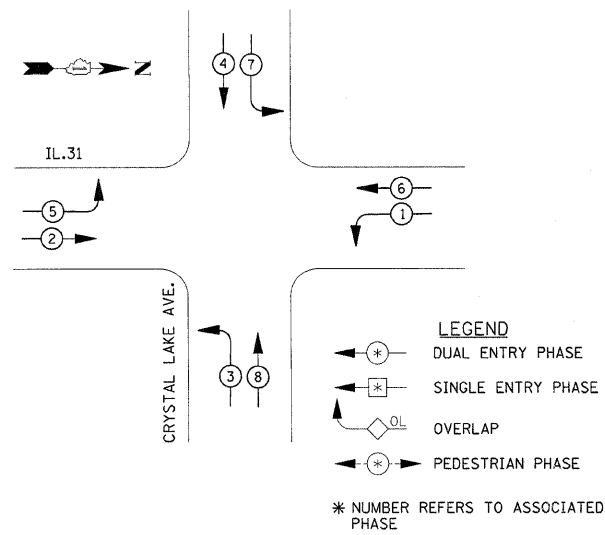
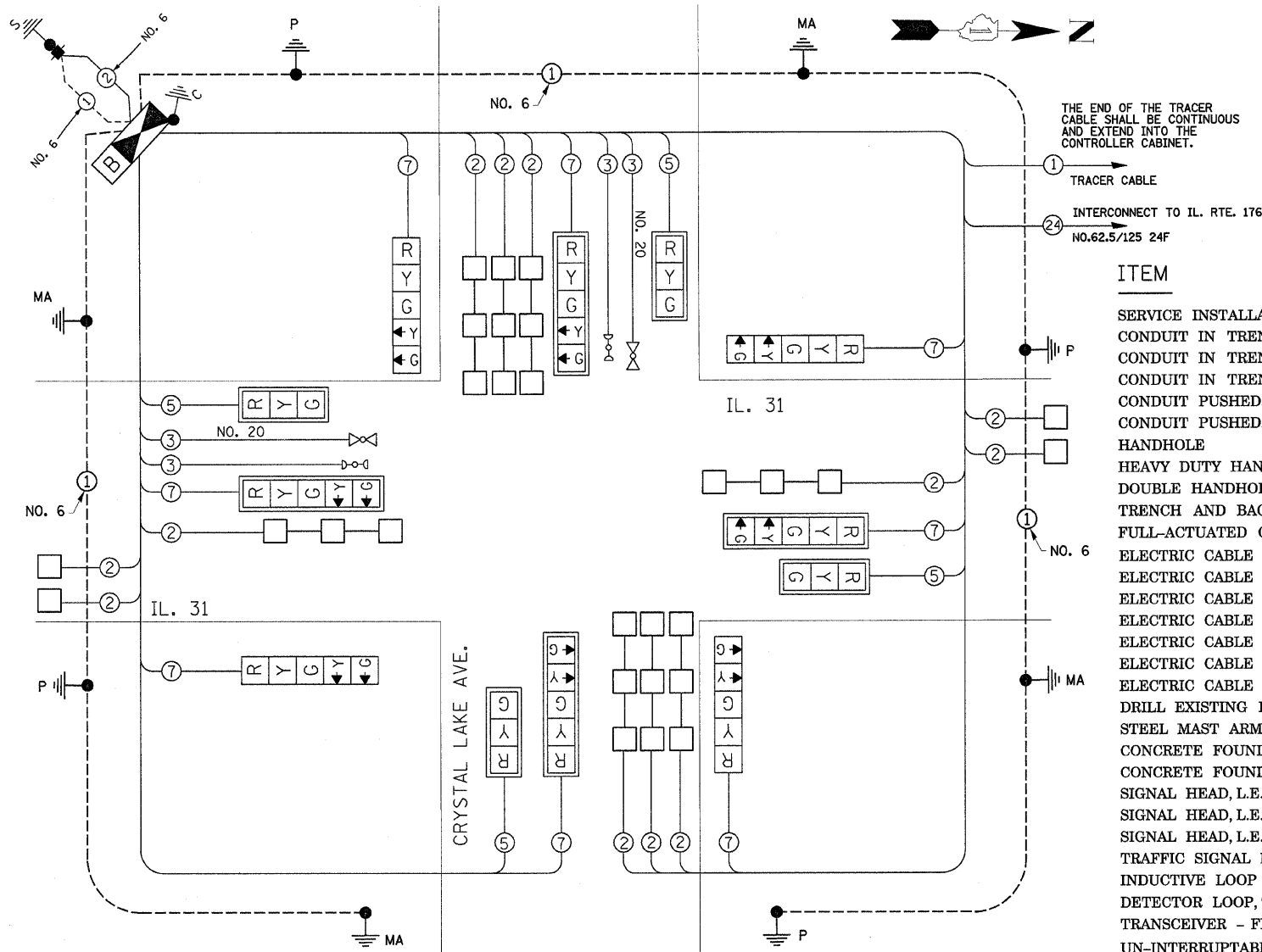
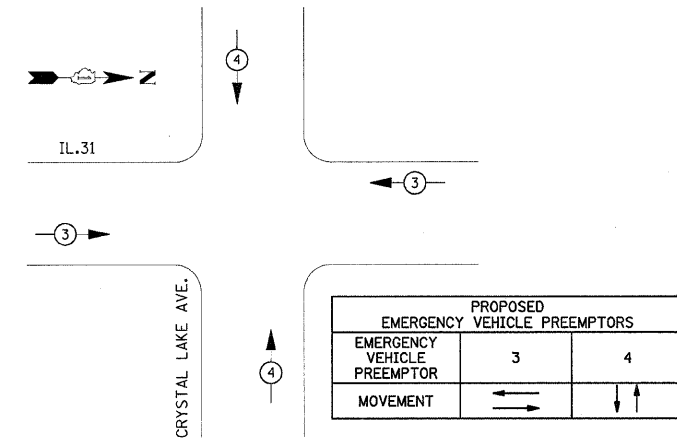


CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM

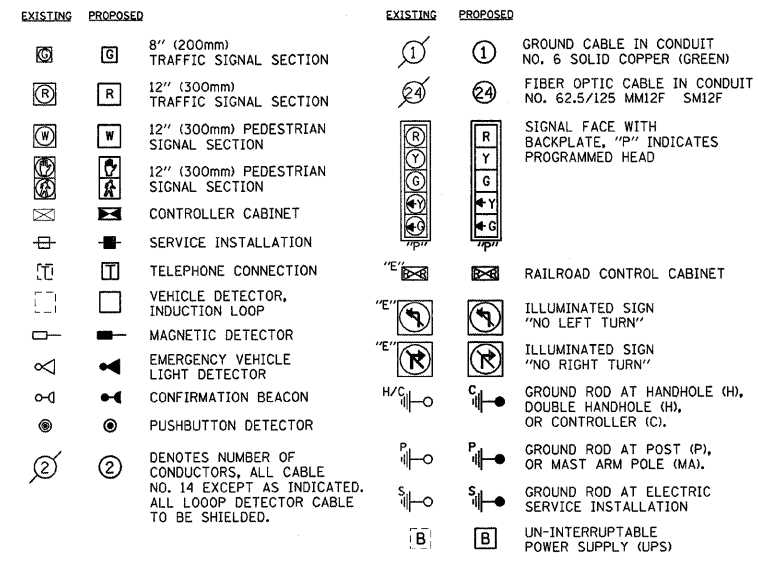
EMERGENCY VEHICLE PREEMPTION SEQUENCE



SCHEDULE OF QUANTITIES

| ITEM | UNIT | QUANTITY |
|--|------|----------|
| SERVICE INSTALLATION, POLE MOUNT | EACH | 1 |
| CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL | FOOT | 490 |
| CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL | FOOT | 41 |
| CONDUIT IN TRENCH, 5" DIA., GALVANIZED STEEL | FOOT | 10 |
| CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL | FOOT | 95 |
| CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL | FOOT | 430 |
| HANDHOLE | EACH | 5 |
| HEAVY DUTY HANDHOLE | EACH | 2 |
| DOUBLE HANDHOLE | EACH | 1 |
| TRENCH AND BACKFILL FOR ELECTRICAL WORK | FOOT | 541 |
| FULL-ACTUATED CONTROLLER AND TYPE IV CABINET (SPECIAL) | EACH | 1 |
| ELECTRIC CABLE IN CONDUIT NO.20 3C, TWISTED, SHIELDED | FOOT | 300 |
| ELECTRIC CABLE IN CONDUIT, SIGNAL, NO.14, 3C | FOOT | 300 |
| ELECTRIC CABLE IN CONDUIT, SIGNAL, NO.14, 5C | FOOT | 768 |
| ELECTRIC CABLE IN CONDUIT, SIGNAL, NO.14, 7C | FOOT | 3459 |
| ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO.14, 1 PAIR | FOOT | 1718 |
| ELECTRIC CABLE IN CONDUIT, SERVICE, NO.6, 2C | FOOT | 25 |
| ELECTRIC CABLE IN CONDUIT, GROUNDING, NO.6, 1C | FOOT | 420 |
| DRILL EXISTING HANDHOLE | EACH | 2 |
| STEEL MAST ARM ASSEMBLY AND POLE, 42 FT. | EACH | 4 |
| CONCRETE FOUNDATION, TYPE C | FOOT | 4 |
| CONCRETE FOUNDATION, TYPE E, 36-INCH DIAMETER | FOOT | 60 |
| SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION, MAST ARM MOUNTED | EACH | 4 |
| SIGNAL HEAD, L.E.D., 1-FACE, 5-SECTION, BRACKET MOUNTED | EACH | 4 |
| SIGNAL HEAD, L.E.D., 1-FACE, 5-SECTION, MAST ARM MOUNTED | EACH | 4 |
| TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM | EACH | 8 |
