

GENERAL NOTES

- THE CONTRACTOR SHALL CONTACT THE VILLAGE OF BOURBONNAIS A MINIMUM OF 72 HOURS PRIOR TO BEGINNING WORK.
- THE TRAFFIC SIGNAL SECTION AT THE ILLINOIS DEPARTMENT OF TRANSPORTATION, DISTRICT 3, SHALL BE NOTIFIED AT 815-434-8506 AT LEAST 72 HOURS PRIOR TO TURNING ON ANY FLASHER OR CONTROLLER UNITS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING UTILITY PROPERTY DURING CONSTRUCTION OPERATIONS AS OUTLINED IN ARTICLE 107.31 OF STANDARD SPECIFICATIONS. A MINIMUM OF 48 HOURS ADVANCED NOTICE IS REQUIRED FOR NON-EMERGENCY WORK. THE JULIE NUMBER IS 800-892-0123.
- ALL TRAFFIC CONTROL AND OTHER ADVISORY SIGNS NEEDED FOR CONSTRUCTION ARE TO BE FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH SECTION 701 OF THE STANDARD SPECIFICATIONS.
- ALL TRAFFIC SIGNAL HEADS ARE TO BE 12-INCH POLYCARBONATE.
- TRAFFIC SIGNAL HEADS SHALL BE PROPERLY COVERED PRIOR TO INTERSECTION TURN-ON OR AS DIRECTED BY THE ENGINEER. THIS COST SHALL BE INCLUDED WITH THE COST OF THE ASSOCIATED TRAFFIC SIGNAL PAY ITEMS.
- THE CONTRACTOR SHALL ENSURE THE SIGNAL HEADS OVER THE LEFT TURN LANES ARE SET WITH AN OFFSET, SO THAT THEY ARE NOT OBSTRUCTED BY EACH OTHER, WHILE KEEPING THEM IN THE CENTER OF THE LANE. NOTIFY THE TRAFFIC SIGNALS DEPARTMENT AT 815-434-8505 FOR MORE INFORMATION.
- A 1/4" DIAMETER CONTINUOUS RODENT RESISTANT NYLON ROPE SHALL BE FURNISHED AND LEFT IN PLACE IN ALL CONDUITS BETWEEN HANDHOLES AND FOUNDATIONS OR CONTROLLER. THIS COST SHALL BE INCLUDED WITH THE TRAFFIC SIGNAL CONTROLLER.
- THE CONTRACTOR SHALL ARRANGE FOR A FACTORY OR SUPPLIER REPRESENTATIVE TO BE PRESENT AT THE INTERSECTION WITH THE SIGNAL IS TURNED ON, COST TO BE INCLUDED WITH THE TRAFFIC SIGNAL CONTROLLER PAY ITEM.
- NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR PLACING CONDUIT AT A GREATER THAN 2' MINIMUM DEPTH TO AVOID OBSTACLES SUCH AS UNDERGROUND UTILITIES.
- THE ELECTRICAL CONDUCTORS FOR ALL TRAFFIC SIGNAL HEADS SHALL BE SOLID, SOFT COPPER.
- ALL THREADS OF BOLTS USED IN THE ASSEMBLY OF TRAFFIC SIGNAL COMPONENTS SHALL BE COATED WITH A NON-LEAD BASED ANTI-SEIZE COMPOUND, SIMILAR TO LEAD PLATE, PRIOR TO ASSEMBLY.
- ALL HARDWARE SHALL BE TIGHTENED AND WELL SECURED, CABLES SHALL BE NEATLY WOUND IN HANDHOLES, CABLES SHALL BE NEATLY TRAINED IN THE CONTROLLER CABINET.
- ALL TRAFFIC SIGNAL WIRING SHALL EXTEND FROM CONTROLLER TO SIGNAL SPLICES IN JUNCTION BOXES WILL NOT BE ALLOWED.
- THE CONTROLLER CABINET SHALL BE PLACED SO THAT A TECHNICIAN MAY SEE THE INTERSECTION OVER THE TOP OF THE CABINET WHILE WATCHING THE COMPONENTS IN THE CABINET.
- THE PROPOSED TRAFFIC SIGNAL CONTROLLER CABINET SHALL BE FURNISHED WITH A MANUAL CONTROL SWITCH AND MANUAL CONTROL CHORD WITHIN THE POLICE DOOR COMPARTMENT, THIS WORK SHALL BE INCLUDED IN THE CONTROLLER CABINET PAY ITEM.
- THE CONTRACTOR SHALL PROVIDE A SELF-ADHERED PHASE DIAGRAM ON THE INSIDE OF THE CONTROLLER CABINET DOOR
- THE CONTROLLER SHALL BE RESPONSIBLE FOR OBTAINING ELECTRICAL SERVICE FOR THE TRAFFIC SIGNALS. THE CONTRACTOR SHALL CONTACT THE UTILITY COMPANY PRIOR TO BEGINNING WORK TO OBTAIN THE UTILITY COMPANY REQUIREMENTS FOR THE SERVICE INSTALLATION.
- THE ELEVATION OF THE TOP OF THE DOUBLE HANDHOLE SHALL BE LESS THAN THE ELEVATION OF THE TOP OF THE CONTROLLER FOUNDATION.
- ALL UNINTERRUPTABLE POWER SUPPLIES SHALL BE EQUIPPED WITH ALPHA GUARD MONITORS.

