

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2016-056TS	VARIOUS	55	1
	ILLINOIS	CONTRACT NO. 62D44		

FOR INDEX OF SHEETS, SEE SHEET NO. 2

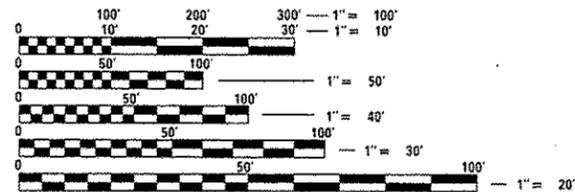
**PROPOSED  
HIGHWAY PLANS**  
VARIOUS LOCATIONS IN DISTRICT 1  
SECTION 2016-056TS  
PROJECT HSIP-000V(112)  
PEDESTRIAN SIGNAL INSTALLATION  
VARIOUS COUNTIES

C-91-023-17



FOR LOCATION MAP  
SEE SHEETS NO. 3-5

VARIOUS TOWNSHIPS



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

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

PROJECT ENGINEER: JAMEELAH CURRY / LUKASZ POCIECHA  
PROJECT MANAGER: DARYLE DREW (847) 705-4424

CONTRACT NO. 62D44

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUBMITTED March 2nd 2017  
Anthony [Signature] REGIONAL ENGINEER

May 12 2017  
Matthew M. Adams ENGINEER OF DESIGN AND ENVIRONMENT

May 12 2017  
[Signature] DIRECTOR OF PROGRAM DEVELOPMENT

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OF THE STATE OF ILLINOIS

**INDEX OF SHEETS**

SHT NO.	DESCRIPTION
1	COVER SHEET
2	INDEX OF SHEETS, HIGHWAY STANDARDS, AND GENERAL NOTES
3-6	LOCATION MAPS
7-10	SUMMARY OF QUANTITIES
11-17	DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAILS (TS-05)

SHT NO.	TS NO.	INTERSECTION NAME
18-19	15088	IL 47 AT IL 120
20-21	21410	IL 21 (MILWAUKEE AVE) AT CORPORATE WOODS PKWY
22-23	6650	IL 21 (MILWAUKEE AVE) AT DEERFIELD PKWY
24-25	405	US 12 (RAND RD) AT KENNICOTT DR
26-27	12640	US 12 (RAND RD) AT ARLINGTON PLAZA
28-29	12595	US 12 (RAND RD) AT ARLINGTON HEIGHTS RD
30-31	12630	US 12 (RAND RD) AT PALATINE RD
32-33	421	US 12 (RAND RD) AT BEVERLY LN
34-35	415	US 12 (RAND RD) AT DRYDEN AVE
36-37	395	US 12 (RAND RD) AT EUCLID AVE
38-46	380	US 12 (RAND RD) AT IL 83 (ELMHURST RD) AT KENSINGTON RD
47-48	21285	BARRINGTON RD AT RAMBLEWOOD DR
49-50	13675	RANDOLPH ST AT DES PLAINES AVE
51-52	2650	IL 50 / IL 83 (CICERO AVE) AT 135TH ST
53-54	1850	IL 1 (HALSTED ST) AT JOE ORR RD

SHT NO.	DESCRIPTION
55	ARTERIAL ROAD INFORMATION SIGN (TC-22)

**HIGHWAY STANDARDS**

STD. NO.	TITLE
701006-05	OFF-ROAD OPERATIONS, 2L, 2W, 15'(4.5 M) TO 24'(600 MM) FROM PAVEMENT EDGE
701101-05	OFF-ROAD OPERATIONS, MULTILANE, 15'(4.5 M) TO 24'(600 MM) FROM PAVEMENT EDGE
701701-10	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701801-06	SIDEWALK, CORNER OR CROSSWALK CLOSURE
701901-06	TRAFFIC CONTROL DEVICES
857001-01	STANDARD PHASE DESIGNATION DIAGRAMS AND PHASE SEQUENCES
873001-02	TRAFFIC SIGNAL GROUNDING AND BONDING
878001-10	CONCRETE FOUNDATION DETAILS
880006-01	TRAFFIC SIGNAL MOUNTING DETAILS

**RLR NOTES**

DUE TO THE PRESENCE OF A RED LIGHT RUNNING (RLR) CAMERA FOR THE BELOW LISTED LOCATION, CONTRACTOR SHALL NOTIFY THE VILLAGE AND RLR CAMERA COMPANY PRIOR TO THE START OF CONSTRUCTION, THE VILLAGE OR THE RLR CAMERA COMPANY SHALL MAKE THE CAMERA INOPERATIVE FOR THE TIME OF CONSTRUCTION. ANY RLR CAMERA EQUIPMENT THAT IS IN CONFLICT WITH THE PROPOSED CONSTRUCTION SHALL BE REMOVED BY ITS RESPECTIVE OWNERS PRIOR TO THE START OF CONSTRUCTION.

**RLR CAMERA LOCATION:**

2650 IL 50 / IL 83 (CICERO AVE) AT 135TH ST

VILLAGE OF CRESTWOOD  
13840 S CICERO  
CRESTWOOD, IL 60445  
(708) 371-4849

RED SPEED, LLC.  
400 EISENHOWER LANE  
LOMBARD, ILLINOIS 60148  
(630) 317-5700

**GENERAL NOTES**

BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT (800) 892-0123 OR 811 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS UTILITIES. 48 HOUR NOTIFICATION IS REQUIRED.

THE CONTRACTOR SHALL CONTACT THE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 72 HOURS IN ADVANCE OF BEGINNING WORK.

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION. THIS SHALL INCLUDE LOCATING THE MAST ARM FOUNDATIONS AND VERIFYING THE MAST ARMS LENGTHS.

THE EXACT LOCATION OF ALL UTILITIES SHALL BE FIELD VERIFIED BY THE CONTRACTOR BEFORE ORDERING ANY MATERIALS AND STARTING ANY WORK. FOR LOCATIONS OF UTILITIES, LOCALLY OWNED EQUIPMENT, LEASED ENFORCEMENT CAMERA SYSTEM FACILITIES AND IDOT UNDERGROUND FACILITIES, CONTACT THE LOCAL COUNTIES, MUNICIPALITIES AND IDOT FOR LOCATES. THE CONTRACTOR SHALL CALL "JULIE" AT (800) 892-0123 OR 811. IN THE CITY OF CHICAGO CONTACT DIGGER AT (312) 744-7000 FOR FIELD LOCATIONS OF BURIED UTILITIES (48 HOURS NOTIFICATION REQUIRED).

IF THIS CONTRACT REQUIRES THE SERVICES OF AN ELECTRICAL CONTRACTOR, THE CONTRACTOR SHALL BE RESPONSIBLE AT HIS/HER OWN EXPENSE FOR LOCATING EXISTING IDOT ELECTRICAL FACILITIES PRIOR TO PERFORMING ANY WORK. IF THIS CONTRACT DOES NOT REQUIRE THE SERVICES OF AN ELECTRICAL CONTRACTOR, THE CONTRACTOR MAY REQUEST ONE FREE LOCATE FOR EXISTING IDOT ELECTRICAL FACILITIES FROM THE DISTRICT ONE ELECTRICAL MAINTENANCE CONTRACTOR PRIOR TO THE START OF ANY WORK. ADDITIONAL REQUESTS MAY BE AT THE EXPENSE OF THE CONTRACTOR. THE LOCATION OF UNDERGROUND TRAFFIC FACILITIES DOES NOT RELIEVE THE CONTRACTOR OF THEIR RESPONSIBILITY TO REPAIR ANY FACILITIES DAMAGED DURING CONSTRUCTION AT THEIR EXPENSE.

THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES, LOCAL GOVERNMENT AGENCIES AND IDOT.

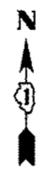
RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCLUDED IN THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

THE CONTRACTOR SHALL RELOCATE ANY EXISTING SIGN PANELS, INCLUDING BLANK OUT SIGNS, FROM POSTS THAT ARE INDICATED FOR REPLACEMENT TO A NEW POST AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. THE COST OF REMOVAL, RELOCATION, AND ANY NEW MOUNTING HARDWARE NECESSARY TO COMPLETE THIS WORK SHALL BE INCLUDED IN THE PAY ITEM OF THE LENGTH AS SPECIFIED IN THE PLANS.

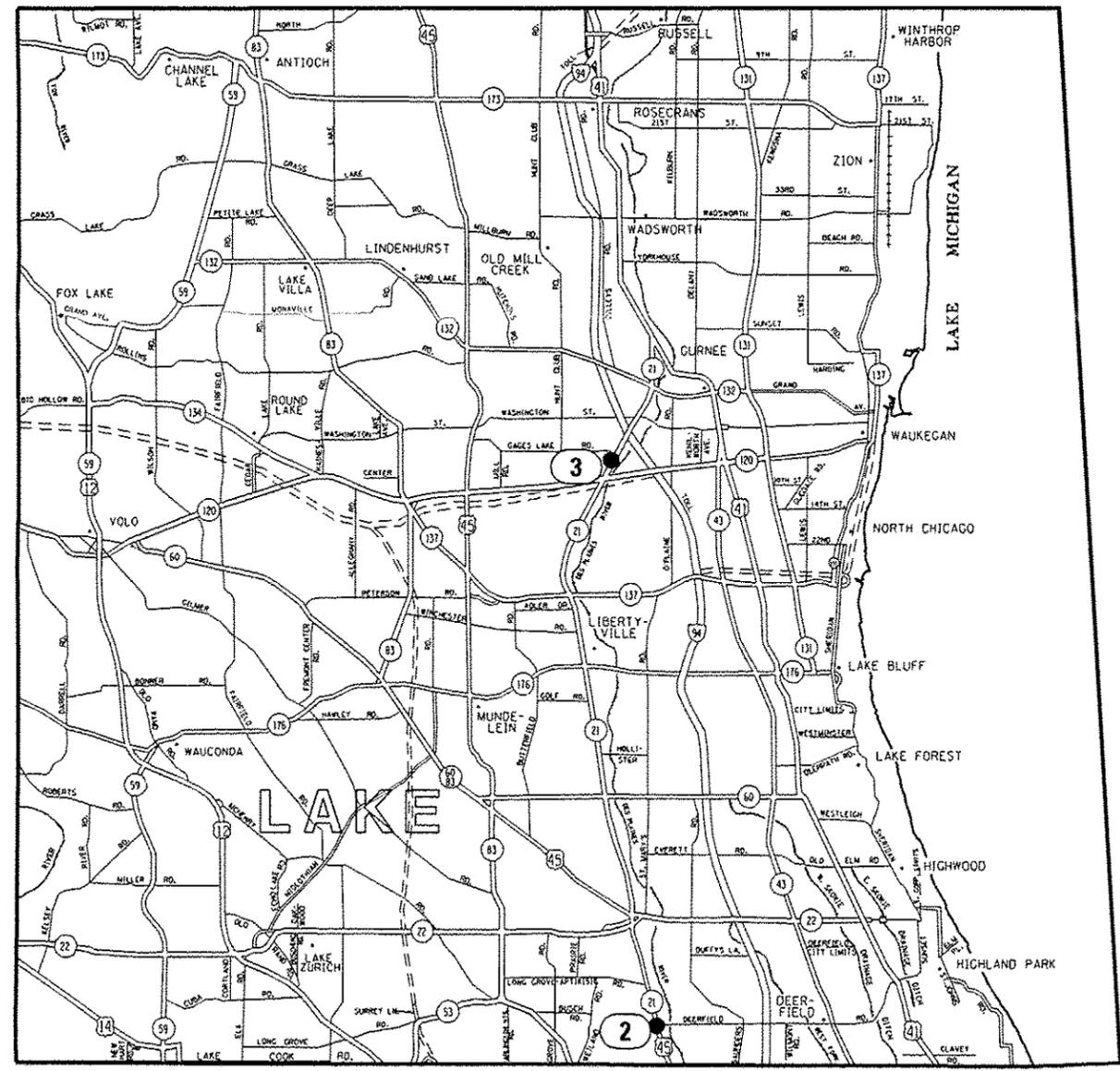
PARTIAL PAYMENT AS DESCRIBED IN ARTICLE 109.07(b) OF THE STANDARD SPECIFICATIONS WILL NOT BE ALLOWED FOR ITEMS INCLUDED IN THIS CONTRACT.

FILE NAME :	USER NAME : p001achal	DESIGNED : JC	REVISED :	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>INDEX OF SHEETS, HIGHWAY STANDARDS &amp; GENERAL NOTES</b>	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
p:\IL\084EBID\INTEG\Illinois.gov\PI\DOT\Documents\IDOT Offices\District 1\Projects\DIR\DRM\05toTraffic\102317-ah-ta.dgn	DESIGNED :	REVISED :				2016-05GTS	VARIOUS	55	2	
Default	PLOT SCALE : 100.0000' / in.	CHECKED : LP	REVISED :			CONTRACT NO. 62044				
	PLOT DATE : 3/23/2017	DATE : 03/24/2017	REVISED :			SCALE:	SHEET OF SHEETS	STA. TO STA.	ILLINOIS FED. AID PROJECT	





LOC. NO.	TS NO.	INTERSECTION NAME	MUNICIPALITY	COUNTY
1	15088	IL 47 AT IL 120	WOODSTOCK	MCHENRY
2	21410	IL 21 (MILWAUKEE AVE) AT CORPORATE WOODS PKWY	VERNON HILLS	LAKE
3	6650	IL 21 (MILWAUKEE AVE) AT DEERFIELD PKWY	BUFFALO GROVE	LAKE
4	405	US 12 (RAND RD) AT KENNICOTT DR	ARLINGTON HEIGHTS	COOK
5	12640	US 12 (RAND RD) AT ARLINGTON PLAZA	ARLINGTON HEIGHTS	COOK
6	12595	US 12 (RAND RD) AT ARLINGTON HEIGHTS RD	ARLINGTON HEIGHTS	COOK
7	12630	US 12 (RAND RD) AT PALATINE RD	ARLINGTON HEIGHTS	COOK
8	421	US 12 (RAND RD) AT BEVERLY LN	ARLINGTON HEIGHTS	COOK
9	415	US 12 (RAND RD) AT DRYDEN AVE	ARLINGTON HEIGHTS	COOK
10	395	US 12 (RAND RD) AT EUCLID AVE	ARLINGTON HEIGHTS	COOK
11	380	US 12 (RAND RD) AT IL 83 (ELMHURST RD) AT KENSINGTON RD	MOUNT PROSPECT	COOK
12	21285	BARRINGTON RD AT RAMBLEWOOD DR	STREAMWOOD / HANOVER PARK	COOK
13	13675	RANDOLPH ST AT DES PLAINES AVE	FOREST PARK	COOK
14	2650	IL 50 / IL 83 (CICERO AVE) AT 135TH ST	CRESTWOOD	COOK
15	1850	IL 1 (HALSTED ST) AT JOE ORR RD	CHICAGO HEIGHTS	COOK







SUMMARY OF QUANTITIES HEADING LEGEND

COLUMN NUMBER	TS NO.	INTERSECTION NAME	FUNDING PARTICIPATION																
			FEDERAL	STATE	LAKE COUNTY	VERNON HILLS	ARLINGTON HEIGHTS	MOUNT PROSPECT	STREAMWOOD	HANOVER PARK	FOREST PARK	CRESTWOOD							
1	15088	IL 47 AT IL 120	90%	10%															
3	21410	IL 21 (MILWAUKEE AVE) AT CORPORATE WOODS PKWY	90%			10%													
4	6650	IL 21 (MILWAUKEE AVE) AT DEERFIELD PKWY	90%	5%	5%														
5	405	US 12 (RAND RD) AT KENNICOTT DR	90%	6.7%			3.3%												
2	12640	US 12 (RAND RD) AT ARLINGTON PLAZA	90%				10%												
1	12595	US 12 (RAND RD) AT ARLINGTON HEIGHTS RD	90%	10%															
1	12630	US 12 (RAND RD) AT PALATINE RD	90%	10%															
2	421	US 12 (RAND RD) AT BEVERLY LN	90%				10%												
6	415	US 12 (RAND RD) AT DRYDEN AVE	90%	5%			5%												
1	395	US 12 (RAND RD) AT EUCLID AVE	90%	10%															
7	380	US 12 (RAND RD) AT IL 83 (ELMHURST RD) AT KENSINGTON RD	90%	7.5%			2.5%												
8	21285	BARRINGTON RD AT RAMBLEWOOD DR	90%	5%				2.5%	2.5%										
9	13675	RANDOLPH ST AT DES PLAINES AVE	90%	7.5%						2.5%									
10	2650	IL 50 / IL 83 (CICERO AVE) AT 135TH ST	90%	7.5%							2.5%								
1	1850	IL 1 (HALSTED ST) AT JOE ORR RD	90%	10%															



CODE NO.	ITEM	UNIT	TOTAL QTY	CONSTRUCTION CODE															
				1	2	3	4	5	6	7	8	9	10						
				TRAFFIC SIGNALS															
				0021 URBAN															
88500100	INDUCTIVE LOOP DETECTOR	EACH	27							27									
88800100	PEDESTRIAN PUSH-BUTTON	EACH	73	30	4	2	2	2	8	9		8	8						
89500100	RELOCATE EXISTING SIGNAL HEAD	EACH	3						3										
89500400	RELOCATE EXISTING PEDESTRIAN PUSH-BUTTON	EACH	2	2															
89501150	RELOCATE EXISTING TRAFFIC SIGNAL POST	EACH	3						3										
89502200	MODIFY EXISTING CONTROLLER	EACH	14	5	2	1	1	1	1		1	1	1						
89502210	MODIFY EXISTING CONTROLLER CABINET	EACH	14	5	2	1	1	1	1		1	1	1						
89502350	REMOVE AND REINSTALL ELECTRIC CABLE FROM CONDUIT	FOOT	165	45					120										
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	2	1					1										
89502385	REMOVE EXISTING CONCRETE FOUNDATION	EACH	5	2					3										
X8570231	FULL-ACTUATED CONTROLLER AND TYPE V CABINET, SPECIAL	EACH	1						1										
X8760055	PEDESTRIAN PUSH-BUTTON POST, TYPE A	EACH	4			1	1					2							
X8880015	PEDESTRIAN PUSH-BUTTON, NON-LATCHING	EACH	2								2								
Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	514	154.2		51.4	51.4	25.7		77.1	51.4	51.4	51.4						

14



# TRAFFIC SIGNAL LEGEND

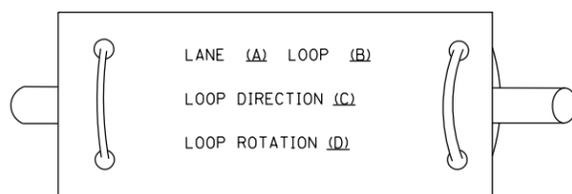
(NOT TO SCALE)

ITEM	EXISTING	PROPOSED	ITEM	EXISTING	PROPOSED	ITEM	EXISTING	PROPOSED
CONTROLLER CABINET			HANDHOLE -SQUARE -ROUND	 	 	SIGNAL HEAD -(P) PROGRAMMABLE SIGNAL HEAD		
COMMUNICATION CABINET			HEAVY DUTY HANDHOLE -SQUARE -ROUND	 	 	SIGNAL HEAD WITH BACKPLATE -(P) PROGRAMMABLE SIGNAL HEAD -(RB) RETROREFLECTIVE BACKPLATE	 	 
MASTER CONTROLLER			DOUBLE HANDHOLE			PEDESTRIAN SIGNAL HEAD AT RAILROAD INTERSECTIONS		
MASTER MASTER CONTROLLER			JUNCTION BOX			PEDESTRIAN SIGNAL HEAD WITH COUNTDOWN TIMER		
UNINTERRUPTABLE POWER SUPPLY			RAILROAD CANTILEVER MAST ARM			ILLUMINATED SIGN "NO LEFT TURN"/"NO RIGHT TURN"		
SERVICE INSTALLATION -(P) POLE MOUNTED			RAILROAD FLASHING SIGNAL			NUMBER OF CONDUCTORS, ELECTRIC CABLE NO. 14, UNLESS NOTED OTHERWISE. ALL DETECTOR LOOP CABLE TO BE SHIELDED		
SERVICE INSTALLATION -(G) GROUND MOUNTED -(GM) GROUND MOUNTED METERED	 	 	RAILROAD CROSSING GATE			GROUND CABLE IN CONDUIT, NO. 6 SOLID COPPER (GREEN)		
TELEPHONE CONNECTION			RAILROAD CROSSBUCK			ELECTRIC CABLE IN CONDUIT, TRACER NO. 14 1/C		
STEEL MAST ARM ASSEMBLY AND POLE			RAILROAD CONTROLLER CABINET			COAXIAL CABLE		
ALUMINUM MAST ARM ASSEMBLY AND POLE			UNDERGROUND CONDUIT (UC), GALVANIZED STEEL			VENDOR CABLE		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE			TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE			COPPER INTERCONNECT CABLE, NO. 18, 3 PAIR TWISTED, SHIELDED		
SIGNAL POST -(BM) BARREL MOUNTED - TEMPORARY			SYSTEM ITEM	S	SP	FIBER OPTIC CABLE -NO. 62.5/125, MM12F -NO. 62.5/125, MM12F SM12F -NO. 62.5/125, MM12F SM24F		
WOOD POLE			INTERSECTION ITEM	I	IP	GROUND ROD -(C) CONTROLLER -(M) MAST ARM -(P) POST -(S) SERVICE		
GUY WIRE			REMOVE ITEM		R			
SIGNAL HEAD			RELOCATE ITEM		RL			
SIGNAL HEAD WITH BACKPLATE			ABANDON ITEM		A			
SIGNAL HEAD OPTICALLY PROGRAMMED			CONTROLLER CABINET AND FOUNDATION TO BE REMOVED		RCF			
FLASHER INSTALLATION -(FS) SOLAR POWERED	 	 	MAST ARM POLE AND FOUNDATION TO BE REMOVED		RMF			
PEDESTRIAN SIGNAL HEAD			SIGNAL POST AND FOUNDATION TO BE REMOVED		RPF			
PEDESTRIAN PUSH BUTTON -(APS) ACCESSIBLE PEDESTRIAN PUSH BUTTON	 	 	DETECTOR LOOP, TYPE I					
RADAR DETECTION SENSOR			PREFORMED DETECTOR LOOP					
VIDEO DETECTION CAMERA			SAMPLING (SYSTEM) DETECTOR					
RADAR/VIDEO DETECTION ZONE			INTERSECTION AND SAMPLING (SYSTEM) DETECTOR					
PAN, TILT, ZOOM (PTZ) CAMERA			QUEUE AND SAMPLING (SYSTEM) DETECTOR					
EMERGENCY VEHICLE LIGHT DETECTOR			WIRELESS DETECTOR SENSOR					
CONFIRMATION BEACON			WIRELESS ACCESS POINT					
WIRELESS INTERCONNECT								
WIRELESS INTERCONNECT RADIO REPEATER								

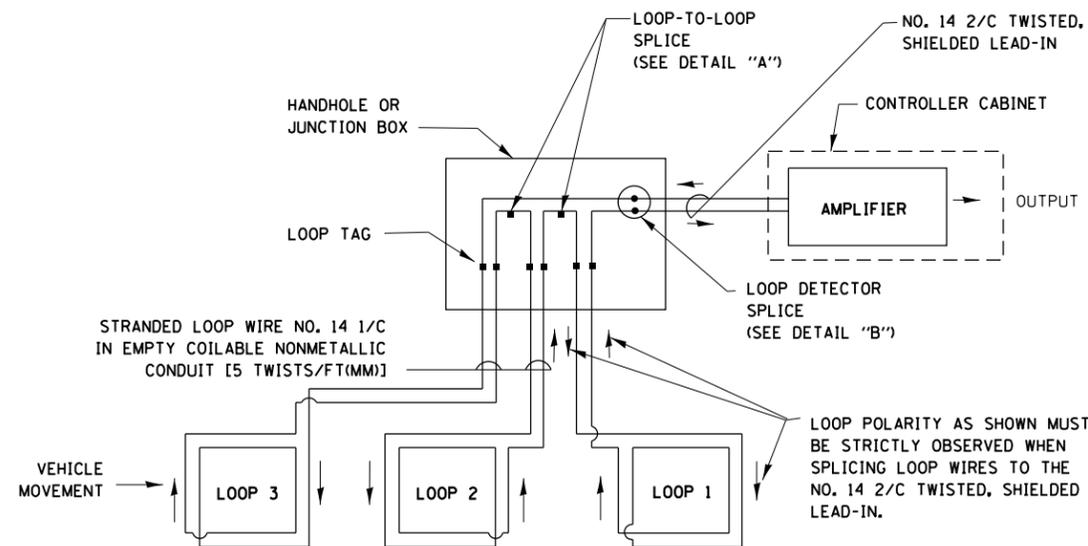
**LOOP DETECTOR NOTES**

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

**LOOP LEAD-IN CABLE TAG**

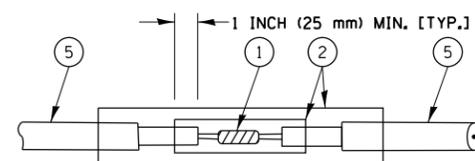


- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

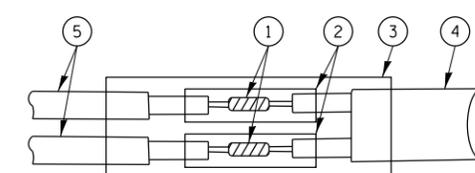


**DETECTOR LOOP WIRING SCHEMATIC**

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

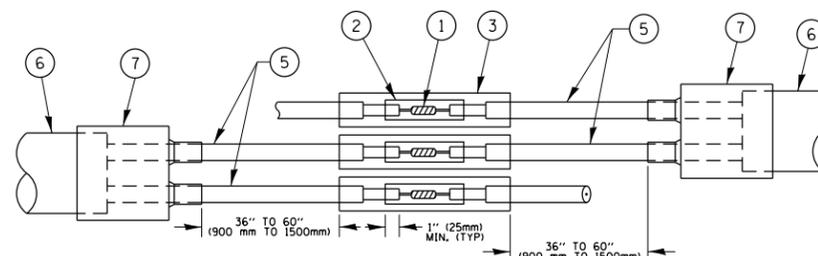


DETAIL "A"  
LOOP-TO-LOOP SPLICE

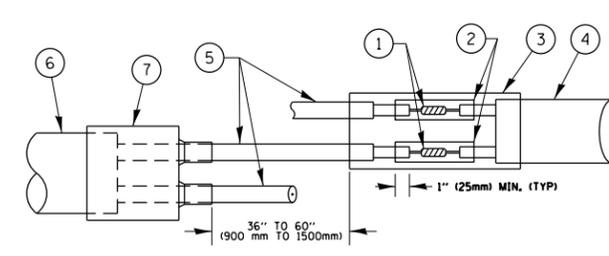


DETAIL "B"  
LOOP-TO-CONTROLLER SPLICE

**TYPE I LOOP**



DETAIL "A"  
LOOP-TO-LOOP SPLICE



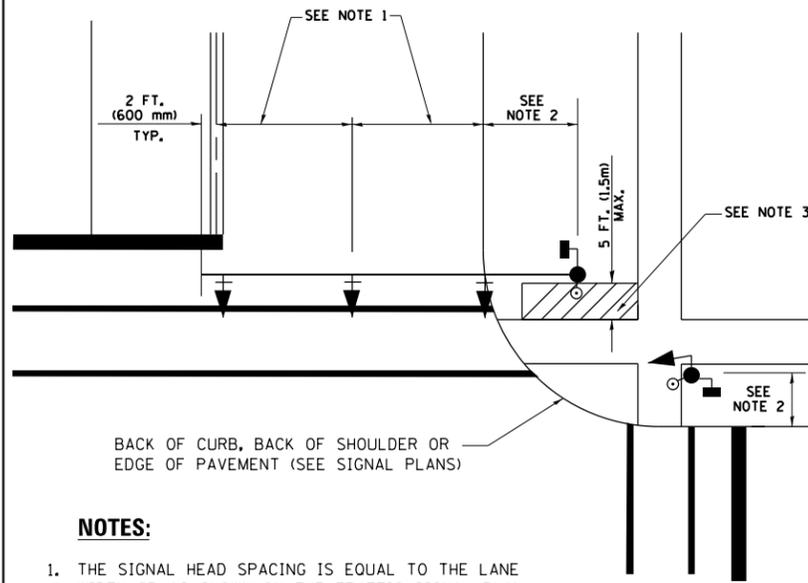
DETAIL "B"  
LOOP-TO-CONTROLLER SPLICE

**PRE-FORMED LOOP**

**LOOP DETECTOR SPLICE**

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

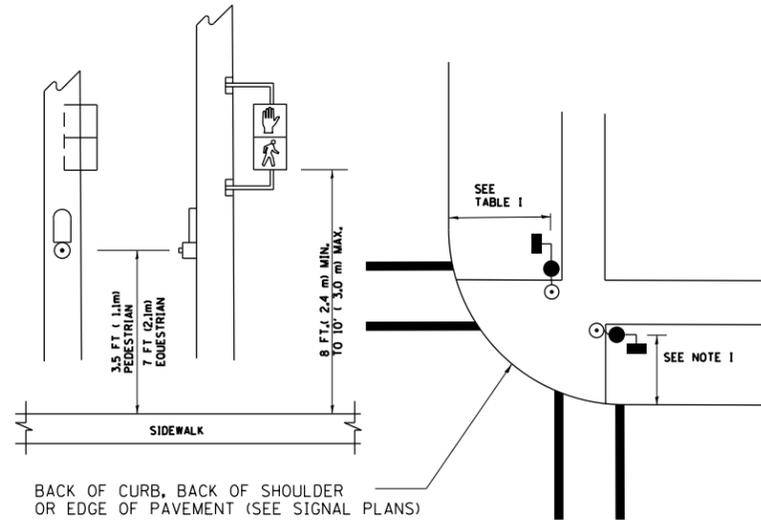
**TRAFFIC SIGNAL MAST ARM AND SIGNAL POST  
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR  
FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN  
WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.**



