

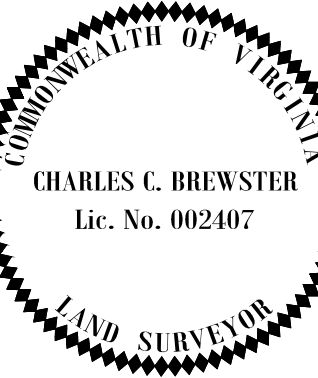
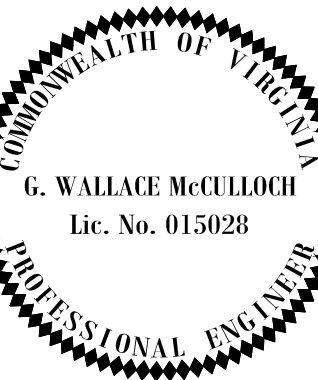


CITY OF
BRISTOL, VIRGINIA
300 LEE STREET
BRISTOL, VA 24201
(276) 645-7470

**THESE PLANS ARE
UNFINISHED AND ARE
NOT TO BE USED FOR
ANY TYPE OF
CONSTRUCTION.**

REVISIONS

DATE

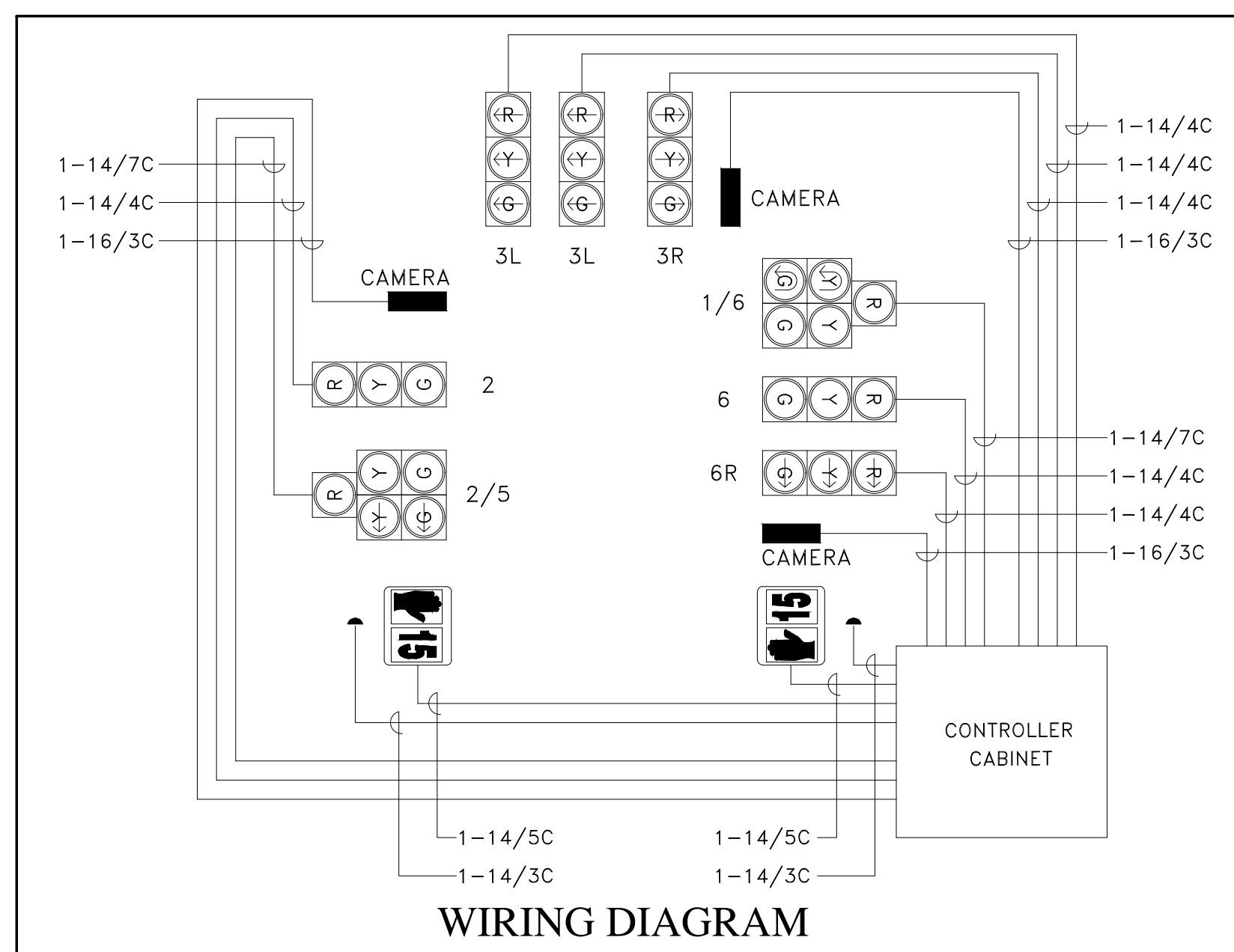


WIDENING OF
LEE HIGHWAY
PHASE - 2
UPC 105753

SIGNALIZATION PLANS
LEE HWY & CABELA DR

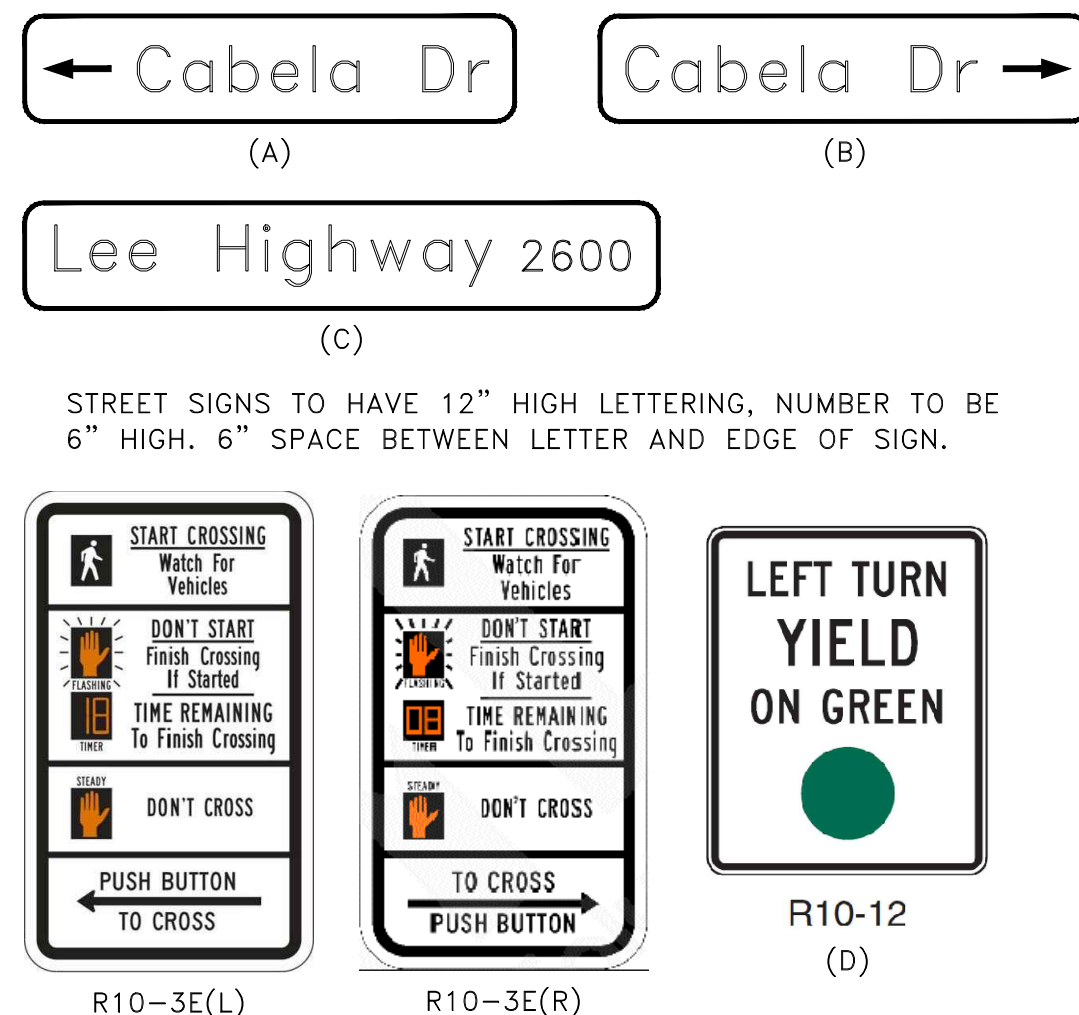
DATE:
MAY 22, 2017
DRAWING NO.
130-229
FILE NAME:
LEE HWY PH 2

SHEET NUMBER
6.1 of 11



WIRING DIAGRAM

SIGNS

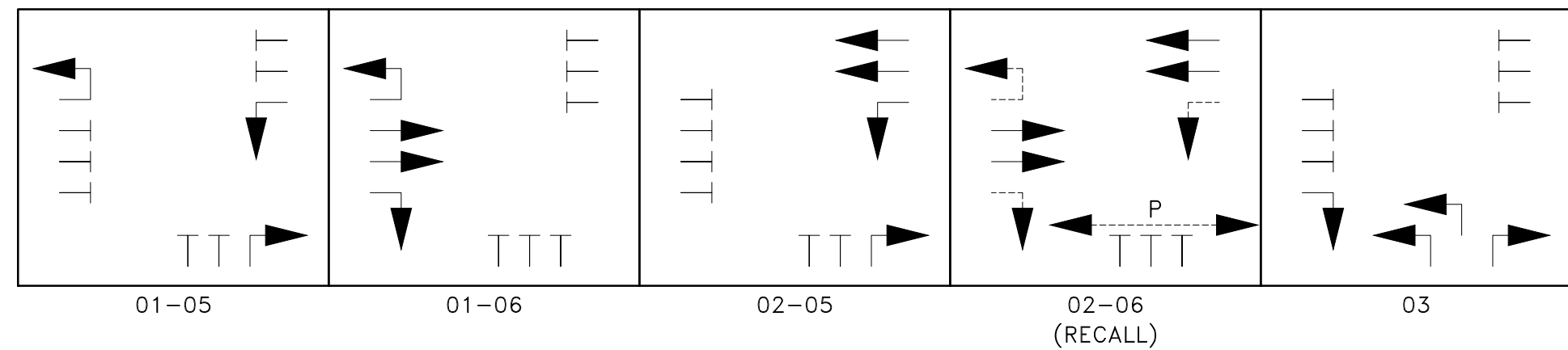


- ▲ CONTROL CABINET
- ▲ VDOT STD SE-3 ELECTRICAL SERVICE W/ METER BASE & VDOT STD JB-S1 JUNCTION BOX
- ▲ VDOT STD SE-6 ELECTRICAL SERVICE W/ METER BASE & VDOT STD JB-S1 JUNCTION BOX
- ▲ VDOT STD JB-S2 JUNCTION BOX
- ▲ VDOT STD JB-S3 JUNCTION BOX
- ▲ TIE 2.5" PVC ELECTRICAL CONDUIT TO BVU ELECTRICAL AT PYLON SIGN

