

PROJECT DESCRIPTION

I. GENERAL

This project involves the modification of an existing Traffic Control Signal with interconnect at the intersection of Shady Grove Rd and I-370 Off Ramp "I" / Pleasant Rd in Montgomery County. The I-370 / Pleasant Rd side street shall now operate as a split phase. Shady Grove Rd is assumed to run an east-west direction.

II. INTERSECTION OPERATION

- The intersection is to operate in a NEMA four-phase, semi-actuated mode, with the Shady Grove Rd approaches continuing to run concurrently. The pedestrian phase across Pleasant Rd shall remain on recall. A new pedestrian phase with pushbutton actuation shall be added across the west leg of Shady Grove Road. The I-370 / Pleasant Rd approaches shall now operate as a side street split phase.
- The existing full-traffic-actuated, eight-phase controller with L.A.U. and L.A.U. Panel and all necessary equipment housed in a NEMA size "6" base-mounted cabinet shall be utilized at this intersection.

III. SPECIAL NOTES

- The Contractor shall be responsible for terminating all signal cables, to the appropriate terminals and shall properly label each cable.
- All controller cabinet wiring will be performed by Montgomery County Forces. Contact Mr. Bob Gonzales at (240) 777-8761 seventy-two hours in advance of intended work.
- All underground and overhead utilities shown on these plans are schematic only and may not be complete. The Contractor shall be responsible for notifying Miss Utility prior to construction so that all utilities may be located in the field. If the Contractor perceives that a conflict between the utilities and the traffic signal will occur, the Contractor shall notify the Project Engineer immediately so that the conflict may be resolved.

EQUIPMENT LIST

A EQUIPMENT TO BE SUPPLIED BY THE SHA

ITEM NO.	DESCRIPTION	QUANTITY
8106	10' breakaway pedestal pole with transformer base.	2 Each
8122	12", one-way, four-section (R,Y,G,GA) traffic signal head having proper span wire hangers, balance adjusters and tunnel visors. (Black face)	4 Each
8122	12", one-way, three-section (R,Y,G) traffic signal head having proper span wire hangers, balance adjusters and tunnel visors. (Black face)	2 Each
8124	12", one-way, two-section (DW,W) symbolic pedestrian signal head having proper post top adapter for pedestal mounting and cutaway visors. (Black face)	2 Each
8126	Pedestrian pushbutton and pedestrian education R10-4(1) sign. (Note: Sign to read "PUSH BUTTON TO CROSS SHADY GROVE RD").	2 Each

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

ITEM NO.	DESCRIPTION	QUANTITY
2002	Test pit excavation.	2 C.Y.
8001	Concrete foundation.	2 C.Y.
8023	3" polyvinyl chloride electrical conduit (Schedule 80) (trenched).	50 L.F.
8031	1" liquid tight flexible non metallic conduit (detector wire sleeve).	25 L.F.
8043	Ground rod, 3/4" diameter x 10' length with clamp.	2 Each
8060	Loop wire (No. 14 A.W.G.) encased in 1/4" flexible tubing.	1400 L.F.
8063	Canoga 4-conductor electrical cable (No. 14 A.W.G.) (shielded).	700 L.F.
8064	2-conductor electrical cable (No. 14 A.W.G.).	570 L.F.
8065	3-conductor electrical cable (No. 14 A.W.G.).	580 L.F.
8067	7-conductor electrical cable (No. 14 A.W.G.).	690 L.F.
8075	1-conductor electrical cable (No. 6 A.W.G.) stranded bare copper ground wire.	45 L.F.
8131	Traffic signal handbox (pullbox).	1 Each

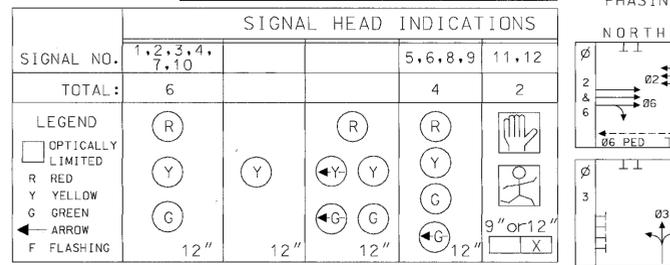
EQUIPMENT LIST (CONT.)

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

ITEM NO.	DESCRIPTION	QUANTITY
8132	Sawcut.	385 L.F.
8161	Removal of handbox.	1 Each
8162	Removal and salvage of any signal head.	6 Each
9001	Signal technician labor.	2 HRS
Neg.	Remove existing pavement markings.	100 L.F.
Neg.	12" white heat applied permanent preformed thermoplastic pavement marking.	260 L.F.
Neg.	24" white heat applied permanent preformed thermoplastic pavement marking.	55 L.F.

