PROJECT DESCRIPTION

I. GENERAL

This project involves the reconstruction of the existing traffic control signal at the intersection of MD 586 (Veirs Mill Road) and Reedie Drive/ Wheaton Plaza North Entrance in Montgomery County, Maryland. MD 586 is considered to run in a north/south direction.

II. INTERSECTION OPERATION

The intersection is to be modified to operate in a NEMA six (6) phase, semi-traffic-actuated mode. There will be an exclusive lead/lag left turn phase for both the north and southbound movements of MD 586. The MD 586 through movements will operate concurrently with a concurrent pedestrian movement across the east and west legs of the intersection. The Reedie Drive/Wheaton Plaza North Entrance through movements will operate concurrently with an actuated pedestrian movement across the north and south legs of the intersection.

[1] There will be a concurrent right turn movement for the eastbound South Entrance movement to operate with the northbound leading left turn.

[1] A new cabinet/controller will be installed on the existing foundation with ~~the existing cabinet/controller will be utilized.~~ Video camera detection equipment is to be installed at this location.

EQUIPMENT LIST

A. S.H.A. furnished equipment material.

	Quantity	Units	Specification Section	Description
[1]	1	EA	816	Standard S.H.A. traffic signal controller, base mounted cabinet, 4 channel rack mounted detector amplifer and video detection equipment.

B. Equipment to be furnished and/or installed by the Contractor.
All equipment in this list shall have catalog cuts submitted for approval prior to installation.

	Quantity	Units	Specification Section	Description
	1	EA	818	27 ft. steel mast arm pole with a 70 ft. mast arm (painted NPS Brown).
	2	EA	818	4 ft. steel pedestal pole with break away transformer base (painted NPS Brown)
	5	EA	814	12 in., one-way, three section (RA,YA,GA) adjustable black faced traffic signal head with mast arm mounting hardware and tunnel visors.
[1]	7 ~~8~~	EA	814	12 in., one-way, three section (R,Y,G) adjustable black faced traffic signal head with mast arm mounting hardware and tunnel visors.
	4	EA	814	16 in., two-way, one section (Countdown indications) adjustable pedestrian signal head with pole mounting hardware and cut-away visors.
[1]	4	EA	---	Video camera detection (to include necessary cable for installation). ~~One (1) - 400 ft., One (1) - 125 ft., Two (2) - 250~~ One (1) - 500 ft., Two (2) - 300 ft., One (1) - 200
	3	EA	813	30 in. x 36 in. R 3-5(L) sign with mast arm mounting hardware.
	1	EA	813	24 in. x 30 in. R10-11 sign with mast arm mounting hardware.
	1	EA	813	30 in. x 36 in. R 3-5 (R) sign with mast arm mounting hardware.
	4	EA	813	Pedestrian pushbutton assembly with pushbutton sign.
[1]	~~1~~	~~EA~~	~~---~~	~~Video detection cabinet retro-fit.~~
	2	EA	---	Nema load switch
[1]	1	EA	814	12 in., one-way, five section (R,Y,RA,YA,GA) adjustable black faced traffic signal head with mast arm mounting hardware and tunnel visors.

