

**PROJECT DESCRIPTION
GENERAL**

THIS PROJECT INVOLVES THE INSTALLATION OF A NEW TRAFFIC SIGNAL AT THE INTERSECTION OF MD 589 AT McALLISTER ROAD/ENTRANCE TO OCEAN DOWNS IN WORCESTER COUNTY, MD 589 IS CONSIDERED TO RUN IN A NORTH/SOUTH DIRECTION.

INTERSECTION OPERATION

A CONTROLLER HOUSED IN A BASE MOUNTED CABINET SHALL BE INSTALLED AT THIS LOCATION. THE INTERSECTION WILL OPERATE IN A FULLY ACTUATED MODE USING 6 NEMA PHASES. THERE WILL BE AN EXCLUSIVE/PERMISSIVE LEFT TURN PHASE FOR BOTH THE NORTH AND SOUTHBOUND MOVEMENTS OF MD 589. THE MD 589 THROUGH MOVEMENTS WILL OPERATE CONCURRENTLY. THE McALLISTER ROAD/OCEAN DOWNS ENTRANCE MOVEMENTS WILL OPERATE CONCURRENTLY.

SPECIAL NOTE:

THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF SHA AT 410-787-7635 TO ARRANGE FOR THE PHONE DROP INSTALLATION. THE CONTRACTOR IS TO PROVIDE MR. SNYDER WITH THE NEAREST STREET NUMBER, ZIP CODE, AND TELEPHONE NUMBER.

EQUIPMENT LIST

- A. EQUIPMENT TO BE SUPPLIED BY THE ADMINISTRATION.
NONE.
- B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR.

| QUANTITY | UNITS | DESCRIPTION | QUANTITY | UNITS | DESCRIPTION |
|----------|-------|---|----------|-------|---|
| LUMP SUM | LS | MAINTENANCE OF TRAFFIC | 3 | CY | TEST PIT EXCAVATION |
| LUMP SUM | LS | MOBILIZATION | 9 | EA | HANDHOLE |
| 2 | EA | 27 FT. STEEL TWIN MAST ARM POLE WITH 50 FT. AND 70 FT. MAST ARMS | 75 | LF | 1-CONDUCTOR CABLE (NO. 8 AWG) |
| 2 | EA | 27 FT. STEEL TWIN MAST ARM POLE WITH 50 FT. AND 60 FT. MAST ARMS | 390 | LF | 2-CONDUCTOR TRAY CABLE (NO.12 AWG) |
| 2 | EA | 20 FT. LUMINARIES ARM | 160 | LF | 5-CONDUCTOR CABLE (NO. 14 AWG) |
| 2 | EA | 250W HPS LAMP AND LUMINARIES | 1045 | LF | 7-CONDUCTOR CABLE (NO. 14 AWG) |
| 1 | EA | STANDARD S.H.A. TRAFFIC SIGNAL CONTROLLER, BASE MOUNTED NEMA 6 CABINET, VIDEO DETECTION INTERFACE, AND ONE (1) FOUR-CHANNEL LOOP DETECTOR AMPLIFIER [Note: CONTROLLER AND CABINET SHALL BE PURCHASED FROM ECONOLITE AND DELIVERED TO THE S.H.A. SIGNAL SHOP FOR WIRING AND TESTING. CONTACT MR. ED RODENHIZER (410) 787-7650] | 300 | LF | BARE COPPER GROUND WIRE (NO. 6 AWG) |
| 4 | EA | TERRA VIDEO DETECTOR CAMERA | 55 | LF | 2 IN. PVC CONDUIT [SCHEDULE 80] - TRENCHED |
| 750 | LF | TERRA VIDEO DETECTOR CAMERA CABLE | 735 | LF | 3 IN. PVC CONDUIT [SCHEDULE 80] - TRENCHED |
| 2 | EA | NON-INVASIVE MICRO-LOOP PROBE (SET OF 3) WITH 1000 FT. LEAD-IN CABLE | 140 | LF | 3 IN. PVC CONDUIT [SCHEDULE 80] - BORED |
| 6 | EA | 12 IN. 3-SECTION LED SIGNAL HEAD - MAST | 170 | LF | 4 IN. PVC CONDUIT [SCHEDULE 80] - TRENCHED |
| 2 | A | 12 IN. 5-SECTION LED SIGNAL HEAD - MAST | 240 | LF | 4 IN. PVC CONDUIT [SCHEDULE 80] - BORED |
| 2 | EA | 12 IN/8 IN. 5-SECTION LED SIGNAL HEAD - MAST | 12.0 | CY | CONCRETE FOUNDATION FOR TRAFFIC SIGNAL EQUIPMENT |
| 4 | EA | 16 IN. X VAR. D3-2(2) SIGN - MAST ARM | 6 | EA | GROUND ROD - 3/4 IN. X 10 FT. LENGTH |
| 2 | EA | 30 IN. X 30" R1-1 SIGN - GROUND | 1 | EA | EMBEDDED ELECTRICAL SERVICE PEDESTAL (100 AMPS) |
| 2 | EA | 48 IN. X 48 IN. W3-3 "NEW" SIGN - GROUND | 170 | LF | 24 IN. WHITE THERMOPLASTIC PAVEMENT MARKING - STOP LINE |
| 2 | EA | 48 IN. X VAR. D3-2(2) SIGN - GROUND | | | |
| 2 | EA | 30 IN. X 51 IN. SHIELD ASSEMBLY SIGN - POLE MOUNT | | | |
| 2 | EA | 48 IN. X 75 IN. SHIELD ASSEMBLY SIGN - POLE MOUNT | | | |
| 1 | LF | 4 IN. X 6 IN. WOOD SIGN SUPPORTS | | | |
| 3 | EA | REMOVE EXISTING GROUND MOUNTED SIGN AND POST. | | | |