SEQUENCE OF OPERATION SHEET
DIVISION OF OPERATIONS
TRAFFIC ENGINEERING & OPERATIONS SECTION
MONTGOMERY COUNTY, MARYLAND

SHADY GROVE RD AND I-370 OFF RAMP "I" / PLEASANT RD

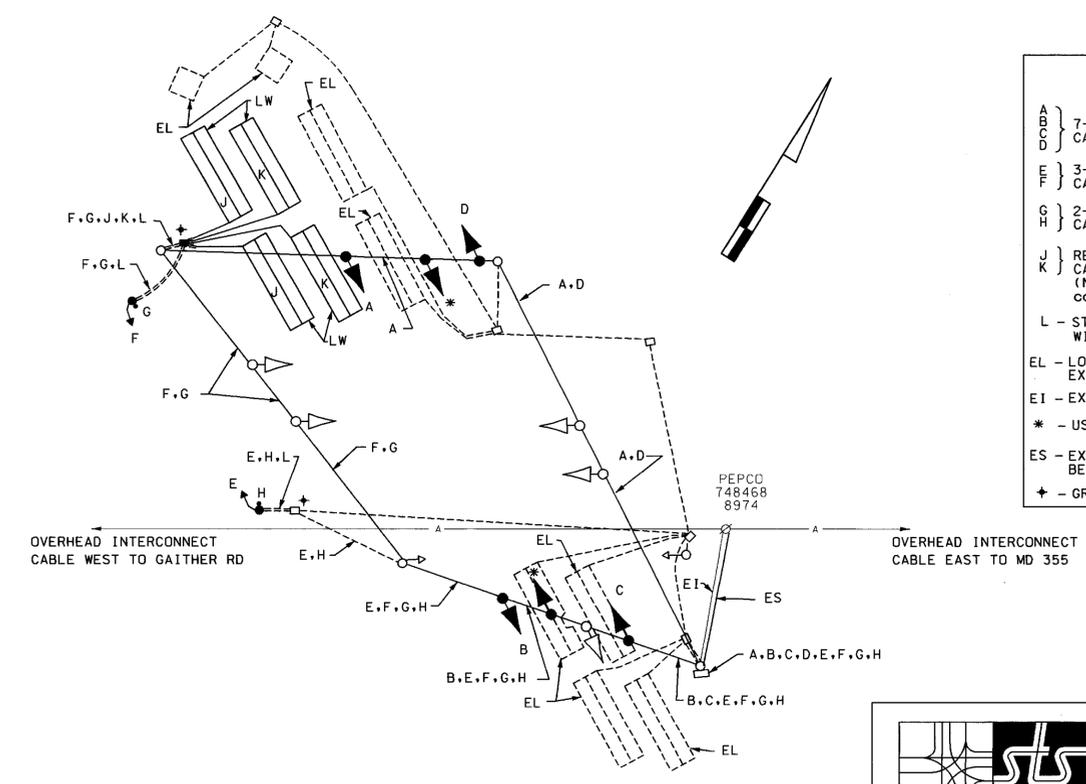


SIGNAL NO.	INTERVAL												PHASE	
	1	2	3	4	5	6	7	8	9	10	11	12		
1	G	G	Y	R	R	R	R	R	R	R	R	R	R	FL/Y
2	G	G	Y	R	R	R	R	R	R	R	R	R	R	FL/Y
3	G	G	Y	R	R	R	R	R	R	R	R	R	R	FL/Y
4	G	G	Y	R	R	R	R	R	R	R	R	R	R	FL/Y
5	R	R	R	R	Y	Y	R	R	R	R	R	R	R	FL/R
6	R	R	R	R	Y	Y	R	R	R	R	R	R	R	FL/R
7	R	R	R	R	Y	Y	R	R	R	R	R	R	R	FL/R
8	R	R	R	R	Y	Y	R	R	R	R	R	R	R	FL/R
9	R	R	R	R	Y	Y	R	R	R	R	R	R	R	FL/R
10	R	R	R	R	Y	Y	R	R	R	R	R	R	R	FL/R
11	WK	FL/DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DARK
12	WK	FL/DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DW	DARK
13	DW	DW	DW	DW	DW	DW	DW	WK	FL/DW	DW	DW	DW	DW	DARK
14	DW	DW	DW	DW	DW	DW	DW	WK	FL/DW	DW	DW	DW	DW	DARK
PHASE	2 & 6			ALL RED			3			ALL RED			4	

NOTES:

SUBMITTED: _____ CHECKED: _____ APPROVED: _____
 IN SERVICE BY: _____ DATE: _____ TIME: _____

WIRING DIAGRAM



WIRING KEY

- A } 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- B } 3-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- C } 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- D } 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- J } REROUTED CANOGA 4-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.) SHIELDED (NOTE: Canoga cable shall be rerouted thru new conduit / handbox to existing strain pole).
- K } REROUTED CANOGA 4-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.) SHIELDED (NOTE: Canoga cable shall be rerouted thru new conduit / handbox to existing strain pole).
- L - STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
- EL - LOOP WIRE (NO. 14 A.W.G.) EXISTING
- EI - EXISTING INTERCONNECT
- * - USE EXISTING WIRING
- ES - EXISTING OVERHEAD SERVICE TO BE MAINTAINED BY PEPCO
- ⊕ - GROUND ROD

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MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
SHADY GROVE RD AND
I-370 OFF RAMP "I" / PLEASANT RD

DRAWN BY: ROB CICCHINI	F.A.P. NO. _____	TS. NO. 2235B	SHEET NO. 2 OF 2
CHECKED BY: _____	S.H.A. NO. _____	T.I.M.S. NO. F836	
SCALE: NONE	COUNTY: MONTGOMERY	LOG MILE: 15CPLE00.090548	
DATE: 3-09-04			