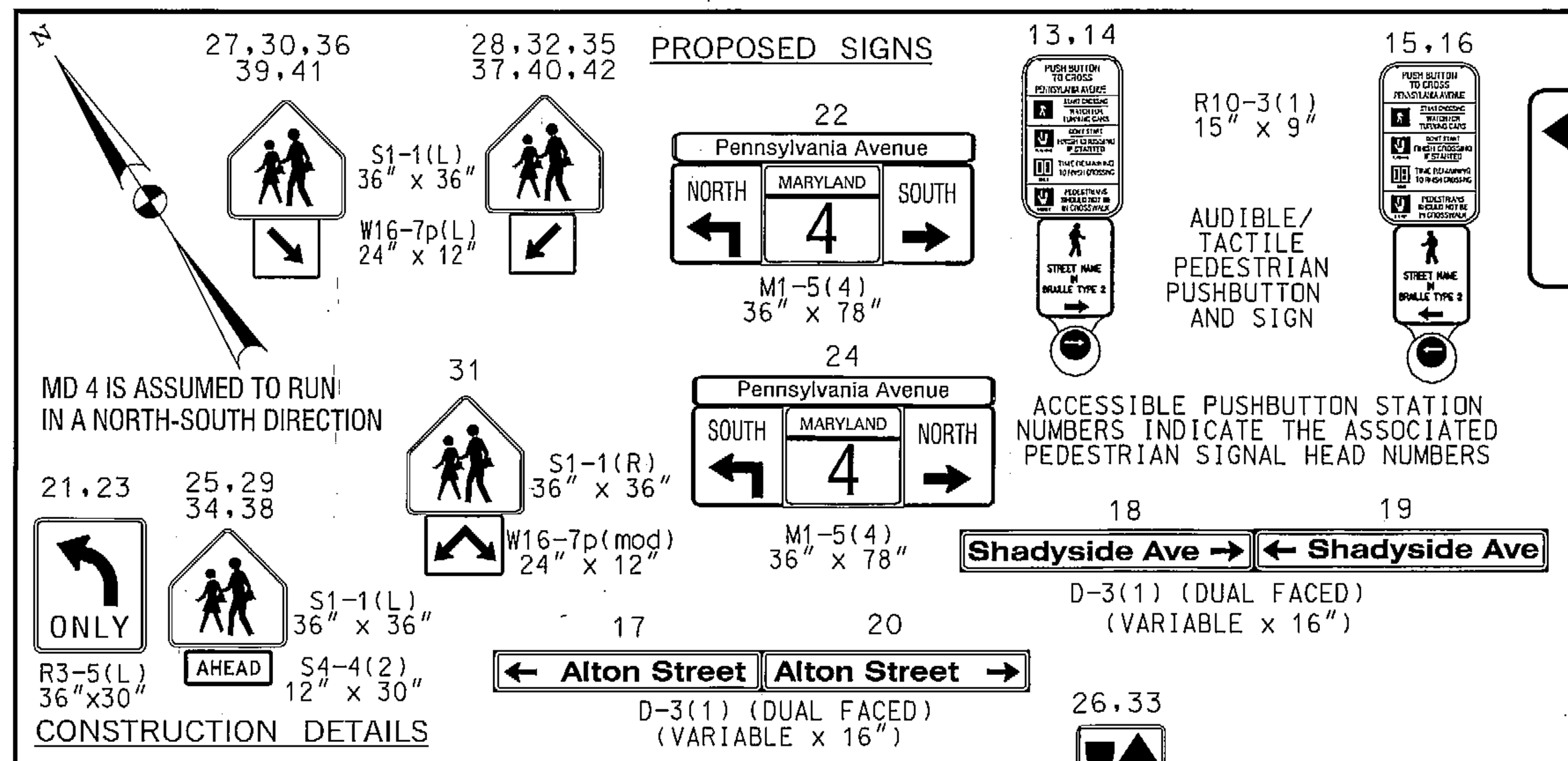
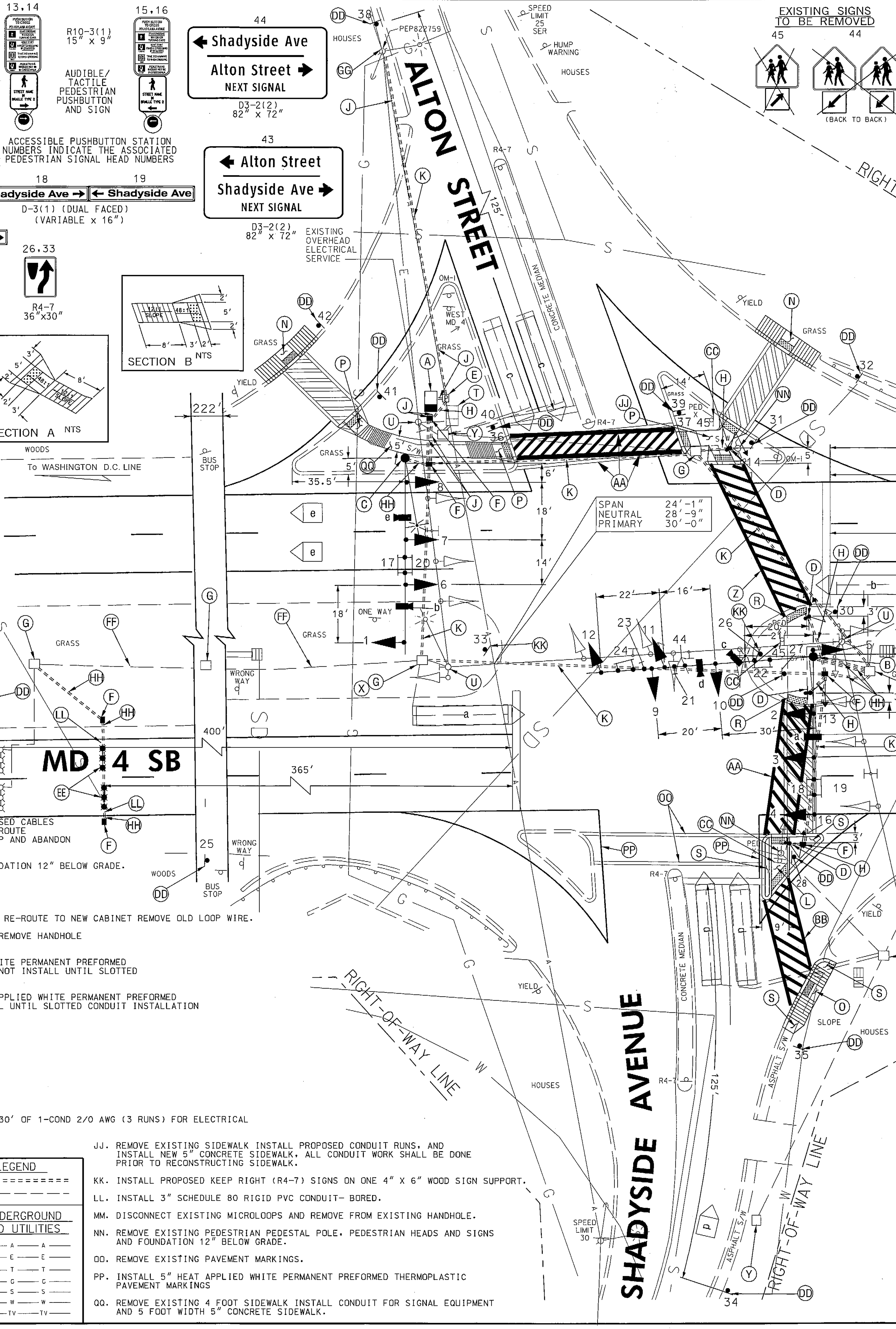
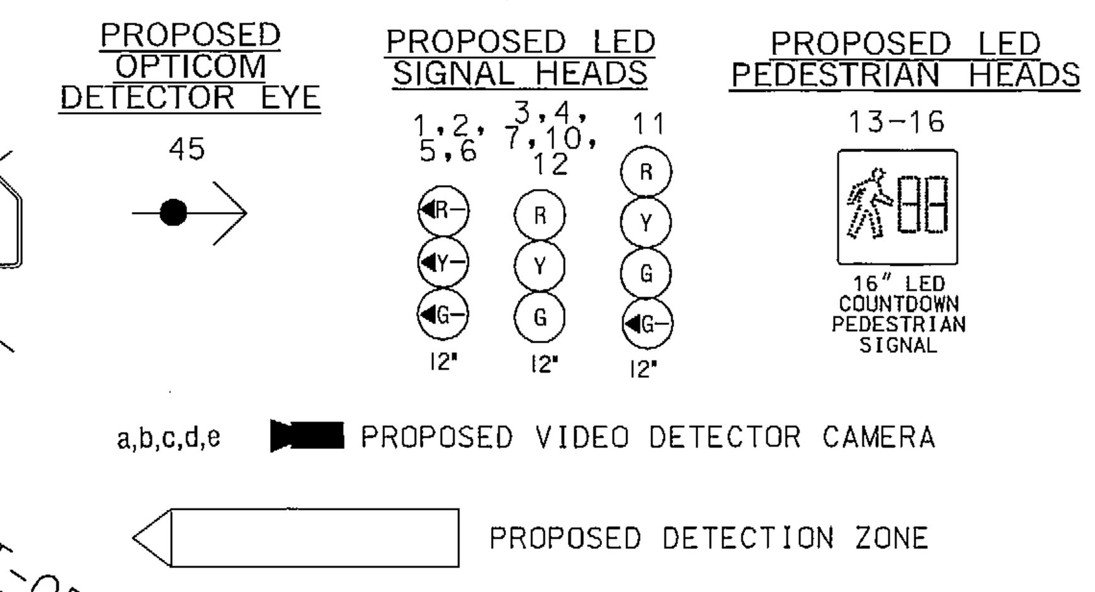
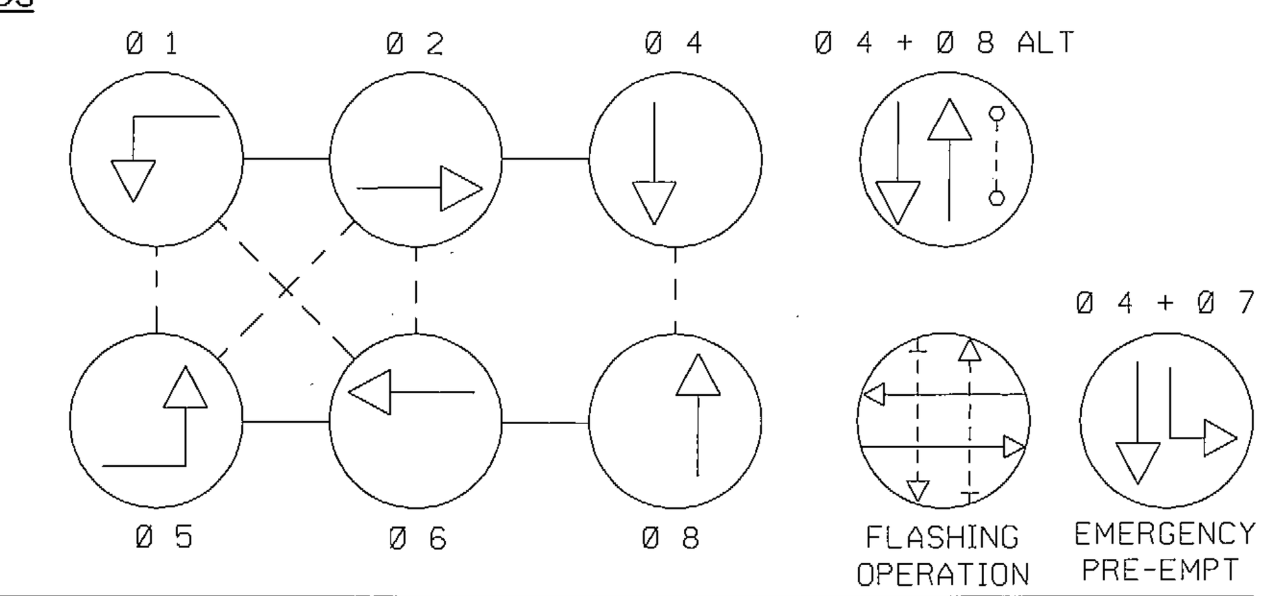




