRUPTABLE POWER SUPPLY, SPECIAL".



SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QNTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	6
OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED	EACH	2
COMBINATION SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION OPTICALLY PROGRAMMED, 1-3 SECTION, BRACKET MOUNTED	EACH	1
COMBINATION SIGNAL HEAD, LED, 2-FACE, 1-5 SECTION OPTICALLY PROGRAMMED, 1-3 SECTION, BRACKET MOUNTED	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	6
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	8
PEDESTRIAN PUSH-BUTTON	EACH	6
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1

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.

6	EACH	PEDESTRIAN PUSH-BUTTON
6	EACH	PEDESTRIAN SIGNAL HEAD, 1-FACE
6	EACH	SIGNAL HEAD, 1-FACE, 3-SECTION
2	EACH	SIGNAL HEAD, 1-FACE, 5-SECTION
1	EACH	SIGNAL HEAD, 2-FACE, 3-SECTION
1	EACH	SIGNAL HEAD, 2-FACE, 1-3 SECTION, 1-5 SECTION

CABLE PLAN  
NOT TO SCALE

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	% OPERATION	
SIGNAL (RED)	16		17	0.50	136
(YELLOW)	16		25	0.25	100
(GREEN)	16		15	0.25	60
ARROW	8		12	0.10	10
PED. SIGNAL	6		25	1.00	150
CONTROLLER	1		100	1.00	100
TOTAL =					556

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, IL 60196-1096  
ENERGY SUPPLY: CONTACT: COM ED  
PHONE: (866) 639-3532  
COMPANY: COM ED

NOTE:  
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

TS 5260  
NILES



USER NAME = jrt	DESIGNED - BRD	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN - JRT	REVISED -
PLOT DATE = 12/2/2013	CHECKED - JJE	REVISED -
	DATE - 12/02/2013	REVISED -

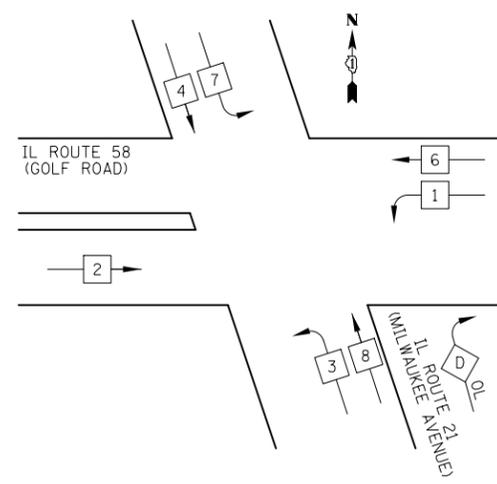
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES  
GROSS POINT ROAD/HARTS ROAD AT TOUHY AVENUE

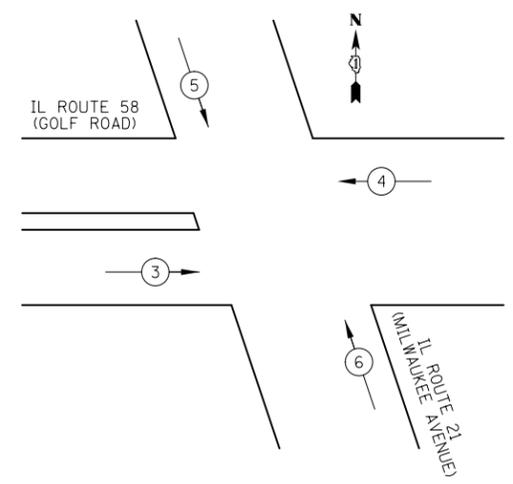
NOT TO SCALE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2013-055TS	COOK	73	35
CONTRACT NO. 60X16				
ILLINOIS FED. AID PROJECT				

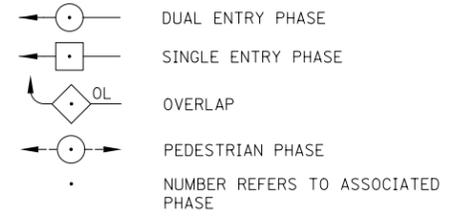
CONTROLLER SEQUENCE



EMERGENCY VEHICLE PREEMPTION SEQUENCE



LEGEND



EMERGENCY VEHICLE PREEMPTORS				
EMERGENCY VEHICLE PREEMPTOR	3	4	5	6
MOVEMENT	→	←	↓	↑

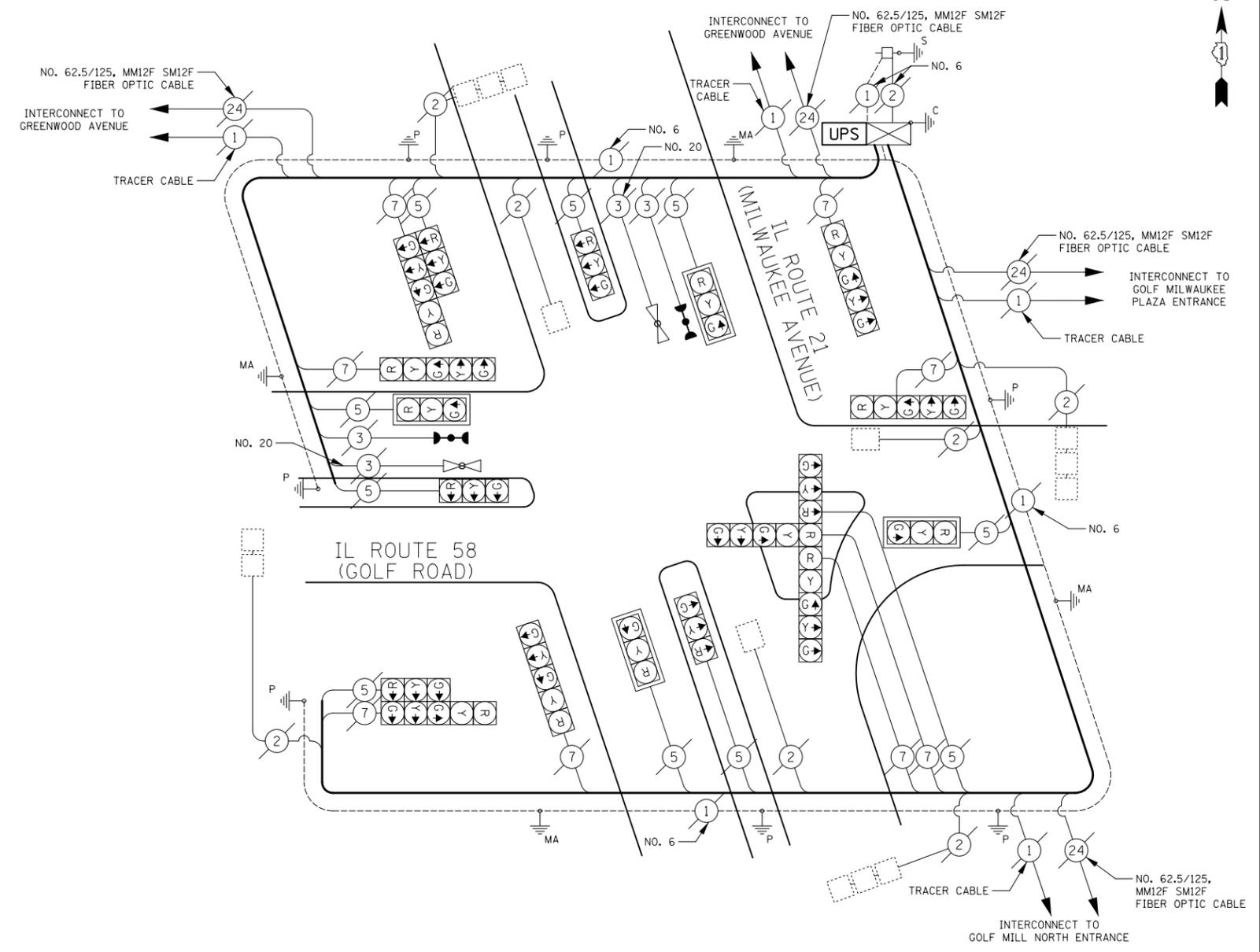
PHASE DESIGNATION DIAGRAM

RIGHT TURN OVERLAP PHASE DESIGNATION

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
D	= 8	+ 1

NOTES

- REPLACEMENT OF THE EXISTING CONFIRMATION BEACONS WITH NEW LED CONFIRMATION BEACONS SHALL BE INCLUDED IN THE PAY ITEM "UNINTERRUPTABLE POWER SUPPLY, SPECIAL".



CABLE PLAN  
NOT TO SCALE

SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QNTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE		% OPERATION	
		INCAND.	LED		
SIGNAL (RED)	18		17	0.50	153
(YELLOW)	18		25	0.25	94
(GREEN)	18		15	0.25	68
ARROW	16		12	0.10	19
CONTROLLER	1		100	1.00	100
TOTAL =					434

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, IL 60196-1096

ENERGY SUPPLY: CONTACT: COM ED  
PHONE: (866) 639-3532  
COMPANY: COM ED

NOTE:  
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

TS 1995  
NILES



USER NAME = jrt	DESIGNED - BRD	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN - JRT	REVISED -
PLOT DATE = 12/2/2013	CHECKED - JJE	REVISED -
	DATE - 12/02/2013	REVISED -

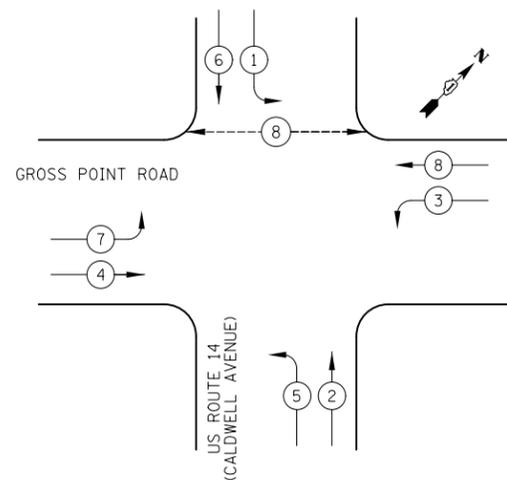
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES  
IL ROUTE 21 (MILWAUKEE AVENUE) AT IL ROUTE 58 (GOLF ROAD)

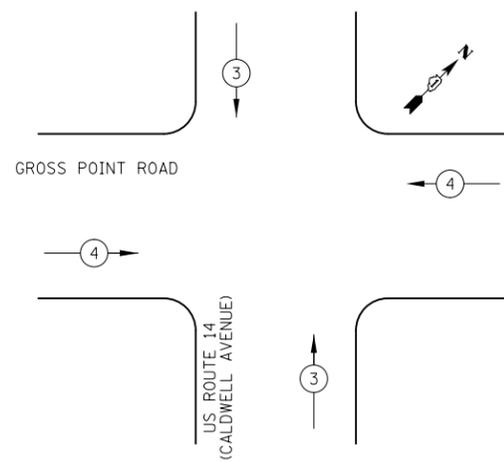
NOT TO SCALE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2013-055TS	COOK	73	36
CONTRACT NO. 60X16				
ILLINOIS FED. AID PROJECT				

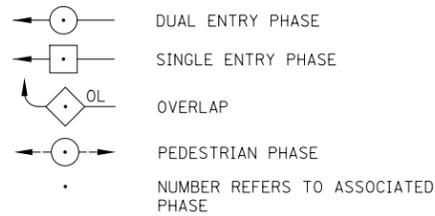
CONTROLLER SEQUENCE



EMERGENCY VEHICLE PREEMPTION SEQUENCE



LEGEND



PHASE DESIGNATION DIAGRAM

NOTES

- 1. REPLACEMENT OF THE EXISTING CONFIRMATION BEACON WITH NEW LED CONFIRMATION BEACONS SHALL BE INCLUDED IN THE PAY ITEM "UNINTERRUPTABLE POWER SUPPLY, SPECIAL".

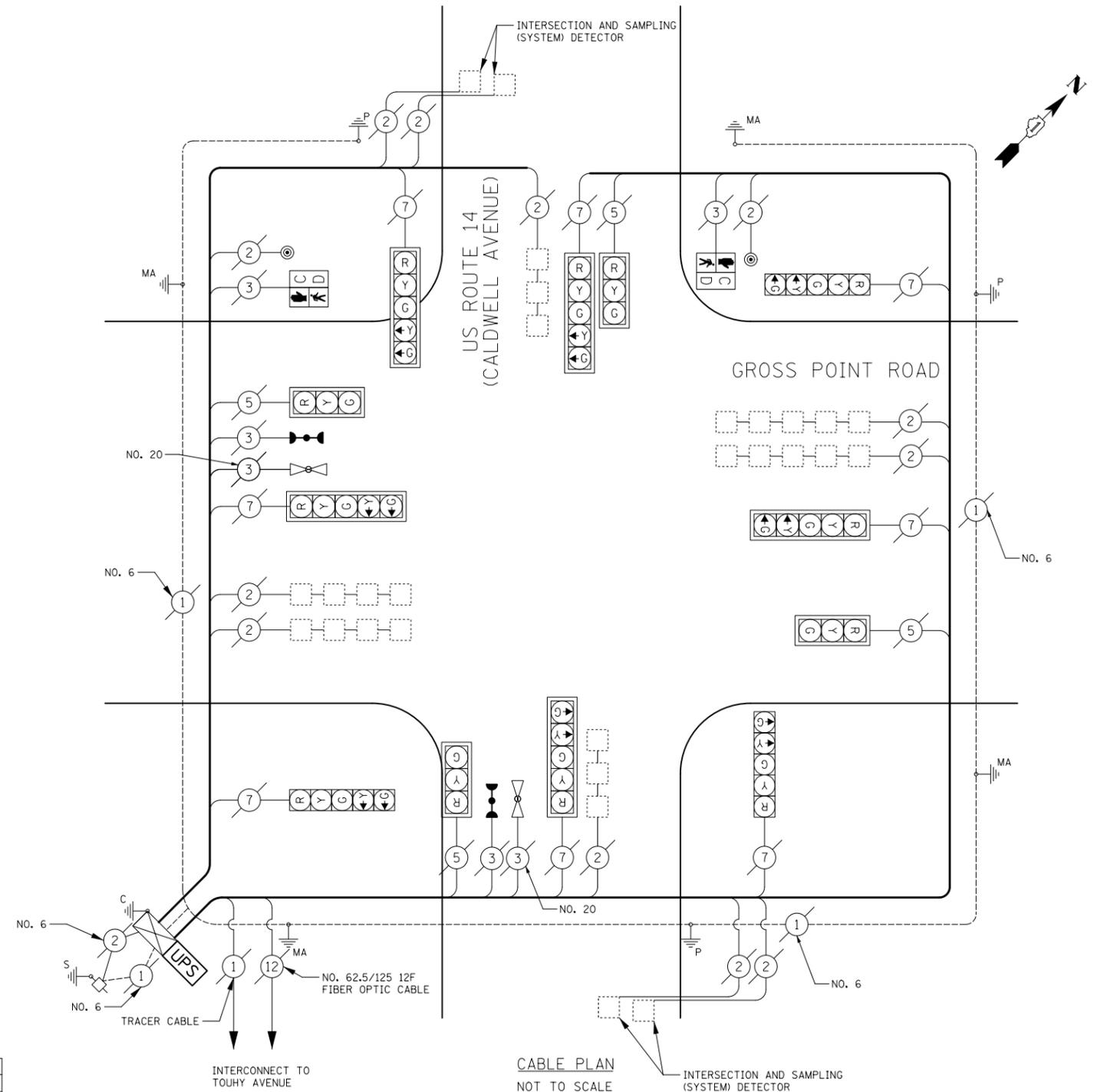
EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↑ ↓	← →

SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QNTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
PEDESTRIAN PUSH-BUTTON	EACH	2
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1

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.

- 2 EACH PEDESTRIAN SIGNAL HEAD, 1-FACE
- 2 EACH PEDESTRIAN PUSH-BUTTON



CABLE PLAN  
NOT TO SCALE

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	% OPERATION	
SIGNAL (RED)	12	17	0.50		102
(YELLOW)	12	25	0.25		75
(GREEN)	12	15	0.25		45
ARROW	16	12	0.10		19
PED. SIGNAL	2	25	1.00		50
CONTROLLER	1	100	1.00		100
TOTAL =					391

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, IL 60196-1096  
ENERGY SUPPLY: CONTACT: COM ED  
PHONE: (866) 639-3532  
COMPANY: COM ED



USER NAME = jrt	DESIGNED - BRD	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN - JRT	REVISED -
PLOT DATE = 12/2/2013	CHECKED - JJE	REVISED -
	DATE - 12/02/2013	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES  
US ROUTE 14 (CALDWELL AVENUE) AT GROSS POINT ROAD

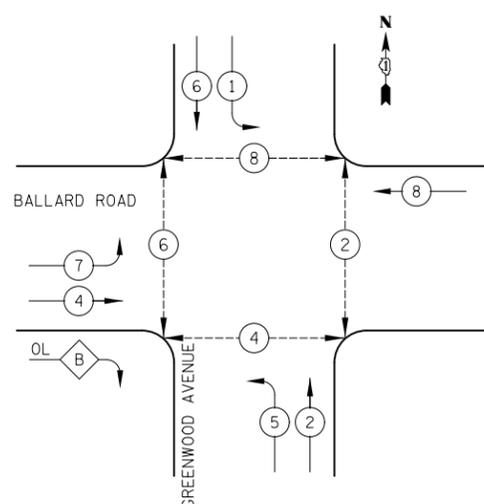
NOT TO SCALE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

NOTE:  
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

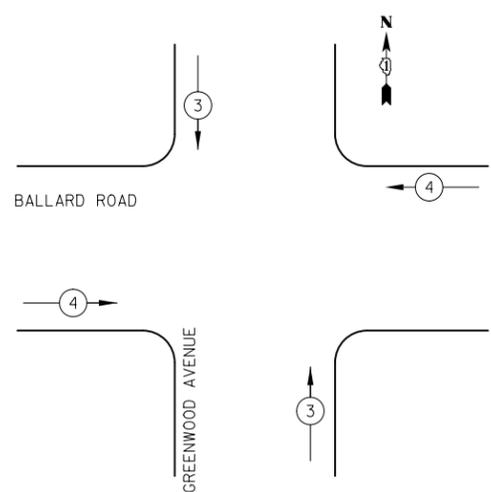
TS 1215  
MILES

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2013-055TS	COOK	73	37
CONTRACT NO. 60X16				
ILLINOIS FED. AID PROJECT				

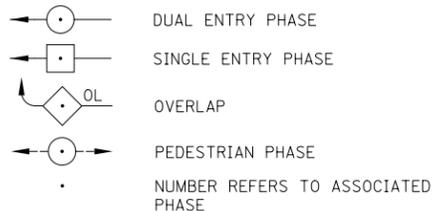
CONTROLLER SEQUENCE



EMERGENCY VEHICLE PREEMPTION SEQUENCE



LEGEND



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

PHASE DESIGNATION DIAGRAM

RIGHT TURN OVERLAP PHASE DESIGNATION

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
B	4	5

NOTES:

- A NEW "SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED" SHALL BE INSTALLED ON THE EXISTING POST ON THE SOUTHEAST CORNER. ALL OTHER EXISTING SIGNAL HEADS SHALL BE RETROFIT TO LED.

SCHEDULE OF QUANTITIES

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	% OPERATION	
SIGNAL (RED)	16		17	0.50	136
(YELLOW)	16		25	0.25	100
(GREEN)	16		15	0.25	60
ARROW	16		12	0.10	19
PED. SIGNAL	8		25	1.00	200
CONTROLLER	1		100	1.00	100
TOTAL =					615

PAY ITEM	UNIT	QNTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	8
PEDESTRIAN PUSH-BUTTON	EACH	8
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTIBLE POWER SUPPLY, SPECIAL	EACH	1
SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED, RETROFIT	EACH	3
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT	EACH	3
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	1
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	3
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT	EACH	1

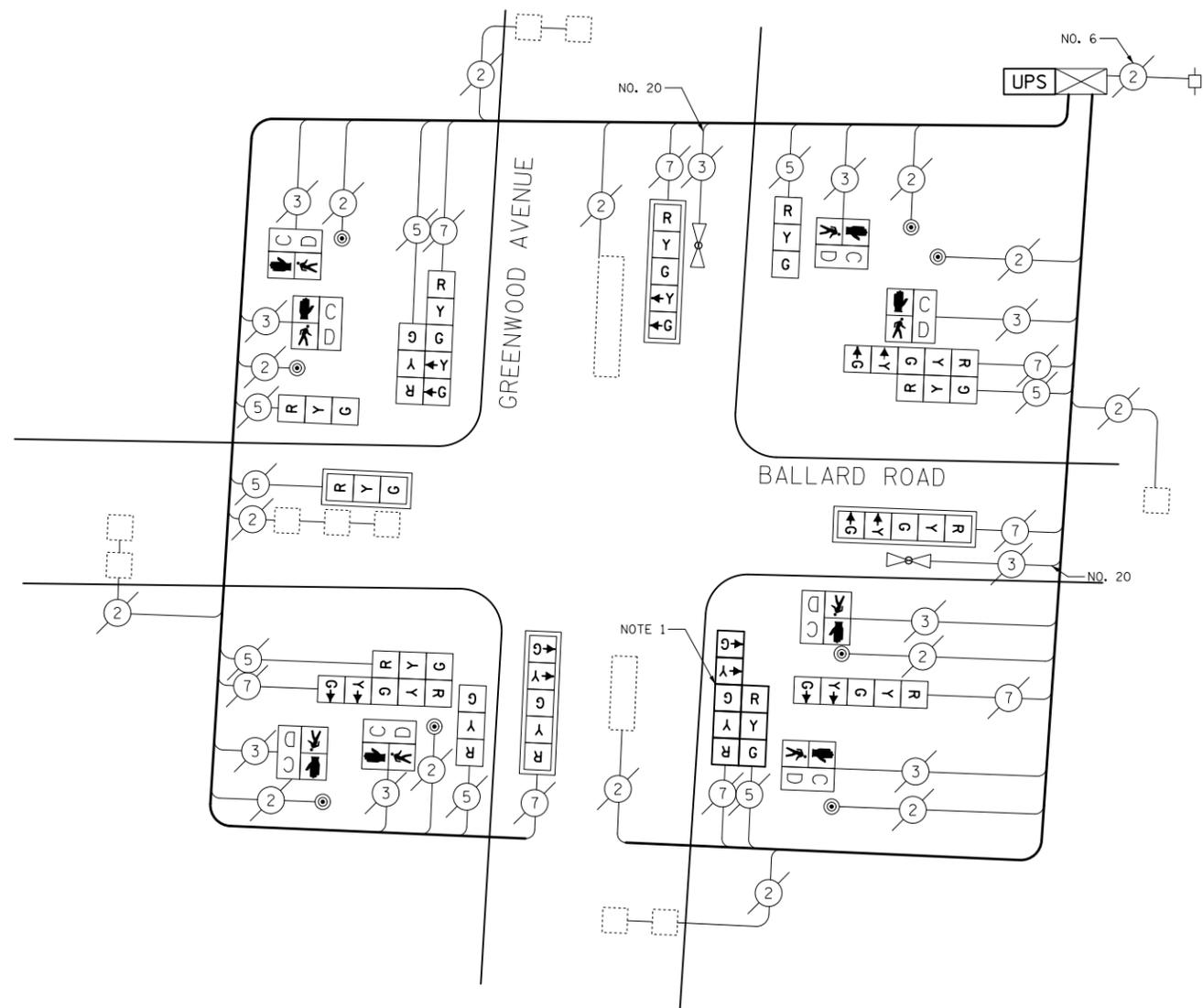
THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

- 1 EACH SIGNAL HEAD, 2-FACE, 1-3 SECTION, 1-5 SECTION
- 8 EACH PEDESTRIAN PUSH-BUTTON
- 8 EACH PEDESTRIAN SIGNAL HEAD, 1-FACE

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, IL 60196-1096

ENERGY SUPPLY: CONTACT: COM ED  
PHONE: (866) 639-3532  
COMPANY: COM ED

CABLE PLAN  
NOT TO SCALE



NOTE: THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

TS 4150  
NILES



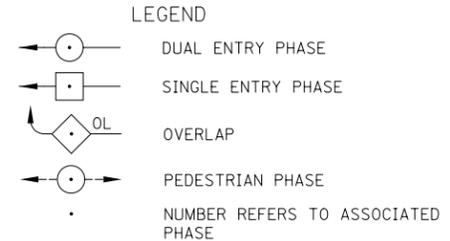
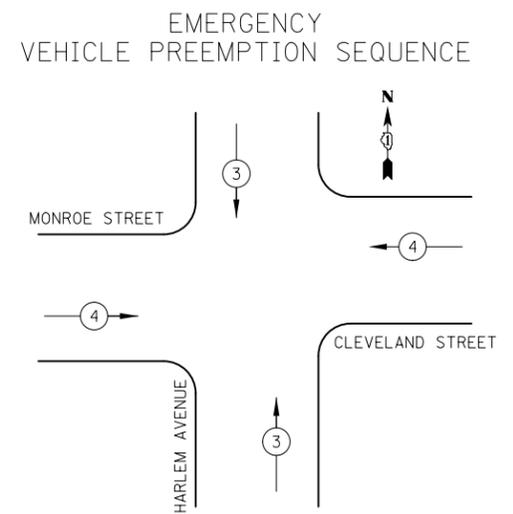
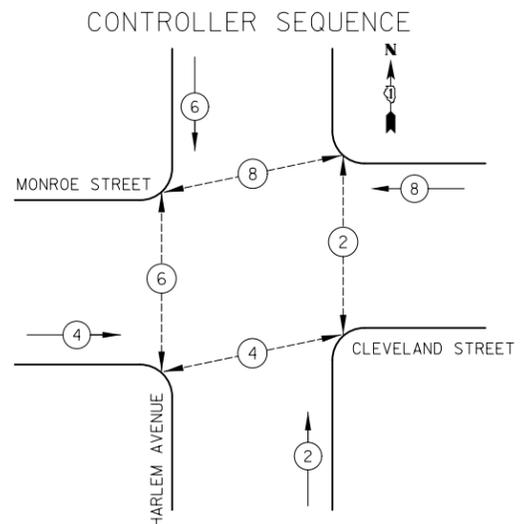
USER NAME = jrt	DESIGNED - BRD	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN - JRT	REVISED -
PLOT DATE = 12/2/2013	CHECKED - JJE	REVISED -
	DATE - 12/02/2013	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES  
GREENWOOD AVENUE AT BALLARD ROAD

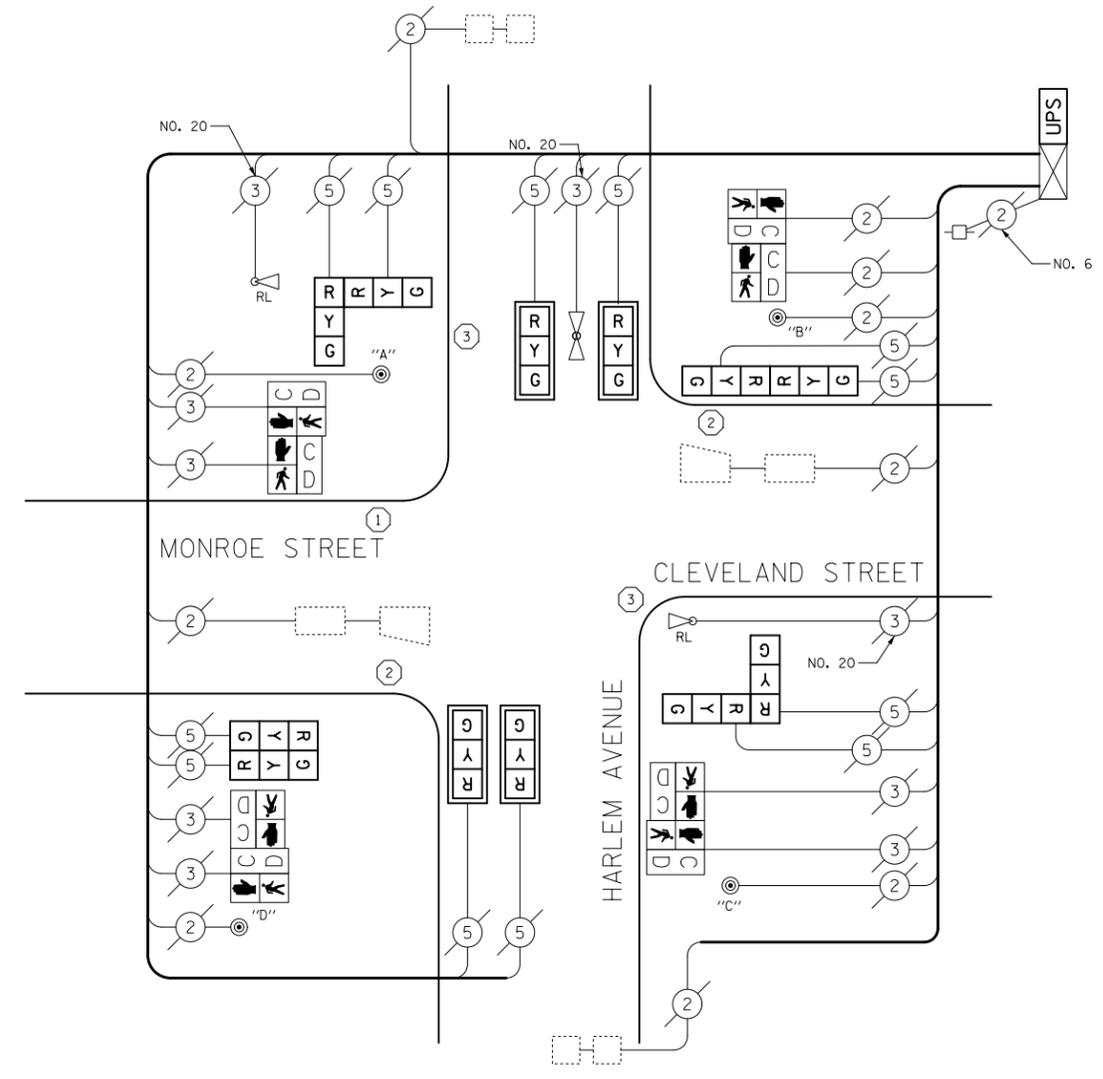
NOT TO SCALE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2013-055TS	COOK	73	38
CONTRACT NO. 60X16				
ILLINOIS FED. AID PROJECT				



PHASE DESIGNATION DIAGRAM

EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↕	→



CABLE PLAN  
NOT TO SCALE

PUSHBUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4  
 PUSHBUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6  
 PUSHBUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8  
 PUSHBUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8

SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QNTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	2
TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.	EACH	2
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	4
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	4
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	4
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1
PEDESTRIAN PUSH-BUTTON, NON-LATCHING	EACH	4

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.

- 4 EACH SIGNAL HEAD, 1-FACE, 3-SECTION
- 4 EACH SIGNAL HEAD, 2-FACE, 3-SECTION
- 4 EACH PEDESTRIAN PUSH-BUTTON, NON-LATCHING
- 4 EACH PEDESTRIAN SIGNAL HEAD, 2-FACE
- 4 EACH TRAFFIC SIGNAL BACKPLATE
- 5 EACH TRAFFIC SIGNAL POST

- ① REPLACE PAINTED POST WITH 10 FT. POST, RE-USE EXISTING TYPE A FOUNDATION
- ② REPLACE PAINTED POST WITH 14 FT. POST, RE-USE EXISTING TYPE A FOUNDATION
- ③ REPLACE PAINTED POST WITH 18 FT. POST, RE-USE EXISTING TYPE A FOUNDATION, AND RELOCATE EXISTING LIGHT DETECTOR.

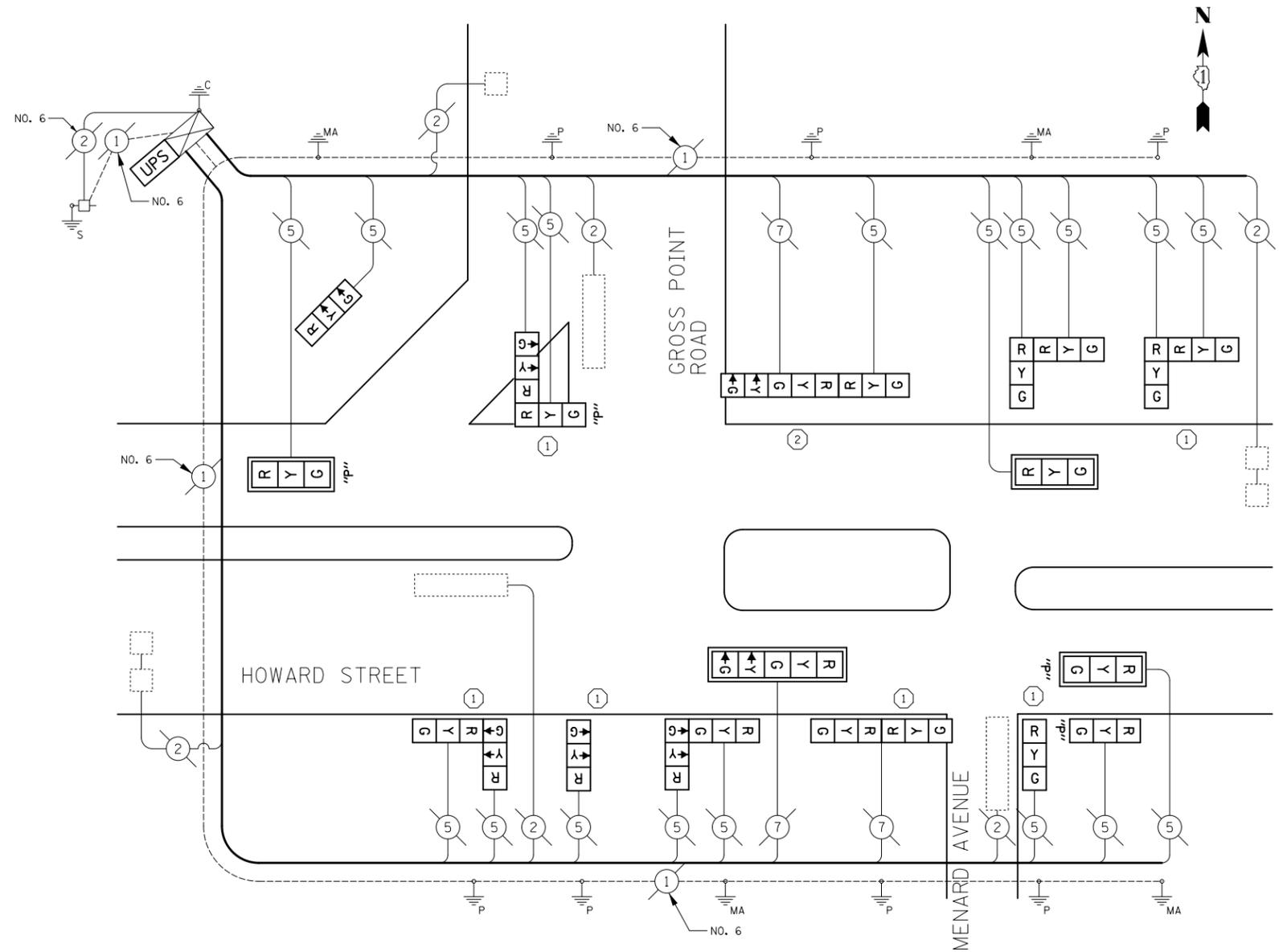
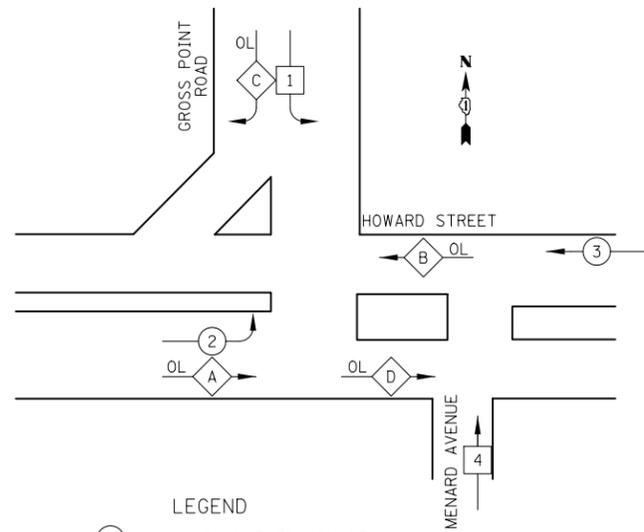
I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	% OPERATION	
SIGNAL (RED)	12		17	0.50	102
(YELLOW)	12		25	0.25	75
(GREEN)	12		15	0.25	45
PED. SIGNAL	8		25	1.00	200
CONTROLLER	1		100	1.00	100
TOTAL =					522

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION  
 201 WEST CENTER COURT  
 SCHAUMBURG, IL 60196-1096  
 ENERGY SUPPLY: CONTACT: COM ED  
 PHONE: (866) 639-3532  
 COMPANY: COM ED

NOTE:  
 THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

TS 11165  
 NILES

CONTROLLER SEQUENCE



SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QNTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	6
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	3
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	1
SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	5
SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	1
OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1
OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	2
COMBINATION SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION OPTICALLY PROGRAMMED, 1-3 SECTION, BRACKET MOUNTED	EACH	1
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	4
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1

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.