SPECIAL NOTES

1. THE FOLLOWING CONTACT PERSONS FOR THIS PROJECT ARE AS FOLLOWS:

PROJECT CONTACTS:

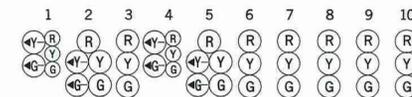
MR WAYNE SNOWDEN ASSISTANT DISTRICT ENGINEER - TRAFFIC
PHONE: (410) 677-4045
MR. GREG HOSLEY, ASSISTANT DISTRICT ENGINEER - CONSTRUCTION
PHONE: (410) 677-4020
MR. WAYNE WEICHMAN, ASSISTANT DISTRICT ENGINEER - MAINTENANCE
PHONE: (410) 677-4010
MR. BRUCE POOLE, UTILITY ENGINEER
PHONE: (410) 677-4082
MR. RICHARD L. DAFF, SR. CHIEF TRAFFIC OPERATIONS DIVISION
PHONE: (410) 787-7630
MR. EDWARD RODENHIZER, SIGNAL OPERATIONS
PHONE: (410)-787-7652

THE POWER COMPANY REPRESENTATIVE IS:

DELMARVA POWER
P.O. BOX 1739
SALISBURY, MD 21802-1739
PHONE: 410-860-6357
FAX: 410-860-6057
CONTACT PERSON:
RICK OTWELL
PHONE: 410-860-6042
JOB: # 6087921

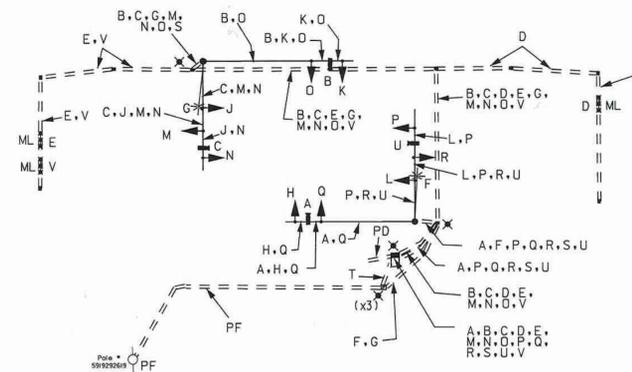
2. ALL INTERNAL CABINET WIRING SHALL BE PERFORMED BY THE SHA SIGNAL SHOP. CONTRACTOR SHALL CONTACT ED RODENHIZER 72 HOURS PRIOR TO CONSTRUCTION.

