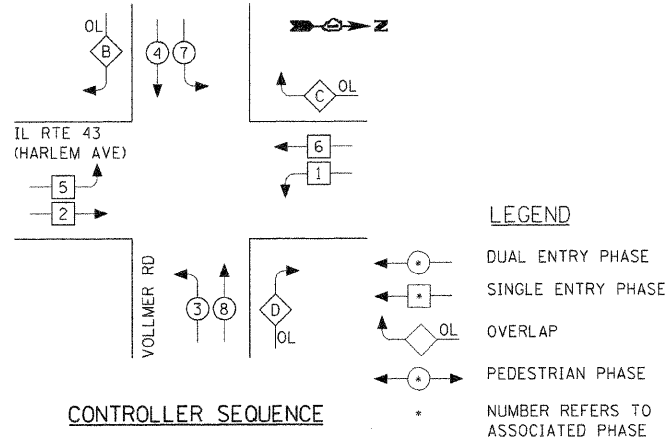


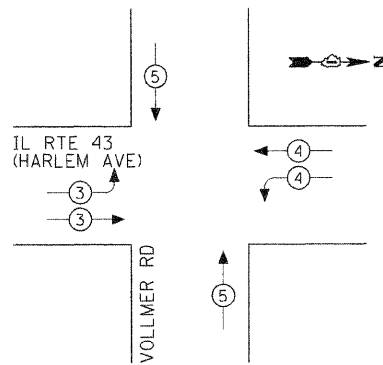
PHASE DESIGNATION DIAGRAM



RIGHT TURN OVERLAP PHASE DESIGNATION

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
B =	4 +	5
C =	6 +	7
D =	8 +	1

