FHWA REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	MD			

PROJECT DESCRIPTION

I. GENERAL
This project involves the reconstruction of the two existing traffic control signals at the intersections of Bus. MD 3 @ Hospital Drive/Rite Aid Ent. and Mayo Road in Anne Arundel County, Maryland. Bus. MD 3 is considered to run in a north/south direction.

II. INTERSECTION OPERATION
The intersections are to be modified to operate in NEMA seven (7) phase, full-traffic-actuated mode. There will be exclusive left turn phases for both the north and southbound movements (at both intersections) of Bus. MD 3. The Bus. MD 3 through movements will operate concurrently. The Hospital Drive/Rite Aid Ent. and Mayo Road movements will operate as a side street operation with a right turn overlap for the Bus. MD 3 northbound to Hospital Drive eastbound movement.

EQUIPMENT LIST

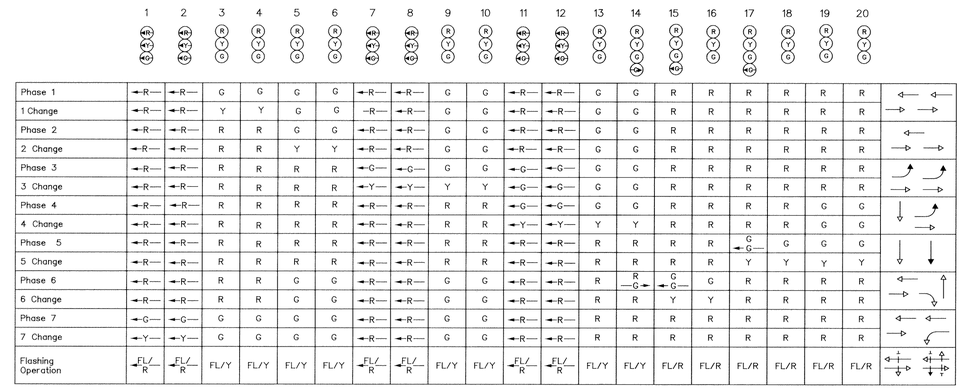
A. Equipment to be furnished by S.H.A.

Item No.	Quantity	Units	Description
9000	**2**	**EA**	**12 in., one-way, two-section pedestrian signal pedestal mount.**
9014	13	EA	(Mast arm) 12 in., one-way, three section signal [aluminum].
9015	3	EA	(Mast arm) 12 in., one-way, four section signal [aluminum].
9036	4	EA	(Side of pole) 12 in., one-way, three section signal [aluminum].
9086	1	EA	Cabinet with telemetry (system cab.), size 6.
9089	15	SF	Flat sheet aluminum sign - R 3-5(L).
9089	7.5	SF	Flat sheet aluminum sign - R 3-6(L).
9090	74.67	SF	Flat sheet aluminum sign - D 3-2 (Dual Faced).
9090	20	SF	Flat sheet aluminum sign - D 3-2.
9098	3	EA	Sign hardware - 30 in. form tube.
9099	3	EA	Sign hardware - 60 in. form tube.
9104	4	EA	Sign hardware - under mast arm mount astro bracket 84 in. cable.

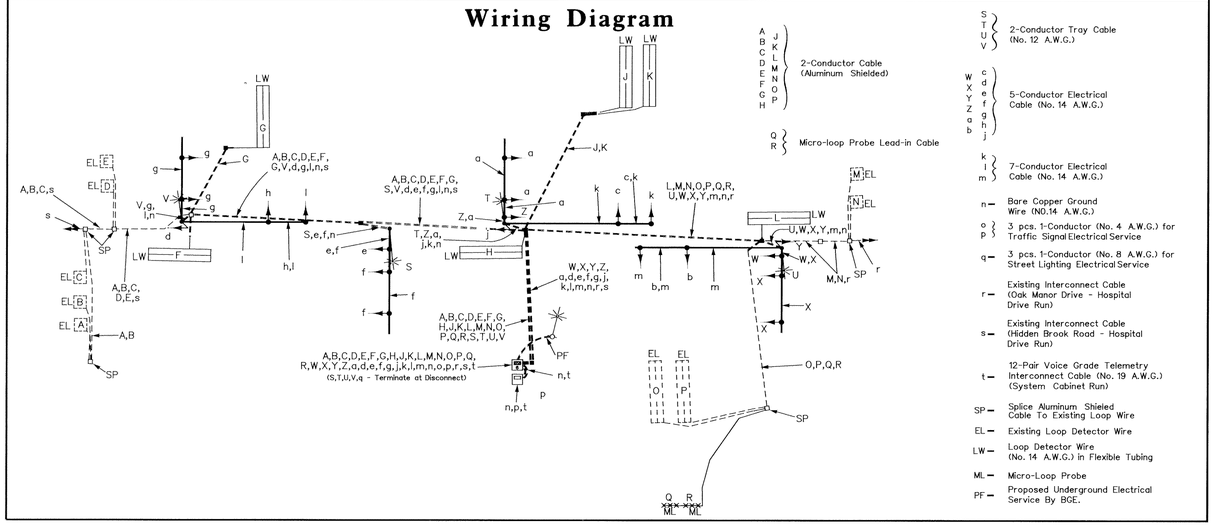
B. Equipment to be furnished and/or installed by the Contractor.

