PROJECT DESCRIPTION

I. GENERAL

This project involves the reconstruction of an existing Traffic Control Signal at the intersection of MD 410 (East-West Hwy) and Toledo Terrace/Entrance to Home Depot in Prince George's County.

MD 410 (East-West Hwy) is assumed to run an east-west direction.

II. INTERSECTION OPERATION

1. The intersection shall continue to operate in a NEMA six-phase, full-actuated mode, with the MD 410 (East-West Hwy) approaches continuing to run concurrently. Exclusive/Permissive left turn phases shall be provided for east and westbound approaches of MD 410 (East-West Hwy). The side street shall continue to run concurrently.

2. A full-traffic-actuated, eight-phase controller with all necessary equipment housed in a NEMA size "6" base-mounted cabinet shall remain in operation at this intersection.

III. SPECIAL NOTES

1. The Contractor shall be responsible for terminating all signal cables, to the appropriate terminals and shall properly label each cable.

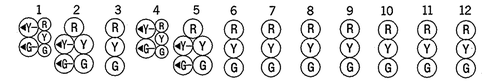
2. All controller cabinet wiring will be performed by the S.H.A. Signal Shop Contact Mr. Ed Rodenhizer at (410) 787-7650 seventy-two hours in advance of intended work.

PROJECT CONTACTS

The contact persons for District #3 are as follows:

Mr. Majid Shakib
Assistant District Engineer - Traffic
Phone: (301 513-7358
Mr. Wayne Mowdy
Assistant District Engineer - Maintenance
Phone: (301) 513-7304
Mr. Augie Rebish
Assistant District Engineer - Utility
Phone: (301) 513-7350
Mr. Richard L. Daff, Sr.
Chief, Traffic Operations Division
Phone: (410) 787-7630
Mr. Sonny Bailey
Supervisor Sign Operations
Phone: 410-787-7670
Mr. Ed Rodenhizer
Supervisor, Signal Operations
Phone: 410-787-7650

PHASE CHART



	1	2	3	4	5	6	7	8	9	10	11	12
PHASE 1 & 5	◄G-R	◄G-R	R	◄G-R	◄G-R	R	R	R	R	R	R	R
CHANGES TO PHASES 1 & 6, 2 & 5 OR 2 & 6												
PHASE 1 & 6	◄G-G	◄G-G	G	R	R	R	R	R	R	R	R	R
1 & 6 CHANGE	◄Y-G	◄Y-G	G	R	R	R	R	R	R	R	R	R
PHASE 2 & 5	R	R	R	◄G-G	◄G-G	G	R	R	R	R	R	R
2 & 5 CHANGE	R	R	R	◄Y-G	◄Y-G	G	R	R	R	R	R	R
PHASE 2 & 6	G	G	G	G	G	G	R	R	R	R	R	R
2 & 6 CHANGE	Y	Y	Y	Y	Y	Y	R	R	R	R	R	R
PHASE 4 & 8	R	R	R	R	R	R	G	G	G	G	G	G
4 &8 CHANGE	R	R	R	R	R	R	Y	Y	Y	Y	Y	Y
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R

EQUIPMENT LIST

A. EQUIPMENT TO BE SUPPLIED BY THE STATE OF MARYLAND.

ITEM NO.	DESCRIPTION	UNIT	QUANTITY
9571	[UPDATED] SHEET ALUMINUM OVERHEAD MAST ARM / POLE MOUNTED SIGN	SF	158
	Associated shield assembly (48"x 75") POLE MOUNTED	EA	2
	D-3(1) (Toledo Terrace -->) (VAR.X16") MAST ARM MOUNTED	EA	2
	D-3(1) (<--Toledo Terrace) (VAR.X16") MAST ARM MOUNTED	EA	2
	Associated shield assembly (30"x 51") POLE MOUNTED	EA	2
	R3-6(L) (30"x 36") MAST ARM MOUNTED	EA	1
	R3-5(R) (30"x 36") MAST ARM MOUNTED	EA	2
9570	SHEET ALUMINUM GROUND MOUNTED	SF	7
	R3-7(R) (30"x 30") GROUND MOUNTED	EA	1
9000	QUICK CONNECT BLOCK	EA	1
9000	[UPDATED] VIDEO DETECTION INTERFACE EQUIPMENT: 1-4 CAMERAS	EA	1

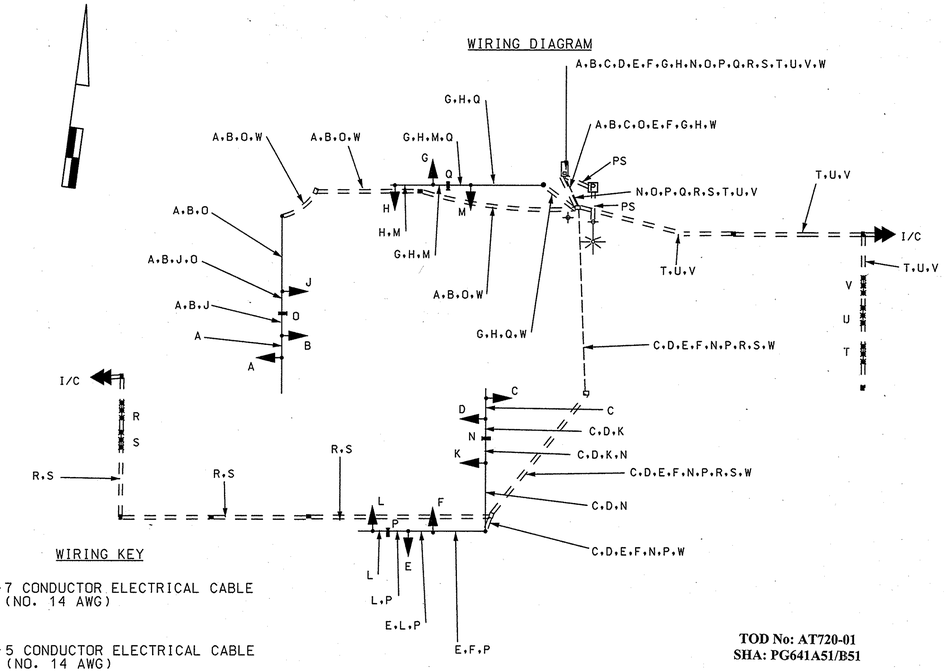
B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

ITEM NO.	DESCRIPTION	UNIT	QUANTITY
~~1002~~	~~Maintenance of Traffic~~	~~EA~~	~~2~~
2002	Test Pit Excavation	CY	3
5005	F & I 12" Heat Applied White Permanent Preformed Thermoplastic Pavement Markings	LF	20
6003	F & I Standard Type A Combination Curb and Gutter 12" Gutter Pan 8" Depth	LF	60
6005	F & I 4" Concrete Sidewalk	SF	80
8001	F & I Concrete Foundation	CY	13
8003	F & I 12" Red or Green LED Signal Head	EA	28
8004	F & I 12" Yellow LED Signal Head	EA	16
8011	F & I Conduit Bend in Existing Foundation	EA	2
8013	F & I Control Cable, 200', Video Detection	EA	2
8014	F & I Control Cable, 300', Video Detection	EA	2
8027	Remove & Dispose Material & Equipment per Assignment	LS	1
8038	Remove-Reset Decorative Brick Sidewalk	SF	4
8039	F & I Wood Sign Supports 4" x 4"	LF	15
8041	F & I No. 6 AWG Stranded Bare Copper Ground Wire	LF	400
8048	F & I 3" Schedule 80 Rigid PVC Conduit-Bored	LF	350
8049	F & I 4" Schedule 80 Rigid PVC Conduit-Bored	LF	75
8051	F & I 3" Schedule 80 Rigid PVC Conduit-Trenched	LF	600
8052	F & I 4" Schedule 80 Rigid PVC Conduit-Trenched	LF	25
8057	F & I Metered Service Pedestal	EA	1
8034	~~F & I Electrical Cable 4 Conductor No. 4 AWG THHN/THWN~~ CABLE-1 CON, 250 KCML, CU, USE 600V	LF	80
8064	F & I Noninvasive Detector, 1000' Lead In Cable	EA	2
8063	F & I Noninvasive Detector, 500' Lead In Cable	EA	3
8065	F & I Electrical Handhole	EA	8
8067	Install Ground Mounted Sign	SF	7
8068	Install Overhead Sign	SF	158
8069	F & I Video Detection Camera	EA	4
8076	F & I Steel Pole With A Single 60' Mast Arm	EA	1
8077	F & I Steel Pole With Twin 50' and 60' Mast Arms	EA	1
8079	F & I Steel Pole With Single 70' Mast Arm	EA	1
8087	F & I Ground Rod -3/4" Diameter x 10' Length	EA	4
8097	F & I Electrical Cable - 5 Conductor (No. 14 AWG)	LF	120
8098	F & I Electrical Cable - 7 Conductor (No. 14 AWG)	LF	1900

C. SHA FORCES SHALL REMOVE THE CONTROLLER AND ALL AUXILLIARY EQUIPMENT FROM THE CONTROLLER CABINET. THE CABINET AND ALL OTHER MATERIALS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

ITEM NO.	DESCRIPTION	UNITS	QUANTITY
	NONE		

WIRING DIAGRAM



WIRING KEY

A,B,C,D,E,F,G,H — 7 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)

J,K,L,M — 5 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)

N,O,P,Q — VIDEO DETECTION CABLE

R,S,T,U,V — NON-INVASIVE MICRO-LOOP LEAD-IN

W — 1 CONDUCTOR (NO. 6 AWG) STRANDED COPPER GROUND WIRE

PS — PROPOSED POWER SERVICE

+ — GROUND ROD

TOD No: AT720-01
SHA: PG641A51/B51

BAI
BRUDIS & ASSOCIATES, INC.
CONSULTING ENGINEERS
9220 RUMSEY ROAD SUITE 110
COLUMBIA, MARYLAND 21045
410-884-3607 410-884-3609(FAX)

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

MD 410 AND TOLEDO TERRACE/ ENTRANCE TO HOME DEPOT

SCALE N.T.S.	DATE 6/05	CONTRACT NO. AT720578B
DESIGNED BY M.A. MEARS		COUNTY PRINCE GEORGE'S
DRAWN BY BIB TYSON		LOGMILE 16.04 to 16.55
CHECKED BY DC		T.I.M.S. NO. 278 5
F.A.P. NO.		TOD NO. 0340
DRAWING NO. 278	OF	SHEET NO. 2 OF 2

BY: $USERNAME$