

ORIGINATION FORM

Date: **4-18-2014**

Originator: Ron Meyer

Contact Information: Traffic Engineering and Operations, Traffic Systems Section
850-410-5600

Specification Title: **SYSTEM CONTROL EQUIPMENT**

Specification Section, Article, or Subarticle Number: 680

Why does the existing language need to be changed? This is a new Section in the Standard Specifications for Road and Bridge Construction (SSRBC). These requirements were previously contained in the Minimum Specifications for Traffic Control Signals and Devices (MSTCSD). The move and reformatting of these requirements is part of the Consolidation of Products and Specifications (COPS) effort being undertaken within FDOT central office.

Summary of the changes: Moved existing content from the MSTCSD to the SSRBC.

Are these changes applicable to all Department jobs? If not, what are the restrictions? This requirement is applicable to projects that include system control equipment such as adaptive signal control systems.

Will these changes result in an increase or decrease in project costs? If yes, what is the estimated change in costs? No increase or decrease in project costs is expected.

With who have you discussed these changes? In-house stakeholders (Traffic Engineering and Operations Office staff, Specifications Office staff).

What other offices will be impacted by these changes? Specifications and Estimates, Construction, Maintenance, and Roadway Design.

Are changes needed to the PPM, Design Standards, SDG, CPAM or other manual? No. Is a Design Bulletin, Construction Memo, or Estimates Bulletin needed? No.

Contact the State Specifications Office for assistance in completing this form.

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ANANTH PRASAD, P.E.
SECRETARY

MEMORANDUM

DATE: May 8, 2014
TO: Specification Review Distribution List
FROM: Daniel Scheer, P.E., State Specifications Engineer
SUBJECT: Proposed Specification: **6800000 System Control Equipment.**

In accordance with Specification Development Procedures, we are sending you a copy of a proposed specification change.

This change was proposed by Ron Meyer, this is a new Section in the Standard Specifications for Road and Bridge Construction (SSRBC). These requirements were previously contained in the Minimum Specifications for Traffic Control Signals and Devices (MSTCSD). The move and reformatting of these requirements is part of the Consolidation of Products and Specifications (COPS) effort being undertaken within FDOT central office.

Please share this proposal with others within your responsibility. Review comments are due within four weeks and should be sent to Mail Station 75 or to my attention via e-mail at SP965DS, or daniel.scheer@dot.state.fl.us. Comments received after **June 5, 2014**, may not be considered. Your input is encouraged.

DS/cah
Attachment

SYSTEM CONTROL EQUIPMENT.

(REV ~~45-51821-14~~)

SECTION 680. The following new Section is added after Section 678.

SECTION 680 **SYSTEM CONTROL EQUIPMENT.**

680-1 Description.

Furnish and install system control equipment as shown in the Plans. Meet the requirements of Section 603. ~~Use system control equipment and components that meet the requirements of these minimum specifications and are listed the Department's Approved Product List (APL).~~

680-2 Materials.

680-2.1 General: *Use system control equipment and components that meet the requirements of these ~~minimum~~s Specifications and are listed on the Department's Approved Product List (APL).*

680-2.12 Adaptive Signal Control System: *Adaptive signal control systems external to the traffic controller place detector calls to the traffic signal controller to adjust signalization timing based on measured traffic conditions independently of the traffic signal controller's preconfigured timings.*

The system must interface with the traffic controller using either the Synchronous Data Link Control (SDLC) Port 1 interface and protocol or 24- VDC inputs/outputs available in the traffic controller cabinet. Dynamically modifying controller configuration settings through serial communications is not allowed.

The system must include a user interface that allows the configuration of subcomponents, such as detectors and cameras, and includes remote monitoring and reporting.

The system must include the option of incorporating existing vehicle detection in addition to the primary detection used by the adaptive signal control system.

The system must not affect the normal operation of the traffic signal controller upon any failure of communication, detection, or system component.

Ensure ~~that~~ adaptive signal control system hardware ~~installed~~ is permanently marked with manufacturer name or trademark as well as part number and serial number. Ensure that the markings are visible after installation.

680-2.2-3 Environmental Requirements: *Ensure ~~All~~ system control equipment ~~must operate properly~~ performs all required functions during and after being subjected to the transients, temperature, voltage, humidity, vibration, and shock tests described in ~~National Electrical Manufacturers Association~~ TS2, 2.2.7, 2.2.8, and 2.2.9.*

680-3 Installation.

Install all system control equipment in accordance with the manufacturer's recommendations. Terminate wires on the appropriate terminal strips in the controller cabinet with insulated terminal lugs. Neatly bundle, secure, and identify all wiring and cables.

680-4 Warranty.

Ensure system control equipment has a manufacturer's warranty covering defects for a minimum of three years. The warranty must include provisions for providing replacements within 10- calendar days of notification for defective parts and equipment during the warranty period at no cost to ~~FDOT~~ the Department or the maintaining agency.

680-5 Method of Measurement.

The Contract unit price for System control equipment, ~~each component~~ System control equipment, furnished and installed, will include ~~furnishing~~ all materials, equipment, ~~and~~ hardware ~~specified in the Contract Documents, and~~ labor and miscellaneous materials necessary for a complete and accepted installation.

680-6 Basis of Payment.

Price and ~~P~~payment will be full compensation for all work specified in this Section.

Payment will be made under:

Item No. 680 -1 -System Control Equipment - XXXXX.