## PROJECT DESCRIPTION

GENERAL

THIS PORTION OF THE PROJECT INVOLVES THE REPLACEMENT OF THE EXISTING INTERSECTION TRAFFIC CONTROL SIGNAL AT MD 214 AND MD 468. THE REPLACEMENT IS DUE TO NEW GEOMETRIC MODIFICATION TO MD 214 DURING THE CONSTRUCTION OF AADPW CONTRACT H512801. MD 214 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

INTERSECTION OPERATION

THIS INTERSECTION WILL OPERATE IN A NEMA THREE-PHASE, FULL-TRAFFIC-ACTUATED MODE, WITH MD 214 APPROACHES RUNNING CONCURRENTLY. THE MD 468 APPROACH WILL OPERATE AS A SEPARATE PHASE.

CONTROLLER REQUIREMENTS

INSTALL A FULL-TRAFFIC-ACTUATED EIGHT-PHASE CONTROLLER WITH INTERSECTION MONITOR AND BATTERY BACK-UP FOR PHONE DROP TELEMETRY MODULE AND ISOLATION BOARD HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET.

SPECIAL NOTE:

UPON COMPLETION OF THIS PROJECT, THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF SHA AT (410) 787-7631 TO ARRANGE FOR THE PHONE LINE INSTALLATION. THE CONTRACTOR IS TO PROVIDE MR. SNYDER WITH THE NEAREST STREET ADDRESS, ZIP CODE AND PHONE NUMBER.

## PROJECT CONTACTS

MRS. KIMBERLY A. TRAN
ASSISTANT DISTRICT
ENGINEER - TRAFFIC
(410) 841-1019

MR. ANDRE FUTRELL
ASSISTANT DISTRICT
ENGINEER - MAINTENANCE
(410) 841-1013

MR. RICHARD L. DAFF, SR.
CHIEF, TRAFFIC OPERATIONS
DIVISION
(410) 787-7630

MR. JOHN MAYS
DISTRICT UTILITY ENGINEER
(410) 841-1039

MR. JAMES FOLDEN
ASSISTANT DISTRICT
ENGINEER - CONSTRUCTION
(410) 841-1031

THE POWER COMPANY REPRESENTATIVE IS :

BALTIMORE GAS ELECTRIC COMPANY
MR. MIKE MALIZEWSKI
7317 PARKWAY DRIVE SOUTH
HANOVER, MD 21076
(410) 859-9043
WMS# 1137685

## EQUIPMENT LIST "C"

C. EQUIPMENT TO BE REMOVED AND SALVAGED BY THE CONTRACTOR. THE EQUIPMENT SHALL BE DELIVERED TO 7491 CONNELLY DRIVE; HANOVER, MD. 21076. (NOTIFY AT LEAST 72 HOURS PRIOR TO INTENDED DELIVER AT (410) 787-7658.)

| CAT. CODE | QUANTITY | UNIT | DESCRIPTION |
|---|---|---|---|
| 900000 | 1 | EA | POLE MOUNTED CABINET WITH CONTROLLER |

## EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY SHA

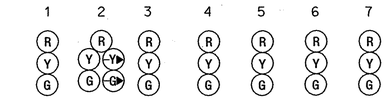
| QUANTITY | UNIT | DESCRIPTION |
|---|---|---|
| 1 | EA | FOUR CHANNEL, TIME DELAY OUTPUT LOOP DETECTOR AMPLIFIER |
| 1 | EA | EIGHT PHASE (FULLY ACTUATED) CONTROLER AND CABINET - BASE MOUNTED WITH VIDEO INTERFACE EQUIPMENT |
| 119 | SF | SHEET ALUMINUM SIGNS TO CONSIST OF: |
| - 2 | EA | R3-5L (30" X 36") MAST ARM MOUNTED |
| - 1 | EA | R3-5R (30" X 36") MAST ARM MOUNTED |
| - 3 | EA | D3-2 (VARIES X 16") MAST ARM MOUNTED |
| - 1 | EA | ASSEMBLY (48" X 75") GROUND MOUNTED - "SOUTH MD 468" |
| - 1 | EA | ASSEMBLY (48" X 75") POLE MOUNTED - "WEST MD 214" |
| - 1 | EA | ASSEMBLY (30" X 51") GROUND MOUNTED - "EAST MD 214" |
| - 1 | EA | ASSEMBLY (30" X 51") GROUND MOUNTED - "SOUTH MD 468" |

## EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

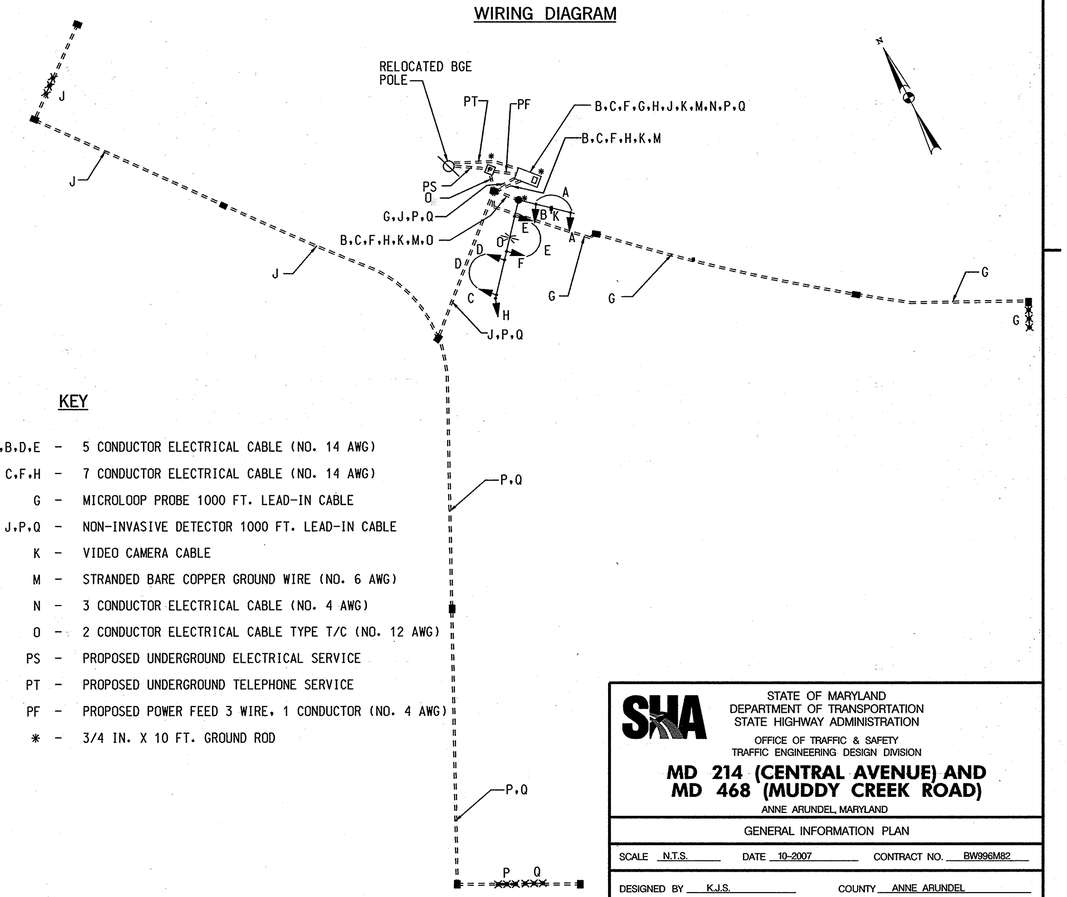
| ITEM NO. | QUANTITY | UNIT | DESCRIPTION |
|---|---|---|---|
| 2006 | 4 | CY | TEST PIT EXCAVATION |
| 5012 | 72 | LF | 24 INCH WHITE LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS |
| 8002 | 1 | LS | REMOVE AND DISPOSE OF EXISTING MATERIALS AND EQUIPMENT |
| 8003 | 5 | CY | CONCRETE FOR SIGNAL FOUNDATION |
| 8006 | 73 | SF | INSTALL OVERHEAD SIGN |
| 8008 | 46 | SF | INSTALL GROUND MOUNT SIGN |
| 8007 | 15 | LF | NO. 6 AWG STRANDED BARE COPPER GROUND WIRE |
| 8029 | 1030 | LF | 2 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED |
| 8031 | 15 | LF | 3 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED |
| 8027 | 140 | LF | 3 INCH SCHEDULE 80 RIGID PVC CONDUIT - BORED |
| 8025 | 88 | LF | 4 INCH SCHEDULE 80 RIGID PVC CONDUIT - SLOTTED |
| 8032 | 35 | LF | 4 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED |
| 8030 | 202 | LF | 2 INCH SCHEDULE 80 RIGID PVC CONDUIT - SLOTTED |
| 8028 | 27 | LF | 2 INCH SCHEDULE 80 RIGID PVC CONDUIT - BORED |
| 8009 | 10 | LF | 1 INCH LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUIT FOR DETECTOR |
| 8010 | 1 | EA | MICROLOOP PROBE, 1000 FT. LEAD-IN CABLE |
| 8011 | 12 | EA | FURNISH AND INSTALL ELECTRICAL HANDHOLE |
| 8013 | 1 | EA | VIDEO DETECTION CAMERA |
| 8014 | 1 | EA | CONTROL CABLE, 250 FOOT, VIDEO DETECTION CAMERA TO CONTROLLER |
| 8016 | 1 | EA | STEEL POLE WITH 50 FT/60 FT MAST ARM |
| 8018 | 3 | EA | GROUND ROD - 3/4 INCH DIAMETER X 10 FOOT LENGTH |
| 8001 | 15 | LF | SAW CUT FOR SIGNAL |
| 8020 | 23 | EA | 12 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION |
| 8021 | 1 | EA | CUT, CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE |
| 8022 | 150 | LF | ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG) |
| 8023 | 300 | LF | ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG) |
| 8004 | 1 | EA | 20FT LIGHT ARM |
| 8017 | 1 | EA | 250W HIGH PRESS SOD LAMP & LUM W/ PHOTO CELL |
| 8024 | 75 | LF | ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 AWG) |
| 8005 | 53 | LF | F & I 4" X 6" BREAKAWAY WOOD POST |
| 8034 | 1 | EA | INSTALL BASE MOUNTED CONTROLLER AND CABINET |
| 8035 | 3 | EA | NON-INVASIVE DETECTOR, 1000 FT. LEAD-IN CABLE |
| 8036 | 1 | EA | 200 AMP METERED SERVICE PEDESTAL |

## PHASE CHART




| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
|---|---|---|---|---|---|---|---|---|
| PHASE 2 & 6 | G | G | G | G | R | R | R | ← |
| 2 & 6 CHANGE | Y | Y | Y | Y | R | R | R | → |
| PHASE 4 | R | R/-G▶ | R | R | G | G | G | ↰ |
| 4 CHANGE | R | R/-Y▶ | R | R | Y | Y | Y | ↰ |
| FLASHING OPERATION | FL/Y | FL/Y | FL/Y | FL/Y | FL/R | FL/R | FL/R | ←↑→ |

## WIRING DIAGRAM




## KEY

| | | |
|---|---|---|
| A,B,D,E | - | 5 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG) |
| C,F,H | - | 7 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG) |
| G | - | MICROLOOP PROBE 1000 FT. LEAD-IN CABLE |
| J,P,Q | - | NON-INVASIVE DETECTOR 1000 FT. LEAD-IN CABLE |
| K | - | VIDEO CAMERA CABLE |
| M | - | STRANDED BARE COPPER GROUND WIRE (NO. 6 AWG) |
| N | - | 3 CONDUCTOR ELECTRICAL CABLE (NO. 4 AWG) |
| O | - | 2 CONDUCTOR ELECTRICAL CABLE TYPE T/C (NO. 12 AWG) |
| PS | - | PROPOSED UNDERGROUND ELECTRICAL SERVICE |
| PT | - | PROPOSED UNDERGROUND TELEPHONE SERVICE |
| PF | - | PROPOSED POWER FEED 3 WIRE, 1 CONDUCTOR (NO. 4 AWG) |
| * | - | 3/4 IN. X 10 FT. GROUND ROD |

SHA

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION

**MD 214 (CENTRAL AVENUE) AND MD 468 (MUDDY CREEK ROAD)**

ANNE ARUNDEL, MARYLAND

GENERAL INFORMATION PLAN

SCALE N.T.S. DATE 10-2007 CONTRACT NO. BW996M82

DESIGNED BY K.J.S. COUNTY ANNE ARUNDEL
DRAWN BY D.H. LOGMILE 02021407.40
CHECKED BY T.A.R. T.I.M.S. NO. F549
F.A.P. NO. TOD NO.

PREPARED BY URS HUNT VALLEY, MARYLAND

TS NO. 125E | DRAWING SG - 02 OF 02 | SHEET NO. 2 OF 2

PLOTTED: OCT 15, 2007
FILE: O:\20829634\CAD\DRAFT\PSG_N001_F549.DGN

BY:LICHUN.'EH