

PROJECT DESCRIPTION

I. GENERAL

THIS PROJECT INVOLVES THE INSTALLATION OF NEW ADA RAMPS WITH APS/CPS PEDESTRIAN TRAFFIC SIGNAL EQUIPMENT AND THE INSTALLATION OF A NEW BASE MOUNTED CABINET AT THE INTERSECTION OF MD 414 AND MIDDLE ENTRANCE TO RIVERTOWNE SHOPPING CENTER IN PRINCE GEORGE'S COUNTY. MD 414 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

II. INTERSECTION OPERATION

THE INTERSECTION OPERATES IN A NEMA FIVE-PHASE, FULL-TRAFFIC-ACTUATED MODE. THERE IS EXCLUSIVE/PERMISSIVE LEFT TURN PHASING FOR EASTBOUND MD 414. MD 414 THROUGH MOVEMENTS WILL OPERATE CONCURRENTLY WITH A CONCURRENT PEDESTRIAN MOVEMENT TO CROSS THE SHOPPING CENTER ENTRANCE. THE SHOPPING CENTER ENTRANCE THROUGH MOVEMENTS WILL OPERATE CONCURRENTLY. THERE IS AN ALTERNATE PEDESTRIAN PHASE FOR THE EAST LEG OF THE INTERSECTION.

EQUIPMENT LIST FOR CONTRACT NO. XY1285185

A. EQUIPMENT TO BE FURNISHED BY STATE HIGHWAY ADMINISTRATION

ITEM	QUANTITY	UNIT	DESCRIPTION
9104	1	EA	CONTROLLER CABINET, SIZE *S* W/CTRL, VIDEO INT. I-8 CAM
9570	4	SF	[UPDATED] SHEET ALUMINUM GROUND MOUNTED SIGN
	4	EA	R10-3(1) (9' X 15') GROUND MOUNTED

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

ITEM	QUANTITY	UNIT	DESCRIPTION
1001	1	EA	MAINTENANCE OF TRAFFIC PER ASSIGNMENT
2001	1.8	CY	CLASS 2 EXCAVATION
2002	1	CY	TEST PIT EXCAVATION
5002	35	LF	5 INCH HEAT APPLIED WHITE OR YELLOW PERMANENT PAVEMENT MARKINGS
5003	770	LF	REMOVAL OF EXISTING PAVEMENT LINE MARKINGS
5004	335	LF	12 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
5005	85	LF	24 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
6001	260	LF	STANDARD TYPE A COMBINATION CURB AND GUTTER 12 INCH GUTTER PAN 8 INCH DEPTH
6002	100-980	SF	5 INCH CONCRETE SIDEWALK
6003	60	SF	DETECTABLE WARNING SURFACES
8001	30	EA	12 INCH LED SIGNAL HEAD
8002	1	EA	2 WIRE CENTRAL CONTROL UNIT
8004	3	EA	8 INCH LED SIGNAL HEAD
8005	3	EA	ADJUST HANDHOLE TO GRADE INCLUDING FRAME AND COLLAR
8008	4	EA	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION AND SIGNS
8009	4	EA	BREAKAWAY PEDESTAL POLE (ANY SIZE)
8012	1	EA	EMBEDDED METERED SERVICE PEDESTAL
8014	1	EA	INSTALL CONTROLLER AND CABINET - BASE MOUNT
8016	4	EA	LED 16 INCH COUNTDOWN PEDESTRIAN HEAD
8024	1	EA	REMOVE & DISPOSE OF EQUIPMENT PER ASSIGNMENT
8029	3-4	EA	VIDEO DETECTION CAMERA AND CABLE (ANY LENGTH)
8031	135	LF	1-CONDUCTOR ELECTRICAL CABLE, NO. 2 AWG/THHN
8034	1090	LF	DISCONNECT, PULL-BACK & REROUTE CABLE
8040	85	LF	UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8042	4	SF	INSTALL OVERHEAD OR GROUND MOUNTED SIGNS
8044	85	LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8047	50	LF	ELECTRICAL CABLE 1-CONDUCTOR NO. 8 AWG-THHN/THWN
8048	1	EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8055	405	EA	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
8057	545	LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
8058	880	LF	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)

