

**PROJECT DESCRIPTION**

**I. GENERAL**

THIS PROJECT INVOLVES A TRAFFIC SIGNAL INSTALLATION IN CONJUNCTION WITH GEOMETRIC IMPROVEMENTS ALONG MD 223 TO PROVIDE A EASTBOUND RIGHT TURN LANE. MD 223 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

**II. INTERSECTION OPERATION**

THE INTERSECTION WILL OPERATE AS A MARYLAND "T". THE WESTBOUND LEFT TURN ONTO WOODY TERRACE WILL OPERATE EXCLUSIVE ONLY WITH THE NORTHBOUND RIGHT TURN OPERATING AS AN OVERLAP. THE PHASE 5 LEFT TURN SHALL LAG BEHIND THE PHASE 6 THROUGH MOVEMENT. WOODY TERRACE WILL ALSO OPERATE AS AN EXCLUSIVE PHASE.

**III. CONTROLLER REQUIREMENTS**

THE CONTROLLER ASSEMBLY WILL BE AN EIGHT PHASE FULLY ACTUATED NEMA CONTROLLER COMPLETE WITH THE SYSTEM PACKAGE, VIDEO INTERFACE EQUIPMENT, AND MISCELLANEOUS AUXILIARY EQUIPMENT AS REQUIRED. A NEMA SIZE "6" BASE MOUNTED CABINET IS TO BE USED.

**IV. SPECIAL NOTES**

1. MAINTENANCE OF TRAFFIC WILL BE HANDLED BY THE CONTRACTOR UTILIZING THE FOLLOWING STANDARD PLATES FOR TRAFFIC CONTROL: 104.00 - 104.00-30, 104.31-01 (FLAGGING OPERATION), 104.33-01 (SHOULDER WORK), 104.35 (LANE SHIFT), 104.32-01 (INTERSECTION FLAGGING OPERATION).
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PULLING ALL CABLE TO THE CABINET AND SHALL PROPERLY LABEL EACH CABLE.
3. ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY PRIOR TO CONSTRUCTION SO THAT ALL UTILITIES MAY BE LOCATED IN THE FIELD. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN THE UTILITIES AND THE TRAFFIC SIGNAL WILL OCCUR, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IMMEDIATELY SO THAT THE CONFLICT MAY BE RESOLVED.
4. CONTRACTOR IS TO MAKE ARRANGEMENTS WITH THE SHA SIGNAL OPERATIONS SECTION TO DELIVER THE CONTROLLER TO MR. ED RODENHIZER FOR PROGRAMMING AT LEAST 72 HOURS IN ADVANCE.

**PHASE CHART**

	1	2	3	4	5	6
	R	R	R	R	R	R
	Y	Y	Y	Y	Y	Y
	G	G	G	G	G	G
PHASE 6	G	G	+R	+R	R	R
6 CHANGE	Y	Y	+R	+R	R	R
PHASE 5	R	R	+G	+G	R	R/G→
5 CHANGE	R	R	+Y	+Y	R	R/Y→
PHASE 4	R	R	+R	+R	G	G/G→
4 CHANGE	R	R	+R	+R	Y	Y/Y→
FLASHING OPERATION	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R

**EQUIPMENT LIST "A"**

A. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY SHA

None

**EQUIPMENT LIST "B"**

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

QUANTITY	UNITS	SPECIFICATION SECTION	DESCRIPTION
1	LS	104	Maintenance of Traffic.
1	LS	108	Mobilization.
2	CY	205	Test pit excavation.
5.5	CY	801	Furnish and install concrete for signal foundation.
4	EA	804	Ground rod - 3/4 in. diameter X 10 ft.
120	LF	804	Stranded bare copper ground wire (#6 AWG)
50	LF	805	2 in. schedule 80 rigid PVC conduit (bored).
70	LF	805	2 in. schedule 80 rigid PVC conduit (trenched).
835	LF	805	3 in. schedule 80 rigid PVC conduit (trenched).
50	LF	805	3 in. schedule 80 rigid PVC conduit (bored).
235	LF	805	4 in. schedule 80 rigid PVC conduit (bored).
60	LF	805	4 in. schedule 80 rigid PVC conduit (trenched).
1	EA	807	Metered Service Pedestal
6	EA	812	4"x4" wood post
90	LF	549	Furnish and install 24in. white heat applied thermoplastic pavement marking tape.
130	LF	549	Furnish and install 12in. white heat applied thermoplastic pavement marking tape.
150	LF	549	Remove existing pavement markings
220	LF	810	2 conductor electrical cable (NO. 14 AWG).
625	LF	810	5 conductor electrical cable (No. 14 AWG).
680	LF	810	7 conductor electrical cable (No. 14 AWG).
2	EA	810	NonInvasive microloop probe set 500' lead-in.
8	EA	811	Electrical handhole.

