PROJECT DESCRIPTION

GENERAL

THIS PORTION OF THE PROJECT INVOLVES THE FINAL MODIFICATION FOR THE INSTALLATION OF A NEW TRAFFIC CONTROLLER AND SIGNALS WITH VIDEO DETECTION AT THE INTERSECTION OF MD 450 AT CARTER AVE. IN PRINCE GEORGE'S COUNTY. MD 450 IS ASSUMED TO RUN IN AN EAST/WEST DIRECTION.

INTERSECTION OPERATION

NORMAL OPERATION
THE INTERSECTION WILL OPERATE IN A NEMA-THREE-PHASE, FULLY ACTUATED MODE. THE MOVEMENTS ON MD 450 WILL OPERATE CONCURRENTLY. THE MOVEMENTS ON CARTER AVE WILL OPERATE CONCURRENTLY.

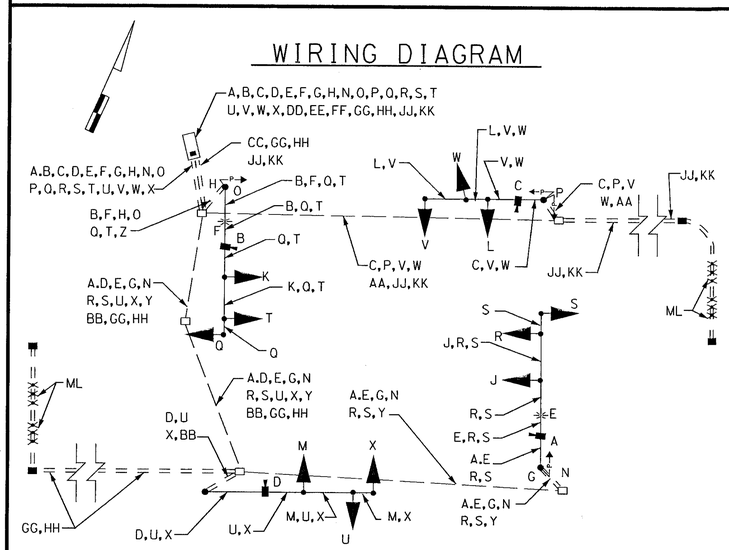
CONTROLLER REQUIREMENTS

INSTALL A FULL-TRAFFIC-ACTUATED, SOLID STATE EIGHT PHASE CONTROLLER WITH SYSTEM PACKAGE, VIDEO RACK, TELEMETRY MODULE, ISOLATION BOARD AND SPECIAL RELAY HOUSED IN NEMA SIZE "6" BASE MOUNTED CABINET.

SPECIAL NOTE

ALL UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC AND ARE NOT TO BE CONSIDERED COMPLETE BECAUSE THESE UTILITIES MAY BE MODIFIED PRIOR TO AND DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING ALL UTILITY COMPANIES PRIOR TO CONSTRUCTION SO THAT ALL UTILITIES MAY BE LOCATED IN THE FIELD. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN THE UTILITIES AND THE TRAFFIC SIGNAL EQUIPMENT WILL OCCUR. THE CONTRACTOR SHALL NOTIFY THE PROJECT MANAGER IMMEDIATELY.

WIRING DIAGRAM



A,B C,D	VIDEO DETECTOR CABLE	Y,Z,AA BB,CC	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
E,F	ELECTRICAL CABLE 2-CONDUCTOR (NO. 12 AWG)	DD,EE,FF	ELECTRICAL CABLE 1-CONDUCTOR (NO. 4 AWG)
G,H	ELECTRICAL CABLE 2-CONDUCTOR (NO. 14 AWG)	GG,HH JJ,KK	MICRO-LOOP 1000 FT. LEAD IN
J,K,L M,N,O P	ELECTRICAL CABLE 5-CONDUCTOR (NO. 14 AWG)	ML	MICRO-LOOP NON INVASIVE PROBE SET
Q,R,S T,U,V W,X	ELECTRICAL CABLE 7-CONDUCTOR (NO. 14 AWG)		

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9/10/02 MB
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EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY THE SHA

CAT CODE NUMBER	SPEC. SECTION	QUANTITY	DESCRIPTION
971017	816	1 EA.	EIGHT PHASE FULL TRAFFIC ACTUATED SOLID STATE DIGITAL CONTROLLER WITH SYSTEM PACKAGE, HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET
973023	813	132 S.F	SHEET ALUMINUM SIGN TO CONSIST OF: -2 EA. R10-12 (36 IN. X 42 IN.)-MAST ARM MOUNT -2 EA. D3-2 (16 IN. X VAR.)-MAST ARM MOUNT -1 EA. R3-5R (30 IN. X 36 IN.)-MAST ARM MOUNT -2 EA. ASSOCIATED SHIELD ASSEMBLY (30 IN. X 51 IN.)-POLE MOUNT -2 EA. ASSOCIATED SHIELD ASSEMBLY (48 IN. X 75 IN.)-POLE MOUNT

PROJECT CONTACTS

THE CONTACT PERSONS FOR DISTRICT #3 ARE AS FOLLOWS:

ROBERT SNYDER ASSSISTANT DIVISION CHIEF
TRAFFIC OPERATION DIVISION
PHONE: 410-787-7630

RALEIGH MEDLEY
ASSISTANT DISTRICT ENGINEER-MAINTENANCE
PHONE: 301-513-7304

MAJID SHAKIB
ASSISTANT DISTRICT ENGINEER-TRAFFIC
PHONE: 301-513-7358

AUGIE REBISH
ASSISTANT DISTRICT ENGINEER-UTILITIES
PHONE: 301-513-7350

PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PHASE 1+5	R G	R G	R	R G	R G	R	R	R	R	R	R	R	DW	DW	DW	DW
1+5 CHANGE	R Y	R Y	R	R Y	R Y	R	R	R	R	R	R	R	DW	DW	DW	DW
PHASE 2+6	G	G	G	G	G	G	R	R	R	R	R	R	DW	DW	WK	WK
	G	G	G	G	G	G	R	R	R	R	R	R	DW	DW	FL/DW	FL/DW
2+6 CHANGE	Y	Y	Y	Y	Y	Y	R	R	R	R	R	R	DW	DW	DW	DW
PHASE 4+8	R	R	R	R	R	R	G	G	G	G	G	G	WK	WK	DW	DW
	R	R	R	R	R	R	G	G	G	G	G	G	FL/DW	FL/DW	DW	DW
4+8 CHANGE	R	R	R	R	R	R	Y	Y	Y	Y	Y	Y	DW	DW	DW	DW
FLASHING OPERATION	FL / Y	FL / Y	FL / Y	FL / Y	FL / Y	FL / Y	FL / R	FL / R	FL / R	FL / R	FL / R	FL / R	DARK	DARK	DARK	DARK

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR

CAT CODE NUMBER	SPEC. SECTION	QUANTITY	DESCRIPTION
203030	205	3 C.Y.	TEST PIT EXCAVATION
585450	555	46 L.F.	REMOVAL OF EXISTING PAVEMENT MARKING ANY WIDTH
585620	556	300 L.F.	12 IN. HEAT APPLIED THERMOPLASTIC WHITE PAVEMENT MARKING
585624	556	150 L.F.	24 IN. HEAT APPLIED THERMOPLASTIC WHITE PAVEMENT MARKING
801004	801	20 C.Y.	CONCRETE FOR SIGNAL FOUNDATION
802501	805	545 L.F.	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
805115	805	148 L.F.	3 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT-BORED
805135	805	634 L.F.	3 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT-TRENCHED
805140	805	46 L.F.	4 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT-TRENCHED
810010	810	45 L.F.	ELECTRICAL CABLE 1-CONDUCTOR (NO. 4 AWG)
810605	810	4 EA.	MICRO-LOOP NON INVASIVE PROBE SET WITH 1000 FT. LEAD IN
811001	811	7 EA.	ELECTRICAL HANDHOLE
813015	813	120 S.F.	INSTALL OVERHEAD SIGN
818036	818	1 EA.	27 FT. STEEL POLE WITH 50 FT. MAST ARM
818041	818	1 EA.	27 FT. STEEL POLE WITH 60 FT. MAST ARM
818052	818	2 EA.	27 FT. STEEL POLE WITH 70 FT. MAST ARM
831010	806	2 EA.	250 WATT HPS LUMINAIRE WITH PHOTOCELL
837001	804	5 EA.	GROUND ROD 3/4 IN. X 10 FT. LENGTH
838003	807	1 EA.	CONTROL AND DISTRIBUTION EQUIPMENT (120/240V, 1 PHASE, 3 WIRE SYSTEM)
860270	814	6 EA.	8 IN. VEHICULAR TRAFFIC SIGNAL HEAD SECTION
860272	814	38 EA.	12 IN. VEHICULAR TRAFFIC SIGNAL HEAD SECTION
860278	814	8 EA.	12 IN. PEDESTRIAN SIGNAL HEAD SECTION
861105	810	470 L.F.	ELECTRICAL CABLE 2-CONDUCTOR (NO. 14 AWG)
861107	810	545 L.F.	ELECTRICAL CABLE 5-CONDUCTOR (NO. 14 AWG)
861108	810	2060 L.F.	ELECTRICAL CABLE 7-CONDUCTOR (NO. 14 AWG)
861116	806	450 L.F.	ELECTRICAL CABLE 2-CONDUCTOR (NO. 12 AWG)
865001	816	2 EA.	PUSHBUTTON AND SIGN
866104	805	2 EA.	20 FT. LIGHTING ARM ON SIGNAL STRUCTURE
871117	805	1 EA.	INSTALL CONTROLLER AND CABINET-BASE MOUNT
800000	810	4 EA.	RELOCATE CAMERA
800000	810	4 EA.	REROUTE CABLE
800000	XXX	1 L.S.	REMOVE AND DISPOSE OF EXISTING MATERIAL

EQUIPMENT LIST "C"

C. SHA FORCES SHALL REMOVE THE CONTROLLER AND ALL AUXILIARY EQUIPMENT FROM THE CABINET. CABINET AND ALL OTHER MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

THE WILSON T. BALLARD CO.
CONSULTING ENGINEERS
OWINGS MILLS, MARYLAND

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

GENERAL INFORMATION SHEET
MD 450 - WHITFIELD CHAPEL ROAD TO SEABROOK ROAD
MD 450 AT CARTER AVENUE - ULTIMATE

DRAWN BY: MB	F.A.P. NO. SEE TITLE SHEET	TS NO. TS-1818B-2	SHEET NO.
CHECKED BY: PDU	S.H.A. NO. PG9005471		
SCALE: NONE	COUNTY: PRINCE GEORGE'S	T.I.M.S. NO. C 974	164 OF 200
DATE: JANUARY 2002	LOG MILE:		