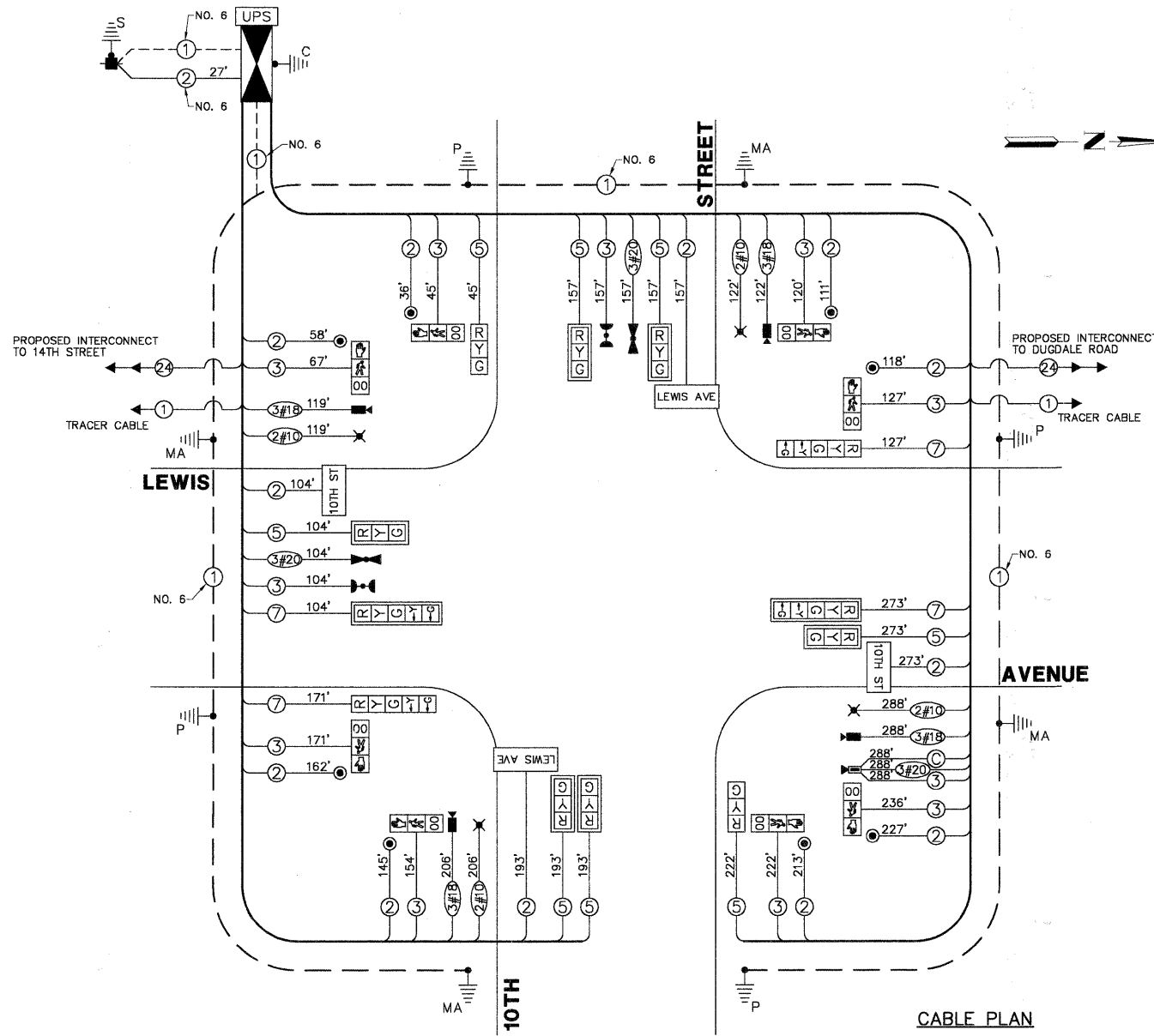


SCHEDULE OF QUANTITIES

LEWIS AVENUE AT 10TH STREET TRAFFIC SIGNAL MODERNIZATION

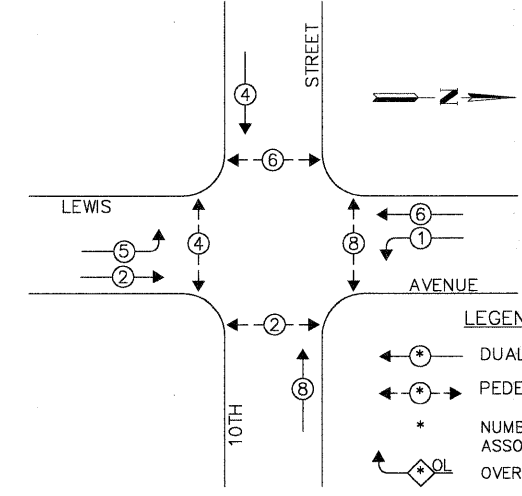
NO.	QUANT.	UNIT
1.	15	CU YD EARTH EXCAVATION
2.	50	SQ YD AGGREGATE BASE COURSE, TYPE B, 4"
3.	1,285	SQ FT PORTLAND CEMENT CONCRETE SIDEWALK 5"
4.	132	SQ FT DETECTABLE WARNINGS
5.	195	FOOT COMBINATION CURB AND GUTTER REMOVAL
6.	880	SQ FT SIDEWALK REMOVAL
7.	4	EACH FRAMES AND LIDS TO BE ADJUSTED
8.	10	FOOT COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12
9.	185	FOOT COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24
10.	435	FOOT THERMOPLASTIC PAVEMENT MARKING - LINE 12"
11.	50	FOOT THERMOPLASTIC PAVEMENT MARKING - LINE 24"
12.	325	SQ FT PAVEMENT MARKING REMOVAL
13.	5	FOOT CONDUIT IN TRENCH, 2" DIA, GALVANIZED STEEL
14.	49	FOOT CONDUIT IN TRENCH, 2 1/2" DIA, GALVANIZED STEEL
15.	60	FOOT CONDUIT IN TRENCH, 3 1/2" DIA, GALVANIZED STEEL
16.	10	FOOT CONDUIT IN TRENCH, 4" DIA, GALVANIZED STEEL
17.	195	FOOT CONDUIT PUSHED, 4" DIA, GALVANIZED STEEL
18.	62	FOOT CONDUIT PUSHED, 5" DIA, GALVANIZED STEEL
19.	2	EACH HANDHOLE
20.	2	EACH DOUBLE HANDHOLE
21.	785	FOOT ELECTRIC CABLE IN CONDUIT, 600V (EPR-TYPE RHW) 2-1/C NO. 10
22.	124	FOOT TRENCH AND BACKFILL FOR ELECTRICAL WORK
23.	4	EACH LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, PHOTO-CELL CONTROL 250 WATT
24.	1	EACH FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL
25.	1	EACH TRANSCEIVER - FIBER OPTIC
26.	1,792	FOOT ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C
27.	1,691	FOOT ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
28.	1,344	FOOT ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