	Quantity	Units	Specification Section	Description
	Lump Sum	LS	108	Mobilization.
	Lump Sum	LS	104	Maintenance of traffic.
	3	CY	205	Test pit excavation.
[1]	6 ~~4~~	EA	811	Handhole
	225	LF	815	Sawcut for signal loop detector.
	780	LF	810	Loop detector wire (No. 14 A.W.G.) encased in flexible tubing.
	700	LF	810	2-conductor (aluminum shielded) electrical cable (No. 14 A.W.G.).
[1]	675 ~~600~~	LF	810	2-conductor electrical cable (No. 14 A.W.G.).
[1]	2600 ~~2550~~	LF	810	5-conductor electrical cable (No. 14 A.W.G.).
[1]	640 ~~425~~	LF	810	7-conductor electrical cable (No. 14 A.W.G.).
[1]	600 ~~710~~	LF	810	12-pair Voice Grade (Jelly Filled) Telemetry Interconnect Cable (No. 19 A.W.G.).
	425	LF	804	Bare copper stranded ground wire (No. 6 A.W.G.).
	20	LF	804	1 in. galvinized conduit for loop detector sleeve.
	15	LF	804	1 in. liquid tight flexible non-metallic conduit for loop detector sleeve.
	40	LF	805	2 in. polyvinyl chloride [Schedule 80] electrical conduit - trenched.
[1]	100 ~~20~~	LF	805	3 in. polyvinyl chloride [Schedule 80] electrical conduit - trenched.
	10	LF	805	4 in. polyvinyl chloride [Schedule 80] electrical conduit - trenched.
	350	LF	805	4 in. polyvinyl chloride [Schedule 80] electrcal conduit - slotted in roadway.
	1	EA	805	3 in. weatherhead.
	4	EA	805	Elbows into existing foundations.
	3	EA	804	Ground rod 3/4 in. diameter x 10 ft. length.
	7.0	CY	801	Concrete foundation for traffic signal equipment.
	1	EA	---	Removal of existing concretfoundation 12" below grade.
	1	EA	---	Clean, cut, cap, and galvanize mast arm pole.
	3	EA	---	Paint existing mast arm poles and mast arms (NPS Brown).
	Lump Sum	LS	810	Remove existing traffic signal equipment.
	Lump Sum	LS	---	Remove /Replace brick paver sidewalk.
[1]	~~Lump Sum~~	~~LS~~	~~---~~	~~Relocate Existing Interconnect Cable.~~
	Lump Sum	LS	---	As-built for S.H.A. [on CADD].
[1]	600	LF	---	50-pair Voice Grade Telemetry (Jelly Filled) Interconnect cable (No: 19 A.W.G.).
[1]	1025	LF	---	50-pair Voice Grade Telemetry Self Supporting Interconnect cable (No: 19 A.W.G.).
[1]	120	LF	805	3 in. polyvinly chloride [Schedule 80] electrical conduit - slotted in roadway.

CONTACT LIST

The contact persons for District #3 are as follows:

Mr. Lee Starkoff
Assistant District Engineer - Traffic
301-513-9318

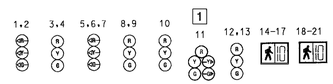
Mr. Augie Rebish
Assistant District Engineer - Utility
301-513-7350

Mr. Wayne Mowdy
Assistant District Engineer - Maintenance
301-513-7304

Mr. Richard L. Daff
Chief, Traffic Operations Division
410-787-7630

The Power Company Representative is:
PEPCO
Mr. Steven Custer
8300 Old Marlboro Pike
Upper Marlboro, Maryland 207772
301-549-4333

