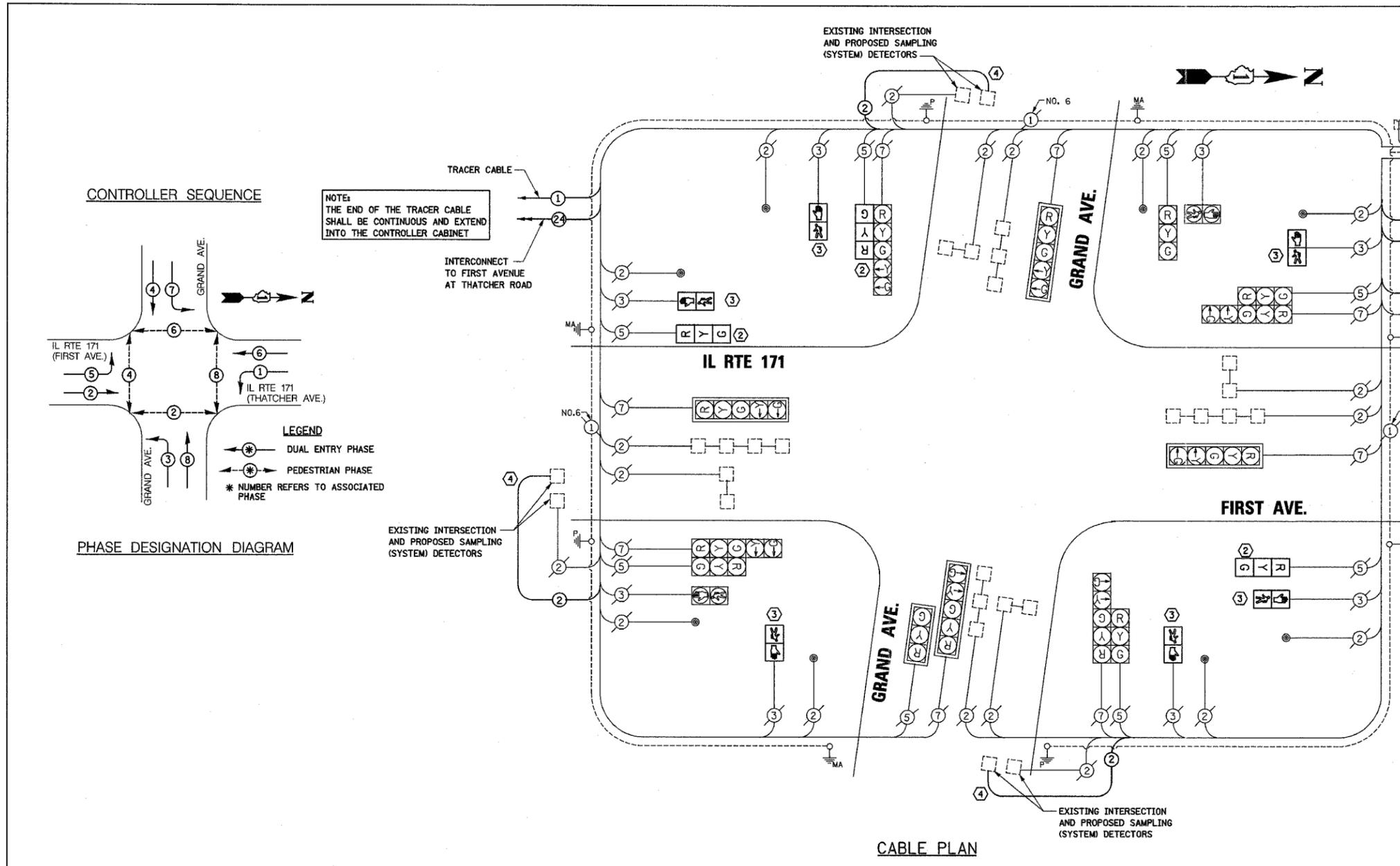
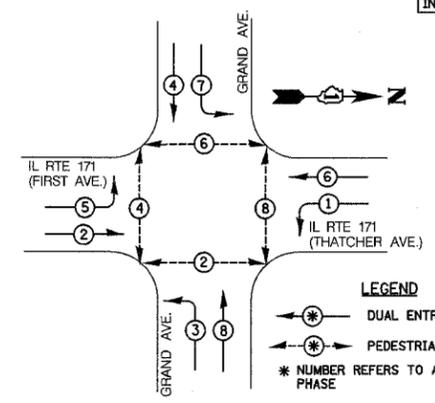


| | | | | |
|---------------------|------------|------------------|--------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 372 | 2006-0397S | COOK | 36 | 12 |
| STA. | TO STA. | | | |
| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |
| CONTRACT NO. 60C01 | | | | |



CONTROLLER SEQUENCE



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

PHASE DESIGNATION DIAGRAM

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

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

CONSTRUCTION NOTES:

- REMOVE EXISTING LOCAL CONTROLLER, MASTER CONTROLLER, AND CABINET. INSTALL NEW MASTER CONTROLLER, NEW LOCAL CONTROLLER, AND TYPE V CABINET, RE-USE EXISTING FOUNDATION.
- REMOVE EXISTING SIGNAL HEAD, 1-FACE, 3-SECTION, BRACKET MOUNTED. INSTALL NEW SIGNAL HEAD, 1-FACE, 3-SECTION, BRACKET MOUNTED.
- REMOVE EXISTING PEDESTRIAN SIGNAL HEAD, 1-FACE, BRACKET MOUNTED. INSTALL NEW PEDESTRIAN SIGNAL HEAD, 1-FACE, BRACKET MOUNTED.
- INSTALL NEW ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO.14, 1 PAIR.
- THE CONTRACTOR SHALL BE REQUIRED TO MAINTAIN THE OPERATION OF THE TRAFFIC SIGNALS DURING THE ENTIRE PROJECT.

