

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 an **Authorization to Bid or Not for Bid Report**, approved by the Central Bureau of Construction that indicates which items have been approved For Bidding. If **Authorization to Bid** cannot be approved, the **Authorization to Bid or Not for Bid Report** 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.

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RETURN WITH BID

Proposal Submitted By
Name
Address
City

Letting January 15, 2010

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. 60I28
Various Counties
Section 2009-86 I
District 1 Maintenance Funds
Various Routes**

PLEASE MARK THE APPROPRIATE BOX BELOW:

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

Plans Included
Herein

Prepared by

Checked by

S

(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 "Authorization to Bid or Not for Bid" form, 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 **Authorization to Bid or Not for Bid Report**, approved by the Central Bureau of Construction, that indicates which items have been approved For Bidding. If **Authorization to Bid** cannot be approved, the **Authorization to Bid or Not for Bid Report** will indicate the reason for denial. If a contractor has requested to bid but has not received a **Authorization to Bid or Not for Bid Report**, 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
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Preparation and submittal of bids	217/782-7806
Mailing of CD-ROMS	217/782-7806

RETURN WITH BID



PROPOSAL

TO THE DEPARTMENT OF TRANSPORTATION

1. Proposal of _____

Taxpayer Identification Number (Mandatory) _____ a

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

**Contract No. 60I28
Various Counties
Section 2009-86 I
Various Routes
District 1 Maintenance Funds**

Annual maintenance of REVLAC, Roosevelt Ramp Access Controls, CCTV, ONET, Expressway Ramp Gates and Automatic Vehicle Locator System in District One.

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

3. **ASSURANCE OF EXAMINATION AND INSPECTION/WAIVER.** The undersigned further declares that he/she has carefully examined the proposal, plans, specifications, form of contract and contract bond, and special provisions, and that he/she has inspected in detail the site of the proposed work, and that he/she has familiarized themselves with all of the local conditions affecting the contract and the detailed requirements of construction, and understands that in making this proposal he/she waives all right to plead any misunderstanding regarding the same.
4. **EXECUTION OF CONTRACT AND CONTRACT BOND.** The undersigned further agrees to execute a contract for this work and present the same to the department within fifteen (15) days after the contract has been mailed to him/her. The undersigned further agrees that he/she and his/her surety will execute and present within fifteen (15) days after the contract has been mailed to him/her contract bond satisfactory to and in the form prescribed by the Department of Transportation, in the penal sum of the full amount of the contract, guaranteeing the faithful performance of the work in accordance with the terms of the contract.
5. **PROPOSAL GUARANTY.** Accompanying this proposal is either a bid bond on the department form, executed by a corporate surety company satisfactory to the department, or a proposal guaranty check consisting of a bank cashier's check or a properly certified check for not less than 5 per cent of the amount bid or for the amount specified in the following schedule:

<u>Amount of Bid</u>		<u>Proposal Guaranty</u>	<u>Amount of Bid</u>		<u>Proposal Guaranty</u>
Up to	\$5,000	\$150	\$2,000,000	to	\$3,000,000
\$5,000	to	\$10,000	\$3,000,000	to	\$5,000,000
\$10,000	to	\$50,000	\$5,000,000	to	\$7,500,000
\$50,000	to	\$100,000	\$7,500,000	to	\$10,000,000
\$100,000	to	\$150,000	\$10,000,000	to	\$15,000,000
\$150,000	to	\$250,000	\$15,000,000	to	\$20,000,000
\$250,000	to	\$500,000	\$20,000,000	to	\$25,000,000
\$500,000	to	\$1,000,000	\$25,000,000	to	\$30,000,000
\$1,000,000	to	\$1,500,000	\$30,000,000	to	\$35,000,000
\$1,500,000	to	\$2,000,000	over		\$35,000,000
					\$1,000,000

Bank cashier's checks or properly certified checks accompanying proposals shall be made payable to the Treasurer, State of Illinois, when the state is awarding authority; the county treasurer, when a county is the awarding authority; or the city, village, or town treasurer, when a city, village, or town is the awarding authority.

If a combination bid is submitted, the proposal guaranties which accompany the individual proposals making up the combination will be considered as also covering the combination bid.

The amount of the proposal guaranty check is _____ \$(_____). If this proposal is accepted and the undersigned shall fail to execute a contract bond as required herein, it is hereby agreed that the amount of the proposal guaranty shall become the property of the State of Illinois, and shall be considered as payment of damages due to delay and other causes suffered by the State because of the failure to execute said contract and contract bond; otherwise, the bid bond shall become void or the proposal guaranty check shall be returned to the undersigned.

Attach Cashier's Check or Certified Check Here

In the event that one proposal guaranty check is intended to cover two or more proposals, the amount must be equal to the sum of the proposal guaranties which would be required for each individual proposal. If the guaranty check is placed in another proposal, state below where it may be found.

The proposal guaranty check will be found in the proposal for:

Item _____

Section No. _____

County _____

Mark the proposal cover sheet as to the type of proposal guaranty submitted.

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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.

CONTRACT NUMBER

60128

THIS IS THE TOTAL BID

\$ _____

NOTES:

- 1. Each PAY ITEM should have a UNIT PRICE and a TOTAL PRICE.**
- 2. The UNIT PRICE shall govern if no TOTAL PRICE is shown or if there is a discrepancy between the product of the UNIT PRICE multiplied by the QUANTITY.**
- 3. If a UNIT PRICE is omitted, the TOTAL PRICE will be divided by the QUANTITY in order to establish a UNIT PRICE.**
- 4. A bid may be declared UNACCEPTABLE if neither a unit price nor a total price is shown.**

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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 \$177,412.00. Sixty percent of the salary is \$106,447.20.

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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.

RETURN WITH BID

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.

RETURN WITH BID

(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 provides:

Section 50-60(c).

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.**

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

Section 50-36 of the Illinois Procurement Code, 30ILCS 500/50-36 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, offeror, 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 Code.

Failure to make the disclosure required by the Code 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. Political Contributions and Registration with the State Board of Elections

Sections 20-160 and 50-37 of the Illinois Procurement Code regulate political contributions from business entities and any affiliated entities or affiliated persons bidding on or contracting with the state. Generally under Section 50-37, any business entity, and any affiliated entity or affiliated person of the business entity, whose current year contracts with all state agencies exceed an awarded value of \$50,000, are prohibited from making any contributions to any political committees established to promote the candidacy of the officeholder responsible for the awarding of the contracts or any other declared candidate for that office for the duration of the term of office of the incumbent officeholder or a period 2 years after the termination of the contract, whichever is longer. Any business entity and affiliated entities or affiliated persons whose state contracts in the current year do not exceed an awarded value of \$50,000, but whose aggregate pending bids and proposals on state contracts exceed \$50,000, either alone or in combination with contracts not exceeding \$50,000, are prohibited from making any political contributions to any political committee established to promote the candidacy of the officeholder responsible for awarding the pending contract during the period beginning on the date the invitation for bids or request for proposals is issued and ending on the day after the date of award or selection if the entity was not awarded or selected. Section 20-160 requires certification of registration of affected business entities in accordance with procedures found in Section 9-35 of The Election Code.

