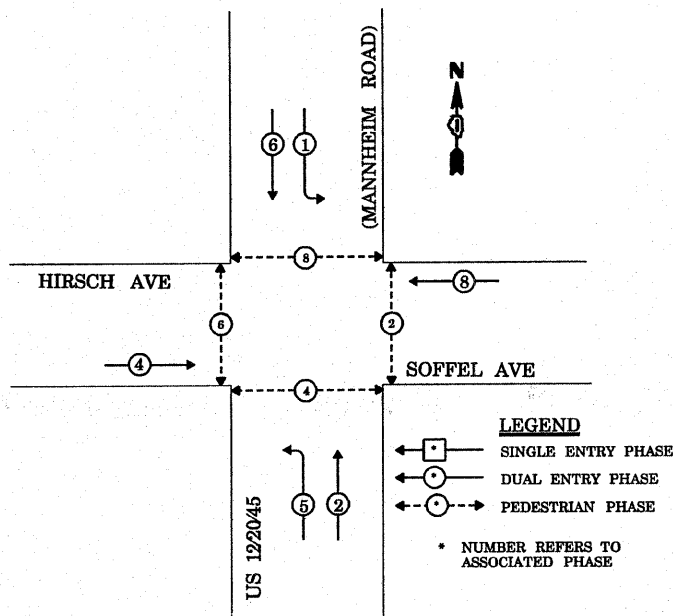
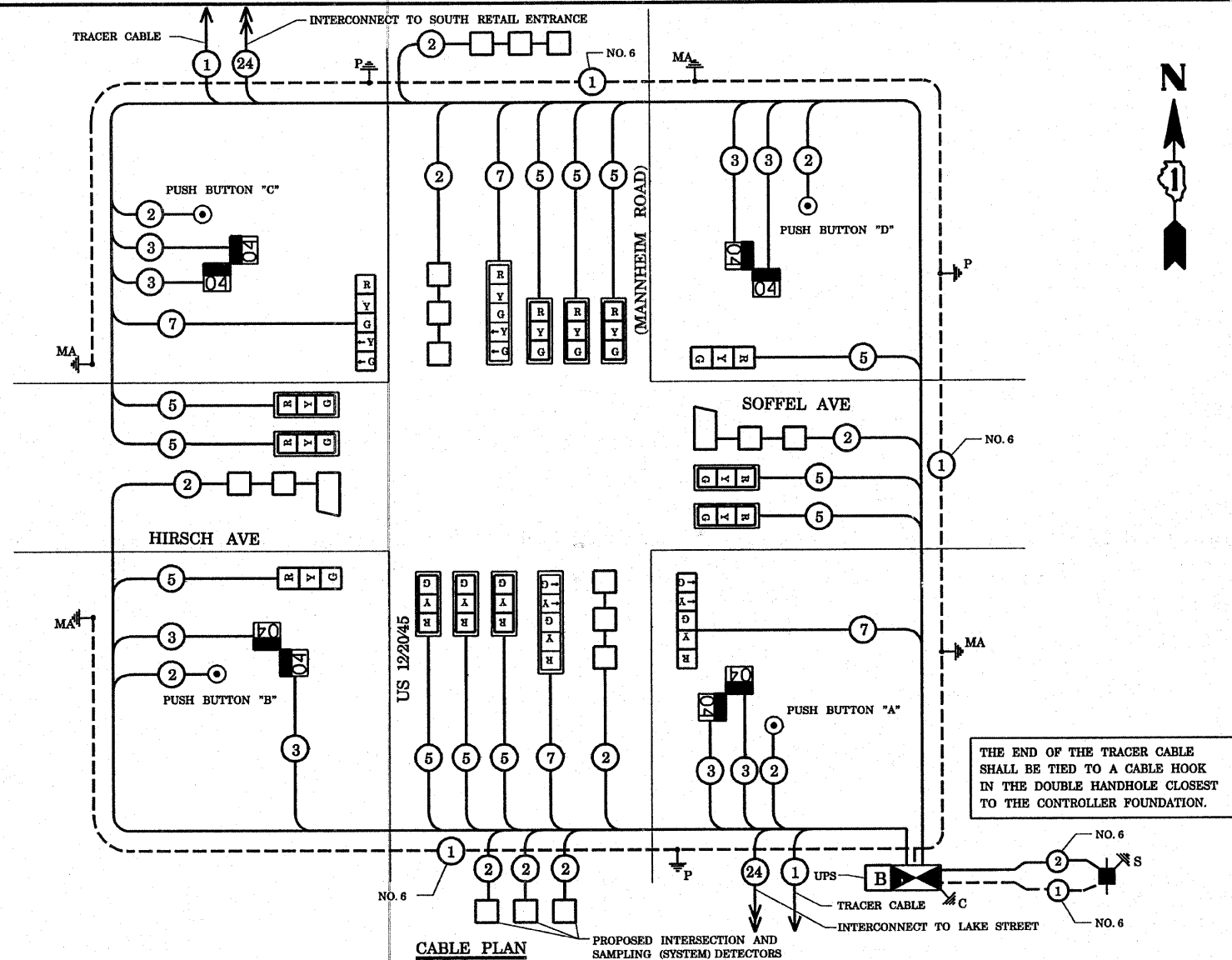


