

PROJECT DESCRIPTION

I. GENERAL:

THIS PROJECT INVOLVES RECONSTRUCTION OF THE EXISTING TRAFFIC SIGNAL TO MAST ARM STRUCTURES AT THE INTERSECTION OF US 1 (RHODE ISLAND AVENUE) AND MD 208 (38TH STREET) IN PRINCE GEORGE'S COUNTY.

US 1 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

II. INTERSECTION OPERATION:

A SYSTEM-READY "S" - TYPE BASE-MOUNTED CABINET AND CONTROLLER WITH ALL THE NECESSARY EQUIPMENT AND BACK-UP BATTERY WILL BE INSTALLED AT THE INTERSECTION. THE INTERSECTION WILL CONTINUE TO OPERATE IN A NEMA SIX-PHASE, SEMI-ACTUATED MODE. US THROUGH-MOVEMENTS WILL OPERATE CONCURRENTLY OR WITH THE EXCLUSIVE/PERMISSIVE LEFT-TURNS. MD 208 (38TH STREET) WILL OPERATE CONCURRENTLY. AUDIBLE/TACTILE PUSHBUTTONS WILL ACTUATE THE PEDESTRIAN SIGNALS PROVIDED TO CROSS THE WEST AND NORTH LEGS OF THE INTERSECTION. VIDEO CAMERAS SHALL ACTUATE PRESENCE DETECTION.

STREET NAME SIGNS SHALL BE UPDATED TO CURRENT STANDARDS AND THE INTERSECTION RAMPS SHALL BE ADJUSTED TO BE ADA COMPLIANT. EXISTING LEASE LIGHTING IS LOCATED AROUND THE INTERSECTION.

AUDIBLE PUSHBUTTON FUNCTION IS AS FOLLOWS:

WHEN A PEDESTRIAN LOCATES AND PRESSES THE PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL ANNOUNCE THE FOLLOWING MESSAGE:

NORTH LEG: "Wait to cross Rhode Island at 38th, crosswalk angles right. Wait."
WEST LEG: "Wait to cross 38th at Rhode Island, Wait."

WHEN THE "WALK" PHASE BEGINS FOR EITHER CROSSING:

The pushbutton will provide a rapid tick, which will last for the duration of the "WALK" phase.

III. SPECIAL NOTES:

THE CONTRACTOR SHALL PURCHASE AND DELIVER THE NAVIGATOR CENTRAL CONTROL UNIT FOR THE CONTROLLER TO THE SHA SIGNAL SHOP, AT 7491 CONNELLEY ROAD, HANOVER, MD, 21076. MR. EDWARD RODENHIZER, AT 410-787-7652, SHALL BE CONTACTED AT LEAST THREE (3) DAYS PRIOR TO THE DELIVERY.

PROJECT CONTACTS:

1. THE CONTACT PERSONNEL FOR THIS PROJECT ARE AS FOLLOWS:

MR. FELECIA MURPHY, ASSISTANT DISTRICT ENGINEER - TRAFFIC
PHONE: (301) 513-7404

MR. DUANNE BERNARD, ASSISTANT DISTRICT ENGINEER - CONSTRUCTION
PHONE: (301) 513-7385

MR. VERNON STINNETT, ASSISTANT DISTRICT ENGINEER - MAINTENANCE
PHONE: (310) 513-7304

MR. VICTOR GRAFTON, UTILITY ENGINEER
PHONE: (310) 513-7350

MR. RICHARD DAFF, SR., CHIEF - TRAFFIC OPERATIONS DIVISION
PHONE: (410) 787-7630

MR. EDWARD RODENHIZER, CHIEF - SIGNAL SHOP
PHONE: (410) 787-7652

MR. EUGENE BAILEY, CHIEF - SIGN SHOP
PHONE: (410) 787-7676

THE POWER COMPANY REPRESENTATIVE:

PEPCO
MR. PAUL WILSON
201 W. GUDE DRIVE
ROCKVILLE, MARYLAND, 20850
301-548-433
pwilson@pepco.com

2. MAINTENANCE OF TRAFFIC WILL BE PERFORMED BY THE CONTRACTOR UTILIZING THE STANDARD PLATES FOR TRAFFIC CONTROL FROM SECTION MD 104.00 OF THE SHA BOOK OF STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES.

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY SHA AND INSTALLED BY THE CONTRACTOR.

ITEM NO.	QUANTITY	DESCRIPTION
9104	1 EA	CONTROLLER CABINET, SIZE "S" WITH CONTROLLER, VIDEO INTERFACE UNIT, 1-8 CAMERAS
9570	61 SF	SHEET ALUMINUM SIGNS (GROUND-MOUNTED):
	1 EA	"WEST, MD 208, RIGHT ARROW" ASSEMBLY (30"x51")
	1 EA	"EAST, MD 208, LEFT ARROW" ASSEMBLY (48"x72")
	1 EA	"WEST, MD 208, LEFT ARROW" ASSEMBLY (48"x72")
	1 EA	"M5-1L, ADVANCE LEFT-TURN ARROW" PLAQUE (15"x21")
9571	69 SF	SHEET ALUMINUM SIGNS MAST ARM/POLE MOUNTED:
	2 EA	R10-3(1) (9" x 15") PEDESTRIAN SIGNS, POLE-MOUNTED "PUSH BUTTON TO CROSS 38th STREET"
	2 EA	R10-3(1) (9" x 15") PEDESTRIAN SIGNS, POLE-MOUNTED "PUSH BUTTON TO CROSS RHODE ISLAND AVE"
	2 EA	D-3(1)(VAR. x 16") MAST ARM-MOUNTED (DUAL-FACED) "Rhode Island AVE"
	2 EA	D-3(1) (VAR. x 16") MAST ARM-MOUNTED (DUAL-FACED) "38th Street"
	1 EA	"SOUTH, US 1, LEFT ARROW" ASSEMBLY (36"x72")
	1 EA	"NORTH, US 1, LEFT ARROW" ASSEMBLY (36"x72")
	1 EA	"SOUTH, US 1, RIGHT ARROW" ASSEMBLY (24"x48")
	1 EA	"NORTH, US 1, RIGHT ARROW" ASSEMBLY (24"x48")

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

ITEM NO.	QUANTITY	DESCRIPTION
1001	2 EA	MAINTENANCE OF TRAFFIC
2002	5 CY	TEST PIT EXCAVATION
5003	350 LF	REMOVAL OF EXISTING PERMANENT PAVEMENT LINE MARKINGS
5004	600 LF	12" HEAT APPLIED PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
6001	400 LF	STANDARD TYPE 'A' COMBINATION CURB AND GUTTER 12" GUTTER PAN AND 8" CURB
6002	1860 SF	5 INCH CONCRETE SIDEWALK
6003	92 SF	DETECTABLE WARNING SURFACE FOR CURB RAMPS
8001	36 EA	12" LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION
8002	1 EA	2-WIRE CENTRAL CONTROL UNIT
8004	8 EA	8" LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION
8005	6 EA	ADJUST EXISTING HANDHOLE TO GRADE W/ NEW FRAME AND COVER
8008	4 EA	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION AND SIGNS
8009	4 EA	BREAKAWAY PEDESTAL POLE (ANY SIZE)
8014	1 EA	INSTALL CONTROLLER AND CABINET - BASE MOUNT (ANY SIZE)
8016	4 EA	16" LED COUNTDOWN PEDESTRIAN SIGNAL HEAD
8024	1 EA	REMOVE AND DISPOSE OF EQUIPMENT (PER ASSIGNMENT)
8026	2 EA	TWIN MAST ARM POLE AND 50' x 60' MAST ARMS, ANY "T" DIM.
8029	4 EA	VIDEO DETECTION CAMERA AND CABLE, ANY LENGTH
8031	420 LF	ELECTRICAL CABLE, 1-CONDUCTOR NO. 2/0 AWG - THHN/THWN
8034	1200 LF	DISCONNECT, PULL-BACK AND RE-ROUTE EXISTING CABLES
8039	130 LF	SCHEDULE 80 RIGID PVC CONDUIT UP TO 4" - SLOTTED
8040	250 LF	SCHEDULE 80 RIGID PVC CONDUIT UP TO 4" - TRENCHED
8041	80 LF	WOOD SIGN SUPPORTS UP TO 4"x 6"
8042	130 SF	INSTALL OVERHEAD OR GROUND-MOUNTED SIGNS (INCLUDING ALL HARDWARE)
8044	450 LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8047	45 LF	ELECTRICAL CABLE, 1-CONDUCTOR, NO. 8 AWG-THHN/THWN
8048	5 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8055	600 LF	ELECTRICAL CABLE, 2-CONDUCTOR (NO.14 AWG)
8057	725 LF	ELECTRICAL CABLE, 5-CONDUCTOR (NO.14 AWG)
8058	870 LF	ELECTRICAL CABLE, 7-CONDUCTOR (NO.14 AWG)

EQUIPMENT LIST "C"

C. SHA FORCES SHALL REMOVE THE CONTROLLER AND ALL AUXILIARY EQUIPMENT FROM THE CONTROLLER CABINET. THE CABINET AND ALL OTHER MATERIALS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

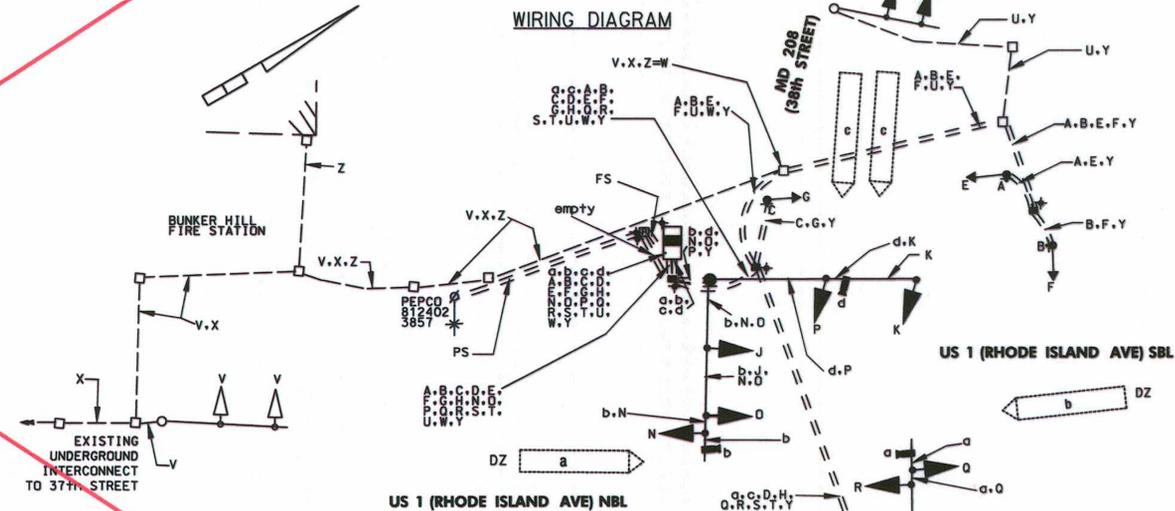
SPECIAL NOTE:
ONLY WORK SHOWN IN RED FOR POLE REVISION ON NORTHWEST CORNER IS BY WR&A. ALL OTHER WORK WAS PERFORMED BY CENTURY ENGINEERING AND HAS NOT BEEN VERIFIED OR MODIFIED BY WR&A.

3/1/13
1 REDLINE REVISION NO. 1 SHEET DELETED 02/2013

THERE IS NO CHANGE TO THE EXISTING OPERATION

PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16,17	18,19
Phase 1 & 5	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
1 & 5 Change	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Phase 1 & 6	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
1 Change	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Phase 2 & 5	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
5 Change	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Phase 2 & 6	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Countdown Ped Clearance	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
2 & 6 Change	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Phase 4 & 8	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
4 & 8 Change	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Phase 4 Alt & 8	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Countdown Ped Clearance	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
4 Alt & 8 Change	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
Flashing Operation	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
PRE-EMPTION WARNING	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
PRE-EMPTION CLEARING	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
PRE-EMPTION	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
PRE-EMPTION CLEAR	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R



WIRING KEY

a.b.c.d	VIDEO CAMERA WITH LEAD-IN CABLE TO CONTROLLER
A.B.C.D	2-CONDUCTOR (NO.14 AWG) ELECTRICAL CABLE
E.F.G.H. J.K.L.M	5-CONDUCTOR (NO.14 AWG) ELECTRICAL CABLE
N.O.P.Q. R.S.T.U	7-CONDUCTOR (NO.14 AWG) ELECTRICAL CABLE
V	EXISTING FIREHOUSE SIGNAL CABLES TO BE PULLED BACK FROM EXISTING CABINET AND RE-ROUTED TO NEW CABINET
W	INDICATES THE (V.X.Z) CABLES PULLED BACK FROM EXISTING CABINET TO HANDHOLE. STORED, RE-ROUTED TO NEW CABINET
X	EXISTING FIREHOUSE PUSHBUTTON CABLE TO BE PULLED BACK FROM EXISTING CABINET AND RE-ROUTED TO NEW CABINET
Y	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
Z	EXISTING INTERCONNECT CABLES TO BE PULLED BACK FROM EXISTING CABINET AND RE-ROUTED TO NEW CABINET
PS	NO. 2/0 AWG, THHN/THWN ELECTRICAL SERVICE 3 RUNS OF CABLE (POWER SOURCE)
FS	NO. 8 AWG, THHN/THWN ELECTRICAL SERVICE 3 RUNS OF CABLE (FEED)

PEPCO 812402 3857
EXISTING UNDERGROUND INTERCONNECT TO 37th STREET
BUNKER HILL FIRE STATION
US 1 (RHODE ISLAND AVE) SBL
US 1 (RHODE ISLAND AVE) NBL
MD 208 (38th STREET)
DZ - DETECTION ZONE

CENTURY ENGINEERING
CONSULTING ENGINEERS - PLANNERS
10710 GILROY ROAD
HUNT VALLEY, MD 21031
Phone: (410) 823-8070 Fax: (410) 823-2184

WR&A
WHITMAN, REQUARDT & ASSOCIATES, LLP
801 South Caroline Street, Baltimore, Maryland 21201

SHA
STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION
US 1 (RHODE ISLAND AVE) AT MD 208 (38TH STREET)/
BUNKER HILL ROAD FIRE STATION
BRENTWOOD, MD

GENERAL INFORMATION SHEET
SCALE NONE ADVERTISED DATE JUNE 2012 CONTRACT NO. X04395185
DESIGNED BY ENB COUNTY PRINCE GEORGE'S
DRAWN BY ENB LOGMILE 16000100.48
CHECKED BY NMR TMS NO. K-043
F.A.P. NO. TOD NO.
TS NO. 240E DRAWING SG-02 OF 2 SHEET NO. 3 OF 21