# PROJECT DESCRIPTION

I. GENERAL

This project involves the modification of an existing Traffic Control Signal at the intersection of MD 122 (Security Blvd.) and Woodlawn Drive in Baltimore County. Street lighting will be added to the northwest quadrant. The modification will upgrade the traffic signal heads to black-face and bottomed tethered.

MD 122 is assumed to run in an east-west direction.

II. INTERSECTION OPERATION

1. The intersection shall continue to operate in a NEMA (8) eight-phase, full-traffic-actuated mode, with Exclusive left turns movements on all four approaches. MD122 approaches run concurrently. The Woodlawn Dr. approaches also run concurrently. Pedestrian phases with pushbutton actuation existing to cross MD122 east and west legs. The existing pedestrian phases to cross the north and south legs of Woodlawn Dr. are on recall.

2. The existing size '5' base-mounted cabinet and controller will remain. An additional 4" PVC bend shall be installed into the existing base.

III. SPECIAL NOTES:

1. The existing signal cables for the signal heads that are to be removed, should also be removed.

2. The existing strain poles may require a backguy during construction.

## EQUIPMENT LIST

A. EQUIPMENT TO BE FURNISHED BY M.S.H.A.

| ITEM NO. | QUANTITY | UNIT | DESCRIPTION |
|---|---|---|---|
| 9089 | 82 | SF | Flat Sheet aluminum sign (white). |
| | | | 2 each R3-5 "LEFT ONLY" sign (30" x 36"). |
| | | | Associated Shield Assembly signs, pole mounted |
| | | | 2 each M3-2 "EAST" (24" x 12") and (30" x 15") |
| | | | 2 each M3-4 "WEST" (24" x 12") and (30" x 15") |
| | | | 2 each M1-5 "MARYLAND 122" (30" x 24") |
| | | | 2 each M1-5 "MARYLAND 122" (48" x 36") |
| | | | 2 each M6-1(R) "RIGHT ARROW" (21" x 15") |
| | | | 2 each M6-1(L) "LEFT ARROW" (30" x 24") |
| 9090 | 14 | SF | Flat Sheet aluminum sign (blue or green). |
| | | | 2 each D3-2 "Security Blvd" dual faced sign, (variable x 16"). |
| | | | 2 each D3-2 "Woodlawn DR" dual faced sign, (variable x 16"). |

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

| ITEM NO. | QUANTITY | UNIT | DESCRIPTION. |
|---|---|---|---|
| 1001 | 1 | EA | Maintanance of traffic. |
| 2003 | 5.5 | CY | Class 2 excavation. |
| 6001 | 150 | SF | 4" concrete sidewalk. |
| 8009 | 80 | LF | 3/8" dia. steel span wire. |
| 8010 | 600 | LF | 1/4" dia. steel span wire. |
| 8027 | 15 | LF | 3" PVC schedule 80 electrical conduit- trenched. |
| 8028 | 70 | LF | 3" PVC schedule 80 electrical condiut - slotted. |
| 8030 | 10 | LF | 4" PVC schedule 80 electrical conduit- trenched. |
| 8033 | 2 | EA | Handhole |
| 8044 | 130 | LF | 5-conductor electrical cable (No. 14 AWG). |
| 8045 | 2900 | LF | 7-conductor electrical cable (No. 14 AWG). |
| 8046 | 400 | LF | 2-conductor electrical cable (No. 12 AWG) tray type. |
| 8053 | 96 | SF | Install overhead signs. |
| 8055 | 1 | EA | 250 watt HPS luminaire. |
| 8056 | 1 | EA | 15' lighting arm. |
| 8060 | 1 | EA | Remove and disposal of existing equipment. |
| 8061 | 2 | EA | Install conduit bend into existing base. |
| 8067 | 6 | EA | Adjust and re-wire existing span wire. |
| 8084 | 48 | EA | 12 inch vehicular traffic signal head section. (Blackfaced and polycarbonate) |
| NEG | 4 | EA | Backguy. |

The following contact persons for District # 4 are as follows:

