

REVISION DATE: June 1, 2004



BY: SUNX

PROJECT DESCRIPTION

1. GENERAL

THIS PROJECT INVOLVES THE CONSTRUCTION OF A TEMPORARY TRAFFIC SIGNAL FOR A SECTION OF ROADWAY ALONG MD 109 AT ITS INTERSECTION WITH THE NORTHBOUND AND SOUTHBOUND MD 109/I-270 RAMP IN MONTGOMERY COUNTY. THE SECTION OF ROADWAY WILL BE REDUCED FROM TWO LANES WITH TWO WAY TRAFFIC TO ONE LANE WITH TWO WAY TRAFFIC DURING THE CONSTRUCTION OF A REPLACEMENT BRIDGE OVER LITTLE BENNET CREEK.

THE RIGHT TURN BY PASS LANE SERVING THE RIGHT TURN OFF RAMP MOVEMENT AT EACH RAMP WILL BE CLOSED TO DIRECT RAMP TRAFFIC TO THE SIGNALS.

MD 109 RUNS IN AN EAST-WEST DIRECTION.

2. INTERSECTION OPERATION

THE TRAFFIC SIGNAL WILL OPERATE IN A NEMA SIX-PHASE FULL TRAFFIC ACTUATED MODE.

3. CONTROLLER INFORMATION

A NEW NEMA EIGHT-PHASE CONTROLLER IN A BASE MOUNTED CABINET WILL BE INSTALLED AT EACH RAMP.

4. BACKUP POWER SUPPLY

THE SIGNAL WILL BE PROVIDED WITH A BACKUP POWER SUPPLY IN A BASE MOUNTED CABINET.

5. DATA CIRCUIT

DATA CIRCUIT SHALL BE INSTALLED BETWEEN TRAFFIC SIGNAL CABINET AND CENTRAL TRAFFIC SIGNAL COMPUTER ROOM LOCATED AT 101 MONROE STREET, 11TH FLOOR, ROCKVILLE.

PHASING SEQUENCE CHART

Table with 13 columns (1-13) and 13 rows (PHASE 1 to FLASHING OPERATION) showing traffic signal phasing sequences.

PROJECT CONTACTS

CONTACT PERSONS FOR DISTRICT 3 ARE AS FOLLOWS:

MR. JEFFREY WENTZ ASSISTANT DISTRICT ENGINEER TRAFFIC - 301-513-7318

MR. WAYNE MOWDY ASSISTANT DISTRICT ENGINEER MAINTENANCE - 301-513-7304

MR. AUGIE REBISH UTILITY ENGINEER UTILITIES - 301-513-7350

CONTACTS FOR OFFICE OF TRAFFIC AND SAFETY:

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

MR. ED RODENHIZER CHIEF, SHA SIGNAL SHOP 410-787-7652

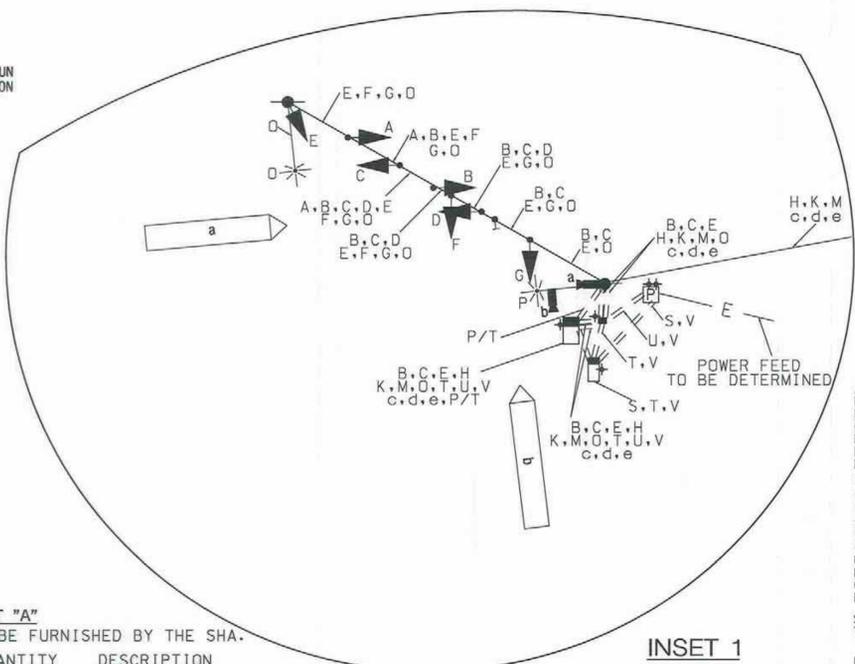
MR. STEVEN SITES CONSTRUCTION INSPECTION 410-545-0390

