

06-14-2024 LETTING ITEM 192

FOR INDEX OF SHEETS, SEE SHEET NO. 2

FOR SUMMARY OF QUANTITIES, SEE SHEET NO. 5 - 11

TRAFFIC DATA

IL 159 NORTH OF LONGACRE/ASHLAND: 27,200

IL 159 SOUTH OF LONGACRE/ASHLAND: 23,700

TOWNSHIP

CASEYVILLE

POSTED SPEED

IL-159: 35 MPH, 45 MPH

I-64: 65 MPH

DELTA ENGINEERING GROUP, LLC
CONSULTING ENGINEERS, CONSTRUCTION MANAGERS, SURVEYORS
111 W JACKSON BLVD, SUITE 910
CHICAGO, IL 60604
T 312.377.7700, F 312.427.6145



SHEET NOS. 1-3, 5-11, 50-66, 75

MUHAMMAD ARIF DATE: 3-21-2024
LICENSE EXPIRES: 11-30-2025

iteris

ITERIS, INC.

319 W STATE STREET, SUITE 200
GENEVA, IL 60134

IL DESIGN FIRM NO: 184007145-0002



SHEETS 4, 12-49, 67-74

P. BRIEM FUNK II DATE: 3-21-24
EXPIRES: 11-30-2025

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

PROJECT ENGINEER: CHERYL KEPLAR
PROJECT MANAGER: RICHARD BARBEE

CONTRACT NO. 76R78

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

PROPOSED HIGHWAY PLANS

FAP ROUTE 600 (IL 159)

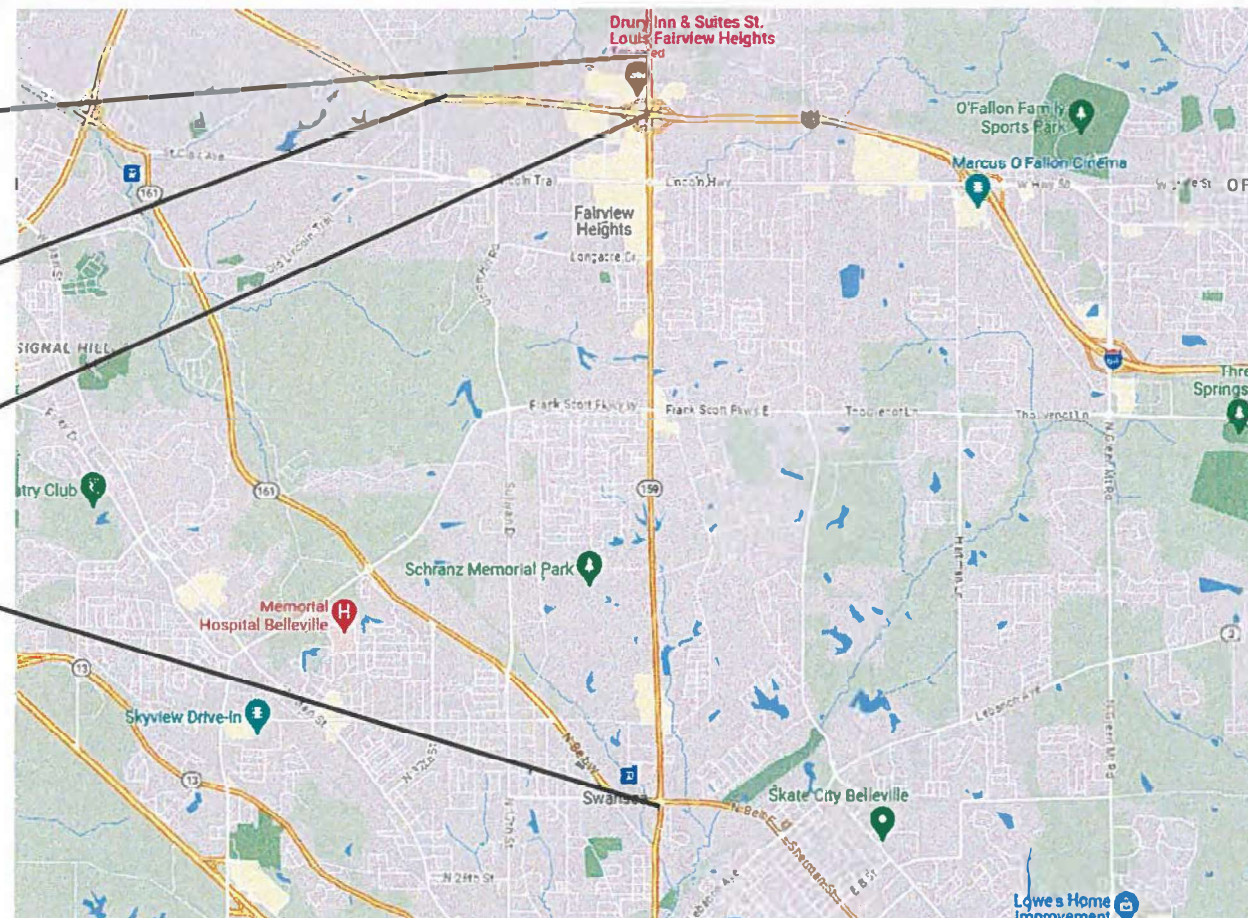
FAI 064 (I-64)

SECTION: (130, 130-1, 130-2)TS-3, 82-5TS

PROJECT: CMAQ-HSIP-4U5N(249)

TRAFFIC SIGNAL IMPROVEMENT
ST. CLAIR COUNTY

C-98-153-22

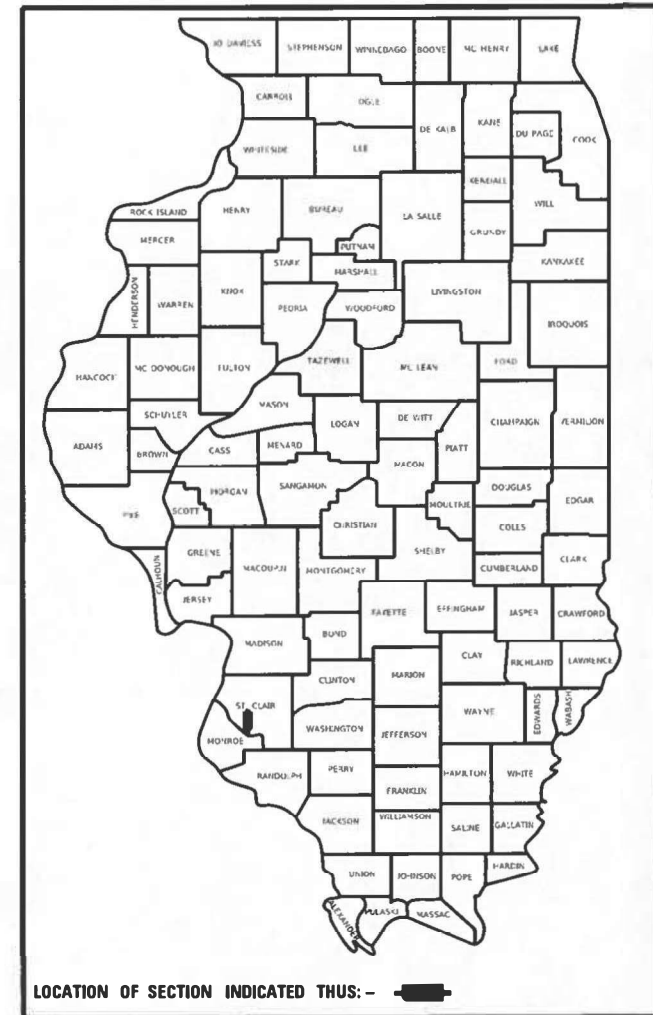


GROSS LENGTH = 11,616 FT = 2.2 MILES

NET LENGTH = 11,616 FT = 2.2 MILES

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	(130, 130-1, 130-2)TS-3, 82-5TS	ST. CLAIR	75	1
		ILLINOIS	CONTRACT NO. 76R78	

D-98-121-22



LOCATION OF SECTION INDICATED THIS: -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED *Morgan 05/20/24*
[Signature]
REGIONAL ENGINEER

May 10, 2024 *[Signature]*
ENGINEER OF DESIGN AND ENVIRONMENT

May 10, 2024 *[Signature]*
DIRECTOR OF HIGHWAYS PROJECT IMPLEMENTATION

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS











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- 49-50 TRAFFIC SIGNALS - IL 159 AND GREEN HAVEN DRIVE
- 51 SOIL - IL 159 AND GREEN HAVEN DRIVE
- 52-53 TRAFFIC SIGNALS - IL 159 AND HUNTWOOD ROAD
- 54 SOIL - IL 159 AND HUNTWOOD ROAD
- 55-56 TRAFFIC SIGNALS - IL 159 AND ROSEWOOD VILLAGE DRIVE
- 57 SOIL - IL 159 AND ROSEWOOD VILLAGE DRIVE
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- 60 SOIL - IL 159 AND FULLERTON ROAD
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HIGHWAY STANDARDS

000001-08	701401-13	701901-09	878001-11
001001-02	701406-13	720001-01	880006-01
001006	701421-08	720016-04	
606301-04	701422-10	814001-03	
701001-02	701428-01	814006-03	
701006-05	701456-05	857001-01	
701106-02	701601-09	862001-01	
701206-05	701602-10	873001-02	
701301-04	701701-10	877001-08	
701400-12	701801-06	877002-04	

TRAFFIC SIGNAL LEGEND

-  PROP. TRAFFIC SIGNAL CONTROLLER
-  PROP. GROUNDING
-  PROP. NO. OF CONDUCTORS IN CABLE
-  PROP. 12" SIGNAL HEAD
-  EX. VEHICLE DETECTOR, INDUCTION LOOP
-  EX. NO. OF CONDUCTORS IN CABLE
-  EX. 12" SIGNAL HEAD
-  EX. GROUND MOUNT SERVICE
-  EX. GROUNDING
-  EX. EMERGENCY VEHICLE PREEMPTION

GENERAL NOTES:

1. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING MATERIALS.
2. NO SURVEY WAS PERFORMED FOR THIS PROJECT AND THE PLANS WERE CREATED USING AERIAL IMAGERY AND FIELD MEASUREMENTS.
3. ABANDONED UNDERGROUND UTILITIES THAT CONFLICT WITH CONSTRUCTION SHALL BE DISPOSED OF OUTSIDE THE LIMITS OF THE RIGHT OF WAY, ACCORDING TO THE ARTICLE 202.30 OF THE STANDARD SPECIFICATION AND AS DIRECTED BY THE ENGINEER. THIS WORK WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COSTS OF THE UNDERGROUND CONDUIT.
4. THE DEPARTMENT STRONGLY ENCOURAGES THE PRIME CONTRACTOR AND THEIR APPROVED SUBCONTRACTORS TO HIRE MINORITY, WOMEN AND DISADVANTAGED INDIVIDUALS FROM ITS FEDERALLY FUNDED HIGHWAY CONSTRUCTION CAREERS TRAINING PROGRAM (HCCTP) TO HELP MEET WORKFORCE AND TRAINEE GOALS. THIS PROGRAM IS TRAINING MINORITIES, WOMEN AND DISADVANTAGED INDIVIDUALS IN HIGHWAY CONSTRUCTION RELATED SKILLS, E.G. MATH FOR THE TRADES, JOB READINESS, TECHNICAL SKILLS COURSE WORK (CARPENTRY, CONCRETE FLATWORK, BLUEPRINT READING, SITE PLAN, SITE WORK, TOOLS USE, ETC.) AND OSHA 10 HOUR CERTIFICATION. TO PREPARE THEM FOR A CAREER IN THE HIGHWAY CONSTRUCTION TRADES. GRADUATES ARE WELL TRAINED AND READY TO BECOME PRODUCTIVE ENTRY-LEVEL CONSTRUCTION WORKERS. CONTACT THE DISTRICT 8 EEO OFFICE AT (618) 346-3360 AND/OR THE HCCTP COORDINATOR AT (618) 874-6528 TO LEARN MORE ABOUT THE PROGRAM AND FOR ASSISTANCE IN MEETING WORKFORCE AND TRAINEE GOALS.
5. EXISTING UTILITY LOCATIONS SHOWN ON THESE PLANS WERE COMPILED FROM THE BEST AVAILABLE RECORDS. EXACT DISTANCES AND LOCATIONS OF UTILITIES TO BE RELOCATED HAVE NOT BEEN DETERMINED. ALL UTILITIES, EITHER SHOWN OR NOT SHOWN, IN DIRECT CONFLICT WITH THE CONSTRUCTION SHALL BE RELOCATED BY OTHERS (RESPECTIVE UTILITY COMPANY). CONTRACTORS SHALL COORDINATE WITH THE VARIOUS TO ESTABLISH EXACT LOCATIONS AND DEPTHS PRIOR TO EXCAVATING. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING AND SUPPORTING ALL UTILITIES DURING CONSTRUCTION OPERATIONS. CONTRACTOR SHALL CONTACT THE JOINT UTILITY LOCATING INFORMATION FOR EXCAVATORS (JULIE) AT 1-800-892-0123 FOR LOCATING THE VARIOUS UTILITIES DURING CONSTRUCTION.
6. THE CONTRACTOR SHALL NOTIFY EACH AFFECTED PROPERTY OWNER A MINIMUM OF 48 HOURS PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION AND/ OR GRADING.

LOCATION 1

IL ROUTE 159 AT LUDWIG DRIVE/ SALEM PLACE

- AMEREN ILLINOIS
- AT&T ILLINOIS
- CHARTER SPECTRUM
- CLEARWAVE COMMUNICATIONS
- CASEYVILLE TOWNSHIP SEWER SYSTEM
- EVERSTREAM GLC HOLDING CO
- EXTENENT SYSTEMS LLC
- CITY OF FAIRVIEW HEIGHTS
- MCI/ VERIZON
- LEVEL 3/ LUMEN
- CITY OF O'FALLON
- BUCKEYE PARTNERS

- GAS & ELECTRIC
- COMMUNICATIONS
- CABLE TV
- COMMUNICATIONS
- SEWER
- COMMUNICATIONS
- COMMUNICATIONS
- SEWER
- COMMUNICATIONS
- COMMUNICATIONS
- SEWER & WATER
- PIPELINE

LOCATION 2

IL ROUTE 159 AT I-64 WB RAMPS

- AMEREN ILLINOIS
- AT&T ILLINOIS
- CHARTER SPECTRUM
- CLEARWAVE COMMUNICATIONS
- CASEYVILLE TOWNSHIP SEWER SYSTEM
- EVERSTREAM GLC HOLDING CO
- EXTENENT SYSTEMS LLC
- CITY OF FAIRVIEW HEIGHTS
- MCI/ VERIZON
- CITY OF O'FALLON
- BUCKEYE PARTNERS

- GAS & ELECTRIC
- COMMUNICATIONS
- CABLE TV
- COMMUNICATIONS
- SEWER
- COMMUNICATIONS
- COMMUNICATIONS
- SEWER
- COMMUNICATIONS
- COMMUNICATIONS
- SEWER & WATER
- PIPELINE

LOCATION 3

IL ROUTE 159 AT I-64 EB RAMPS

- AMEREN ILLINOIS
- AT&T ILLINOIS
- CHARTER SPECTRUM
- CLEARWAVE COMMUNICATIONS
- CASEYVILLE TOWNSHIP SEWER SYSTEM
- EVERSTREAM GLC HOLDING CO
- EXTENENT SYSTEMS LLC
- CITY OF FAIRVIEW HEIGHTS
- MCI/ VERIZON
- CITY OF O'FALLON
- BUCKEYE PARTNERS

- GAS & ELECTRIC
- COMMUNICATIONS
- CABLE TV
- COMMUNICATIONS
- SEWER
- COMMUNICATIONS
- COMMUNICATIONS
- SEWER
- COMMUNICATIONS
- COMMUNICATIONS
- SEWER & WATER
- PIPELINE

LOCATION 4

IL ROUTE 159 AT MARKET PLACE/ ST. CLAIR SQUARE

- AMEREN ILLINOIS
- AT&T ILLINOIS
- CHARTER SPECTRUM
- CLEARWAVE COMMUNICATIONS
- CASEYVILLE TOWNSHIP SEWER SYSTEM
- EVERSTREAM GLC HOLDING CO
- EXTENENT SYSTEMS LLC
- CITY OF FAIRVIEW HEIGHTS
- MCI/ VERIZON
- CITY OF O'FALLON
- BUCKEYE PARTNERS

- GAS & ELECTRIC
- COMMUNICATIONS
- CABLE TV
- COMMUNICATIONS
- SEWER
- COMMUNICATIONS
- COMMUNICATIONS
- SEWER
- COMMUNICATIONS
- COMMUNICATIONS
- SEWER & WATER
- PIPELINE

LOCATION 5

IL ROUTE 159 AT FAIRVIEW HEIGHTS CENTRE

- AMEREN ILLINOIS
- AT&T ILLINOIS
- CHARTER SPECTRUM
- CLEARWAVE COMMUNICATIONS
- CASEYVILLE TOWNSHIP SEWER SYSTEM
- EVERSTREAM GLC HOLDING CO
- EXTENENT SYSTEMS LLC
- FIDELITY COMMUNICATIONS SERVICES INC
- MCI/ VERIZON
- CITY OF O'FALLON
- BUCKEYE PARTNERS

- GAS & ELECTRIC
- COMMUNICATIONS
- CABLE TV
- COMMUNICATIONS
- SEWER
- COMMUNICATIONS
- COMMUNICATIONS
- SEWER
- COMMUNICATIONS
- COMMUNICATIONS
- SEWER & WATER
- PIPELINE

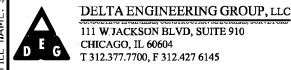
LOCATION 6

IL ROUTE 159 AT LINCOLN HIGHWAY/LINCOLN TRAIL

- AMEREN ILLINOIS
- AT&T ILLINOIS
- I-3 BROADBAND
- CHARTER SPECTRUM
- CLEARWAVE COMMUNICATIONS
- CASEYVILLE TOWNSHIP SEWER SYSTEM
- EVERSTREAM
- EXTENENT SYSTEMS LLC
- FIDELITY COMMUNICATIONS SERVICES INC
- CITY OF FAIRVIEW HEIGHTS
- VERIZON
- CITY OF O'FALLON
- BUCKEYE PARTNERS

- GAS & ELECTRIC
- COMMUNICATIONS
- COMMUNICATIONS
- CABLE TV
- COMMUNICATIONS
- SEWER
- COMMUNICATIONS
- COMMUNICATIONS
- SEWER
- COMMUNICATIONS
- SEWER & WATER
- PIPELINE

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FILE: \$FILE\$.SHEETS



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DRAWN - NS	REVISOR -	
PLOT SCALE = \$SCALE\$	CHECKED - MA	REVISED -
PLOT DATE = \$DATE\$	DATE - 03/01/2024	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**GENERAL NOTES, INDEX OF SHEET
HIGHWAY STANDARDS
TRAFFIC SIGNALS LEGEND**

SCALE: NTS SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	(130,130-1,130-2) T5-3, 82-5TS	ST. CLAIR	74	2
CONTRACT NO. 76R78				

REV. - MS

ILLINOIS FED. AID PROJECT CMAQ-H5IP-445N (249)

LOCATION 7

IL ROUTE 159 AT LINCOLN PLACE SHOPPING CENTER

AMEREN ILLINOIS
AT&T ILLINOIS
CHARTER SPECTRUM
CLEARWAVE COMMUNICATIONS
CASEYVILLE TOWNSHIP SEWER SYSTEM
EXTENENT SYSTEMS LLC
FIDELITY COMMUNICATIONS SERVICES INC
CITY OF FAIRVIEW HEIGHTS
MCI/ VERIZON
CITY OF O'FALLON
BUCKEYE PARTNERS

GAS & ELECTRIC
COMMUNICATIONS
CABLE TV
COMMUNICATIONS
SEWER
COMMUNICATIONS
COMMUNICATIONS
SEWER
COMMUNICATIONS
SEWER & WATER
PIPELINE

LOCATION 8

IL ROUTE 159 AT LONGACRE DRIVE/ ASHLAND AVENUE

AMEREN ILLINOIS
AT&T ILLINOIS
CHARTER SPECTRUM
CLEARWAVE COMMUNICATIONS
CASEYVILLE TOWNSHIP SEWER SYSTEM
EVERSTREAM GLC HOLDING CO
FIDELITY COMMUNICATIONS SERVICES INC
CITY OF FAIRVIEW HEIGHTS
MCI/ VERIZON
CITY OF O'FALLON

GAS & ELECTRIC
COMMUNICATIONS
CABLE TV
COMMUNICATIONS
SEWER
COMMUNICATIONS
COMMUNICATIONS
SEWER
COMMUNICATIONS
SEWER & WATER

LOCATION 9

IL ROUTE 159 AT CHATEAU DRIVE

AMEREN ILLINOIS
AT&T ILLINOIS
CHARTER SPECTRUM
CLEARWAVE COMMUNICATIONS
CASEYVILLE TOWNSHIP SEWER SYSTEM
EVERSTREAM GLC HOLDING CO
FIDELITY COMMUNICATIONS SERVICES INC
ILLINOIS AMERICAN WATER-EAST ST LOUIS
MCI/ VERIZON
CITY OF O'FALLON
VILLAGE OF SWANSEA

GAS & ELECTRIC
COMMUNICATIONS
CABLE TV
COMMUNICATIONS
SEWER
COMMUNICATIONS
COMMUNICATIONS
WATER
COMMUNICATIONS
SEWER & WATER
SEWER

LOCATION 10

IL ROUTE 159 AT FRANK SCOTT PARKWAY

AMEREN ILLINOIS
AT&T ILLINOIS
CHARTER SPECTRUM
CLEARWAVE COMMUNICATIONS
CASEYVILLE TOWNSHIP SEWER SYSTEM
EVERSTREAM GLC HOLDING CO
FIDELITY COMMUNICATIONS SERVICES III INC
CITY OF FAIRVIEW HEIGHTS
ILLINOIS AMERICAN WATER-EAST ST LOUIS
MCI/ VERIZON
ST CLAIR COUNTY HIGHWAY DEPT
ST CLAIR TOWNSHIP
VILLAGE OF SWANSEA

GAS & ELECTRIC
COMMUNICATIONS
CABLE TV
COMMUNICATIONS
SEWER
COMMUNICATIONS
COMMUNICATIONS
SEWER
WATER
COMMUNICATIONS
ELECTRIC & SEWER
SEWER
SEWER

LOCATION 11

IL ROUTE 159 & GREEN HAVEN DRIVE

AMEREN ILLINOIS
AT&T ILLINOIS
CHARTER SPECTRUM
CLEARWAVE COMMUNICATIONS
EVERSTREAM GLC HOLDING CO
FIDELITY COMMUNICATION SERVICES ILL INC
ILLINOIS AMERICAN WATER-EAST ST LOUIS
MCI / VERIZON
VILLAGE OF SWANSEA

GAS & ELECTRIC
COMMUNICATIONS
CABLE TV
COMMUNICATIONS
COMMUNICATIONS
COMMUNICATIONS
WATER
COMMUNICATIONS
SEWER

LOCATION 12

IL ROUTE 159 & HUNTWOOD ROAD

AMEREN ILLINOIS
AT&T ILLINOIS
CHARTER SPECTRUM
CLEARWAVE COMMUNICATIONS
EVERSTREAM GLC HOLDING CO
FIDELITY COMMUNICATION SERVICES ILL INC
ILLINOIS AMERICAN WATER-EAST ST LOUIS
MCI / VERIZON
VILLAGE OF SWANSEA

GAS & ELECTRIC
COMMUNICATIONS
CABLE TV
COMMUNICATIONS
COMMUNICATIONS
COMMUNICATIONS
WATER
COMMUNICATIONS
SEWER

LOCATION 13

IL ROUTE 159 & ROSEWOOD VILLAGE DRIVE

AMEREN ILLINOIS
AT&T ILLINOIS
CHARTER SPECTRUM
CLEARWAVE COMMUNICATIONS
EVERSTREAM GLC HOLDING CO
ILLINOIS AMERICAN WATER-EAST ST LOUIS
MCI / VERIZON
VILLAGE OF SWANSEA

GAS & ELECTRIC
COMMUNICATIONS
CABLE TV
COMMUNICATIONS
COMMUNICATIONS
WATER
COMMUNICATIONS
SEWER

LOCATION 14

IL ROUTE 159 & FULLERTON ROAD

AMEREN ILLINOIS
AT&T ILLINOIS
CHARTER SPECTRUM
CLEARWAVE COMMUNICATIONS
EVERSTREAM GLC HOLDING CO
ILLINOIS AMERICAN WATER-EAST ST LOUIS
MCI / VERIZON
VILLAGE OF SWANSEA

GAS & ELECTRIC
COMMUNICATIONS
CABLE TV
COMMUNICATIONS
COMMUNICATIONS
WATER
COMMUNICATIONS
SEWER

LOCATION 15

IL ROUTE 159 & METRO WAY

AMEREN ILLINOIS
AT&T ILLINOIS
CHARTER SPECTRUM
CLEARWAVE COMMUNICATIONS
EVERSTREAM GLC HOLDING CO
ILLINOIS AMERICAN WATER-EAST ST LOUIS
MCI / VERIZON
VILLAGE OF SWANSEA

GAS & ELECTRIC
COMMUNICATIONS
CABLE TV
COMMUNICATIONS
COMMUNICATIONS
WATER
COMMUNICATIONS
SEWER

LOCATION 16

IL ROUTE 159 & IL ROUTE 161 (N BELT WEST)

AMEREN ILLINOIS
AT&T ILLINOIS
CHARTER SPECTRUM
CLEARWAVE COMMUNICATIONS
EVERSTREAM GLC HOLDING CO
FIDELITY COMMUNICATION SERVICES ILL INC
ILLINOIS AMERICAN WATER-EAST ST LOUIS
MCI / VERIZON
VILLAGE OF SWANSEA

GAS & ELECTRIC
COMMUNICATIONS
CABLE TV
COMMUNICATIONS
COMMUNICATIONS
COMMUNICATIONS
WATER
COMMUNICATIONS
SEWER

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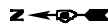
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

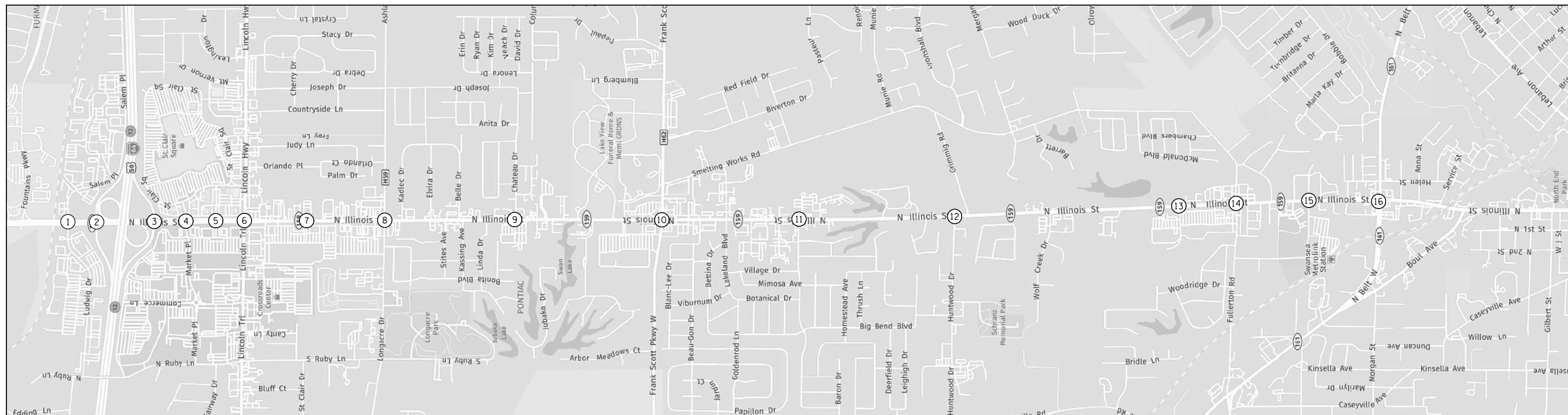
**GENERAL NOTES, INDEX OF SHEET
HIGHWAY STANDARDS
TRAFFIC SIGNALS LEGEND**

SCALE: NTS SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	(130,130-1,130-2) 15-3, 82-515	ST. CLAIR	74	3
CONTRACT NO. 76R78				
ILLINOIS FED. AID PROJECT CMAQ-H5IP-445N (249)				



LOCATION MAP



SUMMARY OF LOCATIONS

NO.	SHEET	INTERSECTION/INTERCONNECT
1	11-14	IL ROUTE 159 AND LUDWIG DRIVE/SALEM PLACE
2	15-17	IL ROUTE 159 AND I-64 N RAMP
3	18-22	IL ROUTE 159 AND I-64 S RAMP
4	23-25	IL ROUTE 159 AND MARKET PLACE/ST CLAIR SQUARE
5	26-28	IL ROUTE 159 AND FAIRVIEW HEIGHTS CENTRE
6	29-33	IL ROUTE 159 AND LINCOLN HIGHWAY
7	34-38	IL ROUTE 159 AND LINCOLN PLACE SC
8	39-43	IL ROUTE 159 AND LONGACRE DRIVE/ASHLAND AVENUE
9	44-46	IL ROUTE 159 AND CHATEAU DRIVE
10	47-48	IL ROUTE 159 AND FRANK SCOTT PARKWAY
11	49-51	IL ROUTE 159 AND GREEN HAVEN DRIVE
12	52-54	IL ROUTE 159 AND HUNTWOOD ROAD
13	55-57	IL ROUTE 159 AND ROSEWOOD VILLAGE DRIVE
14	58-60	IL ROUTE 159 AND FULLERTON ROAD
15	61-63	IL ROUTE 159 AND METRO WAY
16	64-64	IL ROUTE 159 AND IL ROUTE 161 (N BELT WEST)

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PLOT DATE = 2/27/2024	CHECKED - AD	REVISED -
	DATE - 2/26/24	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LOCATION MAP

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	(130, 130-1, 130-2) TS-3, 82-5TS	ST. CLAIR	74	4
ILLINOIS FED. AID PROJECT			CONTRACT NO. 76R78	

CODE NO.	ITEM	UNIT	TOTAL	CONSTRUCTION CODE					
				80% FED 20% STATE		FAP 600	FAP 600	FAI 64	FAI 64
				TRAFFIC SIGNALS	TRAFFIC SIGNALS	ROADWAY	ROADWAY		
				0021	0021	0021	0021		
				URBAN	URBAN	URBAN	URBAN		
				CMAQ	HSIP	CMAQ	HSIP		
* 66900200	NON-SPECIAL WASTE DISPOSAL	CUYD	74		44		30		
* 66900210	HAZARDOUS WASTE DISPOSAL	CUYD	102		61		41		
* 66900530	SOIL DISPOSAL ANALYSIS	EACH	25		15		10		
* 66901001	REGULATED SUBSTANCES PRE-CONSTRUCTION PLAN	L SUM	1		0.6		0.4		
* 66901003	REGULATED SUBSTANCES FINAL CONSTRUCTION REPORT	L SUM	1		0.6		0.4		
* 66901006	REGULATED SUBSTANCES MONITORING	CAL DAYS	61		37		24		
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	12		10		2		
67100100	MOBILIZATION	L SUM	1	0.1	0.6		0.3		
70100205	TRAFFIC CONTROL AND PROTECTION, STANDARD 701401	EACH	1			0.1	0.9		
70100815	TRAFFIC CONTROL AND PROTECTION, STANDARD 701446	L SUM	1			0.1	0.9		
70100825	TRAFFIC CONTROL AND PROTECTION, STANDARD 701456	L SUM	1			0.1	0.9		
70102630	TRAFFIC CONTROL AND PROTECTION, STANDARD 701601	L SUM	1	0.1	0.9				
70102632	TRAFFIC CONTROL AND PROTECTION, STANDARD 701602	L SUM	1	0.1	0.9				
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	0.1	0.9				

* SPECIALTY ITEM

MODEL NUMBER
FILE NAME: 0315

DELTA ENGINEERING GROUP, LLC
CONSULTING ENGINEERS, ARCHITECTS, PLANNERS, ENVIRONMENTAL SCIENTISTS
111 W JACKSON BLVD, SUITE 910
CHICAGO, IL 60604
T 312.377.7700, F 312.427.6145

USER NAME = \$USERS	DESIGNED - MA	REVISED -
DRAWN - NS	CHECKED - MA	REVISED -
PLOT SCALE = \$SCALES	DATE - 03/01/2024	REVISED -
PLOT DATE = \$DATES		

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITY

SCALE: NTS SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	(130,130-1,130-2) T5-3, 82-5T5	ST. CLAIR	75	5
				CONTRACT NO. 76R78
ILLINOIS FED. AID PROJECT CMAQ-HSIP-445N (249)				

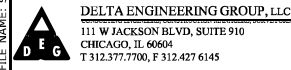
80% FED
20% STATE

CODE NO.	ITEM	UNIT	TOTAL	CONSTRUCTION CODE			
				FAP 600	FAP 600	FAI 64	FAI 64
				TRAFFIC SIGNALS	TRAFFIC SIGNALS	ROADWAY	ROADWAY
				0021	0021	0021	0021
URBAN	URBAN	URBAN	URBAN				
CMAQ	HSIP	CMAQ	HSIP				
70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	1	0.1	0.9		
70200100	NIGHTTIME WORK ZONE LIGHTING	L SUM	1		0.5		0.5
* 72000100	SIGN PANEL - TYPE 1	SQ FT	210		210		
* 72400710	RELOCATE SIGN PANEL - TYPE 1	SQ FT	340		340		
80300100	LOCATING UNDERGROUND CABLE	FOOT	80		80		
81028350	UNDERGROUND CONDUIT, PVC, 2" DIA.	FOOT	299		299		
81028370	UNDERGROUND CONDUIT, PVC, 3" DIA.	FOOT	714		714		
81028390	UNDERGROUND CONDUIT, PVC, 4" DIA.	FOOT	1097		1097		
81028740	UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, 1 1/2" DIA.	FOOT	9597	2527		7070	
81400100	HANDHOLE	EACH	3		3		
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	16		16		
85700200	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET	EACH	14	14			
85700300	FULL-ACTUATED CONTROLLER AND TYPE V CABINET	EACH	1	1			
86200300	UNINTERRUPTABLE POWER SUPPLY, EXTENDED	EACH	8		8		

* SPECIALTY ITEM

REV. - MS

MODEL NUMBER
FILE NAME: 311213



DELTA ENGINEERING GROUP, LLC
111 W JACKSON BLVD, SUITE 910
CHICAGO, IL 60604
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PLOT SCALE = \$SCALE\$	CHECKED - MA	REVISED -
PLOT DATE = \$DATES	DATE - 03/01/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITY

SCALE: NTS SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	(130,130-1,130-2) TS-3, 82-5TS	ST. CLAIR	75	6
CONTRACT NO. 76R78			ILLINOIS FED. AID PROJECT CMAQ-HSIP-445N (249)	

80% FED
20% STATE

CODE NO.	ITEM	UNIT	TOTAL	CONSTRUCTION CODE			
				FAP 600	FAP 600	FAI 64	FAI 64
				TRAFFIC SIGNALS	TRAFFIC SIGNALS	ROADWAY	ROADWAY
				0021	0021	0021	0021
URBAN	URBAN	URBAN	URBAN				
CMAQ	HSIP	CMAQ	HSIP				
87301215	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	4693		4693		
87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	12631		12631		
87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	29387		29387		
87301255	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	13899		13899		
87301900	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO.6 1C	FOOT	1981		1981		
87700170	STEEL MAST ARM ASSEMBLY AND POLE, 26 FT.	EACH	1		1		
87700180	STEEL MAST ARM ASSEMBLY AND POLE, 28 FT.	EACH	1		1		
87700210	STEEL MAST ARM ASSEMBLY AND POLE, 34 FT.	EACH	1		1		
87700230	STEEL MAST ARM ASSEMBLY AND POLE, 38 FT.	EACH	1		1		
87700240	STEEL MAST ARM ASSEMBLY AND POLE, 40 FT.	EACH	1		1		
87700250	STEEL MAST ARM ASSEMBLY AND POLE, 42 FT.	EACH	6		6		
87700260	STEEL MAST ARM ASSEMBLY AND POLE, 44 FT.	EACH	2		2		
87700270	STEEL MAST ARM ASSEMBLY AND POLE, 46 FT.	EACH	10		10		
87700280	STEEL MAST ARM ASSEMBLY AND POLE, 48 FT.	EACH	2		2		

MODEL NAME: DELTA
FILE NAME: DELTA



USER NAME = \$USERS	DESIGNED - MA	REVISED -
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITY			
SCALE: NTS	SHEET	OF	SHEETS
STA.	TO STA.		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	(130,130-1,130-2) 15-3, 82-515	ST. CLAIR	75	7
				CONTRACT NO. 76R78
				ILLINOIS FED. AID PROJECT CMAQ-HSIP-445N (249)

CODE NO.	ITEM	UNIT	TOTAL	CONSTRUCTION CODE					
				80% FED 20% STATE		FAP 600	FAP 600	FAI 64	FAI 64
				TRAFFIC SIGNALS	TRAFFIC SIGNALS	ROADWAY	ROADWAY		
				0021	0021	0021	0021		
URBAN	URBAN	URBAN	URBAN						
CMAQ	HSIP	CMAQ	HSIP						
87700290	STEEL MAST ARM ASSEMBLY AND POLE, 50 FT.	EACH	1		1				
87700300	STEEL MAST ARM ASSEMBLY AND POLE, 52 FT.	EACH	4		4				
87700310	STEEL MAST ARM ASSEMBLY AND POLE, 54 FT.	EACH	2		2				
87700330	STEEL MAST ARM ASSEMBLY AND POLE, 56 FT.	EACH	3		3				
87700340	STEEL MAST ARM ASSEMBLY AND POLE, 58 FT.	EACH	1		1				
87700400	STEEL MAST ARM ASSEMBLY AND POLE, 60 FT.	EACH	2		2				
87700404	STEEL MAST ARM ASSEMBLY AND POLE, 62 FT.	EACH	1		1				
87700418	STEEL MAST ARM ASSEMBLY AND POLE, 68 FT.	EACH	2		2				
87700420	STEEL MAST ARM ASSEMBLY AND POLE, 70 FT.	EACH	1		1				
87700428	STEEL MAST ARM ASSEMBLY AND POLE, 74 FT.	EACH	1		1				
87800400	CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	48		48				
87800415	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	393		393				
87800420	CONCRETE FOUNDATION, TYPE E 42-INCH DIAMETER	FOOT	227		227				
87900100	DRILL EXISTING FOUNDATION	EACH	2	1		1			

MODEL NUMBER: N/A
FILE NAME: 0715



DELTA ENGINEERING GROUP, LLC
 CIVIL, TRAFFIC, ENVIRONMENTAL, CONSTRUCTION MANAGERS, SURVEYORS
 111 W JACKSON BLVD, SUITE 910
 CHICAGO, IL 60604
 T 312.377.7700, F 312.427.6145

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PLOT SCALE = \$SCALE\$	DATE - 03/01/2024	REVISED -
PLOT DATE = \$DATE\$		

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITY

SCALE: NTS SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	(130,130-1,130-2) T5-3, 82-515	ST. CLAIR	75	8
ILLINOIS FED. AID PROJECT CMAQ-HSIP-445N (249)			CONTRACT NO. 76R78	

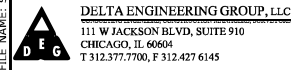
80% FED
20% STATE

CODE NO.	ITEM	UNIT	TOTAL	CONSTRUCTION CODE			
				FAP 600	FAP 600	FAI 64	FAI 64
				TRAFFIC SIGNALS	TRAFFIC SIGNALS	ROADWAY	ROADWAY
				0021	0021	0021	0021
URBAN	URBAN	URBAN	URBAN				
CMAQ	HSIP	CMAQ	HSIP				
87900200	DRILL EXISTING HANDHOLE	EACH	86		86		
88030020	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	97		97		
88030050	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	45		45		
88030070	SIGNAL HEAD, LED, 1-FACE, 4-SECTION, BRACKET MOUNTED	EACH	35		35		
88030080	SIGNAL HEAD, LED, 1-FACE, 4-SECTION, MAST ARM MOUNTED	EACH	34		34		
88030100	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	2		2		
88030110	SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	2		2		
88102717	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	10		10		
88102747	PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	8		8		
88200510	TRAFFIC SIGNAL BACKPLATE, RETROREFLECTIVE	EACH	127		127		
89501250	RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	14		14		
89502210	MODIFY EXISTING CONTROLLER CABINET	EACH	1	1			
89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	7000		7000		
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	16		16		

* SPECIALTY ITEM

REV. - MS

MODEL: \$MODELNAME\$
FILE: \$NAME\$. \$FILE\$



DELTA ENGINEERING GROUP, LLC
111 W JACKSON BLVD, SUITE 910
CHICAGO, IL 60604
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PLOT DATE = \$DATES\$	DATE - 03/01/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITY

SCALE: NTS SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	(130,130-1,130-2) TS-3, 82-5TS	ST. CLAIR	75	9
CONTRACT NO. 76R78				
ILLINOIS FED. AID PROJECT CMAQ-HSIP-445N (249)				

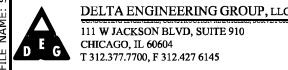
80% FED
20% STATE

CODE NO.	ITEM	UNIT	TOTAL	CONSTRUCTION CODE			
				FAP 600	FAP 600	FAI 64	FAI 64
				TRAFFIC SIGNALS	TRAFFIC SIGNALS	ROADWAY	ROADWAY
				0021	0021	0021	0021
URBAN	URBAN	URBAN	URBAN				
CMAQ	HSIP	CMAQ	HSIP				
89502385	REMOVE EXISTING CONCRETE FOUNDATION	EACH	47		47		
X0323917	CABINET, MODEL 334	EACH	1				1
X0324085	EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	9423		9423		
X8891007	VIDEO VEHICLE DETECTION SYSTEM COMPLETE	EACH	3		3		
X8710010	FIBER LAYOUT	L SUM	1	0.5		0.5	
X1400500	COMMUNICATIONS VAULT, 24"X36"	EACH	7			7	
X0325485	TRUSS MOUNTED LED DYNAMIC MESSAGE SIGN	EACH	1				1
X8710036	FIBER OPTIC CABLE 12 FIBERS, SINGLE MODE	FOOT	525	525			
X8710039	FIBER OPTIC CABLE 144 FIBERS, SINGLE MODE	FOOT	14627	7157		7470	
X8710101	ETHERNET MANAGE SWITCH	EACH	1	1			
X8710103	ETHERNET SWITCH	EACH	7	7			
X8710304	FIBER OPTIC CABLE SPLICE - LATERAL	EACH	7	7			
X8710318	FIBER OPTIC UTILITY MARKER	EACH	25			25	
X8760200	ACCESSIBLE PEDESTRIAN SIGNALS	EACH	30		30		

* SPECIALTY ITEM

REV. - MS

MODEL NUMBER
FILE NAME: 31113



DELTA ENGINEERING GROUP, LLC
111 W JACKSON BLVD, SUITE 910
CHICAGO, IL 60604
T 312.377.7700, F 312.427.6145

USER NAME = \$USERS	DESIGNED - MA	REVISED -
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PLOT SCALE = \$SCALE\$	DATE - 03/01/2024	REVISED -
PLOT DATE = \$DATES		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITY

SCALE: NTS SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	(130,130-1,130-2) TS-3, 82-5TS	ST. CLAIR	75	10
				CONTRACT NO. 76R78
ILLINOIS FED. AID PROJECT CMAQ-HSIP-445N (249)				

80% FED
20% STATE

CODE NO.	ITEM	UNIT	TOTAL	CONSTRUCTION CODE			
				FAP 600	FAP 600	FAI 64	FAI 64
				TRAFFIC SIGNALS	TRAFFIC SIGNALS	ROADWAY	ROADWAY
				0021	0021	0021	0021
URBAN	URBAN	URBAN	URBAN				
CMAQ	HSIP	CMAQ	HSIP				
X8760201	PEDESTRIAN PUSH-BUTTON POST	EACH	21		21		
X8780012	CONCRETE FOUNDATION, TYPE A 12-INCH DIAMETER	FOOT	104		104		
XP000212	CLOSED CIRCUIT TELEVISION DOME CAMERA, HD	EACH	2	2			

* SPECIALTY ITEM

REV. - MS

MODEL: \$MODELNAME\$
FILE: \$NAME\$. \$FILE\$

DELTA ENGINEERING GROUP, LLC
111 W JACKSON BLVD, SUITE 910
CHICAGO, IL 60604
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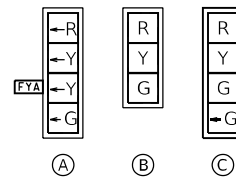
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITY

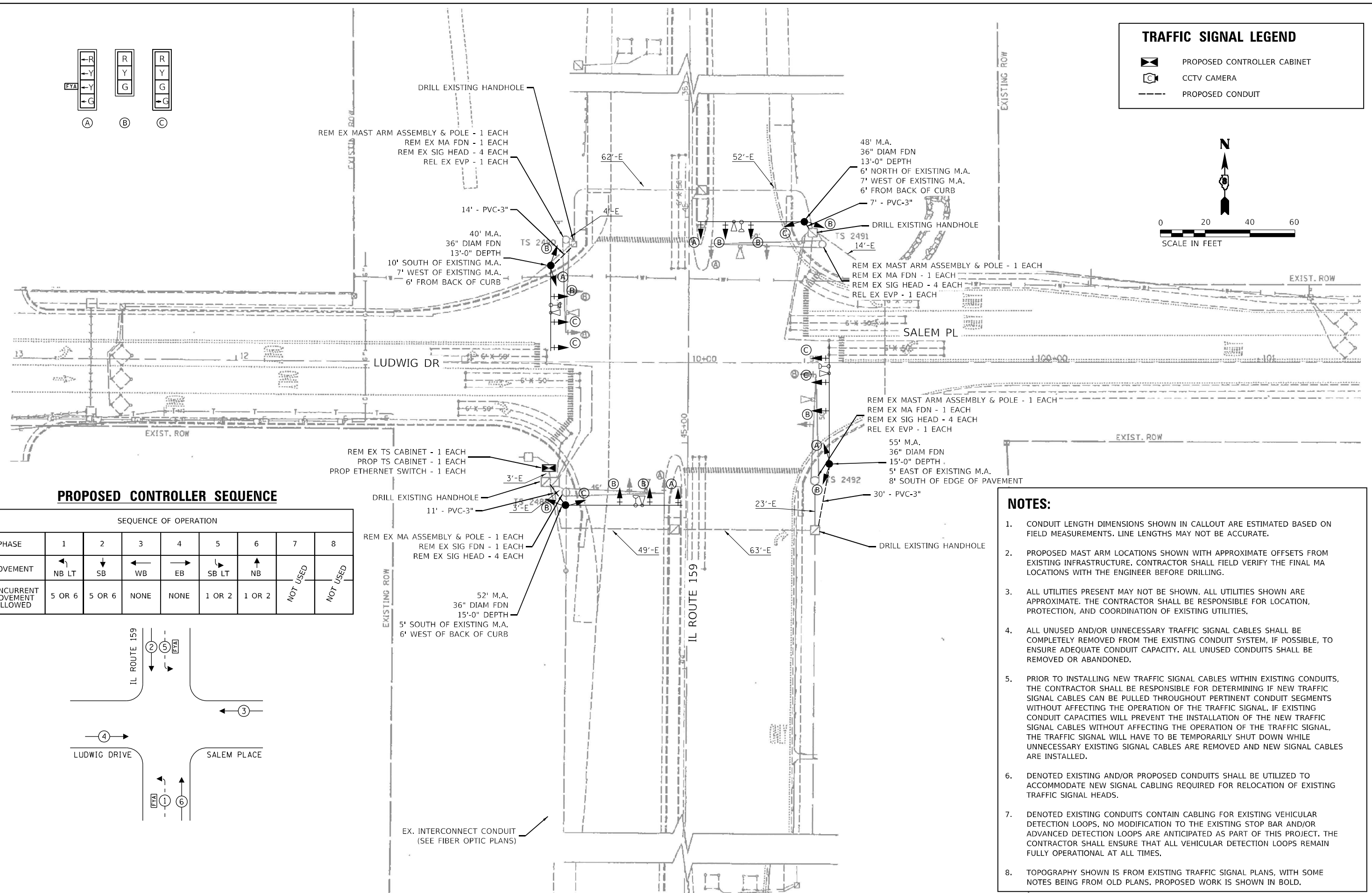
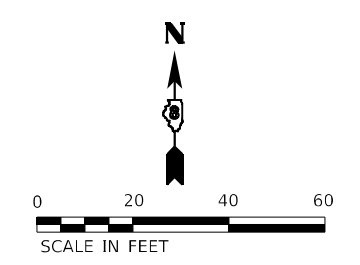
SCALE: NTS SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	(130.130-1,130-2) T5-3, 82-5TS	ST. CLAIR	75	10A
CONTRACT NO. 76R78			ILLINOIS FED. AID PROJECT CMAQ-HSIP-445N (249)	



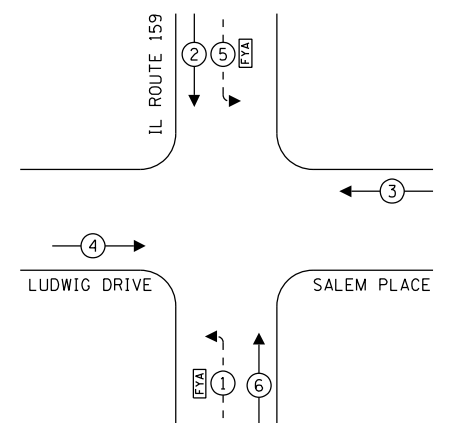
TRAFFIC SIGNAL LEGEND

- PROPOSED CONTROLLER CABINET
- CCTV CAMERA
- PROPOSED CONDUIT



PROPOSED CONTROLLER SEQUENCE

SEQUENCE OF OPERATION								
PHASE	1	2	3	4	5	6	7	8
MOVEMENT	NB LT	SB	WB	EB	SB LT	NB	NOT USED	NOT USED
CONCURRENT MOVEMENT ALLOWED	5 OR 6	5 OR 6	NONE	NONE	1 OR 2	1 OR 2	NOT USED	NOT USED



- ### NOTES:
- CONDUIT LENGTH DIMENSIONS SHOWN IN CALLOUT ARE ESTIMATED BASED ON FIELD MEASUREMENTS. LINE LENGTHS MAY NOT BE ACCURATE.
 - PROPOSED MAST ARM LOCATIONS SHOWN WITH APPROXIMATE OFFSETS FROM EXISTING INFRASTRUCTURE. CONTRACTOR SHALL FIELD VERIFY THE FINAL MA LOCATIONS WITH THE ENGINEER BEFORE DRILLING.
 - ALL UTILITIES PRESENT MAY NOT BE SHOWN. ALL UTILITIES SHOWN ARE APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATION, PROTECTION, AND COORDINATION OF EXISTING UTILITIES.
 - ALL UNUSED AND/OR UNNECESSARY TRAFFIC SIGNAL CABLES SHALL BE COMPLETELY REMOVED FROM THE EXISTING CONDUIT SYSTEM, IF POSSIBLE, TO ENSURE ADEQUATE CONDUIT CAPACITY. ALL UNUSED CONDUITS SHALL BE REMOVED OR ABANDONED.
 - PRIOR TO INSTALLING NEW TRAFFIC SIGNAL CABLES WITHIN EXISTING CONDUITS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING IF NEW TRAFFIC SIGNAL CABLES CAN BE PULLED THROUGHOUT PERTINENT CONDUIT SEGMENTS WITHOUT AFFECTING THE OPERATION OF THE TRAFFIC SIGNAL, IF EXISTING CONDUIT CAPACITIES WILL PREVENT THE INSTALLATION OF THE NEW TRAFFIC SIGNAL CABLES WITHOUT AFFECTING THE OPERATION OF THE TRAFFIC SIGNAL, THE TRAFFIC SIGNAL WILL HAVE TO BE TEMPORARILY SHUT DOWN WHILE UNNECESSARY EXISTING SIGNAL CABLES ARE REMOVED AND NEW SIGNAL CABLES ARE INSTALLED.
 - DENOTED EXISTING AND/OR PROPOSED CONDUITS SHALL BE UTILIZED TO ACCOMMODATE NEW SIGNAL CABLING REQUIRED FOR RELOCATION OF EXISTING TRAFFIC SIGNAL HEADS.
 - DENOTED EXISTING CONDUITS CONTAIN CABLING FOR EXISTING VEHICULAR DETECTION LOOPS. NO MODIFICATION TO THE EXISTING STOP BAR AND/OR ADVANCED DETECTION LOOPS ARE ANTICIPATED AS PART OF THIS PROJECT. THE CONTRACTOR SHALL ENSURE THAT ALL VEHICULAR DETECTION LOOPS REMAIN FULLY OPERATIONAL AT ALL TIMES.
 - TOPOGRAPHY SHOWN IS FROM EXISTING TRAFFIC SIGNAL PLANS, WITH SOME NOTES BEING FROM OLD PLANS. PROPOSED WORK IS SHOWN IN BOLD.

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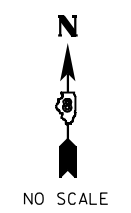
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PLOT DATE = 2/27/2024	CHECKED - BF	REVISED -
	DATE - 2/26/24	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL MODIFICATION PLAN
IL ROUTE 159 AND LUDWIG DRIVE / SALEM PLACE

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	(130, 130-1, 130-2) TS-3, 82-5TS	ST. CLAIR	74	11
ILLINOIS FED. AID PROJECT			CONTRACT NO. 76R78	

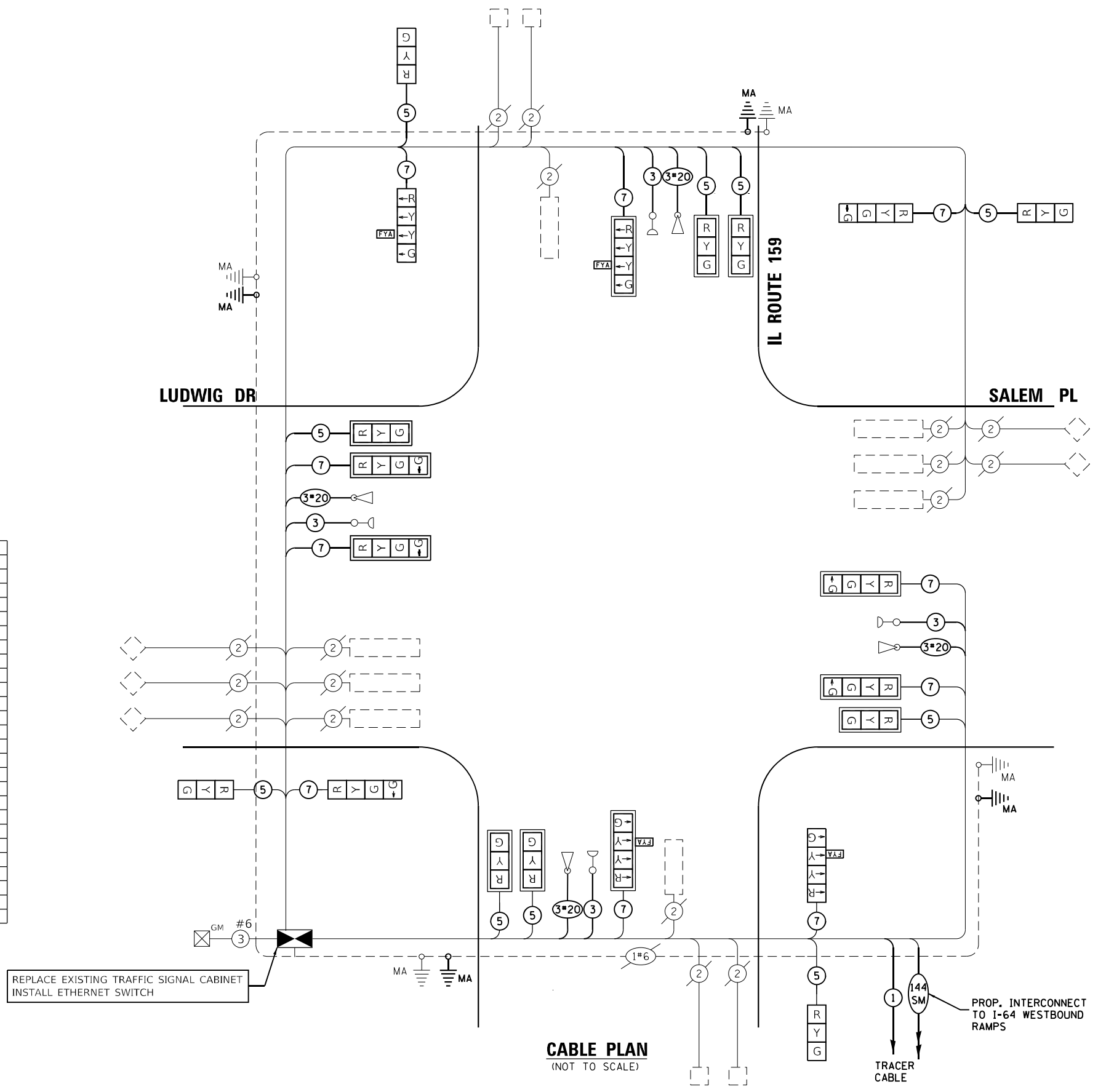


TRAFFIC SIGNAL LEGEND	
	PROP. TRAFFIC SIGNAL CONTROLLER
	PROP. CCTV CAMERA
	PROP. GROUNDING
	PROP. NO. OF CONDUCTORS IN CABLE
	PROP. CCTV CABLE
	PROP. 12" SIGNAL HEAD
	EX. VEHICLE DETECTOR, INDUCTION LOOP
	EX. NO. OF CONDUCTORS IN CABLE
	EX. 12" SIGNAL HEAD
	EX. GROUND MOUNT SERVICE
	EX. GROUNDING
	EX. EMERGENCY VEHICLE PREEMPTION
	EX. CONFIRMATION BEACON

SCHEDULE OF QUANTITIES

ITEM DESCRIPTION	UNIT	QTY.
SIGN PANEL - TYPE 1	SO FT	30
RELOCATE SIGN PANEL - TYPE 1	SO FT	32
LOCATING UNDERGROUND CABLE	FOOT	10
UNDERGROUND CONDUIT, PVC, 3" DIA.	FOOT	62
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1182
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	2635
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	3004
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	105
STEEL MAST ARM ASSEMBLY AND POLE, 40 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 48 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 52 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 58 FT.	EACH	1
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	56
DRILL EXISTING HANDHOLE	EACH	4
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	6
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	4
SIGNAL HEAD, LED, 1-FACE, 4-SECTION, BRACKET MOUNTED	EACH	4
SIGNAL HEAD, LED, 1-FACE, 4-SECTION, MAST ARM MOUNTED	EACH	6
TRAFFIC SIGNAL BACKPLATE, RETROREFLECTIVE	EACH	12
RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
* REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	500
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	4
EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	1182
ETHERNET SWITCH	EACH	1

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



CABLE PLAN
(NOT TO SCALE)

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PLOT DATE = 2/27/2024	DATE - 2/26/24	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL CABLE PLAN
IL ROUTE 159 AND LUDWIG DRIVE / SALEM PLACE

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	(130, 130-1, 130-2) TS-3, 82-5TS	ST. CLAIR	74	12
CONTRACT NO. 76R78				
ILLINOIS FED. AID PROJECT				

SCALE: SHEET OF SHEETS STA. TO STA.

SOIL BORING LOG

ROUTE FAP 600 DESCRIPTION Traffic Signals at IL 159 and Ludwig Dr / Salem Pl LOGGED BY J. King
SECTION 130TS LOCATION SE 1/4, SEC. 21, TWP. 2N, RNG. 8W, 3 PM
COUNTY St. Clair DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. Station	DEPTH H	BLOW S	UCS Qu	MOIST T	Soil Data			
					Surface Water Elev. _____ ft	Stream Bed Elev. _____ ft	Groundwater Elev.: First Encounter _____ ft	Upon Completion _____ ft
BORING NO. <u>1</u> Station <u>45+81</u> Offset <u>57.00ft R</u> Ground Surface Elev. <u>589.3</u> ft	(ft)	(/6")	(tsf)	(%)	(ft)	(/6")	(tsf)	(%)
Brown and Gray SILT					Brown and Gray SILT (continued)			
						8	1.5 B	28
						6	1.7 B	27
584.8		33	5.4 S	19				
Brown and Gray Silty CLAY								
						8	2.0 B	28
572.3		19	3.0 S	20	562.9			
					END OF BORING			
						19	2.6 S	22
						18	2.5 S	21
						24	4.8 S	21
						18	1.6 S	23
Brown and Gray SILT						7	1.4 S	24

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)

SOIL BORING LOG

ROUTE FAP 600 DESCRIPTION Traffic Signals at IL 159 and Ludwig Dr / Salem Pl LOGGED BY J. King
SECTION 130TS LOCATION SE 1/4, SEC. 21, TWP. 2N, RNG. 8W, 3 PM
COUNTY St. Clair DRILLING METHOD Hollow Stem Auger HAMMER TYPE 140# Automatic

STRUCT. NO. Station	DEPTH H	BLOW S	UCS Qu	MOIST T	Soil Data			
					Surface Water Elev. _____ ft	Stream Bed Elev. _____ ft	Groundwater Elev.: First Encounter _____ ft	Upon Completion _____ ft
BORING NO. <u>2</u> Station <u>44+98</u> Offset <u>56.00ft R</u> Ground Surface Elev. <u>488.5</u> ft	(ft)	(/6")	(tsf)	(%)	(ft)	(/6")	(tsf)	(%)
Brown and Gray Silty CLAY					Brown and Gray Clayey SILT (continued)			
						12	1.5 B	27
						7	1.2 B	28
		28	4.3 S	18				
						8	1.5 B	27
462.5		22	3.1 S	15	462.5			
					END OF BORING			
						31	3.5 S	20
						35	3.7 S	21
						24	3.0 S	22
474.5								
Brown and Gray Clayey SILT						12	1.2 S	21
						7	0.7 B	28

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
BBS, from 137 (Rev. 8-99)

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PLOT SCALE = 100,0000' / in.	DRAWN - BF	REVISED -
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	DATE - 11/10/23	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

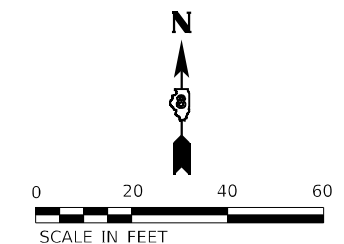
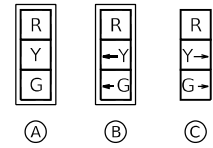
SCALE:		SHEET OF SHEETS		STA. TO STA.	
SOIL BORING LOGS IL ROUTE 159 AND LUDWIG DRIVE / SALEM PLACE					

F.A.P. RTE. 600	SECTION (130, 130-1, 130-2) TS-3, 82-5TS	COUNTY ST. CLAIR	TOTAL SHEETS 74	SHEET NO. 13
CONTRACT NO. 76R78				
ILLINOIS FED. AID PROJECT				

NOTES:

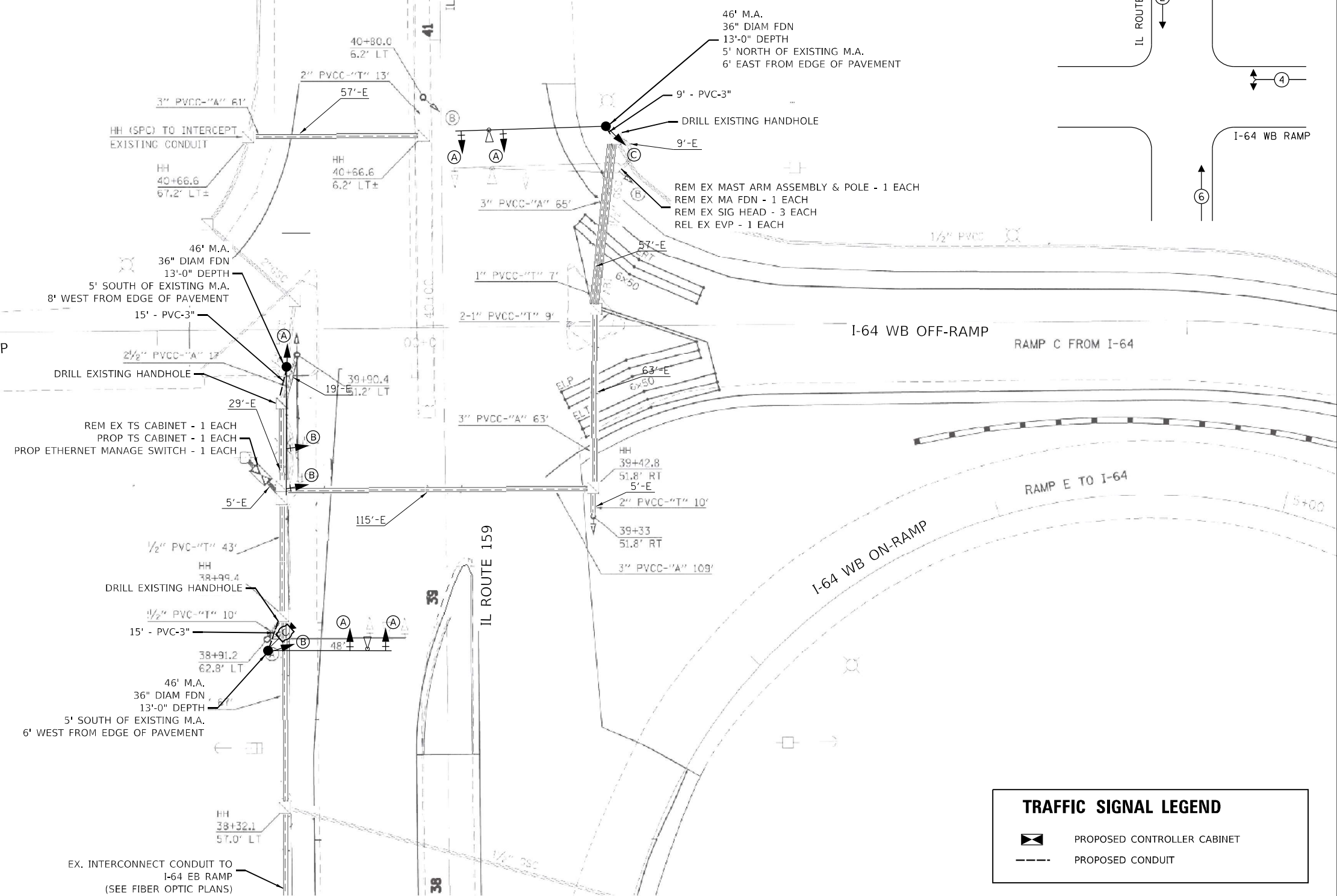
- CONDUIT LENGTH DIMENSIONS SHOWN IN CALLOUT ARE ESTIMATED BASED ON FIELD MEASUREMENTS. LINE LENGTHS MAY NOT BE ACCURATE.
- PROPOSED MAST ARM LOCATIONS SHOWN WITH APPROXIMATE OFFSETS FROM EXISTING INFRASTRUCTURE. CONTRACTOR SHALL FIELD VERIFY THE FINAL MA LOCATIONS WITH THE ENGINEER BEFORE DRILLING.
- ALL UTILITIES PRESENT MAY NOT BE SHOWN. ALL UTILITIES SHOWN ARE APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATION, PROTECTION, AND COORDINATION OF EXISTING UTILITIES.
- ALL UNUSED AND/OR UNNECESSARY TRAFFIC SIGNAL CABLES SHALL BE COMPLETELY REMOVED FROM THE EXISTING CONDUIT SYSTEM, IF POSSIBLE, TO ENSURE ADEQUATE CONDUIT CAPACITY. ALL UNUSED CONDUITS SHALL BE REMOVED OR ABANDONED.
- PRIOR TO INSTALLING NEW TRAFFIC SIGNAL CABLES WITHIN EXISTING CONDUITS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING IF NEW TRAFFIC SIGNAL CABLES CAN BE PULLED THROUGHOUT PERTINENT CONDUIT SEGMENTS WITHOUT AFFECTING THE OPERATION OF THE TRAFFIC SIGNAL. IF EXISTING CONDUIT CAPACITIES WILL PREVENT THE INSTALLATION OF THE NEW TRAFFIC SIGNAL CABLES WITHOUT AFFECTING THE OPERATION OF THE TRAFFIC SIGNAL, THE TRAFFIC SIGNAL WILL HAVE TO BE TEMPORARILY SHUT DOWN WHILE UNNECESSARY EXISTING SIGNAL CABLES ARE REMOVED AND NEW SIGNAL CABLES ARE INSTALLED.
- DENOTED EXISTING AND/OR PROPOSED CONDUITS SHALL BE UTILIZED TO ACCOMMODATE NEW SIGNAL CABLING REQUIRED FOR RELOCATION OF EXISTING TRAFFIC SIGNAL HEADS.
- DENOTED EXISTING CONDUITS CONTAIN CABLING FOR EXISTING VEHICULAR DETECTION LOOPS. NO MODIFICATION TO THE EXISTING STOP BAR AND/OR ADVANCED DETECTION LOOPS ARE ANTICIPATED AS PART OF THIS PROJECT. THE CONTRACTOR SHALL ENSURE THAT ALL VEHICULAR DETECTION LOOPS REMAIN FULLY OPERATIONAL AT ALL TIMES.
- TOPOGRAPHY SHOWN IS FROM EXISTING TRAFFIC SIGNAL PLANS, WITH SOME NOTES BEING FROM OLD PLANS. PROPOSED WORK IS SHOWN IN BOLD.

EX. INTERCONNECT CONDUIT TO LUDWIG DR / SALEM PL (SEE FIBER OPTIC PLANS)



PROPOSED CONTROLLER SEQUENCE

SEQUENCE OF OPERATION								
PHASE	1	2	3	4	5	6	7	8
MOVEMENT	NOT USED	SB	NOT USED	WB	NOT USED	NB	NOT USED	NOT USED
CONCURRENT MOVEMENT ALLOWED	NOT USED	6	NOT USED	NONE	NOT USED	2	NOT USED	NOT USED



TRAFFIC SIGNAL LEGEND

	PROPOSED CONTROLLER CABINET
	PROPOSED CONDUIT

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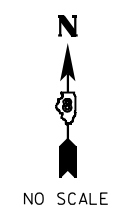
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

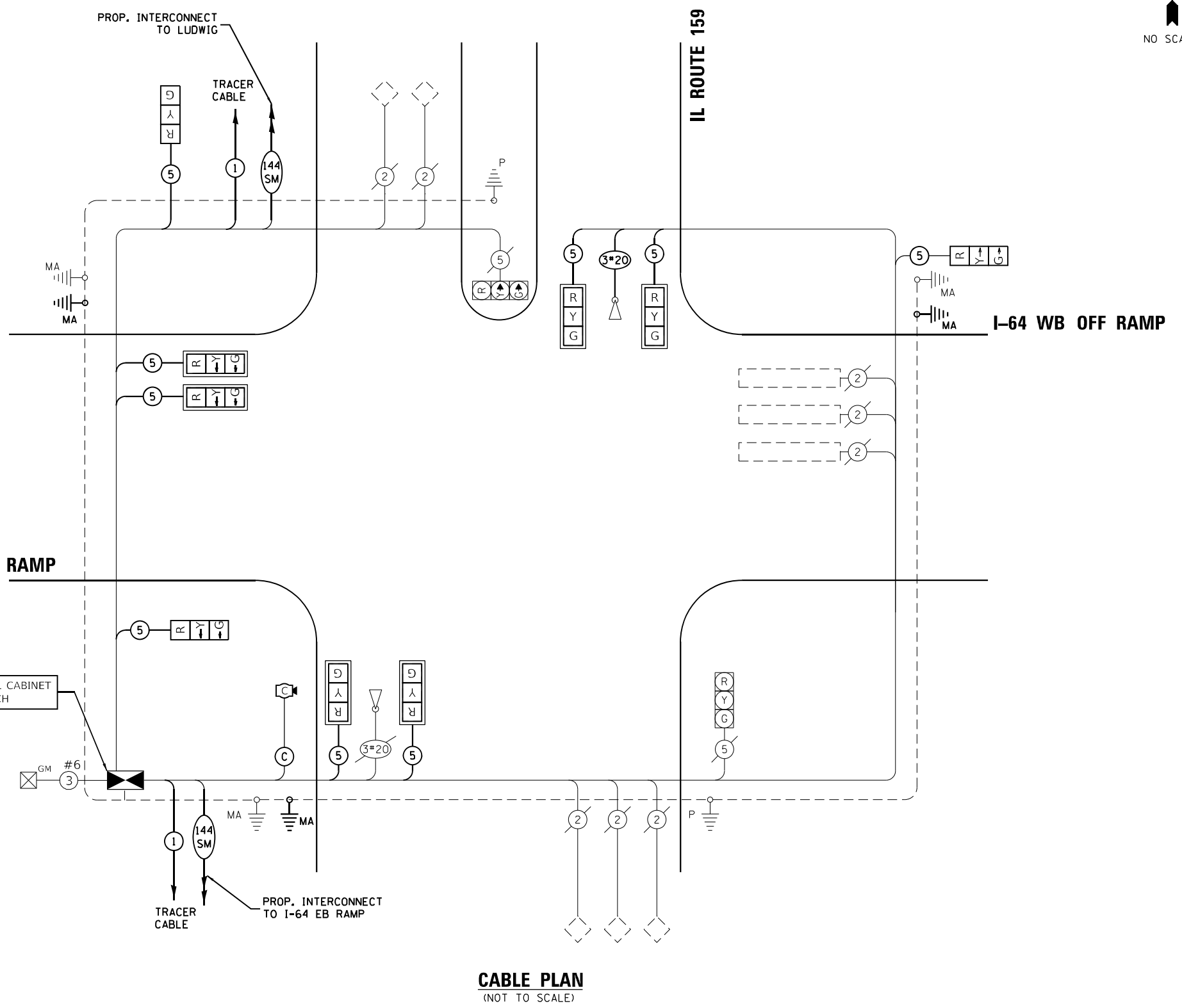
**TRAFFIC SIGNAL MODIFICATION PLAN
IL ROUTE 159 AND I-64 WB RAMPS**

SCALE:	SHEET	OF	SHEETS	STA.	TO	STA.
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	(130, 130-1, 130-2) TS-3, 82-5TS	ST. CLAIR	74	15
ILLINOIS FED. AID PROJECT			CONTRACT NO. 76R78	



TRAFFIC SIGNAL LEGEND	
	PROP. TRAFFIC SIGNAL CONTROLLER
	PROP. CCTV CAMERA
	PROP. GROUNDING
	PROP. NO. OF CONDUCTORS IN CABLE
	PROP. CCTV CABLE
	PROP. 12" SIGNAL HEAD
	EX. VEHICLE DETECTOR, INDUCTION LOOP
	EX. NO. OF CONDUCTORS IN CABLE
	EX. 12" SIGNAL HEAD
	EX. GROUND MOUNT SERVICE
	EX. GROUNDING
	EX. EMERGENCY VEHICLE PREEMPTION
	EX. CONFIRMATION BEACON



SCHEDULE OF QUANTITIES

ITEM DESCRIPTION	UNIT	QTY.
LOCATING UNDERGROUND CABLE	FOOT	10
UNDERGROUND CONDUIT, PVC, 3" DIA.	FOOT	39
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET	EACH	1
UNINTERRUPTABLE POWER SUPPLY, EXTENDED	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1737
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	50
STEEL MAST ARM ASSEMBLY AND POLE, 46 FT.	EACH	3
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	39
DRILL EXISTING HANDHOLE	EACH	3
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	6
TRAFFIC SIGNAL BACKPLATE, RETROREFLECTIVE	EACH	6
RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
* REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	500
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	3
EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	490
ETHERNET MANAGE SWITCH	EACH	1
CLOSED CIRCUIT TELEVISION DOME CAMERA, HD	EACH	1

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

CABLE PLAN
(NOT TO SCALE)

MODEL: Default
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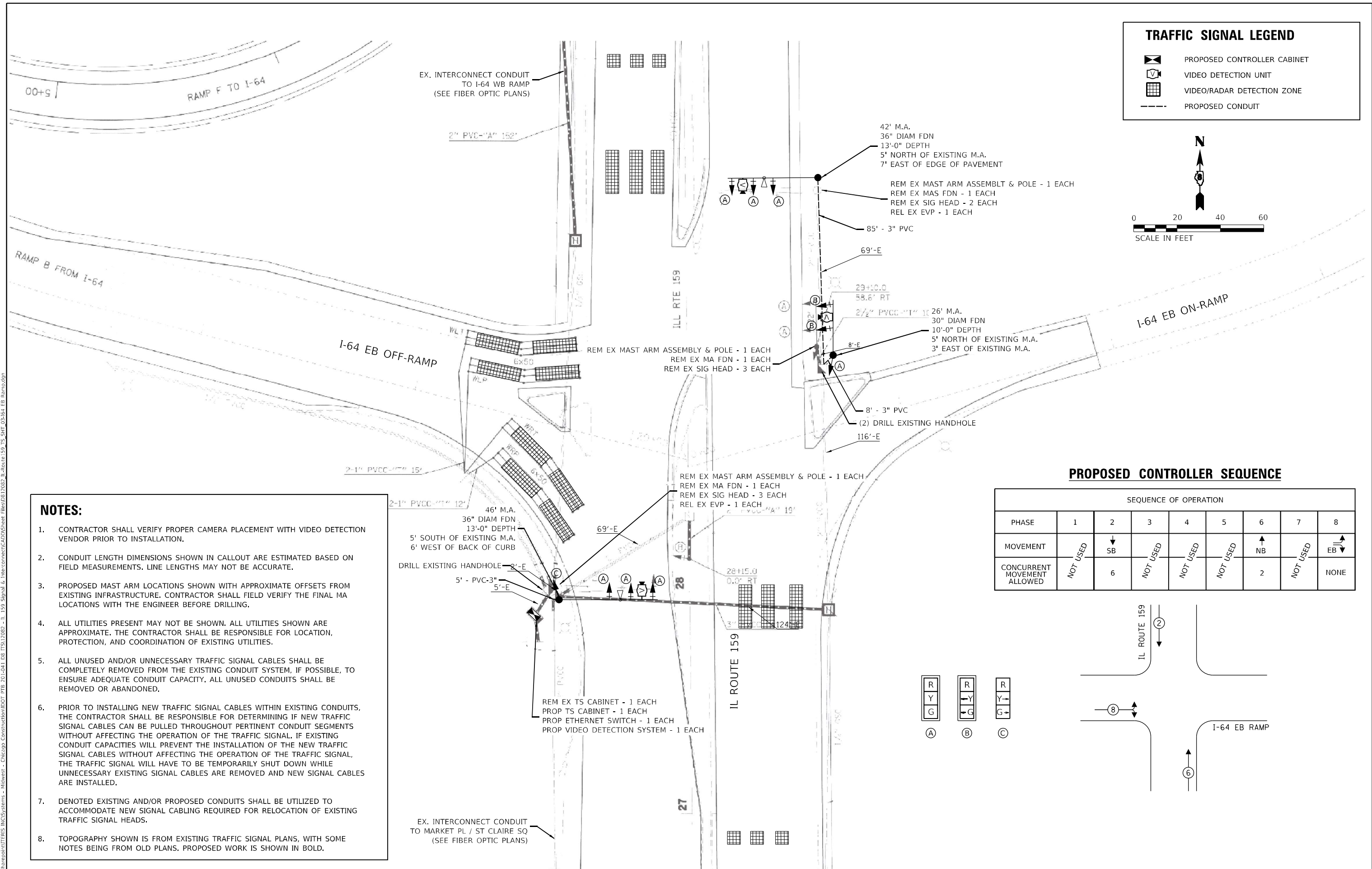
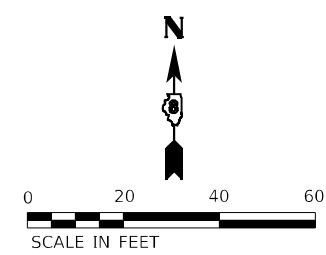
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL CABLE PLAN	
IL ROUTE 159 AND I-64 WB RAMPS	
SCALE:	SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	(130, 130-1, 130-2) TS-3, 82-5TS	ST. CLAIR	74	16
CONTRACT NO. 76R78			ILLINOIS FED. AID PROJECT	

TRAFFIC SIGNAL LEGEND

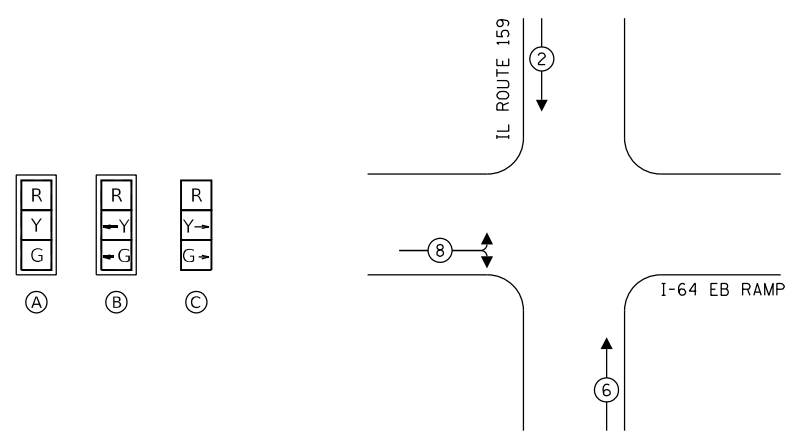
- PROPOSED CONTROLLER CABINET
- VIDEO DETECTION UNIT
- VIDEO/RADAR DETECTION ZONE
- PROPOSED CONDUIT



- ### NOTES:
- CONTRACTOR SHALL VERIFY PROPER CAMERA PLACEMENT WITH VIDEO DETECTION VENDOR PRIOR TO INSTALLATION.
 - CONDUIT LENGTH DIMENSIONS SHOWN IN CALLOUT ARE ESTIMATED BASED ON FIELD MEASUREMENTS. LINE LENGTHS MAY NOT BE ACCURATE.
 - PROPOSED MAST ARM LOCATIONS SHOWN WITH APPROXIMATE OFFSETS FROM EXISTING INFRASTRUCTURE. CONTRACTOR SHALL FIELD VERIFY THE FINAL MA LOCATIONS WITH THE ENGINEER BEFORE DRILLING.
 - ALL UTILITIES PRESENT MAY NOT BE SHOWN. ALL UTILITIES SHOWN ARE APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATION, PROTECTION, AND COORDINATION OF EXISTING UTILITIES.
 - ALL UNUSED AND/OR UNNECESSARY TRAFFIC SIGNAL CABLES SHALL BE COMPLETELY REMOVED FROM THE EXISTING CONDUIT SYSTEM, IF POSSIBLE, TO ENSURE ADEQUATE CONDUIT CAPACITY. ALL UNUSED CONDUITS SHALL BE REMOVED OR ABANDONED.
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 - DENOTED EXISTING AND/OR PROPOSED CONDUITS SHALL BE UTILIZED TO ACCOMMODATE NEW SIGNAL CABLING REQUIRED FOR RELOCATION OF EXISTING TRAFFIC SIGNAL HEADS.
 - TOPOGRAPHY SHOWN IS FROM EXISTING TRAFFIC SIGNAL PLANS, WITH SOME NOTES BEING FROM OLD PLANS. PROPOSED WORK IS SHOWN IN BOLD.

PROPOSED CONTROLLER SEQUENCE

SEQUENCE OF OPERATION								
PHASE	1	2	3	4	5	6	7	8
MOVEMENT	NOT USED	↓ SB	NOT USED	NOT USED	NOT USED	↑ NB	NOT USED	↕ EB
CONCURRENT MOVEMENT ALLOWED	NOT USED	6	NOT USED	NOT USED	NOT USED	2	NOT USED	NONE



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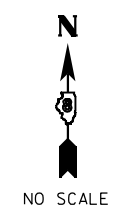
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL MODIFICATION PLAN
IL ROUTE 159 AND I-64 EB RAMPS

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	(130, 130-1, 130-2) TS-3, 82-5TS	ST. CLAIR	74	18
CONTRACT NO. 76R78			ILLINOIS / FED. AID PROJECT	



TRAFFIC SIGNAL LEGEND	
	PROP. TRAFFIC SIGNAL CONTROLLER
	PROP. CCTV CAMERA
	PROP. GROUNDING
	PROP. NO. OF CONDUCTORS IN CABLE
	PROP. CCTV CABLE
	PROP. 12" SIGNAL HEAD
	EX. VEHICLE DETECTOR, INDUCTION LOOP
	EX. NO. OF CONDUCTORS IN CABLE
	EX. 12" SIGNAL HEAD
	EX. GROUND MOUNT SERVICE
	EX. GROUNDING
	EX. EMERGENCY VEHICLE PREEMPTION
	EX. CONFIRMATION BEACON

I-64 EB OFF RAMP

IL ROUTE 159

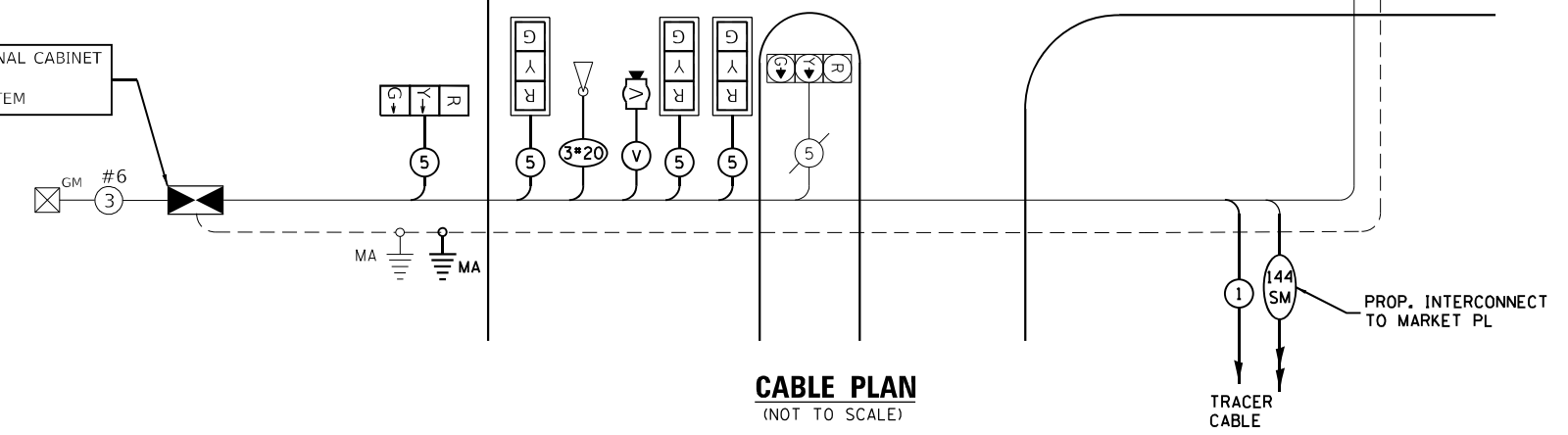
I-64 EB ON RAMP

SCHEDULE OF QUANTITIES

ITEM DESCRIPTION	UNIT	QTY.
LOCATING UNDERGROUND CABLE	FOOT	10
UNDERGROUND CONDUIT, PVC, 3" DIA.	FOOT	98
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET	EACH	1
UNINTERRUPTABLE POWER SUPPLY, EXTENDED	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	2433
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	133
STEEL MAST ARM ASSEMBLY AND POLE, 26 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 42 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 46 FT.	EACH	1
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	10
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	26
DRILL EXISTING HANDHOLE	EACH	3
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	8
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2
TRAFFIC SIGNAL BACKPLATE, RETROREFLECTIVE	EACH	8
RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	500
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	3
EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	504
VIDEO DETECTION SYSTEM	EACH	1
ETHERNET SWITCH	EACH	1

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

REPLACE EXISTING TRAFFIC SIGNAL CABINET
INSTALL ETHERNET SWITCH
INSTALL VIDEO DETECTION SYSTEM



CABLE PLAN
(NOT TO SCALE)

TRACER CABLE

PROP. INTERCONNECT TO MARKET PL



USER NAME = bfunck	DESIGNED - AD	REVISED -
PLOT SCALE = 100,0000' / in.	DRAWN - AD	REVISED -
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	DATE - 2/26/24	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL CABLE PLAN	
IL ROUTE 159 AND I-64 EB RAMPS	
SCALE:	SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	(130, 130-1, 130-2) TS-3, 82-5TS	ST. CLAIR	74	19
			CONTRACT NO. 76R78	
ILLINOIS FED. AID PROJECT				

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ILLINOIS DEPARTMENT OF TRANSPORTATION
 District Eight Materials Depth Increment = 152.5mm
 NW 1/4, NW 1/4, SECTION 27, T 2 N, R 8 W, 3RD PM

Bridge Foundation
 Boring Log

PROJECT FAI 64 BRIDGE I 64 - IL 159 Date 09/30/96 Sh. 1 of 1
 INTERCHANGE
 ROUTE FAI 64 Bored By JOSEPH MONROE
 SEC. 82-5KI STA. Checked By MARY LAMIE

El.	N	Qu kPa	W %	Surf Wat El. Grndwater El. at Compl At Hrs	El.	N	Qu kPa	W %
Ground Surface 180.02 0m								
BROWN AND GRAY SILT								
					-7			
	4							
	6							
	9	187.28	18					
	3							
	6							
	9	156.06	17					
	8							
	9				-9			
	11	NC	17					
	8							
	11							
	15	234.10	16					
	7							
	11							
	13	171.67	17		11			
	4							
	6							
	8	131.09	21					
	1							
	2							
	2	18.73	28					
	2							
	3				13			
	5	49.94	26					
173.62 END OF BORING								
N 50 mm OD Sampler, Driven 305 mm 63.5Kg Hammer, 760 mm Fall (F.W.-Free Water B-Bulge S-Shear)								

ILLINOIS DEPARTMENT OF TRANSPORTATION
 District Eight Materials Depth Increment = 152.5mm
 NE 1/4, NE 1/4, SECTION 28, T 2 N, R 8 W, 3RD PM

Bridge Foundation
 Boring Log

PROJECT FAI 64 BRIDGE I 64 - IL 159 Date 09/30/96 Sh. 1 of 1
 INTERCHANGE
 ROUTE FAI 64 Bored By JOSEPH MONROE
 SEC. 82-5KI STA. Checked By MARY LAMIE

El.	N	Qu kPa	W %	Surf Wat El. Grndwater El. at Compl At Hrs	El.	N	Qu kPa	W %
Ground Surface 180.92 0m								
BROWN SILT								
					-7			
	9							
	11							
	15	280.92	15					
	4							
	5							
	6	156.06	20					
	5							
	7				-9			
	12	124.85	19					
	6							
	7							
	12	265.31	17					
	10							
	16							
	16	327.74	16		11			
	7							
	9							
	15	249.70	16					
	16							
	18							
	23	280.92	17					
	7							
	11				13			
	11	265.31	17					
174.52 END OF BORING								
N 50 mm OD Sampler, Driven 305 mm 63.5Kg Hammer, 760 mm Fall (F.W.-Free Water B-Bulge S-Shear)								

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USER NAME = bfunk	DESIGNED - BF	REVISED -
DRAWN - BF	REVISED -	
PLOT SCALE = 100,0000 ' / in.	CHECKED - AD	REVISED -
PLOT DATE = 12/21/2023	DATE - 11/10/23	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS			
IL ROUTE 159 AND I-64 EB RAMPS			
SCALE:	SHEET	OF SHEETS	STA. TO STA.

