

CONTROLLER SEQUENCE

PHASE DESIGNATION DIAGRAM

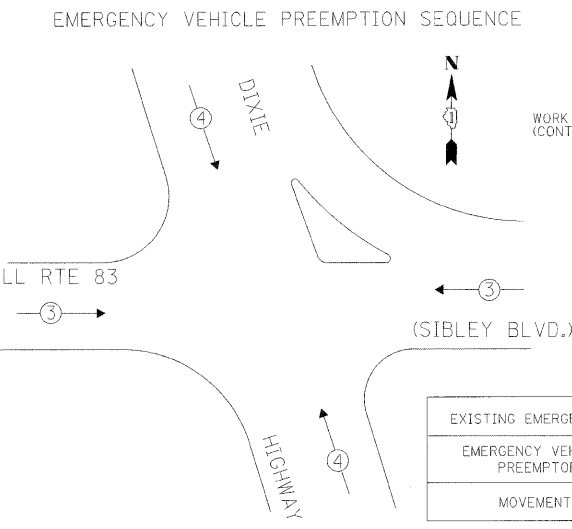
RIGHT TURN OVERLAP PHASE DESIGNATION

OVERLAP PHASE	PERMISSIVE PHASE	PROTECTED PHASE
A =	2 +	3
D =	8 +	1

**LEGEND**

- SINGLE ENTRY PHASE
- DUAL ENTRY PHASE
- PEDESTRIAN PHASE
- OVERLAP

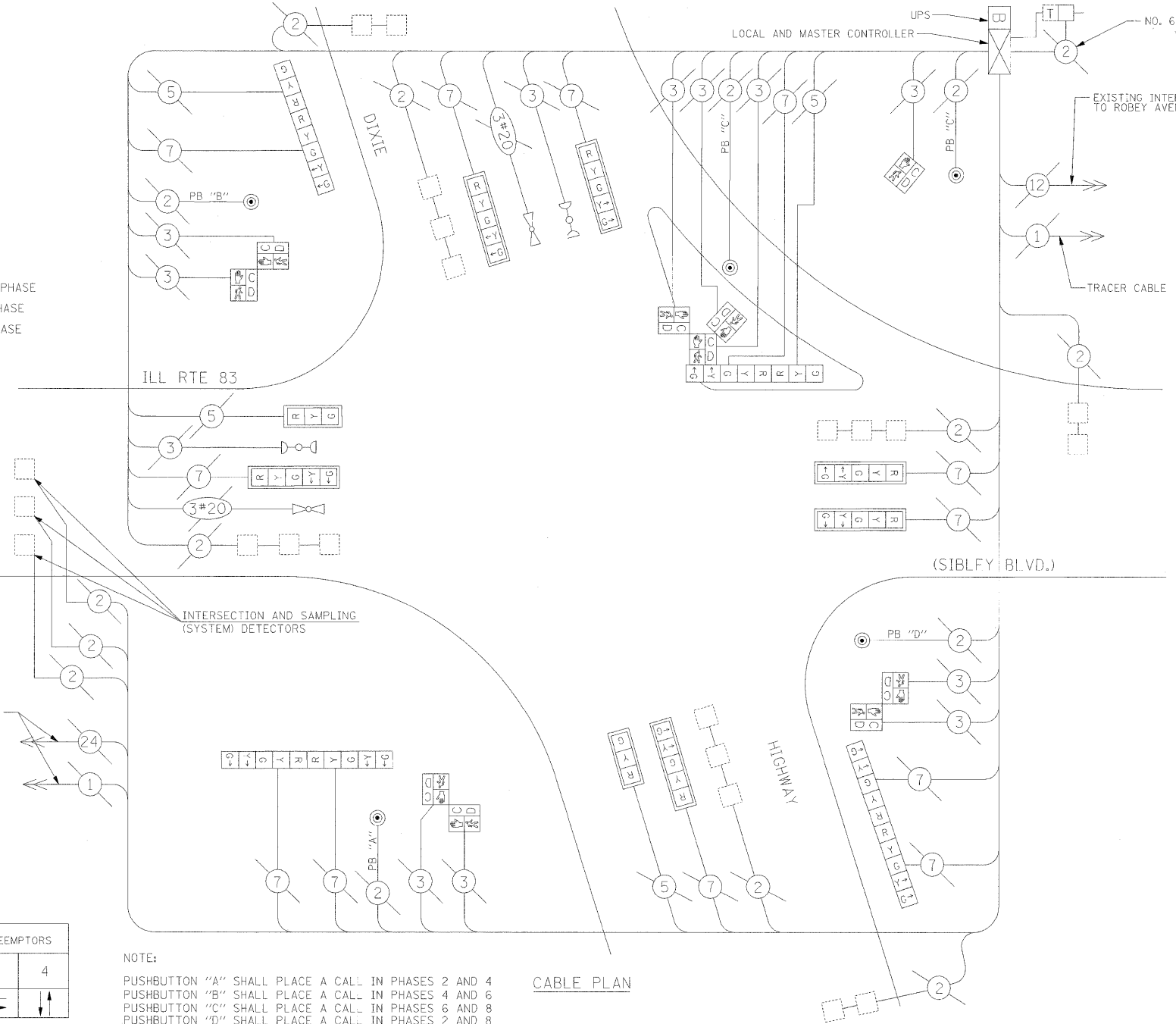
\* NUMBER REFERS TO ASSOCIATED PHASE



EMERGENCY VEHICLE PREEMPTION SEQUENCE

EXISTING EMERGENCY VEHICLE PREEMPTORS

EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	→	↑



CABLE PLAN

**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

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] | 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] | 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.62.5/125 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   |

SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
40	SQ FT	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH
56	SQ FT	DETECTABLE WARNINGS
0.33	L SUM	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501
0.33	L SUM	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	UNINTERRUPTIBLE POWER SUPPLY
2	EACH	SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION, MAST ARM MOUNTED
6	EACH	SIGNAL HEAD, L.E.D., 1-FACE, 5-SECTION, MAST ARM MOUNTED
2	EACH	SIGNAL HEAD, L.E.D., 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED
2	EACH	SIGNAL HEAD, L.E.D., 2-FACE, 5-SECTION, BRACKET MOUNTED
1	EACH	PEDESTRIAN SIGNAL HEAD, L.E.D., 1-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
3	EACH	PEDESTRIAN SIGNAL HEAD, L.E.D., 2-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
1	EACH	PEDESTRIAN SIGNAL HEAD, L.E.D., 3-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER
8	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
51.4	SO FT	TEMPORARY INFORMATION SIGNING

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

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. LAMPS	WATTAGE INCAND.	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	24	12		0.10	28.80
PED. SIGNAL	10	25		1.00	250.00
CONTROLLER	1	100		1.00	100.00
ILLUM. SIGN					
FLASHER					
ENERGY COSTS TO:					674.80
CITY OF HARVEY					
15320 BROADWAY AVENUE					
HARVEY, IL 60426					
ENERGY SUPPLY CONTACT:	STEVE FITZGERALD				
PHONE:	(708) 235-2327				
COMPANY:	COMMONWEALTH EDISON				

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.5 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20'+L-2'
E - M. ARM POLE	2 (1.0)	SIGNAL POST	2 (1.0)		(6m+L-0.6m)=
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
		ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
		GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
				POST MOUNTED	6 (1.8)