PROJECT DESCRIPTION

THIS PORTION OF THE PROJECT INVOLVES THE PARTIAL RECONSTRUCTION OF THE EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 30 (HANOVER PIKE) AND MD 91 (EMORY AVE) IN BALTIMORE COUNTY. ALL EQUIPMENT EXCEPT THE TWIN MAST ARM POLE IN THE NORTHEAST CORNER OF THE INTERSECTION WILL BE REPLACED. IP-BASED VIDEO DETECTION CAMERAS, LED SIGNAL HEADS AND NON-INVASIVE PROBES WILL BE INCLUDED.

MD 30 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL CONTINUE TO OPERATE IN A NEMA SIX-PHASE FULL-TRAFFIC-ACTUATED MODE WITH EXCLUSIVE/PERMISSIVE LEFT-TURNS FOR THE MD 30 APPROACHES. THE THROUGH MOVEMENTS OF MD 30 WILL OPERATE CONCURRENTLY. THE MD 91/EMORY RD MOVEMENTS WILL OPERATE CONCURRENTLY.

CONTROLLER REQUIREMENTS

INSTALL A FULL-TRAFFIC-ACTUATED EIGHT PHASE TRAFFIC CONTROLLER WITH IP-BASED VIDEO DETECTION INTERFACE EQUIPMENT, INTERSECTION MONITOR AND PHONE DROP IN A NEMA SIZE "6" BASE MOUNTED CABINET.

SPECIAL NOTE

UPON COMPLETION OF THIS PROJECT THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF SHA AT (410)787-7631 TO ARRANGE FOR THE PHONE LINE INSTALLATION. THE CONTRACTOR IS TO PROVIDE MR. SNYDER WITH THE NEAREST STREET ADDRESS, ZIP CODE, AND PHONE NUMBER.

CONTACT PERSONS FOR DISTRICT #4 ARE AS FOLLOWS:

MS. ERIN KUHN
ASSISTANT DISTRICT ENGINEER-TRAFFIC
PHONE: (410)229-2381

MR. MICHAEL PASQUARIELLO
UTILITY ENGINEER
PHONE: (410)229-2341

MR. ANDRE FUTRELL
ASSISTANT DISTRICT ENGINEER-MAINTENANCE
PHONE: (410)229-2361

MR. DONALD SCHAEFER
ASSISTANT DISTRICT ENGINEER - CONSTRUCTION
PHONE: (410)229-2421

CONTACT PERSONS FOR OOTS ARE AS FOLLOWS:

MR. RICHARD L. DAFF, SR.
CHIEF, TRAFFIC OPERATIONS DIVISION
PHONE: (410)787-7630

MR. ROBERT SNYDER
ASSISTANT DIVISION CHIEF
TRAFFIC OPERATIONS
(410)787-7630

MR. ED RODENHIZER
CHIEF, SIGNAL OPERATIONS
(410)787-7650

MR. EUGENE BAILEY
CHIEF, SIGN OPERATIONS
(410)787-7676

POWER COMPANY

BGE
GAS & ELECTRIC NEW BUSINESS DEPT.
(410) 850-4620

EQUIPMENT LIST "A"

B. EQUIPMENT TO BE FURNISHED BY SHA AND INSTALLED BY CONTRACTOR.

CAT CODE	DESCRIPTION	UNIT	QUANTITY
900000	IP-BASED VIDEO DETECTION INTERFACE EQUIPMENT	EA	1
963010	FOUR CHANNEL LOOP DETECTOR AMPLIFIER	EA	1
971017	EIGHT PHASE (FULLY ACTUATED) CONTROLLER AND CABINET - BASE MOUNT	EA	1
973023	SHEET ALUMINUM SIGNS 2- M1-5(4) (MOD) (51"X36") - MAST ARM MOUNT 4- M1-5(4) (78"X36") - MAST ARM MOUNT 1- W9-2(4) (30"X42") FY - MAST ARM MOUNT 1- D-3(1) (96" X 16") DUAL FACED - MAST ARM MOUNT	SF	134

