

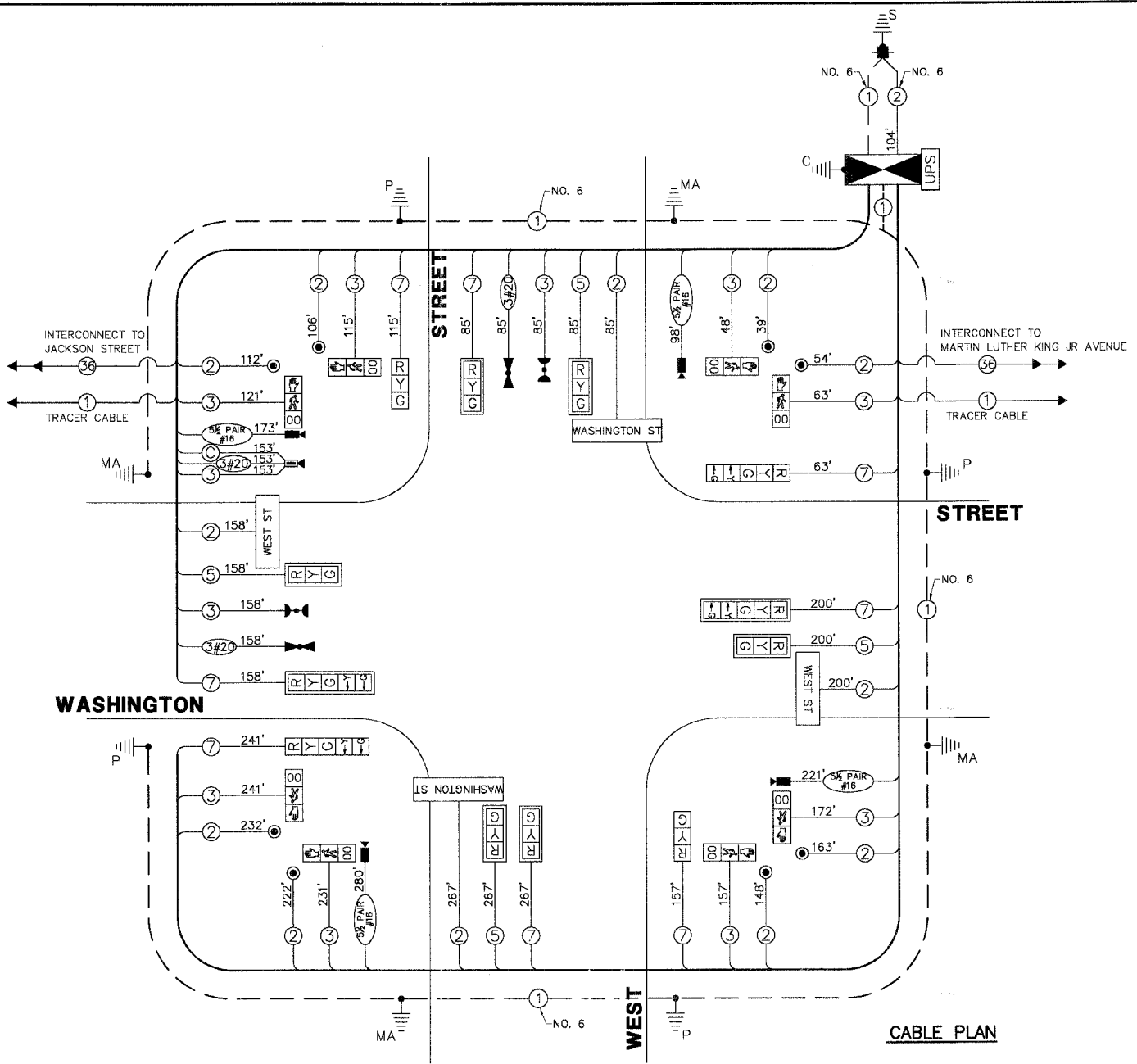
F.A.U. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1223	04-00272-00-TL	LAKE	72	35
CABLE PLAN, PHASE DESIGNATION DIAGRAM				
ILLINOIS				

