

FOR INDEX OF SHEETS, SEE SHEET NO. 2

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2020-190-TS	DUPAGE	50	1
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO.	62M60	

**LOCATION D**

IL RTE 53 – 22ND ST TO SHEEHAN AVE

**LOCATION E**

IL RTE 53 – 83RD ST TO HOBSON RD

**LOCATION F**

IL RTE 53 – FULLERTON AVE TO SIDNEY AVE

**LOCATION G**

IL RTE 53 – MADISON ST TO IL RTE 64 (NORTH AVE)

**LOCATION H**

IL RTE 53 – PARK BLVD TO I-88 WB EXIT RAMP

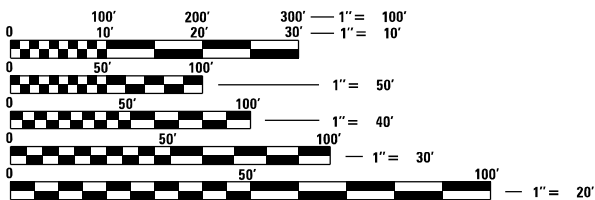
**LOCATION N**

YORK RD – I-290 RAMP TO US RTE 20

**PROPOSED  
HIGHWAY PLANS**  
VARIOUS LOCATIONS IN DUPAGE COUNTY  
SECTION: 2020-190-TS  
PROJECT NO: CMAQ-SJC9(120)  
CMAQ TRAFFIC SIGNAL INTERCONNECT  
DUPAGE COUNTY  
C-91-385-20

**TRAFFIC DATA**

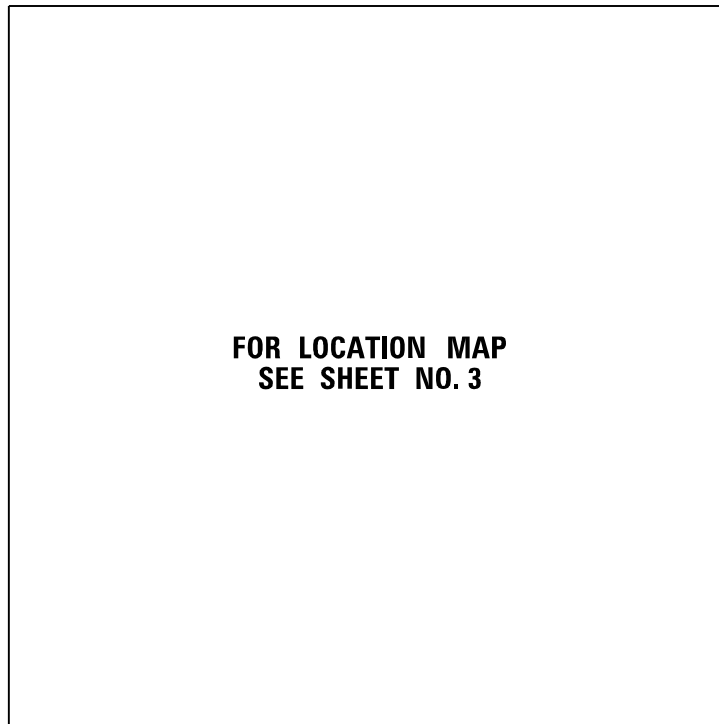
IL RTE 53 (LOCATION D) ADT (2019) = 16900 VPD POSTED SPEED = 40 MPH	IL RTE 53 (LOCATION G) ADT (2019) = 25400 VPD POSTED SPEED = 35, 40, 45 MPH
IL RTE 53 (LOCATION E) ADT (2019) = 30100 VPD POSTED SPEED = 45 MPH	IL RTE 53 (LOCATION H) ADT (2019) = 27100 VPD POSTED SPEED = 45 MPH
IL RTE 53 (LOCATION F) ADT (2019) = 26700 VPD POSTED SPEED = 40 MPH	YORK RD (LOCATION N) ADT (2016) = 24700 VPD POSTED SPEED = 30 MPH



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

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

PROJECT ENGINEER: KAMIL A. KOBYLKA, (847) 705-4734  
PROJECT MANAGER: LUKASZ POCIECHA, P.E. (847) 705-4420  
CONTRACT NO. 62M60



LOCATION OF SECTION INDICATED THIS: - [black rectangle] -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

SUBMITTED Oct 16 2020  
*Scott J. Campbell*  
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER  
December 4, 2020

*Scott A. Elk*  
ENGINEER OF DESIGN AND ENVIRONMENT  
December 4, 2020  
*James J. Gu...*  
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION 13

PRINTED BY THE AUTHORITY  
OF THE STATE OF ILLINOIS

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**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-RD OPERATIONS, 2L, 2W MORE THAN 15' (4.5m) AWAY
701006-05	OFF-RD OPERATIONS, 2L, 2W, 15' (4.5m) TO 24" (600mm) FROM PAVEMENT EDGE
701101-05	OFF-RD OPERATIONS, MULTILANE, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE
701106-02	OFF-RD OPERATIONS, MULTILANE, MORE THAN 15' (4.5m) AWAY
701601-09	URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NONTRAVERSABLE MEDIAN
701606-10	URBAN SINGLE LANE CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN
701701-08	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701801-06	SIDEWALK, CORNER OR CROSSWALK CLOSURE
701901-08	TRAFFIC CONTROL DEVICES
814001-03	HANDHOLES
814006-03	DOUBLE HANDHOLES
857001-01	STANDARD PHASE DESIGNATION DIAGRAMS AND PHASE SEQUENCES
862001-01	UNINTERRUPTABLE POWER SUPPLY (UPS)
873001-02	TRAFFIC SIGNAL GROUNDING & BONDING
878001-11	CONCRETE FOUNDATION DETAILS

**DISTRICT 1 STANDARD DETAILS**

TC-10	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS
TC-22	ARTERIAL ROAD INFORMATION SIGN

**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 UTILITIES. 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 ARMS LENGTHS.

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

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

THE CONTRACTOR SHALL CHECK THE PROPOSED TRAFFIC SIGNAL EQUIPMENT LOCATIONS FOR OVERHEAD UTILITY CONFLICTS. THE CONTRACTOR SHALL COORDINATE ANY CONFLICTS WITH THE UTILITY COMPANIES AND RESIDENT ENGINEER BEFORE ORDERING MATERIALS.

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 DAMAGED TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

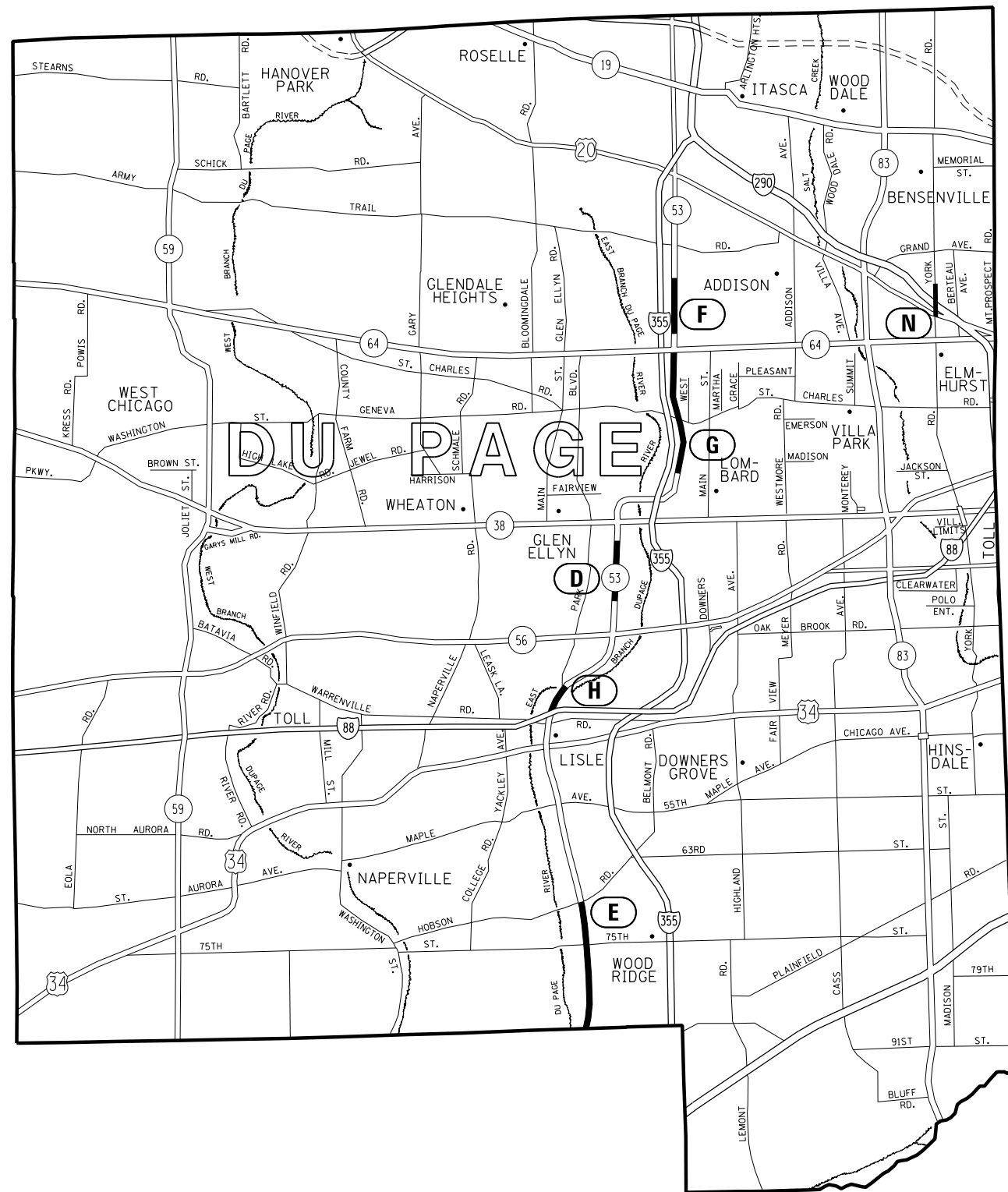
THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UNDERGROUND AND SURFACE UTILITIES EVEN THOUGH THEY MAY NOT BE SHOWN ON THE PLANS. ANY UTILITY THAT IS DAMAGED DURING CONSTRUCTION SHALL BE RESTORED TO A CONDITION EQUAL TO THAT EXISTING BEFORE THE DAMAGE INCURRED. THIS WORK SHALL BE AT THE CONTRACTOR'S EXPENSE.

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

K:\PROJECTS\Projects\2020\62M60 CHAD Interconnect\CADD\_Sheets\002\_Standards-Lisudgn

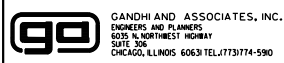
 <b>GANDHI AND ASSOCIATES, INC.</b> ENGINEERS AND PLANNERS 5015 N. NORTHWEST HIGHWAY SUITE 305 CHICAGO, ILLINOIS 60631 TEL: (773) 774-5900	USER NAME = \$USER*	DESIGNED - EA	REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>INDEX OF SHEETS, HIGHWAY STANDARDS &amp; GENERAL NOTES</b>			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
	PL. OF SCALE = 1/8" = 1' / in.	DRAWN - EA, AV	REVISED -					VAR	2020-190-TS	DUPAGE	50	2	
PLOT DATE = \$DATE*	CHECKED - AV	REVISED -	SCALE: N.T.S.			SHEET NO.	OF	SHEETS	STA.	TO	STA.	FED. ROAD DIST. NO. - [ILLINOIS] FED. AID PROJECT	
DATE - 10/9/2020	REVISIED -	CONTRACT NO. 62M60											

REV-SEP



LOC. NO.	SYSTEM	SYSTEM NAME	MUNICIPALITY
D	ECON 104	IL 53 FROM 22ND ST TO SHEEHAN AVE	LOMBARD/GLEN ELLYN
E	ECON 37	IL 53 FROM 83RD ST TO HOBSON RD	WOODRIDGE/NAPERVILLE
F	ECON 39	IL 53 FROM FULLERTON AVE TO SIDNEY AVE	ADDISON
G	ECON 39	IL 53 FROM MADISON ST TO IL RTE 64 (NORTH AVE)	LOMBARD/MILTON TOWNSHIP
H	ECON 37	IL 53 FROM PARK BLVD TO I-88 WB EXIT RAMP	LISLE/MILTON TOWNSHIP
N	EAGLE 2L	YORK RD FROM I-290 RAMP TO US RTE 20	ELMHURST

FILE NAME = K:\PROJECTS\Projects\2020\62M60\_CMAQ Interconnect\CADD\_Sheets\003\_Location Map.dgn



GANDHI AND ASSOCIATES, INC.  
 ENGINEERS AND PLANNERS  
 5035 N. NORTHWEST HIGHWAY  
 SUITE 306  
 CHICAGO, ILLINOIS 60630 TEL: (773) 774-590

USER NAME = \$USER\$  
 DESIGNED - EA  
 DRAWN - EA, AV  
 CHECKED - AV  
 DATE - 10/9/2020

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**LOCATION MAP**

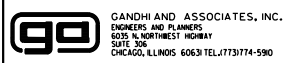
SCALE: N.T.S.    SHEET NO.    OF    SHEETS    STA.    TO    STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2020-190-TS	DUPAGE	50	3
CONTRACT NO. 62M60				
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT				

FILE NAME = K:\PROJECTS\Projects\2020\62M60\CM40\Interconnect\CADD\Sheets\084\_500-01.dgn

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE			
				80% FED 20% STATE			
				E & H	F & G	D	N
				INTERCONNECT 0021			
			URBAN				
* 66900200	NON-SPECIAL WASTE DISPOSAL	CU YD	105	35	35	17.5	17.5
* 66900530	SOIL DISPOSAL ANALYSIS	EACH	5	1.5	1.5	1	1
* 66901001	REGULATED SUBSTANCES PRE-CONSTRUCTION PLAN	LSUM	1	0.25	0.25	0.25	0.25
* 66901003	REGULATED SUBSTANCES FINAL CONSTRUCTION REPORT	LSUM	1	0.25	0.25	0.25	0.25
* 66901006	REGULATED SUBSTANCES MONITORING	CAL DA	5	1.5	1.5	1	1
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	1.5	1.5	1.5	1.5
67100100	MOBILIZATION	LSUM	1	0.25	0.25	0.25	0.25
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	LSUM	1	0.25	0.25	0.25	0.25
70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	LSUM	1	0.25	0.25	0.25	0.25
81028200	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	24752	10839	10118	2477	1318
81100600	CONDUIT ATTACHED TO STRUCTURE, 2" DIA., GALVANIZED STEEL	FOOT	432	260	172		
81400100	HANDHOLE	EACH	23	15	4		4
81400200	HEAVY-DUTY HANDHOLE	EACH	22	4	14	4	

REV-SEP



USER NAME = \$USER\$	DESIGNED - EA	REVISED -
	DRAWN - EA, AV	REVISED -
PLOT SCALE = 40.0000' / in.	CHECKED - AV	REVISED -
PLOT DATE = \$DATE\$	DATE - 10/9/2020	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES  
(SHEET 1 OF 3)**

SCALE: N.T.S.	SHEET NO.	OF	SHEETS	STA.	TO	STA.
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2020-190-TS		50	4
CONTRACT NO. 62M60			FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT	



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CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE			
				80% FED 20% STATE			
				E & H	F & G	D	N
				INTERCONNECT 0021			
			URBAN				
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	14	5	5	2	2
86400100	TRANSCEIVER-FIBER OPTIC	EACH	9	4	3	1	1
87300925	ELECTRIC CABLE IN CONDUIT , TRACER NO. 14 1C	FOOT	34146	12882	16191	3051	2022
87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	9594	3014	4732		1848
87900200	DRILL EXISTING HANDHOLE	EACH	16	8	4	2	2
88500100	INDUCTIVE LOOP DETECTOR	EACH	77	40	32		5
89501250	RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	5	3	2		
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	5	3	2		
89502376	REBUILD EXISTING HANDHOLE	EACH	1	1			
89502380	REMOVE EXISTING HANDHOLE	EACH	1	1			
X0324599	ROD AND CLEAN EXISTING CONDUIT	FOOT	3440		3440		
X8570226	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	5	3	2		



USER NAME = \$USER\$	DESIGNED - EA	REVISED -
	DRAWN - EA, AV	REVISED -
PLOT SCALE = 40.0000' / in.	CHECKED - AV	REVISED -
PLOT DATE = \$DATE\$	DATE - 10/9/2020	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

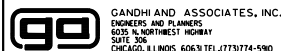
<b>SUMMARY OF QUANTITIES (SHEET 2 OF 3)</b>			
SCALE: N.T.S.	SHEET NO.	OF SHEETS	STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2020-190-TS		50	5
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT			CONTRACT NO. 62M60	

REV-SEP

CODE NO.	ITEM	UNIT	SYSTEM LOCATION NUMBER	CONSTRUCTION CODE			
				E & H	F & G	D	N
				80% FED 20% STATE			
				INTERCONNECT			
				0021			
				URBAN			
X8710024	FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM24F	FOOT	34146	12882	16191	3051	2022
Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	308.4	102.8	102.8	51.4	51.4
Z0033046	RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 2	EACH	2				2
Z0033056	OPTIMIZE TRAFFIC SIGNAL SYSTEM	EACH	3	1	1	1	

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GANDHI AND ASSOCIATES, INC.  
ENGINEERS AND PLANNERS  
5035 N. NORTHWEST HIGHWAY  
SUITE 205  
CHICAGO, ILLINOIS 60630 TEL: (773) 774-5900

USER NAME = \$USER\$	DESIGNED - EA	REVISED -
	DRAWN - EA, AV	REVISED -
PLOT SCALE = 40.0000' / in.	CHECKED - AV	REVISED -
PLOT DATE = \$DATE\$	DATE - 10/9/2020	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES  
(SHEET 3 OF 3)**

SCALE: N.T.S.    SHEET NO.    OF    SHEETS    STA.    TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2020-190-TS	DUPAGE	50	6
CONTRACT NO. 62M60			REV-SEP	
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT				

	LOCATION NUMBER	TS NO.	INTERSECTION NAME	TRAFFIC SIGNAL EQUIPMENT										CONTROLLER BRAND		
				85000200	86400100	87301305	88500100	89501250	89502375	89502376	X8570226					
E	6245		IL ROUTE 53 AT 83RD ST	1	1	766	2								ECONOLITE	*
E	6220		IL ROUTE 53 AT 75TH ST	1	1	1220	15	1	1			1			ECONOLITE	*
E	6225		IL ROUTE 53 AT HOBSON RD	1	1	242	12	1	1	1	1				ECONOLITE	*
H	11662		IL ROUTE 53 AT I-88 WB EXIT RAMP	1											ECONOLITE	*
H	6230		IL ROUTE 53 AT PARK BLVD	1	1	786	11	1	1			1			ECONOLITE	*
G	6237		IL ROUTE 53 AT MADISON ST	1	1										ECONOLITE	*
G	6235		IL ROUTE 53 AT ST CHARLES RD	1	1	830	12	1	1			1			ECONOLITE	**
G	6215		IL ROUTE 53 AT IL ROUTE 64 (NORTH AVE)	1		1708	4								ECONOLITE	*
F	22135		IL ROUTE 53 AT SIDNEY AVE	1		812	2								ECONOLITE	*
F	2520		IL ROUTE 53 AT FULLERTON AVE	1	1	1382	14	1	1			1			ECONOLITE	**
D	8970		IL ROUTE 53 AT 22ND ST	1	1										ECONOLITE	*
D	21505		IL ROUTE 53 AT SHEEHAN AVE	1											ECONOLITE	*
N	5995		YORK RD AT US ROUTE 20 (LAKE ST)	1		810	2								EAGLE	*
N	5990		YORK RD AT I-290 RAMP/CRESTVIEW AVE	1	1	1038	3								EAGLE	*

**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 CONTROLLER AND CABINET (COMPLETE)

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR AND RELOCATED TO THE PROPOSED TRAFFIC SIGNAL CONTROLLER AND CABINET. THIS WORK SHALL BE PAID FOR UNDER "RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT".

5 EACH ELECTRIC METER  
 5 EACH LIGHT DETECTOR AMPLIFIER  
 5 EACH UNINTERRUPTABLE POWER SUPPLY, SPECIAL

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR AND SHALL REMAIN THE PROPERTY OF THE STATE OF ILLINOIS, AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE STATE STOCK.

2 EACH CONTROLLER AND CABINET (COMPLETE)

**GENERAL NOTES**

\* TRAFFIC SIGNAL CONTROL EQUIPMENT SHALL MATCH THE EXISTING ADJACENT SYSTEM AS INDICATED ON THE PLANS UNDER "CONTROLLER BRAND".

\*\* RETURN CONTROLLER TO STATE STOCK

FILE NAME = K:\PROJECTS\Projects\2020\62M60\_CMAQ Interconnect\CADD\_Sheets\084\_500-04.dgn



GANDHI AND ASSOCIATES, INC.  
 ENGINEERS AND PLANNERS  
 5035 N. NORTHWEST HIGHWAY  
 SUITE 305  
 CHICAGO, ILLINOIS 60630 TEL: (773) 774-5900

USER NAME = \$USER*	DESIGNED - EA	REVISED -
	DRAWN - EA, AV	REVISED -
PLOT SCALE = 40.0000' / in.	CHECKED - AV	REVISED -
PLOT DATE = \$DATE*	DATE - 10/9/2020	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

**SCHEDULE OF QUANTITIES**  
**TRAFFIC SIGNAL CONTROLLERS AND CABINETS**

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2020-190-TS	DUPAGE	50	7
			CONTRACT NO. 62M60	
FED. ROAD DIST. NO. - [ILLINOIS] FED. AID PROJECT				

# TRAFFIC SIGNAL LEGEND

(NOT TO SCALE)

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

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PLOT SCALE = 40.0000' / 1" =	CHECKED - AV	REVISED -
PLOT DATE = \$DATE\$	DATE - 10/9/2020	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**DISTRICT ONE  
STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

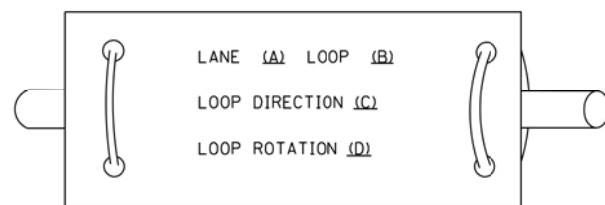
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CONTRACT NO. 62M60				
FED. ROAD DIST. NO. - [ILLINOIS] FED. AID PROJECT				

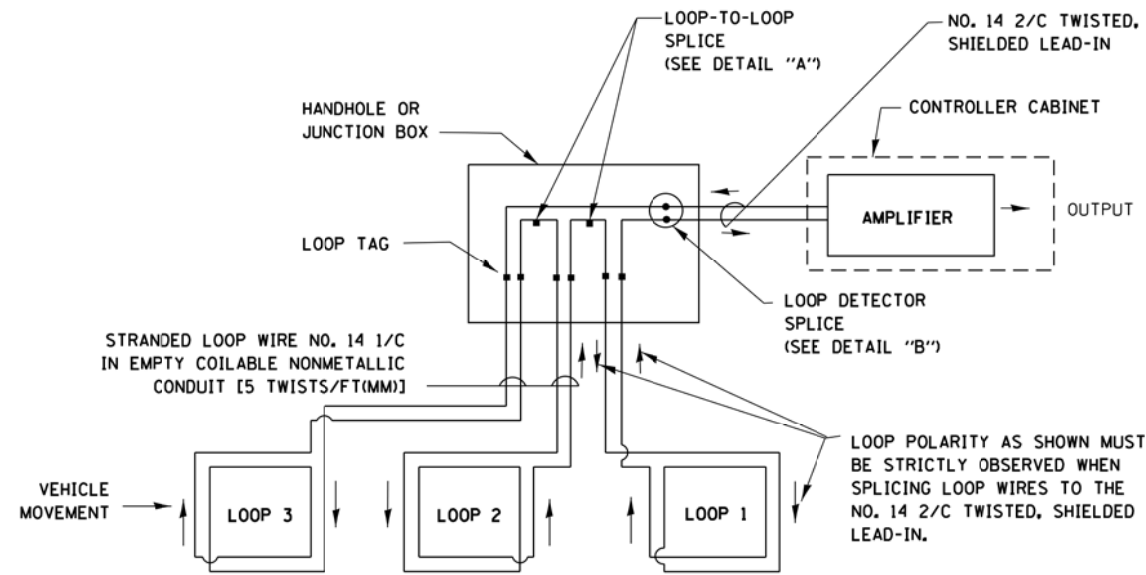
**LOOP DETECTOR NOTES**

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**

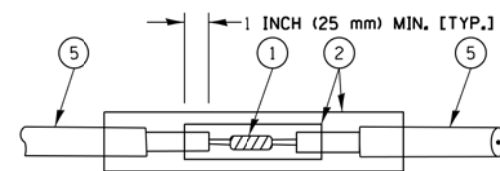


- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

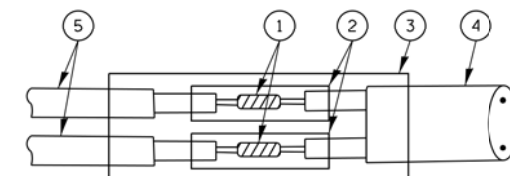


**DETECTOR LOOP WIRING SCHEMATIC**

- 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.

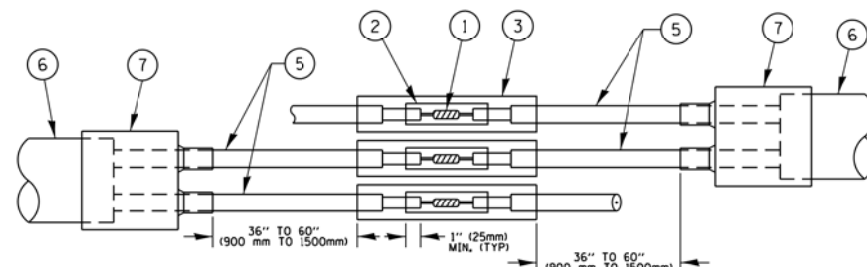


DETAIL "A"  
LOOP-TO-LOOP SPLICE

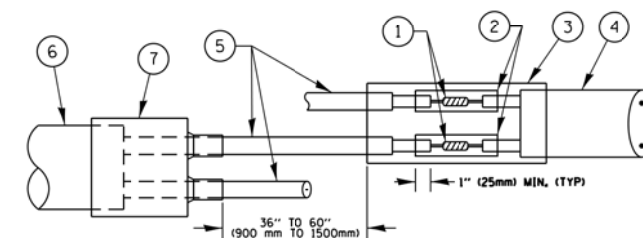


DETAIL "B"  
LOOP-TO-CONTROLLER SPLICE

**TYPE I LOOP**



DETAIL "A"  
LOOP-TO-LOOP SPLICE

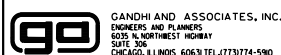


DETAIL "B"  
LOOP-TO-CONTROLLER SPLICE

**LOOP DETECTOR SPLICE**

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

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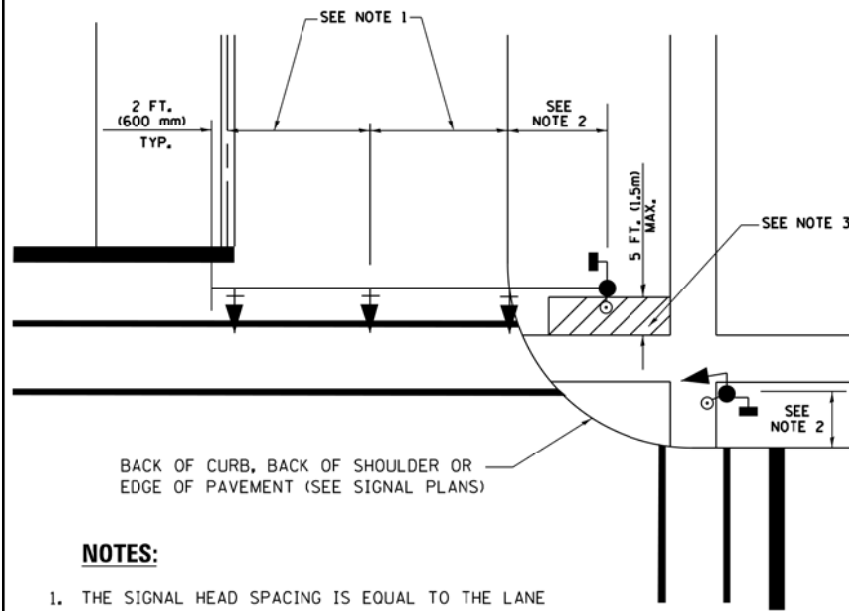
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**DISTRICT ONE  
STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

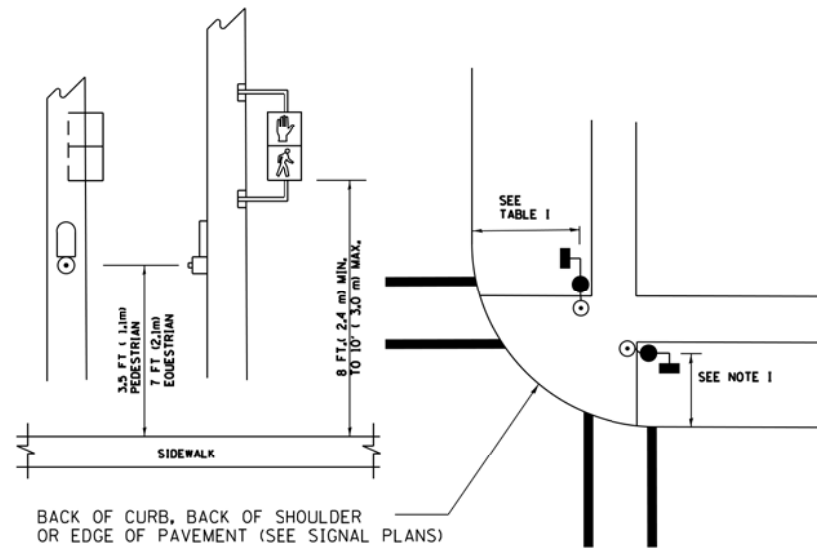
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VAR	2020-190-TS	DUPAGE	50	9
CONTRACT NO. 62M60			FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT	

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



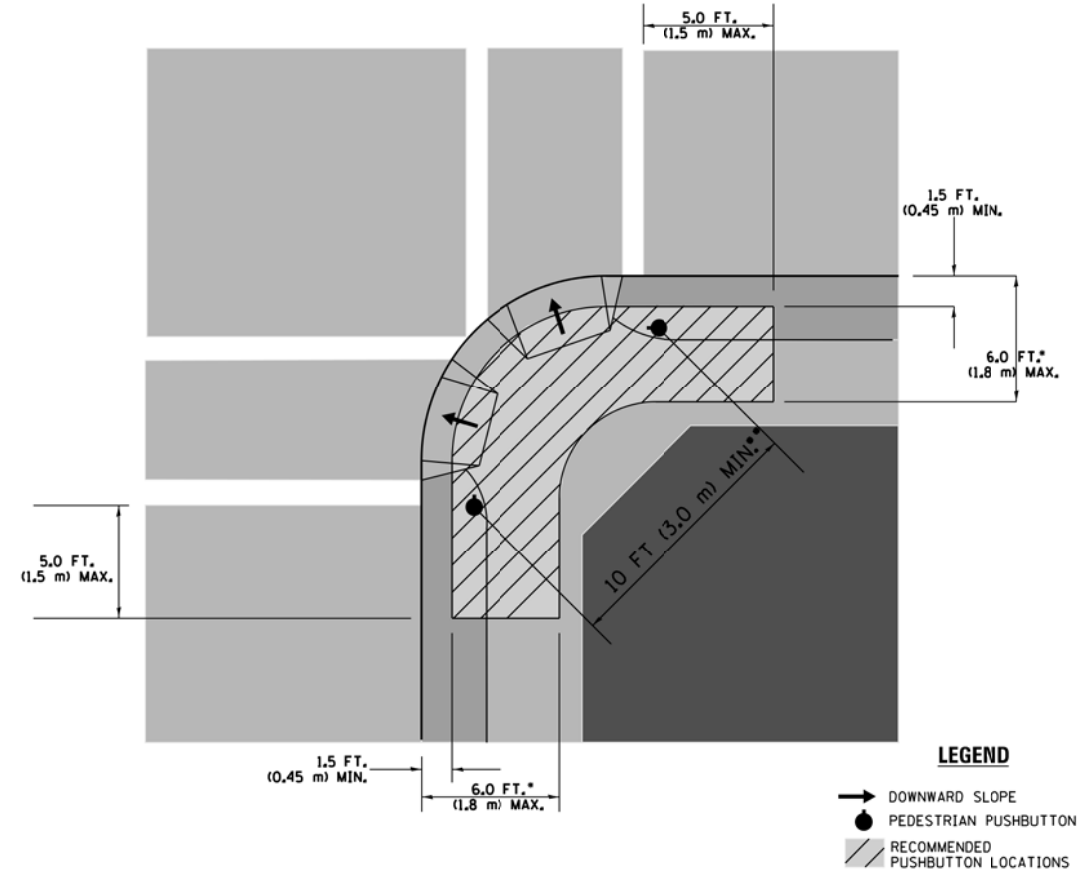
- NOTES:**
1. THE SIGNAL HEAD SPACING IS EQUAL TO THE LANE WIDTH OR AS SHOWN ON THE TRAFFIC SIGNAL PLAN.
  2. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
  3. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP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

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



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

**RECOMMENDED PUSHBUTTON LOCATIONS**



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

**LEGEND**

- DOWNWARD SLOPE
- PEDESTRIAN PUSHBUTTON
- ▨ RECOMMENDED PUSHBUTTON LOCATIONS

**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.

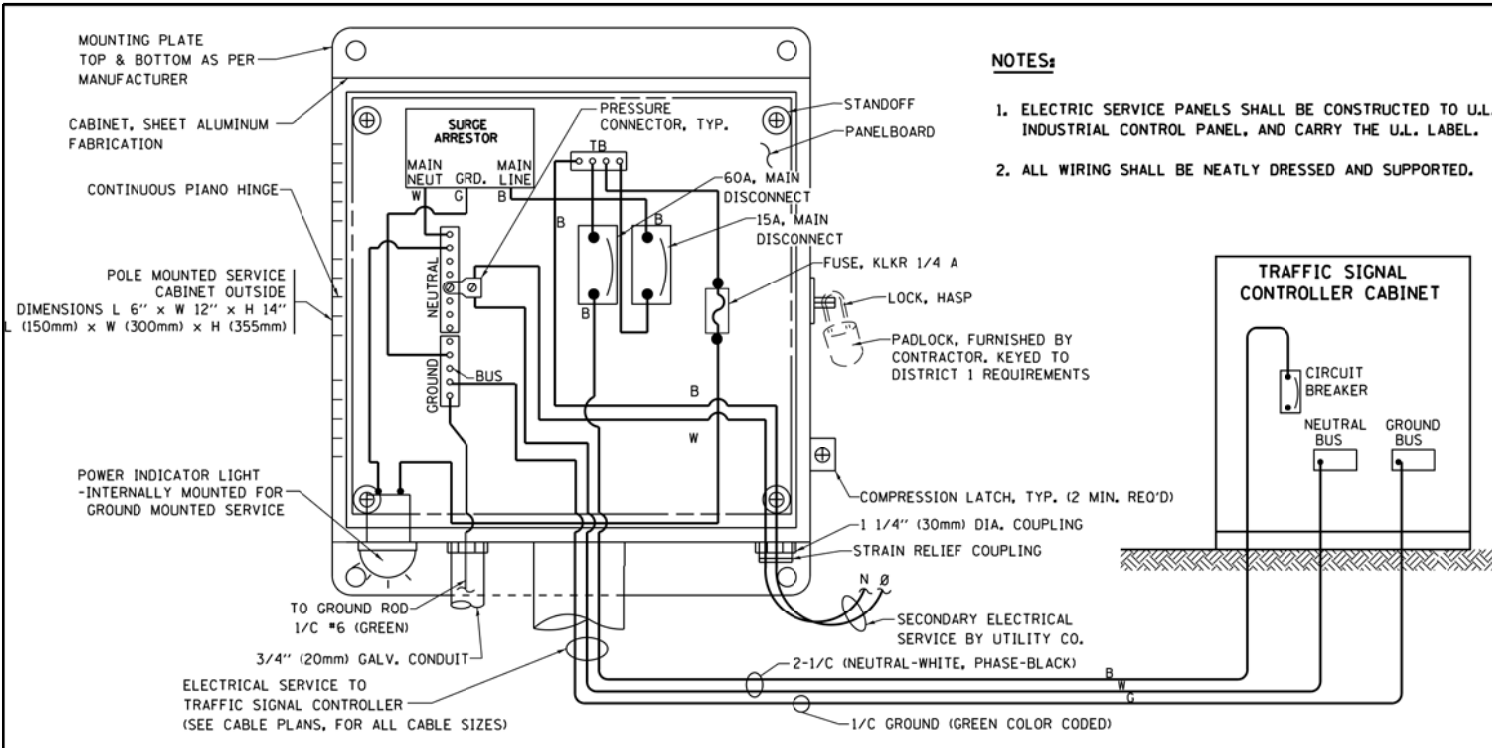
**TRAFFIC SIGNAL EQUIPMENT OFFSET**

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.

