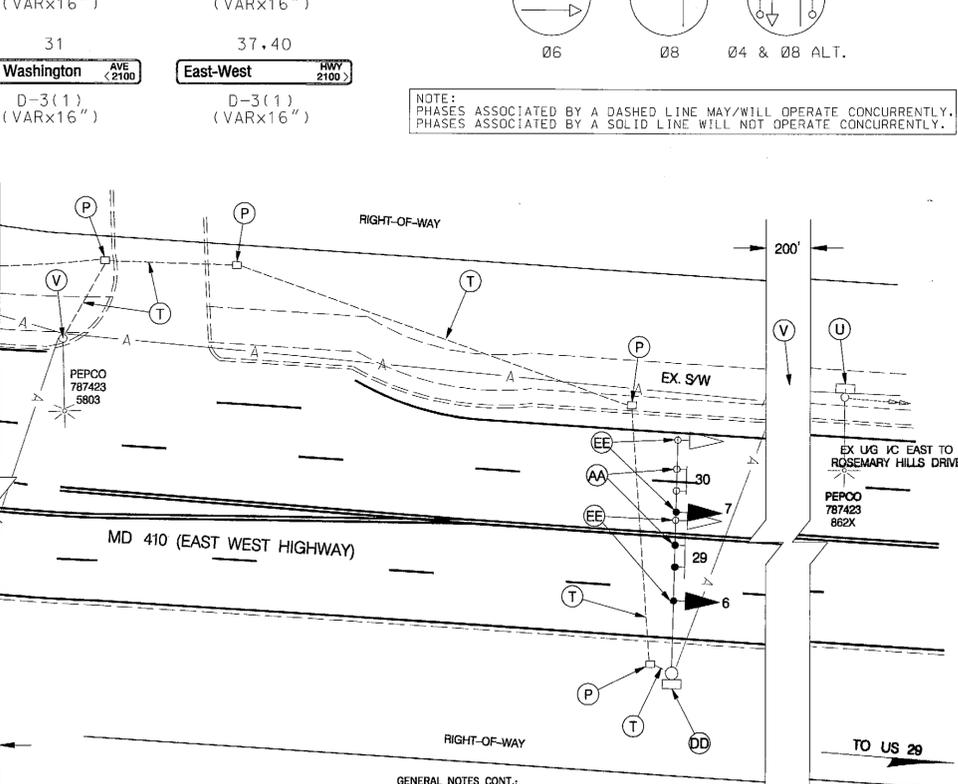
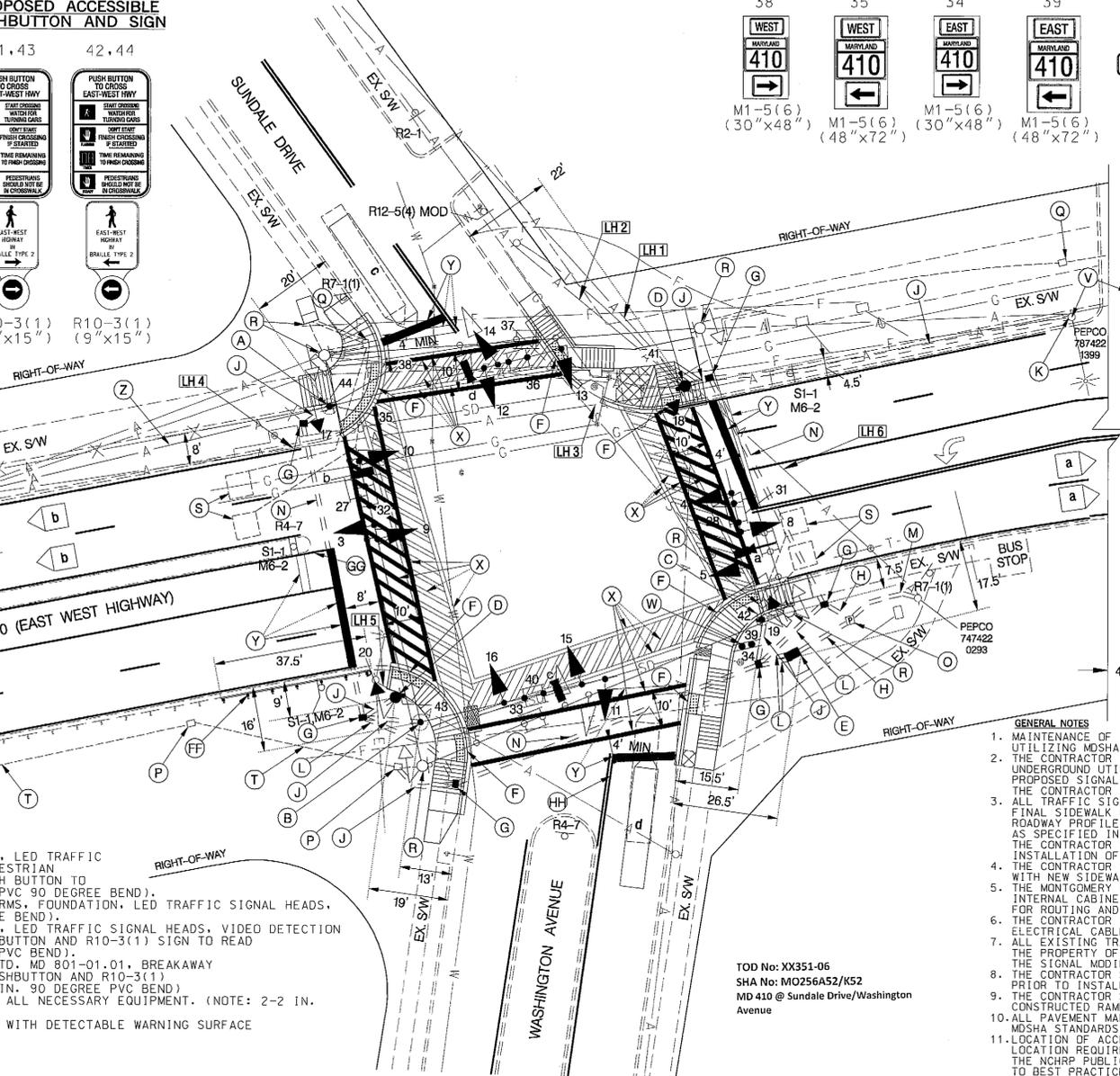


