F H W A REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	MD			

PROJECT DESCRIPTION

I. General

This project involves the installation of a new Traffic Signal at the intersection of MD 501 (Chillum Road) at 19th Avenue in Prince George's County, Maryland. MD 501 is assumed to run in an east- west direction.

II. Intersection Operation

This intersection is proposed to operate in a NEMA four phase operation with an alternate pedestrian phase for crossing MD 501. Pedestrians will cross 19th Avenue concurrently. The controller will be housed in a base mounted cabinet on the east side of 19th Avenue.

III. Special Notes

1. The Contractor shall coordinate the changes in lane markings and lane-use signing with Mr. Bob Gonzales, SHA District 3 Traffic Engineering Section. Installation of detailed pavement markings, grinding, lane-use sign removals, and lane-use sign installations are to be performed by the contractor. Placement of paint markings as shown on the plan is to be performed by SHA District 3 forces. The contractor shall contact Mr. Gonzales at (301) 513-7316 at least seventy-two hours in advance to coordinate this work.

2. The Contractor shall confirm the location of all underground and overhead utilities prior to the start of construction. The Contractor is notified that there exist numerous underground high pressure gas lines within the proposed signalized intersection.

3. Maintenance of traffic will be handled by the contractor utilizing the following standard plates for traffic control: 105.00, 105.01, 105.02, 105.03, 105.202, 105.204, 105.206, 105.208, 105.210.

4. The following contact persons for District 3 are as follows:

Mr. Paul Armstrong District Engineer Phone # (301) 513-7311	Mr. Maj Shaklb Asst. District Engineer - Traffic Phone # (301) 513-7359
Mr. Carter Wilson Asst. District Engineer Phone # (301) 513-7305	Mr. Francis Lauer Asst. District Engineer - Utilities Phone # (301) 513-7351
Mr. Richard L. Doff, Sr. Chief, Traffic Operation Division Phone # (410) 787-7630 *	Mr. Guy Scafini PEPCO Phone # (301) 967-5347

EQUIPMENT LIST

A. Equipment to be supplied by the Administration.

ITEM NO.	QUANTITY	UNIT	SPECIFICATION SECTION	DESCRIPTION
	4	EA		Microloop probe set with 100 ft lead-in cable
	6	EA	814	12 in. one-way, three section (R,Y,G) signal head - mast arm mount.
	2	EA	814	8 in. one-way, three section (R,Y,G) signal head - 8 in. mast arm mount.
	1	EA	814	8 in. one-way, three section (R,Y,G) signal head - pedestal mount.
	2	EA	814	12 in. one-way, two section pedestrian signal head - pole mount.
	2	EA	814	12 in. one-way, two section pedestrian signal head - pedestal mount.
	2	EA	817	Pedestrian pushbutton.
	168.5	SF	813	Sheet aluminum signs consisting of:
	1	EA	---	R3-7R (30" x 30") 'Right Lane Must Turn Right) - ground mount.
	1	EA	---	R3-7R modified (36" x 42") 'Right Lane Must Turn Right, 150 Ft) - mast arm mount.
	1	EA	---	Special sign (30" x 24") beyond signal - ground mount
	4	EA	---	R10-3 (9" x 12") "Push Button to Cross Chillum Rd.", pole mount.
	2	EA	---	W3-3 new (48" x 48") Ground mount
	1	EA	---	W3-3 new (36" x 36") Ground mount
	2	EA	---	R7-3 (12" x 18") - "No standing any time" ground mount

A. Equipment to be supplied by the Administration.

ITEM NO.	QUANTITY	UNIT	SPECIFICATION SECTION	DESCRIPTION
	1	EA	---	D3-2 (var. x 16") "19th AVE →", Single face street name sign - mast arm mount
	1	EA	---	D3-2 (var. x 16") "←19th AVE", Single face street name sign - mast arm mount
	1	EA	---	D3-2 (var. x 16") "Chillum RD", Single face street name sign - mast arm mount
	1	EA	---	Guide assembly shield (30" x 72")
	1	EA	---	Guide assembly shield (48 in. x 75 in.) - ground mount