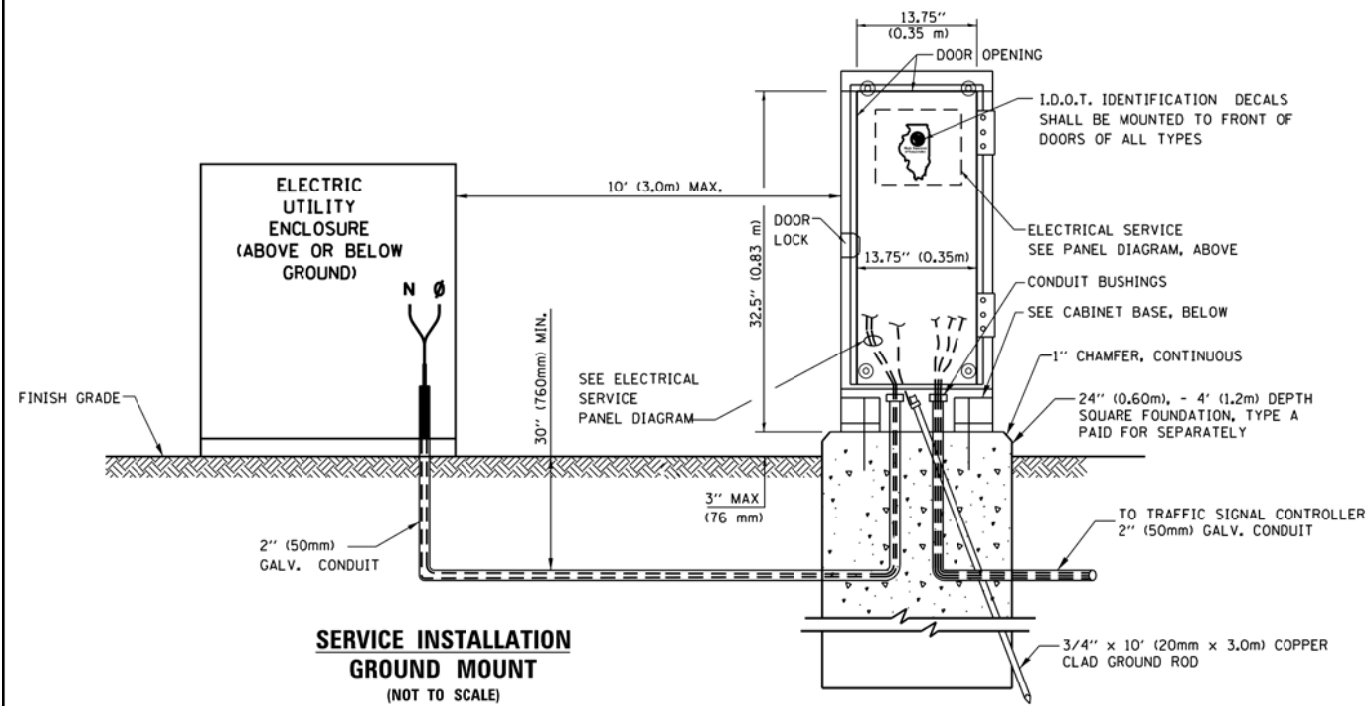
- NOTES:**
1. CONTACT THE "AREA TRAFFIC SIGNAL MAINTENANCE AND OPERATIONS ENGINEER" FOR ASSISTANCE IN LOCATING THE TRAFFIC SIGNAL EQUIPMENT WHEN THERE ARE CONFLICTS WITH DITCHES OR THE MINIMUM OFFSET DISTANCES CANNOT BE MET.
  2. MINIMUM DISTANCE FROM THE BACK OF CURB TO THE ROADWAY SIDE OF THE FOUNDATION.
  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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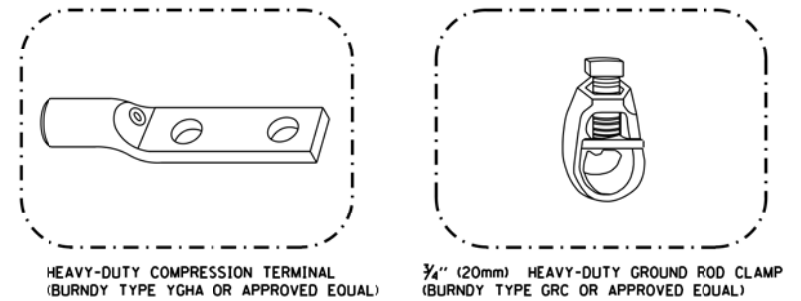
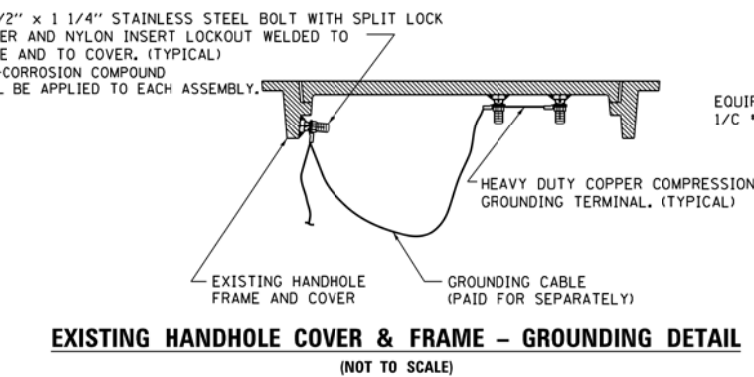
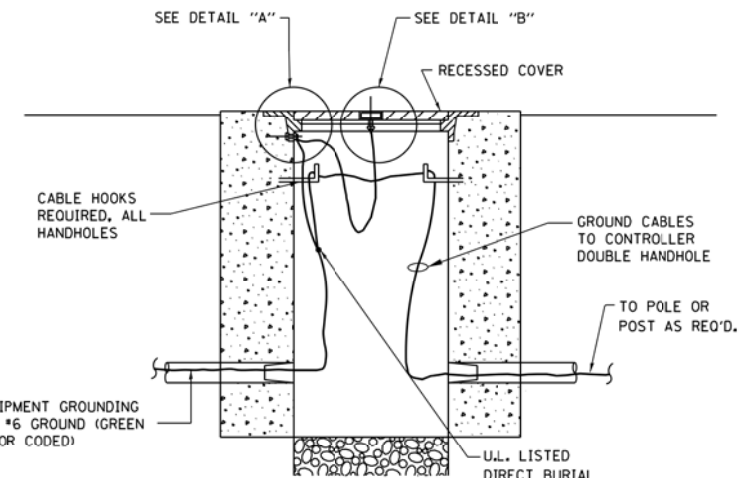
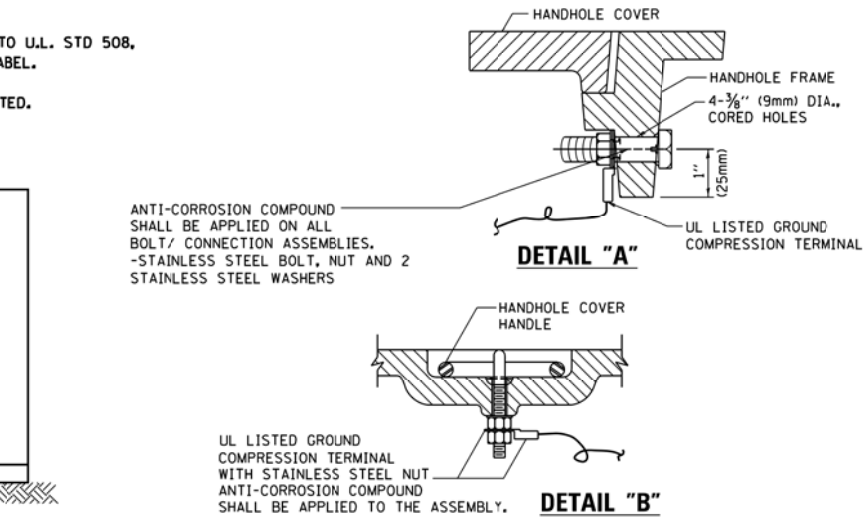
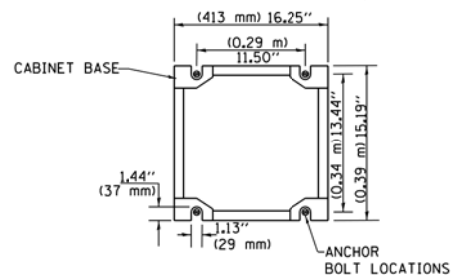
<p>GANDHI AND ASSOCIATES, INC. ENGINEERS AND PLANNERS 5035 N. NORTHWEST HIGHWAY SUITE 200 CHICAGO, ILLINOIS 60630 TEL: (773) 774-5900</p>	USER NAME = \$USER\$	DESIGNED - EA	REVISED -	<p><b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b></p>	<p><b>DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS</b></p>	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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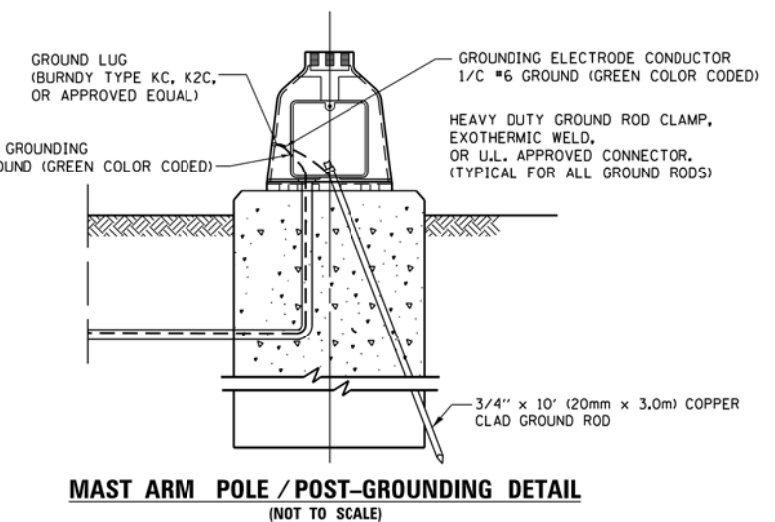
**ELECTRICAL SERVICE - PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)**  
**SERVICE INSTALLATION POLE MOUNT (SHOWN)**  
 (NOT TO SCALE)



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



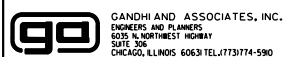
- NOTES:**
- ALL CLAMPS SHALL BE BRONZE OR COPPER, U.L. APPROVED.
  - GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES 6.5' (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES 13' (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES. 5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME AND COVER.



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

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

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 ENGINEERS AND PLANNERS  
 5055 N. NORTHWEST HIGHWAY  
 SUITE 206  
 CHICAGO, ILLINOIS 60630 TEL: (773) 774-5900

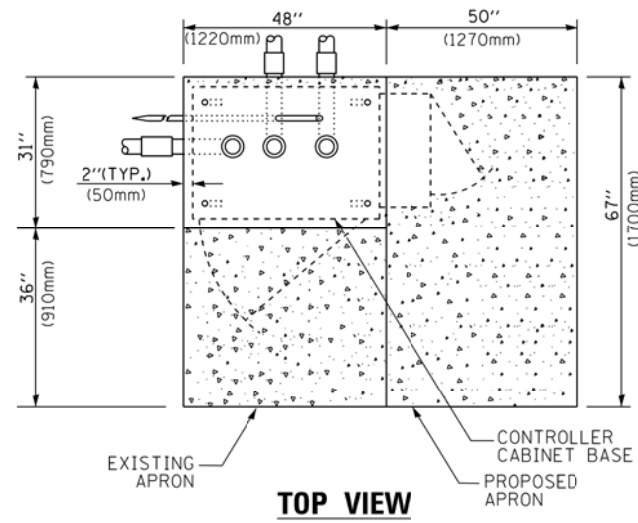
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**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

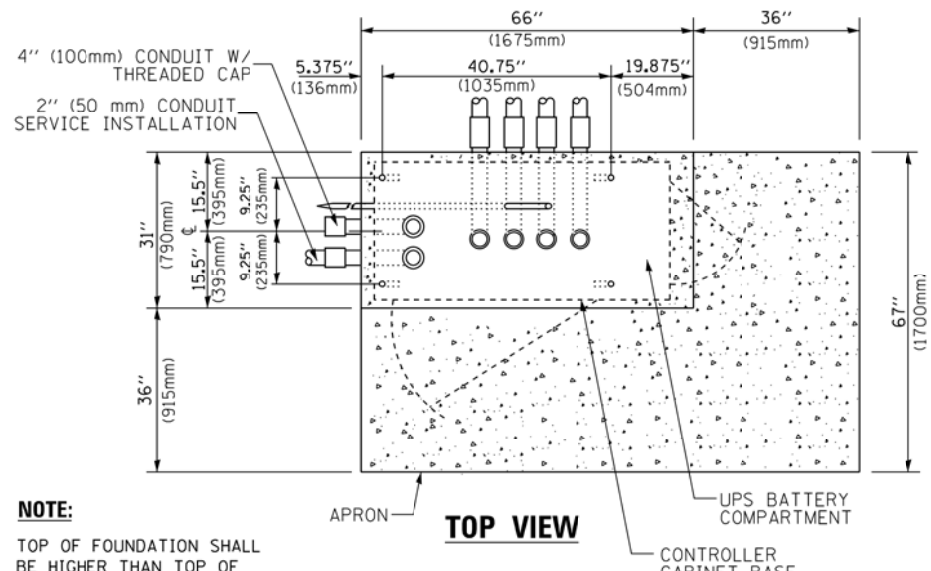
**DISTRICT ONE**  
**STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

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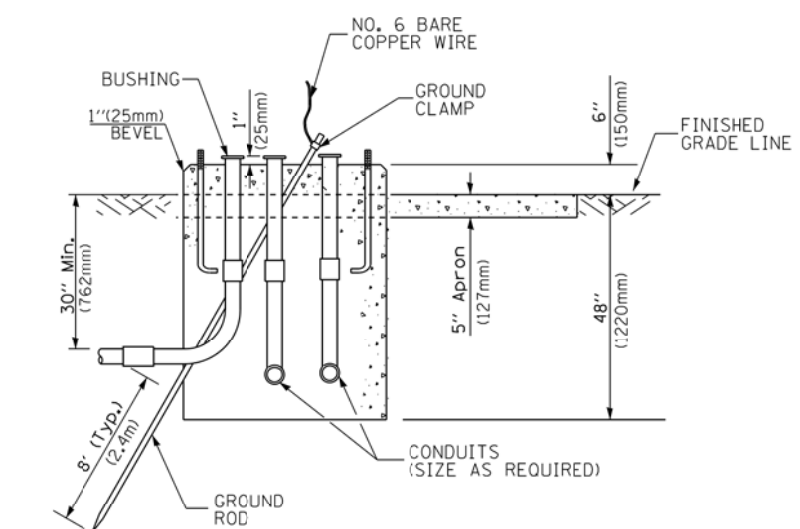
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FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT			CONTRACT NO. 62M60	



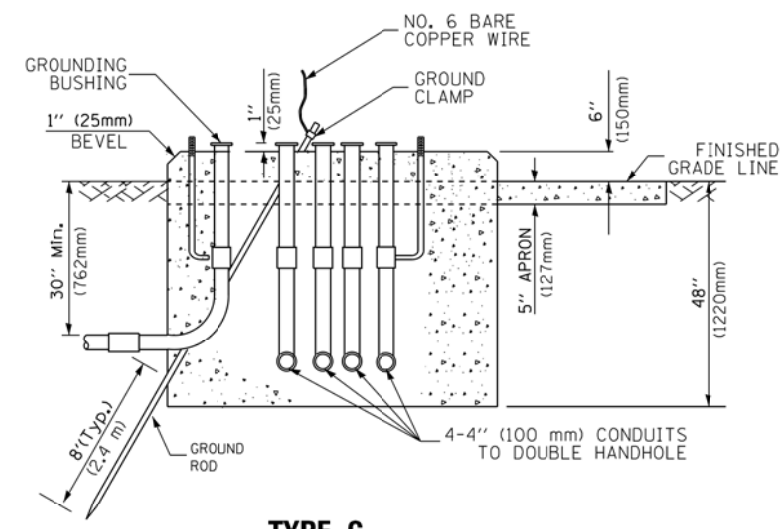
**TOP VIEW**



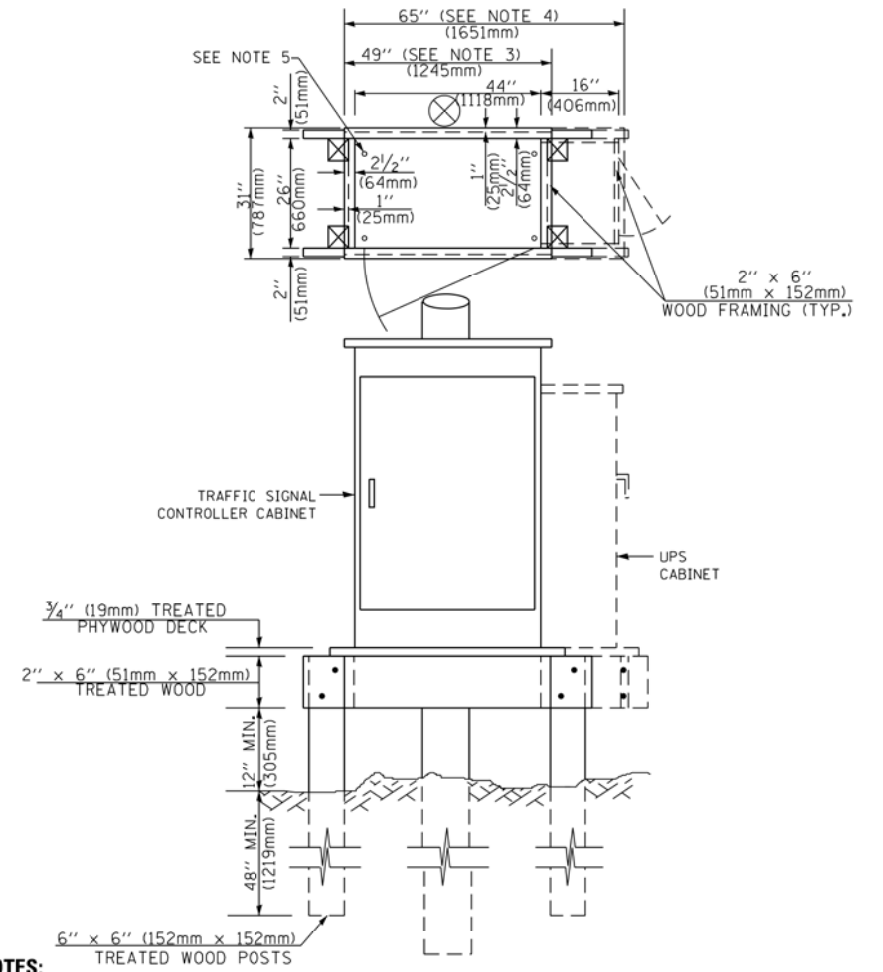
**TOP VIEW**



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



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



**NOTES:**

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

**TEMPORARY SIGNAL CONTROLLER  
WOOD SUPPORT PLATFORM**

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

**CABLE SLACK**

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

**VERTICAL CABLE LENGTH**

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

**DEPTH OF FOUNDATION**

MAST ARM LENGTH	① FOUNDATION DEPTH	FOUNDATION DIAMETER	SPIRAL DIAMETER	QUANTITY OF REBARS	SIZE OF REBARS
Less than 30' (9.1 m)	10'-0" (3.0 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 30' (9.1 m) and less than 40' (12.2 m)	13'-6" (4.1 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 40' (12.2 m) and less than 50' (15.2 m)	11'-0" (3.4 m)	36" (900mm)	24" (600mm)	12	7(22)
Greater than or equal to 50' (15.2 m) and up to 55' (16.8 m)	13'-0" (4.0 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 55' (16.8 m) and less than 65' (19.8 m)	15'-0" (4.6 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 65' (19.8 m) and up to 75' (22.9 m)	21'-0" (6.4 m)	42" (1060mm)	36" (900mm)	16	8(25)
	25'-0" (7.6 m)	42" (1060mm)	36" (900mm)	16	8(25)

**NOTES:**

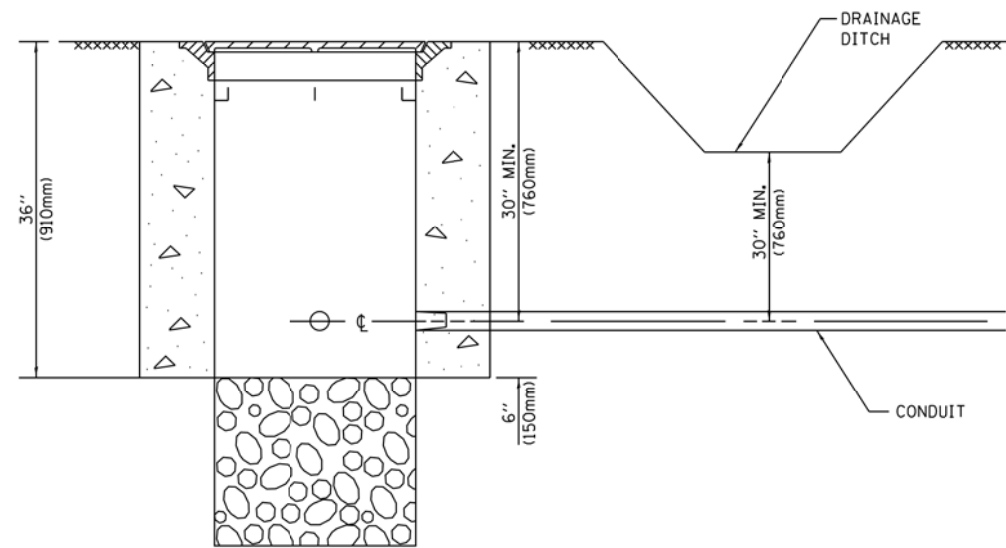
- These foundation depths are for sites which have cohesive soils (clayey silt, sandy clay, etc.) along the length of the shaft, with an average Unconfined Compressive Strength (qu) > 1.0 tsf (100 kpa). This strength shall be verified by boring data prior to construction or with testing by the Engineer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

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

FILE NAME = K:\PROJECTS\Projects\2020\62M60\_CMAQ Interconnect\CADD\_Sheets\089\_1.DOT DETAILS.dgn

	USER NAME = \$USER\$	DESIGNED - EA	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS</b>	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 40.0000' / 1"	CHECKED - AV	REVISED -			VAR	2020-190-TS	DUPAGE	50	12
PLOT DATE = \$DATE\$	DATE - 10/9/2020	REVISED -		SCALE: N.T.S.	SHEET NO. OF SHEETS	STA. TO STA.	FED. ROAD DIST. NO. - [ILLINOIS] FED. AID PROJECT			

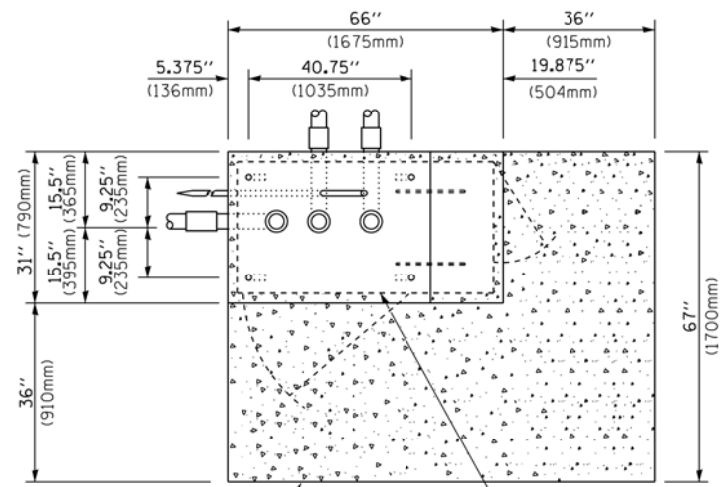




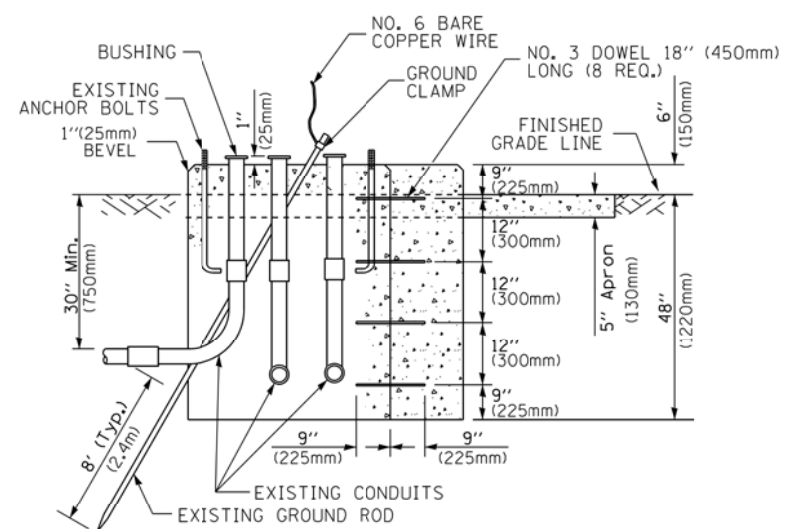
**NOTES:**

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.

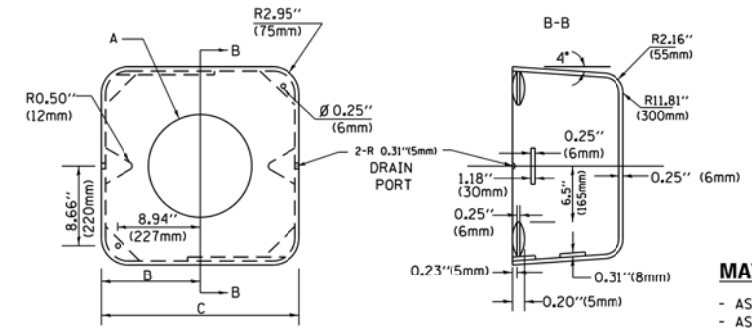
**HANDHOLE WITH MINIMUM CONDUIT DEPTH**  
(NOT TO SCALE)



**TOP VIEW**  
(NOT TO SCALE)



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



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

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

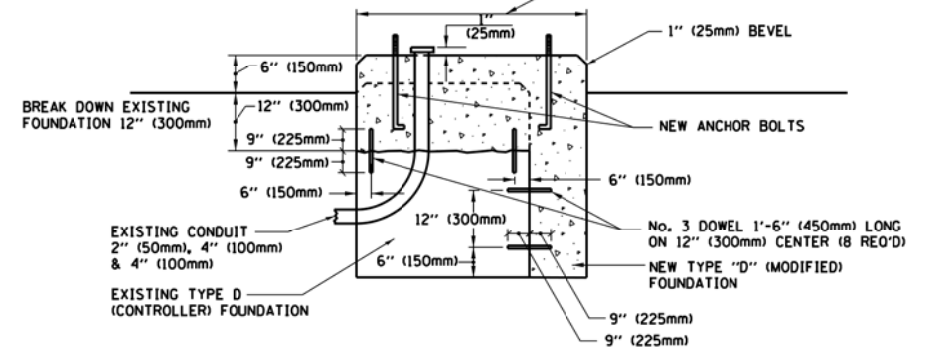
**SHROUD**

**NOTES:**

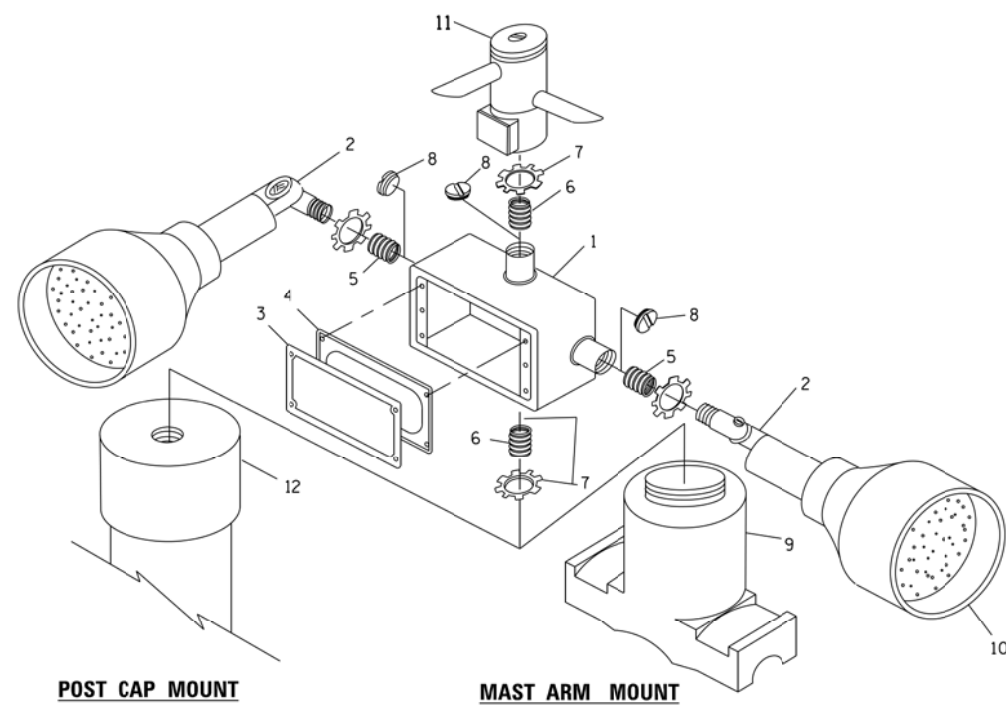
1. DIMENSION "A" IS EQUAL TO THE DIAMETER OF THE MAST ARM POLE AT THE TOP OF THE SHROUD. THE SHROUD SHALL BE TIGHT TO THE MAST ARM POLE.
2. THE SUPPLIER SHALL VERIFY THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
3. THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST ARM POLE BASE.

**NOTE:**

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



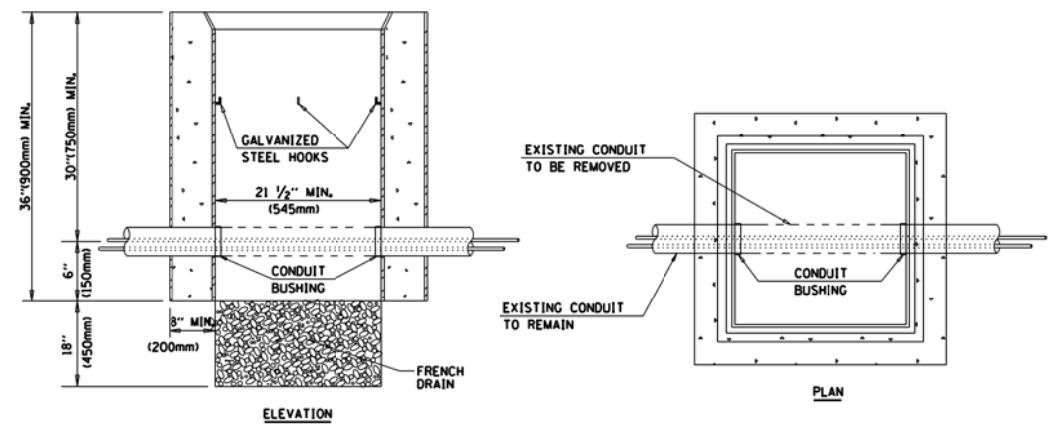
**MODIFY EXISTING TYPE "D" FOUNDATION**



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.



