MD 320 PINEY BRANCH AVENUE IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

EXISTING SIGNS

31 SPEED LIMIT 30 — R2-1, 30" X 24"
32 JCT MARYLAND 410 — M2-1, 15" X 21"; M1-5, 24" X 30"
39 PINEY BRANCH AVE — D-3(1), 16" X 96"
20 ~~SCHOOL X-ING~~ — S2-1(2), 36" X 96"
24.29 STAFF AND VISITOR PARKING / STUDENT DROP OFF — 30" X 24" (BACK TO BACK)
22.29 — S1-1, 36" X 36"; M6-2, 21" X 15"
23.30 — S1-1, 36" X 36"; M6-2, 21" X 15"
25 SCHOOL — S1-1, 36" X 36"; S4-4(3), 12" X 30"
36 YIELD — R1-2, 36" X 36"
21.27 — 8" X 8"
33 — R4-7, 30" X 24"
34.37.38 DO NOT ENTER — R5-1, 30" X 30"
26 CENTER LANE ONLY — R3-9b, 48" X 36"

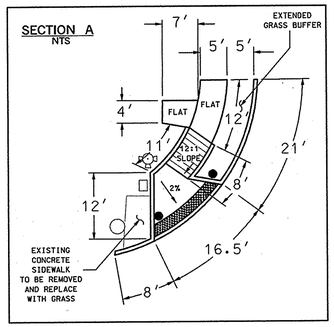
EXISTING SIGNAL HEADS TO BE REMOVED

1r,2r,5r,6r (Y, 12") · 7r,8r (R, Y, G, 12") · 3r,4r,9r (R, Y, G, 12") · 10r,11r,12r,13r (R, Y, G, 8") · 18r,19r (12")

EXISTING SIGNS TO BE REMOVED

20r SCHOOL X-ING — S2-1(2), 36" X 96"
28r LEFT TURN YIELD ON GREEN — R10-2, 42" X 36"
35r — W12-1, 24" X 24"

SECTION A
NTS



PROPOSED SIGNS

35 — OM-1(1), 18" X 18"
40 SCHOOL — S1-1, 36" X 36"; S4-4(3), 36" X 12"
19, 18 — R10-3(1), 9" X 15"; AUDIBLE /TACTILE PEDESTRIAN PUSHBUTTON AND SIGN
14,16, 15,17

ACCESSIBLE PUSHBUTTON STATION NUMBERS INDICATE THE ASSOCIATED PEDESTRIAN SIGNAL HEAD NUMBERS

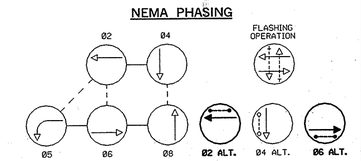
PROPOSED LED SIGNAL HEADS

1,2,5,6 (Y, 12") · 7,8 (R, Y, G, 12") · 3,4,9,10,11,12,13 (R, Y, G, 12")

