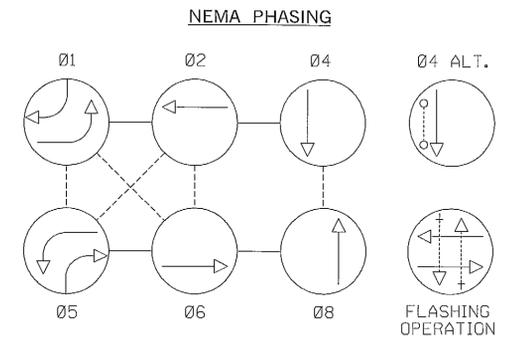
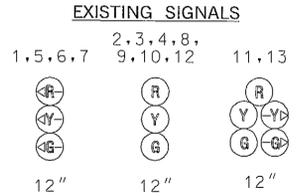
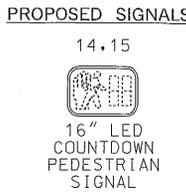
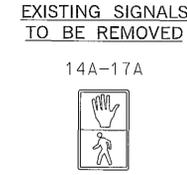
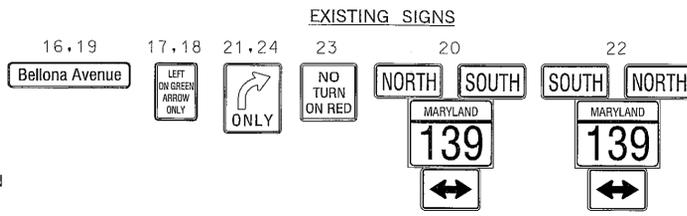
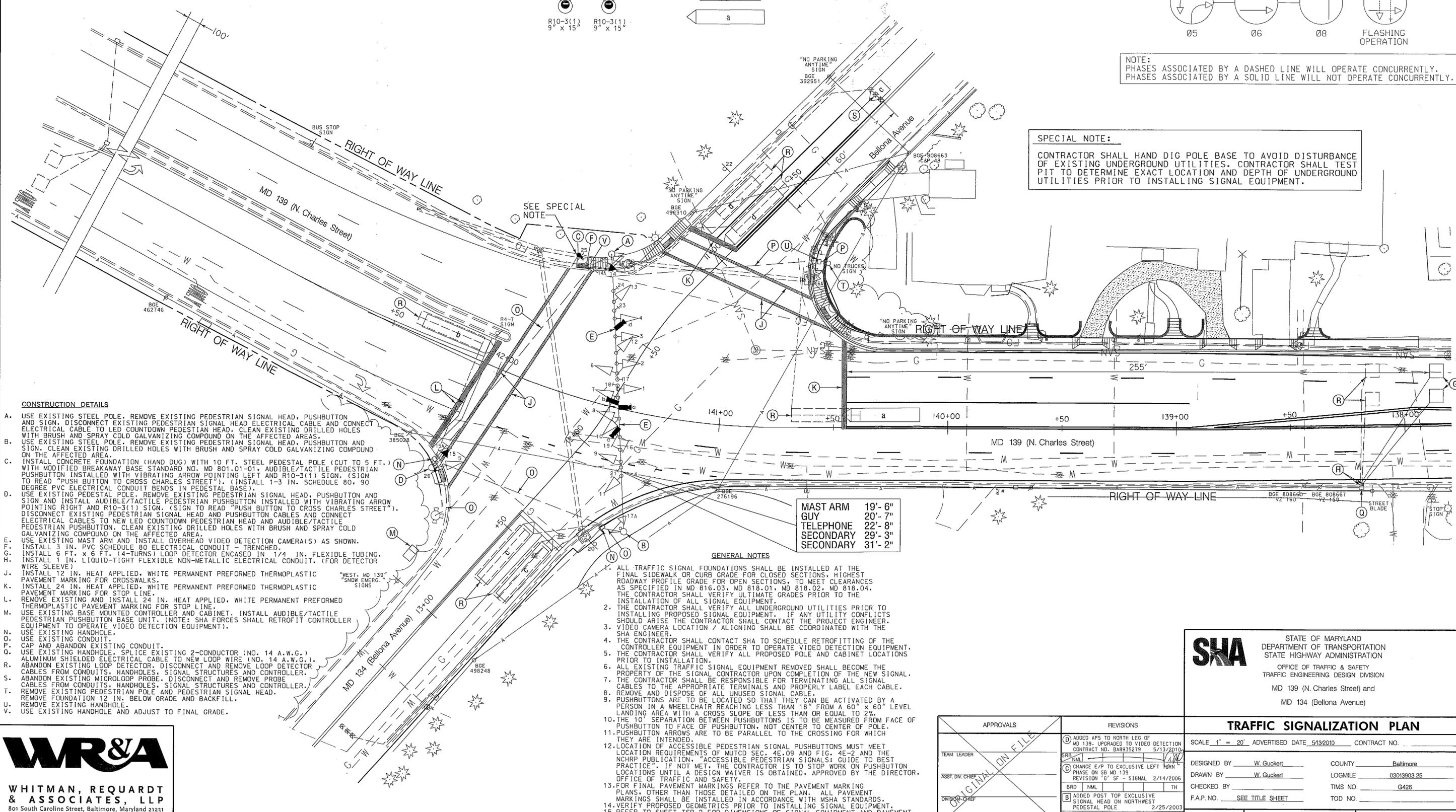


