

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2021-155-TS	VARIOUS	45	1
		ILLINOIS	CONTRACT NO. 62P72	

D-91-040-22

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

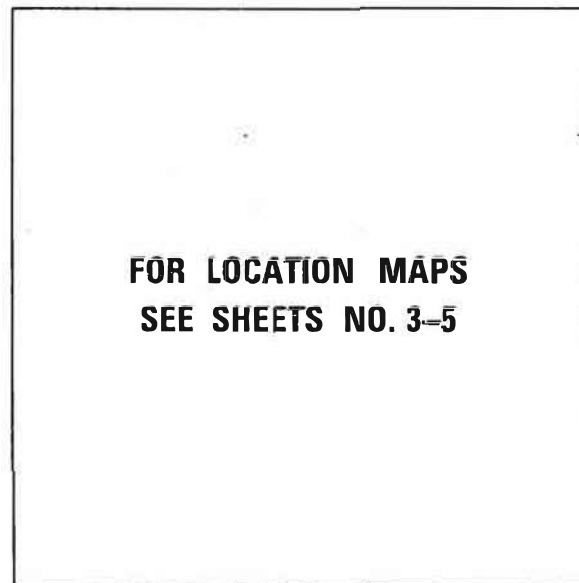
**PROPOSED  
HIGHWAY PLANS**

VARIOUS LOCATIONS IN DISTRICT 1  
CONTRACT NO. 5  
SECTION: 2021-155-TS  
PROJECT: STP-WM29(335)  
TROMBONE MAST ARM REPLACEMENT  
DUPAGE & COOK COUNTIES

C-91-036-22

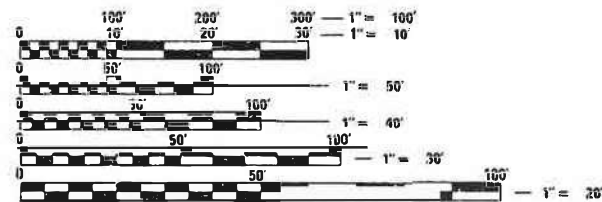


FOR INDEX OF SHEETS, SEE SHEET NO. 2



FOR LOCATION MAPS  
SEE SHEETS NO. 3-5

VARIOUS TOWNSHIPS



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

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

PROJECT ENGINEER: IOVAN PLASCENCIA (847) 705-4504  
PROJECT MANAGER: KAMIL KOBYLKA (847) 705-4734

CONTRACT NO. 62P72

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUBMITTED March 25 2022  
*[Signature]*  
REGIONAL ENGINEER

May 13, 2022 *[Signature]*  
ENGINEER OF DESIGN AND ENVIRONMENT

May 13, 2022 *[Signature]*  
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY  
OF THE STATE OF ILLINOIS

**INDEX OF SHEETS**

SHT NO.	DESCRIPTION
1	COVER SHEET
2	INDEX OF SHEETS, HIGHWAY STANDARDS, AND GENERAL NOTES
3-5	LOCATION MAPS
6-10	SUMMARY OF QUANTITIES
11-17	DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAILS (TS-05)
18	DISTRICT 1 MAST ARM MOUNTED STREET NAME SIGNS (TS-02)

SHT NO.	TS NO.	INTERSECTION NAME
19-22	6130	US RTE 34 (OGDEN AVE) AT MADISON ST
23-26	5975	CASS AVE AT I-55 NORTH FRONTAGE RD / HINSWOOD DR
27-30	14741	IL RTE 62 (ALGONQUIN RD) AT CARRIAGE WAY / ESSEX WAY
31-34	9190	TOUHY AVE AT CUMBERLAND AVE
35-39	1870	IL RTE 1 (HALSTED ST) AT VOLLMER RD
40-43	1425	US RTE 30 (LINCOLN HWY) AT WOODLAWN AVE

SHT NO.	DESCRIPTION
44	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS (TC-10)
45	ARTERIAL ROAD INFORMATION SIGN (TC-22)

**HIGHWAY STANDARDS**

STD. NO.	TITLE
000001-08	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
701001-02	OFF-ROAD OPERATIONS 2L, 2W, MORE THAN 15' AWAY
701006-05	OFF-ROAD OPERATIONS 2L, 2W, 15' TO 24" FROM PAVEMENT EDGE
701101-05	OFF-ROAD OPERATIONS MULTILANE, 15' TO 24" FROM PAVEMENT EDGE
701106-02	OFF-ROAD OPERATIONS, MULTILANE, MORE THAN 15' AWAY
701606-10	URBAN SINGLE LANE CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN
701701-10	URBAN LANE CLOSURE MULTILANE INTERSECTION
701801-06	SIDEWALK, CORNER OR CROSSWALK CLOSURE
701901-08	TRAFFIC CONTROL DEVICES
720001-01	SIGN PANEL MOUNTING DETAIL
814001-03	HANDHOLES
814006-03	DOUBLE HANDHOLES
862001-01	UNINTERRUPTABLE POWER SUPPLY
873001-02	TRAFFIC SIGNAL GROUNDING & BONDING
877001-08	STEEL MAST ARM ASSEMBLY AND POLE 16' THROUGH 55'
878001-11	CONCRETE FOUNDATION DETAILS
880006-01	TRAFFIC SIGNAL MOUNTING DETAILS
886001-01	DETECTOR LOOP INSTALLATIONS

**RLR NOTES**

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:

TS 1870 IL RTE 1 (HALSTED ST) AT VOLLMER RD

CITY OF CHICAGO HEIGHTS 1601 CHICAGO RD CHICAGO HEIGHTS, IL 60411 (708) 756-5304	SAFE SPEED, LLC 150 N UPPER WACKER DR CHICAGO, IL 60606 (877) 237-2331
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**GENERAL NOTES**

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.

THE CONTRACTOR SHALL CONTACT THE TRAFFIC CONTROL SUPERVISOR AT KALPANA.KANNAN-HOSADURGA@ILLINOIS.GOV, 72 HOURS IN ADVANCE OF BEGINNING WORK.

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

ALL EXISTING R.O.W. SHOWN IS APPROXIMATE AND MAY NEED TO BE VERIFIED IN THE FIELD. ANY R.O.W. CONFLICTS SHALL BE COORDINATED WITH THE RESIDENT ENGINEER.

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

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

THE CONTRACTOR SHALL CHECK THE PROPOSED TRAFFIC SIGNAL EQUIPMENT LOCATIONS FOR UNDERGROUND AND OVERHEAD UTILITY CONFLICTS. THE CONTRACTOR SHALL NOTIFY THE AREA ENGINEER, THE RESIDENT ENGINEER AND ANY IMPACTED UTILITY COMPANY OF THE CONFLICT, AND SHALL COORDINATE AND RESOLVE THE ISSUE PRIOR TO ORDERING MATERIALS, AND PRIOR TO POURING FOUNDATIONS.

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

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

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

LOCATIONS WITH PEDESTRIAN EQUIPMENT HAVE BEEN DESIGNED TO BE ADA COMPLIANT. ANY DEVIATION FROM THE PLANS FOR TRAFFIC SIGNAL MAST ARM/POSTS THAT HAVE PEDESTRIAN EQUIPMENT WILL HAVE TO BE APPROVED BY THE ENGINEER TO INSURE ADA COMPLIANCE.

DIMENSIONED OFFSETS FOR THE TRAFFIC SIGNAL MAST ARMS AND POSTS ARE MEASURED FROM THE BACK OF CURB TO THE CENTER OF THE FOUNDATION WHERE CURB IS PRESENT. IF NO CURB IS PRESENT, OFFSETS ARE MEASURED FROM THE EDGE OF PAVEMENT TO THE CENTER OF THE FOUNDATION.

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REMOVE ANY EXISTING SIGNS FROM THE MAST ARM ASSEMBLIES AND POSTS THAT ARE TO BE REMOVED AND TRANSFER THEM TO THE PROPOSED MAST ARM ASSEMBLIES AND POSTS PER THE STANDARD SPECIFICATIONS.

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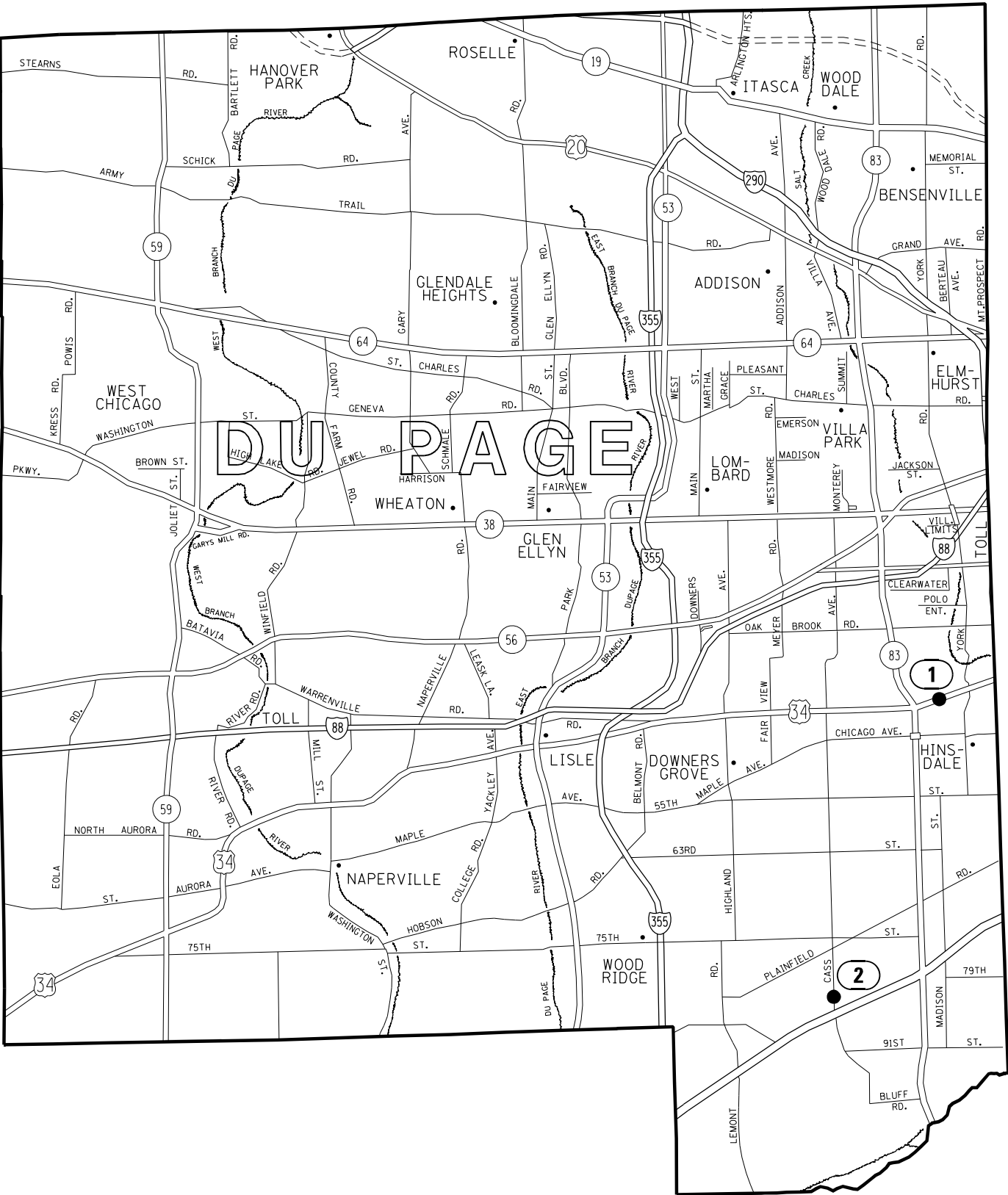
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**INDEX OF SHEETS, HIGHWAY STANDARDS & GENERAL NOTES**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2021-155-TS	VARIOUS	45	2
			CONTRACT NO. 62P72	
		ILLINOIS	FED. AID PROJECT	



LOCATION NO.	TS NO.	INTERSECTION NAME	MUNICIPALITY	COUNTY
1	6130	US RTE 34 (OGDEN AVE) AT MADISON ST	HINSDALE	DUPAGE
2	5975	CASS AVE AT I-55 NORTH FRONTAGE RD / HINSWOOD DR	DARIEN	DUPAGE

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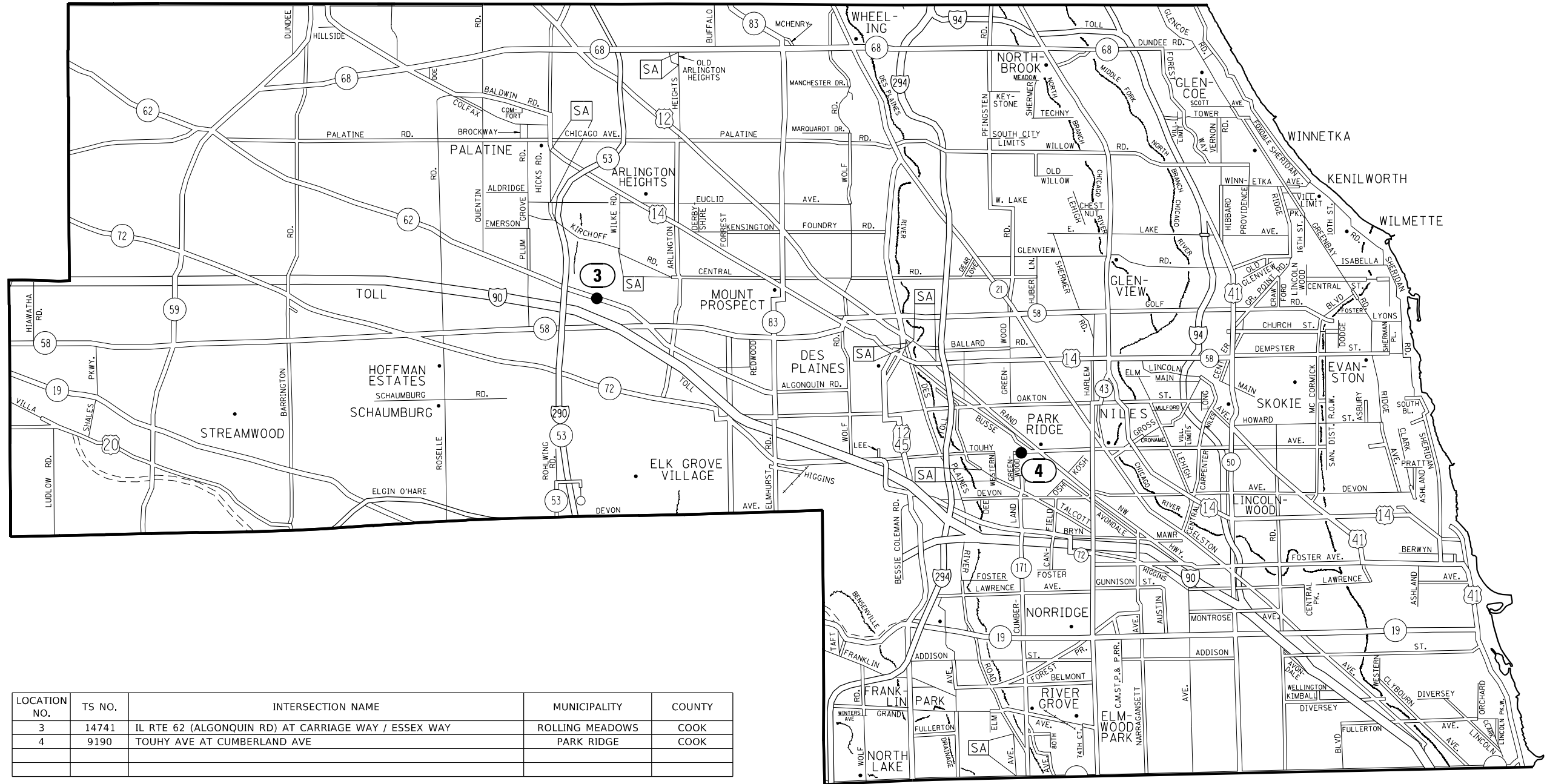
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**LOCATION MAP  
DUPAGE COUNTY**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2021-155-TS	VARIOUS	45	3
CONTRACT NO. 62P72				
ILLINOIS FED. AID PROJECT				



LOCATION NO.	TS NO.	INTERSECTION NAME	MUNICIPALITY	COUNTY
3	14741	IL RTE 62 (ALGONQUIN RD) AT CARRIAGE WAY / ESSEX WAY	ROLLING MEADOWS	COOK
4	9190	TOUHY AVE AT CUMBERLAND AVE	PARK RIDGE	COOK

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

**LOCATION MAP**  
**NORTH COOK COUNTY**

SCALE:      SHEET      OF      SHEETS      STA.      TO      STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2021-155-TS	VARIOUS	45	4
			CONTRACT NO. 62P72	
ILLINOIS FED. AID PROJECT				



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CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE						
				80% FED 20% STATE DUPAGE COUNTY	80% FED 20% STATE COOK COUNTY					
				TRAFFIC SIGNALS						
				0021						
				URBAN						
20200100	EARTH EXCAVATION	CU YD	1		1					
42001300	PROTECTIVE COAT	SQ YD	6		6					
42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	52		52					
* 66900200	NON-SPECIAL WASTE DISPOSAL	CU YD	75	26	49					
* 66900530	SOIL DISPOSAL ANALYSIS	EACH	6	2	4					
* 66901001	REGULATED SUBSTANCES PRE-CONSTRUCTION PLAN	L SUM	1	0.33	0.67					
* 66901003	REGULATED SUBSTANCES FINAL CONSTRUCTION REPORT	L SUM	1	0.33	0.67					
* 66901006	REGULATED SUBSTANCES MONITORING	CAL DA	7	2	5					
67100100	MOBILIZATION	L SUM	1	0.33	0.67					
70102625	TRAFFIC CONTROL AND PROTECTION, STANDARD 701606	L SUM	1	0.33	0.67					
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	0.33	0.67					
70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	1	0.33	0.67					
* 72000100	SIGN PANEL - TYPE 1	SQ FT	43.5	28.5	15					
* 72000200	SIGN PANEL - TYPE 2	SQ FT	264.5	62.5	202					

\* SPECIALTY ITEM

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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES  
(SHEET 1 OF 5)**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2021-155-T5	VARIOUS	45	6
			CONTRACT NO. 62P72	
ILLINOIS FED. AID PROJECT				

CONSTRUCTION CODE				
80% FED 20% STATE DUPAGE COUNTY	80% FED 20% STATE COOK COUNTY			

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	TRAFFIC SIGNALS					
				0021					
				URBAN					
81028200	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	499	174	325				
81028220	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	464	193	271				
81028240	UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	1,530	501	1,029				
81400100	HANDHOLE	EACH	1		1				
81400200	HEAVY-DUTY HANDHOLE	EACH	3	2	1				
81400300	DOUBLE HANDHOLE	EACH	1		1				
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	6	2	4				
87301215	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	3,085	405	2,680				
87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	5,180	1,275	3,905				
87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	10,810	2,800	8,010				
87301255	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	5,415	2,135	3,280				
87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	1,410	370	1,040				
87301900	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	2,820	980	1,840				
87502500	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	5	2	3				

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**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES (SHEET 2 OF 5)				
SCALE:	SHEET	OF	SHEETS	STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2021-155-TS	VARIOUS	45	7
			CONTRACT NO. 62P72	
ILLINOIS FED. AID PROJECT				

CONSTRUCTION CODE			
80% FED 20% STATE DUPAGE COUNTY	80% FED 20% STATE COOK COUNTY		

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	TRAFFIC SIGNALS			
				0021			
				URBAN			
87700150	STEEL MAST ARM ASSEMBLY AND POLE, 22 FT.	EACH	1		1		
87700170	STEEL MAST ARM ASSEMBLY AND POLE, 26 FT.	EACH	2		2		
87700180	STEEL MAST ARM ASSEMBLY AND POLE, 28 FT.	EACH	5	3	2		
87700190	STEEL MAST ARM ASSEMBLY AND POLE, 30 FT.	EACH	1		1		
87700200	STEEL MAST ARM ASSEMBLY AND POLE, 32 FT.	EACH	3	1	2		
87700210	STEEL MAST ARM ASSEMBLY AND POLE, 34 FT.	EACH	3	2	1		
87700220	STEEL MAST ARM ASSEMBLY AND POLE, 36 FT.	EACH	3		3		
87700230	STEEL MAST ARM ASSEMBLY AND POLE, 38 FT.	EACH	3		3		
87700250	STEEL MAST ARM ASSEMBLY AND POLE, 42 FT.	EACH	1	1			
87700260	STEEL MAST ARM ASSEMBLY AND POLE, 44 FT.	EACH	2	1	1		
87800100	CONCRETE FOUNDATION, TYPE A	FOOT	20	8	12		
87800400	CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	255.5	70.5	185		
87800415	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	39	26	13		
87900200	DRILL EXISTING HANDHOLE	EACH	69	27	42		

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**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES (SHEET 3 OF 5)			
SCALE:	SHEET	OF SHEETS	STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2021-155-T5	VARIOUS	45	8
			CONTRACT NO. 62P72	
ILLINOIS FED. AID PROJECT				



CONSTRUCTION CODE			
80% FED 20% STATE DUPAGE COUNTY	80% FED 20% STATE COOK COUNTY		
TRAFFIC SIGNALS			
0021			
URBAN			

CODE NO.	ITEM	UNIT	TOTAL QUANTITY						
88030020	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	44	14	30				
88030050	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	31	10	21				
88030100	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	16	6	10				
88030110	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	16	6	10				
88102717	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	26	4	22				
88200410	TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	60	20	40				
88500100	INDUCTIVE LOOP DETECTOR	EACH	12		12				
88600100	DETECTOR LOOP, TYPE I	FOOT	283	193	90				
89501250	RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	5	2	3				
89502200	MODIFY EXISTING CONTROLLER	EACH	5	2	3				
89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	13,300	3,985	9,315				
89502350	REMOVE AND REINSTALL ELECTRIC CABLE FROM CONDUIT	FOOT	520		520				
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	6	2	4				
89502380	REMOVE EXISTING HANDHOLE	EACH	5		5				

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

SUMMARY OF QUANTITIES (SHEET 4 OF 5)			
SCALE:	SHEET	OF	SHEETS
		STA.	TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2021-155-TS	VARIOUS	45	9
			CONTRACT NO. 62P72	
		ILLINOIS FED. AID PROJECT		

				CONSTRUCTION CODE			
		80% FED 20% STATE DUPAGE COUNTY	80% FED 20% STATE COOK COUNTY				
				TRAFFIC SIGNALS			
				0021			
				URBAN			

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	80% FED 20% STATE DUPAGE COUNTY	80% FED 20% STATE COOK COUNTY				
89502385	REMOVE EXISTING CONCRETE FOUNDATION	EACH	30	9	21				
X0320021	MODIFY EXISTING TYPE "D" FOUNDATION	EACH	1		1				
X0324085	EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	2,000	860	1,140				
X1400107	FULL-ACTUATED CONTROLLER AND TYPE SUPER P CABINET	EACH	1		1				
X1400367	PEDESTRIAN SIGNAL POST, 10 FT.	EACH	7	3	4				
X1400388	VIDEO VEHICLE DETECTION SYSTEM, SINGLE APPROACH	EACH	2		2				
X6700407	ENGINEER'S FIELD OFFICE, TYPE A (D1)	CAL MO	6	2	4				
X8620200	UNINTERRUPTABLE POWER SUPPLY, SPECIAL	EACH	1		1				
X8760200	ACCESSIBLE PEDESTRIAN SIGNALS	EACH	26	4	22				
X8780012	CONCRETE FOUNDATION, TYPE A 12-INCH DIAMETER	FOOT	28	12	16				
Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	462.6	154.2	308.4				
Z0033044	RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 1	EACH	4	1	3				
Ø Z0076600	TRAIN EES	HOURS	500	500					
Ø Z0076604	TRAIN EES - TRAINING PROGRAM GRADUATE	HOURS	500	500					

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

<b>SUMMARY OF QUANTITIES</b>			
<b>(SHEET 5 OF 5)</b>			
SCALE:	SHEET	OF	SHEETS
	STA.	TO	STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2021-155-TS	VARIOUS	45	10
			CONTRACT NO. 62P72	
ILLINOIS FED. AID PROJECT				

Ø 0042

# TRAFFIC SIGNAL LEGEND

(NOT TO SCALE)

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

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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**DISTRICT ONE  
STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

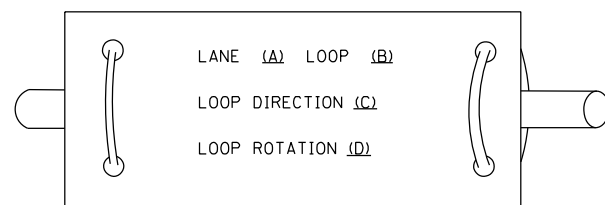
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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<b>TS-05</b>		CONTRACT NO. 62P72		
ILLINOIS FED. AID PROJECT				

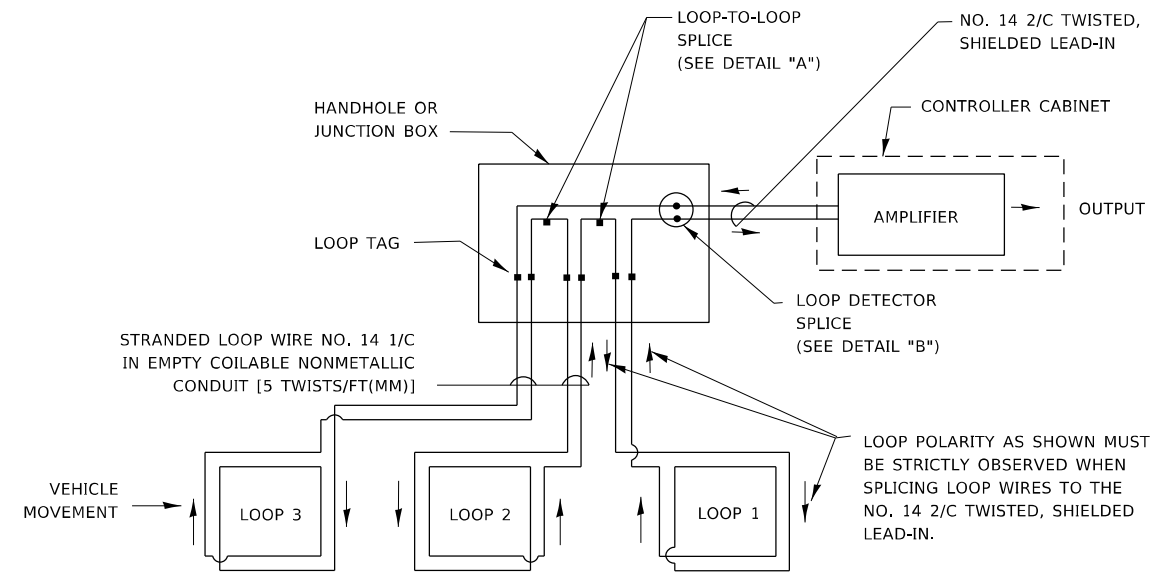
**LOOP DETECTOR NOTES**

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**

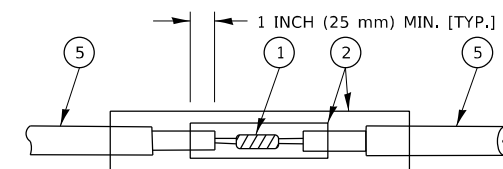


- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

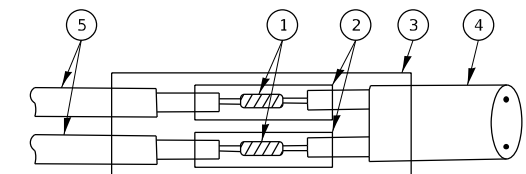


**DETECTOR LOOP WIRING SCHEMATIC**

- 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.

