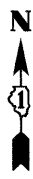
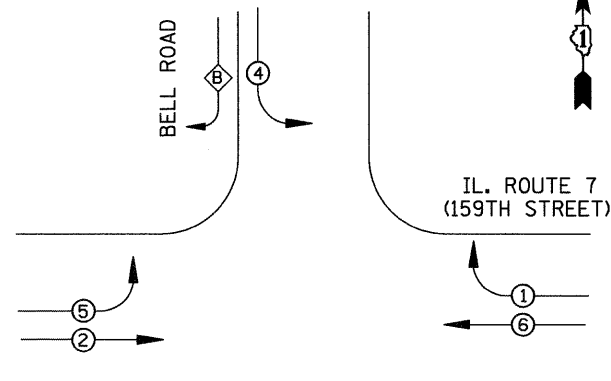


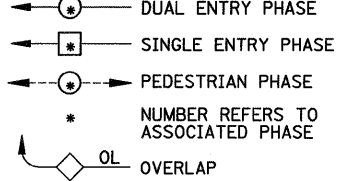
**CONTROLLER SEQUENCE**



**RIGHT TURN OVERLAP PHASE DESIGNATION**

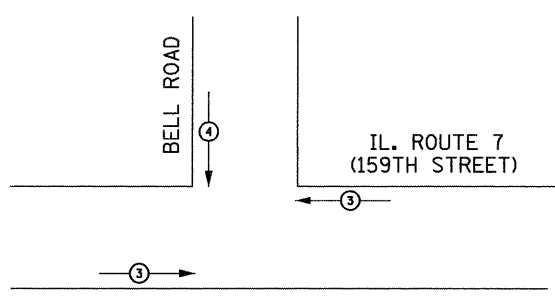
OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
B	= 4	+ 5

