



Illinois Department of Transportation

2300 South Dirksen Parkway / Springfield, Illinois / 62764

July 25, 2005

SUBJECT: FAI Route 55 (I-55)
Project ITS-0417 (102)
Section D6 ITS #1
Sangamon County
Contract No. 72A00
Item No. 102, August 5, 2005 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 sheets 41, 47 and 48 of the Plans.
2. Revised pages 2, 3, 6, 10, 29, 33 and 34 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,

Michael L. Hine
Engineer of Design
and Environment

A handwritten signature in cursive script, reading "Ted B. Walschleger P.E." with a small "P.E." to the right.

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

cc: Christine Reed, Region 4, District 6; Roger Driskell;
Jim White; Design & Environment File

TBW:DB:jc

STATE OF ILLINOIS

SPECIAL PROVISIONS

The following Special Provisions supplement the "Standard Specifications for Road and Bridge Construction," adopted January 1, 2002, the latest edition of the "Manual on Uniform Traffic Control Devices for Streets and Highways," and the "Manual of Test Procedures for Materials" in effect on the date of invitation for bids, and the Supplemental Specifications and Recurring Special Provisions indicated on the Check Sheet included herein which apply to and govern the construction of FAI 55 (I-55); Section D6 ITS #1; Sangamon County; Contract 72A00 and in case of conflict with any part or parts of said Specifications, the said Special Provisions shall take precedence and shall govern.

DESCRIPTION OF PROJECT

This project on I-55 consists of, but is not limited to the installation of two Dynamic Message Signs (furnished by others) placed on Type III trusses across FAI 55 at approximate Station 234+00 (mile post 87) and Station 202+54 (mile post 107), furnishing and installing 3 PTZ traffic surveillance cameras on existing I-55 sign structures 6C084I055R099.7, 6C084I055L096.4, 6C084I072R097.5, furnish and install fiber optic cable, system support equipment and software at the District's communication center, and all necessary traffic control. Communications between the District 6 communications office and the Dynamic Message Signs shall be accomplished via a standard, voice grade, dial-up telephone line.

This telephone line communication method shall be backed-up by a cellular communication modem included in the DMS structure. Communications between the District 6 communications office and the Cameras shall be accomplished via either existing fiber optic cable, or fiber optic cable installed according to this contract. A Serial Transceiver and Ethernet switch shall be installed in an existing traffic signal control cabinet at 6th Street and Hazel Dell Road in Springfield, and connected to the existing Signal Controller within that cabinet. Communications between the District 6 communications office and these devices is accomplished via fiber optic cable installed according to this contract.

All equipment manufacturers must have a minimum of three years direct manufacturing experience in their respective fields. These respective fields include, but are not limited to, surveillance camera systems, dynamic message signs, video equipment, Ethernet equipment, fiber optic equipment, and computer equipment. Manufacturers will be required to establish a record of proven field service for the system hardware and software being provided for this contract.

The system hardware and copyrighted software to be provided by this contract shall have been in full production, fully operational, and commercially utilized for a period of at least three months prior to the letting date of this contract. For each of the above-cited equipment and installation requirements, the contractor shall furnish the IDOT Design and Planning Engineer with the location of the system(s) and contact information for the persons responsible for these systems.

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TRAFFIC CONTROL PLAN

Effective: November 1, 1984

Revised: April 15, 1997

Traffic control shall be in accordance with the applicable sections of the Standard Specifications for Road and Bridge Construction, the applicable guidelines contained in the Illinois Manual on Uniform Traffic Control Devices for Streets and Highways, these Special Provisions, any special details and Highway Standards contained herein and in the plans.

Special attention is called to Sections 107 and 701 through 705 of the Standard Specifications for Road and Bridge Construction, and as amended by the Supplemental Specifications, Recurring Special Provisions, the Special Provisions contained herein, and the following highway standards relating to traffic control:

701101 701106 701400 701401 701411 701701 702001

Limitations of Construction: The Contractor shall coordinate the items of work in order to keep hazards and traffic inconveniences to a minimum, as specified below.

1. Notify the Bureau of Operations 1-week prior to lane closures on I-55 at 217-782-7743. No lane closures will be allowed on FAI-55 between the hours of 6:00 A.M. and 6:00 P.M.
2. The Contractor shall provide, erect, and maintain all the necessary barricades, cones, drums, and lights for the warning and protection of traffic, as required by Sections 107 and 701 through 703 of the Standard Specifications, and as modified.
3. The Contractor shall furnish and erect "Road Construction Ahead" signs (W20-1(0)-48) at both ends of the project and all side roads within the limits of this section when working in the vicinity of the side road intersection.
4. Revise the first paragraph of Article 702.05(a): "General: Sign posts must be 100 x 100 mm (4 x 4 inches) wood posts according to Article 1093.01(b). The use of metal posts will not be permitted."
5. All advance-warning signs shall be in new or like new condition at the start of the project. All warning signs shall be 48 inches by 48 inches and have a black legend on a fluorescent orange reflectorized background.
6. During the construction of this section at least one lane shall remain open to traffic in each direction at all times, except Interstate closures.
7. Two Portable Changeable Message Boards will be required for each Interstate closure.

