ELECTRICAL LOAD FOR VETERANS PARKWAY & MO			RRIS AVENUE
VETERANS PARKWAY (EB)	NUMBER	WATTAGE EACH	BURN TIME
RED	3	10	64
YELLOW	3	19	5
GREEN	3	14	31
RIGHT/LEFT YELLOW ARROW	2	9	3
RIGHT/LEFT GREEN ARROW	2	7	16
RIGHT/LEFT RED ARROW	2	8	81
PEDESTRIAN SIGNAL	_	25	100
VETERANS PARKWAY (WR)	NUMBER	WATTAGE	BURN TIME

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VETERANS PARKWAY (WB)	NUMBER	WATTAGE EACH	BURN TIME
RED	4	10	64
YELLOW	4	19	5
GREEN	4	14	31
LEFT YELLOW ARROW	1	9	3
LEFT GREEN ARROW	1	7	16
LEFT RED ARROW	1	8	81
PEDESTRIAN SIGNAL	-	25	100

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MORRIS AVENUE (NB)	NUMBER	WATTAGE EACH	BURN TIME
RED	2	10	82
YELLOW	2	19	5
GREEN	2	14	13
LEFT YELLOW ARROW	2	9	3
LEFT GREEN ARROW	2	7	12
LEFT RED ARROW	2	8	85
PEDESTRIAN SIGNAL	4	25	100

MORRIS AVENUE (SB)	NUMBER	WATTAGE EACH	BURN TIME
RED	4	10	82
YELLOW	4	19	5
GREEN	4	14	13
LEFT YELLOW ARROW	2	9	3
LEFT GREEN ARROW	2	7	12
LEFT RED ARROW	2	8	85
PEDESTRIAN SIGNAL	4	25	100

VETERANS PARKWAY (EB)	NUMBER	WATTAGE EACH	BURN TIME %
RED	3	10	33
YELLOW	3	19	4
GREEN	3	14	63
RIGHT YELLOW ARROW	2	9	4
RIGHT GREEN ARROW	2	7	63
RIGHT RED ARROW	-	8	33
RED SIGNAL	-	25	100

FLECTRICAL LOAD FOR VETERANS PARKWAY & CREENWOOD AVE

VETERANS PARKWAY (WB)	NUMBER	WATTAGE EACH	BURN TIN
RED .	3	10	85
YELLOW	3	19	3
GREEN	3	14	12
LEFT YELLOW ARROW	2	9	3
LEFT GREEN ARROW	2	7	12
LEFT RED ARROW	2	8	85
PEDESTRIAN SIGNAL	-	25	100

GREENWOOD AVENUE (NB)	NUMBER	WATTAGE EACH	BURN TIME
RIGHT & LEFT YELLOW ARROW	4	9	3
RIGHT & LEFT GREEN ARROW	4	7	15
RIGHT & LEFT RED ARROW	4	8	82

ELECTRICAL LOAD FOR SIX POINTS ROAD & MORRIS AVENUE

SIX POINTS ROAD (EB)	NUMBER	WATTAGE EACH	BURN TIME %
RIGHT & LEFT YELLOW ARROW	5	9	5
RIGHT & LEFT GREEN ARROW	5	7	20
RIGHT & LEFT RED ARROW	5	8	75
PEDESTRIAN SIGNAL	4	25	100

SIX POINTS ROAD (WB)	NUMBER	WATTAGE EACH	BURN TIME %
RED	2	10	70
YELLOW	2	19	5
GREEN	2	14	25
LEFT GREEN ARROW	1	7	25
PEDESTRIAN SIGNAL	4	25	100

MORRIS AVENUE (NB)	NUMBER	WATTAGE EACH	BURN TIME %
RED	3	10	80
YELLOW	3	19	5
GREEN	3	14	15
LEFT YELLOW ARROW	2	9	5
LEFT GREEN ARROW	2	7	15
PEDESTRIAN SIGNAL	2	25	100

