

**PROJECT DESCRIPTION**

**I. GENERAL:**

THIS PROJECT INVOLVES THE MODIFICATION OF AN EXISTING TRAFFIC SIGNAL AT THE INTERSECTION OF MD 27 (RIDGE ROAD) AND HIGH CORNER STREET IN DAMASCUS, MONTGOMERY COUNTY.

MD 27 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

**II. INTERSECTION OPERATION:**

THE EXISTING TRAFFIC SIGNAL WILL CONTINUE TO OPERATE IN A SEMI-ACTUATED MODE USING FIVE (5) NEMA PHASES.

MAINLINE MD 27 OPERATES CONCURRENTLY WITH A PEDESTRIAN MOVEMENT FOR BOTH LEGS OF HIGH CORNER STREET ON RECALL. THE HIGH CORNER STREET APPROACHES OPERATE CONCURRENTLY WITH AN ACTUATED LEFT TURN MOVEMENT FOR EASTBOUND HIGH CORNER STREET. AN ACTUATED PEDESTRIAN MOVEMENT IS PROVIDED FOR BOTH LEGS OF MD 27. THIS INTERSECTION IS PART OF THE MD 27 INTERCONNECT SIGNAL SYSTEM.

PEDESTRIAN CROSSINGS SHALL BE UPGRADED TO INCLUDE APS/CS SIGNALS AND ADA RAMPS. EXISTING VEHICULAR TRAFFIC SIGNALS SHALL BE REPLACED WITH LED SIGNAL HEADS.

AUDIBLE PUSHBUTTON FUNCTION SHALL BE AS FOLLOWS:

1. WHEN A PEDESTRIAN LOCATES AND PRESSES THE PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL ANNOUNCE THE FOLLOWING MESSAGE:  
FOR NORTH AND SOUTH LEGS, "WAIT TO CROSS RIDGE AT HIGH CORNER, WAIT"  
FOR EAST LEG, "WAIT TO CROSS HIGH CORNER AT RIDGE, WAIT"  
FOR WEST LEG, "WAIT TO CROSS HIGH CORNER AT RIDGE, CROSSWALK ANGLES LEFT, WAIT"
2. WHEN THE "WALK" PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK WHICH WILL CONTINUE FOR THE DURATION OF THE "WALK" PHASE.

**PROJECT CONTACTS**

THE CONTACT PERSONS FOR THIS PROJECT ARE AS FOLLOWS:

- |  |  |
|--|--|
| MS. ANYESHA MOOKHERJEE<br>ASST. DISTRICT ENGINEER-TRAFFIC<br>PHONE: 301-513-7498   | MR. EDWARD RODENHIZER<br>MANAGER, SIGNAL OPERATIONS<br>PHONE: 410-787-7650   |
| MR. TOM FOUNTAIN<br>ASST. DISTRICT ENGINEER-MAINTENANCE<br>PHONE: 301-513-7304   | MR. SONNY BAILEY<br>MANAGER, SIGN OPERATIONS<br>PHONE: 410-787-7670  |
| MR. VICTOR GRAFTON<br>UTILITY ENGINEER<br>PHONE: 301-513-7350  | MR. MIKE STOCKER<br>DOTS, SIGNAL WAREHOUSE<br>PHONE: 410-787-7668  |
| MS. CORREN JOHNSON<br>CHIEF, TRAFFIC OPERATIONS DIV.<br>PHONE: 410-787-7630  |  |
| MR. BOB RICKETTS<br>SUPERVISOR, MONTGOMERY TECHNICAL CENTER<br>MONTGOMERY COUNTY DOT<br>DIVISION OF TRAFFIC ENGINEERING<br>AND OPERATIONS<br>PHONE: 240-876-3681 | MR. KAMAL HAMUD<br>TEAM LEADER, TRAFFIC SIGNALS<br>MONTGOMERY COUNTY DOT<br>DIVISION OF TRAFFIC ENGINEERING<br>AND OPERATIONS<br>PHONE: 240-777-8761 |

POWER COMPANY REPRESENTATIVE - PEPCO:  
MR. RICHARD CHILCOAT, SERVICE ASSOCIATE  
PEPCO ENGINEERING  
8300 OLD MARLBORO PIKE  
UPPER MARLBORO MARYLAND 20772  
PHONE: 301-967-5805, FAX: 301-967-5820  
EMAIL: RACHILCOAT@PEPCO.COM

MAINTENANCE OF TRAFFIC WILL BE HANDLED BY THE CONTRACTOR USING THE STANDARD PLATES FOR TRAFFIC CONTROL FROM SECTION MD 104.00 OF THE SHA BOOK OF STANDARDS FOR HIGHWAYS & INCIDENTAL STRUCTURES.

