

**PROJECT DESCRIPTION**

**I. GENERAL**  
 This project involves the modification of the existing traffic control signal at MD 169 and MD 170 in Anne Arundel County. This modification involves the installation of APS on the West and North legs and installation of APS and CPS on the East leg of the intersection. MD 170 is considered to run in a North-South direction.

**II. INTERSECTION OPERATION**  
 1. The intersection operates in a NEMA 4-phase, fully-actuated mode, with pushbutton activated pedestrian crossings for the East, West and North legs of the intersection.

**PUSHBUTTON OPERATION**

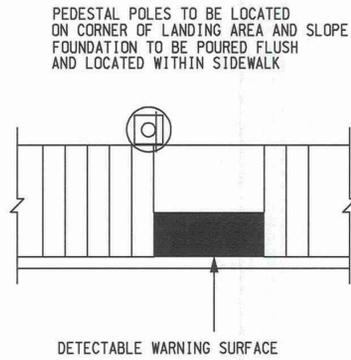
WEST LEG WAIT MESSAGE: WAIT TO CROSS WEST MAPLE AT CAMP MEADE  
 WEST LEG WALK MESSAGE: RAPID TICK  
 EAST LEG WAIT MESSAGE: WAIT TO CROSS CAMP MEADE AT EAST MAPLE  
 EAST LEG WALK MESSAGE: RAPID TICK  
 NORTH LEG WAIT MESSAGE: WAIT TO CROSS CAMP MEADE AT MAPLE  
 NORTH LEG WALK MESSAGE: RAPID TICK  
 SOUTH LEG WAIT MESSAGE: WAIT TO CROSS CAMP MEADE AT MAPLE  
 SOUTH LEG WALK MESSAGE: RAPID TICK

