PROJECT DESCRIPTION

I. GENERAL

THIS PROJECT INVOLVES THE RECONSTRUCTION OF THE EXISTING TRAFFIC SIGNAL AND THE UPGRADE TO APS/CPS AT THE INTERSECTION OF MD 187 AND BATTERY LN IN MONTGOMERY COUNTY. MD 187 IS ASSUMED TO RUN IN A NORTH/SOUTH DIRECTION.

II. INTERSECTION OPERATION

THE INTERSECTION OPERATES IN A NEMA FIVE-PHASE MODE. THERE IS EXCLUSIVE/PERMISSIVE LEFT TURN PHASING FOR THE SB APPROACH OF MD 187. MD 187 THROUGH MOVEMENTS WILL OPERATE CONCURRENTLY WITH CONCURRENT PEDESTRIAN PHASES FOR BOTH THE NORTH AND SOUTH LEGS OF THE INTERSECTION. BATTERY LN THROUGH MOVEMENTS WILL OPERATE CONCURRENTLY. THERE ARE ALTERNATE PEDESTRIAN PHASES FOR BOTH THE EAST AND WEST LEGS OF THE INTERSECTION.

EQUIPMENT LIST FOR CONTRACT NO. XY1285185

A. EQUIPMENT TO BE FURNISHED BY STATE HIGHWAY ADIMISTRATION

ITEM	QUANTITY	UNIT	DESCRIPTION
9000	2	EA	SPLICE CABINET BY MONTGOMERY COUNTY
9104	1	EA	SIZE 'S' CABINET WITH CONTROLLER AND VIDEO INTERFACE EQUIPMENT: 1-8 CAMERAS
9110	1	EA	UNINTERUPTABLE POWER SUPPLY AND EQUIPMENT
9570	81	SF	[UPDATED] SHEET ALUMINUM GROUND MOUNTED SIGN
	2	EA	M1-5(6) SIGN (30"x 48")
	2	EA	M1-5(6) SIGN (48"x 72")
	2	EA	R3-7(1)R SIGN (30"x 30")
9571	66	SF	[UPDATED] SHEET ALUMINUM MAST ARM/POLE MOUNTED SIGN
	8	EA	R10-3(1) SIGN (9"x 15") POLE MOUNT
	4	EA	D-3(1) W/B SIGN (VAR. x 16") DUAL FACE-MAST ARM MOUNT
	1	EA	R3-5R SIGN (24"x 30") MAST ARM MOUNT

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

ITEM	QUANTITY	UNIT	DESCRIPTION
1001	1	EA	MAINTENANCE OF TRAFFIC
2001	4	CY	CLASS 2 EXCAVATION
2002	4	CY	TEST PIT EXCAVATION
5003	185	LF	REMOVAL OF EXISTING PERMANENT PAVEMENT LINE MARKINGS
5004	105	LF	12 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
5005	25	LF	24 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
6001	100	LF	STANDARD TYPE A COMBINATION CURB AND GUTTER 12 INCH GUTTER PAN 8 INCH DEPTH
6002	850	SF	5 INCH CONCRETE SIDEWALK
6003	63	SF	DETECTABLE WARNING SURFACE FOR CURB RAMPS
8001	43	EA	12 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION
8004	6	EA	8 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD SECTION
8008	8	EA	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION & SIGNS
8009	7	EA	BREAKAWAY PEDESTAL POLE (ANY SIZE)
8014	1	EA	INSTALL CONTROLLER AND CABINET - BASE MOUNT (ANY SIZE)
8016	8	EA	LED 16 INCH COUNTDOWN PEDESTRIAN SIGNAL HEAD
8018	1	EA	MAST ARM POLE & 38' MAST ARM ANY 'T' DIMENSION
8019	1	EA	MAST ARM POLE & 50' MAST ARM ANY 'T' DIMENSION
8020	1	EA	MAST ARM POLE & 60' MAST ARM ANY 'T' DIMENSION
8024	1	EA	REMOVE & DISPOSE OF EQUIPMENT (PER ASSIGNMENT)
1 ~~8026~~	~~1~~	~~EA~~	~~TWIN MAST ARM POLE & 50'/60' MAST ARMS ANY 'T' DIMENSION~~
1 8027	1	EA	TWIN MAST ARM POLE & 50'/70' MAST ARMS ANY 'T' DIMENSION
8029	3	EA	VIDEO DETECTION CAMERA AND CABLE ANY LENGTH
8032	575	LF	12-PAIR COMMUNICATION CABLE, SELF- SUPPORTING, JELLY-FILLED/UNDERGROUND
8034	900	LF	DISCONNECT, PULL-BACK & REROUTE CABLES
8038	140	LF	UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT-BORED
8039	150	LF	UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT-SLOTTED
8040	550	LF	UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
8041	100	LF	WOOD SIGN SUPPORTS UP TO 4' X 6'
8042	147	SF	INSTALL OVERHEAD OR GROUND MOUNTED SIGN (INCLUDING ALL HARDWARE)
8044	575	LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8045	2	EA	WEATHER HEAD, 3 INCH
8048	8	EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8052	55	LF	3 INCH DIAMETER POLYVINYL CHLORIDE CONDUIT, SCHEDULE 80, RISER
8055	1350	LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
8057	2200	LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
8058	1900	LF	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
1 ~~8068~~	~~NEG~~ 1	EA	FURNISH AND INSTALL R3-1 LED BLANKOUT SIGN, MAST ARM MOUNTED, SYMBOLIC "NO RIGHT TURN" (COLOR: RED AND WHITE)(30"x 30")
1 ~~8068~~	~~NEG~~ 1	EA	FURNISH AND INSTALL R3-5L LED BLANKOUT SIGN, MAST ARM MOUNTED, "LEFT TURN ARROW WITH ONLY" (COLOR: WHITE)(36"x 30")
1 8070	35	LF	REMOVE & RESET EXISTING CHAINLINK FENCE

C. EQUIPMENT TO BE REMOVED.

SHA FORCES SHALL REMOVE THE CONTROLLER AND ALL AUXILIARY EQUIPMENT FROM THE CONTROLLER CABINET. ALL OTHER EXISTING SIGNAL EQUIPMENT REMOVED SHALL BECOME THE PROPERTY OF THE SIGNAL CONTRACTOR UPON COMPLETION OF THE SIGNAL.

CONTACTS

The contact persons for this project are as follows:

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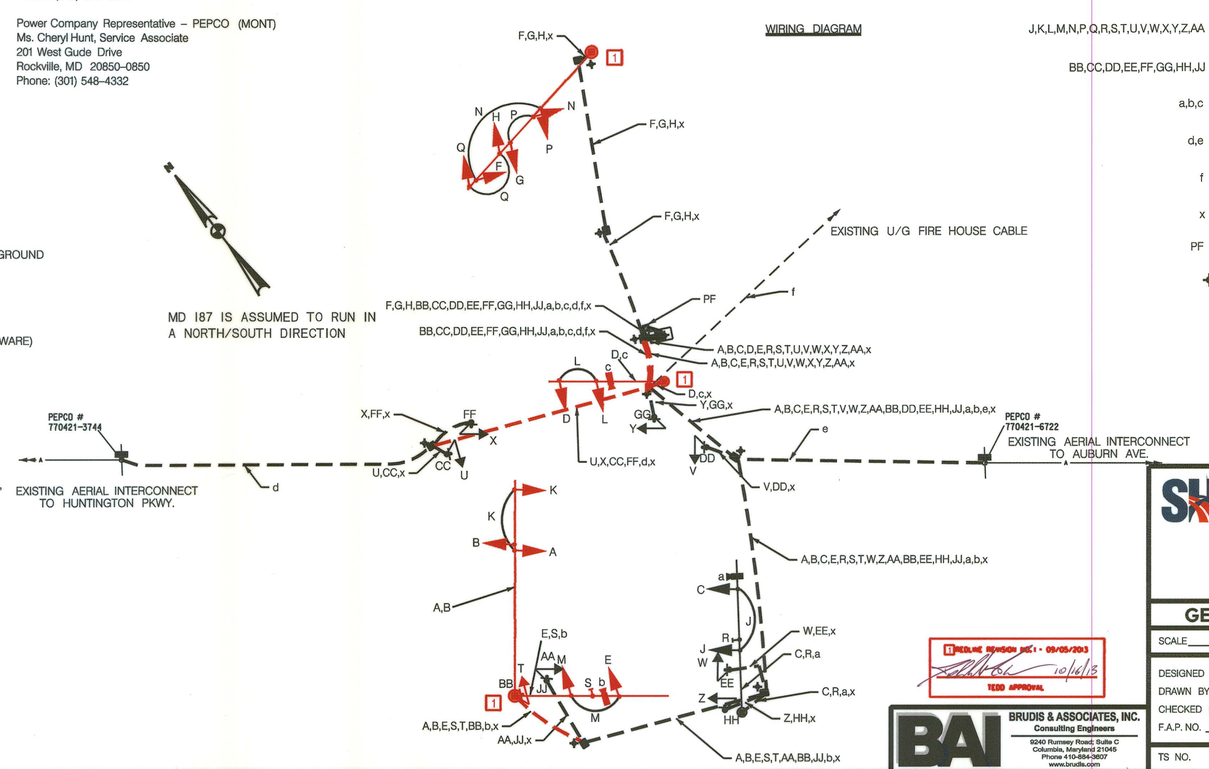
PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
PHASE 1 AND 6	R	R	←G/G	←G/G	G	R	R	R	R	FL/R	FL/R	FL/8"Y	FL/8"Y	FL/8"Y	FL/8"Y	DW	DW	DW	DW	DW	DW	DW	DW	DARK**	DARK**
PHASE 1 AND 6 CHANGE	R	R	←Y/G	←Y/G	G	R	R	R	R	FL/R	FL/R	FL/8"Y	FL/8"Y	FL/8"Y	FL/8"Y	DW	DW	DW	DW	DW	DW	DW	DW	DARK**	DARK**
PHASE 2 AND 6	G	G	G	G	G	R	R	R	R	FL/R	FL/R	FL/8"Y	FL/8"Y	FL/8"Y	FL/8"Y	DW	DW	DW	DW	WK	WK	WK	WK	DARK**	DARK**
PED CLEARANCE	G	G	G	G	G	R	R	R	R	FL/R	FL/R	FL/8"Y	FL/8"Y	FL/8"Y	FL/8"Y	DW	DW	DW	DW	FL/DW	FL/DW	FL/DW	FL/DW	DARK**	DARK**
PHASE 2 AND 6 CHANGE	Y	Y	Y	Y	Y	R	R	R	R	FL/R	FL/R	FL/8"Y	FL/8"Y	FL/8"Y	FL/8"Y	DW	DW	DW	DW	DW	DW	DW	DW	DARK**	DARK**
PHASE 4 AND 8	R	R	R	R	R	G	G	G	G	FL/R	FL/R	FL/8"Y	FL/8"Y	FL/8"Y	FL/8"Y	DW	DW	DW	DW	DW	DW	DW	DW	DARK**	DARK**
PHASE 4 AND 8 CHANGE	R	R	R	R	R	Y	Y	Y	Y	FL/R	FL/R	FL/8"Y	FL/8"Y	FL/8"Y	FL/8"Y	DW	DW	DW	DW	DW	DW	DW	DW	DARK**	DARK**
PHASE 4 AND 8 ALT.	R	R	R	R	R	G	G	G	G	FL/R	FL/R	FL/8"Y	FL/8"Y	FL/8"Y	FL/8"Y	WK	WK	WK	WK	DW	DW	DW	DW	DARK**	DARK**
PED CHANGE	R	R	R	R	R	G	G	G	G	FL/R	FL/R	FL/8"Y	FL/8"Y	FL/8"Y	FL/8"Y	FL/DW	FL/DW	FL/DW	FL/DW	DW	DW	DW	DW	DARK**	DARK**
PHASE 4 AND 8 ALT. CHANGE	R	R	R	R	R	Y	Y	Y	Y	FL/R	FL/R	FL/8"Y	FL/8"Y	FL/8"Y	FL/8"Y	DW	DW	DW	DW	DW	DW	DW	DW	DARK**	DARK**
CLEARANCE A	R	R	R	R	R	R	R	G	G	FL/R	FL/R	FL/8"Y *	FL/8"Y *	FL/8"Y *	FL/8"Y *	DW	DW	DW	DW	DW	DW	DW	DW	DARK**	DARK**
CLEARANCE A CHANGE	R	R	R	R	R	R	R	G	G	FL/R	FL/R	Y	Y	Y	Y	DW	DW	DW	DW	DW	DW	DW	DW	DARK**	DARK**
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	FL/8"Y	FL/8"Y	FL/8"Y	FL/8"Y	DARK	DARK	DARK	DARK	DARK	DARK	DARK	DARK	DARK**	DARK**
PRE-EMPTION 4	R	R	R	R	R	R	R	G	G	FL/8"Y	FL/8"Y	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW	DARK**	DARK**
PRE-EMPTION 4 CHANGE	R	R	R	R	R	R	R	G	G	Y	Y	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW	DARK**	DARK**

