

If you plan to submit a bid directly to the Department of Transportation

PREQUALIFICATION

Any contractor who desires to become pre-qualified to bid on work advertised by IDOT must submit the properly completed pre-qualification forms to the Bureau of Construction no later than 4:30 p.m. prevailing time twenty-one days prior to the letting of interest. This pre-qualification requirement applies to first time contractors, contractors renewing expired ratings, contractors maintaining continuous pre-qualification or contractors requesting revised ratings. To be eligible to bid, existing pre-qualification ratings must be effective through the date of letting.

REQUESTS FOR AUTHORIZATION TO BID

Contractors wanting to bid on items included in a particular letting must submit the properly completed "Request for Authorization to Bid/or Not For Bid Status" (BDE 124INT) and the ORIGINAL "Affidavit of Availability" (BC 57) to the proper office no later than 4:30 p.m. prevailing time, three (3) days prior to the letting date.

WHO CAN BID ?

Bids will be accepted from only those companies that request and receive written **Authorization to Bid** from IDOT's Central Bureau of Construction.

WHAT CONSTITUTES WRITTEN AUTHORIZATION TO BID?: When a prospective prime bidder submits a "Request for Authorization to Bid/or Not For Bid Status"(BDE 124INT) he/she must indicate at that time which items are being requested For Bidding purposes. Only those items requested For Bidding will be analyzed. After the request has been analyzed, the bidder will be issued a **Proposal Denial and/or Authorization Form**, approved by the Central Bureau of Construction, that indicates which items have been approved For Bidding. If **Authorization to Bid** cannot be approved, the **Proposal Denial and/or Authorization Form** will indicate the reason for denial.

ABOUT AUTHORIZATION TO BID: Firms that have not received an authorization form within a reasonable time of complete and correct original document submittal should contact the department as to status. This is critical in the week before the letting. These documents must be received three days before the letting date. Firms unsure as to authorization status should call the Prequalification Section of the Bureau of Construction at the number listed at the end of these instructions.

ADDENDA AND REVISIONS: It is the contractor's responsibility to determine which, if any, addenda or revisions pertain to any project they may be bidding. Failure to incorporate all relevant addenda or revisions may cause the bid to be declared unacceptable.

Each addendum will be placed with the contract number. Addenda and revisions will also be placed on the Addendum/Revision Checklist and each subscription service subscriber will be notified by e-mail of each addendum and revision issued.

The Internet is the Department's primary way of doing business. The subscription server e-mails are an added courtesy the Department provides. It is suggested that bidders check IDOT's website at <http://www.dot.il.gov/desenv/delett.html> before submitting final bid information.

IDOT IS NOT RESPONSIBLE FOR ANY E-MAIL FAILURES.

Addenda Questions may be directed to the Contracts Office at (217)782-7806 or D&Econtracts@dot.il.gov

Technical Questions about downloading these files may be directed to Tim Garman (217)524-1642 or Timothy.Garman@illinois.gov.

WHAT MUST BE INCLUDED WHEN BIDS ARE SUBMITTED?: Bidders need not return the entire proposal when bids are submitted. That portion of the proposal that must be returned includes the following:

1. All documents from the Proposal Cover Sheet through the Proposal Bid Bond
2. Other special documentation and/or information that may be required by the contract special provisions

All proposal documents, including Proposal Guaranty Checks or Proposal Bid Bonds, should be stapled together to prevent loss when bids are processed by IDOT personnel.

ABOUT SUBMITTING BIDS: It is recommended that bidders deliver bids in person to insure they arrive at the proper location prior to the time specified for the receipt of bids. Any bid received at the place of letting after the time specified will not be accepted.

WHO SHOULD BE CALLED IF ASSISTANCE IS NEEDED?

Questions Regarding	Call
Prequalification and/or Authorization to Bid	217/782-3413
Preparation and submittal of bids	217/782-7806
Mailing of plans and proposals	217/782-7806

ADDENDUMS AND REVISIONS TO THE PROPOSAL FORMS

Planholders should verify that they have received and incorporated any addendum and/or revision prior to submitting their bid. Failure by the bidder to include an addendum or revision could result in a bid being rejected as irregular.

RETURN WITH BID

1X

Proposal Submitted By
Name
Address
City

Letting March 6, 2009

BIDDERS NEED NOT RETURN THE ENTIRE PROPOSAL
(See instructions inside front cover)

NOTICE TO PROSPECTIVE BIDDERS

This proposal can be used for bidding purposes by only those companies that request and receive written AUTHORIZATION TO BID from IDOT's Central Bureau of Construction.
(SEE INSTRUCTIONS ON THE INSIDE OF COVER)

**Notice To Bidders,
Specifications,
Proposal, Contract
and Contract Bond**



**Illinois Department
of Transportation**

Springfield, Illinois 62764

**Contract No. 68273
PEORIA-TAZEWELL Counties
Section D4 I-74 SYSTEM-2
Route FAI 74
Project IM-HPP-074-3(062)093
District 4 Construction Funds**

PLEASE MARK THE APPROPRIATE BOX BELOW:

- A Bid Bond is included.
- A Cashier's Check or a Certified Check is included

Prepared by

Checked by

F

(Printed by authority of the State of Illinois)

INSTRUCTIONS

ABOUT IDOT PROPOSALS: All proposals issued by IDOT are potential bidding proposals. Each proposal contains all Certifications and Affidavits, a Proposal Signature Sheet and a Proposal Bid Bond required for Prime Contractors to submit a bid after written **Authorization to Bid** has been issued by IDOT's Central Bureau of Construction.

WHO CAN BID?: Bids will be accepted from only those companies that request and receive written **Authorization to Bid** from IDOT's Central Bureau of Construction. To request authorization, a potential bidder must complete and submit Part B of the Request for Authorization to Bid/or Not For Bid Status form (BDE 124 INT) and submit an original Affidavit of Availability (BC 57).

WHAT CONSTITUTES WRITTEN AUTHORIZATION TO BID?: When a prospective prime bidder submits a "Request for Proposal Forms and Plans" he/she must indicate at that time which items are being requested For Bidding purposes. Only those items requested For Bidding will be analyzed. After the request has been analyzed, the bidder will be issued a **Proposal Denial and/or Authorization Form**, approved by the Central Bureau of Construction, that indicates which items have been approved For Bidding. If **Authorization to Bid** cannot be approved, the **Proposal Denial and/or Authorization Form** will indicate the reason for denial. If a contractor has requested to bid but has not received a **Proposal Denial and/or Authorization Form**, they should contact the Central Bureau of Construction in advance of the letting date.

WHAT MUST BE INCLUDED WHEN BIDS ARE SUBMITTED?: Bidders need not return the entire proposal when bids are submitted. That portion of the proposal that must be returned includes the following:

1. All documents from the Proposal Cover Sheet through the Proposal Bid Bond
2. Other special documentation and/or information that may be required by the contract special provisions

All proposal documents, including Proposal Guaranty Checks or Proposal Bid Bonds, should be stapled together to prevent loss when bids are processed by IDOT personnel.

ABOUT SUBMITTING BIDS: It is recommended that bidders deliver bids in person to insure they arrive at the proper location prior to the time specified for the receipt of bids. Any bid received at the place of letting after the time specified will not be accepted.

WHO SHOULD BE CALLED IF ASSISTANCE IS NEEDED?

Questions Regarding	Call
Prequalification and/or Authorization to Bid	217/782-3413
Preparation and submittal of bids	217/782-7806
Mailing of CD-ROMS	217/782-7806

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PROPOSAL

TO THE DEPARTMENT OF TRANSPORTATION

1. Proposal of _____

Taxpayer Identification Number (Mandatory) _____

for the improvement identified and advertised for bids in the Invitation for Bids as:

**Contract No. 68273
PEORIA-TAZEWELL Counties
Section D4 I-74 SYSTEM-2
Project IM-HPP-074-3(062)093
Route FAI 74
District 4 Construction Funds**

Development of advanced traffic management system (ATMS) software for the existing intelligent transportation system (ITS) and installation of associated hardware to provide integration of existing elements for I-74 in Peoria and Tazewell counties.

2. The undersigned bidder will furnish all labor, material and equipment to complete the above described project in a good and workmanlike manner as provided in the contract documents provided by the Department of Transportation. This proposal will become part of the contract and the terms and conditions contained in the contract documents shall govern performance and payments.

RETURN WITH BID

6. **COMBINATION BIDS.** The undersigned further agrees that if awarded the contract for the sections contained in the following combination, he/she will perform the work in accordance with the requirements of each individual proposal comprising the combination bid specified in the schedule below, and that the combination bid shall be prorated against each section in proportion to the bid submitted for the same. If an error is found to exist in the gross sum bid for one or more of the individual sections included in a combination, the combination bid shall be corrected as provided in the specifications.

When a combination bid is submitted, the schedule below must be completed in each proposal comprising the combination.

If alternate bids are submitted for one or more of the sections comprising the combination, a combination bid must be submitted for each alternate.

Schedule of Combination Bids

Combination No.	Sections Included in Combination	Combination Bid	
		Dollars	Cents

7. **SCHEDULE OF PRICES.** The undersigned bidder submits herewith, in accordance with the rules and instructions, a schedule of prices for the items of work for which bids are sought. The unit prices bid are in U.S. dollars and cents, and all extensions and summations have been made. The bidder understands that the quantities appearing in the bid schedule are approximate and are provided for the purpose of obtaining a gross sum for the comparison of bids. If there is an error in the extension of the unit prices, the unit prices shall govern. Payment to the contractor awarded the contract will be made only for actual quantities of work performed and accepted or materials furnished according to the contract. The scheduled quantities of work to be done and materials to be furnished may be increased, decreased or omitted as provided elsewhere in the contract.
8. **CERTIFICATE OF AUTHORITY.** The undersigned bidder, if a business organized under the laws of another State, assures the Department that it will furnish a copy of its certificate of authority to do business in the State of Illinois with the return of the executed contract and bond. Failure to furnish the certificate within the time provided for execution of an awarded contract may be cause for cancellation of the award and forfeiture of the proposal guaranty to the State.

ILLINOIS DEPARTMENT OF TRANSPORTATION
 SCHEDULE OF PRICES
 CONTRACT
 NUMBER - 68273

State Job # - C-94-101-02
 PPS NBR - 4-00053-0000
 County Name - PEORIA- TAZEWELL-
 Code - 143 - 179 -
 District - 4 - 4 -
 Section Number - D4 I-74 SYSTEM-2

Project Number
 IM-HPP-074-3/062/093

Route
 FAI 74

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
X0326248	ATMS SOFTWARE CORE	L SUM	1.000				
X0326249	CARD CAGE CHASSIS	EACH	1.000				
X0326250	ATMS SOFTWARE CAD EP	L SUM	1.000				
X0326251	ATMS SOFTWARE CAD P	L SUM	1.000				
X0326252	COMPUTER WORKSTATION	EACH	13.000				
X0326253	LCD MONITOR	EACH	26.000				
X0326254	LAPTOP COMPUTER	EACH	4.000				
X0326255	APPLICATION SERVER	EACH	1.000				
X0326256	WEB SERVER	EACH	1.000				
X0326257	TAPE BACKUP UNIT	EACH	2.000				
X0326258	NETWORK SECURITY APPL	EACH	1.000				
X0326259	DIGITAL VIDEO ENCODER	EACH	12.000				
X0326260	ETHERNET SWITCH MAT O	EACH	1.000				
X0326261	KVM SWITCH	EACH	2.000				
X0326262	REMOTE POWER MAN UNIT	EACH	10.000				

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STATE REQUIRED ETHICAL STANDARDS GOVERNING CONTRACT PROCUREMENT: ASSURANCES, CERTIFICATIONS AND DISCLOSURES

I. GENERAL

A. Article 50 of the Illinois Procurement Code establishes the duty of all State chief procurement officers, State purchasing officers, and their designees to maximize the value of the expenditure of public moneys in procuring goods, services, and contracts for the State of Illinois and to act in a manner that maintains the integrity and public trust of State government. In discharging this duty, they are charged by law to use all available information, reasonable efforts, and reasonable actions to protect, safeguard, and maintain the procurement process of the State of Illinois.

B. In order to comply with the provisions of Article 50 and to carry out the duty established therein, all bidders are to adhere to ethical standards established for the procurement process, and to make such assurances, disclosures and certifications required by law. By execution of the Proposal Signature Sheet, the bidder indicates that each of the mandated assurances has been read and understood, that each certification is made and understood, and that each disclosure requirement has been understood and completed.

C. In addition to all other remedies provided by law, failure to comply with any assurance, failure to make any disclosure or the making of a false certification shall be grounds for termination of the contract and the suspension or debarment of the bidder.

II. ASSURANCES

A. The assurances hereinafter made by the bidder are each a material representation of fact upon which reliance is placed should the Department enter into the contract with the bidder. The Department may terminate the contract if it is later determined that the bidder rendered a false or erroneous assurance, and the surety providing the performance bond shall be responsible for the completion of the contract.

B. Felons

1. The Illinois Procurement Code provides:

Section 50-10. Felons. Unless otherwise provided, no person or business convicted of a felony shall do business with the State of Illinois or any state agency from the date of conviction until 5 years after the date of completion of the sentence for that felony, unless no person held responsible by a prosecutorial office for the facts upon which the conviction was based continues to have any involvement with the business.

2. The bidder assures the Department that the award and execution of the contract would not cause a violation of Section 50-10.

C. Conflicts of Interest

1. The Illinois Procurement Code provides in pertinent part:

Section 50-13. Conflicts of Interest.

(a) Prohibition. It is unlawful for any person holding an elective office in this State, holding a seat in the General Assembly, or appointed to or employed in any of the offices or agencies of state government and who receives compensation for such employment in excess of 60% of the salary of the Governor of the State of Illinois, or who is an officer or employee of the Capital Development Board or the Illinois Toll Highway Authority, or who is the spouse or minor child of any such person to have or acquire any contract, or any direct pecuniary interest in any contract therein, whether for stationery, printing, paper, or any services, materials, or supplies, that will be wholly or partially satisfied by the payment of funds appropriated by the General Assembly of the State of Illinois or in any contract of the Capital Development Board or the Illinois Toll Highway authority.

(b) Interests. It is unlawful for any firm, partnership, association or corporation, in which any person listed in subsection (a) is entitled to receive (i) more than 7 1/2% of the total distributable income or (ii) an amount in excess of the salary of the Governor, to have or acquire any such contract or direct pecuniary interest therein.

(c) Combined interests. It is unlawful for any firm, partnership, association, or corporation, in which any person listed in subsection (a) together with his or her spouse or minor children is entitled to receive (i) more than 15%, in the aggregate, of the total distributable income or (ii) an amount in excess of 2 times the salary of the Governor, to have or acquire any such contract or direct pecuniary interest therein.

(d) Securities. Nothing in this Section invalidates the provisions of any bond or other security previously offered or to be offered for sale or sold by or for the State of Illinois.

(e) Prior interests. This Section does not affect the validity of any contract made between the State and an officer or employee of the State or member of the General Assembly, his or her spouse, minor child or any combination of those persons if that contract was in existence before his or her election or employment as an officer, member, or employee. The contract is voidable, however, if it cannot be completed within 365 days after the officer, member, or employee takes office or is employed.

The current salary of the Governor is \$171,000.00. Sixty percent of the salary is \$102,600.00.

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2. The bidder assures the Department that the award and execution of the contract would not cause a violation of Section 50-13, or that an effective exemption has been issued by the Board of Ethics to any individual subject to the Section 50-13 prohibitions pursuant to the provisions of Section 50-20 of the Code and Executive Order Number 3 (1998). Information concerning the exemption process is available from the Department upon request.

D. Negotiations

1. The Illinois Procurement Code provides in pertinent part:

Section 50-15. Negotiations.

(a) It is unlawful for any person employed in or on a continual contractual relationship with any of the offices or agencies of State government to participate in contract negotiations on behalf of that office or agency with any firm, partnership, association, or corporation with whom that person has a contract for future employment or is negotiating concerning possible future employment.

2. The bidder assures the Department that the award and execution of the contract would not cause a violation of Section 50-15, and that the bidder has no knowledge of any facts relevant to the kinds of acts prohibited therein.

E. Inducements

1. The Illinois Procurement Code provides:

Section 50-25. Inducement. Any person who offers or pays any money or other valuable thing to any person to induce him or her not to bid for a State contract or as recompense for not having bid on a State contract is guilty of a Class 4 felony. Any person who accepts any money or other valuable thing for not bidding for a State contract or who withholds a bid in consideration of the promise for the payment of money or other valuable thing is guilty of a Class 4 felony.

2. The bidder assures the Department that the award and execution of the contract would not cause a violation of Section 50-25, and that the bidder has no knowledge of any facts relevant to the kinds of acts prohibited therein.

F. Revolving Door Prohibition

1. The Illinois Procurement Code provides:

Section 50-30. Revolving door prohibition. Chief procurement officers, associate procurement officers, State purchasing officers, their designees whose principal duties are directly related to State procurement, and executive officers confirmed by the Senate are expressly prohibited for a period of 2 years after terminating an affected position from engaging in any procurement activity relating to the State agency most recently employing them in an affected position for a period of at least 6 months. The prohibition includes, but is not limited to: lobbying the procurement process; specifying; bidding; proposing bid, proposal, or contract documents; on their own behalf or on behalf of any firm, partnership, association, or corporation. This Section applies only to persons who terminate an affected position on or after January 15, 1999.

2. The bidder assures the Department that the award and execution of the contract would not cause a violation of Section 50-30, and that the bidder has no knowledge of any facts relevant to the kinds of acts prohibited therein.

G. Reporting Anticompetitive Practices

1. The Illinois Procurement Code provides:

Section 50-40. Reporting anticompetitive practices. When, for any reason, any vendor, bidder, contractor, chief procurement officer, State purchasing officer, designee, elected official, or State employee suspects collusion or other anticompetitive practice among any bidders, offerors, contractors, proposers, or employees of the State, a notice of the relevant facts shall be transmitted to the Attorney General and the chief procurement officer.

2. The bidder assures the Department that it has not failed to report any relevant facts concerning the practices addressed in Section 50-40 which may involve the contract for which the bid is submitted.

H. Confidentiality

1. The Illinois Procurement Code provides:

Section 50-45. Confidentiality. Any chief procurement officer, State purchasing officer, designee, or executive officer who willfully uses or allows the use of specifications, competitive bid documents, proprietary competitive information, proposals, contracts, or selection information to compromise the fairness or integrity of the procurement, bidding, or contract process shall be subject to immediate dismissal, regardless of the Personnel code, any contract, or any collective bargaining agreement, and may in addition be subject to criminal prosecution.

2. The bidder assures the Department that it has no knowledge of any fact relevant to the practices addressed in Section 50-45 which may involve the contract for which the bid is submitted.

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I. Insider Information

1. The Illinois Procurement Act provides:

Section 50-50. Insider information. It is unlawful for any current or former elected or appointed State official or State employee to knowingly use confidential information available only by virtue of that office or employment for actual or anticipated gain for themselves or another person.

2. The bidder assures the Department that it has no knowledge of any facts relevant to the practices addressed in Section 50-50 which may involve the contract for which the bid is submitted.

III. CERTIFICATIONS

A. The certifications hereinafter made by the bidder are each a material representation of fact upon which reliance is placed should the Department enter into the contract with the bidder. The Department may terminate the contract if it is later determined that the bidder rendered a false or erroneous certification, and the surety providing the performance bond shall be responsible for completion of the contract.

B. Bribery

1. The Illinois Procurement Code provides:

Section 50-5. Bribery.

- (a) Prohibition. No person or business shall be awarded a contract or subcontract under this Code who:

- (1) has been convicted under the laws of Illinois or any other state of bribery or attempting to bribe an officer or employee of the State of Illinois or any other state in that officer's or employee's official capacity; or

- (2) has made an admission of guilt of that conduct that is a matter of record but has not been prosecuted for that conduct.

- (b) Businesses. No business shall be barred from contracting with any unit of State or local government as a result of a conviction under this Section of any employee or agent of the business if the employee or agent is no longer employed by the business and:

- (1) the business has been finally adjudicated not guilty; or

- (2) the business demonstrates to the governmental entity with which it seeks to contract, and that entity finds that the commission of the offense was not authorized, requested, commanded, or performed by a director, officer, or high managerial agent on behalf of the business as provided in paragraph (2) of subsection (a) of Section 5-4 of the Criminal Code of 1961.

- (c) Conduct on behalf of business. For purposes of this Section, when an official, agent, or employee of a business committed the bribery or attempted bribery on behalf of the business and in accordance with the direction or authorization of a responsible official of the business, the business shall be chargeable with the conduct.

- (d) Certification. Every bid submitted to and contract executed by the State shall contain a certification by the contractor that the contractor is not barred from being awarded a contract or subcontract under this Section. A contractor who makes a false statement, material to the certification, commits a Class 3 felony.

2. The bidder certifies that it is not barred from being awarded a contract under Section 50.5.

C. Educational Loan

1. Section 3 of the Educational Loan Default Act provides:

§ 3. No State agency shall contract with an individual for goods or services if that individual is in default, as defined in Section 2 of this Act, on an educational loan. Any contract used by any State agency shall include a statement certifying that the individual is not in default on an educational loan as provided in this Section.

2. The bidder, if an individual as opposed to a corporation, partnership or other form of business organization, certifies that the bidder is not in default on an educational loan as provided in Section 3 of the Act.

D. Bid-Rigging/Bid Rotating

1. Section 33E-11 of the Criminal Code of 1961 provides:

§ 33E-11. (a) Every bid submitted to and public contract executed pursuant to such bid by the State or a unit of local government shall contain a certification by the prime contractor that the prime contractor is not barred from contracting with any unit of State or local government as a result of a violation of either Section 33E-3 or 33E-4 of this Article. The State and units of local government shall provide the appropriate forms for such certification.

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(b) A contractor who makes a false statement, material to the certification, commits a Class 3 felony.

A violation of Section 33E-3 would be represented by a conviction of the crime of bid-rigging which, in addition to Class 3 felony sentencing, provides that any person convicted of this offense or any similar offense of any state or the United States which contains the same elements as this offense shall be barred for 5 years from the date of conviction from contracting with any unit of State or local government. No corporation shall be barred from contracting with any unit of State or local government as a result of a conviction under this Section of any employee or agent of such corporation if the employee so convicted is no longer employed by the corporation and: (1) it has been finally adjudicated not guilty or (2) if it demonstrates to the governmental entity with which it seeks to contract and that entity finds that the commission of the offense was neither authorized, requested, commanded, nor performed by a director, officer or a high managerial agent in behalf of the corporation.

A violation of Section 33E-4 would be represented by a conviction of the crime of bid-rotating which, in addition to Class 2 felony sentencing, provides that any person convicted of this offense or any similar offense of any state or the United States which contains the same elements as this offense shall be permanently barred from contracting with any unit of State or local government. No corporation shall be barred from contracting with any unit of State or local government as a result of a conviction under this Section of any employee or agent of such corporation if the employee so convicted is no longer employed by the corporation and: (1) it has been finally adjudicated not guilty or (2) if it demonstrates to the governmental entity with which it seeks to contract and that entity finds that the commission of the offense was neither authorized, requested, commanded, nor performed by a director, officer or a high managerial agent in behalf of the corporation.

2. The bidder certifies that it is not barred from contracting with the Department by reason of a violation of either Section 33E-3 or Section 33E-4.

E. International Anti-Boycott

1. Section 5 of the International Anti-Boycott Certification Act provides:

§ 5. State contracts. Every contract entered into by the State of Illinois for the manufacture, furnishing, or purchasing of supplies, material, or equipment or for the furnishing of work, labor, or services, in an amount exceeding the threshold for small purchases according to the purchasing laws of this State or \$10,000.00, whichever is less, shall contain certification, as a material condition of the contract, by which the contractor agrees that neither the contractor nor any substantially-owned affiliated company is participating or shall participate in an international boycott in violation of the provisions of the U.S. Export Administration Act of 1979 or the regulations of the U.S. Department of Commerce promulgated under that Act.

2. The bidder makes the certification set forth in Section 5 of the Act.

F. Drug Free Workplace

1. The Illinois "Drug Free Workplace Act" applies to this contract and it is necessary to comply with the provisions of the "Act" if the contractor is a corporation, partnership, or other entity (including a sole proprietorship) which has 25 or more employees.

2. The bidder certifies that if awarded a contract in excess of \$5,000 it will provide a drug free workplace by:

(a) Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensation, possession or use of a controlled substance, including cannabis, is prohibited in the contractor's workplace; specifying the actions that will be taken against employees for violations of such prohibition; and notifying the employee that, as a condition of employment on such contract, the employee shall abide by the terms of the statement, and notify the employer of any criminal drug statute conviction for a violation occurring in the workplace no later than five (5) days after such conviction.

(b) Establishing a drug free awareness program to inform employees about the dangers of drug abuse in the workplace; the contractor's policy of maintaining a drug free workplace; any available drug counseling, rehabilitation, and employee assistance programs; and the penalties that may be imposed upon employees for drug violations.

(c) Providing a copy of the statement required by subparagraph (1) to each employee engaged in the performance of the contract and to post the statement in a prominent place in the workplace.

(d) Notifying the Department within ten (10) days after receiving notice from an employee or otherwise receiving actual notice of the conviction of an employee for a violation of any criminal drug statute occurring in the workplace.

(e) Imposing or requiring, within 30 days after receiving notice from an employee of a conviction or actual notice of such a conviction, an appropriate personnel action, up to and including termination, or the satisfactory participation in a drug abuse assistance or rehabilitation program approved by a federal, state or local health, law enforcement or other appropriate agency.

(f) Assisting employees in selecting a course of action in the event drug counseling, treatment, and rehabilitation is required and indicating that a trained referral team is in place.

(g) Making a good faith effort to continue to maintain a drug free workplace through implementation of the actions and efforts stated in this certification.

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G. Debt Delinquency

1. The Illinois Procurement Code provides:

Section 50-11 and 50-12. Debt Delinquency.

The contractor or bidder certifies that it, or any affiliate, is not barred from being awarded a contract under 30 ILCS 500. Section 50-11 prohibits a person from entering into a contract with a State agency if it knows or should know that it, or any affiliate, is delinquent in the payment of any debt to the State as defined by the Debt Collection Board. Section 50-12 prohibits a person from entering into a contract with a State agency if it, or any affiliate, has failed to collect and remit Illinois Use Tax on all sales of tangible personal property into the State of Illinois in accordance with the provisions of the Illinois Use Tax Act. The contractor further acknowledges that the contracting State agency may declare the contract void if this certification is false or if the contractor, or any affiliate, is determined to be delinquent in the payment of any debt to the State during the term of the contract.

H. Sarbanes-Oxley Act of 2002

1. The Illinois Procurement Code, Section 50-60(c), provides:

The contractor certifies in accordance with 30 ILCS 500/50-10.5 that no officer, director, partner or other managerial agent of the contracting business has been convicted of a felony under the Sarbanes-Oxley Act of 2002 or a Class 3 or Class 2 felony under the Illinois Securities Law of 1953 for a period of five years prior to the date of the bid or contract. The contractor acknowledges that the contracting agency shall declare the contract void if this certification is false.

I. Addenda

The contractor or bidder certifies that all relevant addenda have been incorporated in to this contract. Failure to do so may cause the bid to be declared unacceptable.

J. Section 42 of the Environmental Protection Act

The contractor certifies in accordance with 30 ILCS 500/50-12 that the bidder or contractor is not barred from being awarded a contract under this Section which prohibits the bidding on or entering into contracts with the State of Illinois or a State agency by a person or business found by a court or the Pollution Control Board to have committed a willful or knowing violation of Section 42 of the Environmental Protection Act for a period of five years from the date of the order. The contractor acknowledges that the contracting agency may declare the contract void if this certification is false.

K. Apprenticeship and Training Certification (Does not apply to federal aid projects)

In accordance with the provisions of Section 30-22 (6) of the Illinois Procurement Code, the bidder certifies that it is a participant, either as an individual or as part of a group program, in the approved apprenticeship and training programs applicable to each type of work or craft that the bidder will perform with its own forces. The bidder further certifies for work that will be performed by subcontract that each of its subcontractors submitted for approval either (a) is, at the time of such bid, participating in an approved, applicable apprenticeship and training program; or (b) will, prior to commencement of performance of work pursuant to this contract, begin participation in an approved apprenticeship and training program applicable to the work of the subcontract. The Department, at any time before or after award, may require the production of a copy of each applicable Certificate of Registration issued by the United States Department of Labor evidencing such participation by the contractor and any or all of its subcontractors. Applicable apprenticeship and training programs are those that have been approved and registered with the United States Department of Labor. The bidder shall list in the space below, the official name of the program sponsor holding the Certificate of Registration for all of the types of work or crafts in which the bidder is a participant and that will be performed with the bidder's forces. Types of work or craft work that will be subcontracted shall be included and listed as subcontract work. The list shall also indicate any type of work or craft job category that does not have an applicable apprenticeship or training program. **The bidder is responsible for making a complete report and shall make certain that each type of work or craft job category that will be utilized on the project as reported on the Construction Employee Workforce Projection (Form BC-1256) and returned with the bid is accounted for and listed.**

NA - FEDERAL

The requirements of this certification and disclosure are a material part of the contract, and the contractor shall require this certification provision to be included in all approved subcontracts. In order to fulfill this requirement, it shall not be necessary that an applicable program sponsor be currently taking or that it will take applications for apprenticeship, training or employment during the performance of the work of this contract.

L. Executive Order Number 1 (2007) Regarding Lobbying on Government Procurements

The bidder hereby warrants and certifies that they have complied and will comply with the requirements set forth in this Order. The requirements of this warrant and certification are a material part of the contract, and the contractor shall require this warrant and certification provision to be included in all approved subcontracts.

RETURN WITH BID

M. Disclosure of Business Operations in Iran

Public Act 95-0616 provides that each bid, offer, or proposal submitted for a State contract shall include a disclosure of whether or not the Company acting as the bidder, offer or, or proposing entity, or any of its corporate parents or subsidiaries, within the 24 months before submission of the bid, offer, or proposal had business operations that involved contracts with or provision of supplies or services to the Government of Iran, companies in which the Government of Iran has any direct or indirect equity share, consortiums or projects commissioned by the Government of Iran, or companies involved in consortiums or projects commissioned by the Government of Iran and either of the following conditions apply:

- (1) More than 10% of the Company's revenues produced in or assets located in Iran involve oil-related activities or mineral-extraction activities; less than 75% of the Company's revenues produced in or assets located in Iran involve contracts with or provision of oil-related or mineral-extraction products or services to the Government of Iran or a project or consortium created exclusively by that government; and the Company has failed to take substantial action.
- (2) The Company has, on or after August 5, 1996, made an investment of \$20 million or more, or any combination of investments of at least \$10 million each that in the aggregate equals or exceeds \$20 million in any 12-month period, which directly or significantly contributes to the enhancement of Iran's ability to develop petroleum resources of Iran.

The terms "Business operations", "Company", "Mineral-extraction activities", "Oil-related activities", "Petroleum resources", and "Substantial action" are all defined in the Act.

Failure to make the disclosure required by the Act shall cause the bid, offer or proposal to be considered not responsive. The disclosure will be considered when evaluating the bid, offer, or proposal or awarding the contract. The name of each Company disclosed as doing business or having done business in Iran will be provided to the State Comptroller.

Check the appropriate statement:

Company has no business operations in Iran to disclose.

Company has business operations in Iran as disclosed the attached document.

N. Registration with the State Board of Elections.

Public Act 95-0971, amending the Illinois Procurement Code, 30 ILCS 500, adding new sections 20-160 and 50-37, and Executive Order 3 (2008) establish new requirements affecting contributions that contractors, consultants, vendors and bidders, including affiliated persons and entities, may make to state officeholders, declared candidates for state offices and political organizations established to benefit such officeholders and candidates. These provisions do not apply to federal-aid contracts.

By submission of a bid, the bidder acknowledges and agrees that it has read and understands the requirements of PA 95-0971 and Executive Order 3 (2008), including but not limited to, all reporting requirements and all restrictions on soliciting and making contributions to state officeholders, declared candidates for state offices and covered political organizations that promote the candidacy of an officeholder or declared candidate for office. In addition, the bidder makes the following certifications:

- (1) As to Executive Order 3 (2008), the bidder certifies that no contribution will be made that would violate the order, and that the bidder will report all contributions as required by the order.
- (2) As to PA 95-0971, the bidder shall check either of the following certifications that apply:

The bidder is not required to register as a business entity with the State Board of Elections.

The bidder has registered as a business entity with the State Board of Elections, and acknowledges a continuing duty to update the registration as required the Act. **A copy of the time-stamped certificate of registration is enclosed with the bid. The Department will not award this contract without the submission of a certificate of registration.**

In accordance with Article 101.09 of the Standard Specifications for Road and Bridge Construction, this certification shall be part of the contract. Compliance with PA 95-0971 and Executive Order 3 (2008) is a material part of the contract and any breach shall be cause to void the contract under Section 50-60 of the Illinois Procurement Code.

TO BE RETURNED WITH BID

IV. DISCLOSURES

A. The disclosures hereinafter made by the bidder are each a material representation of fact upon which reliance is placed should the Department enter into the contract with the bidder. The Department may terminate the contract if it is later determined that the bidder rendered a false or erroneous disclosure, and the surety providing the performance bond shall be responsible for completion of the contract.

B. Financial Interests and Conflicts of Interest

1. Section 50-35 of the Illinois Procurement Code provides that all bids of more than \$10,000 shall be accompanied by disclosure of the financial interests of the bidder. This disclosed information for the successful bidder, will be maintained as public information subject to release by request pursuant to the Freedom of Information Act.

The financial interests to be disclosed shall include ownership or distributive income share that is in excess of 5%, or an amount greater than 60% of the annual salary of the Governor, of the bidding entity or its parent entity, whichever is less, unless the contractor or bidder is a publicly traded entity subject to Federal 10K reporting, in which case it may submit its 10K disclosure in place of the prescribed disclosure. If a bidder is a privately held entity that is exempt from Federal 10K reporting, but has more than 400 shareholders, it may submit the information that Federal 10K companies are required to report, and list the names of any person or entity holding any ownership share that is in excess of 5%. The disclosure shall include the names, addresses, and dollar or proportionate share of ownership of each person making the disclosure, their instrument of ownership or beneficial relationship, and notice of any potential conflict of interest resulting from the current ownership or beneficial interest of each person making the disclosure having any of the relationships identified in Section 50-35 and on the disclosure form.

In addition, all disclosures shall indicate any other current or pending contracts, proposals, leases, or other ongoing procurement relationships the bidding entity has with any other unit of state government and shall clearly identify the unit and the contract, proposal, lease, or other relationship.

2. Disclosure Forms. Disclosure Form A is attached for use concerning the individuals meeting the above ownership or distributive share requirements. Subject individuals should be covered each by one form. In addition, a second form (Disclosure Form B) provides for the disclosure of current or pending procurement relationships with other (non-IDOT) state agencies. **The forms must be included with each bid or incorporated by reference.**

C. Disclosure Form Instructions

Form A: For bidders that have previously submitted the information requested in Form A

The Department has retained the Form A disclosures submitted by all bidders responding to these requirements for the April 24, 1998 or any subsequent letting conducted by the Department. The bidder has the option of submitting the information again or the bidder may check the following certification statement indicating that the information previously submitted by the bidder is, as of the date of submission, current and accurate. Before checking this certification, the bidder should carefully review its prior submissions to ensure the Certification is correct. If the Bidder checks the Certification, the Bidder should proceed to Form B instructions.

CERTIFICATION STATEMENT

I have determined that the Form A disclosure information previously submitted is current and accurate, and all forms are hereby incorporated by reference in this bid. Any necessary additional forms or amendments to previously submitted forms are attached to this bid.

(Bidding Company)



Signature of Authorized Representative

Date

Form A: For bidders who have NOT previously submitted the information requested in Form A

If the bidder is a publicly traded entity subject to Federal 10K reporting, the 10K Report may be submitted to meet the requirements of Form A. If a bidder is a privately held entity that is exempt from Federal 10K reporting, but has more than 400 shareholders, it may submit the information that Federal 10K companies are required to report, and list the names of any person or entity holding any ownership share that is in excess of 5%. If a bidder is not subject to Federal 10K reporting, the bidder must determine if any individuals are required by law to complete a financial disclosure form. To do this, the bidder should answer each of the following questions. A "YES" answer indicates Form A must be completed. If the answer to each of the following questions is "NO", then the NOT APPLICABLE STATEMENT on the second page of Form A must be signed and dated by a person that is authorized to execute contracts for the bidding company. Note: These questions are for assistance only and are not required to be completed.

1. Does anyone in your organization have a direct or beneficial ownership share of greater than 5% of the bidding entity or parent entity? YES ___ NO ___
2. Does anyone in your organization have a direct or beneficial ownership share of less than 5%, but which has a value greater than \$102,600.00? YES ___ NO ___
3. Does anyone in your organization receive more than \$102,600.00 of the bidding entity's or parent entity's distributive income? (Note: Distributive income is, for these purposes, any type of distribution of profits. An annual salary is not distributive income.) YES ___ NO ___
4. Does anyone in your organization receive greater than 5% of the bidding entity's or parent entity's total distributive income, but which is less than \$102,600.00? YES ___ NO ___
(Note: Only one set of forms needs to be completed per person per bid even if a specific individual would require a yes answer to more than one question.)

A "YES" answer to any of these questions requires the completion of Form A. The bidder must determine each individual in the bidding entity or the bidding entity's parent company that would cause the questions to be answered "Yes". Each form must be signed and dated by a person that is authorized to execute contracts for your organization. **Photocopied or stamped signatures are not acceptable.** The person signing can be, but does not have to be, the person for which the form is being completed. The bidder is responsible for the accuracy of any information provided.

If the answer to each of the above questions is "NO", then the NOT APPLICABLE STATEMENT on page 2 of Form A must be signed and dated by a person that is authorized to execute contracts for your company.

Form B: Identifying Other Contracts & Procurement Related Information Disclosure Form B must be completed for each bid submitted by the bidding entity. Note: *Checking the NOT APPLICABLE STATEMENT on Form A does not allow the bidder to ignore Form B. Form B must be completed, checked, and dated or the bidder may be considered nonresponsive and the bid will not be accepted.*

The Bidder shall identify, by checking Yes or No on Form B, whether it has any pending contracts (including leases), bids, proposals, or other ongoing procurement relationship with any other (non-IDOT) State of Illinois agency. If "No" is checked, the bidder only needs to complete the check box on the bottom of Form B. If "Yes" is checked, the bidder must do one of the following:

Option I: If the bidder did not submit an Affidavit of Availability to obtain authorization to bid, the bidder must list all non-IDOT State of Illinois agency pending contracts, leases, bids, proposals, and other ongoing procurement relationships. These items may be listed on Form B or on an attached sheet(s). Do not include IDOT contracts. Contracts with cities, counties, villages, etc. are not considered State of Illinois agency contracts and are not to be included. Contracts with other State of Illinois agencies such as the Department of Natural Resources or the Capital Development Board must be included. Bidders who submit Affidavits of Availability are suggested to use Option II.

Option II: If the bidder is required and has submitted an Affidavit of Availability in order to obtain authorization to bid, the bidder may write or type "See Affidavit of Availability" which indicates that the Affidavit of Availability is incorporated by reference and includes all non-IDOT State of Illinois agency pending contracts, leases, bids, proposals, and other ongoing procurement relationships. For any contracts that are not covered by the Affidavit of Availability, the bidder must identify them on Form B or on an attached sheet(s). These might be such things as leases.

D. Bidders Submitting More Than One Bid

Bidders submitting multiple bids may submit one set of forms consisting of all required Form A disclosures and one Form B for use with all bids. Please indicate in the space provided below the bid item that contains the original disclosure forms and the bid items which incorporate the forms by reference.

- The bid submitted for letting item _____ contains the Form A disclosures or Certification Statement and the Form B disclosures. The following letting items incorporate the said forms by reference:

RETURN WITH BID/OFFER

ILLINOIS DEPARTMENT OF TRANSPORTATION

Form A Financial Information & Potential Conflicts of Interest Disclosure

Contractor Name
Legal Address
City, State, Zip
Telephone Number Email Address Fax Number (if available)

Disclosure of the information contained in this Form is required by the Section 50-35 of the Illinois Procurement Code (30 ILCS 500). Vendors desiring to enter into a contract with the State of Illinois must disclose the financial information and potential conflict of interest information as specified in this Disclosure Form. This information shall become part of the publicly available contract file. This Form A must be completed for bids in excess of \$10,000, and for all open-ended contracts. A publicly traded company may submit a 10K disclosure (or equivalent if applicable) in satisfaction of the requirements set forth in Form A. See Disclosure Form Instructions.

DISCLOSURE OF FINANCIAL INFORMATION

1. Disclosure of Financial Information. The individual named below has an interest in the BIDDER (or its parent) in terms of ownership or distributive income share in excess of 5%, or an interest which has a value of more than \$102,600.00 (60% of the Governor's salary as of 7/1/07). (Make copies of this form as necessary and attach a separate Disclosure Form A for each individual meeting these requirements)

FOR INDIVIDUAL (type or print information)

NAME:

ADDRESS

Type of ownership/distributable income share:

stock sole proprietorship Partnership other: (explain on separate sheet):
% or \$ value of ownership/distributable income share:

2. Disclosure of Potential Conflicts of Interest. Check "Yes" or "No" to indicate which, if any, of the following potential conflict of interest relationships apply. If the answer to any question is "Yes", please attach additional pages and describe.

(a) State employment, currently or in the previous 3 years, including contractual employment of services. Yes ___ No ___

If your answer is yes, please answer each of the following questions.

1. Are you currently an officer or employee of either the Capitol Development Board or the Illinois Toll Highway Authority? Yes ___ No ___

2. Are you currently appointed to or employed by any agency of the State of Illinois? If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds \$102,600.00, (60% of the Governor's salary as of 7/1/07) provide the name the State agency for which you are employed and your annual salary.

RETURN WITH BID/OFFER

- 3. If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds \$102,600.00, (60% of the Governor's salary as of 7/1/07) are you entitled to receive (i) more than 7 1/2% of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of the salary of the Governor? Yes ___ No ___

- 4. If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds \$102,600.00, (60% of the Governor's salary as of 7/1/07) are you and your spouse or minor children entitled to receive (i) more than 15% in aggregate of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of 2 times the salary of the Governor? Yes ___ No ___

(b) State employment of spouse, father, mother, son, or daughter, including contractual employment for services in the previous 2 years.

Yes ___ No ___

If your answer is yes, please answer each of the following questions.

- 1. Is your spouse or any minor children currently an officer or employee of the Capitol Development Board or the Illinois Toll Highway Authority? Yes ___ No ___

- 2. Is your spouse or any minor children currently appointed to or employed by any agency of the State of Illinois? If your spouse or minor children is/are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds \$102,600.00, (60% of the Governor's salary as of 7/1/07) provide the name of the spouse and/or minor children, the name of the State agency for which he/she is employed and his/her annual salary. _____

3. If your spouse or any minor children is/are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds \$102,600.00, (60% of the salary of the Governor as of 7/1/07) are you entitled to receive (i) more than 7 1/2% of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of the salary of the Governor? Yes ___ No ___

4. If your spouse or any minor children are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds \$102,600.00, (60% of the Governor's salary as of 7/1/07) are you and your spouse or any minor children entitled to receive (i) more than 15% in the aggregate of the total distributable income from your firm, partnership, association or corporation, or (ii) an amount in excess of 2 times the salary of the Governor?

Yes ___ No ___

(c) Elective status; the holding of elective office of the State of Illinois, the government of the United States, any unit of local government authorized by the Constitution of the State of Illinois or the statutes of the State of Illinois currently or in the previous 3 years.

Yes ___ No ___

(d) Relationship to anyone holding elective office currently or in the previous 2 years; spouse, father, mother, son, or daughter.

Yes ___ No ___

(e) Appointive office; the holding of any appointive government office of the State of Illinois, the United State of America, or any unit of local government authorized by the Constitution of the State of Illinois or the statutes of the State of Illinois, which office entitles the holder to compensation in excess of the expenses incurred in the discharge of that office currently or in the previous 3 years.

Yes ___ No ___

(f) Relationship to anyone holding appointive office currently or in the previous 2 years; spouse, father, mother, son, or daughter.

Yes ___ No ___

(g) Employment, currently or in the previous 3 years, as or by any registered lobbyist of the State government.

Yes ___ No ___

RETURN WITH BID/OFFER

(h) Relationship to anyone who is or was a registered lobbyist in the previous 2 years; spouse, father, mother, son, or daughter. Yes ___ No ___

(i) Compensated employment, currently or in the previous 3 years, by any registered election or reelection committee registered with the Secretary of State or any county clerk of the State of Illinois, or any political action committee registered with either the Secretary of State or the Federal Board of Elections. Yes ___ No ___

(j) Relationship to anyone; spouse, father, mother, son, or daughter; who was a compensated employee in the last 2 years by any registered election or re-election committee registered with the Secretary of State or any county clerk of the State of Illinois, or any political action committee registered with either the Secretary of State or the Federal Board of Elections. Yes ___ No ___

APPLICABLE STATEMENT

This Disclosure Form A is submitted on behalf of the INDIVIDUAL named on previous page.

Completed by: _____ Date _____
Signature of Individual or Authorized Representative

NOT APPLICABLE STATEMENT

I have determined that no individuals associated with this organization meet the criteria that would require the completion of this Form A.

This Disclosure Form A is submitted on behalf of the CONTRACTOR listed on the previous page.

_____ Date _____
Signature of Authorized Representative

RETURN WITH BID/OFFER

**ILLINOIS DEPARTMENT
OF TRANSPORTATION**

**Form B
Other Contracts &
Procurement Related Information
Disclosure**

Contractor Name		
Legal Address		
City, State, Zip		
Telephone Number	Email Address	Fax Number (if available)

Disclosure of the information contained in this Form is required by the Section 50-35 of the Illinois Procurement Act (30 ILCS 500). This information shall become part of the publicly available contract file. This Form B must be completed for bids in excess of \$10,000, and for all open-ended contracts.

DISCLOSURE OF OTHER CONTRACTS AND PROCUREMENT RELATED INFORMATION

1. Identifying Other Contracts & Procurement Related Information. The BIDDER shall identify whether it has any pending contracts (including leases), bids, proposals, or other ongoing procurement relationship with any other State of Illinois agency: Yes ___ No ___

If **“No” is checked**, the bidder only needs to complete the signature box on the bottom of this page.

2. If “Yes” is checked. Identify each such relationship by showing State of Illinois agency name and other descriptive information such as bid or project number (attach additional pages as necessary). SEE DISCLOSURE FORM INSTRUCTIONS:

THE FOLLOWING STATEMENT MUST BE CHECKED

<input type="checkbox"/>	_____	_____
	Signature of Authorized Representative	Date

RETURN WITH BID

SPECIAL NOTICE TO CONTRACTORS

The following requirements of the Illinois Department of Human Rights' Rules and Regulations are applicable to bidders on all construction contracts advertised by the Illinois Department of Transportation:

CONSTRUCTION EMPLOYEE UTILIZATION PROJECTION

- (a) All bidders on construction contracts shall complete and submit, along with and as part of their bids, a Bidder's Employee Utilization Form (Form BC-1256) setting forth a projection and breakdown of the total workforce intended to be hired and/or allocated to such contract work by the bidder including a projection of minority and female employee utilization in all job classifications on the contract project.
- (b) The Department of Transportation shall review the Employee Utilization Form, and workforce projections contained therein, of the contract awardee to determine if such projections reflect an underutilization of minority persons and/or women in any job classification in accordance with the Equal Employment Opportunity Clause and Section 7.2 of the Illinois Department of Human Rights' Rules and Regulations for Public Contracts adopted as amended on September 17, 1980. If it is determined that the contract awardee's projections reflect an underutilization of minority persons and/or women in any job classification, it shall be advised in writing of the manner in which it is underutilizing and such awardee shall be considered to be in breach of the contract unless, prior to commencement of work on the contract project, it submits revised satisfactory projections or an acceptable written affirmative action plan to correct such underutilization including a specific timetable geared to the completion stages of the contract.
- (c) The Department of Transportation shall provide to the Department of Human Rights a copy of the contract awardee's Employee Utilization Form, a copy of any required written affirmative action plan, and any written correspondence related thereto. The Department of Human Rights may review and revise any action taken by the Department of Transportation with respect to these requirements.

RETURN WITH BID

**Contract No. 68273
PEORIA-TAZEWELL Counties
Section D4 I-74 SYSTEM-2
Project IM-HPP-074-3(062)093
Route FAI 74
District 4 Construction Funds**

PART II. WORKFORCE PROJECTION - continued

- B. Included in "Total Employees" under Table A is the total number of **new hires** that would be employed in the event the undersigned bidder is awarded this contract.

The undersigned bidder projects that: (number) _____ new hires would be recruited from the area in which the contract project is located; and/or (number) _____ new hires would be recruited from the area in which the bidder's principal office or base of operation is located.

- C. Included in "Total Employees" under Table A is a projection of numbers of persons to be employed directly by the undersigned bidder as well as a projection of numbers of persons to be employed by subcontractors.

The undersigned bidder estimates that (number) _____ persons will be directly employed by the prime contractor and that (number) _____ persons will be employed by subcontractors.

PART III. AFFIRMATIVE ACTION PLAN

- A. The undersigned bidder understands and agrees that in the event the foregoing minority and female employee utilization projection included under **PART II** is determined to be an underutilization of minority persons or women in any job category, and in the event that the undersigned bidder is awarded this contract, he/she will, prior to commencement of work, develop and submit a written Affirmative Action Plan including a specific timetable (geared to the completion stages of the contract) whereby deficiencies in minority and/or female employee utilization are corrected. Such Affirmative Action Plan will be subject to approval by the contracting agency and the **Department of Human Rights**.
- B. The undersigned bidder understands and agrees that the minority and female employee utilization projection submitted herein, and the goals and timetable included under an Affirmative Action Plan if required, are deemed to be part of the contract specifications.

Company _____ Telephone Number _____

Address _____

NOTICE REGARDING SIGNATURE

The Bidder's signature on the Proposal Signature Sheet will constitute the signing of this form. The following signature block needs to be completed only if revisions are required.

Signature: _____ Title: _____ Date: _____

- Instructions: All tables must include subcontractor personnel in addition to prime contractor personnel.
- Table A - Include both the number of employees that would be hired to perform the contract work and the total number currently employed (Table B) that will be allocated to contract work, and include all apprentices and on-the-job trainees. The "Total Employees" column should include all employees including all minorities, apprentices and on-the-job trainees to be employed on the contract work.
 - Table B - Include all employees currently employed that will be allocated to the contract work including any apprentices and on-the-job trainees currently employed.
 - Table C - Indicate the racial breakdown of the total apprentices and on-the-job trainees shown in Table A.

RETURN WITH BID

ADDITIONAL FEDERAL REQUIREMENTS

In addition to the Required Contract Provisions for Federal-Aid Construction Contracts (FHWA 1273), all bidders make the following certifications.

- A. By the execution of this proposal, the signing bidder certifies that the bidding entity has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action, in restraint of free competitive bidding in connection with the submitted bid. This statement made by the undersigned bidder is true and correct under penalty of perjury under the laws of the United States.
- B. CERTIFICATION, EQUAL EMPLOYMENT OPPORTUNITY:
1. Have you participated in any previous contracts or subcontracts subject to the equal opportunity clause. YES _____ NO _____
 2. If answer to #1 is yes, have you filed with the Joint Reporting Committee, the Director of OFCC, any Federal agency, or the former President's Committee on Equal Employment Opportunity, all reports due under the applicable filing requirements of those organizations? YES _____ NO _____

RETURN WITH BID

**Contract No. 68273
PEORIA-TAZEWELL Counties
Section D4 I-74 SYSTEM-2
Project IM-HPP-074-3(062)093
Route FAI 74
District 4 Construction Funds**

PROPOSAL SIGNATURE SHEET

The undersigned bidder hereby makes and submits this bid on the subject Proposal, thereby assuring the Department that all requirements of the Invitation for Bids and rules of the Department have been met, that there is no misunderstanding of the requirements of paragraph 3 of this Proposal, and that the contract will be executed in accordance with the rules of the Department if an award is made on this bid.

(IF AN INDIVIDUAL) Firm Name _____
Signature of Owner _____
Business Address _____

(IF A CO-PARTNERSHIP) Firm Name _____
By _____
Business Address _____
Name and Address of All Members of the Firm: _____

(IF A CORPORATION) Corporate Name _____
By _____
Signature of Authorized Representative _____
Typed or printed name and title of Authorized Representative _____

(IF A JOINT VENTURE, USE THIS SECTION FOR THE MANAGING PARTY AND THE SECOND PARTY SHOULD SIGN BELOW) Attest _____
Signature _____
Business Address _____

(IF A JOINT VENTURE) Corporate Name _____
By _____
Signature of Authorized Representative _____
Typed or printed name and title of Authorized Representative _____

Attest _____
Signature _____
Business Address _____

If more than two parties are in the joint venture, please attach an additional signature sheet.



Return with Bid

Division of Highways
Proposal Bid Bond
(Effective November 1, 1992)

Item No.
Letting Date

KNOW ALL MEN BY THESE PRESENTS, That We

as PRINCIPAL, and

as SURETY, are held jointly, severally and firmly bound unto the STATE OF ILLINOIS in the penal sum of 5 percent of the total bid price, or for the amount specified in Article 102.09 of the "Standard Specifications for Road and Bridge Construction" in effect on the date of invitation for bids, whichever is the lesser sum, well and truly to be paid unto said STATE OF ILLINOIS, for the payment of which we bind ourselves, our heirs, executors, administrators, successors and assigns.

THE CONDITION OF THE FOREGOING OBLIGATION IS SUCH, that whereas, the PRINCIPAL has submitted a bid proposal to the STATE OF ILLINOIS, acting through the Department of Transportation, for the improvement designated by the Transportation Bulletin Item Number and Letting Date indicated above.

NOW, THEREFORE, if the Department shall accept the bid proposal of the PRINCIPAL; and if the PRINCIPAL shall, within the time and as specified in the bidding and contract documents, submit a DBE Utilization Plan that is accepted and approved by the Department; and if, after award by the Department, the PRINCIPAL shall enter into a contract in accordance with the terms of the bidding and contract documents including evidence of the required insurance coverages and providing such bond as specified with good and sufficient surety for the faithful performance of such contract and for the prompt payment of labor and material furnished in the prosecution thereof; or if, in the event of the failure of the PRINCIPAL to make the required DBE submission or to enter into such contract and to give the specified bond, the PRINCIPAL pays to the Department the difference not to exceed the penalty hereof between the amount specified in the bid proposal and such larger amount for which the Department may contract with another party to perform the work covered by said bid proposal, then this obligation shall be null and void, otherwise, it shall remain in full force and effect.

IN THE EVENT the Department determines the PRINCIPAL has failed to comply with any requirement as set forth in the preceding paragraph, then Surety shall pay the penal sum to the Department within fifteen (15) days of written demand therefor. If Surety does not make full payment within such period of time, the Department may bring an action to collect the amount owed. Surety is liable to the Department for all its expenses, including attorney's fees, incurred in any litigation in which it prevails either in whole or in part.

In TESTIMONY WHEREOF, the said PRINCIPAL and the said SURETY have caused this instrument to be signed by

their respective officers this day of A.D.,

PRINCIPAL

(Company Name) (Company Name)
By (Signature & Title) By: (Signature of Attorney-in-Fact)

Notary Certification for Principal and Surety

STATE OF ILLINOIS,
County of

I, , a Notary Public in and for said County, do hereby certify that
and
(Insert names of individuals signing on behalf of PRINCIPAL & SURETY)

who are each personally known to me to be the same persons whose names are subscribed to the foregoing instrument on behalf of PRINCIPAL and SURETY, appeared before me this day in person and acknowledged respectively, that they signed and delivered said instrument as their free and voluntary act for the uses and purposes therein set forth.

Given under my hand and notarial seal this day of A.D.
My commission expires
Notary Public

In lieu of completing the above section of the Proposal Bid Form, the Principal may file an Electronic Bid Bond. By signing the proposal and marking the check box next to the Signature and Title line below, the Principal is ensuring the identified electronic bid bond has been executed and the Principal and Surety are firmly bound unto the State of Illinois under the conditions of the bid bond as shown above.

Electronic Bid Bond ID# Company / Bidder Name Signature and Title

PROPOSAL ENVELOPE



PROPOSALS

for construction work advertised for bids by the
Illinois Department of Transportation

Item No.	Item No.	Item No.

Submitted By:

Name:
Address:
Phone No.

Bidders should use an IDOT proposal envelope or affix this form to the front of a 10" x 13" envelope for the submittal of bids. If proposals are mailed, they should be enclosed in a second or outer envelope addressed to:

Engineer of Design and Environment - Room 326
Illinois Department of Transportation
2300 South Dirksen Parkway
Springfield, Illinois 62764

NOTICE

Individual bids, including Bid Bond and/or supplemental information if required, should be securely stapled.

CONTRACTOR OFFICE COPY OF CONTRACT SPECIFICATIONS

NOTICE

None of the following material needs to be returned with the bid package unless the special provisions require documentation and/or other information to be submitted.

**Contract No. 68273
PEORIA-TAZEWELL Counties
Section D4 I-74 SYSTEM-2
Project IM-HPP-074-3(062)093
Route FAI 74
District 4 Construction Funds**



Illinois Department of Transportation



NOTICE TO BIDDERS

- 1. TIME AND PLACE OF OPENING BIDS.** Sealed proposals for the improvement described herein will be received by the Department of Transportation at the Harry R. Hanley Building, 2300 South Dirksen Parkway, in Springfield, Illinois until 10:00 o'clock a.m., March 6, 2009. All bids will be gathered, sorted, publicly opened and read in the auditorium at the Department of Transportation's Harry R. Hanley Building shortly after the 10:00 a.m. cut off time.
- 2. DESCRIPTION OF WORK.** The proposed improvement is identified and advertised for bids in the Invitation for Bids as:

**Contract No. 68273
PEORIA-TAZEWELL Counties
Section D4 I-74 SYSTEM-2
Project IM-HPP-074-3(062)093
Route FAI 74
District 4 Construction Funds**

Development of advanced traffic management system (ATMS) software for the existing intelligent transportation system (ITS) and installation of associated hardware to provide integration of existing elements for I-74 in Peoria and Tazewell counties.

- 3. INSTRUCTIONS TO BIDDERS.** (a) This Notice, the invitation for bids, proposal and letter of award shall, together with all other documents in accordance with Article 101.09 of the Standard Specifications for Road and Bridge Construction, become part of the contract. Bidders are cautioned to read and examine carefully all documents, to make all required inspections, and to inquire or seek explanation of the same prior to submission of a bid.

(b) State law, and, if the work is to be paid wholly or in part with Federal-aid funds, Federal law requires the bidder to make various certifications as a part of the proposal and contract. By execution and submission of the proposal, the bidder makes the certification contained therein. A false or fraudulent certification shall, in addition to all other remedies provided by law, be a breach of contract and may result in termination of the contract.
- 4. AWARD CRITERIA AND REJECTION OF BIDS.** This contract will be awarded to the lowest responsive and responsible bidder considering conformity with the terms and conditions established by the Department in the rules, Invitation for Bids and contract documents. The issuance of plans and proposal forms for bidding based upon a prequalification rating shall not be the sole determinant of responsibility. The Department reserves the right to determine responsibility at the time of award, to reject any or all proposals, to readvertise the proposed improvement, and to waive technicalities.

By Order of the
Illinois Department of Transportation

Milton R. Sees, Secretary

BD 351 (Rev. 01/2003)

INDEX
 FOR
 SUPPLEMENTAL SPECIFICATIONS
 AND RECURRING SPECIAL PROVISIONS

Adopted January 1, 2009

This index contains a listing of SUPPLEMENTAL SPECIFICATIONS and frequently used RECURRING SPECIAL PROVISIONS.

ERRATA Standard Specifications for Road and Bridge Construction (Adopted 1-1-07) (Revised 1-1-09)

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STATE OF ILLINOIS

SPECIAL PROVISIONS

The following Special Provisions supplement the "Standard Specifications for Road and Bridge Construction," adopted January 1, 2007, 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 Route 74 (I-74), Section D4 I-74 ITS System-2 in Peoria and Tazewell Counties, Contract No. 68273 and in case of conflict with any part or parts of said Specifications, the said Special Provisions shall take precedence and shall govern.

LOCATION OF PROJECT

This project is located in Peoria and Tazewell Counties in Illinois. Work will be performed at the following locations:

Peoria: IDOT District Four Headquarters (401 Main Street), Peoria Department of Public Works (3505 N. Dries Lane), Peoria Emergency 911 Communications Center (542 S.W. Adams Street).

East Peoria: East Peoria Public Safety Building (201 W. Washington Street), East Peoria Public Works Building (2232 E. Washington Street).

DESCRIPTION OF PROJECT

The Department requires services to provide itself and its partner agencies with ATMS (Advanced Traffic Management System) control software and hardware to enable real time monitoring and control of the Intelligent Transportation System (ITS) that has been installed as part of the I-74 Reconstruction Project in Peoria and East Peoria. This system is the result of a federally funded initiative between IDOT, the Federal Highway Administration (FHWA), and numerous local agencies (ITS stakeholders) to provide real time traffic monitoring, and video surveillance capabilities for the I-74 corridor. The system was designed to provide enhanced traffic management, increase motorist safety, reduce motorist travel times, and improve incident response times.

The objective of this project is to provide motorists with real-time travel information to alleviate congestion and increase safety. This contract will meet this objective by integrating all of the different field components of the Intelligent Transportation System which include dynamic message signs, surveillance cameras, and detector stations into a central software package.

The ATMS software will provide the following:

- Integration of all field components of the Peoria area Intelligent Transportation System, including dynamic message signs, surveillance cameras, highway/rail interface, and detector stations into a central software package that will be implemented at each ITS operator workstation.
- Video and data consolidation and distribution to ITS operators and stakeholders through the use of a system map, surveillance camera viewing and control applications (workstation based), and data archival and retrieval capabilities.
- ITS data consolidation and distribution to the traveling public through the use of dynamic message signs, an external web page with congestion maps and video images, and the media.
- A mechanism to export incident data from the Peoria and East Peoria computer aided dispatch (CAD) systems for use with the ATMS software. The ATMS software will have the functionality to process this information.
- External interface (XML) for information exchange with a future systems.

MANDATORY PRE-BID MEETING

The work in this contract can only be performed by a qualified Contractor who has expertise in the fields of ITS component configuration, ITS system integration, and ITS software development.

Prospective bidders should familiarize themselves with all aspects of this Contract prior to bidding. All bidders must be pre-approved, by IDOT, District Four, and the IDOT Central Bureau of Operations, prior to bidding the contract.

Prospective bidders shall submit qualification information for review at the mandatory pre-bid meeting.

The meeting will be conducted to review details of the work for prospective bidders at the following location:

- Date: Monday, February 9, 2009
Time: 10:00 A.M.
Location: Illinois Department of Transportation
401 Main Street, Suite 600
Peoria, IL 61602-1111

Pre-bid meeting attendance is mandatory for all prospective bidders.

SITE INSPECTION

Pre-bid site inspection locations, itinerary and program schedules will be finalized and distributed at the pre-bid meeting. Bidders are expected to be familiar with the type and extent of systems covered under the contract. Certain items will be made available for detailed inspection during the pre-bid site inspection. Bidders are encouraged to request inspection items prior to the pre-bid meeting. The Department reserves the right to limit the inspections.

CONTRACTOR QUALIFICATION SUBMITTAL

The Contractor shall be experienced in the design, implementation, and maintenance of advanced traffic management system (ATMS) control software.

All prospective bidders shall submit the following special qualification information for review and evaluation at the pre-bid mandatory meeting:

- A detailed summary of the Contractor's experience and technical capabilities by providing descriptions of past services that are similar to those required in this contract. The Contractor shall be specific and identify projects, dates, and results. As part of the evaluation process, the Contractor shall provide contacts for each project. Successful projects that are completed on time and on budget are of interest to the Department in its evaluation process.
- A list of key employees that will be working on the contract. The Contractor shall describe the roles and responsibilities of each staff member that would be assigned to work on the project. The Contractor shall submit resumes that describe each of the key employees educational and work experiences.
- A proposed work plan that describes the methodology for the design, development, integration, and implementation processes that will be used in this contract. These processes shall be described in detail.
- A list of organizations, including points of contact (name, address, and telephone number), which can be used as references for work performed in the area of service required. Selected organizations may be contacted by the Department to determine the quality of work performed and personnel assigned to the project.

The above information shall be submitted at the pre-bid meeting and addressed to each of the following in sealed envelopes:

- Aaron Weatherholt, P.E.
Engineer of Operations (Acting)
2300 South Dirksen Parkway
Springfield, IL 62764

- Joseph E. Crowe, P.E.
Deputy Director of Highways,
Region Three Engineer
Attn. Mr. Shane Larson, P.E.
401 Main Street
Peoria, IL 61602-1111

CONTRACTOR QUALIFICATION EVALUATION

The Department will evaluate the submittal based upon the following general guidelines:

- Experience: The Department will evaluate the depth of the Contractor's experience in providing the proposed services as well as experience in related fields and other governmental work, including work for the Illinois Department of Transportation.
- Capability: The Department will evaluate the depth of the Contractor's capability in providing the proposed services as well as the capability of the Contractor's staff as listed on the resumes.
- Performance: The Contractor will evaluate the Contractor's performance based upon the submitted list of projects. The Department may contact the project references that were submitted by the Contractor. Successful projects that are completed on time and on budget are of interest to the Department in its evaluation process.
- Methodology: The Department will evaluate the Contractor's methodology for providing the services outlined in this contract.
- Resources: The Department will evaluate the Contractor's resources that will be available for the execution of this contract. The Department will examine the submittal information to determine if the Contractor has sufficient available tools and technical resources to perform the proposed services; and, the location and accessibility to services.

The submitted information will be reviewed and if it is determined that the prospective bidder is qualified to bid, the bidder will be issued an "Authorization to Bid."

The Department will be the sole judge of Contractor qualifications and will make the sole determination regarding the Contractor's eligibility to bid on the contract.

DATE OF COMPLETION

Effective November 5, 2008

The development of the ATMS software under the provisions of this contract requires that the Contractor meet several specific milestones to ensure that the software can be successfully deployed and integrated into the existing Intelligent Transportation System.

The milestones and their associated dates of completion are as follows:

Milestone 1

Initial document submittal: The Contractor shall submit all required documentation as outlined in the section titled "Initial Documentation Submittal."

The Contractor shall meet this milestone within 45 calendar days of contract award.

Milestone 2

Pre-deployment software testing and verification: The Contractor shall install the ATMS software on a minimum of one workstation located at the IDOT District Four Communications Center to demonstrate that the software has at least fifty (50%) percent of the required functionality as described in the central software technical requirements in the section titled "ATMS SOFTWARE (CORE MODULE)". The Contractor shall also demonstrate that the ATMS software is capable of partial integration into the existing ITS system.

The Contractor shall meet this milestone within 120 calendar days of contract award.

Milestone 3

System acceptance and testing plan submittal: The Contractor shall submit a detailed system deployment, acceptance, and testing plan. The plan shall provide information on all processes including methods for defining, documenting, and addressing issues that arise during deployment and the operational testing period.

The Contractor shall meet this milestone within 180 calendar days of contract award.

Milestone 4

ATMS software deployment and operational testing: The Contractor shall deploy the ATMS software in all locations for use by the ATMS operators. The software shall be fully operational and have all of the required functionality. The software will begin the 60-day operational test. The Contractor shall also deploy the ATMS external web interface for operational testing as part of this milestone.

The Contractor shall meet this milestone within 300 calendar days of contract award.

Milestone 5

Completion of outstanding issues: The Contractor shall correct all outstanding issues with the ATMS software to the satisfaction of the Department after the completion of the operational test period.

The Contractor shall meet this milestone within sixty (60) calendar days of receiving the list of outstanding issues from the Department.

Milestone 6

Completion of training: The Contractor shall complete all training for the ATMS software to the satisfaction of the Department after the completion of Milestone 5.

The Contractor shall meet this milestone within thirty (30) calendar days of receiving the list of outstanding issues from the Department.

The Contractor shall have all required equipment and materials installed, tested and operational within the time frames specified below, unless directed otherwise by the Engineer:

All work on this contract shall be completed by September 30, 2010.

FAILURE TO COMPLETE THE WORK ON TIME

Effective November 5, 2008

Should the Contractor fail to complete the work on or before any of the dates specified in these Special Provisions, or within such extended time allowed by the Department, the Contractor shall be liable to the Department in the amount specified in Article 108.09 of the Standard Specifications. The amount is not a penalty but is for liquidated and ascertained damages for each calendar day beyond the date of completion or extended time as may be allowed. Such damages may be deducted by the Department from any monies due the Contractor.

In fixing the damages as set out herein, the desire is to establish a certain mode of calculation for the work because the Department's actual loss, in the event of delay, cannot be predetermined, would be difficult of ascertainment, and a matter of argument and unprofitable litigation. This mode is an equitable rule for measurement of the Department's actual loss and fairly takes into account the loss of use of the ITS system if the project is delayed in completion. The Department shall not be required to prove any actual losses to recover these liquidated damages provided herein, as these damages are very difficult to ascertain. Furthermore, no provision of this clause shall be construed as a penalty, as such is not the intention of the parties.

A calendar day is every day on the calendar and starts at twelve midnight (12:00 a.m.) and ends at the following twelve midnight (12:00 a.m.), twenty-four hours (24 hrs.) later. No payment will be paid for any day less than twenty-four hours.

INITIAL DOCUMENTATION SUBMITTAL

Within forty-five (45) calendar days upon award of the project, the Contractor shall submit the following items to the Department for approval:

- A point-by-point response to every technical software requirement specified in the section titled "ATMS SOFTWARE (CORE MODULE)". Responses to the technical requirements must be in the same sequence and designated as they appear in this document. A succinct explanation of how each requirement will be met shall be included.

- Proposed work plan for ATMS software design, development, and deployment. The work plan shall contain detailed schedules that coincide with the milestones for review and approval by the Department. This schedule shall include the anticipated delivery, installation, and testing schedule for all equipment and components. It is desired to have this schedule depicted in a critical path format with the controlling item identified.
- Detailed system drawings that depict system processes and software architecture. The Contractor shall submit schematics showing all interconnections included in the system, including those between the existing equipment and the proposed system and locations of proposed equipment.
- Detailed information on the ATMS graphical user interface including visual screen prints that show the menu layout, mouse, and keyboard functionality for the end user. The Contractor shall submit a functional software model of the proposed ATMS graphical user interface that demonstrates the complete user interface including the complete menu structure, keyboard usage, keyboard shortcuts, mouse usage, and all applicable menus including right and left mouse click menus.
- Detailed information on the external web interface that describes and depicts all required components. The Contractor shall develop and submit a functional software model of the external web interface that contains all of the required elements.
- Shop drawings for all hardware, software, and other items that will be used in this contract.

The Contractor shall meet with the Department, at the District Four headquarters, to discuss the review and subsequent approval and/or revisions of these items.

This work will not be paid for separately, but shall be included in the contract bid price for ATMS SOFTWARE (CORE MODULE).

PROJECT MANAGEMENT

The Contractor shall provide project management, administration, and internal coordination activities required for a successful project, including, but not limited to the following:

- Monthly progress reports summarizing, per subtask, the work conducted during the reporting period
- Regular coordination and communications with the Department and any other parties associated with the deployment of the Central System.; and
- Minutes of meetings held with the Department and any other parties associated with the deployment of the Central System.

This work will not be paid for separately, but shall be included in the contract bid price for ATMS SOFTWARE (CORE MODULE).

EXISTING ITS SYSTEM COMPONENTS

The existing ITS system components are shown on the plan sheets. The existing system components are configured and comprise a fully operational system.

The Contractor shall use the existing infrastructure to the greatest extent. The Contractor shall provide the Department with documentation detailing the specific hardware specifications for approval prior to procurement and deployment.

This work will not be paid for separately, but shall be included in the contract bid price for ATMS SOFTWARE (CORE MODULE) .

ATMS SOFTWARE LICENSING

The ATMS software developed under this contract shall be licensed for unlimited use within District 4. Additionally, the ATMS software shall be licensed for use in all downstate IDOT districts (District 2, District 3, District 5, District 6, District 7, District 8, and District 9). The Department shall have the right to have any vendor perform modifications to the final ATMS software for the addition of future ITS components. The Contractor will retain the ability to continue selling the ATMS software to other parties, complete with all enhancements that were made to the initial software product through this contract. The Contractor will also have the ability to make modifications to the ATMS software.

In the event that the Contractor chooses to provide an ATMS package that incorporates software that is licensed to other governmental entities, the Contractor shall secure all licensing rights prior to commencing work on this contract. The licensing documentation shall be submitted with the initial documentation submittal.

The Contractor shall provide thirty full user software licenses for all other software that is required for the operation of the ATMS software.

This work will not be paid for separately, but shall be included in the contract bid price for ATMS SOFTWARE (CORE MODULE).

ATMS SOFTWARE DEPLOYMENT

As part of the deployment, the Contractor shall perform the following:

- Integrate the proposed system with the existing infrastructure.
- Install and configure all hardware required to provide the system functionality as specified.

- Submit detailed schematics showing all interconnections included in the system, including those between the existing equipment and the proposed system and locations of proposed equipment. The existing system drawing CAD files will be made available to the Contractor upon request.
- Submit a detailed System Acceptance Test Plan for review and approval by the Department. This System Acceptance Test Plan shall include two tests: the System Configuration Test and the System Operational Test. The System Configuration Test will validate the system and demonstrate that the ATMS software is configured correctly and works with the existing equipment. The System Operational Test is a sixty day operational test that will demonstrate that the ATMS software is fully functional and meets all of the requirements. Upon approval of the System Acceptance Test Plan by the Department, the Contractor shall carry out the System Acceptance Tests within the time frame required to meet the milestone dates.

The 60-day operational test will be suspended in the event of serious issues including, but not limited to, system instability, system crashes, excessive system reboots, system lockups, and system non-performance. The 60-day operational test will not be restarted until the Contractor has corrected the issues to the satisfaction of the Department.

At the end of the sixty-day (60-day) operational test period, the Department will provide the Contractor with a list of any outstanding issues that will need to be corrected by the Contractor prior to final acceptance of the ATMS software. The Contractor shall address and correct these issues to the satisfaction of the Department within a sixty-day (60-day) time period.

This work will not be paid for separately, but shall be included in the contract bid price for ATMS SOFTWARE (CORE MODULE).

ATMS SOFTWARE SUPPORT AND WARRANTY

The Contractor shall provide the following:

- The system and all hardware equipment supplied under this contract shall have a minimum two-year, manufacturer's warranty (parts and labor) that begins after final acceptance.
- All computer workstations and servers shall have a minimum three-year, manufacturer's warranty (parts and labor) with on-site service.
- All ATMS system software and hardware shall be supported through a twenty-four (24) hours per day, seven (7) days per week contact list with a two-hour response time during normal working hours Monday through Friday and an eight hour response time during weekends and holidays for callback to initiate support.

Warranty and maintenance requirements:

- Failed hardware components shall be replaced within one (1) business day or less from the receipt of the telephone call.
- Ten operations manuals and five maintenance manuals shall be supplied as part of the system.
- One complete set of manuals, in electronic format, shall be supplied on a CD or DVD for all systems and hardware provided as part of the contract.
- All instruction sheets and other documentation required to be furnished by the manufacturer for materials and supplies and for operations shall be delivered to the Engineer prior to the acceptance of the project, with the following warranties and guarantees:
 - The manufacturer's standard written warranty for each piece of equipment furnished under the contract.
 - The Contractor's written guarantee that, for a period of two years after the date of final acceptance of the project, all necessary repairs to or replacement of said warranted equipment, or apparatus shall be made by the Contractor at no cost to the Department.
 - The Contractor's written guarantee for satisfactory operation of all hardware and software furnished and constructed under the contract for a period of two years (three years for computer workstations and servers) after final acceptance of the project.
 - The Contractor shall furnish a warranty certificate that lists each component and includes the equipment description and details, serial numbers, effective dates, and the details of the warranty regarding materials and labor. The warranty period shall begin on the date of final acceptance and the warranty certificate shall reflect this date.

The Contractor will not be responsible for components that are not provided under this contract.

This work will not be paid for separately, but shall be included in the contract bid price for ATMS SOFTWARE (CORE MODULE).

SYSTEM IMPLEMENTATION, EQUIPMENT INTEGRATION AND SUPPORT

The Contractor shall ensure that all components meet the minimum specifications, are compatible with one another, and are integrated to enable the system to perform all functions to the satisfaction of the Engineer.

All other work (labor, equipment, and materials) required for the implementation of this contract, including but not limited to, misc. software and hardware, firewalls, VPN software, reconfiguration of existing components, programming, licenses, etc. will not be paid for separately, but shall be included in the contract bid price for the ATMS SOFTWARE (CORE MODULE).

ATMS SOFTWARE TRAINING

As part of the deployment, the Contractor shall provide on-site training for technicians and operators of the system and equipment. This training will address normal operations of the system, routine system maintenance, provisioning and system setup, and fault diagnosis and system repair.

The Contractor shall provide the following training:

- Two (2) 8-hour ATMS operations training sessions with capacity for twelve (12) participants for IDOT District Four operators.
- Two (2) 4-hour ATMS operations training sessions with capacity for four (4) participants for Peoria (EPPW) and Peoria Department of Public Works (DPW) operators.
- Two (2) 4-hour ATMS operations training sessions with capacity for ten (10) participants for the East Peoria (EPPS) and Peoria 911(ECC) operators.
- One (1) 8-hour ATMS maintenance training session with capacity for four (4) participants for IDOT District Four ATMS system administrators.

All training sessions shall be held at the IDOT District Four Communication Center or partner agency locations. Training shall be hands-on with ample time for questions. The Contractor shall submit a training outline to the Department for approval prior to commencing training. The Contractor shall furnish training manuals that contain a course outline, ATMS software operation information, hands-on training exercises, and any other pertinent items for each participant.

This work will not be paid for separately, but shall be included in the contract bid price for ATMS SOFTWARE (CORE MODULE).

ATMS SOFTWARE SYSTEM REQUIREMENTS (CORE SOFTWARE MODULE)

The Central System shall interface with the existing field equipment and ITS network to provide an integrated operational platform. The fundamental functions include: Video Management (VM), Data Collection (DC), Information Dissemination (ID), Incident Management (IM), and System Administration (SA).

The ATMS software shall meet or exceed the following requirements:

REF. ID	REQUIREMENT DESCRIPTION
VM01	Using the GUI, an ATMS operator shall be capable of selecting a camera and monitor and place video from the camera on the proposed computer workstation monitor and/or existing analog video monitors and video wall. The system shall provide the capability for video to be viewed on a separate workstation monitor.
VM02	To decrease CCTV camera contention between two or more ATMS operators, the system shall support camera control prioritization based on the operator ID and Permissions Matrix.
VM03	The system shall enable an ATMS operator, with proper permissions, to select a preset camera position for all cameras supporting camera presets.
VM04	The system shall support Virtual Private Network (VPN) connections over a high speed internet connection to allow a remote ATMS operator to access system hardware, view digital video from CCTV cameras, and select video presets for the system.
VM05	The system shall enable an ATMS operator, with proper permissions, to establish a new preset camera position for any camera from any ATMS workstation.
VM06	The system shall allow an ATMS operator, with proper permissions, using the GUI, to control a camera including pan, tilt, zoom, focus, iris, selection of presets, and selection of tours for individual cameras. Other camera operations not listed above that are available through a camera manufacturer's system, may be operated through the camera manufacturer's keyboard and/or joystick.
VM07	Using a high speed internet VPN connection, a remote ATMS operator, with the proper permissions, shall be able to select and view video from the switch, select video presets, and control the selected camera's PTZ functions.
VM08	When an ATMS operator selects a CCTV camera icon on the system map, a window shall appear that contains the selected CCTV camera's controls and the camera's video image shall be placed on the workstation monitor.
VM09	The system shall not preclude the use of existing remote joysticks and keypads from selecting video and controlling cameras.
VM10	The system shall allow ATMS operators with a higher level of "permission" to seize a camera for a specific length of time. During this period of time, operators with a lower level of permission shall not be allowed to control the seized camera; however, control of other cameras shall not be affected.
VM11	The system shall allow a user, with proper permissions assigned by the system administrator, to return a seized camera to "open" status.
VM12	The system shall display the "owner" of a seized camera.
VM13	The system shall not decrease the inherent number of cameras or ATMS operators that can be supported by the video switch and camera control system.
VM14	The system shall support all preset camera positions available to operators in the existing camera and camera control system.

REF. ID	REQUIREMENT DESCRIPTION
VM15	The system shall provide pre-identified "tours" of selected cameras.
VM16	The individual camera tours shall be created, modified, and selectable by the system administrator.
VM17	The individual tours shall be selectable by a time of day and specific day schedules.
VM18	The individual tours shall be selectable by an ATMS operator, with proper permissions as defined by the System Administrator, from any workstation connected to the ITS network and by a remote ATMS operator via a high speed internet VPN connection.
VM19	The system shall log the ATMS operator ID in control and the time and date when a camera is moved from a preset position or off of a tour.
VM20	The system shall control the video switching system to allow the display of video images on the video wall located in the IDOT Communication Center.
VM21	The system shall be capable of selecting multicast IP video and placing it on an ATMS workstation monitor.
VM22	The system shall enable an ATMS operator, with the appropriate permissions, from any ATMS workstation to select and publish video image snapshots from a minimum of 50 cameras to an Internet website. The image snapshots shall be JPG images and the image resolution shall be configurable by the system administrator. The publishing interval shall be configurable by the system administrator and shall support, as a minimum, intervals of one (1), two (2), and five (5) minutes.
VM23	When a CCTV camera icon is selected from the published Internet website map, the current video image snapshot from the camera shall be displayed along with a short description including the location of the CCTV camera and the date and time of the image snapshot.
VM24	When a camera is disconnected from the Internet, the image on the Internet shall display the information: "No Video" or similar on a blank background.
VM25	When a camera is "seized" by an ATMS operator, the system shall restrict the output of the video switch system feeds to the lowest tier of permissions (refer to the Permissions Matrix). The output of the video switch system feeds shall be restored to the lower tier when the camera is returned to a preset position. The system shall provide a manual override to this restriction.
VM26	The system administrator shall be able to adjust the period of time that an ATMS operator may seize a camera. The time period shall be defined in minutes and shall be assignable based upon the operator ID and Permissions Matrix.
VM27	The system shall support preset camera positions based on time of day and specific day schedules.
VM28	The system shall include a minimum of three legacy protocols for other manufacturers CCTV cameras that are still currently available for purchase. The legacy protocols can be selected by the System Administrator for use with the system.

REF. ID	REQUIREMENT DESCRIPTION
DC01	The system shall poll the RTMS units, retrieve the data, and store it in a SQL or ODBC compliant database.
DC02	The system shall poll the Type 2070 loop controllers, retrieve the data, and store it in a SQL or ODBC compliant database.
DC03	System polling shall be at system administrator-selected intervals of thirty (30) seconds to five (5) minutes in thirty-second (30 sec.) intervals. Intervals should include thirty (30) seconds, one (1) minute, two (2) minutes, three (3) minutes, four (4) minutes, and five (5) minutes. Intervals should be consistent with data collection rates supported by the field hardware.
DC04	In addition to supporting legacy communication protocols, the system shall be upgradeable to poll existing NTCIP compliant hardware using the proper NTCIP protocol.
DC05	In addition to supporting legacy communication protocols, the system shall poll existing NTCIP compliant hardware using the proper NTCIP protocol.
DC06	The system shall communicate with existing and future field equipment using existing protocols including Internet Protocol (IP) over the existing communications network. The system shall support serial communications, TCP/IP, and cellular modems for communication with field components.
DC07	The system shall be capable of polling field equipment using leased telephone lines.
DC08	The system, as a minimum, shall store the date, time, and volume by lane, speed by lane, occupancy by lane, and bin numbers for vehicle classification.
DC09	The system shall filter and smooth the data to produce processed data. The system administrator shall have the capability to select and modify filtering and smoothing parameters.
DC10	Using the processed data, the system shall calculate the average speed, average volume, and total volume for all lanes at each detection site.
DC11	The system shall store and print reports of traffic count information and support exporting traffic count information in a comma separated text format for use with other IDOT software.
DC12	The system shall support exporting traffic count information in XML format for use with other IDOT software.
DC15	The system shall be capable of supporting, as a minimum, 50 RTMS sites and 10 ILDS sites.
ID01	The system shall generate a system map to be used as the backdrop of system status and ITS field hardware locations.
ID02	The system map shall contain multiple layers that can be selected by ATMS operators based upon permissions. As a minimum, the map shall contain separate layers for DMS, CCTV cameras, congestion indicators, vehicle detectors, queue detection systems, roadway weather stations, events including incidents, and landmarks. The system map shall display the entire geographical boundary of District Four.

REF. ID	REQUIREMENT DESCRIPTION
ID03	The system map shall be scalable by selecting a location, dragging the cursor, and deselecting.
ID04	The system map shall be based on a Statewide Navteq database and utilize existing Statewide GIS data that will be made available to the Department and Contractor for the ATMS.
ID05	The system map shall display, as a minimum, a north arrow, a legend, freeways and major highways, the Illinois River, major bridges, the Greater Peoria Airport, and the Civic Center. The system shall allow the system administrator to add additional points of interest onto the system map.
ID06	The system map shall use colored line segments or icons to identify current conditions. Conditions displays and icons shall include traffic conditions, traffic incidents, the locations of all field components, and failed field components. Condition displays will be based upon available and processed data from the field devices.
ID07	The system shall provide a GUI to allow the system administrator to set and modify multiple vehicle detector color thresholds and alarm thresholds.
ID08	The system map shall use distinct and identifiable icons to identify field hardware, construction zones, and incident locations.
ID09	The system map shall allow an ATMS operator to turn on or off different map layers and icons including field device icons, construction zone icons, and incident icons.
ID10	The system shall allow the system administrator to add, modify, or delete system elements to/from the system including field hardware devices and the interstate network configuration.
ID11	When a field hardware icon is selected on the system map, the system shall display as a minimum the following information: 1) field hardware ID, 2) freeway or route, 3) field hardware type, 4) field hardware configuration, 5) location (mile markers, coordinates, etc.), and 6) field hardware operational status. The system shall store a minimum of twenty-five preset map views that can be recalled by an ATMS operator. The views can be created and named by the system administrator and an ATMS operator with the proper permissions.
ID12	Using the collected data, average speeds (measured or calculated) and volumes, the system shall update the information on the system map.
ID13	The system shall make available to the ATMS operator both detector station data and individual lane by lane data.
ID14	The system shall publish the system map including landmarks and device hardware icons to an Internet website. The system map publishing rate and output location shall be configurable by the system administrator.
ID15	When an ATMS operator selects a DMS icon on the system map, the system shall update and display the current message placed on the DMS.

REF. ID	REQUIREMENT DESCRIPTION
ID16	The system shall publish the current traffic data collected by the field hardware to the Internet website at intervals defined by the system administrator. The field hardware icons on the Internet map shall be used to access the current traffic data. Lane by lane data shall not be made available on the Internet website.
ID17	Using the Peoria ECC and East Peoria EPPS data, the system shall be capable of positioning and displaying an icon depicting an accident or other traffic incident on the system map.
ID18	Incident icons corresponding to an incident record shall be shown on the system map.
ID19	The system shall allow the ATMS operator to remove incident information prior to placement on the internet and remove information when deemed sensitive or inappropriate for public broadcast.
ID20	The system shall display icons denoting construction zones on the system map. The icons shall be clickable and upon opening shall provide a description of the work being done, road conditions (i.e., lane closures) and contact information of the engineer on site.
ID21	The system shall publish the current construction zone information to the Internet websites at intervals defined by the system administrator. The construction zone icons on the Internet map shall be used to access current construction zone information. The system shall allow the system administrator to filter sensitive information from being published to the Internet website.
ID22	Non-reporting detector stations or faulty data shall be indicated on the system map.
ID23	The system shall allow ATMS operators to access information in the database and publish a system report. The system shall support editing and creating new customized system reports by the system administrator.
ID24	The system shall provide the following individual reports: 1) equipment failures, 2) detector data (station and lane-by-lane data), 3) incident data, 4) DMS usage, and 5) system failures.
ID25	The system administrator shall define and modify reports, their content, format, and reporting interval. The system shall publish these reports to a network printer, webpage, and email.
ID26	The system shall be capable of generating reports in an Adobe® PDF file format.
ID27	The system shall archive all data (excluding video or video image snapshots) and make it available to ATMS operators for a period of not less than two years.
ID28	The system shall not decrease the number of DMSs that can be supported by the DMS communication protocol. The system shall support a minimum of fifty (50) DMSs.
ID29	The system shall allow an ATMS operator, with proper permissions, to place a message on the changeable message sign. The system shall provide the ATMS operator with a preview of how the message will appear on the DMS.

REF. ID	REQUIREMENT DESCRIPTION
ID30	The system shall provide the capability to display the current time and date information on the message board.
ID31	A message library with room for at least 500 messages shall be provided.
ID32	The system library shall contain additional space for not less than 100 message templates that can be used to create new messages in a standard format.
ID33	If supported by the DMS, the system shall provide confirmation of a message being displayed by displaying the information received from DMS based on a query to the DMS controller in the field.
ID34	The system shall queue messages to be sequenced on the DMS at a time interval determined by the ATMS operators.
ID36	The system shall display messages on any DMS based on time of day.
ID37	The system shall display messages on any DMS for a specified amount of time, selected by the author of the message on the DMS.
ID38	The system shall cause the sign to display the message immediately or upon a selected time-delay.
ID39	Any ATMS operator, with proper permissions, shall be able to compose messages using the standard templates and words checked against an unacceptable word list. The system shall block transmission of any message that contains unacceptable words as defined in the unacceptable word list. The system shall provide spell checking functionality.
ID40	The unacceptable words list shall be edited only by the system administrator or "power" user. The system administrator or "power" user shall be able to add and delete words or phrases from the unacceptable word list.
ID41	The system shall support standard NTCIP functions for the DMS signs in accordance with basic operational needs and fonts supplied by the manufacturer of the DMS.
ID42	The system shall communicate with the DMS controller using NTCIP.
ID43	An ATMS operator, with proper permissions as assigned by the system administrator, shall be able to edit, modify the display, or remove any existing message on a DMS. Changes to existing messages shall be sent to the sign to be displayed as a new message.
ID44	The system shall allow an ATMS operator to send a message or a message set to an ATMS operator defined collection of DMSs (i.e. one or more DMS). The system shall store the defined collections of DMSs so that they can be recalled by an ATMS operator.
ID45	The system shall automatically send pre-written emails based upon events identified by the system administrator. Email alerts shall include loss of video, faulty detectors, failed field hardware, and loss of communication between network nodes. The system administrator shall have the capability to modify individual alarm thresholds.

REF. ID	REQUIREMENT DESCRIPTION
ID46	The system shall provide an interface for retrieving historical data and producing reports. The system shall export report data in CSV (comma separated values) and text formats that can be retrieved by the system administrator.
ID47	The system shall integrate data from the existing Highway Railroad Information (HRI) system and indicate the status of each monitored at grade railroad crossing to the ATMS operator on the system map. The system shall publish the current HRI information to the Internet website at intervals defined by the system administrator. The HRI icons on the Internet map shall be used to access current HRI information.
ID48	The system shall allow the system administrator to add, modify, and delete system map layers.
ID49	The system shall allow the system administrator to add, modify, or delete system map device icons to/from the system map including field hardware icons, construction zone icons, incident icons, and the interstate network configuration.
ID50	The system shall publish the current DMS messages to the Internet website at intervals defined by the system administrator. The DMS icons on the Internet map shall be used to access the current DMS messages.
IM01	The system shall allow ATMS operators to create an incident record in the database and to enter data into the record.
IM02	The incident record shall request, as a minimum, the following information from the ATMS operator: 1) road or route, 2) location (including county, mile-marker, and coordinates), 3) incident type, and 4) incident description.
IM03	The system shall provide additional incident report fields for any custom information relating to the incident. Custom information shall include the basic characteristics of the event including property damage, number and type of vehicles involved, injuries, pavement condition, and weather as input by ATMS operators.
IM04	The system shall log in the database the incident location, details, and an ATMS operator's actions in response to the incident.
IM05	The system shall require an ATMS operator response before deleting an incident record.
IM06	The system shall maintain a library of incident response plans. These plans shall identify actions to take by the ATMS operators, including messages to display on the DMS, agencies to notify, personnel to notify, email to transmit, special traffic timing plans to implement, and other instructions. These plans shall be referenced by type of incident and location. ATMS operators shall manually execute an incident response plan, however, the system may also support automated incident response plan execution. The system shall allow ATMS operators to recall incident response plans from the library and implement them.

REF. ID	REQUIREMENT DESCRIPTION
IM07	The system shall allow a "power" user to create an incident response plan using a common template. The system shall allow a "power" user to modify, and delete existing incident response plans.
IM08	The system shall publish incident information to the Internet website at intervals defined by the system administrator. The incident icons on the Internet map shall be used to access current incident information. The system shall allow the system administrator to filter sensitive information from being published to the Internet website.
SA01	The system shall support a minimum of three simultaneous Virtual Private Network (VPN) connections, over a high speed internet connection. VPN connections to the system shall only be made from an IDOT owned laptop or workstation.
SA02	The system shall support and provide VPN capability for system operation, modification, and administration. ATMS operator capabilities will be based on the Permissions Matrix and the rights assigned to the operator by the system administrator. The system shall allow the system administrator to define a VPN access list based on operator IDs. ATMS operators not included in the VPN access list will not be capable of connecting to the system through a VPN connection.
SA03	The system shall indicate the status of all cameras as available from the Vicon cameras and video switch. The system shall monitor the alarms in the camera and the status of communications to the camera and video switch interfaces and provide the ATMS operator a visual indication of an alarm and the location of the alarm. The system shall log all alarms, including the loss of communications between a camera and the IDOT CC.
SA04	The system client software and interfaces shall be capable of operating on a Windows XP and Windows Vista operating system.
SA05	The system file server shall be capable of operating on a Microsoft Windows Server, Unix, or Linux platform. The Contractor shall provide a minimum of three days of in-state training for two Department personnel for the system file server operating system and create interfaces that will allow the IDOT system administrator to review system conditions, restart, reboot, clean, restore, and perform routine maintenance on the system when required.
SA06	The system shall log all ATMS operator login and logout events including a timestamp.
SA07	The system shall log key ATMS operator actions including time, date, ATMS operator, and the corresponding action. Actions to be logged, as a minimum, camera blocking, incident response, and system process restarts.
SA08	The system shall allow ATMS operators to log on from any workstation on the IDOT ITS network.
SA09	The system shall authenticate ATMS operators by a combination of operator ID and password.
SA10	The system shall accept a minimum of 100 operator IDs.

REF. ID	REQUIREMENT DESCRIPTION
SA11	The system shall identify detectors with “extended calls” or “no calls” for an interval defined by the system administrator. These detectors shall be “flagged” for bad data.
SA12	The system shall produce a report, defined by the system administrator, identifying sensors with suspected bad-data.
SA13	The system shall log the ATMS operator, content, and action for all messages sent to the DMS. All logs shall include the time and date.
SA14	The system shall synchronize all system clocks to WWV or GPS satellite service, once every twenty-four (24) hours.
SA15	The system shall require the system administrator to set the password and operator ID when adding a new ATMS operator to the system.
SA16	The system administrator and “power” user shall be able to set a new password for an existing ATMS operator.
SA17	The system shall protect (encrypt) authentication data to prevent unauthorized ATMS operator access.
SA18	The system shall use VPN security to protect system data for remote ATMS operators.
SA19	Only the system administrator shall have access to authentication data.
SA20	The system shall interface all ATMS operators using the existing system network and IP addressing.
SA21	The system shall provide the system administrator the ability to monitor the database performance, backup the database, and restore the database when necessary.
SA22	The backup system shall be modifiable by the system administrator including the ability to schedule automatic backups.
SA23	The system shall have a minimum of three (3) levels of database access privileges including: Level 1) browse data; Level 2) browse, insert, and edit data; and Level 3) browse, insert, edit, and delete data.
SA24	The system administrator shall be able to upgrade software and apply patches to the system. The software upgrades and patches should have the capability to be applied remotely.
SA25	The system shall include a backup system for backing up the system and restoring the system after a system failure.
SA26	The backup system shall use tape as the medium for storing system backup information and data.
SA27	The system shall support a minimum of four levels of “permission” for selecting and controlling field equipment including cameras and DMS and editing system configuration and access including database access. The permission levels shall be according to the Permissions Matrix contained within this attachment.
SA28	The system shall support levels of permission that are applied to individual operator IDs. The system administrator shall set all operators ID permissions for each individual operator.

REF. ID	REQUIREMENT DESCRIPTION
SA29	The system administrator shall be able to add new operators to the system and edit or delete existing operators from the system.
SA30	The system shall have an icon that an ATMS operator can click that will send an email directly to the system administrator. The ATMS operator will utilize this feature to notify the system administrator when assistance is required.

USER PERMISSION MATRIX

LEVEL	CLASSIFICATION	PERMISSIONS	REAL-WORLD USER
Top	System Administrator	<ul style="list-style-type: none"> ▪ Add/remove users ▪ Set/change passwords ▪ Level 3 database access 	IDOT Administrator
High	“Power” User	<ul style="list-style-type: none"> ▪ Change own password ▪ Level 3 database access ▪ Full camera selection, viewing, control ▪ Create/change DMS messages 	IDOT Traffic staff, ECC/EPPS/City of Peoria/City of East Peoria shift managers
Medium	Operator	<ul style="list-style-type: none"> ▪ Change own password ▪ Level 2 database access ▪ Full camera selection, viewing, control ▪ Create/change DMS messages 	IDOT/ECC/EPPS/City of Peoria/City of East Peoria operators
Public	Media/Internet	<ul style="list-style-type: none"> ▪ Partial camera selection and viewing (The system administrator shall be able to determine which cameras are available) 	Media/Internet

Technical Requirement Descriptions

Below is a description of each requirement defined in the matrix that shall be used to supplement the requirements.

1. Video Management (VM)

1.1 The video management system is a vital part of the Peoria ITS system. Specific requirements include:

1.1.1 The system shall not decrease the inherent number of cameras or ATMS operators that can be supported by the video switch and camera control system. [Reference VM13].

- 1.1.2 To decrease CCTV camera contention between two or more ATMS operators, the system shall support camera control prioritization based on operator ID and the Permissions Matrix. The system shall allow ATMS operators with a higher level of permission to seize a camera for a specific length of time. During this period of time, the system shall indicate the “owner” of a seized camera and operators with a lower level of permission shall not be allowed to control the camera, however control of other cameras shall not be affected. The system administrator shall be able to adjust the period of time that an ATMS operator may seize the camera. The time period shall be defined in minutes and shall be assignable based upon the operator ID and Permissions Matrix. The operator shall be allowed to return the camera to “open” status. When the camera is “seized” by an ATMS operator, the system shall exclude output of the video switch feeds to the lowest tier of permissions (refer to the Permissions Matrix). When the camera is disconnected from the Internet, the image on the Internet site shall display the information: “No Video” or similar on a blank background. The system shall override the output of the video switch system feeds to local media outlets in case of an emergency or incident. The output of the video switch system feeds shall be restored to the lowest tier when the camera is returned to a preset position. The system shall provide a manual override to this restriction. [reference VM02, VM10, VM11, VM12, VM25, VM26, and VM27].
- 1.1.3 Using the GUI an ATMS operator shall be capable of selecting a camera and monitor and place video from the camera on the computer workstation monitor and/or analog video monitors and video wall. The system shall provide the capability for video to be viewed on a separate workstation monitor. When an ATMS operator clicks on the desired CCTV camera icon on the system map, a window shall appear that includes the camera’s controls. The controls shall provide pan, tilt, zoom, focus, selection of presets, and selection of tours for individual cameras. Other camera operations may be performed through the camera manufacturer’s control hardware or software (keyboards and/or joysticks). Existing keypads, joysticks and video switchers will be kept in operation after the installation of the ATMS system as backup. [Reference VM01, VM06, and VM07].
- 1.1.4 Using a virtual private network (VPN) connection, a remote ATMS operator, with proper permissions, shall be able to select and view video from the switch, select video presets, and control the selected camera’s PTZ functions. [Reference VM11 and VM12].
- 1.1.5 The system shall support all presets available to ATMS operators in the basic camera and camera control system. The system shall support preset camera positions based on time of day and specific day schedules. [Reference VM19, and VM27].
- 1.1.6 The system shall allow an ATMS operator, with proper permissions, to select a preset camera position and establish a new preset camera position for all cameras supporting camera presets from any ATMS workstation. [Reference VM03 and VM05].

- 1.1.7 The system shall support Virtual Private Network (VPN) connections over high speed internet to allow a remote ATMS operator to access system hardware, view digital video from CCTV cameras, and select video presets for the system. [Reference VM04].
- 1.1.8 The system shall not preclude the use of existing remote joysticks and keypads from selecting video and controlling cameras. [Reference VM09].
- 1.1.9 The system shall provide pre-identified “tours” of selected cameras. [Reference VM15].
- 1.1.10 The individual tours shall be created, modified, and selected by the system administrator. The tours shall not be programmable or modified by a system operator or by a remote ATMS operator. [Reference VM16].
- 1.1.11 The individual tours shall be selectable based upon time of day and specific day schedules [Reference VM17].
- 1.1.12 The system administrator, ATMS operator, and remote ATMS operator shall be able to select a tour of view. [Reference VM18, VM19].
- 1.1.13 The software shall log when a camera is moved from a preset or off of a tour and log which ATMS operator ID moved the camera and the time and date. [Reference VM20].
- 1.1.14 The system shall be capable of selecting multicast IP video and placing it on an ATMS workstation monitor. The system shall provide the capability for video to be viewed on a separate workstation monitor (separate from the GUI). [Reference VM22].
- 1.1.15 The system shall provide the capability for any ATMS operator with proper permissions from any ATMS workstation to select and publish video image snapshots from a minimum of 50 cameras to an Internet website. The image snapshots shall be JPG images and the image resolution shall be configurable by the system administrator. The publishing interval shall be configurable by the system administrator and shall support, as a minimum, intervals of 1, 2, and 5 minutes. When an ATMS user selects a CCTV camera icon from the published Internet website map, the current video image snapshot from the camera shall be displayed along with a short description of the image including the location of the CCTV camera and the date and time of the image snapshot. [Reference VM23 and VM24].
- 1.1.16 The software shall interface with the video switching system to allow the display of video images on the video wall located in the IDOT communications center.

The video wall consists of four analog video monitors and a Christie GraphXMaster Digital Light Projection Cube which is controlled by a Jupiter Fusion video wall controller. The system shall allow an ATMS operator to select up to five pre-defined video layouts for display on the Christie. [Reference VM21].

- 1.1.17 The system shall include a minimum of three legacy protocols for other manufacturers CCTV cameras that are still currently available for purchase. The legacy protocols can be selected by the System Administrator for use with the system. [Reference VM28].

2. Data Collection (DC)

2.1 The data collection system is a vital part of the Peoria ITS system. Specific requirements include:

- 2.1.1 The system shall save traffic data by polling the RTMS units and Type-2070 controllers, retrieving the data, and storing the data in either a SQL or ODBC compliant database. The polling interval shall be at system administrator selected intervals ranging from 30 seconds to 5 minutes at 30 second intervals including as a minimum: 30 seconds, 1 minute, 2 minutes, 3 minutes, 4 minutes, and 5 minutes. Intervals should be consistent with data collection rates supported by the field hardware. [References DC01, DC02, DC03].
- 2.1.2 The system shall be capable of supporting, as a minimum, 50 RTMS sites and 10 ILDS sites. The addressing and port limitations imposed by the existing system hardware and protocols shall not limit the number of detector hardware (RTMS, ILDS) that can be defined in the system. [Reference DC15].
- 2.1.3 In addition to supporting legacy communication protocols, the system shall poll and shall be upgradeable to poll existing NTCIP compliant hardware using the proper NTCIP protocol. Currently, the 2070 controllers and LedStar dynamic message sign controllers support NTCIP. Communication to other field equipment will have to use non-NTCIP legacy communication protocols. [References DC04 and DC05].
- 2.1.4 The system shall be capable of communicating with the field equipment using existing protocols including Internet Protocol (IP) over the existing communication network and leased telephone lines. The system shall support serial communications, TCP/IP, and cellular modems for communication with field components. [References DC06 and DC07].
- 2.1.5 The system shall, as a minimum, store the traffic data as data, time, volume by lane, speed by lane, occupancy by lane, and bin numbers for vehicle classification. Lane by lane information shall not be made available on the public website. The system shall filter and smooth the data to produce processed data.

The system administrator shall have the ability to select and modify filtering and smoothing parameters. Based on the processed data, the system shall calculate the average speed, average volume, and total volume for all lanes at each detection site. [References DC08, DC09, and DC10].

- 2.1.6 The system shall store and print reports of traffic count information and support exporting traffic count information in a comma separated value (CSV) text format for use with other IDOT software. The system shall support exporting traffic count information in an XML format for use with other IDOT software. [References DC11 and DC12].

3. Information Dissemination (ID)

- 3.1 The primary tool to be used to disseminate data and information shall be a map of the Peoria area, depicting the extents of the Peoria ITS reference area. Specific requirements include:

- 3.1.1 The system shall generate a system map to be used as the backdrop of system status and ITS field hardware locations. The system map shall contain multiple layers that can be selected by ATMS operators based upon permissions. As a minimum, the map shall contain separate layers for DMS, CCTV, congestion, vehicle detectors, queue detection systems, roadway weather stations, events, incidents, and landmarks. The system map shall display the entire geographical boundary of IDOT District Four and McLean County. The system shall allow the system administrator to add, modify, and delete system map layers and icons. The system map shall be scalable by selecting a location, dragging the cursor, and deselecting. To optimize the data sharing and minimize the cost, the map shall be based on the statewide Navteq database and utilize existing statewide GIS data that will be made available to the Contractor and Department for the ATMS. [References ID01, ID02, ID03, ID04, ID48, and ID49].
- 3.1.2 The system map shall display, as a minimum, a north arrow, a legend, freeways and major highways, the Illinois River, major bridges, the Greater Peoria Airport, and the Civic Center. The system shall allow the system administrator to include additional points of interest. Current conditions shall be identified using colored line segments or icons. The map shall display: traffic conditions, traffic incidents, the locations of all field components, and failed field components. Condition displays will be based upon available and processed data from the field devices. Distinct and identifiable icons shall be used to identify field hardware, construction zones, and incident locations. An ATMS operator shall be able to turn on or off the different map layers, field device icons, construction zone icons, and incident icons. [References ID05, ID06, ID08, and ID09].
- 3.1.3 The system shall allow the system administrator to add, modify, or delete system elements to/from the system including field hardware devices and interstate network configuration. [Reference ID10].

- 3.1.4 When a field hardware icon is selected on the system map, the system shall display as a minimum the following information: 1) field hardware ID, 2) freeway or route, 3) field hardware type, 4) field hardware configuration, 5) location (mile markers, coordinates, etc.), and 6) field hardware operational status. The system shall store a minimum of twenty-five preset map views that can be recalled by an ATMS operator. The views can be created and named by the system administrator and an ATMS operator with the proper permissions. [Reference ID11].
- 3.1.5 Non-reporting detector stations or faulty data shall be indicated on the system map. [Reference ID22].
- 3.1.6 The system shall provide a GUI to allow the system administrator to set and modify multiple vehicle detector color thresholds and alarm thresholds. Data from RTMS units and loop-detector stations will be used to determine the traffic flow indicators for roadway segments shown on the system map. The system shall allow the system administrator to modify the thresholds (volume, speed, occupancy, or some type of detection algorithm) that are used to determine the particular traffic flow indicator. The system shall also include alarm thresholds, programmable by the system administrator, that will alert an ATMS operator when certain thresholds have been met including speed and occupancy thresholds. The alert may be through the use of a pop-up window or similar device. It's envisioned that an ATMS operator could then use a CCTV camera to investigate the alert. [Reference ID07].
- 3.1.7 Incident icons corresponding to an incident record shall be shown on the system map. [Reference ID18].
- 3.1.8 The system shall allow an ATMS operator to remove incident information prior to placement on the internet when deemed sensitive or inappropriate for broadcast. [Reference ID19].
- 3.1.9 The system shall display icons denoting construction zones on the system map. These icons shall be clickable and upon opening shall provide a description of the work being done and road conditions (i.e., lane closures, etc.). This shall include basic information including contact information for the engineer on the site. [Reference ID20].
- 3.1.10 Using the collected data, average speeds (measured or calculated) and volumes, the system shall update the information on the system map. The system shall make available to an ATMS operator both detector station data and individual lane by lane data. [References ID12 and ID13].
- 3.1.11 When an ATMS operator selects a DMS icon on the system map, the system shall update and display the current message placed on the DMS. [Reference ID15].

- 3.1.12 The system shall publish the system map to an Internet website at intervals defined by the system administrator. The published system map shall contain, as a minimum, important landmarks, field hardware icons, and incident and construction zone icons. The system map publishing rate and output location shall be configured by the system administrator. [Reference ID14].
 - 3.1.13 The system shall publish the current traffic data, construction zone information, DMS messages, incident information, and HRI data collected by the system to the Internet website at intervals defined by the system administrator. The field hardware, incident, and construction zone icons on the published system map shall be used to access the current data from the Internet locations. The system shall allow the system administrator to filter sensitive information from being published to the Internet website. Specifically, lane by lane data shall not be made available to the public. [References ID16, ID21, ID47, ID50, IM09].
 - 3.1.14 Using the Peoria ECC and East Peoria EPPS data, the system shall be capable of positioning and displaying an icon depicting an accident or other traffic incident on the system map. [Reference ID17].
 - 3.1.15 The system shall archive all data (excluding video or video snapshots) and make it available to ATMS operators for a period of not less than two years. [Reference ID27].
 - 3.1.16 The system shall automatically send pre-written emails based upon events identified by the system administrator. Email alerts shall include loss of video, faulty detectors, failed field hardware, and loss of communication between network nodes. The system administrator shall have the capability to modify individual alarm thresholds. [Reference ID45].
- 3.2 For record keeping and archiving, the system shall allow ATMS operators to publish standard reports. Specific requirements include:
- 3.2.1 The system shall allow ATMS operators to access information in the system database and publish a standardized default system report as well as customized reports created by the system administrator in a number of formats including text, rich text formatting (RTF), Word documents, and Adobe® PDF format. The system shall support editing and creating new customized system reports by the system administrator. This includes defining and modifying the standard report content, format, and reporting interval. The system shall publish these standard reports to a network printer, webpage, email and Adobe PDF. [References ID23, ID25, and ID26].
 - 3.2.2 The system shall provide the following reports: 1) equipment failures, 2) detector data (station and lane by lane), 3) incident data, 4) DMS usage, and 5) system failures. [Reference ID24].

- 3.2.3 The system shall provide an interface for retrieving historical data and producing reports. The system shall export report data in CSV and text formats that can be retrieved by the system administrator. [Reference ID46].
- 3.3 The system shall allow information to be disseminated to the public via changeable message signs (DMS) located in the field. Specific requirements include:
 - 3.3.1 The system shall not decrease the number of DMSs that can be supported by the DMS communication protocol. The system shall support a minimum of fifty (50) DMSs. [Reference ID28].
 - 3.3.2 The system shall allow an ATMS operator, with proper permissions as assigned by the system administrator, to place a message on the changeable message sign. The system shall provide the ATMS operator with a preview of how the message will appear on the message boards. [Reference ID29].
 - 3.3.3 The system shall provide confirmation of a message being displayed by displaying the information received from the DMS based on a query to the DMS controller in the field. [Reference ID33].
 - 3.3.4 The system shall provide the capability to display the current time and date information on the message boards. [Reference ID30].
 - 3.3.5 A message library with room for at least 500 messages shall be provided. The library shall contain additional space for not less than 100 message templates that can be used to create new messages in a standard format by any ATMS operator given proper permissions. [References ID31 and ID32].
 - 3.3.6 The system shall display messages on any DMS based up on the date and time, and based on the time of day. The message duration on the DMS shall be selected by the ATMS operator placing the message. The system shall cause the sign to display the message immediately or upon a selected time-delay. The ATMS operator with proper permissions as assigned by the system administrator shall be able to edit, modify the display, or remove any existing messages on the DMS. Changes to the existing messages shall be sent to the sign to be displayed as a new message. [References ID35, ID36, ID37, ID38 and ID43].
 - 3.3.7 An ATMS operator shall be able to compose DMS messages using standard templates. The system shall compare any composed messages against a list of unacceptable words and block transmission of any message that contains unacceptable words or phrases as defined in the unacceptable word list. The system shall provide spell checking functionality. The unacceptable words list shall be edited only by the system administrator or “power” user. The system administrator or “power” user will be allowed to add or delete words and phrases from the unacceptable words list. [References ID39 and ID40].

- 3.3.8 The system shall support standard NTCIP functions for the DMS signs in accordance with basic operational needs and fonts supplied by the manufacturer of the DMS. [reference ID41].
- 3.3.9 The system shall communicate with the DMS controller using NTCIP. [Reference ID42].
- 3.3.10 The system shall queue messages to be sequenced on the DMS at a time interval as determined by the ATMS operator. [Reference ID34].
- 3.3.11 The system shall allow an ATMS operator to send a message or message set to an ATMS operator defined collection of DMSs (i.e. one or more DMS). The system shall store the defined groups of DMS's so that they can be recalled by an ATMS operator. [Reference ID44].
- 3.3.12 The system shall integrate data from the existing Highway Railroad Information (HRI) system and indicate the status of each monitored at grade railroad crossing to the ATMS operator on the system map. The system shall publish the current HRI information. [Reference ID47].

4. Incident Management (IM)

- 4.1 The system shall allow ATMS operators to manage incidents by creating incident records and by following pre-determined incident response plans. Specific requirements include:
 - 4.1.1 The system shall allow ATMS operators to create an incident record in the database and to enter data into the record. The incident record will request as a minimum the following information from the ATMS operator: 1) road or route, 2) location (including mile-marker and coordinates), 3) incident type, and 4) incident description. [References IM01, IM02].
 - 4.1.2 The system shall log in database the incident location, details, and the ATMS operator's actions in response to the incident. [Reference IM04].
 - 4.1.3 The system shall require an ATMS operator response before deleting an incident record. [Reference IM05].
 - 4.1.4 The system shall publish incident information to the Internet website at intervals defined by the system administrator. The incident icons on the Internet map shall be used to access current incident information. The system shall allow the system administrator to filter sensitive information from being published to the Internet website. [Reference IM09].

5. System Administration (SA)

- 5.1 The control and management of the system is done through the system administrator. Specific requirements include:

- 5.1.1 The system shall identify detectors with “extended calls” or “no calls” for an interval defined by the system administrator. These detectors will be “flagged” for bad data. Detectors with suspected bad data will be identified in a report produced by the system. [References SA11 and SA12].
- 5.1.2 The system file server shall operate on a Microsoft Windows Server, Unix, or Linux platform. The operating system shall be the latest release available. The Contractor shall provide a minimum of three days of in-state training for a maximum of two Department personnel for systems operating on Unix or Linux platforms and create interfaces that will allow the system administrator to review system conditions, restart, reboot, clean, backup, restore, and perform routine maintenance on the system when required. The system client software and interfaces shall operate on a Microsoft Windows Platform (Windows XP Professional and Windows Vista). [References SA04 and SA05].
- 5.1.3 The system shall synchronize all system clocks to WWV or GPS satellite service, at least once every twenty-four (24) hours. [Reference SA14].
- 5.1.4 The system shall interface all ATMS operators using the existing system network and IP addressing. [Reference SA20].
- 5.1.5 The system shall prevent unintended ATMS operators from accessing the system by authenticating an ATMS operator from any workstation on the IDOT ITS network by a combination of operator ID and password. The system shall accept a minimum of 100 operator IDs. The system administrator shall be able to add, modify, or delete existing operators from the system. The system shall require the system administrator to set the password and ID when adding a new operator to the system and allow the system administrator and “power” user to set the password for an existing operator. The system shall support a minimum of three simultaneous Virtual Private Network (VPN) connections. VPN connections shall only be made from IDOT owned laptops or workstations. The system shall use VPN security to protect system data for remote ATMS operators. [References SA01, SA08, SA09, SA10, SA15, SA16, SA18, and SA29].
- 5.1.6 The system shall protect (encrypt) authentication data to prevent unauthorized ATMS operator access. Only the system administrator shall access authentication data. [References SA17 and SA19].
- 5.1.7 The system shall support and provide VPN capability for system operation, modification, and administration. Operator capabilities will be based on the Permission Matrix and the rights assigned to the operator by the system administrator. The system shall allow the system administrator to define a VPN access list based on operator IDs. Operators not included in the VPN access list will not be capable of connecting to the system through a VPN connection. [Reference SA02].

- 5.1.8 The system shall log the ATMS operator, content, and action for all messages sent to the DMS. [Reference SA13].
- 5.1.9 The system shall provide the system administrator with the ability to monitor the database performance, backup the database, and restore the database when necessary. In addition, the system shall include a backup device(s) for backing up the system and restoring the system after a system failure. This backup system shall use tape as the medium for storing system backup information and data. The backup system shall be modifiable by the system administrator including the ability to schedule automatic backups. [References SA21, SA22, SA25, and SA26].
- 5.1.10 The system shall have a minimum of three (3) levels of database access privileges including: 1) browse data; 2) browse, insert, and edit data; and 3) browse, insert, edit, and delete data. [Reference SA23].
- 5.1.11 The system administrator shall be able to upgrade software and apply patches to the software. The software should have the ability to apply the updates remotely. [Reference SA24].
- 5.1.12 There shall be a minimum of four (4) levels of permissions for selecting and controlling field equipment including CCTV cameras and DMS along with configuring and accessing system resources. These levels shall be able to be applied to individual operator IDs that the operators use to log onto the system. The system administrator shall set all operator permissions. [References SA27 and SA028].
- 5.1.13 The system shall have an icon that an ATMS operator can select that will send an email directly to the system administrator. The ATMS operator will utilize this feature to notify the system administrator when assistance with the software is required.

Payment Schedule: The payment schedule for this pay item is listed below:

- Initial documentation submittal (10%)
- Pre-deployment software testing and verification. (15%)
- System acceptance test plan submittal and approval by the Department. (10%)
- System acceptance test initiation. The acceptance test is comprised of two parts: a system configuration test to verify that system is configured correctly and that it works with the existing and proposed equipment, and a 60-day operational test to demonstrate that the system is functional and meets the requirements. The 60-day operational test will be stopped in the event of serious issues including, but not limited to, system instability, system crashes, excessive system reboots, system lockups, and system non-performance. The 60-day operational test will not be restarted until the Contractor has corrected the issues to the satisfaction of the Department. (25%)

- Successful implementation of ATMS external web components. (10%)
- Successful completion of system acceptance test and completion of all outstanding issues. (20%)
- System documentation delivery. (5%)
- System training completion. (5%)

Basis of Payment: This work will be paid for at the contract unit price per lump sum for ATMS SOFTWARE (CORE MODULE) which price shall be payment in full for all labor, materials, and equipment required to furnish and install ATMS software that meets all of the requirements described above with deployment, integration, and testing as specified in this document, complete.

ATMS SOFTWARE (CAD MODULE – PEORIA)

The Contractor shall develop a software module for the ATMS software that performs the following functions:

- The system shall accept data uploaded from the Peoria ECC (Emergency Communications Center) and CAD (Computer Aided Dispatch) system and store it in a database.
- The system shall sort the data, and flag and process applicable data (roadway and incident data) for viewing by the system operator and placement on the system map.

The Peoria ECC uses CAD software by Application Data Systems, Inc (ADSI). The contact person for ADSi is Joel House, 662-393-2046, joelh@e9.com and the contact person for the Peoria ECC is David Tuttle, 309-494-8035, dtuttle@ci.peoria.il.us.

All costs associated with creating the required data interfaces with the existing CAD system (third party work) shall be included in this pay item.

This software module shall be part of the ATMS core software module and fully integrated into it. This module shall be subject to all of the requirements for the core software, including but not limited to, design, deployment, testing, etc.

Payment Schedule: The payment schedule for this pay item is listed below:

- Initial documentation submittal (15%)
- System acceptance test plan submittal and approval by the Department. (15%)
- System acceptance test initiation. The acceptance test is comprised of two parts: a system configuration test to verify that system is configured correctly and that it works with the existing and proposed equipment, and a 60-day operational test to

- demonstrate that the system is functional and meets the requirements. The 60-day operational test will be stopped in the event of serious issues including, but not limited to, system instability, system crashes, excessive system reboots, system lockups, and system non-performance. The 60-day operational test will not be restarted until the Contractor has corrected the issues to the satisfaction of the Department. (30%)
- Successful completion of system acceptance test and completion of all outstanding issues. (30%)
- System documentation delivery. (5%)
- System training completion. (5%)

Basis of Payment: This work will be paid for at the contract unit price per lump sum for ATMS SOFTWARE (CAD MODULE - PEORIA) which price shall be payment in full for all labor, materials, and equipment required to furnish and install the ATMS software module software that meets all of the requirements described above with deployment, integration, and testing as specified in this document, complete.

ATMS SOFTWARE (CAD MODULE – EAST PEORIA)

The Contractor shall develop a software module for the ATMS software that performs the following functions:

- The system shall accept data uploaded from the East Peoria Public Safety Building and CAD (Computer Aided Dispatch) system and store it in a database.
- The system shall sort the data, and flag and process applicable data (roadway and incident data) for viewing by the system operator and placement on the system map.

The East Peoria EPPS uses CAD software by Sunguard THE. The contact person for Sunguard THE is Matthew Bartell, 800-727-8088 x3031, mbartell@hteinc.com and the contact person for the Tazewell County 911 Dispatch is Jeff Phillips, 309-353-4992, jeffphillips@insightbb.com.

All costs associated with creating the required data interfaces with the existing CAD system (third party work) shall be included in this pay item.

This software module shall be part of the ATMS core software module and by fully integrated into it. This module shall be subject to all of the requirements for the core software, including but not limited to, design, deployment, testing, etc.

Payment Schedule: The payment schedule for this pay item is listed below:

- Initial documentation submittal (15%)

- System acceptance test plan submittal and approval by the Department. (15%)
- System acceptance test initiation. The acceptance test is comprised of two parts: a system configuration test to verify that system is configured correctly and that it works with the existing and proposed equipment, and a 60-day operational test to demonstrate that the system is functional and meets the requirements. The 60-day operational test will be stopped in the event of serious issues including, but not limited to, system instability, system crashes, excessive system reboots, system lockups, and system non-performance. The 60-day operational test will not be restarted until the Contractor has corrected the issues to the satisfaction of the Department. (30%)
- Successful completion of system acceptance test and completion of all outstanding issues. (30%)
- System documentation delivery. (5%)
- System training completion. (5%)

Basis of Payment: This work will be paid for at the contract unit price per lump sum for ATMS SOFTWARE (CAD MODULE – EAST PEORIA) which price shall be payment in full for all labor, materials, and equipment required to furnish and install the ATMS software module software that meets all of the requirements described above with deployment, integration, and testing as specified in this document, complete.

COMPUTER WORKSTATION

The Contractor shall furnish, install, and configure computer workstations at the locations shown in the plans.

The workstation shall be a HP xw4600 Workstation or approved equal that meets or exceeds the following minimum specifications:

- Operating System: Windows XP Professional (with latest service pack)
- Hard disk: 250 GB Serial ATA, 3 Gb/s, (7200 rpm) or better.
- Motherboard: 1066 MHz FSB clock speed with minimum of 4 dedicated PCI –E slots. All slots shall support bus mastering.
 - A single Intel Core 2 Duo E8400 processor (3.00 GHz CPU with 6 MB L2 cache and 1333 MHz FSB shall be provided.
 - Serial ATA II/300 controller (four channel)
 - The following ports shall be provided:
One 9-pin serial connector; 16550-compatible
25-pin parallel connector (bi-directional)

- PS/2 keyboard connector
 - PS/2 mouse connector
 - RJ-45 10/100/1000 NIC connector
 - Six USB 2.0 ports
 - 1/8-inch Audio line-in miniature audio jack
 - 1/8-inch Audio line-out miniature audio jack
 - 1.8-inch Audio microphone-in miniature audio jack
 - 1/8-inch Audio headphone-out miniature audio jack
 - One PCI Express x16 Graphics Slot
 - Three 32-bit PCI slots, one PCI Express x 1, one PCI Express x16
 - IEEE 1394 (Firewire) Controller Card with two Ports
 - Drive bays: two externally accessible 5.25" peripheral bays, two internal 3.5" hard drive bays (2 x 1")
-
- Memory: Minimum of 4 GB of 800 MHz dual channel ECC DDR2 SDRAM memory (expandable to 8 GB min). At least one memory bank shall remain open for future expansion. A total of two slots shall be provided.
 - Optical Drive: 16X double-layer multi-format DVD±/R±/RW/CD-R/RW (Super-multi Drive), SATA, with software
 - Video Card: PCIe 512MB SDRAM RAM Video card with dual DVI & TV out (Dual Head Monitor Support)
 - Pointing Device: A 3-button, optical wheel mouse shall be supplied.
 - Network Interface: The workstation shall be supplied with an Integrated Network Interface Card (NIC) supporting 10/100/1000 MB/s and using 32-bit PCI bus-mastering technology. The card shall have a UTP (RJ-45) connector. The card shall be compliant with PCI local bus specification 2.0 and IEEE 802.3 for Ethernet. The card shall also support Netflex-3 technology.
 - Warranty Three-year on-site parts and labor including 24/7 telephone technical support
 - Recovery Media Driver, Application Software, and Operating System Installation and/or recovery media (CD or DVD) shall be included
 - Software One licensed copy of Microsoft Office 2007 Professional shall be included.

Basis of Payment: This work will be paid for at the contract unit price per each for COMPUTER WORKSTATION which price shall be payment in full for all labor, materials, and equipment

required to provide the computer workstation and accessories, install it at the locations specified on the plan sheets, load all required software on it, and configure it for use with the ATMS software.

LCD MONITOR

The Contractor shall furnish, install, and configure LCD Monitors at the locations shown on the proposed ATMS Network Schematic.

The monitor shall meet or exceed the following minimum specifications:

- Monitor: A 20" (diagonal viewable area) flat screen, analog, TFT Active Matrix Color LCD monitor shall be supplied. The monitor shall support resolution of 1600 x 1200 DPI at a vertical refresh rate of minimum 75 Hz and horizontal refresh rate of 94 KHz. The following shall be provided:
 - Input connectors: one 15-pin mini d-sub analog VGA, two 24-pin DVI-I
 - Aspect ratio: 5:4
 - Brightness (minimum): 300 cd/m²
 - Contrast ratio: 800:1
 - Lamp life (minimum): 45,000 hrs
 - Pixel pitch (minimum): 0.255 mm
 - Energy 2000/Energy Star/TCO '99 Compliant
 - Anti-glare coating
 - On-screen display and controls
 - Adjustable Height: 4" minimum range
 - Tilt Angle: -5 degrees to 25 degrees
 - Swivel Angle: +/- 45 degrees

Basis of Payment: This work will be paid for at the contract unit price per each for LCD MONITOR which price shall be payment in full for all labor, materials, and equipment required to provide the LCD Monitor and accessories, install it at the locations specified on the plan sheets, and configure it for use with the ATMS software.

LAPTOP COMPUTER

The Contractor shall furnish, install, and configure laptop computers at the locations shown on the proposed ATMS Network Schematic.

The laptop computer shall be a HP Compaq 8510p or approved equal that meets or exceeds the following minimum specifications:

- Operating System: Windows XP Professional Edition (with latest service pack)

- Hard disk: 120 GB Serial ATA (7200 rpm) or better.
- Processor: A single Intel Core 2 Duo T7800 Processor (2.6 GHz, 800 FSB, 4 MB L2 Cache) shall be provided.
- Ports: The following ports and devices shall be provided:
 - One 9-pin serial connectors; 16550-compatible (or USB Adapter)
 - PS/2 mini-DIN keyboard connector
 - PS/2 mini-DIN mouse connector
 - RJ45 10/100/1000 NIC connector
 - Four USB 2.0 ports
 - 1/8-inch Audio line-in miniature audio jack
 - 1/8-inch Audio line-out miniature audio jack
 - 1/8-inch Audio microphone-in miniature audio jack
 - 1/8-inch Audio headphone-out miniature audio jack
 - IEEE 1394 Firewire
 - 56K Internal Modem
 - PCMCIA slots
 - IR Port
- Memory: Minimum of 2.0 GB of 533 MHz ECC DDR2 SDRAM memory (expandable to 4.0 GB min)
- Optical Drive: 8x Double-Layer Multi-Format DVD±/±RW/CD-RW Lightscribe drive with software
- Video: NVIDIA Quadro FX 570M Graphics Controller with 256MB dedicated GDDR III memory, 512 MB Turbo cache
- Pointing Device: Touchpad and one USB 3-button, optical wheel mouse shall be supplied.
- Keyboard: A full function enhanced keyboard with a minimum of 82 keys shall be supplied.
- Display: WUXGA WVA 15.4" TFT (1900 x 1200 resolution)
- Network Interface: The laptop shall be supplied with an Integrated Network Interface Card (NIC) supporting 10/100/1000 MB/s (RJ-45) and an integrated Intel 802.11a/b/g wireless networking card.
- Battery Capacity: 73 WHr Lithium-Ion Battery
- Carry Case: A Deluxe Padded Leather Carrying Case shall be provided.

- **Recovery Media** Driver, Application Software, and Operating System Installation and/or recovery media (CD or DVD) shall be included
- **Software** One licensed copy of Microsoft Office 2007 Professional shall be included.
- **Warranty:** Three-year (parts, labor, and material) including 24/7 telephone technical support.

Basis of Payment: This work will be paid for at the contract unit price per each for LAPTOP COMPUTER which price shall be payment in full for all labor, materials, and equipment required to provide the laptop computer and accessories, install it at the locations specified on the plan sheets, load all required software on it, and configure it for use with the ATMS software.

APPLICATION SERVER

The Contractor shall furnish install, and configure an application server at the location shown on the proposed ATMS Network Schematic.

The server shall be a HP ProLiant DL580 G5 rack mounted server or approved equal that meets or exceeds the following minimum specifications:

- **Operating System:** Windows Server 2003 Standard Edition w/SA and latest approved service pack , Client/Device Access Licenses As Required Plus 20 Spare or operating system platform as required for ATMS software
- **Operating System Support** Three years of 24/7 Operating System Support
- **Hard disk:** Minimum of 5 - 146 GB SAS 15,000 RPM Hot Swappable or better. Configured for RAID level 5 (Striping with Hot Spare)
- **Power Supply:** Hot-Swappable
- **Motherboard:** 800 MHz bus clock speed with minimum of 4 dedicated PCI slots. All slots shall support bus mastering.
 - Two Quad-core Intel Xeon E7330 Processors (80W), 2.4 GHZ CPU with 6MB Level 2 cache 1066 MHz FSB shall be provided.
 - The following Ports shall be provided:
 - One 9-pin serial connector; 16550-compatible
 - 25-pin parallel connector (bi-directional)
 - 6-pin mini-DIN keyboard connector
 - 6-pin mini-DIN mouse connector

- RJ45 NIC connector
 - Four USB 2.0 ports
 - Four 32-bit PCI slots
 - 6 Hot Swappable Hard Drive Bays: Two externally accessible 5.25" peripheral bays,
 - Floppy Disk Drive
 - Redundant Power Supply
 - Rack Mounted – 19" standard rack.
- Memory: Minimum of 8GB (4 x 2 GB) PC2-5300 667MHz DDR2 ECC SDRAM DIMM Memory.
- Optical Drive:: 16X DVD+/- RW with software
- Pointing Device: A 3-button, optical wheel mouse shall be supplied.
- Monitor: A 19" (diagonal viewable area) flat screen, analog, TFT Active Matrix Color LCD monitor shall be supplied. The monitor shall support a minimum resolution of 1280 x 1024 DPI at vertical refresh rate of minimum 100 Hz and horizontal refresh rate of 85 KHz. The following shall be provided:
 - Input Connector: 15-pin mini d-sub analog VGA, 24-pin DVI-D
 - Aspect Ratio: 5:4
 - Brightness (minimum): 300 cd/m2
 - Contrast Ratio: 700:1
 - Lamp Life (minimum): 50,000 hrs
 - Pixel Pitch (minimum): .294mm x 0.294mm
 - Energy 2000 / Energy Star / TCO '99 Compliant
 - Anti-Glare Coating
 - On-Screen Display and Controls
- Network Interface: The server shall be supplied with an Integrated Network Interface Card (NIC) supporting 10/100/1000 MB/s and using 32-bit PCI bus-mastering technology and a dual PCI-X GbE Ethernet Adapter. The card shall have a UTP (RJ-45) connector. The card shall be compliant with PCI local bus specification 2.0 and IEEE 802.3 for Ethernet. The card shall also support Netflex-3 technology.
- Software HP Lights-Out 100i (LO100i) Advanced Pack No Media 1-Server License or equivalent management software
MS SQL Server Per Processor License w/SA (Qty. 2) (If required for ATMS software)

- Mounting Rack mounted server, 2U, equipped with sliding mounting rails and all required brackets and hardware
- Warranty: Three-year on-site parts and labor including 24/7 telephone technical support for the hardware and operating system.

Basis of Payment: This work will be paid for at the contract unit price per each for APPLICATION SERVER which price shall be payment in full for all labor, materials, and equipment required to provide the application server and accessories, install it at the location specified on the plan sheets, load all required software on it, and configure it for use with the ATMS software.

WEB SERVER

The Contractor shall furnish, install, and configure a web server at the location shown on the proposed ATMS Network Schematic.

The server shall meet the following minimum specifications:

Hardware Specifications: Same as ATMS File Server Specifications:

Software Specifications: Windows Server 2003 Standard Edition w/SA and latest approved service pack, Client/Device Access Licenses as Required plus 20 Spare.

Basis of Payment: This work will be paid for at the contract unit price per each for WEB SERVER which price shall be payment in full for all labor, materials, and equipment required to provide the application server and accessories, install it at the location specified on the plan sheets, load all required software on it, and configure it for use as a web server.

TAPE BACKUP UNIT

The Contractor shall furnish, install, and configure and install a tape backup unit at the locations shown on the proposed ATMS Network Schematic.

The tape backup unit shall be a HP StorageWorks 1U SAS Rack-Mounted (AE459A) or approved equal that meets or exceeds the following minimum specifications:

Number of Tape Drives Two
Included:
Tape Drive Type: LTO-2-L (400 GB)
19" Rack Mounting: 1U
Maximum Storage Capacity: With two LTO2-L drives: 400GB (Native)
Maximum Storage Capacity 3.2 TB
Compressed (with Two Drives)

Transfer Rate and Backup Rate: With two LTO-2-L drives: 172.8GB/hr (Native)
Drive Interfaces (one per drive): SAS 3GB/Sec
Media Included : LTO-2, Formatted Tape Media Cartridge, 5-Pack
Backup Software: Symantec Veritas Backup Exec for Servers, Version 9.2 for Netware Servers or Version 12 for Windows Servers + One year Maintenance
Rack Rails: Sliding Mounting Rails Included with Unit
Hardware Support/Warranty: 3 Year, Next Business Day Onsite (M-F 8AM-6PM)
Power Requirements: 100-127 VAC
Operating Temperature: 50 to 104 degrees F 10 to 40 degrees C
Operating Humidity: Operating Humidity: 20% to 80%

Basis of Payment: This work will be paid for at the contract unit price per each for TAPE BACKUP UNIT which price shall be payment in full for all labor, materials, and equipment required to provide the tape backup unit and accessories, install it at the location specified on the plan sheets, and configure it for use with the proposed hardware.

NETWORK SECURITY APPLIANCE

The Contractor shall furnish, install, and configure a network security appliance at the location shown on the proposed ATMS Network Schematic.

The network security appliance shall be configured to provide security between the ITS network and the internet. The firewall shall be a Juniper SSG 140 or approved equal.

The firewall shall be a rack mounted security appliance that meets or exceeds the following minimum specifications:

Maximum Performance and Capacity:

Firewall throughput (large packets): 350+ Mbps; Firewall throughput (IMIX)(2): 300 Mbps; Firewall packets per second (64 byte): 100,000 PPS; Advanced Encryption Standard: (AES)256+SHA-1 VPN throughput 100 Mbps, 3DES encryption +SHA-1 VPN throughput 100 Mbps; Maximum concurrent sessions: 32,000; New sessions/second: 8,000; Maximum security policies: 500; Maximum users supported: Unrestricted; 512 MB DRAM

Network Connectivity:

Fixed I/O: 8x10/100, 2x10/100/1000; Physical Interface Module (PIM) slots: 4; Modular WAN/LAN interface options: (PIMs/uPIMs) 2xT1, 2xE1, 2xSerial, 1xISDN BRI S/T, SFP, 10/100/1000 (Firewall must be equipped with all required network connectivity modules)

Firewall:

Network attack detection; DoS and DDoS protection; TCP reassembly for fragmented packet protection; Brute force attack mitigation; SYN cookie protection; Zone-based IP spoofing; Malformed packet protection

Unified Threat Management:

IPS (Deep Inspection firewall); Protocol anomaly detection; Stateful protocol signatures; IPS/DI attack pattern obfuscation; Antivirus Signature database: 200,000+; Protocols scanned: POP3, HTTP, SMTP, IMAP, FTP, IM; Integrated Anti-spyware; Integrated Anti-adware; Anti-keylogger; Instant message AV; Anti-spam; Integrated URL filtering; External URL filtering

Voice over IP (VoIP) Security:

H.323. Application-level gateway (ALG); SIP ALG; MGCP ALG; SCCP ALG; Network Address Translation (NAT) for VoIP protocols

IPSec VPN:

Concurrent VPN tunnels: 125; Tunnel interfaces: 50; DES encryption (56-bit); 3DES encryption (168-bit) and AES (256-bit); MD-5 and SHA-1 authentication; Manual key; Internet Key Exchange (IKE); public key infrastructure (PKI) (X.509); Perfect forward secrecy (DH Groups) 1,2,5; Prevent replay attack; Remote access VPN; Layer 2 Tunneling Protocol (L2TP) within IPSec; IPSec Network Address Translation (NAT) traversal; Auto-Connect VPN; Redundant VPN gateways

User Authentication and Access Control:

Built-in (internal) database (250 user limit); Third-party user authentication: RADIUS, RSA SecureID, LDAP; RADIUS Accounting (start/stop); XAUTH VPN authentication; Web-based authentication; 802.1X authentication; Unified Access Control (UAC) enforcement point

PKI Support:

PKI certificate requests (PKCS 7 and PKCS 10); Automated certificate enrollment (SCEP); Online Certificate Status Protocol (OCSP); Certificate Authorities supported: Verisign, Entrust, Microsoft, RSA Keon, iPlanet (Netscape) Baltimore, DOD PKI, Self signed certificates

Virtualization:

Maximum number of security zones: 40; Maximum number of virtual routers: 3 Bridge groups; Maximum number of VLANs 100

Routing:

BGP instances: 2; BGP peers: 4; BGP routes: 2,048; OSPF instances: 2; OSPF routes: 2,048; RIPv1/v2 instances: 2; RIP v2 routes: 2,048; Static routes: 2,048; Source-based routing; Policy-based routing; Equal-cost multipath (ECMP); Multicast; Reverse Forwarding Path (RFP); Internet Group Management Protocol (IGMP) (v1, v2); IGMP Proxy; Protocol Independent Multicast (PIM) single mode; PIM source-specific multicast; Multicast inside IPsec tunnel

Encapsulations:

Point-to-Point Protocol (PPP); Multilink Point-to-Point Protocol (MLPPP); MLPPP max physical interfaces: 8; Frame relay; Multilink Frame Relay (MLFR) (FRF 15, FRF 16); MLFR max physical interfaces: 8; HDLC

Mode of Operation:

Layer 2 (transparent) mode; Layer 3 (route and/or NAT) mode

Address Translation:

Network Address Translation (NAT); Port Address Translation (PAT); Policy-based NAT/PAT; Mapped IP (MIP) 1,000; Virtual IP (VIP) 16; MIP/VIP Grouping

IP Address Assignment:

Static; Dynamic Host Configuration Protocol (DHCP); Point-to-Point Protocol over Ethernet (PPPoE) client ; Internal DHCP server; DHCP relay

Traffic Management Quality of Service (QoS):

Guaranteed bandwidth (per policy); Maximum bandwidth (per policy); Ingress traffic policing; Priority-bandwidth utilization; Differentiated Services marking (per policy)

High Availability (HA):

Active/active*; Active/passive; Configuration synchronization; Session synchronization for firewall and VPN; Session failover for routing change; Device failure detection; Link failure detection; Authentication for new HA members; Encryption of HA traffic

System Management:

WebUI (HTTP and HTTPS); Command line interface (console); Command line interface (telnet); Command line interface (SSH - v1.5 and v2.0 compatible); NetScreen-Security Manager; All management via VPN tunnel on any interface

Administration:

Local administrator database size: 20; External administrator database support: RADIUS, RSA SecureID, LDAP; Restricted administrative networks: 6; Root Admin, Admin, and Read Only user levels; Software upgrades TFTP, WebUI, NSM, SCP, USB, Configuration roll-back

Logging/Monitoring:

System log (multiple servers – up to 4 servers); Email (2 addresses); NetIQ WebTrends; SNMP (v2); SNMP full custom MIB; Traceroute; VPN tunnel monitor

External Flash:

Additional log storage (USB); Event logs and alarms; System configuration script; ScreenOS Software

Additional Services Required:

Three year antivirus, web filtering, anti-spam, and IPS subscription; 2 Port T1 PIM with integrated CSU/DSU, all other items required for firewall installation and configuration

Basis of Payment: This work will be paid for at the contract unit price per each for NETWORK SECURITY APPLIANCE which price shall be payment in full for all labor, materials, and equipment required to provide the network security appliance and accessories, install it at the location specified on the plan sheets, and configure it for use with the proposed hardware and software.

FIBER OPTIC DROP AND REPEAT SWITCH

The Contractor shall furnish and deliver fiber optic Ethernet drop and repeat switches (material only) to the Department.

The Contractor shall supply a total of two single mode fiber and two multimode fiber switches.

The switches shall meet or exceeds the following minimum specifications:

Approved Models: IFS Model D7420WDM (multimode fiber) and IFS Model D7420WDM (single mode fiber) or approved equal.

LAN:

- 10/100 Mbps
- Auto-Negotiating, 10/100 Selectable
- Auto Network Detection MDI/MDI-X
- Relay Output for Network Communication Failure Notification
- Power, Transmit and Receive Data Status LED Indicators
- Hot-Swappable Modules

Fiber Optic:

- Optical Fiber: 62.5/125 micron multimode, 9/125 micron single mode fiber
- Optical Wavelength: 1310nm/1550nm
- ST Optical Connectors
- Data transmission over one multi-mode fiber utilizing wave division multiplexing
- Optical Power Budget: 10 dB
- Maximum Distance: 6.2 miles (10Km)

Electrical:

- 120 VAC (internal or external power supply) and self-setting over-current protection shall be included
- Stand alone enclosure for rack mounted modules.

Environmental:

- Operating Temperature: -40 to 70 degrees C
- Relative Humidity: 0-95% non-condensing

Testing and Compliance:

- Tested and Certified by an Independent Testing Laboratory for Full Compliance with the Environmental Requirements (Ambient Operating Temperature, Mechanical Shock, Vibration, Humidity with Condensation, High-Line/Low-Line Voltage Conditions and Transient Voltage Protection) of NEMA TS-1/TS-2 and the Caltrans Specification for Traffic Signal Control Equipment.
- IEEE 802.3 Compliant

Basis of Payment: This work will be paid for at the contract unit price per each for FIBER OPTIC ETHERNET DROP AND REPEAT SWITCH (MATERIAL ONLY) which price shall be payment in full for all labor, materials, and equipment required to provide the fiber optic Ethernet switch and deliver it to the IDOT ITS Equipment Room.

ETHERNET SWITCH

The Contractor shall furnish, install, and configure Ethernet switches at the following locations:

- IDOT ITS Equipment Room
- City of Peoria Department of Public Works (Dries Lane)

The Contractor shall remove the existing Extreme Networks Summit 200 Ethernet switches return them to the Department. The Contractor shall configure the proposed switches for use in the ITS Network.

The Ethernet switch shall be an Extreme Networks Summit X450-24t equipped with dual 40km LX Mini GBICS, SFP SMF 1000BaseLX LC Connectors, and Extreme Advanced Edge software that meets the following specifications:

General Specifications

Switching Throughput:

- Bandwidth, Gbps: non-blocking
- 160 Gbps

Forwarding Rate:

- 65 Mpps million packets/second
- Max Packet Size: 9216 byte

Ports:

- 24 RJ-45 10/100/1000BASE-T with auto-speed and auto polarity
- 4 SFP (mini-GBIC, shared PHY with 4 10/100/1000BASE-T ports)
- 1 Serial Port (control port)
- 1 10/100BASE-T out-of-band management port

General:

- Number of QoS queues/port: 8
- Number of VLANs: 4096
- VLAN Types: Port, IEEE 802.1Q, and MAC-based Number of ACL Rules/lines: 3072 (can be applied to either ingress or egress)

Forwarding Tables:

- Layer 2/MAC addresses: 16K
- Layer 3 LPM Entries: 1K
- Layer 3 Interfaces: 512
- OSPF External Routes:>100K

Rate Limiting:

- Ingress bandwidth policing/rate limiting: packets are classified after Ingress into flows using ACLs and a rate limiter is assigned to a given flow
- Rate Limiting Granularity: 64Kbps (1Mbps on 10 gigabit port)
- Available Rate Limiters: 128 per port

Physical Specifications:

- Height: 1.73 inches/4.4 cm (Nominal)
- Width: 17.4 inches/44.1 cm (Nominal)
- Depth: 16.4 inches/41.6 cm (Nominal)
- Weight: 14lbs/6.35kg
- Operating Temperature Range - 0°C to 40°C (32°F to 104°F)
- Storage Temperature Range - Degrees/Degrees Celsius: -40°C to +70°C (-40°F to 158°F)
- Humidity Range: 10-95% (RH) non-condensing

Power:

- Min Voltage/Associated Current: 100VAC/4A
- Max Voltage/Associated Current: 240VAC/2A
- Heat Dissipation, 160Watts (546BTU/hr)

Acoustic:

- 51 dBA – Sound Pressure

Management Features:

- Serial management port on the front panel for ease of installation
- Extensive management through SNMP, RMON and CLI
- Secure remote management with strong encryption using SSH2
- Port mirroring

Software Features

QOS:

- 8 priority queues
- 802.1p priority marking
- Layer 2 classification
- Layer 3 DiffServ

Routing:

- RIP v1/v2
- OSPF v2

Multicast:

- IGMP v1/v2/v3
- IGMP snooping

- PIM-SM
- Ethernet Automatic Protection Switchingedge (EAPS-edge)
- Network Address Translation
- Multicast VLAN registration

Security:

- Network Login
- 802.1x
- Web-based Network Login
- SSH2 server
- Layer 2/3/4 ACLs
- DoS
- RADIUS support
- TACACS+ support
- MAC Address Security (lockdown + limit)
- IP Address Security: Disable ARP learning
- Management Security: SNMPv3, SSH2-client, SCP/SFTP
- DoS Protect
- IP Address Security: DHCP Option 82

Resiliency:

- Software Redundant Port
- ESRP (in Advanced Edge license)
- VRRP (in Advanced Edge license)
- Loop detection via Lbdetect and ELRP CLIEAPS
- STP: 802.1w Rapid Spanning Tree
- STP: Compatibility mode for PVST+, EMISTP (1 domain per port)

Extensibility and Scalability:

- Static Multicast Routes
- Multicast: static IGMP membership
- LACP for edge deployment (server connectivity)
- Stacking

Software Support Agreement:

- Two year agreement

Basis of Payment: This work will be paid for at the contract unit price per each for ETHERNET SWITCH which price shall be payment in full for all labor, materials, and equipment required to provide the Ethernet switch complete with software, and accessories, install it at the locations listed above, and configure it for use with the ITS network.

ETHERNET SWITCH (MATERIAL ONLY)

The Contractor shall furnish and deliver an Ethernet switches to the Department.

The Ethernet switch shall be an Extreme Networks Summit X450-24t equipped with dual 40km LX Mini GBICS, SFP SMF 1000BaseLX LC Connectors, and Extreme Advanced Edge software that meets the specifications listed in the pay item ETHERNET SWITCH.

Basis of Payment: This work will be paid for at the contract unit price per each for ETHERNET SWITCH (MATERIAL ONLY) which price shall be payment in furnishing the Ethernet switch complete with software, and accessories and delivering it to the Department.

CARD CAGE CHASSIS

The Contractor shall furnish a card cage chassis (material only) and deliver it to the Department.

The card cage chassis shall be a Coretec model R-12 and conform to the following minimum specifications:

Enclosure:

Dimensions: 19" W x 15" L x 6.9" H (4 RU)
Accommodates 12 modules

Power Supply:

Input Voltage Range :	85-264 VAC @ 47-63 Hz
DC Output Voltage :	12 volts
Rated Output Current:	16.7 A
Rated Output Power:	200 Watts
AC Current:	2.8A @ 115 VAC, 1.4A @ 230 VAC
Line Regulation:	0.5%
Load Regulation:	0.5%
Operating Temperature:	-20C to +70C

Basis of Payment: This work will be paid for at the contract unit price per each for CARD CAGE CHASSIS which price shall be payment in full for all labor, materials, and equipment required to provide the card cage chassis and deliver it to the Department.

DIGITAL VIDEO ENCODER

The Contractor shall furnish a video encoder and deliver it to the Department.

Video Encoder:

The video encoder shall be a Coretec Model VCX2400-E-R (or approved equal) for integration with the existing ITS system.

The video encoder shall meet or exceed the following minimum specifications:

Input Power:

110 VAC, 60 Hz

Compression:

MPEG II, variable frame rate and resolution, D1 720hx480v NTSC
Frame Rate: 30 fps

Inputs:

Video: NTSC Composite
Data/Status: RS-232/422/485
Data Rate: to 38.4 kbps

Outputs:

Video and Status: EIA-530 at DS-1 rate

Connectors:

Video: BNC
Status/Control: DB-25, RJ-45

Network Parameters:

Data Rate: 1.0 to 8.0 Mbps
Ethernet: RJ-45
Interface: 10/100 Base T
Protocols: UDP, IP, IGMP, Multicast

Environmental:

Temperature: -20°C to +70°C
Humidity: 0-95% non-condensing

Basis of Payment: This work will be paid for at the contract unit price per each for VIDEO ENCODER which price shall be payment in full for all labor, materials, and equipment required to provide the video encoder described above and deliver it to the Department.

VIDEO SERVER

The Contractor shall furnish, install, and configure a video server for use with the ATMS software and web server.

The video server shall be an Axis Video Server Rack equipped with eight Video Server Blade Modules (Model 241Q) and one spare power supply or approved equal that meets the following specifications:

Video Server Rack Specifications:

Hardware & System: Aluminum rack, 19" / 3U
Available slots: 12 (support hot swap)

Connections: Video: Analog video input/s (BNC)1
Power: 100-240 VAC, 50/60 Hz, 1.6 A

Each slot contains the following connectors on the rear of the rack:

Network: 10Base-T/100Base-TX Ethernet networks (RJ-45)
Serial communication: RS-232 & RS-485 (terminal block)
I/O: alarm inputs and outputs (terminal block)2

Operating Conditions: Temp: 5°C - 50°C (41°F-122°F)3
Humidity: 20 – 80% RHG

Dimensions and Weight: Height: 132 mm (5.2")
Width: 482 mm (19.0")
Depth: 300 mm (11.8")

Video Server Blade Module Specifications:

Inputs: Four video channels

Video compression: Motion JPEG
MPEG-4 Part 2 (ISO/IEC 14496-2), Profiles: ASP and SP

Resolutions: 4CIF, 2CIFExp, 2CIF, CIF, QCIF
max 704x480 (NTSC) 704x576 (PAL)
min 160x120 (NTSC) 176x144 (PAL)

Frame rate(NTSC/PAL): Motion JPEG: Up to 30/25 fps at 4CIF (1 channel)
30/25 fps at CIF (4 channel)
MPEG-4: Up to 30/25 fps at 2CIF (1 channel)
21/17 fps at 4CIF (1 channel)
20/17 fps at CIF (4 channel)

Video streaming: Simultaneous Motion JPEG and MPEG-4
Controllable frame rate and bandwidth
Constant and variable bit rate (MPEG-4)

Image settings:	Compression levels: 11 (Motion JPEG) /23 (MPEG-4) Rotation: 90°, 180°, 270° Aspect ratio correction Color: color, black & white Overlay capabilities: time, date, text, image or privacy mask De-interlace filter
Security:	Multiple user access levels with password protection, IP address filtering, HTTPS encryption, IEEE 802.1X authentication.
Alarm and event management:	Events triggered by video motion detection, external inputs, audio detection, PTZ presets, product restart, video loss, or according to a schedule, Image upload over FTP, email, HTTP Notification over TCP, email, HTTP, external outputs Pre- and post alarm buffer of 9 MB per channel (approx. 4 min of CIF resolution video at 4 frames per second)
Pan/Tilt/Zoom:	Wide range of analog PTZ cameras supported 20 presets/camera, Guard tour, PTZ control queue Supports Windows compatible joysticks
Connectors:	Analog composite video, NTSC/PAL autosensing inputs: 4 BNC inputs Ethernet 10BaseT/100BaseTX, RJ-45 Terminal block: 4 alarm inputs, 4 alarm outputs, RS-485/422 half duplex port, alternative power connection D-Sub for RS-232 port
Processors and memory:	CPU: ETRAX 100LX 32bit Video processing and compression: ARTPEC-2 RAM: 64MB (241Q), 32 MB (241S) Flash: 8 MB Battery backed up by real-time clock
Power:	7-20 V DC, max 8W
Operating conditions:	5-50 °C (41-122 °F) Humidity 20-80% RH (non-condensing)

Installation, management and maintenance	Web-based configuration Configuration of backup and restore Firmware upgrades over HTTP or FTP
Video access from Web browser:	Camera live view for up to 20 clients Video recording to file (ASF), Sequence tour for up to 20 PTZ presets or external Axis video sources Customizable HTML pages
System integration support:	Open API for application integration, event trigger data in video stream, embedded scripting Quality of Service (QoS) Layer 3, DiffServ Model Watchdog ensures continuous operation, event notifications can be monitored by other systems Embedded Linux operating system
Supported protocols:	IPv4/v6, HTTP, HTTPS, SSL/TLS*, TCP, QoS, SNMPv1/v2c/v3 (MIB-II), RTSP, RTP, UDP, IGMP, RTCP, SMTP, FTP, ICMP DHCP, UPnP, Bonjour, ARP, DNS, DynDNS, SOCKS, IEEE802.1X.

