PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE INSTALLATION OF A TRAFFIC SIGNAL AT THE INTERSECTION OF US 1 (WASHINGTON BOULEVARD) AND MAIER ROAD IN HOWARD COUNTY. THE TRAFFIC SIGNAL WILL INCLUDE LED SIGNAL HEADS, APS FOR CROSSING MAIER ROAD, AND COUNTDOWN PEDESTRIAN SIGNAL HEADS. VIDEO DETECTION IS PROPOSED FOR PRESENCE DETECTION FOR THE SOUTHBOUND LEFT TURN AND WESTBOUND APPROACHES. NON-INVASIVE MICROLOOP PROBE SETS ARE PROPOSED FOR SETBACK DETECTION ON US 1. THE SIDEWALKS AND RAMPS AT THE INTERSECTION WILL BE UPDATED TO COMPLY WITH CURRENT ADA STANDARDS. US 1 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA FOUR-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH A LAG EXCLUSIVE/ PERMISSIVE PHASE ALONG SOUTHBOUND US 1. A CONCURRENT MAINLINE PEDESTRIAN PHASE IS PROPOSED.

CONTROLLER REQUIREMENTS

INSTALL A NEW EIGHT-PHASE FULLY ACTUATED TRAFFIC SIGNAL CONTROLLER, VIDEO DETECTION EQUIPMENT INTERFACE, 2-WIRE CENTRAL CONTROL UNIT, FOUR CHANNEL LOOP DETECTION AMPLIFIER, AND ASSOCIATED HARNESSES IN A NEMA SIZE '6' BASE MOUNTED CABINET.

PHONE DROP

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

THE CONTACT PERSONS FOR DISTRICT #7 ARE AS FOLLOWS:

Mr. John Concannon
Assistant District Engineer - Traffic
Phone: 301-624-8140

Ms. Andrea Abend
Assistant District Engineer - Utility
Phone: 301-624-8115

Mr. Ray Johnson
Assistant District Engineer - Maintenance
Phone: 301-624-8105

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 is:
Baltimore Gas and Electric
7317 Parkway Drive South
Hanover, MD 21076
Phone: 410-859-9062

EQUIPMENT LIST 'A'

EQUIPMENT TO BE FURNISHED BY THE SHA.

ITEM NO	QUANTITY	DESCRIPTION
9016	1 EA	[UPDATED] 4 CHANNEL DETECTOR AMPLIFIER
9044	1 EA	[UPDATED] CONTROLLER CABINET, SIZE 6
9086	1 EA	[UPDATED] VIDEO DETECTION INTERFACE EQUIPMENT: 1-4 CAMERAS
9571	194 SF	[UPDATED] SHEET ALUMINUM MAST ARM/ POLE MOUNTED SIGN
		2 EA - R10-4(I)MOD, (9 IN. X 15 IN.) POLE MOUNT, "PUSH BUTTON TO CROSS MAIER ROAD"
		1 EA - ASSOCIATED SHIELD ASSEMBLY "NORTH, US 1, RIGHT ARROW" (24 IN. X 51 IN.)
		1 EA - ASSOCIATED SHIELD ASSEMBLY "SOUTH, US 1, LEFT ARROW" (36 IN. X 75 IN.)
		2 EACH - D-3(2) (DUAL FACED) (VAR. X 16 IN.) - MAST ARM MOUNT "MAIER RD"
		1 EACH - D-3(2) (VAR. X 16 IN.) - MAST ARM MOUNT "WASHINGTON BLVD"
		2 EACH - W3-3 (48 IN. X 48 IN.) FY + D95-25 (24 IN. X 24 IN.) - GROUND MOUNT
		1 EACH - W2-2 (48 IN. X 48 IN.) FY + D-3(2)MOD FY (84 IN. X 16 IN.) "LYNN BUFF CT"
		2 EACH - D-3(3) (96 IN. X 30 IN.) - GROUND MOUNT "MAIER ROAD"

EQUIPMENT LIST 'C'

EQUIPMENT TO BE REMOVED AND RETURNED TO SHA.

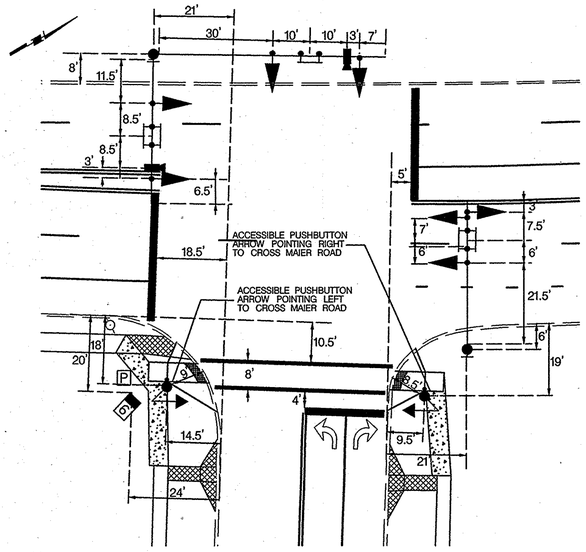
ITEM NO	QUANTITY	DESCRIPTION
NONE - ALL REMOVED EQUIPMENT SHALL BECOME THE PROPERTY OF THE CONTRACTOR		

EQUIPMENT LIST 'B'

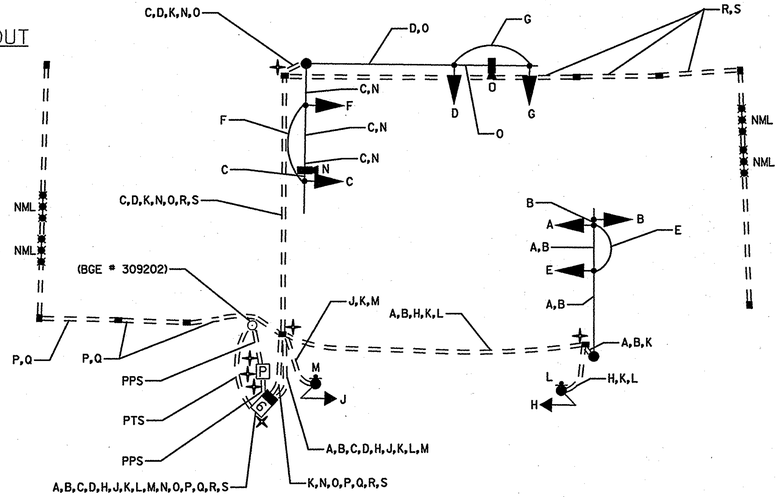
EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR.

ITEM NO	QUANTITY	DESCRIPTION
1001	3 EA	MAINTENANCE OF TRAFFIC
2001	4 CY	CLASS 2 EXCAVATION
2002	3 CY	TEST PIT EXCAVATION
5001	225 LF	5 INCH HEAT APPLIED WHITE OR YELLOW PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
5002	70 LF	REMOVAL OF EXISTING PERMANENT PAVEMENT LINE MARKINGS - ANY WIDTH
5004	120 LF	12 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
5005	90 LF	24 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
6001	90 LF	STANDARD TYPE A COMBINATION CURB AND GUTTER 12 INCH GUTTER PAN 8 INCH DEPTH
6002	700 SF	4 INCH CONCRETE SIDEWALK
8001	22 EA	12 INCH LED SIGNAL HEAD SECTION
8002	1 EA	2 WIRE CENTRAL CONTROL UNIT
8004	3 EA	8 INCH LED SIGNAL HEAD SECTION
8008	2 EA	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON
8009	2 EA	BREAKAWAY PEDESTAL POLE (ANY SIZE)
8014	2 EA	LED 16 INCH COUNTDOWN PEDESTRIAN SIGNAL HEADS
8016	1 EA	MAST ARM POLE & 38 FT MAST ARM ANY 'T' DIMENSION
8021	4 EA	NONINVASIVE DETECTOR (ANY LENGTH) LEAD IN CABLE UP TO 1000 FT
8022	1 EA	REMOVE AND DISPOSE MATERIAL AND EQUIPMENT PER ASSIGNMENT
8023	1 EA	TWIN MAST ARM POLE & 50 FT/60 FT MAST ARMS ANY 'T' DIMENSION
8026	2 EA	VIDEO DETECTION CAMERA & CABLE UP TO 500 FT
8035	880 LF	SCHEDULE 80 RIGID PVC CONDUIT UP TO 4 INCHES - TRENCHED
8036	320 LF	SCHEDULE 80 RIGID PVC CONDUIT UP TO 4 INCHES - BORED
8037	140 LF	WOOD SIGN SUPPORTS UP TO 4 X 6
8038	20 SF	DETECTABLE WARNING SURFACES
8039	194 SF	INSTALL OVERHEAD OR GROUND MOUNTED SIGN
8041	280 LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8043	1 EA	METERED SERVICE PEDESTAL EMBEDDED
8045	170 LF	ELECTRICAL CABLE - 1 CONDUCTOR NO. 4 AWG-THHN/THWN
8047	10 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8052	1 EA	CUT, CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE
8054	180 LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
8056	230 LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
8057	680 LF	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
8065	1 EA	INSTALL CONTROLLER AND CABINET - BASE MOUNT

PROPOSED SIGNAL POLE, VIDEO DETECTION CAMERA, SIGN, CABINET, ACCESSIBLE PEDESTRIAN SIGNAL, AND MARKING LAYOUT



WIRING DIAGRAM



A B C D — ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)

E F G H J — ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)

K — NO. 6 AWG STRANDED BARE COPPER GROUND WIRE

L M — ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)

N O — CONTROL CABLE, VIDEO DETECTION CAMERA TO CONTROLLER

P Q R S — NON-INVASIVE MICROLOOP PROBE LEAD IN CABLE - 1000 FOOT

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

PTS — PROPOSED UNDERGROUND TELEPHONE SERVICE TO BE INSTALLED BY OTHERS

PPS — PROPOSED UNDERGROUND POWER SERVICE (ELECTRICAL CABLE 1 - CONDUCTOR NO. 4 AWG THHN-THWN 3 RUNS WITH 3-30' COILS OF SLACK CABLE AT UTILITY POLE. FINAL SERVICE CONNECTION TO BE MADE BY BGE)

PHASE CHART

	1	2	3	4	5	6	7	8	9
PHASE 2 & 6	G	G	G	G	G	R	R	W	W
PHASE 2 & 6 PED CLEARANCE	G	G	G	G	G	R	R	FL/DW	FL/DW
PHASE 6 CHANGE	Y	Y	G	G	G	R	R	DW	DW
PHASE 2 & 5	R	R	~~G~~ G	~~G~~ G	G	R	R	DW	DW
PHASE 2 & 5 CHANGE	R	R	~~Y~~ Y	~~Y~~ Y	Y	R	R	DW	DW
PHASE 4	R	R	R	R	R	G	G	DW	DW
PHASE 4 CHANGE	R	R	R	R	R	Y	Y	DW	DW
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	DARK	DARK

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION

US 1 (WASHINGTON BOULEVARD) AND MAIER ROAD

TRAFFIC SIGNALIZATION PLAN

SCALE 1" = 20' DATE 02/2007 CONTRACT NO. AT7835185

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

COUNTY HOWARD
LOGMILE 13000101.41
T.I.M.S. NO. H968
TOD NO.

DRAWING NO. TS - 4542

SHEET NO. 2 OF 2

TOD NO: AT783-25M
SHA No.: HO377A5A/B5A/M5A
US 1 @ Maier Road

STV Incorporated
engineers/architects/planners/construction managers
7125 Ambassador Road Baltimore, MD 21244-2722 (410) 944-9112

BY: mcook

UTILITY LEGEND

ELECTRIC CABLES	STORM DRAIN
AERIAL CABLES	GAS MAIN
TELEPHONE CABLES	WATER MAIN
FIBER-OPTIC	SEWER MAIN

PLOTTED: Tuesday, February 20, 2007 at 1:43:26 PM
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