PROJECT DESCRIPTION

I. GENERAL

This project involves the modification of the existing traffic control signal at the intersection of MD 210 (Indian Head Hwy.) and Kerby Hill Rd./ Livingston Rd. in Prince George's County, Maryland. MD 210 is considered to run in a north/south direction.

The West leg of the intersection (Kerby Hill Rd.) shall be modified to accomodate a triple left turn.

II. INTERSECTION OPERATION

The intersection currently operates in a NEMA six (6) phase, full-traffic-actuated mode. There is an exclusive left turn phase for both the north and southbound movements of MD 210. The MD 210 through movements operate concurrently. The Kerby Hill Rd./ Livingston Rd. through movements operate in a side street split phase mode with an actuated pedestrian movement across the north leg of the intersection.

The exisitng controller, camera interface panel, and phasing shall be utilized.

EQUIPMENT LIST

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

None.

C. SHA forces shall remove the controller and all auxiliary equipment from the controller cabinet. The cabinet and all other materials to be removed by the contractor shall become the property of the contractor.

Quantity	Units	Description
1	EA	Base mounted cabinet.
4	EA	12 in. 3-section traffic signal head.
2	EA	12 in. 4-section traffic signal head.
1	EA	Steel strain pole.

CONTACT LIST

The contact persons for District #3 are as follows:

Mr. Majib Shakib
Assistant District Engineer - Traffic
301-513-7358

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
Richard Chilcoat
Customer Representative
1-301-967-5805
8300 Old Marlboro Pike
Upper Marlboro, MD 20772

EQUIPMENT LIST Cont.

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

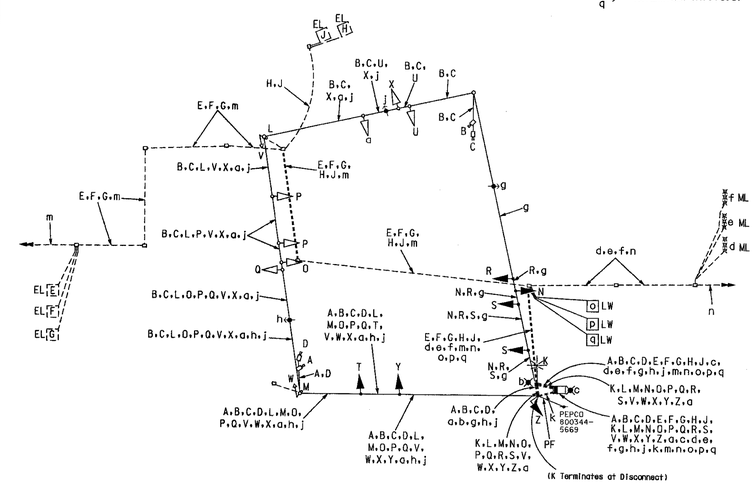
Quantity	Units	Specification Section	Description
Lump Sum	LS	108	Mobilization.
Lump Sum	LS	104	Maintenance of traffic.
1	EA	818	12 in. x 32 ft. 2-ply steel strain pole.
1	EA	816	Standard S.H.A. base mounted cabinet, one 4-channel rack mounted loop detector amplifier, and all necessary equipment. [Note: Cabinet shall be purchased from Econolite and delivered to the S.H.A. signal shop for wiring and testing. Contact Mr. Ed Rodenhizer (410) 787-7650].
2	EA	814	12 in., one-way, three section (RA,YA,GA) adjustable black faced traffic signal head with span wire mounting hardware and tunnel visors.
3	EA	814	12 in., one-way, three section (R,Y,G) adjustable black faced traffic signal head with span wire mounting hardware and tunnel visors.
1	EA	814	12 in., one-way, four section (R,Y,G,GA) adjustable black faced traffic signal head with span wire mounting hardware and tunnel visors.
1	EA	814	12 in., one-way, four section (R,Y,G,GA) adjustable black faced traffic signal head with pole mounting hardware and tunnel visors.
3	EA	813	30 in. x 36 in. R 3-5 (L) sign with span wire mounting hardware.
1	EA	806	15 ft. luminaire arm.
1	EA	806	250 W H.P.S. lamp and luminarie.
2	CY	205	Test pit excavation.
1	EA	811	Handhole.
175	LF	815	Sawcut for signal loop detector.
555	LF	810	Loop detector wire (No. 14 A.W.G.) encased in flexible tubing.
150	LF	810	1-conductor electrical cable (No. 4 A.W.G.) (3 pieces).
230	LF	810	2-conductor (aluminum shielded) electrical cable (No. 14 A.W.G.).
65	LF	810	2-conductor electrical tray cable (No. 12 A.W.G.).
565	LF	810	2-conductor electrical cable (No. 14 A.W.G.).
1845	LF	810	5-conductor electrical cable (No. 14 A.W.G.).
1105	LF	810	7-conductor electrical cable (No. 14 A.W.G.).
815	LF	810	Opticom detector cable.
750	LF	---	Video detector camera cable. 2 - 250 ft. 2 - 500 ft.
20	LF	804	Bare copper stranded ground wire (No. 6 A.W.G.).
300	LF	819	1/4in. steel tether wire.
300	LF	819	3/8in. steel span wire.
10	LF	805	2 in. polyvinyl chloride [Schedule 80] electrical conduit - trenched.
10	LF	805	3 in. polyvinyl chloride [Schedule 80] electrical conduit - trenched.
20	LF	805	4 in. polyvinyl chloride [Schedule 80] electrical conduit - trenched.
60	LF	805	4 in. polyvinyl chloride [Schedule 80] electrical conduit - bored.
6.25	CY	801	Concrete foundation for traffic signal equipment.
2	EA	804	Ground rod - 3/4in. diameter x 10 ft. length.
1	EA	807	Electrical utility service equipment (120/240 V, one phase, three wire system) for a type B-14 Overhead electrical service.
50	LF	549	24 in. wide HAPPTPM - white for stop line.
2	EA	---	Temporary back guy.
4	EA	---	Relocate existing overhead sign.
2	EA	---	Relocate existing signal head.
1	EA	---	Relocate existing ground mounted sign (to pole).
3	EA	---	Relocate existing opticom detector.
1	EA	---	Re-aim camera.
Lump Sum	LS	---	Relocate existing interconnect cables.
Lump Sum	LS	---	Relocate existing loop detector cables.
Lump Sum	LS	---	Remove existing traffic signal equipment.
Lump Sum	LS	---	As-built for S.H.A. [on CADD].