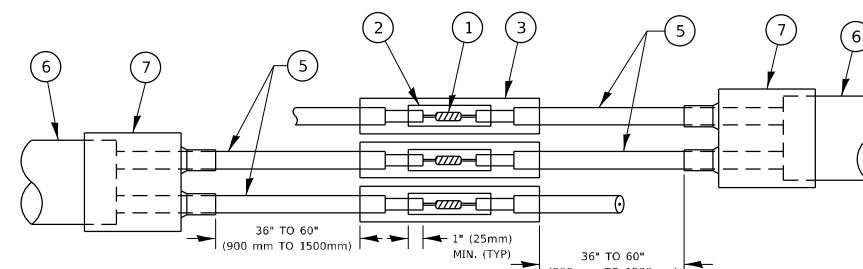


DETAIL "A"  
LOOP-TO-LOOP SPLICE

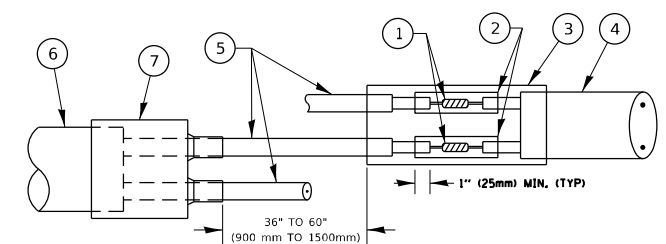


DETAIL "B"  
LOOP-TO-CONTROLLER SPLICE

**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. PREFORMED LOOP
- 6 XL POLYOLEFIN 2 CONDUCTOR
- 7 BREAKOUT SEALS. TYCO CBR-2 OR APPROVED EQUAL

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE  
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

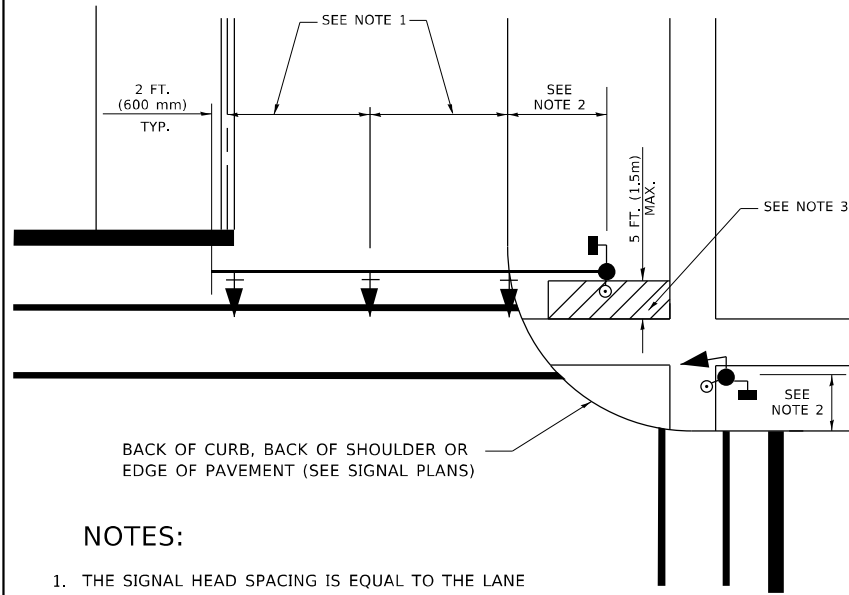
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2021-155-TS	VARIOUS	45	12
TS-05			CONTRACT NO. 62P72	
ILLINOIS		FED. AID PROJECT		

MODEL: Default  
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**TRAFFIC SIGNAL MAST ARM AND SIGNAL POST**

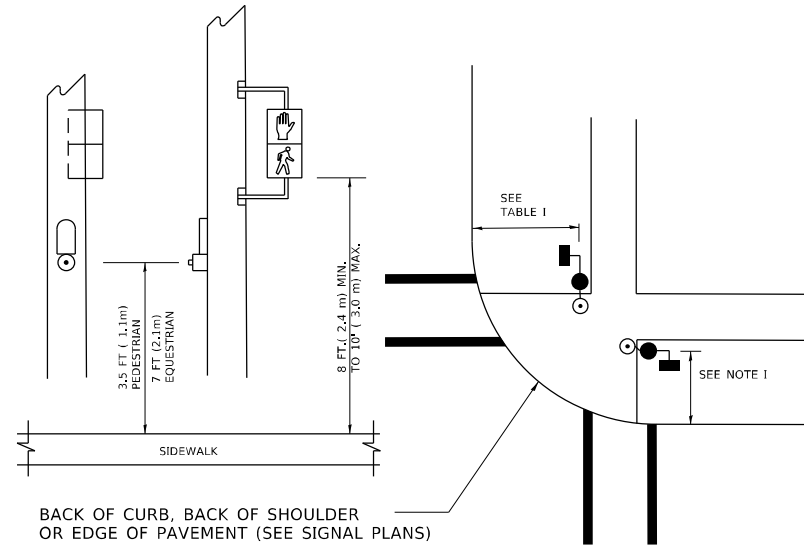
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.



**NOTES:**

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

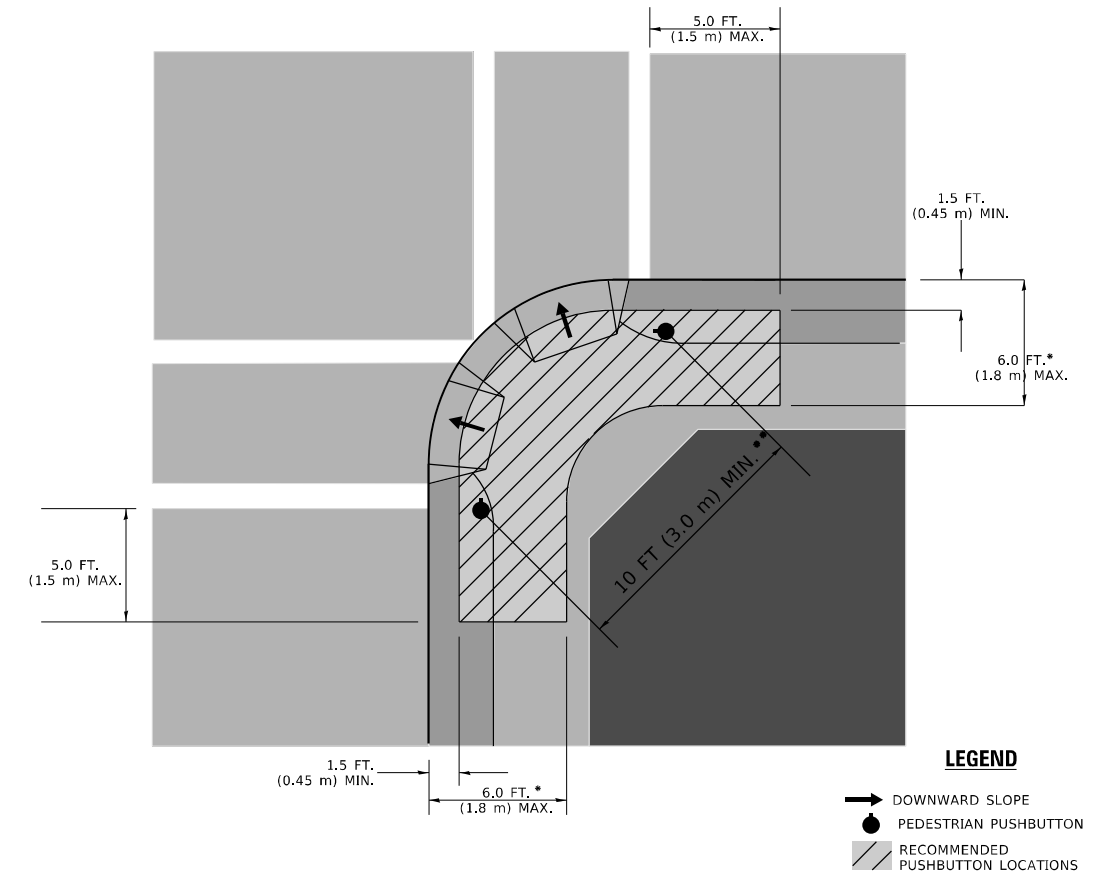
**PEDESTRIAN SIGNAL POST AND PEDESTRIAN PUSH BUTTON POST**



**NOTES:**

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

**RECOMMENDED PUSHBUTTON LOCATIONS**



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

**NOTES:**

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

**TRAFFIC SIGNAL EQUIPMENT OFFSET**

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

**NOTES:**

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

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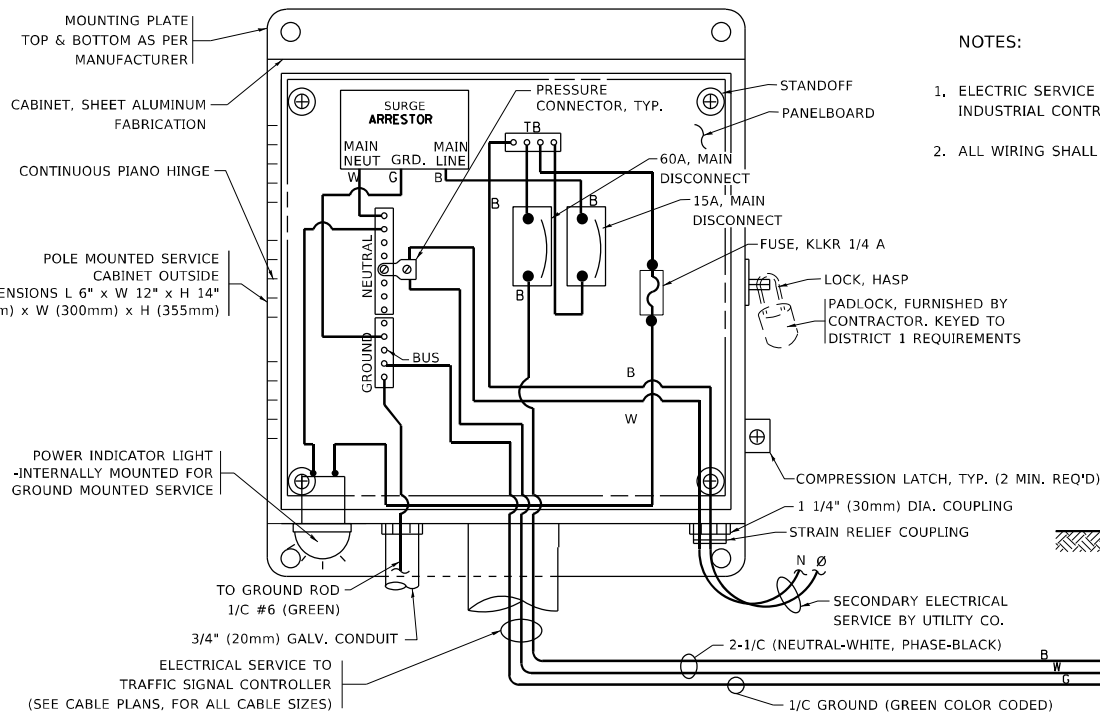
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

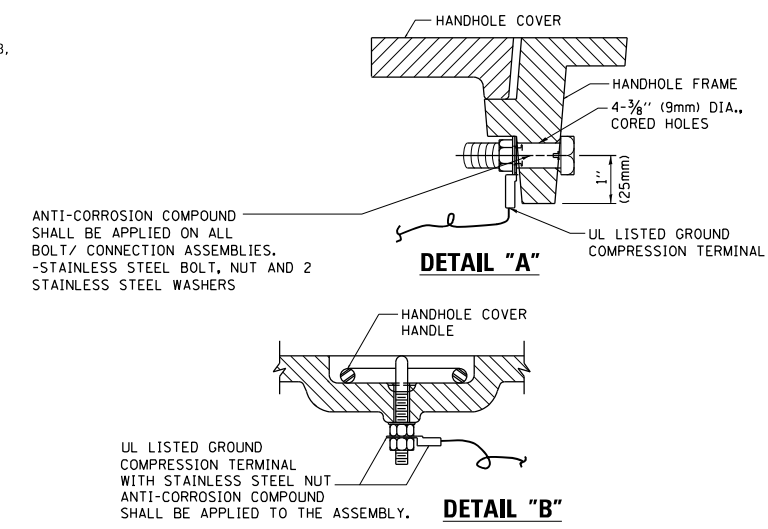
**DISTRICT ONE  
STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2021-155-TS	VARIOUS	45	13
<b>TS-05</b>		CONTRACT NO. 62772		
ILLINOIS FED. AID PROJECT				

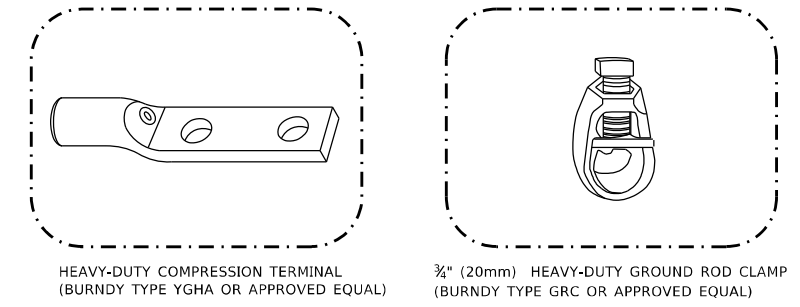


**ELECTRICAL SERVICE – PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)**  
**SERVICE INSTALLATION POLE MOUNT (SHOWN)**  
 (NOT TO SCALE)



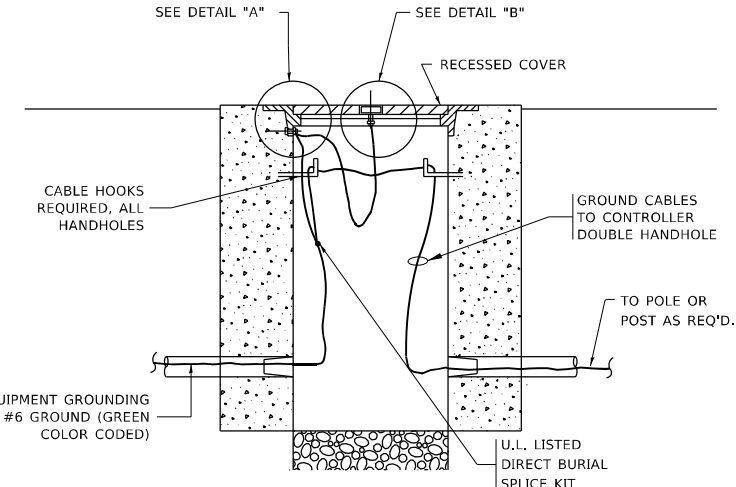
**NOTES:**  
**GROUNDING SYSTEM**

- THE GROUNDING SYSTEM SHALL CONSIST OF AN INSULATED CONDUCTOR TYPE XLP, NO. 6 A.W.G., STRANDED COPPER TO BE INSTALLED IN RACEWAYS. THE GROUNDING CABLE SHALL BE INSTALLED IN A CONTINUOUS MANNER AS SHOWN ON THE CABLE PLAN 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.
- THE NEUTRAL CONDUCTOR AND THE GROUND CONDUCTOR SHALL BE CONNECTED IN THE SERVICE INSTALLATION. AT NO OTHER POINT IN THE TRAFFIC SIGNAL SYSTEM SHALL THE NEUTRAL AND GROUND CONDUCTORS BE CONNECTED.
- ALL EQUIPMENT GROUNDING CONDUCTORS SHALL TERMINATE AT THE GROUND BUS IN THE CONTROLLER CABINET.
- THE CONTRACTOR SHALL PROVIDE A GROUND CABLE WITH CONNECTORS BETWEEN THE HANDHOLE COVER AND HANDHOLE FRAME.



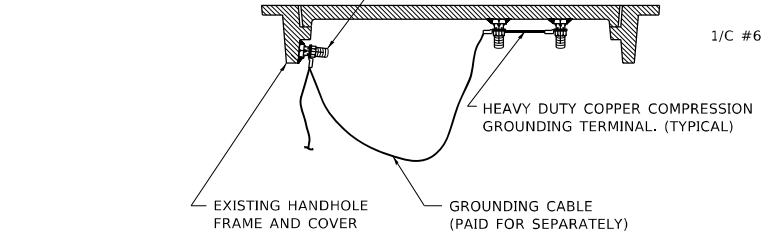
**NOTES:**

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

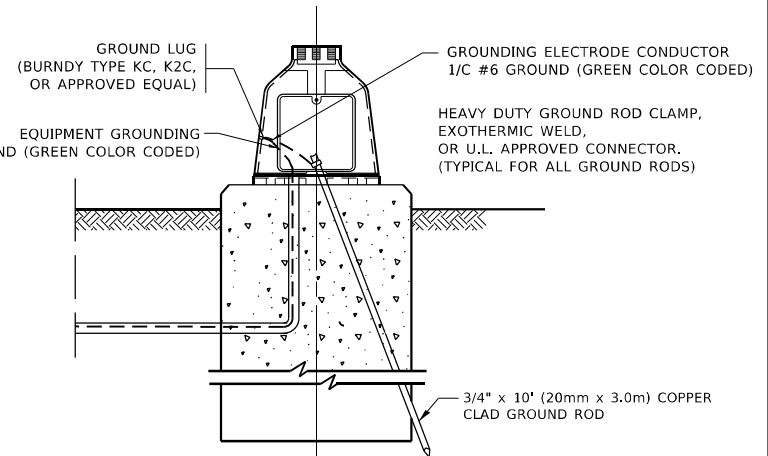


**HANDHOLE COVER & FRAME – GROUNDING DETAIL**  
 (NOT TO SCALE)

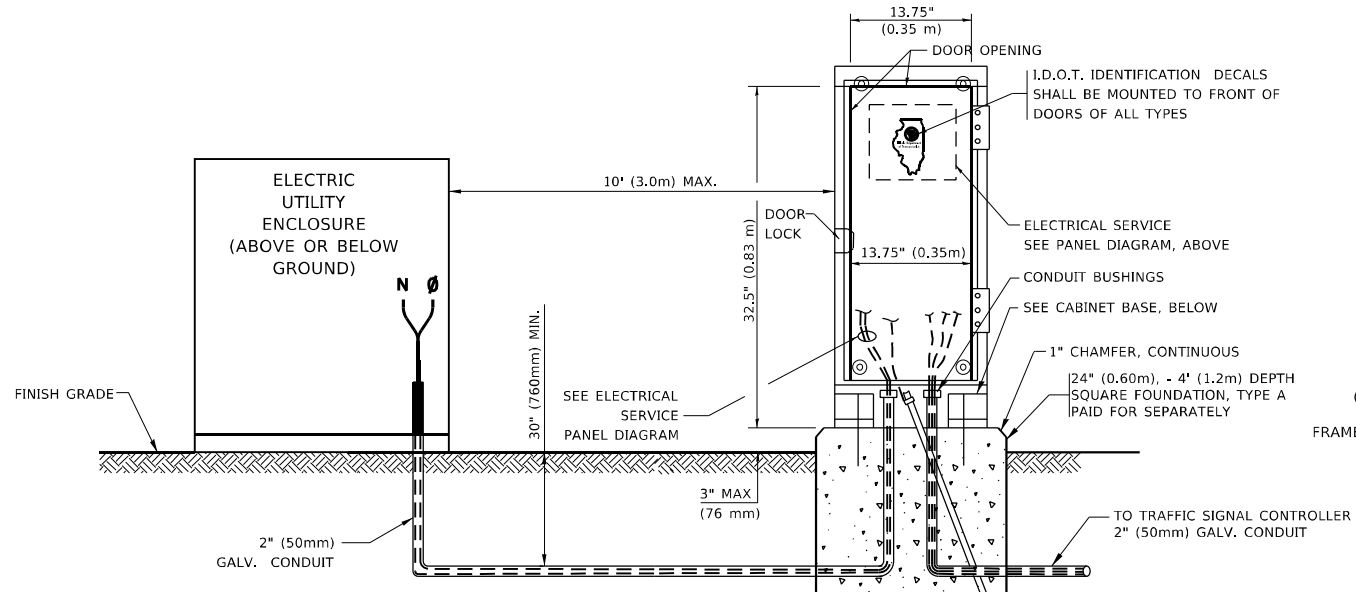
(2) 1/2" x 1 1/4" STAINLESS STEEL BOLT WITH SPLIT LOCK WASHER AND NYLON INSERT LOCKOUT WELDED TO FRAME AND TO COVER. (TYPICAL). ANTI-CORROSION COMPOUND SHALL BE APPLIED TO EACH ASSEMBLY.



