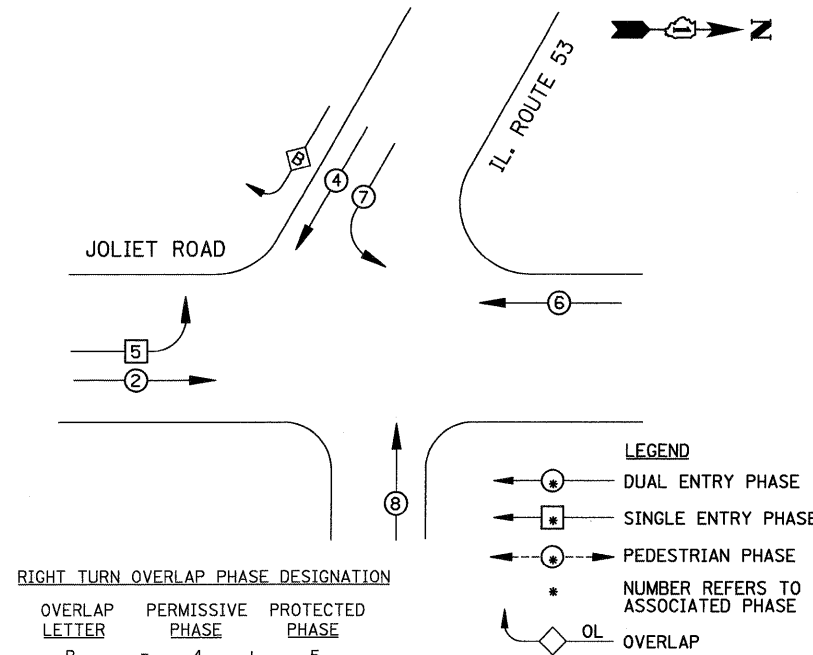
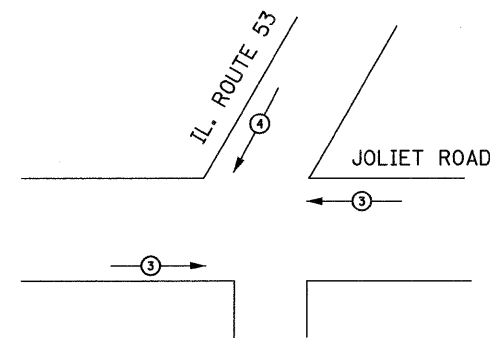


