MD 542 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION

PROPOSED LED SIGNALS

1.4 — 12"/8"
2.5 — 12"
3,6,7,8,9 10,11,12 — 12"
13,14,15, 16,17,18 — 16" LED COUNTDOWN PEDESTRIAN SIGNAL

EXISTING ACCESSIBLE PUSHBUTTONS TO REMAIN

30a, 31a, 32a

PROPOSED VIDEO DETECTION CAMERAS

a,b,c,d,e,f

PROPOSED SIGNS

19a Glendale RD
19b Glendale RD — D-3(1) (VAR.x16") DUAL FACED
20a,22a — R4-7(1) (18"x30") @ 15°
20d — OM1-3 (18"x18")
21a Deanwood RD
21b Deanwood RD — D-3(1) (VAR.x16") DUAL FACED
23a,23b,26a,26b Loch Raven BLVD — D-3(1) (VAR.x16") DUAL FACED

NEMA PHASING

Ø1 Ø2 Ø4 Ø5 Ø6 Ø8 — FLASHING OPERATION — Ø4 + Ø8 ALT.

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

24 SOUTH MARYLAND 542 — M1-5(6) (30"x48")
25 NORTH MARYLAND 542 — M1-5(6) (48"x72")
27 NORTH MARYLAND 542 — M1-5(6) (30"x48")
28 SOUTH MARYLAND 542 — M1-5(6) (48"x72")
30b — R10-3(1) (9"x 15")

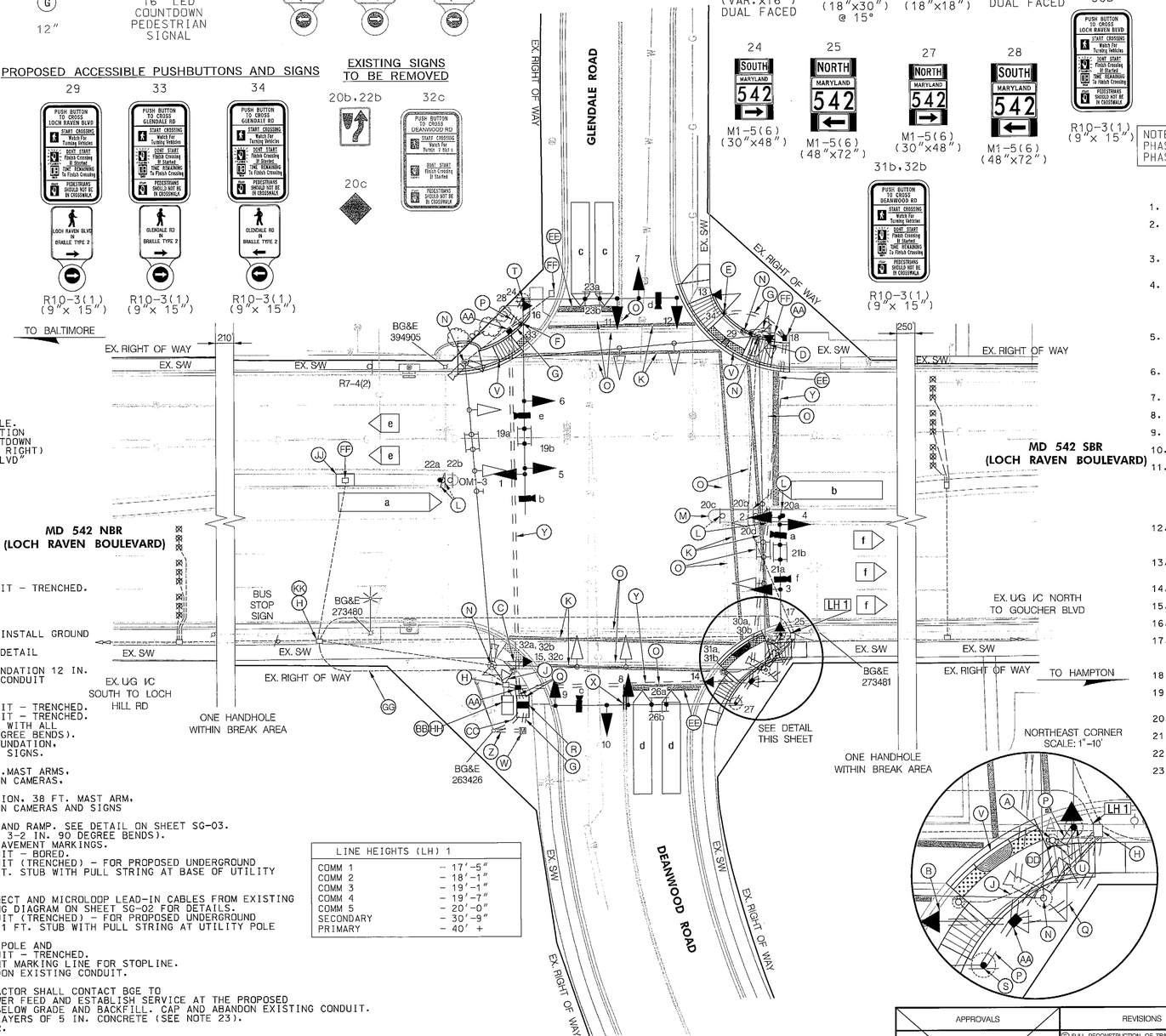
PROPOSED ACCESSIBLE PUSHBUTTONS AND SIGNS