**NOTES**

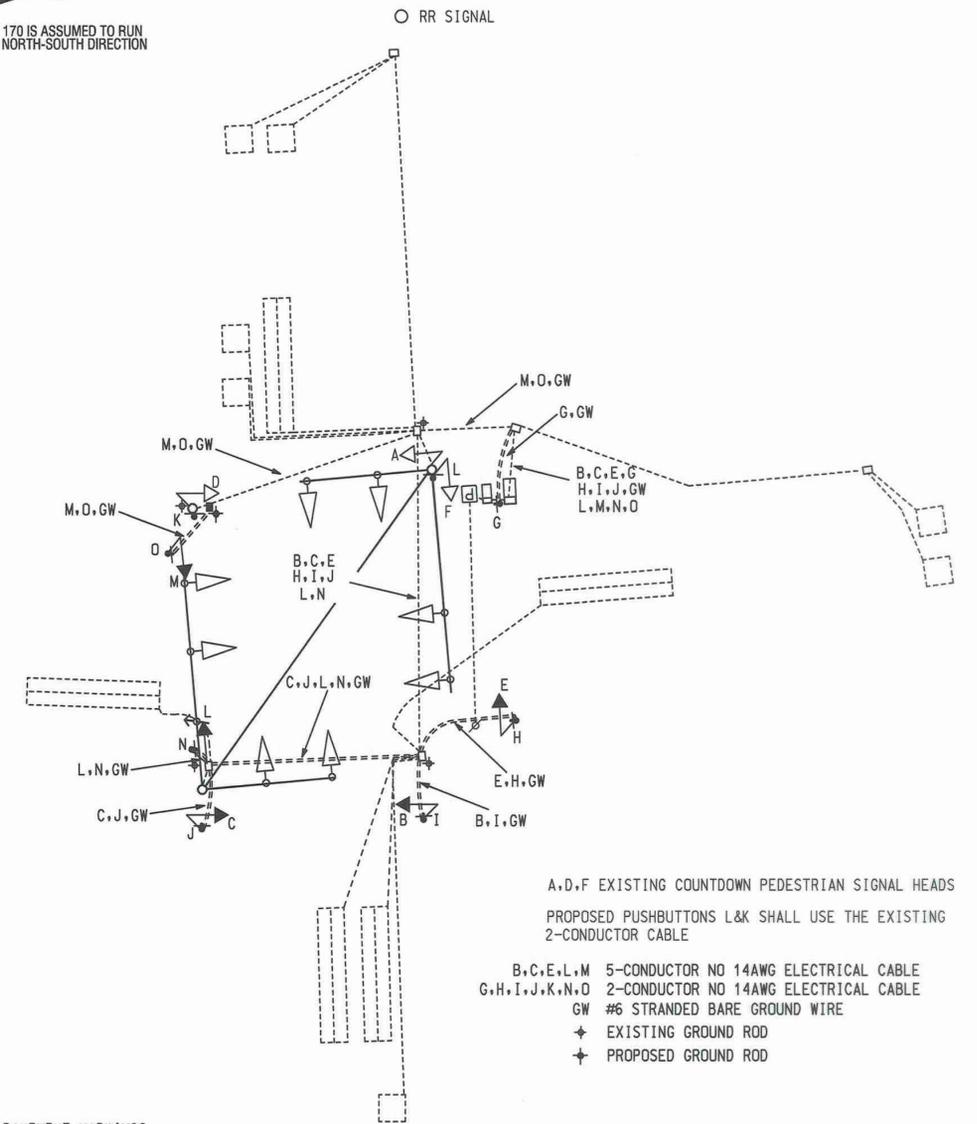
- All pavement markings shall be installed in accordance with Administration standards.
- The contractor shall be responsible for terminating all signal cable to the appropriate terminals and properly label each cable.
- All traffic signal foundations shall be installed at the final sidewalk or curb grade for closed sections, highest roadway profile grade for open sections, to meet clearances as specified in MD 816.03, MD 818.01, MD 818.02 and MD 818.04 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.
- Pushbuttons are to be located so that they can be activated by a person in a wheelchair from a 60"x 60" level landing area. A level landing area is an area with a cross slope of less than or equal to 2%.
- The 10' separation between pushbuttons is to be measured from the face of the pushbutton to the face of the pushbutton, not from the face of the pole to the face of the pole.
- The pushbuttons are to be located so that a person in a wheel chair located on the level landing area does not have to reach more than 18".
- The location of Accessible Pedestrian Signal Pushbuttons, must meet the location requirements of MUTCD Sec. 4E-09 and Figure 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 the conflict is resolved. If necessary a design waiver shall be obtained signed by the Director, Office of Traffic and Safety.
- Pushbuttons shall be installed parallel to the crosswalk for which they are intended.

**CONTACTS**

<b>DISTRICT</b>	<b>OFFICE OF TRAFFIC AND SAFETY</b>
MS. KIMBERLY TRAN ASSISTANT DISTRICT ENGINEER - TRAFFIC 1-410-841-1003	MR. RICHARD DAFF SR. CHIEF, TRAFFIC OPERATIONS 410-787-7630
MR. JOHN MAYS ASSISTANT DISTRICT ENGINEER - MAINTENANCE 1-410-841-1013	MR. ROBERT SNYDER ASSISTANT DIVISION CHIEF, TRAFFIC OPERATIONS 410-787-7630
MR. MIKE HUBER DISTRICT UTILITY ENGINEER 1-410-841-1039	MR. ED RODENHIZER TEAM LEADER SIGNAL OPERATIONS 410-787-7650
MR. JOHN GOVER SHA ADA COORDINATOR 410-545-8766	MR. EUGENE BAILEY TEAM LEADER SIGN OPERATIONS 410-787-7670
	MS. DARLENE EIDE SUPPLY OFFICER IV (SIGNAL SHOP WAREHOUSE) 410-787-7668



MD 170 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION



- A. EQUIPMENT TO BE SUPPLIED BY THE ADMINISTRATION**
- ~~9000 89.5 LF SHEET ALUMINUM SIGN POLE MOUNTED~~
  - ~~8 EA 36"X36" 51' SCHOOL STONS-FYG~~
  - ~~4 EA 24"X15" W46 7p(L) FYG~~
  - ~~4 EA 24"X15" W46 7p(R) FYG~~

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

ITEM #	QUANTITY	ITEM DESCRIPTION
1001	1 EA	MAINTENANCE OF TRAFFIC
3002	900 LF	SILT FENCE
5005	<del>4025 LF</del> 300 LF	12 INCH WHITE LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
6001	3 EA	RECONSTRUCTING EXISTING SIDEWALK RAMPS
6004	900 LF	STANDARD TYPE A COMBINATION CURB AND GUTTER 12" GUTTER PAN 8" DEPTH
6005	3600 SF	5 INCH CONCRETE SIDEWALK
6006	90 SF	DETECTABLE WARNING SURFACE FOR CURB RAMPS
8001	8 EA	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON
8002	6 EA	BREAKAWAY PEDESTAL POLE-ANY SIZE
8003	1 EA	FURNISH AND INSTALL 2-WIRE CONTROL UNIT
8005	8 EA	PEDESTRIAN EDUCATION SIGN
8007	1 EA	REMOVE AND DISPOSE PER ASSIGNMENT
8011	1 EA	ADJUST EXISTING HANDHOLE
8012	175 LF	NO 6 AWG STRANDED BARE COPPER GROUND WIRE
8013	75 LF	3 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
8016	32 SF	RELOCATE EXISTING GROUND MOUNTED SIGN
8018	1 EA	GROUND ROD-3/4" DIAMETER X 10' LENGTH
8020	810 LF	ELECTRICAL CABLE 2-CONDUCTOR NO 14AWG
8021	785 LF	ELECTRICAL CABLE 5-CONDUCTOR NO 14AWG
8024	40 LF	4 INCH SCHEDULE 80 RIGID PVC CONDUIT-SLOTTED

REDLINE REVISION 1 REMOVE SCHOOL CROSSINGS  
 APPROVED: \_\_\_\_\_ DATE \_\_\_\_\_

APPROVALS	REVISIONS
TEAM LEADER	ADD APS ACROSS NORTH AND WEST LEGS ADD APS/CPS ACROSS EAST AND SOUTH LEG MAY, 2010 AX0705188
ASST. DIV. CHIEF	CJS AS BUILT FOR UPS INSTALLATION 05/2009
DIVISION CHIEF	SWA D ADD OPTICOM DETECTOR FOR NORTHBOUND MD 170 SHA NO. AT7825185 10/2005
OFFICE DIRECTOR	SV SDV

A,D,F EXISTING COUNTDOWN PEDESTRIAN SIGNAL HEADS  
 PROPOSED PUSHBUTTONS L&K SHALL USE THE EXISTING 2-CONDUCTOR CABLE  
 B,C,E,L,M 5-CONDUCTOR NO 14AWG ELECTRICAL CABLE  
 G,H,I,J,K,N,O 2-CONDUCTOR NO 14AWG ELECTRICAL CABLE  
 GW #6 STRANDED BARE GROUND WIRE  
 † EXISTING GROUND ROD  
 † PROPOSED GROUND ROD

**GEOMETRIC LEGEND**  
 = = = = = EXISTING

**UTILITY LEGEND**

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

**SHA** STATE OF MARYLAND  
 DEPARTMENT OF TRANSPORTATION  
 STATE HIGHWAY ADMINISTRATION  
 OFFICE OF TRAFFIC & SAFETY  
 TRAFFIC ENGINEERING DESIGN DIVISION  
 MD 169 (MAPLE ROAD) AT MD 170 (CAMP MEADE ROAD)  
 LINTHICUM, MARYLAND

**GENERAL INFORMATION SHEET**

SCALE: NA ADVERTISED DATE: MAY, 2010 CONTRACT NO.: AA-242-501-585

DESIGNED BY: C STRAIN COUNTY: ANNE ARUNDEL  
 DRAWN BY: C STRAIN LOGMILE: 02017009.85  
 CHECKED BY: D DQDA TIMS NO.: J323  
 F.A.P. NO.: TOD NO.:

TS NO. 1608 F DRAWING OF SHEET NO. 3 OF 3

BY: \$USER\$NAME\$