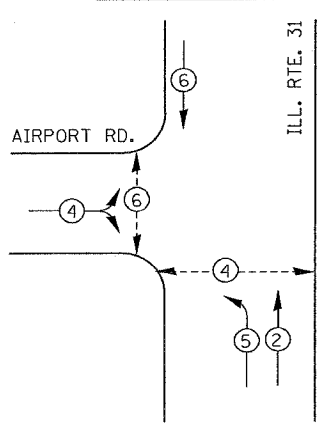


F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3902	2005-003 TS	KANE	20	11
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
CONTRACT NO. 62907				

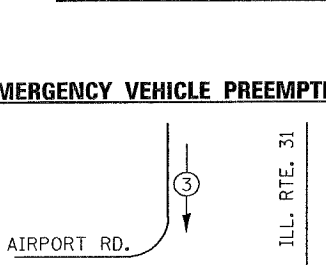
**CONTROLLER SEQUENCE**



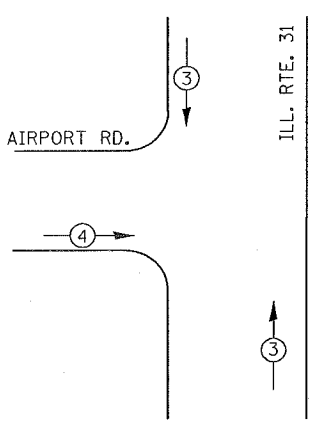
**LEGEND**

- DUAL ENTRY PHASE
- PEDESTRIAN PHASE
- NUMBER REFERS TO ASSOCIATED PHASE

**PHASE DESIGNATION DIAGRAM**



**EMERGENCY VEHICLE PREEMPTION DIAGRAM**

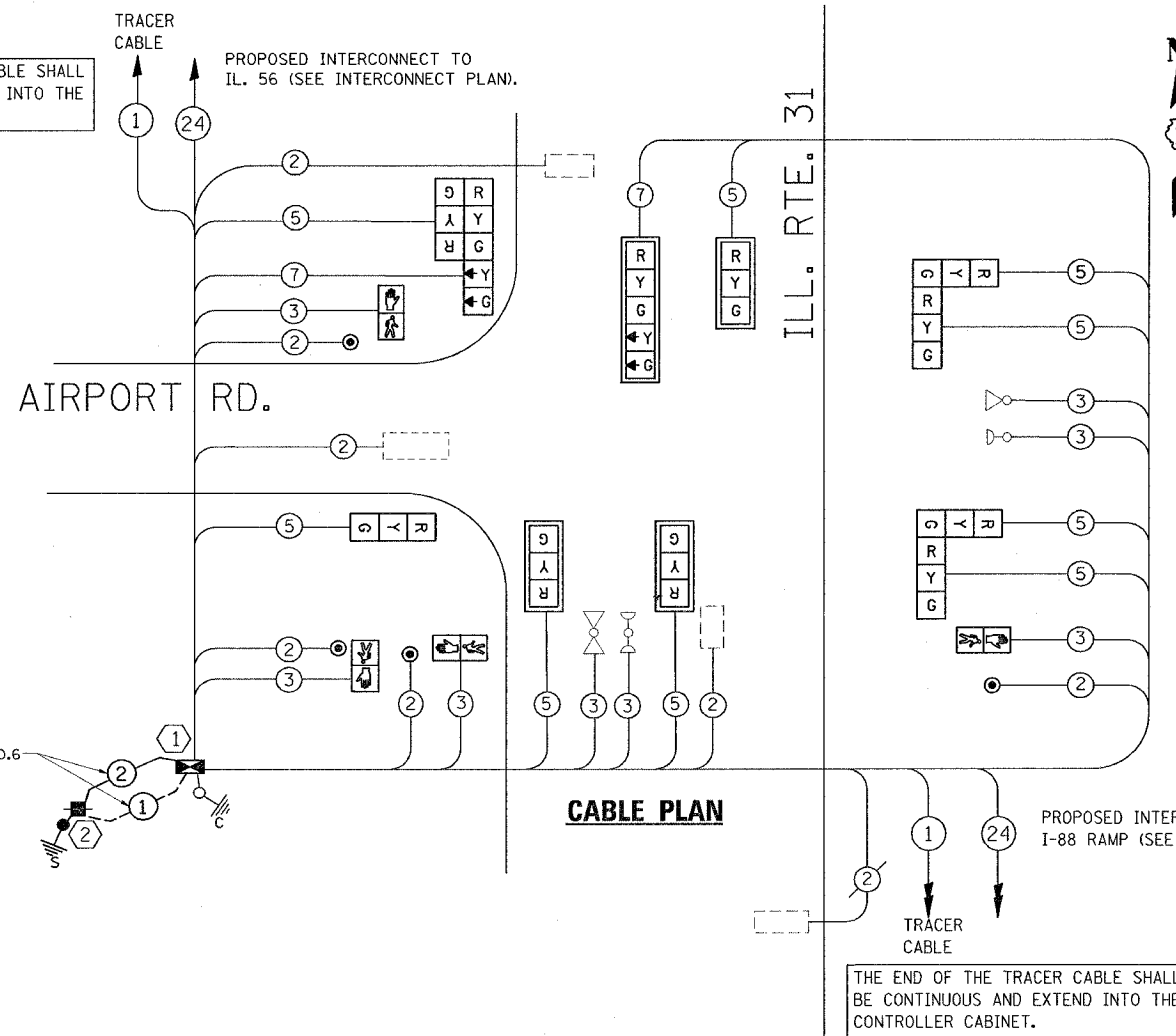


PROPOSED EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT		

**CONSTRUCTION NOTES:**

- 1 REMOVE EXISTING CONTROLLER AND CABINET. INSTALL NEW CONTROLLER AND TYPE IV CABINET ON NEW FOUNDATION. RELOCATE EXISTING EMERGENCY VEHICLE PRIORITY SYSTEM PHASING UNIT TO NEW CONTROLLER CABINET INCLUDED IN COST OF THE NEW CONTROLLER AND CABINET.
- 2 REMOVE EXISTING SERVICE CABLE AND SERVICE. INSTALL NEW SERVICE, SERVICE CABLE AND GROUND CABLE.

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



**CABLE PLAN LEGEND**

- |   |  |
|---|--|
| 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  | VEHICLE DETECTOR, INDUCTION LOOP                                     |
| MAGNETIC DETECTOR   | EMERGENCY VEHICLE LIGHT DETECTOR                                     |
| CONFIRMATION BEACON   | PUSHBUTTON DETECTOR  |
| DENOTES NUMBER OF CONDUCTORS, ALL CABLE NO. 14 EXCEPT AS INDICATED. ALL LOOP DETECTOR CABLE TO BE SHIELDED. | GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)                   |
| FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 MM12F SM12F   | SIGNAL FACE WITH BACKPLATE, "P" INDICATES PROGRAMMED HEAD            |
| RAILROAD CONTROL CABINET  | GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (HH), OR CONTROLLER (C). |
| GROUND ROD AT POST (P), OR MAST ARM POLE (MA).  | GROUND ROD AT ELECTRIC SERVICE INSTALLATION                          |

**CABLE PLAN**

**SCHEDULE OF QUANTITIES**

ITEM	UNIT	QUANTITY	ITEM	UNIT	QUANTITY
TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	LSUM	.20	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	1
TRAFFIC CONTROL AND PROTECTION, STANDARD 701601	LSUM	.20	STEEL MAST ARM ASSEMBLY AND POLE, 20 FT.	EACH	2
TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	LSUM	.20	CONCRETE FOUNDATION, TYPE A	FOOT	12
TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	LSUM	.20	CONCRETE FOUNDATION, TYPE D	FOOT	4
THERMOPLASTIC PAVEMENT MARKING LINE 4"	FOOT	270	CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	30
THERMOPLASTIC PAVEMENT MARKING LINE 24"	FOOT	70	SERVICE INSTALLATION, POLE MOUNT	EACH	1
CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	656	MODIFY EXISTING TYPE "D" FOUNDATION	EACH	1
CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL	FOOT	36	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	690
CONDUIT PUSHED, 3" DIA., GALVANIZED STEEL	FOOT	62	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET (SPECIAL)	EACH	1	REMOVE EXISTING HANDHOLE	EACH	1
TRANSCEIVER-FIBER OPTIC	EACH	1	REMOVE EXISTING CONCRETE FOUNDATION	EACH	5
ELECTRIC CABLE IN CONDUIT, GROUNDING NO. 6 1 C	FOOT	50	SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION, MAST ARM MOUNTED.	EACH	3
ELECTRIC CABLE IN CONDUIT, SERVICE NO. 6 2 C	FOOT	50	SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION, BRACKET MOUNTED.	EACH	2
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO 14 1 PAIR	FOOT	590	SIGNAL HEAD, L.E.D., 2-FACE, 3-SECTION, BRACKET MOUNTED.	EACH	2
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	480	SIGNAL HEAD, L.E.D., 2-FACE, 1 5-SECTION, 1 3-SECTION	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	725	SIGNAL HEAD, L.E.D., 1-FACE, 5-SECTION, MAST ARM MOUNTED.	EACH	1
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	970	PEDESTRIAN SIGNAL HEAD, L.E.D., 1-FACE, BRACKET MOUNTED	EACH	4
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	140	PEDESTRIAN PUSH-BUTTON	EACH	4
INDUCTIVE LOOP DETECTOR	EACH	4	INDUCTIVE LOOP DETECTOR	EACH	4
TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.	EACH	1	TRAFFIC SIGNAL BACKPLATE	EACH	2
TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	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	3.5 (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)
		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)

NOTE: RELOCATION OF THE LIGHT DETECTOR AMPLIFIER(S) FROM THE OLD CONTROLLER CABINET TO THE NEW CABINET IS NECESSARY. THE COST OF THIS WORK SHALL BE INCLUDED IN COST OF THE NEW CONTROLLER AND CABINET.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**CABLE PLAN, PHASE DESIGNATION DIAGRAM, AND SCHEDULE OF QUANTITIES**  
**ILL. RTE. 31 @**  
**AIRPORT ROAD**  
 SCALE: 1"=20'  
 DATE 8/10/2005  
 DRAWN BY BCK  
 DESIGNED BY: BCK  
 CHECKED BY BCK

PLOT DATE = 8/10/2005  
 FILE NAME = c:\projects\off\1131131.dwg  
 PLOT SCALE = 20.0000 / IN.  
 USER NAME = kmthphxjgjb