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Phone: (410) 321-2881

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

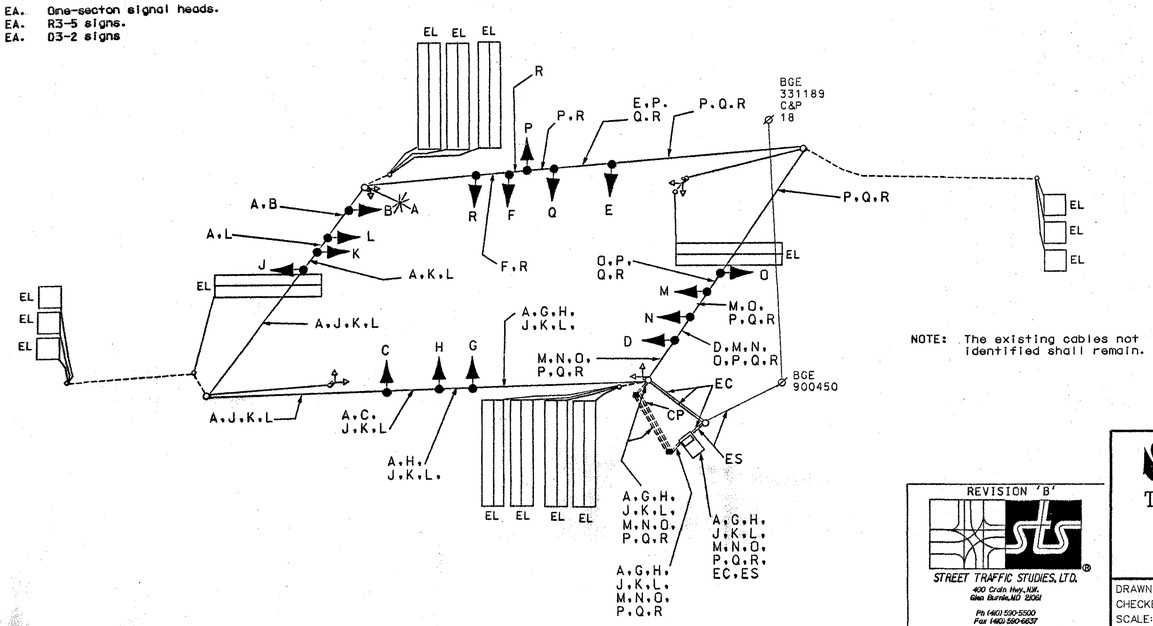
C. ALL REMOVED SIGNAL MATERIALS ARE TO BECOME THE PROPERTY OF THE CONTRACTOR.