**CONTROLLER SEQUENCE**



**PHASE DESIGNATION DIAGRAM**

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



**PROPOSED EMERGENCY VEHICLE PREEMPTOR**

EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	← →	↑ ↓

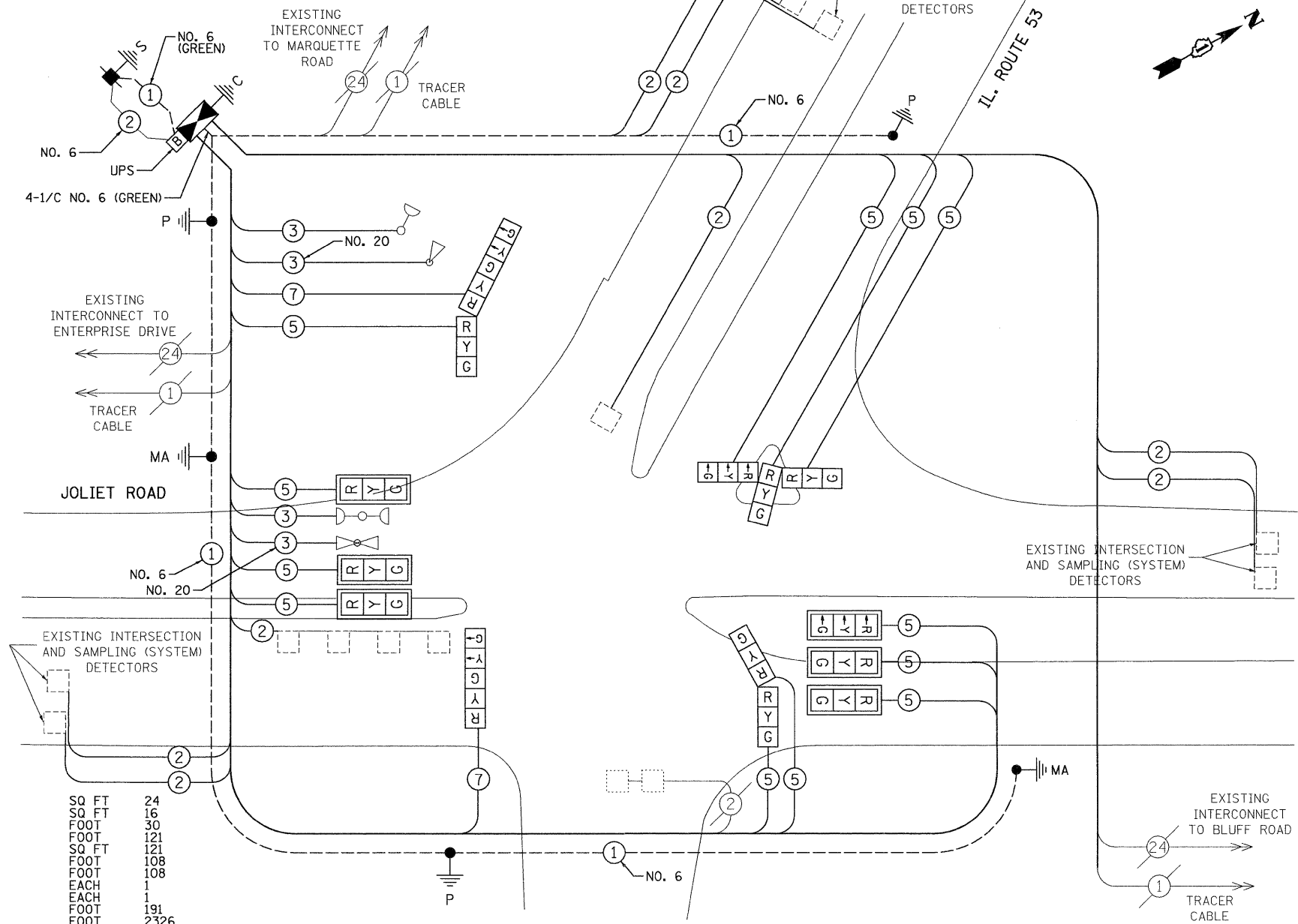
**CABLE PLAN LEGEND**

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

**SCHEDULE OF QUANTITIES**

SIGN PANEL, TYPE 1	24	SQ FT	24
RELOCATE SIGN PANEL, TYPE 1	16	SQ FT	16
TELESCOPING STEEL SIGN SUPPORT	30	FOOT	30
THERMOPLASTIC PAVEMENT MARKING, LINE-24"	121	FOOT	121
THERMOPLASTIC PAVEMENT MARKING REMOVAL	121	SQ FT	121
CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL	108	FOOT	108
TRENCH AND BACKFILL FOR ELECTRICAL WORK	108	FOOT	108
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	1	EACH	1
FULL-ACTUATED CONTROLLER IN EXISTING CABINET, SPECIAL	1	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	191	FOOT	191
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	2326	FOOT	2326
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	216	FOOT	216
ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C	51	FOOT	51
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	909	FOOT	909
TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	1	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	1	EACH	1
TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.	1	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 42 FT.	1	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 46 FT.	1	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 22 FT.	1	EACH	1
CONCRETE FOUNDATION, TYPE A	4	FOOT	4
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	30	FOOT	30
DRILL EXISTING HANDHOLE	2	EACH	2
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED	6	EACH	6
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	1	EACH	1
SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	1	EACH	1
SIGNAL HEAD, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	1	EACH	1
SIGNAL HEAD, LED, 3-FACE, 3-SECTION, BRACKET MOUNTED	1	EACH	1
TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM	6	EACH	6
REMOVE ELECTRIC CABLE FROM CONDUIT	3730	FOOT	3730
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	1	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	5	EACH	5
SERVICE INSTALLATION, POLE MOUNT	1	EACH	1
ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	666	FOOT	666
ELECTRIC CABLE IN CONDUIT, NO. 20 3/C, TWISTED & SHIELDED	191	FOOT	191
UNINTERRUPTIBLE POWER SUPPLY	1	EACH	1
REBUILD EXISTING HANDHOLE	1	EACH	1

FOUNDATION (DEPTH)	FT. (m)	CABLE SLACK	FT. (m)	VERTICAL	FT. (m)
TYPE A - POST	4 (1.2)	HANDHOLE	6.5 (2.0)	ALL FOUNDATIONS	3.0 (1.0)
D - CONTROLLER	4 (1.2)	DOUBLE HANDHOLE	13 (4.0)	MAST ARM (L) POLE	20.0 (6.0)
E - M. ARM POLE		SIGNAL POST	0 (0.0)	BRACKET MOUNTED	13 (4.0)
24" (600mm)	10 (3.0)	CONTROLLER CAB.	0 (0.0)	PED. PUSH-BUTTON	6 (2.0)
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	13 (4.0)



**CABLE PLAN**

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE		%OPERATION	
SIGNAL (RED)	13	135	17	0.50	110.5
(YELLOW)	11	135	25	0.25	68.75
(GREEN)	11	135	15	0.25	41.25
ARROW	8	135	12	0.10	9.6
PED. SIGNAL		90	25	1.00	
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84		0.05	
FLASHER				0.50	

ENERGY COSTS TO: VILLAGE OF ROMEOVILLE, 13 MONTROSE DRIVE, ROMEOVILLE, IL 60446

ENERGY SUPPLY CONTACT: \_\_\_\_\_ PHONE: \_\_\_\_\_ COMPANY: \_\_\_\_\_

TOTAL = 230.1

FILE NAME = \MICROSTV352072\ RT53 @JOLIET CAB.DGN

USER NAME = RDS

DESIGNED - KK

DRAWN - RDS

CHECKED - BPT

DATE - 03-18-09

REVISIONS:

**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

**SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM IL. ROUTE 53 AT JOLIET ROAD**

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

PREPARED BY: **CEMCON, Ltd.**  
 Consulting Engineers, Land Surveyors & Planners  
 2280 White Oak Circle, Suite 100  
 Aurora, Illinois 60504-9675  
 Ph: 630.862.2100 Fax: 630.862.2199  
 E-Mail: cadd@cemcon.com Website: www.cemcon.com

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2009-039 TS	WILL	20	18

CONTRACT NO. 60G44  
 FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT