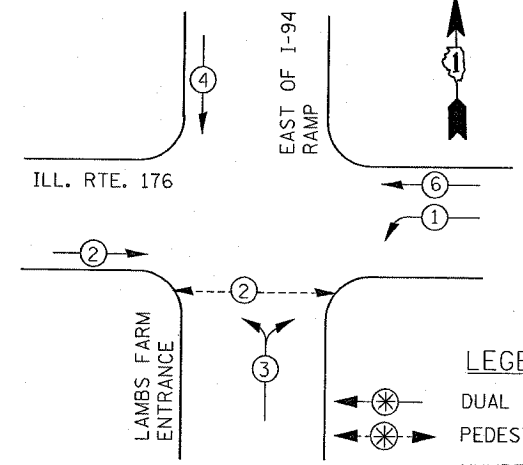


F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1238	2004-125 TS	LAKE	18	10
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 62890				

**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 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 SMI2F
		SIGNAL FACE WITH BACKPLATE, "P" INDICATES PROGRAMMED HEAD
		RAILROAD CONTROL CABINET
		GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (HD), OR CONTROLLER (C).
		GROUND ROD AT POST (P), OR MAST ARM POLE (MA).
		GROUND ROD AT ELECTRIC SERVICE INSTALLATION

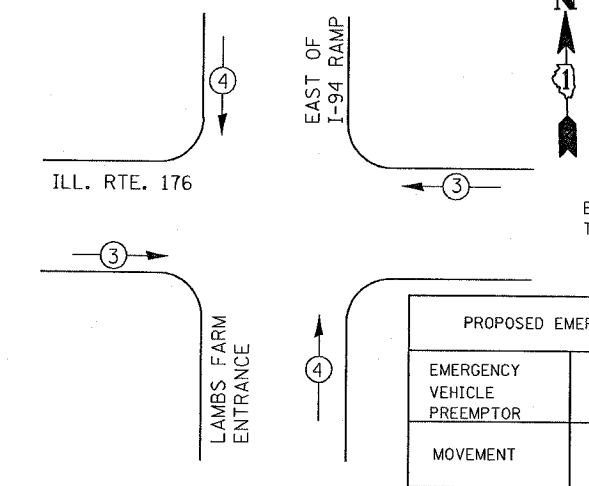
**CONTROLLER SEQUENCE**



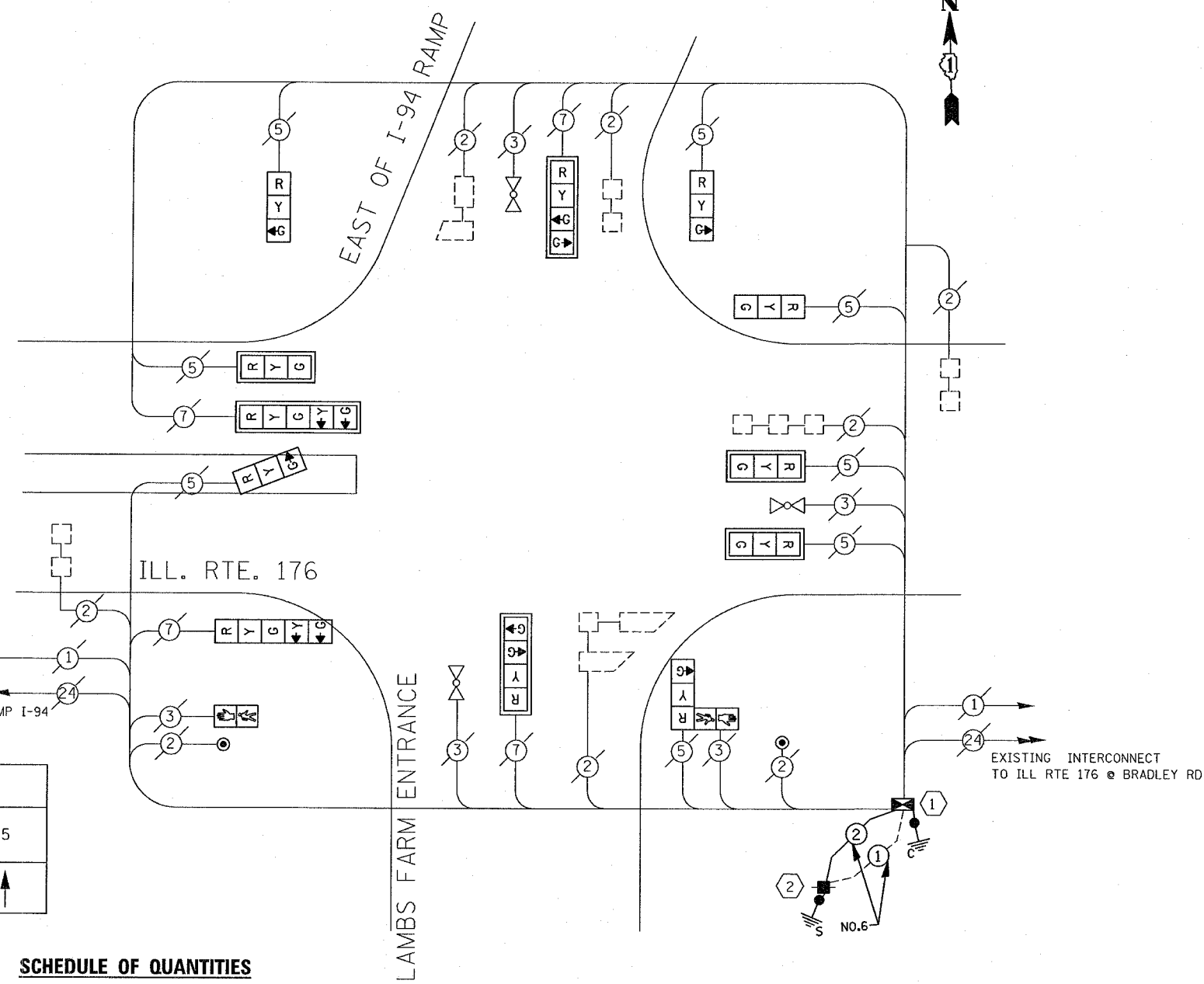
**LEGEND**  
 DUAL ENTRY PHASE  
 PEDESTRIAN PHASE  
 \* NUMBER REFERS TO ASSOCIATED PHASE

**PHASE DESIGNATION DIAGRAM**

**EMERGENCY VEHICLE PREEMPTION DIAGRAM**



PROPOSED EMERGENCY VEHICLE PREEMPTORS			
EMERGENCY VEHICLE PREEMPTOR	3	4	5
MOVEMENT	← →	↓	↑



**SCHEDULE OF QUANTITIES**

QUANTITY	UNIT	ITEM
.2	EACH	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501
.2	EACH	TRAFFIC CONTROL AND PROTECTION, STANDARD 701601
.2	EACH	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701
.2	EACH	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801
1	EACH	MAINTENANCE OF EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET (SPECIAL)
1	EACH	TRANSCEIVER-FIBER OPTIC
35	FOOT	ELECTRIC CABLE IN CONDUIT, SERVICE, NO.6 2C
2	EACH	PEDESTRIAN PUSHBUTTON
60	FOOT	REMOVE ELECTRIC CABLE FROM CONDUIT
1	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT
1	EACH	SERVICE INSTALLATION, POLE MOUNTED
35	FOOT	ELECTRIC CABLE IN CONDUIT, GROUNDING, NO.6 1C
3	EACH	SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION MAST ARM MOUNTED

QUANTITY	UNIT	ITEM
5	EACH	SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION BRACKET MOUNTED
2	EACH	SIGNAL HEAD, L.E.D., 1-FACE 4-SECTION, MAST ARM MOUNTED
1	EACH	SIGNAL HEAD, L.E.D., 1-FACE 5-SECTION, BRACKET MOUNTED
1	EACH	SIGNAL HEAD, L.E.D., 1-FACE, 5-SECTION, MAST ARM MOUNTED
2	EACH	PEDESTRIAN SIGNAL HEAD, 1-FACE, BRACKET MOUNTED
6	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM
6	EACH	INDUCTIVE LOOP DETECTOR

**CONSTRUCTION NOTES:**

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

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.

NOTE:  
 THE PROPOSED TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT IS "ECONOLITE".

I.D.O.T TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE INCAND.	LED	%OPERATION	
SIGNAL (RED)	12	135	17	0.50	102
(YELLOW)	12	135	25	0.25	75
(GREEN)	6	135	15	0.25	23
ARROW	12	135	12	0.10	15
PED. SIGNAL	2	90	25	1.00	50
CONTROLLER	1	100	100	1.00	100
ILLUM. SIGN		84		0.05	
FLASHER				0.50	
ENERGY COSTS TO: TOTAL =					365

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'-H-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)

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 CABLE PLAN, PHASE DESIGNATION DIAGRAM,  
 AND SCHEDULE OF QUANTITIES  
 ILL RTE 176 @  
 EAST OF I-94 RAMP/LAMBS FARM ENTRANCE  
 SCALE: VERT. NONE  
 HORIZ. DATE 01-05-2005  
 DRAWN BY: SM  
 DESIGNED BY: SM  
 CHECKED BY: DAD