29.	675	FOOT ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C
30.	27	FOOT ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C
31.	3	EACH STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 30 FT. (SPECIAL)
32.	1	EACH STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 32 FT. (SPECIAL)
33.	16	FOOT CONCRETE FOUNDATION, TYPE A
34.	4	FOOT CONCRETE FOUNDATION, TYPE C
35.	60	FOOT CONCRETE FOUNDATION, TYPE E, 36-INCH DIAMETER
36.	6	EACH SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED
37.	2	EACH SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED
38.	2	EACH SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED
39.	2	EACH SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED
40.	8	EACH PEDESTRIAN SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
41.	8	EACH TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINIUM
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.	6	EACH REMOVE EXISTING HANDHOLE
48.	9	EACH REMOVE EXISTING CONCRETE FOUNDATION
49.	1	EACH SERVICE INSTALLATION-POLE MOUNT
50.	572	FOOT ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C
51.	549	FOOT ELECTRIC CABLE IN CONDUIT, NO. 20 3/C, TWISTED, SHIELDED
52.	292	FOOT ELECTRIC CABLE IN CONDUIT, COAXIAL
53.	785	FOOT ELECTRIC CABLE IN CONDUIT, COMMUNICATION NO. 18, 3C
54.	1	EACH VIDEO DETECTION SYSTEM COMPLETE IN INTERSECTION
55.	4	EACH LED INTERNALLY ILLUMINATED STREET NAME SIGN
56.	2	EACH TRAFFIC SIGNAL POST, 14 FOOT (SPECIAL)
57.	2	EACH TRAFFIC SIGNAL POST, 16 FOOT (SPECIAL)
58.	1	EACH REMOTE-CONTROLLED VIDEO SYSTEM
59.	1	EACH UNINTERRUPTIBLE POWER SUPPLY
60.	1	EACH VIDEO ENCODER