CABLE PLAN LEGEND

| EXISTING | PROPOSED | EXISTING | PROPOSED | DESCRIPTION |
|----------|----------|----------|----------|---|
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | 8" (200mm) TRAFFIC SIGNAL SECTION |
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | 12" (300mm) TRAFFIC SIGNAL SECTION |
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | 12" (300mm) PEDESTRIAN SIGNAL SECTION |
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | 12" (300mm) PEDESTRIAN SIGNAL SECTION |
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | CONTROLLER CABINET |
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | SERVICE INSTALLATION |
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | TELEPHONE CONNECTION |
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | VEHICLE DETECTOR, INDUCTION LOOP |
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | MAGNETIC DETECTOR |
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | EMERGENCY VEHICLE LIGHT DETECTOR |
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | CONFIRMATION BEACON |
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | PUSHBUTTON DETECTOR |
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN) |
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | FIBER OPTIC CABLE IN CONDUIT NO. 62.5/125 MM12F SML2F |
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | SIGNAL FACE WITH BACKPLATE, "P" INDICATES PROGRAMMED HEAD |
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | RAILROAD CONTROL CABINET |
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | ILLUMINATED SIGN "NO LEFT TURN" |
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | ILLUMINATED SIGN "NO RIGHT TURN" |
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | GROUND ROD AT HANDHOLE (H), DOUBLE HANDHOLE (H), OR CONTROLLER (C). |
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | GROUND ROD AT POST (P), OR MAST ARM POLE (MA). |
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | GROUND ROD AT ELECTRIC SERVICE INSTALLATION |
| [Symbol] | [Symbol] | [Symbol] | [Symbol] | MICROWAVE VEHICLE SENSOR |

| I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS | | | | TOTAL WATTAGE |
|--|-----------|---------------------|--------------|---------------|
| TYPE | NO. LAMPS | WATTAGE INCAND. LED | X% OPERATION | |
| SIGNAL (RED) | 16 | 135 | 0.50 | 1080 |
| (YELLOW) | 16 | 135 | 0.25 | 540 |
| (GREEN) | 16 | 135 | 0.25 | 540 |
| ARROW | 16 | 135 | 0.10 | 216 |
| PED. SIGNAL | 8 | 90 | 1.00 | 720 |
| CONTROLLER | 1 | 100 | 1.00 | 100 |
| MASTER CONTROLLER | 1 | 100 | 1.00 | 100 |
| TOTAL = | | | | 3296 |

SCHEDULE OF QUANTITIES

| ITEM | UNIT | QUANTITY |
|--|------|----------|
| CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL | FOOT | 265 |
| MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION | EACH | 1 |
| FULL ACTUATED CONTROLLER AND TYPE V CABINET, SPECIAL MASTER CONTROLLER (SPECIAL) | EACH | 1 |
| TRANSCEIVER, FIBER OPTIC | EACH | 1 |
| ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR | FOOT | 1479 |
| SIGNAL HEAD, 1-FACE, 3-SECTION, BRACKET MOUNTED | EACH | 3 |
| PEDESTRIAN SIGNAL HEAD, 1-FACE, BRACKET MOUNTED | EACH | 6 |
| DRILL EXISTING HANDHOLE | EACH | 2 |
| INDUCTIVE LOOP DETECTOR | EACH | 16 |
| REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT | 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 - FOUNDATION | 4 (1.2) | DOUBLE HANDHOLE | 13 (4.0) | MAST ARM (L) POLE | 20' + L - 2' = (6m + L - 0.6m) = |
| C - M. ARM POLE | | SIGNAL POST | 2 (0.6) | | |
| 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:
 THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "EAGLE".

SETON ENGINEERING
 SERVICE CORPORATION
 CIVIL ENGINEERS
 19 S. BOTHWELL STREET
 PALATINE, ILLINOIS 60067
 VOICE: 847-776-7200 FAX: 847-776-7239

| REVISIONS | |
|-----------|------|
| NAME | DATE |
| | |
| | |
| | |

ILLINOIS DEPARTMENT OF TRANSPORTATION
CABLE PLAN
PHASE DESIGNATION DIAGRAM
AND SCHEDULE OF QUANTITIES
 IL RTE 171 (1ST AVENUE-THATCHER AVE.)
 AT GRAND AVENUE RIVER GROVE, ILLINOIS

SCALE: N.T.S.
 DATE: 10-23-06

DRAWN BY: CWC, BR
 DESIGNED BY: VO
 CHECKED BY: TJM

ENERGY COSTS - BILLED TO: (ADDRESS) _____
 ENERGY SUPPLY - CONTACT: LARRY KESLINKE
 PHONE: (708) 410-5314
 COMPANY: COM ED