- 7 EACH TRAFFIC SIGNAL POST
- 7 EACH SIGNAL HEAD, 1-FACE, 3-SECTION
- 1 EACH SIGNAL HEAD, 1-FACE, 5-SECTION
- 6 EACH SIGNAL HEAD, 2-FACE, 3-SECTION
- 1 EACH SIGNAL HEAD, 2-FACE, 1-3 SECTION, 1-5 SECTION
- 4 EACH TRAFFIC SIGNAL BACKPLATE

CABLE PLAN  
NOT TO SCALE

- ① REPLACE PAINTED POST WITH 14 FT. POST, RE-USE EXISTING TYPE A FOUNDATION
- ② REPLACE PAINTED POST WITH 16 FT. POST, RE-USE EXISTING TYPE A FOUNDATION

NOTE:  
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

TS 5330  
NILES

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	% OPERATION	
SIGNAL (RED)	22	17	0.50		187
(YELLOW)	22	25	0.25		138
(GREEN)	22	15	0.25		83
ARROW	4	12	0.10		5
CONTROLLER	1	100	1.00		100
TOTAL =					513

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, IL 60196-1096

ENERGY SUPPLY: CONTACT: COM ED  
PHONE: (866) 639-3532  
COMPANY: COM ED



USER NAME = jrt	DESIGNED - BRD	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN - JRT	REVISED -
PLOT DATE = 12/2/2013	CHECKED - JJE	REVISED -
	DATE - 12/02/2013	REVISED -

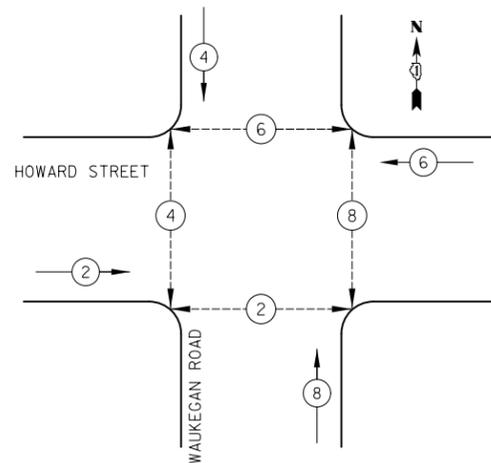
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES  
HOWARD STREET AT GROSS POINT ROAD/MENARD AVENUE

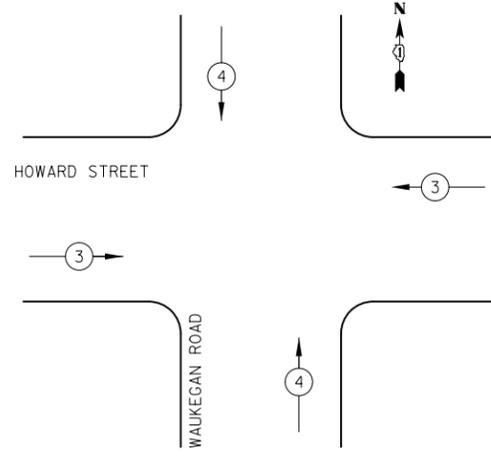
NOT TO SCALE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2013-055TS	COOK	73	40
CONTRACT NO. 60X16				
ILLINOIS FED. AID PROJECT				

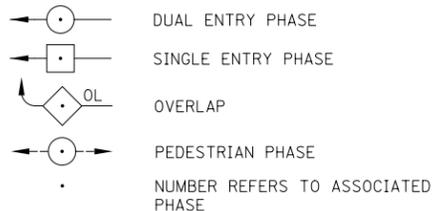
CONTROLLER SEQUENCE



EMERGENCY VEHICLE PREEMPTION SEQUENCE



LEGEND

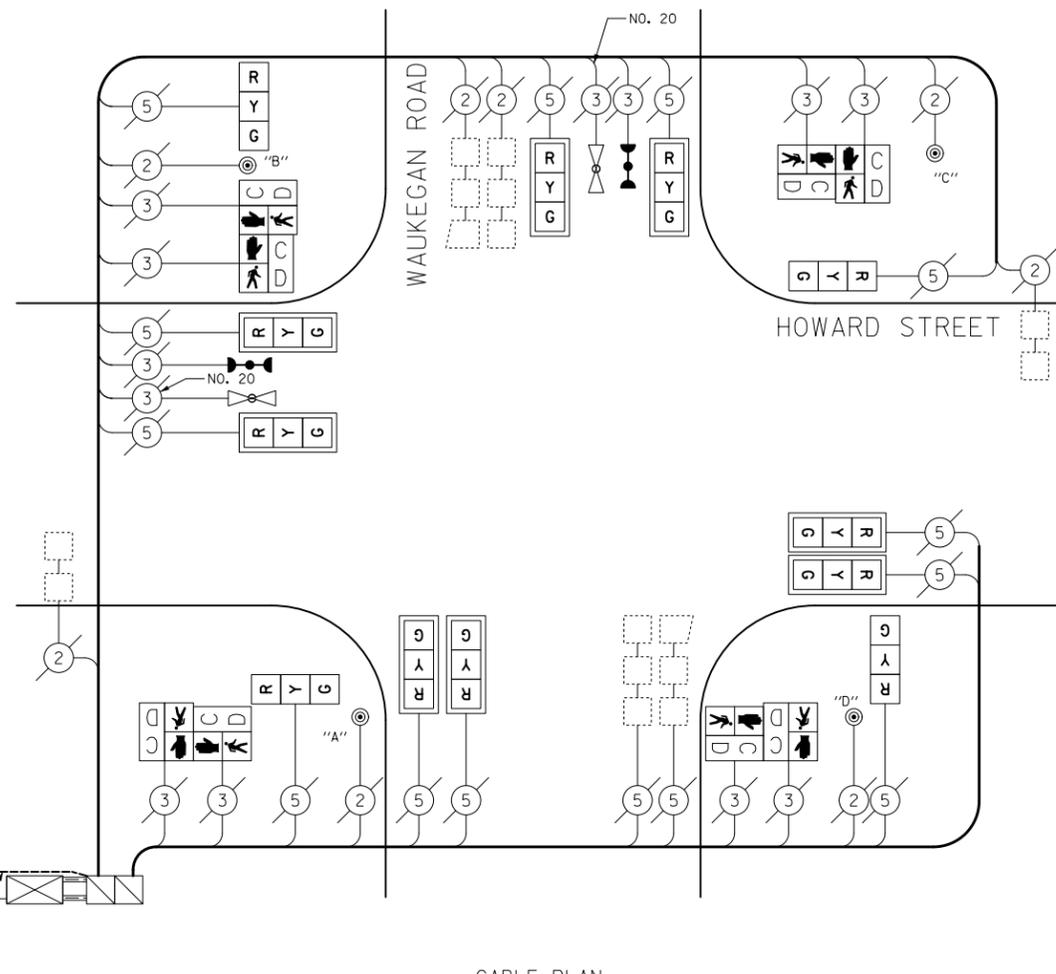


EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	← →	↑ ↓

PHASE DESIGNATION DIAGRAM

NOTES

- REPLACEMENT OF THE EXISTING CONFIRMATION BEACONS WITH NEW LED CONFIRMATION BEACONS SHALL BE INCLUDED IN THE PAY ITEM "UNINTERRUPTABLE POWER SUPPLY, GROUND MOUNTED".
- THE UNINTERRUPTABLE POWER SUPPLY SHALL BE INSTALLED ON A SEPARATE TYPE "A" SQUARE FOUNDATION DUE TO THE PHYSICAL CONSTRAINTS OR AS DIRECTED BY THE ENGINEER. THIS WORK, INCLUDING THE CONCRETE FOUNDATION, DRILLING THE EXISTING HANDHOLE, ALL CONDUIT AND ELECTRICAL CABLE NEEDED TO PROPERLY INSTALL THE UNINTERRUPTABLE POWER SUPPLY AND ALL RESTORATION SPECIFIED IN THE RESTORATION OF WORK AREA GENERAL NOTE SHALL BE INCLUDED IN THE PAY ITEM "UNINTERRUPTABLE POWER SUPPLY, GROUND MOUNTED" AND NO ADDITIONAL COMPENSATION WILL BE PROVIDED.
- THE CONTRACTOR SHALL LOCATE THE EXISTING ELECTRICAL SERVICE CONDUIT TO THE CONTROLLER. THE UNINTERRUPTABLE POWER SUPPLY, GROUND MOUNTED SHALL BE LOCATED TO THE WEST OF THE EXISTING CONTROLLER CABINET, AS FAR AS POSSIBLE FROM THE BACK OF CURB WITHOUT IMPACTING THE EXISTING SERVICE CONDUIT, OR AS DIRECTED BY THE ENGINEER. ANY DAMAGE TO THE SERVICE CONDUIT OR CABLE SHALL BE REPLACED BY THE CONTRACTOR AT THEIR EXPENSE.



CABLE PLAN  
NOT TO SCALE

SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QNTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, GROUND MOUNTED	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT	EACH	4
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	8
PEDESTRIAN PUSH-BUTTON, NON-LATCHING	EACH	4

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.

- 4 EACH PEDESTRIAN PUSH-BUTTON, NON-LATCHING
- 4 EACH PEDESTRIAN SIGNAL HEAD, 2-FACE

RETROFIT ALL EXISTING SIGNAL HEADS TO L.E.D.

PUSHBUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4  
 PUSHBUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6  
 PUSHBUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8  
 PUSHBUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	% OPERATION	
SIGNAL (RED)	12		17	0.50	102
(YELLOW)	12		25	0.25	75
(GREEN)	12		15	0.25	45
PED. SIGNAL	8		25	1.00	200
CONTROLLER	1		100	1.00	100
TOTAL =					522

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION  
 201 WEST CENTER COURT  
 SCHAMBURG, IL 60196-1096

ENERGY SUPPLY: CONTACT: COM ED  
 PHONE: (866) 639-3532  
 COMPANY: COM ED

NOTE:  
 THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

TS 11260  
 NILES



USER NAME = jrt	DESIGNED - BRD	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN - JRT	REVISED -
PLOT DATE = 12/2/2013	CHECKED - JJE	REVISED -
	DATE - 12/02/2013	REVISED -

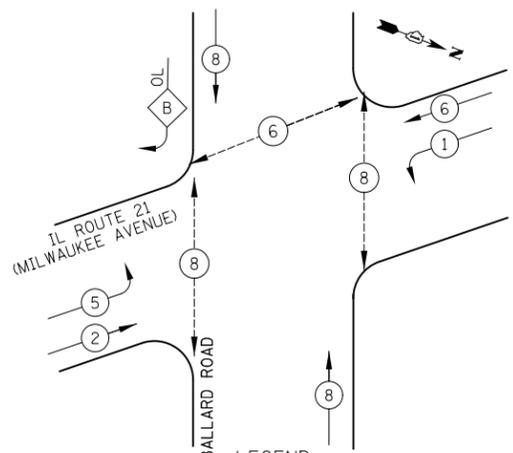
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES  
 HOWARD STREET AT WAUKEGAN ROAD

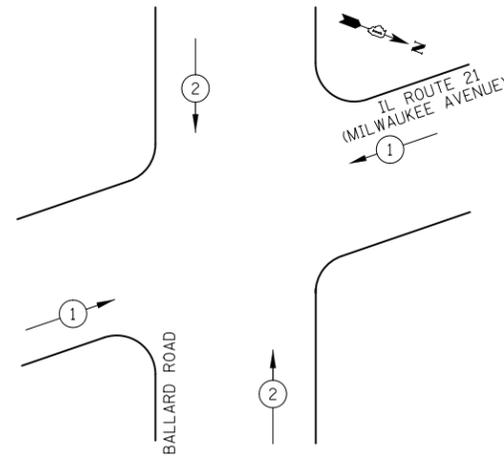
NOT TO SCALE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2013-055TS	COOK	73	41
CONTRACT NO. 60X16				
ILLINOIS FED. AID PROJECT				

CONTROLLER SEQUENCE



EMERGENCY VEHICLE PREEMPTION SEQUENCE



LEGEND

- DUAL ENTRY PHASE
- SINGLE ENTRY PHASE
- OVERLAP
- PEDESTRIAN PHASE
- NUMBER REFERS TO ASSOCIATED PHASE

EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	1	2
MOVEMENT		

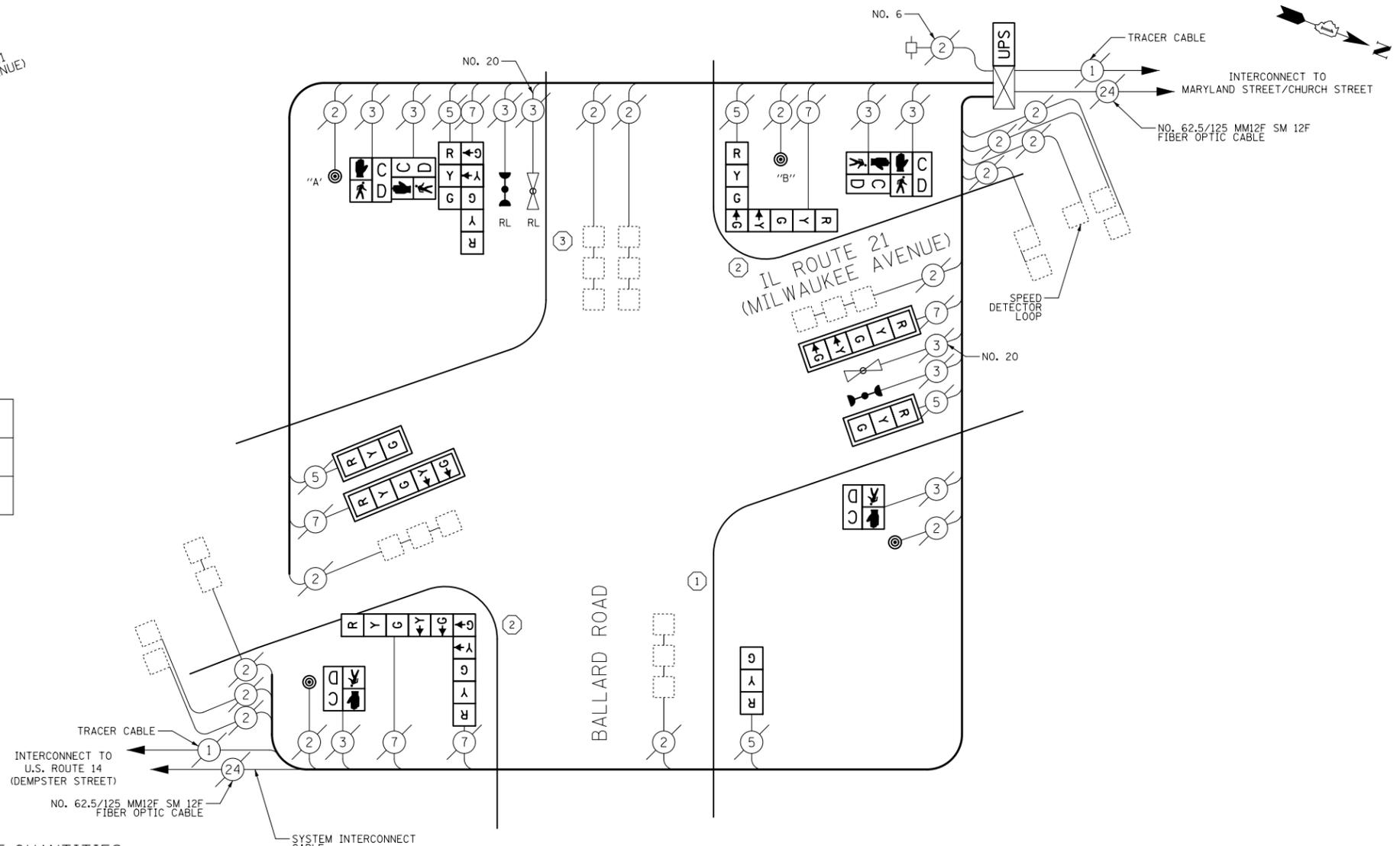
PHASE DESIGNATION DIAGRAM

RIGHT TURN OVERLAP PHASE DESIGNATION

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
B	= 8	+ 5

NOTES

- REPLACEMENT OF THE EXISTING CONFIRMATION BEACONS WITH NEW LED CONFIRMATION BEACONS SHALL BE INCLUDED IN THE PAY ITEM "UNINTERRUPTABLE POWER SUPPLY, SPECIAL".
- THE CONTRACTOR SHALL RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, DETECTOR UNIT TO THE NEW TRAFFIC SIGNAL POST. THE COST OF THIS WORK SHALL BE INCLUDED IN THE PAY ITEM "TRAFFIC SIGNAL POST, GALVANIZED STEEL" OF THE HEIGHT SPECIFIED.



SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QNTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	2
TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	2
SIGNAL HEAD, LED, 2-FACE, 5-SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	2
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	4
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1
PEDESTRIAN PUSH-BUTTON, NON-LATCHING	EACH	4

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.

4	EACH	TRAFFIC SIGNAL POST
3	EACH	SIGNAL HEAD, 1-FACE, 3-SECTION
2	EACH	SIGNAL HEAD, 1-FACE, 5-SECTION
2	EACH	SIGNAL HEAD, 2-FACE, 1-3 SECTION, 1-5 SECTION
1	EACH	SIGNAL HEAD, 2-FACE, 5-SECTION
4	EACH	TRAFFIC SIGNAL BACKPLATE
2	EACH	PEDESTRIAN SIGNAL HEAD, 1-FACE
2	EACH	PEDESTRIAN SIGNAL HEAD, 2-FACE
4	EACH	PEDESTRIAN PUSH-BUTTON, NON-LATCHING

CABLE PLAN  
NOT TO SCALE

- REPLACE PAINTED POST WITH 14 FT. POST, RE-USE EXISTING TYPE A FOUNDATION.
- REPLACE PAINTED POST WITH 16 FT. POST, RE-USE EXISTING TYPE A FOUNDATION.
- REPLACE PAINTED POST WITH 18 FT. POST, RE-USE EXISTING TYPE A FOUNDATION AND RELOCATE EXISTING LIGHT DETECTOR AND CONFIRMATION BEACON.

NOTE:  
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

TS 2000  
NILES

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	% OPERATION	
SIGNAL (RED)	11		17	0.50	94
(YELLOW)	11		25	0.25	69
(GREEN)	11		15	0.25	41
ARROW	12		12	0.10	14
PED. SIGNAL	6		25	1.00	150
CONTROLLER	1		100	1.00	100
TOTAL =					468

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, IL 60196-1096

ENERGY SUPPLY: CONTACT: COM ED  
PHONE: (866) 639-3532  
COMPANY: COM ED

USER NAME = jrt	DESIGNED - BRD	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN - JRT	REVISED -
PLOT DATE = 12/2/2013	CHECKED - JJE	REVISED -
	DATE - 12/02/2013	REVISED -

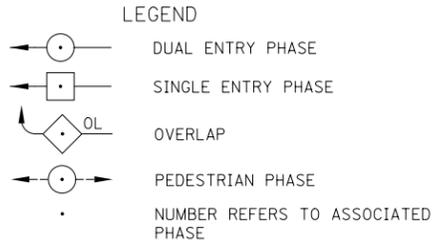
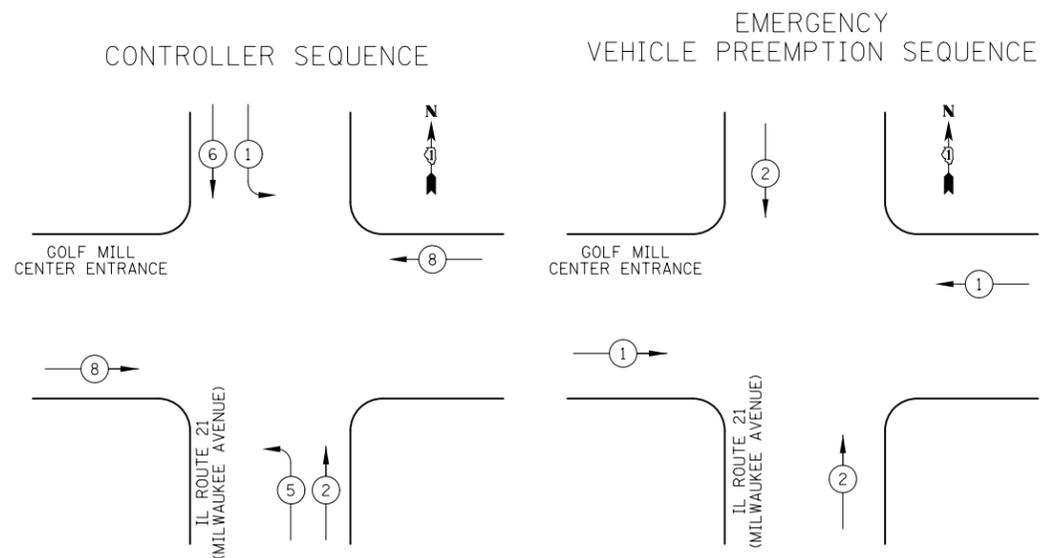
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES  
IL ROUTE 21 (MILWAUKEE AVENUE) AT BALLARD ROAD

NOT TO SCALE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2013-055TS	COOK	73	42
CONTRACT NO. 60X16				
ILLINOIS FED. AID PROJECT				

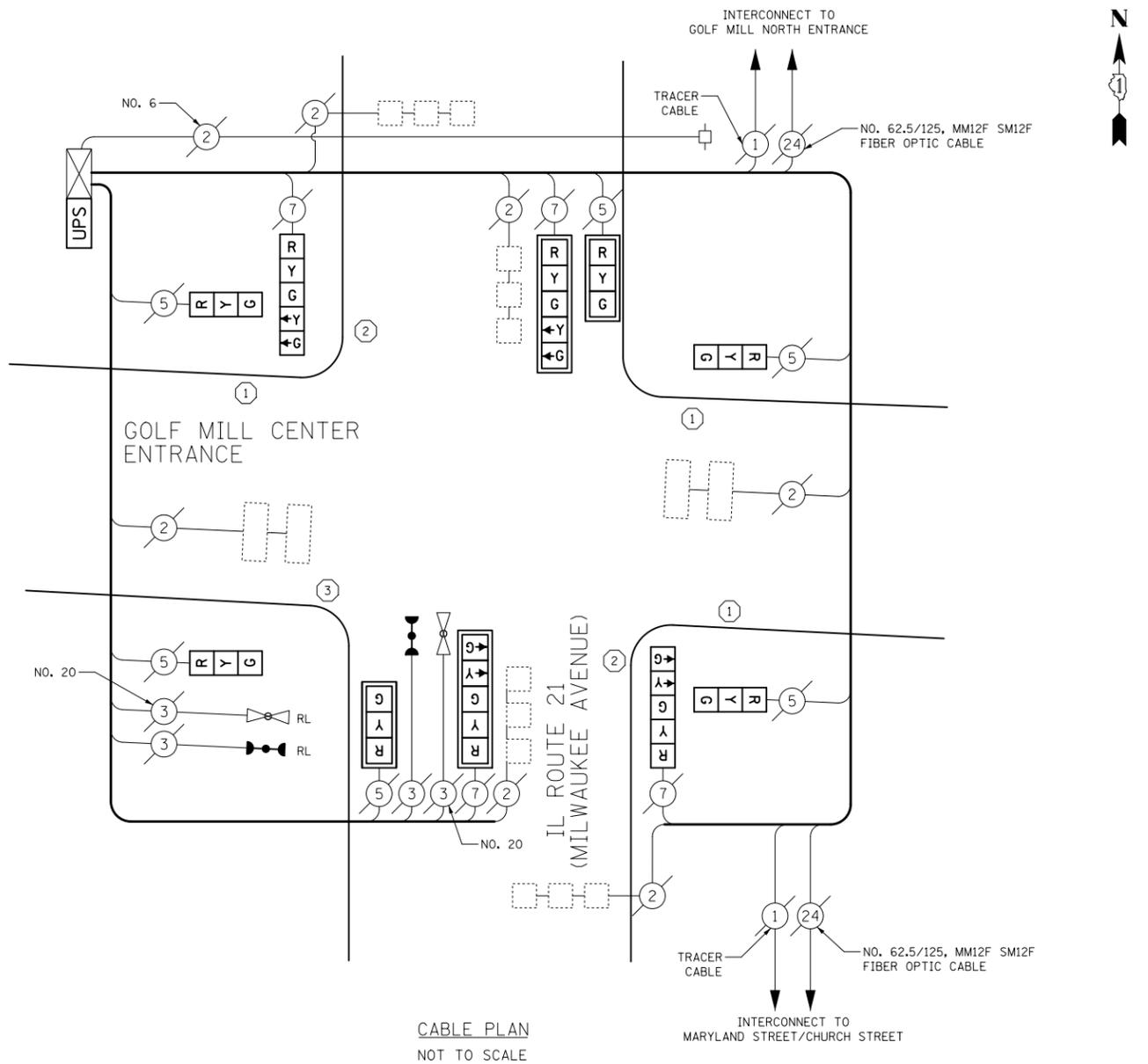




EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	1	2
MOVEMENT	← →	↑ ↓

**PHASE DESIGNATION DIAGRAM**

- NOTES**
- REPLACEMENT OF THE EXISTING CONFIRMATION BEACONS WITH NEW LED CONFIRMATION BEACONS SHALL BE INCLUDED IN THE PAY ITEM "UNINTERRUPTABLE POWER SUPPLY, SPECIAL".
  - THE CONTRACTOR SHALL RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, DETECTOR UNIT TO THE NEW TRAFFIC SIGNAL POST. THE COST OF THIS WORK SHALL BE INCLUDED IN THE PAY ITEM "TRAFFIC SIGNAL POST, GALVANIZED STEEL" OF THE HEIGHT SPECIFIED.



**SCHEDULE OF QUANTITIES**

PAY ITEM	UNIT	QNTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	3
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	2
TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	4
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	2
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	4
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1

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.

- 6 EACH TRAFFIC SIGNAL POST
- 6 EACH SIGNAL HEAD, 1-FACE, 3-SECTION
- 4 EACH SIGNAL HEAD, 1-FACE, 5-SECTION
- 4 EACH TRAFFIC SIGNAL BACKPLATE

- NOTE:**  
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.
- REPLACE PAINTED POST WITH 14 FT. POST, RE-USE EXISTING TYPE A FOUNDATION
  - REPLACE PAINTED POST WITH 16 FT. POST, RE-USE EXISTING TYPE A FOUNDATION
  - REPLACE PAINTED POST WITH 18 FT. POST, RE-USE EXISTING TYPE A FOUNDATION AND RELOCATE EXISTING LIGHT DETECTOR AND CONFIRMATION BEACON.

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	% OPERATION	
SIGNAL (RED)	10		17	0.50	85
(YELLOW)	10		25	0.25	63
(GREEN)	10		15	0.25	38
ARROW	8		12	0.10	10
CONTROLLER	1		100	1.00	100
TOTAL =					296

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, IL 60196-1096

ENERGY SUPPLY: CONTACT: COM ED  
PHONE: (866) 639-3532  
COMPANY: COM ED



USER NAME = jrt	DESIGNED - BRD	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN - JRT	REVISED -
PLOT DATE = 12/2/2013	CHECKED - JUE	REVISED -
	DATE - 12/02/2013	REVISED -

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

**CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES**  
**IL ROUTE 21 (MILWAUKEE AVENUE) AT GOLF MILL CENTER ENTRANCE**

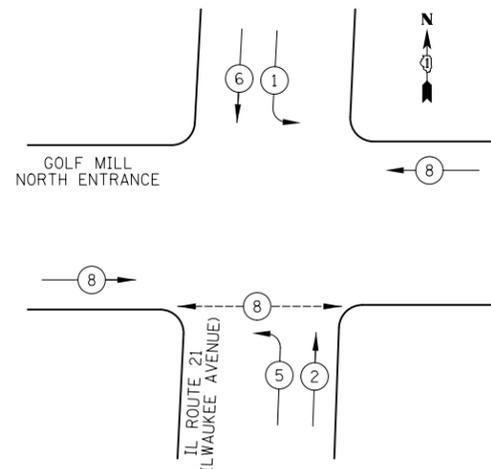
NOT TO SCALE | SHEET NO. 1 OF 1 SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2013-055TS	COOK	73	43
CONTRACT NO. 60X16				
ILLINOIS FED. AID PROJECT				

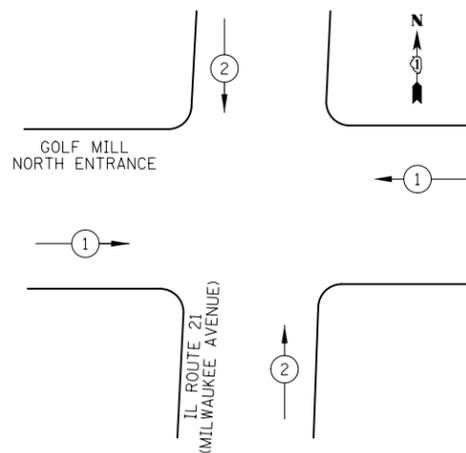


TS 2060  
NILES

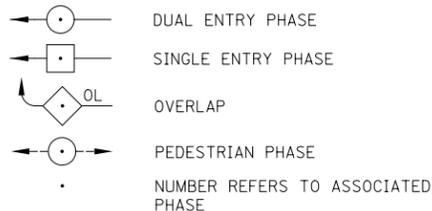
CONTROLLER SEQUENCE



EMERGENCY VEHICLE PREEMPTION SEQUENCE



LEGEND



EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	1	2
MOVEMENT	← →	↑ ↓

PHASE DESIGNATION DIAGRAM

NOTES

- REPLACEMENT OF THE EXISTING CONFIRMATION BEACONS WITH NEW LED CONFIRMATION BEACONS SHALL BE INCLUDED IN THE PAY ITEM "UNINTERRUPTABLE POWER SUPPLY, SPECIAL".
- THE CONTRACTOR SHALL RELOCATE THE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, DETECTOR UNIT TO THE NEW TRAFFIC SIGNAL POST. THE COST OF THIS WORK SHALL BE INCLUDED IN THE PAY ITEM "TRAFFIC SIGNAL POST, GALVANIZED STEEL" OF THE SPECIFIED HEIGHT.
- THE PROPOSED UPS SHALL BE INSTALLED ON THE LEFT (SOUTH) SIDE OF THE CONTROLLER CABINET.

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	% OPERATION	
SIGNAL (RED)	10		17	0.50	85
(YELLOW)	10		25	0.25	63
(GREEN)	10		15	0.25	38
ARROW	8		12	0.10	10
PED. SIGNAL	2		25	1.00	50
CONTROLLER	1		100	1.00	100
TOTAL =					346

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, IL 60196-1096

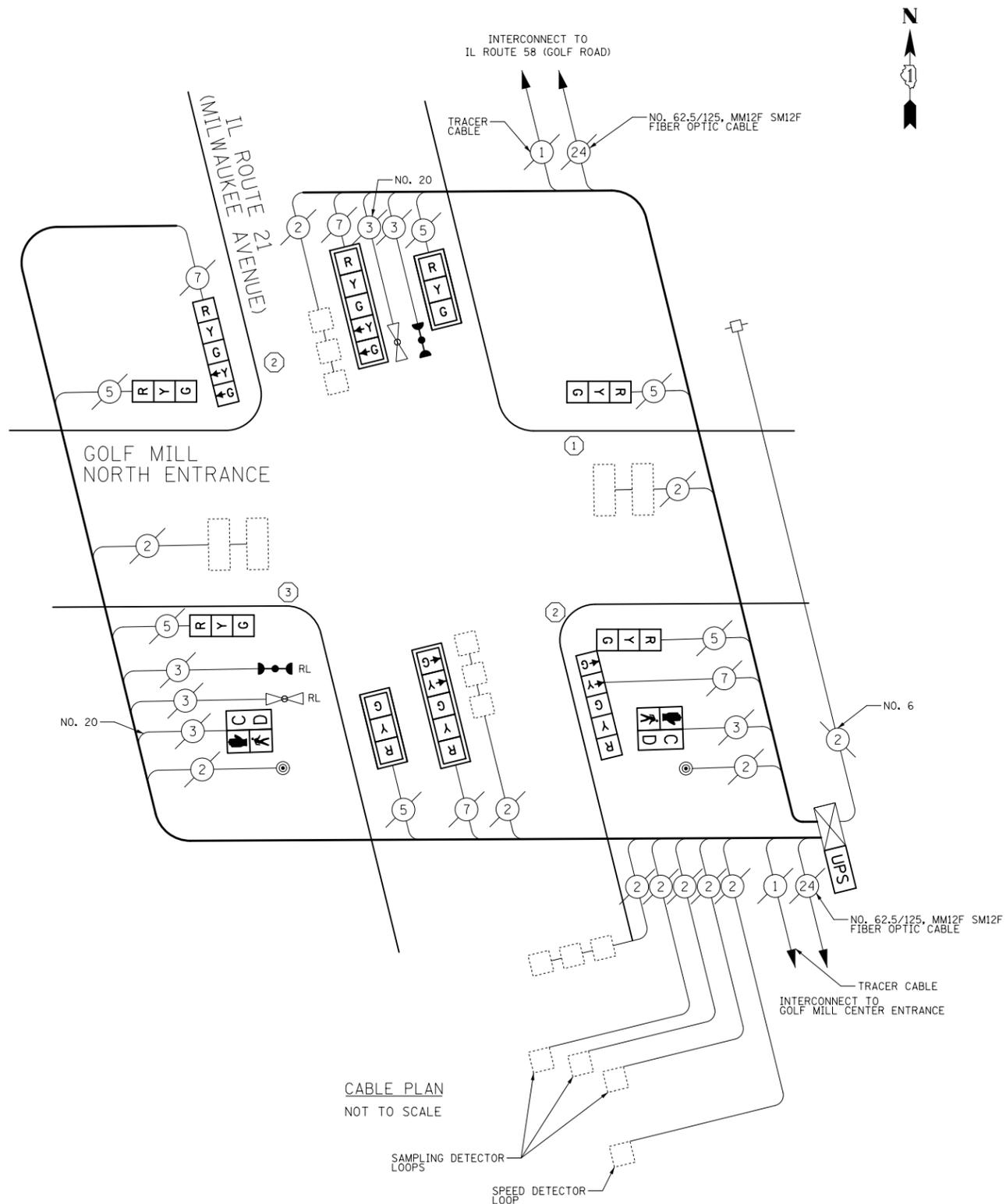
ENERGY SUPPLY: CONTACT: COM ED  
PHONE: (866) 639-3532  
COMPANY: COM ED

SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QNTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	2
TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	3
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	2
SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 BRACKET MOUNTED	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	4
PEDESTRIAN PUSH-BUTTON	EACH	2
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1

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.

- 4 EACH TRAFFIC SIGNAL POST
- 5 EACH SIGNAL HEAD, 1-FACE, 3-SECTION
- 3 EACH SIGNAL HEAD, 1-FACE, 5-SECTION
- 1 EACH SIGNAL HEAD, 2-FACE, 1-3 SECTION, 1-5 SECTION
- 2 EACH PEDESTRIAN SIGNAL HEAD, 1-FACE
- 4 EACH TRAFFIC SIGNAL BACKPLATE
- 2 EACH PEDESTRIAN PUSH-BUTTON



CABLE PLAN  
NOT TO SCALE

- REPLACE PAINTED POST WITH 14 FT. POST, RE-USE EXISTING TYPE A FOUNDATION
- REPLACE PAINTED POST WITH 16 FT. POST, RE-USE EXISTING TYPE A FOUNDATION
- REPLACE PAINTED POST WITH 18 FT. POST, RE-USE EXISTING TYPE A FOUNDATION AND RELOCATE EXISTING LIGHT DETECTOR AND CONFIRMATION BEACON.

NOTE:  
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.



