

| F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---------------------|----------------|---------------------------|--------------|-----------|
| 2991 | 08-00095-02-PV | DUPAGE | 55 | 29 |
| STA. | | TO STA. | | |
| FED. ROAD DIST. NO. | | ILLINOIS FED. AID PROJECT | | |

CABLE PLAN LEGEND

- | | | |
|-----------------|-----------------|--|
| EXISTING | PROPOSED | |
| | | 8" TRAFFIC SIGNAL SECTION |
| | | 12" TRAFFIC SIGNAL SECTION |
| | | 12" PEDESTRIAN SIGNAL SECTION |
| | | 12" PEDESTRIAN SIGNAL SECTION WITH COUNTDOWN TIMER |
| | | CONTROLLER CABINET |
| | | SERVICE INSTALLATION |
| | | TELEPHONE INSTALLATION |
| | | VEHICLE DETECTOR, INDUCTION LOOP |
| | | VIDEO DETECTION |
| | | EMERGENCY VEHICLE LIGHT DETECTOR |
| | | CONFIRMATION BEACON |
| | | PUSHBUTTON DETECTOR |
| | | 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. 62.5/125 2-MM12F SMI2F |
| | | SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD |
| | | GROUND ROD AT HANDHOLE (H) |
| | | GROUND ROD AT POST (P) OR MAST ARM POLE (MA) |
| | | GROUND ROD AT ELECTRIC SERVICE INSTALLATION |
| | | LUMINAIRE, 120V 250 WATT, SODIUM VAPOR W/TYPE III DISTRIBUTION |

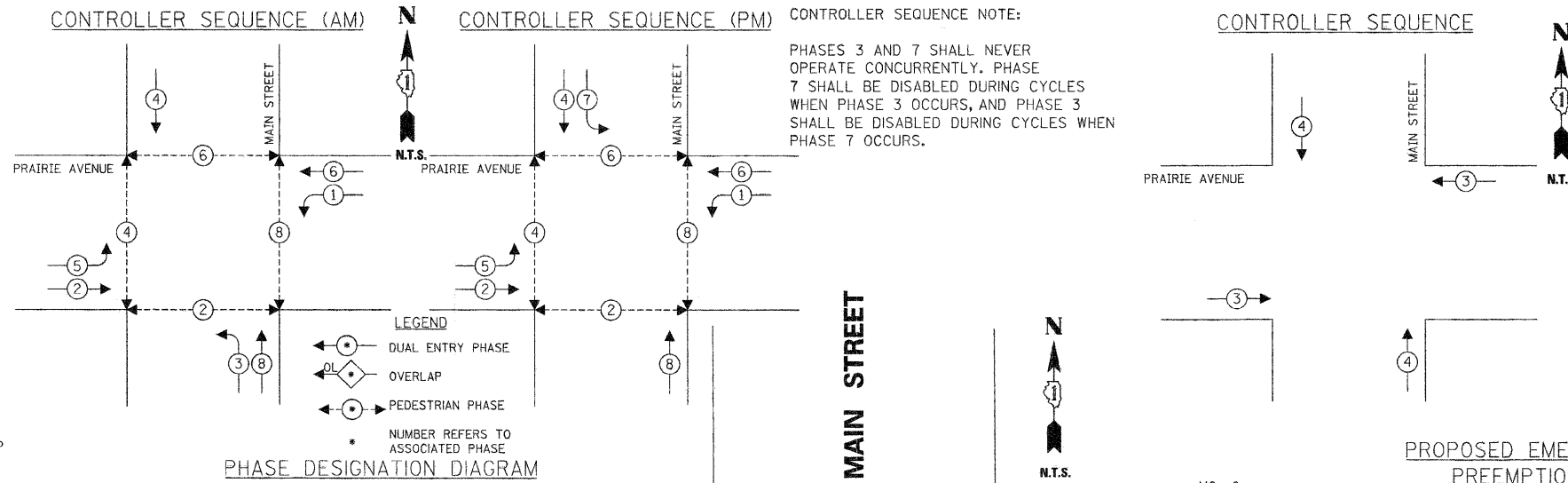
CONTROLLER SEQUENCE (AM)

CONTROLLER SEQUENCE (PM)

