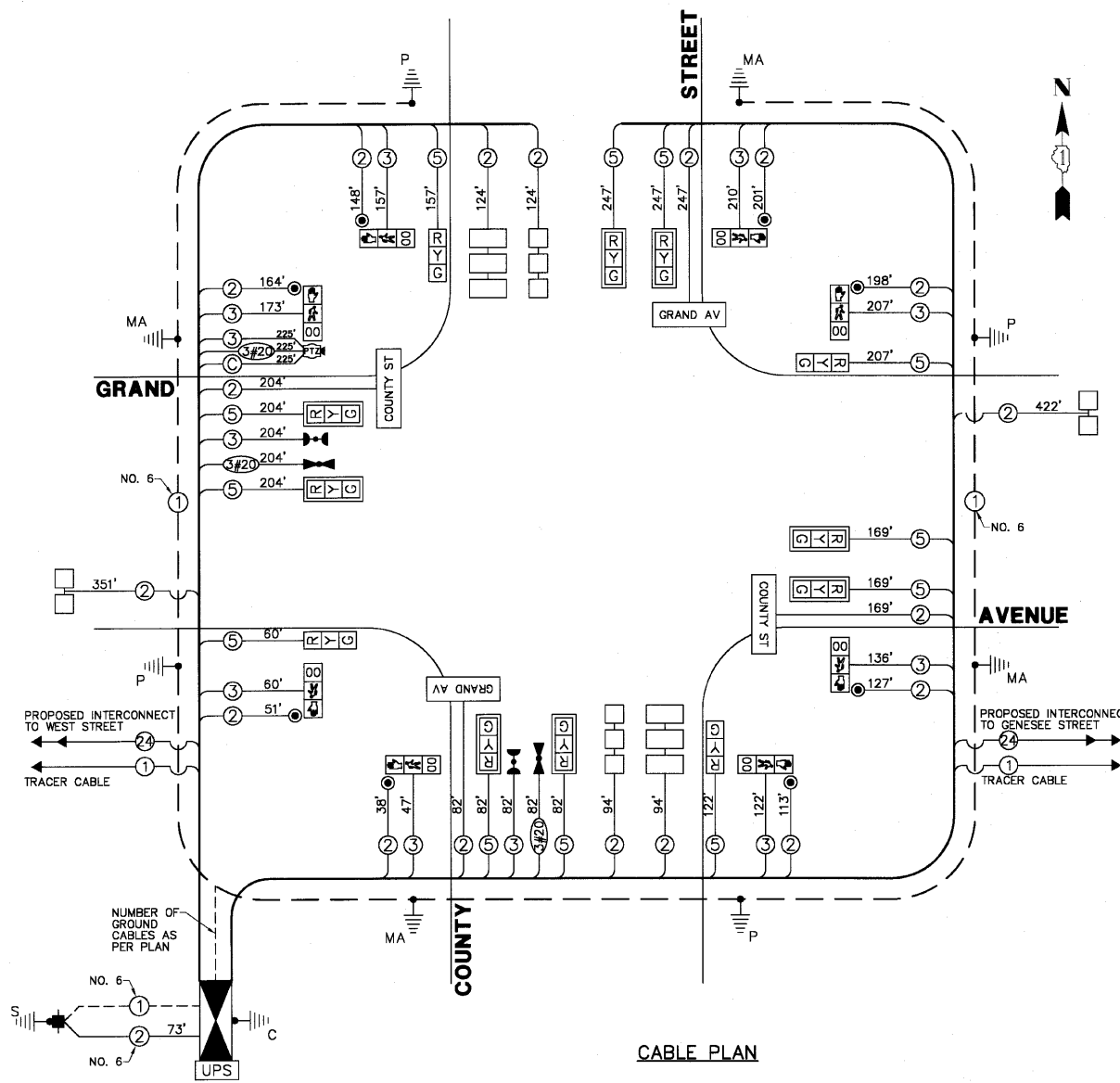
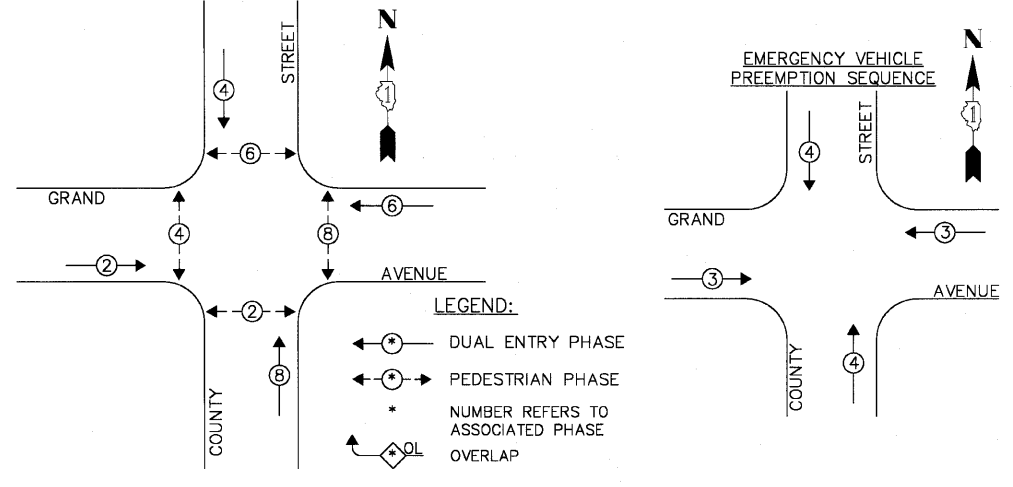


