PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE RECONSTRUCTION OF THE EXISTING TRAFFIC SIGNAL AND THE ADDITION OF INTERSECTION LIGHTING AT MD 188 (WILSON LANE) AND WHITTIER BOULEVARD IN MONTGOMERY COUNTY. WILSON LANE IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

INTERSECTION OPERATION

1. NORMAL OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA (4) FOUR PHASE SEMI-TRAFFIC-ACTUATED MODE WITH EASTBOUND AND WESTBOUND WILSON LANE APPROACHES OPERATING CONCURRENTLY. THE WHITTIER BOULEVARD APPOACHES WILL OPERATE CONCURRENTLY.

CONTROLLER REQUIREMENTS

A FULLY-TRAFFIC-ACTUATED EIGHT PHASE TRAFFIC SIGNAL CONTROLLER IN A BASE-MOUNTED (SIZE-6) CABINET (SHA SPECIFICATIONS) WITH ECONOLITE ASC 2 2100 CONTROLLER, SSM 12 E CONFLICT MONITOR, POWER SUPPLY FOR RACK MOUNTED DETECTION, LAU PANEL AND RELAY PACKAGE WIRED TO MONTGOMERY COUNTY SPECIFICATIONS.

THE CONTRACTOR SHALL CONTACT MONGOMERY COUNTY 3 TO 4 WEEKS PRIOR TO INSTALLATION TO ARRANGE PICK UP OF THE CONTROLLER.

PROJECT CONTACTS

CONTACTS FOR DISTRICT 3:

MR. MAJID SHAKIB
ASSISTANT DISTRICT ENGINEER - TRAFFIC
PHONE: (301) 513-7358

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

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

THE POWER COMPANY REPRESENTATIVE:
MS. ELIZA HEMINGWAY
POTOMAC ELECTRIC POWER COMPANY
PHONE: (301) 931-2880

CONTACTS FOR OFFICE OF TRAFFIC AND SAFETY:

MR. RICHARD DAFF SR.
CHIEF, TRAFFIC OPERATIONS
410-787-7630

MR. ROBERT SNYDER
ASSISTANT DIVISION CHIEF, TRAFFIC OPERATIONS
410-787-7630

MR. ED RODENHIZER
TEAM LEADER SIGNAL OPERATIONS
410-787-7650

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

MR. DAVE SCHWARTZ
SUPPLY OFFICER IV (SIGNAL SHOP WAREHOUSE)
410-787-7668

CONTACT FOR MONTGOMERY COUNTY:

MR. BOB GONZALES
MONTGOMERY COUNTY DPW-ATMS
PHONE: (240) 777-8761

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY THE SHA

SPEC NO.	CATEGORY CODE NO.	QUANTITY	DESCRIPTION
813	973023	142 S.F.	SHEET ALUMINUM SIGNS TO CONSIST OF:
			- 4 EACH D-3(1) (96"x16") MAST ARM MOUNT
			- 3 EACH R3-5 (30"x36") MAST ARM MOUNT
			- 1 EACH ASSOCIATED SHIELD ASSEMBLY "EAST, MD 188, LEFT ARROW" (48 IN. x 75 IN.) - POLE MOUNT
			- 1 EACH ASSOCIATED SHIELD ASSEMBLY "WEST, MD 188, RIGHT ARROW" (30 IN. x 51 IN.) - POLE MOUNT
			- 1 EACH ASSOCIATED SHIELD ASSEMBLY "WEST, MD 188, LEFT ARROW" (48 IN. x 75 IN.) - POLE MOUNT
			- 1 EACH ASSOCIATED SHIELD ASSEMBLY "EAST, MD 188, RIGHT ARROW" (30 IN. x 51 IN.) - POLE MOUNT
			- 3 EACH "HANDICAP CROSSING SIGN" 18" X 12" RIGHT ARROW POLE MOUNT
			- 1 EACH "HANDICAP CROSSING SIGN" 18" X 12" AHEAD ARROW POLE MOUNT
			- 1 EACH R3-4 (mod) (24"X24") MAST ARM MOUNT
816	971017	1 Ea.	EIGHT PHASE (FULLY ACTUATED) CONTROLLER AND CABINET-BASE MOUNT W/LAU
---	900000	1 Ea.	VIDEO INTERFACE EQUIPMENT

EQUIPMENT LIST "B"

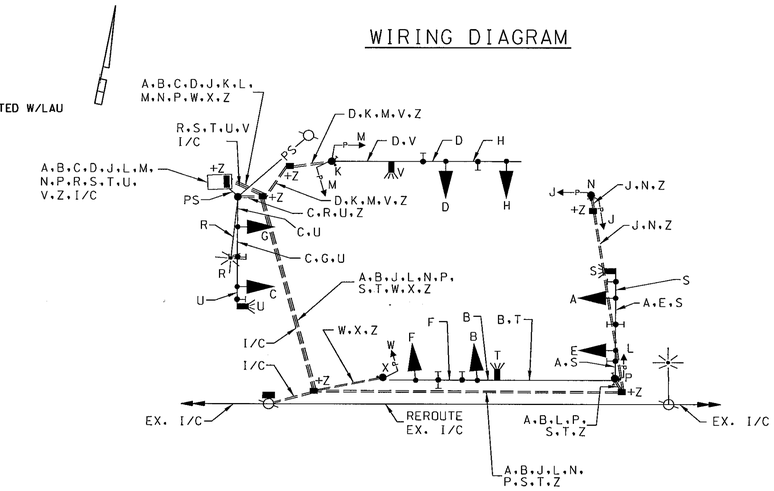
B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

SPEC. SECTION	CATEGORY CODE NO.	QUANTITY	DESCRIPTION
205	120500	L.S.	MAINTENANCE OF TRAFFIC
205	203030	5 C.Y.	TEST PIT EXCAVATION
556	585620	1000 L.F.	12 IN. HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
556	585624	145 L.F.	24 IN. HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
801	801004	28 C.Y.	CONCRETE FOR SIGNAL FOUNDATION
804	837001	7 Ea.	GROUND RODS - ¾ IN. DIAMETER x 10 FT. LENGTH
805	805155	250 L.F.	4 IN. SCHEDULE 80 RIGID PVC CONDUIT - SLOTTED
806	831010	1 Ea.	250 WATT HIGH PRESSURE SODIUM LAMP AND LUMINAIRE WITH PHOTOCELL
803	807400	1 Ea.	ELECTRICAL UTILITY SERVICE EQUIPMENT 120/240 VOLTS 60 AMPS
810	802501	370 L.F.	STRANDED BARE COPPER GROUND WIRE (NO. 6 AWG)
810	861104	640 L.F.	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
810	861106	465 L.F.	ELECTRICAL CABLE - 3 CONDUCTOR (NO. 14 AWG)
810	861107	455 L.F.	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
810	861108	730 L.F.	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
810	861105	105 L.F.	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 AWG)
811	811001	5 Ea.	ELECTRICAL HANDHOLE
813	813015	146 S.F.	INSTALL OVERHEAD SIGN
814	860265	2 Ea.	RELOCATE EXISTING SIGNAL HEAD
814	860272	24 Ea.	12 IN. VEHICULAR TRAFFIC SIGNAL HEAD SECTION
814	860278	6 Ea.	12 IN. PEDESTRIAN SIGNAL HEAD SECTION POLE MOUNT
814	860282	6 Ea.	12 IN. PEDESTRIAN SIGNAL HEAD SECTION PEDESTAL POLE MOUNT
816	871117	1 Ea.	INSTALL 8 PHASE (FULLY ACTUATED) CONTROLLER AND CABINET - BASE MOUNTED W/LAU
817	865001	4 Ea.	PUSHBUTTON AND SIGN
818	866103	1 Ea.	15 FOOT LIGHTING ARM ON SIGNAL STRUCTURE
810	818005	2 Ea.	10 FT. BREAKAWAY PEDESTAL POLE
818	818030	1 Ea.	STEEL POLE WITH A SINGLE 38 FT. MAST ARM (CUT TO 30 FT.)
818	818036	1 Ea.	STEEL POLE WITH A SINGLE 50 FT. MAST ARM
549	585462	85 L.F.	REMOVE EXISTING PAVEMENT MARKINGS - ANY WIDTH
810	822002	115 L.F.	12-PAIR COMMUNICATION CABLE - JELLYFILLED
805	805135	90 L.F.	3 IN. SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
805	805140	25 L.F.	4 IN. SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
816	816004	4 Ea.	250' PREMANUFACTURED CAMERA TO CONTROLLER CABINET CABLE (FOR VIDEO DETECTION)
---	873001	L.S.	REMOVE AND DISPOSAL OF EXISTING MATERIAL AND EQUIPMENT
---	860292	2 EA.	CUT, CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE
---	800000	4 Ea.	REMOVE AND DISPOSE OF EXISTING FOUNDATION 12 IN. BELOW GRADE
---	800000	1 Ea.	STEEL POLE WITH TWIN 60 FT. MAST ARM AND 38 FT. MAST ARM (CUT TO 30 FT.)
---	800000	1 Ea.	SPLICE CABINET
---	816001	4 Ea.	VIDEO DETECTION CAMERA
---	800000	10 L.F.	2 IN. SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
805	805050	1 EACH	WEATHER HEAD, 3"
812	801104	16 L.F.	WOOD SUPPORTS, 4 INCH X 4 INCH

PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G	R Y G						
PHASE 2+6	G	G	G	G	R	R	R	R	WALK	WALK	DW	DW	DW	DW
PED CLEAR	G	G	G	G	R	R	R	R	FL/DW	FL/DW	DW	DW	DW	DW
2+6 CHANGE	Y	Y	Y	Y	R	R	R	R	DW	DW	DW	DW	DW	DW
PHASE 4+8	R	R	R	R	G	G	G	G	DW	DW	DW	DW	DW	DW
4+8 CHANGE	R	R	R	R	Y	Y	Y	Y	DW	DW	DW	DW	DW	DW
PHASE 4+8 ALT	R	R	R	R	G	G	G	G	DW	DW	WALK	WALK	WALK	WALK
PED CLEAR	R	R	R	R	G	G	G	G	DW	DW	FL/DW	FL/DW	FL/DW	FL/DW
4+8 ALT CHANGE	R	R	R	R	Y	Y	Y	Y	DW	DW	DW	DW	DW	DW
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	DARK	DARK	DARK	DARK	DARK	DARK

WIRING DIAGRAM



WIRING KEY

A,B,C,D } 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)

E,F,G,H, J,M } 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)

L,W } 3-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)

K,N,P,X } 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)

R } 2-CONDUCTOR ELECTRICAL CABLE (NO. 12 A.W.G.)

S,T,U,V } 250' CAMERA TO CONTROL CABINET CABLE

Z } STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)

PS - PROPOSED ELECTRICAL SERVICE

EX. I/C - EXISTING COMMUNICATION CABLE

I/C - 12 PAIR JELLYFILLED COMMUNICATION CABLE

+ - ¾ IN. x 10 FT. GROUND ROD

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

MD 188 (WILSON LANE) AT WHITTIER BLVD.
GENERAL INFORMATION SHEET

DRAWN BY: SRM	F.A.P. NO. SEE TITLE SHEET	TS NO. 40D	SHEET NO.
CHECKED BY: BLB	S.H.A. NO. M08655177R		
SCALE: 1"=20'	COUNTY: MONTGOMERY	T.I.M.S. NO. E148	
DATE: DECEMBER 2002	LOG MILE:		67 OF 82

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