Basis of Payment: This work will be paid for at the contract unit price per each for VIDEO SERVER which price shall be payment in full for all labor, materials, and equipment required to provide the video server and accessories, install it in the ITS Equipment Room, and configure it for use with the proposed hardware and software.

UNINTERRUPTABLE POWER SUPPLY

The Contractor shall furnish, install, and configure uninterruptible power supplies.

The uninterruptible power supply shall be a rack mounted APC Smart-UPS 1500VA with USB & Serial Management Ports or approved equal and shall meet the following specifications:

Output:

Output Power Capacity:	980 Watts / 1440 VA
Max Configurable Power:	980 Watts / 1440 VA
Nominal Output Voltage:	120V
Efficiency at Full Load:	95%
Output Voltage Distortion:	Less than 5% at full load

Output Frequency (sync to mains): 57 - 63 Hz for 60 Hz nominal
Crest Factor: up to 5 : 1
Waveform Type: Sine wave
Output Connections: (6) NEMA 5-15R

Input:

Nominal Input Voltage: 120V
Input Frequency: 50/60 Hz +/- 3 Hz (auto sensing)

Input Connections: NEMA 5-15P
Input voltage range for main operations: 82 - 144V
Input voltage adjustable range for mains operation: 75 - 154V

Batteries and Runtime:

Battery Type: Maintenance-free sealed Lead-Acid battery with suspended electrolyte : leakproof
Typical recharge time: 3 hour(s)
Typical Backup Time at Half Load: 26.5 minutes (490 Watts)
Typical Backup Time at Full Load: 7.4 minutes (980 Watts)

Communications and Management:

Network Management Module UPS shall be equipped with a Network Management Module (APC9617 or equivalent) that has the following features: 10/100 BaseT connection, Authentication, Boot-P, support Browser accessible, Compatible with Smart-Slot enabled UPSs, Data logging, E-mail notification, Encryption, Enterprise management system compatible, Event logging, Fault notification, Flash upgradeable firmware, Integrates with InfraStruXure, Central IP-enabled, Local LED status, Mass Configuration, MD5 authentication, security Password, Security, Radius support, Remote administration, Run command file, Secure communications, Server shutdown of N+1 UPS, SNMP management, SSH System Event Log Integration, Telnet management

Interface Port(s): DB-9 RS-232, USB
Control panel: LED status display with load and battery bargraphs and On Line : On Battery : Replace Battery : and Overload Indicators

Audible Alarm: Alarm when on battery : distinctive low battery
alarm : configurable delays

Surge Protection and Filtering:

Surge energy rating: 459 Joules
Filtering: Full time multi-pole noise filtering : 0.3% IEEE
surge let-through : zero clamping response time :
meets UL 1449

Physical:

Maximum Height: 3.50 inches (89 mm)
Maximum Width: 17.00 inches (432 mm)
Maximum depth: 18.00 inches (457 mm)
Rack Height: 2U
Net Weight: 63.00 lbs. (28.64 kg)
Mounting: Equipped with Sliding Rails

Environmental:

Operating Environment: 32 - 104 °F (0 - 40 °C)
Operating Relative Humidity: 0 - 95%
Audible noise at 1 meter from surface of unit: 46 dBA
Online Thermal Dissipation: 171.00 BTU/hr

Conformance:

Regulatory Approvals: CSA,FCC Part 15 Class A,UL 1778

Basis of Payment: This work will be paid for at the contract unit price per each for UNINTERRUPTABLE POWER SUPPLY which price shall be payment in full for all labor, materials, and equipment required to provide uninterruptible power supply, install it at the locations shown in the plans, and configure it for use with the proposed hardware and software.

KVM SWITCH

The Contractor shall furnish a KVM switch (material only) and deliver it to the Department.

The KVM switch shall be a Cables To Go 4-Port VGA, USB And PS2 KVM Switch With Cables or approved equal that meets the following specifications:

LEDs: 4 Port LEDs
Audio Ports: None
Console Connections: 1

Computer Connections:	4
Keyboard Port Type:	USB, PS/2
Mouse Port Type:	USB, PS/2
Monitor Port Type:	VGA (15-Pin D-Sub)
Integrated KVM Cable:	No
Power Supply Type:	Draws Power from PS/2 Port Draws Power from USB Port
Port Selection:	Push Button, Hotkeys
Monitor Resolution Support:	Up to 2048 x 1536
Shared USB Ports	3 (Switched Between Computers)

Basis of Payment: This work will be paid for at the contract unit price per each for KVM SWITCH which price shall be payment in full for all labor, materials, and equipment required to provide the KVM switch and deliver it to the Department.

REMOTE POWER MANAGEMENT UNIT

The Contractor shall furnish a remote power management unit (material only) and deliver it to the Department.

The intelligent remote power management unit shall be a Para Systems (Minuteman), model RPM1601 or approved equal that meets the following specifications:

Features:

- “Smart” telephone interface allows failsafe rebooting from any telephone (cell or land line, no modem needed)
- Network administrators can configure and control RPM units through standard Web browsers using a single network IP address
- RPM technology accommodates most network and security protocols
- “Daisy-chain” as many as 15 additional RPM client nodes to each RPM master unit
- Unit allows control of individual outlets (eight 5-15 Receptacles)
- Built-in surge, spike protection, and EMI/RFI filtering

Specifications:

Smart Telephone Call-in Function	Yes
Net Control / Support	HTTP Server & SNMP Agent TCP/IP, MIBS
Dimensions H X W X D	1.75 X 17 X 6.5 Inches
Net Weight / Ship Weight	9 lbs / 10 lbs

Input Connection	NEMA 5-15P (IEC 320 P)
Output Receptacle Qty / Type	8 each NEMA 5-15R (IEC 320 R)
LAN Connection / Driver console Connection / Driver	RJ45 / Ethernet, DB9 / PPP + Dial-In / USB / USB Driver
2nd RPM Connection (Daisy Link Connection)	RJ11, RS232 Connect Up To 15 Additional Switches
Ring On / Reset / Off	Yes
Nominal / Input Voltage Range	115 VAC Nominal / Range 85 - 145 VAC (230 VAC Nominal / range 170 - 290 VAC)
Input Frequency	43-66 Full Range
Maximum Output	15 Amps 30 Amps
Input Protection	15 Amp Circuit Breaker
Spike / Surge Protection	IEC 801-2, 801-3,801-4,801-5
Safety / EMI Compliance	UL, CSA FCC Class B (VDE FCC CLASS B)
Testing Standards	IEEE / ANSI C62.45
Operating Temperature	0 To 40 degrees C
Storage Temperature	-15 To 50 degrees C
Relative Humidity	0-95 % Non-Condensing
Altitude	3,000 m (10,000 ft.) Without Derating

Basis of Payment: This work will be paid for at the contract unit price per each for REMOTE POWER MANAGEMENT UNIT which price shall be payment in full for all labor, materials, and equipment required to provide KVM switch and deliver it to the Department.

EQUIPMENT CABINET

The Contractor shall furnish a locking server cabinet and install it at the Dries Lane facility.

The Vender shall provide all labor, equipment, and materials required to remove the existing equipment rack located at Dries Lane and replace it with the proposed equipment rack, including relocating all equipment from the existing rack and installing it in the proposed rack. The Contractor shall coordinate with the Department prior to commencing work to minimize service disruptions.

The server cabinet shall be an APC NetShelter SX AR3100 42U rack or approved equal that meets the following specifications:

The cabinet shall be furnished with the following items:

- 19" Sliding Keyboard Tray – Qty. 2
- 19" Fixed Shelf – Qty. 2
- Roof Fan Tray (440 CFM, Audible Noise at 1 meter from surface of unit: 51.00 dBA, 120V) – Qty. 1
- 17" keyboard with built-in track-ball or touch-pad – Qty. 1

Features:

- Adjustable front vertical mounting rail
- Adjustable mounting depth
- Cable access
- Casters
- Deep form factor (42"/1070mm)
- Door ventilation exceeds 830 in² (5355 cm²)
- Expanded cable management (facilitates overhead cable management, facilitates overhead power distribution, facilitates rear/vertical cable management)
- Leveling feet
- Lockable doors and side panels
- Multi-contractor equipment compatibility
- Numbered u positions
- Protective grounding provisions
- Quick release doors
- Quick release side panels
- Removable doors and side panels
- Reversible doors
- Split rear doors
- Tool-less mounting
- UBC zone 4 stabilization provisions
- Ventilated doors with scalable cooling options
- Vertical mounting rails with square holes

Specifications:

Physical Specifications:

Maximum Height:	1991.00 mm
Maximum Width:	600.00 mm
Maximum Depth:	1070.00 mm
Net Depth with Stabilizing Feet:	1278.00 mm
Weight Capacity (static load):	1363.64 KG
Weight Capacity (dynamic load):	1022.73 KG
Minimum Mounting Depth:	191.00 mm
Maximum Mounting Depth:	934.00 mm
Rack Height:	42U
Color:	Black
Vertical Posts:	16 gauge
Front Door:	16 gauge
Rear Door:	18 gauge
Roof:	18 gauge
EIA Mounting Rails:	14 gauge
Side Panels:	18 gauge

1.0 General Requirements

1.1 The unit shall be designed to provide a secure, managed environment for server and networking equipment. The unit shall be equipped with locking front and rear doors.

1.2 The unit shall conform to EIA-310 Standard for Cabinets, Racks, Panels and Associated Equipment and accommodate industry standard 19" rack mount equipment.

1.3 The unit shall be designed with four (4) vertical posts to allow rack mount equipment installation utilizing four (4) vertical mounting rails.

1.4 The unit shall be available with a vertical equipment mounting space of 42U (1U=1.75" or 44.45mm).

1.5 The unit shall be available to order with one part number configured with all enclosure components pre-assembled.

2.0 Physical Specifications

2.1 Enclosure dimensions, rack mounting compatibility and weight load ratings:

Internal Height	EIA-310	External Height	External Width	External Depth	Static Rating	Dynamic Rating
42U	19"	1991mm (78.40")	600mm (23.62")	1070mm (42.13")	1364kg (3000lbs)	1023kg (2250lbs)

2.2 The unit shall have exterior maximum height measurement of 1991mm (78.40") to allow passage through a standard 2 Meter or 7 Ft. (84") doorway without tipping.

2.3 The unit shall support a static load (weight supported by the casters and leveling feet) of at least 1,364 kg. (3,000 lbs.) total installed equipment weight.

2.4 The unit shall support a dynamic load (rolling on the casters) of at least 1,023 kg. (2,250 lbs.) total installed equipment weight.

2.5 The unit shall ship with a perforated front door, perforated split rear doors, left and right two-piece solid side panels, tool-less roof, four (4) vertical frame posts, four (4) adjustable vertical mounting rails, two (2) vertical PDU mount cable organizers, four (4) leveling feet and four (4) casters, pre-installed by the manufacturer.

2.6 The unit shall ship with baying hardware pre-installed by the manufacturer.

2.6.1 Baying brackets must provide two sets of mounting holes for standard enclosure spacing of 24" or 600 mm.

2.7 The unit shall ship with grounding hardware pre-installed by the manufacturer.

3.0 Equipment Access & Mounting

3.1 The unit shall provide 42U of equipment vertical mounting space.

3.2 The vertical mounting rails shall be easily adjustable to allow different mounting depths.

3.2.1 The vertical mounting rails shall have a second set of EIA mounting holes perpendicular to the primary mounting holes to allow devices to be mounted in the side channel.

3.2.2 Each vertical mounting rail shall be marked on both sides with lines showing the top and bottom of each U and the number U space next to the middle hole. Each U consists of three square holes and is 1.75 inches (44.45 mm) high.

3.3 The unit shall include at least 60 sets of M6 caged nuts, bolts and cup washers, and caged nut tool for the mounting of equipment inside the unit.

3.3.1 The manufacturer shall offer an optional hardware kit containing additional M6 caged nuts, screws and cup washers.

3.4 Both the front and rear doors shall be designed with quick release hinges allowing for quick and easy detachment without the use of tools.

3.4.1 The front and rear doors shall open a minimum of 130 degrees to allow easy access to the interior.

3.4.2 The front door of the unit shall be reversible so that it opens from either side.

3.4.3 Split rear doors are provided for increased service clearance.

3.4.4 The front door of the unit shall be capable of being installed on the rear of the unit, and the rear doors shall be capable of being installed on the front of the unit.

3.5 The unit shall include two-piece removable side panels that are removed without tools using easy finger latches for fast access to cabling and equipment.

3.5.1 The side panels on the unit shall double as privacy panels when the units are bayed together

4.0 Material Requirements

4.1 All weight bearing components shall be constructed from steel with a thickness no less than 0.9mm (20 gauge).

4.2 All metal parts shall be painted using a powder coat paint process.

4.3 Plastic materials shall comply with Underwriters Laboratory Specification 94 with V-1 rating (UL94 V-1) or better.

5.0 Grounding Requirements

5.1 All enclosure panels and rack-mounted equipment shall be inherently earthed or grounded directly to the frame.

6.0 Environmental Requirements

6.1 The unit shall have a minimum of IP 20 rating for protection against touch, ingress of foreign bodies, and ingress of water.

7.0 Safety Requirements

7.1 The enclosure shall both protect the user from mechanical hazards and generally meet the requirements for a mechanical enclosure (stability, mechanical strength, aperture sizes, etc.) as defined in IEC 60950 Third Edition.

8.0 Ventilation

8.1 The unit shall provide adequate ventilation to provide airflow required by the major server manufacturers.

8.2 The unit shall provide a minimum total ventilation area for the front door, split rear doors, and roof as specified below:

Internal Height	External Width	External Depth	Perforated Front Door	Perforated Rear Doors
42U	600mm (23.62")	1070mm (42.13")	5930 cm ² (919 in ²)	6689 cm ² (1036 in ²)

8.3 The unit shall provide the means to mount an optional fan-tray in the roof of the unit and other cooling accessories for high-density.

8.4 The manufacturer shall offer an optional tool-less blanking panel kit to prevent the recirculation of hot exhaust air.

8.5 The manufacturer shall offer an optional air baffle kit to prevent the recirculation of hot exhaust air.

9.0 Cable Management

9.1 The unit shall have clearance for wiring access of at least 3" between the inside surface of the front door and front mounting face of the vertical mounting rails.

9.2 The unit shall have clearance for wiring access of at least 1.5" between the side panel and the vertical mounting rails.

9.3 Top cable management openings provided in the enclosure roof:

Internal Height	External Width	External Depth	Openings Located on Roof	Opening with Roof Removed
42U	600mm (23.62")	1070mm (42.13")	Two 75mm (2.96") x 644mm (1.64"), One 240mm (9.45") x 92mm (3.61"), and Five 71mm (6.75") x 54mm (2.14") Rectangular Openings	567mm (22.31") x 892mm (35.10")

9.3.1 The five 171mm (6.75") x 54mm (2.14") rectangular roof cable management openings are protected with plastic grommets and caps preinstalled by the manufacturer.

9.4 Bottom cable management opening provided in the enclosure base:

Internal Height	External Width	External Depth	Main Base Opening
42U	600mm (23.62")	1070mm (42.13")	567mm (22.31") x 831mm (32.71")

9.5 Side cable management openings provided in the vertical PDU mount cable organizers:

Internal Height	External Width	External Depth	Side Cable Management Openings
42U	600mm (23.62")	1070mm (42.13")	Two 61mm (2.4") x 55mm (2.16") and Four 61mm (2.4") x 200mm (7.88") Rectangular Openings on each Side

10.0 Security

10.1 The unit shall include front door lock, rear door lock and side panel lock that are keyed the same; two keys included.

10.1.1 Replacement key lock cylinders should be available to provide a minimum of 300 unique key combinations on front and rear doors.

10.2 The roof shall not be removable from the interior of the enclosure without tools.

10.3 The manufacturer shall provide optional products and accessories that allow the enclosure environment to be monitored for temperature, humidity, and door access.

10.4 The unit shall have mounting provisions for optional door alarm switch to monitor access to the enclosure doors.

11.0 Stabilization

11.1 The unit shall ship with provisions for adding stabilization in the field.

11.2 The manufacturer shall have optional stabilizer plate kit, consisting of a plate, and mounting hardware that can be attached to the enclosure frame, and that can be bolted to the floor.

11.2.1 The unit shall have mounting provisions for the stabilizer plate on the front and rear (on the interior or exterior) of the unit.

11.3 The manufacturer shall have optional bolt down brackets, consisting of four (4) brackets and mounting hardware that attach to the enclosure frame on the front and rear (on the interior or exterior), and which must be anchored to the sub-floor for compliance with the local Uniform Building Code (UBC).

11.4 The manufacturer should supply structural calculations by a professionally registered engineering firm showing compliance with the local UBC for floor anchoring.

11.5 The unit shall have four (4) adjustable leveling feet to help provide a stable base in the event of an uneven floor surface and to prevent rolling.

12.0 Packaging

12.1 The unit shall ship on a wooden pallet. Optional packaging should be available for shipping racks with 1250 lbs and 2000 lbs of installed equipment.

12.2 The unit shall be bolted to the wooden pallet for stability during shipment.

12.3 The unit shall be protected by corrugated corners, which are stretch-wrapped to limit damage during handling.

12.4 The unit shall have a "damage report" sticker on the outside of the packaging which instructs customers to call a toll-free customer support number to resolve possible shipping damage issues.

13.0 Delivery & Installation

13.1 The unit shall be shipped fully assembled as one orderable SKU.

13.2 The manufacturer shall offer an inside-delivery shipping option which includes reasonable delivery to the inside of a customer's building and removal and disposal of shipping material and packaging.

13.3 The unit shall roll through a standard 2 meter or seven (7) foot office doorway.

14.0 Miscellaneous

14.1 The unit shall include free configuration software, available separately from the manufacturer, which enables customers to graphically populate the unit with network equipment, calculate BTU's and power draws, and print out a list of required accessories.

14.2 The unit shall be available pre-configured with the equipment and accessories offered from the unit's manufacturer for an additional flat charge.

15.0 Warranty

15.1 The manufacturer shall warrant the unit to be free from defects in materials and workmanship for a minimum period of five years from the date of purchase. The manufacturer's obligation under this warranty shall be to repair or replace the unit, at its own sole option. This warranty shall not apply to equipment that has been damaged by accident, negligence, or misapplication or has been altered or modified in any way.

15.2 The manufacturer shall warrant all accessories and options to be free from defects in materials and workmanship for a minimum period of two years from the date of purchase. The manufacturer's obligation under this warranty shall be to repair or replace the equipment, at its own sole option. This warranty shall not apply to equipment that has been damaged by accident, negligence, or misapplication or has been altered or modified in any way.

16.0 Accessories

16.1 *RM LCD Monitor/Keyboard Drawer:* The manufacturer shall offer a 1U high, rack-mounted LCD monitor/keyboard drawer to maximize space in a data center environment.

16.2 *Keyboard Drawers & Keyboards:* The manufacturer shall offer 17" and 19" keyboard drawers, and a 17" keyboard with built-in track-ball or touch-pad.

16.3 *Cooling:* The manufacturer shall offer roof-mounted fan trays, rack-mounted fan trays, door fan modules, and monitoring devices for maintaining a cool environment.

16.3.1 Thermal simulation capabilities should be available to support proposed configurations.

16.5 *Cable Management:* The manufacturer shall offer a variety of cable management accessories to neatly organize the routing of data and power cables within the enclosure.

16.6 *Shelving:* The manufacturer shall offer as optional accessories various fixed and sliding shelves with the ability to support up to 250 lbs of non-rack mount equipment.

16.11 *Stabilization:* The manufacturer shall offer a stabilizer plate kit to be anti-tip device and bolt-down bracket kit for floor anchoring.

Basis of Payment: This work will be paid for at the contract unit price per each for EQUIPMENT CABINET which price shall be payment in full for all labor, materials, and equipment required to provide equipment cabinet, deliver it to the Dries Lane facility, remove the existing equipment rack and equipment, install the proposed rack and existing equipment, deliver the existing rack to the Department, and perform all other items required for installation.

UPGRADE EXISTING ANALOG VIDEO SWITCH

The existing Vicon Matrix 66 analog video switch is upgradeable. It is currently equipped with 32 analog video inputs and 32 analog video outputs.

The Contractor shall upgrade the video switch to provide the following functionality:

- 32 Additional Analog Video Inputs
- 32 Additional Analog Video Outputs

The Contractor shall schedule the video switch upgrade with the Department to minimize disruptions to the system.

Basis of Payment: This work will be paid for at the contract unit price per lump sum for UPGRADE EXISTING ANALOG VIDEO SWITCH which price shall be payment in full for all labor, materials, and equipment required to upgrade and configure the existing video switch as described above, complete.

VIRUS SOFTWARE

The Contractor shall provide comprehensive virus software with licenses for forty workstations, five laptops, and two servers.

The virus software shall include a three year subscription for automatic updates from the internet.

The virus software shall meet or exceed the following minimum specifications:

Active Protection

- Protects from viruses, Trojans and worms
- Blocks spyware and adware
- Scans files in real time (on access) and on demand
- Scans email messages (regardless of email client)
- Scans Internet traffic (regardless of browser)
- Protects instant messengers (ICQ, MSN)
- Provides proactive protection from unknown threats
- Scans Java and Visual Basic scripts

Preventive Protection

- Scans operating system and installed applications for vulnerabilities
- Analyzes and closes Internet Explorer vulnerabilities
- Disables links to malware sites
- Detects viruses based on the packers used to compress code
- Global threat monitoring

Advanced Protection & Recovery

- Program can be installed on infected computers
- Self-protection from being disabled or stopped
- Restores correct system settings after removing malicious software
- Contains tools for creating a rescue disk

Data & Identity Theft Protection

- Disables links to fake (phishing) websites
- Blocks all types of keyloggers

Usability

- Automatic configuration during installation
- Wizards for common tasks
- Visual reports with charts and diagrams
- Alerts provide all the information necessary for informed user decisions
- Automatic or interactive mode
- Round-the-clock technical support
- Automatic database updates

Basis of Payment: This work will be paid for at the contract unit price per lump sum for VIRUS SOFTWARE which price shall be payment in full for all labor, materials, and equipment required to provide the virus software described above, install it on all proposed workstations, laptop computers, and servers, and configure the software to provide maximum functionality and protection, complete.

Acronyms & Definitions

ATMS	Advanced Traffic Management System
ATMS Operator	An operator of the ATMS
ATMS User	A user of published ATMS resources. Typically, this would include a user browsing published CCTV camera snapshot images or published traffic data.
CAD	Computer Aided Dispatch
CATV	Cable Television
CC	Communication Center
CCTV	Closed Circuit Television
CD	Compact Disc
CPU	Central Processing Unit
DVD	Digital Versatile Disc
DLP	Digital Light Projection
DPW	Department of Public Works
DMS	Dynamic Message Sign
ECC	Emergency Communications System
EPPS	East Peoria Public Safety
FTP	File Transfer Protocol
GIS	Geographic Information Systems
GPS	Global Positioning System
GUI	Graphical User Interface: a particular type of user interface used for interacting with a computer which uses graphical images and widgets
HRI	Highway Rail Interface
ID	Identification
IP	Internet Protocol
IP Address	A unique number assigned to a communication equipment that devices use in order to identify and communication with each other on a data communications network using IP
ITS	Intelligent Transportation System

LAN	Local Area Network: a computer network covering a local area like a home, office, or group of buildings
LCD	Liquid Crystal Display
MAC	Media Access Control (see MAC Address)
MAC address	Refers to the physical hardware address assigned to communication equipment by the equipment manufacturer
NTCIP	National Transportation Communications for ITS Protocol
ODBC	Open Database Connectivity
PC	Personal Computer
PDF	Portable Data File
PTZ	Pan/Tilt/Zoom
POTS	Plain Old Telephone Service
RTMS	Remote Traffic Microwave Sensor
RW	Read-Write
SQL	Structured Query Language: a computer language used to create, modify, retrieve, and manipulate data from a relation database
System Administrator	An administrator of the ATMS (IDOT Employee)
System Map	A major visual component of the ATMS. The system map contains highways and major arterials, major landmarks and features, and icons for field equipment and other traffic related information.
UPS	Uninterruptible Power Supply: a device to provide uninterruptible backup power In the event of a loss of primary power
VIPS	Video Image Processing System
WWV	Call letters for the Colorado based NTIS (National Technical Information Service) short wave transmitter that provides a time standard following an atomic clock.
XML	Extensible Markup Language

EQUIPMENT RENTAL RATES (BDE)

Effective: August 2, 2007

Revised: January 2, 2008

Replace the second and third paragraphs of Article 105.07(b)(4)a. of the Standard Specifications with the following:

“Equipment idled which cannot be used on other work, and which is authorized to standby on the project site by the Engineer, will be paid for according to Article 109.04(b)(4).”

Replace Article 109.04(b)(4) of the Standard Specifications with the following:

“(4) Equipment. Equipment used for extra work shall be authorized by the Engineer. The equipment shall be specifically described, be of suitable size and capacity for the work to be performed, and be in good operating condition. For such equipment, the Contractor will be paid as follows.

- a. Contractor Owned Equipment. Contractor owned equipment will be paid for by the hour using the applicable FHWA hourly rate from the “Equipment Watch Rental Rate Blue Book” (Blue Book) in effect when the force account work begins. The FHWA hourly rate is calculated as follows.

$$\text{FHWA hourly rate} = (\text{monthly rate}/176) \times (\text{model year adj.}) \times (\text{Illinois adj.}) + \text{EOC}$$

Where: EOC = Estimated Operating Costs per hour (from the Blue Book)

The time allowed will be the actual time the equipment is operating on the extra work. For the time required to move the equipment to and from the site of the extra work and any authorized idle (standby) time, payment will be made at the following hourly rate: $0.5 \times (\text{FHWA hourly rate} - \text{EOC})$.