**EQUIPMENT LIST "A"**

A. EQUIPMENT TO BE SUPPLIED BY THE ADMINISTRATION.

CATEGORY	CODE NO.	QUANTITY	DESCRIPTION
	900000	7.25 SF	SHEET ALUMINUM GROUND MOUNTED SIGNS CONSISTING OF: R4-7 KEEP RIGHT (24" X 30") GROUND MOUNT OM-1 (18" X 18")
	900000	8 SF	SHEET ALUMINUM MAST ARM /POLE MOUNTED SIGNS CONSISTING OF: R10-3(1) PUSHBUTTON SIGN (8"X 15") POLE MOUNT "TO CROSS RIDGE ROAD" R10-3(1) PUSHBUTTON SIGN (8"X 15") POLE MOUNT "TO CROSS HIGH CORNER STREET"

**EQUIPMENT LIST "B"**

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

CATEGORY	CODE NO.	QUANTITY	DESCRIPTION
	100000	1 EA	MAINTENANCE OF TRAFFIC (PER INTERSECTION)
	201032	5 CY	CLASS 2 EXCAVATION
	203030	3 CY	TEST PIT EXCAVATION
	504150	0.5 TON	HOT MIX ASPHALT SUPERPAVE 9.5MM FOR SURFACE, PG76-22, LEVEL-3
	520109	4 SY	3 INCH GRADED AGGREGATE BASE COURSE
	585617	16 LF	5 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
	585619	30 LF	5 INCH YELLOW PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
	585621	400 LF	12 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
	585625	91 LF	24 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
	585627	66.5 SF	WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LEGENDS AND SYMBOLS
	585700	490 LF	REMOVAL OF EXISTING PAVEMENT MARKING LINES ANY WIDTH
	585705	56.5 SF	REMOVAL OF EXISTING PAVEMENT LETTERS, SYMBOLS, ARROWS AND NUMBERS
	600000	240 LF	TYPE A COMBINATION CURB AND GUTTER ANY HEIGHT OR DEPTH
	600000	115 LF	TYPE A CURB ANY HEIGHT OR DEPTH
	655105	2180 SF	5 INCH CONCRETE SIDEWALK
	655120	82 SF	DETECTABLE WARNING SURFACE FOR CURB RAMPS
	704345	33 SY	PLACING FURNISHED TOPSOIL 4 INCH DEPTH
	708220	33 SY	TURF/GRASS SOD ESTABLISHMENT
	800000	1 EA	2-WIRE APS CENTRAL CONTROL UNIT
	800000	8 EA	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION AND SIGNS
	800000	8 EA	16 INCH LED COUNTDOWN PEDESTRIAN SIGNAL HEAD
	800000	1 EA	REMOVE AND DISPOSE OF EXISTING SIGNAL EQUIPMENT (PER SIGNALIZED INTERSECTION LOCATION)
	800000	120 LF	UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT - BORED OR SLOTTED
	800000	280 LF	UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
	800000	23 LF	WOOD SIGN SUPPORTS UP TO 4 INCH X 6 INCH
	800000	8 EA	5 FOOT OR 10 FOOT PEDESTAL POLE WITH BREAKAWAY COUPLINGS, FOUNDATION AND GROUND ROD
	800000	18.25 SF	INSTALL OVERHEAD OR GROUND MOUNTED SIGN (INCLUDING ALL HARDWARE)
	800000	1 EA	THIRD PARTY CONCRETE TESTING (PER INTERSECTION)
	811001	1 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
	802501	530 LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
	860284	26 EA	12 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION
	861105	1230 LF	ELECTRICAL CABLE- 2 CONDUCTOR (NO. 14 AWG)
	861107	1100 LF	ELECTRICAL CABLE- 5 CONDUCTOR (NO. 14 AWG)

