



Florida Department of Transportation

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MEMORANDUM

DATE: October 24, 2016
TO: Specification Review Distribution List
FROM: Dan Hurtado, P.E., State Specifications Engineer
SUBJECT: Proposed Specification: **7150400 Highway Lighting System.**

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

This change was proposed by Chester Henson of the State Roadway Design Office to update the language.

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 online at <http://www2.dot.state.fl.us/ProgramManagement/Development/IndustryReview.aspx> . Comments received after **November 21, 2016**, may not be considered. Your input is encouraged.

DH/dt
Attachment

HIGHWAY LIGHTING SYSTEM.

(REV ~~10-11-16~~10-17-16)

ARTICLE 715-4 is deleted and the following substituted:

715-4 Furnishing of Electrical Service.

Provide ~~electrical power~~ service point in accordance with Section 639.

ARTICLE 715-10 is deleted and the following substituted:

715-10 Erecting Light Poles.

715-10.1 General: Install the light poles at the locations and in accordance with the details shown in the Plans. Unless otherwise specifically approved by the Engineer, fasten bracket (truss) arms to the pole prior to erection. Erect ~~conventional~~ light poles with the orientation of the access door on the opposite side of approaching traffic. Do not field weld on any part of the pole assembly. Plumb the poles after erection and use metal shims or leveling nuts if necessary to obtain precise alignment. Use a thin cement grout where necessary to eliminate unevenness or irregularities in the top of the base.

715-10.2 Adjusting Anchor Bolts and Installing Nuts on Anchor Bolts: Where poles are to be placed on existing foundations or bases with anchor bolts in place, furnish poles with a base which fits the anchor bolt spacing. Include the cost of any necessary extension of existing anchor bolts in the price bid for the lighting system. For high mast light pole bases, install nuts on anchor bolts in accordance with 649-5.

715-10.3 Installation of Luminaire: Install the luminaire on the truss arm in accordance with the manufacturer's instructions, and place it so that the light pattern is evenly distributed along the roadway.

715-10.4 Electrical Connections: Make primary ballast connections in accordance with manufacturer's instructions. Install sufficient cable to allow all connections to be made outside the light pole base. Connect the ground conductor to the ground stud provided.

715-10.5 Identification Plates: Furnish and install a 2² inch- ~~x~~ by 8² inch aluminum identification tag on each light pole. -Use aluminum rivets (~~no screws~~) to attach the tags to the poles-, do not use screws. Install tags five feet above grade on the traffic lane side of the pole. Use ~~3/4~~³/₄ inch black text on white background.- Orient the text vertically on the tag with the following information: load center (i.e. A, B, etc.) designation, ~~space~~-circuit number, ~~space~~ and the pole number. ~~The pole n~~Number will be the poles as shown ~~o~~in the ~~pole data sheet~~Plans. ~~Coordinate the pole numbers with the FDOT maintenance. If required by the Contract Documents, stamp the identification plate on the pole with an identifying number or legend. Number the poles consecutively, beginning with number 1. Stamp each light pole number with 3/4 inch figures and stamp each circuit number with 1/2 inch figures.~~

715-10.6 Screen Installation for High Mast Light Pole Bases: Install a screen in accordance with 649-6.

ARTICLE 715-15 is deleted and the following substituted:

715-15 Acceptance of Highway Lighting.

715-15.1 Partial Acceptance: The Engineer may make partial acceptance of the highway lighting based on satisfactory performance of all highway lighting for seven consecutive days. The seven day evaluation period may commence upon written authorization by the Engineer that highway lighting is considered ready for acceptance evaluation. Contract Time will be charged during the entire highway lighting evaluation period. Correct any defects in materials or workmanship which might appear during the evaluation period at no expense to the Department.

715-15.2 Final Acceptance: Transfer manufacturers' warranties to the Department upon final acceptance in accordance with 5-11. Submit all warranties and warranty transfers to the Engineer.

715-15.23 As-Built Documentation: As a condition precedent to acceptance under 715-15.2, submit as-built drawings of all installations, signed and sealed as-built drawings of all installations by a Professional Engineer registered in the State of Florida.

ARTICLE 715-16 is deleted and the following substituted:

715-16 Method of Measurement.

The quantities to be paid for will be as follows, completed and accepted:

1. Conduit: Payment will be made in accordance with Section 630.
2. Luminaire and Truss Arm: The Contract unit price will include the truss arm, luminaire with lamp, and all necessary mounting hardware as indicated in the Plans and the Design Standards.
3. Service Point: ~~The Contract unit price will include the service pole, insulators, weatherheads, transformers, enclosures, panel boards, breakers, safety switches, H.O.A. switches, lightning protectors, fuses, photo electric assembly, meter base, and all external and internal conduit and conductors for the service as indicated in the Plans and the Design Standards.~~ Payment will be made in accordance with Section 639.
4. Load Center: The Contract unit price will include the enclosure, panel boards, breakers, lightning arrestor, contactors, photo electric switch, grounding, and the concrete pad as shown in the Plans and Design Standards.
- ~~45. Light Pole Foundation: The Contract unit price will include the foundation and anchor bolts with lock nuts and washers as indicated in the Plans and the Design Standards.~~
- ~~565.~~ Luminaire: The Contract unit price will include the luminaire with lamp and necessary mounting hardware as indicated in the Plans and the Design Standards.
- ~~676.~~ Pull Box: Payment will be made in accordance with Section 635.
- ~~78. High Mast Parts: The Contract unit price will include the part specified with all mounting hardware as indicated in the Contract Documents and the Design Standards.~~
- ~~89. Frangible Base for Light Pole: The Contract unit price will include the frangible base, attachments, bolts, and washers as indicated in the Plans and the Design Standards.~~
- ~~910. Photo Electric Control Assembly: The Contract unit price will include the photo electric control, transformers, conduit, and conductors as indicated in the Plans and the Design Standards.~~

~~101. Pre-Fab Pilaster: The Contract unit price will include the pilaster and all mounting hardware as indicated in the Plans.~~

~~1127.~~ High Mast Lighting Pole Complete: The Contract unit price will include the pole, luminaires with lamps, lowering system, breakers and anchor bolts with lock nuts and washers, and foundation as indicated in the Plans and the Design Standards.

~~1238.~~ Conductor: The quantity to be paid for will be the plan quantity, in feet, completed and accepted. Measurement will be based on the horizontal distance between pull boxes, or between pull boxes and luminaire poles, plus 8 feet for each conductor entering and 8 feet for each conductor leaving the pull box and 8 feet for each conductor entering the luminaire pole.

~~1349.~~ Lighting Pole Complete: The Contract unit price will include the pole, internal vibration damping device, truss arm, luminaire with lamp, anchor bolts with lock nuts and washers, frangible base and foundation.

~~14510.~~ Pole Cable Distribution System: The Contract unit price will include the surge protector, fuse holders with fuses, waterproof connectors and the waterproof wiring connection to the luminaries.