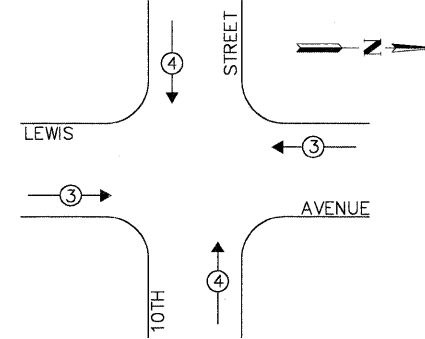
CABLE PLAN LEGEND

EXISTING	PROPOSED	DESCRIPTION
[Symbol]	[Symbol]	12" TRAFFIC SIGNAL SECTION
[Symbol]	[Symbol]	12" PEDESTRIAN SIGNAL SECTION WITH COUNTDOWN TIMER
[Symbol]	[Symbol]	CONTROLLER CABINET
[Symbol]	[Symbol]	SERVICE INSTALLATION
[Symbol]	[Symbol]	TELEPHONE INSTALLATION
[Symbol]	[Symbol]	VEHICLE DETECTOR, INDUCTION LOOP
[Symbol]	[Symbol]	EMERGENCY VEHICLE LIGHT DETECTOR
[Symbol]	[Symbol]	CONFIRMATION BEACON
[Symbol]	[Symbol]	PUSHBUTTON DETECTOR
[Symbol]	[Symbol]	DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
[Symbol]	[Symbol]	GROUND CABLE IN CONDUIT, NO.6 SOLID COPPER (GREEN)
[Symbol]	[Symbol]	FIBER OPTIC CABLE IN CONDUIT, 24 SINGLEMODE
[Symbol]	[Symbol]	SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD
[Symbol]	[Symbol]	RAILROAD CONTROL CABINET
[Symbol]	[Symbol]	ILLUMINATED SIGN "NO LEFT TURN"
[Symbol]	[Symbol]	ILLUMINATED SIGN "NO RIGHT TURN"
[Symbol]	[Symbol]	GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H) OR CONTROLLER (C)
[Symbol]	[Symbol]	GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
[Symbol]	[Symbol]	GROUND ROD AT ELECTRIC SERVICE INSTALLATION
[Symbol]	[Symbol]	BELDEN 1694A RG-6/4 COAXIAL CABLE
[Symbol]	[Symbol]	ISDN LINE
[Symbol]	[Symbol]	LUMINAIRE
[Symbol]	[Symbol]	VIDEO DETECTION CAMERA
[Symbol]	[Symbol]	PTZ CAMERA
[Symbol]	[Symbol]	VIDEO COMMUNICATIONS CABINET
[Symbol]	[Symbol]	L.E.D. STREET NAME SIGN
[Symbol]	[Symbol]	UNINTERRUPTIBLE POWER SUPPLY

CONTROLLER SEQUENCE



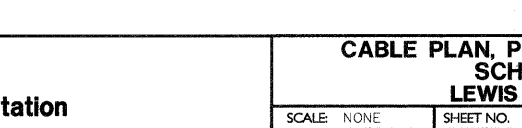
EMERGENCY VEHICLE PREEMPTION SEQUENCE



LEGEND:

- [Symbol] DUAL ENTRY PHASE
- [Symbol] PEDESTRIAN PHASE
- [Symbol] NUMBER REFERS TO ASSOCIATED PHASE OVERLAP

PHASE DESIGNATION DIAGRAM



PROPOSED EMERGENCY VEHICLE PREEMPTORS

EMERGENCY VEHICLE PREEMPTOR	MOVEMENT
3	4

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

L.C.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS

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	8	135	9	1.00	72.0
PED. SIGNAL	8	90	9	1.00	72.0
CONTROLLER	1	100	1.00	100.0	100.0
LUMINAIRE	4	250	0.50	500.0	500.0
L.E.D. ST. NAME SIGN	4	64	0.50	128.0	128.0
VIDEO SYSTEM	1	150	1.00	150.0	150.0
BATTERY BACKUP	1	25	1.00	25.0	25.0
TOTAL =					1,177.8

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: NEW BUSINESS
 PHONE: (886) 639-3552
 COMPANY: COM-ED, LIBERTYVILLE

DESIGNED - JRD
 DRAWN - ZCW
 CHECKED - DPB
 DATE - 10/19/09

REVISED - 9/15/09 (LCDOT)
 REVISED - 9/25/09 (IDOT)
 REVISED - 10/19/09 (LCDOT)
 REVISED -



CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES
LEWIS AVENUE AT 10TH STREET

SCALE: NONE SHEET NO. 11 OF 86 SHEETS STA. TO STA.

GHA #4135.800

FAP. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2730	08-00259-00-TL	LAKE	86	11

CONTRACT #: 63344
 ILLINOIS FED. AID PROJECT