CABLE PLAN LEGEND

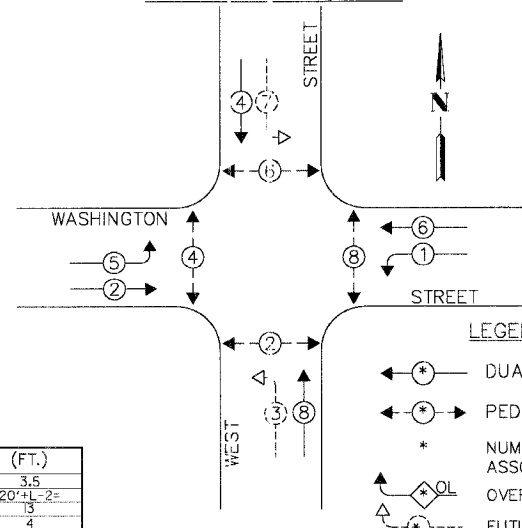
EXISTING	PROPOSED	DESCRIPTION
[Symbol]	[Symbol]	12" TRAFFIC SIGNAL SECTION
[Symbol]	[Symbol]	12" PEDESTRIAN SIGNAL SECTION
[Symbol]	[Symbol]	CONTROLLER CABINET
[Symbol]	[Symbol]	SERVICE INSTALLATION
[Symbol]	[Symbol]	TELEPHONE INSTALLATION
[Symbol]	[Symbol]	VEHICLE DETECTOR, INDUCTION LOOP
[Symbol]	[Symbol]	EMERGENCY VEHICLE LIGHT DETECTOR
[Symbol]	[Symbol]	CONFIRMATION BEACON
[Symbol]	[Symbol]	PUSHBUTTON DETECTOR
[Symbol]	[Symbol]	2 DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
[Symbol]	[Symbol]	1 GROUND CABLE IN CONDUIT, NO.6 SOLID COPPER (GREEN)
[Symbol]	[Symbol]	36 FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 MM12F SM24F
[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]	H/C GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H) OR CONTROLLER (C)
[Symbol]	[Symbol]	P GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
[Symbol]	[Symbol]	S GROUND ROD AT ELECTRIC SERVICE INSTALLATION
[Symbol]	[Symbol]	"E" BELDEN 8281 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]	1st AV L.E.D. STREET NAME SIGN
[Symbol]	[Symbol]	UPS UNINTERRUPTIBLE POWER SUPPLY