**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."

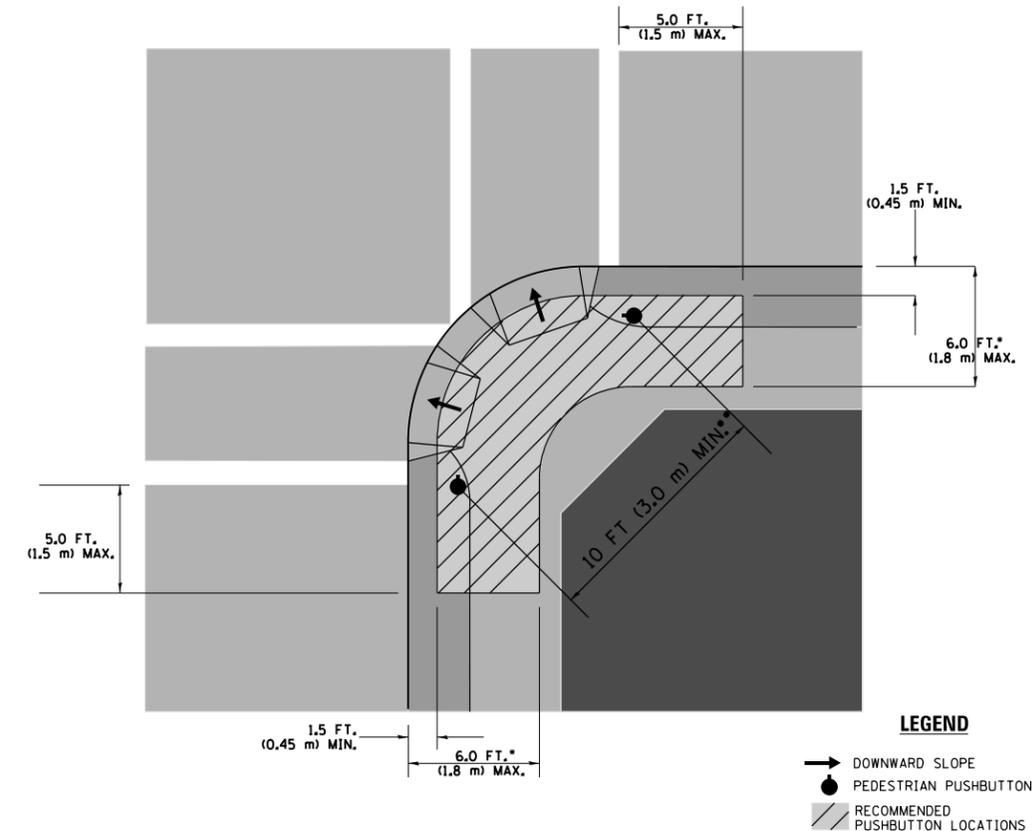
**PEDESTRIAN SIGNAL POST  
AND  
PEDESTRIAN PUSH BUTTON POST**



**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.

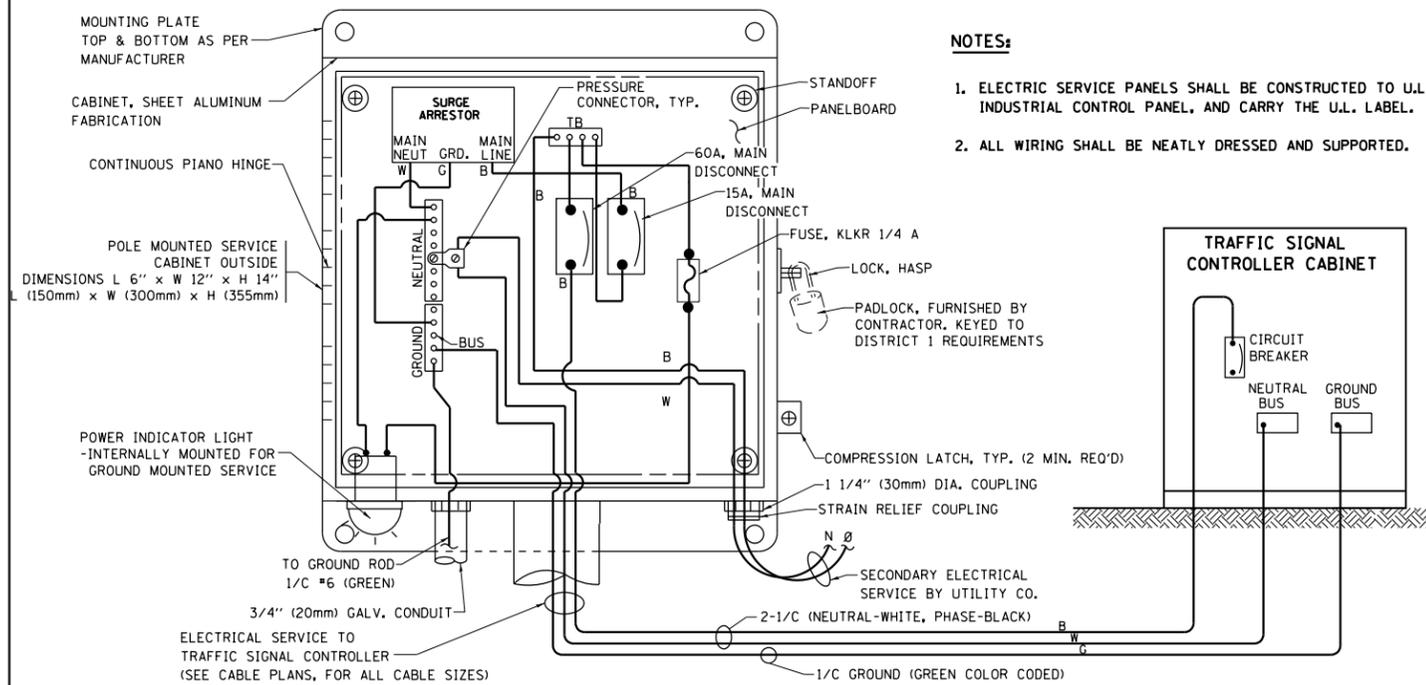
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

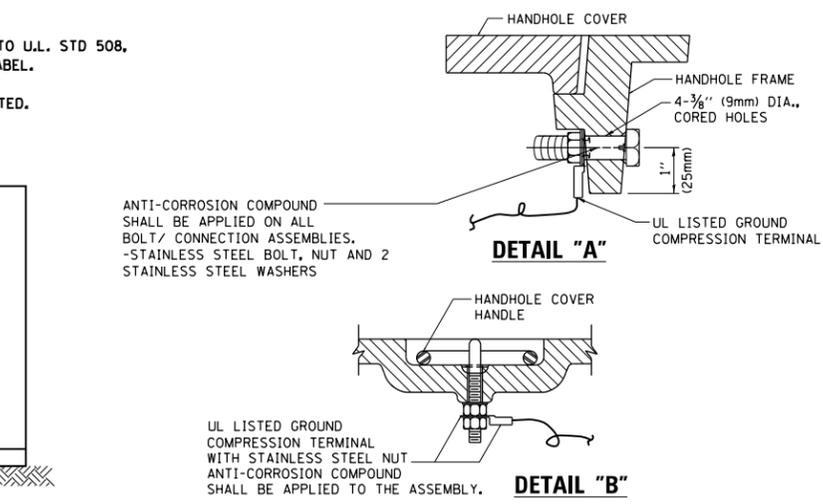
**DISTRICT ONE  
STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

SCALE: NONE SHEET 3 OF 7 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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	<b>TS-05</b>	<b>CONTRACT NO. 62D44</b>		
ILLINOIS FED. AID PROJECT				

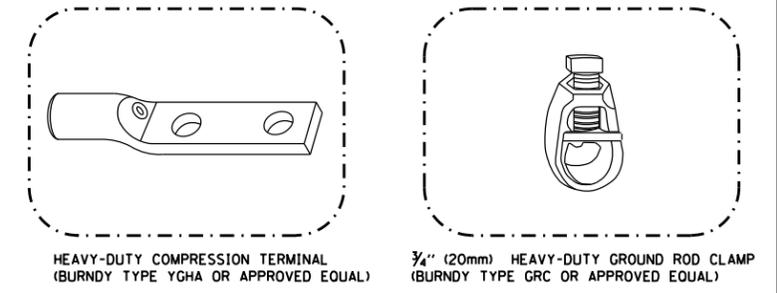
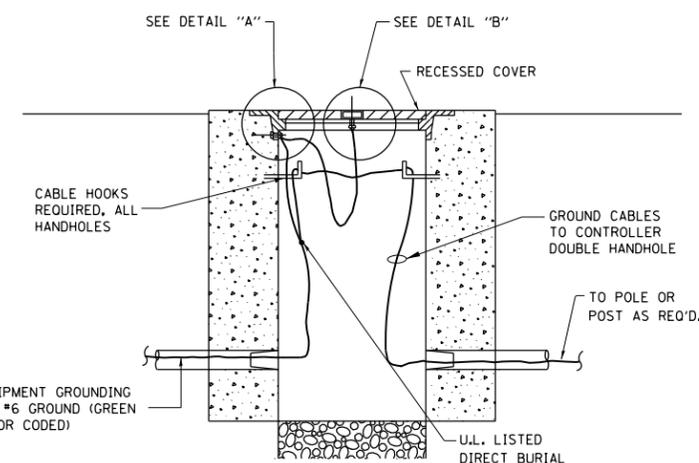


**ELECTRICAL SERVICE - PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)**  
**SERVICE INSTALLATION POLE MOUNT (SHOWN)**  
 (NOT TO SCALE)

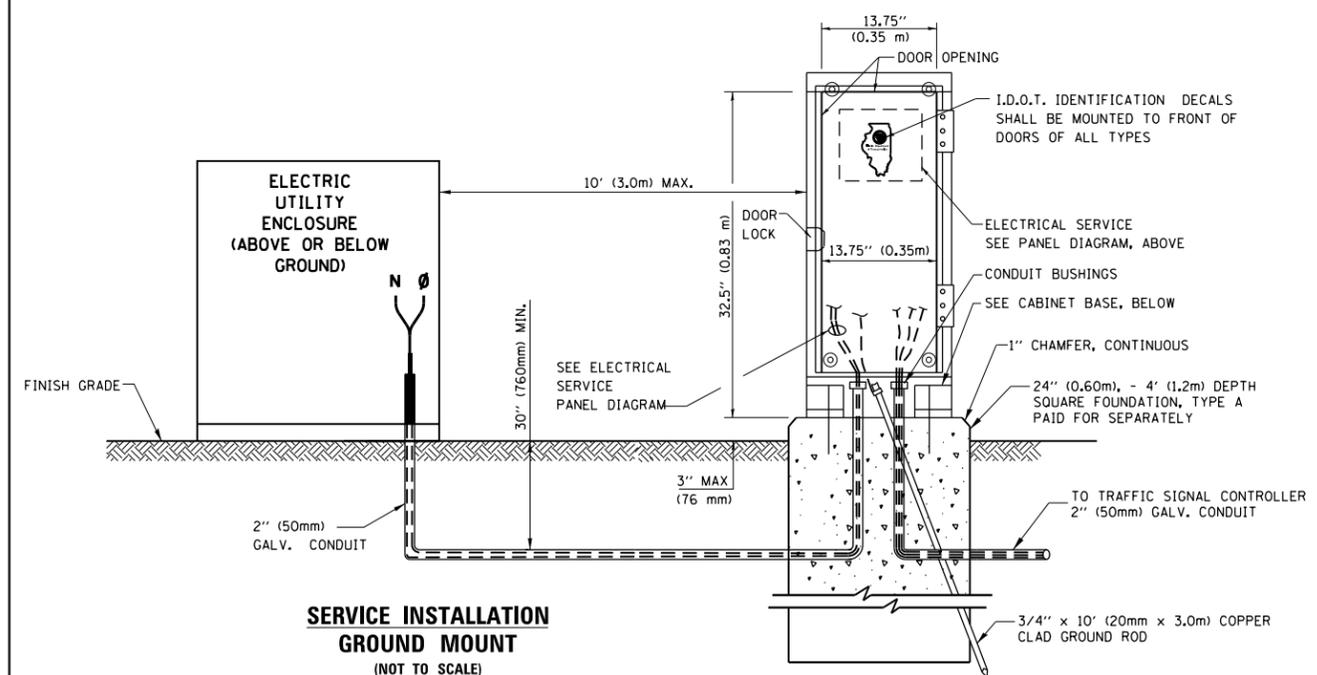
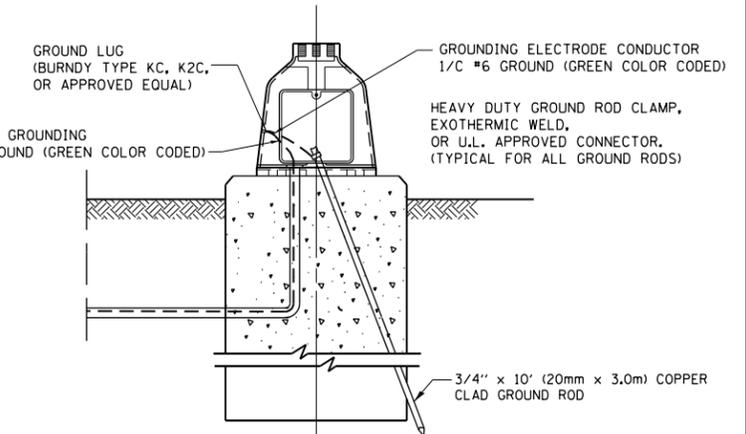
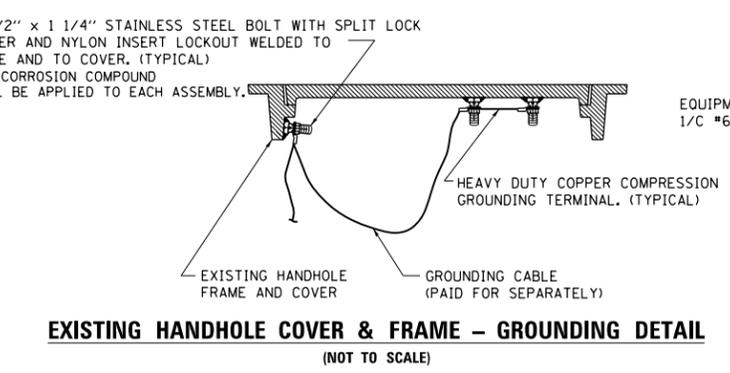


**NOTES:**  
**GROUNDING SYSTEM**

- 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 ENCLOSED. 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.
- 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.
- ALL EQUIPMENT GROUNDING CONDUCTORS SHALL TERMINATE AT THE GROUND BUS IN THE CONTROLLER CABINET.
- THE CONTRACTOR SHALL PROVIDE A GROUND CABLE WITH CONNECTORS BETWEEN THE HANDHOLE COVER AND HANDHOLE FRAME.

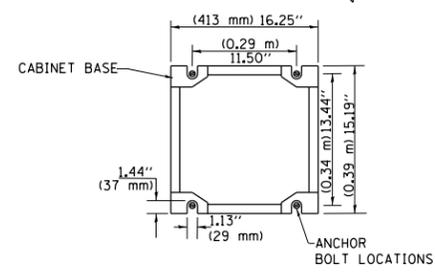


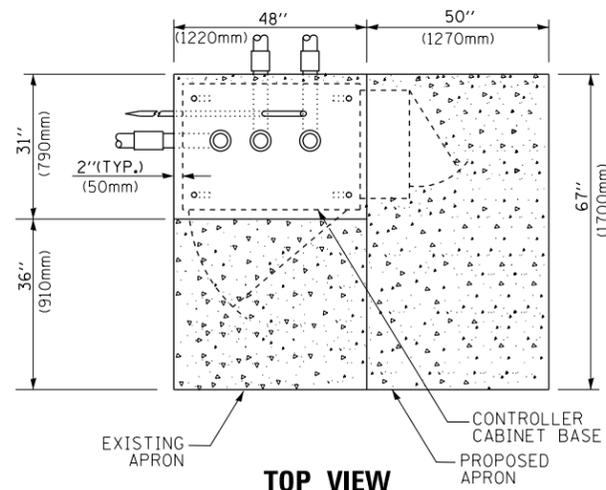
- NOTES:**
- ALL CLAMPS SHALL BE BRONZE OR COPPER, UL APPROVED.
  - GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES 6.5' (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES 13' (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES. 5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME AND COVER.



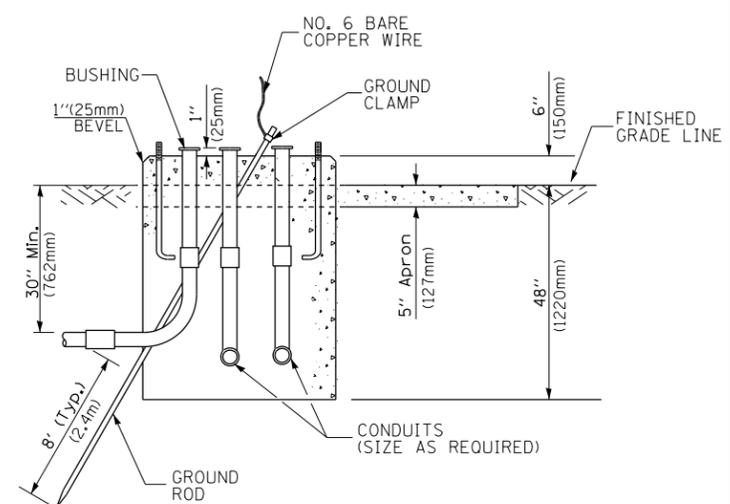
**SERVICE INSTALLATION GROUND MOUNT**  
 (NOT TO SCALE)

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

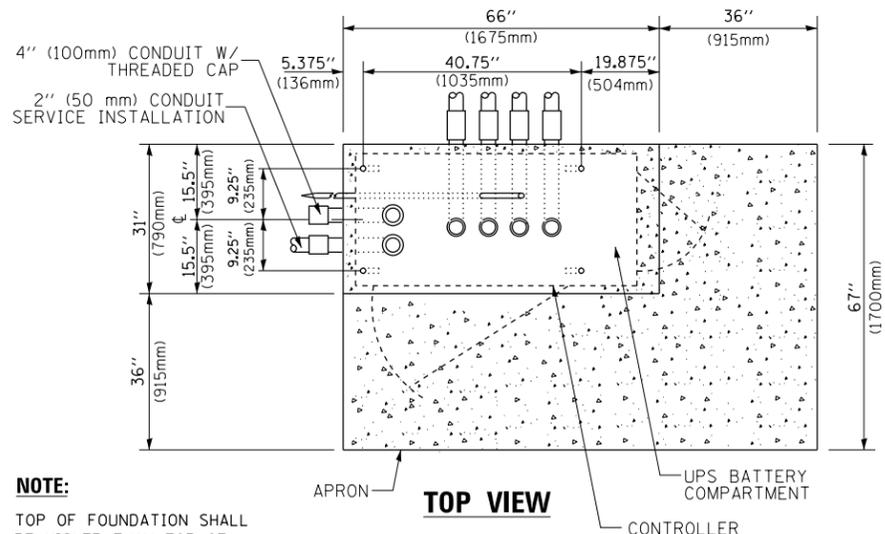




**TOP VIEW**

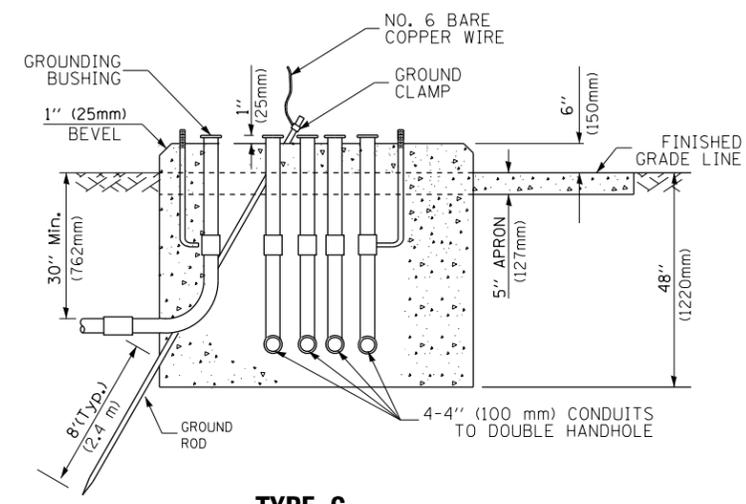


**TYPE D  
FOR GROUND MOUNTED  
CONTROLLER CABINET  
AND UPS BATTERY CABINET**

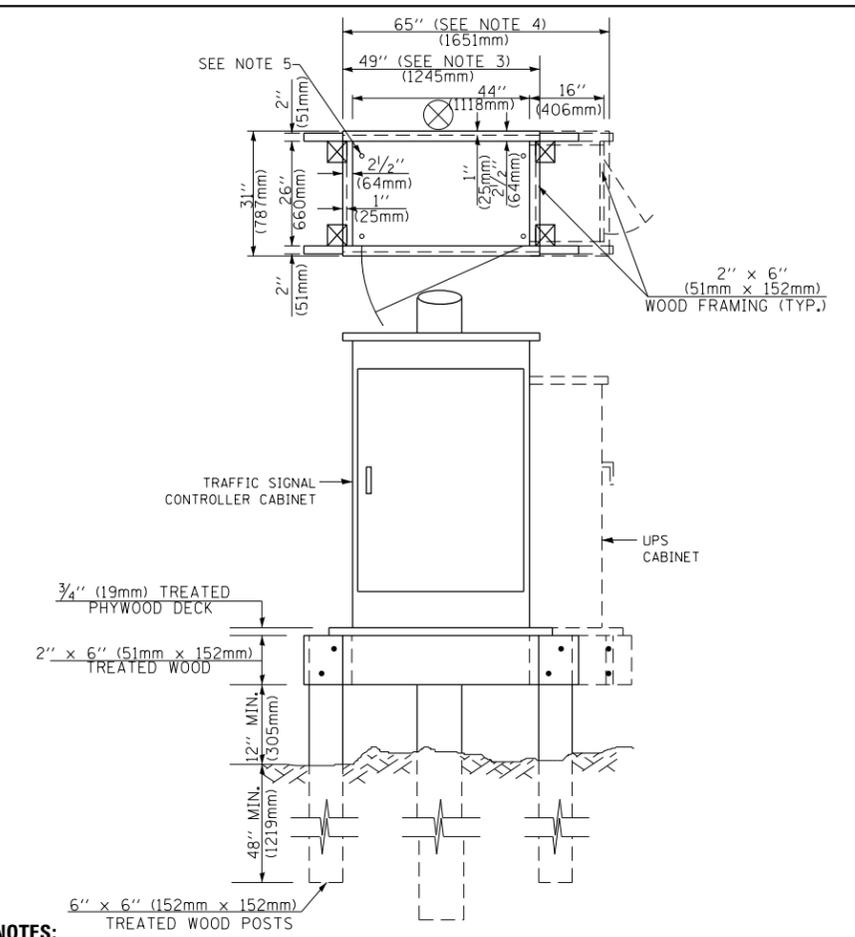


**TOP VIEW**

**NOTE:**  
TOP OF FOUNDATION SHALL BE HIGHER THAN TOP OF DOUBLE HANDHOLE



**TYPE C  
FOR GROUND MOUNTED  
SUPER P (TYPE IV) AND SUPER R (TYPE V)  
CONTROLLER CABINETS**



**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.

**TEMPORARY SIGNAL CONTROLLER  
WOOD SUPPORT PLATFORM**

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)

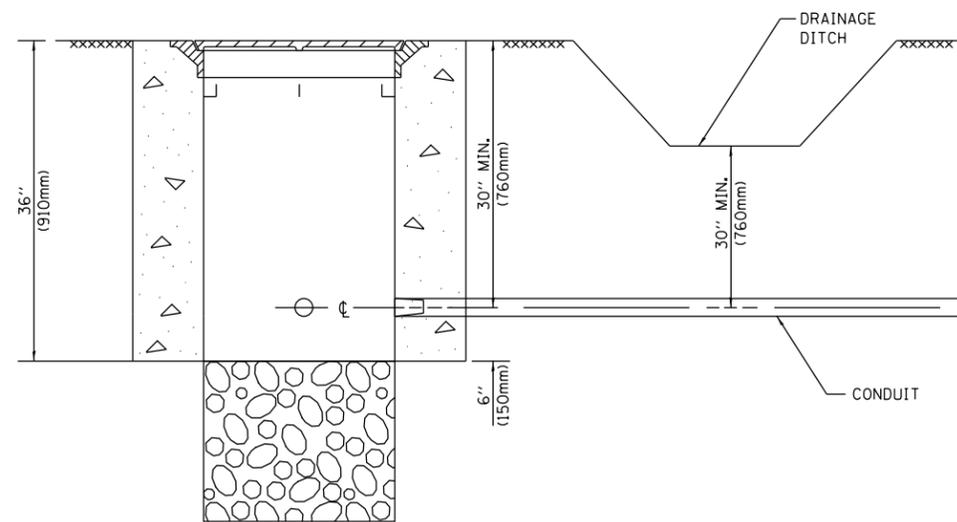
**DEPTH OF FOUNDATION**

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)
Greater than or equal to 40' (12.2 m) and less than 50' (15.2 m)	11'-0" (3.4 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 50' (15.2 m) and up to 55' (16.8 m)	13'-0" (4.0 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 55' (16.8 m) and less than 65' (19.8 m)	15'-0" (4.6 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 65' (19.8 m) and up to 75' (22.9 m)	21'-0" (6.4 m)	42" (1060mm)	36" (900mm)	16	8(25)
Greater than or equal to 75' (22.9 m) and up to 85' (25.9 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..

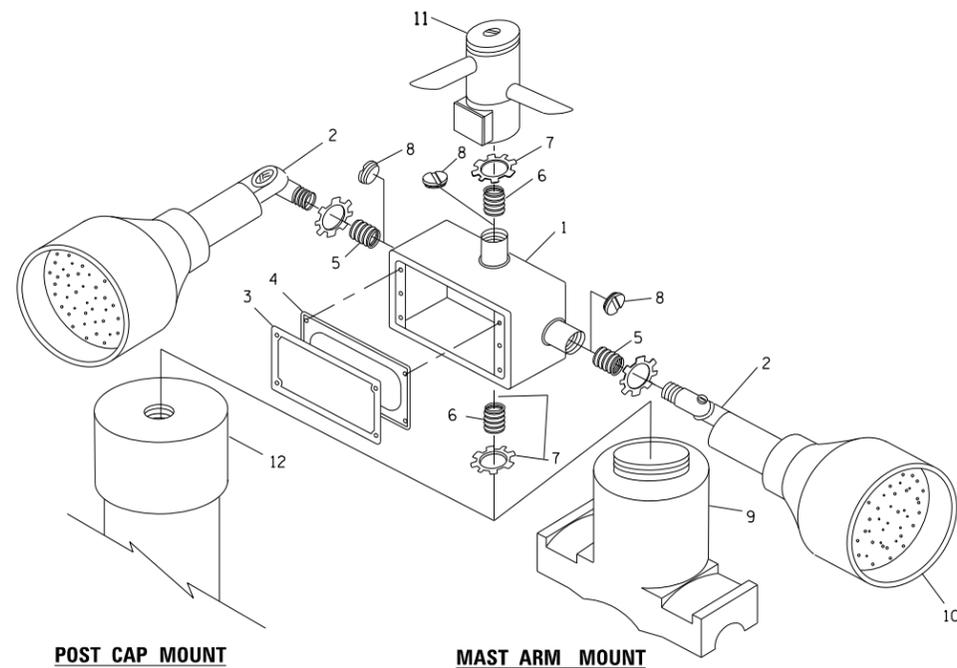
**DEPTH OF MAST ARM FOUNDATIONS, TYPE E**



**NOTES:**

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

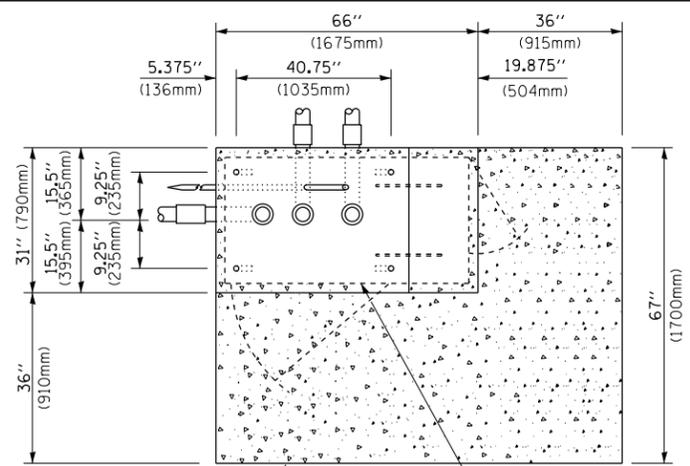
**HANDHOLE WITH MINIMUM CONDUIT DEPTH**  
(NOT TO SCALE)



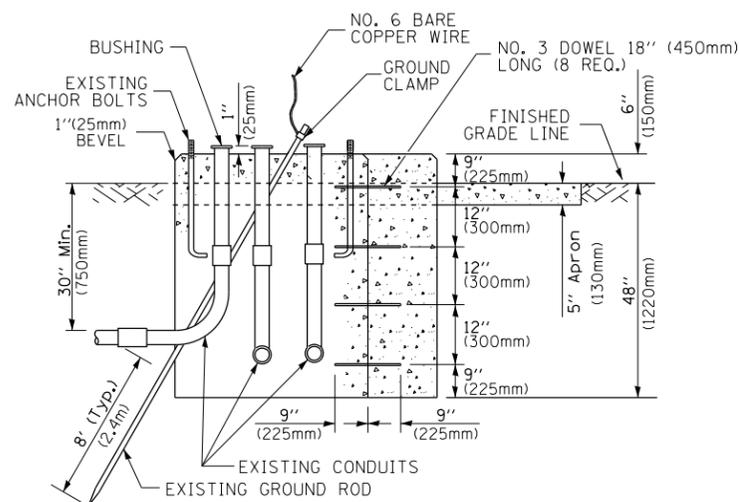
**POST CAP MOUNT**

**MAST ARM MOUNT**

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



**TOP VIEW**  
(NOT TO SCALE)

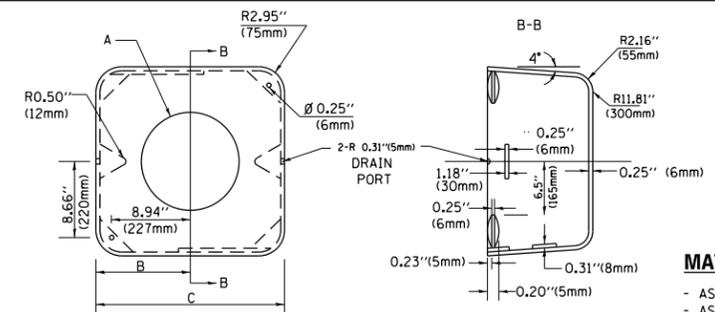


**MODIFY EXISTING TYPE "D" FOUNDATION TO TYPE "C" FOUNDATION**  
(NOT TO SCALE)

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

**NOTES:**

- 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.



**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)

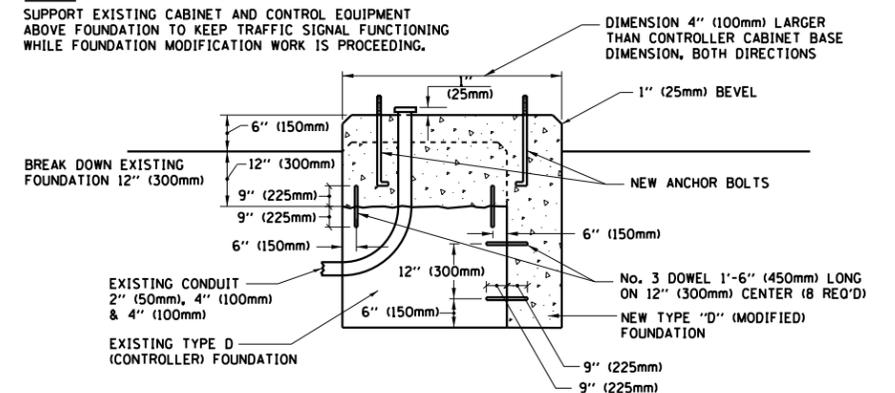
**SHROUD**

**NOTES:**

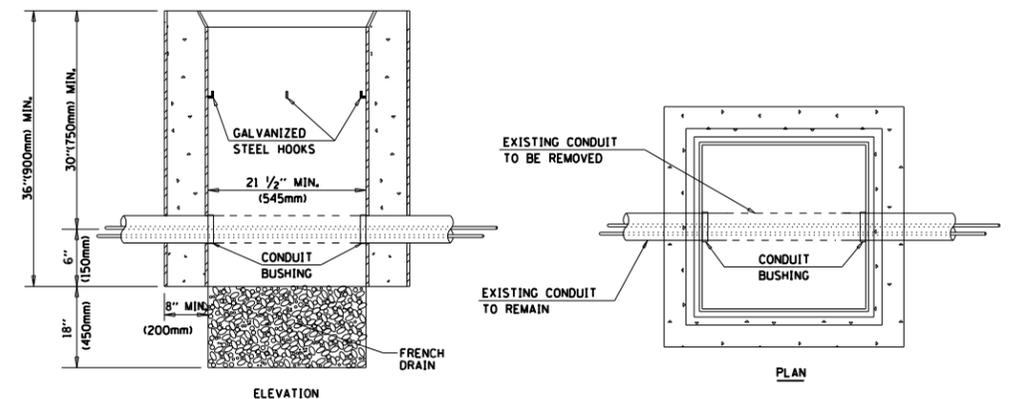
- DIMENSION "A" IS EQUAL TO THE DIAMETER OF THE MAST ARM POLE AT THE TOP OF THE SHROUD. THE SHROUD SHALL BE TIGHT TO THE MAST ARM POLE.
- THE SUPPLIER SHALL VERIFY THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
- THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST ARM POLE BASE.