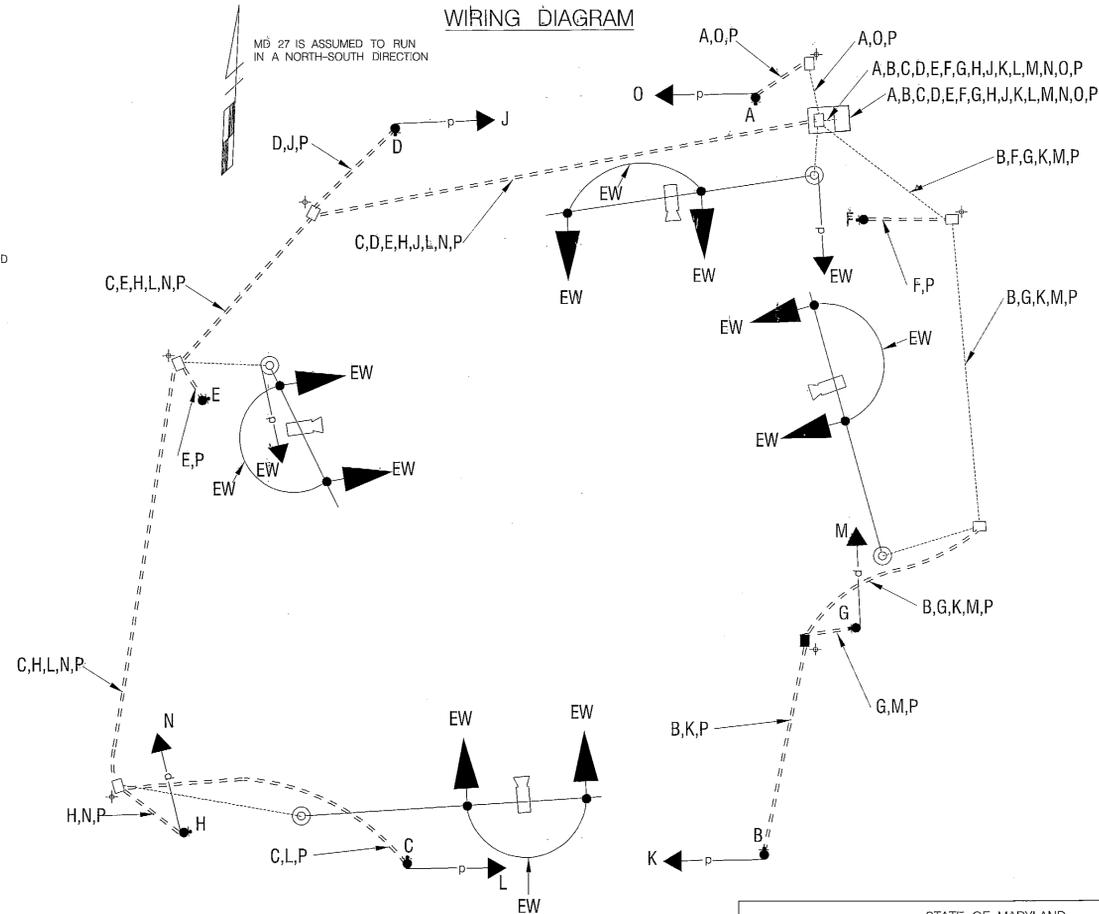
**EQUIPMENT LIST "C"**

ALL MATERIALS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

**PHASE CHART**

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PHASE 2 + 6	G	G	G	G	R	R	R	R	WK	WK	WK	WK	DW	DW	DW	DW
PHASE 2 + 6 CHANGE	Y	Y	Y	Y	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 4 + 7	R	R	R	R	G	G	G	G	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 4 + 7 CHANGE	R	R	R	R	G	G	G	G	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 4 + 8	R	R	R	R	G	G	G	G	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 4 + 8 CHANGE	R	R	R	R	Y	Y	Y	Y	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 4 ALT + 8 ALT	R	R	R	R	G	G	G	G	DW	DW	DW	DW	WK	WK	WK	WK
PED CLEARANCE	R	R	R	R	G	G	G	G	DW	DW	DW	DW	FL/DW	FL/DW	FL/DW	FL/DW
PHASE 4 + 8 ALT CHANGE	R	R	R	R	Y	Y	Y	Y	DW	DW	DW	DW	DW	DW	DW	DW
FLASHING OPERATION	FLY	FLY	FLY	FLY	FLR	FLR	FLR	FLR	DARK	DARK	DARK	DARK	DARK	DARK	DARK	DARK

**WIRING DIAGRAM**



**WIRING KEY**

- A,B,C,D - 2 CONDUCTOR NO. 14 AWG ELECTRICAL CABLE
- E,F,G,H - 5 CONDUCTOR NO. 14 AWG ELECTRICAL CABLE
- J,K,L,M,N,O - 5 CONDUCTOR NO. 14 AWG ELECTRICAL CABLE
- P - NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
- EW - EXISTING SIGNAL CABLE TO CONTROLLER
- + - GROUND ROD (3/4" DIA. X 10 FT. LENGTH)

**SHA** STATE OF MARYLAND  
DEPARTMENT OF TRANSPORTATION  
STATE HIGHWAY ADMINISTRATION  
OFFICE OF TRAFFIC & SAFETY  
TRAFFIC ENGINEERING DESIGN DIVISION  
MD 27 (RIDGE ROAD)  
AND HIGH CORNER STREET  
DAMASCUS, MD

**GENERAL INFORMATION PLAN**

SCALE NONE ADVERTISED DATE MARCH 2013 CONTRACT NO. XY1515185

DESIGNED BY PMH COUNTY MONTGOMERY  
DRAWN BY PMH LOGMILE 15002706.69  
CHECKED BY W5 TMS NO. L711  
F.A.P. NO. \_\_\_\_\_ TOD NO. \_\_\_\_\_

TS NO. 4357 C DRAWING SG-3 OF 3 SHEET NO. 3 OF 3



BY: mhusselbee