

PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE INSTALLATION OF A RIGHT-TURN OVERLAP PHASE ON THE EASTBOUND APPROACH OF GUILFORD ROAD THAT WILL OPERATE CONCURRENT WITH THE NORTHBOUND US 1 LEFT-TURN PHASE. THE SOUTHBOUND US 1 EXCLUSIVE PERMISSIVE LEFT-TURN PHASING WILL BE UPGRADED TO A FLASHING LEFT-TURN SIGNAL. ALSO THE EXISTING HAZARD IDENTIFICATION BEACON ON SOUTHBOUND US 1 WILL BE UPGRADED TO AN INTERCONNECTED "SIGNAL AHEAD" BE PREPARED TO STOP WHEN FLASHING HIB.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA SIX-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH EXCLUSIVE LEFT-TURN PHASING FOR SOUTHBOUND TRAFFIC DURING PEAK PERIODS, EXCLUSIVE-PERMISSIVE PHASING FOR NORTHBOUND TRAFFIC, AN OVERLAP FOR EASTBOUND RIGHT-TURNING TRAFFIC, AND SIDE STREET SPLIT PHASING. DURING PEAK PERIODS, A NORTHBOUND QUEUE DETECTOR WILL IMPLEMENT A LEAD-LAG LEFT TURN PHASE. THE SOUTHBOUND US 1 LEFT-TURN WILL FLASH "RED ARROW" UNTIL VEHICLES ACTUATE THE LEFT-TURN SIGNALS DURING OFF-PEAK PERIODS.

CONTROLLER REQUIREMENTS

THE EXISTING CONTROLLER, VIDEO DETECTION, LOOP DETECTOR AMPLIFIERS, AND ASSOCIATED HARNESSES WILL REMAIN AT GUILFORD ROAD. A TWO-CIRCUIT FLASHER, ASSOCIATED HARNESSES AND A RELAY PACKAGE WILL BE INSTALLED IN A TYPE G CABINET AT THE PROPOSED HIB LOCATION. THE SHA SIGNAL SHOP WILL INSTALL THE RELAY PACKAGE AT THE GUILFORD ROAD CONTROLLER.

THE CONTACT PERSONS FOR DISTRICT #7 ARE AS FOLLOWS:

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

Mr. James Buckalew
District Utility Engineer
Phone: 301-624-8115

Mr. Dave Coyne
Assistant District Engineer - Maintenance
Phone: 301-624-8105

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:
Mr. Rick Hoffman
Baltimore Gas & Electric Company
7317 Parkway Drive South
Hanover, MD 21076
Phone: 410-850-4620

EQUIPMENT LIST 'A'

EQUIPMENT TO BE FURNISHED BY THE SHA.

CAT_CODE	QUANTITY	DESCRIPTION
• 9003	1 EA	[UPDATED] (CONT/CAB/ADD) RELAY (110/120 VOLT) 11 PIN
9012	1 EA	[UPDATED] TWO CIRCUIT FLASHER
9037	1 EA	[UPDATED] CABINET 'G' TYPE POLE MOUNT
9571	87 SF	[UPDATED] SHEET ALUMINUM MAST ARM/POLE MOUNTED SIGN: 2 EACH - R10-I(24) SIGN (36 IN. X 42 IN.) MAST ARM MOUNT 1 EACH - W3-3 SIGN (48 IN. X 48 IN.) POLE MOUNT 1 EACH - W3-3(2) SIGN (120 IN. X 60 IN.) MAST ARM MOUNT, FLUORESCENT YELLOW

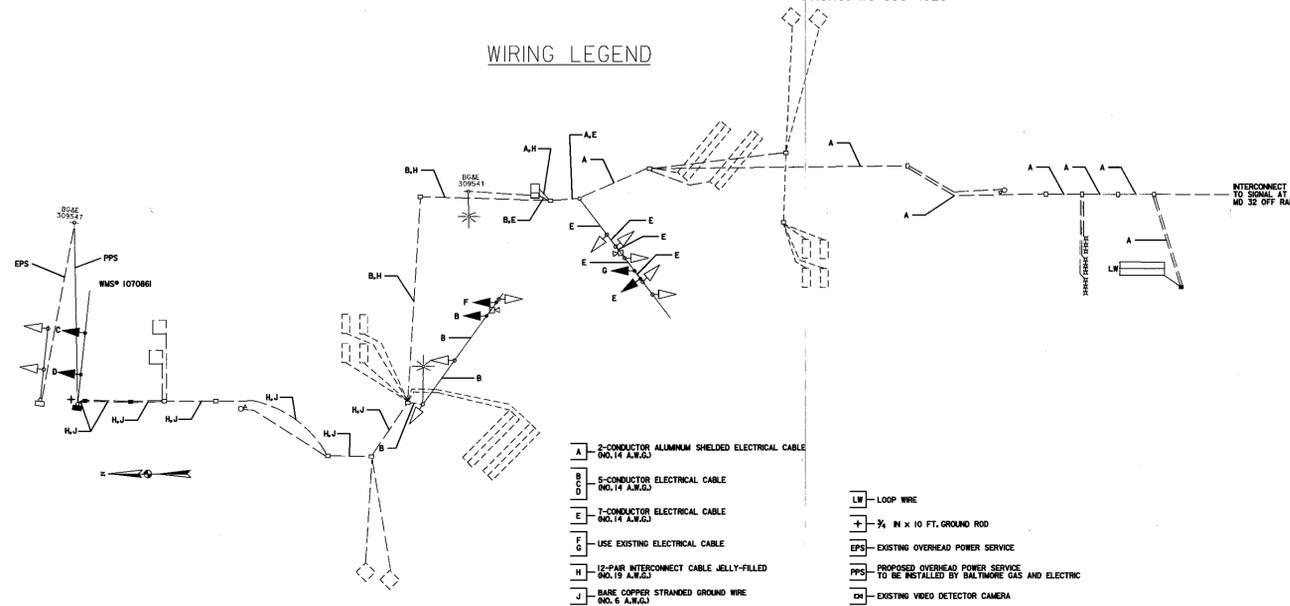
• TO BE INSTALLED BY SHA

EQUIPMENT LIST 'B'

EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR.

ITEM_NO.	QUANTITY	DESCRIPTION
1001	2 EA	MAINTENANCE OF TRAFFIC
2002	2 CY	TEST PIT EXCAVATION
8001	5 CY	CONCRETE FOUNDATION
8014	1 EA	REMOVE AND DISPOSE MATERIALS AND EQUIPMENT PER ASSIGNMENT
8022	670 LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8028	145 LF	3 INCH SCHEDULE 80 RIGID PVC CONDUIT - BORED
8031	215 LF	3 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8036	5 LF	1 INCH LIQUID-TIGHT FLEXIBLE NON-METALLIC CONDUIT FOR DETECTOR SLEEVE
8038	1 EA	ELECTRICAL UTILITY SERVICE EQUIPMENT 120/240 VOLTS 60 AMPS
8045	3 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8048	87 SF	INSTALL OVERHEAD SIGN
8056	1 EA	STEEL POLE WITH SINGLE 38 FOOT MAST ARM
8063	900 LF	12-PAIR COMMUNICATION CABLE, JELLY FILLED (UNDERGROUND)
8069	1 EA	GROUND ROD - 3/4 INCH DIAMETER X 10 FOOT LENGTH
8071	11 EA	12 INCH VEHICULAR TRAFFIC SIGNAL HEAD SECTION
8072	5 EA	12 INCH OPTICALLY PROGRAMMED SIGNAL HEAD SECTION
8076	875 LF	ELECTRICAL CABLE - 2-CONDUCTOR (ALUMINUM SHIELDED)
8079	425 LF	ELECTRICAL CABLE - 5-CONDUCTOR (NO. 14 AWG)
8080	100 LF	ELECTRICAL CABLE - 7-CONDUCTOR (NO. 14 AWG)
8082	325 LF	LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO. 14 AWG)
8083	75 LF	SAW CUT FOR SIGNAL (LOOP DETECTOR)
8089	1 EA	INSTALL CONTROLLER AND CABINET - POLE MOUNT

WIRING LEGEND



PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
PHASE 1 + 5	R	R	FL/Y	FL/Y	G	R	R	G	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	DARK	DARK	G	G	G	G	R	R	R	R	R	R
PHASE 1 + 6 CHANGE	R	R	DARK	DARK	Y	Y	Y	Y	R	R	R	R	R	R
PHASE 2 + 5	G	G	FL/Y	FL/Y	R	R	R	R	R	R	R	R	R	R
PHASE 2 + 5 CHANGE	Y	Y	FL/Y	FL/Y	R	R	R	R	R	R	R	R	R	R
PHASE 2 + 6	G	G	DARK	DARK	FL/RA	G	G	FL/RA	R	R	R	R	R	R
PHASE 2 + 6 CHANGE	THE CONTROLLER MAY SKIP TO PHASE 2 + 5													
PHASE 3	R	R	FL/Y	FL/Y	R	R	R	R	R	R	R	R	G	G
PHASE 3 CHANGE	R	R	FL/Y	FL/Y	R	R	R	R	R	R	R	R	Y	Y
PHASE 4	R	R	FL/Y	FL/Y	R	R	R	R	G	G	G	G	R	R
PHASE 4 CHANGE	R	R	FL/Y	FL/Y	R	R	R	R	Y	Y	Y	Y	R	R
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	DARK	DARK	FL/RA	FL/Y	FL/Y	FL/RA	FL/R	FL/R	FL/R	FL/R	FL/R

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MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
US 1 AND MD 732 (GUILFORD ROAD)
GENERAL INFORMATION

DRAWN BY: S. YOUNG	F.A.P. NO. AT3585185	SEE TITLE SHEET	TS NO. 720 K
CHECKED BY: B. BIDDLE	S.H.A. NO. HOWARD	COUNTY: 13000103.26	T.I.M.S. NO. F 761
SCALE: NONE	LOG MILE:	DATE: SEPTEMBER 2003	SHEET NO. 2 OF 2