**NOTE:**

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



**MODIFY EXISTING TYPE "D" FOUNDATION**



**NOTES:**

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

**HANDHOLE TO INTERCEPT EXISTING CONDUIT**

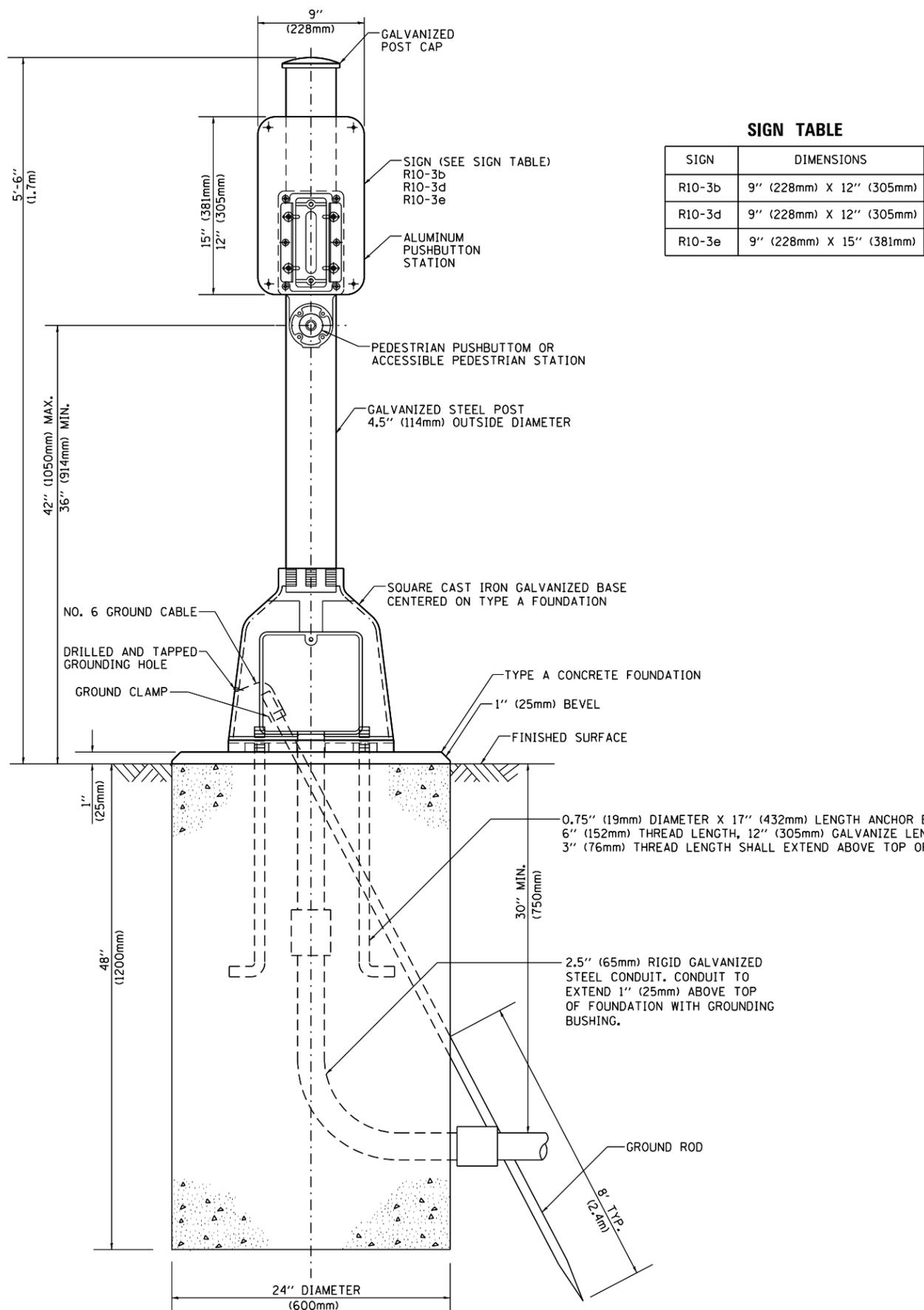
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**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**DISTRICT ONE**  
**STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

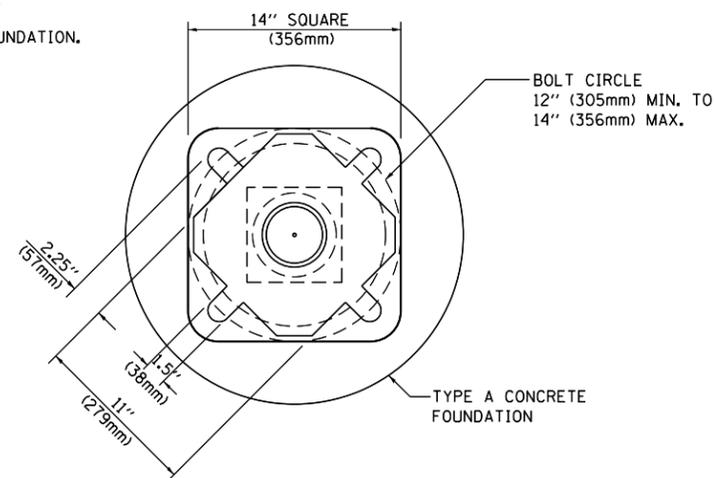
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2016-056TS	VARIOUS	55	16
	TS-05	CONTRACT NO.	62D44	
ILLINOIS FED. AID PROJECT				



**SIGN TABLE**

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



**BOLT PATTERN**

**PEDESTRIAN PUSH BUTTON POST, TYPE A**

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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**DISTRICT ONE  
STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

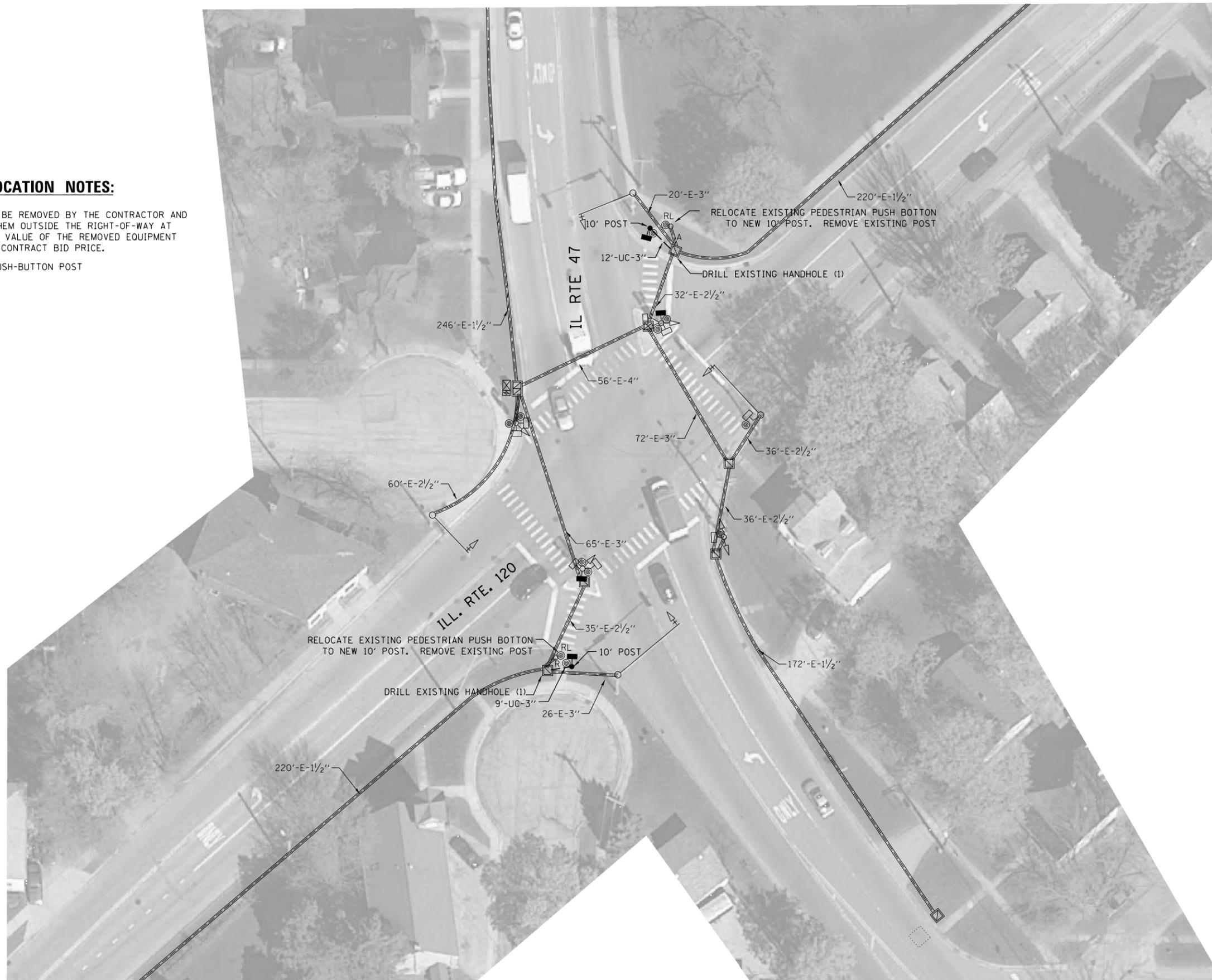
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2016-056TS	VARIOUS	55	17
	<b>TS-05</b>		<b>CONTRACT NO. 62D44</b>	
ILLINOIS FED. AID PROJECT				

**REMOVAL AND RELOCATION NOTES:**

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.

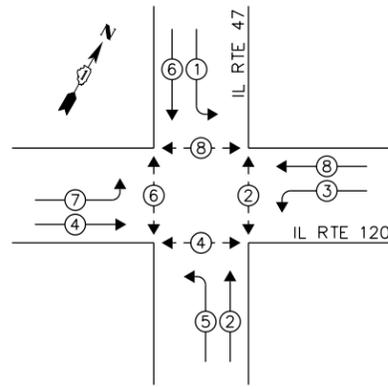
2 EACH PEDESTRIAN PUSH-BUTTON POST



TS# 15088  
WOODSTOCK

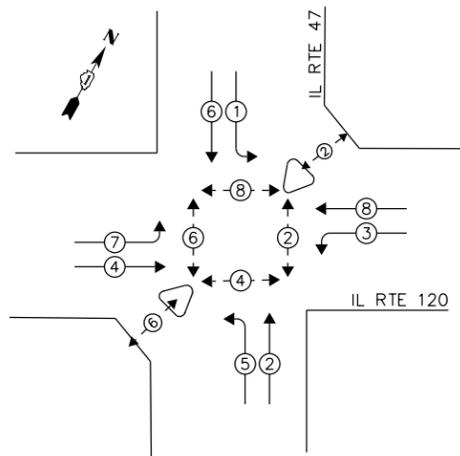
FILE NAME =	USER NAME = pociechal	DESIGNED - JC	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>TRAFFIC SIGNAL MODERNIZATION IL 47 AT IL 120</b>				F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
p:\IL\084EBIDINTEG\illinois.gov\PWIDOT\Documents\IDOT Offices\District 1\Projects\102317\Traffic\102317-sht-tsl.dgn		DRAWN -	REVISED -		SCALE:	SHEET	OF	SHEETS	STA.	TO	STA.	2016-056TS	55	18
Default		PLOT SCALE = 40.0000' / in.	CHECKED - LP / ZJ		REVISED -	CONTRACT NO. 62D44								
		PLOT DATE = 3/23/2017	DATE - 03/24/2017		REVISED -	ILLINOIS FED. AID PROJECT								

EXISTING CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM

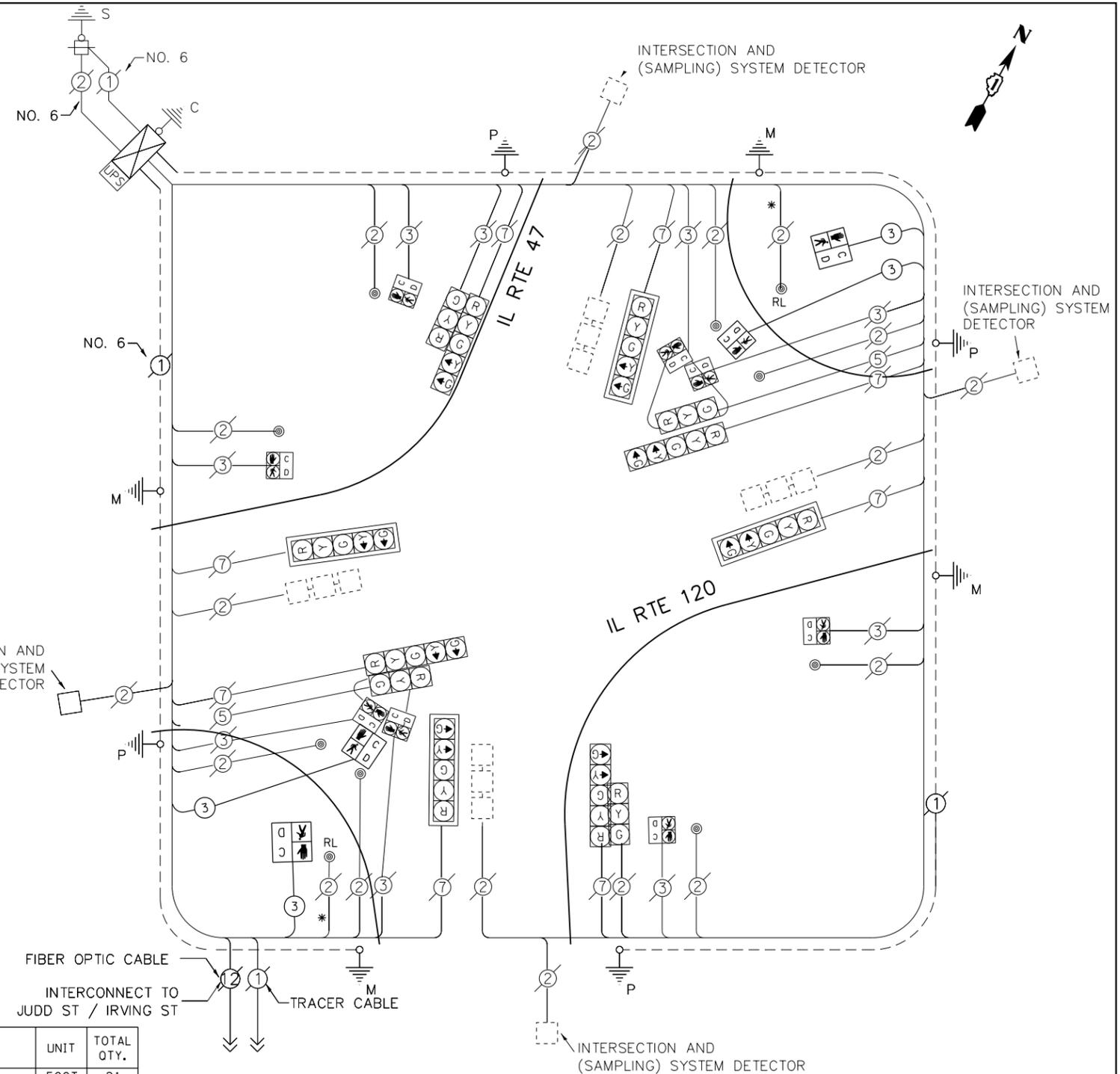
PROPOSED CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM

LEGEND

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



CABLE PLAN

NOTES:

- \* CONTRACTOR SHALL REMOVE EXISTING ELECTRICAL CABLE TO THE NEAREST HANDHOLE AND REINSTALL THE CABLE AT THE NEW PEDESTRIAN PUSH BUTTON LOCATION.

TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	12	11	50	66
(YELLOW)	12	20	5	12
(GREEN)	12	12	45	64.8
PERMISSIVE ARROW	16	10	10	16
PED. SIGNAL	12	20	100	240
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	-	150	100	-
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	-	-	-	-
TOTAL =				523.8

ENERGY COSTS TO:

CITY OF WOODSTOCK  
121 WEST COLHOUN ST  
WOODSTOCK, IL 60098

ENERGY SUPPLY: CONTACT: MIKE LENOX  
PHONE: 815-490-2869  
COMPANY: COMMONWEALTH EDISON  
ACCOUNT NUMBER: ---

SCHEDULE OF QUANTITIES

ITEM DESCRIPTION	UNIT	TOTAL QTY.
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	21
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	535
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	45
TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.	EACH	2
CONCRETE FOUNDATION, TYPE A	FOOT	8
DRILL EXISTING HANDHOLE	EACH	2
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4
RELOCATE EXISTING PEDESTRIAN PUSH-BUTTON	EACH	2
MODIFY EXISTING CONTROLLER	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE AND REINSTALL ELECTRICAL CABLE FROM CONDUIT	FOOT	45
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	2
RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 1	EACH	1

FILE NAME =	USER NAME = pociechal
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	CHECKED - LP / ZJ
	DATE - 03/24/2017
	REVISOR -

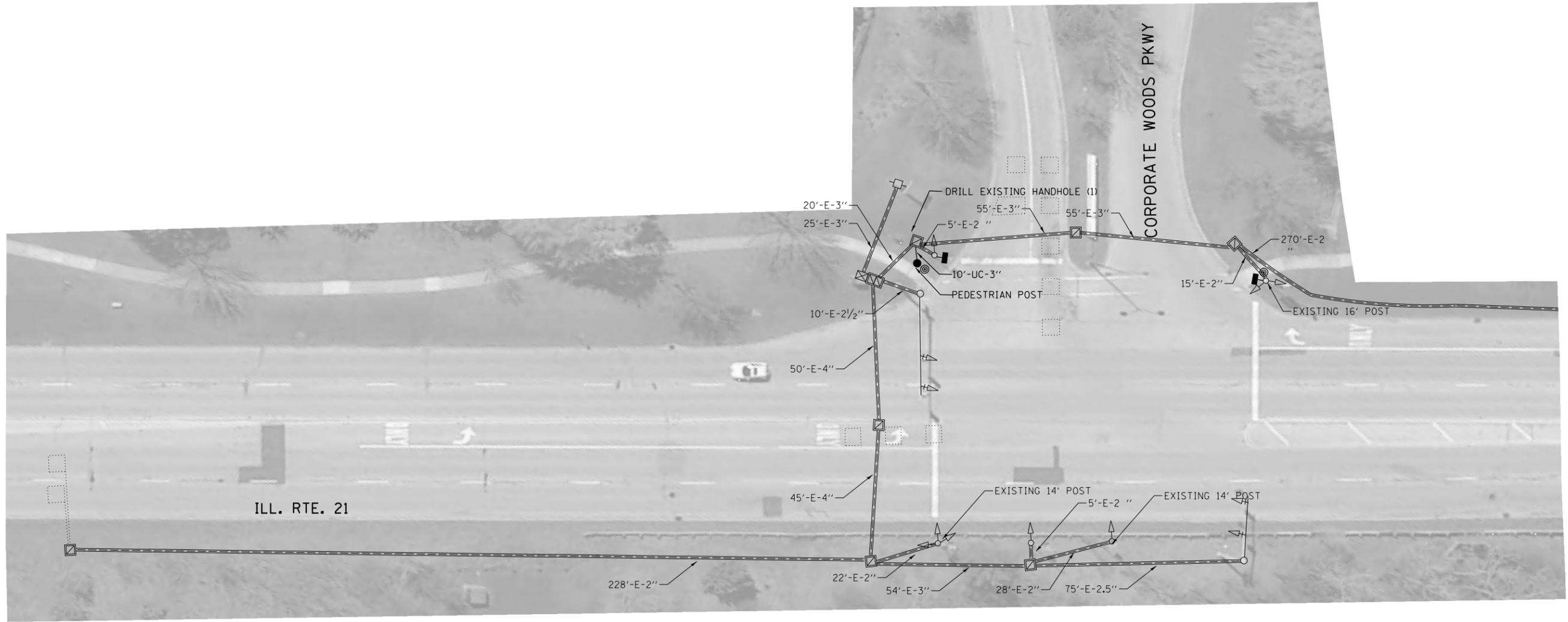
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM  
IL 47 AT IL 120

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 62D44				
ILLINOIS FED. AID PROJECT				

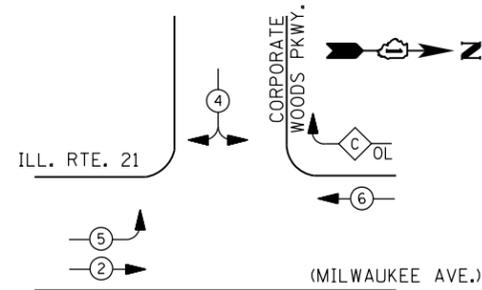
TS# 15088  
WOODSTOCK



TS# 21410  
VERNON HILLS

FILE NAME =	USER NAME = poc1echal	DESIGNED - JC	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>TRAFFIC SIGNAL MODERNIZATION IL 21 (MILWAUKEE AVE) AT CORPORATE WOODS PKWY</b>	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
pw:\IL\084EBIDINTEG.illinois.gov\PIWIDOT\Documents\IDOT Offices\District 1\Projects\DI0230\Drawings\Traffic\102317-sht-tsl.dgn		CHECKED - LP / ZJ	REVISED -			2016-056TS	VARIOUS	55	20	
Default	PLOT SCALE = 40.0000' / in.	DATE - 03/24/2017	REVISED -			CONTRACT NO. 62D44		ILLINOIS FED. AID PROJECT		
	PLOT DATE = 3/23/2017					SCALE:	SHEET	OF	SHEETS	STA.

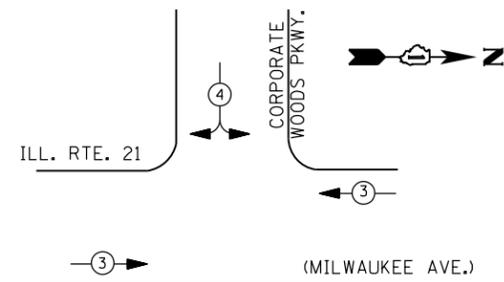
**EXISTING CONTROLLER SEQUENCE**



**RIGHT TURN OVERLAP PHASE DESIGNATION**

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
C	= 6	+ 4

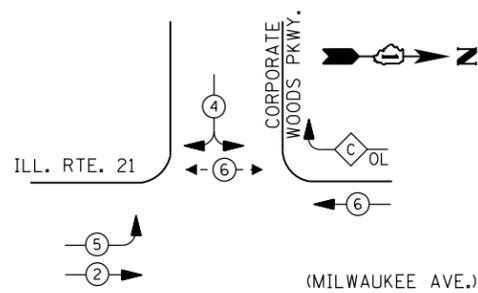
**PHASE DESIGNATION DIAGRAM**



**LEGEND**

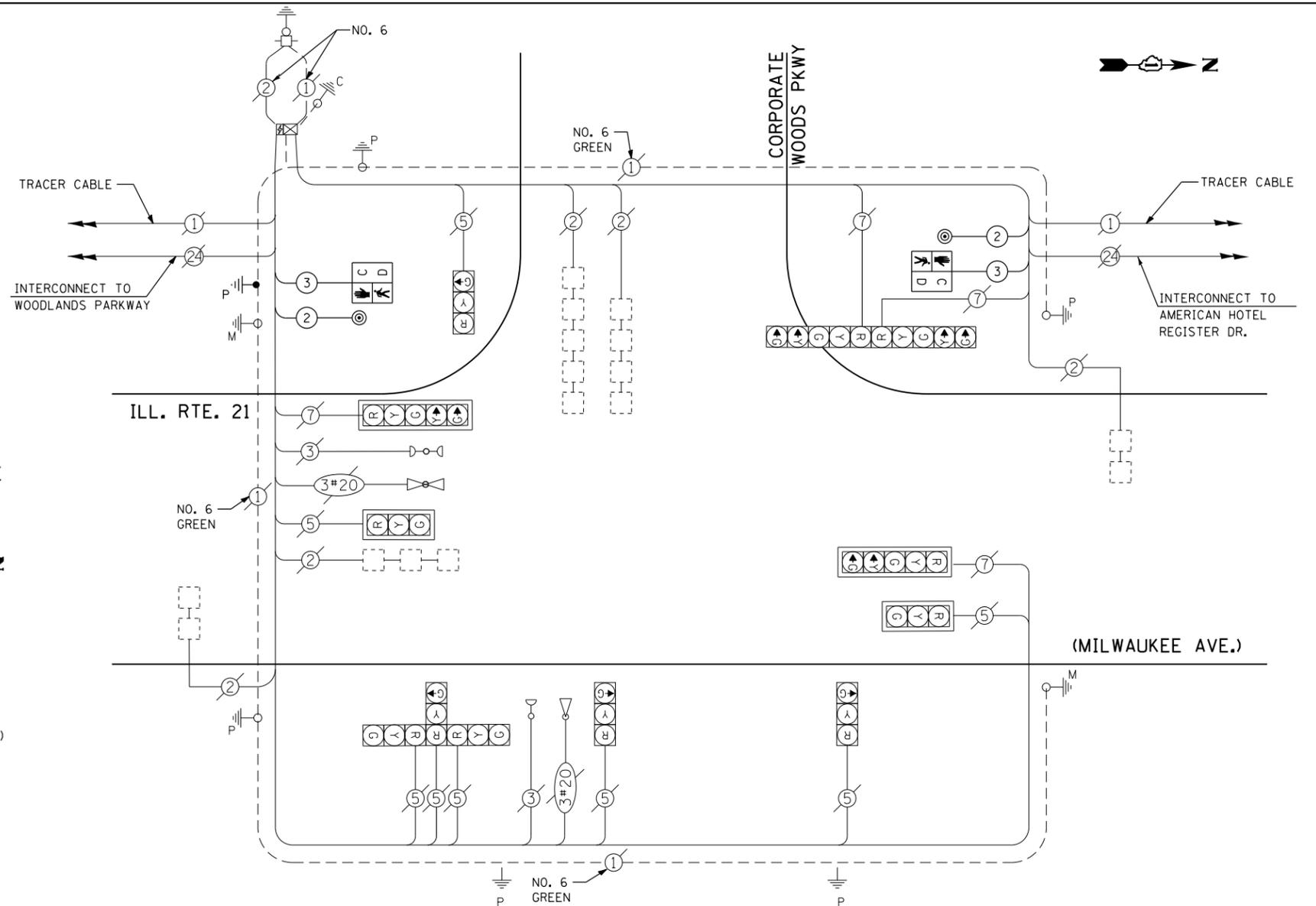
- DUAL ENTRY PHASE
- PEDESTRIAN PHASE
- SINGLE ENTRY PHASE
- OVERLAP
- NUMBER REFERS TO ASSOCIATED PHASE

**PROPOSED CONTROLLER SEQUENCE**



**RIGHT TURN OVERLAP PHASE DESIGNATION**

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
C	= 6	+ 4



**CABLE PLAN**

**TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS**

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	12	11	50	66.0
(YELLOW)	12	20	5	12.0
(GREEN)	12	12	45	64.8
PERMISSIVE ARROW	8	10	10	8.0
PED. SIGNAL	2	20	100	40.0
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	-	150	100	-
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	-	-	-	-
TOTAL =				315.8

ENERGY COSTS TO:

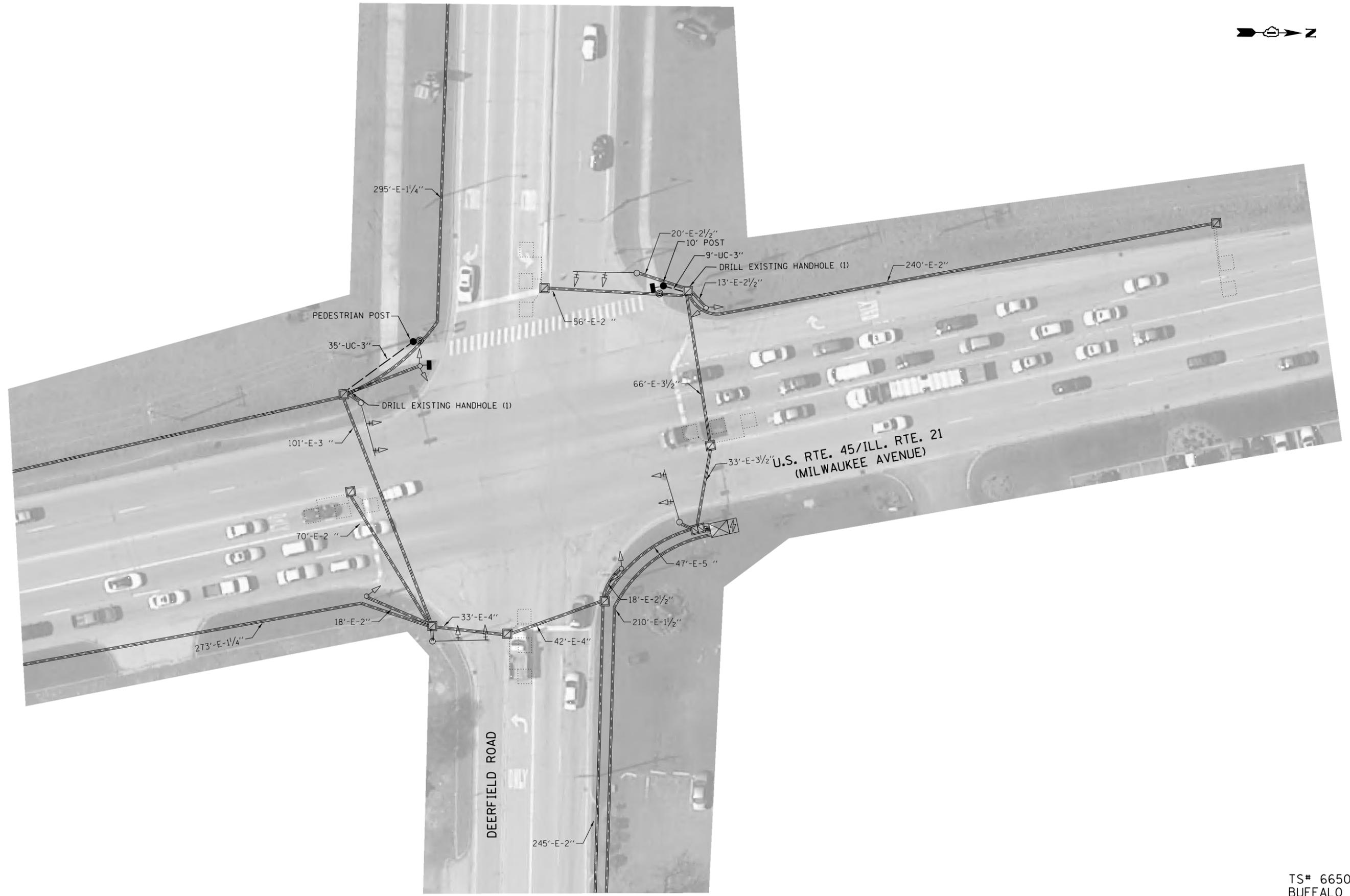
VILLAGE OF VERNON HILLS  
290 EVERGREEN DRIVE  
VERNON HILLS, IL 60061

ENERGY SUPPLY: CONTACT: TERRI BLECK  
PHONE: 847-816-5239  
COMPANY: COMMONWEALTH EDISON  
ACCOUNT NUMBER: ---

**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNIT	TOTAL QTY.
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	10
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	270
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	280
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	20
CONCRETE FOUNDATION, TYPE A	FOOT	4
DRILL EXISTING HANDHOLE	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
PEDESTRIAN PUSH-BUTTON	EACH	2
MODIFY EXISTING CONTROLLER	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
PEDESTRIAN PUSH-BUTTON POST, TYPE A	EACH	1
RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 1	EACH	1

TS# 21410  
VERNON HILLS



TS# 6650  
BUFFALO GROVE

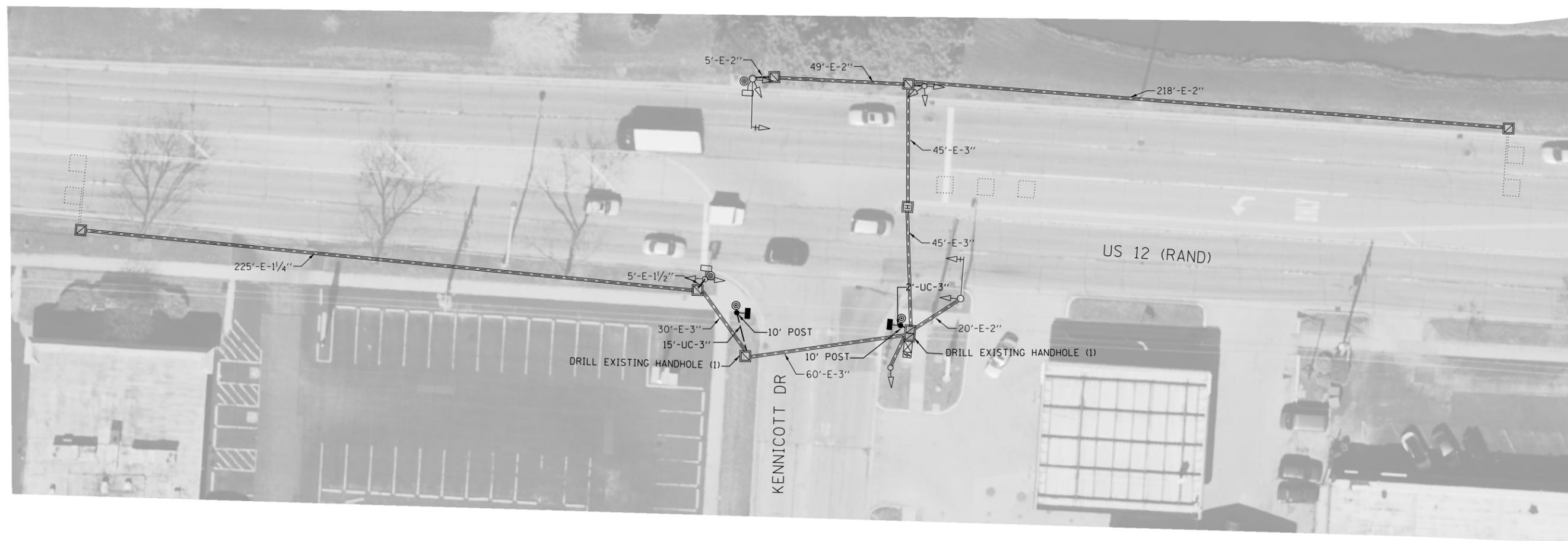
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Default	PLOT SCALE = 40.0000' / in.	CHECKED - LP / ZJ	REVISED -
	PLOT DATE = 3/23/2017	DATE - 03/24/2017	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

TRAFFIC SIGNAL MODERNIZATION			
IL 21 (MILWAUKEE AVE) AT DEERFIELD PKWY			
SCALE:	SHEET	OF SHEETS	STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2016-056TS	VARIOUS	55	22
CONTRACT NO. 62D44			ILLINOIS FED. AID PROJECT	





TS# 405  
ARLINGTON HEIGHTS

FILE NAME =	USER NAME = poc1echal	DESIGNED - JC	REVISED -
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	PLOT DATE = 3/23/2017	DATE - 03/24/2017	REVISED -

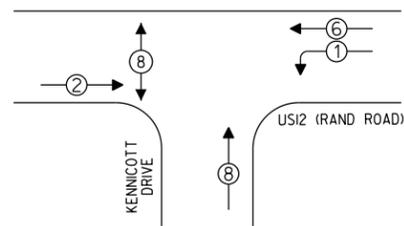
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL MODERNIZATION  
US 12 (RAND RD) AT KENNICOTT DR**

SCALE: SHEET OF SHEETS STA. TO STA.