EQUIPMENT LIST "B"

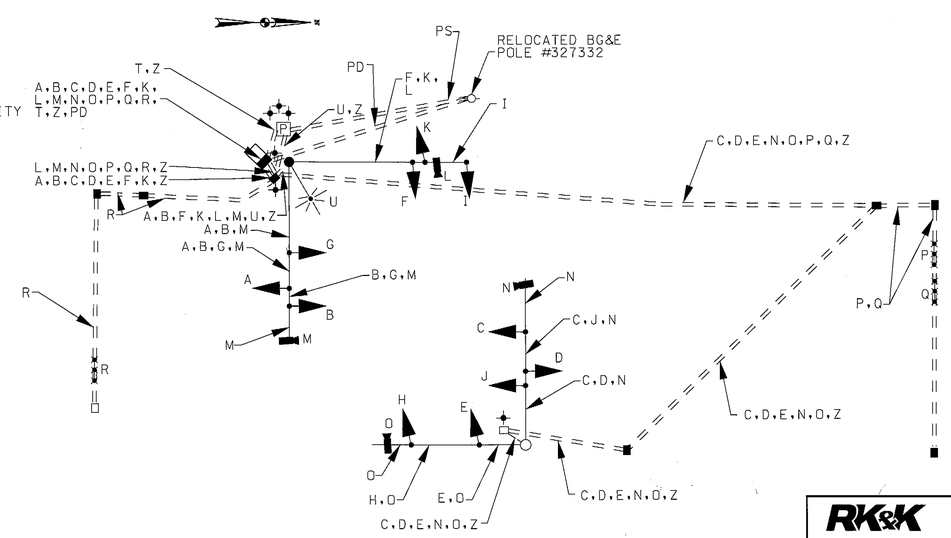
B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR.

CAT CODE	DESCRIPTION	UNIT	QUANTITY
203030	TEST PIT EXCAVATION	CY	4
585625	24 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES	LF	120
800000	REMOVE AND DISPOSE OF EXISTING SIGNAL EQUIPMENT	LS	1
800000	IP-BASED VIDEO DETECTION CAMERA AND CABLE	EA	4
800000	METERED SERVICE PEDESTAL - EMBEDDED	EA	1
801004	CONCRETE FOR SIGNAL FOUNDATION	CY	4
802501	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE	LF	400
805105	2 INCH SCHEDULE 80 RIGID PVC CONDUIT-BORED	LF	70
805115	3 INCH SCHEDULE 80 RIGID PVC CONDUIT-BORED	LF	150
805118	4 INCH SCHEDULE 80 RIGID PVC CONDUIT-BORED	LF	490
805125	2 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED	LF	30
805135	3 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED	LF	510
805140	4 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED	LF	20
810010	ELECTRICAL CABLE 1-CONDUCTOR NO. 4 AWG-THHN/THWN	LF	60
810601	NONINVASIVE DETECTOR, 500 FOOT LEAD IN CABLE	EA	3
811001	FURNISH AND INSTALL ELECTRICAL HANDHOLE	EA	7
813015	INSTALL OVERHEAD SIGN	SF	134
818021	STEEL POLE WITH TWIN 50 FOOT MAST ARM	EA	1
831010	250 WATT HIGH PRESSURE SODIUM LAMP AND LUMINAIRE	EA	1
837001	GROUND ROD - 3/4 INCH DIAMETER X 10 FOOT LENGTH	EA	6
860270	8 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION	EA	6
860284	12 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION	EA	35
861107	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)	LF	80
861108	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)	LF	1600
861116	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 AWG)	LF	80
866104	20 FOOT LIGHTING ARM ON SIGNAL STRUCTURE	EA	1
871117	INSTALL EIGHT PHASE (FULLY ACTUATED) CONTROLLER AND CABINET - BASE MOUNT	EA	1

EQUIPMENT LIST "C"

C. EQUIPMENT TO BE REMOVED BY THE CONTRACTOR AND DELIVERED TO THE STATE HIGHWAY ADMINISTRATION, 7491 CONNELLEY DRIVE, HANOVER, MARYLAND 21076.

