PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE INSTALLATION OF ACCESSIBLE PEDESTRIAN SIGNALS, COUNTDOWN PEDESTRIAN SIGNALS AND ADA SIDEWALK RAMPS AT THE INTERSECTION OF MD 28 (DARNESTOWN ROAD) AND THE QUINCE ORCHARD HIGH SCHOOL ENTRANCE IN MONTGOMERY COUNTY. MD 28 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL CONTINUE TO OPERATE IN A NEMA FOUR-PHASE, FULL TRAFFIC-ACTUATED MODE.

CONTROLLER REQUIREMENTS

THE EXISTING BASE MOUNTED CABINET, CONTROLLER AND ASSOCIATED HARNESSES SHALL REMAIN. THE MONTGOMERY COUNTY SIGNAL SHOP WILL INSTALL ONE (1) 2 WIRE CENTRAL CONTROL UNIT WITHIN THE CABINET.

APS WILL FUNCTION AS FOLLOWS;

TO CROSS DARNESTOWN ROAD

A. WHEN A PEDESTRIAN LOCATES AND PRESSES THE PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON MESSAGE WILL BE "WAIT TO CROSS DARNESTOWN AT SHOPPING CENTER AND HIGH SCHOOL ENTRANCE, WAIT".

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

TO CROSS QUINCE ORCHARD HIGH SCHOOL ENTRANCE

A. WHEN A PEDESTRIAN LOCATES AND PRESSES THE PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON MESSAGE WILL BE "WAIT TO CROSS HIGH SCHOOL ENTRANCE AT DARNESTOWN, WAIT".

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

TO CROSS SHOPPING CENTER ENTRANCE

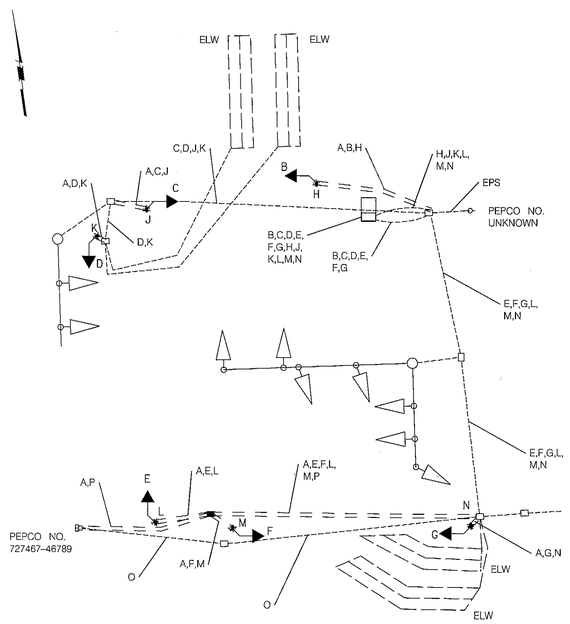
A. WHEN A PEDESTRIAN LOCATES AND PRESSES THE PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON MESSAGE WILL BE "WAIT TO CROSS SHOPPING CENTER ENTRANCE AT DARNESTOWN, WAIT".

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

SPECIAL NOTES

1. MONTGOMERY COUNTY SIGNAL SHOP SHALL INSTALL APS CONTROL UNIT INTO CONTROLLER CABINET. THE APS PUSH BUTTONS SHALL BE PROGRAMMED BY THE MANUFACTURER.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TERMINATING ALL SIGNAL CABLES TO THE APPROPRIATE TERMINALS AND SHALL PROPERLY LABEL EACH CABLE.
3. ALL CONTROLLER CABINET WIRING WILL BE PERFORMED BY MONTGOMERY COUNTY FORCES. CONTACT KAMAL HAMUD AT (240) 777-8761 72 HOURS IN ADVANCE OF INTENDED WORK.

WIRING DIAGRAM



THE CONTACT PERSONS FOR DISTRICT #3 ARE AS FOLLOWS:

Mr. Cedric Ward
Assistant District Engineer - Traffic
Phone: 301-513-7498

Mr. Victor Grafton
District Utility Engineer
Phone: 301-513-7351

Mr. Vernon Stinnett
Assistant District Engineer - Maintenance
Phone: 301-513-7304

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

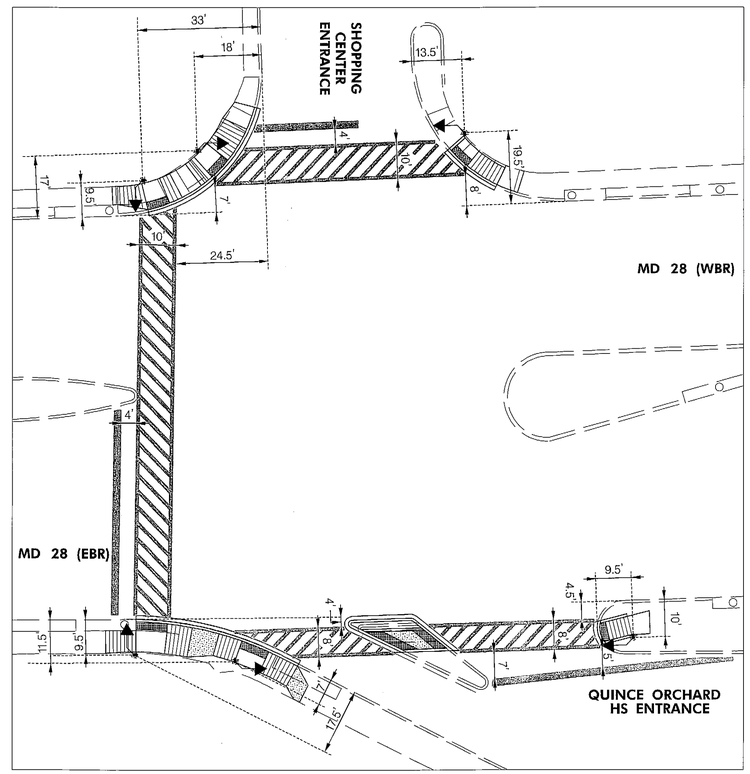
MONTGOMERY COUNTY:

Mr. Kamal Hamud
Traffic Engineering
240-777-8761

Mr. Bob Ricketts
Signal Shop
301-279-1975

The Power Company is:
Pepco
8300 Old Marlboro Pike
Upper Marlboro, MD 20442
Phone: 301-961-5325

PROPOSED SIGNAL EQUIPMENT AND PAVEMENT MARKING LAYOUT NOT TO SCALE



TOD NO: XX655-07
SHA NO: M0972855
MD 28 @ Quince Orchard HS, Potomac Valley Shopping Ctr, Tschiffely Square

EQUIPMENT LIST 'A'

EQUIPMENT TO BE FURNISHED BY THE SHA.

ITEM NO	QUANTITY	DESCRIPTION
9570	96 SF	[UPDATED] SHEET ALUMINIUM GROUND MOUNTED SIGN
		11 EA - S1-1 FYG (30 IN. X 30 IN.)
		6 EA - W16-7pL FYG (24 IN. X 12 IN.)
		5 EA - W16-7pR FYG (24 IN. X 12 IN.)
9571	6 SF	[UPDATED] SHEET ALUMINIUM MAST ARM/POLE MOUNTED SIGN:
		2 EA - R10-3(1) (9 IN. X 15 IN.) "PUSH BUTTON TO CROSS DARNESTOWN ROAD"
		2 EA - R10-3(1) (9 IN. X 15 IN.) "PUSH BUTTON TO CROSS SHOPPING CENTER ENTRANCE"
		2 EA - R10-3(1) (9 IN. X 15 IN.) "PUSH BUTTON TO CROSS HIGH SCHOOL ENTRANCE"

EQUIPMENT LIST 'B'

EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR.

ITEM NO	QUANTITY	DESCRIPTION
1001	2 EA	MAINTENANCE OF TRAFFIC
2002	3 CY	TEST PIT EXCAVATION
5003	830 LF	REMOVAL OF EXISTING PERMANENT PAVEMENT LINE MARKINGS
5004	1,300 LF	12 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
5005	220 LF	24 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
6001	200 LF	STANDARD TYPE A COMBINATION CURB AND GUTTER 12 INCH GUTTER PAN 8 INCH DEPTH
6002	1,210 SF	5 INCH CONCRETE SIDEWALK
6003	110 SF	DETECTABLE WARNING SURFACE FOR CURB RAMPS
8002	1 EA	2-WIRE CENTRAL CONTROL UNIT
8005	1 EA	ADJUST HANDHOLE TO GRADE WITH NEW FRAME AND COVER
8008	6 EA	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION AND SIGNS
8009	6 EA	BREAKAWAY PEDESTAL POLE (ANY SIZE)
8015	6 EA	LED 16 INCH COUNTDOWN PEDESTRIAN SIGNAL HEAD
8023	1 EA	REMOVE & DISPOSE OF EQUIPMENT (PER ASSIGNMENT)
8033	350 LF	DISCONNECT, PULL-BACK & REROUTE CABLES
8037	135 LF	UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT-BORED
8039	75 LF	UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
8040	165 LF	WOOD SIGN SUPPORTS UP TO 4" X 6"
8041	102 SF	INSTALL OVERHEAD OR GROUND MOUNTED SIGN (INCLUDING ALL HARDWARE)
8043	260 LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8047	1 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8054	1,100 LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
8056	1,150 LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)

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

A - NO. 6 AWG STRANDED BARE COPPER GROUND WIRE

B C D E F G - ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)

H J K L M N - ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)

O - PULL-BACK EXISTING INTERCONNECT FROM EXISTING HANDHOLE TO EXISTING PEPCO POLE

P - REROUTE EXISTING INTERCONNECT

ELW - EXISTING LOOP WIRE

EPS - EXISTING POWER SOURCE

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

BY: youngsd

SHA

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION

MD 28 (DARNESTOWN ROAD)

AT QUINCE ORCHARD HIGH SCHOOL/SHOPPING CENTER ENTRANCE
GAITHERSBURG, MD

GENERAL INFORMATION SHEET

SCALE 1" = 20' ADVERTISED DATE 05/2011 CONTRACT NO. XX6555185

DESIGNED BY KXT
DRAWN BY KXT
CHECKED BY MTS
F.A.P. NO.
COUNTY MONTGOMERY
LOGMILE 15002815.57
TIMS NO. K542
TOD NO.

TS NO.3351B-GI | DRAWING SG-2 OF 6 | SHEET NO. 2 OF 6

PLOTTED: Monday, May 09, 2011 AT 11:04 AM
FILE: I:\PROJECTS\4014255\4014255_0121\Drawings\TRA\Quince Orchard High School\pSG-N000_MD28.dgn