PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE WIDENING AND REALIGNMENT OF AMMENDALE ROAD AND THE CONSTRUCTION OF A NEW INTERSECTION WITH POWDER MILL ROAD AND OLD GUNPOWDER ROAD

ALL UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC AND ARE NOT TO BE CONSIDERED COMPLETE BECAUSE THEY 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 ENGINEER IMMEDIATELY.

INTERSECTION OPERATION

THE INTERSECTION IS TO OPERATE IN A NEMA EIGHT PHASE FULLY TRAFFIC ACTUATED MODE. ALL LEFT TURNS WILL BE EXCLUSIVE WITH DUAL LEFT TURNS FOR EASTBOUND POWDER MILL ROAD AND FOR NORTHBOUND POWDER MILL ROAD.

CONTROLLER REQUIREMENTS

INSTALL AN EIGHT PHASE, FULLY TRAFFIC ACTUATED, SOLID STATE DIGITAL CONTROLLER WITH SIX FOUR-CHANNEL RACK MOUNTED LOOP DETECTOR AMPLIFIER, INTERSECTION MONITOR AND TELEMETRY MODULE WITH ALL THE NECESSARY HARNESSES AND EQUIPMENT TO BE HOUSED IN A NEMA SIZE 6 BASE MOUNTED CABINET.

SPECIAL NOTES

MATERIALS TO BE FURNISHED BY THE CONTRACTOR SHALL REQUIRE CATALOG CUTS TO BE SUBMITTED FOR SHA APPROVAL PRIOR TO PURCHASING.

PROJECT CONTACTS

THE CONTACTS FOR THIS PROJECT ARE AS FOLLOWS:

DISTRICT 3

MR. MAJID SHAKIB
ASST. DIST. ENGR., TRAFFIC
301 513-7358

MR. WAYNE MOWDY
ASST. DIST. ENGR., MAINTENANCE
301 513-7304

MR. AUGIE REBISH
UTILITIES ENGR.
301 513-7350

MR. JOHN WARNICK
ASST. DIST. ENGR., CONSTRUCTION
301 513-7336

THE OFFICE OF TRAFFIC

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

MR. BOB SNYDER
ASST. DIV. CHIEF, TRAFFIC OPERATIONS
410 787-7631

MR. ED RODENHIZER
TEAM LEADER, SIGNAL OPERATIONS
410 787-7652

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

MS. DARLENE EIDE
SUPPLY OFFICER, SIGNAL WAREHOUSE
410 787-7668

EQUIPMENT LIST

A. EQUIPMENT TO BE FURNISHED BY STATE HIGHWAY ADMINISTRATION

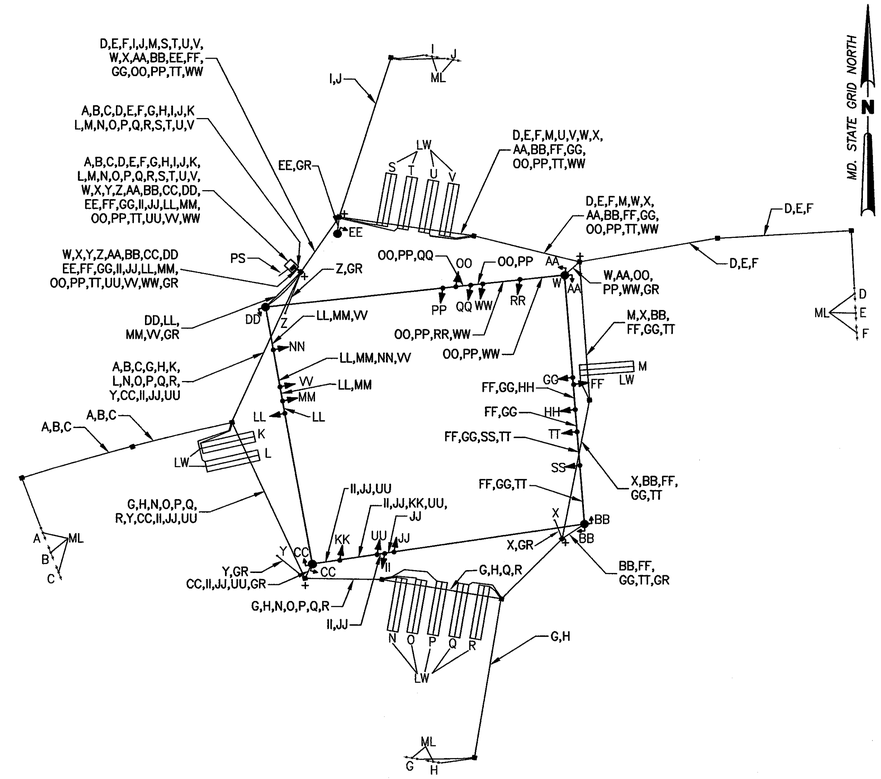
ITEM	QUANTITY	DESCRIPTION

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

ITEM	QUANTITY	DESCRIPTION
203030	4 CY	TEST PIT EXCAVATION
585412	1280 LF	12" WHITE LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
585424	300 LF	24" WHITE LEAD FREE REFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS
801004	21 CY	CONCRETE FOR SIGNAL FOUNDATION
802501	100 LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
805011	100 LF	1" ELECTRICAL CONDUIT-GALVANIZED SLEEVE
805115	80 LF	3" SCHED. 80 RIGID PVC CONDUIT - BORED
805118	870 LF	4" SCHED. 80 RIGID PVC CONDUIT - BORED
805125	100 LF	2" SCHED. 80 RIGID PVC CONDUIT - TRENCHED
805135	770 LF	3" SCHED. 80 RIGID PVC CONDUIT - TRENCHED
805140	160 LF	4" SCHED. 80 RIGID PVC CONDUIT - TRENCHED
805160	60 LF	1" LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUIT FOR DETECTOR SLEEVE
807400	1 EA	ELECTRICAL UTILITY SERVICE EQUIPMENT 120/240 VOLTS 60 AMP
810010	100 LF	ELECTRICAL CABLE - 1 CONDUCTOR, NO. 4 AWG - THHN/THWN
810601	5 EA	NON-INVASIVE PROBE, 500' LEAD-IN CABLE
810605	5 EA	NON-INVASIVE PROBE, 1000' LEAD-IN CABLE
811001	20 EA.	FURNISH & INSTALL ELECTRICAL HANDHOLE
813015	164 SF	FURNISH & INSTALL OVERHEAD SIGN - 4 EACH R3-5 (30" x 36") - SPAN WIRE MOUNT - 8 EACH D3-2 (VAR. x 16") - DUAL FACED SPAN WIRE MOUNT - 1 EACH ASSOCIATED SHIELD ASSEMBLY (30" x 51") - 1 EACH ASSOCIATED SHIELD ASSEMBLY (45" x 75")
818004	1 EA	10' BREAKAWAY PEDESTAL POLE
818008	4 EA	14" x 32' STRAIN POLE (2-PLY)
837001	6 EA	GROUND ROD - 3/4" DIA. x 10' LENGTH
860272	54 EA	12" VEHICULAR TRAFFIC SIGNAL HEAD SECTION
860278	14 EA	12" PEDESTRIAN SIGNAL HEAD SECTION, POLE MOUNT
860282	2 EA	12" PEDESTRIAN SIGNAL HEAD SECTION, PEDESTAL POLE MOUNT
861104	3240 LF	ELECTRICAL CABLE - 2 CONDUCTOR (ALUMINUM SHIELDED)
861105	1230 LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
861106	170 LF	ELECTRICAL CABLE - 3 CONDUCTOR (NO. 14 AWG)
861107	1000 LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
861108	5360 LF	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
862101	6500 LF	LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO. 14 AWG)
862102	2000 LF	SAWCUT FOR SIGNAL (LOOP DETECTOR)
865001	4 EA	PUSHBUTTON AND SIGN
869101	830 LF	STEEL SPAN WIRE-1/4 INCH DIAMETER
869102	830 LF	STEEL SPAN WIRE-3/8 INCH DIAMETER
871202	1 EA.	FURNISH & INSTALL STANDARD SHA TRAFFIC SIGNAL BASE MOUNTED CABINET WITH TELEMETRY INTERCONNECT AND 6 FOUR-CHANNEL RACK MOUNTED LOOP DETECTOR AMPLIFIERS. [NOTE: CABINET SHALL BE PURCHASED FROM ECONOLITE AND DELIVERED TO THE SHA SIGNAL SHOP FOR WIRING AND TESTING. CONTACT MR. ED RODENHIZER AT 410 787-7650.]
800000	3 EA	4' BREAKAWAY PEDESTAL POLE
800000	280 LF	3" SEAMLESS HDPE CONDUIT - BORED

PHASE DIAGRAM

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
PHASE 1&5	<G-	<G-	<G-	R	R	<G-	<G-	R	R	<R-	<R-	<R-	R	R	<R-	<R-	R	R	DW	DW	DW	DW	DW	DW	DW	DW
1 AND 5 CHANGE TO 1&6, 2&5, OR 2&6																										
PHASE 1&6	<G-	<G-	<G-	G	G	<R-	<R-	R	R	<R-	<R-	<R-	R	R	<R-	<R-	R	R	DW	DW	DW	DW	DW	DW	DW	DW
1&6 CHANGE	<Y-	<Y-	<Y-	G	G	<R-	<R-	R	R	<R-	<R-	<R-	R	R	<R-	<R-	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 2&5	<R-	<R-	<R-	R	R	<G-	<G-	G	G	<R-	<R-	<R-	R	R	<R-	<R-	R	R	DW	DW	DW	DW	DW	DW	DW	DW
2&5 CHANGE	<R-	<R-	<R-	R	R	<Y-	<Y-	G	G	<R-	<R-	<R-	R	R	<R-	<R-	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 2&6	<R-	<R-	<R-	G	G	<R-	<R-	G	G	<R-	<R-	<R-	R	R	<R-	<R-	R	R	W	W	W	W	DW	DW	DW	DW
PED CLEARANCE	<R-	<R-	<R-	G	G	<R-	<R-	G	G	<R-	<R-	<R-	R	R	<R-	<R-	R	R	FL/DW	FL/DW	FL/DW	FL/DW	DW	DW	DW	DW
2&6 CHANGE	<R-	<R-	<R-	Y	Y	<R-	<R-	Y	Y	<R-	<R-	<R-	R	R	<R-	<R-	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 3&7	<R-	<R-	<R-	R	R	<R-	<R-	R	R	<G-	<G-	<G-	R	R	<G-	<G-	R	R	DW	DW	DW	DW	DW	DW	DW	DW
3&7 CHANGE TO 3&8, 4&7 OR 4&8																										
PHASE 3&8	<R-	<R-	<R-	R	R	<R-	<R-	R	R	<G-	<G-	<G-	G	G	<R-	<R-	R	R	DW	DW	DW	DW	DW	DW	DW	DW
3&8 CHANGE	<R-	<R-	<R-	R	R	<R-	<R-	R	R	<Y-	<Y-	<Y-	G	G	<R-	<R-	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 4&7	<R-	<R-	<R-	R	R	<R-	<R-	R	R	<R-	<R-	<R-	R	R	<G-	<G-	G	G	DW	DW	DW	DW	DW	DW	DW	DW
4&7 CHANGE	<R-	<R-	<R-	R	R	<R-	<R-	R	R	<R-	<R-	<R-	R	R	<Y-	<Y-	G	G	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 4&8	<R-	<R-	<R-	R	R	<R-	<R-	R	R	<R-	<R-	<R-	G	G	<R-	<R-	G	G	DW	DW	DW	DW	DW	DW	DW	DW
4&8 CHANGE	<R-	<R-	<R-	R	R	<R-	<R-	R	R	<R-	<R-	<R-	Y	Y	<R-	<R-	Y	Y	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 4&8 ALT	<R-	<R-	<R-	R	R	<R-	<R-	R	R	<R-	<R-	<R-	G	G	<R-	<R-	G	G	DW	DW	DW	DW	W	W	W	W
PED CLEARANCE	<R-	<R-	<R-	R	R	<R-	<R-	R	R	<R-	<R-	<R-	G	G	<R-	<R-	G	G	DW	DW	DW	DW	FL/DW	FL/DW	FL/DW	FL/DW
4&8 CHANGE	<R-	<R-	<R-	R	R	<R-	<R-	R	R	<R-	<R-	<R-	Y	Y	<R-	<R-	Y	Y	DW	DW	DW	DW	DW	DW	DW	DW
FLASHING OPERATION	FL/<R-	FL/<R-	FL/<R-	FL/Y	FL/Y	FL/<R-	FL/<R-	FL/Y	FL/Y	FL/<R-	FL/<R-	FL/<R-	FL/R	FL/R	FL/<R-	FL/<R-	FL/R	FL/R	DARK	DARK	DARK	DARK	DARK	DARK	DARK	DARK



WIRING DIAGRAM

A B C D E F G H I J	NON-INVASIVE PROBE LEAD-IN
K L M N O P Q R S T U V	2-CONDUCTOR CABLE (NO. 14 AWG) ALUMINUM SHIELDED
W X Y Z	2-CONDUCTOR CABLE (NO. 14 AWG)
DD EE	3-CONDUCTOR CABLE (NO. 14 AWG)
AA BB CC HH KK NN QQ RR SS	5-CONDUCTOR CABLE (NO. 14 AWG)
FF GG II JJ LL MM OO PP TT UU VV WW	7-CONDUCTOR CABLE (NO. 14 AWG)
ES	3-WIRE NO. 4 AWG FOR TRAFFIC SIGNAL ELECTRICAL SERVICE
PS	PROPOSED UNDERGROUND ELECTRICAL SERVICE BY BG&E
ML	NON-INVASIVE PROBE
LW	LOOP WIRE
GR	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
+	GROUND ROD

Dewberry
Dewberry & Davis LLC
8401 ARLINGTON BLVD.
FAIRFAX, VA 22031
PHONE: 703.849.0100
FAX: 703.849.0118

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
AMMENDALE / VIRGINIA MANOR ROAD
Section II - Phase 3
TRAFFIC SIGNAL PLAN
MD 212 (Powder Mill Road) @ Ammendale Road

DRAWN BY: JRG	F.A.P. NO. N/A	TS NO. 3061	SHEET NO.
CHECKED BY: MDS	S.H.A. NO. P633551171		
SCALE: 1"=20'	COUNTY: Prince George's	T.I.M.S. NO. G163	68A OF
DATE: MAY 2004	LOG MILE: 16021208.60		