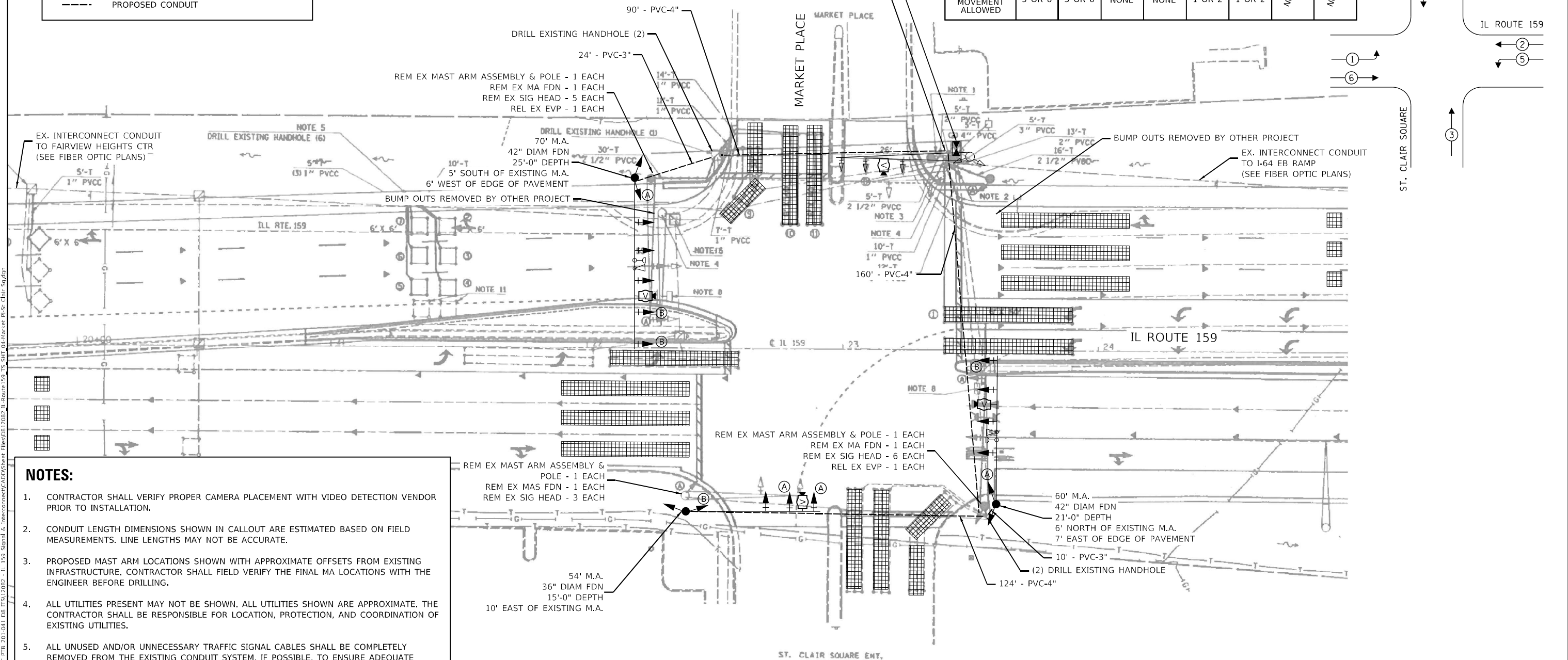
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	(130, 130-1, 130-2) TS-3, 82-5TS	ST. CLAIR	74	21
CONTRACT NO. 76R78				
ILLINOIS FED. AID PROJECT				

PROPOSED CONTROLLER SEQUENCE

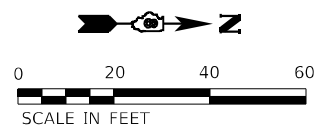
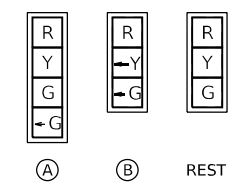
SEQUENCE OF OPERATION								
PHASE	1	2	3	4	5	6	7	8
MOVEMENT	NB LT	SB	WB	EB	SB LT	NB	NOT USED	NOT USED
CONCURRENT MOVEMENT ALLOWED	5 OR 6	5 OR 6	NONE	NONE	1 OR 2	1 OR 2	NOT USED	NOT USED

TRAFFIC SIGNAL LEGEND

- PROPOSED CONTROLLER CABINET
- VIDEO DETECTION UNIT
- VIDEO/RADAR DETECTION ZONE
- PROPOSED CONDUIT



- NOTES:**
- CONTRACTOR SHALL VERIFY PROPER CAMERA PLACEMENT WITH VIDEO DETECTION VENDOR PRIOR TO INSTALLATION.
 - CONDUIT LENGTH DIMENSIONS SHOWN IN CALLOUT ARE ESTIMATED BASED ON FIELD MEASUREMENTS. LINE LENGTHS MAY NOT BE ACCURATE.
 - PROPOSED MAST ARM LOCATIONS SHOWN WITH APPROXIMATE OFFSETS FROM EXISTING INFRASTRUCTURE. CONTRACTOR SHALL FIELD VERIFY THE FINAL MA LOCATIONS WITH THE ENGINEER BEFORE DRILLING.
 - ALL UTILITIES PRESENT MAY NOT BE SHOWN. ALL UTILITIES SHOWN ARE APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATION, PROTECTION, AND COORDINATION OF EXISTING UTILITIES.
 - ALL UNUSED AND/OR UNNECESSARY TRAFFIC SIGNAL CABLES SHALL BE COMPLETELY REMOVED FROM THE EXISTING CONDUIT SYSTEM, IF POSSIBLE, TO ENSURE ADEQUATE CONDUIT CAPACITY. ALL UNUSED CONDUITS SHALL BE REMOVED OR ABANDONED.
 - PRIOR TO INSTALLING NEW TRAFFIC SIGNAL CABLES WITHIN EXISTING CONDUITS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING IF NEW TRAFFIC SIGNAL CABLES CAN BE PULLED THROUGHOUT PERTINENT CONDUIT SEGMENTS WITHOUT AFFECTING THE OPERATION OF THE TRAFFIC SIGNAL. IF EXISTING CONDUIT CAPACITIES WILL PREVENT THE INSTALLATION OF THE NEW TRAFFIC SIGNAL CABLES WITHOUT AFFECTING THE OPERATION OF THE TRAFFIC SIGNAL, THE TRAFFIC SIGNAL WILL HAVE TO BE TEMPORARILY SHUT DOWN WHILE UNNECESSARY EXISTING SIGNAL CABLES ARE REMOVED AND NEW SIGNAL CABLES ARE INSTALLED.
 - DENOTED EXISTING AND/OR PROPOSED CONDUITS SHALL BE UTILIZED TO ACCOMMODATE NEW SIGNAL CABLING REQUIRED FOR RELOCATION OF EXISTING TRAFFIC SIGNAL HEADS.
 - TOPOGRAPHY SHOWN IS FROM EXISTING TRAFFIC SIGNAL PLANS, WITH SOME NOTES BEING FROM OLD PLANS. PROPOSED WORK IS SHOWN IN BOLD.



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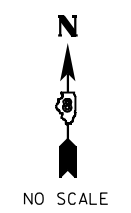
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PLOT DATE = 2/26/2024	DATE - 11/6/23	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL MODIFICATION PLAN
IL ROUTE 159 AND MARKET PLACE / ST. CLAIR SQUARE**

SCALE: SHEET OF SHEETS STA. TO STA.

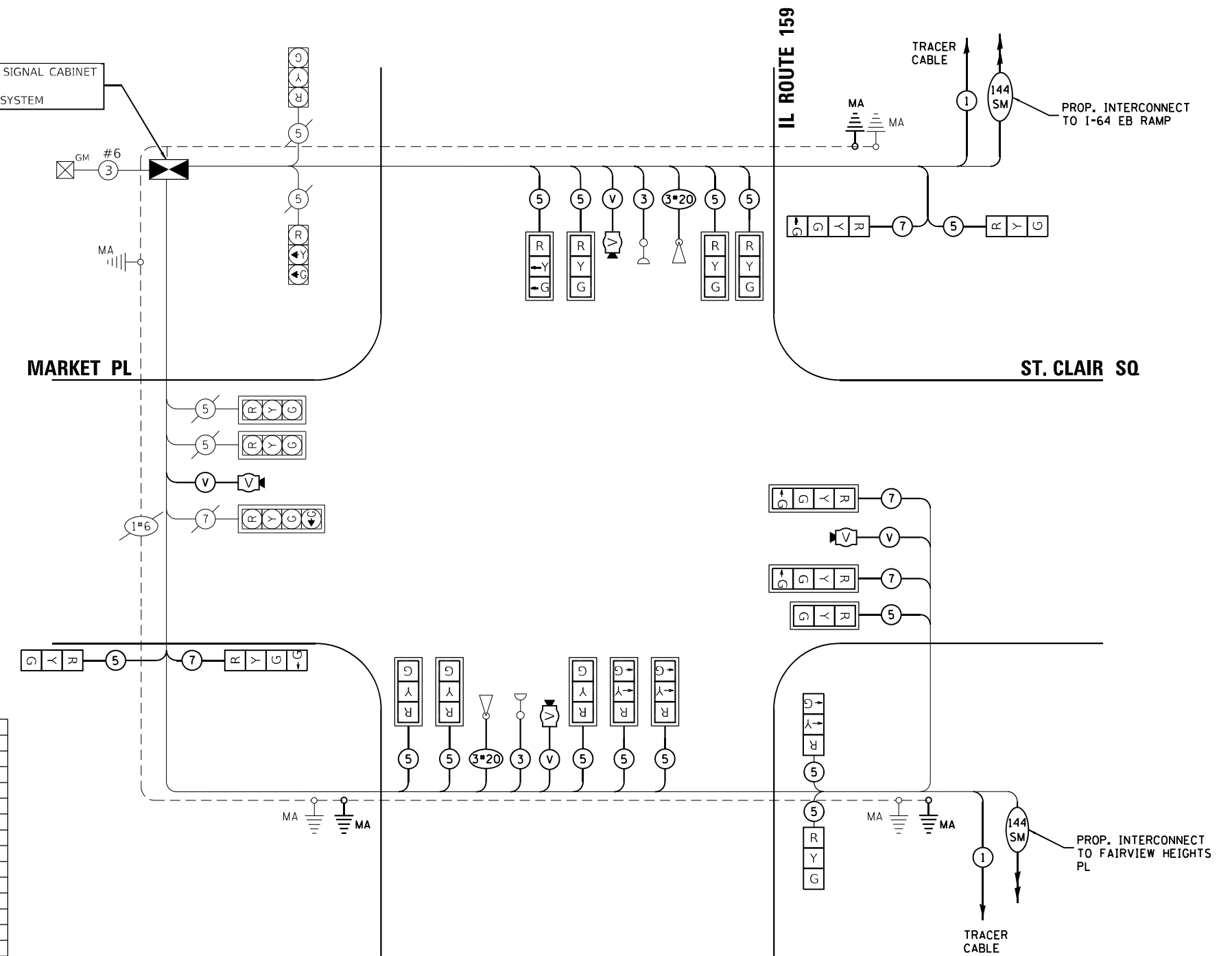
F.A.P. RTE. 600	SECTION (130, 130-1, 130-2) TS-3, 82-5TS	COUNTY ST. CLAIR	TOTAL SHEETS 74	SHEET NO. 23
CONTRACT NO. 76R78			ILLINOIS FED. AID PROJECT	



TRAFFIC SIGNAL LEGEND

	PROP. TRAFFIC SIGNAL CONTROLLER
	PROP. CCTV CAMERA
	PROP. GROUNDING
	PROP. NO. OF CONDUCTORS IN CABLE
	PROP. CCTV CABLE
	PROP. 12" SIGNAL HEAD
	EX. VEHICLE DETECTOR, INDUCTION LOOP
	EX. NO. OF CONDUCTORS IN CABLE
	EX. 12" SIGNAL HEAD
	EX. GROUND MOUNT SERVICE
	EX. GROUNDING
	EX. EMERGENCY VEHICLE PREEMPTION
	EX. CONFIRMATION BEACON

REPLACE EXISTING TRAFFIC SIGNAL CABINET
 INSTALL ETHERNET SWITCH
 INSTALL VIDEO DETECTION SYSTEM



CABLE PLAN
(NOT TO SCALE)

SCHEDULE OF QUANTITIES

ITEM DESCRIPTION	UNIT	QTY.
RELOCATE SIGN PANEL - TYPE 1	50 FT	36
LOCATING UNDERGROUND CABLE	FOOT	10
UNDERGROUND CONDUIT, PVC, 3" DIA.	FOOT	34
UNDERGROUND CONDUIT, PVC, 4" DIA.	FOOT	374
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET	EACH	1
UNINTERRUPTABLE POWER SUPPLY, EXTENDED	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	472
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	3506
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	1161
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	193
STEEL MAST ARM ASSEMBLY AND POLE, 54 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 60 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 70 FT.	EACH	1
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	15
CONCRETE FOUNDATION, TYPE E 42-INCH DIAMETER	FOOT	46
DRILL EXISTING HANDHOLE	EACH	6
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	10
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	4
SIGNAL HEAD, LED, 1-FACE, 4-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 4-SECTION, MAST ARM MOUNTED	EACH	2
TRAFFIC SIGNAL BACKPLATE, RETROREFLECTIVE	EACH	12
RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
* REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	500
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	4
EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	472
VIDEO DETECTION SYSTEM	EACH	1
ETHERNET SWITCH	EACH	1

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

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PLOT DATE = 2/27/2024	CHECKED - BF	REVISED -
	DATE - 2/26/24	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL CABLE PLAN
IL ROUTE 159 AND MARKET PLACE /ST. CLAIR SQUARE**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	(130, 130-1, 130-2) TS-3, 82-5TS	ST. CLAIR	74	24
			CONTRACT NO. 76R78	
ILLINOIS FED. AID PROJECT				

SCALE: SHEET OF SHEETS STA. TO STA.



SOIL BORING LOG

Date 1/22/01

ROUTE FAP 600 DESCRIPTION Traffic Signals at IL 159 and Market Place / Mall Entrance in Fairview Heights LOGGED BY Brett Schwalb

SECTION 130-1RS, 130-1I-TS-2 LOCATION NW 1/4, SEC. 27, TWP. 2N, RNG. 8W, 3 PM

COUNTY St. Clair DRILLING METHOD Hand Auger HAMMER TYPE DCP

STRUCT. NO.	DEPTH	BLOWS	UCS	MOIST	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:
Station	(ft)	(/6")	(tsf)	(%)	ft	ft	First Encounter
HA 1 NW Quad			1.0	20			574.1 ft
Station 23+35		8	1.75	23			ft
Offset 70.00ft Left			1.75	30			ft
Ground Surface Elev. 580.6	577.6		2.0	27			ft
		8	0.75	28			ft
		7	0.5	31			ft
		7	0.8	31			ft
		7	1.25	29			ft
			0.5	31			ft
End of Hand Auger	-10						
Pocket Penetrometer used for Qu							
"N" values shown are calibrated from a curve converting dynamic cone N to SPT "N". Reference ASTM STP 399							
The blows to set the DCP are not included in the blow count.							
	-15						
	-20						

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)



SOIL BORING LOG

Date 1/22/01

ROUTE FAP 600 DESCRIPTION Traffic Signals at IL 159 and Market Place / Mall Entrance in Fairview Heights LOGGED BY Brett Schwalb

SECTION 130-1RS, 130-1I-TS-2 LOCATION NW 1/4, SEC. 27, TWP. 2N, RNG. 8W, 3 PM

COUNTY St. Clair DRILLING METHOD Hand Auger HAMMER TYPE DCP

STRUCT. NO.	DEPTH	BLOWS	UCS	MOIST	Surface Water Elev.	Stream Bed Elev.	Groundwater Elev.:
Station	(ft)	(/6")	(tsf)	(%)	ft	ft	First Encounter
HA 2 SW Quad			No	20			573.9 ft
Station 22+25		5	Test	25			ft
Offset 66.00ft Left			0.75	27			ft
Ground Surface Elev. 580.9	579.9		2.0	28			ft
		8	2.25	28			ft
		8	1.0	29			ft
		7	0.75	32			ft
		7	1.2	31			ft
		9	1.2	29			ft
			1.0	30			ft
		9	1.25	30			ft
		9	1.8	29			ft
			1.5	29			ft
			1.25	30			ft
			1.2	32			ft
				41			ft
End of Hand Auger	-15						
Pocket Penetrometer used for Qu							
"N" values shown are calibrated from a curve converting dynamic cone N to SPT "N". Reference ASTM STP 399							
The blows to set the DCP are not included in the blow count.							
	-20						

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer) The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

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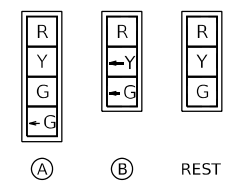
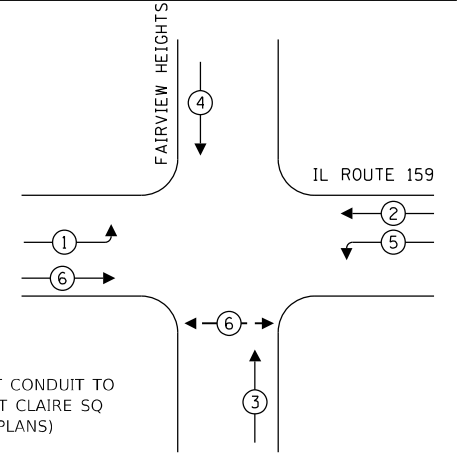
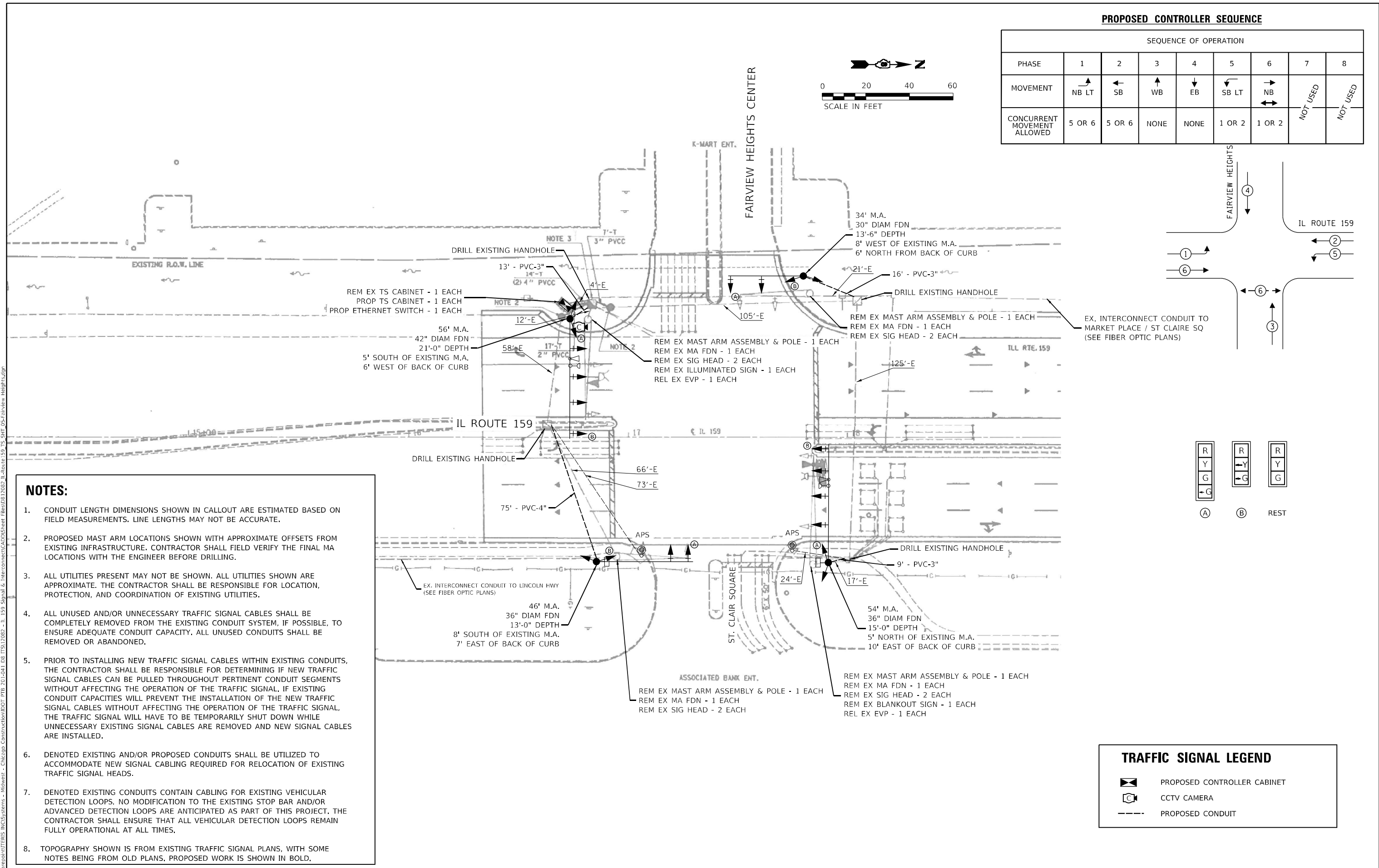
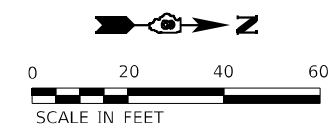
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS IL ROUTE 159 AND MARKET PLACE / ST. CLAIR SQUARE

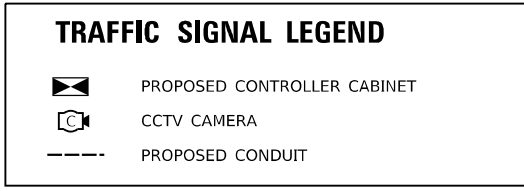
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	(130, 130-1, 130-2) TS-3, 82-5TS	ST. CLAIR	74	25
			CONTRACT NO. 76R78	
			ILLINOIS FED. AID PROJECT	

PROPOSED CONTROLLER SEQUENCE

SEQUENCE OF OPERATION								
PHASE	1	2	3	4	5	6	7	8
MOVEMENT	NB LT	SB	WB	EB	SB LT	NB	↔	
CONCURRENT MOVEMENT ALLOWED	5 OR 6	5 OR 6	NONE	NONE	1 OR 2	1 OR 2	NOT USED	NOT USED



- NOTES:**
- CONDUIT LENGTH DIMENSIONS SHOWN IN CALLOUT ARE ESTIMATED BASED ON FIELD MEASUREMENTS. LINE LENGTHS MAY NOT BE ACCURATE.
 - PROPOSED MAST ARM LOCATIONS SHOWN WITH APPROXIMATE OFFSETS FROM EXISTING INFRASTRUCTURE. CONTRACTOR SHALL FIELD VERIFY THE FINAL MA LOCATIONS WITH THE ENGINEER BEFORE DRILLING.
 - ALL UTILITIES PRESENT MAY NOT BE SHOWN. ALL UTILITIES SHOWN ARE APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATION, PROTECTION, AND COORDINATION OF EXISTING UTILITIES.
 - ALL UNUSED AND/OR UNNECESSARY TRAFFIC SIGNAL CABLES SHALL BE COMPLETELY REMOVED FROM THE EXISTING CONDUIT SYSTEM, IF POSSIBLE, TO ENSURE ADEQUATE CONDUIT CAPACITY. ALL UNUSED CONDUITS SHALL BE REMOVED OR ABANDONED.
 - PRIOR TO INSTALLING NEW TRAFFIC SIGNAL CABLES WITHIN EXISTING CONDUITS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING IF NEW TRAFFIC SIGNAL CABLES CAN BE PULLED THROUGHOUT PERTINENT CONDUIT SEGMENTS WITHOUT AFFECTING THE OPERATION OF THE TRAFFIC SIGNAL. IF EXISTING CONDUIT CAPACITIES WILL PREVENT THE INSTALLATION OF THE NEW TRAFFIC SIGNAL CABLES WITHOUT AFFECTING THE OPERATION OF THE TRAFFIC SIGNAL, THE TRAFFIC SIGNAL WILL HAVE TO BE TEMPORARILY SHUT DOWN WHILE UNNECESSARY EXISTING SIGNAL CABLES ARE REMOVED AND NEW SIGNAL CABLES ARE INSTALLED.
 - DENOTED EXISTING AND/OR PROPOSED CONDUITS SHALL BE UTILIZED TO ACCOMMODATE NEW SIGNAL CABLING REQUIRED FOR RELOCATION OF EXISTING TRAFFIC SIGNAL HEADS.
 - DENOTED EXISTING CONDUITS CONTAIN CABLING FOR EXISTING VEHICULAR DETECTION LOOPS. NO MODIFICATION TO THE EXISTING STOP BAR AND/OR ADVANCED DETECTION LOOPS ARE ANTICIPATED AS PART OF THIS PROJECT. THE CONTRACTOR SHALL ENSURE THAT ALL VEHICULAR DETECTION LOOPS REMAIN FULLY OPERATIONAL AT ALL TIMES.
 - TOPOGRAPHY SHOWN IS FROM EXISTING TRAFFIC SIGNAL PLANS, WITH SOME NOTES BEING FROM OLD PLANS. PROPOSED WORK IS SHOWN IN BOLD.



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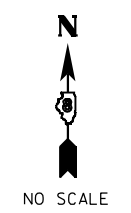
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	DATE - 2/26/24	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

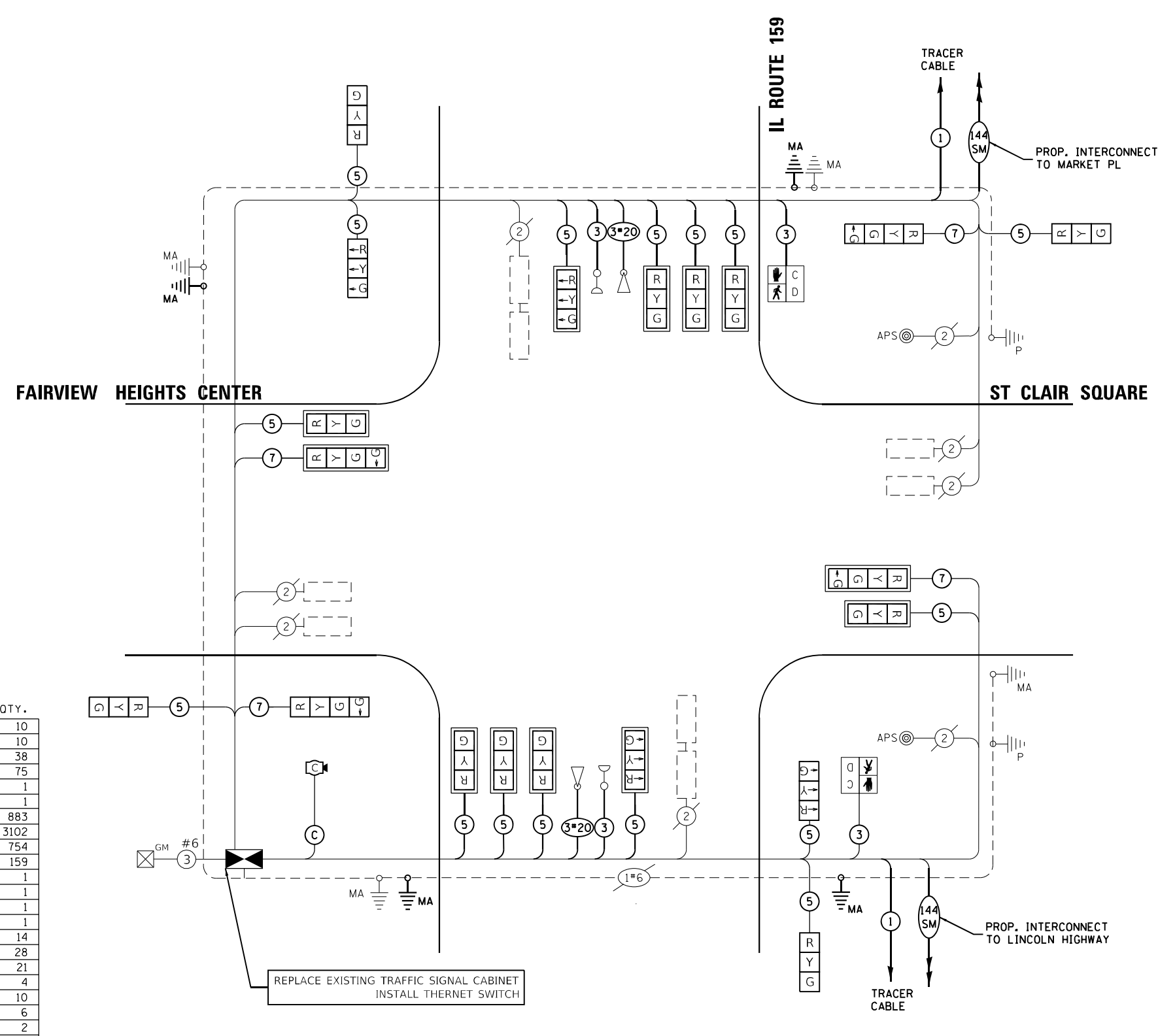
**TRAFFIC SIGNAL MODIFICATION PLAN
IL ROUTE 159 AND FAIRVIEW HEIGHTS CENTER**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	(130, 130-1, 130-2) TS-3, 82-5TS	ST. CLAIR	74	26
ILLINOIS FED. AID PROJECT			CONTRACT NO. 76R78	



TRAFFIC SIGNAL LEGEND	
	PROP. TRAFFIC SIGNAL CONTROLLER
	PROP. CCTV CAMERA
	PROP. GROUNDING
	PROP. NO. OF CONDUCTORS IN CABLE
	PROP. CCTV CABLE
	PROP. 12" SIGNAL HEAD
	EX. VEHICLE DETECTOR, INDUCTION LOOP
	EX. NO. OF CONDUCTORS IN CABLE
	EX. 12" SIGNAL HEAD
	EX. GROUND MOUNT SERVICE
	EX. GROUNDING
	EX. EMERGENCY VEHICLE PREEMPTION
	EX. CONFIRMATION BEACON



SCHEDULE OF QUANTITIES

ITEM DESCRIPTION	UNIT	QTY.
RELOCATE SIGN PANEL - TYPE 1	SQ FT	10
LOCATING UNDERGROUND CABLE	FOOT	10
UNDERGROUND CONDUIT, PVC, 3" DIA.	FOOT	38
UNDERGROUND CONDUIT, PVC, 4" DIA.	FOOT	75
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	883
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	3102
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	754
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	159
STEEL MAST ARM ASSEMBLY AND POLE, 34 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 46 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 54 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 56 FT.	EACH	1
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	14
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	28
CONCRETE FOUNDATION, TYPE E 42-INCH DIAMETER	FOOT	21
DRILL EXISTING HANDHOLE	EACH	4
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	10
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	6
SIGNAL HEAD, LED, 1-FACE, 4-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 4-SECTION, MAST ARM MOUNTED	EACH	2
TRAFFIC SIGNAL BACKPLATE, RETROREFLECTIVE	EACH	12
RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
* REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	500
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	4
EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	424
ETHERNET SWITCH	EACH	1
CLOSED CIRCUIT TELEVISION DOME CAMERA, HD	EACH	1

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

CABLE PLAN
(NOT TO SCALE)

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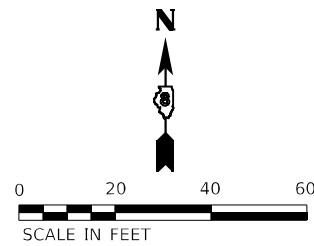
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL CABLE PLAN
IL ROUTE 159 AND FAIRVIEW HEIGHTS CENTER

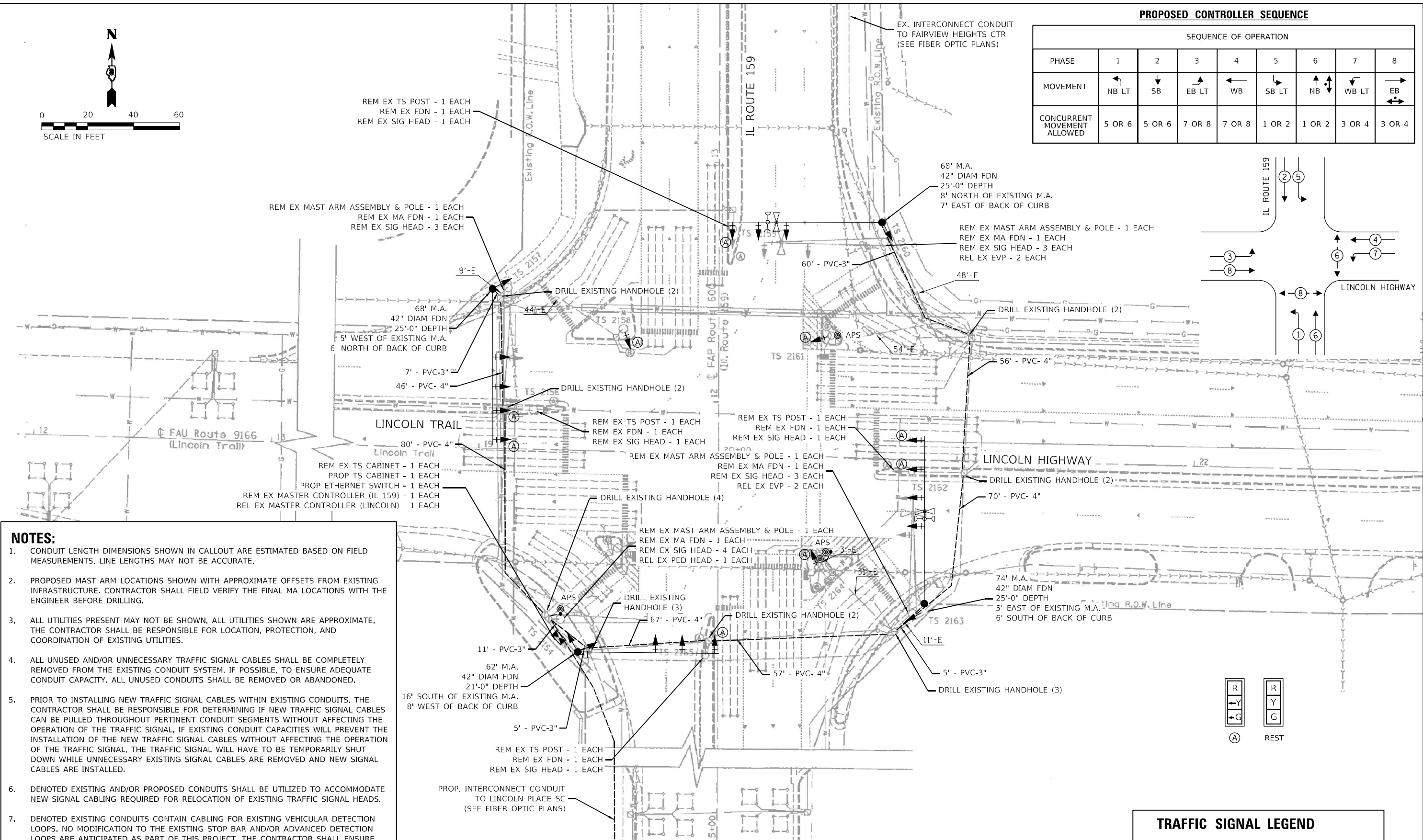
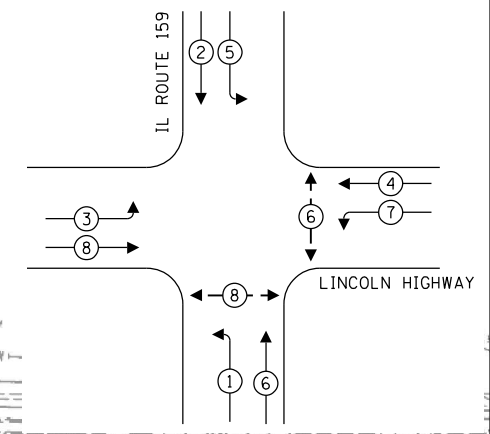
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	(130, 130-1, 130-2) TS-3, 82-5TS	ST. CLAIR	74	27
CONTRACT NO. 76R78				
ILLINOIS FED. AID PROJECT				

SCALE: SHEET OF SHEETS STA. TO STA.

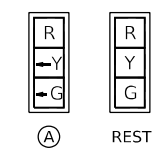


PROPOSED CONTROLLER SEQUENCE

PHASE	SEQUENCE OF OPERATION							
	1	2	3	4	5	6	7	8
MOVEMENT	NB LT	SB	EB LT	WB	SB LT	NB	WB LT	EB
CONCURRENT MOVEMENT ALLOWED	5 OR 6	5 OR 6	7 OR 8	7 OR 8	1 OR 2	1 OR 2	3 OR 4	3 OR 4



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- CONDUIT LENGTH DIMENSIONS SHOWN IN CALLOUT ARE ESTIMATED BASED ON FIELD MEASUREMENTS. LINE LENGTHS MAY NOT BE ACCURATE.
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TRAFFIC SIGNAL LEGEND

PROPOSED CONTROLLER CABINET

PROPOSED CONDUIT

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

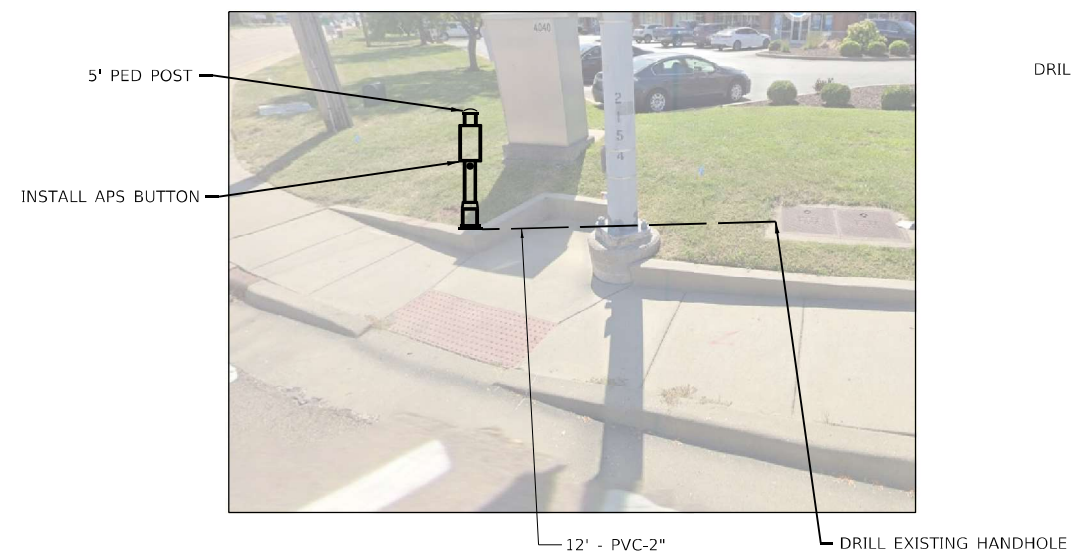
**TRAFFIC SIGNAL MODIFICATION PLAN
IL ROUTE 159 AND LINCOLN HWY / LINCOLN TRAIL**

SCALE: SHEET OF SHEETS STA. TO STA.