Phase Chart



| | | | | | | | | | | | |
|--|------|------|------|------|------|------|------|------|------|------|------|
| PHASE 1 AND 5 | +GR | +GR | R | +GR | +GR | R | R | R | R | R | R |
| 1 AND 5 CHANGE TO 1 AND 6, 2 AND 5, OR 2 AND 6 | | | | | | | | | | | |
| PHASE 1 AND 6 | R | R | R | +GG | +GG | G | R | R | R | R | R |
| 1 CHANGE | R | R | R | +YG | +YG | G | R | R | R | R | R |
| PHASE 2 AND 5 | +GG | +GG | G | R | R | R | R | R | R | R | R |
| 5 CHANGE | +YG | +YG | G | R | R | R | R | R | R | R | R |
| PHASE 2 AND 6 | G | G | G | G | G | G | R | R | R | R | R |
| 2 AND 6 CHANGE | Y | Y | Y | Y | Y | Y | R | R | R | R | R |
| PHASE 4 AND 8 | R | R | R | R | R | R | G | G | G | G | G |
| 4 AND 8 CHANGE | R | R | R | R | R | R | Y | Y | Y | Y | Y |
| FLASHING OPERATION | FL/Y | FL/Y | FL/Y | FL/Y | FL/Y | FL/Y | FL/R | FL/R | FL/R | FL/R | FL/R |

Wiring Diagram



KEY

- A } VIDEO DETECTOR CABLE
- B } VIDEO DETECTOR CABLE
- C } VIDEO DETECTOR CABLE
- D } NON-INVASIVE MICRO-LOOP DETECTOR LEAD-IN CABLE
- E } NON-INVASIVE MICRO-LOOP DETECTOR LEAD-IN CABLE
- F } 2-CONDUCTOR TRAY CABLE (NO. 12 A.W.G.)
- G } 2-CONDUCTOR TRAY CABLE (NO. 12 A.W.G.)
- H } 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- J } 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- K } 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- L } 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- M } 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- N } 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- O } 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- P } 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- Q } 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- R } 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- S } BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
- T } 1-CONDUCTOR (NO. 8 A.W.G.) (3 PIECES) FOR TRAFFIC SIGNAL ELECTRICAL SERVICE
- PD } PROPOSED PHONE DROP BY VERIZON
- PF } PROPOSED UNDERGROUND ELECTRICAL SERVICE BY DELMARVA POWER
- X } PROPOSED GROUNDING ROD
- ML } MICRO-LOOP DETECTOR (NON-INVASIVE)

SHA STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION
MD 589 (RACETRACK ROAD) AT
McALLISTER ROAD /OCEAN DOWNS ENTRANCE
Ocean Pines

GENERAL INFORMATION PLAN

SCALE: NA DATE: 2 November 22, 2010 CONTRACT NO.: BW996M82

DESIGNED BY: FRANK HOECKEL COUNTY: WORCESTER
DRAWN BY: FRANK HOECKEL LOGMILE: 23058900.042
CHECKED BY: _____ TIMS NO.: K-293
F.A.P. NO.: _____ TOD NO.: _____

TS NO. 4765 DRAWING: G1-01 OF 01 SHEET NO. 2 OF 2

2 Redline Revision
Dated November 22, 2010

SHA MDT - SHA
O.A.T.S.
S.H.A. Approval: _____ Date: 12/1/2010
T.S. # 4765 T.I.M.S. # K-293

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