

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2017-004TS	VARIOUS	54	1
		ILLINOIS	CONTRACT NO. 62D98	

D-91-181-17

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

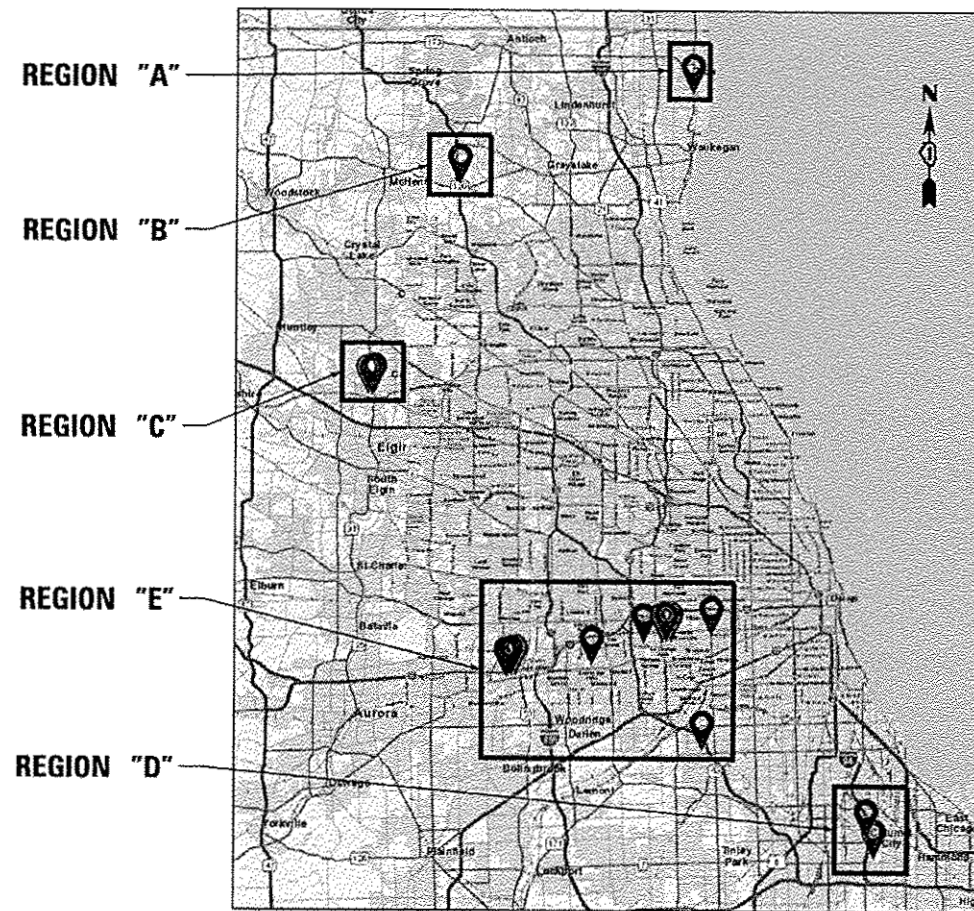
VARIOUS LOCATIONS IN DISTRICT 1
CONTRACT NO. 1
2017-004TS
TROMBONE MAST ARM REPLACEMENT
VARIOUS COUNTIES

C-91-181-17

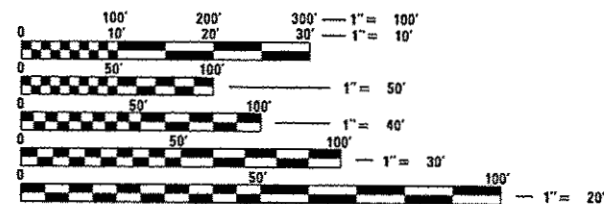
FOR INDEX OF SHEETS, SEE SHEET NO. 2



LOCATION OF SECTION INDICATED THIS: - [thick black line] -



VARIOUS TOWNSHIPS
FOR LOCATION MAPS SEE SHEET NO. 3 - 4

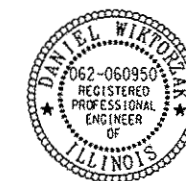


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

PROJECT ENGINEER: IOVAN PLASCENCIA
PROJECT MANAGER: LUKASZ POCIECHA

CONTRACT NO. 62D98



Signed *[Signature]*
DANIEL WIRTORZAK, P.E. IL Lic. No. 062-060950
Expires 11-30-2017
Date 3/31/2017

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED April 5, 2017
[Signature]
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

May 12, 2017
[Signature]
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

- 1 COVER SHEET
- 2 INDEX OF SHEETS AND GENERAL NOTES
- 3-4 LOCATION MAPS
- 5-9 SUMMARY OF QUANTITIES
- 10-16 STANDARD TRAFFIC SIGNAL DESIGN DETAILS
- 17 MAST ARM MOUNTED STREET NAME SIGNS DETAIL
- 18 IL RTE 137 (SHERIDAN RD) AT BEACH RD
- TRAFFIC SIGNAL EQUIPMENT REMOVAL AND MODIFICATION PLAN
- 19 IL RTE 137 (SHERIDAN RD) AT BEACH RD
- CABLE PLAN AND SCHEDULE OF QUANTITIES
- 20 US RTE 12/IL RTE 59 AT VOLO VILLAGE RD
- TRAFFIC SIGNAL EQUIPMENT REMOVAL AND MODIFICATION PLAN
- 21 US RTE 12/IL RTE 59 AT VOLO VILLAGE RD
- CABLE PLAN AND SCHEDULE OF QUANTITIES
- 22 IL RTE 72 AT LOCUST DR/ENTRANCE A
- TRAFFIC SIGNAL EQUIPMENT REMOVAL AND MODIFICATION PLAN
- 23 IL RTE 72 AT LOCUST DR/ENTRANCE A
- CABLE PLAN AND SCHEDULE OF QUANTITIES
- 24 IL RTE 72 AT VILLAGE QUARTER RD/ENTRANCE B
- TRAFFIC SIGNAL EQUIPMENT REMOVAL AND MODIFICATION PLAN
- 25 IL RTE 72 AT VILLAGE QUARTER RD/ENTRANCE B
- CABLE PLAN AND SCHEDULE OF QUANTITIES
- 26 IL RTE 31 AT KANE ST/ENTRANCE C
- TRAFFIC SIGNAL EQUIPMENT REMOVAL AND MODIFICATION PLAN
- 27 IL RTE 31 AT KANE ST/ENTRANCE C
- CABLE PLAN AND SCHEDULE OF QUANTITIES
- 28 IL RTE 83 (SIBLEY BLVD) AT LINCOLN AVE/MICHIGAN CITY RD
- TRAFFIC SIGNAL EQUIPMENT REMOVAL AND MODIFICATION PLAN
- 29 IL RTE 83 (SIBLEY BLVD) AT LINCOLN AVE/MICHIGAN CITY RD
- CABLE PLAN AND SCHEDULE OF QUANTITIES
- 30 US RTE 6 (159TH ST) AT GREENWOOD RD
- TRAFFIC SIGNAL EQUIPMENT REMOVAL AND MODIFICATION PLAN
- 31 US RTE 6 (159TH ST) AT GREENWOOD RD
- CABLE PLAN AND SCHEDULE OF QUANTITIES
- 32 US RTE 34 (OGDEN AVE) AT OLD TAVERN RD
- TRAFFIC SIGNAL EQUIPMENT REMOVAL AND MODIFICATION PLAN
- 33 US RTE 34 (OGDEN AVE) AT OLD TAVERN RD
- CABLE PLAN AND SCHEDULE OF QUANTITIES
- 34 US RTE 34 (OGDEN AVE) AT INDIANA AVE/WESTERN AVE
- TRAFFIC SIGNAL EQUIPMENT REMOVAL AND MODIFICATION PLAN
- 35 US RTE 34 (OGDEN AVE) AT INDIANA AVE/WESTERN AVE
- CABLE PLAN AND SCHEDULE OF QUANTITIES
- 36 US RTE 34 (OGDEN AVE) AT YACKLEY AVE
- TRAFFIC SIGNAL EQUIPMENT REMOVAL AND MODIFICATION PLAN
- 37 US RTE 34 (OGDEN AVE) AT YACKLEY AVE
- CABLE PLAN AND SCHEDULE OF QUANTITIES
- 38 US RTE 34 (OGDEN AVE) AT SCHWARTZ AVE
- TRAFFIC SIGNAL EQUIPMENT REMOVAL AND MODIFICATION PLAN
- 39 US RTE 34 (OGDEN AVE) AT SCHWARTZ AVE
- CABLE PLAN AND SCHEDULE OF QUANTITIES
- 40 US RTE 34 (OGDEN AVE) AT CASS AVE
- TRAFFIC SIGNAL EQUIPMENT REMOVAL AND MODIFICATION PLAN
- 41 US RTE 34 (OGDEN AVE) AT CASS AVE
- CABLE PLAN AND SCHEDULE OF QUANTITIES
- 42 31ST ST AT WOLF RD
- TRAFFIC SIGNAL EQUIPMENT REMOVAL AND MODIFICATION PLAN
- 43 31ST ST AT WOLF RD
- CABLE PLAN AND SCHEDULE OF QUANTITIES
- 44 US RTE 12-20-45 (LA GRANGE RD) AT 31ST ST
- TRAFFIC SIGNAL EQUIPMENT REMOVAL AND MODIFICATION PLAN
- 45 US RTE 12-20-45 (LA GRANGE RD) AT 31ST ST
- CABLE PLAN AND SCHEDULE OF QUANTITIES

- 46 31ST ST AT FOREST RD
- TRAFFIC SIGNAL EQUIPMENT REMOVAL AND MODIFICATION PLAN
- 47 31ST ST AT FOREST RD
- CABLE PLAN AND SCHEDULE OF QUANTITIES
- 48 31ST ST AT KEMMAN AVE/GRAND BLVD
- TRAFFIC SIGNAL EQUIPMENT REMOVAL AND MODIFICATION PLAN
- 49 31ST ST AT KEMMAN AVE/GRAND BLVD
- CABLE PLAN AND SCHEDULE OF QUANTITIES
- 50 IL RTE 43 (HARLEM AVE) AT RIVERSIDE DR/LONGCOMMON RD
- TRAFFIC SIGNAL EQUIPMENT REMOVAL AND MODIFICATION PLAN
- 51 IL RTE 43 (HARLEM AVE) AT RIVERSIDE DR/LONGCOMMON RD
- CABLE PLAN AND SCHEDULE OF QUANTITIES
- 52 US RTE 12-20 (95TH ST) AT ROBERTS RD
- TRAFFIC SIGNAL EQUIPMENT REMOVAL AND MODIFICATION PLAN
- 53 US RTE 12-20 (95TH ST) AT ROBERTS RD
- CABLE PLAN AND SCHEDULE OF QUANTITIES
- 54 ARTERIAL ROAD INFORMATION SIGN (TC-22)

HIGHWAY STANDARDS

- 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
- 720001-01 SIGN PANEL MOUNTING DETAIL
- 814001-03 HANDHOLES
- 857001-01 STANDARD PHASE DESIGNATION DIAGRAMS AND PHASE SEQUENCES
- 873001-02 TRAFFIC SIGNAL GROUNDING & BONDING
- 877001-06 STEEL MAST ARM ASSEMBLY AND POLE 16' THROUGH 55'
- 878001-10 CONCRETE FOUNDATION DETAILS
- 880006-01 TRAFFIC SIGNAL MOUNTING DETAILS

GENERAL NOTES:

1. BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "J.U.L.I.E." AT (800) 892-0123 OR 811 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS. 48 HOUR NOTIFICATION IS REQUIRED.
2. THE CONTRACTOR SHALL CONTACT THE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470, 72 HOURS IN ADVANCE OF BEGINNING WORK.
3. 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 ARM LENGTHS.
4. 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).
5. 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.
6. THE CONTRACTOR SHALL CHECK THE PROPOSED TRAFFIC SIGNAL EQUIPMENT LOCATIONS FOR OVERHEAD UTILITY CONFLICTS. THE CONTRACTOR SHALL COORDINATE ANY CONFLICTS WITH THE UTILITY COMPANIES AND THE RESIDENT ENGINEER BEFORE ORDERING MATERIALS.
7. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES, LOCAL GOVERNMENT AGENCIES AND IDOT.
8. 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.
9. PARTIAL PAYMENT AS DESCRIBED IN ARTICLE 109.07(b) OF THE STANDARD SPECIFICATIONS WILL NOT BE ALLOWED FOR ITEMS INCLUDED IN THIS CONTRACT.
10. AT LOCATIONS ON THE PLANS WHERE TRAFFIC SIGNAL POST REMOVAL AND NEW TRAFFIC SIGNAL POST INSTALLATIONS ARE SPECIFIED, THE CONTRACTOR SHALL INSPECT THE EXISTING POST FOUNDATIONS. PRIOR TO REMOVING THE EXISTING TRAFFIC SIGNAL POST TO BE REPLACED THE CONTRACTOR SHALL VERIFY THAT THE PATTERN, SPACING, AND CONDITION OF THE EXISTING ANCHOR BOLT IS ACCEPTABLE FOR REUSE WITH A NEW POST. IF THE EXISTING ANCHOR BOLT CONDITION IS NOT ACCEPTABLE, THE CONTRACTOR SHALL REPLACE ANCHOR BOLT AS DIRECTED BY THE ENGINEER. ANCHOR BOLT REPLACEMENT WILL BE PAID FOR AS "REMOVE AND REPLACE ANCHOR BOLTS". "REMOVE AND REPLACE ANCHOR BOLTS" PAY ITEM QUANTITIES SHOWN ARE NOMINAL AND ONLY TO BE UTILIZED AS APPROVED BY THE ENGINEER.
11. DUE TO THE PRESENCE OF A RED LIGHT RUNNING (RLR) CAMERA FOR THE BELOW LISTED LOCATIONS, 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:

525 - US RTE 12-20 AT ROBERTS RD

VILLAGE OF HICKORY HILLS
8652 W. 95TH ST
HICKORY HILLS, IL 60457
708-598-4800

REDSPEED ILLINOIS
400 EISENHOWER LANE NORTH
LOMBARD, IL 60148
630-317-5700

RLR CAMERA LOCATION:

3475 - IL RTE 83 AT LINCOLN AVE/MICHIGAN CITY RD

VILLAGE OF DOLTON
14122 CHICAGO RD
DOLTON, IL 60419
708-849-4000

SAFESPEED, LLC
150 N. UPPED WACKER DR
CHICAGO, IL 60606
877-237-2331

RLR CAMERA LOCATION:

11830 - US RTE 34 AT YACKLEY AVE

VILLAGE OF LISLE
925 BURLINGTON AVE
LISLE, IL 60532
630-271-4100

REDSPEED ILLINOIS
400 EISENHOWER LANE NORTH
LOMBARD, IL 60148
630-317-5700

FILE NAME: p:\PI\dlz\corp\cam\DLZ\Documents\Projects\2011\1481\210916-004 - Tomhorne Post A.m Replacement\CD00_Sheets\01620918-INT-1501.dgn

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DRAWN - XT	REVISIONS -								VAR	2017-004TS	VAR	54	2
PLOT SCALE = 2.0000' / in.	CHECKED - JH	REVISED -							SCALE:		SHEET		OF SHEETS
PLOT DATE = 4/5/2017	DATE - 2/06/2017	REVISED -									CONTRACT NO. 62098		
<small>ILLINOIS FED. AID PROJECT</small>													



REGION "E"

FILE NAME : p:\PM\dlz\corp.com\2\Documents\Projects\2011\481\209\16-004\Tombone Post 4.m Replacement\Cr000 Sheets 0162098-at-locatormap2.dgn

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	PLOT DATE * 4/5/2017	CHECKED - JH	REVISED -					CONTRACT NO. 62D98				
		DATE - 2/06/2017	REVISED -					ILLINOIS FED. AID PROJECT				
				SCALE:		SHEET 2 OF 2 SHEETS		STA.		TO STA.		



FILE NAME : P:\PM\dlz\corp\com\DLZ\Documents\Projects\2014\14E1\2109\16-004 Trembore Mast 4m Replacement\CADD\Sheets\0162D98-h1-t4501.dgn

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	100% STATE					100% CITY OF HICKORY HILLS
				GENERAL	COOK	DUPAGE	KANE	LAKE	
				TRAFFIC SIGNAL					
				0021					
URBAN									
42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	215	100		115			
60255500	MANHOLES TO BE ADJUSTED	EACH	1			1			
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	6					
67100100	MOBILIZATION	L SUM	1	1					
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	1					
70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	1	1					
81028200	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	46					46	
81028220	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	1169		497	420	149	103	
81400100	HANDHOLE	EACH	6				6		
81400200	HEAVY-DUTY HANDHOLE	EACH	1					1	
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	18		8	5	3	2	
85100600	PAINT NEW MAST ARM AND POLE, UNDER 40 FOOT	EACH	2						2
85100701	PAINT NEW MAST ARM AND POLE, 40 FOOT AND OVER	EACH	2						2
87301215	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	2851		691	1871		289	

#MODELNAME# USER NAME = .USERNAME. PLOT SCALE = 2.0000" = 1" PLOT DATE = 4/24/2017	DESIGNED - DW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	DRAWN - XT	REVISED -					VAR	2017-00ATS	VAR	54	5
	CHECKED - JH	REVISED -		SCALE: SHEET OF SHEETS STA. TO STA.			ILLINOIS FED. AID PROJECT CONTRACT NO. 62D98				
DATE - 2/06/2017	REVISED -	<i>Rev</i>									



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CODE NO.	ITEM	UNIT	TOTAL QUANTITY	100% STATE					100% CITY OF HICKORY HILLS
				GENERAL	COOK	DUPAGE	KANE	LAKE	
				TRAFFIC SIGNAL					
				0021					
URBAN									
87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	7518		3877	2525	666	450	
87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	20146		8824	6482	2356	2484	
87301255	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	9574		3713	3310	1852	699	
87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	145					145	
87301900	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	1941		826	710	247	158	
87502440	TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.	EACH	7		3	4			
87502500	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	3				1	2	
87700130	STEEL MAST ARM ASSEMBLY AND POLE, 18 FT.	EACH	1		1				
87700140	STEEL MAST ARM ASSEMBLY AND POLE, 20 FT.	EACH	2		2				
87700150	STEEL MAST ARM ASSEMBLY AND POLE, 22 FT.	EACH	2		2				
87700160	STEEL MAST ARM ASSEMBLY AND POLE, 24 FT.	EACH	4		2	1		1	
87700180	STEEL MAST ARM ASSEMBLY AND POLE, 28 FT.	EACH	1			1			
87700190	STEEL MAST ARM ASSEMBLY AND POLE, 30 FT.	EACH	3		1	1		1	
87700200	STEEL MAST ARM ASSEMBLY AND POLE, 32 FT.	EACH	4			4			

#MODELNAME# USER NAME : .USERNAME. PLOT SCALE : 2.0000 / 1 in. PLOT DATE : 4/24/2017	DESIGNED - DW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES				F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	DRAWN - XT	REVISED -						VAR	2017-004TS	VAR	54	6
	CHECKED - JH	REVISED -		SCALE: SHEET OF SHEETS STA. TO STA.				CONTRACT NO. 62098 ILLINOIS FED. AID PROJECT				
DATE - 2/06/2017	REVISED -											

DAN

TRAFFIC SIGNAL LEGEND

(NOT TO SCALE)



ITEM	EXISTING	PROPOSED
CONTROLLER CABINET		
COMMUNICATION CABINET		
MASTER CONTROLLER		
MASTER MASTER CONTROLLER		
UNINTERRUPTABLE POWER SUPPLY		
SERVICE INSTALLATION -(P) POLE MOUNTED		
SERVICE INSTALLATION -(G) GROUND MOUNTED -(GM) GROUND MOUNTED METERED	 	
TELEPHONE CONNECTION		
STEEL MAST ARM ASSEMBLY AND POLE		
ALUMINUM MAST ARM ASSEMBLY AND POLE		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE		
SIGNAL POST -(BM) BARREL MOUNTED - TEMPORARY		
WOOD POLE		
GUY WIRE		
SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD OPTICALLY PROGRAMMED		
FLASHER INSTALLATION -(FS) SOLAR POWERED		
PEDESTRIAN SIGNAL HEAD		
PEDESTRIAN PUSH BUTTON -(APS) ACCESSIBLE PEDESTRIAN PUSH BUTTON		
RADAR DETECTION SENSOR		
VIDEO DETECTION CAMERA		
RADAR/VIDEO DETECTION ZONE		
PAN, TILT, ZOOM (PTZ) CAMERA		
EMERGENCY VEHICLE LIGHT DETECTOR		
CONFIRMATION BEACON		
WIRELESS INTERCONNECT		
WIRELESS INTERCONNECT RADIO REPEATER		

ITEM	EXISTING	PROPOSED
HANDHOLE -SQUARE -ROUND	 	
HEAVY DUTY HANDHOLE -SQUARE -ROUND	 	
DOUBLE HANDHOLE		
JUNCTION BOX		
RAILROAD CANTILEVER MAST ARM		
RAILROAD FLASHING SIGNAL		
RAILROAD CROSSING GATE		
RAILROAD CROSSBUCK		
RAILROAD CONTROLLER CABINET		
UNDERGROUND CONDUIT (UC), GALVANIZED STEEL		
TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE		
SYSTEM ITEM	S	SP
INTERSECTION ITEM	I	IP
REMOVE ITEM		R
RELOCATE ITEM		RL
ABANDON ITEM		A
CONTROLLER CABINET AND FOUNDATION TO BE REMOVED		RCF
MAST ARM POLE AND FOUNDATION TO BE REMOVED		RMF
SIGNAL POST AND FOUNDATION TO BE REMOVED		RPF
DETECTOR LOOP, TYPE I		
PERFORMED DETECTOR LOOP		
SAMPLING (SYSTEM) DETECTOR		
INTERSECTION AND SAMPLING (SYSTEM) DETECTOR		
QUEUE AND SAMPLING (SYSTEM) DETECTOR		
WIRELESS DETECTOR SENSOR		
WIRELESS ACCESS POINT		

ITEM	EXISTING	PROPOSED
SIGNAL HEAD -(P) PROGRAMMABLE SIGNAL HEAD		
SIGNAL HEAD WITH BACKPLATE -(P) PROGRAMMABLE SIGNAL HEAD -(RB) RETROREFLECTIVE BACKPLATE		
PEDESTRIAN SIGNAL HEAD AT RAILROAD INTERSECTIONS		
PEDESTRIAN SIGNAL HEAD WITH COUNTDOWN TIMER		
ILLUMINATED SIGN "NO LEFT TURN"/"NO RIGHT TURN"		
NUMBER OF CONDUCTORS, ELECTRIC CABLE NO. 14, UNLESS NOTED OTHERWISE. ALL DETECTOR LOOP CABLE TO BE SHIELDED		
GROUND CABLE IN CONDUIT, NO. 6 SOLID COPPER (GREEN)		
ELECTRIC CABLE IN CONDUIT, TRACER NO. 14 1/C		
COAXIAL CABLE		
VENDOR CABLE		
COPPER INTERCONNECT CABLE, NO. 18, 3 PAIR TWISTED, SHIELDED		
FIBER OPTIC CABLE -NO. 62.5/125, MM12F -NO. 62.5/125, MM12F SM12F -NO. 62.5/125, MM12F SM24F	 	
GROUND ROD -(C) CONTROLLER -(M) MAST ARM -(P) POST -(S) SERVICE	 	

FILE NAME: p:\p\m\ofcorp.com\DLZ\Documents\Projects\2017\118112009\18-001 Transportation Mast Arm Replacement\CD00_Sheets\0162098-act-tbl-01.dgn

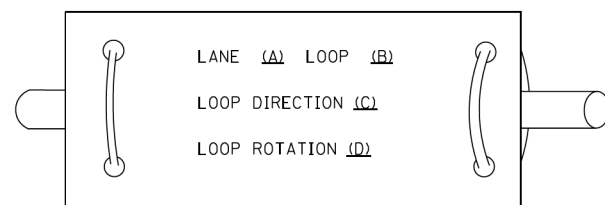
USER NAME: .USERNAME DESIGNED: DW DRAWN: XT CHECKED: JH DATE: 2/06/2017	REVISED: - REVISED: - REVISED: - REVISED: -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS	F.A.P. RTE. VAR: 2017-004TS COUNTY: VAR TOTAL SHEETS: 54 SHEET NO.: 10 CONTRACT NO. 62098
#MODELNAME*		SCALE: NONE SHEET 1 OF 7 SHEETS STA. TO STA.		FED. ROAD DIST. NO. 1 [ILLINOIS] FED. AID PROJECT



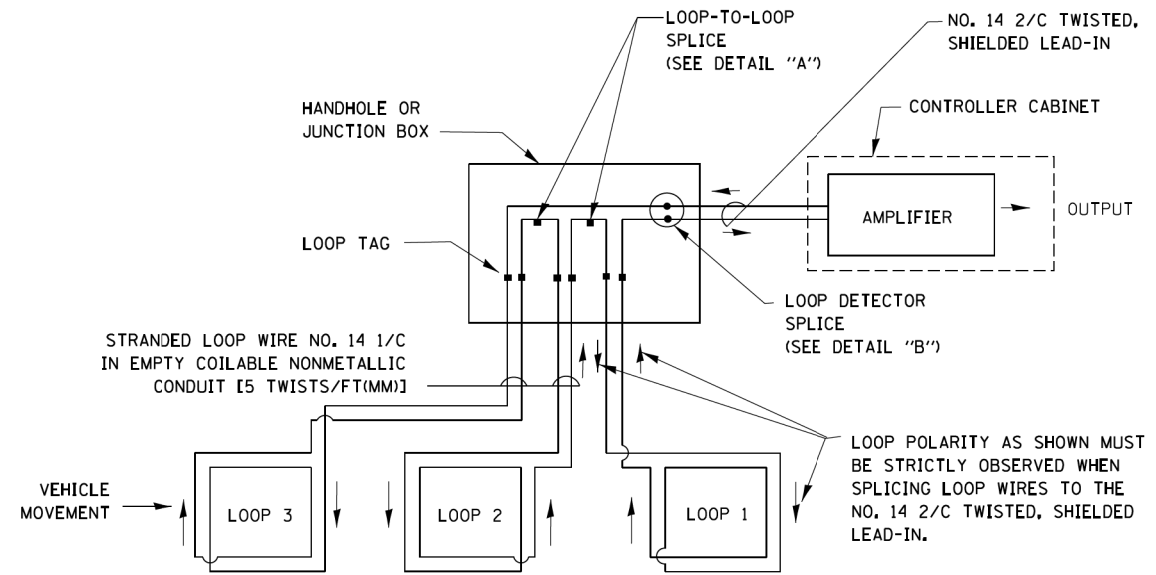
LOOP DETECTOR NOTES

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

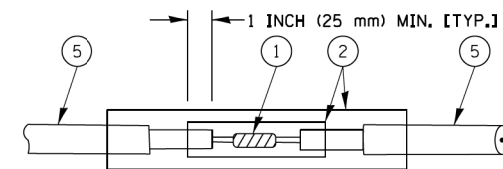


- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

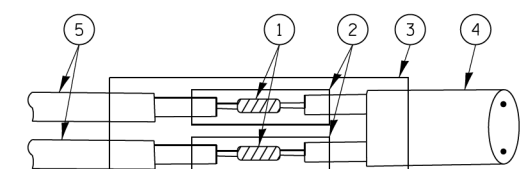


DETECTOR LOOP WIRING SCHEMATIC

- 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.

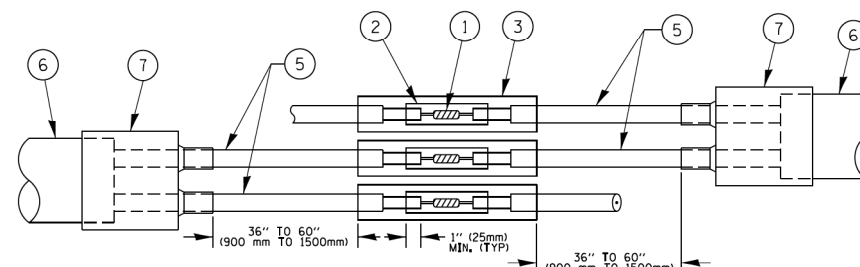


DETAIL "A"
LOOP-TO-LOOP SPLICE

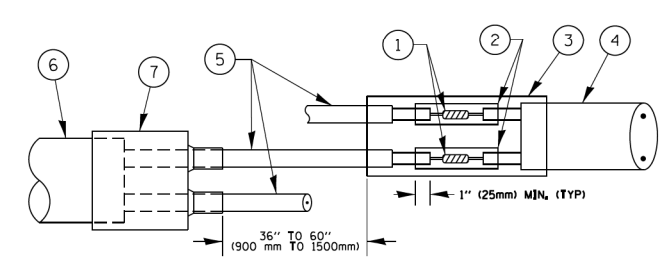


DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

TYPE I LOOP



DETAIL "A"
LOOP-TO-LOOP SPLICE



DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

PREFORMED LOOP

LOOP DETECTOR SPLICE

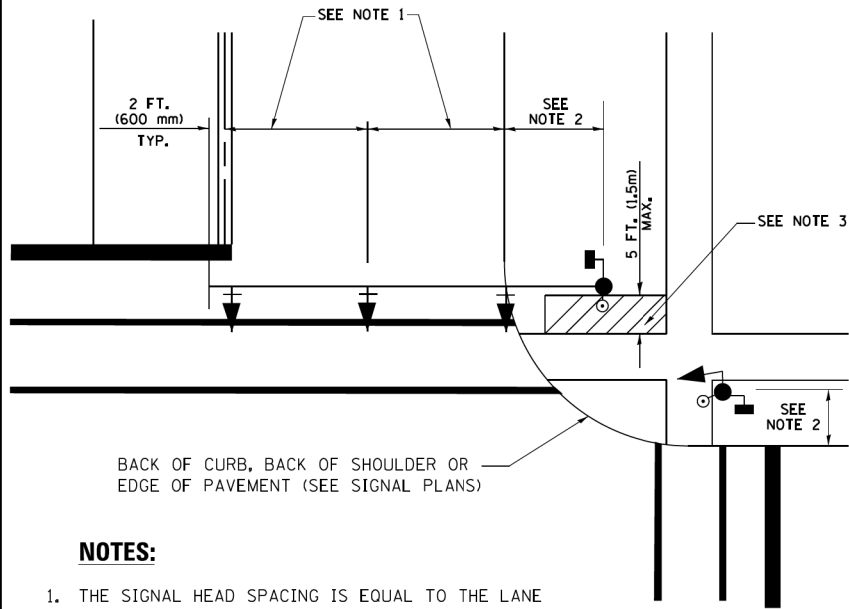
- 1 WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH, THE WESTERN UNION SPLICES SHALL BE STAGGERED.
- 2 WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.
- 3 WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGTH 6" (150 mm), UNDERWATER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

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		DATE - 2/06/2017	REVISED -				FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



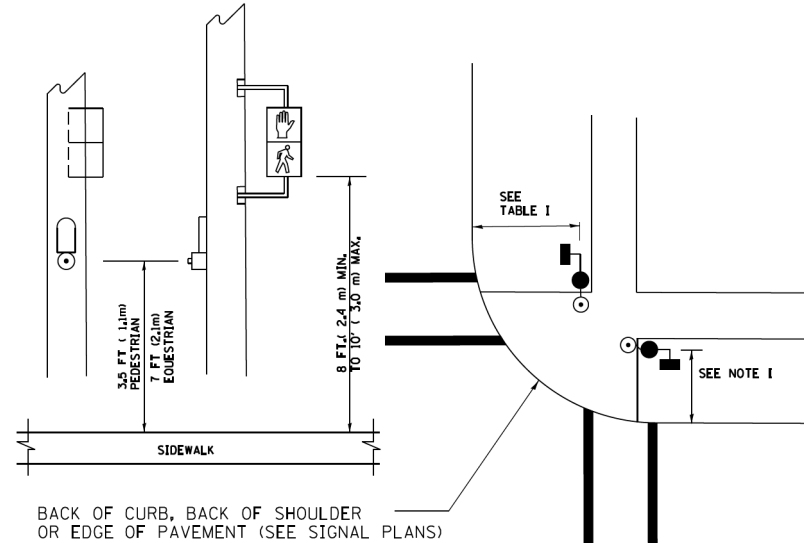
**TRAFFIC SIGNAL MAST ARM AND SIGNAL POST
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR
FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN
WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.**



NOTES:

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

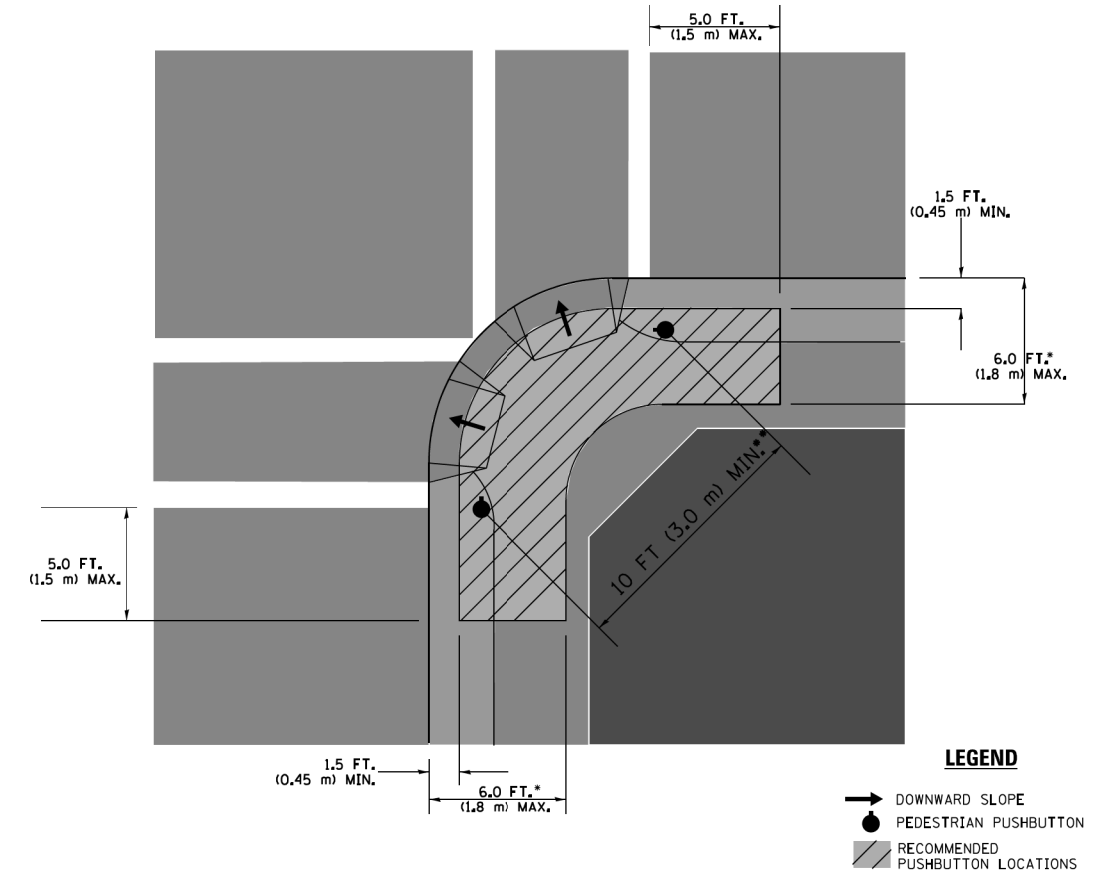
**PEDESTRIAN SIGNAL POST
AND
PEDESTRIAN PUSH BUTTON POST**



NOTES:

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

RECOMMENDED PUSHBUTTON LOCATIONS



LEGEND

- DOWNWARD SLOPE
- PEDESTRIAN PUSHBUTTON
- RECOMMENDED PUSHBUTTON LOCATIONS

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

NOTES:

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

TRAFFIC SIGNAL EQUIPMENT OFFSET

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

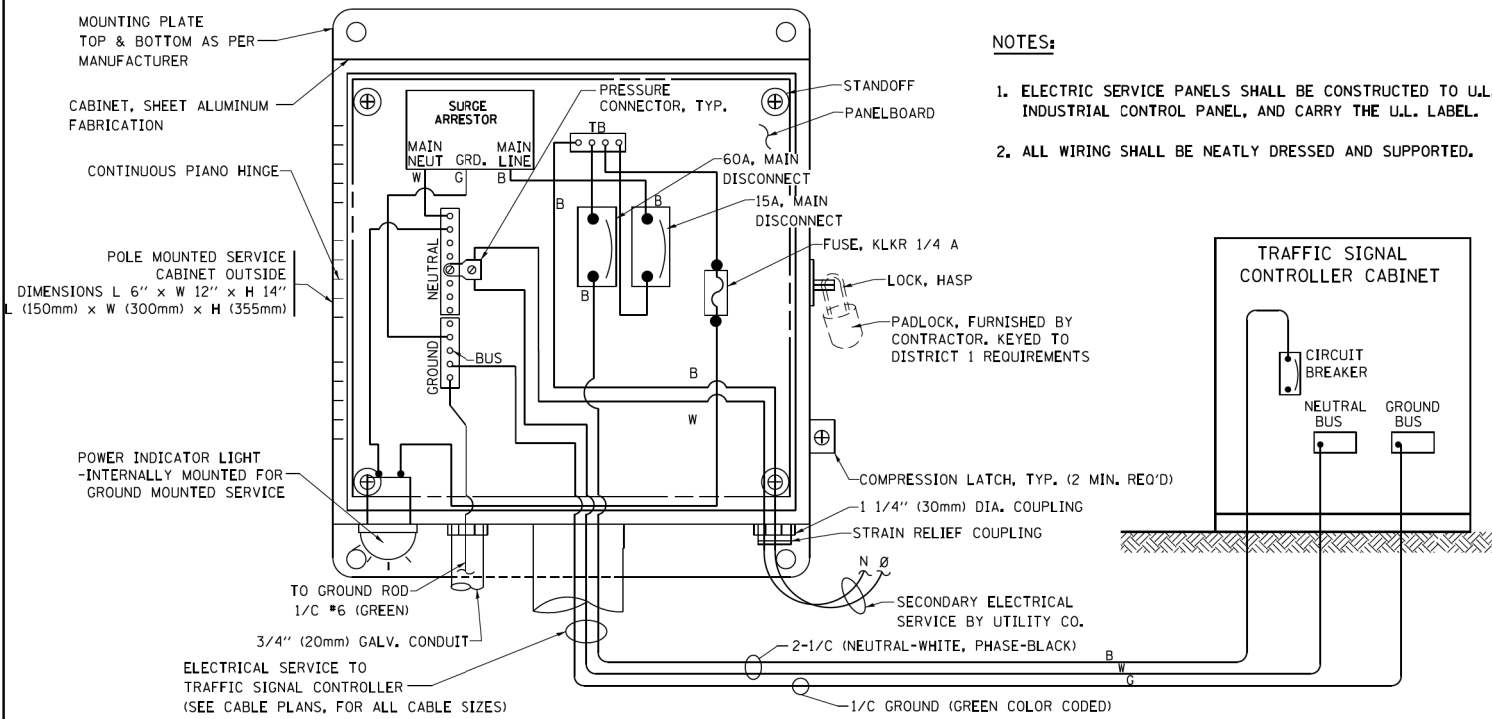
NOTES:

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

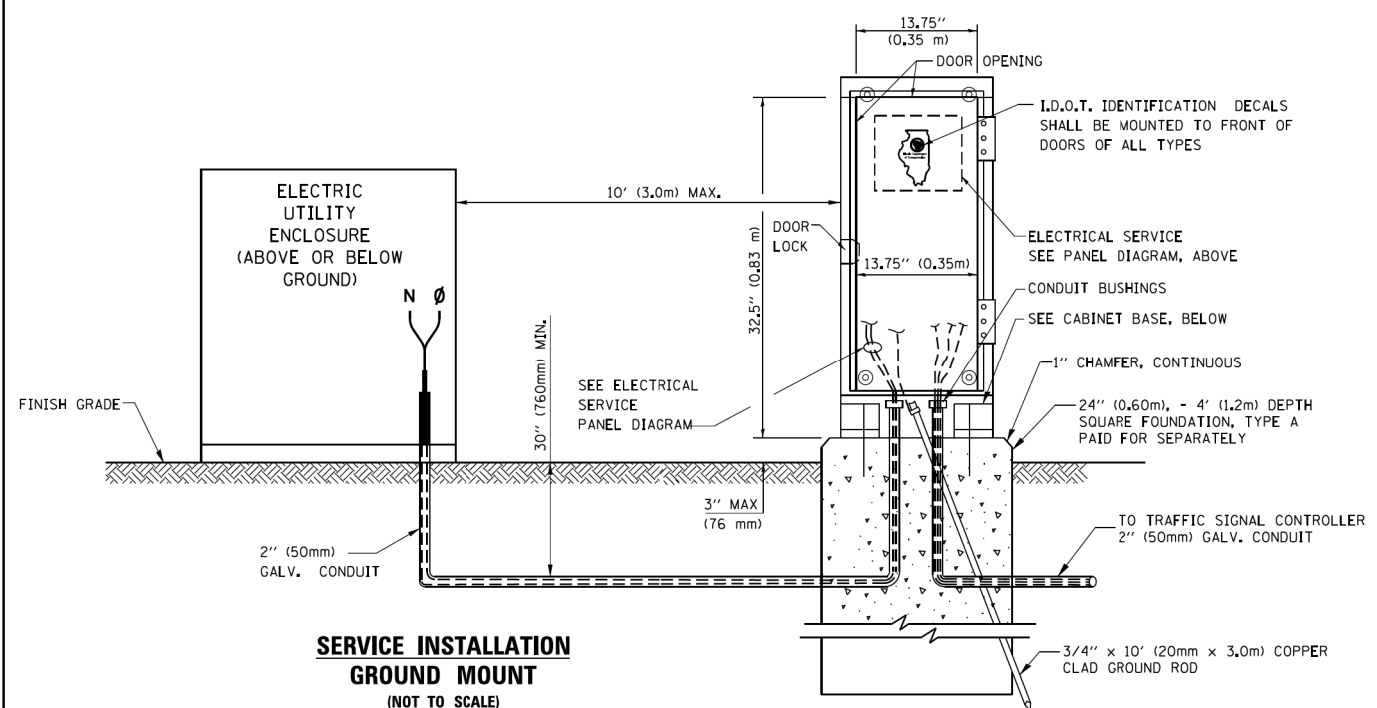
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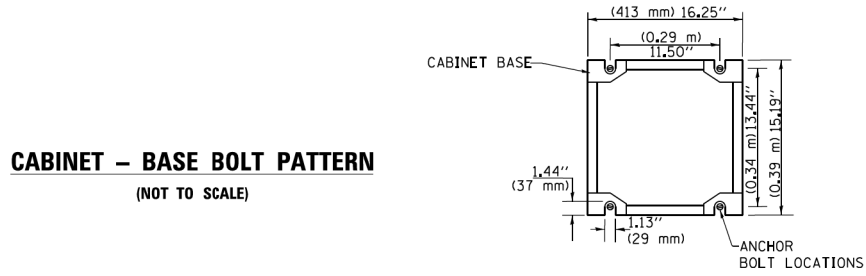
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ELECTRICAL SERVICE - PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE) SERVICE INSTALLATION POLE MOUNT (SHOWN) (NOT TO SCALE)



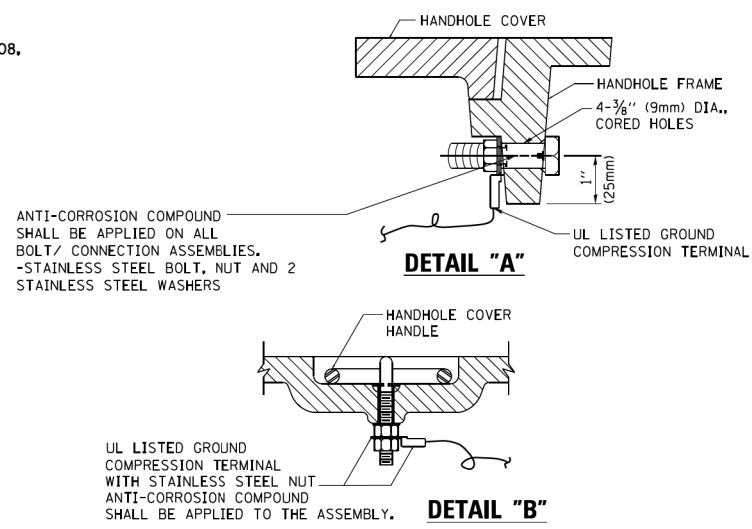
SERVICE INSTALLATION GROUND MOUNT (NOT TO SCALE)



CABINET - BASE BOLT PATTERN (NOT TO SCALE)

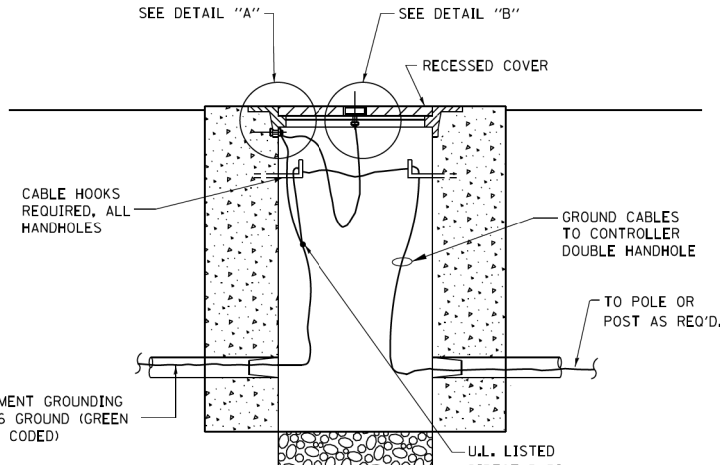
NOTES:

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

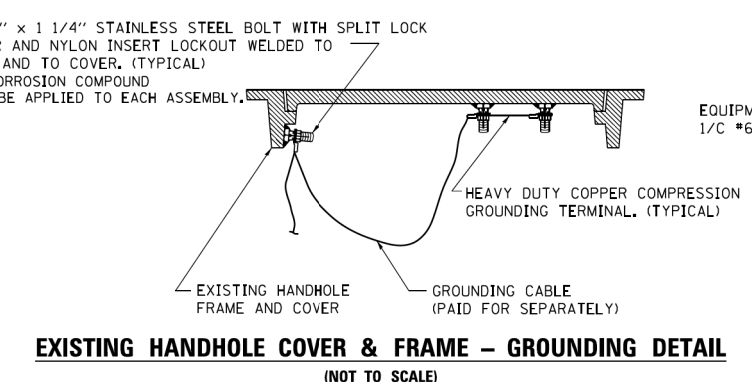


NOTES:
GROUNDING SYSTEM

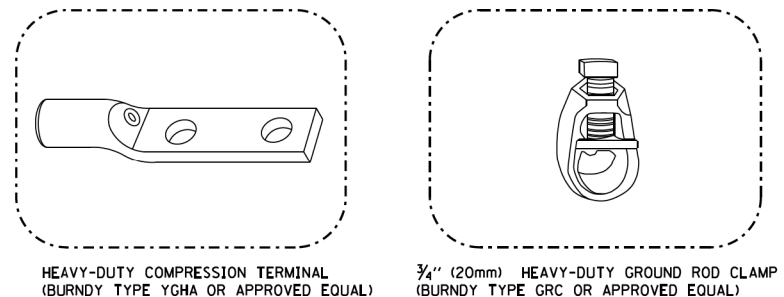
1. THE GROUNDING SYSTEM SHALL CONSIST OF AN INSULATED CONDUCTOR TYPE XLP, NO. 6 A.W.G., STRANDED COPPER TO BE INSTALLED IN RACEWAYS. THE GROUNDING CABLE SHALL BE INSTALLED IN A CONTINUOUS MANNER AS SHOWN ON THE CABLE PLAN PROVIDED. ALL GROUNDING CONDUCTORS SHALL BE BONDED TO METAL ENCLOSURE (HANDHOLE,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



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

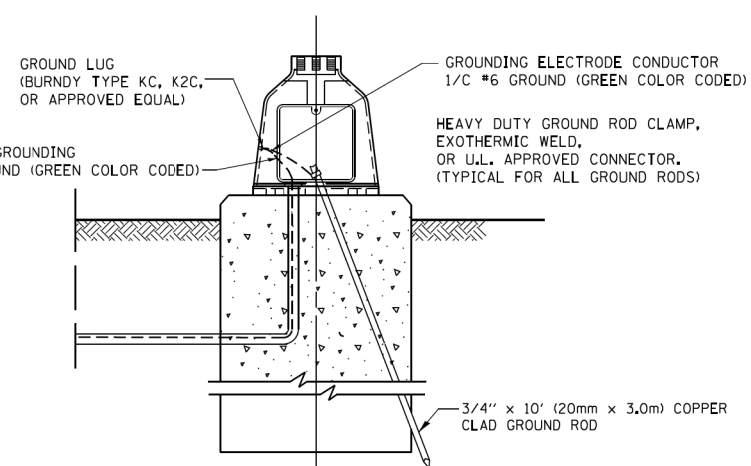


EXISTING HANDHOLE COVER & FRAME - GROUNDING DETAIL (NOT TO SCALE)



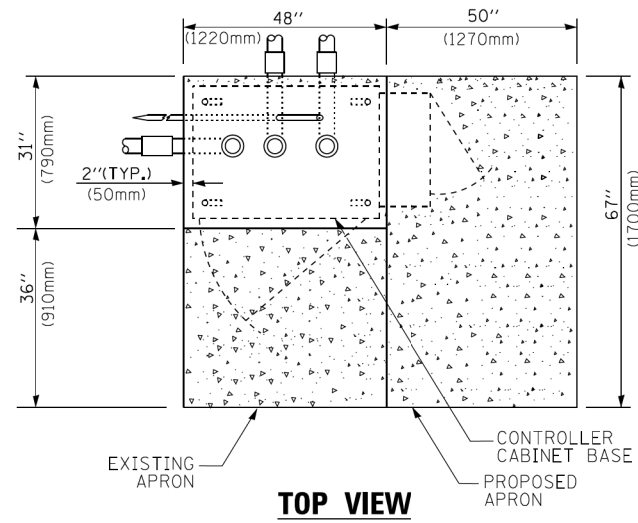
NOTES:

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

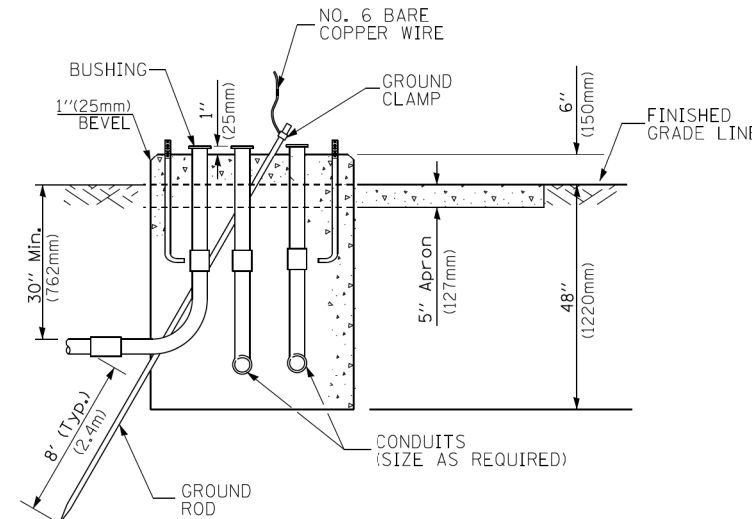


MAST ARM POLE / POST-GROUNDING DETAIL (NOT TO SCALE)

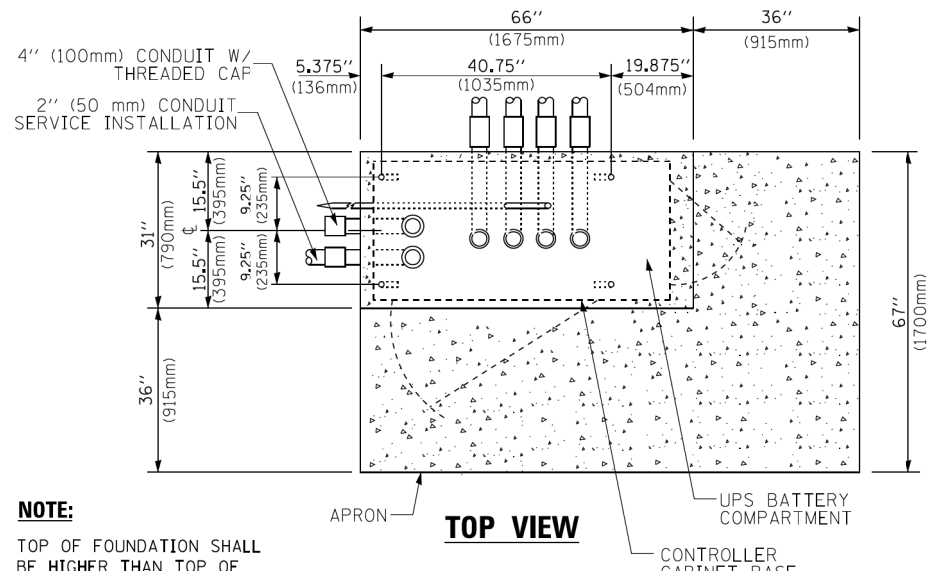
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		DATE - 2/06/2017	REVISED -			FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



TOP VIEW

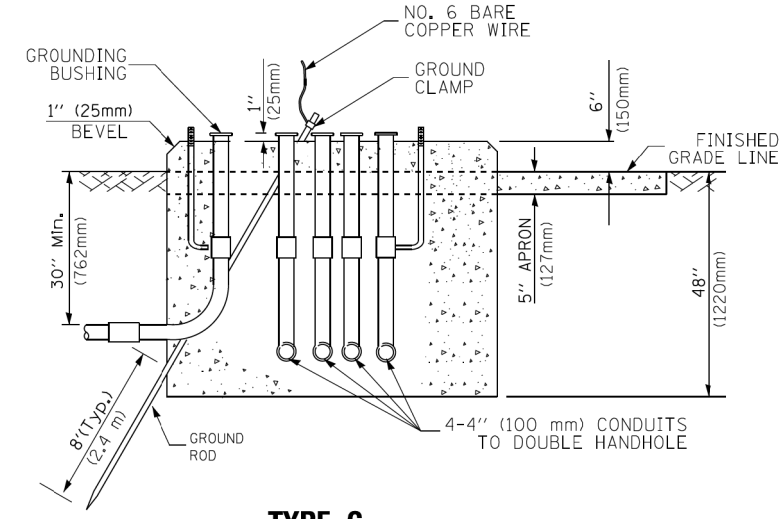


**TYPE D
FOR GROUND MOUNTED
CONTROLLER CABINET
AND UPS BATTERY CABINET**

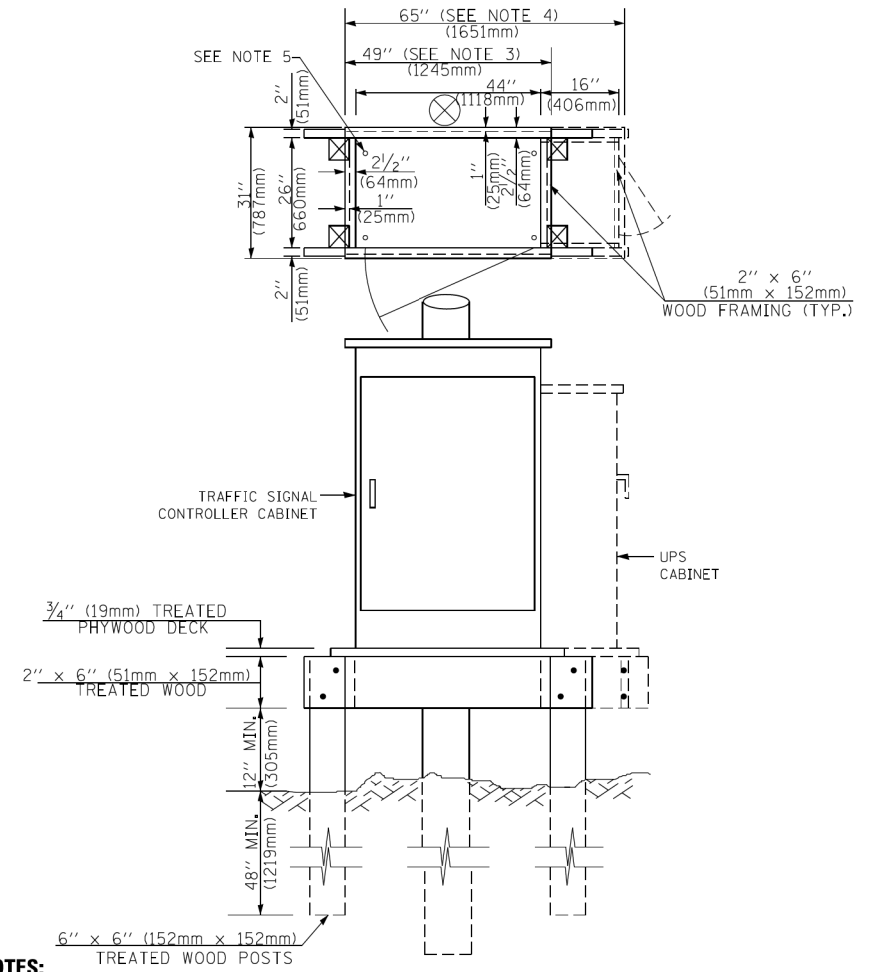


TOP VIEW

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:

- BASED ON CONTROLLER CABINET TYPE IV WITH BASE DIMENSIONS OF 26" x 44" (660mm x 1118mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
- BASED ON UNINTERRUPTIBLE POWER SUPPLY CABINET WITH BASE DIMENSIONS OF 16" x 25" (406mm x 635mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
- PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV.
- PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV AND UNINTERRUPTIBLE POWER SUPPLY CABINET.
- DRILLED HOLES THROUGH THE PLATFORM BASE TO MATCH THE CONTROLLER CABINET BOLT TEMPLATE. FASTEN THE CONTROLLER CABINET TO THE PLATFORM WITH CARRIAGE BOLTS, WASHERS AND NUTS.
- FASTEN ALL SUPPORT WOOD FRAMING TO THE WOOD POSTS WITH 2 LAG SCREWS FOR EACH CONNECTION..

**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

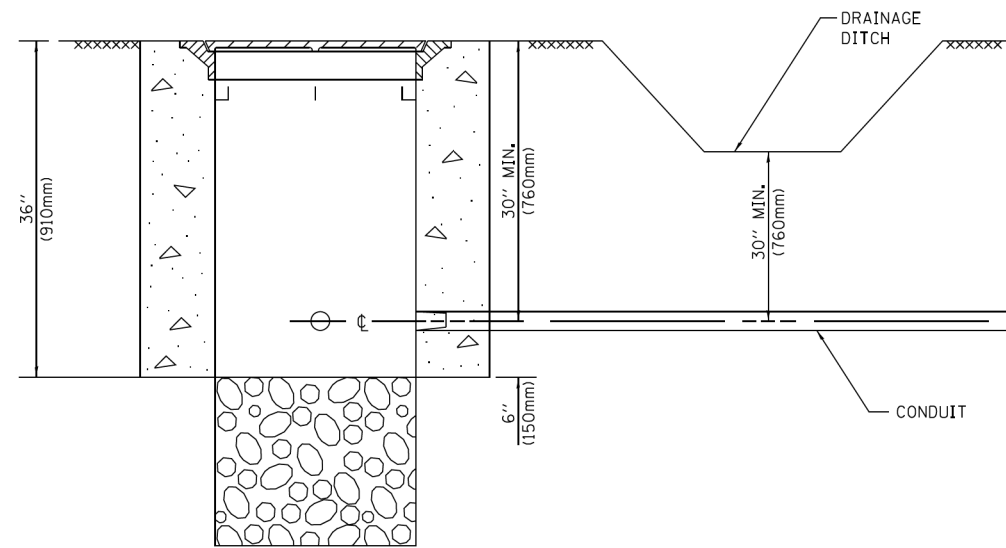
MAST ARM LENGTH	① FOUNDATION DEPTH	FOUNDATION DIAMETER	SPIRAL DIAMETER	QUANTITY OF REBARS	SIZE OF REBARS
Less than 30' (9.1 m)	10'-0" (3.0 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 30' (9.1 m) and less than 40' (12.2 m)	13'-6" (4.1 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 40' (12.2 m) and less than 50' (15.2 m)	11'-0" (3.4 m)	36" (900mm)	24" (600mm)	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 less than 75' (22.9 m)	21'-0" (6.4 m)	42" (1060mm)	36" (900mm)	16	8(25)
Greater than or equal to 75' (22.9 m)	25'-0" (7.6 m)	42" (1060mm)	36" (900mm)	16	8(25)

NOTES:

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

DEPTH OF MAST ARM FOUNDATIONS, TYPE E

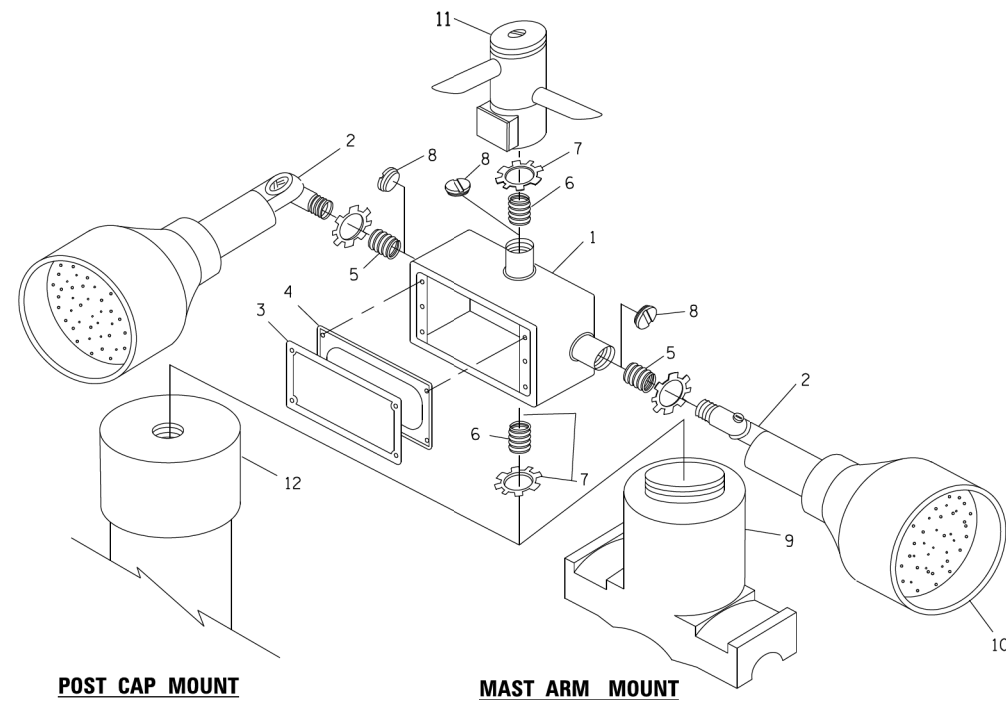
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NOTES:

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

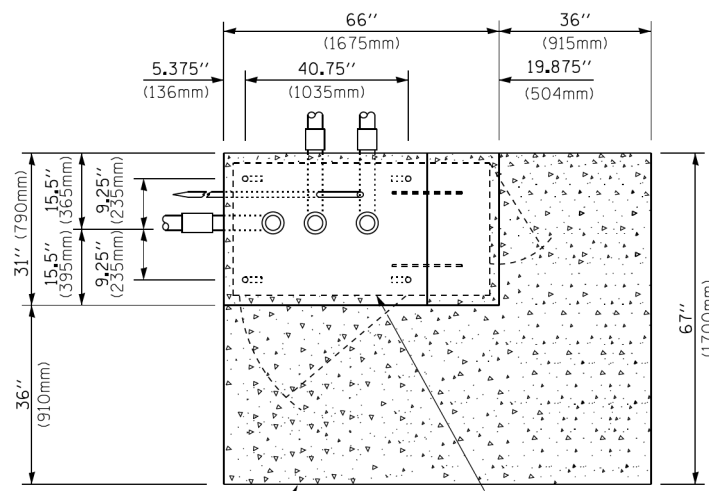
HANDHOLE WITH MINIMUM CONDUIT DEPTH
(NOT TO SCALE)



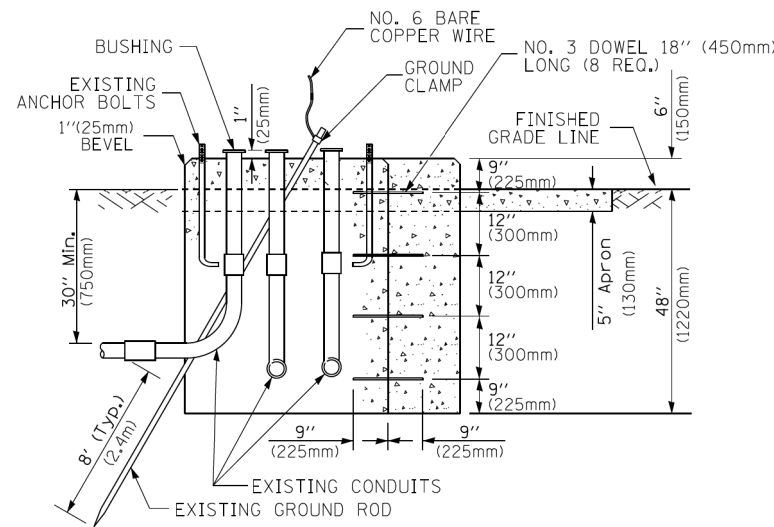
POST CAP MOUNT

MAST ARM MOUNT

EMERGENCY VEHICLE DETECTOR WITH CONFIRMATION BEACON MOUNTING DETAIL



TOP VIEW
(NOT TO SCALE)

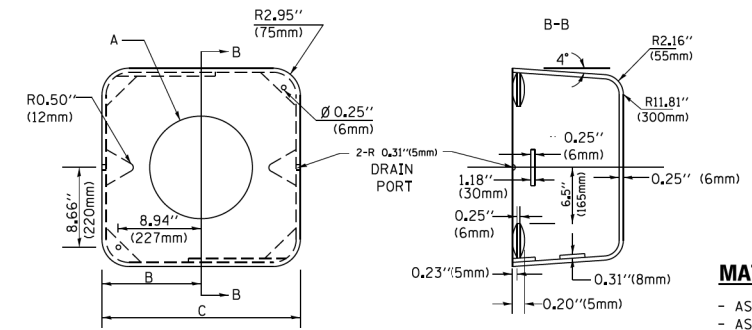


MODIFY EXISTING TYPE "D" FOUNDATION TO TYPE "C" FOUNDATION
(NOT TO SCALE)

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:

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



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

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

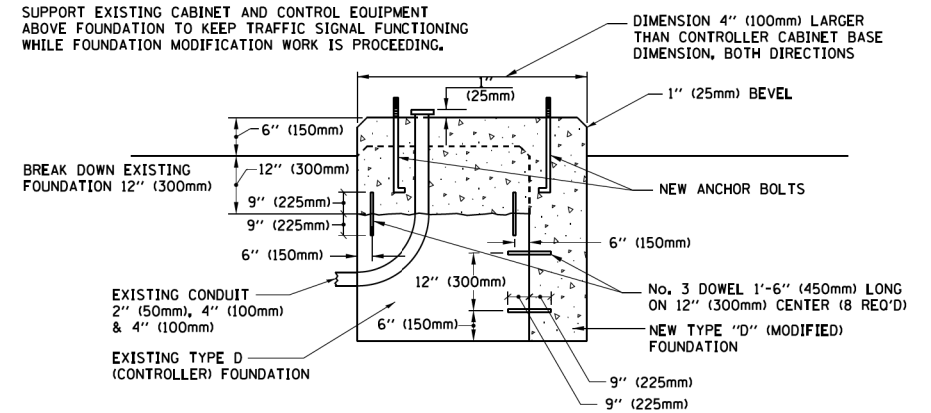
SHROUD

NOTES:

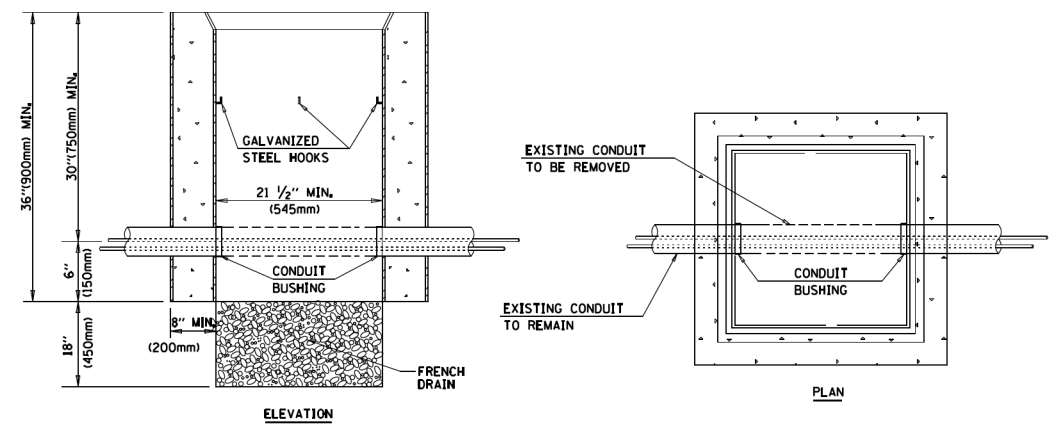
1. DIMENSION "A" IS EQUAL TO THE DIAMETER OF THE MAST ARM POLE AT THE TOP OF THE SHROUD. THE SHROUD SHALL BE TIGHT TO THE MAST ARM POLE.
2. THE SUPPLIER SHALL VERIFIED THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
3. THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST ARM POLE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

NOTE:

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



MODIFY EXISTING TYPE "D" FOUNDATION



NOTES:

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

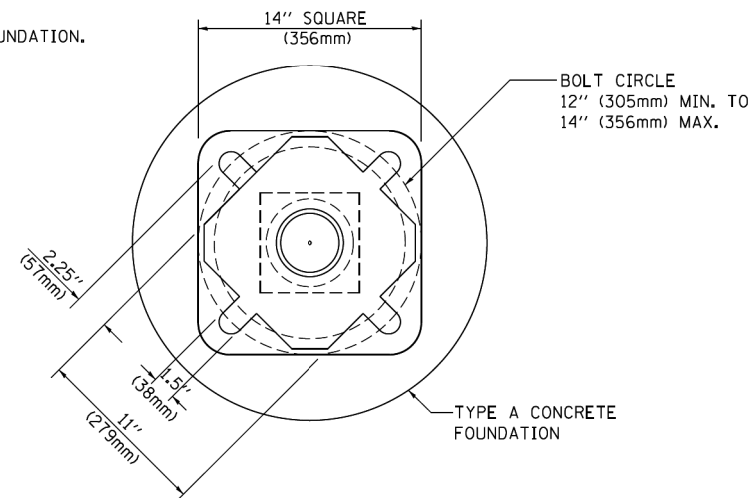
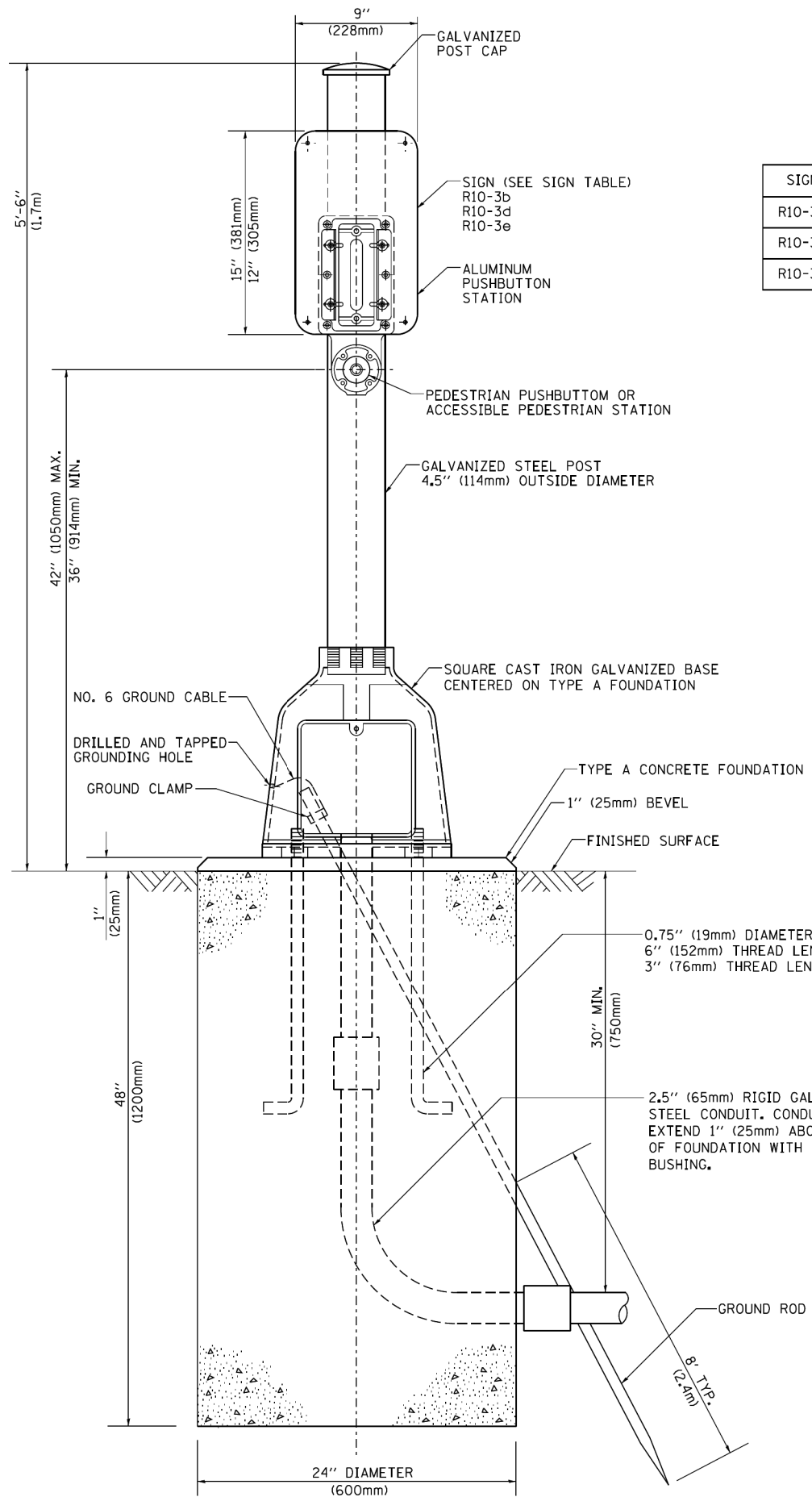
HANDHOLE TO INTERCEPT EXISTING CONDUIT