EMERGENCY VEHICLE PREEMPTION SEQUENCE



EXISTING EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	5
MOVEMENT	→	←	↑

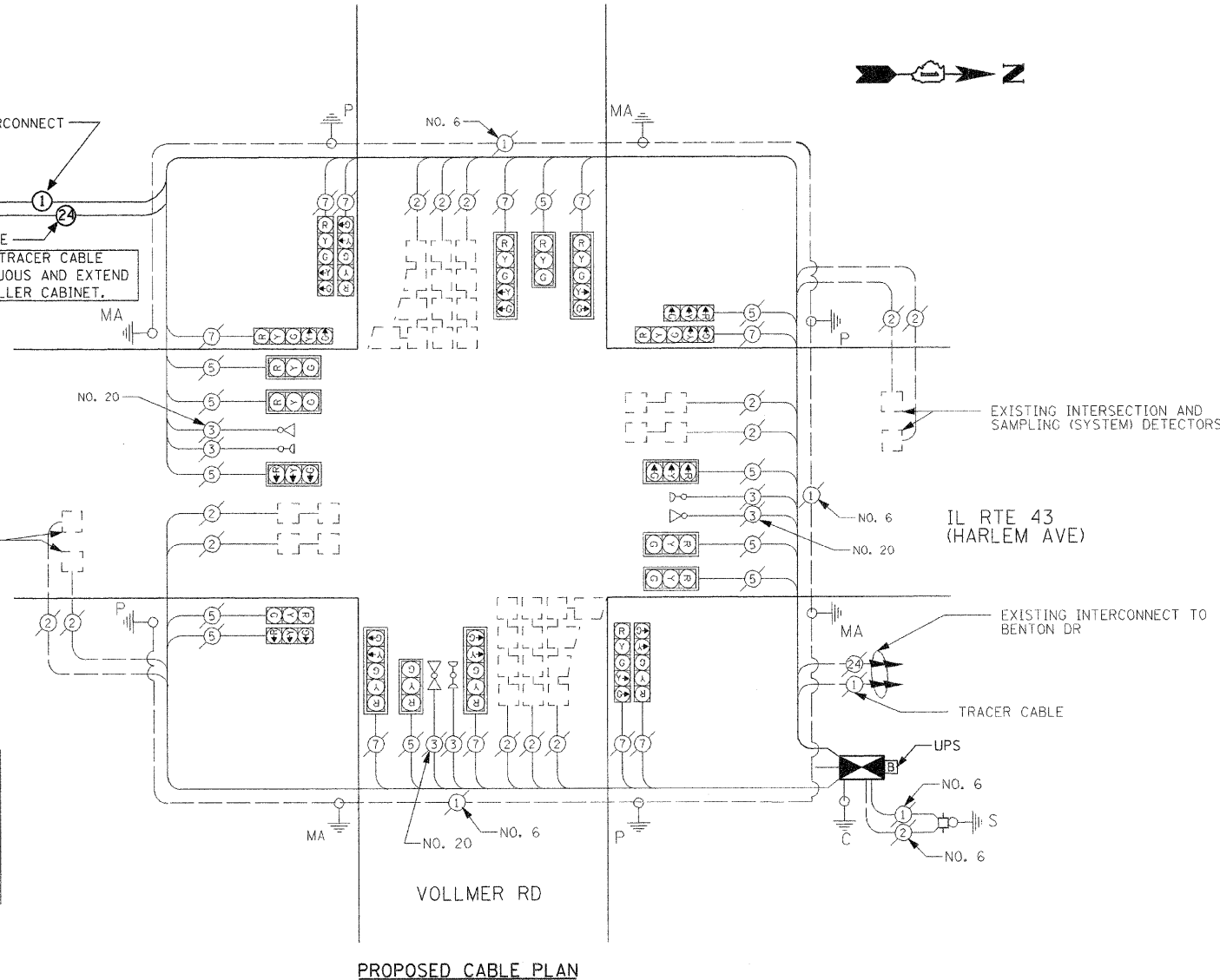
CABLE PLAN LEGEND

- EXISTING: (G) 8" (200mm) TRAFFIC SIGNAL SECTION
- PROPOSED: (R) 12" (300mm) TRAFFIC SIGNAL SECTION
- (W) 12" (300mm) PEDESTRIAN SIGNAL SECTION
- (P) 12" (300mm) PEDESTRIAN SIGNAL SECTION
- (C) CONTROLLER CABINET
- (B) UNINTERRUPTABLE POWER SUPPLY (UPS)
- (S) SERVICE INSTALLATION
- (T) TELEPHONE CONNECTION
- (V) VEHICLE DETECTOR, INDUCTION LOOP
- (M) MAGNETIC DETECTOR
- (E) EMERGENCY VEHICLE LIGHT DETECTOR
- (C) CONFIRMATION BEACON
- (P) PUSHBUTTON DETECTOR
- (2) DENOTES NUMBER OF CONDUCTORS. ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED.
- (1) GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)
- (24) FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 MM12F SM12F
- (R) SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD.
- (R) RAILROAD CONTROL CABINET
- (E) ILLUMINATED SIGN "NO LEFT TURN"
- (E) ILLUMINATED SIGN "NO RIGHT TURN"
- (H/C) GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C)
- (P) GROUND ROD AT POST (P) OR MAST ARM POLE (MA)
- (S) GROUND ROD AT ELECTRIC SERVICE INSTALLATION
- (V) VIDEO VEHICLE SENSOR

PROPOSED INTERCONNECT TO ST. FRANCIS

TRACER CABLE

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



PROPOSED CABLE PLAN

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

SCHEDULE OF QUANTITIES

QTY	UNIT	ITEM DESCRIPTION
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION
1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL
1	EACH	UNINTERRUPTABLE POWER SUPPLY
1	EACH	TRANCEIVER-FIBER OPTIC
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 2
14	EACH	INDUCTION LOOP DETECTOR
1	EACH	DRILL EXISTING HANDHOLE

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

TYPE	NO. LAMPS	WATTAGE INCAND.	WATTAGE LED	%OPERATION	TOTAL WATTAGE
SIGNAL (RED)	21		17	0.50	178.5
(YELLOW)	21		25	0.25	131.25
(GREEN)	21		15	0.25	78.75
ARROW	20		12	0.10	24.0
PED. SIGNAL	-		25	1.00	-
CONTROLLER	1		100	1.00	100.0
ILLUM. SIGN				0.05	
FLASHER				0.50	
TOTAL =					512.5

ENERGY COSTS TO:
VILLAGE OF FRANKFORT
432 WEST NEBRASKA STREET
FRANKFORT, ILLINOIS 60423
CONTACT: MICHAEL KING
PHONE: (815) 724-5027
COMPANY: CQM, ED.

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		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)
36" (900mm)	15 (4.6)	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)