PROJECT DESCRIPTION

I. GENERAL

THIS PORTION OF THE PROJECT INVOLVES INSTALLING A NEW SIGNAL AT THE INTERSECTION OF MD 7 AT COWENTON AVENUE / EBENEZER ROAD. INCLUDED WITH THIS SIGNAL WILL BE A HARDWIRE AND PUSHBUTTON FOR PREEMPTION OF THE SIGNAL TO THE COWENTON VOLUNTEER FIRE COMPANY LOCATED ON EBENEZER ROAD.
AN HIB SHALL ALSO BE INSTALLED ON MD 7 FOR WESTBOUND TRAFFIC APPROXIMATELY 625' PRIOR TO THE INTERSECTION.
MD 7 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

I. INTERSECTION OPERATION

1. THE INTERSECTION IS TO OPERATE IN A NEMA SIX-PHASE, FULLY ACTUATED MODE WITH AN EXCLUSIVE/PERMISSIVE LEFT TURN PHASE PROVIDED FOR BOTH APPROACHES OF MD 7. MD 7 APPROACHES SHALL OPERATE CONCURRENTLY.
COWENTON AVE AND EBENEZER RD SHALL ALSO RUN CONCURRENTLY.

2. THE HIB SHALL OPERATE IN AN ALTERNATING FLASH MODE WHEN PHASE 2 IS NOT IN OPERATION.

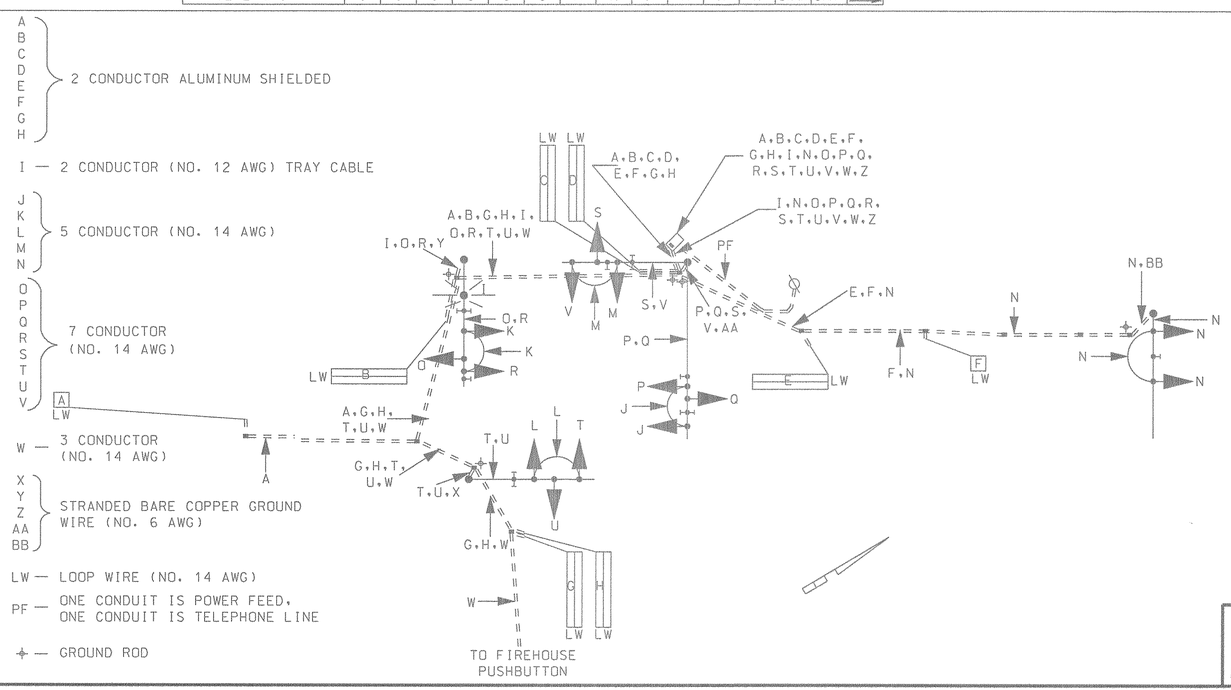
3. THE FIREHOUSE PREEMPTION SHALL BE USED TO GIVE RIGHT OF WAY TO THE EMERGENCY VEHICLES AS THEY TRAVEL NORTHBOUND ON EBENEZER ROAD. THIS WILL OPERATE THE SIGNAL FOR PHASE 8 ONLY.