SCHEDULE OF QUANTITIES

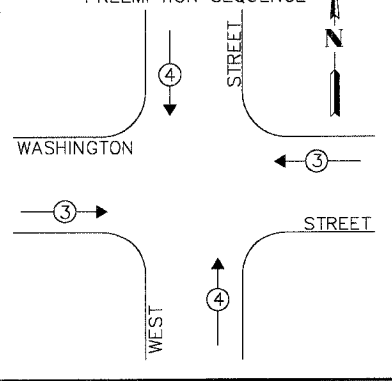
QUANT.	UNIT	ITEM
ROADWAY IMPROVEMENTS		
1.	15 CU.YD.	EARTH EXCAVATION
2.	2,000 SQ.FT.	PORTLAND CEMENT CONCRETE SIDEWALK, 5"
3.	96 SQ.FT.	DETECTABLE WARNING
4.	50 SQ.YD.	DRIVEWAY PAVEMENT REMOVAL
5.	275 FOOT	COMBINATION CURB & GUTTER REMOVAL
6.	1,850 SQ.FT.	SIDEWALK REMOVAL
7.	275 FOOT	COMBINATION CURB & GUTTER, TYPE B6.12
8.	378 FOOT	THERMOPLASTIC PAVEMENT MARKING-LINE 12"
9.	20 FOOT	THERMOPLASTIC PAVEMENT MARKING-LINE 24"
10.	300 SQ.FT.	PAVEMENT MARKING REMOVAL
TRAFFIC SIGNAL IMPROVEMENTS		
11.	60 FOOT	CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL
12.	49 FOOT	CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL
13.	10 FOOT	CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL
14.	86 FOOT	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL
15.	230 FOOT	CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL
16.	2 EACH	HANDHOLE
17.	2 EACH	DOUBLE HANDHOLE
18.	105 FOOT	TRENCH AND BACKFILL FOR ELECTRICAL WORK
19.	1 EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, (SPECIAL)
20.	1 EACH	TRANSCEIVER - FIBER OPTIC
21.	1,789 FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO.14 2C
22.	1,544 FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO.14 3C
23.	710 FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO.14 5C
24.	1,286 FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO.14 7C
25.	104 FOOT	ELECTRIC CABLE IN CONDUIT, SERVICE, NO.6 2C
26.	2 EACH	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 30 FT. (SPECIAL)
27.	2 EACH	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 34 FT. (SPECIAL)
28.	16 FOOT	CONCRETE FOUNDATION, TYPE A
29.	4 FOOT	CONCRETE FOUNDATION, TYPE C
30.	60 FOOT	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER
31.	8 EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINIUM
32.	2 EACH	LIGHT DETECTOR
33.	1 EACH	LIGHT DETECTOR AMPLIFIER
34.	8 EACH	PEDESTRIAN PUSH-BUTTON
35.	1 EACH	TEMPORARY TRAFFIC SIGNAL INSTALLATION
36.	1 EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
37.	6 EACH	REMOVE EXISTING HANDHOLE
38.	9 EACH	REMOVE EXISTING CONCRETE FOUNDATION
39.	8 EACH	PEDESTRIAN SIGNAL HEAD, L.E.D., 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
40.	4 EACH	L.E.D. INTERNALLY ILLUMINATED STREET NAME SIGN
41.	1 EACH	VIDEO DETECTION SYSTEM, (COMPLETE INTERSECTION)
42.	1 EACH	REMOTE-CONTROLLED VIDEO SYSTEM
43.	772 FOOT	ELECTRIC CABLE IN CONDUIT, COMMUNICATION NO. 16, 5 1/2 PAIR
44.	4 EACH	TRAFFIC SIGNAL POST, 16 FT. (SPECIAL)
45.	1 EACH	LAYER II (DATA LINK) SWITCH
46.	1 EACH	UNINTERRUPTIBLE POWER SUPPLY
47.	472 FOOT	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C
48.	396 FOOT	ELECTRIC CABLE IN CONDUIT, NO. 20 3C, TWISTED, SHIELDED
49.	2 EACH	SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION, BRACKET MOUNTED
50.	6 EACH	SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION, MAST ARM MOUNTED
51.	2 EACH	SIGNAL HEAD, L.E.D., 1-FACE, 5-SECTION, BRACKET MOUNTED
52.	2 EACH	SIGNAL HEAD, L.E.D., 1-FACE, 5-SECTION, MAST ARM MOUNTED
53.	153 FOOT	ELECTRIC CABLE IN CONDUIT, COAXIAL
54.	1 EACH	SERVICE INSTALLATION, POLE MOUNT



CONTROLLER SEQUENCE



EMERGENCY VEHICLE PREEMPTION SEQUENCE



EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	→	↑

L.C.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				TOTAL WATTAGE
TYPE	NO LAMPS	WATTAGE INCAND. L.E.D.	% OPERATION	
SIGNAL (RED)	12	135	10	60.0
SIGNAL (YELLOW)	12	135	19	22.8
SIGNAL (GREEN)	12	135	11	52.8
ARROW	16	135	9	7.2
PED.SIGNAL	8	90	9	72.0
CONTROLLER	1	-	100	100.0
LUMINAIRE	4	-	250	500.0
L.E.D. ST. NAME SIGN	4	-	64	128.0
VIDEO SYSTEM	1	-	150	150.0
BATTERY BACKUP	1	-	25	25.0
TOTAL =				1117.8

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'+L-2'
TYPE E - M-ARM POLE	15	SIGNAL POST	2	BRACKET MOUNTED	13
		CONTROLLER CAB.	1	PED. PUSHBUTTON	4
		FIBER OPTIC	13	ELECTRIC SERVICE	3.5
		ELECTRIC SERVICE	13.5	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: MS. ALICE TAYLOR
 PHONE: (847) 816-5323
 COMPANY: COMED - LIBERTYVILLE

PLANS PREPARED BY:
GEWALT HAMILTON ASSOCIATES, INC.
 Consulting Engineers & Surveyors
 850 Forest Ridge Drive
 Vernon Hills, IL 60061
 (847) 478-9700
 (847) 478-9700 Fax

NAME	DATE

LAKE COUNTY DIVISION OF TRANSPORTATION
CABLE PLAN, PHASE DESIGNATION DIAGRAM AND SCHEDULE OF QUANTITIES
WASHINGTON STREET AND WEST STREET
 SCALE: NONE
 DATE: MAY 1, 2007
 DRAWN BY: ZCW
 DESIGNED BY: JRD
 CHECKED BY: BLS