MD 139 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION

PROPOSED SIGNS

16 — Malvern AVE — D-3(1) DUAL FACED (VAR.x16")

19 — Malvern AVE

17 — GBMC Hospital — D-3(1) DUAL FACED WHITE ON BLUE (VAR.x16")

18 — GBMC Hospital

20,21,22,24 — Charles ST — D-3(1) DUAL FACED (VAR.x16")

23 — R3-6 (30"x36")

25,26 — ONLY — R3-5(R) (30"x36")

PROPOSED VIDEO DETECTION CAMERA

a,b,c,d,e

PROPOSED SIGNALS

1,2,5,7 — 12"

3,4,8,9, 11,12,14 — 12"

6,10 — 8"

13 — 8"/12"

15 — 12"

NEMA PHASING

Ø1 Ø2 Ø4 Ø5 Ø6 Ø8

FLASHING OPERATION

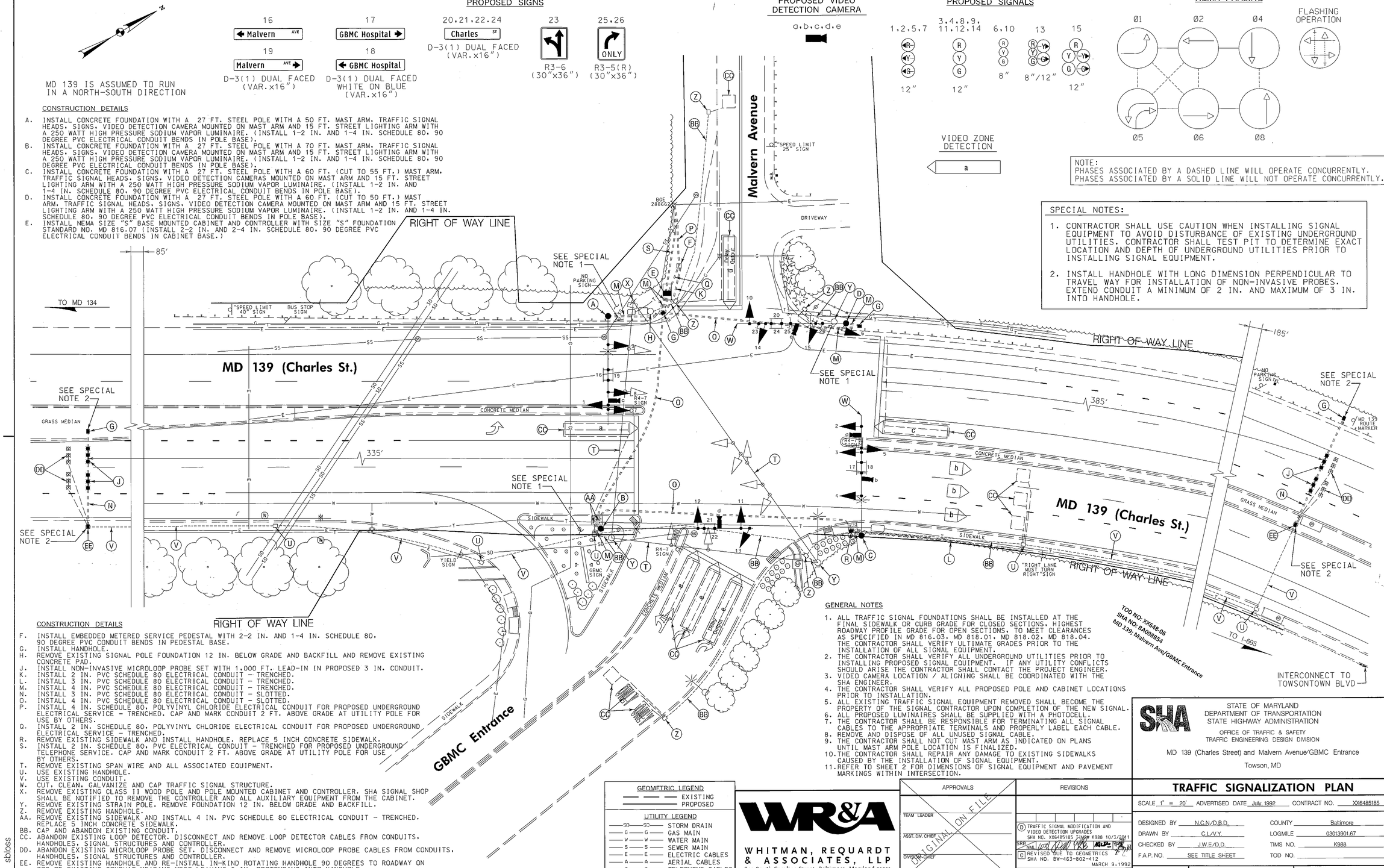
NOTE:
PHASES ASSOCIATED BY A DASHED LINE WILL OPERATE CONCURRENTLY.
PHASES ASSOCIATED BY A SOLID LINE WILL NOT OPERATE CONCURRENTLY.