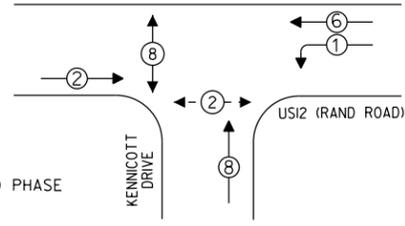
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2016-056TS	VARIOUS	55	24
CONTRACT NO. 62D44				
ILLINOIS FED. AID PROJECT				

EXISTING CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM

PROPOSED CONTROLLER SEQUENCE

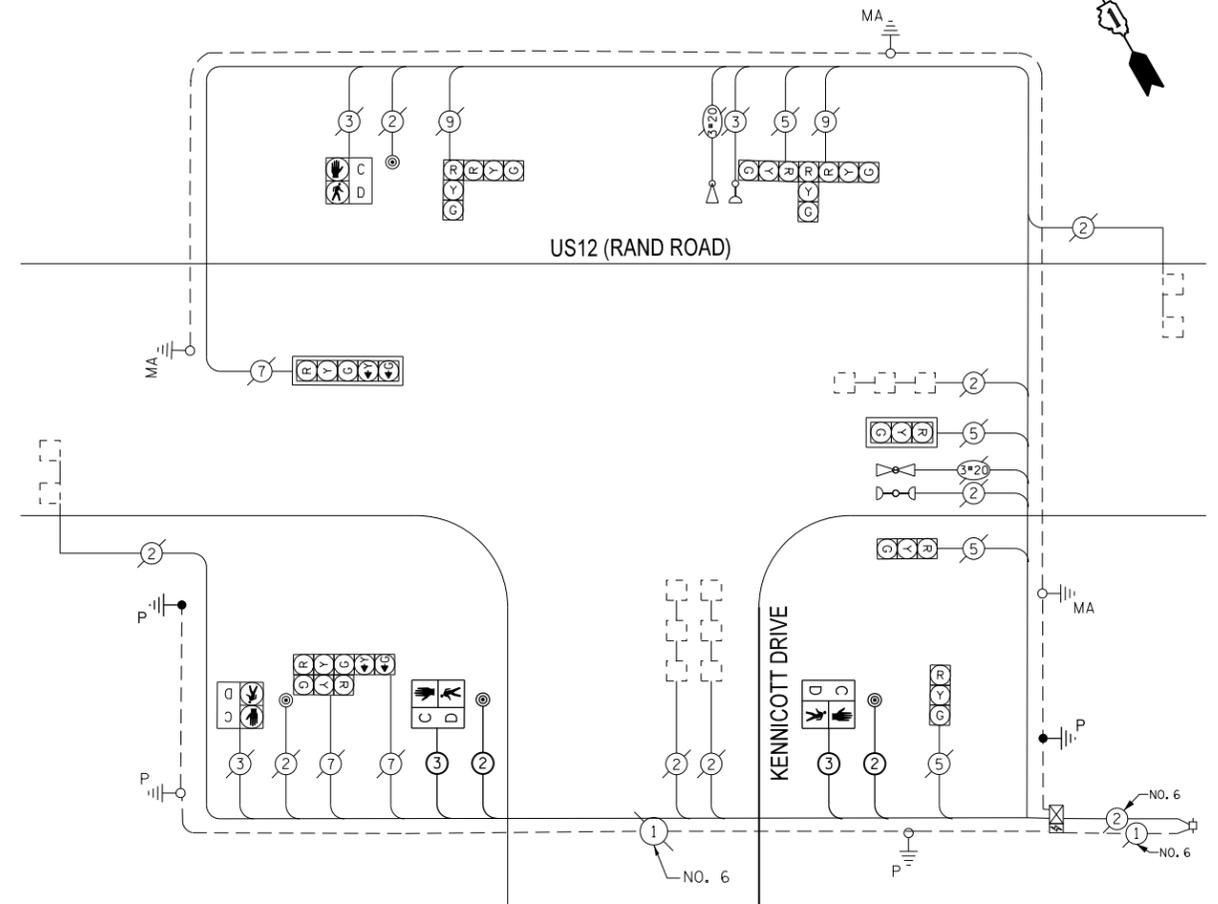
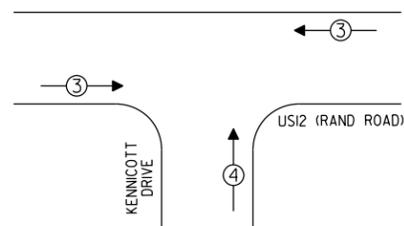


PHASE DESIGNATION DIAGRAM

LEGEND:

- ← \* → PROTECTED PHASE
- ← \* - - \* → PROTECTED/PERMITTED PHASE
- ← \* → PEDESTRIAN PHASE
- ← \* OL → OVERLAP

EMERGENCY VEHICLE PREEMPTION SEQUENCE



CABLE PLAN

SCHEDULE OF QUANTITIES

ITEM DESCRIPTION	UNIT	TOTAL QTY.
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	17
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	150
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	165
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	50
TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.	EACH	2
CONCRETE FOUNDATION, TYPE A	FOOT	8
DRILL EXISTING HANDHOLE	EACH	2
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
PEDESTRIAN PUSH-BUTTON	EACH	2
MODIFY EXISTING CONTROLLER	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 1	EACH	1

TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	11	11	50	60.5
(YELLOW)	11	20	5	11
(GREEN)	11	12	45	59.4
PERMISSIVE ARROW	4	10	10	4
PED. SIGNAL	4	20	100	80
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	-	150	100	-
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	-	-	-	-
TOTAL =				339.9

ENERGY COSTS TO:

VILLAGE OF ARLINGTON HEIGHTS  
33 SOUTH ARLINGTON HEIGHTS ROAD  
ARLINGTON HEIGHTS, ILLINOIS 60005

ENERGY SUPPLY: CONTACT: DAVE SCHACHT  
PHONE: 630-437-2129  
COMPANY: COMMONWEALTH EDISON  
ACCOUNT NUMBER: ---

FILE NAME =	USER NAME = pociechal
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Default	REVISOR - LP / ZJ
	CHECKED - LP / ZJ
	DATE - 03/24/2017
	REVISOR -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM  
AND EMERGENCY VEHICLE PREEMPTION SEQUENCE  
US 12 (RAND RD) AT KENNICOTT DR

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2016-056TS	VARIOUS	55	25
CONTRACT NO. 62D44				
ILLINOIS FED. AID PROJECT				

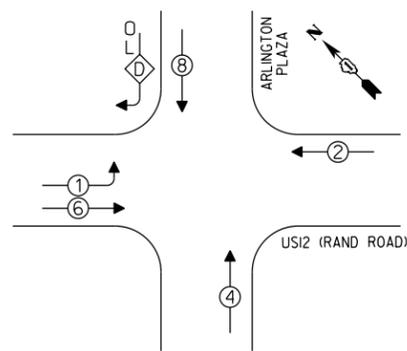
TS# 405  
ARLINGTON HEIGHTS



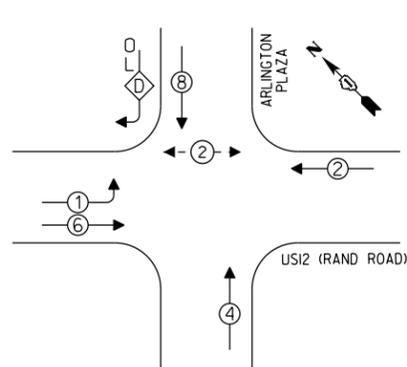
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ARLINGTON HEIGHTS

FILE NAME =	USER NAME = poc1echal	DESIGNED - JC	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>TRAFFIC SIGNAL MODERNIZATION US 12 (RAND RD) AT ARLINGTON PLAZA</b>				F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
p:\11\084EBIDINTEG.illinois.gov\PWIDOT\Documents\IDOT Offices\District 1\Projects\102317\Traffic\102317-sht-ts3.dgn		DRAWN	REVISED -		SCALE:	SHEET	OF	SHEETS	STA.	TO STA.	2016-056TS	VARIOUS	55	26
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	PLOT DATE = 3/23/2017	DATE - 03/24/2017	REVISED -						ILLINOIS FED. AID PROJECT					

EXISTING CONTROLLER SEQUENCE



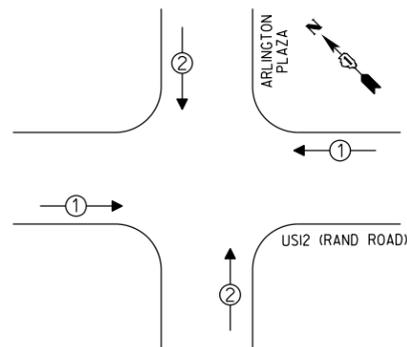
PROPOSED CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
D	= 8	+ 1

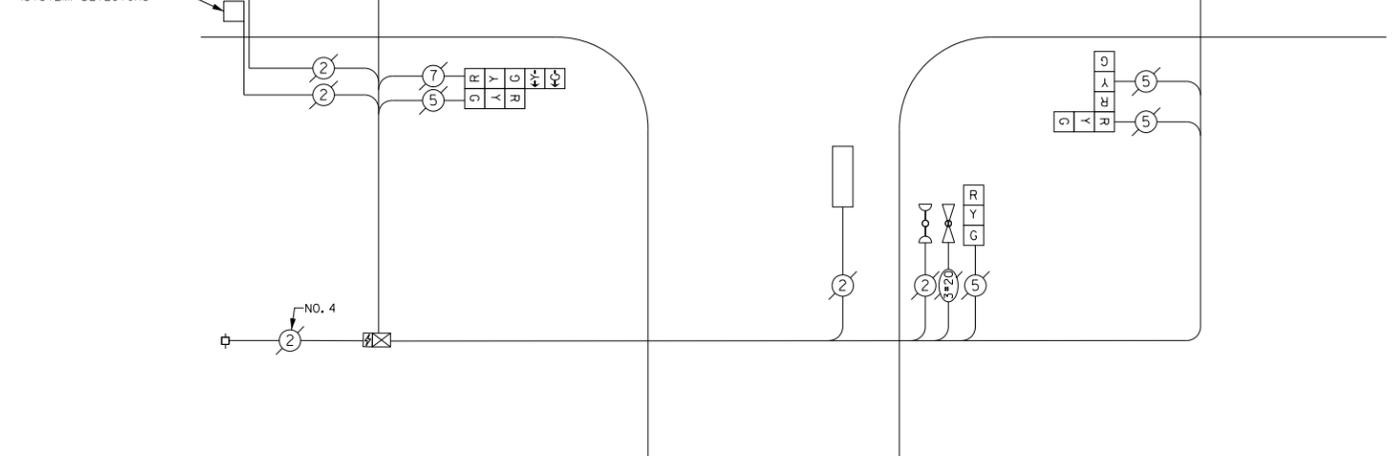
EMERGENCY VEHICLE PREEMPTION SEQUENCE



LEGEND:

- ← \* → PROTECTED PHASE
- ← \* - PROTECTED/PERMITTED PHASE
- ← \* → PEDESTRIAN PHASE
- ← \* OL → OVERLAP

INTERSECTION & SAMPLING (SYSTEM) DETECTORS



**TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS**

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	13	11	50	71.5
(YELLOW)	13	20	5	13
(GREEN)	13	12	45	70.2
PERMISSIVE ARROW	4	10	10	4
PED. SIGNAL	2	20	100	40
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	-	150	100	-
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	-	-	-	-
TOTAL =				323.7

ENERGY COSTS TO:

VILLAGE OF ARLINGTON HEIGHTS  
33 SOUTH ARLINGTON HEIGHTS ROAD  
ARLINGTON HEIGHTS, ILLINOIS 60005

ENERGY SUPPLY: CONTACT: DAVE SCHACHT  
PHONE: 630-437-2129  
COMPANY: COMMONWEALTH EDISON  
ACCOUNT NUMBER: ---

**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNIT	TOTAL QTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	395
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	410
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
PEDESTRIAN PUSH-BUTTON	EACH	2
MODIFY EXISTING CONTROLLER	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 1	EACH	1

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

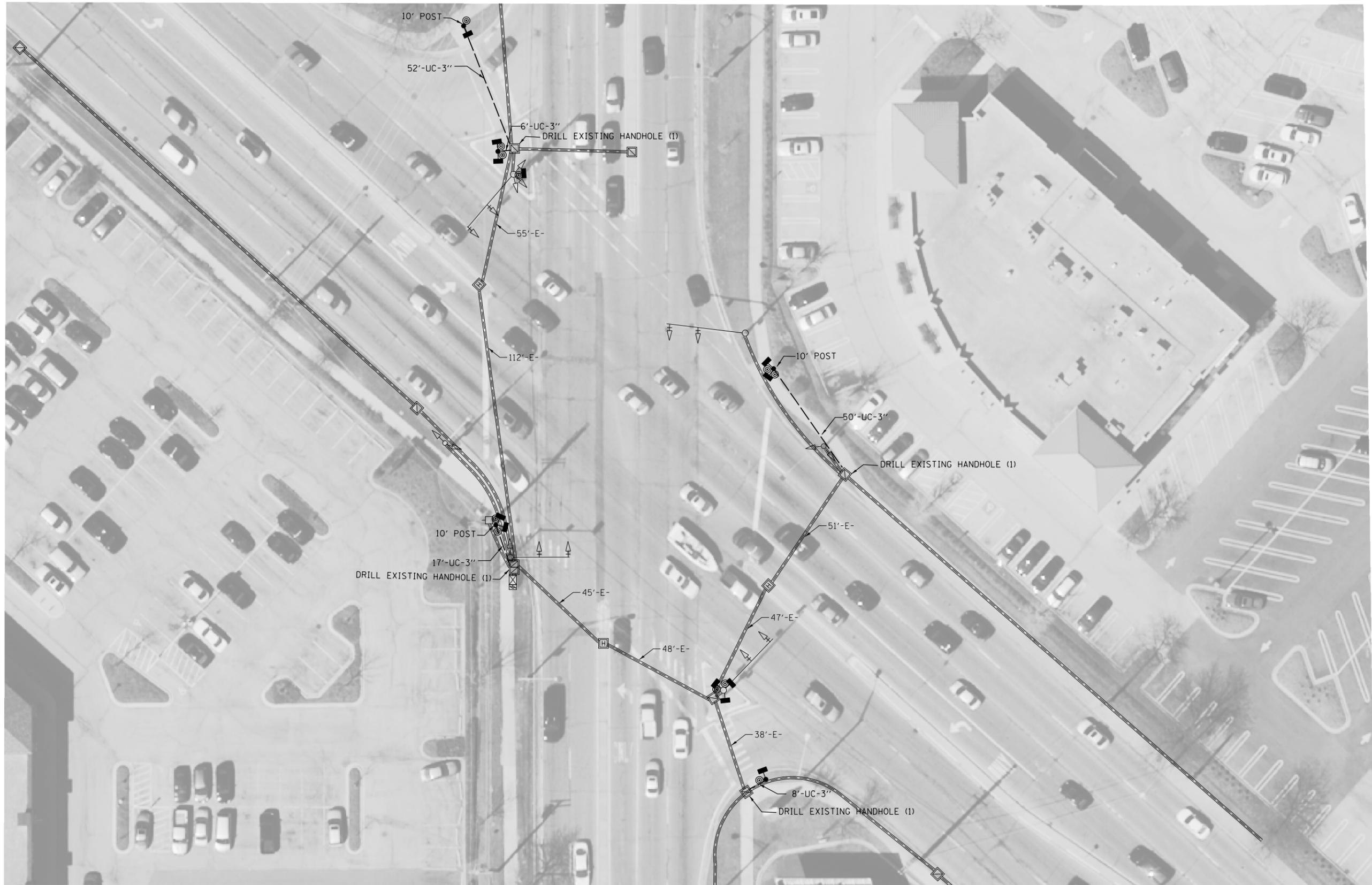
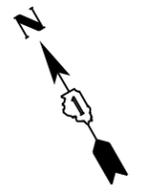
SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM  
AND EMERGENCY VEHICLE PREEMPTION SEQUENCE  
US 12 (RAND RD) AT ARLINGTON PLAZA

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2016-056TS	VARIOUS	55	27
CONTRACT NO. 62D44				
ILLINOIS FED. AID PROJECT				

TS# 12640  
ARLINGTON HEIGHTS

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SCALE: SHEET OF SHEETS STA. TO STA.



TS# 12595  
ARLINGTON HEIGHTS

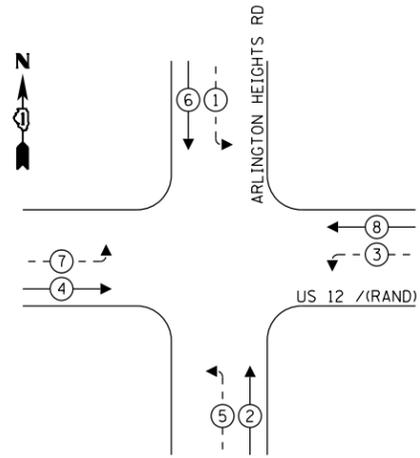
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	PLOT DATE = 3/23/2017	DATE - 03/24/2017	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

TRAFFIC SIGNAL MODERNIZATION			
US 12 (RAND RD) AT ARLINGTON HEIGHTS RD			
SCALE:	SHEET	OF SHEETS	STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2016-056TS	VARIOUS	55	28
CONTRACT NO. 62D44				
ILLINOIS FED. AID PROJECT				

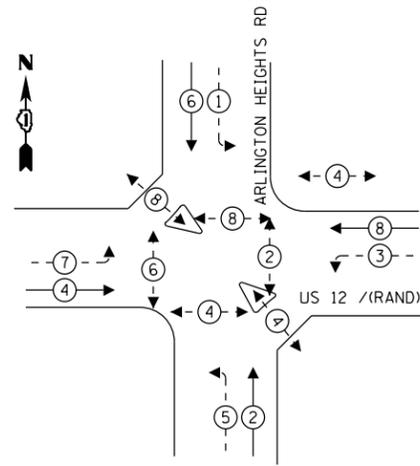
**EXISTING CONTROLLER SEQUENCE**



**LEGEND:**

- ← ⊙ ← PROTECTED PHASE
- ← ⊙ - - PROTECTED/PERMITTED PHASE
- ← ⊙ → PEDESTRIAN PHASE
- ← ⊙ OL OVERLAP

**PROPOSED CONTROLLER SEQUENCE**



**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNIT	TOTAL QTY.
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	133
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	2120
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	2350
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	200
TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.	EACH	5
CONCRETE FOUNDATION, TYPE A	FOOT	20
DRILL EXISTING HANDHOLE	EACH	5
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	12
PEDESTRIAN PUSH-BUTTON	EACH	11
MODIFY EXISTING CONTROLLER	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 1	EACH	1

**TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS**

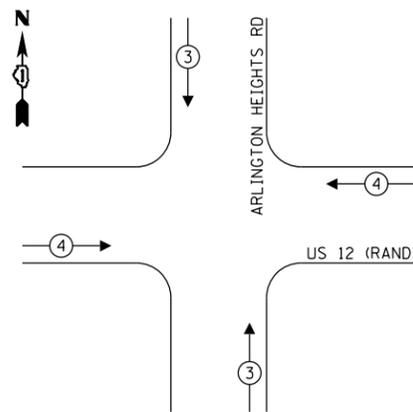
TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	11	11	50	60.5
(YELLOW)	11	20	5	11
(GREEN)	11	12	45	59.4
PERMISSIVE ARROW	4	10	10	4
PED. SIGNAL	4	20	100	80
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	-	150	100	-
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	-	-	-	-
TOTAL =				339.9

ENERGY COSTS TO:

VILLAGE OF ARLINGTON HEIGHTS  
33 SOUTH ARLINGTON HEIGHTS ROAD  
ARLINGTON HEIGHTS, ILLINOIS 60005

ENERGY SUPPLY: CONTACT: DAVE SCHACHT  
PHONE: 630-437-2129  
COMPANY: COMMONWEALTH EDISON  
ACCOUNT NUMBER: ---

**EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE**



**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

FILE NAME = USER NAME = pociechal  
DESIGNED - JC  
REVISED -  
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CHECKED - LP / ZJ  
REVISED -  
PLOT DATE = 3/23/2017  
DATE - 03/24/2017  
REVISED -

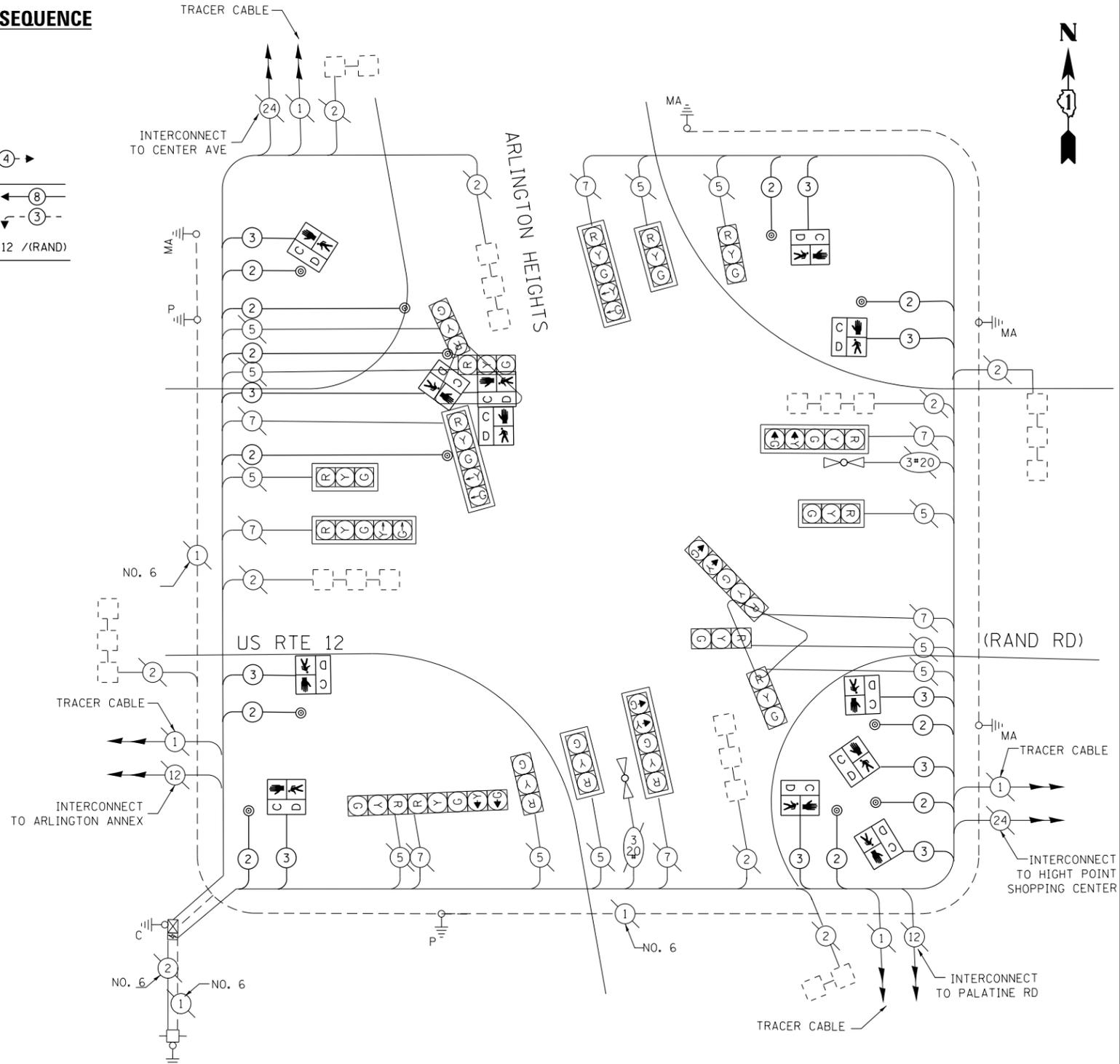
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REVISED -  
CHECKED - LP / ZJ  
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DATE - 03/24/2017  
REVISED -

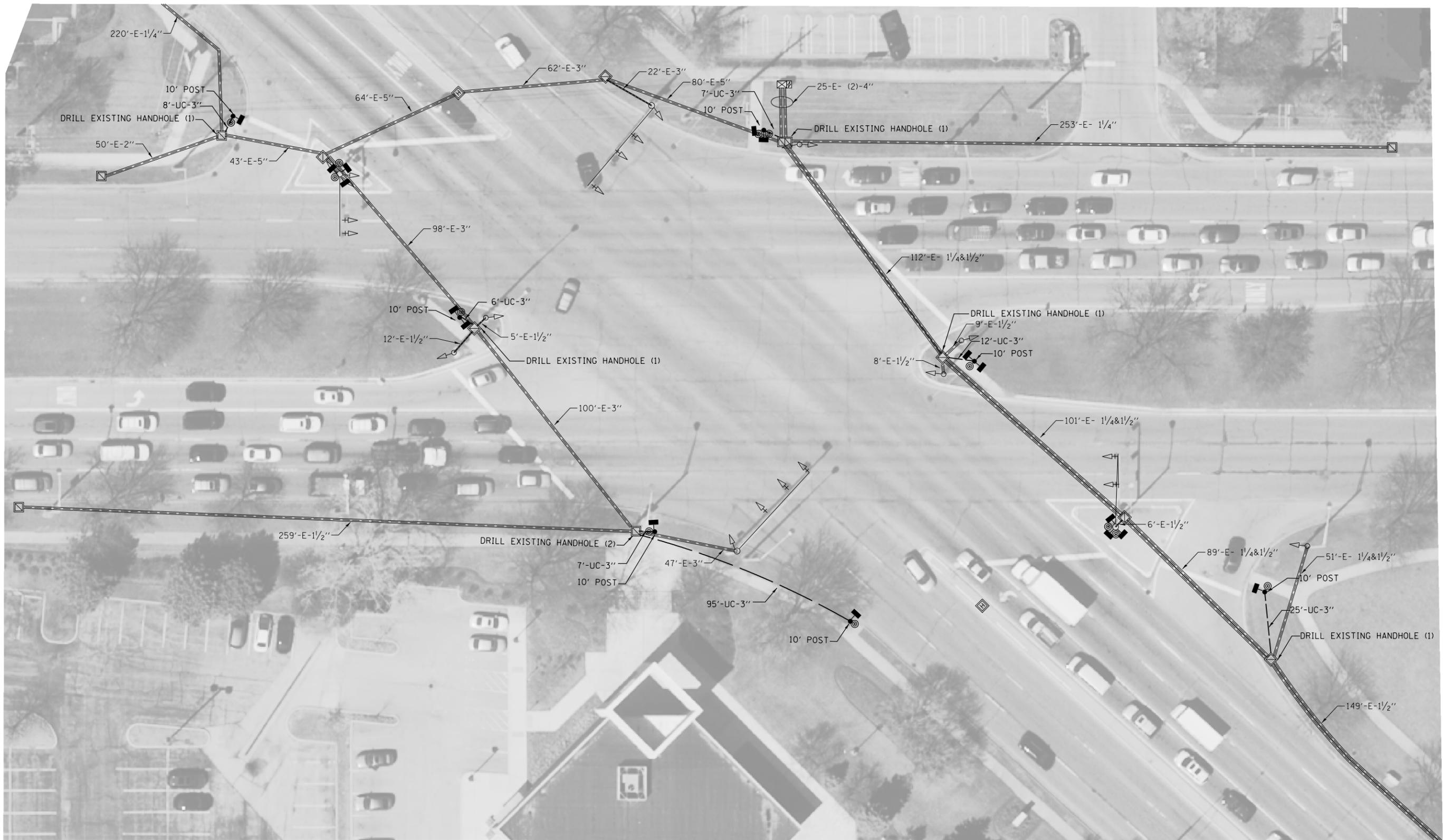
**SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM  
AND EMERGENCY VEHICLE PREEMPTION SEQUENCE  
US 12 (RAND RD) AT ARLINGTON HEIGHTS RD**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2016-056TS	VARIOUS	55	29
			CONTRACT NO. 62D44	
ILLINOIS FED. AID PROJECT				

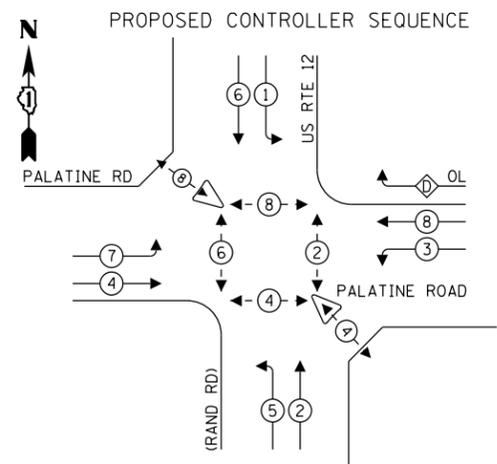
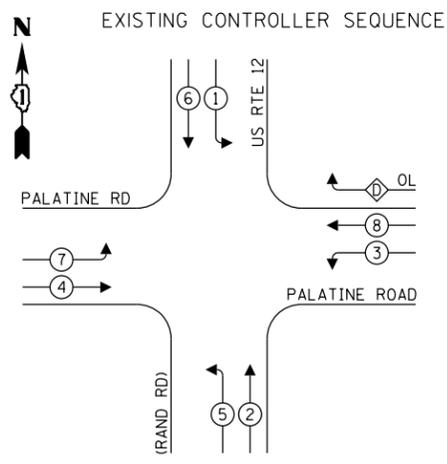
TS# 12595  
ARLINGTON HEIGHTS