MORRIS AVENUE (SB)	NUMBER	WATTAGE EACH	BURN TIME %
RED	3	10	75
YELLOW	3	19	5
GREEN	3	14	20
RIGHT YELLOW ARROW	2	9	5
RIGHT GREEN ARROW	2	7	20

GENERAL NOTES:

- 1. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO BEGINNING OF CONSTRUCTION. (J.U.L.I.E. 800-892-0123)
- 2. ALL SIGNAL BASES SHALL BE LOCATED A MINIMUM OF 1.8 METERS (6 FEET) FROM THE FACE OF CURB UNLESS OTHERWISE DIRECTED BY THE ENGINEER
- 3. A SINGLE 12 GAUGE THHN CONDUCTOR SHALL BE FURNISHED AND LEFT IN PLACE IN ALL CONDUITS BETWEEN HANDHOLES AND FOUNDATIONS OR CONTROLLER AS INCIDENTAL TO THE RESPECTIVE CONDUIT PAY ITEM.
- 4. THE PROPOSED TRAFFIC SIGNAL CONTROL, CABINET SHALL BE FURNISHED WITH A MANUAL CONTROL SWITCH AND MANUAL CONTROL CORD WITHIN THE POLICE DOOR COMPARTMENT AS INCIDENTAL TO THE CONTROL CABINET PAY ITEM.
- 5. THE CONTRACTOR SHALL ARRANGE FOR A FACTORY OR SUPPLIER REPRESENTATIVE TO BE PRESENT AT THE INTERSECTION WHEN THE SIGNAL IS TURNED ON, INCIDENTAL TO THE CONTROLLER PAY ITEM.
- 6. THE DEPARTMENT OF TRANSPORTATION TRAFFIC SIGNAL SYSTEMS ENGINEER (217) 466-7383 SHALL BE NOTIFIED AT LEAST 72 HOURS PRIOR TO THE TURNING ON OF THE TRAFFIC SIGNALS.
- 7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ELECTRICAL SERVICE FOR THE TRAFFIC SIGNAL AND STREET LIGHTING, THE CONTRACTOR SHALL CONTACT THE UTILITY COMPANY PRIOR TO BEGINNING WORK TO OBTAIN THE UTILITY COMPANY REQUIREMENTS FOR THE SERVICE INSTALLATION.
- 8. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR PLACING CONDUIT AT GREATER THAN 0.60 METERS (2 FEET) MINIMUM DEPTH TO AVOID OBSTACLES SUCH AS UNDERGROUND UTILITIES.
- 9. THE DOUBLE HANDHOLE SHALL HAVE 4 METERS (13 FEET) OF SLACK IN EACH CABLE NEATLY WOUND ON THE HOOKS. THE CABLE SHALL BE PAID FOR AT ITS INDIVIDUAL UNIT PRICE.
- 10. ALL MAST ARM MOUNTED SIGNAL HEADS ON AN INDIVIDUAL MAST ARM SHALL BE MOUNTED SO THAT THE RED INDICATIONS ARE LEVEL WITH EACH OTHER.
- 11. THE ELECTRICAL CONDUCTORS FOR ALL TRAFFIC SIGNAL HEADS SHALL BE SOLID, SOFT COPPER.
- 12. THE DOUBLE HANDHOLE SHALL BE FURNISHED WITH RECESSED, INTEGRAL, HINGED LIDS.
- 13. THE CONTRACTOR IS RESPONSIBLE FOR THE COST OF UNCOVERING OR HAND DIGGING AROUND UTILITIES AS NECESSARY, INCIDENTAL TO THE CONDUIT PAY ITEM.
- 14. ALL THREADS OF BOLTS USED IN ASSEMBLY OF TRAFFIC SIGNAL COMPONENTS SHALL BE COATED WITH A NON-LEAD BASED ANTI-SIEZE COMPOUND, SIMILAR TO LEAD PLATE, PRIOR TO ASSEMBLY.
- 15. ALL MAST ARM POLE BASES SHALL BE PROTECTED BY A STAINLESS STEEL MESH SCREENING AROUND THE BASEBOLTS TO PREVENT RODENT ENTRY, THE MESH SHALL BE SECURED TO THE BASE BY STAINLESS STEEL, BANDING AS INCIDENTAL TO THE INDIVIDUAL MAST ARM ASSEMBLY PAY ITEM.
- 16. POLYCARBONATE BACKPLATES SHALL BE LOUVERED.
- 17. ALL CONDUIT IN TRENCH SHALL BE PVC. ALL CONDUIT PUSHED MAY BE GALVANIZED STEEL OR PVC.
- 18. ALL SIGNAL CABLE SHALL BE MARKED WITH ELECTRIC TAPE FOR IDENTIFICATION PURPOSES AS SHOWN ON THE WIRING DIAGRAM. THIS IDENTIFICATION SHALL BE DONE AT THE CONTROLLER AND IN THE SIGNAL HEAD.
- 19. THE EXACT LOCATION OF THE MAST ARM ASSEMBLY AND POLE SHALL BE VERIFIED IN THE FIELD WITH THE ENGINEER.
- 20. ALL SALVAGED ITEMS SHALL BECOME THE PROPERTY OF THE CITY OF BLOOMINGTON, THE CONTRACTOR SHALL GIVE THE RESIDENT ENGINEER A COPY OF A SIGNED RECEIPT FOR ALL ITEMS DELIVERED TO THE CITY.

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- 21. THE CONTRACTOR SHALL GIVE THE CITY OF BLOOMINGTON AND STATE TRAFFIC OFFICE 72 HOURS NOTICE AND BE PRESENT FOR ANY CLASS OR DEMONSTRATION OF FIBER OPTIC SPLICING AND/OR INSTALLATION.
- 22. EACH PROPOSED TRAFFIC SIGNAL CABINET SHALL BE PROVIDED WITH A DOOR SWITCH, CONFLICT FLASH AND MANUAL FLASH INPUTS WIRED TO THE APPROPRIATE CONTROLLER "D" CONNECTOR INPUTS.
- 23. MOUNT A SURGE SUPPRESSOR WITH A 3-POSITION TERMINAL BLOCK ON AN ALUMINUM PLATE IN THE TRAFFIC SIGNAL CABINET BELOW THE POWER DISTRIBUTION PANEL. SURGE SUPPRESSOR SHALL BE MODEL HS-P-SP-12O-30A-RJ AS MANUFACTURED BY INNOVATIVE TECHNOLOCY INC OR APPROVED EQUAL. INCOMING POWER SHALL CONNECT TO THE TERMINAL BLOCK AND FEED THE SURGE SUPPRESSOR THROUGH NO. 10 AWG SOLID COPPER WIRE (AC+, AC-, GND) WITH APPROXIMATELY TEN 1½ TO 2 INCH COILS IN THE AC+ AND AC- LINES.
- 24. CONFIRMATION BEACONS WILL NOT BE INSTALLED WITH THE PROPOSED LIGHT DETECTORS.

TS-02

REVISIONS
NAME DATE

VETERANS PARKWAY & MORRIS AVENUE

VETERANS PARKWAY & GREENWOOD AVENUE

SIX POINTS ROAD & MORRIS AVENUE

TRAFFIC SIGNAL NOTES

SCALE:

DRAWN BY: RV
DESIGNED BY: AS
DATE: MARCH, 2009

CHECKED BY: MSA

NOTE: THE CONTRACTOR SHALL PAY FOR ALL ENERGY CHARGES UNTIL THE PROJECT IS ACCEPTED. BILLING SHALL THEN BE TRANSFERRED TO THE CITY OF BLOOMINGTON