MD 144 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION

SIGNAL HEADS

1-6,8,9: 12" LED (R, Y, G)

7: 8" LED (R, Y, G)

10-11: 16" LED COUNTDOWN PEDESTRIAN SIGNAL

18: R10-3(1) 9" x 15"

19: R10-3(1) 9" x 15"

SIGNS

12: Prospect AVE

15: Prospect AVE — D-3(1) (DUAL FACED) (VARIABLE X16")

16,17: Frederick RD — D-3(1) (DUAL FACED) (VARIABLE X16")

13: R3-1 (30"x30")

14: R3-2 (30"x30")

PROPOSED VIDEO DETECTION CAMERA

a,b

VIDEO ZONE DETECTION

a

SPECIAL NOTES:

1. THE CONTRACTOR SHALL NOT BLOCK VIEW OF EXISTING SIGNAL INDICATIONS DURING INSTALLATION OF MAST ARM. IF NEW MAST ARM CANNOT BE INSTALLED DUE TO CONFLICT WITH EXISTING SIGNAL INDICATIONS OR SPAN WIRES, A SIGNAL OUTAGE SHALL OCCUR DURING NON-PEAK HOURS AS DIRECTED BY THE ENGINEER.
2. 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.

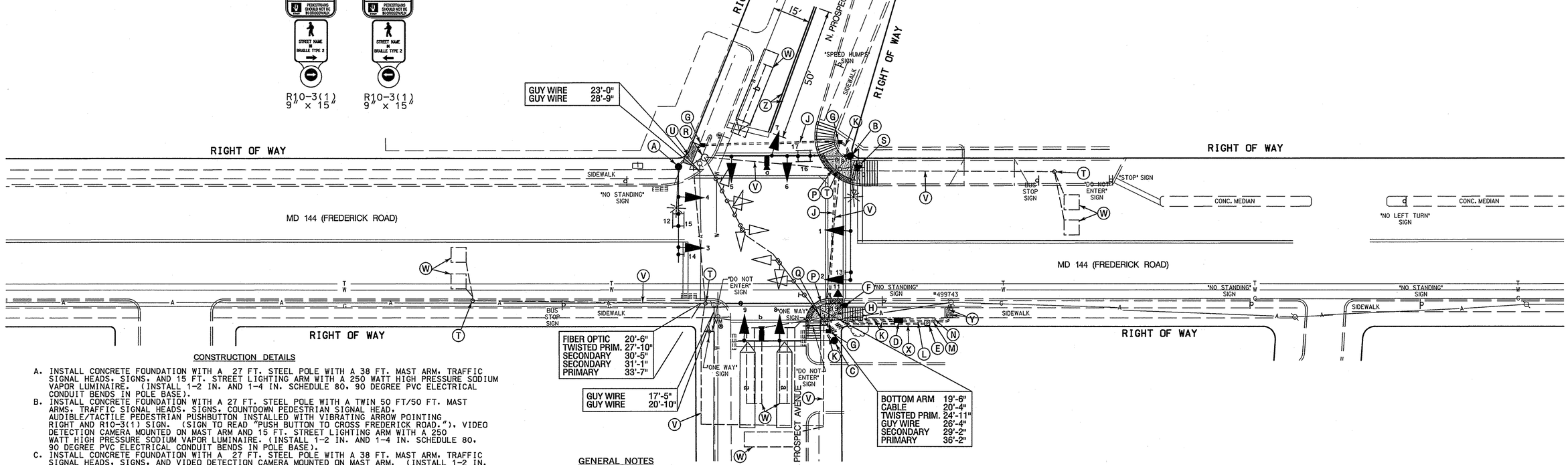
NEMA PHASING

02 04 06 08

FLASHING OPERATION

04 + 08 ALT.

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



CONSTRUCTION DETAILS

A. INSTALL CONCRETE FOUNDATION WITH A 27 FT. STEEL POLE WITH A 38 FT. MAST ARM, TRAFFIC SIGNAL HEADS, SIGNS, AND 15 FT. STREET LIGHTING ARM WITH A 250 WATT HIGH PRESSURE SODIUM VAPOR LUMINAIRE. (INSTALL 1-2 IN. AND 1-4 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BENDS IN POLE BASE).
B. INSTALL CONCRETE FOUNDATION WITH A 27 FT. STEEL POLE WITH A TWIN 50 FT/50 FT. MAST ARMS, TRAFFIC SIGNAL HEADS, SIGNS, 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 FREDERICK ROAD."), VIDEO DETECTION CAMERA MOUNTED ON MAST ARM AND 15 FT. STREET LIGHTING ARM WITH A 250 WATT HIGH PRESSURE SODIUM VAPOR LUMINAIRE. (INSTALL 1-2 IN. AND 1-4 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BENDS IN POLE BASE).
C. INSTALL CONCRETE FOUNDATION WITH A 27 FT. STEEL POLE WITH A 38 FT. MAST ARM, TRAFFIC SIGNAL HEADS, SIGNS, AND VIDEO DETECTION CAMERA MOUNTED ON MAST ARM. (INSTALL 1-2 IN. AND 1-4 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BENDS IN POLE BASE).
D. INSTALL NEMA SIZE "6" BASE MOUNTED CONTROLLER AND CABINET UTILIZING SIDEWALK AS CONCRETE PAD (INSTALL 2-2 IN. AND 2-4 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BENDS IN CABINET BASE.)
E. INSTALL EMBEDDED BASE MOUNTED METERED SERVICE PEDESTAL WITH 2-2 IN. AND 1-4 IN. SCHEDULE 80, 90 DEGREE PVC CONDUIT BENDS IN PEDESTAL BASE.
F. INSTALL CONCRETE FOUNDATION WITH 10 FT. STEEL PEDESTAL POLE (CUT TO 5 FT.) WITH BREAKAWAY BASE, AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON INSTALLED WITH VIBRATING ARROW POINTING LEFT AND R10-3(1) SIGN. (SIGN TO READ: "PUSH BUTTON TO CROSS FREDERICK ROAD"). (INSTALL 1-3 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BEND IN PEDESTAL BASE).
G. INSTALL HANDHOLE.
H. INSTALL 3 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - TRENCHED.
J. INSTALL 4 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - SLOTTED.
K. INSTALL 4 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - TRENCHED.
L. INSTALL 2 IN. SCHEDULE 80, PVC ELECTRICAL CONDUIT - TRENCHED FOR PROPOSED UNDERGROUND ELECTRICAL SERVICE.
M. INSTALL 4 IN. SCHEDULE 80, PVC ELECTRICAL CONDUIT - TRENCHED FOR PROPOSED UNDERGROUND ELECTRICAL SERVICE. CAP AND MARK CONDUIT 2 FT. ABOVE GRADE AT UTILITY POLE FOR USE BY OTHERS.
N. INSTALL 2 IN. SCHEDULE 80, PVC ELECTRICAL CONDUIT - TRENCHED FOR PROPOSED UNDERGROUND TELEPHONE SERVICE CAP AND MARK CONDUIT 2 FT. ABOVE GRADE AT UTILITY POLE FOR USE BY OTHERS
P. INSTALL SIDEWALK RAMP (STANDARD NO. MD 655.12) AND DETECTABLE WARNING SURFACE . (SEE BRICK PAVER DETAIL ON SHEET 4).
Q. REMOVE EXISTING MAST ARM POLE AND POLE MOUNTED CABINET AND CONTROLLER, PEDESTRIAN SIGNALS SIGNS, AND PUSHBUTTON. REMOVE FOUNDATION 12 IN. BELOW GRADE AND BACKFILL. SHA SIGNAL SHOP SHALL BE NOTIFIED TO REMOVE THE CONTROLLER AND ALL AUXILIARY EQUIPMENT FROM THE CABINET.
R. REMOVE EXISTING MAST ARM POLE, AND SIGNS. REMOVE FOUNDATION 12 IN. BELOW GRADE AND BACKFILL.
S. REMOVE EXISTING PEDESTRIAN POLE, PEDESTRIAN SIGNAL HEAD AND PUSHBUTTON.. REMOVE FOUNDATION 12 IN. BELOW GRADE AND BACKFILL.
T. REMOVE EXISTING HANDHOLE.
U. REMOVE EXISTING SIDEWALK AND INSTALL 4 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - TRENCHED. REPLACE 4 INCH CONCRETE SIDEWALK.
V. CAP AND ABANDON EXISTING CONDUIT.
W. ABANDON EXISTING LOOP DETECTOR. DISCONNECT AND REMOVE LOOP DETECTOR CABLES FROM CONDUITS, HANDHOLES, SIGNAL STRUCTURES AND CONTROLLER.
X. INSTALL 2 IN. SCHEDULE 80, PVC ELECTRICAL CONDUIT- TRENCHED.
Y. REMOVE EXISTING SIDEWALK AND INSTALL 4 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT AND 2 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT IN COMMON TRENCH. REPLACE 4 INCH CONCRETE SIDEWALK.
Z. INSTALL 5 IN. HEAT APPLIED, YELLOW PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING.