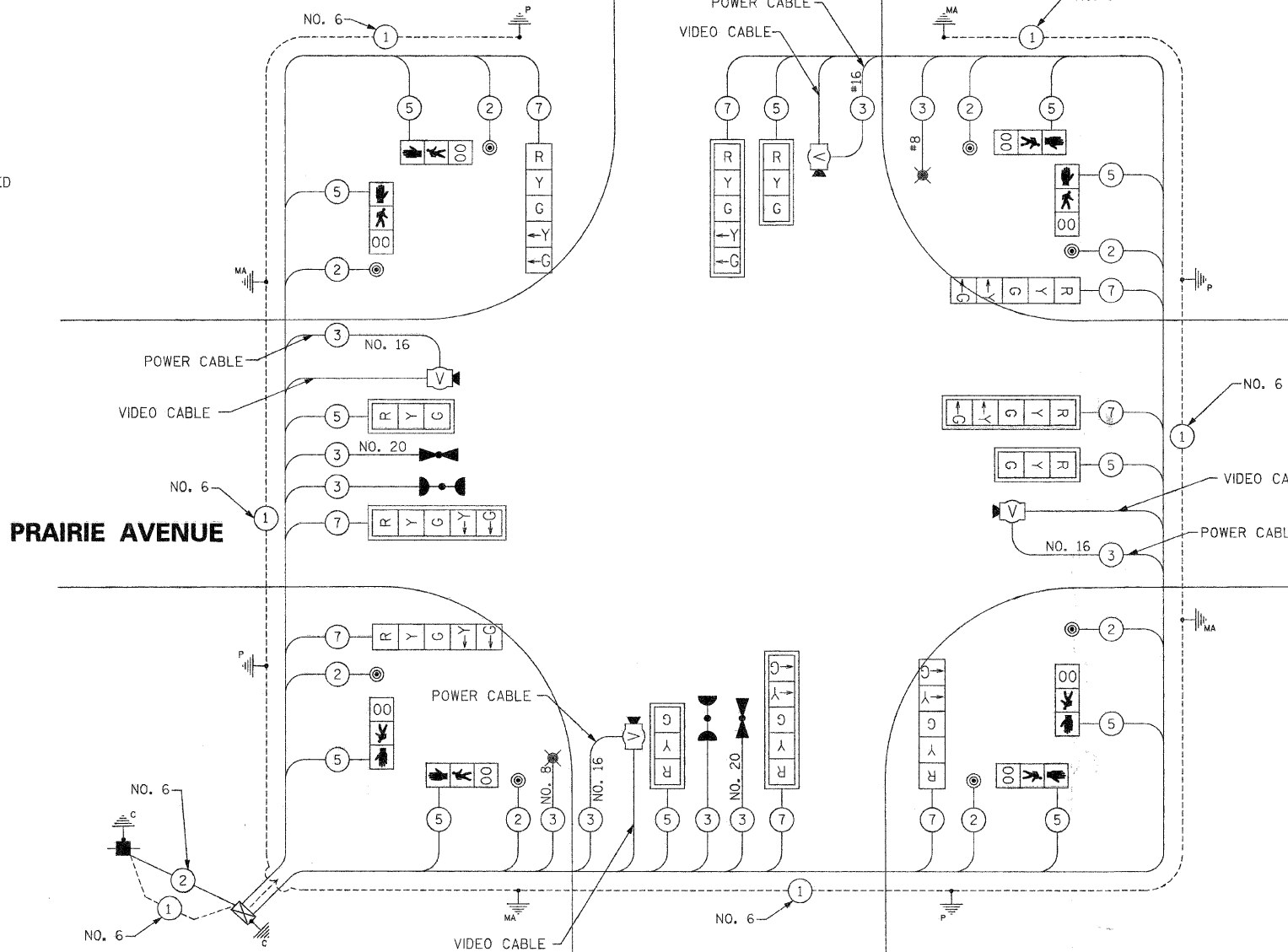
CONTROLLER SEQUENCE NOTE:

PHASES 3 AND 7 SHALL NEVER OPERATE CONCURRENTLY. PHASE 7 SHALL BE DISABLED DURING CYCLES WHEN PHASE 3 OCCURS, AND PHASE 3 SHALL BE DISABLED DURING CYCLES WHEN PHASE 7 OCCURS.

