

February 25, 2013

SUBJECT: FAP 789 (IL 159/143) Project TE-00D8(145) Section 10-00085-01-LS (Edwardsville) Madison County Contract No. 97507 Item 134 March 8, 2013 Letting Addendum (A)

NOTICE TO PROSPECTIVE BIDDERS:

Due to clarify information necessary to revise the following:

- 1. Revised page 2 of the Schedule of Prices.
- 2. Revised page 2 of the Index of Special Provisions.
- 3. Revised pages 22 27 of the Special Provisions.
- 4. Added page 27A to the Special Provisions.
- 5. Revised sheets 1, 3, 13, 14, 15 & 16 of the Plans.
- 6. Added sheet 15A to the Plans.

Prime contractors must utilize the enclosed material when preparing their bid and must include any Schedule of Prices changes in their bidding proposal.

Bidders using computer-generated bids are cautioned to reflect any and all Schedule of Prices changes, if involved, into their computer programs.

Very truly yours,

John Baranzelli, P.E. Acting Engineer of Design and Environment

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By: Ted B. Walschleger, P.E. Engineer of Project Management

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Revised 2125/13

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DECORATIVE LIGHT TYPE A

The lighting shall be according to the applicable articles of Sections 821 and 830 of the "Standard Specifications for Road and Bridge Construction" dated January 1, 2012; the National Electrical Code; UL; and the following provisions:

The lighting shall be by King Luminaire K124R-LAR-III-150(MOG)-MH-240(MT)-K5/K9-WRS with Stresscrete KT14-G-E11-S/F K5 C/W BA DR(GFI). The Contractor shall submit shop drawings, consisting of color and texture samples and manufacturer's specifications for installation of the street lighting, to the Engineer for approval according to the "Standard Specifications for Road and Bridge Construction."

<u>LUMINAIRES</u>: The luminaire shall be **King Luminaire K124 series 150** watt pulse start metal halide to match existing lighting. The luminaire shall consist of an acrylic rippled globe, internal specular spun aluminum louver assembly, cast aluminum capital/pole adapter, cast aluminum Westinghouse ring and struts, and a cast aluminum finial. The globe shall be secured to the luminaire body with a cast aluminum, tool-less rotary locking globe ring assembly. Finish for the capital/pole adapter and globe ring assembly shall be a polyester powder coating in **black**. Finish for the Westinghouse ring and struts and cast aluminum finial shall be **gold**. All hardware shall be stainless steel.

<u>BALLASTS</u>: The ballast shall be UL certified, high power factor (HPF) type ballast with a -30° F (-34° C) lamp starting capacity, a power factor of 90% or better, a $\pm 5\%$ lamp power regulation, and a $\pm 10\%$ input voltage regulation. The ballast shall be factory wired and tested and mounted on a removable plate which is fully integrated into the luminaire. A quick disconnect wiring system shall allow for fast and easy ballast maintenance. Mogul or medium base porcelain sockets shall be 4 kV rated. All electrical components shall be UL listed and labeled.

<u>FITTER</u>: The fitter shall be made with cast aluminum and accept a 7-inch O.D. ring pole top. The fitter shall attach to the pole top with three (3) set screws at 120 degrees. All hardware shall be stainless steel.

<u>LIGHT POLE</u>: The Light pole shall be a pre-stressed spun concrete, direct-bury pole with a 7-inch diameter aluminum post top ring, an integrated 2-5/8"x8" handhole and cover at 40 inches above grade, a single GFCI duplex receptacle with cast aluminum "in-use" coverplate

located 11'-11" above grade and 1-inch I.P.S. pipe couplings with upper and lower banner arms with a cast aluminum banner ball extending 24 inches out on the roadway side of the pole and spaced 60 inches apart. Finish of pole shall be **eclipse black**. Finish of handhole coverplate, "inuse" coverplate, banner arm, and cast aluminum ball shall be a polyester powder coating in **black**. Light pole shall be **Stresscrete KT14 Series**.

<u>FINISHES</u>: Fixture finish shall consist of cleaning, etching, and rinsing followed by a protective chromate primer, deionized water rinse, over dry off and top coated with thermoset TGIC super polyester powder coat finish. The finish shall pass the AAMA 605.02 performance specification, which includes passing a 3,000-hour salt spray test for corrosion resistance. Color shall be **black** to match existing lighting. The application of all coatings, epoxy, galvanizing, painting, etc., to metal products shall be applied in The United States of America.

LIQUIDTIGHT FLEXIBLE NONMETALLIC CONDUIT: Per Article 1088.01(a)(4) of the Standard Specifications and shall be installed according to the plans.

