PROJECT DESCRIPTION

GENERAL

THIS PORTION OF THE PROJECT INVOLVES THE INSTALLATION OF PRESENCE AND SAMPLING VIDEO DETECTION FOR ALL APPROACHES AT THE INTERSECTION OF MD 97 (GEORGIA AVENUE) AND MD 193 (UNIVERSITY BOULEVARD) IN MONTGOMERY COUNTY, DUE TO THE RESURFACING AND SAFETY IMPROVEMENTS TO MD 97. APS WILL BE INSTALLED TO CROSS ALL LEGS OF THE INTERSECTION AND COUNTDOWN LED PEDESTRIAN SIGNAL HEADS WILL REPLACE THE EXISTING PEDESTRIAN SIGNAL HEADS. ALL EXISTING VEHICULAR TRAFFIC SIGNAL HEADS WILL REMAIN. MD 97 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 LEFT TURN PHASING FOR NORTH AND SOUTHBOUND APPROACHES. THE CONCURRENT MAINLINE PEDESTRIAN PHASE WILL REMAIN AND A ALTERNATE SIDE STREE PEDESTRIAN PHASE IS PROPOSED.

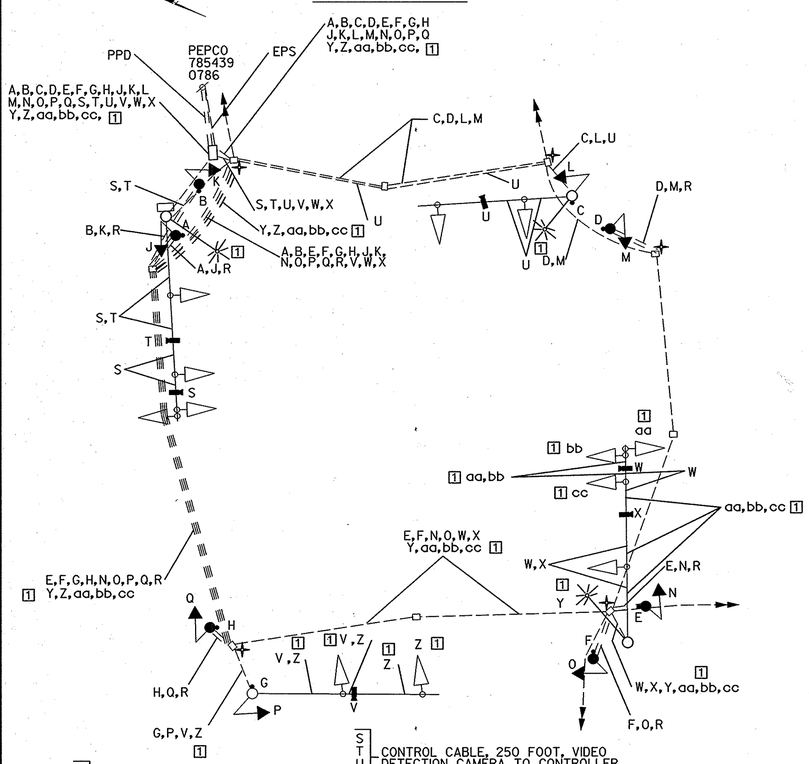
CONTROLLER REQUIREMENTS

THE EXISTING BASE MOUNTED CONTROLLER SHALL REMAIN. VIDEO PRESENCE AND SAMPLING DETECTION IS PROPOSED FOR ALL APPROACHES. THE SHA SIGNAL SHOP WILL INSTALL THE VIDEO DETECTION INTERFACE EQUIPMENT AND A 2-WIRE CENTRAL CONTROL UNIT WITHIN THE CABINET.

PHONE DROP

THE CONTRACTOR SHALL NOTIFY MR. KAMAL HAMUD OF MONTGOMERY COUNTY AT 240-777-8761 FOR THE PHONE DROP LINE INSTALLATION. THE CONTRACTOR IS TO PROVIDE MR. HAMUD WITH THE NEAREST STREET ADDRESS, ZIP CODE AND PHONE NUMBER.

WIRING DIAGRAM



A B C D E F G H — ELECTRICAL CABLE - 2 CONDUCTOR (NO.14 AWG)

J K L M N O P Q — ELECTRICAL CABLE - 5 CONDUCTOR (NO.14 AWG)

R — NO. 6 AWG STRANDED BARE COPPER GROUND WIRE

S T U V — CONTROL CABLE, 250 FOOT, VIDEO DETECTION CAMERA TO CONTROLLER

W X — CONTROL CABLE, 500 FOOT, VIDEO DETECTION CAMERA TO CONTROLLER

PPD — PROPOSED TELEPHONE SERVICE TO BE INSTALLED BY OTHERS

EPS — EXISTING POWER SOURCE

EXISTING GROUND ROD - 3/4 INCH DIAMETER X 10 FOOT LENGTH.

