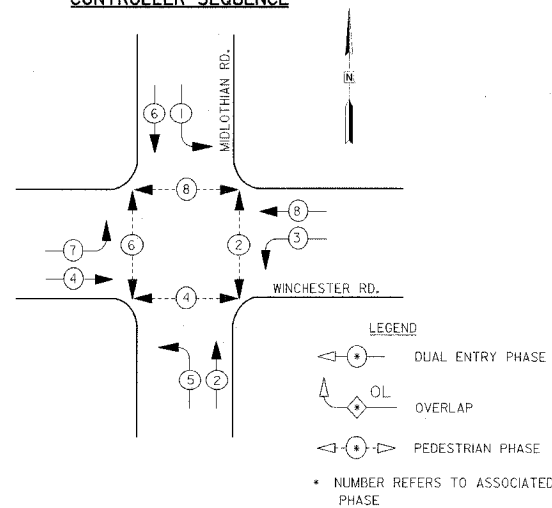
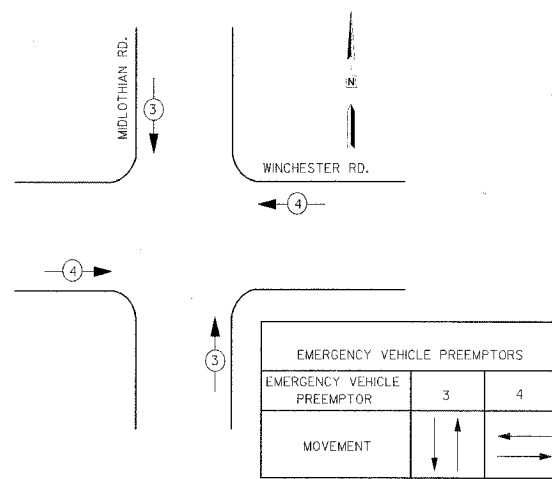


