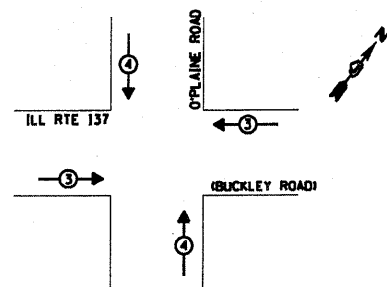


PHASE DESIGNATION DIAGRAM

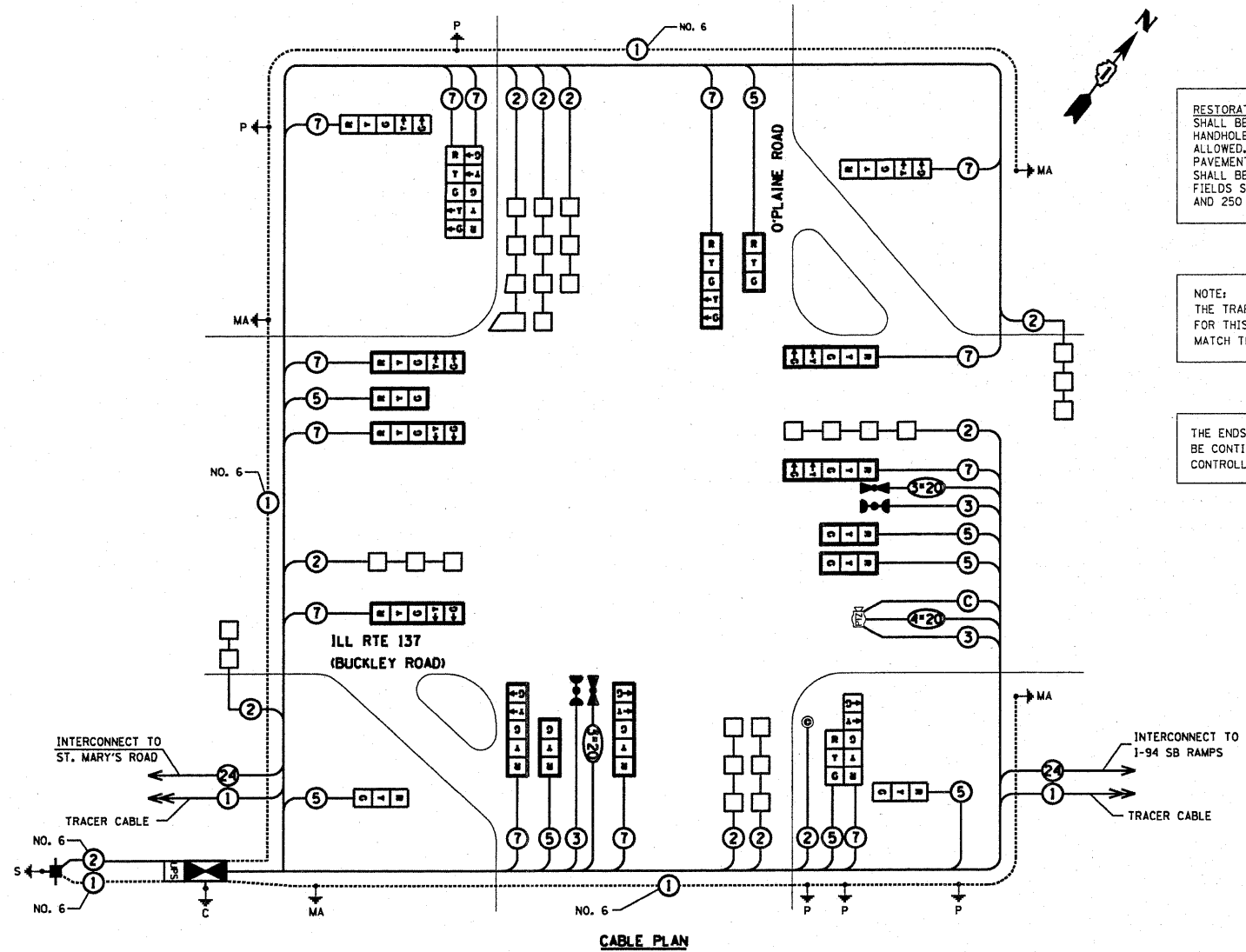
| OVERLAP LETTER | PERMISSIVE PHASE | PROTECTED PHASE |
|----------------|------------------|-----------------|
| B | = 4 | + 5 |
| C | = 6 | + 7 |

EMERGENCY VEHICLE PREEMPTION SEQUENCE



PROPOSED EMERGENCY VEHICLE PREEMPTOR

| EMERGENCY VEHICLE PREEMPTOR | 3 | 4 |
|-----------------------------|-----|-----|
| MOVEMENT | ← → | ↓ ↑ |



RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIAN, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

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

THE ENDS OF THE TRACER CABLES SHALL BE CONTINUOUS AND EXTEND INTO THE CONTROLLER CABINETS.

