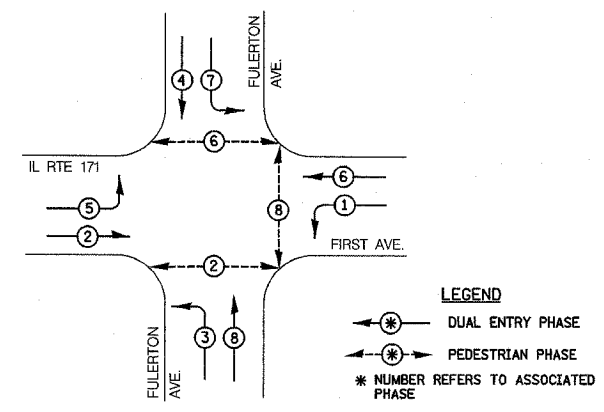
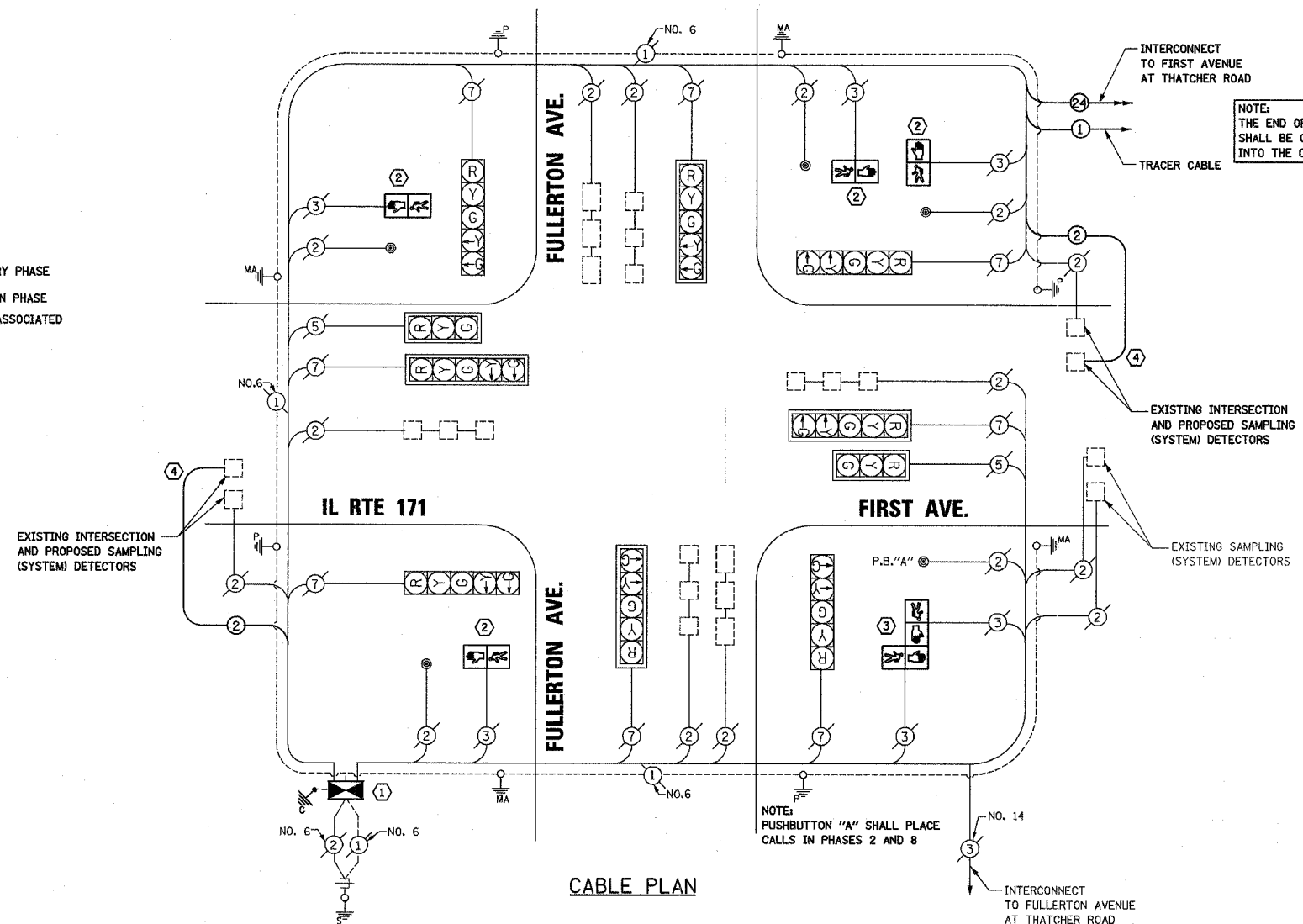