CONTACT FOR MONTGOMERY COUNTY:

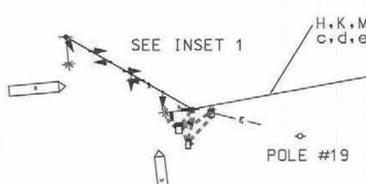
MR. KAMAL HAMUD MONTGOMERY COUNTY DEPARTMENT OF PUBLIC WORKS 240-832-3422

POLE #557

MD 109 IS ASSUMED TO RUN IN AN EAST WEST DIRECTION



INSET 1



WIRING DIAGRAM

WIRING KEY

- 5 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
7 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
2 CONDUCTOR ELECTRICAL CABLE (NO. 12 AWG), TRAY CABLE, TYPE THHN FOR LUMINAIRE
3 WIRE, 1 CONDUCTOR ELECTRICAL CABLE (NO. 8 AWG) THHN/THWN FOR UPS
3 WIRE, 1 CONDUCTOR ELECTRICAL CABLE (NO. 4 AWG) FOR SERVICE
VIDEO DETECTION CABLE
4 CONDUCTOR OPTICOM CABLE
1 CONDUCTOR (NO. 6 AWG) STRANDED COPPER GROUND WIRE
PROPOSED OVERHEAD TELEPHONE SERVICE
GROUND ROD

EQUIPMENT LIST "A"

EQUIPMENT TO BE FURNISHED BY THE SHA.

Table with columns: CAT. CODE, QUANTITY, DESCRIPTION. Lists items like controller cabinet, UPS system, signs, and video detection interface.

EQUIPMENT LIST "B"

EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR.

Table with columns: CAT. CODE, QUANTITY, DESCRIPTION. Lists items like test pit excavation, pavement marking, poles, conduits, weather heads, pedestals, handholes, cameras, and camera cables.

EQUIPMENT LIST "B" (CONTD.)

Table with columns: CAT. CODE, QUANTITY, DESCRIPTION. Lists items like video detection camera cable, opticom discriminator module, detector eye, ground rod, span wire, lamp, LED signal head section, detector cable, electrical cables, lighting arm, and controller cabinet.

EQUIPMENT LIST "B" (CONTD.)

Table with columns: CAT. CODE, QUANTITY, DESCRIPTION. Lists item: 800000 1 EA INSTALL UPS SYSTEM IN UPS SYSTEM CABINET, NEMA SIZE 5 BASE MOUNT

EQUIPMENT LIST "C"

EQUIPMENT TO BE RETURNED TO THE SHA.

- CONTROLLER CABINET, SIZE 6 BASE MOUNT
- CONTROLLER ASC II WITH TELEMETRY AND RELAY PACKAGE
- UPS SYSTEM IN UPS SYSTEM CABINET, NEMA SIZE 5 BASE MOUNT
- OPTICOM DISCRIMINATOR MODULE
- OPTICOM DETECTOR EYE
- VIDEO DETECTION CAMERAS
- VIDEO DETECTION INTERFACE: 1-4 CAMERAS



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Table with columns: REVISIONS, SCALE, DATE, CONTRACT NO. Includes a redline entry for 5/20/09.

STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF TRAFFIC & SAFETY TRAFFIC ENGINEERING DESIGN DIVISION MD 109 (OLD HUNDRED ROAD) AT I-270 NB AND SB ON/OFF RAMP HYATTSTOWN, MARYLAND

Table with columns: DESIGNED BY, DRAWN BY, CHECKED BY, F.A.P. NO., DRAWING NO., COUNTY, LOGMILE, T.I.M.S. NO., TOD NO., SHEET NO., OF