



*Florida Department of Transportation*

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SECRETARY

**MEMORANDUM**

**DATE:** July 20, 2023

**TO:** Will Watts, Dan Hurtado, Stefanie Maxwell, Tim Lattner, Patrick Overton, Larry Ringers, Arthur Berger, Michael Shepard, Sue Zheng, Rhonda Taylor, Will Potter, Rudy Powell, Lance Grace, Scott Arnold, Rick Jenkins, Derwood Sheppard

**CC:** Daniel Strickland, State Specifications Engineer; Ananth Prasad, FTBA

**FROM:** Mary Elizabeth Parker, Specifications Development Coordinator

**SUBJECT:** Proposed Specification: **6760200 TRAFFIC CABINETS.**

Attached for your review and comments is a copy of the subject proposed Specification.

The changes are proposed by Derek Vollmer to define minimum requirements for cabinet risers, conform the language to prevailing standards requirements, and consolidate requirements for cabinets, as applicable.

The proposed changes are also associated with Standard Plans Index 676-010, located at the following link: <https://www.fdot.gov/design/standardplans/irr/Internal-Review-Current>.

Please review and offer your comments within ten business days so that we may continue with the review process.

Attachment

**TRAFFIC CABINETS.**  
**(REV 7-11-23)**

SUBARTICLE 676-3.1 is deleted and the following substituted:

**676-3.1 General:** Ground all cabinets in accordance with the requirements of Section 620. Keep the ground wire from the cabinet ground busbar to the ground rod assembly or array as short as possible. Ensure the ground wire is not in contact with any other part of the cabinet. ~~Controller cabinets shall be wired in accordance with the signal operating plan specified in the Contract Documents. If phases are omitted for future use, the cabinet must be wired for these future phases. However, the load switches for the future phases do not have to be furnished.~~ All field drilled conduit entrance holes or other holes must be reamed and free of burrs. All conduit connections to cabinets and small equipment enclosures must be weatherproof. Ensure cabinet doors do not pinch or damage interior cables or displace equipment when doors are open, closed, or in motion.

Construct the base for the cabinets with concrete in accordance with Section 347. Make the concrete base for the cabinet level, free of honeycombs and as smooth as possible. Temporarily seal the end of conduit risers located in the base before placing the concrete. Position the end of the conduit risers a minimum of 2 inches above the finished surface of the concrete base.

Construct a maintenance service slab as shown in Standard Plan 676-010 or as shown in the Plans. Construct the maintenance service slab with concrete in accordance with Section 347.

SUBARTICLE 676-3.2 is deleted and the following substituted:

**676-3.2 Traffic Signal Controller Cabinet Installation:** Install traffic signal controller cabinets and concrete risers in accordance with Standard Plans, Index 676-010. Wire controller cabinets in accordance with the signal operating plan specified in the Contract Documents. If phases are omitted for future use, the cabinet must be wired for these future phases. Load switches for the future phases do not have to be furnished.

**676-3.2.1 Pole Mounted Cabinets:**

- (a) Fasten the pole mounted hardware furnished with the cabinet to the cabinet using bolts no less than 1/2 inch threaded diameter. Ensure all connections are watertight.
- (b) Use stainless steel bands for mounting cabinets onto steel strain poles.
- (c) Use stainless steel bands or lead anchors (or equivalent) for mounting cabinets onto concrete strain poles.
- (d) Use stainless steel bands or lag bolts for mounting cabinets onto wood poles.

**676-3.2.2 Base-Ground Mounted Cabinets:**

- (a) Use anchor bolts to fasten base-ground mounted cabinets to the concrete base.
- (b) Seal the joint between the bottom of the cabinet and the concrete base (inside and outside of cabinet) with a clear silicone rubber sealant.

~~(c) Construct the base for the cabinets with concrete in accordance with Section 347. Make the concrete base for the cabinet level, free of honeycombs and as smooth as possible. Temporarily seal the end of conduit risers located in the base before placing the concrete. Position the end of the conduit risers a minimum of 2 inches above the finished surface of the concrete base.~~

**676-3.2.3 Field Wiring:**

(a) Terminate signal cable, interconnect cable, and loop lead-in wires on the appropriate terminal strips in the controller cabinet with insulated terminal lugs. Use a calibrated ratchet type crimping tool to install the insulated terminal lugs onto the field wires.

(b) Label spare circuits of the signal and interconnect cables and connect them to the cabinet ground busbar.

(c) Neatly bundle and identify all field wiring cables in the controller cabinet.

SUBARTICLE 676-3.3 is deleted and the following substituted:

**676-3.3 Intelligent Transportation System Cabinet Installation:** Mount the cabinet as shown in the Plans and provide the cabinet with the necessary base or pole mount hardware. Ensure that pole and structure-mounted field cabinets have mounting brackets on the side so that both cabinet doors are fully functional. Provide an adapter bracket for pole mounted cabinets that is designed to allow banding straps to be installed without obstructing pole handholes.

Make provisions for all data, control, and confirmation connections between the ITS device and field cabinet and for any required wiring harnesses and connectors.

Place a heavy-duty resealable plastic bag on the backside of the main cabinet door for storing a list of terminal block connections and other cabinet documentation.

Place all equipment in the cabinet according to the recommendations of the manufacturer. Maintain a minimum clearance of 6 inches between the top of the cabinet and the top of any equipment placed on the top shelf of the cabinet and a minimum clearance of 2 inches between each side of the cabinet and any equipment placed on the cabinet shelves.

~~Construct a maintenance service slab as shown in Standard Plan 676-010 or as shown in the Plans. Construct the maintenance service slab with concrete in accordance with Section 347.~~

ARTICLE 676-4 is deleted and the following substituted:

**676-4 Warranty.**

Ensure cabinets and enclosures have a manufacturer's warranty covering defects for a minimum of ~~two~~ 2 years from the date of final acceptance ~~in accordance with 5-11 and Section 608~~. The warranty must include providing replacements, within 10 calendar days of notification, for defective parts and equipment during the warranty period at no cost to the Department or maintaining agency.