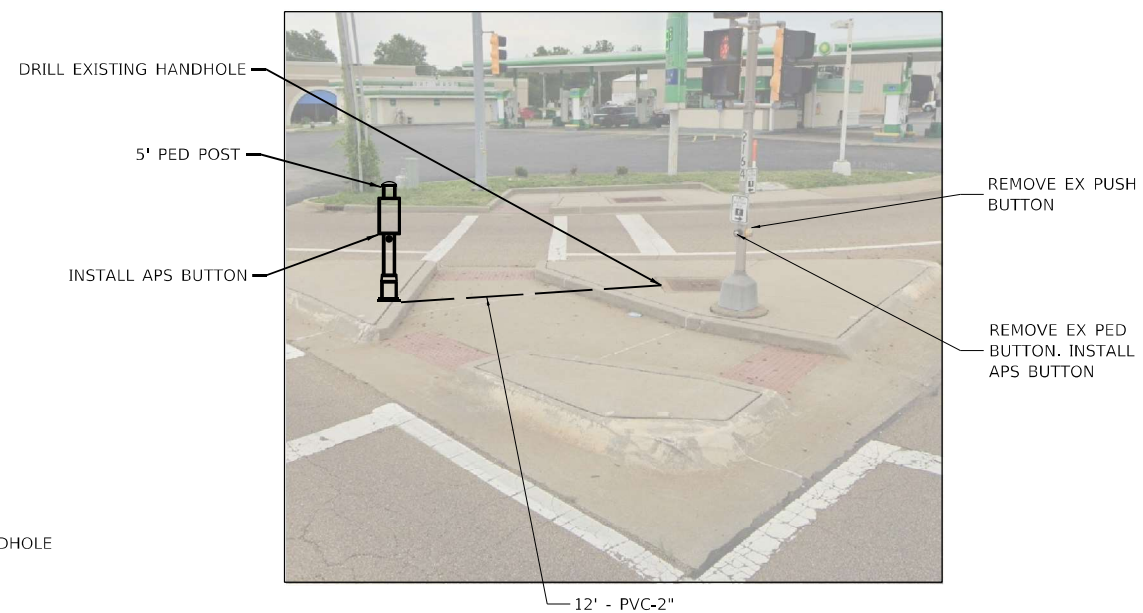
F.A.P. RTE. 600	SECTION (130, 130-1, 130-2) TS-3, 82-5TS	COUNTY ST. CLAIR	TOTAL SHEETS 74	SHEET NO. 29
ILLINOIS FED. AID PROJECT			CONTRACT NO. 76R78	

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SOUTHWEST CORNER



SOUTHEAST CORNER



NOTES:

1. PEDESTRIAN PUSH BUTTON POSTS TO BE FIELD-LOCATED IN COORDINATION WITH THE ENGINEER.



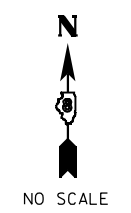
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

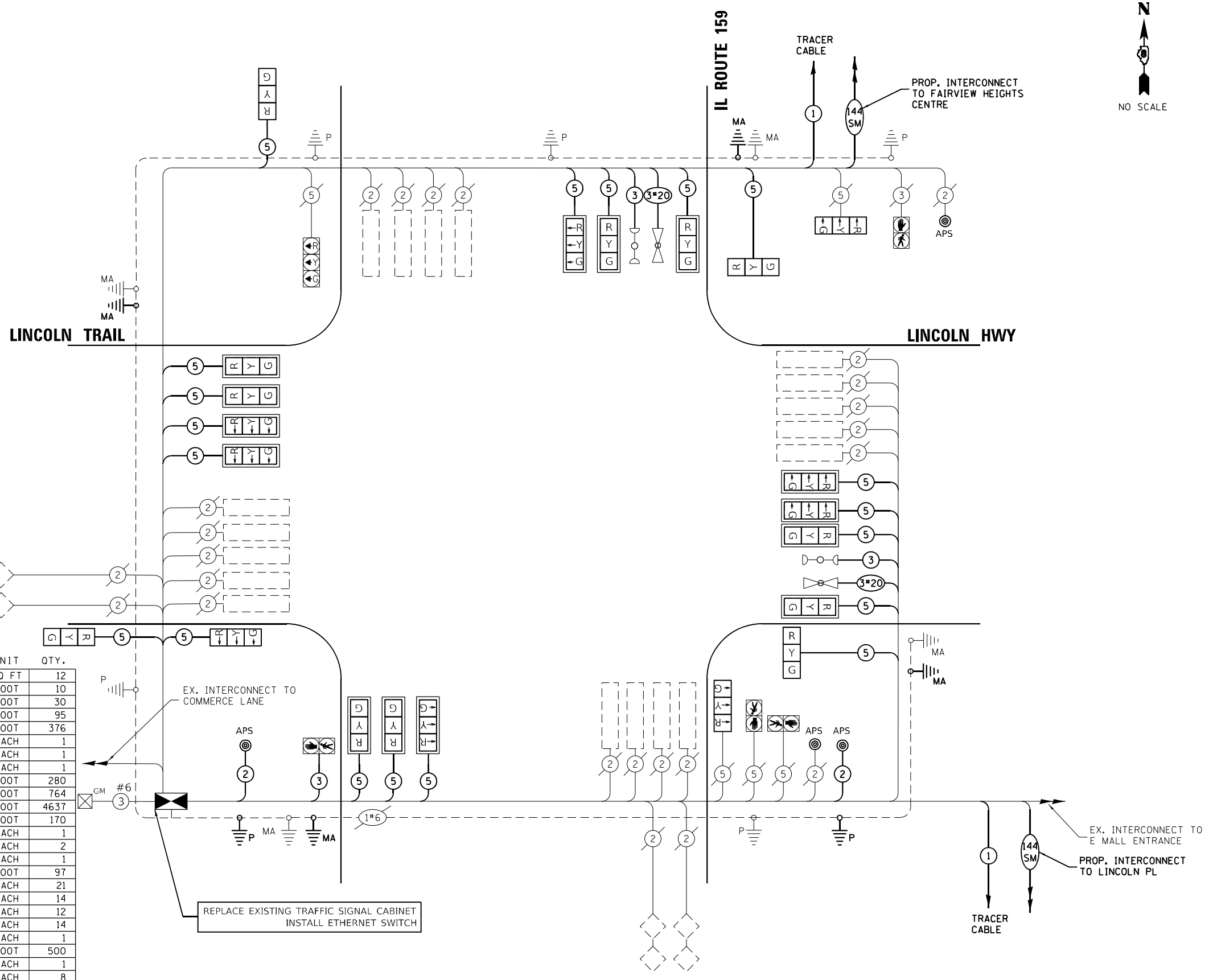
**TRAFFIC SIGNAL MODIFICATION PLAN
IL ROUTE 159 AND LINCOLN HWY / LINCOLN TRAIL**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	(130, 130-1, 130-2) TS-3, 82-5TS	ST. CLAIR	74	30
ILLINOIS FED. AID PROJECT			CONTRACT NO. 76R78	



TRAFFIC SIGNAL LEGEND	
	PROP. TRAFFIC SIGNAL CONTROLLER
	PROP. CCTV CAMERA
	PROP. GROUNDING
	PROP. NO. OF CONDUCTORS IN CABLE
	PROP. CCTV CABLE
	PROP. 12" SIGNAL HEAD
	EX. VEHICLE DETECTOR, INDUCTION LOOP
	EX. NO. OF CONDUCTORS IN CABLE
	EX. 12" SIGNAL HEAD
	EX. GROUND MOUNT SERVICE
	EX. GROUNDING
	EX. EMERGENCY VEHICLE PREEMPTION
	EX. CONFIRMATION BEACON



SCHEDULE OF QUANTITIES

ITEM DESCRIPTION	UNIT	QTY.
RELOCATE SIGN PANEL - TYPE 1	SQ FT	12
LOCATING UNDERGROUND CABLE	FOOT	10
UNDERGROUND CONDUIT, PVC, 2" DIA.	FOOT	30
UNDERGROUND CONDUIT, PVC, 3" DIA.	FOOT	95
UNDERGROUND CONDUIT, PVC, 4" DIA.	FOOT	376
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE V CABINET	EACH	1
UNINTERRUPTABLE POWER SUPPLY, EXTENDED	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	280
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	764
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	4637
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	170
STEEL MAST ARM ASSEMBLY AND POLE, 62 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 68 FT.	EACH	2
STEEL MAST ARM ASSEMBLY AND POLE, 74 FT.	EACH	1
CONCRETE FOUNDATION, TYPE E 42-INCH DIAMETER	FOOT	97
DRILL EXISTING HANDHOLE	EACH	21
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	14
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	12
TRAFFIC SIGNAL BACKPLATE, RETROREFLECTIVE	EACH	14
RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
* REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	500
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	8
EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	707
ETHERNET SWITCH	EACH	1
ACCESSIBLE PEDESTRIAN SIGNALS	EACH	4
PEDESTRIAN PUSH-BUTTON POST	EACH	2
CONCRETE FOUNDATION, TYPE A 12-INCH DIAMETER	FOOT	12

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

CABLE PLAN
(NOT TO SCALE)

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	DATE - 2/26/24	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL CABLE PLAN
IL ROUTE 159 AND LINCOLN HWY /LINCOLN TRAIL

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	(130, 130-1, 130-2) TS-3, 82-5TS	ST. CLAIR	74	31
CONTRACT NO. 76R78				
ILLINOIS FED. AID PROJECT				

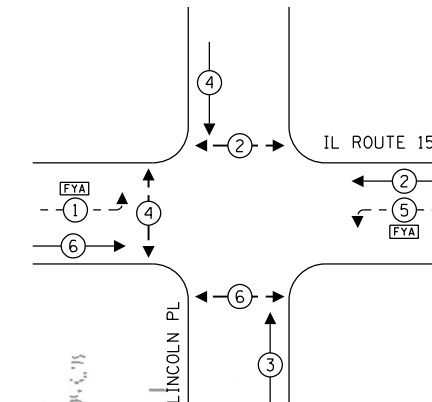
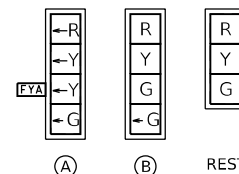
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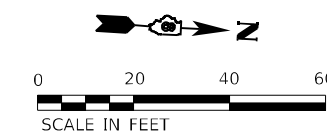
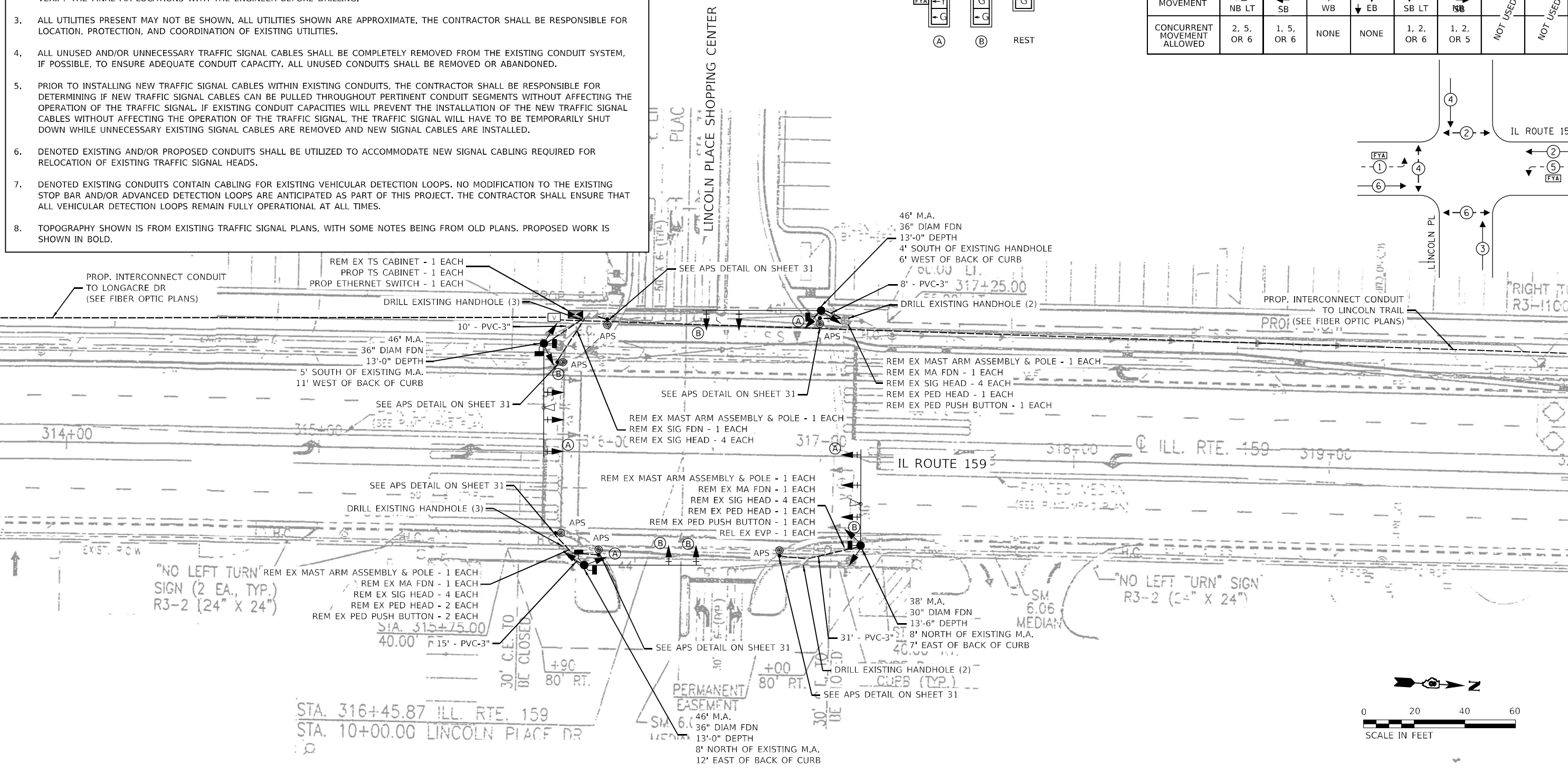
1. CONDUIT LENGTH DIMENSIONS SHOWN IN CALLOUT ARE ESTIMATED BASED ON FIELD MEASUREMENTS. LINE LENGTHS MAY NOT BE ACCURATE.
2. PROPOSED MAST ARM LOCATIONS SHOWN WITH APPROXIMATE OFFSETS FROM EXISTING INFRASTRUCTURE. CONTRACTOR SHALL FIELD VERIFY THE FINAL MA LOCATIONS WITH THE ENGINEER BEFORE DRILLING.
3. ALL UTILITIES PRESENT MAY NOT BE SHOWN. ALL UTILITIES SHOWN ARE APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATION, PROTECTION, AND COORDINATION OF EXISTING UTILITIES.
4. ALL UNUSED AND/OR UNNECESSARY TRAFFIC SIGNAL CABLES SHALL BE COMPLETELY REMOVED FROM THE EXISTING CONDUIT SYSTEM, IF POSSIBLE, TO ENSURE ADEQUATE CONDUIT CAPACITY. ALL UNUSED CONDUITS SHALL BE REMOVED OR ABANDONED.
5. PRIOR TO INSTALLING NEW TRAFFIC SIGNAL CABLES WITHIN EXISTING CONDUITS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING IF NEW TRAFFIC SIGNAL CABLES CAN BE PULLED THROUGHOUT PERTINENT CONDUIT SEGMENTS WITHOUT AFFECTING THE OPERATION OF THE TRAFFIC SIGNAL. IF EXISTING CONDUIT CAPACITIES WILL PREVENT THE INSTALLATION OF THE NEW TRAFFIC SIGNAL CABLES WITHOUT AFFECTING THE OPERATION OF THE TRAFFIC SIGNAL, THE TRAFFIC SIGNAL WILL HAVE TO BE TEMPORARILY SHUT DOWN WHILE UNNECESSARY EXISTING SIGNAL CABLES ARE REMOVED AND NEW SIGNAL CABLES ARE INSTALLED.
6. DENOTED EXISTING AND/OR PROPOSED CONDUITS SHALL BE UTILIZED TO ACCOMMODATE NEW SIGNAL CABLING REQUIRED FOR RELOCATION OF EXISTING TRAFFIC SIGNAL HEADS.
7. DENOTED EXISTING CONDUITS CONTAIN CABLING FOR EXISTING VEHICULAR DETECTION LOOPS. NO MODIFICATION TO THE EXISTING STOP BAR AND/OR ADVANCED DETECTION LOOPS ARE ANTICIPATED AS PART OF THIS PROJECT. THE CONTRACTOR SHALL ENSURE THAT ALL VEHICULAR DETECTION LOOPS REMAIN FULLY OPERATIONAL AT ALL TIMES.
8. TOPOGRAPHY SHOWN IS FROM EXISTING TRAFFIC SIGNAL PLANS, WITH SOME NOTES BEING FROM OLD PLANS. PROPOSED WORK IS SHOWN IN BOLD.

PROPOSED CONTROLLER SEQUENCE

		SEQUENCE OF OPERATION							
PHASE		1	2	3	4	5	6	7	8
MOVEMENT		NB LT	SB	WB	EB	SB LT	WB	NOT USED	NOT USED
CONCURRENT MOVEMENT ALLOWED		2, 5, OR 6	1, 5, OR 6	NONE	NONE	1, 2, OR 6	1, 2, OR 5	NOT USED	NOT USED



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TRAFFIC SIGNAL LEGEND

- PROPOSED CONTROLLER CABINET
- PROPOSED CONDUIT
- FIBER OPTIC COMMUNICATIONS VAULT



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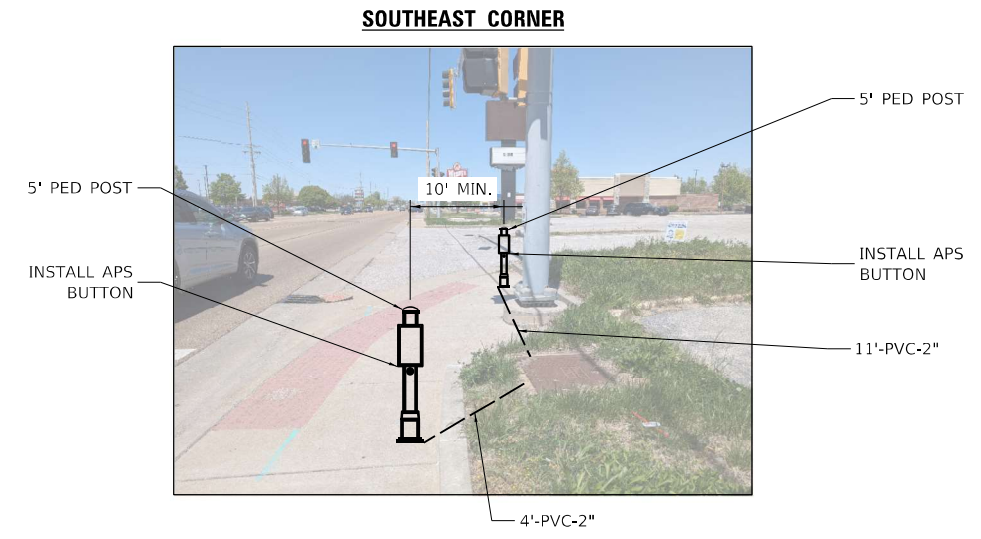
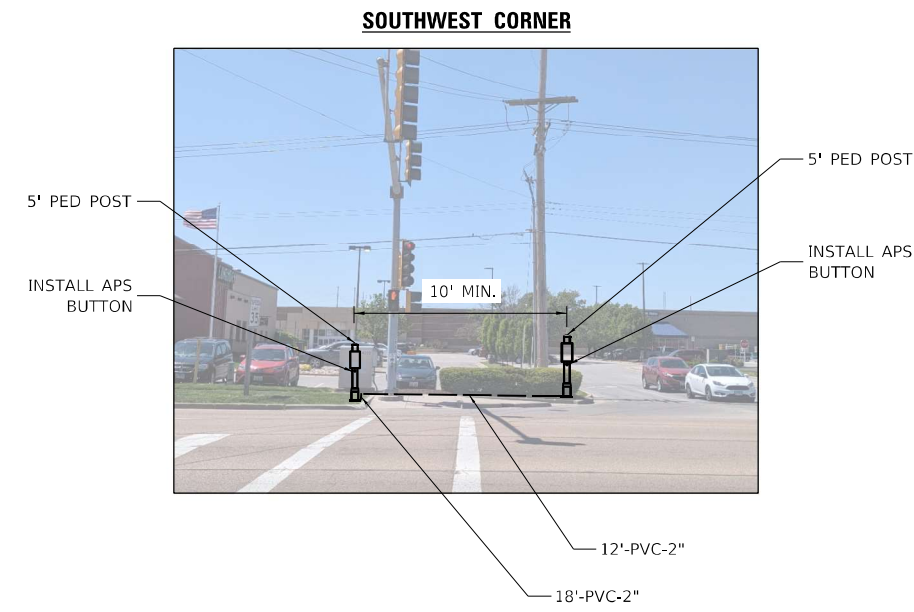
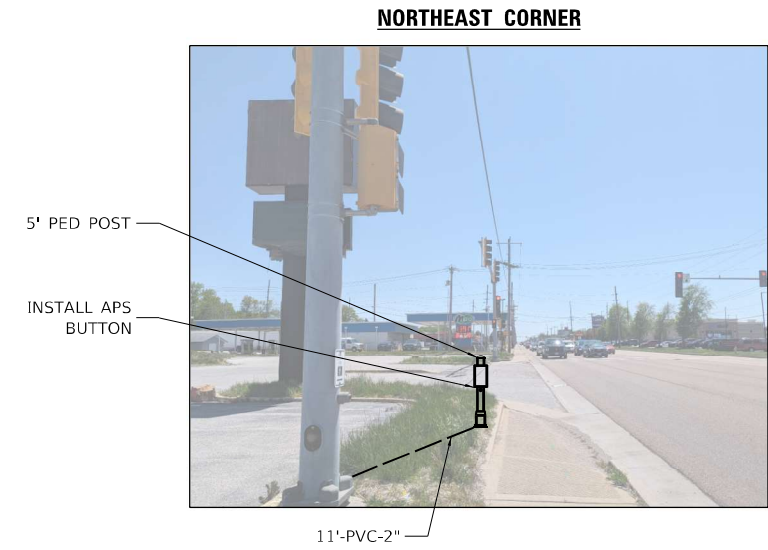
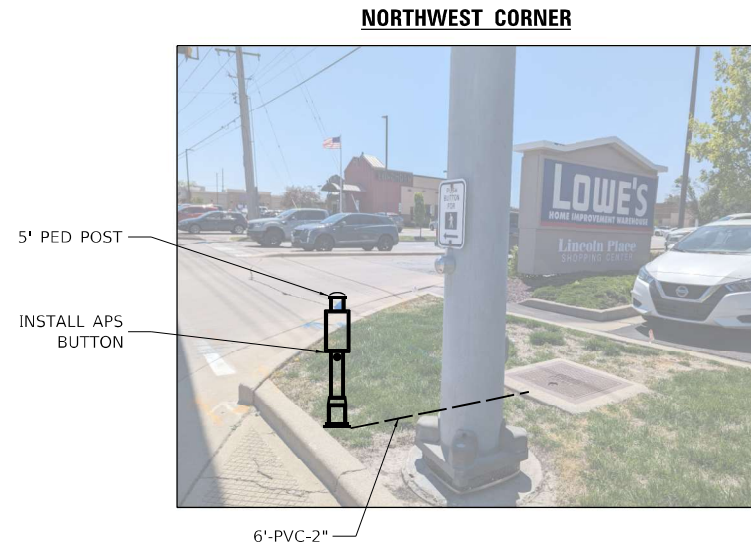
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL MODIFICATION PLAN
IL ROUTE 159 AND LINCOLN PL SHOPPING CTR**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	(130, 130-1, 130-2) TS-3, 82-5TS	ST. CLAIR	74	34
			CONTRACT NO. 76R78	
ILLINOIS FED. AID PROJECT				

MODEL: Default
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NOTES:

1. PEDESTRIAN PUSH BUTTON POSTS TO BE FIELD-LOCATED IN COORDINATION WITH THE ENGINEER.



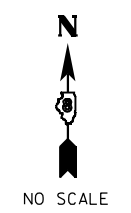
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

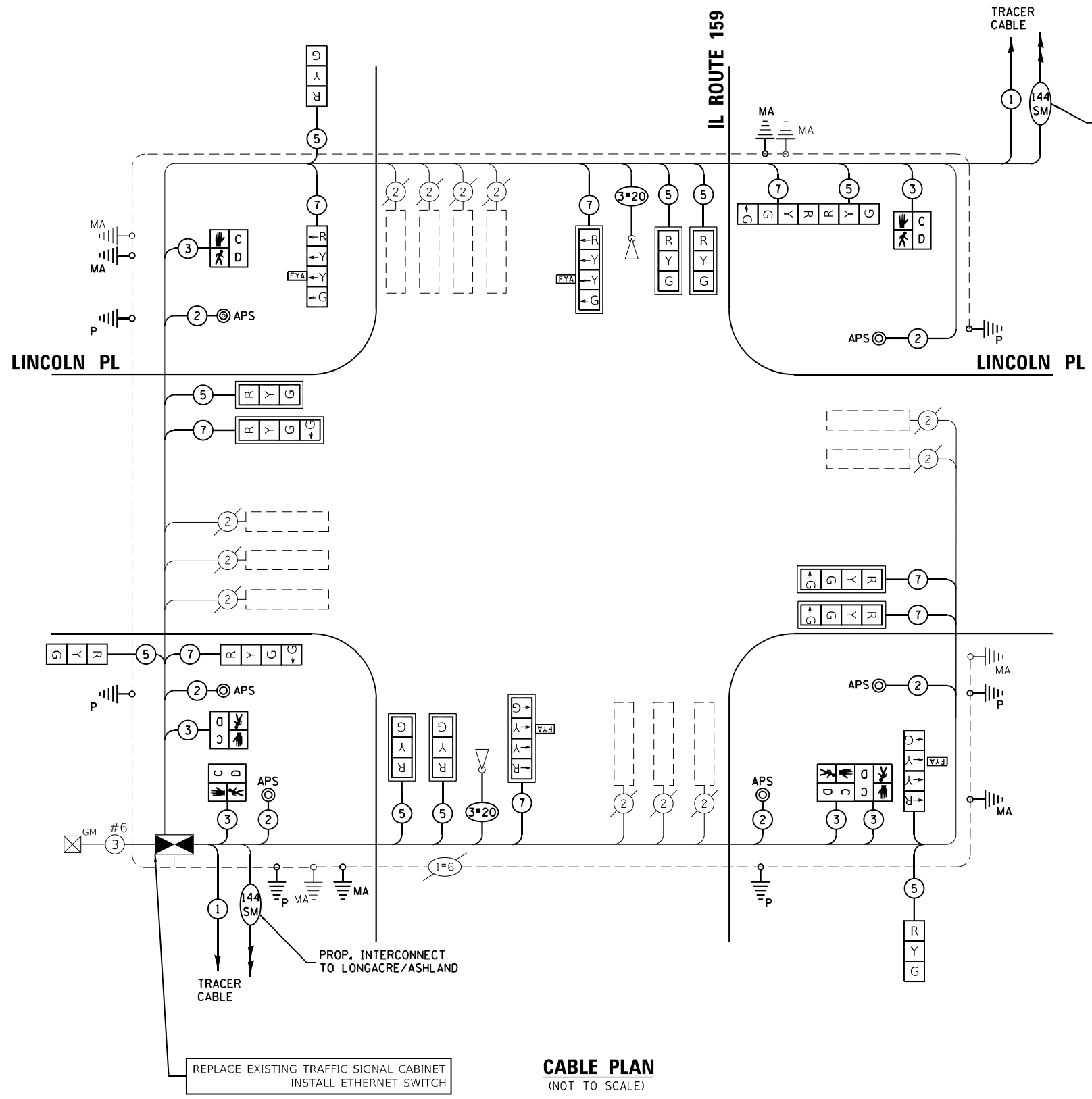
**TRAFFIC SIGNAL MODIFICATION PLAN
IL ROUTE 159 AND LINCOLN PL SHOPPING CTR**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	(130, 130-1, 130-2) TS-3, 82-5TS	ST. CLAIR	74	35
ILLINOIS FED. AID PROJECT			CONTRACT NO. 76R78	



TRAFFIC SIGNAL LEGEND	
	PROP. TRAFFIC SIGNAL CONTROLLER
	PROP. CCTV CAMERA
	PROP. GROUNDING
	PROP. NO. OF CONDUCTORS IN CABLE
	PROP. CCTV CABLE
	PROP. 12" SIGNAL HEAD
	EX. VEHICLE DETECTOR, INDUCTION LOOP
	EX. NO. OF CONDUCTORS IN CABLE
	EX. 12" SIGNAL HEAD
	EX. GROUND MOUNT SERVICE
	EX. GROUNDING
	EX. EMERGENCY VEHICLE PREEMPTION
	EX. CONFIRMATION BEACON



SCHEDULE OF QUANTITIES

ITEM DESCRIPTION	UNIT	QTY.
SIGN PANEL - TYPE 1	SO FT	30
RELOCATE SIGN PANEL - TYPE 1	SO FT	17
LOCATING UNDERGROUND CABLE	FOOT	10
UNDERGROUND CONDUIT, PVC, 2" DIA.	FOOT	69
UNDERGROUND CONDUIT, PVC, 3" DIA.	FOOT	64
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	737
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	789
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1548
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	1617
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	248
STEEL MAST ARM ASSEMBLY AND POLE, 38 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 46 FT.	EACH	3
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	14
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	39
DRILL EXISTING HANDHOLE	EACH	10
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	5
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	4
SIGNAL HEAD, LED, 1-FACE, 4-SECTION, BRACKET MOUNTED	EACH	4
SIGNAL HEAD, LED, 1-FACE, 4-SECTION, MAST ARM MOUNTED	EACH	5
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
TRAFFIC SIGNAL BACKPLATE, RETROREFLECTIVE	EACH	10
RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
* REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	500
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	4
EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	364
ETHERNET SWITCH	EACH	1
ACCESSIBLE PEDESTRIAN SIGNALS	EACH	6
PEDESTRIAN PUSH-BUTTON POST	EACH	6
CONCRETE FOUNDATION, TYPE A 12-INCH DIAMETER	FOOT	24

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

REPLACE EXISTING TRAFFIC SIGNAL CABINET
INSTALL ETHERNET SWITCH

CABLE PLAN
(NOT TO SCALE)

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL CABLE PLAN
IL ROUTE 159 AND LINCOLN PL SHOPPING CTR

F.A.P. RTE. 600	SECTION (130, 130-1, 130-2) TS-3, 82-5TS	COUNTY ST. CLAIR	TOTAL SHEETS 74	SHEET NO. 36
SCALE: SHEET OF SHEETS STA. TO STA.			CONTRACT NO. 76R78	
ILLINOIS FED. AID PROJECT				



SOIL BORING LOG

ROUTE FAP 600 (IL 159) DESCRIPTION IL 159 & Lincoln Place LOGGED BY KEG - MTH
 SECTION (130, 130-1, 130-2)TS-3 LOCATION SEC. TWP. RNG. 3 PM
 COUNTY St. Clair DRILLING METHOD HSA HAMMER TYPE Auto

STRUCT. NO.	D	B	U	M	Surface Water Elev.
Station	E	L	C	O	Stream Bed Elev.
BORING NO.	P	O	S	I	Groundwater Elev.:
Station	T	W	Qu	S	First Encounter
Offset	H	S		T	Upon Completion
Ground Surface Elev. ft	(ft)	(/6")	(tsf)	(%)	After Hrs.
8.5" Asphalt	99.3				n/a ft
Dark Brown Silty Clay		1			
		4	2.25	23	
		3	P		
Becomes Grayish Brown	96.0	WH			
		1	2.5	28	
		2	P		
		WH			
		1	0.83	29	
		2	B		
		1			
		2	2	27	
		3	P		
Dark Brown Clayey Silt	89.0	WH			
		WH	2	66	
		WH	P		
becomes wet	87.0	2			
		2	2	57	
		3	P		
End of Boring	85.0				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)



SOIL BORING LOG

ROUTE FAP 600 (IL 159) DESCRIPTION IL 159 & Lincoln Place LOGGED BY KEG - MTH
 SECTION (130, 130-1, 130-2)TS-3 LOCATION SEC. TWP. RNG. 3 PM
 COUNTY St. Clair DRILLING METHOD HSA HAMMER TYPE Auto

STRUCT. NO.	D	B	U	M	Surface Water Elev.
Station	E	L	C	O	Stream Bed Elev.
BORING NO.	P	W	S	I	Groundwater Elev.:
Station	T	H	Qu	S	First Encounter
Offset	H	S		T	Upon Completion
Ground Surface Elev. ft	(ft)	(/6")	(tsf)	(%)	After Hrs.
5" Asphalt	99.6				n/a ft
Grayish brown Silty Clay		2			
		2	2.25	25	
		4	P		
becomes very soft	96.0	1			
		1	1.25	28	
		2	P		
		WH			
		2	0.44	27	
		2	B		
		2			
		2	0.57	27	
		3	B		
Dark Brown Clayey Silt w/ organics	89.0	1			
		2	1.75	68	
		3	P		
becomes wet	86.5	2			
		3	1	59	
		4	P		
End of Boring	85.0				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SCALE:		SHEET	OF	SHEETS	STA.	TO	STA.
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SOIL BORING LOGS
 IL ROUTE 159 AND LINCOLN PL SHOPPING CTR

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	(130, 130-1, 130-2)TS-3, 82-5TS	ST. CLAIR	74	37
			CONTRACT NO. 76R78	
ILLINOIS FED. AID PROJECT				



SOIL BORING LOG

ROUTE FAP 600 (IL 159) DESCRIPTION IL 159 & Lincoln Place LOGGED BY KEG - MTH

SECTION (130, 130-1, 130-2)TS-3 LOCATION SEC. TWP. RNG. 3 PM

COUNTY St. Clair DRILLING METHOD HSA HAMMER TYPE Auto

STRUCT. NO.	D	B	U	M	Surface Water Elev.
Station	E	L	C	O	Stream Bed Elev.
BORING NO.	P	O	S	I	Groundwater Elev.:
Station	T	W	Qu	S	First Encounter
Offset	H	S		T	Upon Completion
Ground Surface Elev. ft	(ft)	(/6")	(tsf)	(%)	After Hrs.
3" Asphalt	99.8				n/a ft
12" Concrete	98.8	4			ft
Brown & Gray Silty Clay		2	3.25	23	
		6	P		
	97.0				
Brown & Gray very soft Clayey Silt		1			
		1	0.04	28	
		1	B		
		1			
		1	0.13	29	
		2	B		
	91.0	WH			
becomes moist		1	0.09	29	
		2	B		
	89.0				
Brown Clayey Silt w/ organics		1			
		1	1	63	
		3	P		
		1			
		1	1.75	70	
		3	P		
	85.0				
End of Boring					

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)



SOIL BORING LOG

ROUTE FAP 600 (IL 159) DESCRIPTION IL 159 & Lincoln Place LOGGED BY KEG - MTH

SECTION (130, 130-1, 130-2)TS-3 LOCATION SEC. TWP. RNG. 3 PM

COUNTY St. Clair DRILLING METHOD HSA HAMMER TYPE Auto

STRUCT. NO.	D	B	U	M	Surface Water Elev.
Station	E	L	C	O	Stream Bed Elev.
BORING NO.	P	W	S	I	Groundwater Elev.:
Station	T	S	Qu	T	First Encounter
Offset	H	S		T	Upon Completion
Ground Surface Elev. ft	(ft)	(/6")	(tsf)	(%)	After Hrs.
10" Concrete	99.2				n/a ft
6" gravel agg base	98.7	3			ft
Brown well sorted coarse Sand		10	-	7	
Med dense		7	-		
		2			
		2	-	10	
		1	-		
	94.0	WH			
Poor Recovery		WH	-	14	
Fine grained Brown Silty Sand		WH	-		
Med dense					
	91.5	WH			
gray very soft Clayey Silt		WH	0.13	30	
		1	B		
	89.0				
Brown soft Clayey Silt		2	2.01	53	
becomes wet		3	S		
w/ organics		1			
		1	1.75	53	
		3	P		
	85.0				
End of Boring					

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

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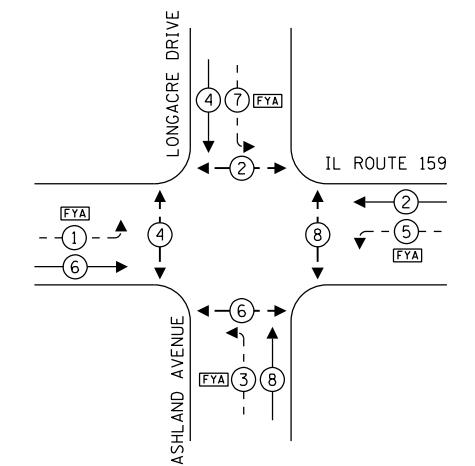
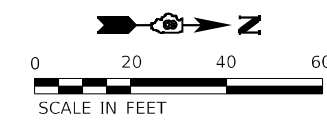
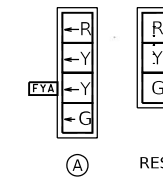
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS			
IL ROUTE 159 AND LINCOLN PL SHOPPING CTR			
SCALE:	SHEET	OF SHEETS	STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	(130, 130-1, 130-2)TS-3, 82-5TS	ST. CLAIR	74	38
			CONTRACT NO. 76R78	
ILLINOIS FED. AID PROJECT				

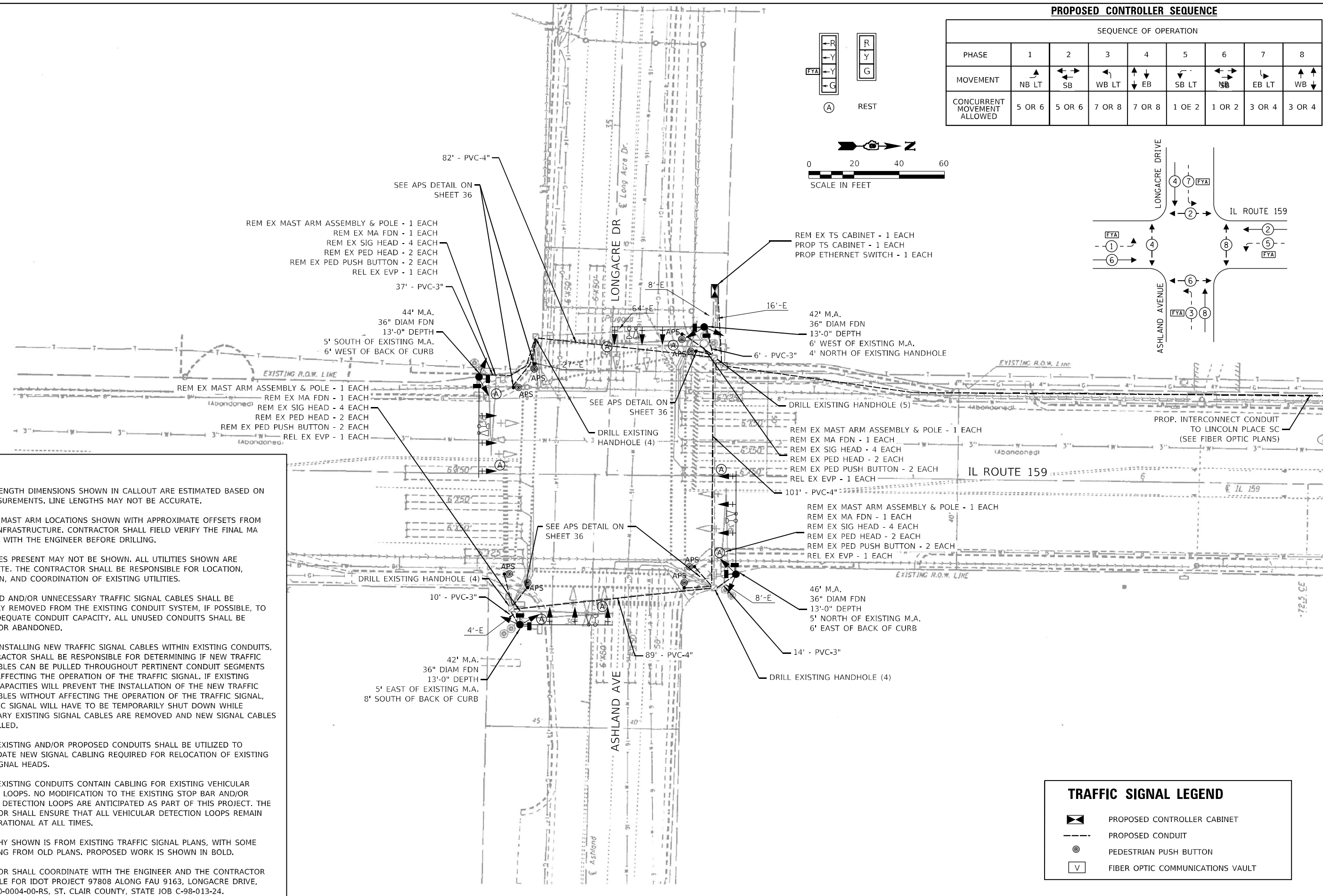
PROPOSED CONTROLLER SEQUENCE

SEQUENCE OF OPERATION								
PHASE	1	2	3	4	5	6	7	8
MOVEMENT	NB LT	SB	WB LT	EB	SB LT	SB	EB LT	WB
CONCURRENT MOVEMENT ALLOWED	5 OR 6	5 OR 6	7 OR 8	7 OR 8	1 OE 2	1 OR 2	3 OR 4	3 OR 4



NOTES:

- CONDUIT LENGTH DIMENSIONS SHOWN IN CALLOUT ARE ESTIMATED BASED ON FIELD MEASUREMENTS. LINE LENGTHS MAY NOT BE ACCURATE.
- PROPOSED MAST ARM LOCATIONS SHOWN WITH APPROXIMATE OFFSETS FROM EXISTING INFRASTRUCTURE. CONTRACTOR SHALL FIELD VERIFY THE FINAL MA LOCATIONS WITH THE ENGINEER BEFORE DRILLING.
- ALL UTILITIES PRESENT MAY NOT BE SHOWN. ALL UTILITIES SHOWN ARE APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATION, PROTECTION, AND COORDINATION OF EXISTING UTILITIES.
- ALL UNUSED AND/OR UNNECESSARY TRAFFIC SIGNAL CABLES SHALL BE COMPLETELY REMOVED FROM THE EXISTING CONDUIT SYSTEM, IF POSSIBLE, TO ENSURE ADEQUATE CONDUIT CAPACITY. ALL UNUSED CONDUITS SHALL BE REMOVED OR ABANDONED.
- PRIOR TO INSTALLING NEW TRAFFIC SIGNAL CABLES WITHIN EXISTING CONDUITS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING IF NEW TRAFFIC SIGNAL CABLES CAN BE PULLED THROUGHOUT PERTINENT CONDUIT SEGMENTS WITHOUT AFFECTING THE OPERATION OF THE TRAFFIC SIGNAL. IF EXISTING CONDUIT CAPACITIES WILL PREVENT THE INSTALLATION OF THE NEW TRAFFIC SIGNAL CABLES WITHOUT AFFECTING THE OPERATION OF THE TRAFFIC SIGNAL, THE TRAFFIC SIGNAL WILL HAVE TO BE TEMPORARILY SHUT DOWN WHILE UNNECESSARY EXISTING SIGNAL CABLES ARE REMOVED AND NEW SIGNAL CABLES ARE INSTALLED.
- DENOTED EXISTING AND/OR PROPOSED CONDUITS SHALL BE UTILIZED TO ACCOMMODATE NEW SIGNAL CABLING REQUIRED FOR RELOCATION OF EXISTING TRAFFIC SIGNAL HEADS.
- DENOTED EXISTING CONDUITS CONTAIN CABLING FOR EXISTING VEHICULAR DETECTION LOOPS. NO MODIFICATION TO THE EXISTING STOP BAR AND/OR ADVANCED DETECTION LOOPS ARE ANTICIPATED AS PART OF THIS PROJECT. THE CONTRACTOR SHALL ENSURE THAT ALL VEHICULAR DETECTION LOOPS REMAIN FULLY OPERATIONAL AT ALL TIMES.
- TOPOGRAPHY SHOWN IS FROM EXISTING TRAFFIC SIGNAL PLANS, WITH SOME NOTES BEING FROM OLD PLANS. PROPOSED WORK IS SHOWN IN BOLD.
- CONTRACTOR SHALL COORDINATE WITH THE ENGINEER AND THE CONTRACTOR RESPONSIBLE FOR IDOT PROJECT 97808 ALONG FAU 9163, LONGACRE DRIVE, SECTION 20-0004-00-RS, ST. CLAIR COUNTY, STATE JOB C-98-013-24.



TRAFFIC SIGNAL LEGEND

	PROPOSED CONTROLLER CABINET
	PROPOSED CONDUIT
	PEDESTRIAN PUSH BUTTON
	FIBER OPTIC COMMUNICATIONS VAULT



USER NAME = bfunk	DESIGNED - AD	REVISED -
	DRAWN - AD	REVISED -
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PLOT DATE = 2/26/2024	DATE - 2/26/24	REVISED -

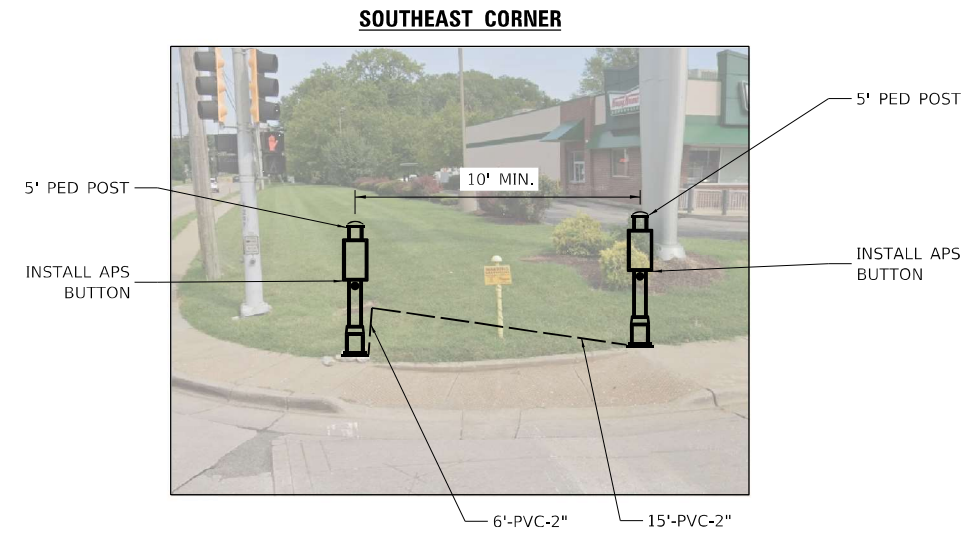
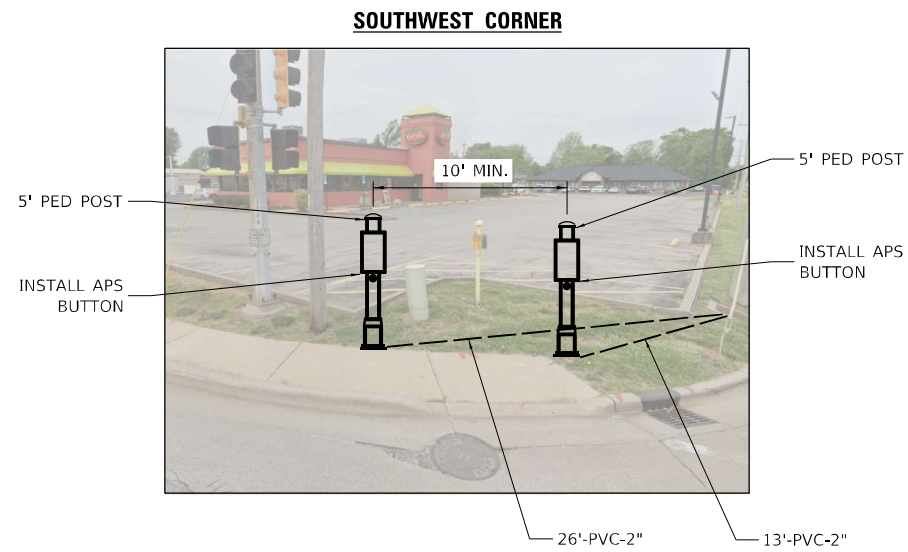
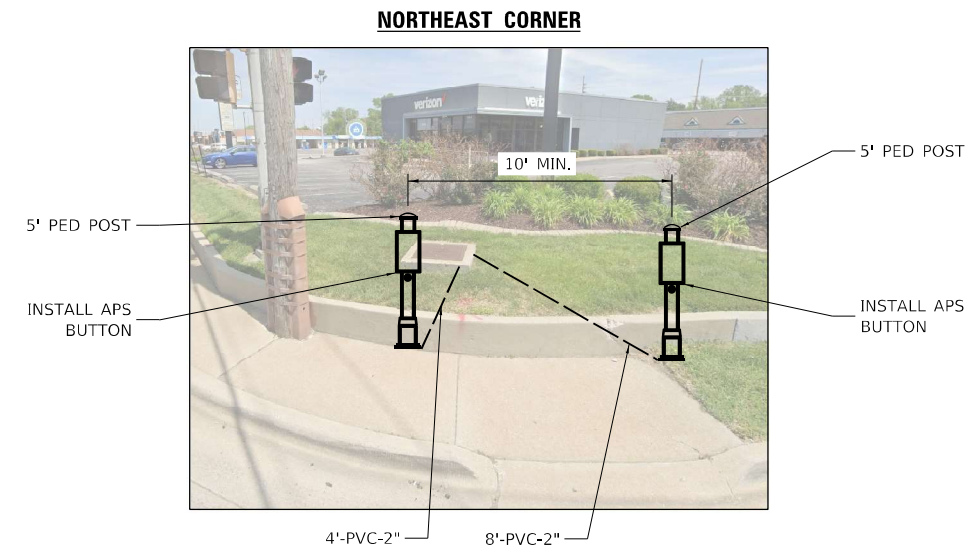
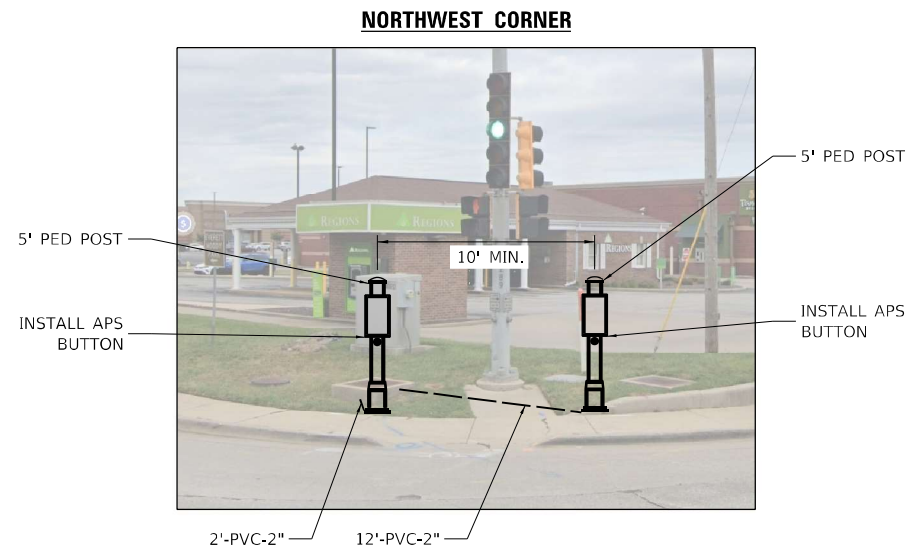
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL MODIFICATION PLAN
IL ROUTE 159 AND LONGACRE DRIVE / ASHLAND AVENUE**

