PROJECT DESCRIPTION

GENERAL

THIS PORTION OF THE PROJECT INVOLVES MODIFICATION OF THE EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 212 (POWDER MILL ROAD) AND CHERRY HILL ROAD IN PRINCE GEORGE'S COUNTY. MD 212 IS ASSUMED TO RUN IN AN EAST/WEST DIRECTION.

INTERSECTION OPERATION

THE ULTIMATE SIGNAL WILL OPERATE IN A NEMA EIGHT-PHASE, FULLY-ACTUATED MODE WITH THE MD 212 APPROACHES OPERATING CONCURRENTLY AND THE CHERRY HILL ROAD APPROACHES OPERATING CONCURRENTLY.

EXCLUSIVE LEADING LEFT-TURN PHASES EXIST FOR BOTH EASTBOUND AND WESTBOUND MD 212.

EXCLUSIVE LEADING LEFT-TURN PHASES EXIST FOR BOTH NORTHBOUND AND SOUTHBOUND CHERRY HILL ROAD.

PEDESTRIAN PHASES CROSSING CHERRY HILL ROAD SHALL OPERATE CONCURRENTLY WITH THE SAME-SIDE THROUGH MOVEMENT ON MD 212 APPROACHES (EB & WB). ALTERNATE PEDESTRIAN PHASES CROSSING MD 212 MAY OPERATE CONCURRENTLY WITH THE SAME-SIDE THROUGH MOVEMENT ON CHERRY HILL ROAD (NB & SB).

CONTROLLER REQUIREMENTS

THE EXISTING BASE MOUNTED CABINET AND CONTROLLER WILL BE USED.

MAINTENANCE OF TRAFFIC

THE FOLLOWING TRAFFIC CONTROL STANDARDS SHALL BE REFERENCED FOR THE PROJECT.

STANDARD NO. MD-104.00 - 104.00-12

STANDARD NO. MD-104.43-01 (SHOULDER WORK)

STANDARD NO. MD-104.37-01 (LEFT-LANE CLOSURE)

STANDARD NO. MD-104.38-01 (RIGHT-LANE CLOSURE)

PROJECT CONTACTS

THE CONTACT PERSONS FOR SHA ARE AS FOLLOWS:

MR. MAJIB SHAKIB
ASSISTANT DISTRICT ENGINEER - TRAFFIC (PRINCE GEORGES COUNTY)
PHONE: (301) 513-7358

MR. RANDY BROWN
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
PHONE: (301) 513-7304

MR. AUGIE REBISH
DISTRICT UTILITIES ENGINEER
PHONE: (301) 513-7350

MR. RICHARD L. DAFF, SR.
CHIEF, TRAFFIC OPERATIONS DIVISION
PHONE: (410) 787-7630

EQUIPMENT LIST

A. EQUIPMENT TO BE SUPPLIED BY THE ADMINISTRATION.

CATEGORY CODE NO.	QUANTITY	DESCRIPTION
900000	1 EACH	10' BREAKAWAY PEDESTAL POLE & BASE
900000	4 EACH	12" PEDESTRIAN SIGNAL HEAD SECTION POLE MOUNT
900000	4 EACH	12" PEDESTRIAN SIGNAL HEAD SECTION POLE MOUNT
965001	2 EACH	PEDESTRIAN PUSHBUTTON AND SIGN
973023	15 S.F.	R10-11a "NO TURN ON RED" SIGN 24" X 30" (3-EACH)

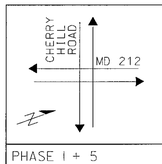
B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

CATEGORY CODE NO.	QUANTITY	DESCRIPTION
585412	970 L.F.	12" WHITE LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKING
585424	210 L.F.	24" WHITE LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKING
801004	2 C.Y.	CONCRETE FOR SIGNAL FOUNDATION
813015	15 S.F.	INSTALL OVERHEAD SIGN
805135	80 L.F.	2 INCH SCHEDULE 80 RIGID CONDUIT - TRENCHED
811001	2 EACH	FURNISH AND INSTALL HANDHOLE
832020	20 L.F.	BARE COPPER GROUND WIRE, NO. 6 AWG
837001	1 EACH	GROUND ROD - 3/4 INCH DIAMETER X 10 FOOT LENGTH
861105	600 L.F.	ELECTRICAL CABLE 2 CONDUCTOR (NO. 14 A.W.G.)
861106	70 L.F.	ELECTRICAL CABLE 3 CONDUCTOR (NO. 14 A.W.G.)
861107	680 L.F.	ELECTRICAL CABLE 5 CONDUCTOR (NO. 14 A.W.G.)
862101	1860 L.F.	LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO. 14 A.W.G)
862102	310 L.F.	SAW CUT FOR SIGNAL (LOOP DETECTOR)
805011	20 L.F.	1 INCH ELECTRICAL CONDUIT-GALVANIZED SLEEVE
800000	1 EACH	INSTALL 10 FOOT BREAKAWAY PEDESTAL POLE & BASE
860263	2 EACH	INSTALL 12 IN PEDESTAL SIGNAL HEAD - POLE MOUNT
860264	2 EACH	INSTALL 12 IN PEDESTAL SIGNAL HEAD - PEDESTAL MOUNT
865201	2 EACH	INSTALL PUSHBUTTON AND SIGN
800000	LUMP SUM	REMOVAL & DISPOSAL OF SIGNAL MATERIAL & EQUIPMENT

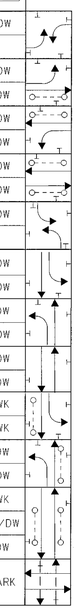
C. MATERIALS TO BE REMOVED BY THE CONTRACTOR

ALL MATERIAL THAT IS REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

PHASE CHART

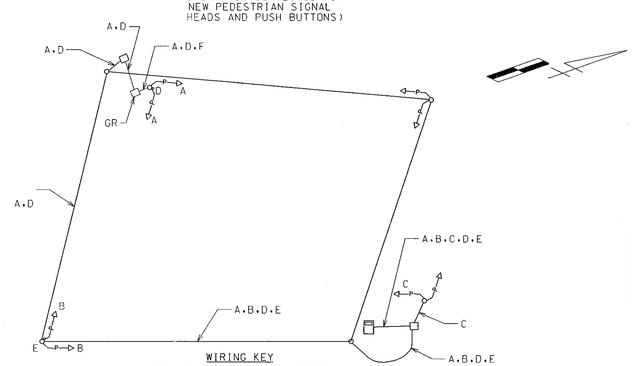


	TRAFFIC SIGNALS BY MOVEMENT																		PEDESTRIAN SIGNALS BY APPROACH CROSSING							
	212 EB LEFT			212 EB THROUGH		212 WB LEFT		212 WB THROUGH		CHERRY HILL NB LEFT		CHERRY HILL NB THROUGH		CHERRY HILL SB LEFT			CHERRY HILL SB THROUGH		CHERRY HILL SOUTHBOUND		212 WESTBOUND		CHERRY HILL NORTHBOUND		212 EASTBOUND	
	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—	←G—	R	R	←G—	←G—	R	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	←G—	←G—	←G—	G	G	R	R	R	R	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW	WK	WK	DW	DW
1 + 6 CHANGE	←Y—	←Y—	←Y—	G	G	R	R	R	R	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW	WK	WK	DW	DW
PHASE 2 + 5	R	R	R	R	R	←G—	←G—	G	G	R	R	R	R	R	R	R	R	R	WK	WK	DW	DW	DW	DW	DW	DW
2 + 5 CHANGE	R	R	R	R	R	←Y—	←Y—	G	G	R	R	R	R	R	R	R	R	R	WK	WK	DW	DW	DW	DW	DW	DW
PHASE 2 + 6	R	R	R	G	G	←R—	←R—	G	G	R	R	R	R	R	R	R	R	R	WK	WK	DW	DW	WK	WK	DW	DW
PED. CLEARANCE	R	R	R	G	G	←R—	←R—	G	G	R	R	R	R	R	R	R	R	R	FL/DW	FL/DW	DW	DW	FL/DW	FL/DW	DW	DW
PHASE 3 + 7	R	R	R	R	R	←R—	←R—	R	R	←G—	←G—	R	R	←G—	←G—	←G—	R	R	DW	DW	DW	DW	DW	DW	DW	DW
3 + 7 CHANGE	3 + 7 MAY CHANGE TO PHASE 3 + 8, PHASE 4 + 7, PHASE 4 + 8, PHASE 3 + 8 ALT, PHASE 4 ALT + 7 OR PHASE 4 ALT + 8 ALT																									
PHASE 3 + 8	R	R	R	R	R	←R—	←R—	R	R	R	R	R	R	←G—	←G—	←G—	G	G	DW	DW	DW	DW	DW	DW	DW	DW
3 + 8 CHANGE	R	R	R	R	R	←R—	←R—	R	R	R	R	R	R	←Y—	←Y—	←Y—	G	G	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 4 + 7	R	R	R	R	R	←R—	←R—	R	R	←G—	←G—	G	G	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
4 + 7 CHANGE	R	R	R	R	R	←R—	←R—	R	R	←Y—	←Y—	G	G	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	G	G	R	R	R	G	G	DW	DW	DW	DW	DW	DW	DW	DW
4 + 8 CHANGE	R	R	R	R	R	←R—	←R—	R	R	R	R	Y	Y	R	R	R	Y	Y	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 3 + 8 ALT	R	R	R	R	R	←R—	←R—	R	R	R	R	R	R	←G—	←G—	←G—	G	G	DW	DW	DW	DW	DW	DW	WK	WK
3 + 8 ALT CHANGE	R	R	R	R	R	←R—	←R—	R	R	R	R	R	R	←Y—	←Y—	←Y—	G	G	DW	DW	DW	DW	DW	DW	WK	WK
PHASE 4 ALT + 7	R	R	R	R	R	←R—	←R—	R	R	←G—	←G—	G	G	R	R	R	R	R	DW	DW	WK	WK	DW	DW	DW	DW
4 ALT + 7 CHANGE	R	R	R	R	R	←R—	←R—	R	R	←Y—	←Y—	G	G	R	R	R	R	R	DW	DW	WK	WK	DW	DW	DW	DW
PHASE 4 ALT + 8 ALT	R	R	R	R	R	←R—	←R—	R	R	R	R	G	G	R	R	R	G	G	DW	DW	WK	WK	DW	DW	WK	WK
PED. CLEARANCE	R	R	R	R	R	←R—	←R—	R	R	R	R	G	G	R	R	R	G	G	DW	DW	FL/DW	FL/DW	DW	DW	FL/DW	FL/DW
4 ALT + 8 ALT CHANGE	R	R	R	R	R	←R—	←R—	R	R	R	R	Y	Y	R	R	R	Y	Y	DW	DW	DW	DW	DW	DW	DW	DW
FLASHING OPERATION	FL/R	FL/R	FL/R	FL/Y	FL/Y	←FL/R—	←FL/R—	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	DARK	DARK	DARK	DARK	DARK	DARK	DARK	DARK



WIRING DIAGRAM

(ONLY PROPOSED WIRING SHOWN FOR CONNECTION OF NEW PEDESTRIAN SIGNAL HEADS AND PUSH BUTTONS)



WIRING KEY

A,B - 5 CONDUCTOR ELECTRICAL CABLE (No. 14 AWG) FOR 2-WAY PEDESTRIAN SIGNAL

C - 3 CONDUCTOR ELECTRICAL CABLE (No. 14 AWG) FOR 1-WAY PEDESTRIAN SIGNAL

D,E - 2 CONDUCTOR ELECTRICAL CABLE (No. 14 AWG) FOR PEDESTRIAN PUSHBUTTON

F - BARE COPPER GROUND WIRE (No. 6 AWG)

GR - GROUND ROD

TRAFFIC SIGNAL (GP-02)

REVISIONS

(E) PED SIGNAL MODIFICATIONS PG4695171 5-15-03

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION

MD 212 (POWDER MILL RD) & CHERRY HILL RD
GENERAL INFORMATION SHEET

DRAWN BY: RKG	F.A.P. NO. SEE TITLE SHEET	TS NO. 1923E	SHEET NO.
CHECKED BY: TAP	S.H.A. NO. PG4695171		
SCALE: 1"=20'	COUNTY: PRINCE GEORGE'S	T.I.M.S. NO. F653	32 OF 40
DATE: 27 FEB 2003	LOG MILE: MD 212 MP 6.87		