VIDEO ZONE DETECTION

a

CONSTRUCTION DETAILS

A. INSTALL CONCRETE FOUNDATION WITH A 27 FT. STEEL POLE WITH A 50 FT. MAST ARM, TRAFFIC SIGNAL HEADS, SIGNS, VIDEO DETECTION CAMERA MOUNTED ON MAST ARM 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 27 FT. STEEL POLE WITH A 70 FT. MAST ARM, TRAFFIC SIGNAL HEADS, SIGNS, VIDEO DETECTION CAMERA MOUNTED ON MAST ARM 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).
C. INSTALL CONCRETE FOUNDATION WITH A 27 FT. STEEL POLE WITH A 60 FT. (CUT TO 55 FT.) MAST ARM, TRAFFIC SIGNAL HEADS, SIGNS, VIDEO DETECTION CAMERAS MOUNTED ON MAST ARM 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).
D. INSTALL CONCRETE FOUNDATION WITH A 27 FT. STEEL POLE WITH A 60 FT. (CUT TO 50 FT.) MAST ARM, TRAFFIC SIGNAL HEADS, SIGNS, VIDEO DETECTION CAMERA MOUNTED ON MAST ARM 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).
E. 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.)



CONSTRUCTION DETAILS

F. INSTALL EMBEDDED METERED SERVICE PEDESTAL WITH 2-2 IN. AND 1-4 IN. SCHEDULE 80, 90 DEGREE PVC CONDUIT BENDS IN PEDESTAL BASE.
G. INSTALL HANDHOLE.
H. REMOVE EXISTING SIGNAL POLE FOUNDATION 12 IN. BELOW GRADE AND BACKFILL AND REMOVE EXISTING CONCRETE PAD.
J. INSTALL NON-INVASIVE MICROLOOP PROBE SET WITH 1,000 FT. LEAD-IN IN PROPOSED 3 IN. CONDUIT.
K. INSTALL 2 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - TRENCHED.
L. INSTALL 3 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - TRENCHED.
M. INSTALL 4 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - TRENCHED.
N. INSTALL 3 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - SLOTTED.
O. INSTALL 4 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - SLOTTED.
P. 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.
Q. INSTALL 2 IN. SCHEDULE 80, POLYVINYL CHLORIDE ELECTRICAL CONDUIT FOR PROPOSED UNDERGROUND ELECTRICAL SERVICE - TRENCHED.
R. REMOVE EXISTING SIDEWALK AND INSTALL HANDHOLE. REPLACE 5 INCH CONCRETE SIDEWALK.
S. INSTALL 2 IN. SCHEDULE 80, PVC ELECTRICAL CONDUIT - TRENCHED FOR PROPOSED UNDERGROUND TELEPHONE SERVICE. CAP AND MARK CONDUIT 2 FT. ABOVE GRADE AT UTILITY POLE FOR USE BY OTHERS.
T. REMOVE EXISTING SPAN WIRE AND ALL ASSOCIATED EQUIPMENT.
U. USE EXISTING HANDHOLE.
V. USE EXISTING CONDUIT.
W. CUT, CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE.
X. REMOVE EXISTING CLASS II WOOD POLE AND POLE MOUNTED CABINET AND CONTROLLER. SHA SIGNAL SHOP SHALL BE NOTIFIED TO REMOVE THE CONTROLLER AND ALL AUXILIARY EQUIPMENT FROM THE CABINET.
Y. REMOVE EXISTING STRAIN POLE. REMOVE FOUNDATION 12 IN. BELOW GRADE AND BACKFILL.
Z. REMOVE EXISTING HANDHOLE.
AA. REMOVE EXISTING SIDEWALK AND INSTALL 4 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - TRENCHED. REPLACE 5 INCH CONCRETE SIDEWALK.
BB. CAP AND ABANDON EXISTING CONDUIT.
CC. ABANDON EXISTING LOOP DETECTOR. DISCONNECT AND REMOVE LOOP DETECTOR CABLES FROM CONDUITS, HANDHOLES, SIGNAL STRUCTURES AND CONTROLLER.
DD. ABANDON EXISTING MICROLOOP PROBE SET. DISCONNECT AND REMOVE MICROLOOP PROBE CABLES FROM CONDUITS, HANDHOLES, SIGNAL STRUCTURES AND CONTROLLER.
EE. REMOVE EXISTING HANDHOLE AND RE-INSTALL IN-KIND ROTATING HANDHOLE 90 DEGREES TO ROADWAY ON TOP OF EXISTING CONDUIT HEADING WEST LEAVING 6 IN. PROTRUDING INTO HANDHOLE.

SPECIAL NOTES:

1. CONTRACTOR SHALL USE CAUTION WHEN INSTALLING SIGNAL EQUIPMENT TO AVOID DISTURBANCE OF EXISTING UNDERGROUND UTILITIES. CONTRACTOR SHALL TEST PIT TO DETERMINE EXACT LOCATION AND DEPTH OF UNDERGROUND UTILITIES PRIOR TO INSTALLING SIGNAL EQUIPMENT.
2. INSTALL HANDHOLE WITH LONG DIMENSION PERPENDICULAR TO TRAVEL WAY FOR INSTALLATION OF NON-INVASIVE PROBES. EXTEND CONDUIT A MINIMUM OF 2 IN. AND MAXIMUM OF 3 IN. INTO HANDHOLE.

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. THE CONTRACTOR SHALL REPAIR ANY DAMAGE TO EXISTING SIDEWALKS CAUSED BY THE INSTALLATION OF SIGNAL EQUIPMENT.
11. REFER TO SHEET 2 FOR DIMENSIONS OF SIGNAL EQUIPMENT AND PAVEMENT MARKINGS WITHIN INTERSECTION.

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

WR&A
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801 South Caroline Street, Baltimore, Maryland 21231

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

REVISIONS
D TRAFFIC SIGNAL MODIFICATION AND VIDEO DETECTION UPGRADES SHA NO. XX6485185 FMW# K988 10/3/2011 MAM
C REVISED DUE TO GEOMETRICS SHA NO. BW-463-802-412 MARCH 9,1992 MAM TH

SHA
STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION
MD 139 (Charles Street) and Malvern Avenue/GBMC Entrance
Towson, MD

TRAFFIC SIGNALIZATION PLAN

SCALE 1" = 20' ADVERTISED DATE July, 1992 CONTRACT NO. XX6485185

DESIGNED BY N.C.N./D.B.D. COUNTY Baltimore
DRAWN BY C.L./V.Y. LOGMILE 03013901.67
CHECKED BY J.W.E./D.D. TIMS NO. K988
F.A.P. NO. SEE TITLE SHEET TOD NO.

TS NO. 1841 D | DRAWING TSP-1 OF 4 | SHEET NO. 1 OF 4

PLOTTED: October 05, 2011
FILE: N:\31069-174\CADD\pSG-P001_K988.dgn

BY: sbloss