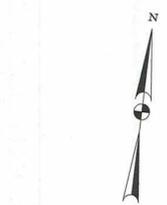
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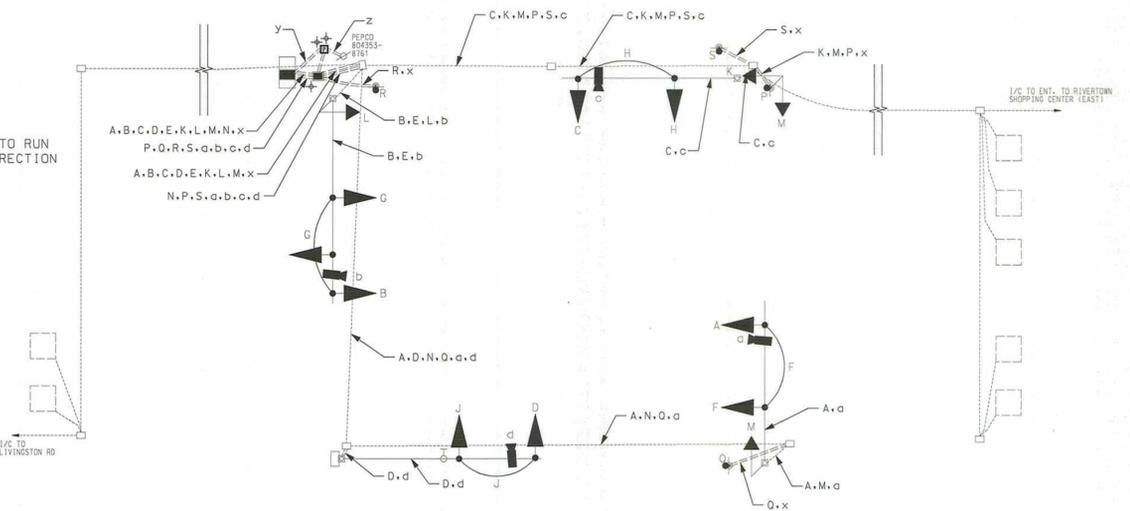


PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13
PHASE 1 AND 6	←GG	←GG	G	R	R	R	R	R	R	DW	DW	DW	DW
1 AND 6 CHANGE	←YG	←YG	G	R	R	R	R	R	R	DW	DW	DW	DW
PHASE 2 AND 6	G	G	G	G	R	R	R	R	R	WK	WK	DW	DW
PED CLEARANCE	G	G	G	G	R	R	R	R	R	FLDW	FLDW	DW	DW
2 AND 6 CHANGE	Y	Y	Y	Y	Y	R	R	R	R	DW	DW	DW	DW
PHASE 3	R	R	R	R	R	←GG	G	R	R	DW	DW	WK	WK
PED CLEARANCE	R	R	R	R	R	←GG	G	R	R	DW	DW	FLDW	FLDW
3 CHANGE	R	R	R	R	R	Y	Y	R	R	DW	DW	DW	DW
PHASE 4	R	R	R	R	R	R	R	←GG	G	DW	DW	DW	DW
4 CHANGE	R	R	R	R	R	R	R	Y	Y	DW	DW	DW	DW
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	DARK	DARK	DARK	DARK



WIRING DIAGRAM



WIRING KEY

- A, B, C, D, E } 7 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- F, G, H, J, K, L, M, N } 5 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- P, O, R, S } 2 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- a, b, c, d } VIDEO CAMERA CABLE
- x } NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
- y } 3 WIRES, 1 CONDUCTOR ELECTRICAL CABLE (NO. 8 AWG THHN/THWN)
- z } 3 WIRES, 1 CONDUCTOR ELECTRICAL CABLE (NO. 2 AWG/THHN)
- + } GROUND ROD

NOTES:

- ALL EXISTING WIRING EXCEPT FOR I/C AND SYSTEM DETECTION WILL BE REMOVED. CONTRACTOR SHALL DISCONNECT, PULL BACK AND REROUTE THE EXISTING INTERCONNECT CABLES AND SYSTEM LOOP CABLES TO THE NEW SIGNAL CABINET.
- CONNECT COPPER GROUND WIRE TO NEAREST EXISTING GROUND ROD.
- THE CONTRACTOR WILL "WORK WITH" PEPCO ON THE INSTALLATION OF THE 3 WIRES, 1 CONDUCTOR ELECTRICAL CABLE (NO. 2 AWG/THHN). IT HAS BEEN ASSUMED THAT DURING THE "WORK WITH" ADDITIONAL CABLE WILL BE COILED AND ATTACHED (TO THE WOOD POLE) TO PEPCO STANDARDS.

1 REDLINE REVISION NO. 1 - 03/26/2013
Signature 5/21/13
 TEDD APPROVAL



SHA STATE OF MARYLAND
 DEPARTMENT OF TRANSPORTATION
 STATE HIGHWAY ADMINISTRATION
 OFFICE OF TRAFFIC & SAFETY
 TRAFFIC ENGINEERING DESIGN DIVISION
 MD 414 AT MIDDLE ENT. TO RIVERTOWNE SHOPPING CENTER
 OXON HILL, MD

GENERAL INFORMATION PLAN SHEET

SCALE	NTS	DATE	12/2012	CONTRACT NO.	XY1285185
DESIGNED BY	XM	COUNTY	PRINCE GEORGE'S		
DRAWN BY	XM	LOGMILE	16041401.44		
CHECKED BY	JB	TIMS NO.	K282		
F.A.P. NO.		TOD NO.			
TS NO.	2097B	DRAWING	-	OF	SHEET NO. 3 OF 3

BY: chuck -