CONTROLLER SEQUENCE



PHASE DESIGNATION DIAGRAM



PROPOSED EMERGENCY VEHICLE PREEMPTORS

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

PROPOSED EMERGENCY VEHICLE PREEMPTION SEQUENCE

TRAFFIC SIGNAL SCHEDULE OF QUANTITIES

| ITEM | UNIT | QUANTITY |
|---|-------|----------|
| SIGN PANEL - TYPE I | SQ FT | 27 |
| CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL | FOOT | 50 |
| CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL | FOOT | 43 |
| CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL | FOOT | 74 |
| CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL | FOOT | 10 |
| CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL | FOOT | 252 |
| HANDHOLE | EACH | 3 |
| DOUBLE HANDHOLE | EACH | 1 |
| TRENCH AND BACKFILL FOR ELECTRICAL WORK | FOOT | 172 |
| LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, 250 WATT | EACH | 2 |
| FULL-ACTUATED CONTROLLER AND TYPE IV CABINET | EACH | 1 |
| ELECTRIC CABLE IN CONDUIT, SIGNAL, NO. 14 2C | FOOT | 1127 |
| ELECTRIC CABLE IN CONDUIT, SIGNAL, NO. 14 3C | FOOT | 271 |
| ELECTRIC CABLE IN CONDUIT, SIGNAL, NO. 14 5C | FOOT | 1910 |
| ELECTRIC CABLE IN CONDUIT, SIGNAL, NO. 14 7C | FOOT | 1329 |
| ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C | FOOT | 50 |
| TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT. | EACH | 4 |
| STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 24 FT. | EACH | 2 |
| STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 30 FT. | EACH | 1 |
| STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 32 FT. | EACH | 1 |
| CONCRETE FOUNDATION, TYPE A | FOOT | 16 |
| CONCRETE FOUNDATION, TYPE D | FOOT | 4 |
| CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER | FOOT | 60 |
| SIGNAL HEAD, LED, I-FACE, 3-SECTION, MAST-ARM MOUNTED | EACH | 4 |
| SIGNAL HEAD, LED, I-FACE, 5-SECTION, BRACKET MOUNTED | EACH | 4 |
| SIGNAL HEAD, LED, I-FACE, 5-SECTION, MAST-ARM MOUNTED | EACH | 4 |
| PEDESTRIAN SIGNAL HEAD, LED, I-FACE, BRACKET MOUNTED WITH COUNTDOWN TIMER | EACH | 8 |
| TRAFFIC SIGNAL BACKPLATE | EACH | 8 |
| LIGHT DETECTOR | EACH | 2 |
| LIGHT DETECTOR AMPLIFIER | EACH | 1 |
| PEDESTRIAN PUSH-BUTTON | EACH | 8 |
| TEMPORARY TRAFFIC SIGNAL INSTALLATION | L SUM | 1 |
| REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT | EACH | 1 |
| REMOVE EXISTING HANDHOLE | EACH | 6 |
| REMOVE EXISTING CONCRETE FOUNDATION | EACH | 9 |
| SERVICE INSTALLATION - POLE MOUNTED | EACH | 1 |
| ELECTRIC CABLE IN CONDUIT, GROUNDING NO. 6 1C | FOOT | 1095 |
| ELECTRIC CABLE IN CONDUIT, SIGNAL, NO. 20 3/C, TWISTED, SHIELDED | FOOT | 541 |
| VIDEO DETECTION SYSTEM | EACH | 1 |
| ELECTRIC CABLE IN CONDUIT, LIGHTING, NO. 8 3/C | FOOT | 399 |

CABLE PLAN

AUTOSCOPE VIDEO DETECTION SYSTEM BILL OF MATERIALS

| ITEM | UNIT | QUANTITY |
|---|------|----------|
| MACHINE VISION PROCESSOR (AUTOSCOPE 2020) | EACH | 1 |
| IMAGE SENSOR WITH BRACKET (AUTOSCOPE AIS) | EACH | 4 |
| VIDEO ELECTRIC CABLE IN CONDUIT, NO. 16 3/C | FOOT | 783 |
| VIDEO BELDEN 8281 COAXIAL CABLE IN CONDUIT | FOOT | 783 |

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

ILLINOIS DEPARTMENT OF TRANSPORTATION

PRAIRIE AVENUE RECONSTRUCTION SCHEDULE OF QUANTITIES, CABLE PLAN AND PHASE DESIGNATION DIAGRAM

SCALE: N.T.S. DRAWN BY NMR
DATE: 11/21/2008 CHECKED BY DJL

| TYPE | NO. LAMPS | WATTAGE | % OPERATION | TOTAL WATTAGE | |
|---------------|-----------|-------------|-------------|---------------|--------------|
| | | INCAND. LED | | | |
| SIGNAL (RED) | 12 | 135 | 17 | 0.50 | 102.0 |
| (YELLOW) | 12 | 135 | 25 | 0.25 | 75.0 |
| (GREEN) | 12 | 135 | 15 | 0.25 | 45.0 |
| ARROW | 16 | 135 | 12 | 0.10 | 19.2 |
| PED. SIGNAL | 8 | 90 | 25 | 1.00 | 200.0 |
| CONTROLLER | 1 | 100 | 100 | 1.00 | 100.0 |
| ILLUM. SIGN | | | | | |
| VIDEO CAMERAS | 4 | 15 | 15 | 1.00 | 60.0 |
| LUMINAIRE | 2 | 250 | | 0.50 | 250.0 |
| FLASHER | | | | | |
| TOTAL= | | | | | 851.2 |

| 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 (0.6) | | |
| 24" (600mm) | 10 (3.0) | CONTROLLER CAB. | 1 (0.3) | BRACKET MOUNTED | 13 (4.0) |
| 30" (750mm) | 15 (4.6) | FIBER OPTIC | 13 (4.0) | PED. BUTTON | 4 (1.2) |
| 36" (900mm) | 15 (4.6) | ELECTRIC SERVICE | 1 (0.3) | ELECTRICAL SERVICE | 13.5 (4.1) |
| | | GROUND CABLE | 1 (0.3) | SERVICE TO GROUND | 13.5 (4.1) |
| | | | | POST MOUNTED | 6 (1.8) |

ENERGY COSTS TO:
VILLAGE OF DOWNERS GROVE

ENERGY SUPPLY CONTACT:
PHONE:
COMPANY: