

**PROJECT DESCRIPTION**

**GENERAL**

THIS PORTION OF THE PROJECT INVOLVES THE INSTALLATION OF A NEW TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF PINEY CHURCH ROAD AND ST. LINUS DRIVE IN CHARLES COUNTY, MARYLAND. PINEY CHURCH ROAD IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

**INTERSECTION OPERATION**

THE INTERSECTION WILL OPERATE IN A NEMA FOUR-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH THE PINEY CHURCH APPROACHES OPERATING CONCURRENTLY AND THE ST. LINUS APPROACH OPERATING ALONE.

EXCLUSIVE/PERMISSIVE LEFT-TURN PHASING IS PROVIDED FOR THE NORTHBOUND PINEY CHURCH ROAD APPROACH. A PEDESTRIAN PHASE IS PROVIDED ACROSS ST. LINUS DRIVE.

**CONTROLLER REQUIREMENTS**

INSTALL A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH ONE (1) FOUR-CHANNEL, TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIERS, VIDEO INTERFACE EQUIPMENT (1-4 CAMERAS), INTERSECTION MONITOR WITH BATTERY BACKUP FOR PHONE DROP AND ASSOCIATED HARNESSSES HOUSED IN A NEMA SIZE "S" BASE MOUNTED CABINET.

**PHONE DROP**

UPON COMPLETION OF THIS PROJECT, THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF SHA AT (410) 787-7635 TO ARRANGE FOR THE PHONE LINE INSTALLATION. THE CONTRACTOR IS TO PROVIDE MR. SNYDER THE NEAREST STREET ADDRESS, ZIP CODE, AND PHONE NUMBER.

**TYPICAL MESSAGES FOR ACCESSIBLE PED SIGNALS**

PINEY CHURCH AND ST. LINUS DRIVE - WEST LEG

**STREETS AT 90 DEGREES**

WAIT: "WAIT TO CROSS ST. LINUS AT PINEY CHURCH, WAIT." \*  
WALK: RAPID TICK

\* MESSAGE USED IF DISTANCE FROM NEAREST PUSHBUTTON FOR PERPENDICULAR CROSSING IS < 10'  
\*\* MESSAGE USED IF CROSSWALK DIVERGES FROM OR CONVERGES WITH PARALLEL TRAFFIC

NOTE: MESSAGES FOR INTERSECTION CONFIGURATIONS, VARYING FROM THE ABOVE ARE TO BE APPROVED BY THE DIRECTOR, OFFICE OF TRAFFIC AND SAFETY.

**MAINTENANCE OF TRAFFIC**

THE FOLLOWING TRAFFIC CONTROL STANDARDS SHALL BE REFERENCED FOR THE PROJECT. ADDITIONAL TRAFFIC CONTROL STANDARDS MAY BE USED AS DIRECTED BY THE ENGINEER.

- STANDARD NO. MD-104.03.01 (SHOULDER WORK)
- STANDARD NO. MD-104.03-03 (LEFT LANE CLOSURE)
- STANDARD NO. MD-104.03-05 (RIGHT LANE CLOSURE)

**PROJECT CONTACTS**

THE CONTACT PERSONS FOR SHA ARE AS FOLLOWS:

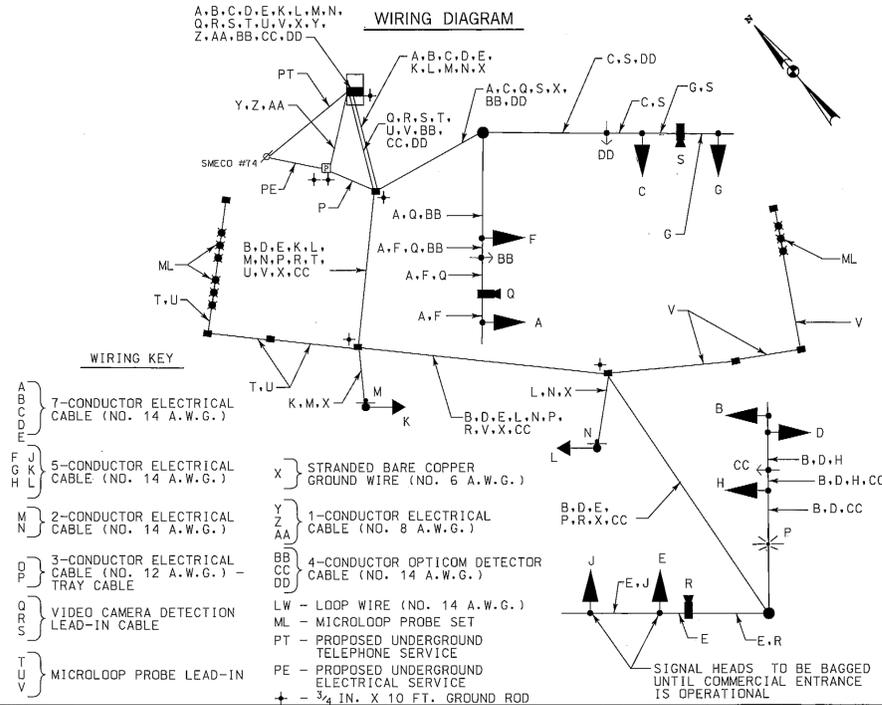
MS. KIMBERLY TRAN  
ASSISTANT DISTRICT ENGINEER - TRAFFIC  
PHONE: (410) 841-1019

