PROJECT DESCRIPTION

I. GENERAL

This project involves the reconstruction of an existing Traffic Control Signal with street lighting and interconnect at the intersection of MD 97 (Georgia Ave) and Rossmoor Blvd / Service Rd in Montgomery County. The existing strain pole traffic signal shall be replaced with a new mast arm traffic signal. The MD 97 left turns shall now run in an exclusive phase. Video detection shall be used in all directions. MD 97 (Georgia Ave) is assumed to run a north-south direction.

II. INTERSECTION OPERATION

1. The intersection shall continue to operate in a NEMA six phase, semi-actuated mode, with the MD 97 (Georgia Ave) approaches continuing to run concurrently. Exclusive left turn phases shall continue to be provided for both approaches of MD 97 (Georgia Ave). Farside sampling stations shall be maintained on both legs of MD 97 (Georgia Ave) at this intersection. The Rossmoor Blvd / Service Rd approaches shall also continue to run as a split phase.

2. A proposed full-traffic-actuated, eight-phase controller with L.A.U. and L.A.U. Panel, video interface and all necessary equipment housed in a NEMA size "6" base-mounted cabinet shall be maintained at this intersection.

III. SPECIAL NOTES

1. The Contractor shall be responsible for terminating all signal cables, to the appropriate terminals and shall properly label each cable.

2. Disconnecting and splicing of interconnect cable shall be performed by Montgomery County Forces. The contractor shall run the interconnect cable into the base of each cabinet and properly tag the cable. Contact Mr. Wilhelm DerMinassian at (240) 777-8795 seventy-two hours in advance of intended work.

3. 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 S.H.A..

ITEM NO.	DESCRIPTION	QUANTITY
9042	Controller ASC II with telemetry LAU & LAU Panel	1 EA
9044	Controller cabinet, size "6"	1 EA
9087	Video detection interface equipment: 5-8 cameras	1 EA
9570	Sheet aluminum signs to consist of: (ground mount)	68 SF
	W11-2 "PEDESTRIAN CROSSING (Symbolic)" sign, (30" x 30")	4 EA
	M6-2 "ARROW (right)" sign (21" x 15")	2 EA
	M6-2 "ARROW (left)" sign (21" x 15")	2 EA
	GUIDE SIGN (24"x51") M3-3 "SOUTH"(24"X12") M1-5 "MD 97"(24"X24") M6-1 "right arrow "(21"X15")	1 EA
	GUIDE SIGN (24"x51") M3-3 "NORTH"(24"X12") M1-5 "MD 97"(24"X24") M6-1 "right arrow "(21"X15")	1 EA
	GUIDE SIGN (24"x51") M3-3 "SOUTH"(24"X12") M1-5 "MD 97"(24"X24") M6-1 "left arrow "(21"X15")	1 EA
	GUIDE SIGN (24"x51") M3-3 "NORTH"(24"X12") M1-5 "MD 97"(24"X24") M6-1 "left arrow "(21"X15")	1 EA
9571	Sheet aluminum signs to consist of: (mast arm mount)	121 SF
	D3-2 "Georgia AVE 15000> / <15000 Georgia AVE" (variable x 32") dual faced	1 EA
	D3-2 "<15000 Georgia AVE / Georgia AVE 15000>" (variable x 32") dual faced	1 EA
	D3-2 "<3800 Rossmoor AVE/ Rossmoor AVE 3800>" (variable x 32") dual faced	1 EA
	D3-2 "Rossmoor AVE 3800> / <3800 Rossmoor AVE" (variable x 32") dual faced	1 EA
	R3-5L "LEFT TURN ONLY" sign, (30" x 36").	1 EA
	R3-6 "LEFT TURN AND THRU" sign, (30" x 36").	1 EA
	R10-10L "LEFT TURN SIGNAL" sign, (24"X30").	2 EA

