

PROJECT DESCRIPTION

GENERAL

THIS PORTION OF THE PROJECT INVOLVES THE RECONSTRUCTION OF THE TRAFFIC SIGNAL AT THE INTERSECTION OF US 13 BUSINESS (N. SALISBURY BOULEVARD) AT BROAD STREET / E. CHURCH STREET IN WICOMICO COUNTY. US 13 BUSINESS IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA THREE-PHASE, FULL TRAFFIC-ACTUATED MODE. A SIDE STREET ALTERNATE PEDESTRIAN PHASE IS PROPOSED.

APS WILL FUNCTION AS FOLLOWS:
FOR NORTH SALISBURY BOULEVARD

- A. WHEN A PEDESTRIAN LOCATES AND PASSES THE PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON MESSAGE WILL BE "WAIT TO CROSS NORTH SALISBURY BOULEVARD, CROSSWALK ANGLES LEFT".
- B. WHEN THE "WALK" PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK, WHICH WILL LAST FOR THE DURATION OF THE "WALK" PHASE.

CONTROLLER REQUIREMENTS

THE CONTRACTOR SHALL INSTALL BASE MOUNTED CABINET AND FOUNDATION. THE SHA SIGNAL SHOP WILL INSTALL A 2 WIRE CENTRAL CONTROL UNIT, VIDEO DETECTION INTERFACE, CONTROLLER AND ALL OTHER NECESSARY EQUIPMENT WITHIN THE CABINET.

PHONE DROP

THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF THE SHA SIGNAL SHOP AT 410-787-7630 FOR THE PHONE DROP LINE INSTALLATION. THE CONTRACTOR IS TO PROVIDE MR. SNYDER WITH THE NEAREST STREET ADDRESS, ZIP CODE AND PHONE NUMBER.

THE CONTACT PERSONS FOR DISTRICT #1 / OOTS ARE AS FOLLOWS:

District 1

Mr. Gene Coffell
Assistant District Engineer - Traffic
Phone: 410-677-4040

Mr. Bruce Poole
District Utility Engineer
Phone: 410-677-4082

Mr. James Wright
Assistant District Engineer - Maintenance
Phone: 410-677-4010

Mr. Ravindra Ganvir
Assistant District Engineer - Construction
Phone: 410-677-4020

Office of Traffic & Safety

Mr. Richard L. Daff Sr.
Chief, Traffic Operations Division
Phone: 410-787-7630

Mr. Robert Snyder
Assistant Division Chief, Traffic Operations
410-787-7630

Mr. Edward Rodenhizer
Team Leader, Signal Operations
Phone: 410-787-7650

Mr. Eugene Bailey
Team Leader, Sign Operations
410-787-7670

The Power Company Representative is:
Delmarva Power
2530 N Salisbury Blvd.
Salisbury, Maryland 21801
1-800-375-7117

EQUIPMENT LIST 'A'

EQUIPMENT TO BE FURNISHED BY THE SHA.

| CATEGORY CODE | QUANTITY | DESCRIPTION |
|---------------|----------|---|
| 900000 | 1 EA | VIDEO DETECTION INTERFACE EQUIPMENT: 1-4 CAMERAS |
| 971017 | 1 EA | EIGHT PHASE (FULLY ACTUATED) CONTROLLER AND CABINET - BASE MOUNT |
| 973023 | 53 SF | SHEET ALUMINUM SIGNS: 2 EA - R10-3(I) (9 IN. x 15 IN.) "N. SALISBURY BLVD." 1 EA - D-3(I) (96 IN. x 32 IN.) "BROAD STREET / E. CHURCH STREET" (DUAL FACED) 1 EA - D-3(I) (96 IN. x 16 IN.) "N. SALISBURY BLVD." 1 EA - SHIELD ASSEMBLY (36 IN. x 75 IN.) "WEST, US 50 BUSINESS, LEFT ARROW" |

EQUIPMENT LIST 'B'

EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR.

