MD 924 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION

EXISTING SIGNS TO REMAIN

13 — Holly Wreath RD ⇨ — D-3(1) (VAR.x16")

15 — Holly Wreath CT ⇨ — D-3(1) (VAR.x16")

14 — ⇦ Holly Wreath CT — D-3(1) (VAR.x16")

17 — ⇦ Holly Wreath RD — D-3(1) (VAR.x16")

EXISTING SIGN TO BE RELOCATED

19 — R4-7 (24"x30")

EXISTING SIGNS TO BE REMOVED

14A,17A — LEFT TURN YIELD ON GREEN — R10-12 (30"x36")

16A,18A — PUSH BUTTON TO CROSS EMMORTON ROAD — R10-3(1) 9" x 12"

PROPOSED SIGNS

16 — PUSH BUTTON TO CROSS EMMORTON ROAD — STREET NAME SMALLE TYPE 2 — R10-3(1) 9" x 15"

18 — PUSH BUTTON TO CROSS EMMORTON ROAD — STREET NAME SMALLE TYPE 1 — R10-3(1) 9" x 15"

EXISTING SIGNALS TO REMAIN

1,4 — 12"/8"

2,5 — 12"

3,6,7 8,9,10 — 12"

11,12 — 16" LED COUNTDOWN PEDESTRIAN SIGNAL

NEMA PHASING

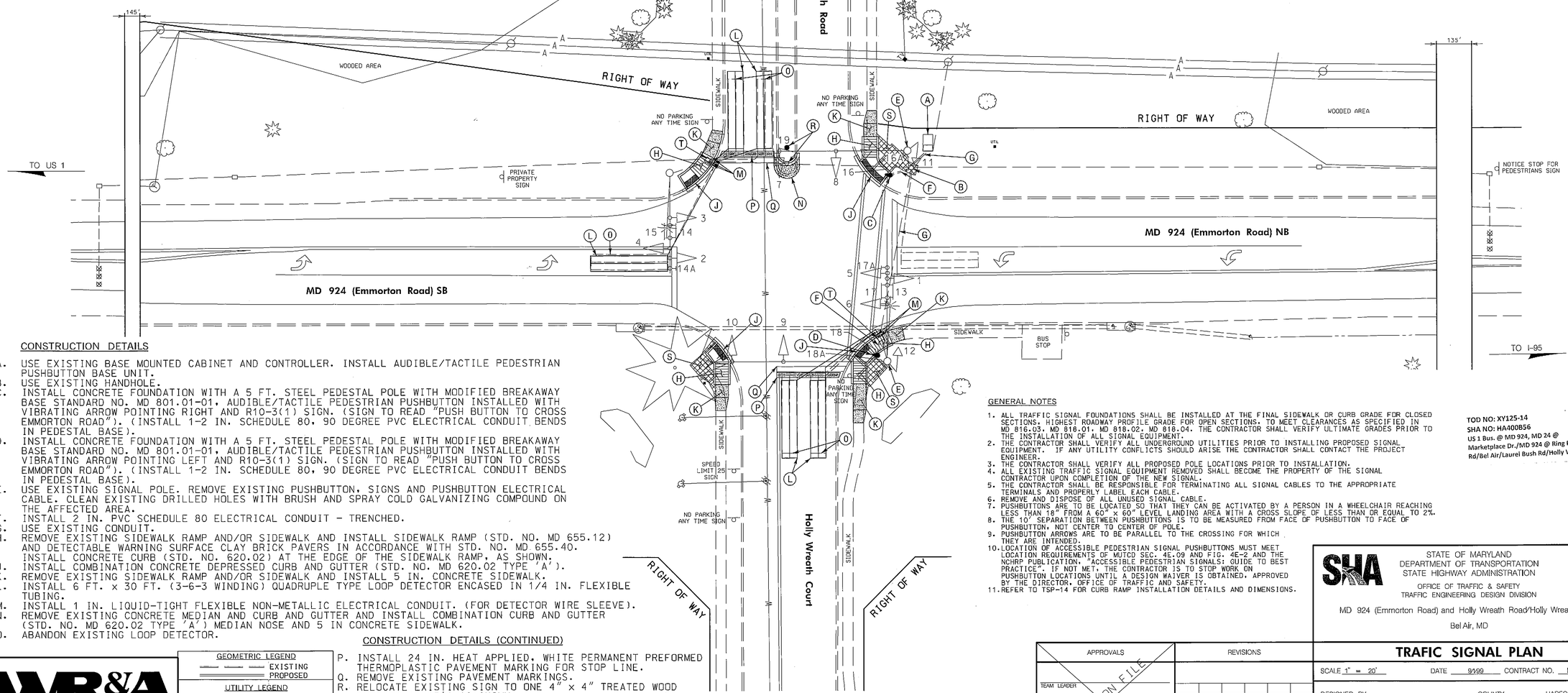
Ø1 Ø2 Ø4

Ø5 Ø6 Ø8

FLASHING OPERATION

Ø4 & Ø8 ALT.

