

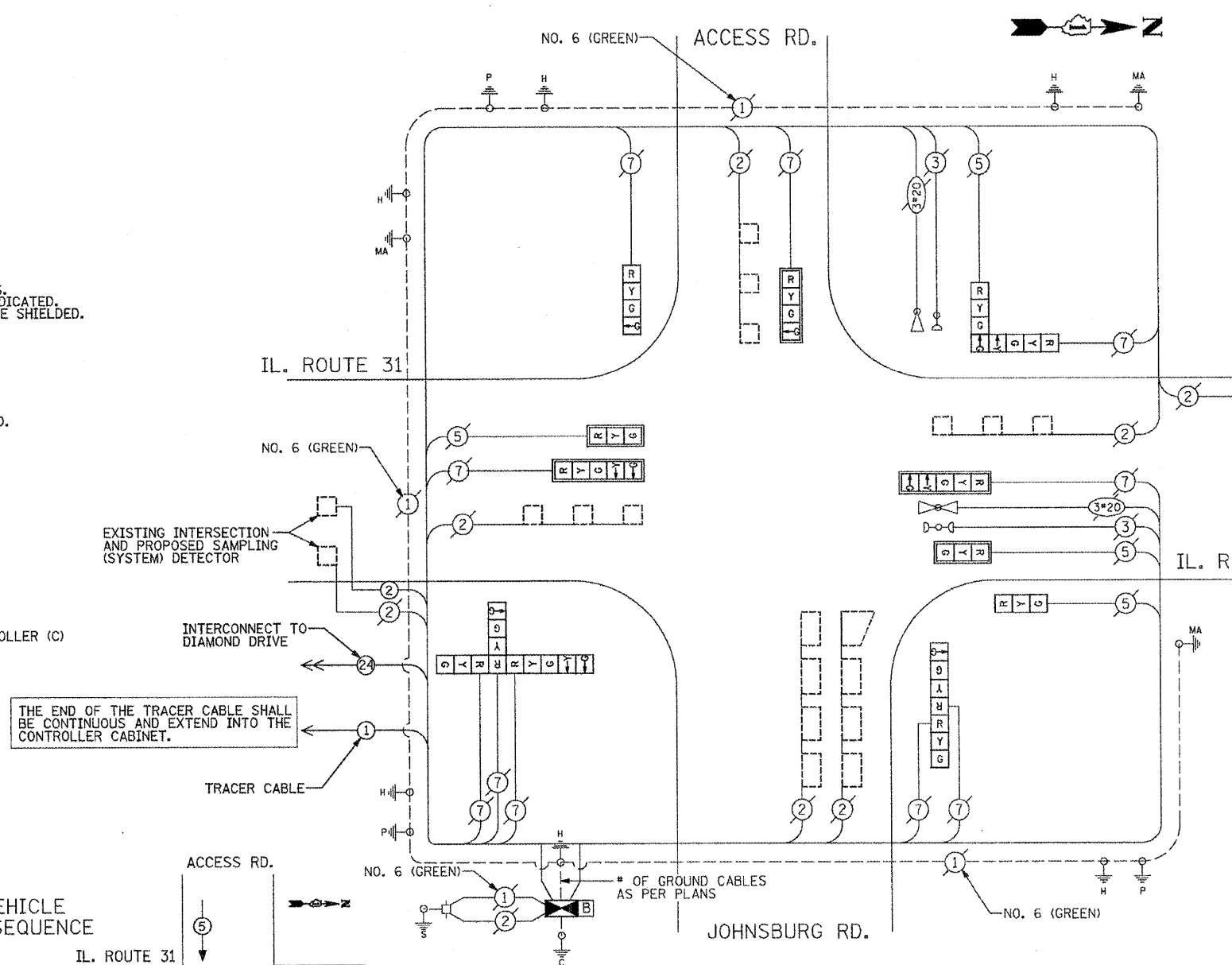
CABLE PLAN LEGEND

EXISTING PROPOSED

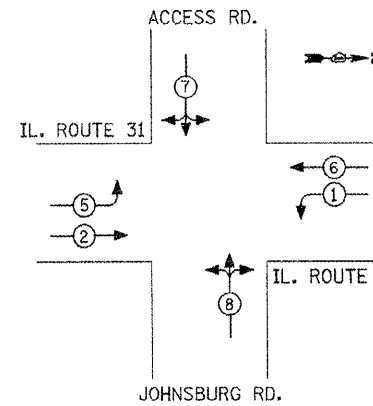
- Ⓢ 8" (200mm) TRAFFIC SIGNAL SECTION
- Ⓡ 12" (300mm) TRAFFIC SIGNAL SECTION
- Ⓦ 12" (300mm) PEDESTRIAN SIGNAL SECTION
- Ⓟ 12" (300mm) PEDESTRIAN SIGNAL SECTION
- ☒ CONTROLLER CABINET
- ☑ SERVICE INSTALLATION
- ☒ TELEPHONE CONNECTION
- ☐ VEHICLE DETECTOR, INDUCTION LOOP
- ☐ MAGNETIC DETECTOR
- ☒ EMERGENCY VEHICLE LIGHT DETECTOR
- ☒ CONFIRMATION BEACON
- ☒ PUSHBUTTON DETECTOR
- ② DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
- ① GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
- ② FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 MM12F SM12F
- Ⓡ SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD.
- ☒ RAILROAD CONTROL CABINET
- ☒ ILLUMINATED SIGN "NO LEFT TURN"
- ☒ ILLUMINATED SIGN "NO RIGHT TURN"
- Ⓡ GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C)
- Ⓡ GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
- Ⓡ GROUND ROD AT ELECTRIC SERVICE INSTALLATION
- ☐ VIDEO VEHICLE SENSOR
- Ⓡ UNINTERRUPTIBLE POWER SUPPLY