Item No.	Quantity	Units	Description
1001	1	EA	Maintenance of traffic per assignment.
2001	5	CY	Test pit excavation.
2004	**2**	**CY**	**Class 2 Excavation**
5010	95	LF	24 in. white thermoplastic pavement marking tape.
5009	**200**	**LF**	**Furnish and Install 12 inch white thermoplastic pavement marking tape.**
6003	200	LF	Traffic barrier W-beam.
6001	**100**	**SF**	**4" Concrete Sidewalk**
6004	4	EA	Traffic barrier W-beam trail end achorage.
6006	20	EA	Traffic barrier W-beam post normal 6 ft. length.
8001	20 ~~17.85~~	CY	Concrete for signal foundation.
8003	**2**	**EA**	**Furnish and Install Breakaway Pedestal Pole**
8006	3	EA	Cut, clean, galvanize, and cap traffic signal structure.
8011	22 ~~20~~	EA	Install signal head (any type).
8016	2	EA	Microloop probe set with 500 ft. lead-in.
8020	1	EA	Install controller and cabinet - base mount.
8021	1245 ~~945~~	LF	Sawcut for signal loop detector.
8022	30 ~~10~~	LF	1 in. electrical conduit - galvanized sleeve.
8023	50	LF	1 in. liquid tight flexible non-metalic conduit - sleeve.
8024	110 ~~80~~	LF	2 in. electrical conduit - PVC [Schedule 80] - buried (trenched).
8028	130	LF	3 in. electrical conduit - PVC [Schedule 80] - encased (slotted in roadway).
8030	170	LF	4 in. electrical conduit - PVC [Schedule 80] - buried (trenched).
8031	360	EA	4 in. electrical conduit - PVC [Schedule 80] - encased (slotted in roadway).
8033	6	EA	Electrical handhole.
8034	8 ~~X~~	~~X~~ EA	Ground rod (3/4 in. diameter x 10 ft. length).
8039	15	~~EA~~ LF	12 pair communication cable, jelly filled (underground).
8040	3450 ~~2700~~	LF	Loop detector wire encased in flexible tubing (No. 14 A.W.G.).
8041	5400	LF	Electrical cable - 2-conductor (aluminum shielded).
8043	**350**	**LF**	**Electrical cable - 3 - conductor (No. 14 A.W.G.)**
8044	3000	LF	Electrical cable - 5-conductor (No. 14 A.W.G.).
8045	965	LF	Electrical cable - 7-conductor (No. 14 A.W.G.).
8046	1040	LF	Electrical cable - 2 conductor (No. 12 A.W.G).
8048	30	LF	Electrical cable - 1 conductor (No 8 A.W.G.) THHN/THWN.
8049	650 ~~525~~	LF	Stranded bare copper ground wire (No. 6 A.W.G.).
8050	80	LF	Electrical cable - 1-conductor (No. 4 A.W.G.) THHN/THWN.
8054	127.83	SF	Install overhead sign.
8056	4	EA	250 watt HPS luminaire with photocell.
8057	4	EA	Light bracket arm for traffic signal structure.
8058	9	EA	Remove/dispose of existing foundation 12 in. below grade.
8059	9	EA	Removal of existing controller/cabinet/galvanized signal structure.
8060	1	EA	DELIVERY OF REMOVED CONTROLLER CABINET
8061	1	EA	Remove and dipose of existing material/equipment per assignment.
8070	1	EA	Control and distribution equipment (120/240, 1 phase, 3 wire).
8082	1	LF	Mast arm pole and 50 ft. mast arm.
8085	1	EA	Mast arm pole and twin (60 ft./50 ft.) mast arms.
8086	2	EA	Mast arm pole and twin (70 ft./50 ft.) mast arms.
Neg.	Lump Sum	LS	Relocate existing interconnect cable (underground).
Neg.	2 ~~X~~	EA	Relocate existing ground mounted sign.
Neg.	1	EA	Raise handhole frame/cover to grade.

Phase Chart



Wiring Diagram



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Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION

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(General Information)
Bus. MD 3 at Hospital Drive / Rite Aid Ent. and Mayo Road
COUNTY: ANNE ARUNDEL — LOG MILE • 02B00301.63-67

DATE: December 23, 1997 — F.A.P. NO. N/A
SCALE: N/A — S.H.A. NO. AW279A5D/B5D

TS/STD. NO.	SHEET NO.
421E-GI	2 of 2