SCALE:	SHEET	OF	SHEETS	STA.	TO	STA.
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	(130, 130-1, 130-2) TS-3, 82-5TS	ST. CLAIR	74	39
ILLINOIS FED. AID PROJECT			CONTRACT NO. 76R78	

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NOTES:

1. PEDESTRIAN PUSH BUTTON POSTS TO BE FIELD-LOCATED IN COORDINATION WITH THE ENGINEER.



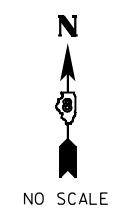
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**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

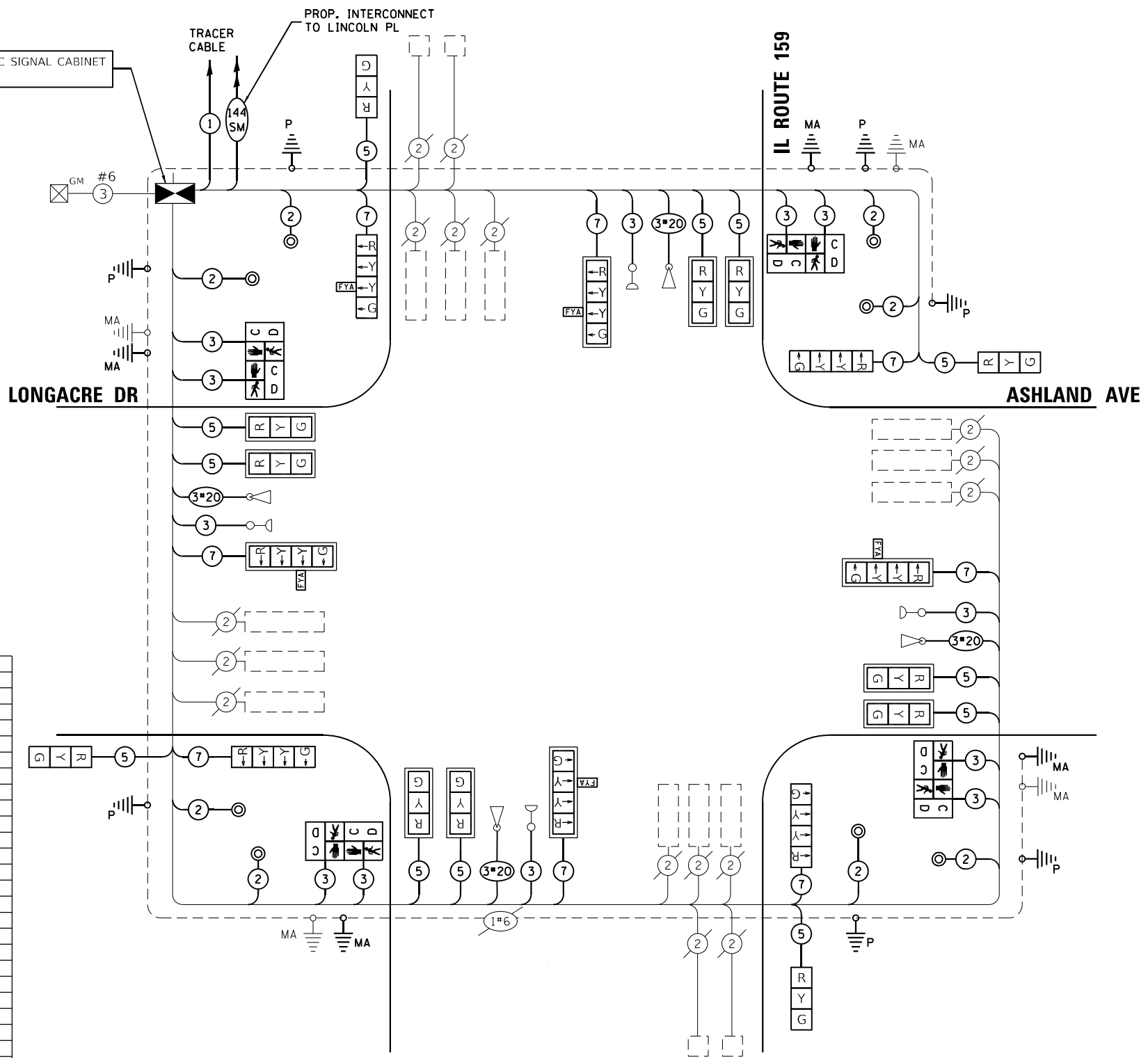
**TRAFFIC SIGNAL MODIFICATION PLAN
 IL ROUTE 159 AND LONGACRE DRIVE / ASHLAND AVENUE**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	(130, 130-1, 130-2) TS-3, 82-5TS	ST. CLAIR	74	40
			CONTRACT NO. 76R78	
			ILLINOIS FED. AID PROJECT	



TRAFFIC SIGNAL LEGEND	
	PROP. TRAFFIC SIGNAL CONTROLLER
	PROP. CCTV CAMERA
	PROP. GROUNDING
	PROP. NO. OF CONDUCTORS IN CABLE
	PROP. CCTV CABLE
	PROP. 12" SIGNAL HEAD
	EX. VEHICLE DETECTOR, INDUCTION LOOP
	EX. NO. OF CONDUCTORS IN CABLE
	EX. 12" SIGNAL HEAD
	EX. GROUND MOUNT SERVICE
	EX. GROUNDING
	EX. EMERGENCY VEHICLE PREEMPTION
	EX. CONFIRMATION BEACON



REPLACE EXISTING TRAFFIC SIGNAL CABINET
INSTALL LAYER 2 SWITCH

SCHEDULE OF QUANTITIES

ITEM DESCRIPTION	UNIT	QTY.
SIGN PANEL - TYPE 1	SQ FT	60
RELOCATE SIGN PANEL - TYPE 1	SQ FT	26
LOCATING UNDERGROUND CABLE	FOOT	10
UNDERGROUND CONDUIT, PVC, 2" DIA.	FOOT	110
UNDERGROUND CONDUIT, PVC, 3" DIA.	FOOT	67
UNDERGROUND CONDUIT, PVC, 4" DIA.	FOOT	272
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET	EACH	1
UNINTERRUPTABLE POWER SUPPLY, EXTENDED	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	1158
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	2007
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	2161
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	1472
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	323
STEEL MAST ARM ASSEMBLY AND POLE, 42 FT.	EACH	2
STEEL MAST ARM ASSEMBLY AND POLE, 44 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 46 FT.	EACH	1
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	52
DRILL EXISTING HANDHOLE	EACH	17
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	9
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	4
SIGNAL HEAD, LED, 1-FACE, 4-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 4-SECTION, MAST ARM MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED	EACH	2
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4
TRAFFIC SIGNAL BACKPLATE, RETROREFLECTIVE	EACH	13
RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	500
* REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	4
EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	761
ETHERNET SWITCH	EACH	1
ACCESSIBLE PEDESTRIAN SIGNALS	EACH	8
PEDESTRIAN PUSH-BUTTON POST	EACH	8
CONCRETE FOUNDATION, TYPE A 12-INCH DIAMETER	FOOT	32

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

CABLE PLAN
(NOT TO SCALE)

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PLOT SCALE = 100,0000' / in.	DRAWN - AD	REVISED -
PLOT DATE = 2/26/2024	CHECKED - BF	REVISED -
	DATE - 2/26/24	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL CABLE PLAN
IL ROUTE 159 AND LONGACRE DRIVE /ASHLAND AVENUE

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	(130, 130-1, 130-2) TS-3, 82-5TS	ST. CLAIR	74	41
CONTRACT NO. 76R78				
ILLINOIS FED. AID PROJECT				



Bridge Foundation Boring Log

Sh. 1 of 1 Sh.

PROJECT P-98-041-87 BRIDGE FA Route 600 Traffic Signal Date April 21, 1988
 ROUTE FA 600 (Ill.159) @ Longacre Drive Bored By Larry Ford
 SEC. 130I STA. 301+54.5 = 36+90 Checked By Robert Nebelsick

COUNTY <u>St. Clair</u>		Elevation	N	Qu t/s.f.	w (%)	Surface Water El.		Elevation	N	Qu t/s.f.	w (%)
Boring No. <u>3</u> Station <u>301+47</u> Offset <u>42' Lt. E</u>						Groundwater El. at Completion					
Ground Surface <u>584.7</u>		<u>0</u>									
BROWN AND GRAY CLAYEY SILT W/LIMESTONE ROCK				<u>1.8</u>	<u>15</u>						
				<u>2.0</u>	<u>14</u>						
	<u>581.7</u>			<u>2.0</u>	<u>22</u>			<u>-25</u>			
BROWN SILTY CLAY				<u>1.5</u>	<u>26</u>						
		<u>-5</u>		<u>1.2</u>	<u>29</u>						
	<u>578.7</u> GW			<u>0.8</u>	<u>32</u>						
BROWN AND GRAY CLAYEY SILT				<u>0.2</u>	<u>31</u>						
				<u>0.7</u>	<u>32</u>			<u>-30</u>			
				<u>1.2</u>	<u>31</u>						
		<u>-10</u>		<u>1.5</u>	<u>31</u>						
				<u>1.5</u>	<u>33</u>						
	<u>572.7</u>			<u>1.7</u>	<u>33</u>						
END OF BORING								<u>-35</u>			
		<u>-15</u>									
								<u>-40</u>			
		<u>-20</u>									
								<u>-45</u>			

N-Standard Penetration Test-Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140 No. hammer falling 30".

Qu-Unconfined Compressive Strength - t/sf
w - Water Content - percentage of oven dry weight-%.

Type failure:
B - Bulge Failure
S - Shear Failure
E - Estimated Value
P - Penetrometer

BD 127 (Rev. 4-78)



Bridge Foundation Boring Log

Sh. of Sh.

PROJECT P-98-041-87 BRIDGE FA Route 600 Traffic Signal Date April 21, 1988
 ROUTE FA 600 (Ill.159) @ Longacre Drive Bored By Larry Ford
 SEC. 130I STA. 301+85 = 10+00 Checked By Robert Nebelsick

COUNTY <u>St. Clair</u>		Elevation	N	Qu t/s.f.	w (%)	Surface Water El.		Elevation	N	Qu t/s.f.	w (%)
Boring No. <u>4</u> Station <u>302+36</u> Offset <u>43' Rt. E</u>						Groundwater El. at Completion					
Ground Surface <u>585.8</u>		<u>0</u>									
BROWN AND GRAY CLAYEY SILT W/ROCK				<u>0.8</u>	<u>19</u>						
	<u>583.8</u>			<u>1.0</u>	<u>16</u>						
BROWN AND GRAY SILTY CLAY W/ROCK				<u>2.5</u>	<u>23</u>			<u>-25</u>			
	<u>582.8</u>			<u>1.5</u>	<u>25</u>						
	<u>581.3</u>	<u>-5</u>		<u>1.5</u>	<u>28</u>						
BROWN SILTY CLAY				<u>1.5</u>	<u>26</u>						
				<u>1.5</u>	<u>29</u>						
	<u>578.0</u>			<u>1.3</u>	<u>29</u>			<u>-30</u>			
	<u>577.3</u> GW			<u>0.5</u>	<u>32</u>						
BROWN AND GRAY CLAYEY SILT				<u>0.5</u>	<u>30</u>						
		<u>-10</u>		<u>0.7</u>	<u>30</u>						
	<u>573.8</u>			<u>1.1</u>	<u>33</u>						
END OF BORING								<u>-35</u>			
		<u>-15</u>									
								<u>-40</u>			
		<u>-20</u>									
								<u>-45</u>			

N-Standard Penetration Test-Blows per foot to drive 2" O.D. Split Spoon Sampler 12" with 140 No. hammer falling 30".

Qu-Unconfined Compressive Strength - t/sf
w - Water Content - percentage of oven dry weight-%.

Type failure:
B - Bulge Failure
S - Shear Failure
E - Estimated Value
P - Penetrometer

BD 127 (Rev. 4-78)

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PLOT DATE = 12/21/2023	DATE - 11/10/23	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS
IL ROUTE 159 AND LONGACRE DRIVE / ASHLAND AVENUE

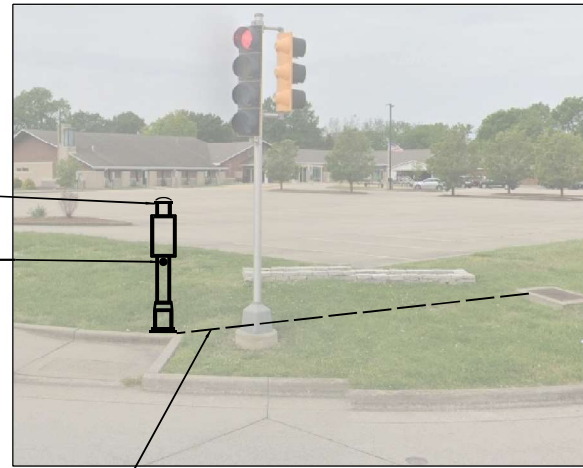
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	(130, 130-1, 130-2) TS-3, 82-5TS	ST. CLAIR	74	43
			CONTRACT NO. 76R78	
ILLINOIS FED. AID PROJECT				

SOUTHEAST CORNER DETAIL

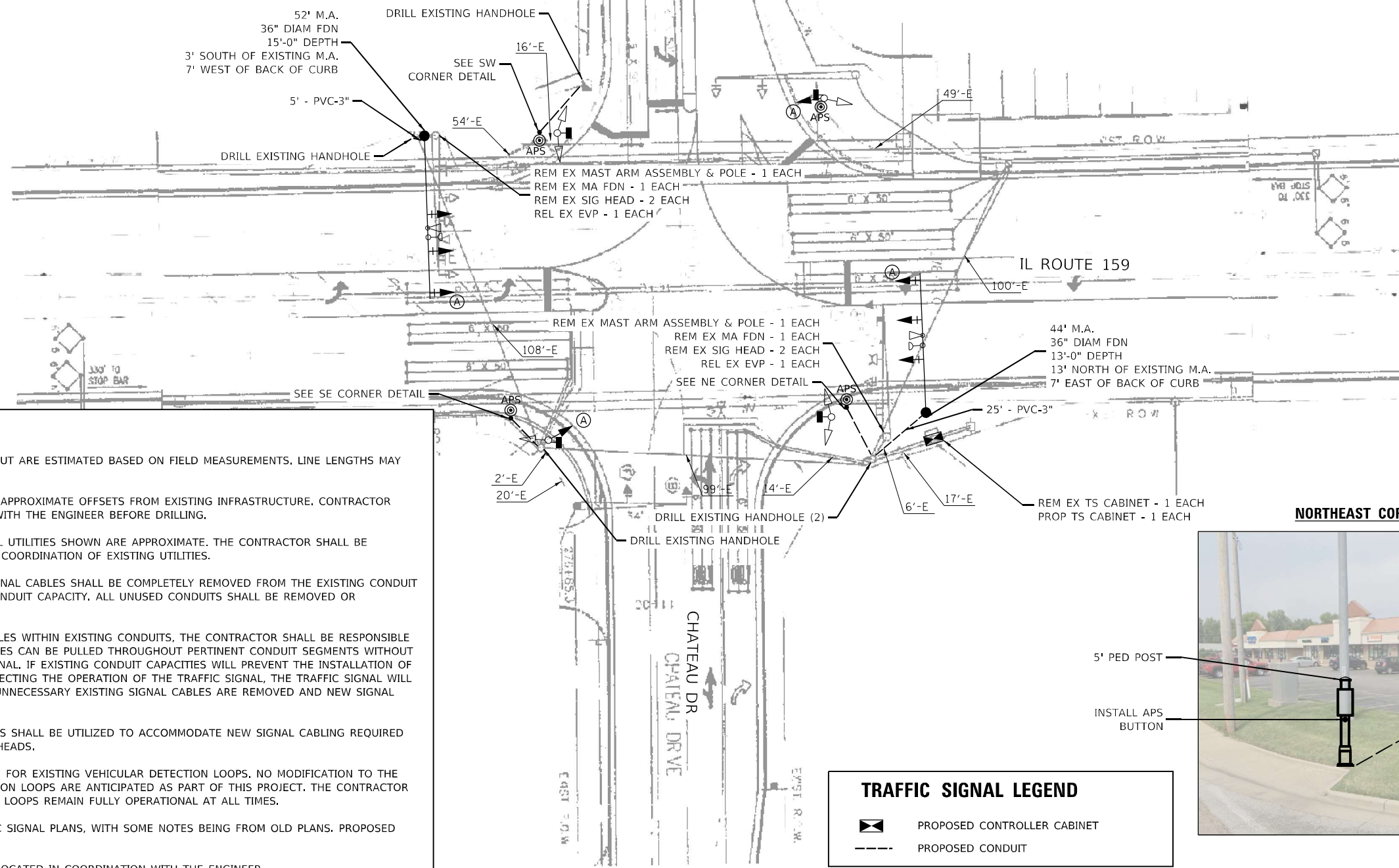
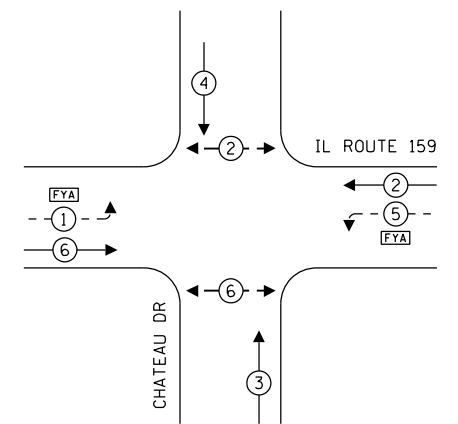
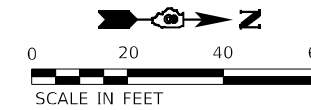
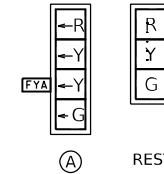


SOUTHWEST CORNER DETAIL



PROPOSED CONTROLLER SEQUENCE

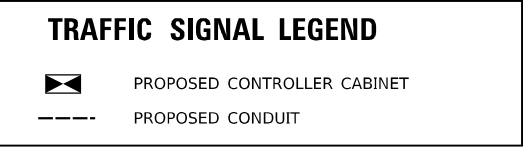
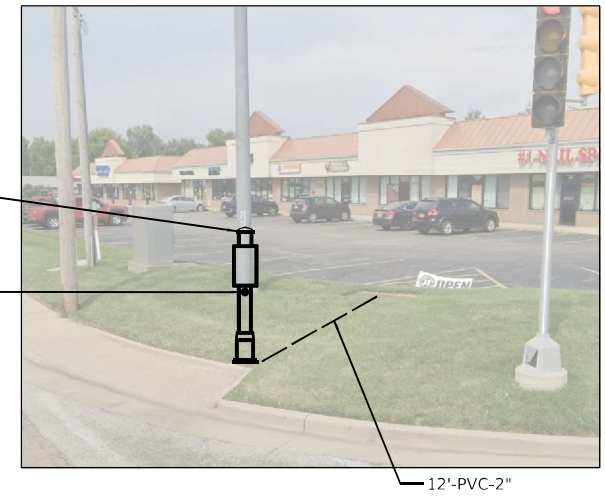
SEQUENCE OF OPERATION								
PHASE	1	2	3	4	5	6	7	8
MOVEMENT	NB LT	SB	WB	EB	SB LT	NB	NOT USED	NOT USED
CONCURRENT MOVEMENT ALLOWED	5 OR 6	5 OR 6	NONE	NONE	1 OR 2	1 OR 2	NOT USED	NOT USED



NOTES:

1. CONDUIT LENGTH DIMENSIONS SHOWN IN CALLOUT ARE ESTIMATED BASED ON FIELD MEASUREMENTS. LINE LENGTHS MAY NOT BE ACCURATE.
2. PROPOSED MAST ARM LOCATIONS SHOWN WITH APPROXIMATE OFFSETS FROM EXISTING INFRASTRUCTURE. CONTRACTOR SHALL FIELD VERIFY THE FINAL MA LOCATIONS WITH THE ENGINEER BEFORE DRILLING.
3. ALL UTILITIES PRESENT MAY NOT BE SHOWN. ALL UTILITIES SHOWN ARE APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATION, PROTECTION, AND COORDINATION OF EXISTING UTILITIES.
4. ALL UNUSED AND/OR UNNECESSARY TRAFFIC SIGNAL CABLES SHALL BE COMPLETELY REMOVED FROM THE EXISTING CONDUIT SYSTEM, IF POSSIBLE, TO ENSURE ADEQUATE CONDUIT CAPACITY. ALL UNUSED CONDUITS SHALL BE REMOVED OR ABANDONED.
5. PRIOR TO INSTALLING NEW TRAFFIC SIGNAL CABLES WITHIN EXISTING CONDUITS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING IF NEW TRAFFIC SIGNAL CABLES CAN BE PULLED THROUGHOUT PERTINENT CONDUIT SEGMENTS WITHOUT AFFECTING THE OPERATION OF THE TRAFFIC SIGNAL. IF EXISTING CONDUIT CAPACITIES WILL PREVENT THE INSTALLATION OF THE NEW TRAFFIC SIGNAL CABLES WITHOUT AFFECTING THE OPERATION OF THE TRAFFIC SIGNAL, THE TRAFFIC SIGNAL WILL HAVE TO BE TEMPORARILY SHUT DOWN WHILE UNNECESSARY EXISTING SIGNAL CABLES ARE REMOVED AND NEW SIGNAL CABLES ARE INSTALLED.
6. DENOTED EXISTING AND/OR PROPOSED CONDUITS SHALL BE UTILIZED TO ACCOMMODATE NEW SIGNAL CABLING REQUIRED FOR RELOCATION OF EXISTING TRAFFIC SIGNAL HEADS.
7. DENOTED EXISTING CONDUITS CONTAIN CABLING FOR EXISTING VEHICULAR DETECTION LOOPS. NO MODIFICATION TO THE EXISTING STOP BAR AND/OR ADVANCED DETECTION LOOPS ARE ANTICIPATED AS PART OF THIS PROJECT. THE CONTRACTOR SHALL ENSURE THAT ALL VEHICULAR DETECTION LOOPS REMAIN FULLY OPERATIONAL AT ALL TIMES.
8. TOPOGRAPHY SHOWN IS FROM EXISTING TRAFFIC SIGNAL PLANS, WITH SOME NOTES BEING FROM OLD PLANS. PROPOSED WORK IS SHOWN IN BOLD.
9. PEDESTRIAN PUSH BUTTON POSTS TO BE FIELD-LOCATED IN COORDINATION WITH THE ENGINEER.

NORTHEAST CORNER DETAIL



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USER NAME = bfunck	DESIGNED - AD	REVISED -
PLOT SCALE = 100,0000' / in.	DRAWN - AD	REVISED -
PLOT DATE = 2/27/2024	CHECKED - BF	REVISED -
	DATE - 2/26/24	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL MODIFICATION PLAN
IL ROUTE 159 AND CHATEAU DRIVE**

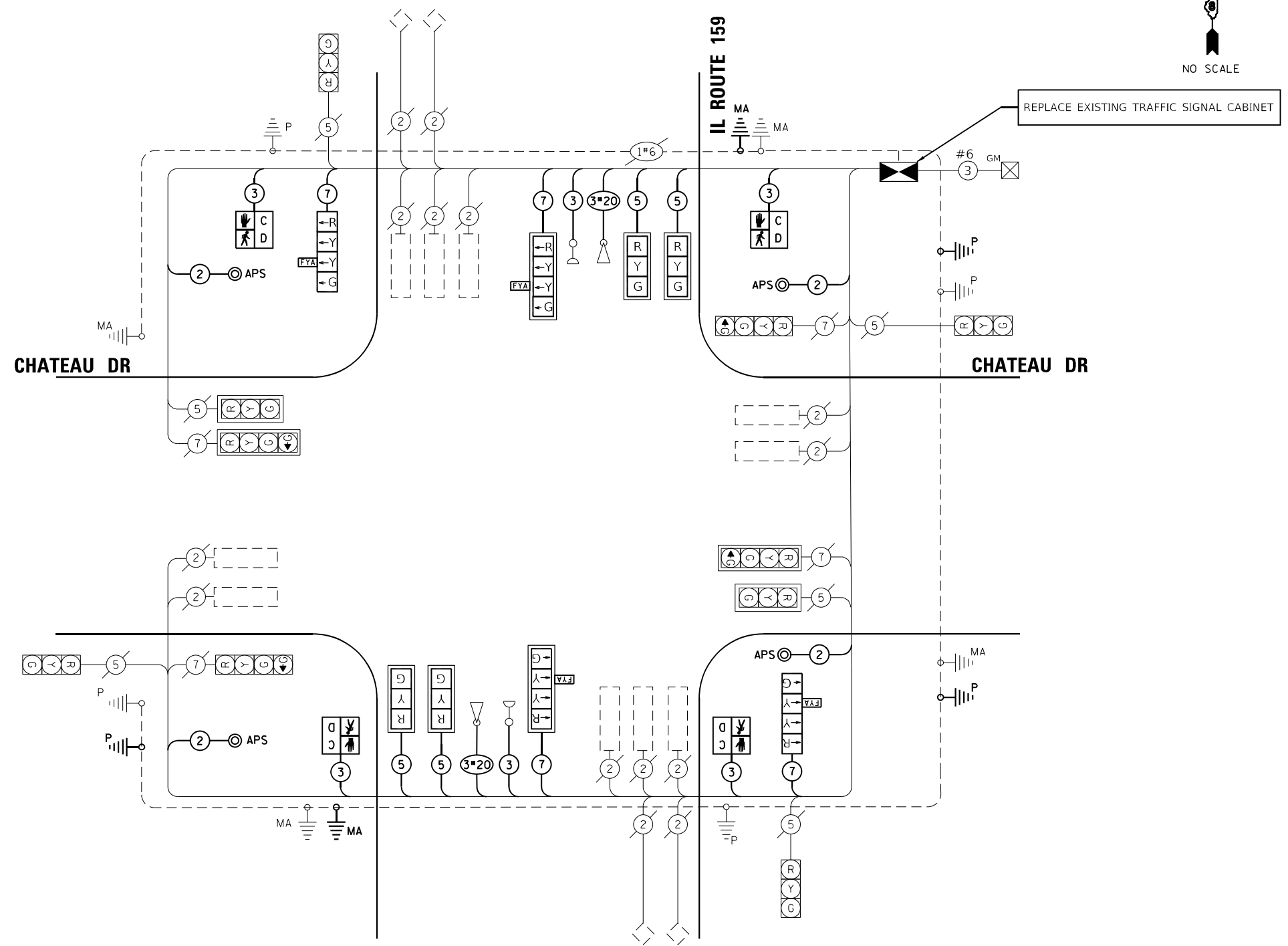
SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	(130, 130-1, 130-2) TS-3, 82-5TS	ST. CLAIR	74	44
ILLINOIS FED. AID PROJECT			CONTRACT NO. 76R78	



NO SCALE

TRAFFIC SIGNAL LEGEND	
	PROP. TRAFFIC SIGNAL CONTROLLER
	PROP. CCTV CAMERA
	PROP. GROUNDING
	PROP. NO. OF CONDUCTORS IN CABLE
	PROP. CCTV CABLE
	PROP. 12" SIGNAL HEAD
	EX. VEHICLE DETECTOR, INDUCTION LOOP
	EX. NO. OF CONDUCTORS IN CABLE
	EX. 12" SIGNAL HEAD
	EX. GROUND MOUNT SERVICE
	EX. GROUNDING
	EX. EMERGENCY VEHICLE PREEMPTION
	EX. CONFIRMATION BEACON



CABLE PLAN
(NOT TO SCALE)

SCHEDULE OF QUANTITIES

ITEM DESCRIPTION	UNIT	QTY.
SIGN PANEL - TYPE 1	SQ FT	30
RELOCATE SIGN PANEL - TYPE 1	SQ FT	22
UNDERGROUND CONDUIT, PVC, 2" DIA.	FOOT	45
UNDERGROUND CONDUIT, PVC, 3" DIA.	FOOT	30
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	753
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1179
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	838
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	811
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	250
STEEL MAST ARM ASSEMBLY AND POLE, 44 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 52 FT.	EACH	1
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	28
DRILL EXISTING HANDHOLE	EACH	5
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	4
SIGNAL HEAD, LED, 1-FACE, 4-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 4-SECTION, MAST ARM MOUNTED	EACH	2
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	4
TRAFFIC SIGNAL BACKPLATE, RETROREFLECTIVE	EACH	6
* RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	500
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	2
EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	419
ACCESSIBLE PEDESTRIAN SIGNALS	EACH	4
PEDESTRIAN PUSH-BUTTON POST	EACH	3
CONCRETE FOUNDATION, TYPE A 12-INCH DIAMETER	FOOT	12

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

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	DATE - 2/26/24	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

TRAFFIC SIGNAL CABLE PLAN	
IL ROUTE 159 AND CHATEAU DRIVE	
SCALE:	SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	(130, 130-1, 130-2) TS-3, 82-5TS	ST. CLAIR	74	45
ILLINOIS FED. AID PROJECT			CONTRACT NO. 76R78	

SOIL BORING LOG

ROUTE FAP 600 (IL 159) DESCRIPTION IL 159 & Chateau Drive LOGGED BY KEG - MTH
 SECTION (130, 130-1, 130-2)TS-3 LOCATION SEC. TWP. RNG. 3 PM
 COUNTY St. Clair DRILLING METHOD IISA HAMMER TYPE Auto

STRUCT. NO.	D	B	U	M	Surface Water Elev.
Station	E	L	C	O	Stream Bed Elev.
BORING NO.	P	O	S	I	Groundwater Elev.:
Station	T	W	Qu	S	First Encounter
Offset	H	S		T	Upon Completion
Ground Surface Elev. ft	(ft)	(/6")	(tsf)	(%)	After Hrs.
Brown Silty Clay	2				n/a ft
	3	2.75	20		
	5	P			
	1				
	2	1.25	25		
	-5	3	P		
94.0	0				
becomes Brownish Gray	1	0.50	33		
	1	P			
	1				
	2	1.05	31		
	-10	2	B		
	WH				
	WH	0.5	44		
	2	P			
86.5	1				
wet, soft, Gray Clayey Silt	2	1.75	48		
	-15	3	P		
85.0					
End of Boring					
	-20				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

SOIL BORING LOG

ROUTE FAP 600 (IL 159) DESCRIPTION IL 159 & Chateau Drive LOGGED BY KEG - MTH
 SECTION (130, 130-1, 130-2)TS-3 LOCATION SEC. TWP. RNG. 3 PM
 COUNTY St. Clair DRILLING METHOD HSA HAMMER TYPE Auto

STRUCT. NO.	D	B	U	M	Surface Water Elev.
Station	E	L	C	O	Stream Bed Elev.
BORING NO.	P	O	S	I	Groundwater Elev.:
Station	T	W	Qu	S	First Encounter
Offset	H	S		T	Upon Completion
Ground Surface Elev. ft	(ft)	(/6")	(tsf)	(%)	After Hrs.
3.5" Asphalt					n/a ft
14" Concrete					
98.5					
Brown Silty Clay w/ organics	2				
	3	2.75	17		
	4	P			
	1				
	1	0.25	29		
	-5	1	P		
94.0					
Gray Clayey Silt, soft	1				
	2	0.75	29		
	2	P			
	WH				
91.0	1	0.04	31		
becomes very soft	-10	1	B		
89.0					
Dark Brown Clayey Silt w/ organics	2	1.75	63		
	2	B			
87.0					
becomes wet	1				
	2	0.74	35		
	-15	2	B		
	WH				
	WH	0.52	29		
	WH	B			
82.5					
End of Boring					
	-20				

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)

BBS, from 137 (Rev. 8-99)

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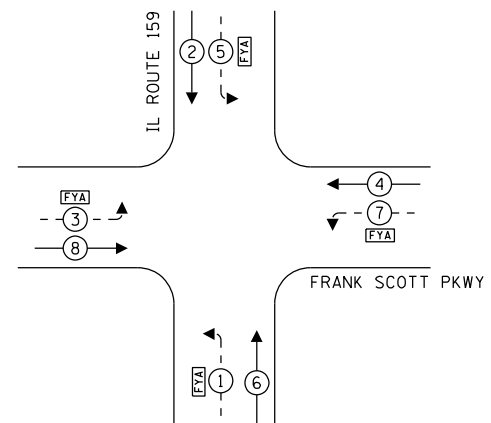
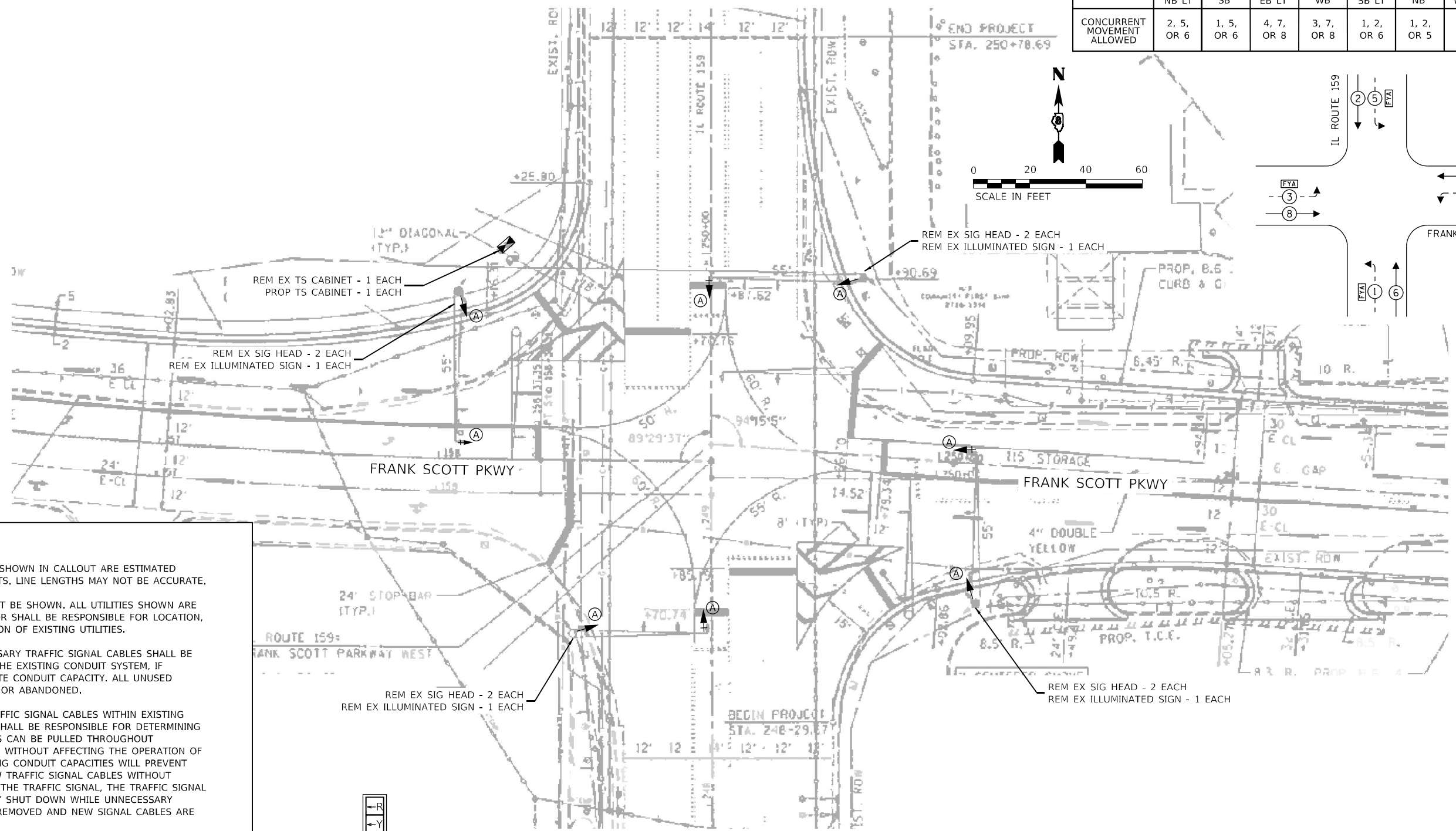
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOIL BORING LOGS			
IL ROUTE 159 AND CHATEAU DRIVE			
SCALE:	SHEET	OF SHEETS	STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	(130, 130-1, 130-2)TS-3, 82-5TS	ST. CLAIR	74	46
			CONTRACT NO. 76R78	
ILLINOIS FED. AID PROJECT				

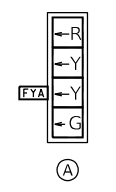
PROPOSED CONTROLLER SEQUENCE

SEQUENCE OF OPERATION								
PHASE	1	2	3	4	5	6	7	8
MOVEMENT	NB LT	SB	EB LT	WB	SB LT	NB	WB LT	EB
CONCURRENT MOVEMENT ALLOWED	2, 5, OR 6	1, 5, OR 6	4, 7, OR 8	3, 7, OR 8	1, 2, OR 6	1, 2, OR 5	3, 4, OR 8	3, 4, OR 7



NOTES:

1. CONDUIT LENGTH DIMENSIONS SHOWN IN CALLOUT ARE ESTIMATED BASED ON FIELD MEASUREMENTS. LINE LENGTHS MAY NOT BE ACCURATE.
2. ALL UTILITIES PRESENT MAY NOT BE SHOWN. ALL UTILITIES SHOWN ARE APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATION, PROTECTION, AND COORDINATION OF EXISTING UTILITIES.
3. ALL UNUSED AND/OR UNNECESSARY TRAFFIC SIGNAL CABLES SHALL BE COMPLETELY REMOVED FROM THE EXISTING CONDUIT SYSTEM, IF POSSIBLE, TO ENSURE ADEQUATE CONDUIT CAPACITY. ALL UNUSED CONDUITS SHALL BE REMOVED OR ABANDONED.
4. PRIOR TO INSTALLING NEW TRAFFIC SIGNAL CABLES WITHIN EXISTING CONDUITS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING IF NEW TRAFFIC SIGNAL CABLES CAN BE PULLED THROUGHOUT PERTINENT CONDUIT SEGMENTS WITHOUT AFFECTING THE OPERATION OF THE TRAFFIC SIGNAL. IF EXISTING CONDUIT CAPACITIES WILL PREVENT THE INSTALLATION OF THE NEW TRAFFIC SIGNAL CABLES WITHOUT AFFECTING THE OPERATION OF THE TRAFFIC SIGNAL, THE TRAFFIC SIGNAL WILL HAVE TO BE TEMPORARILY SHUT DOWN WHILE UNNECESSARY EXISTING SIGNAL CABLES ARE REMOVED AND NEW SIGNAL CABLES ARE INSTALLED.
5. DENOTED EXISTING AND/OR PROPOSED CONDUITS SHALL BE UTILIZED TO ACCOMMODATE NEW SIGNAL CABLING REQUIRED FOR RELOCATION OF EXISTING TRAFFIC SIGNAL HEADS.
6. DENOTED EXISTING CONDUITS CONTAIN CABLING FOR EXISTING VEHICULAR DETECTION LOOPS. NO MODIFICATION TO THE EXISTING STOP BAR AND/OR ADVANCED DETECTION LOOPS ARE ANTICIPATED AS PART OF THIS PROJECT. THE CONTRACTOR SHALL ENSURE THAT ALL VEHICULAR DETECTION LOOPS REMAIN FULLY OPERATIONAL AT ALL TIMES.
7. TOPOGRAPHY SHOWN IS FROM EXISTING TRAFFIC SIGNAL PLANS, WITH SOME NOTES BEING FROM OLD PLANS. PROPOSED WORK IS SHOWN IN BOLD.