NOTE:
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THE PROJECT SHALL BE "EAGLE" TO MATCH THE EXISTING ADJACENT SYSTEM INSTALLATION

PROPOSED CABLE PLAN



CONTROLLER SEQUENCE



LEGEND

- ↔ DUAL ENTRY PHASE
- ← SINGLE ENTRY PHASE
- ◊ OVERLAP
- ↔ PEDESTRIAN PHASE
- NUMBER REFERS TO ASSOCIATED PHASE

PHASE DESIGNATION DIAGRAM

DUAL ENTRY - ALL LEGS
PROTECTED/ PERMITTED LEFT TURN PHASING
NOTE: E/W SPLIT Ø

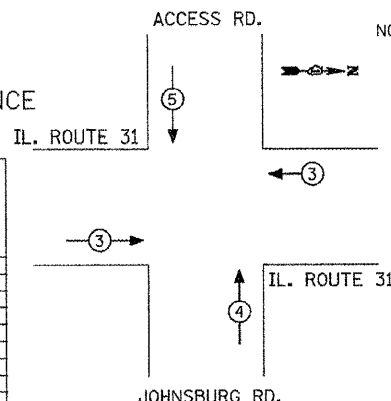
NOTES:

EQUIPMENT GROUND CONDUCTOR (GREEN COLOR CODED) SPLICE TO FRAME AND COVER IS REQUIRED FOR ALL HANDHOLES OR DOUBLE HANDHOLES THAT CARRY SIGNAL CABLES AND SERVICE CABLES.

SCHEDULE OF QUANTITIES

QTY	UNIT	ITEM DESCRIPTION
1.0	CAL MO	ENGINEER'S FIELD OFFICE, TYPE A
0.25	L SUM	MOBILIZATION
0.25	L SUM	TRAFFIC CONTROL AND PROTECTION, STANDARD 701406
0.25	L SUM	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701
1.0	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1.0	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL
1.0	EACH	TRANSCEIVER - FIBER OPTIC
640.0	FOOT	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1C
2.0	EACH	SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION, MAST ARM MOUNTED
1.0	EACH	SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION, BRACKET MOUNTED
1.0	EACH	SIGNAL HEAD, L.E.D., 1-FACE, 4-SECTION, BRACKET MOUNTED
1.0	EACH	SIGNAL HEAD, L.E.D., 1-FACE, 4-SECTION, MAST ARM MOUNTED
2.0	EACH	SIGNAL HEAD, L.E.D., 1-FACE, 5-SECTION, MAST ARM MOUNTED
1.0	EACH	SIGNAL HEAD, L.E.D., 2-FACE, 1-3 SECTION, 1-4 SECTION BRACKET MOUNTED
1.0	EACH	SIGNAL HEAD, L.E.D., 2-FACE, 1-3 SECTION, 1-5 SECTION BRACKET MOUNTED
1.0	EACH	SIGNAL HEAD, L.E.D., 3-FACE, 1-3 SECTION, 1-4 SECTION, 1-5 SECTION BRACKET MOUNTED
2.0	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
53.4	SQ FT	P.C.C. SIDEWALK 5-INCH
1.0	EACH	DRILL EXISTING HANDHOLE
5.0	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
8.0	EACH	INDUCTIVE LOOP DETECTOR
1.0	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1.0	EACH	UNINTERRUPTIBLE POWER SUPPLY
1.0	EACH	RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM-LEVEL II

EMERGENCY VEHICLE PREEMPTION SEQUENCE



PROPOSED EMERGENCY VEHICLE PREEMPTORS

EMERGENCY VEHICLE PREEMPTOR	3	4	5
MOVEMENT	←	↑	↓

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

TYPE	NO. LAMPS	WATTAGE INCAND.	LED	%OPERATION	TOTAL WATTAGE
SIGNAL (RED)	14	17	0.50	0.50	119.0
(YELLOW)	14	25	0.25	0.25	87.5
(GREEN)	14	15	0.25	0.25	52.5
ARROW	12	12	0.10	0.10	14.4
PED. SIGNAL	-	25	1.00	-	-
CONTROLLER	1	100	1.00	1.00	100.0
ILLUM. SIGN	-	-	0.05	-	-
FLASHER	-	-	0.50	-	-
TOTAL =					373.4

ENERGY COSTS TO: CITY OF MCHENRY, 333 SOUTH GREEN STREET, MCHENRY, ILLINOIS 60050

ENERGY SUPPLY CONTACT: ROBERT KOLLAR (847) 204-2859, COMPANY: COMED

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'±-2"
E - M. ARM POLE	-	SIGNAL POST	2 (0.6)	BRACKET MOUNTED	13 (4.0)
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	PED. PUSHBUTTON	4 (1.2)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	ELECTRIC SERVICE	13.5 (4.1)
36" (900mm)	15 (4.6)	ELECTRIC SERVICE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
		GROUND CABLE	1 (0.5)	POST MOUNTED	6 (1.8)