

PROJECT DESCRIPTION

GENERAL

THIS PORTION OF THE PROJECT INVOLVES THE CONSTRUCTION OF THE TEMPORARY TRAFFIC SIGNAL AT MD 32 AND CANINE ROAD/RAMP C IN ANNE ARUNDEL COUNTY.

INTERSECTION OPERATION

1. MD 32 AND CANINE ROAD (CONSTRUCTION STAGES 2 AND 3)

THE INTERSECTION WILL OPERATE IN A NEMA FIVE-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH THE MD 32 APPROACHES OPERATING CONCURRENTLY AND THE CANINE ROAD APPROACHES OPERATING SPLIT PHASE.

EXCLUSIVE/PERMISSIVE LEFT-TURN PHASES WILL BE PROVIDED ON THE EASTBOUND MD 32 APPROACH.

2. MD 32 AND CANINE ROAD (CONSTRUCTION STAGES 4 AND 5)

THE INTERSECTION WILL OPERATE IN A NEMA THREE-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH THE WESTBOUND MD 32 APPROACH OPERATING ALONE AND THE CANINE ROAD APPROACHES OPERATING CONCURRENTLY.

3. MD 32 AND CANINE ROAD/RAMP C (CONSTRUCTION STAGE 6)

THE INTERSECTION WILL OPERATE IN A NEMA TWO-PHASE FULL-TRAFFIC-ACTUATED MODE WITH THE WESTBOUND MD 32 APPROACH OPERATING ALONE AND THE NORTHBOUND CANINE ROAD/RAMP C APPROACH OPERATING ALONE.

CONTROLLER REQUIREMENTS

1. MD 32 AND CANINE ROAD (CONSTRUCTION PHASES 2 AND 3)

THE EXISTING BASE MOUNTED CABINET AND CONTROLLER WILL BE USED.

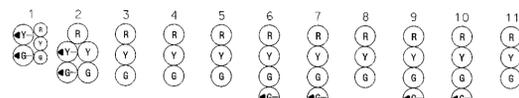
2. MD 32 AND CANINE ROAD (CONSTRUCTION PHASES 4 AND 5)

INSTALL A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET.

3. MD 32 AND CANINE ROAD/RAMP C

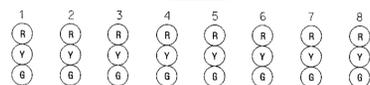
INSTALL A FULL-TRAFFIC ACTUATED EIGHT-PHASE CONTROLLER WITH ONE (1) FOUR CHANNEL TIME-DELAY OUTPUT LOOP DETECTOR AMPLIFIER IN A NEMA SIZE "5" POLE MOUNTED CABINET.

MD 32 AND CANINE ROAD STAGES 2 AND 3



PHASE 1 + 6	G	G	G	R	R	R	R	R	R	R	R	R
1 + 6 CHANGE	G	G	G	R	R	R	R	R	R	R	R	R
PHASE 2 + 6	G	G	G	G	G	R	R	R	R	R	R	R
2 + 6 CHANGE	Y	Y	Y	Y	Y	R	R	R	R	R	R	R
PHASE 3	R	R	R	R	R	G	G	G	G	R	R	R
3 CHANGE	R	R	R	R	R	Y	Y	Y	Y	R	R	R
PHASE 4	R	R	R	R	R	R	R	R	R	G	G	G
4 CHANGE	R	R	R	R	R	R	R	R	R	Y	Y	Y
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/R							

MD 32 AND CANINE ROAD STAGES 4 AND 5



PHASE 2	G	G	G	R	R	R	R	R
2 CHANGE	Y	Y	Y	R	R	R	R	R
PHASE 4 + 8	R	R	R	G	G	G	G	G
4 + 8 CHANGE	R	R	R	Y	Y	Y	Y	Y
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R

EQUIPMENT LIST "C"

C. EQUIPMENT TO BE REMOVED AND RETURNED TO SHA

SHA FORCES SHALL REMOVE THE CONTROLLER AND ALL AUXILIARY EQUIPMENT FROM THE CONTROLLER CABINETS AT MD 32 AND CANINE ROAD (THIS INCLUDES 3 CONTROLLERS). THE CABINET AND ALL OTHER MATERIALS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME PROPERTY OF THE CONTRACTOR, EXCEPT AS NOTED BELOW.

EQUIPMENT TO BE REMOVED AND DELIVERED TO NATIONAL SECURITY AGENCY (NSA).

CONTRACTOR SHALL CONTACT MR. SKIP PUMPHREY OF THE NSA AT (301) 688-8126 A MINIMUM OF 7 DAYS PRIOR TO REMOVAL AND DELIVERY OF 27 FT. STEEL POLES WITH 70 FT. MAST ARM, ANCHOR BOLTS, SPAN WIRE, SIGNAL HEADS, AND CONTROLLER CABINET TO NSA.

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY THE SHA

CATEGORY CODE NO.	QUANTITY	DESCRIPTION
▲ 963010	1 EACH	FOUR CHANNEL, TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIER
971016	1 EACH	EIGHT-PHASE, FULL-TRAFFIC-ACTUATED CONTROLLER HOUSED IN A NEMA SIZE "5" POLE MOUNTED CABINET
971017	1 EACH	EIGHT-PHASE, FULL-TRAFFIC-ACTUATED CONTROLLER HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET
973023	▲ 199 S.F.	SHEET ALUMINUM SIGNS TO CONSIST OF : - 1 EACH R3-6R SIGN (30 IN. X 36 IN.) - SPAN MOUNT - 1 EACH R10-12 SIGN (36 IN. X 42 IN.) - SPAN MOUNT - 5 EACH R3-1 SIGN (30 IN. X 30 IN.) - SPAN MOUNT - 5 EACH R3-5L SIGN (30 IN. X 36 IN.) - SPAN AND MAST ARM MOUNT - 1 EACH D-3(1) SIGN (VARIABLE X 16 IN.) - SPAN MOUNT - 2 EACH R3-5R SIGN (30 IN. X 36 IN.) - MAST ARM MOUNT - 1 EACH R10-11B SIGN (30 IN. X 30 IN.) - MAST ARM MOUNT - 1 EACH R3-6L SIGN (30 IN. X 36 IN.) - SPAN MOUNT - 3 EACH R3-2 SIGN (30 IN. X 30 IN.) - SPAN AND MAST ARM MOUNT - 2 EACH R6-1(L) SIGN (36 IN. X 12 IN.) - POLE MOUNT - 1 EACH R6-1(R) SIGN (36 IN. X 12 IN.) - POLE MOUNT - 2 EACH W3-3 SIGN (48 IN. X 48 IN.) - GROUND MOUNT

EQUIPMENT LIST "B"