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

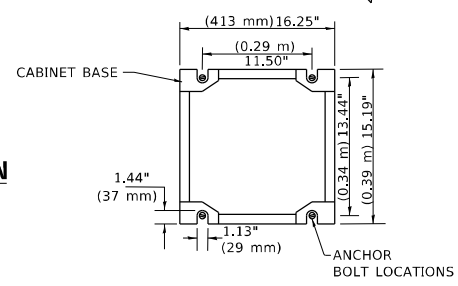


**MAST ARM POLE /POST-GROUNDING DETAIL**  
 (NOT TO SCALE)



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

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



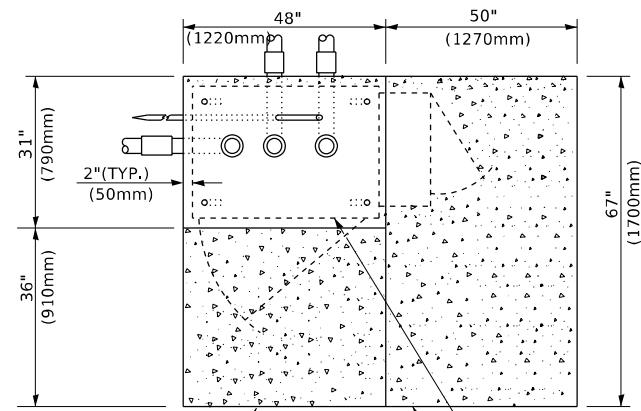
**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

**DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

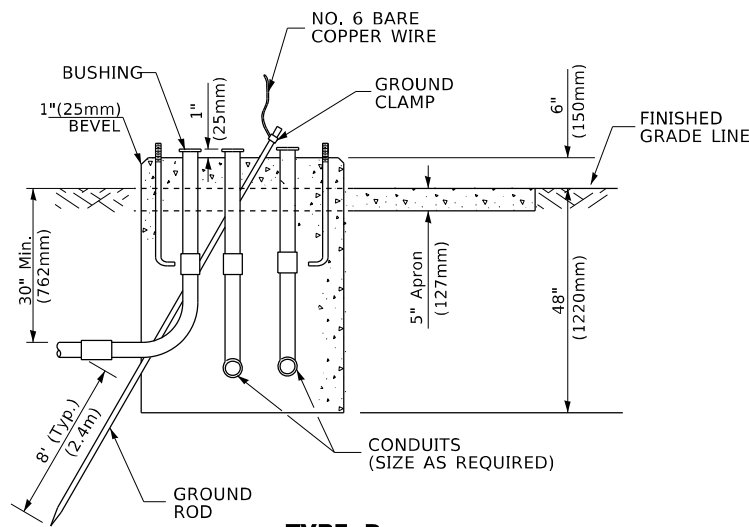
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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<b>TS-05</b>		CONTRACT NO. 62P72		
ILLINOIS		FED. AID PROJECT		

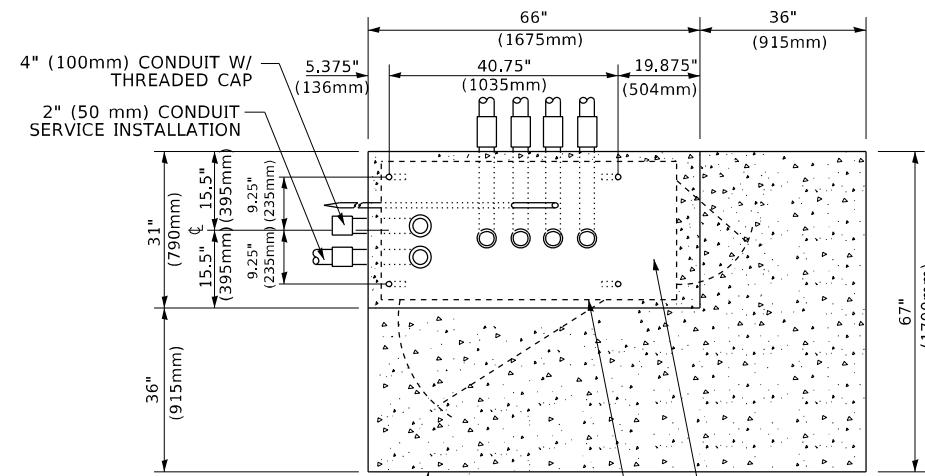
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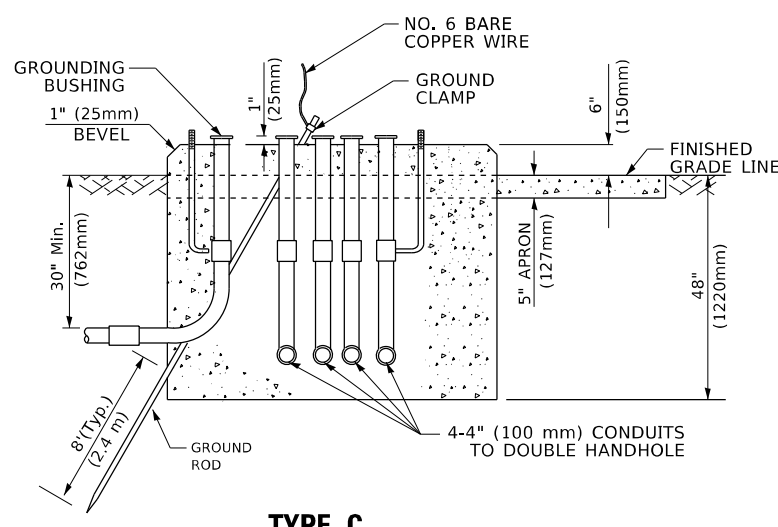
**TOP VIEW**  
EXISTING APRON, CONTROLLER CABINET BASE, PROPOSED APRON



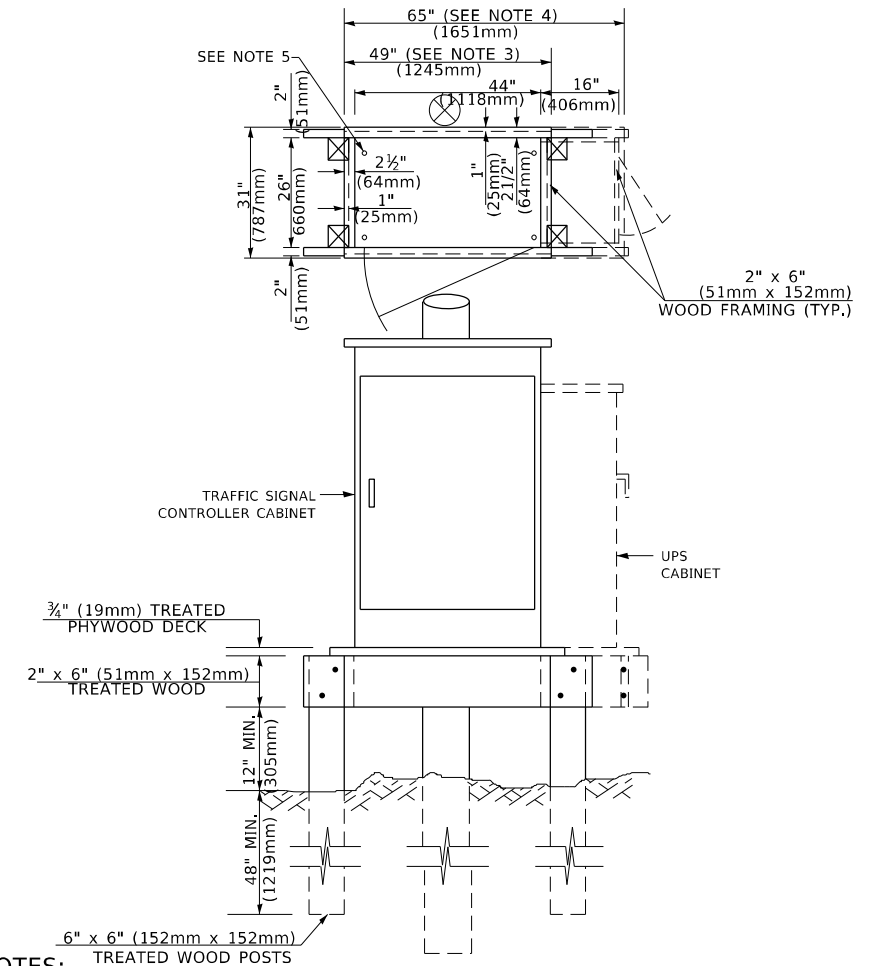
**TYPE D FOR GROUND MOUNTED CONTROLLER CABINET AND UPS BATTERY CABINET**



**TOP VIEW**  
APRON, CONTROLLER CABINET BASE, UPS BATTERY COMPARTMENT



**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)	30" (750mm)	12	7(22)
Greater than or equal to 50' (15.2 m) and up to 55' (16.8 m)	13'-0" (4.0 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 55' (16.8 m) and less than 65' (19.8 m)	15'-0" (4.6 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 65' (19.8 m) and up to 75' (22.9 m)	21'-0" (6.4 m)	42" (1060mm)	36" (900mm)	16	8(25)
Greater than or equal to 75' (22.9 m) and up to 85' (25.9 m)	25'-0" (7.6 m)	42" (1060mm)	36" (900mm)	16	8(25)

- NOTES:**
- 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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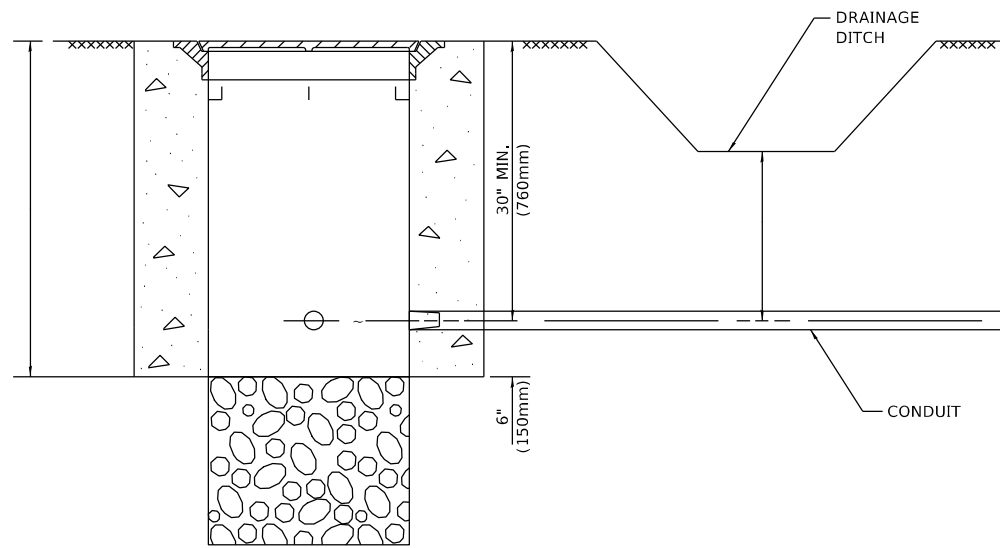
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**DISTRICT ONE  
STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

SCALE: NONE SHEET 5 OF 7 SHEETS STA. TO STA.

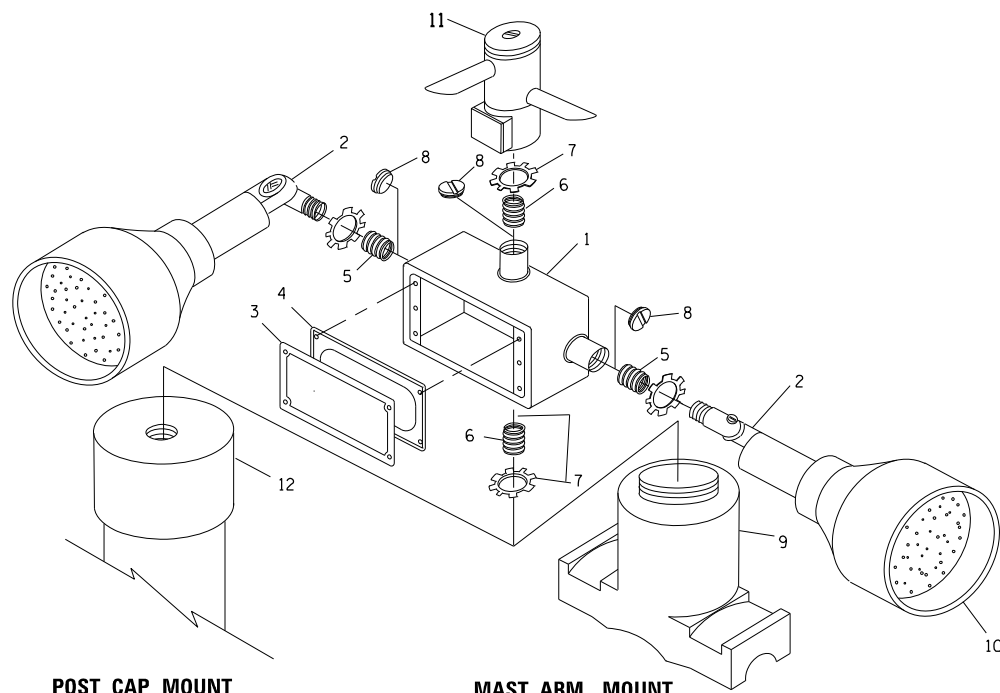
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VAR	2021-155-TS	VARIOUS	45	15
<b>TS-05</b>			CONTRACT NO. 62P72	
ILLINOIS		FED. AID PROJECT		



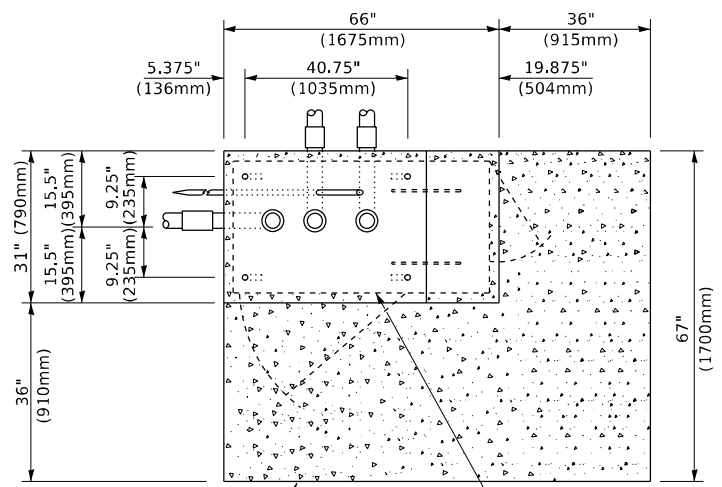
**NOTES:**

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.

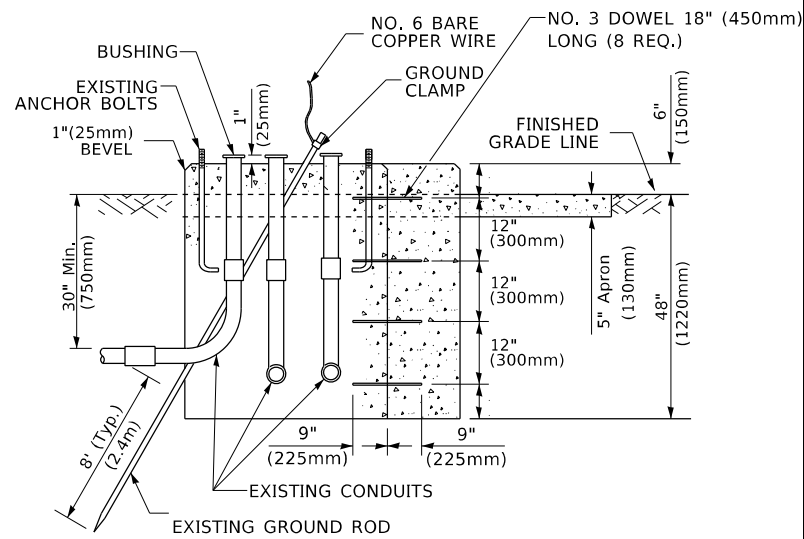
**HANDHOLE WITH MINIMUM CONDUIT DEPTH**  
(NOT TO SCALE)



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



**TOP VIEW**  
(NOT TO SCALE)

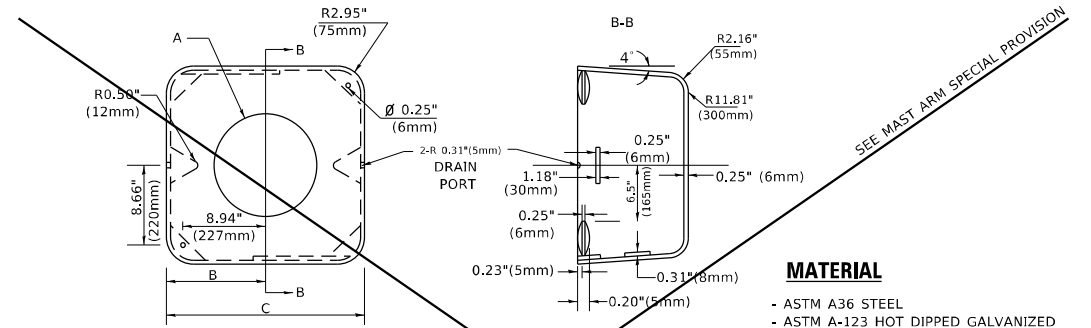


**MODIFY EXISTING TYPE "D" FOUNDATION TO TYPE "C" FOUNDATION**  
(NOT TO SCALE)

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)

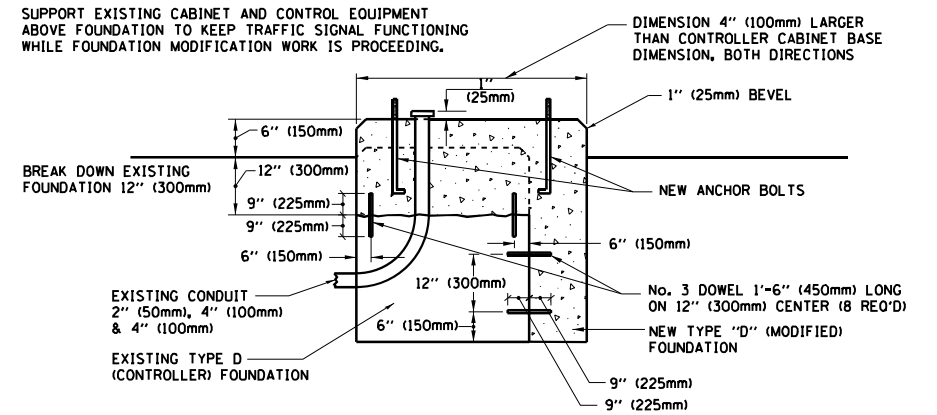
**SHROUD**

**NOTES:**

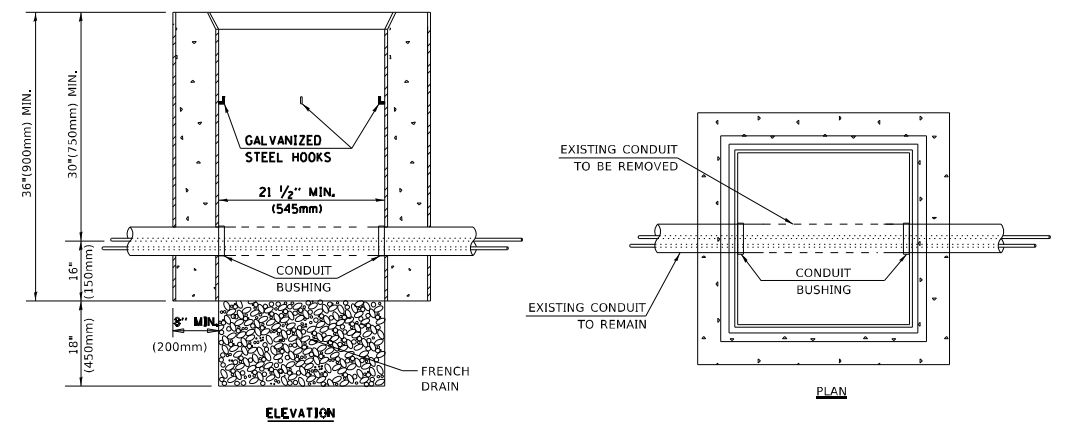
1. DIMENSION "A" IS EQUAL TO THE DIAMETER OF THE MAST ARM POLE AT THE TOP OF THE SHROUD. THE SHROUD SHALL BE TIGHT TO THE MAST ARM POLE.
2. THE SUPPLIER SHALL VERIFY THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
3. THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST ARM POLE BASE.

**NOTE:**

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



**MODIFY EXISTING TYPE "D" FOUNDATION**



**NOTES:**

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

**HANDHOLE TO INTERCEPT EXISTING CONDUIT**

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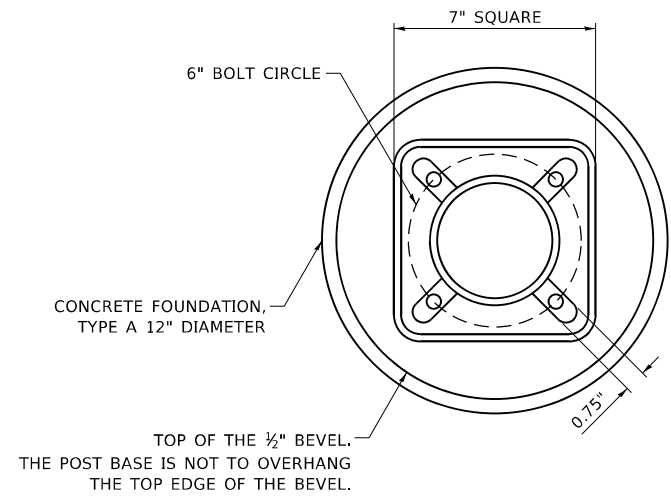
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**DISTRICT ONE  
STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

SCALE: NONE SHEET 6 OF 7 SHEETS STA. TO STA.

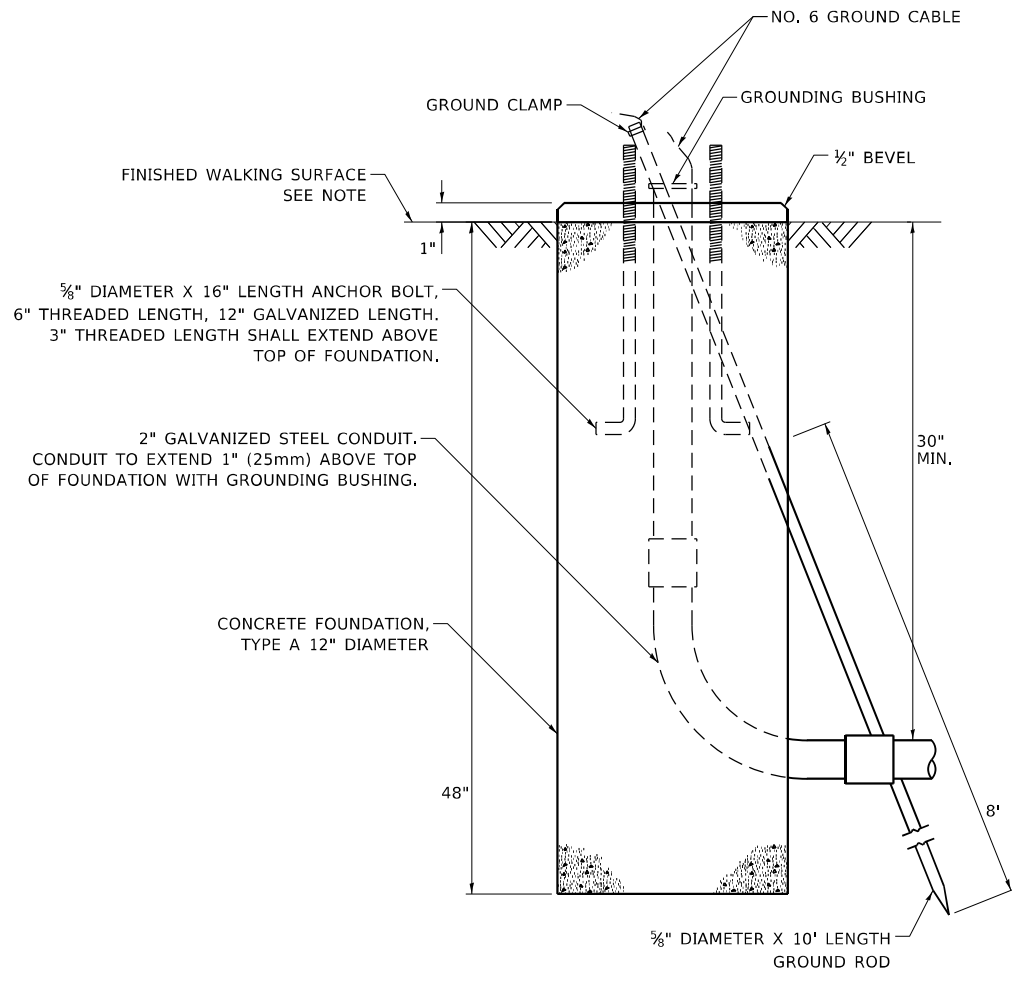
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VAR	2021-155-TS	VARIOUS	45	16
<b>TS-05</b>		CONTRACT NO. 62P72		
ILLINOIS FED. AID PROJECT				