By submission of a bid, the contractor business entity acknowledges and agrees that it has read and understands Sections 20-160 and 50-37 of the Illinois Procurement Code, and that it makes the following certification:

The undersigned business entity certifies that it has registered as a business with the State Board of Elections and acknowledges a continuing duty to update the registration in accordance with the above referenced statutes. A copy of the certificate of registration shall be submitted with the bid. The bidder is cautioned that the Department will not award a contract without submission of the certificate of registration.

These requirements and compliance with the above referenced statutory sections are a material part of the contract, and any breach thereof shall be cause to void the contract under Section 50-60 of the Illinois Procurement Code. This provision does not apply to Federal-aid contracts.

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 \$106,447.20? YES ___ NO ___
3. Does anyone in your organization receive more than \$106,447.20 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 \$106,447.20? 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:

**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 \$106,447.20 (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 \$106,447.20, (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 \$106,447.20, (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 \$106,447.20, (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 the 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 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 \$106,447.20, (60 % of the Governor's salary as of 7/1/07) provide the name of your 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 \$106,447.20, (60% of the salary of the Governor as of 7/1/07) are you entitled to receive (i) more then 71/2% 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 \$106,447.20, (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 the 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 ___

(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 States 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"/>	<hr style="width: 80%; margin: 0 auto;"/> Signature of Authorized Representative	<hr style="width: 10%; margin: 0 auto;"/> Date
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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. 60I28
Various Counties
Section 2009-86 I
Various Routes
District 1 Maintenance 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 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

**Contract No. 60128
Various Counties
Section 2009-86 I
Various Routes
District 1 Maintenance 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

Attest _____

Signature

(IF A JOINT VENTURE, USE THIS SECTION FOR THE MANAGING PARTY AND THE SECOND PARTY SHOULD SIGN BELOW)

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)

SURETY

(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. 60I28
Various Counties
Section 2009-86 I
Various Routes
District 1 Maintenance 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., January 15, 2010. 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. 60I28
Various Counties
Section 2009-86 I
Various Routes
District 1 Maintenance Funds**

Annual maintenance of REVLAC, Roosevelt Ramp Access Controls, CCTV, ONET, Expressway Ramp Gates and Automatic Vehicle Locator System in District One.

- 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

Gary Hannig,
Acting Secretary

INDEX
FOR
SUPPLEMENTAL SPECIFICATIONS
AND RECURRING SPECIAL PROVISIONS

Adopted January 1, 2010

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 1-1-10)

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STATE OF ILLINOIS
SPECIAL PROVISIONS

DISTRICT 1, ADVANCED SYSTEMS MAINTENANCE CONTRACT (ASMC)

ARTICLE 1.0 – DESCRIPTION OF WORK, INSTRUCTIONS, AND PRE-QUALIFICATION SUBMITTALS

1.1 DESCRIPTION OF WORK

The District 1 Advanced Systems Maintenance Contract (ASMC) serves as one of several contracts utilized by the Illinois Department of Transportation (IDOT), Division of Highways, District 1, to maintain and utilize electrical transportation support systems. In general, the ASMC covers certain technology-dependent items of equipment and their controls and communications, generally within or on IDOT facilities within the 6-county area of District 1 (Cook, Lake, McHenry, Kane, DuPage and Will counties), but at times involving system extensions to other facilities. The elements to be served by the Contract are generally aggregated into defined “systems” as described herein:

- The Kennedy Expressway Reversible Lane Access Control (REVLAC) System
- The Roosevelt Ramp Access Control System (RACS)
- Various Closed Circuit (CCTV) systems within District 1, as defined
- District Operations Network (DON)
- Automatic Vehicle Locator System (AVL)
- Other Systems (Expressway Ramp Gates (ERG), GCM Network Gateway)

The work required shall be coordinated, as necessary, with work under other contracts, particularly the District 1 Electrical Maintenance Contract and the Statewide Radio Maintenance Contract. The work is separated into Routine Maintenance and Non-Routine Maintenance as defined within the articles of the Contract.

1.2 SCHEDULE OF PRICES – SUBMITTAL (OF ATTACHED BID SHEETS)

1. 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.
2. The Contractor, for specified unit prices in the Schedule of Prices, shall conform to all requirements as specified herein these articles.
3. Each Pay Item shall have a unit price and an extended total price.
4. The unit prices bid are in U.S. dollars and cents.
5. The unit price shall govern if no total price is shown or if there is a discrepancy between the total price and the product of the unit price multiplied by the quantity.
6. If a unit price is omitted, the extended price will be divided by the quantity in order to establish a unit price.
7. A bid will be declared unacceptable if neither unit price nor an extended total price is shown.
8. The bidder understands that the quantities in the schedule of prices are approximate and are provided for the purpose of obtaining a gross sum for the comparison of bids.

9. 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, and not for estimated quantities in the schedule of prices.
10. 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.
11. Quantities included for bidding are only estimates and actual quantities may vary. The pace of construction activities within the District as well as a number of other unpredictable factors will cause variances from these indicated quantities, both for routine and non-routine pay items.
12. The Department is under no obligation to authorize non-routine pay item work. Non-routine work will be authorized based on preventive maintenance reports, ongoing operational needs and system improvement needs. The scheduled quantities of work to be done and materials to be furnished may be increased, decreased or omitted.
13. The bidder's unit prices are expected to be realistic and no additional compensation will be allowed due to variances in quantities, however, the Engineer retains the right to seek a revised unit price where quantities exceed to the extent that additional economies of scale would be normal.
14. The Engineer retains the right to use force account procedures or use other procurement means available to the Department where unit prices are significantly higher than the Department or project norms. The bidders are cautioned against unbalanced bidding and are directed to Article 102.01 of the Standard Specifications.

1.3 EXAMINATION OF PLANS, SPECIFICATIONS, SPECIAL PROVISIONS, AND SITE OF WORK

The prospective bidder shall, before submitting his bid, carefully examine the proposal form, plans, specifications, special provisions and form of contract and bond. All locations to be maintained under this Contract may be inspected in order for the prospective bidder to become familiar with all the local conditions affecting the Contract and the detailed requirements of maintenance. If this bid is accepted, he will be responsible for all errors in his proposal resulting from his failure or neglect to comply with these instructions. The prospective bidder shall be responsible for any pre-existing maintenance deficiencies that may exist at the time this Contract is awarded and this bid shall reflect these deficiencies. The Department will, in no case, be responsible for any change in anticipated profits resulting from such failure or neglect.

1.4 PRE-BID MEETING

A pre-bid information meeting will be conducted to review details of the work for prospective bidders. If bidders have specific questions regarding the contract they should present a typed copy to the Resident Engineer by the end of the Pre-Bid Meeting. The Department is under no obligation to address contractor questions; however, an addendum may be released prior to the letting to clarify contract language as necessary. Minutes of the pre-bid meeting will not be issued to attendees.

