

PROJECT DESCRIPTION

GENERAL

THIS PORTION OF THE PROJECT INVOLVES SIGNAL MODIFICATIONS DUE TO GEOMETRIC IMPROVEMENTS AT THE INTERSECTION OF MD 197 (LAUREL BOWIE ROAD) AND POWDER MILL ROAD IN PRINCE GEORGE'S COUNTY. THE GEOMETRIC IMPROVEMENTS INCLUDE WIDENING MD 197 TO PROVIDE ADDITIONAL LEFT AND RIGHT TURN LANES FOR THE SOUTHBOUND DIRECTION AND AN ADDITIONAL LEFT TURN LANE FOR THE NORTHBOUND DIRECTION. AN EXCLUSIVE/PERMISSIVE LEFT TURN PHASE IS PROPOSED FOR THE SOUTHBOUND APPROACH. THE EXISTING BLACK FACED VEHICULAR TRAFFIC SIGNAL HEADS IN THE NORTHBOUND DIRECTION WILL BE RE-ALIGNED AND UPGRADED TO LED. THE EXISTING YELLOW FACED TRAFFIC SIGNAL HEADS WILL BE REPLACED WITH NEW BLACK FACED LED SIGNAL HEADS. NON-INVASIVE MICROLOOP PROBES ARE PROPOSED FOR SETBACK DETECTION ALONG MD 197. LOOP DETECTORS WILL BE MAINTAINED FOR EASTBOUND SETBACK DETECTION. MD 197 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA SIX-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH EXCLUSIVE/PERMISSIVE LEFT TURN PHASING FOR THE NORTHBOUND APPROACH. AN EXCLUSIVE/PERMISSIVE LEFT TURN PHASE FOR IS PROPOSED THE SOUTHBOUND APPROACH. CONCURRENT SIDE STREET PHASING WILL REMAIN.

CONTROLLER REQUIREMENTS

THE EXISTING BASE MOUNTED CONTROLLER SHALL REMAIN. VIDEO DETECTION IS PROPOSED FOR ALL PRESENCE DETECTION. THE SHA SIGNAL SHOP WILL INSTALL THE VIDEO INTERFACE EQUIPMENT WITHIN THE CABINET. NON-INVASIVE MICROLOOP PROBES ARE PROPOSED FOR SETBACK DETECTION ALONG MD 197.

PHONE DROP

THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF SHA AT (410)787-7635 TO ARRANGE FOR THE PHONE DROP LINE INSTALLATION. THE CONTRACTOR IS TO PROVIDE MR. SNYDER WITH THE NEAREST STREET ADDRESS, ZIP CODE AND PHONE NUMBER.

THE CONTACT PERSONS FOR DISTRICT #3 ARE AS FOLLOWS:

Mr. Brian Young
Assistant District Engineer - Traffic
Phone: 301-513-7358

Mr. Augie Rebish
Assistant District Engineer - Utility
Phone: 301-513-7350

Mr. Wayne Mowdy
Assistant District Engineer - Maintenance
Phone: 301-513-7304

Mr. Edward Rodenhizer
Chief, SHA Traffic Signal Shop
Phone: 410-787-7650

Mr. Richard L. Daff Sr.
Chief, Traffic Operations Division
Phone: 410-787-7630

The Power Company Representative is:
Baltimore Gas & Electric Company
7317 Parkway Drive South
Hanover, Maryland 21076
Phone: 410-787-7630

EQUIPMENT LIST 'A'

EQUIPMENT TO BE FURNISHED BY THE SHA.

