



- CONSTRUCTION DETAILS**
- INSTALL CONCRETE FOUNDATION WITH A 16.5 FT. (15'-0" T) STEEL POLE WITH A TWIN 50 FT. (CUT TO 30 FT. / 50 FT. MAST ARMS, TRAFFIC SIGNAL HEADS AND SIGNS (INSTALL 1-2 IN. AND 1-4 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BENDS IN POLE BASE).
  - INSTALL CONCRETE FOUNDATION WITH A TWIN 50 FT. STEEL POLE WITH A TWIN 50 FT. (CUT TO 40 FT. / 70 FT. MAST ARMS, TRAFFIC SIGNAL HEADS, VIDEO DETECTION CAMERAS MOUNTED ON MAST ARMS AND SIGNS. (INSTALL 1-2 IN. AND 1-4 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BENDS IN POLE BASE).
  - INSTALL CONCRETE FOUNDATION WITH 10 FT. STEEL PEDESTAL POLE WITH MODIFIED BREAKAWAY BASE STANDARD NO. MD 801.01-01, COUNTDOWN PEDESTRIAN SIGNAL HEAD, AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON INSTALLED WITH VIBRATING ARROW POINTING LEFT AND R10-3(1) SIGN. (SIGN TO READ "PUSH BUTTON TO CROSS NEW HAMPSHIRE AVE."). (INSTALL 1-2 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BEND IN PEDESTAL BASE).
  - INSTALL CONCRETE FOUNDATION WITH 10 FT. STEEL PEDESTAL POLE WITH MODIFIED BREAKAWAY BASE STANDARD NO. MD 801.01-01, COUNTDOWN PEDESTRIAN SIGNAL HEAD, AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON INSTALLED WITH VIBRATING ARROW POINTING RIGHT AND R10-3(1) SIGN. (SIGN TO READ "PUSH BUTTON TO CROSS SLIGO CREEK PARKWAY"). (INSTALL 1-2 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BEND IN PEDESTAL BASE).
  - INSTALL 10 FT. STEEL PEDESTAL POLE (SEE BRIDGE STRUCTURE SHEET S1-17 FOR BRIDGE DECK ATTACHMENT DETAILS) WITH MODIFIED BREAKAWAY BASE STANDARD 801.01-01, COUNTDOWN PEDESTRIAN SIGNAL HEAD, AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON INSTALLED WITH VIBRATING ARROW POINTING LEFT AND R10-3(1) SIGN. (SIGN TO READ "PUSH BUTTON TO CROSS SLIGO CREEK PKWY"). (INSTALL 1-2 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BEND IN PEDESTAL BASE).
  - INSTALL 10 FT. STEEL PEDESTAL POLE (SEE BRIDGE STRUCTURE SHEET S1-17 FOR BRIDGE DECK ATTACHMENT DETAILS) COUNTDOWN PEDESTRIAN SIGNAL HEAD, AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON INSTALLED WITH VIBRATING ARROW POINTING RIGHT AND R10-3(1) SIGN. (SIGN TO READ "PUSH BUTTON TO CROSS NEW HAMPSHIRE AVE"). (INSTALL 1-2 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BEND IN PEDESTAL BASE).
  - INSTALL 2 IN. SCHEDULE 80 PVC ELECTRICAL CONDUIT - TRENCHED.
  - INSTALL 3 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - TRENCHED.
  - INSTALL 4 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - TRENCHED.
  - INSTALL 2 IN. SCHEDULE 80 PVC ELECTRICAL CONDUIT - TRENCHED.
  - INSTALL 4 IN. SCHEDULE 80, POLYVINYL CHLORIDE ELECTRICAL CONDUIT FOR PROPOSED UNDERGROUND ELECTRICAL SERVICE. CAP AND MARK CONDUIT 2 FT. ABOVE GRADE AT UTILITY POLE FOR USE BY PEPCO FORCES.
  - INSTALL 2 IN. SCHEDULE 80 PVC ELECTRICAL CONDUIT - TRENCHED FOR PROPOSED UNDERGROUND ELECTRICAL SERVICE.
  - INSTALL 2 IN. SCHEDULE 80 PVC ELECTRICAL CONDUIT - TRENCHED FOR PROPOSED UNDERGROUND TELEPHONE SERVICE.
  - INSTALL 4 IN. WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING FOR CROSSWALKS.
  - INSTALL 24 IN. HEAT APPLIED, WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING FOR STOP LINE.
  - CUT, CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE.
  - INSTALL PROPOSED SIGN ON PERFORATED SQUARE TUBULAR STEEL SUPPORT.
  - USE PROPOSED CONDUIT INSTALLED IN BRIDGE PARAPET FOR SIGNAL CABLE ROUTING. \*INSTALL 3 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - TRENCHED. (CONDUIT SHALL BE INSTALLED PRIOR TO INSTALLATION OF BRIDGE SIDEWALK).
  - INSTALL 2 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - TRENCHED. (CONDUIT SHALL BE INSTALLED PRIOR TO INSTALLATION OF BRIDGE SIDEWALK).
  - INSTALL MICROLOOP PROBE SET WITH 1,000 FT. LEAD-IN (TO BE PLACED IN THRU LANE ONLY).
  - INSTALL 1 IN. LIQUID-TIGHT FLEXIBLE NON-METALLIC ELECTRICAL CONDUIT. (FOR DETECTOR WIRE SLEEVE)