* USE QUICKFLASH FOR SIGNAL HEADS 12 THRU 15 DURING CLEARANCE 'A'
** LED BLANKOUT SIGNS 24 AND 25 OPERATE "ON" MONDAY THRU FRIDAY 4-7 PM.

WIRING DIAGRAM



WIRING KEY

A,B,C,D,E,F,G,H	7 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
J,K,L,M,N,P,Q,R,S,T,U,V,W,X,Y,Z,AA	5 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
BB,CC,DD,EE,FF,GG,HH,JJ	2 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
a,b,c	VIDEO CAMERA CABLE
d,e	INTERCONNECT CABLE
f	RE-ROUTED FIRE HOUSE CABLE
x	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
PF	RE-ROUTED POWER FEED
✦	GROUND ROD

1 REDLINE REVISION NO. 1 - 09/05/2013
10/16/13
TEDD APPROVAL

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STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION
MD 187 (OLD GEORGETOWN ROAD)
AND BATTERY LANE
BETHESDA, MD

GENERAL INFORMATION PLAN SHEET

SCALE NTS ADVERTISED DATE 4/2013 CONTRACT NO. XY1285185

DESIGNED BY DM COUNTY MONTGOMERY
DRAWN BY DM LOGMILE 15018700.63
CHECKED BY RM TIMS NO. K613
F.A.P. NO. TOD NO.

TS NO. DRAWING GI -1 OF 1 SHEET NO. 3 OF 3

PLOTTED: Thursday, September 05, 2013 AT 02:22 PM
FILE: P:\09-002 TEDD\Task 51 MD 187 Battery Ln\Drawings\CADD\Working\pGG-P003_M187@Battery.dgn

BY: chuck

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