- ALL GROUNDING MATERIALS FOR CONCRETE FOUNDATIONS SHALL REFER TO SECTION 807 OF THE STANDARD SPECIFICATIONS.
- ALL AREAS DISTURBED BY THE CONTACTOR SHALL BE RESTORED WITH SEED OR SOD TO THE SATISFACTION OF THE ENGINEER. SEEDING OR SODDING SHALL NOT BE PERMITTED AT ANY TIME WHEN THE GROUND IS FROZEN, WET, OR IN AN UNTILLABLE CONDITION.
- FIBER OPTIC CABLE SHALL BE LABELED WITH DIRECTION AND ASSIGNMENT NUMBER.
- THE SURGE PROTECTOR IN THE CONTROLLER CABINET SHALL HAVE AN INDICATOR LIGHT.
- THE MAST ARM FOUNDATIONS SHALL BE LOCATED A MINIMUM 6' FROM THE FACE OF CURB OR A MINIMUM 18' FROM THE EDGE OF PAVEMENT TO THE FACE OF FOUNDATION WHERE THERE IS NO CURB, UNLESS OTHERWISE DIRECTED BY THE ENGINEER. IN CURB AREA, GET MORE THAN 6' IF POSSIBLE IF THE SIGNAL HEAD STILL LINES UP IN THE CENTER OF LANE.
- ALL SIGNAL HEADS ON AN INDIVIDUAL SPAN WIRE SHALL BE MOUNTED SO THAT THE "RED" INDICATIONS ARE LEVEL WITH EACH OTHER.
- THE CONTRACTOR SHALL PROVIDE 3 FEET OF SLACK CABLE IN THE CONTROLLER AND ON WOOD POLES. THE SLACK IS IN ADDITION TO THE VERTICAL LENGTH OF CABLE DEFINED IN THE STANDARD SPECIFICATIONS AND SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT FOR ELECTRIC CABLE OF THE TYPE SPECIFIED.
- TEMPORARY WOOD POLES SHALL BE LOCATED A MINIMUM OF 6' FROM THE FACE OF CURB OR A MINIMUM OF 18' FROM THE EDGE OF PAVEMENT WHERE THERE IS NO CURB, UNLESS OTHERWISE SPECIFIED BY THE ENGINEER.
- ALL TEMPORARY WOOD POLES SHALL BE INSTALLED SO THAT A MINIMUM OF 30' OF POLE IS ABOVE THE EXISTING PAVEMENT ELEVATION ADJACENT TO THE POLE. A SUFFICIENT LENGTH OF POLE SHALL BE BURIED AND BACKFILLED TO ALLOW THE INSTALLATION TO WITHSTAND A 70 M.P.H SUSTAINED WIND LOAD.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING THE WOOD POLE LOCATIONS BEFORE ORDERING TO DETERMINE IF LONGER POLES ARE REQUIRED.