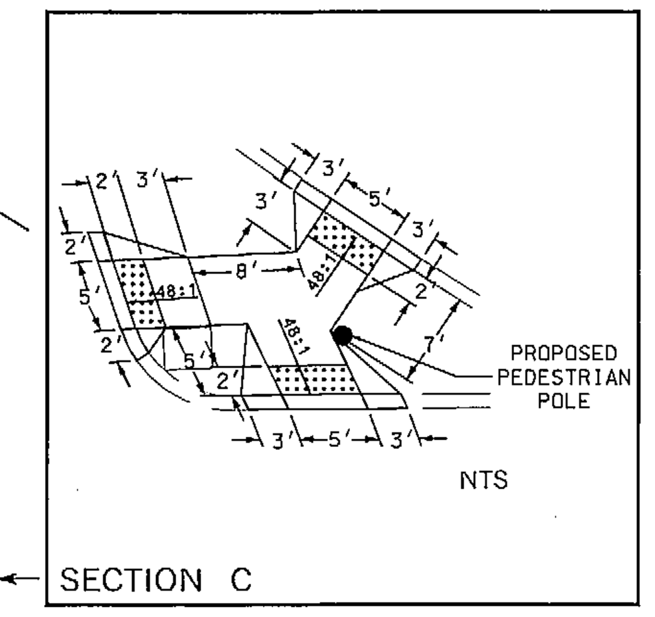


NEMA PHASING



PHASING NOTES:

1. PHASES ASSOCIATED BY A SOLID LINE WILL NOT OPERATE CONCURRENTLY.
2. PHASES ASSOCIATED BY A DASHED LINE WILL OPERATE CONCURRENTLY.



CONSTRUCTION DETAILS

A. INSTALL NEMA 6 BASE-MOUNTED CABINET AND CONTROLLER WITH NECESSARY EQUIPMENT.

B. INSTALL 27' STEEL POLE WITH TWIN MAST ARMS (50' AND 70') WITH TRAFFIC SIGNAL HEADS, OPTICOM DETECTORS, VIDEO DETECTION CAMERAS, 20' LIGHTING ARM AND 250 WATT HPS LUMUNAIRE, AND 3" WEATHERHEAD (NOTE: 2-3", 90° PVC SCH. 80 BENDS).

C. INSTALL 27' STEEL POLE WITH 60' MAST ARMS WITH TRAFFIC SIGNAL HEADS, SIGNS, VIDEO DETECTION CAMERAS, 20' LIGHTING ARM AND 250 WATT HPS LUMUNAIRE, AND 3" WEATHERHEAD (NOTE: 2-3", 90° PVC SCH. 80 BENDS).

D. INSTALL 10' PEDESTAL POLE ON 3' x 18" BASE WITH COUNTDOWN PEDESTRIAN SIGNAL HEADS, AUDIBLE PEDESTRIAN PUSHBUTTON AND SIGNS. NOTE: 1-2" 90° PVC SCH. 80 BEND).

E. INSTALL 100 AMP METERED SERVICE PEDESTAL FOR ELECTRICAL SERVICE.

F. INSTALL HANDHOLE.

G. USE EXISTING HANDHOLE AND ADJUST TO GRADE.

H. INSTALL 2" SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED.

J. INSTALL 4" SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED.

K. INSTALL 4" SCHEDULE 80 RIGID PVC CONDUIT - BORED.

L. REMOVE CONCRETE ISLAND INSTALL PROPOSED CONDUIT RUNS, RECONSTRUCT ISLAND WITH 5" CONCRETE SIDEWALK. ALL CONDUIT AND HANDHOLE WORK SHALL BE DONE PRIOR TO RECONSTRUCTING CONCRETE ISLAND.

M. INSTALL STANDARD ISLAND PEDESTRIAN CUT THROUGH (MD STD. 655.21) WITH STANDARD TYPE 'A' 8" CURB (MD STD. 620.02) AND DETECTABLE WARNING SURFACES (MD STD. 655.40) INSTALLED THE LENGTH OF THE OPENING. (SEE SECTION D).

N. INSTALL STANDARD PEDESTRIAN RAMP (MD STD. 655.12) WITH A DETECTABLE WARNING SURFACE (MD STD 655.40) INSTALLED THE LENGTH OF THE RAMP OPENING.

O. INSTALL STANDARD PEDESTRIAN RAMP (MD STD.TYPE 655.12) WITH A DETECTABLE WARNING SURFACE (MD STA 655.40) INSTALLED THE LENGTH OF THE RAMP OPENING (SEE SECTION E).

P. INSTALL PROPOSED PEDESTRIAN RAMP WITH A DETECTABLE WARNING SURFACE (MD STD. 655.40) INSTALLED THE LENGTH OF THE RAMP OPENING (SEE SECTION A,B,& C).

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

S. INSTALL 5" CONCRETE SIDEWALK AND STANDARD TYPE 'A' COMBINATION 8" CURB AND 12" GUTTER PAN (MD STD. 620.02). (SEE SECTION F).

T. DISCONNECT EXISTING CABLES TO CONTROLLER AND REMOVE ALL UN-USED CABLES DISCONNECT EXISTING INTERCONNECT CABLE AND PULL BACK AND RE-ROUTE TO PROPOSED CABINET. REMOVE FOUNDATION 12" BELOW GRADE. CAP AND ABANDON ALL EXISTING CONDUIT.

U. REMOVE SIGNAL POLE AND ALL ASSOCIATED EQUIPMENT. REMOVE FOUNDATION 12" BELOW GRADE.

V. N/U

W. N/U

X. DISCONNECT EXISTING INTERCONNECT PULL BACK TO THIS POINT AND RE-ROUTE TO NEW CABINET REMOVE OLD LOOP WIRE.

Y. DISCONNECT EXISTING LOOP DETECTORS. REMOVE EXISTING WIRING. REMOVE HANDHOLE CAP AND ABANDON CONDUIT.

Z. REMOVE EXISTING PAVEMENT MARKING INSTALL 12" HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS AS SHOWN FOR CROSSWALK. DO NOT INSTALL UNTIL SLOTTED CONDUIT INSTALLATION IS COMPLETED.

AA. REMOVE EXISTING PAVEMENT MARKING AND REPLACE WITH 12" HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS FOR CROSSWALK. DO NOT INSTALL UNTIL SLOTTED CONDUIT INSTALLATION IS COMPLETED.

BB. N/U.

CC. REMOVE EXISTING GROUND MOUNTED SIGN AND SUPPORT.

DD. INSTALL PROPOSED SIGN(S) ON 4" X 6" WOOD SIGN SUPPORT(S).

EE. INSTALL PROPOSED NON-INVASIVE MICROLOOP PROBES.

FF. USE EXISTING CONDUIT.

GG. STUB 10' OF 4" CONDUIT UP UTILITY POLE AND COIL AN ADDITION 30' OF 1-COND 2/0 AWG (3 RUNS) FOR ELECTRICAL SERVICE CONNECTION BY PEPCO.

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

JJ. REMOVE EXISTING SIDEWALK INSTALL PROPOSED CONDUIT RUNS, AND INSTALL NEW 5" CONCRETE SIDEWALK. ALL CONDUIT WORK SHALL BE DONE PRIOR TO RECONSTRUCTING SIDEWALK.

KK. INSTALL PROPOSED KEEP RIGHT (R4-7) SIGNS ON ONE 4" X 6" WOOD SIGN SUPPORT.

LL. INSTALL 3" SCHEDULE 80 RIGID PVC CONDUIT- BORED.

MM. DISCONNECT EXISTING MICROLOOPS AND REMOVE FROM EXISTING HANDHOLE.

NN. REMOVE EXISTING PEDESTRIAN PEDESTAL POLE, PEDESTRIAN HEADS AND SIGNS AND FOUNDATION 12" BELOW GRADE.

OO. REMOVE EXISTING PAVEMENT MARKINGS.

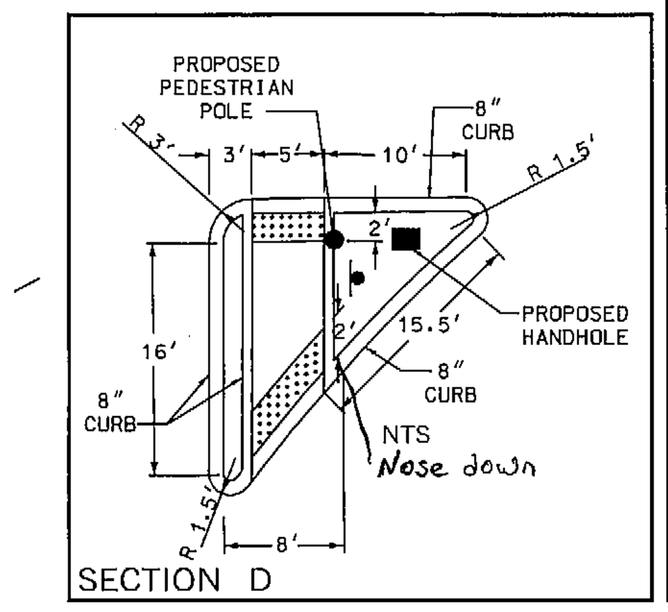
PP. INSTALL 5" HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS

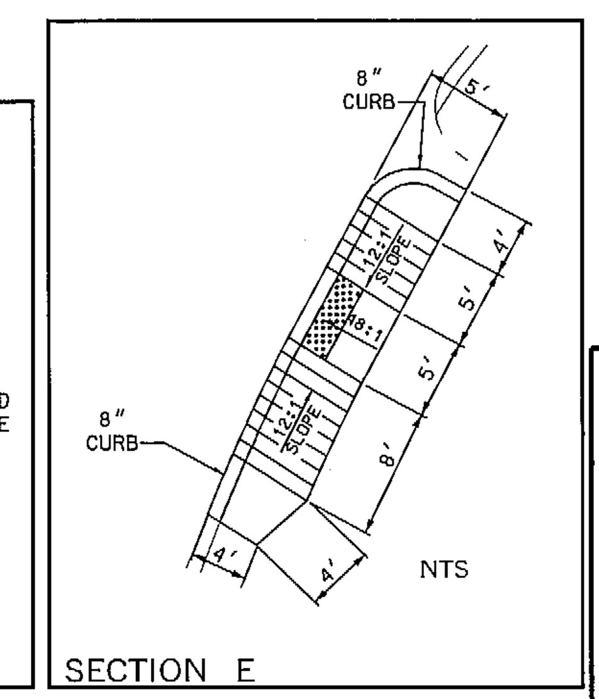
QQ. REMOVE EXISTING 4 FOOT SIDEWALK INSTALL CONDUIT FOR SIGNAL EQUIPMENT AND 5 FOOT WIDTH 5" CONCRETE SIDEWALK.

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, AND THE HIGHEST ROADWAY PROFILE GRADE FOR OPEN SECTION. TO MEET CLEARANCES AS SPECIFIED IN MD STD. 816.03, MD STD. 818.01, MD 818.02, MD STD. 818.04. THE CONTRACTOR SHALL VERIFY ALL ULTIMATE GRADES PRIOR TO THE INSTALLATION OF ALL PROPOSED SIGNAL EQUIPMENT.
3. ALL EXISTING TRAFFIC SIGNAL EQUIPMENT REMOVED SHALL BECOME THE PROPERTY OF THE SIGNAL CONTRACTOR UPON COMPLETION OF THE NEW SIGNAL.
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, AND APPROVED BY THE DIRECTOR, OF THE 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 'F'.
7. THE CONTACTOR SHALL BE RESPONSIBLE FOR TERMINATING ALL SIGNAL CABLE TO THE APPROPRIATE TERMINALS AND PROPERLY LABELING EACH CABLE.
8. VIDEO CAMERA LOCATION/ALIGNING SHALL BE COORDINATED 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. PUSHBUTTONS ARE TO BE LOCATED 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 THAN OR EQUAL TO 2%.

TOD No: XX351-03
SHA No: PG769A53/K53
MD 4 @ Shadyside Avenue/Alton St.





GEOMETRIC LEGEND

PROPOSED	==============
EXISTING	— — — — — —

LEGEND OF UNDERGROUND AND OVERHEAD UTILITIES

AERIAL CABLE	—— A ——
ELECTRIC	—— E ——
TELEPHONE	—— T ——
GAS	—— G ——
SEWER	—— S ——
WATER	—— W ——
CABLE TV	—— TV ——

CENTURY ENGINEERING
CONSULTING ENGINEERS - PLANNERS
10710 GILROY ROAD
HUNT VALLEY, MD 21031
Phone: (410) 823-8070 Fax: (410) 823-2184

BY: Jhenkel

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

REVISIONS

- (F) RECONSTR. TO MAST ARMS 12/2009 VIDEO DET, APS PEDS, & ADA RAMPS SHA# XX351S168 TIMS# X028
- (E) INSTALL OPTICOM DETECTORS 2/2004 ON ALTON STREET APPROACH CONTRACT#AT3575185 TIMS# F825
- (D) REPLACE SIGNAL HEADS WITH BLACK FACE, RAISE MEDIAN LT SIGNAL HEADS 9/1/2001

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

MD 4(PENNSYLVANIA AVE) AND
ALTON STREET-SHADYSIDE AVENUE
(BOULEVARD HEIGHTS, MD)

TRAFFIC SIGNALIZATION PLAN

SCALE 1" = 20'	ADVERTISED DATE 6/27/73	CONTRACT NO. P-333-1-385	
DESIGNED BY SA		COUNTY PRINCE GEORGES	
DRAWN BY RD		LOGMILE 16000413.54	
CHECKED BY	2/3/10	TIMS NO. K-028	
F.A.P. NO. T-8006(25)		TOD NO.	
TS NO. 970F	DRAWING SP1 - 1 OF 2	SHEET NO. 1 OF 2	

PLOTTED: Wednesday, February 03, 2010 at 3:03:52 PM
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