ITEM NO	QUANTITY	DESCRIPTION
900000	1 EA	VIDEO DETECTION INTERFACE EQUIPMENT: 1-4 CAMERAS
973023	110 SF	SHEET ALUMINUM SIGNS:
		1 EACH - ASSOCIATED SHIELD ASSEMBLY *SOUTH, MD 197, RIGHT ARROW* (24 IN. x 51 IN.) POLE MOUNT
		1 EACH - ASSOCIATED SHIELD ASSEMBLY *NORTH, MD 197, RIGHT ARROW* (24 IN. x 51 IN.) POLE MOUNT
		1 EACH - ASSOCIATED SHIELD ASSEMBLY *NORTH, MD 197, LEFT ARROW* (48 IN. x 75 IN.) POLE MOUNT
		1 EACH - ASSOCIATED SHIELD ASSEMBLY *SOUTH, MD 197, LEFT ARROW* (48 IN. x 75 IN.) POLE MOUNT
		2 EACH - D-301(MOD) DUAL FACED (96 IN. x 32 IN.) STRAIN WIRE MOUNT

EQUIPMENT LIST 'C'

EQUIPMENT TO BE REMOVED AND RETURNED TO SHA.

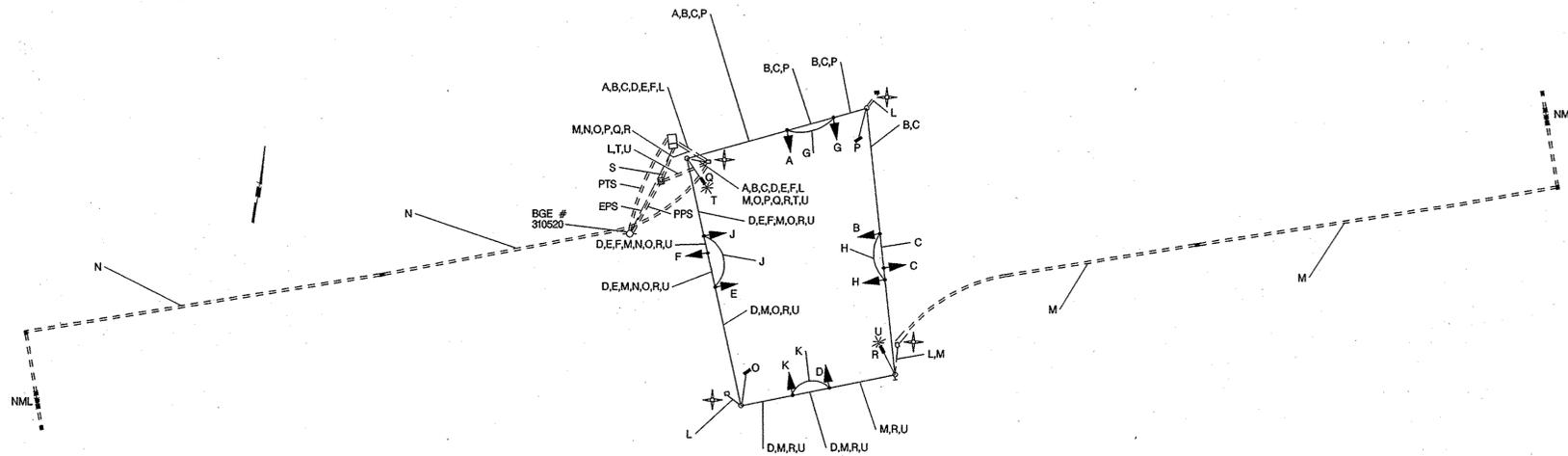
ITEM NO	QUANTITY	DESCRIPTION
NONE		ALL REMOVED EQUIPMENT SHALL BECOME PROPERTY OF THE CONTRACTOR.

EQUIPMENT LIST 'B'

EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR.