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

CATEGORY CODE NO.	QUANTITY	DESCRIPTION
120500	LUMP SUM	MAINTENANCE OF TRAFFIC
203030	5 C.Y.	TEST PIT EXCAVATION
801004	12 C.Y.	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION
802501	350 L.F.	FURNISH AND INSTALL NO. 6 A.W.G. STRANDED BARE COPPER GROUND WIRE
805160	20 L.F.	FURNISH AND INSTALL 1 IN. LIQUID-TIGHT FLEXIBLE NON-METALLIC CONDUIT DETECTOR SLEEVE
810010	90 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE 1-CONDUCTOR NO. 4 A.W.G. - THHN/THWN
811001	3 EACH	FURNISH AND INSTALL ELECTRICAL HANDHOLE
813015	▲ 158 S.F.	INSTALL OVERHEAD SIGN
818052	2 EACH	FURNISH AND INSTALL 27 FT. STEEL POLE WITH A 70 FT. MAST ARM
833058	40 L.F.	FURNISH AND INSTALL 2 1/2 IN. DIAMETER POLYVINYL CHLORIDE CONDUIT, SCHEDULE 80, RISER
837001	4 EACH	FURNISH AND INSTALL GROUND ROD- 3/4 IN. DIAMETER X 10 FT. LENGTH
838003	2 EACH	FURNISH AND INSTALL CONTROL AND DISTRIBUTION EQUIPMENT
860272	59 EACH	FURNISH AND INSTALL 12 IN. VEHICULAR TRAFFIC SIGNAL HEAD SECTION
861104	100 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE- 2 CONDUCTOR ALUMINUM SHIELDED (NO. 14 A.W.G.)
861107	2400 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE- 5 CONDUCTOR (NO. 14 A.W.G.)
861108	1400 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE- 7 CONDUCTOR (NO. 14 A.W.G.)
862101	980 L.F.	FURNISH AND INSTALL LOOP WIRE ENCASED IN 1/2 IN. FLEXIBLE TUBING (NO. 14 A.W.G.)
862102	250 L.F.	FURNISH AND INSTALL SAWCUT FOR SIGNAL
869101	360 L.F.	FURNISH AND INSTALL STEEL SPAN WIRE - 1/4 IN. DIAMETER
869102	360 L.F.	FURNISH AND INSTALL STEEL SPAN WIRE - 3/8 IN. DIAMETER
870163	60 L.F.	FURNISH AND INSTALL 3 IN. SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
870166	130 L.F.	FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
870168	250 L.F.	FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID PVC CONDUIT - SLOTTED
871201	1 EACH	INSTALL CONTROLLER AND CABINET - POLE MOUNT
871202	1 EACH	INSTALL CONTROLLER AND CABINET - BASE MOUNTED
800000	1 EACH	REMOVAL AND DISPOSAL OF EXISTING MATERIAL AND EQUIPMENT
800000	1 EACH	FURNISH AND INSTALL VIDEO TRAFFIC DETECTION SYSTEM
▲ 816010	▲ 4 EACH	▲ FURNISH AND INSTALL 500 FT. VIDEO DETECTION CABLE
▲ 860265	3 EACH	RELOCATE EXISTING SIGNAL HEAD
800000	8 S.F.	RELOCATE EXISTING OVERHEAD SIGNS
800000	1 EACH	▲ FURNISH AND INSTALL 50 FT. CLASS II WOOD POLE WITH BACK GUYS
▲ 805050	1 EACH	FURNISH AND INSTALL 3 IN. WEATHERHEAD
▲ 585624	▲ 205 L.F.	▲ 24 INCH WHITE HEAT APPLIED PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING
▲ 801106	▲ 68 L.F.	▲ FURNISH AND INSTALL WOOD SIGN SUPPORTS 4 IN. X 6 IN.
▲ 813014	▲ 41 S.F.	▲ INSTALL GROUND MOUNTED SIGN

MAINTENANCE OF TRAFFIC

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

- STANDARD NO. MD-104.00 - 104.00-30
- STANDARD NO. MD-104.37-01 (LEFT LANE CLOSURE)
- STANDARD NO. MD-104.38-01 (RIGHT LANE CLOSURE)
- STANDARD NO. MD-104.39-01 (INTERSECTION FAR-SIDE CLOSURE)
- STANDARD NO. MD-104.40-01 (INTERSECTION FAR-LEFT LANE CLOSURE)
- STANDARD NO. MD-104.43-01 (SHOULDER WORK)
- STANDARD NO. MD-104.32-01 (INTERSECTION FLAGGING OPERATION)

PROJECT CONTACTS

THE CONTACT PERSONS FOR SHA ARE AS FOLLOWS:

MR. LAWRENCE E. ELLIOTT
ASSISTANT DISTRICT ENGINEER - TRAFFIC
PHONE: (410) 841-1003

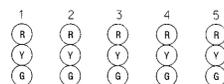
MR. JOHN NESBIT
DISTRICT UTILITIES ENGINEER
PHONE: (410) 729-8436

MR. LEON KERNS
ACTING ASSISTANT DISTRICT ENGINEER - MAINTENANCE
PHONE: (410) 624-8140

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

MD 32 AND CANINE ROAD/RAMP C

STAGE 6



PHASE 2	G	G	R	R	R
2 CHANGE	Y	Y	R	R	R
PHASE 4	R	R	G	G	G
4 CHANGE	R	R	Y	Y	Y
FLASHING OPERATION	FL/Y	FL/Y	FL/R	FL/R	FL/R

▲ ADDENDUM NO. 2
JANUARY 2001
REVISED QUANTITIES



Whitman, Reardon
and Associates, LLP
2315 Saint Paul Street
Baltimore, Maryland 21218
(410) 235-3450



MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
GENERAL INFORMATION SHEET - TEMPORARY SIGNALS
MD 32 AND CANINE ROAD

DRAWN BY: J.RASMUSSEN	F.A.P. NO.	TS NO.
CHECKED BY: N.LEARY	S.H.A. NO. AA6665170	3126
SCALE: NONE	COUNTY: ANNE ARUNDEL	T.I.M.S. NO.
DATE: 11/01	LOG MILE:	282 OF 314

TSP-05