PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE CONSTRUCTION OF A " FLAG IN THE AIR" POINT CONTROL PERSON ACTUATED HAZARD IDENTIFICATION BEACON AT THE INTERSECTION OF US 1 AND WILLOW AVENUE IN BALTIMORE COUNTY. US 1 IS ASSUMED TO RUN IN A NORTH–SOUTH DIRECTION.

INTERSECTION OPERATION

1. NORMAL OPERATION
   THE INTERSECTION WILL OPERATE IN A FLASHING MODE.
2. SPECIAL OPERATION
   THE INTERSECTION WILL OPERATE AS INDICATED ABOVE UNLESS A PUSHBUTTON IS ACTIVATED BY THE POINT CONTROL PERSON WHICH WILL STOP TRAFFIC ON THE US 1 AND WILLOW AVENUE APPROACHES.

CONTROLLER REQUIREMENTS

INSTALL FULL–TRAFFIC–ACTUATED, EIGHT–PHASE CONTROLLER WITH SYSTEM PACKAGE HOUSED IN A NEMA "5" BASE MOUNTED CABINET

SPECIAL NOTE

UPON COMPLETION OF THIS PROJECT, THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF THE MSHA AT (410) 787–7635 TO ARRANGE FOR THE PHONE LINE INSTALLATION. THE CONTRACTOR MUST PROVIDE MR. SNYDER WITH THE NEAREST ADDRESS, ZIP CODE, AND PHONE NUMBER.

PROJECT CONTACTS

CONTACT PERSONS FOR DISTRICT 4 ARE AS FOLLOWS:

MR. RANDALL SCOTT
ASSISTANT DISTRICT ENGINEER – TRAFFIC
(410) 321–2781

MR. STEVE MARCISZEWSKI
ASSISTANT DISTRICT ENGINEER – MAINTENANCE
(410) 321–2761

MR. MICHAEL PASQUARIELLO
ASSISTANT DISTRICT ENGINEER – UTILITIES
(410) 321–2841

CONTACTS FOR OFFICE OF TRAFFIC AND SAFETY

MR. RICHARD DAFF, SR.
CHIEF, TRAFFIC OPERATIONS
(410) 787–7630

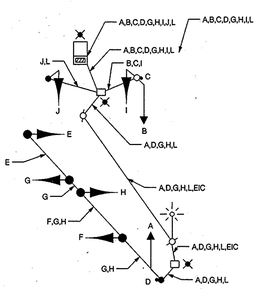
MR. EUGENE BAILEY
TEAM LEADER SIGN OPERATIONS
(410) 787–7676

MR. ROBERT SNYDER
ASSISTANT DIVISION CHIEF,
TRAFFIC OPERATIONS
(410) 787–7631

MS. DARLENE EIDE
SUPPLY OFFICE
SIGNAL SHOP WAREHOUSE
(410) 787–7668

MR. ED RODENHIZER
TEAM LEADER SIGNAL OPERATIONS
(410) 787–7652

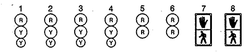
WIRING DIAGRAM



WIRING KEY

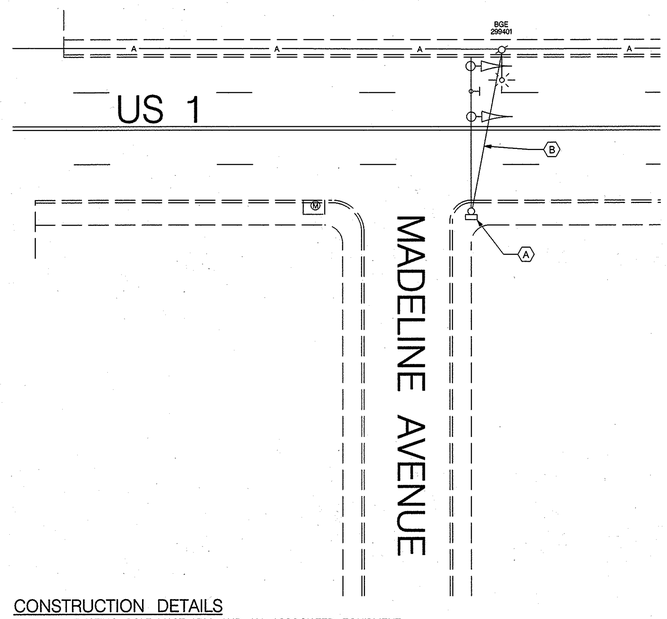
A–B	3–CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
C–F	5–CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
G–J	7–CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
K	(NOT USED)
L	STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
EIC	EXISTING INTERCONNECT CABLE
PS	PROPOSED ELECTRIC SERVICE
✕	GROUND ROD

PHASE CHART



NORMAL OPERATION	8" FL/Y	8" FL/Y	8" FL/Y	8" FL/Y	FL /R	FL /R	DW	DW	←→
PEDESTRIAN ACTUATED OPERATION	QUICK 8" FL/Y	QUICK 8" FL/Y	QUICK 8" FL/Y	QUICK 8" FL/Y	R	R	DW	DW	
	12" Y	12" Y	12" Y	12" Y	R	R	DW	DW	
	R	R	R	R	R	R	WK	WK	
	R	R	R	R	R	R	FL/DW	FL/DW	
PED. CLEARANCE	R	R	R	R	R	R	DW	DW	
PED. ACT. CLEARANCE	R	R	R	R	R	R	DW	DW	

H.I.B. REMOVAL SKETCH



CONSTRUCTION DETAILS

A. REMOVE EXISTING POLE, MAST ARM AND ALL ASSOCIATED EQUIPMENT
B. EXISTING ELECTRIC SERVICE TO BE DISCONNECTED

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE FURNISHED BY THE SHA AND INSTALLED BY THE SHA

ITEM NO.	QUANTITY	DESCRIPTION
9031	1 EA.	MAST ARM POLE AND 70 FT. MAST ARM
9043	1 EA.	EIGHT–PHASE, FULL–TRAFFIC–ACTUATED CONTROLLER WITH SYSTEM PACKAGE HOUSED IN A NEMA SIZE FIVE BASE MOUNTED CABINET
9571	58 SF	SHEET ALUMINUM SIGNS TO CONSIST OF : – 2 EA. S1–1 (MOD) SIGN (42IN. X 36 IN.) – MAST ARM MOUNT – 1 EA. R10–11a MOD (24 IN. X 36 IN.) – MAST ARM MOUNT – 1 EA. S1–1 SIGN FYG (36 IN. X 36 IN.) – GROUND MOUNT – 1 EA. S4–3 SIGN FYG (24 IN. X 8 IN.) – GROUND MOUNT – 1 EA. R10–6 SIGN (24 IN. X 36 IN.) – GROUND MOUNT
9000	1 EA.	AUXILIARY FLASHER CABINET (14.38" (H) X 10.38" (W) X 7" (D)) PUSHBUTTON AND SIGNAL INDICATION FOR POINT CONTROL PERSON

EQUIPMENT LIST "B"

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

ITEM NO.	QUANTITY	DESCRIPTION
1001	1 EA	MAINTENANCE OF TRAFFIC
2001	2 CY	CLASS 2 EXCAVATION
2002	2 CY	TEST PIT EXCAVATION
5002	250 LF	REMOVE EXISTING PAVEMENT MARKING LINE
5004	375 LF	12 IN. HEAT APPLIED PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
5005	75 LF	24 IN. HEAT APPLIED PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
6001	75 SF	STANDARD TYPE "A" CURB AND GUTTER
6002	525 SF	4 IN. CONCRETE SIDEWALK
8001	12 EA	12 IN. L.E.D SIGNAL HEAD SECTION
8002	1 EA	2–WIRE CENTRAL CONTROL UNIT
8004	4 EA	8 IN. TRAFFIC SIGNAL HEAD SECTION
8008	2 EA	AUDIBLE /TACTILE PEDESTRIAN PUSHBUTTON
8009	1 EA	BREAKAWAY PEDESTAL POLE
8013	1 EA	INSTALL STEEL POLE AND SINGLE MAST ARM
8014	2 EA	16 IN. PEDESTRIAN SIGNAL HEAD SECTION
8022	1 EA	REMOVE AND DISPOSE OF EXISTING MATERIAL AND EQUIPMENT
8034	10 LF	3 IN. SCHEDULE 80 RIGID PVC CONDUIT – TRENCHED
8035	20 LF	3 IN SCHEDULE 80 RIGID PVC CONDUIT– BORED
8035	25 LF	4 IN. SCHEDULE 80 RIGID PVC CONDUIT–BORED
8036	30 LF	4 IN. X 4 IN. WOOD SIGN SUPPORTS
8037	50 SF	DETECTABLE WARNING SURFACE
8038	17 SF	INSTALL GROUND MOUNTED SIGN
8038	41 SF	INSTALL OVERHEAD SIGN
8040	30 LF	NO. 6 A.W.G. STRANDED BARE COPPER GROUND WIRE
8043	1 EA	ELECTRICAL UTILITY SERVICE EQUIPMENT (120/240 V. 1 PHASE 3 WIRE SYSTEM)
8044	45 LF	ELECTRICAL CABLE – 1 CONDUCTOR (NO. 4 A.W.G.– THHN /THWN)
8051	1 EA	CUT, CLEAN, GALVANIZE AND CAP MAST ARM
8054	220 LF	ELECTRICAL CABLE 3–CONDUCTOR (NO. 14 A.W.G.)
8055	280 LF	ELECTRICAL CABLE – 5 CONDUCTOR (NO. 14 A.W.G.)
8056	550 LF	ELECTRICAL CABLE – 7 CONDUCTOR (NO. 14 A.W.G.)
8063	1 EA	INSTALL CONTROLLER AND CABINET – POLE MOUNT
8064	1 EA	INSTALL CONTROLLER AND CABINET – BASE MOUNTED

EQUIPMENT LIST "C"

C. EXISTING EQUIPMENT TO BE REMOVED BY THE CONTRACTOR AND DELIVERED TO THE STATE HIGHWAY ADMINISTRATION, 7491 CONNELLEY DRIVE, HANOVER, MARYLAND 21076. THE CONTRACTOR SHALL NOTIFY THE SHA AT (410) 787–7652 AT LEAST THREE DAYS IN ADVANCE OF DELIVERY.

ITEM NO.	QUANTITY	DESCRIPTION
NONE		

ALL SIGNAL EQUIPMENT TO BE REMOVED AND NOT RETURNED TO THE SHA SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

TRAFFIC CONCEPTS, INC.
325 Gambrills Road
Suite E
Gambrills, MD 21054
(410) 923–7101
FAX (410) 923–6473
EMAIL TRAFFIC.CONCEPTS@COMCAST.NET

SHA

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION

GENERAL INFORMATION PLAN
US 1 AND WILLOW AVENUE

SCALE NONE	DATE 6–1–07	CONTRACT NO. AT9125185	
DESIGNED BY T. ZAYDEL		COUNTY BALTIMORE	
DRAWN BY T. ZAYDEL		LOGMILE 03US0001015.89	
CHECKED BY K. SCHMID		T.I.M.S. NO. I– 389	
F.A.P. NO. N/A		TOD NO.	
DRAWING NO. 4583–GI		SHEET NO. 2 OF 2	

DRILL HOLES