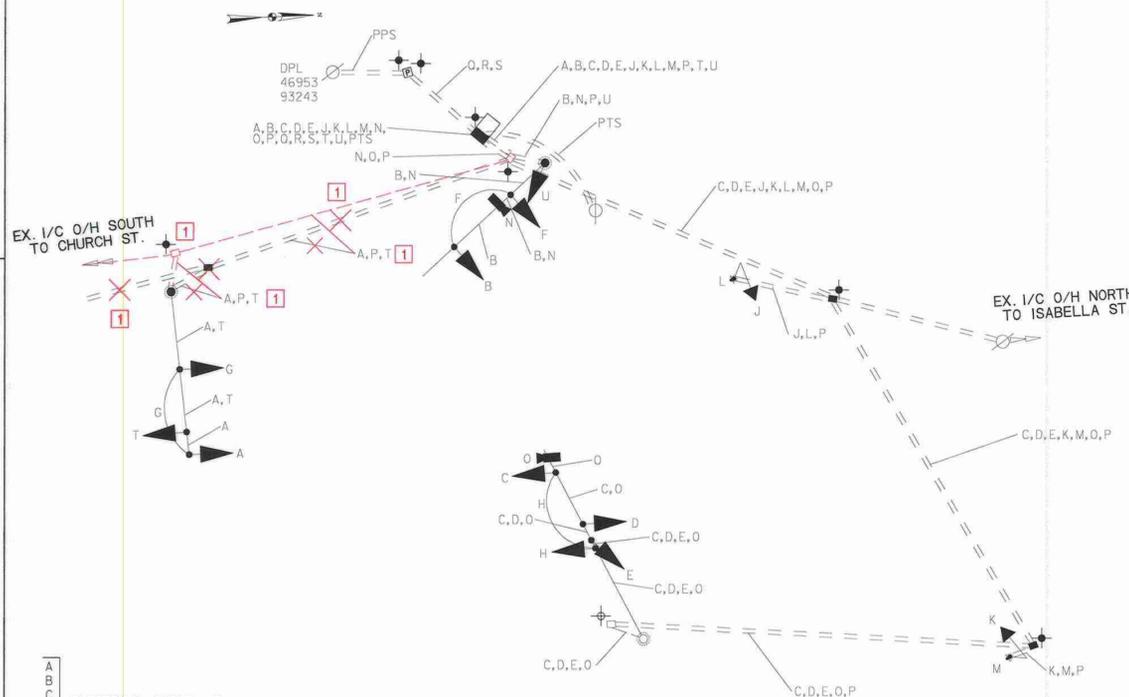
| CATEGORY CODE | QUANTITY | DESCRIPTION |
|---------------|----------|--|
| 120500 | 1 LS | MAINTENANCE OF TRAFFIC |
| 203030 | 3 CY | TEST PIT EXCAVATION |
| 585621 | 370 LF | 12 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES |
| 585625 | 105 LF | 24 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES |
| 655105 | 50 SF | 5 INCH CONCRETE SIDEWALK |
| 800000 | 1 EA | 2 WIRE CENTRAL CONTROL UNIT |
| 800000 | 3 EA | 8 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION |
| 800000 | 2 EA | 16 INCH LED COUNTDOWN PEDESTRIAN SIGNAL - POLE MOUNT |
| 800000 | 2 EA | ACCESSIBLE PEDESTRIAN PUSHBUTTON |
| 800000 | 1 LS | REMOVE AND DISPOSE OF TRAFFIC SIGNAL EQUIPMENT |
| 800000 | 2 EA | SOLO (TERRA) VIDEO DETECTION CAMERA |
| 801004 | 8 CY | CONCRETE FOR SIGNAL FOUNDATION |
| 801106 | 38 LF | WOOD SIGN SUPPORTS 4 INCH x 6 INCH |
| 802501 | 465 LF | NO. 6 AWG STRANDED BARE COPPER GROUND WIRE |
| 1 805118 | 235 LF | 4 INCH SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - BORED |
| 805125 | 65 LF | 2 INCH SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - TRENCHED |
| 805135 | 200 LF | 3 INCH SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - TRENCHED |
| 805140 | 25 LF | 4 INCH SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - TRENCHED |
| 807202 | 1 EA | METERED SERVICE PEDESTAL |
| 810010 | 50 LF | ELECTRICAL CABLE - 1 CONDUCTOR NO. 4 AWG, THHN/THWN |
| 1 811001 | 2 EA | FURNISH AND INSTALL ELECTRICAL HANDHOLE |
| 813014 | 19 SF | INSTALL GROUND MOUNTED SIGN |
| 813015 | 34 SF | INSTALL OVERHEAD SIGN |
| 818004 | 2 EA | 10 FOOT BREAKAWAY PEDESTAL POLE |
| 818030 | 2 EA | STEEL POLE WITH A SINGLE 38 FOOT MAST ARM |
| 837001 | 7 EA | GROUND ROD - 3/4 INCH DIAMETER x 10 FOOT LENGTH |
| 860284 | 33 EA | 12 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION |
| 861105 | 350 LF | ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG) |
| 861106 | 465 LF | ELECTRICAL CABLE - 3 CONDUCTOR (NO. 14 AWG) |
| 861107 | 370 LF | ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG) |
| 861108 | 1600 LF | ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG) |
| 871117 | 1 EA | INSTALL EIGHT PHASE (FULLY ACTUATED) CONTROLLER AND CABINET - BASE MOUNT |

