

PROJECT DESCRIPTION

I. GENERAL

This project involves the reconstruction of an existing Traffic Control Signal at the intersection of Stevenson Road and MD 129A (Brooks Robinson Drive) / I-695 On Ramp in Baltimore County. The existing strain pole traffic signal shall be replaced by a new mast arm traffic signal. Video detection shall be used on all approaches. A new northbound left turn phase shall be installed at this location. Stevenson Road is assumed to run in a north-south direction.

II. INTERSECTION OPERATION

- The intersection is to operate in a NEMA four-phase, fully-actuated mode, with the Stevenson Road approaches running concurrently. An Exclusive/Permissive left turn phase shall be provided for the northbound approach of Stevenson Road. The MD 129A (Brooks Robinson Drive) approach shall run in its own phase.
- A full-traffic-actuated, eight-phase controller with video interface and all necessary equipment housed in a NEMA size "6" base-mounted cabinet shall be installed at this intersection.

III. SPECIAL NOTES

- The Contractor shall be responsible for terminating all signal cables, to the appropriate terminals and shall properly label each cable.
- All underground and overhead 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.
- All controller cabinet wiring will be performed by the S.H.A. Signal Shop. Contact Mr. Ed Rodenhizer (Dave Swartz) at (410) 787-7652 seventy-two hours in advance of intended work.

The contact persons for District #4 are as follows:

Ms. Erin Kuhn Assistant District Engineer - Traffic Phone: (410) 321-2781	Mr. Richard L. Daff, Sr. Chief, Traffic Operations Division Phone: (410) 787-7630
Mr. Steve Marciszewski Assistant District Engineer - Maintenance Phone: (410) 321-2761	Mr. Ed Rodenhizer Signal Shop 410-787-7652
Mr. Mike Pasqualello Assistant District Engineer - Utility Phone: (410) 321-2841	Mr. Sonny Bailey Sign Shop 410-787-7676

The power company representative is:
Baltimore Gas and Electric
7317 Parkway Drive South
Hanover, MD 21076
410-850-4620

EQUIPMENT LIST

ITEM NO.	DESCRIPTION	QUANTITY
816005	CONTROL CABLE, 250 FOOT, VIDEO DETECTION CAMERA TO CONTROLLER	3 EA
816010	CONTROL CABLE, 500 FOOT, VIDEO DETECTION CAMERA TO CONTROLLER	1 EA
816015	VIDEO INTERFACE EQUIPMENT	1 EA
818041	STEEL POLE WITH A SINGLE 60 FOOT MAST ARM	1 EA
818051	STEEL POLE WITH TWIN 50 FOOT AND 70 FOOT MAST ARMS (NOTE: 50' MAST SHALL BE CUT TO 40')	1 EA
831010	250 WATT HIGH PRESSURE SODIUM LAMP AND LUMINAIRE	2 EA
837001	GROUND ROD - 3/4 INCH DIAMETER X 10 FOOT LENGTH	6 EA
860284	12 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION	26 EA
861107	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)	75 LF
861108	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)	975 LF
861116	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 AWG)	370 LF
866103	15 FOOT LIGHTING ARM ON SIGNAL STRUCTURE	2 EA
837001	REMOVE AND SALVAGE EXISTING EQUIPMENT	1 EA

C. EQUIPMENT TO BE REMOVED

SHA Forces shall remove the controller and all auxiliary equipment from the controller cabinet. The cabinet and all other removed signal materials are to become property of the contractor.

