

PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE INSTALLATION OF A PEDESTRIAN ACTIVATED SIGNAL AND MODIFICATION OF THE EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTIONS OF U.S. 40 (W. PATRICK STREET) AND WAVERLY DRIVE AND THE MODIFICATION OF THE EXISTING TRAFFIC CONTROL SIGNAL AT U.S. 40 (WEST PATRICK STREET) AND U.S. 40 ALT. (OLD NATIONAL PIKE) IN FREDERICK COUNTY, MARYLAND. U.S. 40 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

INTERSECTION OPERATION

U.S. 40 AND WAVERLY DRIVE

THE INTERSECTION OPERATION WILL REMAIN THE SAME.

AN ALTERNATE PEDESTRIAN PHASE WILL BE PROVIDED ACROSS U.S. 40.

U.S. 40 AND U.S. 40 ALT.

THE INTERSECTION OPERATION WILL REMAIN THE SAME.

PEDESTRIAN INDICATIONS WILL BE PROVIDED ACROSS U.S. 40 ALT.

TYPICAL MESSAGES FOR ACCESSIBLE PED SIGNALS

U.S. 40 (WEST PATRICK STREET) AND WAVERLY DRIVE

1. U.S. 40 (WEST PATRICK STREET) AND WAVERLY DRIVE - WEST LEG

TYPICAL INTERSECTION, STREETS AT 90 DEGREES

WAIT: "WAIT TO CROSS PATRICK AT WAVERLY" *

WALK: RAPID TICK

2. WAVERLY DRIVE AND U.S. 40 (WEST PATRICK STREET) - NORTH LEG

TYPICAL INTERSECTION, STREETS AT 90 DEGREES

WAIT: "WAIT TO CROSS WAVERLY AT PATRICK" *

WALK: RAPID TICK

U.S. 40 (WEST PATRICK STREET) AND U.S. 40 ALT. (OLD NATIONAL PIKE)

1. U.S. 40 ALT. (OLD NATIONAL PIKE) AND U.S. 40 (WEST PATRICK STREET) - SOUTH LEG

TYPICAL INTERSECTION, STREETS AT 90 DEGREES

WAIT: "WAIT TO CROSS OLD NATIONAL PIKE AT PATRICK." *

WALK: RAPID TICK

* MESSAGE USED IF DISTANCE FROM NEAREST PUSHBUTTON FOR PERPENDICULAR CROSSING IS < 10'

** MESSAGE USED IF CROSSWALK DIVERGES FROM OR CONVERGES WITH PARALLEL TRAFFIC

NOTE: MESSAGES FOR INTERSECTION CONFIGURATIONS, VARYING FROM THE ABOVE ARE TO BE APPROVED BY THE DIRECTOR, OFFICE OF TRAFFIC AND SAFETY.

CONTROLLER REQUIREMENTS

THE EXISTING BASE MOUNTED CABINET AND CONTROLLER WILL USED AT EACH INTERSECTION.

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY THE SHA

ITEM NO.	QUANTITY	DESCRIPTION
9086	1 EACH	VIDEO INTERFACE EQUIPMENT: 1-4 CAMERAS
9571	84 S.F.	SHEET ALUMINUM SIGNS TO CONSIST OF :
		- 1 EACH W3-3(2) SIGN (120" X 60") - MAST ARM MOUNT
		- 1 EACH W11-2 SIGN (30" X 30") - MAST ARM MOUNT
		- 1 EACH R10-6a SIGN (24" X 30") - GROUND MOUNT
		- 2 EACH R10-3(1) SIGN (9 IN. X 15 IN.) TO READ "PUSHBUTTON TO CROSS WEST PATRICK ST."
		- 3 EACH R10-3(1) SIGN (9 IN. X 15 IN.) TO READ "PUSHBUTTON TO CROSS WAVERLY DRIVE"
		- 2 EACH R10-3(1) SIGN (9 IN. X 15 IN.) TO READ "PUSHBUTTON TO CROSS OLD NATIONAL PIKE"
		- 1 EACH W4-3(R) SIGN (36" X 36") - GROUND MOUNT
		- 1 EACH R5-1 SIGN (30" X 30") - GROUND MOUNT

EQUIPMENT LIST "C"

C. EQUIPMENT TO BE REMOVED AND RETURNED TO SHA

ALL REMOVED SIGNAL MATERIALS SHALL BECOME PROPERTY OF THE CONTRACTOR

MAINTENANCE OF TRAFFIC

THE FOLLOWING TRAFFIC CONTROL STANDARDS SHALL BE REFERENCED FOR THE PROJECT. ADDITIONAL TRAFFIC CONTROL STANDARDS MAY BE USED AS DIRECTED BY THE ENGINEER.

STANDARD NO. MD-104.04-01 (SHOULDER WORK)	STANDARD NO. MD-104.04-13 (LEFT TURN BAY CLOSURE)
STANDARD NO. MD-104.04-03 (LEFT LANE CLOSURE)	STANDARD NO. MD-104.04-15 (INTERSECTION LEFT LANE, TURN BAY)
STANDARD NO. MD-104.04-05 (RIGHT LANE CLOSURE)	

PROJECT CONTACTS

THE CONTACT PERSONS FOR SHA ARE AS FOLLOWS:

MR. JOHN CONCANNON
ASSISTANT DISTRICT ENGINEER - TRAFFIC
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MS. ANDREA ABEND
DISTRICT UTILITY ENGINEER
PHONE: (301) 624-8115/8116

MR. RAY JOHNSON
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
PHONE: (301) 624-8105

MR. RICHARD L. DAFF, SR.
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	DESCRIPTION
1003	1 EACH	MAINTENANCE OF TRAFFIC
2001	8 C.Y.	CLASS 2 EXCAVATION
2002	8 C.Y.	TEST PIT EXCAVATION
5005	15 L.F.	REMOVAL OF EXISTING PERMANENT PAVEMENT LINE MARKINGS - ANY WIDTH
5006	515 L.F.	12 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
5007	20 L.F.	24 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
6002	2115 S.F.	5 INCH CONCRETE SIDEWALK
6003	100 S.F.	DETECTABLE WARNING SURFACES
8001	2 EACH	2 WIRE CENTRAL CONTROL UNIT
8003	2 EACH	8 INCH LED SIGNAL HEAD SECTION
8004	1 EACH	ADJUST EXISTING HANDHOLE TO GRADE INCLUDING COLLAR
8007	7 EACH	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION & SIGNS
8008	6 EACH	BREAKAWAY PEDESTAL POLE (ANY SIZE)
8013	6 EACH	LED 16 INCH COUNTDOWN PEDESTRIAN SIGNAL HEADS
8015	1 EACH	MAST ARM POLE & 38 FT. MAST ARM ANY 'T' DIMENSION
8016	1 EACH	MAST ARM POLE & 60 FT MAST ARM ANY 'T' DIMENSION
8021	1 EACH	REM & DISPOSE MAT & EQUIP PER ASSIGN
8025	2 EACH	VIDEO DETECTION CAMERA & CABLE UP TO 500 FT
8033	70 L.F.	SCHEDULE 80 RIGID PVC CONDUIT UP TO 4 INCHES - SLOTTED
8034	575 L.F.	SCHEDULE 80 RIGID PVC CONDUIT UP TO 4 INCHES - TRENCHED
8035	35 L.F.	WOOD SIGN SUPPORTS UP TO 4 X 6
8036	84 S.F.	INSTALL OVERHEAD OR GROUND MOUNTED SIGN (INCLUDING ALL HARDWARE)
8038	1290 L.F.	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8045	6 EACH	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8050	6 EACH	12 INCH LED SIGNAL HEAD SECTION
8052	7 EACH	CUT, CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE
8054	1600 L.F.	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
8056	2025 L.F.	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
8057	415 L.F.	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)

WIRING DIAGRAMS

WIRING KEY

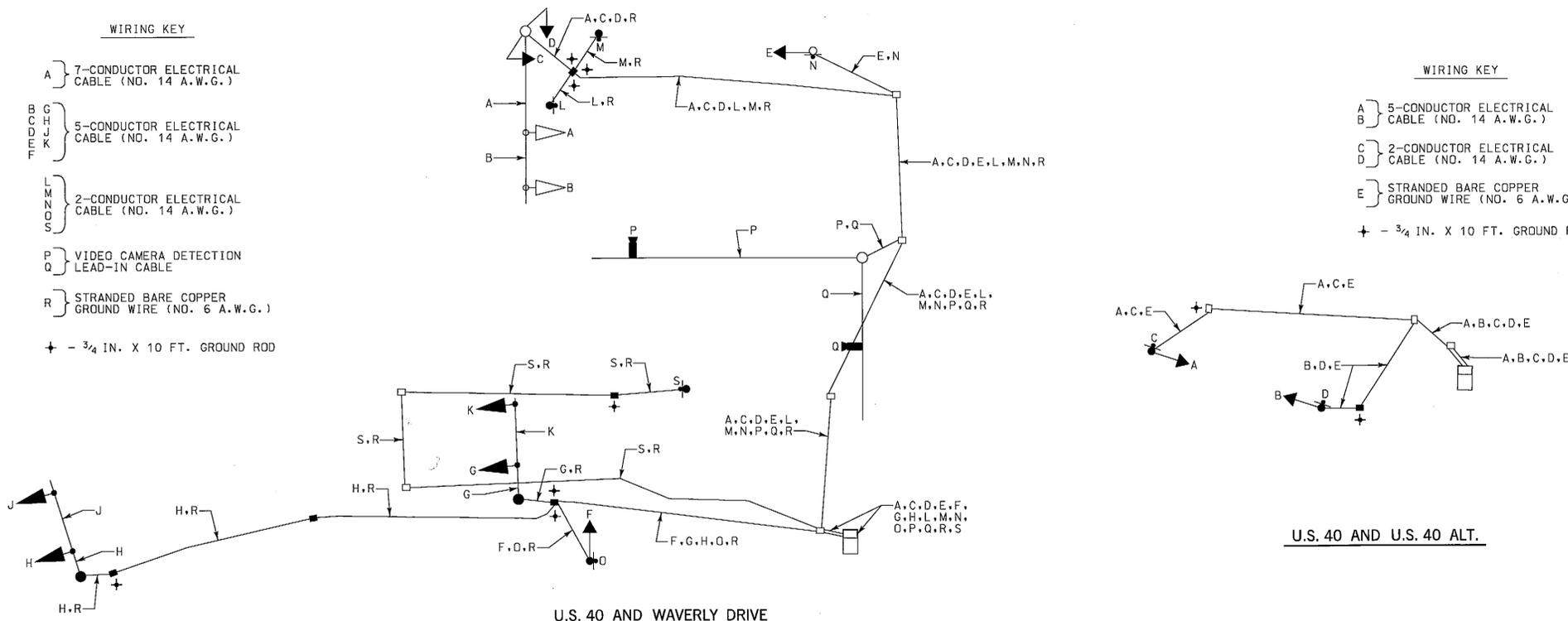
- A } 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- B } 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- C } 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- D } 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- E } 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- F } 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- G } 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- H } 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- I } 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- J } 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- K } 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- L } 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- M } 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- N } 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- O } 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- P } VIDEO CAMERA DETECTION LEAD-IN CABLE
- Q } VIDEO CAMERA DETECTION LEAD-IN CABLE
- R } STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)

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

WIRING KEY

- A } 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- B } 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- C } 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- D } 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- E } STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)

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



TOD NO: AX142-27M
SHA NO: FR552A57/B57
US 40@WAVERLY DR/US 40@US 40 ALT.



STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION
U.S. 40 Intersections

GENERAL INFORMATION SHEET

SCALE NONE ADVERTISED DATE 5/29/2009 CONTRACT NO. XX4245185

DESIGNED BY S. Bloss COUNTY Frederick
DRAWN BY S. Bloss LOGMILE 10004011.73
CHECKED BY N. Leary TMS NO. 1760
F.A.P. NO. TOD NO.

TS NO. 3256 DRAWING TSP-5 OF 5 SHEET NO. 5 OF 5



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