DRILL HOLES

BORDER REV: DATE: June 1, 2004

PROJECT DESCRIPTION

I. GENERAL

This project involves the modification of an existing span wire Traffic Control Signal with street lighting at the intersection of US 301 (Crain Hwy) and Mitchell Road in Charles County. LED modules shall be installed into existing signal heads and Exclusive/Permissive left turn phases shall be installed for both approaches of US 301. Video detection shall be installed for the northbound US 301 (Crain Hwy) approach **and for the westbound approach of Mitchell Rd. Non-invasive probes shall be installed on the northbound approach of US 301 (Crain Hwy).** [1]
US 301 (Crain Hwy) is assumed to run a north-south direction.

II. INTERSECTION OPERATION

1. The intersection shall continue to operate in a NEMA six-phase, fully-actuated mode, with the US 301 (Crain Hwy) approaches running concurrently. New Exclusive/Permissive left turn phases shall be provided for both approaches of US 301 (Crain Hwy). The Mitchell Road approaches shall also continue to run as a side street split 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. SHA Forces shall install video interface into the cabinet.

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) 787-7652 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.

The contact persons for District #5 are as follows:

Ms. Kim Tran
Assistant District Engineer - Traffic
Phone: (410) 841-1819

Mr. John Mays
Assistant District Engineer - Maintenance
Phone: (410) 841-1013

Mr. Joe Horty
Assistant District Engineer - Utility
Phone: (410) 841-1005

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
410-787-7676

EQUIPMENT LIST

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

ITEM NO.	DESCRIPTION	QUANTITY
9086	Video detection interface equipment: 1-4 cameras (To be installed by signal shop).	1 EA
9571	Sheet aluminum signs to consist of: (pole mount)	71 SF
	GUIDE SHIELD ASSEMBLY (48"X75") pole mounted. M3-1 "NORTH"(30"X15") M1-4 "US 301"(48"X36") M6-1 "left arrow "(30"X24")	1 EA
	GUIDE SHIELD ASSEMBLY (48"X75") pole mounted. M3-3 "SOUTH"(30"X15") M1-4 "US 301"(48"X36") M6-1 "left arrow "(30"X24")	1 EA
	GUIDE SHIELD ASSEMBLY (30"x51") pole mounted. M3-1 "NORTH"(24"X12") M1-5 "US 301"(30"X24") M6-1 "right arrow "(21"X15")	1 EA
	GUIDE SHIELD ASSEMBLY (30"x51") pole mounted. M3-3 "SOUTH"(24"X12") M1-5 "US 301"(30"X24") M6-1 "right arrow "(21"X15")	1 EA

EQUIPMENT LIST (CONT.)

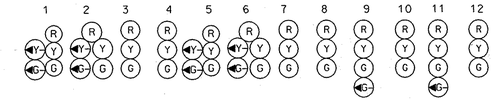
B. EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR

ITEM NO.	DESCRIPTION	QUANTITY
1001	Maintenance of traffic per assignment.	1 EA
5001	5" white heat applied permanent preformed thermoplastic pavement marking.	50 L.F.
5004	24" white heat applied permanent preformed thermoplastic pavement marking.	50 L.F.
[2] 8001	12" LED signal head section.	40 ~~20~~ EA
8007	8" LED signal head section.	6 EA
[2] ~~8015~~	~~LED signal head modules~~	~~20 EA~~
8017	Remove and dispose of existing material & equipment per assignment.	1 EA
[1] 8024	**Schedule 80 rigid PVC conduit up to 4" - bored.**	50 LF
[1] 8040	**Microloop probe (1000' lead in cable).**	2 EA
[1] 8044	**Furnish and install electrical handhole.**	2 EA
8046	Install overhead sign.	71 SF
8047	Video detector camera & cable up to 500'.	3 ~~2~~ EA
8060	Electrical cable - 5 conductor (No. 14 AWG).	480 L.F.
8061	Electrical cable - 7 conductor (No. 14 AWG).	560 L.F.
8066	Steel span wire, 1/4" diameter.	530 L.F.

C. EQUIPMENT TO BE REMOVED

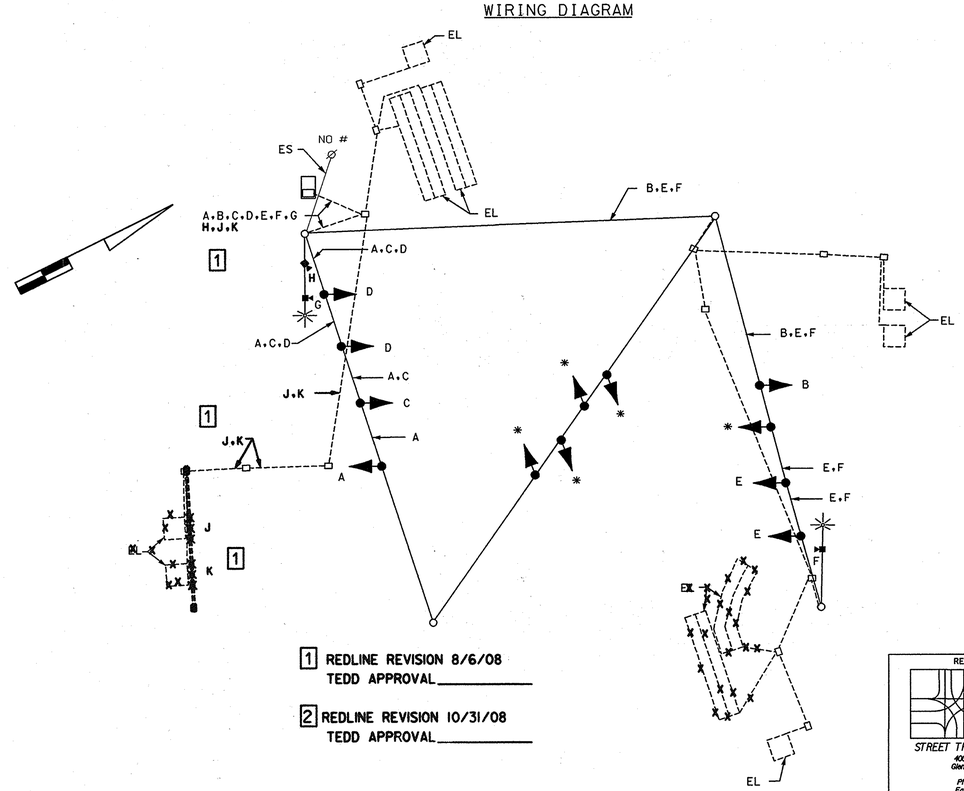
There is no equipment to be removed for this project.

PHASE CHART



	1	2	3	4	5	6	7	8	9	10	11	12
PHASE 1 & 5	◄G-/R	◄G-/R	R	R	◄G-/R	◄G-/R	R	R	R	R	R	R
CHANGES TO PHASES 1 & 6, 2 & 5 OR 2 & 6												
PHASE 1 & 6	◄G-/G	◄G-/G	G	G	R	R	R	R	R	R	R	R
1 & 6 CHANGE	◄Y-/G	◄Y-/G	G	G	R	R	R	R	R	R	R	R
PHASE 2 & 5	R	R	R	R	◄G-/G	◄G-/G	G	G	R	R	R	R
2 & 5 CHANGE	R	R	R	R	◄Y-/G	◄Y-/G	G	G	R	R	R	R
PHASE 2 & 6	G	G	G	G	G	G	G	G	R	R	R	R
2 & 6 CHANGE	Y	Y	Y	Y	Y	Y	Y	Y	R	R	R	R
PHASE 3	R	R	R	R	R	R	R	R	R	R	G ◄G-	G
3 CHANGE	R	R	R	R	R	R	R	R	R	R	Y	Y
PHASE 4	R	R	R	R	R	R	R	R	G ◄G-	G	R	R
4 CHANGE	R	R	R	R	R	R	R	R	Y	Y	R	R
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R

WIRING DIAGRAM



[1] REDLINE REVISION 8/6/08
TEDD APPROVAL_____

[2] REDLINE REVISION 10/31/08
TEDD APPROVAL_____

WIRING KEY

A, B, C } 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G)
D, E } 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G)
F, G, H } CONTROL CABLE (CAMERA TO CONTROLLER) 500'
[1] J, K } **MICRO-LOOP LEAD-IN CABLE (1000')** [1]
* - USE EXISTING CABLE
EL - LOOP WIRE (NO. 14 A.W.G.) EXISTING
ES - EXISTING SERVICE TO BE maintained by SMECO

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

US 301 (CRAIN HWY) AND MITCHELL ROAD
LAPLATA, MARYLAND

GENERAL INFORMATION SHEET

SCALE NONE DATE 4/22/08 CONTRACT NO. AT9365185

DESIGNED BY JAMES ALLEN COUNTY CHARLES
DRAWN BY ROB CICCHINI LOGMILE 08030117.40
CHECKED BY TIMS NO. 1709
F.A.P. NO. TOD NO.

TS NO. 2112B | DRAWING NO. 2 OF 2 | SHEET NO. OF

REVISION "B"
STREET TRAFFIC STUDIES, LTD.
400 Crain Hwy. NW.
Glen Burnie, MD 21061
Ph (410) 590-5500
Fax (410) 590-6637
5443BG1.dgn T-129

PLOTTED: $DATETIME$
FILE: $FILE$

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