

**PROJECT DESCRIPTION**

**GENERAL**

THIS PROJECT INVOLVES THE CONSTRUCTION OF A MAST ARM TRAFFIC SIGNAL WITH APS AND CPS AT THE INTERSECTION OF BRIGGS CHANEY ROAD AT MD 200 (INTERCOUNTY CONNECTOR) RAMP "C" IN MONTGOMERY COUNTY.

BRIGGS CHANEY ROAD IS CONSIDERED TO RUN IN A NORTH-SOUTH DIRECTION.

**INTERSECTION OPERATION**

A SYSTEM CONTROLLER HOUSED IN A BASE MOUNTED CABINET SHALL BE INSTALLED AT THIS LOCATION. THE INTERSECTION WILL OPERATE IN A SEMI-ACTUATED MODE USING 3 NEMA PHASES. AUDIBLE PEDESTRIAN SIGNALS SHALL BE INSTALLED IN THE NORTHEAST AND SOUTHEAST QUADRANTS OF THE INTERSECTION AND SHALL CONTROL CROSSING ALONG THE EAST LEG OF THE INTERSECTION ONLY. NEW CURB AND GUTTER AND SIDEWALK WITH ADA RAMPS AND DETECTABLE WARNING SURFACE MATERIAL SHALL BE INSTALLED IN THE NORTHEAST AND SOUTHEAST QUADRANTS OF THE INTERSECTION.

**SPECIAL NOTES**

- ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC ONLY AND MAY NOT BE COMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING MISS UTILITY 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 WILL OCCUR, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IMMEDIATELY SO THAT THE CONFLICT MAY BE RESOLVED.
- CONTRACTOR SHALL USE CAUTION WHEN INSTALLING SIGNAL EQUIPMENT TO AVOID DISTURBANCE OF EXISTING UNDERGROUND UTILITIES. CONTRACTOR SHALL TEST PIT TO DETERMINE EXACT LOCATION AND DEPTH OF UNDERGROUND UTILITIES PRIOR TO INSTALLING SIGNAL EQUIPMENT.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR TERMINATING ALL SIGNAL CABLES, EXCLUDING INTERCONNECT, TO THE APPROPRIATE TERMINALS AND SHALL PROPERLY LABEL EACH CABLE.
- SPLICING OF INTERCONNECT CABLE SHALL BE PERFORMED BY MONTGOMERY COUNTY FORCES. THE CONTRACTOR SHALL RUN THE INTERCONNECT CABLE INTO THE BASE OF EACH CABINET AND PROPERLY TAG THE CABLE. ALL CONTROLLER CABINET WIRING WILL BE PERFORMED BY MONTGOMERY COUNTY FORCES. ALSO, ALL ACCESSIBLE PEDESTRIAN CONTROL EQUIPMENT SHALL BE DELIVERED TO THE MONTGOMERY COUNTY SIGNAL SHOP FOR TESTING AND PROGRAMMING PRIOR TO INSTALLATION. CONTACT KAMAL HAMUD AT (240) 777-8761 SEVENTY-TWO HOURS IN ADVANCE OF INTENDED WORK.
- MAINTENANCE OF TRAFFIC WILL BE HANDLED BY THE CONTRACTOR UTILIZING THE FOLLOWING STANDARD PLATES FOR TRAFFIC CONTROL: 104.00 - 12, 104.04 - 01, 104.04 - 13 AND 104.04 - 15.
- APS WILL FUNCTION AS FOLLOWS:

TO CROSS MD 200 RAMP "C"

- WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL BE "WAIT TO CROSS MD 200 RAMP AT BRIGGS CHANEY".
- WHEN WALK PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK, WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.

7. THE CONTACT PERSONS FOR THIS PROJECT ARE AS FOLLOWS:

MS. ANYESHA MOOKHERJEE, ASSISTANT DISTRICT ENGINEER - TRAFFIC  
PHONE: (301) 513-7498

MR. VICTOR GRAFTON, ASSISTANT DISTRICT ENGINEER - UTILITY  
PHONE: (301) 513-7315

MR. VERNON STINNETT, ASSISTANT DISTRICT ENGINEER - MAINTENANCE  
PHONE: (301) 513-7304

MR. RICHARD L. DAFF SR., CHIEF - TRAFFIC OPERATIONS DIVISIONS  
PHONE: (410) 787-7630

THE POWER COMPANY REPRESENTATIVE IS:  
MR. ED STONEWORK  
BALTIMORE GAS AND ELECTRIC POWER COMPANY  
PHONE: (410) 859-9047

MR. KAMAL HAMUD  
MONTGOMERY COUNTY DPWT  
PHONE: (240) 777-8761

MR. KEITH LORD  
MONTGOMERY COUNTY  
PHONE: (301) 279-1291

MR. EUGENE BAILEY  
SIGN SHOP  
PHONE: (410) 787-7676

**EQUIPMENT LIST**

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

CATEGORY CODE NO.	DESCRIPTION	UNITS	QUANTITY
203030	TEST PIT EXCAVATION	CY	3
800000	2-WIRE CENTRAL CONTROL UNIT	EA	1
800000	FURNISH AND INSTALL 12 INCH LED COUNTDOWN PEDESTRIAN SIGNAL HEAD	EA	2
800000	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON AND SIGN	EA	2
800000	ELECTRICAL CABLE - 1 CONDUCTOR (NO. 4 AWG THHN/THWN)	LF	20
801004	CONCRETE FOR SIGNAL FOUNDATIONS	CY	9
801605	SHEET ALUMINUM SIGN	SF	52
802501	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE	LF	290
805118	4 INCH SCHED. 80 PVC CONDUIT-BORED	LF	190
805125	2 INCH SCHED. 80 PVC CONDUIT-TRENCHED	LF	20
805135	3 INCH SCHED. 80 PVC CONDUIT-TRENCHED	LF	200
805140	4 INCH SCHED. 80 PVC CONDUIT-TRENCHED	LF	570
807202	METERED SERVICE PEDESTAL	EA	1
811001	FURNISH AND INSTALL ELECTRICAL HANDHOLE	EA	7
800000	SAW CUT FOR SIGNAL (LOOP DETECTOR)	LF	400
800000	1 INCH LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUIT FOR DETECTOR SLEEVE	LF	100
800000	LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO. 14 AWG)	LF	1450
818004	10 FOOT BREAKAWAY PEDESTAL POLE	EA	1
818010	14 FOOT BREAKAWAY PEDESTAL POLE	EA	1
818036	STEEL POLE WITH A SINGLE 50 FOOT MAST ARM	EA	1
818051	STEEL POLE WITH TWIN 50 FOOT AND 70 FOOT MAST ARMS	EA	1
822002	12-PAIR COMMUNICATION CABLE, JELLY FILLED (UNDERGROUND)	EA	530
831010	250 W HIGH PRESSURE SODIUM LAMP AND LUMINAIRE	EA	2
837001	GROUND ROD - 3/4 INCH DIA. X 10 FOOT LENGTH	EA	7
800000	FURNISH AND INSTALL 12 INCH LED VEHICULAR TRAFFIC SIGNAL HEAD (R,Y,G)	EA	7
800000	4 CONDUCTOR ELECTRICAL CABLE (ALUMINUM SHIELDED)	LF	1200
861105	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)	LF	570
861107	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)	LF	650
861108	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)	LF	1100
861116	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 AWG)	LF	390
866103	15 FOOT LIGHTING ARM ON SIGNAL STRUCTURE	EA	1
866104	20 FOOT LIGHTING ARM ON SIGNAL STRUCTURE	EA	1
871202	INSTALL CONTROLLER AND CABINET - BASE MOUNT	EA	1
800000	NEMA SIZE "6" TRAFFIC SIGNAL CONTROLLER AND CABINET	EA	1

SEQUENCE OF OPERATION SHEET  
TRAFFIC OPERATIONS SECTION  
DIVISION OF TRAFFIC ENGINEERING  
MONTGOMERY COUNTY, MARYLAND

INTERSECTION: MD 200 WB RAMP C AT BRIGGS CHANEY ROAD

SIGNAL HEAD INDICATIONS			
SIGNAL NO.	1,2,3,4,5,6,7	8,9	
TOTAL:	7	2	
LEGEND			

NOTES:

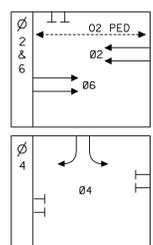
SUBMITTED: \_\_\_\_\_ CHECKED: \_\_\_\_\_ APPROVED: \_\_\_\_\_  
IN SERVICE BY: \_\_\_\_\_ DATE: \_\_\_\_\_ TIME: \_\_\_\_\_

SIGNAL NO.	INTERVAL							FLASH
	1	2	3	4	5	6	7	
1	G	G	Y	R	R	R	R	FLY
2	G	G	Y	R	R	R	R	FLY
3	G	G	Y	R	R	R	R	FLY
4	G	G	Y	R	R	R	R	FLY
5	R	R	R	R	G	Y	R	FLR
6	R	R	R	R	G	Y	R	FLR
7	R	R	R	R	G	Y	R	FLR
8	WK	FLDW	DW	DW	DW	DW	DW	DARK
9	WK	FLDW	DW	DW	DW	DW	DW	DARK
PHASE	2 & 6		ALL RED		4		ALL RED	

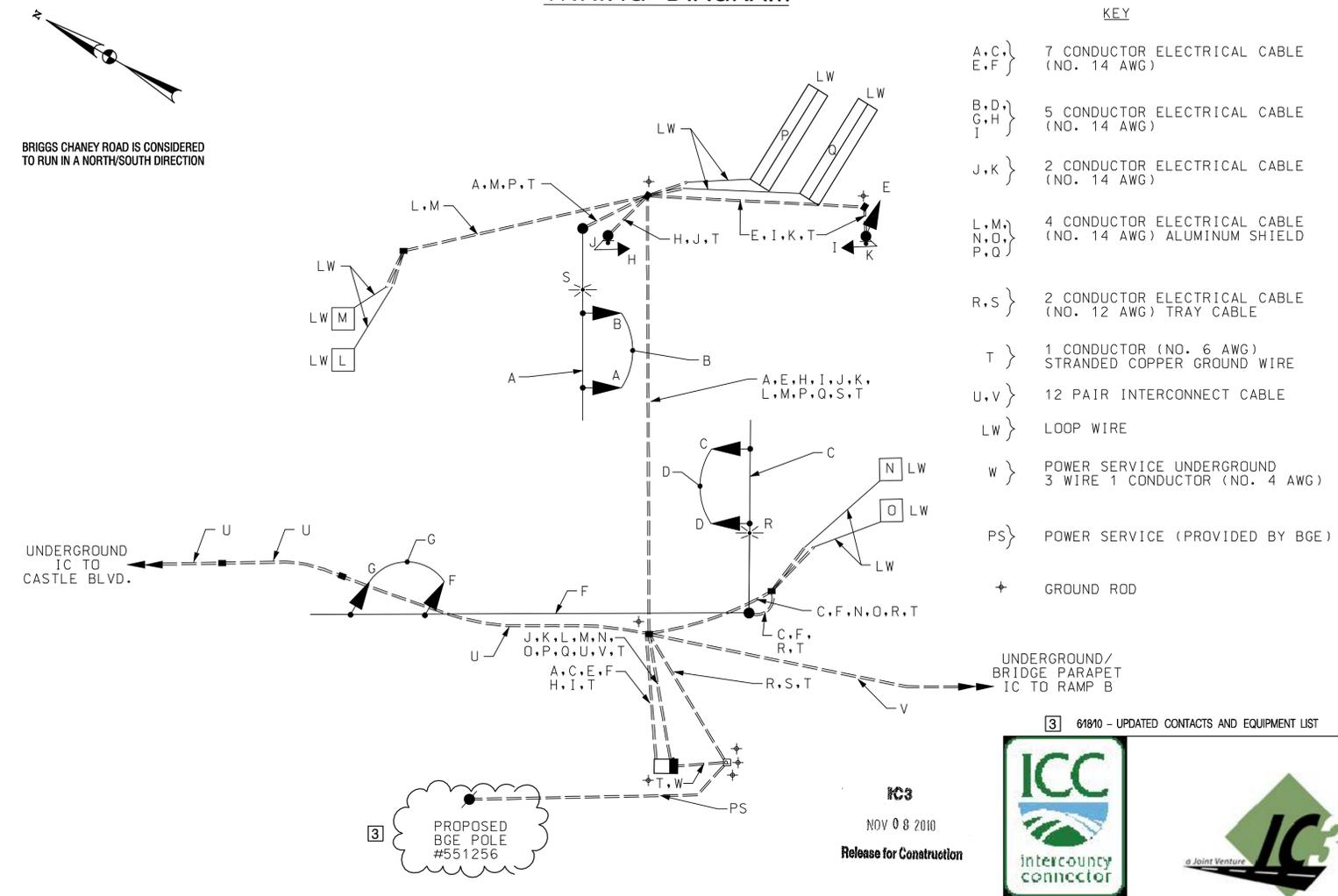
SHEET NO.

7 OF 31

**PHASING**



**WIRING DIAGRAM**



NO.	REVISION	BY	APP'D	DATE	DESIGNED BY: JRS	DATE 09-28-09
					DRAWN BY: JRS	DATE 09-28-09
					CHECKED BY: DSU	DATE 09-28-09
					DRAWING NO.: SG-2.2	
Approved: _____ Chief, Div. of Traffic Engineering and Operations						
Reviewed: _____ Manager, Traffic Engineering Studies						
Reviewed: _____ Manager, Transportation Systems Engineering						
Recommended: _____ Engineer, Transportation Systems Engineering						

DEPARTMENT OF TRANSPORTATION  
DIVISION OF TRAFFIC ENGINEERING & OPERATIONS  
MONTGOMERY COUNTY, MARYLAND

MD 200 WB RAMP "C" AT  
BRIGGS CHANEY ROAD  
BRIGGS CHANEY RD AT MD 200 (ICC) W RAMP

SCALE : 1" = 20'

TS 10696