B. Equipment to be supplied by the Contractor.

ITEM NO.	QUANTITY	UNIT	SPECIFICATION SECTION	DESCRIPTION
1001	1	EA	104	Maintenance if traffic speeds * or equal to 40 mph.
2001	5	CY	204	Test pit excavation.
2003	6	CY	201	Class 2 - excavation.
2004	5.4	CY	610	Removal of existing sidewalk.
2005	85	LF	609	Removal of existing combination curb and gutter.
5001	15	TON	501	Variable depth base course for patching using graded aggregate
5002	32	CY	504	Hot Mix Asphalt surface SC for patching.
5003	32	CY	504	Hot Mix Asphalt base BF for patching.
5007	670	LF	555	12" white permanent preformed pavement marking tape.
5009	82	LF	555	24" white permanent preformed pavement marking tape
5010	4	EA	555	Permanent preformed pavement marking letter.
5011	2	EA	555	Permanent preformed pavement marking arrow.
5012	360	LF	555	Remove existing pavement marking - any width
6001	320	SF	610	4 in. concrete sidewalk.
6002	60	LF	609	Standard Type A combination curb and gutter, 12 in. gutter, 8in. depth.
8001	12.1	CY	801	Concrete for signal foundation.
8003	138	LB	827	Furnish and install pedestal pole (14')
8005	5060	LB	829	Furnish and install mast arm poles consisting of:
	1	EA	---	21 ft steel pole with 34 ft mast arm. (Note: 4 ea - 1½" x 60" anchor bolts.
	1	EA	---	21 ft steel pole with 38 ft mast arm. (Note: 4 ea - 1½" x 60" anchor bolts.
	1	EA	---	21 ft steel pole with 60 ft mast arm. (Note: 4 ea - 2" x 90" anchor bolts.
8011	13	EA	814	Install signal head (any type).
8015	4	EA	810	Install microloop probe set.
8016	2	EA	817	Install pushbutton and sign.
8018	1	EA	816	Install controller and cabinet - base mount.
8022	245	LF	810	Furnish and install saw cut for signal (loop detector).

B. Equipment to be supplied by the Contractor.

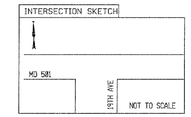
ITEM NO.	QUANTITY	UNIT	SPECIFICATION SECTION	DESCRIPTION
8024	30	LF	805	Furnish and install 1" liquid tight flexible non-metallic conduit for detector sleeve.
8025	615	LF	805	Furnish and install 2 in. Scheule 40 rigid PVC conduit - trenched.
8026	110	LF	805	Furnish and install 2 in. Scheule 80 rigid PVC conduit - slotted.
8028	40	LF	805	Furnish and install 3 in. Scheule 40 rigid PVC conduit - trenched.
8029	170	LF	805	Furnish and install 3 in. Schedule 80 rigid PVC conduit - slotted.
8031	100	LF	805	Furnish and install 4 in. Schedule 40 rigid PVC conduit - trenched.
8035	11	EA	811	Handhole.
8036	1	EA	807	Control and distribution equipment.
8037	5	EA	804	Ground rod (3/4 in. x 10 in.)
8043	525	LF	810	Furnish and install loop wire encased in flexible tubing (No. 14 AWG).
8044	75	LF	810	Electrical cable - 2-conductor (aluminum shielded).
8045	675	LF	810	Electrical cable - 2-conductor (No. 14 AWG).
8046	675	LF	810	Electrical cable - 3-conductor (No. 14 AWG).
8047	425	LF	810	Electrical cable - 5-conductor (No. 14 AWG).
8048	725	LF	810	Electrical cable - 7-conductor (No. 14 AWG).
8052	915	LF	810	Electrical cable - 1-conductor No. 6 AWG - stranded bare copper
8053	480	LF	810	Electrical cable - 1-conductor No. 4 AWG - THHN/THWN.
8054	180	LF	812	Wood sign supports 4 in. x 4 in.
8055	100	LF	812	Wood sign supports 4 in. x 6 in.
8056	104	SF	813	Install ground mounted sign
8057	64	SF	813	Install overhead mounted sign
8058	1	EA	821	Install breakaway base support system for signal structure.
8062	1	EA	---	Removal of existing equipment
8063	1	EA	---	Delivery of removal materials and equipment.
8064	1	EA	---	Remove and dispose of existing materials and equipment
8067	1	EA	---	Use existing plan or disk and asbuit traffic control devices.

