PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE INSTALLATION OF VIDEO DETECTION CAMERAS, ACCESSIBLE PEDESTRIAN SIGNALS (APS) AND COUNTDOWN PEDESTRIAN SIGNALS (CPS) FOR THE WEST LEG AND ADA RAMP MODIFICATIONS AND CROSSWALKS FOR THE NORTH, SOUTH AND WEST LEGS AT THE INTERSECTION OF MD 150 (EASTERN BOULEVARD) AND WOODWARD DRIVE IN ESSEX, MARYLAND.
MD 150 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL CONTINUE TO OPERATE IN A NEMA FOUR-PHASE, FULLY-TRAFFIC-ACTIVATED MODE. AN ALTERNATIVE PEDESTRIAN PHASE IS PROPOSED.

CONTROLLER REQUIREMENTS

THE EXISTING BASE MOUNTED SIZE '5' CABINET WILL REMAIN. THE SHA SIGNAL SHOP WILL INSTALL ONE (1) 2 WIRE CENTRAL CONTROL UNIT AND ONE (1) VIDEO DETECTION INTERFACE EQUIPMENT; 1-4 CAMERAS WITHIN THE CABINET.

APS WILL FUNCTION AS FOLLOWS:

TO CROSS EASTERN BOULEVARD

A. WHEN A PEDESTRIAN LOCATES AND PRESSES THE PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON MESSAGE WILL BE 'WAIT TO CROSS EASTERN AT WOODWARD, WAIT'.

B. WHEN THE 'WALK' PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK, WHICH WILL LAST FOR THE DURATION OF THE 'WALK' PHASE.

THE CONTACT PERSONS FOR DISTRICT #4 ARE AS FOLLOWS:

Ms. Erin Kuhn
Assistant District Engineer - Traffic
Phone: 410-229-2381

Mr. Michael Pasquariello
District Utility Engineer
Phone: 410-229-2421

Mr. Andre Futrell
Assistant District Engineer - Maintenance
Phone: 410-229-2361

OFFICE OF TRAFFIC AND SAFETY:

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

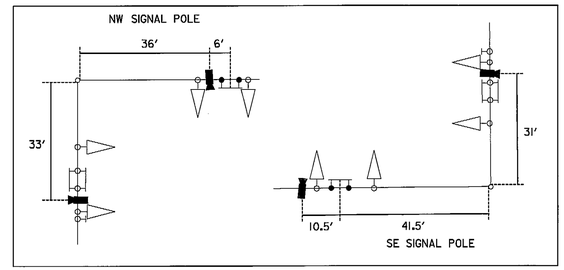
Mr. Robert Snyder
Assistant Division Chief, Traffic Operations
410-787-7630

Mr. Edward Rodenhizer
Chief Signal Operations
Phone: 410-787-7650

Mr. Eugene Bailey
Chief Sign Operations
410-787-7670

The Power Company is:
BG&E CO.
7317 Parkway Dr. South
Hanover, MD
Phone: 410-859-9062

MAST ARM DETAIL (1"=20')



EQUIPMENT LIST 'A'

EQUIPMENT TO BE FURNISHED BY THE SHA.

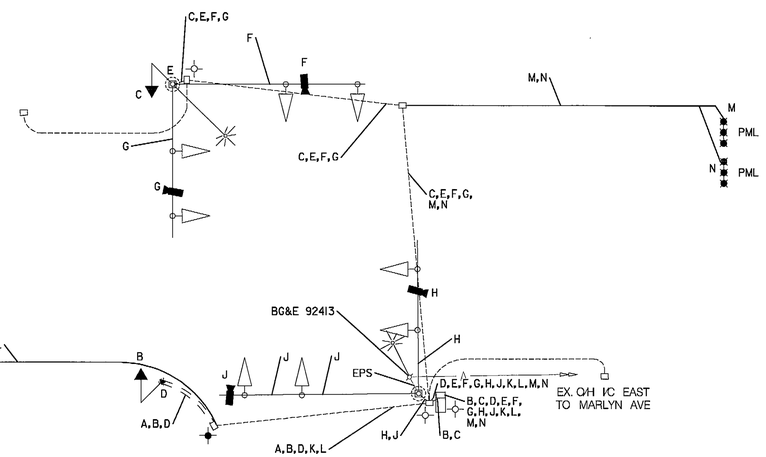
ITEM NO	QUANTITY	DESCRIPTION
9086	1 EA	VIDEO DETECTION INTERFACE EQUIPMENT; 1-4 CAMERAS
9571	41 SF	SHEET ALUMINIUM MAST ARM/POLE MOUNTED SIGN:
		2 EA - R10-3(I) (9 IN. X 15 IN.) 'PUSH BUTTON TO CROSS EASTERN BOULEVARD'
		2 EA - M1-5(4) (78 IN. X 36 IN.) 'EASTERN BOULEVARD'

EQUIPMENT LIST 'B'

EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR.

