

I. GENERAL
THIS PROJECT INVOLVES APS/CPS UPGRADES.

II. INTERSECTION OPERATION
1. THE INTERSECTION IS TO OPERATE IN A NEMA 4-PHASE, FULLY-ACTUATED MODE.

NOTES

- FOR FINAL PAVEMENT MARKINGS, REFER TO THE PAVEMENT MARKING PLANS, AS APPLICABLE; OTHER THAN THOSE DETAILED ON THE PLAN. ALL PAVEMENT MARKINGS SHALL BE INSTALLED IN ACCORDANCE WITH ADMINISTRATION STANDARDS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR TERMINATING ALL SIGNAL CABLE TO THE APPROPRIATE TERMINALS AND PROPERLY LABEL EACH CABLE.
- ALL TRAFFIC SIGNAL FOUNDATIONS SHALL BE INSTALLED AT THE FINAL SIDEWALK OR CURB GRADE FOR CLOSED SECTIONS, HIGHEST ROADWAY PROFILE GRADE FOR OPEN SECTIONS, TO MEET CLEARANCES AS SPECIFIED IN THE APPROPRIATE 800 SERIES STANDARD PLATES. THE CONTRACTOR SHALL VERIFY ULTIMATE GRADES PRIOR TO THE INSTALLATION OF ALL SIGNAL EQUIPMENT.
- ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY PRIOR TO CONSTRUCTION SO THAT ALL UTILITIES MAY BE LOCATED IN THE FIELD. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN THE UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IMMEDIATELY SO THAT THE CONFLICT MAY BE RESOLVED.
- THE CONTRACTOR SHALL MAINTAIN THE CONTINUOUS OPERATION OF ALL INTERCONNECT, VEHICULAR, PEDESTRIAN DETECTORS, AND LIGHTING DEVICES. IF ANY DEVICE IS DAMAGED BY THE CONTRACTOR, IT SHALL BE REPAIRED WITHIN 72 HOURS BY THE CONTRACTOR AT NO COST TO THE ADMINISTRATION AFTER NOTIFICATION BY THE ENGINEER.
- APS WILL FUNCTION AS FOLLOWS:
TO CROSS GEORGIA AVENUE
A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL BE "WAIT TO CROSS GEORGIA AT HEWITT."
B. WHEN WALK PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.
TO CROSS HEWITT AVENUE
A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL BE "WAIT TO CROSS HEWITT AT GEORGIA."
B. WHEN WALK PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.
- PUSHBUTTONS ARE TO BE LOCATED SO THAT THEY CAN BE ACTIVATED BY A PERSON IN A WHEELCHAIR REACHING LESS THAN 18" FROM A 60" X 60" LEVEL LANDING AREA WITH A CROSS SLOPE OF LESS THAN OR EQUAL TO 2%.
- THE 10' SEPERATION BETWEEN PUSHBUTTONS IS TO BE MEASURED FROM FACE OF PUSHBUTTON TO FACE OF PUSHBUTTON, NOT CENTER TO CENTER OF POLE.
- PUSHBUTTON ARROWS ARE TO BE PARALLEL TO THE CROSSING FOR WHICH THEY ARE INTENDED.
- LOCATION OF ACCESSIBLE PEDESTRIAN SIGNAL PUSHBUTTONS MUST MEET LOCATION REQUIREMENTS OF MUTCD SEC. 4E.09 AND FIG. 4E.2 AND THE NCHRP PUBLICATION, "ACCESSIBLE PEDESTRIAN SIGNALS: GUIDE TO BEST PRACTICE". IF NOT MET, THE CONTRACTOR IS TO STOP WORK ON PUSHBUTTON LOCATIONS UNTIL A DESIGN WAIVER IS OBTAINED, APPROVED BY THE DIRECTOR, OFFICE OF TRAFFIC AND SAFETY.
- FOR THE EXISTING CONDUITS THAT ARE TO BE USED, THE CONTRACTOR SHALL REMOVE ALL INOPERABLE/UNUSED WIRES/CABLES. IF NECESSARY, THESE WIRES/CABLES SHALL BE REMOVED FROM CONDUITS NOT LABELED "USE EXISTING CONDUIT" IN ORDER TO COMPLETELY REMOVE THEM FROM THE CONDUIT SYSTEM HANDBOXES AND SIGNAL CABINET. NOTE THAT THIS WORK SHALL BE INCIDENTAL TO THE "REMOVE AND DISPOSE OF EXISTING MATERIAL AND EQUIPMENT" ITEM.