SCHEDULE OF QUANTITIES
GRAND AVENUE AT COUNTY STREET TRAFFIC SIGNAL MODERNIZATION

NO.	QUANT.	UNIT	DESCRIPTION
1.	3	CU YD	EARTH EXCAVATION
2.	10	SQ YD	AGGREGATE BASE COURSE, TYPE B 4"
3.	1,000	SQ FT	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH
4.	120	SQ FT	DETECTABLE WARNINGS
5.	195	FOOT	COMBINATION CURB AND GUTTER REMOVAL
6.	950	SQ FT	SIDEWALK REMOVAL
7.	4	EACH	FRAMES AND LIDS TO BE ADJUSTED
8.	195	FOOT	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12
9.	55	FOOT	THERMOPLASTIC PAVEMENT MARKING - LINE 6"
10.	55	FOOT	THERMOPLASTIC PAVEMENT MARKING - LINE 24"
11.	325	SQ FT	PAVEMENT MARKING REMOVAL
12.	52	FOOT	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL
13.	52	FOOT	CONDUIT IN TRENCH, 2-1/2" DIA., GALVANIZED STEEL
14.	75	FOOT	CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL
15.	25	FOOT	CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL
16.	496	FOOT	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL
17.	295	FOOT	CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL
18.	4	EACH	HANDHOLE
19.	2	EACH	DOUBLE HANDHOLE
20.	135	FOOT	TRENCH AND BACKFILL FOR ELECTRICAL WORK
21.	1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL
22.	1,742	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C
23.	1,623	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
24.	1,950	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
25.	1,209	FOOT	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR
26.	73	FOOT	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C
27.	1	EACH	STEEL MAST ARM ASSEMBLY AND POLE 20 FT. (SPECIAL)
28.	1	EACH	STEEL MAST ARM ASSEMBLY AND POLE 22 FT. (SPECIAL)
29.	1	EACH	STEEL MAST ARM ASSEMBLY AND POLE 30 FT. (SPECIAL)
30.	1	EACH	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 20 FT. (SPECIAL)
31.	8	FOOT	CONCRETE FOUNDATION, TYPE A
32.	4	FOOT	CONCRETE FOUNDATION, TYPE C
33.	30	FOOT	CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER
34.	30	FOOT	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER
35.	8	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
36.	4	EACH	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED
37.	8	EACH	PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
38.	8	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINIUM
39.	6	EACH	INDUCTIVE LOOP DETECTOR
40.	586	FOOT	DETECTOR LOOP, TYPE 1
41.	2	EACH	LIGHT DETECTOR
42.	1	EACH	LIGHT DETECTOR AMPLIFIER
43.	8	EACH	PEDESTRIAN PUSH-BUTTON
44.	1	EACH	TEMPORARY TRAFFIC SIGNAL INSTALLATION
45.	1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
46.	5	EACH	REMOVE EXISTING HANDHOLE
47.	5	EACH	REMOVE EXISTING CONCRETE FOUNDATION
48.	1	EACH	TEMPORARY TRAFFIC SIGNAL TIMINGS
49.	1	EACH	SERVICE INSTALLATION POLE MOUNT
50.	1	EACH	UNINTERRUPTIBLE POWER SUPPLY
51.	734	FOOT	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C
52.	511	FOOT	ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED
53.	200	SQ FT	BRICK PAVER REMOVAL AND REPLACEMENT
54.	225	FOOT	ELECTRIC CABLE IN CONDUIT, COAXIAL
55.	4	EACH	TRAFFIC SIGNAL POST, 14 FOOT (SPECIAL)
56.	4	EACH	LED INTERNALLY ILLUMINATED STREET NAME SIGN
57.	1	EACH	REMOTE CONTROLLED VIDEO SYSTEM
58.	1	EACH	LAYER II (DATA LINK) SWITCH
59.	1	EACH	VIDEO ENCODER



