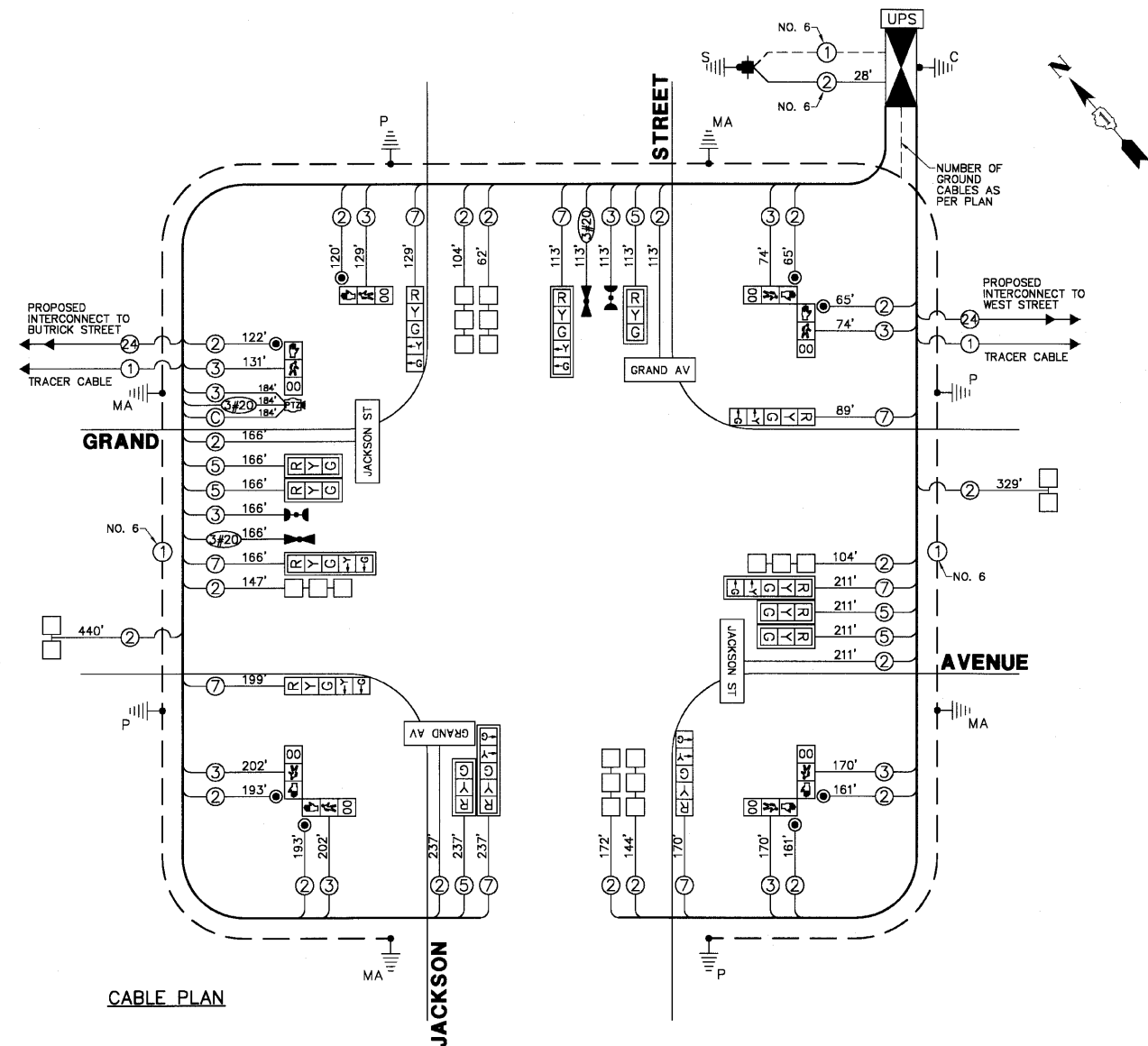


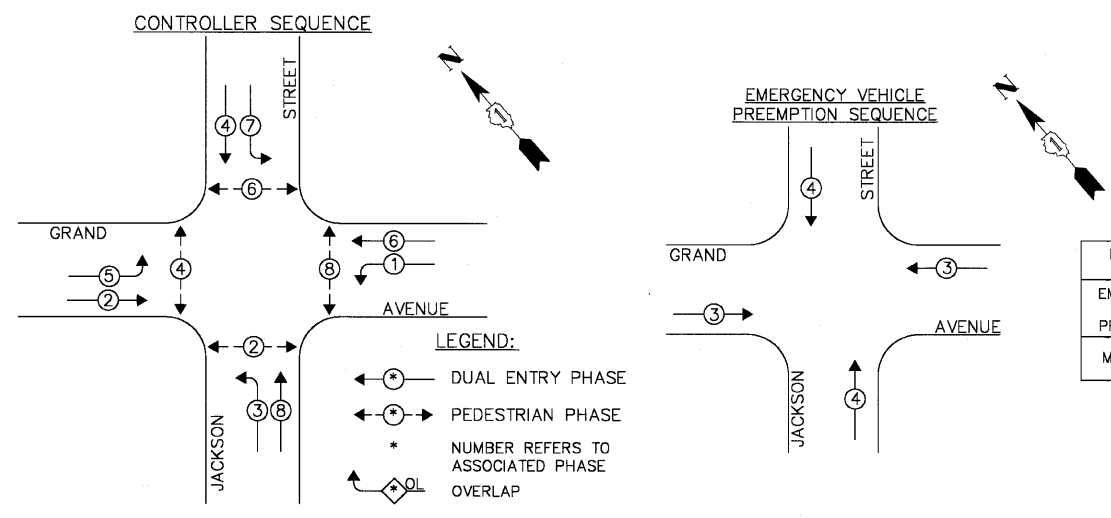
SCHEDULE OF QUANTITIES

GRAND AVENUE AT JACKSON STREET TRAFFIC SIGNAL MODERNIZATION

NO.	QUANT.	UNIT
1.	1,730	SQ FT PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH
2.	140	SQ FT DETECTABLE WARNINGS
3.	210	FOOT COMBINATION CURB AND GUTTER REMOVAL
4.	1,730	SQ FT SIDEWALK REMOVAL
5.	3	EACH FRAMES AND LIDS TO BE ADJUSTED
6.	210	FOOT COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12
7.	380	FOOT THERMOPLASTIC PAVEMENT MARKING - LINE 6"
8.	115	FOOT THERMOPLASTIC PAVEMENT MARKING - LINE 24"
9.	400	SQ FT PAVEMENT MARKING REMOVAL
10.	102	FOOT CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL
11.	34	FOOT CONDUIT IN TRENCH, 2-1/2" DIA., GALVANIZED STEEL
12.	65	FOOT CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL
13.	97	FOOT CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL
14.	569	FOOT CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL
15.	281	FOOT CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL
16.	5	EACH HANDHOLE
17.	4	EACH HEAVY-DUTY HANDHOLE
18.	2	EACH DOUBLE HANDHOLE
19.	118	FOOT TRENCH AND BACKFILL FOR ELECTRICAL WORK
20.	1	EACH FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL
21.	1,807	FOOT ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C
22.	1,615	FOOT ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
23.	1,104	FOOT ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
24.	1,314	FOOT ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C
25.	1,502	FOOT ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR
26.	28	FOOT ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C
27.	1	EACH STEEL MAST ARM ASSEMBLY AND POLE 28 FT. (SPECIAL)
28.	1	EACH STEEL MAST ARM ASSEMBLY AND POLE 32 FT. (SPECIAL)
29.	1	EACH STEEL MAST ARM ASSEMBLY AND POLE 34 FT. (SPECIAL)
30.	1	EACH STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 28 FT. (SPECIAL)
31.	12	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.	6	EACH SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
36.	4	EACH SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED
37.	4	EACH SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED
38.	2	EACH PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
39.	3	EACH PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
40.	10	EACH TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINIUM
41.	8	EACH INDUCTIVE LOOP DETECTOR
42.	702	FOOT DETECTOR LOOP, TYPE 1
43.	2	EACH LIGHT DETECTOR
44.	1	EACH LIGHT DETECTOR AMPLIFIER
45.	8	EACH PEDESTRIAN PUSH-BUTTON
46.	1	EACH TEMPORARY TRAFFIC SIGNAL INSTALLATION
47.	1	EACH REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
48.	10	EACH REMOVE EXISTING HANDHOLE
49.	8	EACH REMOVE EXISTING CONCRETE FOUNDATION
50.	1	EACH TEMPORARY TRAFFIC SIGNAL TIMINGS
51.	1	EACH SERVICE INSTALLATION POLE MOUNT
52.	1	EACH UNINTERRUPTIBLE POWER SUPPLY
53.	467	FOOT ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C
54.	463	FOOT ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED
55.	184	FOOT ELECTRIC CABLE IN CONDUIT, COAXIAL
56.	3	EACH TRAFFIC SIGNAL POST, 16 FOOT (SPECIAL)
57.	4	EACH LED INTERNALLY ILLUMINATED STREET NAME SIGN
58.	1	EACH REMOTE CONTROLLED VIDEO SYSTEM
59.	1	EACH LAYER II (DATA LINK) SWITCH
60.	1	EACH VIDEO ENCODER



CABLE PLAN



PHASE DESIGNATION DIAGRAM

L.C.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				TOTAL WATTAGE
TYPE	NO LAMPS	WATTAGE INCAND. L.E.D.	% OPERATION	
SIGNAL (RED)	14	135	10	70.0
SIGNAL (YELLOW)	14	135	19	26.6
SIGNAL (GREEN)	14	135	11	61.6
ARROW	16	135	9	14.4
PED.SIGNAL	8	90	9	72.0
CONTROLLER	1	-	100	100.0
LUMINAIRE	-	-	250	0.50
L.E.D. ST. NAME SIGN	4	-	64	0.50
VIDEO SYSTEM	-	-	150	1.00
BATTERY BACKUP	1	-	25	1.00
TOTAL =				497.6

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' H-2"
TYPE E - M.ARM POLE	15	SIGNAL POST	2	BRACKET MOUNTED	13
		CONTROLLER CAB.	1	PED. PUSHBUTTON	4
		FIBER OPTIC	13	ELECTRIC SERVICE	13.5
		ELECTRIC SERVICE	1	SERVICE "O" 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
 PLOT SCALE = 1" = .0833'
 PLOT DATE = 3/10/10

DESIGNED - JRD
 DRAWN - ZCW
 CHECKED - DPB
 DATE - 3/10/10



CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES
 GRAND AVENUE AT JACKSON STREET
 SCALE: NONE SHEET NO. OF SHEETS STA. TO STA.

FAP RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
541	08-00279-00-TL	LAKE	64	32

CONTRACT #: 63436
 ILLINOIS FED. AID PROJECT

GHA #4136.800