**LEGEND**



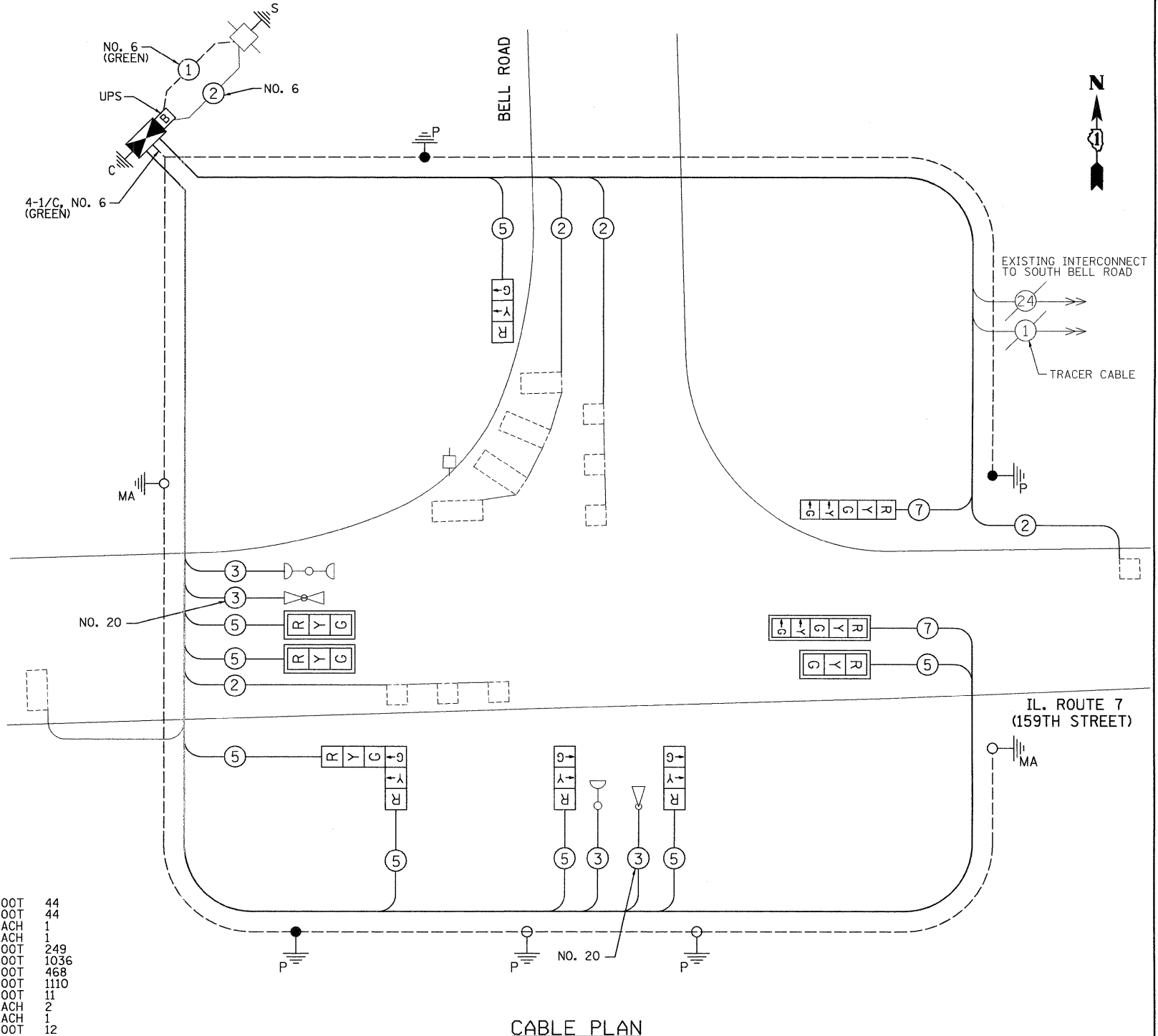
**PHASE DESIGNATION DIAGRAM**

**EMERGENCY VEHICLE PREEMPTION SEQUENCE**



**CABLE PLAN LEGEND**

- EXISTING**
- PROPOSED**
- 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
- MAGNETIC DETECTOR
- EMERGENCY VEHICLE LIGHT DETECTOR
- CONFIRMATION BEACON
- PUSH-BUTTON DETECTOR
- VEHICLE DETECTOR, INDUCTION LOOP
- 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)
- 2 FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 2-MM12F SM12F
- 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
- UNINTERRUPTIBLE POWER SUPPLY



**SCHEDULE OF QUANTITIES**

CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL  
 TRENCH AND BACKFILL FOR ELECTRICAL WORK  
 MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION  
 FULL-ACTUATED CONTROLLER IN EXISTING CABINET, SPECIAL  
 ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C  
 ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C  
 ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C  
 ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR  
 ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2C  
 TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.  
 TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.  
 CONCRETE FOUNDATION, TYPE A  
 DRILL EXISTING HANDHOLE  
 SIGNAL HEAD, LED, 1-FACE, 3-SECTION, MAST-ARM MOUNTED  
 SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED  
 SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED  
 SIGNAL HEAD, LED, 1-FACE, 5-SECTION, MAST-ARM MOUNTED  
 SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED  
 TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM  
 REMOVE ELECTRIC CABLE FROM CONDUIT  
 REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT  
 REMOVE EXISTING CONCRETE FOUNDATION  
 ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C  
 ELECTRIC CABLE IN CONDUIT, NO. 20 3/C, TWISTED & SHIELDED  
 UNINTERRUPTIBLE POWER SUPPLY  
 REBUILD EXISTING HANDHOLE

FOOT	44
FOOT	44
EACH	1
EACH	1
FOOT	249
FOOT	1036
FOOT	468
FOOT	1110
FOOT	11
EACH	2
EACH	1
FOOT	12
EACH	2
EACH	3
EACH	3
EACH	1
EACH	1
EACH	1
EACH	4
FOOT	3182
EACH	1
EACH	3
FOOT	461
FOOT	249
EACH	1
EACH	1

EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	←	↓

TYPE	NO. LAMPS	WATTAGE		OPERATION	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	10	135	17	0.50	85
(YELLOW)	6	135	25	0.25	37.5
(GREEN)	6	135	15	0.25	22.5
ARROW	12	135	12	0.10	14.4
PED. SIGNAL	90	90	25	1.00	
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84		0.05	

ENERGY COSTS TO: TOTAL = 259.4  
 VILLAGE OF HOMER GLEN  
 14933 S. FOUNDERS CROSSING  
 HOMER GLEN, IL 60491  
 ENERGY SUPPLY CONTACT: \_\_\_\_\_  
 PHONE: \_\_\_\_\_  
 COMPANY: COMED

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)

FILE NAME = \MICROSTV\352072\ IL7 @ BELL NO CAB.DGN	USER NAME = RDS	DESIGNED - KK	REVISED -
PLOT SCALE = 1"=20'		DRAWN - RDS	REVISED -
PLOT DATE = 03-18-09		CHECKED - BPT	REVISED -
		DATE - 03-18-09	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**SCHEDULE OF QUANTITIES, CABLE PLAN  
 AND PHASE DESIGNATION DIAGRAM  
 IL. ROUTE 7 (159TH STREET) AT BELL ROAD (WEST JUNCTION)**  
 SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

PREPARED BY:  
**CEMCON, Ltd.**  
 Consulting Engineers, Land Surveyors & Planners  
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 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.
	2009-038 TS	WILL	19	15
CONTRACT NO. 60G43				
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				