The tentative date and venue for the Pre-bid meeting:

10:30 AM, Thursday, December 17, 2009
Illinois Department of Transportation
Materials Lab Classroom
101 West Center Court
Schaumburg, IL. 60196-1096

Bidders should check the IDOT web site and/or the IDOT Central Bureau of Operations for any changes to the above schedule and venue.

1.5 SITE INSPECTIONS

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 to the Resident Engineer, prior to the Pre-Bid Meeting.

1.6 BIDDER'S SPECIAL QUALIFICATIONS

It is the intent of this Contract that it be performed only by a contractor having the size, special expertise and organizational capabilities necessary to accomplish its wide-ranging scope of work. The prospective bidder should familiarize himself with all aspects of the Contract prior to bidding.

A Bidder's Special Qualifications submittal must be presented to:

**Mr. Naser Gholeh, P.E., Resident Engineer
Illinois Department of Transportation
Material Lab Building
Bureau of Traffic Electrical Maintenance Operations
101 West Center Court
Schaumburg, Illinois 60196-1096**

by 3 P.M. on the day of the Pre-Bid Meeting.

Bidders will be furnished with a receipt which states that the submittal was received within the required time deadline. The submitted information will be analyzed and, if requested by the Engineer, the prospective bidder shall facilitate an inspection of its facilities and/or equipment or provide additional submittal information. The Engineer shall determine the aggregate suitability and acceptability of the qualification information submitted. If it is determined that the prospective bidder is qualified to perform the work then the Department will notify the bidders through the Illinois Department of Transportation website if they are approved to bid on the Advanced Systems Maintenance Contract 60I28.

1.7 BIDDERS' SPECIAL QUALIFICATION SUBMITTAL INSTRUCTIONS

Due to the specialized and multi-technology nature of the work under this contract, and the need for a real-time response to system maintenance 24-hours a day, the prospective bidders shall submit their qualification information to allow determination of the bidder's ability to perform the contract work. Therefore, each prospective bidder shall submit the following special qualification information for review and evaluation by the Department prior to being allowed to bid. The qualification information shall address each item listed below, clearly identifying the respective item number. Bidders shall provide:

- 1. A descriptive list of project work having incorporating related technologies, complete with the name and phone number of a customer reference contact for each listed project:**

Project descriptions shall describe the nature of the project, the portion of the project actually performed by the Contractor, the dollar value of the contractor's portion of the project, electrical work and technology which is related to the electrical systems and

technology employed in REVLAC and RACS, and a listing of subcontractors' and in-house personnel involved in the work who would be employed in the ASMC contract.

To be considered qualified for the ASMC work, a prospective bidder must demonstrate existing in-house capabilities and experience in understanding and managing large-scale multi-technology projects that include complex computerized controls, wireless data transfer and utilization, Microwave system, AC power and DC control systems, fiber optic data transmission, CCTV systems and miscellaneous support and auxiliary functions. In addition, a qualified bidder will have on-board staff, present from the time of bidding, capable of outside electrical work on the state highway right-of-way and significant experience and staffing capable of electrical work in buildings, with capabilities of reading, understanding and designing electrical control circuits in ladder logic and in trouble-shooting standard and PLC-based control circuits and lane access control (gates and barrier assemblies) systems.

2. A detailed 24-hour emergency response plan:

Existing capability to handle 24-hour response activities as specified must be demonstrated.

To be considered qualified for the ASMC work, the Contractor shall provide a specific detailed response plan describing how the 24-hour emergency response provisions of the contract will be met. The response plan shall include proposed responses to lane access control system, PLC, SONET, fiber, Microwave and CCTV failures, as well as equipment damage. Generic or hypothetical plans will not be acceptable.

3. A preliminary organizational structure for management and execution of ASMC contract work:

The Contractor's structure shall include all personnel specified in these Special Provisions plus any additional key personnel the Contractor references to establish positions of experience and credentials in ASMC technologies. The structure shall be accompanied by resumes of listed personnel, and these shall describe work history and current level of expertise applicable to the ASMC systems.

Contractor personnel and subcontractor experience credentials shall match the work requirements of the contract. The Project Manager shall have experience in managing complex multi-technology systems which incorporate Microwave communication, SONET, fiberoptic and PLC systems.

4. Documentation of an existing presence within IDOT District 1, with a location and description of headquarters, yard, storage and facilities proposed to be used in performing the ASMC contract work:

A qualified bidder must demonstrate an existing presence and workforce proximity to the work in District 1. It will not be acceptable to base qualification of a bidder on the promise of mobilization and on only a plan to acquire the personnel and resources necessary to perform the work.

5. A listing of key subcontractors, complete with intended subcontractor work items:

The listing shall identify the specialty work intended for the subcontractor and shall include prior subcontractor projects relevant to the ASMC work together with resumes of key subcontractor personnel to demonstrate their necessary expertise and staffing. Due

to the required response times, the proposed subcontractors, except for the original software developer, shall have an established presence within District 1.

The submittal must clearly demonstrate that the subcontractor has specific experience with the type of equipment used in the ASMC, and shall state a commitment for a 24-hour, 7-day a week response for the proposed subcontracted work.

It will not be acceptable to subcontract the work to the extent that a bidder can avoid the need for significant in-house multi-technology expertise.

6. A description of existing and ongoing work with large-scale Allen Bradley programmable logic control (PLC) systems, complete with a listing of all on-board personnel who have completed factory training on these systems:

A qualified bidder must presently have a local response capability with significant familiarity with Allen-Bradley PLC equipment and generation and troubleshooting of ladder logic used in the REVLAC and RACS systems. The listing of personnel shall also include which factory training classes were taken, when they were taken and results of any factory certification.

There is insufficient time to base qualification on the promise to acquire this capability, and such promise is insufficient guarantee to the Department that a bidder will be capable of keeping the REVLAC and RACS systems operational.

7. Documentation to demonstrate compliance with the software developer requirements specified herein:

The complicated nature of the programming for the system, and the need to modify this programming as part of the planned work under this contract, necessitates that a qualified bidder establish a firm connection and commitment in the form of a letter of intent signed by the principals involved with the original software developer or an acceptable alternate developer who must demonstrate, as defined elsewhere herein, competency and expert fluency in the programming used on the REVLAC and RACS system and a willingness to respond 24 hours a day, 7 days a week. See specifications elsewhere herein.

8. Description of ongoing work in fiber optic and microwave systems relevant to the ASMC and/or proposed Sub-Contractor submittal:

A qualified bidder must be familiar and experienced in maintaining and managing fiber optic and microwave system work of the type used in the ASMC systems. Certain work on this technology may be subcontracted, and if this is proposed, the submittal shall meet requirements of point 5., as well as demonstrate subcontractor personnel experience in coordinating the integration of fiber optic and microwave systems with other systems of the type in place on the ASMC.

9. CCTV Capabilities:

A qualified bidder must have in-house familiarity and capability in installing and maintaining CCTV systems and qualification documentation shall present project and staff experience in this regard. The work shall not be sub-contracted except that specialty vendors may be used for some repair work.

10. District Operations Network Capabilities:

A qualified bidder shall demonstrate a definitive plan to handle maintenance of the District Operations Network (DON) which includes the SONET system installed as part of

the REVLAC and RACS systems, CCTV equipment (including future IP multicast) and Gig-E network equipment. The bidder shall have established a conditional arrangement with manufacturer's service or an otherwise factory-authorized service provider for the maintenance of the SONET communications equipment for on-call service that involves mapping or other setup or software work. Connections, power supplies, auxiliary devices, etc. may be handled by qualified Contractor personnel, but unless the Contractor, or an approved subcontractor, is an authorized service provider for the installed SONET equipment, the contractor must supplement his staff with outsourced specialty service. The qualification documentation shall clearly define the established service relationships, qualifications of in-house staff, and the identity and qualifications of the supplemental service provided.

11. Identification of key equipment presently owned and by the bidder and list of equipment which would be under long term lease:

Inasmuch as immediate rapid response to the maintenance needs of the District 1 ASMC systems is extremely important, a qualified bidder must have sufficient mobile equipment to handle response activities. Trucks, lifts for access to signs, barriers, and hoists to handle component equipment, etc., are all to be considered in determining qualification.

12. A statement, signed by the bidder, attesting that the information submitted is accurate and truthful:

The information so submitted is for purposes of determining the overall expertise and capability of the contractor to perform the work required by this maintenance contract and qualification of a contractor to bid in no way relieves that contractor from full compliance with contract specifications if awarded the contract.

SCHEDULE OF PRICES

Item	Description	Qty.	Unit	Unit Price	Extended Price
	<u>ROUTINE MAINTENANCE</u>				
A – 1	Routine Maintenance of REVLAC System	12	Mo	\$	\$
A – 2	Routine Maintenance of RACS	12	Mo	\$	\$
A – 3	Routine Maintenance of CCTV System	12	Mo	\$	\$
A – 4	Routine Maintenance of District Operations Network	12	Mo	\$	\$
A – 5	Routine Maintenance of AVL System	12	Mo	\$	\$
A – 6	Routine Maintenance of Other Systems	12	Mo	\$	\$
	Routine Maintenance Sub-total:				\$

Note: If this Contract is renewed, the Routine Maintenance term will be for a nine (9) month quantity only.

Item	Description	Qty.	Unit	Unit Price	Extended Price
	<u>NON-ROUTINE MAINTENANCE</u>				
ACC1	CCTV Dome Camera Assembly, Color, PTZ Control, Furnish Only	20	Ea	\$	\$
ACC2	CCTV Camera Assembly, Color, Fixed Control, Furnish Only	15	Ea	\$	\$
ACM1	CCTV Color Monitor, Quad, 4", Furnish Only	6	Ea	\$	\$
ACM2	CCTV Color Monitor, 8.4", Furnish Only	6	Ea	\$	\$
ACM3	CCTV Color Monitor, Dual, 8.4", Furnish Only	6	Ea	\$	\$
ACM4	CCTV Color Monitor, 12", Furnish Only	2	Ea	\$	\$
ACP1	CCTV Camera Pole, Furnish Only	12	Ea	\$	\$
ACP2	CCTV Camera Lowering System, Furnish and Install	6	Ea	\$	\$

VARIOUS ROUTES
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ALD1	LED Chevron Sign, Furnish Only	4	Ea	\$	\$
ALD2	LED Auxiliary Sign, Furnish Only	3	Ea	\$	\$
ALD3	LED Lane Usage Sign, Furnish Only	2	Ea	\$	\$
ALD4	LED Gore Sign, Furnish Only	2	Ea	\$	\$
APM1	IDOT HQ Microwave/Monopole Tower, Painting	1	Ea	\$	\$
APM2	REVLAC Building E, Microwave/Monopole Tower, Painting	1	Ea	\$	\$
APT1	Schaumburg Tower, Painting	1	Ea	\$	\$
APV1	Pavement Seal-Coating	300	Sq. Yd.	\$	\$
ARR1	Restraining Barrier Tape Cartridge, Refurbish	2	Ea	\$	\$
ARR2	Restraining Barrier Dragnet Assembly, Furnish Only	1	Ea	\$	\$
ASC1	Swing Gate Controller, Furnish Only	1	Ea	\$	\$
ASD1	Swing Gate Drivetrain Assembly, Furnish Only	1	Ea	\$	\$
ASG1	Swing Gate Arm, 2' to 4', Furnish Only	2	Ea	\$	\$
ASG2	Swing Gate Arm, 5' to 8', Furnish Only	4	Ea	\$	\$
ASG3	Swing Gate Arm, 9' to 12', Furnish Only	4	Ea	\$	\$
ASG4	Swing Gate Arm, 13' to 16', Furnish Only	4	Ea	\$	\$
ASG5	Swing Gate Arm, 17' to 20', Furnish Only	4	Ea	\$	\$
ASG6	Swing Gate Arm, 21' to 23', Furnish Only	4	Ea	\$	\$
ASG7	Swing Gate Arm Capstan and Bracket Assembly, Furnish Only	2	Ea	\$	\$
AV01	Video Communication Hut, Furnish and Install	1	Ea	\$	\$
AV02	Video Communications Encoder, 1 Channel, Furnish Only	30	Ea	\$	\$

VARIOUS ROUTES
SECTION 2009-086I
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AV03	Video Communications Encoder, 2 Channel, Furnish Only	1	Ea	\$	\$
AV04	Video Communications Decoder, 1 Channel, Furnish Only	11	Ea	\$	\$
AV05	Video Communications Decoder, 2 Channel, Furnish Only	1	Ea	\$	\$
AV06	Video Communications MPEG4 Encoder, 4 Channel, Furnish Only	11	Ea	\$	\$
AV07	Video Communications MPEG4 Decoder, 4 Channel, Furnish Only	11	Ea	\$	\$
AV08	Video Communications MPEG4 Encoder, 1 Channel, Furnish Only	5	Ea	\$	\$
AV09	Video Communications MPEG4 Decoder, 1 Channel, Furnish Only	5	Ea	\$	\$
AV10	Video Communications MPEG4 Chassis Rack, Furnish Only	2	Ea	\$	\$
	Non-Routine Maintenance Sub-total:				\$

	<u>BUDGETARY ALLOWANCES</u>				
AXB1	Budgetary Allowance for REVLAC Remote Control Modifications	1	LS	\$30,000.00	\$30,000.00
AXB2	Budgetary Allowance for PLC Control System Repair	1	LS	\$40,000.00	\$40,000.00
AXB3	Budgetary Allowance for State Stock Parts	1	LS	\$30,000.00	\$30,000.00
AXB4	Budgetary Allowance for Remote Network Monitoring System	1	LS	\$25,000.00	\$25,000.00
AXB5	Budgetary Allowance for CCTV System Repair	1	LS	\$50,000.00	\$50,000.00
AXB6	Budgetary Allowance for Communication System Repair	1	LS	\$30,000.00	\$30,000.00
AXB7	Budgetary Allowance for UPS and Other Building Equip. Repairs	1	LS	\$30,000.00	\$30,000.00
AXB8	Budgetary Allowance for Gate Drivetrain Assembly Repairs	1	LS	\$40,000.00	\$40,000.00
AXB9	Budgetary Allowance for Microwave Repairs	1	LS	\$30,000.00	\$30,000.00
AXB10	Budgetary Allowance for Ramp Gate and Attenuator Work	1	LS	\$35,000.00	\$35,000.00

