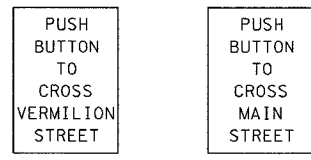


B I L L O F M A T E R I A L S
U. S. 136 (MAIN ST.) & VERMILION STREET

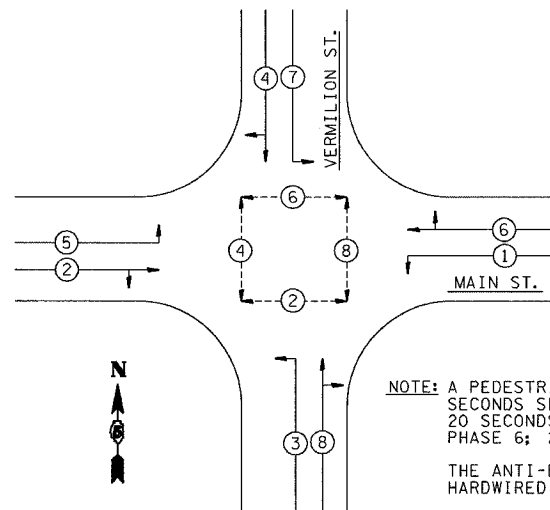
| F.A.P. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|-------------|---------|-----------|--------------|-----------|
| 729 | 34Z-4 | VERMILION | 285 | 104 |

| ITEM | UNIT | QUANTITY |
|--|-------|----------|
| PAINT NEW COMBINATION MAST ARM POLE, UNDER 12.19 METER (40 FEET) | EACH | 4 |
| SERVICE INSTALLATION, TYPE B (MODIFIED) | EACH | 1 |
| HANDHOLE | EACH | 4 |
| DOUBLE HANDHOLE | EACH | 1 |
| FULL-ACTUATED CONTROLLER AND TYPE IV CABINET | EACH | 1 |
| GULFBOX JUNCTION REMOVAL | EACH | 1 |
| PEDESTRIAN PUSH-BUTTON POST, GALVANIZED STEEL, TYPE I | EACH | 2 |
| TRAFFIC SIGNAL BACKPLATE | EACH | 8 |
| PEDESTRIAN PUSH-BUTTON | EACH | 8 |
| TEMPORARY TRAFFIC SIGNAL INSTALLATION | EACH | 1 |
| REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT | EACH | 1 |
| REMOVE EXISTING HANDHOLE | EACH | 6 |
| REMOVE EXISTING CONCRETE FOUNDATION | EACH | 9 |
| CONDUIT IN TRENCH, 40MM DIA., PVC | METER | 138 |
| CONDUIT IN TRENCH, 50MM DIA., PVC | METER | 32 |
| CONDUIT IN TRENCH, 75MM DIA., PVC | METER | 14 |
| CONDUIT IN TRENCH, 100MM DIA., PVC | METER | 5 |
| CONDUIT IN TRENCH, 150MM DIA., PVC | METER | 2 |
| CONDUIT, AUGERED 75MM DIA., PVC | METER | 33 |
| CONDUIT, AUGERED 100MM DIA., PVC | METER | 22 |
| TRENCH AND BACKFILL FOR ELECTRICAL WORK | METER | 191 |
| ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C | METER | 368 |
| ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 4C | METER | 252 |
| ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C | METER | 181 |
| ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C | METER | 516 |
| ELECTRIC CABLE IN CONDUIT, COMMUNICATION NO. 18 3 PAIR | METER | 127 |
| ELECTRIC CABLE IN CONDUIT, SERVICE, NO. 6 2 C | METER | 52 |
| TRAFFIC SIGNAL POST, ALUMINUM 4.85 METER | EACH | 4 |
| STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 5.48 METER | EACH | 1 |
| STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 8.53 METER | EACH | 1 |
| STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 10.36 METER | EACH | 2 |
| CONCRETE FOUNDATION, TYPE A | METER | 3.6 |
| CONCRETE FOUNDATION, TYPE D | METER | 1.1 |
| CONCRETE FOUNDATION, TYPE E 750MM DIAMETER | METER | 6 |
| COAXIAL CABLE IN CONDUIT | METER | 225 |
| ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C | METER | 137 |
| CONCRETE FOUNDATION, TYPE E 900MM DIAMETER | METER | 6.8 |
| VIDEO VEHICLE DETECTION SYSTEM | EACH | 1 |
| SIGNAL HEAD ,POLYCARBONATE, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED | EACH | 4 |
| SIGNAL HEAD ,POLYCARBONATE, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED | EACH | 4 |
| SIGNAL HEAD ,POLYCARBONATE, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED | EACH | 4 |
| PEDESTRIAN SIGNAL HEAD, POLYCARBONATE,LED, 1-FACE, BRACKET MOUNTED | EACH | 4 |
| PEDESTRIAN SIGNAL HEAD, POLYCARBONATE, LED, 2-FACE, BRACKET MOUNTED | EACH | 2 |
| PAINT NEW TRAFFIC SIGNAL POST | EACH | 4 |