29 — R10-3(1) (9"x 15") — LOCH RAVEN BLVD IN BRAILLE TYPE 2
33 — R10-3(1) (9"x 15") — GLENDALE RD IN BRAILLE TYPE 2
34 — R10-3(1) (9"x 15") — GLENDALE RD IN BRAILLE TYPE 2

EXISTING SIGNS TO BE REMOVED

20b,22b
20c
32c

31b,32b — R10-3(1) (9"x 15")



NORTHEAST CORNER SCALE: 1"=10'

CONSTRUCTION DETAILS

A. INSTALL LED COUNTDOWN PEDESTRIAN SIGNAL HEAD AND SIGN R10-3(1) "PUSH BUTTON TO CROSS LOCH RAVEN BLVD" ON EXISTING PEDESTAL POLE.
B. INSTALL LED COUNTDOWN PEDESTRIAN SIGNAL HEAD AND SIGN R10-3(1) "PUSH BUTTON TO CROSS DEANWOOD RD" ON EXISTING PEDESTAL POLE.
C. INSTALL LED COUNTDOWN PEDESTRIAN SIGNAL HEAD, REMOVE EXISTING SIGN AND INSTALL SIGN R10-3(1) "PUSH BUTTON TO CROSS DEANWOOD RD" ON EXISTING PEDESTAL POLE.
D. INSTALL A 10 FT. BREAKAWAY PEDESTAL POLE WITH FOUNDATION SHA STD. MD 801.01-01, BREAKAWAY COUPLINGS, LED COUNTDOWN PEDESTRIAN SIGNAL HEAD, ACCESSIBLE PUSHBUTTON (ARROW RIGHT) AND SIGN R10-3(1) "PUSH BUTTON TO CROSS LOCH RAVEN BLVD" (NOTE: 1-2 IN. 90 DEGREE PVC BEND).
E. INSTALL A 10 FT. BREAKAWAY PEDESTAL POLE WITH FOUNDATION SHA STD. MD 801.01-01, BREAKAWAY COUPLINGS, LED COUNTDOWN PEDESTRIAN SIGNAL HEAD, ACCESSIBLE PUSHBUTTON (ARROW LEFT) AND SIGN R10-3(1) "PUSH BUTTON TO CROSS GLENDALE RD" (NOTE: 1-2 IN. 90 DEGREE PVC BEND).
F. INSTALL A 10 FT. BREAKAWAY PEDESTAL POLE WITH FOUNDATION SHA STD. MD 801.01-01, BREAKAWAY COUPLINGS, LED COUNTDOWN PEDESTRIAN SIGNAL HEAD, ACCESSIBLE PUSHBUTTON (ARROW RIGHT) AND SIGN R10-3(1) "PUSH BUTTON TO CROSS GLENDALE RD" (NOTE: 1-2 IN. 90 DEGREE PVC BEND).
G. INSTALL 2 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - TRENCHED.
H. USE EXISTING HANDHOLE.
J. USE EXISTING CONDUIT.
K. INSTALL 12 IN. WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINE FOR CROSSWALK.
L. REMOVE EXISTING GROUND MOUNTED SIGN AND SUPPORT AND INSTALL GROUND MOUNTED SIGN ON ONE 4 IN. X 4 IN. WOOD SIGN SUPPORT.
M. PULL BACK AND RECONSTRUCT EXISTING MEDIAN NOSE. SEE DETAIL ON SHEET SG-03.
N. REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT. REMOVE FOUNDATION 12 IN. BELOW GRADE AND BACK FILL. CAP AND ABANDON EXISTING CONDUIT (SEE NOTE 22).
O. REMOVE EXITING PAVEMENT MARKINGS.
P. INSTALL 3 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - TRENCHED.
Q. INSTALL 4 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - TRENCHED.
R. INSTALL SIZE "S" BASE MOUNTED CABINET AND CONTROLLER WITH ALL NECESSARY EQUIPMENT (NOTE: 2-2 IN. AND 2-4 IN. 90 DEGREE BENDS).