SHA FORCES SHALL REMOVE THE CONTROLLER AND ALL AUXILIARY EQUIPMENT FROM THE CONTROLLER CABINET. THE CABINET AND ALL OTHER MATERIALS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME PROPERTY OF THE CONTRACTOR. VIDEO DETECTION CAMERAS SHALL BE RETURNED TO SHA SIGNAL SHOP.



PHASING CHART

NO PHASE CHANGE

GENERAL NOTES

1. THE CONTRACTOR SHALL VERIFY ALL PROPOSED POLE LOCATIONS PRIOR TO INSTALLATION.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TERMINATING ALL SIGNAL CABLE TO THE APPROPRIATE TERMINALS AND PROPERLY LABELING EACH CABLE.
3. ALL UNUSED CABLE SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR.
4. UNDERGROUND UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING "MISS UTILITY" PRIOR TO CONSTRUCTION SO THAT ALL UTILITIES MAY BE LOCATED IN THE FIELD. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN THE UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IMMEDIATELY SO THAT THE CONFLICT MAY BE RESOLVED.
5. ALL TRAFFIC SIGNAL FOUNDATIONS SHALL BE INSTALLED AT THE FINAL SIDEWALK OR CURB GRADE FOR CLOSED SECTIONS, HIGHEST ROADWAY PROFILE GRADE FOR OPEN SECTIONS, TO MEET CLEARANCES AS SPECIFIED IN MD 816.03, MD 818.01, MD 818.02, MD 818.04. THE CONTRACTOR SHALL VERIFY ULTIMATE GRADES PRIOR TO THE INSTALLATION OF ALL SIGNAL EQUIPMENT.
6. FOR ADDITIONAL SIGNING AND PAVEMENT MARKING INFORMATION SEE SIGNING AND PAVEMENT MARKING PLANS.
7. VIDEO CAMERA LOCATION/ALIGNMENT SHALL BE COORDINATED WITH THE SHA ENGINEER.
8. INSTALL HANDHOLE FEEDING NON-INVASIVE PROBES SUCH THAT LONG DIMENSION IS PERPENDICULAR TO TRAVEL WAY. EXTEND CONDUIT A MINUMUM OF 2 IN. AND A MAXIMUM OF 3 IN. INTO HANDHOLE.

WIRING KEY

A,B,C,D,E,F,K	7-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
G,H,I,J	5-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
T	1-CONDUCTOR ELECTRICAL CABLE NO. 4 - THHN/THWN (3 RUNS)
* L,M,N,O	VIDEO DETECTION CAMERA CONTROL CABLE
P,Q,R	NON-INVASIVE MICRO-LOOP PROBE 500' LEAD IN CABLE
U	2-CONDUCTOR ELECTRICAL CABLE (NO. 12 AWG) TC
Z	STRANDED BARE COPPER GROUND WIRE (NO. 6 AWG)
PS	UNDERGROUND POWER SERVICE TO BE INSTALLED BY BGE
PD	UNDERGROUND PHONE SERVICE TO BE INSTALLED BY VERIZON
✦	PROPOSED GROUND ROD

* COST OF CABLE INCIDENTAL TO CAMERA

RK&K
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Engineers Construction Managers Planners Scientists
www.rkk.com

REVISIONS

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION

MD 30 (HANOVER PK) AT MD 91 (EMORY RD)
FOWBLESBURG, MARYLAND

GENERAL INFORMATION SHEET

SCALE NONE DATE JUNE 2011 CONTRACT NO. BA6165187

DESIGNED BY SK
DRAWN BY SK
CHECKED BY BJG
FAP NO.

COUNTY BALTIMORE
LOGMILE 03003005.20
TIMS NO. K066
TOD NO.

TS NO. 1620C DRAWING SP-2 OF 2 SHEET NO. 42 OF 53

PLOTTED: Tuesday, July 12, 2011 AT 10:05 AM
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BY: BJG