**PROPOSED ACCESSIBLE PUSHBUTTON AND SIGN**

41, 43  
42, 44

R10-3(1) (9"x15")  
R10-3(1) (9"x15")

LINE HEIGHTS (LH) 1		LINE HEIGHTS (LH) 4	
COMM. CABLE 1	- 23'-3"	COMM. CABLE 1	- 16'-10"
COMM. CABLE 2	- 25'-0"	COMM. CABLE 2	- 17'-7"
SECONDARY	- 25'+	COMM. CABLE 3	- 17'-10"
LINE HEIGHTS (LH) 2		COMM. CABLE 4	- 18'-6"
COMM. CABLE 1	- 16'-5"	COMM. CABLES	- 19'-1"
COMM. CABLE 2	- 18'-9"	COMM. CABLE 7	- 22'-4"
SPAN WIRE	- 21'-9"	SECONDARY	- 25'+
LINE HEIGHTS (LH) 3		PRIMARY	- 30'+
COMM. CABLE 1	- 19'-4"	LINE HEIGHTS (LH) 5	
COMM. CABLE 2	- 19'-4"	SECONDARY	- 26'-4"
COMM. CABLE 3	- 20'-4"	LINE HEIGHTS (LH) 6	
COMM. CABLE 4	- 22'-8"	GUY WIRE	- 30'+
COMM. CABLE 5	- 23'+		
SECONDARY	- 25'+		
PRIMARY	- 30'+		



- CONSTRUCTION DETAILS**
- INSTALL A 21 FT. STEEL POLE WITH A 60 FT. MAST ARM, FOUNDATION, LED TRAFFIC SIGNAL HEADS, VIDEO DETECTION CAMERA, SIGNS, LED COUNTDOWN PEDESTRIAN SIGNAL HEAD, ACCESSIBLE PUSHBUTTON, R10-3(1) SIGN TO READ "PUSH BUTTON TO CROSS EAST-WEST HWY" AND 1-3 IN. PVC 90 DEGREE BEND.
  - INSTALL A 21 FT. STEEL POLE WITH TWIN 50 FT. AND 70 FT. MAST ARMS, FOUNDATION, LED TRAFFIC SIGNAL HEADS, VIDEO DETECTION CAMERAS AND SIGNS. (NOTE: 1-3 IN. PVC 90 DEGREE BEND).
  - INSTALL A 27 FT. STEEL POLE WITH A 38 FT. MAST ARM, FOUNDATION, LED TRAFFIC SIGNAL HEADS, VIDEO DETECTION CAMERA, LED COUNTDOWN PEDESTRIAN SIGNAL HEAD, ACCESSIBLE PUSHBUTTON AND R10-3(1) SIGN TO READ "PUSH BUTTON TO CROSS EAST-WEST HWY" (NOTE: 1-3 IN. 90 DEGREE PVC BEND).
  - INSTALL A 10 FT. BREAKAWAY PEDESTAL POLE WITH FOUNDATION SHA STD. MD 801-01.01, BREAKAWAY COUPLINGS, LED COUNTDOWN PEDESTRIAN SIGNAL HEAD, ACCESSIBLE PUSHBUTTON AND R10-3(1) SIGN TO READ "PUSH BUTTON TO CROSS EAST-WEST HWY." (NOTE: 1-3 IN. 90 DEGREE PVC BEND)
  - INSTALL NEMA SIZE "6" BASE MOUNTED CABINET AND CONTROLLER WITH ALL NECESSARY EQUIPMENT. (NOTE: 2-2 IN. AND 2-4 IN. 90 DEGREE BENDS)
  - REMOVE EXISTING SIDEWALK AND RAMP. CONSTRUCT NEW SIDEWALK RAMP WITH DETECTABLE WARNING SURFACE (SHA STD. MD 655.40). (SEE DETAILS ON SHEET SG-02)
  - INSTALL ELECTRICAL HANDHOLE.
  - INSTALL 2 IN. SCHEDULE 80 RIGID PVC CONDUIT (TRENCHED).
  - INSTALL 3 IN. SCHEDULE 80 RIGID PVC CONDUIT (TRENCHED).
  - INSTALL 3 IN. PVC CONDUIT RISER ON EXISTING UTILITY POLE.
  - INSTALL 4 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT (TRENCHED).
  - INSTALL 4 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT (TRENCHED) - FOR PROPOSED UNDERGROUND POWER SERVICE. CAP AND MARK CONDUIT. AND LEAVE A 1 FT. STUB WITH PULL STRING AT UTILITY POLE FOR USE BY OTHERS.
  - INSTALL 4 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT (BORED).
  - INSTALL METEERED SERVICE PEDESTAL (NOTE: 3-2 IN. AND 1-4 IN. 90 DEGREE PVC BENDS).
  - USE EXISTING HANDHOLE.
  - ABANDON EXISTING HANDHOLE. CAP AND ABANDON EXISTING CONDUIT(S) AT THE NEAREST HANDHOLES.
  - REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT. REMOVE FOUNDATION 12 IN. BELOW GRADE AND BACKFILL. CAP AND ABANDON ANY EXISTING CONDUIT.
  - ABANDON EXISTING LOOP DETECTOR.
  - USE EXISTING CONDUIT.
  - USE EXISTING INTERCONNECT SPLICE BOX AND PVC RISER ON EXISTING UTILITY POLE.
  - USE EXISTING UTILITY POLES (SEE WIRING DIAGRAM FOR DETAILS).
  - INSTALL GROUND MOUNTED SIGN ON ONE OR TWO 4 IN. x 6 IN. WOOD POSTS. (SEE NOTE 21)

- CONSTRUCTION DETAILS CONT.**
- REMOVE EXISTING PAVEMENT MARKINGS AND INSTALL 12 IN. HEAT APPLIED WHITE PERMANENT PERFORMED THERMOPLASTIC PAVEMENT MARKINGS FOR CROSSWALK.
  - REMOVE EXISTING PAVEMENT MARKINGS AND INSTALL 24 IN. HEAT APPLIED WHITE PERMANENT PERFORMED THERMOPLASTIC PAVEMENT MARKINGS FOR STOPLINE.
  - INSTALL NEW 12 PAIR OVERHEAD INTERCONNECT CABLE (SEE WIRING DIAGRAM FOR DETAILS). (SEE NOTE 18)
  - REMOVE EXISTING OVERHEAD SIGN AND INSTALL NEW SIGN (SEE MAST ARM DETAILS ON SHEET SG-02).
  - REMOVE EXISTING OVERHEAD SIGN AND INSTALL NEW SIGN IN SAME LOCATION.
  - REMOVE EXISTING VEHICULAR SIGNAL HEAD AND INSTALL NEW 12 IN. LED VEHICULAR SIGNAL HEAD IN SAME LOCATION.
  - USE EXISTING POLE MOUNTED CABINET.
  - REMOVE EXISTING VEHICULAR SIGNAL HEAD AND INSTALL NEW 12 IN. LED VEHICULAR SIGNAL HEAD (SEE MAST ARM DETAILS ON SHEET SG-02).
  - REMOVE 50 FT. OF EXISTING DAMAGED W-BEAM TRAFFIC BARRIER AND INSTALL 37.5 FT. OF NEW W-BEAM TRAFFIC BARRIER WITH TYPE K END TREATMENT (SEE NOTE 25).
  - INSTALL 5 INCH YELLOW LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKING (TIE INTO EXISTING MARKINGS)
  - INSTALL 5 INCH DOUBLE YELLOW LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKING (TIE INTO EXISTING MARKINGS)

- GENERAL NOTES**
- MAINTENANCE OF TRAFFIC WILL BE HANDLED BY THE CONTRACTOR UTILIZING MSHA STANDARD TYPICALS FOR TRAFFIC CONTROL.
  - 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.
  - 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.
  - THE CONTRACTOR SHALL INTEGRATE PROPOSED CONCRETE FOUNDATIONS WITH NEW SIDEWALK RAMP WHERE NECESSARY.
  - 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.
  - THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL ABANDONED ELECTRICAL CABLES.
  - ALL EXISTING TRAFFIC SIGNAL EQUIPMENT REMOVED SHALL BECOME THE PROPERTY OF THE SIGNAL CONTRACTOR UPON COMPLETION OF THE SIGNAL MODIFICATION.
  - THE CONTRACTOR SHALL VERIFY THE PROPOSED POLE LOCATION(S) PRIOR TO INSTALLATION.
  - THE CONTRACTOR SHALL CENTER THE PROPOSED CROSSWALKS ON NEWLY CONSTRUCTED RAMPS.
  - ALL PAVEMENT MARKINGS SHALL BE INSTALLED IN ACCORDANCE WITH MSHA STANDARDS.
  - 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 PRACTICES." 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.
  - PUSHBUTTONS 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.
  - THE CONTRACTOR SHALL ENSURE THE EXISTING TRAFFIC SIGNAL REMAINS OPERATIONAL UNTIL THE RECONSTRUCTED TRAFFIC SIGNAL IS OPERATIONAL.
  - 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%.
  - PUSHBUTTON ARROWS SHOULD BE TURNED PARALLEL TO THE CROSSWALK FOR WHICH THEY ARE INTENDED.

- GENERAL NOTES CONT.**
- ALL ACCESSIBLE PEDESTRIAN CONTROL EQUIPMENT SHALL BE DELIVERED TO THE MONTGOMERY COUNTY SIGNAL SHOP FOR TESTING AND PROGRAMMING PRIOR TO INSTALLATION. CONTACT MR. KEITH LORD AT 301-279-1290 TO COORDINATE.
  - ALL TRAFFIC SIGNAL MODIFICATIONS SHALL BE CONSTRUCTED PRIOR TO SIDEWALK INSTALLATION.
  - INSTALL NEW OVERHEAD INTERCONNECT IMMEDIATELY UNDER EXISTING OVERHEAD INTERCONNECT. REMOVE EXISTING INTERCONNECT ONCE NEW INTERCONNECT IS FUNCTIONAL.
  - DISCONNECTING AND SPLICING OF INTERCONNECT CABLES IN THE TRAFFIC SIGNAL CABINETS SHALL BE PERFORMED BY MONTGOMERY COUNTY FORCES. THE CONTRACTOR SHALL RUN INTERCONNECT CABLES INTO EACH CABINET AND PROPERLY LABEL THEM. CONTACT MR. KAMAL HAMUD AT 240-777-8761 FORTY EIGHT (48) HOURS IN ADVANCE PRIOR TO INSTALLING INTERCONNECT CABLES.
  - THE CONTRACTOR SHALL FURNISH AND INSTALL NEW 12 PAIR SELF SUPPORTING INTERCONNECT CABLES FROM THE PROPOSED BASE MOUNTED CABINET TO THE FOLLOWING LOCATIONS: INTERCONNECT SPLICE BOX ON PEPCO POLE NO. 786423-3415 ON MD 410 WEST OF WASHINGTON AVENUE; AND THE INTERCONNECT SPLICE BOX ON PEPCO POLE NO. 787423-862X ON MD 410 WEST OF ROSEMARY HILLS DRIVE. THE CONTRACTOR SHALL REMOVE THE SELF-SUPPORTING CABLE FROM THE UNDERGROUND PORTION OF THE INTERCONNECT CABLE.
  - THE CONTRACTOR SHALL TAKE SPECIAL PRECAUTION TO AVOID THE UNDERGROUND UTILITIES IN THE NORTHEAST CORNER.
  - THE CONTRACTOR SHALL REMOVE AND REPLACE CONCRETE SIDEWALK AT THE NEAREST JOINT.
  - THE CONTRACTOR SHALL REFER TO FIGURE 3B-17Q OF THE 2006 MARYLAND M.U.T.C.D. FOR CROSSWALK PAVEMENT MARKING DETAIL.
  - VIDEO CAMERA LOCATION/LIGNING SHALL BE COORDINATED WITH THE SHA ENGINEER.
  - THE CONTRACTOR SHALL INSTALL THE TYPE K TRAFFIC BARRIER END TREATMENT SO AS NOT TO IMPACT THE PROPOSED SIDEWALK RAMP.

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**UTILITY LEGEND**

E - E - ELECTRIC CABLES	SD - SD - STORM DRAIN
A - A - AERIAL CABLES	G - G - GAS MAIN
T - T - TELEPHONE CABLES	W - W - WATER MAIN
F - F - FIBER-OPTIC	S - S - SEWER MAIN

= EXISTING CONCRETE SIDEWALK TO BE REMOVED

**APPROVALS**

TEAM LEADER	REVISIONS
ASST. DIV. CHIEF	① SIGNAL RECONSTRUCTION
DIVISION CHIEF	② SIGNAL RECONSTRUCTION
OFFICE DIRECTOR	③ SIGNAL RECONSTRUCTION

**REVISIONS**

NO.	DESCRIPTION	DATE
1	SIGNAL RECONSTRUCTION	1/28/20
2	SIGNAL RECONSTRUCTION	1/28/20
3	SIGNAL RECONSTRUCTION	1/28/20

**STATE OF MARYLAND**  
DEPARTMENT OF TRANSPORTATION  
STATE HIGHWAY ADMINISTRATION  
OFFICE OF TRAFFIC & SAFETY  
TRAFFIC ENGINEERING DESIGN DIVISION  
MD 410 (EAST-WEST HIGHWAY) AT  
SUNDALE DRIVE WASHINGTON AVENUE

**SIGNALIZATION PLAN SHEET**

SCALE 1" = 20' ADVERTISED DATE 1286 CONTRACT NO. M-411-609-317

DESIGNED BY D. DISTANCE COUNTY MONTGOMERY  
DRAWN BY DCD LOGMILE 15041002.92  
CHECKED BY TIMS NO. 1617  
F.A.P. NO. TOD NO.

TS NO. 2138C DRAWING SG-01 OF 02 SHEET NO. 01 OF 02