PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE FULL RECONSTRUCTION OF THE TRAFFIC SIGNAL AT THE INTERSECTION OF MD 212 (RIGGS ROAD) AND SARGENT ROAD IN PRINCE GEORGE'S COUNTY, IN ORDER TO ACCOMMODATE THE PEDESTRIAN MODIFICATIONS. IN ADDITION, THE SOUTHBOUND LEFT TURN LANE WILL BE MODIFIED TO A DOUBLE LEFT TURN LANE. ALL PRESENCE LOOP DETECTORS WILL BE REPLACED WITH VIDEO DETECTION. MD 212 IS ASSUMED TO RUN IN AN NORTH - SOUTH DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL CONTINUE TO OPERATE IN A NEMA FOUR-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH NEW EXCLUSIVE DOUBLE LEFT TURN PHASING FOR THE SOUTHBOUND APPROACH. THE CONCURRENT MAINLINE AND ALTERNATE SIDE STREET PEDESTRIAN PHASES WILL REMAIN. THE EASTBOUND RIGHT TURN OVERLAP PHASE WILL REMAIN.

CONTROLLER REQUIREMENTS

INSTALL A NEW EIGHT-PHASE FULLY ACTUATED TRAFFIC SIGNAL CONTROLLER, AMPLIFIERS, AND ASSOCIATED HARNESSES IN A NEMA SIZE "6" BASE MOUNTED CABINET. INSTALL ONE (1) VIDEO DETECTION INTERFACE FOR 1-4 CAMERAS AND ONE (1) CENTRAL CONTROL UNIT.

PHONE DROP

THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF SHA AT 410-787-7650 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. Richard L. Daff Sr.
Chief, Traffic Operations Division
Phone: 410-787-7630

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

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

EQUIPMENT LIST 'A'

EQUIPMENT TO BE FURNISHED BY THE SHA.

ITEM NO	QUANTITY	DESCRIPTION
900000	1 EA	VIDEO DETECTION INTERFACE EQUIPMENT: 1-4 CAMERAS
971017	1 EA	EIGHT PHASE (FULLY ACTUATED) CONTROLLER AND CABINET - BASE MOUNT
973023	100 SF	SHEET ALUMINUM SIGNS:
		2 EA - R10-4(I)MOD, (9 IN. X 15 IN.) POLE MOUNT, "PUSH BUTTON TO CROSS RIGGS ROAD"
		2 EA - R10-4(I)MOD, (9 IN. X 15 IN.) POLE MOUNT, "PUSH BUTTON TO CROSS SARGENT ROAD"
		2 EA - D-3(2), (96 IN. X 16 IN.) MAST ARM MOUNT, "SARGENT ROAD" DUAL FACED
		1 EA - D-3(2), (96 IN. X 16 IN.) MAST ARM MOUNT, "RIGGS ROAD"
		2 EA - R3-5L, (30 IN. X 36 IN.) MAST ARM MOUNT, "LEFT TURN ONLY"
		1 EA - ASSOCIATED SHIELD ASSEMBLY: POLE MOUNT, (30 IN. X 51 IN.), "EAST, MD 212, RIGHT ARROW"
		1 EA - ASSOCIATED SHILED ASSEMBLY: POLE MOUNT, (48 IN. X 75 IN.), "WEST, MD 212, LEFT ARROW"

EQUIPMENT LIST 'B'

EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR.

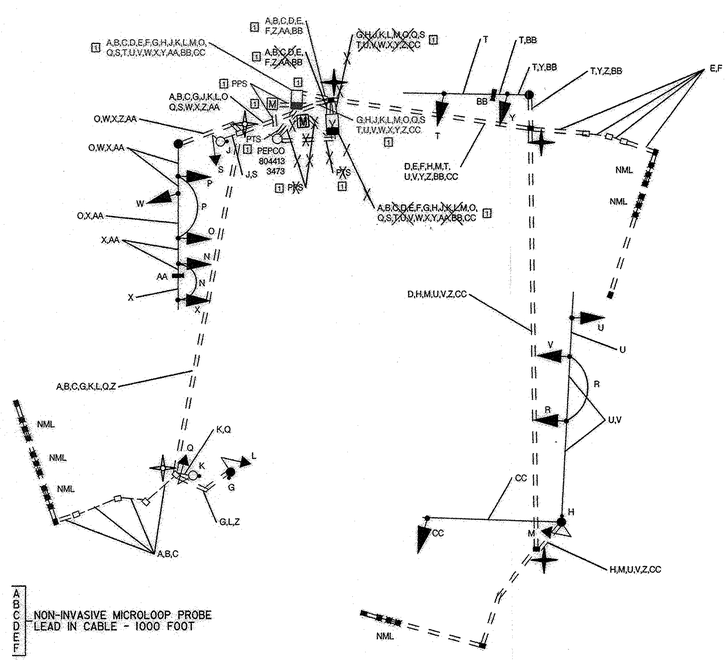
CATAGORY CODE	QUANTITY	DESCRIPTION
120500	1 LS	MAINTENANCE OF TRAFFIC
203030	5 CY	TEST PIT EXCAVATION
585612	510 LF	12 INCH WHITE LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
585624	140 LF	24 INCH WHITE LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
655105	100 SF	5 INCH CONCRETE SIDEWALK
800000	1 EA	2-WIRE CENTRAL CONTROL UNIT
800000	3 EA	8 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION
800000	4 EA	ACCESSIBLE PEDESTRIAN PUSHBUTTON
800000	125 LF	ELECTRICAL CABLE - 1 CONDUCTOR, 250 KCMIL, CU, USE
800000	4 EA	LED 16 INCH COUNTDOWN PEDESTRIAN SIGNAL HEAD
800000	1 LS	REMOVE AND DISPOSE OF TRAFFIC SIGNAL EQUIPMENT
800000	1 EA	16 FT. SPECIAL "T" STEEL POLE WITH A TWIN 70 FT./38 FT. MAST ARMS
800000	1 EA	16 FT. SPECIAL "T" STEEL POLE WITH A SINGLE 38 FT. MAST ARM
800000	1 EA	16 FT. SPECIAL "T" STEEL POLE WITH A SINGLE 50 FT. MAST ARM
801004	13 CY	CONCRETE FOR SIGNAL FOUNDATION
802501	480 LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
805115	140 LF	3 INCH SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - BORED
805125	55 ~~35~~ LF [1]	2 INCH SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - TRENCHED
805135	325 ~~310~~ LF [1]	3 INCH SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - TRENCHED
805140	55 ~~35~~ LF [1]	4 INCH SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - TRENCHED
805155	315 LF	4 INCH SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - SLOTTED
807202	1 EA	200A METERED SERVICE PEDESTAL
810605	6 EA	NON-INVASIVE DETECTOR - 1000 FOOT LEAD IN CABLE
811001	9 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
813015	100 SF	INSTALL OVERHEAD SIGN
816001	2 EA	VIDEO DETECTION CAMERA
816005	2 EA	CONTROL CABLE, 250 FOOT, VIDEO DETECTION CAMERA TO CONTROLLER
818004	1 EA	10 FOOT BREAKAWAY PEDESTAL POLE
837001	14 EA	GROUND ROD - 3/4 INCH DIAMETER X 10 FOOT LENGTH
860284	34 EA	12 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION
861105	730 LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
861107	880 LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
861108	1485 LF	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
871202	2 ~~1~~ EA [1]	INSTALL CONTROLLER AND CABINET - BASE MOUNT

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		

WIRING DIAGRAM



A B C D E F — NON-INVASIVE MICROLOOP PROBE LEAD IN CABLE - 1000 FOOT

G H J K — ELECTRICAL CABLE - 2 CONDUCTOR (NO.14 AWG)

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

T U V W X Y CC — ELECTRICAL CABLE - 7 CONDUCTOR (NO.14 AWG)

Z — NO. 6 AWG STRANDED BARE COPPER GROUND WIRE

AA BB — CONTROL CABLE, 250 FOOT, VIDEO DETECTION CAMERA TO CONTROLLER

NML — NON-INVASIVE MICROLOOP PROBE SET

PTS — PROPOSED UNDERGROUND TELEPHONE SERVICE TO BE INSTALLED BY OTHERS

PPS — PROPOSED UNDERGROUND POWER SERVICE (ELECTRICAL CABLE 1 - CONDUCTOR, 250 KCMIL, CU, USE 3 RUNS WITH 3-30' COILS OF SLACK CABLE AT UTILITY POLE, FINAL SERVICE CONNECTION TO BE MADE BY PEPCO)

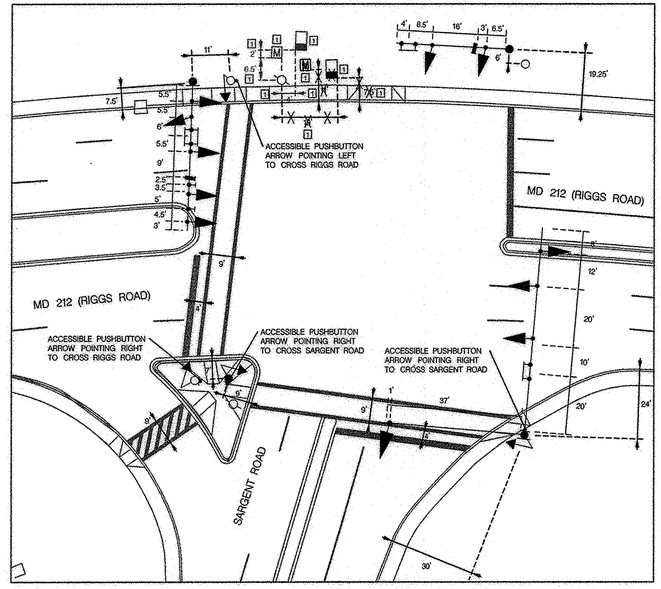
EXISTING GROUND ROD - 3/4 INCH DIAMETER X 10 FOOT LENGTH

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

M — 200A METERED SERVICE PEDESTAL

PROPOSED SIGNAL, PEDESTAL POLE, APS AND PAVEMENT MARKING DETAIL LAYOUT

(NOT TO SCALE)



[1] GREENLINE REVISION 3-27-2008 MB 4/1/08

PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
PHASE 2 & 5	R	R	R	~~G~~	~~G~~	~~G~~	G	G	R / ~~G~~	R	R / ~~G~~	DW	DW	DW	DW
PHASE 5 CHANGE	R	R	R	~~Y~~	~~Y~~	~~Y~~	G	G	R / ~~Y~~	R	R / ~~Y~~	DW	DW	DW	DW
PHASE 2 & 6	G	G	G	~~R~~	~~R~~	~~R~~	G	G	R	R	R	W	W	DW	DW
PHASE 2 & 6 PED. CLEARANCE	G	G	G	~~R~~	~~R~~	~~R~~	G	G	R	R	R	FL/DW	FL/DW	DW	DW
PHASE 2 & 6 CHANGE	Y	Y	Y	~~R~~	~~R~~	~~R~~	Y	Y	R	R	R	DW	DW	DW	DW
PHASE 4	R	R	R	~~R~~	~~R~~	~~R~~	R	R	G / ~~G~~	G	G / ~~G~~	DW	DW	DW	DW
PHASE 4 CHANGE	R	R	R	~~R~~	~~R~~	~~R~~	R	R	Y / ~~G~~	Y	Y / ~~G~~	DW	DW	DW	DW
PHASE 4 ALT.	R	R	R	~~R~~	~~R~~	~~R~~	R	R	G / ~~G~~	G	G / ~~G~~	DW	DW	W	W
PHASE 4 ALT. PED. CLEARANCE	R	R	R	~~R~~	~~R~~	~~R~~	R	R	G / ~~G~~	G	G / ~~G~~	DW	DW	FL/DW	FL/DW
PHASE 4 ALT. CHANGE	R	R	R	~~R~~	~~R~~	~~R~~	R	R	Y / ~~G~~	Y	Y / ~~G~~	DW	DW	DW	DW
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/RA	FL/RA	FL/RA	FL/Y	FL/Y	FL/R	FL/R	FL/R	DARK	DARK	DARK	DARK

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

MD 212 (RIGGS ROAD) AT SARGENT ROAD

GENERAL INFORMATION

SCALE NONE DATE 11/2006 CONTRACT NO. PG6775177

DESIGNED BY MCG
DRAWN BY MCG
CHECKED BY BAB
F.A.P. NO.

COUNTY PRINCE GEORGE'S
LOGMILE 16021200.93
T.I.M.S. NO. 1165
TOD NO.

DRAWING NO. TS-1779C OF SHEET NO. 17 OF

STV Incorporated
engineers / architects / planners / construction managers
Ambassador Road Baltimore, MD 21244-2722 (410) 944-9112

PLOTTED: Monday, March 31, 2008 AT 10:23 AM
FILE: P:\Traffic\Proposals\SHA TEDD\MD 212 at Sargent\pSG-N001_md212.dgn