

**PROJECT DESCRIPTION**

**GENERAL**

THIS PROJECT INVOLVES THE RECONSTRUCTION OF THE EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 151 (NORTH POINT BLVD) AND BUSINESS CENTER ENTRANCE IN BALTIMORE COUNTY, MARYLAND. MD 151 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

**INTERSECTION OPERATION**

THE INTERSECTION WILL OPERATE IN A NEMA THREE-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH THE MD 151 APPROACHES OPERATING CONCURRENTLY AND THE BUSINESS CENTER ENTRANCE OPERATING ALONE.

**CONTROLLER REQUIREMENTS**

INSTALL A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH ONE (1) FOUR-CHANNEL, TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIERS, VIDEO INTERFACE EQUIPMENT (1-8 CAMERAS) AND INTERSECTION MONITOR WITH BATTERY BACKUP FOR PHONE DROP AND ASSOCIATED HARNESSES 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.

**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-104.04-01 (SHOULDER WORK)	STANDARD NO. MD-104.02-13 (INTERSECTION FLAGGING OPERATION)
STANDARD NO. MD-104.04-03 (LEFT LANE CLOSURE)	STANDARD NO. MD-104.04-13 (LEFT TURN BAY CLOSURE)
STANDARD NO. MD-104.04-05 (RIGHT LANE CLOSURE)	STANDARD NO. MD-104.04-15 (INTERSECTION LEFT LANE, TURN BAY)

**PROJECT CONTACTS**

THE CONTACT PERSONS FOR SHA ARE AS FOLLOWS:

MS. ERIN KUHN  
ASSISTANT DISTRICT ENGINEER - TRAFFIC  
PHONE: (410) 229-2381

MR. MIKE PASQUARIELLO  
DISTRICT UTILITY ENGINEER  
PHONE: (410) 229-2341

MR. ANDRE FUTRELL  
ASSISTANT DISTRICT ENGINEER - MAINTENANCE  
PHONE: (410) 229-2361

MR. AVIJIT MAJI  
CHIEF, TRAFFIC OPERATIONS DIVISION  
PHONE: (410) 787-7630

**EQUIPMENT LIST "A"**

A. EQUIPMENT TO BE SUPPLIED BY THE SHA

ITEM NO.	QUANTITY	DESCRIPTION
9104	1 EACH	CONTROLLER CABINET, SIZE "S" WITH CONTROLLER, VIDEO INTERFACE EQUIPMENT (1-8 CAMERAS).
9118	1 EACH	4 CHANNEL DETECTOR AMPLIFIER
9571	20 S.F.	SHEET ALUMINUM SIGNS TO CONSIST OF (POLE MOUNT) :
	- 1 EACH	M1-5(4) SIGN (78 IN. x 36 IN.) - MAST ARM MOUNT