PHASING CHART

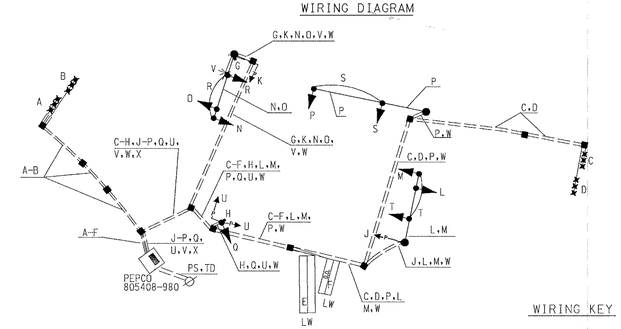
	1	2	3	4	5	6	7	8	9	10	11	12	13
PHASE 2 & 6	G	G	G	G	R	R	R	DW	DW	DW	DW	W	W
PED CLEARANCE	G	G	G	G	R	R	R	DW	DW	DW	DW	FDW	FDW
Ø 2 & 6 CHANGE	Y	Y	Y	Y	R	R	R	DW	DW	DW	DW	DW	DW
PHASE 4	R	R	R	R	G	G	G	DW	DW	DW	DW	DW	DW
Ø 4 CHANGE	R	R	R	R	Y	Y	Y	DW	DW	DW	DW	DW	DW
ALT PHASE 4	R	R	R	R	G	G	G	W	W	W	W	DW	DW
PED CLEARANCE	R	R	R	R	G	G	G	FDW	FDW	FDW	FDW	DW	DW
ALT Ø 4 CHANGE	R	R	R	R	Y	Y	Y	DW	DW	DW	DW	DW	DW
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	DARK	DARK	DARK	DARK	DARK	DARK

NOTE:
FL = FLASHING INDICATION
R = RED INDICATION
Y = YELLOW INDICATION
G = GREEN INDICATION
DW = DONT WALK INDICATION
W = WALK INDICATION
FDW = FLASHING DONT WALK INDICATION

INTERSECTION SKETCH



WIRING DIAGRAM



WIRING KEY

A-D = MIRCO LOOP PROBE & LEAD-IN
E,F = 2 CONDUCTOR (ALUMINUM SHEILDED)
C-H = 2 CONDUCTOR (No. 14 AWG.)
J,K = 3 CONDUCTOR (No. 14 AWG.)
L-P = 7 CONDUCTOR (No. 14 AWG.)
Q-U = 5 CONDUCTOR (No. 14 AWG.)
W,X = 1 CONDUCTOR COPPER GROUND (No. 6 AWG.)
V = 2 CONDUCTOR TRAY (NO. 12 AWG)
PS = PROPOSED SERVICE
LW = LOOP WIRE (No. 14 AWG.)
TD = PROPOSED TELEPHONE DROP

REVISIONS	APPROVALS
	CHIEF,SIGNAL DESIGN SECTION
	ASST. DISTRICT ENGINEER, TRAFFIC
	CHIEF, TRAFFIC ENGINEERING DESIGN DIVISION
	DEPUTY CHIEF ENGINEER, OFFICE OF TRAFFIC

DCI
CONSULTING ENGINEERS
COLUMBIA, MARYLAND

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION

ORIGINAL DRAWN BY: ROB CICCHINI
DES. BY: WILLIAM J. CARLSON
CHK. BY:

MD 501 @ 19TH STREET
GENERAL INFORMATION SHEET

LOG MILE #16050101.02 COUNTY: PRINCE GEORGES

DATE: AUGUST,1995 F.A.P. NO. STPG - 000S(301) E
SCALE: 1"=20' S.H.A. NO. AW 791- -385

TS/FILE NO. TS-3537GI

SHEET NO. 3 OF 4

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