SCHEDULE OF QUANTITIES

| QUANTITY | UNIT | ITEM |
|----------|-------|---|
| 16.5 | SO FT | SIGN PANEL - TYPE 1 |
| 27.5 | SO FT | SIGN PANEL - TYPE 2 |
| 387 | FOOT | CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL |
| 263 | FOOT | CONDUIT IN TRENCH, 1 1/2" DIA., GALVANIZED STEEL |
| 99 | FOOT | CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL |
| 116 | FOOT | CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL |
| 359 | FOOT | CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL |
| 40 | FOOT | CONDUIT PUSHED, 2 1/2" DIA., GALVANIZED STEEL |
| 382 | FOOT | CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL |
| 1 | EACH | CONDUIT SPLICE |
| 6 | EACH | HANDHOLE |
| 1 | EACH | HEAVY-DUTY HANDHOLE |
| 1 | EACH | DOUBLE HANDHOLE |
| 945 | FOOT | TRENCH AND BACKFILL FOR ELECTRICAL WORK |
| 1 | EACH | FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL |
| 195 | FOOT | ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C |
| 635 | FOOT | ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C |
| 1795 | FOOT | ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C |
| 2940 | FOOT | ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C |
| 2300 | FOOT | ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1-PAIR |
| 295 | FOOT | ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 4 2C |
| 1 | EACH | TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT. |
| 3 | EACH | TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT. |
| 1 | EACH | STEEL MAST ARM ASSEMBLY AND POLE, 36 FT. |
| 1 | EACH | STEEL MAST ARM ASSEMBLY AND POLE WITH DUAL MAST ARMS, 38 FT. AND 46 FT. |
| 1 | EACH | STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 32 FT. |
| 16 | FOOT | CONCRETE FOUNDATION, TYPE A |
| 4 | FOOT | CONCRETE FOUNDATION, TYPE C |
| 50 | FOOT | CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER |

| QUANTITY | UNIT | ITEM |
|----------|------|---|
| 2 | EACH | DRILL EXISTING HANDHOLE |
| 5 | EACH | SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION, MAST ARM MOUNTED |
| 2 | EACH | SIGNAL HEAD, L.E.D., 1-FACE, 3-SECTION, BRACKET MOUNTED |
| 8 | EACH | SIGNAL HEAD, L.E.D., 1-FACE, 5-SECTION, MAST ARM MOUNTED |
| 2 | EACH | SIGNAL HEAD, L.E.D., 1-FACE, 5-SECTION, BRACKET MOUNTED |
| 1 | EACH | SIGNAL HEAD, L.E.D., 2-FACE, 5-SECTION, BRACKET MOUNTED |
| 1 | EACH | SIGNAL HEAD, L.E.D., 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED |
| 13 | EACH | TRAFFIC SIGNAL BACKPLATE, LOUVERED, ALUMINUM |
| 9 | EACH | INDUCTIVE LOOP DETECTOR |
| 1301 | FOOT | DETECTOR LOOP, TYPE I |
| 2 | EACH | LIGHT DETECTOR |
| 1 | EACH | LIGHT DETECTOR AMPLIFIER |
| 1 | EACH | TEMPORARY TRAFFIC SIGNAL INSTALLATION |
| 63 | FOOT | REMOVE EXISTING CABLE FROM CONDUIT |
| 1 | EACH | REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT |
| 10 | EACH | REMOVE EXISTING HANDHOLE |
| 7 | EACH | REMOVE EXISTING CONCRETE FOUNDATION |
| 1 | EACH | TEMPORARY TRAFFIC SIGNAL TIMING |
| 2 | EACH | RELOCATE EXISTING REMOTE-CONTROLLED VIDEO SYSTEM (SPECIAL) |
| 2 | EACH | RELOCATE EXISTING SWITCH |
| 1 | EACH | SERVICE INSTALLATION, POLE MOUNT |
| 2 | EACH | GROUNDING EXISTING HANDHOLE FRAME & COVER |
| 1 | EACH | UNINTERRUPTIBLE POWER SUPPLY |
| 2245 | FOOT | ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C |
| 375 | FOOT | ELECTRIC CABLE IN CONDUIT, NO. 20 3/C, TWISTED, SHIELDED |
| 260 | FOOT | ELECTRIC CABLE IN CONDUIT, VIDEO NO. 20 4/C |
| 260 | FOOT | COAXIAL CABLE IN CONDUIT |
| 1 | EACH | STEEL MAST ARM ASSEMBLY AND POLE WITH DUAL MAST ARMS, 42 FT. AND 48 FT. |

* 100% COST TO THE LIBERTYVILLE FIRE PROTECTION DISTRICT

I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS

| TYPE | NO. LAMPS | WATTAGE (INCAND) LED | % OPERATION | TOTAL WATTAGE |
|------------------|-----------|----------------------|-------------|----------------|
| SIGNAL (RED) | 21 | 17 | 0.50 | 178.50 |
| (YELLOW) | 21 | 25 | 0.25 | 131.25 |
| (GREEN) | 21 | 15 | 0.25 | 78.75 |
| ARROW | 26 | 12 | 0.10 | 31.20 |
| PED. SIGNAL | - | 25 | 1.00 | - |
| CONTROLLER | 1 | 100 | 1.00 | 100.00 |
| ILLUM. SIGN | - | 25 | 0.05 | - |
| FLASHER | - | - | 0.05 | - |
| ENERGY COSTS TO: | | | | TOTAL = 519.70 |

ILLINOIS DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAY/DISTRICT 1
201 WEST CENTER COURT/SCHAUMBURG, ILLINOIS 60196-1096
ENERGY SUPPLY CONTACT: JOE HURLEY
PHONE: (847) 816-5503
COMPANY: COMMONWEALTH EDISON

| | | | |
|-------------|----------------------|-----------------|-----------|
| FILE NAME = | USER NAME = wingram | DESIGNED - WHI | REVISED - |
| #FILE# | | DRAWN - WHI | REVISED - |
| | PLOT SCALE = #SCALE# | CHECKED - DEB | REVISED - |
| | PLOT DATE = 1/6/2011 | DATE - 11/08/10 | REVISED - |

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

IL. ROUTE 137 @ O'PLAINE ROAD
SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY PREEMPTION SEQUENCE

| | | | | |
|---|---------|--------|--------------|-----------|
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 352 | 56N-4 | | 50 | 26 |
| CONTRACT NO. 60K19 | | | | |
| FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT | | | | |

APEX CONSULTING ENGINEERS, LLC
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Chicago, IL 60601