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



CONSTRUCTION DETAILS

A. USE EXISTING BASE MOUNTED CABINET AND CONTROLLER. INSTALL AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON BASE UNIT.
B. USE EXISTING HANDHOLE.
C. INSTALL CONCRETE FOUNDATION WITH A 5 FT. STEEL PEDESTAL POLE WITH MODIFIED BREAKAWAY BASE STANDARD NO. MD 801.01-01, AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON INSTALLED WITH VIBRATING ARROW POINTING RIGHT AND R10-3(1) SIGN. (SIGN TO READ "PUSH BUTTON TO CROSS EMMORTON ROAD"). (INSTALL 1-2 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BENDS IN PEDESTAL BASE).
D. INSTALL CONCRETE FOUNDATION WITH A 5 FT. STEEL PEDESTAL POLE 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 EMMORTON ROAD"). (INSTALL 1-2 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BENDS IN PEDESTAL BASE).
E. USE EXISTING SIGNAL POLE. REMOVE EXISTING PUSHBUTTON, SIGNS AND PUSHBUTTON ELECTRICAL CABLE. CLEAN EXISTING DRILLED HOLES WITH BRUSH AND SPRAY COLD GALVANIZING COMPOUND ON THE AFFECTED AREA.
F. INSTALL 2 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - TRENCHED.
G. USE EXISTING CONDUIT.
H. REMOVE EXISTING SIDEWALK RAMP AND/OR SIDEWALK AND INSTALL SIDEWALK RAMP (STD. NO. MD 655.12) AND DETECTABLE WARNING SURFACE CLAY BRICK PAVERS IN ACCORDANCE WITH STD. NO. MD 655.40. INSTALL CONCRETE CURB (STD. NO. 620.02) AT THE EDGE OF THE SIDEWALK RAMP, AS SHOWN.
J. INSTALL COMBINATION CONCRETE DEPRESSED CURB AND GUTTER (STD. NO. MD 620.02 TYPE 'A').
K. REMOVE EXISTING SIDEWALK RAMP AND/OR SIDEWALK AND INSTALL 5 IN. CONCRETE SIDEWALK.
L. INSTALL 6 FT. x 30 FT. (3-6-3 WINDING) QUADRUPLE TYPE LOOP DETECTOR ENCASED IN 1/4 IN. FLEXIBLE TUBING.
M. INSTALL 1 IN. LIQUID-TIGHT FLEXIBLE NON-METALLIC ELECTRICAL CONDUIT. (FOR DETECTOR WIRE SLEEVE).
N. REMOVE EXISTING CONCRETE MEDIAN AND CURB AND GUTTER AND INSTALL COMBINATION CURB AND GUTTER (STD. NO. MD 620.02 TYPE 'A') MEDIAN NOSE AND 5 IN CONCRETE SIDEWALK.
O. ABANDON EXISTING LOOP DETECTOR.

CONSTRUCTION DETAILS (CONTINUED)

P. INSTALL 24 IN. HEAT APPLIED, WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING FOR STOP LINE.
Q. REMOVE EXISTING PAVEMENT MARKINGS.
R. RELOCATE EXISTING SIGN TO ONE 4" x 4" TREATED WOOD SUPPORT (L=15') AS SHOWN.
S. REMOVE EXISTING SIDEWALK, BACKFILL, SEED AND MULCH.
T. 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.). ADJUST TO FINAL GRADE.

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. THE CONTRACTOR SHALL VERIFY ALL PROPOSED POLE LOCATIONS PRIOR TO INSTALLATION.
4. ALL EXISTING TRAFFIC SIGNAL EQUIPMENT REMOVED SHALL BECOME THE PROPERTY OF THE SIGNAL CONTRACTOR UPON COMPLETION OF THE NEW SIGNAL.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TERMINATING ALL SIGNAL CABLES TO THE APPROPRIATE TERMINALS AND PROPERLY LABEL EACH CABLE.
6. REMOVE AND DISPOSE OF ALL UNUSED SIGNAL CABLE.
7. 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%.
8. THE 10' SEPARATION BETWEEN PUSHBUTTONS IS TO BE MEASURED FROM FACE OF PUSHBUTTON TO FACE OF PUSHBUTTON, NOT CENTER TO CENTER OF POLE.
9. PUSHBUTTON ARROWS ARE TO BE PARALLEL TO THE CROSSING FOR WHICH THEY ARE INTENDED.
10. 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.
11. REFER TO TSP-14 FOR CURB RAMP INSTALLATION DETAILS AND DIMENSIONS.

TOD NO: XY125-14
SHA NO: HA400B56
US 1 Bus. @ MD 924, MD 24 @ Marketplace Dr./MD 924 @ Ring Factory Rd/Bel Air/Laurel Bush Rd/Holly Wreath

TSP-13

SHA
STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION

MD 924 (Emmorton Road) and Holly Wreath Road/Holly Wreath Court
Bel Air, MD

TRAFIC SIGNAL PLAN

SCALE 1" = 20' | DATE 9/99 | CONTRACT NO. HA188A551B55

DESIGNED BY | COUNTY HARFORD
DRAWN BY RJM | LOGMILE 12092401.71
CHECKED BY AJB | TIMS NO. D-245
F.A.P. NO. | TOD NO.

TS NO. 3946A | DRAWING TSP-13 OF 15 | SHEET NO. 13 OF 15

APPROVALS: TEAM LEADER / ASST. DIV. CHIEF / DIVISION CHIEF / OFFICE DIRECTOR — ORIGINAL ON FILE

REVISIONS
A. INSTALL APS, CPS AND ADA COMPLIANT CURB RAMPS — TIMS NO. L646 — 10/02/2012 — JBS — NAL

PLOTTED: October 02, 2012
FILE: W:\31669-SHA\CADD\pSG-PD01_MD924_Holly.dgn

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

BY: jcheng

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