**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**

FILE NAME = K:\PROJECTS\Projects\2028\62M60 - Interconnect\CAD\Drawings\010 - DETAIL.S.dwg



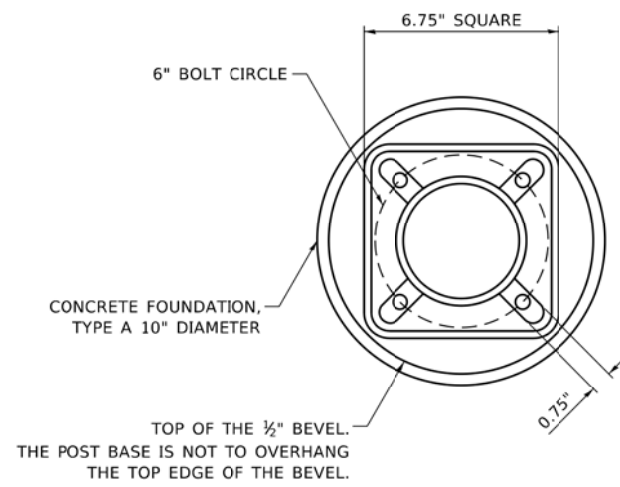
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PLOT SCALE = 40.0000' / 1"	DRAWN - EA, AV	REVISED -
PLOT DATE = \$DATE\$	CHECKED - AV	REVISED -
	DATE - 10/9/2020	REVISED -

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

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

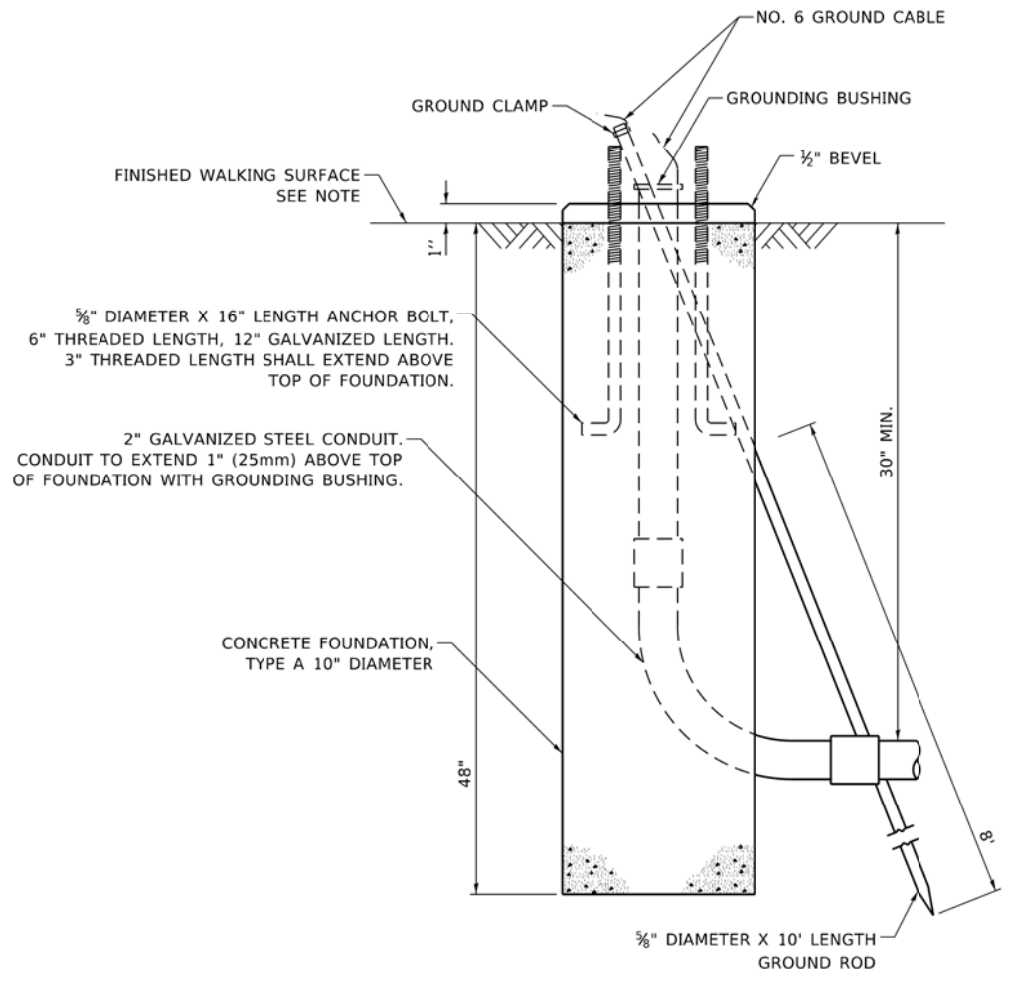
SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2020-190-TS	DUPAGE	50	13
FED. ROAD DIST. NO. - [ILLINOIS] FED. AID PROJECT			CONTRACT NO. 62M60	

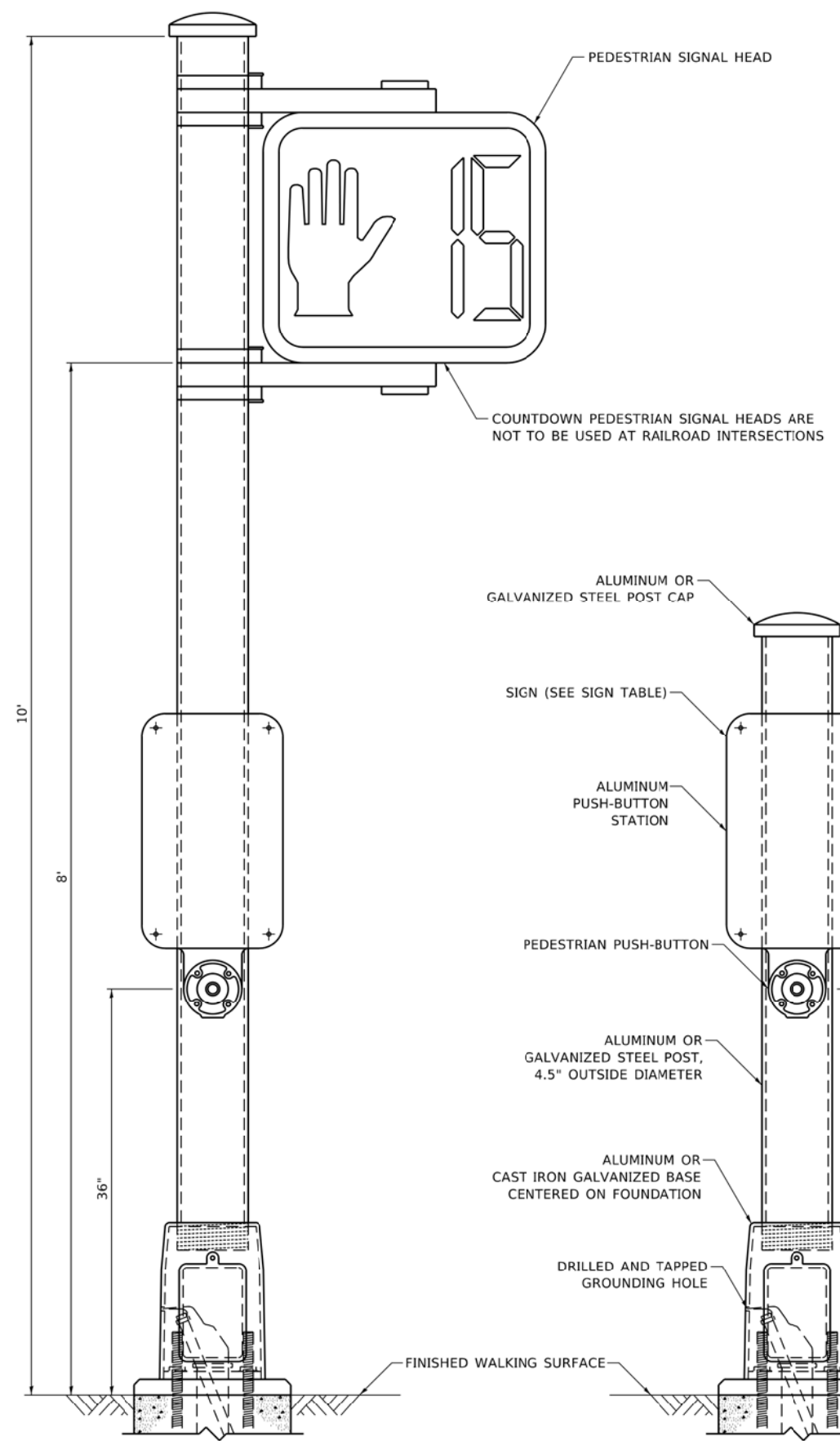


**BOLT PATTERN**

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 10-INCH DIAMETER**



**PEDESTRIAN SIGNAL POST, 10 FT.**

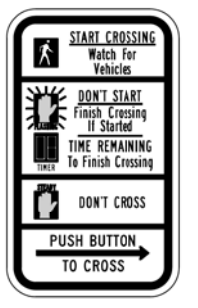
**PEDESTRIAN SIGNAL POST, 5 FT.**



R10-3b



R10-3d



R10-3e

**SIGN TABLE**

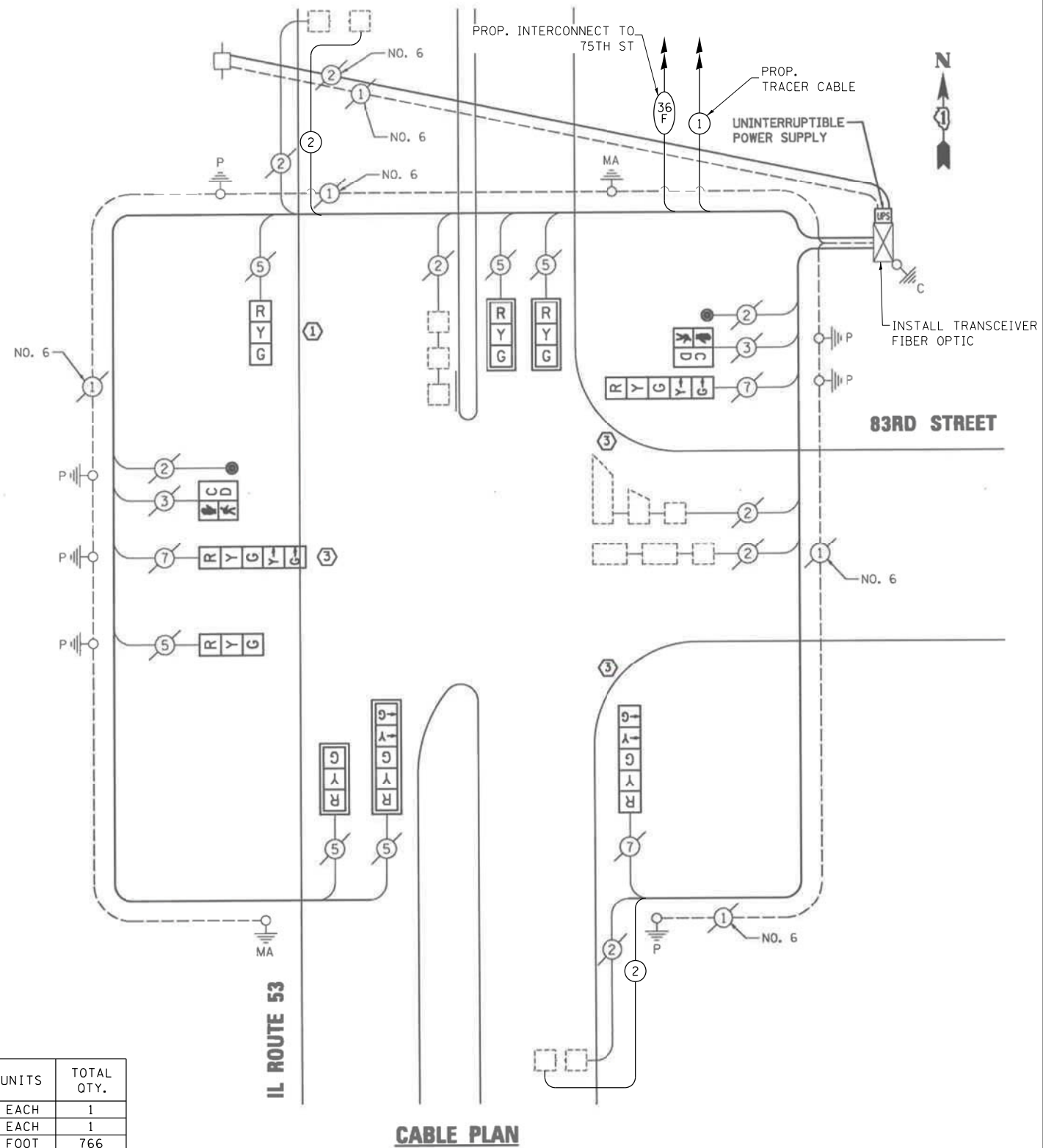
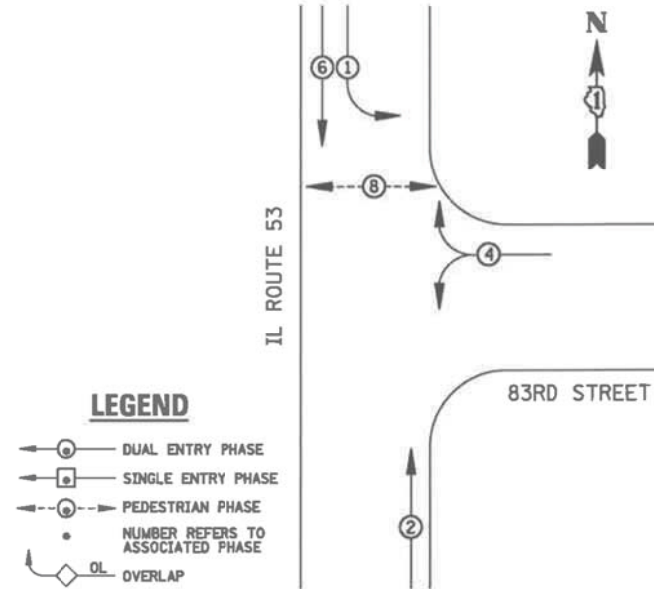
SIGN	DIMENSIONS
R10-3b (RAILROAD ONLY)	9" X 12"
R10-3d (RAILROAD ONLY)	9" X 12"
R10-3e	9" X 15"

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.

FILE NAME = K:\PROJECTS\Projects\2020\62M60 - Interconnect\CADD\_Sheets\010A.IDDT DETAILS.7.dgn

	GANDHI AND ASSOCIATES, INC. ENGINEERS AND PLANNERS 5035 N. NORTHWEST HIGHWAY SUITE 308 CHICAGO, ILLINOIS 60630 TEL: (773) 774-590	USER NAME = \$USER\$	DESIGNED - EA	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - EA, AV	REVISED -	PLOT SCALE = 40.0000' / 1"					CHECKED - AV	REVISED -	VAR	2020-190-TS	DUPAGE
		PLOT DATE = \$DATE\$	DATE - 10/9/2020	REVISED -	SCALE: N.T.S.    SHEET NO.    OF    SHEETS    STA.    TO    STA.			FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT					

**EXISTING CONTROLLER SEQUENCE**



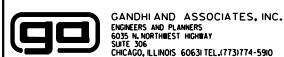
**NOTE:**  
INSTALL TRANSCEIVER FIBER OPTIC IN EXISTING CABINET.

**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNITS	TOTAL QTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRANSCEIVER - FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	766
INDUCTIVE LOOP DETECTOR	EACH	2

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE (INCAND.)	LED	%OPERATION	
SIGNAL (RED)	9	135	17	0.50	76.5
SIGNAL (YELLOW)	9	135	25	0.25	56.25
SIGNAL (GREEN)	9	135	15	0.25	33.75
ARROW	8	135	12	0.10	9.6
PED. SIGNAL	2	90	25	1.00	50
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84		0.05	
FLASHER		135	25	0.50	
ENERGY COSTS TO:					TOTAL = 326.1
ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096					
ENERGY SUPPLY CONTACT:	X				
PHONE:	X				
COMPANY:	X				

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USER NAME = \$USER\$	DESIGNED - EA	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN - EA, AV	REVISED -
PLOT DATE = \$DATE\$	CHECKED - AV	REVISED -
	DATE - 10/9/2020	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

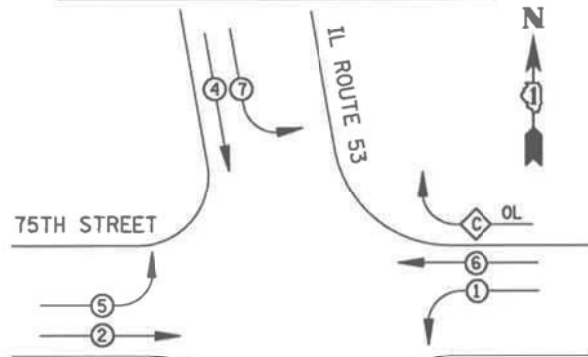
**MODIFIED CABLE PLAN, PHASE DESIGNATION DIAGRAM, EMERGENCY  
VEHICLE PREEMPTION SEQUENCE, AND SCHEDULE OF QUANTITIES  
IL ROUTE 53 AT 83RD ST**

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2020-190-TS	DUPAGE	50	15
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT			CONTRACT NO. 62M60	

**TS 6245  
ECON 37  
LOCATION NO. E**

**EXISTING CONTROLLER SEQUENCE**



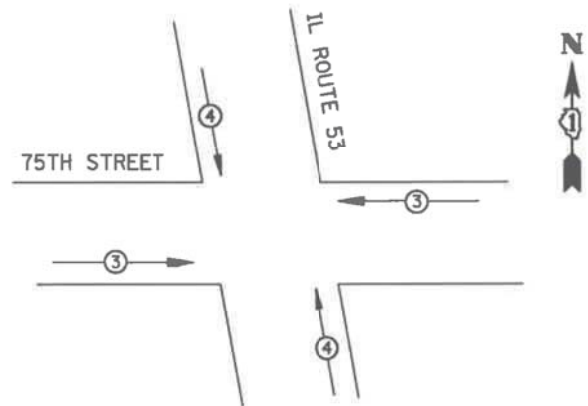
**LEGEND**

- ② DUAL ENTRY PHASE
- ④ SINGLE ENTRY PHASE
- ⑥ PEDESTRIAN PHASE
- NUMBER REFERS TO ASSOCIATED PHASE
- ◇ OL OVERLAP

**RIGHT TURN OVERLAP PHASE DESIGNATION**

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
C	= 6 +	7
D	= 8 +	1

**EXISTING PHASE DESIGNATION DIAGRAM**



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

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE (INCAND.)	LED	%OPERATION	
SIGNAL (RED)	16	135	17	0.50	136
(YELLOW)	16	135	25	0.25	100
(GREEN)	16	135	15	0.25	60
ARROW	24	135	12	0.10	28.8
PED. SIGNAL	90	90	25	1.00	
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN	84	84		0.05	
FLASHER		135	25	0.50	
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096					TOTAL = 424.8
ENERGY SUPPLY CONTACT:	X				
PHONE:	X				
COMPANY:	X				

**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 CONTROLLER AND CABINET (COMPLETE)

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR AND RELOCATED TO THE PROPOSED TRAFFIC SIGNAL CONTROLLER AND CABINET. THIS WORK SHALL BE PAID FOR UNDER "RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT".

- 1 EACH ELECTRIC METER
- 1 EACH LIGHT DETECTOR AMPLIFIER
- 1 EACH UNINTERRUPTABLE POWER SUPPLY, SPECIAL

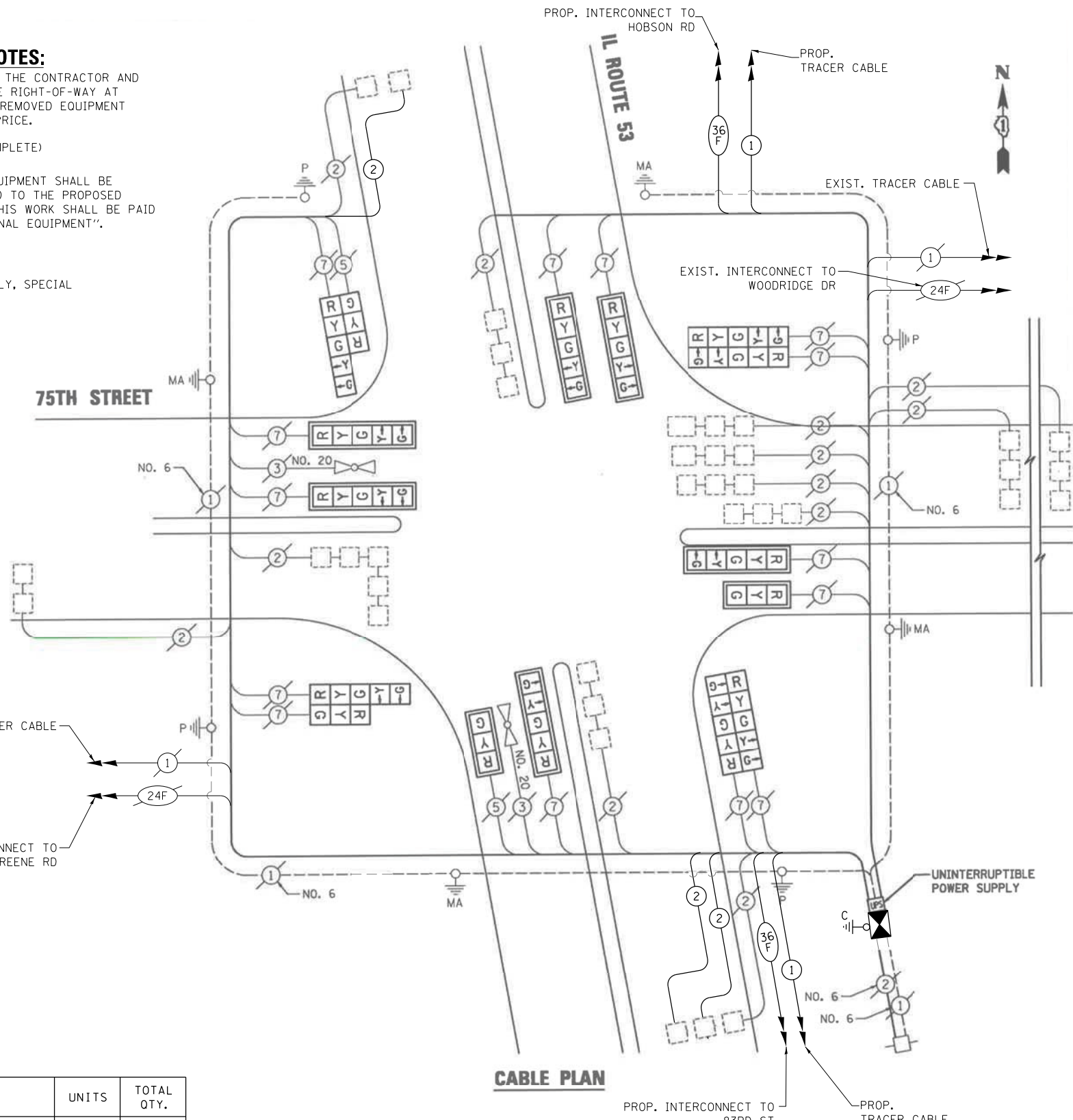
**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNITS	TOTAL QTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRANSCEIVER - FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	1220
INDUCTIVE LOOP DETECTOR	EACH	15
RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1

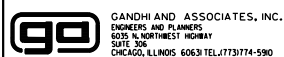
EXIST. TRACER CABLE

EXIST. INTERCONNECT TO GREENE RD

**CABLE PLAN**



FILE NAME = K:\PROJECTS\Projects\2020\62M60\_CMAQ\_Interconnect\CADD\_Sheets\012\_IL\_Rte\_53\_at\_75th\_St\_CD.dgn



USER NAME = \$USER\$	DESIGNED - EA	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN - EA, AV	REVISED -
PLOT DATE = \$DATE\$	CHECKED - AV	REVISED -
	DATE - 10/9/2020	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**MODIFIED CABLE PLAN, PHASE DESIGNATION DIAGRAM, EMERGENCY VEHICLE PREEMPTION SEQUENCE, AND SCHEDULE OF QUANTITIES  
IL ROUTE 53 AT 75TH ST**

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

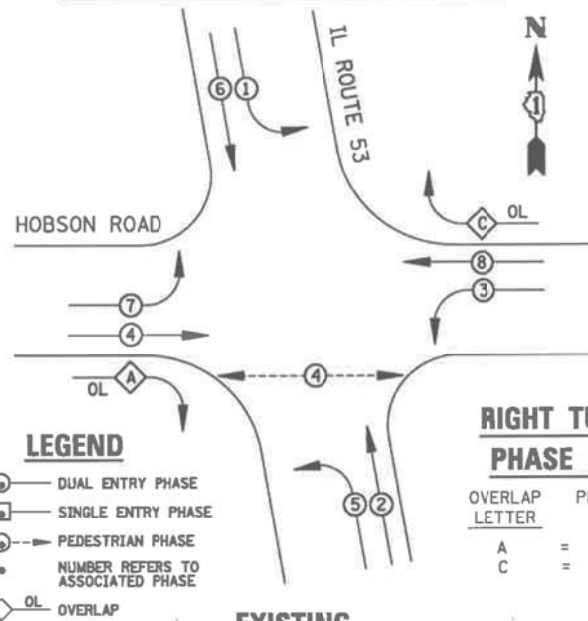
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2020-190-TS	DUPAGE	50	16
FED. ROAD DIST. NO. - ILLINOIS			FED. AID PROJECT	

**TS 6220  
ECON 37  
LOCATION NO. E**

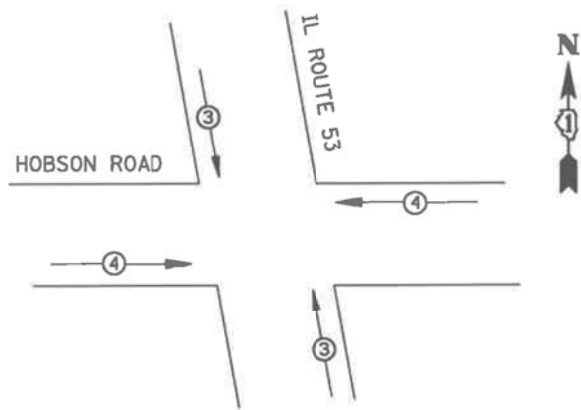
CONTRACT NO. 62M60



**EXISTING CONTROLLER SEQUENCE**



**EXISTING PHASE DESIGNATION DIAGRAM**



EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↑	←

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE (INCAND.)	LED	%OPERATION	
SIGNAL (RED)	14	135	17	0.50	119
(YELLOW)	14	135	25	0.25	87.5
(GREEN)	14	135	15	0.25	52.5
ARROW	24	135	12	0.10	28.8
PED. SIGNAL	2	90	25	1.00	50
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84		0.05	
FLASHER		135	25	0.50	
ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION 201 WEST CENTER COURT SCHAUMBURG, IL 60196-1096					TOTAL = 437.8
ENERGY SUPPLY CONTACT:	X				
PHONE:	X				
COMPANY:	X				

**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 CONTROLLER AND CABINET (COMPLETE)

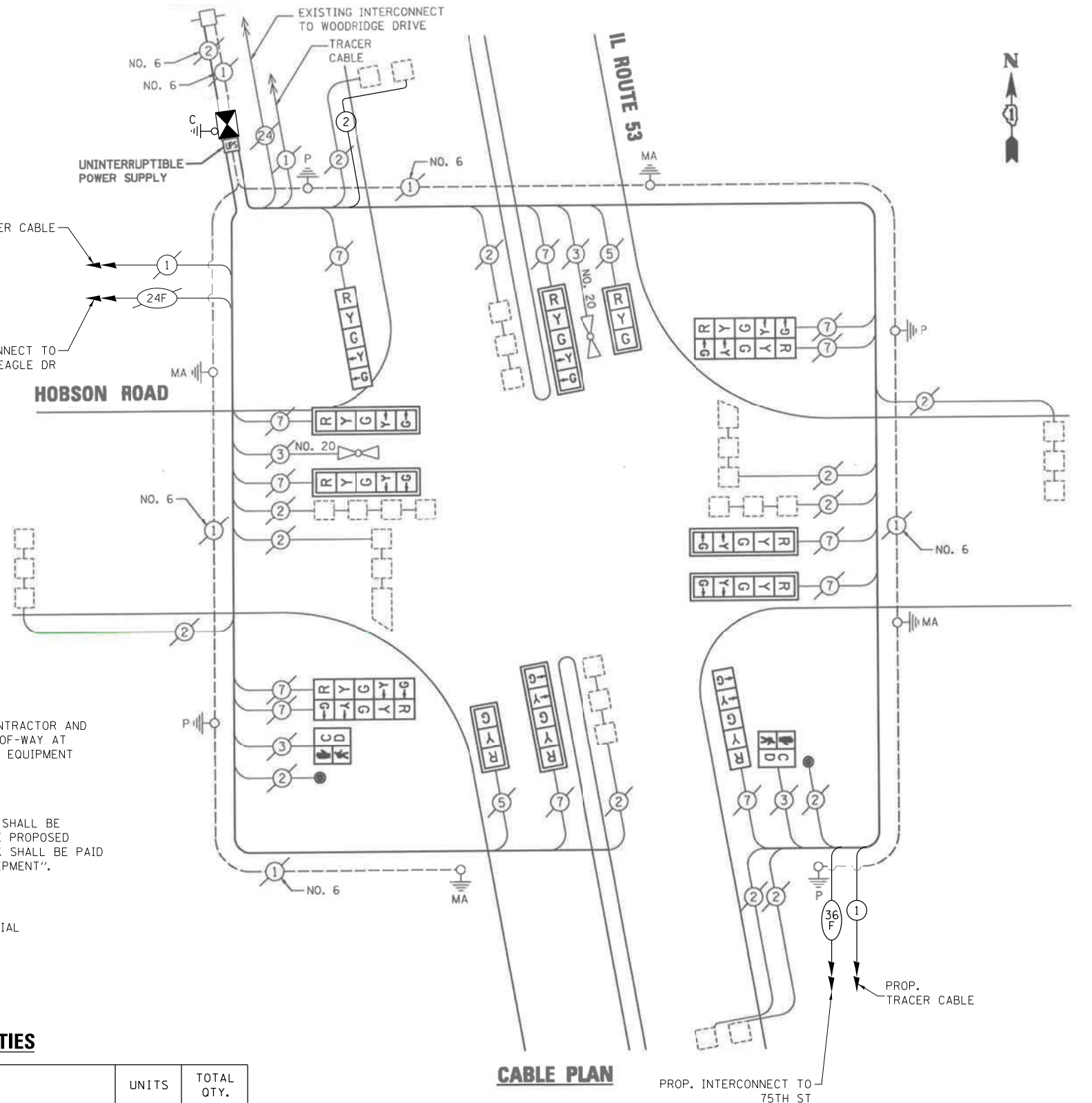
THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR AND RELOCATED TO THE PROPOSED TRAFFIC SIGNAL CONTROLLER AND CABINET. THIS WORK SHALL BE PAID FOR UNDER "RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT".

- 1 EACH ELECTRIC METER
- 1 EACH LIGHT DETECTOR AMPLIFIER
- 1 EACH UNINTERRUPTABLE POWER SUPPLY, SPECIAL

**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNITS	TOTAL QTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRANSCIEVER - FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	242
INDUCTIVE LOOP DETECTOR	EACH	12
RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REBUILD EXISTING HANDHOLE	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



**CABLE PLAN**

MODIFIED CABLE PLAN, PHASE DESIGNATION DIAGRAM, EMERGENCY VEHICLE PREEMPTION SEQUENCE, AND SCHEDULE OF QUANTITIES  
IL ROUTE 53 AT HOBSON RD

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

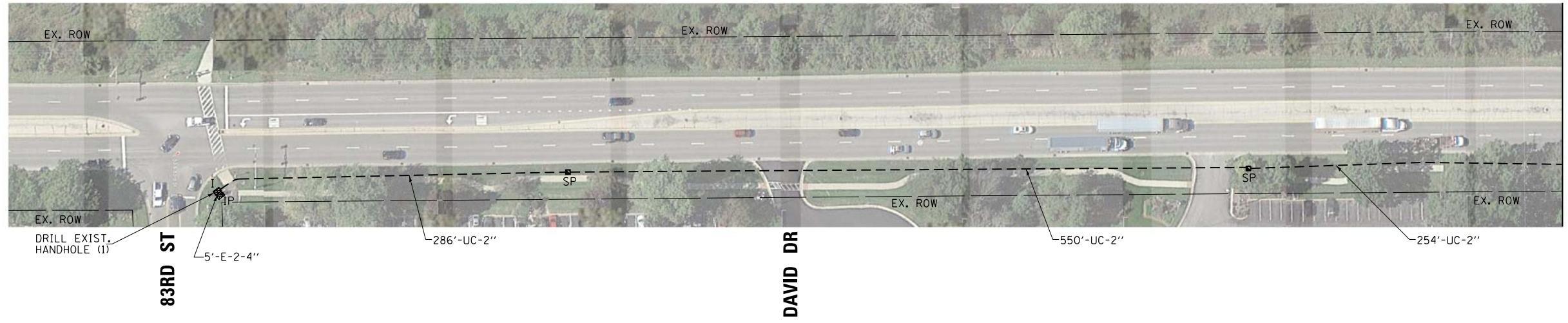
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2020-190-TS	DUPAGE	50	17
CONTRACT NO. 62M60				
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT				

TS 6225  
ECON 37  
LOCATION NO. E

USER NAME = \$USER\$	DESIGNED - EA	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN - EA, AV	REVISED -
PLOT DATE = \$DATE\$	CHECKED - AV	REVISED -
	DATE - 10/9/2020	REVISED -



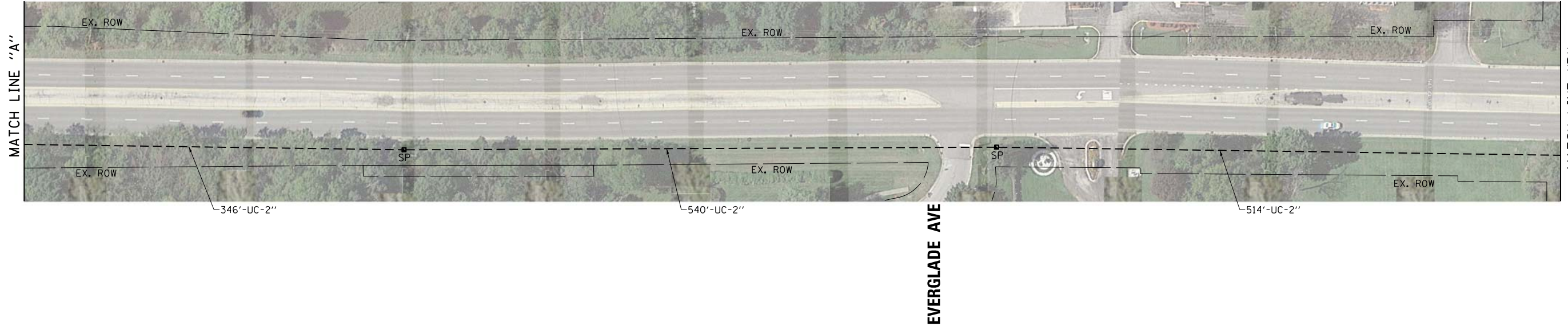
IL RTE 53



MATCH LINE "A"



IL RTE 53



MATCH LINE "A"

MATCH LINE "B"

FILE NAME = K:\PROJECTS\Projects\_2020\62M60\_CMAQ\_Interconnect\CADD\_Sheets\014\_Econ\_37\_Interconnect.lidgn



USER NAME = \$USER*	DESIGNED - EA	REVISED -
PLOT SCALE = 100.0000' / 1" =	DRAWN - EA, AV	REVISED -
PLOT DATE = \$DATE*	CHECKED - AV	REVISED -
	DATE - 10/9/2020	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PROPOSED INTERCONNECT PLAN (SHEET 1 OF 4)  
IL RTE 53 -  
83RD ST TO HOBSON RD

SCALE: 1"=50' SHEET NO. OF SHEETS STA. TO STA.

