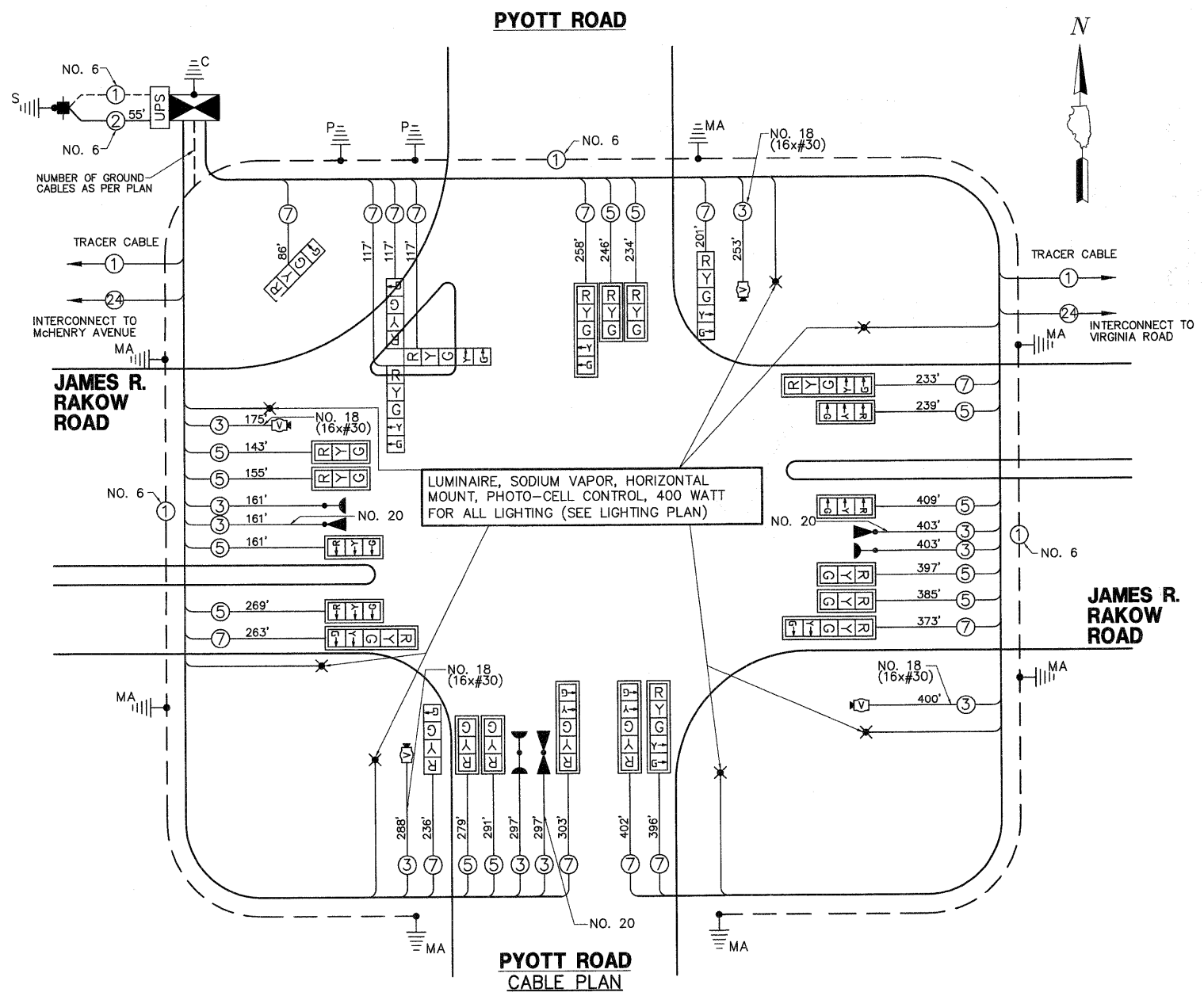


SCHEDULE OF QUANTITIES

JAMES R. RAKOW ROAD AT PYOTT ROAD TRAFFIC SIGNAL MODERNIZATION

NO.	QUANT.	UNIT
1.	30.00	SQ FT SIGN PANEL - TYPE 1
2.	34	FOOT CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL
3.	60	FOOT CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL
4.	102	FOOT CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL
5.	25	FOOT CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL
6.	652	FOOT CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL
7.	3	EACH HANDHOLE
8.	2	EACH DOUBLE HANDHOLE
9.	206	FOOT TRENCH AND BACKFILL FOR ELECTRICAL WORK
10.	1	EACH FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL
11.	1	EACH TRANSCEIVER - FIBER OPTIC
12.	861	FOOT ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
13.	3,214	FOOT ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
14.	3,102	FOOT ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C
15.	1,116	FOOT ELECTRIC CABLE IN CONDUIT, COMMUNICATION NO. 18 3 PAIR
16.	55	FOOT ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C
17.	2	EACH TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
18.	1	EACH STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 26 FT.
19.	1	EACH STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 28 FT.
20.	1	EACH STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 32 FT.
21.	1	EACH STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 40 FT.
22.	1	EACH STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 50 FT.
23.	1	EACH STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 54 FT.
24.	1	EACH STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 60 FT.
25.	8	FOOT CONCRETE FOUNDATION, TYPE A
26.	4	FOOT CONCRETE FOUNDATION, TYPE C
27.	90	FOOT CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER
28.	21	FOOT CONCRETE FOUNDATION, TYPE E 42-INCH DIAMETER
29.	12	EACH SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