- GENERAL NOTES**
- 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 VERIFY ALL UNDERGROUND UTILITIES PRIOR TO INSTALLING PROPOSED SIGNAL EQUIPMENT. IF ANY UTILITY CONFLICTS SHOULD ARISE THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER.
  - VIDEO CAMERA LOCATION / ALIGNING SHALL BE COORDINATED WITH THE SHA ENGINEER.
  - THE CONTRACTOR SHALL VERIFY ALL PROPOSED POLE AND CABINET LOCATIONS PRIOR TO INSTALLATION.
  - EXISTING VIDEO DETECTION CAMERAS REMOVED SHALL BE RETURNED TO SHA. ALL OTHER EXISTING TRAFFIC SIGNAL EQUIPMENT REMOVED SHALL BECOME THE PROPERTY OF THE SIGNAL CONTRACTOR UPON COMPLETION OF THE NEW SIGNAL.
  - THE CONTRACTOR SHALL BE RESPONSIBLE FOR TERMINATING ALL SIGNAL CABLES TO THE APPROPRIATE TERMINALS AND PROPERLY LABEL EACH CABLE.
  - REMOVE AND DISPOSE OF ALL UNUSED SIGNAL CABLE.
  - THE CONTRACTOR SHALL NOT CUT MAST ARM AS INDICATED ON PLANS UNTIL MAST ARM POLE LOCATION IS FINALIZED.
  - 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' SEPARATION BETWEEN PUSHBUTTONS IS TO BE MEASURED FROM FACE OF PUSHBUTTON TO FACE OF PUSHBUTTON, NOT CENTER TO CENTER OF POLES.
  - 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.

**GENERAL NOTES CONT.**

- SPECIAL NOTES:**
- CONTRACTOR SHALL USE CAUTION WHEN INSTALLING SIGNAL EQUIPMENT TO AVOID DISTURBANCE OF EXISTING UNDERGROUND UTILITIES. CONTRACTOR SHALL TEST PIT TO DETERMINE EXACT LOCATION AND DEPTH OF UNDERGROUND UTILITIES PRIOR TO INSTALLING SIGNAL EQUIPMENT.
  - CONTRACTOR SHALL INSTALL CONDUIT AT SUFFICIENT DEPTH TO AVOID DISTURBANCE DURING ROADWAY CONSTRUCTION. CONDUIT SHALL BE INSTALLED PRIOR TO BEGINNING ROADWAY CONSTRUCTION.
  - THE CONTRACTOR SHALL COORDINATE WITH SHA TRAFFIC OPERATION DIVISION TO CONTACT LOCAL POWER COMPANY TO SET-UP WORK WITH TO DISCONNECT THE EXISTING ELECTRICAL SERVICE AND HAVE THE NEW SERVICE ENERGIZED.

REDLINE NO. 1  
DELETED SHEET

**GEOMETRIC LEGEND**

---	EXISTING
---	PROPOSED

**UTILITY LEGEND**

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

**APPROVALS**

TEAM LEADER	
ASST. DIR. CHIEF	
DIRECTOR CHIEF	
OFFICE DIRECTOR	

**REVISIONS**

RECONSTRUCTION OF TRAFFIC SIGNAL DUE TO BRIDGE DECK REPLACEMENT	CONTRACT NO. MD4235180
REMOVAL OF TRAFFIC SIGNAL DUE TO BRIDGE DECK REPLACEMENT	CONTRACT NO. MD4235180
SIGNAL RECONSTRUCTION	CONTRACT NO. AT6045185
DATE	11/15/04

**TRAFFIC SIGNALIZATION PLAN - ULTIMATE**

SCALE: 1" = 20' ADVERTISED DATE: 9/20/12 CONTRACT NO.: MD4235180

DESIGNED BY: J. Spence COUNTY: MONTGOMERY

DRAWN BY: J. Spence LOGMILE

CHECKED BY: N/A TMS NO.: 6713

F.A.P. NO.: SEE TITLE SHEET TOD NO.:

TS NO. 373-E DRAWING TSP-2 OF 3 SHEET NO. 44 OF 72

**WR&A**  
WHITMAN, REQUARDT & ASSOCIATES, LLP  
801 South Caroline Street, Baltimore, Maryland 21231

**SHA** STATE OF MARYLAND  
DEPARTMENT OF TRANSPORTATION  
STATE HIGHWAY ADMINISTRATION  
OFFICE OF TRAFFIC & SAFETY  
TRAFFIC ENGINEERING DESIGN DIVISION  
DECK REPLACEMENT AND SUBSTRUCTURE REHABILITATION  
STEEL BEAM BRIDGE NO. 1501300  
ON MD 650 (NEW HAMPSHIRE AVENUE)  
OVER SLIGO CREEK