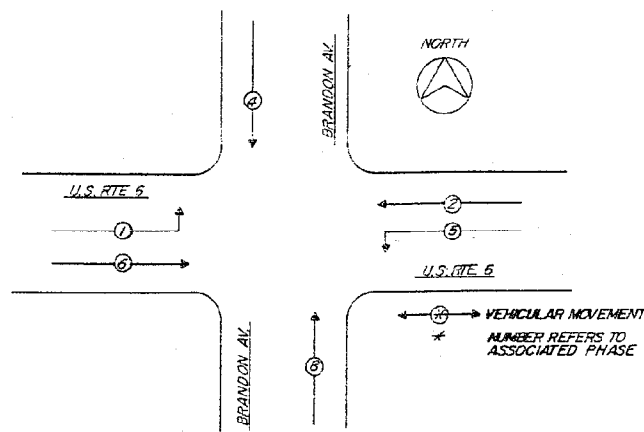


**U.S. RTE 6 & BRANDON AV.**  
CONTROLLER SPECIFIED - FULL-ACTUATED CONTROLLER, STANDARD SEQUENCE IX, 8 PHASES IN TYPE IX CABINET

REFERRING TO STANDARD 2393, THE VEHICULAR AND PEDESTRIAN PHASES USED ARE DESIGNATED BELOW



PROPOSED PHASE DESIGNATION DIAGRAM

**SCHEDULE OF QUANTITIES**

| QUANTITY | UNIT     | DESCRIPTION  |
|----------|----------|--|
| 49       | LIN. FT. | ELECTRIC CABLE IN CONDUIT NO. 6 2/C                    |
| 110      | LIN. FT. | ELECTRIC CABLE IN CONDUIT NO. 8 2/C                    |
| 1637     | LIN. FT. | ELECTRIC CABLE IN CONDUIT NO. 14 5/C                   |
| 665      | LIN. FT. | ELECTRIC CABLE IN CONDUIT NO. 14 7/C                   |
| 1386     | LIN. FT. | ELECTRIC CABLE IN CONDUIT NO. 14 2/C TWISTED, SHIELDED |
| 1        | EACH     | SERVICE INSTALLATION, TYPE C                           |
| 1        | EACH     | SERVICE INSTALLATION, TYPE D                           |
| 15       | LIN. FT. | CONCRETE FOUNDATION, TYPE A                            |
| 3.5      | LIN. FT. | CONCRETE FOUNDATION, TYPE D                            |
| 20       | LIN. FT. | CONCRETE FOUNDATION, TYPE E 24-INCH DIAMETER           |
| 8        | EACH     | CONCRETE HANDHOLE                                      |
| 3        | EACH     | CONCRETE HEAVY-DUTY HANDHOLE                           |
| 1        | EACH     | CONCRETE DOUBLE HANDHOLE                               |
| 338      | LIN. FT. | TRENCH AND BACKFILL                                    |

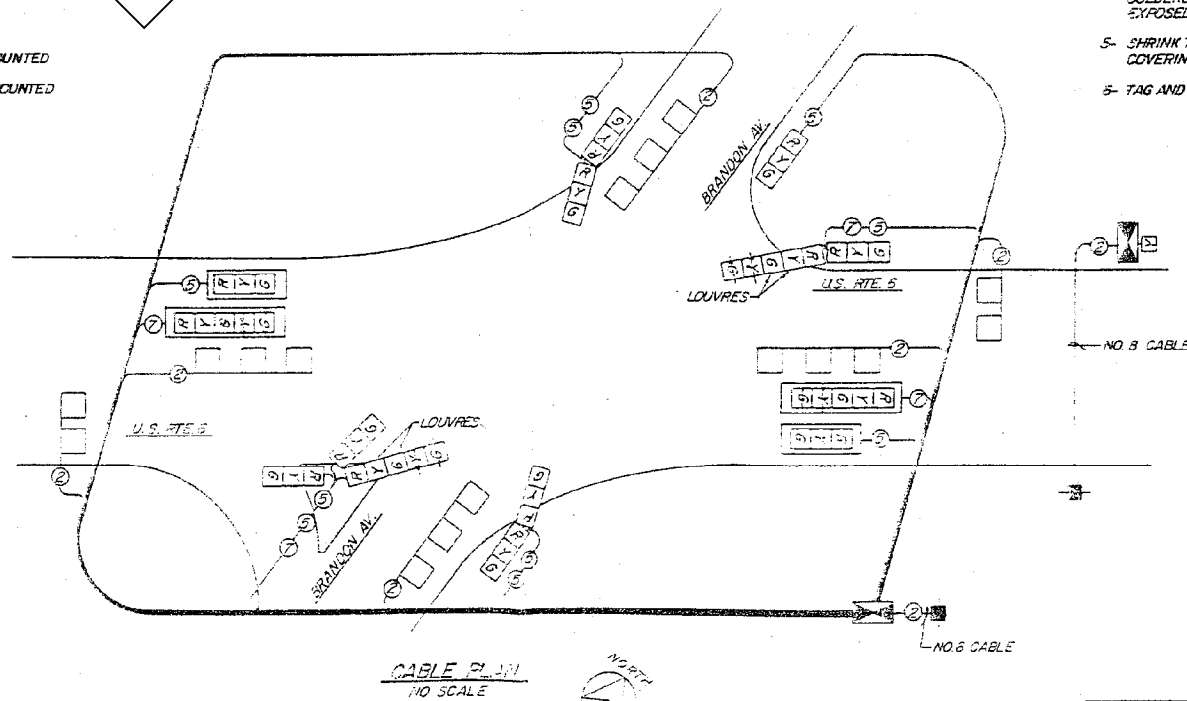
**SCHEDULE OF QUANTITIES**

| QUANTITY | UNIT     | DESCRIPTION  |
|----------|----------|--|
| 16.5     | SD FT.   | SIGN PANEL TYPE 1  |
| 1        | EACH     | SIGNAL HEAD, 1-FACE, 1-SECTION, POST MOUNTED                                 |
| 1        | EACH     | SIGNAL HEAD, 1-FACE, 3-SECTION, BRACKET MOUNTED                              |
| 2        | EACH     | SIGNAL HEAD, 1-FACE, 3-SECTION, MAST ARM MOUNTED                             |
| 2        | EACH     | SIGNAL HEAD, 1-FACE, 5-SECTION, MAST ARM MOUNTED                             |
| 2        | EACH     | SIGNAL HEAD, 2-FACE, 3-SECTION, BRACKET MOUNTED                              |
| 1        | EACH     | SIGNAL HEAD, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED               |
| 1        | EACH     | SIGNAL HEAD, 3-FACE, 2-3 SECTION, 1-5 SECTION, BRACKET MOUNTED               |
| 4        | EACH     | TRAFFIC SIGNAL BACKPLATE, LOUVERED   |
| 4        | EACH     | STRAIGHT RAY LOUVRE, TYPE A FOR 12 INCH LENS                                 |
| 3        | EACH     | TRAFFIC SIGNAL POST, FERROUS 14'   |
| 2        | EACH     | TRAFFIC SIGNAL POST, FERROUS 16'   |
| 1        | EACH     | STEEL MAST ARM ASSEMBLY AND POLE 24 FT.                                      |
| 1        | EACH     | STEEL MAST ARM ASSEMBLY AND POLE 26 FT.                                      |
| 1        | EACH     | FULL-ACTUATED CONTROLLER, STANDARD SEQUENCE IX, 8 PHASES, IN TYPE IX CABINET |
| 1        | EACH     | FLASHER CONTROLLER   |
| 6        | EACH     | INDUCTION LOOP DETECTOR AMPLIFIER  |
| 545      | LIN. FT. | DETECTOR LOOP, TYPE 1  |
| 455      | LIN. FT. | GALVANIZED STEEL CONDUIT IN TRENCH 1 1/4"                                    |
| 91       | LIN. FT. | GALVANIZED STEEL CONDUIT IN TRENCH 1 1/2"                                    |
| 62       | LIN. FT. | GALVANIZED STEEL CONDUIT IN TRENCH 2"  |
| 99       | LIN. FT. | GALVANIZED STEEL CONDUIT IN TRENCH 2 1/2"                                    |
| 18       | LIN. FT. | GALVANIZED STEEL CONDUIT IN TRENCH 3"  |
| 64       | LIN. FT. | GALVANIZED STEEL CONDUIT IN TRENCH 4"  |
| 95       | LIN. FT. | GALVANIZED STEEL CONDUIT, PUSHED 2"  |
| 219      | LIN. FT. | GALVANIZED STEEL CONDUIT, PUSHED 3"  |
| 43       | LIN. FT. | GALVANIZED STEEL CONDUIT, PUSHED 4"  |
| 40       | LIN. FT. | GALVANIZED STEEL CONDUIT, ATTACHED TO STRUCTURE, 1 1/4"                      |
| 113      | LIN. FT. | UNIT DUCT, WITHOUT CABLE IN TRENCH 1"  |