TRAFFIC SIGNAL LEGEND				
	PROPOSED CONTROLLER CABINET			

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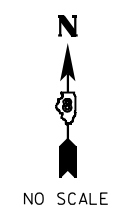
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL MODIFICATION PLAN
IL ROUTE 159 AND FRANK SCOTT PARKWAY**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	(130, 130-1, 130-2) TS-3, 82-5TS	ST. CLAIR	74	47
ILLINOIS FED. AID PROJECT			CONTRACT NO. 76R78	



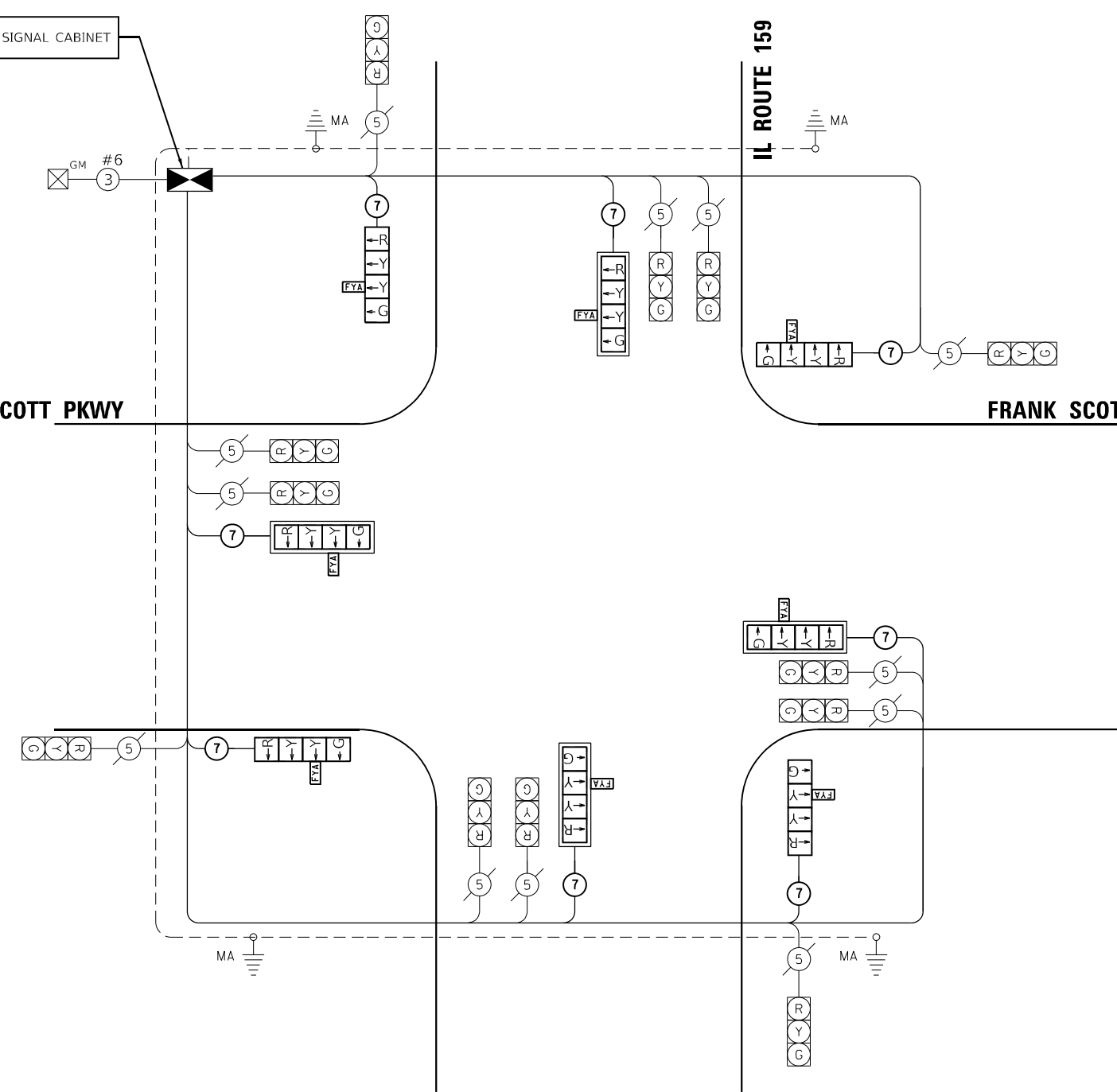
TRAFFIC SIGNAL LEGEND	
	PROP. TRAFFIC SIGNAL CONTROLLER
	PROP. CCTV CAMERA
	PROP. GROUNDING
	PROP. NO. OF CONDUCTORS IN CABLE
	PROP. CCTV CABLE
	PROP. 12" SIGNAL HEAD
	EX. VEHICLE DETECTOR, INDUCTION LOOP
	EX. NO. OF CONDUCTORS IN CABLE
	EX. 12" SIGNAL HEAD
	EX. GROUND MOUNT SERVICE
	EX. GROUNDING
	EX. EMERGENCY VEHICLE PREEMPTION
	EX. CONFIRMATION BEACON

REPLACE EXISTING TRAFFIC SIGNAL CABINET

FRANK SCOTT PKWY

IL ROUTE 159

FRANK SCOTT PKWY



CABLE PLAN
(NOT TO SCALE)

SCHEDULE OF QUANTITIES

ITEM DESCRIPTION	UNIT	QTY.
SIGN PANEL - TYPE 1	SO FT	60
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET	EACH	1
UNINTERRUPTABLE POWER SUPPLY, EXTENDED	EACH	1
SIGNAL HEAD, LED, 1-FACE, 4-SECTION, BRACKET MOUNTED	EACH	4
SIGNAL HEAD, LED, 1-FACE, 4-SECTION, MAST ARM MOUNTED	EACH	4
TRAFFIC SIGNAL BACKPLATE, RETROREFLECTIVE	EACH	4
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1

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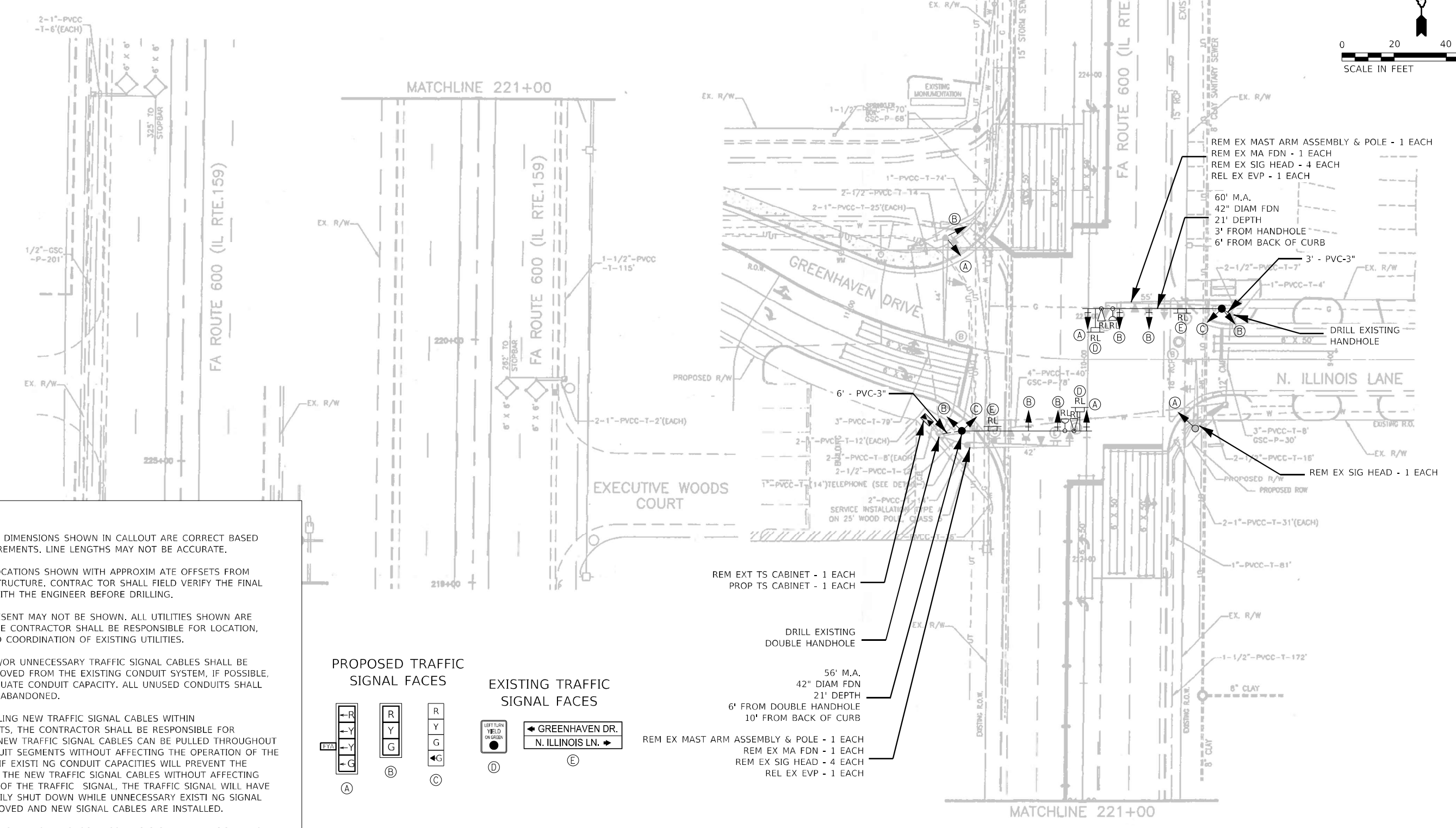
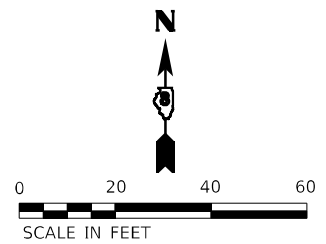
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

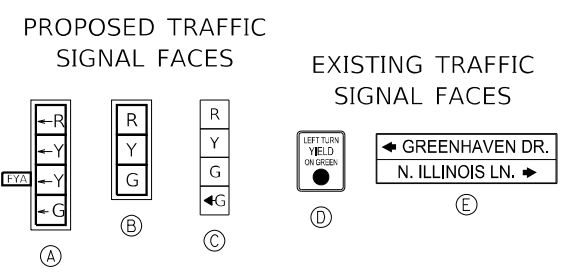
TRAFFIC SIGNAL CABLE PLAN
IL ROUTE 159 AND FRANK SCOTT PARKWAY

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	(130, 130-1, 130-2) TS-3, 82-5TS	ST. CLAIR	74	48
			CONTRACT NO. 76R78	
ILLINOIS FED. AID PROJECT				

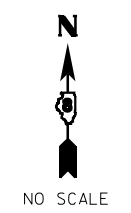


- NOTES:**
1. CONDUIT LENGTH DIMENSIONS SHOWN IN CALLOUT ARE CORRECT BASED ON FIELD MEASUREMENTS. LINE LENGTHS MAY NOT BE ACCURATE.
 2. PROPOSED MA LOCATIONS SHOWN WITH APPROXIMATE OFFSETS FROM EXISTING INFRASTRUCTURE. CONTRACTOR SHALL FIELD VERIFY THE FINAL MA LOCATIONS WITH THE ENGINEER BEFORE DRILLING.
 3. ALL UTILITIES PRESENT MAY NOT BE SHOWN. ALL UTILITIES SHOWN ARE APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATION, PROTECTION, AND COORDINATION OF EXISTING UTILITIES.
 4. ALL UNUSED AND/OR UNNECESSARY TRAFFIC SIGNAL CABLES SHALL BE COMPLETELY REMOVED FROM THE EXISTING CONDUIT SYSTEM, IF POSSIBLE, TO ENSURE ADEQUATE CONDUIT CAPACITY. ALL UNUSED CONDUITS SHALL BE REMOVED OR ABANDONED.
 5. PRIOR TO INSTALLING NEW TRAFFIC SIGNAL CABLES WITHIN EXISTING CONDUITS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING IF NEW TRAFFIC SIGNAL CABLES CAN BE PULLED THROUGHOUT PERTINENT CONDUIT SEGMENTS WITHOUT AFFECTING THE OPERATION OF THE TRAFFIC SIGNAL. IF EXISTING CONDUIT CAPACITIES WILL PREVENT THE INSTALLATION OF THE NEW TRAFFIC SIGNAL CABLES WITHOUT AFFECTING THE OPERATION OF THE TRAFFIC SIGNAL, THE TRAFFIC SIGNAL WILL HAVE TO BE TEMPORARILY SHUT DOWN WHILE UNNECESSARY EXISTING SIGNAL CABLES ARE REMOVED AND NEW SIGNAL CABLES ARE INSTALLED.
 6. DENOTED EXISTING AND/OR PROPOSED CONDUITS SHALL BE UTILIZED TO ACCOMMODATE NEW SIGNAL CABLING REQUIRED FOR RELOCATION OF EXISTING TRAFFIC SIGNAL HEADS.
 7. DENOTED EXISTING CONDUITS CONTAIN CABLING FOR EXISTING VEHICULAR DETECTION LOOPS. NO MODIFICATION TO THE EXISTING STOP BAR AND/OR ADVANCED DETECTION LOOPS ARE ANTICIPATED AS PART OF THIS PROJECT. THE CONTRACTOR SHALL ENSURE THAT ALL VEHICULAR DETECTION LOOPS REMAIN FULLY OPERATIONAL AT ALL TIMES.



- REM EXT TS CABINET - 1 EACH
- PROP TS CABINET - 1 EACH
- DRILL EXISTING DOUBLE HANDHOLE
- 56' M.A. 42" DIAM FDN 21' DEPTH 6' FROM DOUBLE HANDHOLE 10' FROM BACK OF CURB
- REM EX MAST ARM ASSEMBLY & POLE - 1 EACH
- REM EX MA FDN - 1 EACH
- REM EX SIG HEAD - 4 EACH
- REL EX EVP - 1 EACH

NOTE:
RL: EXISTING SIGNAL ITEM RELOCATED FROM EXISTING INSTALLATION TO PROPOSED MA OR POST.



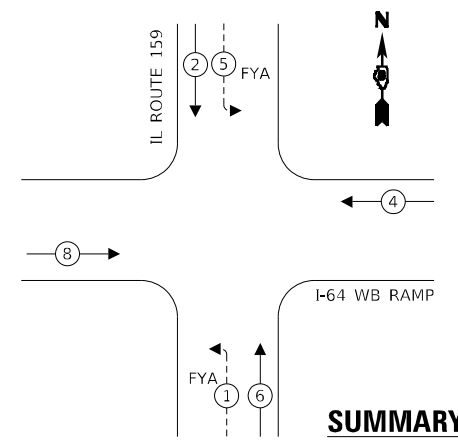
TRAFFIC SIGNAL LEGEND

	PROP. TRAFFIC SIGNAL CONTROLLER
	PROP. GROUNDING
	PROP. NO. OF CONDUCTORS IN CABLE
	PROP. 12" SIGNAL HEAD
	EX. VEHICLE DETECTOR, INDUCTION LOOP
	EX. NO. OF CONDUCTORS IN CABLE
	EX. 12" SIGNAL HEAD
	EX. GROUND MOUNT SERVICE
	EX. GROUNDING
	EX. EMERGENCY VEHICLE PREEMPTION

SEQUENCE OF OPERATION

PHASE	1	2	3	4	5	6	7	8
MOVEMENT	NB LT	SB	NOT USED	WB	SB LT	NB	NOT USED	EB
CONCURRENT MOVEMENT ALLOWED	2,5 OR 6	1,5 OR 6	NOT USED	8	1,2 OR 6	1,2 OR 5	NOT USED	4

EXISTING CONTROLLER SEQUENCE

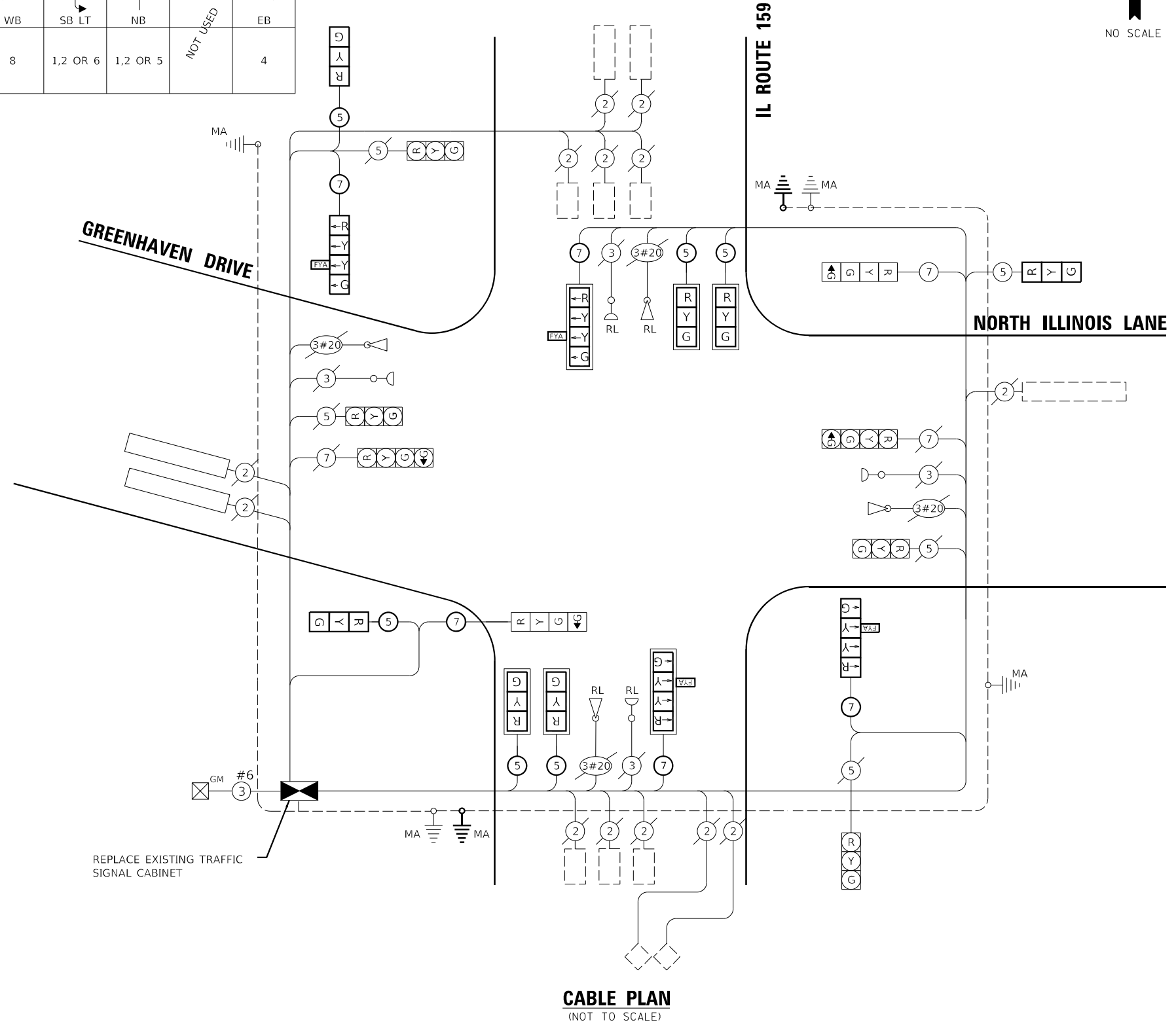


LEGEND:

	PROTECTED PHASE
	PROTECTED/PERMITTED PHASE
	PEDESTRIAN PHASE
	OVERLAP

SUMMARY OF QUANTITIES

ITEM	UNIT	TOTAL
RELOCATE SIGN PANEL - TYPE 1	SQ FT	50
UNDERGROUND CONDUIT, PVC, 3" DIA.	FOOT	9
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1350
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1035
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	860
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	25
STEEL MAST ARM ASSEMBLY AND POLE, 56 FT.	FACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 60 FT.	EACH	1
CONCRETE FOUNDATION, TYPE E 42-INCH DIAMETER	FOOT	42
DRILL EXISTING HANDHOLE	EACH	2
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	4
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 4-SECTION, BRACKET MOUNTED	EACH	4
SIGNAL HEAD, LED, 1-FACE, 4-SECTION, MAST ARM MOUNTED	EACH	2
TRAFFIC SIGNAL BACKPLATE, RETROREFLECTIVE	EACH	6
RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING CABLE FROM CONDUIT	EACH	500
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	2
EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	700



CABLE PLAN
(NOT TO SCALE)

MODEL: 440RELENAME
FILE: 440R78_01.DWG

DELTA ENGINEERING GROUP, LLC
CONSULTING ENGINEERS, ARCHITECTS, PLANNERS, ENVIRONMENTAL SCIENTISTS
111 W. JACKSON BLVD, SUITE 910
CHICAGO, IL 60604
T 312.377.7700, F 312.427.6145

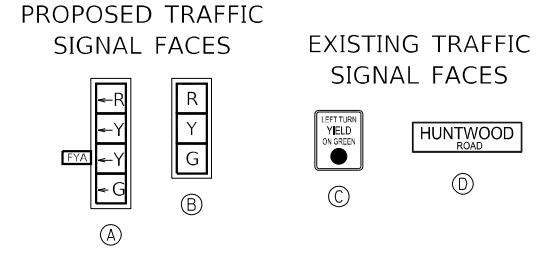
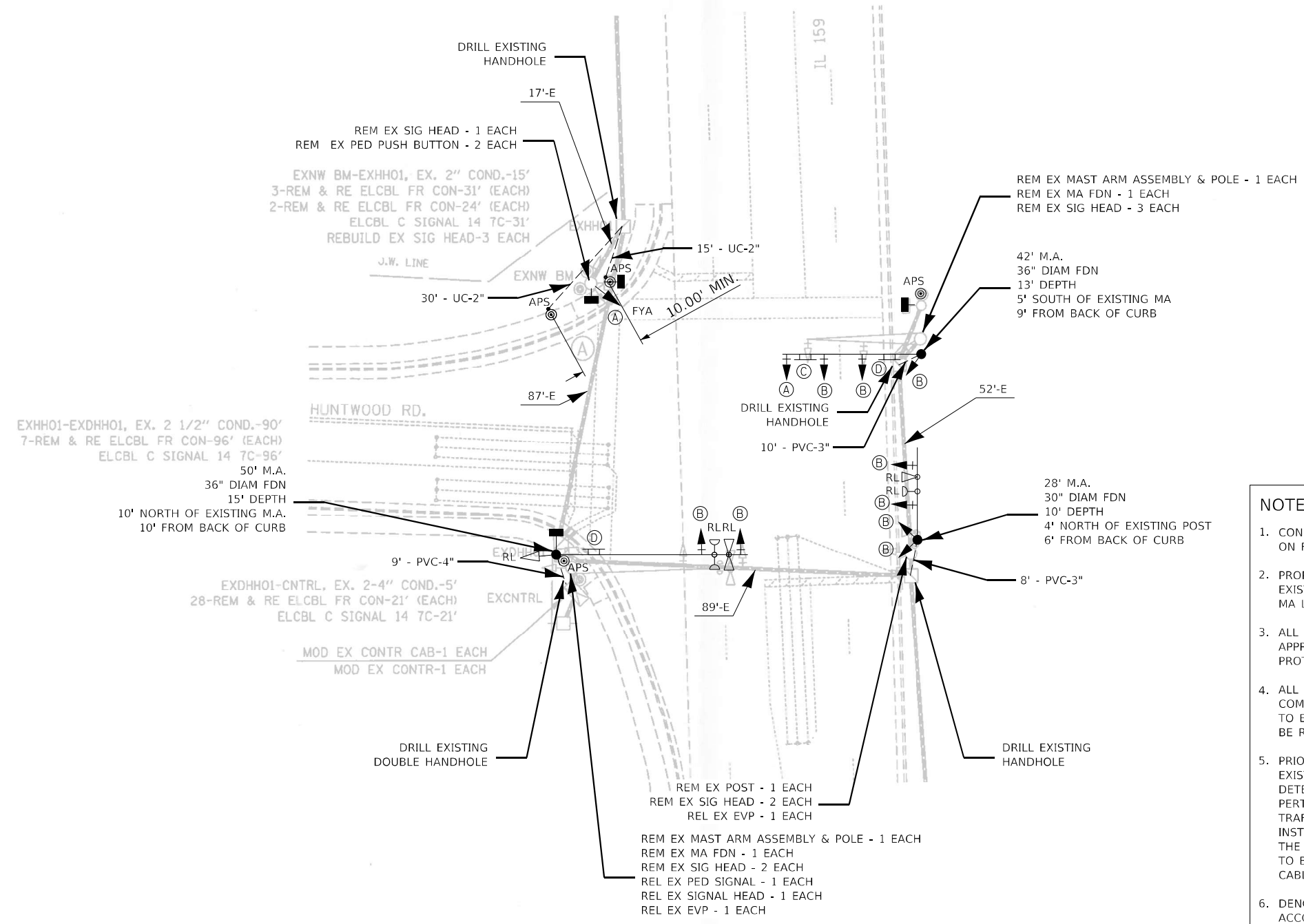
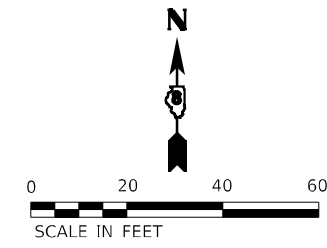
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PLOT DATE = \$DATES	CHECKED - MA	REVISED -
	DATE - 03/01/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL CABLE PLAN
IL ROUTE 159 AND GREEN HAVEN DRIVE

SCALE: NTS SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	(130, 130-1, 130-2) TS-3, 82-5TS	ST. CLAIR	74	50
CONTRACT NO. 76R78				
ILLINOIS FED. AID PROJECT CMAQ-H5IP-445N (249)				



- NOTES:**
- CONDUIT LENGTH DIMENSIONS SHOWN IN CALLOUT ARE CORRECT BASED ON FIELD MEASUREMENTS. LINE LENGTHS MAY NOT BE ACCURATE.
 - PROPOSED MA LOCATIONS SHOWN WITH APPROXIMATE OFFSETS FROM EXISTING INFRASTRUCTURE. CONTRACTOR SHALL FIELD VERIFY THE FINAL MA LOCATIONS WITH THE ENGINEER BEFORE DRILLING.
 - ALL UTILITIES PRESENT MAY NOT BE SHOWN. ALL UTILITIES SHOWN ARE APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATION, PROTECTION, AND COORDINATION OF EXISTING UTILITIES.
 - ALL UNUSED AND/OR UNNECESSARY TRAFFIC SIGNAL CABLES SHALL BE COMPLETELY REMOVED FROM THE EXISTING CONDUIT SYSTEM, IF POSSIBLE, TO ENSURE ADEQUATE CONDUIT CAPACITY. ALL UNUSED CONDUITS SHALL BE REMOVED OR ABANDONED.
 - PRIOR TO INSTALLING NEW TRAFFIC SIGNAL CABLES WITHIN EXISTING CONDUITS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING IF NEW TRAFFIC SIGNAL CABLES CAN BE PULLED THROUGHOUT PERTINENT CONDUIT SEGMENTS WITHOUT AFFECTING THE OPERATION OF THE TRAFFIC SIGNAL. IF EXISTING CONDUIT CAPACITIES WILL PREVENT THE INSTALLATION OF THE NEW TRAFFIC SIGNAL CABLES WITHOUT AFFECTING THE OPERATION OF THE TRAFFIC SIGNAL, THE TRAFFIC SIGNAL WILL HAVE TO BE TEMPORARILY SHUT DOWN WHILE UNNECESSARY EXISTING SIGNAL CABLES ARE REMOVED AND NEW SIGNAL CABLES ARE INSTALLED.
 - DENOTED EXISTING AND/OR PROPOSED CONDUITS SHALL BE UTILIZED TO ACCOMMODATE NEW SIGNAL CABLING REQUIRED FOR RELOCATION OF EXISTING TRAFFIC SIGNAL HEADS.
 - DENOTED EXISTING CONDUITS CONTAIN CABLING FOR EXISTING VEHICULAR DETECTION LOOPS. NO MODIFICATION TO THE EXISTING STOP BAR AND/OR ADVANCED DETECTION LOOPS ARE ANTICIPATED AS PART OF THIS PROJECT. THE CONTRACTOR SHALL ENSURE THAT ALL VEHICULAR DETECTION LOOPS REMAIN FULLY OPERATIONAL AT ALL TIMES.

NOTE:
RL: EXISTING SIGNAL ITEM RELOCATED FROM EXISTING INSTALLATION TO PROPOSED MA OR POST.

MODEL: 1400RELENAME
FILE: 1400RELENAME
DELTA ENGINEERING GROUP, LLC
111 W JACKSON BLVD, SUITE 910
CHICAGO, IL 60604
T 312.377.7700, F 312.427.6145

USER NAME = \$USERS	DESIGNED - MA	REVISED -
PLOT SCALE = \$SCALES	CHECKED - MA	REVISED -
PLOT DATE = \$DATES	DATE - 03/01/2024	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC SIGNAL MODIFICATION PLAN
IL ROUTE 159 AND HUNTWOOD ROAD**

SCALE: NTS SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	(130, 130-1, 130-2) TS-3, 82-5TS	ST. CLAIR	74	52
CONTRACT NO. 76R78				
ILLINOIS FED. AID PROJECT CMAQ-HSP-445N (249)				

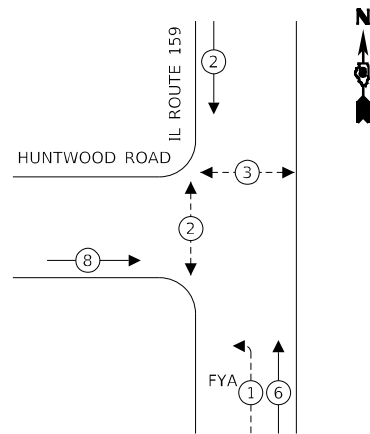
TRAFFIC SIGNAL LEGEND

- PROP. TRAFFIC SIGNAL CONTROLLER
- PROP. GROUNDING
- PROP. NO. OF CONDUCTORS IN CABLE
- PROP. 12" SIGNAL HEAD
- EX. VEHICLE DETECTOR, INDUCTION LOOP
- EX. NO. OF CONDUCTORS IN CABLE
- EX. 12" SIGNAL HEAD
- EX. GROUND MOUNT SERVICE
- EX. GROUNDING
- EX. EMERGENCY VEHICLE PREEMPTION

SEQUENCE OF OPERATION								
PHASE	1	2	3	4	5	6	7	8
MOVEMENT	NB LT	SB	NOT USED	NOT USED	NOT USED	NB	NOT USED	EB
CONCURRENT MOVEMENT ALLOWED	2 OR 6	1 OR 6	NOT USED	NOT USED	NOT USED	1 OR 2	NOT USED	3

* PEDESTRIAN MOVEMENT DISPLAYED UPON ACTIVATION ONLY

EXISTING CONTROLLER SEQUENCE



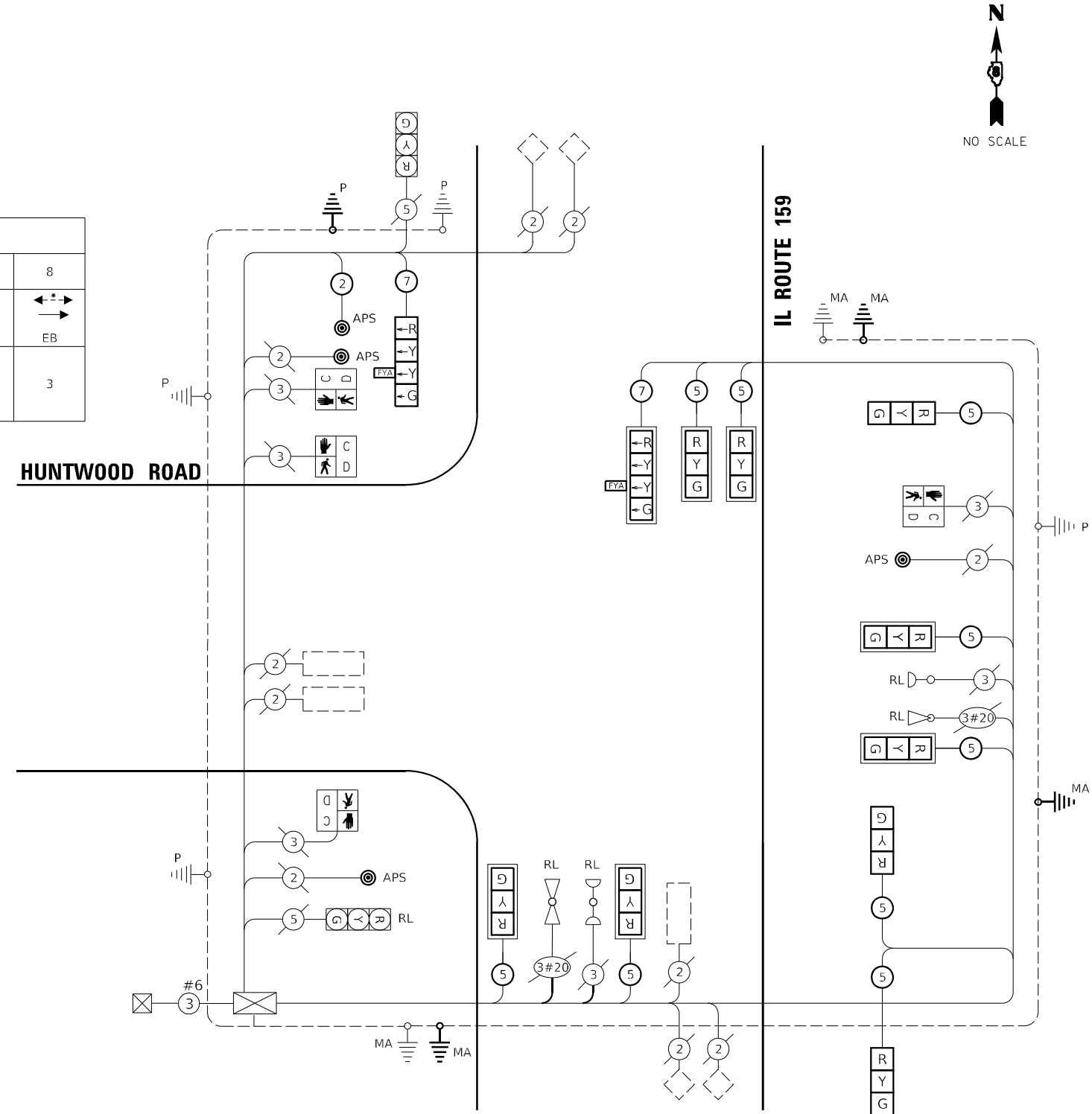
LEGEND:

- PROTECTED PHASE
- PROTECTED/PERMITTED PHASE
- PEDESTRIAN PHASE
- OVERLAP

SUMMARY OF QUANTITIES

ITEM	UNIT	TOTAL
RELOCATE SIGN PANEL - TYPE 1	SQFT	25
UNDERGROUND CONDUIT, PVC, 2" DIA.	FOOT	45
UNDERGROUND CONDUIT, PVC, 3" DIA.	FOOT	30
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	340
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	510
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1370
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	390
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	125
STEEL MAST ARM ASSEMBLY AND POLE, 28 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 42 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 50 FT.	EACH	1
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	10
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	28
DRILL EXISTING HANDHOLE	EACH	4
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	6
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	3
SIGNAL HEAD, LED, 1-FACE, 4-SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, LED, 1-FACE, 4-SECTION, MAST ARM MOUNTED	EACH	1
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	1
TRAFFIC SIGNAL BACKPLATE, RETROREFLECTIVE	EACH	7
RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING CABLE FROM CONDUIT	EACH	500
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	2
EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	155
ACCESSIBLE PEDESTRIAN SIGNALS	EACH	4
PEDESTRIAN PUSH-BUTTON POST	EACH	2
CONCRETE FOUNDATION, TYPE A 12-INCH DIAMETER	FOOT	24

HUNTWOOD ROAD



CABLE PLAN
(NOT TO SCALE)

MODEL NUMBER/REVISED
FILE NUMBER/REVISED

DELTA ENGINEERING GROUP, LLC
CONSULTING ENGINEERS, ARCHITECTS, PLANNERS, ENVIRONMENTAL SCIENTISTS
111 W JACKSON BLVD, SUITE 910
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T 312.377.7700, F 312.427.6145

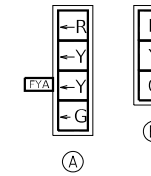
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PLOT SCALE = \$SCALES	DRAWN - NS	REVISED -
PLOT DATE = \$DATES	CHECKED - MA	REVISED -
	DATE - 03/01/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

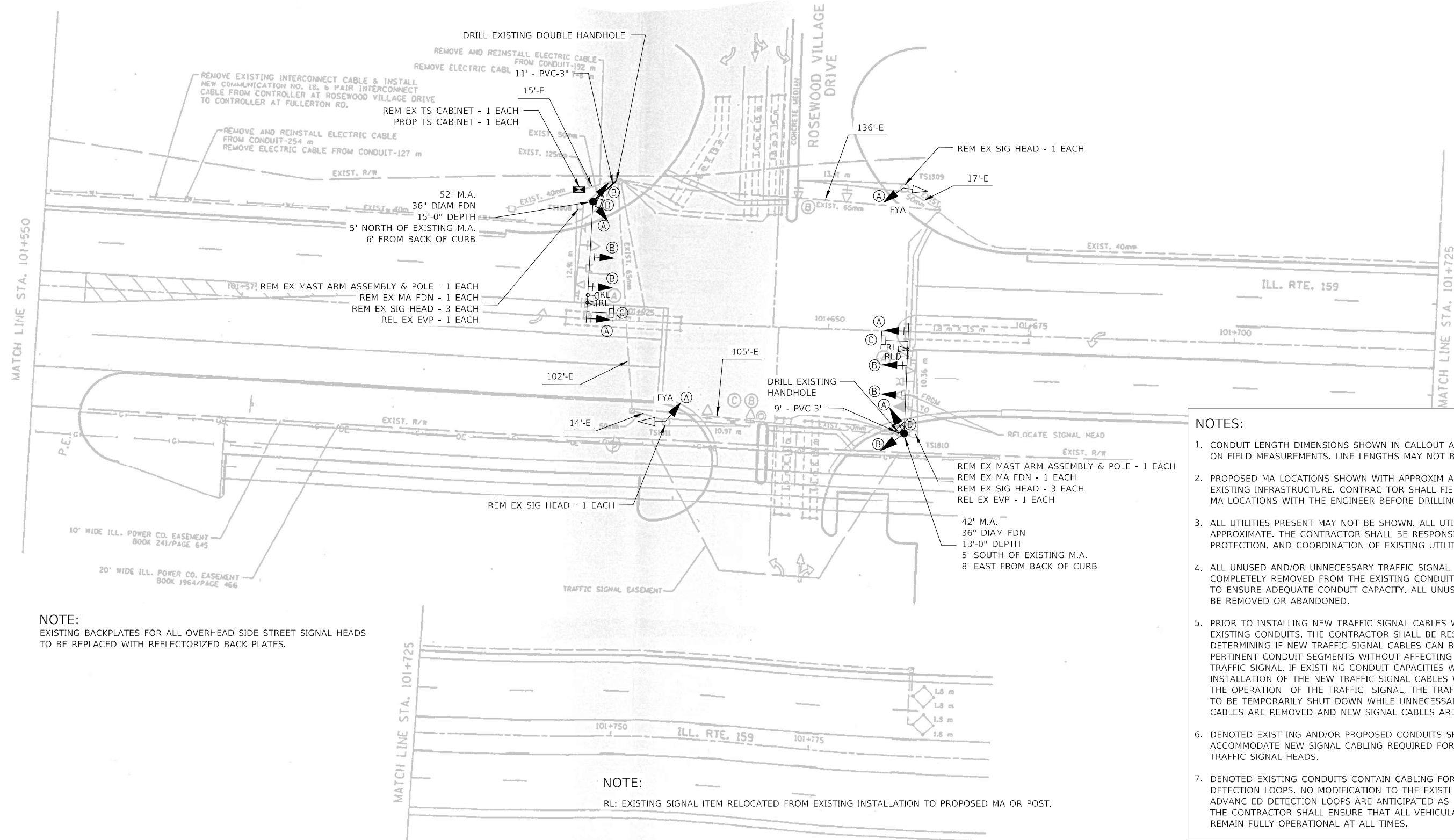
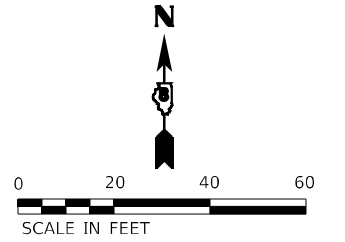
TRAFFIC SIGNAL CABLE PLAN	
IL ROUTE 159 AND HUNTWOOD ROAD	
SCALE: NTS	SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	(130, 130-1, 130-2) TS-3, 82-5TS	ST. CLAIR	74	53
CONTRACT NO. 76R78				
ILLINOIS FED. AID PROJECT CMAQ-HSP-445N (249)				

PROPOSED TRAFFIC SIGNAL FACES



EXISTING TRAFFIC SIGNAL FACES



NOTES:

1. CONDUIT LENGTH DIMENSIONS SHOWN IN CALLOUT ARE CORRECT BASED ON FIELD MEASUREMENTS. LINE LENGTHS MAY NOT BE ACCURATE.
2. PROPOSED MA LOCATIONS SHOWN WITH APPROXIMATE OFFSETS FROM EXISTING INFRASTRUCTURE. CONTRACTOR SHALL FIELD VERIFY THE FINAL MA LOCATIONS WITH THE ENGINEER BEFORE DRILLING.
3. ALL UTILITIES PRESENT MAY NOT BE SHOWN. ALL UTILITIES SHOWN ARE APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATION, PROTECTION, AND COORDINATION OF EXISTING UTILITIES.
4. ALL UNUSED AND/OR UNNECESSARY TRAFFIC SIGNAL CABLES SHALL BE COMPLETELY REMOVED FROM THE EXISTING CONDUIT SYSTEM, IF POSSIBLE, TO ENSURE ADEQUATE CONDUIT CAPACITY. ALL UNUSED CONDUITS SHALL BE REMOVED OR ABANDONED.
5. PRIOR TO INSTALLING NEW TRAFFIC SIGNAL CABLES WITHIN EXISTING CONDUITS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING IF NEW TRAFFIC SIGNAL CABLES CAN BE PULLED THROUGHOUT PERTINENT CONDUIT SEGMENTS WITHOUT AFFECTING THE OPERATION OF THE TRAFFIC SIGNAL. IF EXISTING CONDUIT CAPACITIES WILL PREVENT THE INSTALLATION OF THE NEW TRAFFIC SIGNAL CABLES WITHOUT AFFECTING THE OPERATION OF THE TRAFFIC SIGNAL, THE TRAFFIC SIGNAL WILL HAVE TO BE TEMPORARILY SHUT DOWN WHILE UNNECESSARY EXISTING SIGNAL CABLES ARE REMOVED AND NEW SIGNAL CABLES ARE INSTALLED.
6. DENOTED EXISTING AND/OR PROPOSED CONDUITS SHALL BE UTILIZED TO ACCOMMODATE NEW SIGNAL CABLING REQUIRED FOR RELOCATION OF EXISTING TRAFFIC SIGNAL HEADS.
7. DENOTED EXISTING CONDUITS CONTAIN CABLING FOR EXISTING VEHICULAR DETECTION LOOPS. NO MODIFICATION TO THE EXISTING STOP BAR AND/OR ADVANCED DETECTION LOOPS ARE ANTICIPATED AS PART OF THIS PROJECT. THE CONTRACTOR SHALL ENSURE THAT ALL VEHICULAR DETECTION LOOPS REMAIN FULLY OPERATIONAL AT ALL TIMES.

NOTE:
EXISTING BACKPLATES FOR ALL OVERHEAD SIDE STREET SIGNAL HEADS TO BE REPLACED WITH REFLECTORIZED BACK PLATES.

NOTE:
RL: EXISTING SIGNAL ITEM RELOCATED FROM EXISTING INSTALLATION TO PROPOSED MA OR POST.

DELTA ENGINEERING GROUP, LLC
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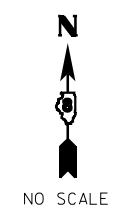
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PLOT SCALE = \$SCALES	DRAWN - NS	REVISED -
PLOT DATE = \$DATES	CHECKED - MA	REVISED -
	DATE - 03/01/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL MODIFICATION PLAN
ILL ROUTE 159 AND ROSEWOOD VILLAGE DRIVE

F.A.P. RTE. 600	SECTION (130, 130-1, 130-2) TS-3, 82-5TS	COUNTY ST. CLAIR	TOTAL SHEETS 74	SHEET NO. 55
CONTRACT NO. 76R78				
ILLINOIS FED. AID PROJECT CMAQ-HSP-445N (249)				

SCALE: NTS SHEET OF SHEETS STA. TO STA.

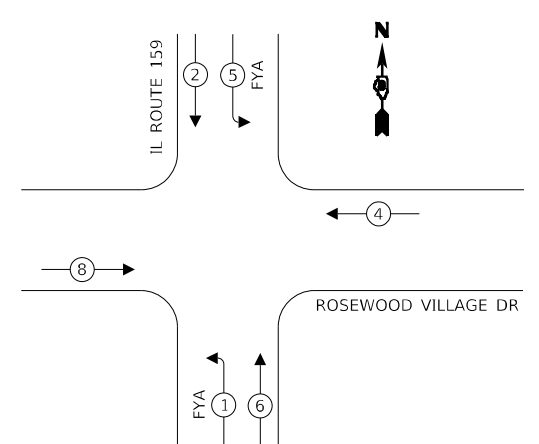


TRAFFIC SIGNAL LEGEND

- PROP. TRAFFIC SIGNAL CONTROLLER
- PROP. GROUNDING
- PROP. NO. OF CONDUCTORS IN CABLE
- PROP. 12" SIGNAL HEAD
- EX. VEHICLE DETECTOR, INDUCTION LOOP
- EX. NO. OF CONDUCTORS IN CABLE
- EX. 12" SIGNAL HEAD
- EX. GROUND MOUNT SERVICE
- EX. GROUNDING
- EX. EMERGENCY VEHICLE PREEMPTION

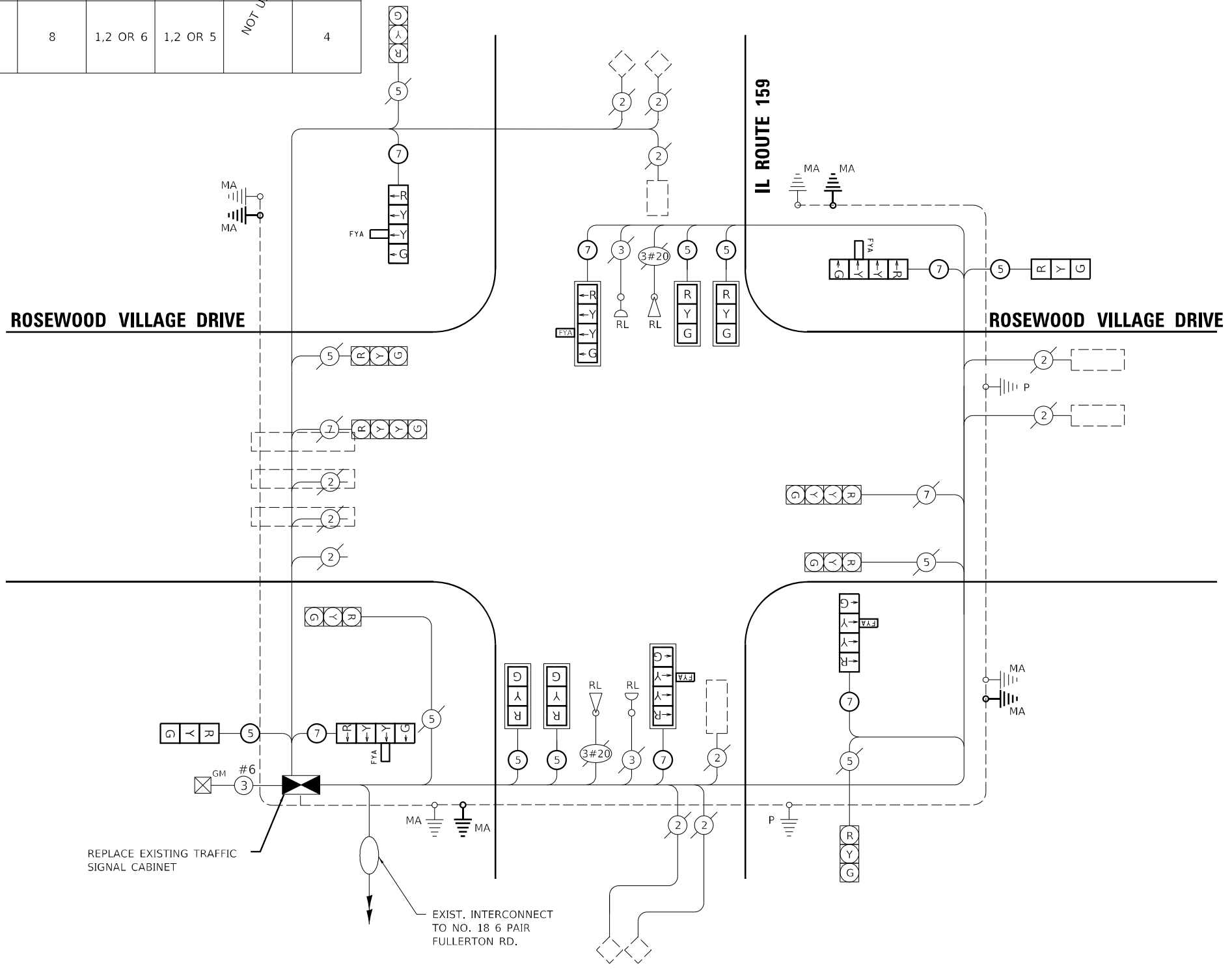
SEQUENCE OF OPERATION								
PHASE	1	2	3	4	5	6	7	8
MOVEMENT	NB LT	SB	NOT USED	WB	SB LT	NB	NOT USED	EB
CONCURRENT MOVEMENT ALLOWED	2.5 OR 6	1.5 OR 6	NOT USED	8	1.2 OR 6	1.2 OR 5	NOT USED	4

EXISTING CONTROLLER SEQUENCE



SUMMARY OF QUANTITIES

ITEM	UNIT	TOTAL
RELOCATE SIGN PANEL - TYPE 1	SQ. FT.	35
UNDERGROUND CONDUIT, PVC, 3" DIA.	FOOT	20
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	840
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	1100
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	1155
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	35
STEEL MAST ARM ASSEMBLY AND POLE, 42 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 52 FT.	EACH	1
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	28
DRILL EXISTING HANDHOLE	EACH	2
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	4
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 4-SECTION, BRACKET MOUNTED	EACH	4
SIGNAL HEAD, LED, 1-FACE, 4-SECTION, MAST ARM MOUNTED	EACH	2
TRAFFIC SIGNAL BACKPLATE, RETROREFLECTIVE	EACH	6
RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING CABLE FROM CONDUIT	EACH	500
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	2
EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	815



CABLE PLAN
(NOT TO SCALE)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL CABLE PLAN
IL ROUTE 159 AND ROSEWOOD VILLAGE DRIVE

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	(130, 130-1, 130-2) TS-3, 82-5TS	ST. CLAIR	74	56
CONTRACT NO. 76R78				
ILLINOIS FED. AID PROJECT CMAQ-H5IP-445N (249)				

DELTA ENGINEERING GROUP, LLC
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USER NAME = \$USERS	DESIGNED - MA	REVISED -
PLOT SCALE = \$SCALES	DRAWN - NS	REVISED -
PLOT DATE = \$DATES	CHECKED - MA	REVISED -
	DATE - 03/01/2024	REVISED -

SCALE: NTS SHEET OF SHEETS STA. TO STA.