MR. MIKE HUBER  
DISTRICT UTILITY ENGINEER  
PHONE: (410) 841-1039

MR. JOSEPH GECKLE  
ASSISTANT DISTRICT ENGINEER - MAINTENANCE  
PHONE: (410) 841-1013

MS. CORREN JOHNSON  
CHIEF, TRAFFIC OPERATIONS DIVISION  
PHONE: (410) 787-7630

**WIRING DIAGRAM**



**EQUIPMENT LIST "A"**

A. EQUIPMENT TO BE SUPPLIED BY THE SHA

QUANTITY	DESCRIPTION
1 EACH	CONTROLLER CABINET, SIZE "S" WITH CONTROLLER, VIDEO INTERFACE EQUIPMENT, 1-8 CAMERAS
86 S.F.	SHEET ALUMINUM SIGNS TO CONSIST OF (GROUND MOUNT):
- 3 EACH	W3-3 SIGN (36 IN. X 36 IN.) WITH "NEW" PANEL (24 IN. X 24 IN.) AND FLAG - GROUND MOUNT
- 2 EACH	D3 - (2) "ST. LINUS DR" SIGN (96 IN. X 16 IN.) - GROUND MOUNT
- 1 EACH	D3 - (2) "PINEY CHURCH RD" SIGN 96 IN. X 16 IN. - GROUND MOUNT
- 2 EACH	R3-8(MOD) (30 IN. X 30 IN.) - GROUND MOUNT
59 S.F.	SHEET ALUMINUM SIGNS TO CONSIST OF (POLE MOUNT):
- 2 EACH	D-3(1) SIGN (VARIABLE X 16 IN.) DUAL FACED - MAST ARM MOUNT
- 1 EACH	D-3(1) SIGN (VARIABLE X 16 IN.) - MAST ARM MOUNT
- 2 EACH	R3-5(L) SIGN (30 IN. X 36 IN.)
- 1 EACH	R3-5(R) SIGN (30 IN. X 36 IN.)
- 2 EACH	R10-3(1) SIGN (9 IN. X 15 IN.) TO READ "PUSHBUTTON TO CROSS ST. LINUS DRIVE"

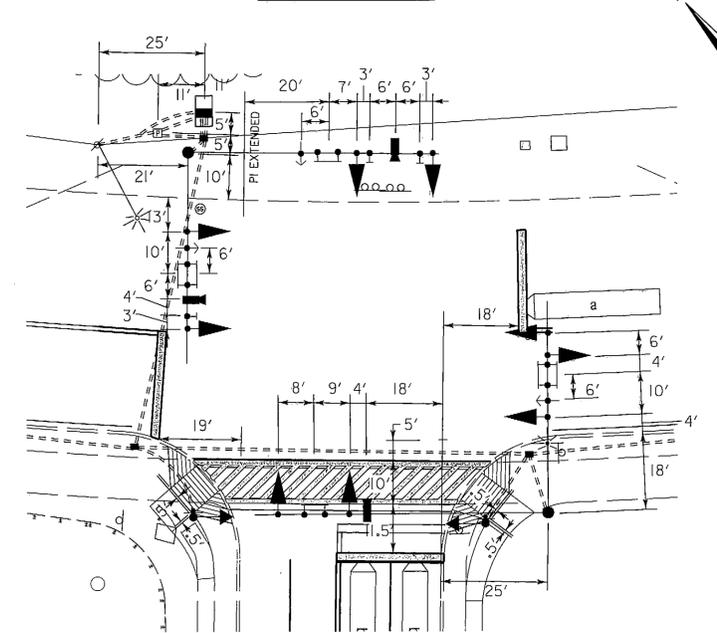
**EQUIPMENT LIST "C"**

NO EQUIPMENT TO BE REMOVED AND RETURNED TO SHA

**PHASE CHART**

	1	2	3	4	5	6	7	8	9	10	11
PHASE 1 AND 6	G	G	G	R	R	R	R	R	R	DW	DW
1 AND 6 CHANGE	G	G	G	R	R	R	R	R	R	DW	DW
PHASE 2 AND 6	G	G	G	G	G	R	R	R	R	WK	WK
PED CLEARANCE	G	G	G	G	G	R	R	R	R	FLOW	FLOW
2 AND 6 CHANGE	Y	Y	Y	Y	Y	R	R	R	R	DW	DW
PHASE 4	R	R	R	R	R	G	G	G	G	DW	DW
4 CHANGE	R	R	R	R	R	Y	Y	Y	Y	DW	DW
EMERGENCY PRE-EMPTION #1	G	G	G	G	G	R	R	R	R	DW	DW
	Y	Y	Y	Y	Y	R	R	R	R	DW	DW
EMERGENCY PRE-EMPTION #2	R	R	R	R	R	G	G	R	R	DW	DW
	R	R	R	R	R	Y	Y	R	R	DW	DW
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	DARK	DARK

