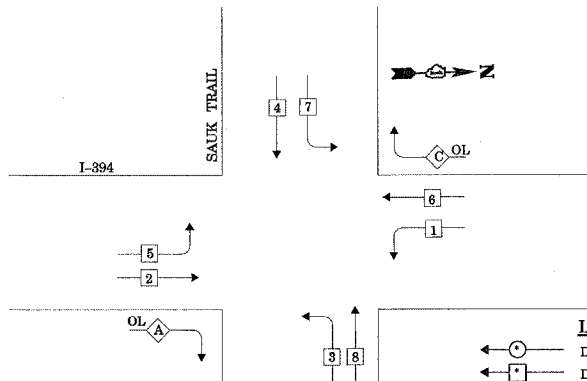


F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
332	2007-037TS	COOK/WILL	34	9
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

D-91-343-07

**CONTROLLER SEQUENCE**

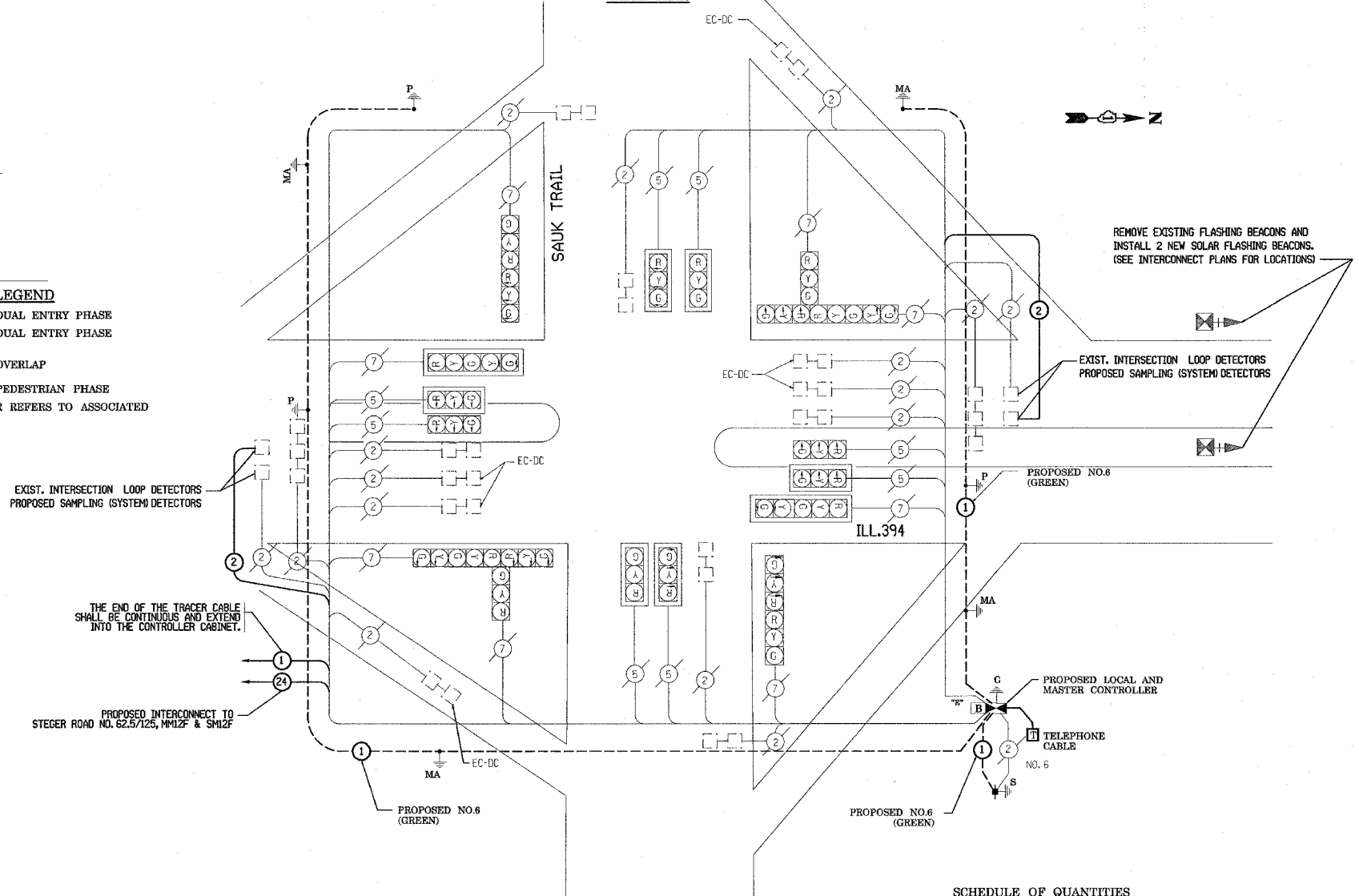


**LEGEND**  
 ○ DUAL ENTRY PHASE  
 □ DUAL ENTRY PHASE  
 OL OVERLAP  
 ○ PEDESTRIAN PHASE  
 \* NUMBER REFERS TO ASSOCIATED PHASE

**PHASE DESIGNATION DIAGRAM**

OVERLAP LETTER	PERMISSIVE PHASE	PROTECTED PHASE
A	2	3
C	6	7

**CABLE PLAN**



**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   |
| Ⓞ        | Ⓞ        | VEHICLE DETECTOR, INDUCTION LOOP  |
| Ⓞ        | Ⓞ        | EMERGENCY VEHICLE LIGHT DETECTOR  |
| Ⓞ        | Ⓞ        | CONFIRMATION BEACON   |
| Ⓞ        | Ⓞ        | PUSHBUTTON DETECTOR   |
| Ⓞ        | Ⓞ        | VEHICLE DETECTOR, INDUCTION LOOP  |
| Ⓞ        | Ⓞ        | 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. 82.5/25 2-MM12P & SM12P  |
| Ⓞ        | Ⓞ        | SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD   |
| Ⓞ        | Ⓞ        | RAILROAD CONTROL CABINET  |
| Ⓞ        | Ⓞ        | ILLUMINATED SIGN, FIBER OPTIC "NO LEFT TURN"  |
| Ⓞ        | Ⓞ        | ILLUMINATE SIGN, FIBER OPTIC "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 (S)   |
| Ⓞ        | Ⓞ        | MICROWAVE VEHICLE SENSOR  |
| Ⓞ        | Ⓞ        | UNINTERRUPTIBLE POWER SUPPLY  |
| Ⓞ        | Ⓞ        | FLASHING BEACON   |

**SCHEDULE OF QUANTITIES**

ITEM	UNIT	QUANTITY
GROUNDING EXISTING HANDHOLE FRAME AND COVER	EACH	9
CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	530
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	530
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE V CABINET	EACH	1
MASTER CONTROLLER	EACH	1
TRANSCEIVER - FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	1139.5
ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	FOOT	828
DRILL EXISTING HANDHOLE	EACH	6
INDUCTIVE LOOP DETECTOR	EACH	18
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
SERVICE INSTALLATION - POLE MOUNT	EACH	1
FLASHING BEACON INSTALLATION, SOLAR	EACH	2
OPTIMIZE TRAFFIC SIGNAL SYSTEM	EACH	0.25

**NOTE:**  
 EQUIPMENT GROUND CONDUCTOR (GREEN COLOR CODED) SPLICE TO FRAME AND COVER IS REQUIRED FOR ALL HANDHOLES OR DOUBLE HANDHOLES THAT CARRY SIGNAL CABLES AND SERVICE CABLES.

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. LAMPS	WATTAGE		% OPERATION	
		INCAND.	LED		
SIGNAL (RED)	20	135	17	0.50	170.00
(YELLOW)	20	135	25	0.25	125.00
(GREEN)	20	135	15	0.25	75.00
ARROW	8	135	12	0.10	9.60
PED. SIGNAL		90	25	1.00	
CONTROLLER	1	100	100	1.00	100.00
ILLUM. SIGN		84		0.05	
FLASHER					0.05
ENERGY COSTS TO:					TOTAL = 479.60
ILLINOIS DEPARTMENT OF TRANSPORTATION					
201 WEST CENTER COURT					
SCHAUMBURG, ILLINOIS 60196-1096					
ENERGY SUPPLY CONTACT: JERRY NISSEN					
PHONE: (708)235-2340					
COMPANY: COMMONWEALTH EDISON					

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 = (6m + L-0.6m) =
E - M. ARM POLE		SIGNAL POST	2 (1.0)	BRACKET MOUNTED	13 (4.0)
24" (600MM)	10 (3.0)	CONTROLLER CAB.	1 (0.5)	PED. PUSHBUTTON	4 (1.2)
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	6 (1.8)

**INFRASTRUCTURE ENGINEERING, INC.**  
 33 W. MONROE ST., SUITE 1540  
 CHICAGO, IL 60603-5322  
 PHONE 312.425.9560  
 FAX 312.425.9564

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION  
**CABLE PLAN, PHASE DESIGNATION DIAGRAM, SCHEDULE OF QUANTITIES**  
**I-394 AT SAUK TRAIL**  
 SCALE: VERT. NONE HORIZ. NONE  
 DATE 11/26/07 DRAWN BY BL CHECKED BY ER/TC

PLOT DATE = 11/26/2007  
 FILE NAME = c:\projects\traffic\070823\1394\_traffic.dgn  
 PLOT SCALE = 50:20000 / IN.  
 USER NAME = rjgustman