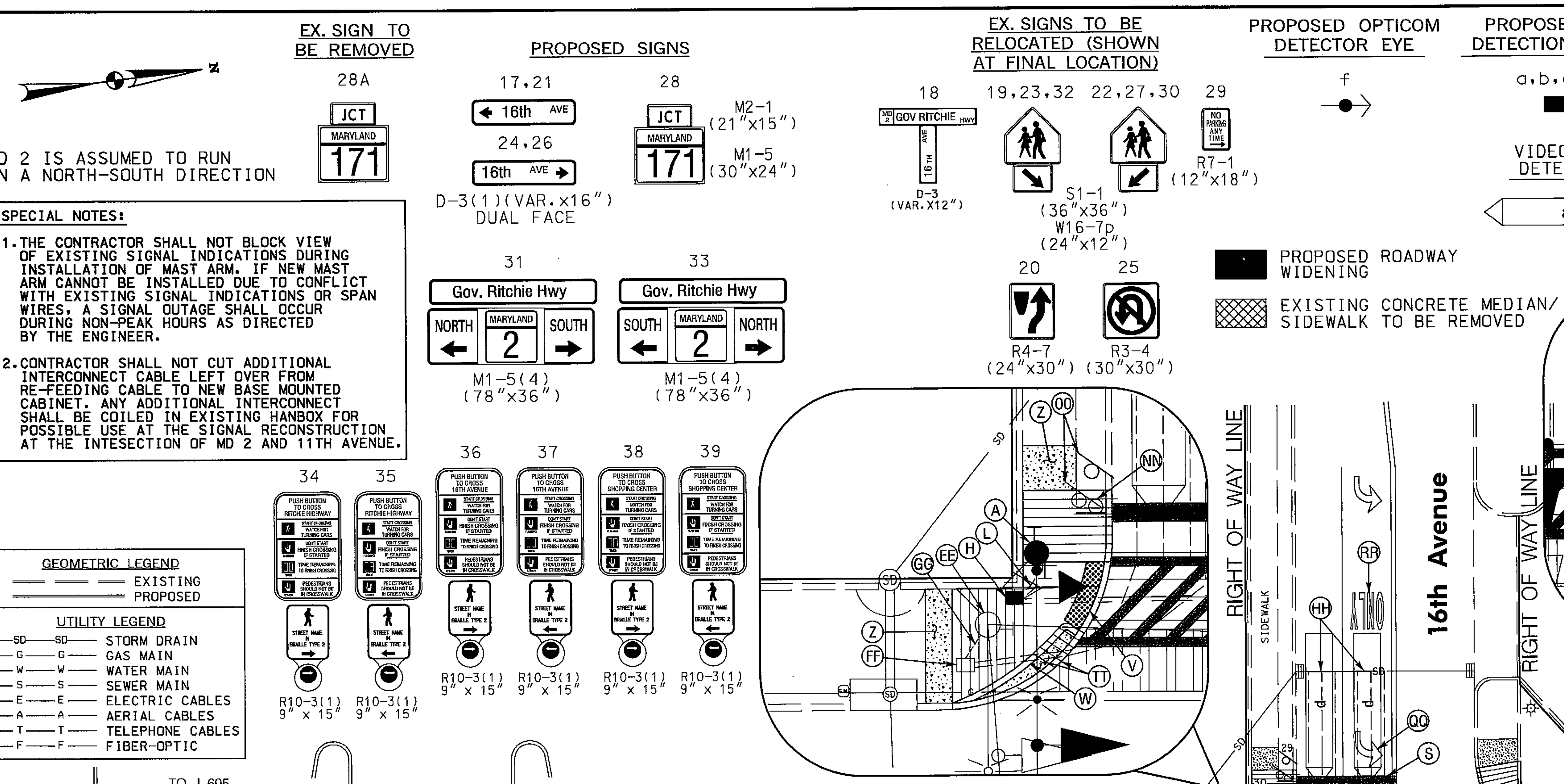
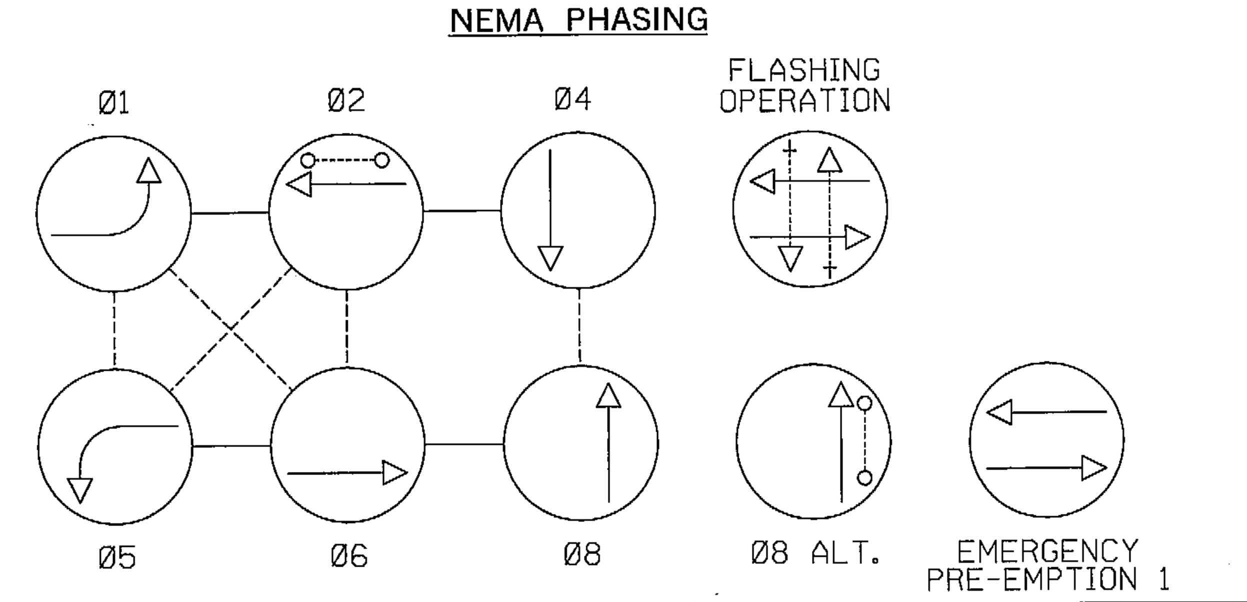


MD 2 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION

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 NOT CUT ADDITIONAL INTERCONNECT CABLE LEFT OVER FROM RE-FEEDING CABLE TO NEW BASE MOUNTED CABINET. ANY ADDITIONAL INTERCONNECT SHALL BE COILED IN EXISTING HANBOX FOR POSSIBLE USE AT THE SIGNAL RECONSTRUCTION AT THE INTESECTION OF MD 2 AND 11TH AVENUE.



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

GEOMETRIC LEGEND
- EXISTING
- PROPOSED

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

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.
5. ALL EXISTING TRAFFIC SIGNAL EQUIPMENT REMOVED SHALL BECOME THE PROPERTY OF THE SIGNAL CONTRACTOR UPON COMPLETION OF THE NEW SIGNAL.
6. ALL PROPOSED LUMINAIRES SHALL BE SUPPLIED WITH A PHOTOCELL.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TERMINATING ALL SIGNAL CABLES TO THE APPROPRIATE TERMINALS AND PROPERLY LABEL EACH CABLE.
8. REMOVE AND DISPOSE OF ALL UNUSED SIGNAL CABLE.
9. THE CONTRACTOR SHALL NOT CUT MAST ARM AS INDICATED ON PLANS UNTIL MAST ARM POLE LOCATION IS FINALIZED.
10. PUSHBUTTONS ARE TO BE LOCATED SO THAT THEY CAN BE ACTIVATED BY A PERSON IN A WHEELCHAIR REACHING LESS THAN 18" FROM A 60" x 60" LEVEL LANDING AREA WITH A CROSS SLOPE OF LESS THAN OR EQUAL TO 2%.
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-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.
14. ALL SIDEWALK RAMPS SHALL BE INSTALLED AS PER STANDARDS MD 655.11 AND MD 655.12.
15. THE CONTRACTOR SHALL REPAIR ANY DAMAGE TO EXISTING SIDEWALKS CAUSED BY THE INSTALLATION OF SIGNAL EQUIPMENT.
16. REFER TO SHEET 2 FOR DIMENSIONS OF SIGNAL EQUIPMENT AND PAVEMENT MARKINGS WITHIN INTERSECTION.

TELEPHONE	19'- 4"
TELEPHONE	19'- 5"
TELEPHONE	20'-10"
TELEPHONE	21'- 6"
SECONDARY	24'- 8"
SECONDARY	26'- 1"
SECONDARY	26'- 2"
PRIMARY	33'- 2"
PRIMARY	OVER 40'

TELEPHONE	18'- 6"
TELEPHONE	18'- 8"
TELEPHONE	20'- 2"
TELEPHONE	21'- 3"
SECONDARY	25'- 1"
SECONDARY	26'- 6"
SECONDARY	26'- 8"
PRIMARY	35'- 8"
PRIMARY	OVER 40'

TOD NO: XX647-19
SHA NO: AA127B5B
MD 2 @ 16th Avenue

CONSTRUCTION DETAILS

A. 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 16TH AVENUE."), VIDEO DETECTION CAMERAS MOUNTED ON MAST ARMS 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 16.5 FT. (15'-0" T) STEEL POLE WITH A TWIN 50 FT. (CUT TO 40 FT.)/60 FT. MAST ARMS, TRAFFIC SIGNAL HEADS, SIGNS, COUNTDOWN PEDESTRIAN SIGNAL HEADS, AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON INSTALLED WITH VIBRATING ARROW POINTING LEFT AND R10-3(1) SIGN. (SIGN TO READ "PUSH BUTTON TO CROSS RITCHIE HIGHWAY"), OPTICOM DETECTOR EYE AND VIDEO DETECTION CAMERAS MOUNTED ON MAST ARMS. (INSTALL 1-2 IN. AND 1-4 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BENDS IN POLE BASE).
C. INSTALL CONCRETE FOUNDATION WITH 10 FT. STEEL PEDESTAL POLE WITH MODIFIED BREAKAWAY BASE STANDARD NO. MD 801.01-01, COUNTDOWN PEDESTRIAN SIGNAL HEAD, AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON INSTALLED WITH VIBRATING ARROW POINTING LEFT AND R10-3(1) SIGN. (SIGN TO READ "PUSH BUTTON TO CROSS 16TH AVENUE"). (INSTALL 1-2 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BEND IN PEDESTAL BASE).
D. INSTALL CONCRETE FOUNDATION WITH 10 FT. STEEL PEDESTAL POLE WITH MODIFIED BREAKAWAY BASE STANDARD NO. MD 801.01-01, 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 RITCHIE HIGHWAY"). (INSTALL 1-2 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BEND IN PEDESTAL BASE).
E. USE EXISTING HANDHOLE AND ADJUST HANDHOLE TO FINAL GRADE.
F. INSTALL NEMA SIZE "S" BASE MOUNTED CABINET AND CONTROLLER WITH SIZE "S" FOUNDATION STANDARD NO. MD 816.07. (INSTALL 2-2 IN. AND 2-4 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BENDS IN CABINET BASE.) EXISTING SIDEWALK TO BE USED AS CABINET PAD.
G. INSTALL EMBEDDED METERED SERVICE PEDESTAL WITH 2-2 IN. AND 1-4 IN. SCHEDULE 80, 90 DEGREE PVC CONDUIT BENDS IN PEDESTAL BASE.
H. INSTALL HANDHOLE.
J. INSTALL 2 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - TRENCHED.
K. INSTALL 3 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - TRENCHED.
L. INSTALL 4 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - TRENCHED.
M. INSTALL 4 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - SLOTTED.
N. INSTALL 4 IN. SCHEDULE 80, POLYVINYL CHLORIDE ELECTRICAL CONDUIT FOR PROPOSED UNDERGROUND ELECTRICAL SERVICE - TRENCHED. CAP AND MARK CONDUIT 2 FT. ABOVE GRADE AT UTILITY POLE FOR USE BY OTHERS.
O. INSTALL 2 IN. SCHEDULE 80, POLYVINYL CHLORIDE ELECTRICAL CONDUIT FOR PROPOSED UNDERGROUND TELEPHONE SERVICE - TRENCHED. CAP AND MARK CONDUIT 2 FT. ABOVE GRADE AT UTILITY POLE FOR USE BY OTHERS.
P. INSTALL 2 IN. SCHEDULE 80, PVC ELECTRICAL CONDUIT - TRENCHED FOR PROPOSED UNDERGROUND ELECTRICAL SERVICE.
Q. INSTALL 5 IN. HEAT APPLIED, YELLOW PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING.
R. INSTALL 12 IN. HEAT APPLIED, WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING FOR CROSSWALKS.
S. INSTALL 24 IN. HEAT APPLIED, WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING FOR STOP LINE.
T. REMOVE EXISTING AND INSTALL 24 IN. HEAT APPLIED, WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING FOR STOP LINE.
U. CUT, CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE.
V. REMOVE EXISTING SIDEWALK RAMP AND INSTALL SIDEWALK RAMP (SEE SHEET TSP-3 FOR DETAILS) AND DETECTABLE WARNING SURFACE STANDARD NO. MD 655.40.
W. INSTALL STANDARD TYPE A COMBINATION CONCRETE CURB.
X. REMOVE EXISTING SIDEWALK RAMP AND INSTALL SIDEWALK RAMP (SEE SHEET TSP-3 FOR DETAILS).
Y. REMOVE EXISTING SIDEWALK RAMP. BACKFILL, SEED AND MULCH.
Z. REMOVE EXISTING SIDEWALK AND INSTALL 5 IN. CONCRETE SIDEWALK.
AA. INSTALL DETECTABLE WARNING SURFACE STANDARD NO. MD 655.40.
BB. INSTALL SIDEWALK RAMP SEPARATION ISLAND (SEE SHEET TP-3 FOR DETAILS)
CC. REMOVE EXISTING STRAIN POLE AND PEDESTRIAN SIGNAL HEAD(S). REMOVE FOUNDATION 12 IN. BELOW GRADE AND BACKFILL.
DD. REMOVE EXISTING STRAIN POLE AND PEDESTRIAN SIGNAL HEADS. REMOVE FOUNDATION 12 IN. BELOW GRADE AND BACKFILL. RELOCATE EXISTING S1-1 (36 IN. x 36 IN.) AND W16-7p (21 IN. x 15 IN.) SIGNS (#19 & #27) ON ONE 4 IN. x 6 IN. TREATED WOOD POST. (L=16 FT.) AS SHOWN.
EE. REMOVE EXISTING STRAIN POLE, PEDESTRIAN SIGNAL HEAD AND SIGNS. REMOVE FOUNDATION 12 IN. BELOW GRADE AND BACKFILL.

CONSTRUCTION DETAILS CONT.

FF. REMOVE EXISTING HANDHOLE.
GG. CAP AND ABANDON EXISTING CONDUIT.
HH. ABANDON EXISTING LOOP DETECTOR. DISCONNECT AND REMOVE LOOP DETECTOR CABLES FROM CONDUITS, HANDHOLES, SIGNAL STRUCTURES AND CONTROLLER.
JJ. REMOVE EXISTING SPAN WIRE AND ALL ASSOCIATED EQUIPMENT.
KK. REMOVE EXISTING BASE MOUNTED CABINET AND CONTROLLER. 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.
LL. USE EXISTING HANDHOLE. DISCONNECT AND PULL BACK EXISTING INTERCONNECT CABLE HEADING NORTH AND RE-FEED IN NEW CONDUIT TO PROPOSED BASE MOUNTED CABINET.
MM. INSTALL M2-1 (21 IN. x 15 IN.) AND M1-5 (30 IN. x 24 IN.) SIGNS ON ONE 4 IN. x 4 IN. TREATED WOOD POST. (L=16 FT.)
NN. RELOCATE EXISTING S1-1 (36 IN. x 36 IN.) AND W16-7p (21 IN. x 15 IN.) GROUND MOUNTED SIGNS (#22/#23 AND #30/#32) TO PROPOSED SIGNAL POLE AS SHOWN.
OO. RELOCATE EXISTING R7-1 (12" x 18") SIGN AND SUPPORT AS SHOWN.
PP. RELOCATE EXISTING D-3 (VAR. x 12 IN.) STREET BLADE AND SUPPORT AS SHOWN.
QQ. REMOVE EXISTING PAVEMENT MARKING ARROW.
RR. REMOVE EXISTING PAVEMENT MARKING LETTERS ("ONLY").
SS. REMOVE EXISTING PAVEMENT MARKINGS.
TT. INSTALL 5 IN. CONCRETE SIDEWALK AND COMBINATION CONCRETE CURB AND GUTTER (STANDARD NO. MD 620.02 TYPE 'A').
UU. INSTALL CONCRETE FOUNDATION WITH 10 FT. STEEL PEDESTAL POLE WITH MODIFIED BREAKAWAY BASE STANDARD NO. MD 801.01-01, 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 SHOPPING CENTER"). (INSTALL 1-2 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BEND IN PEDESTAL BASE).
VV. INSTALL CONCRETE FOUNDATION WITH 5 FT. STEEL PEDESTAL POLE WITH MODIFIED BREAKAWAY BASE STANDARD NO. MD 801.01-01, COUNTDOWN PEDESTRIAN SIGNAL HEAD, AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON INSTALLED WITH VIBRATING ARROW POINTING LEFT AND R10-3(1) SIGN. (SIGN TO READ "PUSH BUTTON TO CROSS SHOPPING CENTER"). (INSTALL 1-2 IN. SCHEDULE 80, 90 DEGREE PVC ELECTRICAL CONDUIT BEND IN PEDESTAL BASE).
WW. REMOVE EXISTING CONCRETE MEDIAN AND INSTALL COMBINATION CONCRETE CURB AND GUTTER (STANDARD NO. MD 620.02 TYPE 'A') AND 5 IN. CONCRETE SIDEWALK.
XX. RELOCATE EXISTING R4-7 (24" x 30") AND R3-4 (30" x 30") SIGNS ON ONE 4 IN. x 4 IN. TREATED WOOD SUPPORT AS SHOWN. (L=15 FT.)

WHITMAN, REQUARDT & ASSOCIATES, LLP
801 South Caroline Street, Baltimore, Maryland 21231

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

MD 2 (Ritchie Highway) and 16TH Avenue
Brooklyn Park, MD

TRAFFIC SIGNALIZATION PLAN

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

REVISIONS
- (C) RECONSTRUCT TRAFFIC SIGNAL AND UPGRADE TO APS/CPS. TIMS NO. L201 SHA CONTRACT XX6475185 04/30/2012 — SRB NML
- (B) INSTALLATION OF OPTICOM PRE-EMPTION FOR S/B MD 2 SHA CONTRACT XX1005585 4/2000 — JAH
- (A) MODIFICATION DUE TO GEOMETRICS. INTERCONNECT ADDED. SHA NO. AA548-501-583 09/1993 — TH

SCALE 1" = 20' DATE 8/09/1985 CONTRACT NO.

DESIGNED BY	R. W. Harris	COUNTY	Anne Arundel
DRAWN BY	T.T. Lane	LOGMILE	
CHECKED BY		TIMS NO.	
F.A.P. NO.		TOD NO.	

TS NO. 2105C DRAWING TSP-1 OF 4 SHEET NO. 1 OF 4

PLOTTED: April 30, 2012
FILE: N:\31669-207\CADD\pSG-P001_L201.dgn

BY: sbloss