DRILL HOLES

BORDER REV: DATE: June 1, 2004

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PROJECT DESCRIPTION

I. GENERAL

This project involves the installation of a battery backup system and meter pedestal for the existing Traffic Control signal at the intersection of MD 108 (Clarksville Pike) and MD 32 Southbound On / Off Ramp in Howard County. This intersection also controls the intersection of MD 108 (Clarksville Pike) and Ten Oaks Road. The signal heads at MD 108 (Clarksville Pike) and MD 32 Southbound On / Off Ramp shall be replaced with LED signal heads and Countdown pedestrian signals. MD 108 (Clarksville Pike) is assumed to run in an east - west direction.

II. INTERSECTION OPERATION

1. The intersection shall continue to operate in a NEMA five-phase, fully-actuated mode, with the MD 108 (Clarksville Pike) approaches running concurrently. Exclusive left turn phases shall be provided for the westbound approaches of MD 108 (Clarksville Pike). The pedestrian phase with pushbutton actuation across the east leg of MD 108 (Clarksville Pike) shall now be a Countdown pedestrian phase. The pedestrian phases across the MD 32 On / Off Ramp approaches shall now be Countdown pedestrian phases on recall. The Ten Oaks approach shall continue to operate in its own phase. The MD 32 Off Ramp shall also continue to run in its own phase.

2. The existing full-traffic-actuated, eight-phase controller with all necessary equipment housed in a NEMA size "6" base-mounted cabinet shall be utilized at this intersection.

3. A new NEMA size "5" base-mounted cabinet with battery back-up shall be installed at this intersection.

III. SPECIAL NOTES

1. All controller cabinet wiring will be performed by the S.H.A. Signal Shop Contact Mr. Ed Rodenhizer at (410) 787-7652 seventy-two hours in advance of intended work.

The contact persons for District #7 are as follows:

Mr. John Concannon
Assistant District Engineer - Traffic
Phone: (310) 624-8141

Mr. Ray Johnson
Assistant District Engineer - Maintenance
Phone: (310) 624-8106

Ms. Andrea Abend
District Engineer - Utility
Phone: (301) 624-8115

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

Mr. Ed Rodenhizer
Signal Shop
410-787-7652

Mr Sony Bailey
Sign Shop
410-787-7670

The power company representative is:

Baltimore Gas and Electric
7317 Parkway Drive South
Hanover, MD 21076
410-850-4620

EQUIPMENT LIST

A. EQUIPMENT TO BE SUPPLIED BY S.H.A..

TEM NO.	DESCRIPTION	QUANTITY	
9571	Sheet aluminum signs to consist of: (mast arm or pole mount)	6	SF
	Pedestrian education R10-3(1) sign. (Note: Sign to read "PUSHBUTTON TO CROSS CLARKSVILLE PK) (9" X 15").	2	EA
	Pedestrian education R10-3(1) sign. (Note: Sign to read "PUSHBUTTON TO CROSS MD 32 ON RAMP) (9" X 15").	2	EA
	Pedestrian education R10-3(1) sign. (Note: Sign to read "PUSHBUTTON TO CROSS MD 32 OFF RAMP) (9" X 15").	2	EA

