

PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE INSTALLATION OF A TRAFFIC SIGNAL AT MD 414 (OXON HILL ROAD)/ NB MD 210 OFF RAMP (EAST CONNECTOR). THIS INTERSECTION WILL BE INTERCONNECTED WITH MD 414/NB I-95/I-495 OFF RAMP (RAMP F-1 AND G) AND MD 414/SB MD 210 OFF RAMP (WEST LOOP) VIA COMMUNICATION CABLE. INTERSECTION LIGHTING WILL ALSO BE PROVIDED AT THIS LOCATION. IT IS ASSUMED THAT MD 414 (OXON HILL ROAD) RUNS IN AN EAST-WEST DIRECTION. THE POSTED SPEED LIMIT IS 30 MPH.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA THREE-PHASE OPERATION, FULLY-ACTUATED MODE. MD 414 (OXON HILL ROAD) AND NB MD 210 OFF RAMP (EAST CONNECTOR) WILL OPERATE IN SEPARATE PHASES.

CONTROLLER REQUIREMENTS

INSTALL A FULL-TRAFFIC-ACTUATED, SOLID STATE EIGHT-PHASE CONTROLLER WITH TELEMETRY MODULE AND VIDEO TRAFFIC DETECTION SYSTEM HOUSED IN A NEMA SIZE '6' BASE MOUNTED CABINET.

PROJECT CONTACTS

THE CONTACT PERSONS FOR DISTRICT 3 ARE:
 MR. MAJIB SHAKIB
 ASSISTANT DISTRICT ENGINEER - TRAFFIC
 301-513-7358

MR. AUGUSTINE REBISH
 ASSISTANT DISTRICT ENGINEER - UTILITIES
 301-513-7350

MR. WAYNE MOWDY
 ASSISTANT DISTRICT ENGINEER - MAINTENANCE
 301-513-7304

THE CONTACT PERSONS FOR THE OFFICE OF TRAFFIC AND SAFETY ARE:
 MR. RICHARD DAFF
 DIVISION CHIEF, TRAFFIC OPERATIONS
 410-787-7630

MR. ROBERT SYNDER
 ASSISTANT DIVISION CHIEF, TRAFFIC OPERATIONS
 410-787-7631

MR. ED RODENHIZER
 CHIEF, SIGNAL OPERATIONS
 410-787-7652

MR. EUGENE BAILEY
 TEAM LEADER SIGN OPERATIONS
 410-787-7676

THE POWER COMPANY REPRESENTATIVES ARE:
 MR. RICHARD CHILCOAT
 POTOMAC ELECTRIC POWER COMPANY - ELECTRIC SERVICE
 301-967-5805

MR. JOE NICE
 POTOMAC ELECTRIC POWER COMPANY - RELOCATIONS
 202-388-2581

MD 414 OXON HILL ROAD IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION

EQUIPMENT LIST

A. EQUIPMENT TO BE SUPPLIED BY THE MDSA.

CAT. CODE	QUANTITY	DESCRIPTION
900000	1 EA	VIDEO INTERFACE EQUIPMENT FOR 1 TO 4 CAMERAS
963010	1 EA	FOUR CHANNEL LOOP DETECTOR AMPLIFIER, ROCK MOUNT
971017	1 EA	EIGHT PHASE (FULLY ACTUATED) MASTER/LOCAL CONTROLLER AND CABINET-BASE MOUNT
973023	47 SF	SHEET ALUMINUM SIGNS CONSISTING OF: -1 EACH D3-2 (VAR.X16") - MAST ARM MOUNT -1 EACH ASSOCIATED SHIELD ASSEMBLY (30"x51") - EAST MD 414 RIGHT ARROW - POLE MOUNT -1 EACH ASSOCIATED SHIELD ASSEMBLY (48"x75") - WEST MD 414 ADVANCE LEFT ARROW - GROUND MOUNT

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

CAT. CODE	QUANTITY	DESCRIPTION
120500	1 LS	MAINTENANCE OF TRAFFIC
203030	3 CY	TEST PIT EXCAVATION
585620	150 LF	12 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
585624	100 LF	24 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
801004	8 CY	CONCRETE FOR SIGNAL FOUNDATION
801607	47 SF	INSTALL SHEET ALUMINUM SIGN
802501	200 LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
805118	350 LF	4 INCH SCHEDULE 80 RIGID PVC CONDUIT-BORED
805135	550 LF	3 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
805140	40 LF	4 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
805105	150 LF	2 INCH SCHEDULE 80 RIGID PVC CONDUIT-BORED
805160	20 LF	1 INCH LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUIT FOR DETECTOR SLEEVE
800000	35 LF	ELECTRICAL CABLE 1-CONDUCTOR NO. 2 AWG-THHN/THWN
810550	4 EA	MIRCOLOOP PROBE, 500 FOOT LEAD IN CABLE
807202	1 EA	METERED SERVICE PEDESTAL
811001	8 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
816001	1 EA	VIDEO DETECTION CAMERA
800000	1 EA	VIDEO TRAFFIC DETECTION CONTROL CABLE 200 FEET
818036	1 EA	STEEL POLE WITH A SINGLE 50 FOOT MAST ARM
818051	1 EA	STEEL POLE WITH TWIN 50 FOOT AND 70 FOOT MAST ARMS
831010	2 EA	250 WATT HIGH PRESSURE SODIUM LAMP AND LUMINAIRE WITH PHOTOCELL
833062	10 LF	4 INCH DIAMETER POLYVINYL CHLORIDE CONDUIT, SCHEDULE 80, RISER
837001	4 EA	GROUND ROD - 3/4" INCH DIAMETER X 10 FOOT LENGTH
860272	18 EA	12 INCH VEHICULAR TRAFFIC SIGNAL HEAD SECTION
861107	70 LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
861108	700 LF	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
861116	350 LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 AWG)
862102	120 LF	SAW CUT FOR SIGNAL (LOOP DETECTOR)
866104	2 EA	20 FOOT LIGHTING ARM ON SIGNAL STRUCTURE
871117	1 EA	INSTALL EIGHT PHASE (FULLY ACTUATED) MASTER/LOCAL CONTROLLER AND CABINET- BASE MOUNT
800000	500 LF	ELECTRICAL CABLE - 250 KCMIL
805115	60 LF	3 INCH SCHEDULE 80 RIGID PVC CONDUIT-BORED
833050	10 LF	2 INCH DIAMETER POLYVINYL CHLORIDE CONDUIT, SCHEDULE 80, RISER
805125	10 LF	2 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED

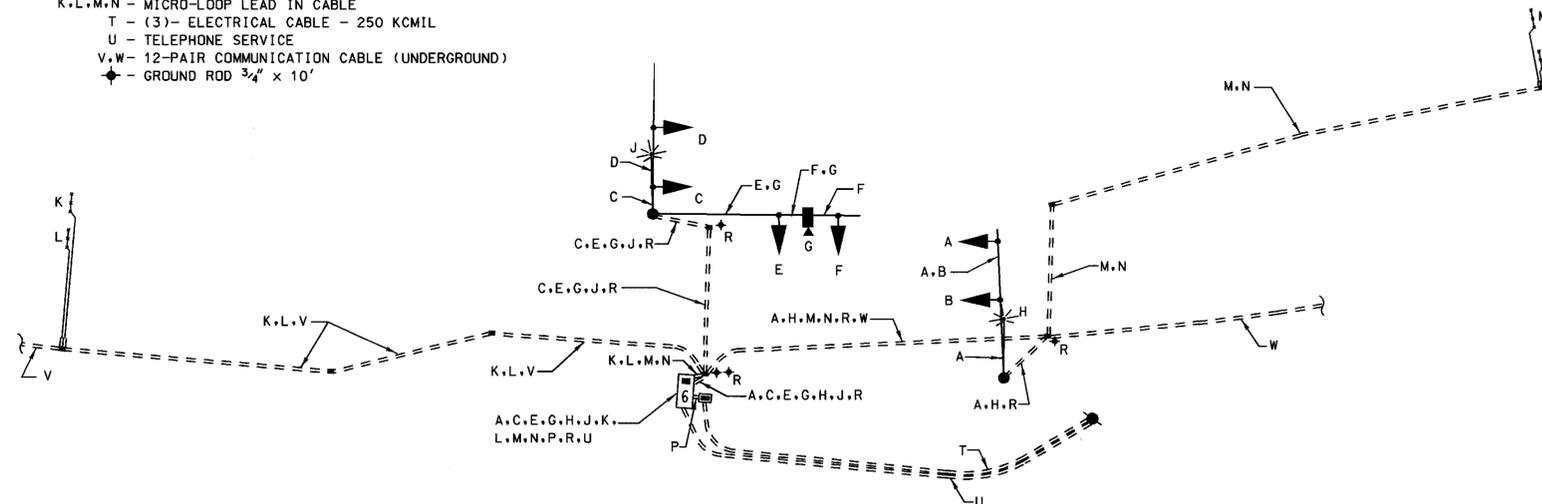
C. ALL REMOVED SIGNAL MATERIALS ARE TO BECOME THE PROPERTY OF THE CONTRACTOR.

NOTE: NO EQUIPMENT IS TO BE RETURNED TO MDSA. ALL MATERIALS TO BE REMOVED BY THE CONTRACTOR BECOME THE PROPERTY OF THE CONTRACTOR.

WIRING DIAGRAM
NOT TO SCALE

WIRING LEGEND

- H,J - 2 CONDUCTOR ELECTRICAL CABLE (NO. 12 A.W.G.)
- B,D,F - 5 CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- A,C,E - 7 CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- G - VIDEO TRAFFIC DETECTION CONTROL CABLE (NO. 18 A.W.G.)
- R - STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
- P - PROPOSED POWER SERVICE FEED
- (3)- 1 CONDUCTOR ELECTRICAL CABLES (NO. 2 A.W.G.)
- K,L,M,N - MICRO-LOOP LEAD IN CABLE
- T - (3)- ELECTRICAL CABLE - 250 KCMIL
- U - TELEPHONE SERVICE
- V,W - 12-PAIR COMMUNICATION CABLE (UNDERGROUND)
- ◆ - GROUND ROD 3/4" x 10'



PHASE CHART

	1	2	3	4	5	6	
	⊙	⊙	⊙	⊙	⊙	⊙	
PHASE 2 & 6	G	G	G	G	R	R	←
2 & 6 CHANGE	Y	Y	Y	Y	R	R	→
PHASE 4	R	R	R	R	G	G	←
4 CHANGE	R	R	R	R	Y	Y	↑
FLASHING	FL	FL	FL	FL	FL	FL	↕
	Y	Y	Y	Y	R	R	↕

ADDENDUM NO. 4
 MARCH 10, 2005
 SHEET REPLACED

SP-16 OF SP-23

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

GENERAL INFORMATION SHEET
 MD 414 OXON HILL ROAD AT NB MD 210 OFF RAMP (EAST CONNECTOR)



DRAWN BY: M. PIERRE	F.A.P. NO. SEE TITLE SHEET	TS NO. 4372-61	SHEET NO.
CHECKED BY: J. LAWRENCE	S.H.A. NO. PG5075173		
SCALE: NONE	COUNTY: PRINCE GEORGE'S	T.I.M.S. NO. E149	
DATE: 12-7-04	LOG MILE: 16041400.08		296 OF 402

PLOTTED: 10:43 AM on Monday, February 14, 2005
 By: MeSenny Pierre Divisions Transportation
 File: m:\988\08815\210cab02.dwg