CABLE PLAN



PHASE DESIGNATION DIAGRAM

EMERGENCY VEHICLE PREEMPTOR	MOVEMENT	3	4

TYPE	NO LAMPS	WATTAGE		% OPERATION	TOTAL WATTAGE
		INCAND.	L.E.D.		
SIGNAL (RED)	12	135	10	0.50	60.0
SIGNAL (YELLOW)	12	135	19	0.10	22.8
SIGNAL (GREEN)	12	135	11	0.40	52.8
ARROW	-	135	9	0.10	72.0
PED. SIGNAL	8	90	9	1.00	72.0
CONTROLLER	1	-	100	1.00	100.0
LUMINAIRE	-	250	0.50	-	-
L.E.D. ST. NAME SIGN	4	-	64	0.50	128.0
VIDEO SYSTEM	1	-	150	1.00	150.0
BATTERY BACKUP	1	-	25	1.00	25.0
TOTAL =					610.6

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "NTCIP" COMPLIANT.

FOUNDATION (DEPTH)	(FT.)	CABLE SLACK	(FT.)	VERTICAL	(FT.)
TYPE A - POST	4	HANDHOLE	6.5	ALL FOUNDATIONS	3.5
TYPE D - CONTROLLER	4	DOUBLE HANDHOLE	13	MAST ARM (L) POLE	20'-1'-2"
TYPE E - M.ARM POLE	15	SIGNAL POST	2	BRACKET MOUNTED	13
		CONTROL CAB.	1	PED. PUSHBUTTON	4
		FIBER OPTIC	13	ELECTRIC SERVICE	13.5
		ELECTRIC SERVICE	1	SERVICE TO GROUND	13.5
		GROUND CABLE	1	POST MOUNTED	6

ENERGY COSTS - BILLED TO: CITY OF WAUKEGAN
(ADDRESS) 100 N. M.L.K. JR. AVENUE
(ADDRESS) WAUKEGAN, IL
ENERGY SUPPLY - CONTACT: GERRY GRANDBERRY
PHONE: (847) 816-5463
COMPANY: COM-ED, LIBERTYVILLE

FILE NAME = 4136.800-TR2.dwg	USER NAME = GHA	DESIGNED - JRD	REVISED -
		DRAWN - ZCW	REVISED -
		CHECKED - DPB	REVISED -
		DATE - 3/10/10	REVISED -



CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES
GRAND AVENUE AT COUNTY STREET

F&P RTE 541	SECTION 08-00279-00-TL	COUNTY LAKE	TOTAL SHEETS 64	SHEET NO. 40
CONTRACT # 63436			ILLINOIS FED. AID PROJECT	

GHA #4136.800