MILLING AND RESURFACING NOTES

THIS WORK SHALL CONSIST OF THE REMOVAL AND REPLACEMENT OF DETECTOR LOOPS AND AXLE DETECTORS (PIEZOCABLE SENSOR). THE DETECTOR LOOPS AND AXLE DETECTORS SHALL BE REMOVED WITH THEIR ELECTRIC CABLE ALL THE WAY TO THE EXISTING CABINET CONNECTION, AND REPLACED IN THE SAME MANNER USING THE EXISTING CONDUIT, HANDHOLE, AND GULFBOX JUNCTION.

- PLACE DETECTOR LOOPS IN BINDER OR MILLED SURFACE
- DETECTOR LOOPS SHALL HAVE FOUR TURNS. ADVANCED WARNINGS SHALL HAVE SIX TURNS
- SAW CUT EXISTING DETECTOR LOOP TO BE ABANDONED
- THE DEPARTMENT OF TRANSPORTATION (815-434-8506) SHALL BE NOTIFIED AT LEAST 72 HOURS PRIOR TO THE LAYOUT OF THE DETECTOR LOOPS.

REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT (89502375) SHALL CONSIST OF REMOVING THE FOLLOWING ITEMS:

1	EACH	CONTROLLER & CABINET
2	EACH	SIGNAL HEAD, POLYCARBONATE, 1-FACE, 3-SECTION, BRACKET MOUNTED
6	EACH	SIGNAL HEAD, POLYCARBONATE, 1-FACE, 3-SECTION, MAST ARM MOUNTED
2	EACH	SIGNAL HEAD, POLYCARBONATE, 1-FACE, 4-SECTION, MAST ARM MOUNTED
8	EACH	SIGNAL HEAD, POLYCARBONATE, 1-FACE, 4-SECTION, MAST ARM MOUNTED
12	EACH	TRAFFIC SIGNAL BACKPLATE
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 26 FT.
1	EACH	STEEL MAST ARM ASSEMBLY AND POLE, 42 FT.
1	EACH	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 36 FT.
1	EACH	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 42 FT.
1	EACH	FULL-ACTUATED CONTROLLER, SPECIAL SEQUENCE, 6 PHASES & CABINET
3	EACH	CONCRETE HANDHOLE
1	EACH	CONCRETE DOUBLE HANDHOLE
1	EACH	PEDESTRIAN PUSH BUTTON POST

ELECTRICAL LOAD CHART

STREET NAME	COMPONENT	NUMBER	WATTAGE EACH	BURN TIME %
US 45/52	RED	10	7	35
	YELLOW	10	12	5
	GREEN	10	9.5	60
	YELLOW ARROW LT	4	6	5
	GREEN ARROW LT	4	6	10
	WALK	4	7	5
	DO NOT WALK	4	7	95
JOHN CASEY	RED	8	7	60
	YELLOW	8	12	5
	GREEN	8	9.5	35
	YELLOW ARROW LT	6	6	5
	GREEN ARROW LT	6	6	10
	WALK	4	7	5
TRAFFIC SIGNAL CABINET	DO NOT WALK	4	7	95
	CONTROLLER	1	6	100
	UPS	1	50	100
	DETECTOR LOOPS	10	4	100

HIGHWAY LIGHTING

ITEM	NUMBER	WATTAGE EACH	BURN TIME %
CONTROLLER	1	6	100
LUMINAIRE	4	250	360 HR/ MONTH

AGENCY RESPONSIBLE FOR ENERGY CHARGES: VILLAGE OF BOURBONNAIS
(NOTE: SEPARATE ENERGY BILLS FOR HIGHWAY LIGHTING AND TRAFFIC SIGNALS SHALL BE SUBMITTED TO THE VILLAGE OF BOURBONNAIS)