| INDUCTIVE LOOP DETECTOR | EACH | 12 |
| DETECTOR LOOP, TYPE 1 | FOOT | 918 |
| TRANSCEIVER - FIBER OPTIC | EACH | 1 |
| UN-INTERRUPTABLE POWER SUPPLY | EACH | 1 |

CABLE PLAN LEGEND



| I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS | | | | | TOTAL WATTAGE |
|--|-----------|-------------------|-------------|-------------|---------------|
| TYPE | NO. LAMPS | WATTAGE (INCAND.) | WATTAGE LED | % OPERATION | |
| SIGNAL (RED) | 12 | 135 | 17 | 0.50 | 102.00 |
| (YELLOW) | 12 | 135 | 25 | 0.25 | 75.00 |
| (GREEN) | 12 | 135 | 15 | 0.25 | 45.00 |
| ARROW | 16 | 135 | 12 | 0.10 | 19.20 |
| PED. SIGNAL | | 90 | 25 | 1.00 | |
| CONTROLLER | 1 | 100 | 100 | 1.00 | 100.00 |
| ILLUM. SIGN | | 84 | | 0.05 | |
| FLASHER | | | | 0.50 | |
| TOTAL = | | | | | 341.20 |

ENERGY COSTS TO: ILLINOIS DEPARTMENT OF TRANSPORTATION
 201 WEST CENTER COURT
 SCHAUMBURG, ILLINOIS 60196-1096
 ENERGY SUPPLY CONTACT: 847) 816-5248
 PHONE: COMED
 COMPANY:

| 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 (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) |

FILE NAME: c:\projects\103408\traffic.dgn
 USER NAME: nguyenam
 PLOT SCALE: 20,0000' / IN.
 PLOT DATE: 10/19/2007

DESIGNED - SN
 DRAWN - SN
 CHECKED - DAD
 DATE - OCT. 5, 2007

REVISED -
 REVISED -
 REVISED -
 REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

CABLE PLAN, PHASE DESIGNATION DIAGRAM, EMERGENCY VEHICLE PREEMPTION SEQUENCE AND SCHEDULE OF QUANTITIES
 IL.31 @ CRYSTAL LAKE AVE.
 SCALE: SHEET NO. OF SHEETS STA. TO STA.

| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|--------------|-----------|---------|--------------|-----------|
| 336 | 112 R-N-1 | McHENRY | 31 | 15 |
| CONTRACT NO. | | | 60552 | |

NOTE:
 THE TEMPORARY TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE ADJACENT SYSTEM.