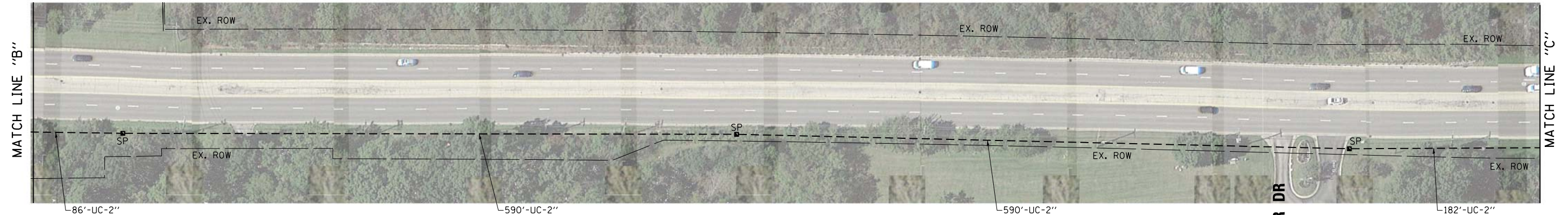
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2020-190-TS	DUPAGE	50	18
FED. ROAD DIST. NO. 1   ILLINOIS FED. AID PROJECT			CONTRACT NO. 62M60	

ECON 37  
LOCATION NO. E

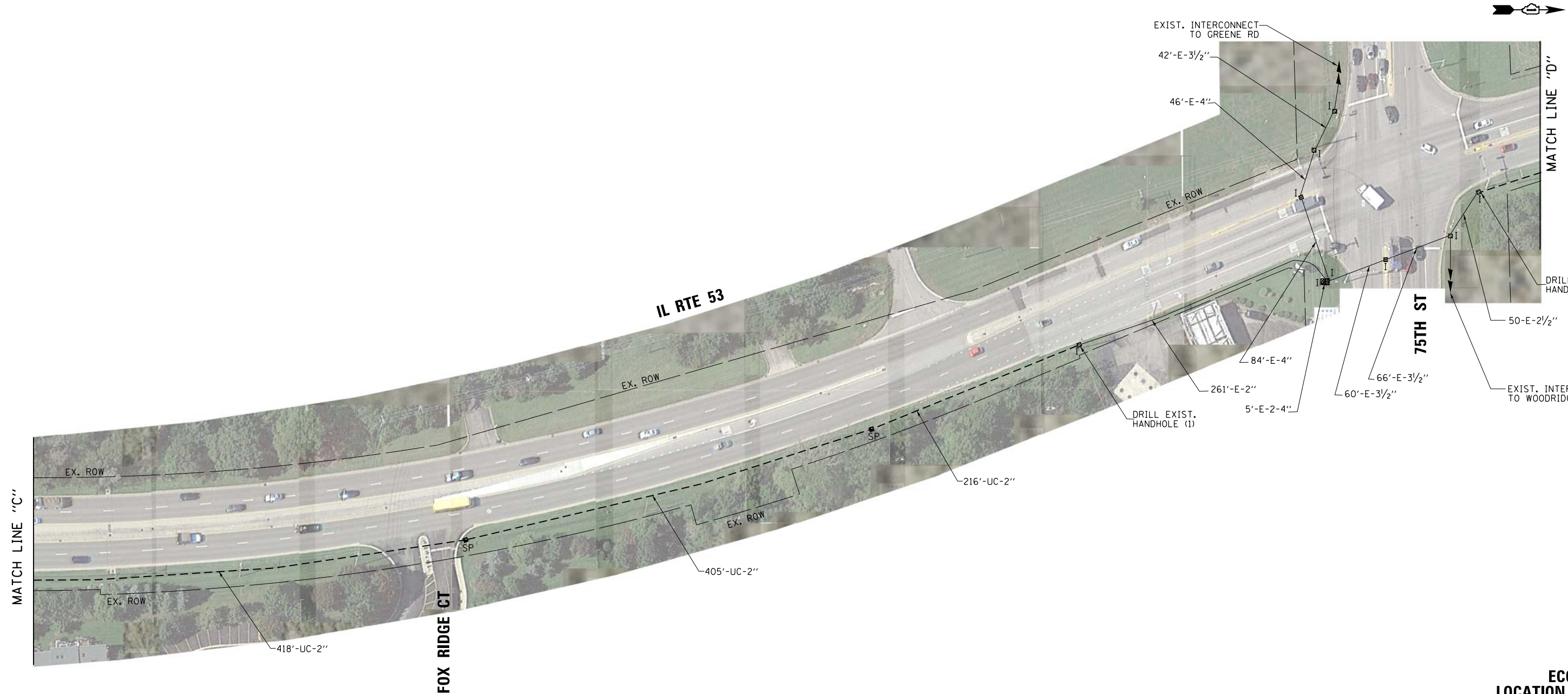
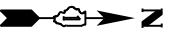




IL RTE 53



DEER DR



FOX RIDGE CT

75TH ST

MATCH LINE "D"

FILE NAME = K:\PROJECTS\Projects\_2020\62M60\_CMAQ\_Interconnect\CADD\Sheets\015\_Econ\_37\_Interconnect\_2.dgn



USER NAME = \$USER\$	DESIGNED - EA	REVISED -
	DRAWN - EA, AV	REVISED -
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PLOT DATE = \$DATE\$	DATE - 10/9/2020	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

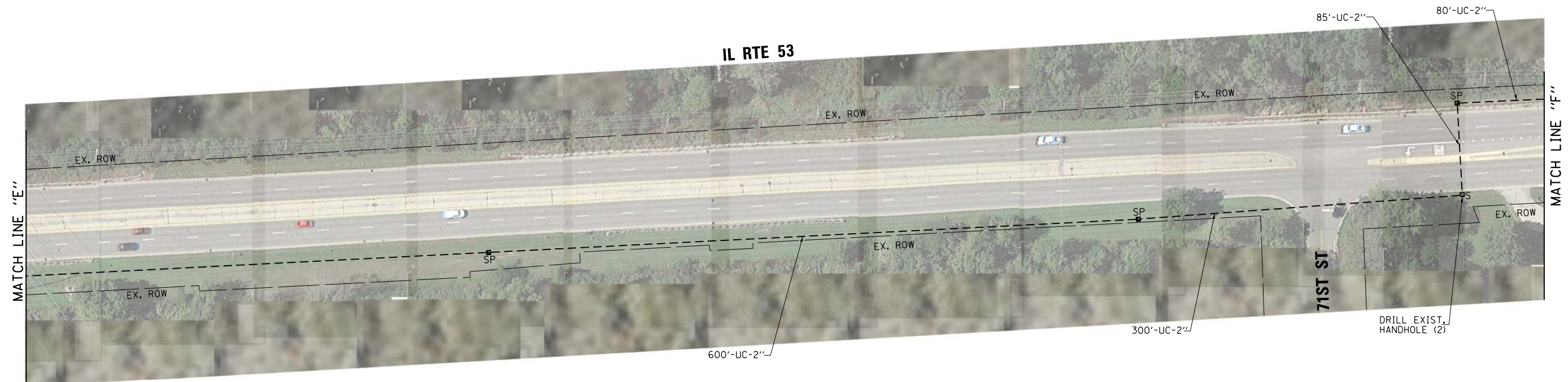
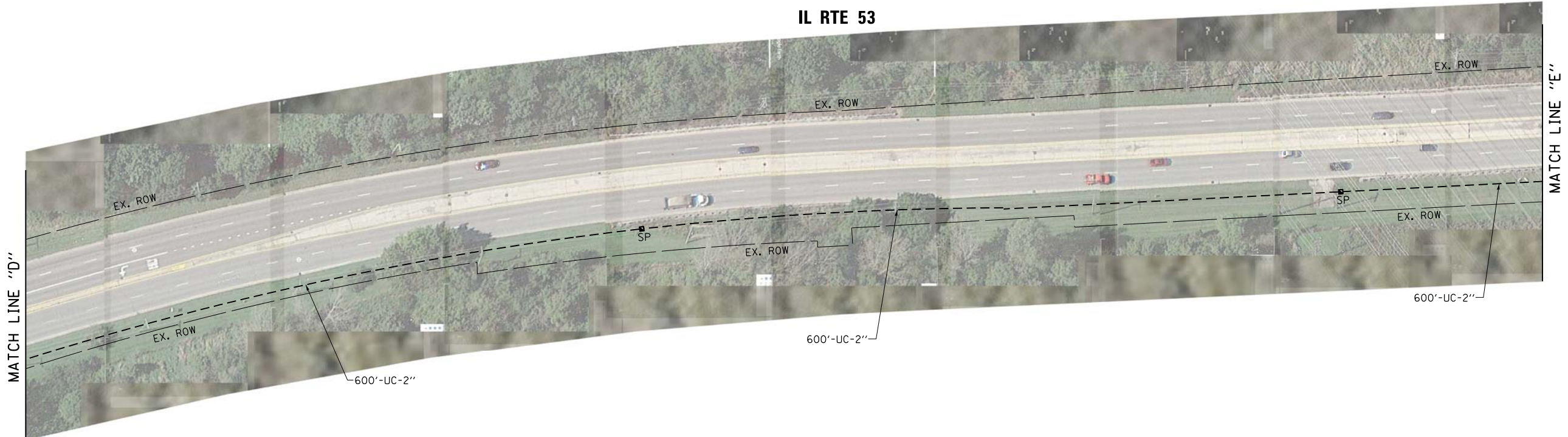
PROPOSED INTERCONNECT PLAN (SHEET 2 OF 4)  
IL RTE 53 -  
83RD ST TO HOBSON RD

SCALE: 1"=50' SHEET NO. OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2020-190-TS	DUPAGE	50	19
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 62M60	

ECON 37  
LOCATION NO. E





FILE NAME = K:\PROJECTS\Projects\2020\62M60 CMAQ Interconnect\CADD\Sheets\016\_Econ\_37\_Interconnect\_3.dgn

**GA** GANDHI AND ASSOCIATES, INC.  
 ENGINEERS AND PLANNERS  
 6035 N. NORTHWEST HIGHWAY  
 SUITE 306  
 CHICAGO, ILLINOIS 60630 TEL: (773) 774-590

USER NAME = \$USER\$	DESIGNED - EA	REVISED -
	DRAWN - EA, AV	REVISED -
PLOT SCALE = 100.0000' / 1" =	CHECKED - AV	REVISED -
PLOT DATE = \$DATE\$	DATE - 10/9/2020	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

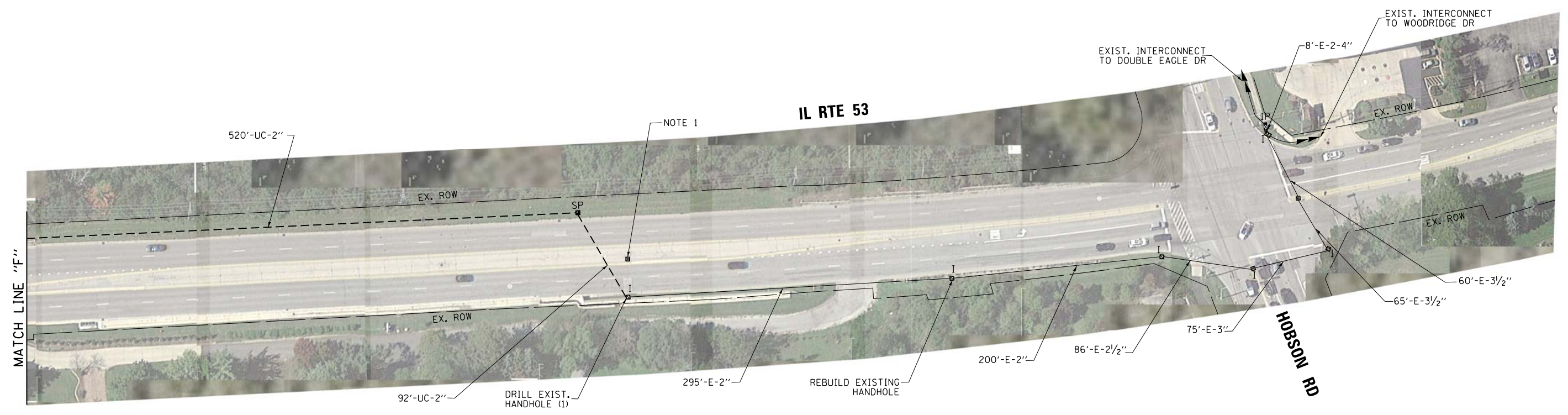
**PROPOSED INTERCONNECT PLAN (SHEET 3 OF 4)**  
**IL RTE 53 -**  
**83RD ST TO HOBSON RD**

SCALE: 1"=50'    SHEET NO.    OF    SHEETS    STA.    TO    STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2020-190-TS	DUPAGE	50	20
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 62M60	

**ECON 37  
 LOCATION NO. E**





**NOTES:**

1. THE HANDHOLE IN THE MEDIAN SHALL BE REMOVED AND THE AREA IN THE MEDIAN SHALL BE RESTORED. THIS WORK SHALL BE INCLUDE IN THE PAY ITEM "REMOVE EXISTING HANDHOLE".

FILE NAME = K:\PROJECTS\Projects\_2020\62M60\_CMAQ\_Interconnect\CADD\_Sheets\017\_Econ\_37\_Interconnect\_4.dgn

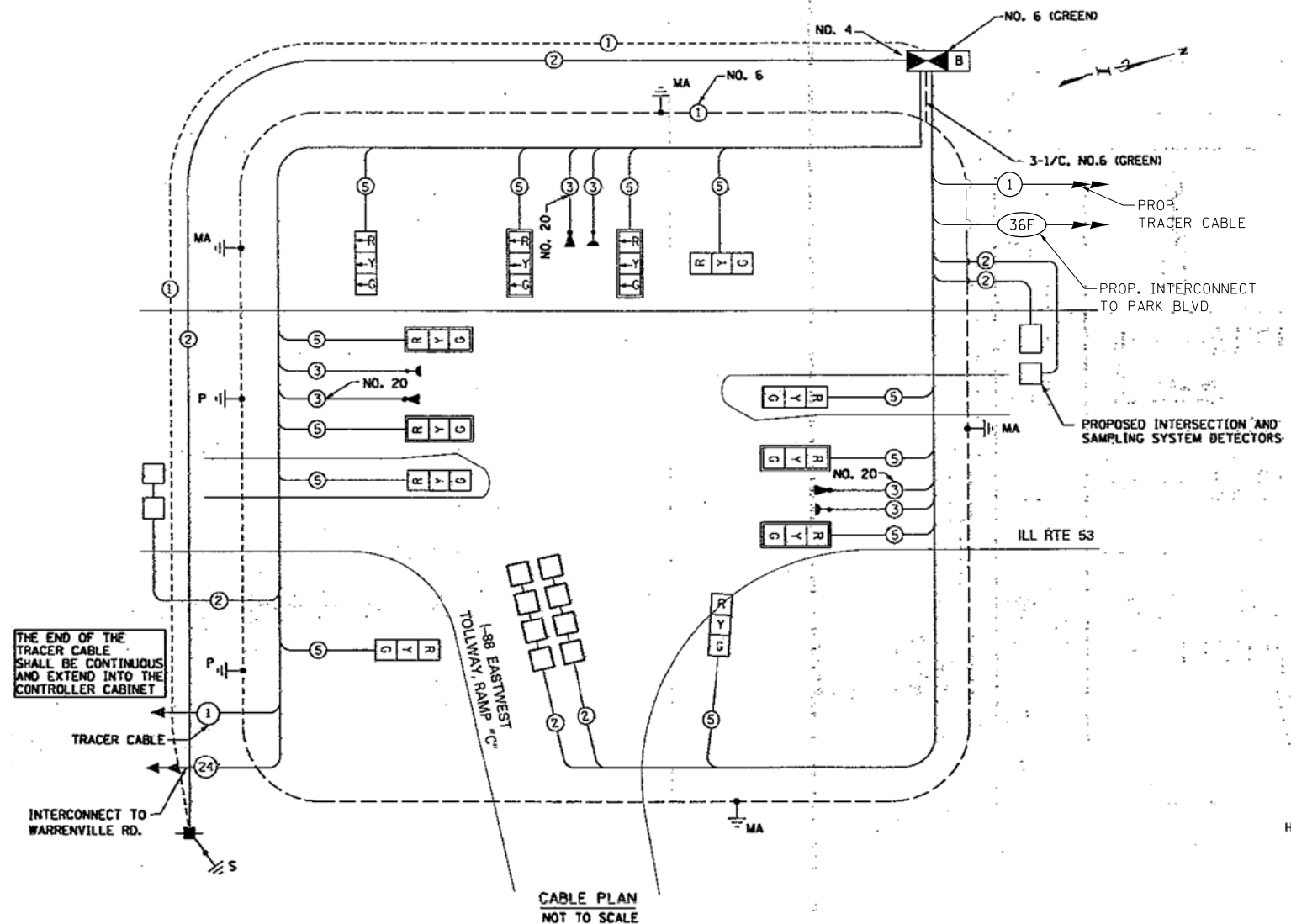
<p>GANDHI AND ASSOCIATES, INC. ENGINEERS AND PLANNERS 6035 N. NORTHWEST HIGHWAY SUITE 306 CHICAGO, ILLINOIS 60630 TEL: (773) 774-590</p>	USER NAME = \$USER\$	DESIGNED - EA	REVISED -
		DRAWN - EA, AV	REVISED -
	PLOT SCALE = 100.0000' / 1" =	CHECKED - AV	REVISED -
	PLOT DATE = \$DATE\$	DATE - 10/9/2020	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>PROPOSED INTERCONNECT PLAN (SHEET 4 OF 4)</b>			
<b>IL RTE 53 - 83RD ST TO HOBSON RD</b>			
SCALE: 1"=50'	SHEET NO.	OF SHEETS	STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2020-190-TS	DUPAGE	50	21
FED. ROAD DIST. NO. 1   ILLINOIS   FED. AID PROJECT			CONTRACT NO. 62M60	

**ECON 37  
LOCATION NO. E**

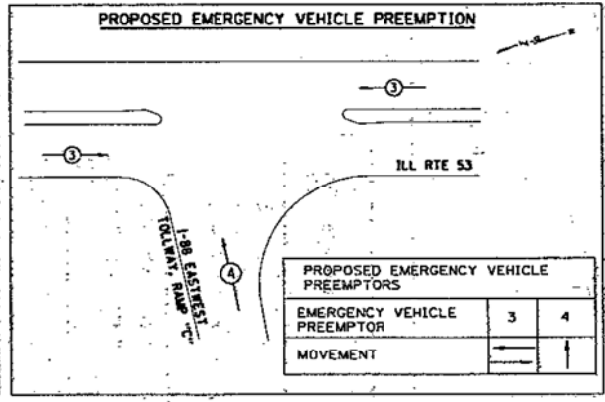
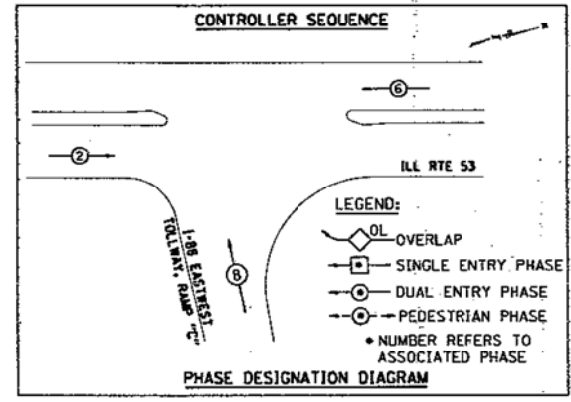


THE END OF THE TRACER CABLE SHALL BE CONTINUOUS AND EXTEND INTO THE CONTROLLER CABINET

CABLE PLAN NOT TO SCALE

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND	% OPERATION	LED	
SIGNAL (RED)	12	17	0.50		102
(YELLOW)	12	25	0.25		75
(GREEN)	12	15	0.25		45
ARROW		12	0.10		
PED. SIGNAL					
CONTROLLER	1	100	1.00		100
ILLUM. SIGN		35	0.05		
FLASHER		25	0.50		
TOTAL =					322

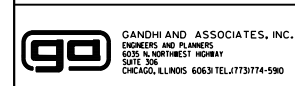
ENERGY COST TO:  
ENERGY SUPPLY: CONTACT: DELORIS KREMNITZER  
PHONE: (815) 724-5716  
COMPANY: ComEd



**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNITS	TOTAL QTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1

FILE NAME = K:\PROJECTS\Projects\2020\62M60\_CMAQ\Interconnect\CADD\Sheets\018\_IL\_Rte\_53\_at\_I-88\_CD.dgn



USER NAME = \$USER\$	DESIGNED - EA	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN - EA, AV	REVISED -
PLOT DATE = \$DATE\$	CHECKED - AV	REVISED -
	DATE - 10/9/2020	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

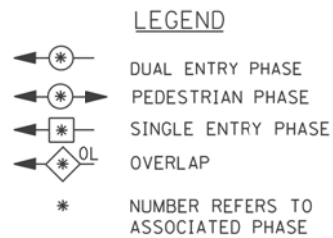
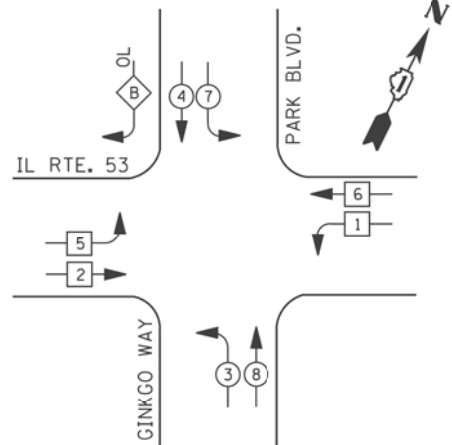
MODIFIED CABLE PLAN, PHASE DESIGNATION DIAGRAM, EMERGENCY VEHICLE PREEMPTION SEQUENCE, AND SCHEDULE OF QUANTITIES  
ILL ROUTE 53 AT I-88 WB EXIT RAMP

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2020-190-TS	DUPAGE	50	22
FED. ROAD DIST. NO. - [ILLINOIS] FED. AID PROJECT			CONTRACT NO. 62M60	

TS 11662  
ECON 37  
LOCATION NO. H

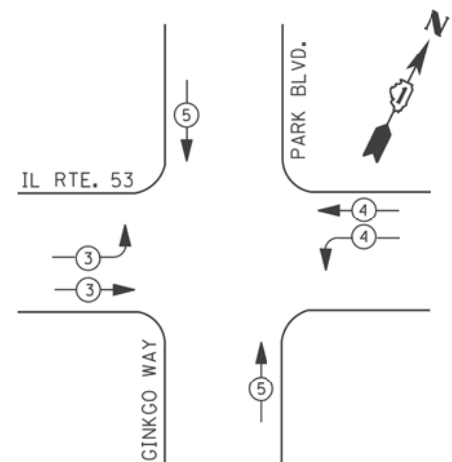
**CONTROLLER SEQUENCE**



**RIGHT TURN OVERLAP PHASE DESIGNATION**

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
B	= 4	+ 5

**PHASE DESIGNATION DIAGRAM**



**EMERGENCY VEHICLE PREEMPTION SEQUENCE**

EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	5
MOVEMENT			

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

TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	18	135	17	0.50	153
(YELLOW)	18	135	25	0.25	113
(GREEN)	18	135	15	0.25	68
ARROW	12	135	12	0.10	15
PED. SIGNAL	--	90	25	1.00	--
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252	25	0.05	
VIDEO SYSTEM		150	-	1.00	
TOTAL =					449

ENERGY COSTS - BILLED TO: THE VILLAGE OF GLEN ELLYN  
 535 DUANE STREET  
 GLEN ELLYN, IL 60137

ENERGY SUPPLY - CONTACT JOE STACHO  
 PHONE 630-424-5704  
 COMMONWEALTH EDISON

**REMOVAL AND RELOCATION NOTES:**

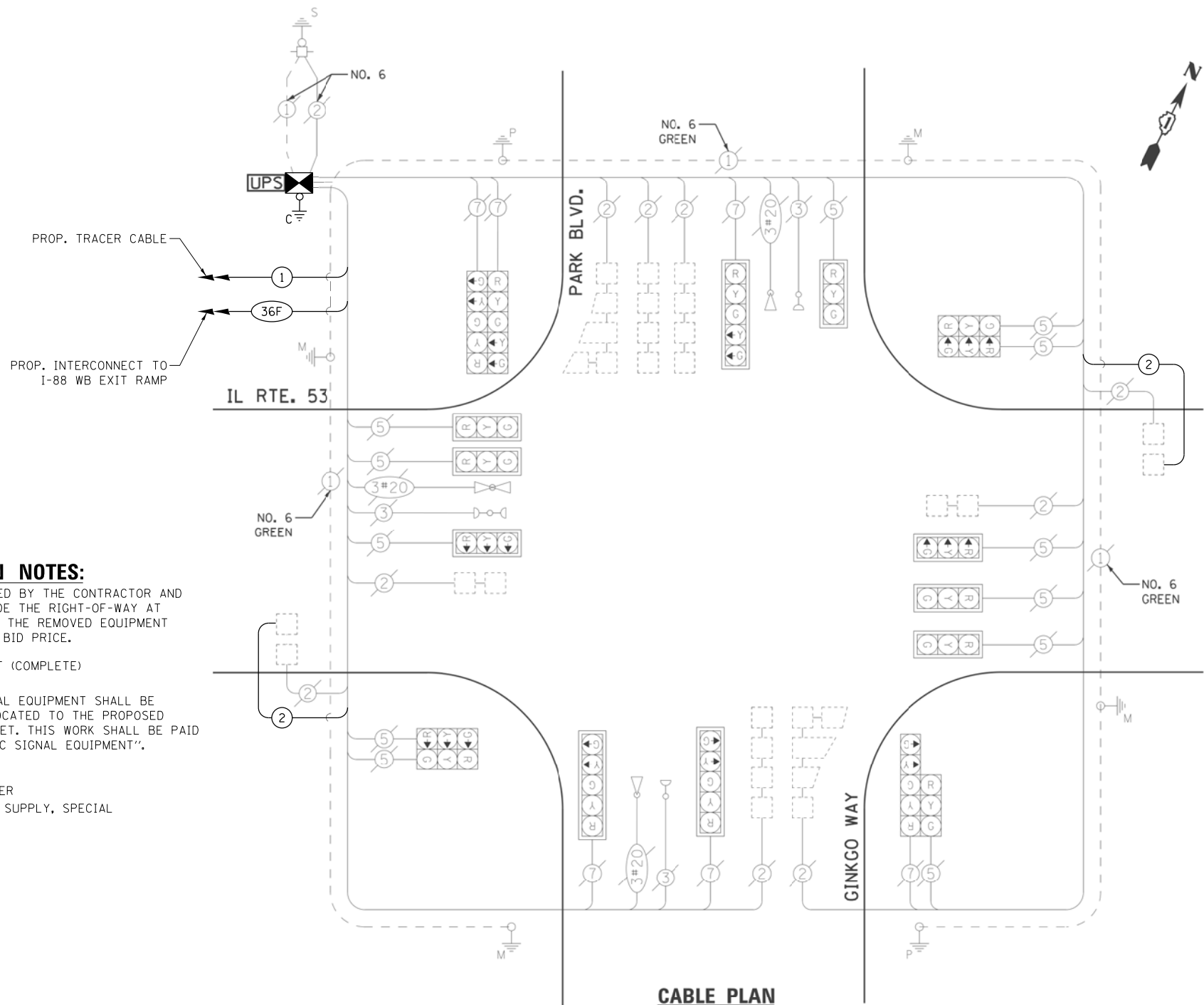
THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

- 1 EACH CONTROLLER AND CABINET (COMPLETE)

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR AND RELOCATED TO THE PROPOSED TRAFFIC SIGNAL CONTROLLER AND CABINET. THIS WORK SHALL BE PAID FOR UNDER "RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT".

- 1 EACH ELECTRIC METER
- 1 EACH LIGHT DETECTOR AMPLIFIER
- 1 EACH UNINTERRUPTABLE POWER SUPPLY, SPECIAL

PROP. TRACER CABLE  
 PROP. INTERCONNECT TO I-88 WB EXIT RAMP



**CABLE PLAN**

**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNITS	TOTAL QTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRANSCIVER - FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	786
INDUCTIVE LOOP DETECTOR	EACH	11
RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1

**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

**MODIFIED CABLE PLAN, PHASE DESIGNATION DIAGRAM, EMERGENCY VEHICLE PREEMPTION SEQUENCE, AND SCHEDULE OF QUANTITIES IL ROUTE 53 AT PARK BLVD**

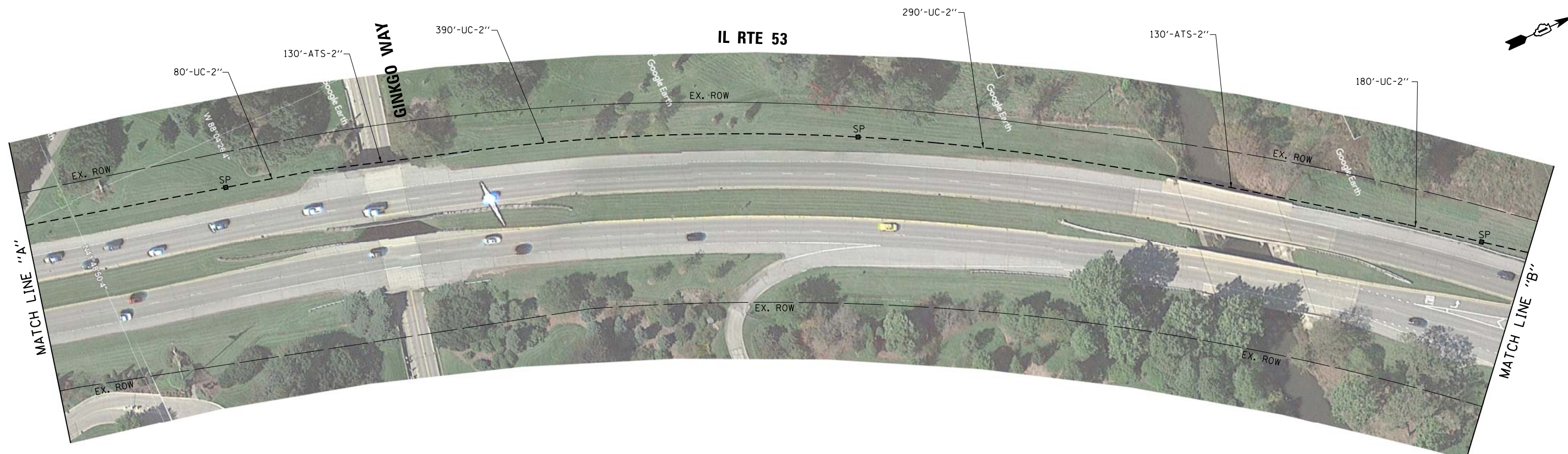
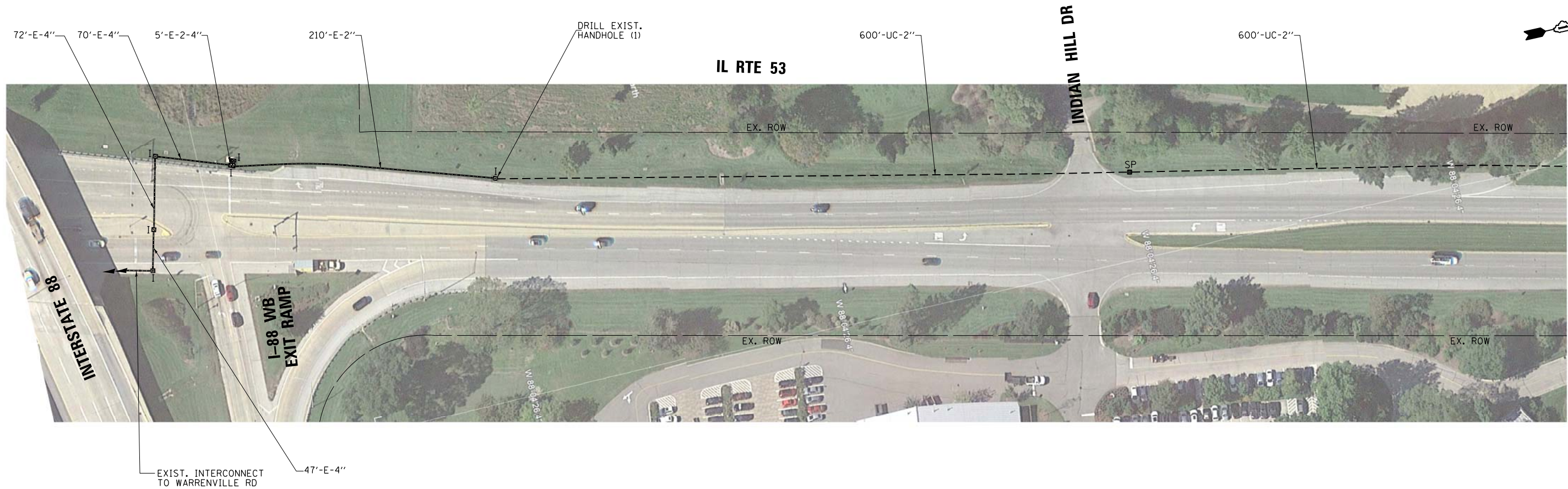
SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2020-190-TS	DUPAGE	50	23
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT			CONTRACT NO. 62M60	

**TS 6230 ECON 37 LOCATION NO. H**

USER NAME = \$USER\$	DESIGNED - EA	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN - EA, AV	REVISED -
PLOT DATE = \$DATE\$	CHECKED - AV	REVISED -
	DATE - 10/9/2020	REVISED -





FILE NAME = K:\PROJECTS\Projects\_2020\62M60\_CMAQ\_Interconnect\CADD\_Sheets\020\_Econ\_37\_Interconnect\_1.dgn



USER NAME = \$USER\$	DESIGNED - EA	REVISED -
DRAWN - EA, AV	REVISED -	
PLOT SCALE = 100.0000' / 1" =	CHECKED - AV	REVISED -
PLOT DATE = \$DATE\$	DATE - 10/9/2020	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PROPOSED INTERCONNECT PLAN (SHEET 1 OF 2)  
IL RTE 53 -  
I-88 (WB EXIT) TO PARK BLVD

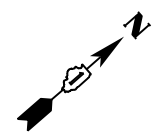
SCALE: 1"=50'	SHEET NO.	OF	SHEETS	STA.	TO	STA.
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2020-190-TS	DUPAGE	50	24
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 62M60	