30.	2	EACH SIGNAL HEAD, L.E.D., 1-FACE, 4-SECTION, BRACKET MOUNTED
31.	1	EACH SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED
32.	7	EACH SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED
33.	1	EACH SIGNAL HEAD, LED, 3-FACE, 1-4 SECTION, 2-5 SECTION, BRACKET MOUNTED
34.	19	EACH TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
35.	3	EACH LIGHT DETECTOR
36.	1	EACH LIGHT DETECTOR AMPLIFIER
37.	1	EACH TEMPORARY TRAFFIC SIGNAL INSTALLATION
38.	1	EACH REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
39.	11	EACH REMOVE EXISTING HANDHOLE
40.	12	EACH REMOVE EXISTING CONCRETE FOUNDATION
41.	1	EACH TEMPORARY TRAFFIC SIGNAL TIMING
42.	1	EACH SERVICE INSTALLATION - POLE MOUNTED
43.	1	EACH UNINTERRUPTIBLE POWER SUPPLY
44.	861	FOOT ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED
45.	1	EACH VIDEO DETECTION SYSTEM COMPLETE INTERSECTION
46.	4	EACH LED INTERNALLY ILLUMINATED STREET NAME SIGN



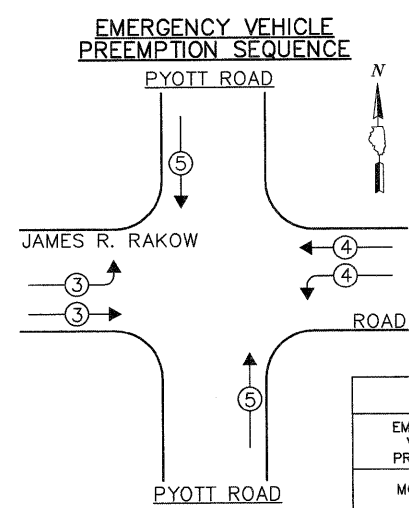
GHA GEWALT HAMILTON ASSOCIATES, INC.
 850 Forest Edge Drive • Vernon Hills, IL 60061
 Consulting Engineers & Surveyors
 847-478-9700
 FAX: 847-478-9701

PATRICK ENGINEERING INC.
 Lisle, Illinois

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

McHENRY COUNTY DIVISION OF TRANSPORTATION TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO LAMPS	WATTAGE		% OPERATION	
		INCAND.	L.E.D.		
SIGNAL (RED)	24	135	17	0.50	204.0
SIGNAL (YELLOW)	24	135	25	0.25	150.0
SIGNAL (GREEN)	24	135	15	0.25	90.0
ARROW	22	135	12	0.10	19.2
PED. SIGNAL		90	25	1.00	
CONTROLLER	1	100	100	1.00	100.0
BATTERY BACKUP	1		25	1.00	25.0
VIDEO SYSTEMS	1		150	1.00	150.0
LUMINAIRE	6	400		0.50	1200.0
L.E.D. ST. NAME SIGN	4		64	0.50	128.0
FLASHER				0.05	
TOTAL =					2,066.2

ENERGY COSTS - BILLED TO: CITY OF CRYSTAL LAKE (ADDRESS) 100 WEST MUNICIPAL COMPLEX
 ENERGY SUPPLY - CONTACT: MS. AUDREY HELGESEN
 PHONE: (847) 816-5225
 COMPANY: COMED-LIBERTYVILLE



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