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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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PLOT DATE = 4/5/2017	CHECKED - JH	REVISED -
	DATE - 2/06/2017	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

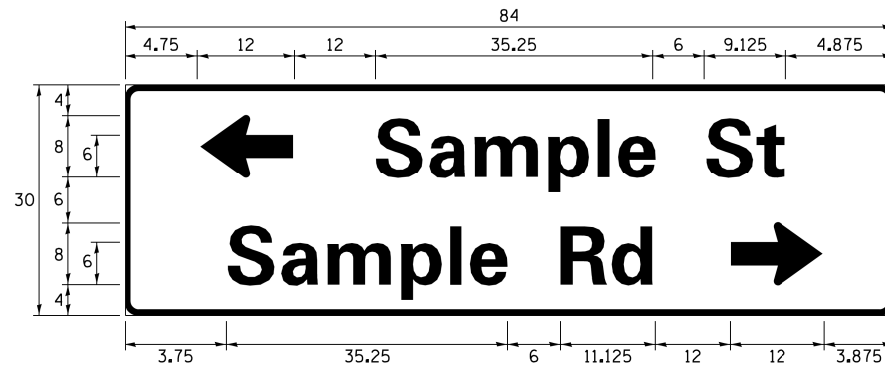
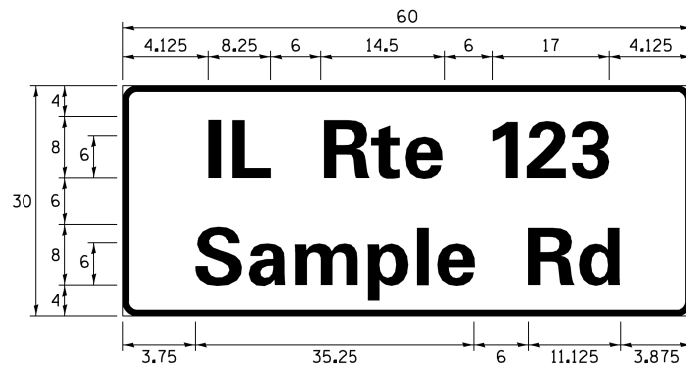
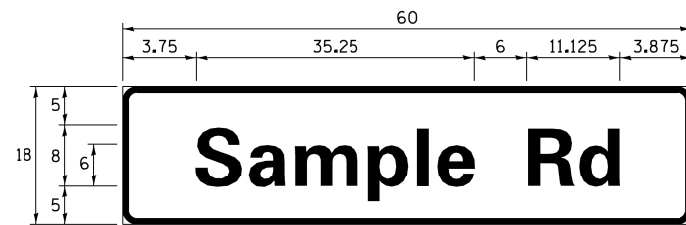
**DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2017-004TS	VAR	54	16
CONTRACT NO. 62D98				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



SIGN PANEL – TYPE 1 OR TYPE 2



DESIGN SERIES	AREA (SQ FT)	SIGN PANEL TYPE	SHEETING TYPE	QTY. REQUIRED
D OR C	-	1 OR 2	ZZ	-

ALL DIMENSIONS ARE IN INCHES EXCEPT NOTED OTHERWISE

COMMON STREET NAME ABBREVIATIONS AND WIDTHS

NAME	ABBREVIATION	WIDTH (INCH)	
		SERIES "C"	SERIES "D"
AVENUE	Ave	15.000	18.250
BOULEVARD	Blvd	17.125	20.000
CIRCLE	Cir	11.125	13.000
COURT	Ct	8.250	9.625
DRIVE	Dr	8.625	10.125
HIGHWAY	Hwy	18.375	22.000
ILLINOIS	IL	7.000	8.250
LANE	Ln	9.125	10.750
PARKWAY	Pkwy	23.375	27.375
PLACE	Pl	7.125	7.750
ROAD	Rd	9.625	11.125
ROUTE	Rte	12.625	14.500
STREET	St	8.000	9.125
TERRACE	Ter	12.625	14.625
TRAIL	Tr	7.750	9.125
UNITED STATES	US	10.375	12.250

GENERAL NOTES

- WHERE MAST ARM MOUNTED STREET NAME SIGNS ARE SPECIFIED, THE MAST ARM ASSEMBLY AND POLES SHALL BE DESIGNED TO SUPPORT THE LOADINGS CALLED FOR ON STANDARDS 877001, 877002, 877006, 877011 AND 877012, AS APPLICABLE, PLUS TWO (2) SIGN PANELS 2'-6" x 8'-0" MOUNTED AS SHOWN. THE DESIGN SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS" AS PUBLISHED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS FOR 80 M.P.H. WIND VELOCITY.
- ALL SIGNS SHALL CONSIST OF A WHITE LEGEND AND BORDER (TYPE ZZ SHEETING) ON A GREEN BACKGROUND (TYPE ZZ SHEETING)
- THE SIGN LENGTH SHALL BE IN 6-INCH INCREMENTS, BUT THE OVERALL LENGTH SHALL NOT EXCEED 8'-0". ALL BORDERS SHALL BE 3/4" WIDE. CORNER RADIUS SHALL BE 1-7/8". THE SPACING BETWEEN THE WORDS SHOULD BE 6", IF POSSIBLE, BUT MAY BE REDUCED TO 5" WHEN SPACING IS CRITICAL. A MINIMUM OF 2-1/2" SHALL BE INCLUDED BETWEEN THE WORD AND THE RIGHT AND LEFT EDGES OF THE SIGN.
- A PREFERRED METHOD FOR THE SIGN DESIGN IS TO USE SERIES "D" LETTER ON A ONE-LINE SIGN 18" IN HEIGHT AND A MAXIMUM OF 8'-0" IN WIDTH. IF SERIES "D" DOES NOT FIT ON A 8'-0" SIGN, THEN SERIES "C" SHOULD BE TRIED. IF SERIES "C" DOES NOT FIT ON A 8'-0" SIGN, A 30" HIGH TWO-LINE SIGN CAN BE USED. THE CROSSROAD DESIGNATION AS TO STREET, AVENUE, ETC. SHOULD BE SPELLED OUT ON THE SECOND LINE, IF THE ABBREVIATION CANNOT FIT ON THE FIRST LINE.
- LED ILLUMINATED STREET NAME SIGNS CAN BE USED IN PLACE OF REGULAR SIGN PANELS BUT ANY SPECIAL WORDING AND SYMBOLOGY MUST BE APPROVED BY THE DEPARTMENT. GENERAL DESIGN REQUIREMENT AS LISTED ABOVE (COLOR, FONT, SIZE, ETC.) MUST BE FOLLOWED.
- SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM SHALL BE USED FOR ALL SIGNS ATTACHED TO SIGNAL POLES AND POSTS.

LOCAL SUPPLIERS:

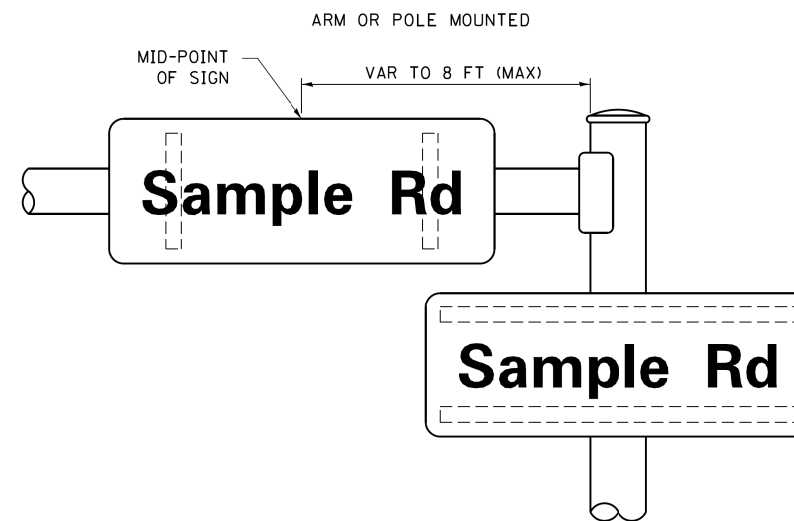
- J.O. HERBERT COMPANY, INC
MIDLOTHIAN, VA
- WESTERN REMAC, INC.
WOODRIDGE, IL

PARTS LISTING:

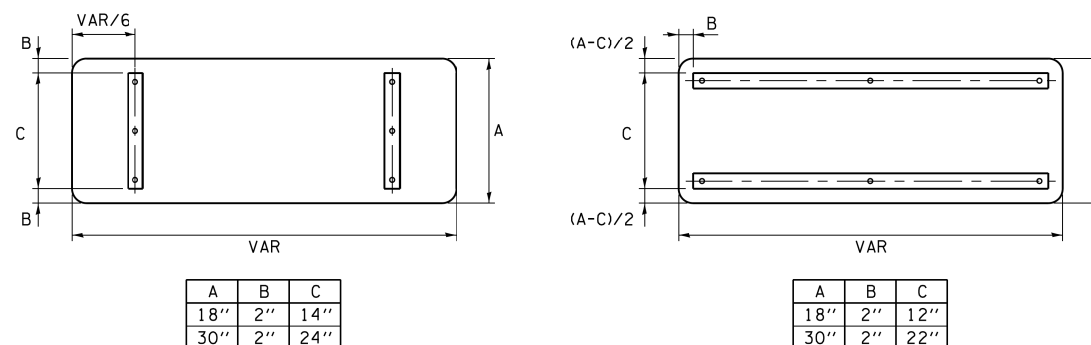
- SIGN CHANNEL PART #HPN053 (MED. CHANNEL)
1/4" x 14 x 1" H.W.H. #3
SELF TAPPING WITH NEOPRENE WASHER
- SIGN SCREWS PART #HPN034 (UNIVERSAL)
CHANNEL CLAMPS WITH STAINLESS STEEL STRAPPING
- BRACKETS

OTHER BRANDS OF MOUNTING HARDWARE ARE ACCEPTABLE, BASED UPON THE DEPARTMENT'S APPROVAL AND COMPATIBILITY WITH THE CHANNEL/BRACKET OF THE ABOVE PRODUCT.

MOUNTING LOCATION



SUPPORTING CHANNELS



STANDARD ALPHABETS SPACING CHART

(8") UPPER CASE AND (6") LOWER CASE

FHWA SERIES "C"				FHWA SERIES "D"			
CHARACTER	LEFT SPACING (INCH)	WIDTH (INCH)	RIGHT SPACING (INCH)	CHARACTER	LEFT SPACING (INCH)	WIDTH (INCH)	RIGHT SPACING (INCH)
A	0.240	5.122	0.240	A	0.240	6.804	0.240
B	0.880	4.482	0.480	B	0.960	5.446	0.400
C	0.720	4.482	0.720	C	0.800	5.446	0.800
D	0.880	4.482	0.720	D	0.960	5.446	0.800
E	0.880	4.082	0.480	E	0.960	4.962	0.400
F	0.880	4.082	0.240	F	0.960	4.962	0.240
G	0.720	4.482	0.720	G	0.800	5.446	0.800
H	0.880	4.482	0.880	H	0.960	5.446	0.960
I	0.880	1.120	0.880	I	0.960	1.280	0.960
J	0.240	4.082	0.880	J	0.240	5.122	0.960
K	0.880	4.482	0.480	K	0.960	5.604	0.400
L	0.880	4.082	0.240	L	0.960	4.962	0.240
M	0.880	5.284	0.880	M	0.960	6.244	0.960
N	0.880	4.482	0.880	N	0.960	5.446	0.960
O	0.720	4.722	0.720	O	0.800	5.684	0.800
P	0.880	4.482	0.720	P	0.960	5.446	0.240
Q	0.720	4.722	0.720	Q	0.800	5.684	0.800
R	0.880	4.482	0.480	R	0.960	5.446	0.400
S	0.480	4.482	0.480	S	0.400	5.446	0.400
T	0.240	4.082	0.240	T	0.240	4.962	0.240
U	0.880	4.482	0.880	U	0.960	5.446	0.960
V	0.240	4.962	0.240	V	0.240	6.084	0.240
W	0.240	6.084	0.240	W	0.240	7.124	0.240
X	0.240	4.722	0.240	X	0.400	5.446	0.400
Y	0.240	5.122	0.240	Y	0.240	6.884	0.240
Z	0.480	4.482	0.480	Z	0.400	5.446	0.400
a	0.320	3.842	0.640	a	0.400	4.562	0.720
b	0.720	4.082	0.480	b	0.800	4.802	0.480
c	0.480	4.002	0.240	c	0.480	4.722	0.240
d	0.480	4.082	0.720	d	0.480	4.802	0.800
e	0.480	4.082	0.320	e	0.480	4.722	0.320
f	0.320	2.480	0.160	f	0.320	2.882	0.160
g	0.480	4.082	0.720	g	0.480	4.802	0.800
h	0.720	4.082	0.640	h	0.800	4.722	0.720
i	0.720	1.120	0.720	i	0.800	1.280	0.800
j	0.000	2.320	0.720	j	0.000	2.642	0.800
k	0.720	4.322	0.160	k	0.800	5.122	0.160
l	0.720	1.120	0.720	l	0.800	1.280	0.800
m	0.720	6.724	0.640	m	0.800	7.926	0.720
n	0.720	4.082	0.640	n	0.800	4.722	0.720
o	0.480	4.082	0.480	o	0.480	4.882	0.480
p	0.720	4.082	0.480	p	0.800	4.802	0.480
q	0.480	4.082	0.720	q	0.480	4.802	0.800
r	0.720	2.642	0.160	r	0.800	3.042	0.160
s	0.320	3.362	0.240	s	0.320	3.762	0.240
t	0.080	2.882	0.080	t	0.080	3.202	0.080
u	0.640	4.082	0.720	u	0.720	4.722	0.800
v	0.160	4.722	0.160	v	0.160	5.684	0.160
w	0.160	7.524	0.160	w	0.160	9.046	0.160
x	0.000	5.202	0.000	x	0.000	6.244	0.000
y	0.160	4.962	0.160	y	0.160	6.004	0.160
z	0.240	3.362	0.240	z	0.240	4.002	0.240
1	0.720	1.680	0.880	1	0.800	2.000	0.960
2	0.480	4.482	0.480	2	0.800	5.446	0.800
3	0.480	4.482	0.480	3	1.440	5.446	0.800
4	0.240	4.962	0.720	4	0.160	6.004	0.960
5	0.480	4.482	0.480	5	0.800	5.446	0.800
6	0.720	4.482	0.720	6	0.800	5.446	0.800
7	0.240	4.482	0.720	7	0.560	5.446	0.560
8	0.480	4.482	0.480	8	0.800	5.446	0.800
9	0.480	4.482	0.480	9	0.800	5.446	0.800
0	0.720	4.722	0.720	0	0.800	5.684	0.800
-	0.240	2.802	0.240	-	0.240	2.802	0.240

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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 ALUMINUM MAST ARM ASSEMBLY AND POLE
- 1 EACH 3-SECTION SIGNAL HEAD

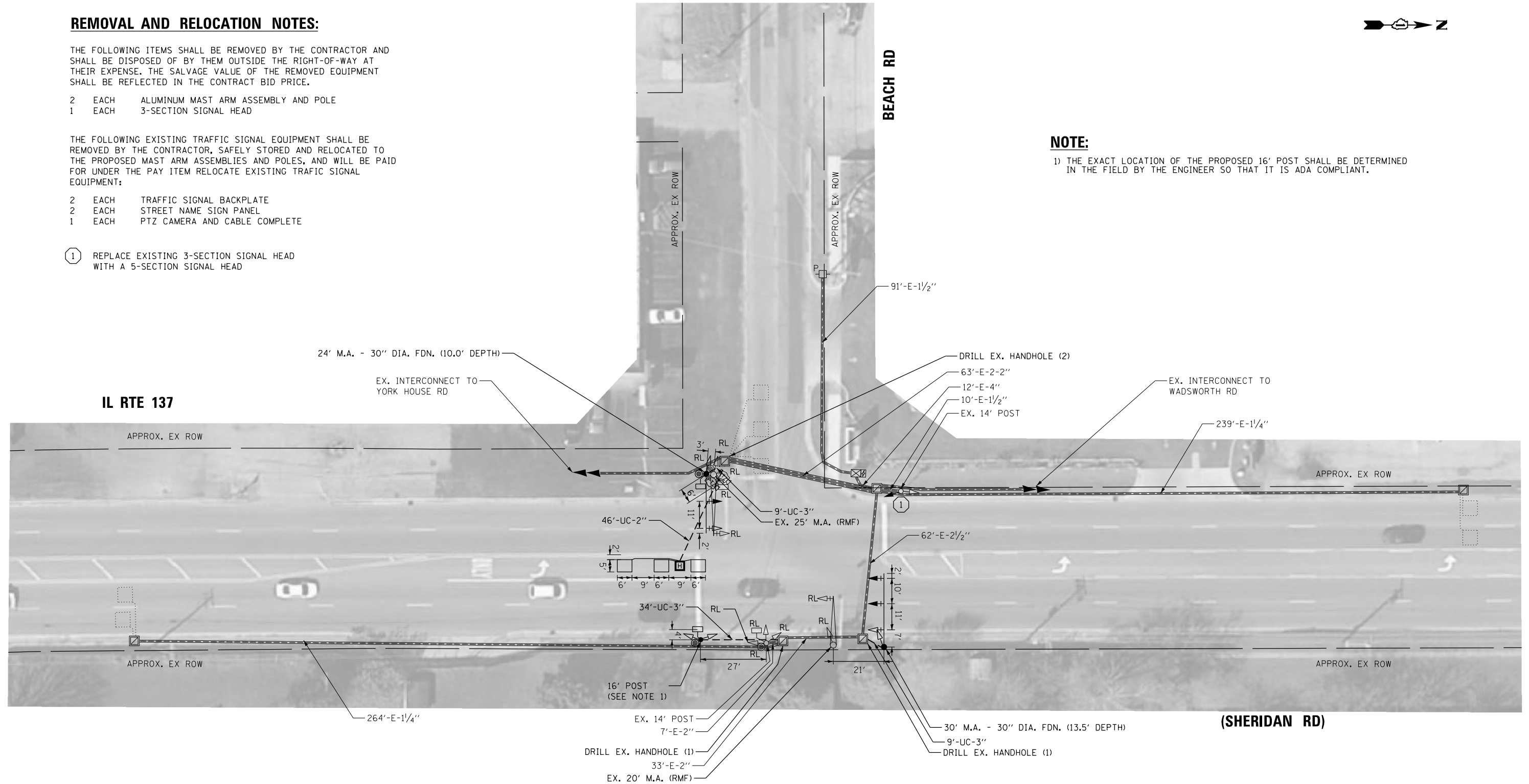
THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SAFELY STORED AND RELOCATED TO THE PROPOSED MAST ARM ASSEMBLIES AND POLES, AND WILL BE PAID FOR UNDER THE PAY ITEM RELOCATE EXISTING TRAFIC SIGNAL EQUIPMENT:

- 2 EACH TRAFFIC SIGNAL BACKPLATE
- 2 EACH STREET NAME SIGN PANEL
- 1 EACH PTZ CAMERA AND CABLE COMPLETE

- ① REPLACE EXISTING 3-SECTION SIGNAL HEAD WITH A 5-SECTION SIGNAL HEAD

NOTE:

1) THE EXACT LOCATION OF THE PROPOSED 16' POST SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER SO THAT IT IS ADA COMPLIANT.



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PLOT DATE = 4/5/2017	DATE - 2/06/2017	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL EQUIPMENT REMOVAL AND MODIFICATION PLAN
IL RTE 137 (SHERIDAN RD) AT BEACH RD**

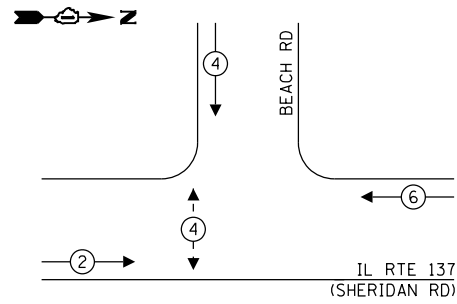
SCALE: 1" = 20' SHEET OF SHEETS STA. TO STA.

**TS 7190
ECON LAKE COUNTY SYSTEM**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2017-004TS	LAKE	54	18
CONTRACT NO. 62D98			ILLINOIS FED. AID PROJECT	



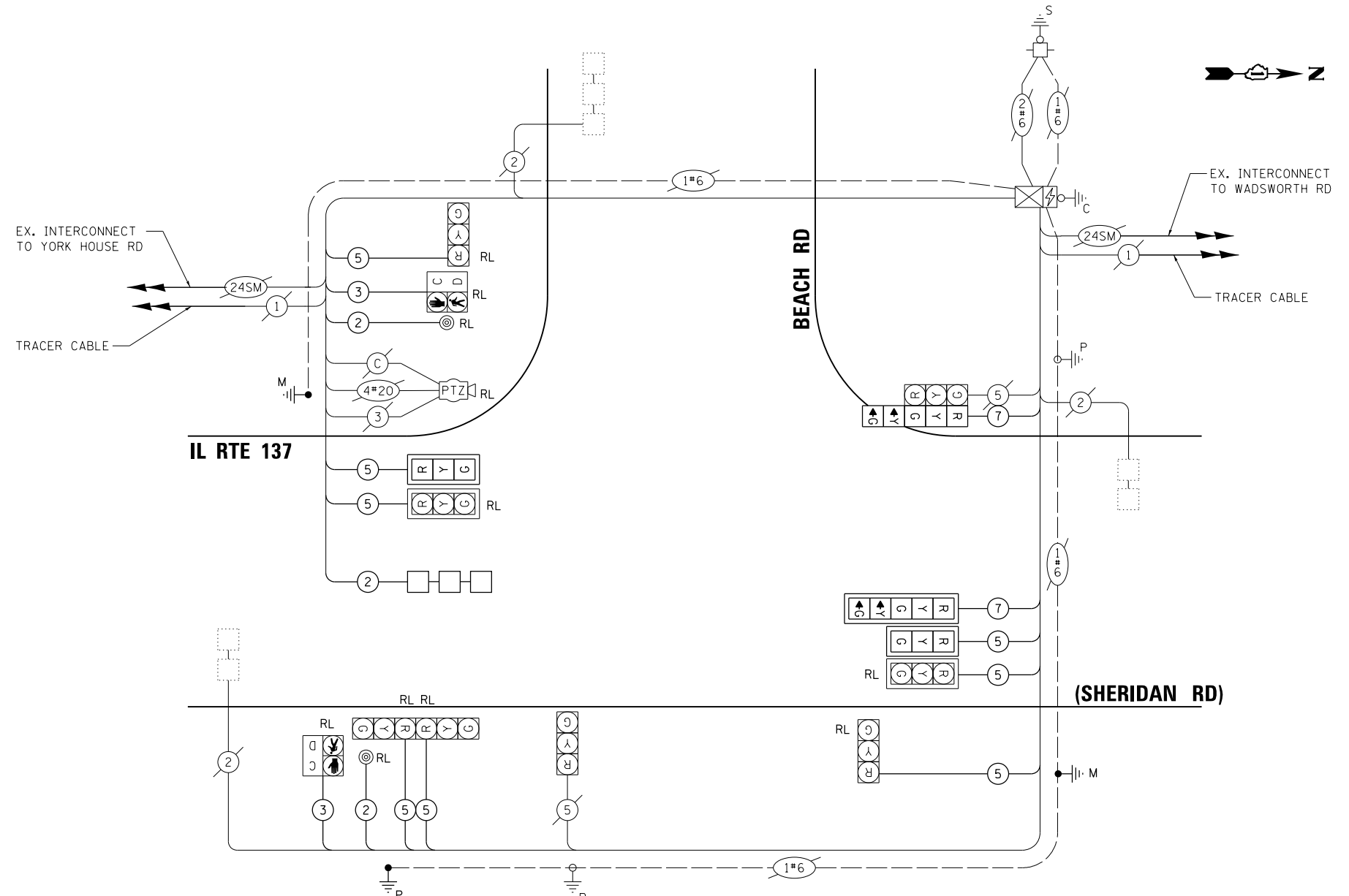
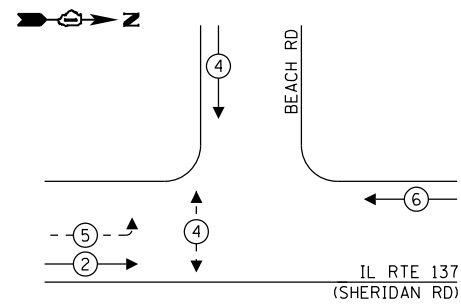
EXISTING CONTROLLER SEQUENCE



LEGEND:

- ← ⊛ → PROTECTED PHASE
- ← ⊛ ⊖ → PROTECTED/PERMITTED PHASE
- ← ⊛ ⊕ → PEDESTRIAN PHASE
- ⊕ OL OVERLAP

PROPOSED CONTROLLER SEQUENCE



CABLE PLAN
(NOT TO SCALE)

SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
46	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.
52	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.
1	EACH	HEAVY-DUTY HANDHOLE
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
289	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C
303	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
1162	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
203	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C
145	FOOT	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR
85	FOOT	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C
1	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 24 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 30 FT.
4	FOOT	CONCRETE FOUNDATION, TYPE A
23.5	FOOT	CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER
4	EACH	DRILL EXISTING HANDHOLE
2	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
1	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED
1	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED
3	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC
1	EACH	INDUCTIVE LOOP DETECTOR
96	FOOT	DETECTOR LOOP, TYPE I
6	EACH	RELOCATE EXISTING SIGNAL HEAD
2	EACH	RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD
2	EACH	RELOCATE EXISTING PEDESTRIAN PUSH-BUTTON
1	EACH	RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	MODIFY EXISTING CONTROLLER
1200	FOOT	REMOVE ELECTRIC CABLE FROM CONDUIT
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
2	EACH	REMOVE EXISTING CONCRETE FOUNDATION

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	4	10	10	4.0
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	-
PTZ CAMERA	1	15	100	15.0
STREET NAME SIGN	-	120	50	-
LUMINAIRE	-	-	-	-
TOTAL =				326.8

ENERGY COSTS TO:

VILLAGE OF BEACH PARK
11270 W. WADSWORTH ROAD
BEACH PARK, IL 60099-3358

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

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM
AND SCHEDULE OF QUANTITIES
IL RTE 137 (SHERIDAN RD) AT BEACH RD

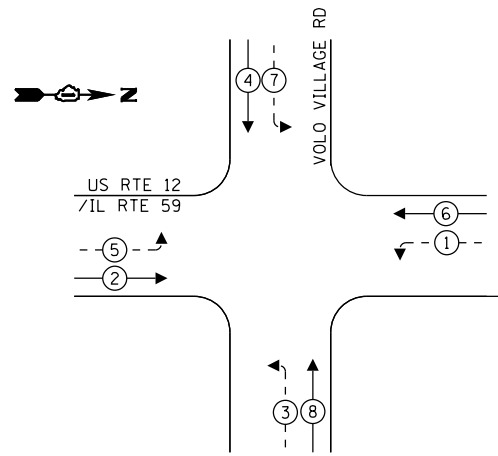
TS 7190
ECON LAKE COUNTY SYSTEM

DESIGNED - DW	REVISED -	SCALE: N.T.S.	SHEET OF SHEETS STA. TO STA.	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
DRAWN - XT	REVISED -			VAR	2017-004TS	LAKE	54	19	
PLOT SCALE = 40.0000' / in.	CHECKED - JH			CONTRACT NO. 62D98		ILLINOIS FED. AID PROJECT			
PLOT DATE = 4/5/2017	DATE - 2/06/2017								

FILE NAME = p:\p\m\dlz\corp\com\DLZ\Documents\Projects\2014\1481\2109\15-004 Trombone Mast Arm Replacement\CADD_Sheets\0162D98-sht-ts7190.dgn



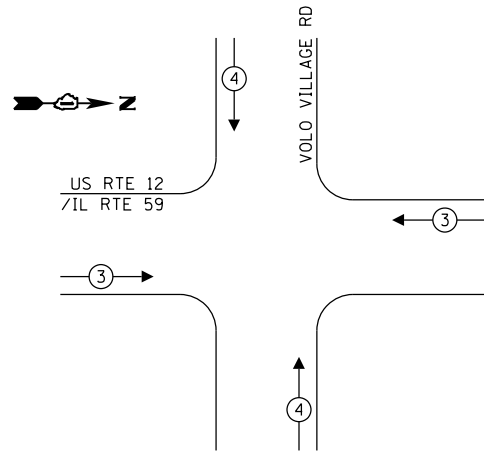
EXISTING CONTROLLER SEQUENCE



LEGEND:

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

EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE



TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	20	11	50	110.0
(YELLOW)	20	20	5	20.0
(GREEN)	20	12	45	108.0
PERMISSIVE ARROW	16	10	10	16.0
PED. SIGNAL		20	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 =				379.0

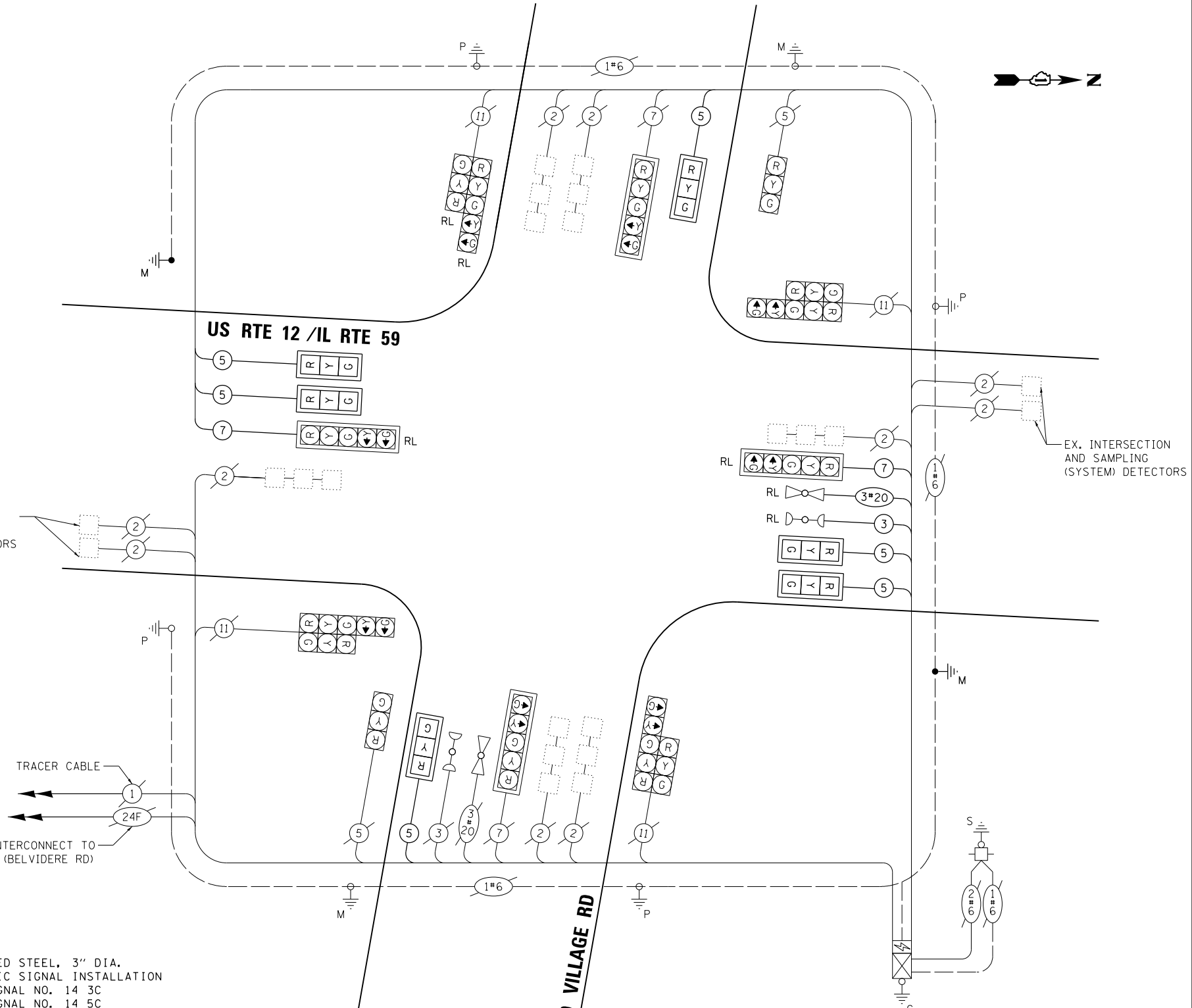
ENERGY COSTS TO:

VILLAGE OF VOLO
500 SOUTH FISH LAKE ROAD
VOLO, IL 60073

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

SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
51	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
147	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
1322	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
496	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C
73	FOOT	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C
1	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 34 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 36 FT.
27	FOOT	CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER
2	EACH	DRILL EXISTING HANDHOLE
6	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
6	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC
4	EACH	RELOCATE EXISTING SIGNAL HEAD
1	EACH	RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT
786	FOOT	REMOVE ELECTRIC CABLE FROM CONDUIT
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	REMOVE EXISTING HANDHOLE
2	EACH	REMOVE EXISTING CONCRETE FOUNDATION
1	EACH	REMOVE AND REPLACE ANCHOR BOLTS
147	FOOT	EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C



CABLE PLAN
(NOT TO SCALE)

FILE NAME = p:\p\dlz\corp\com\DLZ\Documents\Projects\2014\1481\2109\15-004 Trombone Mast Arm Replacement\CADD_Sheets\0162098-sht-ts6511.dgn

USER NAME = .USERNAME.	DESIGNED - DW	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN - XT	REVISED -
PLOT DATE = 4/5/2017	CHECKED - JH	REVISED -
	DATE - 2/06/2017	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM, EMERGENCY VEHICLE PREEMPTION SEQUENCE, AND SCHEDULE OF QUANTITIES
US RTE 12 / IL RTE 59 AT VOLO VILLAGE RD

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2017-004TS	LAKE	54	21
CONTRACT NO. 62D98				
ILLINOIS FED. AID PROJECT				

TS 6511
EAGLE 1C

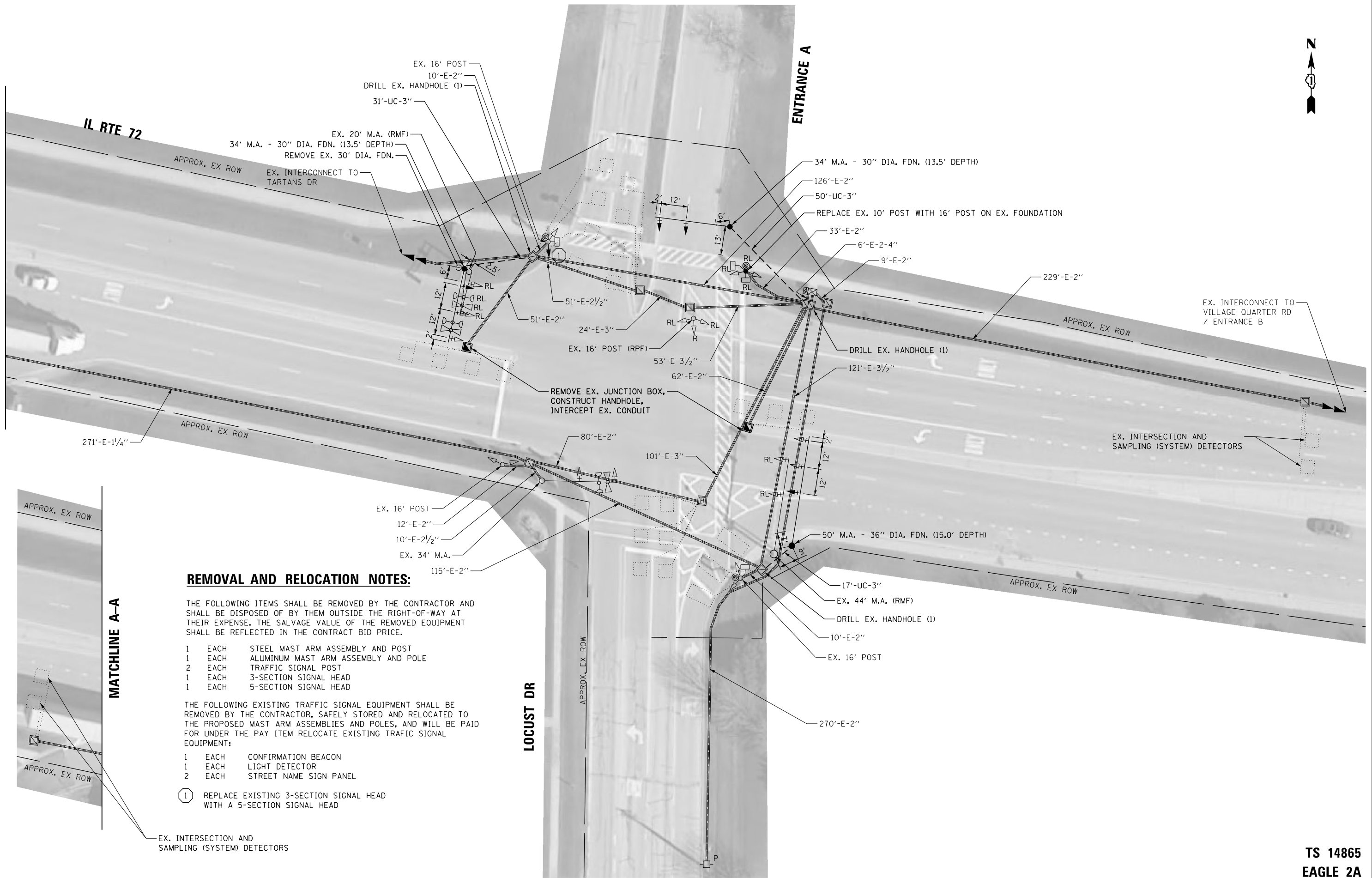
SCALE: N.T.S. SHEET OF SHEETS STA. TO STA.



