

PROJECT DESCRIPTION

I. GENERAL

THIS PROJECT INVOLVES INSTALLATION OF NEW ADA RAMPS AND APS PUSH BUTTONS AT THE INTERSECTION OF MD 396 AT CROMWELL DRIVE IN MONTGOMERY COUNTY. MD 396 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

II. INTERSECTION OPERATION

THE INTERSECTION OPERATES IN A NEMA THREE-PHASE, SEMI-TRAFFIC-ACTUATED MODE. THE MD 396 THROUGH MOVEMENTS OPERATE CONCURRENTLY WITH A CONCURRENT PEDESTRIAN PHASE TO CROSS THE NORTH LEG OF CROMWELL DRIVE. THE CROMWELL DRIVE MOVEMENT OPERATES ALONE WITH AN ALTERNATE PEDESTRIAN PHASE TO CROSS THE WEST LEG OF MD 396.

EQUIPMENT LIST FOR CONTRACT NO. XX4275185

A. EQUIPMENT TO BE FURNISHED BY THE STATE HIGHWAY ADMINISTRATION

| ITEM | QUANTITY | UNIT | DESCRIPTION |
|------|----------|------|---|
| 9571 | 3.75 | SF | [UPDATED] SHEET ALUMINUM MAST ARM/POLE MOUNTED SIGN |
| | 4 | EA | R10-3(1) (9" X 15") POLE MOUNTED |

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

| ITEM | QUANTITY | UNIT | DESCRIPTION |
|------|----------|------|---|
| 1001 | 1 | EA | MAINTENANCE OF TRAFFIC |
| 2002 | 1 | CY | TEST PIT EXCAVATION |
| 5001 | 220 | LF | REM OF EXISTING PERM PVMT LINE MARKINGS ANY WIDTH |
| 5005 | 235 | LF | 12 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES |
| 6001 | 160 | LF | STANDARD TYPE A COMBINATION CURB AND GUTTER 12 INCH GUTTER PAN 8 INCH DEPTH |
| 6002 | 620 | SF | 5 INCH CONCRETE SIDEWALK |
| 8001 | 18 | EA | 12 INCH LED SIGNAL HEAD SECTION |
| 8002 | 1 | EA | 2 WIRE CENTRAL CONTROL UNIT |
| 8007 | 4 | EA | AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION AND SIGNS |
| 8008 | 4 | EA | BREAKAWAY PEDESTAL POLE (ANY SIZE) |
| 8013 | 1 | EA | REMOVE & DISPOSE OF EQUIPMENT PER ASSIGNMENT |
| 8016 | 150 | LF | UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT - BORED |
| 8018 | 60 | LF | UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED |
| 8019 | 25 | SF | DETECTABLE WARNING SURFACE FOR CURB RAMPS |
| 8022 | 3 | EA | FURNISH AND INSTALL ELECTRICAL HANDHOLE |
| 8023 | 400 | LF | ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG) |
| 8034 | 3.75 | SF | NEG-APPROVED-INSTALL OVERHEAD OR GROUND MOUNTED SIGN (INCLUDING HARDWARE) |

CONTACTS

The contact persons for District #3 are as follows:

Mrs. Felicia Murphy
Assistant District Engineer - Traffic
Phone: (301) 513-7404

Mr. Vernon Stinnett
Assistant District Engineer - Maintenance
Phone: (301) 513-7304

Mr. Victor Grafton
District Utility Engineer
Phone: (301) 513-7350

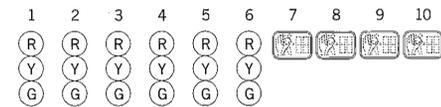
Mr. Richard L. Daff, Sr.
Chief, Traffic Operations Division
Phone: (410) 513-7315

Mr. Ed Rodenhizer
Supervisor, Signal Operations
Phone: (410) 787-7650

Mr. Kamal Hamud
Phone: (240) 777-8761

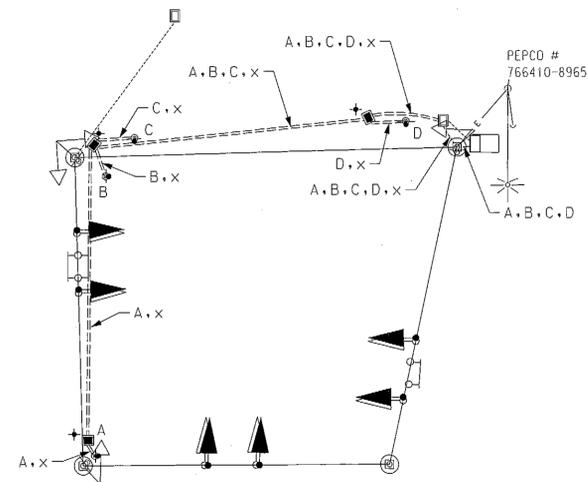
Mr. Robert Ricketts
Phone: (301) 279-1291

PHASE CHART



| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | |
|--------------------|-----|-----|-----|-----|------|------|------|------|------|------|---|
| PHASE 2 AND 6 | G | G | G | G | R | R | DW | DW | WK | WK | ← |
| PED CLEARANCE | G | G | G | G | R | R | DW | DW | FLDW | FLDW | → |
| 2 AND 6 CHANGE | Y | Y | Y | Y | R | R | DW | DW | DW | DW | ↑ |
| PHASE 4 | R | R | R | R | G | G | DW | DW | DW | DW | ↓ |
| 4 CHANGE | R | R | R | R | Y | Y | DW | DW | DW | DW | ↑ |
| PHASE 4 ALT | R | R | R | R | G | G | WK | WK | DW | DW | ↓ |
| PED CLEARANCE | R | R | R | R | G | G | FLDW | FLDW | DW | DW | ↑ |
| 4 ALT CHANGE | R | R | R | R | Y | Y | DW | DW | DW | DW | ↓ |
| FLASHING OPERATION | FLY | FLY | FLY | FLY | FL/R | FL/R | DARK | DARK | DARK | DARK | ↕ |

WIRING DIAGRAM



TOD NO: XX427-18
SHA NO: MO228855
MD 396 @ Cromwell Drive

WIRING KEY

- A.B.C.D } 2 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- x } NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
- + } GROUND ROD
- PF } POWER FEED

NOTE:

1. ALL EXISTING WIRING WILL BE UTILIZED.
2. CONNECT COPPER GROUND WIRE TO NEAREST EXISTING GROUND ROD.

MD 450 IS ASSUMED TO RUN IN AN EAST/WEST DIRECTION

By: john



STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION

MD 396 (MASSECHUSETTS AVE) AT CROMWELL DRIVE
BETHESDA, MD

GENERAL INFORMATION PLAN SHEET

SCALE: NTS DATE: 04/2011 CONTRACT NO.: XX4275185

DESIGNED BY: CW COUNTY: MONTGOMERY
DRAWN BY: CW LOGMILE: 15039601.03
CHECKED BY: JB TMS NO.: K 628
F.A.P. NO.: TOD NO.:



TS NO. 4788 DRAWING - OF SHEET NO. 3 OF 3