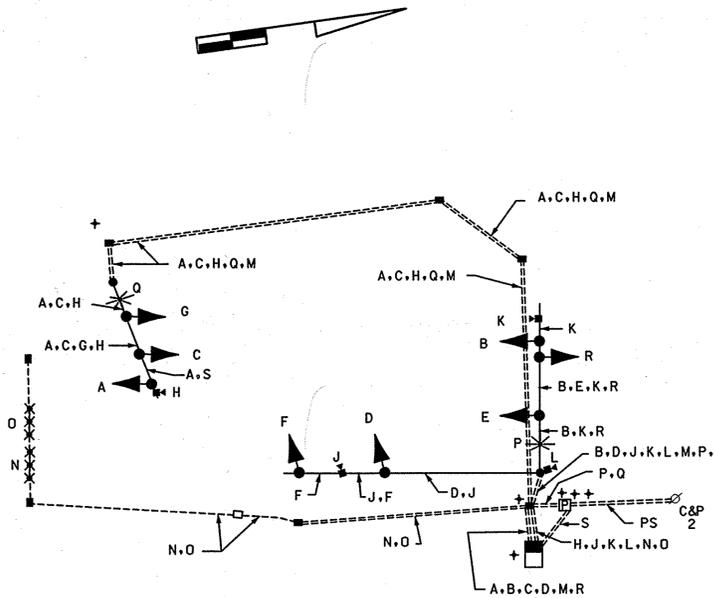
PHASE CHART

	1	2	3	4	5	6	7	8	9	10
PHASE 1 & 5	←G-R	←G-R	R	←G-R	←G-R	R	R	R	R	R
CHANGES TO PHASES 1 & 6, 2 & 5 OR 2 & 6										
PHASE 1 & 6	←G-G	←G-G	G	R	R	R	R	R	R	R
1 & 6 CHANGE	←Y-G	←Y-G	G	R	R	R	R	R	R	R
PHASE 2 & 5	R	R	R	←G-G	←G-G	G	R	R	R	R
2 & 5 CHANGE	R	R	R	←Y-G	←Y-G	G	R	R	R	R
PHASE 2 & 6	G	G	G	G	G	G	R	R	R	R
2 & 6 CHANGE	Y	Y	Y	Y	Y	Y	R	R	R	R
PHASE 4	R	R	R	R	R	R	G	G	G	G
4 CHANGE	R	R	R	R	R	R	Y	Y	Y	Y
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R

EQUIPMENT LIST

A. EQUIPMENT TO BE SUPPLIED BY S.H.A.		
ITEM NO.	DESCRIPTION	QUANTITY
971017	EIGHT PHASE (FULLY ACTUATED) CONTROLLER AND CABINET- BASE MOUNT	1 EA
973023	SHEET ALUMINIUM SIGNS (MAST ARM)	42 SF
	D3-2 "Brooks Robinson Dr (arrow) / (arrow) Brooks Robinson Dr" sign, (Dual Faced) (variable x 16")	2 EA
	D3-2 "Stevenson RD" sign (variable x 16")	1 EA
	R3-5R "RIGHT ONLY" sign (30" x 36")	1 EA
B. EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR		
ITEM NO.	DESCRIPTION	QUANTITY
203030	TEST PIT EXCAVATION	5 CY
585621	12 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES	220 LF
585625	24 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES	85 LF
800000A	8 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION	6 EA
800000A	40' WOOD POLE	1 EA
801004	CONCRETE FOR SIGNAL FOUNDATION	11 CY
802501	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE	310 LF
805115	3 INCH SCHEDULE 80 RIGID PVC CONDUIT-BORED	55 LF
805118	4 INCH SCHEDULE 80 RIGID PVC CONDUIT-BORED	285 LF
805125	2 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED	20 LF
805135	3 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED	55 LF
805140	4 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED	100 LF
807202	METERED SERVICE PEDESTAL	1 EA
810010	ELECTRICAL CABLE 1-CONDUCTOR NO. 4 AWG-THHN/THWN	50 LF
810601	NONINVASIVE DETECTOR, 500 FOOT LEAD IN CABLE	2 EA
811001	FURNISH AND INSTALL ELECTRICAL HANDHOLE	7 EA
813015	INSTALL OVERHEAD SIGN	42 SF
816015	VIDEO DETECTION CAMERA	4 EA

WIRING DIAGRAM



WIRING KEY

A	7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
E	5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
H	CONTROL CABLE (CAMERA TO CONTROLLER) 500'
J	CONTROL CABLE (CAMERA TO CONTROLLER) 250'
M	STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
N	MICROLOOP LEAD-IN CABLE (500')
P	2-CONDUCTOR TRAY CABLE (NO. 12 A.W.G.)
S	(3) 1-CONDUCTOR ELECTRICAL CABLE (NO. 4 A.W.G.)
PS	PROPOSED UNDERGROUND SERVICE TO BE INSTALLED BY BGE
+	GROUND ROD

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
HIGHWAY DESIGN DIVISION
STEVENSON ROAD AND MD 129A (BROOKS ROBINSON DRIVE) / I-695 INNER LOOP ON RAMP

GENERAL INFORMATION SHEET

SCALE	NONE	DATE	2/14/08	CONTRACT NO.	AX467A21
DESIGNED BY	RRZ	COUNTY	BALTIMORE		
DRAWN BY	RC	LOGMILE	03012901.37		
CHECKED BY		TMS NO.			
F.A.P. NO.		TOD NO.			
TS NO.	1399B	DRAWING NO.	2 OF 2	SHEET NO.	OF

ST
STREET TRAFFIC STUDIES, LTD.
400 Crain Hwy., NW
Glen Burnie, MD 21061
Ph (410) 590-5500
Fax (410) 590-6637

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DRILL HOLES

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