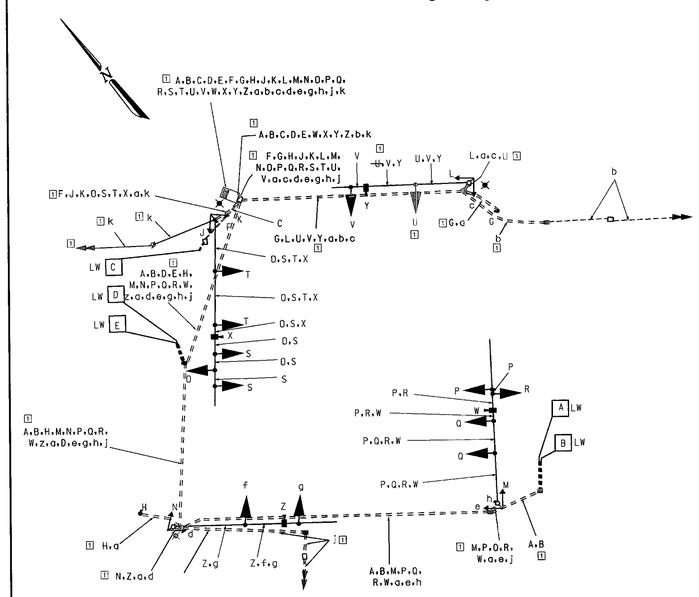
[1] Phase Chart



[1]	Phase 1 & 5	R	R	G	G	R	R G	R	DW	DW
[1]	5 Change	R	R	Y	G	R	R Y	R	DW	DW
[1]	Phase 2 & 5	R	G	R	G	R	R	R	WK	DW
[1]	Ped Clearance	R	G	R	G	R	R	R	FL/DW	DW
[1]	5 Change	R	G	R	Y	R	R	R	DW	DW
[1]	Phase 2 & 6	G	G	R	R	R	R	R	DW	DW
[1]	2 & 6 Change	Y	Y	R	R	R	R	R	DW	DW
	Phase 4 & 8	R	R	R	R	G	G	G	DW	DW
	4 & 8 Change	R	R	R	R	Y	Y	Y	DW	DW
	Phase Alt 4 & Alt 8	R	R	R	R	G	G	G	DW	WK
	Ped Clearance	R	R	R	R	G	G	G	DW	FL/DW
	Alt 4 & Alt 8 Change	R	R	R	R	Y	Y	Y	DW	DW
	Flashing Operation	FL/R	FL/Y	FL/R	FL/Y	FL/R	FL/R	FL/R	DARK	DARK

[1]

[1] Wiring Diagram



A, B, C, D, E — 2-Conductor Cable (Aluminum Shielded)

F, G, H, h — 2-Conductor Electrical Cable (No. 14 A.W.G.)

J, K, L, M, N, O — P, Q, R, S, T, U, c, d, e, f — 5-Conductor Electrical Cable (No. 14 A.W.G.)

[1] U, V, g — 7-Conductor Electrical Cable (No. 14 A.W.G.)

W, X, Y, Z — Video detection cable

a — Bare Copper Ground Wire (No. 6 A.W.G.)

[1] b — ~~12-Pair~~ 50-Pair Voice Grade Telemetry Interconnect Cable (No. 19 A.W.G.) (Reedie Dr/Wheaton Plaza N. Entr. - Wheaton Plaza S. Entr./WMATA Run)

LW — Loop Detector Wire (No. 14 A.W.G.) in Flexible Tubing

✱ — Proposed Grounding Rod

[1] j — 12-Pair Voice Grade Telemetry Interconnect Cable (No. 19 A.W.G.) (Reedie Dr/Wheaton Plaza N. Entr. - Wheaton Plaza Ring Road Run)

[1] k — 50-Pair Voice Grade Telemetry Interconnect Cable (No. 19 A.W.G.) (Reedie Dr/Wheaton Plaza N. Entr. - MD 193 (University Blvd. Run)

[1] REDLINE REVISION
February 9, 2005

MDOT - SHA
O.O.T.S
T.E.D.D.

S.H.A. Approval for — Date 2-9-05

[1] REDLINE REVISION

C. Materials to be removed by the contractor shall become the property of the contractor.

Quantity	Units	Description
8	EA	12 in. 3-section traffic signal head.
1	EA	Steel mast arm pole and mast arm.

The Traffic Group
The Traffic Group, Inc.
410-931-6600
Fax 410-931-6601

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
(General Information Plan)

MD 586 (Veirs Mill Road) at Reedie Drive/Wheaton Plaza North Entrance

DRAWN BY:	Frank Hoeckel	F.A.P. NO.	N/A	TS NO. 2441-A	SHEET NO.
CHECKED BY:		S.H.A. NO.	BW996M82		
SCALE:	N/A	COUNTY:	Montgomery	T.I.M.S. NO. G-383	4 OF 8
DATE:	June 14, 2004	LOG MILE:	15058605.55		

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