FILE NAME = p:\p\m\dlzcorp.com\DLZ\Documents\Projects\2014\1481\2109\15-004 Trombone Mast Arm Replacement\CADD_Sheets\0162098-sht-1s14865-Plan.dgn

MATCHLINE A-A

MATCHLINE A-A



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.

- 1 EACH STEEL MAST ARM ASSEMBLY AND POST
- 1 EACH ALUMINUM MAST ARM ASSEMBLY AND POLE
- 2 EACH TRAFFIC SIGNAL POST
- 1 EACH 3-SECTION SIGNAL HEAD
- 1 EACH 5-SECTION SIGNAL HEAD

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SAFELY STORED AND RELOCATED TO THE PROPOSED MAST ARM ASSEMBLIES AND POLES, AND WILL BE PAID FOR UNDER THE PAY ITEM RELOCATE EXISTING TRAFIC SIGNAL EQUIPMENT:

- 1 EACH CONFIRMATION BEACON
- 1 EACH LIGHT DETECTOR
- 2 EACH STREET NAME SIGN PANEL

- ① REPLACE EXISTING 3-SECTION SIGNAL HEAD WITH A 5-SECTION SIGNAL HEAD

EX. INTERSECTION AND SAMPLING (SYSTEM) DETECTORS



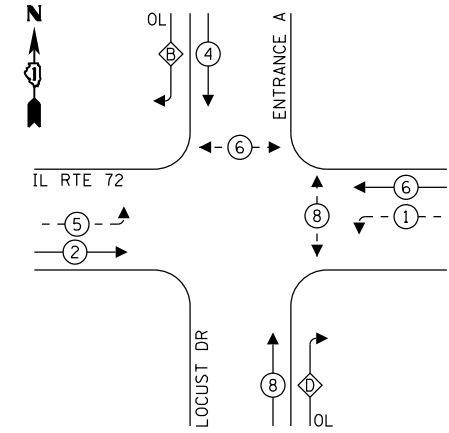
**TS 14865
EAGLE 2A**

MODELNAME	USER NAME = .USERNAME.	DESIGNED - DW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SIGNAL EQUIPMENT REMOVAL AND MODIFICATION PLAN IL RTE 72 AT LOCUST DR /ENTRANCE A	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 40.0000' / in.	DRAWN - XT	REVISED -			VAR	2017-004TS	KANE	54	22
PLOT DATE = 4/5/2017	CHECKED - JH	DATE - 2/06/2017	REVISED -	SCALE: 1" = 20'	SHEET OF SHEETS STA. TO STA.	CONTRACT NO. 62D98				
ILLINOIS FED. AID PROJECT										



FILE NAME = p:\p1\dlz\corp\com\DLZ\Documents\Projects\2014\1481\2109\15-004 Trombone Mast Arm Replacement\CADD_Sheets\0162D98-sht-1s1485.dgn

EXISTING CONTROLLER SEQUENCE



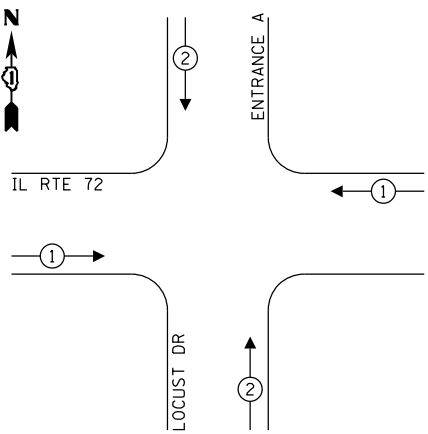
LEGEND:

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

RIGHT TURN OVERLAP PHASE DESIGNATION:

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

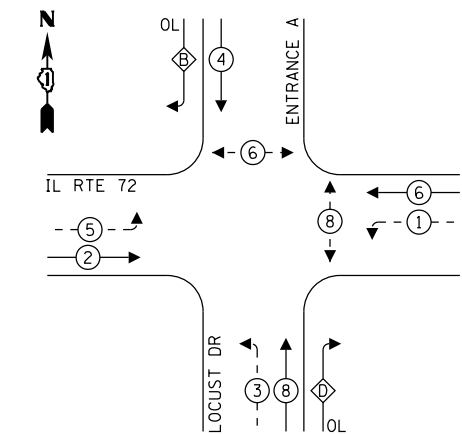
EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE



SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
98	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.
2	EACH	HANDHOLE
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
259	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
1003	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
996	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C
138	FOOT	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C
1	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
2	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 34 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 50 FT.
27	FOOT	CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER
15	FOOT	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER
3	EACH	DRILL EXISTING HANDHOLE
2	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
1	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED
2	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED
4	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC
6	EACH	RELOCATE EXISTING SIGNAL HEAD
2	EACH	RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD
1	EACH	RELOCATE EXISTING PEDESTRIAN PUSH-BUTTON
1	EACH	RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	MODIFY EXISTING CONTROLLER
1404	FOOT	REMOVE ELECTRIC CABLE FROM CONDUIT
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
4	EACH	REMOVE EXISTING CONCRETE FOUNDATION
1	EACH	REMOVE AND REPLACE ANCHOR BOLTS
259	FOOT	EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C
2	EACH	INTERCEPT EXISTING CONDUIT
2	EACH	REMOVE EXISTING JUNCTION BOX

PROPOSED CONTROLLER SEQUENCE



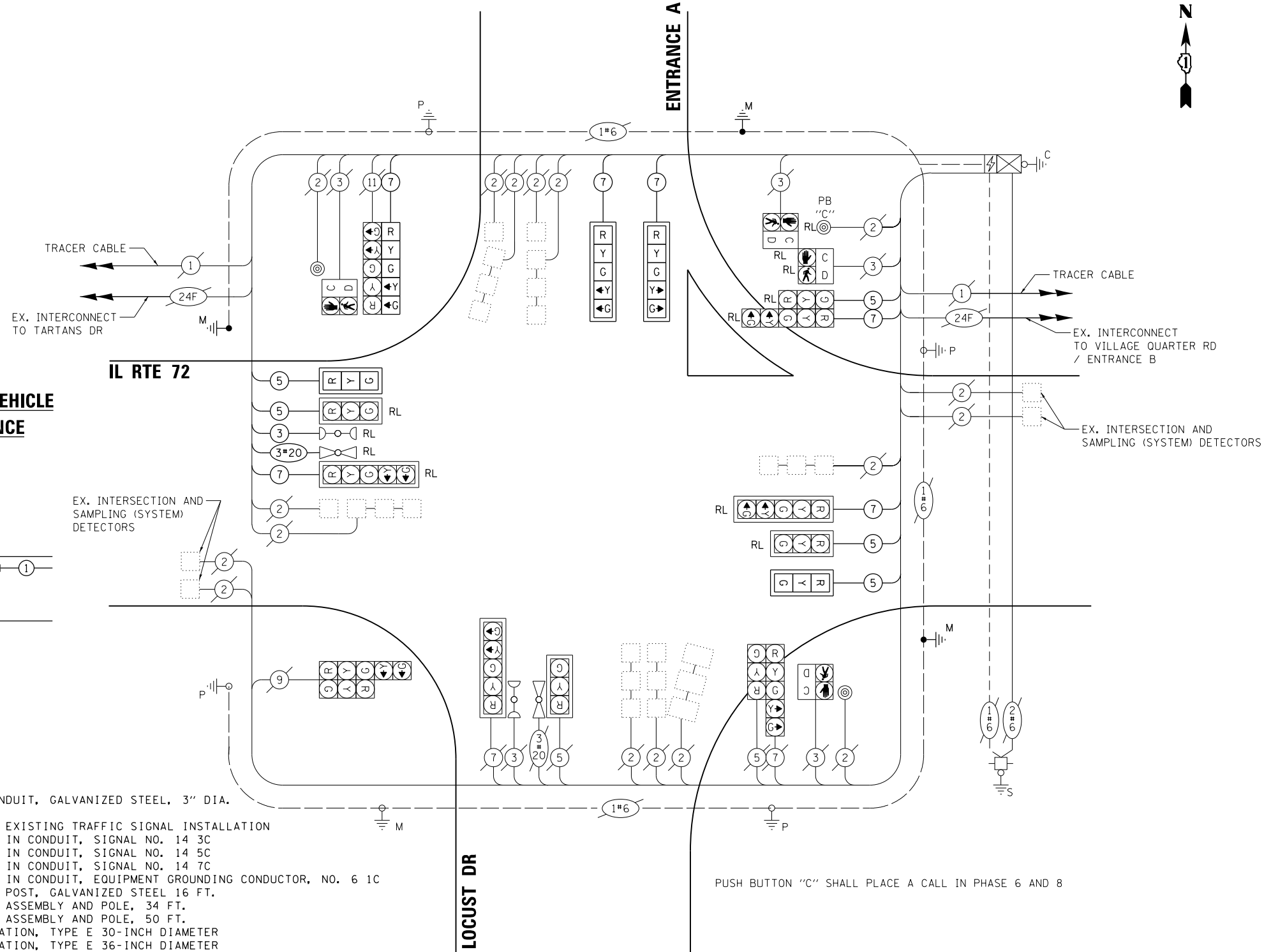
TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	16	11	50	88.0
(YELLOW)	16	20	5	16.0
(GREEN)	16	12	45	86.4
PERMISSIVE ARROW	16	10	10	16.0
PED. SIGNAL	4	20	100	80.0
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 =				411.4

ENERGY COSTS TO:

VILLAGE OF WEST DUNDEE
102 SOUTH SECOND STREET
WEST DUNDEE, IL 60118

ENERGY SUPPLY: CONTACT: JOE STACHO
PHONE: 630-424-5740
COMPANY: COMMONWEALTH EDISON
ACCOUNT NUMBER: ---



CABLE PLAN

(NOT TO SCALE)

USER NAME = .USERNAME.	DESIGNED - DW	REVISED -
PLOT SCALE = 48.0000' / in.	DRAWN - XT	REVISED -
PLOT DATE = 4/5/2017	CHECKED - JH	REVISED -
	DATE - 2/06/2017	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM, EMERGENCY VEHICLE PREEMPTION SEQUENCE, AND SCHEDULE OF QUANTITIES
IL RTE 72 AT LOCUST DR / ENTRANCE A

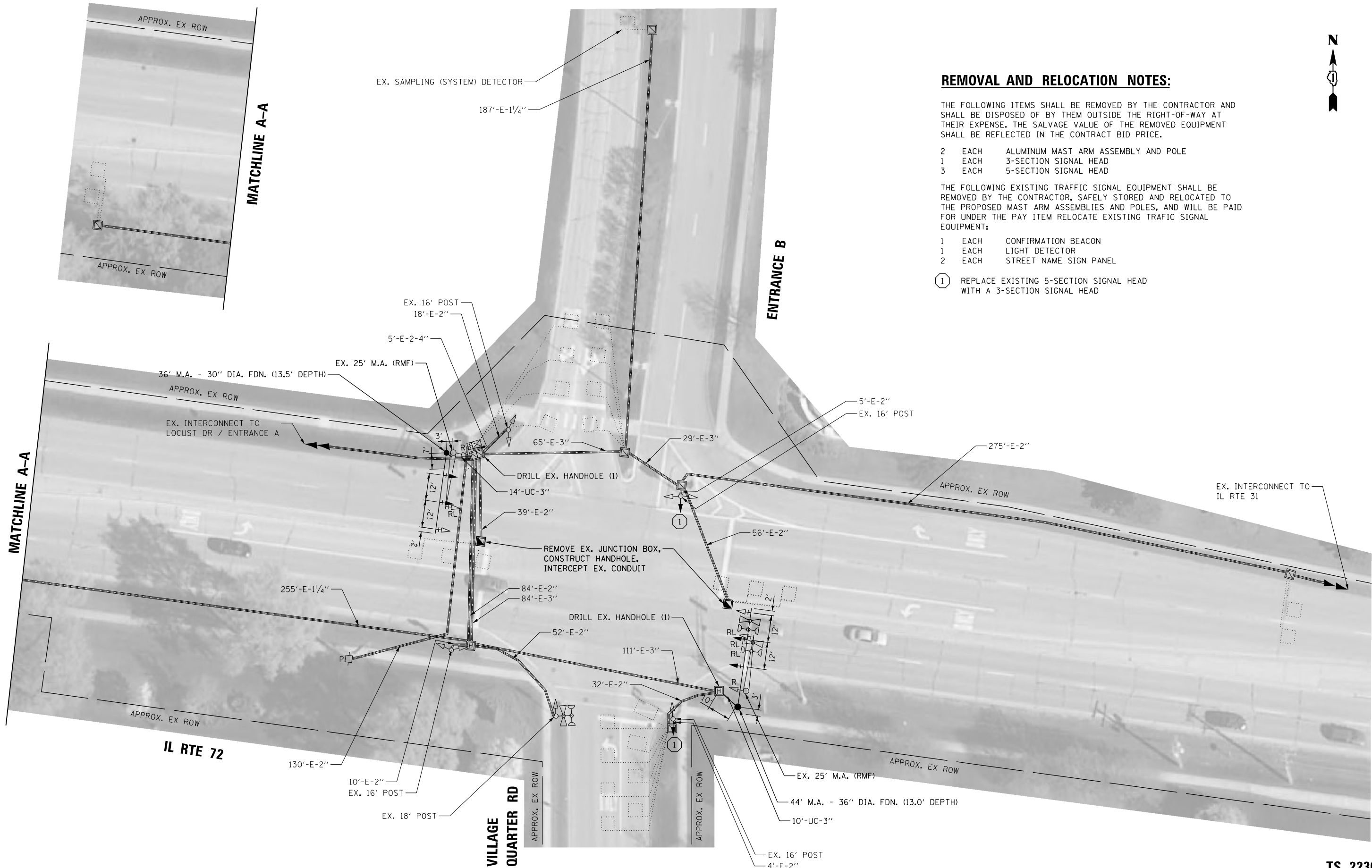
SCALE: N.T.S. SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2017-004TS	KANE	54	23
			CONTRACT NO. 62D98	
ILLINOIS FED. AID PROJECT				

TS 14865
EAGLE 2A



FILE NAME = p:\p\dlzcorp.com\DLZ\Documents\Projects\2014\1481\2109\16-004 Trumbone Mast Arm Replacement\CADD_Sheets\0162D998-sht-ts22305-Plan.dgn



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 ALUMINUM MAST ARM ASSEMBLY AND POLE
- 1 EACH 3-SECTION SIGNAL HEAD
- 3 EACH 5-SECTION SIGNAL HEAD

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SAFELY STORED AND RELOCATED TO THE PROPOSED MAST ARM ASSEMBLIES AND POLES, AND WILL BE PAID FOR UNDER THE PAY ITEM RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT:

- 1 EACH CONFIRMATION BEACON
- 1 EACH LIGHT DETECTOR
- 2 EACH STREET NAME SIGN PANEL

- ① REPLACE EXISTING 5-SECTION SIGNAL HEAD WITH A 3-SECTION SIGNAL HEAD



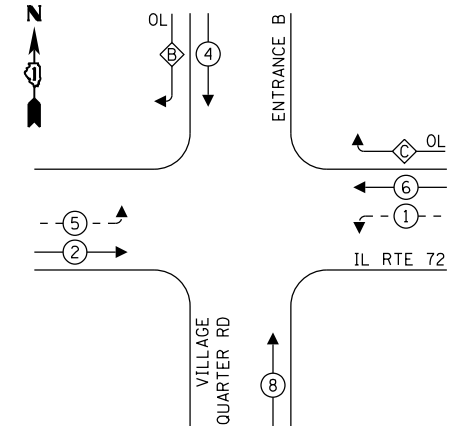
**TS 22305
EAGLE 2A**

MODELNAME	USER NAME = .USERNAME.	DESIGNED - DW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SIGNAL EQUIPMENT REMOVAL AND MODIFICATION PLAN IL RTE 72 AT VILLAGE QUARTER RD /ENTRANCE B	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 40.0000' / in.	CHECKED - JH	REVISED -			VAR	2017-004TS	KANE	54	24
	PLOT DATE = 4/5/2017	DATE - 2/06/2017	REVISED -	SCALE: 1" = 20'	SHEET OF SHEETS	STA. TO STA.	CONTRACT NO. 62D98			
ILLINOIS FED. AID PROJECT										



FILE NAME = p:\p\dlz\corp\com\DLZ\Documents\Projects\2014\1481\2109\15-004 Trombone Mast Arm Replacement\CADD_Sheets\0162098-sht-ts22305.dgn

EXISTING CONTROLLER SEQUENCE



LEGEND:

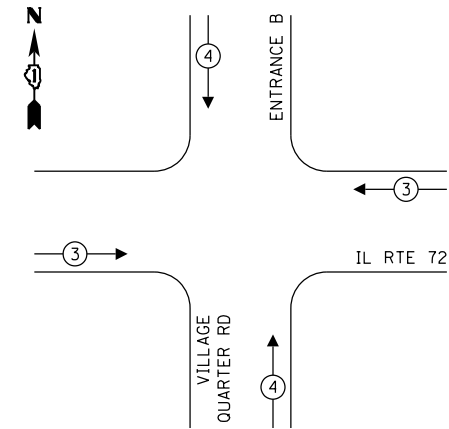
- ← ⊛ → PROTECTED PHASE
- ← ⊛ - - ⊛ → PROTECTED/PERMITTED PHASE
- ← ⊛ → PEDESTRIAN PHASE
- ← ⊛ ⊛ → OVERLAP

RIGHT TURN OVERLAP PHASE DESIGNATION:

OVERLAP LETTER = PERMISSIVE PHASE + PROTECTED PHASE

B = 4 + 5
C = CONTINUOUS FLOW

EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE



TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	16	11	50	88.0
(YELLOW)	16	20	5	16.0
(GREEN)	16	12	45	86.4
PERMISSIVE ARROW	20	10	10	20.0
PED. SIGNAL	0	20	100	0.0
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 =				335.4

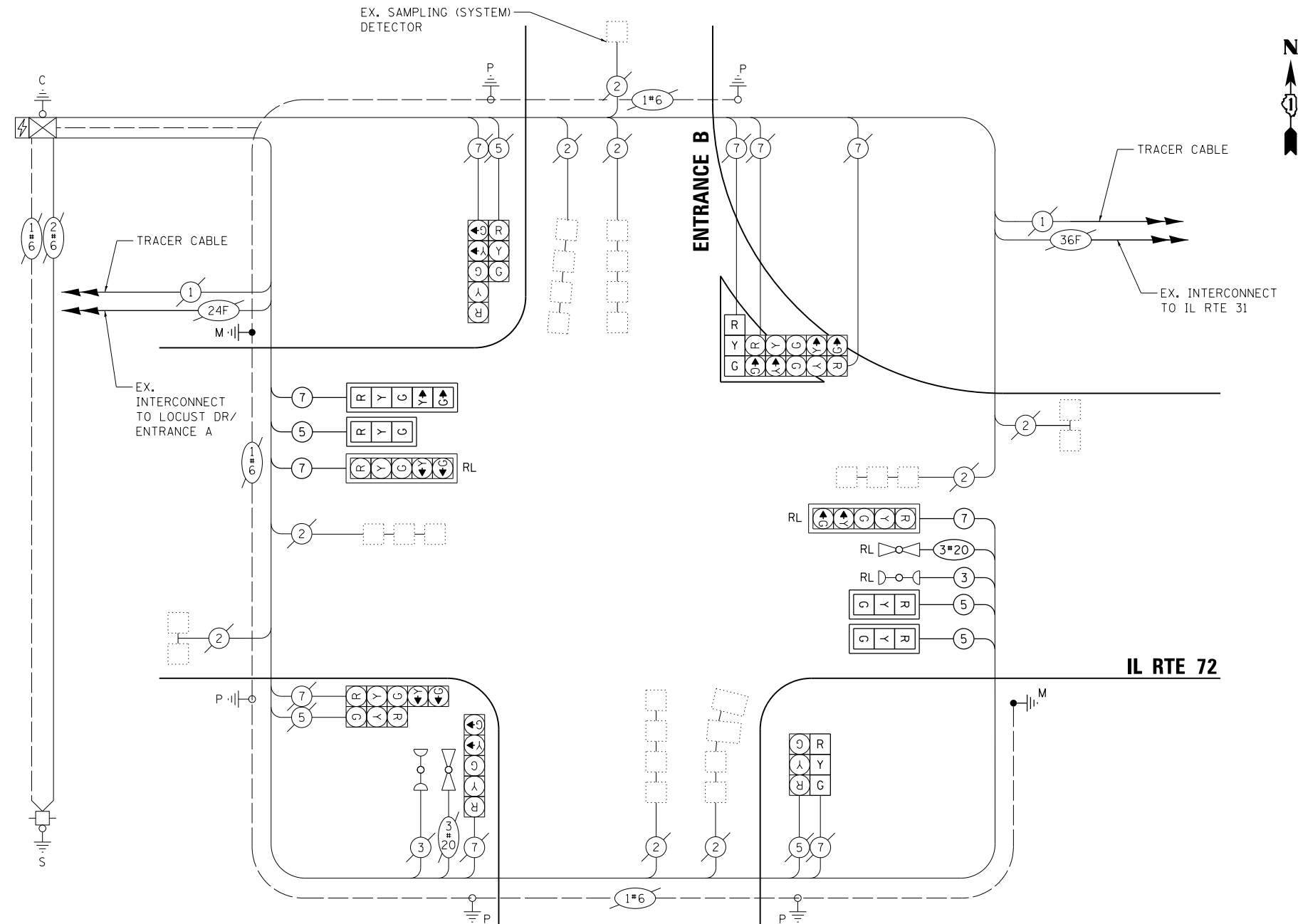
ENERGY COSTS TO:

VILLAGE OF WEST DUNDEE
102 SOUTH SECOND STREET
WEST DUNDEE, IL 60118

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

SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
24	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.
2	EACH	HANDHOLE
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
308	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
663	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
475	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C
53	FOOT	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 36 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 44 FT.
13.5	FOOT	CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER
13	FOOT	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER
2	EACH	DRILL EXISTING HANDHOLE
3	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
2	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED
1	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED
4	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC
2	EACH	RELOCATE EXISTING SIGNAL HEAD
1	EACH	RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT
967	FOOT	REMOVE ELECTRIC CABLE FROM CONDUIT
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
2	EACH	REMOVE EXISTING CONCRETE FOUNDATION
308	FOOT	EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C
2	EACH	INTERCEPT EXISTING CONDUIT
2	EACH	REMOVE EXISTING JUNCTION BOX



VILLAGE QUARTER RD

CABLE PLAN
(NOT TO SCALE)

USER NAME = .USERNAME.	DESIGNED - DW	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN - XT	REVISED -
PLOT DATE = 4/5/2017	CHECKED - JH	REVISED -
	DATE - 2/06/2017	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM, EMERGENCY VEHICLE PREEMPTION SEQUENCE AND SCHEDULE OF QUANTITIES
IL RTE 72 AT VILLAGE QUARTER RD / ENTRANCE B

SCALE: N.T.S. SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2017-004TS	KANE	54	25
CONTRACT NO. 62D98				
ILLINOIS FED. AID PROJECT				

TS 22305
EAGLE 2A



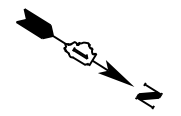
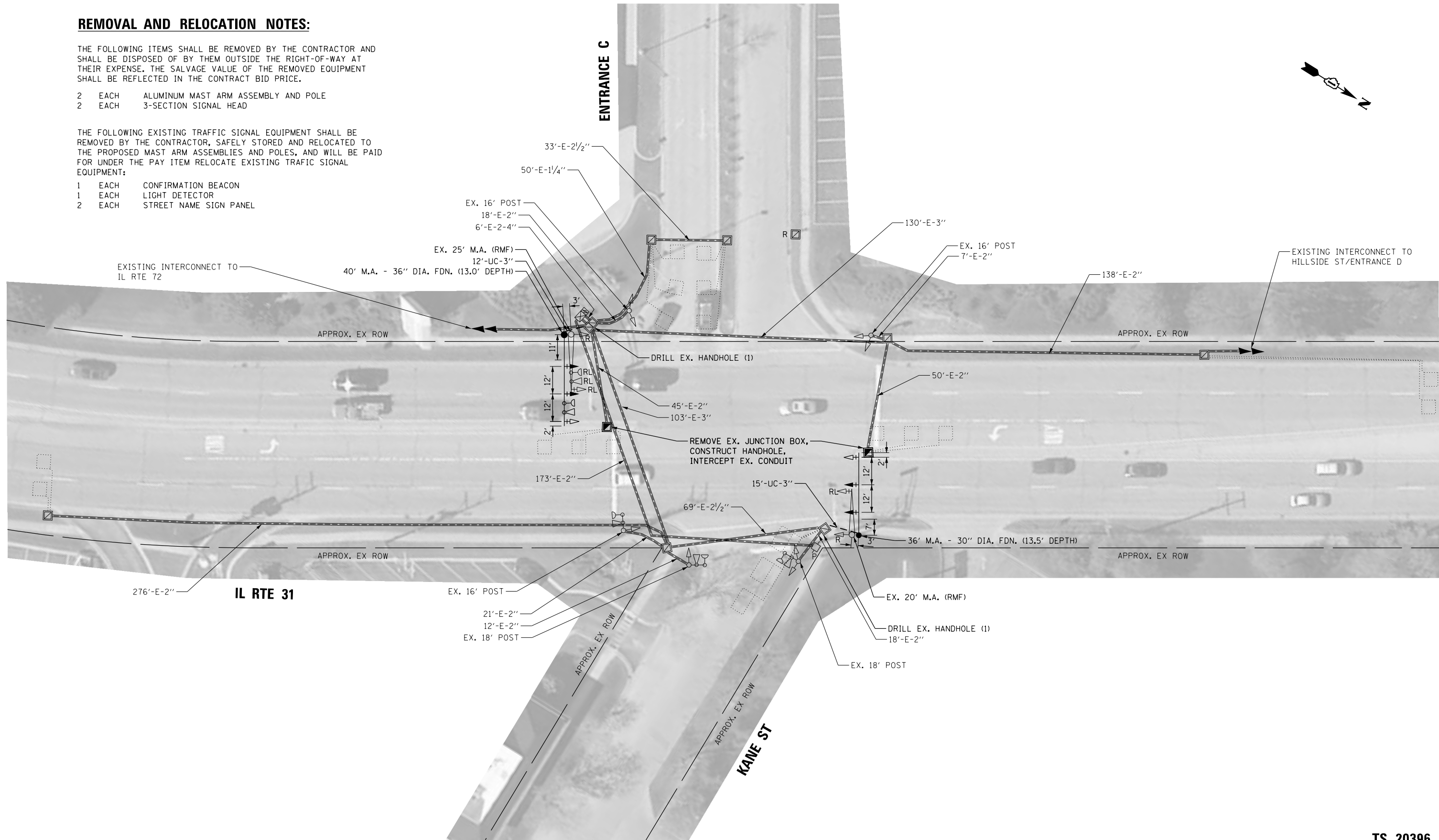
REMOVAL AND RELOCATION NOTES:

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 ALUMINUM MAST ARM ASSEMBLY AND POLE
- 2 EACH 3-SECTION SIGNAL HEAD

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SAFELY STORED AND RELOCATED TO THE PROPOSED MAST ARM ASSEMBLIES AND POLES, AND WILL BE PAID FOR UNDER THE PAY ITEM RELOCATE EXISTING TRAFIC SIGNAL EQUIPMENT:

- 1 EACH CONFIRMATION BEACON
- 1 EACH LIGHT DETECTOR
- 2 EACH STREET NAME SIGN PANEL



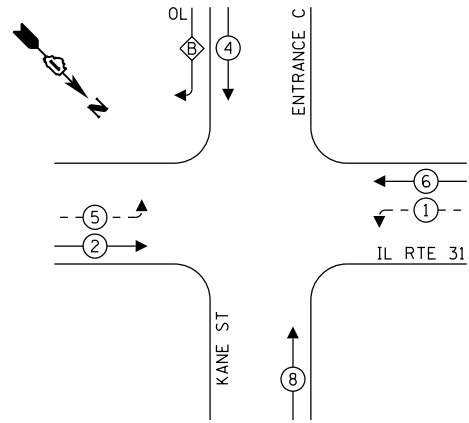
FILE NAME = p:\PM\dlzcorp\com\DLZ\Documents\Projects\2014\1481\2109\15-004 Trombone Mast Arm Replacement\CADD_Sheets\0162D98-sht-ts20396-Plan.dgn

**TS 20396
EAGLE 2A**

\$MODELNAME\$	USER NAME = .USERNAME.	DESIGNED - DW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SIGNAL EQUIPMENT REMOVAL AND MODIFICATION PLAN IL RTE 31 AT KANE ST /ENTRANCE C	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 40.0004' / in.	CHECKED - JH	REVISED -			VAR	2017-004TS	KANE	54	26
	PLOT DATE = 4/5/2017	DATE - 2/06/2017	REVISED -	SCALE: 1" = 20' SHEET OF SHEETS STA. TO STA.		CONTRACT NO. 62D98				
ILLINOIS FED. AID PROJECT										



EXISTING CONTROLLER SEQUENCE



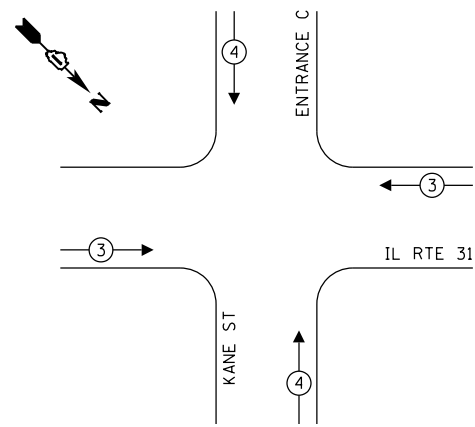
LEGEND:

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

RIGHT TURN OVERLAP PHASE DESIGNATION:

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
B	4	5

EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE



TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	14	11	50	77.0
(YELLOW)	14	20	5	14.0
(GREEN)	14	12	45	75.6
PERMISSIVE ARROW	12	10	10	12.0
PED. SIGNAL	0	20	100	0.0
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 =				303.6

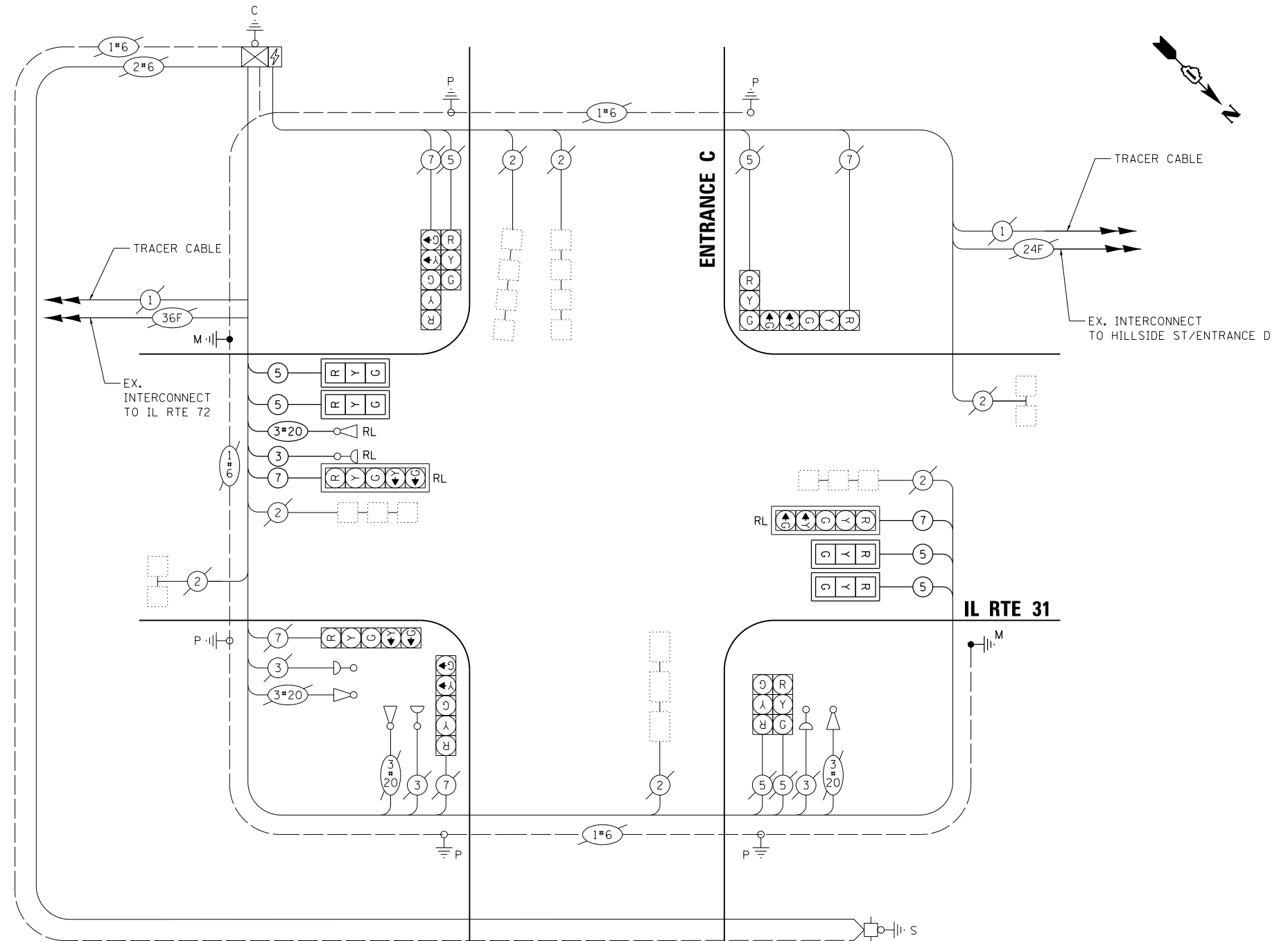
SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
27	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.
2	EACH	HANDHOLE
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
99	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
690	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
381	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C
56	FOOT	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 36 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 40 FT.
13.5	FOOT	CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER
13	FOOT	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER
2	EACH	DRILL EXISTING HANDHOLE
4	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
4	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC
2	EACH	RELOCATE EXISTING SIGNAL HEAD
1	EACH	RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT
511	FOOT	REMOVE ELECTRIC CABLE FROM CONDUIT
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	REMOVE EXISTING HANDHOLE
2	EACH	REMOVE EXISTING CONCRETE FOUNDATION
99	FOOT	EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C
2	EACH	INTERCEPT EXISTING CONDUIT
2	EACH	REMOVE EXISTING JUNCTION BOX

ENERGY COSTS TO:

VILLAGE OF WEST DUNDEE
102 SOUTH SECOND STREET
WEST DUNDEE, IL 60118

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



CABLE PLAN

(NOT TO SCALE)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM, EMERGENCY VEHICLE PREEMPTION SEQUENCE AND SCHEDULE OF QUANTITIES
IL RTE 31 AT KANE ST /ENTRANCE C

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2017-004TS	KANE	54	27
CONTRACT NO. 62D98				

TS 20396
EAGLE 2A

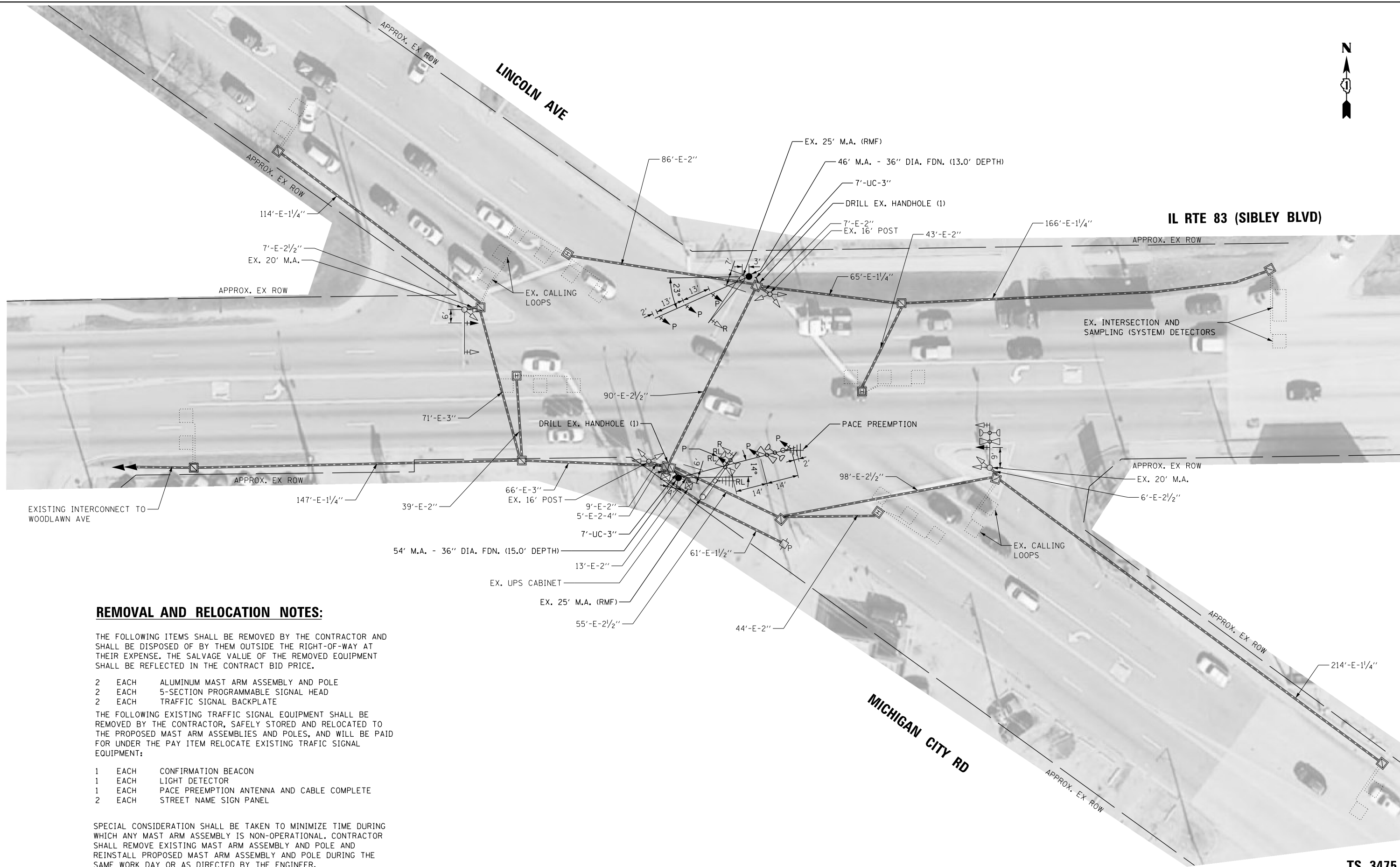
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MODELNAME

USER NAME = .USERNAME.	DESIGNED - DW	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN - XT	REVISED -
PLOT DATE = 4/5/2017	CHECKED - JH	REVISED -
	DATE - 2/06/2017	REVISED -

SCALE: N.T.S. SHEET OF SHEETS STA. TO STA.