ITEM NO.	QUANTITY	DESCRIPTION
120500	1 LS	MAINTENANCE OF TRAFFIC
585424	120 LF	24 INCH WHITE LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
800000	1 LS	REMOVE AND DISPOSE OF EXISTING TRAFFIC SIGNAL EQUIPMENT
800000	13 EA	LED SIGNAL HEAD MODULES (ANY SIZE)
800000	3 EA	8 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION
800000	1 EA	2 INCH PVC CONDUIT BEND IN EXISTING FOUNDATION
800000	1 EA	3 INCH PVC CONDUIT BEND IN EXISTING FOUNDATION
802501	50 LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
805125	100 LF	2 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
805135	675 LF	3 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
805150	100 LF	3 INCH SCHEDULE 80 RIGID PVC CONDUIT - SLOTTED
807202	1 EA	METERED SERVICE PEDESTAL (200 AMP)
810010	66 LF	ELECTRICAL CABLE 1 - CONDUCTOR NO. 4 AWG - THHN/THWN
810601	1 EA	NONINVASIVE DETECTOR, 500 FOOT LEAD-IN CABLE
810605	1 EA	NONINVASIVE DETECTOR, 1000 FOOT LEAD-IN CABLE
811001	7 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
813015	110 SF	INSTALL OVERHEAD SIGN
816001	4 EA	VIDEO DETECTION CAMERA
816005	3 EA	CONTROL CABLE, 250 FOOT, VIDEO DETECTION CAMERA TO CONTROLLER
816010	1 EA	CONTROL CABLE, 500 FOOT, VIDEO DETECTION CAMERA TO CONTROLLER
837001	3 EA	GROUND ROD - 3/4 INCH DIAMETER x 10 FOOT LENGTH
860284	22 EA	12 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION
861107	100 LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
861108	1040 LF	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
861116	385 LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 AWG), TC
866104	2 EA	20 FOOT LIGHTING ARM ON SIGNAL STRUCTURE

WIRING DIAGRAM



- A B C D E F G H I J K L M N O P Q R
- S - 3 - ELECTRICAL CABLE 1 - CONDUCTOR NO. 4 AWG - THHN/THWN
- T U - ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 AWG), TC
- EPS - EXISTING POWER SOURCE
- PTS - PROPOSED UNDERGROUND TELEPHONE SERVICE TO BE INSTALLED BY OTHERS
- NML - NON-INVASIVE MICROLOOP PROBE
- GR - GROUND ROD - 3/4 INCH DIAMETER x 10 FOOT LENGTH
- PPS - PROPOSED UNDERGROUND POWER SERVICE (FINAL SERVICE CONNECTIONS SHALL BE MADE BY BGE)
- MP - 200 AMP METERED SERVICE PEDESTAL
- ABCD - ELECTRICAL CABLE - 7 CONDUCTOR NO. 14 AWG
- HIJKL - ELECTRICAL CABLE - 5 CONDUCTOR NO. 14 AWG
- L - NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
- MN - NON-INVASIVE MICROLOOP LEAD-IN CABLE
- OP - CONTROL CABLE, 250 FOOT, VIDEO DETECTION CAMERA TO CONTROLLER
- R - CONTROL CABLE, 500 FOOT, VIDEO DETECTION CAMERA TO CONTROLLER

PHASE CHART

	1	2	3	4	5	6	7	8	9	10	
PHASE 1 & 5	R	R	R	R	R	R	R	R	R	R	
PHASE 1 & 5 CHANGE	THE CONTROLLER MAY SKIP TO PHASE 1 & 6, 2 & 5, OR 2 & 6										
PHASE 1 & 6	R	R	R	R	R	R	R	R	R	R	
PHASE 1 CHANGE	R	R	R	R	R	R	R	R	R	R	
PHASE 2 & 5	R	R	R	R	R	R	R	R	R	R	
PHASE 5 CHANGE	R	R	R	R	R	R	R	R	R	R	
PHASE 2 & 6	R	R	R	R	R	R	R	R	R	R	
PHASE 2 & 6 CHANGE	R	R	R	R	R	R	R	R	R	R	
PHASE 4 & 8	R	R	R	R	R	R	R	R	R	R	
PHASE 4 & 8 CHANGE	R	R	R	R	R	R	R	R	R	R	
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	

SHA STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION
MD 197 (LAUREL BOWIE ROAD) AND POWDER MILL ROAD

GENERAL INFORMATION

SCALE	1" = 20'	DATE	06/2006	CONTRACT NO.	PG6325187
DESIGNED BY	SDY	COUNTY	PRINCE GEORGE'S		
DRAWN BY	MCG	LOGMILE	160019710.40		
CHECKED BY	BAB	T. I. M. S. NO.	H924		
F. A. P. NO.		TOD NO.			
DRAWING NO.	TS-2563D	OF		SHEET NO.	19 OF 19

BY: WEAVERCC

STV Incorporated
engineers/architects/planners/construction managers
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