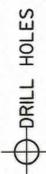
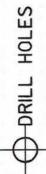


BORDER REV. DATE: July 1, 2005



BY: \$USER\$

PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE INSTALLATION OF A NEW TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 175 (ANNAPOLIS ROAD) AND DAIRY FARM ROAD IN ANNE ARUNDEL COUNTY, MARYLAND. MD 175 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA THREE-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH THE MD 175 APPROACHES OPERATING CONCURRENTLY AND THE DAIRY FARM ROAD APPROACH RUNNING ALONE.

CONTROLLER REQUIREMENTS

INSTALL A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH ONE (1) FOUR-CHANNEL, TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIERS, VIDEO INTERFACE EQUIPMENT (1-4 CAMERAS), INTERSECTION MONITOR WITH BATTERY BACKUP FOR PHONE DROP AND ASSOCIATED HARNESSES HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET.

PHONE DROP

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 THE NEAREST STREET ADDRESS, ZIP CODE, AND PHONE NUMBER.

MAINTENANCE OF TRAFFIC

THE FOLLOWING TRAFFIC CONTROL STANDARDS SHALL BE REFERENCED FOR THE PROJECT. ADDITIONAL TRAFFIC CONTROL STANDARDS MAY BE USED AS DIRECTED BY THE ENGINEER.

- STANDARD NO. MD-104.02-01 (SHOULDER WORK)
STANDARD NO. MD-104.02-09 (FLAGGING OPERATION)
STANDARD NO. MD-104.02-13 (INTERSECTION FLAGGING OPERATION)

PROJECT CONTACTS

THE CONTACT PERSONS FOR SHA ARE AS FOLLOWS:

MS. KIMBERLY TRAN
ASSISTANT DISTRICT ENGINEER - TRAFFIC
PHONE: (410) 841-1019
MR. JOHN MAYS
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
PHONE: (410) 841-1013
MR. MIKE HUBER
DISTRICT UTILITY ENGINEER
PHONE: (410) 841-1039

MR. ROBERT SYNDER
ASSISTANT CHIEF, TRAFFIC OPERATIONS DIVISION
PHONE: (410) 787-7631
MR. RICHARD L. DAFF, SR.
CHIEF, TRAFFIC OPERATIONS DIVISION
PHONE: (410) 787-7630

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY THE SHA

Table with columns: ITEM NO., QUANTITY, DESCRIPTION. Lists items 9016, 9044, 9086, 9571 including quantities and descriptions like 'FOUR-CHANNEL, TIME-DELAY-OUTPUT, LOOP DETECTOR AMPLIFIER'.

EQUIPMENT LIST "C"

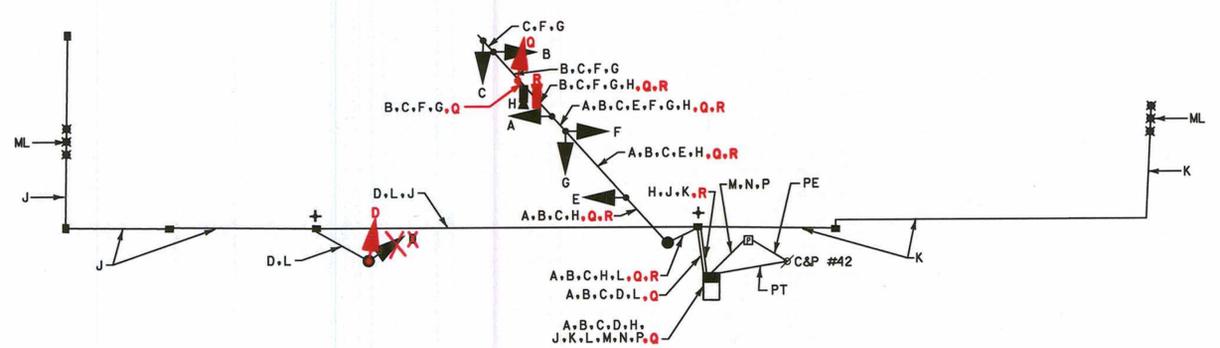
C. EQUIPMENT TO BE REMOVED AND RETURNED TO SHA
ALL EQUIPMENT TO BE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

EQUIPMENT LIST "B"

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

Table with columns: ITEM NO., QUANTITY, DESCRIPTION. Lists items 1003 through 8065 including quantities and descriptions like 'MAINTENANCE OF TRAFFIC', 'TEST PIT EXCAVATION', '24" HEAT APPLIED WHITE PERM PREF THERMO PVMT MARKINGS'.

WIRING DIAGRAM



WIRING KEY

- A, B, C, D, Q: 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
E, F, G: 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
H: VIDEO CAMERA DETECTION LEAD-IN CABLE
J, K: MICROLOOP PROBE LEAD-IN
L: STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
M, N, P: 1-CONDUCTOR ELECTRICAL CABLE (NO. 8 A.W.G.)
ML: MICROLOOP PROBE SET
PT: PROPOSED UNDERGROUND TELEPHONE SERVICE
PE: PROPOSED UNDERGROUND ELECTRICAL SERVICE
+: 3/4 IN. X 10 FT. GROUND ROD

PHASE CHART

Phase chart table with columns 1-8 and rows for PHASE 2 + 6, 2 + 6 CHANGE, PHASE 4, 4 CHANGE, FLASHING OPERATION. Includes a circular diagram of traffic signal phases.

SHA STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF TRAFFIC & SAFETY TRAFFIC ENGINEERING DESIGN DIVISION MD 175 (ANNAPOLIS ROAD) @ DAIRY FARM ROAD GAMBRIILLS, MARYLAND

GENERAL INFORMATION SHEET

Table with project details: SCALE NONE, ADVERTISED DATE 08/25/2011, CONTRACT NO. XX3475185, DESIGNED BY L.WAESCHE, COUNTY ANNE ARUNDEL, DRAWN BY L.WAESCHE, LOGMILE 02017501.26, CHECKED BY N.LEARY, TMS NO. K266, F.A.P. NO., TOD NO.

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