



**SPECIAL PROVISIONS
FOR
LIGHTING**

**Pottawattamie County
BRF-006-1(113)—38-78**

**Effective Date
February 16, 2010**

THE STANDARD SPECIFICATIONS, SERIES 2009, ARE AMENDED BY THE FOLLOWING ADDITIONS. THESE ARE SPECIAL PROVISIONS AND THEY SHALL PREVAIL OVER THOSE PUBLISHED IN THE STANDARD SPECIFICATIONS.

090040.01 DESCRIPTION

The work to be performed under this specification shall consist of furnishing all work, apparatus, and materials to construct, install, and place in operation to the Engineer's satisfaction, a complete lighting system as shown in the contract documents. The complete lighting system consists of several sub-systems including: bridge roadway lighting, frontage road lighting, and under deck lighting.

090040.02 MATERIALS

The lighting system materials shall meet requirements of Section 4185 of the Standard Specifications except as modified by this specification.

090040.03 SUBMITTALS

The Contractor shall submit to the Engineer product data, plans, working drawings, and specifications as indicated below. Required Shop Drawings:

- A.** Bridge roadway luminaire
- B.** Frontage road luminaire
- C.** Under-deck luminaire
- D.** Control Panel:
 - Enclosure
 - Door latch mechanism
 - Contactor(s)
 - Circuit breaker (main)
 - Circuit breaker (branch(es))
 - Photoelectric control
 - Test switch(es)

- Breather drain
 - Wiring diagram
 - Surge suppressor
- E. RM-40, type Y-1 connector
- F. RM-40, type Y-3 connector
- G. RM-40, type L-1 connector
- H. RM-40, type L-2 connector
- I. Insulated wire and cable

090040.04 CIRCUITS

Unless otherwise specified, the roadway lighting circuit shall be totally encased in conduit. Circuits shall be constructed in accordance with the contract documents.

090040.05 CONTROL STATION

Section 2523.03, T, of the Standard Specifications, Control Station, shall have the terminology changed to "Control Panel".

090040.06 METHOD OF MEASUREMENT.

The quantities of the various items involved in the construction of the lighting shall be measured in accordance with the following:

A. Bridge Roadway Luminaire Type A with Accessories and Lamp.

The Engineer will determine by count the quantity of bridge roadway luminaires with accessories and lamp furnished and installed.

B. Frontage Roadway Luminaire Type A with Lamp.

The Engineer will determine by count the quantity of frontage road luminaires with accessories and lamp furnished and installed.

C. Under Deck Luminaire Type B with Accessories and Lamp.

The Engineer will determine by count the quantity of under deck luminaires with accessories and lamp furnished and installed.

D. Electrical Circuits - Service.

The Engineer will determine by measurement the quantity of electrical circuits in linear feet furnished and installed.

E. Electrical Circuits - Bridge.

The Engineer will determine by measurement the quantity of electrical circuits in linear feet furnished and installed.

F. Handholes and Junction Boxes.

The Engineer will determine by count the quantity of handholes and junction boxes furnished and installed, not including Junction Boxes installed in Concrete Barrier Rail of any type.

G. Control Panel.

The Engineer will determine by count the quantity of Control Panels furnished and installed.

H. Control Panel Communications Cable.

The Engineer will determine by measurement the quantity of communications cable in linear feet (meters) furnished and installed.

090040.07 BASIS OF PAYMENT.

The quantities of the various items involved in the construction of the lighting will be paid in accordance with the following:

A. Bridge Roadway Luminaire Type A with Accessories and Lamp.

For the quantity by count of bridge roadway luminaires with accessories and lamp furnished and installed, the Contractor shall be paid the contract unit price per unit. This payment shall be full compensation for water-tight conduit with fittings, connectors in junction box and pole, wiring from junction box to pole handhole, wiring within pole to luminaire, luminaire including adjustments and lamp, in accordance with the contract documents.

B. Frontage Roadway Luminaire Type A with Lamp.

For the quantity by count of frontage roadway luminaires with lamp furnished and installed, the Contractor shall be paid the contract unit price per unit. This payment shall be full compensation for, connectors in the pole, wiring within pole to luminaire, luminaire including adjustments and lamp, in accordance with the contract documents. This unit price is for the locations where a frontage roadway luminaire is located on the same pole as A. - shown above.

C. Under Deck Lighting Type B with Accessories and Lamp.

For the quantity by count of under deck lighting luminaires with accessories and lamp furnished and installed, the Contractor shall be paid the contract unit price per unit. This payment shall be full compensation for water-tight conduit with fittings, connectors, conduit and wiring from junction box to luminaire, luminaire and lamp, in accordance with the contract documents.

D. Electrical Circuits – Service.

For the quantity by measurement of linear feet (meters) of electrical circuits – service, furnished and installed, the Contractor shall be paid the contract unit price per linear foot . This payment shall be full compensation for materials, equipment, excavation, conduit and wiring for the electrical service from the utility's service pole to the control cabinet, in accordance with the contract documents.

E. Electrical Circuits – Bridge.

For the quantity by measurement of linear feet (meters) of electrical circuits – bridge, furnished and installed, the Contractor shall be paid the contract unit price per linear foot. This payment shall be full compensation for materials, equipment, all surface mounted conduit, and wiring for the bridge circuits from the control panel to the bridge junction boxes, in accordance with the contract documents.

F. Handholes and Junction Boxes.

For the quantity by count of handholes and junction boxes furnished and installed, not including Junction Boxes installed in Concrete Barrier Rail of any type, the Contractor shall be paid the contract unit price per unit. This payment shall be full compensation for materials, equipment, excavation, and installation of the handholes and junction boxes, in accordance with the contract documents.

Junction Boxes installed in Concrete Barrier Rail is subsidiary to the Concrete Barrier Rail in which the Junction Box is installed.

G. Control Panel.

For the quantity by count of control panels furnished and installed, the Contractor shall be paid the contract unit price per unit. This payment shall be full compensation for materials and labor, including, mounting device(s), meter socket, meter loop, all internal circuitry, equipment and installation of the control panel, in accordance with the contract documents.

H. Control Panel Communications Cable.

For the quantity by measurement of linear feet (meters) of communications cable, furnished and installed, the Contractor shall be paid the contract unit price per linear foot (meter). This payment shall be full compensation for materials, equipment, and cabling for the communications cable between the control panels, in accordance with the contract documents.