**EQUIPMENT LIST "B"**

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

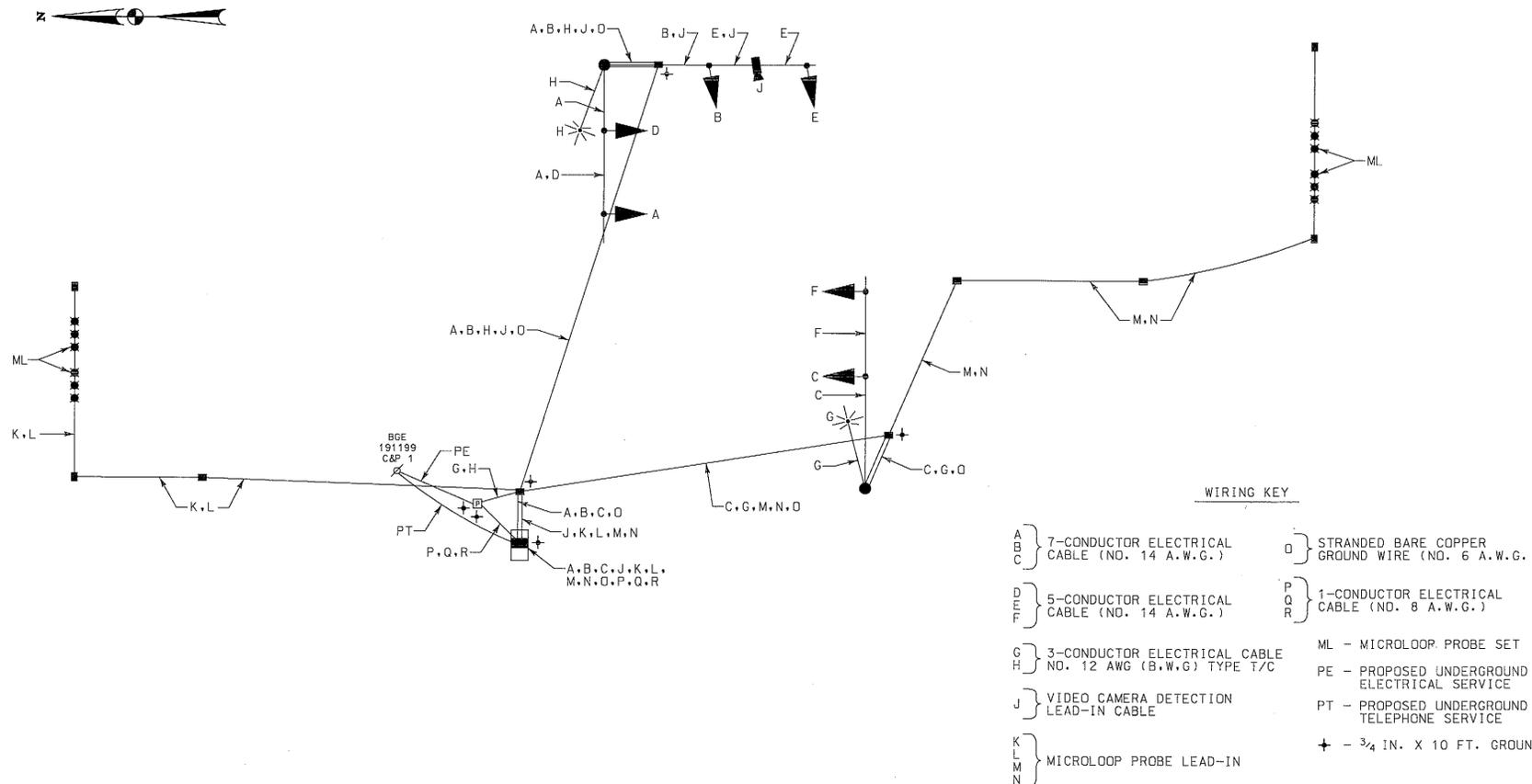
ITEM NO.	QUANTITY	DESCRIPTION
1001	3 EACH	MAINTENANCE OF TRAFFIC
2002	4 C.Y.	TEST PIT EXCAVATION
5005	15 L.F.	24 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
6001	32 L.F.	STANDARD TYPE A COMBINATION CURB AND GUTTER 12 INCH GUTTER PAN 8 INCH DEPTH
8001	18 EACH	12 INCH LED SIGNAL HEAD SECTION
8012	1 EACH	EMBEDDED METERED SERVICE PEDESTAL
8014	1 EACH	INSTALL CONTROLLER AND CABINET BASE MOUNT (ANY SIZE)
8019	1 EACH	MAST ARM POLE & 50 FT MAST ARM ANY 'T' DIMENSION
8023	4 EACH	NONINVASIVE DETECTOR (ANY LENGTH) LEAD IN CABLE UP TO 1000 FT
8024	1 EACH	REMOVE & DISPOSE MATERIAL & EQUIPMENT (PER ASSIGNMENT)
8025	1 EACH	TWIN MAST ARM POLE & 50' /50' MAST ARMS ANY 'T' DIMENSION
8029	1 EACH	VIDEO DETECTION CAMERA & CABLE UP TO 500 FT
8038	130 L.F.	SCHEDULE 80 RIGID PVC CONDUIT UP TO 4 INCHES - BORED
8039	170 L.F.	SCHEDULE 80 RIGID PVC CONDUIT UP TO 4 INCHES - SLOTTED
8040	750 L.F.	SCHEDULE 80 RIGID PVC CONDUIT UP TO 4 INCHES - TRENCHED
8042	20 S.F.	INSTALL OVERHEAD OR GROUND MOUNTED SIGN (INCLUDING ALL HARDWARE)
8044	275 L.F.	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8047	80 L.F.	ELECTRICAL CABLE 1-CONDUCTOR NO. 8 AWG - THHN/THWN
8048	10 EACH	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8053	1 EACH	CUT, CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE
8057	255 L.F.	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
8058	410 L.F.	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
8064	390 L.F.	ELECTRICAL CABLE - 3-CONDUCTOR NO. 12 AWG (B.W.G) TYPE T/C
8065	2 EACH	FURNISH AND INSTALL ANY SIZE LIGHTING ARM WITH LED LUMINAIRE

**EQUIPMENT LIST "C"**

C. EQUIPMENT TO BE REMOVED AND RETURNED TO SHA

SHA FORCES SHALL REMOVE THE CONTROLLER AND ALL AUXILIARY EQUIPMENT FROM THE CONTROLLER CABINET. THE CABINET AND ALL OTHER MATERIALS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

**WIRING DIAGRAM**



**PHASE CHART**

	1	2	3	4	5	6
	(R)	(R)	(R)	(R)	(R)	(R)
	(Y)	(Y)	(Y)	(Y)	(Y)	(Y)
	(G)	(G)	(G)	(G)	(G)	(G)
PHASE 2 + 6	G	G	G	G	R	R
2 + 6 CHANGE	Y	Y	Y	Y	R	R
PHASE 4	R	R	R	R	G	G
4 CHANGE	R	R	R	R	Y	Y
FLASHING OPERATION	FLY	FLY	FLY	FLY	FLR	FLR

TOD NO: XY125-22  
SHA NO: BA087B5F  
MD 151 @ Sparrows Point Rd/MD 151 @  
Business Center Entrance

**SHA** STATE OF MARYLAND  
DEPARTMENT OF TRANSPORTATION  
STATE HIGHWAY ADMINISTRATION  
OFFICE OF TRAFFIC & SAFETY  
TRAFFIC ENGINEERING DESIGN DIVISION  
MD 151 (North Point Blvd) and Business Center Entrance  
Dundalk, MD

**GENERAL INFORMATION SHEET**

SCALE: NONE	ADVERTISED DATE: 3/19/2013	CONTRACT NO.: XY125185
DESIGNED BY: S. Bloss	COUNTY: Baltimore	
DRAWN BY: S. Bloss	LOGMILE: 0301510130	
CHECKED BY: N. Leary	TIMS NO.: L799	
F.A.P. NO.:	TOD NO.:	

TS NO. 4689 B	DRAWING TSP-3 OF 3	SHEET NO. 3 OF 3
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