

PROJECT DESCRIPTION

I. GENERAL

THIS PROJECT INVOLVES THE RECONSTRUCTION OF THE PROPOSED TRAFFIC CONTROL SIGNAL WITH STREET LIGHTING, INTERCONNECT, CCTV AND RED LIGHT CAMERA AT THE INTERSECTION OF MD 355 (FREDERICK RD) AND MD 124 (MONTGOMERY VILLAGE AVE) IN MONTGOMERY COUNTY. THE PROJECT SHALL REPLACE THE EXISTING SPAN SIGNALS WITH MAST ARMS AND UPGRADE ALL SIGNAL HEADS TO LED. AUDIBLE-TACTILE PEDESTRIAN SIGNALS AND COUNTDOWN PEDESTRIAN SIGNAL HEADS SHALL ALSO BE INSTALLED. MD 355 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

II. INTERSECTION OPERATION

- THE INTERSECTION SHALL OPERATE IN A NEMA SEVEN (7) PHASE, SEMI-ACTUATED MODE. THE MD 355 MAINLINE MOVEMENTS SHALL OPERATE CONCURRENTLY. NORTHBOUND MD 355 TRIPLE-LEFT TURN SHALL OPERATE AS AN EXCLUSIVE LEADING LEFT TURN PHASE, AND THE SOUTHBOUND MD 355 DOUBLE-LEFT TURN SHALL OPERATE AS AN EXCLUSIVE LAGGING LEFT TURN PHASE. THE MD 124 MAINLINE MOVEMENTS SHALL OPERATE CONCURRENTLY. NORTHBOUND MD 124 DOUBLE-LEFT TURN SHALL OPERATE AS A LEADING LEFT TURN PHASE. SOUTHBOUND MD 124 LEFT TURNS ARE PROHIBITED AT THIS LOCATION.
- AN EXISTING NEMA FULL-TRAFFIC-ACTUATED, EIGHT (8) PHASE CONTROLLER WITH VIDEO DETECTION INTERFACE, 2 WIRE CENTRAL CONTROL UNIT, L.A.U. AND ALL NECESSARY EQUIPMENT HOUSED IN A NEMA SIZE 'S' CABINET SHALL BE UTILIZED AT THIS LOCATION.

III. SPECIAL NOTES

APS WILL FUNCTION AS FOLLOWS:  
TO CROSS MD 355 (FREDERICK RD)

- WHEN A PEDESTRIAN LOCATES AND PASSES THE PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL ANNOUNCE THE FOLLOWING MESSAGE: "WAIT TO CROSS FREDERICK AT MONTGOMERY VILLAGE, WAIT."
- WHEN THE WALK PHASE BEGINS, THE PUSHBUTTON UNIT WILL PROVIDE A RAPID TICK WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.

TO CROSS MD 124 (MONTGOMERY VILLAGE AVE)

- WHEN A PEDESTRIAN LOCATES AND PASSES THE PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL ANNOUNCE THE FOLLOWING MESSAGE: "WAIT TO CROSS MONTGOMERY VILLAGE AT FREDERICK, WAIT."
- WHEN THE WALK PHASE BEGINS, THE PUSHBUTTON UNIT WILL PROVIDE A RAPID TICK WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.

CONTACTS

DISTRICT (DISTRICT 3)

MR. BRIAN YOUNG  
DISTRICT ENGINEER  
301-513-7311

MR. CEDRIC WARD  
ASSISTANT DISTRICT ENGINEER - TRAFFIC  
301-513-7318

MR. VICTOR GRAFTON  
DISTRICT UTILITY ENGINEER  
301-513-7350

MR. KEVIN NOWAK & MR. DUANE BERNARD  
ASSISTANT DISTRICT ENGINEER - CONSTRUCTION  
301-513-7336

MR. VERNON STINNETT  
ASSISTANT DISTRICT ENGINEER - MAINTENANCE  
301-513-7304

MONTGOMERY COUNTY DOT

MR. KAMAL HAMUD  
TRAFFIC ENGINEER  
240-777-8761

OFFICE OF TRAFFIC AND SAFETY

MR. RICHARD DAFF SR.  
CHIEF, TRAFFIC OPERATIONS  
410-787-7630

MR. ROBERT SNYDER  
ASSISTANT DIVISION CHIEF, TRAFFIC OPERATIONS  
410-787-7630

MR. ED RODENHIZER  
TEAM LEADER SIGNAL OPERATIONS  
410-787-7650

MR. EUGENE BAILEY  
TEAM LEADER SIGN OPERATIONS  
410-787-7670

MR. MICHAEL STOCKER  
SUPPLY OFFICER IV (SIGNAL SHOP WAREHOUSE)  
410-787-7696

MR. ROBERT RICKETTS  
CHIEF, SIGNAL SHOP  
301-279-1291

EQUIPMENT LIST

A. EQUIPMENT TO BE FURNISHED BY STATE HIGHWAY ADMINISTRATION

ITEM NO.	QUANTITY	DESCRIPTION
9570	78 SF	[UPDATED] SHEET ALUMINUM GROUND MOUNTED SIGN
	2 EA	M3-1 (NORTH) - 24"x12"
	2 EA	M3-3 (SOUTH) - 24"x12"
	2 EA	M1-5 (MD 124) - 30"x24"
	2 EA	M1-5 (MD 355) - 30"x24"
	4 EA	M6-2 - 21"x15"
	5 EA	W11-2 - 30"x30"
	4 EA	W16-7pR - 24"x12"
	4 EA	W16-7pL - 24"x12"
9571	189 SF	[UPDATED] SHEET ALUMINUM MAST ARM / POLE MOUNTED SIGN
	2 EA	D-3(1) (Frederick Rd) - VAR.X16" DUAL FACED
	2 EA	D-3(1) (Montgomery Village Ave) - VAR.X16" DUAL FACED
	1 EA	M1-5(6) (SOUTH / MD 124 / <) - 48"x72"
	1 EA	M1-5(6) (NORTH / MD 124 / <) - 48"x72"
	1 EA	M1-5(6) (NORTH / MD 355 / <) - 48"x72"
	2 EA	R3-2 - 30"x30"
	7 EA	R3-5(L) - 30"x36"
	2 EA	R10-3(1) (FREDERICK RD) - 9"x15"
	2 EA	R10-3(1) (MONT. VILLAGE AVE) - 9"x15"

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

ITEM NO.	QUANTITY	DESCRIPTION
1001	3 EA	MAINTENANCE OF TRAFFIC
2001	3 CY	CLASS 2 EXCAVATION
2002	5 CY	TEST PIT EXCAVATION
5003	1175 LF	REMOVAL OF EXISTING PERMANENT PAVEMENT LINE MARKINGS
5004	955 LF	12 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
5005	230 LF	24 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
6001	170 LF	STANDARD TYPE A COMBINATION CURB AND GUTTER 12 INCH GUTTER PAN 8 INCH DEPTH
6002	210 SF	5 INCH CONCRETE SIDEWALK
6003	71 SF	DETECTABLE WARNING SURFACE FOR CURB RAMPS
8001	60 EA	12 INCH LED SIGNAL HEAD SECTION
8002	1 EA	2-WIRE CENTRAL CONTROL UNIT

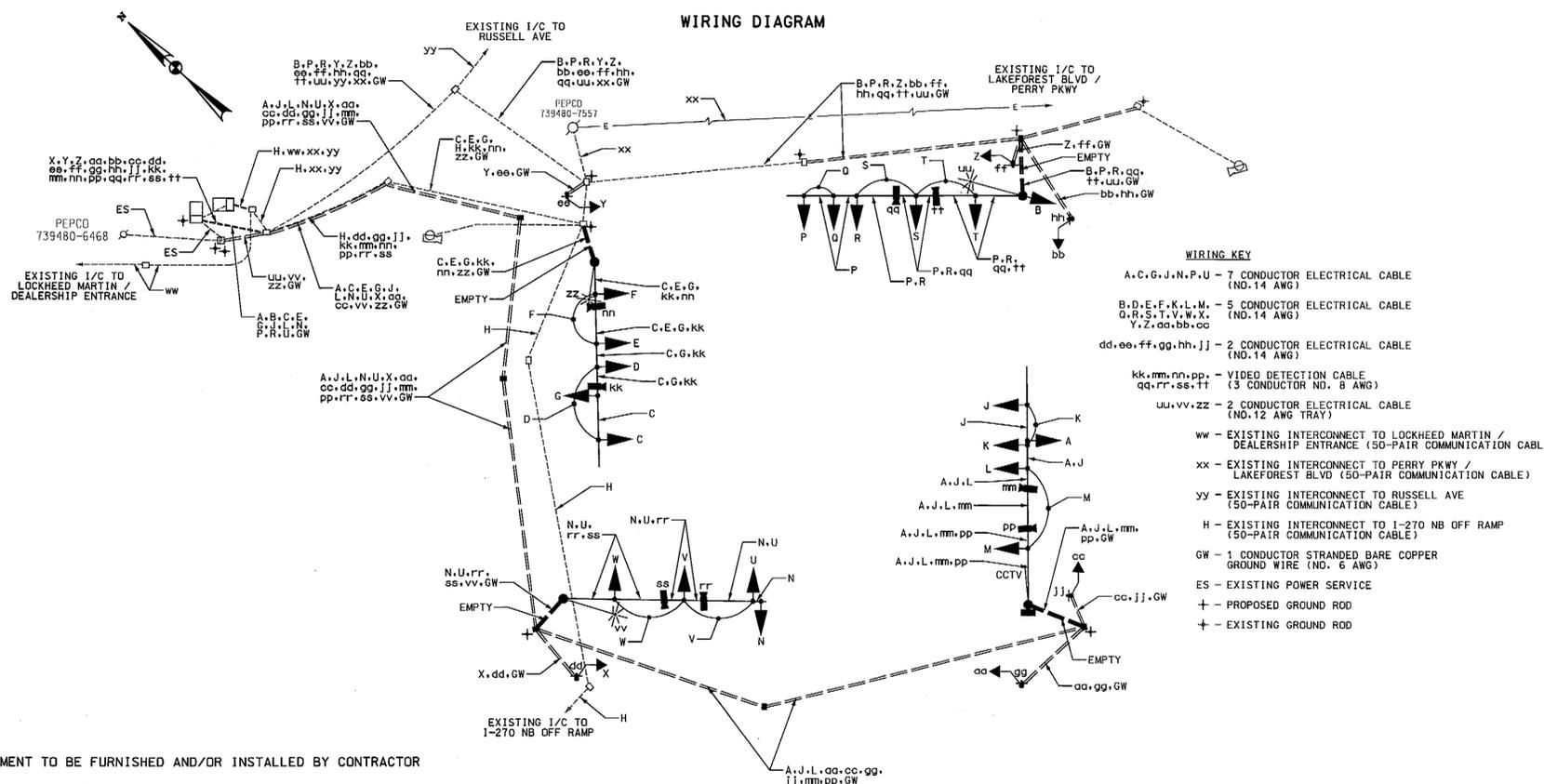
B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY CONTRACTOR

ITEM NO.	QUANTITY	DESCRIPTION
8007	3 EA	ANY SIZE LIGHTING ARM ON SIGNAL POLE WITH 250 WATT HPS LAMP AND LUMINAIRE
8008	6 EA	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION AND SIGNS
8009	6 EA	BREAKAWAY PEDESTAL POLE (ANY SIZE)
8015	6 EA	LED 16 INCH COUNTDOWN PEDESTRIAN SIGNAL HEAD
8019	2 EA	MAST ARM POLE & 60' MAST ARM ANY 'T' DIMENSION
8020	2 EA	MAST ARM POLE & 70' MAST ARM ANY 'T' DIMENSION
8023	1 EA	REMOVE & DISPOSE OF EQUIPMENT (PER ASSIGNMENT)
8028	8 EA	VIDEO DETECTION CAMERA AND CABLE ANY LENGTH
8034	920 LF	ELECTRICAL CABLE - 2-CONDUCTOR (NO. 12 AWG) TYPE T/C
8037	480 LF	UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT-BORED
8038	55 LF	UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT-SLOTTED
8039	305 LF	UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
8040	150 LF	WOOD SIGN SUPPORTS UP TO 4' X 6'
8041	267 SF	INSTALL OVERHEAD OR GROUND MOUNTED SIGN (INCLUDING ALL HARDWARE)
8042	890 SF	REMOVE & RESET DECORATIVE BRICK SIDEWALK
8043	1115 LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8047	6 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8054	2205 LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
8056	3990 LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
8057	2855 LF	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)

C. ALL MATERIALS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE SIGNAL CONTRACTOR UPON COMPLETION OF THE SIGNAL RECONSTRUCT.

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	26
PHASE 1 & 6	G	G	G	G	G	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW
1 CHANGE	Y	G	Y	Y	G	G	R	R	R	R	R	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW
PHASE 2 & 6	R	G	R	R	G	G	R	R	R	R	R	R	R	R	R	R	R	R	R	R	WK	WK	WK	WK	DW	DW
PED CLEARANCE	R	G	R	R	G	G	R	R	R	R	R	R	R	R	R	R	R	R	R	R	FLOW	FLOW	FLOW	FLOW	DW	DW
2 & 6 CHANGE	R	Y	R	R	Y	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW
PHASE 2 & 5	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW
5 CHANGE	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW
PHASE 4 & 7	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW
7 CHANGE	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW
PHASE 4 & 8	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW
4 & 8 CHANGE	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW
PHASE 4 ALT. & 8	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW	WK	WK
PED CLEARANCE	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW	FLOW	FLOW
4 ALT. & 8 CHANGE	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW
FLASHING OPERATION	FLR	FLY	FLR	FLY	FLY	FLY	FLR	FLR	FLR	FLY	FLY	FLR	DARK	DARK	DARK	DARK	DARK	DARK								



**WIRING KEY**

- A.C.G., J.N.P.U - 7 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- B.D.E., F.K.L.M., O.R.S.T.V.W.X, Y.Z., aa.bb.cc - 5 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- dd.ee.ff.gg.hh.ij - 2 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- kk.mm.nn.pp. qq.rr.ss.tt - VIDEO DETECTION CABLE (3 CONDUCTOR NO. 8 AWG)
- uu.vv.zz - 2 CONDUCTOR ELECTRICAL CABLE (NO. 12 AWG TRAY)
- ww - EXISTING INTERCONNECT TO LOCKHEED MARTIN / DEALERSHIP ENTRANCE (50-PAIR COMMUNICATION CABLE)
- xx - EXISTING INTERCONNECT TO PERRY PKWY / LAKEFOREST BLVD (50-PAIR COMMUNICATION CABLE)
- yy - EXISTING INTERCONNECT TO RUSSELL AVE (50-PAIR COMMUNICATION CABLE)
- H - EXISTING INTERCONNECT TO I-270 NB OFF RAMP (50-PAIR COMMUNICATION CABLE)
- GW - 1 CONDUCTOR STRANDED BARE COPPER GROUND WIRE (NO. 6 AWG)
- ES - EXISTING POWER SERVICE
- + - PROPOSED GROUND ROD
- + - EXISTING GROUND ROD

STATE OF MARYLAND  
DEPARTMENT OF TRANSPORTATION  
STATE HIGHWAY ADMINISTRATION  
OFFICE OF TRAFFIC & SAFETY  
TRAFFIC ENGINEERING DESIGN DIVISION  
**MD 355 AT MD 124**  
TRAFFIC SIGNAL RECONSTRUCT  
GANTHERSBURG, MD

**GENERAL INFORMATION SHEET**

SCALE: N.T.S. DATE: AUGUST 19, 2011 CONTRACT NO. XX655185

DESIGNED BY: M. FUKUI COUNTY: MONTGOMERY  
DRAWN BY: M. FUKUI LOGMILE: 15035515.43  
CHECKED BY: K. PERMISOHN TMS NO. K627  
F.A.P. NO. TOD NO.

TS NO. 28-GI DRAWING **SG-03** OF 03 SHEET NO. 03 OF 03

**PARSONS BRINCKERHOFF**  
100 S. Charles Street  
Tower 1, 15th floor  
Baltimore, MD 21201  
(PH) 410.727.4600  
(FAX) 410.727.4606