See 150W luminaire performance table on sheet 27.

This item of work shall be paid for at the contract unit price per each for DECORATIVE LIGHT TYPE A, which price shall include all labor and materials, including excavation, back-fill material, banner arms, lamps, and wiring, necessary to construct the light assembly.

DECORATIVE LIGHT TYPE B

The lighting shall be according to the applicable articles of Sections 821 and 830 of the "Standard Specifications for Road and Bridge Construction" dated January 1, 2012; the National Electrical Code; UL; and the following provisions:

The lighting shall be by **Sternberg 1970SFGSR/CA6/9525STO/250MHPMT/ R03S/BCC/BKT** or approved equal. The Contractor shall submit shop drawings, consisting of color and texture samples and manufacturer's specifications for installation of the street lighting, to the Engineer for approval according to the "Standard Specifications for Road and Bridge Construction."

<u>LUMINAIRES</u>: The luminaire shall be **Sternberg 1970 Series 250W Pulse Start Metal Halide** or approved equal to match existing lighting. The luminaire shall consist of a cast aluminum ballast housing that is an

integral section of the shade, a spun aluminum straight shade, an integral cast aluminum door frame, and ring to secure the lens. The optic assembly shall be an IP66 rated, type 3 distribution, sealed assembly with a specular anodized aluminum reflector and a flat glass lens. Lamp and ballast access shall be tool less. Finish shall be a polyester powder coating in **black**. All hardware shall be stainless steel.

<u>BALLASTS</u>: The ballast shall be UL certified, high power factor (HPF) type ballast with a -30° F (-34° C) lamp starting capacity, a power factor of 90% or better, a $\pm 5\%$ lamp power regulation, and a $\pm 10\%$ input voltage regulation. The ballast shall be factory wired and tested and mounted on a removable plate which is fully integrated into the luminaire. A quick disconnect wiring system shall allow for fast and easy ballast maintenance. Mogul or medium base porcelain sockets shall be 4 kV rated. All electrical components shall be UL listed and labeled.

<u>BRACKET ARM</u>: The bracket arm shall be **Sternberg CA6 Series**. The arm shall be curved galvanized steel with a cast aluminum hang straight coupling on the fixture end. Finish shall be a polyester powder coating in **black**.

<u>LIGHT POLE</u>: The light pole shall be a **Sternberg 9525SSTO/RBCC3/BK** flat sided, tapered octagonal pole constructed of ASTM A607 galvanized steel. The pole shall be a nominal **25 feet** in height with post mount adapter to accept the specified bracket arm and luminaire. The pole assembly will come complete with a matching cap and a two-piece clamshell base with one access panel that clamp around the base plate and lower shaft of the pole. All hardware shall be stainless steel. Finish shall be an epoxy primer with factory finish paint in **black** to match the bracket arm and luminaire.

<u>FINISHES</u>: Fixture finish shall consist of cleaning, etching, and rinsing followed by a protective chromate primer, deionized water rinse, over dry off and top coated with thermoset TGIC super polyester powder coat finish or factory finish. The finish shall pass the AAMA 605.02 performance specification, which includes passing a 3,000-hour salt spray test for corrosion resistance. Color shall be **black** to match existing lighting. The application of all coatings, epoxy, galvanizing, painting, etc., to metal products shall be applied in The United States of America.

See 250W luminaire performance table on sheet 28.

This item of work shall be paid for at the contract unit price per each for DECORATIVE LIGHT TYPE B, which price shall include all labor and materials, including lamps and wiring, necessary to construct the light assembly.

LIGHT POLE FOUNDATION, 30" DIAMETER, SPECIAL

This item shall consist of all material and labor required to install light pole foundations for street lighting. The installation shall conform to the details shown in the plans and Section 836 of the "Standard Specifications for Road and Bridge Construction" dated January 1, 2012; the National Electrical Code; UL; and the following provisions:

LIGHT POLE FOUNDATION shall be constructed as indicated in the plans and per the manufacturer's recommendations. This pay item shall include all material and work necessary to construct the foundation including anchor bolts, reinforcing bars, conduit from the handhole to the foundation, ground rods, and all other miscellaneous hardware indicated in the details in the plans or otherwise required for installation. This work shall be paid for the contract unit price per foot for LIGHT POLE FOUNDATION, 30" DIAMETER, SPECIAL.