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The seed mixture shall be applied at 110 kg/ha (100 pounds/acre). All seeds shall meet the mixture, purity and noxious weed requirements of Article 1081.04 of the Standard Specifications, and be approved by the Engineer.

The Contractor shall provide the Engineer with the test results from the seed container and the chemical analysis of the fertilizer nutrients.

The seed and fertilizer placed at all disturbed areas will not be measured for payment but will be considered incidental to this contract

COMPLETION DATE

All work necessary to complete this project shall be completed by and in operation by April 30, 2006. A successful turn-on inspection of all surveillance camera locations and a successful 72-hour testing period of all Dynamic Message Signs will be included in this time period. Contractor's liability for failure to meet this date shall be as specified in Section 108 of the Standard Specifications.

INSTALL TRUSS MOUNTED DYNAMIC MESSAGE SIGNS

Two walk-in Dynamic Message Sign (furnished by others) assemblies will be installed on Type III Trusses along I-55 and the changeable message sign control system will be installed under this contract. Communications between the District 6 communications office and the Dynamic Message Signs shall be accomplished via a standard, voice grade, dial-up telephone line. This telephone line communication method shall be backed-up by a cellular communication modem included in the DMS structure.

This item shall be paid for at the contract unit price each for **INSTALL TRUSS MOUNTED DYNAMIC MESSAGE SIGN**, and shall include the cost of all labor and necessary equipment to perform the work.

CONDUIT

This work shall consist of furnishing and installing a conduit of the type and size specified in accordance with Sections 810 and 1088.01(b) or 1088.01(c) of the Standard Specifications for Road and Bridge Construction except as described herein.

PVC Conduits: When it is necessary to connect PVC conduit to steel conduit a heavy wall set screw connector with a PVC female adapter shall be installed and sealed by duct seal and plastic tape.

When conduit is installed in the excavation in back of curb, the conduit shall be installed below driveway and entrances at a depth which will prevent the conduit from protruding into the entrance pavement material.

PVC Conduit, Augered: The term augered shall cover both the pushed and bored method of installing conduit. Because of differences in equipment and techniques, the contractor may use either method to install the conduit for the term AUGERED.

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Method Of Payment. The Contractor will be reimbursed to the exact amount of money as billed by WiTel for its services. No extra compensation shall be paid to the Contractor for any incidental materials and labor required to fulfill the requirements as shown on the plans and specified herein.

For bidding purposes, this item shall be estimated as \$6,000

Basis Of Payment. This work will be paid for at the contract unit price each for **FIBER OPTIC CABLE SPLICE**, which price shall be payment in full for drilling the existing vaults, attaching proposed conduit, installing proposed fiber within existing vaults and making all fiber splices complete.

CLOSED CIRCUIT CAMERA SYSTEM COMPLETE

Effective May 1, 2005

This work shall consist of furnishing, installing, and placing into operation a closed circuit television camera system. All new equipment shall be properly-installed to be compatible, fully-operational, and fully-integrated into the district's ITS system. All work and equipment required both to achieve this level of performance, and to complete the 30 day end-of-project performance milestone, whether or not specifically stated in either the Plans or this contract, shall be considered incidental to this contract. In addition to equipment and labor at the three peripheral field locations, satisfactory completion of this item will involve work at the district's communication center. The contractor may be utilizing and/or incorporating existing, ongoing, or related work and equipment done or installed by others in order to satisfactorily complete this project. Any coordinating efforts, equipment, or labor associated with existing, ongoing, or related work by others shall be incidental to this contract unless otherwise specified herein.

This system shall consist of, but shall not be limited to, furnishing and installing the following equipment:

- **Color Camera**
- **Environmental Enclosure**
- **Pole Mounted Equipment Cabinet**
- **Digital Video Encoder**
- **Managed Ethernet Switch**
- **Surge Arrestor**
- **Camera Connecton J-Box**

The Camera System shall include a mounting bracket, Sensormatic RHOPM, pole mount or equal (1 ea.); a 4" diameter Schedule 80 Aluminum pipe (length as required, 1 ea.); a pole plate (1 ea.), a 12"x12"x1/2" aluminum plate (2 ea.); power, control, and video cables from the camera to the junction box; all incidental cables & connectors; mounting hardware required to securely fasten the camera to the sign truss; and to make the system perform to the satisfaction of the Engineer. The camera system shall also include installing a serial to Ethernet transceiver device and managed Ethernet switch at the existing traffic signal cabinet at 6th Street and Hazel Dell.

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All workstations shall be a standard product of an established brand name company such as Dell, HP, Falcon Northwest and IBM, with a good track record of providing long-term maintenance and service. The company shall have been producing leading edge PC based components for a minimum of five years prior to the bid. The company shall be able to provide nation wide service and support on a 7 day a week, 24-hour basis and shall maintain an 800-customer support service. All major components such as the motherboard, power supply, processor, memory, hard disk, CD-ROM, integrated gigabit LAN, audio and video components, shall be designed, assembled and warranted by the manufacturer. The workstation, as configured, shall be a standard model number of the manufacturer.