CONTROLLER SEQUENCE

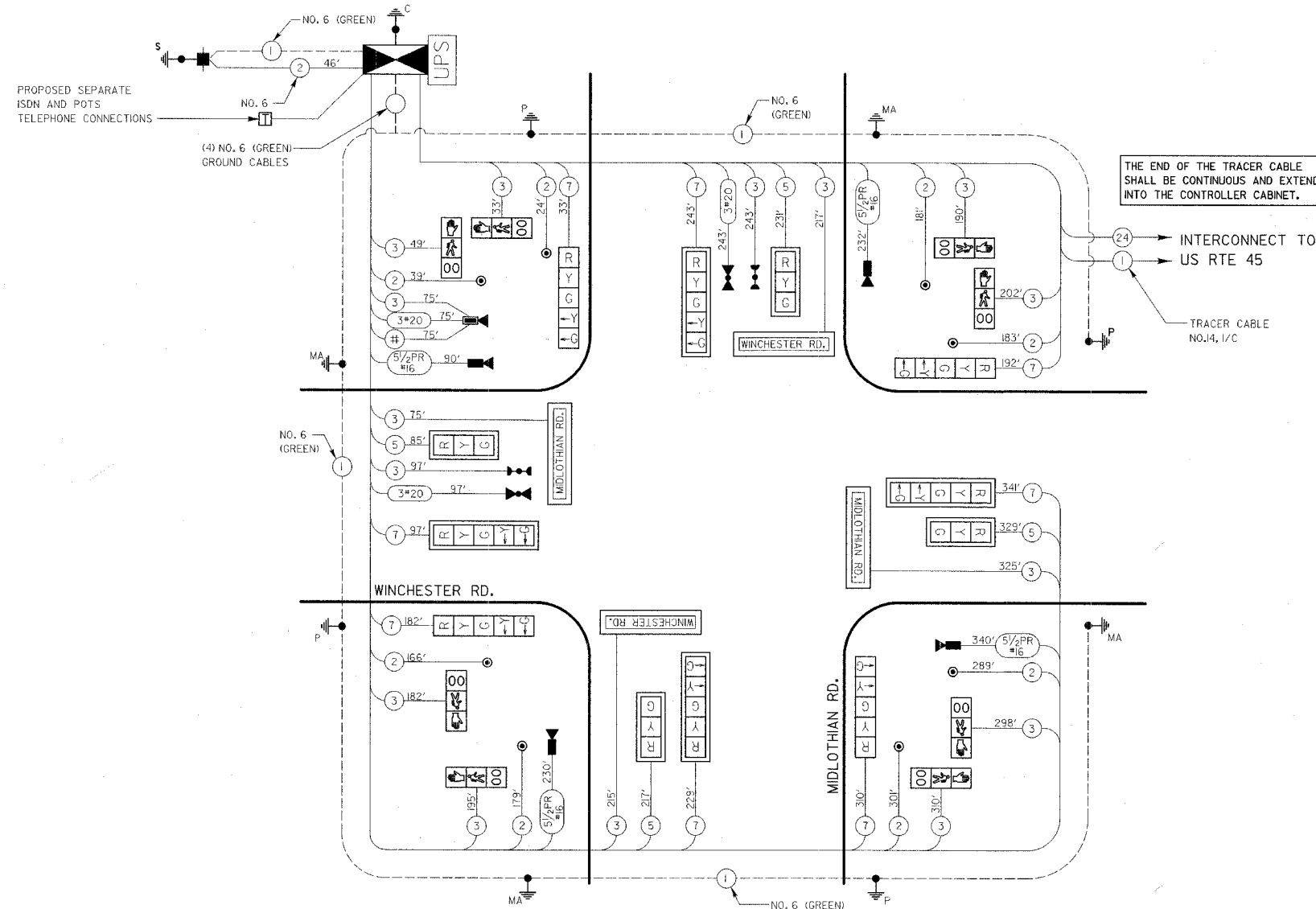


PHASE DESIGNATION DIAGRAM

EMERGENCY VEHICLE PREEMPTION SEQUENCE



CABLE PLAN



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

INTERCONNECT TO US RTE 45

TRACER CABLE NO. 4, 1/C

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 FACE WITH COUNTDOWN FEATURE |
| | | CONTROLLER CABINET |
| | | SERVICE INSTALLATION |
| | | TELEPHONE CONNECTION |
| | | VEHICLE DETECTOR, INDUCTION LOOP |
| | | MAGNETIC DETECTOR |
| | | EMERGENCY VEHICLE LIGHT DETECTOR |
| | | CONFIRMATION BEACON |
| | | PUSHBUTTON DETECTOR |
| | | ① GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN) |
| | | ② FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 MM2F SM2F |
| | | ③ COAXIAL CABLE IN CONDUIT BELDEN 8281RG-59U TYPE COAXIAL |
| | | R Y G A P SIGNAL FACE WITH BACKPLATE, "P" INDICATES PROGRAMMED HEAD |
| | | 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 |
| | | ILLUMINATED STREET NAME SIGN WITH PHOTOCELL |
| | | MACHINE VISION PROCESSOR (MVP) |
| | | DOMED PAN/TILT/ZOOM (PTZ) CAMERA |
| | | UNINTERRUPTIBLE POWER SUPPLY |

SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	84
CONDUIT IN TRENCH, 2-1/2" DIA., GALVANIZED STEEL	FOOT	76
CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL	FOOT	68
CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL	FOOT	95
CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	FOOT	263
HANDHOLE	EACH	2
DOUBLE HANDHOLE	EACH	2
TRENCH & BACKFILL FOR ELECTRICAL WORK	FOOT	323
FULL-ACTUATED CONTROLLER, IN TYPE IV CABINET, NEMA-TS2, (SPECIAL)	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	1,362
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	2,706
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	862
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	1,627
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6, 2C	FOOT	46
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 36 FT. (SPECIAL)	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 38 FT. (SPECIAL)	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 44 FT. (SPECIAL)	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 48 FT. (SPECIAL)	FOOT	1
CONCRETE FOUNDATION, TYPE A	FOOT	16
CONCRETE FOUNDATION, TYPE C	FOOT	4

ITEM	UNIT	QUANTITY
CONCRETE FOUNDATION, TYPE E, 36-INCH DIAMETER	FOOT	52
TRAFFIC SIGNAL BACKPLATE, LOUVERED ALUMINUM	EACH	8
LIGHT DETECTOR	EACH	2
LIGHT DETECTOR AMPLIFIER	EACH	1
PEDESTRIAN PUSHBUTTON, LED	EACH	8
UNINTERRUPTIBLE POWER SUPPLY	EACH	1
SERVICE INSTALLATION, POLE MOUNTED	EACH	1
ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	610
ELECTRIC CABLE IN CONDUIT, SIGNAL, NO. 20, 3C	FOOT	340
SIGNAL HEAD POLY, L.E.D., I-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	4
SIGNAL HEAD POLY, L.E.D., I-FACE, 5-SECTION, MAST ARM MOUNTED	EACH	4
SIGNAL HEAD POLY, L.E.D., I-FACE, 5-SECTION, BRACKET MOUNTED	EACH	4
ELECTRIC CABLE IN CONDUIT, COMMUNICATION, NO. 20, 3C	FOOT	75
VIDEO TRANSMISSION SYSTEM	EACH	1
ELECTRIC CABLE IN CONDUIT, COAXIAL	FOOT	75
ELECTRIC CABLE IN CONDUIT, COMMUNICATION, NO. 16, 5.5 PAIR	FOOT	892
TRAFFIC SIGNAL POST, 16 FT. (SPECIAL)	EACH	4
LED INTERNALLY ILLUMINATED STREET NAME SIGN	EA	4
REMOTE-CONTROLLED VIDEO SYSTEM	EACH	1
VIDEO DETECTION SYSTEM, (COMPLETE INTERSECTION)	EACH	1
INTERSECTION MONITOR MODULE	EACH	1
PED. SIGNAL HEAD, L.E.D., I-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER	EACH	8

L.D.Q.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE	% OPERATION		
SIGNAL (RED)	12	10	0.50		60.0
(YELLOW)	12	19	0.25		57.0
(GREEN)	12	4	0.25		33.0
ARROW	16	3	0.80		14.4
PED. SIGNAL	8	9	1.00		72.0
CONTROLLER	1	100	1.00		100.0
BATT. BACK UP	1	25	1.00		25.0
VIDEO SYSTEM	1	150	1.00		150.0
ILLUM. STREET SIGN	4	84	0.50		168.0
FLASHER			0.50		
ENERGY COSTS TO: (NEW SERVICE) TOTAL =					404.4

FOUNDATION (DEPTH)	FT. (m)	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' ± (-2)
E - M. ARM POLE	4' (1.2)	SIGNAL POST	2 (0.6)	16m ± (-0.6m)	
C30" MA 30" DIA.	10' (3.0)	CONTROLLER CAB.	1 (0.5)	BRACKET MOUNTED	13 (4.0)
C40" MA 30" DIA.	3'-6" (1.0)	FIBER OPTIC	13 (4.0)	PED. PUSHBUTTON	4 (1.2)
C40" MA 36" DIA.	1' (0.3)	ELECTRIC SERVICE	1 (0.5)	ELECTRIC SERVICE	13.5 (4.0)
C50" MA 36" DIA.	13' (4.0)	GROUND CABLE	1 (0.5)	SERVICE TO GROUND	13.5 (4.0)
C50" MA 36" DIA.	15' (4.6)			POST MOUNTED	6 (1.8)

THE EMERGENCY VEHICLE PRIORITY SYSTEM EQUIPMENT FOR THIS PROJECT SHALL BE LATEST TYPE "OPTICOM" AS MANUFACTURED BY 3-M COMPANY.

REVISIONS	
NAME	DATE
DMH	3-14-06

CABLE PLAN
 PHASE DESIGNATION DIAGRAM
 SCHEDULE OF QUANTITIES
WINCHESTER RD. @ MIDLOTHIAN RD.

SCALE: NONE
DATE: 6/30/05
DRAWN BY: AC
DESIGNED BY: DMH
CHECKED BY: AS