SCHEDULE OF QUANTITIES

CODE NO.	UNIT	ITEM	QUANTITY
72000200	SQ FT	SIGN PANEL - TYPE 2	60
80400100	EACH	ELECTRIC SERVICE INSTALLATION	1
81028240	FOOT	UNDERGROUND CONDUIT GALVANIZED STEEL, 4" DIA.	270
81028350	FOOT	UNDERGROUND CONDUIT PVC, 2" DIA.	664
81028390	FOOT	UNDERGROUND CONDUIT PVC, 4" DIA.	12
81400700	EACH	HANDHOLE, PORTLAND CEMENT CONCRETE	3
81400720	EACH	DOUBLE HANDHOLE, PORTLAND CEMENT CONCRETE	1
81702450	FOOT	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 3-1/2 NO. 10	606
82105500	EACH	LUMINAIRE, SODIUM VAPOR, HIGH MAST, HORIZONTAL MOUNT, 250 WATT	4
85000300	LSUM	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	1
86200300	EACH	UNINTERRUPTIBLE POWER SUPPLY, EXTENDED	1
86400100	EACH	TRANSCEIVER- FIBER OPTIC	3
87100160	FOOT	FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125, 24F	2005
87300925	FOOT	ELECTRIC CABLE IN CONDUIT, TRACER NO. 14 1C	2005
87301215	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	1356
87301225	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	1576
87301245	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	1385
87301255	FOOT	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	1916
87301305	FOOT	ELECTRIC CABLE IN CONDUIT LEAD-IN NO. 14, 1 PAIR	1471
87301805	FOOT	ELECTRIC CABLE IN CONDUIT NO. 6 2C	65
87301900	FOOT	ELECTRIC CABLE IN CONDUIT, EQUIPMENT GROUNDING CONDUCTOR, NO. 6 1C	1258
87502500	EACH	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	3
87601100	EACH	PEDESTRIAN PUSH BUTTON POST, GALVANIZED STEEL TYPE 1	2
87702870	EACH	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 28 FT.	1
87702940	EACH	STEEL COMBINATION MAST ARM ASSEMBLY AND POLE, 42 FT.	3
87800100	FOOT	CONCRETE FOUNDATION, TYPE A	9
87800150	FOOT	CONCRETE FOUNDATION, TYPE C	4
87800415	FOOT	CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	49
87900200	EACH	DRILL EXISTING HANDHOLE	2
88040070	EACH	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	2
88040090	EACH	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 3-SECTION, MAST ARM MOUNTED	6
88040150	EACH	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	6
88040160	EACH	SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, 5-SECTION, MAST ARM MOUNTED	4
88102825	EACH	PEDESTRIAN SIGNAL HEAD, POLYCARBONATE, LED, 1-FACE, BRACKET MT W/TIMER	8
88200410	EACH	TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	18
88500100	EACH	INDUCTIVE LOOP DETECTOR	11
88600100	FOOT	DETECTOR LOOP, TYPE I	1661
88700200	EACH	LIGHT DETECTOR	4
88700300	EACH	LIGHT DETECTOR AMPLIFIER	4
88800100	EACH	PEDESTRIAN PUSH-BUTTON	8
89502300	FOOT	REMOVE ELECTRIC CABLE FROM CONDUIT	1672
89502375	EACH	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	4
89502380	EACH	REMOVE EXISTING HANDHOLE	3
89502382	EACH	REMOVE EXISTING DOUBLE HANDHOLE	1
89502385	EACH	REMOVE EXISTING CONCRETE FOUNDATION	5
89502500	EACH	REMOVE TEMPORARY TRAFFIC SIGNAL INSTALLATION	1
X8250505	EACH	LIGHTING CONTROLLER, SPECIAL	1
X8570225	EACH	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET, SPECIAL	1
X8730250	FOOT	ELECTRIC CABLE IN CONDUIT NO. 20 3/C, TWISTED, SHIELDED	1991
X8900100	EACH	TEMPORARY TRAFFIC SIGNAL INSTALLATION (SPECIAL)	1
X8950114	EACH	MODIFY EXISTING CONTROLLER AND CABINET	2
Z0033044	EACH	RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 1	1