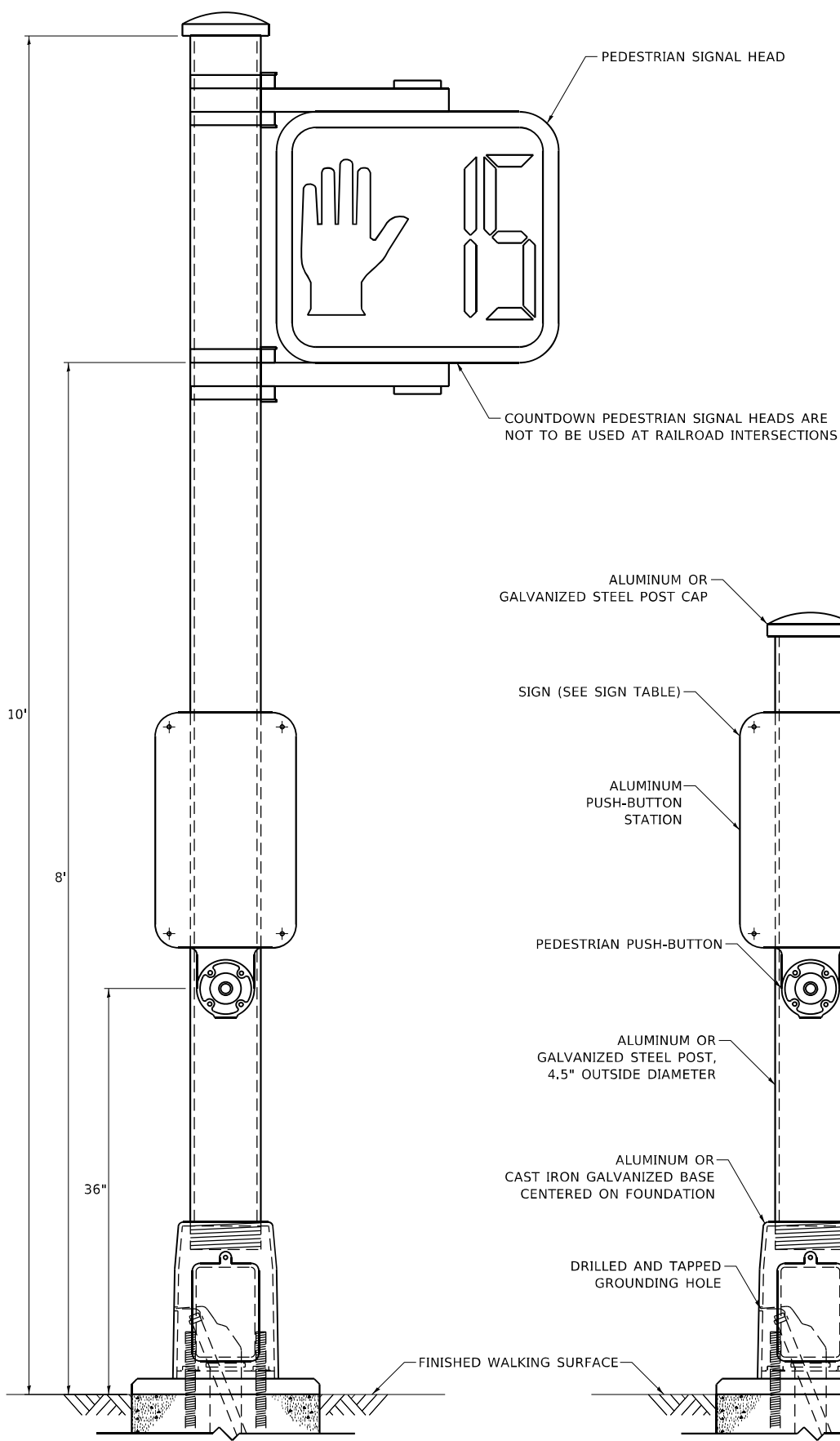


**BOLT PATTERN**

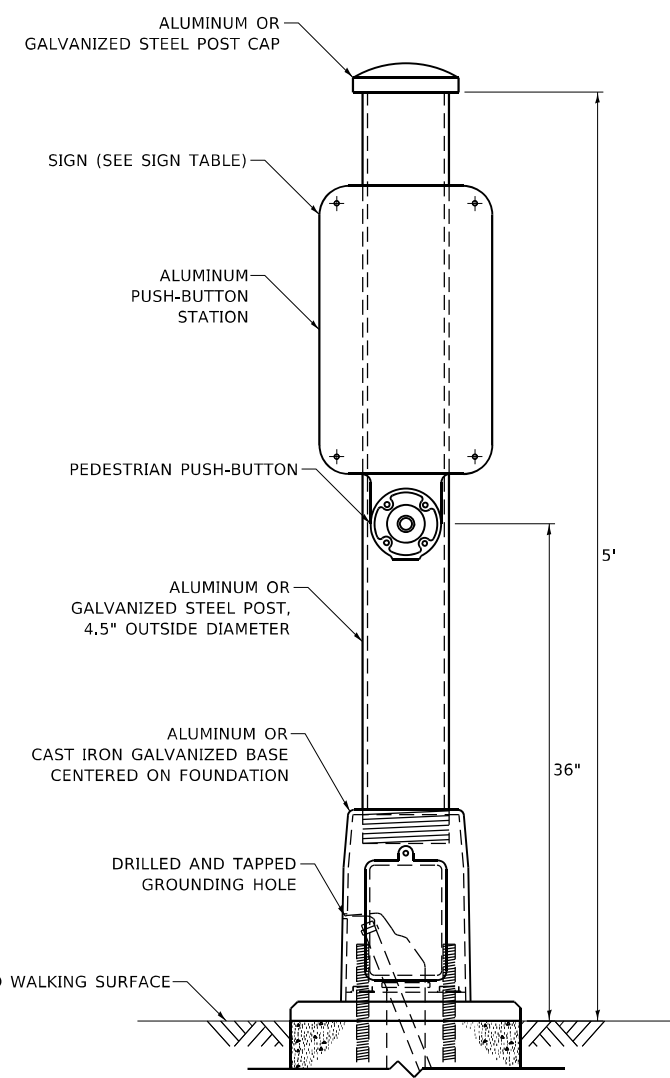
NOTE:  
 1. IF THE PEDESTRIAN SIGNAL POST FOUNDATION IS INSTALLED WITHIN OR BEHIND A BARRIER CURB, THE TOP OF THE FOUNDATION SHALL BE INSTALLED FLUSH WITH THE TOP OF THE BARRIER CURB.



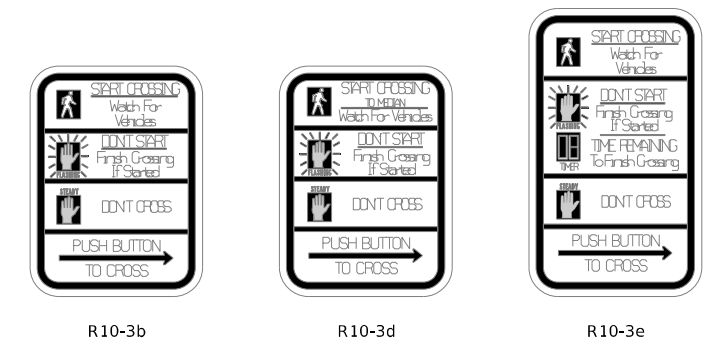
**CONCRETE FOUNDATION, TYPE A 12-INCH DIAMETER**



**PEDESTRIAN SIGNAL POST, 10 FT.**



**PEDESTRIAN SIGNAL POST, 5 FT.**



**SIGN TABLE**

SIGN	DIMENSIONS
R10-3b (RAILROAD ONLY)	9" X 12"
R10-3d (RAILROAD ONLY)	9" X 12"
R10-3e	9" X 15"

NOTES:  
 1. THE SIGN PANELS SHALL BE TYPE AP SHEETING.  
 2. THE ARROW ON SIGNS FOR PUSH-BUTTONS SERVING TWO DIRECTIONS ON THE SAME PHASE SHALL BE BI-DIRECTIONAL.  
 3. THE SIGN FOR DUAL-CALL PUSH-BUTTONS SHALL HAVE NO ARROW.

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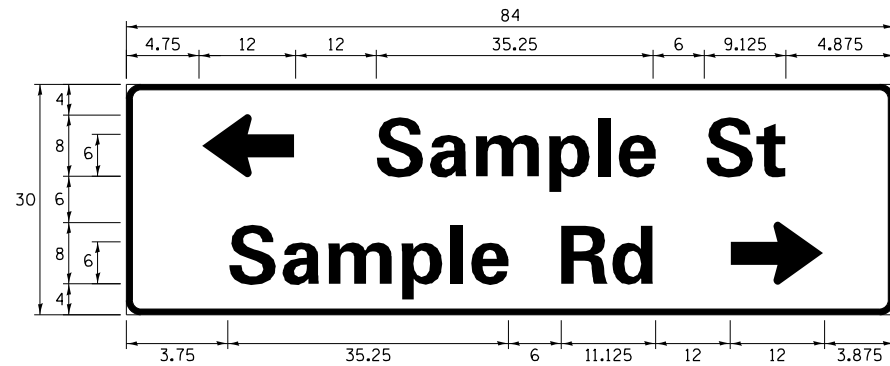
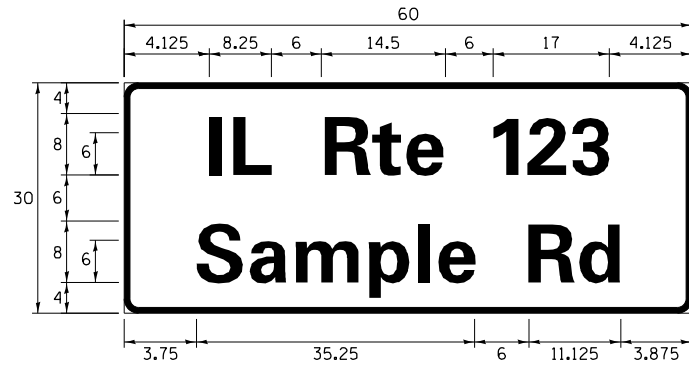
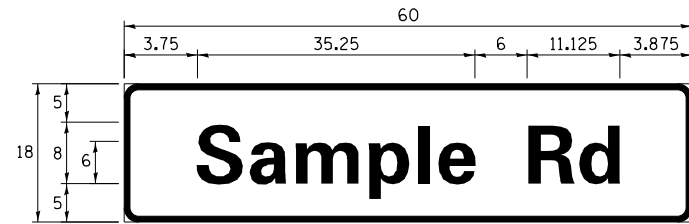
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**DISTRICT ONE  
 STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

SCALE: NTS      SHEET NO. 7 OF 7 SHEETS      STA.      TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2021-155-TS	VARIOUS	45	17
<b>TS-05</b>		CONTRACT NO. 62P72		
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:**

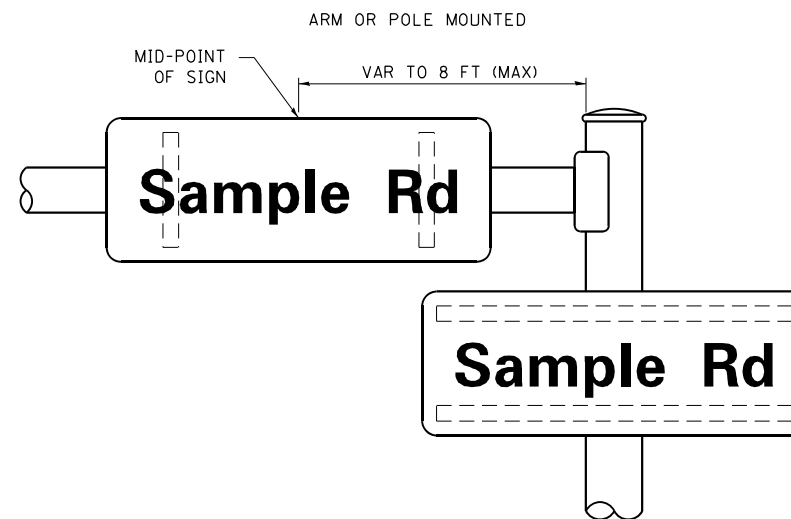
- J.O. HERBERT COMPANY, INC  
MIDLOTHIAN, VA
- WESTERN REMAC, INC.  
WOODRIDGE, IL

**PARTS LISTING:**

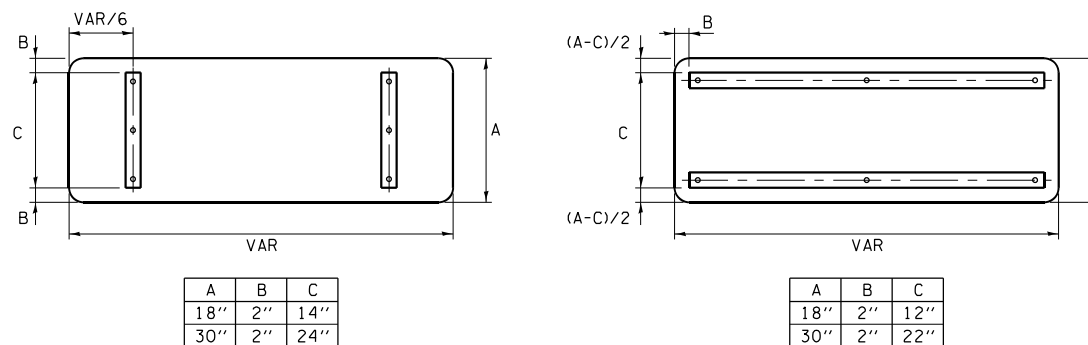
- SIGN CHANNEL PART #HPN053 (MED. CHANNEL)  
1/4" x 14 x 1" H.W.H. #3  
SELF TAPPING WITH NEOPRENE WASHER
- SIGN SCREWS PART #HPN034 (UNIVERSAL)  
CHANNEL CLAMPS WITH STAINLESS STEEL STRAPPING
- BRACKETS

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

CHARACTER	FHWA SERIES "C"			FHWA SERIES "D"			
	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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	DATE - 10/15/2018	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**DISTRICT ONE  
MAST ARM MOUNTED STREET NAME SIGNS**

SCALE: NTS SHEET NO. 7 OF 7 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2021-155-TS	VARIOUS	45	18
<b>TS-02</b>		CONTRACT NO. 62P72		
ILLINOIS		FED. AID PROJECT		

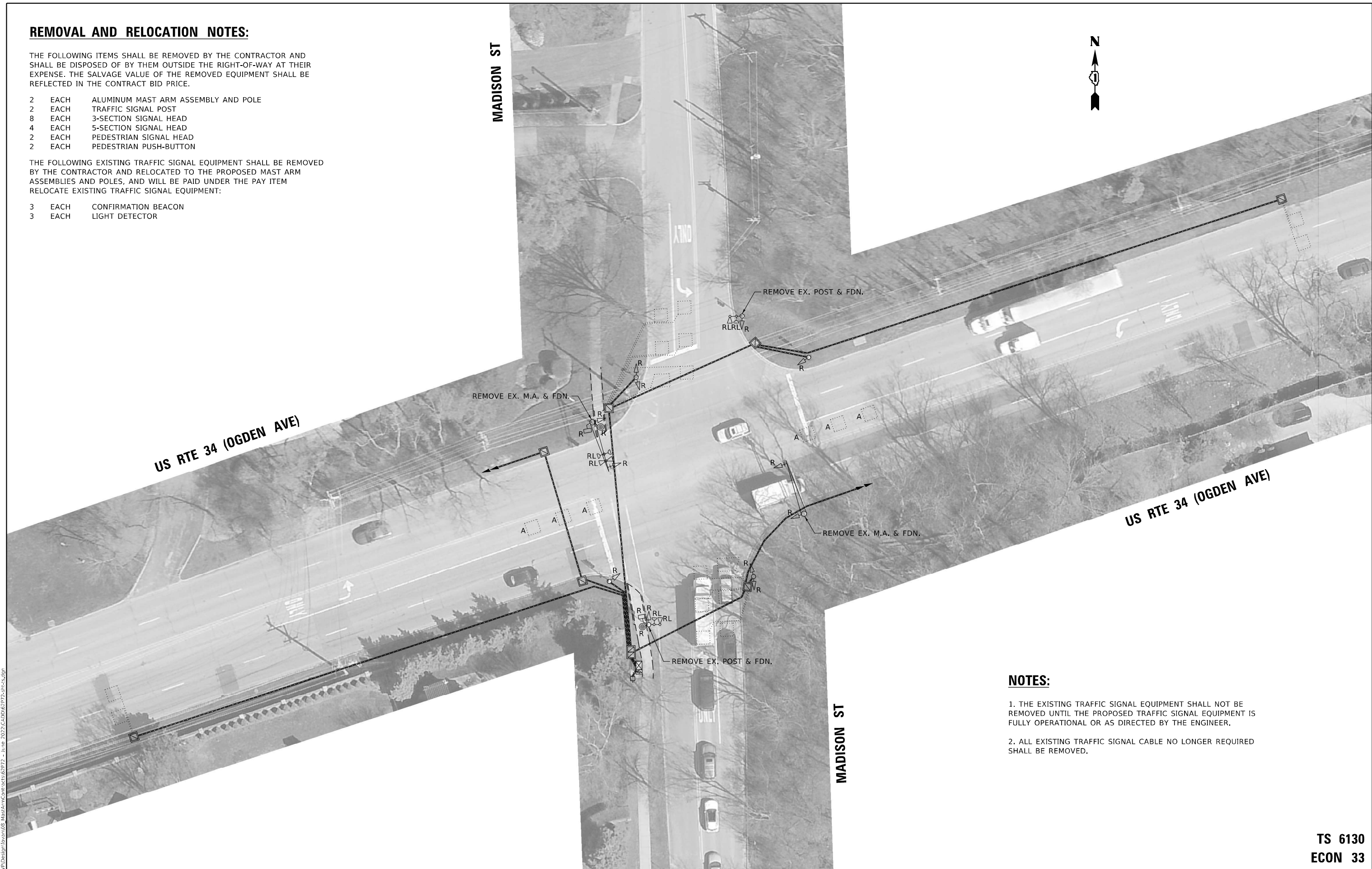
**REMOVAL AND RELOCATION NOTES:**

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 TRAFFIC SIGNAL POST
- 8 EACH 3-SECTION SIGNAL HEAD
- 4 EACH 5-SECTION SIGNAL HEAD
- 2 EACH PEDESTRIAN SIGNAL HEAD
- 2 EACH PEDESTRIAN PUSH-BUTTON

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

- 3 EACH CONFIRMATION BEACON
- 3 EACH LIGHT DETECTOR



**NOTES:**

1. THE EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL NOT BE REMOVED UNTIL THE PROPOSED TRAFFIC SIGNAL EQUIPMENT IS FULLY OPERATIONAL OR AS DIRECTED BY THE ENGINEER.
2. ALL EXISTING TRAFFIC SIGNAL CABLE NO LONGER REQUIRED SHALL BE REMOVED.

**TS 6130  
ECON 33**

MODEL: Default  
FILE NAME: S:\WP\Design\Ibvan08\_Madison\Contract\62P72 - June 2022\CADD\62P72-shr-55.dgn

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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

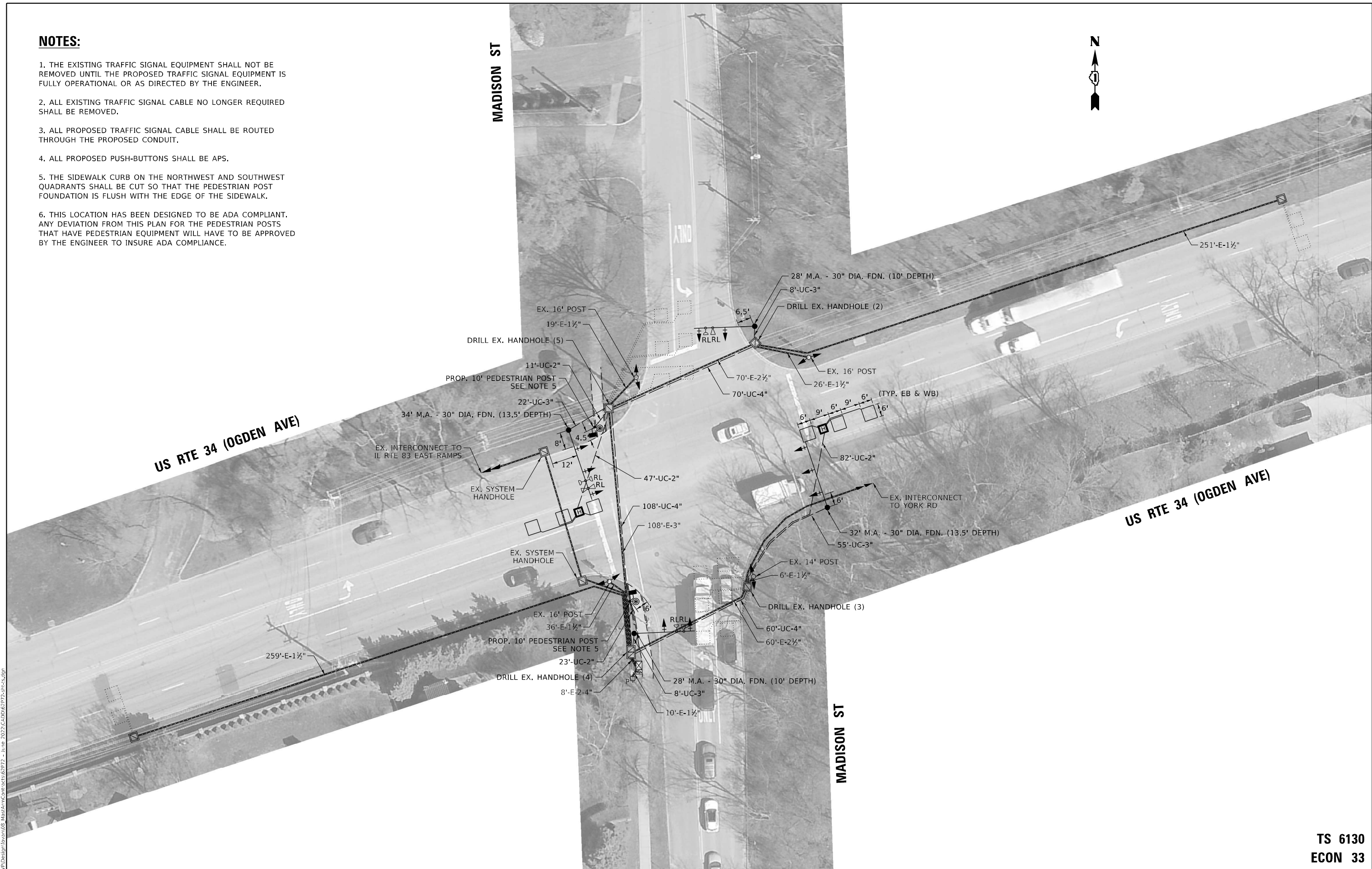
**REMOVAL PLAN  
US RTE 34 (OGDEN AVE) AT MADISON ST**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2021-155-TS	DUPAGE	45	19
			CONTRACT NO. 62P72	
		ILLINOIS	FED. AID PROJECT	

**NOTES:**

1. THE EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL NOT BE REMOVED UNTIL THE PROPOSED TRAFFIC SIGNAL EQUIPMENT IS FULLY OPERATIONAL OR AS DIRECTED BY THE ENGINEER.
2. ALL EXISTING TRAFFIC SIGNAL CABLE NO LONGER REQUIRED SHALL BE REMOVED.
3. ALL PROPOSED TRAFFIC SIGNAL CABLE SHALL BE ROUTED THROUGH THE PROPOSED CONDUIT.
4. ALL PROPOSED PUSH-BUTTONS SHALL BE APS.
5. THE SIDEWALK CURB ON THE NORTHWEST AND SOUTHWEST QUADRANTS SHALL BE CUT SO THAT THE PEDESTRIAN POST FOUNDATION IS FLUSH WITH THE EDGE OF THE SIDEWALK.
6. THIS LOCATION HAS BEEN DESIGNED TO BE ADA COMPLIANT. ANY DEVIATION FROM THIS PLAN FOR THE PEDESTRIAN POSTS THAT HAVE PEDESTRIAN EQUIPMENT WILL HAVE TO BE APPROVED BY THE ENGINEER TO INSURE ADA COMPLIANCE.