All time allowed shall fall within the working hours authorized for the extra work.

The rates above include the cost of fuel, oil, lubrication, supplies, small tools, necessary attachments, repairs, overhaul and maintenance of any kind, depreciation, storage, overhead, profits, insurance, and all incidentals. The rates do not include labor.

The Contractor shall submit to the Engineer sufficient information for each piece of equipment and its attachments to enable the Engineer to determine the proper equipment category. If a rate is not established in the Blue Book for a particular piece of equipment, the Engineer will establish a rate for that piece of equipment that is consistent with its cost and use in the industry.

- b. Rented Equipment. Whenever it is necessary for the Contractor to rent equipment to perform extra work, the rental and transportation costs of the equipment plus five percent for overhead will be paid. In no case shall the rental rates exceed those of established distributors or equipment rental agencies.

All prices shall be agreed to in writing before the equipment is used.”

PAYMENTS TO SUBCONTRACTORS (BDE)

Effective: June 1, 2000

Revised: January 1, 2006

Federal regulations found at 49 CFR §26.29 mandate the Department to establish a contract clause to require Contractors to pay subcontractors for satisfactory performance of their subcontracts and to set the time for such payments.

State law also addresses the timing of payments to be made to subcontractors and material suppliers. Section 7 of the Prompt Payment Act, 30 ILCS 540/7, requires that when a Contractor receives any payment from the Department, the Contractor shall make corresponding, proportional payments to each subcontractor and material supplier performing work or supplying material within 15 calendar days after receipt of the Department payment. Section 7 of the Act further provides that interest in the amount of two percent per month, in addition to the payment due, shall be paid to any subcontractor or material supplier by the Contractor if the payment required by the Act is withheld or delayed without reasonable cause. The Act also provides that the time for payment required and the calculation of any interest due applies to transactions between subcontractors and lower-tier subcontractors and material suppliers throughout the contracting chain.

This Special Provision establishes the required federal contract clause, and adopts the 15 calendar day requirement of the State Prompt Payment Act for purposes of compliance with the federal regulation regarding payments to subcontractors. This contract is subject to the following payment obligations.

When progress payments are made to the Contractor according to Article 109.07 of the Standard Specifications, the Contractor shall make a corresponding payment to each subcontractor and material supplier in proportion to the work satisfactorily completed by each subcontractor and for the material supplied to perform any work of the contract. The proportionate amount of partial payment due to each subcontractor and material supplier throughout the contracting chain shall be determined by the quantities measured or otherwise determined as eligible for payment by the Department and included in the progress payment to the Contractor. Subcontractors and material suppliers shall be paid by the Contractor within 15 calendar days after the receipt of payment from the Department. The Contractor shall not hold retainage from the subcontractors. These obligations shall also apply to any payments made by subcontractors and material suppliers to their subcontractors and material suppliers; and to all payments made to lower tier subcontractors and material suppliers throughout the contracting chain. Any payment or portion of a payment subject to this provision may only be withheld from the subcontractor or material supplier to whom it is due for reasonable cause.

This Special Provision does not create any rights in favor of any subcontractor or material supplier against the State or authorize any cause of action against the State on account of any payment, nonpayment, delayed payment, or interest claimed by application of the State Prompt Payment Act. The Department will not approve any delay or postponement of the 15 day requirement except for reasonable cause shown after notice and hearing pursuant to Section 7(b) of the State Prompt Payment Act. State law creates other and additional remedies

available to any subcontractor or material supplier, regardless of tier, who has not been paid for work properly performed or material furnished. These remedies are a lien against public funds set forth in Section 23(c) of the Mechanics Lien Act, 770 ILCS 60/23(c), and a recovery on the Contractor's payment bond according to the Public Construction Bond Act, 30 ILCS 550.

SUBCONTRACTOR MOBILIZATION PAYMENTS (BDE)

Effective: April 2, 2005

To account for the preparatory work and operations necessary for the movement of subcontractor personnel, equipment, supplies, and incidentals to the project site and for all other work or operations that must be performed or costs incurred when beginning work approved for subcontracting in accordance with Article 108.01 of the Standard Specifications, the Contractor shall make a mobilization payment to each subcontractor.

This mobilization payment shall be made at least 14 days prior to the subcontractor starting work. The amount paid shall be equal to 3 percent of the amount of the subcontract reported on form BC 260A submitted for the approval of the subcontractor's work.

This provision shall be incorporated directly or by reference into each subcontract approved by the Department.

**REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS**

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ATTACHMENTS

- A. Employment Preference for Appalachian Contracts
(included in Appalachian contracts only)

I. GENERAL

1. These contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

2. Except as otherwise provided for in each section, the contractor shall insert in each subcontract all of the stipulations contained in these Required Contract Provisions, and further require their inclusion in any lower tier subcontract or purchase order that may in turn be made. The Required Contract Provisions shall not be incorporated by reference in any case. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with these Required Contract Provisions.

3. A breach of any of the stipulations contained in these Required Contract Provisions shall be sufficient grounds for termination of the contract.

4. A breach of the following clauses of the Required Contract Provisions may also be grounds for debarment as provided in 29 CFR 5.12:

- Section I, paragraph 2;
- Section IV, paragraphs 1, 2, 3, 4 and 7;
- Section V, paragraphs 1 and 2a through 2g.

5. Disputes arising out of the labor standards provisions of Section IV (except paragraph 5) and Section V of these Required Contract Provisions shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the U.S. Department of Labor (DOL) as set forth in 29 CFR 5, 6 and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the DOL, or the contractor's employees or their representatives.

6. Selection of Labor: During the performance of this contract, the contractor shall not:

- a. Discriminate against labor from any other State, possession, or territory of the United States (except for employment preference for Appalachian contracts, when applicable, as specified in Attachment A), or
- b. Employ convict labor for any purpose within the limits of the project unless it is labor performed by convicts who are on parole, supervised release, or probation.

II. NONDISCRIMINATION

(Applicable to all Federal-aid construction contracts and to all related subcontracts of \$10,000 or more.)

1. Equal Employment Opportunity: Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630 and 41 CFR 60 (and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The Equal Opportunity Construction Contract Specifications set forth under 41 CFR 60-4.3 and the provisions of the American Disabilities Act of 1990 (42 U.S.C. 12101 *et seq.*) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

- a. The contractor will work with the State highway agency (SHA) and the Federal Government in carrying out EEO obligations and in their review of his/her activities under the contract.
- b. The contractor will accept as his operating policy the following statement: "It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, preapprenticeship, and/or on-the-job-training."

2. EEO Officer: The contractor will designate and make known to the SHA contracting officers an EEO Officer who will have the responsibility for an must be capable of effectively administering and promoting an active contractor program of EEO and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

- a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.
- b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.
- c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minority group employees.
- d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.
- e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minority groups in the area from which the project work force would normally be derived.

- a. The contractor will, unless precluded by a valid bargaining

agreement, conduct systematic and direct recruitment through public and private employees referral sources likely to yield qualified minority group applicants. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish which such identified sources procedures whereby minority group applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, he is expected to observe the provisions of that agreement to the extent that the system permits the contractor's compliance with EEO contract provisions. (The DOL has held that where implementation of such agreements have the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Executive Order 11246, as amended.)

c. The contractor will encourage his present employees to refer minority group applicants for employment. Information and procedures with regard to referring minority group applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with his obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of his avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minority group and women employees, and applicants for employment.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision.

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of minority group and women employees and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use his/her best efforts to obtain the cooperation of such unions to increase opportunities for minority groups and women within the unions, and to effect referrals by such unions of minority and female employees. Actions by the

contractor either directly or through a contractor's association acting as agent will include the procedures set forth below:

a. The contractor will use best efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minority group members and women for membership in the unions and increasing the skills of minority group employees and women so that they may qualify for higher paying employment.

b. The contractor will use best efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the SHA and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of minority and women referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or quailifiable minority group persons and women. (The DOL has held that it shall be no excuse that the union with which the contractor has a collective bargaining agreement providing for exclusive referral failed to refer minority employees.) In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the SHA.

8. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment.

a. The contractor shall notify all potential subcontractors and suppliers of his/her EEO obligations under this contract.

b. Disadvantaged business enterprises (DBE), as defined in 49 CFR 23, shall have equal opportunity to compete for and perform subcontracts which the contractor enters into pursuant to this contract. The contractor will use his best efforts to solicit bids from and to utilize DBE subcontractors or subcontractors with meaningful minority group and female representation among their employees. Contractors shall obtain lists of DBE construction firms from SHA personnel.

c. The contractor will use his best efforts to ensure subcontractor compliance with their EEO obligations.

9. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following completion of the contract work and shall be available at reasonable times and places for inspection by authorized representatives of the SHA and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women;

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minority and female employees; and

(4) The progress and efforts being made in securing the services of DBE subcontractors or subcontractors with meaningful minority and female representation among their employees.

b. The contractors will submit an annual report to the SHA each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data.

III. NONSEGREGATED FACILITIES

(Applicable to all Federal-aid construction contracts and to all related subcontracts of \$10,000 or more.)

a. By submission of this bid, the execution of this contract or subcontract, or the consummation of this material supply agreement or purchase order, as appropriate, the bidder, Federal-aid construction contractor, subcontractor, material supplier, or vendor, as appropriate, certifies that the firm does not maintain or provide for its employees any segregated facilities at any of its establishments, and that the firm does not permit its employees to perform their services at any location, under its control, where segregated facilities are maintained. The firm agrees that a breach of this certification is a violation of the EEO provisions of this contract. The firm further certifies that no employee will be denied access to adequate facilities on the basis of sex or disability.

b. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, restrooms and washrooms, restaurants and other eating areas, timeclocks, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive, or are, in fact, segregated on the basis of race, color, religion, national origin, age or disability, because of habit, local custom, or otherwise. The only exception will be for the disabled when the demands for accessibility override (e.g. disabled parking).

c. The contractor agrees that it has obtained or will obtain identical certification from proposed subcontractors or material suppliers prior to award of subcontracts or consummation of material supply agreements of \$10,000 or more and that it will retain such certifications in its files.

IV. PAYMENT OF PREDETERMINED MINIMUM WAGE

(Applicable to all Federal-aid construction contracts exceeding \$2,000 and to all related subcontracts, except for projects located on roadways classified as local roads or rural minor collectors, which are exempt.)

1. General:

a. All mechanics and laborers employed or working upon the site of the work will be paid unconditionally and not less often than once a week and without subsequent deduction or rebate on any account [except such payroll deductions as are permitted by regulations (29 CFR 3) issued by the Secretary of Labor under the Copeland Act (40 U.S.C. 276c)] the full amounts of wages and bona fide fringe benefits (or cash

equivalents thereof) due at time of payment. The payment shall be computed at wage rates not less than those contained in the wage determination of the Secretary of Labor (hereinafter "the wage determination") which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor or its subcontractors and such laborers and mechanics. The wage determination (including any additional classifications and wage rates conformed under paragraph 2 of this Section IV and the DOL poster (WH-1321) or Form FHWA-1495) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers. For the purpose of this Section, contributions made or costs reasonably anticipated for bona fide fringe benefits under Section 1(b)(2) of the Davis-Bacon Act (40 U.S.C. 276a) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of Section IV, paragraph 3b, hereof. Also, for the purpose of this Section, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs, which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in paragraphs 4 and 5 of this Section IV.

b. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein, provided, that the employer's payroll records accurately set forth the time spent in each classification in which work is performed.

c. All rulings and interpretations of the Davis-Bacon Act and related acts contained in 29 CFR 1, 3, and 5 are herein incorporated by reference in this contract.

2. Classification:

a. The SHA contracting officer shall require that any class of laborers or mechanics employed under the contract, which is not listed in the wage determination, shall be classified in conformance with the wage determination.

b. The contracting officer shall approve an additional classification, wage rate and fringe benefits only when the following criteria have been met:

(1) the work to be performed by the additional classification requested is not performed by a classification in the wage determination;

(2) the additional classification is utilized in the area by the construction industry;

(3) the proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination; and

(4) with respect to helpers, when such a classification prevails in the area in which the work is performed.

c. If the contractor or subcontractors, as appropriate, the laborers and mechanics (if known) to be employed in the additional classification or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the DOL, Administrator of the Wage and Hour Division, Employment Standards Administration, Washington, D.C. 20210. The Wage and Hour Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

d. In the event the contractor or subcontractors, as

appropriate, the laborers or mechanics to be employed in the additional classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the question, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. Said Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

e. The wage rate (including fringe benefits where appropriate) determined pursuant to paragraph 2c or 2d of this Section IV shall be paid to all workers performing work in the additional classification from the first day on which work is performed in the classification.

3. Payment of Fringe Benefits:

a. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor or subcontractors, as appropriate, shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly case equivalent thereof.

b. If the contractor or subcontractor, as appropriate, does not make payments to a trustee or other third person, he/she may consider as a part of the wages of any laborer or mechanic the amount of any cost reasonably anticipated in providing bona fide fringe benefits under a plan or program, provided that the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

4. Apprentices and Trainees (Programs of the U.S. DOL) and Helpers:

a. Apprentices:

(1) Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the DOL, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State apprenticeship agency recognized by the Bureau, or if a person is employed in his/her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Bureau of Apprenticeship and Training or a State apprenticeship agency (where appropriate) to be eligible for probationary employment as an apprentice.

(2) The allowable ratio of apprentices to journeyman-level employees on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any employee listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate listed in the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor or subcontractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman-level hourly rate) specified in the contractor's or subcontractor's

registered program shall be observed.

(3) Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeyman-level hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator for the Wage and Hour Division determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

(4) In the event the Bureau of Apprenticeship and Training, or a State apprenticeship agency recognized by the Bureau, withdraws approval of an apprenticeship program, the contractor or subcontractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the comparable work performed by regular employees until an acceptable program is approved.

b. Trainees:

(1) Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the DOL, Employment and Training Administration.

(2) The ratio of trainees to journeyman-level employees on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

(3) Every trainee must be paid at not less than the rate specified in the approved program for his/her level of progress, expressed as a percentage of the journeyman-level hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman-level wage rate on the wage determination which provides for less than full fringe benefits for apprentices, in which cases such trainees shall receive the same fringe benefits as apprentices.

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(4) In the event the Employment and Training Administration withdraws approval of a training program, the contractor or subcontractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Helpers:

Helpers will be permitted to work on a project if the helper classification is specified and defined on the applicable wage determination or is approved pursuant to the conformance procedure set forth in Section IV. 2. Any worker listed on a payroll at a helper wage rate, who is not a helper under an approved definition, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed.

5. Apprentices and Trainees (Programs of the U.S. DOT):

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

6. Withholding:

The SHA shall upon its own action or upon written request of an authorized representative of the DOL withhold, or cause to be withheld, from the contractor or subcontractor under this contract or any other Federal contract with the same prime contractor or any other Federally-assisted contract subject to Davis-Bacon prevailing wage requirements which is held by the same prime contractor, as much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainee's and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the SHA contracting officer may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

7. Overtime Requirements:

No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers, mechanics, watchmen, or guards (including apprentices, trainees, and helpers described in paragraphs 4 and 5 above) shall require or permit any laborer, mechanic, watchman, or guard in any workweek in which he/she is employed on such work, to work in excess of 40 hours in such workweek unless such laborer, mechanic, watchman, or guard receives compensation at a rate not less than one-and-one-half times his/her basic rate of pay for all hours worked in excess of 40 hours in such workweek.

8. Violation:

Liability for Unpaid Wages; Liquidated Damages: In the event of any violation of the clause set forth in paragraph 7 above, the contractor and any subcontractor responsible thereof shall be liable to the affected employee for his/her unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory) for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer, mechanic, watchman, or guard employed in violation of the clause set forth in paragraph 7, in the sum of \$10 for each calendar day on which such employee was required or permitted to work in excess of the standard work week of 40 hours without payment of the overtime wages required by the clause set forth in paragraph 7.

9. Withholding for Unpaid Wages and Liquidated Damages:

The SHA shall; upon its own action or upon written request of any authorized representative of the DOL withhold, or cause to be withheld, from any monies payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any

liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph 8 above.

V. STATEMENTS AND PAYROLLS

(Applicable to all Federal-aid construction contracts exceeding \$2,000 and to all related subcontracts, except for projects located on roadways classified as local roads or rural collectors, which are exempt.)

1. Compliance with Copeland Regulations (29 CFR 3):

The contractor shall comply with the Copeland Regulations of the Secretary of Labor which are herein incorporated by reference.

2. Payrolls and Payroll Records:

- a. Payrolls and basic records relating thereto shall be maintained by the contractor and each subcontractor during the course of the work and preserved for a period of 3 years from the date of completion of the contract for all laborers, mechanics, apprentices, trainees, watchmen, helpers, and guards working at the site of the work.
- b. The payroll records shall contain the name, social security number, and address of each such employee; his or her correct classification; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalent thereof the types described in Section 1(b)(2)(B) of the Davis Bacon Act); daily and weekly number of hours worked; deductions made; and actual wages paid. In addition, for Appalachian contracts, the payroll records shall contain a notation indicating whether the employee does, or does not, normally reside in the labor area as defined in Attachment A, paragraph 1. Whenever the Secretary of Labor, pursuant to Section IV, paragraph 3b, has found that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in Section 1(b)(2)(B) of the Davis Bacon Act, the contractor and each subcontractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, that the plan or program has been communicated in writing to the laborers or mechanics affected, and show the cost anticipated or the actual cost incurred in providing benefits. Contractors or subcontractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprentices and trainees, and ratios and wage rates prescribed in the applicable programs.
- c. Each contractor and subcontractor shall furnish, each week in which any contract work is performed, to the SHA resident engineer a payroll of wages paid each of its employees

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(including apprentices trainees, and helpers, described in Section IV, paragraphs 4 and 5, and watchmen and guards engaged on work during the preceding weekly payroll period). The payroll submitted shall set out accurately and completely all of the information required to be maintained under paragraph 2b of this Section V. This information may be submitted in any form desired. Optional Form WH-347 is available for this purpose and may be purchased from the Superintendent of Documents (Federal stock number 029-005-0014-1), U.S. Government Printing Office, Washington, D.C. 20402. The prime contractor is responsible for submitting payroll copies of all subcontractors.

- d. Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the Contractor or subcontractor or his/her agent who pays or supervises the payment of the persons employed under the contract and shall

certify the following:

- (1) that the payroll for the payroll period contains the information required to be maintained under paragraph 2b of this Section V and that such information is correct and complete;
 - (2) that such laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in the Regulations, 29 CFR 3;
 - (3) that each laborer or mechanic has been paid not less than the applicable wage rate and fringe benefits or cash equivalent for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.
- e. The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 2d of this Section V.
- f. The falsification of any of the above certifications may subject the contractor to civil or criminal prosecution under 18 U.S. C. 1001 and 31 U.S.C. 231.
- g. The contractor or subcontractor shall make the records required under paragraph 2b of this Section V available for inspection, copying, or transcription by authorized representatives of the SHA, the FHWA, or the DOL, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the SHA, the FHWA, the DOL, or all may, after written notice to the contractor, sponsor, applicant, or owner, take such actions as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

VI. RECORD OF MATERIALS, SUPPLIES, AND LABOR

1. On all federal-aid contracts on the national highway system, except those which provide solely for the installation of protective devices at railroad grade crossings, those which are constructed on a force account or direct labor basis, highway beautification contracts, and contracts for which the total final construction cost for roadway and bridge is less than \$1,000,000 (23 CFR 635) the contractor shall:
 - a. Become familiar with the list of specific materials and supplies contained in Form FHWA-47, "Statement of Materials and Labor Used by Contractor of Highway Construction Involving Federal Funds," prior to the commencement of work under this contract.
 - b. Maintain a record of the total cost of all materials and supplies purchased for and incorporated in the work, and also of the quantities of those specific materials and supplies listed on Form FHWA-47, and in the units shown on Form FHWA-47.
 - c. Furnish, upon the completion of the contract, to the SHA resident engineer on Form FHWA-47 together with the data required in paragraph 1b relative to materials and supplies, a final labor summary of all contract work indicating the total hours worked and the total amount earned.
2. At the prime contractor's option, either a single report covering all contract work or separate reports for the contractor and for each subcontract shall be submitted.

VII. SUBLETTING OR ASSIGNING THE CONTRACT

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total

original contract price, excluding any specialty items designated by the State. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractors' own organization (23 CFR 635).

- a. "Its own organization" shall be construed to include only workers employed and paid directly by the prime contractor and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor, assignee, or agent of the prime contractor.
 - b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid on the contract as a whole and in general are to be limited to minor components of the overall contract.
2. The contract amount upon which the requirements set forth in paragraph 1 of Section VII is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.
 3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the SHA contracting officer determines is necessary to assure the performance of the contract.
 4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the SHA contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the SHA has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

VIII. SAFETY: ACCIDENT PREVENTION

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the SHA contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.
2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S. C. 333).

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3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the

duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 333).

IX. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, the following notice shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

NOTICE TO ALL PERSONNEL ENGAGED ON FEDERAL-AID HIGHWAY PROJECTS

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined not more than \$10,000 or imprisoned not more than 5 years or both."

X. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

(Applicable to all Federal-aid construction contracts and to all related subcontracts of \$100,000 or more).

By submission of this bid or the execution of this contract, or subcontract, as appropriate, the bidder, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any facility that is or will be utilized in the performance of this contract, unless such contract is exempt under the Clean Air Act, as amended (42 U.S.C. 1857 et seq., as amended by Pub.L. 91-604), and under the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et seq., as amended by Pub.L.

92-500), Executive Order 11738, and regulations in implementation thereof (40 CFR 15) is not listed, on the date of contract award, on the U.S. Environmental Protection Agency (EPA) List of Violating Facilities pursuant to 40 CFR 15.20.

2. That the firm agrees to comply and remain in compliance with all the requirements of Section 114 of the Clean Air Act and Section 308 of the Federal Water Pollution Control Act and all regulations and guidelines listed thereunder.

3. That the firm shall promptly notify the SHA of the receipt of any communication from the Director, Office of Federal Activities, EPA indicating that a facility that is or will be utilized for the contract is under consideration to be listed on the EPA List of Violating Facilities.

4. That the firm agrees to include or cause to be included the requirements of paragraph 1 through 4 of this Section X in every nonexempt subcontract, and further agrees to take such action as the government may direct as a means of enforcing such requirements.

XI. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

1. Instructions for Certification - Primary Covered Transactions:

(Applicable to all Federal-aid contracts - 49 CFR 29)

a. By signing and submitting this proposal, the prospective primary participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective primary participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the department or agency determined to enter into this transaction. If it is later determined that the prospective primary participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause of default.

d. The prospective primary participant shall provide immediate written notice to the department or agency to whom this proposal is submitted if any time the prospective primary participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the department or agency to which this proposal is submitted for assistance in obtaining a copy of those regulations.

f. The prospective primary participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.

- g. The prospective primary participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," provided by the department or agency entering into this covered transaction, without modification in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
- h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the nonprocurement portion of the "Lists of Parties Excluded from Federal Procurement or Nonprocurement Programs" (Nonprocurement List) which is compiled by the General Services Administration.
- i. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
- j. Except for transactions authorized under paragraph f of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Primary Covered Transactions

1. The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:

- a. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
- b. Have not within a 3-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
- c. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph 1b of this certification; and
- d. Have not within a 3-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

2. Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

2. Instructions for Certification - Lower Tier Covered Transactions:

(Applicable to all subcontracts, purchase orders and other lower tier transactions of \$25,000 or more - 49 CFR 29)

- a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.
- b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.
- c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.
- d. The terms "covered transaction," "debarred," "suspended," "ineligible," "primary covered transaction," "participant," "person," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.
- e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.
- f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
- g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List.
- h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealing.
- i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

XII. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

(Applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000 - 49 CFR 20)

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

3. The prospective participant also agrees by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

**MINIMUM WAGES FOR FEDERAL AND FEDERALLY
ASSISTED CONSTRUCTION CONTRACTS**

This project is funded, in part, with Federal-aid funds and, as such, is subject to the provisions of the Davis-Bacon Act of March 3, 1931, as amended (46 Sta. 1494, as amended, 40 U.S.C. 276a) and of other Federal statutes referred to in a 29 CFR Part 1, Appendix A, as well as such additional statutes as may from time to time be enacted containing provisions for the payment of wages determined to be prevailing by the Secretary of Labor in accordance with the Davis-Bacon Act and pursuant to the provisions of 29 CFR Part 1. The prevailing rates and fringe benefits shown in the General Wage Determination Decisions issued by the U.S. Department of Labor shall, in accordance with the provisions of the foregoing statutes, constitute the minimum wages payable on Federal and federally assisted construction projects to laborers and mechanics of the specified classes engaged on contract work of the character and in the localities described therein.

General Wage Determination Decisions, modifications and supersedes decisions thereto are to be used in accordance with the provisions of 29 CFR Parts 1 and 5. Accordingly, the applicable decision, together with any modifications issued, must be made a part of every contract for performance of the described work within the geographic area indicated as required by an applicable DBRA Federal prevailing wage law and 29 CFR Part 5. The wage rates and fringe benefits contained in the General Wage Determination Decision shall be the minimum paid by contractors and subcontractors to laborers and mechanics.

NOTICE

The most current **General Wage Determination Decisions** (wage rates) are available on the IDOT web site. They are located on the Letting and Bidding page at <http://www.dot.state.il.us/desenv/delett.html>.

In addition, ten (10) days prior to the letting, the applicable Federal wage rates will be e-mailed to subscribers. It is recommended that all contractors subscribe to the Federal Wage Rates List or the Contractor's Packet through IDOT's subscription service.

PLEASE NOTE: if you have already subscribed to the Contractor's Packet you will automatically receive the Federal Wage Rates.

The instructions for subscribing are at <http://www.dot.state.il.us/desenv/subsc.html>.

If you have any questions concerning the wage rates, please contact IDOT's Chief Contract Official at 217-782-7806.