VARIOUS ROUTES
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	Budgetary Allowance Sub-total:				\$ 340,000.00
				<u>SUMMARY</u>	
				Routine Maintenance Sub-total:	\$
				Non-Routine Maintenance Sub-total:	\$
				Budgetary Allowance Sub- total:	\$ 340,000.00
				TOTAL:	\$

ARTICLE 2.0 – TERMS AND REFERENCES

2.1 DEFINITIONS OF TERMS

AITC	American Institute of Timber Construction
ANSI	American National Standards Institute
ASMC	Advanced Systems Maintenance Contract, or the Advanced Systems Maintenance Contractor

ASSIGNED PERSONNEL

When used herein shall refer to Contractor personnel whose daily work shall be normally assigned to the ASMC, and reported on the Daily Agenda.

AVL	Automatic Vehicle Location
AWPA	American Wood Preservers Association
CMS	Changeable Message Sign
CLEAR	When used herein describes ticket terminology, the departure of the Contractor personnel from the initial response to the site of a reported incident of damage or trouble on system equipment.
COMCENTER	Illinois Department of Transportation, District 1, Bureau of Traffic Communications Center (ComCenter), IDOT Headquarters, 201 W. Center Ct., Schaumburg, IL. 60196

DAMAGED EQUIPMENT

Any piece of equipment owned or maintained by the Department that is no longer capable of functioning as originally designed, or as since modified, or any piece of equipment that has deteriorated sufficiently in the opinion of the Engineer so that failure is imminent or for which safety could be a concern.

DBE	Disadvantaged Business Enterprise
DON	District Operations Network (also known as CCTV Distribution system)
EFO	Illinois Department of Transportation, District 1, Bureau of Traffic Electrical Maintenance, Electrical Field Office, 101 W. Center Court, Schaumburg, IL. 60196
EMCMS	Electrical Maintenance Call-out and Management System
EMERGENCY	A condition which is a hazard to the public, or is designated by the Engineer to be a hazard of such severity that life and property are endangered and which requires Immediate Corrective Action
ENGINEER	Region I Engineer or his designee for this Contract

EQUIPMENT SERVICE

Refers to the servicing and/or restoration of any equipment to normal operating condition and appearance necessitated by service equipment wear-out, failure, damage or loss

FROM ANY CAUSE WHATSOEVER

When used herein shall include any and all causes except those resulting in extensive damage from declared area wide disasters such as fires and floods, acts of the public enemy, or an Act of God. (The area wide disaster exclusion will be valid only for the time period and area as defined by a Governor's Disaster Declaration.)

GCM GATEWAY

Gary-Chicago-Milwaukee Corridor Transportation Information Network

IDOT INSPECTOR

Employees of the Illinois Department of Transportation who are assigned duties on this contract

IMMEDIATE CORRECTIVE ACTION

Refers to all activity necessary to restore the safe operating integrity of a system or system element, without delay

ISP/CMS

Illinois State Police Area in Central Management Service facility

MAINTENANCE SCHEDULE

A schedule prepared by the Engineer, or prepared by the Contractor at the direction and approval of the Engineer, showing starting and completion dates of work items to be performed on the various installations or systems

MANUAL ON TRAFFIC CONTROL (M.U.T.C.D.)

The State of Illinois "Manual on Uniform Traffic Control Devices for Streets and Highways"

MOTORIST CAUSED HIGHWAY DAMAGE (MCHD)

Refers to the State program, which provides funds for repair and/or replacement of damaged system equipment, if a Police Accident Report with Driver information can be matched to a specific damage.

NEC

National Electrical Code

NAGIOS

Nagios is a software monitoring system that enables organizations to identify and resolve IT infrastructure problems before they affect critical business processes.

NON-ROUTINE WORK

Non-routine work shall refer to work which is not included under routine work, but which is authorized and paid separately. Methods of payment include use of contract pay items, established agreed prices for contract work and/or the use of force account procedures.

OSHA

Occupational Safety Health Administration

PATROL

Refers to driving a pre-assigned route with a defined regular reoccurring time schedule to inspect ASMC installations and equipment.

PAY MEETING Monthly meeting held to discuss status of routine and non-routine work. (The Contractor shall provide the properly numbered monthly invoice for routine maintenance work at this meeting.)

PLC

Programmable Logic Control

QA/QC

Quality Assurance/Quality Control

RACS

IL 38 (Roosevelt Rd.) Ramp Access Control System

RAMP When used in the context of the REVLAC system, it refers to an entire reversible lane entrance ramp, including, but not limited to, signs, outside gates, barrier, and inside gates. The highway pavement that transitions from one roadway element to another. In this contract, it may also refer to all access control equipment and systems associated with a particular ramp location.

REGION 1 Area within Cook, DuPage, Kane, Lake, McHenry, Will, and a portion of Kendall Counties (also termed District 1)

RESPONSE TIME Amount of time from the initial notification to the Contractor until a repair person physically arrives at the location.

REVLAC Reversible Lane Control System for the Kennedy Expressway

ROUTINE MAINTENANCE Refers to all work required to staff, equip, patrol, inspect and maintain the systems under this contract, whole and operational, at locations and as defined herein, except for work specifically excluded from routine maintenance coverage and paid separately as non-routine maintenance work. This generally covers monthly recurring and operational response activities.

RUS Rural Utilities Service, USDA

SALVAGE Material/equipment which has been removed from the installed location, inspected for quality, and re-stored in State Stock for further use if directed by the Engineer.

SEOC State Emergency Operations Center

SPECIALTY SERVICE Specialty Service, or Specialty Service Work shall refer to work performed by entities other than the Advanced Systems Maintenance Contractor who are not prequalified subcontractors but whose services are necessary because of specialized equipment, specialized expertise or the maintenance restrictions on a particular piece of system equipment. Examples of specialty service entities include motor repair shops, communication and/or electronics repair shops, manufacturer's authorized repair agents, software programmers/developers, and similar service providers. Such work is not restricted to in-shop work and such services may be field-performed. Such services will not be considered as materials.