PROPOSED LED PEDESTRIAN HEADS

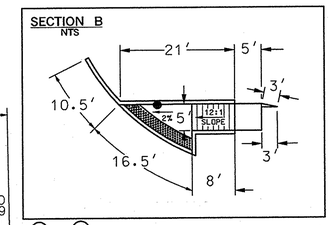
14-19 — 16" COUNTDOWN

NEMA PHASING

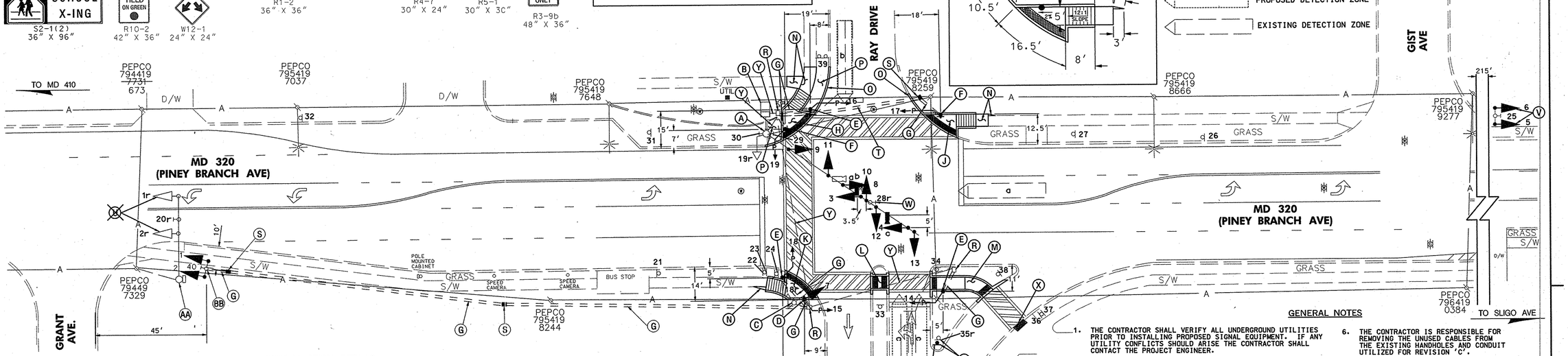


NOTE:
PHASES ASSOCIATED BY A DASHED LINE WILL OPERATE CONCURRENTLY.
PHASES ASSOCIATED BY A SOLID LINE WILL NOT OPERATE CONCURRENTLY.

SECTION B
NTS



a — EXISTING VIDEO DETECTION CAMERA
b,c — PROPOSED VIDEO DETECTOR CAMERA
PROPOSED DETECTION ZONE
EXISTING DETECTION ZONE



CONSTRUCTION DETAILS

A. USE EXISTING STRUCTURE. REMOVE EXISTING SIGNAL HEADS AND REPLACE WITH PROPOSED LED SIGNAL HEADS IN THE SAME LOCATION ON EXISTING MAST ARM. REMOVE EXISTING PEDESTRIAN SIGNAL HEAD(S), PUSHBUTTON(S), AND SIGN(S) FROM EXISTING SIGNAL POLE. PATCH POLE OPENINGS.

B. USE EXISTING CABINET AND CONTROLLER. DISCONNECT/REMOVE EXISTING SIGNAL CABLES FOR SIGNAL HEADS 10r, 11r, 12r, 13r. NEW SIGNAL CABLE SHALL BE INSTALLED FOR THESE SIGNAL HEADS (SEE WIRING DIAGRAM). REMAINING SIGNAL CABLES SHALL BE REUSED FOR REMAINING PROPOSED SIGNAL HEADS.

C. REMOVE EXISTING EXISTING PEDESTAL POLE, TRAFFIC SIGNAL HEAD, PEDESTRIAN SIGNAL HEAD(S), PUSHBUTTON(S), AND SIGN(S). CAP AND ABANDON ALL EXISTING CONDUIT.

D. INSTALL 14' PEDESTAL POLE ON 24" X 72" FOUNDATION WITH TRAFFIC SIGNAL HEAD, COUNTDOWN PEDESTRIAN SIGNAL HEAD, ACCESSIBLE PUSHBUTTON STATION, AND SIGN WITH LEFT ARROW (NOTE: 1-3" 90° PVC BEND).

E. INSTALL 10' PEDESTAL POLE ON 18" X 36" FOUNDATION WITH COUNTDOWN PEDESTRIAN SIGNAL HEAD, ACCESSIBLE PUSHBUTTON STATION, AND SIGN WITH RIGHT ARROW (NOTE: 1-3" 90° PVC BEND).

F. INSTALL 10' PEDESTAL POLE ON 18" X 36" FOUNDATION WITH COUNTDOWN PEDESTRIAN SIGNAL HEAD, ACCESSIBLE PUSHBUTTON STATION, AND SIGN WITH LEFT ARROW (NOTE: 1-3" 90° PVC BEND).

G. INSTALL 3" SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED.

H. INSTALL PEDESTRIAN RAMP AS SHOWN IN SECTION A WITH STANDARD TYPE 'A' 8" CURB (MD STD. 620.02) AND DETECTABLE WARNING SURFACE (MD STD 655.40) INSTALLED THE LENGTH OF THE RAMP OPENING.

J. INSTALL PEDESTRIAN RAMP AS SHOWN IN SECTION B WITH STANDARD TYPE 'A' 8" CURB (MD STD. 620.02) AND DETECTABLE WARNING SURFACE (MD STD 655.40) INSTALLED THE LENGTH OF THE RAMP OPENING.

K. INSTALL PEDESTRIAN RAMP AS SHOWN IN SECTION C WITH STANDARD TYPE 'A' 8" CURB (MD STD. 620.02) AND DETECTABLE WARNING SURFACE (MD STD 655.40) INSTALLED THE LENGTH OF THE RAMP OPENING.

L. INSTALL PEDESTRIAN CUT THROUGH AS SHOWN IN SECTION D WITH STANDARD TYPE 'A' 8" CURB (MD STD. 620.02) AND DETECTABLE WARNING SURFACES (MD STD. 655.40) INSTALLED THE LENGTH OF THE OPENINGS.

M. INSTALL PEDESTRIAN CUT THROUGH AS SHOWN IN SECTION E WITH STANDARD TYPE 'A' 8" CURB (MD STD. 620.02) AND DETECTABLE WARNING SURFACES (MD STD. 655.40) INSTALLED THE LENGTH OF THE OPENINGS.

N. INSTALL 5" CONCRETE SIDEWALK (SEE SECTION A & B).

O. INSTALL STANDARD TYPE 'A' COMBINATION 8" CURB AND 12" GUTTER PAN (MD STD. 620.02). (SEE SECTION A & B).

P. REMOVE EXISTING CONCRETE SIDEWALK (SEE SECTION A).

R. USE EXISTING HANDHOLE.

S. INSTALL HANDHOLE.

T. INSTALL 4" SCHEDULE 80 RIGID PVC CONDUIT - SLOTTED.

~~X. REMOVE EXISTING SIGNAL HEADS AND REPLACE WITH PROPOSED LED SIGNAL HEADS IN THE SAME LOCATION ON EXISTING MAST ARM.~~

V. REMOVE EXISTING SIGNAL HEADS AND REPLACE WITH PROPOSED LED SIGNAL HEADS IN THE SAME LOCATION ON EXISTING PEDESTAL.

W. REMOVE EXISTING OVERHEAD SIGN.

X. INSTALL DETECTABLE WARNING SURFACE (MD STD. 655.40) THE LENGTH OF THE RAMP OPENING.

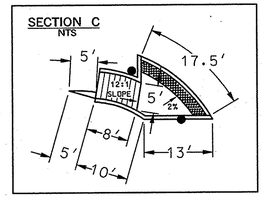
Y. USE EXISTING CONDUIT.

Z. REMOVE EXISTING SIGN (W12-1) AND SUPPORTS. INSTALL OM-1(1) (18" x 18") ON ONE 4" x 4" WOOD SUPPORT.

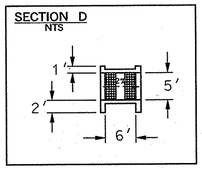
AA. REMOVE EXISTING POLE, MAST ARM, SIGNAL HEADS, CABINET, AND ALL ASSOCIATED WIRING. CAP AND ABANDON ALL EXISTING CONDUIT.

BB. INSTALL 14' BREAKAWAY PEDESTAL POLE, SIGNAL HEADS (2), SCHOOL SIGN ASSEMBLY (SIGN 40), ONE (1) 3" PVC SCHEDULE 80 90° BEND, AND CONCRETE FOUNDATION.

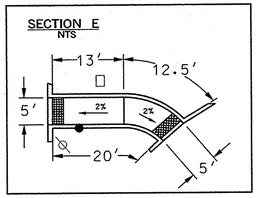
SECTION C
NTS



SECTION D
NTS



SECTION E
NTS



NOTE:
THE FACE OF THE FOUNDATIONS OF THE PEDESTAL POLES SHALL BE ALIGNED WITH THE CONCRETE CURBING WHERE INDICATED.

GENERAL NOTES

1. 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.
2. ALL TRAFFIC SIGNAL FOUNDATIONS SHALL BE INSTALLED AT THE FINAL SIDEWALK OR CURB GRADE FOR CLOSED SECTIONS. HIGHEST ROADWAY PROFILE GRADE FOR OPEN SECTION. TO MEET CLEARANCES AS SPECIFIED IN MD STD. 816.03, MD STD. 818.01, MD 818.02, AND MD STD. 818.04. THE CONTRACTOR SHALL VERIFY ULTIMATE GRADES PRIOR TO THE INSTALLATION OF ALL PROPOSED SIGNAL EQUIPMENT.
3. PUSHBUTTONS ARE TO BE SO THAT THEY CAN BE ACTIVATED BY A PERSON IN A WHEELCHAIR FROM A 60" x 60" LEVEL LANDING AREA. A LEVEL LANDING AREA IS A AREA WITH A CROSS SLOPE OF LESS THEN OR EQUAL TO 2%.
4. 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.
5. PROPOSED SIGNAL EQUIPMENT SHALL BE INSTALLED PRIOR TO THE CONSTRUCTION OF THE SIDEWALK, AND PEDESTRIAN RAMPS, AND THE INSTALLATION OF THE DETECTABLE WARNING SURFACE.
6. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING THE UNUSED CABLES FROM THE EXISTING HANDHOLES AND CONDUIT UTILIZED FOR REVISION 'C'.
7. THE CONTACTOR SHALL BE RESPONSIBLE FOR TERMINATING ALL SIGNAL CABLE TO THE APPROPRIATE TERMINALS AND PROPERLY LABEL EACH CABLE.
8. VIDEO CAMERA LOCATION/ALIGNING SHALL BE CORRDINATED WITH THE SHA ENGINEER.
9. PUSHBUTTONS ARE TO BE LOCATED SO THAT A PEDESTRIAN IN A WHEELCHAIR LOCATED ON THE LEVEL LANDING AREA. DOES NOT HAVE TO REACH MORE THAN 18".
10. THE 10' SEPARATION BETWEEN PUSHBUTTONS IS TO BE MEASURED FROM 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. FOR FINAL PAVEMENT MARKINGS REFER TO THE PAVEMENT MARKING PLAN. OTHER THAN THOSE DETAILED ON THE PLAN. ALL PAVEMENT MARKINGS SHALL BE INSTALLED IN ACCORDANCE WITH MD SHA STANDARDS.
13. ALL EXISTING TRAFFIC SIGNAL EQUIPMENT REMOVED SHALL BECOME THE PROPERTY OF THE SIGNAL CONTRACTOR UPON COMPLETION OF THE NEW SIGNAL.

1 RED LINE NO. 1 SHEET REPLACED JULY 23, 2008

7/29/08

GEOMETRIC LEGEND	
PROPOSED	
EXISTING	

LEGEND OF UNDERGROUND AND OVERHEAD UTILITIES	
AERIAL CABLE	A — A
ELECTRIC	E — E
TELEPHONE	T — T
GAS	G — G
SEWER	S — S
WATER	W — W
CABLE TV	TV — TV

BY: BDONOWAY

CENTURY ENGINEERING
CONSULTING ENGINEERS - PLANNERS
10710 GILROY ROAD
HUNT VALLEY, MD 21031
REVISION 'C' 25003.94

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

REVISIONS
© INSTALL CPS & APS FOR S.E.W LEGS, UPDATE TO LED&VIDEO SHA# XX4495185 TIMS# J-041 — ENB — 6/08
B ADD SB EP L/T PHASE AND VIDEO DETECTION SHA# XX1065285 — CJS MAR BRK TH/BRK — 7/23/02
A INSTALL SEMI-ACTUATED SIGNAL 2/01 WITH PEDESTRIAN INDICATIONS TIMS# E-413 — CJS

STRUCTURE INVENTORY NO.
SURVEY BOOK NO.

PLOTTED: TUESDAY, JULY 29, 2008 AT 01:54 PM
FILE: J:\DATA\J041\REDLINE\PSG-P001_MD 320@RAY DR.DGN

SHA
STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION
MD 320 (PINEY BRANCH AVENUE) AND
RAY DRIVE/TAKOMA PARK MIDDLE SCHOOL

TRAFFIC SIGNAL PLAN

SCALE 1" = 20' DATE 12501 CONTRACT NO. MO619A5G/B5G

DESIGNED BY C. STRAIN — COUNTY MONTGOMERY
DRAWN BY C. STRAIN — LOGMILE 15032000.56
CHECKED BY M. RUCKER — T.I.M.S. NO. J-041
F.A.P. NO. — TOD NO.

TS NO. 2374 C — SHEET NO. 1 OF 2