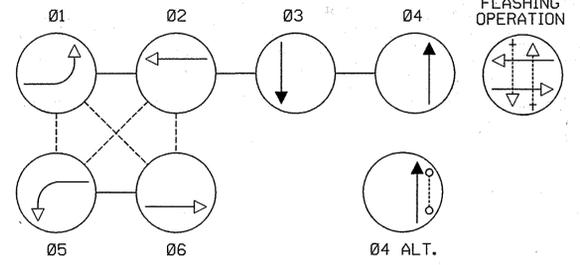


- PROPOSED SIGNALS**
 11,14 (R) 9,12 (R) 10,13 (R)
 12" 12"/8" 12"
- EXISTING SIGNS**
 17A Bynum RD ←, 19A Red Pump RD →, 18,20 ONLY, 27,28 LEFT ON GREEN ARROW ONLY, 29 LEFT TURN YIELD ON GREEN, 1,2,5,6 (R), 3,4,7,8 (Y), 15,16 (R), 12" 12" 12"
- REMOVE EXISTING SIGNS**
 24, 25, 26 (North/South 24)
- EXISTING SIGNALS**
 21 ONLY, 22 (R3-5(L), R3-6(L))

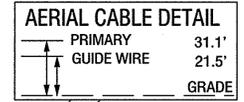
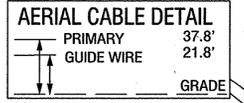
CONSTRUCTION DETAILS

- USE EXISTING BASE MOUNTED CONTROLLER AND CABINET, AND ALL ATTACHED EQUIPMENT. INSTALL VIDEO DETECTION RETRO-FIT EQUIPMENT.
- INSTALL HANDHOLE.
- INSTALL HANDHOLE ON EXISTING CONDUIT RUN AFTER PULLING BACK CABLES.
- INSTALL 3 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - TRENCHED.
- INSTALL 3 IN. PVC SCHEDULE 80 ELECTRICAL CONDUIT - BORED.
- INSTALL 24 IN. HEAT APPLIED, WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING FOR STOP LINE.
- USE EXISTING HANDHOLE.
- USE EXISTING CONDUIT.
- USE EXISTING HANDHOLE. PULL BACK EXISTING INTERCONNECT CABLE AND REROUTE AFTER NEW CONNECTION IS COMPLETE.
- REMOVE EXISTING HANDHOLE. CONNECT NEW 3 IN. CONDUIT TO EXISTING CONDUIT AND EXTEND TO NEW HANDHOLE.
- REMOVE EXISTING HANDHOLE.
- CAP AND ABANDON EXISTING CONDUIT.
- ABANDON EXISTING VEHICLE DETECTION.
- REMOVE EXISTING PAVEMENT MARKING BY GRINDING.
- USE EXISTING MAST ARM POLE AND MAST ARM. RELOCATE AND REPLACE VEHICLE SIGNAL HEADS AS SHOWN. INSTALL VIDEO CAMERA DETECTION.
- INSTALL NON-INVASIVE MICRO-LOOP PROBE (SET OF 3)

NEMA PHASING



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



GENERAL NOTES

- VIDEO CAMERA LOCATION/ALIGNING SHALL BE COORDINATED WITH THE SHA ENGINEER.
- THE CONTRACTOR SHALL VERIFY ALL PROPOSED POLE AND CABINET LOCATIONS PRIOR TO INSTALLATION.
- PAVEMENT MARKINGS DETAILED ARE PROPOSED AND ARE TO BE INSTALLED BY THE CONTRACTOR IN ACCORDANCE WITH MD-SHA STANDARDS. ALL OTHER PAVEMENT MARKINGS ARE TO BE CONSIDERED AS EXISTING.
- GEOMETRICS SHALL BE CONFIRMED PRIOR TO THE INSTALLATION OF SIGNAL EQUIPMENT. ALL TRAFFIC SIGNAL FOUNDATIONS SHALL BE INSTALLED AT 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.
- ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC AND ARE NOT TO BE CONSIDERED COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING ALL UTILITY COMPANIES PRIOR TO CONSTRUCTION SO THAT ALL UTILITIES MAY BE LOCATED IN THE FIELD. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN THE UTILITIES AND THE TRAFFIC SIGNAL EQUIPMENT WILL OCCUR, THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE PROJECT ENGINEER IMMEDIATELY.
- ALL UNUSED CABLE SHALL BE REMOVED.

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

MD 24 at Bynum Road/Red Pump Road

The Traffic Group, Inc.
 Suite H
 9900 Franklin Square Drive
 Baltimore, Maryland 21236
 410-931-6600
 1-800-583-8411
 Fax 410-931-6601
 "Merging Innovation and Excellence"®

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

THESE PLANS ARE APPROVED FOR CONSTRUCTION FOR A PERIOD OF 1 YEAR FROM THE DATE OF APPROVAL. SHOULD CONSTRUCTION NOT BEGIN WITHIN THIS TIME FRAME THESE PLANS SHALL BE NULL AND VOID WITHOUT REVIEW FROM THE TRAFFIC ENGINEERING DESIGN DIVISION.

APPROVALS	REVISIONS
TEAM LEADER	① Add WB right turn lane and curbs for that approach. SHA No. BW990682 May 9, 2008
ASST. DIV. CHIEF	FJH Change EP LT to exclusive on NB SB MD 24 on SHA No. 24-Signal June 2004
DIVISION CHIEF	MK Modify due to widening at Red Pump Road April 11, 1997
OFFICE DIRECTOR	MML

Traffic Signal Plan	
SCALE 1" = 20'	DATE August 18, 1993 CONTRACT NO. HA-116-5176
DESIGNED BY S. Bloss	COUNTY Harford
DRAWN BY S. Bloss	LOGMILE 1200411.81
CHECKED BY T. Hannan	TIMS NO. I-102
F.A.P. NO. N/A	TOD NO.
TS NO. 833-J	DRAWING - OF SHEET NO. 1 OF 2