S. INSTALL 27 FT. STEEL POLE WITH A 60 FT. MAST ARM, FOUNDATION, LED TRAFFIC SIGNAL HEADS, VIDEO DETECTION CAMERA AND SIGNS. (NOTE 1-3 IN. PVC 90 DEGREE BEND).
T. INSTALL 27 FT. STEEL POLE WITH TWIN 70 FT. AND 50 FT.MAST ARMS, FOUNDATION, LED TRAFFIC SIGNAL HEADS, VIDEO DETECTION CAMERAS, AND SIGNS.(NOTE 1-3 IN. PVC 90 DEGREE BEND).
U. INSTALL 16.5 FT. STEEL POLE WITH A 15 FT. "T" DIMENSION, 38 FT. MAST ARM, FOUNDATION, LED TRAFFIC SIGNAL HEADS, VIDEO DETECTION CAMERAS AND SIGNS (NOTE 1-3 IN. PVC 90 DEGREE BEND).
V. REMOVE EXISTING SIDEWALK AND CONSTRUCT NEW SIDEWALK AND RAMP. SEE DETAIL ON SHEET SG-03.
W. INSTALL METERED SERVICE PEDESTAL. (NOTE: 1-4 IN. AND 3-2 IN. 90 DEGREE BENDS).
X. INSTALL 5 IN. HEAT APPLIED DOUBLE YELLOW PERMANENT PAVEMENT MARKINGS.
Y. INSTALL 4 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - BORED.
Z. INSTALL 4 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT (TRENCHED) - FOR PROPOSED UNDERGROUND POWER SERVICE. CAP AND MARK CONDUIT, AND LEAVE A 1 FT. STUB WITH PULL STRING AT BASE OF UTILITY POLE FOR USE BY OTHERS.
AA. INSTALL ELECTRICAL HANDHOLE.
BB. DISCONNECT, PULL BACK AND REROUTE EXISTING INTERCONNECT AND MICROLOOP LEAD-IN CABLES FROM EXISTING SIGNAL CABINET TO PROPOSED SIGNAL CABINET. SEE WIRING DIAGRAM ON SHEET SG-02 FOR DETAILS.
CC. INSTALL 2 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT (TRENCHED) - FOR PROPOSED UNDERGROUND TELEPHONE SERVICE. CAP AND MARK CONDUIT.AND LEAVE A 1 FT. STUB WITH PULL STRING AT UTILITY POLE FOR USE BY OTHERS.
DD. INTERCEPT EXISTING CONDUIT BEND AT BASE OF PEDESTAL POLE AND INSTALL 2 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - TRENCHED.
EE. INSTALL 24 IN. WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINE FOR STOPLINE.
FF. REMOVE EXISTING HANDHOLE AND BACKFILL. CAP AND ABANDON EXISTING CONDUIT.
GG. USE CONDUIT TO PULL BACK EXISTING INTERCONNECT.
HH. REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT. THE CONTRACTOR SHALL CONTACT BGE TO PERFORM A "WORK WITH" TO DISCONNECT THE EXISTING POWER FEED AND ESTABLISH SERVICE AT THE PROPOSED METERED SERVICE PEDESTAL. REMOVE FOUNDATION 12 IN. BELOW GRADE AND BACKFILL. CAP AND ABANDON EXISTING CONDUIT.
JJ. REPLACE THE CONCRETE MEDIAN (6 FT. x 4 FT.) WITH 2 LAYERS OF 5 IN. CONCRETE (SEE NOTE 23).
KK. ADJUST HANDHOLE TO GRADE AND REPLACE FRAME AND COVER.

