

April 13, 2007

SUBJECT: FAI Route 70 (I-55/70/64) Section 82-(1, 2, 3, 4) RS-1 St. Clair County Contract No. 76A72 Item No. 125, April 27, 2007 Letting Addendum A

NOTICE TO PROSPECTIVE BIDDERS:

Attached is an addendum to the plans or proposal. This addendum involves revised and/or added material.

1. Revised pages 10 – 12 of the Special Provisions.

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,

Eric E. Harm Interim Bureau Chief Bureau of Design and Environment

Vert aluchbyon A.E.

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

cc: Mary C. Lamie, Region 5, District 8; Roger Driskell; Estimates; Design & Environment File

TBW:DB:jc

## TRAFFIC CONTROL AND PROTECTION (SPECIAL)

This work includes all the traffic control and protection necessary to implement and maintain specified ramp closures and their associated detours, in order to construct this project as shown on the plans and in accordance with the applicable portions of Section 701 of the Standard Specifications.

The Contractor shall furnish, install, maintain, relocate (if necessary), and remove traffic control and protection for the closures and associated detours for Ramp C, Ramp J, Ramp M, Ramp N, Ramp O, Ramp P, EB MLK Fly-Over Ramp 1, and the EB MLK Bridge Approach.

The following agencies shall be informed 48 hours prior to closures to allow co-ordination of emergency response vehicles:

- 1) I.D.O.T. District 8 Traffic Management Center 346-3233
- 2) IL State Police District 11 Communications Center 346-3990 (I.D.O.T. Liaison Sgt. Jackson 346-3617)
- 3) East St. Louis Police Dept. 482-6767
- 4) East St. Louis Fire Dept. 482-6868

This item will be paid for at the contract lump sum price for TRAFFIC CONTROL AND PROTECTION (SPECIAL), which will include the changeable message signs.

## LIGHTING FOR NIGHTTIME HIGHWAY CONSTRUCTION

<u>Description</u>: This work shall consist of furnishing, installing, operating, maintaining, moving and removing all necessary lighting equipment and materials for the duration of nighttime operations on the contract. Nighttime operations consist of work specifically scheduled during the hours of darkness, which occur 15 minutes before official sunset until 15 minutes after official sunrise. All work shall be done according to the "Standard Specifications for Road and Bridge Construction" and as further defined herein.

<u>Materials:</u> Furnished lighting equipment may include fixed and/or mobile lighting systems. Fixed lighting systems utilize portable lighting towers, while mobile lighting systems use luminaires attached to mobile construction equipment. At times, fixed lighting may take the form of roadway luminaires on temporary poles. Other lighting systems, such as balloon lighting, may be adapted to fixed lighting. All mobile lighting shall be balloon lighting. All lighting equipment shall be in good operating condition and in compliance with applicable safety and design codes to the satisfaction of the Engineer.

<u>General Requirements:</u> Whenever the Contractor's operations are being conducted at night, the Contractor shall provide such artificial lighting as determined by the Engineer to ensure safety on and around the worksite, quality of construction, and adequate conditions for inspection of the work by the Engineer. If multiple operations are underway simultaneously at various locations throughout the jobsite, lighting meeting the specifications herein shall be provided at each separate operation site. Lighting requirements in this specification are not intended to be a substitute for other required safety measures, including: reflective clothing, traffic control devices, warning lights, barricades, cones, and signs. Lighting shall also be provided for flagger stations according to the requirements set forth in the Standard Specifications.

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Requirements for Mobile Operations such as Milling and Paving.

The Contractor shall be required to mount a minimum of one balloon type light on each piece of mobile construction equipment used in the construction zone. This would include the material transfer device, bituminous paving machine, bituminous rollers, milling machine, and any broom used in the milling process. Light trucks, semi-trucks used in the milling and paving process, shall be excluded from the balloon light requirement.

Requirements for Patching Operations.

The contractor shall be required to provide balloon type lighting at each patching location where active work is being performed.