ECON 37  
LOCATION NO. H



FILE NAME = K:\PROJECTS\Projects\_2020\62M60\_CMAQ\_Interconnect\CADD\_Sheets\021\_Econ\_37\_Interconnect\_2.dgn



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DRAWN - EA, AV	CHECKED - AV	REVISED -
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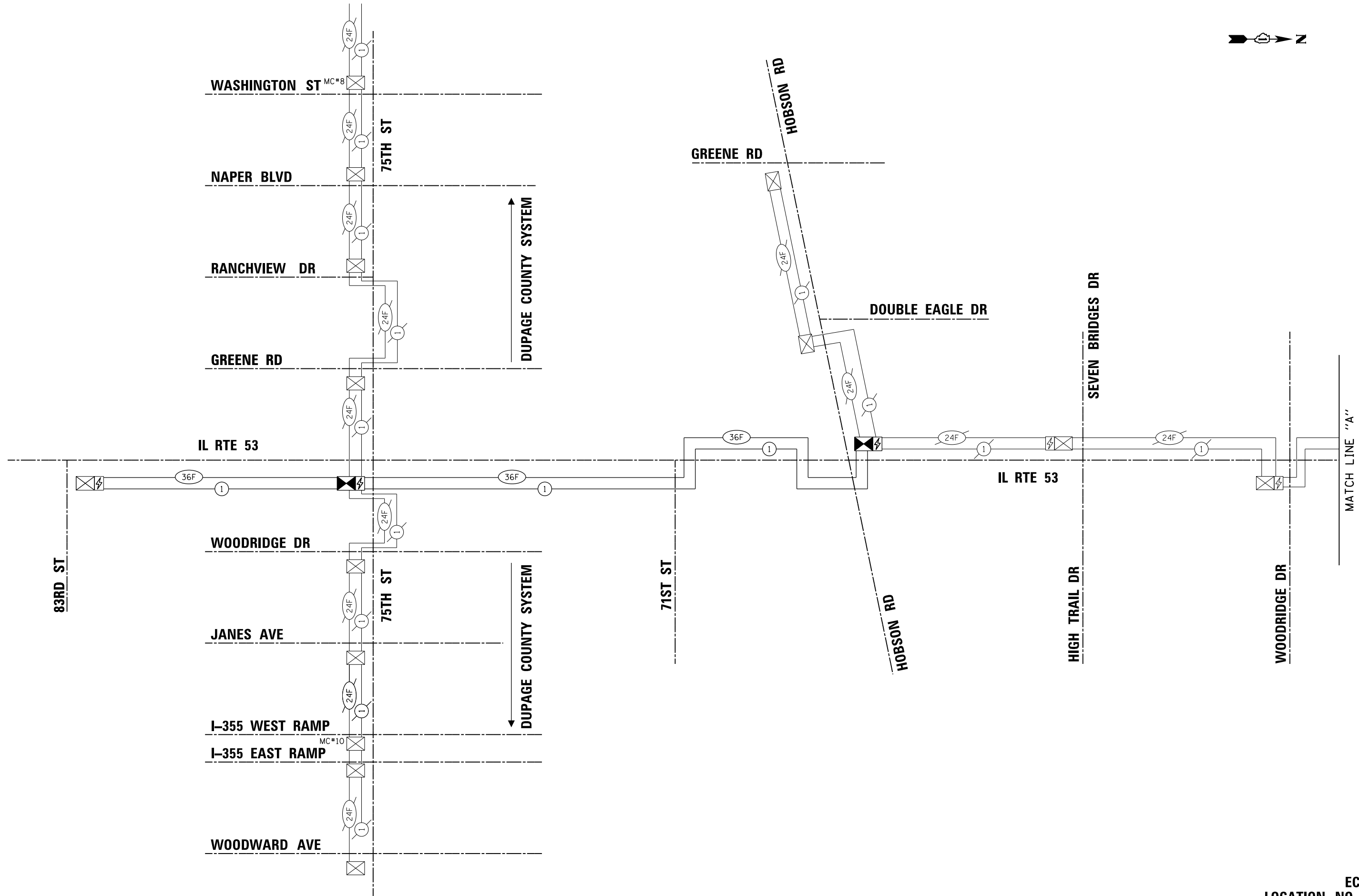
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PROPOSED INTERCONNECT PLAN (SHEET 2 OF 2)  
IL RTE 53 -  
I-88 (WB EXIT) TO PARK BLVD**

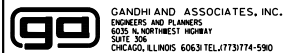
SCALE: 1"=50'      SHEET NO.    OF    SHEETS    STA.                    TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2020-190-TS	DUPAGE	50	25
CONTRACT NO. 62M60				
FED. ROAD DIST. NO. 1   ILLINOIS FED. AID PROJECT				

**ECON 37  
LOCATION NO. H**



FILE NAME = K:\PROJECTS\Projects\_2020\62M60\_CMAQ\_Interconnect\CADD\_Sheets\022\_Econ\_37\_Schem\_Interconnect.dgn



GANDHI AND ASSOCIATES, INC.  
ENGINEERS AND PLANNERS  
6035 N. NORTHWEST HIGHWAY  
SUITE 306  
CHICAGO, ILLINOIS 60630 TEL: 773-774-5900

USER NAME = \$USER*	DESIGNED - EA	REVISED -
	DRAWN - EA, AV	REVISED -
PLOT SCALE = 200.0000' / in.	CHECKED - AV	REVISED -
PLOT DATE = \$DATE*	DATE - 10/9/2020	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

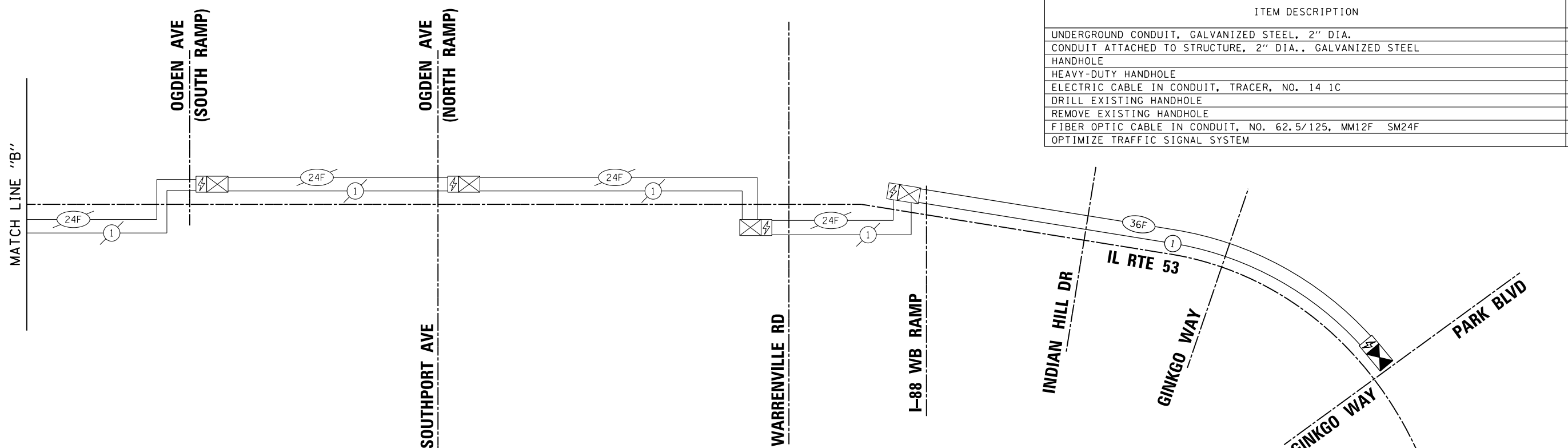
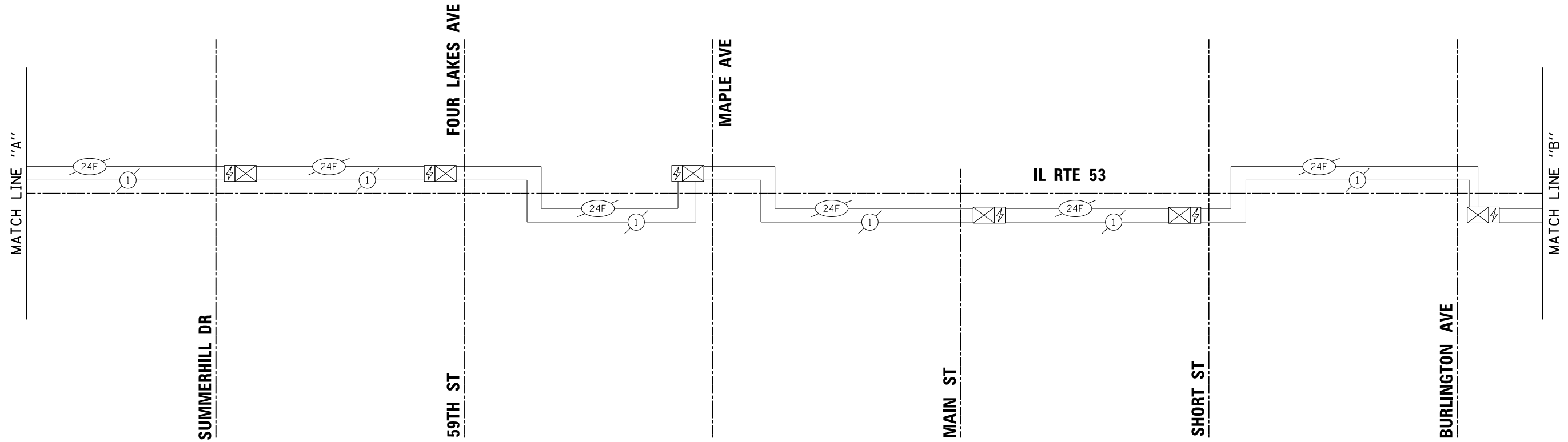
PROPOSED INTERCONNECT SCHEMATIC AND SCHEDULE OF QUANTITIES  
IL RTE 53 -  
83RD ST TO HOBSON RD (SHEET 1 OF 2)

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2020-190-TS	DUPAGE	50	26
CONTRACT NO. 62M60				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

ECON 37  
LOCATION NO. E & H

NOTE: SYSTEM OPTIMIZATION CONSISTS OF ECON 37 SYSTEM ONLY ALONG IL RTE 53 AND HOBSON RD.



SCHEDULE OF QUANTITIES FOR LOCATION NO. E & H

ITEM DESCRIPTION	UNITS	TOTAL QTY.
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	10839
CONDUIT ATTACHED TO STRUCTURE, 2" DIA., GALVANIZED STEEL	FOOT	260
HANDHOLE	EACH	15
HEAVY-DUTY HANDHOLE	EACH	4
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	12882
DRILL EXISTING HANDHOLE	EACH	8
REMOVE EXISTING HANDHOLE	EACH	1
FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM24F	FOOT	12882
OPTIMIZE TRAFFIC SIGNAL SYSTEM	EACH	1

FILE NAME = K:\PROJECTS\Projects\2020\62M60 CMAQ Interconnect\CADD\Sheets\023\_Econ\_37\_Schem\_Interconnect\_2.dgn

<p>GANDHI AND ASSOCIATES, INC. ENGINEERS AND PLANNERS 6035 N. NORTHWEST HIGHWAY SUITE 306 CHICAGO, ILLINOIS 60630 TEL: 773-7174-590</p>	USER NAME = \$USER*	DESIGNED - EA	REVISED -
		DRAWN - EA, AV	REVISED -
	PLOT SCALE = 200.0000' / in.	CHECKED - AV	REVISED -
	PLOT DATE = \$DATE*	DATE - 10/9/2020	REVISED -

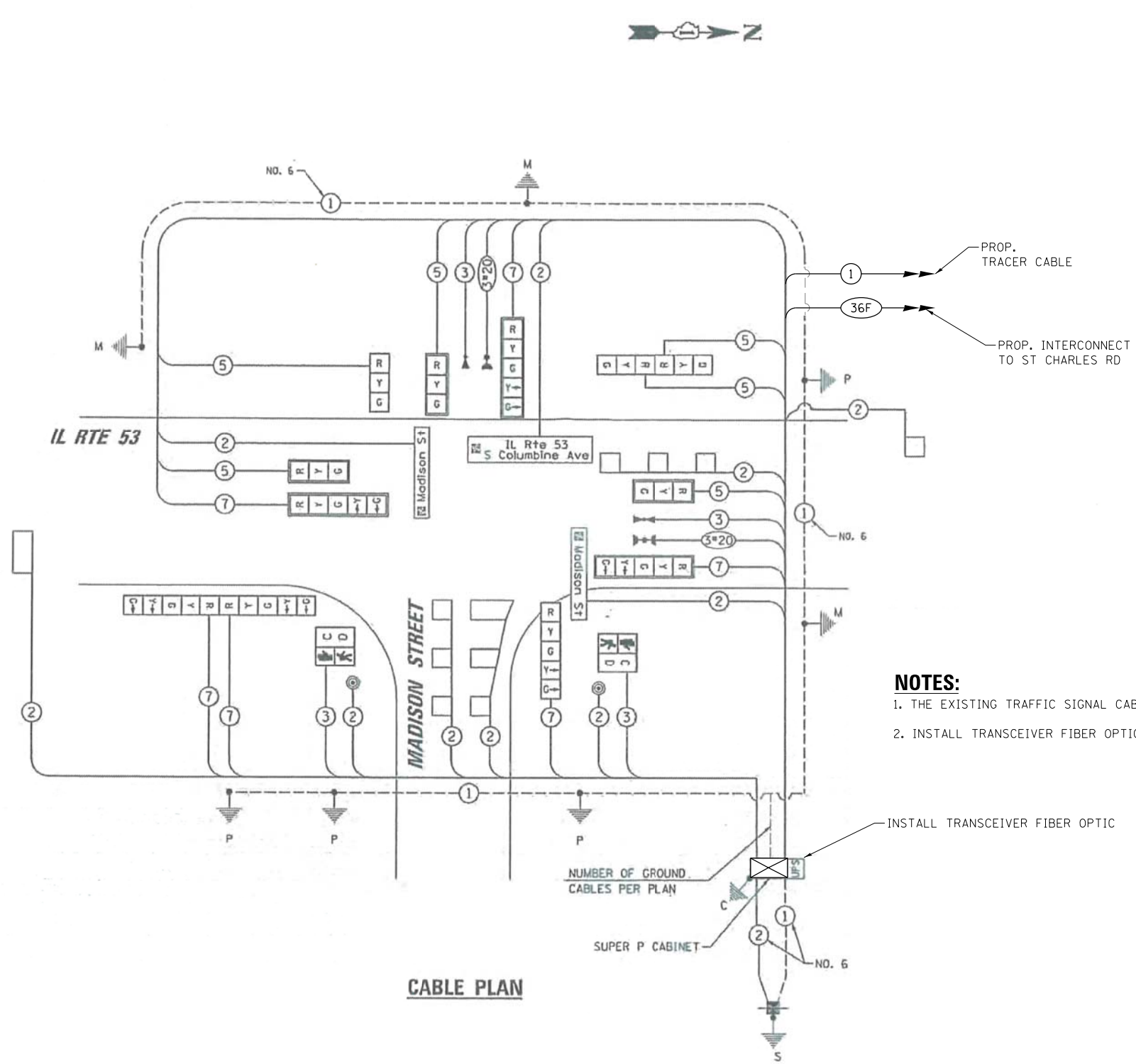
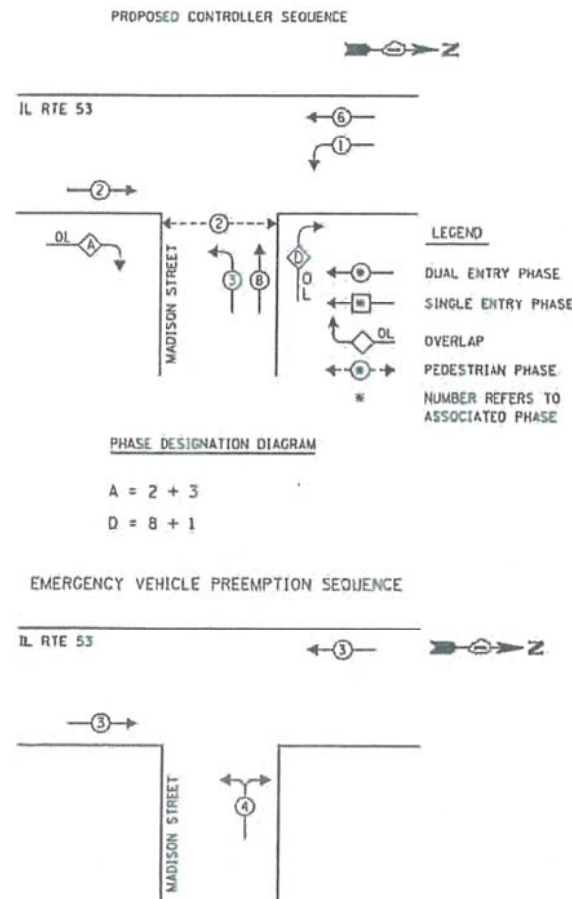
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

**PROPOSED INTERCONNECT SCHEMATIC AND SCHEDULE OF QUANTITIES**  
IL RTE 53 -  
I-88 WB EXIT TO PARK BLVD (SHEET 2 OF 2)

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2020-190-TS		50	27
CONTRACT NO. 62M60			FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT	

**ECON 37  
LOCATION NO. E & H**



- NOTES:**
1. THE EXISTING TRAFFIC SIGNAL CABINET WILL REMAIN IN PLACE.
  2. INSTALL TRANSCEIVER FIBER OPTIC IN EXISTING CABINET.

**TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS**

TYPE	NO. OF LAMPS	LED WATTAGE	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	12	11	50	66.0
(YELLOW)	12	20	5	12.0
(GREEN)	12	12	45	64.8
PERMISSIVE ARROW	12	10	10	12.0
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	3	120	50	180.0
LUMINAIRE	-	250	50	-
ENERGY COSTS TO:			TOTAL =	499.8
VILLAGE OF LOMBARD				
255 E. WILSON AVENUE				
LOMBARD, ILLINOIS 60148				
ENERGY SUPPLY: CONTACT: REGINA WHITE				
PHONE: 630-691-4379				
COMPANY: COMED				
ACCOUNT NUMBER: ---				

**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNITS	TOTAL QTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRANSCEIVER - FIBER OPTIC	EACH	1

FILE NAME = K:\PROJECTS\Projects\2020\62M60 - Interconnect\CADD\Sheets\024\_IL\_Rte\_53\_at\_Madison\_St.dwg



USER NAME = \$USER\$	DESIGNED - EA	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN - EA, AV	REVISED -
PLOT DATE = \$DATE\$	CHECKED - AV	REVISED -
	DATE - 10/9/2020	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

MODIFIED CABLE PLAN, PHASE DESIGNATION DIAGRAM, EMERGENCY VEHICLE PREEMPTION SEQUENCE, AND SCHEDULE OF QUANTITIES  
IL ROUTE 53 AT MADISON ST

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

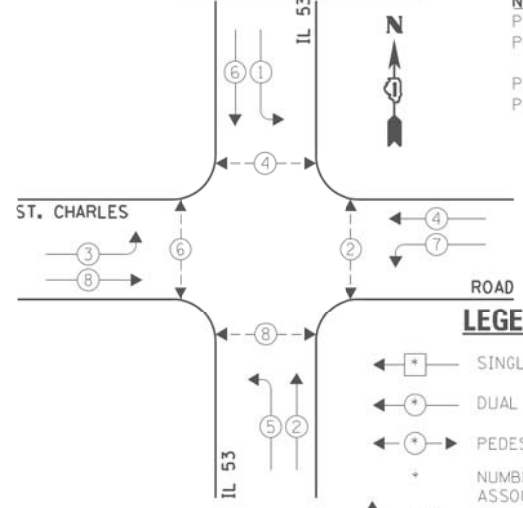
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2020-190-TS	DUPAGE	50	28
CONTRACT NO. 62M60			FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT	

TS 6237  
ECON 39  
LOCATION NO. G





**EXISTING CONTROLLER SEQUENCE**



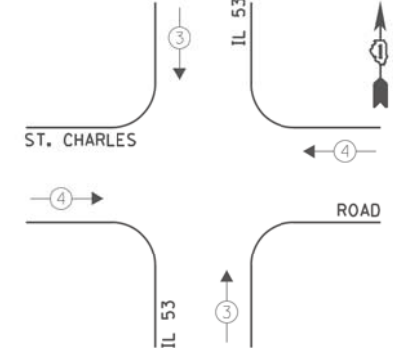
**NOTE:**  
 PUSH BUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 8.  
 PUSH BUTTON "D" SHALL PLACE A CALL IN PHASES 4 AND 6.

**LEGEND:**

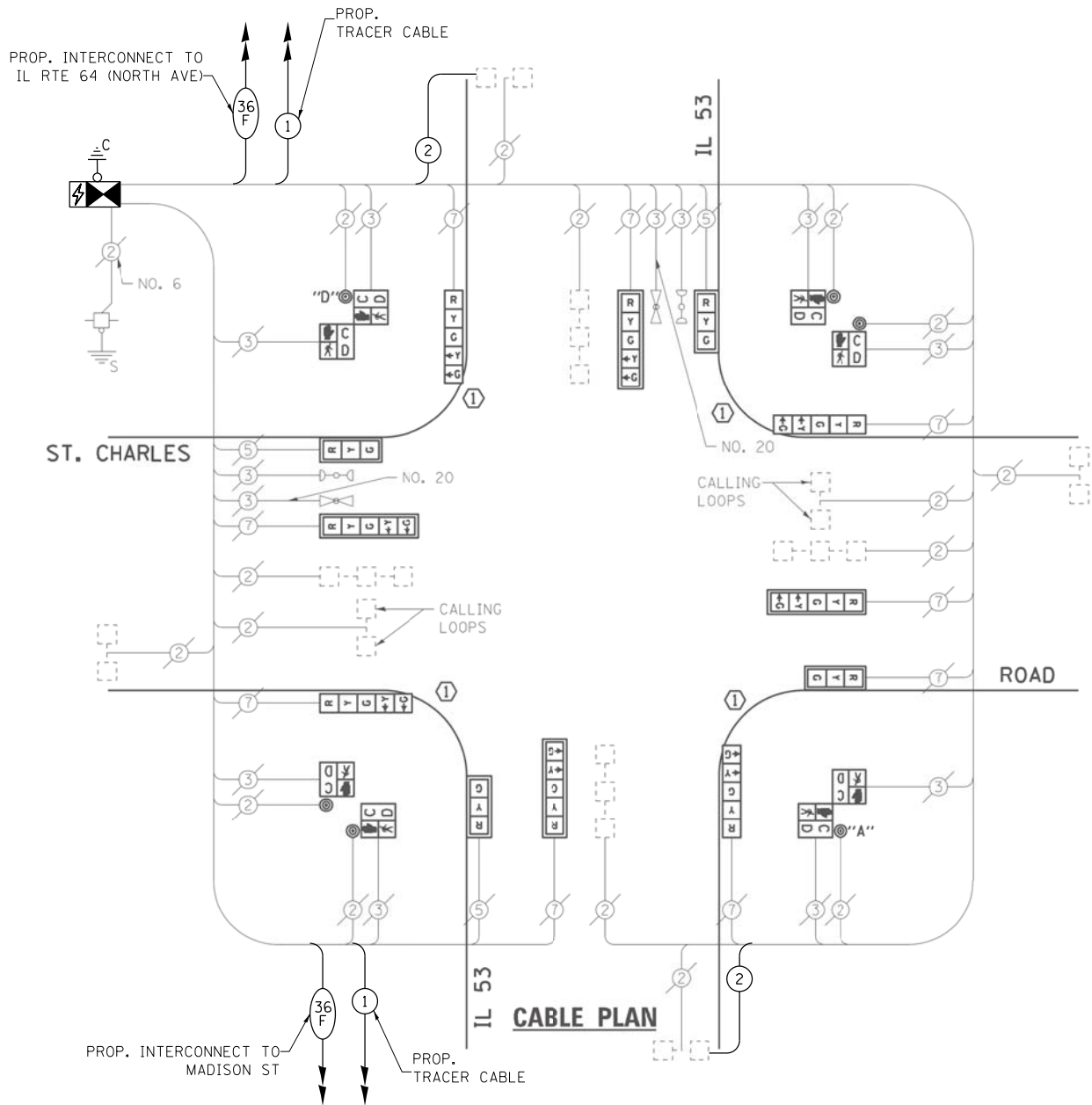
- ← 1 → SINGLE ENTRY PHASE
- ← 2 → DUAL ENTRY PHASE
- ← 3 → PEDESTRIAN PHASE
- NUMBER REFERS TO ASSOCIATED PHASE
- ← OL → OVERLAP

**EXISTING PHASE DESIGNATION DIAGRAM**

**EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE**



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



**CABLE PLAN**

**REMOVAL AND RELOCATION NOTES:**

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE STATE AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE STATE'S TRAFFIC SIGNAL MAINTENANCE CONTRACTOR'S MAIN FACILITY AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

- 1 EACH CONTROLLER AND CABINET (COMPLETE)

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR AND RELOCATED TO THE PROPOSED TRAFFIC SIGNAL CONTROLLER AND CABINET. THIS WORK SHALL BE PAID FOR UNDER "RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT".

- 1 EACH LIGHT DETECTOR AMPLIFIER
- 1 EACH UNINTERRUPTABLE POWER SUPPLY, SPECIAL

**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNITS	TOTAL QTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRANSCEIVER - FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	830
INDUCTIVE LOOP DETECTOR	EACH	12
RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE		OPERATION	
		INCAND.	L.E.D.		
SIGNAL (RED)	12	135	17	0.50	102.0
SIGNAL (YELLOW)	12	135	25	0.25	75.0
SIGNAL (GREEN)	12	135	15	0.25	45.0
ARROW	16	135	12	0.10	19.2
PED. SIGNAL	8	90	25	1.00	200.0
CONTROLLER	1	-	100	1.00	100.0
LUMINAIRE	-	-	250	0.50	-
L.E.D. ST. NAME SIGN	-	-	64	0.50	-
VIDEO SYSTEM	-	-	150	1.00	-
BATTERY BACKUP	1	-	25	1.00	25.0
ILLUMINATED SIGN	-	-	25	0.05	-
TOTAL =					566.2

ENERGY COSTS - BILLED TO: VILLAGE OF LOMBARD  
 (ADDRESS) 255 E. WILSON AVENUE  
 (ADDRESS) LOMBARD, IL 60148-3969  
 ENERGY SUPPLY - CONTACT: JOE STACHO  
 PHONE: (630) 424-5704  
 COMPANY: CQM-ED

**TS 6235  
 ECON 39  
 LOCATION NO. 9**

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**MODIFIED CABLE PLAN, PHASE DESIGNATION DIAGRAM, EMERGENCY VEHICLE PREEMPTION SEQUENCE, AND SCHEDULE OF QUANTITIES  
 IL ROUTE 53 AT ST CHARLES RD**

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2020-190-TS	DUPAGE	50	29
CONTRACT NO. 62M60				

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

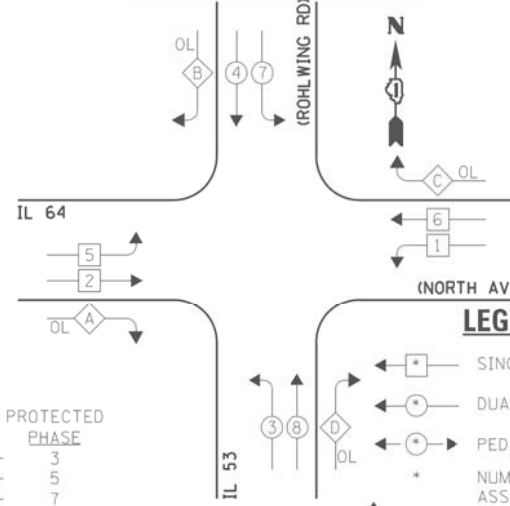
FED. ROAD DIST. NO. - [ILLINOIS] FED. AID PROJECT

FILE NAME = K:\PROJECTS\Projects\2020\62M60\_CMAQ Interconnect\CADD\_Sheets\025\_IL\_Rte 53 at St Charles Rd\_CD.dgn



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PLOT DATE = \$DATE\$	CHECKED - AV	REVISED -
	DATE - 10/9/2020	REVISED -

**EXISTING CONTROLLER SEQUENCE**



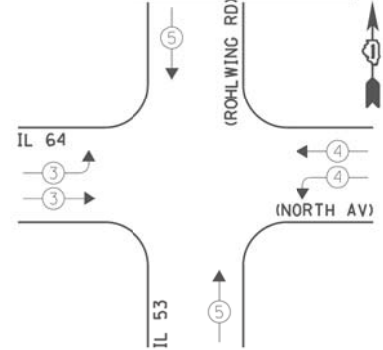
OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
A	= 2	+ 3
B	= 4	+ 5
C	= 6	+ 7
D	= 8	+ 1

**EXISTING PHASE DESIGNATION DIAGRAM**

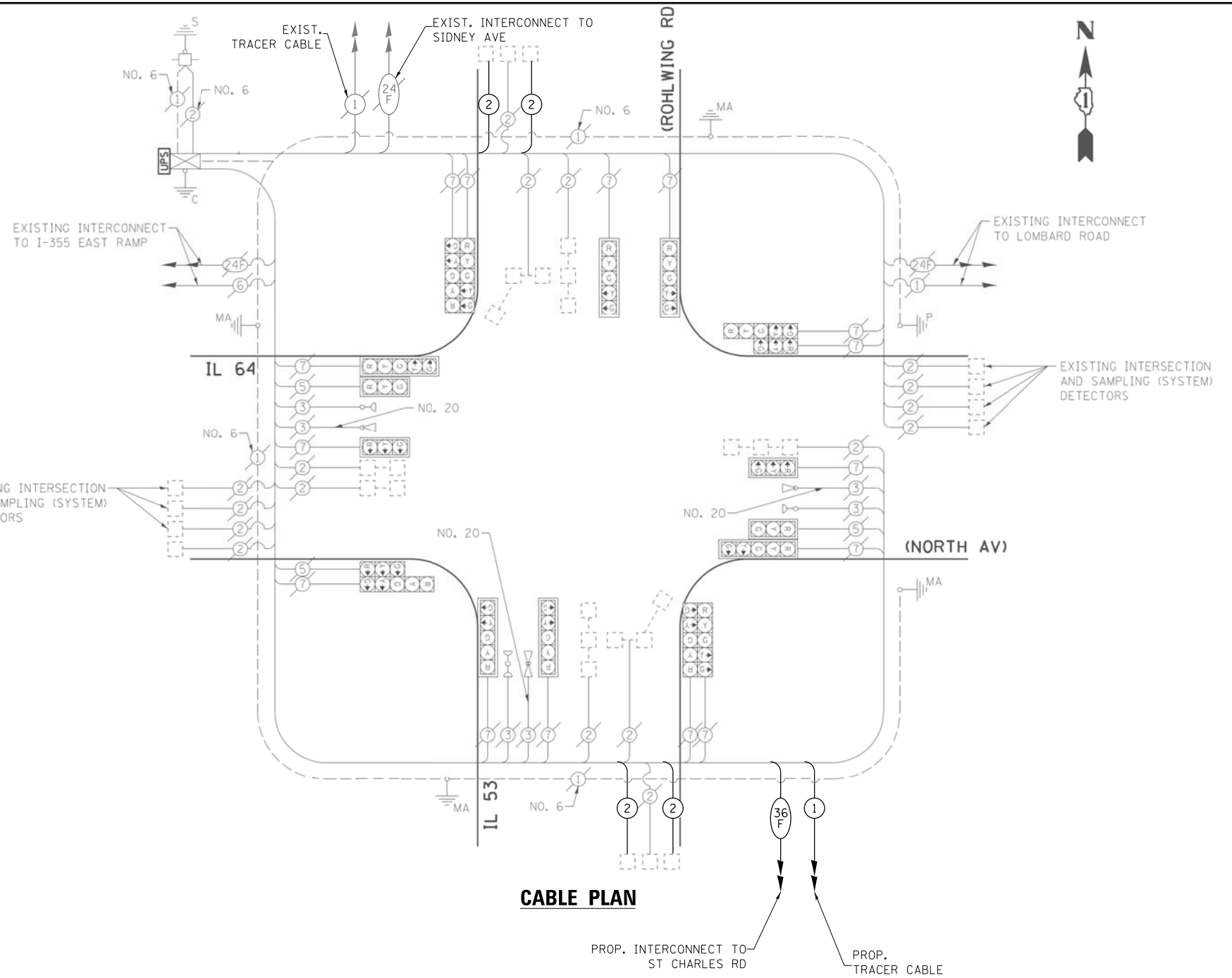
**LEGEND:**

- ◻ SINGLE ENTRY PHASE
- ◐ DUAL ENTRY PHASE
- ◑ PEDESTRIAN PHASE
- NUMBER REFERS TO ASSOCIATED PHASE
- ◊ OVERLAP

**EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE**



EXISTING EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	5
MOVEMENT	↔	↔	↔



**CABLE PLAN**

**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNITS	TOTAL QTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	1708
INDUCTIVE LOOP DETECTOR	EACH	4

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				TOTAL WATTAGE	
TYPE	NO. LAMPS	WATTAGE		OPERATION	
		INCAND.	L.E.D.		
SIGNAL (RED)	18	135	17	0.50	153.0
SIGNAL (YELLOW)	18	135	25	0.25	112.5
SIGNAL (GREEN)	18	135	15	0.25	67.5
ARROW	24	135	12	0.10	28.8
PED. SIGNAL	-	90	25	1.00	-
CONTROLLER	1	-	100	1.00	100.0
LUMINAIRE	-	-	250	0.50	-
L.E.D. ST. NAME SIGN	-	-	64	0.50	-
VIDEO SYSTEM	-	-	150	1.00	-
BATTERY BACKUP	1	-	25	1.00	25.0
ILLUMINATED SIGN	-	-	25	0.05	-
TOTAL =					486.8

ENERGY COSTS - BILLED TO: IL DEPT. OF TRANSPORTATION  
 (ADDRESS) 201 W. CENTER COURT  
 (ADDRESS) SCHALMBURG, IL 60196-1096  
 ENERGY SUPPLY - CONTACT: JOE STACHO  
 PHONE: (630) 424-5704  
 COMPANY: CQM-ED

USER NAME = \$USER\$	DESIGNED - EA	REVISED -
DRAWN - EA, AV	REVISIONS -	
PLOT SCALE = 40.0000' / in.	CHECKED - AV	REVISIONS -
PLOT DATE = \$DATE\$	DATE - 10/9/2020	REVISIONS -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

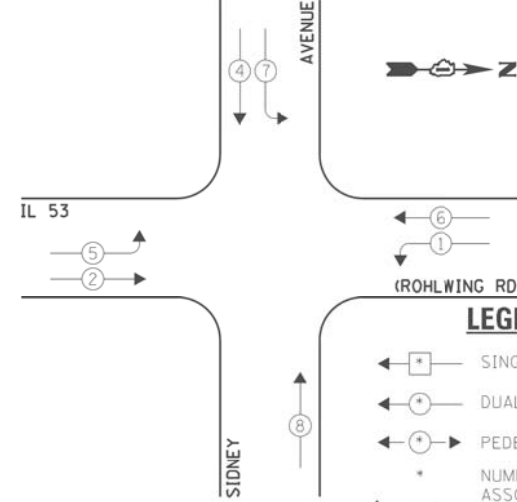
**MODIFIED CABLE PLAN, PHASE DESIGNATION DIAGRAM, EMERGENCY VEHICLE PREEMPTION SEQUENCE, AND SCHEDULE OF QUANTITIES  
IL ROUTE 53 (ROHLWING RD) AT IL ROUTE 64 (NORTH AVE)**

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2020-190-TS	DUPAGE	50	30
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT			CONTRACT NO. 62M60	

**TS 6215  
ECON 39  
LOCATION NO. F**

**EXISTING CONTROLLER SEQUENCE**

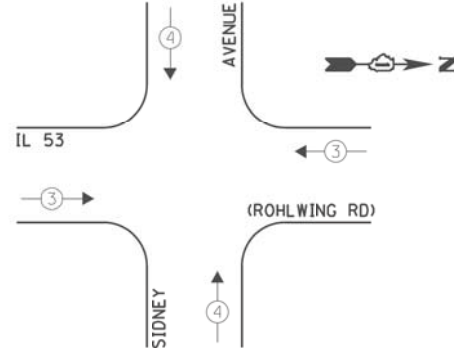


**LEGEND:**

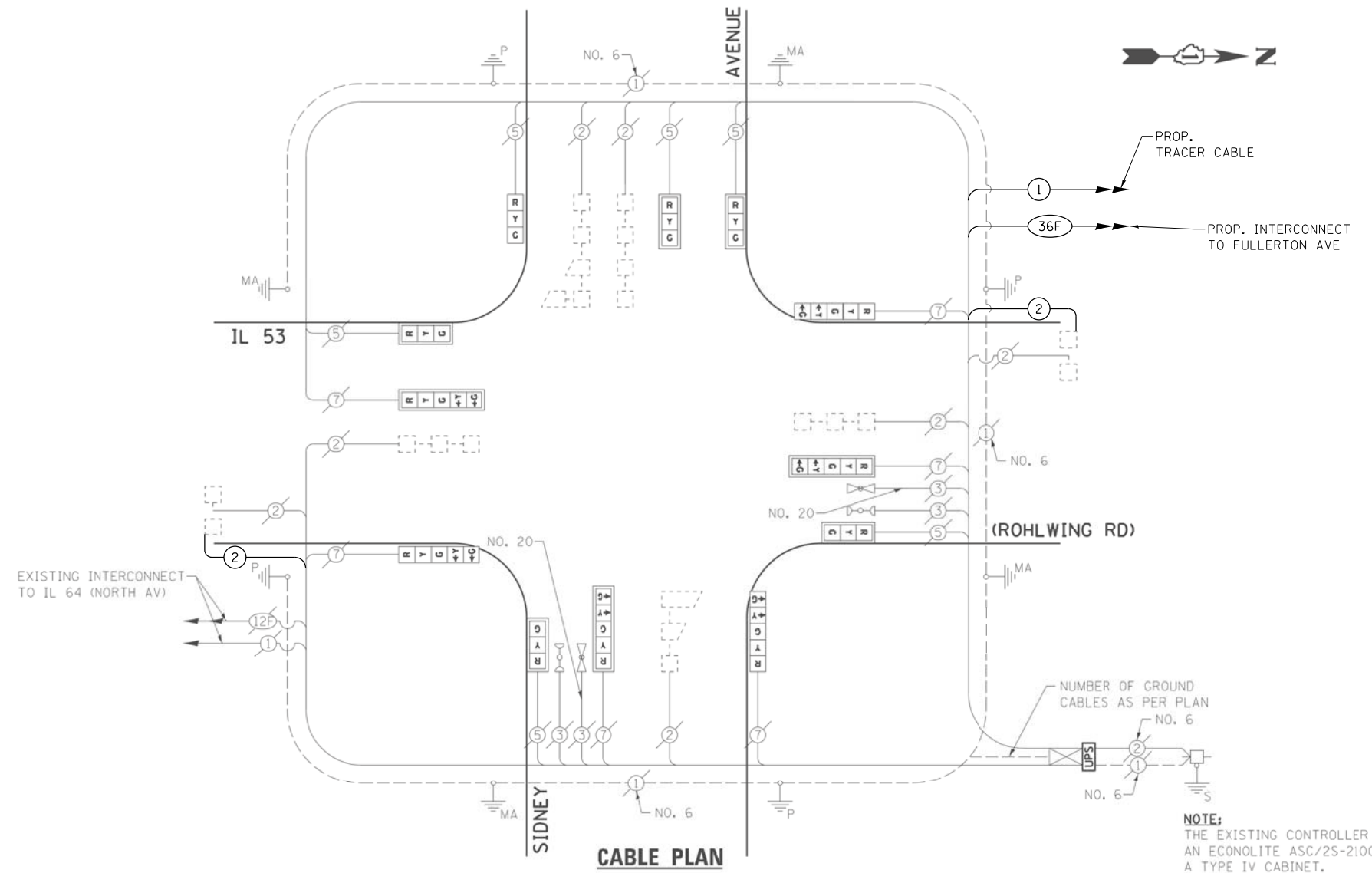
- ← 1 → SINGLE ENTRY PHASE
- ← 2 → DUAL ENTRY PHASE
- ← 3 → PEDESTRIAN PHASE
- \* NUMBER REFERS TO ASSOCIATED PHASE
- OL OVERLAP

**EXISTING PHASE DESIGNATION DIAGRAM**

**EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE**



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



**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNITS	TOTAL QTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	812
INDUCTIVE LOOP DETECTOR	EACH	2

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				TOTAL WATTAGE	
TYPE	NO. LAMPS	WATTAGE		OPERATION	
		INCAND.	L.E.D.		
SIGNAL (RED)	12	135	17	0.50	102.0
SIGNAL (YELLOW)	12	135	25	0.25	75.0
SIGNAL (GREEN)	12	135	15	0.25	45.0
ARROW	12	135	12	0.10	14.4
PED. SIGNAL	-	90	25	1.00	-
CONTROLLER	1	-	100	1.00	100.0
LUMINAIRE	-	-	250	0.50	-
L.E.D. ST. NAME SIGN	-	-	64	0.50	-
VIDEO SYSTEM	-	-	150	1.00	-
BATTERY BACKUP	1	-	25	1.00	25.0
ILLUMINATED SIGN	-	-	25	0.05	-
TOTAL =					361.4

ENERGY COSTS - BILLED TO: VILLAGE OF LOMBARD  
 (ADDRESS) 255 E. WILSON AVENUE  
 (ADDRESS) LOMBARD, IL 60148-3969  
 ENERGY SUPPLY - CONTACT: JOE STACHO  
 PHONE: (630) 424-5704  
 COMPANY: CQM-ED

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

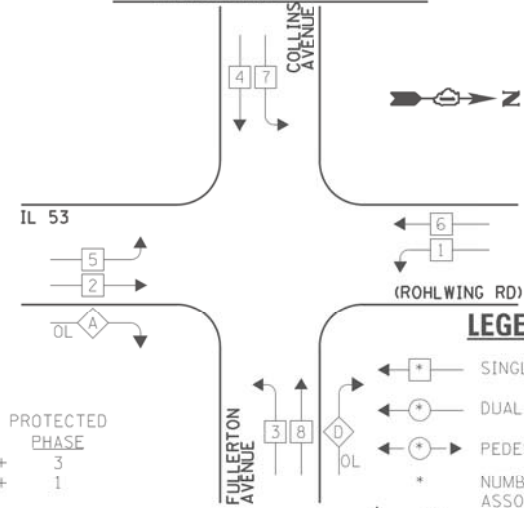
**MODIFIED CABLE PLAN, PHASE DESIGNATION DIAGRAM, EMERGENCY VEHICLE PREEMPTION SEQUENCE, AND SCHEDULE OF QUANTITIES  
IL ROUTE 53 AT SIDNEY AVE**

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2020-190-TS	DUPAGE	50	31
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT			CONTRACT NO. 62M60	

**TS 22135  
ECON 39  
LOCATION NO. F**

FILE NAME = K:\PROJECTS\Projects\2020\62M60\_CMAQ\_Interconnect\CADD\_Sheets\028\_IL\_Rte 53 at Fullerton Ave\_CD.dgn

**EXISTING CONTROLLER SEQUENCE**



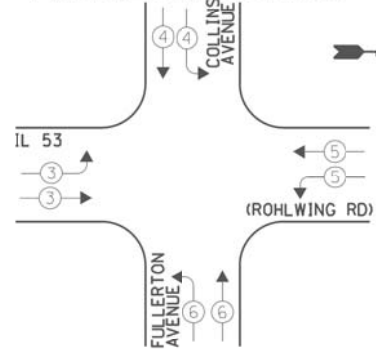
OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
A	= 2	+ 3
D	= 8	+ 1

**LEGEND:**

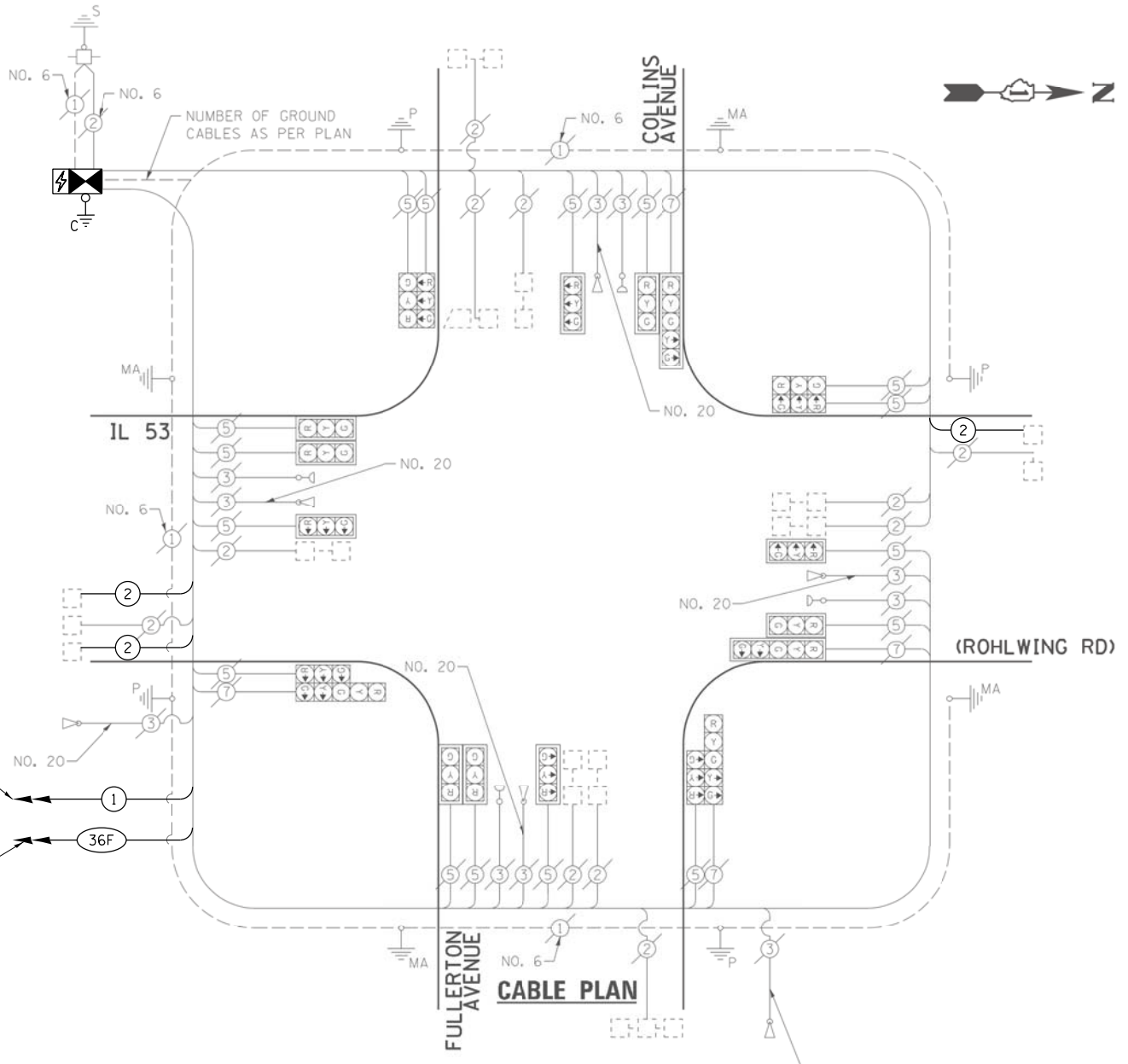
- SINGLE ENTRY PHASE
- DUAL ENTRY PHASE
- PEDESTRIAN PHASE
- \* NUMBER REFERS TO ASSOCIATED PHASE
- OL OVERLAP

**EXISTING PHASE DESIGNATION DIAGRAM**

**EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE**



EXISTING EMERGENCY VEHICLE PREEMPTORS				
EMERGENCY VEHICLE PREEMPTOR	3	4	5	6
MOVEMENT	→	←	→	←



**REMOVAL AND RELOCATION NOTES:**

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE STATE AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE STATE'S TRAFFIC SIGNAL MAINTENANCE CONTRACTOR'S MAIN FACILITY AS PER THE TRAFFIC SIGNAL SPECIFICATIONS.

- 1 EACH CONTROLLER AND CABINET (COMPLETE)

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR AND RELOCATED TO THE PROPOSED TRAFFIC SIGNAL CONTROLLER AND CABINET. THIS WORK SHALL BE PAID FOR UNDER "RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT".

- 1 EACH ELECTRIC METER
- 1 EACH LIGHT DETECTOR AMPLIFIER
- 1 EACH UNINTERRUPTABLE POWER SUPPLY, SPECIAL

**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNITS	TOTAL QTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRANSCIVER - FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	1382
INDUCTIVE LOOP DETECTOR	EACH	14
RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	EACH	1

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				TOTAL WATTAGE	
TYPE	NO. LAMPS	INCAND.	L.E.D.	OPERATION	
SIGNAL (RED)	20	135	17	0.50	170.0
SIGNAL (YELLOW)	20	135	25	0.25	125.0
SIGNAL (GREEN)	20	135	15	0.25	75.0
ARROW	8	135	12	0.10	9.6
PED. SIGNAL	-	90	25	1.00	-
CONTROLLER	1	-	100	1.00	100.0
LUMINAIRE	-	-	250	0.50	-
L.E.D. ST. NAME SIGN	-	-	64	0.50	-
VIDEO SYSTEM	-	-	150	1.00	-
BATTERY BACKUP	1	-	25	1.00	25.0
ILLUMINATED SIGN	-	-	25	0.05	-
TOTAL =					504.6

ENERGY COSTS - BILLED TO: IL DEPT. OF TRANSPORTATION  
 (ADDRESS) 201 W. CENTER COURT  
 (ADDRESS) SCHALMBURG, IL 60196-1096  
 ENERGY SUPPLY - CONTACT: JOE STACHO  
 PHONE: (630) 424-5704  
 COMPANY: CQM-ED

USER NAME = \$USER\$	DESIGNED - EA	REVISED -
PLOT SCALE = 40.0000' / in.	DRAWN - EA, AV	REVISED -
PLOT DATE = \$DATE\$	CHECKED - AV	REVISED -
	DATE - 10/9/2020	REVISED -

DESIGNED - EA	REVISED -
DRAWN - EA, AV	REVISED -
CHECKED - AV	REVISED -
DATE - 10/9/2020	REVISED -

**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

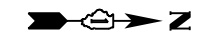
**MODIFIED CABLE PLAN, PHASE DESIGNATION DIAGRAM, EMERGENCY VEHICLE PREEMPTION SEQUENCE, AND SCHEDULE OF QUANTITIES IL ROUTE 53 AT FULLERTON AVE**

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2020-190-TS	DUPAGE	50	32
FED. ROAD DIST. NO. - [ILLINOIS] FED. AID PROJECT			CONTRACT NO. 62M60	

**TS 2520  
ECON 39  
LOCATION NO. F**





IL RTE 53 (COLUMBINE AVE)

ECON 39  
LOCATION NO. F & G

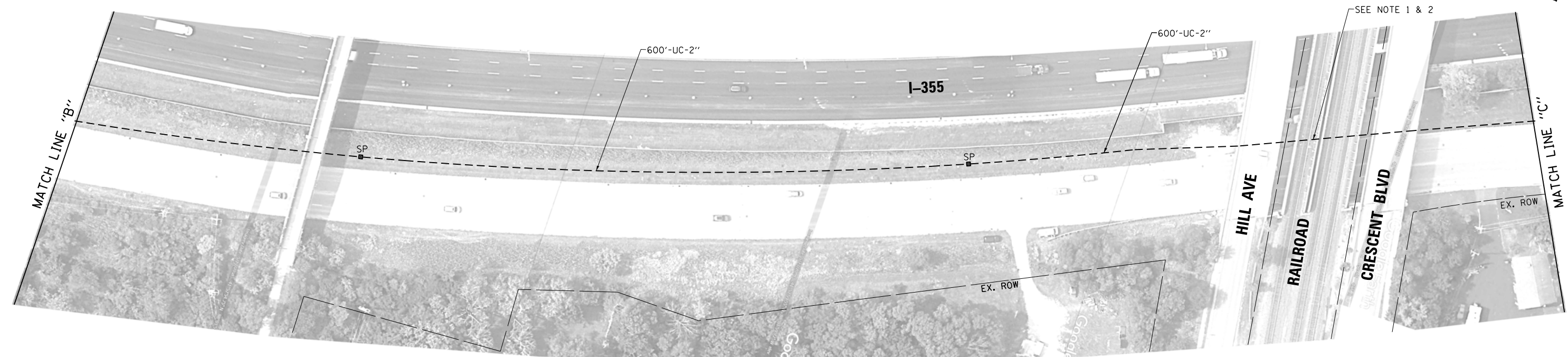
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	USER NAME = \$USER\$	DESIGNED - EA	REVISED -
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	PLOT DATE = \$DATE\$	DATE - 10/9/2020	REVISED -

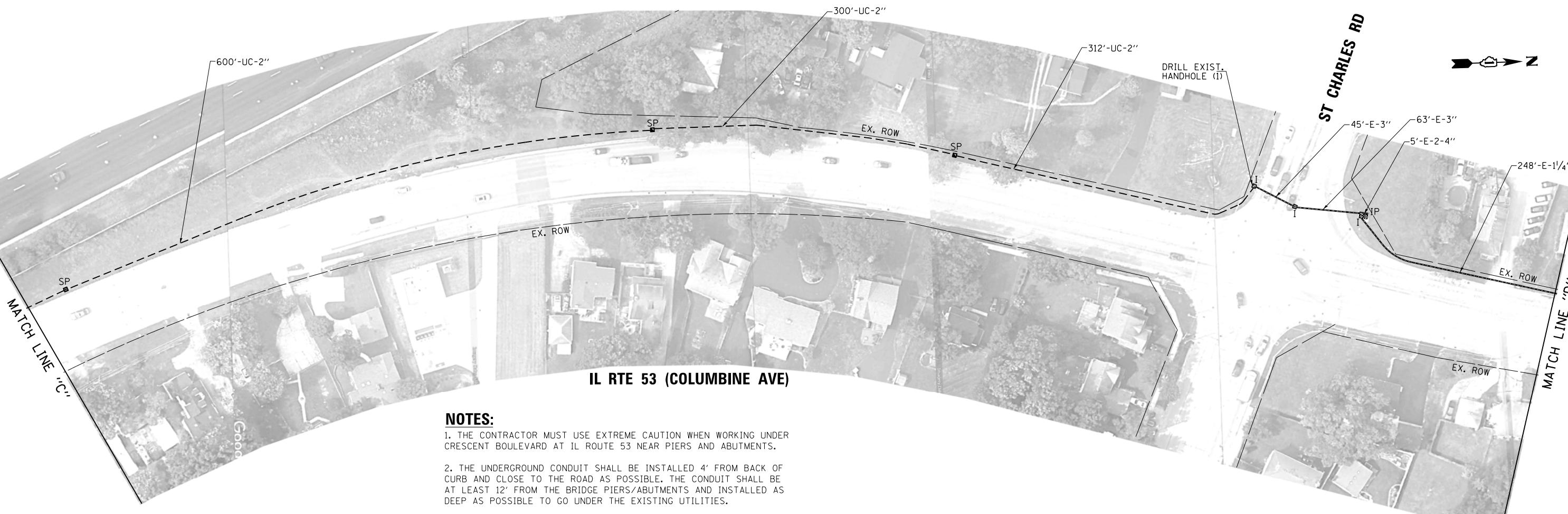
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PROPOSED INTERCONNECT PLAN (SHEET 1 OF 6)			
IL RTE 53 -			
FROM MADISON ST TO FULLERTON AVE			
SCALE: 1"=50'	SHEET NO.	OF SHEETS	STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2020-190-TS	DUPAGE	50	33
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 62M60	



IL RTE 53 (COLUMBINE AVE)



IL RTE 53 (COLUMBINE AVE)

**NOTES:**

1. THE CONTRACTOR MUST USE EXTREME CAUTION WHEN WORKING UNDER CRESCENT BOULEVARD AT IL ROUTE 53 NEAR PIERS AND ABUTMENTS.
2. THE UNDERGROUND CONDUIT SHALL BE INSTALLED 4' FROM BACK OF CURB AND CLOSE TO THE ROAD AS POSSIBLE. THE CONDUIT SHALL BE AT LEAST 12' FROM THE BRIDGE PIERS/ABUTMENTS AND INSTALLED AS DEEP AS POSSIBLE TO GO UNDER THE EXISTING UTILITIES.
3. THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY NO EXISTING UTILITY CONFLICTS CROSS THE PATH OF THE PROPOSED INTERCONNECT CONDUIT. THE CONTRACTOR SHALL INSTALL THE CONDUIT 3' BELOW OF ANY OBSTRUCTIONS ENCOUNTERED.

FILE NAME = K:\PROJECTS\Projects\_2020\62M60\_CMAQ\_Interconnect\CADD\Sheets\Econ\_39\_Interconnect\_2.dgn

**GO** GANDHI AND ASSOCIATES, INC.  
ENGINEERS AND PLANNERS  
6035 N. NORTHWEST HIGHWAY  
SUITE 306  
CHICAGO, ILLINOIS 60630 TEL: (773) 774-590

USER NAME = \$USER\$	DESIGNED - EA	REVISED -
DRAWN - EA, AV	CHECKED - AV	REVISED -
PLOT SCALE = 100.0000' / 1" =	DATE - 10/9/2020	REVISED -
PLOT DATE = \$DATE\$		

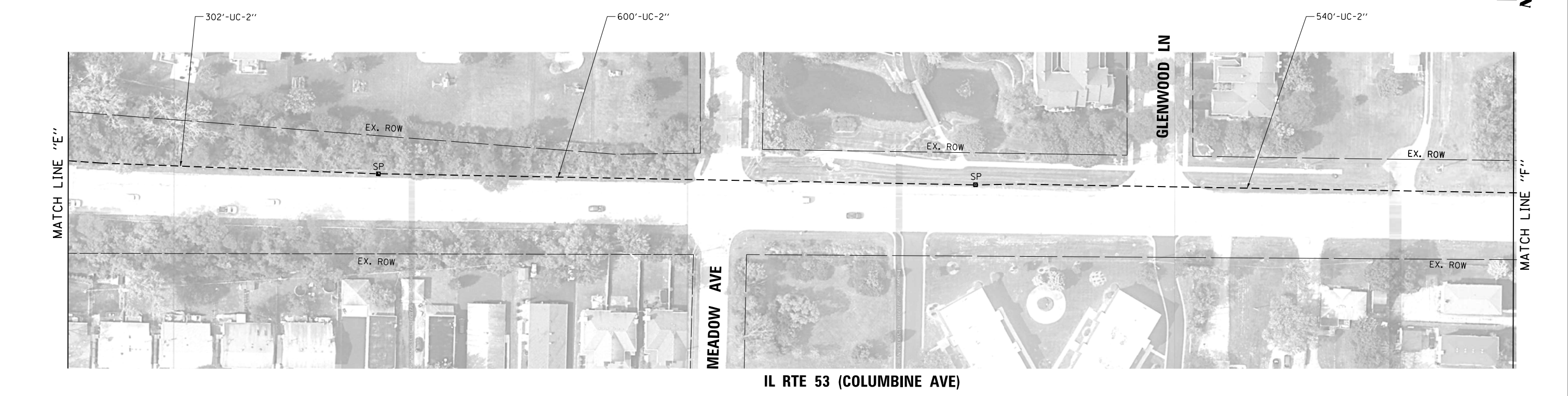
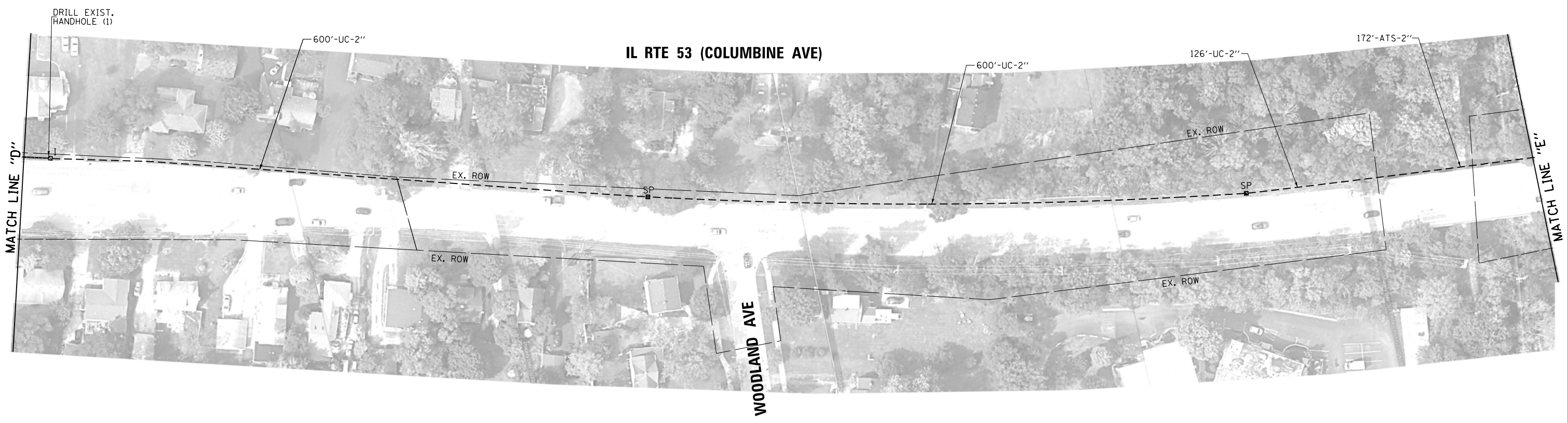
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>PROPOSED INTERCONNECT PLAN (SHEET 2 OF 6)</b>			
<b>IL RTE 53 -</b>			
<b>FROM MADISON ST TO FULLERTON AVE</b>			
SCALE: 1"=50'	SHEET NO.	OF SHEETS	STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2020-190-TS	DUPAGE	50	34
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 62M60	

**ECON 39  
LOCATION NO. F & G**





FILE NAME = K:\PROJECTS\Projects\_2020\62M60\_CMAQ\_Interconnect\CADD\_Sheets\031\_Econ\_39\_Interconnect\_3.dgn



USER NAME = \$USER\$	DESIGNED - EA	REVISED -
DRAWN - EA, AV	REVISOR -	REVISED -
PLOT SCALE = 100.0000' / 1" =	CHECKED - AV	REVISED -
PLOT DATE = \$DATE\$	DATE - 10/9/2020	REVISED -

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

**PROPOSED INTERCONNECT PLAN (SHEET 3 OF 6)**  
**IL RTE 53 -**  
**FROM MADISON ST TO FULLERTON AVE**

SCALE: 1"=50'	SHEET NO.	OF	SHEETS	STA.	TO	STA.
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2020-190-TS	DUPAGE	50	35
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 62M60	

**ECON 39**  
**LOCATION NO. F & G**



IL RTE 53 (COLUMBINE AVE)



IL RTE 53 (COLUMBINE AVE)

FILE NAME = K:\PROJECTS\Projects\_2020\62M60\_CMAQ\_Interconnect\CADD\_Sheets\032\_Econ\_39\_Interconnect\_4.dgn



USER NAME = \$USER\$	DESIGNED - EA	REVISED -
	DRAWN - EA, AV	REVISED -
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PLOT DATE = \$DATE\$	DATE - 10/9/2020	REVISED -

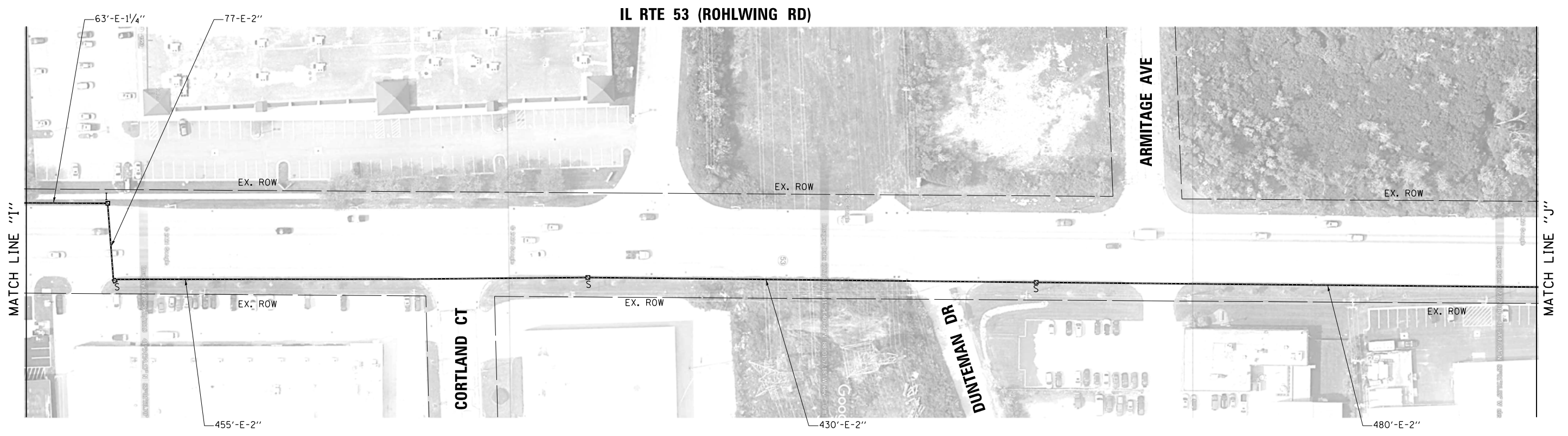
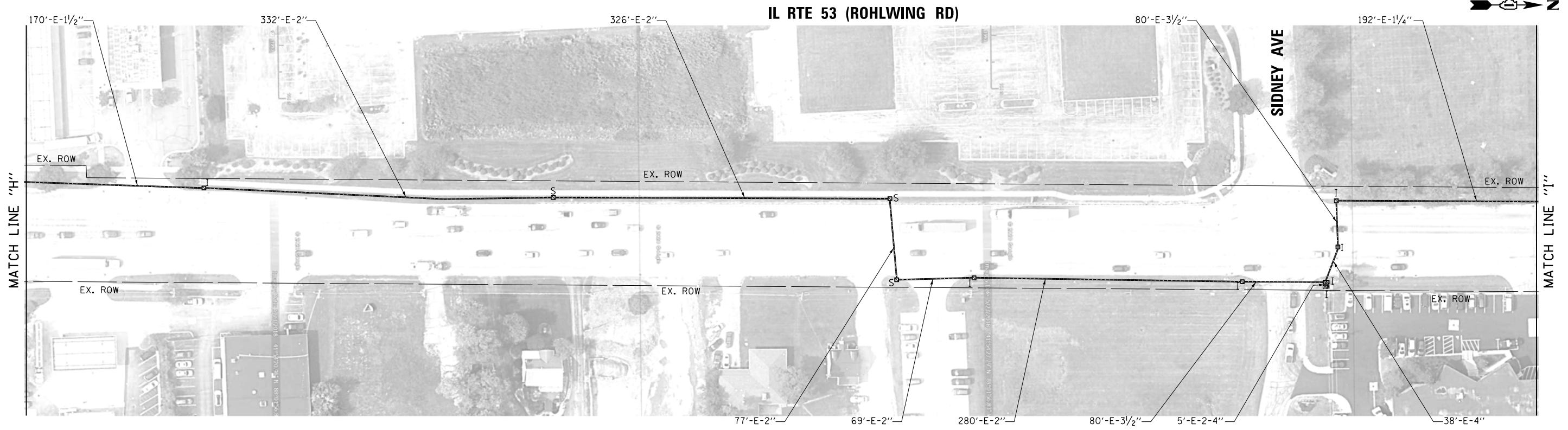
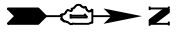
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PROPOSED INTERCONNECT PLAN (SHEET 4 OF 6)			
IL RTE 53 -			
FROM MADISON ST TO FULLERTON AVE			
SCALE: 1"=50'	SHEET NO.	OF SHEETS	STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2020-190-TS	DUPAGE	50	36
CONTRACT NO. 62M60				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

ECON 39  
LOCATION NO. F & G





FILE NAME = K:\PROJECTS\Projects\_2020\62M60\_CMAQ\_Interconnect\CADD\_Sheets\033\_Econ\_39\_Interconnect\_5.dgn



USER NAME = \$USER\$	DESIGNED - EA	REVISED -
PLOT SCALE = 100.0000' / 1" =	DRAWN - EA, AV	REVISED -
PLOT DATE = \$DATE\$	CHECKED - AV	REVISED -
	DATE - 10/9/2020	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PROPOSED INTERCONNECT PLAN (SHEET 5 OF 6)  
IL RTE 53 -  
FROM MADISON ST TO FULLERTON AVE

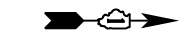
SCALE: 1"=50'	SHEET NO.	OF SHEETS	STA.	TO STA.
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2020-190-TS	DUPAGE	50	37
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 62M60	

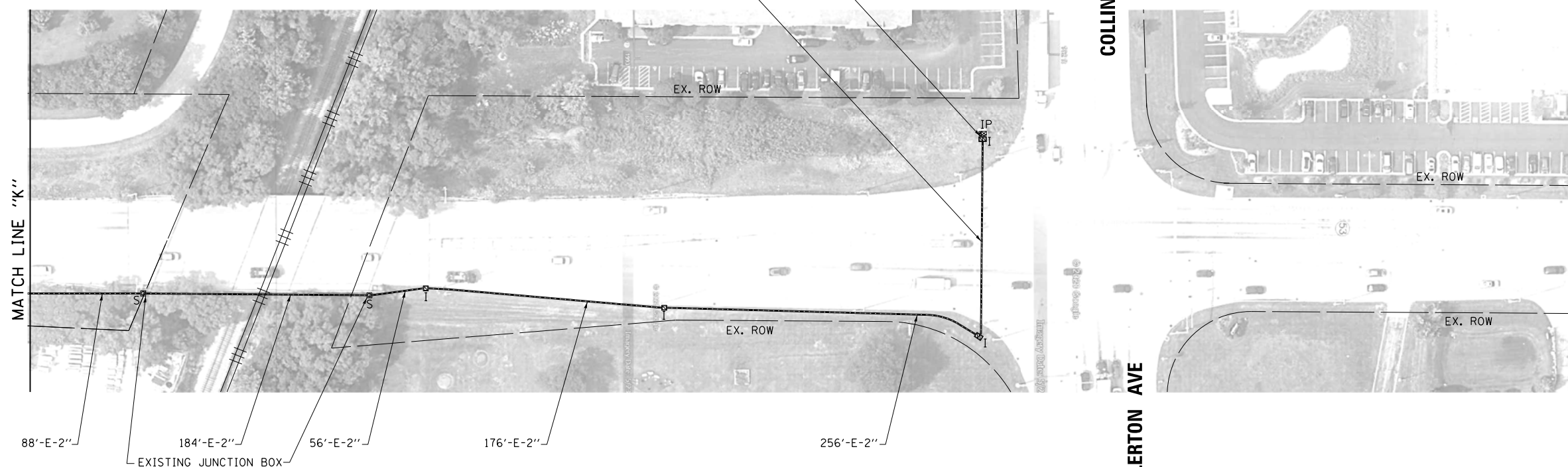
ECON 39  
LOCATION NO. F & G



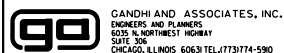
IL RTE 53 (ROHLWING RD)



IL RTE 53 (ROHLWING RD)



FILE NAME = K:\PROJECTS\Projects\_2020\62M60\_CMAQ\_Interconnect\CADD\_Sheets\034\_Econ\_39\_Interconnect.dgn



USER NAME = \$USER\$	DESIGNED - EA	REVISED -
PLOT SCALE = 100.0000' / 1" =	DRAWN - EA, AV	REVISED -
PLOT DATE = \$DATE\$	CHECKED - AV	REVISED -
	DATE - 10/9/2020	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PROPOSED INTERCONNECT PLAN (SHEET 6 OF 6)  
IL RTE 53 -  
FROM MADISON ST TO FULLERTON AVE

SCALE: 1"=50' SHEET NO. OF SHEETS STA. TO STA.