1 Y — ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 AWG), TC

1 Z aa bb cc — ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)

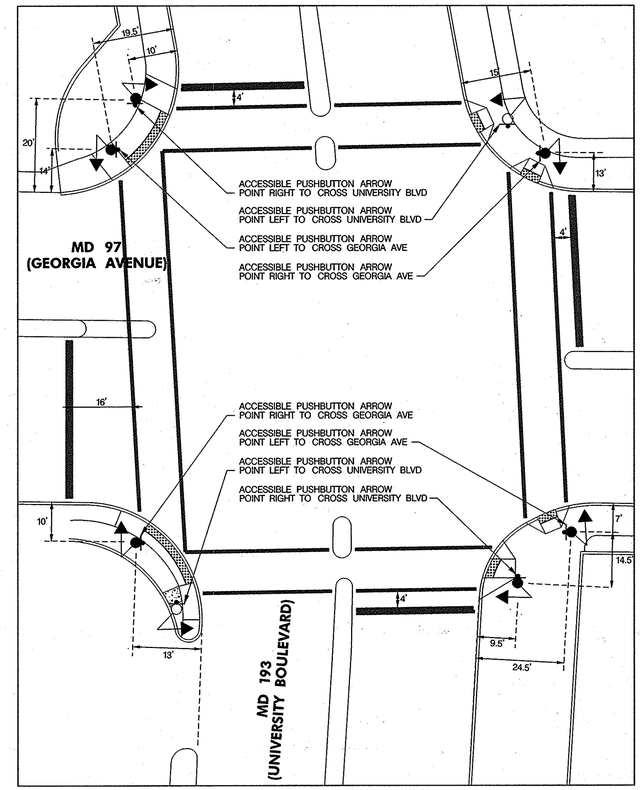
STV Incorporated

engineers / architects / planners / construction managers

7125 Ambassador Road Baltimore, MD 21244-2722 (410) 944-9112

BY: THOMPSMA

PROPOSED PEDESTAL POLE, APS AND PAVEMENT MARKING DETAIL LAYOUT



THE CONTACT PERSONS FOR DISTRICT #3 ARE AS FOLLOWS:

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

The Power Company Representative is:
Potomac Electric Power Company
8300 Old Marlboro Pike
Upper Marlboro, Maryland 20772
Phone: 301-961-5325

Mr. Kamal Hamud
Montgomery County Department of Public Works
Phone: 240-777-8761

Mr. Keith Lord
Montgomery County
Phone: 301-279-1291

EQUIPMENT LIST 'A'

EQUIPMENT TO BE FURNISHED BY THE SHA.

ITEM NO	QUANTITY	DESCRIPTION
900000	1 EA	VIDEO DETECTION INTERFACE EQUIPMENT: 5-8 CAMERAS
973023	96 SF	SHEET ALUMINUM SIGNS:
		4 EA - R10-4(I)MOD, (9 IN. X 15 IN.) POLE MOUNT, "PUSH BUTTON TO CROSS GEORGIA AVENUE"
		4 EA - R10-4(I)MOD, (9 IN. X 15 IN.) POLE MOUNT, "PUSH BUTTON TO CROSS UNIVERSITY BLVD"
		1 EA - ASSOCIATED SHIELD ASSEMBLY "NORTH, MD 97, RIGHT ARROW" (24 IN. X 51 IN.)
		1 EA - ASSOCIATED SHIELD ASSEMBLY "SOUTH, MD 97, RIGHT ARROW" (24 IN. X 51 IN.)
		1 EA - ASSOCIATED SHIELD ASSEMBLY "EAST, MD 193, RIGHT ARROW" (30 IN. X 51 IN.)
		1 EA - ASSOCIATED SHIELD ASSEMBLY "WEST, MD 193, RIGHT ARROW" (30 IN. X 51 IN.)
		1 EA- ASSOCIATED SHIELD ASSEMBLY "EAST, MD 193, LEFT ARROW" (48 IN. X 75 IN.)
		1 EA - ASSOCIATED SHIELD ASSEMBLY "WEST, MD 193, LEFT ARROW" (48 IN. X 75 IN.)

EQUIPMENT LIST 'B'

EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR.

ITEM NO	QUANTITY	DESCRIPTION
203030	6 CY	TEST PIT EXCAVATION
585412	750 LF	12 INCH WHITE LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
585424	160 LF	24 INCH WHITE LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
655105	15 SF	5 INCH CONCRETE SIDEWALK
655383	165 SF	BRICK SIDEWALKS
800000	1 EA	2-WIRE CENTRAL CONTROL UNIT
800000	1 EA	2 INCH PVC CONDUIT BEND IN EXISTING BASE MOUNTED CABINET
800000	8 EA	ACCESSIBLE PEDESTRIAN PUSHBUTTON
800000	8 EA	LED 16 INCH COUNTDOWN PEDESTRIAN SIGNAL HEAD SECTION - POLE MOUNT
800000	1 LS	REMOVE AND DISPOSE OF TRAFFIC SIGNAL EQUIPMENT
801004	6 CY	CONCRETE FOR SIGNAL FOUNDATION
802501	90 LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
805125	90 LF	2 INCH SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - TRENCHED
805135 1	120 ~~90~~ LF	3 INCH SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - TRENCHED
813015	96 SF	INSTALL OVERHEAD SIGN
816001	6 EA	VIDEO DETECTION CAMERA
816005	4 EA	CONTROL CABLE, 250 FOOT, VIDEO DETECTION CAMERA TO CONTROLLER
816010	2 EA	CONTROL CABLE, 500 FOOT, VIDEO DETECTION CAMERA TO CONTROLLER
818004	6 EA	10 FOOT BREAKAWAY PEDESTAL POLE
861105	1250 LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
861107 1	2450 ~~1350~~ LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
1 861116	250 LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 AWG), TC

PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
PHASE 1 & 5	~~G~~	~~G~~	R	R	~~G~~	~~G~~	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 1 & 5 CHANGE	THE CONTROLLER MAY SKIP TO PHASE 1 & 6, 2 & 5, OR 2 & 6																			
PHASE 1 & 6	~~G~~	~~G~~	G	G	~~R~~	~~R~~	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 1 CHANGE	~~Y~~	~~Y~~	G	G	~~R~~	~~R~~	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 2 & 5	~~R~~	~~R~~	R	R	~~G~~	~~G~~	G	G	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 5 CHANGE	~~R~~	~~R~~	R	R	~~Y~~	~~Y~~	G	G	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 2 & 6	~~R~~	~~R~~	G	G	~~R~~	~~R~~	G	G	R	R	R	R	W	W	W	W	DW	DW	DW	DW
PED. CLEARANCE / COUNTDOWN	~~R~~	~~R~~	G	G	~~R~~	~~R~~	G	G	R	R	R	R	FL/DW	FL/DW	FL/DW	FL/DW	DW	DW	DW	DW
PHASE 2 & 6 CHANGE	~~R~~	~~R~~	Y	Y	~~R~~	~~R~~	Y	Y	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 4 & 8	~~R~~	~~R~~	R	R	~~R~~	~~R~~	R	R	G	G	G	G	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 4 & 8 CHANGE	~~R~~	~~R~~	R	R	~~R~~	~~R~~	R	R	Y	Y	Y	Y	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 4 & 8 ALT.	~~R~~	~~R~~	R	R	~~R~~	~~R~~	R	R	G	G	G	G	DW	DW	DW	DW	W	W	W	W
PED. CLEARANCE / COUNTDOWN	~~R~~	~~R~~	R	R	~~R~~	~~R~~	R	R	G	G	G	G	DW	DW	DW	DW	FL/DW	FL/DW	FL/DW	FL/DW
PHASE 4 & 8 ALT. CHANGE	~~R~~	~~R~~	R	R	~~R~~	~~R~~	R	R	Y	Y	Y	Y	DW	DW	DW	DW	DW	DW	DW	DW
FLASHING OPERATION	FL/RA	FL/RA	FL/Y	FL/Y	FL/RA	FL/RA	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	DARK	DARK	DARK	DARK	DARK	DARK	DARK	DARK

EQUIPMENT LIST 'C'

EQUIPMENT TO BE REMOVED AND RETURNED TO SHA.

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

1 REDLINE REVISION 10-5-2007

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION

MD 97 (GEORGIA AVENUE) AND MD 193 (UNIVERSITY BOULEVARD)

GENERAL INFORMATION

SCALE NONE DATE 12/2006 CONTRACT NO. MO5665177

DESIGNED BY SBS COUNTY MONTGOMERY
DRAWN BY SBS LOGMILE 15009703.27
CHECKED BY BAB T.I.M.S. NO. H326
F.A.P. NO. TOD NO.

DRAWING NO. TS-211A OF SHEET NO. OF

PLOTTED: MONDAY, OCTOBER 08, 2007 AT 09:30 AM
FILE: I:\PROJECTS\0312513\0312513.0010\DRAWINGS\TRA\TRAFFIC\MD 193\PSG-P001_MD193.DGN