MODEL: Default  
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**TS 6130  
ECON 33**

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PLOT DATE = 4/22/2022	CHECKED - KK	REVISED -
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

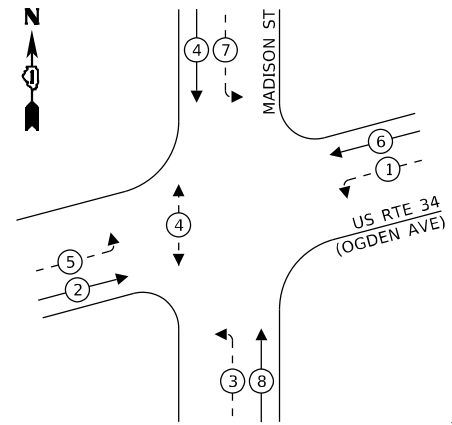
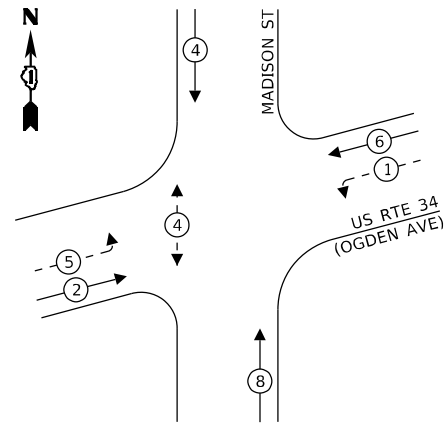
**TRAFFIC SIGNAL MODERNIZATION PLAN  
US RTE 34 (OGDEN AVE) AT MADISON ST**

SCALE: SHEET OF SHEETS STA. TO STA.

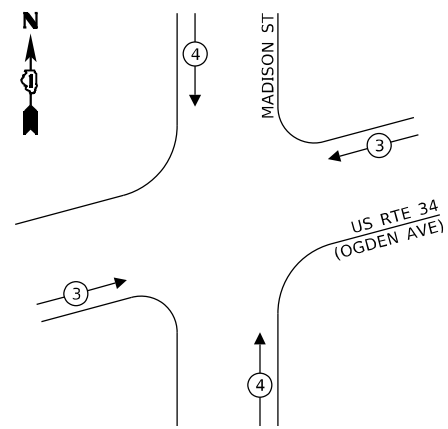
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2021-155-TS	DUPAGE	45	20
			CONTRACT NO. 62P72	
ILLINOIS FED. AID PROJECT				

**EXISTING CONTROLLER SEQUENCE**

**PROPOSED CONTROLLER SEQUENCE**



**EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE**

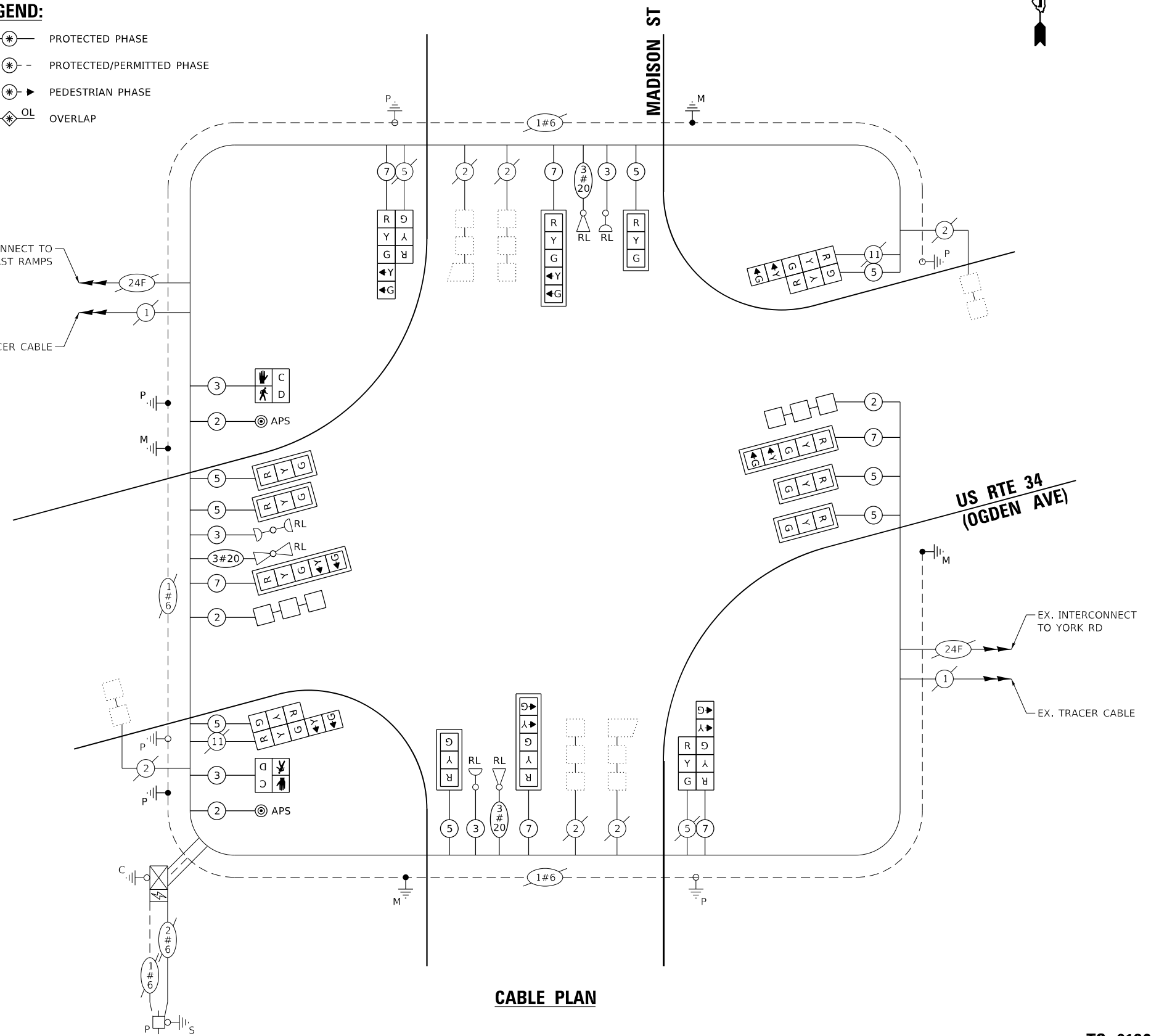


**LEGEND:**

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

EX. INTERCONNECT TO IL RTE 83 EAST RAMPS

EX. TRACER CABLE



**CABLE PLAN**

**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:

ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 W CENTER CT  
SCHAUMBURG, IL 60196

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

USER NAME = plascencia	DESIGNED - IP	REVISED - IP 4/15/2022
PLOT SCALE = 40,0000' / in.	DRAWN - IP	REVISED -
PLOT DATE = 4/22/2022	CHECKED - KK	REVISED -
	DATE - 3/15/2022	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM,  
AND EMERGENCY VEHICLE PREEMPTION SEQUENCE  
US RTE 34 (OGDEN AVE) AT MADISON ST

SCALE: SHEET OF SHEETS STA. TO STA.

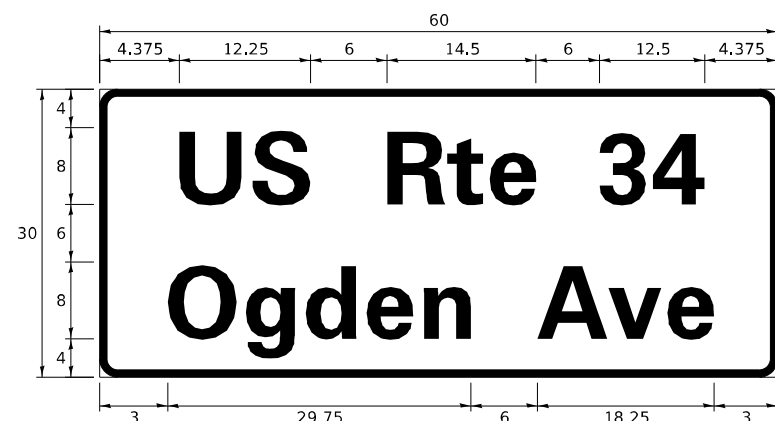
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2021-155-TS	DUPAGE	45	21
				CONTRACT NO. 62P72
ILLINOIS FED. AID PROJECT				

TS 6130  
ECON 33

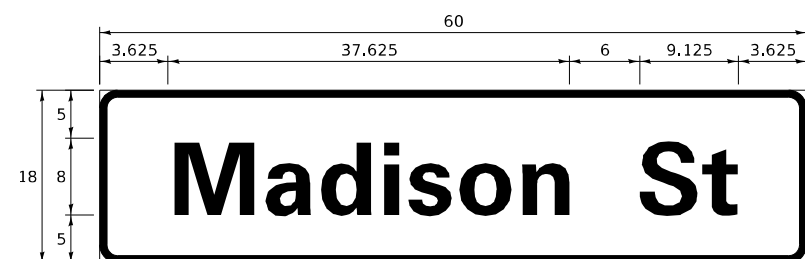
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June 2022\62P72\_sht-21.dgn

**SIGN PANEL – TYPE 1 OR TYPE 2**

ALL DIMENSIONS ARE IN INCHES UNLESS NOTED OTHERWISE



DESIGN SERIES	AREA (SQ FT)	SIGN PANEL TYPE	SHEETING TYPE	QTY REQUIRED
D	12.5	2	ZZ	2



DESIGN SERIES	AREA (SQ FT)	SIGN PANEL TYPE	SHEETING TYPE	QTY REQUIRED
D	7.5	1	ZZ	2

NOTE: FOR ADDITIONAL DESIGN AND INSTALLATION INFORMATION PLEASE SEE DISTRICT ONE MAST ARM MOUNTED STREET NAME SIGNS DETAIL.

**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNITS	TOTAL QTY
SIGN PANEL - TYPE 1	SQ FT	15
SIGN PANEL - TYPE 2	SQ FT	25
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	163
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	93
UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	238
HEAVY-DUTY HANDHOLE	EACH	2
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	220
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	790
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1,430
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	1,065
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	370
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	480
STEEL MAST ARM ASSEMBLY AND POLE, 28 FT.	EACH	2
STEEL MAST ARM ASSEMBLY AND POLE, 32 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 34 FT.	EACH	1
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	47
DRILL EXISTING HANDHOLE	EACH	14
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	6
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	4
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	4
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	4
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	10
DETECTOR LOOP, TYPE I	FOOT	193
RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
MODIFY EXISTING CONTROLLER	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	2,325
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	4
EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	565
PEDESTRIAN SIGNAL POST, 10 FT.	EACH	2
ACCESSIBLE PEDESTRIAN SIGNALS	EACH	2
CONCRETE FOUNDATION, TYPE A 12-INCH DIAMETER	FOOT	8
TEMPORARY INFORMATION SIGNING	SQ FT	51.4
RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 1	EACH	1

MODEL: D:\p\p\Design\Ibvan08\_MastArmContract\62P72 - June 2022\CADD\62P72-sh-5.dgn

**TS 6130  
ECON 33**

USER NAME = plascencia	DESIGNED - IP	REVISED - IP 4/15/2022	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>MAST ARM MOUNTED STREET NAME SIGNS AND SCHEDULE OF QUANTITIES US RTE 34 (OGDEN AVE) AT MADISON ST</b>	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
PLOT SCALE = 40,0000 */ in.	DRAWN - IP	REVISED -			VAR	2021-155-TS	DUPAGE	45	22	
PLOT DATE = 4/22/2022	CHECKED - KK	REVISED -			CONTRACT NO. 62P72					
	DATE - 3/15/2022	REVISED -			SCALE:	SHEET	OF	SHEETS	STA.	TO

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.

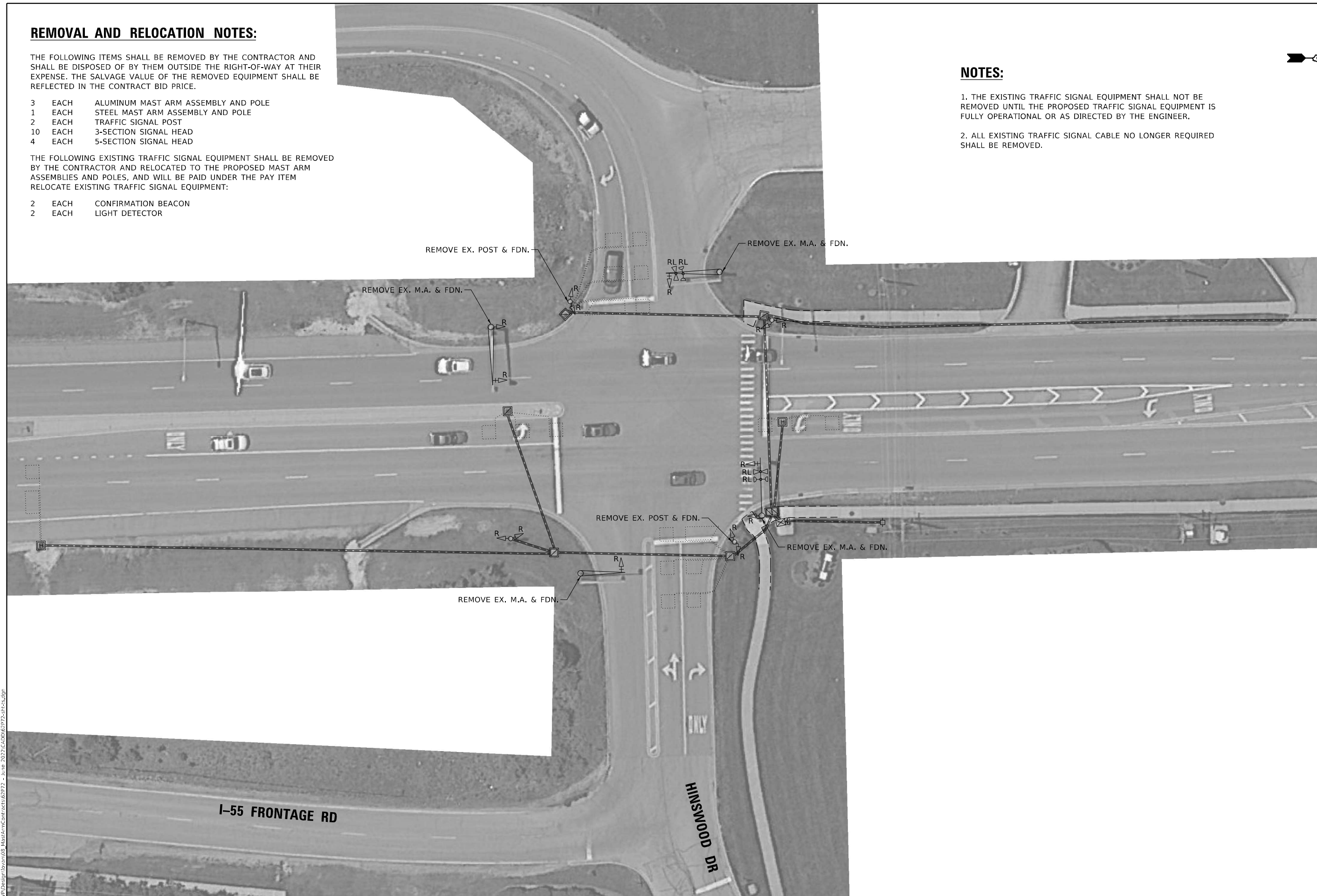
- 3 EACH ALUMINUM MAST ARM ASSEMBLY AND POLE
- 1 EACH STEEL MAST ARM ASSEMBLY AND POLE
- 2 EACH TRAFFIC SIGNAL POST
- 10 EACH 3-SECTION SIGNAL HEAD
- 4 EACH 5-SECTION SIGNAL HEAD

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

- 2 EACH CONFIRMATION BEACON
- 2 EACH LIGHT DETECTOR

**NOTES:**

1. THE EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL NOT BE REMOVED UNTIL THE PROPOSED TRAFFIC SIGNAL EQUIPMENT IS FULLY OPERATIONAL OR AS DIRECTED BY THE ENGINEER.
2. ALL EXISTING TRAFFIC SIGNAL CABLE NO LONGER REQUIRED SHALL BE REMOVED.



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**I-55 FRONTAGE RD**

**HINSWOOD DR**

**TS 5975**

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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

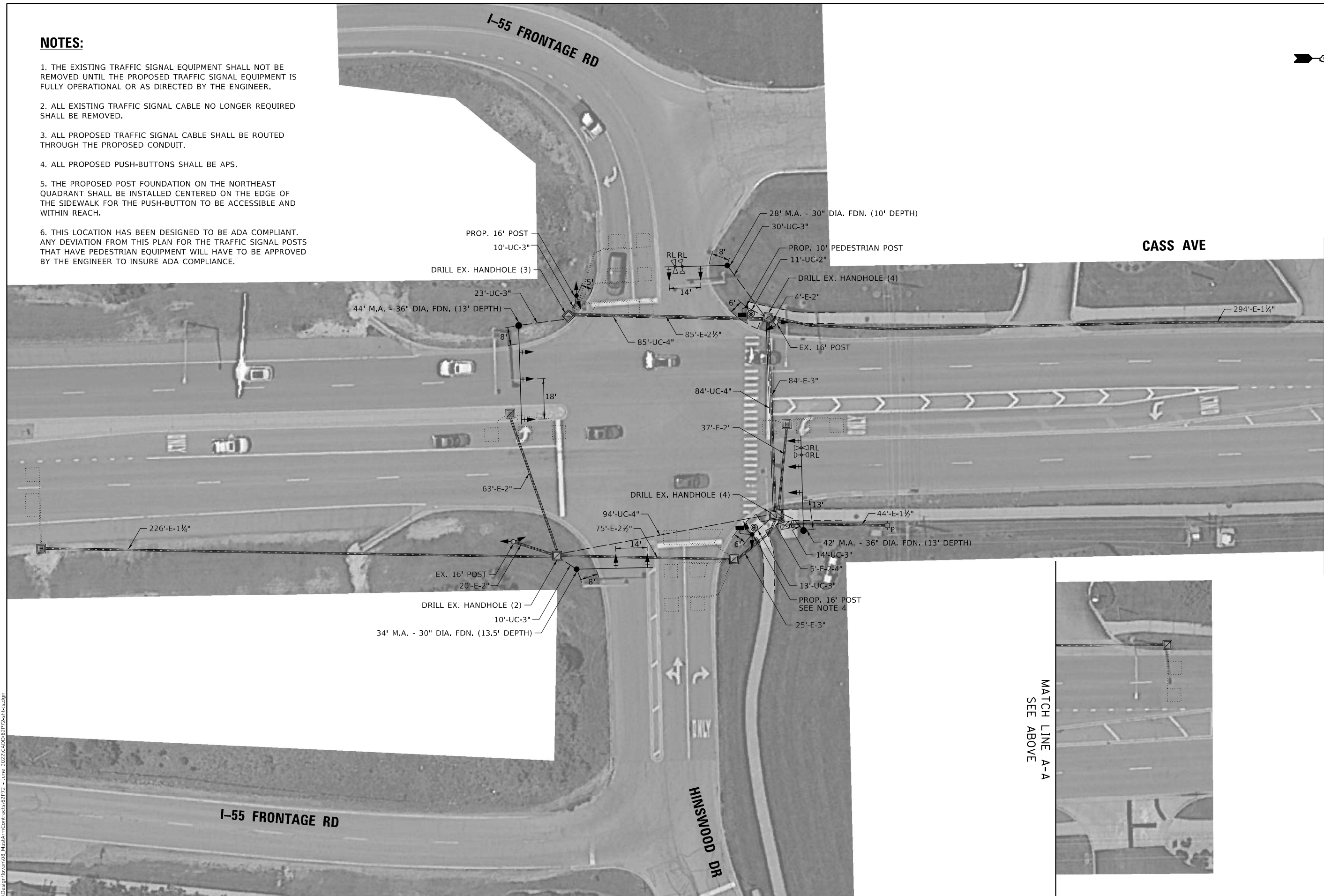
**REMOVAL PLAN  
CASS AVE AT I-55 NORTH FRONTAGE RD /HINSWOOD DR**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2021-155-TS	DUPAGE	45	23
CONTRACT NO. 62P72			ILLINOIS FED. AID PROJECT	

**NOTES:**

1. THE EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL NOT BE REMOVED UNTIL THE PROPOSED TRAFFIC SIGNAL EQUIPMENT IS FULLY OPERATIONAL OR AS DIRECTED BY THE ENGINEER.
2. ALL EXISTING TRAFFIC SIGNAL CABLE NO LONGER REQUIRED SHALL BE REMOVED.
3. ALL PROPOSED TRAFFIC SIGNAL CABLE SHALL BE ROUTED THROUGH THE PROPOSED CONDUIT.
4. ALL PROPOSED PUSH-BUTTONS SHALL BE APS.
5. THE PROPOSED POST FOUNDATION ON THE NORTHEAST QUADRANT SHALL BE INSTALLED CENTERED ON THE EDGE OF THE SIDEWALK FOR THE PUSH-BUTTON TO BE ACCESSIBLE AND WITHIN REACH.
6. THIS LOCATION HAS BEEN DESIGNED TO BE ADA COMPLIANT. ANY DEVIATION FROM THIS PLAN FOR THE TRAFFIC SIGNAL POSTS THAT HAVE PEDESTRIAN EQUIPMENT WILL HAVE TO BE APPROVED BY THE ENGINEER TO INSURE ADA COMPLIANCE.



SEE BELOW  
MATCH LINE A-A

MATCH LINE A-A  
SEE ABOVE

MODEL: Default  
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL MODERNIZATION PLAN  
CASS AVE AT I-55 NORTH FRONTAGE RD /HINSWOOD DR**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2021-155-TS	DUPAGE	45	24
ILLINOIS FED. AID PROJECT			CONTRACT NO. 62P72	

**TS 5975**







**REMOVAL AND RELOCATION NOTES:**

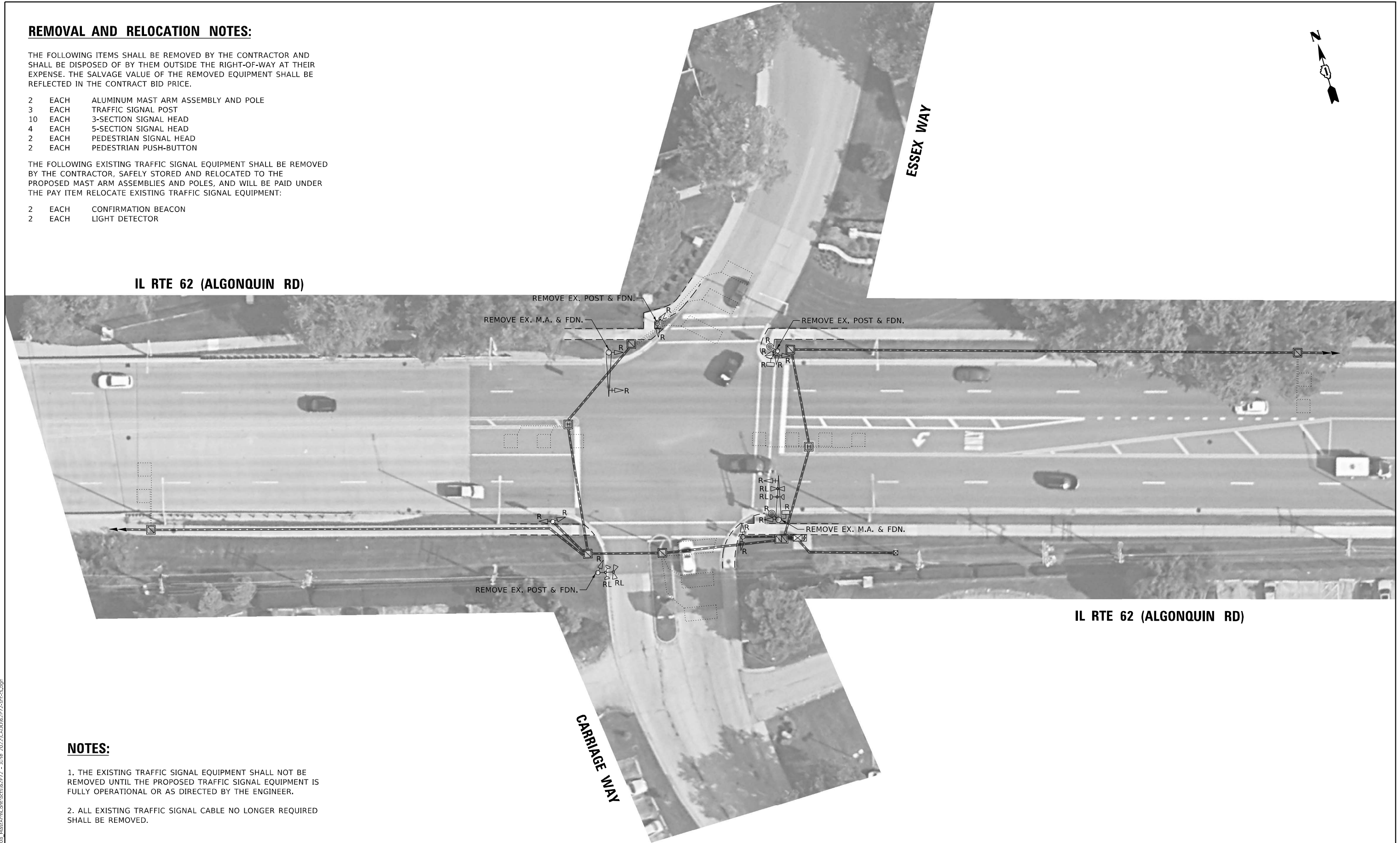
THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

- 2 EACH ALUMINUM MAST ARM ASSEMBLY AND POLE
- 3 EACH TRAFFIC SIGNAL POST
- 10 EACH 3-SECTION SIGNAL HEAD
- 4 EACH 5-SECTION SIGNAL HEAD
- 2 EACH PEDESTRIAN SIGNAL HEAD
- 2 EACH PEDESTRIAN PUSH-BUTTON

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 UNDER THE PAY ITEM RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT:

- 2 EACH CONFIRMATION BEACON
- 2 EACH LIGHT DETECTOR

**IL RTE 62 (ALGONQUIN RD)**



**IL RTE 62 (ALGONQUIN RD)**

**NOTES:**

1. THE EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL NOT BE REMOVED UNTIL THE PROPOSED TRAFFIC SIGNAL EQUIPMENT IS FULLY OPERATIONAL OR AS DIRECTED BY THE ENGINEER.
2. ALL EXISTING TRAFFIC SIGNAL CABLE NO LONGER REQUIRED SHALL BE REMOVED.

MODEL: Default  
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**TS 14741  
ECON 96**

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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

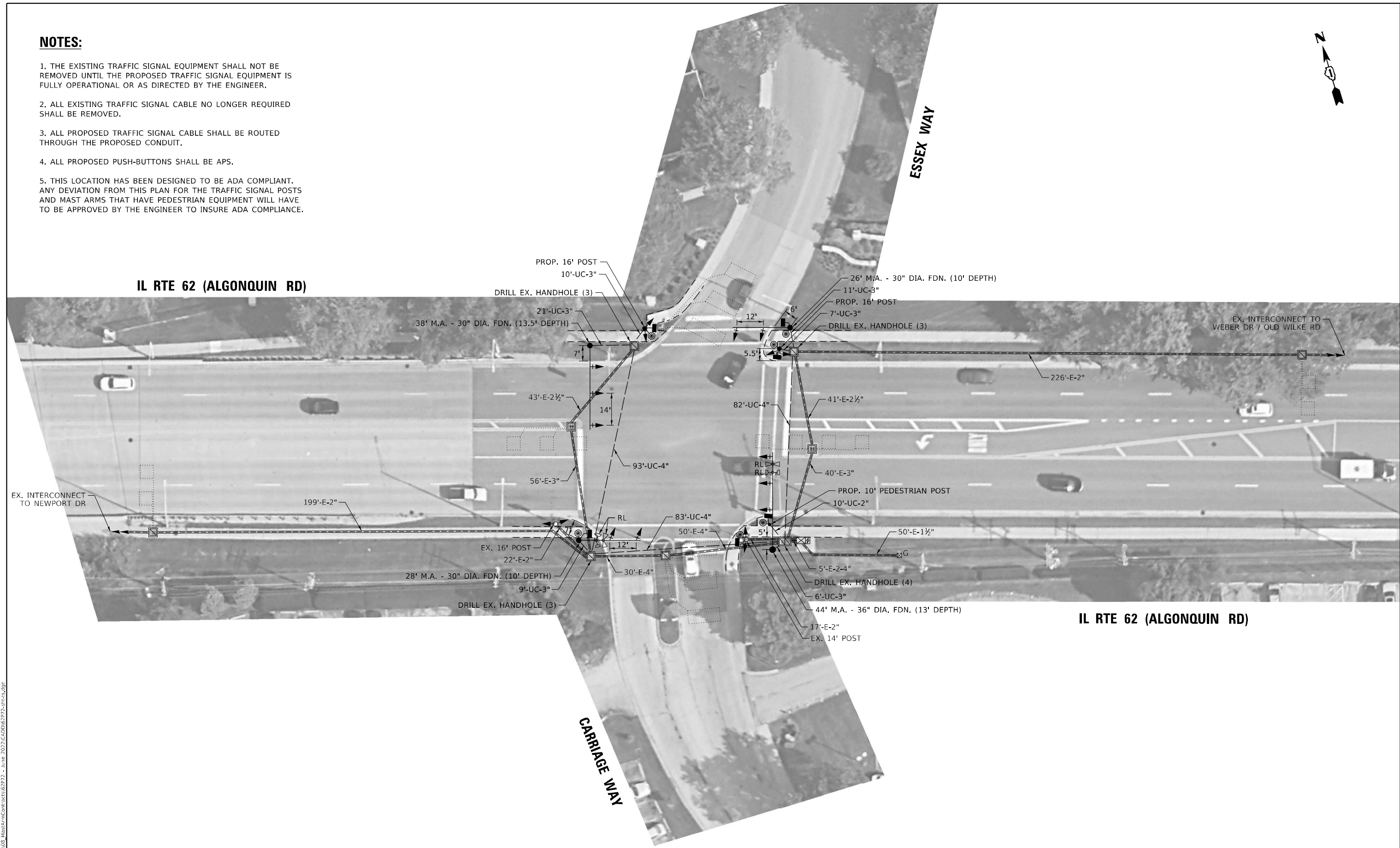
**REMOVAL PLAN  
IL RTE 62 (ALGONQUIN RD) AT CARRIAGE WAY /ESSEX WAY**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2021-155-TS	COOK	45	27
			CONTRACT NO. 62P72	
		ILLINOIS FED. AID PROJECT		

**NOTES:**

1. THE EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL NOT BE REMOVED UNTIL THE PROPOSED TRAFFIC SIGNAL EQUIPMENT IS FULLY OPERATIONAL OR AS DIRECTED BY THE ENGINEER.
2. ALL EXISTING TRAFFIC SIGNAL CABLE NO LONGER REQUIRED SHALL BE REMOVED.
3. ALL PROPOSED TRAFFIC SIGNAL CABLE SHALL BE ROUTED THROUGH THE PROPOSED CONDUIT.
4. ALL PROPOSED PUSH-BUTTONS SHALL BE APS.
5. THIS LOCATION HAS BEEN DESIGNED TO BE ADA COMPLIANT. ANY DEVIATION FROM THIS PLAN FOR THE TRAFFIC SIGNAL POSTS AND MAST ARMS THAT HAVE PEDESTRIAN EQUIPMENT WILL HAVE TO BE APPROVED BY THE ENGINEER TO INSURE ADA COMPLIANCE.



MODEL: Default  
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**TS 14741  
ECON 96**

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DRAWN - IP	REVISIONS -	
PLOT SCALE = 40,0000 * / in.	CHECKED - KK	REVISIONS -
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

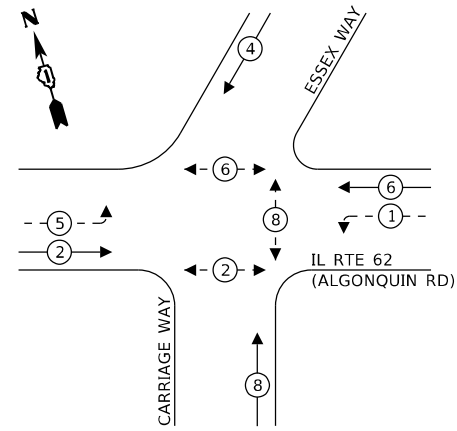
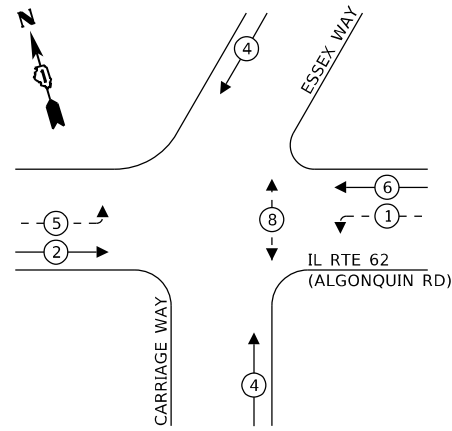
**TRAFFIC SIGNAL MODERNIZATION PLAN  
IL RTE 62 (ALGONQUIN RD) AT CARRIAGE WAY / ESSEX WAY**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2021-155-TS	COOK	45	28
			CONTRACT NO. 62P72	
ILLINOIS FED. AID PROJECT				

**EXISTING CONTROLLER SEQUENCE**

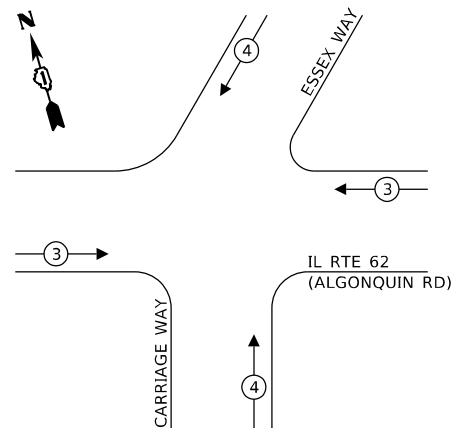
**PROPOSED CONTROLLER SEQUENCE**



**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)	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	6	20	100	120.0
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 =				467.2

ENERGY COSTS TO:

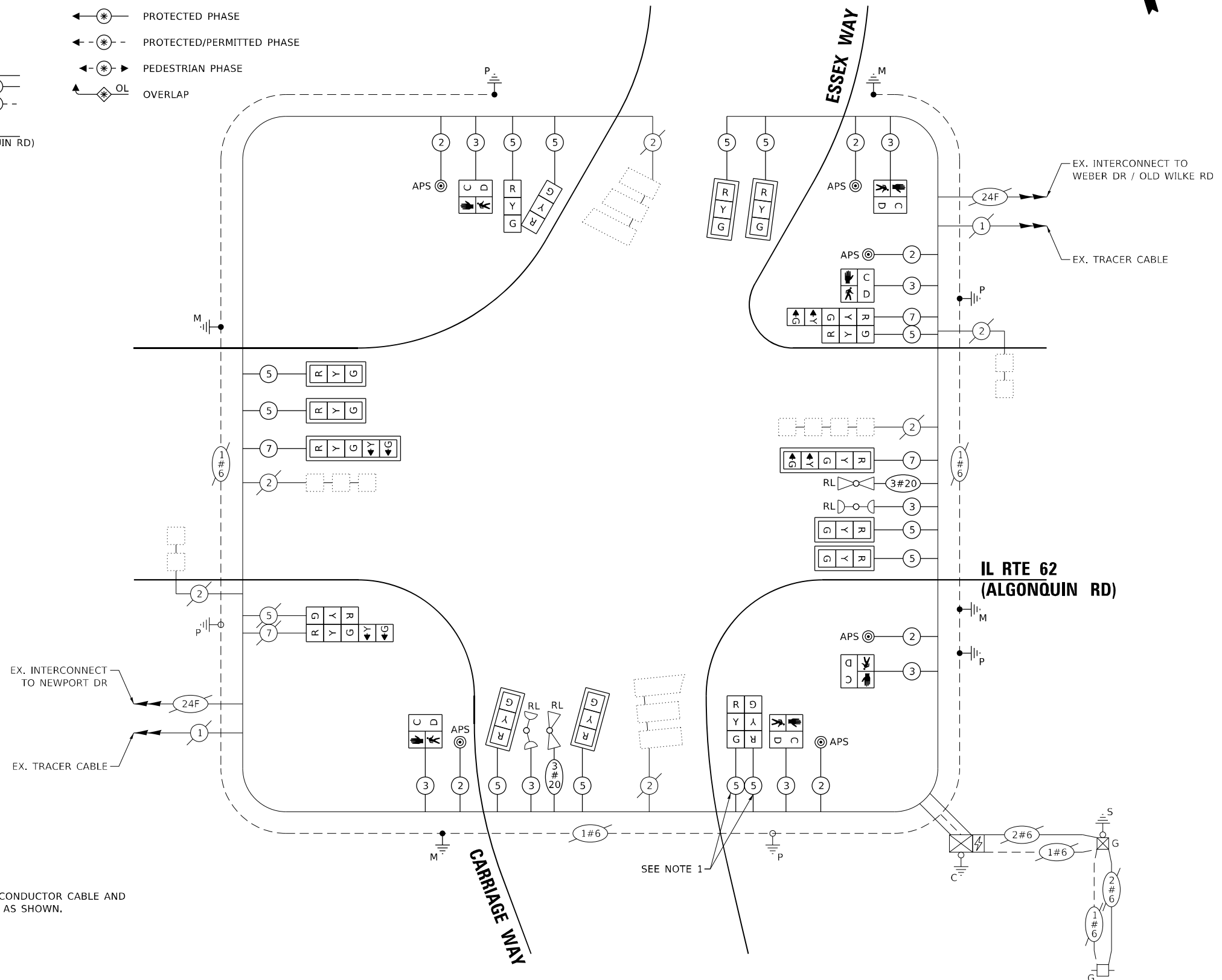
**CITY OF ROLLING MEADOWS**

3600 KIRCHOFF RD  
ROLLING MEADOWS, IL 60008

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

**NOTES:**

- REMOVE EXISTING SHARED MULTI-CONDUCTOR CABLE AND REPLACE WITH SEPARATE 5C CABLES AS SHOWN.



**CABLE PLAN**

**CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND EMERGENCY VEHICLE PREEMPTION SEQUENCE  
IL RTE 62 (ALGONQUIN RD) AT CARRIAGE WAY / ESSEX WAY**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2021-155-TS	COOK	45	29
CONTRACT NO. 62P72				

ILLINOIS FED. AID PROJECT

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

DESIGNED - IP	REVISED - IP 4/15/2022
DRAWN - IP	REVISED -
CHECKED - KK	REVISED -
DATE - 3/15/2022	REVISED -

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PLOT SCALE = 40,0000 * / in.
PLOT DATE = 4/22/2022

**TS 14741  
ECON 96**

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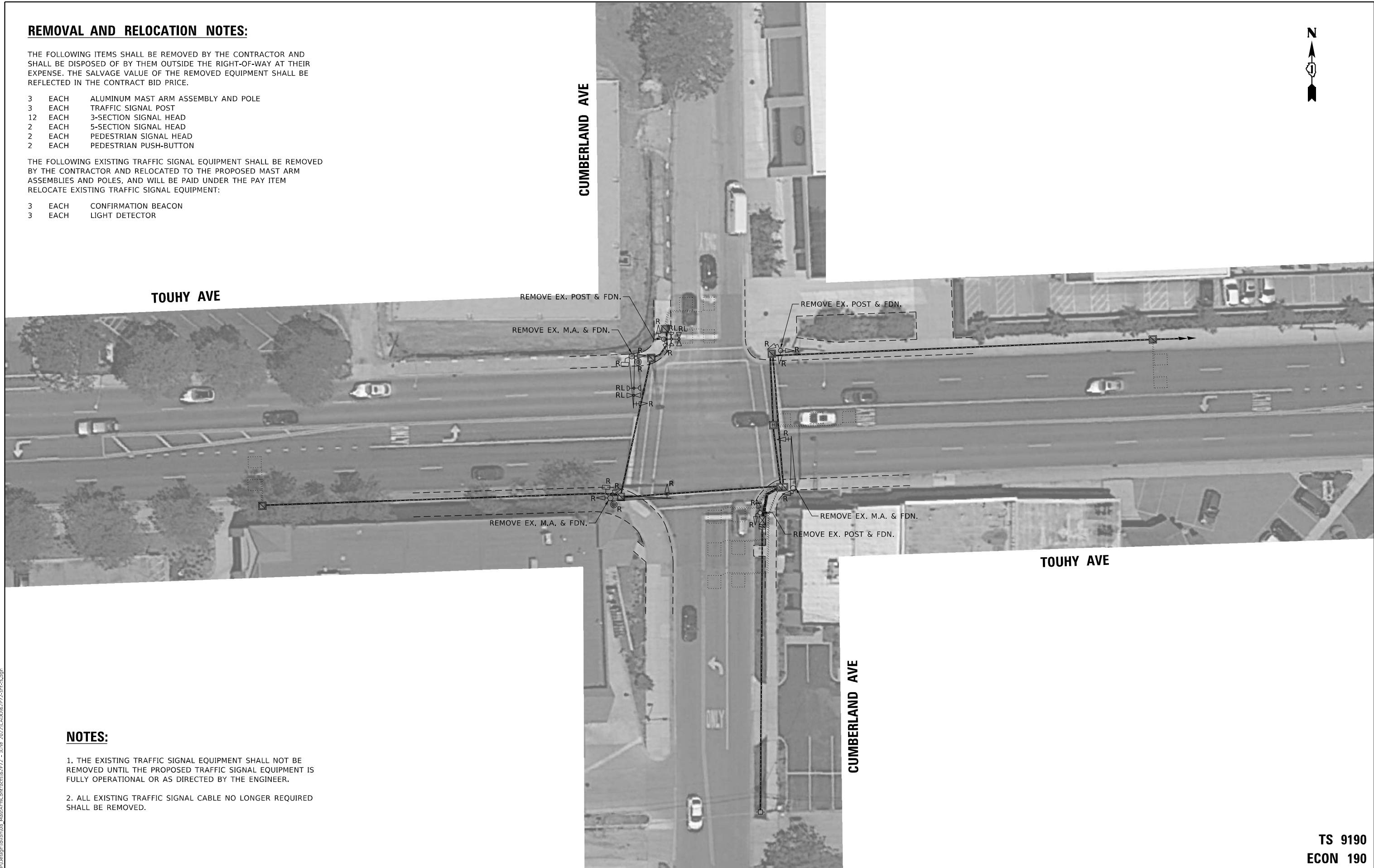
**REMOVAL AND RELOCATION NOTES:**

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.

- 3 EACH ALUMINUM MAST ARM ASSEMBLY AND POLE
- 3 EACH TRAFFIC SIGNAL POST
- 12 EACH 3-SECTION SIGNAL HEAD
- 2 EACH 5-SECTION SIGNAL HEAD
- 2 EACH PEDESTRIAN SIGNAL HEAD
- 2 EACH PEDESTRIAN PUSH-BUTTON

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

- 3 EACH CONFIRMATION BEACON
- 3 EACH LIGHT DETECTOR



**NOTES:**

1. THE EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL NOT BE REMOVED UNTIL THE PROPOSED TRAFFIC SIGNAL EQUIPMENT IS FULLY OPERATIONAL OR AS DIRECTED BY THE ENGINEER.
2. ALL EXISTING TRAFFIC SIGNAL CABLE NO LONGER REQUIRED SHALL BE REMOVED.

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PLOT DATE = 4/22/2022	DATE - 3/15/2022	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**REMOVAL PLAN  
TOUHY AVE AT CUMBERLAND AVE**

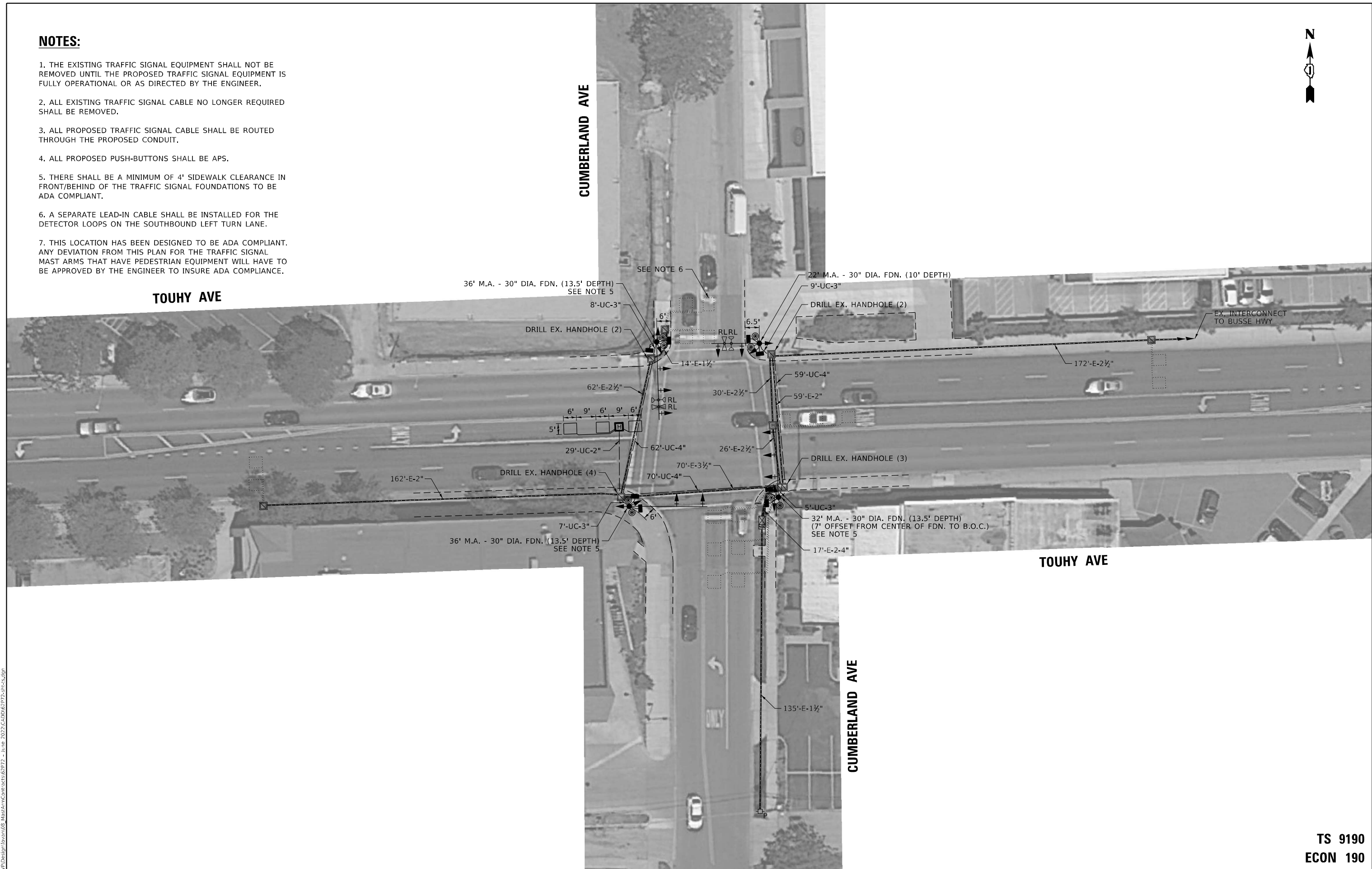
SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2021-155-TS	COOK	45	31
CONTRACT NO. 62P72			ILLINOIS FED. AID PROJECT	

**TS 9190  
ECON 190**

**NOTES:**

1. THE EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL NOT BE REMOVED UNTIL THE PROPOSED TRAFFIC SIGNAL EQUIPMENT IS FULLY OPERATIONAL OR AS DIRECTED BY THE ENGINEER.
2. ALL EXISTING TRAFFIC SIGNAL CABLE NO LONGER REQUIRED SHALL BE REMOVED.
3. ALL PROPOSED TRAFFIC SIGNAL CABLE SHALL BE ROUTED THROUGH THE PROPOSED CONDUIT.
4. ALL PROPOSED PUSH-BUTTONS SHALL BE APS.
5. THERE SHALL BE A MINIMUM OF 4' SIDEWALK CLEARANCE IN FRONT/BEHIND OF THE TRAFFIC SIGNAL FOUNDATIONS TO BE ADA COMPLIANT.
6. A SEPARATE LEAD-IN CABLE SHALL BE INSTALLED FOR THE DETECTOR LOOPS ON THE SOUTHBOUND LEFT TURN LANE.
7. THIS LOCATION HAS BEEN DESIGNED TO BE ADA COMPLIANT. ANY DEVIATION FROM THIS PLAN FOR THE TRAFFIC SIGNAL MAST ARMS THAT HAVE PEDESTRIAN EQUIPMENT WILL HAVE TO BE APPROVED BY THE ENGINEER TO INSURE ADA COMPLIANCE.