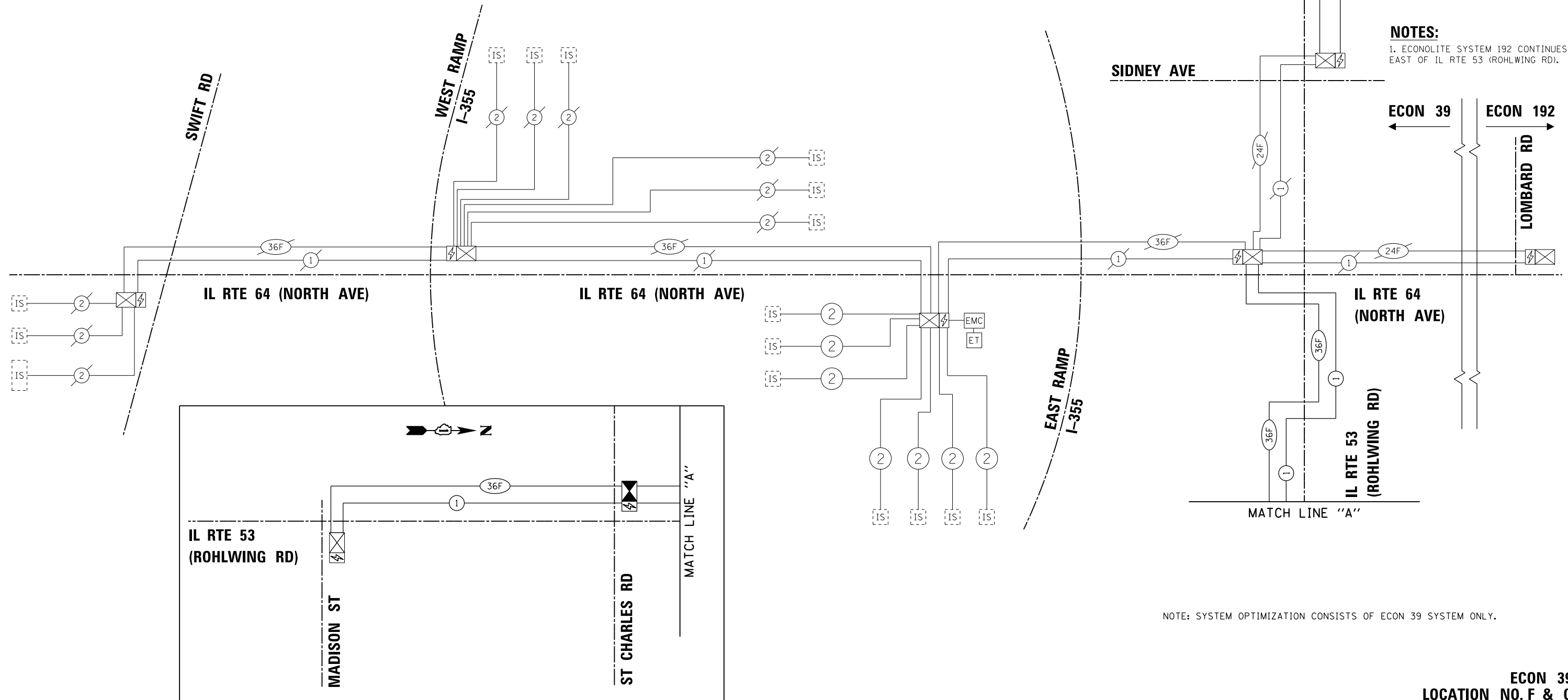
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2020-190-TS	DUPAGE	50	38
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 62M60	

ECON 39  
LOCATION NO. F & G

**SCHEDULE OF QUANTITIES FOR LOCATION NO. F & G**

ITEM DESCRIPTION	UNITS	TOTAL QTY.
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	10118
CONDUIT ATTACHED TO STRUCTURE, 2" DIA., GALVANIZED STEEL	FOOT	172
HANDHOLE	EACH	4
HEAVY-DUTY HANDHOLE	EACH	14
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	16191
DRILL EXISTING HANDHOLE	EACH	4
* ROD AND CLEAN EXISTING CONDUIT	FOOT	3440
FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM24F	FOOT	16191
OPTIMIZE TRAFFIC SIGNAL SYSTEM	EACH	1

\* NOMINAL QUANTITY TO BE USED AS NEEDED AND AS APPROVED BY THE ENGINEER



**NOTES:**  
1. ECONOLITE SYSTEM 192 CONTINUES EAST OF IL RTE 53 (ROHLWING RD).

NOTE: SYSTEM OPTIMIZATION CONSISTS OF ECON 39 SYSTEM ONLY.

FILE NAME = K:\PROJECTS\Projects\_2020\62M60\_CMAQ\_Interconnect\CADD\Sheets\Econ\_39\_Schem\_Interconnect.dgn

**GO** GANDHI AND ASSOCIATES, INC.  
ENGINEERS AND PLANNERS  
6035 N. NORTHWEST HIGHWAY  
SUITE 300  
CHICAGO, ILLINOIS 60630 TEL: 773-774-5590

USER NAME = \$USER*	DESIGNED - EA	REVISED -
PLOT SCALE = 200.0000' / in.	DRAWN - EA, AV	REVISED -
PLOT DATE = \$DATE*	CHECKED - AV	REVISED -
	DATE - 10/9/2020	REVISED -

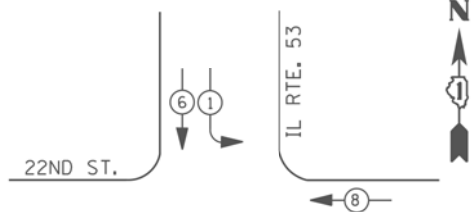
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PROPOSED INTERCONNECT SCHEMATIC AND SCHEDULE OF QUANTITIES**  
**IL RTE 53 -**  
**MADISON ST TO FULLERTON AVE**

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2020-190-TS	DUPAGE	50	39
CONTRACT NO. 62M60			FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT	

**ECON 39  
LOCATION NO. F & G**

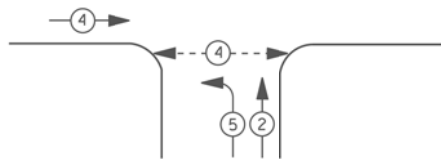
**CONTROLLER SEQUENCE**



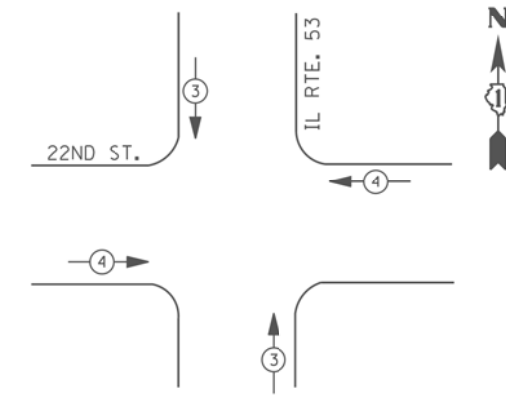
**LEGEND**

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

**PROPOSED & EXISTING PHASE DESIGNATION DIAGRAM**



**PROPOSED & EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE**



EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↑	←

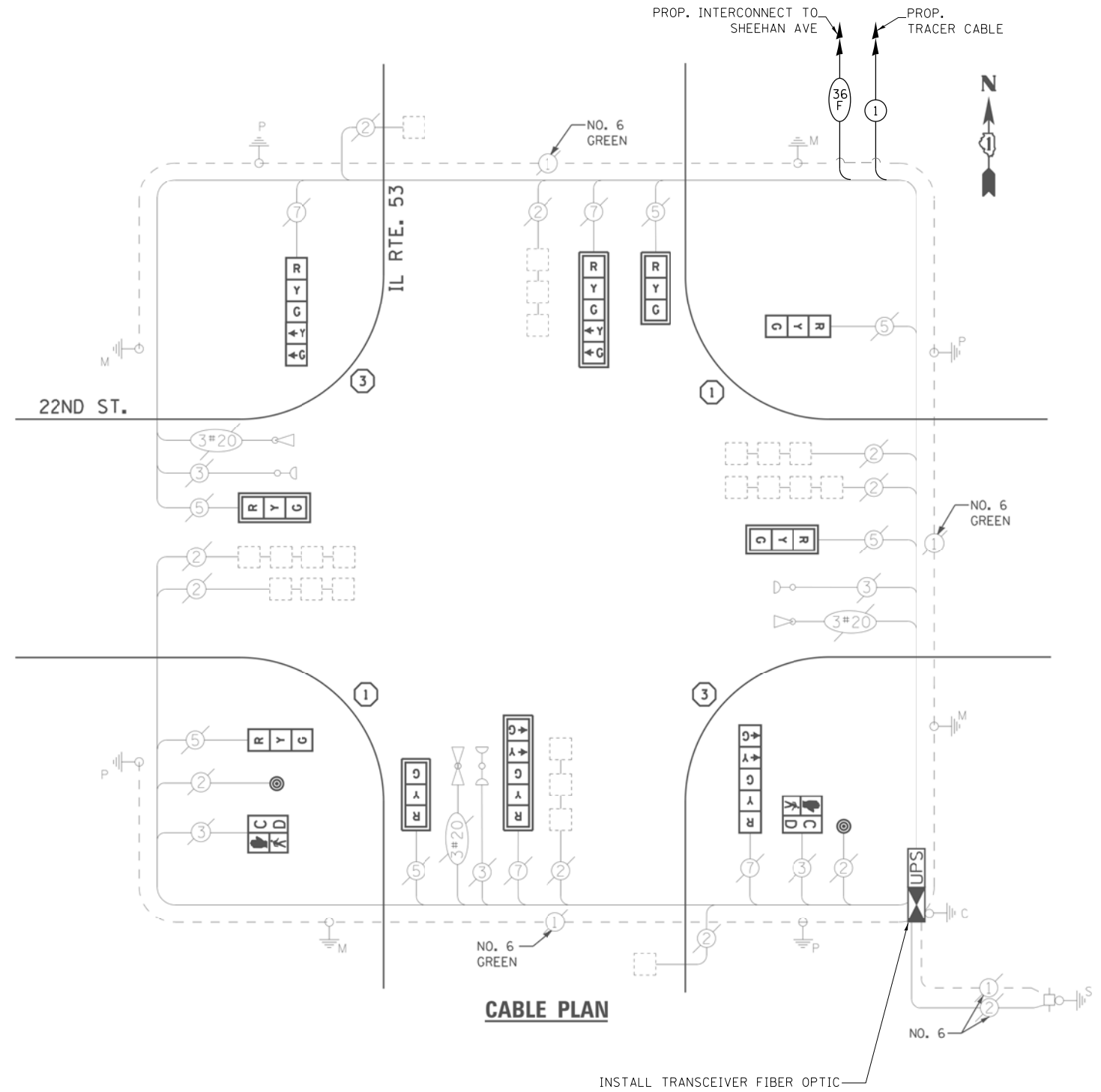
**I. D. O. T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS**

TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL ( RED )	10	135	17	0.50	85
( YELLOW )	10	135	25	0.25	63
( GREEN )	10	135	15	0.25	38
ARROW	8	135	12	0.10	10
PED. SIGNAL	2	90	25	1.00	50
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252	25	0.05	--
VIDEO SYSTEM	--	150	-	1.00	--
FLASHER LED					
TOTAL =					346

ENERGY COSTS- BILLED TO: IDOT DISTRICT 1  
 201 WEST CENTER COURT  
 SCHAUMBURG, IL 60196-1096

ENERGY SUPPLY - CONTACT JOE STACHO  
 PHONE 630-424-5704  
 COMMONWEALTH EDISON

**NOTE:**  
 INSTALL TRANSCEIVER FIBER OPTIC IN EXISTING CABINET.



**CABLE PLAN**

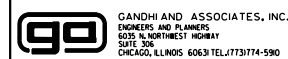
INSTALL TRANSCEIVER FIBER OPTIC

**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNITS	TOTAL QTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRANSCEIVER - FIBER OPTIC	EACH	1

**TS 8970  
 ECON 104  
 LOCATION NO. D**

FILE NAME = K:\PROJECTS\Projects\2020\62M60 Interconnect\CADD\Sheets\036-IL Rte 53 at 22nd St.CADD.dgn



USER NAME = \$USER\$  
 DESIGNED - EA  
 DRAWN - EA, AV  
 CHECKED - AV  
 DATE - 10/9/2020

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

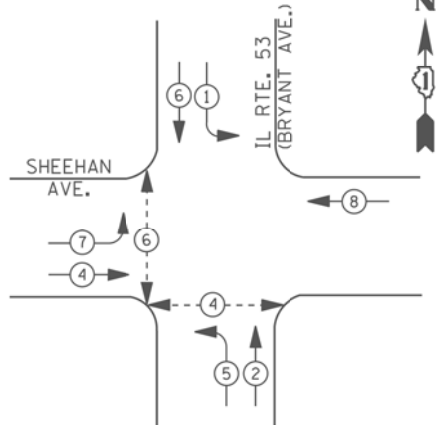
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**MODIFIED CABLE PLAN, PHASE DESIGNATION DIAGRAM, EMERGENCY VEHICLE PREEMPTION SEQUENCE, AND SCHEDULE OF QUANTITIES  
 IL ROUTE 53 AT 22ND ST**

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2020-190-TS	DUPAGE	50	40
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT			CONTRACT NO. 62M60	

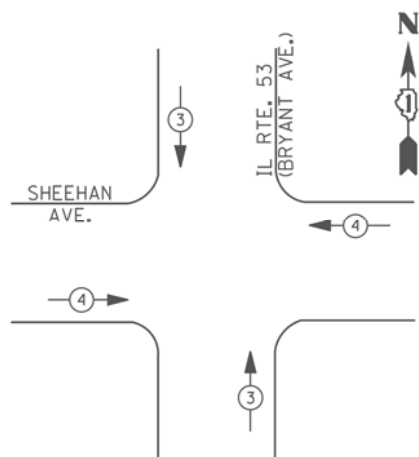
**CONTROLLER SEQUENCE**



**LEGEND**

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

**PHASE DESIGNATION DIAGRAM**



**EMERGENCY VEHICLE PREEMPTION SEQUENCE**

EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↑	←

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

TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	10	135	17	0.50	85
(YELLOW)	10	135	25	0.25	63
(GREEN)	10	135	15	0.25	38
ARROW	12	135	12	0.10	15
PED. SIGNAL	4	90	25	1.00	100
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252	25	0.05	--
VIDEO SYSTEM		150	-	1.00	--

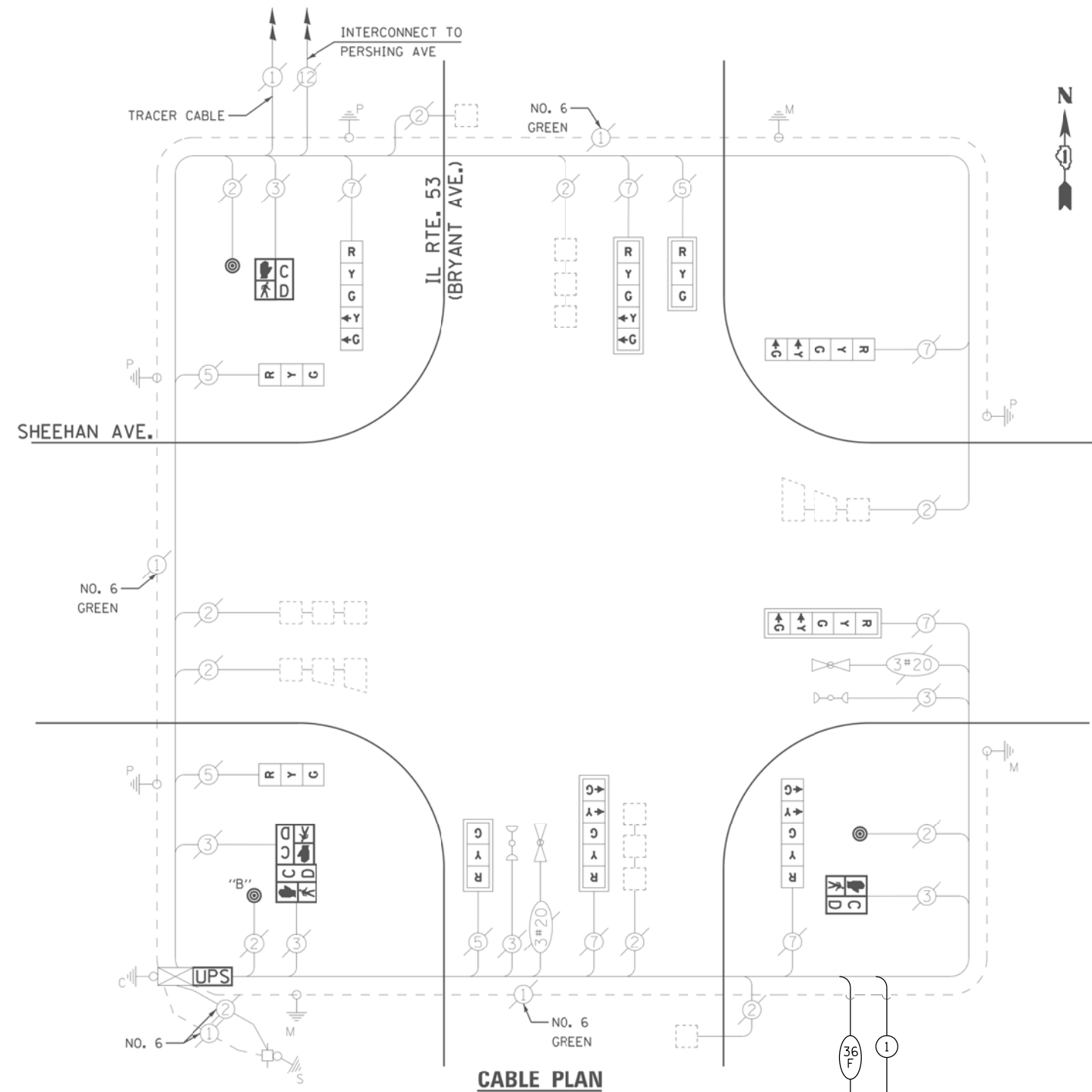
TOTAL = 401

ENERGY COSTS- BILLED TO: THE VILLAGE OF GLEN ELLYN  
535 DUANE STREET  
GLEN ELLYN, IL 60137

ENERGY SUPPLY - CONTACT JOE STACHO  
PHONE 630-424-5704  
COMMONWEALTH EDISON

**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNITS	TOTAL QTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1



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

PROP. INTERCONNECT TO 22ND ST  
PROP. TRACER CABLE

FILE NAME = K:\PROJECTS\Projects\2020\62M60 Interconnect\CADD\Sheets\037-IL Rte 53 at Sheehan Ave.dwg

	USER NAME = \$USER\$	DESIGNED - EA	REVISED -
		DRAWN - EA, AV	REVISED -
	PLOT SCALE = 40.0000' / in.	CHECKED - AV	REVISED -
	PLOT DATE = \$DATE\$	DATE - 10/9/2020	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

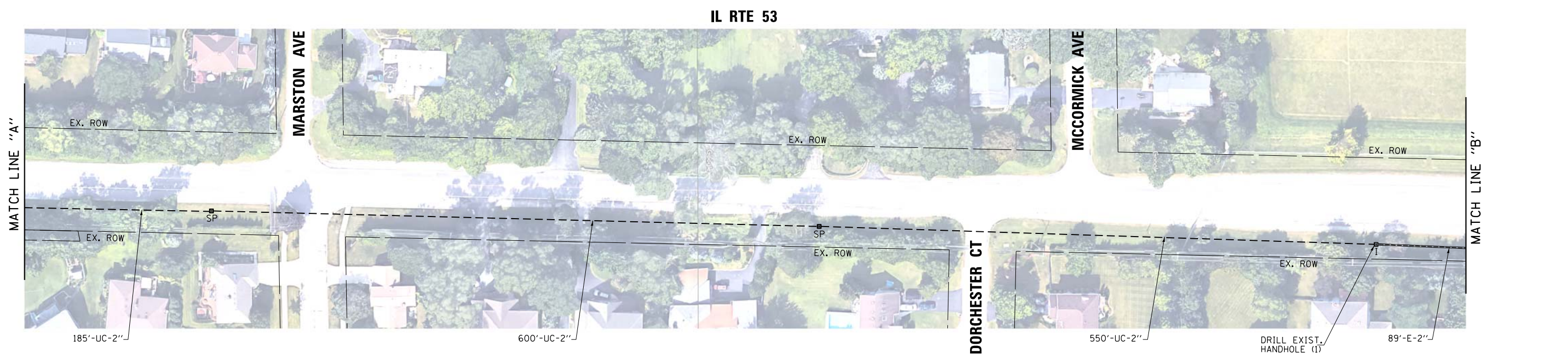
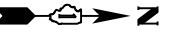
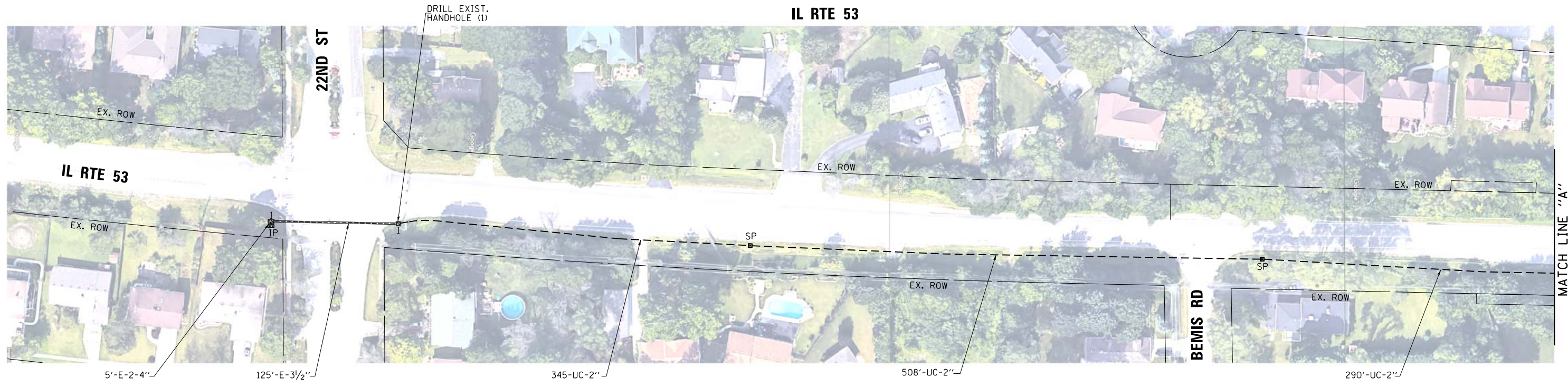
**MODIFIED CABLE PLAN, PHASE DESIGNATION DIAGRAM,  
AND EMERGENCY VEHICLE PREEMPTION SEQUENCE  
IL ROUTE 53 AT SHEEHAN AVE**

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2020-190-TS	DUPAGE	50	41
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT			CONTRACT NO. 62M60	

**TS 21505  
ECON 104  
LOCATION NO. D**





FILE NAME = K:\PROJECTS\Projects\_2020\62M60\_CMAQ\_Interconnect\CADD\_Sheets\038\_Econ\_104\_Interconnect\_1.dgn



USER NAME = \$USER\$	DESIGNED - EA	REVISED -
DRAWN - EA, AV	REVISÉ -	
CHECKED - AV	REVISÉ -	
DATE - 10/9/2020	REVISÉ -	

PLOT SCALE = 100.0000' / 1" =	
PLOT DATE = \$DATE\$	

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

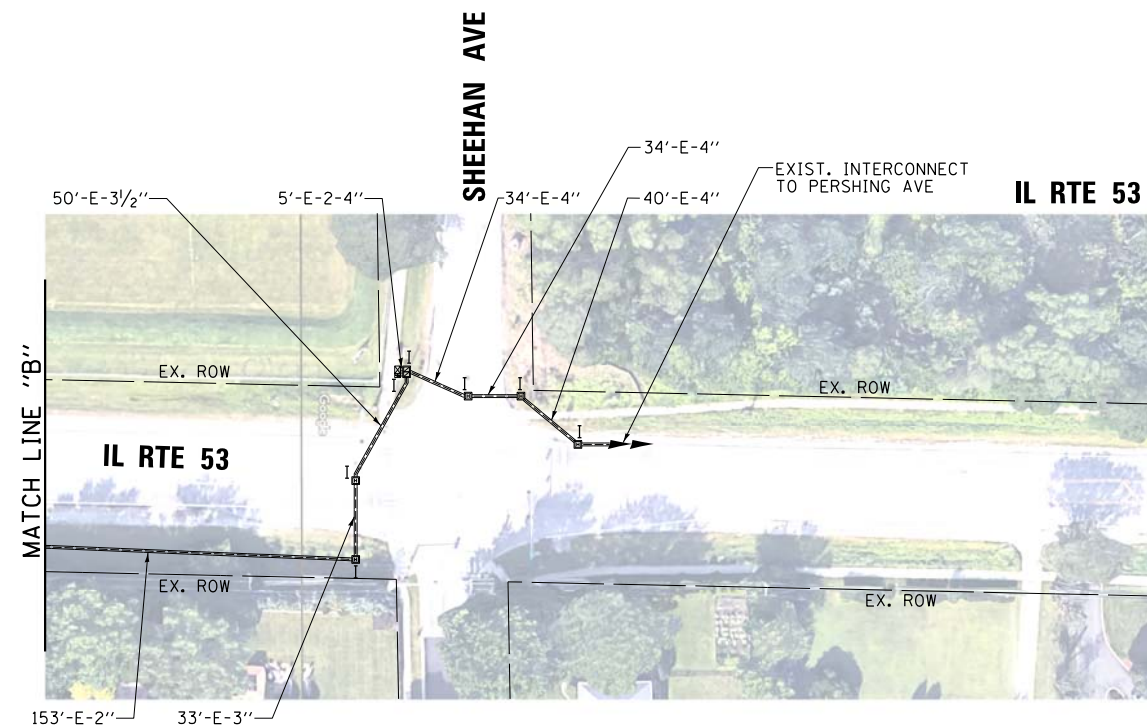
**PROPOSED INTERCONNECT PLAN (SHEET 1 OF 2)**  
**IL RTE 53 -**  
**22ND ST TO SHEEHAN AVE**

SCALE: 1"=50'    SHEET NO.    OF    SHEETS    STA.    TO    STA.

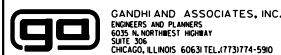
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2020-190-TS	DUPAGE	50	42
FED. ROAD DIST. NO. 1   ILLINOIS FED. AID PROJECT			CONTRACT NO. 62M60	

**ECON 104  
LOCATION NO. D**





FILE NAME = K:\PROJECTS\Projects\_2020\62M60\_CMAQ\_Interconnect\CADD\_Sheets\0391\_Econ\_104\_Interconnect\_2.dgn



GANDHI AND ASSOCIATES, INC.  
 ENGINEERS AND PLANNERS  
 6035 N. NORTHWEST HIGHWAY  
 SUITE 300  
 CHICAGO, ILLINOIS 60630 TEL: (773) 774-5900

USER NAME = \$USER\$	DESIGNED - EA	REVISED -
DRAWN - EA, AV	CHECKED - AV	REVISED -
DATE - 10/9/2020		

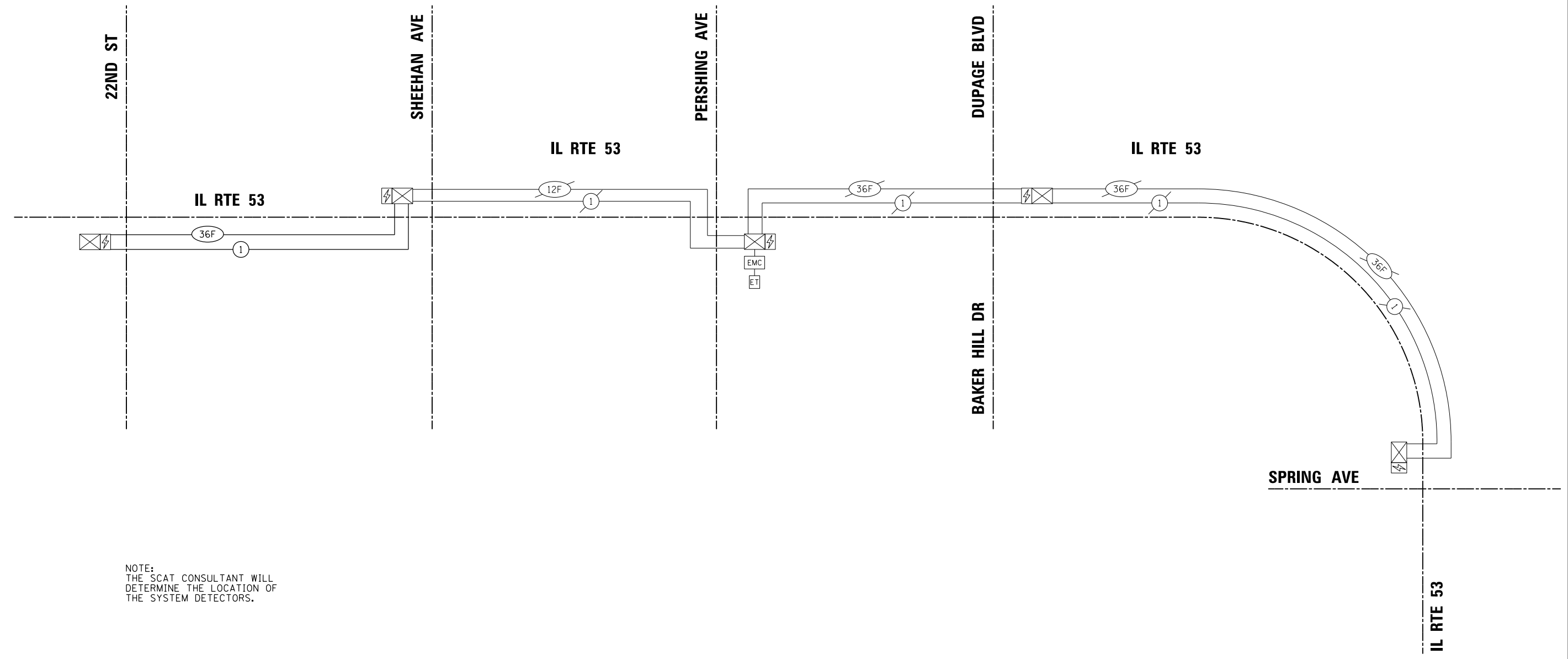
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

PROPOSED INTERCONNECT PLAN (SHEET 2 OF 2)  
 IL RTE 53 -  
 22ND ST TO SHEEHAN AVE

SCALE: 1"=50'      SHEET NO.      OF      SHEETS      STA.      TO      STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2020-190-TS	DUPAGE	50	43
CONTRACT NO. 62M60				
FED. ROAD DIST. NO. 1   ILLINOIS FED. AID PROJECT				

**ECON 104**  
**LOCATION NO. D**



NOTE:  
THE SCAT CONSULTANT WILL  
DETERMINE THE LOCATION OF  
THE SYSTEM DETECTORS.

**SCHEDULE OF QUANTITIES FOR LOCATION NO. D**

ITEM DESCRIPTION	UNITS	TOTAL QTY.
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	2477
HEAVY-DUTY HANDHOLE	EACH	4
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	3051
DRILL EXISTING HANDHOLE	EACH	2
FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM24F	FOOT	3051
OPTIMIZE TRAFFIC SIGNAL SYSTEM	EACH	1

NOTE: SYSTEM OPTIMIZATION CONSISTS OF ECON 104 SYSTEM ONLY.

