PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE INSTALLATION OF A NEW TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 32 AT RELOCATED MD 851 (SPRINGFIELD AVE) AT THE NORTH END OF TOWN OF SYKESVILLE IN CARROLL COUNTY. MD 32 IS ASSUMED TO RUN IN A NORTH/SOUTH DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA-EIGHT-PHASE FULLY ACTUATED MODE. WITH E/P LEFTS ON NB/SB MD 32, OVERLAP FOR EB/WB MD 851 RIGHT TURN MOVEMENTS, AND AN EXCLUSIVE LEFT TURN MOVEMENT FOR MD 851/SPRINGFIELD AVENUE. THERE WILL ALSO BE A PEDESTRIAN MOVEMENT OPERATION DURING THE MD 851 THRU MOVEMENT. MOVEMENTS ON MD 32 WILL OPERATE CONCURRENTLY. THE MOVEMENTS ON THE RELOCATED MD 851 (SPRINGFIELD RD) WILL OPERATE CONCURRENTLY.

CONTROLLER REQUIREMENTS

INSTALL A FULL-TRAFFIC-ACTUATED, SOLID STATE EIGHT PHASE CONTROLLER WITH SYSTEM PACKAGE, INTERSECTION MONITOR, PHONE DROP, VIDEO DETECTOR RACK, TELEMETRY MODULE, ISOLATION BOARD AND SPECIAL RELAY HOUSED IN NEMA SIZE "6" BASE MOUNTED CABINET. SHA TO INSTALL VIDEO DETECTION INTERFACE EQUIPMENT.

UPON COMPLETION OF THE PROJECT, THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF THE SHA AT 410-787-7635 TO ARRANGE FOR THE PHONE DROP LINE INSTALLATION. THE CONTRACTOR IS TO PROVIDE MR. SNYDER WITH THE NEAREST STREET ADDRESS, ZIP CODE, AND PHONE NUMBER.

EQUIPMENT LIST A

A. EQUIPMENT TO BE SUPPLIED BY THE SHA

ITEM NUMBER	SPEC SECTION	QUANTITY	DESCRIPTION
971017	817	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	190 S.F.	SHEET ALUMINUM SIGNS TO CONSIST OF: -6 EA. R3-5L (LANE CONTROL) 30 IN. X 36 IN. - MAST ARM MOUNT -4 EA. R3-5R (LANE CONTROL) 30 IN. X 36 IN. - MAST ARM MOUNT -2 EA. R10-12 (LANE USE) 36 IN. X 42 IN. - MAST ARM MOUNT -4 EA. D-301 (STREET NAME) 96 IN. X 16 IN. - MAST ARM MOUNT -2 EA. R10-4I (PEDESTRIAN SIGN) 9 IN. X 12 IN. - POLE MOUNT -1 EA. ASSOCIATED SHIELD ASSEMBLY "SOUTH, MD 32, RIGHT ARROW" (24 IN. X 51 IN.) POLE MOUNT WITH HARDWARE -1 EA. ASSOCIATED SHIELD ASSEMBLY "NORTH, MD 32, LEFT ARROW" (36 IN. X 75 IN.) POLE MOUNT WITH HARDWARE -1 EA. ASSOCIATED SHIELD ASSEMBLY "NORTH, MD 32, RIGHT ARROW" (24 IN. X 51 IN.) POLE MOUNT WITH HARDWARE -1 EA. ASSOCIATED SHIELD ASSEMBLY "SOUTH, MD 32, LEFT ARROW" (36 IN. X 75 IN.) POLE MOUNT WITH HARDWARE

EQUIPMENT LIST B

B. EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR

ITEM NUMBER	SPEC SECTION	QUANTITY	DESCRIPTION
203030	205	10 C.Y.	TEST PIT EXCAVATION
585620	556	600 L.F.	12 IN. HEAT APPLIED THERMOPLASTIC WHITE PAVEMENT MARKINGS
585624	556	200 L.F.	24 IN. HEAT APPLIED THERMOPLASTIC WHITE PAVEMENT MARKINGS
801004	801	22 C.Y.	CONCRETE FOR SIGNAL FOUNDATION
802501	805	2250 L.F.	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
805115	805	60 L.F.	3 IN. SCHEDULE 80 RIGID PVC CONDUIT-BORED
805118	805	250 L.F.	4 IN. SCHEDULE 80 RIGID PVC CONDUIT-BORED
805125	805	80 L.F.	2 IN. SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
805135	805	2650 L.F.	3 IN. SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
805140	805	250 L.F.	4 IN. SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
807202	807	1 EA.	METERED SERVICE PEDESTAL
807400	807	1 EA.	ELECTRIC UTILITY SERVICE EQUIPMENT 120/240 VOLTS 60 AMPS
808002	818	2 EA.	30 FT. STEEL LIGHTING STRUCTURE, PAINTED
810605	810	8 EA.	NON INVASIVE DETECTOR, 1000 FT. LEAD IN CABLE
811001	811	20 EA.	ELECTRICAL HANDHOLE
813010	813	190 S.F.	INSTALL OVERHEAD SIGN
816001	810	4 EA.	VIDEO DETECTION CAMERA
816010	810	4 EA.	CONTROL CABLE, 500 FT. VIDEO DETECTION, CAMERA TO CONTROLLER
818010	818	2 EA.	14 FT. BREAKAWAY PEDESTAL POLE
818036	818	1 EA.	STEEL POLE WITH SINGLE 50 FT. MAST ARM
818041	818	3 EA.	STEEL POLE WITH SINGLE 60 FT. MAST ARM
821002	821	2 EA.	BREAKAWAY BASE SUPPORT SYSTEM FOR LIGHTING STRUCTURE
⚠ 831010	806	2 EA.	250 WATT HPS LAMP AND LUMINAIRE
837001	804	13 EA.	GROUND ROD 3/4 IN. DIAMETER X 10 FT. LENGTH
860270	814	6 EA.	8 IN. VEHICULAR TRAFFIC SIGNAL HEAD SECTION
860272	814	60 EA.	12 IN. VEHICULAR TRAFFIC SIGNAL HEAD SECTION
860278	814	4 EA.	12 IN. PEDESTRIAN SIGNAL HEAD SECTION POLE MOUNT
860292	814	4 EA.	CUT, CLEAN, GALVANIZE, AND CAP TRAFFIC SIGNAL STRUCTURE
861105	810	670 L.F.	ELECTRICAL CABLE - 2 CONDUCTOR (NO.14 AWG)
861107	810	840 L.F.	ELECTRICAL CABLE - 5 CONDUCTOR (NO.14 AWG)
861108	810	3800 L.F.	ELECTRICAL CABLE - 7 CONDUCTOR (NO.14 AWG)
861116	810	1400 L.F.	ELECTRICAL CABLE - 2 CONDUCTOR (NO.12 AWG)
⚠ 866104	818	2 EA.	20 FT. LIGHTING ARM FOR TRAFFIC SIGNAL STRUCTURE
⚠ 865001	814	2 EA.	PUSHBUTTON AND SIGN
⚠ 871117	816	1 EA.	INSTALL EIGHT PHASE (FULLY ACTUATED) CONTROLLER AND CABINET-BASE MOUNT
800000	806	2 EA.	6 FT. LIGHTING ARM
800000	806	2 EA.	250 WATT, 240 VOLTS HPS COBRAHEAD LUMINAIRE

EQUIPMENT LIST C

C. EXISTING EQUIPMENT TO BE REMOVED BY THE CONTRACTOR AND DELIVERED TO THE STATE HIGHWAY ADMINISTRATION 7491 CONNELLEY DR. HANOVER, MD 21076. THE CONTRACTOR SHALL NOTIFY THE SHA AT (410) 787-7652 AT LEAST THREE DAYS IN ADVANCE OF DELIVERY.

NONE

EQUIPMENT LIST D

D. ALL EQUIPMENT REMOVED AND NOT RETURNED TO THE SHA WILL BECOME PROPERTY OF THE CONTRACTOR.

PROJECT CONTACTS

THE CONTACT PERSONS FOR DISTRICT #7 ARE AS FOLLOWS:

EDWARD RODENHIZER
CHIEF, SHA TRAFFIC SIGNALS SHOP
PHONE: 410-787-7650

RICHARD DAFF, SR
CHIEF TRAFFIC OPERATIONS DIVISION
PHONE: 410-787-7630

MARK FLACK
ASSISTANT DISTRICT ENGINEER -CONSTRUCTION
PHONE: 301-624-8201

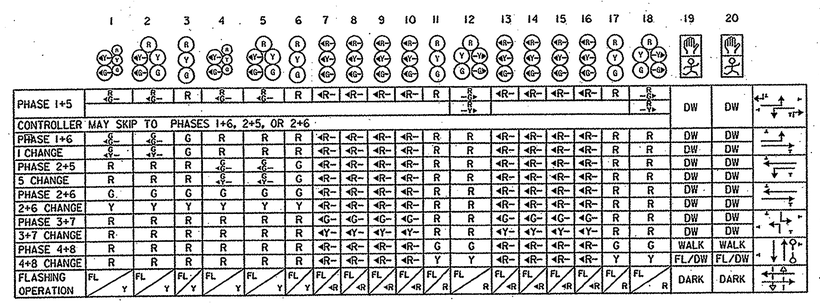
DAVE COYNE
ASSISTANT DISTRICT ENGINEER -MAINTENANCE
PHONE: 301-624-8108

JOHN CONCANNON
ASSISTANT DISTRICT ENGINEER -TRAFFIC
PHONE: 301-624-8141

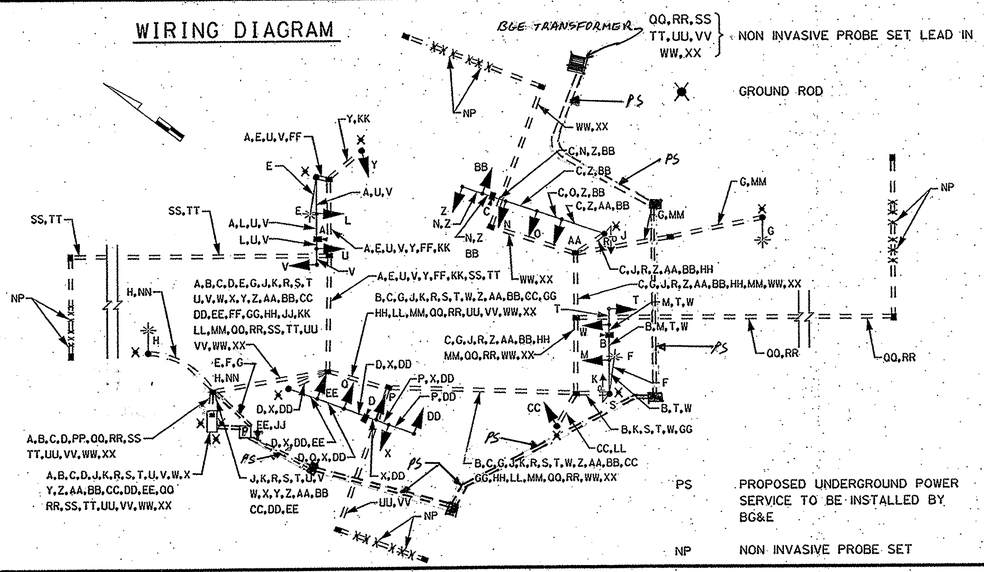
DISTRICT UTILITIES ENGINEER
PHONE: 301-624-8110

BALTIMORE GAS AND ELECTRIC CO
7317 PARKWAY DR SOUTH
HANOVER, MD 21076
PHONE:

PHASE CHART



WIRING DIAGRAM

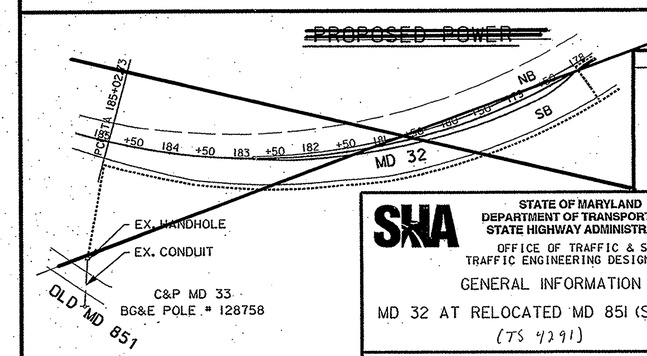


A,B C,D	CONTROL CABLE VIDEO DETECTION CAMERA
E,F G,H	ELECTRICAL CABLE - 2 CONDUCTOR (NO.12 AWG)
J,K	ELECTRICAL CABLE - 2 CONDUCTOR (NO.14 AWG)
L,M,N,O P,Q,R,S	ELECTRICAL CABLE - 5 CONDUCTOR (NO.14 AWG)
T,U,V,W X,Y,Z,AA BB,CC,DD,EE	ELECTRICAL CABLE - 7 CONDUCTOR (NO.14 AWG)
FF,GG,HH,JJ KK,LL,MM NN,OO,PP	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE

PS	PROPOSED UNDERGROUND POWER SERVICE TO BE INSTALLED BY BG&E
NP	NON INVASIVE PROBE SET

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

~~PROPOSED POWER~~



REVISIONS
⚠ ADDENDUM NO.1 5/ /05

☐ GREENLINE REVISION NO. UPDATE PROPOSED POWER SOURCE. 05/ /06

~~1. USE EXISTING HANDHOLE.~~
~~2. INSTALL 3 IN. (SCH 80) PVC CONDUIT TRENCHED FROM EXISTING HANDHOLE TO PROPOSED CONTROLLER.~~

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION

GENERAL INFORMATION SHEET

MD 32 AT RELOCATED MD 851 (SPRINGFIELD AVE)
(TS 4291)

SCALE NONE	DATE NOV 2004	CONTRACT NO. CL711A21	
DESIGNED BY MB		COUNTY CARROLL	
DRAWN BY MB		LOGMILE 06003201.12	
CHECKED BY RNB		T.I.M.S. NO. F815	
F.A.P. NO. SEE TITLE SHEET		TOD NO.	
DRAWING NO. TS-2 - 2 OF 4		SHEET NO. 174 OF 208	

DRILL HOLES
DRILL HOLES
DRILL HOLES
BORDER REV: DATE: June 1, 2004
BY: $USERNAME$