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 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 CABLE 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 FROM A 60"x60" LEVEL LANDING AREA. A LEVEL LANDING AREA IS AN AREA WITH A CROSS SLOPE OF LESS THAN OR EQUAL TO 2%.
10. PUSHBUTTON IS 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.
11. THE 10' SEPARATION BETWEEN PUSHBUTTONS IS TO BE MEASURED FROM FACE OF PUSHBUTTON TO FACE OF PUSHBUTTON, NOT CENTER TO CENTER OF POLE.
12. PUSHBUTTON ARROWS ARE TO BE PARALLEL TO THE CROSSING FOR WHICH THEY ARE INTENDED.
13. LOCATION OF ACCESSIBLE PEDESTRIAN SIGNAL PUSHBUTTONS MUST MEET LOCATION REQUIREMENTS OF MUTCD SEC. 4E.09 AND FIG. 4E-02 AND THE LATEST EDITION OF THE NCHRP PUBLICATION, 'ACCESSIBLE PEDESTRIAN SIGNALS: GUIDE TO BEST PRACTICE.' IF NOT MET, THE CONTRACTOR IS TO STOP WORK UNTIL THE CONFLICT IS RESOLVED. IF NECESSARY, A WAIVER SHALL BE OBTAINED, SIGNED BY THE DIRECTOR, OFFICE OF TRAFFIC AND SAFETY.
14. ALL HANDHOLES SHALL BE INSTALLED AT FINAL GRADE.
15. THE CONTRACTOR SHALL REPAIR ANY DAMAGE TO EXISTING SIDEWALKS CAUSED BY THE INSTALLATION OF SIGNAL EQUIPMENT.

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

MD 144 (FREDERICK ROAD) AND PROSPECT AVENUE

TRAFFIC SIGNALIZATION PLAN

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

REVISIONS
1 REVISION NO. 1 MODIFIED DETECTABLE WARNING SURFACE CONTRACT NO. AT9125185 — BRD NML 3/26/08
A RECONSTRUCT TRAFFIC SIGNAL AND INSTALL AUDIBLE PEDESTRIAN SIGNALS CONTRACT NO. AT9125185 11-1-07 — BRD NML

SCALE 1" = 20' DATE 11/1/07 CONTRACT NO.

DESIGNED BY B. DONOWAY COUNTY
DRAWN BY B. DONOWAY LOGMILE
CHECKED BY N. LEARY TIMS NO. G518
FAP NO. TOD NO.

TS NO. DRAWING TSP-1 OF 5 SHEET NO. 1 OF 5

PLOTTED: 03-26-2008
FILE: n:\81556-128\CADD\pSG-P001_md144_rev1.dgn

BY: bdonoway