Requirements for Stationary Operations

For stationary operations the contractor can use lighting sources which meet the required specifications for (1) General Requirements; (2) Glare Control; (3) Light Trespass; and (4) Lighting Equipment.

<u>Glare Control:</u> All provided lighting shall be designed, installed and operated so as to avoid glare that interferes with traffic on the roadway. The Contractor shall locate, aim, and adjust lighting equipment and/or add glare control hardware as necessary to eliminate objectionable glare to the satisfaction of the Engineer. No light fixture or luminaire shall provide a light source that is directly visible to the worker or motorist; that is, the light source shall be enclosed such that the "bare bulb" is not visible. Glare control hardware that can be provided by the Contractor to reduce objectionable levels of glare include, but is not limited to, glare screens, shields, visors, or louvers on luminaries.

All lighting fixtures shall be mounted and aimed in a manner precluding any disability glare to approaching traffic. The horizontal location and vertical height of lights should be set as far from traffic as practical. Luminaires should be positioned so that the axis of maximum candlepower of the luminaires is directed away from the motorists' line of sight.

Mobile lighting systems shall be designed to allow equipment headlights to be turned off during construction operations in order to further reduce glare.

The Contractor shall carefully select light sources that produce low glare levels such as cutoff luminaires that shield the emitted light above a specified vertical angle in order to direct a greater proportion of candlepower to the work area, and away from oncoming traffic. The use of large point source lighting with diffuse optics, such as balloon lighting, is another way to reduce glare to motorists and workers.

<u>Light Trespass</u>: Lighting shall be provided and maintained so as not to cause annoyance for residences adjoining the worksite. If any complaints are received by the Engineer and/or the Contractor from residences adjoining the worksite, the Contractor shall respond immediately and modify lighting arrangement or add any necessary hardware to shield light trespass to adjoining properties. These modifications should not affect the Contractor's compliance with other requirements in this specification.

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Lighting Equipment: All lighting equipment shall be furnished as required and retained by the Contractor after the work is completed. Material and/or equipment shall be in good operating condition. Before nighttime operations may begin all required lighting equipment and/or materials must be ready for operation to the satisfaction of the Engineer. Lighting shall be provided and maintained in conformity with the requirements of both the National Electrical Code (NEC) and the National Electrical Safety Code (NESC), and any applicable safety and design codes. In a fixed lighting system, light towers utilized on site shall be fully extended to their maximum mounting height to minimize glare to traffic and workers on site.

In a mobile lighting system, additional light fixtures shall be mounted on construction equipment in a way that does not obstruct the sight of the equipment operator and ensures secure connection to the equipment with minimum vibration. When the construction equipment is outside the work zone, the Contractor shall not operate the additional mobile lights and will only utilize standard headlights.

Extreme care shall be taken to avoid contact with any overhead wires or facilities crossing the roadway. If such contact occurs, the Contractor shall be solely responsible for any resulting damage or expenses.

Specifications for Balloon Light: Diameter (minimum) 43 inches Power Supply amps (volts) 15-20 (110-130) Lamps W 2 x 1000 watts Lighting Area (mm. sq. ft.) 15,000 Operating height (ft.) 7.5— 15.0

The Contractor shall provide sufficient fuel, spare lamps, generators, and personnel qualified to operate the lights to assure that they will be maintained in operation during night work. The Contractor shall provide backup lighting to replace failed lights and equipment during night work. The backup equipment shall be on the project and available for use at all times during night work. Maintaining a proper voltage is also necessary for proper performance since operating at a lower voltage will reduce light output and light efficiency while operating at a higher voltage will significantly reduce lamp life.

<u>Inspection:</u> The Engineer and the Contractor shall have an on-site, after dark, meeting to inspect the conformity of provided lighting conditions on site to this specification. No work shall be permitted until all requirements are met. At any time during the course of nighttime work, should the lighting be deemed inadequate by the Engineer, the work shall be halted until adequate lighting is provided. This suspension of work shall be at no additional cost to the Department and the Contractor shall receive no time extension to complete the work.

<u>Basis Of Payment:</u> This work will not be paid for separately, but shall be included in the cost of the traffic control pay items.

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