40 EA. One-secton signal heads.
2 EA. R3-5 signs.
2 EA. D3-2 signs

## PHASE CHART

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 3 4 5 | 3 4 6 | R Y G | R Y G | 3 4 5 | 3 4 6 | R Y G | R Y G | 3 4 5 | 3 4 6 | R Y G | R Y G | 3 4 5 | 3 4 6 | R Y G | R Y G | | | | | | | | |
| PHASE 1 & 5 | G | G | R | R | G | G | R | R | R | R | R | R | R | R | R | R | DW | DW | DW | DW | DW | DW | DW | DW |
| 1 & 5 CHANGE | TO PHASE 1 & 6 OR PHASE 2 & 5 | | | | | | | | | | | | | | | | DW | DW | DW | DW | DW | DW | DW | DW |
| PHASE 2 & 5 | G | G | G | G | R | R | R | R | R | R | R | R | R | R | R | R | DW | DW | DW | DW | DW | DW | DW | DW |
| 5 CHANGE | Y | Y | G | G | R | R | R | R | R | R | R | R | R | R | R | R | DW | DW | DW | DW | DW | DW | DW | DW |
| PHASE 1 & 6 | R | R | R | R | G | G | G | G | R | R | R | R | R | R | R | R | DW | DW | DW | DW | DW | DW | DW | DW |
| 1 CHANGE | R | R | R | R | Y | Y | G | G | R | R | R | R | R | R | R | R | DW | DW | DW | DW | DW | DW | DW | DW |
| PHASE 2 & 6 | R | R | G | G | R | R | G | G | R | R | R | R | R | R | R | R | WK | WK | WK | WK | DW | DW | DW | DW |
| PED CLEARANCE | R | R | G | G | R | R | G | G | R | R | R | R | R | R | R | R | FL/DW | FL/DW | FL/DW | FL/DW | DW | DW | DW | DW |
| 2 & 6 CHANGE | R | R | Y | Y | R | R | Y | Y | R | R | R | R | R | R | R | R | DW | DW | DW | DW | DW | DW | DW | DW |
| PHASE 3 & 7 | R | R | R | R | R | R | R | R | G | G | R | R | G | G | R | R | DW | DW | DW | DW | DW | DW | DW | DW |
| 3 & 7 CHANGE | TO PHASE 3 & 8 OR PHASE 4 & 7 | | | | | | | | | | | | | | | | DW | DW | DW | DW | DW | DW | DW | DW |
| PHASE 3 & 8 | R | R | R | R | R | R | R | R | G | G | G | G | R | R | R | R | DW | DW | DW | DW | DW | DW | DW | DW |
| 3 CHANGE | R | R | R | R | R | R | R | R | Y | Y | G | G | R | R | R | R | DW | DW | DW | DW | DW | DW | DW | DW |
| PHASE 4 & 7 | R | R | R | R | R | R | R | R | R | R | R | R | G | G | G | G | DW | DW | DW | DW | DW | DW | DW | DW |
| 7 CHANGE | R | R | R | R | R | R | R | R | R | R | R | R | Y | Y | G | G | DW | DW | DW | DW | DW | DW | DW | DW |
| PHASE 4 & 8 | R | R | R | R | R | R | R | R | R | R | G | G | R | R | G | G | DW | DW | DW | DW | DW | DW | DW | DW |
| 4 & 8 CHANGE | R | R | R | R | R | R | R | R | R | R | Y | Y | R | R | Y | Y | DW | DW | DW | DW | DW | DW | DW | DW |
| PHASE 4&8 ALT | R | R | R | R | R | R | R | R | R | R | G | G | R | R | G | G | DW | DW | DW | DW | WK | WK | WK | WK |
| PED CLEARANCE | R | R | R | R | R | R | R | R | R | R | G | G | R | R | G | G | DW | DW | DW | DW | FL/DW | FL/DW | FL/DW | FL/DW |
| 4 & 8 CHANGE | R | R | R | R | R | R | R | R | R | R | Y | Y | R | R | Y | Y | DW | DW | DW | DW | DW | DW | DW | DW |
| FLASHING OPERATION | FL/RA | FL/RA | FL/Y | FL/Y | FL/RA | FL/RA | FL/Y | FL/Y | FL/RA | FL/RA | FL/R | FL/R | FL/RA | FL/RA | FL/R | FL/R | DARK | DARK | DARK | DARK | DARK | DARK | DARK | DARK |

## WIRING DIAGRAM




NOTE: The existing cables not identified shall remain.

Wiring Key

A — 2-conductor (No. 12 AWG) tray cable.

B C D E F — 5-conductor (No. 14 AWG) electrical cable.

G H J K L M N O P Q R — 7-conductor (No. 14 AWG) electrical cable.

EL — Existing loop detector

ES — Existing service by BGE

EC — Existing cable

CP — Capped for future use.

REVISION 'B'

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3964GI.DGN TASK 10

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
*Office of Traffic & Safety*
TRAFFIC ENGINEERING DESIGN DIVISION
MD 122 (SECURITY BLVD) AND WOODLAWN DR.

| | | | | | |
|---|---|---|---|---|---|
| DRAWN BY: EMM | F.A.P. NO. | | TS NO. 4089BGI | SHEET NO. 2 OF 2 |
| CHECKED BY: RRZ RLVD 5/21/01 | S.H.A. NO. | XX1005485 | | |
| SCALE: NONE | COUNTY: | BALTIMORE | T.I.M.S. NO. E 583 | |
| DATE: 5/17/01 | LOG MILE: | 03012201.09 | | |