



Florida Department of Transportation

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605 Suwannee Street
Tallahassee, FL 32399-0450

MIKE DEW
SECRETARY

July 24, 2018

Khoa Nguyen
Director, Office of Technical Services
Federal Highway Administration
3500 Financial Plaza, Suite 400
Tallahassee, Florida 32312

Re: State Specifications Office
Section: **676**
Proposed Specification: **6760206 Traffic Cabinets.**

Dear Mr. Nguyen:

We are submitting, for your approval, two copies of the above referenced Supplemental Specification.

The changes are proposed by Jeff Morgan of the State Traffic Engineering Research Lab (TERL) to modify the language.

Please review and transmit your comments, if any, within two weeks. Comments should be sent via email to dan.hurtado@dot.state.fl.us.

If you have any questions relating to this specification change, please call me at 414-4130.

Sincerely,

Signature on file

Dan Hurtado, P.E.
State Specifications Engineer

DH/dt

Attachment

cc: Florida Transportation Builders' Assoc.
State Construction Engineer

TRAFFIC CABINETS.
(REV 5-14-18)

SUBARTICLE 676-2.6 is deleted and the following substituted:

676-2.6 Generator and Auxiliary Power Connection: Traffic signal controller cabinets must include a generator and auxiliary power connection. ITS cabinets must include a generator and auxiliary power connection unless otherwise shown in the Plans.

Cabinets with generator and auxiliary power connection must include provisions for the connection of an external power source, such as a portable generator, through a weatherproof, secure interface. This feature must allow authorized personnel to access, connect, and secure an external power source to the cabinet in order to restore power within five minutes of arrival time at the cabinet. A 10 gauge, 600V UL rated cable, fabricated with an L5-30R on one end and standard 120 V duplex plug on the other, a minimum of 12 feet in length or as shown in the Plans, must be supplied with cabinet assemblies for field connection between generator and cabinet. The generator access door and cable entrance must include means to prevent access to insects when cable is not present.

Provide the cabinet with an automatic transfer switch as shown in the Plans. ~~The transfer switch must meet UL 1008 and be rated equal to or higher than the design load of the cabinet's main breaker and the generator input twist lock connector rating. The transfer switch must provide a means of switching between normal utility power and auxiliary backup generator power. Switching time cannot exceed 250 milliseconds. Ensure that the transfer switch does not allow simultaneous active power from more than one source and does not allow generator backflow into normal utility AC circuits.~~

676-2.6.1 Automatic Transfer Switch: The transfer switch must meet UL 1008 and be rated equal to or higher than the design load of the cabinet's main breaker and the generator input twist-lock connector rating. The transfer switch must provide a means of switching between normal utility power and auxiliary backup generator power. Switching time cannot exceed 250 milliseconds. Ensure that the transfer switch does not allow simultaneous active power from more than one source and does not allow generator backflow into normal utility AC circuits.

Provide the automatic transfer switch with indicators that display the status of connected power sources and indicate which power source is actively energizing the cabinet. The utility-on indicator must be clearly visible outside the cabinet and the indicators on/off state must be obvious from a distance of 30 feet.

If a relay circuit is used to provide switching, the normally closed circuits must be connected to normal utility power. The relay must be energized solely by the generator. When energized, the relay must break the connection to normal utility power and make connection to the generator power input. Any automatic transfer switch or relay operated switch must include a bypass switch that disables automatic switching and permits manual selection of the power sources connected to the cabinet.

676-2.6.2 Generator Access Panel: Include a generator connection panel consisting of, at a minimum, the automatic transfer switch with a three-prong, 30 amp L5-30P twist-lock connector with recessed male contacts for generator hookup, unless otherwise shown in the Plans. Locate the access panel as close as possible to the main AC circuit breaker with the bottom of the access panel no less than 24 inches above the bottom of the cabinet. Do not place

the generator access panel on the main cabinet door or back door. Locate and label the transfer switch and twist lock connector on a panel easily accessible behind a weatherproof lockable exterior access door equipped with a tamper-resistant hinge. Label this access door "Generator Access Door" Provide the access door with a No. 2 lock unless otherwise specified in the Plans.

The access door and cable entrance must include means to prevent access to insects when cable is not present. The generator hookup compartment must be recessed no more than six inches into the cabinet but be deep enough to allow closing and locking of the access door when the generator cable is connected. Avoid blocking access to any other equipment in the cabinet.

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