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 ALUMINUM MAST ARM ASSEMBLY AND POLE
- 2 EACH 5-SECTION PROGRAMMABLE SIGNAL HEAD
- 2 EACH TRAFFIC SIGNAL BACKPLATE

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SAFELY STORED AND RELOCATED TO THE PROPOSED MAST ARM ASSEMBLIES AND POLES, AND WILL BE PAID FOR UNDER THE PAY ITEM RELOCATE EXISTING TRAFIC SIGNAL EQUIPMENT:

- 1 EACH CONFIRMATION BEACON
- 1 EACH LIGHT DETECTOR
- 1 EACH PACE PREEMPTION ANTENNA AND CABLE COMPLETE
- 2 EACH STREET NAME SIGN PANEL

SPECIAL CONSIDERATION SHALL BE TAKEN TO MINIMIZE TIME DURING WHICH ANY MAST ARM ASSEMBLY IS NON-OPERATIONAL. CONTRACTOR SHALL REMOVE EXISTING MAST ARM ASSEMBLY AND POLE AND REINSTALL PROPOSED MAST ARM ASSEMBLY AND POLE DURING THE SAME WORK DAY OR AS DIRECTED BY THE ENGINEER.

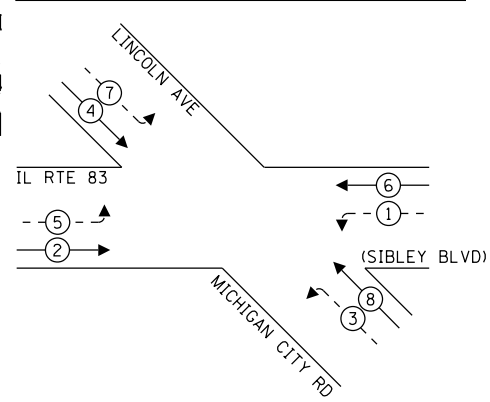
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MODELNAME	USER NAME = .USERNAME.	DESIGNED - DW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SIGNAL EQUIPMENT REMOVAL AND MODIFICATION PLAN IL RTE 83 (SIBLEY BLVD) AT LINCOLN AVE / MICHIGAN CITY RD	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 40.0000' / in.	CHECKED - JH	REVISED -			VAR	2017-004TS	COOK	54	28
	PLOT DATE = 4/5/2017	DATE - 2/06/2017	REVISED -		SCALE: 1" = 20'	SHEET	OF	SHEETS	STA.	TO STA.
						ILLINOIS FED. AID PROJECT		CONTRACT NO. 62D98		

**TS 3475
EAGLE 3J**



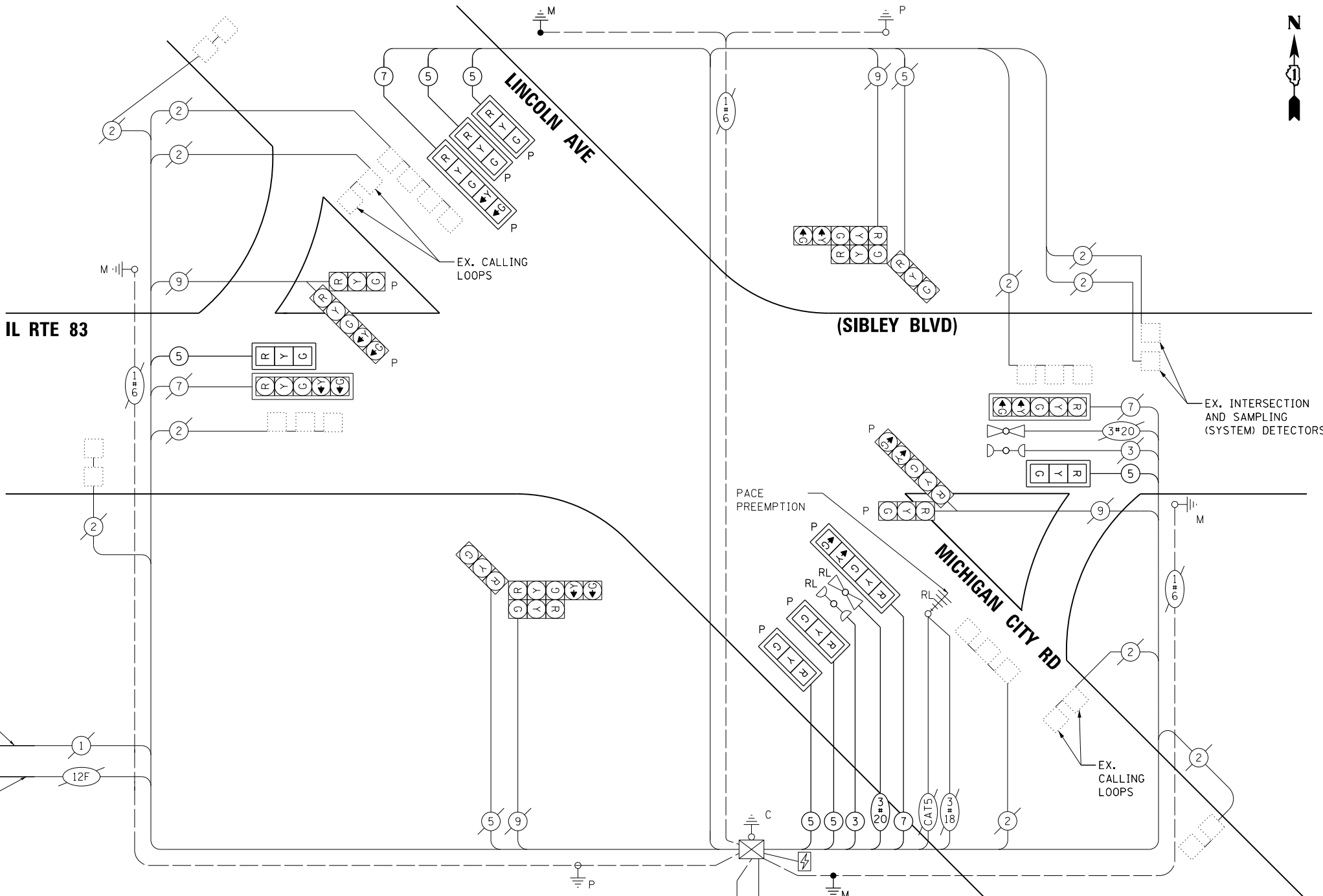
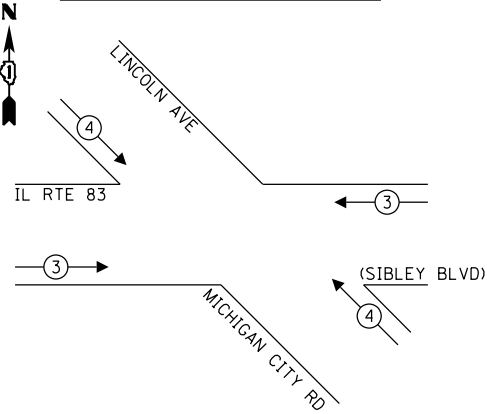
EXISTING CONTROLLER SEQUENCE



LEGEND:

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

EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE



TRACER CABLE
EX. INTERCONNECT TO WOODLAWN AVE

CABLE PLAN
(NOT TO SCALE)

TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	20	11	50	110.0
(YELLOW)	20	20	5	20.0
(GREEN)	20	12	45	108.0
PERMISSIVE ARROW	16	10	10	16.0
PED. SIGNAL	0	20	100	0.0
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 =				379.0

SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
14	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
107	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
956	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
302	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C
43	FOOT	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 46 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 54 FT.
28	FOOT	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER
2	EACH	DRILL EXISTING HANDHOLE
2	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
4	EACH	OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED
2	EACH	OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED
8	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC
1	EACH	RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT
187	FOOT	REMOVE ELECTRIC CABLE FROM CONDUIT
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
2	EACH	REMOVE EXISTING CONCRETE FOUNDATION
107	FOOT	EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C

ENERGY COSTS TO:
VILLAGE OF DOLTON
 14122 CHICAGO ROAD
 DOLTON, IL 60419
 ENERGY SUPPLY: CONTACT: ILYAS MOHIUDDIN
 PHONE: 708-235-2692
 COMPANY: COMMONWEALTH EDISON
 ACCOUNT NUMBER: _____

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PLOT SCALE = 40.0000' / in.	DRAWN - XT	REVISED -
PLOT DATE = 4/5/2017	CHECKED - JH	REVISED -
	DATE - 2/06/2017	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CABLE PLAN, PHASE DESIGNATION DIAGRAM, EMERGENCY VEHICLE PREEMPTION SEQUENCE, AND SCHEDULE OF QUANTITIES
IL RTE 83 (SIBLEY BLVD) AT LINCOLN AVE/MICHIGAN CITY RD**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2017-004TS	COOK	54	29
CONTRACT NO. 62D98				
ILLINOIS FED. AID PROJECT				

**TS 3475
EAGLE 3J**

SCALE: N.T.S. SHEET OF SHEETS STA. TO STA.



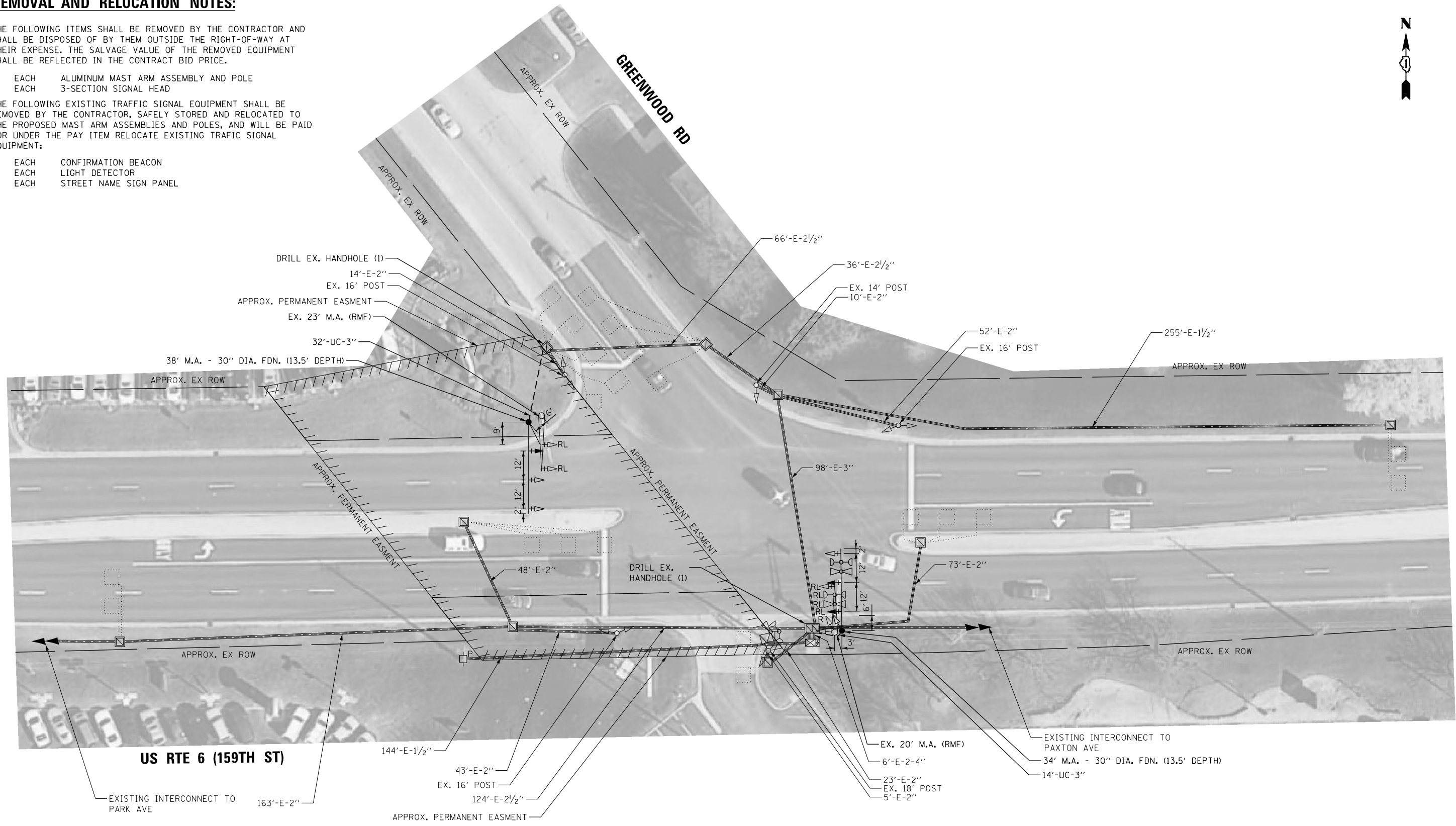
REMOVAL AND RELOCATION NOTES:

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 ALUMINUM MAST ARM ASSEMBLY AND POLE
- 1 EACH 3-SECTION SIGNAL HEAD

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SAFELY STORED AND RELOCATED TO THE PROPOSED MAST ARM ASSEMBLIES AND POLES, AND WILL BE PAID FOR UNDER THE PAY ITEM RELOCATE EXISTING TRAFIC SIGNAL EQUIPMENT:

- 1 EACH CONFIRMATION BEACON
- 1 EACH LIGHT DETECTOR
- 2 EACH STREET NAME SIGN PANEL



**TS 230
ECON 49**

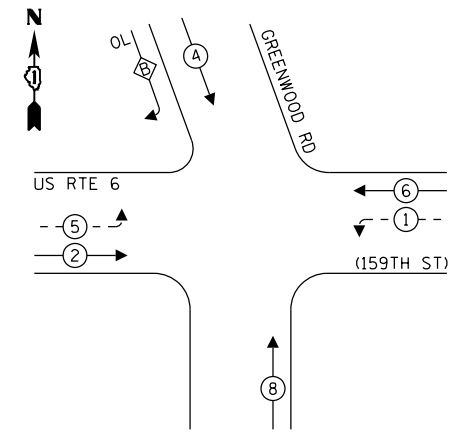
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	PLOT SCALE = 40.0000' / in.	CHECKED - JH	REVISED -			VAR	2017-004TS	COOK	54	30
	PLOT DATE = 5/16/2017	DATE - 2/06/2017	REVISED -		SCALE: 1" = 20'	SHEET	OF	SHEETS	STA.	TO STA.
						ILLINOIS FED. AID PROJECT				

CONTRACT NO. 62D98



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EXISTING CONTROLLER SEQUENCE



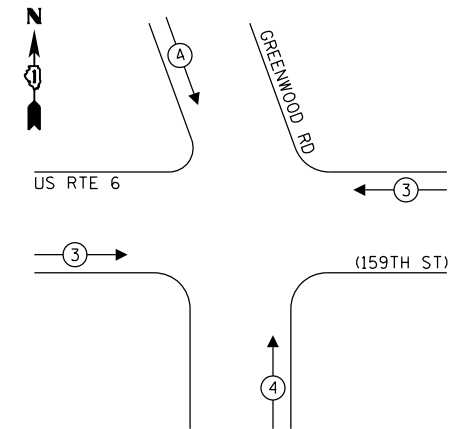
LEGEND:

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

RIGHT TURN OVERLAP PHASE DESIGNATION:

OVERLAP LETTER = PERMISSIVE PHASE + PROTECTED PHASE
 B = 4 + 5

EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE



TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	16	11	50	88.0
(YELLOW)	16	20	5	16.0
(GREEN)	16	12	45	86.4
PERMISSIVE ARROW	12	10	10	12.0
PED. SIGNAL	-	20	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 =				327.4

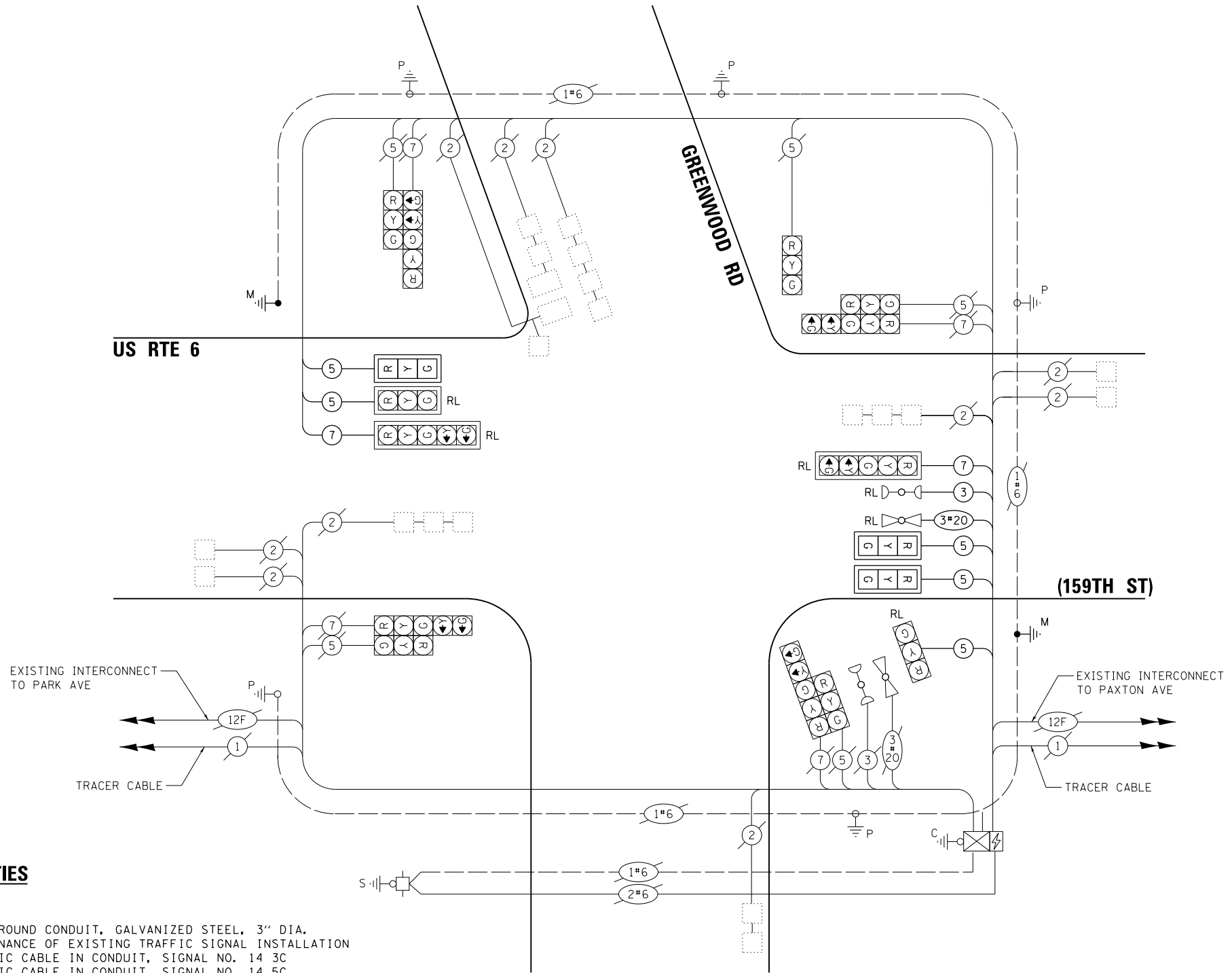
ENERGY COSTS TO:

CITY OF CALUMET CITY
 204 PULASKI RD
 CALUMET CITY, IL 60409

ENERGY SUPPLY: CONTACT: ILYAS MOHIUDDIN
 PHONE: 708-235-2692
 COMPANY: COMMONWEALTH EDISON
 ACCOUNT NUMBER: ---

SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
46	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
95	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
845	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
431	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C
75	FOOT	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 34 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 38 FT.
27	FOOT	CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER
2	EACH	DRILL EXISTING HANDHOLE
3	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
3	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC
4	EACH	RELOCATE EXISTING SIGNAL HEAD
1	EACH	RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT
654	FOOT	REMOVE ELECTRIC CABLE FROM CONDUIT
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
2	EACH	REMOVE EXISTING CONCRETE FOUNDATION
95	FOOT	EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C



CABLE PLAN

(NOT TO SCALE)

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM, EMERGENCY VEHICLE PREEMPTION SEQUENCE AND SCHEDULE OF QUANTITIES
 US RTE 6 (159TH ST) AT GREENWOOD RD

SCALE: N.T.S. SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2017-004TS	COOK	54	31
CONTRACT NO. 62D98				

ILLINOIS FED. AID PROJECT

TS 230
 ECON 49



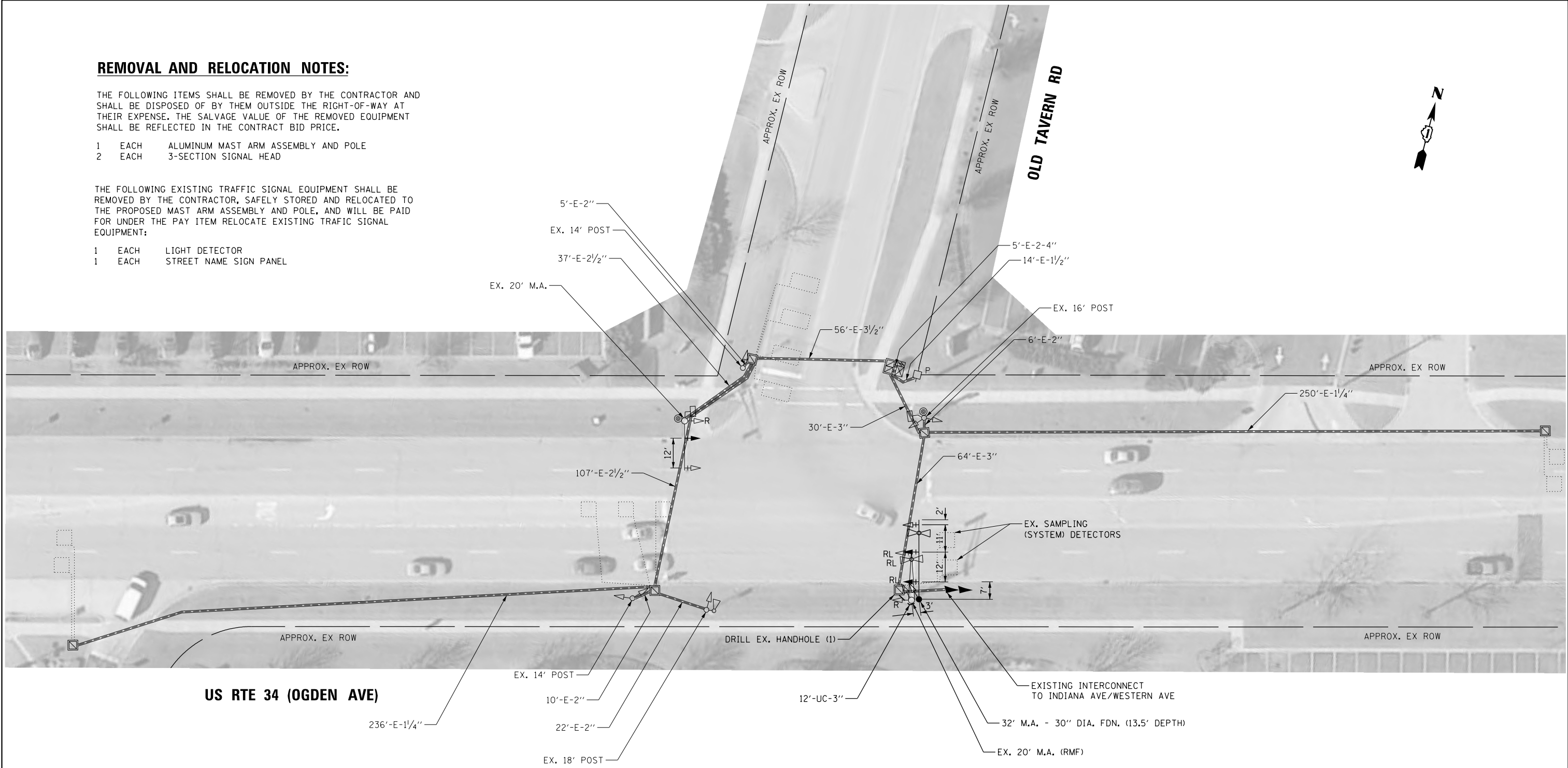
REMOVAL AND RELOCATION NOTES:

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.

- 1 EACH ALUMINUM MAST ARM ASSEMBLY AND POLE
- 2 EACH 3-SECTION SIGNAL HEAD

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SAFELY STORED AND RELOCATED TO THE PROPOSED MAST ARM ASSEMBLY AND POLE, AND WILL BE PAID FOR UNDER THE PAY ITEM RELOCATE EXISTING TRAFIC SIGNAL EQUIPMENT:

- 1 EACH LIGHT DETECTOR
- 1 EACH STREET NAME SIGN PANEL



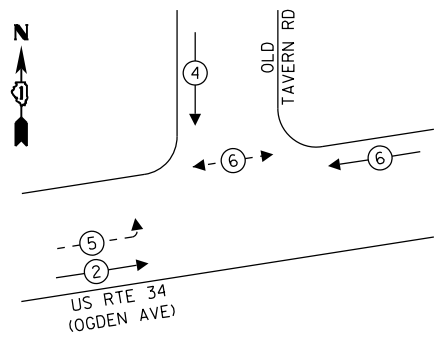
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**TS 11840
ECON 48**

MODELNAME	USER NAME = .USERNAME.	DESIGNED - DW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SIGNAL EQUIPMENT REMOVAL AND MODIFICATION PLAN US RTE 34 (OGDEN AVE) AT OLD TAVERN RD	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 40.0000' / in.	DRAWN - XT	REVISED -			VAR	2017-004TS	DUPAGE	54	32
	PLOT DATE = 4/24/2017	CHECKED - JH	REVISED -			CONTRACT NO. 62D98				
					SCALE: 1" = 20'	SHEET	OF	SHEETS	STA.	TO STA.
					ILLINOIS FED. AID PROJECT					



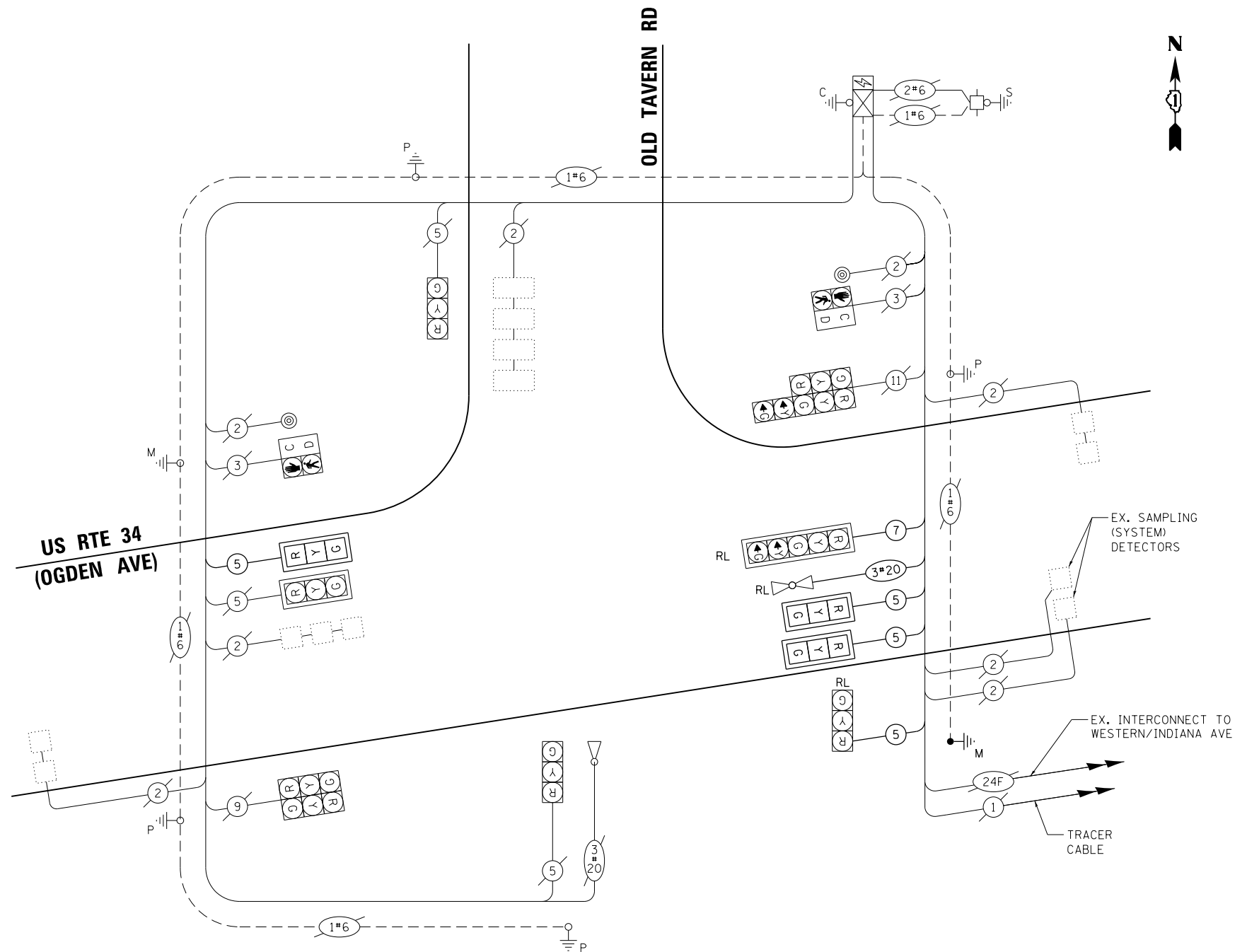
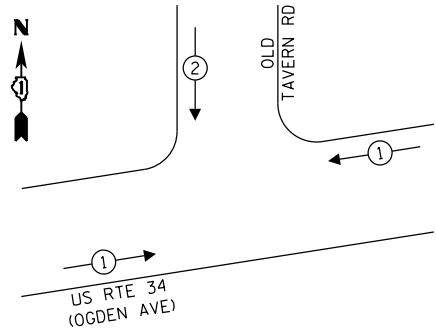
EXISTING CONTROLLER SEQUENCE



LEGEND:

- ← (⊛) ← PROTECTED PHASE
- ← - (⊛) ← PROTECTED/PERMITTED PHASE
- ← (⊛) → PEDESTRIAN PHASE
- ← (⊛) OL OVERLAP

**EXISTING EMERGENCY VEHICLE
PREEMPTION SEQUENCE**



CABLE PLAN
(NOT TO SCALE)

**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	4	10	10	4.0
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 =				311.8

SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
12	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
673	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
197	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C
23	FOOT	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 32 FT.
13.5	FOOT	CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER
1	EACH	DRILL EXISTING HANDHOLE
3	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
3	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC
2	EACH	RELOCATE EXISTING SIGNAL HEAD
1	EACH	RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT
518	FOOT	REMOVE ELECTRIC CABLE FROM CONDUIT
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	REMOVE EXISTING CONCRETE FOUNDATION
197	FOOT	EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C

ENERGY COSTS TO:

VILLAGE OF LISLE
925 BURLINGTON AVE
LISLE, IL 60532

ENERGY SUPPLY: CONTACT: ILYAS MOHIUDDIN
PHONE: 708-235-2692
COMPANY: COMMONWEALTH EDISON
ACCOUNT NUMBER: ---

USER NAME = .USERNAME.
PLOT SCALE = 40.0000' / in.
PLOT DATE = 4/24/2017

DESIGNED - DW	REVISED -
DRAWN - XT	REVISED -
CHECKED - JH	REVISED -
DATE - 2/06/2017	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM, EMERGENCY VEHICLE
PREEMPTION SEQUENCE, AND SCHEDULE OF QUANTITIES
US RTE 34 (OGDEN AVE) AT OLD TAVERN RD

SCALE: N.T.S. SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2017-004TS	DUPAGE	54	33
CONTRACT NO. 62D98				
ILLINOIS FED. AID PROJECT				

TS 11840
ECON 48

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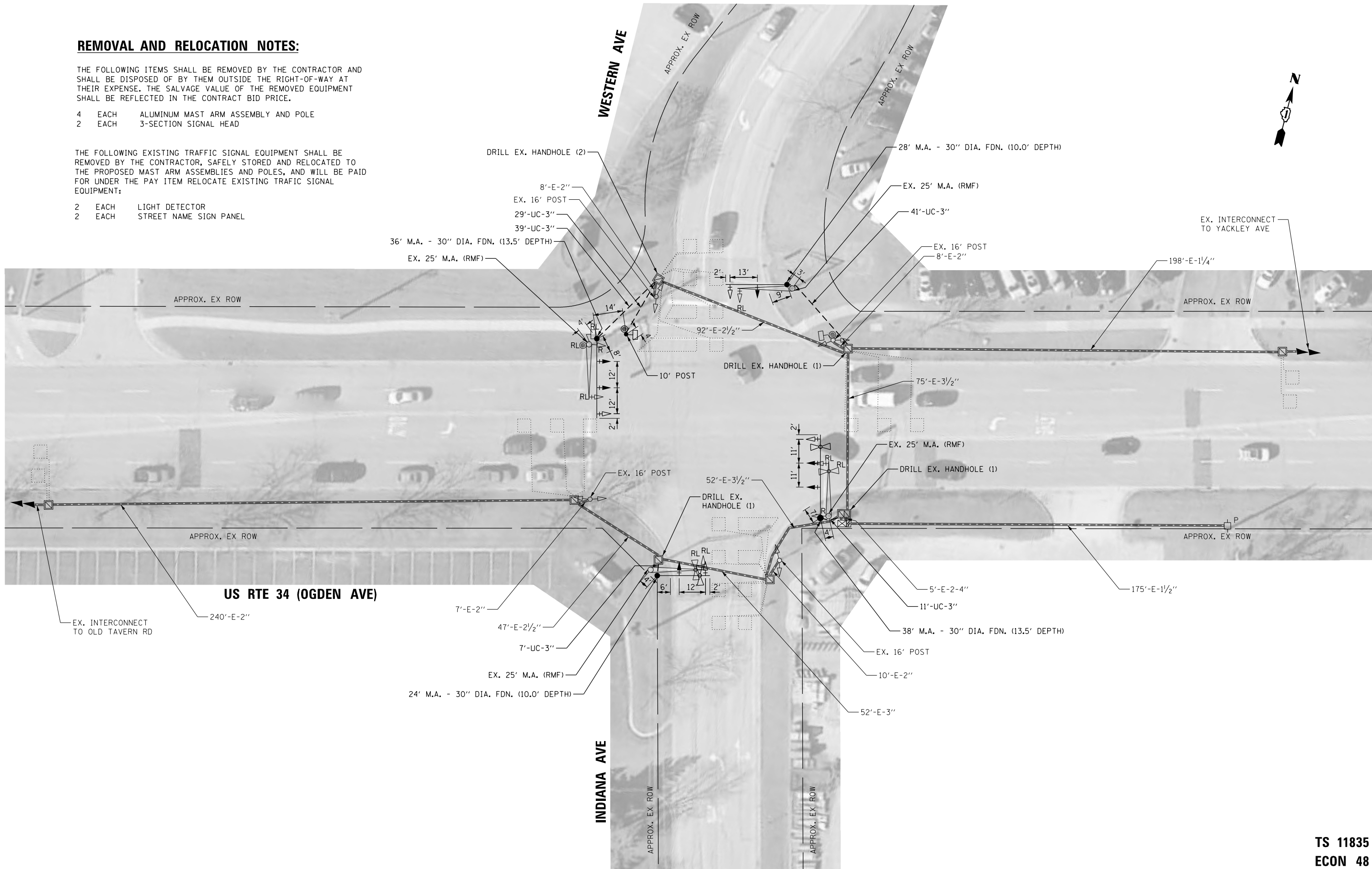
REMOVAL AND RELOCATION NOTES:

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.

- 4 EACH ALUMINUM MAST ARM ASSEMBLY AND POLE
- 2 EACH 3-SECTION SIGNAL HEAD

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SAFELY STORED AND RELOCATED TO THE PROPOSED MAST ARM ASSEMBLIES AND POLES, AND WILL BE PAID FOR UNDER THE PAY ITEM RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT:

- 2 EACH LIGHT DETECTOR
- 2 EACH STREET NAME SIGN PANEL



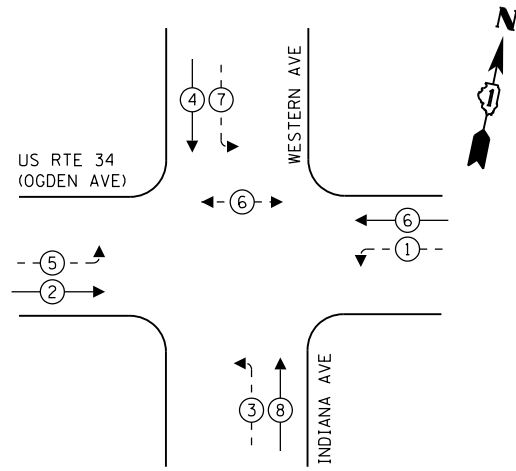
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**TS 11835
ECON 48**

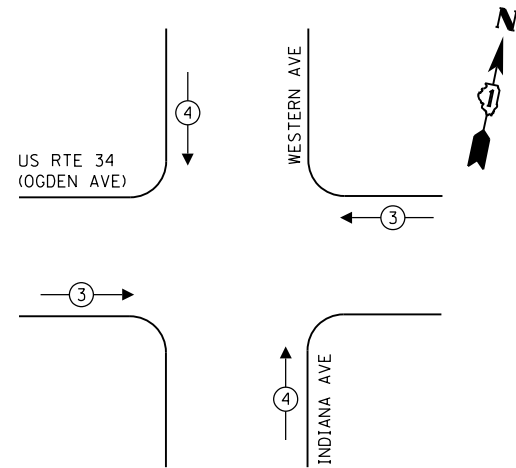
MODELNAME	USER NAME = .USERNAME.	DESIGNED - DW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SIGNAL EQUIPMENT REMOVAL AND MODIFICATION PLAN US RTE 34 (OGDEN AVE) AT INDIANA AVE /WESTERN AVE	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
	PLOT SCALE = 40.0000' / in.	CHECKED - JH	REVISED -			VAR	2017-004TS	DUPAGE	54	34		
	PLOT DATE = 4/24/2017	DATE - 2/06/2017	REVISED -		SCALE: 1" = 20'	SHEET	OF	SHEETS	STA.	TO	STA.	ILLINOIS FED. AID PROJECT



EXISTING CONTROLLER SEQUENCE

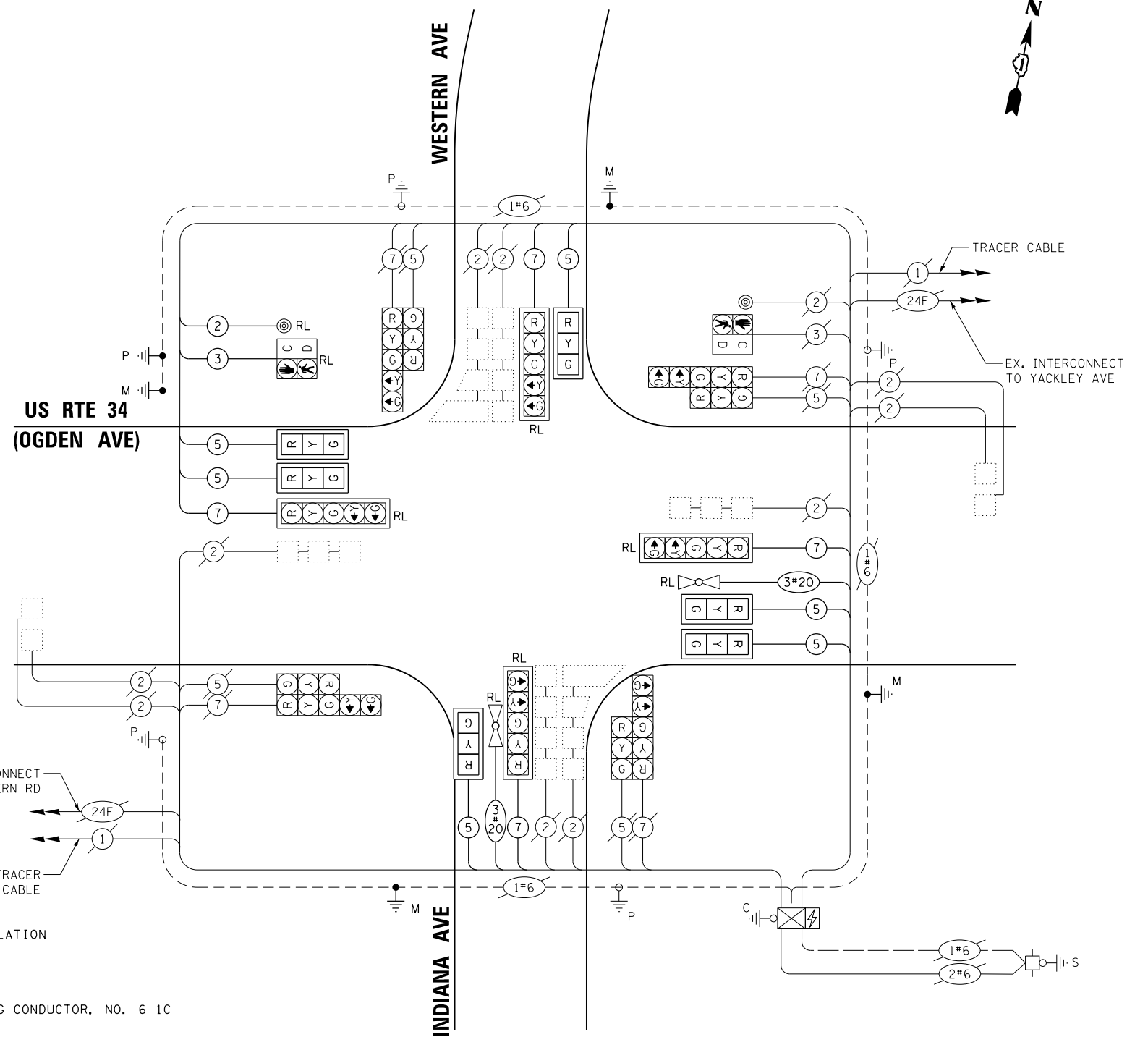


**EXISTING EMERGENCY VEHICLE
PREEMPTION SEQUENCE**



LEGEND:

- ⊙ — PROTECTED PHASE
- ⊙ — — PROTECTED/PERMITTED PHASE
- ⊙ — ⊙ — PEDESTRIAN PHASE
- OL — OVERLAP



CABLE PLAN
(NOT TO SCALE)

SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
127	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
262	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C
269	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
1104	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
796	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C
189	FOOT	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C
1	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 24 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 28 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 36 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 38 FT.
4	FOOT	CONCRETE FOUNDATION, TYPE A
47	FOOT	CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER
5	EACH	DRILL EXISTING HANDHOLE
6	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
6	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC
4	EACH	RELOCATE EXISTING SIGNAL HEAD
1	EACH	RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD
1	EACH	RELOCATE EXISTING PEDESTRIAN PUSH-BUTTON
1	EACH	RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT
1269	FOOT	REMOVE ELECTRIC CABLE FROM CONDUIT
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
4	EACH	REMOVE EXISTING CONCRETE FOUNDATION
290	FOOT	EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C

**TRAFFIC SIGNAL
ELECTRICAL SERVICE REQUIREMENTS**

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	18	11	50	99.0
(YELLOW)	18	20	5	18.0
(GREEN)	18	12	45	97.2
PERMISSIVE ARROW	16	10	10	16.0
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 =				395.2

ENERGY COSTS TO:

VILLAGE OF LISLE
925 BURLINGTON AVE
LISLE, IL 60532

ENERGY SUPPLY: CONTACT: ILYAS MOHIUDDIN
PHONE: 708-235-2692
COMPANY: COMMONWEALTH EDISON
ACCOUNT NUMBER: _____

USER NAME = .USERNAME.	DESIGNED - DW	REVISED -
PLOT SCALE = 48.0000' / in.	DRAWN - XT	REVISED -
PLOT DATE = 4/24/2017	CHECKED - JH	REVISED -
	DATE - 2/06/2017	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CABLE PLAN, PHASE DESIGNATION DIAGRAM, EMERGENCY
VEHICLE PREEMPTION SEQUENCE AND SCHEDULE OF QUANTITIES
US RTE 34 (OGDEN AVE) AT INDIANA AVE /WESTERN AVE**

SCALE: N.T.S. SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2017-004TS	DUPAGE	54	35
CONTRACT NO. 62D98				
ILLINOIS FED. AID PROJECT				

**TS 11835
ECON 48**

FILE NAME = p:\p\m\dlz\corp\com\DLZ\Documents\Projects\2014\1481\2109\15-004 Trombone Mast Arm Replacement\CADD_Sheets\0162D98-sht-1s11835.dgn



FILE NAME = p:\PM\dlzcorp\com\DLZ\Documents\Projects\2017\1181\2109\15-004 Trombone Mast Arm Replacement\CADD_Sheets\0162D998-sht-111830-Plan.dgn



MATCHLINE A-A

MATCHLINE A-A

MATCHLINE B-B

MATCHLINE B-B

US RTE 34 (OGDEN AVE)

YACKLEY AVE

34' M.A. - 30" DIA. FDN. (13.5' DEPTH)
CONTRACTOR TO COORDINATE RELOCATION
OF POTENTIAL RLR CAMERA CONDUIT AND
CABLE CONFLICT. PROPOSED M.A. LOCATION
SHALL NOT BE MOVED WITHOUT APPROVAL
OF THE ENGINEER.

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.

- 3 EACH ALUMINUM MAST ARM ASSEMBLY AND POLE
- 1 EACH STEEL MAST ARM ASSEMBLY AND POLE
- 3 EACH 3-SECTION SIGNAL HEAD

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SAFELY STORED AND RELOCATED TO THE PROPOSED MAST ARM ASSEMBLIES AND POLES, AND WILL BE PAID FOR UNDER THE PAY ITEM RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT:

- 1 EACH LIGHT DETECTOR
- 3 EACH STREET NAME SIGN PANEL

① RELOCATE EX. 16' POST TO NEW FOUNDATION

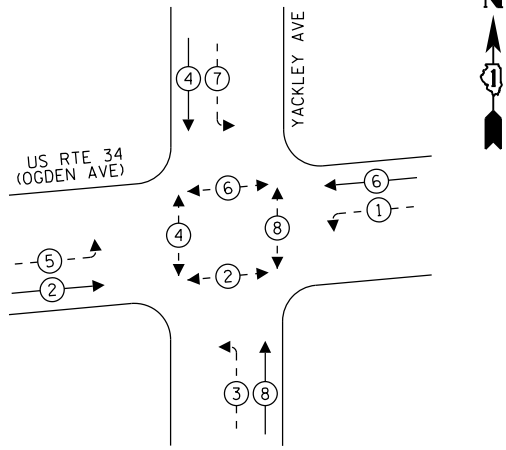
② PROPOSED TYPE A FOUNDATION FOR RELOCATION OF EX. 16' POST

MODELNAME	USER NAME = .USERNAME.	DESIGNED - DW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SIGNAL EQUIPMENT REMOVAL AND MODIFICATION PLAN US RTE 34 (OGDEN AVE) AT YACKLEY AVE	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 40.0000' / in.	CHECKED - JH	REVISED -			VAR	2017-004TS	DUPAGE	54	36
	PLOT DATE = 4/24/2017	DATE - 2/06/2017	REVISED -		SCALE: 1" = 20'	SHEET OF SHEETS STA. TO STA.		CONTRACT NO. 62D98		
ILLINOIS FED. AID PROJECT										

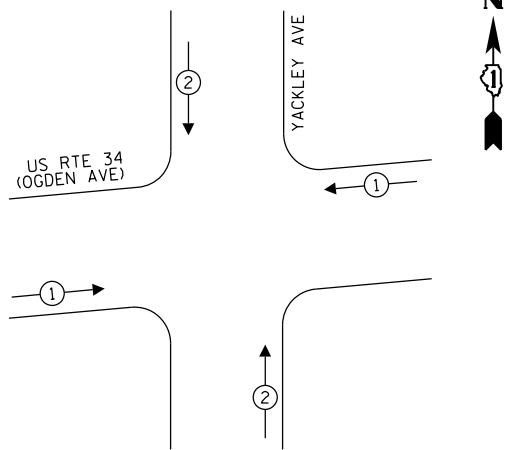
TS 11830
ECON 48



EXISTING CONTROLLER SEQUENCE

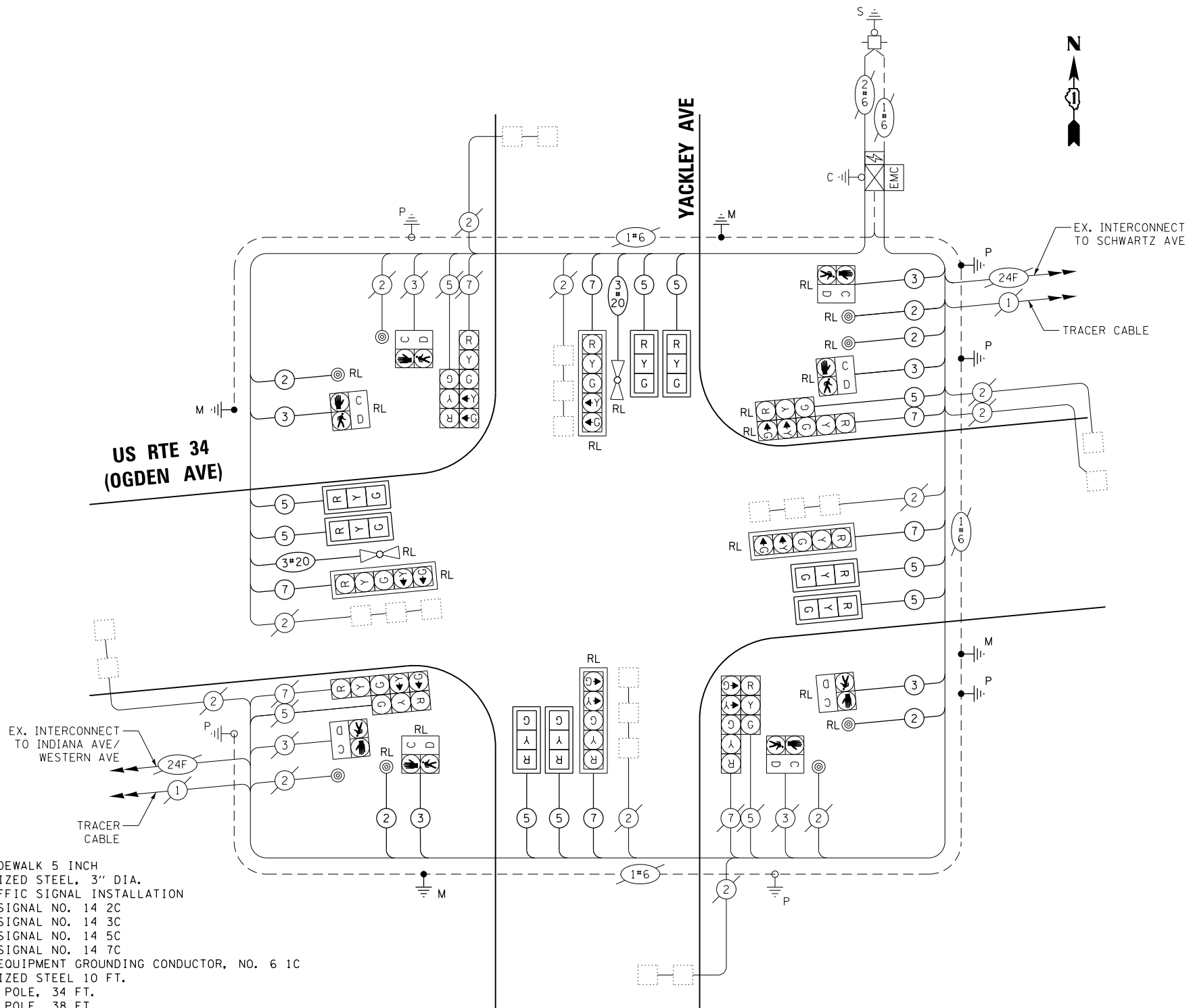


**EXISTING EMERGENCY VEHICLE
PREEMPTION SEQUENCE**



LEGEND:

- ⊙ — PROTECTED PHASE
- ⊙ — PROTECTED/PERMITTED PHASE
- ⊙ — PEDESTRIAN PHASE
- OL — OVERLAP



SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
35	SO FT	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH
145	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
741	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C
776	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
1724	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
965	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C
245	FOOT	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C
2	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 34 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 38 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 46 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 48 FT.
12	FOOT	CONCRETE FOUNDATION, TYPE A
27	FOOT	CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER
26	FOOT	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER
7	EACH	DRILL EXISTING HANDHOLE
8	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
8	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC
6	EACH	RELOCATE EXISTING SIGNAL HEAD
5	EACH	RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD
5	EACH	RELOCATE EXISTING PEDESTRIAN PUSH-BUTTON
1	EACH	RELOCATE EXISTING TRAFFIC SIGNAL POST
1	EACH	RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT
2440	FOOT	REMOVE ELECTRIC CABLE FROM CONDUIT
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
5	EACH	REMOVE EXISTING CONCRETE FOUNDATION
318	FOOT	EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C

CABLE PLAN
(NOT TO SCALE)

**TRAFFIC SIGNAL
ELECTRICAL SERVICE REQUIREMENTS**

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	20	11	50	110.0
(YELLOW)	20	20	5	20.0
(GREEN)	20	12	45	108.0
PERMISSIVE ARROW	16	10	10	16.0
PED. SIGNAL	8	20	100	160.0
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 =				539.0

ENERGY COSTS TO:

VILLAGE OF LISLE
925 BURLINGTON AVE
LISLE, IL 60532

ENERGY SUPPLY: CONTACT: ILYAS MOHIUDDIN
PHONE: 708-235-2692
COMPANY: COMMONWEALTH EDISON
ACCOUNT NUMBER: _____

FILE NAME = p:\p\dlz\corp\com\DLZ\Documents\Projects\2014\1481\2109\15-004 Trombone Mast Arm Replacement\CADD_Sheets\0162098-sht-1s11830.dgn

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CABLE PLAN, PHASE DESIGNATION DIAGRAM, EMERGENCY
VEHICLE PREEMPTION SEQUENCE AND SCHEDULE OF QUANTITIES
US RTE 34 (OGDEN AVE) AT YACKLEY AVE**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2017-004TS	DUPAGE	54	37
CONTRACT NO. 62D98				
ILLINOIS FED. AID PROJECT				

SCALE: N.T.S. SHEET OF SHEETS STA. TO STA.

**TS 11830
ECON 48**

MODELNAME

USER NAME = .USERNAME.	DESIGNED - DW	REVISED -
	DRAWN - XT	REVISED -
	CHECKED - JH	REVISED -
	DATE - 2/06/2017	REVISED -

DESIGNED - DW	REVISED -
DRAWN - XT	REVISED -
CHECKED - JH	REVISED -
DATE - 2/06/2017	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CABLE PLAN, PHASE DESIGNATION DIAGRAM, EMERGENCY
VEHICLE PREEMPTION SEQUENCE AND SCHEDULE OF QUANTITIES
US RTE 34 (OGDEN AVE) AT YACKLEY AVE**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2017-004TS	DUPAGE	54	37
CONTRACT NO. 62D98				
ILLINOIS FED. AID PROJECT				

SCALE: N.T.S. SHEET OF SHEETS STA. TO STA.

**TS 11830
ECON 48**



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.

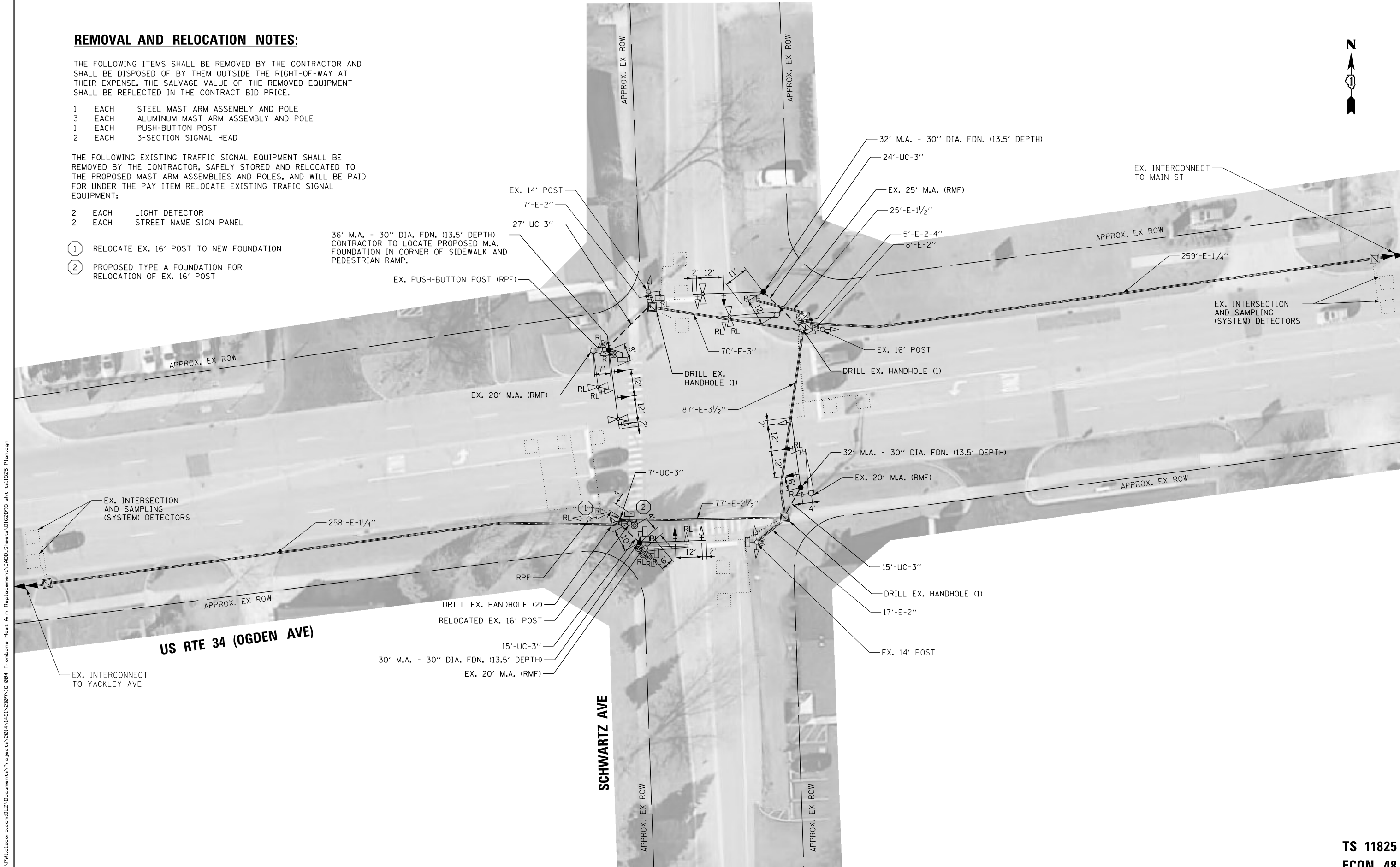
- 1 EACH STEEL MAST ARM ASSEMBLY AND POLE
- 3 EACH ALUMINUM MAST ARM ASSEMBLY AND POLE
- 1 EACH PUSH-BUTTON POST
- 2 EACH 3-SECTION SIGNAL HEAD

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SAFELY STORED AND RELOCATED TO THE PROPOSED MAST ARM ASSEMBLIES AND POLES, AND WILL BE PAID FOR UNDER THE PAY ITEM RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT:

- 2 EACH LIGHT DETECTOR
- 2 EACH STREET NAME SIGN PANEL

- ① RELOCATE EX. 16' POST TO NEW FOUNDATION
- ② PROPOSED TYPE A FOUNDATION FOR RELOCATION OF EX. 16' POST

36' M.A. - 30" DIA. FDN. (13.5' DEPTH)
CONTRACTOR TO LOCATE PROPOSED M.A. FOUNDATION IN CORNER OF SIDEWALK AND PEDESTRIAN RAMP.



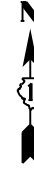
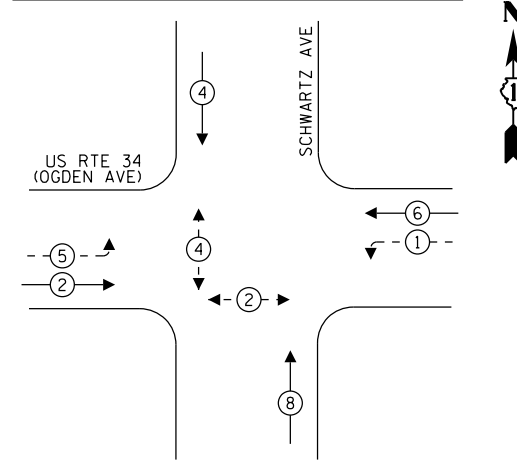
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**TS 11825
ECON 48**

MODELNAME	USER NAME = .USERNAME.	DESIGNED - DW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SIGNAL EQUIPMENT REMOVAL AND MODIFICATION PLAN US RTE 34 (OGDEN AVE) AT SCHWARTZ AVE			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
	PLOT SCALE = 40.0000' / in.	DRAWN - XT	REVISED -		SCALE: 1" = 20'	SHEET	OF	SHEETS	STA.	TO	STA.	VAR	2017-004TS	DUPAGE
	PLOT DATE = 4/5/2017	CHECKED - JH	REVISED -								CONTRACT NO. 62D98			
		DATE - 2/06/2017	REVISED -					ILLINOIS FED. AID PROJECT						



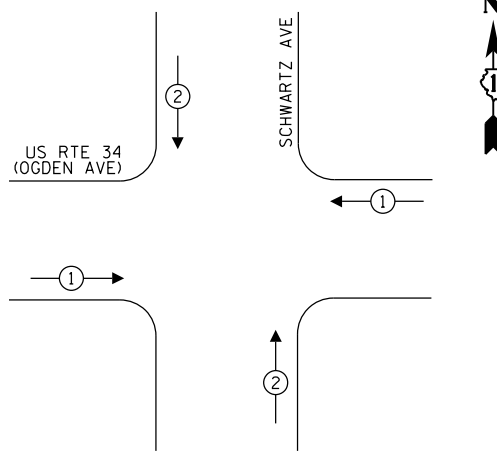
EXISTING CONTROLLER SEQUENCE



LEGEND:

- ⊙ — PROTECTED PHASE
- ⊙ — PROTECTED/PERMITTED PHASE
- ⊙ — PEDESTRIAN PHASE
- OL — OVERLAP

**EXISTING EMERGENCY VEHICLE
PREEMPTION SEQUENCE**



**US RTE 34
(OGDEN AVE)**

SCHWARTZ AVE

EX. INTERSECTION AND SAMPLING (SYSTEM) DETECTORS

EX. INTERCONNECT TO YACKLEY AVE

TRACER CABLE



TRACER CABLE

EX. INTERCONNECT TO MAIN ST

EX. INTERSECTION AND SAMPLING (SYSTEM) DETECTORS

**CABLE PLAN
(NOT TO SCALE)**

TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	18	11	50	99.0
(YELLOW)	18	20	5	18.0
(GREEN)	18	12	45	97.2
PERMISSIVE ARROW	8	10	10	8.0
PED. SIGNAL	4	20	100	80.0
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 =				427.2

SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
88	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
589	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C
601	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
1609	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
600	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C
150	FOOT	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 30 FT.
2	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 32 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 36 FT.
4	FOOT	CONCRETE FOUNDATION, TYPE A
54	FOOT	CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER
5	EACH	DRILL EXISTING HANDHOLE
6	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
6	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC
6	EACH	RELOCATE EXISTING SIGNAL HEAD
3	EACH	RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD
3	EACH	RELOCATE EXISTING PEDESTRIAN PUSH-BUTTON
1	EACH	RELOCATE EXISTING TRAFFIC SIGNAL POST
1	EACH	RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT
2200	FOOT	REMOVE ELECTRIC CABLE FROM CONDUIT
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
6	EACH	REMOVE EXISTING CONCRETE FOUNDATION
287	FOOT	EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C

ENERGY COSTS TO:
VILLAGE OF LISLE
 925 BURLINGTON AVE
 LISLE, IL 60532
 ENERGY SUPPLY: CONTACT: ILYAS MOHIUDDIN
 PHONE: 708-235-2692
 COMPANY: COMMONWEALTH EDISON
 ACCOUNT NUMBER: _____

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CABLE PLAN, PHASE DESIGNATION DIAGRAM, EMERGENCY
VEHICLE PREEMPTION SEQUENCE AND SCHEDULE OF QUANTITIES
US RTE 34 (OGDEN AVE) AT SCHWARTZ AVE**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2017-004TS	DUPAGE	54	39
CONTRACT NO. 62D98				

USER NAME	DESIGNED	REVISED
USER NAME = .USERNAME.	- DW	-
	DRAWN - XT	REVISED -
	CHECKED - JH	REVISED -
	DATE - 2/06/2017	REVISED -

SCALE: N.T.S. SHEET OF SHEETS STA. TO STA.

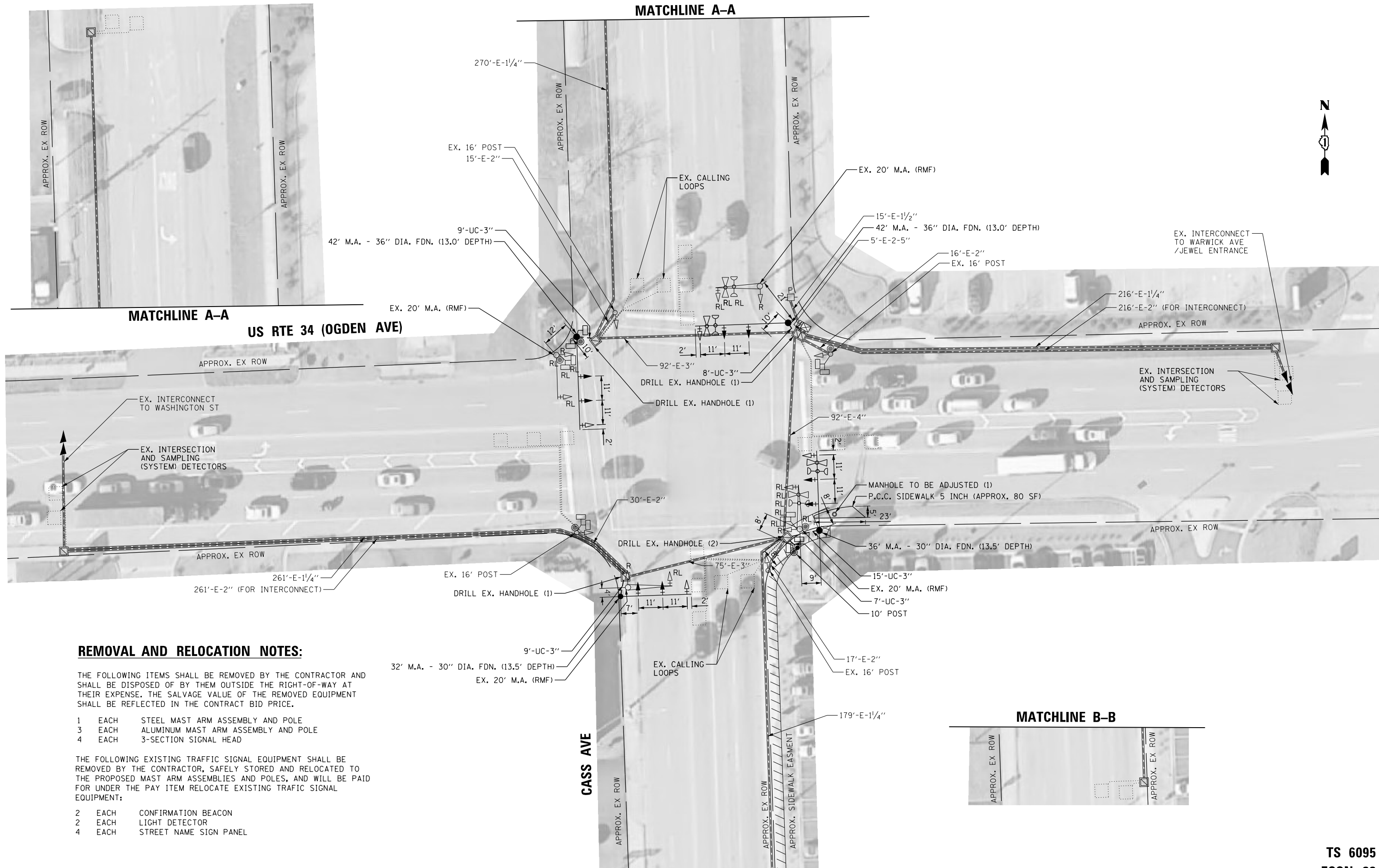
ILLINOIS FED. AID PROJECT

FILE NAME: p:\p\dlz\corp\com\DLZ\Documents\Projects\2014\1481\2109\15-004 Trombone Mast Arm Replacement\CADD_Sheets\0162D98-sht-1s11825.dgn

**TS 11825
ECON 48**



MATCHLINE A-A



MATCHLINE A-A

US RTE 34 (OGDEN AVE)

CASS AVE

MATCHLINE B-B

MATCHLINE B-B

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.

- 1 EACH STEEL MAST ARM ASSEMBLY AND POLE
- 3 EACH ALUMINUM MAST ARM ASSEMBLY AND POLE
- 4 EACH 3-SECTION SIGNAL HEAD

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SAFELY STORED AND RELOCATED TO THE PROPOSED MAST ARM ASSEMBLIES AND POLES, AND WILL BE PAID FOR UNDER THE PAY ITEM RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT:

- 2 EACH CONFIRMATION BEACON
- 2 EACH LIGHT DETECTOR
- 4 EACH STREET NAME SIGN PANEL

FILE NAME = p:\p\m\dlzcorp\com\DLZ\Documents\Projects\2014\1481\2109\16-004 Trombone Mast Arm Replacement\CADD_Sheets\0162098-sht-ts6095-Plan.dgn

MODELNAME

USER NAME = .USERNAME.	DESIGNED - DW	REVISED - 5/16/17 ADD. ESMT.
	DRAWN - XT	REVISED -
PLOT SCALE = 40.0000' / in.	CHECKED - JH	REVISED -
PLOT DATE = 5/16/2017	DATE - 2/06/2017	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL EQUIPMENT REMOVAL AND MODIFICATION PLAN
US RTE 34 (OGDEN AVE) AT CASS AVE

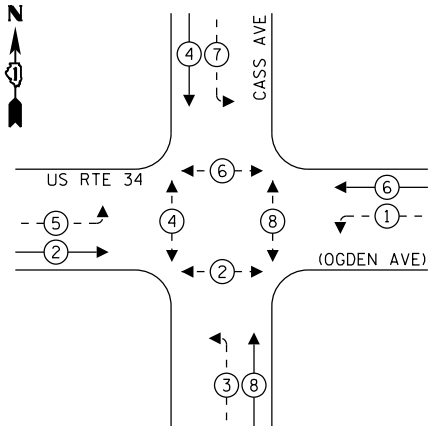
SCALE: 1" = 20' SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2017-004TS		54	40
			CONTRACT NO. 62D98	
ILLINOIS FED. AID PROJECT				

TS 6095
ECON 33



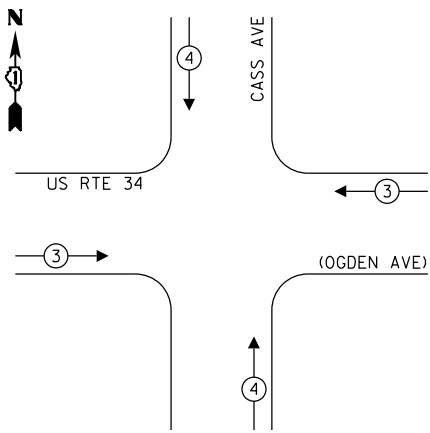
EXISTING CONTROLLER SEQUENCE



LEGEND:

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

EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE



US RTE 34

EX. INTERSECTION AND SAMPLING (SYSTEM) DETECTORS

EX. INTERCONNECT TO WASHINGTON ST

CASS AVE

EX. CALLING LOOPS

CABLE PLAN

(NOT TO SCALE)

(OGDEN AVE)

TRACER CABLE

EX. INTERCONNECT TO WARWICK AVE / JEWEL ENTRANCE

EX. INTERSECTION AND SAMPLING (SYSTEM) DETECTORS

SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
80	SO FT	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH
1	EACH	MANHOLES TO BE ADJUSTED
48	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
279	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C
879	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
1372	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
752	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C
103	FOOT	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C
1	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 32 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 36 FT.
2	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 42 FT.
4	FOOT	CONCRETE FOUNDATION, TYPE A
27	FOOT	CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER
26	FOOT	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER
5	EACH	DRILL EXISTING HANDHOLE
8	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
8	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC
4	EACH	RELOCATE EXISTING SIGNAL HEAD
4	EACH	RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD
2	EACH	RELOCATE EXISTING PEDESTRIAN PUSH-BUTTON
1	EACH	RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT
1947	FOOT	REMOVE ELECTRIC CABLE FROM CONDUIT
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
4	EACH	REMOVE EXISTING CONCRETE FOUNDATION
291	FOOT	EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C

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

TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	16	11	50	88.0
(YELLOW)	16	20	5	16.0
(GREEN)	16	12	45	86.4
PERMISSIVE ARROW	16	10	10	16.0
PED. SIGNAL	8	20	100	160.0
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 =				491.4

ENERGY COSTS TO:

VILLAGE OF WESTMONT
 31 W QUINCY ST
 WESTMONT, IL 60559

ENERGY SUPPLY: CONTACT: ILYAS MOHIUDDIN
 PHONE: 708-235-2692
 COMPANY: COMMONWEALTH EDISON
 ACCOUNT NUMBER:

USER NAME = .USERNAME.	DESIGNED - DW	REVISED -
PLOT SCALE = 48.0000' / in.	DRAWN - XT	REVISED -
PLOT DATE = 4/5/2017	CHECKED - JH	REVISED -
	DATE - 2/06/2017	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM, EMERGENCY VEHICLE PREEMPTION SEQUENCE AND SCHEDULE OF QUANTITIES
 US RTE 34 (OGDEN AVE) AT CASS AVE

SCALE: N.T.S. SHEET OF SHEETS STA. TO STA.

