

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2022-SIGNALS-01	COOK	75	1
		ILLINOIS	CONTRACT NO. 62R82	

FOR INDEX OF SHEETS, SEE SHEET NO. 2

**LOCATION A**

US 20 – I-294 TO WOLF ROAD

**LOCATION M**

17TH AVENUE – 14TH STREET TO I-290

**LOCATION N**

26TH STREET – IL 43 TO RIVERSIDE DRIVE

**LOCATION O**

79TH STREET – 88TH AVENUE TO IL 50

**DESIGN DESIGNATION**

-US 20 /79TH STREET – MINOR ARTERIAL

-17TH AVENUE /26TH STREET – MAJOR COLLECTOR

**TRAFFIC DATA**

US 20

ADT (2021) = 22700 VPD

POSTED SPEED = 35 MPH

26TH STREET

ADT (2022) = 13500 VPD

POSTED SPEED = 30 MPH

17TH AVENUE

ADT (2022) = 8550 VPD

POSTED SPEED = 30 MPH

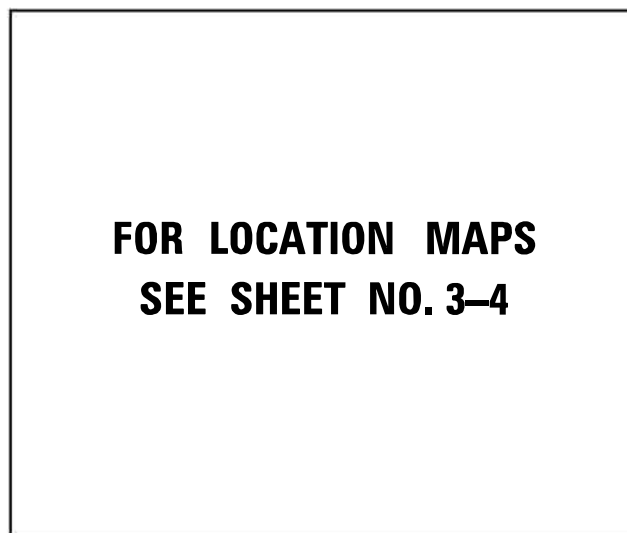
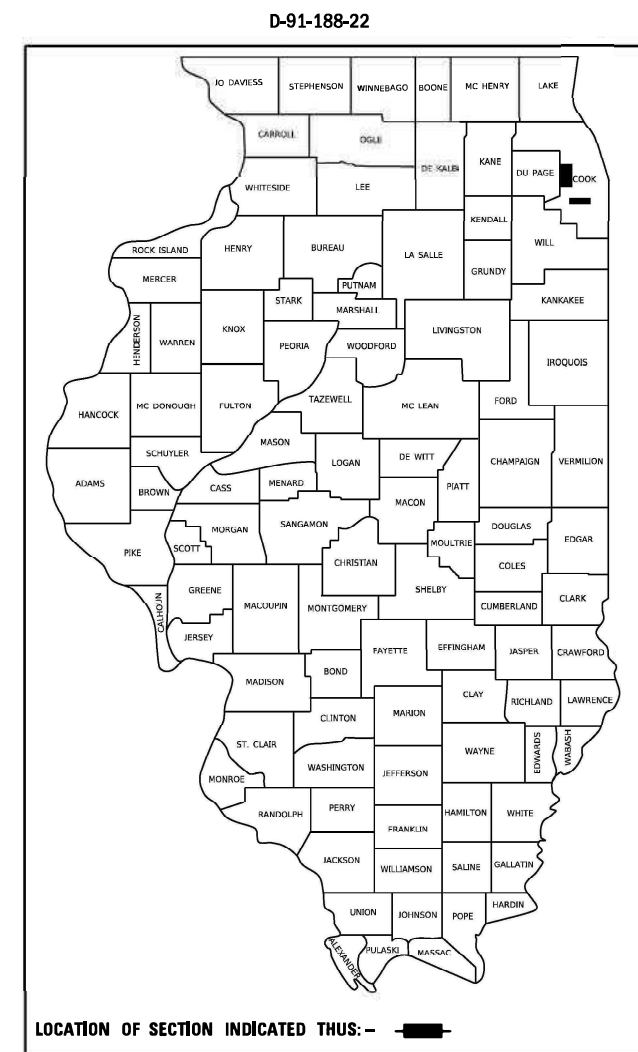
79TH STREET

ADT (2022) = 21900-30500 VPD

POSTED SPEED = 35 MPH

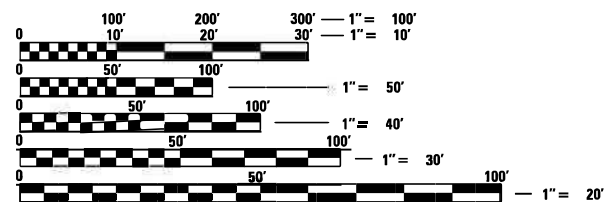
**PROPOSED  
HIGHWAY PLANS**

ROUTE: VARIOUS  
SECTION: 2022 SIGNALS 01  
PROJECT: CMAQ-G4TG(960)  
CMAQ TRAFFIC SIGNAL INTERCONNECT  
COOK COUNTY  
C-91-244-22



FOR LOCATION MAPS  
SEE SHEET NO. 3-4

VARIOUS TOWNSHIPS



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

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

PROJECT MANAGER: NICK BUTLER, (847) 705-4420

PROJECT ENGINEER: KAMIL KOBYLKA (847) 705-4734

CONTRACT NO. 62R82



JOSEPH R. DAVENPORT, P.E.  
NO. 062-075491  
EXP. DATE 11/30/2025  
**TRANSYSTEMS**

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUBMITTED May 3 2024  
Joan Rioslan REGIONAL ENGINEER

June 28, 2024 [Signature]  
ENGINEER OF DESIGN AND ENVIRONMENT

June 28, 2024 [Signature]  
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

**PRINTED BY THE AUTHORITY  
OF THE STATE OF ILLINOIS**

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**MAINTENANCE OF TRAFFIC**

- MAINTENANCE OF TRAFFIC SHALL CONFORM TO THE APPLICABLE HIGHWAY AND DISTRICT STANDARDS.
- THE CONTRACTOR SHALL MINIMIZE THE IMPACT OF THE WORK BY UTILIZING OFF-ROAD OPERATIONS WHERE POSSIBLE.
- IN THE EVENT OF REQUIRED LANE CLOSURES, THE CONTRACTOR SHALL MINIMIZE THE DURATION OF THE CLOSURE BY ONLY IMPLEMENTING WHEN WORK IS BEING PERFORMED AT THE LOCATION. ALL MAINTENANCE OF TRAFFIC SHALL BE REMOVED AFTER THE CONTRACTOR HAS COMPLETED WORK. ONLY TEMPORARY DAYTIME OFF PEAK CLOSURES WILL BE PERMITTED.
- CONTRACTOR SHALL MINIMIZE IMPACT TO PARKING AND SHALL BE RESPONSIBLE FOR COORDINATING ADVANCED NOTIFICATION OF PARKING SPACES THAT ARE IMPACTED BY THE WORK.
- AT WORK AREAS THAT IMPACT PEDESTRIANS AND/OR SIDEWALK, STANDARD 701801 SHALL BE USED. CONTRACTOR SHALL MINIMIZE WORK AREAS AND DISRUPTION TO SIDEWALK WHENEVER POSSIBLE. CONTRACTOR SHALL NOT IMPACT ANY ADA CURB RAMPS WITHOUT PRIOR AUTHORIZATION FROM ENGINEER.
- THE CONTRACTOR SHALL CONTACT KALPANA KANNAN-HOSADURGA, THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR, AT KALPANA.KANNAN-HOSADURGA@ILLINOIS.GOV A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.

**GENERAL NOTES**

- ANY REFERENCE TO A STANDARD IN THESE PLANS SHALL BE INTERPRETED TO MEAN THE LATEST EDITION.
- THE CONTRACTOR SHALL CONTACT J.U.L.I.E. (1-800-892-0123) 48 HOURS PRIOR TO ANY WORK IN THE RIGHT OF WAY OR EASEMENTS TO LOCATE UTILITIES, AND CONTACT THE OWNER'S REPRESENTATIVE SHOULD PUBLIC UTILITIES APPEAR TO BE IN CONFLICT WITH THE PROPOSED IMPROVEMENTS.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION.
- THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.
- THE CONTRACTOR SHALL TAKE CARE TO PROTECT ALL SIGNS ALONG THE ROUTE OF CONSTRUCTION. SIGNS SHALL BE REMOVED IF THEY ARE IN CONFLICT WITH PROPOSED WORK, AND APPROVED BY ENGINEER. ALL LABOR NECESSARY TO COMPLY WITH THE RELOCATION OF SIGNS SHALL BE INCLUDED IN THE CONTRACT WITHOUT ANY EXTRA COMPENSATION ALLOWED TO THE CONTRACTOR ACCORDING TO ART. 107.25, UNLESS MARKED ON PLANS.
- THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE ACCESS TO ABUTTING PROPERTY AT ALL TIMES DURING THE CONSTRUCTION OF THIS PROJECT.
- DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.
- PRUNE TREE LIMBS THAT MIGHT BE DAMAGED BY EQUIPMENT OPERATIONS AT LEAST ONE WEEK PRIOR TO THE START OF CONSTRUCTION BY A CERTIFIED ARBORIST. ANY TREE LIMBS THAT ARE BROKEN BY CONSTRUCTION EQUIPMENT AFTER THE INITIAL PRUNING MUST BE PRUNED CORRECTLY WITHIN 72 HOURS.
- ALL TREE PROTECTION, TREE REMOVAL, PRUNING, AND ROOT PRUNING SHALL BE COMPLETED BEFORE CONSTRUCTION OPERATIONS COMMENCE IN ANY AREA. AT NO TIME SHALL THE CONTRACTOR PRUNE OR REMOVE ANY TREES UNLESS SPECIFICALLY DIRECTED BY THE ENGINEER.
- THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES AND THE MUNICIPALITIES INDICATED ON THE TITLE SHEET.
- LOCATION OF ALL UTILITIES AND PRIVATELY OWNED FACILITIES SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO THE INSTALLATION OF ANY COMPONENTS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING EXISTING IDOT ELECTRICAL FACILITIES AT HIS/HER OWN EXPENSE IF REQUIRED. THE CONTRACTOR SHALL ALSO BE LIABLE FOR ANY DAMAGE TO IDOT FACILITIES RESULTING FROM INACCURATE LOCATING.
- ELECTRICAL WORK SHALL CONFORM WITH NATIONAL, STATE, AND LOCAL CODES.
- THE LOCATIONS FOR HANDHOLES AND JUNCTION BOXES ARE PROVIDED FOR REFERENCE ONLY. THE ENGINEER SHALL BE NOTIFIED FOR LOCATION VERIFICATION BEFORE INSTALLATION.
- THE EXISTING TRAFFIC SIGNALS SHALL REMAIN IN OPERATION DURING THE CONSTRUCTION OF THE PROPOSED CONDUIT AND FIBER OPTIC CABLE.
- THE CONTRACTOR SHALL PROVIDE FIBER OPTIC CABLE SLACK IN ACCORDANCE WITH THE SPECIFICATIONS.
- ELECTRICAL CABLE WILL MEASURED FOR PAYMENT IN ACCORDANCE WITH ARTICLE 871.05 & 871.06.
- POTHOLING TO LOCATE EXISTING UNDERGROUND UTILITIES SHALL BE INCLUDED IN THE CONTRACT BID PRICE FOR THE CONDUIT PAY ITEMS.
- REMOVAL AND REPLACEMENT OF EXISTING SIDEWALK, PAVEMENT, AND ISLANDS FOR UTILITY LOCATING PURPOSES SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE BID UNIT PRICE FOR THE CONDUIT PAY ITEMS.
- THERE SHALL BE NO ADDITIONAL SPLICES IN THE FIBER OPTIC CABLE EXCEPT WHERE NOTED IN THE PLANS, OR UPON APPROVAL OF THE TRAFFIC ENGINEER.
- ALL SURPLUS MATERIALS SHALL BE DISPOSED OF IN ACCORDANCE WITH ARTICLE 202.03 OF THE STANDARD SPECIFICATIONS. THE CONTRACTOR SHALL DISPOSE OF ALL REMOVED ITEMS OFF OF THE SITE EXCEPT WHERE NOTED IN THE PLANS.
- NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR PLACING CONDUIT AT GREATER THAN THE REQUIRED MINIMUM DEPTH TO AVOID OBSTACLES SUCH AS UNDERGROUND UTILITIES.

- THE CONTRACTOR IS RESPONSIBLE FOR THE COST OF UNCOVERING OR HAND DIGGING AROUND UTILITIES AS NECESSARY. THE COST OF THIS WORK SHALL BE INCLUDED IN THE BID UNIT PRICE FOR THE CONDUITS.
- THE LOCATION OF THE PROPOSED CONDUIT AS SHOWN ON THE PLAN SHEETS IS APPROXIMATE AND NOT DRAWN TO SCALE.
- THE CONDUIT SHALL BE INSTALLED AT A MINIMUM DEPTH EXCEPT WHEN CROSSING WATERWAYS AND FLOW LINES WHERE IT SHALL BE INSTALLED AT A 60" DEPTH OR RAILROAD CROSSINGS WHERE IT SHALL BE INSTALLED AT 66" DEPTH.
- THE CONTRACTOR SHALL FURNISH AND INSTALL ALL ITEMS REQUIRED TO ATTACH THE CONDUITS AND JUNCTION BOXES TO THE STRUCTURES, INCLUDING, BUT NOT LIMITED TO STRUT, BRACKETS, SEAL-TITE, LBS, EXPANSION-DEFLECTION COUPLINGS, FITTINGS, HARDWARE, AND OTHER MISCELLANEOUS ITEMS, THESE ITEMS WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE BID UNIT PRICE FOR THE CONDUIT ATTACHED TO STRUCTURE PAY ITEM.
- ALL CONDUIT ATTACHMENT BRACKETS/HARDWARE SHALL BE STAINLESS STEEL.
- THE CONTRACTOR SHALL INSTALL THREAD LOCKER ON ALL STRUCTURE-ATTACHED CONDUIT THREADED CONNECTIONS TO PREVENT LOOSENING THROUGH VIBRATION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING FIELD TILE, UNDERDRAIN, AND DRAINAGE STRUCTURE LOCATIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY MOWING AND BRUSH/SHRUB REMOVAL REQUIRED TO INSTALL THE PROPOSED CONDUIT AND HANDHOLES.
- THE CONTRACTOR SHALL PLAN AND CONDUCT CONDUIT AND FIBER INSTALLATION OPERATIONS TO MINIMIZE THE NUMBER OF ROADWAY LANE CLOSURES AND TO MINIMIZE TRAFFIC DISRUPTIONS AND DELAYS FOR THE MOTORING PUBLIC. THE CONTRACTOR SHALL OBTAIN ALL PERMITS ALONG STATE, COUNTY AND TOWNSHIP ROADWAYS.
- THE CONTRACTOR SHALL VERIFY FIELD CONDITIONS PRIOR TO BIDDING. THERE WILL BE NO ADDITIONAL COMPENSATION PAID FOR CLAIMS THAT ARISE FROM A FAILURE TO FULLY INVESTIGATE EXISTING FIELD CONDITIONS
- THE CONTRACTOR SHALL CONTACT THE TRAFFIC CONTROL SUPERVISOR 72 HOURS IN ADVANCE OF BEGINNING WORK.
- PARTIAL PAYMENT AS DESCRIBED IN ARTICLE 109.07(b) OF THE STANDARD SPECIFICATIONS WILL NOT BE ALLOWED FOR ITEMS INCLUDED IN THIS CONTRACT.

35. THESE PLANS USE EXISTING RECORD DRAWINGS AS BACKGROUND FOR THE PROPOSED PLAN. CONTRACTOR SHALL USE CARE IN CORRECTLY DISTINGUISHING PROPOSED WORK. CERTAIN RECORD DRAWINGS SHEETS HAVE BEEN INCLUDED FOR INFORMATION ONLY FOR BETTER UNDERSTANDING OF THE ENTIRE SYSTEM WHICH UTILIZES BOTH EXISTING AND PROPOSED FIBER INFRASTRUCTURE.

36. THE WORK IN THIS CONTRACT IS LIMITED TO THE INSTALLATION OF HANDHOLES, CONDUITS, TRACER AND FIBER OPTIC CABLES, PTZ CAMERAS, SWITCHES, AND CONTROLLERS AS WELL AS ANY OTHER COMPONENTS AS SPECIFIED IN THE SCHEDULE OF QUANTITIES. PLANS USE EXISTING RECORD DRAWINGS WHICH SHOW PROPOSED EQUIPMENT FROM PREVIOUS CONTRACTS. WORK SHALL ONLY INCLUDE WHAT IS SPECIFIED IN THE SCHEDULE OF QUANTITIES.

**RLR NOTES**

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

RLR CAMERA LOCATION:

TS 10720: 88TH AVE/79TH STREET  
 VENDOR: SAFE SPEED LLC  
 VENDOR CONTACT: 400 EISENHOWER LANE LOMBARD, IL 60148  
 MUNICIPALITY: JUSTICE  
 MUNICIPAL CONTACT: 7800 SOUTH ARCHER RD JUSTICE, IL 60458, (708) 458-2961

TS 2175: HARLEM AVE/79TH STREET  
 VENDOR: SAFE SPEED LLC  
 VENDOR CONTACT: 400 EISENHOWER LANE LOMBARD, IL 60148  
 MUNICIPALITY: BURBANK  
 MUNICIPALITY CONTACT: 6530 W 79TH ST BURBANK, IL 60459, (708) 924-7390

TS 2470: IL-50 (CICERO AVE)/79TH STREET  
 VENDOR: SAFE SPEED LLC  
 VENDOR CONTACT: 400 EISENHOWER LANE LOMBARD, IL 60148  
 MUNICIPALITY: BURBANK  
 MUNICIPAL CONTACT: 6530 W 79TH ST BURBANK, IL 60459, (708) 924-7390

\*

**HIGHWAY /DISTRICT STANDARDS**

000001-08	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS	701901-09	TRAFFIC CONTROL DEVICES
001006	DECIMAL OF AN INCH AND OF A FOOT	814001-03	HANDHOLES
280001-07	TEMPORARY EROSION CONTROL SYSTEMS	814006-03	DOUBLE HANDHOLES
701001-02	OFF-RD OPERATIONS, 2L, 2W, MORE THAN 15' (4.5 m) AWAY	857001-01	STANDARD PHASE DESIGNATION DIAGRAMS AND PHASE SEQUENCES
701006-05	OFF-RD OPERATIONS, 2L, 2W, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE	857006-01	SUPERVISED RAILROAD INTERCONNECT CIRCUIT
701101-05	OFF-RD OPERATIONS, MULTILANE, 15' TO 24" FROM PAVEMENT EDGE	862001-01	UNINTERRUPTABLE POWER SUPPLY (UPS)
701106-02	OFF-RD OPERATIONS, MULTILANE, MORE THAN 15' (4.5 m) AWAY	873001-02	TRAFFIC SIGNAL GROUNDING & BONDING
701301-04	LANE CLOSURE, 2L, 2W, SHORT TERM OPERATIONS	878001-11	CONCRETE FOUNDATION DETAILS
701426-09	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPER., FOR SPEEDS ≥ 45 MPH	886001-01	DETECTOR LOOP INSTALLATIONS
701427-05	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPER., FOR SPEEDS ≤ 40 MPH	886006-01	TYPICAL LAYOUTS FOR DETECTION LOOPS
701501-06	URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED	TC-10	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS INTERSECTIONS AND DRIVEWAYS
701601-09	URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NONTRAVERSE MEDIAN	TC-14	TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC)
701602-10	URBAN LANE CLOSURE, MULTILANE, 2W WITH BIDIRECTIONAL LEFT TURN LANE	TC-22	ARTERIAL ROAD INFORMATION SIGN
701606-10	URBAN SINGLE LANE CLOSURE MULTILANE, 2W WITH MOUNTABLE MEDIAN		
701701-10	URBAN LANE CLOSURE MULTILANE INTERSECTION		
701801-06	SIDEWALK, CORNER OR CROSSWALK CLOSURE		

CORRIDOR	# LANES	SPEED LIMIT	NOTES
US 20	4	35 MPH	-
17TH AVENUE	2	30 MPH	SIDEWALK, ON-STREET PARKING
26TH STREET	2	30 MPH	SIDEWALK
79TH STREET	4	35 MPH	SIDEWALK

TS SHT NO. 2

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 FILE: Main - General Notes - Contract 3



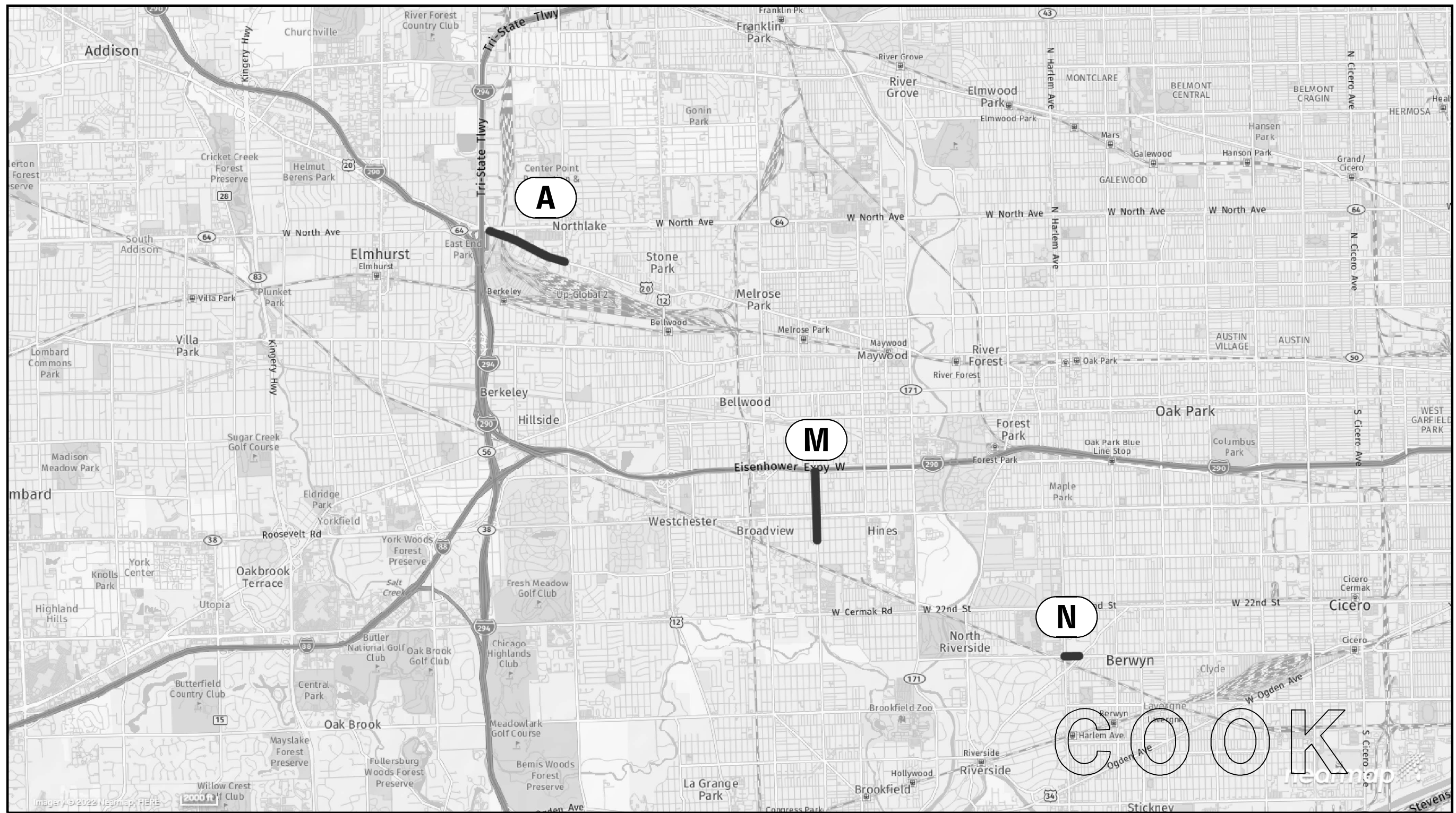
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PLOT DATE = 3/15/2024	DATE - 03-15-2024	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

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

SCALE: NONE | SHEET 2 OF 75 SHEETS | STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2024-SIGNALS-01	COOK	75	2
				CONTRACT NO.62R82
ILLINOIS   FED. AID PROJECT				



TS SHT NO. 3

MODEL: Default  
FILE NAME: Location Maps - Contract 1

LOC. NO.	SYSTEM	NAME	COUNTY
A	IDOT CENTRACS (FORMER ECON 99)	US 20: I-294 TO WOLF ROAD	COOK
M	ECON 29	17TH AVENUE: I-290 TO 14TH STREET	COOK
N	ECON 30	26TH STREET: IL 43 (HARLEM AVENUE) TO RIVERSIDE DRIVE	COOK

**TRANSYSTEMS**

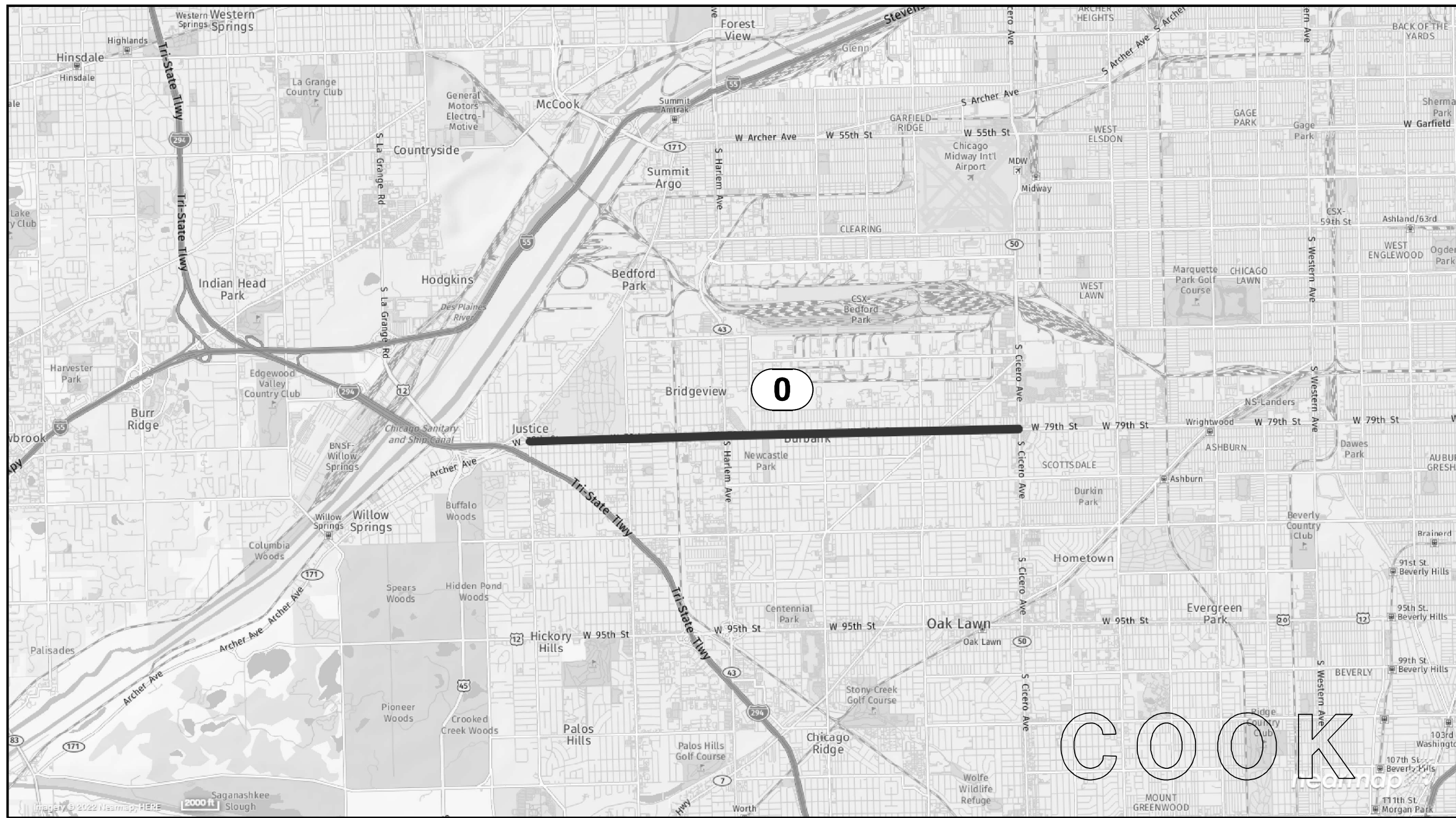
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	DRAWN - JRD	REVISED -
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PLOT DATE = 3/15/2024	DATE - 03-15-2024	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**LOCATION MAP  
COOK COUNTY - SHEET 1 OF 2**

SCALE: NONE    SHEET 3    OF 75 SHEETS    STA.    TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2024-SIGNALS-01	COOK	75	3
CONTRACT NO.62R82				
ILLINOIS FED. AID PROJECT				



C O O K

TS SHT NO. 4

LOC. NO.	SYSTEM	NAME	COUNTY
O	IDOT CENTRACS (FORMER ECON 51)	79TH STREET: 88TH AVENUE TO IL 50 (CICERO AVENUE)	COOK



USER NAME = jrdavenport	DESIGNED - GR	REVISED -
DRAWN - JRD	REVISOR -	
PLOT SCALE = 2,000' / in.	CHECKED - BS	REVISED -
PLOT DATE = 3/15/2024	DATE - 03-15-2024	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**LOCATION MAP  
COOK COUNTY - SHEET 2 OF 2**

SCALE: NONE    SHEET 4 OF 75 SHEETS    STA.    TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2024-SIGNALS-01	COOK	75	4
CONTRACT NO.62R82				
ILLINOIS		FED. AID PROJECT		

TS SHT NO. 5

MODEL: Default  
FILE NAME: 500 - Contract 1

**TRANSYSTEMS**

USER NAME = jrdavenport  
PLOT SCALE = 2,0000' / in.  
PLOT DATE = 3/15/2024

DESIGNED - GR  
DRAWN - JRD  
CHECKED - BS  
DATE - 03-15-2024

REVISED -  
REVISED -  
REVISED -  
REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES  
SHEET 1 OF 4**

SCALE: NONE SHEET 5 OF 75 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2024-SIGNALS-01	COOK	75	5
ILLINOIS FED. AID PROJECT			CONTRACT NO.62R82	

CODE NO.	PAY ITEM NAME	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE
				80% FED 20% STATE COOK COUNTY
				INTERCONNECT
				0021 URBAN
* 66900200	NON-SPECIAL WASTE DISPOSAL	CU YD	100.0	100.0
* 66900530	SOIL DISPOSAL ANALYSIS	EACH	10	10
* 66901001	REGULATED SUBSTANCES PRE-CONSTRUCTION PLAN	L SUM	1	1
* 66901003	REGULATED SUBSTANCES FINAL CONSTRUCTION REPORT	L SUM	1	1
* 66901006	REGULATED SUBSTANCES MONITORING	CAL DA	6	6
67100100	MOBILIZATION	L SUM	1	1
70102620	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	L SUM	1	1
70102625	TRAFFIC CONTROL AND PROTECTION, STANDARD 701606	L SUM	1	1
70102630	TRAFFIC CONTROL AND PROTECTION, STANDARD 701601	L SUM	1	1
70102632	TRAFFIC CONTROL AND PROTECTION, STANDARD 701602	L SUM	1	1
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	1
70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	1	1
81028200	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	11,510	11,510
81028240	UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	1,893	1,893

\* SPECIALTY ITEM

TS SHT NO. 6

MODEL: Default  
FILE NAME: 2024-SIGNALS-01 - Contract 1



USER NAME = jrdavenport
PLOT SCALE = 2,0000' / in.
PLOT DATE = 3/15/2024

DESIGNED - GR
DRAWN - JRD
CHECKED - BS
DATE - 03-15-2024

REVISED -
REVISED -
REVISED -
REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES  
SHEET 2 OF 4**

SHEET 6 OF 75 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2024-SIGNALS-01	COOK	75	6
ILLINOIS FED. AID PROJECT			CONTRACT NO.62R82	

CODE NO.	PAY ITEM NAME	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE
				80% FED 20% STATE COOK COUNTY
				INTERCONNECT
				0021 URBAN
81400100	HANDHOLE	EACH	34	34
81400200	HEAVY-DUTY HANDHOLE	EACH	1	1
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	22	22
86400100	TRANSCEIVER - FIBER OPTIC	EACH	3	3
87300925	ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	40,050	40,050
87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	13,166	13,166
87900200	DRILL EXISTING HANDHOLE	EACH	39	39
88500100	INDUCTIVE LOOP DETECTOR	EACH	98	98
88600100	DETECTOR LOOP, TYPE I	FOOT	390	390
89501410	RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT	EACH	3	3
89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	2,515	2,515
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	14	14
89502376	REBUILD EXISTING HANDHOLE	EACH	3	3
X0324599	ROD AND CLEAN EXISTING CONDUIT	FOOT	480	480

TS SHT NO. 7

MODEL: Default  
FILE NAME: 303 - Contract 1

**TRANSYSTEMS**

USER NAME = jrdavenport	DESIGNED - GR	REVISED -
	DRAWN - JRD	REVISED -
PLOT SCALE = 2.0000 / in.	CHECKED - BS	REVISED -
PLOT DATE = 3/15/2024	DATE - 03-15-2024	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES  
SHEET 3 OF 4**

SHEET 7 OF 75 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2024-SIGNALS-01	COOK	75	7
CONTRACT NO. 62R82			ILLINOIS FED. AID PROJECT	

CODE NO.	PAY ITEM NAME	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE
				80% FED 20% STATE COOK COUNTY
				INTERCONNECT
				0021 URBAN
X0325922	CELLULAR MODEM	EACH	1	1
X8570233	FULL-ACTUATED CONTROLLER AND TYPE SUPER P CABINET (SPECIAL)	EACH	2	2
X1400102	OUTDOOR RATED NETWORK CABLE	FOOT	610	610
X1400215	REMOTE CONTROLLED VIDEO SYSTEM	EACH	3	3
X1400216	LAYER II (DATALINK) SWITCH	EACH	13	13
X1400217	TERMINATE FIBER IN CABINET	EACH	228	228
X1400219	SPLICE FIBER IN CABINET	EACH	66	66
X1400221	UPGRADE EXISTING CONTROLLER TO NTCIP SPECIAL	EACH	2	2
X8891009	VIDEO VEHICLE DETECTION SYSTEM, SINGLE APPROACH	EACH	2	2
X1400460	LAYER III (NETWORK) SWITCH	EACH	2	2
X8710070	FIBER OPTIC INTERCONNECT CENTER, 24 PORT	EACH	13	13
X8710094	FIBER OPTIC INTERCONNECT CENTER, 48 PORT	EACH	1	1
X6700407	ENGINEER'S FIELD OFFICE, TYPE A (D1)	CAL MO	12	12
X8140238	REBUILD EXISTING DOUBLE HANDHOLE	EACH	2	2

REV-SEP

TS SHT NO. 8

MODEL: Default  
FILE NAME: S00 - Contract 1

**TRANSYSTEMS**

USER NAME = jrdavenport	DESIGNED = GR	REVISED =
	DRAWN = JRD	REVISED =
PLOT SCALE = 2.0000 / in.	CHECKED = BS	REVISED =
PLOT DATE = 3/15/2024	DATE = 03-15-2024	REVISED =

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**SUMMARY OF QUANTITIES  
SHEET 4 OF 4**

SHEET 8 OF 75 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2024-SIGNALS-01	COOK	75	8
CONTRACT NO. 62R82			ILLINOIS FED. AID PROJECT	

Ø 0042

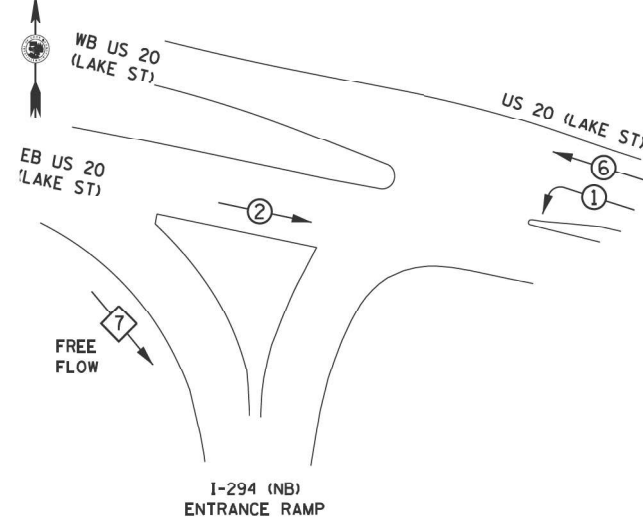
CODE NO.	PAY ITEM NAME	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE
				80% FED 20% STATE COOK COUNTY
				INTERCONNECT
				0021 URBAN
X8570215	FULL-ACTUATED CONTROLLER IN EXISTING CABINET	EACH	3	3
X8570226	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET (SPECIAL)	EACH	6	6
X8620200	UNINTERRUPTABLE POWER SUPPLY (SPECIAL)	EACH	10	10
X8620310	REMOVE AND REPLACE BATTERIES FOR UNINTERUPTABLE POWER SUPPLY, EXTENDED	EACH	2	2
X8710024	FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM24F	FOOT	4,675	4,675
X8780402	MODIFY EXISTING TYPE "D" FOUNDATION	EACH	2	2
Z0010688	CAMERA MOUNTING ASSEMBLY	EACH	2	2
Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	257.0	257.0
Z0033046	RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 2	EACH	6	6
Z0033056	OPTIMIZE TRAFFIC SIGNAL SYSTEM	EACH	2	2
X8101099	UNDERGROUND CONDUIT, MULTI-DUCT, 3 WAY - 22MM (2), 1.25" SDR 11 (1) MICRODUCTS	FOOT	18,785	18,785
X8710060	FIBER OPTIC CABLE, MICRO, 24 FIBERS, SINGLE MODE	FOOT	35,660	35,660
Ø Z0076600	TRAINEES	hour	500	500
Ø Z0076604	TRAINEES - TRAINING PROGRAM GRADUATE	hour	500	500

REV-SEP

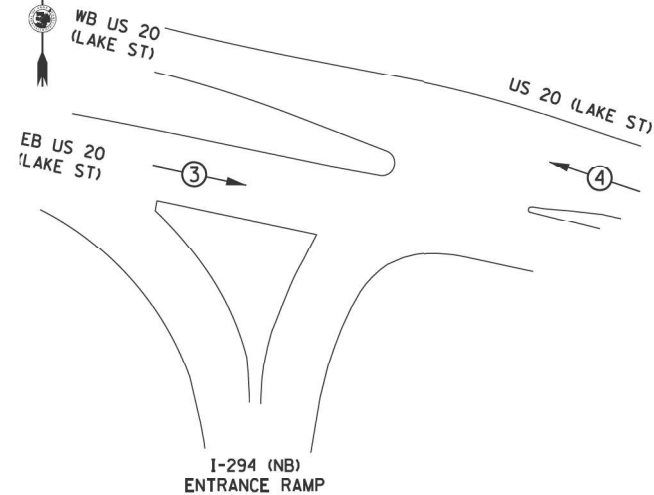




**EXISTING CONTROLLER SEQUENCE**

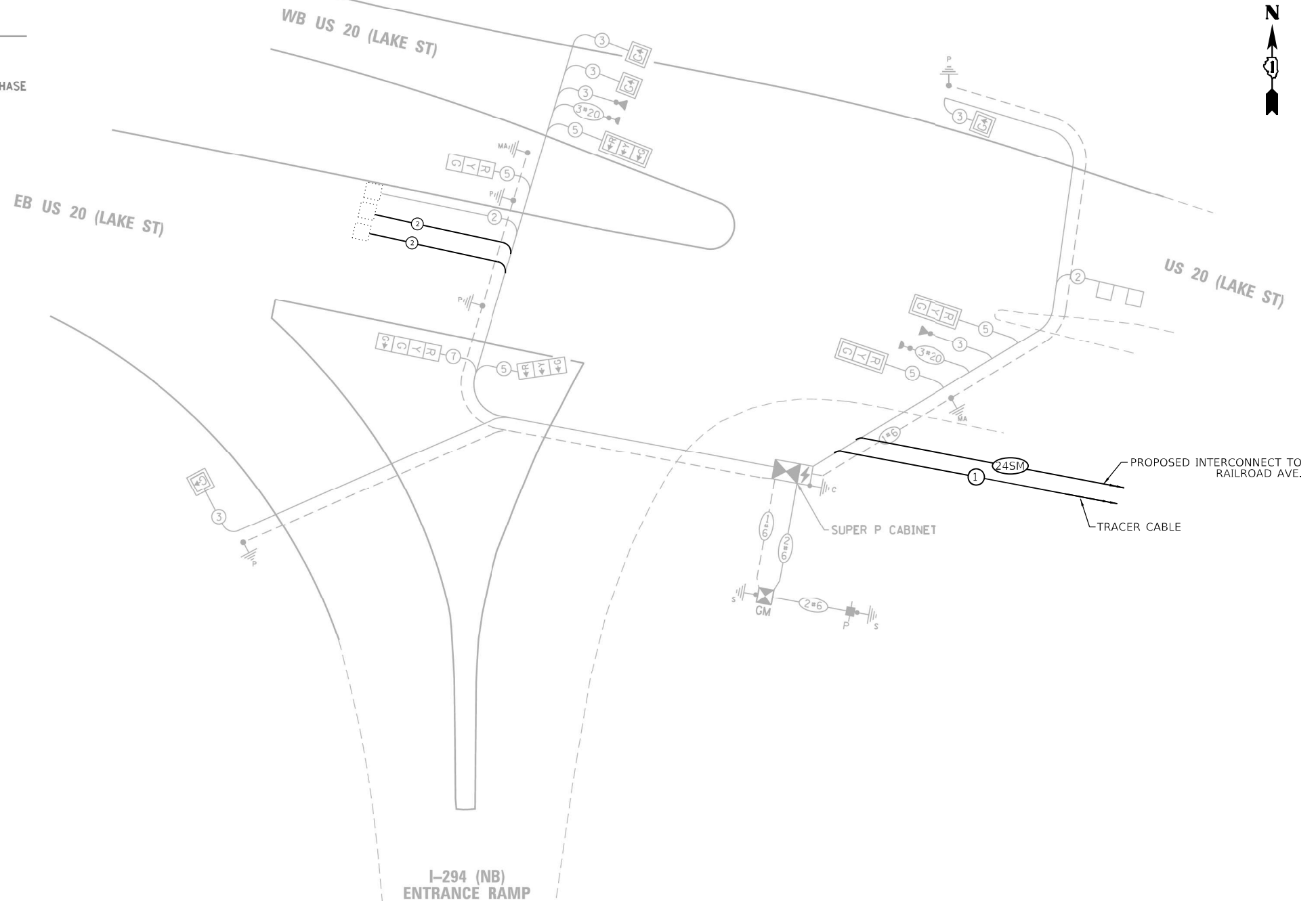


**EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE**



**LEGEND**

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



**CABLE PLAN**  
(NOT TO SCALE)

**SCHEDULE OF QUANTITIES**

Item	Unit	SUBTOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	798
INDUCTIVE LOOP DETECTOR	EACH	2
* CENTRACS LICENSE EXPANSION	EACH	1
LAYER II (DATALINK) SWITCH	EACH	1
TERMINATE FIBER IN CABINET	EACH	12
FIBER OPTIC INTERCONNECT CENTER, 24 PORT	EACH	1

\* CENTRACS LICENSE WILL BE PROVIDED BY IDOT TRAFFIC.

**TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS**

EQUIPMENT TYPE	QUANTITY	UNIT WATTAGE	TOTAL WATTAGE
SIGNAL HEAD 1 OR 3-SECTION	9	11	110
4-SECTION	1	14	14
5-SECTION	-	13	-
PROGRAMMABLE 3-SECTION	-	22	-
4-SECTION	-	32	-
5-SECTION	-	28	-
PEDESTRIAN SIGNAL	-	15	-
CONTROLLER	1	150	150
MASTER CONTROLLER	-	100	-
UPS	1	25	25
DETECTION RADAR OR VIDEO	-	20	-
BLANK-OUT SIGN	-	25	-
NETWORK SWITCH II OR III	1	35	35
CELLULAR MODEM	-	15	-
<b>TOTAL UPS SIZING</b>		<b>334</b>	
UPS CHARGING	1	225	225
BATTERY HEATER MAT	1	180	180
CABINET HEATER	1	200	200
FLASHER	-	15	-
LED STREET NAME SIGN	-	120	-
LUMINAIRE	-	240	-
<b>TOTAL SERVICE WIRE SIZING</b>		<b>939</b>	

ENERGY COSTS TO:  
ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 CENTER CT  
SCHAUMBURG, IL 60196

ENERGY SUPPLY: CONTACT: NEW BUSINESS DEPT  
PHONE: (866)-639-3532  
COMPANY: COMED  
ACCOUNT NUMBER: 23330-13042  
METER NUMBER: ---

TS SHT NO. 9

MODEL: Default  
FILE NAME: Location A Cable Plan

**TRANSYSTEMS**

USER NAME = jrdavenport  
PLOT SCALE = 40,0000 \*/ in.  
PLOT DATE = 3/15/2024

DESIGNED - GR  
DRAWN - JRD  
CHECKED - BS  
DATE - 03-15-2024

REVISED -  
REVISED -  
REVISED -  
REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

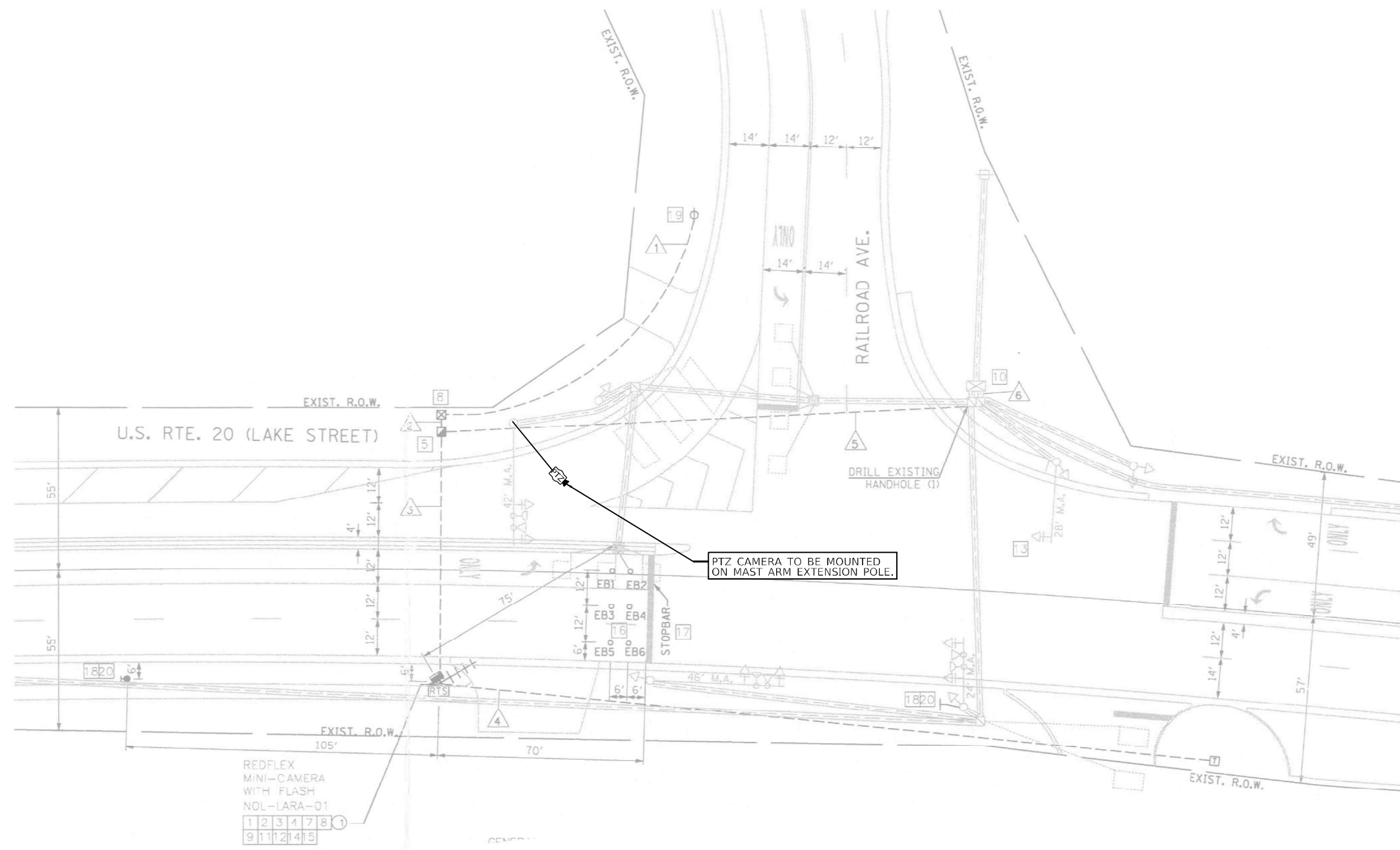
**CABLE PLAN, PHASE DESIGNATION DIAGRAM  
AND EMERGENCY VEHICLE PREEMPTION SEQUENCE  
I-294 NB ENTRANCE RAMP AND US 20 - LOCATION A**

SCALE: NONE SHEET 9 OF 75 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2024-SIGNALS-01	COOK	75	9

CONTRACT NO. 62R82  
ILLINOIS FED. AID PROJECT

**TS 1338  
IDOT CENTRACS  
SYSTEM 99**



**NOTES:**

1. THE PTZ CAMERA SHALL BE MOUNTED ON THE MAST ARM EXTENSION POLE AS NOTED IN THE PLANS. CONTRACTOR SHALL CENTER THE CAMERA TOWARDS THE CENTER OF THE INTERSECTION TO OPTIMIZE THE VIEW OF ALL APPROACHES. SEE CAMERA MOUNTING DETAIL.
2. CONTRACTOR MUST COORDINATE WORK WITH CONTRACT 62N40. CONTRACT 62N40 IS NEAR COMPLETION AND SHOULD BE COMPLETED PRIOR TO CONTRACT 62R82. ONLY THEN CAN THE WORK ON THIS CONTRACT BE INITIATED.

TS SHT NO. 10

MODEL: Default  
FILE NAME: Location\_A\_Cable\_Rib.txd

**TRANSYSTEMS**

USER NAME = jrdavenport	DESIGNED - GR	REVISED -
DRAWN - JRD	REVISIONS -	
PLOT SCALE = 40,0000 * / in.	CHECKED - BS	REVISED -
PLOT DATE = 3/15/2024	DATE - 03-15-2024	REVISED -

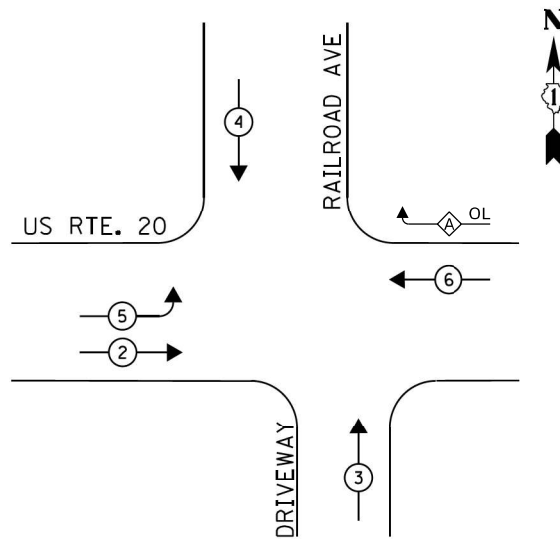
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>INTERSECTION PLAN VIEW</b>			
<b>RAILROAD AVE. AND US RTE. 20 - LOCATION A</b>			
SCALE: NONE	SHEET 10	OF 75 SHEETS	STA. TO STA.

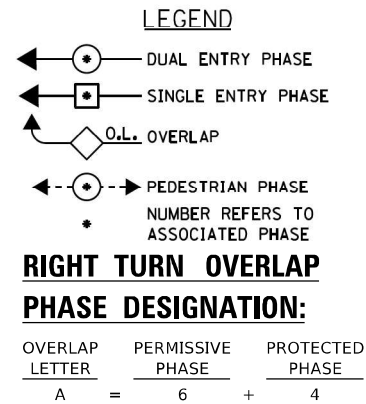
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2024-SIGNALS-01	COOK	75	10
CONTRACT NO. 62R82				
ILLINOIS FED. AID PROJECT				

**TS 3067  
IDOT CENTRACS  
SYSTEM 99**

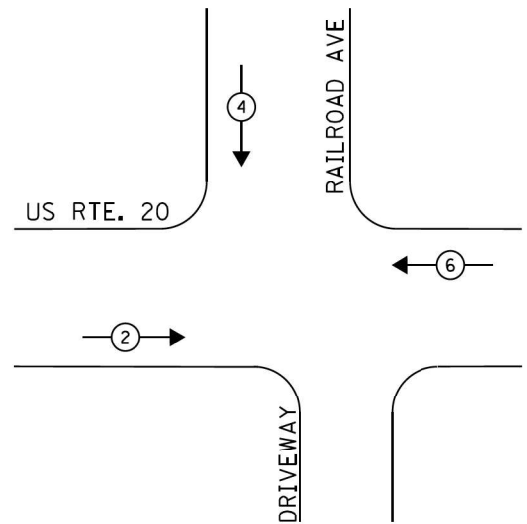
**CONTROLLER SEQUENCE**



**PHASE DESIGNATION DIAGRAM**



**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



EMERGENCY VEHICLE PREEMPTOR		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↔	↓

**TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS**

EQUIPMENT TYPE	QUANTITY	UNIT WATTAGE	TOTAL WATTAGE
SIGNAL HEAD 1 OR 3-SECTION	4	11	44
4-SECTION	5	14	70
5-SECTION	4	13	52
PROGRAMMABLE 3-SECTION	-	22	-
4-SECTION	-	32	-
5-SECTION	-	28	-
PEDESTRIAN SIGNAL CONTROLLER	1	150	150
MASTER CONTROLLER	-	100	-
UPS	1	25	25
PTZ VIDEO SYSTEMS	1	115	115
BLANK-OUT SIGN	-	25	-
NETWORK SWITCH II OR III	1	35	35
CELLULAR MODEM	-	15	-
<b>TOTAL UPS SIZING</b>			<b>491</b>
UPS CHARGING	1	225	225
BATTERY HEATER MAT	1	180	180
CABINET HEATER	1	200	200
FLASHER	-	15	-
LED STREET NAME SIGN	-	120	-
LUMINAIRE	-	240	-
<b>TOTAL SERVICE WIRE SIZING</b>			<b>1,096</b>

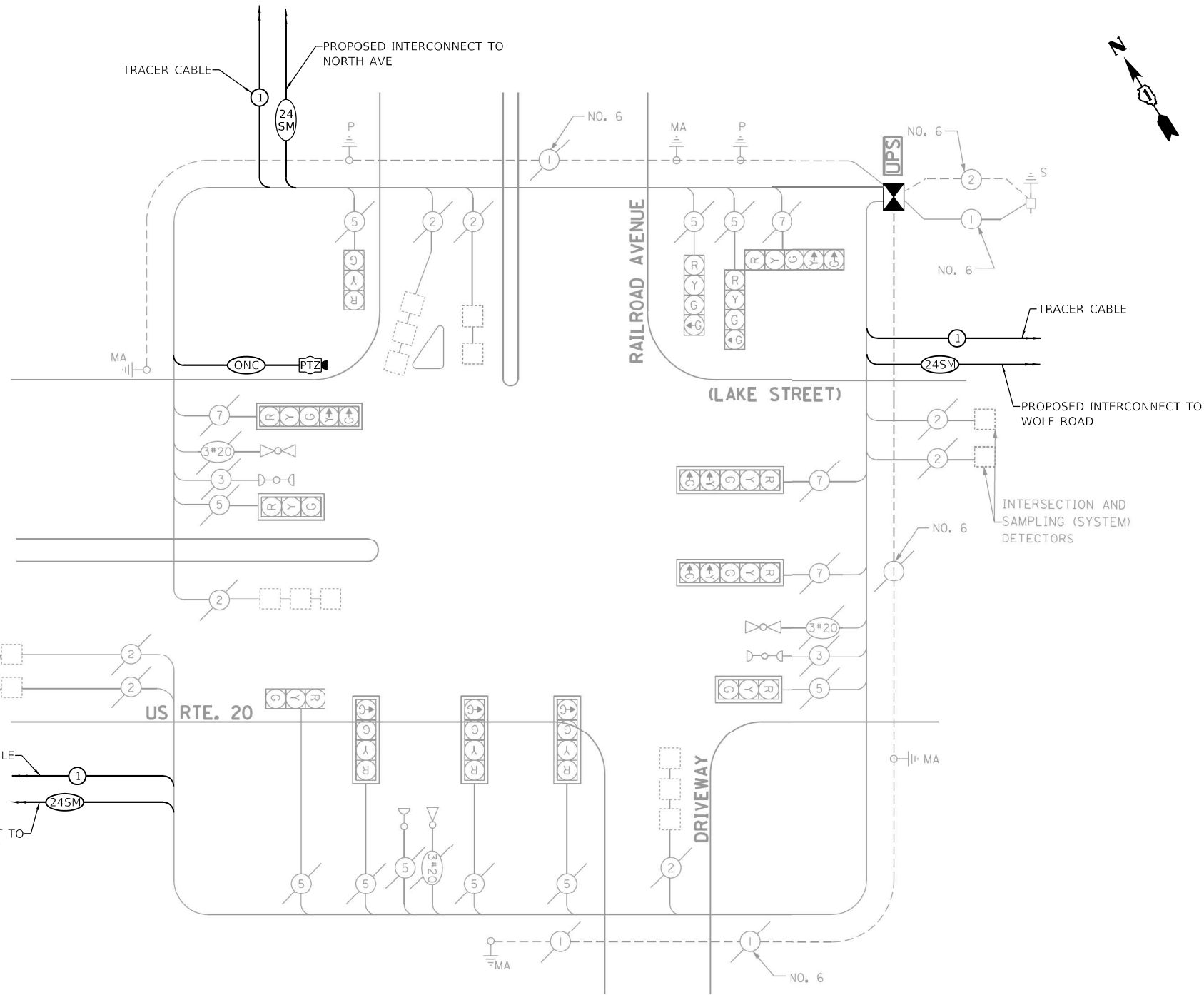
**REMOVAL AND RELOCATION NOTES:**

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

- 1 EACH CONTROLLER ONLY
- 1 EACH TRANSCEIVER FIBER OPTIC

ENERGY COSTS TO:  
 CITY OF NORTHLAKE  
 55 E NORTH AVE  
 NORTHLAKE, IL 60164

ENERGY SUPPLY: CONTACT: NEW BUSINESS DEPT  
 PHONE: (866)-639-3532  
 COMPANY: COMED  
 ACCOUNT NUMBER: 57291-29083  
 METER NUMBER: ---



**CABLE PLAN**  
(NOT TO SCALE)

**SCHEDULE OF QUANTITIES**

Item	Unit	SUBTOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
CENTRACS LICENSE EXPANSION	EACH	1
OUTDOOR RATED NETWORK CABLE	FOOT	250
REMOTE CONTROLLED VIDEO SYSTEM	EACH	1
LAYER II (DATALINK) SWITCH	EACH	1
TERMINATE FIBER IN CABINET	EACH	12
SPLICE FIBER IN CABINET	EACH	12
FIBER OPTIC INTERCONNECT CENTER, 24 PORT	EACH	1
FULL-ACTUATED CONTROLLER IN EXISTING CABINET	EACH	1
CAMERA MOUNTING ASSEMBLY	EACH	1

\* CENTRACS LICENSE WILL BE PROVIDED BY IDOT TRAFFIC.