CONTACTS

DISTRICT (THREE)

MR. JEFFREY WENTZ
ASSISTANT DISTRICT ENGINEER - TRAFFIC
301-513-7318

MR. KEVIN NOWAK
ASSISTANT DISTRICT ENGINEER - CONSTRUCTION
301-513-7336

MR. WAYNE MOWDY
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
301-513-7304

MR. AUGIE REBISH
UTILITY ENGINEER
301-513-7350

MONTGOMERY COUNTY

MR. KEITH LORD
301-279-1971

MR. KAMAL HAMUD
TRAFFIC ENGINEER - MCTMC
240-777-8761

OFFICE OF TRAFFIC AND SAFETY

MR. RICHARD DAFF SR.
CHIEF, TRAFFIC OPERATIONS
410-787-7630

MR. ROBERT SNYDER
ASSISTANT DIVISION CHIEF, TRAFFIC OPERATIONS
410-787-7630

MR. ED RODENHIZER
TEAM LEADER SIGNAL OPERATIONS
410-787-7650

MR. EUGENE BAILEY
TEAM LEADER SIGN OPERATIONS
410-787-7670

MS. DARLENE EIDE
SUPPLY OFFICER IV (SIGNAL SHOP WAREHOUSE)
410-787-7668

EQUIPMENT LIST

A. EQUIPMENT TO BE FURNISHED BY STATE HIGHWAY ADMINISTRATION

CAT CODE NO.	DESCRIPTION	UNITS	QUANTITY
973023	FLAT SHEET ALUMINUM SIGNS CONSISTING OF:	SF	4
	R10-3(1) (9"x15") POLE MOUNT SIGN TO READ "PUSH BUTTON TO CROSS GEORGIA"	EA	2
	R10-3(1) (9"x15") POLE MOUNT SIGN TO READ "PUSH BUTTON TO CROSS HEWITT"	EA	2

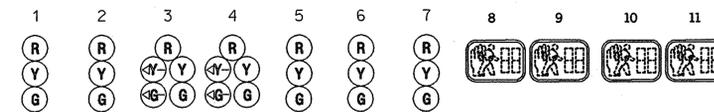
B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY CONTRACTOR

CAT CODE	UNITS	QUANTITY	DESCRIPTION
203030	CY	2	TEST PIT EXCAVATION
585621	LF	350	12 INCH WHITE PERMANENT PREFORMED THERMO. PAVEMENT MARKING
585625	LF	25	24 INCH WHITE PERMANENT PREFORMED THERMO. PAVEMENT MARKING
800000	EA	4	16 INCH LED COUNTDOWN PEDESTRIAN SIGNAL HEAD SECTION PEDESTAL POLE MOUNT
800000	EA	1	2-WIRE CENTRAL CONTROL UNIT
800000	EA	4	AUDIBLE TACTILE PEDESTRIAN PUSH BUTTON STATION
800000	LS	1	REMOVE AND DISPOSE OF EXISTING MATERIAL AND EQUIPMENT
801004	CY	3	CONCRETE FOR SIGNAL FOUNDATIONS
802501	LF	75	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
805135	LF	65	3 INCH SCHEDULE 80 PVC CONDUIT - TRENCHED
811001	EA	1	FURNISH AND INSTALL ELECTRICAL HANDHOLE
861105	LF	430	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 A.W.G.)
861107	LF	450	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 A.W.G.)
837001	EA	2	GROUND ROD - 3/4 INCH DIAMETER X 10 FOOT LENGTH
818004	EA	4	10 FOOT BREAKAWAY PEDESTAL POLE

NOTE:

THE CONTRACTOR SHALL DELIVER AUDIBLE TACTILE PEDESTRIAN PUSHBUTTON STATION AND BASE UNIT TO KEITH LORD AT THE MONTGOMERY COUNTY SIGNAL SHOP PRIOR TO LOCATION INSTALLATION FOR PROGRAMMING. SHA FORCES SHALL INSTALL AUDIBLE TACTILE PEDESTRIAN PUSH BUTTON BASE UNIT IN THE CABINET.

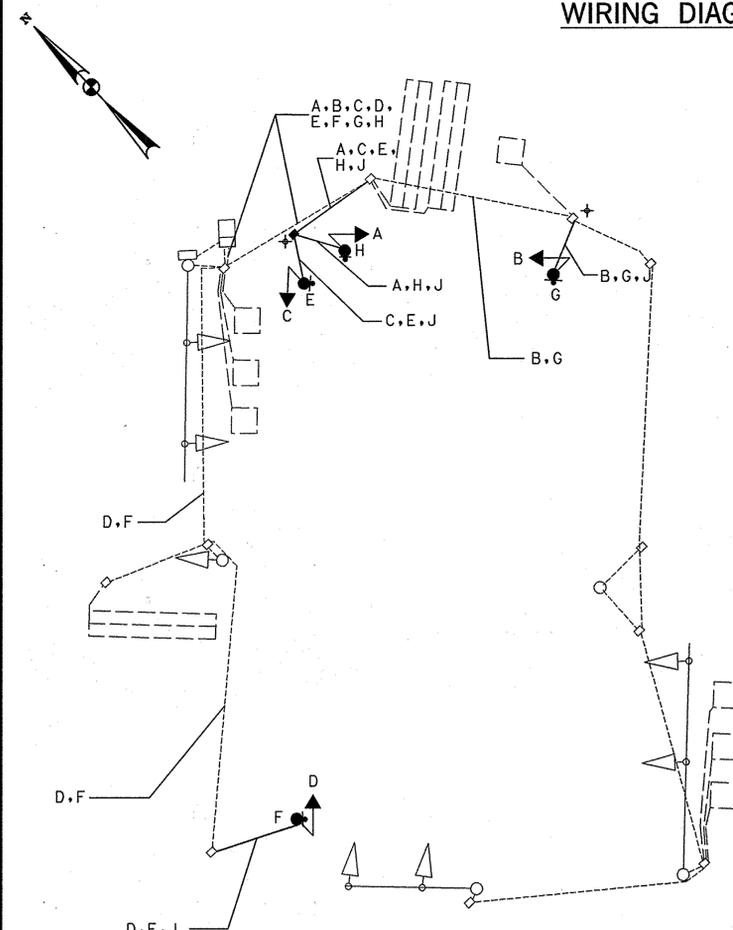
PHASE CHART



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

WIRING DIAGRAM

KEY



- A, B, C, D } 5 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- E, F, G, H } 2 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- J } 1 CONDUCTOR (NO. 6 AWG) BARE STRANDED COPPER GROUND WIRE
- + } GROUND ROD

SHA STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION
MD 97 (GEORGIA AVE.)
AND HEWITT AVE.
ASPEN HILL, MARYLAND

GENERAL INFORMATION PLAN

SCALE N.T.S. DATE 9-2-2008 CONTRACT NO. MC8325193

DESIGNED BY J. PALADUGU COUNTY MONTGOMERY
DRAWN BY J. PALADUGU LOGMILE 15009706.42
CHECKED BY K. KRINKER T.I.M.S. NO. J203
F.A.P. NO. TOD NO.

TS NO. 973 C DRAWING PSG OF N003 SHEET NO. 6 OF 6

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