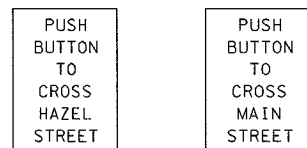


F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
729	34Z-4	VERMILION	285	107

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

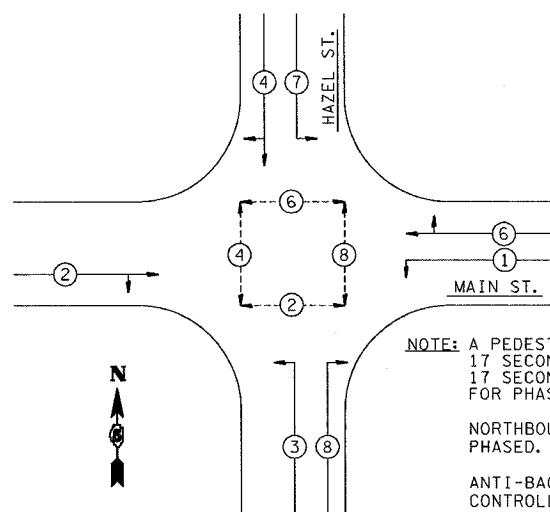
ITEM	UNIT	QUANTITY
PAINT NEW COMBINATION MAST ARM POLE, UNDER 12.19 METER (40 FEET)	EACH	3
SERVICE INSTALLATION, TYPE B (MODIFIED)	EACH	1
HANDHOLE	EACH	7
DOUBLE HANDHOLE	EACH	1
FULL-ACTUATED CONTROLLER AND TYPE IV CABINET	EACH	1
PEDESTRIAN PUSH-BUTTON POST, GALVANIZED STEEL, TYPE I	EACH	2
TRAFFIC SIGNAL BACKPLATE	EACH	6
PEDESTRIAN PUSH-BUTTON	EACH	8
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	10
REMOVE EXISTING CONCRETE FOUNDATION	EACH	8
CONDUIT IN TRENCH, 40MM DIA., PVC	METER	164
CONDUIT IN TRENCH, 50MM DIA., PVC	METER	33
CONDUIT IN TRENCH, 75MM DIA., PVC	METER	12
CONDUIT IN TRENCH, 100MM DIA., PVC	METER	4
CONDUIT IN TRENCH, 125MM DIA., PVC	METER	7
CONDUIT, AUGERED 75MM DIA., PVC	METER	38
TRENCH AND BACKFILL FOR ELECTRICAL WORK	METER	220
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	METER	450
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 4C	METER	161
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	METER	250
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	METER	453
ELECTRIC CABLE IN CONDUIT, COMMUNICATION NO. 18 3 PAIR	METER	143
TRAFFIC SIGNAL POST, ALUMINUM 3.65 METER	EACH	1
TRAFFIC SIGNAL POST, ALUMINUM 4.25 METER	EACH	2
TRAFFIC SIGNAL POST, ALUMINUM 4.85 METER	EACH	2
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 7.92 METER	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 9.14 METER	EACH	1
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE 10.36 METER	EACH	1
CONCRETE FOUNDATION, TYPE A	METER	4.5
CONCRETE FOUNDATION, TYPE D	METER	1.1
CONCRETE FOUNDATION, TYPE E 750MM DIAMETER	METER	3
COAXIAL CABLE IN CONDUIT	METER	277
ELECTRIC CABLE IN CONDUIT, GROUNDING, NO. 6 1C	METER	104
CONCRETE FOUNDATION, TYPE E 900MM DIAMETER	METER	6.8
VIDEO VEHICLE DETECTION SYSTEM	EACH	1
SIGNAL HEAD ,POLYCARBONATE, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD ,POLYCARBONATE, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	EACH	3
SIGNAL HEAD ,POLYCARBONATE, LED, 1-FACE, 4-SECTION, MAST ARM MOUNTED	EACH	1
SIGNAL HEAD ,POLYCARBONATE, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED	EACH	1
SIGNAL HEAD ,POLYCARBONATE, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD ,POLYCARBONATE, LED, 2-FACE, 1-3 SECTION, 1-4 SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD ,POLYCARBONATE, LED, 2-FACE, 1-3 SECTION, 1-5 SECTION, BRACKET MOUNTED	EACH	1
PEDESTRIAN SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, BRACKET MOUNTED	EACH	2
PEDESTRIAN SIGNAL HEAD, POLYCARBONATE, LED, 2-FACE, BRACKET MOUNTED	EACH	3
PAINT NEW TRAFFIC SIGNAL POST	EACH	5



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.

THE ANTI-BACKUP FEATURE SHALL BE HARDWIRED IN THE CONTROLLER CABINET.

PEDESTRIAN PUSH-BUTTON SIGN DETAIL



NOTE: A PEDESTRIAN CLEARANCE INTERVAL OF 17 SECONDS SHALL BE USED FOR PHASE 2; 17 SECONDS FOR PHASE 4; 13 SECONDS FOR PHASE 6; 17 SECONDS FOR PHASE 8.

NORTHBOUND & SOUTHBOUND SHALL BE SPLIT PHASED.

ANTI-BACKUP SHALL BE HARDWIRED ON THE CONTROLLER CABINET BACKPANEL.

PHASE DESIGNATION DIAGRAM

GENERAL NOTES

1. THE FOLLOWING SIGNAL HEADS SHALL BE WIRED IN PARALLEL AT THE MAST POLE HANDHOLE: (A2, A3), (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.