EQUIPMENT LIST 'C'

EQUIPMENT TO BE REMOVED AND RETURNED TO SHA.

| CATEGORY CODE | QUANTITY | DESCRIPTION |
|---------------|----------|---|
| NONE | | ALL REMOVED EQUIPMENT SHALL BECOME THE PROPERTY OF THE CONTRACTOR |

WIRING DIAGRAM



PHASE CHART

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|----------------------|------|------|------|------|------|------|------|------|------|------|-------|-------|
| PHASE 1 AND 6 | GG | GG | GG | G | R | R | R | R | R | R | DW | DW |
| PHASE 1 CHANGE | VG | VG | VG | G | R | R | R | R | R | R | DW | DW |
| PHASE 2 AND 6 | G | G | G | G | G | G | G | R | R | R | DW | DW |
| PHASE 2 AND 6 CHANGE | Y | Y | Y | Y | Y | Y | Y | R | R | R | DW | DW |
| PHASE 4 | R | R | R | R | R | R | R | G | G | G | DW | DW |
| PHASE 4 CHANGE | R | R | R | R | R | R | R | Y | Y | Y | DW | DW |
| PHASE 4 ALT. | R | R | R | R | R | R | R | G | G | G | W | W |
| PED CLEARANCE | R | R | R | R | R | R | R | G | G | G | FL/DW | FL/DW |
| PHASE 4 CHANGE | R | R | R | R | R | R | R | Y | Y | Y | DW | DW |
| FLASHING OPERATION | FL/Y | FL/R | FL/R | FL/R | DARK | DARK |

- A B C D E T U - ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
- F G H J K - ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
- L M - ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
- N O - ELECTRICAL CABLE - 3 CONDUCTOR (NO. 14 AWG)
- P - NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
- Q R S - ELECTRICAL CABLE - 1 CONDUCTOR (NO. 4 AWG) THHN/THWN
- PPS - PROPOSED UNDERGROUND POWER SERVICE TO BE INSTALLED BY OTHERS
- PTS - PROPOSED UNDERGROUND TELEPHONE SERVICE TO BE INSTALLED BY OTHERS
- - PROPOSED METERED SERVICE PEDESTAL
- ⊕ - EXISTING GROUND ROD - 3/4 INCH DIAMETER X 10 FOOT LENGTH.
- ⊕ - PROPOSED GROUND ROD - 3/4 INCH DIAMETER X 10 FOOT LENGTH.

UTILITY LEGEND

- E - ELECTRIC CABLES
- A - AERIAL CABLES
- T - TELEPHONE CABLES
- F - FIBER-OPTIC
- SD - STORM DRAIN
- G - GAS MAIN
- W - WATER MAIN
- S - SEWER MAIN

STV
STV Incorporated
7125 Ambassador Road, Suite 200
Baltimore, MD 21244
www.stvinc.com

1 REDLINE REVISION NO. 1 JANUARY 2010
TEDD APPROVAL SHA NO. W16491580

SHA STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION
US 13 BUSINESS (N. SALISBURY BOULEVARD)
AT BROAD STREET / E. CHURCH STREET
ULTIMATE SIGNAL

GENERAL INFORMATION

SCALE 1" = 20' ADVERTISED DATE 12/16/2008 CONTRACT NO. W16491580

DESIGNED BY MCG COUNTY WICOMICO
DRAWN BY MCG LOGMILE 22B01305.64
CHECKED BY BAB TMS NO. J116
F.A.P. NO. TOD NO.

TS NO. 10022-E3-G1 DRAWING SG-10 OF 10 SHEET NO. OF

PLOTTED: Friday, January 15, 2010 AT 01:02 PM
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