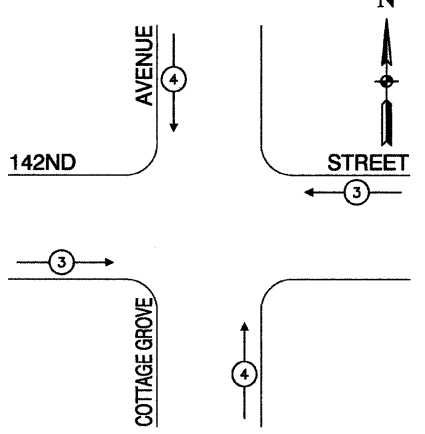


PHASE DESIGNATION DIAGRAM

EMERGENCY VEHICLE *
PREEMPTION SEQUENCE



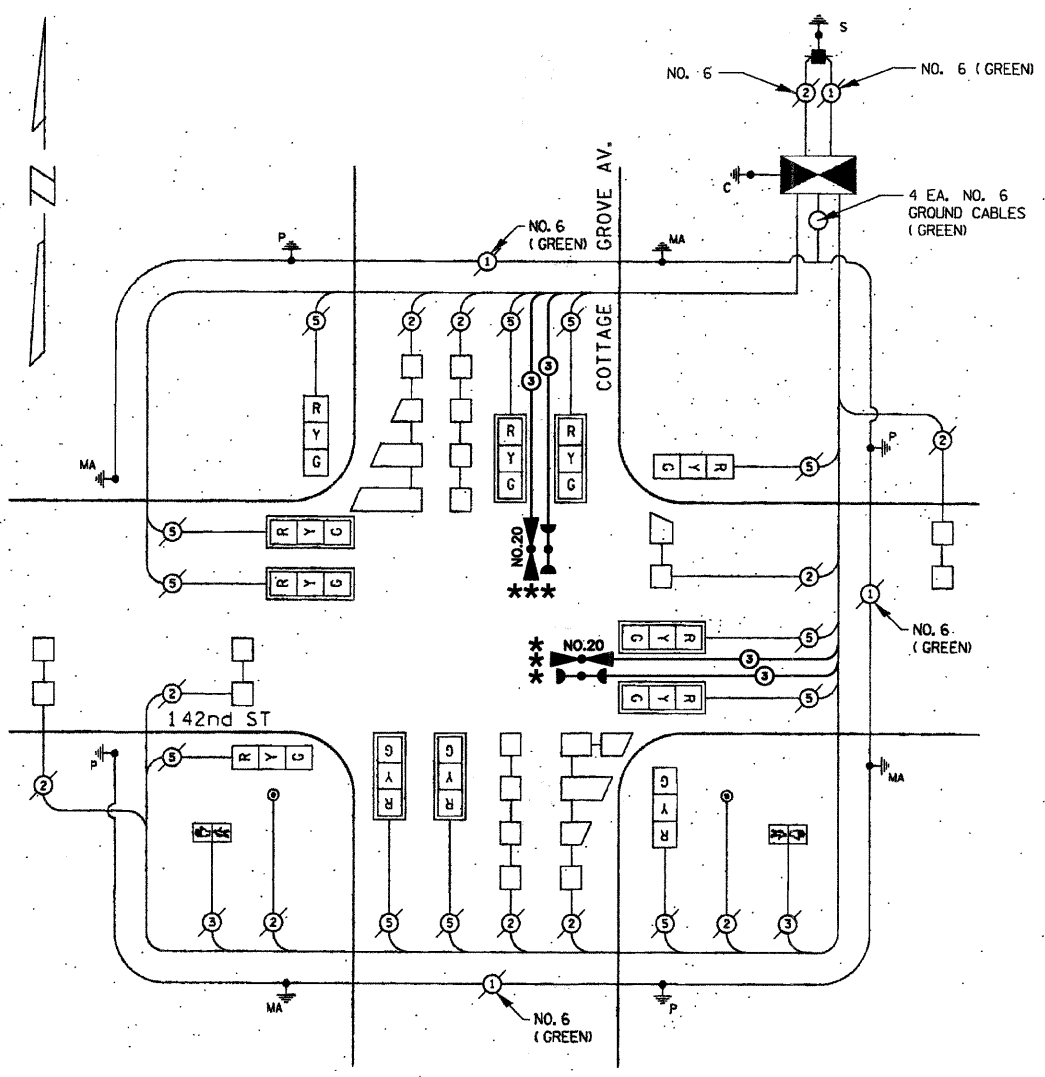
PROPOSED EMERGENCY VEHICLE PREEMPTORS	
EMERGENCY VEHICLE PREEMPTION	3 4
MOVEMENT	→ ←

