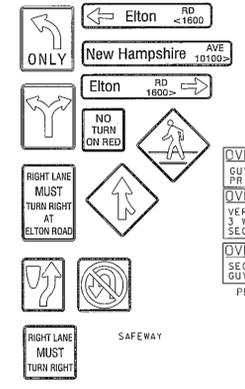
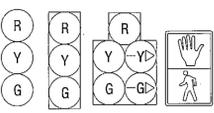


MD 650 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION

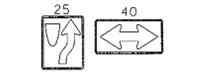
EXISTING SIGNS TO BE REMOVED



EXISTING SIGNALS TO BE REMOVED



EXISTING SIGNS TO REMAIN



OVERHEAD HEIGHTS

GUY WIRE	32'-10"
PRIMARY	45'-0"

OVERHEAD HEIGHTS

VERIZON	27'-8"
3 WIRES CABLE	28'-8"
SECONDARY	32'-5"

OVERHEAD HEIGHTS

SECONDARY	32'-10"
GUY WIRE	45'-0"

PEPCO 806432-5726

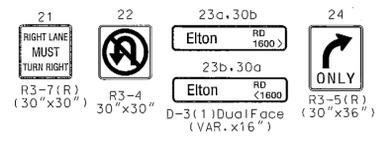
OVERHEAD HEIGHTS

GUY WIRE	43'-0"
PRIMARY	BEYOND MAX.