NOTE: PEDESTRIAN PUSH-BUTTON SIGNS SHALL BE MOUNTED ABOVE THE PEDESTRIAN PUSH-BUTTONS. THE SIGNS SHALL BE BOLTED TO THE POSTS. THE SIGNS SHALL BE CONSIDERED AS INCLUDED IN THE COST OF PEDESTRIAN PUSH-BUTTONS IN ACCORDANCE WITH SECTION 888 OF THE STANDARD SPECIFICATIONS.

PEDESTRIAN PUSH-BUTTON SIGN DETAIL



NOTE: A PEDESTRIAN CLEARANCE INTERVAL OF 21 SECONDS SHALL BE USED FOR PHASE 2; 20 SECONDS FOR PHASE 4; 16 SECONDS FOR PHASE 6; 21 SECONDS FOR PHASE 8.
 THE ANTI-BACKUP FEATURE SHALL BE HARDWIRED IN THE CONTROLLER CABINET.

PHASE DESIGNATION DIAGRAM

ITEMS TO BE RETURNED TO IDOT

| ITEM | QUANTITY |
|--------------------------|----------------------------|
| MAST ARM ASSEMBLY & POLE | 2 EACH (N.W. & S.E. QUADS) |

GENERAL NOTES

1. THE FOLLOWING SIGNAL HEADS SHALL BE WIRED IN PARALLEL AT THE MAST POLE HANDHOLE: (A2, A3), (B2, B3), (C2, C3), (D2, D3) - EACH MAST ARM MOUNTED SIGNAL HEAD SHALL HAVE ITS OWN INDIVIDUAL CABLE FROM THE MAST POLE HANDHOLE TO THE SIGNAL HEAD.
2. THE ACTUAL LOCATION OF ALL SIGNAL FOUNDATIONS, HANDHOLES, AND TRAFFIC CONTROLLER WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.
3. POST MOUNTED SIGNALS SHALL BE INSTALLED SO THAT NO PART OF THE SIGNAL HEAD IS WITHIN 600 mm OF THE FACE OF CURB.
4. ALL MAST ARM POLES SHALL BE A MINIMUM OF 1.8 m FROM THE CENTER OF THE POLE TO THE FACE OF CURB (ON THE MAST ARM SIDE) OR AS SHOWN ON THE PLANS.
5. ALIGN ADJACENT RED INDICATIONS TO SAME HEIGHT ABOVE PAVEMENT.
6. THE BASE FOR A TRAFFIC SIGNAL POST SHALL BE SITUATED SUCH THAT THE HANDHOLE IS LOCATED ON A SIDE AWAY FROM A TRAVELED LANE.
7. PEDESTRIAN PUSHBUTTON SIGNAL SIGNS SHALL BE MOUNTED ABOVE THE APPROPRIATE PEDESTRIAN PUSHBUTTON.
8. THE ANTI-BACKUP FEATURE SHALL BE HARDWIRED ON THE BACKPANEL OF THE CONTROLLER CABINET.