TS SHT NO. 11

MODEL: Default  
 FILE NAME: Controller A Cable Plan

**TRANSYSTEMS**

USER NAME = jrdavenport  
 PLOT SCALE = 40,0000 \* / in.  
 PLOT DATE = 3/15/2024

DESIGNED - GR  
 DRAWN - JRD  
 CHECKED - BS  
 DATE - 03-15-2024

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**CABLE PLAN, PHASE DESIGNATION DIAGRAM  
 AND EMERGENCY VEHICLE PREEMPTION SEQUENCE  
 RAILROAD AVE AND US RTE. 20 - LOCATION A**

SCALE: NONE SHEET 11 OF 75 SHEETS STA. TO STA.

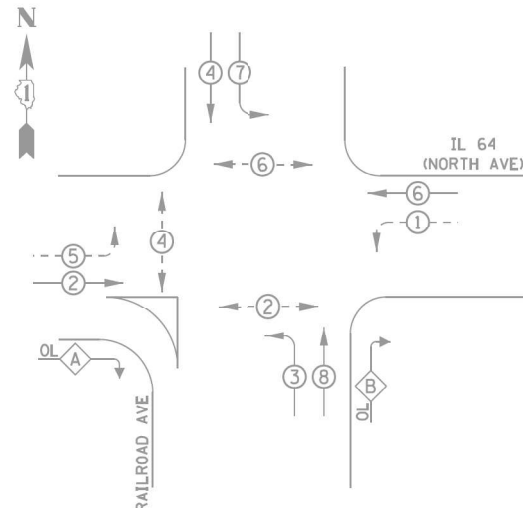
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2024-SIGNALS-01	COOK	75	11

CONTRACT NO. 62R82  
 ILLINOIS FED. AID PROJECT

**TS 3067  
 IDOT CENTRACS  
 SYSTEM 99**



**CONTROLLER SEQUENCE**



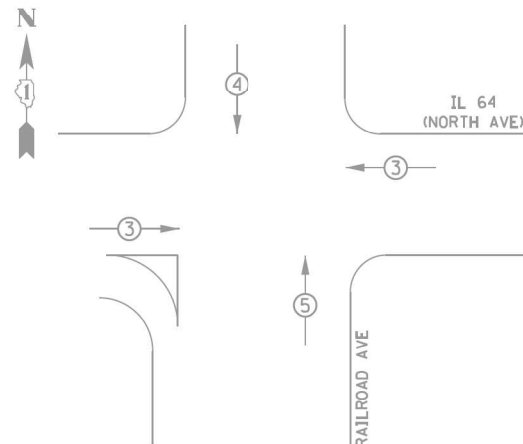
**LEGEND**

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

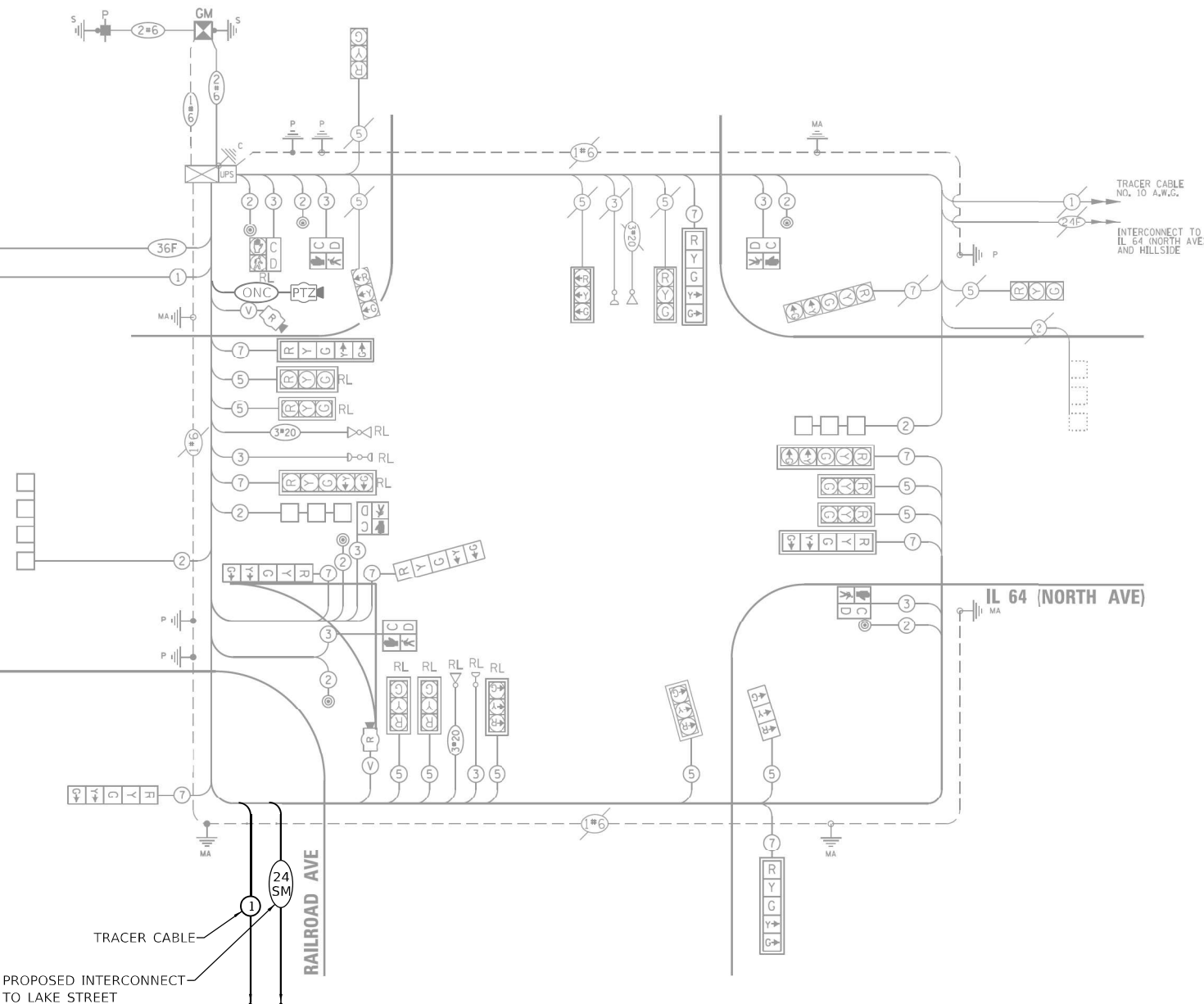
**RIGHT TURN OVERLAP PHASE DESIGNATION**

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
A	2	3
B	1	8

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



INTERCONNECT TO NORTHWEST AVE. AND IL ROUTE 64  
TRACER CABLE



**CABLE PLAN**  
(NOT TO SCALE)

**SCHEDULE OF QUANTITIES**

Item	Unit	SUBTOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TERMINATE FIBER IN CABINET	EACH	12

**TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS**

EQUIPMENT TYPE	QUANTITY	UNIT WATTAGE	TOTAL WATTAGE
SIGNAL HEAD 1 OR 3-SECTION	14	11	154
4-SECTION		14	
5-SECTION	10	13	130
PROGRAMMABLE 3-SECTION	-	22	-
4-SECTION	-	32	-
5-SECTION	-	28	-
PEDESTRIAN SIGNAL	6	15	90
CONTROLLER	1	150	150
MASTER CONTROLLER	-	100	-
UPS	1	25	25
DETECTION RADAR OR VIDEO	2	20	40
PTZ VIDEO SYSTEMS	1	115	115
NETWORK SWITCH II OR III	1	35	35
CELLULAR MODEM		15	
<b>TOTAL UPS SIZING</b>		<b>739</b>	
UPS CHARGING	1	225	225
BATTERY HEATER MAT	1	180	180
CABINET HEATER	1	200	200
FLASHER	-	15	-
LED STREET NAME SIGN	-	120	-
LUMINAIRE	-	240	-
<b>TOTAL SERVICE WIRE SIZING</b>		<b>1,344</b>	

ENERGY COSTS TO:  
ILLINOIS DEPARTMENT OF TRANSPORTATION  
201 CENTER CT  
SCHAUMBURG, IL 60196  
ENERGY SUPPLY: CONTACT: NEW BUSINESS DEPT  
PHONE: (866)-639-3532  
COMPANY: COMED  
ACCOUNT NUMBER: 46630-61134  
METER NUMBER: ---

TS SHT NO. 12



USER NAME = jr@davenport  
PLOT SCALE = 40,0000 \* / in.  
PLOT DATE = 3/15/2024

DESIGNED - GR  
DRAWN - JRD  
CHECKED - BS  
DATE - 03-15-2024

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CABLE PLAN, PHASE DESIGNATION DIAGRAM  
AND EMERGENCY VEHICLE PREEMPTION SEQUENCE  
RAILROAD AVE /IL 64 (NORTH AVE) - LOCATION A**

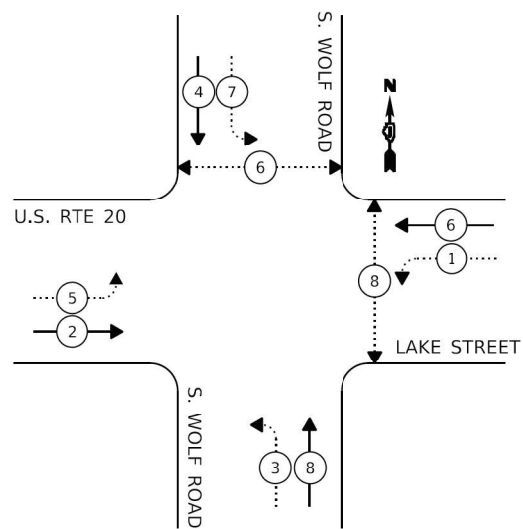
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2024-SIGNALS-01	COOK	75	12
CONTRACT NO.62R82				
ILLINOIS FED. AID PROJECT				

**TS 3075  
IDOT CENTRACS  
SYSTEM 99**

SCALE: NONE SHEET 12 OF 75 SHEETS STA. TO STA.



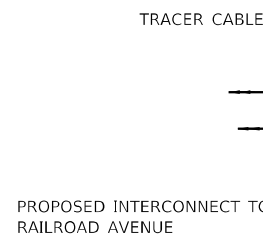
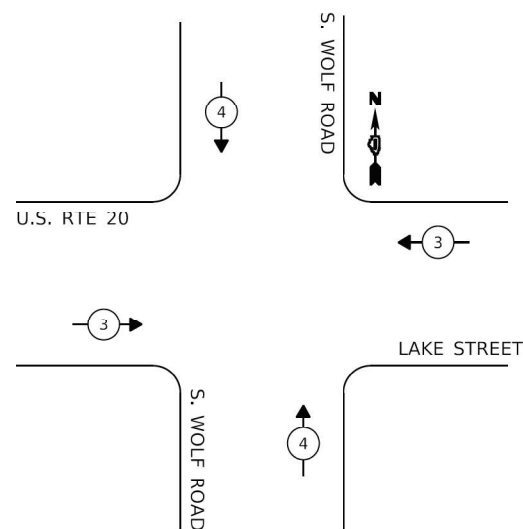
**PROPOSED CONTROLLER SEQUENCE**



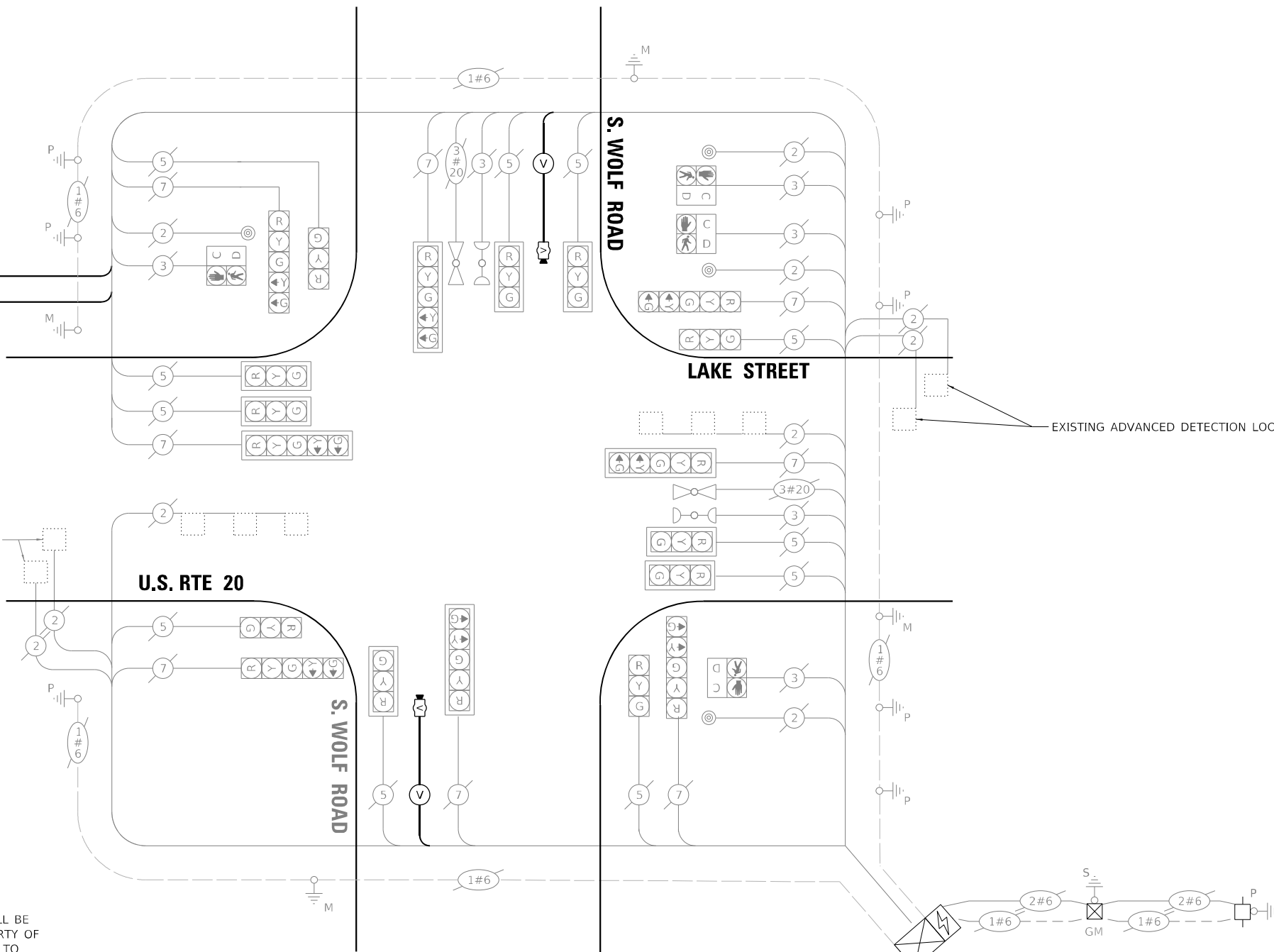
**LEGEND**

- ← (\*) PROTECTED PHASE
- ← (\*) ... PROTECTED/PERMITTED PHASE
- ← (\*) ... PEDESTRIAN PHASE

**EXISTING AND PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE**



EXISTING ADVANCED DETECTION LOOPS



**TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS**

EQUIPMENT TYPE	QUANTITY	UNIT WATTAGE	TOTAL WATTAGE
SIGNAL HEAD 1 OR 3-SECTION	11	11	121
4-SECTION	-	14	-
5-SECTION	8	13	104
PROGRAMMABLE 3-SECTION	-	22	-
4-SECTION	-	32	-
5-SECTION	-	28	-
PEDESTRIAN SIGNAL CONTROLLER	1	150	150
MASTER CONTROLLER	-	100	-
UPS	1	25	25
DETECTION RADAR OR VIDEO	1	20	20
BLANK-OUT SIGN	-	25	-
NETWORK SWITCH II OR III	1	35	35
CELLULAR MODEM	-	15	-
<b>TOTAL UPS SIZING</b>			<b>515</b>
UPS CHARGING	1	225	225
BATTERY HEATER MAT	1	180	180
CABINET HEATER	1	200	200
FLASHER	-	15	-
LED STREET NAME SIGN	-	120	-
LUMINAIRE	-	240	-
<b>TOTAL SERVICE WIRE SIZING</b>			<b>1,120</b>

**REMOVAL NOTES**

THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE IDOT. THE CONTRACTOR SHALL SAFELY DELIVER THESE TO IDOT ELECTRICAL MAINTENANCE CONTRACTOR FACILITY AT THEIR OWN EXPENSE. CONTRACT ELECTRICAL MAINTENANCE CONTRACTOR FOR LOCATION AND TIME.

1 EACH RADAR DETECTION SYSTEM

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 TRANSCEIVER FIBER OPTIC

**ENERGY COSTS TO:**

CITY OF NORTHLAKE  
55 E NORTH AVE  
NORTHLAKE, IL 60164

ENERGY SUPPLY: CONTACT: NEW BUSINESS DEPT  
PHONE: (866)-639-3532  
COMPANY: COMED  
ACCOUNT NUMBER: 57291-29083  
METER NUMBER: ---

**CABLE PLAN**

(NOT TO SCALE)

**SCHEDULE OF QUANTITIES**

Item	Unit	SUBTOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
* CENTRACS LICENSE EXPANSION	EACH	1
LAYER II (DATALINK) SWITCH	EACH	1
TERMINATE FIBER IN CABINET	EACH	12
VIDEO VEHICLE DETECTION SYSTEM, SINGLE APPROACH	EACH	2
FIBER OPTIC INTERCONNECT CENTER, 24 PORT	EACH	1

\* CENTRACS LICENSE WILL BE PROVIDED BY IDOT TRAFFIC.

TS SHT NO. 13

MODEL: Default  
FILE NAME: Location A Cable Plan

**TRANSYSTEMS**

USER NAME = jrdavenport  
PLOT SCALE = 40,0000 \* / in.  
PLOT DATE = 3/15/2024

DESIGNED - GR  
DRAWN - JRD  
CHECKED - BS  
DATE - 03-15-2024

REVISED -  
REVISED -  
REVISED -  
REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CABLE PLAN, PHASE DESIGNATION DIAGRAM  
AND EMERGENCY VEHICLE PREEMPTION SEQUENCE  
S.WOLF ROAD AND US 20 /LAKE STREET – LOCATION A**

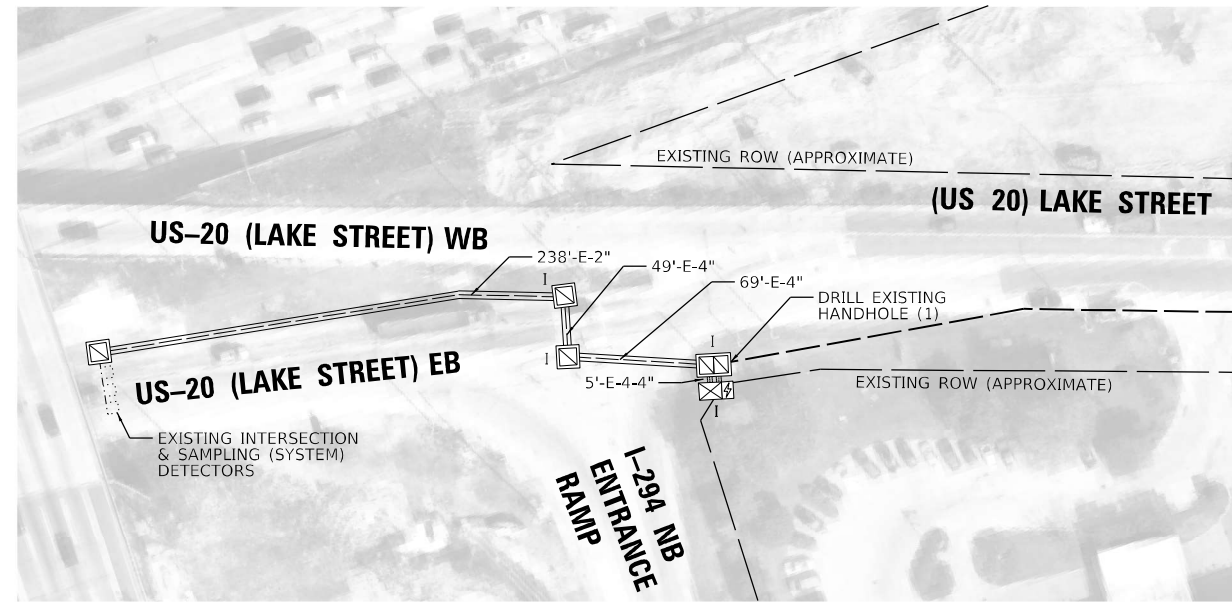
SCALE: NONE SHEET 13 OF 75 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2024-SIGNALS-01	COOK	75	13
ILLINOIS FED. AID PROJECT			CONTRACT NO.62R82	

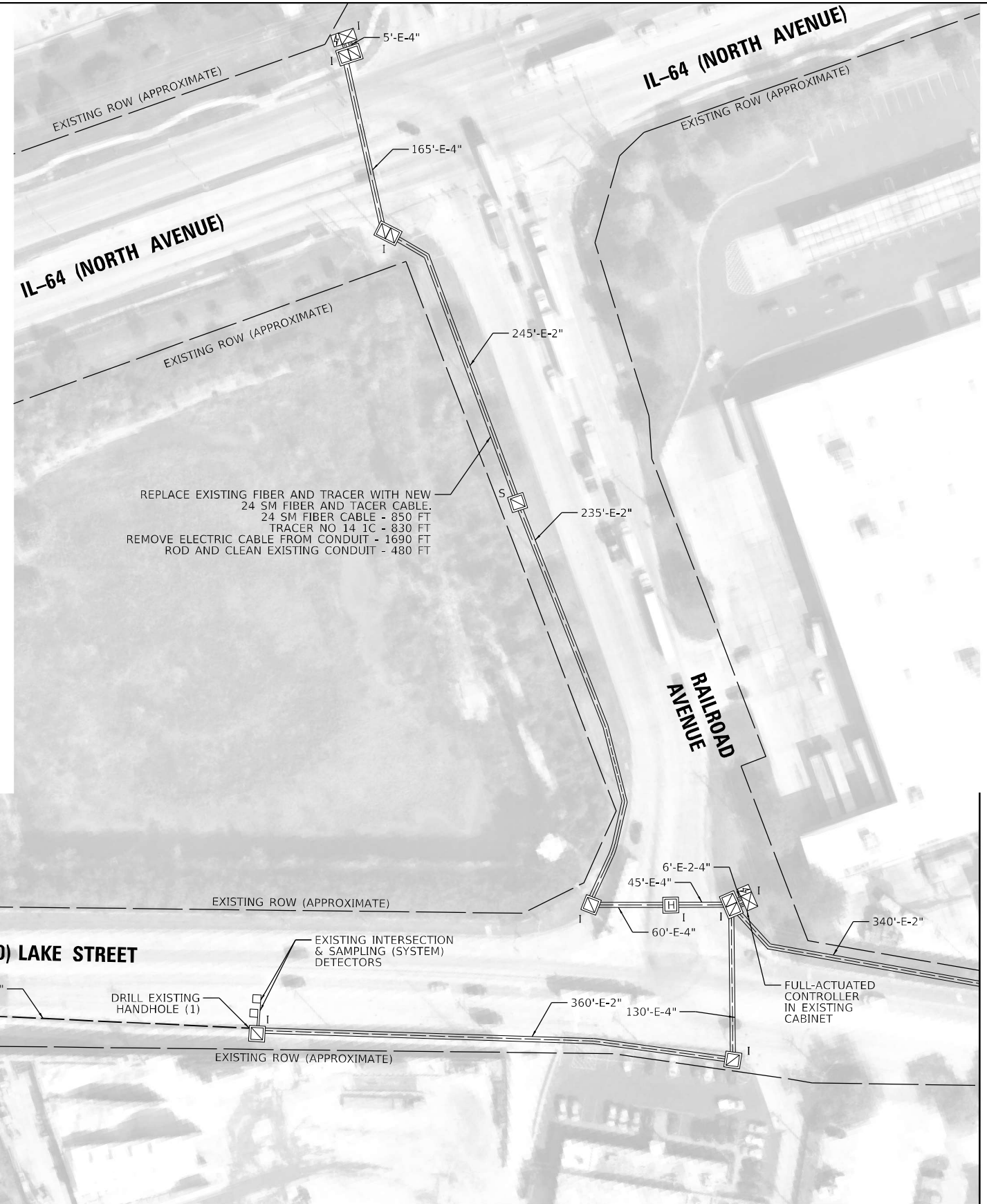
**TS 5963  
IDOT CENTRACS  
SYSTEM 99**

TS SHT NO. 14

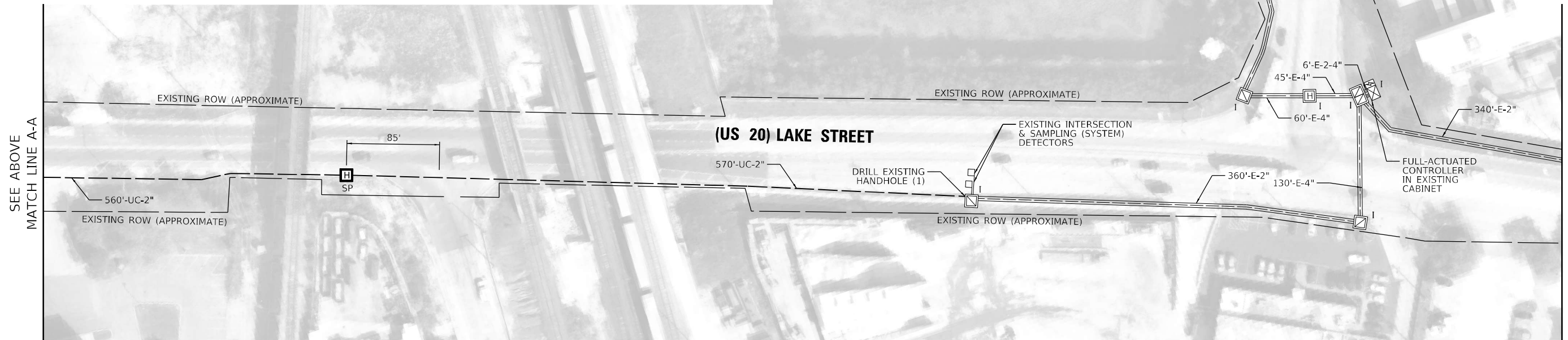
MODEL: Default  
FILE NAME: PR\_IC\_Ribn\_Location\_A-1



MATCH LINE STATION A-A  
SEE BELOW



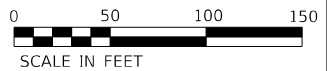
REPLACE EXISTING FIBER AND TRACER WITH NEW  
24 SM FIBER AND TACER CABLE - 850 FT  
24 SM FIBER CABLE - 850 FT  
TRACER NO 14 1C - 830 FT  
REMOVE ELECTRIC CABLE FROM CONDUIT - 1690 FT  
ROD AND CLEAN EXISTING CONDUIT - 480 FT



SEE ABOVE  
MATCH LINE A-A

MATCH LINE B-B  
SEE TS SHEET 15

**NOTE:**  
DIMENSIONS PROVIDED ARE FROM THE MIDDLE OF CROSS STREET OR DRIVEWAY TO CENTER OF PROPOSED HANDHOLE. THESE DIMENSIONS ARE APPROXIMATE AND CONTRACTOR SHALL VERIFY HANDHOLE LOCATIONS WITH ENGINEER PRIOR TO CONSTRUCTION.



**TRANSYSTEMS**

USER NAME = jrdavenport	DESIGNED - GR	REVISED -
DRAWN - JRD	REVISIONS -	
PLOT SCALE = 100,0000' / in.	CHECKED - BS	REVISED -
PLOT DATE = 3/15/2024	DATE - 03-15-2024	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PROPOSED INTERCONNECT PLAN  
LOCATION A - US 20 (LAKE STREET)**

SCALE: 1"=50 SHEET 14 OF 75 SHEETS STA. TO STA.

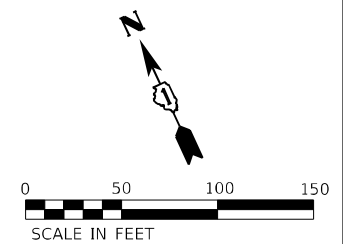
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2024-SIGNALS-01	COOK	75	14
CONTRACT NO.62R82				
ILLINOIS FED. AID PROJECT				

**IDOT CENTRACS  
FORMER ECON 99**

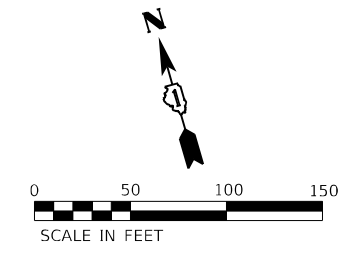
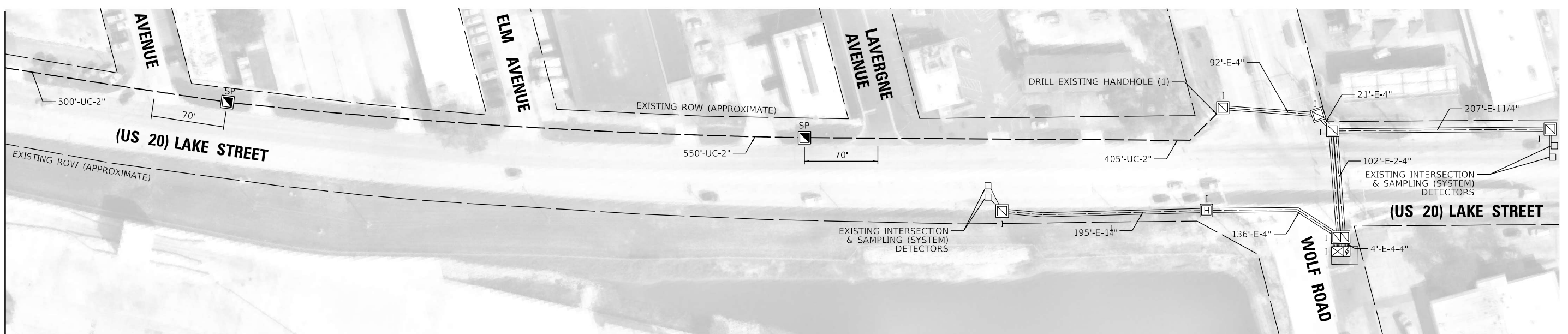
SEE SHEET 14  
MATCH LINE B-B



MATCH LINE STATION A-A  
SEE BELOW



SEE ABOVE  
MATCH LINE A-A



**NOTE:**  
DIMENSIONS PROVIDED ARE FROM THE MIDDLE OF CROSS STREET OR DRIVEWAY TO CENTER OF PROPOSED HANDHOLE. THESE DIMENSIONS ARE APPROXIMATE AND CONTRACTOR SHALL VERIFY HANDHOLE LOCATIONS WITH ENGINEER PRIOR TO CONSTRUCTION.

TS SHT NO. 15  
MODEL: Default  
FILE NAME: PR UC 0801 Location A2



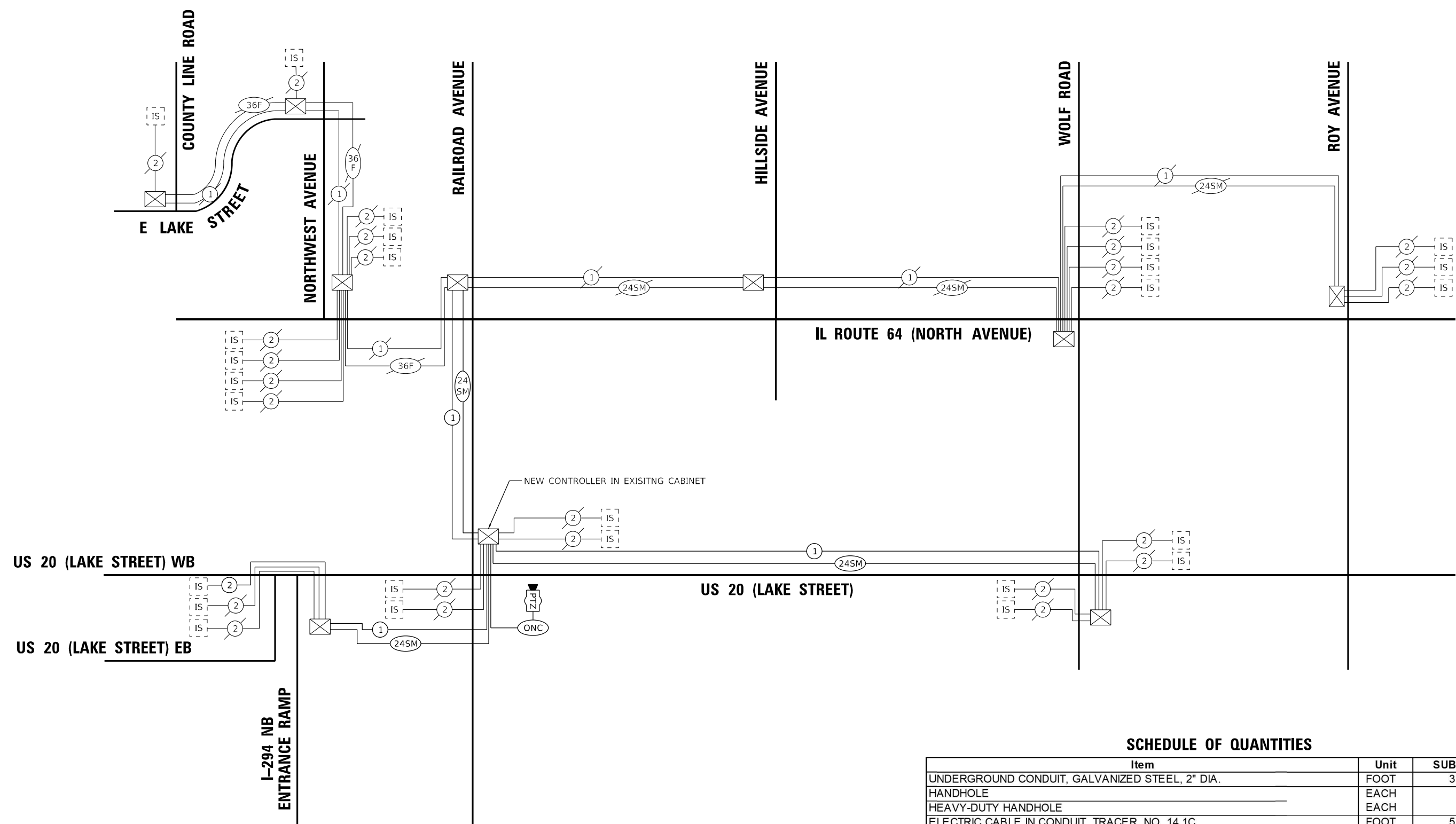
USER NAME = jrdavenport	DESIGNED - GR	REVISED -
	DRAWN - JRD	REVISED -
PLOT SCALE = 100,0000' / in.	CHECKED - BS	REVISED -
PLOT DATE = 3/15/2024	DATE - 03-15-2024	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

PROPOSED INTERCONNECT PLAN  
LOCATION A - US 20 (LAKE STREET)  
SCALE: 1"=50  
SHEET 15 OF 75 SHEETS  
STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2024-SIGNALS-01	COOK	75	15
CONTRACT NO.62R82				
ILLINOIS FED. AID PROJECT				

IDOT CENTRACS  
FORMER ECON 99



**NOTE:**

CONTRACTOR MUST COORDINATE WORK WITH CONTRACT 62N40, INTERSECTIONS ALONG IL-64 WILL BE UPDATED TO IDOR CETRACS IN 62N40, CONTRACT 62N40 IS NEAR COMPLETION AND SHOULD BE COMPLETED PRIOR TO CONTRACT 62R82. ONLY THEN CAN THE WORK ON THIS CONTRACT BE INITIATED.

**SCHEDULE OF QUANTITIES**

Item	Unit	SUBTOTAL
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	3,685
HANDHOLE	EACH	4
HEAVY-DUTY HANDHOLE	EACH	1
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	5,725
DRILL EXISTING HANDHOLE	EACH	4
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	1,690
ROD AND CLEAN EXISTING CONDUIT	FOOT	480
TEMPORARY INFORMATION SIGNING	SQ FT	51.4
* OPTIMIZE TRAFFIC SIGNAL SYSTEM	EACH	1
FIBER OPTIC CABLE, MICRO, 24 FIBERS, SINGLE MODE	FOOT	5,775

\* SYSTEM OPTIMIZATION SHALL CONSIST OF THE CORRIDOR ALONG US-20 ALONG WITH THE INTEGRATION AND OPTIMIZATION OF THE US-20 CORRIDOR TO THE CURRENT CORRIDOR ALONG IL-64.

TS SHT NO. 16

MODEL: Default  
FILE NAME: Interconnect Schematic Location A

**TRANSYSTEMS**

USER NAME = jrdavenport	DESIGNED - GR	REVISED -
	DRAWN - JRD	REVISED -
PLOT SCALE = 100,0000' / in.	CHECKED - BS	REVISED -
PLOT DATE = 3/15/2024	DATE - 03-15-2024	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PROPOSED INTERCONNECT SCHEMATIC AND SCHEDULE OF QUANTITIES  
LOCATION A - US 20 (LAKE STREET) - I-294 TO WOLF ROAD**

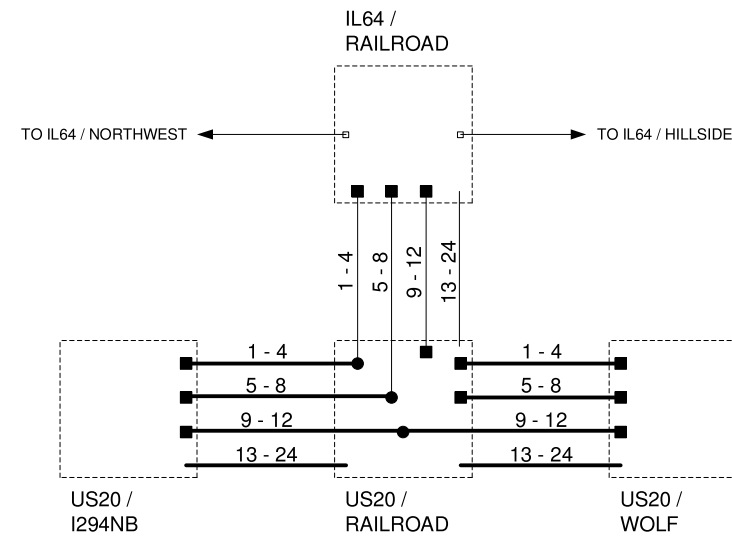
SCALE: NONE SHEET 16 OF 75 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2024-SIGNALS-01	COOK	75	16
CONTRACT NO. 62R82				
ILLINOIS FED. AID PROJECT				

**IDOT CENTRACS  
FORMER ECON 99**

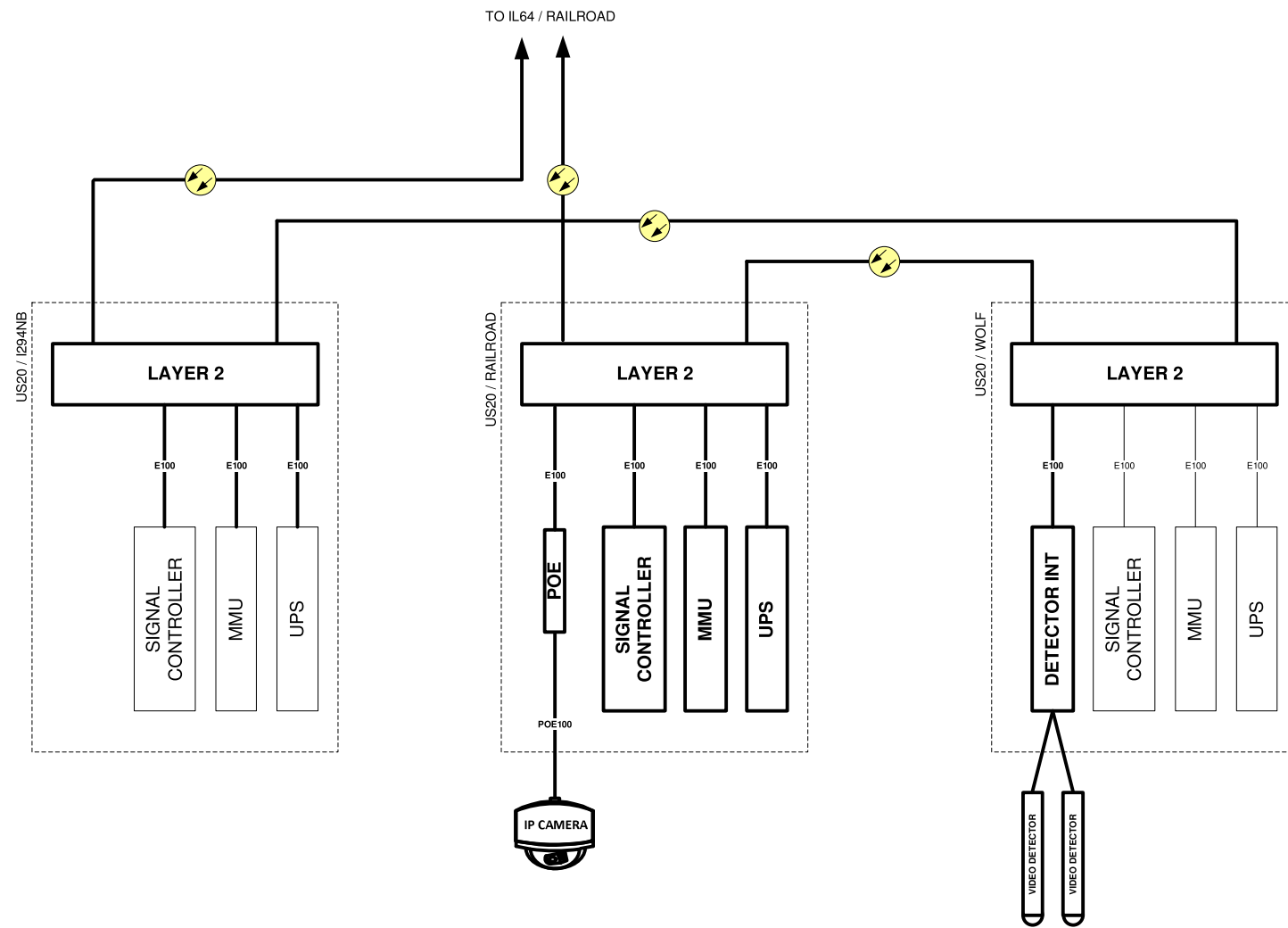


- EXISTING CONNECTOR / EXISTING FIBER
- NEW CONNECTOR / EXISTING FIBER
- EXISTING FUSION SPLICE / EXISTING FIBER
- NEW FUSION SPLICE / EXISTING FIBER
- |■— NEW CONNECTOR / NEW FIBER
- |●— NEW FUSION SPLICE / NEW FIBER



IDOT CENTRACS  
FORMER ECON99

	DESIGNED - DG	REVISED -		ILLINOIS DEPARTMENT OF TRANSPORTATION	ECON99 US20 I294NB to WOLF FIBER SPLICING DIAGRAM	ROUTE	SECTION	SECTION NUMBER	SHEET	SHEETS
	DRAWN - YM	REVISED -			SCALE N/A					
	CHECKED - DG	REVISED -								
	DATE 2024.05.07	REVISED -								



IDOT CENTRACS  
FORMER ECON99

DESIGNED - DG	REVISED -	
DRAWN - YM	REVISED -	
CHECKED - DG	REVISED -	
DATE 2024.05.07	REVISED -	

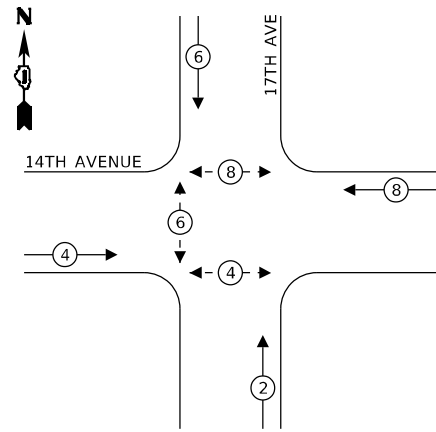
ILLINOIS DEPARTMENT OF  
TRANSPORTATION

ECON99  
US20 294 to WOLF CABINET DETAIL

SCALE N/A

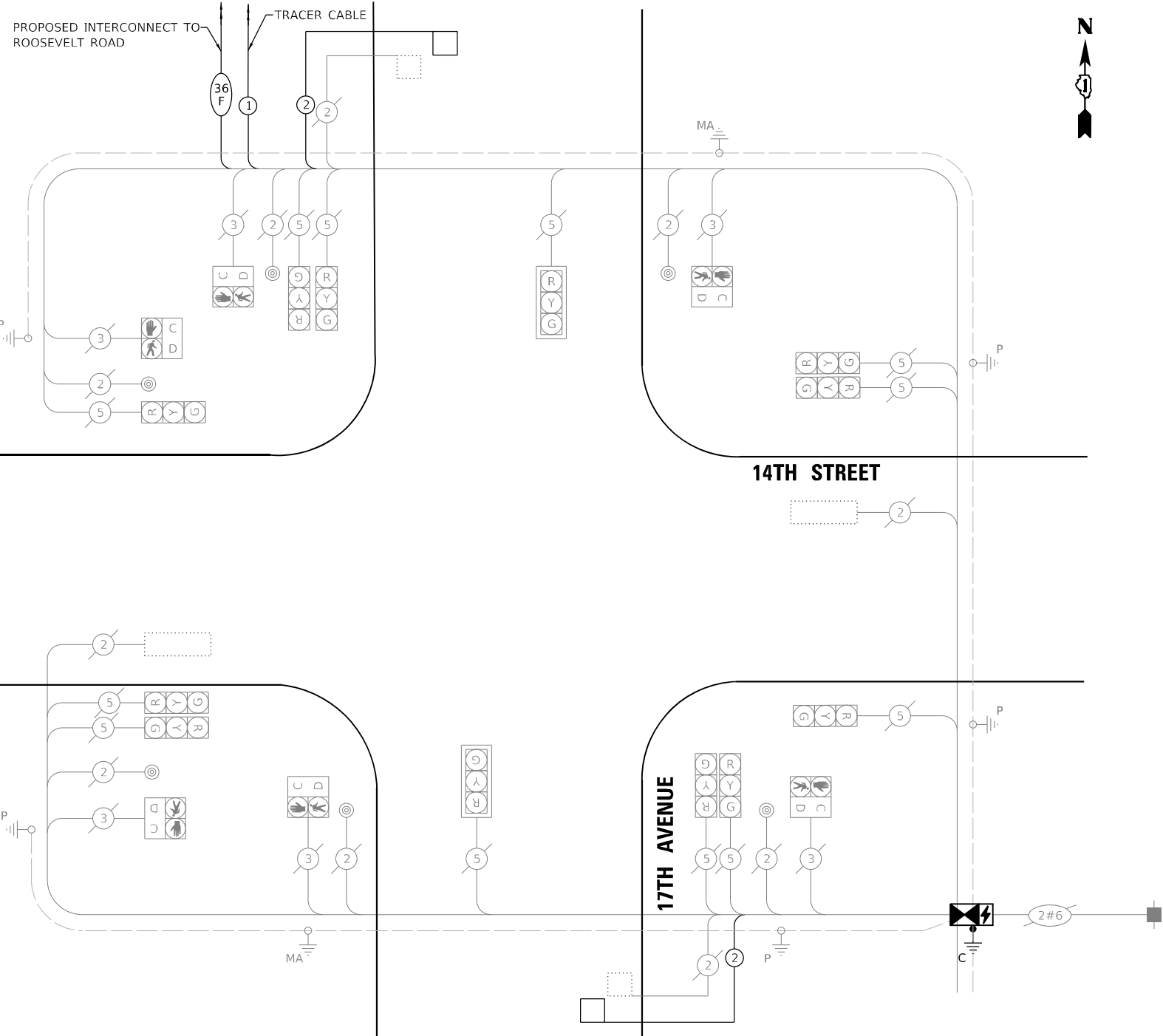
ROUTE	SECTION	SECTION NUMBER	SHEET	SHEETS

**PROPOSED CONTROLLER SEQUENCE**



**LEGEND:**

- ← (\*) → PROTECTED PHASE
- ← (\*) → PEDESTRIAN PHASE



**CABLE PLAN**

(NOT TO SCALE)

**SCHEDULE OF QUANTITIES**

Item	Unit	SUBTOTAL
UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	10
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRANSCEIVER - FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	715
DRILL EXISTING HANDHOLE	EACH	2
INDUCTIVE LOOP DETECTOR	EACH	6
DETECTOR LOOP, TYPE I	FOOT	75
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REBUILD EXISTING HANDHOLE	EACH	2
FULL-ACTUATED CONTROLLER AND TYPE SUPER P CABINET (SPECIAL)	EACH	1
REBUILD EXISTING DOUBLE HANDHOLE	EACH	1
UNINTERRUPTABLE POWER SUPPLY (SPECIAL)	EACH	1
MODIFY EXISTING TYPE "D" FOUNDATION	EACH	1

**TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS**

EQUIPMENT TYPE	QUANTITY	UNIT WATTAGE	TOTAL WATTAGE
SIGNAL HEAD 1 OR 3-SECTION	12	11	132
4-SECTION	-	14	-
5-SECTION	-	13	-
PROGRAMMABLE 3-SECTION	-	22	-
4-SECTION	-	32	-
5-SECTION	-	28	-
PEDESTRIAN SIGNAL CONTROLLER	6	15	90
MASTER CONTROLLER	1	150	150
UPS	1	25	25
DETECTION RADAR OR VIDEO	-	20	-
BLANK-OUT SIGN	-	25	-
NETWORK SWITCH II OR III	-	35	-
CELLULAR MODEM	-	15	-
<b>TOTAL UPS SIZING</b>		<b>397</b>	
UPS CHARGING	1	225	225
BATTERY HEATER MAT	1	180	180
CABINET HEATER	1	200	200
FLASHER	-	15	-
LED STREET NAME SIGN	-	120	-
LUMINAIRE	-	240	-
<b>TOTAL SERVICE WIRE SIZING</b>		<b>1,002</b>	

**REMOVAL NOTES**

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

- 1 EACH CONTROLLER AND CABINET (COMPLETE)
- 1 EACH UNINTERRUPTABLE POWER SUPPLY

**ENERGY COSTS TO:**

VILLAGE OF BROADVIEW  
2350 S, 25TH AVE  
BROADVIEW, IL 60155

ENERGY SUPPLY: CONTACT: NEW BUSINESS DEPT  
PHONE: (866)-639-3532  
COMPANY: COMED  
ACCOUNT NUMBER: 07450-13049  
METER NUMBER: ---

TS SHT NO. 19

MODEL: Default  
FILE NAME: Location M Cable Plan

**TRANSYSTEMS**

USER NAME = jrdavenport  
PLOT SCALE = 40,0000 \* / in.  
PLOT DATE = 3/15/2024

DESIGNED - GR  
DRAWN - JRD  
CHECKED - BS  
DATE - 03-15-2024

REVISED -  
REVISED -  
REVISED -  
REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

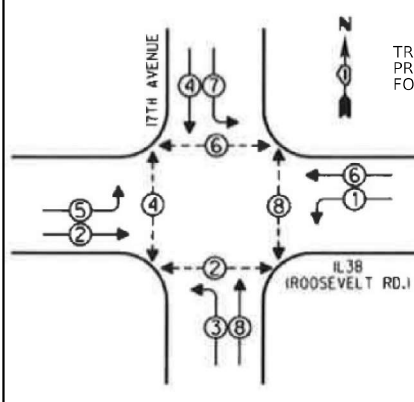
CABLE PLAN, PHASE DESIGNATION DIAGRAM  
AND EMERGENCY VEHICLE PREEMPTION SEQUENCE  
14TH AVENUE AND 17TH AVENUE - LOCATION M  
SCALE: NONE SHEET 19 OF 75 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2024-SIGNALS-01	COOK	75	19
CONTRACT NO.62R82				
ILLINOIS FED. AID PROJECT				

**TS 4535  
ECON 29**



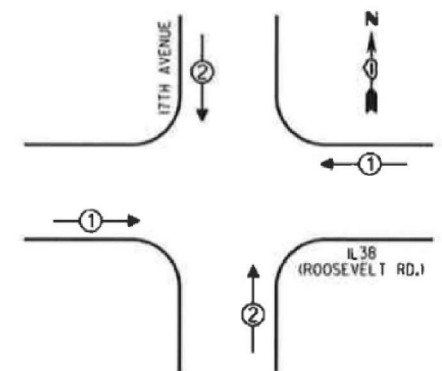
**CONTROLLER SEQUENCE**



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

**PHASE DESIGNATION DIAGRAM**

**EMERGENCY VEHICLE  
PREEMPTION SEQUENCE**



EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	1	2
MOVEMENT	↔	↕

**TRAFFIC SIGNAL  
ELECTRICAL SERVICE REQUIREMENTS**

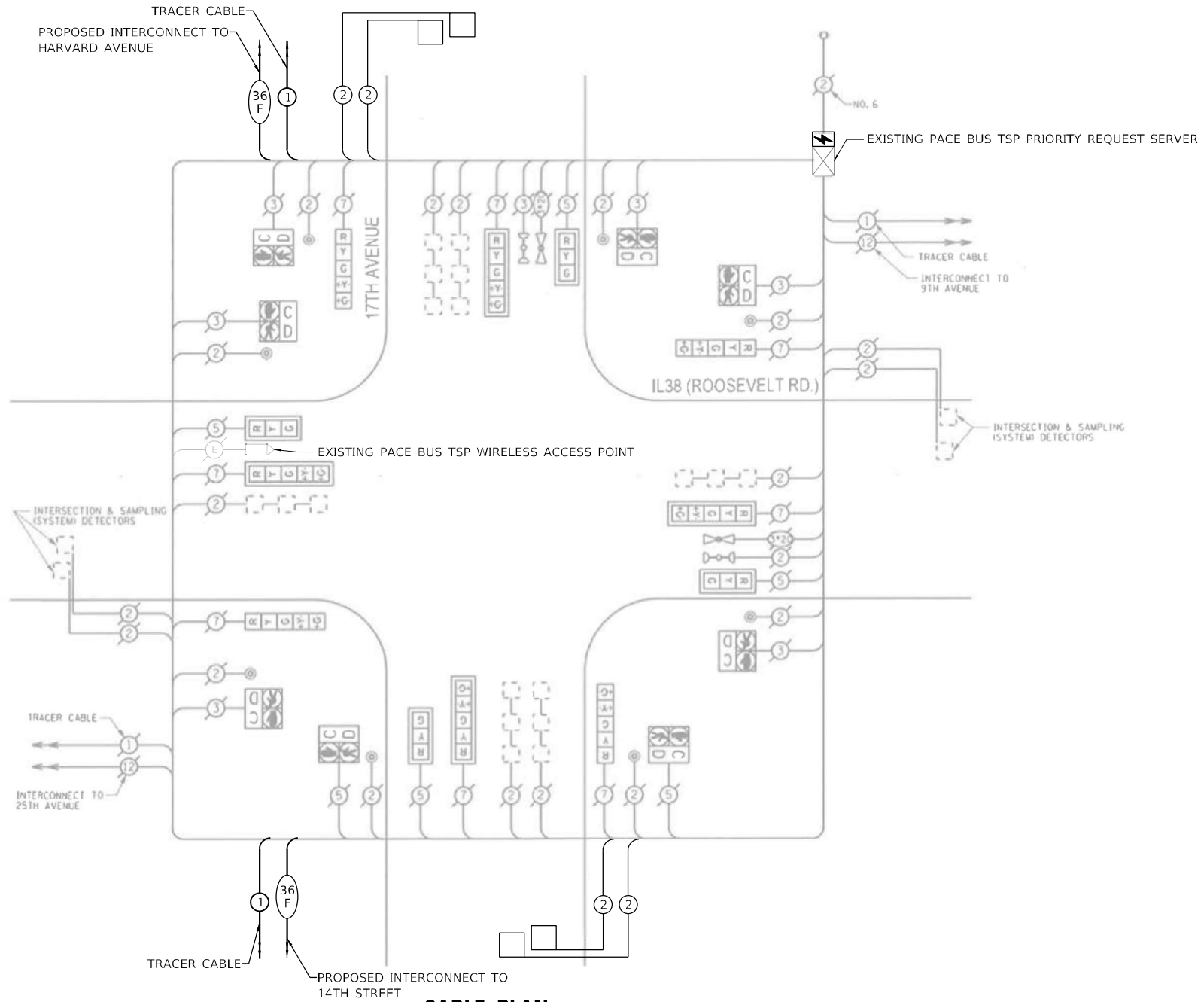
EQUIPMENT TYPE	QUANTITY	UNIT WATTAGE	TOTAL WATTAGE
SIGNAL HEAD 1 OR 3-SECTION	4	11	44
4-SECTION		14	
5-SECTION	8	13	104
PROGRAMMABLE 3-SECTION	-	22	-
4-SECTION	-	32	-
5-SECTION	-	28	-
PEDESTRIAN SIGNAL CONTROLLER	8	15	120
MASTER CONTROLLER	1	150	150
UPS	-	100	-
UPS	1	25	25
DETECTION RADAR OR VIDEO	-	20	-
BLANK-OUT SIGN	2	25	50
NETWORK SWITCH II OR III	1	35	35
CELLULAR MODEM	1	15	15
<b>TOTAL UPS SIZING</b>			<b>443</b>
UPS CHARGING	1	225	225
BATTERY HEATER MAT	1	180	180
CABINET HEATER	1	200	200
FLASHER	-	15	-
LED STREET NAME SIGN	-	120	-
LUMINAIRE	-	240	-
<b>TOTAL SERVICE WIRE SIZING</b>			<b>1,048</b>

**REMOVAL 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 UNINTERRUPTABLE POWER SUPPLY

ENERGY COSTS TO:  
VILLAGE OF BROADVIEW  
2350 S. 25TH AVE  
BROADVIEW, IL 60155  
ENERGY SUPPLY: CONTACT: NEW BUSINESS DEPT  
PHONE: (866)-639-3532  
COMPANY: COMED  
ACCOUNT NUMBER: 07450-13049  
METER NUMBER: ---



**CABLE PLAN**  
(NOT TO SCALE)

**SCHEDULE OF QUANTITIES**

Item	Unit	SUBTOTAL
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	505
HANDHOLE	EACH	2
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	1550
DRILL EXISTING HANDHOLE	EACH	2
INDUCTIVE LOOP DETECTOR	EACH	4
DETECTOR LOOP, TYPE I	FOOT	120
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
UNINTERRUPTABLE POWER SUPPLY (SPECIAL)	EACH	1

TS SHT NO. 20



USER NAME = jrdavenport  
PLOT SCALE = 40,0000 \* / in.  
PLOT DATE = 3/15/2024

DESIGNED - GR  
DRAWN - JRD  
CHECKED - BS  
DATE - 03-15-2024

REVISED -  
REVISED -  
REVISED -  
REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

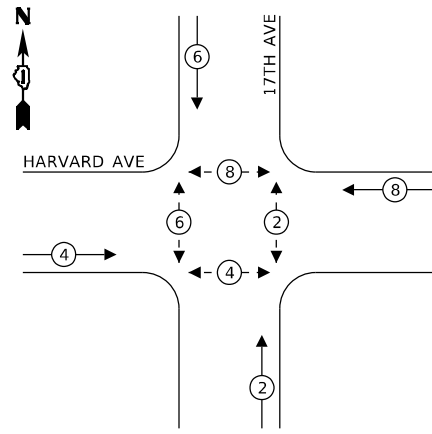
**CABLE PLAN, PHASE DESIGNATION DIAGRAM  
AND EMERGENCY VEHICLE PREEMPTION SEQUENCE  
17TH AVENUE AND IL 38 (ROOSEVELT RD.)-LOCATION M**

SCALE: NONE SHEET 20 OF 75 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2024-SIGNALS-01	COOK	75	20
CONTRACT NO.62R82				
ILLINOIS FED. AID PROJECT				

**TS 3705  
ECON 29**

**CONTROLLER SEQUENCE**



**LEGEND:**  
 ← (circle with number) → PROTECTED PHASE  
 ← (circle with number) → PEDESTRIAN PHASE

**REMOVAL 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 CABINET
- 1 EACH UNINTERRUPTABLE POWER SUPPLY

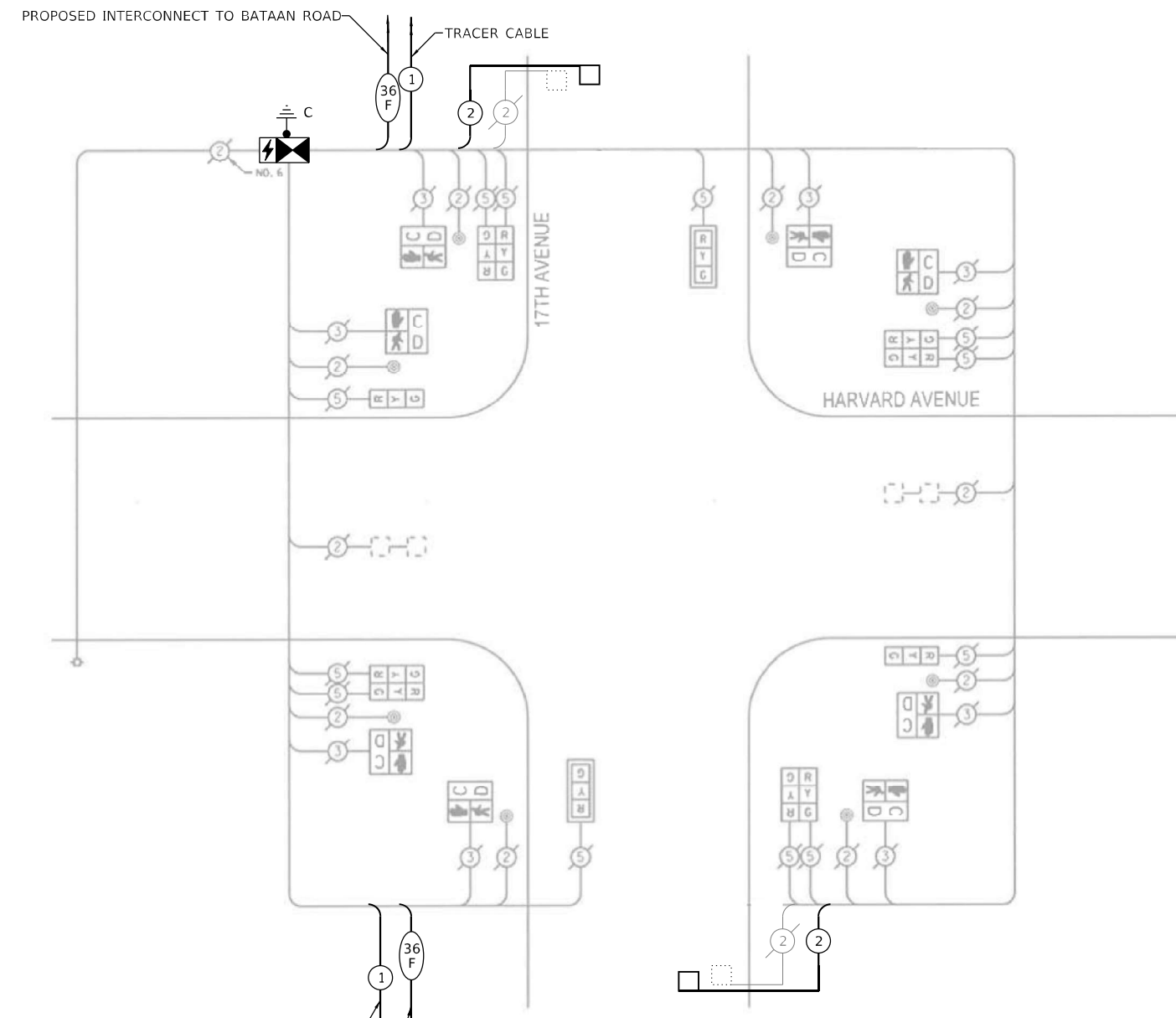
THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR AND SHALL REMAIN THE PROPERTY OF THE STATE OF ILLINOIS AND SHALL BE DELIVERED BY THE CONTRACTOR TO THE STATE STOCK.

- 1 EACH CONTROLLER ONLY

**TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS**

EQUIPMENT TYPE	QUANTITY	UNIT WATTAGE	TOTAL WATTAGE
SIGNAL HEAD 1 OR 3-SECTION	12	11	132
4-SECTION		14	
5-SECTION	-	13	-
PROGRAMMABLE 3-SECTION	-	22	-
4-SECTION	-	32	-
5-SECTION	-	28	-
PEDESTRIAN SIGNAL CONTROLLER	8	15	120
MASTER CONTROLLER	1	150	150
UPS	1	100	-
UPS	1	25	25
DETECTION RADAR OR VIDEO	-	20	-
BLANK-OUT SIGN		25	
NETWORK SWITCH II OR III		35	
CELLULAR MODEM		15	
<b>TOTAL UPS SIZING</b>		<b>427</b>	
UPS CHARGING	1	225	225
BATTERY HEATER MAT	1	180	180
CABINET HEATER	1	200	200
FLASHER	-	15	-
LED STREET NAME SIGN	-	120	-
LUMINAIRE	-	240	-
<b>TOTAL SERVICE WIRE SIZING</b>		<b>1,032</b>	

ENERGY COSTS TO:  
 VILLAGE OF BROADVIEW  
 2350 S. 25TH AVE  
 BROADVIEW, IL 60155  
 ENERGY SUPPLY: CONTACT: NEW BUSINESS DEPT  
 PHONE: (866)-639-3532  
 COMPANY: COMED  
 ACCOUNT NUMBER: 07450-13049  
 METER NUMBER: ---



**CABLE PLAN**

(NOT TO SCALE)

**SCHEDULE OF QUANTITIES**

Item	Unit	SUBTOTAL
UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	8
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRANSCEIVER - FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	715
DRILL EXISTING HANDHOLE	EACH	2
INDUCTIVE LOOP DETECTOR	EACH	6
DETECTOR LOOP, TYPE I	FOOT	75
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REBUILD EXISTING HANDHOLE	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE SUPER P CABINET (SPECIAL)	EACH	1
REBUILD EXISTING DOUBLE HANDHOLE	EACH	1
UNINTERRUPTABLE POWER SUPPLY (SPECIAL)	EACH	1
MODIFY EXISTING TYPE "D" FOUNDATION	EACH	1

TS SHT NO. 21



USER NAME = jrdavenport  
 DESIGNED - GR  
 DRAWN - JRD  
 CHECKED - BS  
 DATE - 03-15-2024  
 PLOT SCALE = 40,0000 \* / in.  
 PLOT DATE = 3/15/2024

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**CABLE PLAN, PHASE DESIGNATION DIAGRAM  
 AND EMERGENCY VEHICLE PREEMPTION SEQUENCE**  
 17TH AVENUE AND HARVARD AVENUE - LOCATION M  
 SCALE: NONE SHEET 21 OF 75 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2024-SIGNALS-01	COOK	75	21
CONTRACT NO. 62R82				
ILLINOIS FED. AID PROJECT				

**TS 4540  
 ECON 29**



SEQUENCE OF OPERATION

PHASE	A					B					C					D					F L A S H			
MOVEMENT	1	2	3	4	5A	5B	6	7	8A	8B	9	10	11	12	13	14	15A	15B	16	17		18A	19	20A
CHANGE TO	*		B	C	D	*		D	A	C	*		D	A	B	*		A	C	B				
17 TH AV N/B AT BATAAN DR	G	G	Y	Y	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
17 TH AV N/B AT HARRISON ST NEAR RIGHT SIGNAL	G	G	G	G	G	Y	G	G	G	Y	G	G	G	G	Y	G	G	G	R	R	R	R	R	R
17 TH AV N/B AT HARRISON ST FAR SIGNALS	G	G	G	G	G	Y	G	G	G	Y	G	G	G	G	Y	G	G	G	R	R	R	R	R	R
17 TH AV S/B AT HARRISON ST	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	G	Y	Y	Y	R	R	R	R	R
17 TH AV S/B AT BATAAN DR NEAR RIGHT SIGNAL	G	G	Y	G	G	G	R	R	R	R	R	R	R	G	G	G	G	Y	G	G	G	G	G	Y
17 TH AV S/B AT BATAAN DR FAR SIGNALS	G	G	Y	G	G	G	R	R	R	R	R	R	R	G	G	G	G	Y	G	G	G	G	G	Y
BATAAN DR E/B SIGNALS	R	R	R	R	R	R	G	G	Y	R	Y	Y	R	R	R	R	R	R	R	R	R	R	R	R
HARRISON ST W/B SIGNALS	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
PEDESTRIAN SIGNALS ACROSS BATAAN DRIVE	W	** FL DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DARK
PEDESTRIAN SIGNALS ACROSS 17TH AV AT BATAAN DR	DW	DW	DW	DW	DW	DW	W	** FL DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DARK
PEDESTRIAN SIGNALS ACROSS HARRISON ST	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	W	** FL DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DARK
PEDESTRIAN SIGNALS ACROSS 17TH AV AT HARRISON ST	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	W	** FL DW	DW	DW	DW	DW	DARK

\* INTERVALS 1,6, 11 AND 16 SHALL APPEAR UPON PEDESTRIAN ACTUATION ONLY  
 \*\* FLASHING "DON'T WALK" SHALL APPEAR AS STEADY "DON'T WALK" IN THE ABSENCE OF PEDESTRIAN ACTUATION  
 PHASES "A" AND "C" TO BE VOLUME DENSITY TYPE



SCHEDULE OF QUANTITIES

Item	Unit	SUBTOTAL
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	515
HANDHOLE	EACH	2
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TRANSCEIVER - FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	2070
DRILL EXISTING HANDHOLE	EACH	2
INDUCTIVE LOOP DETECTOR	EACH	10
DETECTOR LOOP, TYPE I	FOOT	120
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET (SPECIAL)	EACH	1
UNINTERRUPTABLE POWER SUPPLY (SPECIAL)	EACH	1

REMOVAL 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.

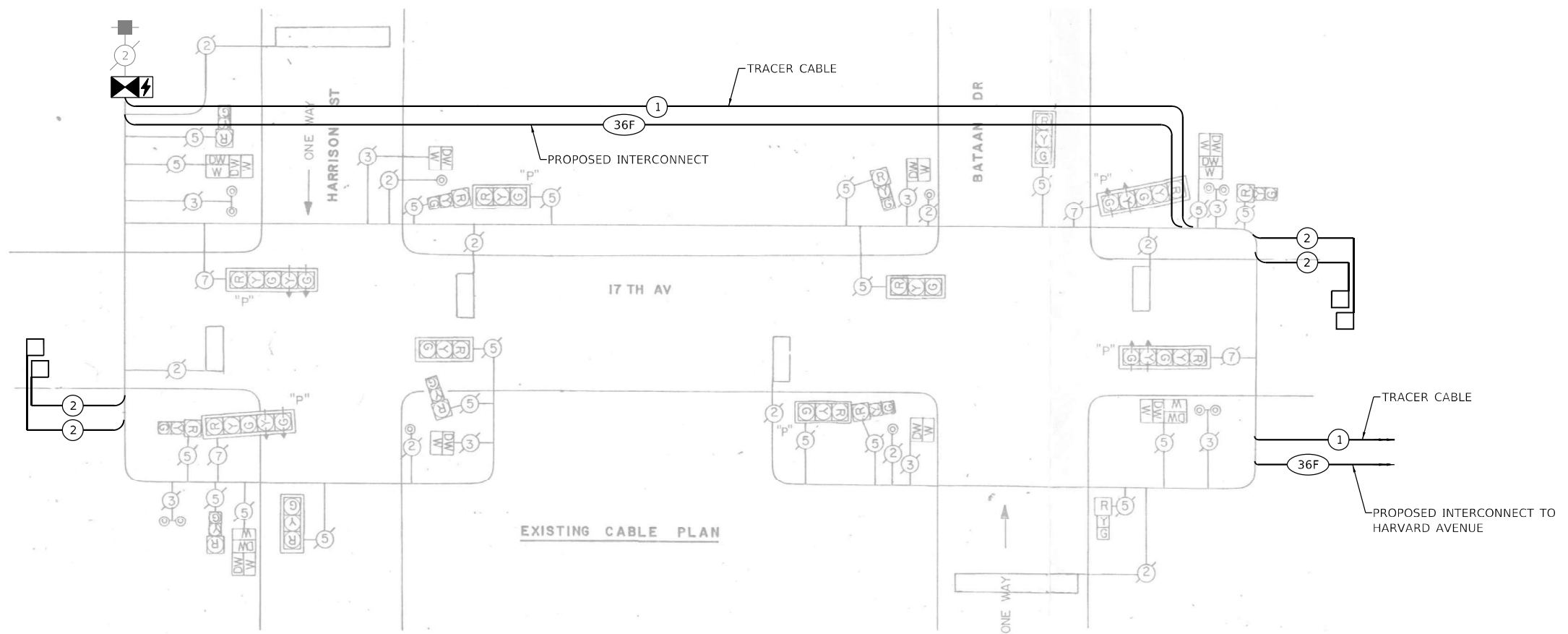
- 1 EACH CONTROLLER AND CABINET (COMPLETE)
- 1 EACH UNINTERRUPTABLE POWER SUPPLY

TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS

EQUIPMENT TYPE	QUANTITY	UNIT WATTAGE	TOTAL WATTAGE
SIGNAL HEAD 1 OR 3-SECTION	15	11	165
4-SECTION	-	14	-
5-SECTION	4	13	52
PROGRAMMABLE 3-SECTION	-	22	-
4-SECTION	-	32	-
5-SECTION	-	28	-
PEDESTRIAN SIGNAL	12	15	180
CONTROLLER	1	150	150
MASTER CONTROLLER	-	100	-
UPS	1	25	25
DETECTION RADAR OR VIDEO	-	20	-
BLANK-OUT SIGN	2	25	50
NETWORK SWITCH II OR III	1	35	35
CELLULAR MODEM	1	15	15
<b>TOTAL UPS SIZING</b>		<b>572</b>	
UPS CHARGING	1	225	225
BATTERY HEATER MAT	1	180	180
CABINET HEATER	1	200	200
FLASHER	-	15	-
LED STREET NAME SIGN	-	120	-
LUMINAIRE	-	240	-
<b>TOTAL SERVICE WIRE SIZING</b>		<b>1,177</b>	

ENERGY COSTS TO:  
 VILLAGE OF BROADVIEW  
 2350 S. 25TH AVE  
 BROADVIEW, IL 60155

ENERGY SUPPLY: CONTACT: NEW BUSINESS DEPT  
 PHONE: (866)-639-3532  
 COMPANY: COMED  
 ACCOUNT NUMBER: 18370-41032  
 METER NUMBER: ---



TS SHT NO. 22



USER NAME = jrdavenport	DESIGNED - GR	REVISED -
PLOT SCALE = 40,0000 * / in.	DRAWN - JRD	REVISED -
PLOT DATE = 3/15/2024	CHECKED - BS	REVISED -
	DATE - 03-15-2024	REVISED -

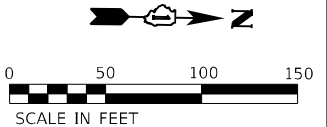
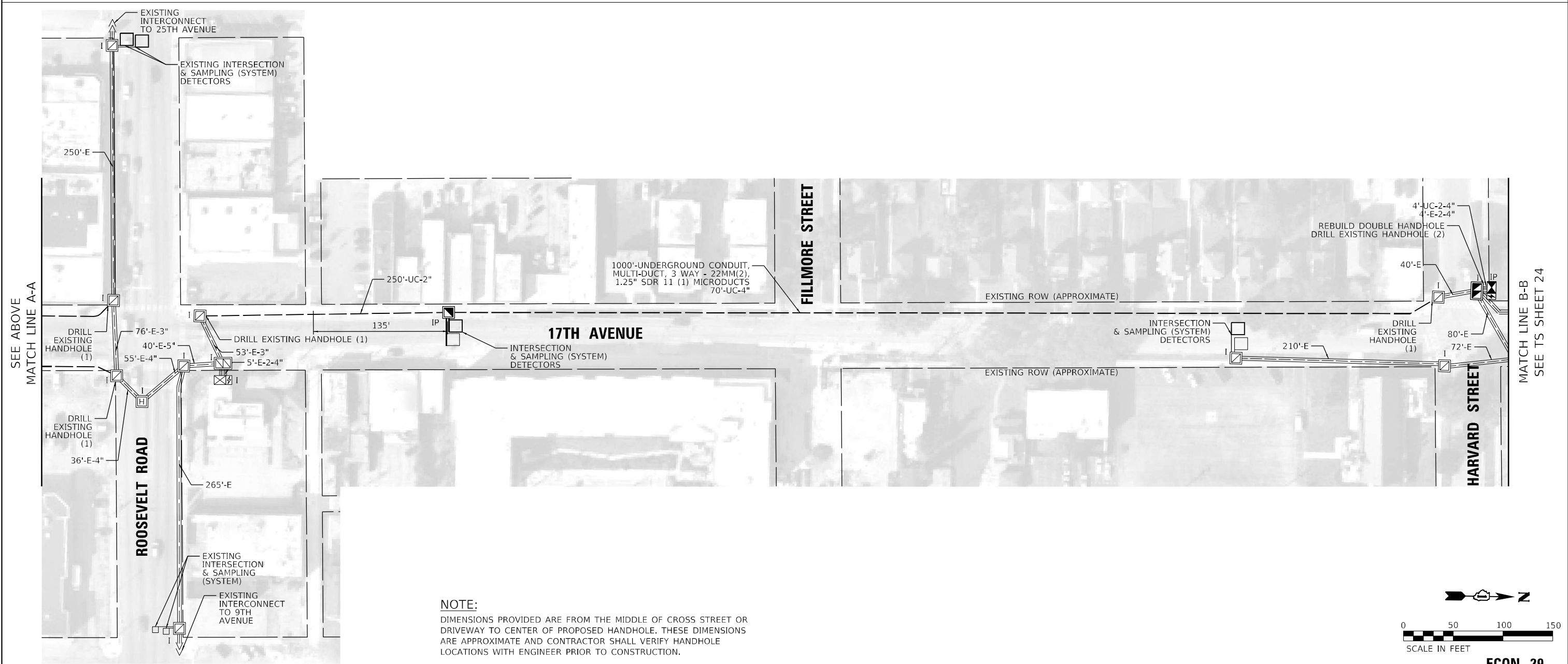
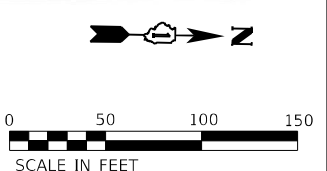
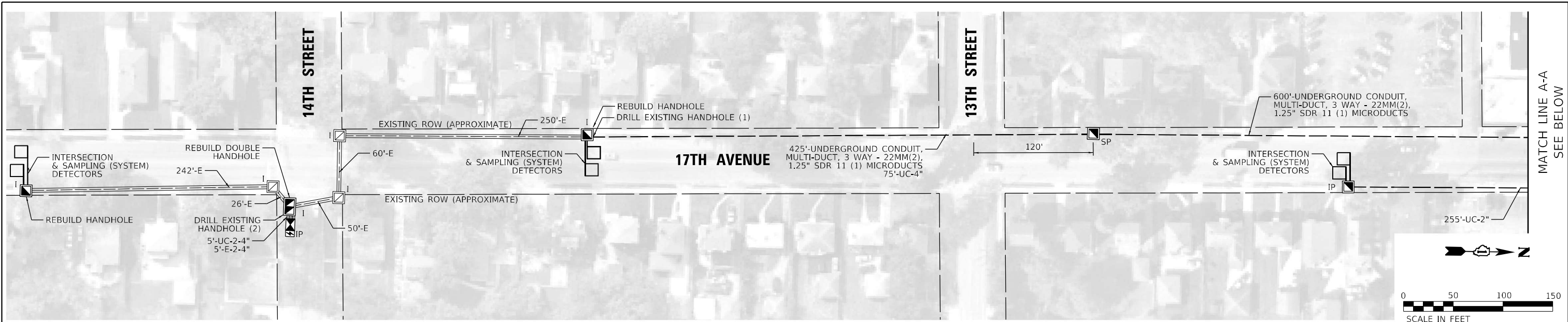
STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM  
 AND EMERGENCY VEHICLE PREEMPTION SEQUENCE  
 17TH AVENUE AND HARRISON ST. - LOCATION M

SCALE: NONE SHEET 22 OF 75 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2024-SIGNALS-01	COOK	75	22
CONTRACT NO. 62R82				
ILLINOIS FED. AID PROJECT				

TS 105  
 ECON 29



**NOTE:**  
 DIMENSIONS PROVIDED ARE FROM THE MIDDLE OF CROSS STREET OR DRIVEWAY TO CENTER OF PROPOSED HANDHOLE. THESE DIMENSIONS ARE APPROXIMATE AND CONTRACTOR SHALL VERIFY HANDHOLE LOCATIONS WITH ENGINEER PRIOR TO CONSTRUCTION.

TS SHT NO. 23  
 MODEL: Default  
 FILE NAME: PR IC 1801 Location M-1

**TRANSYSTEMS**

USER NAME = jrdavenport	DESIGNED - GR	REVISED -
PLOT SCALE = 100,0000' / in.	DRAWN - JRD	REVISED -
PLOT DATE = 3/15/2024	CHECKED - BS	REVISED -
	DATE - 03-15-2024	REVISED -

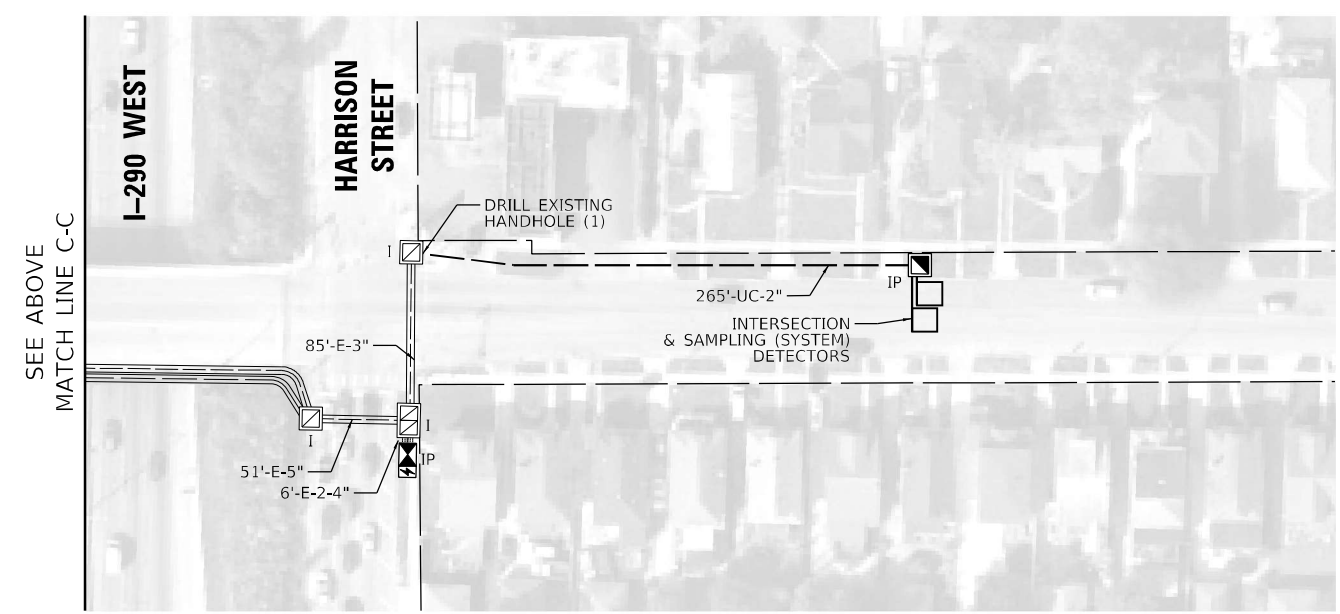
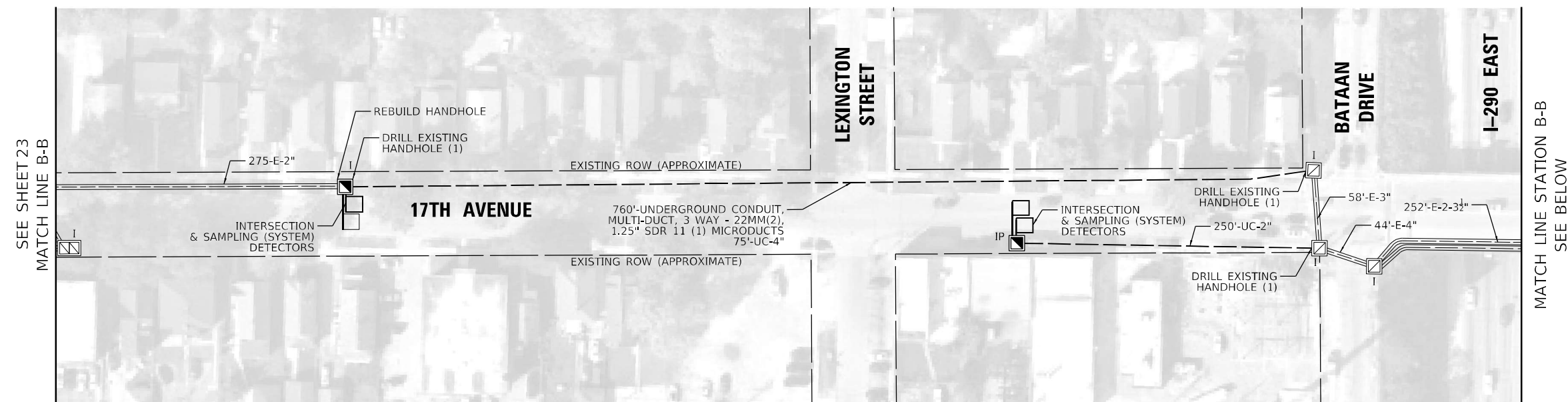
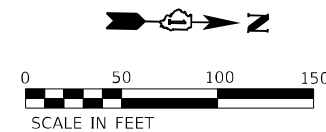
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**PROPOSED INTERCONNECT PLAN  
 LOCATION M - 17TH AVENUE**

SCALE: 1"=50 SHEET 23 OF 75 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2024-SIGNALS-01	COOK	75	23
CONTRACT NO.62R82				
ILLINOIS		FED. AID PROJECT		

**ECON 29**



**NOTE:**  
 DIMENSIONS PROVIDED ARE FROM THE MIDDLE OF CROSS STREET OR DRIVEWAY TO CENTER OF PROPOSED HANDHOLE. THESE DIMENSIONS ARE APPROXIMATE AND CONTRACTOR SHALL VERIFY HANDHOLE LOCATIONS WITH ENGINEER PRIOR TO CONSTRUCTION.

TS SHT NO. 24

MODEL: Default  
 FILE NAME: PR IC Plan Location M2



USER NAME = jrdavenport	DESIGNED - GR	REVISED -
	DRAWN - JRD	REVISED -
PLOT SCALE = 100,0000' / in.	CHECKED - BS	REVISED -
PLOT DATE = 3/15/2024	DATE - 03-15-2024	REVISED -

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

PROPOSED INTERCONNECT PLAN  
 LOCATION M - 17TH AVENUE

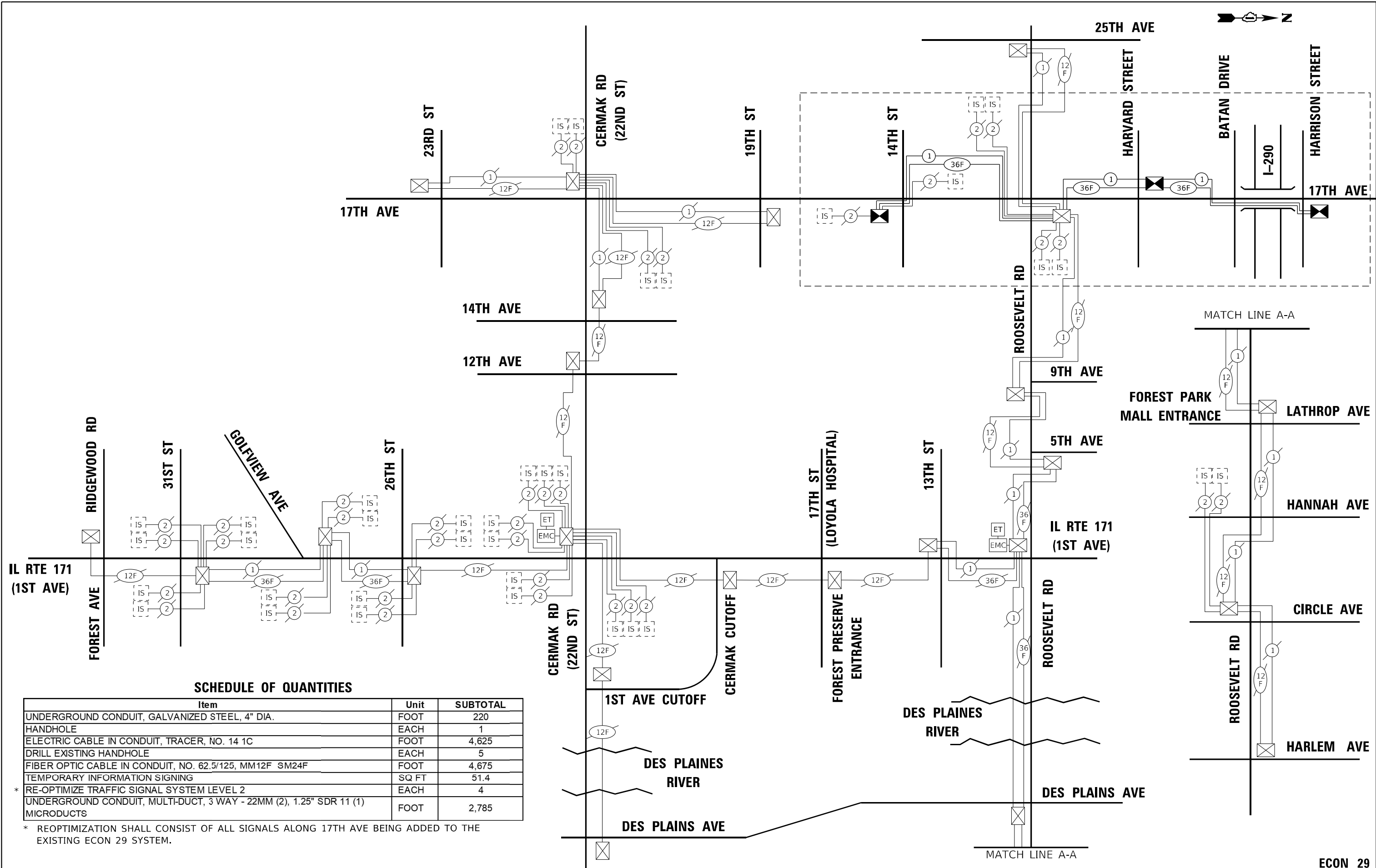
SCALE: 1"=50 SHEET 24 OF 75 SHEETS STA. TO STA.

ECON 29		F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			2024-SIGNALS-01	COOK	75	24
				CONTRACT NO.62R82		
				ILLINOIS FED. AID PROJECT		



TS SHT NO. 25

MODEL: Default  
FILE NAME: Interconnect Schematic Location M



**SCHEDULE OF QUANTITIES**

Item	Unit	SUBTOTAL
UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	220
HANDHOLE	EACH	1
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	4,625
DRILL EXISTING HANDHOLE	EACH	5
FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, MM12F SM24F	FOOT	4,675
TEMPORARY INFORMATION SIGNING	SQ FT	51.4
* RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 2	EACH	4
UNDERGROUND CONDUIT, MULTI-DUCT, 3 WAY - 22MM (2), 1.25" SDR 11 (1) MICRODUCTS	FOOT	2,785

\* REOPTIMIZATION SHALL CONSIST OF ALL SIGNALS ALONG 17TH AVE BEING ADDED TO THE EXISTING ECON 29 SYSTEM.

**TRANSYSTEMS**

USER NAME = jrdavenport	DESIGNED - GR	REVISED -
	DRAWN - JRD	REVISED -
PLOT SCALE = 100,0000' / in.	CHECKED - BS	REVISED -
PLOT DATE = 3/15/2024	DATE - 03-15-2024	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PROPOSED INTERCONNECT SCHEMATIC AND SCHEDULE OF QUANTITIES  
LOCATION M - 17TH AVENUE - I-290 TO 14TH STREET**

SCALE: NONE SHEET 25 OF 75 SHEETS STA. TO STA.

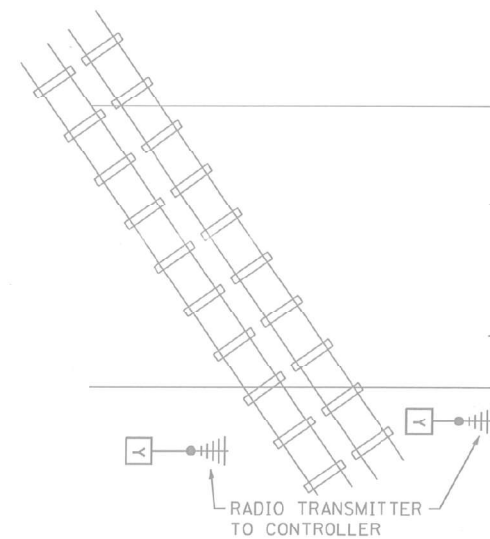
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2024-SIGNALS-01	COOK	75	25
CONTRACT NO.62R82				

ILLINOIS FED. AID PROJECT

**ECON 29**

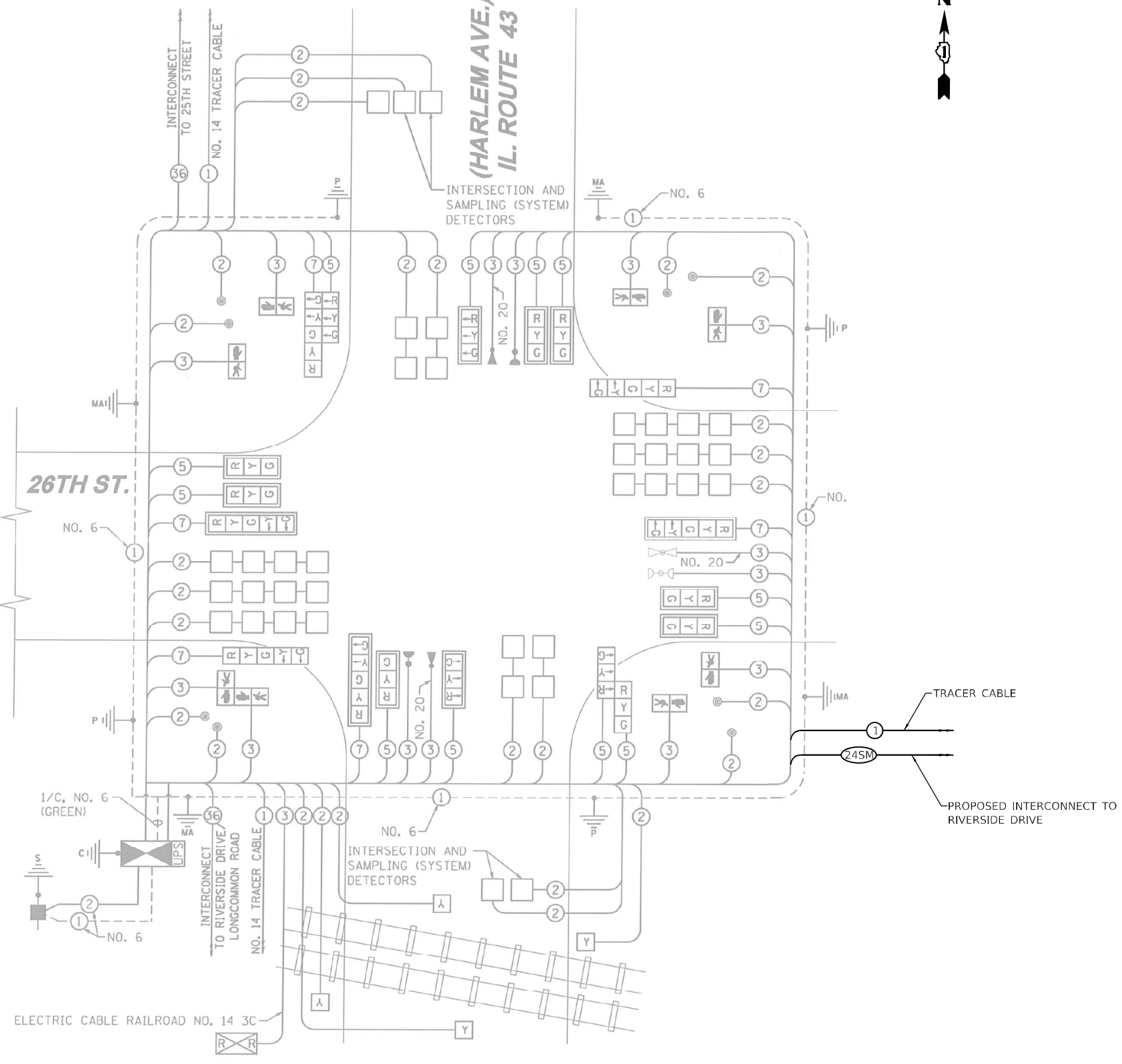
**SCHEDULE OF QUANTITIES**

Item	Unit	SUBTOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TERMINATE FIBER IN CABINET	EACH	12



**26TH ST.**

**(HARLEM AVE.)  
IL. ROUTE 43**



**NOTE:**  
CONTRACTOR MUST COORDINATE WORK WITH PACE TSP PROJECT. PACE TSP PROJECT WILL CONVERT THIS SIGNAL TO CENTRACS. ONLY THEN CAN THE WORK ON THIS CONTRACT BE INITIATED.

**TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS**

EQUIPMENT TYPE	QUANTITY	UNIT WATTAGE	TOTAL WATTAGE
SIGNAL HEAD 1 OR 3-SECTION	12	11	132
4-SECTION	-	14	-
5-SECTION	6	13	78
PROGRAMMABLE 3-SECTION	-	22	-
4-SECTION	-	32	-
5-SECTION	-	28	-
PEDESTRIAN SIGNAL CONTROLLER	8	15	120
MASTER CONTROLLER	1	150	150
UPS	-	100	-
UPS	1	25	25
DETECTION RADAR OR VIDEO	-	20	-
BLANK-OUT SIGN	-	25	-
NETWORK SWITCH II OR III	-	35	-
CELLULAR MODEM	-	15	-
<b>TOTAL UPS SIZING</b>		<b>505</b>	
UPS CHARGING	1	225	225
BATTERY HEATER MAT	1	180	180
CABINET HEATER	1	200	200
FLASHER	-	15	-
LED STREET NAME SIGN	-	120	-
LUMINAIRE	-	240	-
<b>TOTAL SERVICE WIRE SIZING</b>		<b>1,110</b>	

ENERGY COSTS TO:  
CITY OF BERWYN  
6700 W. 26TH STREET  
BERWYN, IL 60402

ENERGY SUPPLY: CONTACT: NEW BUSINESS DEPT  
PHONE: (866)-639-3532  
COMPANY: COMED  
ACCOUNT NUMBER: 53230-22014  
METER NUMBER: ---

**CABLE PLAN**  
(NOT TO SCALE)

TS SHT NO. 26



USER NAME = jrdavenport	DESIGNED - GR	REVISED -
PLOT SCALE = 40,0000 * / in.	DRAWN - JRD	REVISED -
PLOT DATE = 3/15/2024	CHECKED - BS	REVISED -
	DATE - 03-15-2024	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CABLE PLAN, PHASE DESIGNATION DIAGRAM  
AND EMERGENCY VEHICLE PREEMPTION SEQUENCE**  
IL-43 (HARLEM AVE.) AND 26TH ST. - LOCATION N

SCALE: NONE SHEET 26 OF 75 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR.	2024-SIGNALS-01	COOK	75	26
ILLINOIS FED. AID PROJECT			CONTRACT NO.62R82	

**TS 7910  
IDOT CENTRACS  
SYSTEM 30**



PROPOSED RAILROAD PREEMPTION SEQUENCE OF OPERATION

CHANGE FROM NORMAL SEQUENCE OF OPERATION INTERVAL NUMBER	1		5		8		11		16		21		25		29		PREEMPTOR NUMBER 3	PREEMPTOR NUMBER 4	PREEMPTOR NUMBER 5	PREEMPTOR NUMBER 2									CLEAR TO NORMAL SEQUENCE
	1A	1B	1C	1D	1E	1F	1G	1H	1J	1K	1L	1M	1N	1P	1Q	1R	1S	1T	1U	2	3	4	5	6	7	8			
CHANGE FROM EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER																	2	3	4										
RAILROAD PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	1A	1B	1C	1D	1E	1F	1G	1H	1J	1K	1L	1M	1N	1P	1Q	1R	1S	1T	1U	2	3	4	5	6	7	8	△		
CHANGE TO RAILROAD PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	1B	2	1D	2	2	1G	2	2	1K	2	1M	2	1P	2	2	1S	2	1U	2	3	4	5	6	7	8	△			
IL RT 43 (HARLEM AVENUE) END MAST ARM & FAR LEFT SIGNALS N/B	←G	←G	←R	←R	←G	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←G	←Y	←R	←R	←R	←R		←R	△	
IL RT 43 (HARLEM AVENUE) MID AND RT MAST ARM AND NEAR RT SIGNALS N/B	R	R	R	R	G	G	G	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	R	R	△		
IL RT 43 (HARLEM AVENUE) END MAST ARM & FAR LEFT SIGNALS S/B	←Y	←R	←Y	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R		△	
IL RT 43 (HARLEM AVENUE) MID MAST ARM SIGNAL S/B	R	R	Y	R	R	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	R	R	R	R	R	△		
IL RT 43 (HARLEM AVENUE) RIGHT MAST ARM AND NEAR RIGHT SIGNALS S/B	R	R	Y	R	R	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	R	R	R	R	R		△	
26TH STREET END MAST ARM & FAR LEFT SIGNALS E/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	R	R	R	R	△		
26TH STREET MID AND RIGHT MAST ARM SIGNALS E/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	R	R	R	R		△	
26TH STREET END MAST ARM & FAR LEFT SIGNALS W/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	R	R	R	R	△		
26TH STREET MID AND RIGHT MAST ARM SIGNALS W/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	R	R	R	R		△	
PEDESTRIAN SIGNALS CROSSING IL RT 43 ON NORTH SIDE OF 26TH STREET	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	△		
PEDESTRIAN SIGNALS CROSSING IL RT 43 ON SOUTH SIDE OF 26TH STREET	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H		△	
PEDESTRIAN SIGNALS CROSSING 26TH ST ON EAST SIDE OF IL RT 43	H	H	H	H	FH	FH	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	△		
PEDESTRIAN SIGNALS CROSSING 26TH ST ON WEST SIDE OF IL RT 43	H	H	FH	H	H	FH	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H		△	
IL RT 43 (HARLEM AVENUE) FLASHERS AT CN RAILROAD N/B	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	△		
26TH STREET FLASHERS AT CN RAILROAD E/B	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL		△	

HOLD

**TRAFFIC SIGNAL PLAN FOR REFERENCE ONLY**

TS 7910  
IDOT CENTRACS  
SYSTEM 30

EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION

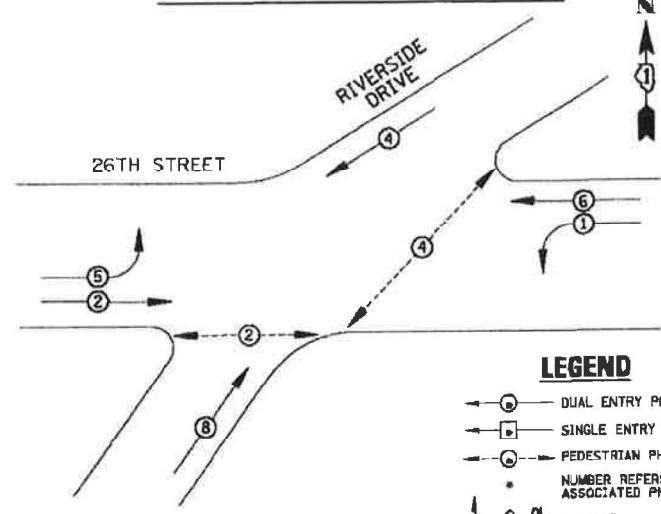
CHANGE FROM NORMAL SEQUENCE OF OPERATION INTERVAL NUMBER	1		1		1		5		5		8		8		11		11		11		16		21		21		25		25		29		29		PREEMPTOR NUMBER 3	PREEMPTOR NUMBER 4	PREEMPTOR NUMBER 5	CLEAR TO NORMAL SEQUENCE						
	1A	1B	1C	1D	1E	1F	1G	1H	1J	1K	1L	1M	1N	1P	1Q	1R	1S	1T	1U	1V	1W	1X	1Y	1Z	1AA	1BB	1CC	1DD	1EE	1FF	1GG	1HH	1JJ	1KK	1LL	1MM	1NN		1PP	2	3	4		
CHANGE TO EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	1B	2	1D	3	1F	4	1H	1J	2 OR 4	3	2	1N	1P	3 OR 4	1R	1S	2	1U	1V	3	1X	1Y	4	2,3 OR 4	1BB	1CC	2 OR 3	1EE	4	1GG	1HH	2 OR 3	1KK	4	1MM	1NN	2 OR 3	4						
IL RT 43 (HARLEM AVENUE) END MAST ARM & FAR LEFT SIGNALS N/B	←G	←G	←Y	←R	←Y	←R	←R	←R	←R	←R	←G	←G	←Y	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	◇
IL RT 43 (HARLEM AVENUE) MID AND RT MAST ARM AND NEAR RT SIGNALS N/B	R	R	R	R	R	R	R	R	R	G	G	Y	R	G	G	G	G	Y	R	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	◇
IL RT 43 (HARLEM AVENUE) END MAST ARM & FAR LEFT SIGNALS S/B	←Y	←R	←G	←G	←Y	←R	←G	←Y	←R	←G	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	←R	◇
IL RT 43 (HARLEM AVENUE) MID MAST ARM SIGNAL S/B	R	R	R	R	R	R	G	Y	R	G	R	R	R	R	R	G	Y	R	G	G	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	◇	
IL RT 43 (HARLEM AVENUE) RIGHT MAST ARM AND NEAR RIGHT SIGNALS S/B	R	R	R	R	R	R	G	Y	R	G	R	R	R	R	R	G	Y	R	G	G	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	◇	
26TH STREET END MAST ARM & FAR LEFT SIGNALS E/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	◇	
26TH STREET MID AND RIGHT MAST ARM SIGNALS E/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	◇	
26TH STREET END MAST ARM & FAR LEFT SIGNALS W/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	◇	
26TH STREET MID AND RIGHT MAST ARM SIGNALS W/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	◇	
PEDESTRIAN SIGNALS CROSSING IL RT 43 ON NORTH SIDE OF 26TH STREET	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	FH	H	H	FH	H	H	H	H	H	H	H	H	H	H	H	H	H	◇	
PEDESTRIAN SIGNALS CROSSING IL RT 43 ON SOUTH SIDE OF 26TH STREET	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	◇	
PEDESTRIAN SIGNALS CROSSING 26TH ST ON EAST SIDE OF IL RT 43	H	H	H	H	H	H	H	H	H	H	FH	FH	H	H	FH	H	H	FH	H	H	FH	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	◇	
PEDESTRIAN SIGNALS CROSSING 26TH ST ON WEST SIDE OF IL RT 43	H	H	H	H	H	H	FH	H	H	FH	H	H	H	FH	H	H	FH	H	H	FH	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	◇	
IL RT 43 (HARLEM AVENUE) FLASHERS AT CN RAILROAD N/B	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	D	D	FL	FL	D	D	D	D	FL	FL	D	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	◇	
26TH STREET FLASHERS AT CN RAILROAD E/B	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	FL	◇	

TS SHT NO. 28  
MODEL: Default  
FILE NAME: 2024-SIGNALS-01

<b>TRANSYSTEMS</b>	USER NAME = jrdavenport	DESIGNED - GR	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE IL-43 (HARLEM AVE.) AND 26TH ST.</b>	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 40,0000 * 1/4"	DRAWN - JRD	REVISED -			VAR	2024-SIGNALS-01	COOK	75	28
	PLOT DATE = 3/15/2024	CHECKED - BS	REVISED -			SCALE: NONE	SHEET 28 OF 75 SHEETS	STA.	TO STA.	CONTRACT NO.62R82

ILLINOIS FED. AID PROJECT

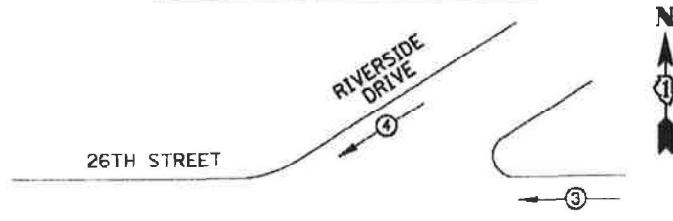
**EXISTING CONTROLLER SEQUENCE**



**LEGEND**

- ⊕ DUAL ENTRY PHASE
- ⊖ SINGLE ENTRY PHASE
- ⊙ PEDESTRIAN PHASE
- NUMBER REFERS TO ASSOCIATED PHASE
- ◇ OVERLAP

**EXISTING PHASE DESIGNATION DIAGRAM**



EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	↔	↗↘

**EXISTING EMERGENCY VEHICLE PREEMPTION SEQUENCE**

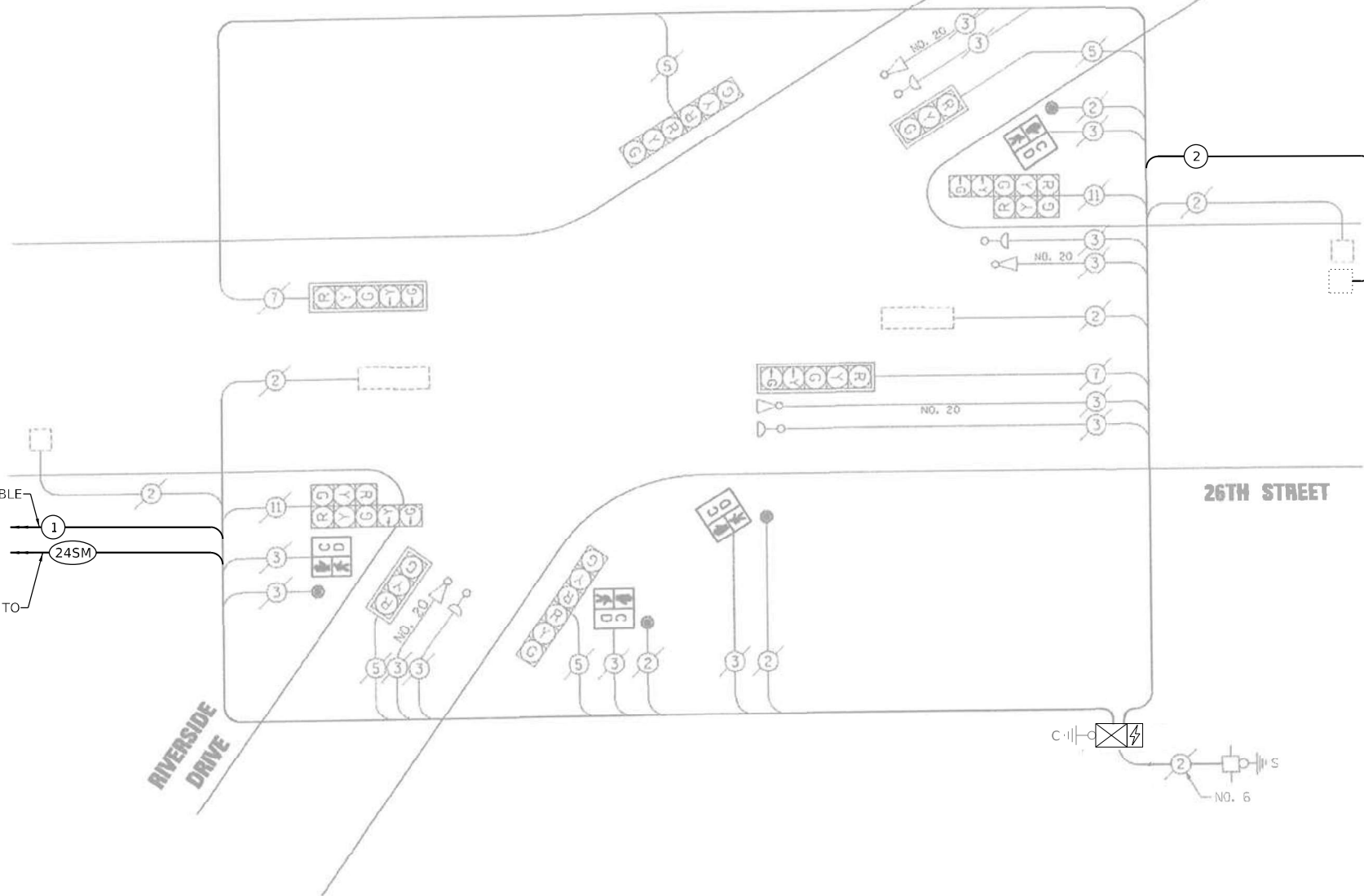
**TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS**

EQUIPMENT TYPE	QUANTITY	UNIT WATTAGE	TOTAL WATTAGE
SIGNAL HEAD 1 OR 3-SECTION	8	11	88
4-SECTION		14	
5-SECTION	4	13	52
PROGRAMMABLE 3-SECTION	-	22	-
4-SECTION	-	32	-
5-SECTION	-	28	-
PEDESTRIAN SIGNAL	4	15	60
CONTROLLER	1	150	150
MASTER CONTROLLER	-	100	-
UPS	1	25	25
DETECTION RADAR OR VIDEO	-	20	-
BLANK-OUT SIGN	-	25	-
NETWORK SWITCH II OR III	1	35	35
CELLULAR MODEM	-	15	-
<b>TOTAL UPS SIZING</b>			<b>410</b>
UPS CHARGING	1	225	225
BATTERY HEATER MAT	1	180	180
CABINET HEATER	1	200	200
FLASHER	-	15	-
LED STREET NAME SIGN	-	120	-
LUMINAIRE	-	240	-
<b>TOTAL SERVICE WIRE SIZING</b>			<b>1,015</b>

ENERGY COSTS TO:  
 CITY OF BERWYN  
 6700 W. 26TH STREET  
 BERWYN, IL 60402

ENERGY SUPPLY: CONTACT: NEW BUSINESS DEPT  
 PHONE: (866)-639-3532  
 COMPANY: COMED  
 ACCOUNT NUMBER: 53230-22014  
 METER NUMBER: ---

TRACER CABLE  
 24SM  
 PROPOSED INTERCONNECT TO HARLEM AVENUE



**CABLE PLAN**  
(NOT TO SCALE)

**SCHEDULE OF QUANTITIES**

Item	Unit	SUBTOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	211
INDUCTIVE LOOP DETECTOR	EACH	1
* CENTRACS LICENSE EXPANSION	EACH	1
LAYER II (DATA LINK) SWITCH	EACH	1
TERMINATE FIBER IN CABINET	EACH	12
FIBER OPTIC INTERCONNECT CENTER, 24 PORT	EACH	1

\* CENTRACS LICENSE WILL BE PROVIDED BY IDOT TRAFFIC.

TS SHT NO. 29

MODEL: Default  
 FILE NAME: C:\Users\N. Casale\Public

**TRANSYSTEMS**

USER NAME = jr@davenport  
 PLOT SCALE = 40,0000 \* / in.  
 PLOT DATE = 3/15/2024

DESIGNED - GR  
 DRAWN - JRD  
 CHECKED - BS  
 DATE - 03-15-2024

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

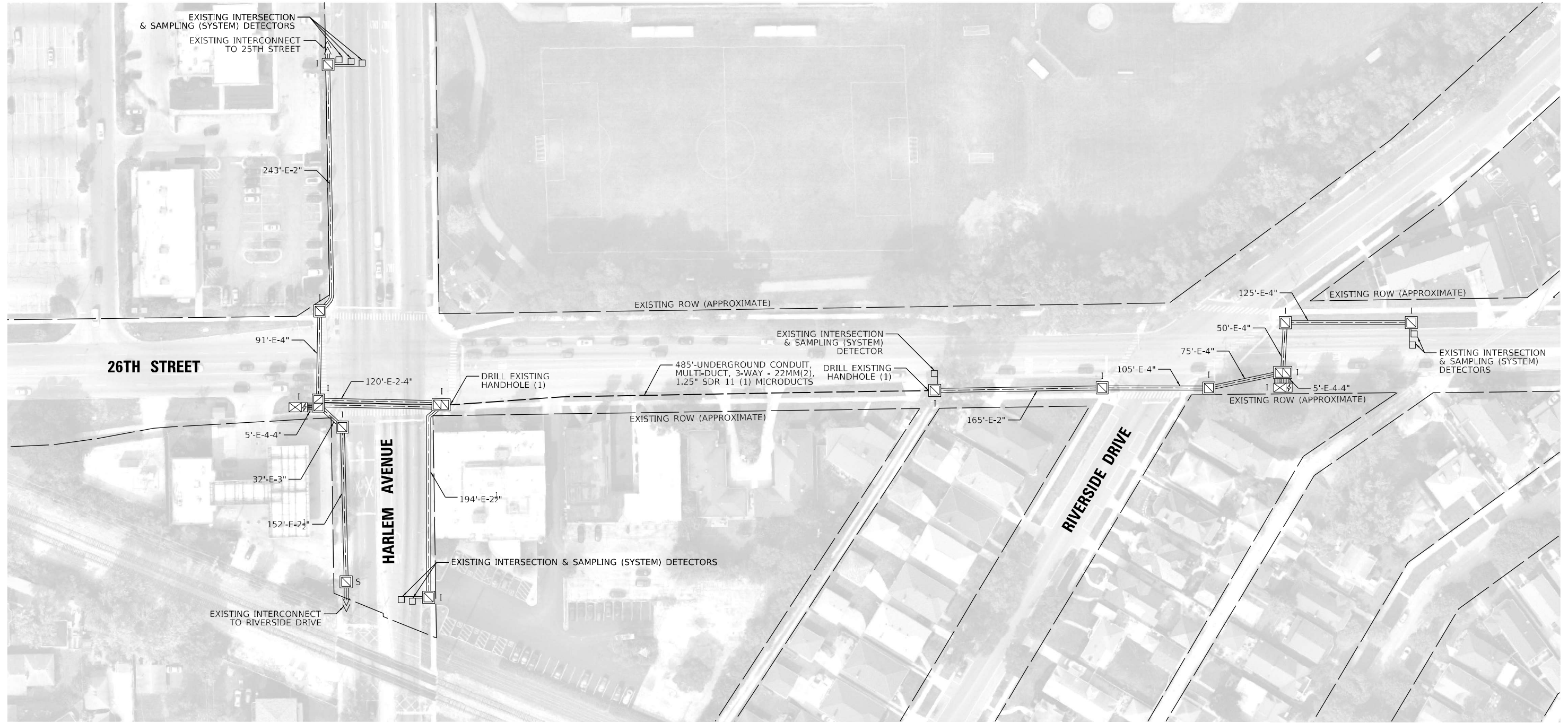
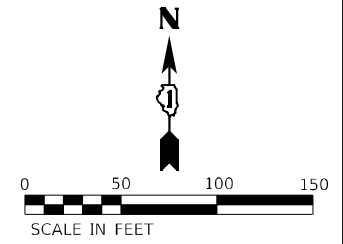
**CABLE PLAN, PHASE DESIGNATION DIAGRAM  
 AND EMERGENCY VEHICLE PREEMPTION SEQUENCE  
 RIVERSIDE DRIVE AND 26TH STREET - LOCATION N**

SCALE: NONE SHEET 29 OF 75 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2024-SIGNALS-01	COOK	75	29

CONTRACT NO. 62R82  
 ILLINOIS FED. AID PROJECT

**TS 7910  
 IDOT CENTRACS  
 SYSTEM 30**



**NOTE:**  
 DIMENSIONS PROVIDED ARE FROM THE MIDDLE OF CROSS STREET OR DRIVEWAY TO CENTER OF PROPOSED HANDHOLE. THESE DIMENSIONS ARE APPROXIMATE AND CONTRACTOR SHALL VERIFY HANDHOLE LOCATIONS WITH ENGINEER PRIOR TO CONSTRUCTION.

**IDOT CENTRACS  
 SYSTEM 30**

TS SHT NO. 30  
MODEL: Default  
 FILE NAME: PR IC Plan Location N-1



USER NAME = jrdavenport	DESIGNED - GR	REVISED -
	DRAWN - JRD	REVISED -
PLOT SCALE = 100,0018' / in.	CHECKED - BS	REVISED -
PLOT DATE = 3/15/2024	DATE - 03-15-2024	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

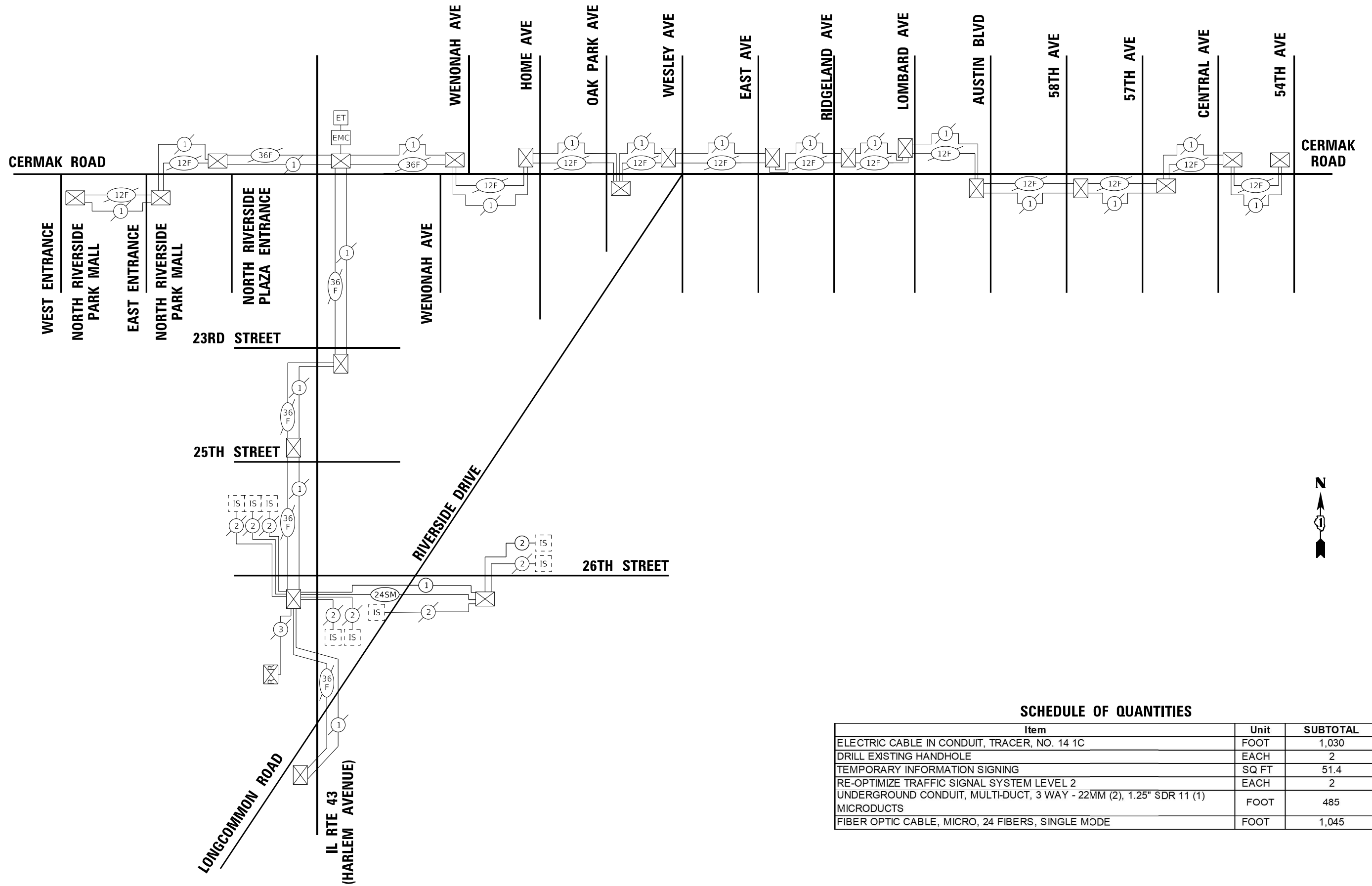
**PROPOSED INTERCONNECT PLAN  
 LOCATION N - 26TH STREET**

SCALE: 1"=50    SHEET 30 OF 75 SHEETS    STA.    TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2024-SIGNALS-01	COOK	75	30
CONTRACT NO.62R82				
ILLINOIS FED. AID PROJECT				

TS SHT NO. 31

MODEL: Default  
FILE NAME: Interconnect Schematic Location N



**SCHEDULE OF QUANTITIES**

Item	Unit	SUBTOTAL
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	1,030
DRILL EXISTING HANDHOLE	EACH	2
TEMPORARY INFORMATION SIGNING	SQ FT	51.4
RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 2	EACH	2
UNDERGROUND CONDUIT, MULTI-DUCT, 3 WAY - 22MM (2), 1.25" SDR 11 (1) MICRODUCTS	FOOT	485
FIBER OPTIC CABLE, MICRO, 24 FIBERS, SINGLE MODE	FOOT	1,045

**TRANSYSTEMS**

USER NAME = jrdavenport	DESIGNED - GR	REVISED -
	DRAWN - JRD	REVISED -
PLOT SCALE = 100,0000' / in.	CHECKED - BS	REVISED -
PLOT DATE = 3/15/2024	DATE - 03-15-2024	REVISED -

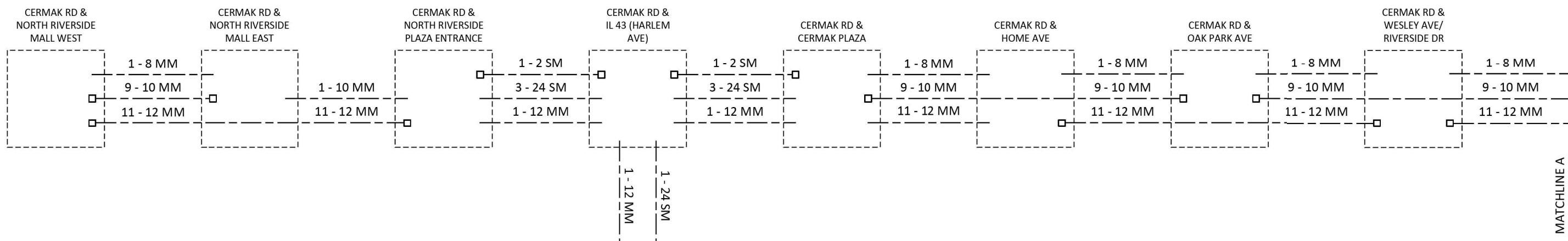
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PROPOSED INTERCONNECT SCHEMATIC AND SCHEDULE OF QUANTITIES  
LOCATION N - 26TH STREET - IL 43 TO RIVERSIDE DRIVE**

SCALE: NONE SHEET 31 OF 75 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2024-SIGNALS-01	COOK	75	31
CONTRACT NO.62R82				
ILLINOIS FED. AID PROJECT				

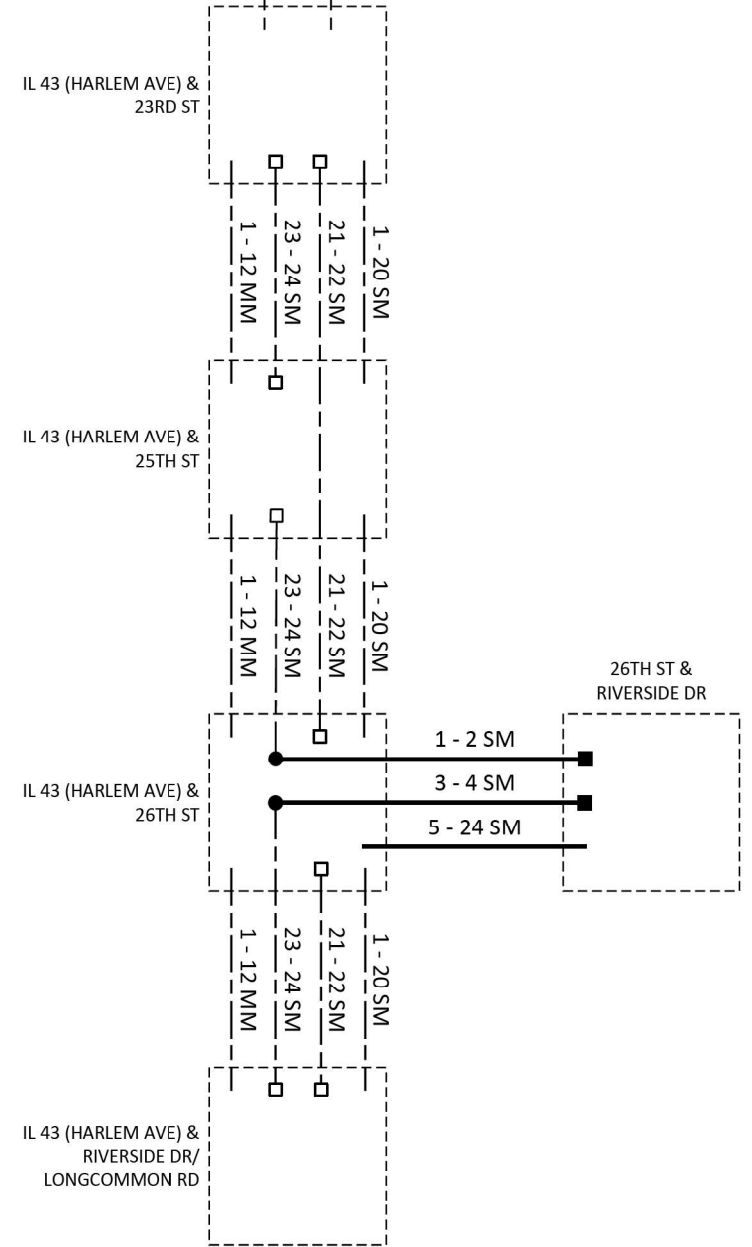
**IDOT CENTRACS  
SYSTEM 30**



MATCHLINE A



- EXISTING CONNECTOR/  
EXISTING FIBER
- NEW CONNECTOR/  
EXISTING FIBER
- EXISTING FUSION SPLICE/  
EXISTING FIBER
- NEW FUSION SPLICE/  
EXISTING FIBER
- NEW CONNECTOR/  
NEW FIBER
- NEW FUSION SPLICE/  
NEW FIBER



**FIBER SPlicing DIAGRAM  
SHEET 1**

**IDOT CENTRACS SYSTEM 30**

TS SHT NO. 32  
MODE: Default  
FILE NAME: Location\_N\_Splicing Diagrams

<b>TRANSYSTEMS</b>	USER NAME = jrdavenport	DESIGNED - GR	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>FIBER SPlicing DIAGRAM</b>				F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 40,0000' / in.	CHECKED - BS	REVISED -		<b>LOCATION N - 26TH STREET - IL 43 TO RIVERSIDE DRIVE</b>				VAR	2024-SIGNALS-01	COOK	75	32
	PLOT DATE = 3/15/2024	DATE - 03-15-2024	REVISED -		SCALE: NONE    SHEET 32 OF SHEETS    STA.    TO STA.				ILLINOIS FED. AID PROJECT				





EXISTING SINGLEMODE FIBER CONNECTION



PROPOSED SINGLEMODE FIBER CONNECTION



EXISTING MULTIMODE FIBER CONNECTION



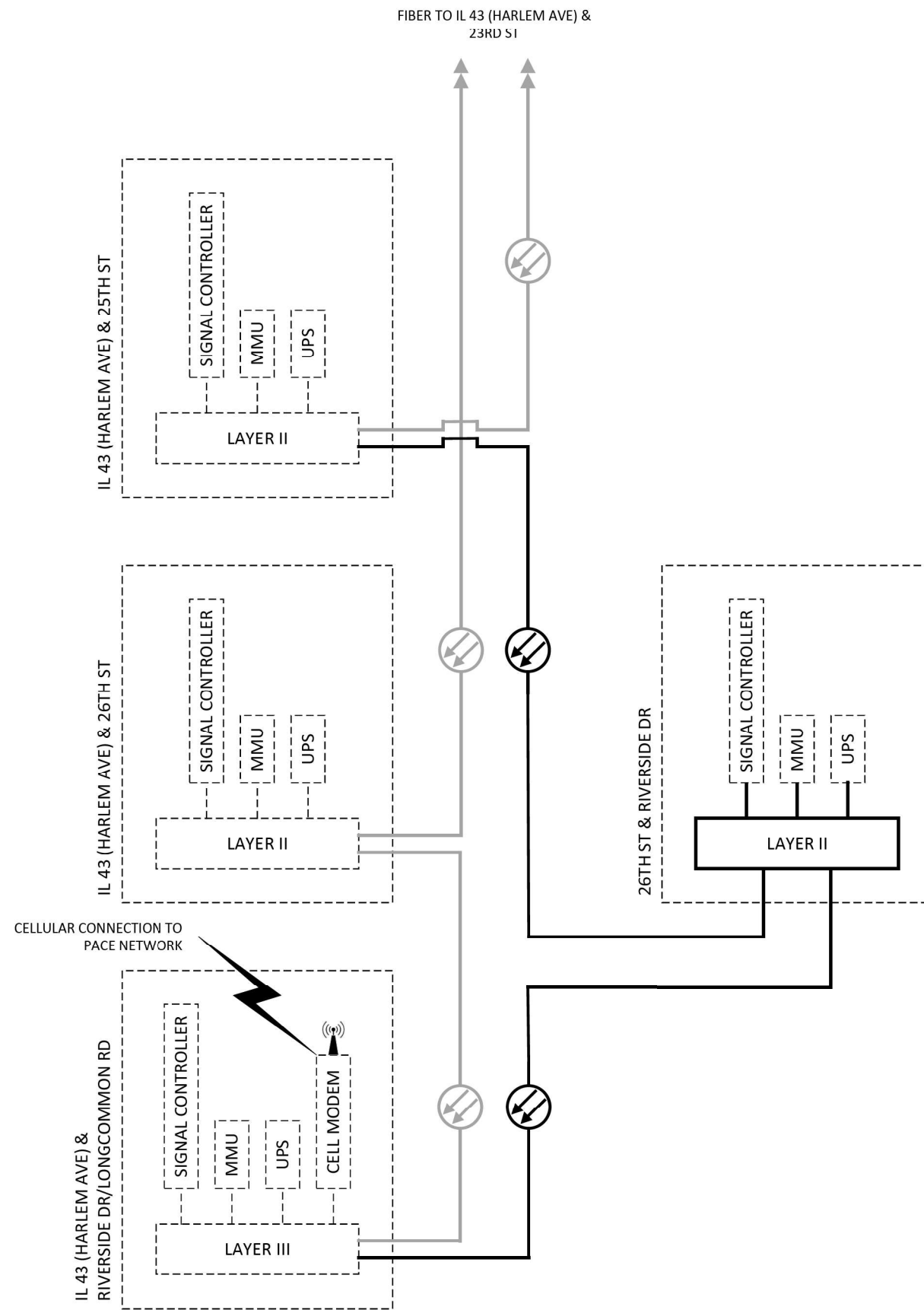
PROPOSED MULTIMODE FIBER CONNECTION



EXISTING EQUIPMENT

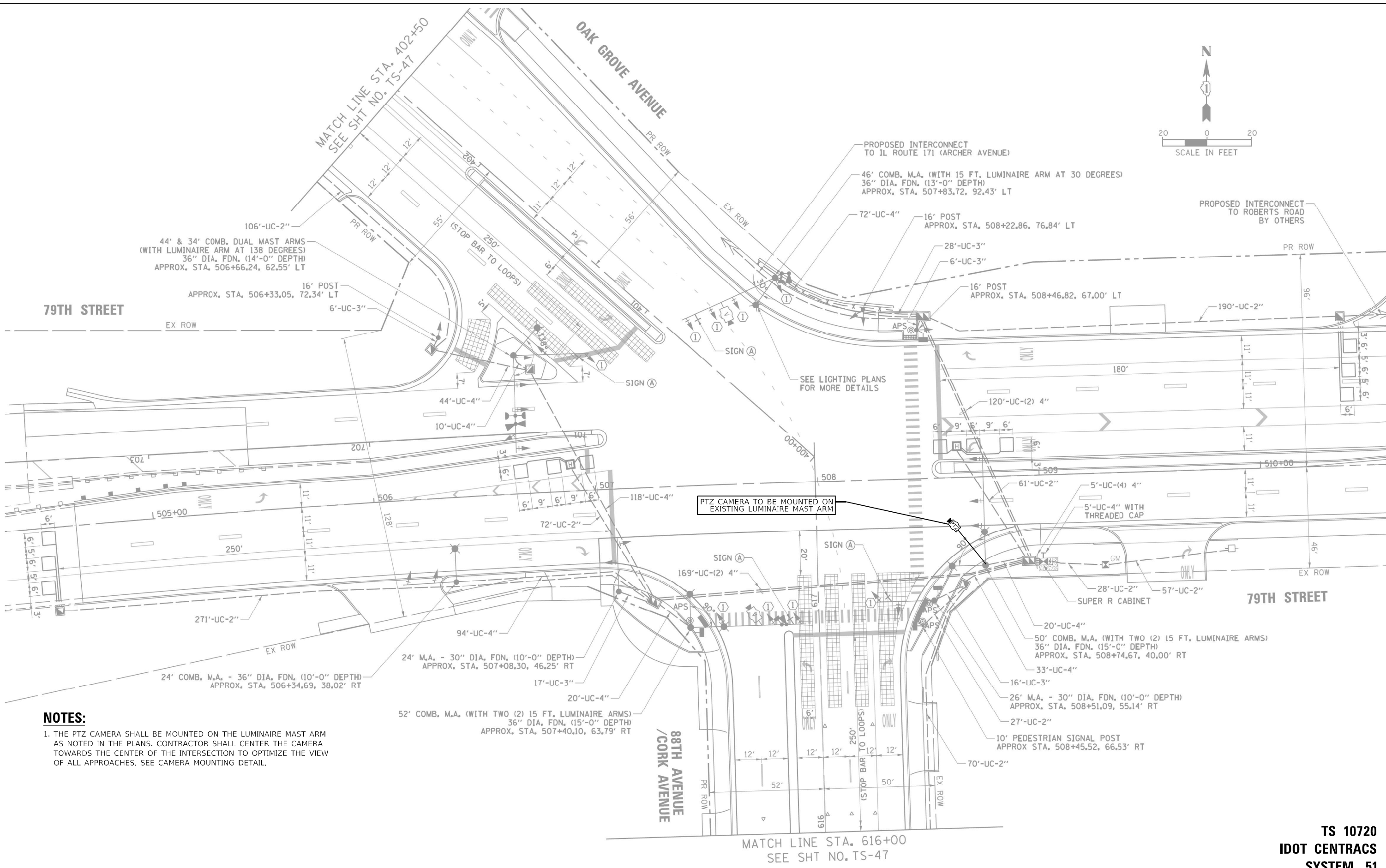
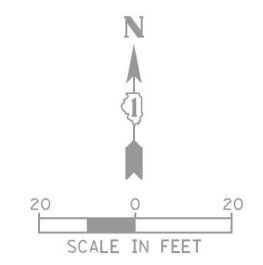


PROPOSED EQUIPMENT



**CABINET DETAIL SHEET  
26TH ST & RIVERSIDE DR**

**IDOT CENTRACS SYSTEM 30**



**NOTES:**

1. THE PTZ CAMERA SHALL BE MOUNTED ON THE LUMINAIRE MAST ARM AS NOTED IN THE PLANS. CONTRACTOR SHALL CENTER THE CAMERA TOWARDS THE CENTER OF THE INTERSECTION TO OPTIMIZE THE VIEW OF ALL APPROACHES. SEE CAMERA MOUNTING DETAIL.

**TRANSYSTEMS**

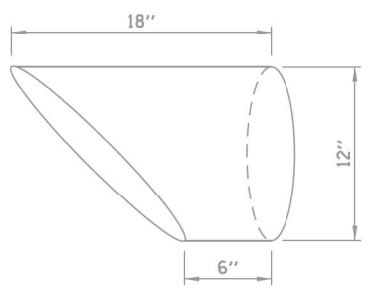
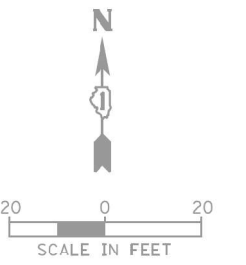
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	DRAWN - JRD	REVISED -
PLOT SCALE = 40,0000 */ in.	CHECKED - BS	REVISED -
PLOT DATE = 3/15/2024	DATE - 03-15-2024	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>INTERSECTION PLAN VIEW</b>		
<b>88TH AVE. AND 79TH STREET AND CORK AVE. - LOCATION 0</b>		
SCALE: NONE	SHEET 34	OF 75 SHEETS
STA.		TO STA.

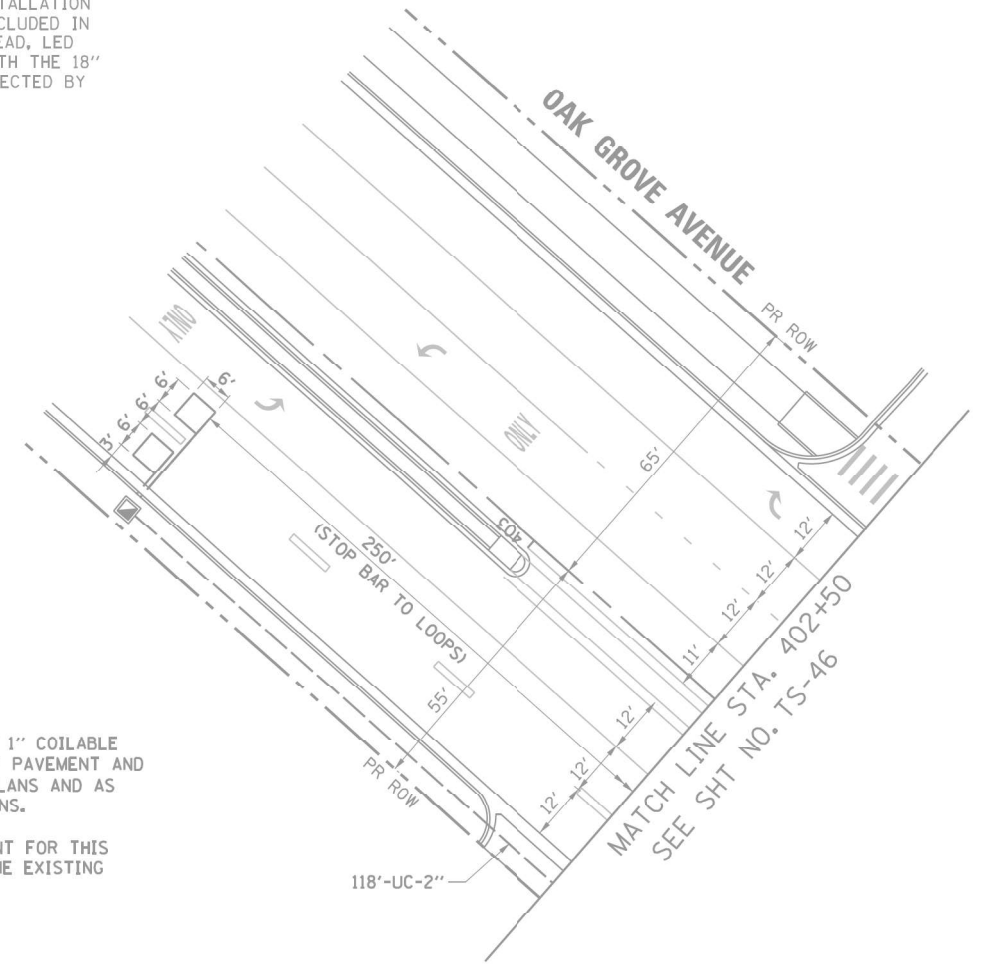
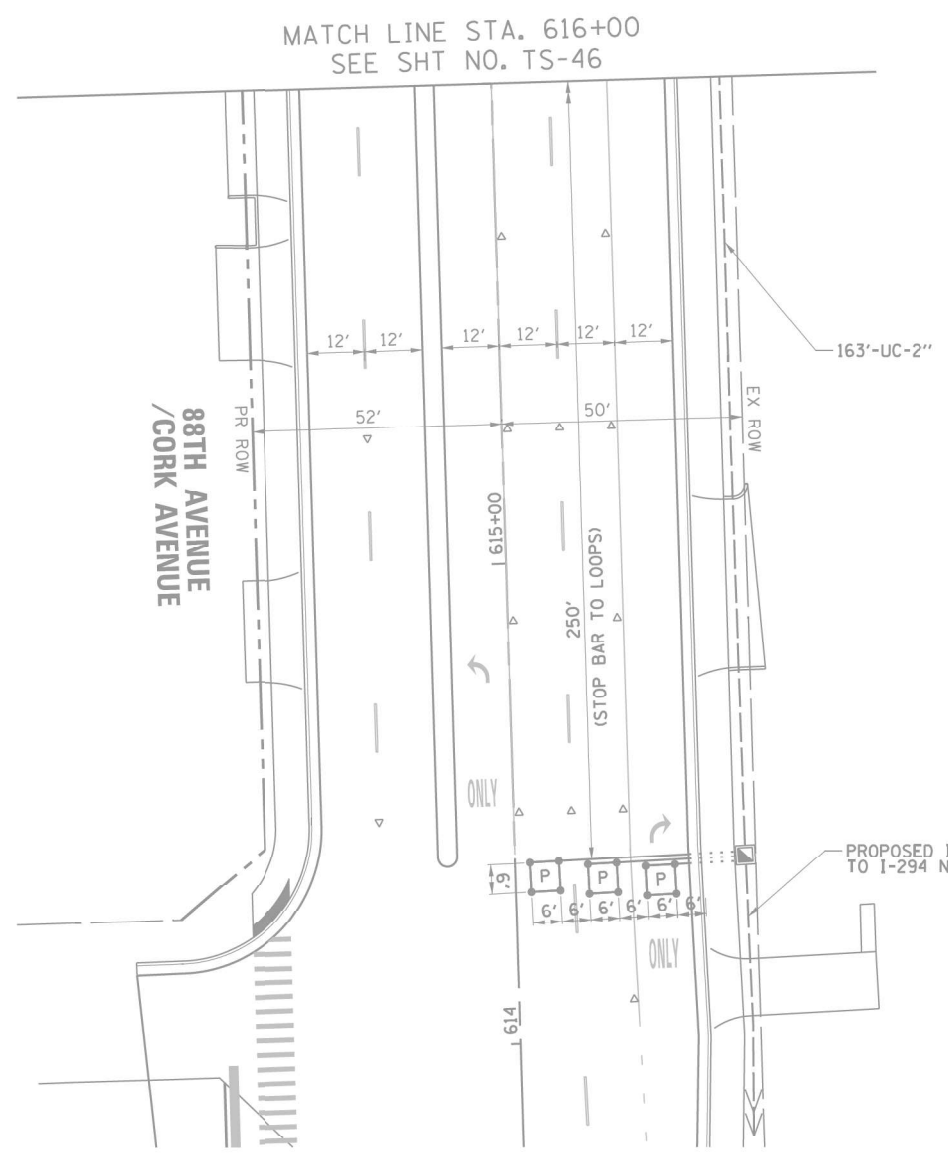
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2024-SIGNALS-01	COOK	75	34
CONTRACT NO. 62R82				
ILLINOIS FED. AID PROJECT				

**TS 10720  
IDOT CENTRACS  
SYSTEM 51**



**45° ANGLE SIGNAL VISOR  
DETAIL**

ALL COSTS RELATED TO THE FURNISH AND INSTALLATION OF THE 45° ANGLE SIGNAL VISOR SHALL BE INCLUDED IN THE UNIT COST OF THE ASSOCIATED SIGNAL HEAD, LED PAY ITEM. THE VISOR SHALL BE INSTALLED WITH THE 18" SIDE FACING CONFLICTING TRAFFIC, OR AS DIRECTED BY THE ENGINEER.



**NOTE:**

1. EACH DETECTOR LOOP SHALL HAVE ITS OWN 1" COILABLE NON-METALLIC CONDUIT BETWEEN THE EDGE OF PAVEMENT AND THE ADJACENT HANDHOLE AS SHOWN ON THE PLANS AND AS STATED IN THE TRAFFIC SIGNAL SPECIFICATIONS.
2. THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT TRAFFIC SIGNAL SYSTEM.

TS SHT NO. 35

MODEL: Default  
FILE NAME: Location 0 Cable Plans

**TRAFFIC SIGNAL PLAN FOR REFERENCE ONLY**

TS 10720  
IDOT CENTRACS  
SYSTEM 51

**TRANSYSTEMS**

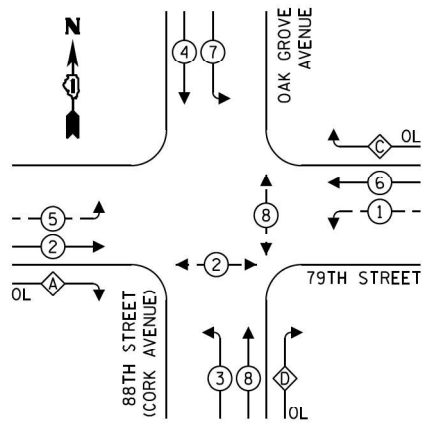
USER NAME = jrdavenport	DESIGNED - GR	REVISED -
DRAWN - JRD	REVISIONS -	
PLOT SCALE = 40,0000 * / in.	CHECKED - BS	REVISED -
PLOT DATE = 3/15/2024	DATE - 03-15-2024	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

INTERSECTION PLAN VIEW			
88TH AVE. AND 79TH STREET AND CORK AVE. - LOCATION 0			
SCALE: NONE	SHEET 35	OF 75 SHEETS	STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2024-SIGNALS-01	COOK	75	35
CONTRACT NO. 62R82				
ILLINOIS FED. AID PROJECT				

**CONTROLLER SEQUENCE**



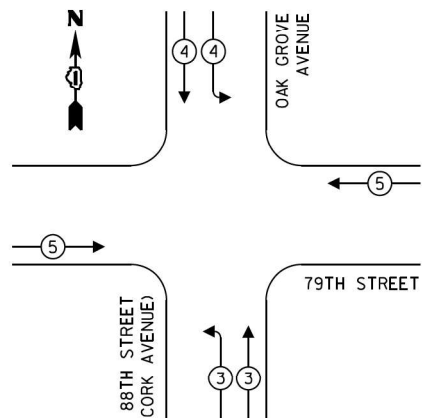
**LEGEND:**

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

**RIGHT TURN OVERLAP PHASE DESIGNATION:**

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

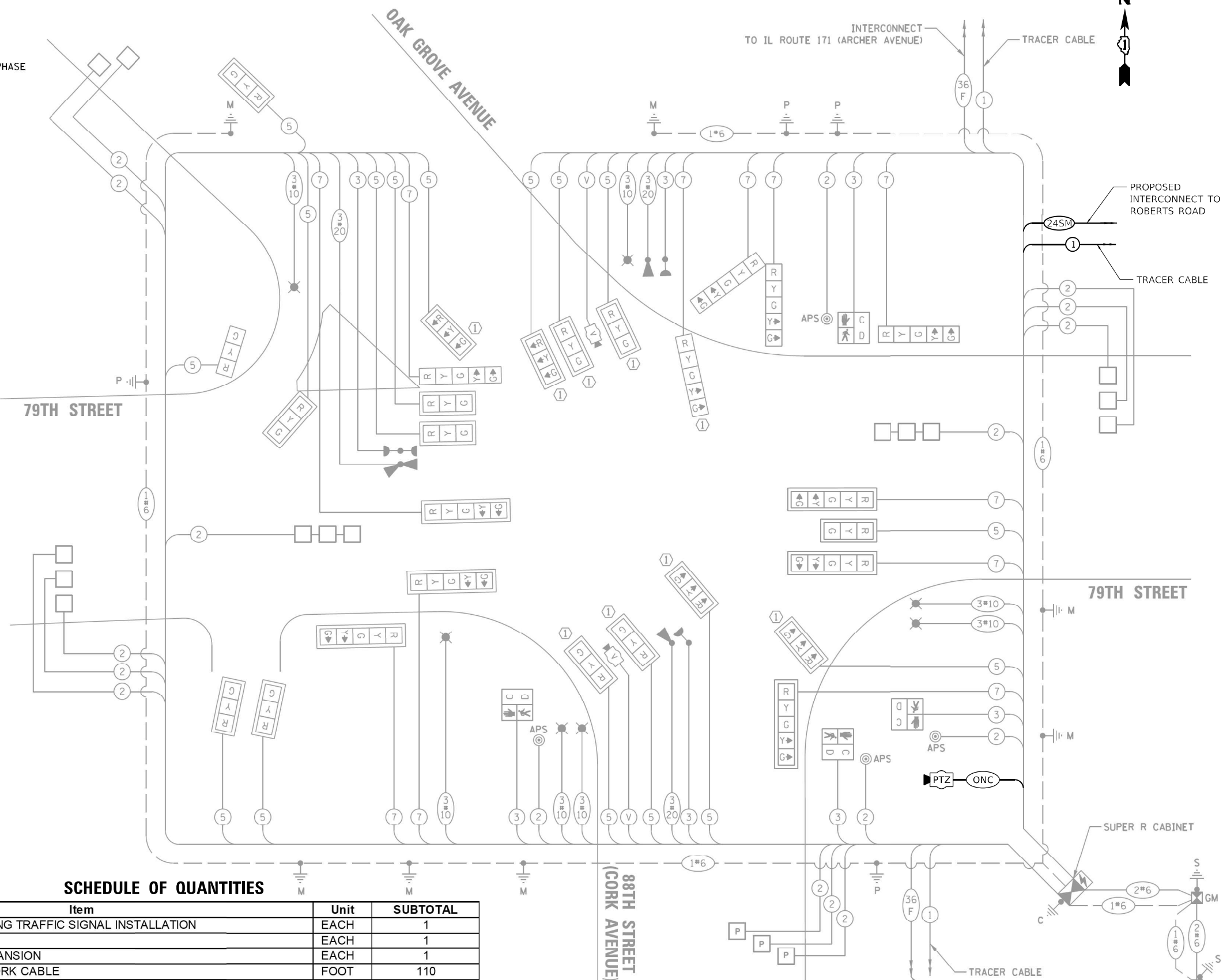
**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



**TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS**

TYPE	QUANTITY	LED WATTAGE	TOTAL WATTAGE
<b>SIGNAL HEAD</b>			
3-SECTION	16	11	176
4-SECTION	-	14	-
5-SECTION	11	13	65
<b>PROGRAMMABLE SIGNALS</b>			
3-SECTION	-	22	-
4-SECTION	-	32	-
5-SECTION	-	28	-
<b>PED. SIGNAL</b>			
CONTROLLER	1	150	150
MASTER CONTROLLER	-	100	-
UPS	1	25	25
<b>DETECTION</b>			
RADAR	-	20	-
VIDEO	2	20	40
<b>NETWORK SWITCH II OR III</b>			
BLANK-OUT SIGN	-	35	-
PTZ VIDEO SYSTEMS	1	115	115
<b>TOTAL SERVICE WIRE SIZING</b>			
UPS CHARGING	1	225	225
BATTERY HEATER MAT	1	180	180
CABINET HEATER	1	200	200
FLASHER	-	15	-
LED STREET NAME SIGN	-	120	-
LUMINAIRE	7	240	1680
<b>TOTAL SERVICE WIRE SIZING</b>			
2,941			

ENERGY COSTS TO:  
 THE VILLAGE OF JUSTICE  
 7800 ARCHER ROAD  
 JUSTICE, IL 60458  
 ENERGY SUPPLY: CONTACT: NEW BUSINESS  
 PHONE: 866-639-3532  
 COMPANY: COMMONWEALTH EDISON  
 ACCOUNT NUMBER: 20611-34032



**SCHEDULE OF QUANTITIES**

Item	Unit	SUBTOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
CELLULAR MODEM	EACH	1
*CENTRACS LICENSE EXPANSION	EACH	1
OUTDOOR RATED NETWORK CABLE	FOOT	110
REMOTE CONTROLLED VIDEO SYSTEM	EACH	1
TERMINATE FIBER IN CABINET	EACH	12
LAYER III (NETWORK) SWITCH	EACH	1

\* CENTRACS LICENSE WILL BE PROVIDED BY IDOT TRAFFIC.

**CABLE PLAN (NOT TO SCALE)**

**TS 10720 IDOT CENTRACS SYSTEM 51**

TS SHT NO. 36

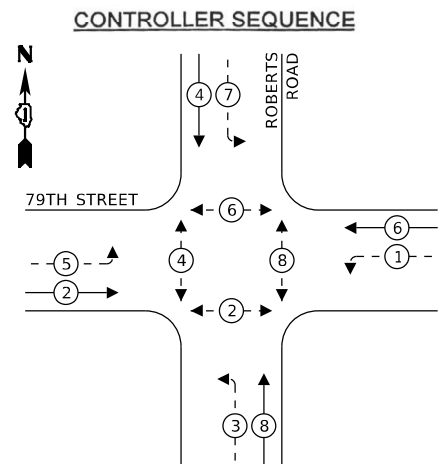


USER NAME = jrdavenport	DESIGNED - GR	REVISED -
PLOT SCALE = 40,0000 * / in.	DRAWN - JRD	REVISED -
PLOT DATE = 3/15/2024	CHECKED - BS	REVISED -
	DATE - 03-15-2024	REVISED -

**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

**CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE**  
 88TH AVE. AND 79TH STREET AND CORK AVE. - LOCATION 0  
 SCALE: NONE SHEET 36 OF 75 SHEETS STA. TO STA.

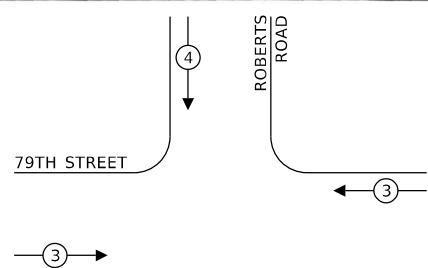
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2024-SIGNALS-01	COOK	75	36
CONTRACT NO. 62R82				
ILLINOIS FED. AID PROJECT				



**LEGEND:**  
 ← \* → PROTECTED PHASE  
 ← \* → PEDESTRIAN PHASE

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

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



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

**TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS**

EQUIPMENT TYPE	QUANTITY	UNIT WATTAGE	TOTAL WATTAGE
SIGNAL HEAD 1 OR 3-SECTION	12	11	132
4-SECTION	-	14	-
5-SECTION	8	13	104
PROGRAMMABLE 3-SECTION	-	22	-
4-SECTION	-	32	-
5-SECTION	-	28	-
PEDESTRIAN SIGNAL CONTROLLER	4	15	60
MASTER CONTROLLER	1	150	150
UPS	-	100	-
DETECTION RADAR OR VIDEO	1	25	25
BLANK-OUT SIGN	-	25	-
NETWORK SWITCH II OR III	1	35	35
CELLULAR MODEM	-	15	-
<b>TOTAL UPS SIZING</b>			<b>506</b>
UPS CHARGING	1	225	225
BATTERY HEATER MAT	1	180	180
CABINET HEATER	1	200	200
FLASHER	-	15	-
LED STREET NAME SIGN	-	120	-
LUMINAIRE	-	240	-
<b>TOTAL SERVICE WIRE SIZING</b>			<b>1,111</b>

**REMOVAL AND RELOCATION NOTES**

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

- 1 EACH CONTROLLER AND CABINET (COMPLETE)
- 1 EACH UNINTERRUPTABLE POWER SUPPLY

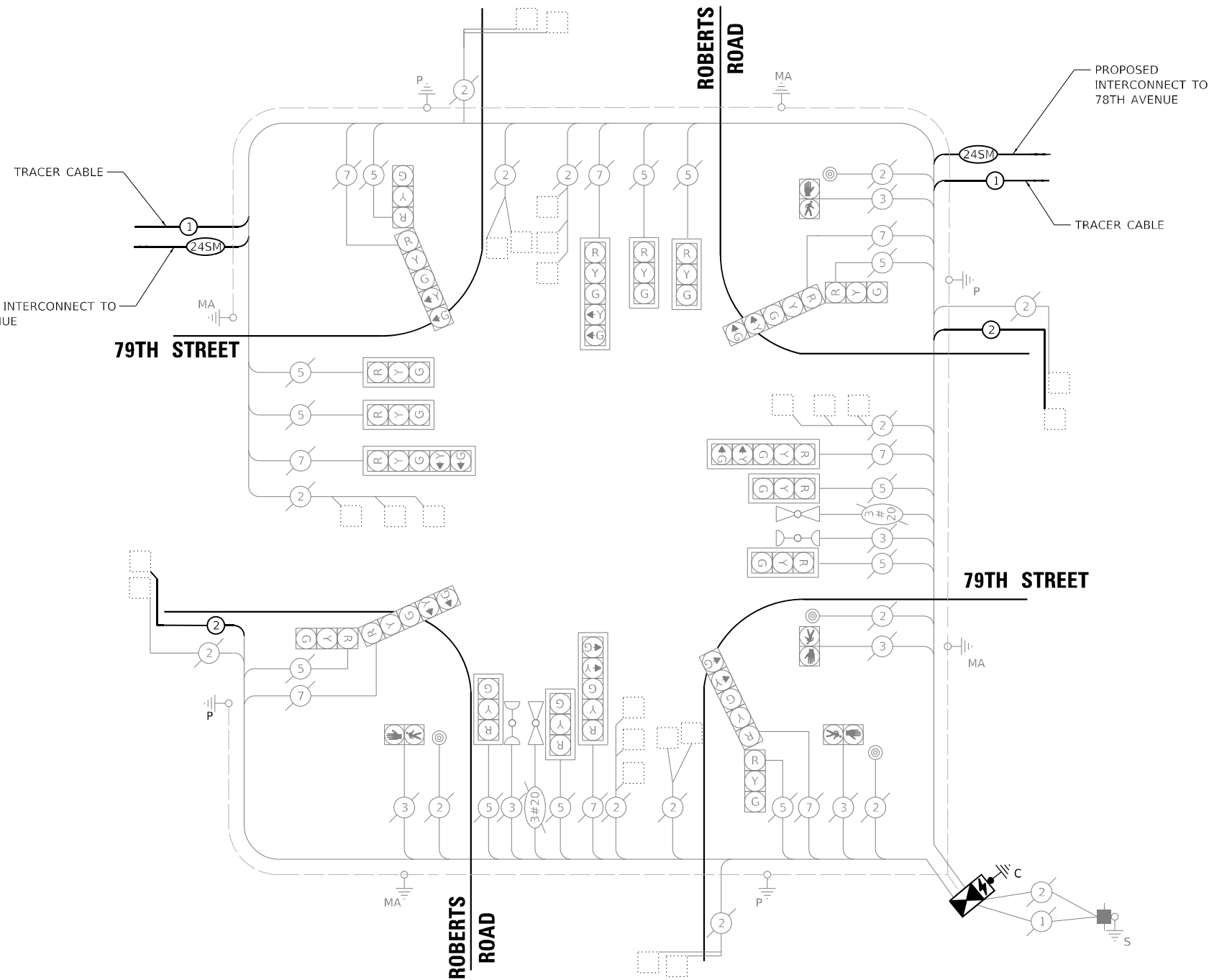
THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR AND RELOCATED TO THE PROPOSED TRAFFIC SIGNAL CONTROLLER AND CABINET.

- 1 EACH LIGHT DETECTOR AMPLIFIER

**ENERGY COSTS TO:**

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 201 CENTER CT  
 SCHAUMBURG, IL 60196

ENERGY SUPPLY: CONTACT: NEW BUSINESS DEPT  
 PHONE: (866)-639-3532  
 COMPANY: COMED  
 ACCOUNT NUMBER: 46630-61134  
 METER NUMBER: ---



**CABLE PLAN**  
 (NOT TO SCALE)

**SCHEDULE OF QUANTITIES**

Item	Unit	SUBTOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	765
INDUCTIVE LOOP DETECTOR	EACH	12
RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
CENTRACS LICENSE EXPANSION	EACH	1
LAYER II (DATALINK) SWITCH	EACH	1
TERMINATE FIBER IN CABINET	EACH	12
SPLICE FIBER IN CABINET	EACH	6
FIBER OPTIC INTERCONNECT CENTER, 24 PORT	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET (SPECIAL)	EACH	1
UNINTERRUPTABLE POWER SUPPLY (SPECIAL)	EACH	1

\* CENTRACS LICENSE WILL BE PROVIDED BY IDOT TRAFFIC.

TS SHT NO. 37

MODEL: Default  
 FILE NAME: 2024-01-15-08:00:00 - O\_Cable\_Ribns

**TRANSYSTEMS**

USER NAME = jrdavenport  
 PLOT SCALE = 40,0000 \* / in.  
 PLOT DATE = 3/15/2024

DESIGNED - GR  
 DRAWN - JRD  
 CHECKED - BS  
 DATE - 03-15-2024

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

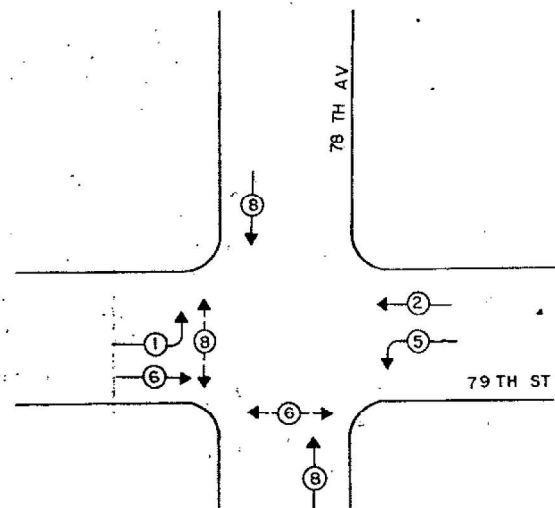
CABLE PLAN, PHASE DESIGNATION DIAGRAM  
 AND EMERGENCY VEHICLE PREEMPTION SEQUENCE  
 79TH STREET AND ROBERTS ROAD - LOCATION 0  
 SCALE: NONE SHEET 37 OF 75 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2024-SIGNALS-01	COOK	75	37
CONTRACT NO. 62R82				
ILLINOIS FED. AID PROJECT				

**TS 3890  
 IDOT CENTRACS  
 SYSTEM 51**

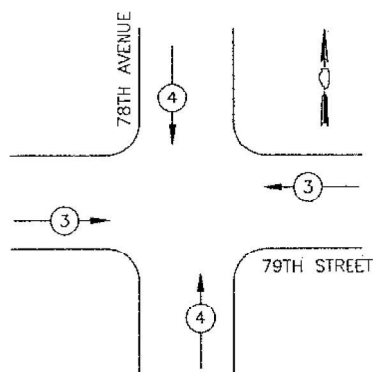


**CONTROLLER SEQUENCE**



**PHASE DESIGNATION DIAGRAM**

EMERGENCY VEHICLE PREEMPTION SEQUENCE



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

**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)
- 1 EACH UNINTERRUPTABLE POWER SUPPLY

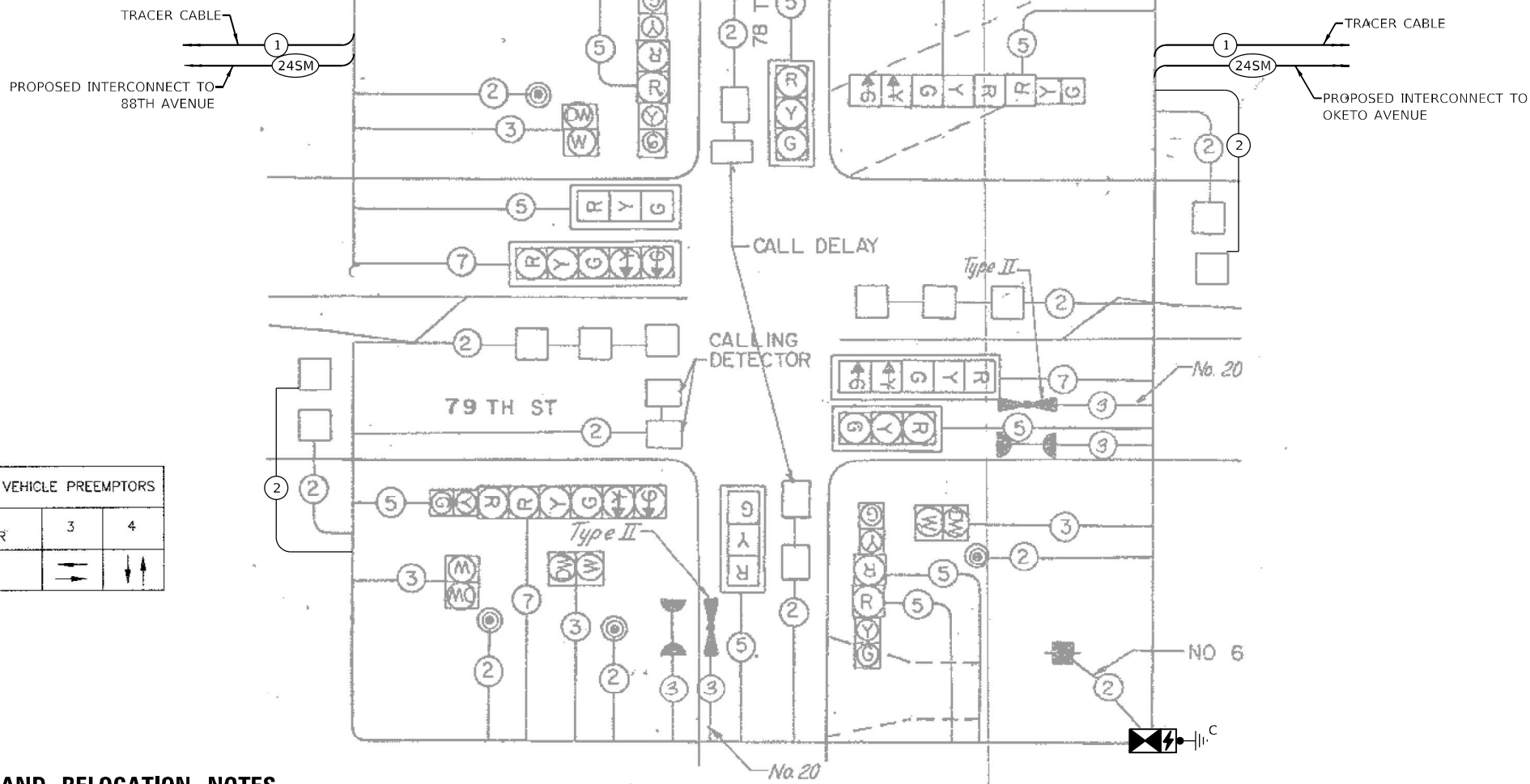
THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR AND RELOCATED TO THE PROPOSED TRAFFIC SIGNAL CONTROLLER AND CABINET.

- 1 EACH LIGHT DETECTOR AMPLIFIER

**ENERGY COSTS TO:**

CITY OF BRIDGEVIEW  
7500 N OKETO AVE #3  
BRIDGEVIEW, IL 60455

ENERGY SUPPLY: CONTACT: NEW BUSINESS DEPT  
PHONE: (866)-639-3532  
COMPANY: COMED  
ACCOUNT NUMBER: 17390-11030  
METER NUMBER: ---



**CABLE PLAN**

(NOT TO SCALE)

**SCHEDULE OF QUANTITIES**

Item	Unit	SUBTOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	747
INDUCTIVE LOOP DETECTOR	EACH	9
RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
CENTRACS LICENSE EXPANSION	EACH	1
LAYER II (DATALINK) SWITCH	EACH	1
TERMINATE FIBER IN CABINET	EACH	12
SPlice FIBER IN CABINET	EACH	6
FIBER OPTIC INTERCONNECT CENTER, 24 PORT	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET (SPECIAL)	EACH	1
UNINTERRUPTABLE POWER SUPPLY (SPECIAL)	EACH	1

\* CENTRACS LICENSE WILL BE PROVIDED BY IDOT TRAFFIC.

**TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS**

EQUIPMENT TYPE	QUANTITY	UNIT WATTAGE	TOTAL WATTAGE
SIGNAL HEAD 1 OR 3-SECTION	10	11	140
4-SECTION	-	14	-
5-SECTION	4	13	52
PROGRAMMABLE 3-SECTION	-	22	-
4-SECTION	-	32	-
5-SECTION	-	28	-
PEDESTRIAN SIGNAL	4	15	60
CONTROLLER	1	150	150
MASTER CONTROLLER	-	100	-
UPS	1	25	25
DETECTION RADAR OR VIDEO	-	20	-
BLANK-OUT SIGN	-	25	-
NETWORK SWITCH II OR III	1	35	35
CELLULAR MODEM	-	15	-
<b>TOTAL UPS SIZING</b>		<b>432</b>	
UPS CHARGING	1	225	225
BATTERY HEATER MAT	1	180	180
CABINET HEATER	1	200	200
FLASHER	-	15	-
LED STREET NAME SIGN	-	120	-
LUMINAIRE	-	240	-
<b>TOTAL SERVICE WIRE SIZING</b>		<b>1,037</b>	

**TRANSYSTEMS**

USER NAME = jrdavenport  
DESIGNED - GR  
DRAWN - JRD  
CHECKED - BS  
DATE - 03-15-2024  
PLOT SCALE = 40,0000 \* / in.  
PLOT DATE = 3/15/2024

REVISD -  
REVISD -  
REVISD -  
REVISD -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CABLE PLAN, PHASE DESIGNATION DIAGRAM  
AND EMERGENCY VEHICLE PREEMPTION SEQUENCE  
78TH AVENUE AND 79TH STREET - LOCATION 0**

SCALE: NONE SHEET 38 OF 75 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2024-SIGNALS-01	COOK	75	38
CONTRACT NO. 62R82				
ILLINOIS FED. AID PROJECT				

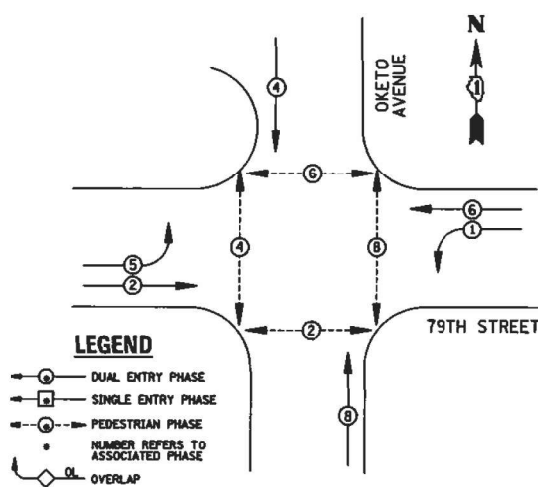
**TS 12760  
IDOT CENTRACS  
SYSTEM 51**

TS SHT NO. 38

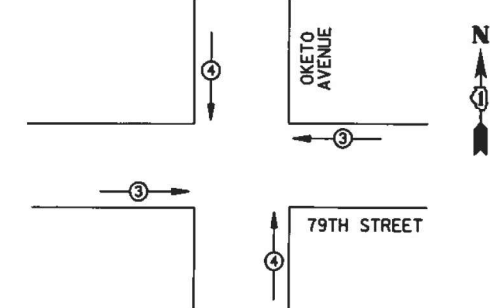
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**CONTROLLER SEQUENCE**



**PHASE DESIGNATION DIAGRAM**



EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	←	↑

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**

**TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS**

EQUIPMENT TYPE	QUANTITY	UNIT WATTAGE	TOTAL WATTAGE
SIGNAL HEAD 1 OR 3-SECTION	10	11	110
4-SECTION	-	14	-
5-SECTION	4	13	52
PROGRAMMABLE 3-SECTION	-	22	-
4-SECTION	-	32	-
5-SECTION	-	28	-
PEDESTRIAN SIGNAL CONTROLLER	1	150	150
MASTER CONTROLLER	-	100	-
UPS	1	25	25
DETECTION RADAR OR VIDEO	-	20	-
BLANK-OUT SIGN	-	25	-
NETWORK SWITCH II OR III	1	35	35
CELLULAR MODEM	-	15	-
<b>TOTAL UPS SIZING</b>			<b>492</b>
UPS CHARGING	1	225	225
BATTERY HEATER MAT	1	180	180
CABINET HEATER	1	200	200
FLASHER	-	15	-
LED STREET NAME SIGN	-	120	-
LUMINAIRE	-	240	-
<b>TOTAL SERVICE WIRE SIZING</b>			<b>1,097</b>

**REMOVAL AND RELOCATION NOTES**

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

- 1 EACH CONTROLLER AND CABINET (COMPLETE)
- 1 EACH UNINTERRUPTABLE POWER SUPPLY

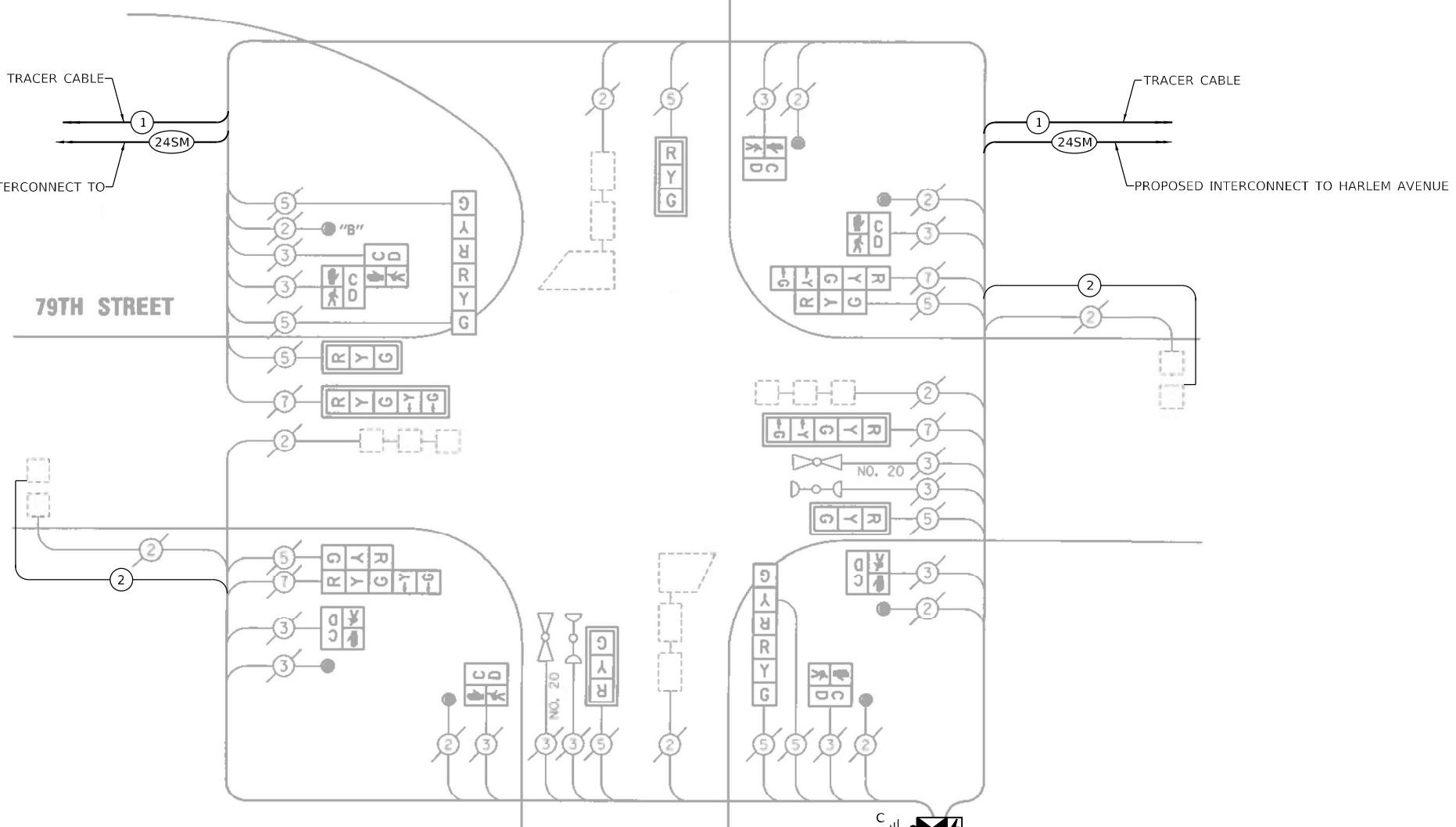
THE FOLLOWING EXISTING TRAFFIC SIGNAL EQUIPMENT SHALL BE REMOVED BY THE CONTRACTOR AND RELOCATED TO THE PROPOSED TRAFFIC SIGNAL CONTROLLER AND CABINET.

- 1 EACH LIGHT DETECTOR AMPLIFIER

ENERGY COSTS TO:  
**CITY OF BRIDGEVIEW**  
 7500 S OKETO AVE #3  
 BRIDGEVIEW, IL 60455

ENERGY SUPPLY: CONTACT: NEW BUSINESS DEPT  
 PHONE: (866)-639-3532  
 COMPANY: COMED  
 ACCOUNT NUMBER: 17390-11030  
 METER NUMBER: ---

**FRONTAGE ROAD**



**CABLE PLAN**

(NOT TO SCALE)

**SCHEDULE OF QUANTITIES**

Item	Unit	SUBTOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	745
INDUCTIVE LOOP DETECTOR	EACH	8
RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM, PHASING UNIT	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
* CENTRACS LICENSE EXPANSION	EACH	1
LAYER II (DATALINK) SWITCH	EACH	1
TERMINATE FIBER IN CABINET	EACH	12
SPLICE FIBER IN CABINET	EACH	6
FIBER OPTIC INTERCONNECT CENTER, 24 PORT	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET (SPECIAL)	EACH	1
UNINTERRUPTABLE POWER SUPPLY (SPECIAL)	EACH	1

\* CENTRACS LICENSE WILL BE PROVIDED BY IDOT TRAFFIC.

TS SHT NO. 39

MODEL: Default  
 FILE NAME: C:\Users\O. Coakley\Files



USER NAME = jrdavenport	DESIGNED - GR	REVISED -
PLOT SCALE = 40,0000 * 1/ in.	DRAWN - JRD	REVISED -
PLOT DATE = 3/15/2024	CHECKED - BS	REVISED -
	DATE - 03-15-2024	REVISED -

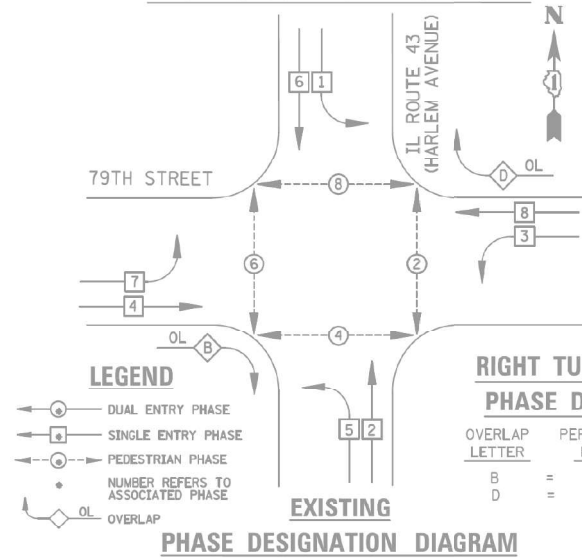
STATE OF ILLINOIS	CABLE PLAN, PHASE DESIGNATION DIAGRAM	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
DEPARTMENT OF TRANSPORTATION	AND EMERGENCY VEHICLE PREEMPTION SEQUENCE	VAR	2024-SIGNALS-01	COOK	75	39
	OKETO AVENUE AND 79TH STREET - LOCATION 0					CONTRACT NO.62R82
	SCALE: NONE	SHEET 39	OF 75 SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT

**TS 12755**  
**IDOT CENTRACS**  
**SYSTEM 51**

TS SHT NO. 40

MODEL: Default  
FILE NAME: C:\pibco\_0\_Cable\_Ribns

**EXISTING CONTROLLER SEQUENCE**



**EMERGENCY VEHICLE PREEMPTORS**

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

**NOTES**

- SIGNAL WORK IS BEING CONDUCTED AS APART OF CONTRACTS 62P50 AND 62T53 CONCURRENTLY WITH 62R82 AT THIS INTERSECTION. CONTRACTOR SHALL COORDINATE WORK WITH CONTRACTS 62P50 AND 62T53 AS REQUIRED.
- CENTRACTS LICENSE FOR THIS INTERSECTION IS PROVIDED BY 62T53.

**SCHEDULE OF QUANTITIES**

Item	Unit	SUBTOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
TERMINATE FIBER IN CABINET	EACH	24

**ENERGY COSTS TO:**

CITY OF BRIDGEVIEW  
7500 S. OKETO AVE #3  
BRIDGEVIEW, IL 60455

ENERGY SUPPLY: CONTACT: NEW BUSINESS DEPT  
PHONE: (866)-639-3532  
COMPANY: COMED  
ACCOUNT NUMBER: 46630-61134  
METER NUMBER: ---

**TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS**

EQUIPMENT TYPE	QUANTITY	UNIT WATTAGE	TOTAL WATTAGE
SIGNAL HEAD 1 OR 3-SECTION	20	11	220
4-SECTION	-	14	-
5-SECTION	4	13	52
PROGRAMMABLE 3-SECTION	-	22	-
4-SECTION	-	32	-
5-SECTION	-	28	-
PEDESTRIAN SIGNAL CONTROLLER	8	15	120
MASTER CONTROLLER	1	150	150
UPS	-	100	-
PTZ VIDEO SYSTEMS	1	25	25
BLANK-OUT SIGN	1	115	115
NETWORK SWITCH II OR III	1	25	25
CELLULAR MODEM	1	35	35
	1	15	15
<b>TOTAL UPS SIZING</b>			<b>732</b>
UPS CHARGING	1	225	225
BATTERY HEATER MAT	1	180	180
CABINET HEATER	1	200	200
FLASHER	-	15	-
LED STREET NAME SIGN	-	120	-
LUMINAIRE	-	240	-
<b>TOTAL SERVICE WIRE SIZING</b>			<b>1,337</b>

**TRANSYSTEMS**

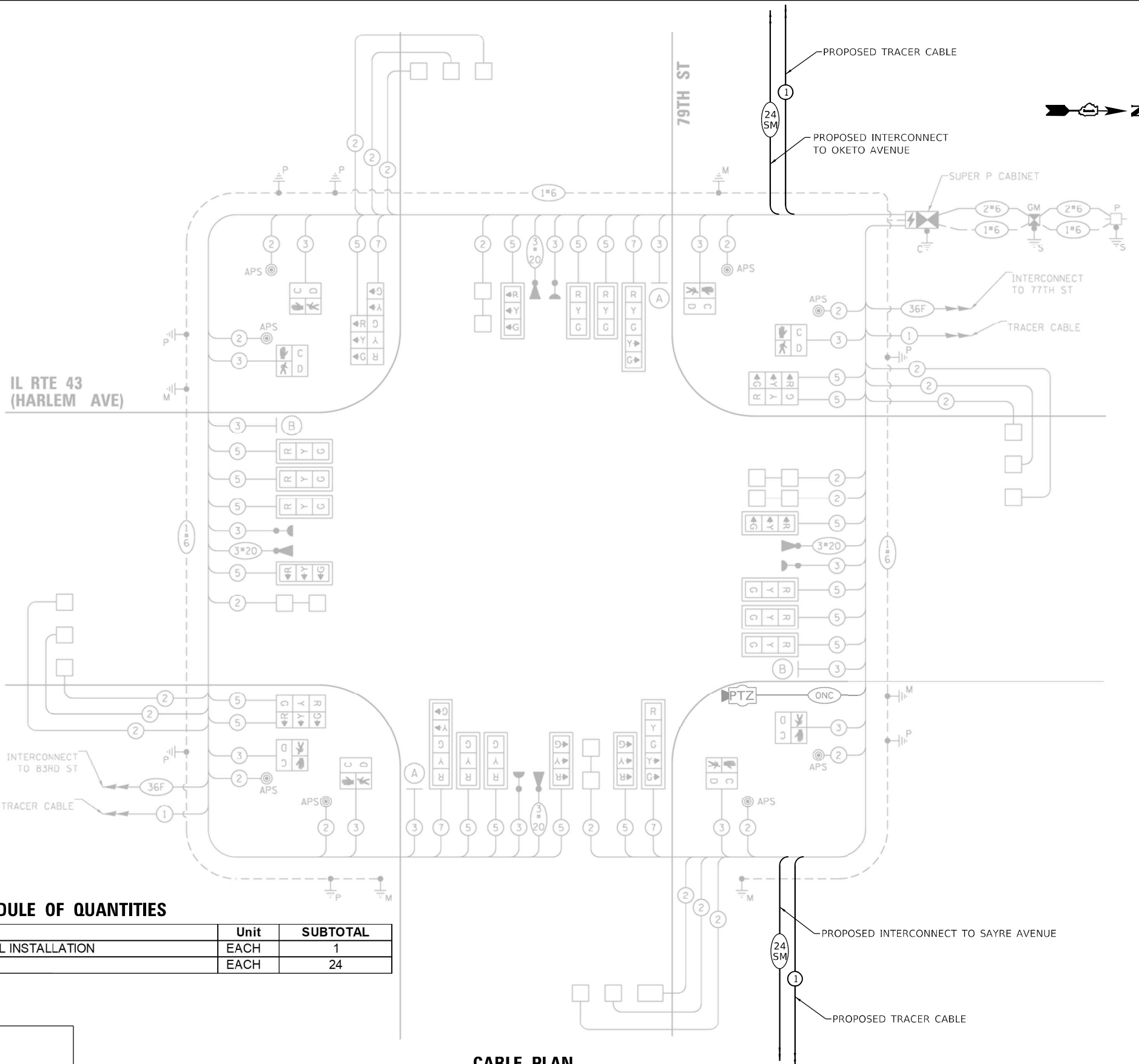
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PLOT DATE = 3/15/2024

DESIGNED - GR  
DRAWN - JRD  
CHECKED - BS  
DATE - 03-15-2024

REVISED -  
REVISED -  
REVISED -  
REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CABLE PLAN  
(NOT TO SCALE)**



**CABLE PLAN, PHASE DESIGNATION DIAGRAM  
AND EMERGENCY VEHICLE PREEMPTION SEQUENCE  
IL-43 (HARLEM AVENUE) AND 79TH STREET - LOCATION 0**

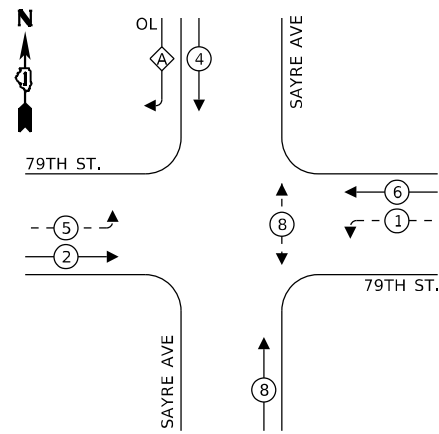
SCALE: NONE SHEET 40 OF 75 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2024-SIGNALS-01	COOK	75	40
CONTRACT NO. 62R82				
ILLINOIS FED. AID PROJECT				

**TS 2175  
IDOT CENTRACS  
SYSTEM 61**



**PROPOSED CONTROLLER SEQUENCE**

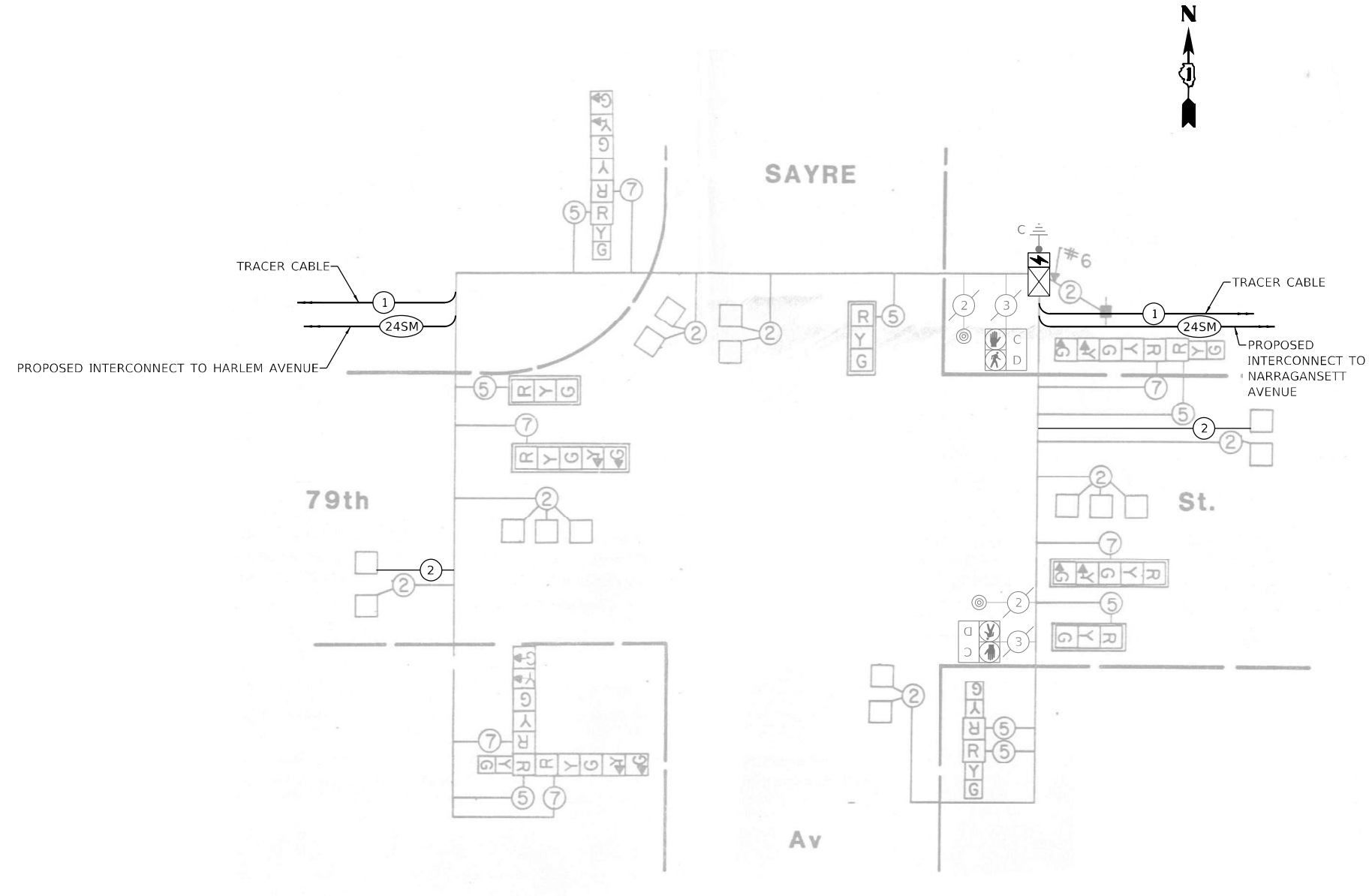


**LEGEND:**

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

**RIGHT TURN OVERLAP PHASE DESIGNATION:**

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
A	= 4	+ 5



**CABLE PLAN**  
(NOT TO SCALE)

**SCHEDULE OF QUANTITIES**

Item	Unit	SUBTOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	731
INDUCTIVE LOOP DETECTOR	EACH	2
CENTRACS LICENSE EXPANSION	EACH	1
LAYER II (DATALINK) SWITCH	EACH	1
TERMINATE FIBER IN CABINET	EACH	12
SPLICE FIBER IN CABINET	EACH	6
UPGRADE EXISTING CONTROLLER TO NTCIP SPECIAL	EACH	1
FIBER OPTIC INTERCONNECT CENTER, 24 PORT	EACH	1
REMOVE AND REPLACE BATTERIES FOR UNINTERRUPTIBLE POWER SUPPLY, EXTENDED	EACH	1

\* CENTRACS LICENSE WILL BE PROVIDED BY IDOT TRAFFIC.

**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 BATTERIES FROM UNINTERRUPTIBLE POWER SUPPLY

**ENERGY COSTS TO:**

CITY OF BRIDGEVIEW  
7500 S OKETO AVE #3  
BRIDGEVIEW, IL 60455

ENERGY SUPPLY: CONTACT: NEW BUSINESS DEPT  
PHONE: (866)-639-3532  
COMPANY: COMED  
ACCOUNT NUMBER: 17390-11030  
METER NUMBER: ---

**TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS**

EQUIPMENT TYPE	QUANTITY	UNIT WATTAGE	TOTAL WATTAGE
SIGNAL HEAD 1 OR 3-SECTION	8	11	88
4-SECTION		14	
5-SECTION	6	13	78
PROGRAMMABLE 3-SECTION	-	22	-
4-SECTION	-	32	-
5-SECTION	-	28	-
PEDESTRIAN SIGNAL CONTROLLER	2	15	30
MASTER CONTROLLER	1	150	150
UPS	1	100	-
DETECTION RADAR OR VIDEO	1	25	25
BLANK-OUT SIGN	1	25	25
NETWORK SWITCH II OR III	1	35	35
CELLULAR MODEM		15	
<b>TOTAL UPS SIZING</b>			<b>406</b>
UPS CHARGING	1	225	225
BATTERY HEATER MAT	1	180	180
CABINET HEATER	1	200	200
FLASHER	-	15	-
LED STREET NAME SIGN	-	120	-
LUMINAIRE	-	240	-
<b>TOTAL SERVICE WIRE SIZING</b>			<b>1,011</b>

TS SHT NO. 41

MODEL: Default  
FILE NAME: 2024-01-15-01-01-01.dwg

**TRANSYSTEMS**

USER NAME = jrdavenport  
PLOT SCALE = 40,0000 \* / in.  
PLOT DATE = 3/15/2024

DESIGNED - GR  
DRAWN - JRD  
CHECKED - BS  
DATE - 03-15-2024

REVISED -  
REVISED -  
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REVISED -

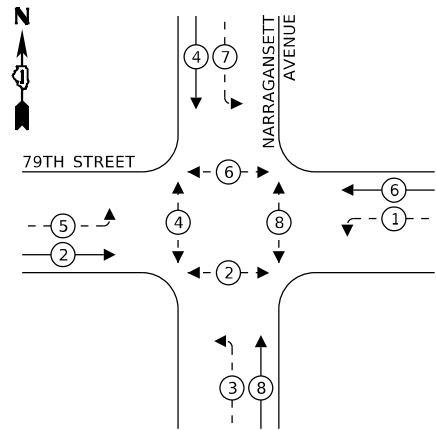
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CABLE PLAN, PHASE DESIGNATION DIAGRAM  
AND EMERGENCY VEHICLE PREEMPTION SEQUENCE  
SAYRE AVENUE AND 79TH STREET - LOCATION 0**  
SCALE: NONE SHEET 41 OF 75 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2024-SIGNALS-01	COOK	75	41
CONTRACT NO. 62R82				
ILLINOIS FED. AID PROJECT				

**TS 3895  
IDOT CENTRACS  
SYSTEM 61**

**PROPOSED CONTROLLER SEQUENCE**



**LEGEND:**

- ← (⊙) ← PROTECTED PHASE
- ← (⊙) - - PROTECTED/PERMITTED PHASE
- ← (⊙) → PEDESTRIAN PHASE

**REMOVAL NOTES**

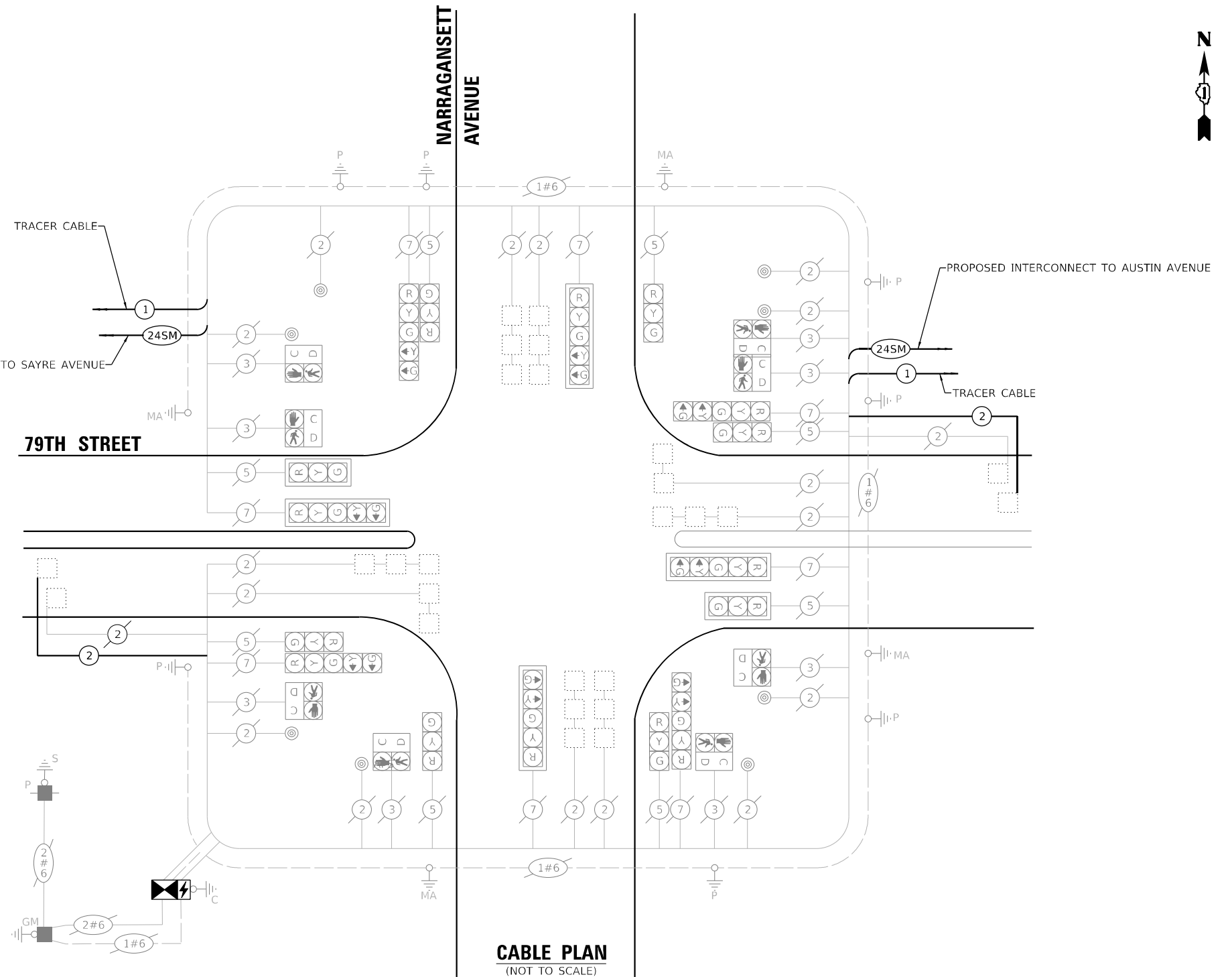
THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

- 1 EACH CONTROLLER ONLY
- 1 EACH TRANSCEIVER FIBER OPTIC
- 1 EACH UNINTERRUPTABLE POWER SUPPLY

**TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS**

EQUIPMENT TYPE	QUANTITY	UNIT WATTAGE	TOTAL WATTAGE
SIGNAL HEAD 1 OR 3-SECTION	8	11	88
4-SECTION	-	14	-
5-SECTION	8	13	104
PROGRAMMABLE 3-SECTION	-	22	-
4-SECTION	-	32	-
5-SECTION	-	28	-
PEDESTRIAN SIGNAL CONTROLLER	8	15	120
MASTER CONTROLLER	1	150	150
UPS	1	25	25
DETECTION RADAR OR VIDEO	-	20	-
BLANK-OUT SIGN	-	25	-
NETWORK SWITCH II OR III	1	35	35
CELLULAR MODEM	-	15	-
<b>TOTAL UPS SIZING</b>			<b>522</b>
UPS CHARGING	1	225	225
BATTERY HEATER MAT	1	180	180
CABINET HEATER	1	200	200
FLASHER	-	15	-
LED STREET NAME SIGN	-	120	-
LUMINAIRE	-	240	-
<b>TOTAL SERVICE WIRE SIZING</b>			<b>1,127</b>

ENERGY COSTS TO:  
 ILLINOIS DEPARTMENT OF TRANSPORTATION  
 201 CENTER CT  
 SCHAUMBURG, IL 60196  
 ENERGY SUPPLY: CONTACT: NEW BUSINESS DEPT  
 PHONE: (866)-639-3532  
 COMPANY: COMED  
 ACCOUNT NUMBER: 21331-35398  
 METER NUMBER: ---



**CABLE PLAN**  
(NOT TO SCALE)

**SCHEDULE OF QUANTITIES**

Item	Unit	SUBTOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	733
INDUCTIVE LOOP DETECTOR	EACH	2
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
* CENTRACS LICENSE EXPANSION	EACH	1
LAYER II (DATALINK) SWITCH	EACH	1
TERMINATE FIBER IN CABINET	EACH	12
SPLICE FIBER IN CABINET	EACH	6
FIBER OPTIC INTERCONNECT CENTER, 24 PORT	EACH	1
FULL-ACTUATED CONTROLLER IN EXISTING CABINET	EACH	1
UNINTERRUPTABLE POWER SUPPLY (SPECIAL)	EACH	1

\* CENTRACS LICENSE WILL BE PROVIDED BY IDOT TRAFFIC.

TS SHT NO. 42

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**TRANSYSTEMS**

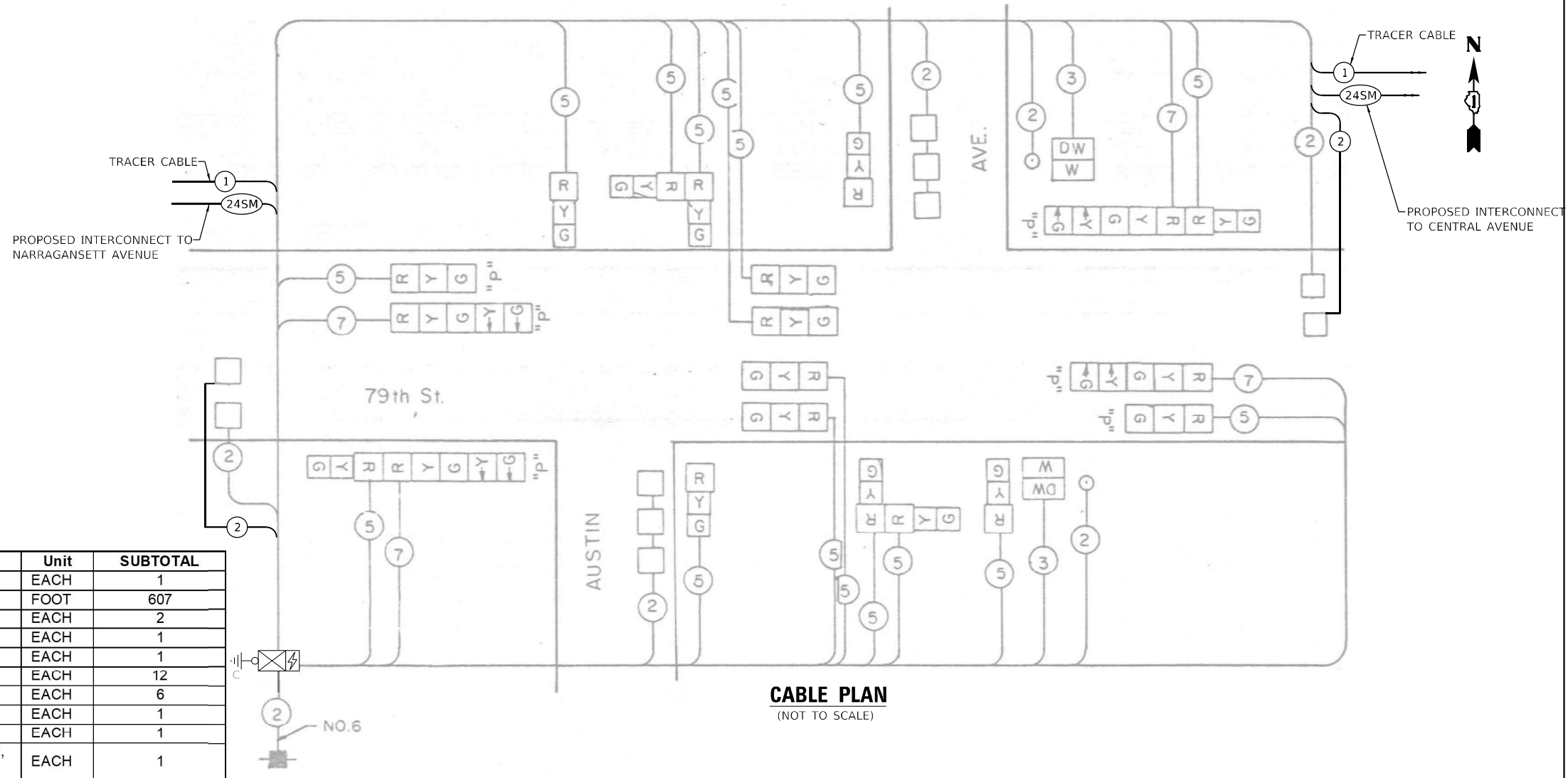
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PLOT DATE = 3/15/2024	CHECKED - BS	REVISED -
	DATE - 03-15-2024	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

<b>CABLE PLAN, PHASE DESIGNATION DIAGRAM          AND EMERGENCY VEHICLE PREEMPTION SEQUENCE</b>			
<b>79TH STREET AND NARRAGANSETT AVENUE - LOCATION 0</b>			
SCALE: NONE	SHEET 42	OF 75 SHEETS	STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2024-SIGNALS-01	COOK	75	42
CONTRACT NO. 62R82				
ILLINOIS FED. AID PROJECT				

**TS 3885  
 IDOT CENTRACS  
 SYSTEM 51**



**CABLE PLAN**  
(NOT TO SCALE)

**SCHEDULE OF QUANTITIES**

Item	Unit	SUBTOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	607
INDUCTIVE LOOP DETECTOR	EACH	2
* CENTRACS LICENSE EXPANSION	EACH	1
LAYER II (DATALINK) SWITCH	EACH	1
TERMINATE FIBER IN CABINET	EACH	12
SPLICE FIBER IN CABINET	EACH	6
UPGRADE EXISTING CONTROLLER TO NTCIP SPECIAL	EACH	1
FIBER OPTIC INTERCONNECT CENTER, 24 PORT	EACH	1
REMOVE AND REPLACE BATTERIES FOR UNINTERRUPTABLE POWER SUPPLY, EXTENDED	EACH	1

\* CENTRACS LICENSE WILL BE PROVIDED BY IDOT TRAFFIC.

**SEQUENCE OF OPERATIONS**

MOVEMENT	→ T ←												← T →								← T →								FLASH
PHASE	1												2								3								
INTERVAL	1	2A	2B	2C	2D	3A	3B	3C	3D	4	5	6A	6B	6C	7A	7B	7C	7D	8	9A	9B	9C	9D	10A	10B	10C			
CHANGE TO	2												3								1								
79TH ST. W/B SIGNALS AT NORTH APPROACH OF AUSTIN AVENUE	G	Y	R	R	R	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R			
79TH ST. W/B MID MOUNT MAST ARM SIGNAL AT SOUTH APPROACH OF AUSTIN AV.	G	G	G	G	G	G	Y	R	G	G	G	G	G	G	G	Y	R	R	R	R	R	R	R	R	R	R			
79TH ST. W/B END MOUNT MAST ARM & FAR LEFT SIGNALS AT SOUTH APPROACH OF AUSTIN AV.	G	G	G	G	G	G	Y	R	G	G	G	G	G	G	Y	R	R	R	R	R	R	R	R	R	R	R			
79TH ST. E/B SIGNALS AT SOUTH APPROACH OF AUSTIN AV.	G	Y	R	R	R	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R			
79TH ST. E/B MID MOUNT MAST ARM SIGNAL AT NORTH APPROACH OF AUSTIN AV.	G	G	G	Y	R	G	R	R	R	R	R	R	R	R	R	R	R	R	G	G	G	Y	R	G	G	G			
79TH ST. E/B END MOUNT MAST ARM & FAR LEFT SIGNALS AT NORTH APPROACH OF AUSTIN AV.	G	G	G	Y	R	G	R	R	R	R	R	R	R	R	R	R	R	R	G	G	G	Y	R	G	G	G			
AUSTIN AV. S/B SIGNALS	R	R	R	R	R	R	R	R	R	G	G	Y	R	R	Y	R	R	R	R	R	R	R	R	R	R	R			
AUSTIN AV. N/B SIGNALS	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	Y	R	R	R	Y	R	R			
PEDESTRIAN CROSSING 79TH ST. ON EAST SIDE OF NORTH APPROACH OF AUSTIN AV.	DW	DW	DW	DW	DW	DW	DW	DW	DW	W	FL	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW			

TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS			
EQUIPMENT TYPE	QUANTITY	UNIT WATTAGE	TOTAL WATTAGE
SIGNAL HEAD 1 OR 3-SECTION	16	11	176
4-SECTION	-	14	-
5-SECTION	4	13	52
PROGRAMMABLE 3-SECTION	-	22	-
4-SECTION	-	32	-
5-SECTION	-	28	-
PEDESTRIAN SIGNAL CONTROLLER	2	15	30
MASTER CONTROLLER	1	150	150
UPS	1	100	100
DETECTION RADAR OR VIDEO	1	25	25
BLANK-OUT SIGN	1	25	25
NETWORK SWITCH II OR III	1	35	35
CELLULAR MODEM	1	15	15
TOTAL UPS SIZING			468
UPS CHARGING	1	225	225
BATTERY HEATER MAT	1	180	180
CABINET HEATER	1	200	200
FLASHER	-	15	-
LED STREET NAME SIGN	-	120	-
LUMINAIRE	-	240	-
TOTAL SERVICE WIRE SIZING			1,073

**REMOVAL 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 BATTERIES FROM UNINTERRUPTABLE POWER SUPPLY

**ENERGY COSTS TO:**

CITY OF BURBANK  
6530 W 79TH ST #2  
BURBANK, IL 60459

ENERGY SUPPLY: CONTACT: NEW BUSINESS DEPT  
PHONE: (866)-639-3532  
COMPANY: COMED  
ACCOUNT NUMBER: 19210-46023  
METER NUMBER: ---

**TS 3875**  
**IDOT CENTRACS**  
**SYSTEM 51**

TS SHT NO. 43

MODEL: Default  
FILE NAME: C:\Users\jrdavis\OneDrive\Documents\O\_Cable Plans

**TRANSYSTEMS**

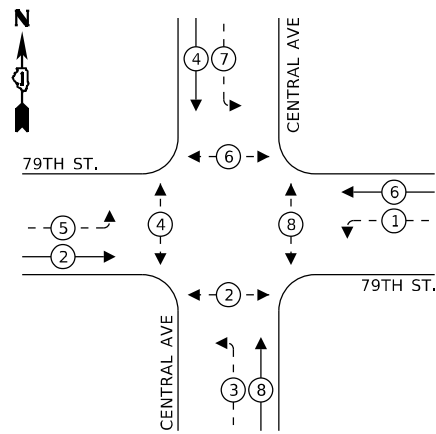
USER NAME = jrdavisport	DESIGNED - GR	REVISED -
DRAWN - JRD	REVISIONS -	
PLOT SCALE = 40,0000 * / in.	CHECKED - BS	REVISED -
PLOT DATE = 3/15/2024	DATE - 03-15-2024	REVISED -

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

<b>CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE</b>			
<b>AUSTIN AVENUE AND 79TH STREET - LOCATION 0</b>			
SCALE: NONE	SHEET 43 OF 75 SHEETS	STA. TO STA.	

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2024-SIGNALS-01	COOK	75	43
CONTRACT NO. 62R82				
ILLINOIS FED. AID PROJECT				

**PROPOSED CONTROLLER SEQUENCE**



**LEGEND:**

- ← (⊙) ← PROTECTED PHASE
- ← (⊙) - - PROTECTED/PERMITTED PHASE
- ← (⊙) → PEDESTRIAN PHASE

**REMOVAL 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)
- 1 EACH UNINTERRUPTABLE POWER SUPPLY
- 1 EACH TELEPHONE LINE
- 1 EACH TRANSCEIVER FIBER OPTIC

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.

- 1 EACH MASTER CONTROLLER

**TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS**

EQUIPMENT TYPE	QUANTITY	UNIT WATTAGE	TOTAL WATTAGE
SIGNAL HEAD 1 OR 3-SECTION	4	11	44
4-SECTION		14	
5-SECTION	8	13	104
PROGRAMMABLE 3-SECTION	-	22	-
4-SECTION	-	32	-
5-SECTION	-	28	-
PEDESTRIAN SIGNAL CONTROLLER	1	150	150
MASTER CONTROLLER	-	100	-
UPS	1	25	25
DETECTION RADAR OR VIDEO	-	20	-
BLANK-OUT SIGN	-	25	-
NETWORK SWITCH II OR III	1	35	35
CELLULAR MODEM		15	
<b>TOTAL UPS SIZING</b>			<b>478</b>
UPS CHARGING	1	225	225
BATTERY HEATER MAT	1	180	180
CABINET HEATER	1	200	200
FLASHER	-	15	-
LED STREET NAME SIGN	-	120	-
LUMINAIRE	-	240	-
<b>TOTAL SERVICE WIRE SIZING</b>			<b>1,083</b>

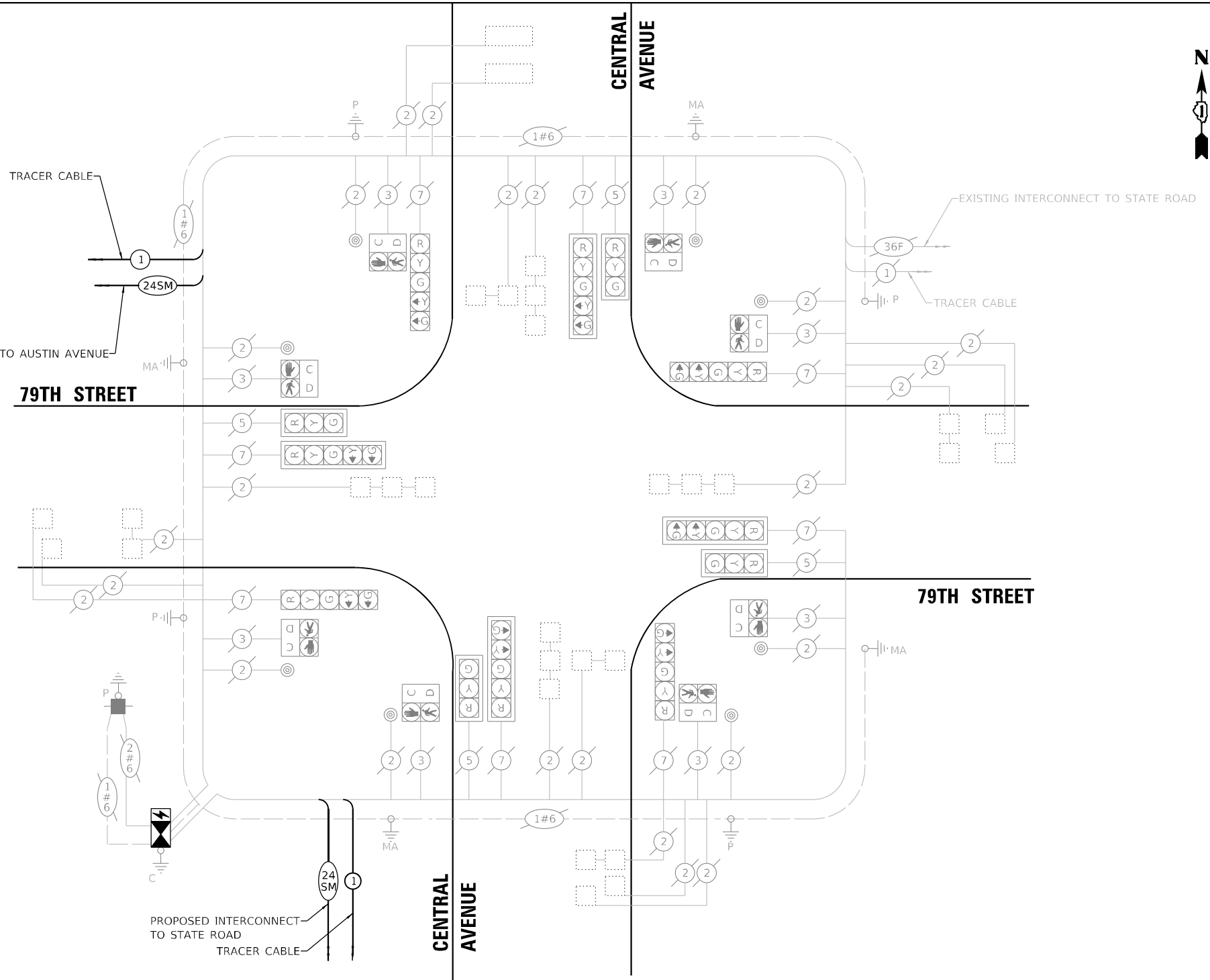
**NOTES**

THE TELEPHONE LINE AND SERVICE SHOULD BE REMOVED AND DISCONNECTED UPON PROJECT COMPLETION AND SIGNAL BEING ADDED TO CENTRACS.

**ENERGY COSTS TO:**

CITY OF BURBANK  
6530 W 79TH ST #2  
BURBANK, IL 60459

ENERGY SUPPLY: CONTACT: NEW BUSINESS DEPT  
PHONE: (866)-639-3532  
COMPANY: COMED  
ACCOUNT NUMBER: 19210-46023  
METER NUMBER: ---



**CABLE PLAN**

(NOT TO SCALE)

**SCHEDULE OF QUANTITIES**

Item	Unit	SUBTOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
INDUCTIVE LOOP DETECTOR	EACH	17
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
* CENTRACS LICENSE EXPANSION	EACH	1
LAYER II (DATALINK) SWITCH	EACH	1
TERMINATE FIBER IN CABINET	EACH	12
SPLICE FIBER IN CABINET	EACH	12
FIBER OPTIC INTERCONNECT CENTER, 24 PORT	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET (SPECIAL)	EACH	1
UNINTERRUPTABLE POWER SUPPLY (SPECIAL)	EACH	1

\* CENTRACS LICENSE WILL BE PROVIDED BY IDOT TRAFFIC.

TS SHT NO. 44

MODEL: Default  
FILE NAME: 20240506\_0\_Cable Plans

**TRANSYSTEMS**

USER NAME = jr@davenport  
PLOT SCALE = 40,0000 \* / in.  
PLOT DATE = 3/15/2024

DESIGNED - GR  
DRAWN - JRD  
CHECKED - BS  
DATE - 03-15-2024

REVISED -  
REVISED -  
REVISED -  
REVISED -

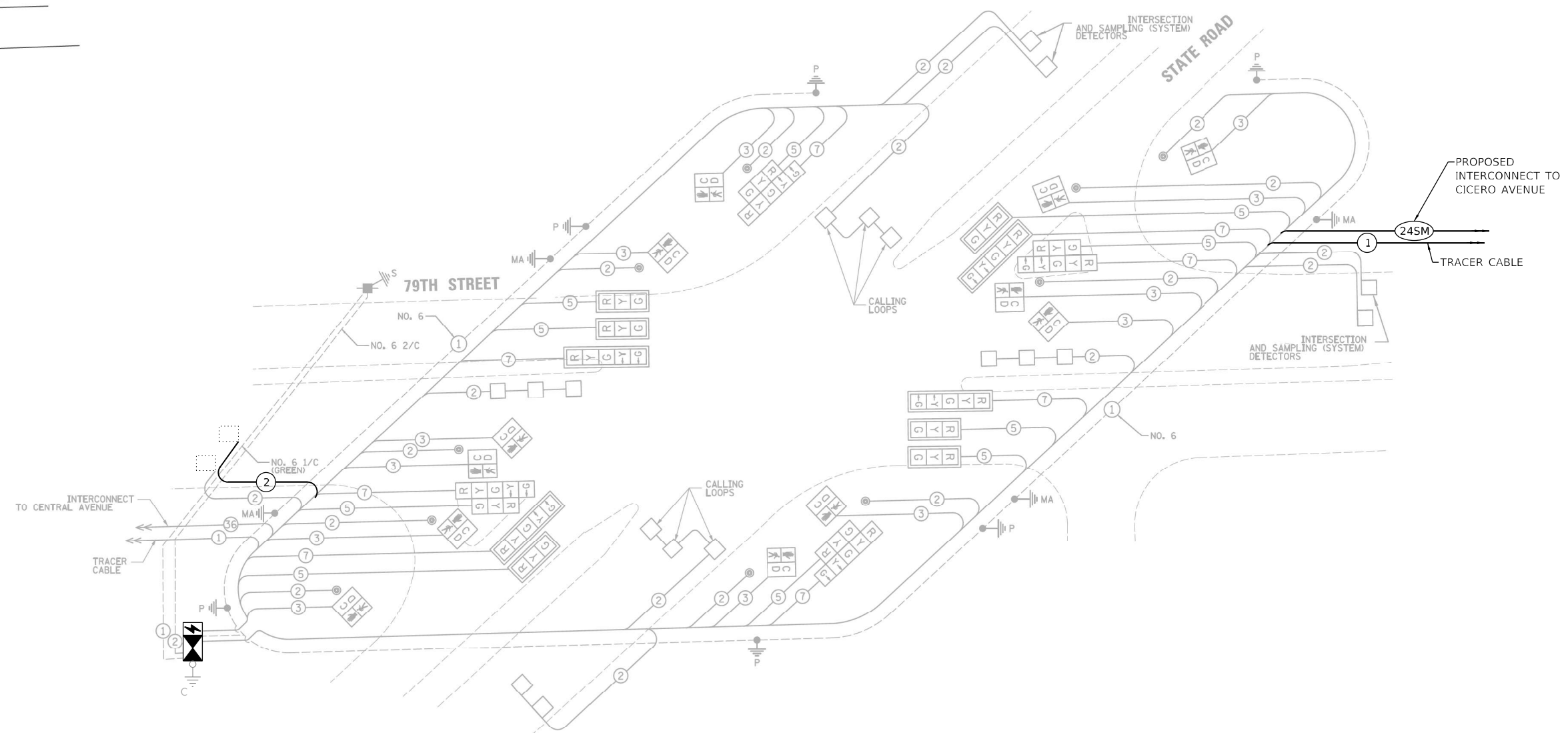
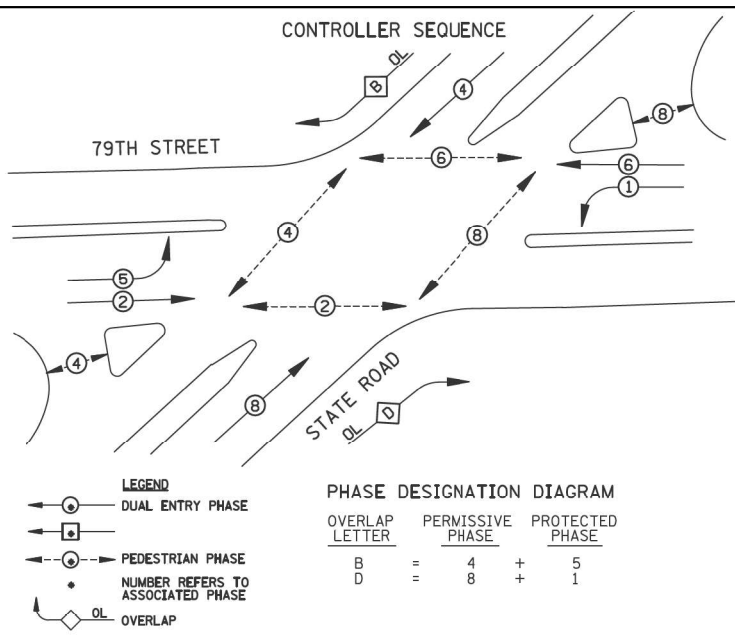
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CABLE PLAN, PHASE DESIGNATION DIAGRAM  
AND EMERGENCY VEHICLE PREEMPTION SEQUENCE  
79TH STREET AND CENTRAL AVENUE - LOCATION 0**

SCALE: NONE SHEET 44 OF 75 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2024-SIGNALS-01	COOK	75	44
CONTRACT NO. 62R82				
ILLINOIS FED. AID PROJECT				

**TS 3880  
IDOT CENTRACS  
SYSTEM 51**



**REMOVAL 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)
- 1 EACH UNINTERRUPTABLE POWER SUPPLY
- 1 EACH TRANSCIVER FIBER OPTIC

**TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS**

EQUIPMENT TYPE	QUANTITY	UNIT WATTAGE	TOTAL WATTAGE
SIGNAL HEAD 1 OR 3-SECTION	10	11	110
4-SECTION		14	
5-SECTION	8	13	104
PROGRAMMABLE 3-SECTION	-	22	-
4-SECTION	-	32	-
5-SECTION	-	28	-
PEDESTRIAN SIGNAL	12	15	180
CONTROLLER	1	150	150
MASTER CONTROLLER	-	100	-
UPS	1	25	25
DETECTION RADAR OR VIDEO	-	20	-
BLANK-OUT SIGN	-	25	-
NETWORK SWITCH II OR III	1	35	35
CELLULAR MODEM	-	15	-
<b>TOTAL UPS SIZING</b>			<b>604</b>
UPS CHARGING	1	225	225
BATTERY HEATER MAT	1	180	180
CABINET HEATER	1	200	200
FLASHER	-	15	-
LED STREET NAME SIGN	-	120	-
LUMINAIRE	-	240	-
<b>TOTAL SERVICE WIRE SIZING</b>			<b>1,209</b>

ENERGY COSTS TO:  
 CITY OF BURBANK  
 6530 S 79TH ST #2  
 BURBANK, IL 60459

ENERGY SUPPLY: CONTACT: NEW BUSINESS DEPT  
 PHONE: (866)-639-3532  
 COMPANY: COMED  
 ACCOUNT NUMBER: 19210-46023  
 METER NUMBER: ---

**CABLE PLAN**  
(NOT TO SCALE)

**SCHEDULE OF QUANTITIES**

Item	Unit	SUBTOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	226
INDUCTIVE LOOP DETECTOR	EACH	11
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
* CENTRACS LICENSE EXPANSION	EACH	1
LAYER II (DATALINK) SWITCH	EACH	1
TERMINATE FIBER IN CABINET	EACH	12
SPLICE FIBER IN CABINET	EACH	6
FIBER OPTIC INTERCONNECT CENTER, 24 PORT	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET (SPECIAL)	EACH	1
UNINTERRUPTABLE POWER SUPPLY (SPECIAL)	EACH	1

\* CENTRACS LICENSE WILL BE PROVIDED BY IDOT TRAFFIC.

TS SHT NO. 45



USER NAME = jrdavenport	DESIGNED - GR	REVISED -
PLOT SCALE = 40,0000 * / in.	DRAWN - JRD	REVISED -
PLOT DATE = 3/15/2024	CHECKED - BS	REVISED -
	DATE - 03-15-2024	REVISED -

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

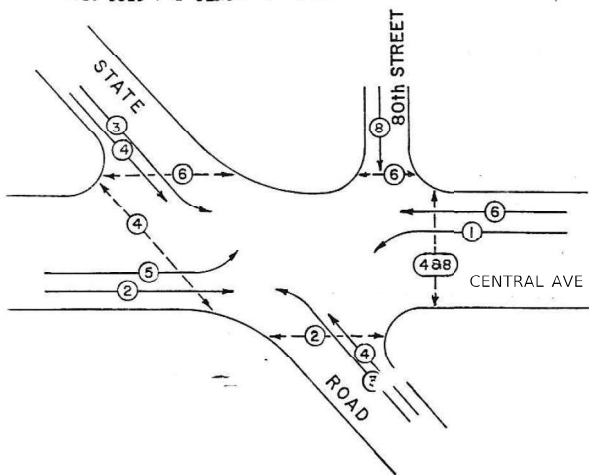
<b>CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE</b>	
<b>STATE ROAD AND 79TH STREET - LOCATION 0</b>	
SCALE: NONE	SHEET 45 OF 75 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2024-SIGNALS-01	COOK	75	45
CONTRACT NO.62R82				
ILLINOIS FED. AID PROJECT				

**TS 3900**  
**IDOT CENTRACS**  
**SYSTEM 51**

**CONTROLLER SEQUENCE SPECIAL**

REFERRING TO STANDARD 2393, THE VEHICULAR AND PEDESTRIAN PHASES USED ARE DESIGNATED BELOW.



- LEGEND**
- ⊙\* VEHICULAR MOVEMENT
  - ⊙\* PEDESTRIAN MOVEMENT
  - \* NUMBER REFERS TO ASSOCIATED PHASE

PHASE DESIGNATION DIAGRAM

**REMOVAL 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.

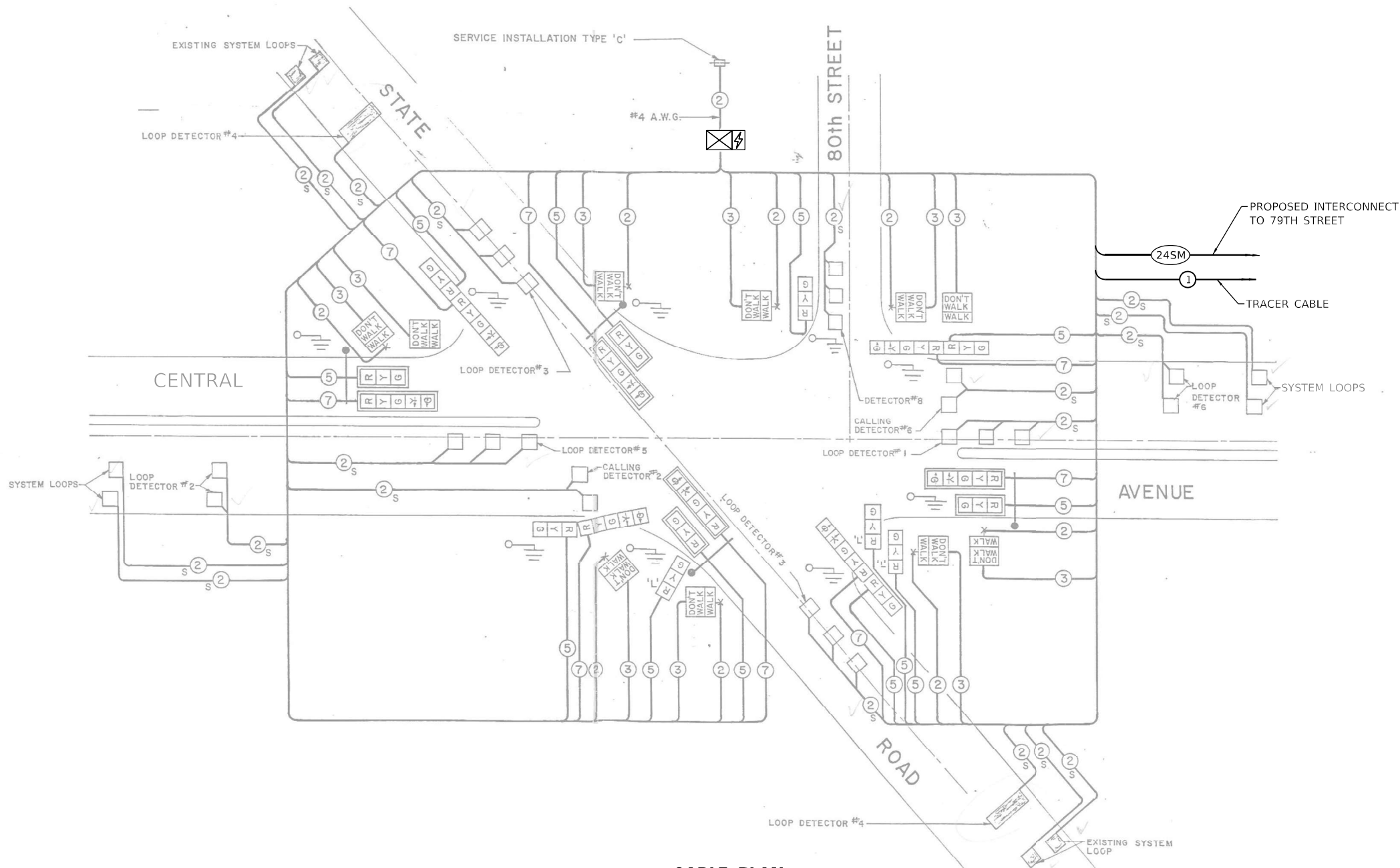
- 1 EACH TRANSCEIVER FIBER OPTIC

**TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS**

EQUIPMENT TYPE	QUANTITY	UNIT WATTAGE	TOTAL WATTAGE
SIGNAL HEAD 1 OR 3-SECTION	12	11	132
4-SECTION		14	
5-SECTION	8	13	104
PROGRAMMABLE 3-SECTION	-	22	-
4-SECTION	-	32	-
5-SECTION	-	28	-
PEDESTRIAN SIGNAL	10	15	150
CONTROLLER	1	150	150
MASTER CONTROLLER	-	100	-
UPS	1	25	25
DETECTION RADAR OR VIDEO	-	20	-
BLANK-OUT SIGN	-	25	-
NETWORK SWITCH II OR III	1	35	35
CELLULAR MODEM	-	15	-
<b>TOTAL UPS SIZING</b>			<b>596</b>
UPS CHARGING	1	225	225
BATTERY HEATER MAT	1	180	180
CABINET HEATER	1	200	200
FLASHER	-	15	-
LED STREET NAME SIGN	-	120	-
LUMINAIRE	-	240	-
<b>TOTAL SERVICE WIRE SIZING</b>			<b>1,201</b>

ENERGY COSTS TO:  
 CITY OF BURBANK  
 6530 S 79TH ST #2  
 BURBANK, IL 60459

ENERGY SUPPLY: CONTACT: NEW BUSINESS DEPT  
 PHONE: (866)-639-3532  
 COMPANY: COMED  
 ACCOUNT NUMBER: 19210-46023  
 METER NUMBER: ---



**CABLE PLAN**  
(NOT TO SCALE)

**SCHEDULE OF QUANTITIES**

Item	Unit	SUBTOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
* CENTRACS LICENSE EXPANSION	EACH	1
LAYER II (DATALINK) SWITCH	EACH	1
TERMINATE FIBER IN CABINET	EACH	12
FIBER OPTIC INTERCONNECT CENTER, 24 PORT	EACH	1

\* CENTRACS LICENSE WILL BE PROVIDED BY IDOT TRAFFIC.

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM  
 AND EMERGENCY VEHICLE PREEMPTION SEQUENCE  
 STATE ROAD AND CENTRAL / 80TH STREET - LOCATION 0

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2024-SIGNALS-01	COOK	75	46
CONTRACT NO. 62R82				
ILLINOIS FED. AID PROJECT				

TS 5780  
 IDOT CENTRACS  
 SYSTEM 51

TS SHT NO. 46

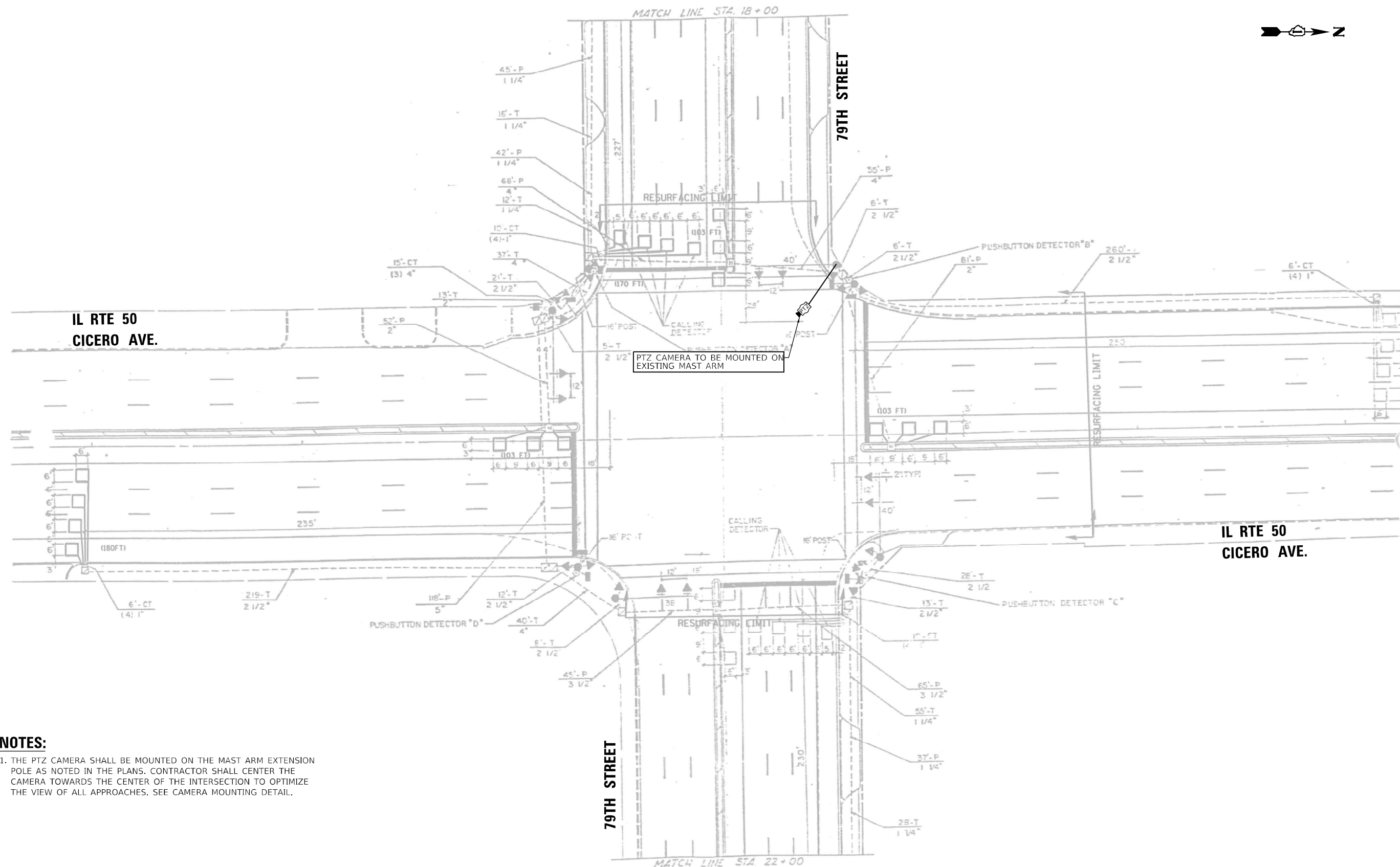
**TRANSYSTEMS**

USER NAME = jr@davenport  
 PLOT SCALE = 40,0000 \* / in.  
 PLOT DATE = 3/15/2024

DESIGNED - GR  
 DRAWN - JRD  
 CHECKED - BS  
 DATE - 03-15-2024

REVISED -  
 REVISED -  
 REVISED -  
 REVISED -

SCALE: NONE SHEET 46 OF 75 SHEETS STA. TO STA.



**NOTES:**

1. THE PTZ CAMERA SHALL BE MOUNTED ON THE MAST ARM EXTENSION POLE AS NOTED IN THE PLANS. CONTRACTOR SHALL CENTER THE CAMERA TOWARDS THE CENTER OF THE INTERSECTION TO OPTIMIZE THE VIEW OF ALL APPROACHES. SEE CAMERA MOUNTING DETAIL.

TS SHT NO. 47

MODEL: Default  
FILE NAME: Location\_0\_Cable Plans

**TRANSYSTEMS**

USER NAME = jrdavenport	DESIGNED - GR	REVISED -
PLOT SCALE = 40,0000 * / in.	DRAWN - JRD	REVISED -
PLOT DATE = 3/15/2024	CHECKED - BS	REVISED -
	DATE - 03-15-2024	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

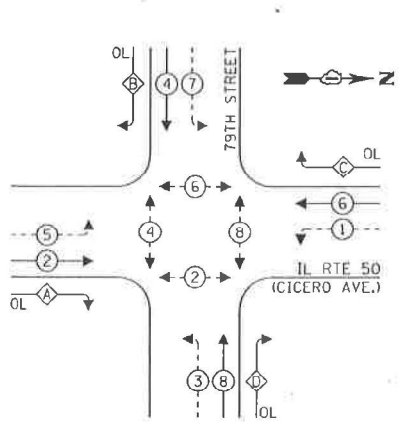
**INTERSECTION PLAN VIEW  
79TH STREET AND IL RTE 50 - LOCATION 0**

SCALE: NONE SHEET 47 OF 75 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2024-SIGNALS-01	COOK	75	47
CONTRACT NO.62R82			ILLINOIS FED. AID PROJECT	

**TS 2470  
ECON 52**

**EXISTING CONTROLLER SEQUENCE**



**LEGEND:**

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

**RIGHT TURN OVERLAP PHASE DESIGNATION:**

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

**REMOVAL 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 ONLY

**NOTE**

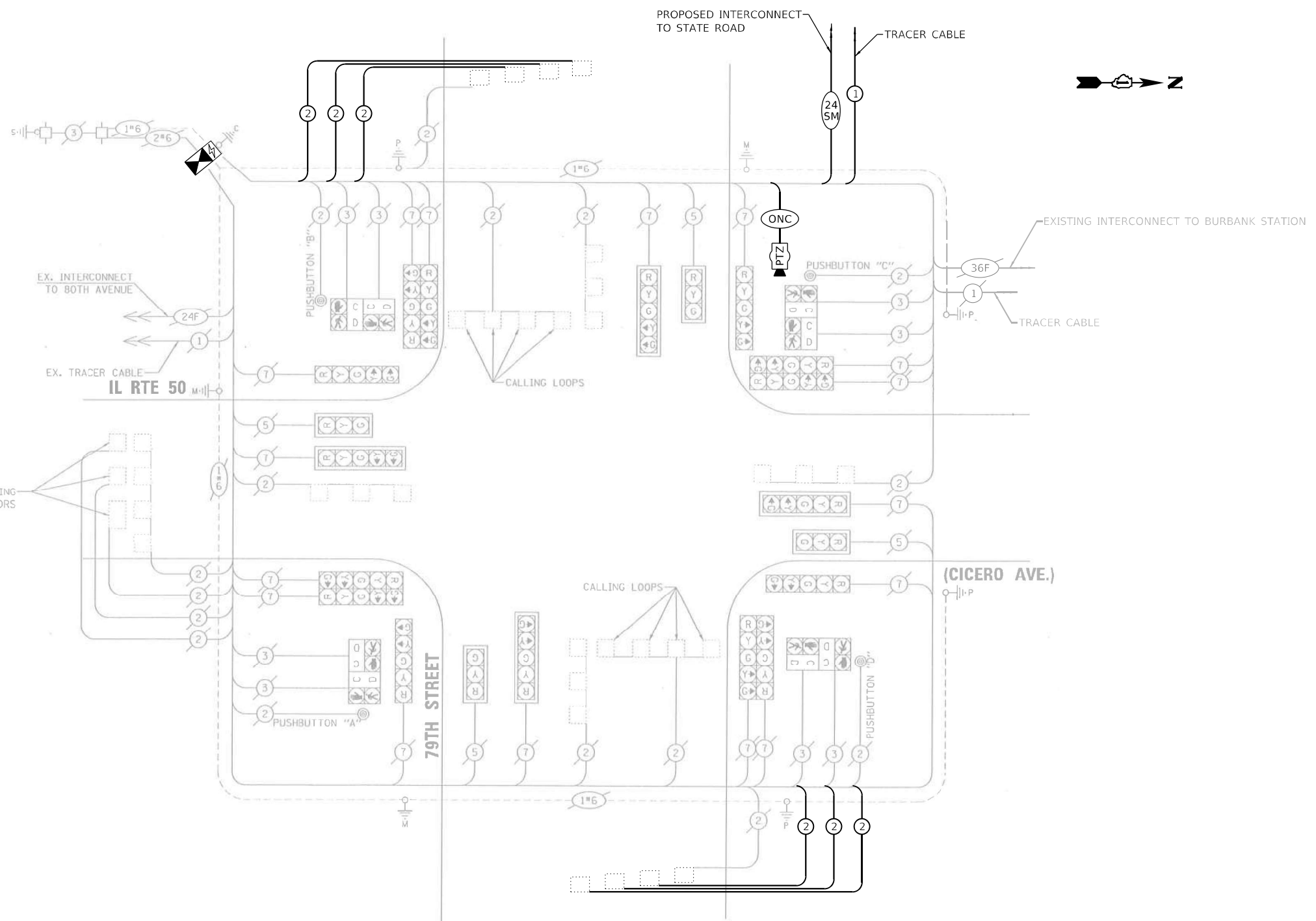
THIS INTERSECTION WILL NOT BE ADDED TO CENTRACS AS APART OF THIS CONTRACT.

**TRAFFIC SIGNAL ELECTRICAL SERVICE REQUIREMENTS**

EQUIPMENT TYPE	QUANTITY	UNIT WATTAGE	TOTAL WATTAGE
SIGNAL HEAD 1 OR 3-SECTION	4	11	44
4-SECTION		14	
5-SECTION	16	13	208
PROGRAMMABLE 3-SECTION	-	22	-
4-SECTION	-	32	-
5-SECTION	-	28	-
PEDESTRIAN SIGNAL CONTROLLER	8	15	120
MASTER CONTROLLER	1	150	150
UPS	1	25	25
PTZ VIDEO SYSTEMS	1	115	115
BLANK-OUT SIGN		25	
NETWORK SWITCH II OR III	1	35	35
CELLULAR MODEM		15	
<b>TOTAL UPS SIZING</b>		<b>697</b>	
UPS CHARGING	1	225	225
BATTERY HEATER MAT	1	180	180
CABINET HEATER	1	200	200
FLASHER	-	15	-
LED STREET NAME SIGN	-	120	-
LUMINAIRE	-	240	-
<b>TOTAL SERVICE WIRE SIZING</b>		<b>1,302</b>	

ENERGY COSTS TO:  
 CITY OF CHICAGO  
 121 N. LA SALLE ST #107  
 CHICAGO, IL 60602

ENERGY SUPPLY: CONTACT: NEW BUSINESS DEPT  
 PHONE: (866)-639-3532  
 COMPANY: COMED  
 ACCOUNT NUMBER: 57010-83020  
 METER NUMBER: ---



**CABLE PLAN**

(NOT TO SCALE)

**SCHEDULE OF QUANTITIES**

Item	Unit	SUBTOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	2,553
INDUCTIVE LOOP DETECTOR	EACH	6
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
OUTDOOR RATED NETWORK CABLE	FOOT	250
REMOTE CONTROLLED VIDEO SYSTEM	EACH	1
TERMINATE FIBER IN CABINET	EACH	12
LAYER III (NETWORK) SWITCH	EACH	1
FIBER OPTIC INTERCONNECT CENTER, 48 PORT	EACH	1
FULL-ACTUATED CONTROLLER IN EXISTING CABINET	EACH	1
CAMERA MOUNTING ASSEMBLY	EACH	1

TS SHT NO. 48

**TRANSYSTEMS**

USER NAME = jrdavenport	DESIGNED - GR	REVISED -
PLOT SCALE = 40,0000 * / in.	DRAWN - JRD	REVISED -
PLOT DATE = 3/15/2024	CHECKED - BS	REVISED -
	DATE - 03-15-2024	REVISED -

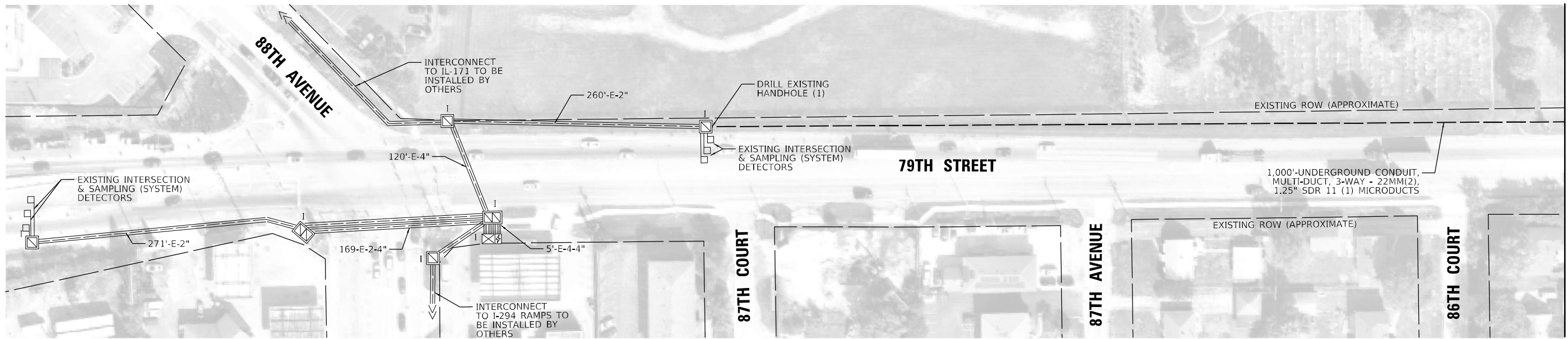
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

<b>CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE</b>			
<b>79TH STREET AND IL RTE 50 - LOCATION 0</b>			
SCALE: NONE	SHEET 48 OF 75 SHEETS	STA. TO STA.	

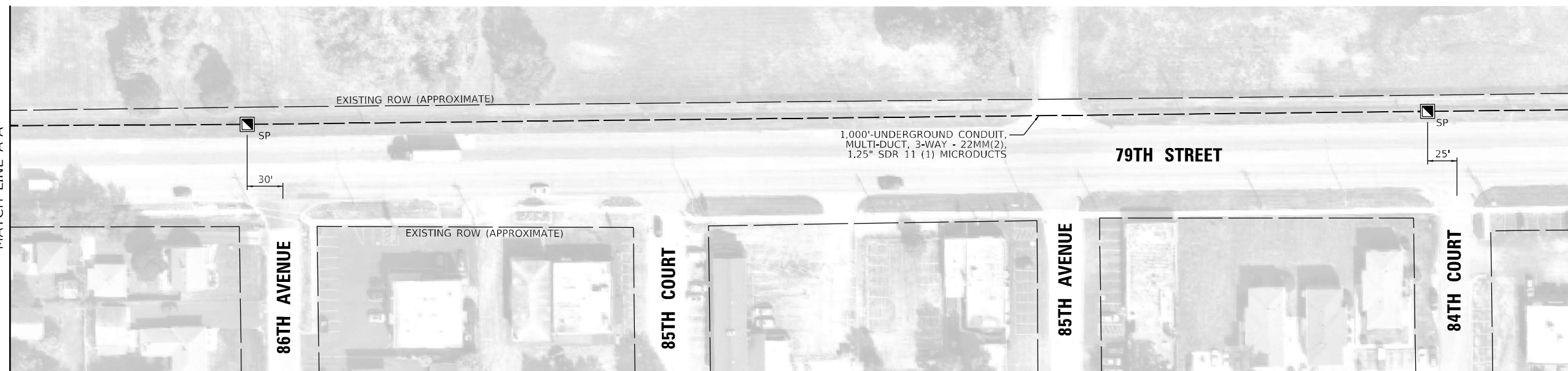
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2024-SIGNALS-01	COOK	75	48
CONTRACT NO. 62R82				
ILLINOIS FED. AID PROJECT				

**TS 2470  
 ECON 52**



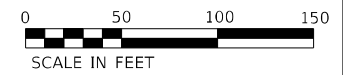


MATCH LINE STATION A-A  
SEE BELOW



SEE ABOVE  
MATCH LINE A-A

MATCH LINE B-B  
SEE TS SHEET 50



**NOTE:**  
DIMENSIONS PROVIDED ARE FROM THE MIDDLE OF CROSS STREET OR DRIVEWAY TO CENTER OF PROPOSED HANDHOLE. THESE DIMENSIONS ARE APPROXIMATE AND CONTRACTOR SHALL VERIFY HANDHOLE LOCATIONS WITH ENGINEER PRIOR TO CONSTRUCTION.

**IDOT CENTRACS  
FORMER ECON 51**

TS SHT NO. 49  
MODEL: Default  
FILE NAME: PR IC 0801 Location 0-1



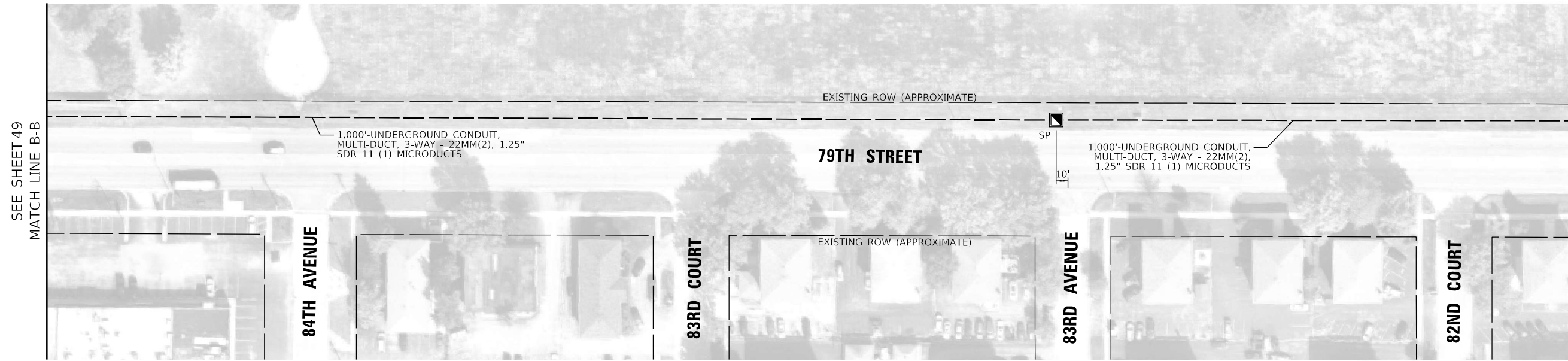
USER NAME = jrdavenport	DESIGNED - GR	REVISED -
	DRAWN - JRD	REVISED -
PLOT SCALE = 100,0000' / in.	CHECKED - BS	REVISED -
PLOT DATE = 3/15/2024	DATE - 03-15-2024	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PROPOSED INTERCONNECT PLAN  
LOCATION 0 - 79TH STREET**

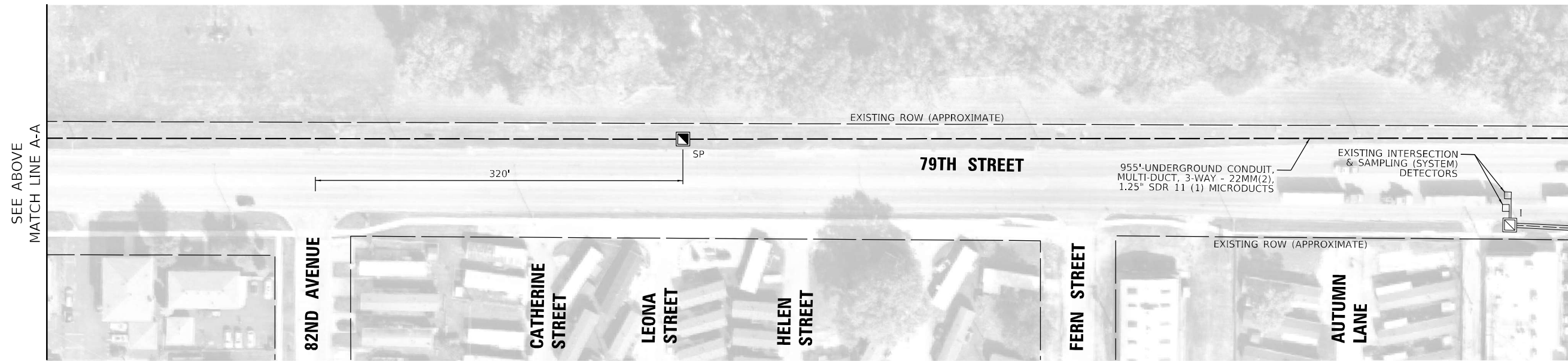
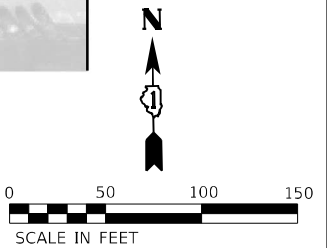
SCALE: 1"=50    SHEET 49 OF 75 SHEETS    STA.    TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2024-SIGNALS-01	COOK	75	49
CONTRACT NO.62R82				
ILLINOIS FED. AID PROJECT				



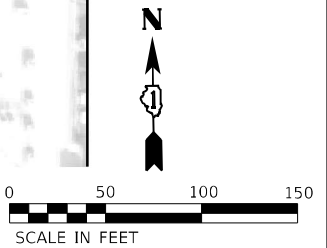
SEE SHEET 49  
MATCH LINE B-B

MATCH LINE STATION A-A  
SEE BELOW



SEE ABOVE  
MATCH LINE A-A

MATCH LINE B-B  
SEE TS SHEET 51



**NOTE:**  
DIMENSIONS PROVIDED ARE FROM THE MIDDLE OF CROSS STREET OR DRIVEWAY TO CENTER OF PROPOSED HANDHOLE. THESE DIMENSIONS ARE APPROXIMATE AND CONTRACTOR SHALL VERIFY HANDHOLE LOCATIONS WITH ENGINEER PRIOR TO CONSTRUCTION.

**IDOT CENTRACS  
FORMER ECON 51**

**TS SHT NO. 50**

MODEL: Default  
FILE NAME: PR TC Plan Location 02

**TRANSYSTEMS**

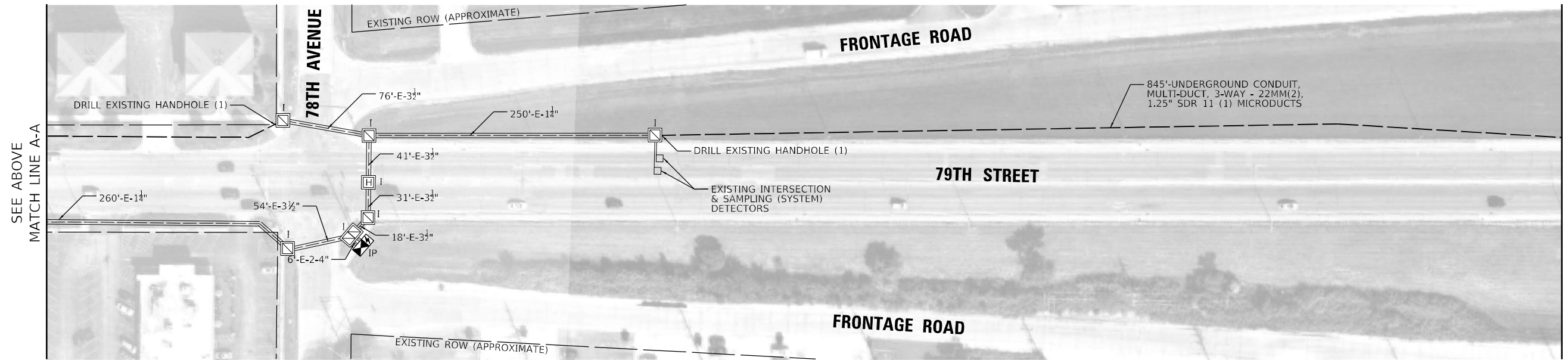
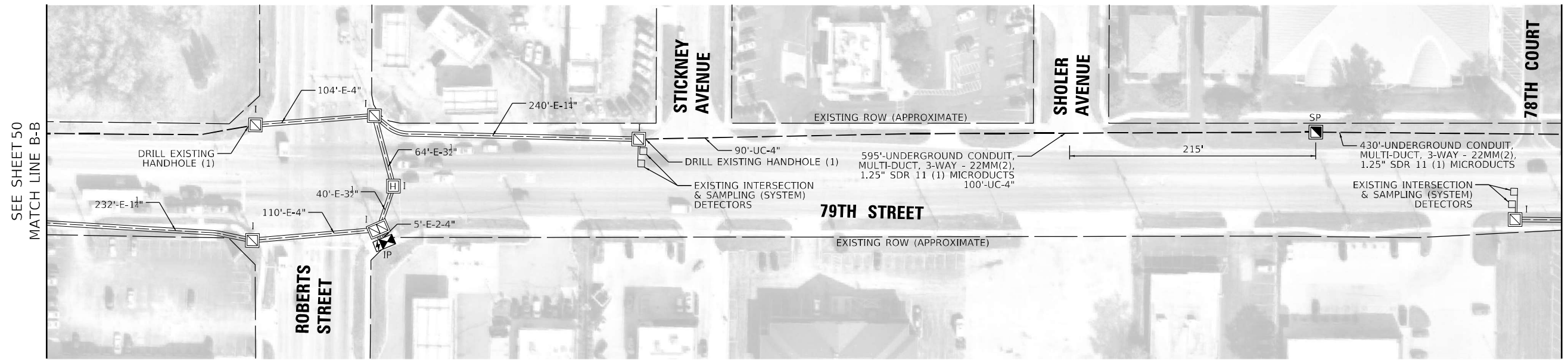
USER NAME = jrdavenport	DESIGNED - GR	REVISED -
	DRAWN - JRD	REVISED -
PLOT SCALE = 100,0000' / in.	CHECKED - BS	REVISED -
PLOT DATE = 3/15/2024	DATE - 03-15-2024	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PROPOSED INTERCONNECT PLAN  
LOCATION 0 - 79TH STREET**

SCALE: 1"=50 SHEET 50 OF 75 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2024-SIGNALS-01	COOK	75	50
CONTRACT NO.62R82				
ILLINOIS FED. AID PROJECT				



**NOTE:**  
 DIMENSIONS PROVIDED ARE FROM THE MIDDLE OF CROSS STREET OR DRIVEWAY TO CENTER OF PROPOSED HANDHOLE. THESE DIMENSIONS ARE APPROXIMATE AND CONTRACTOR SHALL VERIFY HANDHOLE LOCATIONS WITH ENGINEER PRIOR TO CONSTRUCTION.

TS SHT NO. 51

MODEL: Default  
 FILE NAME: PR IC Plan Location 0-3

**TRANSYSTEMS**

USER NAME = jrdavenport	DESIGNED - GR	REVISED -
	DRAWN - JRD	REVISED -
PLOT SCALE = 100,0000' / in.	CHECKED - BS	REVISED -
PLOT DATE = 3/15/2024	DATE - 03-15-2024	REVISED -

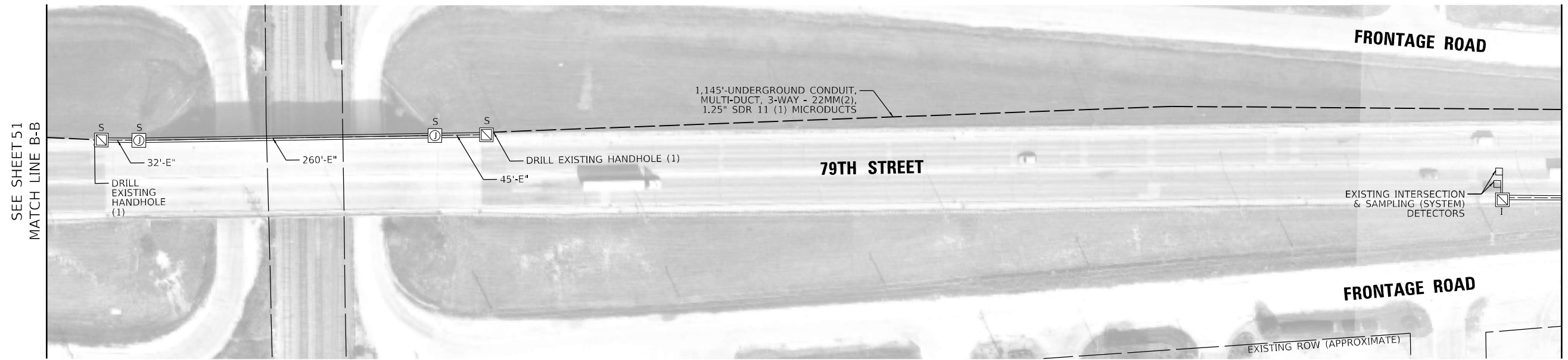
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**PROPOSED INTERCONNECT PLAN  
 LOCATION 0 - 79TH STREET**

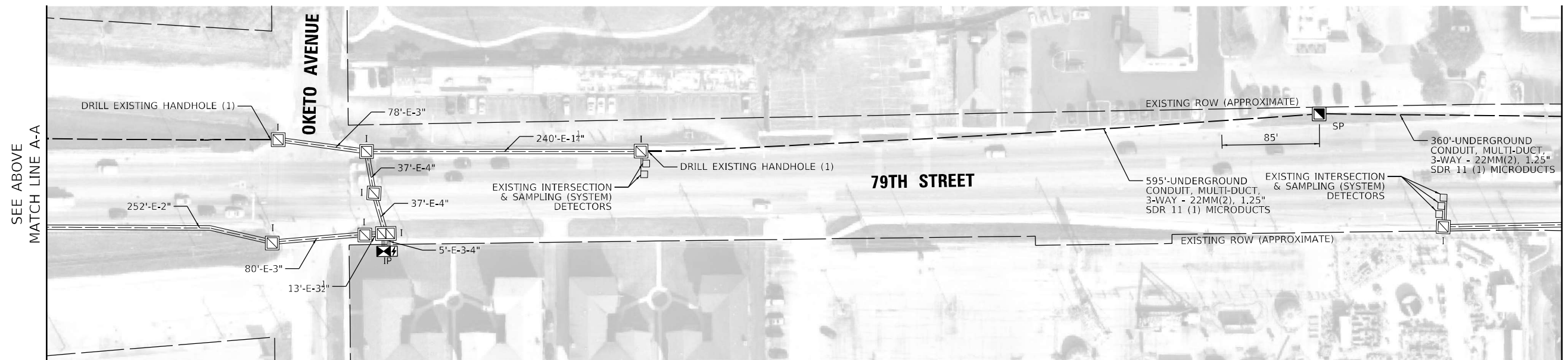
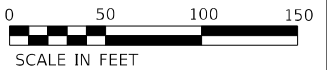
SCALE: 1"=50 SHEET 51 OF 75 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2024-SIGNALS-01	COOK	75	51
CONTRACT NO.62R82				
ILLINOIS FED. AID PROJECT				

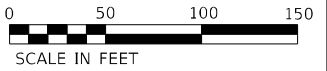
**IDOT CENTRACS  
 FORMER ECON 51**



MATCH LINE STATION A-A  
SEE BELOW



MATCH LINE B-B  
SEE TS SHEET 53



**NOTE:**  
DIMENSIONS PROVIDED ARE FROM THE MIDDLE OF CROSS STREET OR DRIVEWAY TO CENTER OF PROPOSED HANDHOLE. THESE DIMENSIONS ARE APPROXIMATE AND CONTRACTOR SHALL VERIFY HANDHOLE LOCATIONS WITH ENGINEER PRIOR TO CONSTRUCTION.

**IDOT CENTRACS  
FORMER ECON 51**

TS SHT NO. 52  
MODEL: Default  
FILE NAME: PR IC 04 Location 04

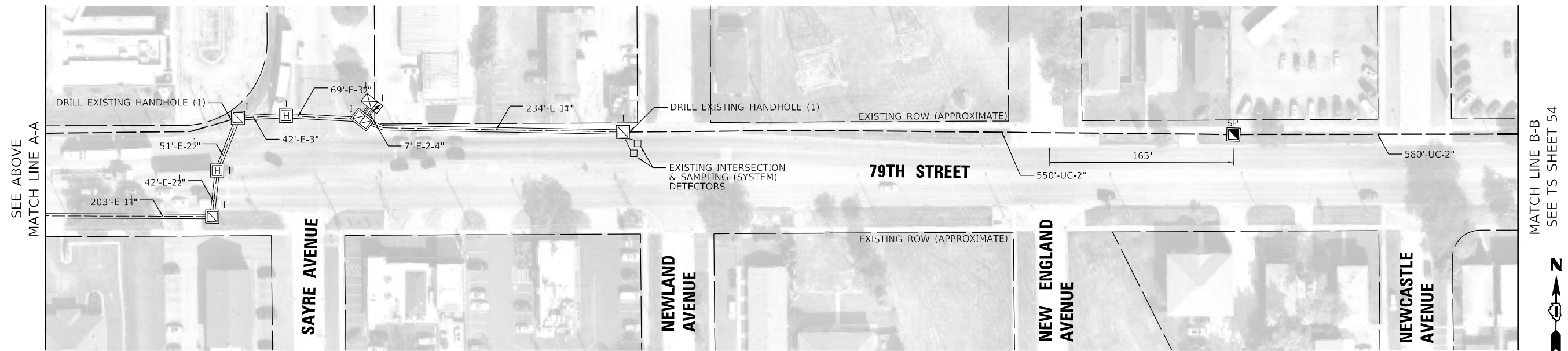
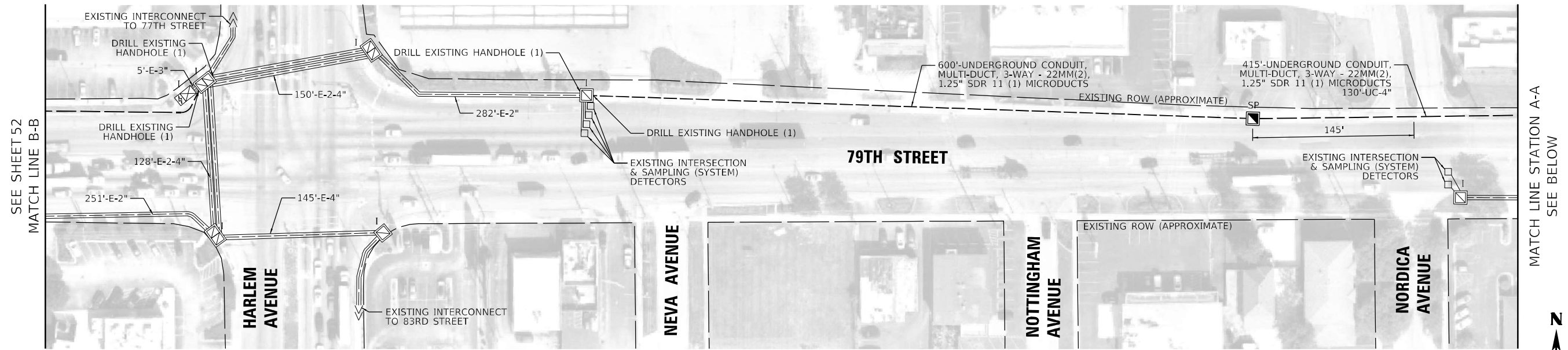


USER NAME = jrdavenport	DESIGNED - GR	REVISED -
DRAWN - JRD	REVISIONS -	
PLOT SCALE = 100,0000' / in.	CHECKED - BS	REVISED -
PLOT DATE = 3/15/2024	DATE - 03-15-2024	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>PROPOSED INTERCONNECT PLAN LOCATION 0 - 79TH STREET</b>			
SCALE: 1"=50	SHEET 52	OF 75 SHEETS	STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2024-SIGNALS-01	COOK	75	52
CONTRACT NO.62R82				
ILLINOIS FED. AID PROJECT				



**NOTE:**  
 DIMENSIONS PROVIDED ARE FROM THE MIDDLE OF CROSS STREET OR DRIVEWAY TO CENTER OF PROPOSED HANDHOLE. THESE DIMENSIONS ARE APPROXIMATE AND CONTRACTOR SHALL VERIFY HANDHOLE LOCATIONS WITH ENGINEER PRIOR TO CONSTRUCTION.