ITEM NO	QUANTITY	DESCRIPTION
1001	1 EA	MAINTENANCE OF TRAFFIC
2002	1 CY	TEST PIT EXCAVATION
5003	355 LF	REMOVAL OF EXISTING PERMANENT PAVEMENT LINE MARKINGS
5004	335 LF	12 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
5005	110 LF	24 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
6001	185 LF	STANDARD TYPE A COMBINATION CURB AND GUTTER 12 INCH GUTTER PAN 8 INCH DEPTH
6002	1,360 SF	5 INCH CONCRETE SIDEWALK
6003	70 SF	DETECTABLE WARNING SURFACE FOR CURB RAMPS (TYPE 3 BRICK PAVERS)
8002	1 EA	2-WIRE CENTRAL CONTROL UNIT
8005	3 EA	ADJUST HANDHOLE TO GRADE WITH NEW FRAME AND COVER
8008	2 EA	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION AND SIGNS
8009	1 EA	BREAKAWAY PEDESTAL POLE (ANY SIZE)
8015	2 EA	LED 16 INCH COUNTDOWN PEDESTRIAN SIGNAL HEAD
8021	4 EA	MICROLOOP PROBE (ANY LENGTH) LEAD-IN CABLE UP TO 1000'
8023	1 EA	REMOVE & DISPOSE OF EQUIPMENT (PER ASSIGNMENT)
8028	4 EA	VIDEO DETECTION CAMERA AND CABLE ANY LENGTH
8029	25 LF	1" DETECTOR SLEEVE GALVANIZED OR FLEXIBLE LIQUID TIGHT CONDUIT
8038	25 LF	UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
8040	41 SF	INSTALL OVERHEAD OR GROUND MOUNTED SIGN (INCLUDING ALL HARDWARE)
8042	90 LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8053	270 LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
8055	280 LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
8058	1,100 LF	SAW CUT FOR SIGNAL (LOOP DETECTOR)

WIRING DIAGRAM



A — NO. 6 AWG STRANDED BARE COPPER GROUND WIRE

B, C — ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)

D, E — ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)

F, G, H, J — CONTROL CABLE - VIDEO DETECTION CAMERA TO CONTROLLER

K, L, M, N — MICROLOOP PROBE LEAD-IN CABLE

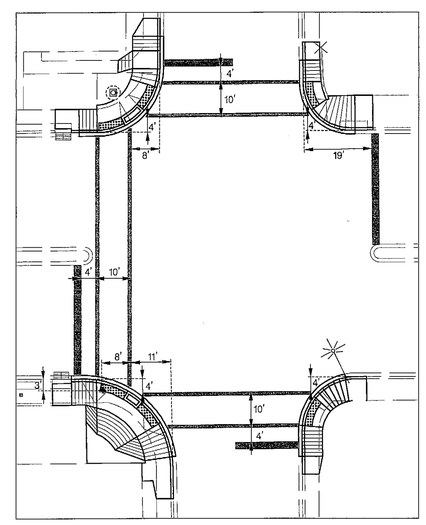
EPS — EXISTING POWER SERVICE

PML — PROPOSED MICROLOOP PROBE SET

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

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

PROPOSED SIGNAL EQUIPMENT AND PAVEMENT MARKING LAYOUT - 1"=20'



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		

PHASE CHART

PHASE CHART	1	2	3	4	5	6	7	8	9	10
	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	DW WK	DW WK
PHASE 2 & 6	G	G	G	G	R	R	R	R	DW	DW
2 & 6 CHANGE	Y	Y	Y	Y	R	R	R	R	DW	DW
PHASE 4 & 8	R	R	R	R	G	G	G	G	DW	DW
4 & 8 CHANGE	R	R	R	R	Y	Y	Y	Y	DW	DW
PHASE 4 & 8 ALT	R	R	R	R	G	G	G	G	WK	WK
PED CLEARANCE	R	R	R	R	G	G	G	G	FL/DW	FL/DW
PHASE 4 ALT CHANGE	R	R	R	R	Y	Y	Y	Y	DW	DW
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	DARK	DARK

TOD NO: XX645-20
SHA NO: BA9388SG
MD 150 @ Woodward Drive

STV
STV Incorporated
7125 Ambassador Road, Suite 200
Baltimore, MD 21244
www.stvinc.com

BY: tarnovk -

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

MD 150 (EASTERN BOULEVARD) AT WOODWARD DRIVE

ESSEX, MARYLAND

GENERAL INFORMATION SHEET

SCALE NONE | DATE 04/2012 | CONTRACT NO. XX6455185

DESIGNED BY KXT OF STV | COUNTY BALTIMORE
DRAWN BY KXT OF STV | LOGMILE 03015003.38
CHECKED BY MTS OF STV | TIMS NO. J992
F.A.P. NO. | TOD NO.

TS NO. 3863C-GI | DRAWING SG-02 OF 02 | SHEET NO. 02 OF 02

PLOTTED: Monday, April 23, 2012 AT 10:54 AM
FILE: I:\PROJECTS\4014255\4014255_0129\Drawings\TRA\pSG-N002_MD150.dgn