**CONTROLLER SEQUENCE**



**PHASE DESIGNATION DIAGRAM**

NOTE:  
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.



**CABLE PLAN**  
**SUMMARY OF QUANTITIES**

QUANTITY	UNIT	ITEM
1571	SQ FT	PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH
1571	SQ FT	SIDEWALK REMOVAL
0.1	L SUM	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501
0.1	L SUM	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701
0.1	L SUM	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801
27	SQ FT	SIGN PANEL - TYPE 1
30	SQ FT	SIGN PANEL - TYPE 2
456	FOOT	THERMOPLASTIC PAVEMENT MARKING - LINE 12"
114	FOOT	THERMOPLASTIC PAVEMENT MARKING - LINE 24"
716	SQ FT	THERMOPLASTIC PAVEMENT MARKING REMOVAL
465	FOOT	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL
10	FOOT	CONDUIT IN TRENCH, 5" DIA., GALVANIZED STEEL
168	FOOT	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL
25	FOOT	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL
44	FOOT	CONDUIT PUSHED, 3" DIA., GALVANIZED STEEL
256	FOOT	CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL
36	FOOT	CONDUIT PUSHED, 5" DIA., GALVANIZED STEEL
5	EACH	HANDHOLE
2	EACH	HEAVY-DUTY HANDHOLE
2	EACH	DOUBLE HANDHOLE
470	FOOT	TRENCH AND BACKFILL FOR ELECTRICAL WORK
1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL
1	EACH	TRANSCIVER - FIBER OPTIC
553	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C
1177	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C
2076	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C
715	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C
1867	FOOT	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1-PAIR

QUANTITY	UNIT	ITEM
143	FOOT	ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C
459	FOOT	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C
1	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.
2	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.
2	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 26 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 42 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 50 FT.
12	FOOT	CONCRETE FOUNDATION, TYPE A
4	FOOT	CONCRETE FOUNDATION, TYPE C
30	FOOT	CONCRETE FOUNDATION, TYPE E 30" DIAMETER
30	FOOT	CONCRETE FOUNDATION, TYPE E 36" DIAMETER
12	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
8	EACH	INDUCTIVE LOOP DETECTOR
500	FOOT	DETECTOR LOOP, TYPE I
4	EACH	PEDESTRIAN PUSH-BUTTON
1	EACH	TEMPORARY TRAFFIC SIGNAL INSTALLATION
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
9	EACH	REMOVE EXISTING HANDHOLE
7	EACH	REMOVE EXISTING CONCRETE FOUNDATION
10	EACH	SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION, MAST ARM MOUNTED
2	EACH	SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION, BRACKET MOUNTED
2	EACH	SIGNAL HEAD, L.E.D., 1-FACE, 5-SECTION, BRACKET MOUNTED
2	EACH	SIGNAL HEAD, L.E.D., 1-FACE, 5-SECTION, MAST ARM MOUNTED
4	EACH	PEDESTRIAN SIGNAL HEAD, L.E.D., 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
1	EACH	TEMPORARY TRAFFIC SIGNAL TIMINGS
1	EACH	SERVICE INSTALLATION, POLE MOUNT
1	EACH	UNINTERRUPTIBLE POWER SUPPLY

**CABLE PLAN LEGEND**

- | PROPOSED | EXISTING |   |
|----------|----------|---|
| [Symbol] | [Symbol] | 8" (200mm) TRAFFIC SIGNAL SECTION   |
| [Symbol] | [Symbol] | 12" (300mm) TRAFFIC SIGNAL SECTION  |
| [Symbol] | [Symbol] | 12" (300mm) PEDESTRIAN SIGNAL SECTION   |
| [Symbol] | [Symbol] | 12" (300mm) PEDESTRIAN SIGNAL SECTION   |
| [Symbol] | [Symbol] | CONTROLLER CABINET  |
| [Symbol] | [Symbol] | SERVICE INSTALLATION  |
| [Symbol] | [Symbol] | TELEPHONE CONNECTION  |
| [Symbol] | [Symbol] | MAGNETIC DETECTOR   |
| [Symbol] | [Symbol] | PUSHBUTTON DETECTOR   |
| [Symbol] | [Symbol] | VEHICLE DETECTOR, INDUCTION LOOP  |
| [Symbol] | [Symbol] | 2 DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED. |
| [Symbol] | [Symbol] | SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD   |
| [Symbol] | [Symbol] | "P"   |
| [Symbol] | [Symbol] | RAILROAD CONTROL CABINET  |
| [Symbol] | [Symbol] | ILLUMINATED SIGN, FIBER OPTIC "NO LEFT TURN"  |
| [Symbol] | [Symbol] | ILLUMINATED SIGN, FIBER OPTIC "NO RIGHT TURN"   |
| [Symbol] | [Symbol] | GROUND ROD AT HANDHOLE, DOUBLE HANDHOLE, OR CONTROLLER  |
| [Symbol] | [Symbol] | GROUND ROD AT POST OR MAST ARM POLE   |
| [Symbol] | [Symbol] | GROUND ROD AT ELECTRIC SERVICE INSTALLATION   |
| [Symbol] | [Symbol] | GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)  |
| [Symbol] | [Symbol] | FIBER OPTIC CABLE IN CONDUIT NO. 62.5/25 2-MM12F & SM12F  |
| [Symbol] | [Symbol] | MICROWAVE VEHICLE SENSOR  |
| [Symbol] | [Symbol] | VIDEO DETECTOR  |
| [Symbol] | [Symbol] | CLOSED CIRCUIT TV   |
| [Symbol] | [Symbol] | EMERGENCY VEHICLE LIGHT DETECTOR  |
| [Symbol] | [Symbol] | CONFIRMATION BEACON   |
| [Symbol] | [Symbol] | UNINTERRUPTIBLE POWER SUPPLY  |
| [Symbol] | [Symbol] | PEDESTRIAN SIGNAL HEAD WITH COUNTDOWN TIMER   |

NOTE:  
PUSHBUTTON "A" SHALL PLACE A CALL IN PHASES 2 AND 4  
PUSHBUTTON "B" SHALL PLACE A CALL IN PHASES 4 AND 6  
PUSHBUTTON "C" SHALL PLACE A CALL IN PHASES 6 AND 8  
PUSHBUTTON "D" SHALL PLACE A CALL IN PHASES 2 AND 8

TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE LED	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	16		17	0.50	136.00
(YELLOW)	16		25	0.25	100.00
(GREEN)	16		15	0.25	60.00
ARROW	8		12	0.10	9.00
PED SIGNAL	8		25	1.00	200.00
CONTROLLER	1		100	1.00	100.00
ILLUM. SIGN				0.05	-
ENERGY COSTS TO: VILLAGE OF MELROSE PARK					TOTAL = 605.60
ENERGY SUPPLY CONTACT: MR. MIKE BELL					
PHONE: (708)410-5314					
COMPANY: COMMONWEALTH EDISON					

FILE NAME =	USER NAME = kanthaphixjbc	DESIGNED - N.B.	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>PROPOSED CABLE PLAN</b>			F.A.P. RTE. 330	SECTION 2008-006 TS	COUNTY COOK	TOTAL SHEETS 104	SHEET NO. 47
PROJECTS\traffic\070027\us12_20_45.dgn		DRAWN - N.B.	REVISED -		US 12/2045 (MANNHEIM RD) AT HIRSCH(SOFFEL) AVE						CONTRACT NO. 60E31	
PLOT SCALE = 40.0000' / IN.		CHECKED - D.B.	REVISED -		SCALE: NTS	SHEET NO.	OF SHEETS	STA.	TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	
PLOT DATE = 10/10/2008		DATE = 09/04/2008	REVISED -									