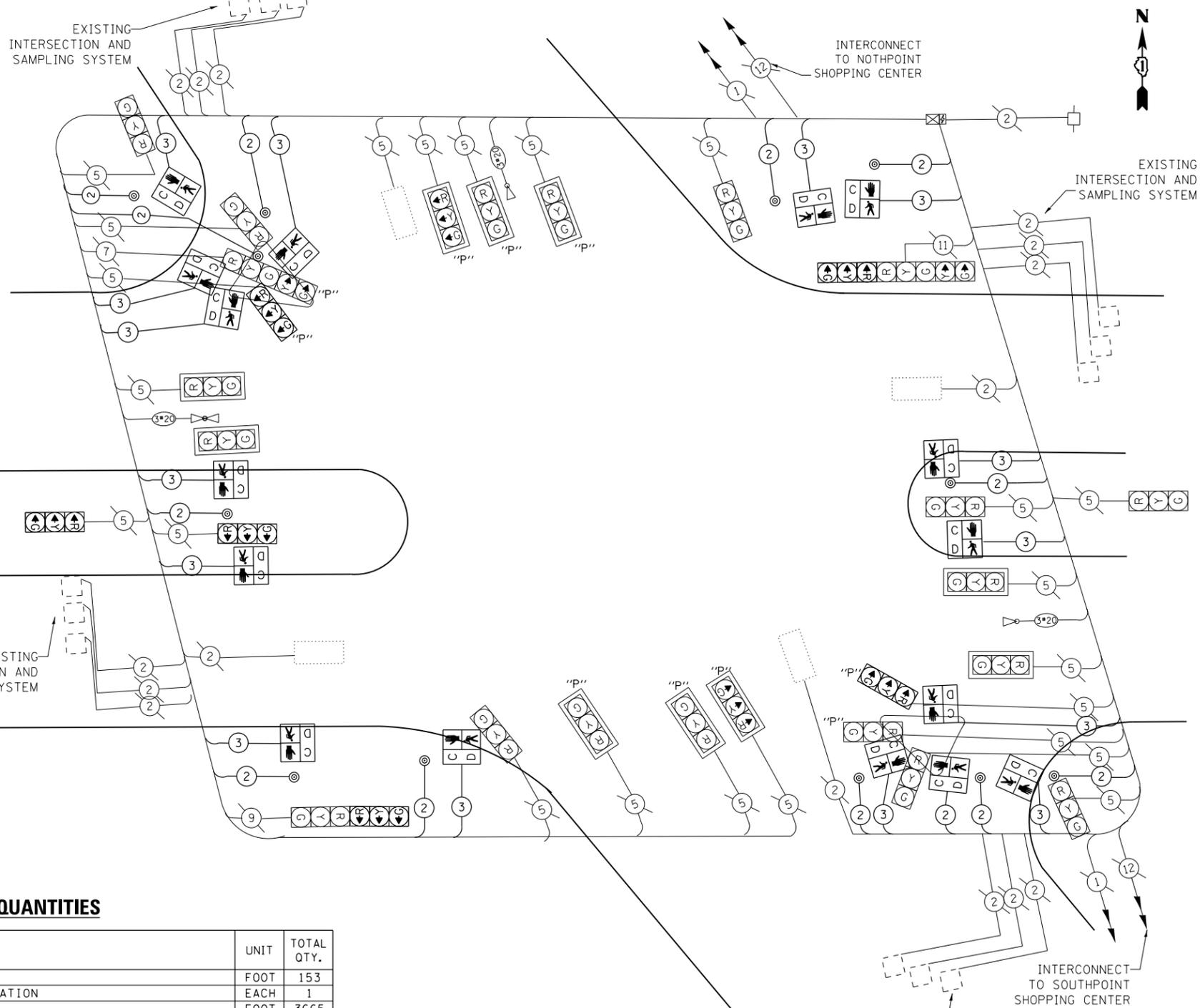
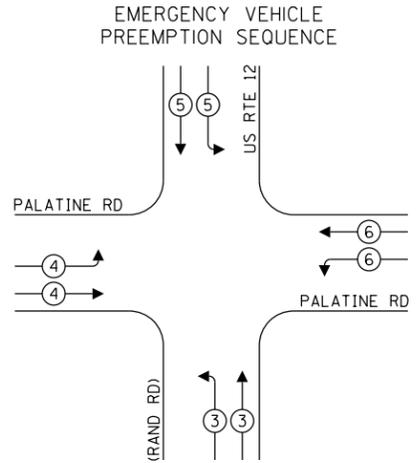


TS# 12630  
ARLINGTON HEIGHTS

FILE NAME = p:\1\084EBIDINTEG.illinois.gov\PIWIDOT\Documents\DOT Offices\District 1\Projects\102317\Traffic\102317-sht-ts3.dgn	USER NAME = pociechal	DESIGNED - JC	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>TRAFFIC SIGNAL MODERNIZATION US 12 (RAND RD) AT PALATINE RD</b>			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 40.0000' / in.	CHECKED - LP / ZJ	REVISED -					2016-056TS	VARIOUS	55	30	
Default	PLOT DATE = 3/23/2017	DATE - 03/24/2017	REVISED -	SCALE:	SHEET	OF	SHEETS	STA.	TO	STA.	ILLINOIS FED. AID PROJECT CONTRACT NO. 62D44	



PHASE DESIGNATION DIAGRAM



**TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS**

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	28	11	50	154
(YELLOW)	28	20	5	28
(GREEN)	28	12	45	151.2
PERMISSIVE ARROW	4	10	10	4
PED. SIGNAL	16	20	100	320
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	-	150	100	-
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	-	-	-	-
TOTAL =				782.2

ENERGY COSTS TO:  
 VILLAGE OF ARLINGTON HEIGHTS  
 33 SOUTH ARLINGTON HEIGHTS ROAD  
 ARLINGTON HEIGHTS, ILLINOIS 60005  
 ENERGY SUPPLY: CONTACT: DAVE SCHACHT  
 PHONE: 630-437-2129  
 COMPANY: COMMONWEALTH EDISON  
 ACCOUNT NUMBER: ---

**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNIT	TOTAL QTY.
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	153
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	3665
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	5020
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	280
TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.	EACH	7
CONCRETE FOUNDATION, TYPE A	FOOT	28
DRILL EXISTING HANDHOLE	EACH	7
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	16
PEDESTRIAN PUSH-BUTTON	EACH	12
MODIFY EXISTING CONTROLLER	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 1	EACH	1

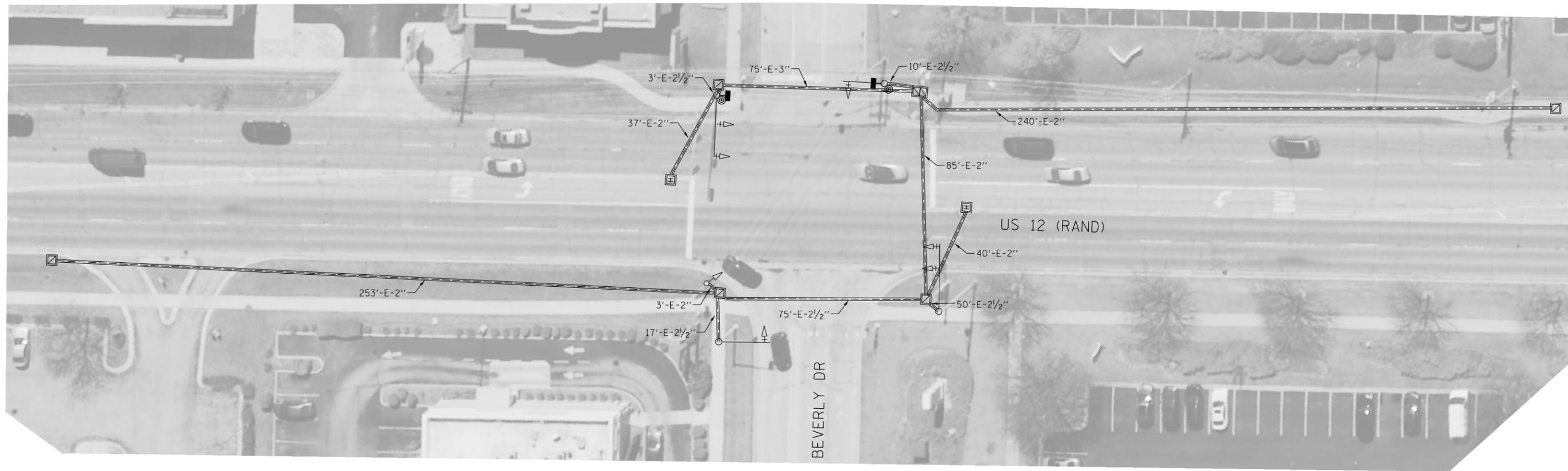
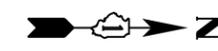
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 DESIGNED - JC  
 REVISED -  
 CHECKED - LP / ZJ  
 REVISED -  
 DATE - 03/24/2017  
 REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM  
 AND EMERGENCY VEHICLE PREEMPTION SEQUENCE  
 US 12 (RAND RD) AT PALATINE RD**

F.A. RTE. SECTION COUNTY TOTAL SHEETS SHEET NO.  
 2016-056TS VARIOUS 55 31  
 CONTRACT NO. 62D44  
 ILLINOIS FED. AID PROJECT

TS# 12630  
 ARLINGTON HEIGHTS



TS# 421  
ARLINGTON HEIGHTS

FILE NAME =	USER NAME = poc1echal	DESIGNED - JC	REVISED -
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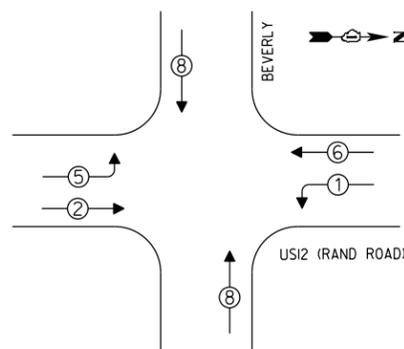
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL MODERNIZATION**  
**US 12 (RAND RD) AT BEVERLY LN**

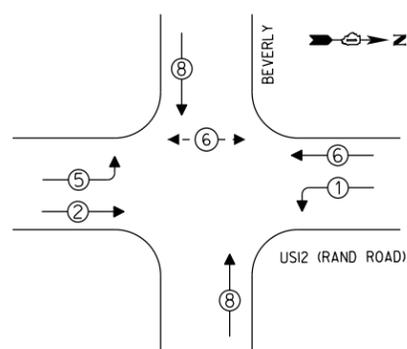
SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2016-056TS	VARIOUS	55	32
CONTRACT NO. 62D44				
ILLINOIS FED. AID PROJECT				

EXISTING CONTROLLER SEQUENCE

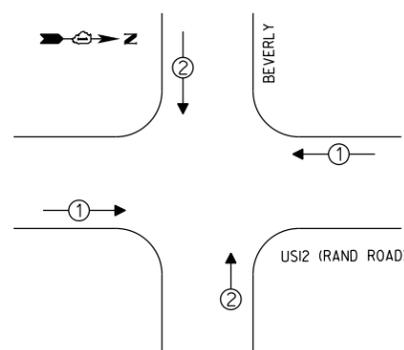


PROPOSED CONTROLLER SEQUENCE



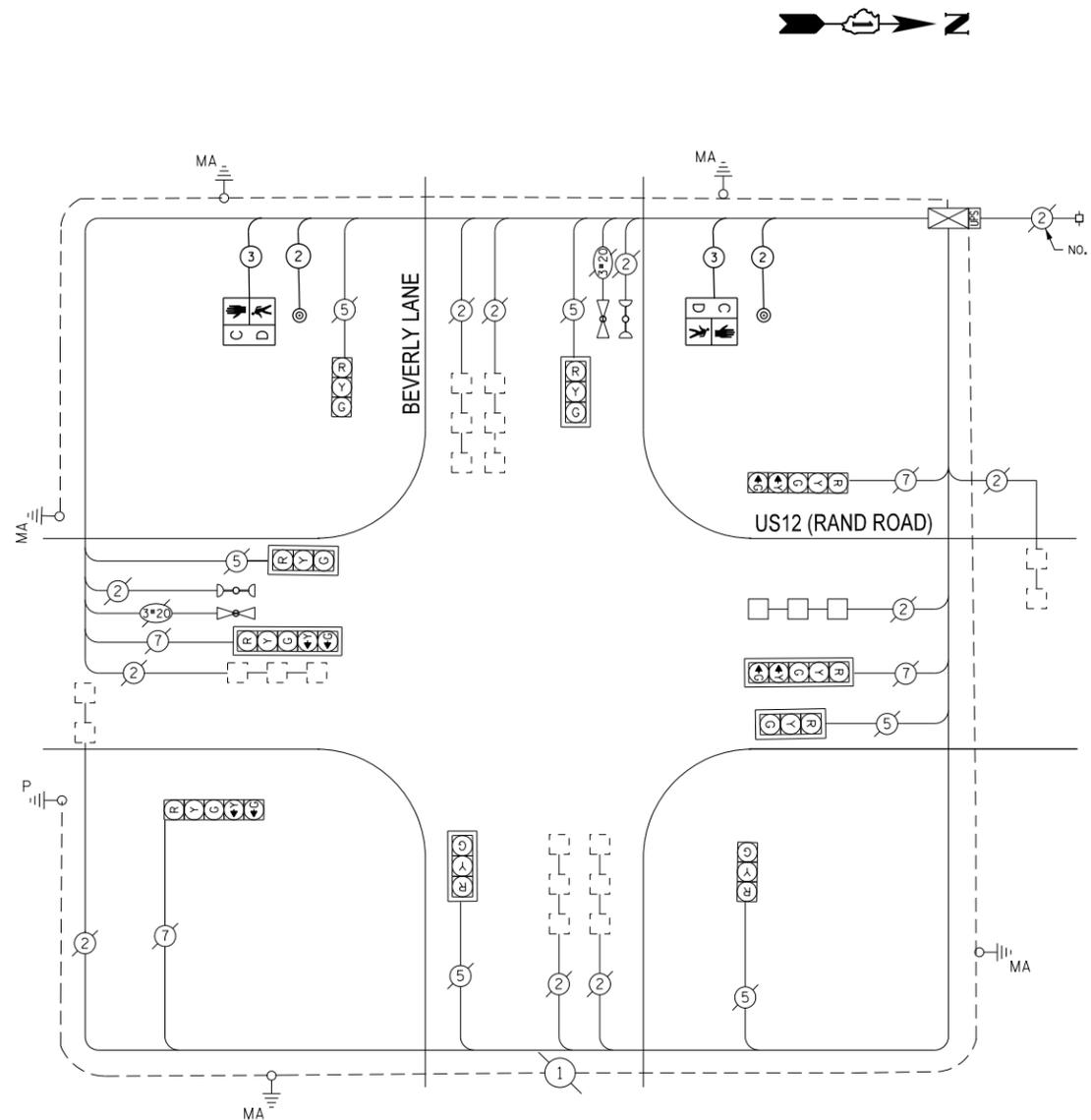
PHASE DESIGNATION DIAGRAM

EMERGENCY VEHICLE PREEMPTION SEQUENCE



LEGEND:

- ← \* → PROTECTED PHASE
- ← - \* - → PROTECTED/PERMITTED PHASE
- ← \* → PEDESTRIAN PHASE
- ← \* OL → OVERLAP



CABLE PLAN

TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	11	11	50	60.5
(YELLOW)	11	20	5	11
(GREEN)	11	12	45	59.4
PERMISSIVE ARROW	4	10	10	4
PED. SIGNAL	4	20	100	80
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	-	150	100	-
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	-	-	-	-
TOTAL =				339.9

ENERGY COSTS TO:

VILLAGE OF ARLINGTON HEIGHTS  
33 SOUTH ARLINGTON HEIGHTS ROAD  
ARLINGTON HEIGHTS, ILLINOIS 60005

ENERGY SUPPLY: CONTACT: DAVE SCHACHT  
PHONE: 630-437-2129  
COMPANY: COMMONWEALTH EDISON  
ACCOUNT NUMBER: ---

SCHEDULE OF QUANTITIES

ITEM DESCRIPTION	UNIT	TOTAL QTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	165
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	180
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
PEDESTRIAN PUSH-BUTTON	EACH	2
MODIFY EXISTING CONTROLLER	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 1	EACH	1

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM  
AND EMERGENCY VEHICLE PREEMPTION SEQUENCE  
US 12 (RAND RD) AT BEVERLY LN

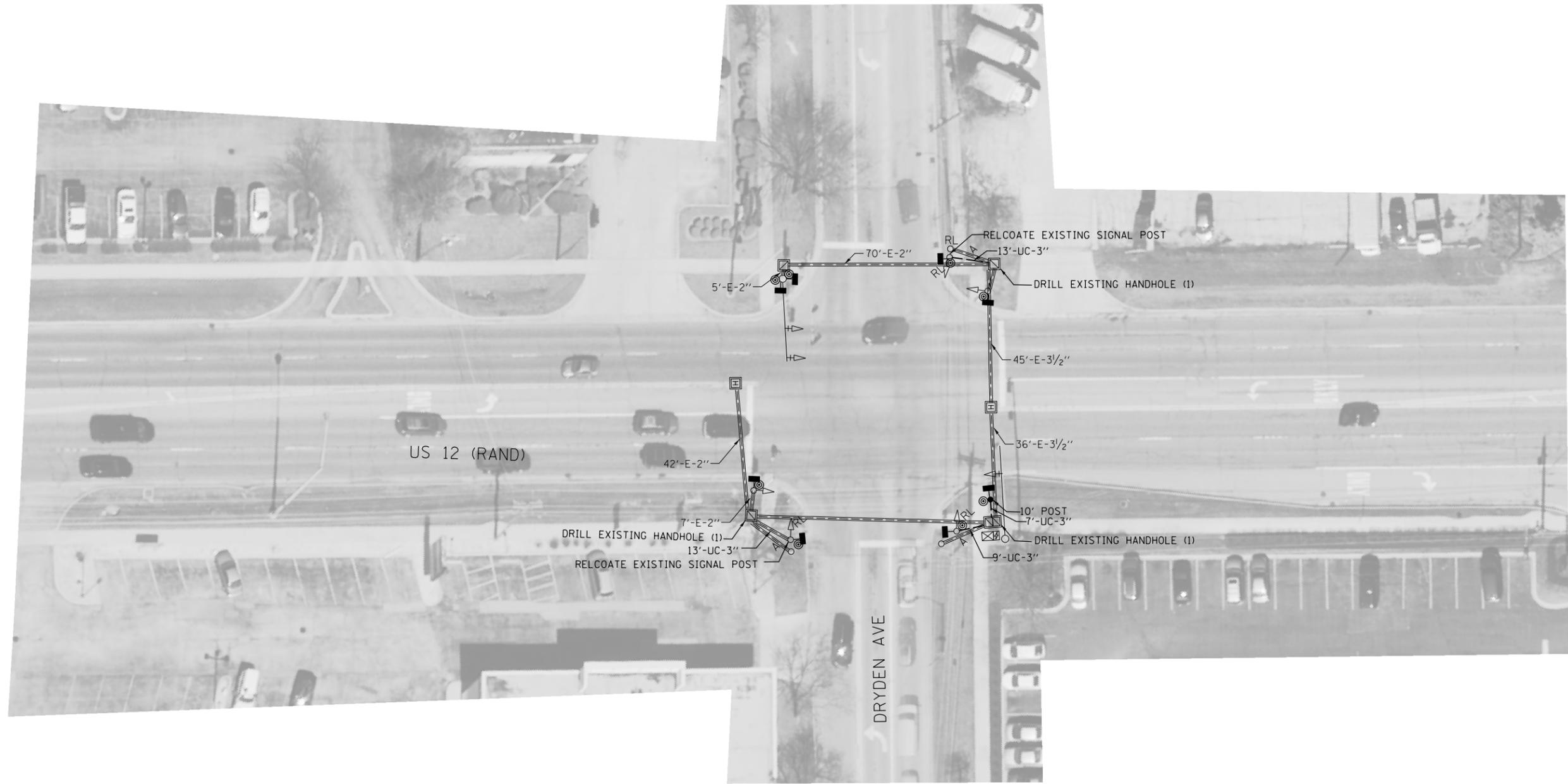
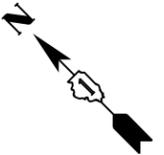
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2016-056TS	VARIOUS	55	33
CONTRACT NO. 62D44				

TS# 421  
ARLINGTON HEIGHTS

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SCALE: SHEET OF SHEETS STA. TO STA.

ILLINOIS FED. AID PROJECT



TS# 415  
ARLINGTON HEIGHTS

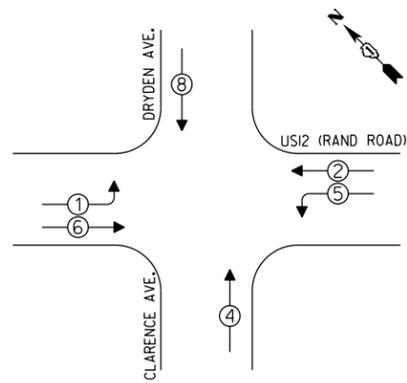
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>TRAFFIC SIGNAL MODERNIZATION</b>			
<b>US 12 (RAND RD) AT DRYDEN AVE</b>			
SCALE:	SHEET	OF SHEETS	STA. TO STA.

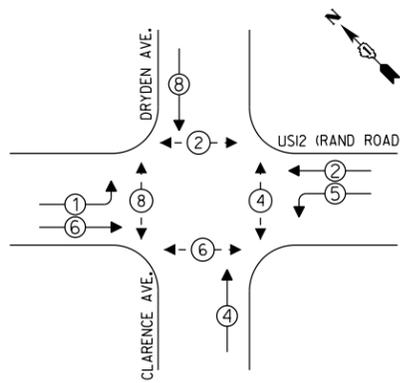
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2016-056TS	VARIOUS	55	34
CONTRACT NO. 62D44			ILLINOIS FED. AID PROJECT	

EXISTING CONTROLLER SEQUENCE

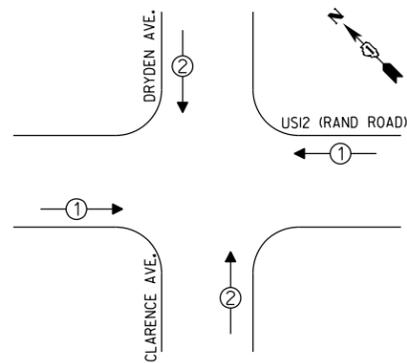


PHASE DESIGNATION DIAGRAM

PROPOSED CONTROLLER SEQUENCE

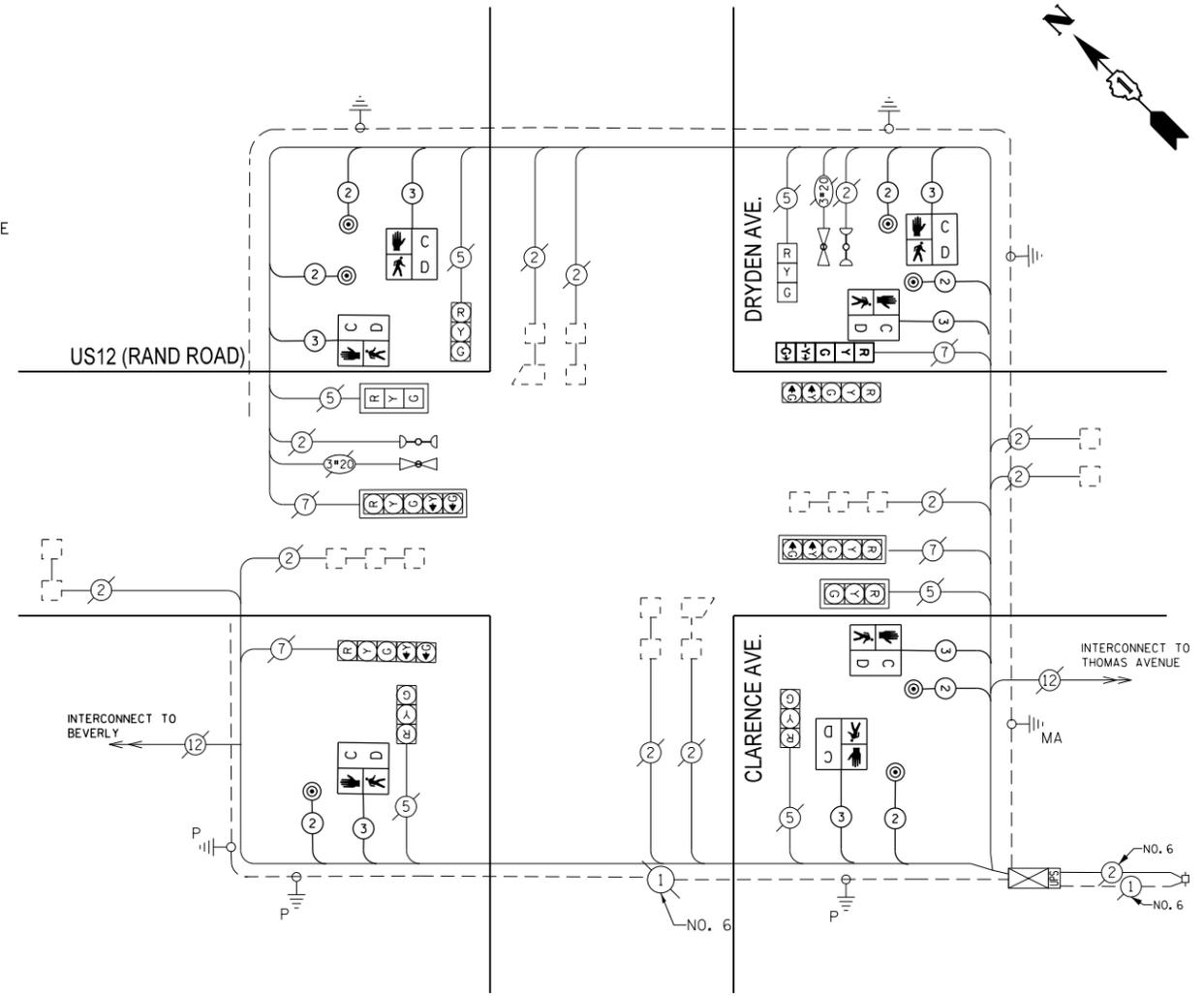


EMERGENCY VEHICLE PREEMPTION SEQUENCE



**LEGEND:**

- ← ⊙ ← PROTECTED PHASE
- ← ⊙ - PROTECTED/PERMITTED PHASE
- ← ⊙ → PEDESTRIAN PHASE
- ← ⊙ OL OVERLAP



CABLE PLAN

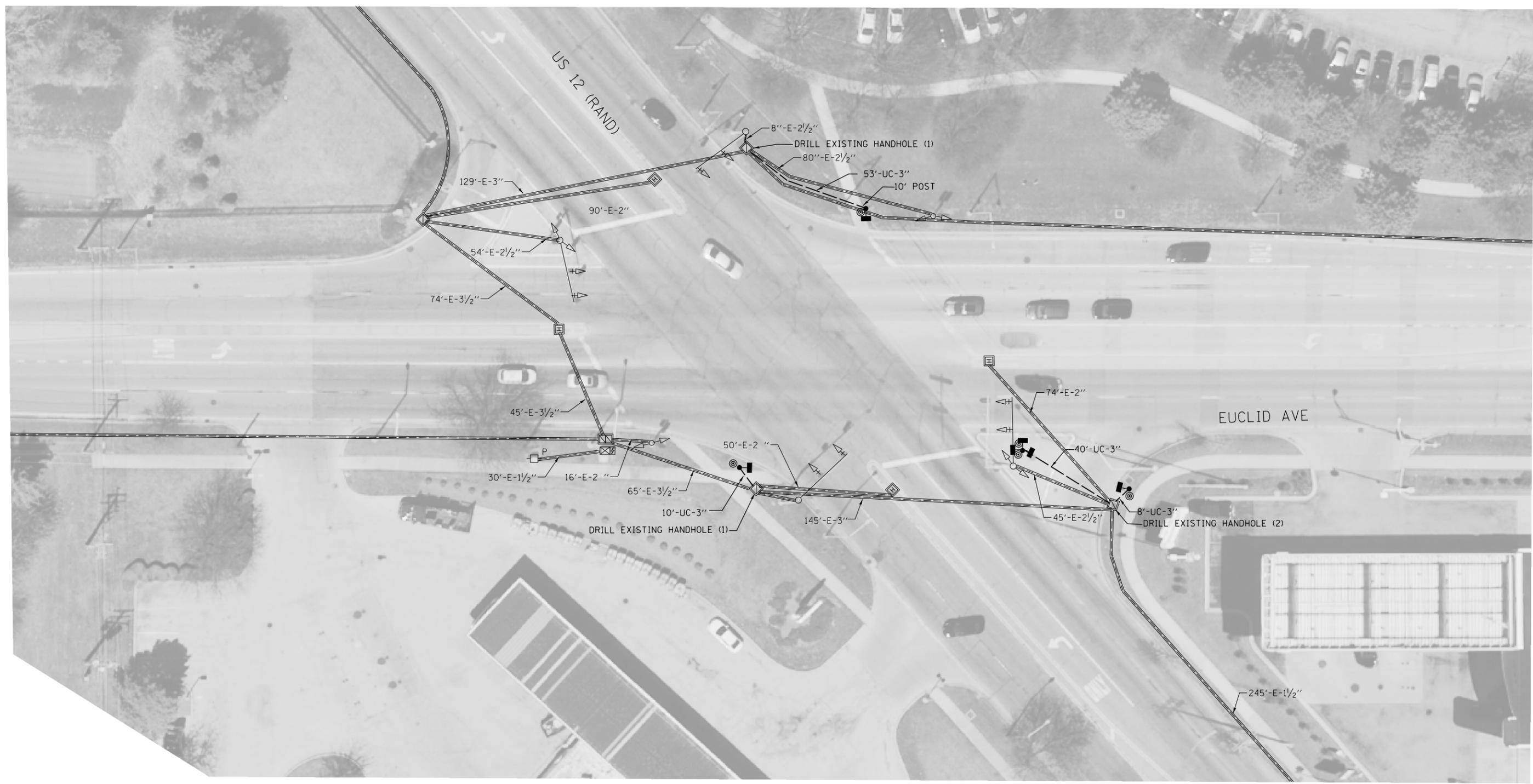
**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNIT	TOTAL QTY.
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	29
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	1030
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1085
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	75
TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	16
DRILL EXISTING HANDHOLE	EACH	3
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	8
PEDESTRIAN PUSH-BUTTON	EACH	8
RELOCATE EXISTING SIGNAL HEAD	EACH	3
RELOCATE EXISTING TRAFFIC SIGNAL POST	EACH	3
MODIFY EXISTING CONTROLLER	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
REMOVE AND REINSTALL ELECTRIC CABLE FROM CONDUIT	FOOT	120
REMOVE EXISTING CONCRETE FOUNDATION	EACH	3
RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 1	EACH	1

TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS				
TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	11	11	50	60.5
(YELLOW)	11	20	5	11
(GREEN)	11	12	45	59.4
PERMISSIVE ARROW	4	10	10	4
PED. SIGNAL	4	20	100	80
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	-	150	100	-
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	-	-	-	-
TOTAL =				339.9

ENERGY COSTS TO:  
 VILLAGE OF ARLINGTON HEIGHTS  
 33 SOUTH ARLINGTON HEIGHTS ROAD  
 ARLINGTON HEIGHTS, ILLINOIS 60005  
 ENERGY SUPPLY: CONTACT: DAVE SCHACHT  
 PHONE: 630-437-2129  
 COMPANY: COMMONWEALTH EDISON  
 ACCOUNT NUMBER: ---

TS# 415  
ARLINGTON HEIGHTS



TS# 395  
ARLINGTON HEIGHTS

FILE NAME =	USER NAME = poc1echal	DESIGNED - JC	REVISED -
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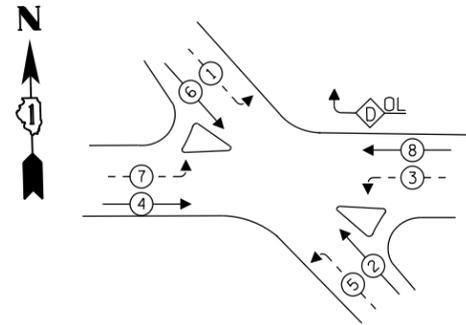
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL MODERNIZATION  
US 12 (RAND RD) AT EUCLID AVE**

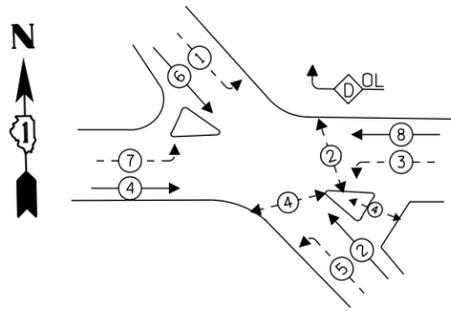
SCALE:	SHEET	OF	SHEETS	STA.	TO	STA.
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2016-056TS	VARIOUS	55	36
CONTRACT NO. 62D44				
ILLINOIS FED. AID PROJECT				

**EXISTING CONTROLLER SEQUENCE**



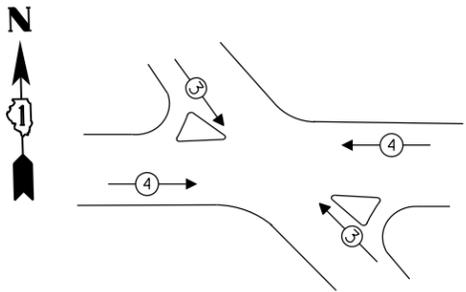
**PROPOSED CONTROLLER SEQUENCE**



**PHASE DESIGNATION DIAGRAM**

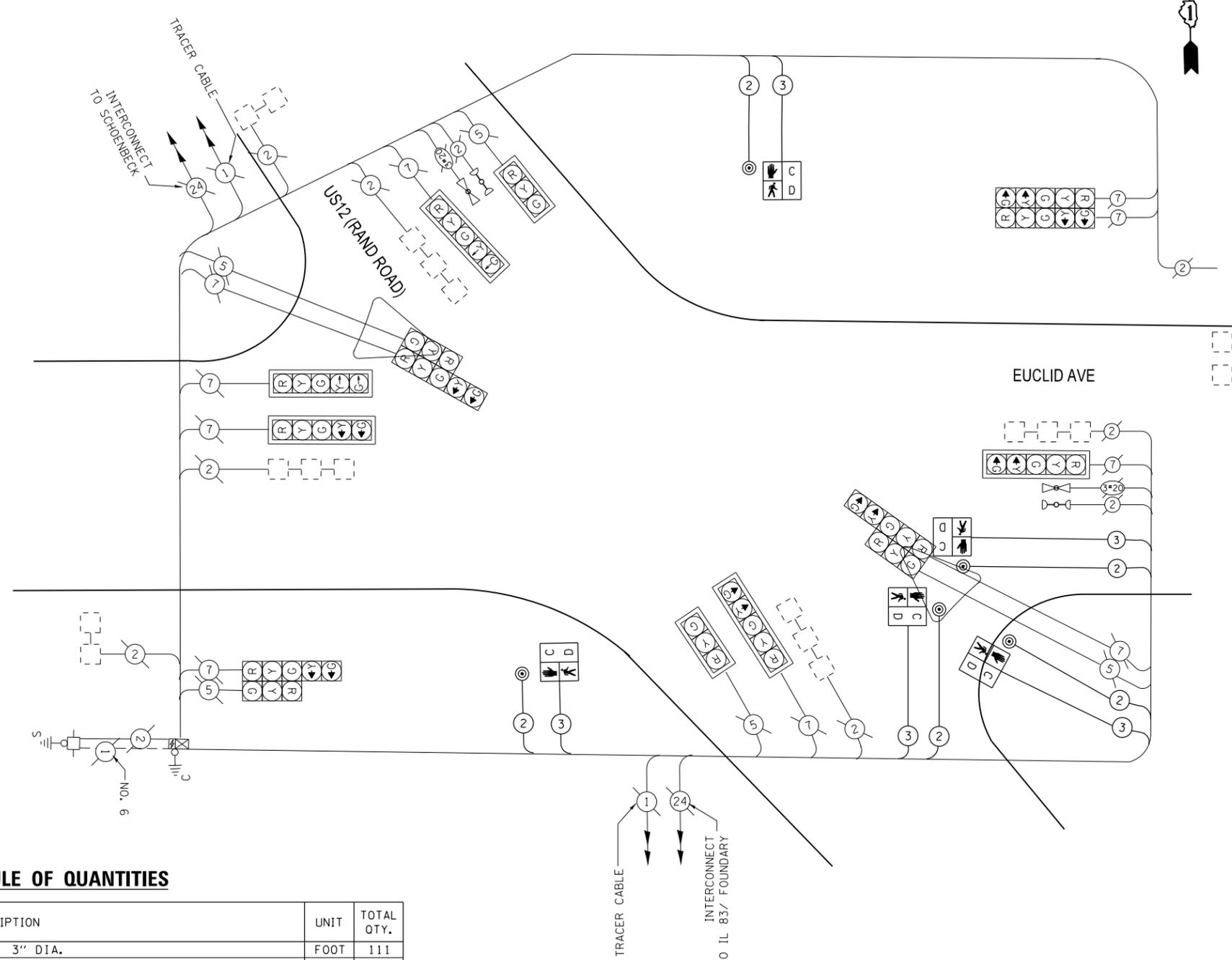
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**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



**LEGEND:**

- ← \* → PROTECTED PHASE
- ← \* - - PROTECTED/PERMITTED PHASE
- ← \* → PEDESTRIAN PHASE
- ← \* OL → OVERLAP



**TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS**

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	15	11	50	82.5
(YELLOW)	15	20	5	15
(GREEN)	15	12	45	81
PERMISSIVE ARROW	18	10	10	18
PED. SIGNAL	5	20	100	100
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	-	150	100	-
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	-	-	-	-
TOTAL =				421.5

ENERGY COSTS TO:

VILLAGE OF ARLINGTON HEIGHTS  
33 SOUTH ARLINGTON HEIGHTS ROAD  
ARLINGTON HEIGHTS, ILLINOIS 60005

ENERGY SUPPLY: CONTACT: DAVE SCHACHT  
PHONE: 630-437-2129  
COMPANY: COMMONWEALTH EDISON  
ACCOUNT NUMBER: ---

**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNIT	TOTAL QTY.
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	111
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	1340
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1680
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	157
TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.	EACH	4
CONCRETE FOUNDATION, TYPE A	FOOT	16
DRILL EXISTING HANDHOLE	EACH	4
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	6
PEDESTRIAN PUSH-BUTTON	EACH	5
MODIFY EXISTING CONTROLLER	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 1	EACH	1

TS# 395  
ARLINGTON HEIGHTS

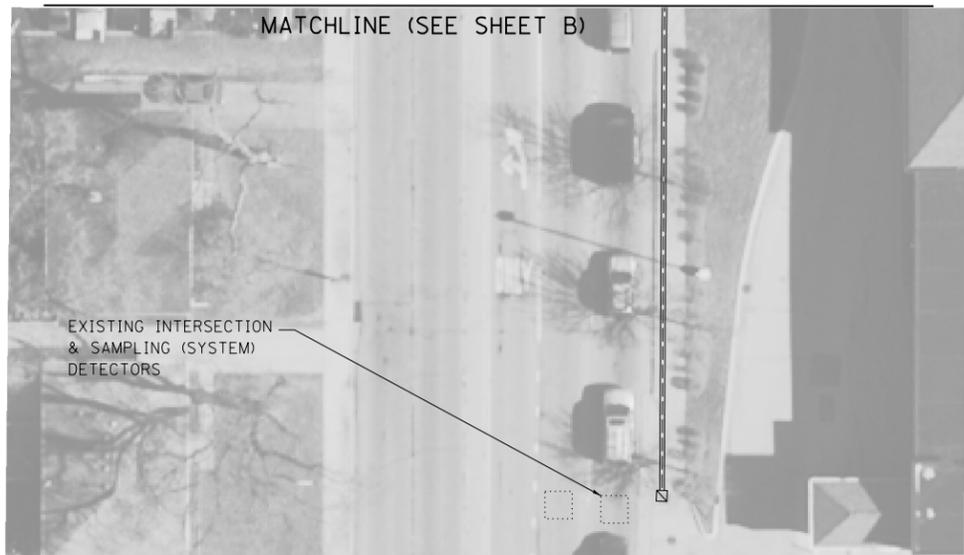
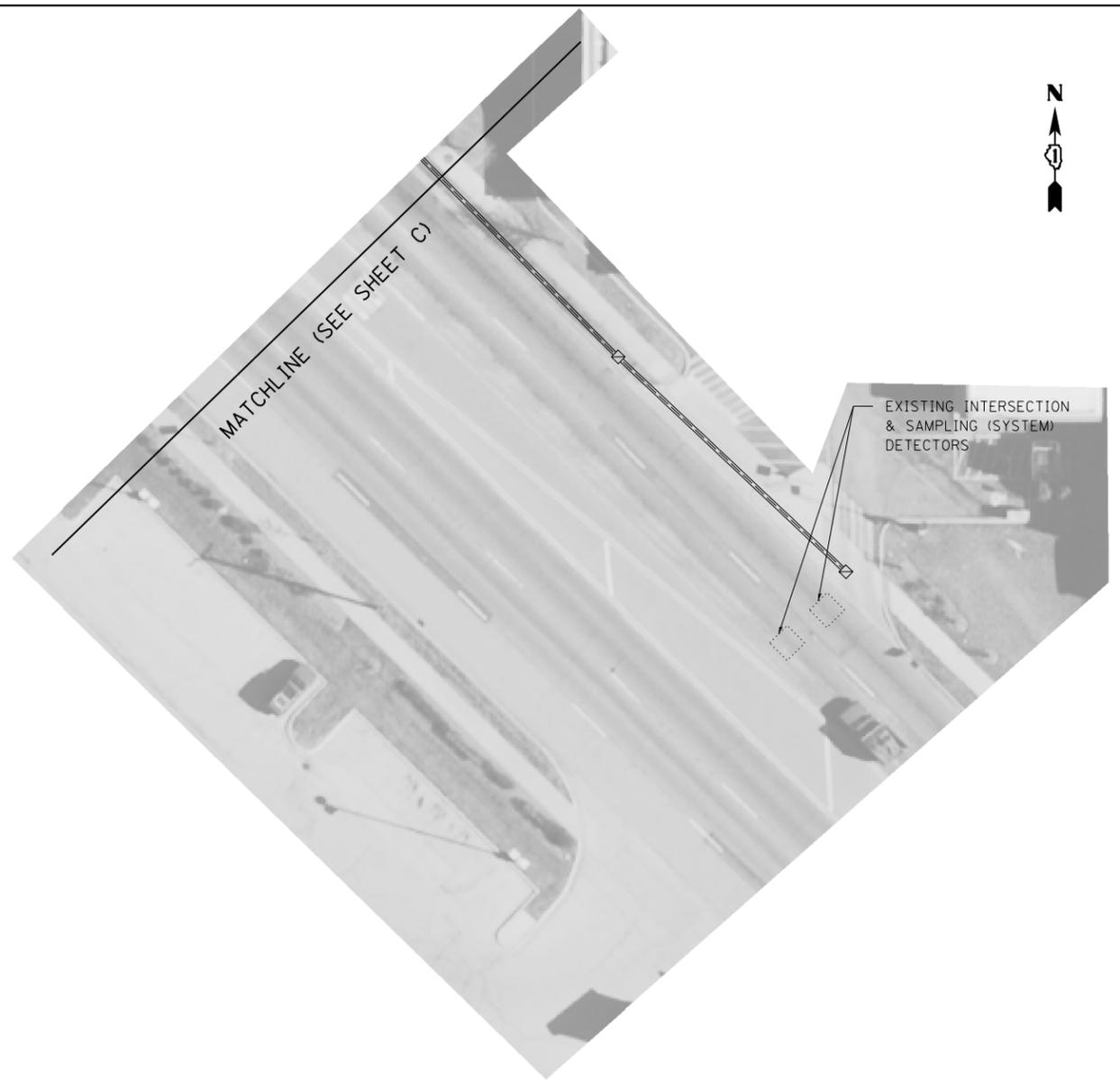
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE</b>			
<b>US 12 (RAND RD) AT EUCLID AVE</b>			
SCALE:	SHEET	OF SHEETS	STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2016-056TS	VARIOUS	55	37
CONTRACT NO. 62D44				
ILLINOIS FED. AID PROJECT				





TS# 380  
ECON 194  
MOUNT PROSPECT

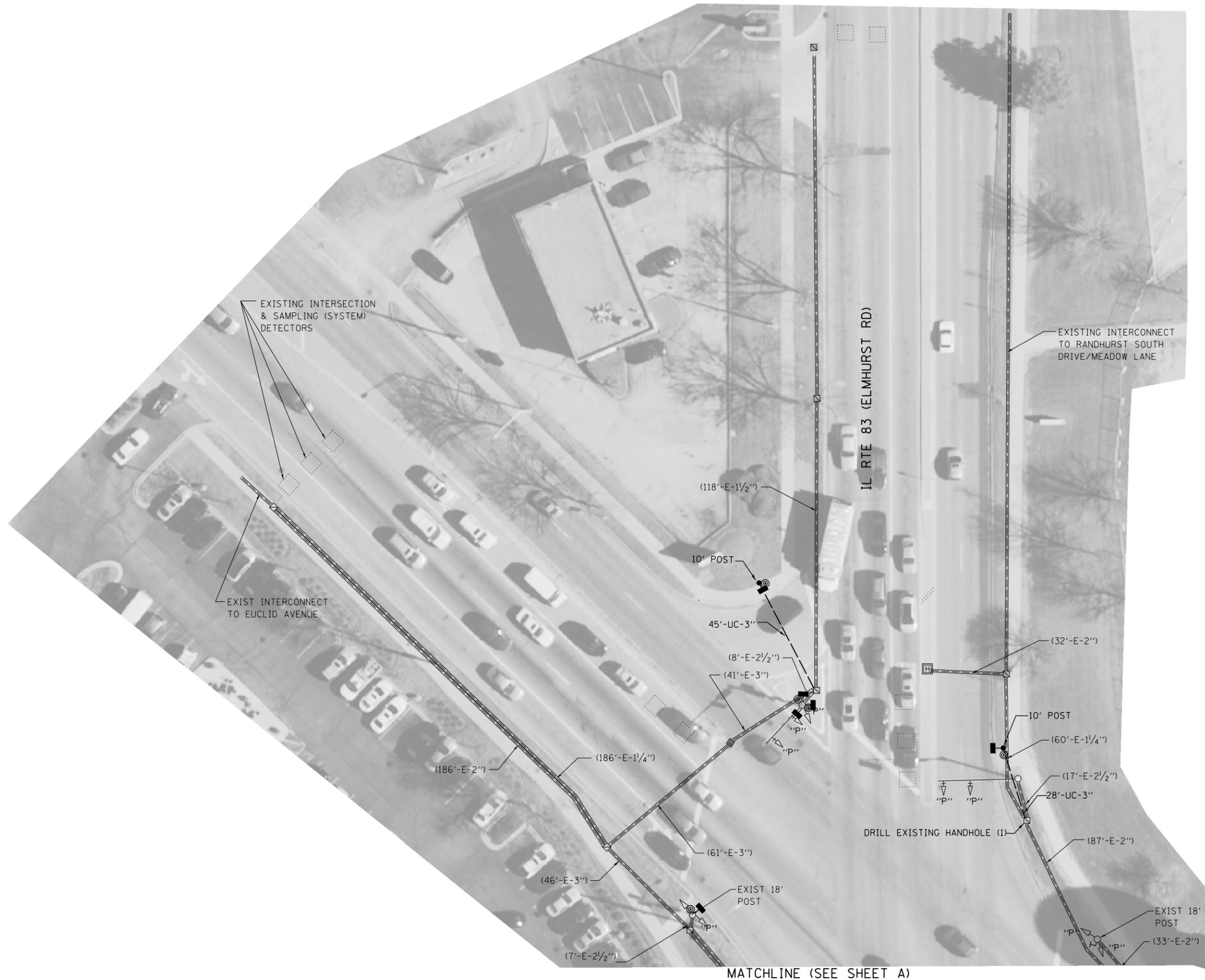
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Default	PLOT SCALE = 40.0000' / in.	CHECKED - LP / ZJ	REVISED -
	PLOT DATE = 3/23/2017	DATE - 03/24/2017	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL MODERNIZATION  
US 12 (RAND RD) AT IL 83 (ELMHURST RD) AT KENSINGTON RD (2 OF 3)**

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2016-056TS	VARIOUS	55	39
				CONTRACT NO. 62D44
ILLINOIS FED. AID PROJECT				

SCALE: SHEET OF SHEETS STA. TO STA.



TS# 380  
 ECON 194  
 MOUNT PROSPECT

FILE NAME =	USER NAME = poc1echal	DESIGNED - JC	REVISED -
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Default	PLOT SCALE = 40.0000' / in.	CHECKED - LP / ZJ	REVISED -
	PLOT DATE = 3/23/2017	DATE - 03/24/2017	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

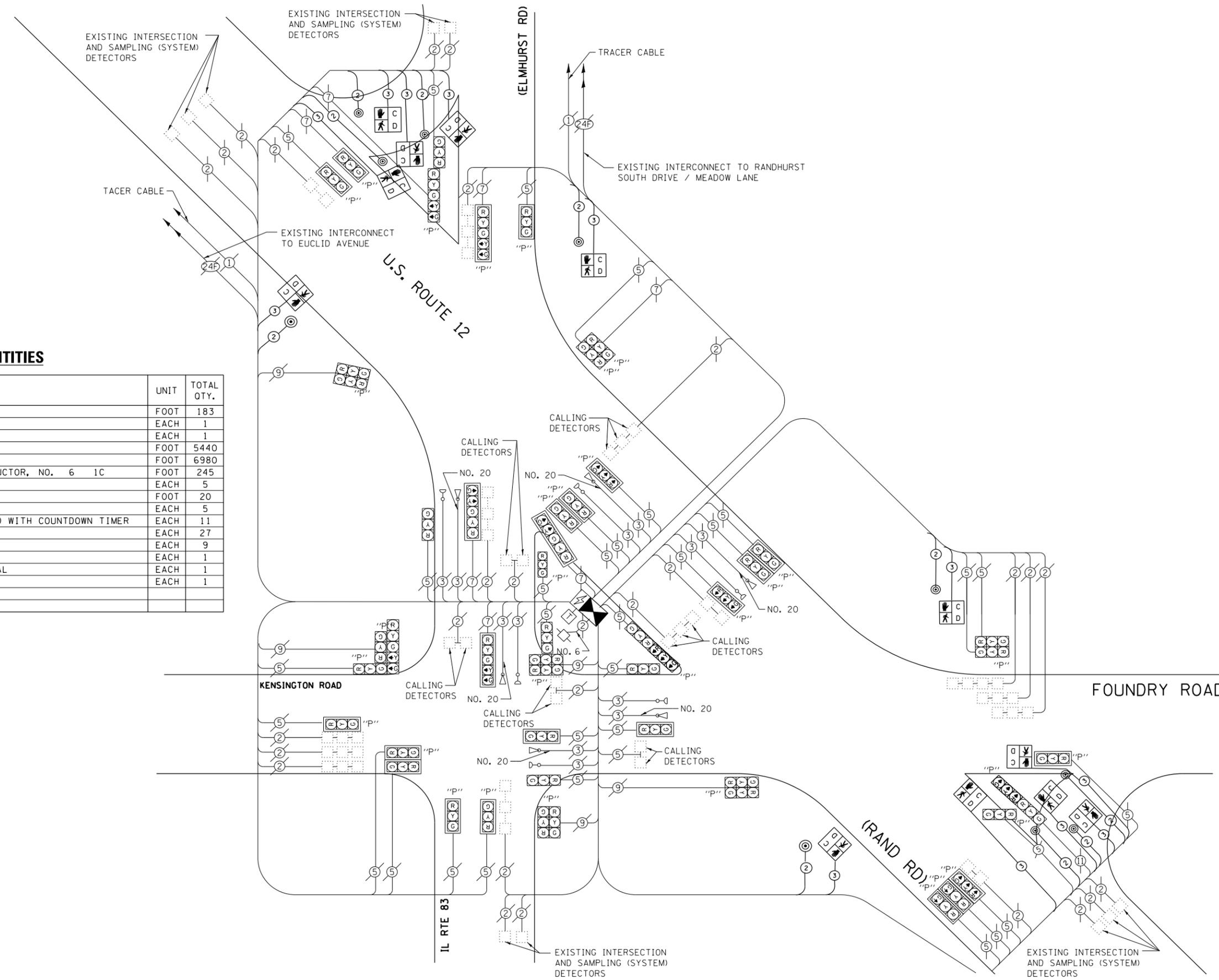
**TRAFFIC SIGNAL MODERNIZATION  
 US 12 (RAND RD) AT IL 83 (ELMHURST RD) AT KENSINGTON RD (3 OF 3)**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2016-056TS	VARIOUS	55	40
CONTRACT NO. 62D44				
ILLINOIS FED. AID PROJECT				

**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNIT	TOTAL QTY.
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	183
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRANSCEIVER - FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	5440
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	6980
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	245
TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.	EACH	5
CONCRETE FOUNDATION, TYPE A	FOOT	20
DRILL EXISTING HANDHOLE	EACH	5
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	11
INDUCTIVE LOOP DETECTOR	EACH	27
PEDESTRIAN PUSH-BUTTON	EACH	9
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE V CABINET, SPECIAL	EACH	1
RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 1	EACH	1



TS# 380  
ECON 194  
MOUNT PROSPECT

FILE NAME =	USER NAME = pociechal	DESIGNED - JC	REVISED -
p:\IL\084EBID\INTEG.illinois.gov\PIWIDOT\Documents\IDOT Offices\District 1\Projects\DI0231\Drawings\Traffic\0102317-sht-ts3.dgn		CHECKED - LP / ZJ	REVISED -
Default	PLOT DATE = 3/23/2017	DATE - 03/24/2017	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SCHEDULE OF QUANTITIES, CABLE PLAN  
US 12 (RAND RD) AT IL 83 (ELMHURST RD) AT KENSINGTON RD**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2016-056TS	VARIOUS	55	41
			CONTRACT NO. 62D44	
ILLINOIS FED. AID PROJECT				





**FIRE LANE NO. 1 PHASE 1 EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION**

**FIRE LANE NO. 2 PHASE 5 EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION**

CHANGE FROM NORMAL SEQUENCE OF OPERATION INTERVAL NUMBER	MOVEMENT																											FIRE LANE NO. 1	CLEAR TO NORMAL SEQUENCE
	1	3	10	16	20	22	27	31	2																				
EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	1A	1B	1C	1D	1E	1F	1G	1H	1J	1K	1L	1M	1N	1P	1Q	1R	1S	1T	1U	1V	1W	1X	1Y	1Z	2				
CHANGE TO EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	2	1C	2	1E	1F	1G	2	1J	2	1L	2	1N	1P	1Q	2	1S	1T	1U	2	1W	2								
IL RTE 83 (ELMHURST RD) KENSINGTON / FOUNDRY RD NEAR AND FAR RIGHT SIGNALS	N/B	R	R	R	R	R	R	Y	R	Y	R	R	R	R	R	Y	R	R	R	R	R	R	R	R	R	R	◇		
IL RTE 83 (ELMHURST RD) KENSINGTON / FOUNDRY RD MAST ARM AND FAR LEFT SIGNALS	N/B	R	R	R	R	R	R	Y	R	Y	R	R	R	R	R	Y	R	R	R	R	R	R	R	R	R	R	◇		
IL RTE 83 (ELMHURST RD) AT US RTE 12 (RAND RD) NEAR AND FAR RIGHT SIGNALS	N/B	R	R	R	R	R	R	Y	R	Y	R	R	R	R	R	Y	R	R	R	R	R	R	R	R	R	R	◇		
IL RTE 83 (ELMHURST RD) AT US RTE 12 (RAND RD) MAST ARM AND FAR LEFT SIGNALS	N/B	R	R	R	R	R	R	Y	R	Y	R	R	R	R	R	Y	R	R	R	R	R	R	R	R	R	R	◇		
IL RTE 83 (ELMHURST RD) AT US RTE 12 (RAND RD) NEAR AND FAR RIGHT SIGNALS	S/B	R	R	R	R	R	R	Y	R	Y	R	R	R	R	R	Y	R	R	R	R	R	R	R	R	R	R	◇		
IL RTE 83 (ELMHURST RD) AT US RTE 12 (RAND RD) MAST ARM AND FAR LEFT SIGNALS	S/B	R	R	R	R	R	R	Y	R	Y	R	R	R	R	R	Y	R	R	R	R	R	R	R	R	R	R	◇		
IL RTE 83 (ELMHURST RD) AT KENSINGTON / FOUNDRY RD ALL SIGNALS	S/B	R	Y	R	G	G	Y	R	R	R	R	G	G	Y	R	G	G	Y	R	R	R	R	R	R	R	R	◇		
KENSINGTON/FOUNDRY RD AT IL RTE 83 (ELMHURST RD) ALL SIGNALS	E/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	◇		
KENSINGTON/FOUNDRY RD AT US RTE 12 (RAND RD) ALL SIGNALS	E/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	◇		
KENSINGTON/FOUNDRY RD AT US RTE 12 (RAND RD) ALL SIGNALS	W/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	◇		
KENSINGTON/FOUNDRY RD AT IL RTE 83 (ELMHURST RD) ALL SIGNALS	W/B	G	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	◇		
US RTE 12 (RAND RD) AT KENSINGTON / FOUNDRY RD NEAR AND FAR RIGHT AND MID MAST ARM SIGNALS	NW/B	G	G	G	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	◇		
US RTE 12 (RAND RD) AT KENSINGTON / FOUNDRY RD LEFT TURN SIGNALS	NW/B	←G	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	◇		
US RTE 12 (RAND RD) AT IL RTE 83 (ELMHURST RD) ALL SIGNALS	NW/B	G	G	G	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	◇		
US RTE 12 (RAND RD) AT IL RTE 83 (ELMHURST RD) NEAR AND FAR RIGHT AND MID MAST ARM SIGNALS	SE/B	R	Y	R	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	◇		
US RTE 12 (RAND RD) AT IL RTE 83 (ELMHURST RD) LEFT TURN SIGNALS	SE/B	←R	R	R	←Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	◇		
US RTE 12 (RAND RD) AT KENSINGTON / FOUNDRY RD NEAR AND FAR RIGHT AND MID MAST ARM SIGNALS	SE/B	R	Y	R	G	G	Y	R	Y	R	Y	R	G	G	Y	R	G	G	Y	R	R	R	R	R	R	R	◇		
US RTE 12 (RAND RD) AT KENSINGTON / FOUNDRY RD LEFT TURN SIGNALS	SE/B	←R	R	R	←G	←G	←Y	←R	←Y	←R	←Y	←R	←G	←G	←Y	R	←G	←G	←Y	R	R	R	R	R	R	R	◇		
PEDESTRIAN CROSSING US RTE 12 (RAND RD) TO NORTH CORNER ISLAND	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	◇		
PEDESTRIAN CROSSING US 12 CORNER ISLAND TO NORTHEAST SIDE OF IL 83	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	◇		
PEDESTRIAN CROSSING US RTE 12 (RAND RD) CORNER ISLAND TO SW CORNER OF IL 83	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	◇		
PEDESTRIAN CROSSING SE CORNER TO SOUTHEAST ISLAND	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	◇		
PEDESTRIAN CROSSING KENSINGTON ISLAND TO NE CORNER OF US 12 (RAND RD)	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	◇		
PEDESTRIAN CROSSING US 12 CORNER ISLAND TO SW KENSINGTON CORNER	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	◇		

CHANGE FROM NORMAL SEQUENCE OF OPERATION INTERVAL NUMBER	MOVEMENT																											FIRE LANE NO. 2	CLEAR TO NORMAL SEQUENCE
	1	3	10	16	20	22	27	31	2																				
EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	1A	1B	1C	1D	1E	1F	1G	1H	1J	1K	1L	1M	1N	1P	1Q	1R	1S	1T	1U	1V	1W	1X	1Y	1Z	2				
CHANGE TO EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	1B	1C	1D	2	1F	2	2	1J	2	1L	2	1N	2	1Q	2	1S	2												
IL RTE 83 (ELMHURST RD) KENSINGTON / FOUNDRY RD NEAR AND FAR RIGHT SIGNALS	N/B	R	R	R	R	R	R	Y	R	Y	R	R	R	R	R	Y	R	R	R	R	R	R	R	R	R	R	◇		
IL RTE 83 (ELMHURST RD) KENSINGTON / FOUNDRY RD MAST ARM AND FAR LEFT SIGNALS	N/B	R	R	R	R	R	R	Y	R	Y	R	R	R	R	R	Y	R	R	R	R	R	R	R	R	R	R	◇		
IL RTE 83 (ELMHURST RD) AT US RTE 12 (RAND RD) NEAR AND FAR RIGHT SIGNALS	N/B	R	R	R	R	R	R	Y	R	Y	R	R	R	R	R	Y	R	R	R	R	R	R	R	R	R	R	◇		
IL RTE 83 (ELMHURST RD) AT US RTE 12 (RAND RD) MAST ARM AND FAR LEFT SIGNALS	N/B	R	R	R	R	R	R	Y	R	Y	R	R	R	R	R	Y	R	R	R	R	R	R	R	R	R	R	◇		
IL RTE 83 (ELMHURST RD) AT US RTE 12 (RAND RD) NEAR AND FAR RIGHT SIGNALS	S/B	R	R	R	R	R	R	Y	R	Y	R	R	R	R	R	Y	R	R	R	R	R	R	R	R	R	R	◇		
IL RTE 83 (ELMHURST RD) AT US RTE 12 (RAND RD) MAST ARM AND FAR LEFT SIGNALS	S/B	R	R	R	R	R	R	Y	R	Y	R	R	R	R	R	Y	R	R	R	R	R	R	R	R	R	R	◇		
IL RTE 83 (ELMHURST RD) AT KENSINGTON / FOUNDRY RD ALL SIGNALS	S/B	R	R	R	R	G	G	R	R	R	R	G	G	R	R	G	G	R	R	R	R	R	R	R	R	R	◇		
KENSINGTON/FOUNDRY RD AT IL RTE 83 (ELMHURST RD) ALL SIGNALS	E/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	◇		
KENSINGTON/FOUNDRY RD AT US RTE 12 (RAND RD) ALL SIGNALS	E/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	◇		
KENSINGTON/FOUNDRY RD AT US RTE 12 (RAND RD) ALL SIGNALS	W/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	◇		
KENSINGTON/FOUNDRY RD AT IL RTE 83 (ELMHURST RD) ALL SIGNALS	W/B	G	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	◇		
US RTE 12 (RAND RD) AT KENSINGTON / FOUNDRY RD NEAR AND FAR RIGHT AND MID MAST ARM SIGNALS	NW/B	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	◇		
US RTE 12 (RAND RD) AT KENSINGTON / FOUNDRY RD LEFT TURN SIGNALS	NW/B	←Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	◇		
US RTE 12 (RAND RD) AT IL RTE 83 (ELMHURST RD) ALL SIGNALS	NW/B	Y	R	R	R	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	◇		
US RTE 12 (RAND RD) AT IL RTE 83 (ELMHURST RD) NEAR AND FAR RIGHT AND MID MAST ARM SIGNALS	SE/B	R	R	R	R	G	G	G	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	◇		
US RTE 12 (RAND RD) AT IL RTE 83 (ELMHURST RD) LEFT TURN SIGNALS	SE/B	R	R	R	R	←G	R	R	R	R	R	R	R	R	R	←G	R	R	R	R	R	R	R	R	R	R	◇		
US RTE 12 (RAND RD) AT KENSINGTON / FOUNDRY RD NEAR AND FAR RIGHT AND MID MAST ARM SIGNALS	SE/B	R	R	R	R	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	◇		
US RTE 12 (RAND RD) AT KENSINGTON / FOUNDRY RD LEFT TURN SIGNALS	SE/B	R	R	R	R	←G	◇																						
PEDESTRIAN CROSSING US RTE 12 (RAND RD) TO NORTH CORNER ISLAND	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	◇		
PEDESTRIAN CROSSING US 12 CORNER ISLAND TO NORTHEAST SIDE OF IL 83	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	◇		
PEDESTRIAN CROSSING US RTE 12 (RAND RD) CORNER ISLAND TO SW CORNER OF IL 83	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	◇		
PEDESTRIAN CROSSING SE CORNER TO SOUTHEAST ISLAND	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	◇		
PEDESTRIAN CROSSING KENSINGTON ISLAND TO NE CORNER OF US 12 (RAND RD)	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	◇		
PEDESTRIAN CROSSING US 12 CORNER ISLAND TO SW KENSINGTON CORNER	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	◇		

◇ EMERGENCY VEHICLE SEQUENCE SHALL PROVIDE THE PROPER CLEARANCE INTERVAL TO RESUME THE NORMAL SEQUENCE OF OPERATION OR PROPER CLEARANCE INTERVAL TO DISPLAY A DIFFERENT EMERGENCY VEHICLE INTERVAL AFTER EMERGENCY VEHICLE 2 IS TERMINATED.

TS# 380  
ECON 194  
MOUNT PROSPECT

**FIRE LANE NO. 2 PHASE 5 EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION**

MOVEMENT	Diagram																				FIRE LANE NO. 3	CLEAR TO NORMAL SEQUENCE			
	1A	1B	1C	1D	1E	1F	1G	1H	1J	1K	1L	1M	1N	1P	1Q	1R	1S	1T	1U	1V			1W	1X	
CHANGE FROM NORMAL SEQUENCE OF OPERATION INTERVAL NUMBER																									
EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	1A	1B	1C	1D	1E	1F	1G	1H	1J	1K	1L	1M	1N	1P	1Q	1R	1S	1T	1U	1V	1W	1X	2		
CHANGE TO EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	1B	1C	1D	2	1F	2	1H	1J	1K	2	2	2	1P	1Q	1R	2	1T	1U	1V	2	1Y	2			
IL RTE 83 (ELMHURST RD) KENSINGTON / FOUNDRY RD NEAR AND FAR RIGHT SIGNALS N/B	R	R	R	R	R	R	R	R	R	R	R	G	G	R	R	R	G	G	G	G	R	R	G	◇	
IL RTE 83 (ELMHURST RD) KENSINGTON / FOUNDRY RD MAST ARM AND FAR LEFT SIGNALS N/B	R	R	R	R	R	R	R	R	R	R	C	G	G	R	R	R	G	G	G	G	R	R	C	G	◇
IL RTE 83 (ELMHURST RD) AT US RTE 12 (RAND RD) NEAR AND FAR RIGHT SIGNALS N/B	R	R	R	R	R	R	R	R	R	R	R	G	R	R	R	R	G	G	G	G	R	R	G	◇	
IL RTE 83 (ELMHURST RD) AT US RTE 12 (RAND RD) MAST ARM FAR LEFT SIGNALS N/B	R	R	R	R	R	R	R	R	R	R	R	G	R	R	R	R	G	G	G	G	R	R	C	G	◇
IL RTE 83 (ELMHURST RD) AT US RTE 12 (RAND RD) NEAR AND FAR RIGHT SIGNALS S/B	R	R	R	R	R	R	R	R	R	R	R	R	Y	R	R	R	Y	R	R	R	R	R	R	◇	
IL RTE 83 (ELMHURST RD) AT US RTE 12 (RAND RD) MAST ARM AND FAR LEFT SIGNALS S/B	R	R	R	R	R	R	R	R	R	R	R	R	Y	R	R	R	Y	R	R	R	R	R	R	◇	
IL RTE 83 (ELMHURST RD) AT KENSINGTON / FOUNDRY RD ALL SIGNALS S/B	R	R	R	R	Y	R	G	G	Y	R	R	R	G	G	Y	R	G	G	Y	R	R	R	R	◇	
KENSINGTON/FOUNDRY RD AT IL RTE 83 (ELMHURST RD) ALL SIGNALS E/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	R	R	◇	
KENSINGTON/FOUNDRY RD AT US RTE 12 (RAND RD) ALL SIGNALS E/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	R	R	◇	
KENSINGTON/FOUNDRY RD AT US RTE 12 (RAND RD) ALL SIGNALS W/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	R	R	◇	
KENSINGTON/FOUNDRY RD AT IL RTE 83 (ELMHURST RD) ALL SIGNALS W/B	G	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	R	R	◇	
US RTE 12 (RAND RD) AT KENSINGTON / FOUNDRY RD NEAR AND FAR RIGHT AND MID MAST ARM SIGNALS NW/B	Y	R	R	R	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	◇	
US RTE 12 (RAND RD) AT KENSINGTON / FOUNDRY RD LEFT TURN SIGNALS NW/B	←Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	←R	◇	
US RTE 12 (RAND RD) AT IL RTE 83 (ELMHURST RD) ALL SIGNALS NW/B	Y	R	R	R	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	R	R	◇	
US RTE 12 (RAND RD) AT IL RTE 83 (ELMHURST RD) NEAR AND FAR RIGHT AND MID MAST ARM SIGNALS SE/B	R	R	R	R	Y	R	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	◇	
US RTE 12 (RAND RD) AT IL RTE 83 (ELMHURST RD) LEFT TURN SIGNALS SE/B	R	R	R	R	R	←Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	←R	◇	
US RTE 12 (RAND RD) AT KENSINGTON / FOUNDRY RD NEAR AND FAR RIGHT AND MID MAST ARM SIGNALS SE/B	R	R	R	R	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	R	R	G	◇	
US RTE 12 (RAND RD) AT KENSINGTON / FOUNDRY RD LEFT TURN SIGNALS SE/B	R	R	R	R	R	←G	R	R	←G	◇															

◇ EMERGENCY VEHICLE SEQUENCE SHALL PROVIDE THE PROPER CLEARANCE INTERVAL TO RESUME THE NORMAL SEQUENCE OF OPERATION OR PROPER CLEARANCE INTERVAL TO DISPLAY A DIFFERENT EMERGENCY VEHICLE INTERVAL AFTER EMERGENCY VEHICLE 2 IS TERMINATED.

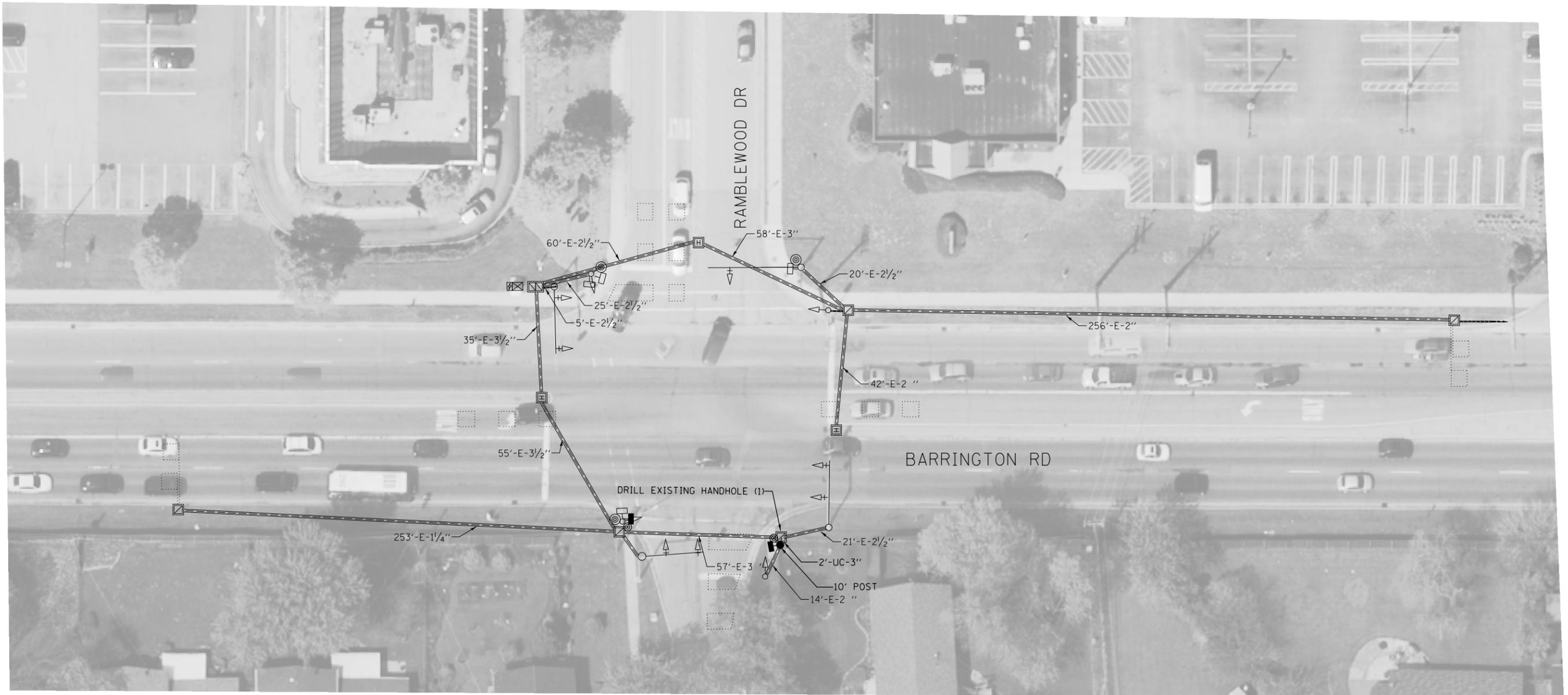
**FIRE LANE NO. 4 PHASE 4+7 EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION**

MOVEMENT	Diagram																				FIRE LANE NO. 4	CLEAR TO NORMAL SEQUENCE		
	1A	1B	1C	1D	1E	1F	1G	1H	1J	1K	1L	1M	1N	1P	1Q	1R	1S	1T	1U	1V			1W	1X
CHANGE FROM NORMAL SEQUENCE OF OPERATION INTERVAL NUMBER																								
EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	1A	1B	1C	1D	1E	1F	1G	1H	1J	1K	1L	1M	1N	1P	1Q	1R	1S	1T	1U	1V	1W	1X	2	
CHANGE TO EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	1B	1C	1D	2	1F	2	1H	2	1K	2	1M	2	2	1Q	2	1S	2							
IL RTE 83 (ELMHURST RD) KENSINGTON / FOUNDRY RD NEAR AND FAR RIGHT SIGNALS N/B	R	R	R	R	R	R	R	R	Y	R	Y	R	R	Y	R	R	R	R	R	R	R	R	◇	
IL RTE 83 (ELMHURST RD) KENSINGTON / FOUNDRY RD MAST ARM AND FAR LEFT SIGNALS N/B	R	R	R	R	R	R	R	R	Y	R	Y	R	R	Y	R	R	R	R	R	R	R	R	◇	
IL RTE 83 (ELMHURST RD) AT US RTE 12 (RAND RD) NEAR AND FAR RIGHT SIGNALS N/B	R	R	R	R	R	R	R	R	R	R	R	Y	R	R	Y	R	R	R	R	R	R	R	◇	
IL RTE 83 (ELMHURST RD) AT US RTE 12 (RAND RD) MAST ARM FAR LEFT SIGNALS N/B	R	R	R	R	R	R	R	R	R	R	R	Y	R	R	Y	R	R	R	R	R	R	R	◇	
IL RTE 83 (ELMHURST RD) AT US RTE 12 (RAND RD) NEAR AND FAR RIGHT SIGNALS S/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	◇	
IL RTE 83 (ELMHURST RD) AT US RTE 12 (RAND RD) MAST ARM AND FAR LEFT SIGNALS S/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	◇	
IL RTE 83 (ELMHURST RD) AT KENSINGTON / FOUNDRY RD ALL SIGNALS S/B	R	R	R	R	G	G	G	G	R	R	R	R	R	G	G	G	G	R	R	R	R	R	◇	
KENSINGTON/FOUNDRY RD AT IL RTE 83 (ELMHURST RD) ALL SIGNALS E/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	R	R	◇
KENSINGTON/FOUNDRY RD AT US RTE 12 (RAND RD) ALL SIGNALS E/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	R	R	◇
KENSINGTON/FOUNDRY RD AT US RTE 12 (RAND RD) ALL SIGNALS W/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	R	R	◇
KENSINGTON/FOUNDRY RD AT IL RTE 83 (ELMHURST RD) ALL SIGNALS W/B	G	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	R	R	◇
US RTE 12 (RAND RD) AT KENSINGTON / FOUNDRY RD NEAR AND FAR RIGHT AND MID MAST ARM SIGNALS NW/B	Y	R	R	R	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	◇
US RTE 12 (RAND RD) AT KENSINGTON / FOUNDRY RD LEFT TURN SIGNALS NW/B	←Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	←R	◇
US RTE 12 (RAND RD) AT IL RTE 83 (ELMHURST RD) ALL SIGNALS NW/B	Y	R	R	R	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	R	R	◇
US RTE 12 (RAND RD) AT IL RTE 83 (ELMHURST RD) NEAR AND FAR RIGHT AND MID MAST ARM SIGNALS SE/B	R	R	R	R	Y	R	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	◇
US RTE 12 (RAND RD) AT IL RTE 83 (ELMHURST RD) LEFT TURN SIGNALS SE/B	R	R	R	R	R	←Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	←R	◇
US RTE 12 (RAND RD) AT KENSINGTON / FOUNDRY RD NEAR AND FAR RIGHT AND MID MAST ARM SIGNALS SE/B	R	R	R	R	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	R	R	G	◇
US RTE 12 (RAND RD) AT KENSINGTON / FOUNDRY RD LEFT TURN SIGNALS SE/B	R	R	R	R	R	←G	R	R	←G	◇														

◇ EMERGENCY VEHICLE SEQUENCE SHALL PROVIDE THE PROPER CLEARANCE INTERVAL TO RESUME THE NORMAL SEQUENCE OF OPERATION OR PROPER CLEARANCE INTERVAL TO DISPLAY A DIFFERENT EMERGENCY VEHICLE INTERVAL AFTER EMERGENCY VEHICLE 2 IS TERMINATED.

TS# 380  
ECON 194  
MOUNT PROSPECT

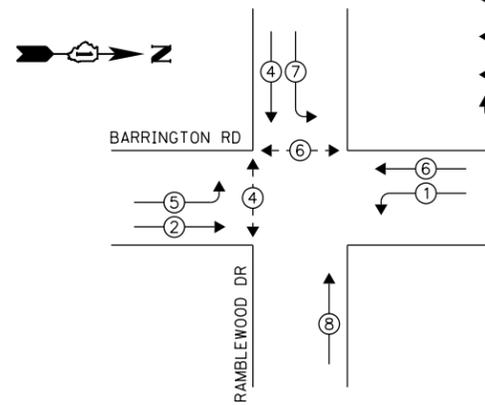




TS# 21285  
STREAMWOOD

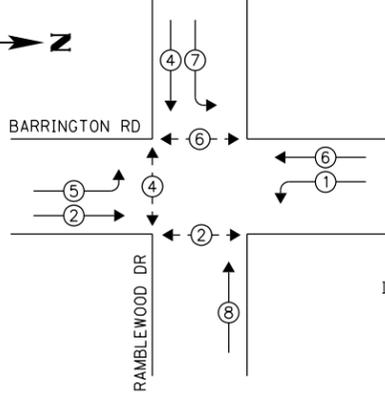
FILE NAME = p:\11\084EBID\INTEG.illinois.gov\PIWIDOT\Documents\IDOT Offices\District 1\Projects\102317\Traffic\102317-sht-ts2.dgn	USER NAME = poc1echal	DESIGNED - JC	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>TRAFFIC SIGNAL MODERNIZATION BARRINGTON RD AT RAMBLEWOOD DR</b>				F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 40.0000' / in.	CHECKED - LP / ZJ	REVISED -		SCALE:	SHEET	OF	SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT	VARIOUS	55
Default	PLOT DATE = 3/23/2017	DATE - 03/24/2017	REVISED -						CONTRACT NO. 62D44				

**EXISTING CONTROLLER SEQUENCE**



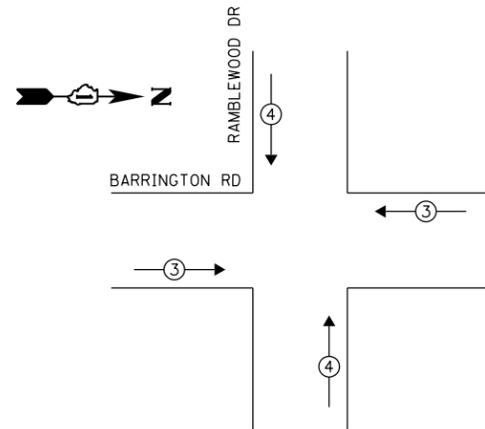
**LEGEND:**

- ◻ SINGLE ENTRY PHASE
- ◻ DUAL ENTRY PHASE
- ◻ PEDESTRIAN PHASE
- ◻ OVERLAP



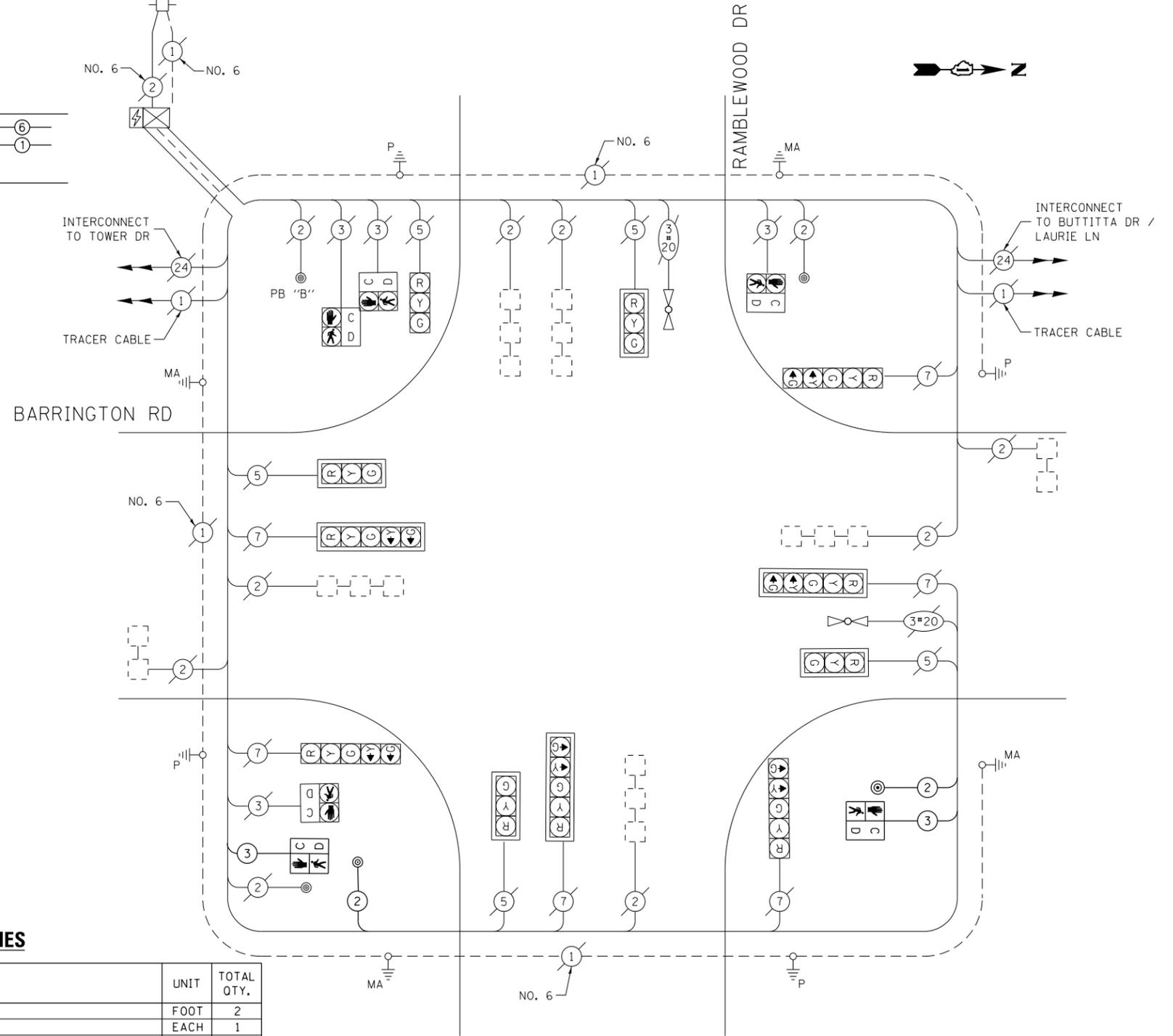
**EXISTING PHASE DESIGNATION DIAGRAM**

**EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE**



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

BARRINGTON RD



**CABLE PLAN**

(NOT TO SCALE)

**TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS**

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	11	11	50	60.5
(YELLOW)	11	20	5	11.0
(GREEN)	11	12	45	59.4
PERMISSIVE ARROW	12	10	10	12.0
PED. SIGNAL	6	20	100	40.0
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	-	150	100	-
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	-	-	-	-
TOTAL =				438.9

ENERGY COSTS TO:

VILLAGE OF STREAMWOOD  
301 E. IRVING PARK RD  
STREAMWOOD, IL 60107

ENERGY SUPPLY: CONTACT: JOE STACHO  
PHONE: (630) 424-5704  
COMPANY: COMMONWEALTH EDISON  
ACCOUNT NUMBER: ---

**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNIT	TOTAL QTY.
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	2
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	330
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	345
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	15
TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	4
DRILL EXISTING HANDHOLE	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
MODIFY EXISTING CONTROLLER	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
PEDESTRIAN PUSH-BUTTON, NON-LATCHING	EACH	2
RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 1	EACH	1

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

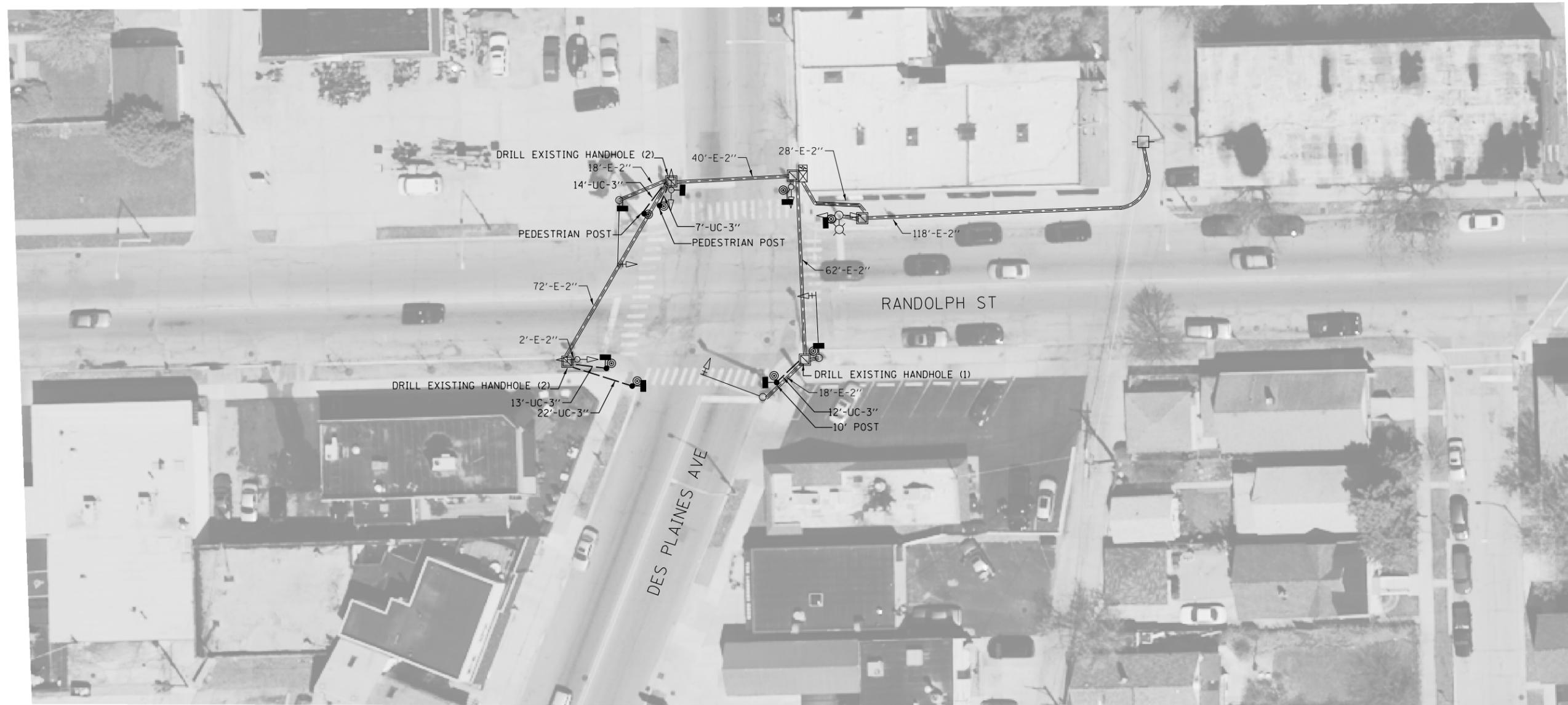
SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM  
AND EMERGENCY VEHICLE PREEMPTION SEQUENCE  
BARRINGTON RD AT RAMBLEWOOD DR

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2016-056TS	VARIOUS	55	48
			CONTRACT NO. 62D44	
ILLINOIS FED. AID PROJECT				

FILE NAME	USER NAME	DESIGNED	REVISED
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		LP / ZJ	-
		03/24/2017	-

TS# 21285  
STREAMWOOD

SCALE: SHEET OF SHEETS STA. TO STA.



TS# 13675  
FOREST PARK

FILE NAME =	USER NAME = poc1echal	DESIGNED - JC	REVISED -
p:\11\084EBIDINTEG.illinois.gov\PIWIDOT\Documents\IDOT Offices\District 1\Projects\102317\Traffic\102317-sht-ts2.dgn		DRWN -	REVISED -
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	PLOT DATE = 3/23/2017	DATE - 03/24/2017	REVISED -

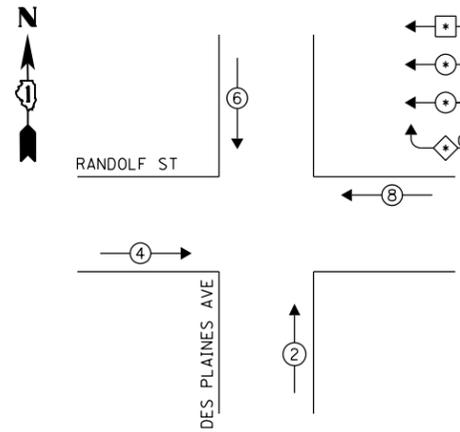
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL MODERNIZATION  
RANDOLPH ST AT DES PLAINES AVE**

SCALE: SHEET OF SHEETS STA. TO STA.