PHASING CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
PHASE 1 & 5	G	G	R	G	G	R	R	R	R	R	R	R	FL/Y	FL/Y
1 & 5 CHANGE	TO PHASE 1 & 6 OR PHASE 2 & 5						R	R	R	R	R	R	FL/Y	FL/Y
PHASE 1 & 6	G	G	G	R	R	R	R	R	R	R	R	R	FL/Y	FL/Y
1 CHANGE	Y	Y	G	R	R	R	R	R	R	R	R	R	FL/Y	FL/Y
PHASE 2 & 5	R	R	R	G	G	G	R	R	R	R	R	R	DARK	DARK
5 CHANGE	R	R	R	Y	Y	G	R	R	R	R	R	R	DARK	DARK
PHASE 2 & 6	G	G	G	G	G	G	R	R	R	R	R	R	DARK	DARK
2 & 6 CHANGE	Y	Y	Y	Y	Y	Y	R	R	R	R	R	R	FL/Y	FL/Y
PHASE 4 & 8	R	R	R	R	R	R	G	G	G	G	G	G	FL/Y	FL/Y
4 & 8 CHANGE	R	R	R	R	R	R	Y	Y	Y	Y	Y	Y	FL/Y	FL/Y
FLASHING OPERATION	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

FIREHOUSE PRE-EMPTION

PREEMPTION PHASE 8	R	R	R	R	R	R	R	R	R	G	G	G	FL/Y	FL/Y
PREEMPTION CLEARANCE	R	R	R	R	R	R	R	R	R	Y	Y	Y	FL/Y	FL/Y
PHASE 2 & 6	G	G	G	G	G	G	R	R	R	R	R	R	DARK	DARK



EQUIPMENT LIST "A"

EQUIPMENT TO BE FURNISHED BY SHA

SPEC. NO.	CATEGORY CODE	DESCRIPTION	UNIT	QUANTITY
813	900000	SHEET ALUMINUM SIGN WITH HARDWARE FOR ATTACHING TO MAST ARM	SF	176
		2 EACH - R10-12, "LEFT TURN YIELD ON GREEN (BALL)", 30"X36"		
		1 EACH - W3-3(2), "SIGNAL AHEAD BE PREPARED TO STOP WHEN FLASHING",		
		120"X60"		
		2 EACH - D-3(1), "(LEFT ARROW) COWENTON AVE, EBENEZER RD (RIGHT		
		ARROW)", 84"X32"		
		2 EACH - D-3(1), "(LEFT ARROW) EBENZER RD, COWENTON AVE (RIGHT		
		ARROW)", 84"X32"		
		4 EACH - D-3(1), "PHILADELPHIA RD", 72"X16"		
		1 EACH - R10-11B, "NO TURN ON RED", 24"X24"		
816	900000	EIGHT PHASE FULLY ACTUATED CONTROLLER HOUSED IN A NEMA SIZE 6 BASE	EA	1
		MOUNTED CABINET WITH INTERSECTION MONITOR WITH BATTERY BACK UP AND		
		TWO (2) 4-CHANNEL DETECTOR AMPLIFIERS (RACK MOUNT)		

EQUIPMENT LIST "B"

EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

SPEC. NO.	CATEGORY CODE	DESCRIPTION	UNIT	QUANTITY
818	800000	FURNISH AND INSTALL 27' STEEL POLE WITH 50' MAST ARM	EA	3
818	800000	FURNISH AND INSTALL 27' STEEL POLE WITH TWIN 50'-70' MAST ARMS	EA	1
800-SP	800000	CUT, CLEAN, GALVANIZE AND CAP SIGNAL STRUCTURE	EA	5
817	800000	FURNISH AND INSTALL PUSHBUTTON FOR FIREHOUSE PREEMPTION	EA	1
805	800000	FURNISH AND INSTALL 1 1/2" EMT CONDUIT (FIREHOUSE)	LF	100
805	800000	FURNISH AND INSTALL 2" GALVANIZED STEEL CONDUIT (FIREHOUSE)	LF	30
805	800000	FURNISH AND INSTALL 2" SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED	LF	1600
805	800000	FURNISH AND INSTALL 4" SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED	LF	120
813	800000	INSTALL SHEET ALUMINUM SIGN WITH MAST ARM MOUNT HARDWARE	SF	176
800-SP	800000	REMOVE AND DISPOSE OF EXISTING SIGNAL AND EQUIPMENT	LS	1
814	800000	FURNISH AND INSTALL 12" VEHICULAR SIGNAL TRAFFIC SIGNAL HEAD	EA	42
		SECTION, BLACK FACE		
814	800000	FURNISH AND INSTALL 8" VEHICULAR SIGNAL TRAFFIC SIGNAL HEAD	EA	6
		SECTION, BLACK FACE		
801	801004	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION	CY	14
810	802501	FURNISH AND INSTALL NO. 6 AWG STRANDED BARE COPPER GROUND WIRE	LF	100
805	805011	FURNISH AND INSTALL 1" ELECTRICAL CONDUIT GALVANIZED SLEEVE	LF	75
805	805105	FURNISH AND INSTALL 2" SCHEDULE 80 RIGID PVC CONDUIT - BORED	LF	150
805	805150	FURNISH AND INSTALL 3" SCHEDULE 80, RIGID PVC CONDUIT - SLOTTED	LF	300
805	805160	FURNISH AND INSTALL 1" LIQUID TIGHT, FLEXIBLE NON-METALLIC	LF	18
		CONDUIT FOR DETECTOR SLEEVE		
807	807205	FURNISH AND INSTALL CONTROL AND DISTRIBUTION EQUIPMENT	EA	1
811	811001	FURNISH AND INSTALL ELECTRICAL HANDHOLE	EA	13
806	831010	FURNISH AND INSTALL 250 WATT HIGH PRESSURE SODIUM LAMP AND LUMINAIRE	EA	1
804	837001	FURNISH AND INSTALL GROUND ROD - 3/4" DIAMETER BY 10' LENGTH	EA	5
810	861104	FURNISH AND INSTALL ELECTRICAL CABLE - 2 CONDUCTOR	LF	1650
		(ALUMINUM SHIELDED)		
810	861106	FURNISH AND INSTALL ELECTRICAL CABLE - 3 CONDUCTOR (NO. 14 AWG)	LF	900
810	861107	FURNISH AND INSTALL ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)	LF	1000
810	861108	FURNISH AND INSTALL ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)	LF	1600
810	861116	FURNISH AND INSTALL ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 AWG)	LF	180
810	862101	FURNISH AND INSTALL LOOP WIRE ENCASED IN FLEXIBLE TUBING	LF	3200
		(NO. 14 AWG)		
815	862102	FURNISH AND INSTALL SAW CUT FOR SIGNAL (LOOP DETECTOR)	LF	940
808	866104	FURNISH AND INSTALL 20' LIGHTING ARM ON SIGNAL STRUCTURE	EA	1
816	871202	INSTALL CONTROLLER AND CABINET - BASE MOUNT	EA	1

GP-3 OF GP-3

REVISIONS

PB / MTA
Parsons Brinckerhoff/McCormick, Taylor & Assoc., Inc.

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
SIGNAL PLAN
MD 7 AT COWENTON AVE / EBENEZER RD

DRAWN BY: DMG	F.A.P. NO. SEE TITLE SHEET	TS NO. ES3944	SHEET NO. 26 OF 30
CHECKED BY: GSJ	S.H.A. NO. BA3175176	T.I.M.S. NO. D446	
SCALE: NOT TO SCALE	COUNTY: BALTIMORE		
DATE: OCTOBER 1999	LOG MILE: 030007.21		

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