STANDARD SPECIFICATIONS Illinois Department of Transportation's "Standards Specifications for Road and Bridge Construction", hereby referred to as "Standard Specifications"

SYSTEM When used herein refers to any or all the electrical systems or subsystems covered by this Contract or a specific defined collection of elements, as a system, as in the REVLAC System

THIRD PARTY Any entity other than IDOT or the Advanced Systems Maintenance Contractor

TICKET Maintenance record implemented by the Contractor on the IDOT EMCMS to record various types of malfunctions, failures, damages, knockdowns, vandalism, theft or various other concerns relating to safety matters and/or the reported follow-up response information which documents the temporary and/or permanent repairs and proper Contractor response within required timeframes, to assure Department personnel that the system equipment is operating in an acceptable manner.

TRAFFIC SPECIFICATIONS

The Illinois Department of Transportation's "Standard Specifications for Traffic Control Items"

TSC The Illinois Department of Transportation, District 1, Bureau of Traffic, Traffic Systems Center, 445 W. Harrison, Oak Park, IL. 60304

WEEK A period of seven (7) consecutive calendar days. Any multiple of this term shall mean a corresponding multiple of number of calendar days.

WORKING DAY

The definition of a working day shall be in accordance with Article 108.04 of the Standard Specifications, with the exception that working days may be charged throughout the entire year.

WORK SCHEDULE

The work schedule shall provide details of work activity as to dates when the activity is planned to be performed by the Contractors forces

24/7 Refers to operations required twenty-four hours per day, seven days per week.

All definitions in referenced publications and standards shall apply, except as may be modified herein.

2.2 SPECIFICATIONS AND STANDARDS

The latest issue, at the bid date, of the following standards, including subsequent additions or revisions made prior to the bid date, shall apply to the work covered by this contract. In case of conflict with any or parts of the standards listed below the Special Provisions contained herein shall take precedence and shall govern. In case of conflict between referenced standards, the most stringent as determined by the Engineer, shall take precedence and shall govern.

Illinois Department of Transportation Standards and Specifications

- Standard Specifications for Road and Bridge Construction, current version
- Note: Article 801.02, Standards of Installation shall apply to all systems under this Contract and is not limited to Lighting
- Design Manual Section 3-600 published on Highway Lighting
- Flaggers' Handbook
- Highway Standards
- Manual on Uniform Traffic Control Devices
- Accommodating Utilities on Rights-of-Way of IL. State Highway System
- Recurring Special Provisions for Traffic Signals, Road and Bridge and Other Related Laws
- Standard Specifications for Traffic Control Items
- Supplemental Construction Specifications and Recurring Specifications
- BDE Special Provisions

Illinois Department of Transportation, District 1, Standards and Specifications

- District 1 Highway Standards
- Freeway Details Freeway Entrance and Exit Ramp Closure Details
- Traffic Control Details for Freeway Shoulder and Partial Ramp Closures
- Micro Computer Management Manual
- Permit Specifications Governing Permit Work on State Right-of-Way

- Recurring Traffic Signal Specifications
- Recurring Special Provisions for Roadway Lighting
- Resident Engineers Construction Guide for Electrical Equipment Construction on State Highways
- Standard 2308-4 (Day or Night Moving Operations)
- Standard Specifications for Electrical Maintenance Contract Management System
- Standard Specifications for the Emergency Data Acquisition System
- Standards for Roadway Lighting by Permit on State Routes
- Standard Traffic Signal Design Details
- Traffic Signal Plan Preparation and Design Guide
- Traffic Surveillance Special Provisions & Traffic Surveillance Typical Drawings
- Bureau of Traffic, "Keeping the Expressway Open to Traffic"
- Traffic Control Plans for Daytime and Nighttime Traffic Operations
- Work Site Protection Manual

Note: Per State Statutes there is no smoking allowed at any IDOT building or facility, which includes ASMC equipment facilities.

National Standards, Specifications and Regulations

- Insulated Cable Engineers Assn. and Underwriters Laboratories publications when applicable for cable and other materials
- National Electrical Manufacturers Association Standards, American National Standards Institute, where applicable, for signals, lamps, ballasts, and other accessories
- American National Standards Institute, where applicable, for ballasts, and other accessories
- ASTM Standards for materials
- All applicable manuals and policies of FHWA
- National Electrical Code, National Fire Protection Association, Batterymarch Park, Quincy, MA 02269, approved by the American National Standards Institute, Publication #ANSI/C2, published by IEEE, 345 E. 47th Street, New York, NY 10017
- Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals AASHTO Publication
- Emergency Response Guidebook by U.S. Dept. of Transportation, latest version, for further assistance call National Response Center (NRC) 1-800-424-8802
- Hazardous Materials Regulations, Hazardous Materials Transportation Uniform Safety Act of 1990, Hazardous Materials Regulations and Motor Carrier Safety Regulating by U.S. Department of Transportation
- OSHA, all applicable regulations
- Federal Communications Commission

ARTICLE 3.0 – PRE-CONSTRUCTION MEETING SUBMITTALS

The Pre-Construction Meeting Date will be determined by mutual agreement of the Department and the Contractor.

Sub-Contracting Requirements Article 4.2.1

The Contractor shall submit to the Engineer:

- A request for Approval of Subcontractor, form BC260A for each subcontractor to be employed for work under this Contract
- A certification stating that the required Federal and State provisions will be inserted in the final contract with the subcontractor. Inclusion of the required contract provisions will be monitored by the Bureau of Small Business Enterprises, as part of its compliance review.
- A written subcontract agreement for each proposed subcontractor which sets forth the scope of services to be subcontracted, the lump sum or unit price for such services and the signatures of the subcontracting parties

Specialty Service Work Article 4.3

The Contractor shall provide the names of all Service Companies or Specialized Vendors, (not to be named as Sub-Contractors) expected to be utilized for Contract work. The Engineer reserves the right to ask for further qualifications, referrals, or documentation of work from any proposed Service or Specialized Vendors.

Wireless Communication System (Cell Phones) Article 4.7

The Contractor shall submit catalog cuts of the proposed system, units, accessories, and programming software, for Engineer approval.

Extended Warranty and Maintenance Agreements Article 4.9 and 4.10

The Contractor shall obtain and provide copies of the required extended warranty and maintenance agreements for the duration of this Contract for the equipment and software as listed in Article 4.9 and 4.10.

Organization Chart and Personnel Documentation Article 4.12.3

The Contractor shall submit, for review and approval by the Engineer, the organization chart, naming the Project Manager, Dedicated Specialist or Specialist and Dedicated Field Technician, Maintenance Foreman, all electricians, and administrative/dispatch personnel.

Equipment Verification Article 4.20.3

The Contractor shall provide a listing of all vehicles and equipment expected to be used on the Contract, as well as evidence of vehicle ownership or lease.

Safety Program Article 4.26

The Contractor shall furnish an overall description of their Safety Program.

ARTICLE 4.0 -- GENERAL CONTRACT REQUIREMENTS

4.1 BASIC CONTRACT PROVISIONS

Unless noted herein, all requirements as listed in Article 4.0 General Contract Requirements shall be paid through, are part of, and incidental to routine maintenance.

Once the Contract is executed and the insurance submittals have been approved, the Contractor shall begin preparations to assume routine and non-routine maintenance responsibilities as specified and shall perform work as required and as directed by the Engineer. Certain preparatory work, such as transfer of state stock inventory, purchase of spare materials for system equipment repairs and other items, as arranged with the Engineer, may be completed in advance of the start of the Contract.