The server/workstation shall be equipped with the following:

Operating System:	Windows XP-Professional
Processor:	2GHz minimum
Hard disk:	160 GB minimum
Motherboard:	Two PCI Express X16 slots minimum
Memory:	1 GB minimum
CD-ROM:	yes, typical specs
Power Supply	650 watts minimum
Video Card:	2 video cards with nVidia SLI chipset, with at least 256 MB DDR
Pointing Device:	A 3-button, optical wheel mouse
Monitor:	Two (2) 21" LCD Flat Panel Display with DVI inputs
Network Interface:	The workstation motherboard shall be equipped with a Gigabit LAN supporting 10/100 MB/s. The LAN shall have a UTP (RJ-45) connector. The LAN shall also support Netflex-3 technology.

VIDEO CARDS:

The Contractor shall supply video cards required by the camera control software and required to drive the video monitors as specified in the contract Plans and Specifications. These cards shall comply with the software developer's requirements and shall include NTSC inputs and DVI outputs compatible and consistent with the monitor configurations indicated in the Plans and Specifications for this contract.

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Camera advanced functions such as on-screen displays, patterns and presets shall be available through the driver interface.

The Client Manual shall clearly outline all steps necessary to operate the software. The Client Manual shall include screen captures taken directly from the software to illustrate the instructions. The Client Manual shall contain a table of contents. The Client Manual shall contain an index.

The Server Manual shall clearly outline all steps necessary to configure the software. The Server Manual shall include screen captures taken directly from the software to illustrate the instructions.

The Server Manual shall contain a table of contents. The Server Manual shall contain an index.

Each device driver shall have Driver Application Notes that document configuration and operation of the driver and its devices.

The Driver Application Notes shall clearly outline all steps necessary to configure the software.

The Driver Application Notes shall include screen captures taken directly from the software to illustrate the instructions. The Driver Application Notes shall contain a table of contents.

This work will be paid for as part of the contract unit price each for **COMMUNICATIONS CENTER SUPPORT EQUIPMENT COMPLETE**, which price shall be payment in full for furnishing and installing a closed circuit television camera system, with necessary connections and adjustments for proper operations.

FURNISH AND INSTALL TRUSS DAMPER

This work shall consist of furnishing and installing a truss damper on an aluminum overhead span sign structure. The damper shall be attached to the overhead sign structure as indicated on the attached details.

The damper design shall be as shown in the plans. The Contractor shall submit shop drawings for the damper for approval prior to fabrication and before any materials are ordered.

The Truss Dampers shall be installed and included in the cost for **OVERHEAD SIGN STRUCTURE – SPAN TY III A**.

PROJECT DESCRIPTIONS OVERVIEW

All equipment manufacturers must have a minimum of three years direct manufacturing experience in their respective fields. These respective fields include, but are not limited to surveillance camera systems, dynamic message signs, video equipment, Ethernet equipment, fiber optic equipment, and computer equipment. Manufacturers will be required to establish a record of proven field service for the system hardware and software being provided for this contract.

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The system hardware and copyrighted software to be provided by this contract shall have been in full production, fully operational, and commercially utilized for a period of at least three months prior to the letting date of this contract. For each of the above-cited equipment and installation requirements, the contractor shall furnish the IDOT Design and Planning Engineer with the location of the system(s) and contact information for the persons responsible for these systems.

This project also includes the installation of ITS system support equipment and software at the District's Communications Center.

Communications between the District 6 communications office and the Dynamic Message Signs is accomplished via a standard, voice grade, dial-up telephone line. This telephone line communication method is backed-up by a cellular communication modem included in the DMS structure. Communications between the District 6 communications office and the Cameras is accomplished via either existing fiber optic cable, or fiber optic cable installed according to this contract.

A Serial Transceiver and Ethernet switch are to be installed in an existing traffic signal control cabinet at 6th Street and Hazel Dell Road in Springfield, and connected to the existing Signal Controller within that cabinet. Communications between the District 6 communications office and these devices is accomplished via fiber optic cable installed according to this contract.

At the three camera field locations, a Junction Box is mounted on the same structure as the camera. This Junction Box houses the associated power and transmission equipment.

All the field locations shall require electrical services, as indicated in the Plans. Each camera field location requires a connection to the existing fiber backbone, and single-mode fiber interconnections between the backbone and the field devices.

TESTING REQUIREMENTS:

The contractor shall test all equipment with connections made before the equipment is installed. The contractor shall document testing results for all equipment and submit documentation to the Engineer. The fiber optic cable shall be tested at 850 nm and 1300 nm.

The optical link shall be tested with an OTDR to ensure the link budget (overall path loss) plus an added 3dB of optical safety margin does not exceed the manufacturer's specified power budget.

The cost of performing the appropriate tests and providing the documentation shall be considered incidental to the over all cost of the contract.

DOCUMENTATION:

At the pre-construction meeting, the Contractor shall submit the following items for approval by the Engineer.

- Five complete copies of the manufacturer's descriptive literatures and technical data for the equipment that will be installed on the contract. The descriptive literatures and technical

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