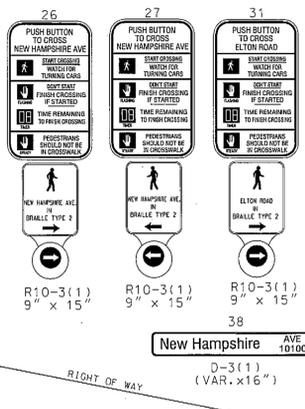
PEPCO 806432-4622

PROPOSED VIDEO DETECTION

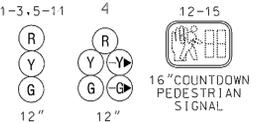
a, b, c, d



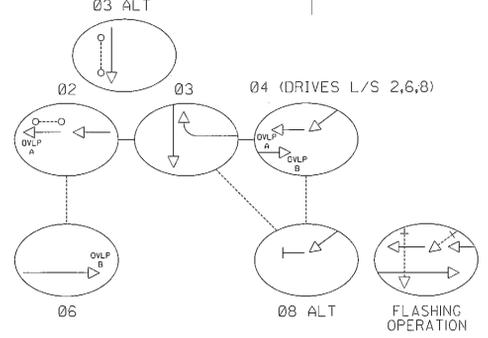
PROPOSED SIGNS



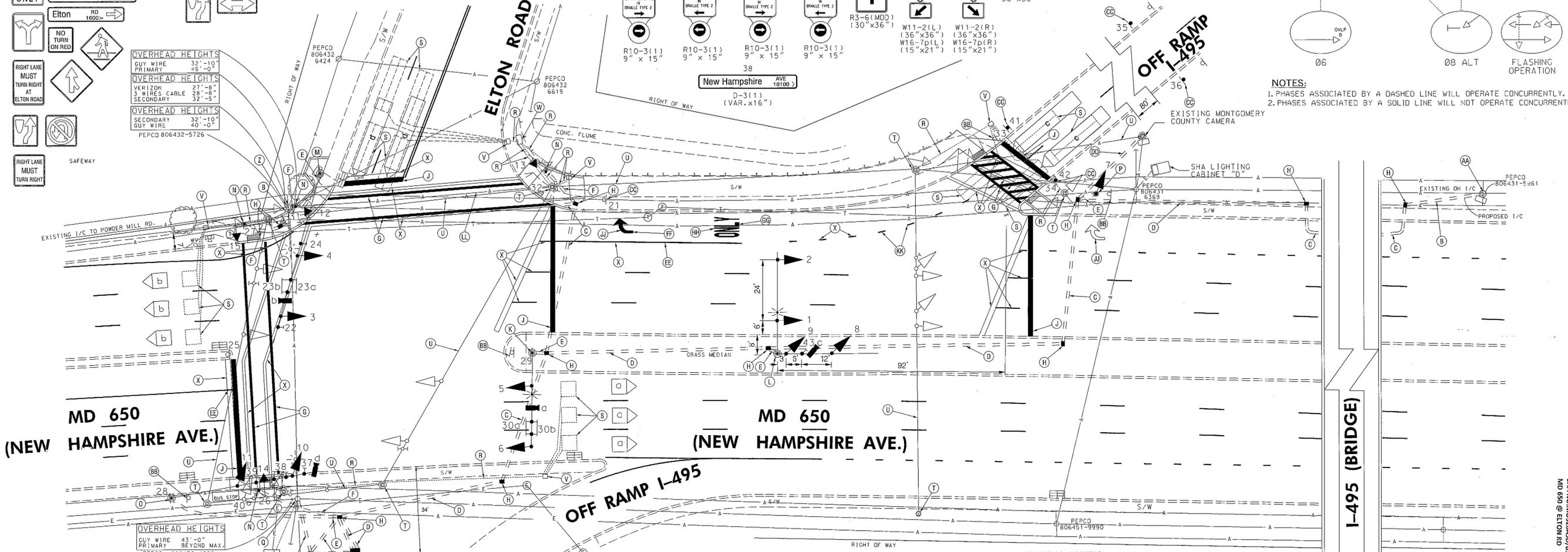
PROPOSED L.E.D. SIGNALS



NEMA PHASING



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



CONSTRUCTION DETAILS

- A. INSTALL A NEMA SIZE 6 BASE MOUNTED CONTROLLER AND CABINET WITH ELECTRICAL UTILITY SERVICE EQUIPMENT FOR UNDERGROUND SERVICE. (NOTE: TWO-4 IN. PVC, AND TWO-2 IN. SCHEDULE 80 CONDUIT BENDS)
- B. INSTALL 4 IN. PVC SCHEDULE 80 CONDUIT TRENCHED AND PROVIDE A BEND AT THE BASE OF THE UTILITY POLE WITH A PULL STRING.
- C. INSTALL 4 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - SLOTTED.
- D. INSTALL 4 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - TRENCHED.
- E. INSTALL 3 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - TRENCHED.
- F. INSTALL 2 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - TRENCHED.
- G. INSTALL 12 IN. HEAT APPLIED, WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING FOR CROSSWALKS.
- H. INSTALL ELECTRICAL HANDHOLE.
- J. INSTALL 24 IN. HEAT APPLIED, WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING FOR STOPLINE.
- K. INSTALL CONCRETE FOUNDATION FOR A 27 FT STEEL POLE WITH 38' MAST ARM, OVERHEAD VIDEO DETECTION CAMERA, SIGNS, 15' LIGHTING ARM, LUMINAIRE, AND TRAFFIC SIGNAL HEADS. (NOTE: ONE 3 IN. PVC SCHEDULE 80 CONDUIT BEND)
- L. INSTALL CONCRETE FOUNDATION FOR A 27 FT STEEL POLE WITH 50'/50' TWIN MAST ARMS (CUT BOTH ARMS TO 40'), OVERHEAD VIDEO DETECTION CAMERA, SIGN, 15' LIGHTING ARM, LUMINAIRE AND TRAFFIC SIGNAL HEADS. (NOTE: ONE 3 IN. PVC SCHEDULE 80 CONDUIT BEND)
- M. INSTALL CONCRETE FOUNDATION FOR A 16'6" STEEL POLE (STD. NO. 813.13-01) WITH A 70 FT MAST ARM, SPLICE CABINET, OVERHEAD VIDEO DETECTION CAMERA, SIGNS AND TRAFFIC SIGNAL HEADS. (NOTES: ONE 3 IN. AND ONE 4 IN. PVC SCHEDULE 80 CONDUIT BEND)
- N. INSTALL MODIFIED PEDESTAL POLE BASE (MD 801.01-01) FOR 10' PEDESTAL POLE WITH BREAKAWAY COUPLINGS (MD 818.16-01), PEDESTRIAN SIGNAL HEAD, AUDIBLE TACTILE PUSHBUTTON STATION AND SIGN. (NOTE: ONE 2 IN. PVC SCHEDULE 80 CONDUIT BEND)
- O. INSTALL CONCRETE FOUNDATION FOR A 27' STEEL POLE WITH A 60 FT MAST ARM, OVERHEAD VIDEO DETECTION CAMERA, SIGNS AND TRAFFIC SIGNAL HEADS. (NOTE: ONE 3 IN. AND ONE 4 IN. PVC SCHEDULE 80 CONDUIT BEND)
- P. INSTALL CONCRETE FOUNDATION FOR 14 FT. STEEL PEDESTAL POLE WITH BREAKAWAY BASE AND A TRAFFIC SIGNAL HEAD. (NOTE: ONE 3 IN. PVC SCHEDULE 80 CONDUIT BEND)
- Q. REMOVE LIGHTING ARM AND LUMINAIRE FROM EXISTING WOOD POLE BY UTILITY COMPANY.
- R. CAP AND ABANDON EXISTING CONDUIT.
- S. DISCONNECT AND REMOVE LOOP DETECTOR CABLES.
- T. REMOVE EXISTING POLE AND FOUNDATION 12 IN. BELOW GRADE AND BACKFILL.
- U. REMOVE EXISTING SPAN WIRE AND ALL ASSOCIATED EQUIPMENT.
- V. REMOVE EXISTING HANDHOLE.
- W. REMOVE EXISTING BASE MOUNTED CONTROLLER, CABINET AND FOUNDATION 12 IN. BELOW GRADE AND BACKFILL. RETURN CABINET AND ASSOCIATED EQUIPMENT TO MONTGOMERY COUNTY SIGNAL SHOP.
- X. REMOVE PAVEMENT MARKINGS (ANY SIZE).
- Y. INSTALL METERED SERVICE PEDESTAL-EMBEDDED.
- Z. PULL BACK EXISTING OVERHEAD INTERCONNECT CABLE TO WOOD POLE 806432-5726, DEAD END, RUN DOWN WOOD POLE (WITH A 3 IN. PVC RISER) TO SPLICE CABINET ON PROPOSED POLE.
- AA. USE EXISTING WOOD POLE AND INSTALL 3" PVC RISER FROM STUB OUT TO EXISTING SPLICE CABINET
- BB. REMOVE GROUND MOUNTED SIGN AND POST
- CC. INSTALL GROUND MOUNTED SIGNING ON 4" x 4" WOOD POST
- DD. INSTALL 3 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - TRENCHED (TIE INTO ELBOW WITHIN THE EXISTING SIGNAL STRUCTURE BASE)
- EE. INSTALL 5 IN. WHITE HEAT APPLIED PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING LINE
- FF. INSTALL WHITE HEAT APPLIED PERMANENT PREFORMED "ARROW"
- GG. INSTALL WHITE HEAT APPLIED PERMANENT PREFORMED "ONLY"
- HH. GRIND OUT EXISTING PAVEMENT MARKING "ONLY"
- JJ. GRIND OUT EXISTING PAVEMENT MARKING "ARROW"
- KK. INSTALL 5 IN. WHITE HEAT APPLIED PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING LINE (3' LINE, 9' GAP)
- LL. OVERHEAD EXISTING FEED CABLE TO BE REMOVED & DISCONNECTED BY POWER COMPANY.

- GEOMETRIC LEGEND
- UTILITY LEGEND

GENERAL NOTES

1. VIDEO CAMERA LOCATION/ALIGNING SHALL BE COORDINATED WITH THE SHA ENGINEER.
2. THE CONTRACTOR SHALL VERIFY ALL PROPOSED POLE AND CABINET LOCATIONS PRIOR TO INSTALLATION.
3. ALL PAVEMENT MARKINGS SHALL BE INSTALLED IN ACCORDANCE WITH MDSA STANDARDS.
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 CABLE (EXCLUDING INTERCONNECT) TO THE APPROPRIATE TERMINALS AND PROPERLY LABEL EACH CABLE.
6. 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.
7. 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.
8. INTERCONNECT CABLE FROM PEPCO UTILITY POLE #806432-5726, TO THE SPLICE CABINET ON PEPCO UTILITY POLE #806432-5961, WILL BE INSTALLED BY MONTGOMERY COUNTY WHILE UTILIZING THE PROVIDED CONDUIT SYSTEM.
9. SEE SHEET NO. 2 OF 6 FOR HANDICAP RAMP DETAILS AND ADDITIONAL DIMENSIONING.

**SHA** STATE OF MARYLAND  
DEPARTMENT OF TRANSPORTATION  
STATE HIGHWAY ADMINISTRATION  
OFFICE OF TRAFFIC & SAFETY  
TRAFFIC ENGINEERING DESIGN DIVISION  
MD 650 (NEW HAMPSHIRE ROAD) AT ELTON ROAD  
TRAFFIC SIGNAL RECONSTRUCTION

**SIGNALIZATION PLAN SHEET**

SCALE 1"=20' ADVERTISED DATE 10-4-1977 CONTRACT NO. \_\_\_\_\_

DESIGNED BY \_\_\_\_\_ COUNTY MONTGOMERY  
DRAWN BY MRV LOGMILE 15065003.32  
CHECKED BY WSW TMS NO. 1731  
F.A.P. NO. \_\_\_\_\_ TOD NO. \_\_\_\_\_

TS NO. 1353D DRAWING - OF SHEET NO. 1 OF 6

**BAI** BRUDIS & ASSOCIATES, INC.  
Consulting Engineers  
8220 Rumsey Road, Suite 110  
Columbia, Maryland 21045  
Phone 410-864-9027  
www.brudis.com

APPROVALS	REVISIONS
TEAM LEADER	06/01/09 TMS-1731 SHA-XX4445195 UPGRADE TO MAST ARM, INSTALL APS, GPS AND VIDEO DETECTION CAMERA
ASST. DIV. CHIEF	C 02/01/2004 SHA No. A12885195 INSTALLATION OF PED SIGNAL NORTH LEG OF MD 650
DIVISION CHIEF	B 09/26/2000 AS BUILT
OFFICE DIRECTOR	HRZ

PLOTTED: Thursday, July 02, 2009 AT 12:22 PM  
FILE: P:\04-005 Signals\MD 650 @ Elton Dr\Drawings\CADD\Working\PSG-P001\_MD650@ELTON.dgn

TOD NO: XX444-21M  
SHA NO: M026A5D/85D  
MD 650 @ ELTON RD