4.1.1 TERM OF CONTRACT

The Contract shall be valid for all operations from 12:00 a.m. on April 1, 2010 to 12:00 a.m. (midnight) to March 31, 2011, subject to cancellation provisions specified herein. The Contract shall remain in force, even following the completion of routine maintenance response requirements, until 12:00 a.m. (midnight) on March 31, 2012. All routine and non-routine contract work shall be completed by that date. The Contractor shall comply with authorized work completion dates; however, any authorized non-routine work which has not yet been started, due to circumstances such as delays in issuance of permits by outside agencies, will be cancelled. If the Contract is renewed, the Department shall make the effort, if circumstances allow, to re-authorize in the renewal term, any work items cancelled from the prior contract term.

4.1.2 RENEWAL

The Department has the sole discretion to renew this contract for an additional nine (9) months. This option would extend the Contract from 12:00 a.m. April 1, 2011, to 12:00 a.m. (midnight) December 31, 2011, per all revisions or amendments as defined. If renewed, the Contract shall remain in force, even following the completion of routine maintenance response requirements until 12:00 a.m. (midnight) on December 31, 2012. All routine and non-routine contract work shall be completed by that date. The Contractor shall comply with authorized work completion dates; however, any authorized non-routine work which has not yet been started, due to circumstances such as delays in issuance of permits by outside agencies, will be cancelled.

The Contractor shall accept the renewal of the Contract if offered by the Department. Upon notification of the contract renewal by IDOT, the Contractor shall complete and submit IDOT's contract renewal form within fifteen (15) days of notification, together with documentation of the contract bond extension and copies of the required insurance policies for the renewal year as well as any other documentation required by the Department.

The original contract term and the renewal term shall be considered independent with respect to completion of work, payment, and withholding of payment as well as all associated work documentation.

No later than one month prior to the start of the renewal year, the Contractor shall provide the Department the following for approval:

- Acknowledgement of the renewal acceptance
- Letter of Intent for contract bond extension (submit to Engineer once renewed)
Contractor cannot start work on renewal term until bond is issued.
- Copies of required insurance policies covering the renewal year

- Submittal of contract vehicle assignments, vehicle models and current mileage submittal of new vehicle purchase invoices or leases (necessary to meet yearly mileage limits)
- Requests for Sub-Contractor Approval, form BC260-A for each desired sub-contractor to be utilized in the renewal year
- A new Disadvantaged Business Utilization Plan for the renewal year on Department forms SBE 2026, and DBE Participation Commitment Statement on Department forms SBE 2025 (which must be approved by the Department prior to the start of the renewal year work)
- Submittals for any new equipment or materials not submitted and approved in the prior contract term, but anticipated for use in the renewal year

4.1.3 COMPLETION OF ANNUAL WORK

The Contractor is expected to complete authorized work by the agreed due date within the Contract terms (refer to Article 4.1.1). If the renewal provision is exercised by the State, the renewal shall not relieve the Contractor from the requirements to complete work from the first year in a timely fashion. The existence of a backlog from a prior year shall not be a justification for delay of work in the renewal period. Incomplete routine or non-routine work without an approved delayed completion date may cause the application of liquidated damages or retainage of the routine maintenance payment.

The Engineer may apply a withholding of up to 75% of the March, 2011 routine maintenance payment (or December, 2011 if this Contract is renewed) until all authorized routine and non-routine maintenance work is complete, but may progressively release portions of the retainage as the incomplete work is reduced. Key items for completion of work under a calendar year (or term) include:

- All routine work complete, approved, with all documentation
- All workforce analysis reports submitted and accepted
- All DBE/EEO submittals complete and accepted/approved

4.1.4 DE-AUTHORIZATION OF WORK

Authorized work which may not be completed by March, 31, 2012, (or December 31, 2012, if this Contract is renewed) due to circumstances beyond the control of the Contractor, such as major weather events, delays in issuance of permits by outside agencies, etc., shall be de-authorized.

The Contractor shall be entitled to received payment for services and work performed and materials furnished prior to the effective date of the de-authorization of the work, but shall not be entitled to received any damages on account of such de-authorization, or any further payment whatsoever.

4.1.5 CANCELLATION OF WORK

Only the Department may cancel the contract. The Contractor shall be given 30 days advance notice of cancellation of this Contract. In the event of cancellation, the Contractor shall be entitled to receive payment for services and work performed and materials or equipment furnished under the terms of the Contract prior to the effective date of cancellation, but shall not be entitled to receive any damages on account of such cancellation or any further payment whatsoever. There shall be no payment for incomplete work.

The Department may take possession of the incomplete work and all materials, associated special tools and appliances, for any reason, which the Engineer deems to be in the public interest, and this decision shall be final. Upon the receipt of a notice of cancellation, the

Contractor shall provide the Engineer with a list of all State Stock inventory in his possession as of that date.

4.2 SUBCONTRACTING OF WORK

4.2.1 GENERAL REQUIREMENTS

The Contractor shall obtain approval from the Engineer for employment of all subcontractors performing work on this Contract, prior to the commencement of work. Except as modified herein, subcontracting of the contract work shall be in conformance with the requirements of the Standard Specifications and Supplements and Recurring Special Provisions.

The Contractor shall submit to the Engineer, prior to the start of work, and at the Pre-Construction Meeting:

- A request for Approval of Subcontractor, form BC260A for each subcontractor to be employed for work under this Contract
- A certification stating that the required Federal and State provisions will be inserted in the final contract with the subcontractor. Inclusion of the required contract provisions will be monitored by the Bureau of Small Business Enterprises, as part of its compliance review.
- A written subcontract agreement for each proposed subcontractor which sets forth the scope of services to be subcontracted, the lump sum or unit price for such services and the signatures of the subcontracting parties

4.2.2 SUBCONTRACTING LIMITATIONS

In addition to the limitations imposed by the Standard Specifications, there shall not be wholesale subcontracting of the herein defined systems (per routine pay items). The Contractor shall perform not less than 51% of the maintenance of each electrical system with his own forces. In addition there shall be no geographically-based subcontracting of the work, e.g., by north Cook or by south Cook, etc., and the Contractor's daily management and supervision for each system, all administrative functions and dispatching, shall be done with his own forces.

Work, which is subcontracted, shall not include work which is in turn subcontracted to an additional party. Subcontracted work shall be limited to work performed by the subcontractors' own forces.

4.2.3 SUBCONTRACTOR BILLING

For non-routine agreed price work (not pay items) performed by an approved subcontractor as named on the authorization for work and on the contractor invoice, in accordance with Article 109.04 (b)(7) of the Standard Specifications, when work is performed by an approved subcontractor, the Contractor shall be allowed administrative costs of an amount equal to five (5) percent of the total approved costs on a individual work authorization, with the minimum being \$100. An additional material mark-up of fifteen percent per Article 109.04(b)(3) of the Standard Specifications is not allowed.