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**TS 9190  
ECON 190**

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DRAWN - IP	REVISIONS -	
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PLOT DATE = 4/22/2022	DATE - 3/15/2022	REVISIONS -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL MODERNIZATION PLAN  
TOUHY AVE AT CUMBERLAND AVE**

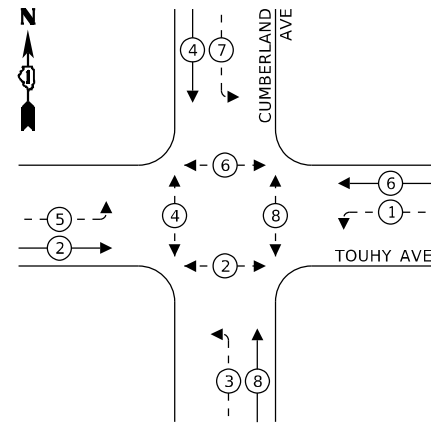
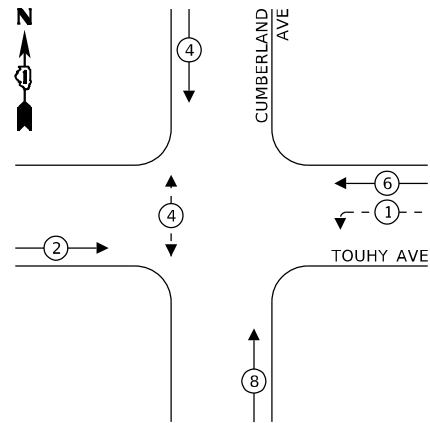
SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2021-155-TS	COOK	45	32
CONTRACT NO. 62P72			ILLINOIS FED. AID PROJECT	



**EXISTING CONTROLLER SEQUENCE**

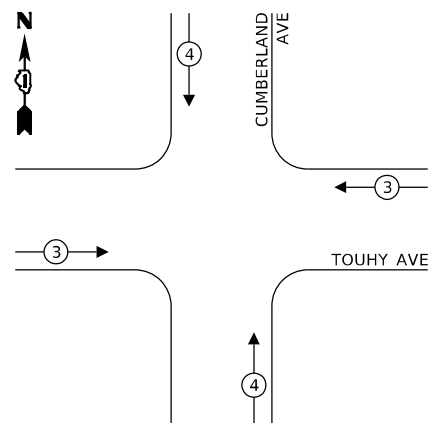
**PROPOSED CONTROLLER SEQUENCE**



**LEGEND:**

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

**EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE**



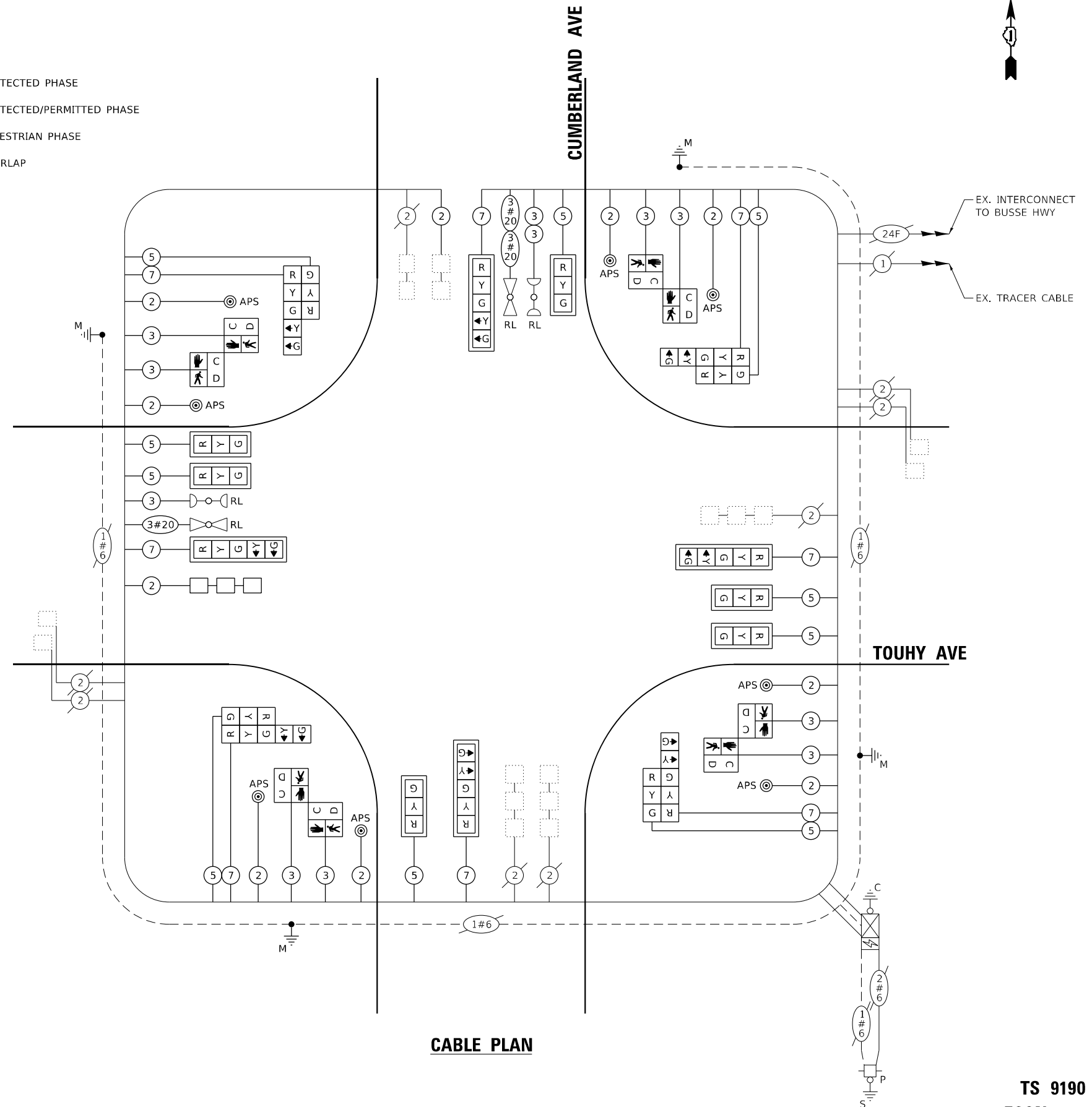
**TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS**

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	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	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 =				515.2

ENERGY COSTS TO:

**CITY OF PARK RIDGE**  
505 BUTLER PLACE  
PARK RIDGE, IL 60068

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 EMERGENCY VEHICLE PREEMPTION SEQUENCE  
TOUHY AVE AT CUMBERLAND AVE**

SCALE: SHEET OF SHEETS STA. TO STA.

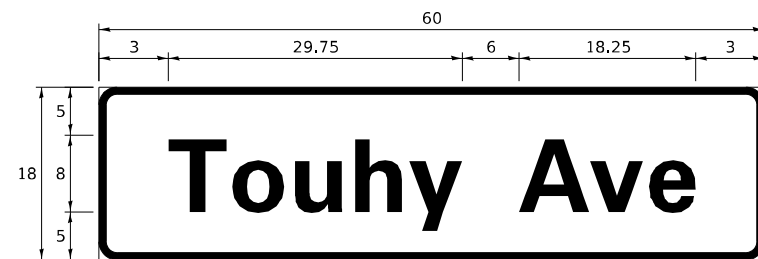
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2021-155-TS	COOK	45	33
CONTRACT NO. 62P72				

**TS 9190  
ECON 190**

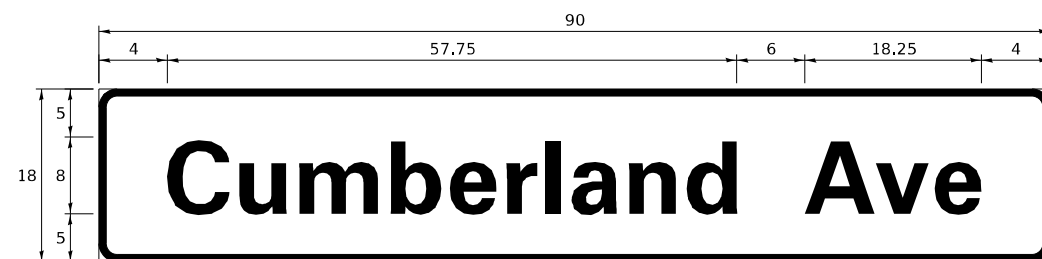
MODEL: D:\p1\... FILE NAME: S:\p1\Design\100008\_Mhazem\Contract\62P72\_sht-33.dwg

**SIGN PANEL – TYPE 1 OR TYPE 2**

ALL DIMENSIONS ARE IN INCHES UNLESS NOTED OTHERWISE



DESIGN SERIES	AREA (SQ FT)	SIGN PANEL TYPE	SHEETING TYPE	QTY REQUIRED
D	7.5	1	ZZ	2



DESIGN SERIES	AREA (SQ FT)	SIGN PANEL TYPE	SHEETING TYPE	QTY REQUIRED
D	11.25	2	ZZ	2

NOTE: FOR ADDITIONAL DESIGN AND INSTALLATION INFORMATION PLEASE SEE DISTRICT ONE MAST ARM MOUNTED STREET NAME SIGNS DETAIL.

**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNITS	TOTAL QTY
SIGN PANEL - TYPE 1	SQ FT	15
SIGN PANEL - TYPE 2	SQ FT	22.5
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	29
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	29
UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	191
HEAVY-DUTY HANDHOLE	EACH	1
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	995
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1,575
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1,440
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	1,200
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	350
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	305
STEEL MAST ARM ASSEMBLY AND POLE, 22 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 32 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 36 FT.	EACH	2
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	50.5
DRILL EXISTING HANDHOLE	EACH	11
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	6
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	4
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	4
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	4
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	8
TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	10
INDUCTIVE LOOP DETECTOR	EACH	2
DETECTOR LOOP, TYPE I	FOOT	90
RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
MODIFY EXISTING CONTROLLER	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	3,000
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	6
EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	550
ACCESSIBLE PEDESTRIAN SIGNALS	EACH	8
TEMPORARY INFORMATION SIGNING	SQ FT	102.8
RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 1	EACH	1

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**TS 9190  
ECON 190**

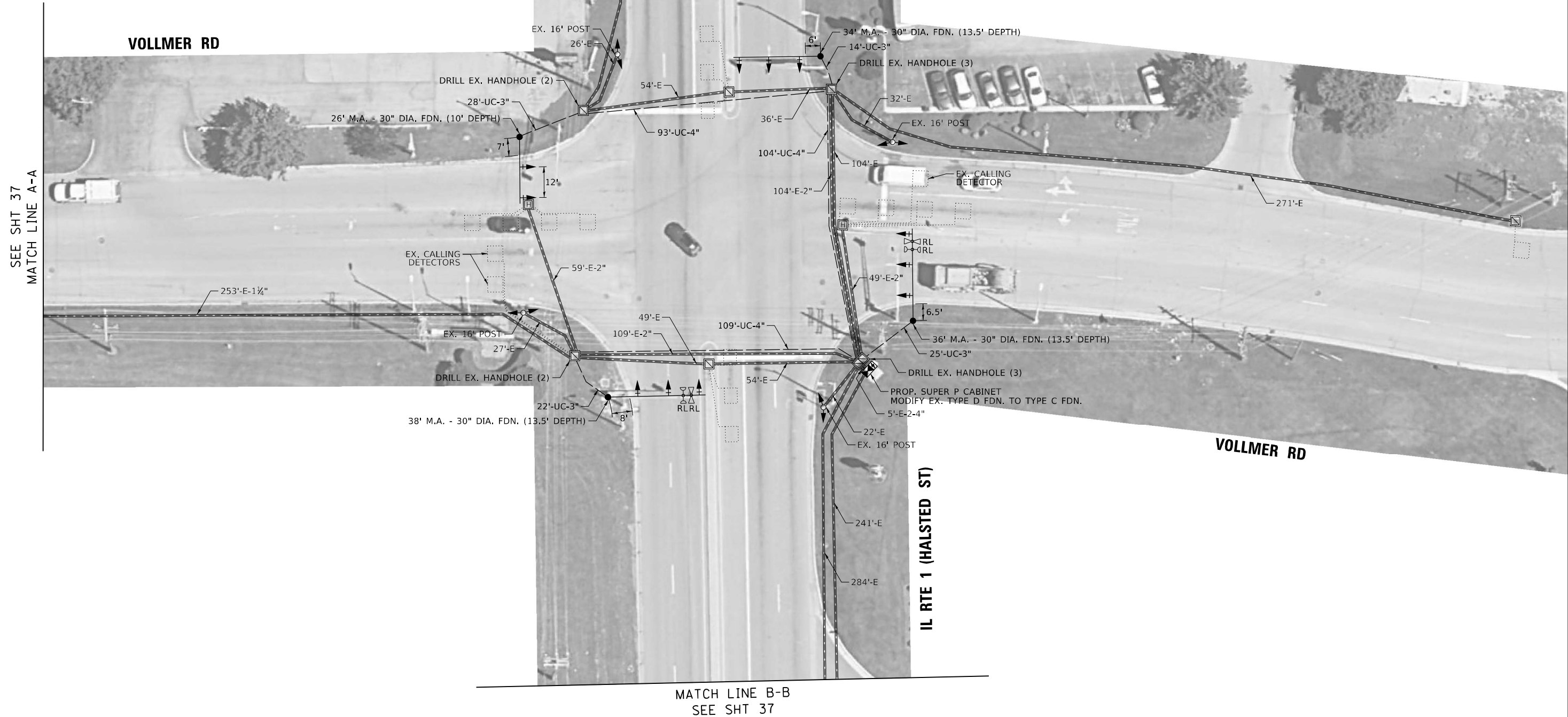
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PLOT DATE = 4/22/2022	CHECKED - KK	REVISED -			CONTRACT NO. 62P72					
	DATE - 3/15/2022	REVISED -			SCALE:	SHEET	OF	SHEETS	STA.	TO
					ILLINOIS FED. AID PROJECT					



**NOTES:**

1. THE EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL NOT BE REMOVED UNTIL THE PROPOSED TRAFFIC SIGNAL EQUIPMENT IS FULLY OPERATIONAL OR AS DIRECTED BY THE ENGINEER.
2. ALL EXISTING TRAFFIC SIGNAL CABLE NO LONGER REQUIRED SHALL BE REMOVED.
3. ALL PROPOSED TRAFFIC SIGNAL CABLE SHALL BE ROUTED THROUGH THE PROPOSED CONDUIT.

SEE SHT 37  
MATCH LINE C-C



SEE SHT 37  
MATCH LINE A-A

MATCH LINE B-B  
SEE SHT 37

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**TS 1870**

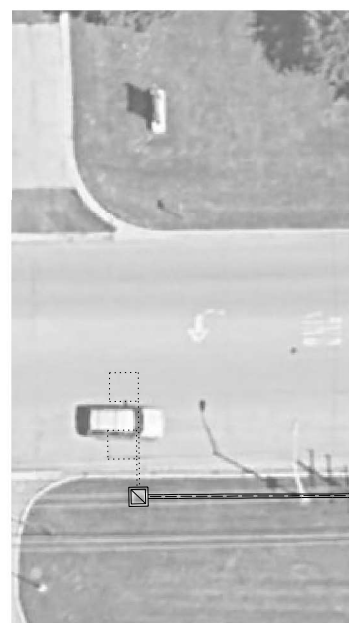
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PLOT DATE = 4/22/2022	DATE - 3/15/2022	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL MODERNIZATION PLAN (SHEET 1 OF 2)  
IL RTE 1 (HALSTED ST) AT VOLLMER RD**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2021-155-TS	COOK	45	36
ILLINOIS FED. AID PROJECT			CONTRACT NO. 62P72	



MATCH LINE A-A  
SEE SHT 36

SEE SHT 36  
MATCH LINE B-B



MATCH LINE C-C  
SEE SHT 36

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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

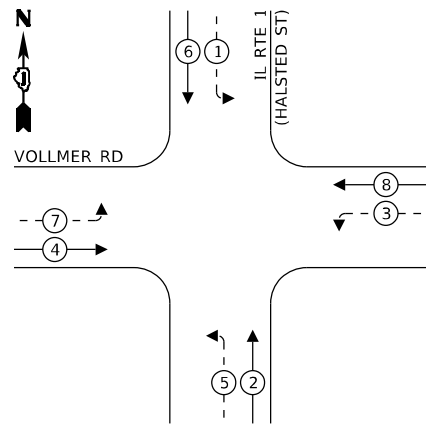
**TRAFFIC SIGNAL MODERNIZATION PLAN (SHEET 2 OF 2)  
IL RTE 1 (HALSTED ST) AT VOLLMER RD**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2021-155-TS	COOK	45	37
ILLINOIS FED. AID PROJECT			CONTRACT NO. 62P72	

**TS 1870**

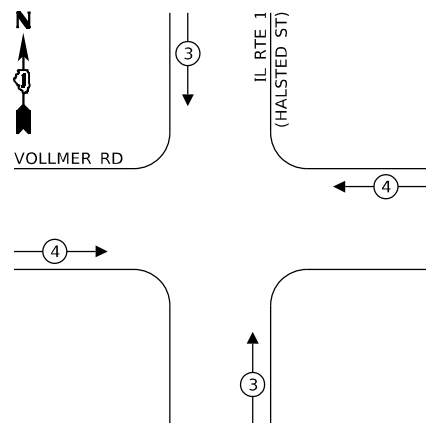
**EXISTING AND PROPOSED CONTROLLER SEQUENCE**



**LEGEND:**

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

**EXISTING AND PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE**



**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	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 =				367.1

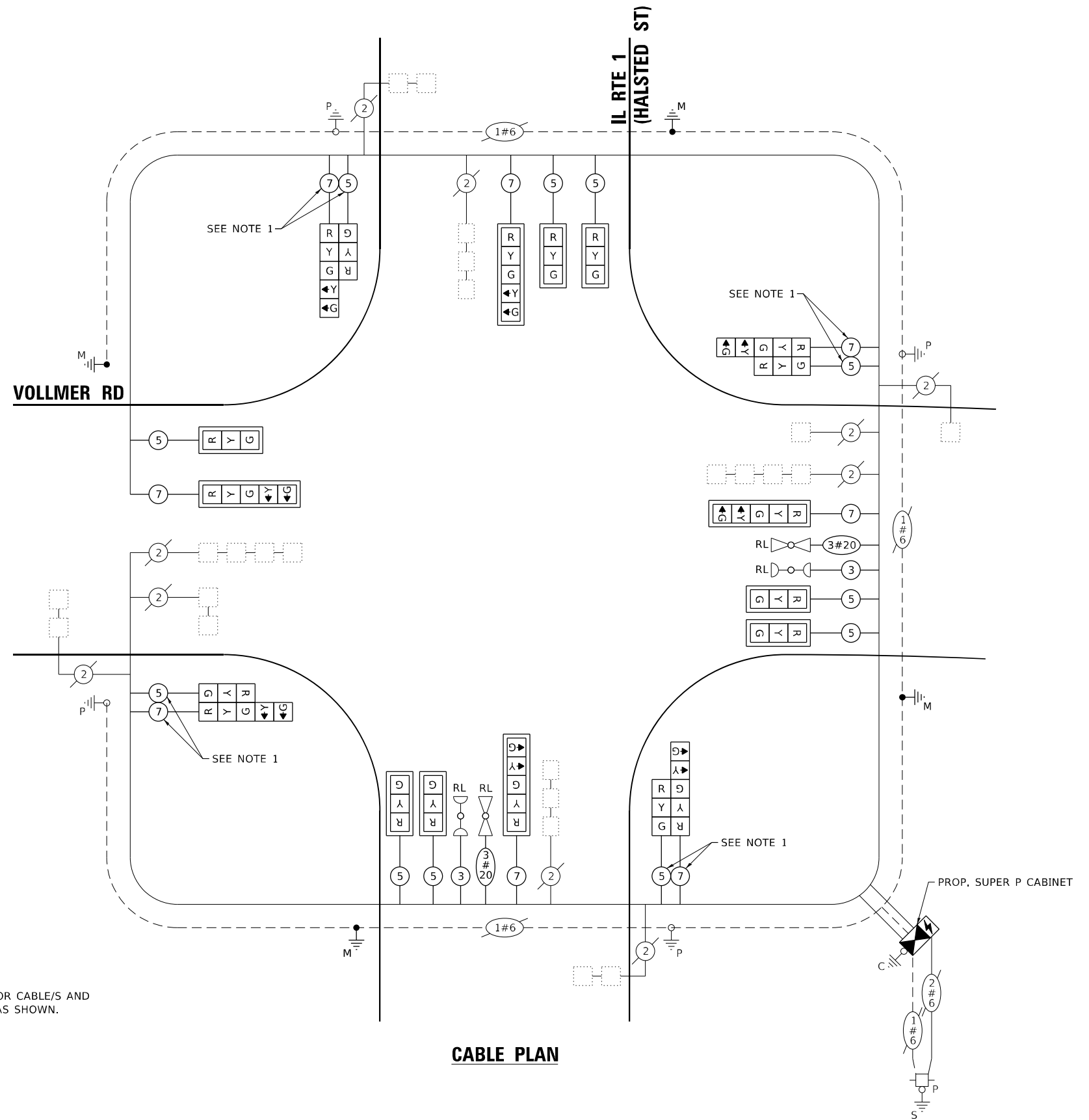
ENERGY COSTS TO:

**CITY OF CHICAGO HEIGHTS**  
 1601 CHICAGO RD  
 CHICAGO HEIGHTS, IL 60411

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

**NOTES:**

1. REMOVE EXISTING SHARED MULTI-CONDUCTOR CABLE/S AND REPLACE WITH SEPARATE 5C AND 7C CABLES AS SHOWN.



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**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**CABLE PLAN, PHASE DESIGNATION DIAGRAM,  
 AND EMERGENCY VEHICLE PREEMPTION SEQUENCE  
 IL RTE 1 (HALSTED ST) AT VOLLMER RD**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2021-155-TS	COOK	45	38
ILLINOIS FED. AID PROJECT			CONTRACT NO. 62P72	

**TS 1870**

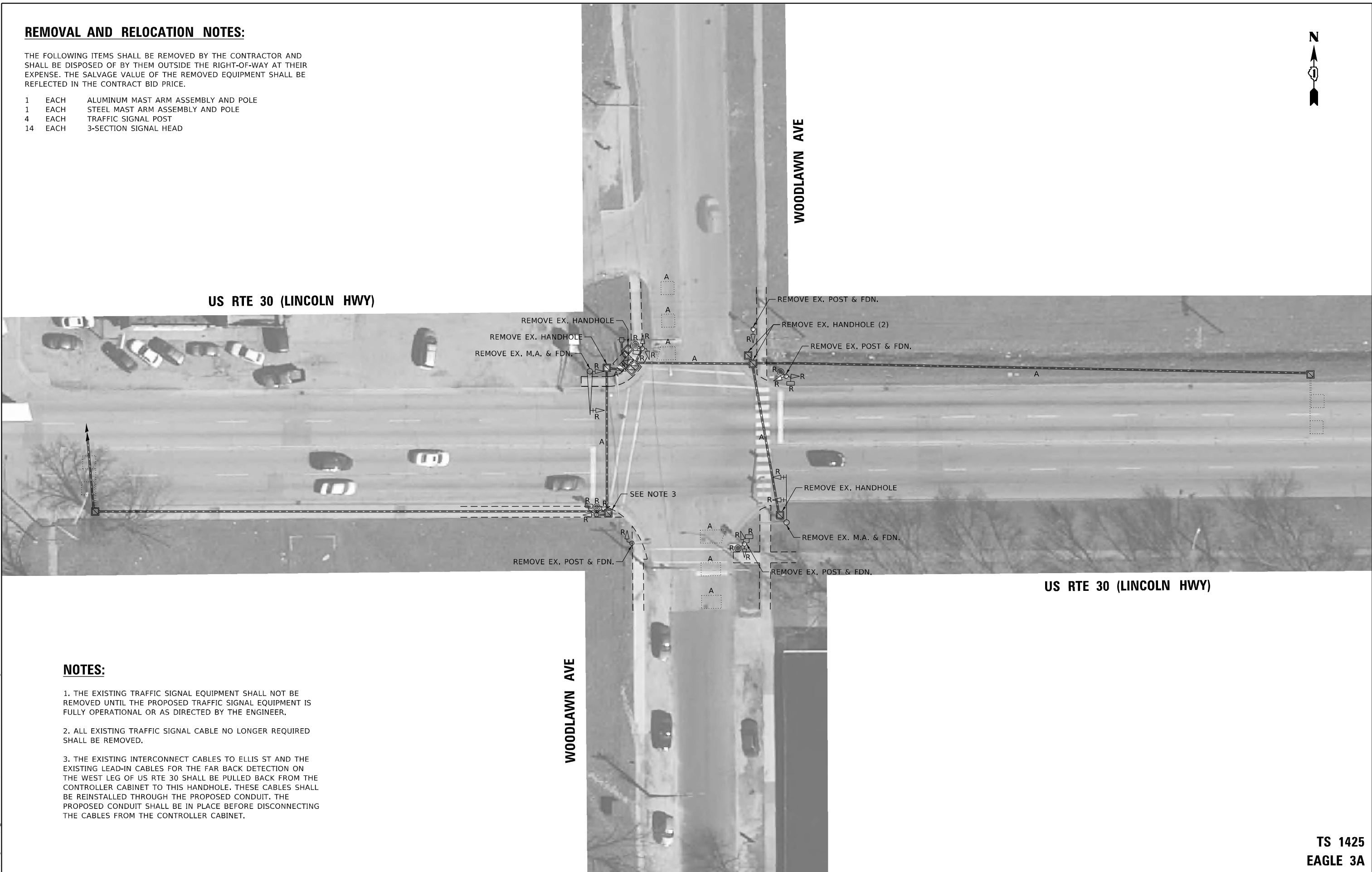




**REMOVAL AND RELOCATION NOTES:**

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
- 1 EACH STEEL MAST ARM ASSEMBLY AND POLE
- 4 EACH TRAFFIC SIGNAL POST
- 14 EACH 3-SECTION SIGNAL HEAD



**NOTES:**

1. THE EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL NOT BE REMOVED UNTIL THE PROPOSED TRAFFIC SIGNAL EQUIPMENT IS FULLY OPERATIONAL OR AS DIRECTED BY THE ENGINEER.
2. ALL EXISTING TRAFFIC SIGNAL CABLE NO LONGER REQUIRED SHALL BE REMOVED.
3. THE EXISTING INTERCONNECT CABLES TO ELLIS ST AND THE EXISTING LEAD-IN CABLES FOR THE FAR BACK DETECTION ON THE WEST LEG OF US RTE 30 SHALL BE PULLED BACK FROM THE CONTROLLER CABINET TO THIS HANDHOLE. THESE CABLES SHALL BE REINSTALLED THROUGH THE PROPOSED CONDUIT. THE PROPOSED CONDUIT SHALL BE IN PLACE BEFORE DISCONNECTING THE CABLES FROM THE CONTROLLER CABINET.