**ECON 104  
LOCATION NO. D**

FILE NAME = K:\PROJECTS\Projects\_2020\62M60\_CMAQ\_Interconnect\CADD\Sheets\040\_Econ\_104\_Schem\_Interconnect.dgn



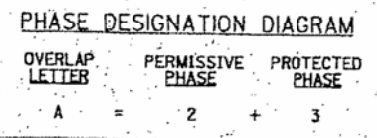
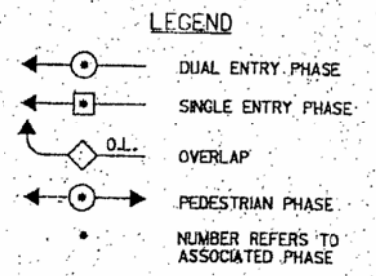
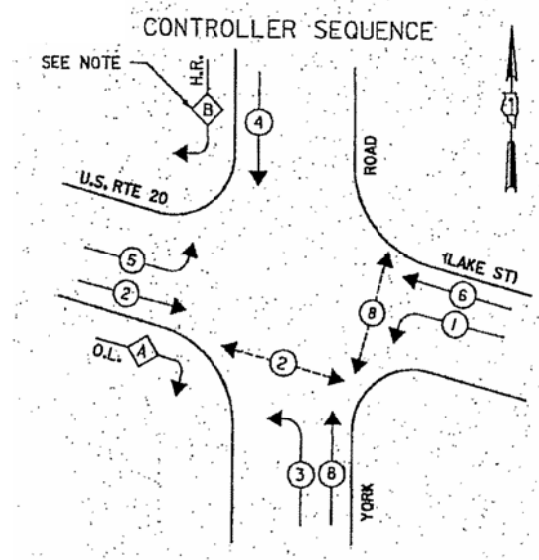
USER NAME = \$USER*	DESIGNED - EA	REVISED -
PLOT SCALE = 200.0000' / in.	CHECKED - AV	REVISED -
PLOT DATE = \$DATE*	DATE - 10/9/2020	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

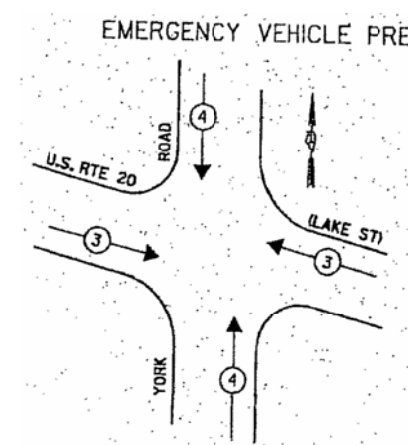
**PROPOSED INTERCONNECT SCHEMATIC AND SCHEDULE OF QUANTITIES**  
**IL RTE 53 -**  
**22ND ST TO SHEEHAN AVE**  
SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2020-190-TS	DUPAGE	50	44
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 62M60	



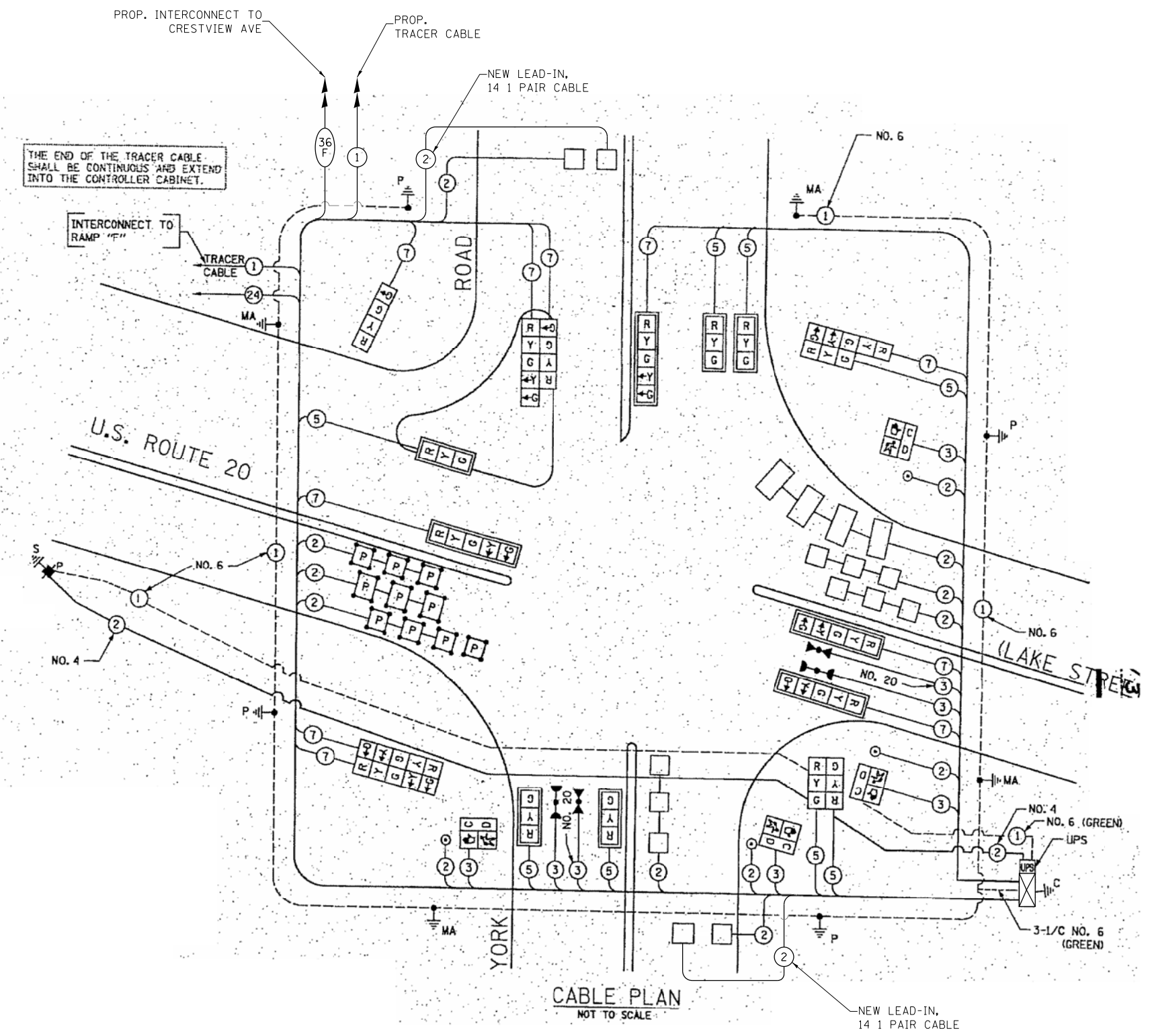


**NOTE**  
THE GREEN RIGHT TURN ARROW INDICATION FOR THE SOUTHBOUND TO WESTBOUND RIGHT TURN MOVEMENT IS HOT WIRED.



**PROPOSED EMERGENCY VEHICLE PREEMPTORS**

EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↔	↕



**CABLE PLAN**  
NOT TO SCALE

**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNITS	TOTAL QTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	810
INDUCTIVE LOOP DETECTOR	EACH	2

**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	18	10	10	18.0
PED. SIGNAL	4	20	100	80.0
CONTROLLER	1	100	100	100.0
UPS	1	25	100	25.0
VIDEO SYSTEM	-	150	100	-
PTZ CAMERA	-	65	100	-
BLANK-OUT SIGN	-	25	5	-
FLASHER	-	-	50	-
STREET NAME SIGN	-	120	50	-
LUMINAIRE	-	-	-	-
<b>TOTAL =</b>				<b>437.2</b>

ENERGY COSTS TO:  
CITY OF ELMHURST  
209 N YORK ST  
ELMHURST, IL 60126

ENERGY SUPPLY: CONTACT: XXX XXX  
PHONE: (XXX) XXX-XXXX  
COMPANY: COMMONWEALTH EDISON  
ACCOUNT NUMBER:

USER NAME = \$USER\$	DESIGNED - EA	REVISED -
PLOT SCALE = 40.0000' / 1"	DRAWN - EA, AV	REVISED -
PLOT DATE = \$DATE\$	CHECKED - AV	REVISED -
	DATE - 10/9/2020	REVISED -

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

**MODIFIED CABLE PLAN, PHASE DESIGNATION DIAGRAM, EMERGENCY VEHICLE PREEMPTION SEQUENCE, AND SCHEDULE OF QUANTITIES**  
**YORK RD AT US ROUTE 20 (LAKE ST)**

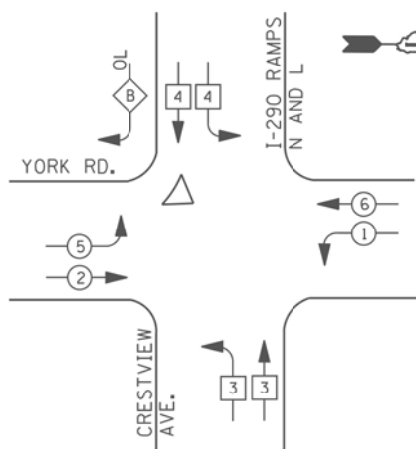
SCALE: N.T.S.    SHEET NO. OF SHEETS    STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2020-190-TS	DUPAGE	50	45
				CONTRACT NO. 62M60
FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT				

**TS 5995**  
**EAGLE 2L**  
**LOCATION NO. 1**

FILE NAME = K:\PROJECTS\Projects\2020\62M60 - Interconnect\CADD\Sheets\041\_York\_Rd\_at\_Lake\_St.dgn

**CONTROLLER SEQUENCE**



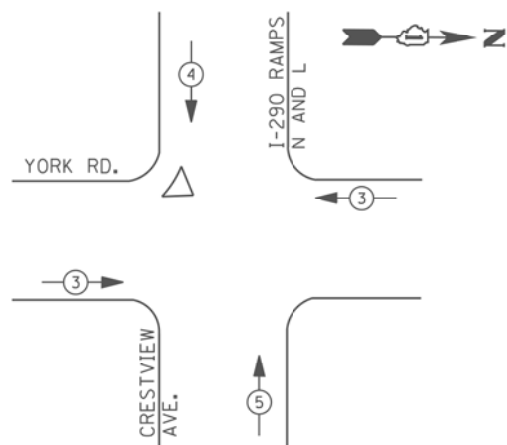
**LEGEND**

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

**RIGHT TURN OVERLAP PHASE DESIGNATION**

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
B	= 4	+ 5

**PHASE DESIGNATION DIAGRAM**



**EMERGENCY VEHICLE PREEMPTION SEQUENCE**

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

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

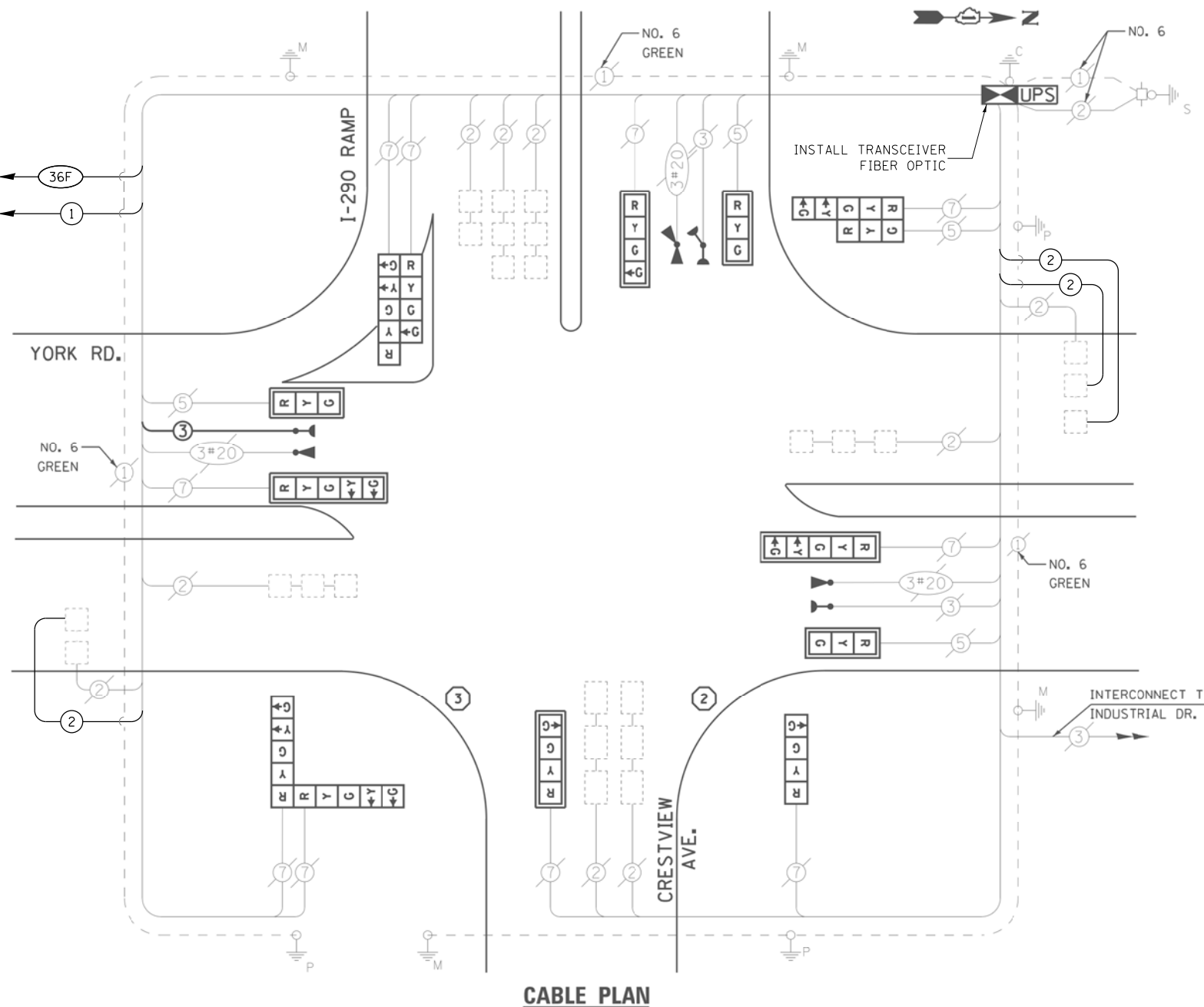
TYPE	NO. LAMPS	WATTAGE		% OPERATIONS	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	14	135	17	0.50	119
(YELLOW)	14	135	25	0.25	88
(GREEN)	18	135	15	0.25	68
ARROW	12	135	12	0.10	15
PED. SIGNAL	--	90	25	1.00	--
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		252	25	0.05	--
VIDEO SYSTEM		150	-	1.00	--
FLASHER LED					
TOTAL =					390

ENERGY COSTS- BILLED TO: IDOT DISTRICT 1  
 201 WEST CENTER COURT  
 SCHAUMBURG, IL 60196-1096

ENERGY SUPPLY - CONTACT JOE STACHO  
 PHONE 630-424-5704  
 COMMONWEALTH EDISON

PROP. INTERCONNECT TO US RTE 20 (LAKE ST)

PROP. TRACER CABLE



**CABLE PLAN**

**NOTE:**

INSTALL TRANSCEIVER FIBER OPTIC IN EXISTING CABINET.

**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNITS	TOTAL QTY.
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRANSCEIVER - FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	1038
INDUCTIVE LOOP DETECTOR	EACH	3

**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

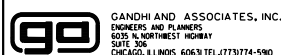
**MODIFIED CABLE PLAN, PHASE DESIGNATION DIAGRAM, EMERGENCY VEHICLE PREEMPTION SEQUENCE, AND SCHEDULE OF QUANTITIES YORK RD AT CRESTVIEW AVE**

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2020-190-TS	DUPAGE	50	46

CONTRACT NO. 62M60  
 FED. ROAD DIST. NO. - [ILLINOIS] FED. AID PROJECT

**TS 5990 EAGLE 2L LOCATION NO. 1**



USER NAME = \$USER\$  
 DESIGNED - EA  
 DRAWN - EA, AV  
 CHECKED - AV  
 DATE - 10/9/2020

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

PLOT SCALE = 40.0000' / in.  
 PLOT DATE = \$DATE\$

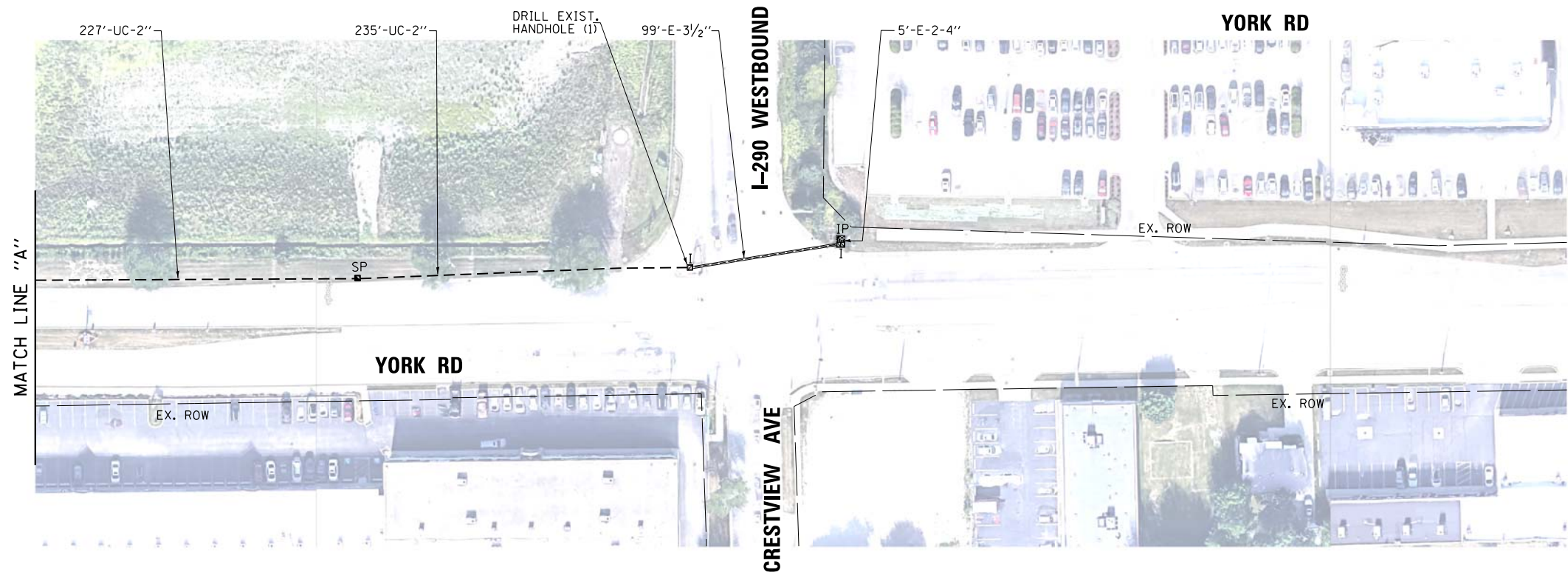
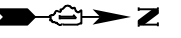
DATE - 10/9/2020

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

CONTRACT NO. 62M60

FED. ROAD DIST. NO. - [ILLINOIS] FED. AID PROJECT





- NOTES:**
1. CONTRACTOR SHOULD COORDINATE WORK WITH LOCAL AGENCY "CITY OF ELMHURST" PROPOSED SIDEWALK IMPROVEMENT.
  2. CONDUIT SHALL BE INSTALLED IN THE MEDIAN AND CONTRACTOR MUST USE EXTREME CAUTION WHEN WORKING NEAR BRIDGE PIERS.

FILE NAME = K:\PROJECTS\Projects\_2020\62M60\_CMAQ\_Interconnect\CADD\_Sheets\045\_Eagle\_2L\_Interconnect.Ldgn

	USER NAME = \$USER\$	DESIGNED - EA	REVISED -
		DRAWN - EA, AV	REVISED -
	PLOT SCALE = 100.0000' / 1" =	CHECKED - AV	REVISED -
	PLOT DATE = \$DATE\$	DATE - 10/9/2020	REVISED -

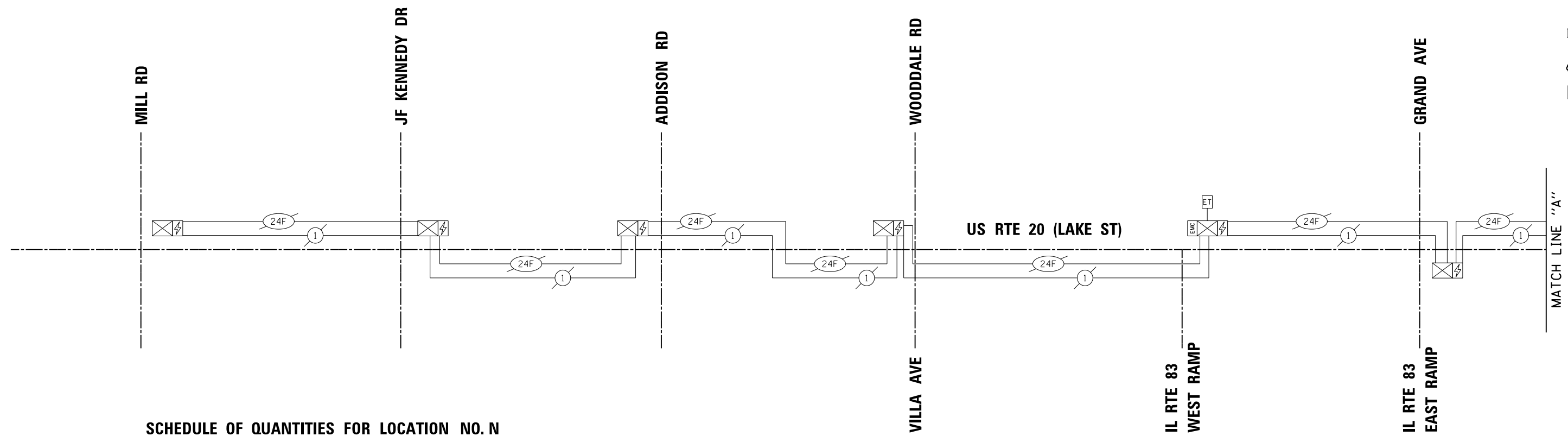
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PROPOSED INTERCONNECT PLAN  
YORK RD -  
US RTE 20 (LAKE ST) TO I-290 WESTBOUND/CRESTVIEW AVE**

SCALE: 1"=50'    SHEET NO.    OF    SHEETS    STA.    TO    STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2020-190-TS	DUPAGE	50	47
CONTRACT NO. 62M60			EAGLE 2L LOCATION NO. N	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



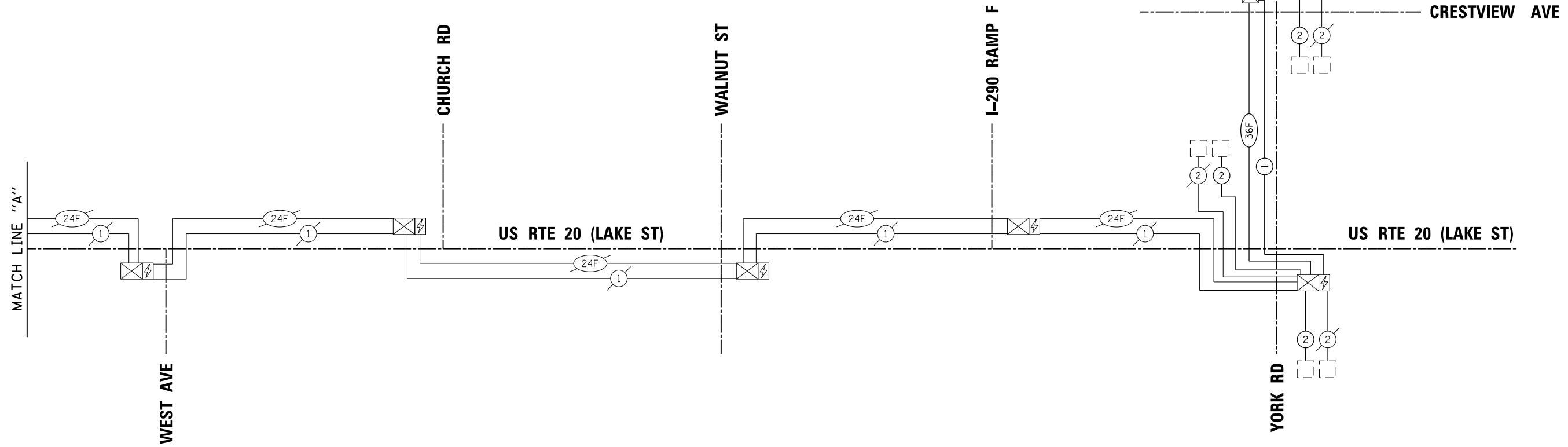


**SCHEDULE OF QUANTITIES FOR LOCATION NO. N**

ITEM DESCRIPTION	UNITS	TOTAL QTY.
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	1318
HANDHOLE	EACH	4
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	2022
DRILL EXISTING HANDHOLE	EACH	2
FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM24F	FOOT	2022
RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 2	EACH	2

NOTE: RE-OPTIMIZATION: INCLUDES TS\*5990 AND TS\*5995.

NOTE:  
THE SCAT CONSULTANT WILL  
DETERMINE THE LOCATION OF  
THE SYSTEM DETECTORS.



FILE NAME = K:\PROJECTS\Projects\_2020\62M60\_CMAQ\_Interconnect\CADD\_Sheets\046\_Eagle\_2L\_Schem\_Interconnect\_1.dgn



USER NAME = \$USER*	DESIGNED - EA	REVISED -
	DRAWN - EA, AV	REVISED -
PLOT SCALE = 200.0000' / in.	CHECKED - AV	REVISED -
PLOT DATE = \$DATE*	DATE - 10/9/2020	REVISED -

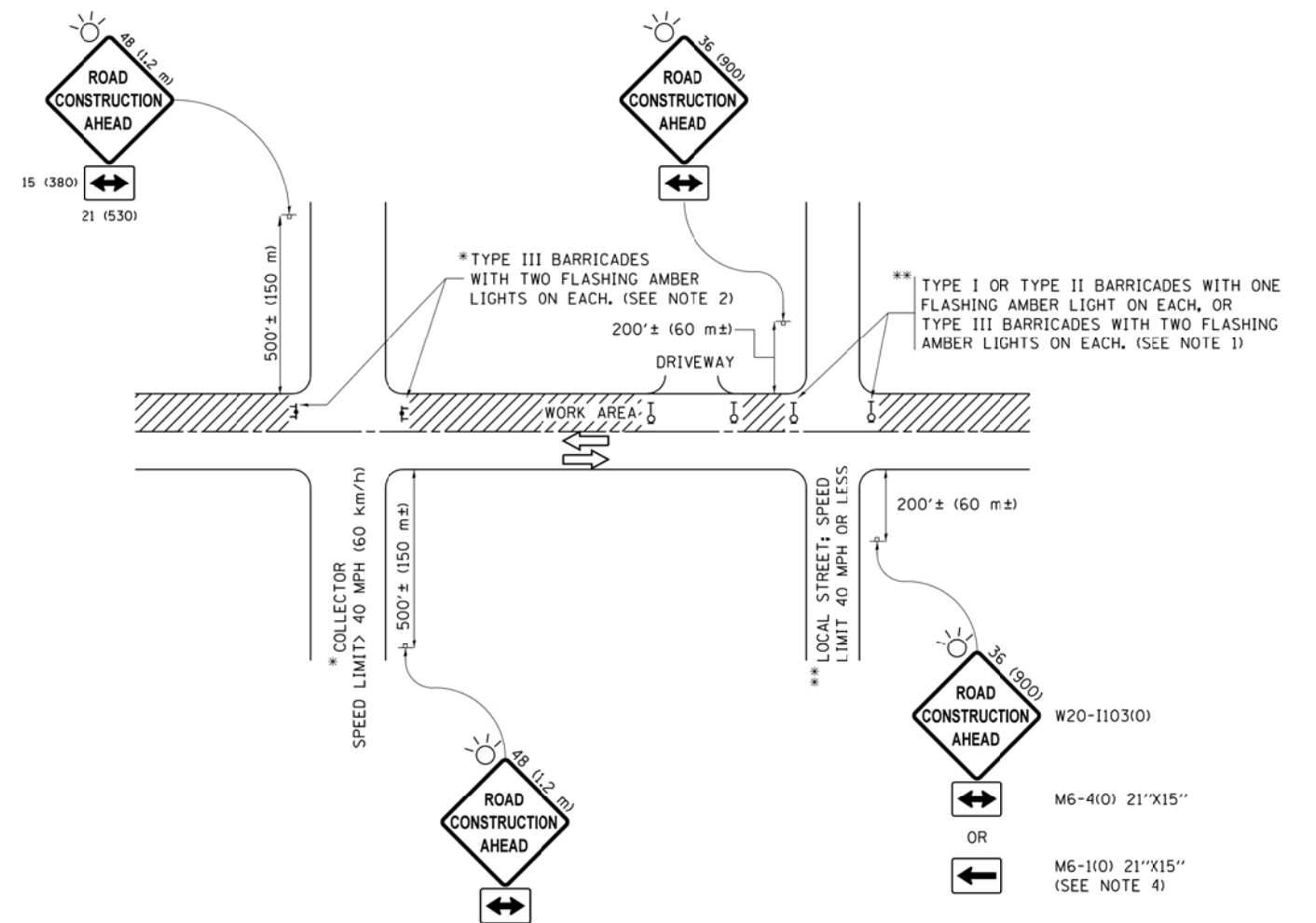
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**PROPOSED INTERCONNECT SCHEMATIC AND SCHEDULE OF QUANTITIES**  
**YORK RD -**  
**US RTE 20 (LAKE ST) TO I-290 WESTBOUND/CRESTVIEW AVE**

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2020-190-TS	DUPAGE	50	48
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 62M60	

**EAGLE 2L**  
**LOCATION NO. N**

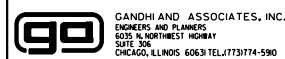
K:\PROJECTS\Projects\2020\62M60 - Interconnect\CADD\Sheets\047 - TRAFFIC CONTROL AND PROTECTION.dgn



**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) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
3. 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. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).
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.



USER NAME = \$USER\$	DESIGNED - EA	REVISED -
DRAWN - EA, AV	CHECKED - AV	REVISED -
PLOT SCALE = 40.0000' / 1" =	DATE - 10/9/2020	REVISED -
PLOT DATE = \$DATE\$		

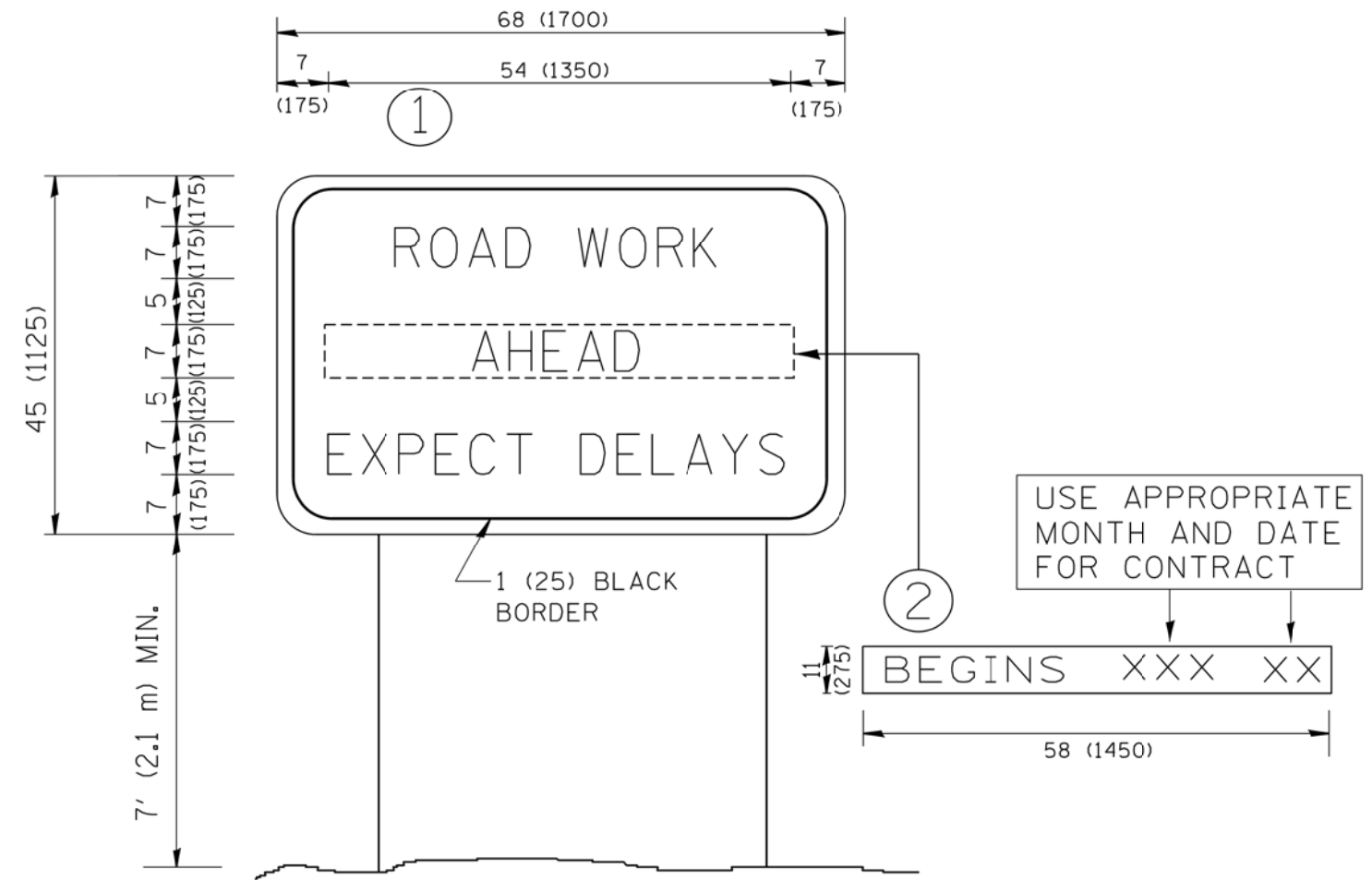
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

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

SCALE: N.T.S.    SHEET NO.    OF    SHEETS    STA.    TO    STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2020-190-TS	DUPAGE	50	49
TC-10			CONTRACT NO. 62M60	
FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT				

FILE NAME = K:\PROJECTS\Projects\2020\62M60\_CMAQ\_Interconnect\CADD\_Sheets\048\_Arterial\_Road\_Information\_Sign.dgn



**NOTES:**

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

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

	GANDHI AND ASSOCIATES, INC. ENGINEERS AND PLANNERS 5035 N. NORTHWEST HIGHWAY SUITE 205 CHICAGO, ILLINOIS 60630 TEL: (773) 774-590	USER NAME = \$USER\$	DESIGNED - EA	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>ARTERIAL ROAD INFORMATION SIGN</b>			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - EA, AV	REVISIED -			VAR	2020-190-TS	DUPAGE	50	50			
PLOT SCALE = 40.0000' / in.	CHECKED - AV	REVISIED -	TC-22			CONTRACT NO. 62M60		FED. ROAD DIST. NO. - ILLINOIS FED. AID PROJECT					
PLOT DATE = \$DATE\$	DATE - 10/9/2020	REVISIED -	SCALE: N.T.S.	SHEET NO.		OF SHEETS	STA.	TO STA.					