

EXISTING SIGNS TO REMAIN

PROPOSED SIGNS

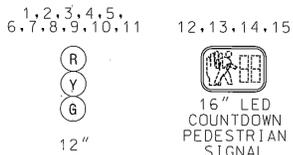
EXISTING SIGNS TO BE REMOVED

NEMA PHASING

FLASHING OPERATION

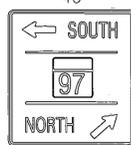
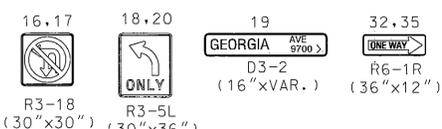
MD 97 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

PROPOSED LED SIGNALS

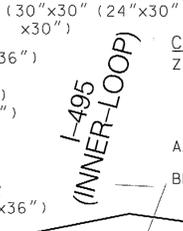
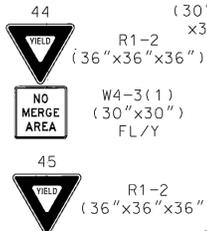
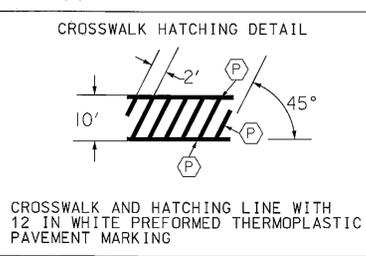
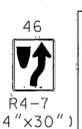
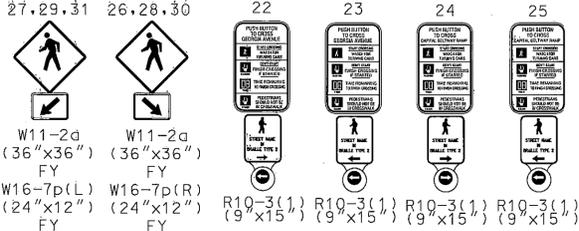
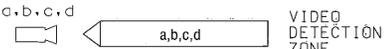


EXISTING SIGNALS TO BE REMOVED

1A, 2A, 3A, 4A, 12A, 13A, 14A, 15A 5A, 6A, 7A, 8A, 9A, 10A, 11A



EXISTING VIDEO DETECTION CAMERAS TO REMAIN



I-495 (INNER-LOOP)

CONSTRUCTION DETAILS (CONT)
Z. REMOVE EXISTING SIDEWALK RAMP AND CONSTRUCT NEW SIDEWALK RAMP PER MD STD. 655.22 WITH DETECTABLE WARNING SURFACE PER MD STD. 655.40 (SEE DETAIL DIMENSION SHEET)
AA. TIE PROPOSED RAMP INTO EXISTING ASPHALT SECTION.
BB. REMOVE EXISTING SIDEWALK AND INSTALL FURNISHED TOPSOIL AT 8 INCH DEPTH AND TURFGRASS SOD ESTABLISHMENT.

NOTE: PHASES ASSOCIATED BY A DASHED LINE MAY/WILL OPERATE CONCURRENTLY. PHASES ASSOCIATED BY A SOLID LINE WILL NOT OPERATE CONCURRENTLY.

CONSTRUCTION DETAILS (CONT)

CC. PULL BACK EXISTING MEDIAN NOSE FOR PROPOSED CROSSWALK. PROPOSED MEDIAN NOSE SHALL BE INSTALLED AS PER MD STD. 645.01. BACK FILL AND RE-PAVE VACATED AREA. (SEE DIMENSION DETAIL SHEET)
DD. INSTALL PROPOSED GROUND MOUNTED SIGN ON A SQUARE PERFORATED TUBULAR STEEL POST AND ANCHOR BASE.
EE. INSTALL 10 FT. BREAKAWAY PEDESTAL POLE WITH MODIFIED FOUNDATION BASE STANDARD NO. 801.01-01. LED COUNTDOWN PEDESTRIAN SIGNAL HEAD, APS STATION, AND PEDESTRIAN EDUCATION SIGN. INSTALL PROPOSED FOUNDATION INTEGRAL TO THE BACKER CURB.

GENERAL NOTES

1. MAINTENANCE OF TRAFFIC WILL BE HANDLED BY THE CONTRACTOR UTILIZING MSHA STANDARD TYPICALS FOR TRAFFIC CONTROL.
2. THE CONTRACTOR SHALL CONTACT MISS UTILITY TO VERIFY ALL UNDERGROUND UTILITIES PRIOR TO THE INSTALLATION OF PROPOSED SIGNAL EQUIPMENT. IF ANY UTILITY CONFLICTS ARISE THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER.
3. 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 MD 816.03, MD 818.01, MD 818.02, MD 818.04. THE CONTRACTOR SHALL VERIFY ULTIMATE GRADES PRIOR TO THE INSTALLATION OF ALL SIGNAL EQUIPMENT.
4. THE CONTRACTOR SHALL INTEGRATE PROPOSED CONCRETE FOUNDATIONS WITH NEW SIDEWALK RAMP WHERE NECESSARY.
5. THE MONTGOMERY COUNTY SIGNAL SHOP WILL BE RESPONSIBLE FOR ALL INTERNAL CABINET WIRING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ROUTING AND PROPERLY LABELING ALL SIGNAL CABLES.
6. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL ABANDONED ELECTRICAL CABLES.
7. ALL EXISTING TRAFFIC SIGNAL EQUIPMENT REMOVED, WITH THE EXCEPTION OF SOLO CAMERAS, SHALL BECOME THE PROPERTY OF THE SIGNAL CONTRACTOR UPON COMPLETION OF THE SIGNAL RECONSTRUCTION. SOLO CAMERAS ARE TO BE RETURNED TO SHA UPON COMPLETION OF THE SIGNAL RECONSTRUCTION.
8. THE CONTRACTOR SHALL VERIFY THE PROPOSED POLE AND CABINET LOCATION(S) PRIOR TO INSTALLATION.
9. THE CONTRACTOR SHALL CENTER THE NEWLY CONSTRUCTED RAMP WITH THE EXISTING/PROPOSED CROSSWALKS.
10. LOCATION OF ACCESSIBLE PEDESTRIAN SIGNAL PUSHBUTTONS MUST MEET LOCATION REQUIREMENTS OF MUTCD SEC. 4E.09 AND FIG. 4E.3 AND 4E.41 AND THE NCHRP PUBLICATION, "ACCESSIBLE PEDESTRIAN SIGNALS: GUIDE TO BEST PRACTICE." IF NOT MET, THE CONTRACTOR IS TO STOP WORK ON PUSHBUTTON LOCATIONS UNTIL THE CONFLICT HAS BEEN RESOLVED. IF NEEDED, A DESIGN WAIVER SHALL BE OBTAINED, APPROVED BY THE DIRECTOR, OFFICE OF TRAFFIC AND SAFETY.
11. PUSHBUTTON IS TO BE LOCATED SO THAT A PEDESTRIAN IN A WHEELCHAIR LOCATED ON THE LEVEL LANDING AREA DOES NOT HAVE TO REACH MORE THAN 18 IN.
12. PUSHBUTTONS ARE TO BE LOCATED SO THAT THEY CAN BE ACTIVATED BY A PERSON IN A WHEELCHAIR FROM A 60 IN. X 60 IN. LEVEL LANDING AREA. A LEVEL LANDING AREA IS AN AREA WITH A CROSS SLOPE OF LESS THAN OR EQUAL TO 2%.
13. THE 10 FT. MINIMUM SEPARATION BETWEEN PUSHBUTTONS IS TO BE MEASURED FROM FACE OF PUSHBUTTON TO FACE OF PUSHBUTTON, NOT CENTER OF POLE TO CENTER OF POLE.
14. PUSHBUTTON ARROWS SHOULD BE TURNED PARALLEL TO THE CROSSWALK FOR WHICH THEY ARE INTENDED.
15. ALL TRAFFIC SIGNAL MODIFICATIONS SHALL BE CONSTRUCTED PRIOR TO SIDEWALK INSTALLATION.
16. THE CONTRACTOR SHALL ENSURE THE EXISTING TRAFFIC SIGNAL REMAINS OPERATIONAL UNTIL RECONSTRUCTED TRAFFIC SIGNAL IS OPERATIONAL.
17. ALL PAVEMENT MARKINGS SHALL BE INSTALLED IN ACCORDANCE WITH MSHA STANDARDS.
18. VIDEO CAMERA LOCATION / ALIGNING SHALL BE COORDINATED WITH THE SHA ENGINEER.
19. ALL UNUSED SIGNAL CABLES SHALL BE REMOVED AND DISPOSED.
20. THE CONTRACTOR SHALL MAINTAIN THE CONTINUOUS OPERATION OF ALL INTERCONNECT, VEHICULAR, PEDESTRIAN DETECTORS, AND LIGHTING DEVICES. IF ANY DEVICE IS DAMAGED BY CONTRACTOR, IT SHALL BE REPAIRED WITHIN 72 HOURS BY THE CONTRACTOR AT NO COST TO SHA AFTER NOTIFICATION BY THE ENGINEER.
21. ALL PAVEMENT MARKINGS SHALL BE INSTALLED PER SHA STANDARDS.
22. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DELIVERING THE SIGNAL VIDEO INTERFACE EQUIPMENT TO THE MONTGOMERY COUNTY SIGNAL SHOP.
23. THE CONTRACTOR SHALL DELIVER APS PUSHBUTTONS AND CENTRAL CONTROL UNIT TO MR. ROBERT RICKETS AT MONTGOMERY COUNTY TECHNICAL CENTER AT 2383 SEVEN LOCKS ROAD, ROCKVILLE, MD 20854 AT LEAST 3 WEEKS PRIOR TO BEGINNING WORK. CONTRACTOR SHALL HAVE THE APS MESSAGES PROGRAMMED FROM THE FACTORY AND DELIVER THE APS WAV FILES TO MR. ROBERT RICKETS.
24. CONTRACTOR SHALL NOTIFY MR. KAMAL HAMUD AND MR. ROBERT RICKETS 72 HOURS IN ADVANCE OF INTENDED WORK.

CONSTRUCTION DETAILS

- A. REMOVE EXISTING SIZE "6" BASE MOUNTED CABINET AND INSTALL PROPOSED NEMA SIZE "S" BASE MOUNTED CABINET AND CONTROLLER WITH UPS BATTERY BACK UP SYSTEM ON EXISTING FOUNDATION. USE EXISTING POWER SOURCE. "S" CABINET SHALL BE RETROFITTED BY SHA FORCES TO WORK WITH EXISTING SOLO CAMERA INTERFACE. INSTALL 2-WIRE CENTRAL CONTROL UNIT. INSTALL CABINET BASE EXTENSION.
- B. INSTALL EMBEDDED METEDED SERVICE PEDESTAL WITH 3-2 IN. AND 1-4 IN. SCHEDULE 80, 90 DEGREE ELBOW IN PEDESTAL BASE.
- C. INSTALL 2 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - TRENCHED.
- D. LOCATE AND INTERCEPT EXISTING POWER FEED CONDUIT FOR METEDED SERVICE PEDESTAL INSTALLATION.

CONSTRUCTION DETAILS (CONT)

- E. USE EXISTING MAST ARM. REMOVE EXISTING SIGNAL HEAD. INSTALL PROPOSED 12 IN. LED SIGNAL HEAD.
- F. PEPCO TO DE-ENERGIZE POWER FEED FOR METER INSTALLATION AND RE-ENERGIZE SERVICE AFTER SERVICE PEDESTAL HAS BEEN INSTALLED.
- G. USE EXISTING PEDESTAL POLE. REMOVE EXISTING SIGNAL HEAD. INSTALL PROPOSED 12 IN. LED SIGNAL HEAD. INSTALL PROPOSED LED COUNTDOWN PEDESTRIAN SIGNAL HEAD. REMOVE EXISTING PEDESTRIAN HEAD, PUSHBUTTON, AND SIGN.
- H. REMOVE EXISTING PEDESTRIAN SIGNAL HEADS, PUSHBUTTONS, AND SIGNS FROM EXISTING SIGNAL POLE. INSTALL PROPOSED LED SIGNAL HEAD.
- J. INSTALL GROUND MOUNTED SIGN ON ONE 4'x6" WOOD POST.
- K. INSTALL 10 FT. BREAKAWAY PEDESTAL POLE WITH MODIFIED FOUNDATION BASE STANDARD NO. 801.01-01. LED COUNTDOWN PEDESTRIAN SIGNAL HEAD, APS STATION, AND PEDESTRIAN EDUCATION SIGN.
- L. REMOVE EXISTING SIDEWALK RAMP AND CONSTRUCT NEW SIDEWALK RAMP PER MD STD. 655.11 WITH DETECTABLE WARNING SURFACE PER MD STD. 655.40 AND 8" BACKER CURB. (SEE DIMENSION DETAIL SHEET).
- N. REMOVE EXISTING SIDEWALK RAMP AND CONSTRUCT NEW SIDEWALK RAMP PER MD STD. 655.12 WITH DETECTABLE WARNING SURFACE PER MD STD. 655.40. (SEE DIMENSION DETAIL SHEET) AND TYPE A BACKER CURB. REMOVE EXISTING PEDESTAL POLE, PEDESTRIAN SIGNAL HEAD, PUSHBUTTON, AND SIGN.
- P. INSTALL 12" WHITE HEAT APPLIED PERMANENT PERFORMED THERMOPLASTIC PREFORMED MARKING.
- Q. ERADICATE EXISTING STOP BAR. INSTALL 24 IN WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINE.
- R. ERADICATE EXISTING PAVEMENT MARKING LINE.
- S. USE EXISTING HANDHOLE.
- T. USE EXISTING CONDUIT.
- U. INSTALL STD. TYPE A CURB AND GUTTER PER MD STD. 620.02.
- V. REMOVE EXISTING SIDEWALK AND CONSTRUCT NEW 5 IN. CONCRETE SIDEWALK.
- W. USE EXISTING VIDEO DETECTION CAMERA.

CONSTRUCTION DETAILS (CONT)

- X. INSTALL 2 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - TRENCHED. TIE INTO SPARE 2 IN. CONDUIT BEND IN EXISTING CABINET FOUNDATION.
- Y. INSTALL 5 FT. BREAKAWAY PEDESTAL POLE WITH MODIFIED FOUNDATION BASE STANDARD NO. 801.01-01. APS STATION, AND PEDESTRIAN EDUCATION SIGN.

GEOMETRIC LEGEND	
PROPOSED	---
EXISTING	---
LEGEND OF UNDERGROUND AND OVERHEAD UTILITIES	
AERIAL CABLE	A - A
ELECTRIC	E - E
TELEPHONE	T - T
GAS	G - G
SEWER	S - S
WATER	W - W
CABLE TV	TV - TV

APPROVALS	
TEAM LEADER	<i>[Signature]</i>
ASST. DIV. ENGINEER	<i>[Signature]</i>
DIVISION CHIEF	<i>[Signature]</i>
OFFICE DIRECTOR	<i>[Signature]</i>

REVISIONS	
UPGRADE APS/CPS/LED VIDEO DETECTION	3-21-13
INSTALLATION OF UPS/LED SIGNAL HEADS TO EXISTING TRAFFIC SIGNAL	6-18-11
INSTALL VIDEO DETECTION AND APS	3/2006

SHA STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION
MD 97 (GEORGIA AVENUE) AND I-495 INTERCHANGE
FOREST GLEN, MD

TRAFFIC SIGNALIZATION PLAN			
SCALE	1"=30'	DATE	9-24-99
CONTRACT NO.	MC85ZASD	DESIGNED BY	SR
COUNTY	MONTGOMERY	DRAWN BY	RRZ
LOGMILE	15008701.50	CHECKED BY	RRZ
TIMS NO.	D910	FAP NO.	
TOD NO.		TS NO.	3636E
DRAWING	SG-01	OF	03
SHEET NO.	1	OF	3

PLOTTED: THURSDAY, APRIL 11, 2013 AT 03:22 PM
FILE: Y:\12-0294-118 MD 97 SIGNAL MODS\5-MD 97 AT I-495 NB EXIT 31\PSG-P001.MD97e1495NB.DGN

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