SOIL BORING LOG

Page 1 of 1

Date 9/22/23

ROUTE FAP 600 (IL 159) DESCRIPTION IL 159 & Rosewood Village Drive LOGGED BY KEG - MTH

SECTION (130, 130-1, 130-2)TS-3 LOCATION SEC. TWP. RNG. 3 PM

COUNTY St. Clair DRILLING METHOD HSA HAMMER TYPE Auto

STRUCT. NO. Station	D E P T H	B L O W S	U C S Qu	M O I S T	Surface Water Elev.		
					ft	ft	
2.5" Asphalt						n/a	
8.5" Concrete							
Brown Clayey Silt, hard	4						
	10	4.5	17				
	9	P					
Brown Silty Clay	1						
	2	1.5	22				
	4	P					
	1						
	3	0.61	23				
	3	S					
	1						
	1	1.75	21				
	3	P					
	1						
	3	2.25	18				
	3	P					
as above	1						
	3	2.75	19				
	4	P					
End of Boring							

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
 BBS, from 137 (Rev. 8-99)

SOIL BORING No. 1



SOIL BORING LOG

Page 1 of 1

Date 9/22/23

ROUTE FAP 600 (IL 159) DESCRIPTION IL 159 & Rosewood Village Drive LOGGED BY KEG - MTH

SECTION (130, 130-1, 130-2)TS-3 LOCATION SEC. TWP. RNG. 3 PM

COUNTY St. Clair DRILLING METHOD HSA HAMMER TYPE Auto

STRUCT. NO. Station	D E P T H	B L O W S	U C S Qu	M O I S T	Surface Water Elev.		
					ft	ft	
2.5" Asphalt						n/a	
8.5" Concrete							
Brown Silt	5						
	7	2	20				
	6	P					
	1						
	3	1.25	17				
	4	P					
	1						
	2	1.25	22				
	2	P					
	1						
	2	1.25	22				
	3	P					
as above	1						
	2	1.25	22				
	3	P					
	1						
	1	2.5	23				
	2	P					
	1						
	1	1.18	21				
	2	B					
Brown Clayey Silt	1						
	2						
Brown Silty Clay	1						
	2	1.4	20				
	4	B					
End of Boring							

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
 The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T206)
 BBS, from 137 (Rev. 8-99)

SOIL BORING No. 2

MODEL: 440BDELNAMES
 FILE: 440BDELNAMES_SHEETS



USER NAME = \$USERS	DESIGNED - MA	REVISED -
PLOT SCALE = \$SCALES	CHECKED - MA	REVISED -
PLOT DATE = \$DATES	DATE - 03/01/2024	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

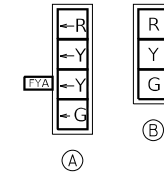
SCALE: NTS		SHEET OF SHEETS		STA. TO STA.	
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	(130, 130-1, 130-2)TS-3, 82-5TS	ST. CLAIR	74	57
CONTRACT NO. 76R78				
ILLINOIS FED. AID PROJECT CMAQ-H5IP445N (249)				

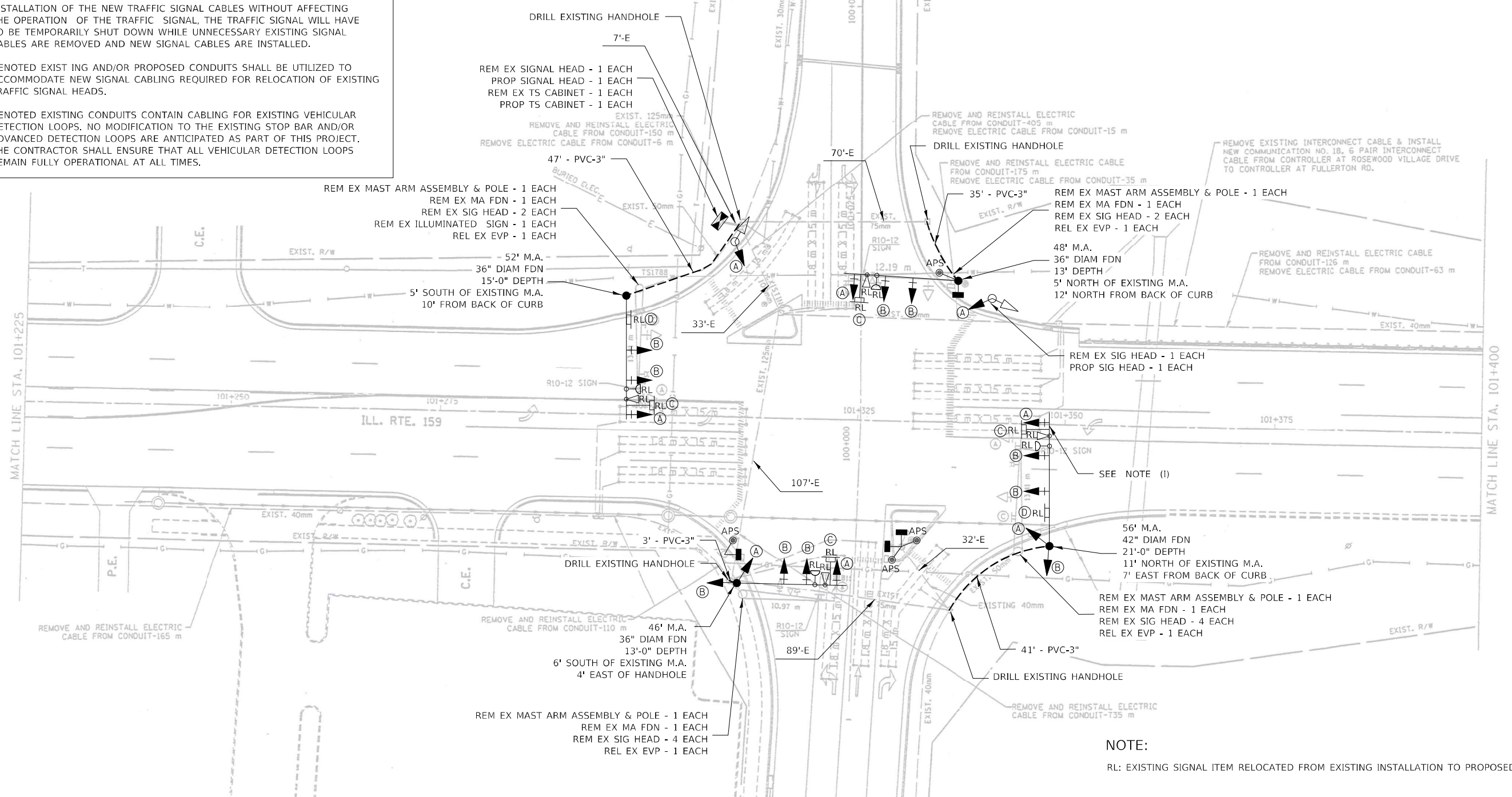
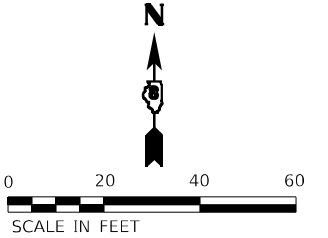
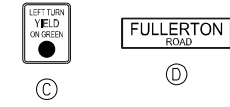
NOTES:

1. CONDUIT LENGTH DIMENSIONS SHOWN IN CALLOUT ARE CORRECT BASED ON FIELD MEASUREMENTS. LINE LENGTHS MAY NOT BE ACCURATE.
2. PROPOSED MA LOCATIONS SHOWN WITH APPROXIMATE OFFSETS FROM EXISTING INFRASTRUCTURE. CONTRACTOR SHALL FIELD VERIFY THE FINAL MA LOCATIONS WITH THE ENGINEER BEFORE DRILLING.
3. ALL UTILITIES PRESENT MAY NOT BE SHOWN. ALL UTILITIES SHOWN ARE APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATION, PROTECTION, AND COORDINATION OF EXISTING UTILITIES.
4. ALL UNUSED AND/OR UNNECESSARY TRAFFIC SIGNAL CABLES SHALL BE COMPLETELY REMOVED FROM THE EXISTING CONDUIT SYSTEM, IF POSSIBLE, TO ENSURE ADEQUATE CONDUIT CAPACITY. ALL UNUSED CONDUITS SHALL BE REMOVED OR ABANDONED.
5. PRIOR TO INSTALLING NEW TRAFFIC SIGNAL CABLES WITHIN EXISTING CONDUITS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING IF NEW TRAFFIC SIGNAL CABLES CAN BE PULLED THROUGHOUT PERTINENT CONDUIT SEGMENTS WITHOUT AFFECTING THE OPERATION OF THE TRAFFIC SIGNAL. IF EXISTING CONDUIT CAPACITIES WILL PREVENT THE INSTALLATION OF THE NEW TRAFFIC SIGNAL CABLES WITHOUT AFFECTING THE OPERATION OF THE TRAFFIC SIGNAL, THE TRAFFIC SIGNAL WILL HAVE TO BE TEMPORARILY SHUT DOWN WHILE UNNECESSARY EXISTING SIGNAL CABLES ARE REMOVED AND NEW SIGNAL CABLES ARE INSTALLED.
6. DENOTED EXISTING AND/OR PROPOSED CONDUITS SHALL BE UTILIZED TO ACCOMMODATE NEW SIGNAL CABLING REQUIRED FOR RELOCATION OF EXISTING TRAFFIC SIGNAL HEADS.
7. DENOTED EXISTING CONDUITS CONTAIN CABLING FOR EXISTING VEHICULAR DETECTION LOOPS. NO MODIFICATION TO THE EXISTING STOP BAR AND/OR ADVANCED DETECTION LOOPS ARE ANTICIPATED AS PART OF THIS PROJECT. THE CONTRACTOR SHALL ENSURE THAT ALL VEHICULAR DETECTION LOOPS REMAIN FULLY OPERATIONAL AT ALL TIMES.

PROPOSED TRAFFIC SIGNAL FACES



EXISTING TRAFFIC SIGNAL FACES



NOTE:

RL: EXISTING SIGNAL ITEM RELOCATED FROM EXISTING INSTALLATION TO PROPOSED MA OR POST.

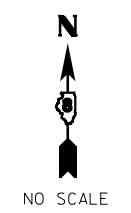
DELTA ENGINEERING GROUP, LLC
 111 W JACKSON BLVD, SUITE 910
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USER NAME = \$USERS	DESIGNED - MA	REVISED -
PLOT SCALE = \$SCALE\$	DRAWN - NS	REVISED -
PLOT DATE = \$DATE\$	CHECKED - MA	REVISED -
	DATE - 03/01/2024	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

TRAFFIC SIGNAL MODIFICATION PLAN IL ROUTE 159 AND FULLERTON ROAD	
SCALE: NTS	SHEET OF SHEETS STA. TO STA.

F.A.P. RTE. 600	SECTION (130, 130-1, 130-2) TS-3, 82-5TS	COUNTY ST. CLAIR	TOTAL SHEETS 74	SHEET NO. 58
CONTRACT NO. 76R78				
ILLINOIS FED. AID PROJECT CMAQ-H5IP445N (249)				



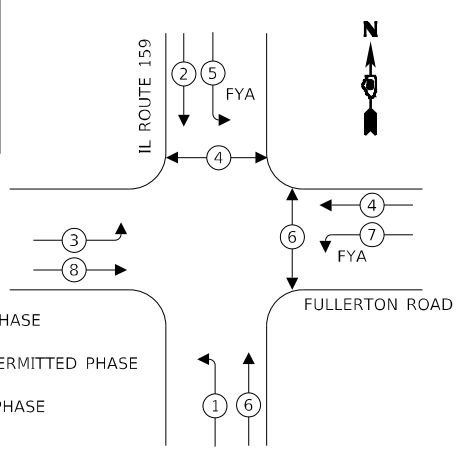
TRAFFIC SIGNAL LEGEND

- PROP. TRAFFIC SIGNAL CONTROLLER
- PROP. GROUNDING
- PROP. NO. OF CONDUCTORS IN CABLE
- PROP. 12" SIGNAL HEAD
- EX. VEHICLE DETECTOR, INDUCTION LOOP
- EX. NO. OF CONDUCTORS IN CABLE
- EX. 12" SIGNAL HEAD
- EX. GROUND MOUNT SERVICE
- EX. GROUNDING
- EX. EMERGENCY VEHICLE PREEMPTION

SEQUENCE OF OPERATION								
PHASE	1	2	3	4	5	6	7	8
MOVEMENT	NB LT	SB	EB LT	WB	SB LT	NB	WB LT	EB
CONCURRENT MOVEMENT ALLOWED	2,5 OR 6	1,5 OR 6	4,7 OR 8	3,7 OR 8	1,2 OR 6	1,2 OR 5	3,4 OR 8	3,4 OR 7

* PEDESTRIAN MOVEMENT DISPLAYED UPON ACTIVATION ONLY

EXISTING CONTROLLER SEQUENCE



LEGEND:

- PROTECTED PHASE
- PROTECTED/PERMITTED PHASE
- PEDESTRIAN PHASE
- OVERLAP

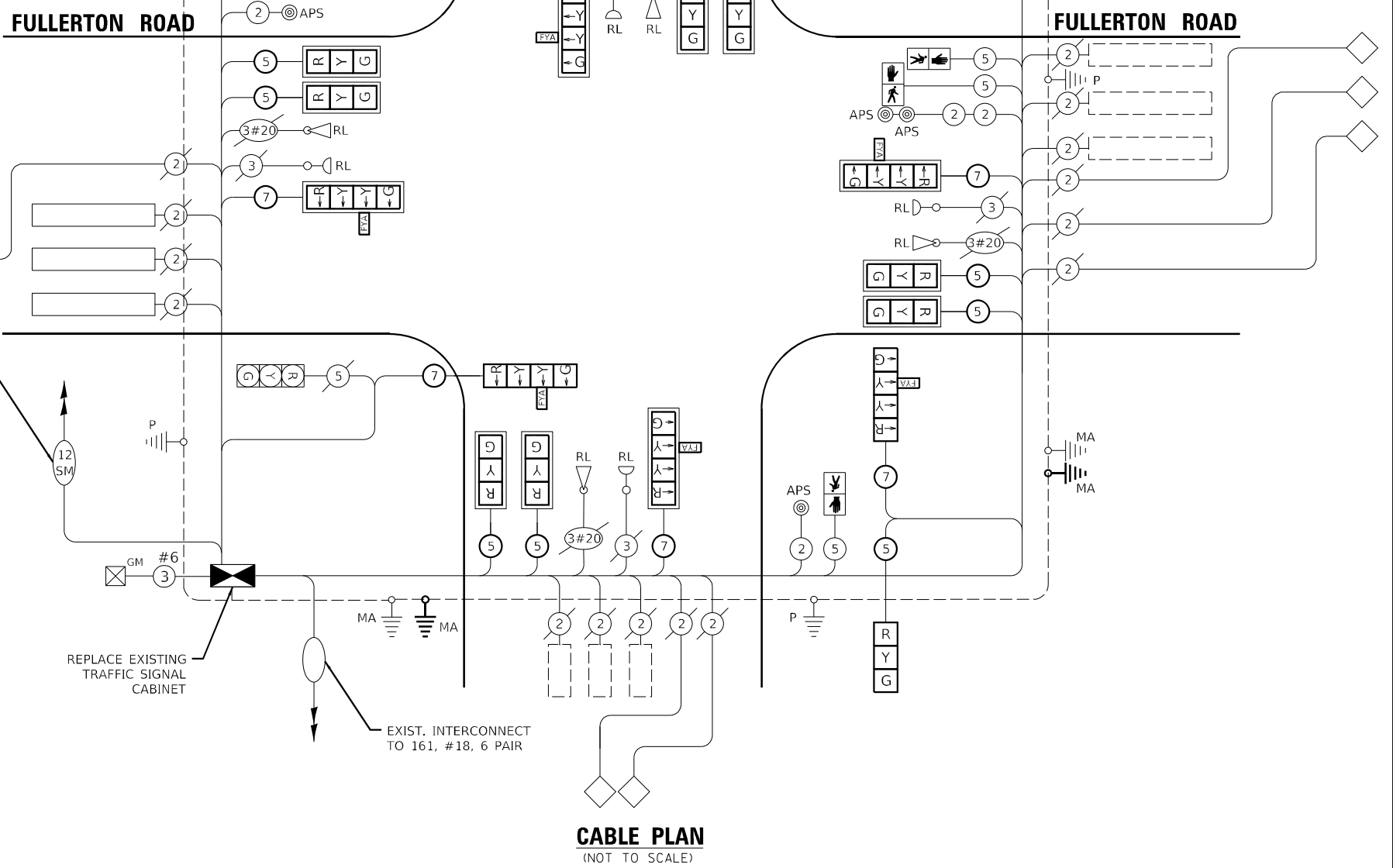
SUMMARY OF QUANTITIES

ITEM	UNIT	TOTAL
RELOCATE SIGN PANEL - TYPE 1	SQ FT	50
UNDERGROUND CONDUIT, PVC, 3" DIA.	FOOT	126
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET	EACH	1
UNINTERRUPTABLE POWER SUPPLY, EXTENDED	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	1200
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	1900
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	2300
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	1700
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	150
STEEL MAST ARM ASSEMBLY AND POLE, 46 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 48 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 52 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 56 FT.	EACH	1
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	41
CONCRFTF FOUNDATION, TYPF F 42-INCH DIAMFTER	FOOT	21
DRILL EXISTING HANDHOLE	EACH	4
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	8
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 4-SECTION, BRACKET MOUNTED	EACH	4
SIGNAL HEAD, LED, 1-FACE, 4-SECTION, MAST ARM MOUNTED	EACH	4
PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	2
PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	1
TRAFFIC SIGNAL BACKPLATE, RETROREFLECTIVE	EACH	12
RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING CABLE FROM CONDUIT	EACH	500
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	4
EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	1900
ACCESSIBLE PEDESTRIAN SIGNALS	EACH	4

EXIST. INTERCONNECT TO ROSEWOOD VILLAGE DRIVE, #18, 6 PAIR

FULLERTON ROAD

IL ROUTE 159



CABLE PLAN
(NOT TO SCALE)

MODEL: 4400RELENAME
FILE: 4400RELENAME_SHEETS

DELTA ENGINEERING GROUP, LLC
CONSULTING ENGINEERS, ARCHITECTS, PLANNERS, ENVIRONMENTAL SCIENTISTS
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PLOT SCALE = \$SCALE\$	DRAWN - NS	REVISED -
PLOT DATE = \$DATE\$	CHECKED - MA	REVISED -
	DATE - 03/01/2024	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL CABLE PLAN
IL ROUTE 159 AND FULLERTON ROAD

SCALE: NTS SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	(130, 130-1, 130-2) TS-3, 82-5TS	ST. CLAIR	74	59
CONTRACT NO. 76R78				
ILLINOIS FED. AID PROJECT CMAQ-HSP-445N (249)				



Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Page 1 of 1

Date 5/14/86

ROUTE FAP 600 DESCRIPTION Traffic Signals at IL 159 and Fullerton Rd in Swansea LOGGED BY J. King

SECTION 130TS-1 LOCATION NE 1/4, SEC. 16, TWP. 1N, RNG. 8W, 3 PM

COUNTY St. Clair DRILLING METHOD Hand Auger HAMMER TYPE

STRUCT. NO.	DEP	BLO	UCS	MOS	Surface Water Elev.	DEP	BLO	UCS	MOS
Station	T	S	Qu	T	ft	T	S	Qu	T
BORING NO.	H	W	(tsf)	(%)	ft	H	S	(tsf)	(%)
1									
Station 99+48									
Offset 43.00ft L									
Ground Surface Elev. 532.5	(ft)	(/6")	(tsf)	(%)		(ft)	(/6")	(tsf)	(%)
Brown and Gray SILT (FILL)			1.0	17					
			1.0	19					
			1.0	22					
524.5			0.75	26					
Gray and Brown SILT			0.75	24					
519.5			1.5	19					
Brown and Gray Clay TILL									
516.5									
END OF BORING									

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T208)
BBS, from 137 (Rev. 8-99)

SOIL BORING No. 1



Illinois Department of Transportation
Division of Highways
Illinois Department of Transportation

SOIL BORING LOG

Page 1 of 1

Date 5/14/86

ROUTE FAP 600 DESCRIPTION Traffic Signals at IL 159 and Fullerton Rd in Swansea LOGGED BY J. King

SECTION 130TS-1 LOCATION NE 1/4, SEC. 16, TWP. 1N, RNG. 8W, 3 PM

COUNTY St. Clair DRILLING METHOD Hand Auger HAMMER TYPE

STRUCT. NO.	DEP	BLO	UCS	MOS	Surface Water Elev.	DEP	BLO	UCS	MOS
Station	T	S	Qu	T	ft	T	S	Qu	T
BORING NO.	H	W	(tsf)	(%)	ft	H	S	(tsf)	(%)
1									
Station 99+48									
Offset 43.00ft L									
Ground Surface Elev. 532.5	(ft)	(/6")	(tsf)	(%)		(ft)	(/6")	(tsf)	(%)
Brown and Gray SILT (FILL)			1.0	17					
			1.0	19					
			1.0	22					
524.5			0.75	26					
Gray and Brown SILT			0.75	24					
519.5			1.5	19					
Brown and Gray Clay TILL									
516.5									
END OF BORING									

The Unconfined Compressive Strength (UCS) Failure Mode is indicated by (B-Bulge, S-Shear, P-Penetrometer)
The SPT (N value) is the sum of the last two blow values in each sampling zone (AASHTO T208)
BBS, from 137 (Rev. 8-99)

SOIL BORING No. 2

MODEL NUMBER
FILE NUMBER

DELTA ENGINEERING GROUP, LLC
CONSULTING ENGINEERS, ARCHITECTS, PLANNERS, SURVEYORS
111 W JACKSON BLVD, SUITE 910
CHICAGO, IL 60604
T 312.377.7700, F 312.427.6145

USER NAME = \$USERS	DESIGNED - MA	REVISED -
DRAWN - NS	CHECKED - MA	REVISED -
PLOT SCALE = \$SCALES	DATE - 03/01/2024	REVISED -
PLOT DATE = \$DATES		

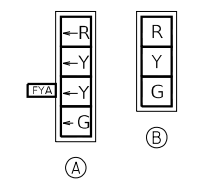
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SOIL BORING	
IL ROUTE 159 AND FULLERTON ROAD	
SCALE: NTS	SHEET OF SHEETS STA. TO STA.

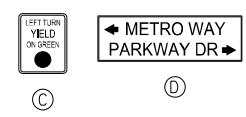
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	(130, 130-1, 130-2) TS-3, 82-5TS	ST. CLAIR	74	60
CONTRACT NO. 76R78				
ILLINOIS FED. AID PROJECT CMAQ-H5IP-445N (249)				

- NOTES:**
1. CONDUIT LENGTH DIMENSIONS SHOWN IN CALLOUT ARE CORRECT BASED ON FIELD MEASUREMENTS. LINE LENGTHS MAY NOT BE ACCURATE.
 2. PROPOSED MA LOCATIONS SHOWN WITH APPROXIMATE OFFSETS FROM EXISTING INFRASTRUCTURE. CONTRACTOR SHALL FIELD VERIFY THE FINAL MA LOCATIONS WITH THE ENGINEER BEFORE DRILLING.
 3. ALL UTILITIES PRESENT MAY NOT BE SHOWN. ALL UTILITIES SHOWN ARE APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATION, PROTECTION, AND COORDINATION OF EXISTING UTILITIES.
 4. ALL UNUSED AND/OR UNNECESSARY TRAFFIC SIGNAL CABLES SHALL BE COMPLETELY REMOVED FROM THE EXISTING CONDUIT SYSTEM, IF POSSIBLE, TO ENSURE ADEQUATE CONDUIT CAPACITY. ALL UNUSED CONDUITS SHALL BE REMOVED OR ABANDONED.
 5. PRIOR TO INSTALLING NEW TRAFFIC SIGNAL CABLES WITHIN EXISTING CONDUITS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING IF NEW TRAFFIC SIGNAL CABLES CAN BE PULLED THROUGHOUT PERTINENT CONDUIT SEGMENTS WITHOUT AFFECTING THE OPERATION OF THE TRAFFIC SIGNAL. IF EXISTING CONDUIT CAPACITIES WILL PREVENT THE INSTALLATION OF THE NEW TRAFFIC SIGNAL CABLES WITHOUT AFFECTING THE OPERATION OF THE TRAFFIC SIGNAL, THE TRAFFIC SIGNAL WILL HAVE TO BE TEMPORARILY SHUT DOWN WHILE UNNECESSARY EXISTING SIGNAL CABLES ARE REMOVED AND NEW SIGNAL CABLES ARE INSTALLED.
 6. DENOTED EXISTING AND/OR PROPOSED CONDUITS SHALL BE UTILIZED TO ACCOMMODATE NEW SIGNAL CABLING REQUIRED FOR RELOCATION OF EXISTING TRAFFIC SIGNAL HEADS.
 7. DENOTED EXISTING CONDUITS CONTAIN CABLING FOR EXISTING VEHICULAR DETECTION LOOPS. NO MODIFICATION TO THE EXISTING STOP BAR AND/OR ADVANCED DETECTION LOOPS ARE ANTICIPATED AS PART OF THIS PROJECT. THE CONTRACTOR SHALL ENSURE THAT ALL VEHICULAR DETECTION LOOPS REMAIN FULLY OPERATIONAL AT ALL TIMES.

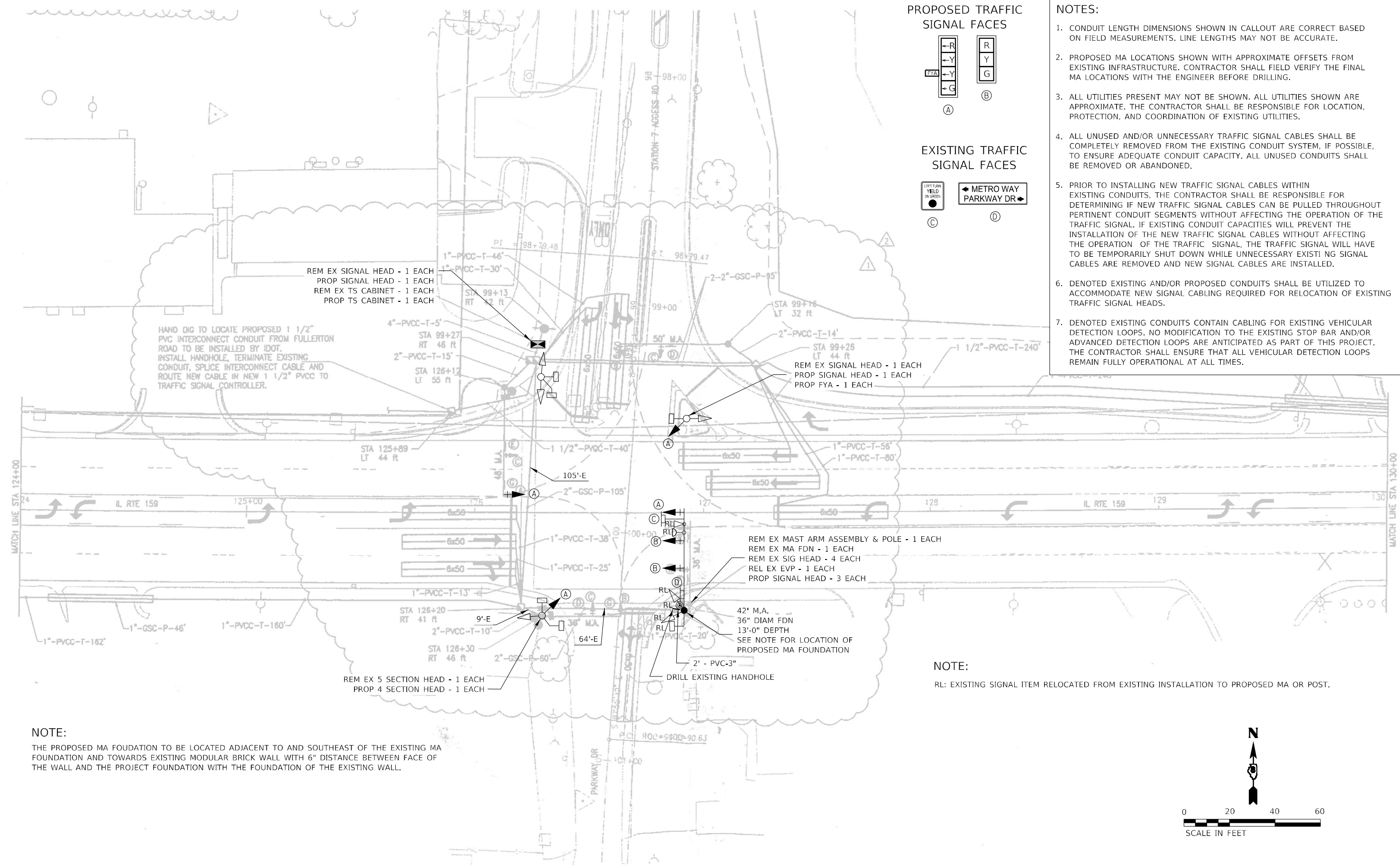
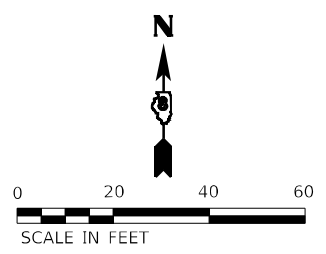
PROPOSED TRAFFIC SIGNAL FACES



EXISTING TRAFFIC SIGNAL FACES



NOTE:
RL: EXISTING SIGNAL ITEM RELOCATED FROM EXISTING INSTALLATION TO PROPOSED MA OR POST.



NOTE:
THE PROPOSED MA FOUNDATION TO BE LOCATED ADJACENT TO AND SOUTHEAST OF THE EXISTING MA FOUNDATION AND TOWARDS EXISTING MODULAR BRICK WALL WITH 6" DISTANCE BETWEEN FACE OF THE WALL AND THE PROJECT FOUNDATION WITH THE FOUNDATION OF THE EXISTING WALL.

DELTA ENGINEERING GROUP, LLC
111 W JACKSON BLVD, SUITE 910
CHICAGO, IL 60604
T 312.377.7700, F 312.427.6145











USER NAME = \$USERS	DESIGNED - MA	REVISED -
PLOT SCALE = \$SCALES	DRAWN - NS	REVISED -
PLOT DATE = \$DATES	CHECKED - MA	REVISED -
	DATE - 03/01/2024	REVISED -

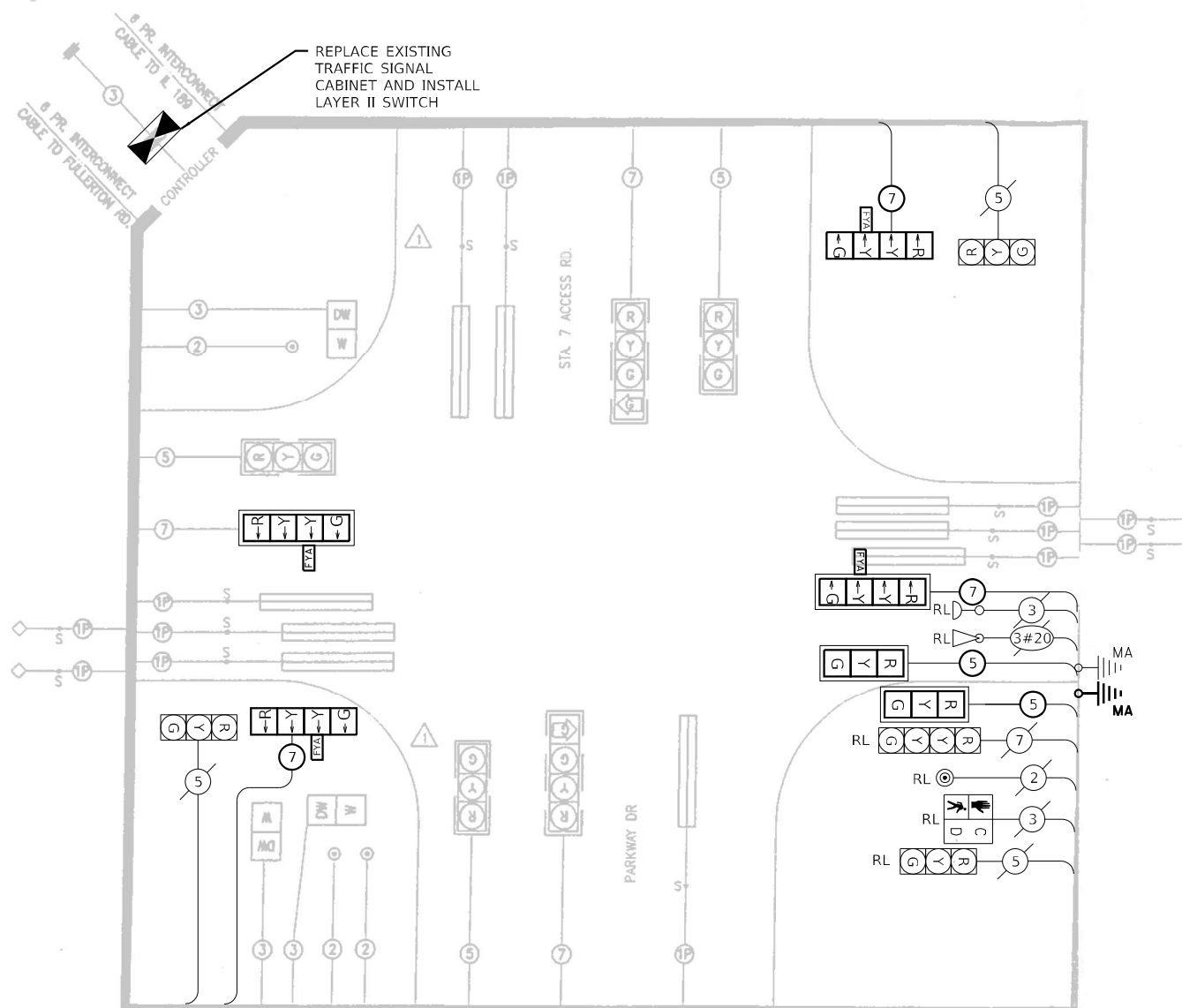
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

TRAFFIC SIGNAL MODIFICATION PLAN	
IL ROUTE 159 AND METRO WAY	
SCALE: NTS	SHEET OF SHEETS STA. TO STA.

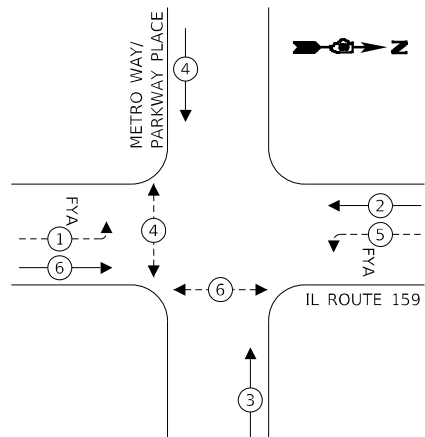
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	(130, 130-1, 130-2) TS-3, 82-5TS	ST. CLAIR	74	61
CONTRACT NO. 76R78				
ILLINOIS FED. AID PROJECT CMAQ-H5IP-445N (249)				

TRAFFIC SIGNAL LEGEND

-  PROP. TRAFFIC SIGNAL CONTROLLER
-  PROP. GROUNDING
-  PROP. NO. OF CONDUCTORS IN CABLE
-  PROP. 12" SIGNAL HEAD
-  EX. VEHICLE DETECTOR, INDUCTION LOOP
-  EX. NO. OF CONDUCTORS IN CABLE
-  EX. 12" SIGNAL HEAD
-  EX. GROUND MOUNT SERVICE
-  EX. GROUNDING
-  EX. EMERGENCY VEHICLE PREEMPTION



EXISTING CONTROLLER SEQUENCE









SUMMARY OF QUANTITIES

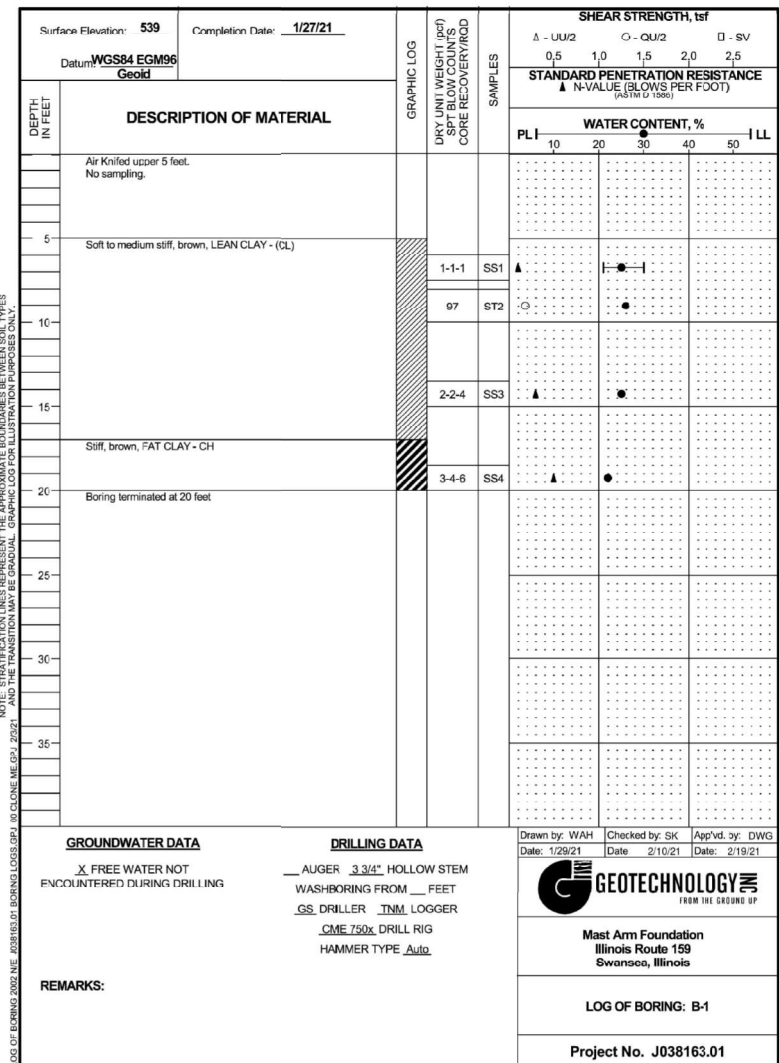
ITEM	UNIT	TOTAL
RELOCATE SIGN PANEL - TYPE 1	SQ FT	25
UNDERGROUND CONDUIT, PVC, 3" DIA.	FOOT	2
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	225
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	755
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	725
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	975
ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	FOOT	15
STEEL MAST ARM ASSEMBLY AND POLE, 42 FT.	EACH	1
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	13
DRILL EXISTING HANDHOLE	EACH	1
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 4-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 4-SECTION, MAST ARM MOUNTED	EACH	2
TRAFFIC SIGNAL BACKPLATE, RETROREFLECTIVE	EACH	4
RELOCATE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING CABLE FROM CONDUIT	EACH	500
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	1
EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	530

RL: EXISTING SIGNAL ITEM RELOCATED FROM EXISTING INSTALLATION TO PROPOSED MA OR POST.

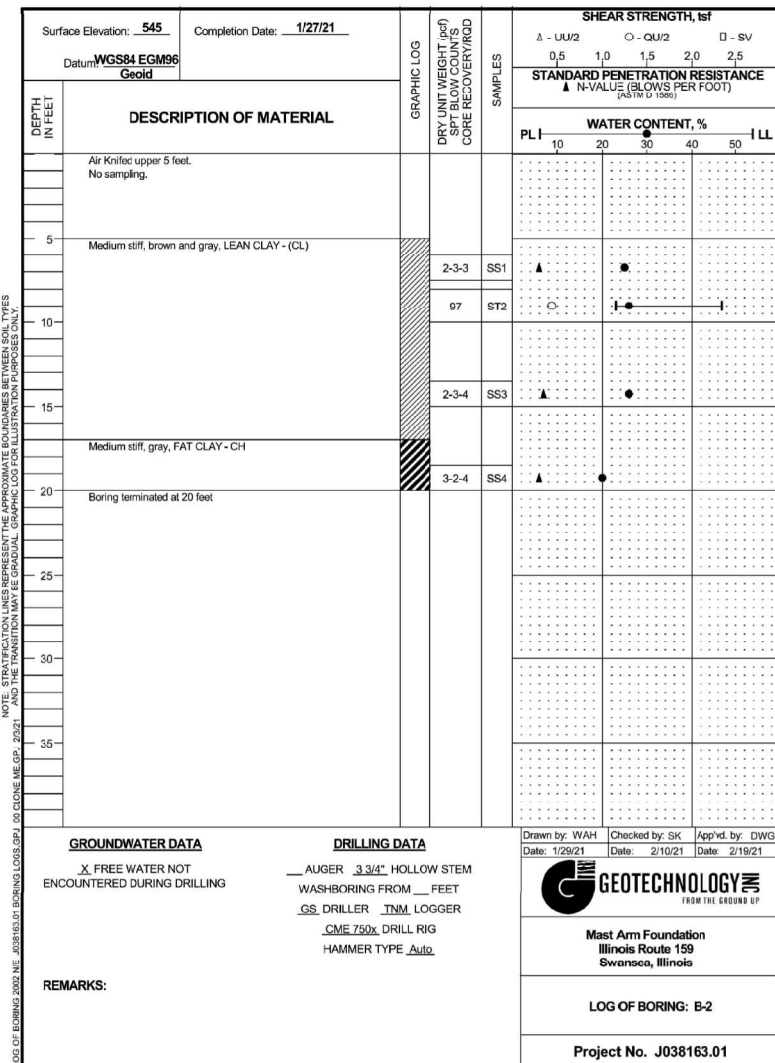
SEQUENCE OF OPERATION

PHASE	1	2	3	4	5	6	7	8
MOVEMENT							NOT USED	NOT USED
CONCURRENT MOVEMENT ALLOWED	2.5 OR 6	1.5 OR 6	4	3	1.2 OR 6	1.2 OR 5	NOT USED	NOT USED

* PEDESTRIAN MOVEMENT DISPLAYED UPON ACTIVATION ONLY



SOIL BORING No. 1



SOIL BORING No. 2

BORING LOG: TERMS AND SYMBOLS

LEGEND	
CS	Continuous Sampler
GB	Grab Sample
NQ	NQ Rock Core
PST	Three-Inch Diameter Piston Tube Sample
SS	Split-Spoon Sample (Standard Penetration Test)
ST	Three-Inch Diameter Shelby Tube Sample
*	Sample Not Recovered
PL	Plastic Limit (ASTM D4318)
LL	Liquid Limit (ASTM D4318)
SV	Shear Strength from Field Vane (ASTM D2573)
UU	Shear Strength from Unconsolidated-Undrained Triaxial Compression Test (ASTM D2850)
QU	Shear Strength from Unconfined Compression Test (ASTM D2166)

SOIL GRAIN SIZE					
US STANDARD SIEVE					
BOULDERS	COBBLES	GRAVEL	SAND	SILT	CLAY
		COARSE	FINE	COARSE	MEDIUM FINE
		300	75	4.75	2.00
				0.425	0.075
					0.0075

SOIL GRAIN SIZE IN MILLIMETERS

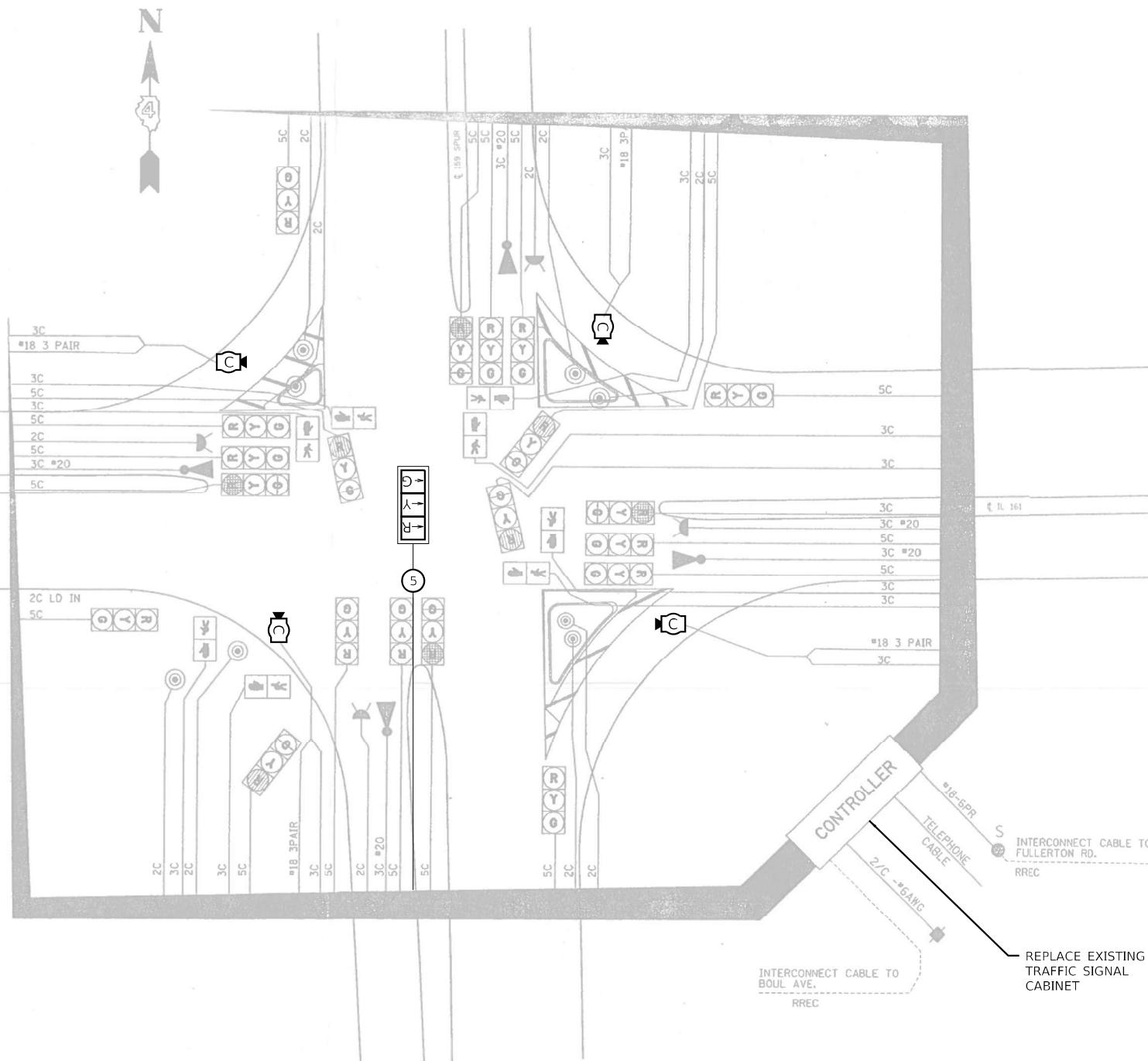
UNIFIED SOIL CLASSIFICATION SYSTEM			
Major Divisions	Symbol	Description	
Coarse-Grained Soils (More than 50% Larger than No. 200 Sieve Size)	Gravel and Gravelly Soil	Clean Gravels Little or no Fines Gravels with Appreciable Fines	GW Well-Graded Gravel, Gravel-Sand Mixture GP Poorly-Graded Gravel, Gravel-Sand Mixture GM Silty Gravel, Gravel-Sand-Silt Mixture GC Clayey-Gravel, Gravel-Sand-Clay Mixture
	Sand and Sandy Soils	Clean Sands Little or no Fines Sands with Appreciable Fines	SW Well-Graded Sand, Gravelly Sand SP Poorly-Graded Sand, Gravelly Sand SM Silty Sand, Sand-Silt Mixture SC Clayey-Sand, Sand-Clay Mixture
		Silts and Clays	Liquid Limit Less Than 50
	Liquid Limit Greater Than 50		MH Silt, High Plasticity CH Fat Clay, High Plasticity OH Organic Clay, Medium to High Plasticity PT Peat, Humus, Swamp Soil

STRENGTH OF COHESIVE SOILS			DENSITY OF GRANULAR SOILS	
Consistency	Undrained Shear Strength (tsf)	Unconfined Comp. Strength (tsf)	Descriptive Term	Approximate N ₆₀ -Value Range
Very Soft	less than 0.125	less than 0.25	Very Loose	0 to 4
Soft	0.125 to 0.25	0.25 to 0.5	Loose	5 to 10
Medium Stiff	0.25 to 0.5	0.5 to 1.0	Medium Dense	11 to 30
Stiff	0.5 to 1.0	1.0 to 2.0	Dense	31 to 50
Very Stiff	1.0 to 2.0	2.0 to 3.0	Very Dense	>50
Hard	greater than 2.0	greater than 4.0		

N-Value (Blow Count) is the last two, 6-inch drive increments (i.e. 4/7/9, N = 7 + 9 = 16). Values are shown as a summation on the grid plot and shown in the Unit Dry Weight/SPT column.