**EQUIPMENT LIST "B" (cont.)**

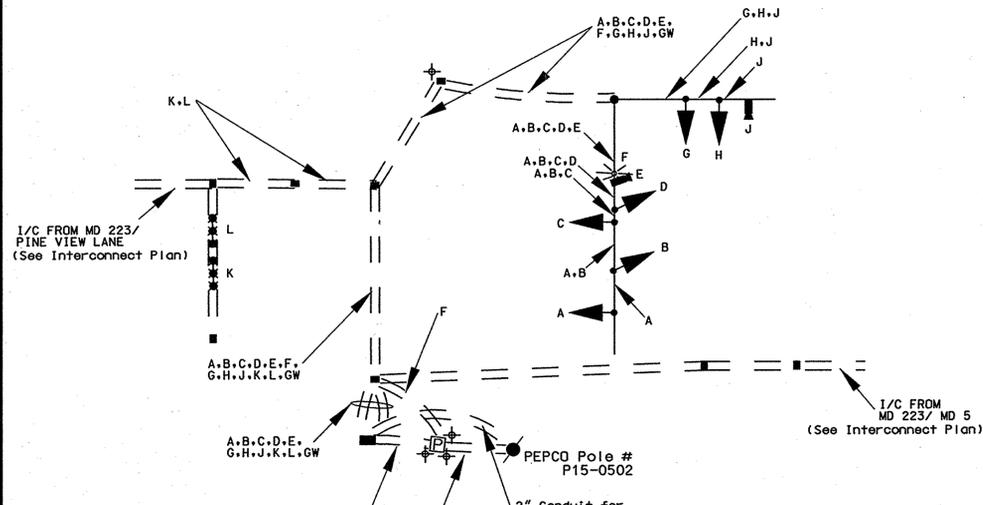
B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

QUANTITY	UNITS	SPECIFICATION SECTION	DESCRIPTION
85	SF	813	Sheet aluminum signs consisting of: 1 ea. M95-1 24"x78" (MAST ARM MOUNT) 1 ea. D-3(I) 16"xvariable (MAST ARM MOUNT) 2 ea. R4-7 24"x30" (GROUND MOUNT) 1 ea. R3-5R 30"x36" (MAST ARM MOUNT) 1 ea. R3-5L 30"x36" (MAST ARM MOUNT) 1 ea. OM-1(I) 18"x18" (GROUND MOUNT) 1 ea. R4-7A 24"x30" (GROUND MOUNT) 1 ea. R6-1(R) 36"x12" (GROUND MOUNT) 1 ea. R3-3(2) 30"x30" (GROUND MOUNT) 1 ea. R5-1 30"x30" (GROUND MOUNT) 2 ea. D3-3(3) 24"x72" (GROUND MOUNT)
20	EA	814	12 in. vehicular signal head section
1	EA	816	Video detection interface equipment.
2	EA	816	250' video cable for detection unit
2	EA	816	Video detection camera with arm and clamp.
1	EA	816	Econolite eight-phase, full-traffic-actuated controller with system package housed in a NEMA size "6" base mounted cabinet per MSHA specifications. Cabinet to be delivered to SHA Signal Shop for wiring and testing prior to installation. Contact Ed Rodenhizer 72 hours prior to delivery.
1	EA	816	Master controller for Interconnect system.
1	EA	818	27' steel pole with twin 60'/38" mast arm.
1	EA	818	Detectable Warning Mat.

**EQUIPMENT LIST "C"**

C. EQUIPMENT TO BE REMOVED AND RETURNED TO SHA

None



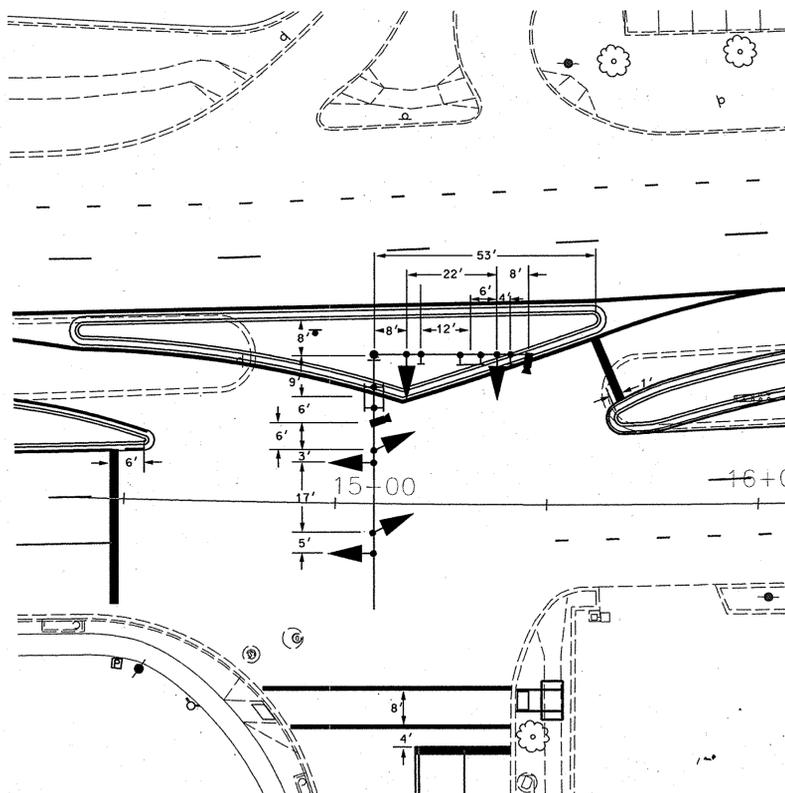
**WIRING LEGEND**

- F 2 CONDUCTOR ELECTRICAL CABLE TYPE T/C (#12 AWG) (LUMINAIRE)
- C,D,G 5 CONDUCTOR ELECTRICAL CABLE (#14 AWG)
- A,B,H 7 CONDUCTOR ELECTRICAL CABLE (#14 AWG)
- E,J VIDEO DETECTOR LEAD-IN
- K,L MICROLOOP LEAD-IN CABLE
- M 3 - 1 CONDUCTOR ELECTRICAL CABLE (#4 AWG)
- GW STRANDED BARE COPPER GROUND WIRE (#6 AWG)
- PS 3 - 1 CONDUCTOR 250 KCMIL CABLE

NOTE: 3 - 1 CONDUCTOR 250 KCMIL CABLE IS NOT TO BE INSTALLED UNTIL PEPCO IS READY TO CONNECT. COORDINATE WITH PEPCO IN ADVANCE OF NEED.

**POLE, SIGNAL EQUIPMENT, CROSSWALK AND STOPLINE DIMENSION DETAIL**

1" = 20'



**PROJECT CONTACTS**

THE CONTACT PERSONS FOR THIS PROJECT ARE AS FOLLOWS:

MR. BRIAN YOUNG  
ASSISTANT DISTRICT ENGINEER - TRAFFIC  
PHONE: (301) 513-7358

MR. WAYNE MOWDY  
ASSISTANT DISTRICT ENGINEER - MAINTENANCE  
PHONE: (301) 513-7304

THE POWER COMPANY REPRESENTATIVE IS:  
PEPCO  
RICHARD CHILCOAT  
8300 OLD MARLBORO PIKE  
UPPER MARLBORO, MD 20772  
PHONE: (301) 967-5805

MS. AUGUSTINE REBISH  
DISTRICT UTILITIES ENGINEER  
PHONE: (301) 513-7350

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

MR. ED RODENHIZER  
SUPERVISOR - SIGNAL OPERATIONS SECTION  
PHONE: (410) 787-7650

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

MD 223 (WOODYARD ROAD) / WOODY TERRACE

**GENERAL INFORMATION SHEET**

SCALE \_\_\_\_\_ DATE 09/26/07 CONTRACT NO. BW996M82

DESIGNED BY DPN COUNTY Frederick  
DRAWN BY DPN/LV LOGMILE 16022307.6  
CHECKED BY CT T.I.M.S. NO. H185  
F.A.P. NO. N/A TOD NO. \_\_\_\_\_

TS# 4536 G1.

SHEET NO. 2 OF 2

WELLS & ASSOCIATES, LLC  
TRANSPORTATION, TRAFFIC, AND PARKING CONSULTANTS  
1428 SPRING HILL ROAD  
MCLEANS, VA 22102  
PHONE: (703) 917-6628 FAX: (703) 917-0729  
5 WIRT STREET  
LEESBURG, VA 20175  
PHONE: (703) 443-1442 FAX: (703) 443-1225

PLOTTED:  
FILE# \*FILE#