USER NAME = jrt	DESIGNED - BRD	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN - JRT	REVISED -
PLOT DATE = 12/2/2013	CHECKED - JJE	REVISED -
	DATE - 12/02/2013	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

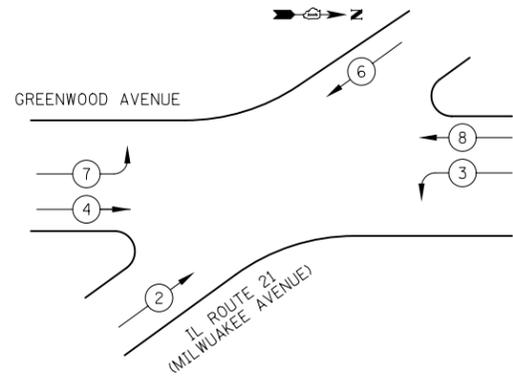
CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES  
IL ROUTE 21 (MILWAUKEE AVENUE) AT GOLF MILL NORTH ENTRANCE

NOT TO SCALE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

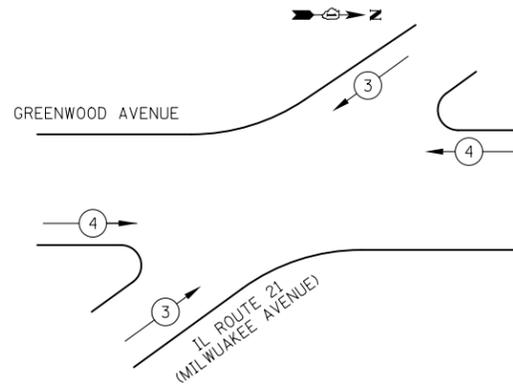
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2013-055TS	COOK	73	44
CONTRACT NO. 60X16				
ILLINOIS FED. AID PROJECT				

TS 2065  
NILES

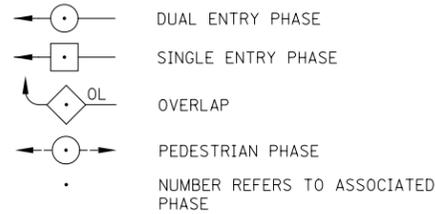
CONTROLLER SEQUENCE



EMERGENCY VEHICLE PREEMPTION SEQUENCE



LEGEND

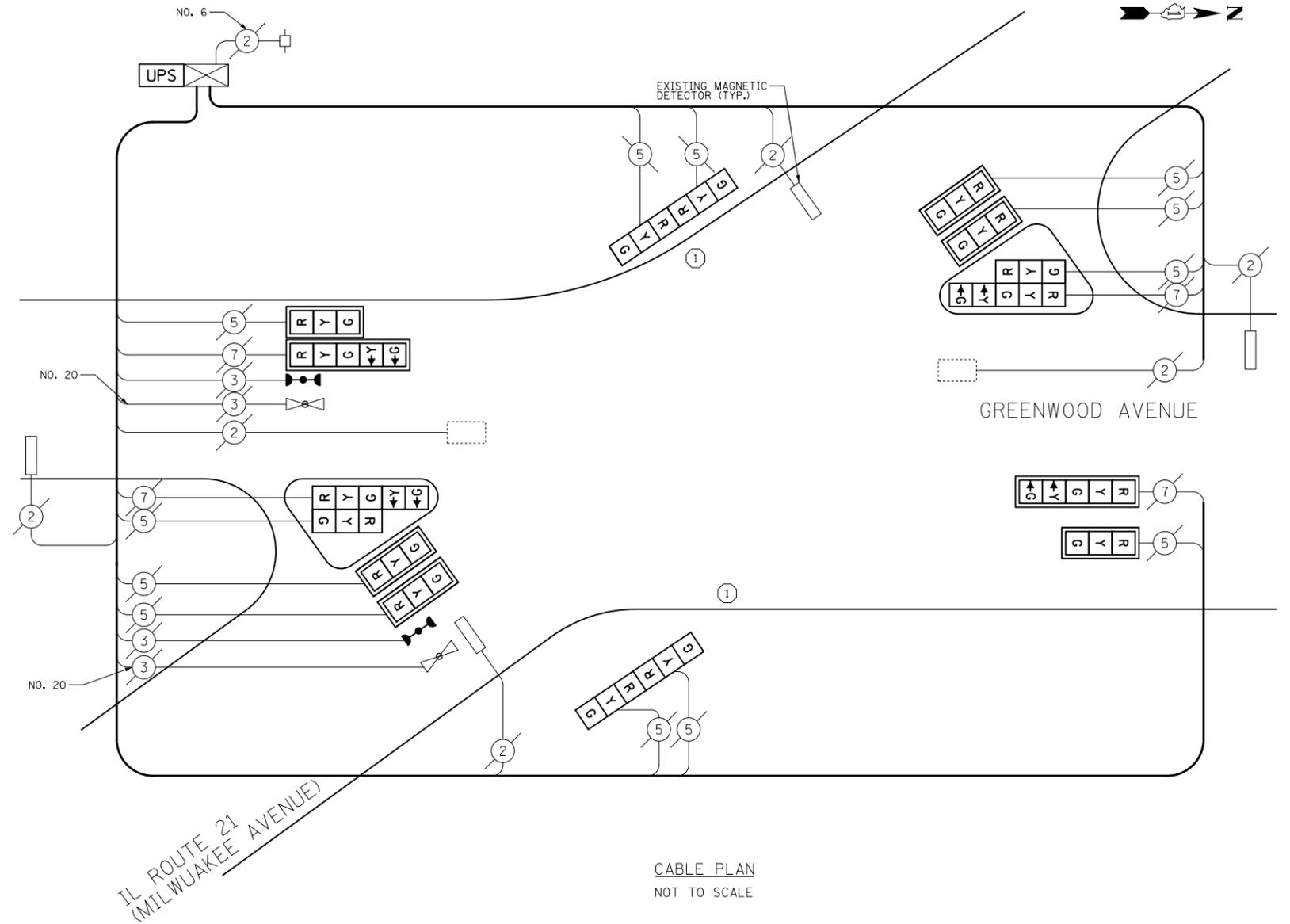


EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT		

PHASE DESIGNATION DIAGRAM

NOTES

- REPLACEMENT OF THE EXISTING CONFIRMATION BEACONS WITH NEW LED CONFIRMATION BEACONS SHALL BE INCLUDED IN THE PAY ITEM "UNINTERRUPTABLE POWER SUPPLY, SPECIAL".



CABLE PLAN  
NOT TO SCALE

SCHEDULE OF QUANTITIES

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	% OPERATION	
SIGNAL (RED)	16		17	0.50	136
(YELLOW)	16		25	0.25	100
(GREEN)	16		15	0.25	60
ARROW	8		12	0.10	10
CONTROLLER	1		100	1.00	100
TOTAL =					406

PAY ITEM	UNIT	QNTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	2
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	6
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	2
SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 BRACKET MOUNTED	EACH	2
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	8
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1

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.

2	EACH	TRAFFIC SIGNAL POST
6	EACH	SIGNAL HEAD, 1-FACE, 3-SECTION
2	EACH	SIGNAL HEAD, 1-FACE, 5-SECTION
2	EACH	SIGNAL HEAD, 2-FACE, 3-SECTION
2	EACH	SIGNAL HEAD, 2-FACE, 1-3 SECTION, 1-5 SECTION
8	EACH	TRAFFIC SIGNAL BACKPLATE

- REPLACE PAINTED POST WITH 14 FT. POST, RE-USE EXISTING TYPE A FOUNDATION

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, IL 60196-1096

ENERGY SUPPLY: CONTACT: COM ED  
PHONE: (866) 639-3532  
COMPANY: COM ED

NOTE:  
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

TS 2015  
NILES



USER NAME = jrt	DESIGNED - BRD	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN - JRT	REVISED -
PLOT DATE = 12/2/2013	CHECKED - JJE	REVISED -
	DATE - 12/02/2013	REVISED -

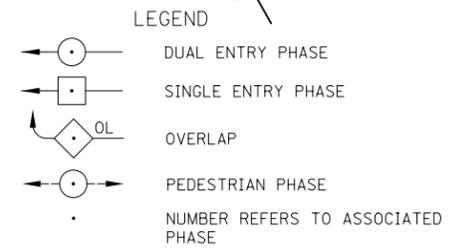
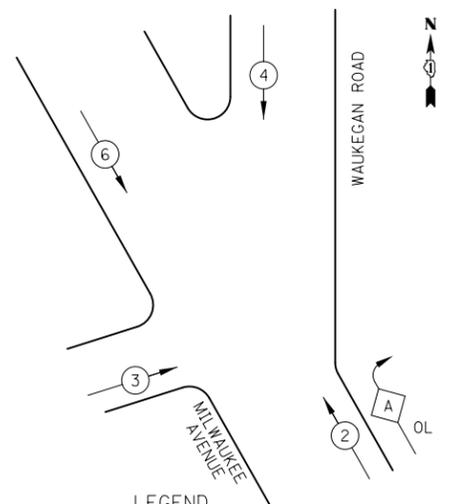
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES  
IL ROUTE 21 (MILWAUKEE AVENUE) AT GREENWOOD AVENUE

NOT TO SCALE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

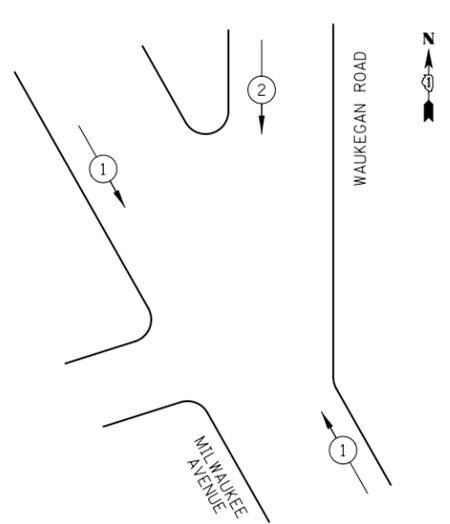
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2013-055TS	COOK	73	45
CONTRACT NO. 60X16				
ILLINOIS FED. AID PROJECT				

CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM  
DUAL ENTRY - ALL LEGS  
PROTECTED / PERMITTED LEFT TURN PHASING

EMERGENCY VEHICLE PREEMPTION SEQUENCE



EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	1	2
MOVEMENT	↔	↓

- NOTES**
- REPLACEMENT OF THE EXISTING CONFIRMATION BEACONS WITH NEW LED CONFIRMATION BEACONS SHALL BE INCLUDED IN THE PAY ITEM "UNINTERRUPTABLE POWER SUPPLY, SPECIAL".

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	% OPERATION	
SIGNAL (RED)	12		17	0.50	102
(YELLOW)	12		25	0.25	75
(GREEN)	12		15	0.25	45
ARROW	4		12	0.10	5
PED. SIGNAL	4		25	1.00	100
CONTROLLER	1		100	1.00	100
TOTAL =					427

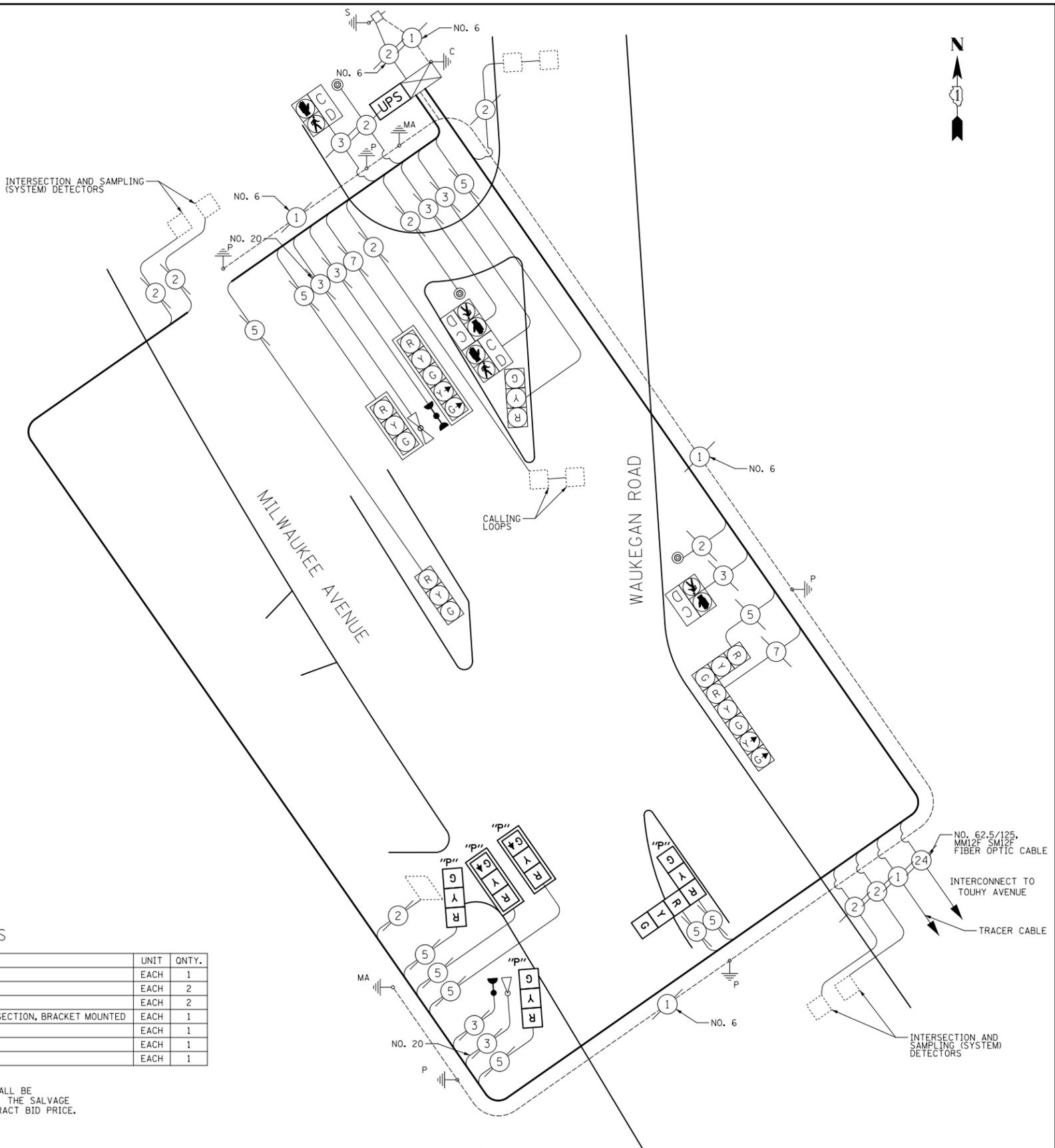
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, IL 60196-1096  
ENERGY SUPPLY: CONTACT: COM ED  
PHONE: (866) 639-3532  
COMPANY: COM ED

SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QNTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2
OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	2
COMBINATION SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION OPTICALLY PROGRAMMED, 1-3 SECTION, BRACKET MOUNTED	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1

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.

- 4 EACH SIGNAL HEAD, 1-FACE, 3-SECTION
- 1 EACH SIGNAL HEAD, 2-FACE, 3-SECTION



CABLE PLAN  
NOT TO SCALE

NOTE:  
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.  
TS 5495 NILES



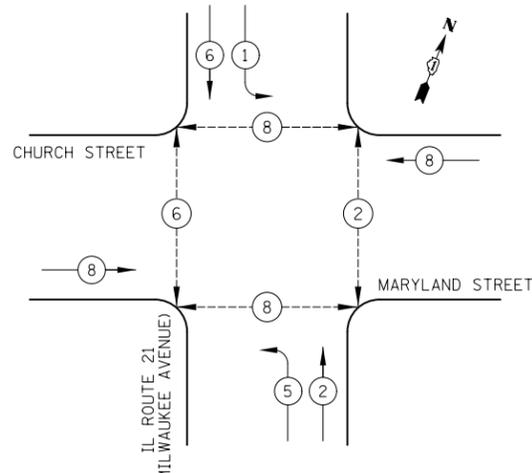
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PLOT SCALE = 40.0000' / in.	DRAWN - JRT	REVISED -
PLOT DATE = 12/2/2013	CHECKED - JJE	REVISED -
	DATE - 12/02/2013	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

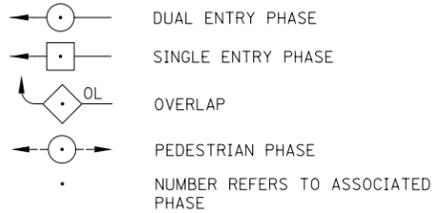
CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES MILWAUKEE AVENUE AT WAUKEGAN ROAD			
NOT TO SCALE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2013-055TS	COOK	73	46
CONTRACT NO. 60X16				
ILLINOIS FED. AID PROJECT				

CONTROLLER SEQUENCE



LEGEND

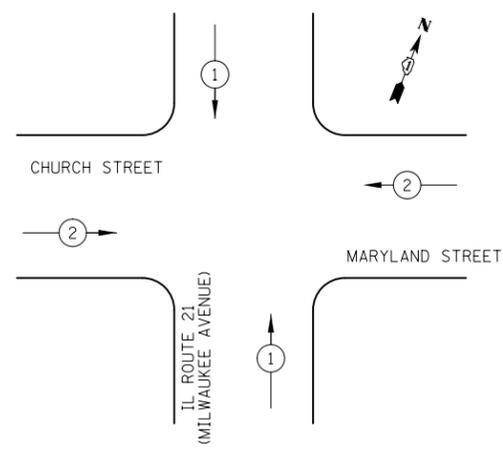


PHASE DESIGNATION DIAGRAM

NOTES

- REPLACEMENT OF THE EXISTING CONFIRMATION BEACONS WITH NEW LED CONFIRMATION BEACONS SHALL BE INCLUDED IN THE PAY ITEM "UNINTERRUPTABLE POWER SUPPLY, SPECIAL".
- THE CONTRACTOR SHALL RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, DETECTOR UNIT TO THE NEW TRAFFIC SIGNAL POST. THE COST OF THIS WORK SHALL BE INCLUDED IN THE PAY ITEM "TRAFFIC SIGNAL POST, GALVANIZED STEEL" OF THE HEIGHT SPECIFIED.
- THE PROPOSED UPS SHALL BE INSTALLED ON THE LEFT (EAST) SIDE OF THE CONTROLLER CABINET.

EMERGENCY VEHICLE PREEMPTION SEQUENCE



EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	1	2
MOVEMENT	↑	→

SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QNTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	2
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	6
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	2
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	8
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	2
PEDESTRIAN PUSH-BUTTON	EACH	8
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1

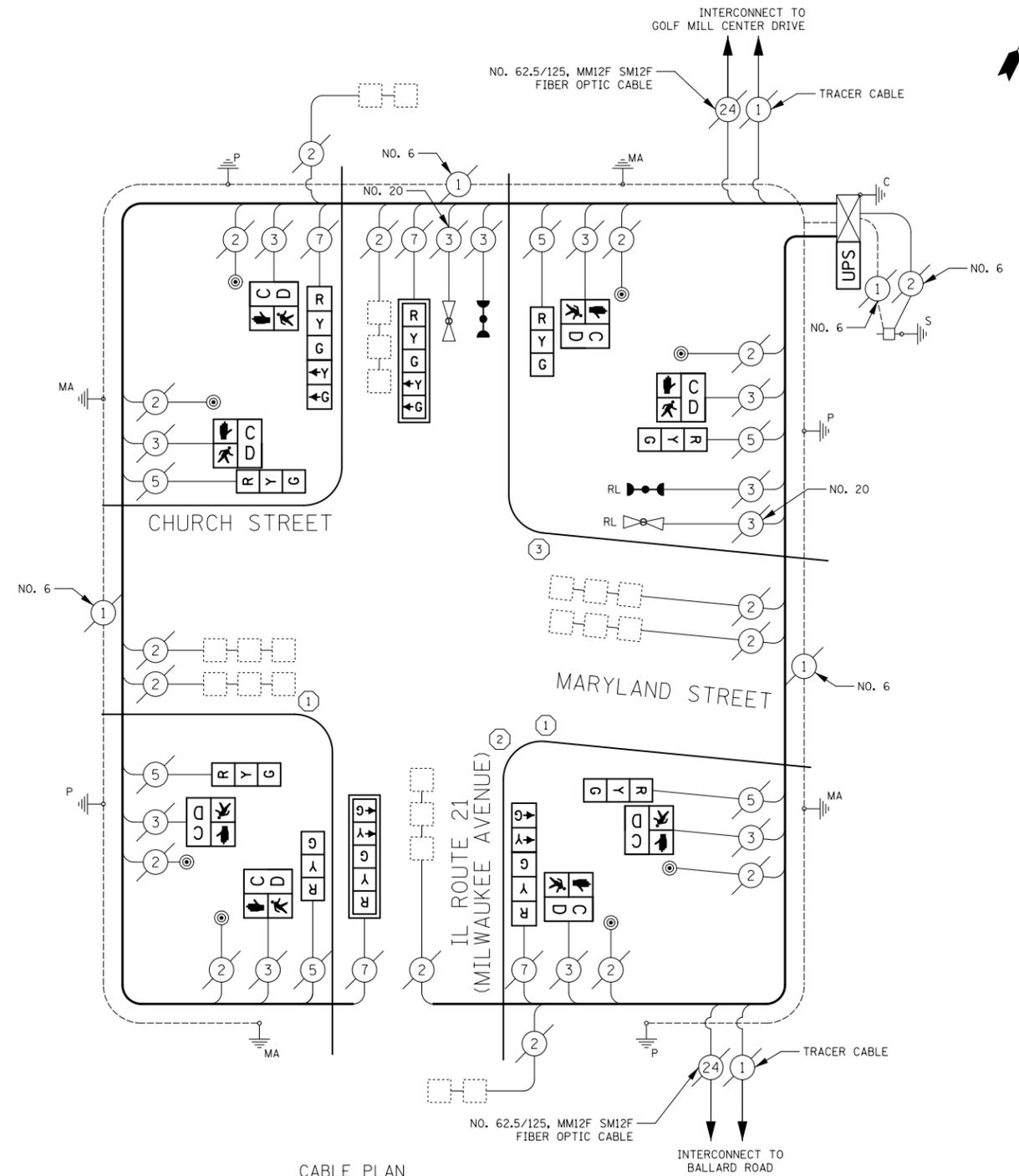
THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

4	EACH	TRAFFIC SIGNAL POST
6	EACH	SIGNAL HEAD, 1-FACE, 3-SECTION
4	EACH	SIGNAL HEAD, 1-FACE, 5-SECTION
2	EACH	TRAFFIC SIGNAL BACKPLATE
8	EACH	PEDESTRIAN SIGNAL HEAD, 1-FACE
8	EACH	PEDESTRIAN PUSH-BUTTON

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	% OPERATION	
SIGNAL (RED)	10	17	0.50		85
(YELLOW)	10	25	0.25		63
(GREEN)	10	15	0.25		38
ARROW	8	12	0.10		10
PED. SIGNAL	8	25	1.00		200
CONTROLLER	1	100	1.00		100
TOTAL =					496

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, IL 60196-1096

ENERGY SUPPLY: CONTACT: COM ED  
PHONE: (866) 639-3532  
COMPANY: COM ED



CABLE PLAN  
NOT TO SCALE

- REPLACE PAINTED POST WITH 14 FT. POST, RE-USE EXISTING TYPE A FOUNDATION
- REPLACE PAINTED POST WITH 16 FT. POST, RE-USE EXISTING TYPE A FOUNDATION
- REPLACE PAINTED POST WITH 18 FT. POST, RE-USE EXISTING TYPE A FOUNDATION RELOCATE EXISTING LIGHT DETECTOR AND CONFIRMATION BEACON

NOTE:  
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

TS 2030  
NILES



USER NAME = jrt	DESIGNED - BRD	REVISED -
	DRAWN - JRT	REVISED -
PLOT SCALE = 40.0000' / in.	CHECKED - JJE	REVISED -
PLOT DATE = 12/2/2013	DATE - 12/02/2013	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

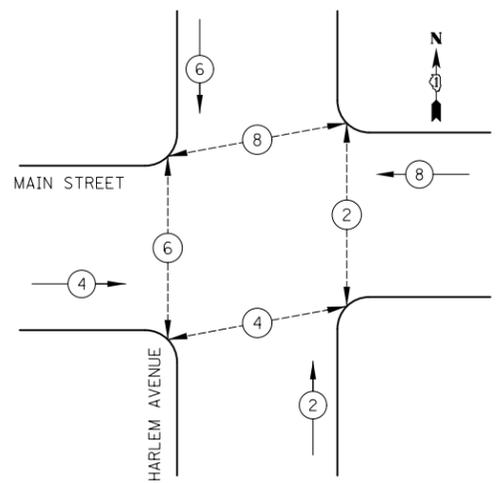
CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES  
IL ROUTE 21 (MILWAUKEE AVENUE) AT MARYLAND STREET / CHURCH STREET

NOT TO SCALE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

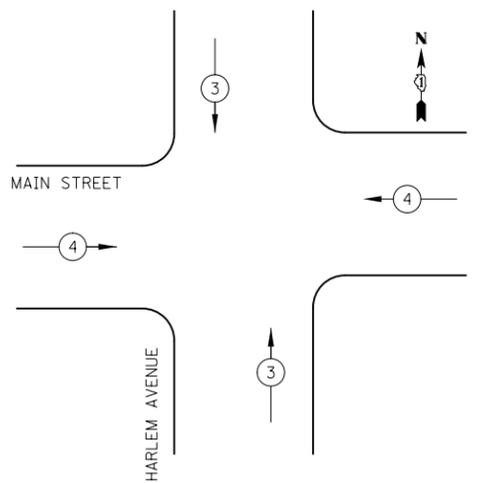
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2013-055TS	COOK	73	47
CONTRACT NO. 60X16				
ILLINOIS FED. AID PROJECT				



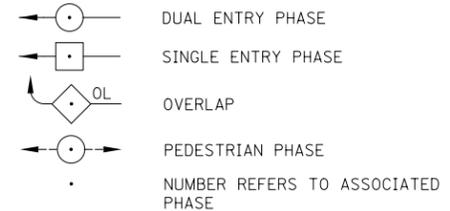
**CONTROLLER SEQUENCE**



**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



**LEGEND**



EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↕	→

**PHASE DESIGNATION DIAGRAM**

**NOTES**

- REPLACEMENT OF THE EXISTING CONFIRMATION BEACONS WITH NEW LED CONFIRMATION BEACONS SHALL BE INCLUDED IN THE PAY ITEM "UNINTERRUPTABLE POWER SUPPLY, GROUND MOUNTED".
- THE CONTRACTOR SHALL RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, DETECTOR UNIT TO THE NEW TRAFFIC SIGNAL POST. THE COST OF THIS WORK SHALL BE INCLUDED IN THE PAY ITEM "TRAFFIC SIGNAL POST, GALVANIZED STEEL" OF THE HEIGHT SPECIFIED.
- THE UNINTERRUPTABLE POWER SUPPLY SHALL BE INSTALLED ON A SEPARATE TYPE "A" SQUARE FOUNDATION DUE TO THE PHYSICAL CONSTRAINTS OR AS DIRECTED BY THE ENGINEER. THIS WORK, INCLUDING THE CONCRETE FOUNDATION, DRILLING THE EXISTING HANDHOLE, ALL CONDUIT AND ELECTRICAL CABLE NEEDED TO PROPERLY INSTALL THE UNINTERRUPTABLE POWER SUPPLY AND ALL RESTORATION SPECIFIED IN THE RESTORATION OF WORK AREA GENERAL NOTE SHALL BE INCLUDED IN THE PAY ITEM "UNINTERRUPTIBLE POWER SUPPLY, GROUND MOUNTED" AND NO ADDITIONAL COMPENSATION WILL BE PROVIDED.
- THE UNINERRUPTABLE POWER SUPPLY, GROUND MOUNTED SHALL BE LOCATED AS DIRECTED BY THE ENGINEER. ANY DAMAGE TO EXISTING UNDERGROUND UTILITIES SHALL BE PAID FOR AT THE CONTRACTOR'S EXPENSE.

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	% OPERATION	
SIGNAL (RED)	12		17	0.50	102
(YELLOW)	12		25	0.25	75
(GREEN)	12		15	0.25	45
PED. SIGNAL	8		25	1.00	200
CONTROLLER	1		100	1.00	100
TOTAL =					522

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, IL 60196-1096

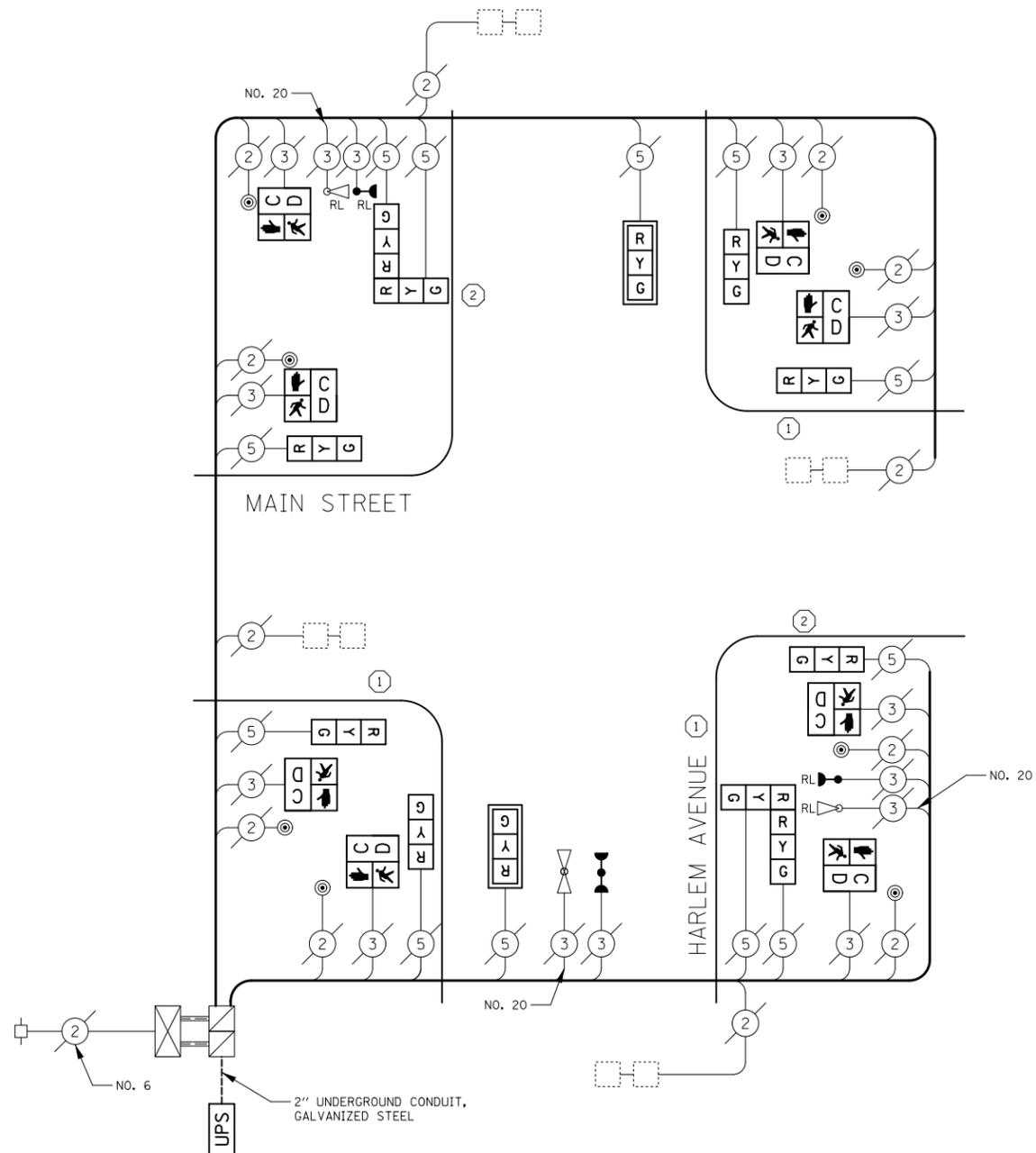
ENERGY SUPPLY: CONTACT: COM ED  
PHONE: (866) 639-3532  
COMPANY: COM ED

**SCHEDULE OF QUANTITIES**

PAY ITEM	UNIT	QNTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	3
TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.	EACH	2
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	6
SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	8
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	2
PEDESTRIAN PUSH-BUTTON	EACH	8
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, GROUND MOUNTED	EACH	1

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.

- 8 EACH SIGNAL HEAD, 1-FACE, 3-SECTION
- 2 EACH SIGNAL HEAD, 2-FACE, 3-SECTION
- 2 EACH TRAFFIC SIGNAL BACKPLATE
- 8 EACH PEDESTRIAN SIGNAL HEAD, 1-FACE
- 8 EACH PEDESTRIAN PUSH-BUTTON
- 5 EACH TRAFFIC SIGNAL POST



**CABLE PLAN**

NOT TO SCALE

- ① REPLACE PAINTED POST WITH 14 FT. POST, RE-USE EXISTING TYPE A FOUNDATION
- ② REPLACE PAINTED POST WITH 18 FT. POST, RE-USE EXISTING TYPE A FOUNDATION, AND RELOCATE EXISTING LIGHT DETECTOR AND CONFIRMATION BEACON.

NOTE:  
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

TS 11160  
NILES



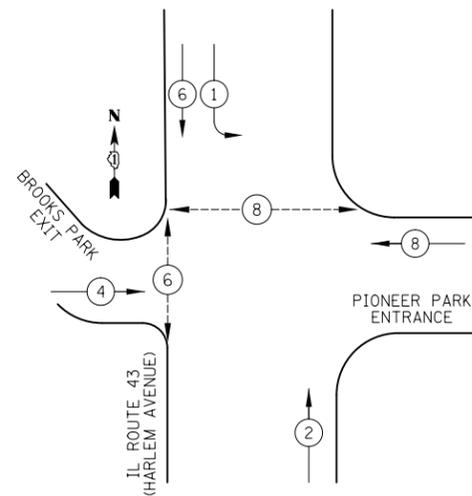
USER NAME = jrt	DESIGNED - BRD	REVISED -
	DRAWN - JRT	REVISED -
PLOT SCALE = 40.0000' / in.	CHECKED - JJE	REVISED -
PLOT DATE = 12/2/2013	DATE - 12/02/2013	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

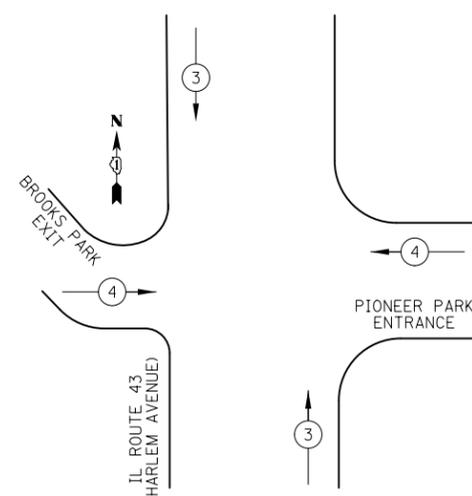
<b>CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES HARLEM AVENUE AT MAIN STREET</b>			
NOT TO SCALE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2013-055TS	COOK	73	48
CONTRACT NO. 60X16				
ILLINOIS FED. AID PROJECT				

CONTROLLER SEQUENCE



EMERGENCY VEHICLE PREEMPTION SEQUENCE



LEGEND

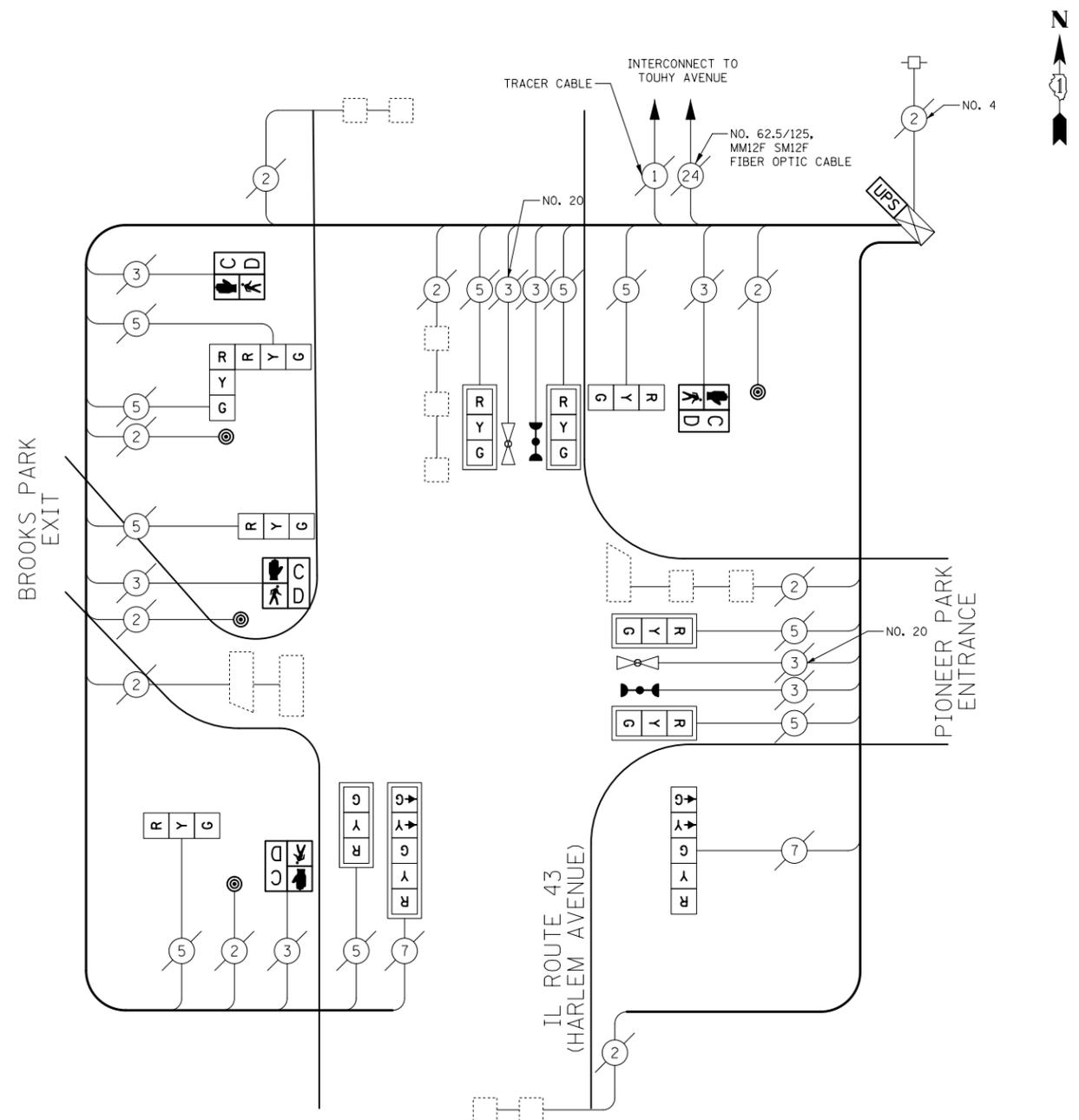
- DUAL ENTRY PHASE
- SINGLE ENTRY PHASE
- OVERLAP
- PEDESTRIAN PHASE
- NUMBER REFERS TO ASSOCIATED PHASE

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

PHASE DESIGNATION DIAGRAM

NOTES:

- REPLACEMENT OF THE EXISTING CONFIRMATION BEACON WITH NEW LED CONFIRMATION BEACONS SHALL BE INCLUDED IN THE PAY ITEM "UNINTERRUPTABLE POWER SUPPLY, SPECIAL".



CABLE PLAN  
NOT TO SCALE

RETROFIT ALL EXISTING SIGNAL HEADS TO L.E.D.

SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QNTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4
PEDESTRIAN PUSH-BUTTON	EACH	4
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT	EACH	3
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	5
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	1
SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT	EACH	1
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT	EACH	1

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.

- 4 EACH PEDESTRIAN PUSH-BUTTON
- 4 EACH PEDESTRIAN SIGNAL HEAD, 1-FACE

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	% OPERATION	
SIGNAL (RED)	12		17	0.50	102
(YELLOW)	12		25	0.25	75
(GREEN)	12		15	0.25	45
ARROW	4		12	0.10	5
PED. SIGNAL	4		25	1.00	100
CONTROLLER	1		100	1.00	100
TOTAL =					427

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, IL 60196-1096  
ENERGY SUPPLY: CONTACT: COM ED  
PHONE: (866) 639-3532  
COMPANY: COM ED

NOTE:  
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

TS 2411  
NILES



USER NAME = jrt	DESIGNED - BRD	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN - JRT	REVISED -
PLOT DATE = 12/2/2013	CHECKED - JJE	REVISED -
	DATE - 12/02/2013	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

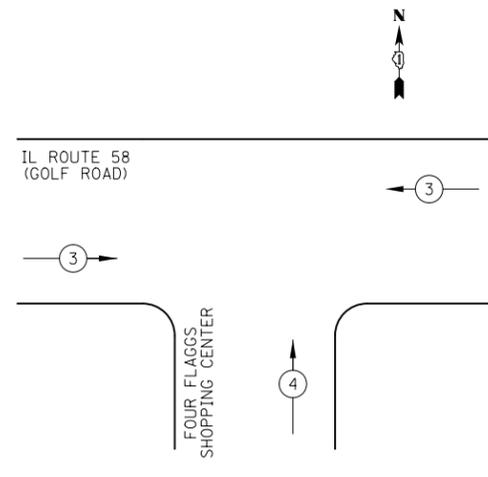
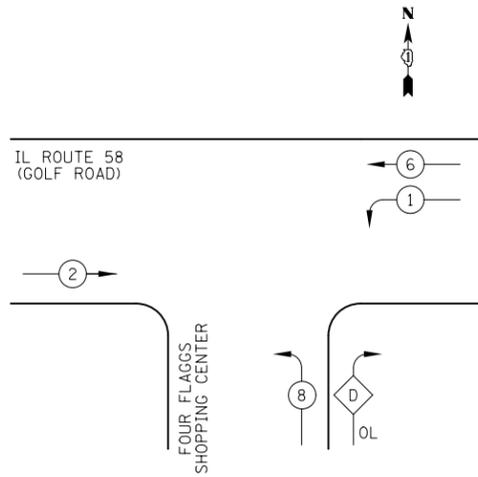
CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES  
IL ROUTE 43 (HARLEM AVENUE) AT PIONEER PARK /BROOKS PARK

NOT TO SCALE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2013-055TS	COOK	73	49
CONTRACT NO. 60X16				
ILLINOIS FED. AID PROJECT				

CONTROLLER SEQUENCE

EMERGENCY VEHICLE PREEMPTION SEQUENCE



LEGEND

- DUAL ENTRY PHASE
- SINGLE ENTRY PHASE
- OVERLAP
- PEDESTRIAN PHASE
- NUMBER REFERS TO ASSOCIATED PHASE

EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT		

PHASE DESIGNATION DIAGRAM

RIGHT TURN OVERLAP PHASE DESIGNATION	PERMISSIVE PHASE	PROTECTED PHASE
$\frac{D}{8} = \frac{1}{1}$		

NOTE:

- REPLACEMENT OF THE EXISTING CONFIRMATION BEACONS WITH NEW LED CONFIRMATION BEACONS SHALL BE INCLUDED IN THE PAY ITEM "UNINTERRUPTABLE POWER SUPPLY, SPECIAL".
- THE CONTRACTOR SHALL RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, DETECTOR UNIT TO THE NEW TRAFFIC SIGNAL POST. THE COST OF THIS WORK SHALL BE INCLUDED IN THE PAY ITEM "TRAFFIC SIGNAL POST, GALVANIZED STEEL" OF THE HEIGHT SPECIFIED.

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	% OPERATION	
SIGNAL (RED)	10		17	0.50	85
(YELLOW)	10		25	0.25	63
(GREEN)	10		15	0.25	38
ARROW	4		12	0.10	5
CONTROLLER	1		100	1.00	100
TOTAL =					291

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, IL 60196-1096

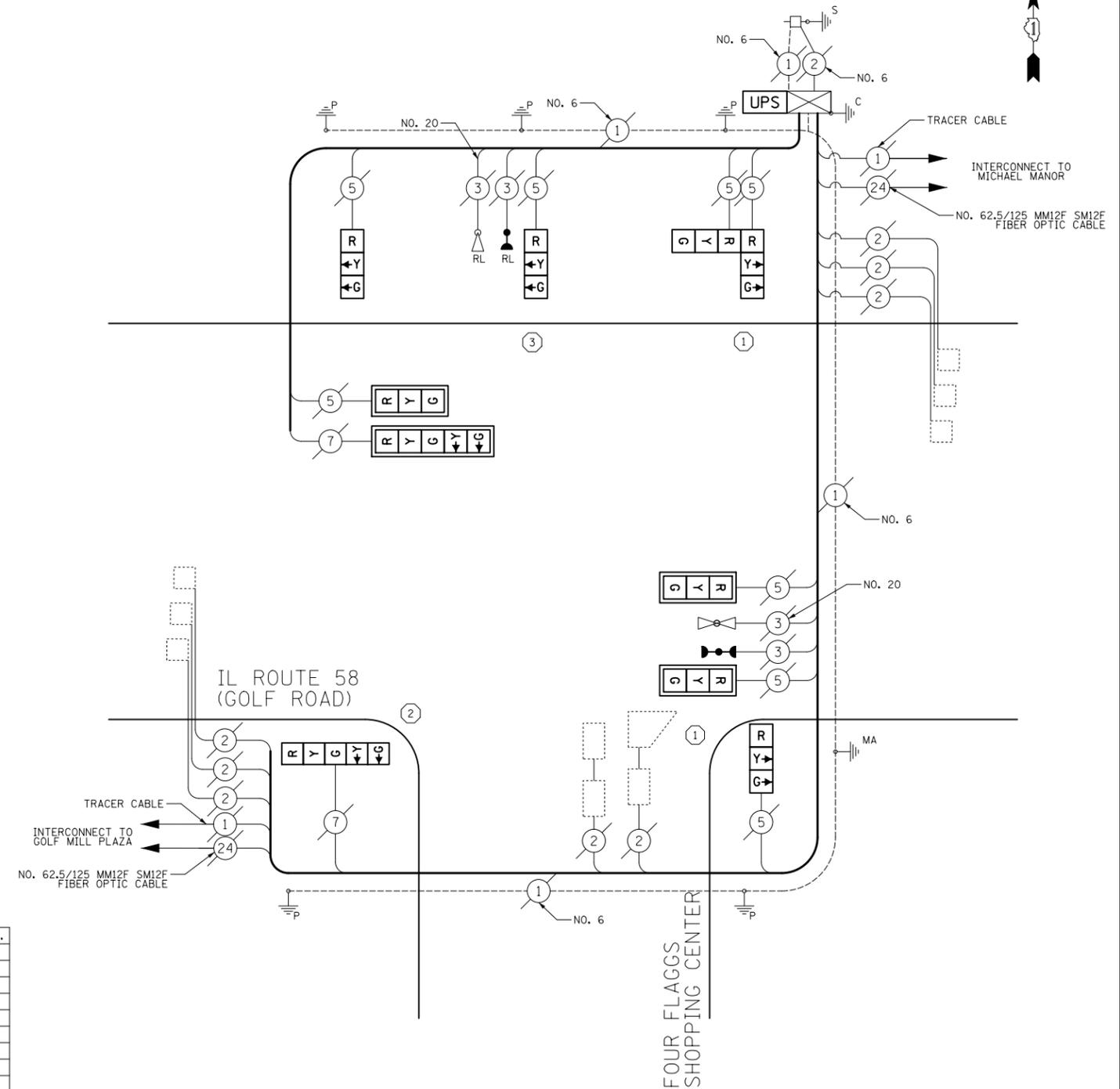
ENERGY SUPPLY: CONTACT: COM ED  
PHONE: (866) 639-3532  
COMPANY: COM ED

SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QNTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	2
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	3
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	3
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	1
SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	4
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1

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.

- 4 EACH TRAFFIC SIGNAL POST
- 6 EACH SIGNAL HEAD, 1-FACE, 3-SECTION
- 2 EACH SIGNAL HEAD, 1-FACE, 5-SECTION
- 1 EACH SIGNAL HEAD, 2-FACE, 3-SECTION
- 4 EACH TRAFFIC SIGNAL BACKPLATE



- ① REPLACE PAINTED POST WITH 14 FT. POST, RE-USE EXISTING TYPE A FOUNDATION
- ② REPLACE PAINTED POST WITH 16 FT. POST, RE-USE EXISTING TYPE A FOUNDATION
- ③ REPLACE PAINTED POST WITH 18 FT. POST, RE-USE EXISTING TYPE A FOUNDATION, RELOCATE EXISTING LIGHT DETECTOR AND CONFIRMATION BEACON

NOTE: THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

TS 2885 NILES



USER NAME = jrt	DESIGNED - BRD	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN - JRT	REVISED -
PLOT DATE = 12/2/2013	CHECKED - JJE	REVISED -
	DATE - 12/02/2013	REVISED -

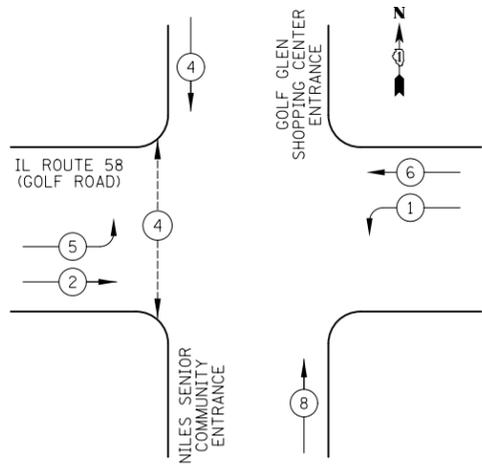
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES  
IL ROUTE 58 (GOLF ROAD) AT FOUR FLAGGS SHOPPING CENTER

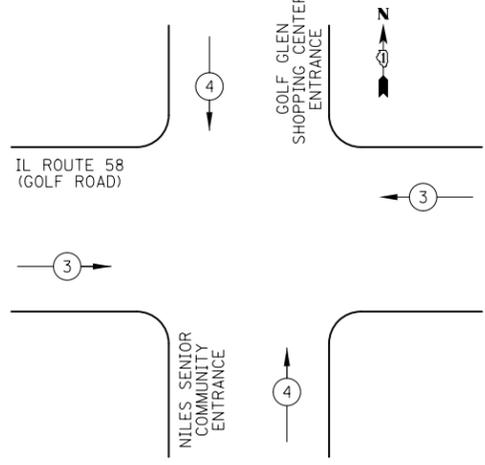
NOT TO SCALE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2013-055TS	COOK	73	50
CONTRACT NO. 60X16				
ILLINOIS FED. AID PROJECT				

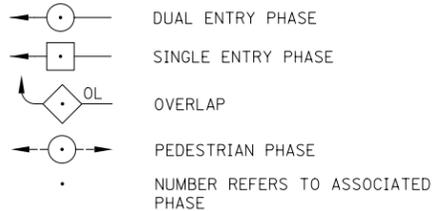
CONTROLLER SEQUENCE



EMERGENCY VEHICLE PREEMPTION SEQUENCE



LEGEND

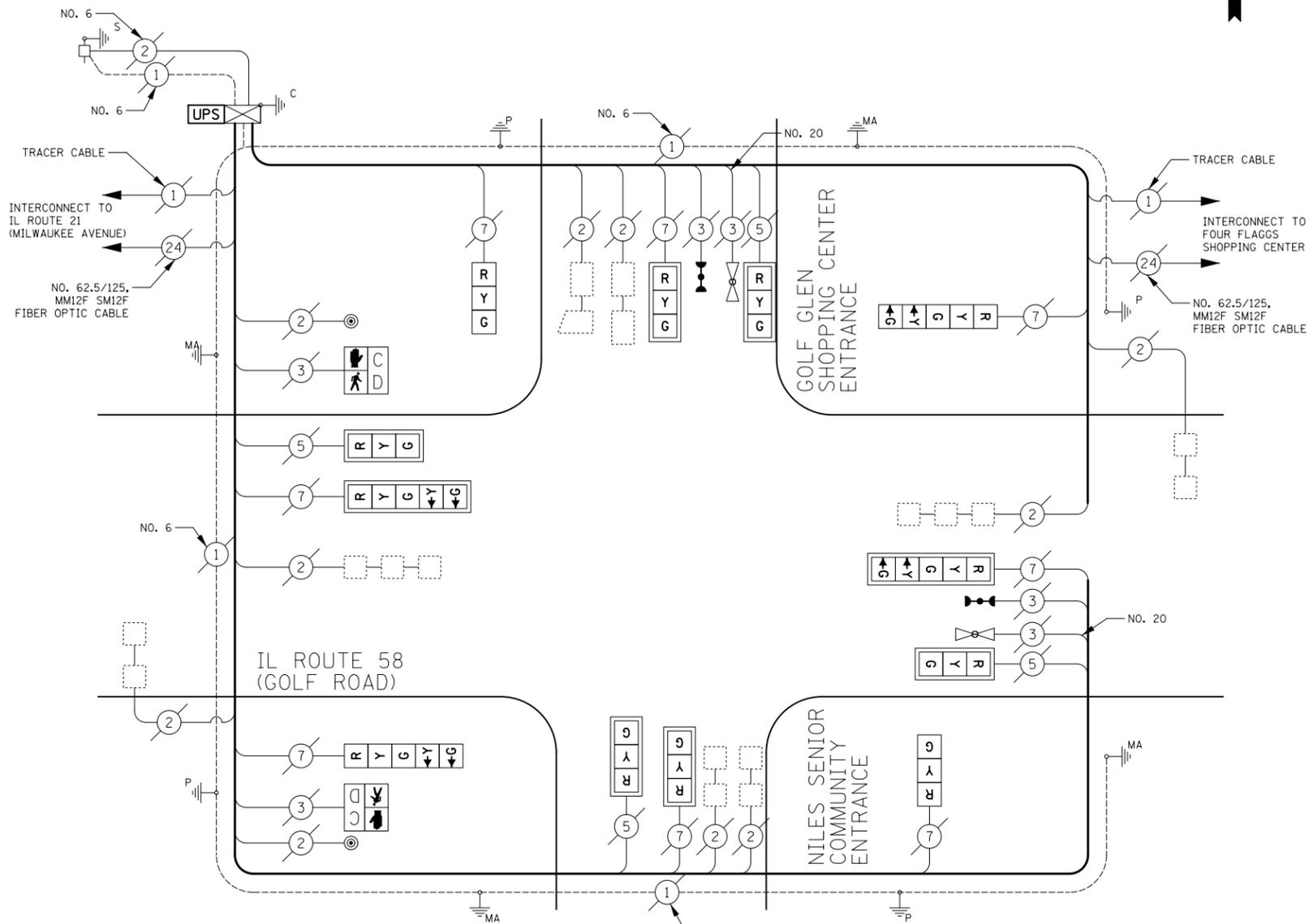


EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	← →	↑ ↓

PHASE DESIGNATION DIAGRAM

NOTE:

- REPLACEMENT OF THE EXISTING CONFIRMATION BEACONS WITH NEW LED CONFIRMATION BEACONS SHALL BE INCLUDED IN THE PAY ITEM "UNINTERRUPTABLE POWER SUPPLY, SPECIAL".



CABLE PLAN  
NOT TO SCALE

SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QNTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
PEDESTRIAN PUSH-BUTTON	EACH	2
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT	EACH	2
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	6
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT	EACH	2

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.

- 2 EACH PEDESTRIAN PUSH-BUTTON
- 2 EACH PEDESTRIAN SIGNAL HEAD, 1-FACE

RETROFIT ALL EXISTING SIGNAL HEADS TO L.E.D.

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	% OPERATION	
SIGNAL (RED)	12		17	0.50	102
(YELLOW)	12		25	0.25	75
(GREEN)	12		15	0.25	45
ARROW	8		12	0.10	10
PED. SIGNAL	2		25	1.00	50
CONTROLLER	1		100	1.00	100
TOTAL =					382

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, IL 60196-1096  
ENERGY SUPPLY: CONTACT: COM ED  
PHONE: (866) 639-3532  
COMPANY: COM ED

NOTE:  
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

TS 21125  
NILES



USER NAME = jrt	DESIGNED - BRD	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN - JRT	REVISED -
PLOT DATE = 12/2/2013	CHECKED - JJE	REVISED -
	DATE - 12/02/2013	REVISED -

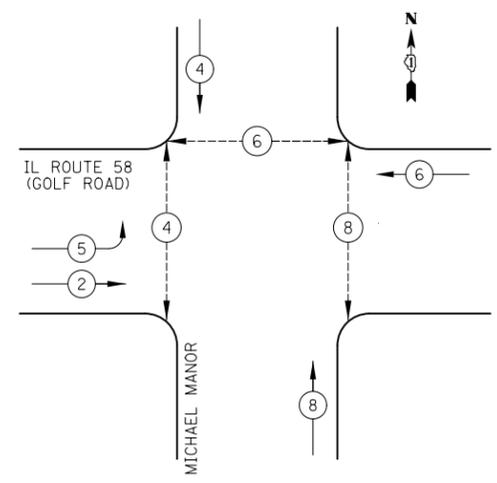
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES  
IL ROUTE 58 (GOLF ROAD) AT GOLF GLEN SHOPPING CENTER

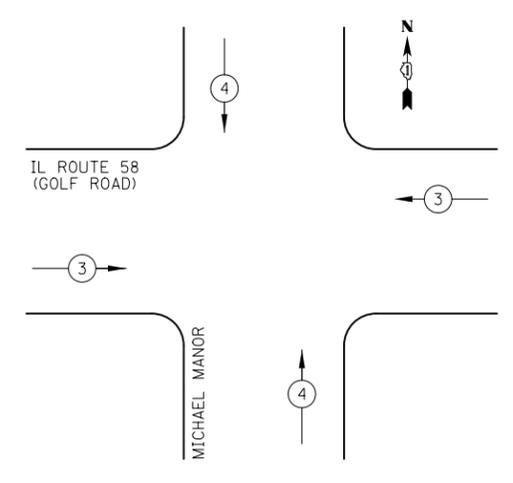
NOT TO SCALE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2013-055TS	COOK	73	51
CONTRACT NO. 60X16				
ILLINOIS FED. AID PROJECT				

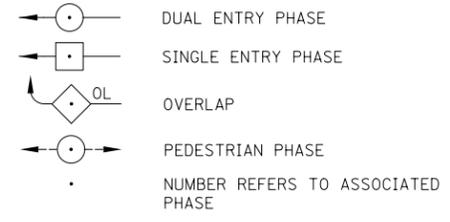
CONTROLLER SEQUENCE



EMERGENCY VEHICLE PREEMPTION SEQUENCE



LEGEND



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

PHASE DESIGNATION DIAGRAM

NOTE:

- REPLACEMENT OF THE EXISTING CONFIRMATION BEACONS WITH NEW LED CONFIRMATION BEACONS SHALL BE INCLUDED IN THE PAY ITEM "UNINTERRUPTABLE POWER SUPPLY, SPECIAL".
- THE CONTRACTOR SHALL RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM DETECTOR UNIT TO THE NEW TRAFFIC SIGNAL POST. THE COST OF THIS WORK SHALL BE INCLUDED IN THE PAY ITEM "TRAFFIC SIGNAL POST, GALVANIZED STEEL" OF THE HEIGHT SPECIFIED.

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	% OPERATION	
SIGNAL (RED)	14		17	0.50	119
(YELLOW)	14		25	0.25	88
(GREEN)	14		15	0.25	53
ARROW	4		12	0.10	5
PED. SIGNAL	6		25	1.00	150
CONTROLLER	1		100	1.00	100
TOTAL =					515

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, IL 60196-1096

ENERGY SUPPLY: CONTACT: COM ED  
PHONE: (866) 639-3532  
COMPANY: COM ED

SCHEDULE OF QUANTITIES

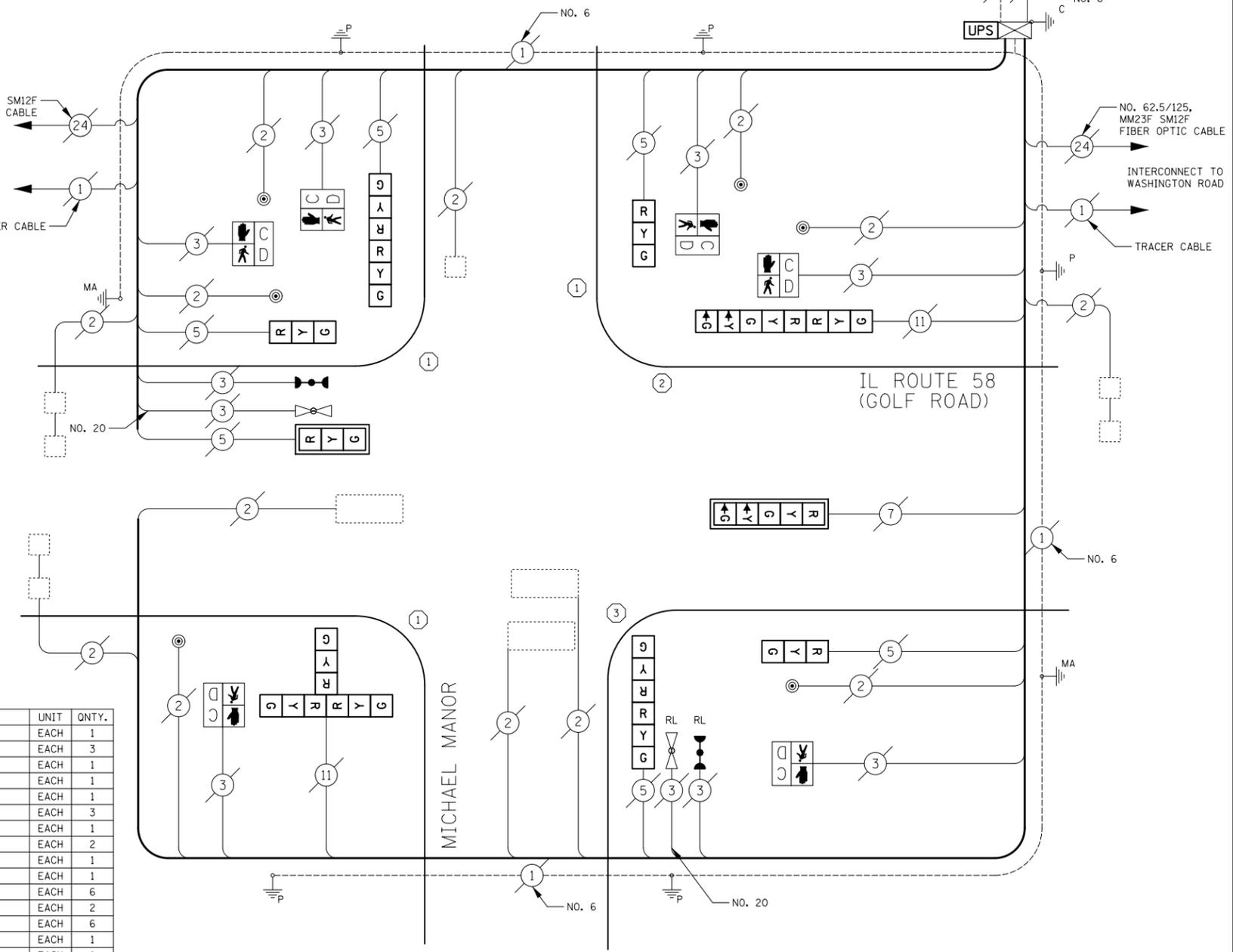
PAY ITEM	UNIT	QNTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	3
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	3
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	1
SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, LED, 3-FACE, 3 SECTION, BRACKET MOUNTED	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	6
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	2
PEDESTRIAN PUSH-BUTTON	EACH	6
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1

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.

- 5 EACH TRAFFIC SIGNAL POST
- 4 EACH SIGNAL HEAD, 1-FACE, 3-SECTION
- 1 EACH SIGNAL HEAD, 1-FACE, 5-SECTION
- 2 EACH SIGNAL HEAD, 2-FACE, 3-SECTION
- 1 EACH SIGNAL HEAD, 2-FACE, 1-3 SECTION, 1-5 SECTION
- 1 EACH SIGNAL HEAD, 3-FACE, 3-SECTION
- 6 EACH PEDESTRIAN SIGNAL HEAD, 1-FACE
- 2 EACH TRAFFIC SIGNAL BACKPLATE
- 6 EACH PEDESTRIAN PUSH-BUTTON

NO. 62.5/125, MM23F SM12F FIBER OPTIC CABLE  
INTERCONNECT TO FOUR FLAGGS SHOPPING CENTER

TRACER CABLE



CABLE PLAN  
NOT TO SCALE

- ① REPLACE PAINTED POST WITH 14 FT. POST, RE-USE EXISTING TYPE A FOUNDATION
- ② REPLACE PAINTED POST WITH 16 FT. POST, RE-USE EXISTING TYPE A FOUNDATION
- ③ REPLACE PAINTED POST WITH 18 FT. POST, RE-USE EXISTING TYPE A FOUNDATION, RELOCATE EXISTING LIGHT DETECTOR AND CONFIRMATION BEACON

NOTE:  
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

TS 11170  
NILES



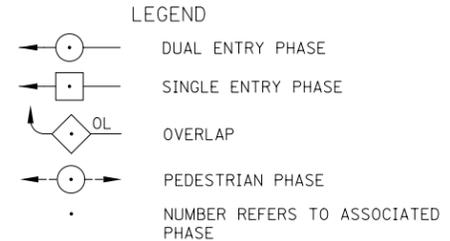
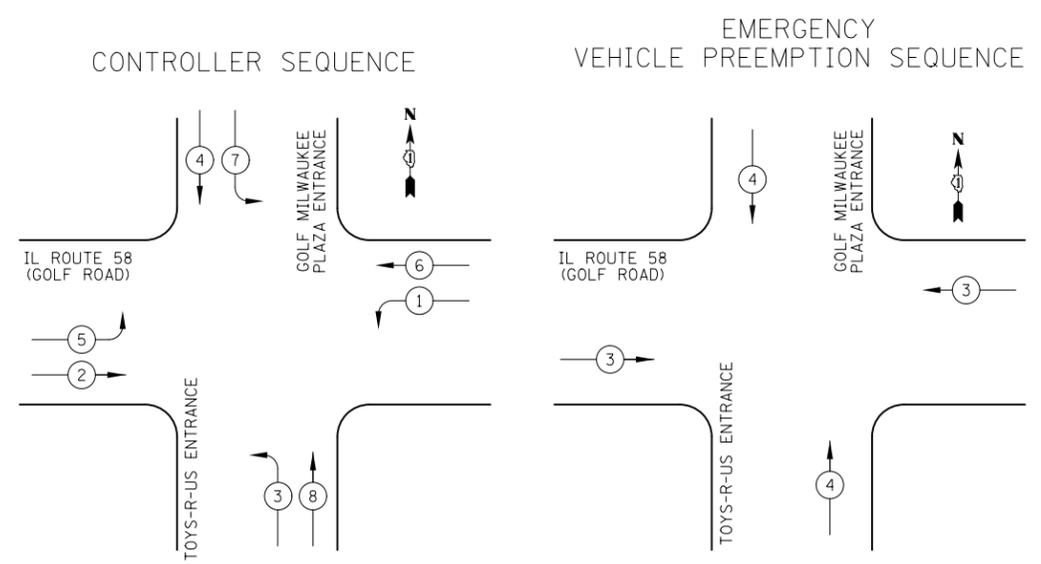
USER NAME = jrt	DESIGNED - BRD	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN - JRT	REVISED -
PLOT DATE = 12/2/2013	CHECKED - JJE	REVISED -
	DATE - 12/02/2013	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES  
IL ROUTE 58 (GOLF ROAD) AT MICHAEL MANOR

NOT TO SCALE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

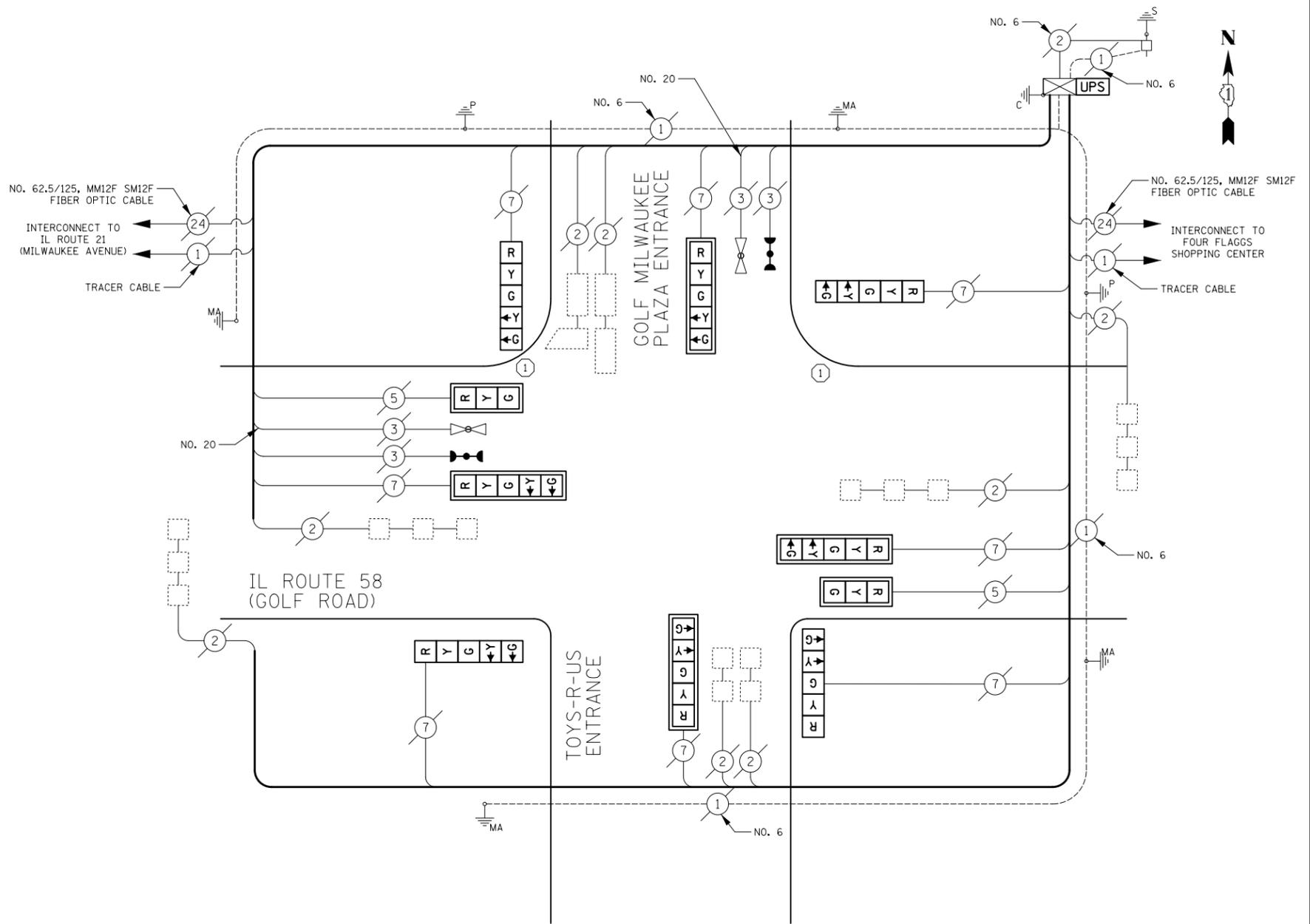
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2013-055TS	COOK	73	52
CONTRACT NO. 60X16				
ILLINOIS FED. AID PROJECT				



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

**PHASE DESIGNATION DIAGRAM**

- NOTES**
- REPLACEMENT OF THE EXISTING CONFIRMATION BEACONS WITH NEW LED CONFIRMATION BEACONS SHALL BE INCLUDED IN THE PAY ITEM "UNINTERRUPTABLE POWER SUPPLY, SPECIAL".
  - THE PROPOSED UPS SHALL BE INSTALLED ON THE LEFT (EAST) SIDE OF THE CONTROLLER CABINET.



CABLE PLAN  
NOT TO SCALE

**SCHEDULE OF QUANTITIES**

PAY ITEM	UNIT	QNTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	2
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	4
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	4
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	6
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1

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.

- 2 EACH TRAFFIC SIGNAL POST
- 2 EACH SIGNAL HEAD, 1-FACE, 3-SECTION
- 8 EACH SIGNAL HEAD, 1-FACE, 5-SECTION
- 6 EACH TRAFFIC SIGNAL BACKPLATE

① REPLACE PAINTED POST WITH 16 FT. POST, RE-USE EXISTING TYPE A FOUNDATION

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	% OPERATION	
SIGNAL (RED)	10		17	0.50	85
(YELLOW)	10		25	0.25	63
(GREEN)	10		15	0.25	38
ARROW	16		12	0.10	19
CONTROLLER	1		100	1.00	100
TOTAL =					305

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, IL 60196-1096

ENERGY SUPPLY: CONTACT: COM ED  
PHONE: (866) 639-3532  
COMPANY: COM ED

NOTE: THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.



USER NAME = jrt	DESIGNED - BRD	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN - JRT	REVISED -
PLOT DATE = 12/2/2013	CHECKED - JJE	REVISED -
	DATE - 12/02/2013	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

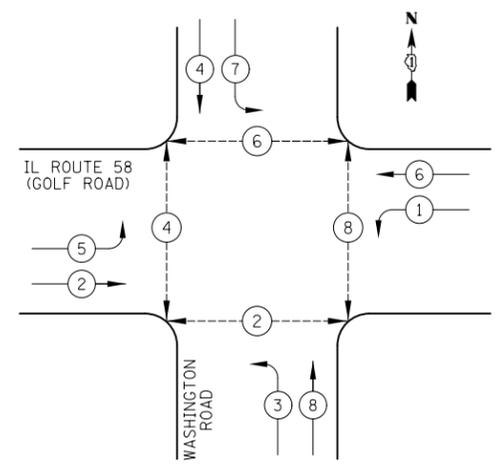
**CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES  
IL ROUTE 58 (GOLF ROAD) AT TOYS R US / MILWAUKEE PLAZA**

NOT TO SCALE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

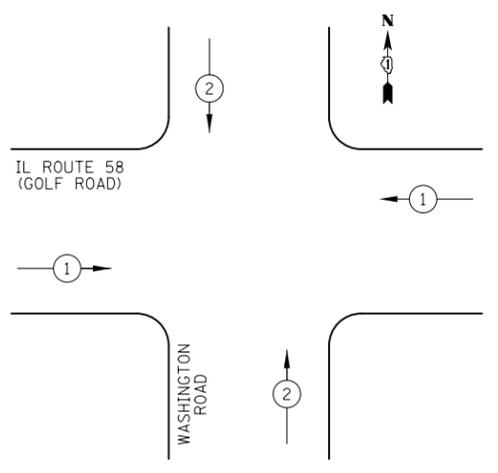
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2013-055TS	COOK	73	53
CONTRACT NO. 60X16				
ILLINOIS FED. AID PROJECT				

TS 11210  
NILES

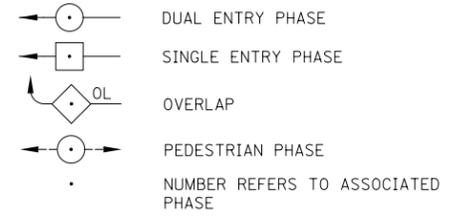
CONTROLLER SEQUENCE



EMERGENCY VEHICLE PREEMPTION SEQUENCE



LEGEND



EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	1	2
MOVEMENT	← →	↑ ↓

PHASE DESIGNATION DIAGRAM

NOTE:

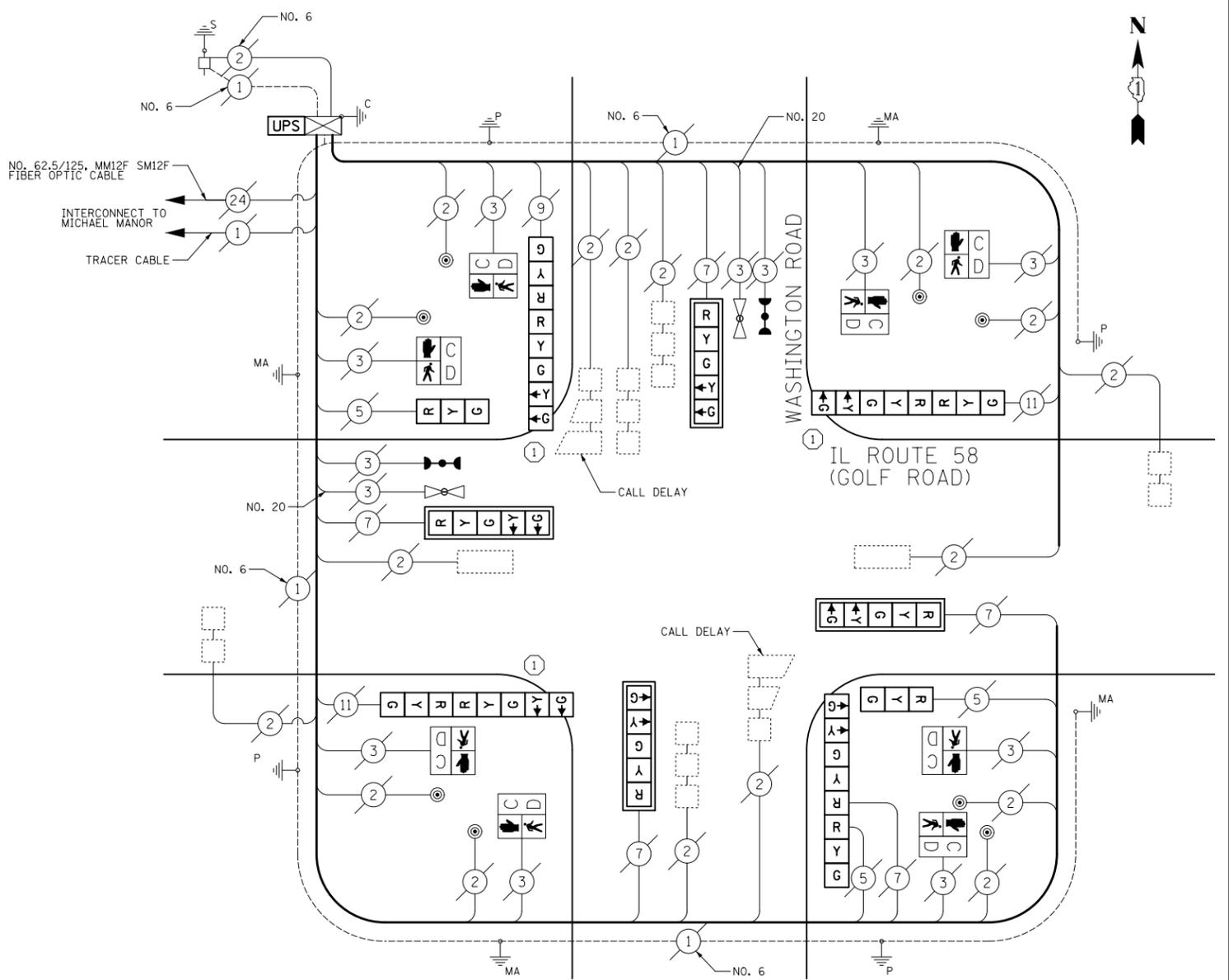
1. REPLACEMENT OF THE EXISTING CONFIRMATION BEACONS WITH NEW LED CONFIRMATION BEACONS SHALL BE INCLUDED IN THE PAY ITEM "UNINTERRUPTABLE POWER SUPPLY, SPECIAL".

SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QNTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	3
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	4
SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	4
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	8
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	4
PEDESTRIAN PUSH-BUTTON	EACH	8
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1

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.

3 EACH TRAFFIC SIGNAL POST  
 2 EACH SIGNAL HEAD, 1-FACE, 3-SECTION  
 4 EACH SIGNAL HEAD, 1-FACE, 5-SECTION  
 4 EACH SIGNAL HEAD, 2-FACE, 1-3 SECTION, 1-5 SECTION  
 4 EACH TRAFFIC SIGNAL BACKPLATE  
 8 EACH PEDESTRIAN PUSH-BUTTON  
 8 EACH PEDESTRIAN SIGNAL HEAD, 1-FACE



CABLE PLAN  
NOT TO SCALE

1. REPLACE PAINTED POST WITH 16 FT. POST, RE-USE EXISTING TYPE A FOUNDATION

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	% OPERATION	
SIGNAL (RED)	14		17	0.50	119
(YELLOW)	14		25	0.25	88
(GREEN)	14		15	0.25	53
ARROW	16		12	0.10	19
PED. SIGNAL	8		25	1.00	200
CONTROLLER	1		100	1.00	100
TOTAL =					579

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION  
 201 WEST CENTER COURT  
 SCHAUMBURG, IL 60196-1096

ENERGY SUPPLY: CONTACT: COM ED  
 PHONE: (866) 639-3532  
 COMPANY: COM ED

NOTE:  
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

TS 2850  
NILES



USER NAME = jrt	DESIGNED - BRD	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN - JRT	REVISED -
PLOT DATE = 12/2/2013	CHECKED - JJE	REVISED -
	DATE - 12/02/2013	REVISED -

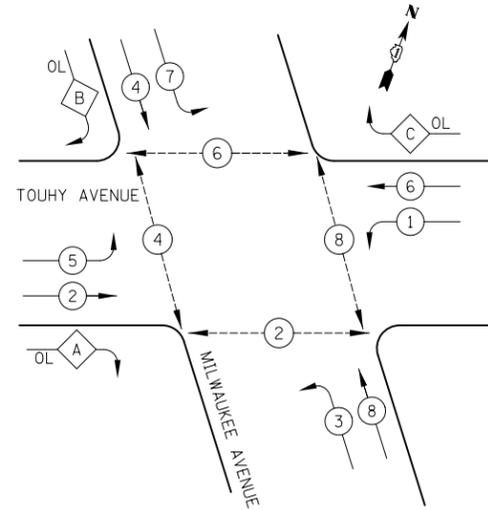
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES  
 IL ROUTE 58 (GOLF ROAD) AT WASHINGTON ROAD

NOT TO SCALE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2013-055TS	COOK	73	54
CONTRACT NO. 60X16				
ILLINOIS FED. AID PROJECT				

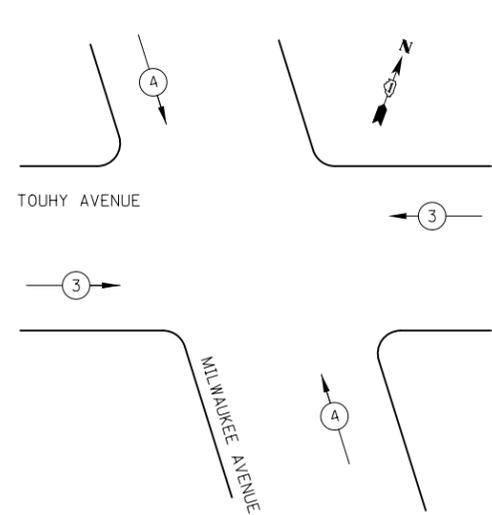
CONTROLLER SEQUENCE



LEGEND

- DUAL ENTRY PHASE
- SINGLE ENTRY PHASE
- OVERLAP
- PEDESTRIAN PHASE
- NUMBER REFERS TO ASSOCIATED PHASE

EMERGENCY VEHICLE PREEMPTION SEQUENCE



EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT		

PHASE DESIGNATION DIAGRAM

RIGHT TURN OVERLAP PHASE DESIGNATION

OVERLAP PHASE	PERMISSIVE PHASE	PROTECTED PHASE
A	= 2	+ 3
B	= 4	+ 5
C	= 6	+ 7

NOTES

- REPLACEMENT OF THE EXISTING CONFIRMATION BEACON WITH NEW LED CONFIRMATION BEACONS SHALL BE INCLUDED IN THE PAY ITEM "UNINTERRUPTABLE POWER SUPPLY, SPECIAL".
- THE PROPOSED UPS SHALL BE INSTALLED ON THE LEFT (EAST) SIDE OF THE CONTROLLER CABINET. THE COST TO RELOCATE OR REPLACE ANY EXISTING VEGETATION SHALL BE INCLUDED IN THE PAY ITEM "UNINTERRUPTABLE POWER SUPPLY, SPECIAL". ANY VEGETATION DAMAGED OR REPLACED BY THE CONTRACTOR SHALL BE REPLACED IN KIND.

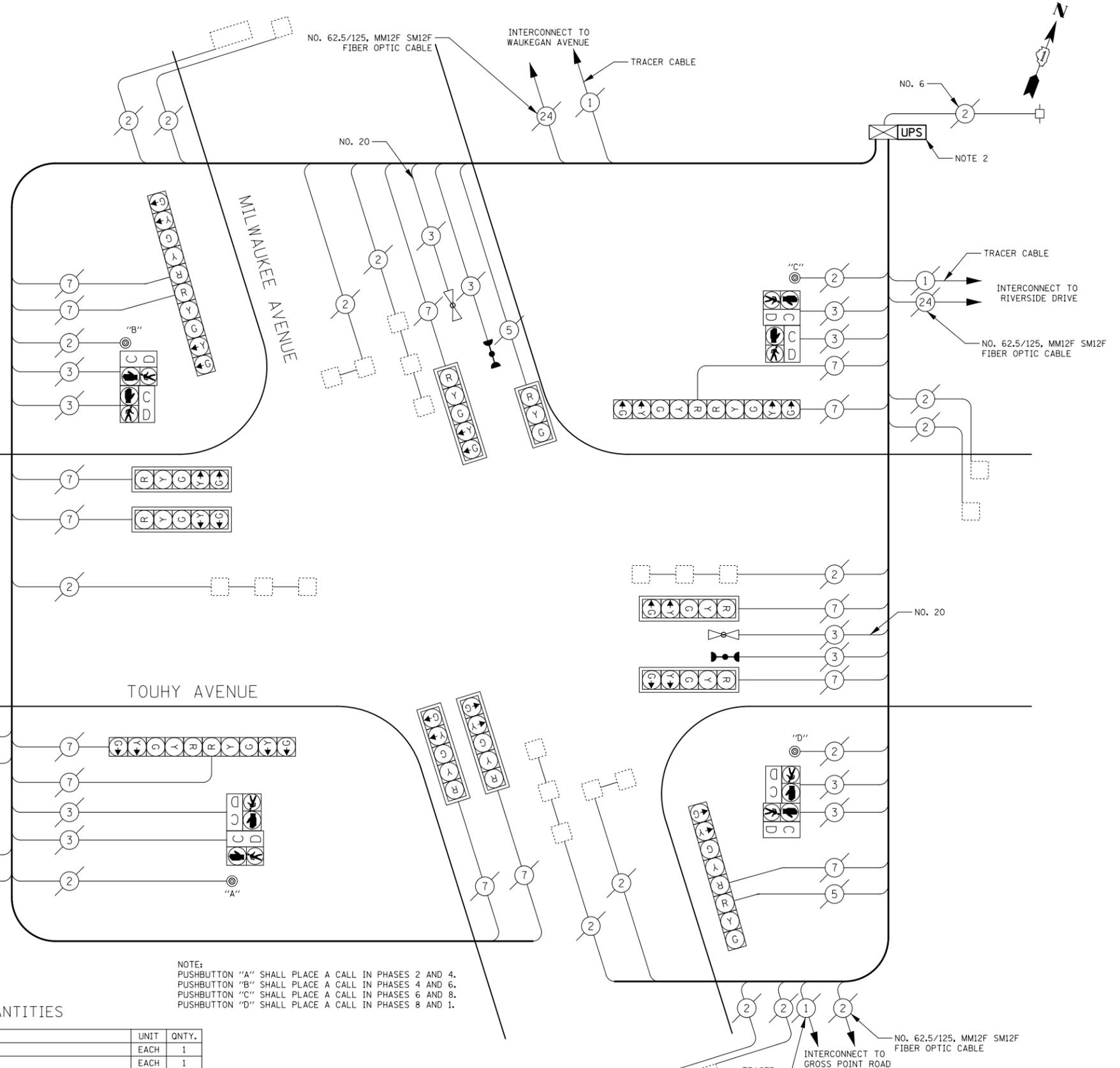
I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	% OPERATION	
SIGNAL (RED)	16		17	0.50	136
(YELLOW)	16		25	0.25	100
(GREEN)	16		15	0.25	60
ARROW	28		12	0.10	34
PED. SIGNAL	8		25	1.00	200
CONTROLLER	1		100	1.00	100
TOTAL =					630

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, IL 60196-1096

ENERGY SUPPLY: CONTACT: COM ED  
PHONE: (866) 639-3532  
COMPANY: COM ED

SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QNTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1



NOTE:  
PUSHBUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4.  
PUSHBUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6.  
PUSHBUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8.  
PUSHBUTTON "D" SHALL PLACE A CALL IN PHASES 8 AND 1.

CABLE PLAN  
NOT TO SCALE

NOTE:  
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.



USER NAME = jrt	DESIGNED - BRD	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN - JRT	REVISED -
PLOT DATE = 12/2/2013	CHECKED - JJE	REVISED -
	DATE - 12/02/2013	REVISED -

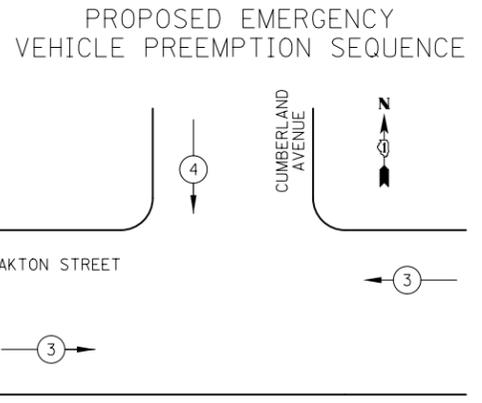
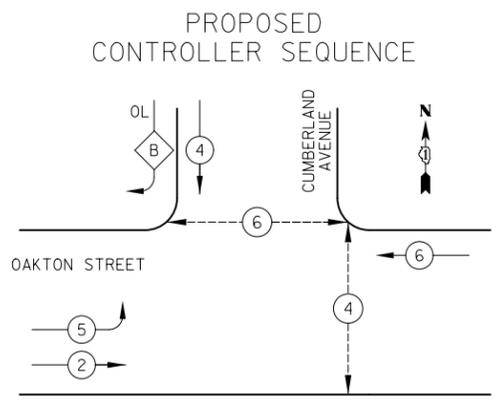
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES  
MILWAUKEE AVENUE AT TOUHY AVENUE

NOT TO SCALE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2013-055TS	COOK	73	55
CONTRACT NO. 60X16				
ILLINOIS FED. AID PROJECT				

TS 5490  
NILES



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

**LEGEND**

- DUAL ENTRY PHASE
- SINGLE ENTRY PHASE
- OVERLAP
- PEDESTRIAN PHASE
- NUMBER REFERS TO ASSOCIATED PHASE

**PHASE DESIGNATION DIAGRAM**

RIGHT TURN OVERLAP PHASE DESIGNATION

OVERLAP PHASE	PERMISSIVE PHASE	PROTECTED PHASE
B	= 4	+ 5

**NOTES**

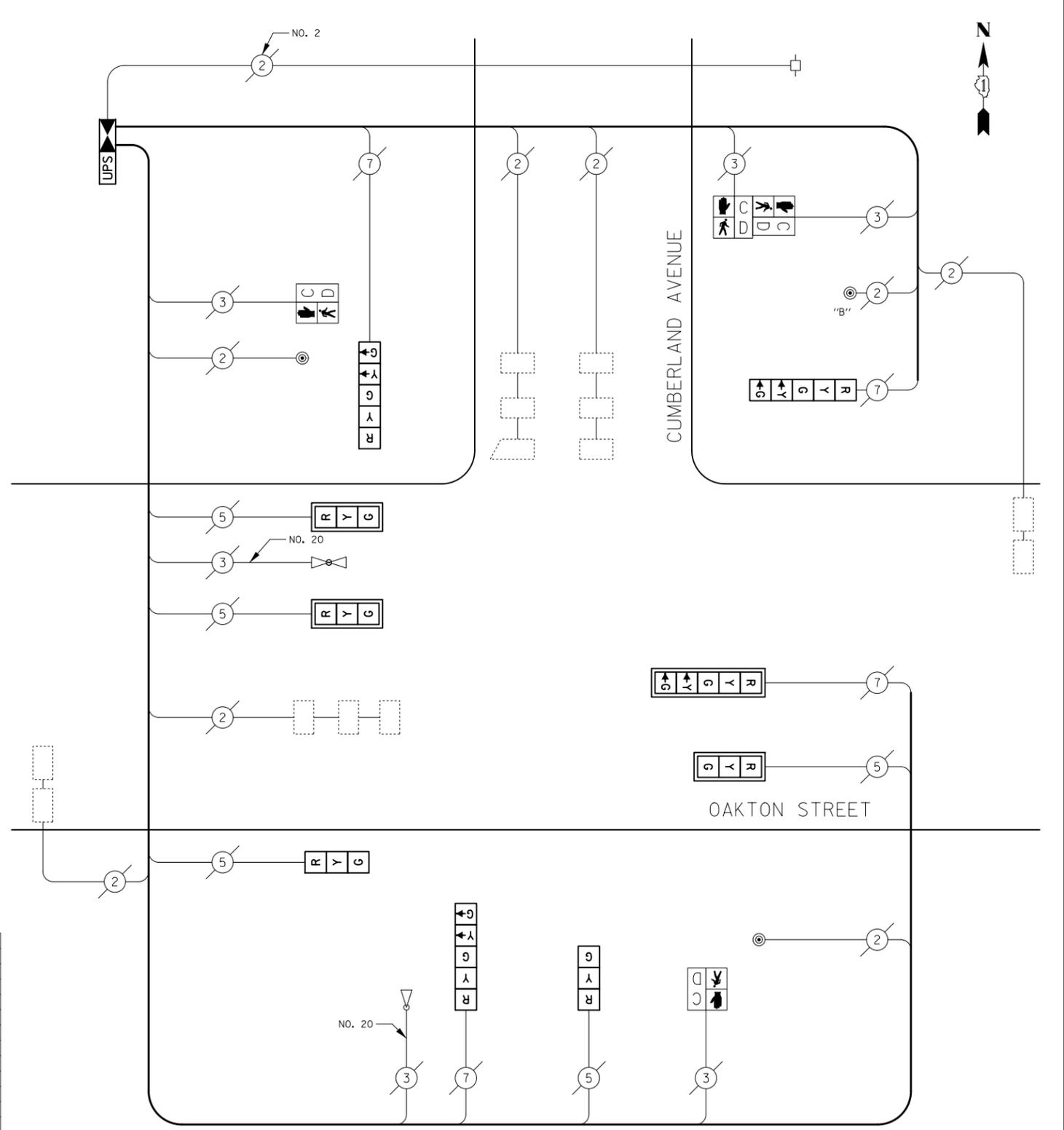
- THE CONTRACTOR SHALL RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT TO THE NEW TRAFFIC SIGNAL CONTROLLER CABINET. THE COST OF THIS WORK SHALL BE INCLUDED IN THE PAY ITEM "FULL-ACTUATED CONTROLLER AND TYPE IV CABINET".

**SCHEDULE OF QUANTITIES**

PAY ITEM	UNIT	QNTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	3
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	3
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	1
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	4
INDUCTIVE LOOP DETECTOR	EACH	5
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1
PEDESTRIAN PUSH-BUTTON, NON-LATCHING	EACH	3

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	CONTROLLER AND CABINET, COMPLETE
5	EACH	SIGNAL HEAD, 1-FACE, 3-SECTION
4	EACH	SIGNAL HEAD, 1-FACE, 5-SECTION
2	EACH	PEDESTRIAN SIGNAL HEAD, 1-FACE
1	EACH	PEDESTRIAN SIGNAL HEAD, 2-FACE
4	EACH	TRAFFIC SIGNAL BACKPLATE
3	EACH	PEDESTRIAN PUSH-BUTTON, NON-LATCHING



NOTE: PUSHBUTTON "B" SHALL PLACE CALLS IN PHASES 4 AND 6

CABLE PLAN  
NOT TO SCALE

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	% OPERATION	
SIGNAL (RED)	9		17	0.50	77
(YELLOW)	9		25	0.25	56
(GREEN)	9		15	0.25	34
ARROW	8		12	0.10	10
PED. SIGNAL	4		25	1.00	200
CONTROLLER	1		100	1.00	100
TOTAL =					477

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, IL 60196-1096

ENERGY SUPPLY: CONTACT: COM ED  
PHONE: (866) 639-3532  
COMPANY: COM ED



USER NAME = jrt	DESIGNED - BRD	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN - JRT	REVISED -
PLOT DATE = 12/2/2013	CHECKED - JJE	REVISED -
	DATE - 12/02/2013	REVISED -

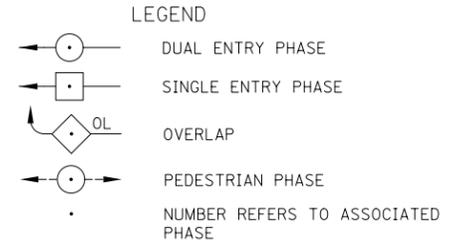
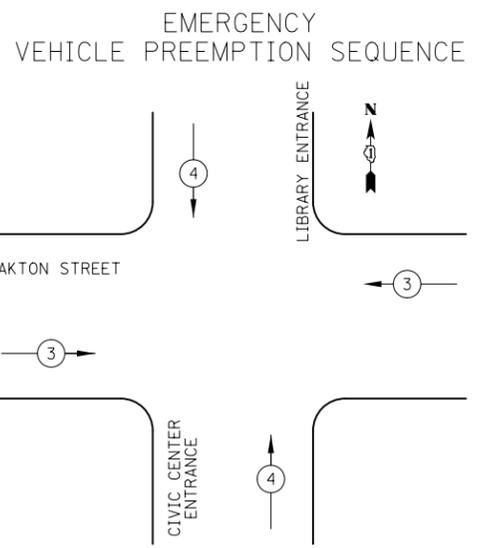
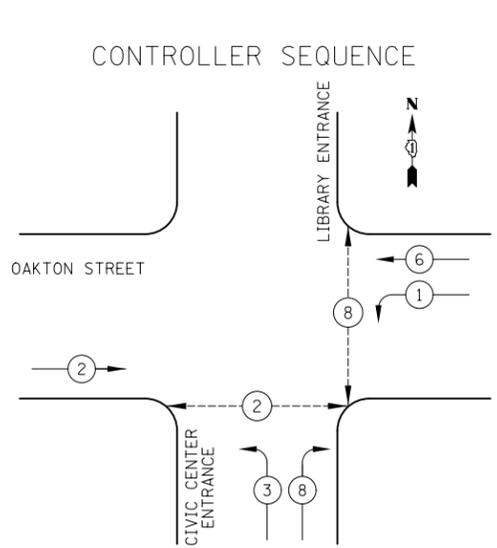
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES  
OAKTON STREET AT CUMBERLAND AVENUE**

NOT TO SCALE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2013-055TS	COOK	73	56
CONTRACT NO. 60X16				
ILLINOIS FED. AID PROJECT				

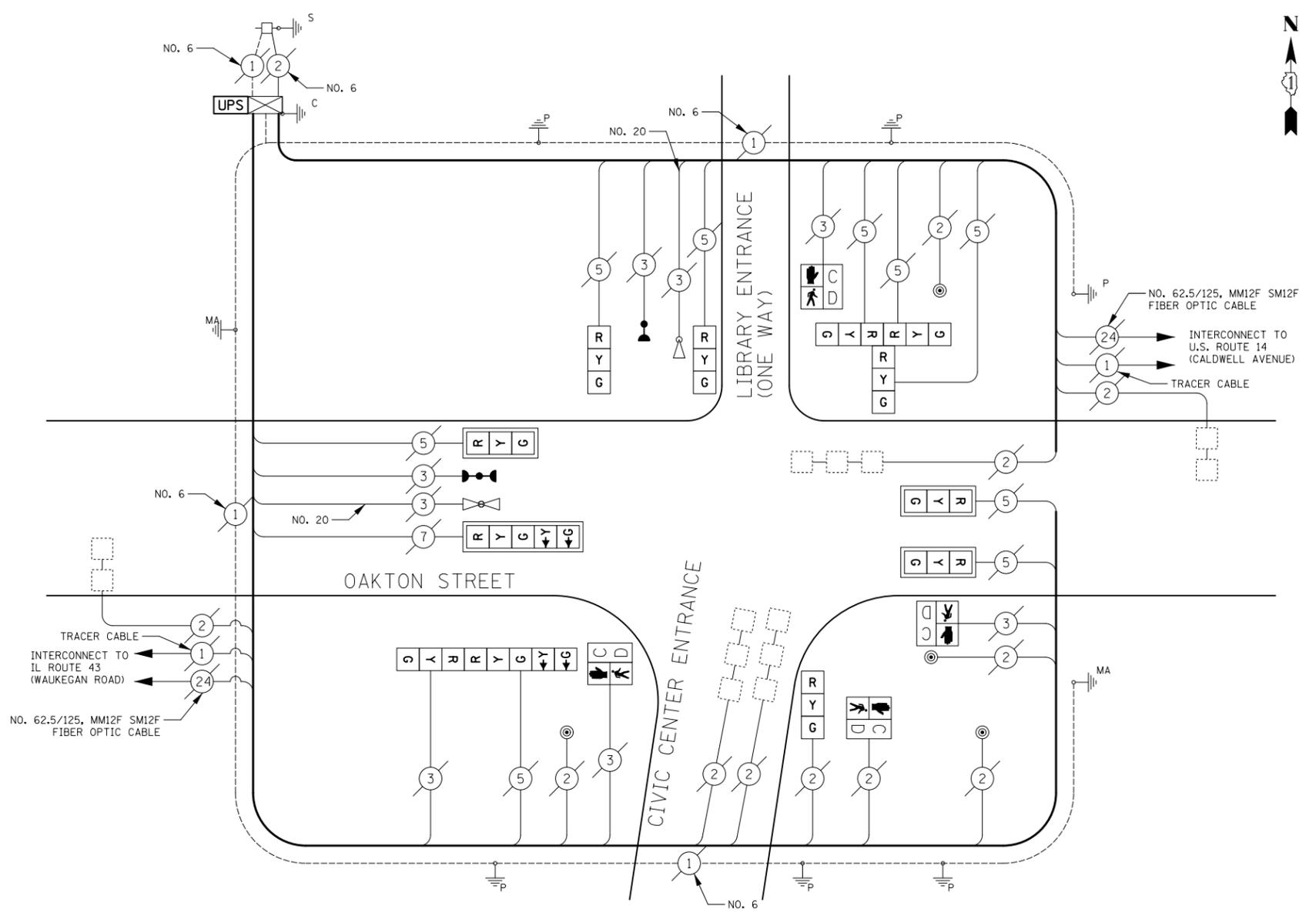
TS 11263  
NILES



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

PHASE DESIGNATION DIAGRAM

- NOTES**
- REPLACEMENT OF THE EXISTING CONFIRMATION BEACON WITH NEW LED CONFIRMATION BEACONS SHALL BE INCLUDED IN THE PAY ITEM "UNINTERRUPTABLE POWER SUPPLY, SPECIAL".



CABLE PLAN  
NOT TO SCALE

SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QNTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4
PEDESTRIAN PUSH-BUTTON	EACH	4
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1
SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED, RETROFIT	EACH	1
SIGNAL HEAD, LED, 3-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT	EACH	3
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	3
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	1

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.

- 4 EACH PEDESTRIAN PUSH-BUTTON
- 4 EACH PEDESTRIAN SIGNAL HEAD, 1-FACE

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	% OPERATION	
SIGNAL (RED)	12		17	0.50	102
(YELLOW)	12		25	0.25	75
(GREEN)	12		15	0.25	45
ARROW	4		12	0.10	5
PED. SIGNAL	4		25	1.00	100
CONTROLLER	1		100	1.00	100
TOTAL =					427

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, IL 60196-1096

ENERGY SUPPLY: CONTACT: COM ED  
PHONE: (866) 639-3532  
COMPANY: COM ED

RETROFIT ALL EXISTING  
SIGNAL HEADS TO L.E.D.

NOTE:  
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT  
FOR THIS PROJECT SHALL BE "EAGLE"  
TO MATCH THE EXISTING ADJACENT SYSTEM.

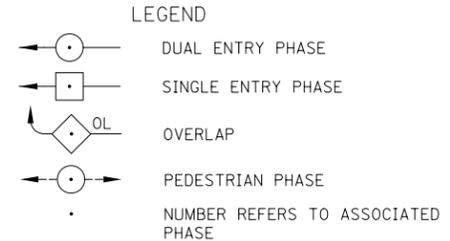
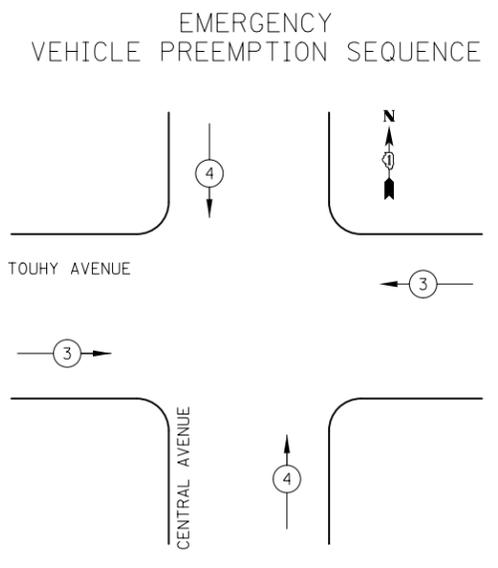
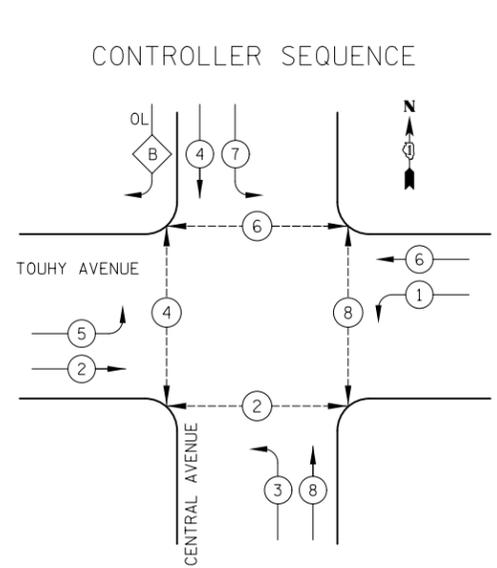
TS 2087  
NILES

	USER NAME = jrt	DESIGNED - BRD	REVISED -
	PLOT SCALE = 40.0000' / in.	DRAWN - JRT	REVISED -
	PLOT DATE = 12/2/2013	CHECKED - JJE	REVISED -
		DATE - 12/02/2013	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

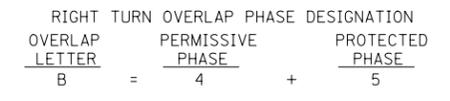
CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES OAKTON STREET AT NILES CIVIC CENTER PLAZA			
NOT TO SCALE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2013-055TS	COOK	73	57
CONTRACT NO. 60X16				
ILLINOIS FED. AID PROJECT				

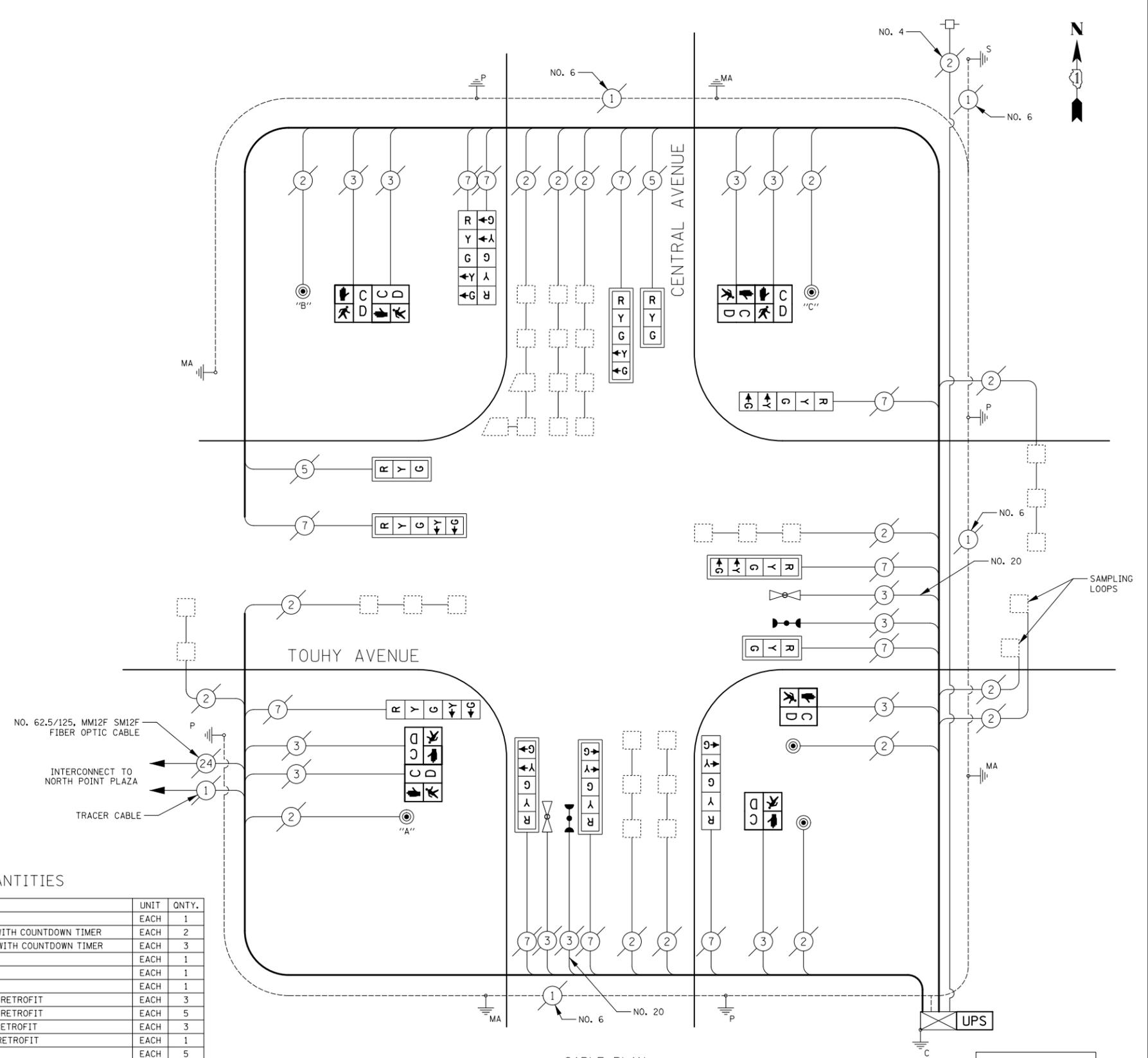


EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	← →	↑ ↓

### PHASE DESIGNATION DIAGRAM



- ### NOTES
- REPLACEMENT OF THE EXISTING CONFIRMATION BEACONS WITH NEW LED CONFIRMATION BEACONS SHALL BE INCLUDED IN THE PAY ITEM "UNINTERRUPTABLE POWER SUPPLY, SPECIAL".



### SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QNTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	3
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	3
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	5
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT	EACH	3
SIGNAL HEAD, LED, 2-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT	EACH	1
PEDESTRIAN PUSH-BUTTON, NON-LATCHING	EACH	5

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

- 2 EACH PEDESTRIAN SIGNAL HEAD, 1-FACE
- 3 EACH PEDESTRIAN SIGNAL HEAD, 2-FACE
- 5 EACH PEDESTRIAN PUSH-BUTTON, NON-LATCHING

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

TYPE	NO. LAMPS	WATTAGE		% OPERATION	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	13		17	0.50	111
(YELLOW)	13		25	0.25	81
(GREEN)	13		15	0.25	49
ARROW	20		12	0.10	24
PED. SIGNAL	8		25	1.00	200
CONTROLLER	1		100	1.00	100
TOTAL =					565

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, IL 60196-1096

ENERGY SUPPLY: CONTACT: COM ED  
PHONE: (866) 639-3532  
COMPANY: COM ED

NOTE:  
PUSHBUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4  
PUSHBUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6  
PUSHBUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8

NOTE:  
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

TS 11250 NILES

USER NAME = jrt	DESIGNED - BRD	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN - JRT	REVISED -
PLOT DATE = 12/2/2013	CHECKED - JJE	REVISED -
	DATE - 12/02/2013	REVISED -

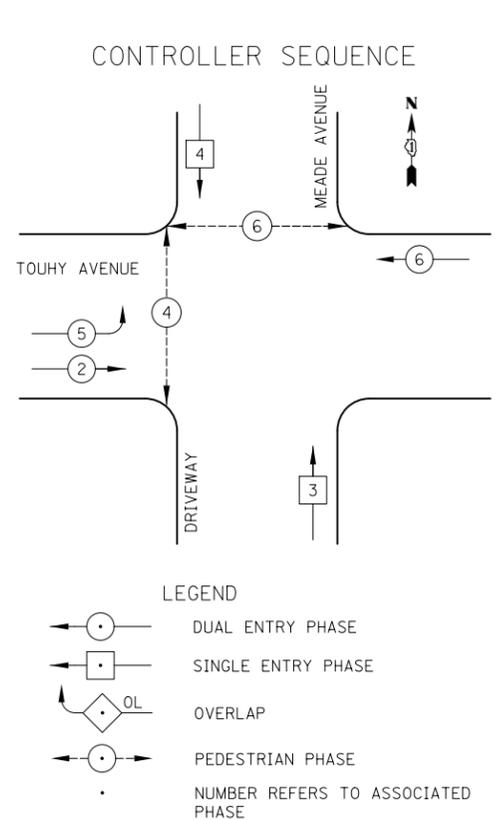
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES  
TOUHY AVENUE AT CENTRAL AVENUE

NOT TO SCALE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2013-055TS	COOK	73	58
CONTRACT NO. 60X16				
ILLINOIS FED. AID PROJECT				





EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	← →	↙ ↘

### PHASE DESIGNATION DIAGRAM

- ### NOTES
- REPLACEMENT OF THE EXISTING CONFIRMATION BEACONS WITH NEW LED CONFIRMATION BEACONS SHALL BE INCLUDED IN THE PAY ITEM "UNINTERRUPTABLE POWER SUPPLY, SPECIAL".
  - THE PROPOSED UPS SHALL BE INSTALLED ON THE LEFT (WEST) SIDE OF THE CONTROLLER CABINET.

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	% OPERATION	
SIGNAL (RED)	11		17	0.50	94
(YELLOW)	11		25	0.25	69
(GREEN)	15		15	0.25	56
ARROW	4		12	0.10	5
PED. SIGNAL	4		25	1.00	100
CONTROLLER	1		100	1.00	100
TOTAL =					424

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, IL 60196-1096

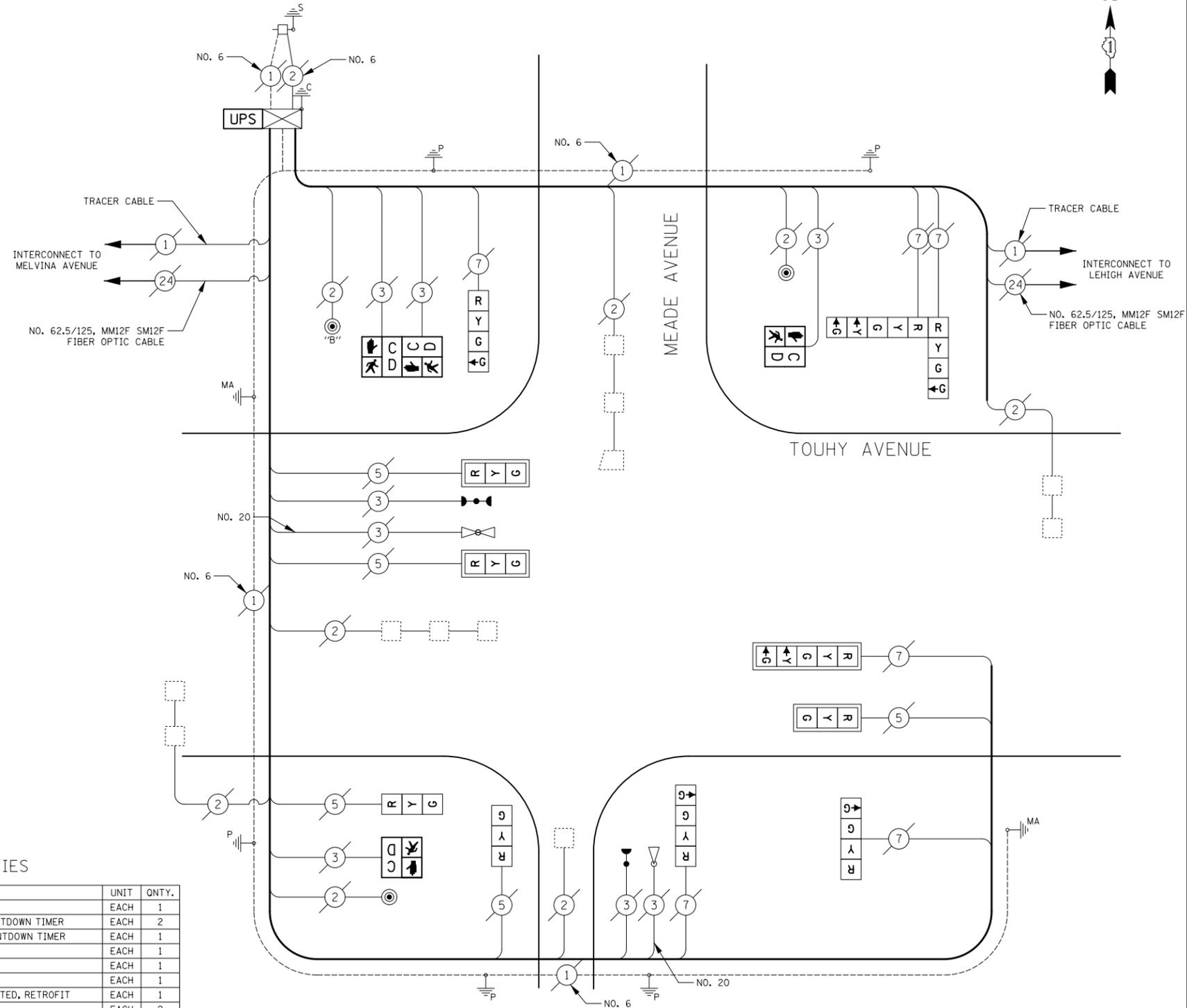
ENERGY SUPPLY: CONTACT: COM ED  
PHONE: (866) 639-3532  
COMPANY: COM ED

### SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QNTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1
SIGNAL HEAD, LED, 2-FACE, 1-4 SECTION, 1-5 SECTION, BRACKET MOUNTED, RETROFIT	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT	EACH	2
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	3
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	1
SIGNAL HEAD, LED, 1-FACE, 4-SECTION, BRACKET MOUNTED, RETROFIT	EACH	3
PEDESTRIAN PUSH-BUTTON, NON-LATCHING	EACH	3

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

2	EACH	PEDESTRIAN SIGNAL HEAD, 1-FACE
1	EACH	PEDESTRIAN SIGNAL HEAD, 2-FACE
3	EACH	PEDESTRIAN PUSH-BUTTON, NON-LATCHING



NOTE: PUSHBUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6

RETROFIT ALL EXISTING SIGNAL HEADS TO L.E.D.

NOTE: THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.



USER NAME = jrt	DESIGNED - BRD	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN - JRT	REVISED -
PLOT DATE = 12/2/2013	CHECKED - JJE	REVISED -
	DATE - 12/02/2013	REVISED -

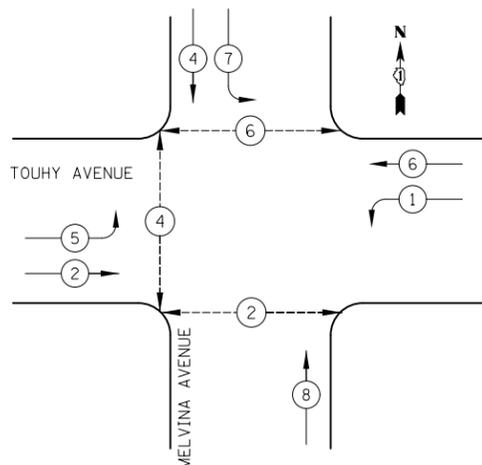
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES TOUHY AVENUE AT MEADE AVENUE			
NOT TO SCALE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

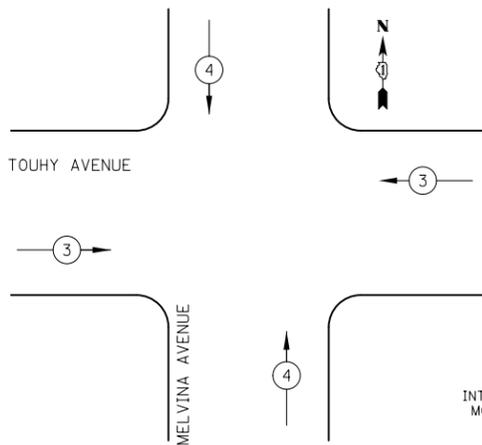
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2013-055TS	COOK	73	59
CONTRACT NO. 60X16				
ILLINOIS FED. AID PROJECT				

TS 5841  
NILES

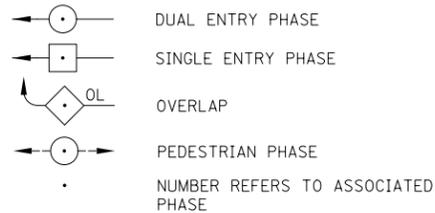
CONTROLLER SEQUENCE



EMERGENCY VEHICLE PREEMPTION SEQUENCE



LEGEND

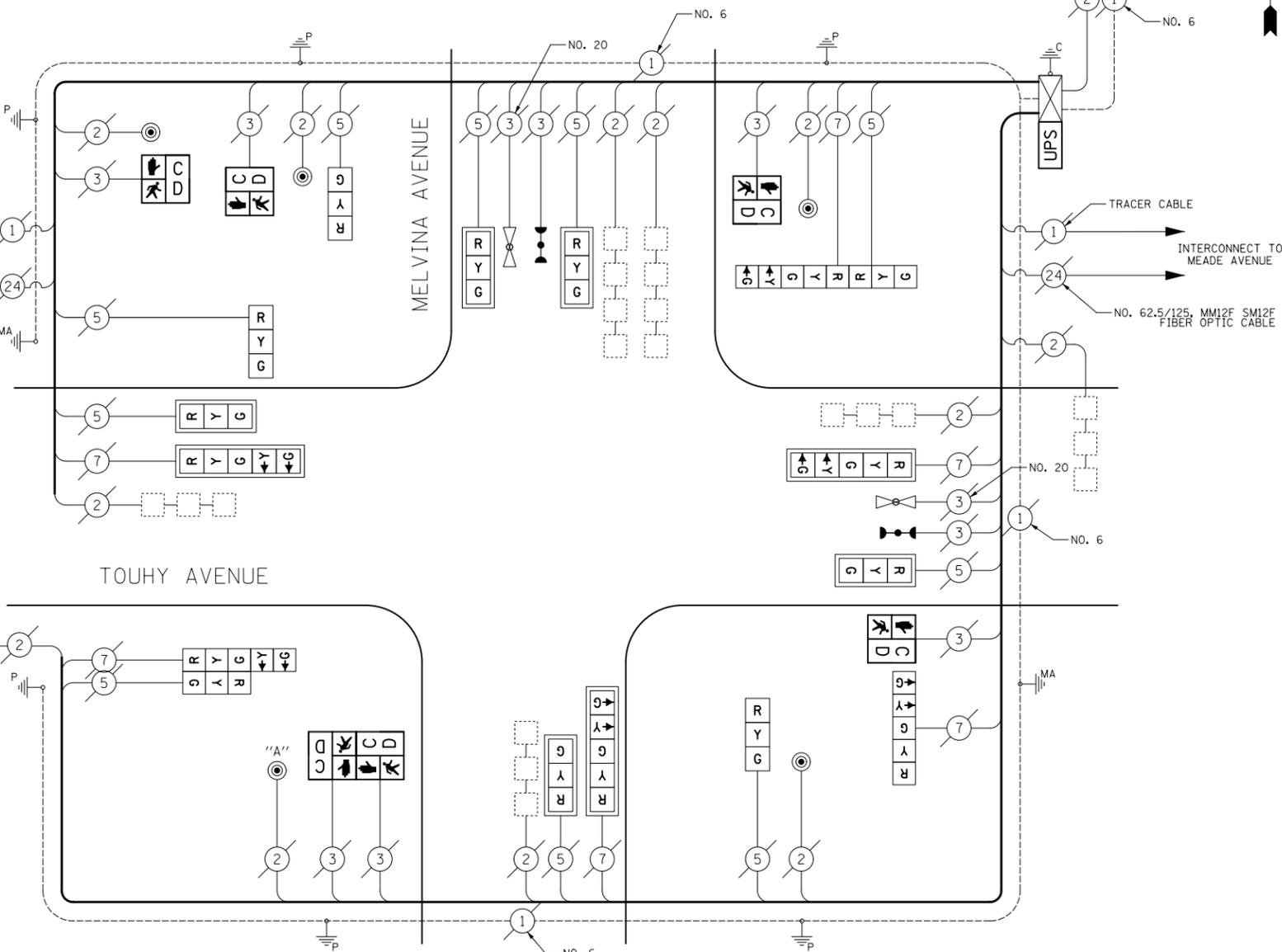


PHASE DESIGNATION DIAGRAM

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

NOTES

- REPLACEMENT OF THE EXISTING CONFIRMATION BEACONS WITH NEW LED CONFIRMATION BEACONS SHALL BE INCLUDED IN THE PAY ITEM "UNINTERRUPTABLE POWER SUPPLY, SPECIAL".



SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QNTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1
SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED, RETROFIT	EACH	2
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT	EACH	3
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	5
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	3
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT	EACH	1
PEDESTRIAN PUSH-BUTTON, NON-LATCHING	EACH	5

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

4	EACH	PEDESTRIAN SIGNAL HEAD, 1-FACE
1	EACH	PEDESTRIAN SIGNAL HEAD, 2-FACE
5	EACH	PEDESTRIAN PUSH-BUTTON, NON-LATCHING

NOTE: PUSH BUTTON "A" PLACES A CALL IN PHASES 2 AND 4.

CABLE PLAN  
NOT TO SCALE

RETROFIT ALL EXISTING SIGNAL HEADS TO L.E.D.

NOTE: THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

TS 5843  
NILES

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	% OPERATION	
SIGNAL (RED)	16		17	0.50	136
(YELLOW)	16		25	0.25	100
(GREEN)	16		15	0.25	60
ARROW	12		12	0.10	14
PED. SIGNAL	6		25	1.00	150
CONTROLLER	1		100	1.00	100
TOTAL =					560

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, IL 60196-1096  
CONTACT: COM ED  
PHONE: (866) 639-3532  
COMPANY: COM ED

USER NAME = jrt	DESIGNED - BRD	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN - JRT	REVISED -
PLOT DATE = 12/2/2013	CHECKED - JJE	REVISED -
	DATE - 12/02/2013	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

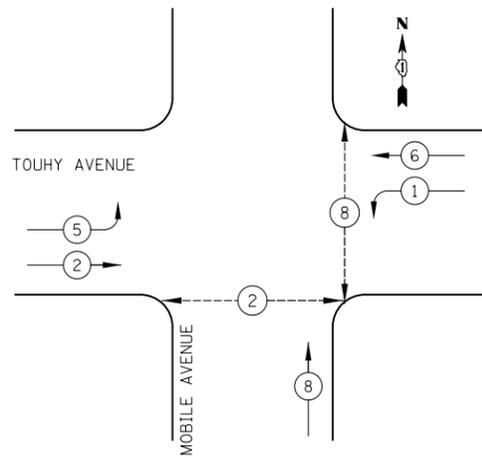
CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES  
TOUHY AVENUE AT MELVINA AVENUE

NOT TO SCALE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

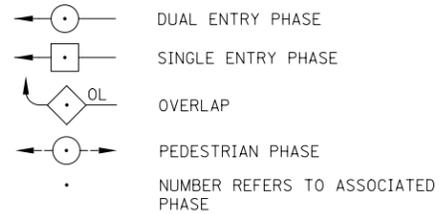
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2013-055TS	COOK	73	60
CONTRACT NO. 60X16				
ILLINOIS FED. AID PROJECT				



CONTROLLER SEQUENCE

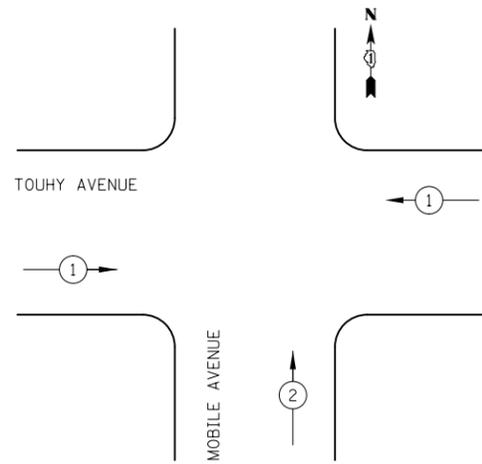


LEGEND



PHASE DESIGNATION DIAGRAM

EMERGENCY VEHICLE PREEMPTION SEQUENCE



EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	1	2
MOVEMENT	← →	↑

NOTES

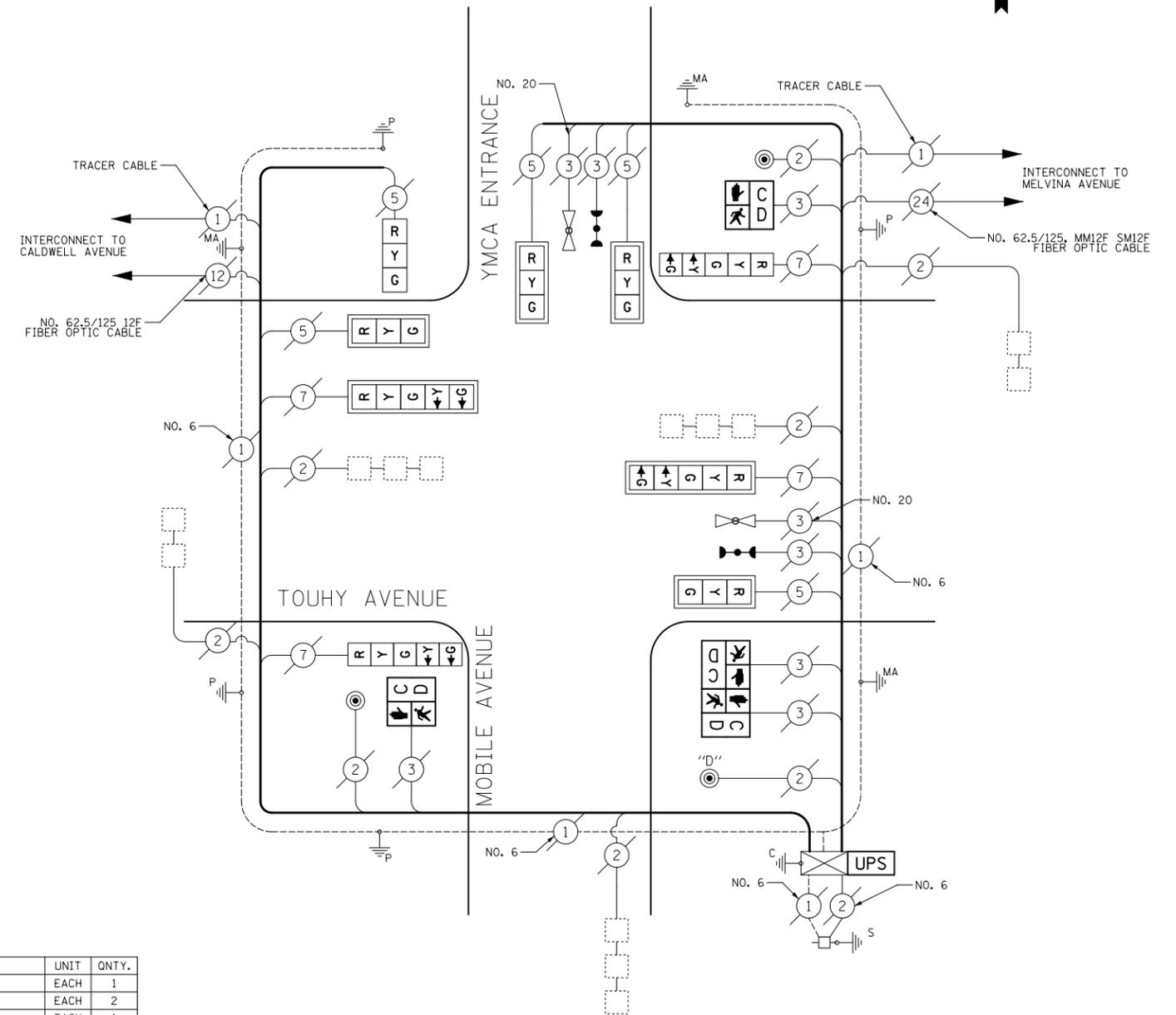
- REPLACEMENT OF THE EXISTING CONFIRMATION BEACONS WITH NEW LED CONFIRMATION BEACONS SHALL BE INCLUDED IN THE PAY ITEM "UNINTERRUPTABLE POWER SUPPLY, SPECIAL".

SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QNTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	4
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT	EACH	2
PEDESTRIAN PUSH-BUTTON, NON-LATCHING	EACH	3

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

2	EACH	PEDESTRIAN SIGNAL HEAD, 1-FACE
1	EACH	PEDESTRIAN SIGNAL HEAD, 2-FACE
3	EACH	PEDESTRIAN PUSH-BUTTON, NON-LATCHING



CABLE PLAN  
NOT TO SCALE

RETROFIT ALL EXISTING SIGNAL HEADS TO L.E.D.

NOTE:  
PUSH BUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8.

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	% OPERATION	
SIGNAL (RED)	9		17	0.50	77
(YELLOW)	9		25	0.25	56
(GREEN)	9		15	0.25	34
ARROW	8		12	0.10	10
PED. SIGNAL	4		25	1.00	100
CONTROLLER	1		100	1.00	100
TOTAL =					377

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, IL 60196-1096

ENERGY SUPPLY: CONTACT: COM ED  
PHONE: (866) 639-3532  
COMPANY: COM ED

NOTE:  
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

TS 5840  
NILES



USER NAME = jrt	DESIGNED - BRD	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN - JRT	REVISED -
PLOT DATE = 12/2/2013	CHECKED - JJE	REVISED -
	DATE - 12/02/2013	REVISED -

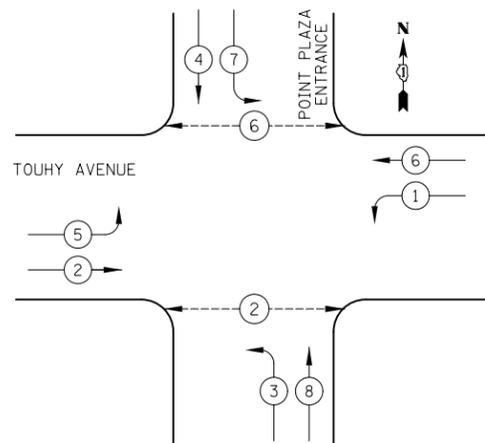
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES  
TOUHY AVENUE AT MOBILE AVENUE

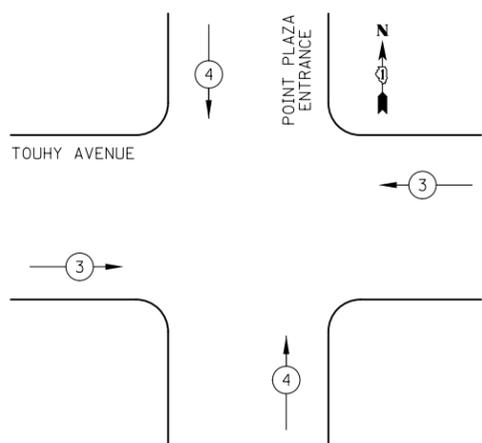
NOT TO SCALE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2013-055TS	COOK	73	61
CONTRACT NO. 60X16				
ILLINOIS FED. AID PROJECT				

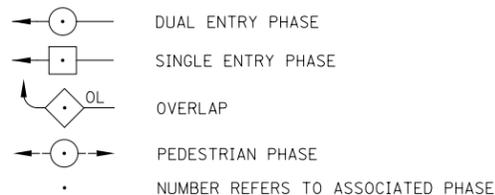
CONTROLLER SEQUENCE



EMERGENCY VEHICLE PREEMPTION SEQUENCE



LEGEND

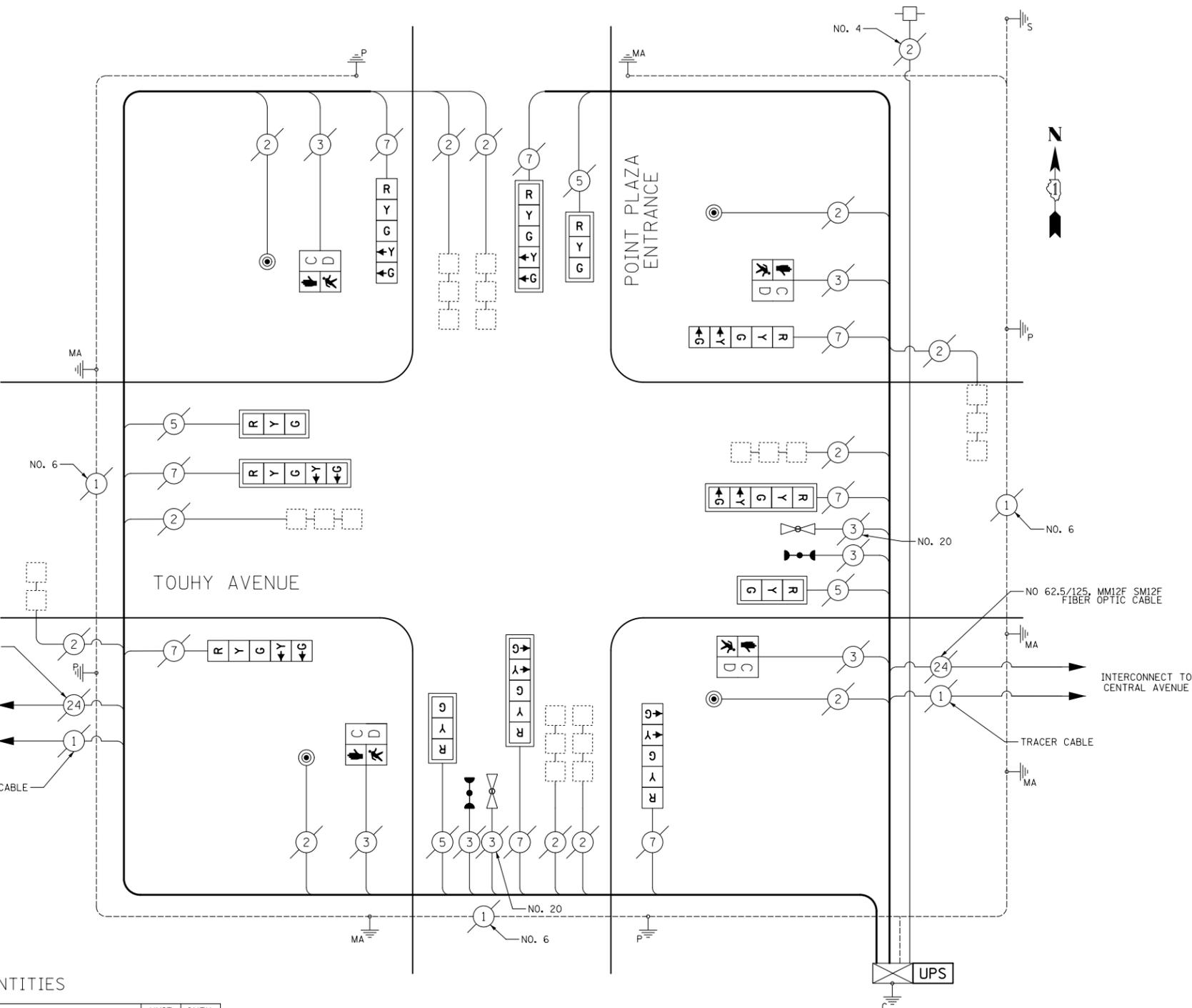


PROPOSED EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	← →	↑ ↓

PHASE DESIGNATION DIAGRAM

NOTES

- REPLACEMENT OF THE EXISTING CONFIRMATION BEACONS WITH NEW LED CONFIRMATION BEACONS SHALL BE INCLUDED IN THE PAY ITEM "UNINTERRUPTABLE POWER SUPPLY, SPECIAL".



SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QNTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4
PEDESTRIAN PUSH-BUTTON	EACH	4
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	4
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	4
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT	EACH	4

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

- 4 EACH PEDESTRIAN SIGNAL HEAD, 1-FACE
- 4 EACH PEDESTRIAN PUSH-BUTTON

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	% OPERATION	
SIGNAL (RED)	12		17	0.50	102
(YELLOW)	12		25	0.25	75
(GREEN)	12		15	0.25	45
ARROW	16		12	0.10	19
PED. SIGNAL	4		25	1.00	100
CONTROLLER	1		100	1.00	100
TOTAL =					441

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, IL 60196-1096

ENERGY SUPPLY: CONTACT: COM ED  
PHONE: (866) 639-3532  
COMPANY: COM ED

CABLE PLAN  
NOT TO SCALE

RETROFIT ALL EXISTING SIGNAL HEADS TO L.E.D.

NOTE: THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

TS 11161  
NILES



USER NAME = jrt	DESIGNED - BRD	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN - JRT	REVISED -
PLOT DATE = 12/2/2013	CHECKED - JJE	REVISED -
	DATE - 12/02/2013	REVISED -

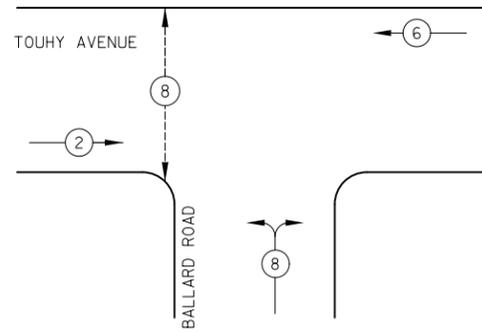
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES  
TOUHY AVENUE AT NORTH POINT PLAZA

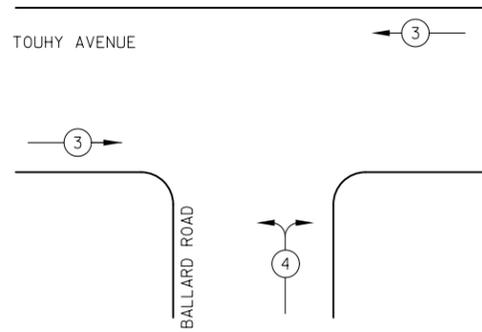
NOT TO SCALE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2013-055TS	COOK	73	62
CONTRACT NO. 60X16				
ILLINOIS FED. AID PROJECT				

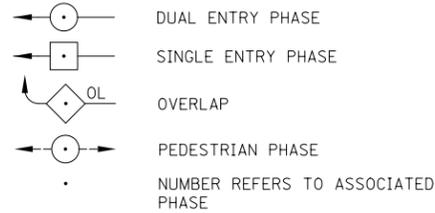
CONTROLLER SEQUENCE



EMERGENCY VEHICLE PREEMPTION SEQUENCE



LEGEND



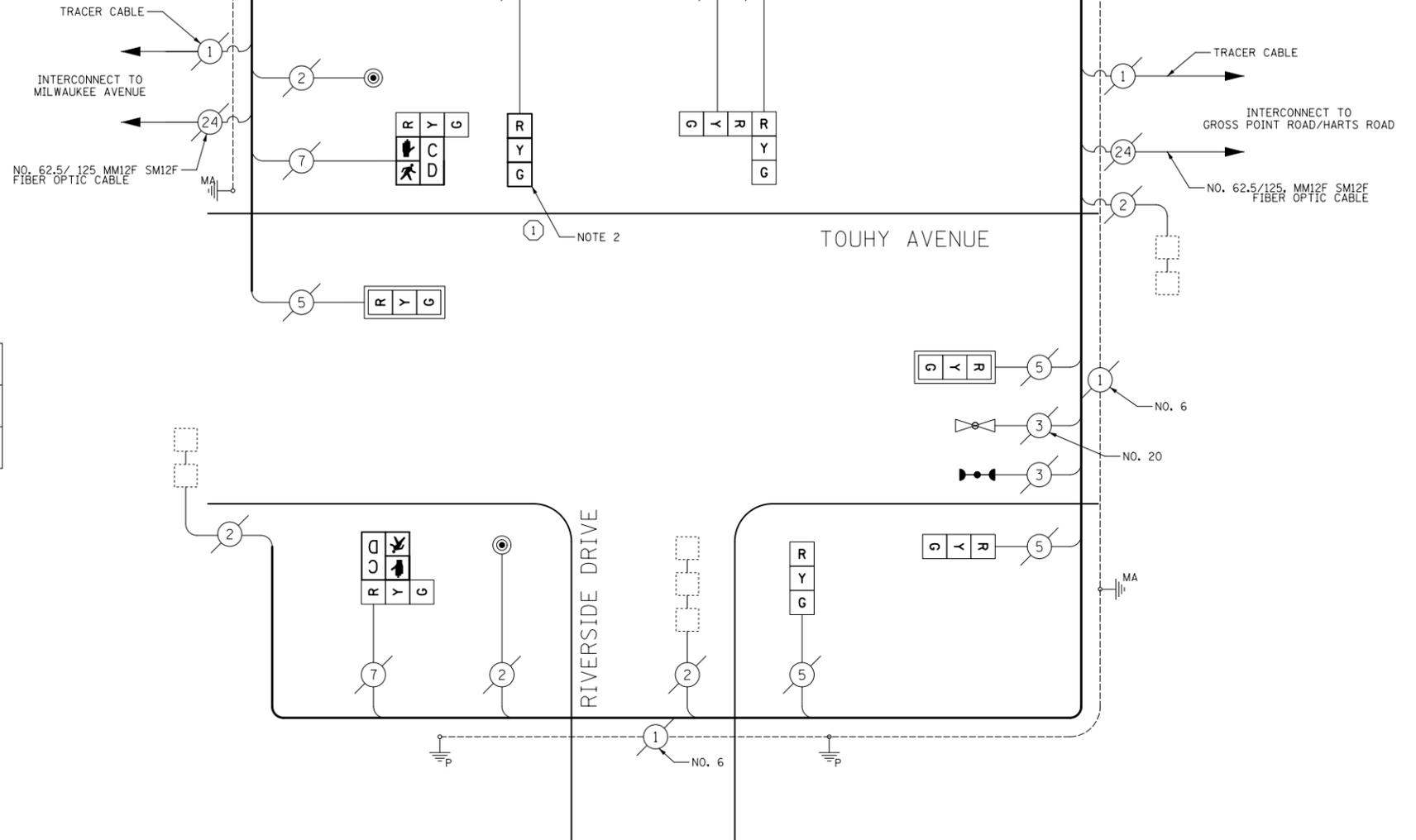
PHASE DESIGNATION DIAGRAM

DUAL ENTRY - ALL LEGS  
PROTECTED / PERMITTED LEFT TURN PHASING

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

NOTES

- REPLACEMENT OF THE EXISTING CONFIRMATION BEACONS WITH NEW LED CONFIRMATION BEACONS SHALL BE INCLUDED IN THE PAY ITEM "UNINTERRUPTABLE POWER SUPPLY, SPECIAL".
- ONE NEW "SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED" SHALL BE INSTALLED ON THIS POST. ALL OTHER EXISTING SIGNAL HEADS SHALL BE RETROFIT TO LED.



SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QNTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
PEDESTRIAN PUSH-BUTTON	EACH	2
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT	EACH	4
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	2
SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT	EACH	1

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 TRAFFIC SIGNAL POST
- 1 EACH SIGNAL HEAD, 1-FACE, 3-SECTION
- 2 EACH PEDESTRIAN SIGNAL HEAD, 1-FACE
- 2 EACH PEDESTRIAN PUSH-BUTTON

① REPLACE PAINTED POST WITH 14 FT. POST, RE-USE EXISTING TYPE A FOUNDATION

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	% OPERATION	
SIGNAL (RED)	9		17	0.50	77
(YELLOW)	9		25	0.25	56
(GREEN)	9		15	0.25	34
PED. SIGNAL	2		25	1.00	50
CONTROLLER	1		100	1.00	100
TOTAL =					317

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, IL 60196-1096

ENERGY SUPPLY: CONTACT: COM ED  
PHONE: (866) 639-3532  
COMPANY: COM ED

NOTE:  
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

TS 5845  
NILES



USER NAME = jrt	DESIGNED - BRD	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN - JRT	REVISED -
PLOT DATE = 12/2/2013	CHECKED - JJE	REVISED -
	DATE - 12/02/2013	REVISED -

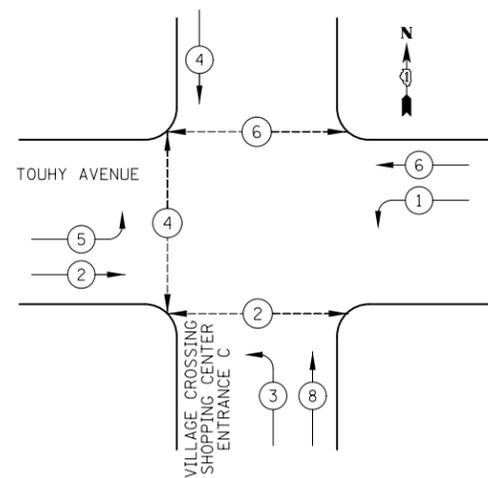
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES  
TOUHY AVENUE AT RIVERSIDE DRIVE

NOT TO SCALE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2013-055TS	COOK	73	63
CONTRACT NO. 60X16				
ILLINOIS FED. AID PROJECT				

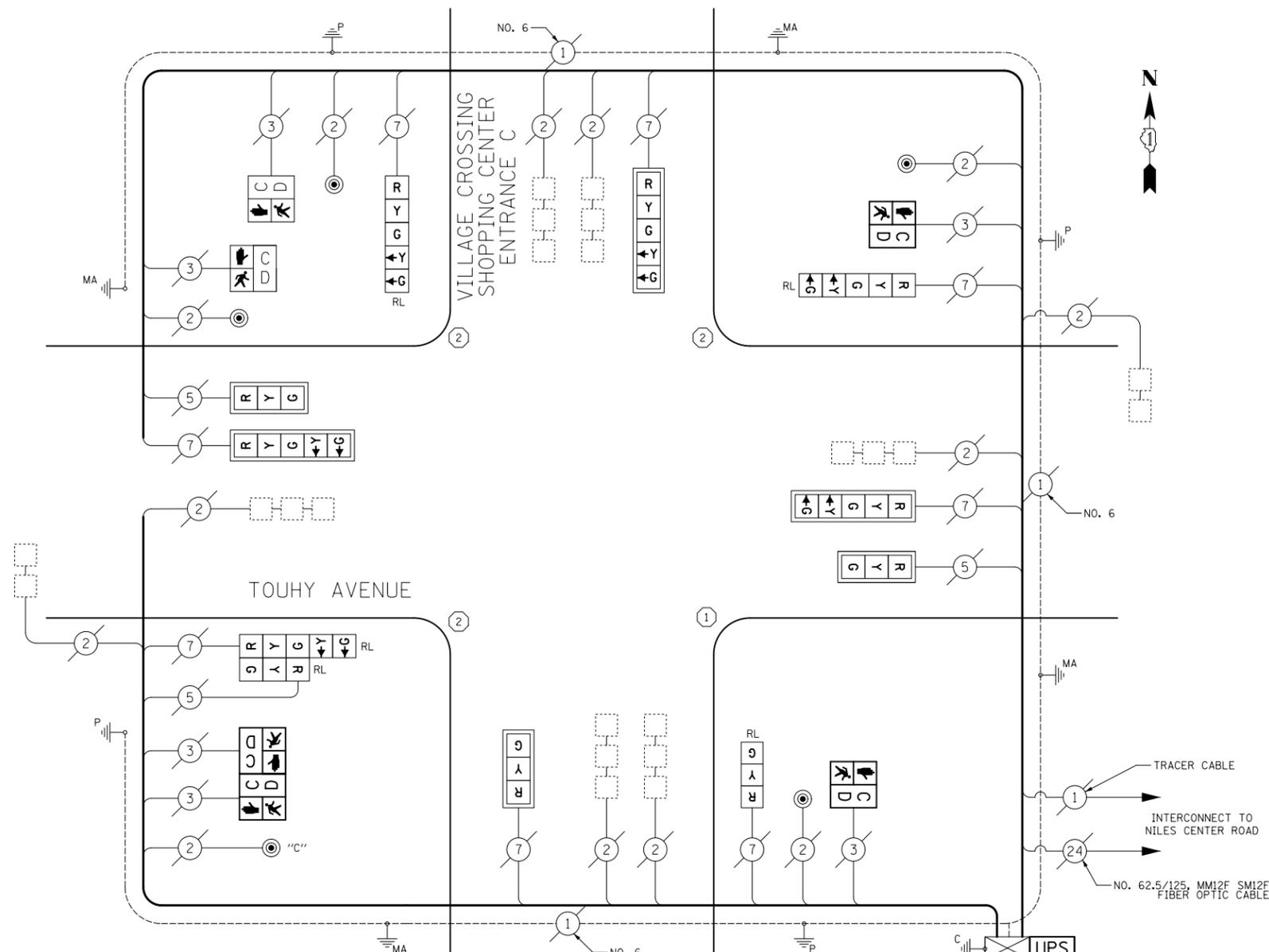
CONTROLLER SEQUENCE



LEGEND

- DUAL ENTRY PHASE
- SINGLE ENTRY PHASE
- OVERLAP
- PEDESTRIAN PHASE
- NUMBER REFERS TO ASSOCIATED PHASE

PHASE DESIGNATION DIAGRAM



SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QNTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	3
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	1
RELOCATE EXISTING SIGNAL HEAD	EACH	4
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1
SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED, RETROFIT	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	3
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	3
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT	EACH	2
PEDESTRIAN PUSH-BUTTON, NON-LATCHING	EACH	5

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

- 4 EACH TRAFFIC SIGNAL POST
- 2 EACH PEDESTRIAN SIGNAL HEAD, 1-FACE
- 1 EACH PEDESTRIAN SIGNAL HEAD, 2-FACE
- 5 EACH PEDESTRIAN PUSH-BUTTON, NON-LATCHING

NOTE:

PUSHBUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8

① REPLACE PAINTED POST WITH 14 FT. POST, RE-USE EXISTING TYPE A FOUNDATION, AND RELOCATE EXISTING SIGNAL HEAD

② REPLACE PAINTED POST WITH 16 FT. POST, RE-USE EXISTING TYPE A FOUNDATION, AND RELOCATE EXISTING SIGNAL HEAD.

RETROFIT ALL EXISTING SIGNAL HEADS TO L.E.D.

NOTE:

THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

TS 20935 NILES

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	% OPERATION	
SIGNAL (RED)	11		17	0.50	94
(YELLOW)	11		25	0.25	69
(GREEN)	11		15	0.25	41
ARROW	12		12	0.10	14
PED. SIGNAL	6		25	1.00	150
CONTROLLER	1		100	1.00	100
TOTAL =					468

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, IL 60196-1096

ENERGY SUPPLY: CONTACT: COM ED  
PHONE: (866) 639-3532  
COMPANY: COM ED

USER NAME = jrt	DESIGNED - BRD	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN - JRT	REVISED -
PLOT DATE = 12/2/2013	CHECKED - JJE	REVISED -
	DATE - 12/02/2013	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

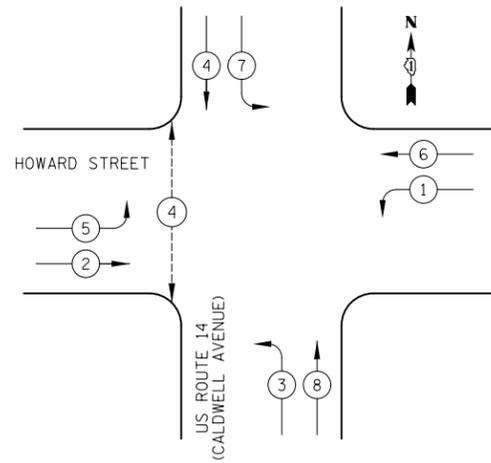
CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES  
TOUHY AVENUE AT VILLAGE CROSSING SHOPPING CENTER ENTRANCE C

NOT TO SCALE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

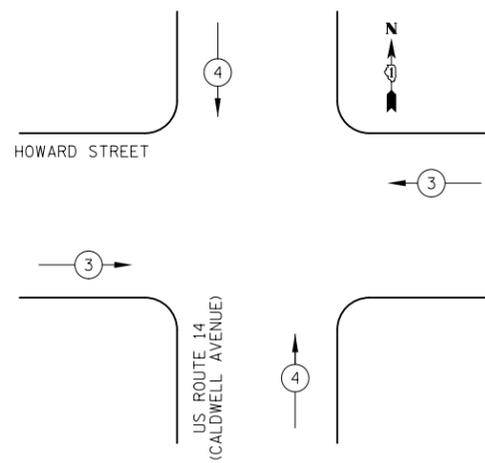
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2013-055TS	COOK	73	64
CONTRACT NO. 60X16				
ILLINOIS FED. AID PROJECT				



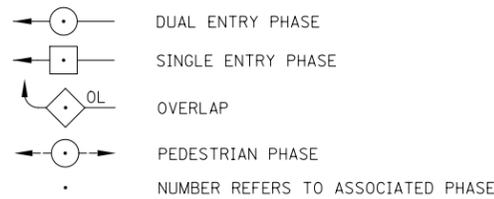
CONTROLLER SEQUENCE



EMERGENCY VEHICLE PREEMPTION SEQUENCE



LEGEND

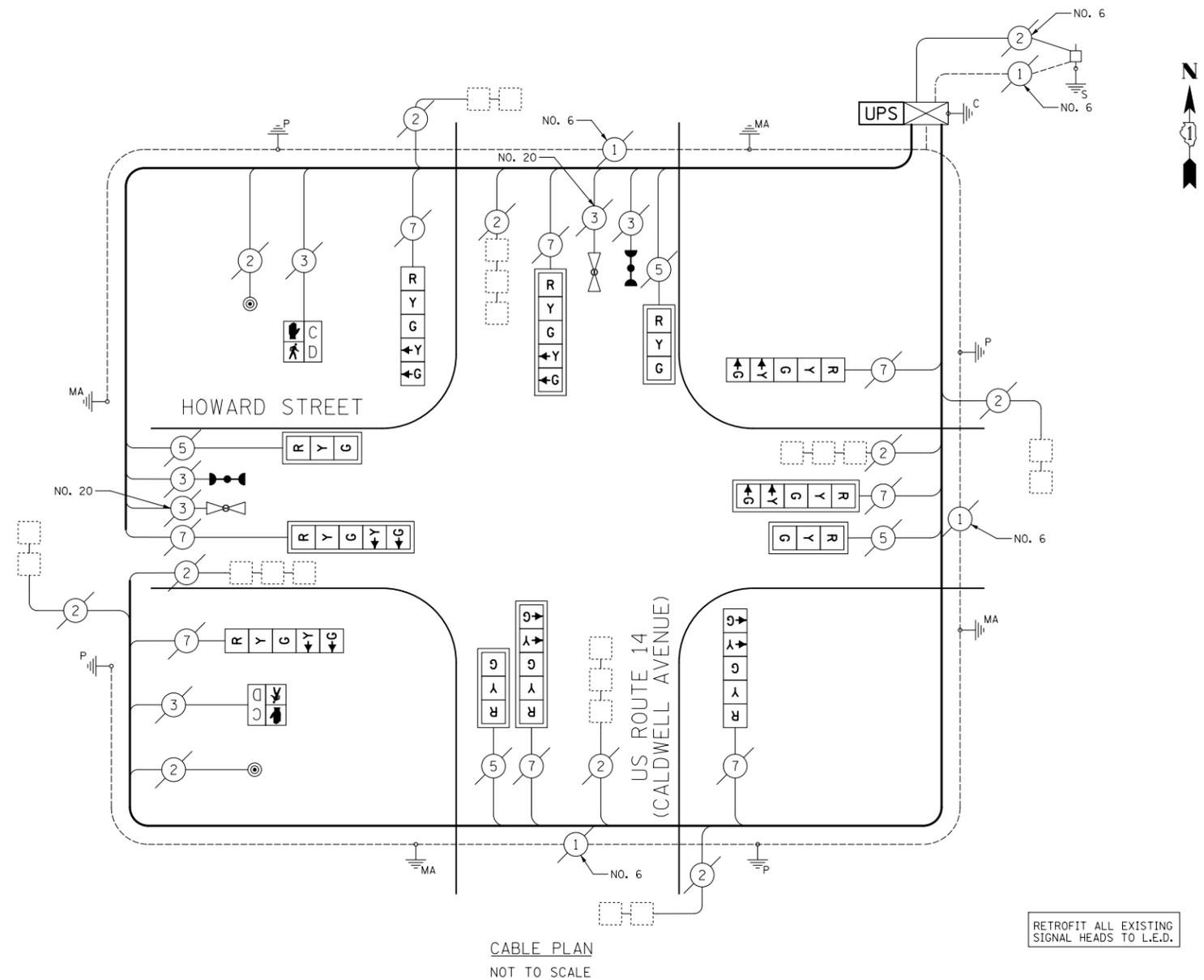


EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	← →	↑ ↓

PHASE DESIGNATION DIAGRAM

NOTES

- REPLACEMENT OF THE EXISTING CONFIRMATION BEACON WITH NEW LED CONFIRMATION BEACONS SHALL BE INCLUDED IN THE PAY ITEM "UNINTERRUPTABLE POWER SUPPLY, SPECIAL".



CABLE PLAN  
NOT TO SCALE

RETROFIT ALL EXISTING SIGNAL HEADS TO L.E.D.

SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QNTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
PEDESTRIAN PUSH-BUTTON	EACH	2
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED, RETROFIT	EACH	4
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED, RETROFIT	EACH	4
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT	EACH	4

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.

- 2 EACH PEDESTRIAN SIGNAL HEAD, 1-FACE
- 2 EACH PEDESTRIAN PUSH-BUTTON

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	% OPERATION	
SIGNAL (RED)	12		17	0.50	102
(YELLOW)	12		25	0.25	75
(GREEN)	12		15	0.25	45
ARROW	16		12	0.10	19
PED. SIGNAL	2		25	1.00	50
CONTROLLER	1		100	1.00	100
TOTAL =					391

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, IL 60196-1096  
ENERGY SUPPLY: CONTACT: COM ED  
PHONE: (866) 639-3532  
COMPANY: COM ED

NOTE:  
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

TS 1230  
NILES



USER NAME = jrt	DESIGNED - BRD	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN - JRT	REVISED -
PLOT DATE = 12/2/2013	CHECKED - JJE	REVISED -
	DATE - 12/02/2013	REVISED -

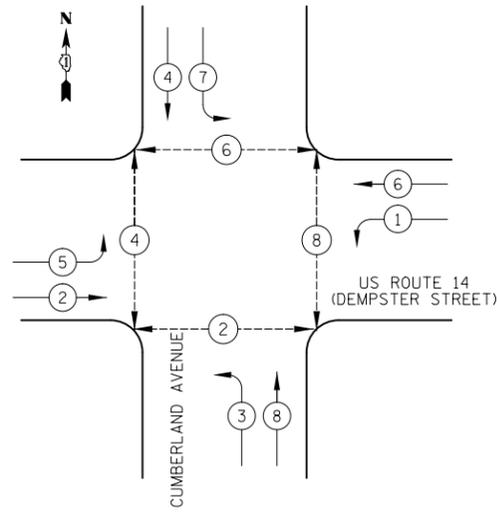
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES  
US ROUTE 14 (CALDWELL AVENUE) AT HOWARD STREET

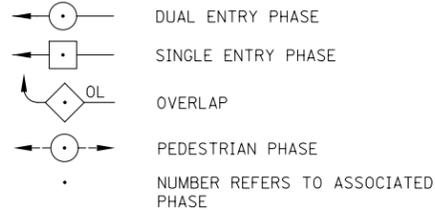
NOT TO SCALE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2013-055TS	COOK	73	65
CONTRACT NO. 60X16				
ILLINOIS FED. AID PROJECT				

CONTROLLER SEQUENCE

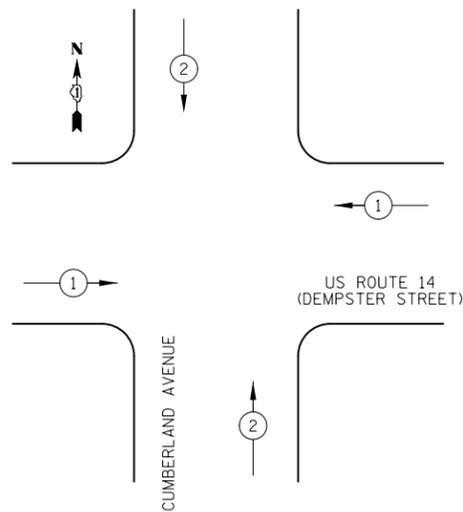


LEGEND



PHASE DESIGNATION DIAGRAM

EMERGENCY VEHICLE PREEMPTION SEQUENCE



EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	1	2
MOVEMENT	← →	↑ ↓

FIRE LANE	
FIRE LANE INTERVAL	1
MOVEMENT	← →

NOTES

- REPLACEMENT OF THE EXISTING CONFIRMATION BEACONS WITH NEW LED CONFIRMATION BEACONS SHALL BE INCLUDED IN THE PAY ITEM "UNINTERRUPTABLE POWER SUPPLY, SPECIAL".

SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QNTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	8
PEDESTRIAN PUSH-BUTTON	EACH	8
RELOCATE EXISTING SIGNAL HEAD	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1
SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED, RETROFIT	EACH	4
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT	EACH	5
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	1
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	4

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	TRAFFIC SIGNAL POST
8	EACH	PEDESTRIAN SIGNAL HEAD, 1-FACE
8	EACH	PEDESTRIAN PUSH-BUTTON

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	% OPERATION	
SIGNAL (RED)	18		17	0.50	153
(YELLOW)	18		25	0.25	113
(GREEN)	18		15	0.25	68
ARROW	16		12	0.10	19
PED. SIGNAL	8		25	1.00	200
CONTROLLER	1		100	1.00	100
TOTAL =					653

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, IL 60196-1096

ENERGY SUPPLY: CONTACT: COM ED  
PHONE: (866) 639-3532  
COMPANY: COM ED

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES  
US ROUTE 14 (DEMPSTER STREET) AT CUMBERLAND AVENUE

NOT TO SCALE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2013-055TS	COOK	73	66
CONTRACT NO. 60X16				
ILLINOIS FED. AID PROJECT				

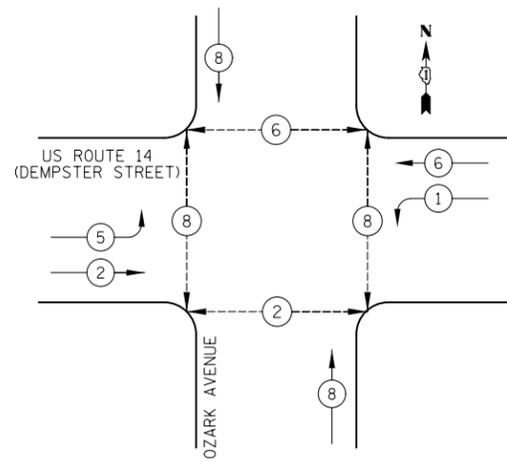
NOTE:  
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

TS 1200  
NILES

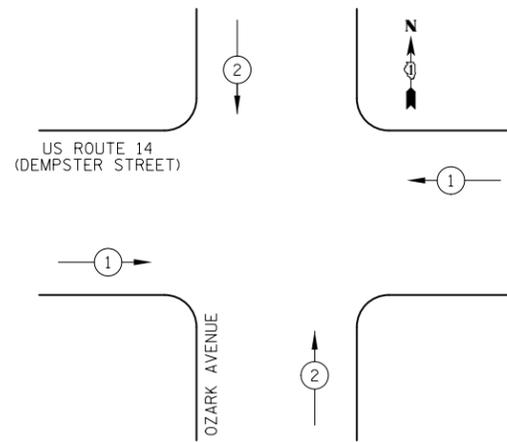


USER NAME = jrt	DESIGNED - BRD	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN - JRT	REVISED -
PLOT DATE = 12/2/2013	CHECKED - JJE	REVISED -
	DATE - 12/02/2013	REVISED -

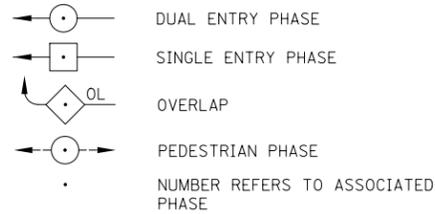
CONTROLLER SEQUENCE



EMERGENCY VEHICLE PREEMPTION SEQUENCE



LEGEND



EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	1	2
MOVEMENT	← →	↑ ↓

PHASE DESIGNATION DIAGRAM

NOTES

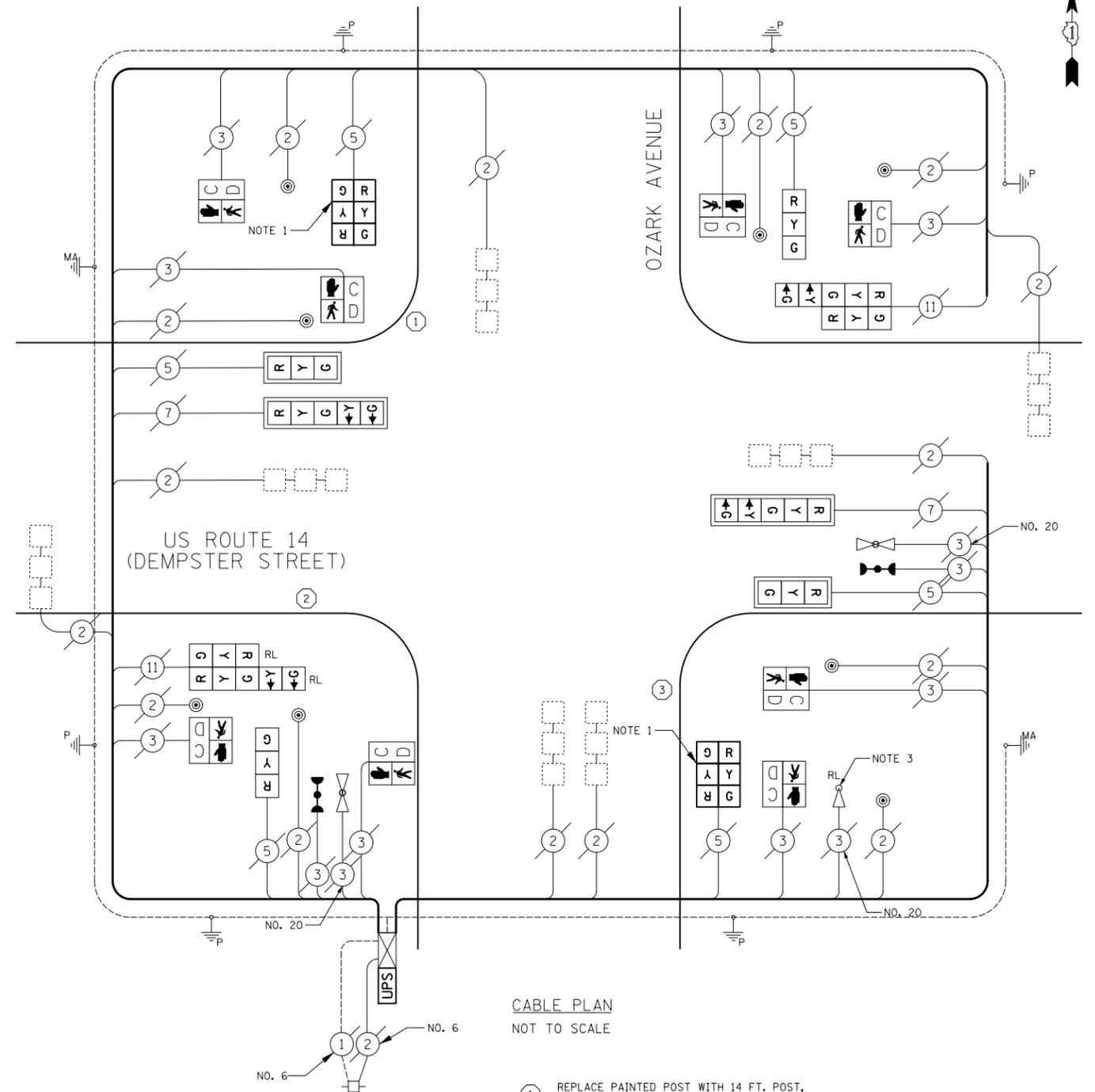
- ONE NEW "SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED" SHALL BE INSTALLED ON THE NEW POSTS AT THE NORTHWEST AND SOUTHEAST CORNERS. ALL OTHER EXISTING SIGNAL HEADS SHALL BE RETROFIT TO LED.
- REPLACEMENT OF THE EXISTING CONFIRMATION BEACONS WITH NEW LED CONFIRMATION BEACONS SHALL BE INCLUDED IN THE PAY ITEM "UNINTERRUPTABLE POWER SUPPLY, SPECIAL".
- THE CONTRACTOR SHALL RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, DETECTOR UNIT TO THE NEW TRAFFIC SIGNAL POST. THE COST OF THIS WORK SHALL BE INCLUDED IN THE PAY ITEM "TRAFFIC SIGNAL POST, GALVANIZED STEEL" OF THE HEIGHT SPECIFIED.

SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QNTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.	EACH	1
SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	8
PEDESTRIAN PUSH-BUTTON	EACH	8
RELOCATE EXISTING SIGNAL HEAD	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1
SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED, RETROFIT	EACH	2
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT	EACH	2
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	2

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.

3	EACH	TRAFFIC SIGNAL POST
2	EACH	SIGNAL HEAD, 2-FACE, 2-3 SECTION
8	EACH	PEDESTRIAN PUSH-BUTTON
8	EACH	PEDESTRIAN SIGNAL HEAD, 1-FACE



CABLE PLAN  
NOT TO SCALE

- REPLACE PAINTED POST WITH 14 FT. POST, RE-USE EXISTING TYPE A FOUNDATION
- REPLACE PAINTED POST WITH 16 FT. POST, RE-USE EXISTING TYPE A FOUNDATION AND RELOCATE EXISTING SIGNAL HEAD.
- REPLACE PAINTED POST WITH 18 FT. POST, RE-USE EXISTING TYPE A FOUNDATION AND RELOCATE EXISTING LIGHT DETECTOR.

NOTE:  
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	% OPERATION	
SIGNAL (RED)	14		17	0.50	119
(YELLOW)	14		25	0.25	88
(GREEN)	14		15	0.25	53
ARROW	8		12	0.10	10
PED. SIGNAL	8		25	1.00	200
CONTROLLER	1		100	1.00	100
TOTAL =					570

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, IL 60196-1096

ENERGY SUPPLY: CONTACT: COM ED  
PHONE: (866) 639-3532  
COMPANY: COM ED



USER NAME = jrt	DESIGNED - BRD	REVISED -
	DRAWN - JRT	REVISED -
PLOT SCALE = 40.0000' / in.	CHECKED - JJE	REVISED -
PLOT DATE = 12/2/2013	DATE - 12/02/2013	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES  
US ROUTE 14 (DEMPSTER STREET) AT OZARK AVENUE

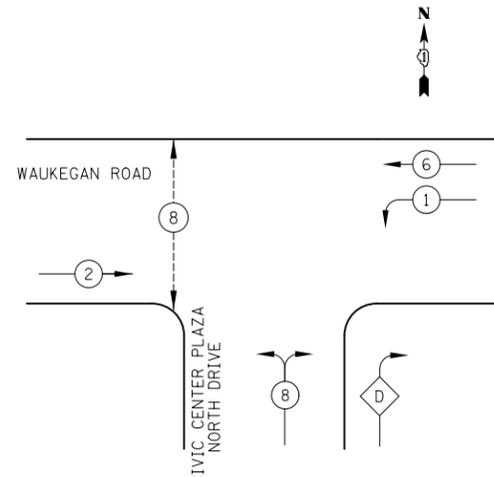
NOT TO SCALE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2013-055TS	COOK	73	67
CONTRACT NO. 60X16				
ILLINOIS FED. AID PROJECT				

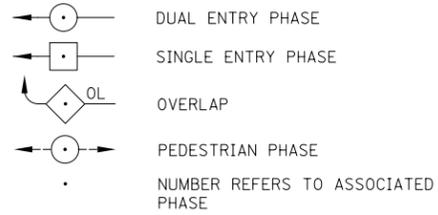


TS 1265  
NILES

CONTROLLER SEQUENCE



LEGEND



PHASE DESIGNATION DIAGRAM

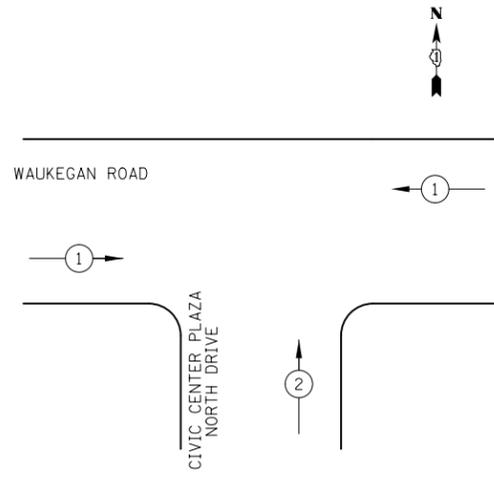
RIGHT TURN OVERLAP PHASE DESIGNATION

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
D	= 8	+ 1

NOTES

- REPLACEMENT OF THE EXISTING CONFIRMATION BEACON WITH NEW LED CONFIRMATION BEACONS SHALL BE INCLUDED IN THE PAY ITEM "UNINTERRUPTABLE POWER SUPPLY, SPECIAL".
- THE CONTRACTOR SHALL RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM DETECTOR UNIT TO THE NEW TRAFFIC SIGNAL POST. THE COST OF THIS WORK SHALL BE INCLUDED IN THE PAY ITEM "TRAFFIC SIGNAL POST, GALVANIZED STEEL" OF THE HEIGHT SPECIFIED.

EMERGENCY VEHICLE PREEMPTION SEQUENCE



EMERGENCY VEHICLE PREEMPTORS

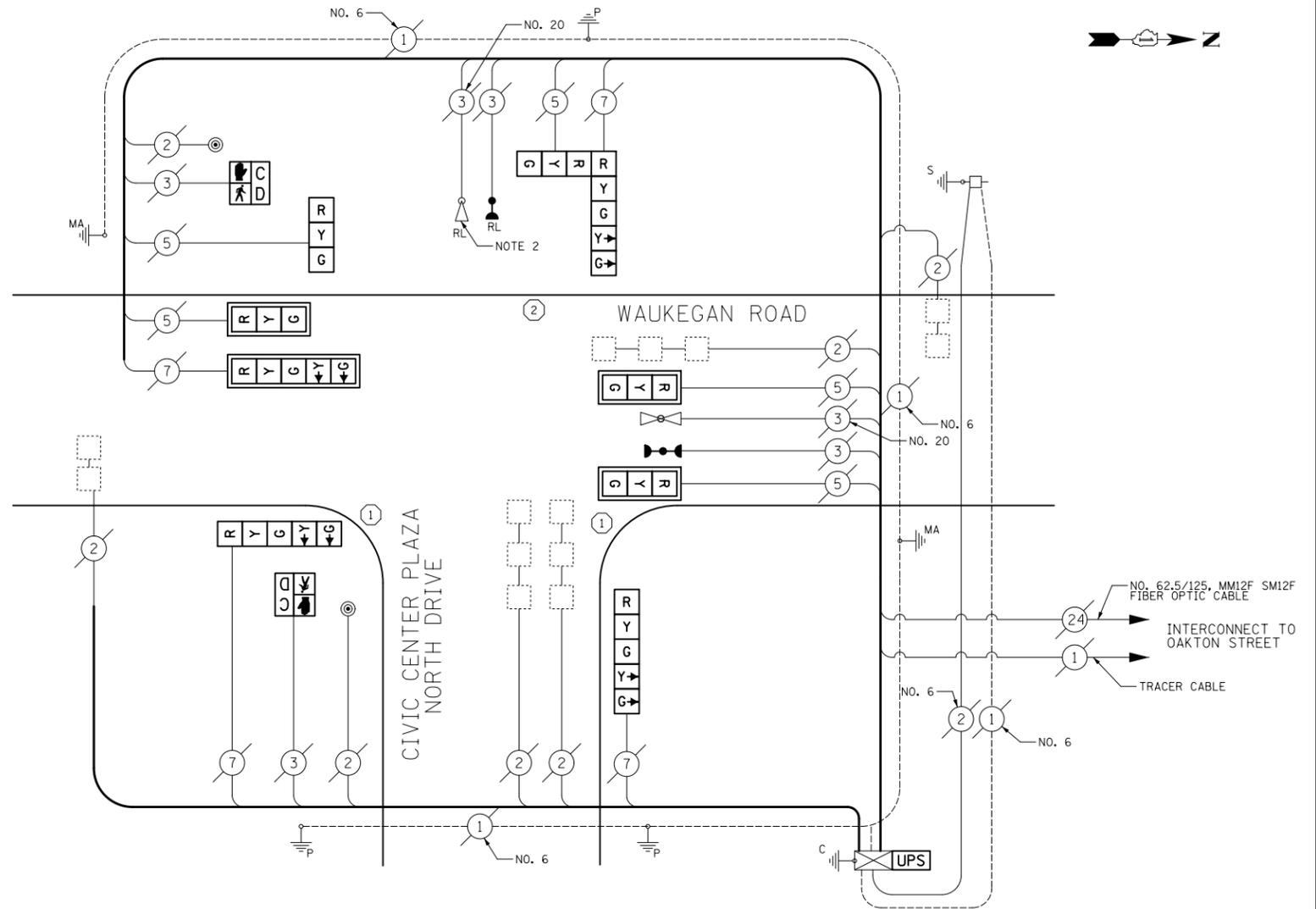
EMERGENCY VEHICLE PREEMPTOR	1	2
MOVEMENT	←	↑

SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QNTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	2
TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	3
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	1
SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	4
PEDESTRIAN PUSH-BUTTON	EACH	2
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1

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.

3	EACH	TRAFFIC SIGNAL POST
4	EACH	SIGNAL HEAD, 1-FACE, 3-SECTION
3	EACH	SIGNAL HEAD, 1-FACE, 5-SECTION
1	EACH	SIGNAL HEAD, 2-FACE, 1-3 SECTION, 1-5 SECTION
2	EACH	PEDESTRIAN PUSH-BUTTON
2	EACH	PEDESTRIAN SIGNAL HEAD, 1-FACE
4	EACH	TRAFFIC SIGNAL BACKPLATE



- REPLACE PAINTED POST WITH 16 FT. POST, RE-USE EXISTING TYPE A FOUNDATION
- REPLACE PAINTED POST WITH 18 FT. POST, RE-USE EXISTING TYPE A FOUNDATION AND RELOCATE EXISTING LIGHT DETECTOR AND CONFIRMATION BEACON.

NOTE:  
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM.

TS 20555 NILES

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	% OPERATION	
SIGNAL (RED)	9		17	0.50	77
(YELLOW)	9		25	0.25	56
(GREEN)	9		15	0.25	34
ARROW	8		12	0.10	10
PED. SIGNAL	2		25	1.00	50
CONTROLLER	1		100	1.00	100
TOTAL =					327

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, IL 60196-1096

ENERGY SUPPLY: CONTACT: COM ED  
PHONE: (866) 639-3532  
COMPANY: COM ED

USER NAME = jrt	DESIGNED - BRD	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN - JRT	REVISED -
PLOT DATE = 12/2/2013	CHECKED - JJE	REVISED -
	DATE - 12/02/2013	REVISED -

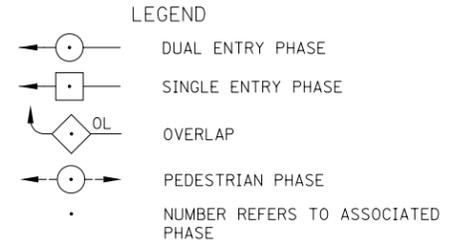
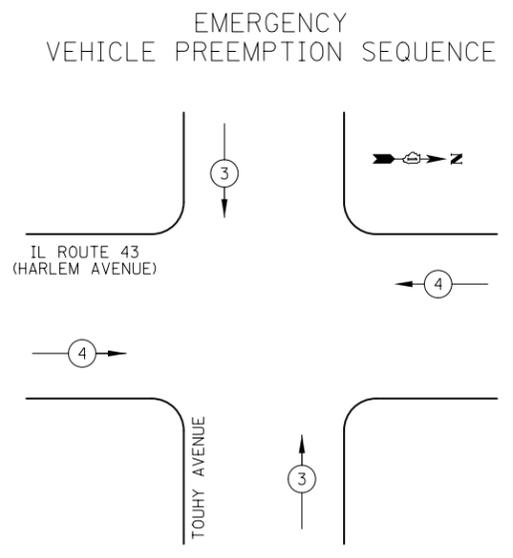
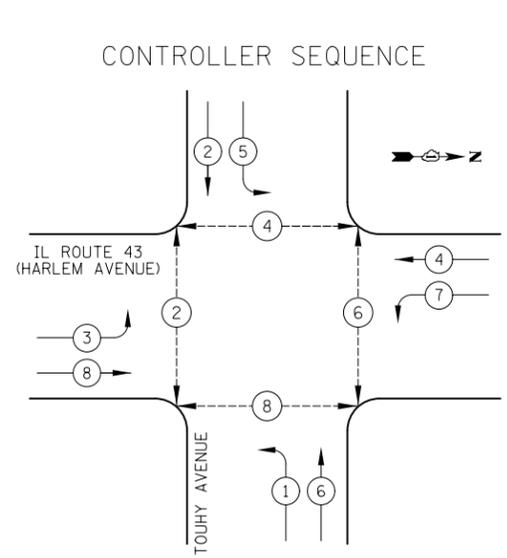
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES  
WAUKEGAN ROAD AT NILES CIVIC CENTER PLAZA

NOT TO SCALE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2013-055TS	COOK	73	68
CONTRACT NO. 60X16				
ILLINOIS FED. AID PROJECT				

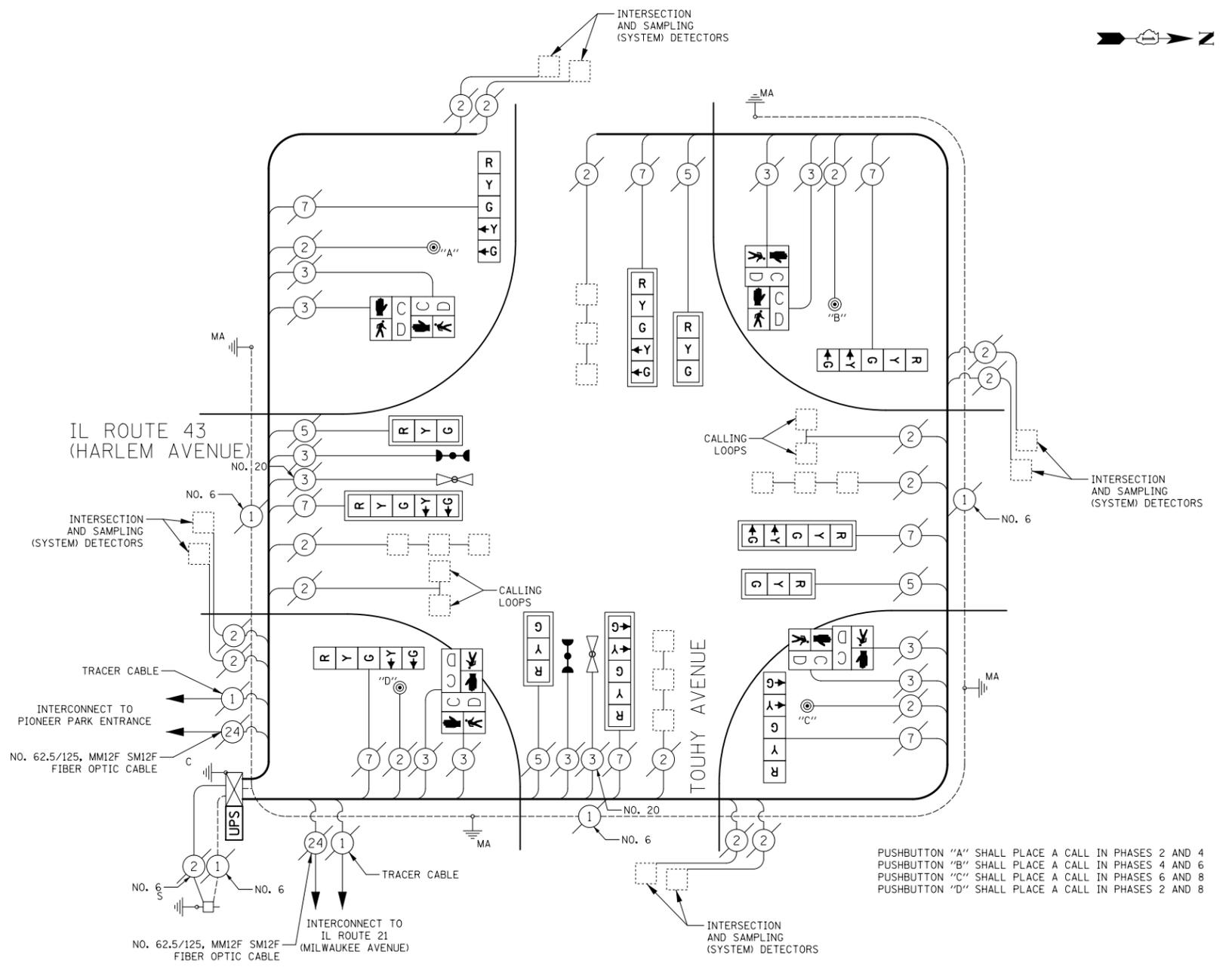




EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↑↑	→→

### PHASE DESIGNATION DIAGRAM

- ### NOTES
- REPLACEMENT OF THE EXISTING CONFIRMATION BEACON WITH NEW LED CONFIRMATION BEACONS SHALL BE INCLUDED IN THE PAY ITEM "UNINTERRUPTABLE POWER SUPPLY, SPECIAL".



### SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QNTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	4
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	4
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED, RETROFIT	EACH	4
PEDESTRIAN PUSH-BUTTON, NON-LATCHING	EACH	4

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.

