PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE MODIFICATION OF THE EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 41 (PERRING PARKWAY) AND McCLEAN BLVD / HILLSWAY AVE. IN BALTIMORE COUNTY.
MD 41 IS ASSUMED TO RUN IN A NORTH–SOUTH DIRECTION.

THE WORK WILL CONSIST OF REPLACING THE STANDARD PEDESTRIAN SIGNALS WITH COUNTDOWN PEDESTRIAN SIGNALS AND INSTALLING NEW AUDIBLE–TACTILE PEDESTRIAN PUSHBUTTON STATIONS FOR THE EXISTING CROSSINGS. ADDITIONAL WORK WILL INCLUDE REPLACING THE EXISTING VEHICLE SIGNAL INDICATIONS WITH BLACK FACE L.E.D. INDICATIONS, REPLACING SUB–STANDARD SIDEWALK RAMPS AND INSTALLING VIDEO DETECTION.

INTERSECTION OPERATION

THE INTERSECTION OPERATES IN A NEMA EIGHT–PHASE, SEMI–ACTUATED MODE WITH EXCLUSIVE–PERMISSIVE LEFT TURN PHASES FOR ALL APPROACHES. ALTERNATE PEDESTRIAN PEDESTRIAN PHASES EXIST ACROSS BOTH LEGS OF MD 41 AND CONCURRENT PEDESTRIAN PHASES EXIST ACROSS THE McCLEAN BLVD. AND HILLSWAY AVE. APPROACHES.

APS NOTES

TO CROSS MD 41

A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL BE "WAIT TO CROSS PERRING PARKWAY AT McCLEAN BLVD/HILLSWAY AVE."
B. WHEN WALK PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK, WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE

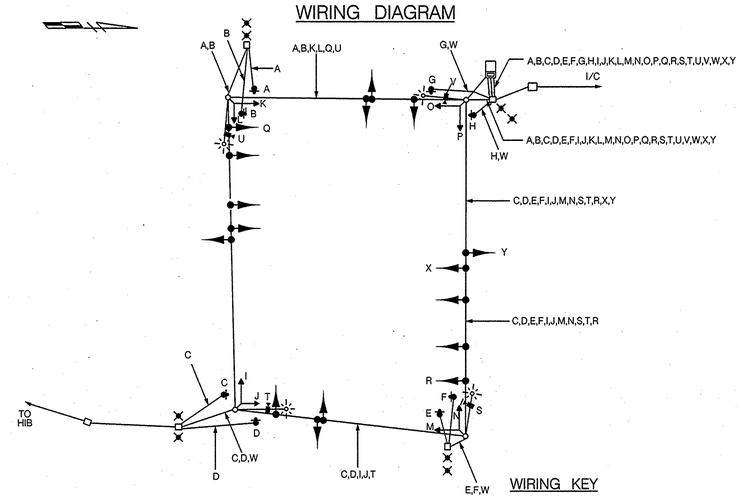
TO CROSS McCLEAN BLVD.

A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL BE "WAIT TO CROSS McCLEAN BLVD. AT PERRING PARKWAY."
B. WHEN WALK PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK, WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE

TO CROSS HILLSWAY AVE.

A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL BE "WAIT TO CROSS HILLSWAY AVE. AT PERRING PARKWAY."
B. WHEN WALK PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK, WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE

WIRING DIAGRAM



WIRING KEY

A–H	2–CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
I–R	5–CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
S–V	VIDEO DETECTION CABLE
W	STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
X–Y	7–CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
✕	GROUND ROD
I/C	INTERCONNECT CABLE

PROJECT CONTACTS

CONTACT PERSONS FOR DISTRICT 4 ARE AS FOLLOWS:

MR. ERIN KUHN
ASSISTANT DISTRICT ENGINEER – TRAFFIC
(410) 321–2781

MR. ANDRE FUTRELL
ASSISTANT DISTRICT ENGINEER – MAINTENANCE
(410) 321–2761

MR. MICHAEL PASQUARIELLO
ASSISTANT DISTRICT ENGINEER – UTILITIES
(410) 321–2841

CONTACTS FOR OFFICE OF TRAFFIC AND SAFETY

MR. RICHARD DAFF, SR.
CHIEF, TRAFFIC OPERATIONS
(410) 787–7630

MR. EUGENE BAILEY
TEAM LEADER SIGN OPERATIONS
(410) 787–7676

MR. ROBERT SNYDER
ASSISTANT DIVISION CHIEF,
TRAFFIC OPERATIONS
(410) 787–7631

MS. DARLENE EIDE
SUPPLY OFFICE
SIGNAL SHOP WAREHOUSE
(410) 787–7668

MR. ED RODENHIZER
TEAM LEADER SIGNAL OPERATIONS
(410) 787–7652

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE FURNISHED BY THE SHA AND INSTALLED BY THE CONTRACTOR

CATEGORY CODE NO.	QUANTITY	DESCRIPTION
973023	8 EA	SHEET ALUMINUM SIGNS TO CONSIST OF THE FOLLOWING: – 8 EACH R10–3(I) SIGN (9" X 15") – GROUND MOUNT

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY CONTRACTOR. ALL EQUIPMENT SHALL HAVE CATALOG CUTS SUBMITTED TO THE OFFICE OF TRAFFIC AND SAFETY FOR APPROVAL PRIOR TO INSTALLATION.

ITEM NO.	QUANTITY	DESCRIPTION
1001	1 EA	MAINTENANCE OF TRAFFIC
2001	42 CY	CLASS II EXCAVATION
2002	8 CY	TEST PIT EXCAVATION
5003	180 LF	24 IN. LEAD FREE THERMOPLASTIC PAVEMENT MARKINGS
6001	490 LF	STANDARD TYPE A COMBINATION CURB AND GUTTER 12 IN. GUTTER PAN 8 IN. DEPTH
6002	1200 SF	5 IN. CONCRETE SIDEWALK
8001	50 EA	12 IN. (R,Y,G) LED SIGNAL HEAD SECTION
8003	1 EA	2–WIRE CONTROL UNIT
8007	6 EA	8 IN. (R,Y,G) LED SIGNAL HEAD SECTION
8008	3 EA	ADJUST AND RE–RING EXISTING SPAN WIRE (EACH SPAN)
8010	8 EA	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION AND SIGNS
8014	8 EA	LED 16 IN. COUNTDOWN PEDESTRIAN SIGNAL
8017	1 EA	REMOVE AND DISPOSE OF EQUIPMENT (PER ASSIGNMENT)
8028	200 LF	UP TO 4 IN. SCHEDULE 80 RIGID PVC CONDUIT – TRENCHED
8029	310 ~~265~~ SF	DETECTABLE WARNING SURFACE (BRICK)
8030	9 SF	RELOCATE EXISTING SIGN
8032	15 LF	WOOD SIGN SUPPORTS 4 IN. X 4 IN.
8034	70 LF	NO.6 AWG STRANDED BARE COPPER GROUND WIRE
8046	8 SF	INSTALL OVERHEAD SIGN
8048	4 EA	VIDEO DETECTION CAMERA AND CABLE UP TO 500 FT
8054	8 EA	CUT, CLEAN, GALVENIZE AND CAP TRAFFIC SIGNAL STRUCTURE
8056	1800 LF	ELECTRICAL CABLE 2–CONDUCTOR (NO. 14 A.W.G.)
8058	1900 LF	ELECTRICAL CABLE 5–CONDUCTOR (NO. 14 A.W.G.)
8059	250 LF	ELECTRICAL CABLE 7–CONDUCTOR (NO. 14 A.W.G.)

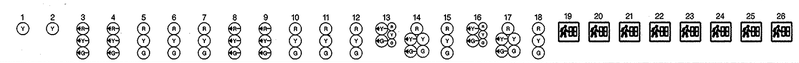
EQUIPMENT LIST "C"

C. EXISTING EQUIPMENT TO BE REMOVED BY THE CONTRACTOR AND DELIVERED TO THE STATE HIGHWAY ADMINISTRATION, 7491 CONNELLEY DRIVE, HANOVER, MARYLAND 21076. THE CONTRACTOR SHALL NOTIFY THE SHA AT (410) 787–7652 AT LEAST THREE DAYS IN ADVANCE OF DELIVERY.

ITEM NO.	QUANTITY	DESCRIPTION
NONE		

ALL SIGNAL EQUIPMENT TO BE REMOVED AND NOT RETURNED TO THE SHA SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

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	FLY	FLY	←G—	←G—	R	R	R	←G—	←G—	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
1 & 5 CHANGE	PHASE 1 & 5 MAY CHANGE TO PHASE 1 & 6, 2 & 5, OR 2 & 6																									
PHASE 1 & 6	FLY	FLY	←G—	←G—	G	G	G	R	R	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
1 & 6 CHANGE	FLY	FLY	←Y—	←Y—	G	G	G	R	R	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 2 & 5	FLY	FLY	←R—	←R—	R	R	R	←G—	←G—	G	G	G	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
2 & 5 CHANGE	FLY	FLY	←R—	←R—	R	R	R	←Y—	←Y—	G	G	G	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 2 ALT & 6	FLY	FLY	←R—	←R—	G	G	G	←R—	←R—	G	G	G	R	R	R	R	R	R	FL–WK	FL–WK	FL–WK	FL–WK	DW	DW	DW	DW
PED CLEAR	FLY	FLY	←R—	←R—	G	G	G	←R—	←R—	G	G	G	R	R	R	R	R	R	FL–DW	FL–DW	FL–DW	FL–DW	DW	DW	DW	DW
2 ALT & 6 CHANGE	FLY	FLY	←R—	←R—	Y	Y	Y	←R—	←R—	Y	Y	Y	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 3 & 7	FLY	FLY	←R—	←R—	R	R	R	←R—	←R—	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
3 & 7 CHANGE	PHASE 3 & 7 MAY CHANGE TO PHASE 3 & 8, 4 & 7, OR 4 & 8																									
PHASE 3 & 8	FLY	FLY	←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	FLY	FLY	←R—	←R—	R	R	R	←R—	←R—	R	R	R	R	R	R	G ←Y—	G ←Y—	G	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 4 & 7	FLY	FLY	←R—	←R—	R	R	R	←R—	←R—	R	R	R	G ←G—	G ←G—	G	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
4 & 7 CHANGE	FLY	FLY	←R—	←R—	R	R	R	←R—	←R—	R	R	R	G ←Y—	G ←Y—	G	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 4 & 8	FLY	FLY	←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	FLY	FLY	←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	FLY	FLY	←R—	←R—	R	R	R	←R—	←R—	R	R	R	G	G	G	G	G	G	DW	DW	DW	FL–WK	FL–WK	FL–WK	FL–WK	FL–WK
PED CLEAR	FLY	FLY	←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	FLY	FLY	←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	FLY	FLY	FLR	FLR	FLY	FLY	FLY	FLR	FLR	FLY	FLY	FLY	FLR	FLR	FLR	FLR	FLR	FLR	DARK	DARK	DARK	DARK	DARK	DARK	DARK	DARK

TOD NO:XX448-01
SHA NO:BA838A51/B51
MD 41@MCCLEAN
BLVD/HILLSWAYS AVE

TRAFFIC CONCEPTS, INC.
325 Gambrills Road
Suite E
Gambrills, MD 21054
(410) 923–7101
FAX: (410) 923–6473
EMAIL: TRAFFIC@TRAFFIC–CONCEPTS.COM

SHA
STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION

GENERAL INFORMATION PLAN 2

MD 41 (PERRING PKWY) AND McCLEAN BLVD/HILLSWAY AVE

SCALE NONE DATE 4–15–08 CONTRACT NO. XX4485185

DESIGNED BY T. ZAYDEL
DRAWN BY T. ZAYDEL
CHECKED BY K. SCHMID
F.A.P. NO. N/A
COUNTY BALTIMORE
LOGMILE 03004100.14
T.I.M.S. NO. I– 607
TOD NO.

DRAWING NO. TS–849E GI 2
SHEET NO. 3 OF 3

FILE PATH: L:\1000\1039\Task 115 – MD 41\DNG\signalV8.dgn
DATE: Wednesday, April 16, 2008 AT 10:00 AM

DRILL HOLES
DRILL HOLES
DRILL HOLES