PROJECT DESCRIPTION

I. GENERAL

This project involves the reconstruction of the existing traffic control signal at the intersection of MD 198 and Sweitzer Lane in Prince George's County, Maryland.
MD 198 is considered to run in an east/west direction.

II. INTERSECTION OPERATION

The intersection is to remain operating in a NEMA six (6) phase, full-traffic-actuated mode.

However the existing MD 198 left turn phasing shall be modified to operate in a lead(WB)/lag(EB) There will be exclusive lead/lag left turn phase for both the east and westbound movements of MD 198. There will be a current right turn movement for the northbound Sweitzer Lane movement to operate with the eastbound lead/lag left turn. The MD 198 through movements operate concurrently with a concurrent pedestrian movement across the south leg of the intersection. The Sweitzer Lane through movements operate in a side street split phase mode with an actuated pedestrian movement across the west leg of the intersection.

The existing cabinet/controller will be utilized. Video camera detection equipment, and lead/lag phase change will be installed by SHA forces at this location.

CONTACT LIST

The contact persons for District #3 are as follows:

PG - Mr. Lee Starkloff
Assistant District Engineer - Traffic
PG - 301-513-7358

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

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

Mr. Ed Rodenhizer
SHA- Traffic Signal Shop
410-787-7650

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

EQUIPMENT LIST

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 60 ft. mast arm.
1	2	EA	818	27 ft. steel twin mast arm pole with a 70 ft. and 50 ft. mast arm.
1	~~1~~	~~EA~~	~~818~~	~~27 ft. steel mast arm pole with a 70 ft. mast arm.~~
1	1	EA	818	4 ft. steel pedestal pole with break away transformer base.
1	1	EA	818	10 ft. steel pedestal pole with break away transformer base.
	5	EA	---	Video camera detection with specified cables. One - 475 ft, Two -325 ft., One - 225 ft., One -175ft.
★	1	EA	---	Video camera detection interface equipment for 4-8 cameras.
	4	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	EA	814	12 in., one-way, three section (RA,YA,GA,) adjustable black faced signal head with louvers with pole mounting hardware and tunnel visors.
	6	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	12 in., one-way, four section (R,Y,G,GA) adjustable black faced traffic signal head with mast arm mounting hardware and tunnel visors.
	1	EA	814	12 in., two-way, two section (symbolic DW,WK) adjustable pedestrian signal head with post top mounting hardware and cut-away visors. 1
	2	EA	814	12 in., one-way, two section (symbolic DW, WK) adjustable pedestrian signal head with pole mounting hardware and cut-away visors.
	4	EA	813	30 in. x 36 in. R 3-5(L) sign with mast arm mounting hardware.
	1	EA	823	42 in. x 30 in. W9-2(4)L (mod) sign with mast arm mounting hardware.
	2	EA	813	16 in. x Var. D -3(1) (Dual faced) sign with mast arm mounting hardware.
	2	EA	813	48 in x 75 in. Shield assem (blk/wht) with pole mounting hardware.
	2	EA	817	Pedestrian pushbutton assembly with pushbutton sign to read (Push Button To Cross MD 198).
	1	EA	---	Micro-loop probe (set of 3) with 750 ft. lead-in cable.
	3	EA	---	Non-invasive probe (set of 3) with 750 ft lead-in cable.
	2	EA	806	20 ft. luminaire arm.
	2	EA	806	250 W H.P.S. lamp and luminarie.

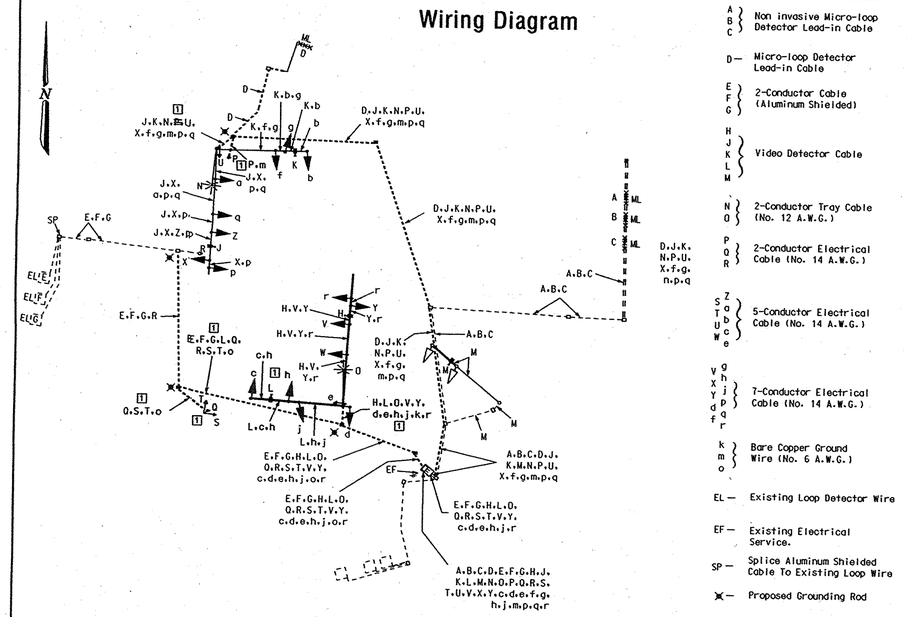
Quantity	Units	Specification Section	Description
Lump Sum	LS	108	Mobilization.
Lump Sum	LS	104	Maintenance of traffic.
3	CY	205	Test pit excavation.
3	EA	811	Handhole.
75	LF	815	Sawcut for signal loop detector.
550	LF	810	2-conductor electrical tray cable (No. 12 A.W.G.).
610	LF	810	2-conductor (aluminum shielded) electrical cable (No: 14 A.W.G.)
900	LF	810	2-conductor electrical cable (No. 14 A.W.G.)
425	LF	810	5-conductor electrical cable (No. 14 A.W.G.).
3150	LF	810	7-conductor electrical cable (No. 14 A.W.G.).
845	LF	804	Bare copper stranded ground wire (No. 6 A.W.G.).
15	LF	805	1 in. liquid tight flexible non-metallic conduit for loop detector sleeve.
1 95	LF	805	2 in. polyvinyl chloride (Schedule 80) electrical conduit - trenched.
85	LF	805	3 in. polyvinyl chloride (Schedule 80) electrical conduit - trenched.
110	LF	805	3 in. polyvinyl chloride (Schedule 80) electrical conduit - bored.
550	LF	805	4 in. polyvinyl chloride (Schedule 80) electrical conduit - bored.
75	LF	805	4 in. polyvinyl chloride (Schedule 80) electrical conduit - trenched.
1 16.0	CY	801	Concrete foundation for traffic signal equipment.
4	EA	804	Ground rod -3/4in. diameter x 10 ft. length.
2	EA	---	Relocate existing pole mounted signs.
4	EA	---	Remove existing signal foundations 12 in. below final grade.
1	EA	---	Loop detector splice.
1	EA	---	4 in. elbow in existing base.
Lump Sum	LS	---	Remove and dispose of existing traffic signal equipment.
Lump Sum	LS	---	As-built for S.H.A. (on Micro station).

★ To be installed by MD-SHA

Phase Chart

	1,2	3,4	5-7	8,9	10,11	12	13-15	16,17	18	19,20	21,22
Phase 1 & 5	R	R	G	G	R	R	G	R	R	DW	DW
1 Change	R	Y	G	G	R	R	Y	R	R	DW	DW
Phase 2 & 5	R	G	G	R	R	R	R	R	R	DW	DW
5 Change	R	Y	Y	R	R	R	R	R	R	DW	DW
Phase 2 & 6	G	G	R	R	R	R	R	R	R	DW	WK
Ped Clearance	G	G	R	R	R	R	R	R	R	DW	FL/DW
2 & 6 Change	Y	Y	R	R	R	R	R	R	R	DW	DW
Phase 3	R	R	R	R	R	R	G	G/G	G	DW	DW
3 Change	R	R	R	R	R	R	R	Y	Y	DW	DW
Phase Alt 3	R	R	R	R	R	R	R	G/G	G	WK	DW
Ped Clearance	R	R	R	R	R	R	R	G/G	G	FL/DW	DW
Alt 3 Change	R	R	R	R	R	R	R	Y	Y	DW	DW
Phase 4	R	R	R	R	G/G	G	G	R	R	DW	DW
4 Change	R	R	R	R	Y	Y	G	R	R	DW	DW
Flashing Operation	FL/R	FL/Y	FL/R	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	DARK	DARK

Wiring Diagram



A, B, C — Non invasive Micro-loop Detector Lead-in Cable
D — Micro-loop Detector Lead-in Cable
E, F, G — 2-Conductor Cable (Aluminum Shielded)
H, J, K, L, M — Video Detector Cable
N, O — 2-Conductor Tray Cable (No. 12 A.W.G.)
P, Q, R — 2-Conductor Electrical Cable (No. 14 A.W.G.)
S, T, U, W, Z, a, b, c, e — 5-Conductor Electrical Cable (No. 14 A.W.G.)
V, X, Y, d, f, g, h, j, p, q, r — 7-Conductor Electrical Cable (No. 14 A.W.G.)
k, m, o — Bare Copper Ground Wire (No. 6 A.W.G.)
EL — Existing Loop Detector Wire
EF — Existing Electrical Service.
SP — Splice Aluminum Shielded Cable To Existing Loop Wire
✕ — Proposed Grounding Rod
ML — Micro-loop Detector

Red-Line Revision 1
11-9-06

Red-Line Revision 1

MDOT - SHA
O.O.T.S.
11-9-06
S.H.A. Approval — Date
T.S.- 2110-D
T.I.M.S. No.- G-934

Revision " D"

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

MD 198 at Sweitzer Lane

DRAWN BY: Frank Hoeckel	F.A.P. NO. N/A	TS NO. GI-2110 D	SHEET NO. 2 OF 2
CHECKED BY:	S.H.A. NO. BW996M82	T.I.M.S. NO. G-934	
SCALE: N/A	COUNTY: Prince George's		
DATE: April 8, 2005	LOG MILE: 16001980.67		

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