PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE MODIFICATION OF THE EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 704 (MARTIN LUTHER KING JR. HIGHWAY) AND ADDISON ROAD IN PRINCE GEORGE'S COUNTY, MARYLAND. MODIFICATIONS INCLUDE THE INSTALLATION OF VIDEO DETECTION CAMERAS, LED TRAFFIC SIGNALS, 16 INCH LED COUNTDOWN PEDESTRIAN SIGNAL HEADS, AND AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTONS FOR THE EAST AND WEST LEGS OF MD 704 AND THE NORTH AND SOUTH LEGS OF ADDISON ROAD. MD 704 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL CONTINUE TO OPERATE IN A NEMA SIX-PHASE, SEMI-TRAFFIC-ACTUATED MODE WITH THE MD 704 APPROACHES OPERATING CONCURRENTLY AND THE ADDISON ROAD APPROACHES OPERATING CONCURRENTLY. PROTECTED LEFT-TURN PHASING IS PROVIDED FOR EASTBOUND AND WESTBOUND MD 704.

NEW AUDIBLE PUSHBUTTON ACTUATED PEDESTRIAN PHASES WILL BE PROVIDED ACROSS THE EAST AND WEST LEGS OF MD 704 AND THE NORTH AND SOUTH LEGS OF ADDISON ROAD.

APS MESSAGE FOR CROSSING MD 704 (MARTIN LUTHER KING JR. HIGHWAY) FROM CURBSIDE:

A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL ANNOUNCE "WAIT TO CROSS MARTIN LUTHER KING AT ADDISON, WAIT".

B. WHEN WALK PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.

APS MESSAGE FOR CROSSING ADDISON ROAD:

A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL ANNOUNCE "WAIT TO CROSS ADDISON AT MARTIN LUTHER KING, WAIT".

B. WHEN WALK PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.

CONTROLLER REQUIREMENTS

THE EXISTING NEMA SIZE '6' BASE MOUNTED CABINET AND EIGHT-PHASE CONTROLLER AND ALL ASSOCIATED EQUIPMENT WILL CONTINUE TO BE USED. A 2-WIRE CENTRAL CONTROL UNIT AND VIDEO INTERFACE EQUIPMENT WILL BE ADDED TO THE CABINET.

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY SHA:

ITEM NO.	QUANTITY	UNIT	DESCRIPTION
900000	2	EA	VIDEO INTERFACE EQUIPMENT FOR 1-4 CAMERAS
973023	29	SF	SHEET ALUMINUM SIGNS
			- 2 EACH R3-5L (30"X36") MAST ARM MOUNTED
			- 8 EACH R10-3(1) (9"X15") POLE MOUNTED
			- 1 EACH R10-6 (24"X36") GROUND MOUNTED

EQUIPMENT LIST "C"

C. EQUIPMENT TO BE REMOVED AND RETURNED TO SHA:

ITEM NO.	QUANTITY	UNIT	DESCRIPTION
NONE			

PROJECT CONTACTS

THE CONTACT PERSONS FOR SHA ARE AS FOLLOWS:

MS. FELECIA MURPHY
ASSISTANT DISTRICT ENGINEER - TRAFFIC
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MR. VERNON STINNETT
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
PHONE: (301) 513-7304

MR. ED RODENHIZER
SUPERVISOR - SIGNAL SHOP
PHONE: (410) 787-7650

MR. VICTOR GRAFTON
ASSISTANT DISTRICT ENGINEER - UTILITY
PHONE: (301) 513-7350

MR. ROBERT SNYDER
ASSISTANT CHIEF, TRAFFIC OPERATIONS DIVISION
PHONE: (410) 787-7630

EQUIPMENT LIST "B"

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

ITEM NO.	QUANTITY	UNIT	DESCRIPTION
203030	4	CY	TEST PIT EXCAVATION
585412	1400	LF	12 INCH WHITE LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKING LINES
585424	250	LF	24 INCH WHITE LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKING LINES
800000	8	EA	16 INCH PEDESTRIAN LED SIGNAL HEAD SECTION
800000	1	EA	2 WIRE CENTRAL CONTROL UNIT
800000	8	EA	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION AND SIGNS
800000	5	EA	VIDEO DETECTION CAMERA AND CABLE
800000	1	LS	REMOVE AND DISPOSE OF EXISTING EQUIPMENT
801004	8	CY	CONCRETE FOR SIGNAL FOUNDATION
801106	15	LF	WOOD SIGN SUPPORTS 4 INCH X 6 INCH
801605	29	SF	SHEET ALUMINUM SIGNS
801706	15	SF	REMOVE SIGNS FROM EXISTING OVERHEAD STRUCTURE
802501	850	LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
805125	100	LF	2 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
805135	600	LF	3 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
805140	300	LF	4 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
805150	200	LF	3 INCH SCHEDULE 80 RIGID PVC CONDUIT-SLOTTED
805155	300	LF	4 INCH SCHEDULE 80 RIGID PVC CONDUIT-SLOTTED
810550	2	EA	MICROLOOP PROBE, 500 FOOT LEAD IN CABLE
810555	3	EA	MICROLOOP PROBE, 1000 FOOT LEAD IN CABLE
811001	15	EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
811002	5	EA	REMOVE ELECTRICAL HANDHOLE
813014	14	SF	INSTALL GROUND MOUNTED SIGN
813015	15	SF	INSTALL OVERHEAD SIGN
813022	2	SF	REMOVE EXISTING GROUND MOUNTED SIGNS
818004	8	EA	10 FOOT BREAKAWAY PEDESTAL POLE
837001	6	EA	GROUND ROD - 3/4 INCH DIAMETER X 10 FOOT LENGTH
860284	48	EA	12 INCH VEHICULAR TRAFFIC LED SIGNAL HEAD SECTION
861105	2400	LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
861107	2600	LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
861108	3200	LF	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)

WIRING DIAGRAM

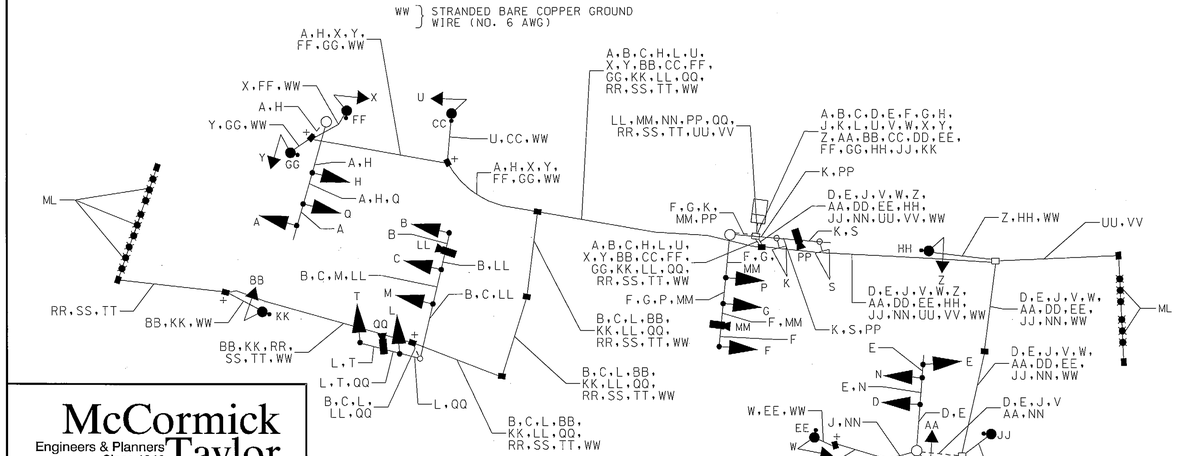
PROPOSED ELECTRICAL CABLE

- A,B,C, D,E,F,G, H,J,K,L — 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- M,N,P,Q,R, S,T,U,V,W, X,Y,Z,AA,BB — 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- CC,DD,EE, FF,GG,HH, JJ,KK — 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- LL,MM,NN, PP,QQ — VIDEO DETECTION LEAD-IN CABLE
- RR,SS,TT — MICROLOOP LEAD-IN CABLE (1000 FT.)
- UU,VV — MICROLOOP LEAD-IN CABLE (500 FT.)
- WW — STRANDED BARE COPPER GROUND WIRE (NO. 6 AWG)

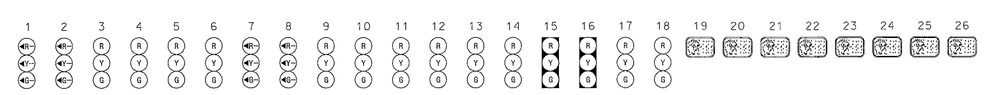
LEGEND

ML - MICROLOOP PROBE

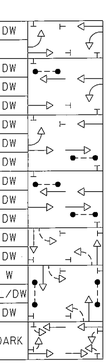
\+ - 3/4 IN. X 10 FT. GROUND ROD



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 + 5	←G—	←G—	R	R	R	R	←G—	←G—	R	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
1 + 5 CHANGE	1 + 5 MAY CHANGE TO PHASE 1 + 6, PHASE 2 + 5, OR PHASE 2 + 6																									
PHASE 1 + 6	←R—	←R—	R	R	R	R	←G—	←G—	G	G	G	G	R	R	R	R	R	R	W	DW	DW	W	DW	DW	DW	DW
PED CLEARANCE	←R—	←R—	R	R	R	R	←G—	←G—	G	G	G	G	R	R	R	R	R	R	FL/DW	DW	DW	FL/DW	DW	DW	DW	DW
1 + 6 CHANGE	←R—	←R—	R	R	R	R	←Y—	←Y—	Y	Y	Y	Y	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 2 + 5	←G—	←G—	G	G	G	G	←R—	←R—	R	R	R	R	R	R	R	R	R	R	DW	W	W	DW	DW	DW	DW	DW
PED CLEARANCE	←G—	←G—	G	G	G	G	←R—	←R—	R	R	R	R	R	R	R	R	R	R	DW	FL/DW	FL/DW	DW	DW	DW	DW	DW
2 + 5 CHANGE	←Y—	←Y—	G	G	G	G	←R—	←R—	R	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 2 + 6	←R—	←R—	G	G	G	G	←R—	←R—	G	G	G	G	R	R	R	R	R	R	W	W	W	W	DW	DW	DW	DW
PED CLEARANCE	←R—	←R—	G	G	G	G	←R—	←R—	G	G	G	G	R	R	R	R	R	R	FL/DW	FL/DW	FL/DW	FL/DW	DW	DW	DW	DW
2 + 6 CHANGE	←R—	←R—	Y	Y	Y	Y	←R—	←R—	Y	Y	Y	Y	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 4 + 8	←R—	←R—	R	R	R	R	←R—	←R—	R	R	R	R	G	G	G	G	G	G	DW	DW	DW	DW	DW	DW	DW	DW
4 + 8 CHANGE	←R—	←R—	R	R	R	R	←R—	←R—	R	R	R	R	Y	Y	Y	Y	Y	Y	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 4 + 8 ALT	←R—	←R—	R	R	R	R	←R—	←R—	R	R	R	R	G	G	G	G	G	G	DW	DW	DW	DW	W	W	W	W
PED CLEARANCE	←R—	←R—	R	R	R	R	←R—	←R—	R	R	R	R	G	G	G	G	G	G	DW	DW	DW	DW	FL/DW	FL/DW	FL/DW	FL/DW
4 + 8 ALT CHANGE	←R—	←R—	R	R	R	R	←R—	←R—	R	R	R	R	Y	Y	Y	Y	Y	Y	DW	DW	DW	DW	DW	DW	DW	DW
FLASHING OPERATION	FL/R	FL/R	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	DARK	DARK	DARK	DARK	DARK	DARK	DARK	DARK



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STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION

MD 704 (MARTIN LUTHER KING JR. HIGHWAY) AND ADDISON ROAD SEAT PLEASANT, MARYLAND

GENERAL INFORMATION

SCALE NOT TO SCALE DATE JULY, 31 2012 CONTRACT NO. PG6995176

DESIGNED BY NJM COUNTY PRINCE GEORGE'S
DRAWN BY NJM LOGMILE 16070400.22
CHECKED BY BSH T.I.M.S. NO. I.602 ~~K509~~
F.A.P. NO. SEE TITLE SHEET TOD NO.

TS NO. 584E-GI SG-02 OF SG-03 SHEET NO. 71 OF 98

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