THIS SHEET FOR INFORMATION ONLY

**CABLE PLAN LEGEND**

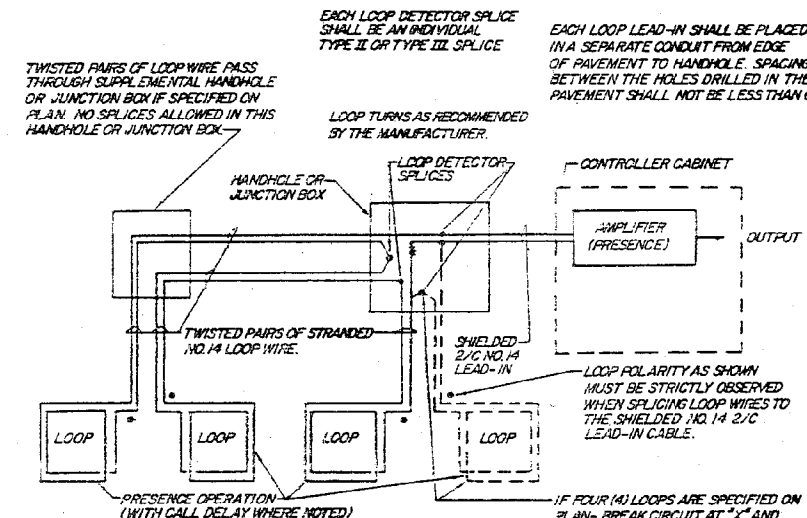
- SIGNAL FACE WITH BACKPLATE
- 12' TRAFFIC SIGNAL SECTION
- CONTROLLER CABINET
- VEHICLE DETECTOR, INDUCTION LOOP
- SERVICE INSTALLATION
- DENOTES NUMBER OF CONDUCTORS (NEW) ALL LOOP DETECTOR CABLE TO BE SHIELDED ALL CABLE NO. 14 EXCEPT AS INDICATED
- 8' TRAFFIC SIGNAL SECTION



CABLE PLAN  
NO SCALE

| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|-----------|---------|--------|--------------|-----------|
| FAU 308   | I-D-1-N | WILL   | 65           | 51        |

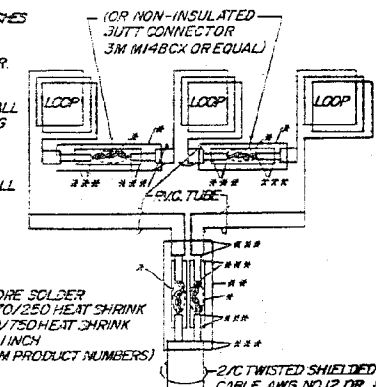
U.S. BUR. PUB. ROADS DIV. 4, ILLINOIS P.A. PROJECT  
P91-239-87



**LOOP DETECTOR SCHEMATIC**

**STEPS**

- 1- REMOVE OUTER CABLE COVERING OR PVC TUBE LEAVING 4 INCHES OF INSULATED WIRE EXPOSED.
- 2- REMOVE INSULATION FOR 1 INCH AND SCRAPE COPPER CONDUCTOR.
- 3- INSERT CABLE AND/OR CONDUCTORS INTO THEIR RESPECTIVE APPROVED HEAT SHRINKABLE TUBING. THE CONDUCTORS SHALL THEN BE CONNECTED BY TWISTING TOGETHER AND SOLDERING WITH A ROSIN CORE SOLDER.
- 4- THE W.C.S.F. 070/250 TUBE SHALL COMPLETELY COVER THE SOLDERED CONNECTION AND THE INSULATION 1 INCH BEYOND ALL EXPOSED WIRE AT EITHER END OF THE CONNECTION.
- 5- SHRINK THE TUBE OVER THE SPLICE TO FORM A WATER TIGHT COVERING USING A HEAT SOURCE APPROVED BY THE ENGINEER.
- 6- TAG AND 1/D LOOP LEAD-INS.



LOOP SPLICING USING HEAT SHRINKS  
NOTE: ELECTRICAL TAPE SHALL NOT BE USED WITH HEAT SHRINK SPLICES.

**REVISIONS**

| NAME | DATE   |
|------|--------|
|      | 7-5-89 |

HARMON E. HICKS & ASSOCIATES  
9525 SO. 79TH AVENUE  
HICKORY HILLS, ILLINOIS 60457

DEPARTMENT OF TRANSPORTATION  
DISTRICT I  
U.S. RTE. 6 & BRANDON RD.  
PHASE DESIGNATION DIAGRAM  
CABLE PLAN, SCHEDULE OF QUANTITIES  
LOOP DETECTOR SCHEMATIC

SCALE: NONE  
DATE: 1-11-88  
DRAWN BY: H.F.  
CHECKED BY: H.E.H.

Designed By: RLP Checked By: TMM  
Drawn By: RLP Checked By: TMM