**DIMENSION DIAGRAM**



**EQUIPMENT LIST "B"**

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

QUANTITY	DESCRIPTION
1 EACH	MAINTENANCE OF TRAFFIC
45 L.F.	REMOVAL OF EXISTING PERMANENT PAVEMENT LINE MARKINGS - ANY WIDTH
5 C.Y.	TEST PIT EXCAVATION
500 L.F.	5 INCH WHITE LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
160 L.F.	5 INCH YELLOW LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
45 L.F.	12 INCH YELLOW LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
62 S.F.	WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKINGS LEGENDS AND SYMBOLS
320 L.F.	12 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
90 L.F.	24 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
50 L.F.	STANDARD TYPE A COMBINATION CURB AND GUTTER 12 INCH GUTTER PAN 8 INCH DEPTH
900 S.F.	5 INCH CONCRETE SIDEWALK
36 S.F.	DETECTABLE WARNING SURFACE FOR CURB RAMPS
14 C.Y.	CONCRETE FOR SIGNAL FOUNDATION
142 L.F.	WOOD SIGN SUPPORTS 4 INCH X 6 INCH
285 L.F.	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
140 L.F.	3 INCH SCHEDULE 80 RIGID PVC CONDUIT-BORED
180 L.F.	4 INCH SCHEDULE 80 RIGID PVC CONDUIT-BORED
80 L.F.	2 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
600 L.F.	3 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
50 L.F.	4 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
1 EACH	METERED SERVICE PEDESTAL
150 L.F.	ELECTRICAL CABLE 1-CONDUCTOR NO. 8 AWG-THHN/THWN
3 EACH	NONINVASIVE DETECTOR, 1000 FOOT LEAD IN CABLE
9 EACH	FURNISH AND INSTALL ELECTRICAL HANDHOLE
88 S.F.	INSTALL GROUND MOUNTED SIGN
59 S.F.	INSTALL OVERHEAD SIGN
3 EACH	VIDEO DETECTION CAMERA
3 EACH	CONTROL CABLE, 250 FOOT, VIDEO DETECTION CAMERA TO CONTROLLER
2 EACH	10 FOOT BREAKAWAY PEDESTAL POLE
1 EACH	STEEL POLE WITH TWIN 50 FOOT AND 60 FOOT MAST ARMS
1 EACH	STEEL POLE WITH TWIN 50 FOOT AND 70 FOOT MAST ARMS
6 EACH	GROUND ROD - 3/4 INCH DIAMETER X 10 FOOT LENGTH
25 EACH	12 IN. LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION
480 L.F.	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
1090 L.F.	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
280 L.F.	ELECTRICAL CABLE 3 - CONDUCTOR (NO. 12 AWG) COPPER TYPE T/C
1 EACH	15 FOOT LIGHTING ARM ON SIGNAL STRUCTURE
1 EACH	INSTALL CONTROLLER AND CABINET - BASE MOUNT
2 EACH	PUSHBUTTON STATION AND SIGN
1 EACH	2-WIRE CENTRAL CONTROL UNIT
1 EACH	LED LAMP AND LUMINAIRE
3 EACH	OPTICOM NO. 721 DETECTOR EYE
1 EACH	DISCRIMINATOR MODULE, 4 CHANNEL, NO. 764
440 L.F.	FURNISH AND INSTALL 4 CONDUCTOR OPTICOM CABLE
2 EACH	LED 16 INCH COUNTDOWN PEDESTRIAN SIGNAL HEAD
1 EACH	CUT, CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE

**SHA** STATE OF MARYLAND  
DEPARTMENT OF TRANSPORTATION  
STATE HIGHWAY ADMINISTRATION  
OFFICE OF TRAFFIC & SAFETY  
TRAFFIC ENGINEERING DESIGN DIVISION  
Piney Church at St. Linus Drive  
St. Charles, Charles County

**GENERAL INFORMATION SHEET**

SCALE: NONE. ADVERTISED DATE: JUNE 14, 2013. CONTRACT NO.: 41086-000

DESIGNED BY: B. DONOWAY COUNTY: Charles  
DRAWN BY: B. DONOWAY LOGMILE:  
CHECKED BY: N. Leary TMS NO.:  
F.A.P. NO.: SEE TITLE SHEET TOD NO.:

TS NO. 4925 DRAWING TSP-3 OF SHEET NO. 3 OF 3

**WR&A**  
WHITMAN, REQUARDT & ASSOCIATES, LLP  
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