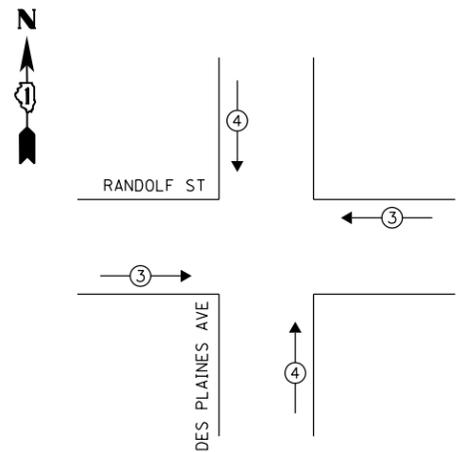
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2016-056TS	VARIOUS	55	49
			CONTRACT NO. 62D44	
ILLINOIS FED. AID PROJECT				

**EXISTING CONTROLLER SEQUENCE**



**EXISTING PHASE DESIGNATION DIAGRAM**

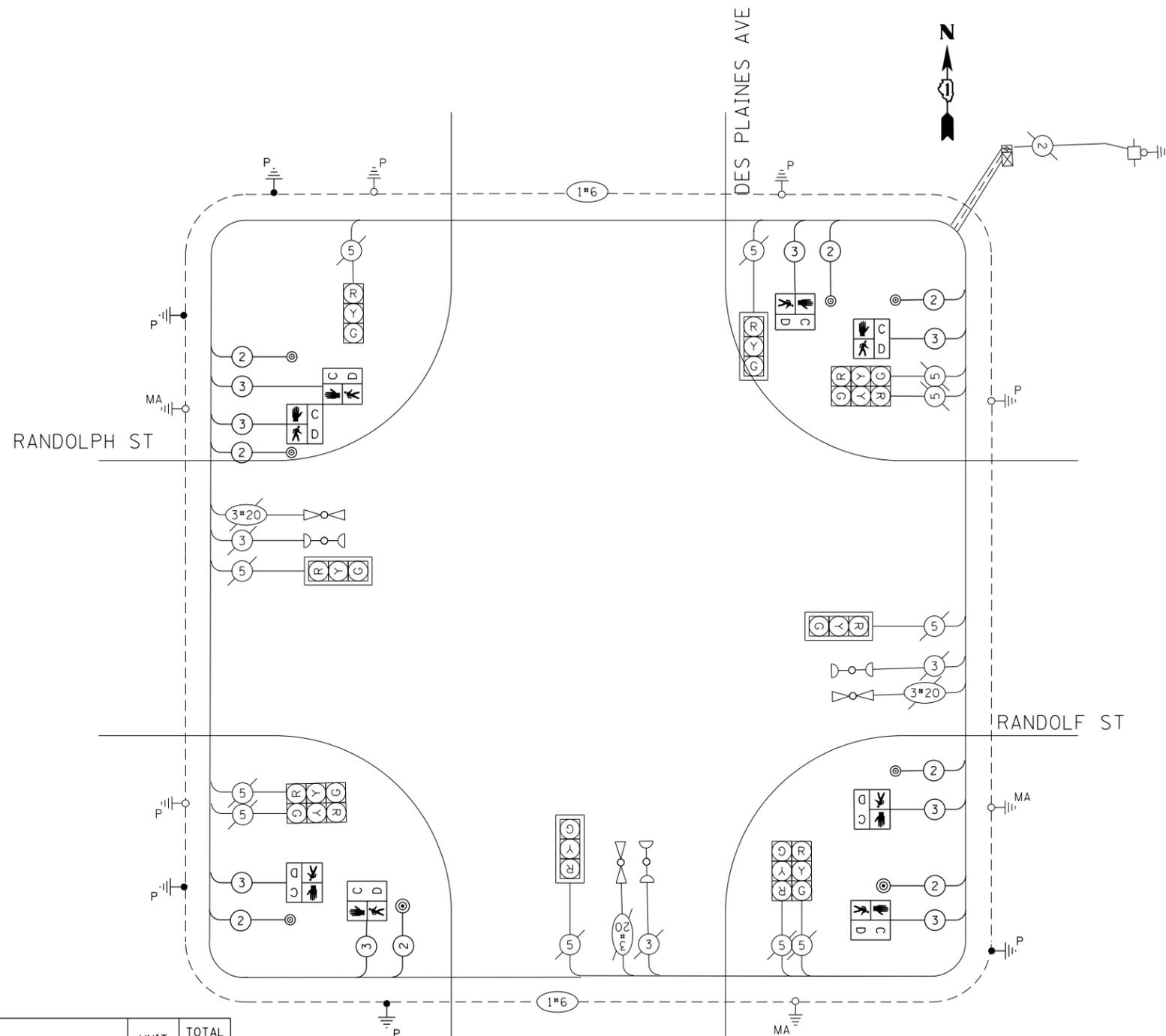
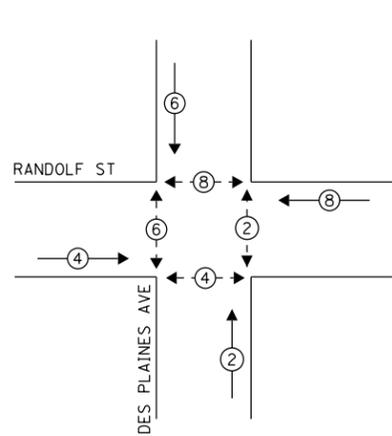
**EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE**



**LEGEND:**

- ◀ ⊕ SINGLE ENTRY PHASE
- ◀ ⊙ DUAL ENTRY PHASE
- ◀ ⊕ → PEDESTRIAN PHASE
- ◀ ⊕ ⊙ OVERLAP

**PROPOSED CONTROLLER SEQUENCE**



**TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS**

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	11	11	50	60.5
(YELLOW)	11	20	5	11
(GREEN)	11	12	45	59.4
PERMISSIVE ARROW	-	10	-	-
PED. SIGNAL	8	20	100	160
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	-	150	100	-
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	-	-	-	-
TOTAL =				415.9

ENERGY COSTS TO:  
 VILLAGE OF FOREST PARK  
 301 E. IRVING PARK RD  
 STREAMWOOD, IL 60107  
 ENERGY SUPPLY: CONTACT: JOE STACHO  
 PHONE: (630) 424-5704  
 COMPANY: COMMONWEALTH EDISON  
 ACCOUNT NUMBER: ---

**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNIT	TOTAL QTY.
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	56
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	875
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	930
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	130
TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.	EACH	3
CONCRETE FOUNDATION, TYPE A	FOOT	20
DRILL EXISTING HANDHOLE	EACH	5
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	8
PEDESTRIAN PUSH-BUTTON	EACH	8
MODIFY EXISTING CONTROLLER	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
PEDESTRIAN PUSH-BUTTON POST, TYPE A	EACH	2
RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 1	EACH	1

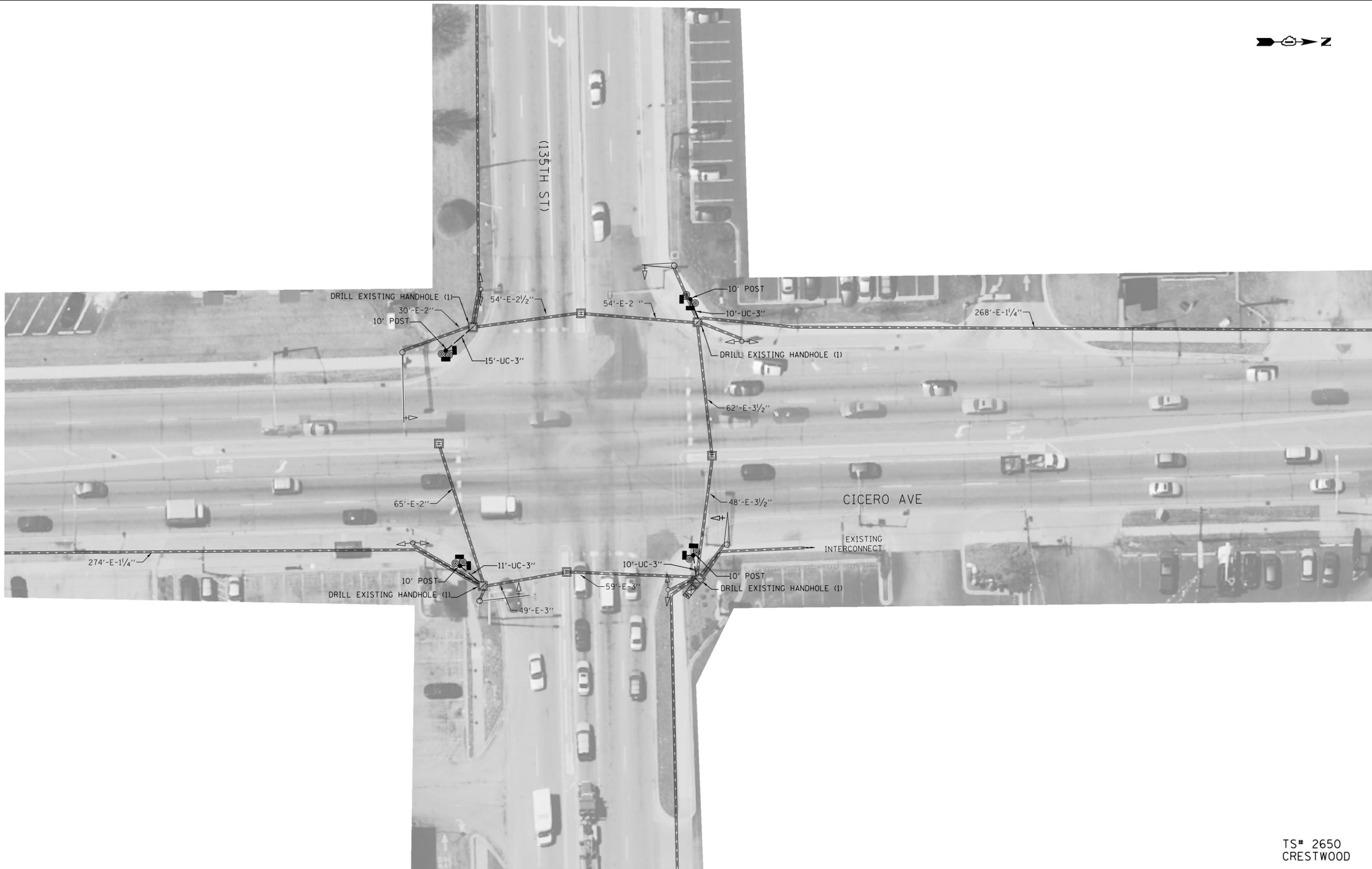
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 CHECKED - LP / ZJ  
 REVISIONS:  
 REVISIONS:  
 PLOT DATE = 3/23/2017  
 DATE - 03/24/2017

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM  
 AND EMERGENCY VEHICLE PREEMPTION SEQUENCE  
 RANDOLPH ST AT DES PLAINES AVE**

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2016-056TS	VARIOUS	55	50
			CONTRACT NO. 62D44	
ILLINOIS FED. AID PROJECT				

TS# 13675  
 FOREST PARK



TS# 2650  
CRESTWOOD

FILE NAME =	USER NAME = poc1echal	DESIGNED - JC	REVISED -
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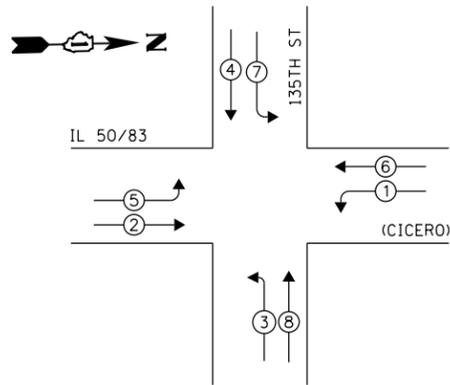
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL MODERNIZATION  
IL 50 /IL 83 (CICERO AVE) AT 135TH ST**

SCALE: SHEET OF SHEETS STA. TO STA.

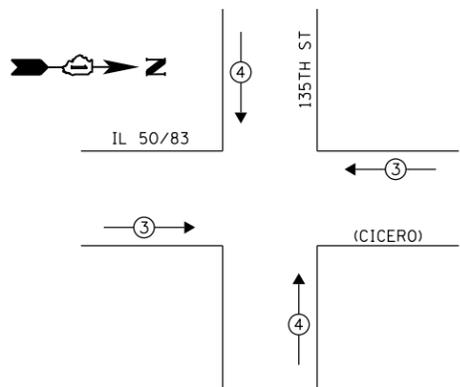
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	2016-056TS	VARIOUS	55	51
ILLINOIS FED. AID PROJECT			CONTRACT NO. 62D44	

**EXISTING CONTROLLER SEQUENCE**



**EXISTING PHASE DESIGNATION DIAGRAM**

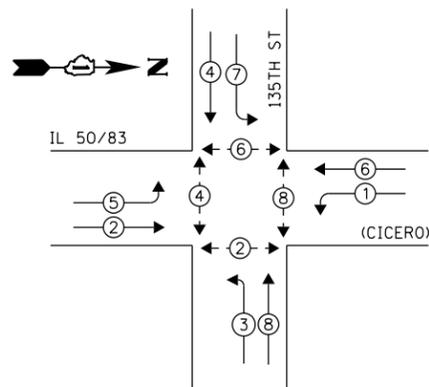
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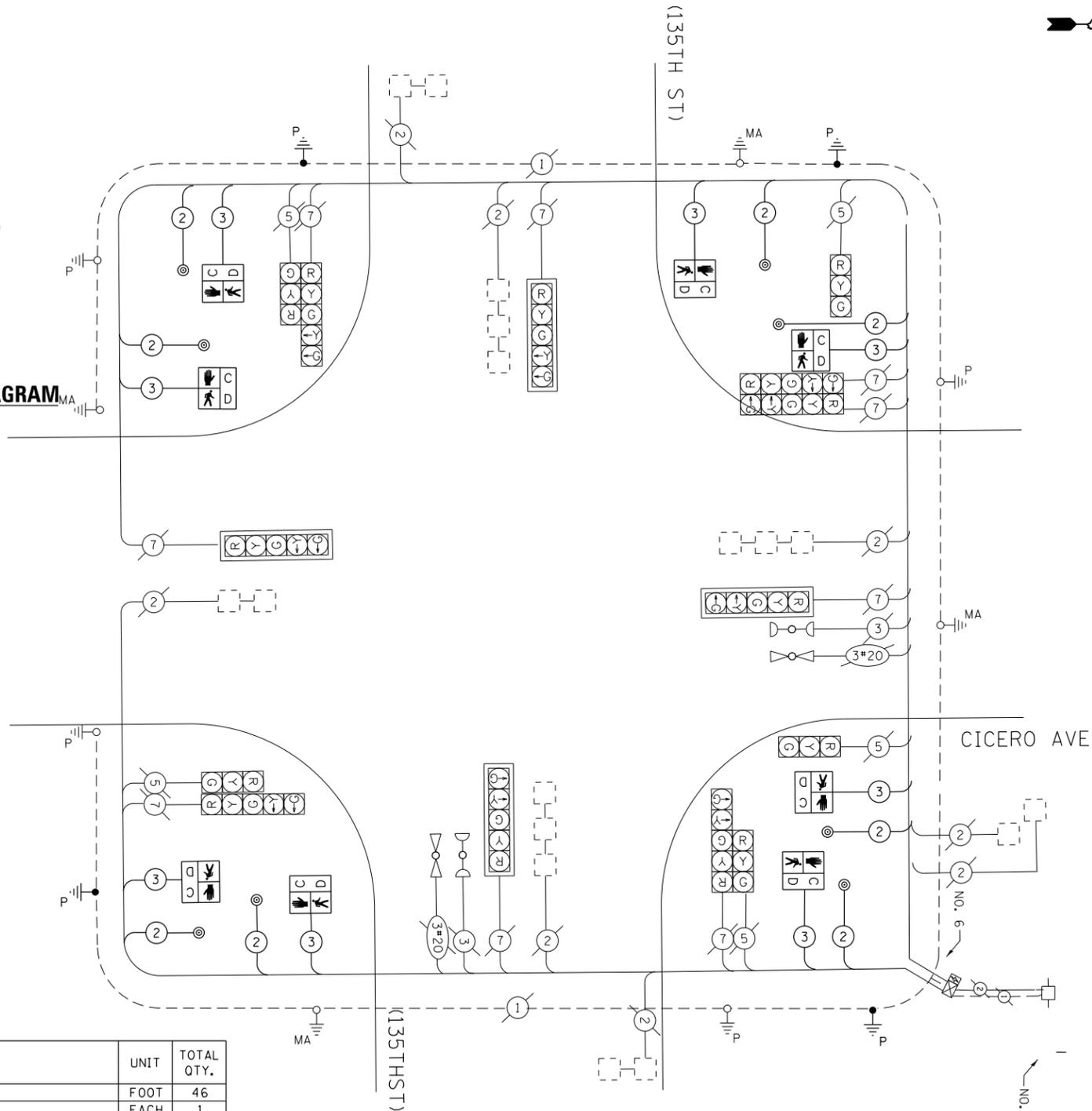
**EXISTING CONTROLLER SEQUENCE**

**LEGEND:**

- ◀ ⊕ ▶ SINGLE ENTRY PHASE
- ◀ ⊕ ⊕ ▶ DUAL ENTRY PHASE
- ◀ ⊕ ⊕ ▶ PEDESTRIAN PHASE
- ◀ ⊕ ⊕ ▶ OVERLAP



**EXISTING PHASE DESIGNATION DIAGRAM**



**CABLE PLAN**

**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNIT	TOTAL QTY.
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	46
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	1340
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1400
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	100
TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.	EACH	4
CONCRETE FOUNDATION, TYPE A	FOOT	16
DRILL EXISTING HANDHOLE	EACH	4
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	8
PEDESTRIAN PUSH-BUTTON	EACH	8
MODIFY EXISTING CONTROLLER	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 1	EACH	1

**TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS**

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	14	11	50	77
(YELLOW)	14	20	5	14
(GREEN)	14	12	45	75.6
PERMISSIVE ARROW	18	10	10	18
PED. SIGNAL	8	20	100	160
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	-	150	100	-
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	-	-	-	-
TOTAL =				469.6

ENERGY COSTS TO:

VILLAGE OF CRESTWOOD  
13840 S CICERO AVENUE  
CRESTWOOD, IL 60445

ENERGY SUPPLY: CONTACT: JOE STACHO  
PHONE: (630) 424-5704  
COMPANY: COMMONWEALTH EDISON  
ACCOUNT NUMBER: ---

FILE NAME =	USER NAME = pociechal
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	CHECKED - LP / ZJ
	DATE - 03/24/2017

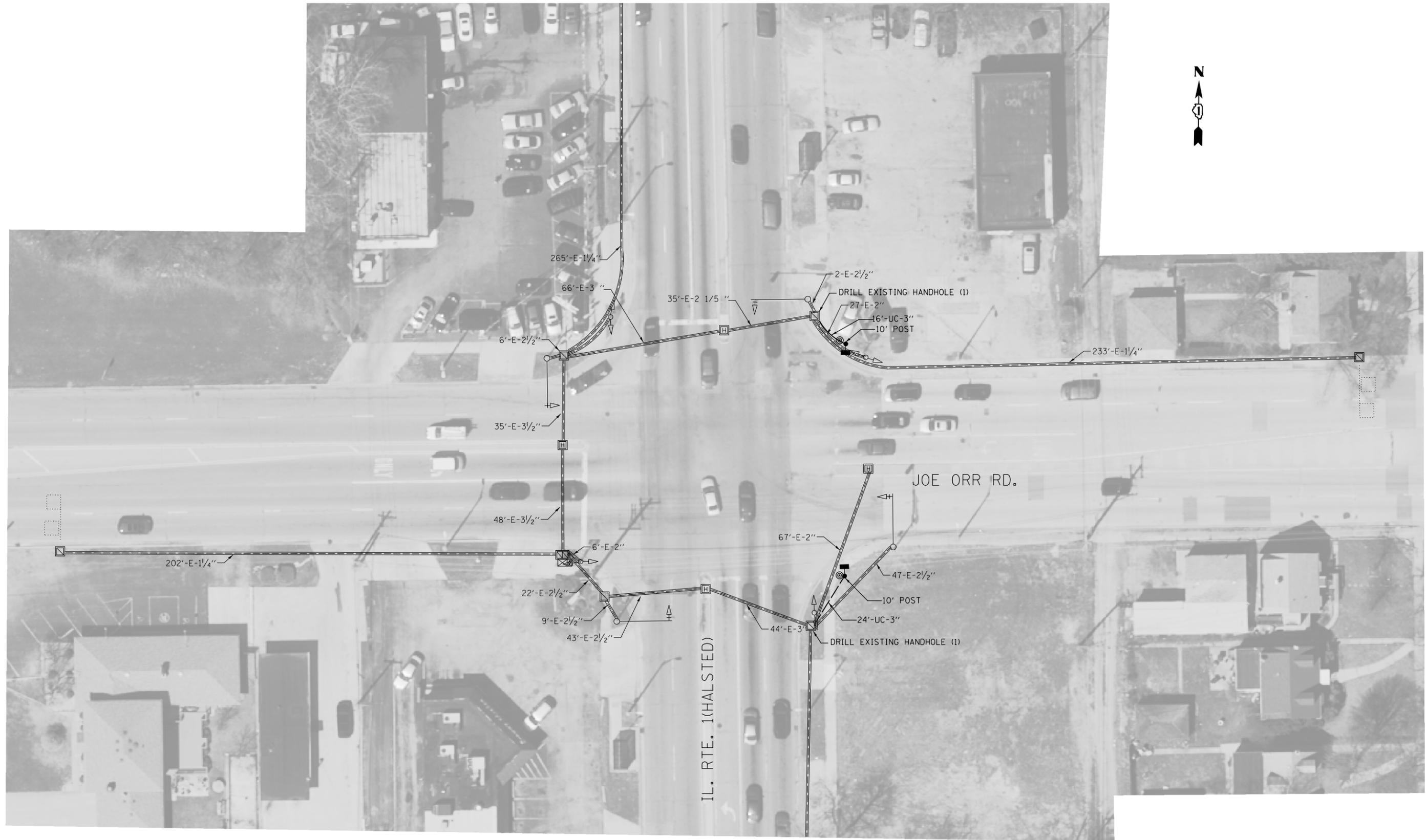
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM  
AND EMERGENCY VEHICLE PREEMPTION SEQUENCE  
IL 50 / IL 83 (CICERO AVE) AT 135TH ST**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2016-056TS	VARIOUS	55	52
CONTRACT NO. 62D44				
ILLINOIS FED. AID PROJECT				

TS# 2650  
CRESTWOOD



TS# 1850  
CHICAGO HEIGHTS

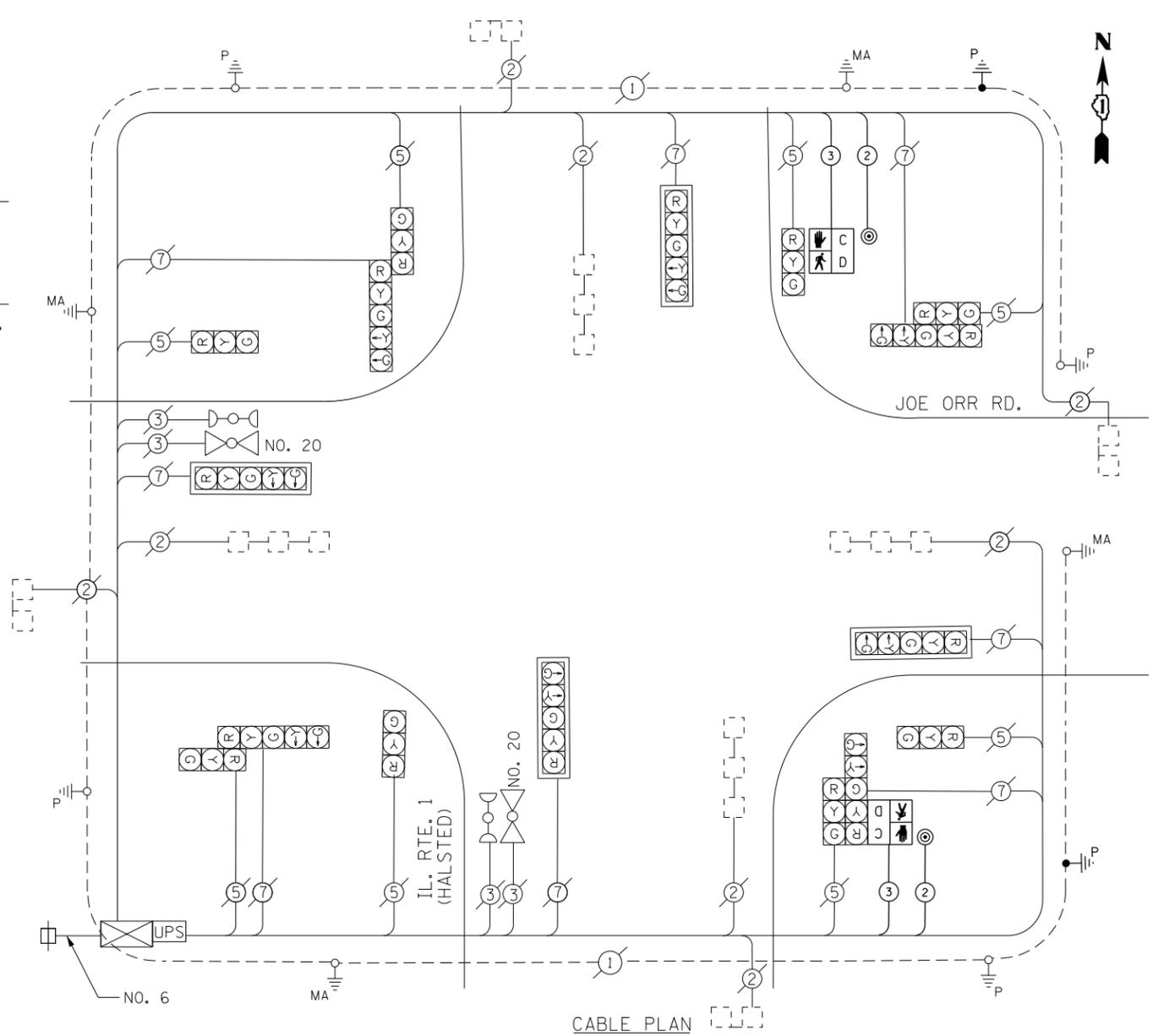
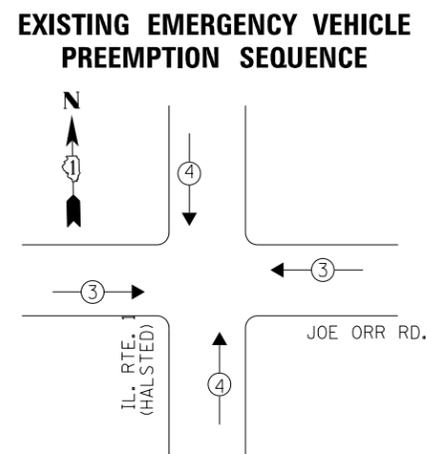
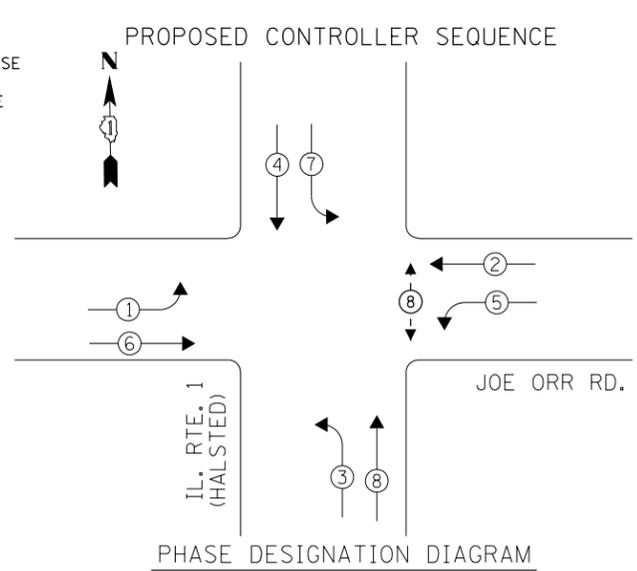
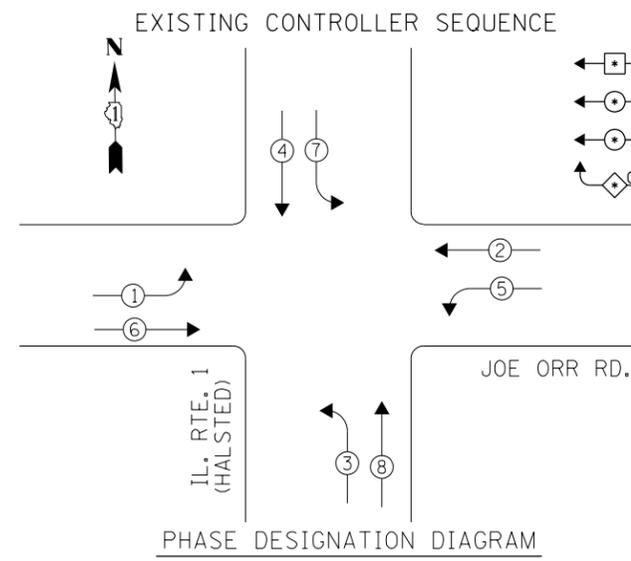
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Default	PLOT SCALE = 40.0000' / in.	CHECKED - LP / ZJ	REVISED -
	PLOT DATE = 3/23/2017	DATE - 03/24/2017	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL MODERNIZATION  
IL 1 (HALSTED ST) AT JOE ORR RD**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2016-056TS	VARIOUS	55	53
CONTRACT NO. 62D44				
ILLINOIS FED. AID PROJECT				



**TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS**

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	16	11	50	88
(YELLOW)	16	20	5	16
(GREEN)	16	12	45	86.4
PERMISSIVE ARROW	16	10	10	16
PED. SIGNAL	2	20	100	41
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	-	150	100	-
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	-	-	-	-
TOTAL =				372.4

**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNIT	TOTAL QTY.
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	40
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	450
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	465
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	65
TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.	EACH	2
CONCRETE FOUNDATION, TYPE A	FOOT	8
DRILL EXISTING HANDHOLE	EACH	2
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
PEDESTRIAN PUSH-BUTTON	EACH	2
MODIFY EXISTING CONTROLLER	EACH	1
MODIFY EXISTING CONTROLLER CABINET	EACH	1
RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 1	EACH	1

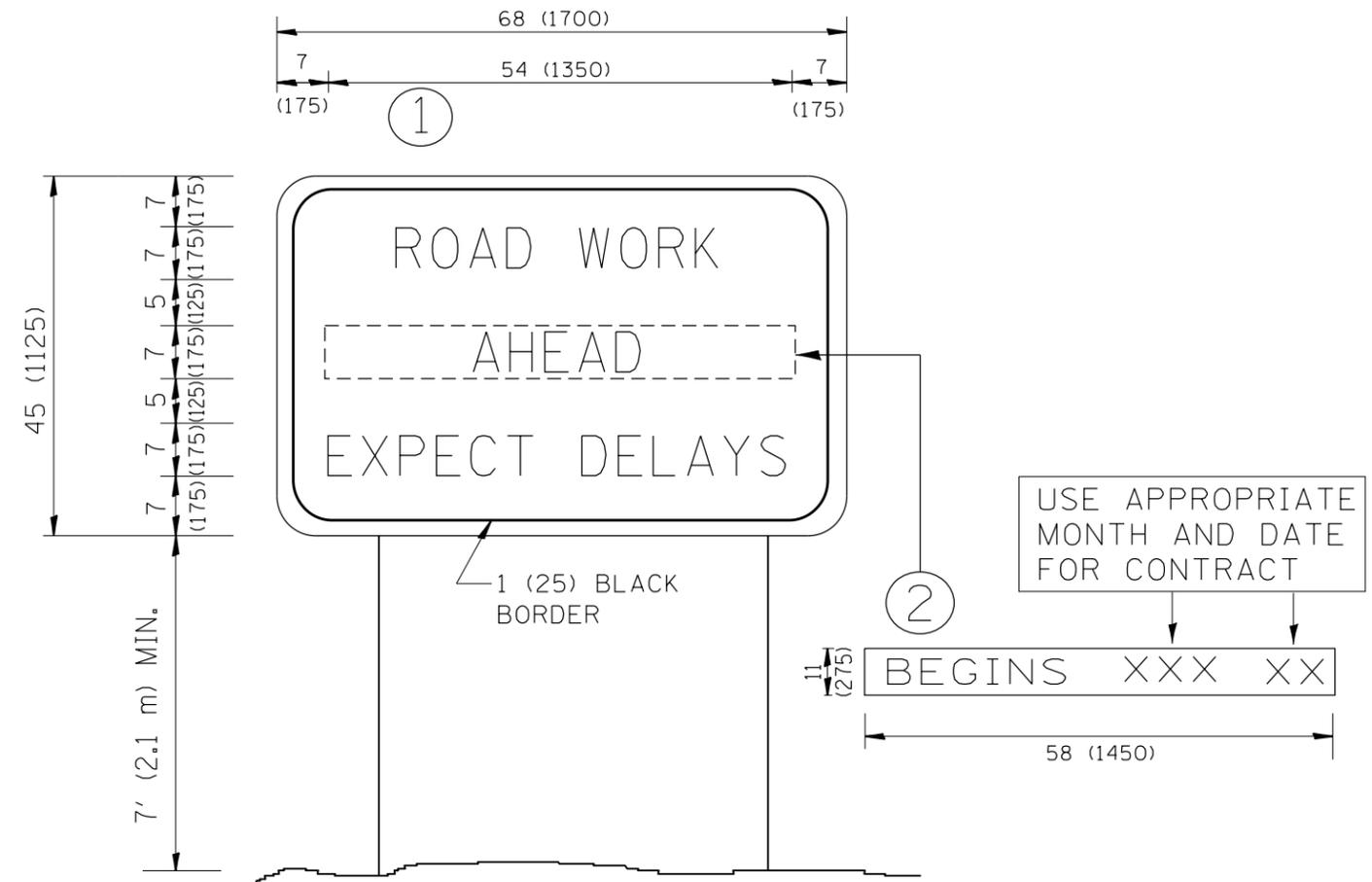
ENERGY COSTS TO:  
 ILLINOIS DEPARTMENT OF TRANSPORTATION  
 201 WEST CENTER COURT  
 SCHAUMBURG, IL 60196  
 ENERGY SUPPLY: CONTACT: BRAD SHINABARGAR  
 PHONE: 708-325-2692  
 COMPANY: COMMONWEALTH EDISON  
 ACCOUNT NUMBER: ---

FILE NAME =  
 USER NAME = pociechal  
 DESIGNED - JC  
 REVISED -  
 CHECKED - LP / ZJ  
 REVISED -  
 DATE - 03/24/2017  
 REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM  
 AND EMERGENCY VEHICLE PREEMPTION SEQUENCE  
 IL 1 (HALSTED ST) AT JOE ORR RD**

TS\* 1850  
 CHICAGO HEIGHTS  
 SECTION 2016-056TS  
 COUNTY VARIOUS  
 TOTAL SHEETS 55  
 SHEET NO. 54  
 CONTRACT NO. 62D44  
 ILLINOIS FED. AID PROJECT



**NOTES:**

1. USE BLACK LETTERING ON ORANGE BACKGROUND.
2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN ① WITH INSTALLED PANEL ② ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
4. REMOVE PANEL ② SOON AFTER THE START OF CONSTRUCTION.
5. SEE SPECIAL PROVISION FOR "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
6. ONE SIGN ASSEMBLY EQUALS 25.70 SQ. FT. (2.3 SQ. M.)
7. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

FILE NAME =	USER NAME = poc1echal	DESIGNED -	REVISED - R. MIRS 09-15-97	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>ARTERIAL ROAD INFORMATION SIGN</b>	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
p:\11\084EBIDINTEG.illinois.gov\PIDOT\Documents\IDOT Offices\District 1\Projects\102317\Traffic\102317-sht-ts.dgn		DRAWN	REVISED - R. MIRS 12-11-97			2016-056TS	VARIOUS	55	55	
Default		CHECKED -	REVISED - T. RAMMACHER 02-02-99			TC-22	CONTRACT NO.	62D44		
		DATE -	REVISED - C. JUCIUS 01-31-07			ILLINOIS FED. AID PROJECT				
				SCALE: NONE	SHEET 1	OF 1	SHEETS	STA.	TO STA.	