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
SIGN PANEL-TYPE 1	50 FT	13.5
SIGN PANEL-TYPE 2	50 FT	27.5
CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	560
CONDUIT IN TRENCH, 2-1/2" DIA., GALVANIZED STEEL	FOOT	85
CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL	FOOT	90
CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL	FOOT	50
CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	FOOT	30
CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	FOOT	275
HANDHOLE	EACH	5
DOUBLE HANDHOLE	EACH	1
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	740
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	390
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	400
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	2085
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14, 1 PAIR	FOOT	1500
ELECTRIC CABLE IN CONDUIT, SERVICE NO. 6, 2 C	FOOT	65
ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6, 1 C	FOOT	575
TRAFFIC SIGNAL POST, GALVANIZED STEEL, 14 FT.	EACH	4
STEEL MAST ARM ASSEMBLY AND POLE, 22 FT.	EACH	2
STEEL MAST ARM ASSEMBLY AND POLE, 34 FT.	EACH	2
CONCRETE FOUNDATION, TYPE D	FOOT	16
CONCRETE FOUNDATION, TYPE D	FOOT	4
CONCRETE FOUNDATION, TYPE E, 30-INCH DIAMETER	FOOT	47
TRAFFIC SIGNAL BACKPLATE	EACH	8
INDUCTION LOOP DETECTOR	EACH	8
DETECTOR LOOP, TYPE 1	FOOT	870
PEDESTRIAN PUSHBUTTON	EACH	2
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	8
REMOVE EXISTING CONCRETE FOUNDATION	EACH	9
SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	8
SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	4
PEDESTRIAN SIGNAL HEAD, L.E.D., 1-FACE, BRACKET MOUNTED	EACH	4
SERVICE INSTALLATION, POLE MOUNT	EACH	1

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE (INCAND.)	WATTAGE (LED)	% OPERATION	
SIGNAL (RED)	12	156	17	0.50	102.00
(YELLOW)	12	156	25	0.25	75.00
(GREEN)	12	156	15	0.25	45.00
ARROW		156	12	0.10	
PED. SIGNAL	2	96	25	1.00	50.00
CONTROLLER	1	700	100	1.00	100.00
ILLUM. SIGN		84		0.05	
FLASHER					0.50
ENERGY COSTS TO: (EXIST. SERVICE DROP) TOTAL =					372.00

FOUNDATION	FT. (m) (DEPTH)	CABLE SLACK	FT. (m)	VERTICAL CABLE	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'-H-2"
E - M. ARM POLE		SIGNAL POST	3 (1.0)	6m H-0.6m=	
< 30' MA 30" (750mm) DIA.	10' (3.0)	CONTROLLER CAB.	3 (1.0)	BRACKET MOUNTED	13 (4.0)
< 40' MA 30" (750mm) DIA.	13.5' (4.1)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
< 40' MA 36" (900mm) DIA.	11' (3.3)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.1)
< 50' MA 36" (900mm) DIA.	13' (4.0)	GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.1)
≥ 50' MA 36" (900mm) DIA.	15' (4.6)	POST MOUNTED			6 (1.8)



CABLE PLAN

* SCHEDULE OF QUANTITIES

ITEM	UNIT	QUAN
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	273
LIGHT DETECTOR	EACH	2
LIGHT DETECTOR AMPLIFIER	EACH	1
MODIFY EXISTING CONTROLLER	EACH	1
ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	FOOT	273

CABLE PLAN LEGEND

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

* THIS PLAN IS FOR THE PURPOSE OF INSTALLING EMERGENCY VEHICLE PREEMPTION EQUIPMENT AS SHOWN PER PLAN INDICATED IN THE SCHEDULE OF QUANTITIES. ALL OTHER EQUIPMENT SHOWN SHALL BE DISREGARDED.

* ADDED EV PREEMPTION LOCATION NO. 11