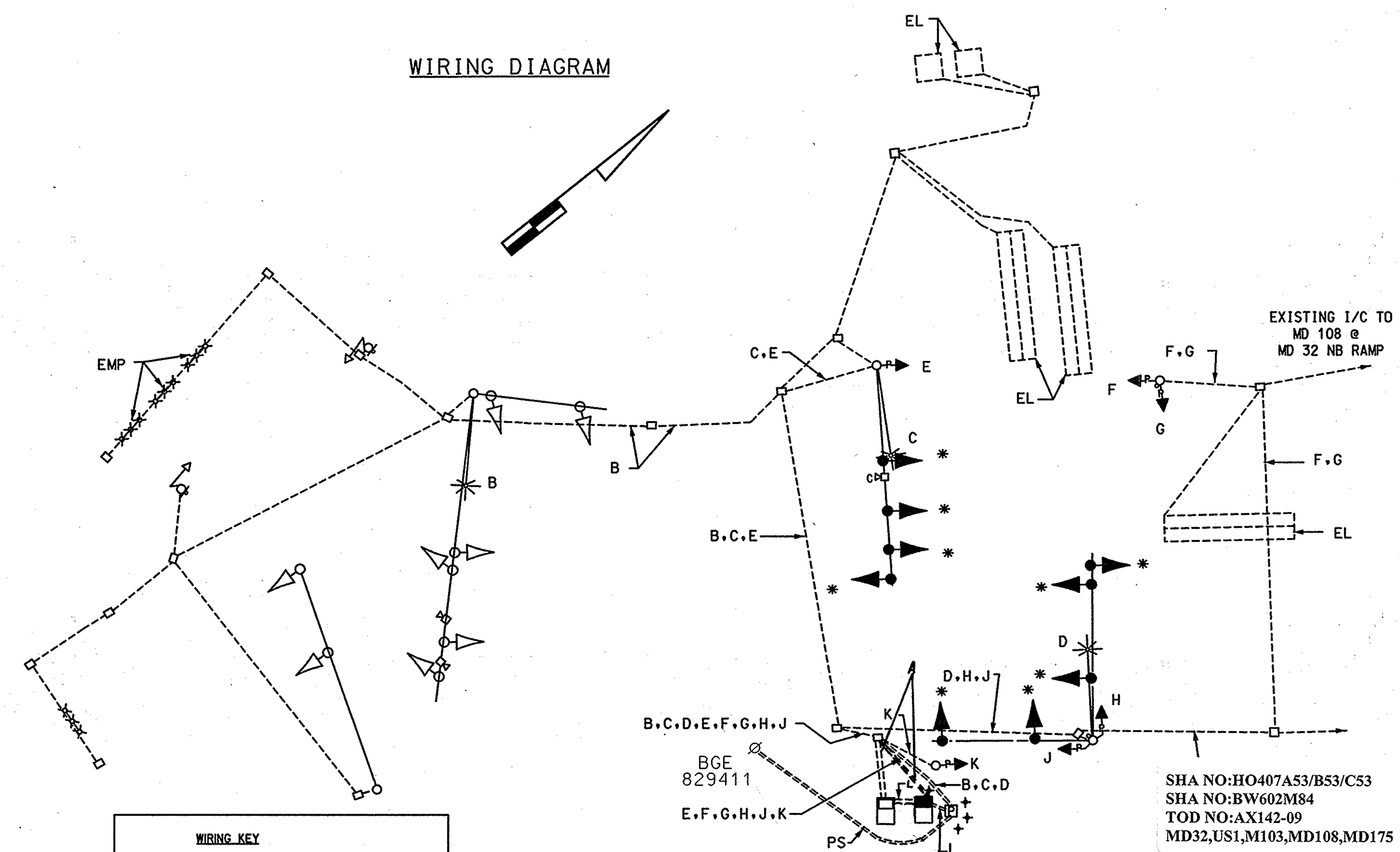
B. EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR

ITEM NO.	DESCRIPTION	QUANTITY	
1001	Maintenance of traffic (paid for under 5353AGI)		
2002	Test Pit Excavation	2	C.Y.
8001	12" LED signal head section.	27	EA
8014	LED 16" countdown pedestrian signal head.	6	EA
8022	Remove and dispose of existing material and equipment (paid for under 5353AGI)		
8036	Schedule 80 rigid PVC conduit up tp 4" - trenched.	95	L.F.
8040	Install overhead or ground mounted sign (including hardware).	6	S.F.
8044	Metered service pedestal embedded.	1	EA
8046	Electrical cable 1-conductor No. 4 AWG THHN/THWN.	50	L.F.
8057	Electrical cable - 5 conductor (No. 14 AWG).	1030	L.F.
8058	Electrical cable - 7 conductor (No. 14 AWG).	20	L.F.
8059	Electrical cable - 2 conductor (No. 12 AWG) TC.	710	L.F.
8074A	Clary Universal Power Supply with NEMA Size 5 Cabinet.	1	EA

PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
PHASE 2 & 6	G	G	G	G	G	←R–	←R–	G	G	G	G	R	R	R	R	R	R	WK	WK	WK	WK	WK	WK	DW	DW
PED CLEAR / COUNTDOWN	G	G	G	G	G	←R–	←R–	Y	Y	G	G	R	R	R	R	R	R	WK	FL/DW	FL/DW	FL/DW	FL/DW	WK	DW	DW
2 & 6 CHANGE	G	G	G	G	G	←R–	←R–	R	R	G	G	R	R	R	R	R	R	WK	DW	DW	DW	DW	WK	DW	DW
OVERLAP	G	G	G	G	G	←R–	←R–	R	R	G	G	R	R	R	R	R	R	WK	DW	DW	DW	DW	WK	DW	DW
PED CLEAR / COUNTDOWN	G	G	G	G	G	←R–	←R–	R	R	G	G	R	R	R	R	R	R	FL/DW	DW	DW	DW	DW	FL/DW	DW	DW
OVERLAP CHANGE	Y	Y	G	G	G	←R–	←R–	R	R	Y	Y	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 3	R	R	G	G	G	←R–	←R–	R	R	R	R	R	R	R	R	G / ←G–	G	DW	DW	DW	DW	DW	DW	DW	DW
3 CHANGE	R	R	Y	Y	Y	←R–	←R–	R	R	R	R	R	R	R	R	Y	Y	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 4	R	R	R	R	R	←R–	←R–	R	R	R	R	G / ←G–	G	G	G	R	R	DW	DW	DW	DW	DW	DW	WK	WK
PED CLEAR / COUNTDOWN	R	R	R	R	R	←R–	←R–	R	R	R	R	G / ←G–	G	G	G	R	R	DW	DW	DW	DW	DW	DW	FL/DW	FL/DW
4 CHANGE	R	R	R	R	R	←R–	←R–	R	R	R	R	Y	Y	Y	Y	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 2 & 5	G	G	G	G	G	←G–	←G–	G	G	G	G	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
2 & 5 CHANGE	G	G	G	G	G	←Y–	←Y–	G	G	G	G	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/←Y–	FL/←Y–	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	DARK	DARK	DARK	DARK	DARK	DARK	DARK	DARK

WIRING DIAGRAM



SHA NO:HO407A53/B53/C53
SHA NO:BW602M84
TOD NO:AX142-09
MD32,US1,M103,MD108,MD175

WIRING KEY

A - 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G) FOR ALARM

B, C, D } 2-CONDUCTOR TRAY CABLE (NO. 12 A.W.G)

E, F, G, H, J, K } 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G)

L - 3-1 CONDUCTOR ELECTRICAL CABLE (NO. 4 A.W.G.)

EMP - EXISTING MICROPROBE

EL - LOOP WIRE (NO. 14 A.W.G.) EXISTING

* - USE EXISTING WIRING FOR SIGNAL

PS - PROPOSED UNDERGROUND SERVICE TO BE INSTALLED BY BGE

+ - GROUND ROD

REVISION "E"

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

5353gGI.dgn T-103

SHA
STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

MD 108 (Clarksville Pike) at Ten Oaks Road and Southbound MD 32 Off Ramp / On Ramp

GENERAL INFORMATION SHEET

SCALE NONE DATE 8/10/07 CONTRACT NO. AX1425185

DESIGNED BY JWA
DRAWN BY RC
CHECKED BY
F.A.P. NO.

COUNTY HOWARD
LOGMILE 13010803.69
TIMS NO. 1544
TOD NO.

TS NO. 3318EGI | DRAWING NO. 2 OF 2 | SHEET NO. OF

PLOTTED: $DATETIME$
FILE: $FILE$

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