EQUIPMENT LIST

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

ITEM NO.	DESCRIPTION	QUANTITY
1001	Maintenance of traffic per assignment.	3 EA
2002	Test Pit Excavation	4 C.Y.
5005	12" white heat applied permanent preformed thermoplastic pavement marking.	210 L.F.
8001	Furnish and install concrete for signal foundation.	12 C.Y.
8008	Pre-manufactured camera to controller (200' length) cable	3 EA
8009	Pre-manufactured camera to controller (300' length) cable	3 EA
8019	Remove and dispose of existing material and equipment per assignment.	1 EA
8025	Disconnect, pull back and reroute cable.	380 L.F.
8027	Detectable warning system (truncated domes).	96 SF
8029	Furnish and install wood sign supports 4" x 4".	75 L.F.
8030	Furnish and install wood sign supports 4" x 6".	75 L.F.
8031	Furnish and install No. 6 AWG stranded bare copper ground wire.	330 L.F.
8038	Furnish and install 4" schedule 80 rigid polyvinyl chloride conduit - bored.	205 L.F.
8039	Furnish and install 2" schedule 80 rigid polyvinyl chloride - trenched.	25 L.F.
8040	Furnish and install 3" schedule 80 rigid polyvinyl chloride - trenched.	40 L.F.
8041	Furnish and install 4" schedule 80 rigid polyvinyl chloride - trenched.	135 L.F.
8046	Metered service pedestal.	1 EA
8048	Furnish and install electrical cable 1-conductor No. 4 AWG THHN/THWN.	50 L.F.
8054	Furnish and install electrical handhole.	3 EA
8056	Install ground mounted sign.	68 S.F.
8057	Install overhead sign.	121 S.F.
8058	Furnish and install video detector camera.	6 EA
8067	27' steel pole and twin 50'/70' mast arms.	2 EA
8071	Furnish and install 250 watt HPS Luminaire with photocell.	2 EA
8075	Furnish and install ground rod -3/4" x 10'.	4 EA
8077	Furnish and install 12" vehicular traffic signal head section	36 EA
8085	Furnish and install electrical cable - 5 conductor (No. 14 AWG).	590 L.F.
8086	Furnish and install electrical cable - 7 conductor (No. 14 AWG).	1295 L.F.
8087	Furnish and install tray cable - 2 conductor (No. 12 AWG).	380 L.F.
8091	Furnish and install 15' bracket arm for traffic signal structure.	2 EA
8096	Install controller and cabinet base mount.	1 EA
Neg.	Furnish and install electrical cable - 3 wire, 1 conductor (No. 250 KCMIL)	250 L.F.

C. EQUIPMENT TO BE REMOVED

The controller and cabinet shall be returned to the SHA.
All other removed signal materials are to become property of the contractor.

The contact persons for District #3 (Montgomery County) are as follows:

Mr. Lee Starkloff
Assistant District Engineer - Traffic
Phone: (301) 513-7318

Mr. Wayne Mowdy
Assistant District Engineer - Maintenance
Phone: (301) 513-7304

Mr. Augie Rebish
District Engineer - Utility
Phone: (301) 513-7350

Mr. Richard L. Daff, Sr.
Chief, Traffic Operations Division
Phone: (410) 787-7630

Mr. Ed Rodenhizer
Signal Shop
410-787-7652

Mr. Sonny Bailey
Sign Shop
410-787-7670

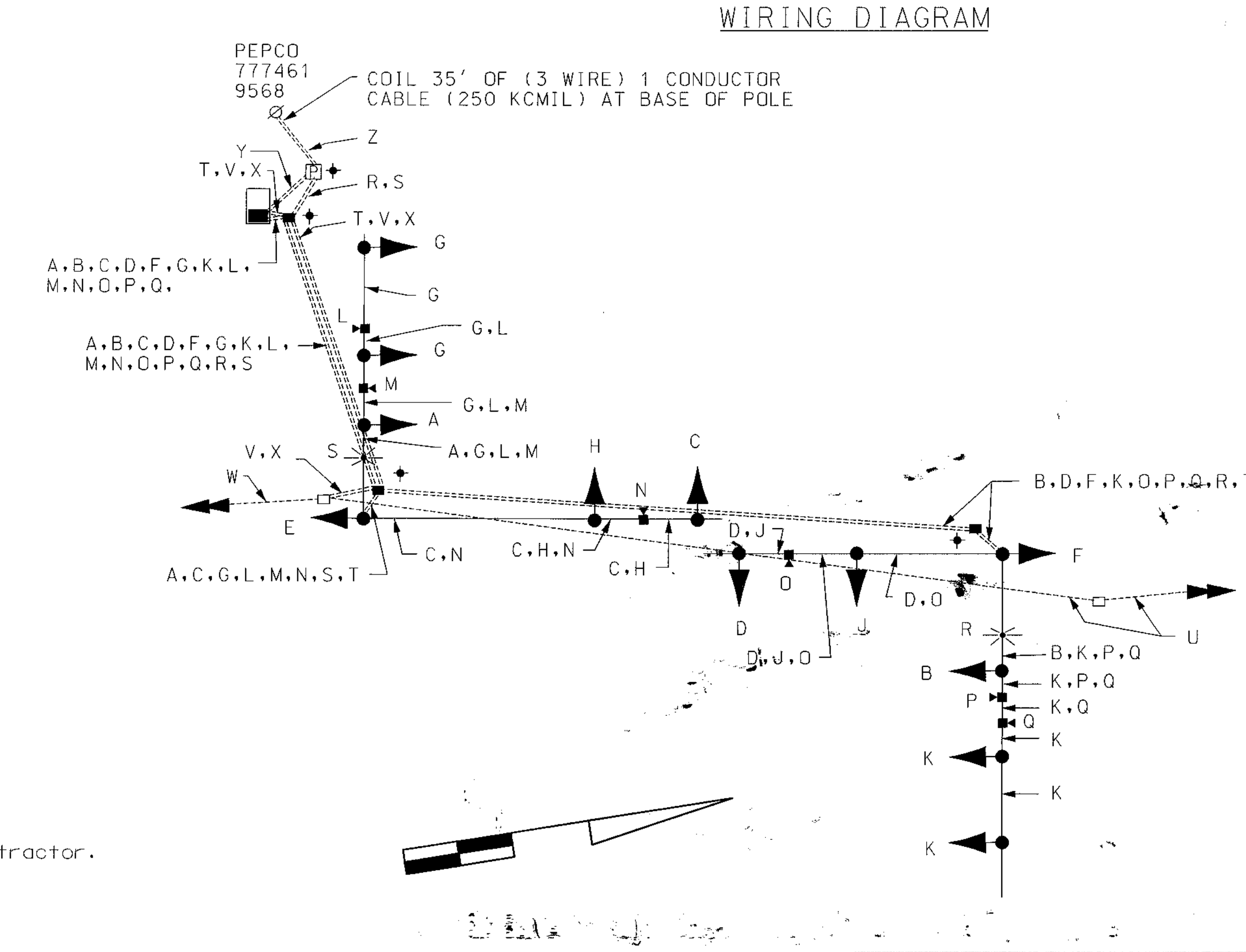
The power company representative is:

Mr. Steve Custer
PEPCO Customer Design
201 W Guide Dr.,
Rockville, MD 20850
Phone: 301 548-4333

PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12
Signal heads	◀R ◀Y ◀G	◀R ◀Y ◀G	R Y G	R Y G	◀R ◀Y ◀G	◀R ◀Y ◀G	R Y G	R Y G	R Y G ◀G	R Y G	R Y G ◀G	R Y G
PHASE 1 & 5	◀G	◀G	R	R	◀G	◀G	R	R	R	R	R	R
CHANGES TO PHASES 1 & 6, 2 & 5 OR 2 & 6												
PHASE 1 & 6	◀G	◀G	G	G	◀R	◀R	R	R	R	R	R	R
1 & 6 CHANGE	◀Y	◀Y	G	G	◀R	◀R	R	R	R	R	R	R
PHASE 2 & 5	◀R	◀R	R	R	◀G	◀G	G	G	R	R	R	R
2 & 5 CHANGE	◀R	◀R	R	R	◀Y	◀Y	G	G	R	R	R	R
PHASE 2 & 6	◀R	◀R	G	G	◀R	◀R	G	G	R	R	R	R
2 & 6 CHANGE	◀R	◀R	Y	Y	◀R	◀R	Y	Y	R	R	R	R
PHASE 3	◀R	◀R	R	R	◀R	◀R	R	R	G / ◀G	G	R	R
3 CHANGE	◀R	◀R	R	R	◀R	◀R	R	R	Y	Y	R	R
PHASE 4	◀R	◀R	R	R	◀R	◀R	R	R	R	R	G / ◀G	G
4 CHANGE	◀R	◀R	R	R	◀R	◀R	R	R	R	R	Y	Y
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

WIRING DIAGRAM



WIRING KEY

A, B, C, D, E, F — 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G)
G, H, J, K — 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G)
L, M, N — PRE MANUFACTURED CAMERA TO CONTROLLER CABLE (200')
O, P, Q — PRE MANUFACTURED CAMERA TO CONTROLLER CABLE (300')
R, S — 2-CONDUCTOR TRAY CABLE (NO. 12 A.W.G)
T - STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
U - EXISTING 12-PAIR INTERCONNECT CABLE FROM MD 97 / INTERNATIONAL DR
V - REROUTED 12-PAIR INTERCONNECT CABLE FROM MD 97 / INTERNATIONAL DR
W - EXISTING 12-PAIR INTERCONNECT CABLE FROM MD 97 / BEL PRE RD
X - REROUTED 12-PAIR INTERCONNECT CABLE FROM MD 97 / BEL PRE RD
Y - 2-1CONDUCTOR ELECTRICAL CABLE (NO. 4 A.W.G.)
Z - 3-1CONDUCTOR ELECTRICAL CABLE (NO. 250 KCMIL)
✦ - GROUND ROD

STREET TRAFFIC STUDIES, LTD.
400 Crain Hwy.,N.W.
Glen Burnie,MD 21061
Ph (410) 590-5500
Fax (410) 590-6637
4705GI.dgn D6-6

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

MD 97 AND ROSSMOOR BOULEVARD
Norbeck, MD

DRAWN BY:	ROB CICCHINI	F.A.P. NO.		TS NO. 1928D	SHEET NO.
CHECKED BY:	JAMES ALLEN	S.H.A. NO.	AT6045185		2 OF 2
SCALE:	NONE	COUNTY:	MONTGOMERY	T.I.M.S. NO.	
DATE:	1/05/05	LOG MILE:	15009708.25	G441	

SHA#:MO484A84/864 TOD#:AT604-17

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