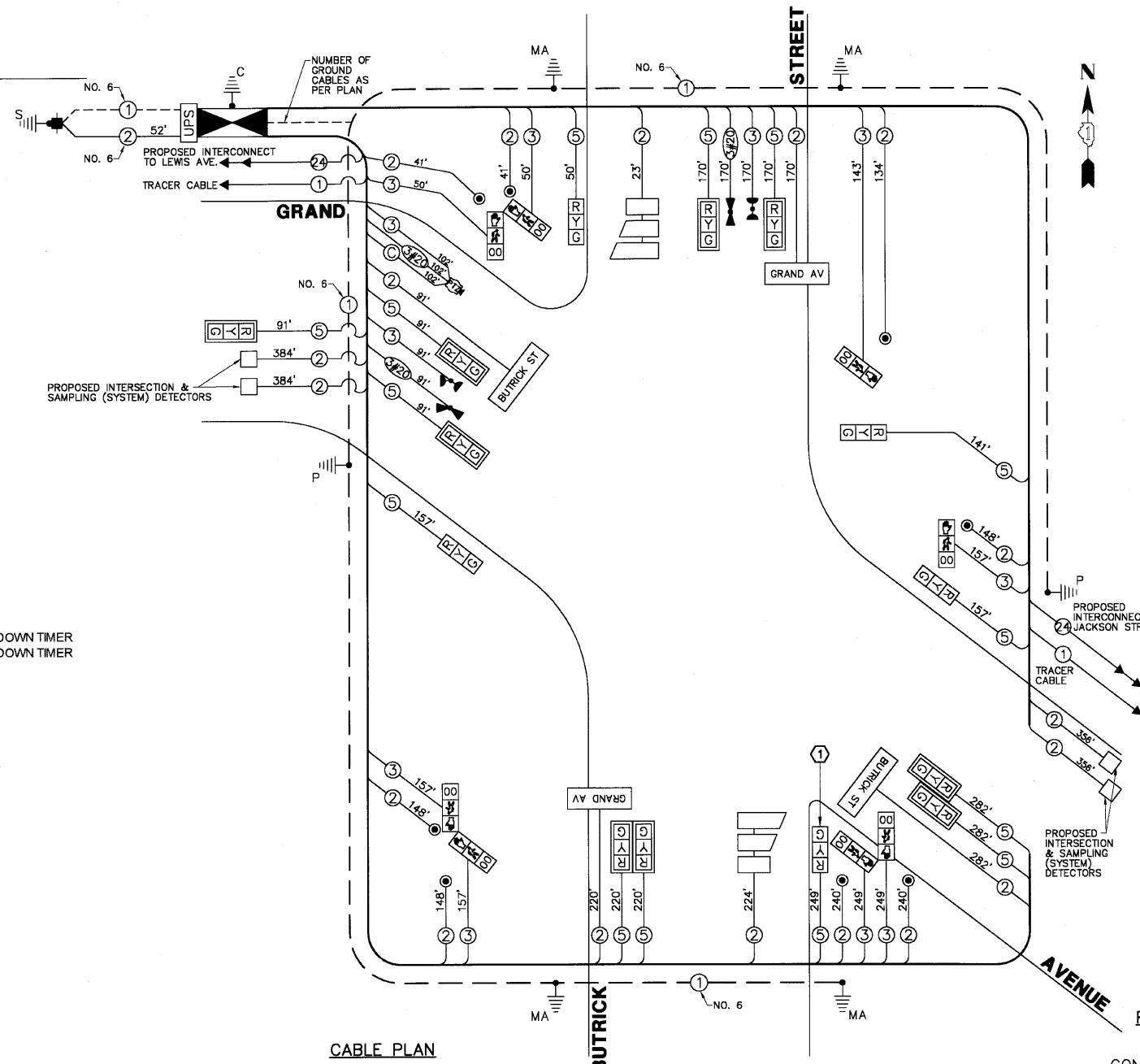


SCHEDULE OF QUANTITIES

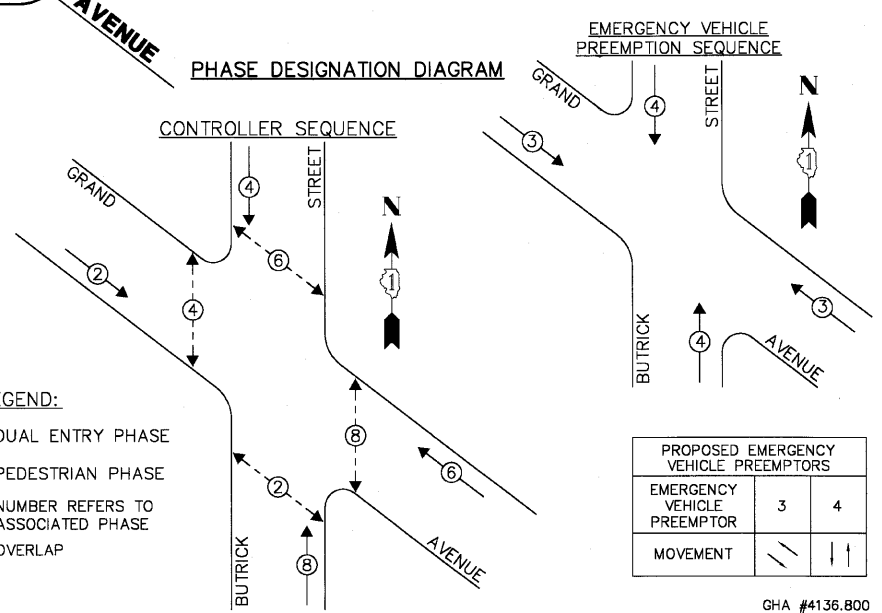
GRAND AVENUE AT BUTRICK STREET TRAFFIC SIGNAL MODERNIZATION

NO.	QUANT.	UNIT
1.	6	CU YD EARTH EXCAVATION
2.	25	SQ YD AGGREGATE BASE COURSE, TYPE B 4"
3.	2,000	SQ FT PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH
4.	114	SQ FT DETECTABLE WARNINGS
5.	270	FOOT COMBINATION CURB AND GUTTER REMOVAL
6.	1,840	SQ FT SIDEWALK REMOVAL
7.	2	EACH FRAMES AND LIDS TO BE ADJUSTED
8.	270	FOOT COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12
9.	470	FOOT THERMOPLASTIC PAVEMENT MARKING - LINE 12"
10.	120	FOOT THERMOPLASTIC PAVEMENT MARKING - LINE 24"
11.	575	SQ FT PAVEMENT MARKING REMOVAL
12.	80	FOOT CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL
13.	45	FOOT CONDUIT IN TRENCH, 2-1/2" DIA., GALVANIZED STEEL
14.	69	FOOT CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL
15.	25	FOOT CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL
16.	422	FOOT CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL
17.	353	FOOT CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL
18.	4	EACH HANDHOLE
19.	2	EACH DOUBLE HANDHOLE
20.	159	FOOT TRENCH AND BACKFILL FOR ELECTRICAL WORK
21.	1	EACH FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL
22.	1,903	FOOT ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C
23.	1,575	FOOT ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
24.	2,373	FOOT ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
25.	1,727	FOOT ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR
26.	52	FOOT ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C
27.	1	EACH STEEL MAST ARM ASSEMBLY AND POLE 26 FT. (SPECIAL)
28.	1	EACH STEEL MAST ARM ASSEMBLY AND POLE 28 FT. (SPECIAL)
29.	1	EACH STEEL MAST ARM ASSEMBLY AND POLE 32 FT. (SPECIAL)
30.	1	EACH STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 34 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.	9	EACH SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED
36.	5	EACH SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED
37.	2	EACH PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
38.	3	EACH PEDESTRIAN SIGNAL HEAD, LED, 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
39.	9	EACH TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINIUM
40.	6	EACH INDUCTIVE LOOP DETECTOR
41.	443	FOOT DETECTOR LOOP, TYPE 1
42.	2	EACH LIGHT DETECTOR
43.	1	EACH LIGHT DETECTOR AMPLIFIER
44.	8	EACH PEDESTRIAN PUSH-BUTTON
45.	1	EACH TEMPORARY TRAFFIC SIGNAL INSTALLATION
46.	1	EACH REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
47.	8	EACH REMOVE EXISTING HANDHOLE
48.	9	EACH REMOVE EXISTING CONCRETE FOUNDATION
49.	1	EACH TEMPORARY TRAFFIC SIGNAL TIMINGS
50.	1	EACH SERVICE INSTALLATION POLE MOUNT
51.	1	EACH UNINTERRUPTIBLE POWER SUPPLY
52.	473	FOOT ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C
53.	363	FOOT ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED
54.	102	FOOT ELECTRIC CABLE IN CONDUIT, COAXIAL
55.	2	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



CONSTRUCTION NOTES:
 ① THE CONTRACTOR SHALL INSTALL A LOUVER FOR BRACKET MOUNTED SIGNAL HEAD. COST OF LOUVER TO BE CONSIDERED INCIDENTAL TO ITEM "SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED."

L.C.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO LAMPS	WATTAGE INCAND. L.E.D.	% OPERATION		
SIGNAL (RED)	13	135	10	0.50	65.0
SIGNAL (YELLOW)	13	135	9	0.10	24.7
SIGNAL (GREEN)	13	135	11	0.40	57.2
ARROW	-	135	9	0.10	72.0
PED. SIGNAL	8	90	1.00	100.0	100.0
CONTROLLER	1	-	100	0.50	25.0
LUMINAIRE	-	250	-	0.50	128.0
L.E.D. ST. NAME SIGN	4	-	64	1.00	150.0
VIDEO SYSTEM	1	-	150	1.00	25.0
BATTERY BACKUP	1	-	25	1.00	621.9
TOTAL =					621.9

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
		CONTROLLER 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 = 4136.800-1R2.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 BUTRICK 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	28

CONTRACT #: 63436
 ILLINOIS FED. AID PROJECT

GHA #4136.800