**CONTROLLER SEQUENCE**



**PHASE DESIGNATION DIAGRAM**



NOTE:  
THE END OF THE TRACER CABLE SHALL BE CONTINUOUS AND EXTEND INTO THE CONTROLLER CABINET

**CONSTRUCTION NOTES:**

- REMOVE EXISTING CONTROLLER AND CABINET. INSTALL NEW LOCAL CONTROLLER AND TYPE IV CABINET, RE-USE EXISTING FOUNDATION.
- REMOVE EXISTING PEDESTRIAN SIGNAL HEAD, 1-FACE, BRACKET MOUNTED, INSTALL NEW PEDESTRIAN SIGNAL HEAD, 1-FACE, BRACKET-MOUNTED.
- REMOVE EXISTING PEDESTRIAN SIGNAL HEAD, 2-FACE, BRACKET MOUNTED, INSTALL NEW PEDESTRIAN SIGNAL HEAD, 2-FACE, BRACKET-MOUNTED.
- INSTALL NEW ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO.14, 1 PAIR.
- THE CONTRACTOR SHALL BE REQUIRED TO MAINTAIN THE OPERATION OF THE TRAFFIC SIGNALS DURING THE ENTIRE PROJECT.

**CABLE PLAN LEGEND**

EXISTING	PROPOSED	DESCRIPTION
⊗	⊗	8" (200mm) TRAFFIC SIGNAL SECTION
⊗	⊗	12" (300mm) TRAFFIC SIGNAL SECTION
⊗	⊗	12" (300mm) PEDESTRIAN SIGNAL SECTION
⊗	⊗	12" (300mm) PEDESTRIAN SIGNAL SECTION
⊗	⊗	CONTROLLER CABINET
⊗	⊗	SERVICE INSTALLATION
⊗	⊗	TELEPHONE CONNECTION
⊗	⊗	VEHICLE DETECTOR, INDUCTION LOOP
⊗	⊗	MAGNETIC DETECTOR
⊗	⊗	EMERGENCY VEHICLE LIGHT DETECTOR
⊗	⊗	CONFIRMATION BEACON
⊗	⊗	PUSHBUTTON DETECTOR
⊗	⊗	GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
⊗	⊗	FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 MM12F SM12F
⊗	⊗	SIGNAL FACE WITH BACKPLATE, "P" INDICATES PROGRAMMED HEAD
⊗	⊗	SIGNAL FACE WITH BACKPLATE, "L" INDICATES LOUVRE
⊗	⊗	RAILROAD CONTROL CABINET
⊗	⊗	ILLUMINATED SIGN "NO LEFT TURN"
⊗	⊗	ILLUMINATED SIGN "NO RIGHT TURN"
⊗	⊗	GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C)
⊗	⊗	GROUND ROD AT POST (P), OR MAST ARM POLE (MA)
⊗	⊗	GROUND ROD AT ELECTRIC SERVICE INSTALLATION
⊗	⊗	MICROWAVE VEHICLE SENSOR

**SCHEDULE OF QUANTITIES**

ITEM	UNIT	QUANTITY
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL TRANSCEIVER, FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	756
PEDESTRIAN SIGNAL HEAD, 1-FACE, BRACKET MOUNTED	EACH	4
PEDESTRIAN SIGNAL HEAD, 2-FACE, BRACKET MOUNTED	EACH	1
INDUCTIVE LOOP DETECTOR	EACH	12
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS				TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE (INCAND. LED)	X % OPERATION	
SIGNAL (RED)	10	135	0.50	675
(YELLOW)	10	135	0.25	337.5
(GREEN)	10	135	0.25	337.5
ARROW	16	135	0.10	216
PED. SIGNAL	6	90	1.00	540
CONTROLLER	1	100	1.00	100
<b>TOTAL =</b>				<b>2206</b>

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 - FOUNDATION	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20' + L - 2 = (6m+L-0.6m)=
C - M. ARM POLE		SIGNAL POST	2 (1.0)	BRACKET MOUNTED	13 (4.0)
24" (600mm)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	PED. PUSHBUTTON	4 (1.2)
30" (750mm)	15 (4.6)	FIBER OPTIC	13 (4.0)	ELECTRIC SERVICE	13.5 (4.1)
		ELECTRIC SERVICE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
		GROUND CABLE	1 (0.5)	POST MOUNTED	6 (1.8)

NOTE:  
THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE".

**STON ENGINEERING**  
SERVICE CORPORATION  
CIVIL ENGINEERS  
19 S. BOTHWELL STREET  
PALATINE, ILLINOIS 60067  
VOICE: 847-776-7200 FAX: 847-776-7239

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**CABLE PLAN  
PHASE DESIGNATION DIAGRAM  
AND SCHEDULE OF QUANTITIES**  
IL RTE 171 (1ST AVENUE) AT FULLERTON AVENUE  
RIVER GROVE, ILLINOIS

SCALE: N.T.S. DRAWN BY CWC, BR  
DATE 10-23-06 DESIGNED BY VO  
CHECKED BY TJM