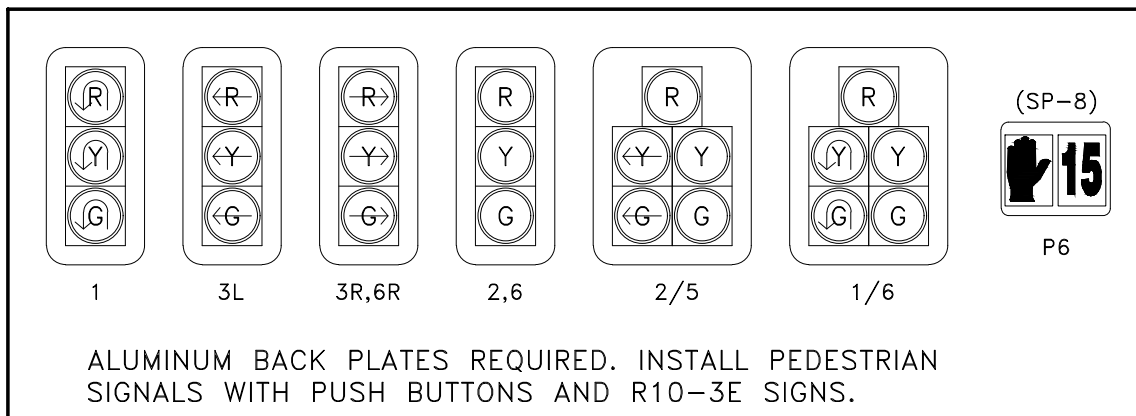
SIGNAL SEQUENCE

SIGNAL	R/W	LEE HIGHWAY (U.S. 11)										CABELA DRIVE (EAST)					FLASH	
		01-05		01-06		02-05		02-06		03		01-05		01-06		02-05		
1/6	<-G/R	<-G/R	<-Y/R	<-Y/R	<-G/G	<-Y/Y	R	R	R	G	G	Y	Y	R	R	R	R	Y
2	R	R	R	R	R	R	R	R	R	G	G	Y	Y	R	R	R	R	Y
2/5	<-G/R	<-Y/R	<-Y/R	<-Y/R	R	R	R	<-G/G	<-Y/Y	G	Y	Y	Y	R	R	R	R	Y
3L	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Y
3R	G	Y	G	Y	G	R	R	R	R	R	R	R	R	R	R	R	R	Y
6	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Y
6R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Y

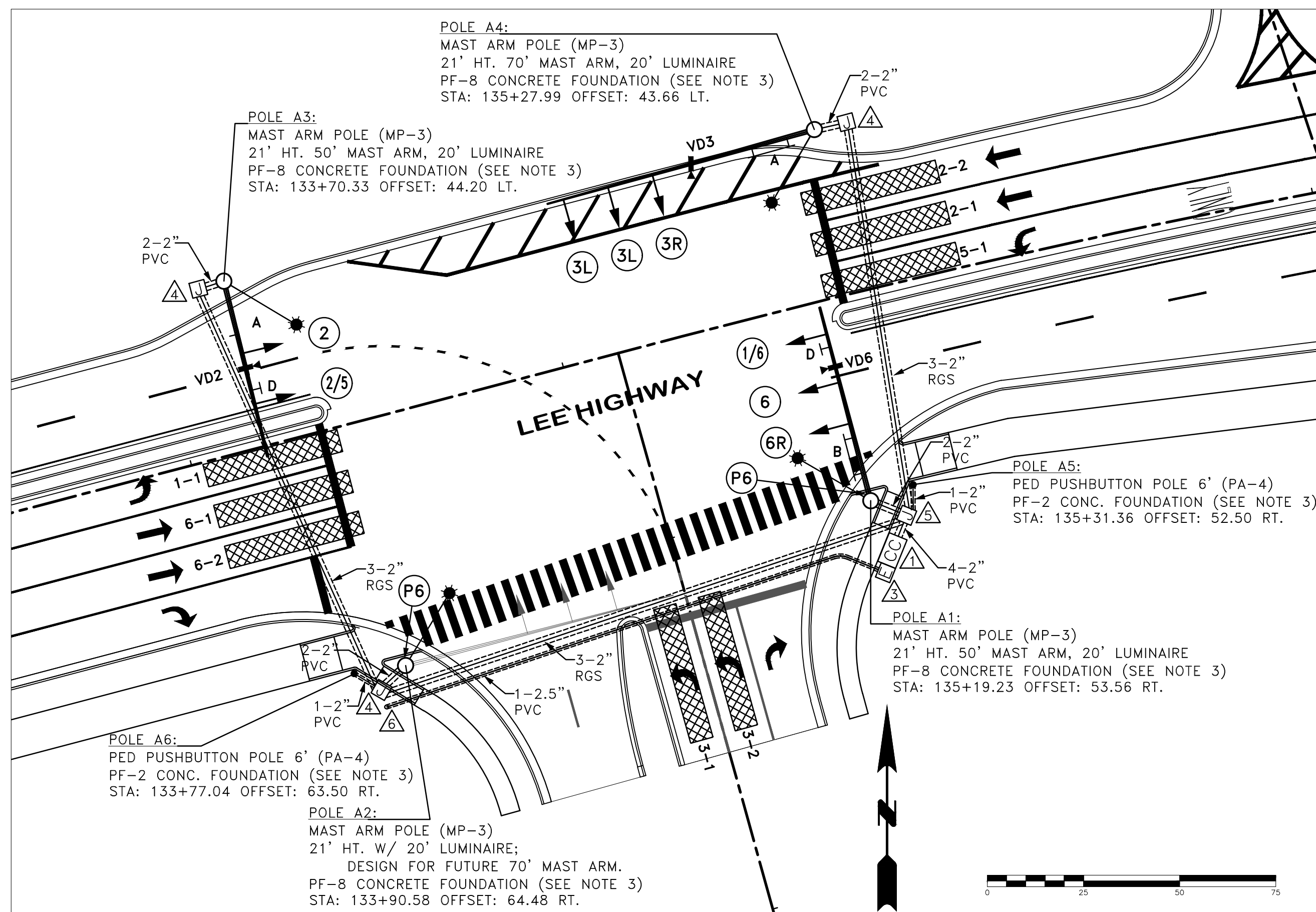
SIGNAL PHASING



SIGNAL HEADS



ALUMINUM BACK PLATES REQUIRED. INSTALL PEDESTRIAN SIGNALS WITH PUSH BUTTONS AND R10-3E SIGNS.



PLAN VIEW - LEE HIGHWAY & CABELA DRIVE (EAST)

GENERAL NOTES:

1. THIS PROJECT WILL BE CONSTRUCTED IN ACCORDANCE WITH: THE PLANS; THE VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT) 2016 ROAD AND BRIDGE SPECIFICATIONS; THE VDOT 2016 ROAD AND BRIDGE STANDARDS; AND THE VIRGINIA WORK AREA PROTECTION MANUAL, 2011 EDITION W/ LATEST REVISION.
2. MAST ARM POLES SHALL BE IN ACCORDANCE WITH VDOT STD. MP-3. CONTRACTOR SHALL FIELD VERIFY ALL MAST ARM LENGTHS PRIOR TO INSTALLATION. POLE INSTALLER SHALL BE RESPONSIBLE FOR DESIGN OF POLE FOUNDATIONS, INCLUDING ANY REQUIRED GEOTECHNICAL EXPLORATION.
3. TRAFFIC SIGNAL POLE FOUNDATION DEPTHS AND ABOVE GROUND FOUNDATION PROJECTIONS/REVEAL (IF NEEDED) SHALL BE DETERMINED BY THE CONTRACTOR IN ACCORDANCE WITH VDOT STD. PF-8 CONCRETE FOUNDATION STANDARDS AFTER THE SIGNAL POLE FOUNDATION SOIL TEST BORES ARE COMPLETED. SIGNAL POLES AND FOUNDATIONS SHALL BE IN ACCORDANCE WITH THE SPECIAL PROVISIONS OF THE CURRENT SOUTHERN REGION OPERATIONS (SWRO)-REGIONAL SIGNAL CONTRACT INCLUDING MAXIMUM LOADING CONDITIONS. THE POLE SUPPLIER SHALL PROVIDE FOUNDATION DESIGNS AND SHOP DRAWINGS THAT ARE SIGNED AND SEALED BY A VIRGINIA LICENSED PROFESSIONAL ENGINEER. THE TOP OF ALL SIGNAL POLE FOUNDATIONS SHALL BE INSTALLED 4 INCH ABOVE THE HIGHEST POINT OF THE ROADWAY PAVEMENT IN WHICH THE MAST ARM IS EXTENDED OVER TO ALLOW FOR REQUIRED SIGNAL HEAD TO PAVEMENT DISTANCES PER THE MUTCD. THE CONTRACTOR SHALL CONTACT THE PROJECT INSPECTOR 48 HOURS PRIOR TO THE NEED FOR VERIFICATION.
4. SIGNALS ON MAST ARMS SHALL BE MOUNTED IN ACCORDANCE WITH VDOT STD. SM-3. ALL INDICATIONS SHALL HAVE LED INDICATIONS.
5. SIGNS ON MAST ARMS SHALL BE INSTALLED IN ACCORDANCE WITH VDOT STD. SMD-2 AND THE NUMBER OF SIGN HANGER ASSEMBLYS WILL BE BASED ON THE FOLLOWING SIGN WIDTHS: ONE ASSEMBLY FOR SIGNS 5 FEET OR LESS IN WIDTH, TWO EACH FOR SIGNS 5-10 FEET IN WIDTH AND 3 EACH FOR SIGNS 10 FEET OR GREATER IN WIDTH.
6. VIDEO DETECTION CAMERA PLACEMENTS MAY BE FIELD ADJUSTED AS NECESSARY TO PROVIDE OPTIMAL DETECTION CAPABILITIES. LOADING SHALL REMAIN WITHIN THE LIMITS OF THE REGIONAL SIGNAL CONTRACTOR SPECIFICATIONS. WIRING SHALL BE ADJUSTED AS NECESSARY IF CAMERA LOCATIONS ARE MODIFIED.
7. THE ELECTRIC SERVICE CONNECTION AND SERVICE LINE LOCATIONS MAY BE FIELD ADJUSTED AS NECESSARY PROVIDED ALL EQUIPMENT REMAINS WITHIN THE RIGHT OF WAY, DOES NOT CONFLICT WITH UTILITIES, AND REMAINS OUTSIDE OF THE PAVEMENT SECTIONS. ELECTRICAL SERVICE SHALL BE IN ACCORDANCE WITH VDOT STD. SE-6. SERVICE TO BE 120/240 VOLT, SINGLE PHASE WITH 1-50 AMP SINGLE POLE BREAKER, 1-20 AMP SINGLE POLE FOR STREET LIGHTS, 1-20 AMP SINGLE POLE SPARE. ELECTRIC SERVICE SHALL BE COORDINATED WITH RICHARD ADKINS OF BRISTOL VIRGINIA UTILITY (BVU) AT (276) 645-8730.
8. CONTRACTOR AND SHALL MEET CITY AND BRISTOL VIRGINIA UTILITY SPECIFICATIONS AND REQUIREMENTS.
9. THE ATC TRAFFIC SIGNAL CONTROLLER SHALL BE FULLY COMPATIBLE WITH THE EXISTING MASTER CONTROLLER AND LOCAL CONTROLLERS LOCATED ALONG PROJECT ARTERIAL. THE ATC TRAFFIC SIGNAL CONTROLLER SHALL HAVE A SEVEN INCH, TOUCH SCREEN, COLOR TFT LCD DISPLAY TO WHICH THE AGENCY CAN USE IN GRAPHICS MODE OR STANDARD CLASSIC MODE. IN ADDITION, THROUGH A WIFI ADAPTER, THE ATC TRAFFIC SIGNAL CONTROLLER SHALL BE ABLE TO COMMUNICATE TO A WEB BASED UI AND A FREE ANDROID APP WHICH DUPLICATES THE CONTROLLERS TOUCH SCREEN OPERABILITY. THE ATC TRAFFIC SIGNAL CONTROLLER SHALL HAVE 2 USB 2.0 PORTS, 4 ETHERNET PORTS, 128MBYTES OF DDR2 DRAM, 64 MBYTES OF FLASH, 2MB OF SRAM AND BE FULLY COMPLIANT WITH ATC STANDARD VERSION 5.2B AND THE PROPOSED ATC STANDARD 6.10. THE DIMENSIONS OF THE CONTROLLER SHALL BE NO BIGGER THAN 14.84"W X 8.50"H X 6.13"D.
10. THE TRAFFIC SIGNAL CONTROLLER CABINET SHALL COMPATIBLE WITH SELECTED CONTROLLER AND BUILT TO VDOT SPECIFICATIONS AND TO BE FURNISHED BY THE CONTRACTOR AND SHALL REST IN 02-06 GREEN.
11. THE CONTROLLER CABINET FOUNDATIONS SHALL BE CONSTRUCTED IN ACCORDANCE WITH VDOT STD. CF-1.
12. EACH CABINET AND POLE FOUNDATION SHALL BE PERMANENTLY MARKED TO INDICATE THE LOCATION OF ALL CONDUITS CAST IN THE FOUNDATION. THE MARKINGS SHALL CONSIST OF AN ARROW 4 TO 6 INCHES LONG AND LETTER DESIGNATION AS FOLLOWS: (S)-SPARE CONDUIT; (T)-CONDUIT WITH SIGNAL OR DETECTOR CABLES; (E)-CONDUIT WITH ELECTRICAL SERVICE CONDUCTORS FOR THE TRAFFIC SIGNAL. THE MARKINGS SHALL BE ETCHED WITH A TROWEL 1/2" DEEP IN CONCRETE WHILE THE CONCRETE IS BEING FINISHED.
13. CONDUITS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 238-02 PARAGRAPH (A) & (B) OF THE VDOT ROAD AND BRIDGE SPECIFICATIONS AND INSTALLED IN ACCORDANCE WITH VDOT STD. ECI-1 AND ECI-2.
14. THE CONTRACTOR SHALL CONTACT BRISTOL VIRGINIA UTILITIES (1-800-552-7001) PRIOR TO ANY CONSTRUCTION ACTIVITIES.
15. ALL MATERIALS SHALL BE FROM APPROVED MATERIALS LIST; AVAILABLE AT WWW.VIRGINIADOT.ORG.
16. CONTRACTOR SHALL SUBMIT TO THE CITY A TRAFFIC CONTROL PLAN FOR ANY ACTIVITIES THAT DISRUPT OR CONSTRICT TRAFFIC FLOW. CONTRACTOR SHALL IMPLEMENT AN APPROVED TRAFFIC CONTROL PLAN INCLUDING SIGNS, CHANNELIZATION DEVICES, AND OTHER MEASURES AS REQUIRED TO PROTECT WORKERS AND MOTORISTS.
17. NO WORK SHALL IMPED PEDESTRIAN TRAFFIC.
18. NO WORK SHALL BE PERFORMED OVER TRAFFIC WITHOUT PROPER WORK ZONE INSTALLATION.
19. UPON ENERGIZING, A 72 HOUR FLASH PERIOD (IN NO CASE LESS THAN 24 HOURS) PRIOR TO STOP AND GO OPERATION IS REQUIRED UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
20. SIGNAL POLE FOUNDATION SHALL CONFORM TO VDOT STD.PF-1 AND HAVE 1 ADDITIONAL 2" CONDUIT STUBBED AND CAPPED.
21. INCLUDED IN THE COST OF PVC CONDUIT SHALL BE #8 AWG EQUIPMENT GROUNDING CONDUCTOR (EGC). EGC SHOWN ON THE PLANS ARE REQUIRED ONLY IF THE CONDUIT IS NON-METALLIC.
22. PEDESTAL POLE AND FOUNDATIONS SHALL BE IN ACCORDANCE WITH VDOT STD. PF-2.
23. PEDESTRIAN SIGNALS MOUNTED ON PEDESTAL POLES SHALL BE MOUNTED IN ACCORDANCE WITH VDOT STD. SMB-1 AND WHEN MOUNTED ON SIGNAL POLES SHALL BE IN ACCORDANCE WITH VDOT STD.SMB-3. PEDESTRIAN SIGNALS SHALL BE ACTUATED IN ACCORDANCE WITH VDOT STD. PA-2 AND INDICATED IN ACCORDANCE WITH VDOT STD. SP-3.
24. ALL TRAFFIC SIGNAL HEAD SECTIONS SHALL BE 12" ALUMINUM (WITH ALUMINUM VISORS) AND INCLUDE BACKPLATES.
25. SALVAGEABLE SIGNALIZATION EQUIPMENT SHALL BECOME THE PROPERTY OF THE CITY OF BRISTOL. CONTRACTOR SHALL DELIVER SALVAGEABLE EQUIPMENT TO A LOCATION DESIGNATED BY THE CITY OF BRISTOL.