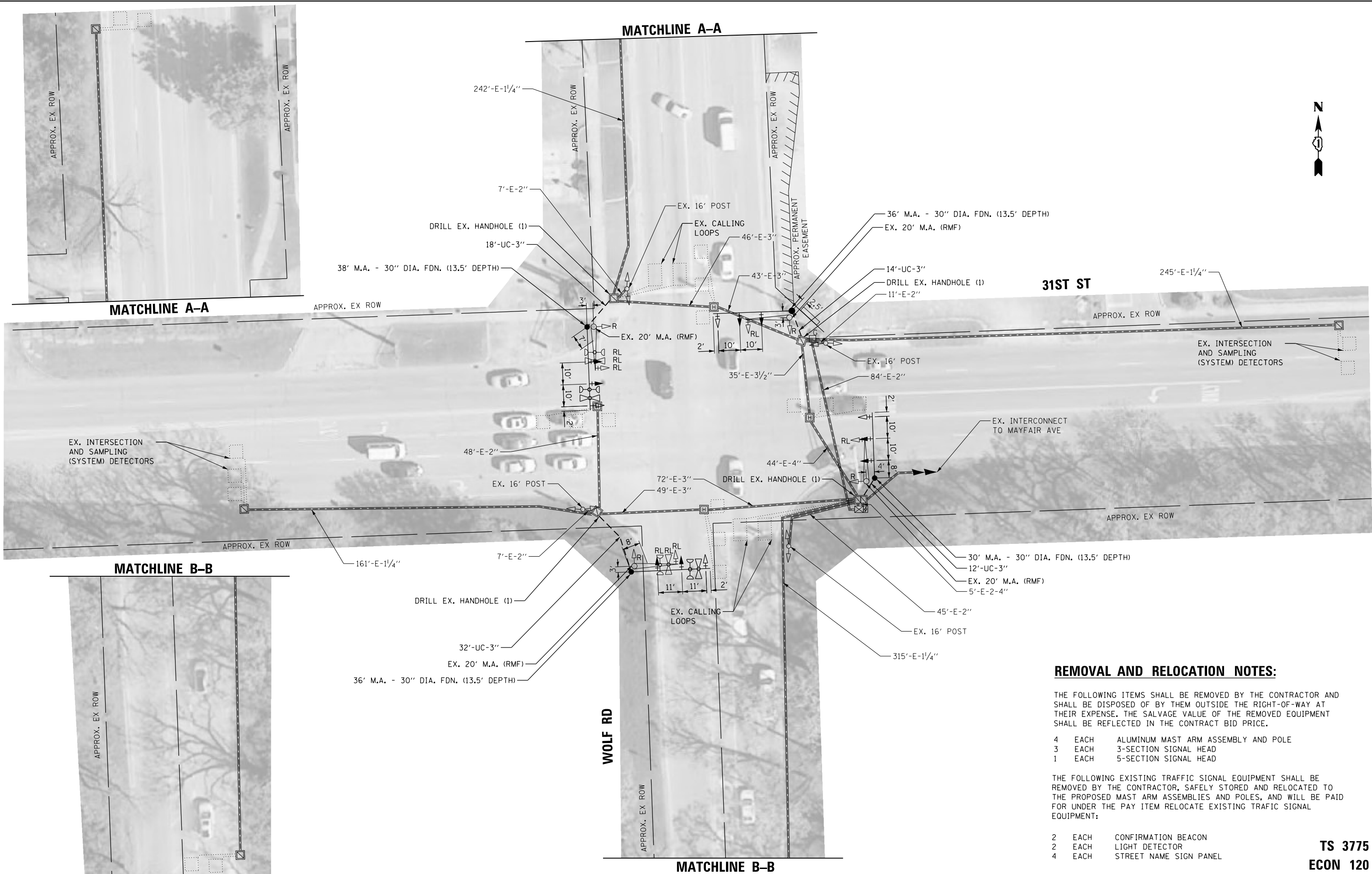
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2017-004TS	DUPAGE	54	41
CONTRACT NO. 62D98				
ILLINOIS FED. AID PROJECT				

TS 6095
 ECON 33

FILE NAME: p:\p\dlz\corp\com\DLZ\Documents\Projects\2017\1481\2109\15-004 Trombone Mast Arm Replacement\CADD_Sheets\0162D98-sht-tsb05.dgn



FILE NAME = p:\p\dlzcorp.com\DLZ\Documents\Projects\2014\1481\2109\16-004 Trumbone Mast Arm Replacement\CADD_Sheets\0162098-sht-ts3775-Plan.dgn



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.

- 4 EACH ALUMINUM MAST ARM ASSEMBLY AND POLE
- 3 EACH 3-SECTION SIGNAL HEAD
- 1 EACH 5-SECTION SIGNAL HEAD

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SAFELY STORED AND RELOCATED TO THE PROPOSED MAST ARM ASSEMBLIES AND POLES, AND WILL BE PAID FOR UNDER THE PAY ITEM RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT:

- 2 EACH CONFIRMATION BEACON
- 2 EACH LIGHT DETECTOR
- 4 EACH STREET NAME SIGN PANEL

**TS 3775
ECON 120**

USER NAME = .USERNAME.	DESIGNED - DW	REVISED -
DRAWN - XT	REVISOR -	
PLOT SCALE = 40.0000' / in.	CHECKED - JH	REVISOR -
PLOT DATE = 4/5/2017	DATE - 2/06/2017	REVISOR -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

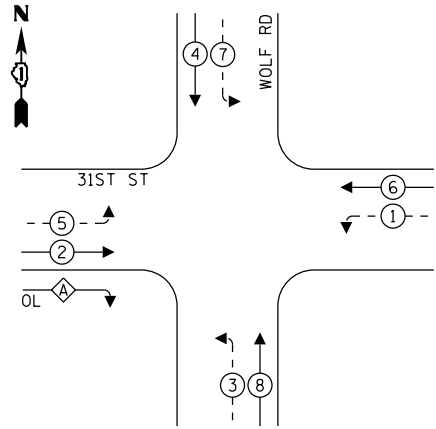
**TRAFFIC SIGNAL EQUIPMENT REMOVAL AND MODIFICATION PLAN
31ST ST AT WOLF RD**

SCALE: 1" = 20' SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2017-004TS	COOK	54	42
			CONTRACT NO. 62D98	
ILLINOIS FED. AID PROJECT				



EXISTING CONTROLLER SEQUENCE



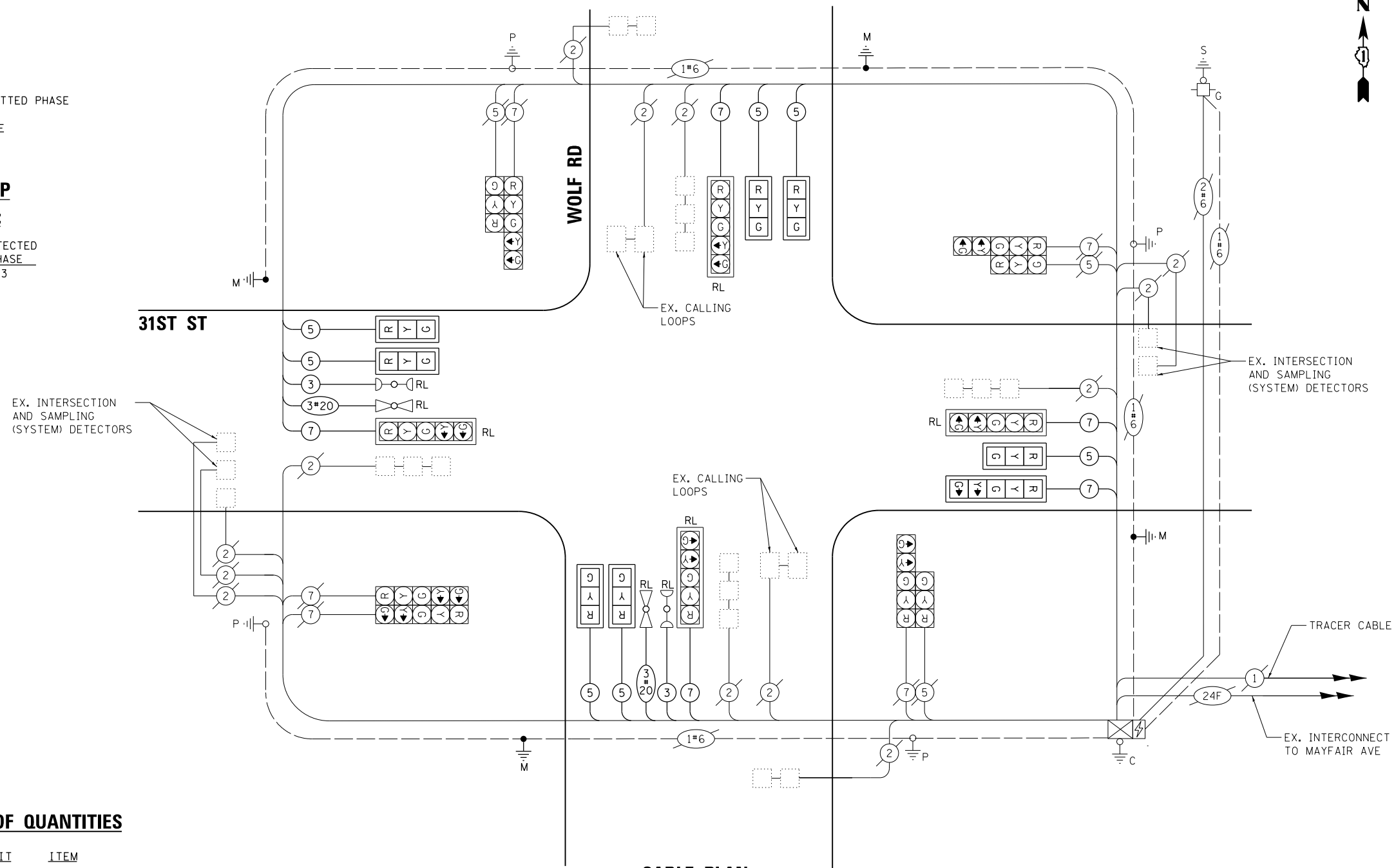
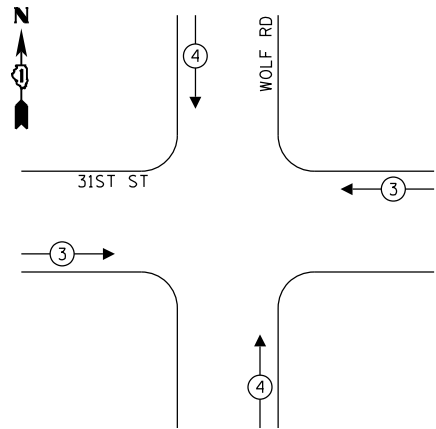
LEGEND:

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

RIGHT TURN OVERLAP PHASE DESIGNATION:

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
A	= 2	+ 3

EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE



CABLE PLAN
(NOT TO SCALE)

TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	20	11	50	110.0
(YELLOW)	20	20	5	20.0
(GREEN)	20	12	45	108.0
PERMISSIVE ARROW	20	10	10	20.0
PED. SIGNAL	-	20	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 =				383.0

SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
76	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
545	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
1450	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
888	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C
127	FOOT	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 30 FT.
2	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 36 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 38 FT.
54	FOOT	CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER
4	EACH	DRILL EXISTING HANDHOLE
7	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
1	EACH	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED
8	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC
4	EACH	RELOCATE EXISTING SIGNAL HEAD
1	EACH	RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT
1766	FOOT	REMOVE ELECTRIC CABLE FROM CONDUIT
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
4	EACH	REMOVE EXISTING CONCRETE FOUNDATION
536	FOOT	EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C

ENERGY COSTS TO:

VILLAGE OF WESTCHESTER
10300 WEST ROOSEVELT RD
WESTCHESTER, IL 60154

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

FILE NAME = p:\p\dlz\corp\com\DLZ\Documents\Projects\2014\1481\2109\15-004 Trombone Mast Arm Replacement\CADD_Sheets\0162098-sht-ts375.dgn

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM, EMERGENCY
VEHICLE PREEMPTION SEQUENCE AND SCHEDULE OF QUANTITIES
31ST ST AT WOLF RD

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2017-004TS	COOK	54	43
CONTRACT NO. 62D98				

TS 3775
ECON 120

SCALE: N.T.S. SHEET OF SHEETS STA. TO STA.

ILLINOIS FED. AID PROJECT



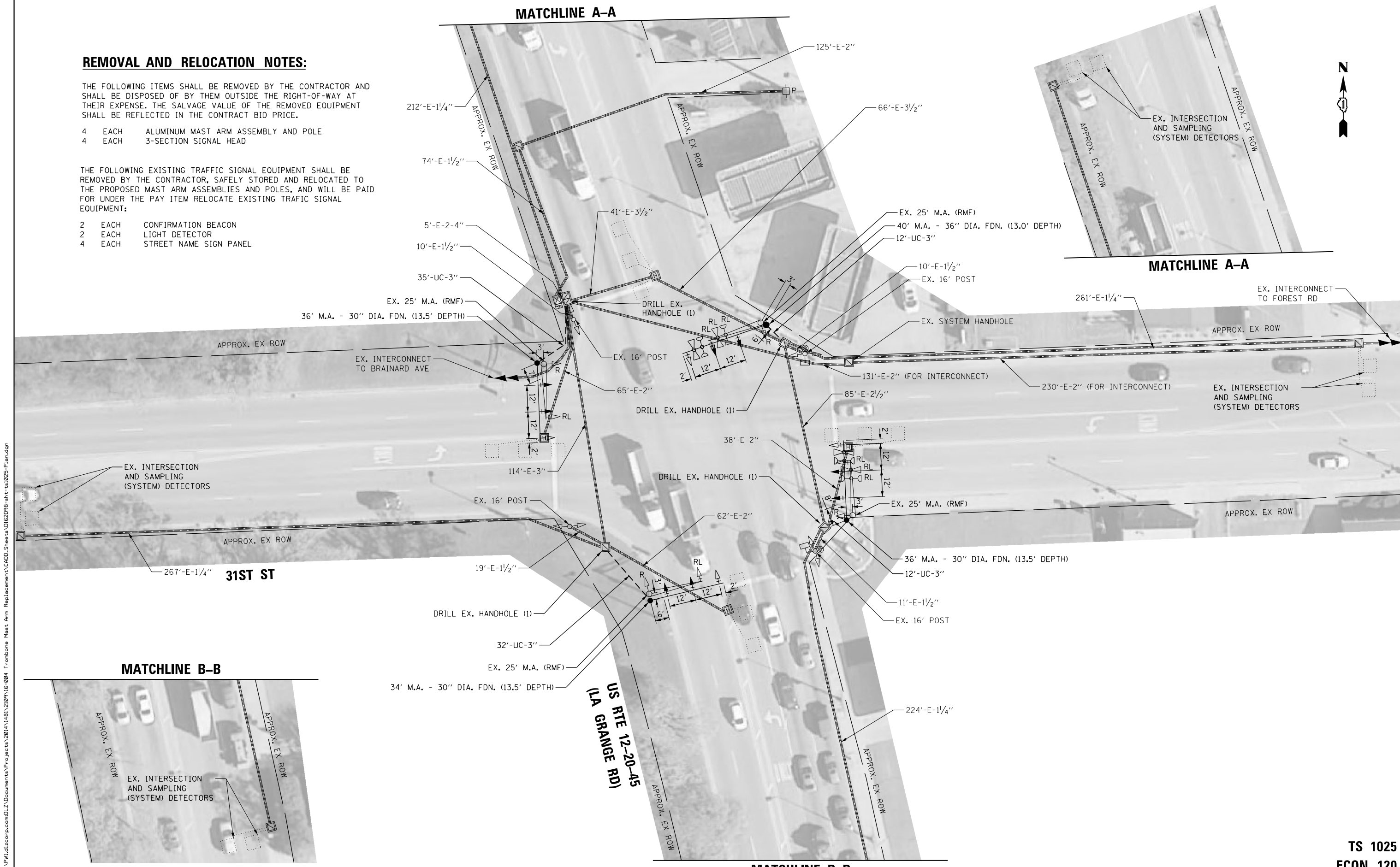
REMOVAL AND RELOCATION NOTES:

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.

- 4 EACH ALUMINUM MAST ARM ASSEMBLY AND POLE
- 4 EACH 3-SECTION SIGNAL HEAD

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SAFELY STORED AND RELOCATED TO THE PROPOSED MAST ARM ASSEMBLIES AND POLES, AND WILL BE PAID FOR UNDER THE PAY ITEM RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT:

- 2 EACH CONFIRMATION BEACON
- 2 EACH LIGHT DETECTOR
- 4 EACH STREET NAME SIGN PANEL



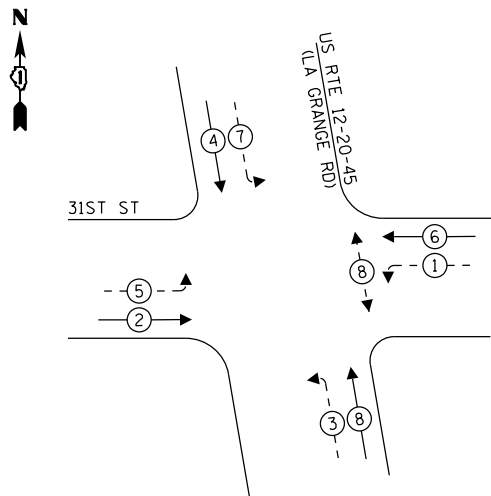
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**TS 1025
ECON 120**

MODELNAME	USER NAME = .USERNAME.	DESIGNED - DW	REVISED - 5/16/17 ADJ. R.O.W.	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SIGNAL EQUIPMENT REMOVAL AND MODIFICATION PLAN US RTE 12-20-45 (LA GRANGE RD) AT 31ST ST	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	PLOT SCALE = 40.0000' / in.	DRAWN - XT	REVISED -			VAR	2017-004TS	COOK	54	44	
	PLOT DATE = 5/16/2017	CHECKED - JH	REVISED -			CONTRACT NO. 62D98					
		DATE - 2/06/2017	REVISED -			ILLINOIS FED. AID PROJECT					



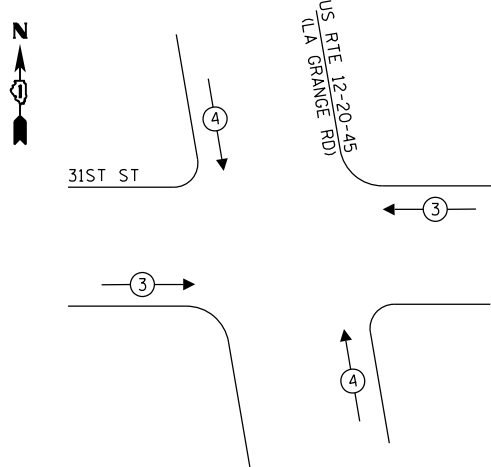
EXISTING CONTROLLER SEQUENCE



LEGEND:

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

**EXISTING EMERGENCY VEHICLE
PREEMPTION SEQUENCE**



**TRAFFIC SIGNAL
ELECTRICAL SERVICE REQUIREMENTS**

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	20	11	50	110.0
(YELLOW)	20	20	5	20.0
(GREEN)	20	12	45	108.0
PERMISSIVE ARROW	16	10	10	16.0
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 =				419.0

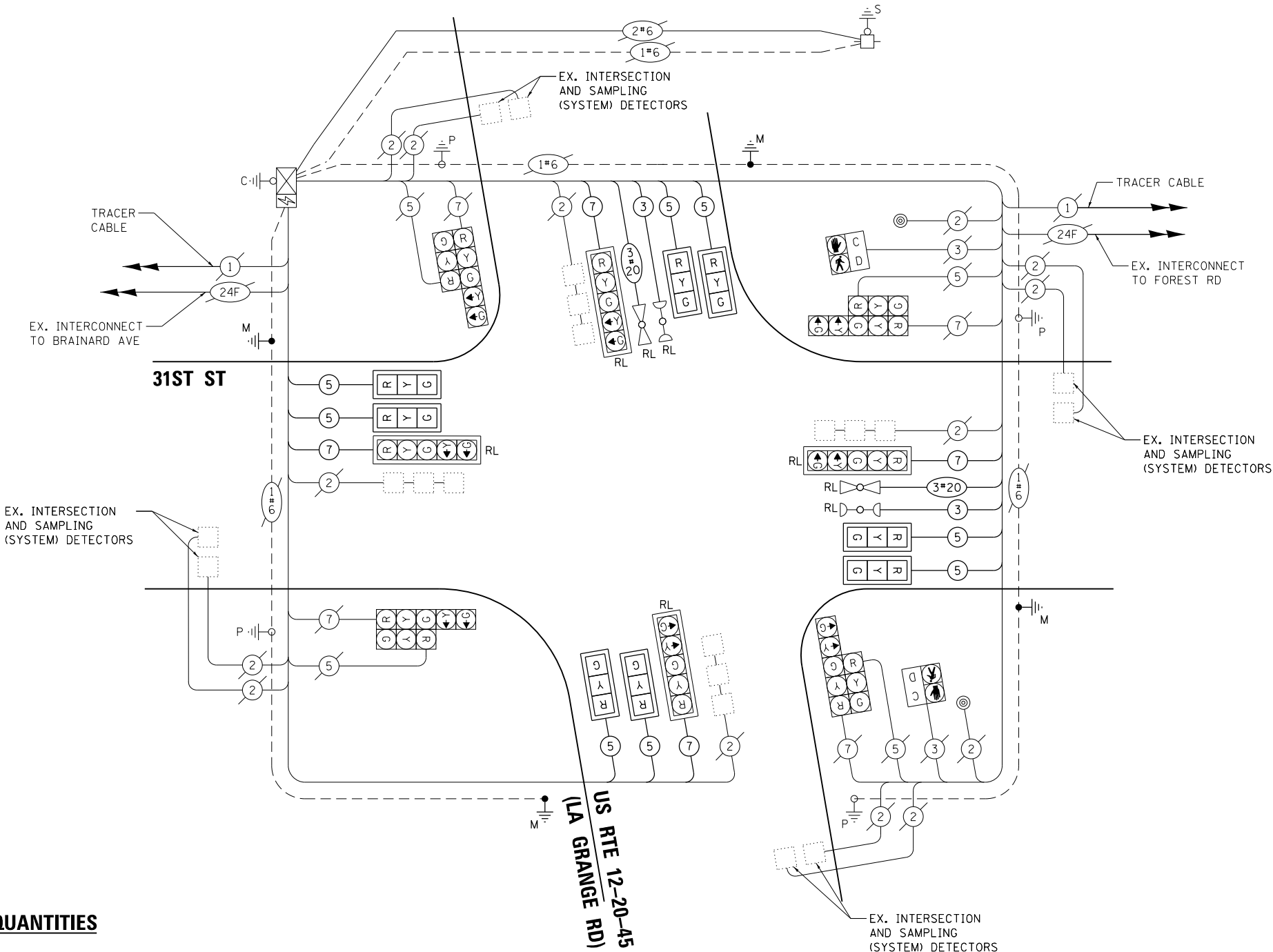
ENERGY COSTS TO:

VILLAGE OF LA GRANGE PARK
447 N CATHERINE AVE
LA GRANGE PARK, IL 60526

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

SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
91	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
519	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
1590	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
867	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C
142	FOOT	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 34 FT.
2	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 36 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 40 FT.
40.5	FOOT	CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER
13	FOOT	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER
4	EACH	DRILL EXISTING HANDHOLE
8	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
8	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC
4	EACH	RELOCATE EXISTING SIGNAL HEAD
1	EACH	RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT
1837	FOOT	REMOVE ELECTRIC CABLE FROM CONDUIT
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
4	EACH	REMOVE EXISTING CONCRETE FOUNDATION
519	FOOT	EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C



CABLE PLAN

(NOT TO SCALE)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM, EMERGENCY
VEHICLE PREEMPTION SEQUENCE AND SCHEDULE OF QUANTITIES
US RTE 12-20-45 (LA GRANGE RD) AT 31ST ST

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2017-004TS	COOK	54	45
CONTRACT NO. 62D98				

SCALE: N.T.S. SHEET OF SHEETS STA. TO STA.

ILLINOIS FED. AID PROJECT

TS 1025
ECON 120

FILE NAME = p:\p\m\dlzcorp\com\DLZ\Documents\Projects\2014\1481\2109\15-004 Trombone Mast Arm Replacement\CADD_Sheets\0162D98-sht-1s1025.dgn

MODELNAME

USER NAME = .USERNAME.	DESIGNED - DW	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN - XT	REVISED -
PLOT DATE = 4/5/2017	CHECKED - JH	REVISED -
	DATE - 2/06/2017	REVISED -



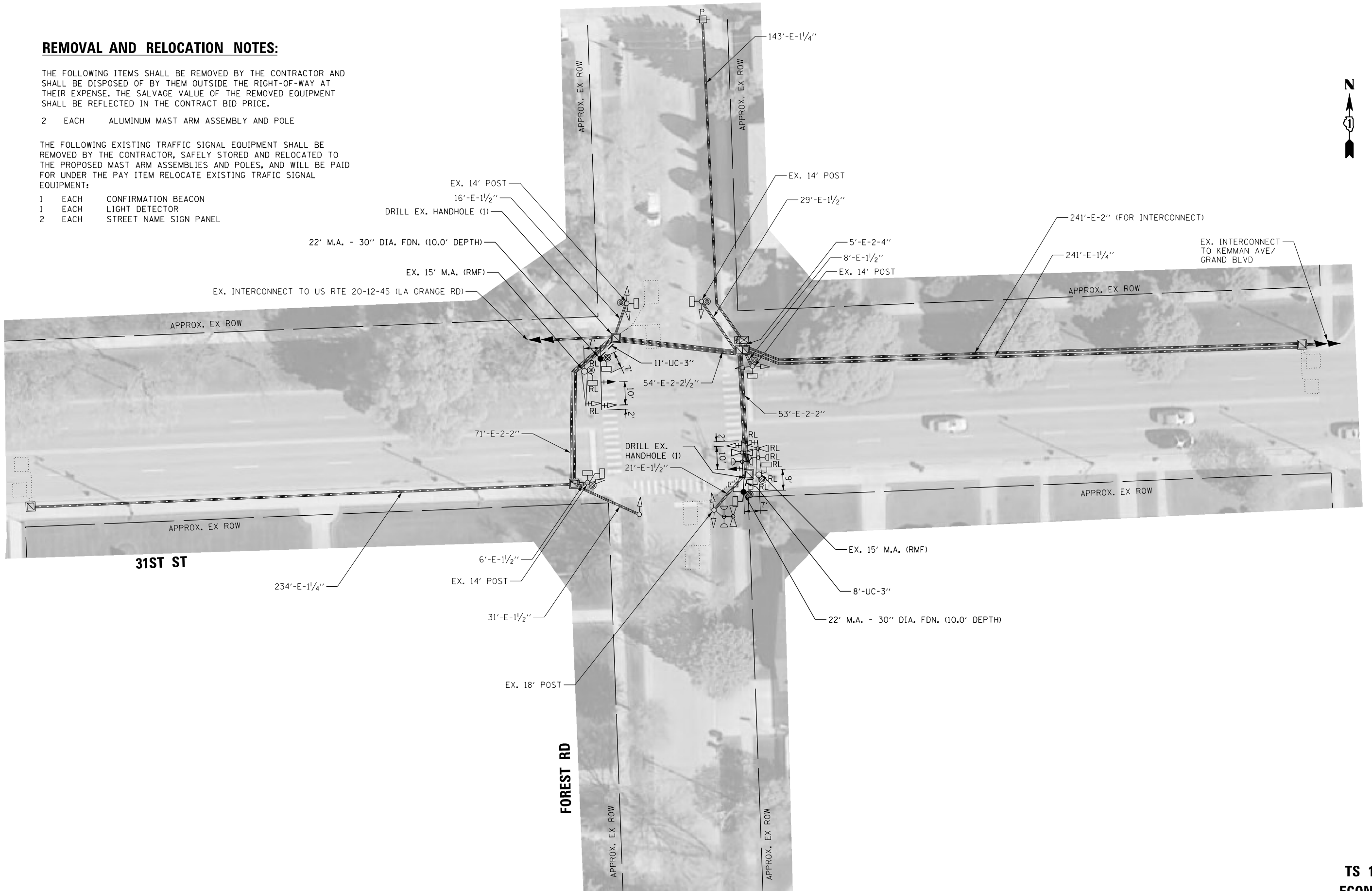
REMOVAL AND RELOCATION NOTES:

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 ALUMINUM MAST ARM ASSEMBLY AND POLE

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SAFELY STORED AND RELOCATED TO THE PROPOSED MAST ARM ASSEMBLIES AND POLES, AND WILL BE PAID FOR UNDER THE PAY ITEM RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT:

- 1 EACH CONFIRMATION BEACON
- 1 EACH LIGHT DETECTOR
- 2 EACH STREET NAME SIGN PANEL



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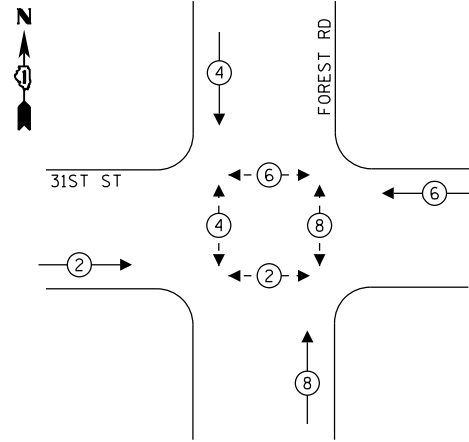
**TS 13925
ECON 120**

MODELNAME	USER NAME = .USERNAME.	DESIGNED - DW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SIGNAL EQUIPMENT REMOVAL AND MODIFICATION PLAN 31ST ST AT FOREST RD			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 40.0000' / in.	DRAWN - XT	REVISED -					VAR	2017-004TS	COOK	54	46
	PLOT DATE = 4/5/2017	CHECKED - JH	REVISED -					CONTRACT NO. 62D98				
				SCALE: 1" = 20'			SHEET	OF	SHEETS	STA.	TO	STA.
ILLINOIS FED. AID PROJECT												



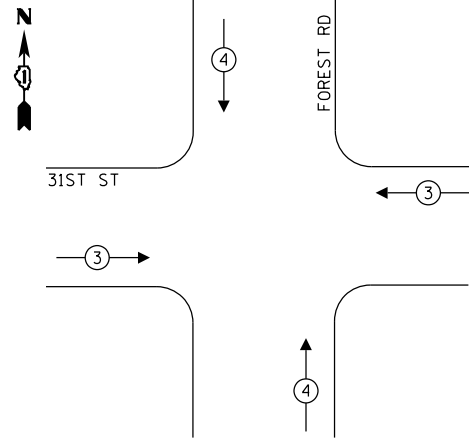
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EXISTING CONTROLLER SEQUENCE



- LEGEND:**
- ← ⊙ ← PROTECTED PHASE
 - ← ⊙ - - PROTECTED/PERMITTED PHASE
 - ← ⊙ → PEDESTRIAN PHASE
 - ⊙ OL OVERLAP

EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE



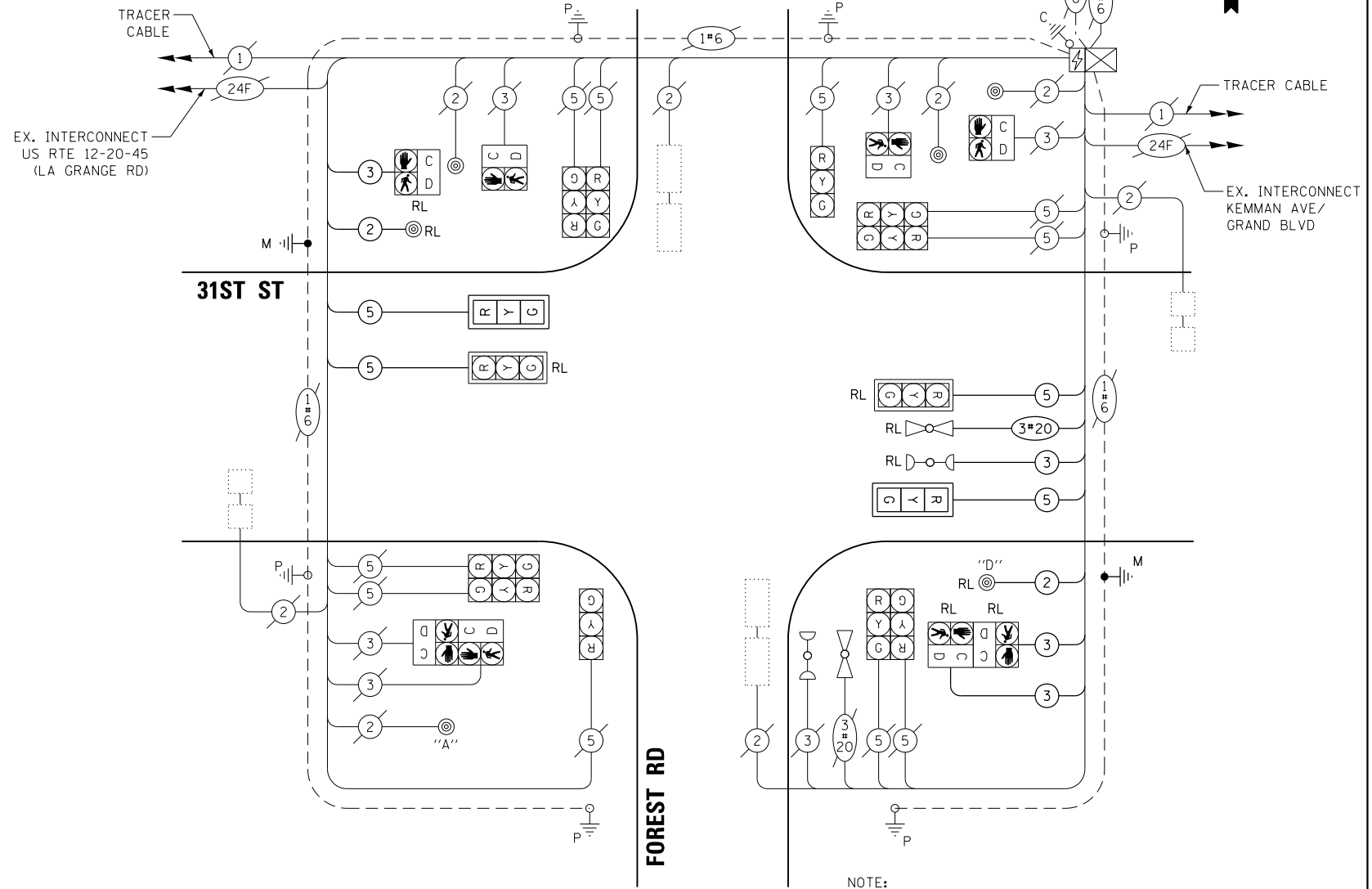
TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	14	11	50	77.0
(YELLOW)	14	20	5	14.0
(GREEN)	14	12	45	75.6
PERMISSIVE ARROW	0	10	10	-
PED. SIGNAL	8	20	100	160.0
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 =				451.6

ENERGY COSTS TO:
 VILLAGE OF LA GRANGE PARK
 447 N CATHERINE AVE
 LA GRANGE PARK, IL 60526
 ENERGY SUPPLY: CONTACT: JOE STACHO
 PHONE: 630-424-5704
 COMPANY: COMMONWEALTH EDISON
 ACCOUNT NUMBER: _____

SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
19	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
206	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C
463	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
528	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
41	FOOT	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C
2	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 22 FT.
20	FOOT	CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER
2	EACH	DRILL EXISTING HANDHOLE
2	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
2	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC
2	EACH	RELOCATE EXISTING SIGNAL HEAD
3	EACH	RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD
2	EACH	RELOCATE EXISTING PEDESTRIAN PUSH-BUTTON
1	EACH	RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT
741	FOOT	REMOVE ELECTRIC CABLE FROM CONDUIT
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
2	EACH	REMOVE EXISTING CONCRETE FOUNDATION
135	FOOT	EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C



NOTE:
 PUSH BUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4
 PUSH BUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8

CABLE PLAN
(NOT TO SCALE)

USER NAME = .USERNAME.	DESIGNED - DW	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN - XT	REVISED -
PLOT DATE = 4/5/2017	CHECKED - JH	REVISED -
	DATE - 2/06/2017	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

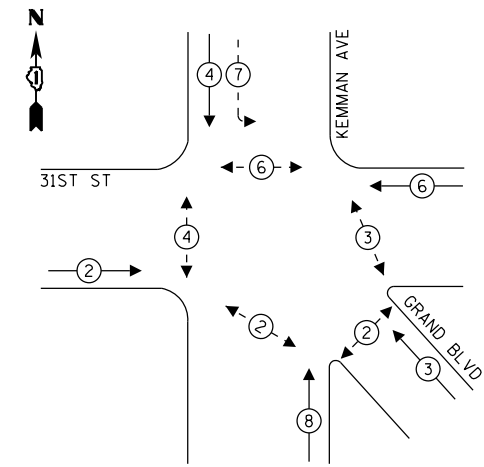
CABLE PLAN, PHASE DESIGNATION DIAGRAM, EMERGENCY
 VEHICLE PREEMPTION SEQUENCE, AND SCHEDULE OF QUANTITIES
 31ST ST AT FOREST RD
 SCALE: N.T.S. SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2017-004TS	COOK	54	47
CONTRACT NO. 62D98				
ILLINOIS FED. AID PROJECT				

TS 13925
 ECON 120



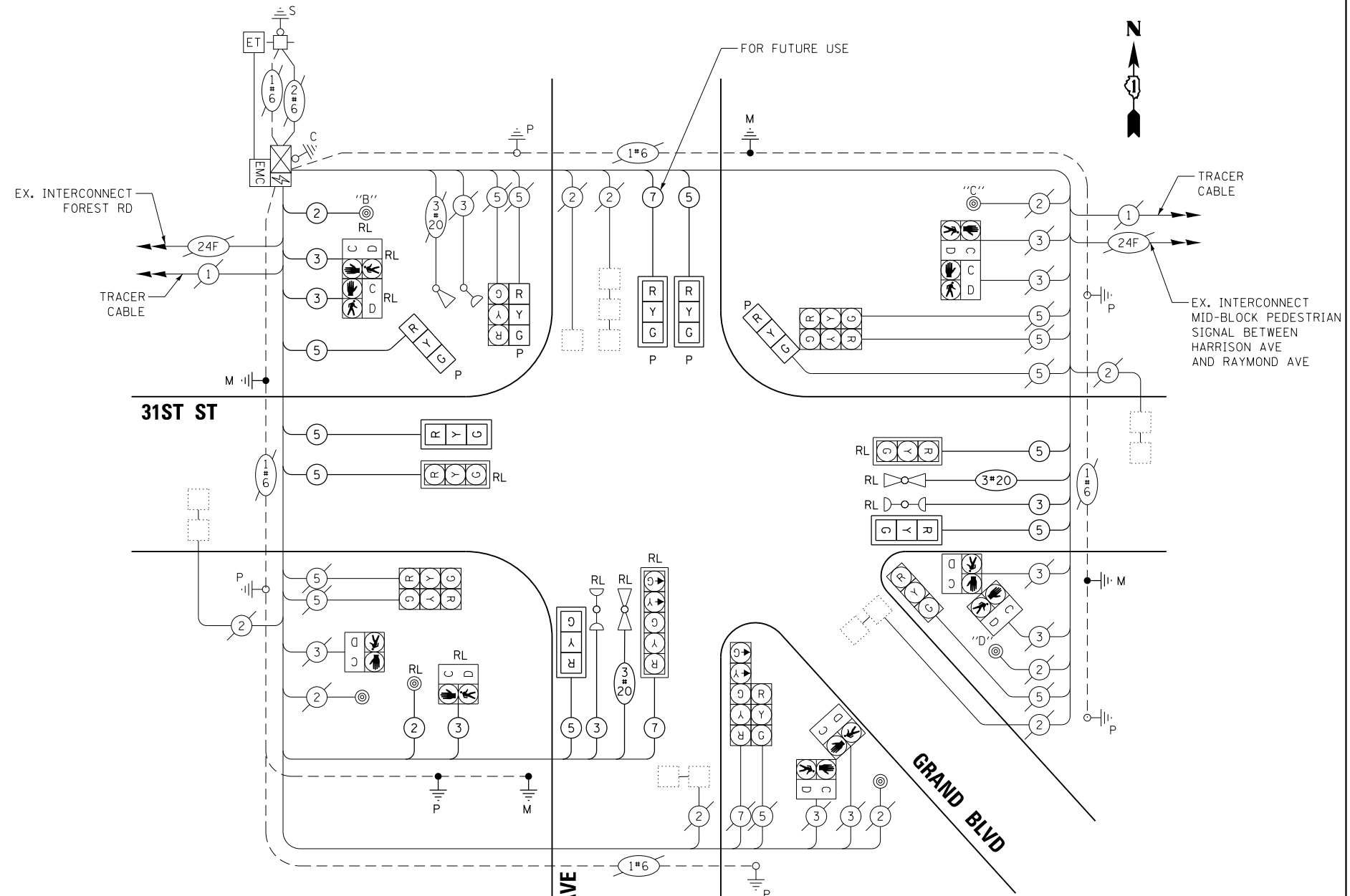
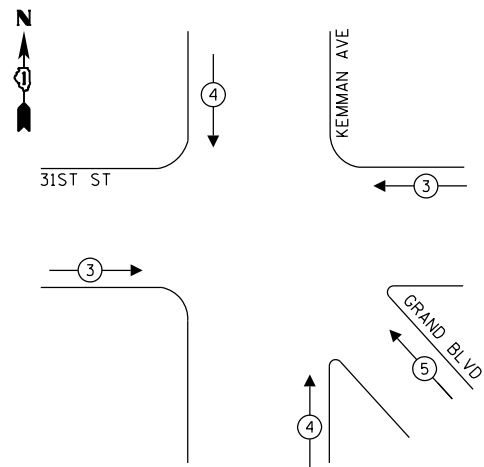
EXISTING CONTROLLER SEQUENCE



LEGEND:

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

EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE



CABLE PLAN
(NOT TO SCALE)

NOTES:
 PUSH BUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6
 PUSH BUTTON "C" SHALL PLACE A CALL IN PHASES 3 AND 6
 PUSH BUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 3

SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
88	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
155	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C
681	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
1088	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
311	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C
150	FOOT	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C
1	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 18 FT.
2	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 20 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 24 FT.
4	FOOT	CONCRETE FOUNDATION, TYPE A
40	FOOT	CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER
5	EACH	DRILL EXISTING HANDHOLE
3	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
3	EACH	OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED
2	EACH	OPTICALLY PROGRAMMED SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED
5	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC
3	EACH	RELOCATE EXISTING SIGNAL HEAD
3	EACH	RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD
2	EACH	RELOCATE EXISTING PEDESTRIAN PUSH-BUTTON
1	EACH	RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT
1541	FOOT	REMOVE ELECTRIC CABLE FROM CONDUIT
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
4	EACH	REMOVE EXISTING CONCRETE FOUNDATION
458	FOOT	EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C

TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	19	11	50	104.5
(YELLOW)	19	20	5	19.0
(GREEN)	19	12	45	102.6
PERMISSIVE ARROW	4	10	10	4.0
PED. SIGNAL	10	20	100	200.0
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 =				555.1

ENERGY COSTS TO:

VILLAGE OF LA GRANGE PARK
 447 N CATHERINE AVE
 LA GRANGE PARK, IL 60526

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

USER NAME = .USERNAME.	DESIGNED - DW	REVISED -
PLOT SCALE = 48.0000' / in.	DRAWN - XT	REVISED -
PLOT DATE = 4/5/2017	CHECKED - JH	REVISED -
	DATE - 2/06/2017	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM, EMERGENCY VEHICLE PREEMPTION SEQUENCE AND SCHEDULE OF QUANTITIES
 31ST ST AT KEMMAN AVE / GRAND BLVD

SCALE: N.T.S. SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2017-004TS	COOK	54	49
CONTRACT NO. 62D98				
ILLINOIS FED. AID PROJECT				

TS 3770
 ECON 120

FILE NAME = p:\p\dlz\corp\com\DLZ\Documents\Projects\2014\1481\2109\15-004 Tronbone Mast Arm Replacement\CADD_Sheets\0162D98-sht-ts3770.dgn



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.

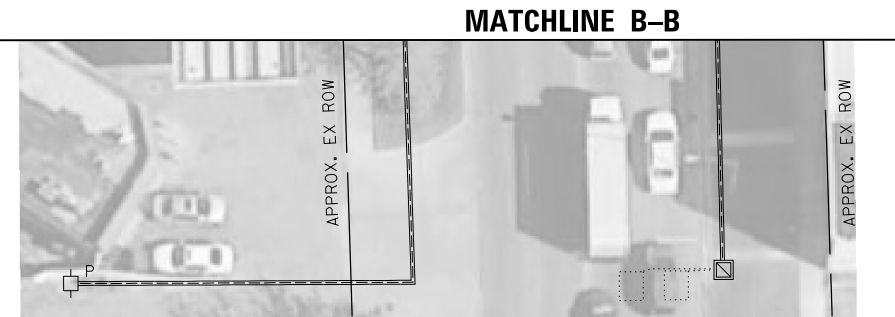
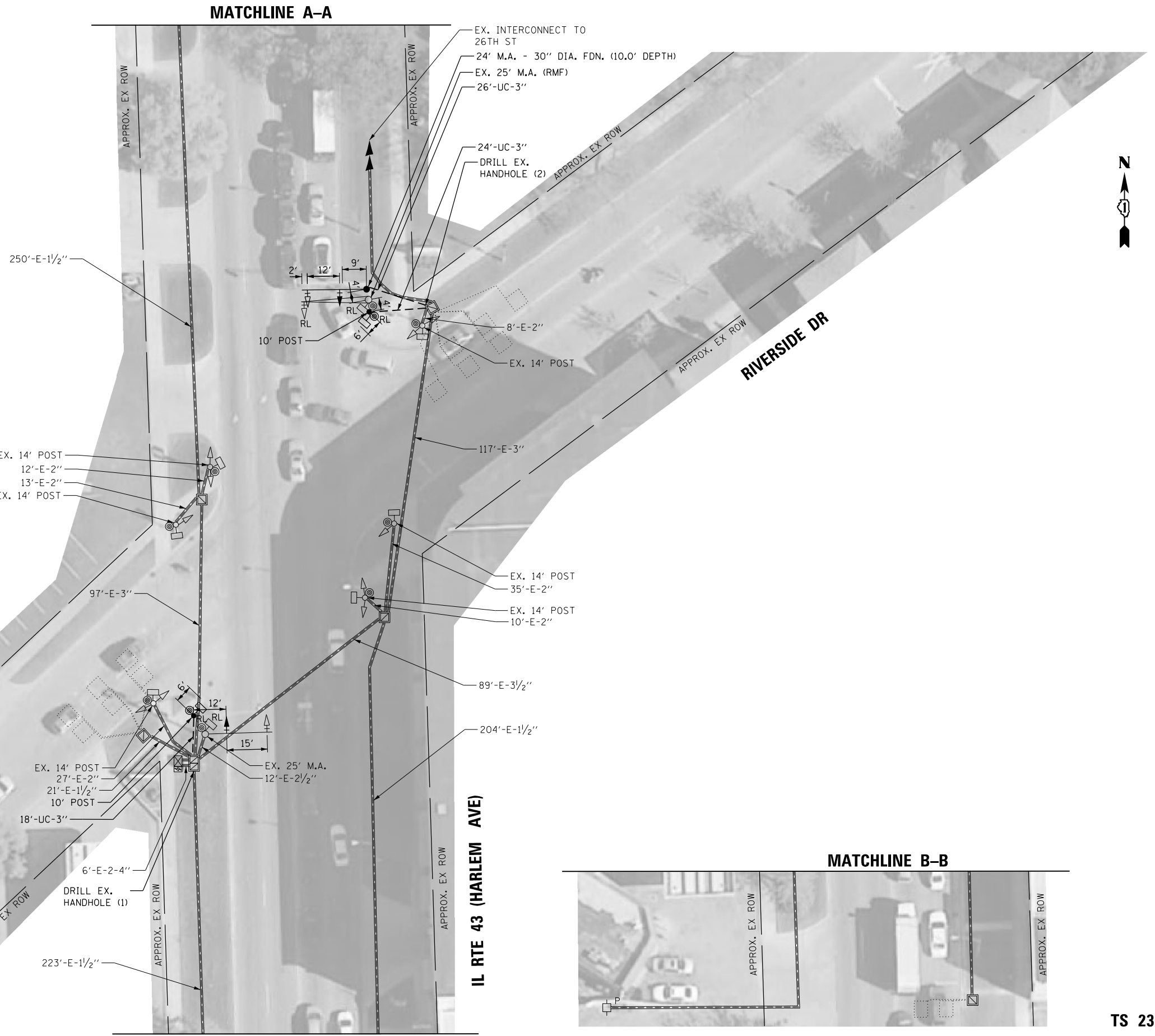
- 1 EACH ALUMINUM MAST ARM ASSEMBLY AND POLE

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SAFELY STORED AND RELOCATED TO THE PROPOSED MAST ARM ASSEMBLIES AND POLES, AND WILL BE PAID FOR UNDER THE PAY ITEM RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT:

- 2 EACH STREET NAME SIGN PANEL



MATCHLINE A-A



MATCHLINE B-B

FILE NAME = p:\p\dlzcorp.com\DLZ\Documents\Projects\2017\11481\2109\16-004 Trombone Mast Arm Replacement\CADD_Sheets\0162D98-sht-ts2395-Plan.dgn

USER NAME = .USERNAME.	DESIGNED - DW	REVISED - 5/16/17 ADJ. R.O.W.
DRAWN - XT	CHECKED - JH	REVISED -
PLOT SCALE = 40.0000' / in.	DATE - 2/06/2017	REVISED -
PLOT DATE = 5/16/2017		

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL EQUIPMENT REMOVAL AND MODIFICATION PLAN
IL RTE 43 (HARLEM AVE) AT RIVERSIDE DR /LONGCOMMON RD**

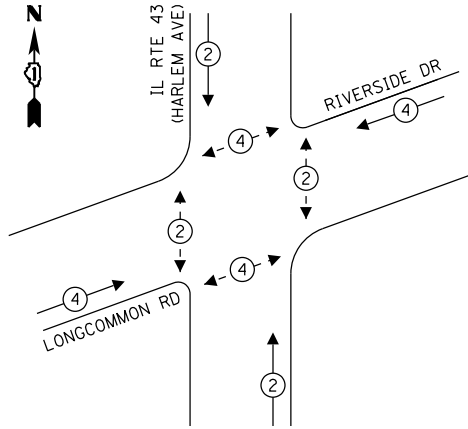
SCALE: 1" = 20' SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2017-004TS	COOK	54	50
			CONTRACT NO. 62D98	
ILLINOIS FED. AID PROJECT				

**TS 2395
ECON 30**

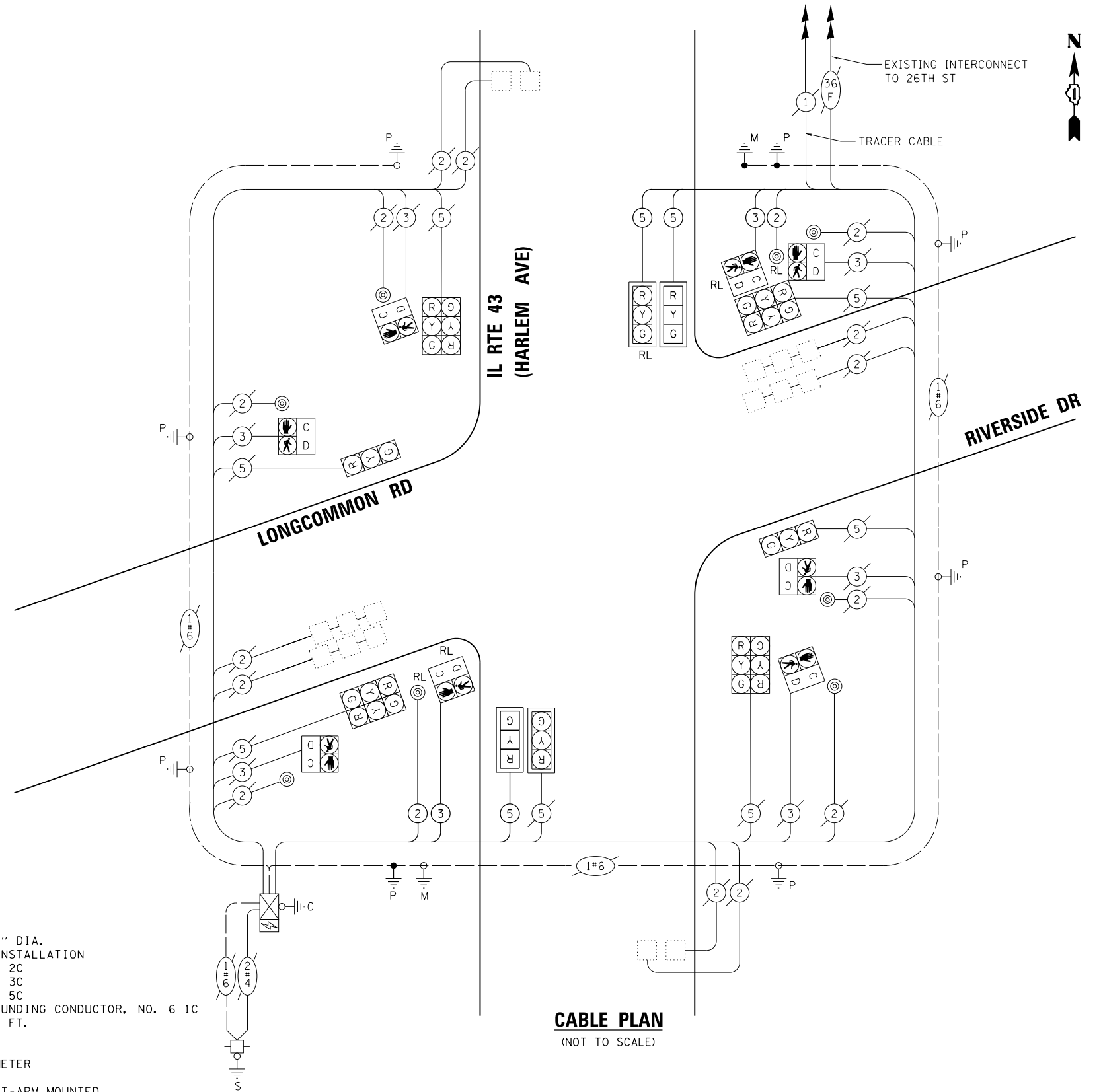


EXISTING CONTROLLER SEQUENCE



LEGEND:

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



CABLE PLAN
(NOT TO SCALE)

TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	14	11	50	77.0
(YELLOW)	14	20	5	14.0
(GREEN)	14	12	45	75.6
PERMISSIVE ARROW	-	10	10	0.0
PED. SIGNAL	8	20	100	160.0
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 =				451.6

SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
68	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
330	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C
338	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
670	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
102	FOOT	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C
2	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 10 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 24 FT.
8	FOOT	CONCRETE FOUNDATION, TYPE A
10	FOOT	CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER
3	EACH	DRILL EXISTING HANDHOLE
2	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
2	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC
1	EACH	RELOCATE EXISTING SIGNAL HEAD
2	EACH	RELOCATE EXISTING PEDESTRIAN SIGNAL HEAD
2	EACH	RELOCATE EXISTING PEDESTRIAN PUSH-BUTTON
1	EACH	RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT
728	FOOT	REMOVE ELECTRIC CABLE FROM CONDUIT
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	REMOVE EXISTING CONCRETE FOUNDATION

ENERGY COSTS TO:

VILLAGE OF RIVERSIDE
27 RIVERSIDE ROAD
RIVERSIDE, IL 60546

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

USER NAME = .USERNAME.	DESIGNED - DW	REVISED -
PLOT SCALE = 48.0000' / in.	DRAWN - XT	REVISED -
PLOT DATE = 4/5/2017	CHECKED - JH	REVISED -
	DATE - 2/06/2017	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CABLE PLAN, PHASE DESIGNATION DIAGRAM
AND SCHEDULE OF QUANTITIES**
IL RTE 43 (HARLEM AVE) AT RIVERSIDE DR /LONGCOMMON RD
SCALE: N.T.S. SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2017-004TS	COOK	54	51
CONTRACT NO. 62D98				
ILLINOIS FED. AID PROJECT				

**TS 2395
ECON 30**

FILE NAME = p:\p\m\dlz\corp\com\DLZ\Documents\Projects\2014\1481\2109\15-004 Trombone Mast Arm Replacement\CADD_Sheets\0162D98-sht-ts2395.dgn



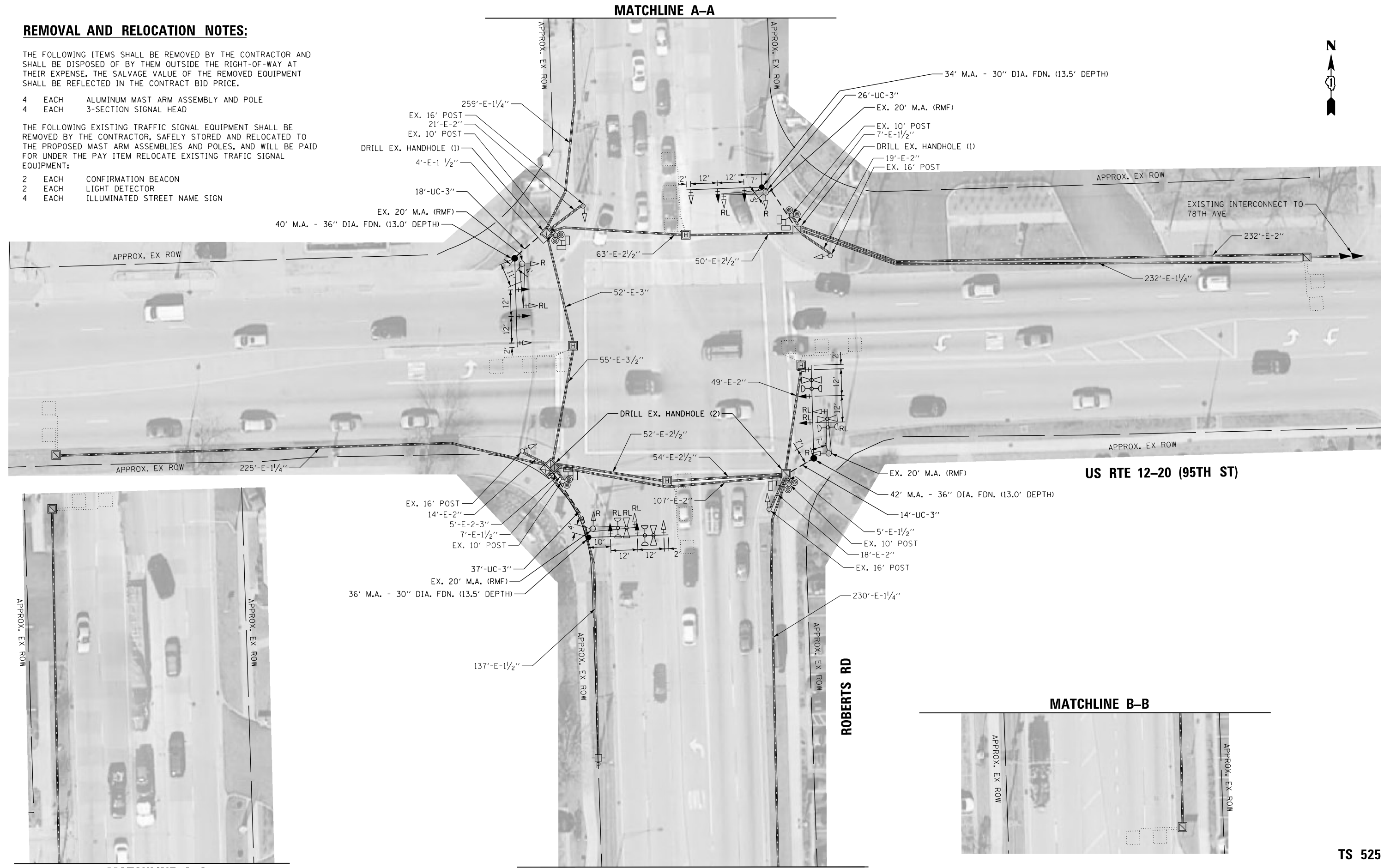
REMOVAL AND RELOCATION NOTES:

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.

- 4 EACH ALUMINUM MAST ARM ASSEMBLY AND POLE
- 4 EACH 3-SECTION SIGNAL HEAD

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SAFELY STORED AND RELOCATED TO THE PROPOSED MAST ARM ASSEMBLIES AND POLES, AND WILL BE PAID FOR UNDER THE PAY ITEM RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT:

- 2 EACH CONFIRMATION BEACON
- 2 EACH LIGHT DETECTOR
- 4 EACH ILLUMINATED STREET NAME SIGN



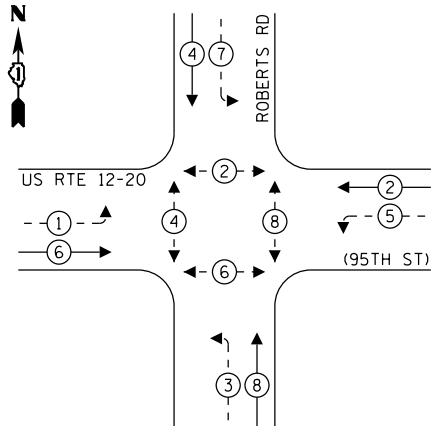
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**TS 525
ECON 59**

MODELNAME	USER NAME = .USERNAME.	DESIGNED - DW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SIGNAL EQUIPMENT REMOVAL AND MODIFICATION PLAN US RTE 12-20 (95TH ST) AT ROBERTS RD			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
	PLOT SCALE = 48.0000' / in.	DRAWN - XT	REVISED -		SCALE: 1" = 20'	SHEET	OF	SHEETS	STA.	TO	STA.	VAR	2017-004TS	COOK
	PLOT DATE = 4/5/2017	CHECKED - JH	REVISED -					CONTRACT NO. 62D98			ILLINOIS FED. AID PROJECT			
		DATE - 2/06/2017	REVISED -											



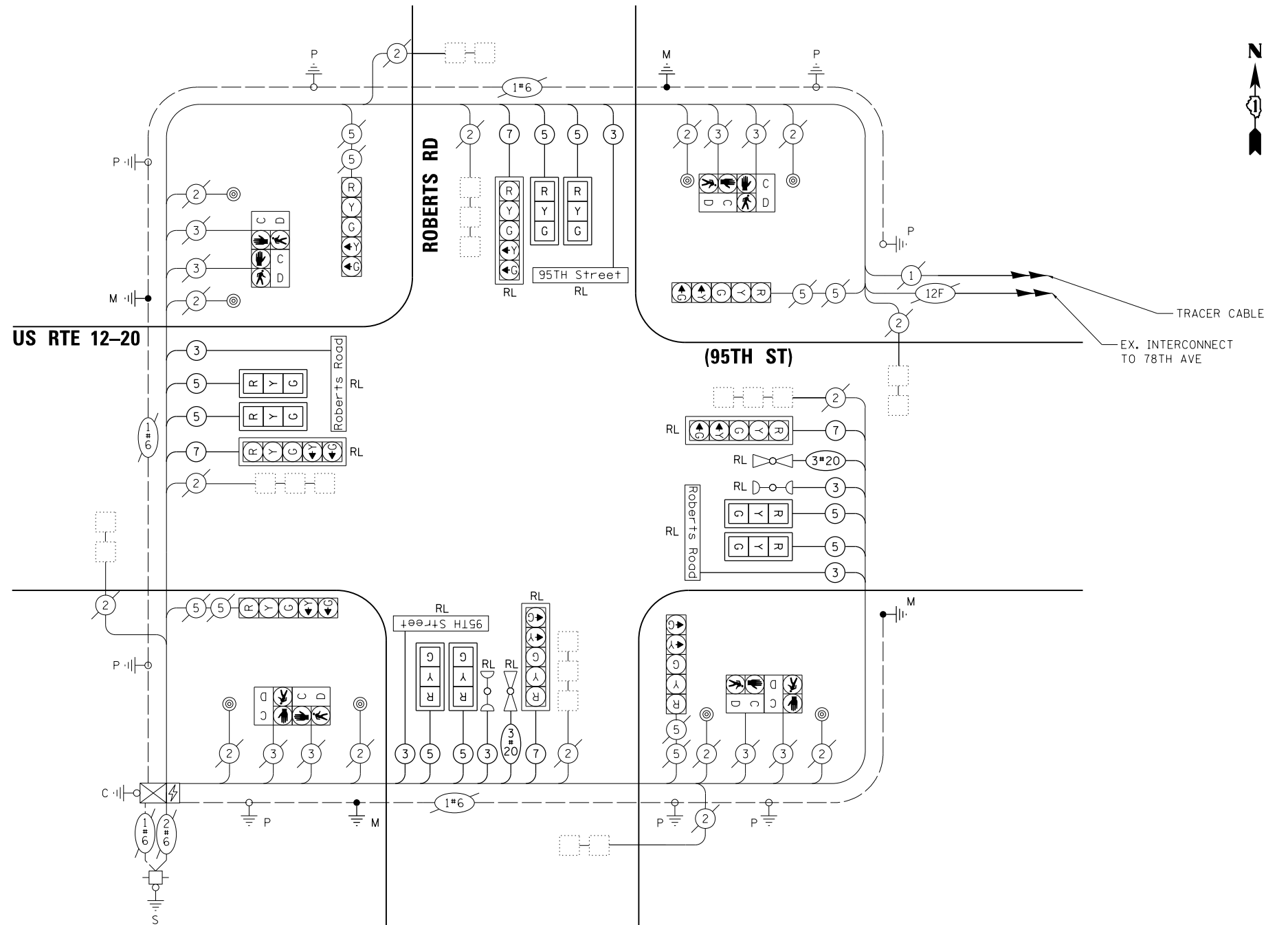
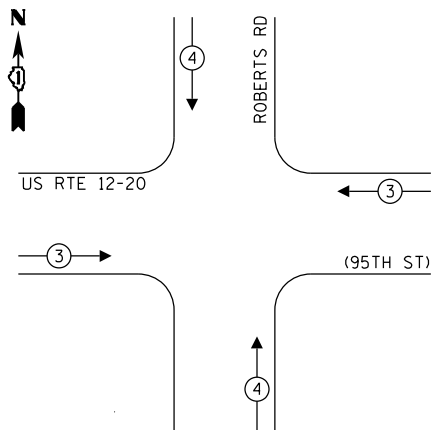
EXISTING CONTROLLER SEQUENCE



LEGEND:

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

EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE



CABLE PLAN
(NOT TO SCALE)

TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	16	11	50	88.0
(YELLOW)	16	20	5	16.0
(GREEN)	16	12	45	86.4
PERMISSIVE ARROW	16	10	10	16.0
PED. SIGNAL	8	20	100	160.0
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	4	120	50	240
LUMINAIRE	-	-	-	-
TOTAL =				731.4

SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
95	FOOT	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
* 2	EACH	PAINT NEW MAST ARM AND POLE, UNDER 40 FOOT
* 2	EACH	PAINT NEW MAST ARM AND POLE, 40 FOOT AND OVER
1129	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
1697	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
914	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C
146	FOOT	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 34 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 36 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 40 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 42 FT.
27	FOOT	CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER
26	FOOT	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER
4	EACH	DRILL EXISTING HANDHOLE
8	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
8	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC
4	EACH	RELOCATE EXISTING SIGNAL HEAD
1	EACH	RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT
1478	FOOT	REMOVE ELECTRIC CABLE FROM CONDUIT
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
4	EACH	REMOVE EXISTING CONCRETE FOUNDATION
339	FOOT	EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C

* 100% COST TO THE CITY OF HICKORY HILLS

ENERGY COSTS TO:

CITY OF HICKORY HILLS
8652 W 95TH STREET
HICKORY HILLS, ILLINOIS 60457-1700

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

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM, EMERGENCY
VEHICLE PREEMPTION SEQUENCE AND SCHEDULE OF QUANTITIES
US RTE 12-20 (95TH ST) AT ROBERTS RD

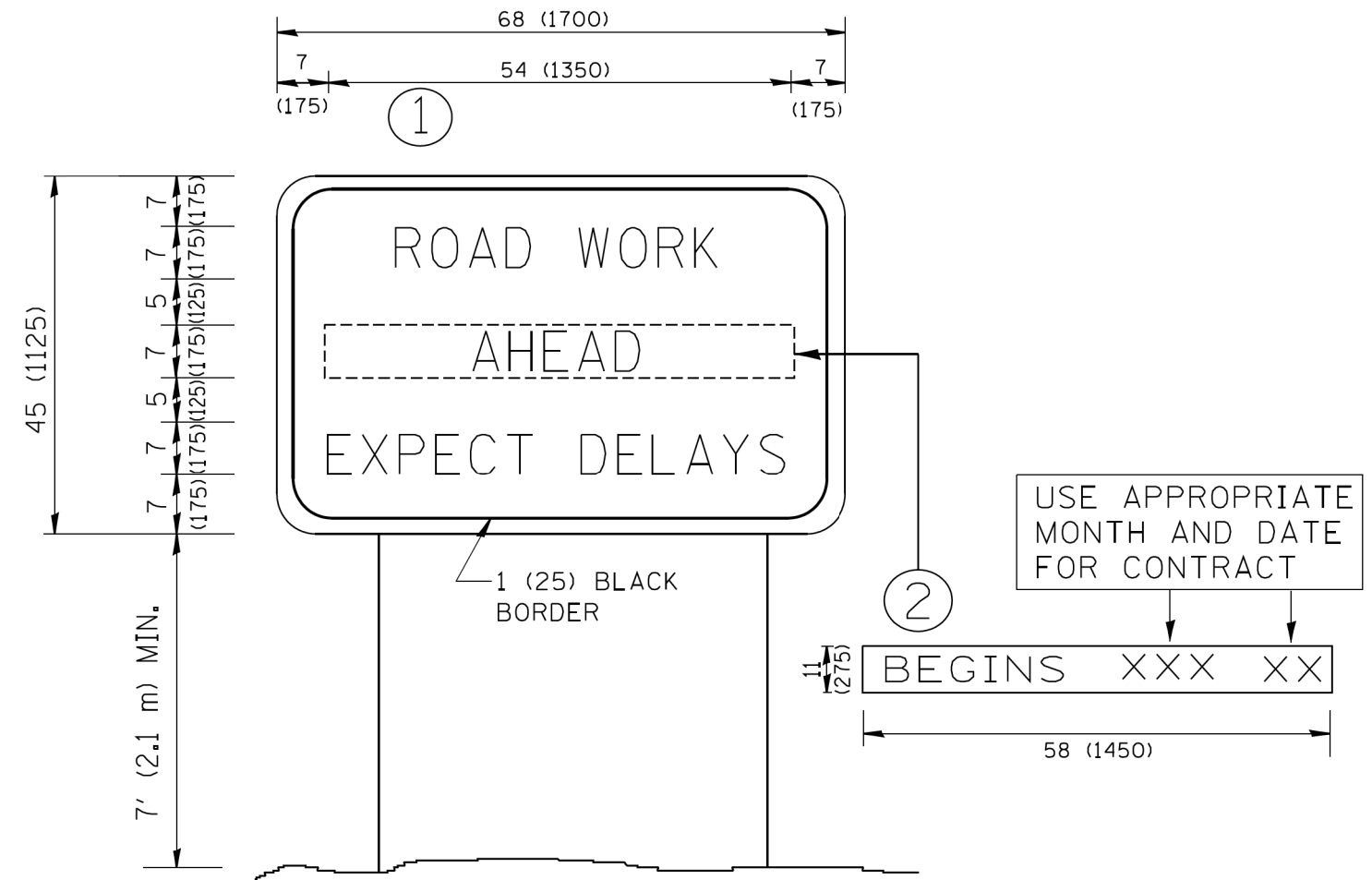
SCALE: N.T.S. SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2017-004TS	COOK	54	53
CONTRACT NO. 62D98				

ILLINOIS FED. AID PROJECT

TS 525
ECON 59

FILE NAME: p:\p\dlz\corp\com\DLZ\Documents\Projects\2014\1481\2109\15-004 Trombone Mast Arm Replacement\CADD_Sheets\0162D98-sht-ts525.dgn



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.

MODELNAME	USER NAME = .USERNAME.	DESIGNED - DW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ARTERIAL ROAD INFORMATION SIGN		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 2.0000' / in.	DRAWN - XT	REVISED -				VAR	2017-004TS	VAR	54	54
	PLOT DATE = 4/5/2017	CHECKED - JH	REVISED -		SCALE: NONE	SHEET 1 OF 1 SHEETS	STA.	TO STA.	CONTRACT NO. 62D98		
		DATE - 2/06/2017	REVISED -		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT						