

# **Pasco County Traffic Operations Division**

## **Traffic Signal Controller Specifications and Standard Plan Notes Mast Arms with Video Detection**

Rev 4, 4/23/08

### **Traffic Signal Controller Specifications**

- 1) All NON-ATMS/ITS traffic signal controller cabinets shall be NEMA TS2 TYPE1, in accordance with Pasco County Specification 04-001 and 04-002.
- 2) When the controller and cabinet is to be used in a CLOSED LOOP SYSTEM, the controller shall be a NEMA controller with "ABC" connectors and Buss communications and be compatible with the existing system software.
- 3) All ATMS/ITS traffic signal controller cabinets shall be CALTRANS type 333JP double rack mount cabinet. The controller shall be 2070 controller compatible with the existing system software. If a UPS is required it shall be housed in the 333JP cabinet.
- 4) If the controller and cabinet are to be used in an existing system, the communications type shall match the existing system.

### **PASCO COUNTY STANDARD TRAFFIC SIGNAL PLAN NOTES** **MAST ARM WITH VIDEO DETECTION**

- 1) A MANDATORY PRE-SIGNALIZATION MEETING SHALL BE HELD PRIOR TO START OF THE PROJECT. ALL MATERIAL SUBMITTALS SHALL BE PROVIDED AT THE MEETING.
- 2) ALL SIGNAL POLES FOUNDATIONS SHALL HAVE A MINIMUM OF TWO 2" AND ONE 1" PVC CONDUITS. UNUSED CONDUITS SHALL BE RUN TO THE NEAREST SIGNAL PULL BOX OR SIGNAL CABINET WHICH EVER IS CLOSEST.
- 3) ALL TRAFFIC SIGNAL FIXTURES SHALL BE WIRED PER THE INTERSECTIONS WIRING DIAGRAM PROVIDED BY PASCO COUNTY TRAFFIC OPERATIONS. CABLE SIZE SHALL BE AS CALLED FOR IN THE WIRING DIAGRAM.
- 4) ALL SPARE CONDUCTORS IN TRAFFIC SIGNAL FIXTURES SHALL BE CONNECTED TO AC- IN THE FIXTURE. ALL SPARE CONDUCTORS IN THE CABINET SHALL BE CONNECTED TO THE GROUND BUSS BAR.
- 5) TUNNEL HOODS SHALL BE USED WHEN PED SIGNALS ARE PRESENT.
- 6) ALL FIELD WIRES IN CABINET SHALL BE IDENTIFIED WITH PANDUIT #PLF1M-C MARKER TIES OR EQUIVALENT.
- 7) ALL CONTROLLER AND CABINET BASES SHALL HAVE ONE 4-INCH CONDUIT FOR FUTURE FIBER OPTICS COMMUNICATIONS. IT SHALL BE STUBBED OUT TO A FIBER OPTICS PULL BOX.
- 8) ALL VIDEO DETECTION EQUIPMENT SHALL BE OF THE SAME MANUFACTURER AS THE CONTROLLER AND CABINET ASSEMBLY FOR COMPATIBILITY WITH EXISTING SYSTEMS. THE VIDEO DETECTION SYSTEM SHALL BE A THREE WIRE COLOR CAMERA SYSTEM. THE CAMERA SYSTEM SHALL BE IP ADDRESSABLE AND PROVIDE STREAMING DIGITAL MPG4 VIDEO OUTPUT. ALL REQUIRED INTERFACE PANELS AND OR ACCESSORIES SHALL BE INCLUDED. VIDEO DETECTION SHALL BE PAYED UNDER 663-74-11 VEHILCE DETECTION OPTICAL.

- 9) ALL GROUND ROD CONNECTIONS SHALL BE MADE USING EXOTHERMIC WELD GROUND CONNECTORS.
- 10) ALL UNUSED REDS SHALL BE HARD WIRED TO 120V AC; UNLESS AN FDOT APPROVED PLUG IN JUMPER IS USED.
- 11) THE TOP ELEVATION OF THE CONTROLLER BASE SHALL BE EQUAL TO OR GREATER THAN THE CROWN OF THE ROAD.
- 12) CABLE CONDUIT BETWEEN THE CONTROLLER BASE AND THE ALL POLES SHALL BE MINIMUM 2" PVC.
- 13) PEDESTRIAN PUSH BUTTON SIGNS SHALL BE F.D.O.T. FTP-69B-06 WITH STREET NAMES.
- 14) ALL TRAFFIC SIGNALS SHALL BE EQUIPPED WITH 3M OPTICOM REPORTER SERIES EMERGENCY VEHICLE PRE-EMPTION. THIS SHALL INCLUDE ALL COMPONENTS AND WIRING TO PROVIDE A FULLY FUNCTIONAL SYSTEM. THE DETECTORS SHALL BE PAID UNDER ITEM 663-74-12 VEHICLE DETECTOR OPTICAL. ALL OTHER EQUIPMENT, HARDWARE, INTERFACE PANELS AND WIRING SHALL BE PAID UNDER ITEM 685-1-28 SYSTEM AUXILLERIES INTERFACE PANNEL. DETECTOR TYPE AND PLACEMENT SHALL BE SHOWN ON THE PLANS. 722 DETECTORS SHALL BE USED ON THIS INTERSECTION TO DETECT TWO DIRECTIONS OF TRAVEL.
- 15) ALL RED, YELLOW, GREEN, SIGNALS SHALL BE EQUIPPED WITH LED "LIGHT EMITTING DIODE" DISPLAYS. ALL LEDS SHALL BE OF A TYPE CURRENTLY CERTIFIED BY THE FLORIDA DEPARTMENT OF TRANSPORTATION FOR USE IN THE STATE OF FLORIDA. ALL WALK AND DON'T WALK SIGNALS SHALL BE SOLID SYMBOL DISPLAY OVERLAY; NO OUTLINE HAND/MAN DISPLAY SHALL BE ACCEPTED.
- 16) ALL PEDESTRIAN SIGNALS SHALL BE LED COUNT-DOWN PER FDOT SPECIFICATIONS. ALL PEDESTRIAN PUSHBUTTON SIGNS SHALL BE FOR USE WITH COUNT-DOWN SIGNALS.
- 17) ALL INTERAL ILUMINATED STREET SIGNS SHALL BE EGDE LIT LED.
- 18) ALL REMOVAL ITEMS EXCEPT 690-90 AND 690-100 SHALL BE RETURNED TO PASCO COUNTY AND PROTECTED FROM DAMAGE FOR REUSE.