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June 2022\CADD\62P72\_sht-5.dgn

WOODLAWN AVE

WOODLAWN AVE

US RTE 30 (LINCOLN HWY)

US RTE 30 (LINCOLN HWY)

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

REMOVAL PLAN  
US RTE 30 (LINCOLN HWY) AT WOODLAWN AVE

TS 1425  
EAGLE 3A

USER NAME = plasencjal	DESIGNED - IP	REVISED - IP 4/15/2022
	DRAWN - IP	REVISED -
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PLOT DATE = 4/22/2022	DATE - 3/15/2022	REVISED -

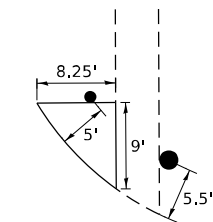
SCALE:	SHEET	OF	SHEETS	STA.	TO	STA.
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2021-155-TS	COOK	45	40
ILLINOIS FED. AID PROJECT			CONTRACT NO. 62P72	

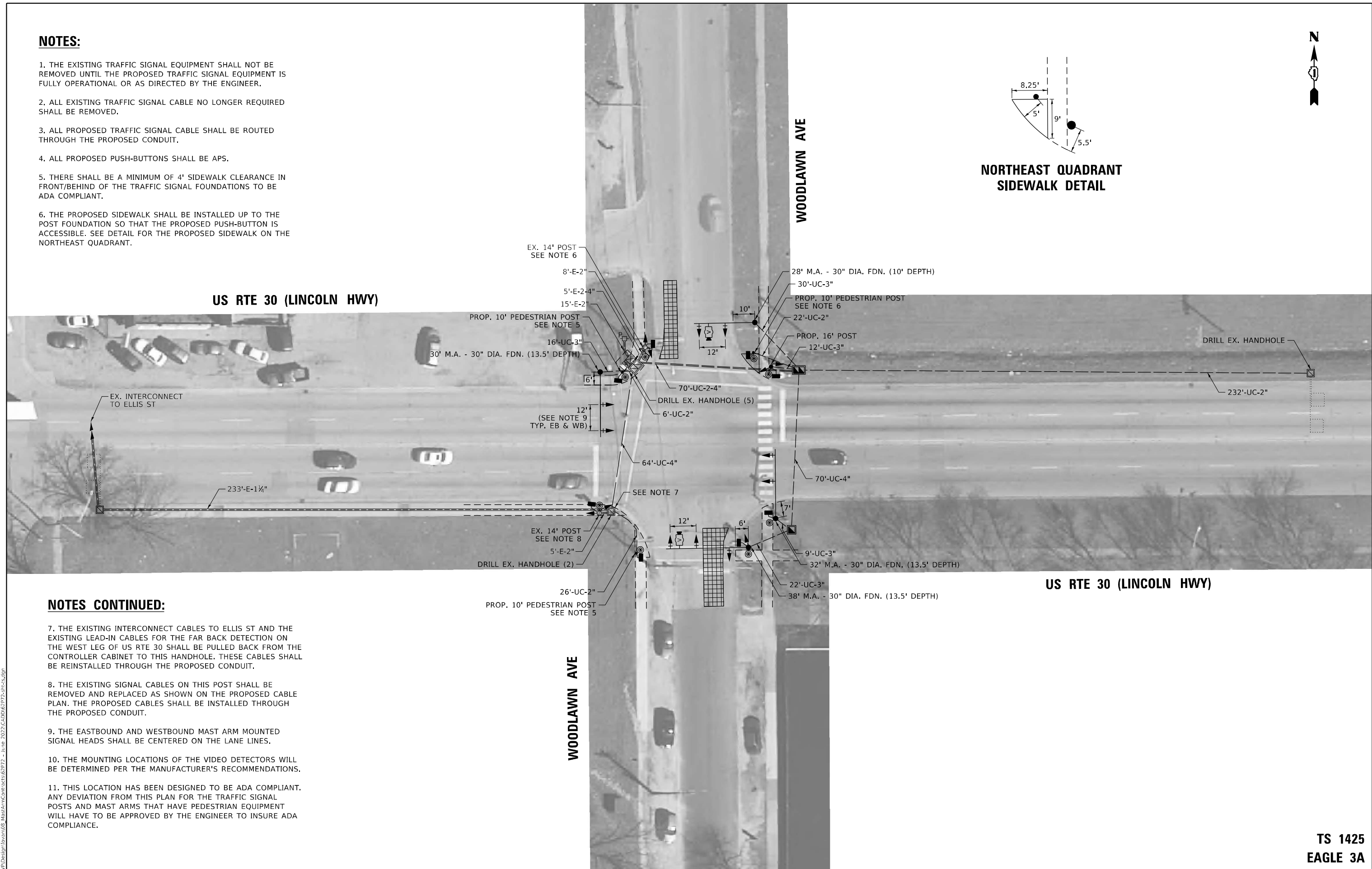


**NOTES:**

1. THE EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL NOT BE REMOVED UNTIL THE PROPOSED TRAFFIC SIGNAL EQUIPMENT IS FULLY OPERATIONAL OR AS DIRECTED BY THE ENGINEER.
2. ALL EXISTING TRAFFIC SIGNAL CABLE NO LONGER REQUIRED SHALL BE REMOVED.
3. ALL PROPOSED TRAFFIC SIGNAL CABLE SHALL BE ROUTED THROUGH THE PROPOSED CONDUIT.
4. ALL PROPOSED PUSH-BUTTONS SHALL BE APS.
5. THERE SHALL BE A MINIMUM OF 4' SIDEWALK CLEARANCE IN FRONT/BEHIND OF THE TRAFFIC SIGNAL FOUNDATIONS TO BE ADA COMPLIANT.
6. THE PROPOSED SIDEWALK SHALL BE INSTALLED UP TO THE POST FOUNDATION SO THAT THE PROPOSED PUSH-BUTTON IS ACCESSIBLE. SEE DETAIL FOR THE PROPOSED SIDEWALK ON THE NORTHEAST QUADRANT.



**NORTHEAST QUADRANT SIDEWALK DETAIL**



**NOTES CONTINUED:**

7. THE EXISTING INTERCONNECT CABLES TO ELLIS ST AND THE EXISTING LEAD-IN CABLES FOR THE FAR BACK DETECTION ON THE WEST LEG OF US RTE 30 SHALL BE PULLED BACK FROM THE CONTROLLER CABINET TO THIS HANDHOLE. THESE CABLES SHALL BE REINSTALLED THROUGH THE PROPOSED CONDUIT.
8. THE EXISTING SIGNAL CABLES ON THIS POST SHALL BE REMOVED AND REPLACED AS SHOWN ON THE PROPOSED CABLE PLAN. THE PROPOSED CABLES SHALL BE INSTALLED THROUGH THE PROPOSED CONDUIT.
9. THE EASTBOUND AND WESTBOUND MAST ARM MOUNTED SIGNAL HEADS SHALL BE CENTERED ON THE LANE LINES.
10. THE MOUNTING LOCATIONS OF THE VIDEO DETECTORS WILL BE DETERMINED PER THE MANUFACTURER'S RECOMMENDATIONS.
11. THIS LOCATION HAS BEEN DESIGNED TO BE ADA COMPLIANT. ANY DEVIATION FROM THIS PLAN FOR THE TRAFFIC SIGNAL POSTS AND MAST ARMS THAT HAVE PEDESTRIAN EQUIPMENT WILL HAVE TO BE APPROVED BY THE ENGINEER TO INSURE ADA COMPLIANCE.

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PLOT DATE = 4/22/2022	CHECKED - KK	REVISED -
	DATE - 3/15/2022	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL MODERNIZATION PLAN  
US RTE 30 (LINCOLN HWY) AT WOODLAWN AVE**

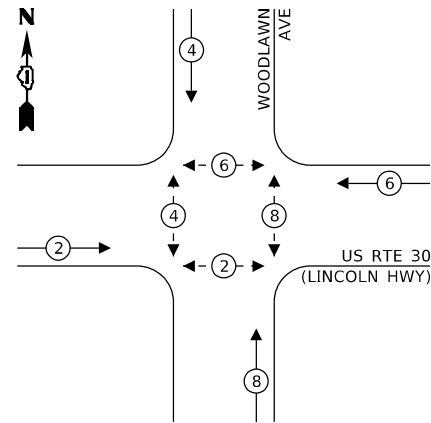
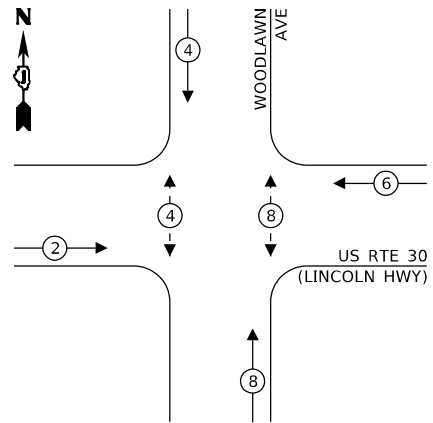
SCALE: SHEET OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2021-155-TS	COOK	45	41
			CONTRACT NO. 62P72	
		ILLINOIS	FED. AID PROJECT	

**TS 1425  
EAGLE 3A**

**EXISTING CONTROLLER SEQUENCE**

**PROPOSED CONTROLLER SEQUENCE**



**LEGEND:**

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

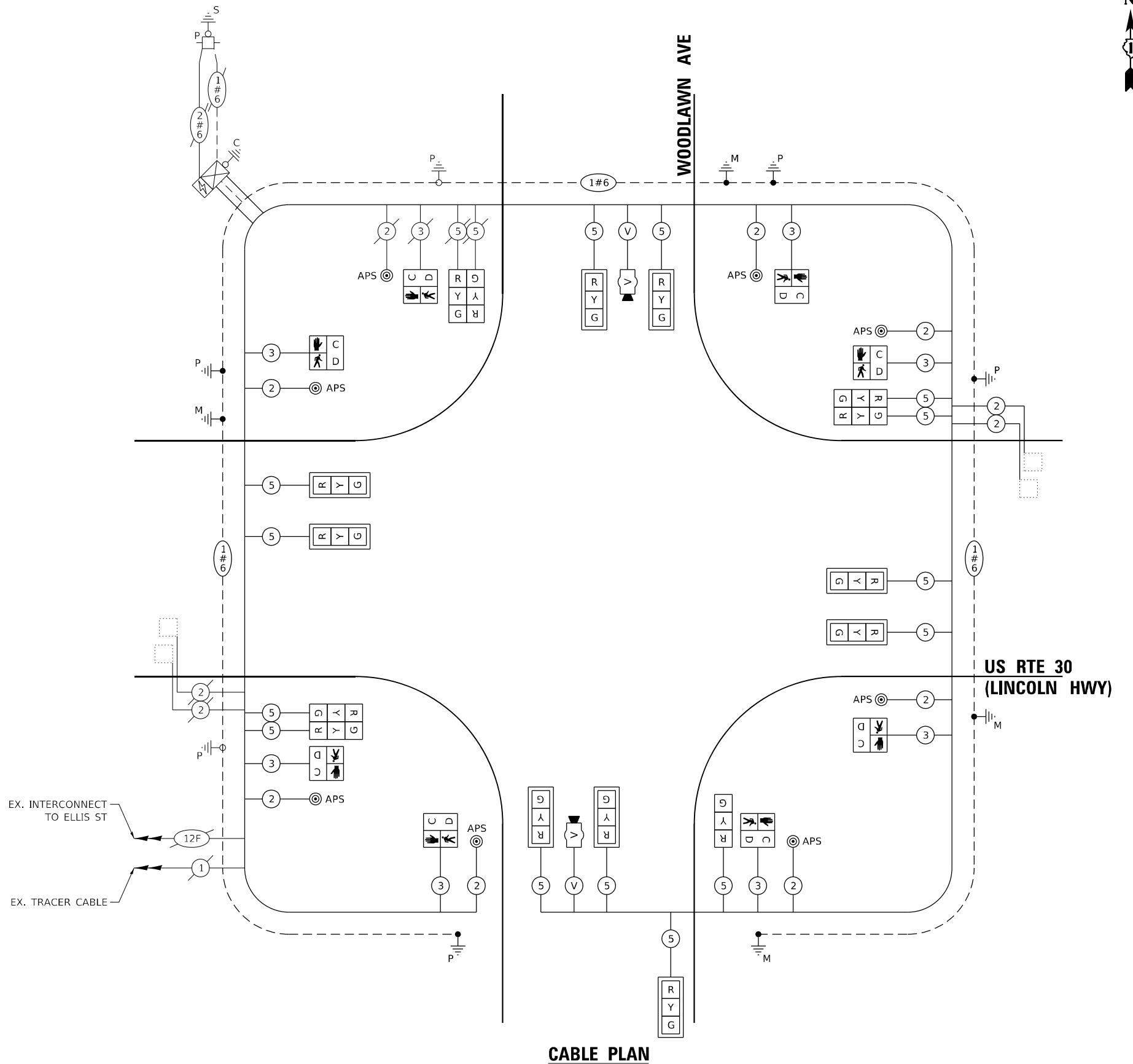
**TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS**

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	16	11	50	88.0
(YELLOW)	16	20	5	16.0
(GREEN)	16	12	45	86.4
PERMISSIVE ARROW	-	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	-	-	-	-
<b>TOTAL =</b>				<b>475.4</b>

ENERGY COSTS TO:

VILLAGE OF FORD HEIGHTS  
1343 ELLIS AVE  
FORD HEIGHTS, IL 60411

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



**CABLE PLAN**

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CABLE PLAN AND PHASE DESIGNATION DIAGRAM  
US RTE 30 (LINCOLN HWY) AT WOODLAWN AVE

SCALE: SHEET OF SHEETS STA. TO STA.

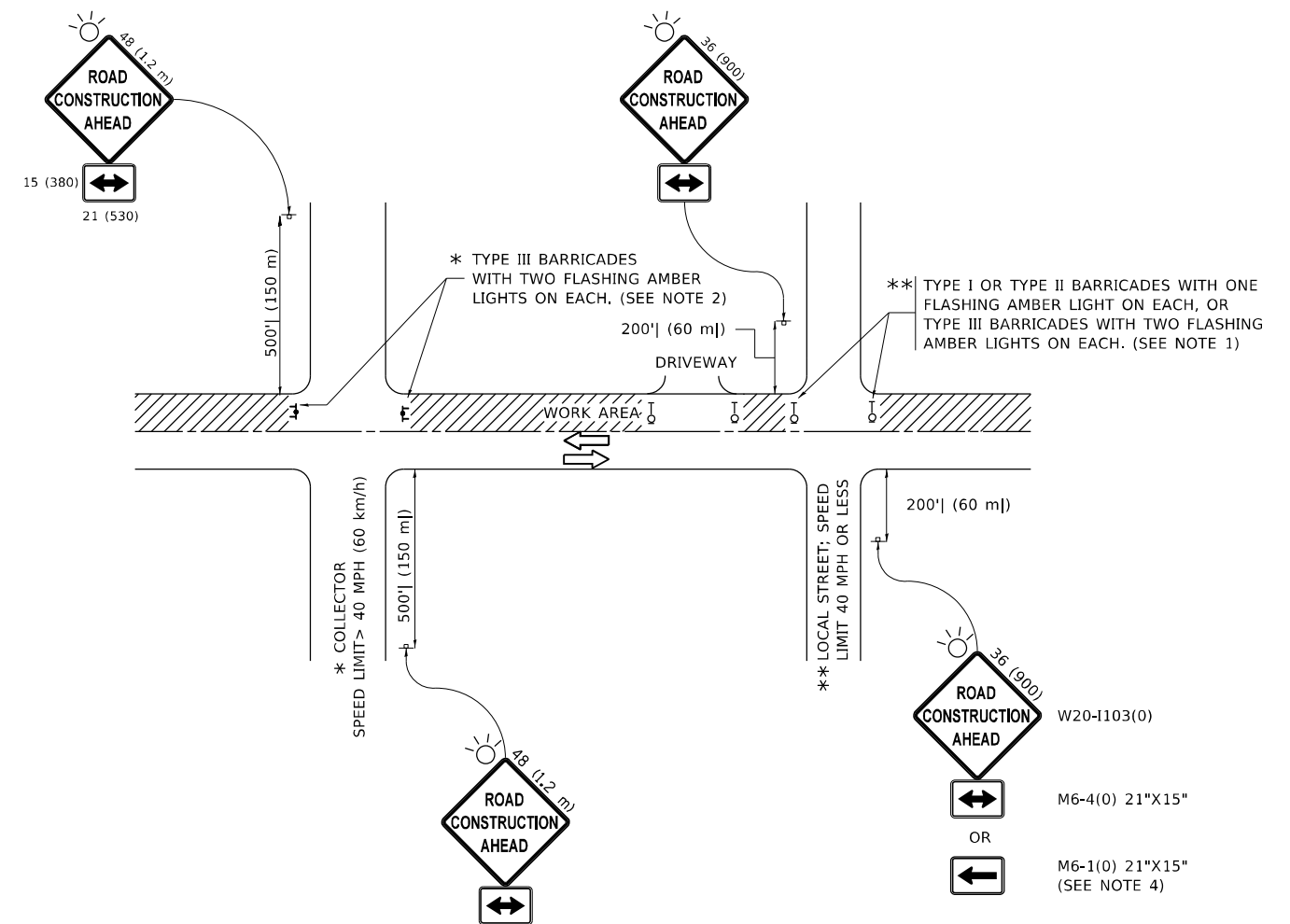
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2021-155-TS	COOK	45	42
CONTRACT NO. 62P72				

ILLINOIS FED. AID PROJECT

TS 1425  
EAGLE 3A

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**NOTES:**

1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
  - a) ONE "ROAD CONSTRUCTION AHEAD" SIGN 36 x 36 (900x900) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
  - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
  - a) ONE "ROAD CONSTRUCTION AHEAD" SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
  - b) BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
3. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT.
4. SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).
5. WHEN WORK IS BEING PERFORMED ON A SIDE ROAD OR DRIVEWAY, FOLLOW THE APPLICABLE STANDARD(S). THE DIRECTIONAL ARROW (M6-1 OR M6-4) SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE TRAFFIC CONTROL SET-UP.
6. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAYS UNLESS OTHERWISE SPECIFIED IN THE PLANS OR BY THE ENGINEER.
7. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCLUDED IN THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

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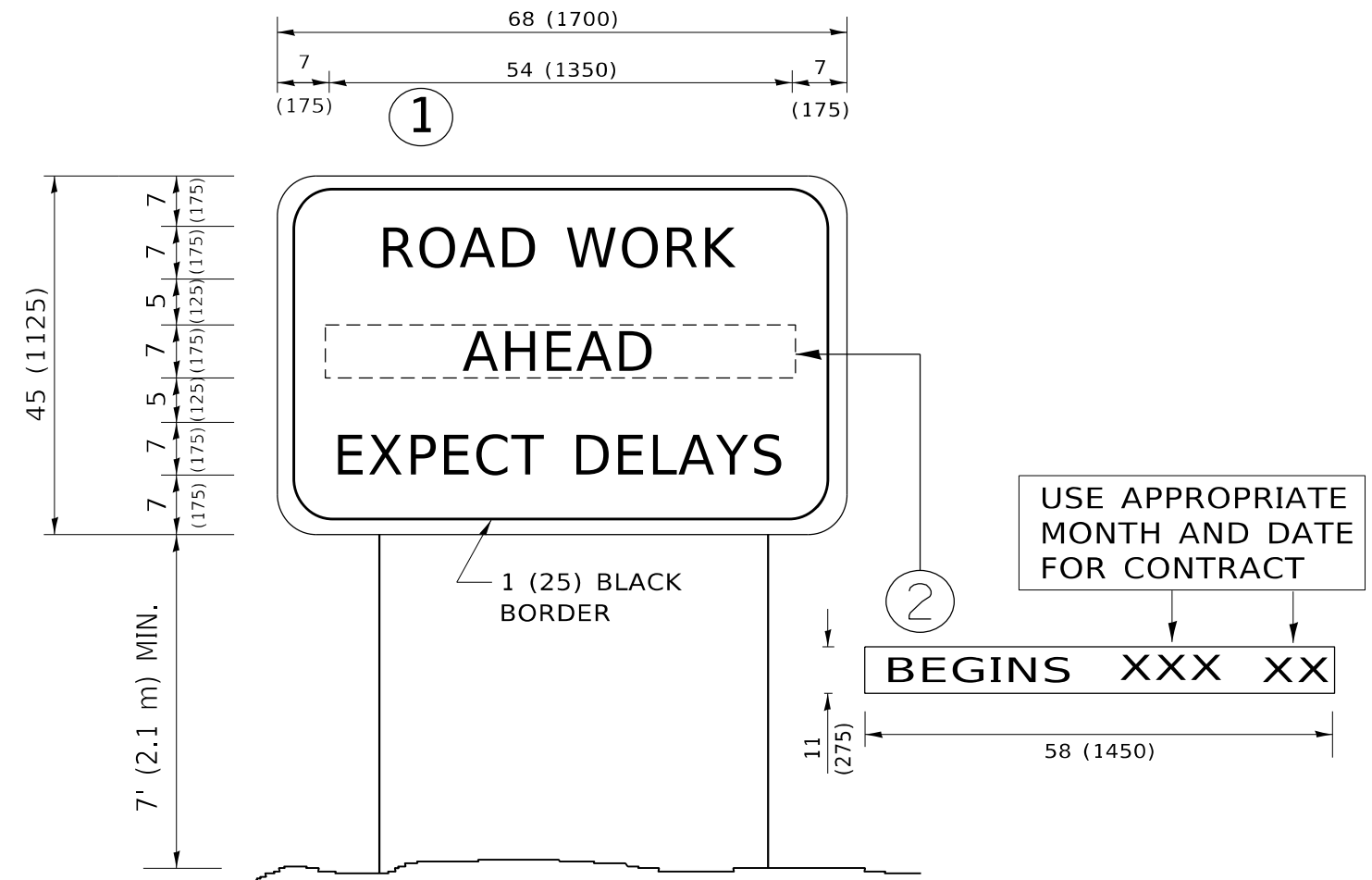
USER NAME = plascencjal	DESIGNED - L.H.A.	REVISED - A. HOUSEH 10-15-96
PLOT SCALE = 100,0000' / in.	CHECKED -	REVISED - T. RAMMACHER 01-06-00
PLOT DATE = 3/25/2022	DATE - 06-89	REVISED - A. SCHUETZE 07-01-13
		REVISED - A. SCHUETZE 09-15-16

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

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

SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2021-155-TS	VARIOUS	45	44
<b>TC-10</b>			CONTRACT NO. 62P72	
ILLINOIS FED. AID PROJECT				



**NOTES:**

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

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

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USER NAME = plascencal	DESIGNED -	REVISED - R. MIRS 09-15-97
	DRAWN -	REVISED - R. MIRS 12-11-97
PLOT SCALE = 100,0000 ' / in.	CHECKED -	REVISED - T. RAMMACHER 02-02-99
PLOT DATE = 3/25/2022	DATE -	REVISED - C. JUCIUS 01-31-07

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**ARTERIAL ROAD  
INFORMATION SIGN**

SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2021-155-TS	VARIOUS	45	45
<b>TC-22</b>			CONTRACT NO. 62P72	
ILLINOIS FED. AID PROJECT				