- 4 EACH PEDESTRIAN PUSH-BUTTON, NON-LATCHING
- 4 EACH PEDESTRIAN SIGNAL HEAD, 2-FACE

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	% OPERATION	
SIGNAL (RED)	12		17	0.50	102
(YELLOW)	12		25	0.25	75
(GREEN)	12		15	0.25	45
ARROW	16		12	0.10	19
PED. SIGNAL	8		25	1.00	200
CONTROLLER	1		100	1.00	100
TOTAL =					541

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, IL 60196-1096

ENERGY SUPPLY: CONTACT: COM ED  
PHONE: (866) 639-3532  
COMPANY: COM ED

RETROFIT ALL EXISTING SIGNAL HEADS TO L.E.D.

NOTE: THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

TS 2410 NILES/CHICAGO



USER NAME = jrt	DESIGNED - BRD	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN - JRT	REVISED -
PLOT DATE = 12/2/2013	CHECKED - JJE	REVISED -
	DATE - 12/02/2013	REVISED -

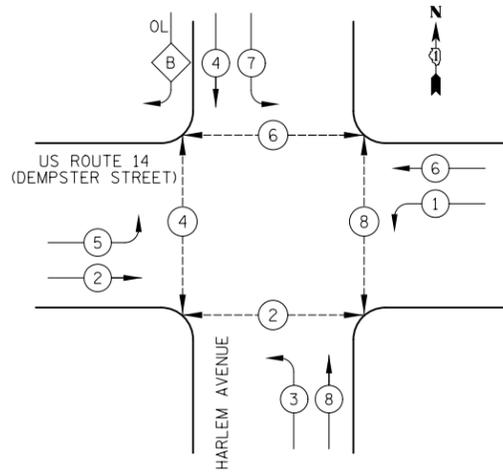
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES  
IL ROUTE 43 (HARLEM AVENUE) AT TOUHY AVENUE

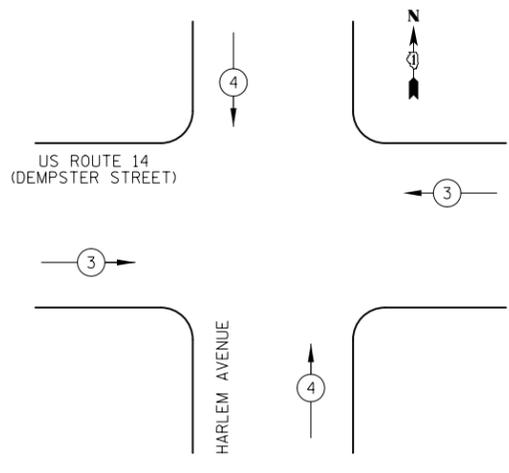
NOT TO SCALE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2013-055TS	COOK	73	69
CONTRACT NO. 60X16				
ILLINOIS FED. AID PROJECT				

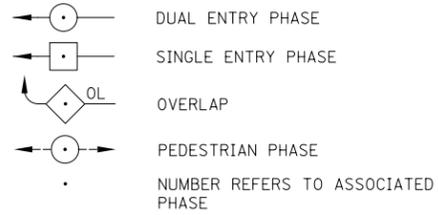
CONTROLLER SEQUENCE



EMERGENCY VEHICLE PREEMPTION SEQUENCE



LEGEND

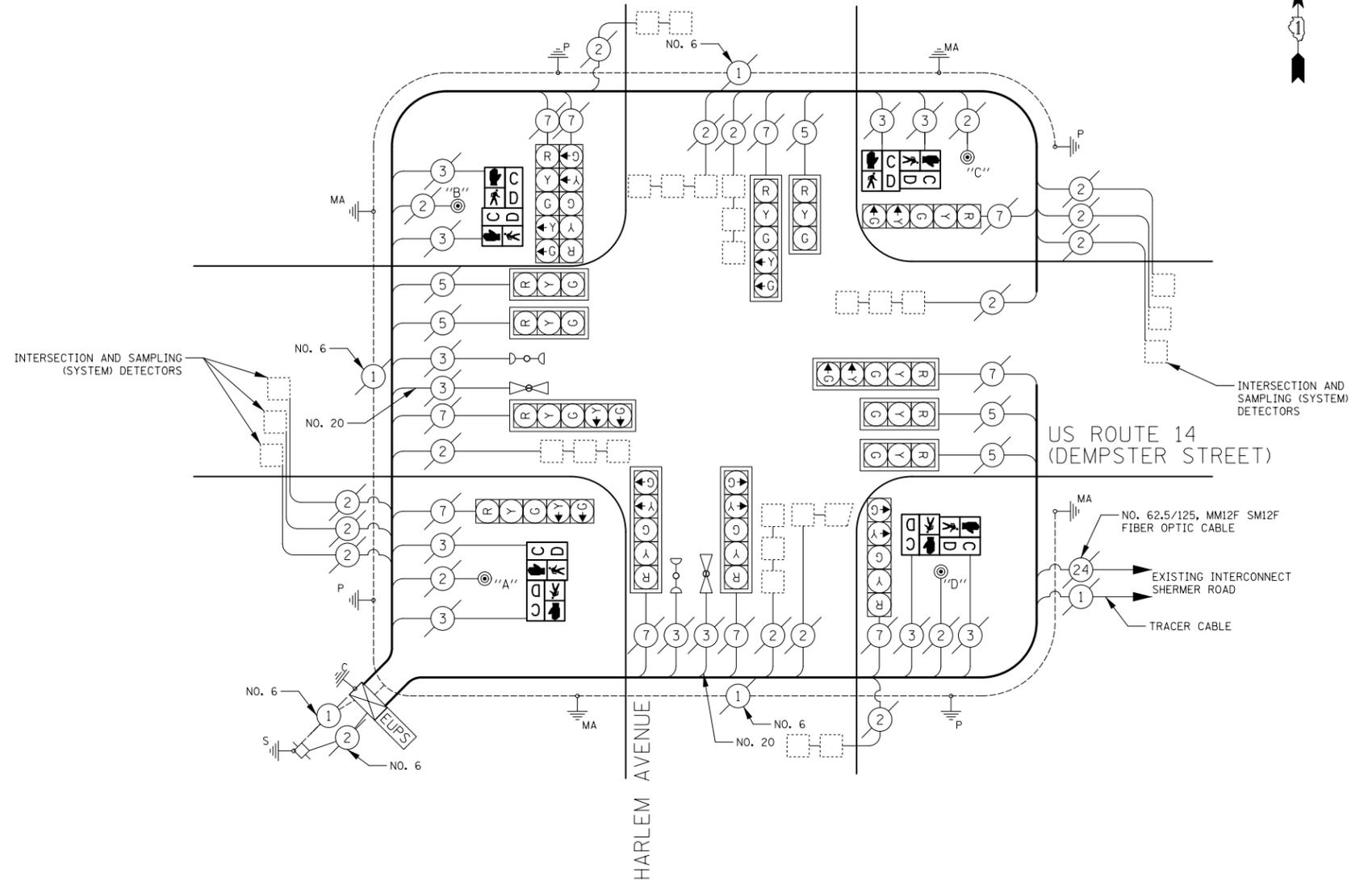


EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	← →	↑ ↓

PHASE DESIGNATION DIAGRAM

RIGHT TURN OVERLAP PHASE DESIGNATION

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
B	= 4	+ 5



CABLE PLAN  
NOT TO SCALE

PUSH BUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4  
 PUSH BUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6  
 PUSH BUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8  
 PUSH BUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	% OPERATION	
SIGNAL (RED)	15		17	0.50	128
(YELLOW)	15		25	0.25	94
(GREEN)	15		15	0.25	56
ARROW	20		12	0.10	24
PED. SIGNAL	8		25	1.00	200
CONTROLLER	1		100	1.00	100
TOTAL =					602

SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QNTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
PEDESTRIAN PUSH-BUTTON, NON-LATCHING	EACH	4

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.

4	EACH	PEDESTRIAN PUSH-BUTTON, NON-LATCHING
4	EACH	PEDESTRIAN SIGNAL HEAD, 2-FACE

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION  
 201 WEST CENTER COURT  
 SCHAUMBURG, IL 60196-1096  
 ENERGY SUPPLY: CONTACT: COM ED  
 PHONE: (866) 639-3532  
 COMPANY: COM ED

NOTE:  
 THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

TS 1220  
 NILES/ MORTON GROVE



USER NAME = jrt  
 PLOT SCALE = 40.0000' / in.  
 PLOT DATE = 12/2/2013

DESIGNED - BRD  
 DRAWN - JRT  
 CHECKED - JJE  
 DATE - 12/02/2013

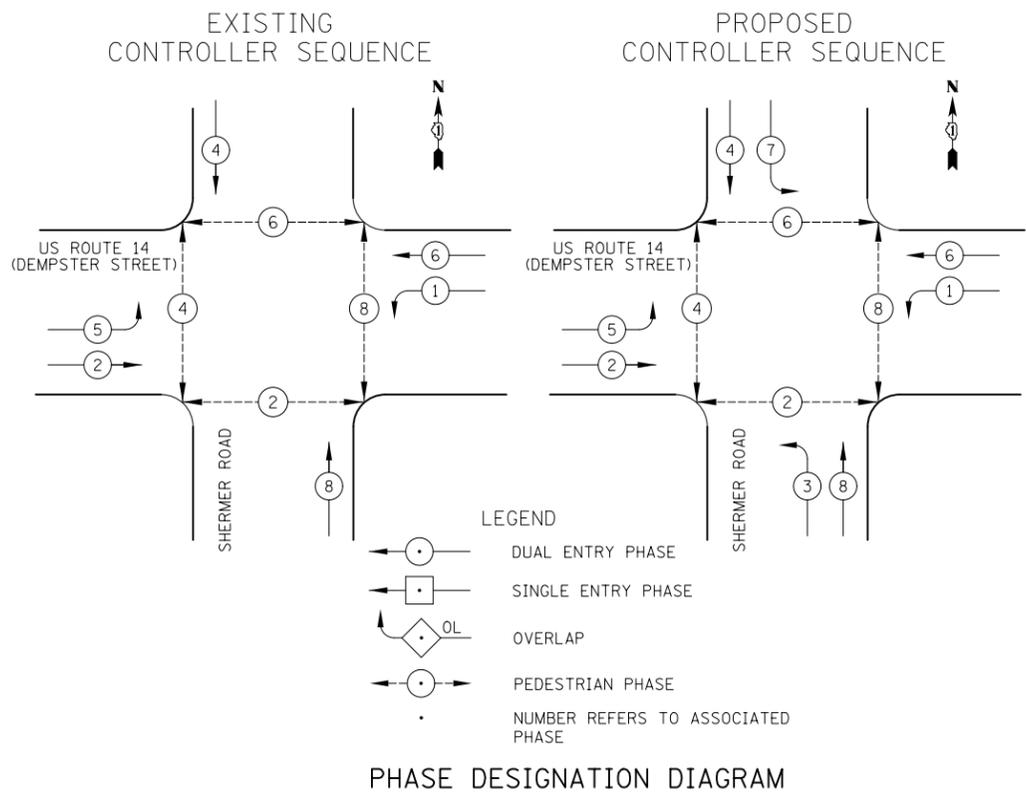
REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES  
 US ROUTE 14 (DEMPSTER STREET) AT HARLEM AVENUE

NOT TO SCALE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

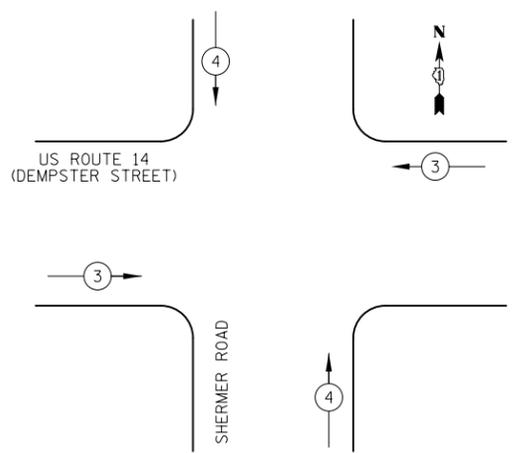
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2013-055TS	COOK	73	70
CONTRACT NO. 60X16				
ILLINOIS FED. AID PROJECT				



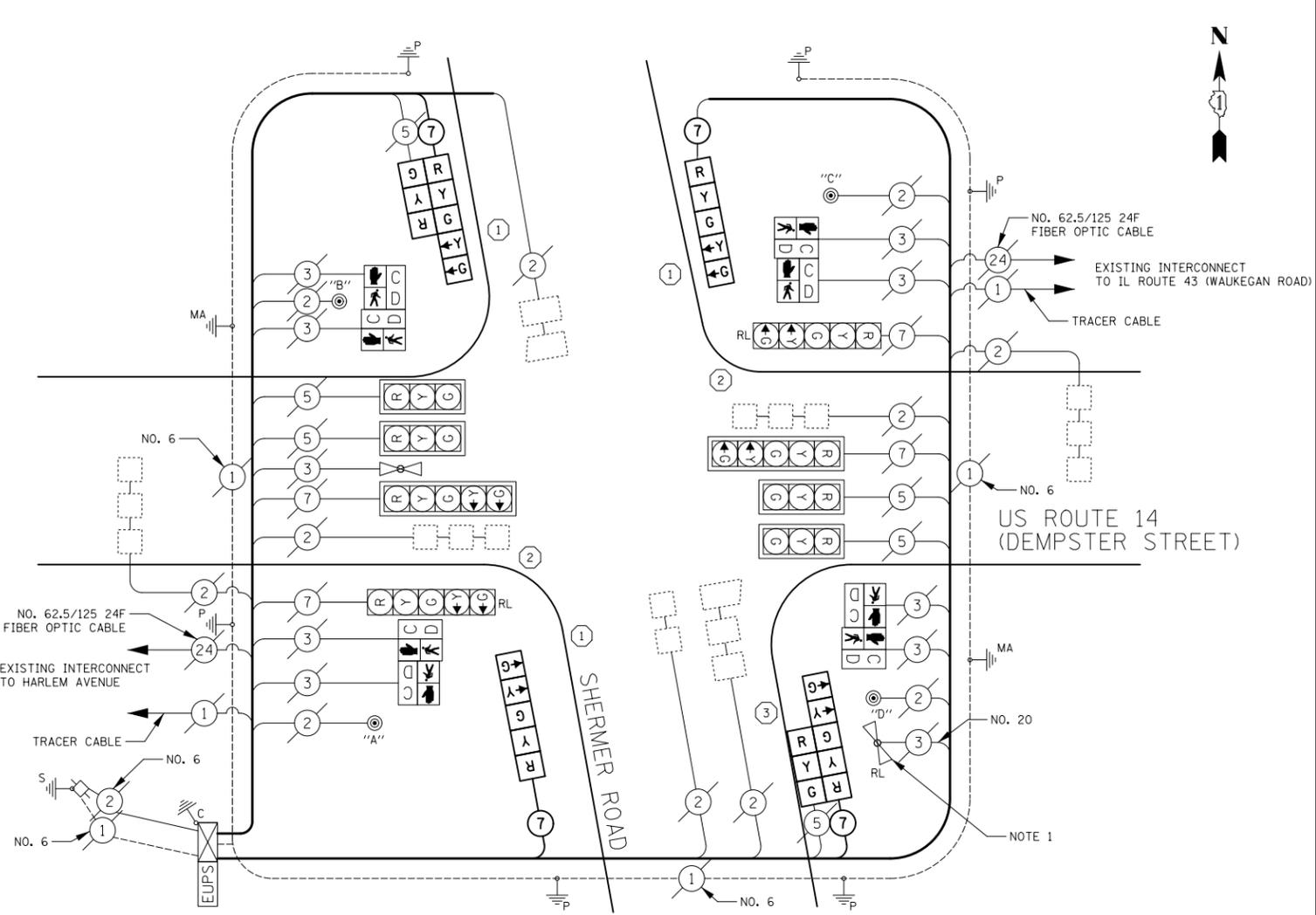
PHASE DESIGNATION DIAGRAM

- NOTES**
1. THE CONTRACTOR SHALL RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, DETECTOR UNIT TO THE NEW TRAFFIC SIGNAL POST. THE COST OF THIS WORK SHALL BE INCLUDED IN THE PAY ITEM "TRAFFIC SIGNAL POST, GALVANIZED STEEL" OF THE HEIGHT SPECIFIED.
  2. THE CONTRACTOR SHALL INSTALL NEW ELECTRIC CABLE IN CONDUIT, SIGNAL, NO 14, 7C TO THE NEW 5-SECTION SIGNAL HEADS ON THE NORTHWEST AND SOUTHWEST CORNERS. THIS COST SHALL BE INCLUDED IN THE PAY ITEM "TRAFFIC SIGNAL POST, GALVANIZED STEEL" OF THE HEIGHT SPECIFIED.
  3. THE CONTRACTOR SHALL REMOVE THE ELECTRIC CABLE FROM CONDUIT AND INSTALL NEW ELECTRIC CABLE IN CONDUIT, SIGNAL, NO 14, 7C TO THE NEW 5-SECTION SIGNAL HEADS ON THE NORTHEAST AND SOUTHWEST CORNERS. THIS COST SHALL BE INCLUDED IN THE PAY ITEM "TRAFFIC SIGNAL POST, GALVANIZED STEEL" OF THE HEIGHT SPECIFIED.
  4. THE CONTRACTOR SHALL MODIFY THE SIGNAL PHASING. THIS COST SHALL BE INCLUDED IN THE PAY ITEM "MODIFY EXISTING CONTROLLER CABINET".

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



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



CABLE PLAN  
NOT TO SCALE

- PUSH BUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4
- PUSH BUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6
- PUSH BUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8
- PUSH BUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8

**SCHEDULE OF QUANTITIES**

PAY ITEM	UNIT	QNTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	5
TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.	EACH	1
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	2
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4
RELOCATE EXISTING SIGNAL HEAD	EACH	2
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
PEDESTRIAN PUSH-BUTTON, NON-LATCHING	EACH	4

1. REPLACE PAINTED POST WITH 16 FT. POST, RE-USE EXISTING TYPE A FOUNDATION.
2. REPLACE PAINTED POST WITH 16 FT. POST, RE-USE EXISTING TYPE A FOUNDATION, AND RELOCATE EXISTING SIGNAL HEAD.
3. REPLACE PAINTED POST WITH 18 FT. POST, RE-USE EXISTING TYPE A FOUNDATION, AND RELOCATE EXISTING LIGHT DETECTOR.

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.

- 6 EACH TRAFFIC SIGNAL POST
- 2 EACH SIGNAL HEAD, 1-FACE, 3-SECTION
- 2 EACH SIGNAL HEAD, 2-FACE, 3-SECTION
- 4 EACH PEDESTRIAN PUSH-BUTTON, NON-LATCHING
- 4 EACH PEDESTRIAN SIGNAL HEAD, 2-FACE

NOTE:  
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE LED	% OPERATION	
SIGNAL (RED)	14		17	0.50	119
(YELLOW)	14		25	0.25	88
(GREEN)	14		15	0.25	53
ARROW	8		12	0.10	10
PED. SIGNAL	8		25	1.00	200
CONTROLLER	1		100	1.00	100
TOTAL =					570

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, IL 60196-1096  
CONTACT: COM ED  
PHONE: (866) 639-3532  
COMPANY: COM ED

USER NAME = jrt	DESIGNED - BRD	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN - JRT	REVISED -
PLOT DATE = 12/2/2013	CHECKED - JJE	REVISED -
	DATE - 12/02/2013	REVISED -

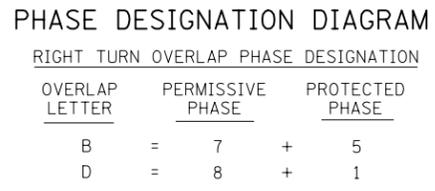
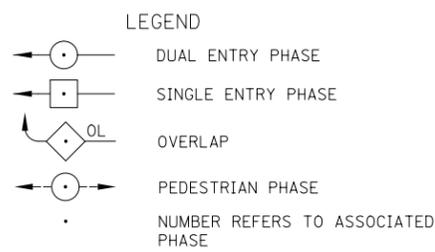
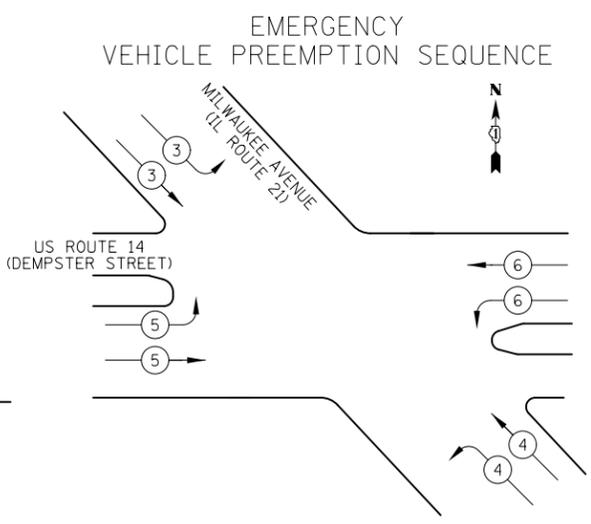
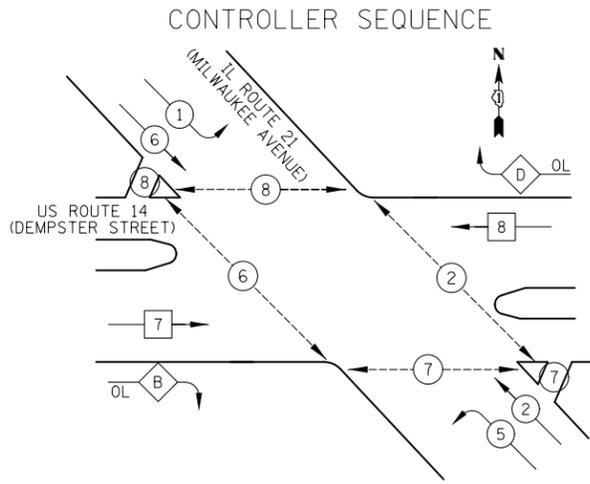
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES US ROUTE 14 (DEMPSTER STREET) AT SHERMER ROAD			
NOT TO SCALE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2013-055TS	COOK	73	71
CONTRACT NO. 60X16				
ILLINOIS FED. AID PROJECT				



TS 1295  
NILES/ MORTON GROVE



- NOTES**
- REPLACEMENT OF THE EXISTING CONFIRMATION BEACONS WITH NEW LED CONFIRMATION BEACONS SHALL BE INCLUDED IN THE PAY ITEM "UNINTERRUPTABLE POWER SUPPLY, SPECIAL".
  - THREE NEW "OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED" SHALL BE INSTALLED ON THE NORTHEAST AND SOUTHWEST MAST ARMS. ONE NEW "COMBINATION SIGNAL HEAD, LED, 2-FACE, 1-4 SECTION OPTICALLY PROGRAMMED, 1-5 SECTION, BRACKET MOUNTED" SHALL BE INSTALLED ON THE NORTHEAST AND SOUTHWEST POSTS. ALL OTHER EXISTING SIGNAL HEADS SHALL BE RETROFIT TO LED.

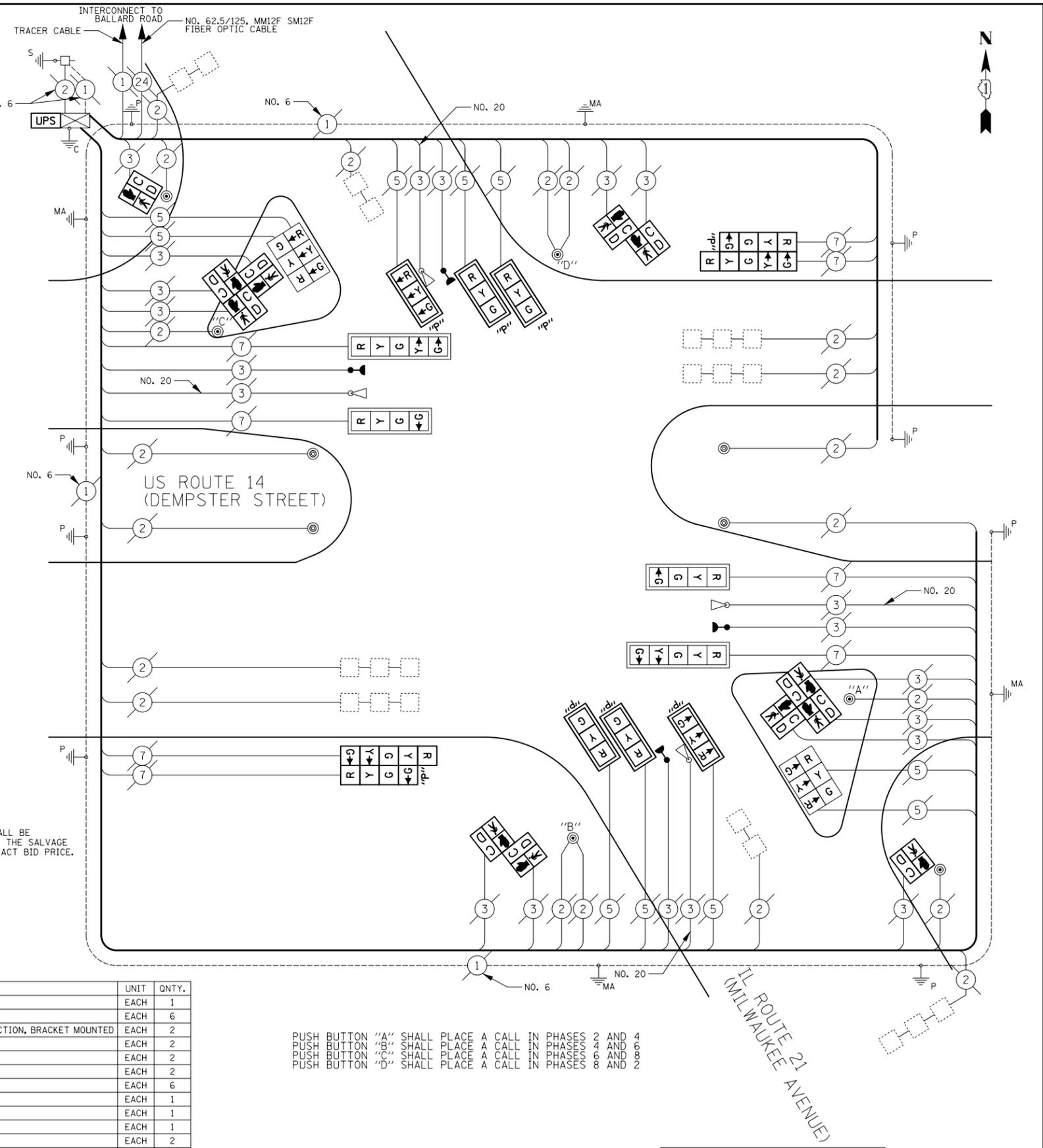
EMERGENCY VEHICLE PREEMPTORS				
EMERGENCY VEHICLE PREEMPTOR	3	4	5	6
MOVEMENT				

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.

6	EACH	SIGNAL HEAD, 1-FACE, 3-SECTION
2	EACH	SIGNAL HEAD, 2-FACE, 1-4 SECTION, 1-5 SECTION
10	EACH	TRAFFIC SIGNAL BACKPLATE
6	EACH	PEDESTRIAN PUSH-BUTTON, NON-LATCHING
2	EACH	PEDESTRIAN SIGNAL HEAD, 1-FACE
2	EACH	PEDESTRIAN SIGNAL HEAD, 2-FACE
2	EACH	PEDESTRIAN SIGNAL HEAD, 3-FACE

**SCHEDULE OF QUANTITIES**

PAY ITEM	UNIT	QNTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	6
COMBINATION SIGNAL HEAD, LED, 2-FACE, 1-4 SECTION OPTICALLY PROGRAMMED, 1-5 SECTION, BRACKET MOUNTED	EACH	2
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
PEDESTRIAN SIGNAL HEAD, LED, 3-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	6
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	2
SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED, RETROFIT	EACH	2
SIGNAL HEAD, LED, 1-FACE, 4-SECTION, MAST ARM MOUNTED, RETROFIT	EACH	2
PEDESTRIAN PUSH-BUTTON, NON-LATCHING	EACH	6



PUSH BUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4  
 PUSH BUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6  
 PUSH BUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8  
 PUSH BUTTON "D" SHALL PLACE A CALL IN PHASES 8 AND 2

NOTE:  
 THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	% OPERATION	
SIGNAL (RED)	18	17	0.50		153
(YELLOW)	18	25	0.25		113
(GREEN)	18	15	0.25		68
ARROW	12	12	0.10		14
PED. SIGNAL	12	25	1.00		300
CONTROLLER	1	100	1.00		100
TOTAL =					748

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION  
 201 WEST CENTER COURT  
 SCHAMBURG, IL 60196-1096

ENERGY SUPPLY: CONTACT: COM ED  
 PHONE: (866) 639-3532  
 COMPANY: COM ED



USER NAME = jrt	DESIGNED - BRD	REVISED -
	DRAWN - JRT	REVISED -
PLOT SCALE = 40.0000' / in.	CHECKED - JJE	REVISED -
PLOT DATE = 12/2/2013	DATE - 12/02/2013	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

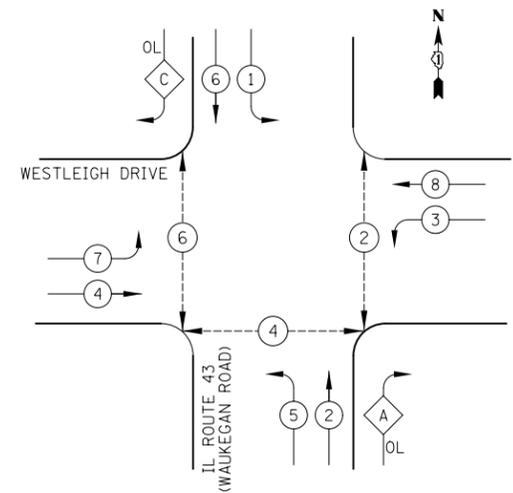
**CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES  
 US ROUTE 14 (DEMPSTER STREET) AT IL ROUTE 21 (MILWAUKEE AVENUE)**

NOT TO SCALE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

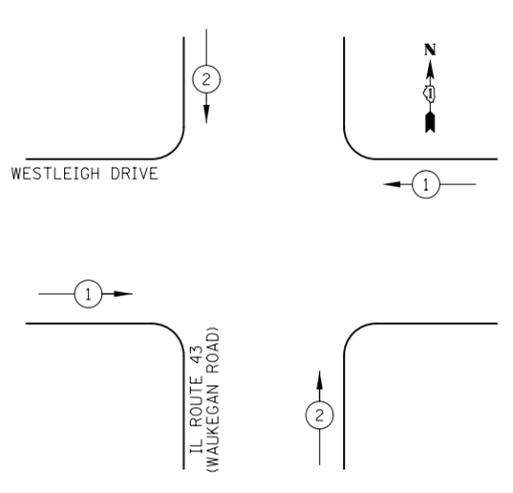
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2013-055TS	COOK	73	72
CONTRACT NO. 60X16				
ILLINOIS FED. AID PROJECT				

TS326  
 NILES/ MORTON GROVE

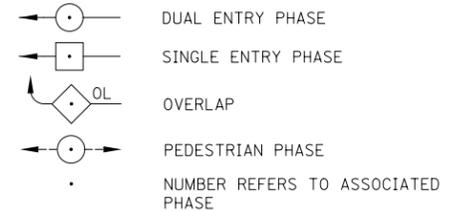
CONTROLLER SEQUENCE



EMERGENCY VEHICLE PREEMPTION SEQUENCE



LEGEND



EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	1	2
MOVEMENT	← →	↑ ↓

PHASE DESIGNATION DIAGRAM

RIGHT TURN OVERLAP PHASE DESIGNATION

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
A	= 2	+ 3
C	= 6	+ 7

NOTES

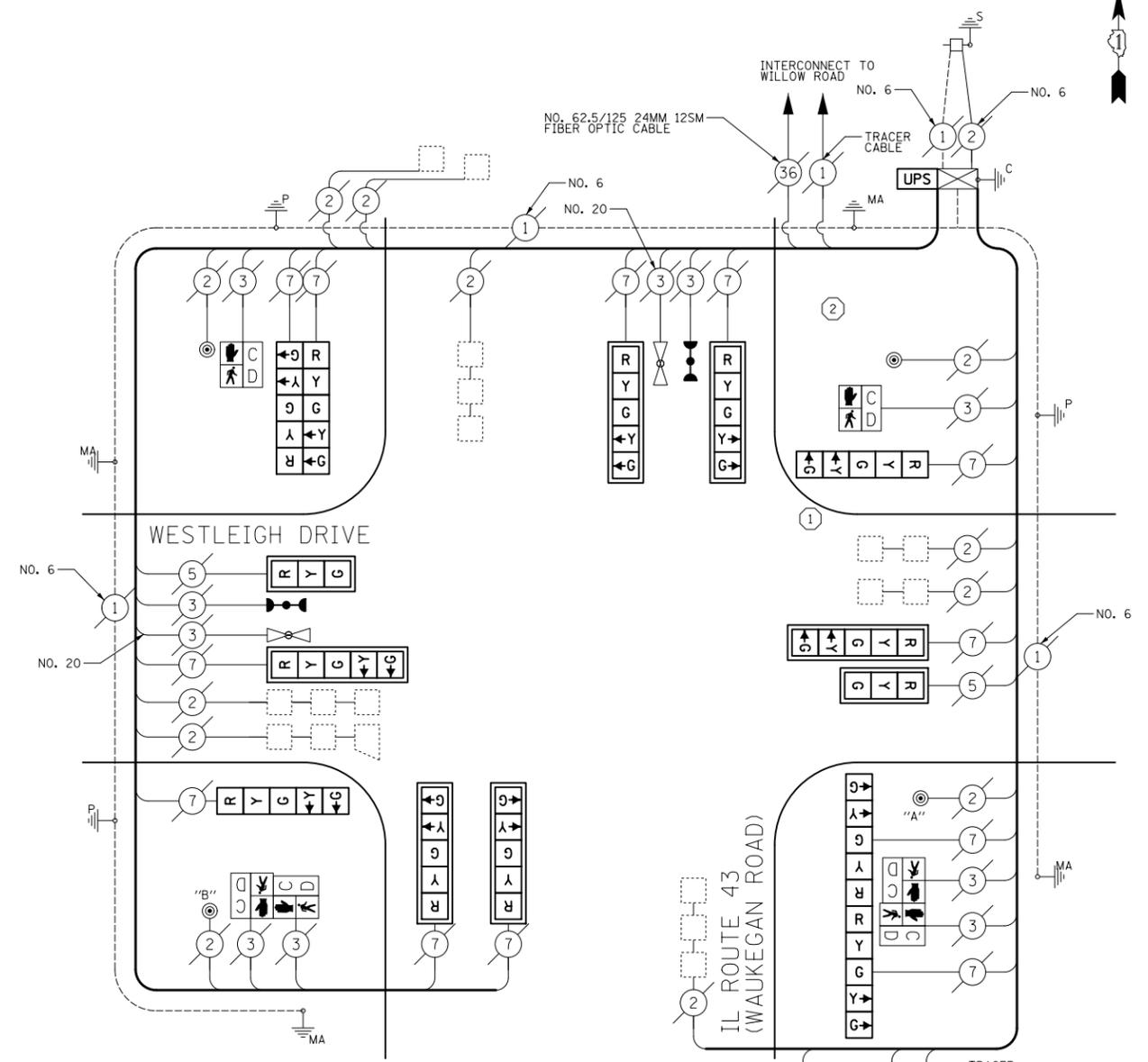
- REPLACEMENT OF THE EXISTING CONFIRMATION BEACONS WITH NEW LED CONFIRMATION BEACONS SHALL BE INCLUDED IN THE PAY ITEM "UNINTERRUPTABLE POWER SUPPLY, SPECIAL".

SCHEDULE OF QUANTITIES

PAY ITEM	UNIT	QNTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	6
SIGNAL HEAD, LED, 2-FACE, 5-SECTION, BRACKET MOUNTED	EACH	2
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	EACH	8
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	1
UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1
PEDESTRIAN PUSH-BUTTON, NON-LATCHING	EACH	4

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 PEDESTRIAN PUSH-BUTTON POST
- 1 EACH TRAFFIC SIGNAL POST
- 5 EACH PEDESTRIAN PUSH-BUTTON, NON-LATCHING
- 2 EACH SIGNAL HEAD, 1-FACE, 3-SECTION
- 8 EACH SIGNAL HEAD, 1-FACE, 5-SECTION
- 2 EACH SIGNAL HEAD, 2-FACE, 5-SECTION
- 8 EACH TRAFFIC SIGNAL BACKPLATE
- 2 EACH PEDESTRIAN SIGNAL HEAD, 1-FACE
- 2 EACH PEDESTRIAN SIGNAL HEAD, 2-FACE



CABLE PLAN

NOT TO SCALE

- REPLACE PAINTED POST WITH 16 FT. POST, RE-USE EXISTING TYPE A FOUNDATION.
- REMOVE PAINTED PEDESTRIAN PUSH-BUTTON POST AND TYPE A FOUNDATION.

PUSH BUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4  
PUSH BUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6

NOTE:  
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	% OPERATION	
SIGNAL (RED)	14		17	0.50	119
(YELLOW)	14		25	0.25	88
(GREEN)	14		15	0.25	53
ARROW	24		12	0.10	29
PED. SIGNAL	6		25	1.00	150
CONTROLLER	1		100	1.00	100
TOTAL =					539

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 WEST CENTER COURT  
SCHAUMBURG, IL 60196-1096

ENERGY SUPPLY: CONTACT: COM ED  
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PLOT SCALE = 40.0000' / in.	DRAWN - JRT	REVISED -
PLOT DATE = 12/2/2013	CHECKED - JJE	REVISED -
	DATE - 12/02/2013	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES  
IL ROUTE 43 (WAUKEGAN ROAD) AT WESTLEIGH DRIVE

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2013-055TS	COOK	73	73
CONTRACT NO. 60X16				
ILLINOIS FED. AID PROJECT				

TS 14480  
GLENVIEW/NORTHBROOK