RELATIVE COMPOSITION		OTHER TERMS	
Trace	0 to 10%	Layer	- Inclusion greater than 3 inches thick.
Little	10 to 20%	Seam	- Inclusion 1/8-inch to 3 inches thick
Some	20 to 35%	Parting	- Inclusion less than 1/8-inch thick
And	35 to 50%	Pocket	- Inclusion of material that is smaller than sample diameter

Relative composition and Unified Soil Classification System (USCS) designations are based on visual descriptions and are approximate only. If laboratory tests were performed to classify the soil, the USCS designation is shown in parenthesis.



SUMMARY OF QUANTITIES

ITEM	UNIT	TOTAL
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET	EACH	1
UNINTERRUPTABLE POWER SUPPLY, EXTENDED	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	260
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	EACH	1
TRAFFIC SIGNAL BACKPLATE, RETROREFLECTIVE	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
VIDEO DETECTION SYSTEM	EACH	1

MODEL: 4400/DEL/NAME/MS
FILE: NAME: 01/25/24

DELTA ENGINEERING GROUP, LLC
CONSULTING ENGINEERS, ARCHITECTS, PLANNERS, ENVIRONMENTAL SCIENTISTS, SURVEYORS
111 W JACKSON BLVD, SUITE 910
CHICAGO, IL 60604
T 312.377.7700, F 312.427.6145

USER NAME = \$USERS	DESIGNED - MA	REVISED -
PLOT SCALE = \$SCALES	DRAWN - NS	REVISED -
PLOT DATE = \$DATES	CHECKED - MA	REVISED -
	DATE - 03/01/2024	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

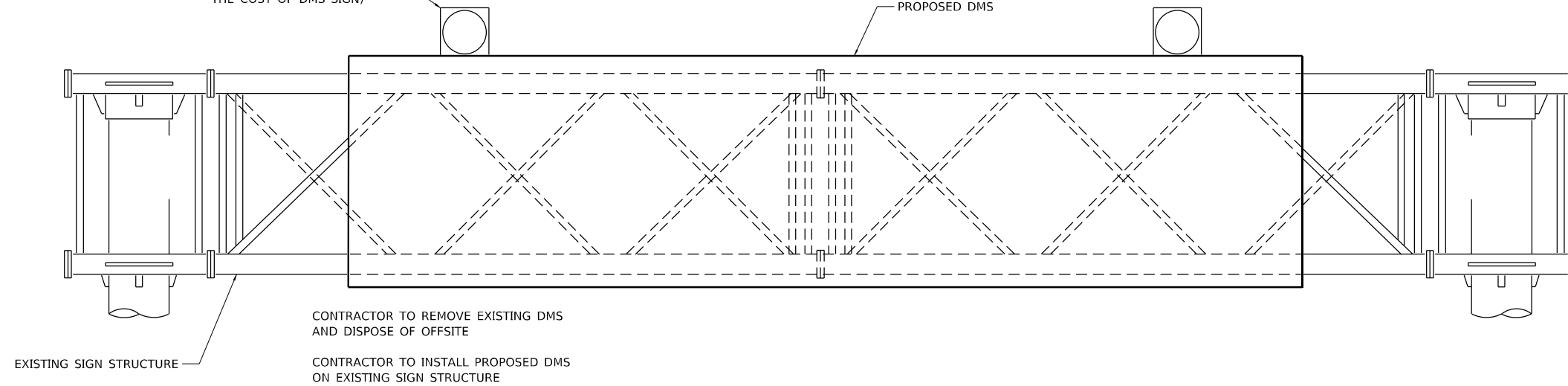
**TRAFFIC SIGNAL CABLE PLAN
IL ROUTE 159 AND IL 161**

SCALE: NTS SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	(130, 130-1, 130-2) TS-3, 82-5TS	ST. CLAIR	74	65
CONTRACT NO. 76R78				
ILLINOIS FED. AID PROJECT CMAQ-H5IP-445N (249)				

12" DIA. YELLOW LED FLASHING BEACON (TYP.)
WITH TUNNEL VISOR AND RETROREFLECTIVE
BACKPLATE TO BE FURNISHED AND INSTALLED
BY DMS SIGN MANUFACTURER (INCLUDED IN
THE COST OF DMS SIGN)

PROPOSED DMS



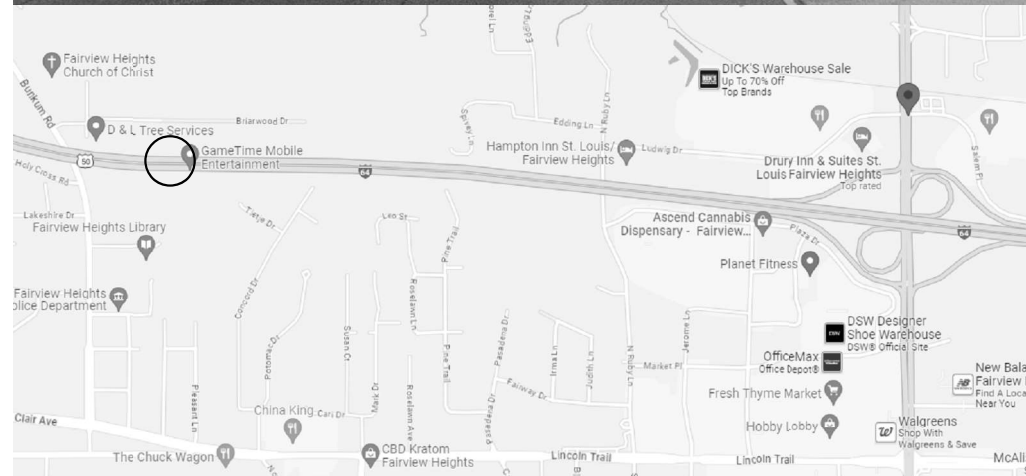
CONTRACTOR TO REMOVE EXISTING DMS
AND DISPOSE OF OFFSITE

CONTRACTOR TO INSTALL PROPOSED DMS
ON EXISTING SIGN STRUCTURE

ELEVATION

NOTE:
THE CONTRACTOR SHALL SUBMIT COMPLETE ELECTRICAL DESIGN DETAILS
AND CALCULATE SEALED BY AN ILLINOIS LICENSED ELECTRICAL AND
STRUCTURAL ENGINEER TO THE RESIDENT ENGINEER FOR REVIEW AND
APPROVAL PRIOR TO THE ORDERING OF ANY MATERIALS.

**SIGN STRUCTURES - ALTERNATIVE TRUSS DETAILS FOR DMS
ALUMINUM TRUSS AND STEEL POST**



SCHEDULE OF QUANTITIES

ITEM DESCRIPTION	UNIT	QTY.
CABINET, MODEL 334	EACH	1
TRUSS MOUNTED LED DYNAMIC MESSAGE SIGN	EACH	1

MODEL: Default
 FILE NAME: C:\Sharepoint\ITERIS, INC\Systems - Midwest - Chicago Construction\DOT_PFB_201-041_DB ITS\12082 - IL 130-Signal & Interconnect\CAD\Sheet Files\0812082_IL-Route 130_DMS.dgn



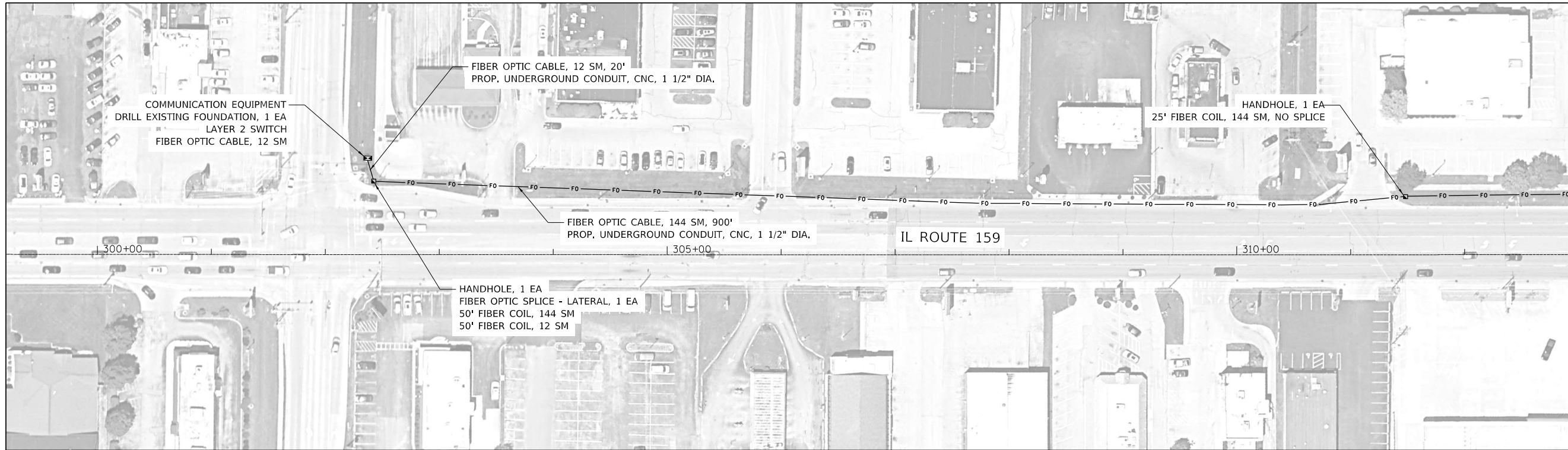
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	DATE - 11/7/23	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

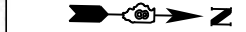
**TRUSS MOUNTED LED DYNAMIC MESSAGE SIGN (DMS)
WB I-64 MP 10.8**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	(130, 130-1, 130-2) TS-3, 82-5TS	ST. CLAIR	74	66
				CONTRACT NO. 76R78
				ILLINOIS FED. AID PROJECT

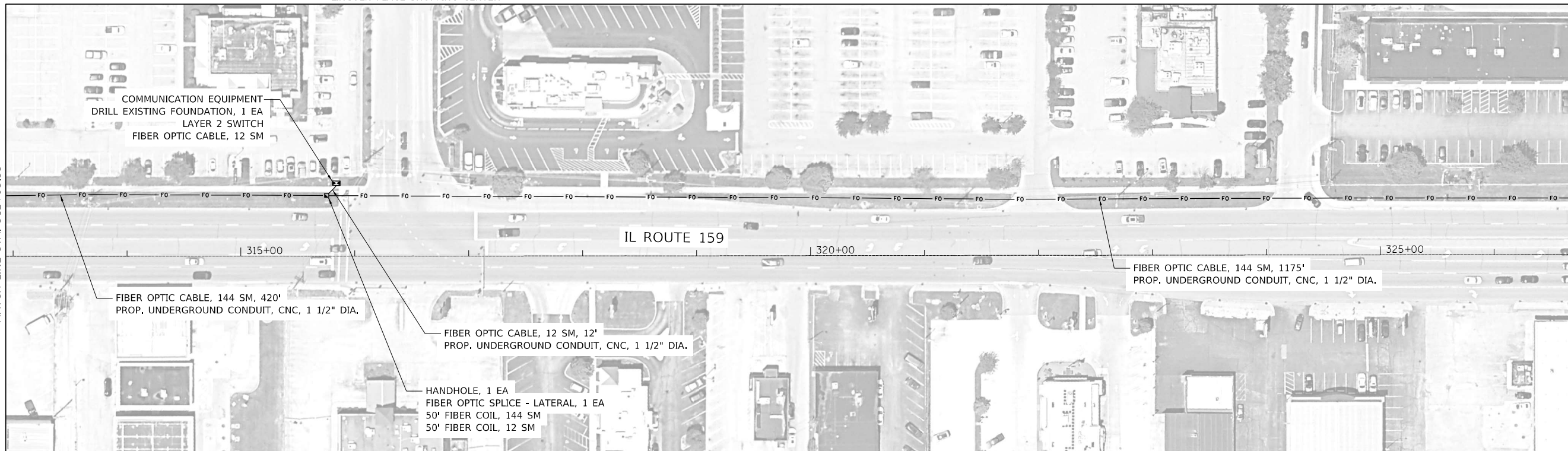


LONGACRE DR / ASHLAND AV



MATCH LINE STA. 312+93.55

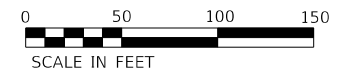
LINCOLN PLACE SHOPPING CENTER



MATCH LINE STA. 312+93.55



MATCH LINE STA. 326+67.44



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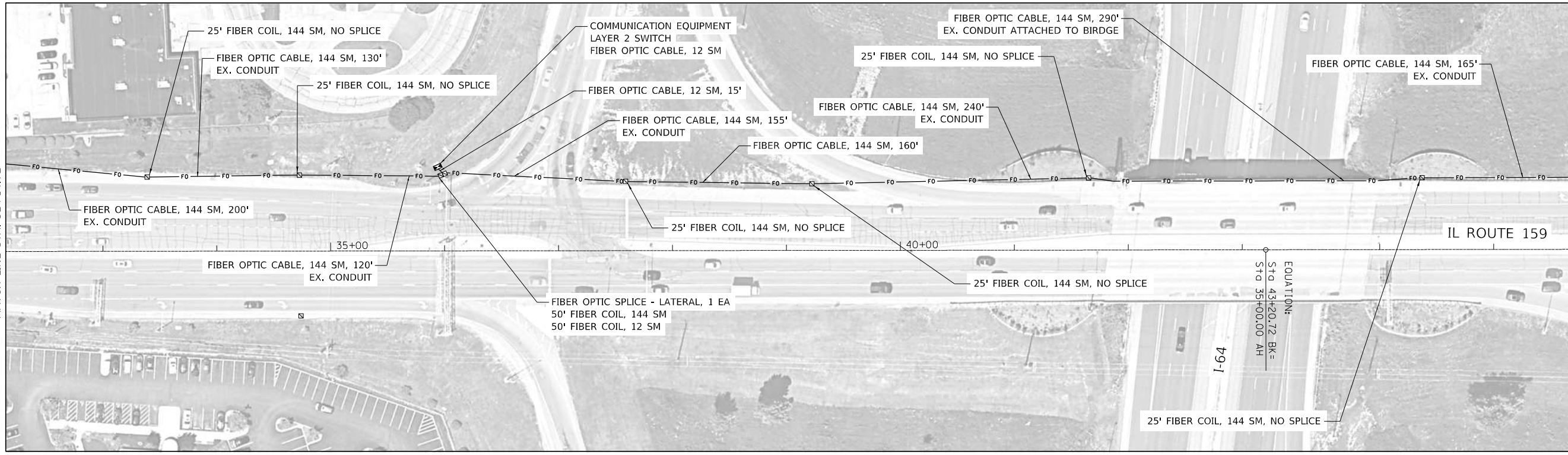
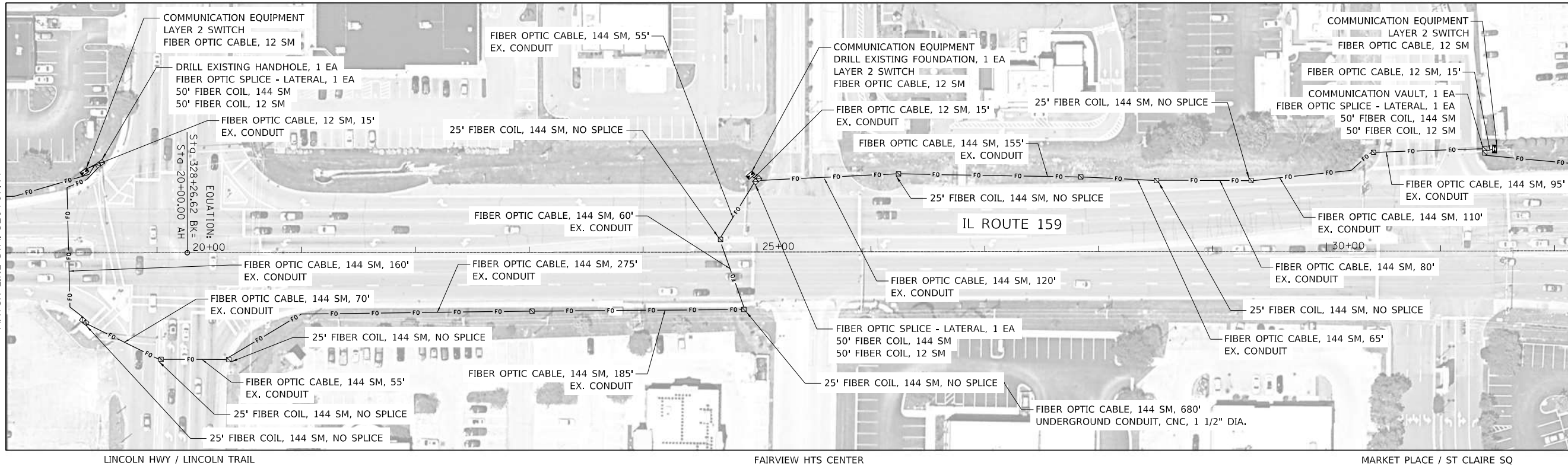
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	DATE - 11/6/23	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FIBER OPTIC INSTALLATION PLAN
IL ROUTE 159

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	(130, 130-1, 130-2) TS-3, 82-5TS	ST. CLAIR	74	67
CONTRACT NO. 76R78				
ILLINOIS		FED. AID PROJECT		



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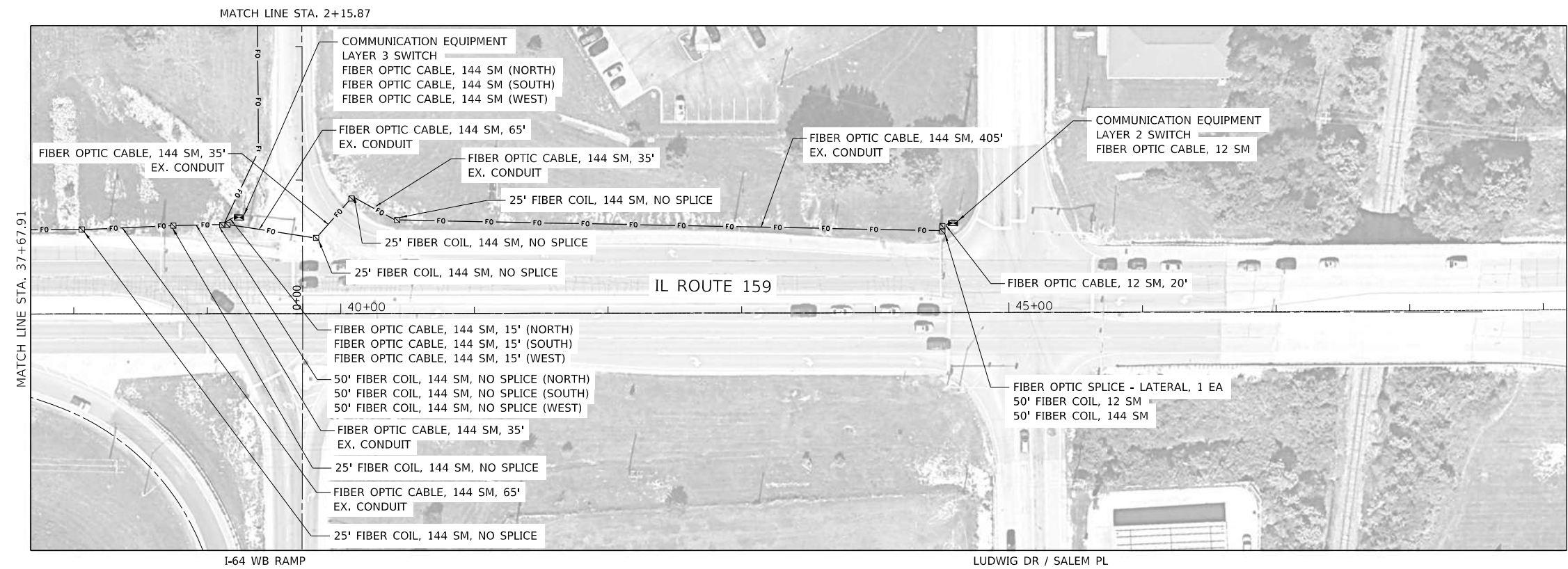


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DRAWN - BF	REVISED -	
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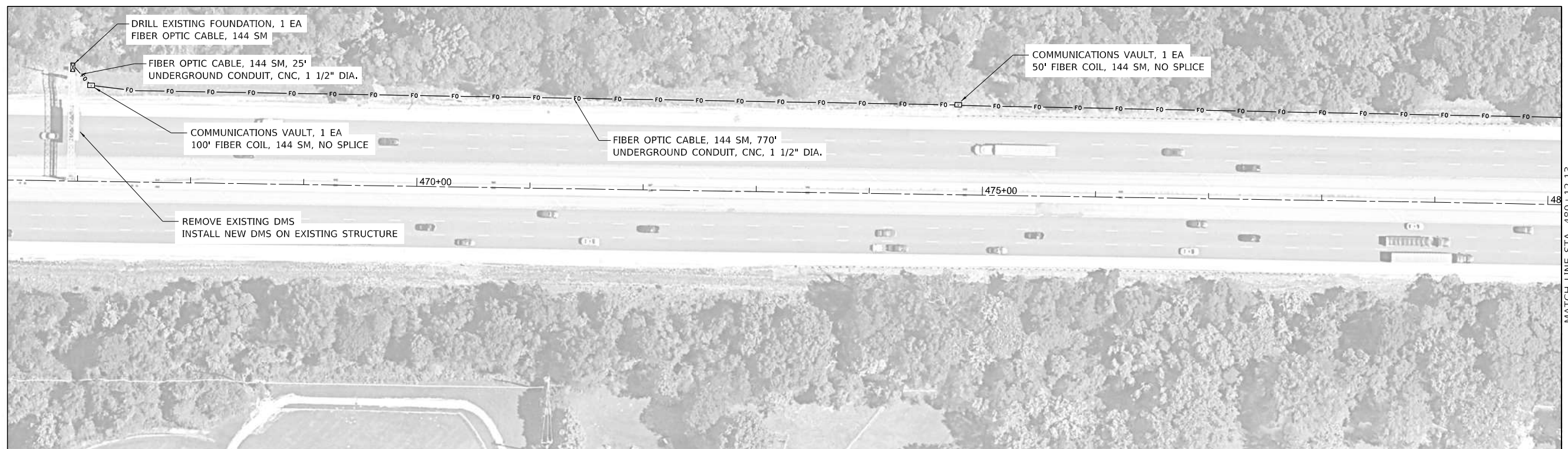
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

FIBER OPTIC INSTALLATION PLAN				
IL ROUTE 159				
SCALE:	SHEET	OF	SHEETS	STA. TO STA.

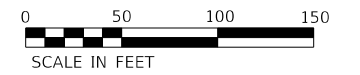
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	(130, 130-1, 130-2) TS-3, 82-5TS	ST. CLAIR	74	68
CONTRACT NO. 76R78				
ILLINOIS		FED. AID PROJECT		



PROJECT LIMIT



MATCH LINE STA. 480+12.13



MODEL: D:\draft\iteris\sharepoint\ITERIS\INC\System - Midwest - Chicago Construction\DOT_PFB_201-041_D8 ITS\12082 - IL 159_Signal & Interconnect\CADD\Sheet Files\0812082_IL-Route159_Fiber_SHT_03.dgn
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USER NAME = adanczyk	DESIGNED - BF	REVISED -
PLOT SCALE = 100,0000' / in.	DRAWN - BF	REVISED -
PLOT DATE = 2/6/2024	CHECKED - ASG	REVISED -
	DATE - 11/6/23	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**FIBER OPTIC INSTALLATION PLAN
IL ROUTE 159 - I-64**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	(130, 130-1, 130-2) TS-3, 82-5TS	ST. CLAIR	74	69
CONTRACT NO. 76R78				
ILLINOIS FED. AID PROJECT				



MATCH LINE STA. 480+12.13

MATCH LINE STA. 490+88.07



MATCH LINE STA. 490+88.07

MATCH LINE STA. 505+46.27



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USER NAME = adanczyk	DESIGNED - BF	REVISED -
DRAWN - BF	CHECKED - ASG	REVISED -
PLOT SCALE = 100,0000 ' / in.	DATE - 11/6/23	REVISED -
PLOT DATE = 2/6/2024		

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**FIBER OPTIC INSTALLATION PLAN
 I-64**

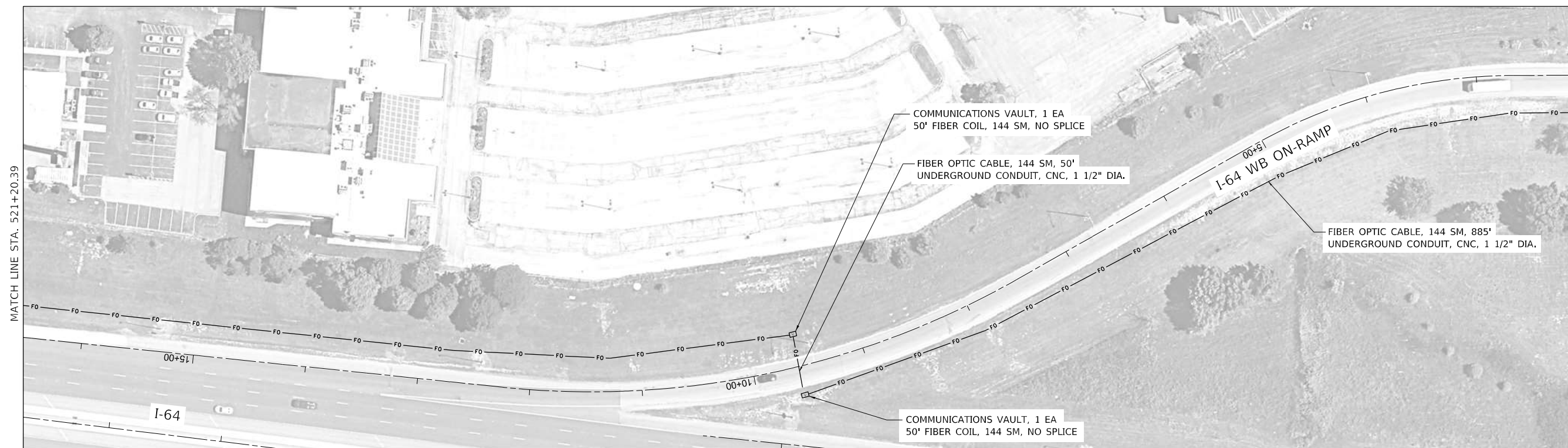
SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	(130, 130-1, 130-2) TS-3, 82-5TS	ST. CLAIR	74	70
ILLINOIS FED. AID PROJECT			CONTRACT NO. 76R78	



MATCH LINE STA. 505+46.27

MATCH LINE STA. 521+20.39



MATCH LINE STA. 521+20.39

MATCH LINE STA. 2+15.87



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USER NAME = adanczyk	DESIGNED - BF	REVISED -
DRAWN - BF	REVISIONS -	
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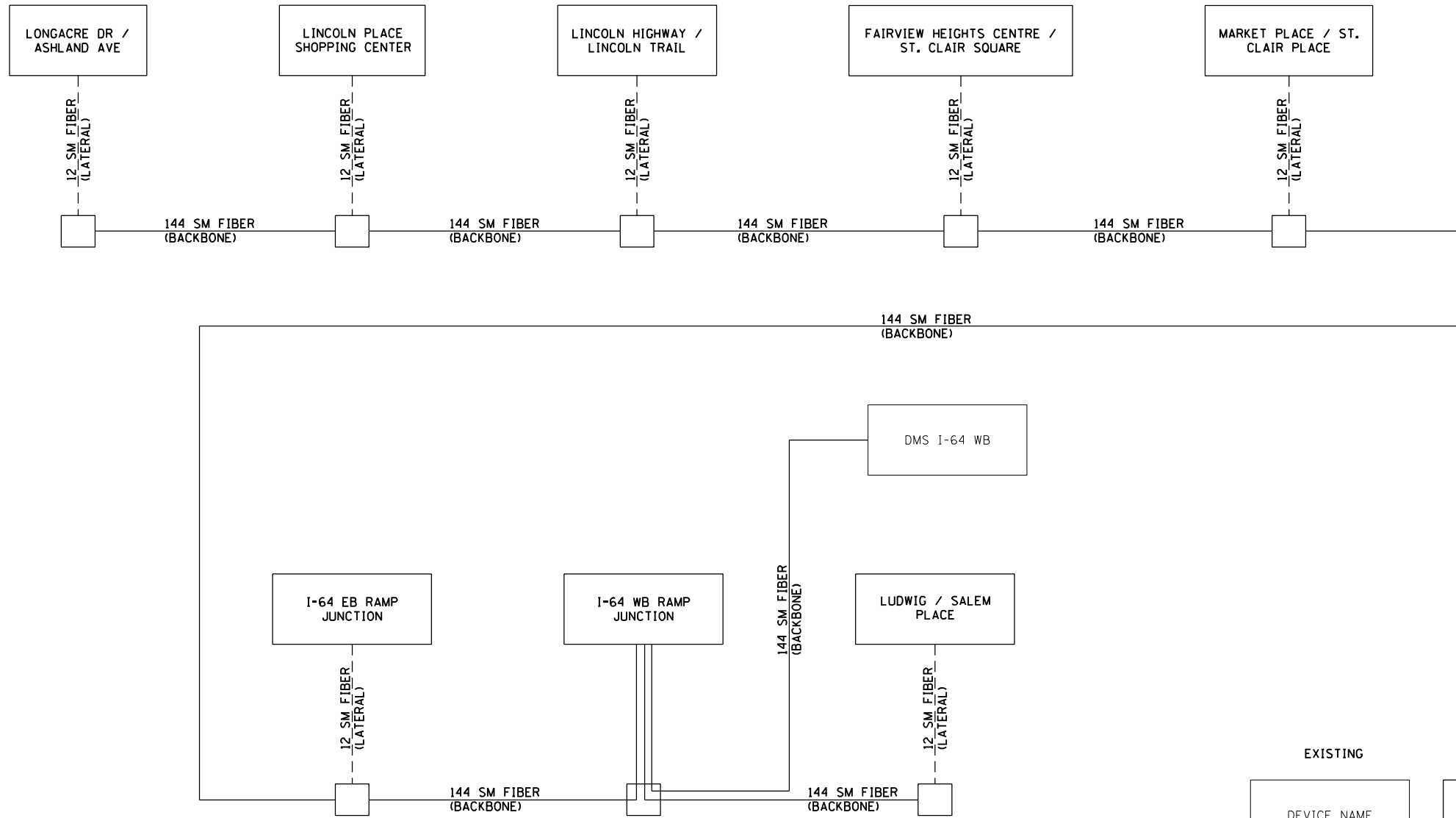
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**FIBER OPTIC INSTALLATION PLAN
 I-64**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	(130, 130-1, 130-2) TS-3, 82-5TS	ST. CLAIR	74	71
ILLINOIS FED. AID PROJECT			CONTRACT NO. 76R78	

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LEGEND

EXISTING	PROPOSED	INTERSECTION STREET NAME OR DEVICE NAME
		COMMUNICATIONS VAULT
		12 STRAND SINGLE MODE FIBER (LATERAL) CABLE
		144 STRAND SINGLE MODE FIBER (BACKBONE) CABLE



USER NAME = bfunk	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 100,0000' / in.	CHECKED -	REVISED -
PLOT DATE = 12/22/2023	DATE -	REVISED -

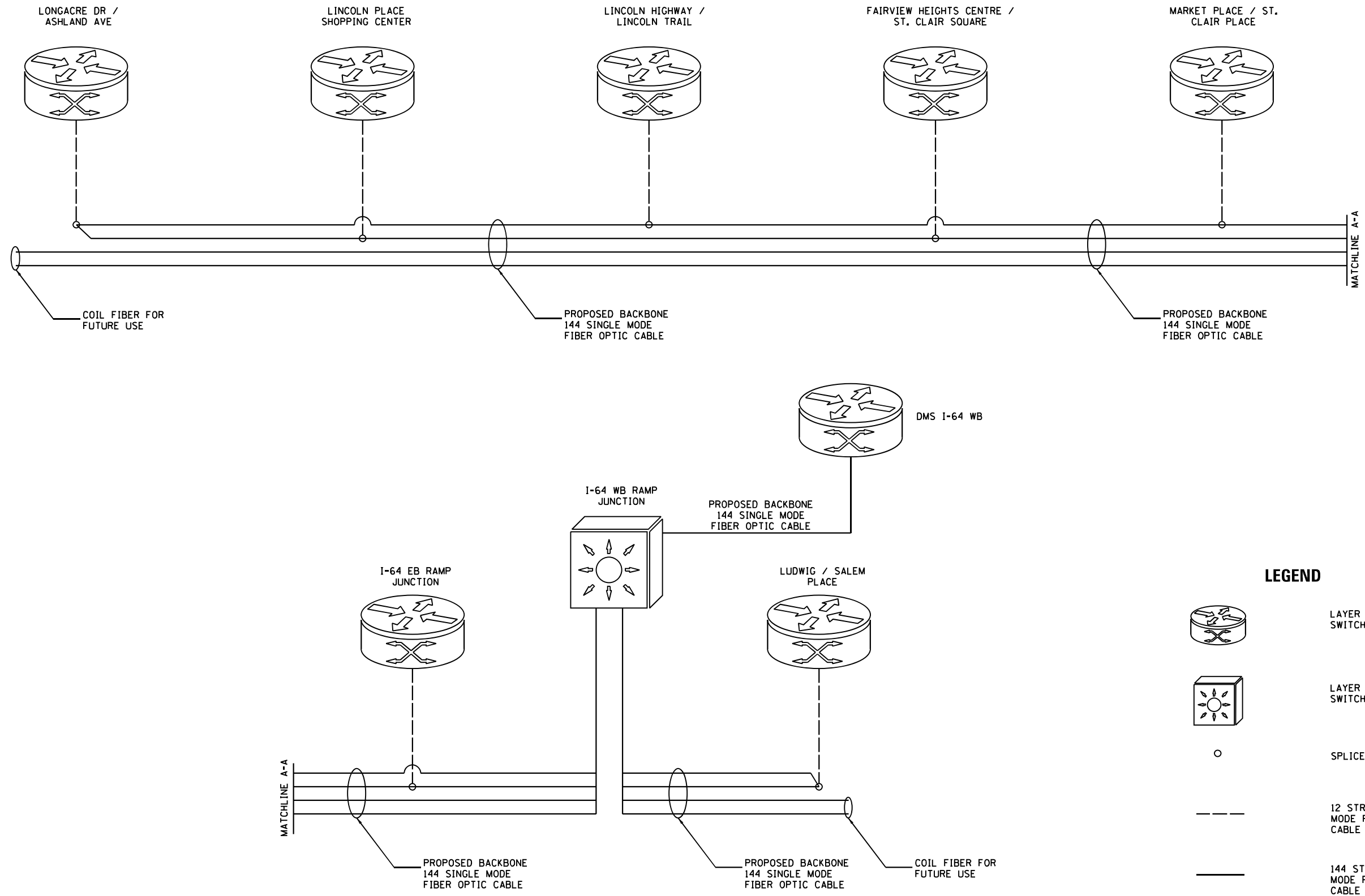
**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

FIBER COMMUNICATIONS SYSTEM TOPOLOGY

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	(130, 130-1, 130-2) TS-3, 82-5TS	ST. CLAIR	74	72
CONTRACT NO. 76R78				
ILLINOIS FED. AID PROJECT				

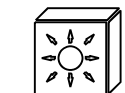
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LEGEND



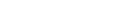
LAYER 2 NETWORK SWITCH



LAYER 3 NETWORK SWITCH



SPLICE LOCATION



12 STRAND SINGLE MODE FIBER OPTIC CABLE (LATERAL)



144 STRAND SINGLE MODE FIBER OPTIC CABLE (BACKBONE)



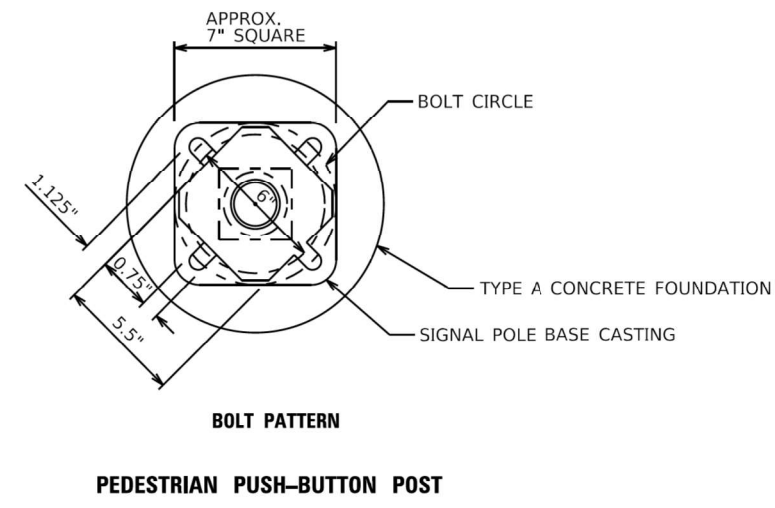
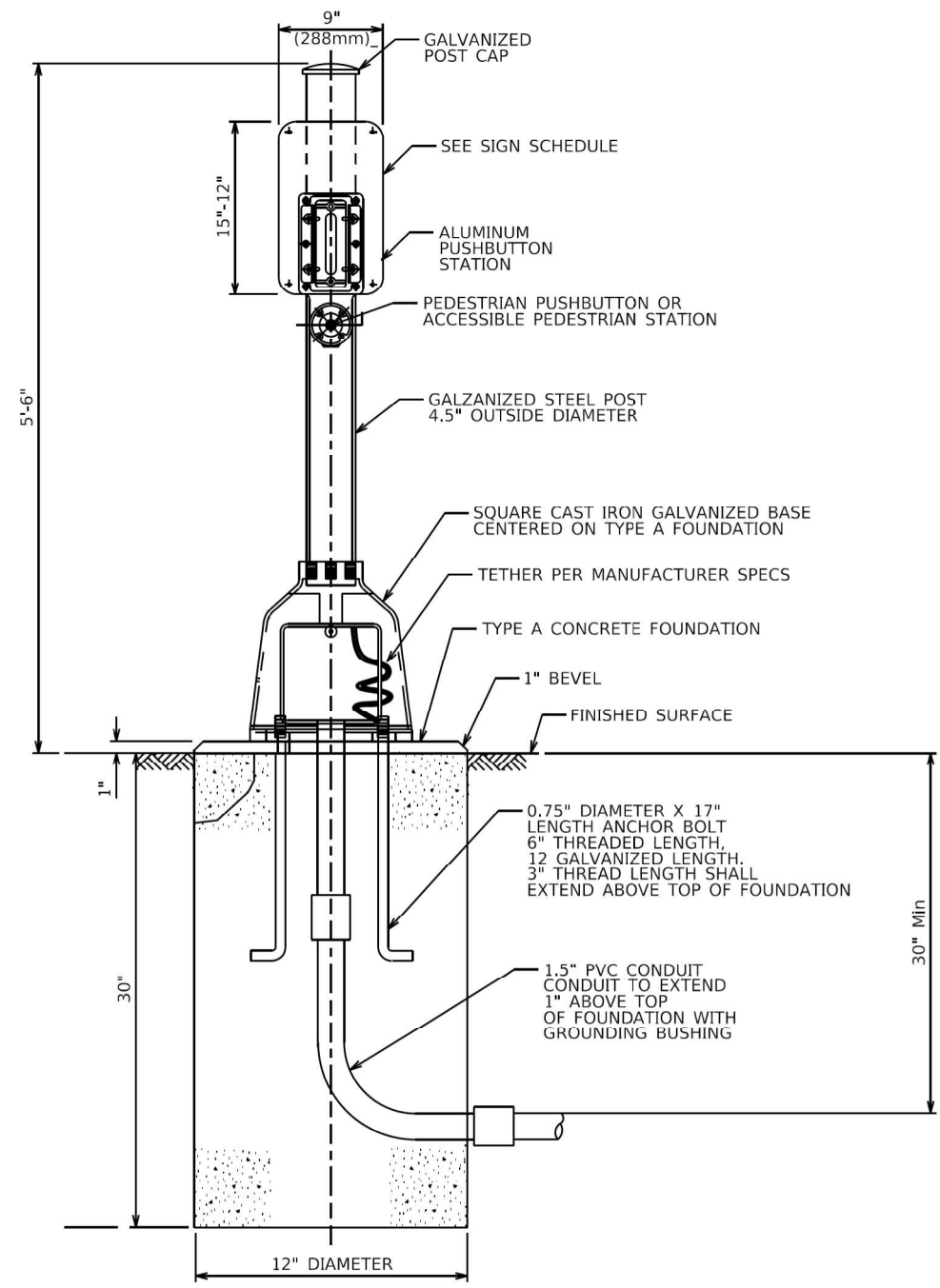
USER NAME = bfunk	DESIGNED -	REVISED -
PLOT SCALE = 100,0000' / in.	DRAWN -	REVISED -
PLOT DATE = 12/22/2023	CHECKED -	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

FIBER COMMUNICATIONS SYSTEM SCHEMATIC

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	(130, 130-1, 130-2) TS-3, 82-5TS	ST. CLAIR	74	73
ILLINOIS FED. AID PROJECT			CONTRACT NO. 76R78	



MODEL: 440DELNAMES
FILE: NAME: STELS

DELTA ENGINEERING GROUP, LLC
CONSULTING ENGINEERS, ARCHITECTS, PLANNERS, ENVIRONMENTAL SCIENTISTS, SURVEYORS
 111 W JACKSON BLVD, SUITE 910
 CHICAGO, IL 60604
 T 312.377.7700, F 312.427.6145

USER NAME = \$USERS	DESIGNED - MA	REVISED -
DRAWN - NS	CHECKED - MA	REVISED -
PLOT SCALE = \$SCALES	DATE - 03/01/2024	REVISED -
PLOT DATE = \$DATES		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PEDESTRIAN PUSH BUTTON
POST DETAIL

SCALE: NTS SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
600	(130, 130-1, 130-2) TS-3, 82-5TS	ST. CLAIR	74	74
CONTRACT NO. 76R78				
<small>ILLINOIS FED. AID PROJECT CMAQ-H5IP-445N (249)</small>				