TS SHT NO. 53

MODEL: Default  
 FILE NAME: PR IC 05 Location 0-5

**TRANSYSTEMS**

USER NAME = jrdavenport	DESIGNED - GR	REVISED -
	DRAWN - JRD	REVISED -
PLOT SCALE = 100,0000' / in.	CHECKED - BS	REVISED -
PLOT DATE = 3/15/2024	DATE - 03-15-2024	REVISED -

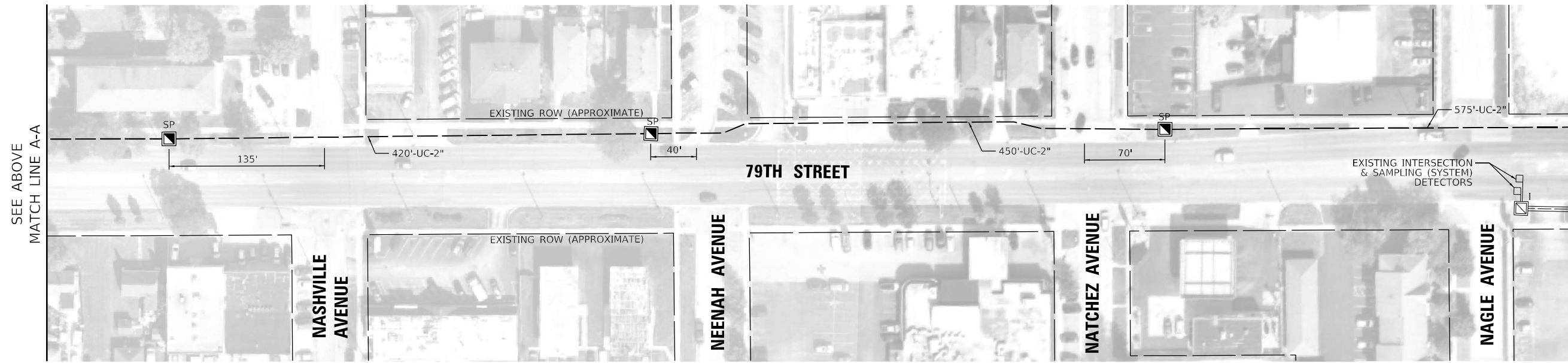
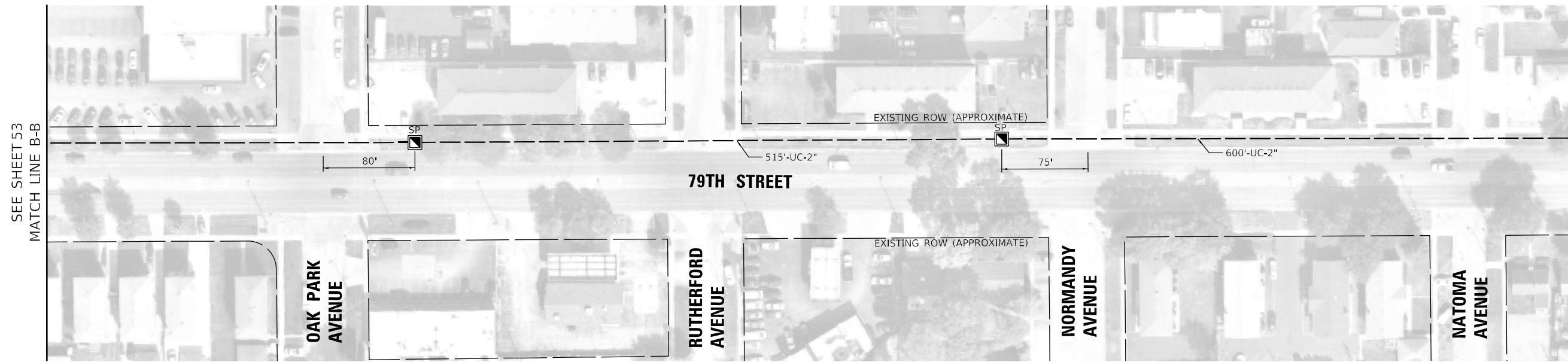
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**PROPOSED INTERCONNECT PLAN  
 LOCATION 0 - 79TH STREET**

SCALE: 1"=50 SHEET 53 OF 75 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2024-SIGNALS-01	COOK	75	53
CONTRACT NO.62R82				
ILLINOIS FED. AID PROJECT				

**IDOT CENTRACS  
 FORMER ECON 51**



**NOTE:**  
 DIMENSIONS PROVIDED ARE FROM THE MIDDLE OF CROSS STREET OR DRIVEWAY TO CENTER OF PROPOSED HANDHOLE. THESE DIMENSIONS ARE APPROXIMATE AND CONTRACTOR SHALL VERIFY HANDHOLE LOCATIONS WITH ENGINEER PRIOR TO CONSTRUCTION.

TS SHT NO. 54

MODEL: Default  
 FILE NAME: PR UC Plan Location\_06

**TRANSYSTEMS**

USER NAME = jrdavenport	DESIGNED - GR	REVISED -
	DRAWN - JRD	REVISED -
PLOT SCALE = 100,0000' / in.	CHECKED - BS	REVISED -
PLOT DATE = 3/15/2024	DATE - 03-15-2024	REVISED -

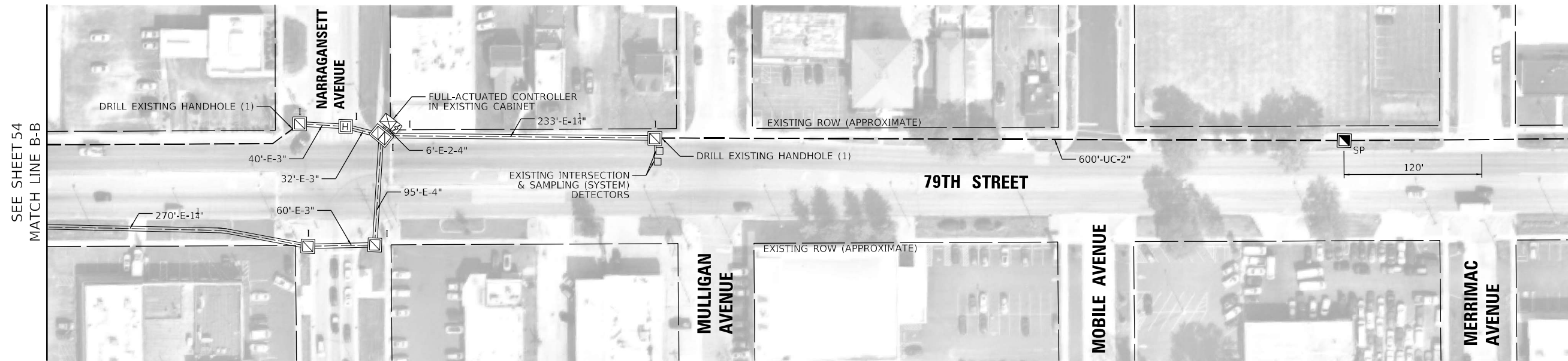
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**PROPOSED INTERCONNECT PLAN  
 LOCATION 0 - 79TH STREET**

SCALE: 1"=50 SHEET 54 OF 75 SHEETS STA. TO STA.

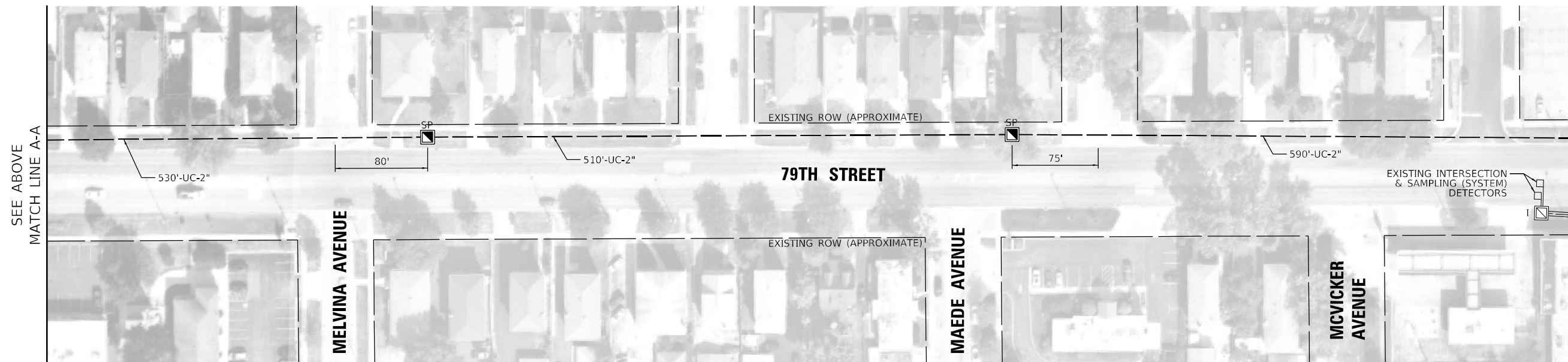
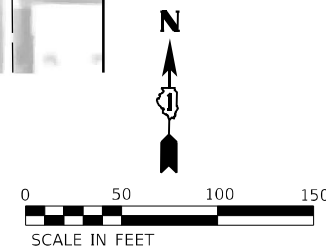
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2024-SIGNALS-01	COOK	75	54
CONTRACT NO.62R82				
ILLINOIS FED. AID PROJECT				

**IDOT CENTRACS  
 FORMER ECON 51**



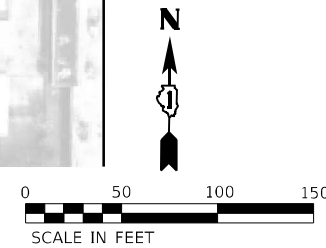
SEE SHEET 54  
MATCH LINE B-B

MATCH LINE STATION A-A  
SEE BELOW



SEE ABOVE  
MATCH LINE A-A

MATCH LINE B-B  
SEE TS SHEET 56



**NOTE:**  
DIMENSIONS PROVIDED ARE FROM THE MIDDLE OF CROSS STREET OR DRIVEWAY TO CENTER OF PROPOSED HANDHOLE. THESE DIMENSIONS ARE APPROXIMATE AND CONTRACTOR SHALL VERIFY HANDHOLE LOCATIONS WITH ENGINEER PRIOR TO CONSTRUCTION.

**IDOT CENTRACS  
FORMER ECON 51**

**TS SHT NO. 55**

MODEL: Default  
FILE NAME: PR UC Plan Location 0-7

**TRANSYSTEMS**

USER NAME = jrdavenport	DESIGNED - GR	REVISED -
	DRAWN - JRD	REVISED -
PLOT SCALE = 100,0000' / in.	CHECKED - BS	REVISED -
PLOT DATE = 3/15/2024	DATE - 03-15-2024	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

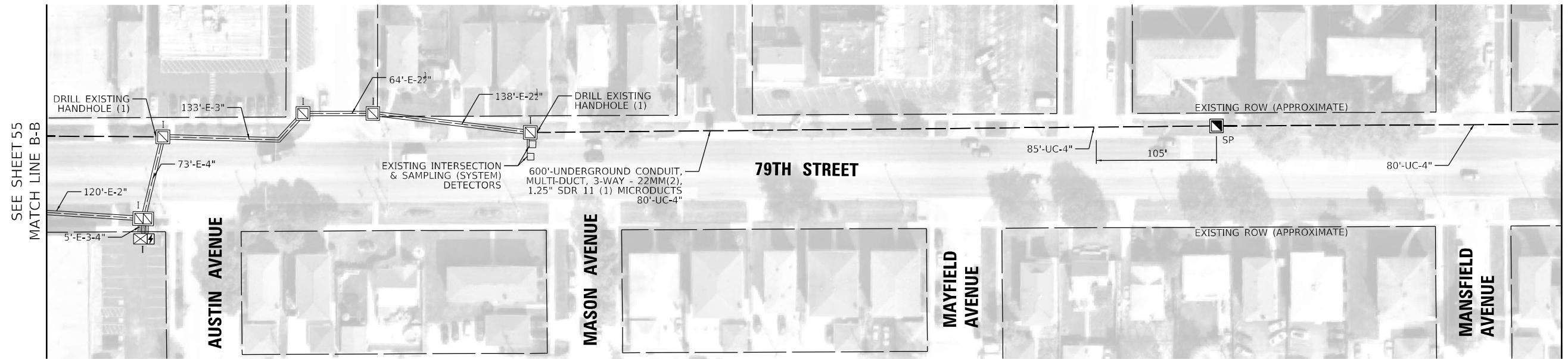
**PROPOSED INTERCONNECT PLAN  
LOCATION 0 - 79TH STREET**

SCALE: 1"=50 SHEET 55 OF 75 SHEETS STA. TO STA.

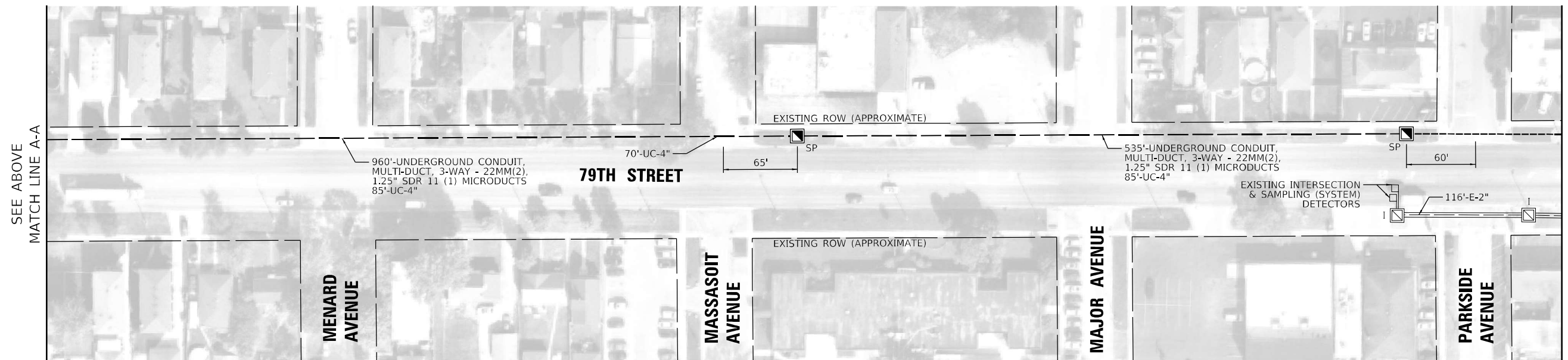
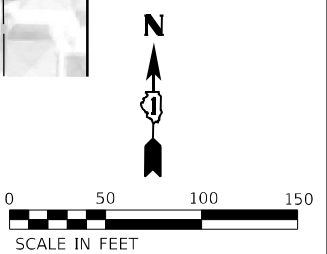
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2024-SIGNALS-01	COOK	75	55
CONTRACT NO.62R82				
ILLINOIS FED. AID PROJECT				

TS SHT NO. 56

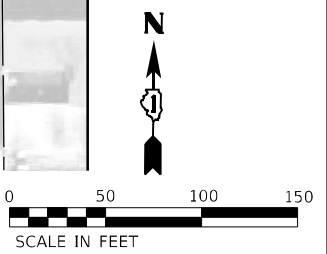
MODEL: Default  
FILE NAME: PR UC Plan Location 0.s



MATCH LINE STATION A-A  
SEE BELOW



MATCH LINE B-B  
SEE TS SHEET 57



**NOTE:**  
DIMENSIONS PROVIDED ARE FROM THE MIDDLE OF CROSS STREET OR DRIVEWAY TO CENTER OF PROPOSED HANDHOLE. THESE DIMENSIONS ARE APPROXIMATE AND CONTRACTOR SHALL VERIFY HANDHOLE LOCATIONS WITH ENGINEER PRIOR TO CONSTRUCTION.

**IDOT CENTRACS  
FORMER ECON 51**

**TRANSYSTEMS**

USER NAME = jrdavenport	DESIGNED - GR	REVISED -
	DRAWN - JRD	REVISED -
PLOT SCALE = 100,0000' / in.	CHECKED - BS	REVISED -
PLOT DATE = 3/15/2024	DATE - 03-15-2024	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PROPOSED INTERCONNECT PLAN  
LOCATION 0 - 79TH STREET**

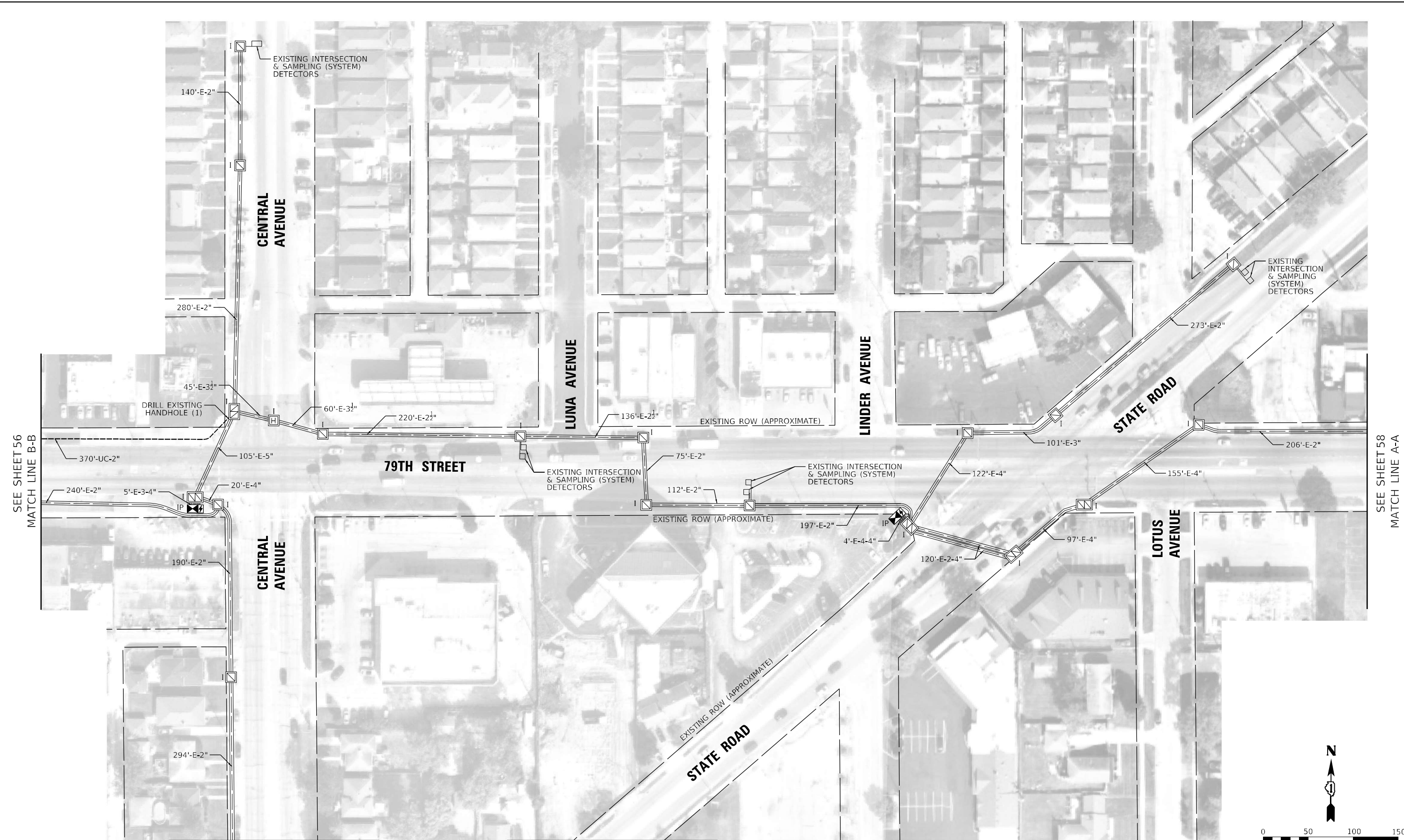
SCALE: 1"=50 SHEET 56 OF 75 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2024-SIGNALS-01	COOK	75	56
CONTRACT NO.62R82				
ILLINOIS FED. AID PROJECT				



TS SHT NO. 57

MODEL: Default  
FILE NAME: PR\_IC\_Rb1\_Location\_0-9



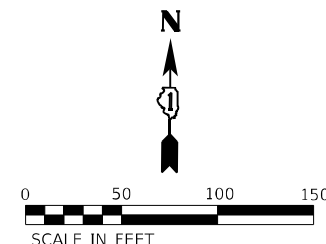
SEE SHEET 56  
MATCH LINE B-B

SEE SHEET 58  
MATCH LINE A-A

MATCH LINE B-B  
SEE TS SHEET 58

MATCH LINE C-C  
SEE TS SHEET 58

**NOTE:**  
DIMENSIONS PROVIDED ARE FROM THE MIDDLE OF CROSS STREET OR DRIVEWAY TO CENTER OF PROPOSED HANDHOLE. THESE DIMENSIONS ARE APPROXIMATE AND CONTRACTOR SHALL VERIFY HANDHOLE LOCATIONS WITH ENGINEER PRIOR TO CONSTRUCTION.



**TRANSYSTEMS**

USER NAME = jrdavenport	DESIGNED - GR	REVISED -
	DRAWN - JRD	REVISED -
PLOT SCALE = 100,0000' / in.	CHECKED - BS	REVISED -
PLOT DATE = 3/15/2024	DATE - 03-15-2024	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PROPOSED INTERCONNECT PLAN  
LOCATION 0 - 79TH STREET**

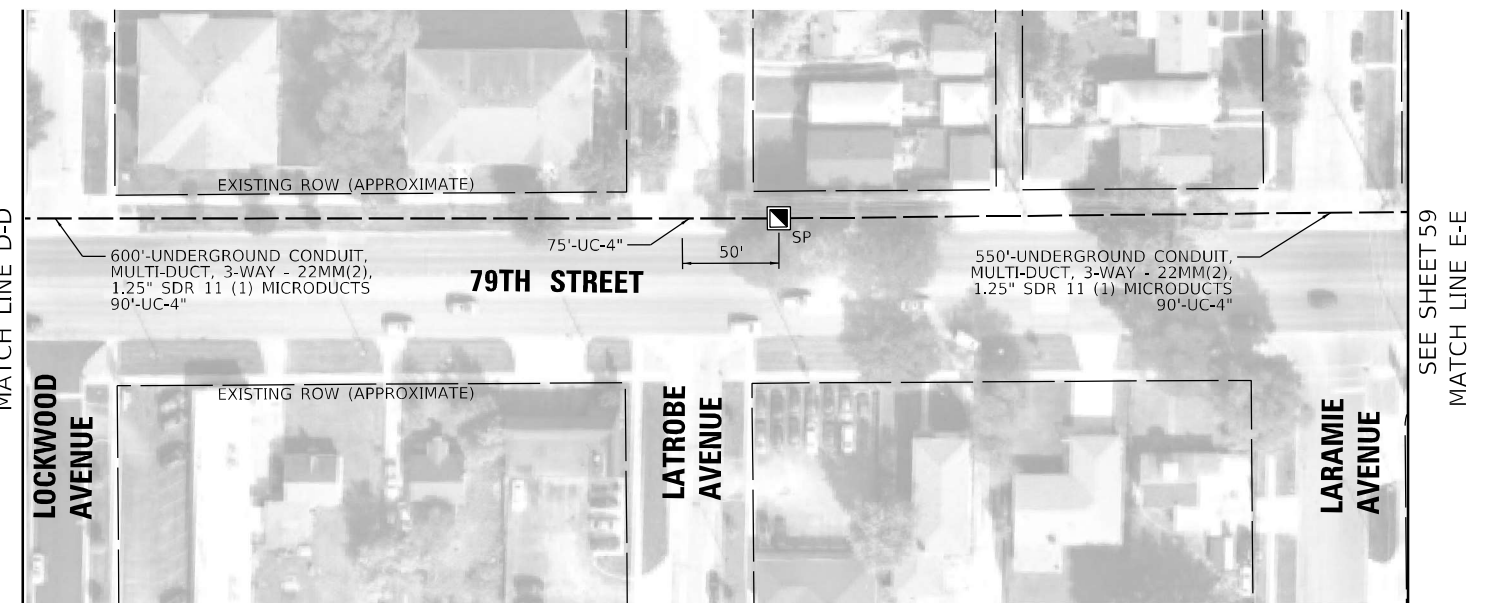
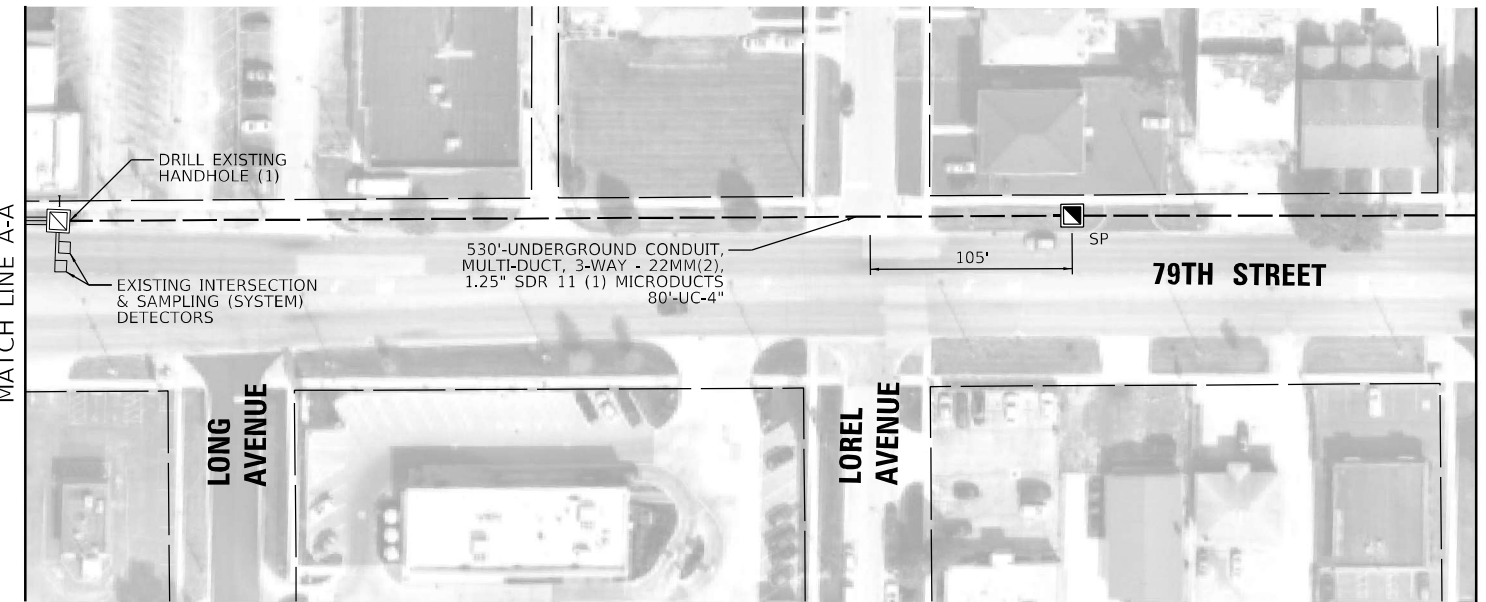
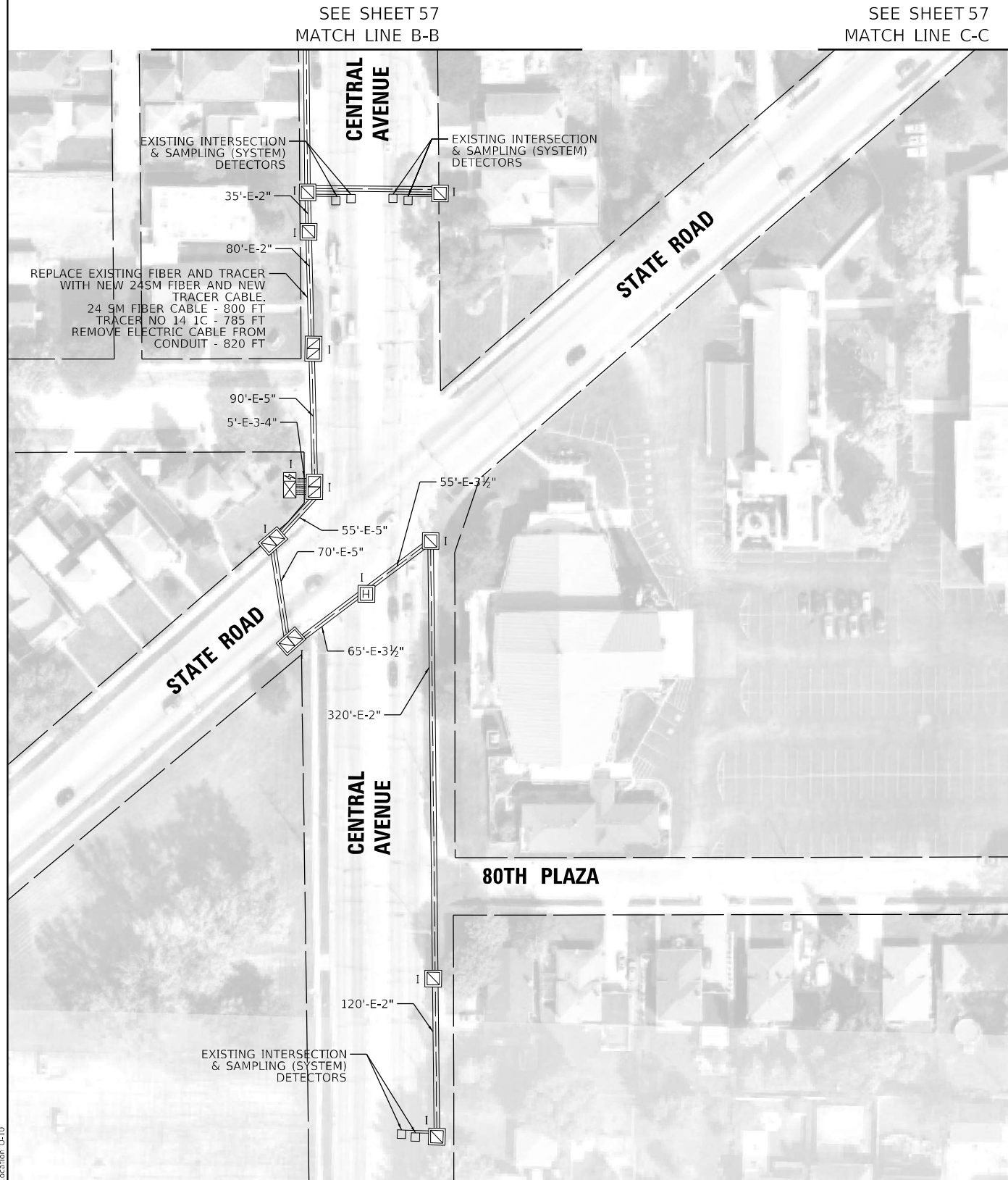
SCALE: 1"=50 SHEET 57 OF 75 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2024-SIGNALS-01	COOK	75	57
CONTRACT NO.62R82				
ILLINOIS FED. AID PROJECT				

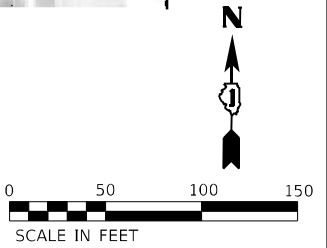
**IDOT CENTRACS  
FORMER ECON 51**

TS SHT NO. 58

MODEL: Default  
FILE NAME: PR\_IC\_Plan\_Location\_0-10



**NOTE:**  
DIMENSIONS PROVIDED ARE FROM THE MIDDLE OF CROSS STREET OR DRIVEWAY TO CENTER OF PROPOSED HANDHOLE. THESE DIMENSIONS ARE APPROXIMATE AND CONTRACTOR SHALL VERIFY HANDHOLE LOCATIONS WITH ENGINEER PRIOR TO CONSTRUCTION.



**TRANSYSTEMS**

USER NAME = jrdavenport	DESIGNED - GR	REVISED -
DRAWN - JRD	REVISED -	
PLOT SCALE = 100,0000' / in.	CHECKED - BS	REVISED -
PLOT DATE = 3/15/2024	DATE - 03-15-2024	REVISED -

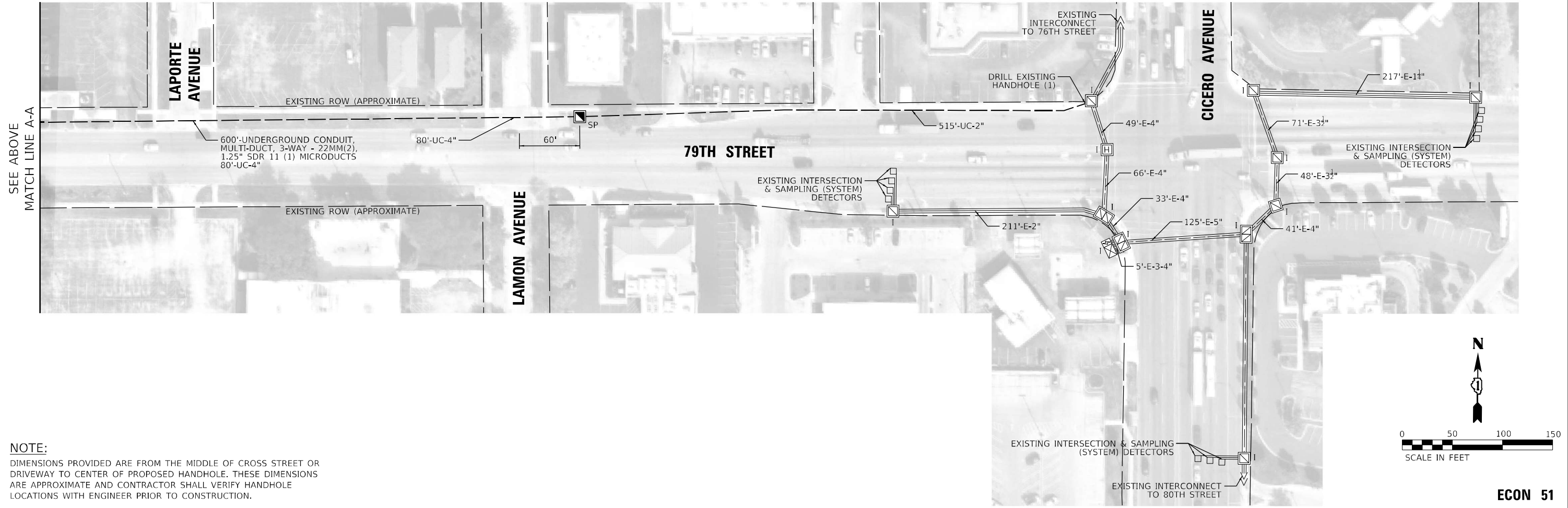
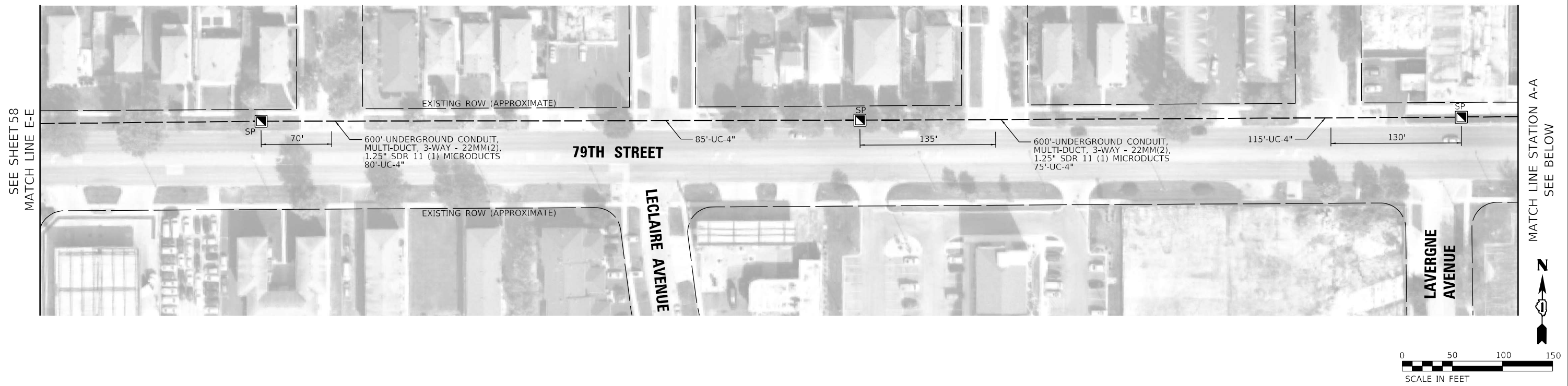
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PROPOSED INTERCONNECT PLAN  
LOCATION 0 - 79TH STREET**

SCALE: 1"=50 SHEET 58 OF 75 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2024-SIGNALS-01	COOK	75	58
CONTRACT NO.62R82				
ILLINOIS FED. AID PROJECT				

**IDOT CENTRACS  
FORMER ECON 51**



**NOTE:**  
 DIMENSIONS PROVIDED ARE FROM THE MIDDLE OF CROSS STREET OR DRIVEWAY TO CENTER OF PROPOSED HANDHOLE. THESE DIMENSIONS ARE APPROXIMATE AND CONTRACTOR SHALL VERIFY HANDHOLE LOCATIONS WITH ENGINEER PRIOR TO CONSTRUCTION.

TS SHT NO. 59  
MODEL: Default  
 FILE NAME: PR UC 001 Location 0-11



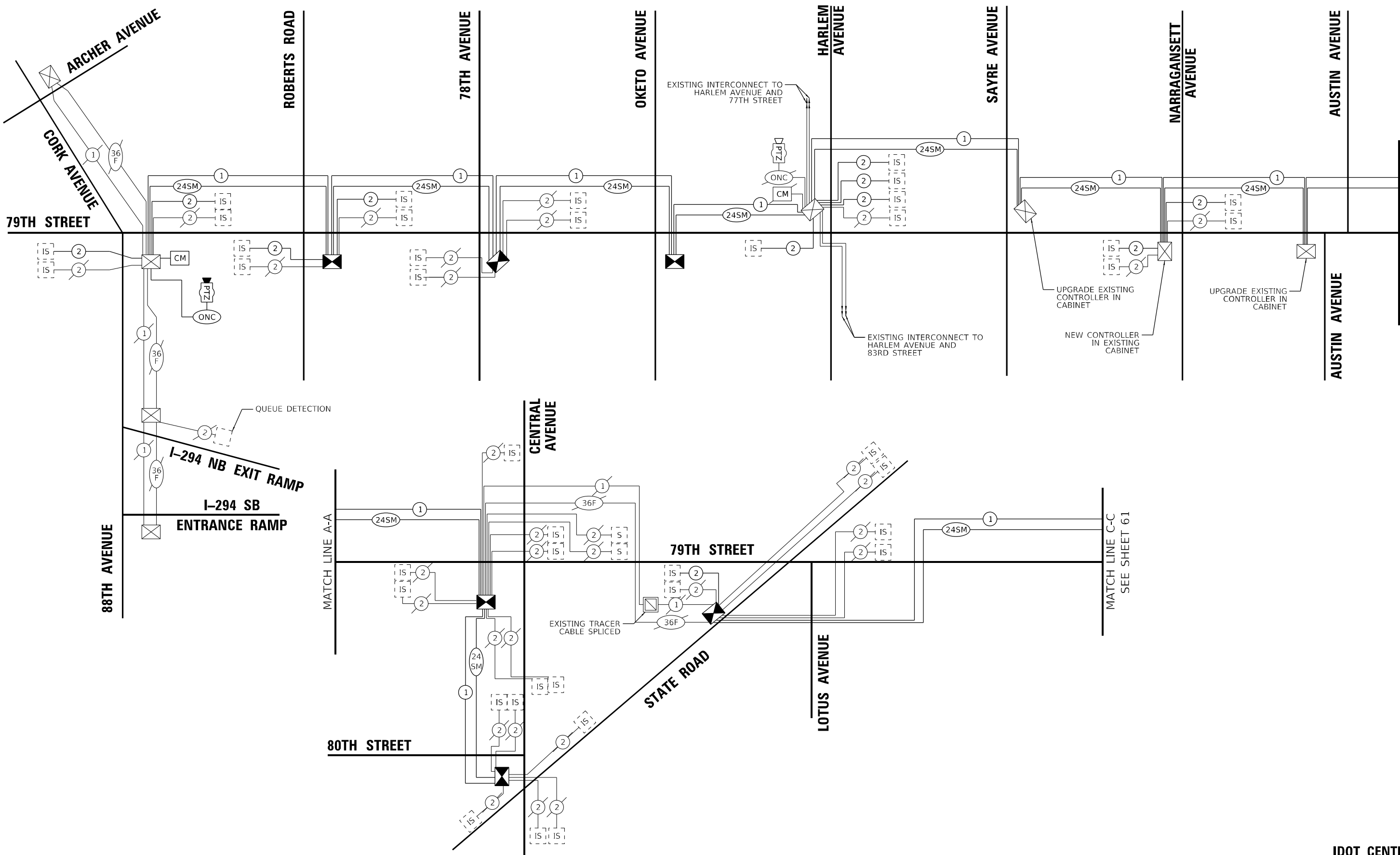
USER NAME = jrdavenport	DESIGNED - GR	REVISED -
PLOT SCALE = 100,0000' / in.	DRAWN - JRD	REVISED -
PLOT DATE = 3/15/2024	CHECKED - BS	REVISED -
	DATE - 03-15-2024	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

<b>PROPOSED INTERCONNECT PLAN      LOCATION 0 - 79TH STREET</b>			
SCALE: 1"=50	SHEET 59	OF 75 SHEETS	STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2024-SIGNALS-01	COOK	75	59
CONTRACT NO.62R82				
ILLINOIS FED. AID PROJECT				

**ECON 51**



TS SHT NO. 60

MODEL: Default  
FILE NAME: Interconnect Schematic Location 0

**TRANSYSTEMS**

USER NAME = jrdavenport	DESIGNED - GR	REVISED -
DRAWN - JRD	REVISED -	
PLOT SCALE = 100,0000' / in.	CHECKED - BS	REVISED -
PLOT DATE = 3/15/2024	DATE - 03-15-2024	REVISED -

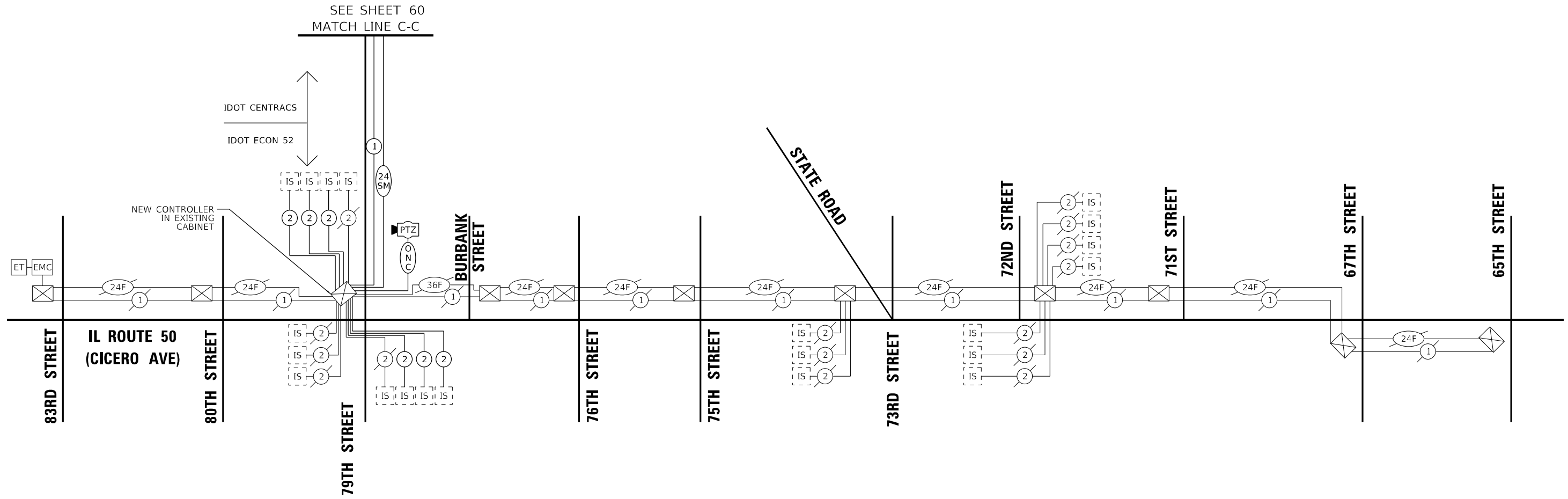
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PROPOSED INTERCONNECT SCHEMATIC AND SCHEDULE OF QUANTITIES  
LOCATION 0 - 79TH STREET - 88TH AVENUE TO IL 50**

SCALE: NONE SHEET 60 OF 75 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2024-SIGNALS-01	COOK	75	60
			CONTRACT NO.62R82	
ILLINOIS FED. AID PROJECT				

**IDOT CENTRACS  
FORMER ECON 51**



**SCHEDULE OF QUANTITIES**

Item	Unit	SUBTOTAL
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	6,805
UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	1,655
HANDHOLE	EACH	25
ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1C	FOOT	28,670
DRILL EXISTING HANDHOLE	EACH	20
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	825
TEMPORARY INFORMATION SIGNING	SQ FT	102.8
* OPTIMIZE TRAFFIC SIGNAL SYSTEM	EACH	1
UNDERGROUND CONDUIT, MULTI-DUCT, 3 WAY - 22MM (2), 1.25" SDR 11 (1) MICRODUCTS	FOOT	15,515
FIBER OPTIC CABLE, MICRO, 24 FIBERS, SINGLE MODE	FOOT	28,840

\* OPTIMIZE TRAFFIC SIGNAL SYSTEM SHALL INCLUDE THE SPLIT DEMAND PATTERN DEVELOPMENT AND CONTROLLER PROGRAMMING FOR THE I-294 NB EXIT RAMP QUEUE DETECTOR. ALL CONTROLLERS ALONG 88TH AVE SHALL BE PROGRAMMED THROUGH PEER-TO-PEER COMMUNICATION TO INITIATE THE SAME PATTERN WHEN SPLIT DEMAND CONDITIONS ARE MET.

**IDOT CENTRACS  
ECON 52**

TS SHT NO. 61  
MODEL: Default  
FILE NAME: Interconnect Schematic Location 0




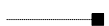




USER NAME = jrdavenport	DESIGNED - GR	REVISED -
	DRAWN - JRD	REVISED -
PLOT SCALE = 100,0000' / in.	CHECKED - BS	REVISED -
PLOT DATE = 3/15/2024	DATE - 03-15-2024	REVISED -

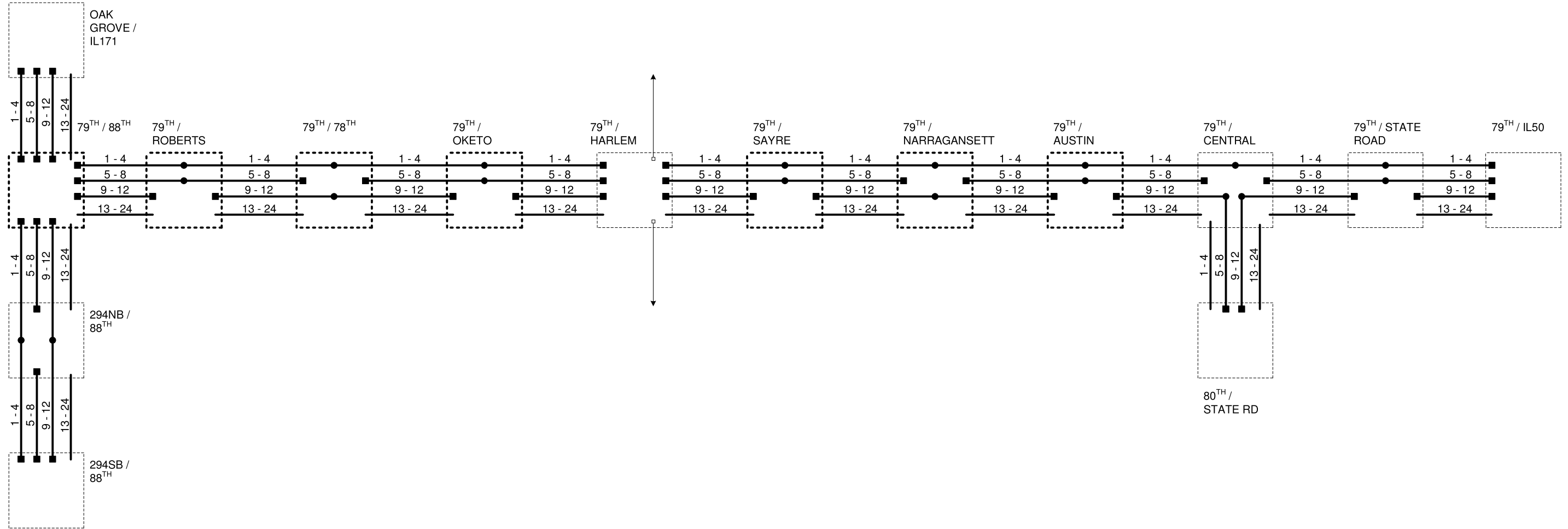
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PROPOSED INTERCONNECT SCHEMATIC AND SCHEDULE OF QUANTITIES  
LOCATION 0 - 79TH STREET - 88TH AVENUE TO IL 50**

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
VAR	2024-SIGNALS-01	COOK	75	61
CONTRACT NO. 62R82				
ILLINOIS FED. AID PROJECT				

SCALE: NONE SHEET 61 OF 75 SHEETS STA. TO STA.