LINE HEIGHTS (LH) 1	
COMM 1	- 17'-5"
COMM 2	- 18'-1"
COMM 3	- 19'-1"
COMM 4	- 19'-7"
COMM 5	- 20'-0"
SECONDARY	- 30'-9"
PRIMARY	- 40' +

GENERAL NOTES

1. MAINTENANCE OF TRAFFIC WILL BE HANDLED BY THE CONTRACTOR UTILIZING MDSHA STANDARD TYPICALS FOR TRAFFIC CONTROL.
2. THE CONTRACTOR SHALL CONTACT MISS UTILITY TO VERIFY ALL UNDERGROUND UTILITIES PRIOR TO THE INSTALLATION OF PROPOSED SIGNAL EQUIPMENT. IF ANY UTILITY CONFLICTS ARISE THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER.
3. WITHIN 36 IN. OF UNDERGROUND UTILITY LOCATIONS, THE CONTRACTOR SHALL BE REQUIRED TO EXCAVATE FOR FOUNDATION AND CONDUIT BY HAND.
4. 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.
5. THE CONTRACTOR SHALL INTEGRATE PROPOSED/EXISTING CONCRETE FOUNDATIONS WITH NEW CURB/SIDEWALK RAMP WHERE NECESSARY. THE FOUNDATIONS SHALL BE FLUSH WITH AND PART OF THE FINAL CURB OR SIDEWALK GRADE TO INCREASE ACCESSIBILITY FOR PEDESTRIANS.
6. THE SHA SIGNAL SHOP WILL BE RESPONSIBLE FOR ALL INTERNAL CABINET WIRING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ROUTING AND PROPERLY LABELING ALL SIGNAL CABLES.
7. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL ABANDONED ELECTRICAL CABLES.
8. THE CONTRACTOR SHALL VERIFY THE PROPOSED POLE AND CABINET LOCATIONS PRIOR TO INSTALLATION.
9. THE CONTRACTOR SHALL CENTER THE PROPOSED CROSSWALKS ON NEWLY CONSTRUCTED AND EXISTING RAMPS.
10. ALL PAVEMENT MARKINGS SHALL BE INSTALLED IN ACCORDANCE WITH MDSHA STANDARDS.
11. LOCATION OF ACCESSIBLE PEDESTRIAN SIGNAL PUSHBUTTONS MUST MEET LOCATION REQUIREMENTS OF MUTCD SEC. 4E.09 AND FIG. 4E.21 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 HAS BEEN RESOLVED. IF NEEDED, A DESIGN WAIVER SHALL BE OBTAINED, APPROVED BY THE DIRECTOR, OFFICE OF TRAFFIC AND SAFETY.
12. PUSHBUTTONS ARE TO BE LOCATED SO THAT THEY CAN BE ACTIVATED BY A PERSON IN A WHEELCHAIR FROM A 60 IN. x 60 IN. LEVEL LANDING AREA. A LEVEL LANDING AREA IS AN AREA WITH A CROSS SLOPE OF LESS THAN OR EQUAL TO 2%.
13. 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.
14. PUSHBUTTON ARROWS ARE TO BE TURNED PARALLEL TO THE CROSSWALK FOR WHICH THEY ARE INTENDED.
15. ALL TRAFFIC SIGNAL MODIFICATIONS SHALL BE CONSTRUCTED PRIOR TO SIDEWALK CONSTRUCTION.
16. THE CONTRACTOR SHALL REMOVE AND REPLACE CONCRETE SIDEWALK AT NEAREST JOINT.
17. ALL ACCESSIBLE PEDESTRIAN CONTROL EQUIPMENT SHALL BE DELIVERED TO THE SHA SIGNAL SHOP FOR TESTING AND PROGRAMMING PRIOR TO INSTALLATION. CONTACT MR. EDWARD RODENHIZER AT 410-787-7650 TO COORDINATE.
18. VIDEO CAMERA LOCATION/ALIGNING SHALL BE COORDINATED WITH THE SHA ENGINEER.
19. THE 10 FT. MINIMUM SEPARATION BETWEEN PUSHBUTTONS IS TO BE MEASURED FROM FACE OF PUSHBUTTON TO FACE OF PUSHBUTTON, NOT CENTER OF POLE TO CENTER OF POLE.
20. WOOD SUPPORTS INSTALLED IN CONCRETE SHALL BE INSTALLED WITH SLEEVED FOUNDATIONS AS PER STANDARDS MD 812.05-01 AND MD 812.05-02.
21. THE CONTRACTOR SHALL ENSURE THE EXISTING TRAFFIC SIGNAL REMAINS OPERATIONAL UNTIL RECONSTRUCTED TRAFFIC SIGNAL IS OPERATIONAL.
22. EXISTING VIDEO DETECTION CAMERAS ARE TO BE RETURNED TO SHA UPON REMOVAL FROM EXISTING STRAIN POLES.
23. THE NEW SURFACE SHALL BE FLUSH WITH THE EXISTING CONCRETE MEDIAN SURFACE.

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION
MD 542 (LOCH RAVEN BOULEVARD)
AND GLENDALE ROAD / DEANWOOD ROAD
LOCH RAVEN, MARYLAND

TRAFFIC SIGNALIZATION PLAN

SCALE 1" = 20' | DATE 06/15/1984 | CONTRACT NO. B-785-501-485

DESIGNED BY BRUCE THOMPSON | COUNTY BALTIMORE
DRAWN BY BRUCE THOMPSON | LOGMILE 030054200.41
CHECKED BY DENNIS J. DODA | TIMS NO.
F.A.P. NO. | TOD NO.

TS NO. 2007E | DRAWING SG-01 OF 03 | SHEET NO. 01 OF 03

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

REVISIONS
E FULL RECONSTRUCTION OF TRAFFIC SIGNAL — SHA NO. XY/151/85 — TIMS # L825 — 02/2013
D UPGRADED VIDEO DETECTION AND REPLACED DETECTION DUE TO RESURFACING — SHA NO. BA/895/77 — TIMS # J416 — 03/2011
C REPLACED FAILED LOOP DETECTOR — SHA NO. OT-2005 — TIMS # H525 — 01/2006

PLOTTED: Wednesday, February 06, 2013 AT 04:00 PM
FILE: I:\PROJECTS\4014255\4014255_0193\Drawings\TRA\pSG-PC00_MD542.dgn

STV Incorporated
7125 Ambassador Road, Suite 200
Baltimore, MD 21244
www.stvinc.com

BY: tarnovk

UTILITY LEGEND

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

GEOMETRIC LEGEND

PROPOSED
EXISTING