DRILL HOLES

BORDER REV. DATE: June 1, 2004

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 197 (Laurel-Bowie Road) and Briarwood Drive in Prince George's County. All traffic signal heads shall be LED signal heads and pedestrian signal heads with Countdown pedestrian signal heads and audible pushbuttons. MD 197 (Laurel-Bowie Road) is assumed to run in a north-south direction.

II. INTERSECTION OPERATION

1. The intersection shall continue to operate in a NEMA six-phase, fully-actuated mode, with the MD 197 (Laurel-Bowie Road) approaches running concurrently. Exclusive left turn phases for northbound and southbound shall be installed for both approaches of MD 197 (Laurel-Bowie Road). The pedestrian phase across the south leg of MD 197 (Laurel-Bowie Road) shall have a Countdown pedestrian phase with audible pushbutton. The Briarwood Drive approaches shall continue to operate as normal.

2. A fully-actuated-traffic, eight-phase controller with video interface and all necessary equipmentg housed in a NEMA size "6" base-mounted cabinet shall be installed at this intersection.

3. SHA signal shop shall install APS central control unit into controller cabinet. The Contractor shall deliver the central control unit and audible pushbuttons to the SHA Signal Shop for testing and programming.

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. All controller cabinet wiring will be performed by the S.H.A. Signal Shop Contact Mr. Ed Rodenhizer at (410) 787-7650 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.

4. Upon completion of this project, the Contractor shall notify Mr. Robert Snyder at (410) 787-7631 to arrange for a phone drop. The Contractor is to provide Mr. Robert Snyder with the nearest street address, zip code and phone number.

5. APS will function as follows:

TO CROSS MD 197 (LAUREL-BOWIE ROAD)

a When pedestrian locates and presses the pushbutton for an extended time, the pushbutton unit will announce the following message " Wait to cross Laurel-Bowie at Briarwood ."

b. When the WALK phase begins, the pushbutton unit will provide a rapid tick which will last for the duration of the WALK phase.

The contact persons for District #3 (Prince George's County) are as follows:

Mr. Brian Young
Assistant District Engineer - Traffic
Phone: (301) 513-7318

Mr. Vernon Stinnett Jr.
Assistant District Engineer - Maintenance
Phone: (301) 513-7304

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

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

Mr. Ed Rodenhizer
Chief, Signal Operations Section
410-787-7652

Mr. Sonny Bailey
Chief Sign Shop
410-787-7676

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.

ITEM NO.	DESCRIPTION	QUANTITY	
9042	Controller ASC II with telemetry	1	EA
9044	Controller cabinet, size "6"	1	EA
9086	Video detection interface equipment: 1-4 cameras (To be installed by signal shop).	1	EA
9570	Sheet aluminum signs to consist of: (ground mount)	31	S.F.
	W16-7P(L) "arrow (symbolic)" diagonal sign, (12" x 24") ground mounted.	2	EA
	S1-1 "SCHOOL" sign, (36" x 36") ground mounted.	3	EA
9571	Sheet aluminum signs to consist of: (mast arm or pole mount)	113	S.F.
	D-3(1) "Briarwood Dr" dual face (variable x 16") mast arm mounted.	2	EA
	D-3(1) "Laurel-Bowie Rd" dual face (variable x 16") mast arm mounted.	2	EA
	R10-3(1) (9"x15") sign. (Note: To read "PUSH BUTTON TO CROSS LAUREL-BOWIE ROAD).	2	EA
	R3-5R "RIGHT TURN ONLY" sign, (30" x 36") mast arm mounted.	1	EA

EQUIPMENT LIST (cont.)

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

ITEM NO.	DESCRIPTION	QUANTITY	
	GUIDE SHIELD ASSEMBLY (48"x75") pole mounted. M3-1 "NORTH"(30"X15") M1-5 "MD 197"(48"X36") M6-1 "left arrow "(30"X24")	1	EA
	GUIDE SHIELD ASSEMBLY (30"x51") pole mounted. M3-1 "NORTH"(24"X12") M1-5 "MD 197"(30"X24") M6-1 "right arrow "(21"X15")	1	EA
	GUIDE SHIELD ASSEMBLY (48"x75") pole mounted. M3-3 "SOUTH"(30"X15") M1-5 "MD 197"(48"X36") M6-1 "left arrow "(30"X24")	1	EA
	GUIDE SHIELD ASSEMBLY (30"x51") pole mounted. M3-3 "SOUTH"(24"X12") M1-5 "MD 197"(30"X24") M6-1 "right arrow "(21"X15")	1	EA

B. EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR

ITEM NO.	DESCRIPTION	QUANTITY	
1003	Maintenance of traffic per assignment.	2	EA
2002	Test Pit Excavation	4	C.Y.
5004	12" white heat applied permanent preformed thermoplastic pavement marking.	800	L.F.
5005	24" white heat applied permanent preformed thermoplastic pavement marking.	35	L.F.
5007	Removal of existing permanent pavement line markings	835	L.F.
6001	Standard type A combination curb and gutter 12" gutter pan 8" depth.	350	L.F.
6002	5" concrete sidewalk.	750	S.F.
6003	Detectable warning surface for curb ramps	135	S.F.
8001	2 wire Central Control unit	1	EA
8006	Any size lighting arm on signal pole with 250 watt HPS lamp & luminaire.	2	EA
8007	Audible/tactile pedestrian pushbutton station & signs.	2	EA
8008	Breakaway Pedestal pole (10')	1	EA
8013	LED 16" countdown pedestrian signal head.	2	EA
8021	Remove and dispose of material & equipment per assignment.	1	EA
8025	Video detection camera & cable up to 500'	4	EA
8030	Disconnect, pull back and reroute cable.	300	L.F.
8033	Schedule 80 rigid PVC conduit up to 4" - slotted.	350	L.F.
8034	Schedule 80 rigid PVC conduit up to 4" - trenched.	425	L.F.
8035	Wood sign supports up to 4"x6".	30	L.F.
8036	Install overhead or ground mounted sign (including hardware)	144	S.F.
8038	No. 6 AWG stranded bare copper ground wire.	600	L.F.
8041	Metered service pedestal embedded.	1	EA
8043	Electrical cable 1-conductor No. 4 AWG THHN/THWN.	150	L.F.
8045	Furnish and install electrical handhole.	5	EA
8050	12" LED signal head section.	42	EA
8054	Electrical cable - 2 conductor (No. 14 AWG).	425	L.F.
8056	Electrical cable - 5 conductor (No. 14 AWG).	500	L.F.
8057	Electrical cable - 7 conductor (No. 14 AWG).	1550	L.F.
8058	Electrical cable - 2 conductor (No. 12 AWG) TC.	425	L.F.
8065	Install controller and cabinet base mount.	1	EA

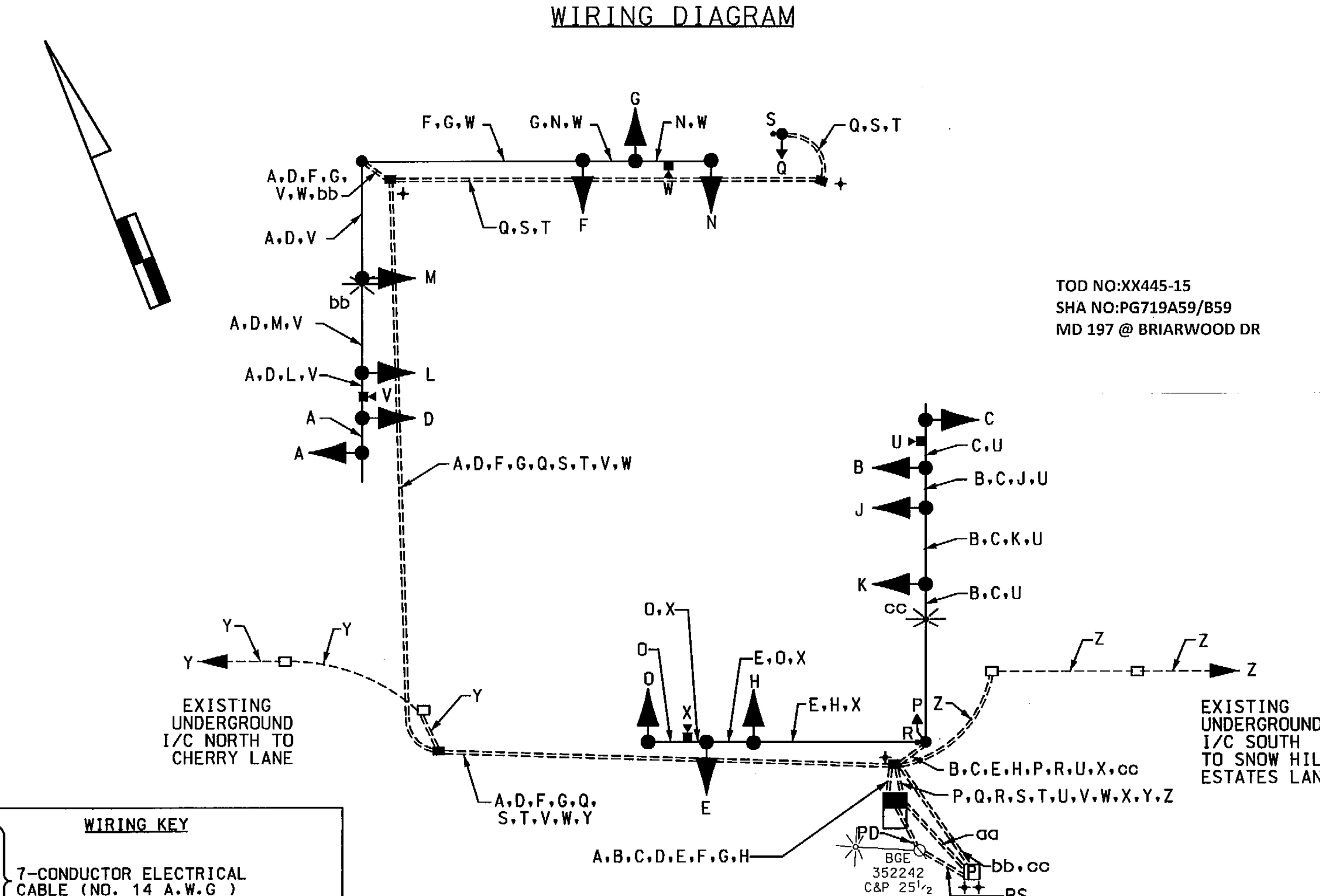
C. EQUIPMENT TO BE REMOVED

SHA Forces shall remove the controller and all auxilliary equipment from the controller cabinet. The cabinet and all other removed signal materials are to become property of the contractor.

PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	◄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	R Y G	R Y G	R Y G	R Y G	R Y G	PED	PED
PHASE 1 & 5	◄G	◄G	R	R	◄G	◄G	R	R	R	R	R	R	R	R	DW	DW
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	R	R	DW	DW
1 & 6 CHANGE	◄Y	◄Y	Y	Y	◄R	◄R	R	R	R	R	R	R	R	R	DW	DW
PHASE 2 & 5	◄R	◄R	R	R	◄G	◄G	G	G	R	R	R	R	R	R	DW	DW
2 & 5 CHANGE	◄R	◄R	R	R	◄Y	◄Y	Y	Y	R	R	R	R	R	R	DW	DW
PHASE 2 & 6	◄R	◄R	G	G	◄R	◄R	G	G	R	R	R	R	R	R	DW	DW
2 & 6 CHANGE	◄R	◄R	Y	Y	◄R	◄R	Y	Y	R	R	R	R	R	R	DW	DW
PHASE 4 & 8	◄R	◄R	R	R	◄R	◄R	R	R	G	G	G	G	G	G	DW	DW
4 & 8 CHANGE	◄R	◄R	R	R	◄R	◄R	R	R	Y	Y	Y	Y	Y	Y	DW	DW
PHASE 4 ALT	◄R	◄R	R	R	◄R	◄R	R	R	R	G	G	G	G	G	WK	WK
PED CLEAR / COUNTDOWN	◄R	◄R	R	R	◄R	◄R	R	R	R	G	G	G	G	G	FL/DW	FL/DW
4 ALT CHANGE	◄R	◄R	R	R	◄R	◄R	R	R	R	Y	Y	Y	Y	Y	DW	DW
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	FL/R	FL/R	DARK	DARK

WIRING DIAGRAM



TOD NO:XX445-15
SHA NO:PG719A59/B59
MD 197 @ BRIARWOOD DR

WIRING KEY

A, B, C, D, E, F, G, H - 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G)

J, K, L, M, N, O, P, Q - 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G)

R, S - 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G)

T - STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)

U, V, W, X - CONTROL CABLE (CAMERA TO CONTROLLER) UP TO 500'

Y, Z - RELOCATED EXISTING UNDERGROUND 12-PAIR INTERCONNECT CABLE

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

bb, cc - 2-CONDUCTOR ELECTRICAL CABLE (NO. 12 A.W.G) TRAY CABLE

PD - PROPOSED PHONE DROP

PS - PROPOSED UNDERGROUND SERVICE TO BE INSTALLED BY BGE

+ - GROUND ROD

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

5561gi.dgn T-174

PLOTTED: $DATETIME$
FILE: $FILE$

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

MD 197 (LAUREL - BOWIE RD) AND BRIARWOOD DRIVE

LAUREL, MARYLAND

GENERAL INFORMATION SHEET

SCALE NONE	DATE 6/8/09	CONTRACT NO. XX4455185
DESIGNED BY JAMES ALLEN Jr.		COUNTY PRINCE GEORGE'S
DRAWN BY JAMES ALLEN Jr.		LOGMILE 16019713.54
CHECKED BY		TIMS NO. I285
F.A.P. NO.		TOD NO.
TS NO. 904F	DRAWING NO. 2 OF 2	SHEET NO. OF

\5000's\5459\5459gi.dgn 6/17/2009 9:46:48 AM