STREET LIGHT TURN-ON AND FINAL INSPECTION

Ensure that all electrical work is complete and ready for testing. All wiring shall be terminated prior to testing. Operate each luminaire after installation and connection. Inspect for improper connections and operation. Clean electrical parts to remove conductive and deleterious materials. Clean finishes and touch up damage. Relamp luminaires which have failed at time of Final Inspection.

The Department or responsible local agency will begin paying energy consumption charges on the turn-on date. Facility charges will be paid under the contract up to 30 days prior to the turn-on date. However, the Contractor is responsible for payment of any energy consumption charges prior to turn-on. Facility charges prior to turn-on are to be submitted for payment under Article 109.05 of the "Standard Specifications for Road and Bridge Construction" along with the utility company connection charges in accordance with Section 804. Waiting for electric service to be connected by the utility company will not be a cause to suspend working day charges. However, working days will not be charged while waiting for turn-on if all other contract work is complete including electric service connection.

Subsequent to turn-on, a final inspection must be requested a minimum of 7 calendar days prior to the proposed inspection date. The Department or

responsible local agency will assume maintenance responsibility, including knockdowns at the time that all deficiencies noted during the final inspection are corrected to the satisfaction of the Engineer. Acceptance of the controller will not be made until the requirements of Section 804 are met.

ILLINOIS DEPARTMENT OF TRANSPORTATION 150W LUMINAIRE PERFORMANCE TABLE

GIVEN CONDITIONS				
ROADWAY DATA:	Pavement Width	24 FT		
	Number Of Lanes	2		
	Median Width	N/A		
	IES Surface Classification	R3		
	Q-Zero Value	.07		
LIGHT POLE DATA:	Mounting Height	<u> 16 FT </u>		
	Mast Arm Length	0FT		
	Pole Set-Back From Edge Of Pavement	<u>15 FT</u>		
LUMINAIRE DATA:	Lamp Type	PSMH		
	Lamp Lumens	14000		
	IES Vertical Distribution	Short		
	IES Control Of Distribution	N		
	IES Lateral Distribution	3		
	Total Light Loss Factor	0.68		
LAYOUT DATA:	Spacing	55 FT		
	Configuration	Орр		
	Luminaire Overhang Over Edge			
	Of Pavement Lane	<u>-15 FT</u>		

NOTE: Variations from the above specified IES distribution pattern may be requested and acceptance of variations will be subject to review by the Engineer based on how well the performance requirements are met.

PERFORMANCE REQUIREMENTS

NOTE: These performance requirements shall be the minimum acceptable standards of photometric performance for the luminaire, based on the given conditions listed above.

ILLUMINATION:	Average Horizontal Illuminatio Uniformity Ratio, (E _{Ave} /E _{Min})	on, (E _{Ave}) <u>9.0 Lux</u> <u>3.0</u>
LUMINANCE:	Average Luminance: (L _{Ave}) Uniformity Ratios: (L _{Ave} /L _{Min}) (L _{Max} /L _{Min}	
	Maximum Veiling Luminance Ratio: (L _v /L _{Ave})	

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ILLINOIS DEPARTMENT OF TRANSPORTATION 250W LUMINAIRE PERFORMANCE TABLE

GIVEN CONDITIONS			
ROADWAY DATA:	Pavement Width Number Of Lanes Median Width IES Surface Classification Q-Zero Value	24 2 N/A	FT R3 .07
LIGHT POLE DATA:	Mounting Height Mast Arm Length Pole Set-Back From Edge Of Pavement		25 FT 6 FT 15 FT
LUMINAIRE DATA:	Lamp Type Lamp Lumens IES Vertical Distribution IES Control Of Distribution IES Lateral Distribution Total Light Loss Factor		PSMH 22000 S FC 2 0.68
LAYOUT DATA:	Spacing Configuration Luminaire Overhang Over Edge Of Pavement Lane		230 FT Staggered -9 FT

NOTE: Variations from the above specified IES distribution pattern may be requested and acceptance of variations will be subject to review by the Engineer based on how well the performance requirements are met.

PERFORMANCE REQUIREMENTS

Added 2125113

NOTE: These performance requirements shall be the minimum acceptable standards of photometric performance for the luminaire, based on the given conditions listed above.

ILLUMINATION:	Average Horizontal Uniformity Ratio, (E		<u>9.0</u> <u>3.0</u>	Lux
LUMINANCE:	Average Luminance: (L _{Ave}) Uniformity Ratios:) (L _{Ave} /L _{Min}) (L _{Max} /L _{Min})	0.6 3.5 6.0	Cd/m ²
	Maximum Veiling Luminance Ratio:	(L _v /L _{Ave})		