

PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE INSTALLATION OF A NEW TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 170 (TELEGRAPH ROAD) AT BUCKINGHAM PLACE IN ANNE ARUNDEL COUNTY, MARYLAND. THE NORTH AND SOUTHBOUND DIRECTION MD 170 THROUGH MOVEMENTS WILL RUN CONCURRENTLY. A THIRD LEG (BUCKINGHAM PLACE) WILL BE ADDED TO MD 170. A NORTHBOUND EXCLUSIVE/ PERMISSIVE LEFT TURN WILL BE ADDED TO MD 170. THE BUCKINGHAM PLACE ENTRANCE WILL OPERATE ALONE. A DECELERATION LANE AND AN ACCELERATION LANE ALONG SOUTHBOUND MD 170 WILL BE ADDED TO ACCOMMODATE THE BUCKINGHAM PLACE ENTRANCE.

INTERSECTION OPERATION

THE INTERSECTION IS TO OPERATE IN A NEMA FOUR (4) PHASE, FULL-TRAFFIC-ACTUATED MODE. THERE WILL BE AN EXCLUSIVE/PERMISSIVE LEFT TURN PHASE FOR THE NORTHBOUND MOVEMENT ON MD 170. THE BUCKINGHAM PLACE THROUGH MOVEMENTS WILL OPERATE ALONE.

AN EIGHT PHASE, FULL-TRAFFIC-ACTUATED, SOLID STATE DIGITAL CONTROLLER WITH INTERSECTION MONITOR AND HARNESS, BATTERY BACK-UP, VIDEO DETECTION INTERFACE AND (1) FOUR CHANNEL RACK MOUNTED TIME DELAY OUTPUT LOOP DETECTOR AMPLIFIERS HOUSED IN A BASE MOUNTED CABINET ARE TO BE INSTALLED AT THIS LOCATION.

PROJECT CONTACTS:

I. THE FOLLOWING CONTACT PERSONS FOR THIS PROJECT ARE AS FOLLOWS:
 KIMBERLY TRAN, ASSISTANT DISTRICT ENGINEER - TRAFFIC
 PHONE: (410)-841-1019

JAMES FOLDEN, ASSISTANT DISTRICT ENGINEER - CONSTRUCTION
 PHONE: (410)-841-1031

JOHN S. MAYS, ASSISTANT DISTRICT ENGINEER - MAINTENANCE
 PHONE: (410)-841-1005

JOE HORTY, UTILITY ENGINEER
 PHONE: (410) 841-1039

EDWARD RODENHIZER, SIGNAL OPERATIONS
 PHONE: (410)-787-7652

THE POWER COMPANY REPRESENTATIVE IS:
 BALTIMORE GAS ELECTRIC COMPANY
 7317 PARKWAY DRIVE SOUTH
 HANOVER, MARYLAND 21076
 410-859-9070
 WMS# 0001640571
 REFERENCE# 3444656682

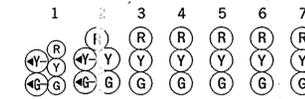
EQUIPMENT LIST

A. EQUIPMENT TO BE SUPPLIED BY THE ADMINISTRATION.
 NONE.

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

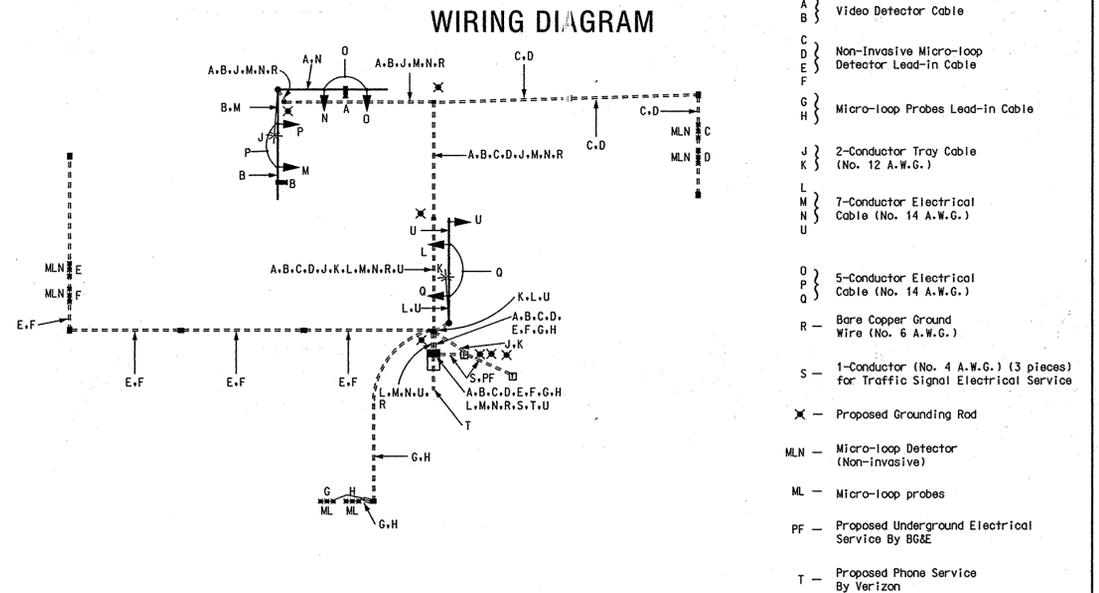
QUANTITY	UNITS	DESCRIPTION
LS	LS	MAINTENANCE OF TRAFFIC (AVERAGE)
LS	LS	MOBILIZATION (AVERAGE)
1	EA	27 FT. STEEL MAST ARM POLE WITH 60 FT. MAST ARM
1	EA	27 FT. STEEL TWIN MAST ARM POLE WITH TWO 50 FT. MAST ARMS
2	EA	10 FT. LUMINARIES ARM
2	EA	250W HPS LAMP AND LUMINARIES
1	EA	STANDARD S.H.A. TRAFFIC SIGNAL CONTROLLER, BASE MOUNTED NEMA 6 CABINET, VIDEO DETECTION INTERFACE, TELEMETRY INTERFACE EQUIPMENT, AND FOUR-CHANNEL LOOP DETECTOR AMPLIFIERS
1	EA	VIDEO DETECTOR CAMERA AND 200 FT. CABLE
2	EA	VIDEO DETECTOR CAMERA AND 400 FT. CABLE
2	EA	MICROLOOP PROBE (SET OF 3) WITH 500 FT. LEAD-IN CABLE
4	EA	NON-INVASIVE PROBE (SET OF 3) WITH 1000 FT. LEAD-IN CABLE
5	EA	12 IN. 3-SECTION LED SIGNAL HEAD - MAST
1	EA	12 IN. 5-SECTION LED SIGNAL HEAD - MAST
1	EA	8 IN. / 12 IN. 5-SECTION LED SIGNAL HEAD - MAST
3	EA	16 IN. X VAR. D-3(I) SIGN - MAST ARM
1	EA	30 IN. X 51 IN. SHIELD ASSEMBLY SIGN - GROUND MOUNT
1	EA	48 IN. X 75 IN. SHIELD ASSEMBLY SIGN - MAST ARM
3	EA	48 IN. X 48 IN. W3-3 "NEW" SIGN - GROUND
30	LF	4 IN. X 4 IN. WOOD SIGN SUPPORTS
2	CY	TEST PIT EXCAVATION
13	EA	HANDHOLE
45	LF	1-CONDUCTOR CABLE (NO. 4 AWG)
450	LF	2-CONDUCTOR TRAY CABLE (NO. 12 AWG)
90	LF	5-CONDUCTOR CABLE (NO. 14 AWG)
900	LF	7-CONDUCTOR CABLE (NO. 14 AWG)
215	LF	BARE COPPER GROUND WIRE (NO. 6 AWG)
15	LF	1 IN. LIQUID TIGHT FLEXIBLE CONDUIT FOR DETECTOR SLEEVE
30	LF	2 IN. PVC CONDUIT (SCHEDULE 80) - TRENCHED
1100	LF	3 IN. PVC CONDUIT (SCHEDULE 80) - TRENCHED
160	LF	3 IN. PVC CONDUIT (SCHEDULE 80) - PUSHED/BORED
160	LF	4 IN. PVC CONDUIT (SCHEDULE 80) - TRENCHED
130	LF	4 IN. PVC CONDUIT (SCHEDULE 80) - PUSHED/BORED
15	CY	CONCRETE FOUNDATION FOR TRAFFIC SIGNAL EQUIPMENT
7	EA	GROUND ROD - 3/4 IN. X 10 FT. LENGTH
1	EA	METERED AND PEDESTAL EQUIPMENT FOR ELECTRICAL SERVICE
115	LF	24 IN. WHITE THERMOPLASTIC PAVEMENT MARKING - STOP LINE

PHASE CHART



PHASE 2 AND 5	+GG	+GG	G	R	R	R	R	←
2 AND 5 CHANGE	+YG	+YG	G	R	R	R	R	↙
PHASE 2 AND 6	G	G	G	G	G	R	R	←
2 AND 6 CHANGE	Y	Y	Y	Y	Y	R	R	→
PHASE 4	R	R	R	R	R	G	G	↑
4 CHANGE	R	R	R	R	R	Y	Y	↑
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	↔

WIRING DIAGRAM



- A } Video Detector Cable
- B }
- C } Non-Invasive Micro-loop
- D } Detector Lead-in Cable
- E }
- F }
- G } Micro-loop Probes Lead-in Cable
- H }
- J } 2-Conductor Tray Cable
- K } (No. 12 A.W.G.)
- L } 7-Conductor Electrical
- M } Cable (No. 14 A.W.G.)
- N }
- U }
- O } 5-Conductor Electrical
- P } Cable (No. 14 A.W.G.)
- Q }
- R } Bare Copper Ground
- } Wire (No. 6 A.W.G.)
- S } 1-Conductor (No. 4 A.W.G.) (3 pieces)
- } for Traffic Signal Electrical Service
- X } Proposed Grounding Rod
- ML, N } Micro-loop Detector
- } (Non-invasive)
- ML } Micro-loop probes
- PF } Proposed Underground Electrical
- } Service By BG&E
- T } Proposed Phone Service
- } By Verizon

SHA STATE OF MARYLAND
 DEPARTMENT OF TRANSPORTATION
 STATE HIGHWAY ADMINISTRATION
 OFFICE OF TRAFFIC & SAFETY
 TRAFFIC ENGINEERING DESIGN DIVISION
 MD 170 (Telegraph Road)
 At Buckingham Place

GENERAL INFORMATION PLAN

SCALE	NOT TO SCALE	DATE	July 21, 2008	CONTRACT NO.	BW996M82
DESIGNED BY	F. Brownley/M.A.M.	COUNTY	Anne Arundel		
DRAWN BY	F. Brownley	LOGMILE	02017004.90		
CHECKED BY		TMS NO.	1-819		
FAP NO.	N/A	TOD NO.			
TS NO.	4665	DRAWING	OF	SHEET NO.	2 OF 2

The Traffic Group, Inc.
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 410-931-6100
 1-800-583-6111
 Fax 410-931-6601

BY: mmears