PROJECT DESCRIPTION

THIS PROJECT INVOLVES RECONSTRUCTING THE TRAFFIC SIGNAL INSTALLATION AND ADDING EXCLUSIVE/PERMISSIVE PHASING FOR THE NORTHBOUND AND SOUTHBOUND APPROACHES. PEDESTRIAN INDICATIONS WITH PUSHBUTTONS WILL BE PROVIDED ON THE NORTH LEG WHILE ONLY PEDESTRIAN INDICATIONS WILL BE ADDED TO THE EAST LEG OF THE INTERSECTION. MD 212 (RIGGS ROAD) IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

CONTROLLER OPERATION

THE PROPOSED CABINET WILL CONTAIN AN EIGHT-PHASE FULLY ACTUATED NEMA CONTROLLER WITH INTERSECTION MONITOR WITH BACK-UP FOR PHONE DROP, FOUR (4) FOUR-CHANNEL TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIER HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET. THE CONTROLLER WILL OPERATE AS A SIX PHASE FULLY-ACTUATED CONTROLLER WITH THE NORTHBOUND AND SOUTHBOUND MD 212 APPROACHES RUNNING CONCURRENTLY AND THE EASTBOUND AND WESTBOUND MD 501 APPROACHES RUNNING IN CONSECUTIVE PHASES. EXCLUSIVE/PERMISSIVE PHASING WILL BE PROVIDED FOR THE NORTHBOUND AND SOUTHBOUND MD 212 LEFT-TURN MOVEMENTS A CONCURRENT PEDESTRIAN MOVEMENT WILL OCCUR ACROSS THE EAST LEG DURING THE NORTHBOUND PHASE. AN ALTERNATE PEDESTRIAN MOVEMENT WILL OCCUR ACROSS THE NORTH LEG DURING THE WESTBOUND MOVEMENT.

CONTACT PERSONS FOR DISTRICT 3 ARE AS FOLLOWS

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THE POWER COMPANY REPRESENTATIVE IS:

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MR. ED RODENHIZER
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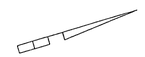
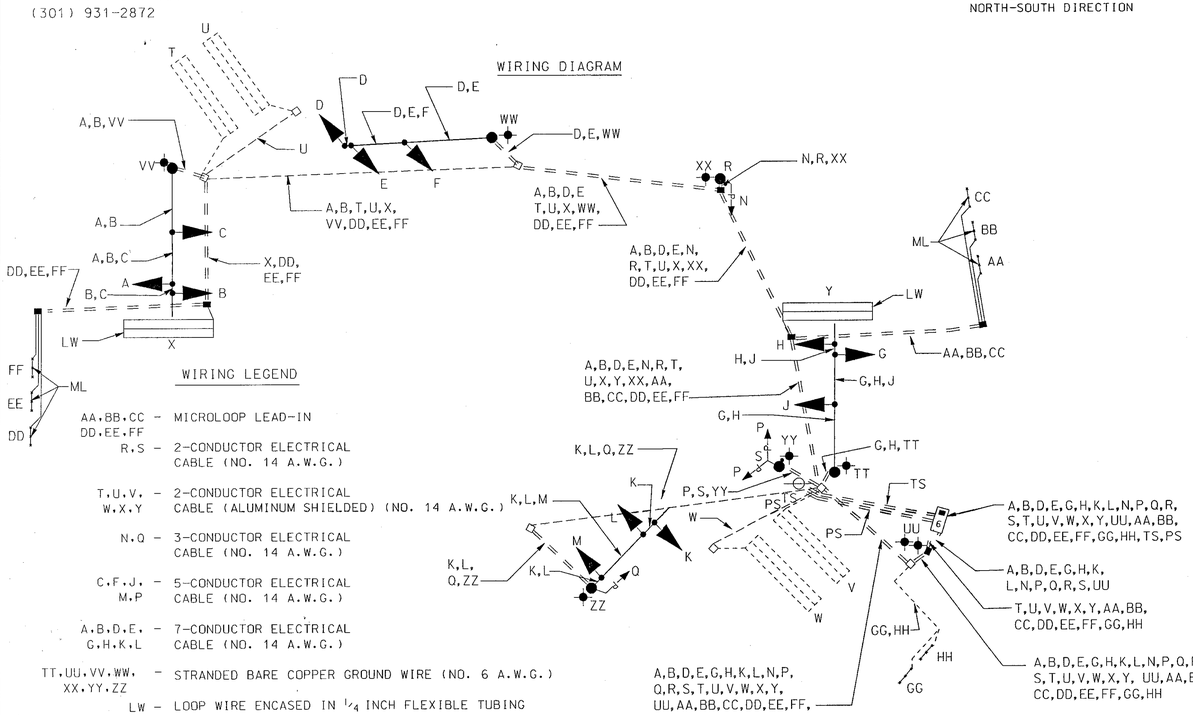
410-787-7652

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



MD 212 RIGGS ROAD IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION

WIRING DIAGRAM



WIRING LEGEND

AA.BB.CC DD.EE.FF	-	MICROLOOP LEAD-IN
R.S	-	2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
T.U.V. W.X.Y	-	2-CONDUCTOR ELECTRICAL CABLE (ALUMINUM SHIELDED) (NO. 14 A.W.G.)
N.Q	-	3-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
C.F.J. M.P	-	5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
A.B.D.E. G.H.K.L	-	7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
TT.UU.VV.WW. XX.YY.ZZ	-	STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
LW	-	LOOP WIRE ENCASED IN 1/4 INCH FLEXIBLE TUBING
ML	-	MICROLOOP PROBE SET
PS	-	POWER SERVICE - (3) 1-CONDUCTOR ELECTRICAL CABLE (NO. 4 A.W.G.)
TS	-	TELEPHONE SERVICE
⏚	-	GROUND ROD 3/4 INCH DIAMETER AND 10 FOOT LENGTH

WIRING NOTE:

1) EXISTING WIRING FOR EQUIPMENT WHICH IS BEING REMOVED SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR.

2) EXISTING WIRING NOT DETAILED SHALL REMAIN IN PLACE.

EQUIPMENT LIST

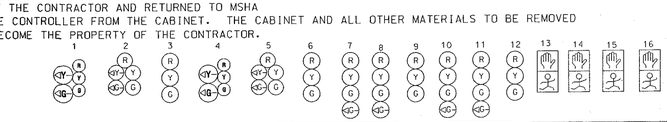
A. EQUIPMENT TO BE FURNISHED BY STATE HIGHWAY ADMINISTRATION

QUANTITY	DESCRIPTION
1 EA	EIGHT PHASE, FULLY ACTUATED CONTROLLER WITH INTERSECTION MONITOR WITH BATTERY BACK-UP FOR PHONE DROP SYSTEM PACKAGE HOUSED IN A NEMA SIZE 6 BASE MOUNTED CABINET.
4 EA	FOUR-CHANNEL, TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIERS.
207 SF	SHEET ALUMINUM SIGNS 2-EACH R10-12 (36"X42") - MAST ARM MOUNTED 4-EACH ASSOCIATED SHIELD ASSEMBLY (36"X75") - POLE MOUNT 4-EACH D-3(1) DUAL FACED (VARIABLE X16") - MAST ARM MOUNTED 1-EACH M3-2 (24"X12"), M1-5 (30"X24"), M6-1 (24"X15") - GROUND MOUNTED 1 EACH M3-3 (24"X12"), M1-5 (30"X24"), M6-1 (24"X15") - GROUND MOUNTED 1 EACH M3-4 (24"X12"), M1-5 (30"X24"), M6-1 (24"X15") - GROUND MOUNTED

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

ITEM NO.	QUANTITY	DESCRIPTION
1001	3 EA	MAINTENANCE OF TRAFFIC
2001	4 CY	CLASS II EXCAVATION
2002	7 CY	TEST PIT EXCAVATION
5001	350 LF	REMOVAL OF EXISTING PAVEMENT LINE MARKINGS - ANY WIDTH
5005	300 LF	12 INCH WHITE HEAT APPLIED THERMOPLASTIC PAVEMENT MARKINGS
5006	50 LF	24 INCH WHITE HEAT APPLIED THERMOPLASTIC PAVEMENT MARKINGS
6001	20 LF	DEPRESS CURB AND GUTTER
6004	700 SF	4 INCH CONCRETE SIDEWALK
8001	14 CY	CONCRETE FOUNDATION
8002	8 EA	12 PEDESTRIAN SIGNAL HEAD SECTION
8014	1 EA	MAST ARM POLE (15' T) & 50 FT MAST ARM
8018	2 EA	PEDESTAL POLE (ANY SIZE)
8019	1 EA	REMOVE & DISPOSE OF EXIST. EQUIPMENT PER ASSIGNMENT
8028	45 LF	WOOD SIGN SUPPORTS 4 INCH X 6 INCH
8029	575 LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8038	100 LF	3 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8039	75 LF	4 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8045	1 EA	ELECTRICAL UTILITY SERVICE EQUIPMENT 120/240 VOLTS 60 AMPS
8046	300 LF	ELECTRICAL CABLE, 1-CONDUCTOR, NO. 4 AWG
8048	2 EA	MICROLOOP PROBE SET, 500 FOOT LEAD IN CABLE
8052	6 EA	ELECTRICAL HANDHOLE
8054	29 SF	INSTALL GROUND MOUNTED SIGN
8055	175 SF	INSTALL OVERHEAD SIGN
8061	1 EA	STEEL POLE WITH A SINGLE 38' MAST ARM
8062	2 EA	STEEL POLE WITH A SINGLE 50' MAST ARM
8073	8 EA	GROUND ROD -3/4INCH DIAMETER X 10 FOOT LENGTH
8074	6 EA	8 INCH VEHICULAR TRAFFIC SIGNAL HEAD SECTION
8075	40 EA	12 INCH VEHICULAR TRAFFIC SIGNAL HEAD SECTION
8080	1600 LF	ELECTRICAL CABLE, 2-CONDUCTOR NO. 14 AWG (ALUMINUM SHIELDED)
8081	300 LF	ELECTRICAL CABLE, 2-CONDUCTOR NO. 14 AWG
8082	450 LF	ELECTRICAL CABLE, 3-CONDUCTOR NO. 14 AWG
8083	200 LF	ELECTRICAL CABLE, 5-CONDUCTOR NO. 14 AWG
8084	2500 LF	ELECTRICAL CABLE, 7-CONDUCTOR NO. 14 AWG
8086	825 LF	LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO. 14 AWG)
8087	350 LF	SAWCUT FOR SIGNAL (LOOP DETECTOR)
8088	2 EA	PUSHBUTTON AND SIGN R10-411) "PUSHBUTTON TO CROSS RIGGS RD..."
8094	1 EA	INSTALL CONTROLLER AND CABINET - BASE MOUNT
8095	178 LF	NIGHT TIME SLOTTING 4" SCH 80 RIGID PVC
8096	750 LF	NIGHT TIME SLOTTING 3" SCH 80 RIGID PVC
NEG.	2 EA	TO BE NEGOTIATED - LOOP DETECTOR SPLICE KIT

C. EQUIPMENT TO BE REMOVED BY THE CONTRACTOR AND RETURNED TO MSHA
NOTE: MSHA WILL REMOVE THE CONTROLLER FROM THE CABINET. THE CABINET AND ALL OTHER MATERIALS TO BE REMOVED BY THE CONTRACTOR BECOME THE PROPERTY OF THE CONTRACTOR.



	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
PHASE 1 & 5	◁G-R	◁G-R	R	◁G-R	◁G-R	R	R	R	R	R	R	R	DW	DW	DW	DW	
1 & 5 CHANGE	THE CONTROLLER MAY SKIP TO PHASES 1 & 6 OR 2 & 5 OR 2 & 6																
PHASE 1 & 6	◁G-G	◁G-G	G	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW	
1 CHANGE	◁Y-G	◁Y-G	G	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW	
PHASE 2 & 5	R	R	R	◁G-G	◁G-G	G	R	R	R	R	R	R	DW	DW	DW	DW	
5 CHANGE	R	R	R	◁Y-G	◁Y-G	G	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	W	W	DW	DW	
PED CLEAR	G	G	G	G	G	G	R	R	R	R	R	R	FL/DW	FL/DW	DW	DW	
2 & 6 CHANGE	Y	Y	Y	Y	Y	Y	R	R	R	R	R	R	DW	DW	DW	DW	
PHASE 3	R	R	R	R	R	R	◁G-G	◁G-G	G	R	R	R	DW	DW	DW	DW	
3 CHANGE	R	R	R	R	R	R	Y	Y	Y	R	R	R	DW	DW	DW	DW	
PHASE 4	R	R	R	R	R	R	R	R	R	◁G-G	◁G-G	G	DW	DW	DW	DW	
4 CHANGE	R	R	R	R	R	R	R	R	R	Y	Y	Y	DW	DW	DW	DW	
ALT. 3	R	R	R	R	R	R	R	R	R	◁G-G	◁G-G	G	DW	DW	W	W	
PED. CLEAR	R	R	R	R	R	R	◁G-G	◁G-G	G	R	R	R	DW	DW	FL/DW	FL/DW	
ALT. 3 CHANGE	R	R	R	R	R	R	Y	Y	Y	R	R	R	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	

REVISION "C"

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MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
MD 212 (RIGGS ROAD) AND MD 501 (CHILLUM ROAD)
CHILLUM, MARYLAND
GENERAL INFORMATION SHEET

DRAWN BY: M. PIERRE	F.A.P. NO. AC-STPG-000S(786) E	TS NO. 1063C-GI	SHEET NO.
CHECKED BY: J. LAWRENCE	S.H.A. NO.		
SCALE: NONE	COUNTY: PRINCE GEORGES	T.I.M.S. NO. E962	2 OF 2
DATE: / /	LOG MILE: 16021200.17		

PLOTTED: $DATE$
BY: $USERNAME$
FILE: $FILE$