MD 139 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION



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

SPECIAL NOTE:
CONTRACTOR SHALL HAND DIG POLE BASE 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.



CONSTRUCTION DETAILS

- A. USE EXISTING STEEL POLE. REMOVE EXISTING PEDESTRIAN SIGNAL HEAD, PUSHBUTTON AND SIGN. DISCONNECT EXISTING PEDESTRIAN SIGNAL HEAD ELECTRICAL CABLE AND CONNECT ELECTRICAL CABLE TO LED COUNTDOWN PEDESTRIAN HEAD. CLEAN EXISTING DRILLED HOLES WITH BRUSH AND SPRAY COLD GALVANIZING COMPOUND ON THE AFFECTED AREAS.
- B. USE EXISTING STEEL POLE. REMOVE EXISTING PEDESTRIAN SIGNAL HEAD, PUSHBUTTON AND SIGN. CLEAN EXISTING DRILLED HOLES WITH BRUSH AND SPRAY COLD GALVANIZING COMPOUND ON THE AFFECTED AREA.
- C. INSTALL CONCRETE FOUNDATION (HAND DUG) WITH 10 FT. STEEL PEDESTAL POLE (CUT TO 5 FT.) WITH MODIFIED BREAKAWAY BASE STANDARD NO. MD 801.01-01, AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON INSTALLED WITH VIBRATING ARROW POINTING LEFT AND R10-3(1) SIGN. (SIGN TO READ "PUSH BUTTON TO CROSS CHARLES STREET"). (INSTALL 1-3 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BENDS IN PEDESTAL BASE).
- D. USE EXISTING PEDESTAL POLE. REMOVE EXISTING PEDESTRIAN SIGNAL HEAD, PUSHBUTTON AND SIGN AND INSTALL AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON INSTALLED WITH VIBRATING ARROW POINTING RIGHT AND R10-3(1) SIGN. (SIGN TO READ "PUSH BUTTON TO CROSS CHARLES STREET"). DISCONNECT EXISTING PEDESTRIAN SIGNAL HEAD AND PUSHBUTTON CABLES AND CONNECT ELECTRICAL CABLES TO NEW LED COUNTDOWN PEDESTRIAN HEAD AND AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON. CLEAN EXISTING DRILLED HOLES WITH BRUSH AND SPRAY COLD GALVANIZING COMPOUND ON THE AFFECTED AREA.
- E. USE EXISTING MAST ARM AND INSTALL OVERHEAD VIDEO DETECTION CAMERA(S) AS SHOWN.
- F. INSTALL 3 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - TRENCHED.
- G. INSTALL 6 FT. x 6 FT. (4-TURNS) LOOP DETECTOR ENCASED IN 1/4 IN. FLEXIBLE TUBING.
- H. INSTALL 1 IN. LIQUID-TIGHT FLEXIBLE NON-METALLIC ELECTRICAL CONDUIT. (FOR DETECTOR WIRE SLEEVE)
- J. INSTALL 12 IN. HEAT APPLIED, WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING FOR CROSSWALKS.
- K. INSTALL 24 IN. HEAT APPLIED, WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING FOR STOP LINE.
- L. REMOVE EXISTING AND INSTALL 24 IN. HEAT APPLIED, WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING FOR STOP LINE.
- M. USE EXISTING BASE MOUNTED CONTROLLER AND CABINET. INSTALL AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON BASE UNIT. (NOTE: SHA FORCES SHALL RETROFIT CONTROLLER EQUIPMENT TO OPERATE VIDEO DETECTION EQUIPMENT).
- N. USE EXISTING HANDHOLE.
- O. USE EXISTING CONDUIT.
- P. CAP AND ABANDON EXISTING CONDUIT.
- Q. USE EXISTING HANDHOLE. SPLICE EXISTING 2-CONDUCTOR (NO. 14 A.W.G.) ALUMINUM SHIELDED ELECTRICAL CABLE TO NEW LOOP WIRE (NO. 14 A.W.G.).
- R. ABANDON EXISTING LOOP DETECTOR. DISCONNECT AND REMOVE LOOP DETECTOR CABLES FROM CONDUITS, HANDHOLES, SIGNAL STRUCTURES AND CONTROLLER.
- S. ABANDON EXISTING MICROLOOP PROBE. DISCONNECT AND REMOVE PROBE CABLES FROM CONDUITS, HANDHOLES, SIGNAL STRUCTURES AND CONTROLLER.
- T. REMOVE EXISTING PEDESTRIAN POLE AND PEDESTRIAN SIGNAL HEAD. REMOVE FOUNDATION 12 IN. BELOW GRADE AND BACKFILL.
- U. REMOVE EXISTING HANDHOLE.
- V. USE EXISTING HANDHOLE AND ADJUST TO FINAL GRADE.

MAST ARM	19'-6"
GUY	20'-7"
TELEPHONE	22'-8"
SECONDARY	29'-3"
SECONDARY	31'-2"

GENERAL NOTES

1. 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.
2. 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.
3. VIDEO CAMERA LOCATION / ALIGNING SHALL BE COORDINATED WITH THE SHA ENGINEER.
4. THE CONTRACTOR SHALL CONTACT SHA TO SCHEDULE RETROFITTING OF THE CONTROLLER EQUIPMENT IN ORDER TO OPERATE VIDEO DETECTION EQUIPMENT.
5. THE CONTRACTOR SHALL VERIFY ALL PROPOSED POLE AND CABINET LOCATIONS PRIOR TO INSTALLATION.
6. ALL EXISTING TRAFFIC SIGNAL EQUIPMENT REMOVED SHALL BECOME THE PROPERTY OF THE SIGNAL CONTRACTOR UPON COMPLETION OF THE NEW SIGNAL.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TERMINATING ALL SIGNAL CABLES TO THE APPROPRIATE TERMINALS AND PROPERLY LABEL EACH CABLE.
8. REMOVE AND DISPOSE OF ALL UNUSED SIGNAL CABLE.
9. 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%.
10. THE 10" SEPARATION BETWEEN PUSHBUTTONS IS TO BE MEASURED FROM FACE OF PUSHBUTTON TO FACE OF PUSHBUTTON, NOT CENTER TO CENTER OF POLE.
11. PUSHBUTTON ARROWS ARE TO BE PARALLEL TO THE CROSSING FOR WHICH THEY ARE INTENDED.
12. 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.
13. FOR FINAL PAVEMENT MARKINGS REFER TO THE PAVEMENT MARKING PLANS, OTHER THAN THOSE DETAILED ON THE PLAN. ALL PAVEMENT MARKINGS SHALL BE INSTALLED IN ACCORDANCE WITH MSHA STANDARDS.
14. VERIFY PROPOSED GEOMETRICS PRIOR TO INSTALLING SIGNAL EQUIPMENT.
15. REFER TO SHEET TSP-2 FOR DIMENSIONS OF SIGNAL EQUIPMENT AND PAVEMENT MARKINGS WITHIN INTERSECTION.

WR&A
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BY: sbloss

SHA STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION
MD 139 (N. Charles Street) and
MD 134 (Bellona Avenue)

APPROVALS		REVISIONS		TRAFFIC SIGNALIZATION PLAN			
<p>ORIGINAL ON FILE</p>		<p>① ADDED APS TO NORTH LEG OF MD 139. UPGRADED TO VIDEO DETECTION CONTRACT NO. B4835219 5/13/2010</p>		SCALE 1" = 20' ADVERTISED DATE 5/13/2010 CONTRACT NO. _____			
		<p>② CHANGED E/P TO EXCLUSIVE LEFT TURN PHASE ON SB MD 139</p>		DESIGNED BY W. Guckert COUNTY Baltimore			
		<p>REVISION 'G' SF - SIGNAL 2/14/2006</p>		DRAWN BY W. Guckert LOGMILE 03013803.25			
		<p>③ ADDED POST TOP EXCLUSIVE SIGNAL HEAD ON NORTHWEST PEDESTAL POLE 2/25/2003</p>		CHECKED BY _____ TMS NO. G426			
		<p>_____ OFFICE DIRECTOR</p>		<p>_____</p>		F.A.P. NO. SEE TITLE SHEET TOD NO. _____	
				TS NO. 1824 D DRAWING TSP-1 OF 3 SHEET NO. OF _____			

PLOTTED: 05-19-2010
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