-  EXISTING CONNECTOR / EXISTING FIBER
-  NEW CONNECTOR / EXISTING FIBER
-  EXISTING FUSION SPLICE / EXISTING FIBER
-  NEW FUSION SPLICE / EXISTING FIBER
-  NEW CONNECTOR / NEW FIBER
-  NEW FUSION SPLICE / NEW FIBER



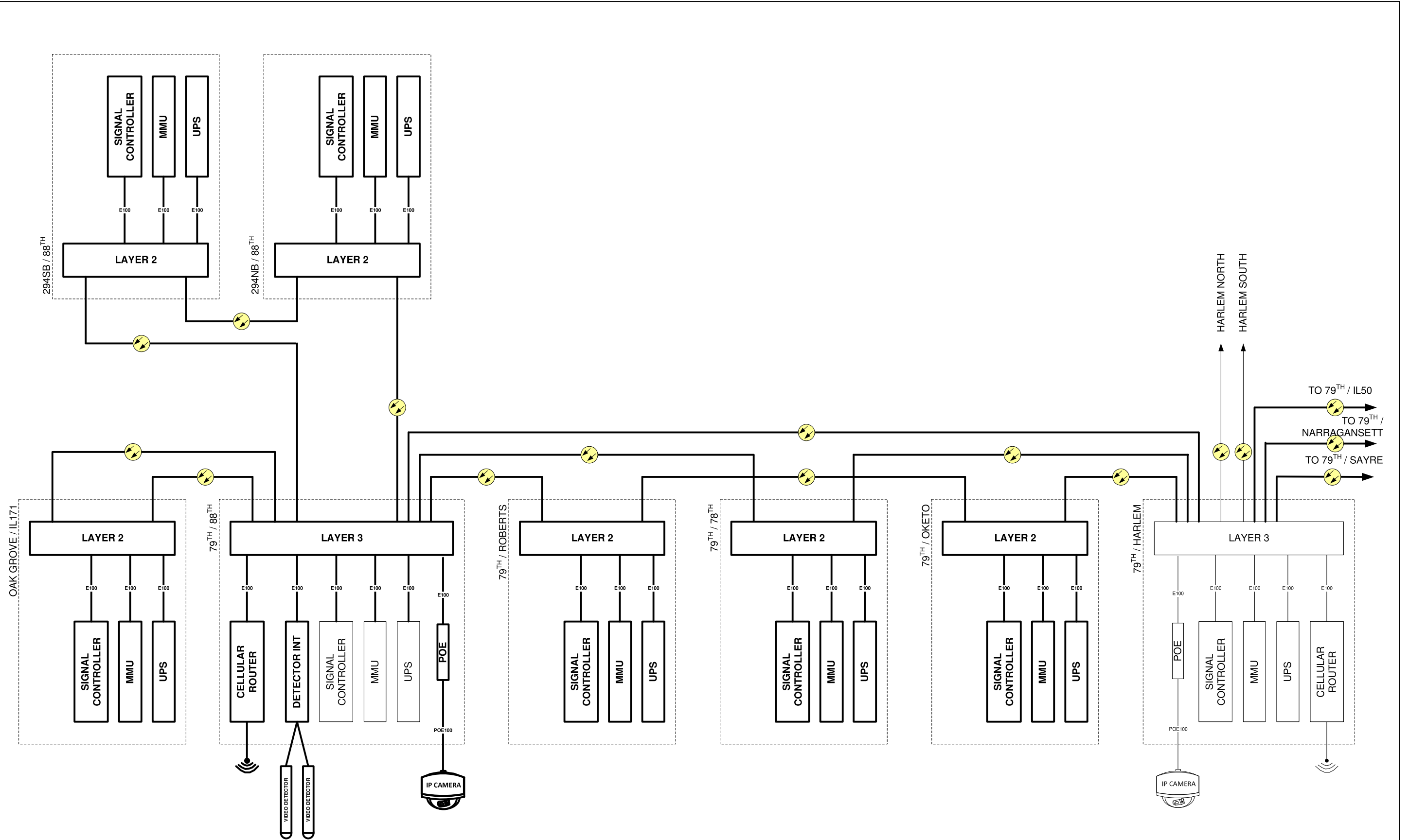
IDOT CENTRACS  
FORMER ECON51

DESIGNED - DG	REVISED -	
DRAWN - YM	REVISED -	
CHECKED - DG	REVISED -	
DATE 2024.05.07	REVISED -	

ILLINOIS DEPARTMENT OF  
TRANSPORTATION

ECON51 79 <sup>th</sup> CICERO TO 88 <sup>TH</sup> FIBER SPLICING DIAGRAM	
SCALE N/A	

ROUTE	SECTION	SECTION NUMBER	SHEET	SHEETS



IDOT CENTRACS  
FORMER ECON51

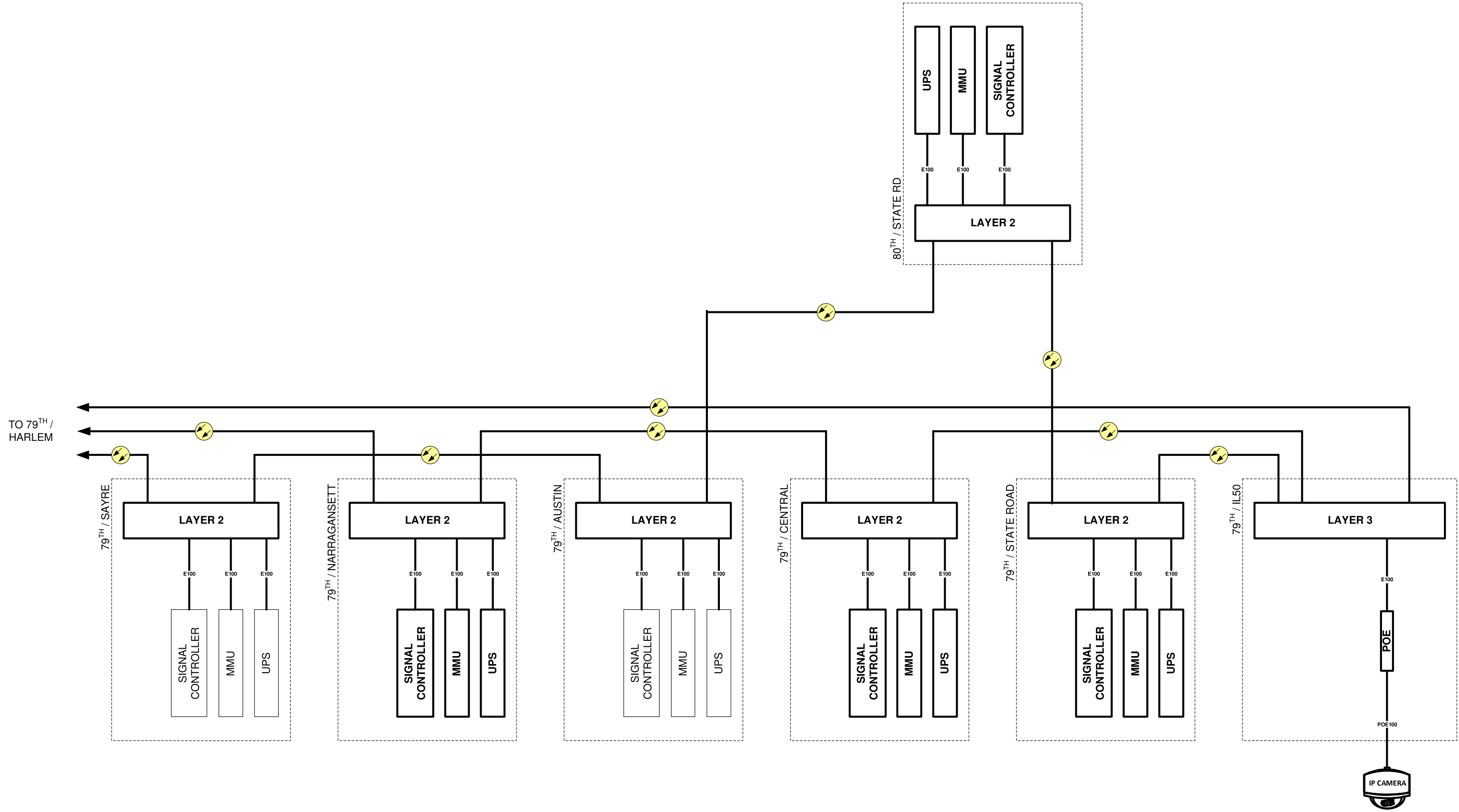
DESIGNED - DG	REVISED -
DRAWN - YM	REVISED -
CHECKED - DG	REVISED -
DATE 2024.05.07	REVISED -

ILLINOIS DEPARTMENT OF  
TRANSPORTATION

ECON51  
79<sup>TH</sup> 88<sup>TH</sup> to IL50 CABINET DETAIL

SCALE N/A

ROUTE	SECTION	SECTION NUMBER	SHEET	SHEETS



IDOT CENTRACS  
FORMER ECON51

DESIGNED - DG	REVISED -	
DRAWN - YM	REVISED -	
CHECKED - DG	REVISED -	
DATE 2024.05.07	REVISED -	

ILLINOIS DEPARTMENT OF  
TRANSPORTATION

ECON51  
79<sup>TH</sup> 88<sup>TH</sup> to IL50 CABINET DETAIL

SCALE N/A

ROUTE	SECTION	SECTION NUMBER	SHEET	SHEETS

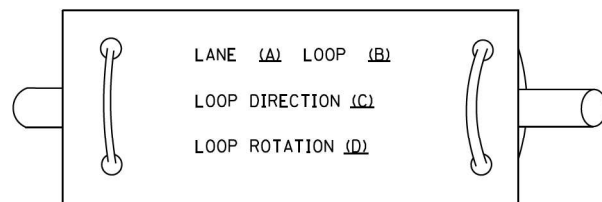




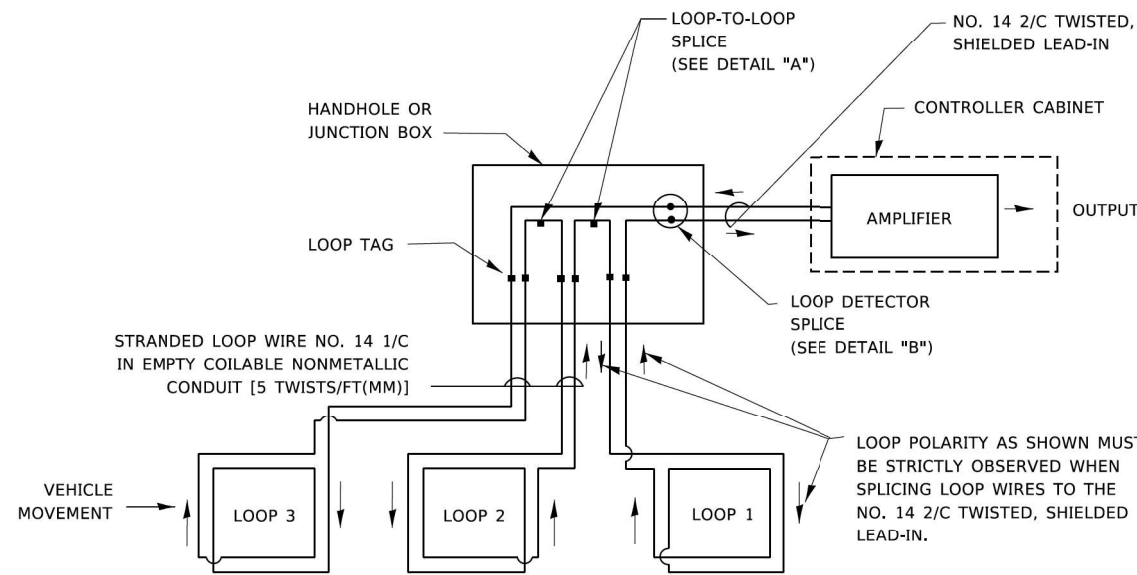
**LOOP DETECTOR NOTES**

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 DIVESHOLES MARKED AT THE CURB WITH A SAW-CUT. THE SAW-CUT SHALL BE CUT IN ACCORDANCE WITH LOCAL AND E.P.A. DUST CONTROL REQUIREMENTS. DETECTOR LOOP(S) SHALL NOT BE INSTALLED IN WET CONDITIONS AND THE SAW-CUTS MUST BE FREE OF DEBRIS AND RESIDUE SUCH AS DUST AND WATER WHICH IS TO BE ACHIEVED BY THE USE OF COMPRESSED AIR, WIRE BRUSHING AND HEAT DRYING ACCORDING TO SEALANT MANUFACTURER REQUIREMENTS. THE DETECTOR WIRE SHALL BE HELD IN PLACE BY THE USE OF FORM WEDGES. WEDGES SHALL BE SPACED NO MORE THAN 18" (450 mm) APART.
6. LOOP SPLICES SHALL BE SOLDERED USING A SOLDERING IRON. BLOW TORCHES OR OTHER DEVICES WHICH OXIDIZE COPPER CABLE SHALL NOT BE ALLOWED FOR SOLDERING OPERATIONS. SEE DETAIL BELOW RIGHT.
7. PREFORMED DETECTOR LOOPS SHALL BE USED, AS SHOWN ON THE PLANS, WHERE NEW CONCRETE PAVEMENT IS PROPOSED. THE INSTALLATION OF PREFORMED LOOPS SHALL BE IN ACCORDANCE WITH THE DISTRICT 1 SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.

**LOOP LEAD-IN CABLE TAG**

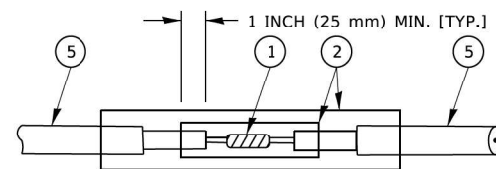


- A. LANE #1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

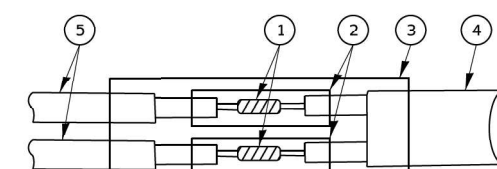


**DETECTOR LOOP WIRING SCHEMATIC**

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

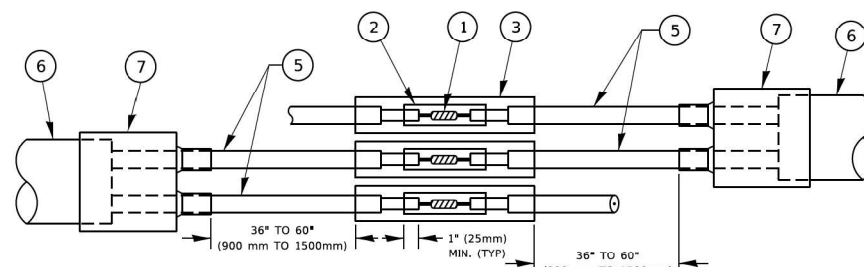


DETAIL "A"  
LOOP-TO-LOOP SPLICE

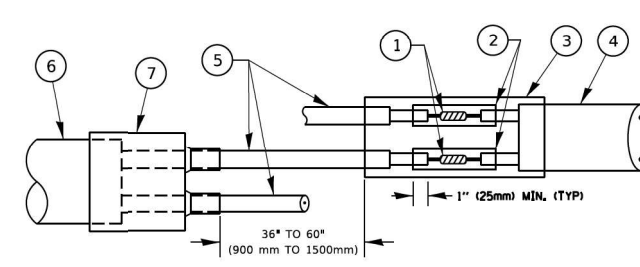


DETAIL "B"  
LOOP-TO-CONTROLLER SPLICE

**TYPE I LOOP**



DETAIL "A"  
LOOP-TO-LOOP SPLICE



DETAIL "B"  
LOOP-TO-CONTROLLER SPLICE

**PREFORMED LOOP**

**LOOP DETECTOR SPLICE**

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

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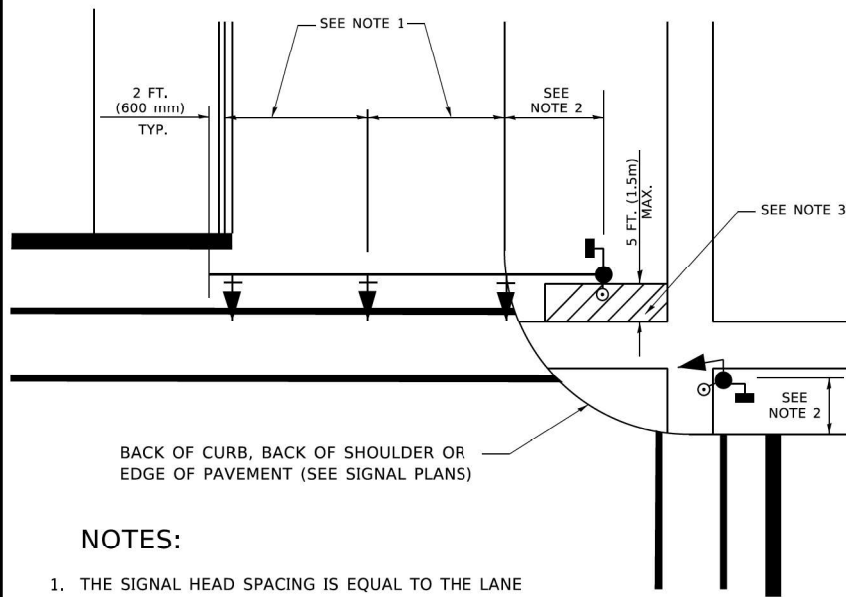
**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

<b>DISTRICT ONE          STANDARD TRAFFIC SIGNAL DESIGN DETAILS</b>			
SCALE: NONE	SHEET 2	OF 7 SHEETS	STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	TS-05	COOK	75	66
ILLINOIS FED. AID PROJECT			DRAWING NO. TS0004	

**TRAFFIC SIGNAL MAST ARM AND SIGNAL POST**

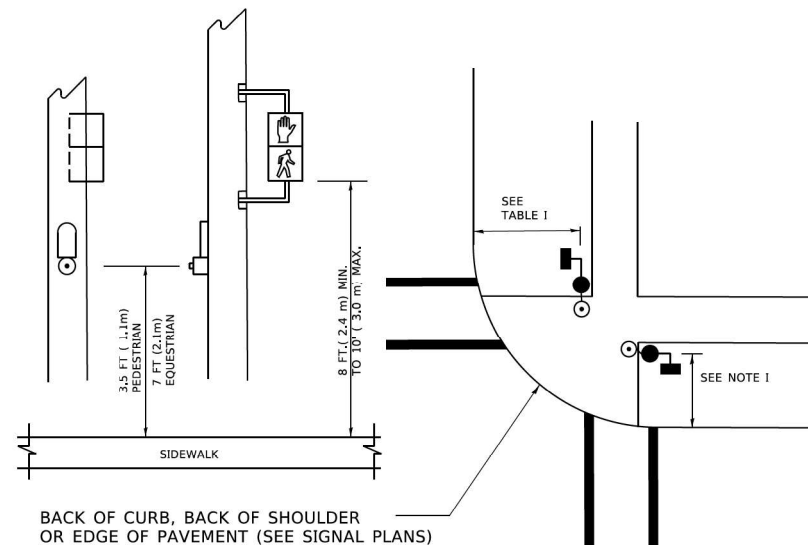
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.



**NOTES:**

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

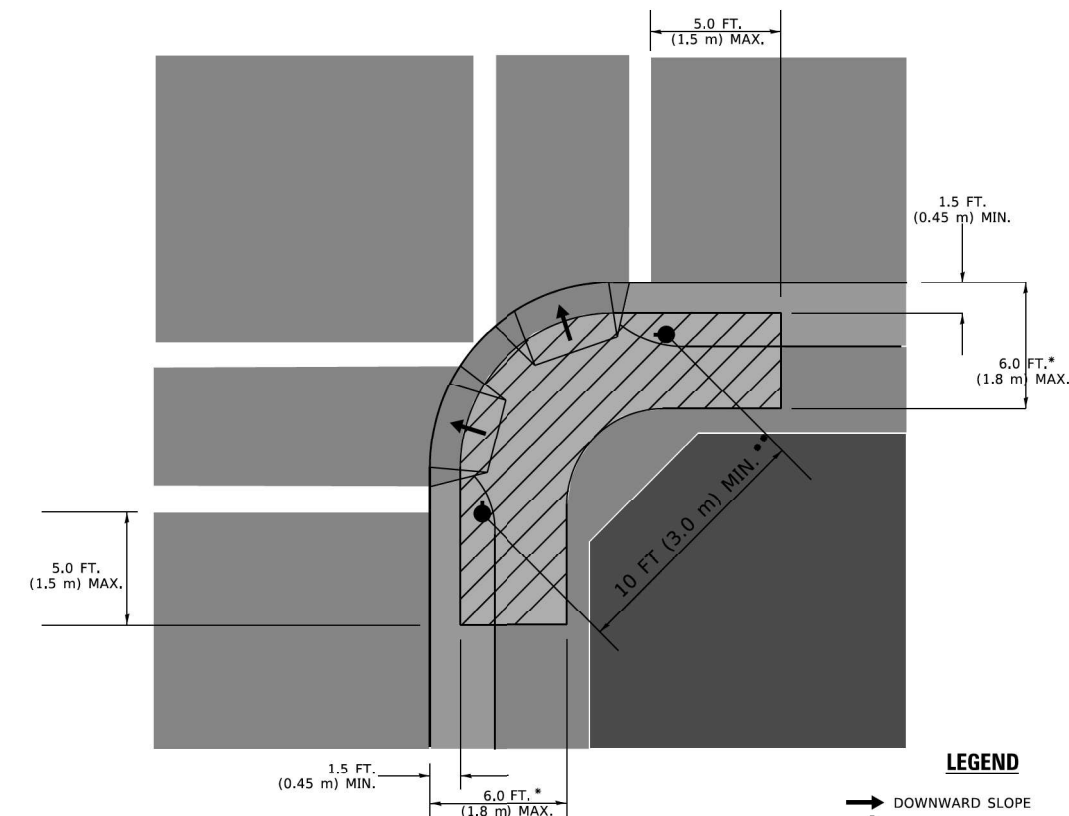
**PEDESTRIAN SIGNAL POST AND PEDESTRIAN PUSH BUTTON POST**



**NOTES:**

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

**RECOMMENDED PUSHBUTTON LOCATIONS**



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

**NOTES:**

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

**TRAFFIC SIGNAL EQUIPMENT OFFSET**

TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MINIMUM DISTANCE FROM BACK OF CURB TO CENTERLINE OF FOUNDATION)	SHOULDER/NON-CURBED AREA (MINIMUM DISTANCE FROM EDGE OF PAVEMENT TO CENTERLINE OF FOUNDATION)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.5m), MINIMUM 10 FT (3.0m)
TRAFFIC SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.5m), MINIMUM 10 FT (3.0m)
PEDESTRIAN SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.5m), MINIMUM 10 FT (3.0m)
PEDESTRIAN PUSHBUTTON POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.5m), MINIMUM 10 FT (3.0m)
TEMPORARY WOOD POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.5m), MINIMUM 10 FT (3.0m)
CONTROLLER CABINET	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.3m), 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 (1.3m), MINIMUM 16 FT (4.9m) SEE NOTE 3.

**NOTES:**

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

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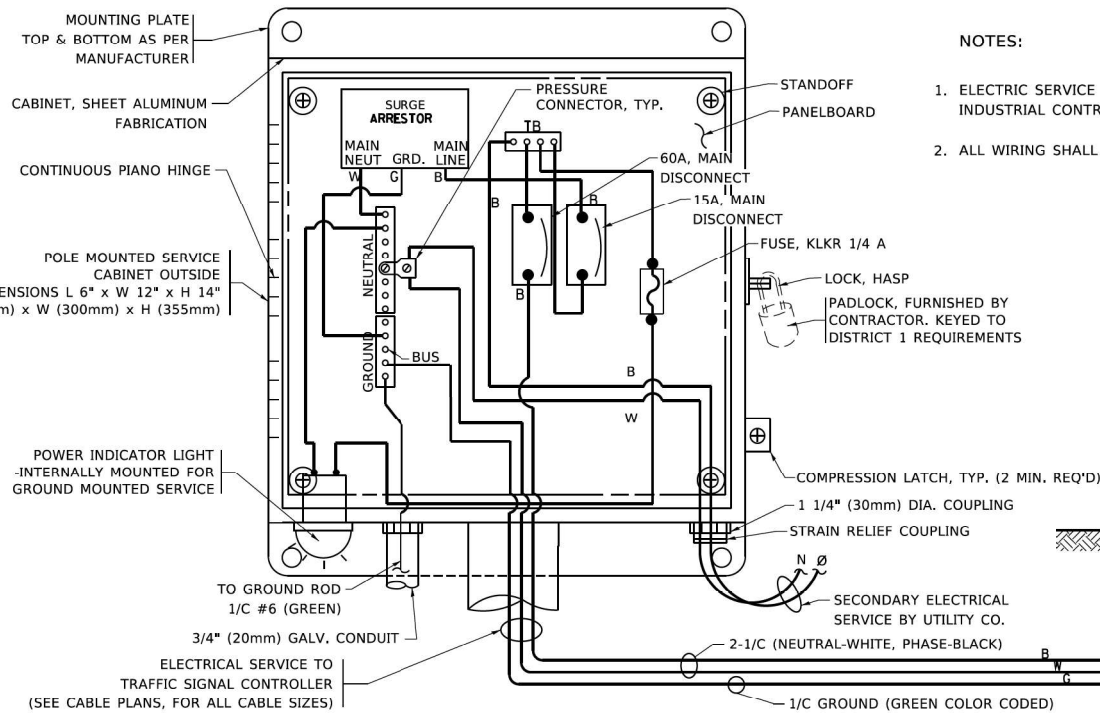
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

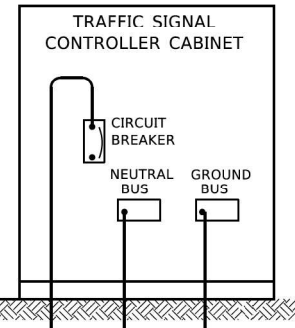
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STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

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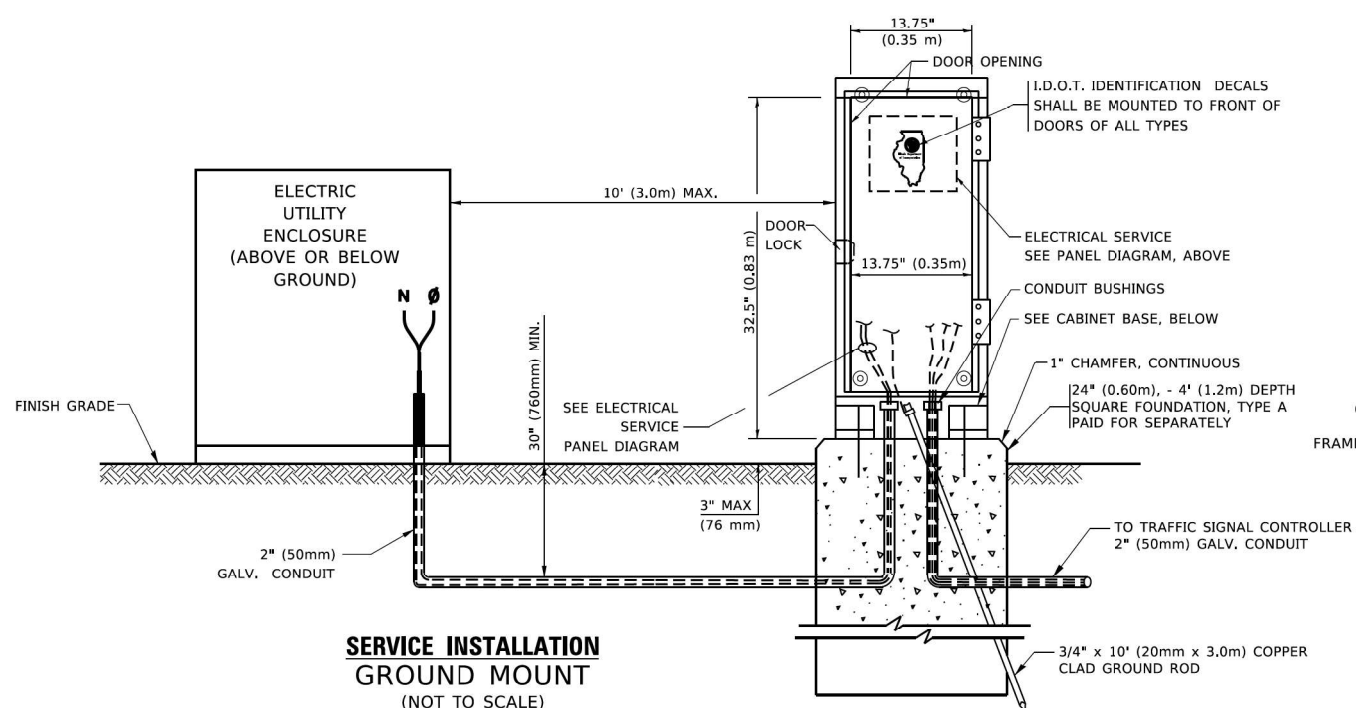
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		COOK	75	67
TS-05			DRAWING NO. TS0005	
ILLINOIS FED. AID PROJECT				



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

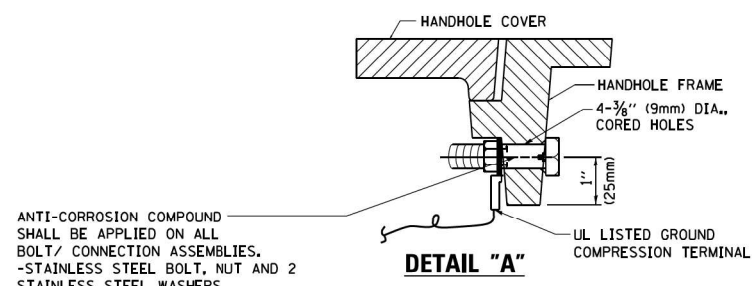
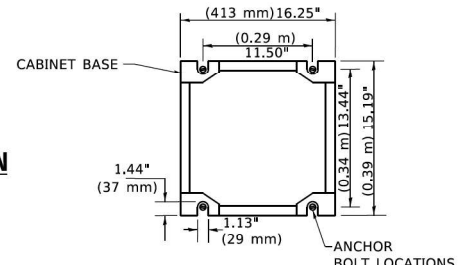


**ELECTRICAL SERVICE - PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)**  
**SERVICE INSTALLATION POLE MOUNT (SHOWN)**  
 (NOT TO SCALE)

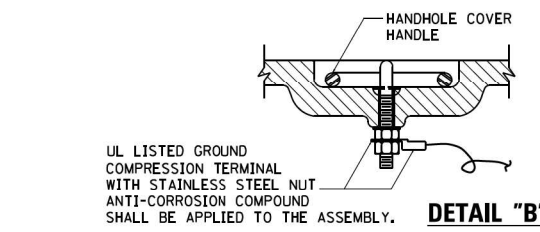


**SERVICE INSTALLATION GROUND MOUNT**  
 (NOT TO SCALE)

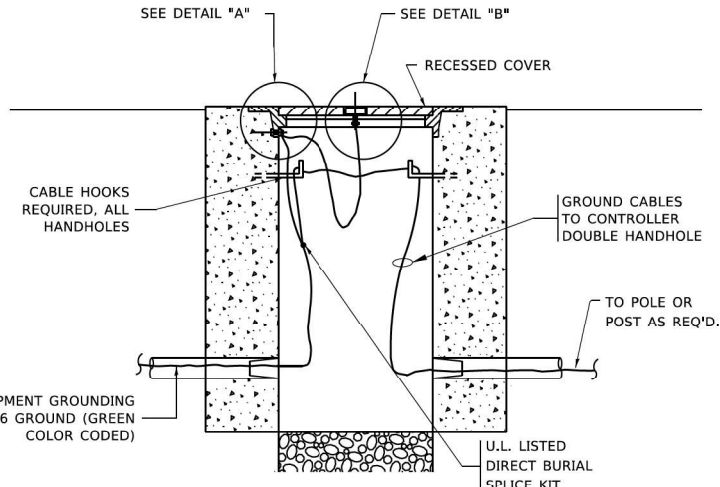
**CABINET - BASE BOLT PATTERN**  
 (NOT TO SCALE)



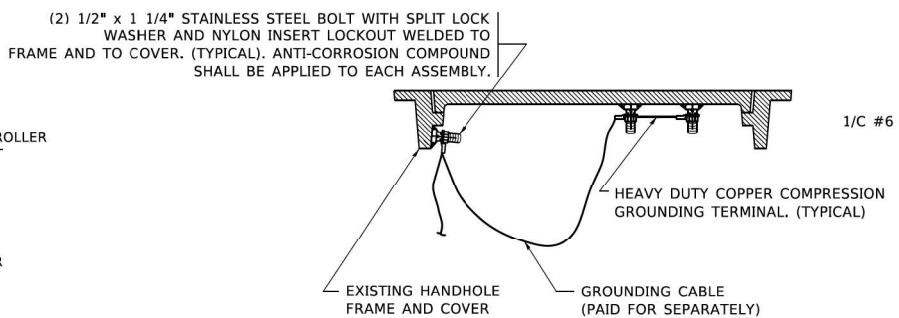
**DETAIL "A"**



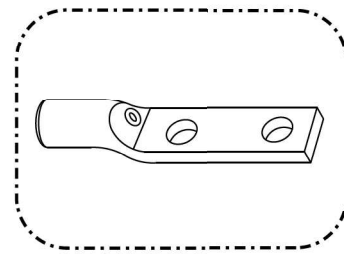
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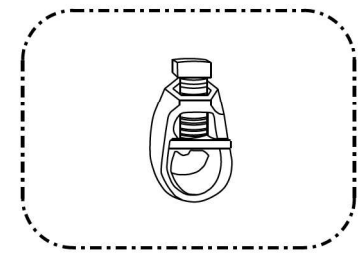
**HANDHOLE COVER & FRAME - GROUNDING DETAIL**  
 (NOT TO SCALE)



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

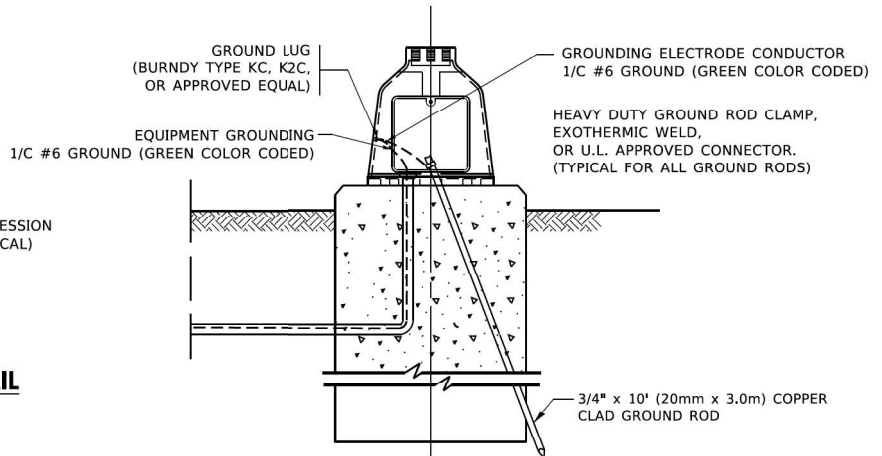


HEAVY-DUTY COMPRESSION TERMINAL (BURNDY TYPE YGHA OR APPROVED EQUAL)



3/8" (20mm) HEAVY-DUTY GROUND ROD CLAMP (BURNDY TYPE GRC OR APPROVED EQUAL)

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



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

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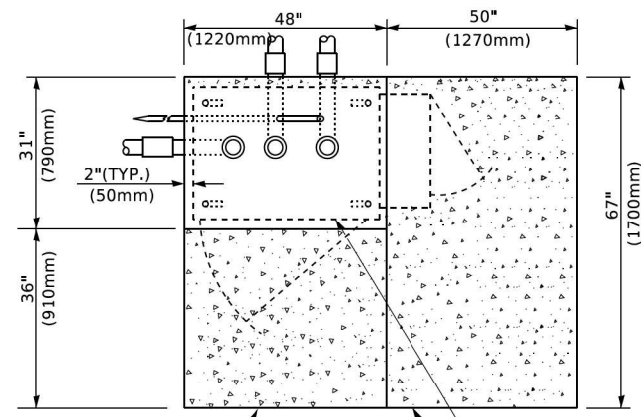
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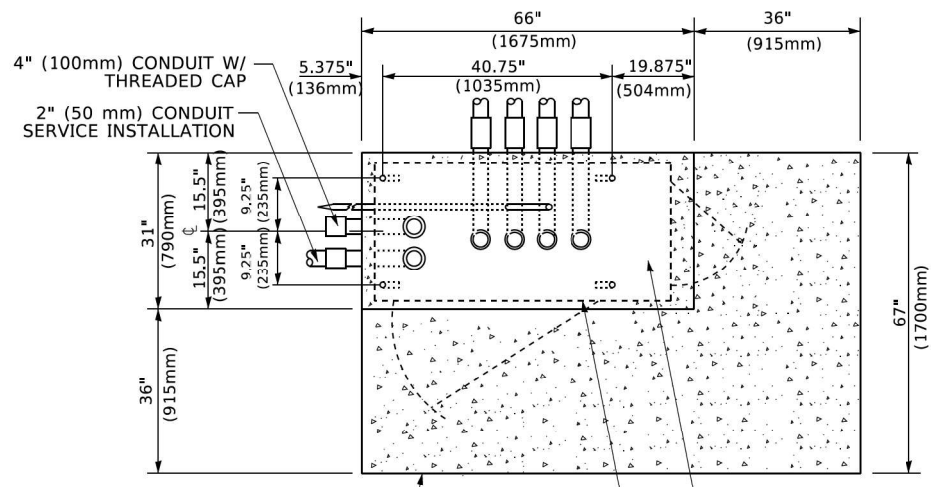
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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ILLINOIS		DRAWING NO. TS0006		
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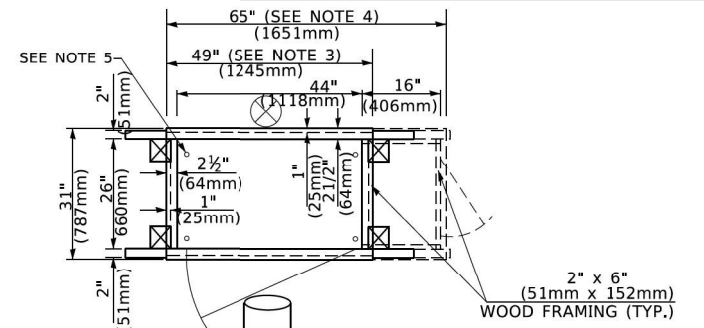
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**TOP VIEW**



**TOP VIEW**

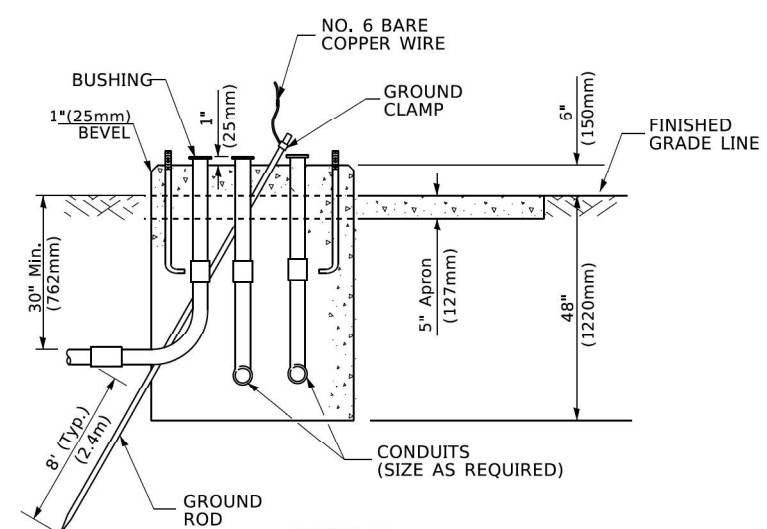


**TEMPORARY SIGNAL CONTROLLER WOOD SUPPORT PLATFORM**

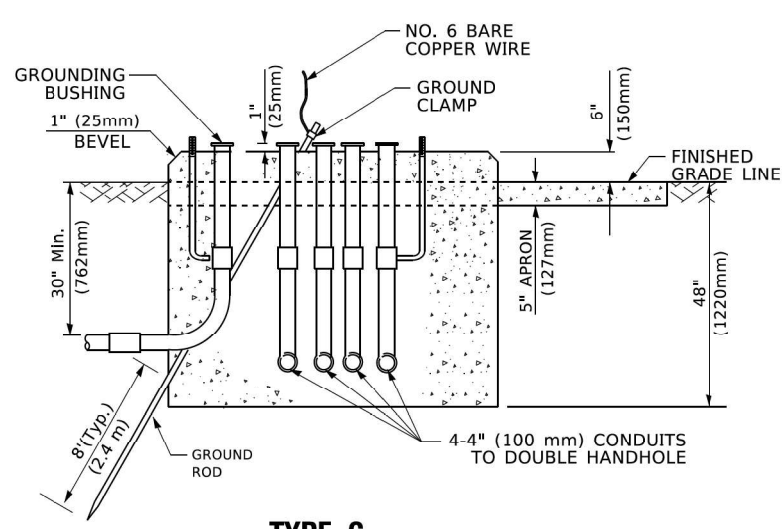
**NOTE:**  
TOP OF FOUNDATION SHALL BE HIGHER THAN TOP OF DOUBLE HANDHOLE

**NOTES:**

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



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



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

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

**CABLE SLACK**

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

**VERTICAL CABLE LENGTH**

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

**DEPTH OF FOUNDATION**

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

**NOTES:**

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

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

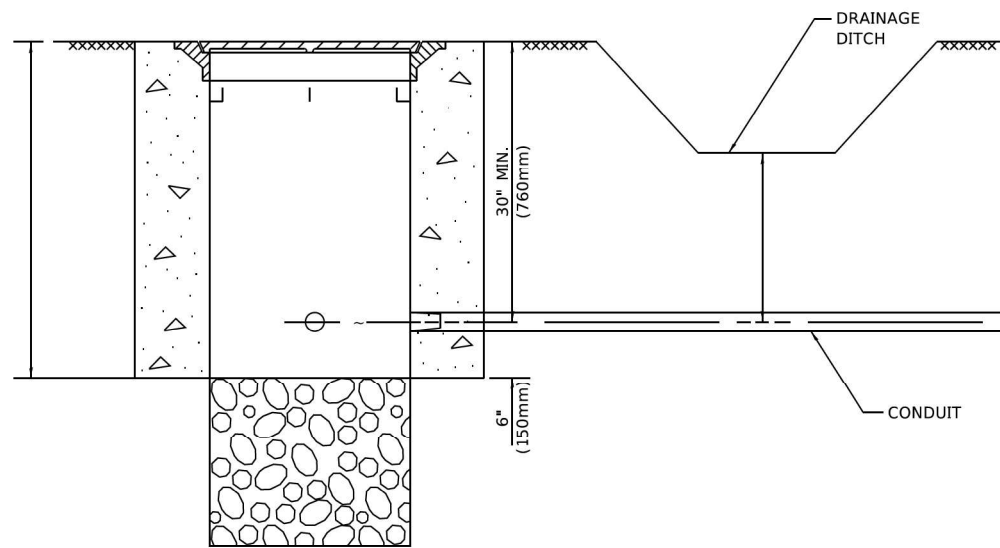
TS SHT NO. 69

USER NAME = footemj	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 50,0000' / 1"	CHECKED -	REVISED -
PLOT DATE = 3/4/2019	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>DISTRICT ONE</b>			
<b>STANDARD TRAFFIC SIGNAL DESIGN DETAILS</b>			
SCALE: NONE	SHEET 5	OF 7 SHEETS	STA. TO STA.

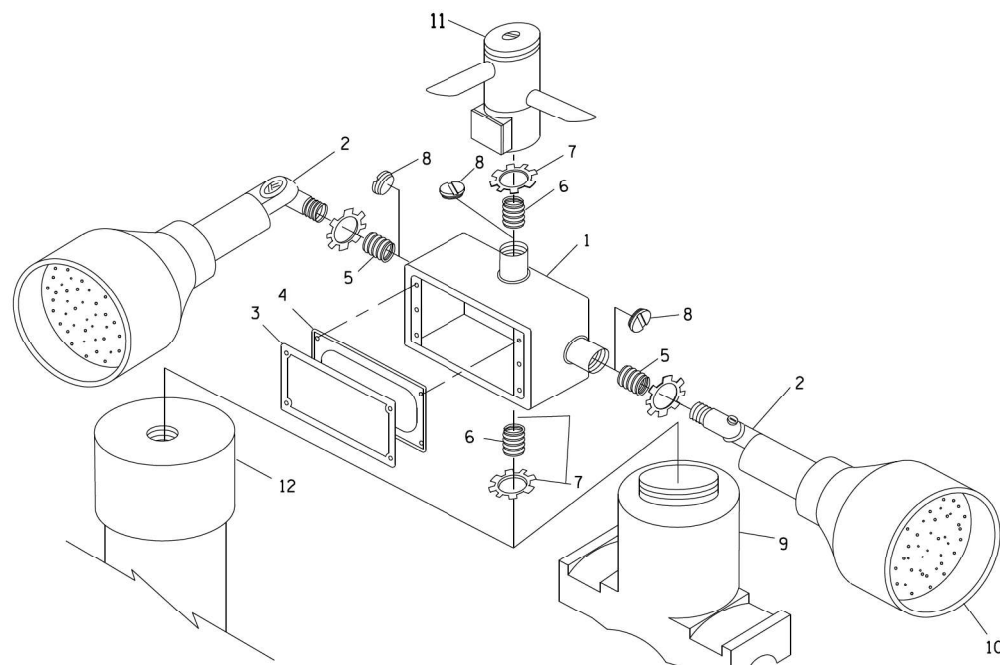
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		COOK	75	69
<b>TS-05</b>			DRAWING NO. TS0007	
ILLINOIS FED. AID PROJECT				



**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.

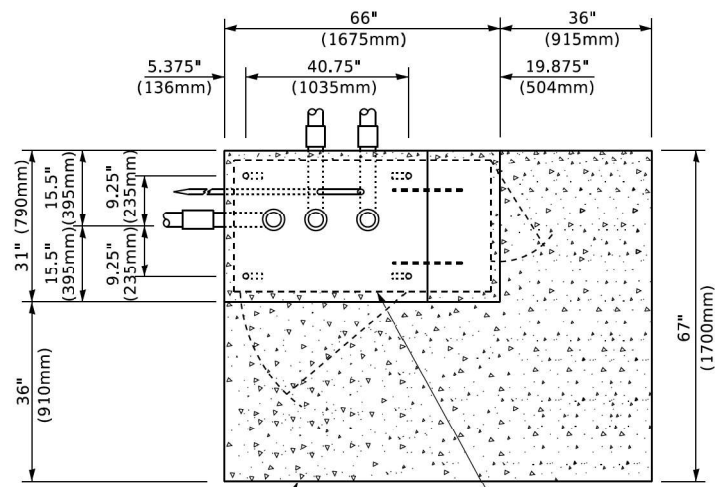
**HANDHOLE WITH MINIMUM CONDUIT DEPTH**  
(NOT TO SCALE)



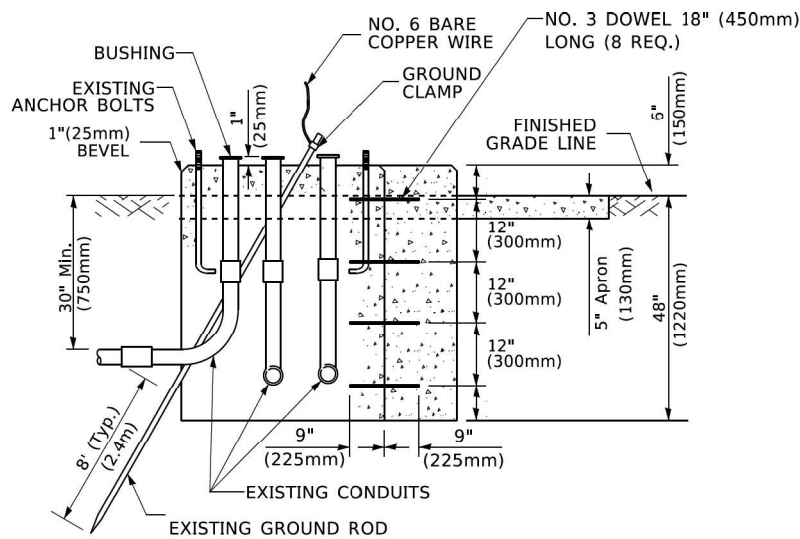
**POST CAP MOUNT**

**MAST ARM MOUNT**

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



**TOP VIEW**  
(NOT TO SCALE)

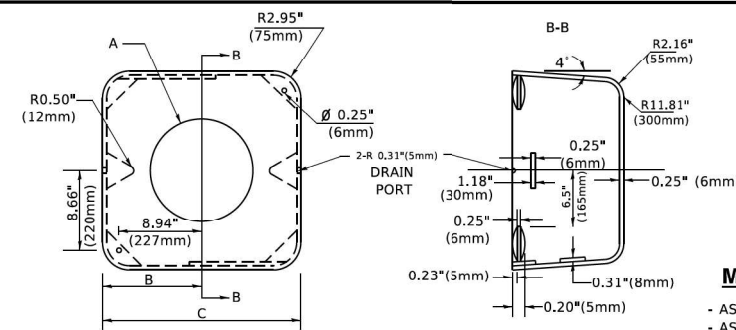


**MODIFY EXISTING TYPE "D" FOUNDATION  
TO TYPE "C" FOUNDATION**  
(NOT TO SCALE)

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

**NOTES:**

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



**MATERIAL**

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

A	B	C	HEIGHT	WEIGHT
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)

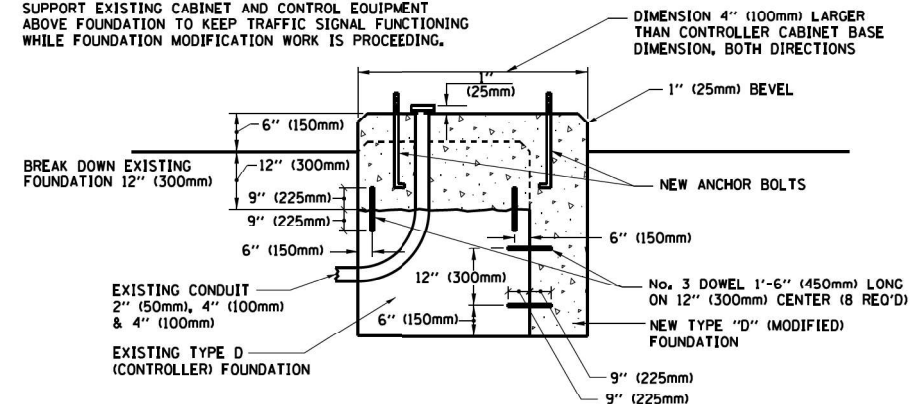
**SHROUD**

**NOTES:**

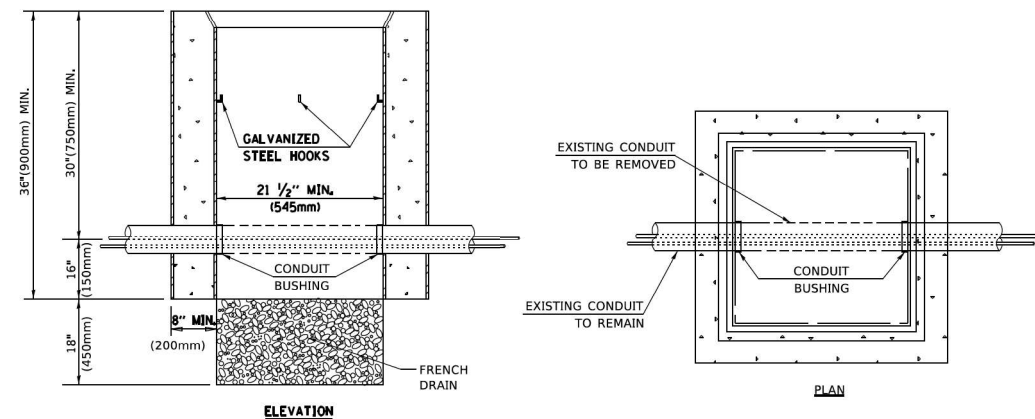
1. DIMENSION "A" IS EQUAL TO THE DIAMETER OF THE MAST ARM POLE AT THE TOP OF THE SHROUD. THE SHROUD SHALL BE TIGHT TO THE MAST ARM POLE.
2. THE SUPPLIER SHALL VERIFY THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
3. THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST ARM POLE BASE.

**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**



**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**

TS SHT NO. 70

MODE: Default  
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USER NAME = footemj	DESIGNED -	REVISED -
PLOT SCALE = 50,0000 ' / ft.	DRAWN -	REVISED -
PLOT DATE = 3/4/2019	CHECKED -	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

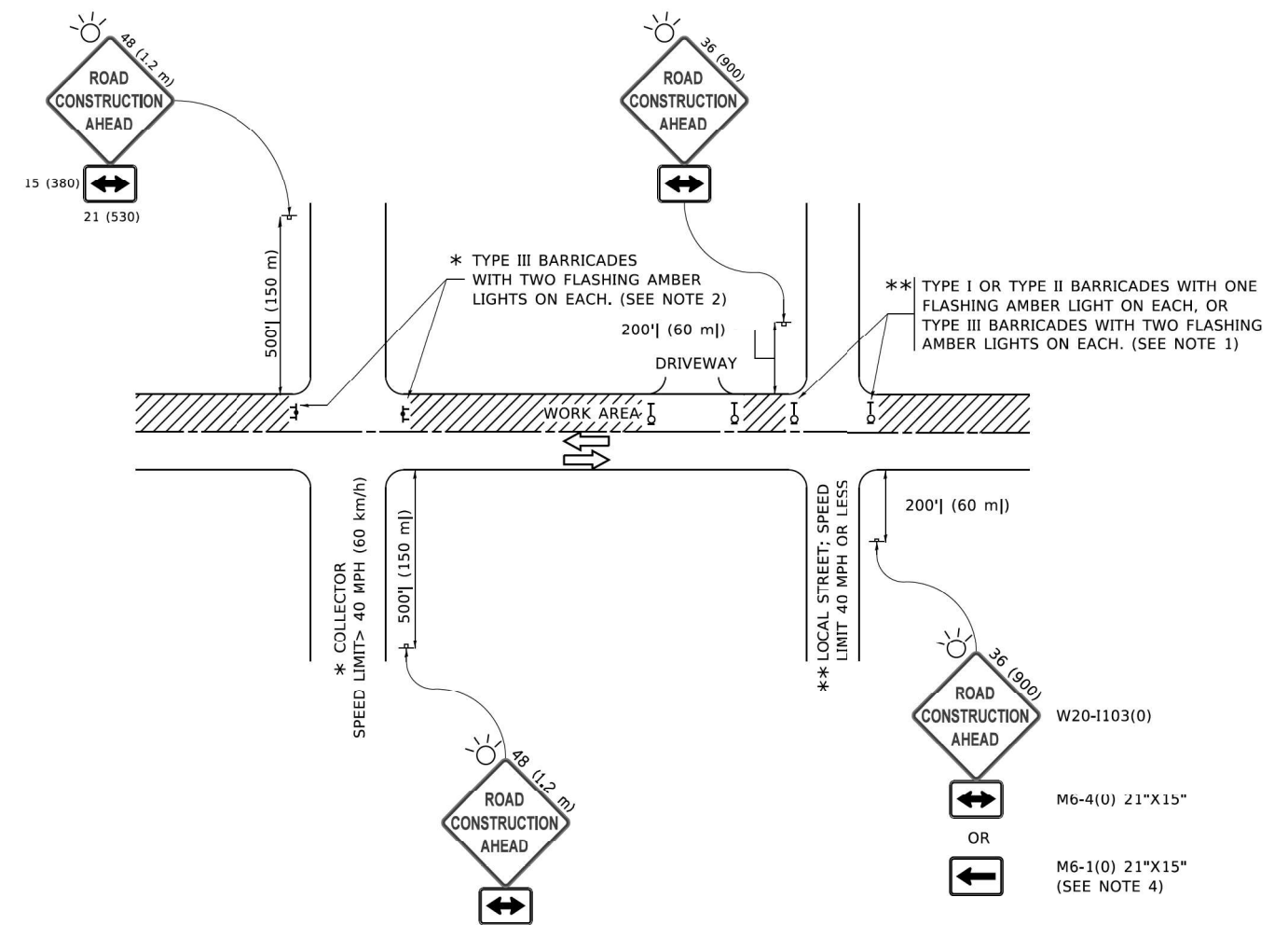
<b>DISTRICT ONE</b>			
<b>STANDARD TRAFFIC SIGNAL DESIGN DETAILS</b>			
SCALE: NONE	SHEET 6	OF 7 SHEETS	STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	TS-05	COOK	75	70
ILLINOIS FED. AID PROJECT			DRAWING NO. TS0008	









**NOTES:**

- 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:
  - 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.
  - 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.
- SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
  - 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.
  - 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.
- 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.
- WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).
- 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.
- ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAYS UNLESS OTHERWISE SPECIFIED IN THE PLANS OR BY THE ENGINEER.
- 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 = footemj	DESIGNED - L.H.A.	REVISED - A. HOUSEH 10-15-96
	DRAWN -	REVISED - T. RAMMACHER 01-06-00
PLOT SCALE = 50,0000' / 1"	CHECKED -	REVISED - A. SCHUETZE 07-01-13
PLOT DATE = 3/4/2019	DATE - 06-89	REVISED - A. SCHUETZE 09-15-16

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

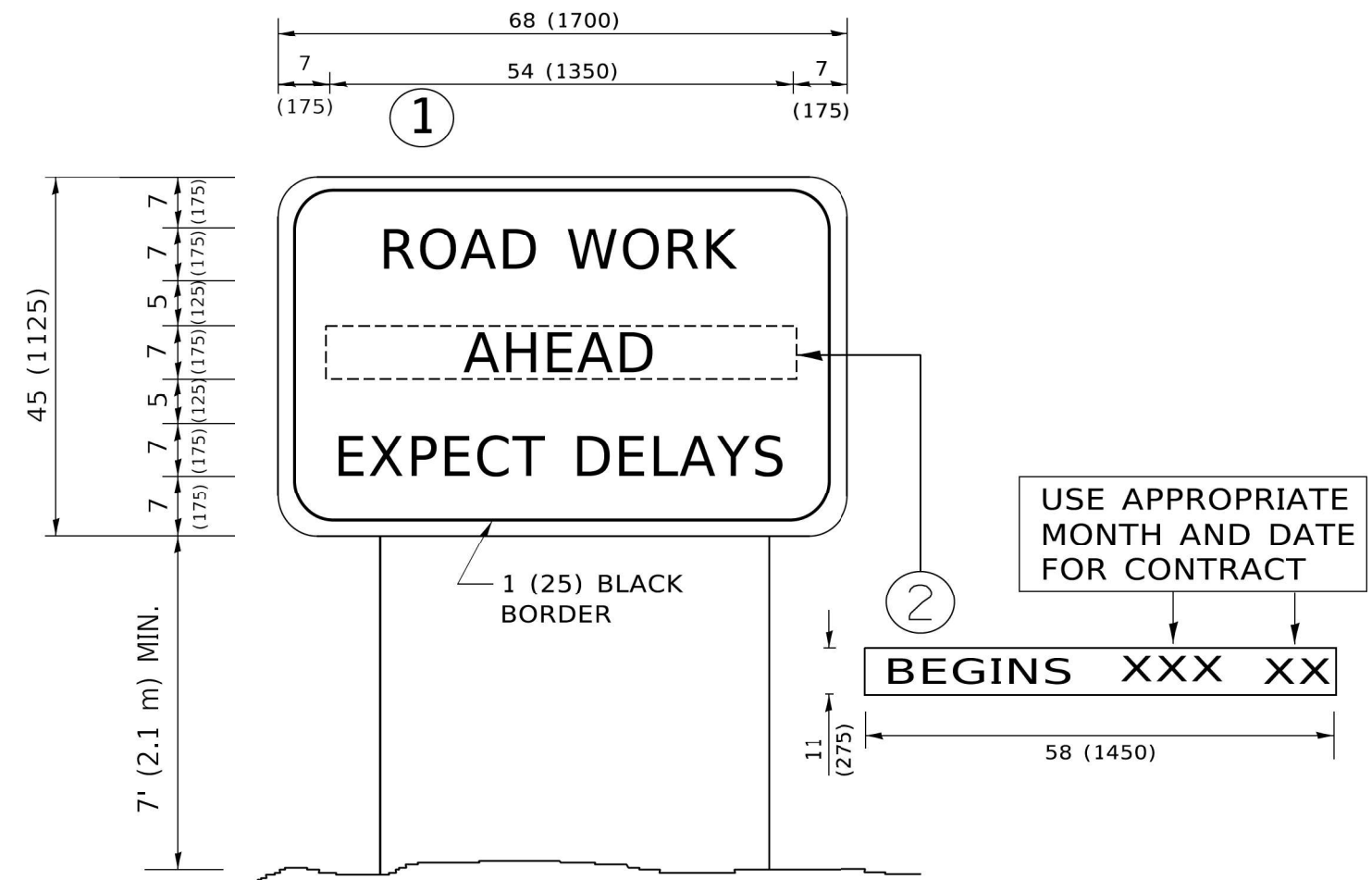
**TRAFFIC CONTROL AND PROTECTION FOR  
 SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS**

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		COOK	75	73
<b>TC-10</b>			CONTRACT NO.	
ILLINOIS FED. AID PROJECT				



TS SHT NO. 75  
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 FILE NAME: P:\01\08\BID\BID\TEC\Illinois.gov\PWIDOT\Documents\DOT Offices\District 1\Projects\Dist5\23-24\CADD\Dist1\CAD\Sheet\122.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.

USER NAME = footemj	DESIGNED -	REVISED - R. MIRS 09-15-97
	DRAWN -	REVISED - R. MIRS 12-11-97
PLOT SCALE = 50,0000' / 1"	CHECKED -	REVISED - T. RAMMACHER 02-02-99
PLOT DATE = 3/4/2019	DATE -	REVISED - C. JUCIUS 01-31-07

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**ARTERIAL ROAD  
INFORMATION SIGN**

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		COOK	75	75
<b>TC-22</b>			CONTRACT NO.	
ILLINOIS   FED. AID PROJECT				