Phase Chart

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15-16
Phase 1 & 5	G	G	R	R	G	G	R	R	R	R	R	R	R	R	DW
1 & 5 Change to Phase 1 & 6 or Phase 2 & 5 or Phase 2 & 6															
Phase 1 & 6	G	G	G	G	R	R	R	R	R	R	R	R	R	R	DW
1 Change	Y	Y	G	G	R	R	R	R	R	R	R	R	R	R	DW
Phase 2 & 5	R	R	R	R	G	G	G	G	R	R	R	R	R	R	DW
5 Change	R	R	R	R	Y	Y	G	G	R	R	R	R	R	R	DW
Phase 2 & 6	R	R	G	G	R	R	G	G	R	R	R	R	R	R	DW
2 & 6 Change	R	R	Y	Y	R	R	Y	Y	R	R	R	R	R	R	DW
Phase 3	R	R	R	R	R	R	R	R	G G	G G	G	R	R	R	DW
3 Change	R	R	R	R	R	R	R	R	Y	Y	Y	R	R	R	DW
Phase 4	R	R	R	R	R	R	R	R	R	R	R	G G	G G	G	DW
4 Change	R	R	R	R	R	R	R	R	R	R	R	Y	Y	Y	DW
Phase Alt 3	R	R	R	R	R	R	R	R	G G	G G	G	R	R	R	WK
Ped Clearence	R	R	R	R	R	R	R	R	G G	G G	G	R	R	R	FL/DW
Alt 3 Change	R	R	R	R	R	R	R	R	Y	Y	Y	R	R	R	DW
Flashing Operation	FL/R	FL/R	FL/Y	FL/Y	FL/R	FL/R	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	DARK

Pre-Emption A	R	R	G	G	R	R	G	G	R	R	R	R	R	R	DW
Pre-Emption A Change	R	R	G	G	R	R	G	G	R	R	R	R	R	R	DW
Pre-Emption B	R	R	R	R	R	R	R	R	G G	G G	G	R	R	R	DW
Pre-Emption B Change	R	R	R	R	R	R	R	R	Y	Y	Y	R	R	R	DW

Wiring Diagram



A, B, C, D — Video Detector Cable

o, p, q — New 2-Conductor Cable (Aluminum Shielded)

E, H, F, J — Existing 2-Conductor Cable (Aluminum Shielded)

K — 2-Conductor Tray Cable (No. 12 A.W.G.)

L, M — 2-Conductor Electrical Cable (No. 14 A.W.G.)

N, S, O, T, P, U, Q, V, R, W — 5-Conductor Electrical Cable (No. 14 A.W.G.)

X, Y, Z, a — 7-Conductor Electrical Cable (No. 14 A.W.G.)

b, c — Bare Copper Ground Wire (No. 6 A.W.G.)

d, e, f — Existing Micro-loop Detector Wire

g, h, j — Opticom Detector Wire

k — 1-Conductor (No. 4 A.W.G.) (3 pieces) for Traffic Signal Electrical Service

m, n — Existing Interconnect Cable

LW — New Loop Detector Wire

EL — Existing Loop Detector Wire

ML — Existing Micro-loop Detector

PF — Proposed Overhead Electrical Service By PEPCO (To be Determined in the field)

Proposed Grounding Rod

Revision "J"

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 210 (Indian Head Hwy.) at Kerby Hill Rd./ Livingston Rd.

DRAWN BY: J. Storck	F.A.P. NO. N/A	TS NO. 729J GI	SHEET NO.
CHECKED BY:	S.H.A. NO. BW996M82		
SCALE: N/A	COUNTY: Prince George's	T.I.M.S. NO. G437	2 OF 2
DATE: August 4, 2004	LOG MILE: 16021011.54		

f:\2000\2000-0711\Des\gplan.dgn 8/31/2004