4.3 SPECIALTY SERVICE WORK

When specialty service work (work by vendors not approved as subcontractors) is approved and authorized by the Department through agreed price work the Contractor shall be paid administrative costs of an amount equal to five (5) percent of the first \$10,000, with a minimum of

\$ 100.00, and the Department shall allow an additional one (1) percent of any amount over \$10,000 of the total approved costs, for an individual work authorization.

If the Contractor is furnishing an invoice for materials not supplied by the vendor for specialty service work, the quote may include an appropriate mark-up per Article 109.04(b)(3) of the Standard Specifications for Road and Bridge Construction. In no case shall specialty service work, in its entirety be considered "materials" when a quote for specialty service work is submitted to the Department, or shall Article 109.05 of the Standard Specifications be applicable.

The Contractor shall provide at the Pre-Construction Meeting the names of all Service Companies or Specialized Vendors, (not to be named as Sub-Contractors) expected to be utilized for Contract work. The Engineer reserves the right to ask for further qualifications, referrals, or documentation of work from any proposed Service or Specialized Vendors.

4.4 CONTRACT TRANSITION

4.4.1 BASIC REQUIREMENTS

It is the obligation of the Contractor to make every effort to provide a smooth transition from the prior contract to this contract. This may involve adjustments in ongoing operations to adjust to revised contract provisions or it may involve a startup of operations and the assumption of maintenance responsibility if there is a change in Contractor. In either case, full professional cooperation by the Contractor is expected by the Department to assure that the District's systems remain continuously monitored and maintained.

The Contractor shall assure the Department that at 12:01 a.m. on April 1, 2010, the maintenance transfer is complete and transparent to the public, and that the District's electrical systems remain continuously monitored and maintained. It shall be recognized that the transfer and transition from one contract to the next will not be instantaneous with regard to all aspects of all systems. Certain work may remain incomplete at the time of the transition, requiring coordination and system access to allow work completion after contract transfer. The Contractor shall cooperate fully to facilitate this transition period work.

4.4.2 ASMC SYSTEM SURVEY

Following the award of the Contract the Contractor may submit to the Engineer a schedule for joint Contractor and Department inspections of all systems to determine any outstanding maintenance issues. The inspections shall be completed by March 1, 2010.

4.4.3 STATE STOCK TRANSFER

The Contractor shall prepare facility storage areas for delivery, during the last half of March 2010, for state stock materials. The Engineer shall provide the Contractor a list of the state stock prior to delivery.

The Contractor shall provide the Engineer on March 1, 2011 (or December 1, 2011 if this contract is renewed) a list of all state stock inventory and its applicable location that is in his possession on that day. All state stock inventory and/or other equipment or materials owned by IDOT in the possession of the Contractor shall be moved to state owned locations or locations as designated by the Engineer, by a date to be specified by the Engineer (during March 2011, or December 2011 if this contract is renewed). The Contractor shall replace any missing state stock in kind due to loss, theft, burglary, or damage caused by his workforce.

The Contractor shall use his own materials for contract work for the remaining days of the term of the Contract.

4.4.5 CONTRACTOR OFFICES

All Contractor's facilities shall be complete and ready for the Engineer's inspection no later than March 15, 2010. The ASMC Office, ASMC Dispatch Center, EMCMS terminals in both areas, and sufficient telephone lines shall be tested for the contract transition at midnight April 1, 2010. Refer also to Article 4.6.2., 4.6.3., and Article 4.8.

4.4.6 CELLULAR TELEPHONES

The list of proposed call numbers shall be furnished to the Engineer for approval and assignment by March 1, 2010. The Contractor's system shall be purchased or leased, and units programmed and distributed to required personnel prior to the transition at midnight April 1, 2010. Refer also to Article 4.7.

4.4.7 LOCKS AND KEYS

The Contractor shall purchase three hundred (300) padlocks and keys for REVLAC and RACS equipment. The padlocks and key numbers shall be approved by the Engineer prior to Contractor purchase. The Contractor shall be furnished the catalog cut of the specified padlock at the Pre-bid meeting. By June 1, 2010 the Contractor shall have installed or replaced existing padlocks and keys at the REVLAC and RACS locations as designated by the Engineer. Any quantity of locks and keys remaining after the purchased quantity has been installed shall be placed in state stock at a location as specified by the Engineer.

For each new installation or replacement of padlocks, the Contractor shall create and submit to the Engineer an Excel spreadsheet noting the location, type equipment/item and key number. The spreadsheet shall be included in the June 2010 monthly submittal book.

The Contractor is not allowed to have a master key which will open all locks.

At the end of the Contract the Contractor shall submit to the Engineer all keys to IDOT System equipment with an updated Excel spreadsheet noting the location, type equipment/item and key number, on a date as specified by the Engineer. All existing, replacement and/or new locks added during the Contract become the property of the Department.

4.4.8 END OF CONTRACT TRANSITION

It is the obligation of the Contractor to cooperate fully to facilitate the transition period work from this contract to any subsequent contract, providing prompt communications, timely completion of authorized work, and other transfers as noted herein.

4.5 CONTRACTOR PERFORMANCE

4.5.1 PRIORITY OF WORK

For the Contractor's forces employed on this Contract, the work on this Contract shall take precedence over work performed for others, including other government agencies, except as expressly permitted by the Engineer or specified herein. This requirement applies to work activities on a daily basis. The Engineer reserves the authority to re-direct the Contractor's work priorities in response to emergency situations, potential hazards, contract coordination and

incomplete or deficient work and the Contractor will be allowed no additional compensation for priorities so redirected.

4.5.2 SUSPENSION OF WORK

If in the option of the Engineer any work performed on this Contract may seriously jeopardize the welfare of the general motoring public, the Engineer has the authority to order the immediate suspension of the work task. Depending on the offense, the Engineer may withhold all or a portion of the monthly routine maintenance payment due to the Contractor, and/or assess liquidated damages.

4.5.3 UNSATISFACTORY SERVICE

Failure to perform all functions in the manner specified herein or in the Standard Specifications, and within any time limit specified, or should the Contractor refuse or fail to perform the work or any separable part thereof promptly and in the manner specified in this Contract with such diligence as will insure its satisfactory completion, the Engineer will advise the Contractor via written transmittal regarding the nature of unsatisfactory service. The Contractor shall take necessary action to correct the items listed and shall respond back to the Engineer within five (5) working days from the time of receipt of the report, explaining the reasons for the improper service and the expected date of the resolution of the listed problems.

If after two (2) written warnings that a work item is not in Contract compliance or work has not been completed per the agreed time frame, the Engineer will take additional remedial action such as withholding of all or a portion of the monthly routine maintenance payment due to the Contractor, assessing liquidated damages, or both.

If the Contractor cannot perform the work per contract specifications, it will be the Engineer's option to require the Contractor pay another contractor, (as approved by the Engineer) for the corrective work, the actual time and materials cost of which shall be deducted from the Contractor monthly routine maintenance payment as liquidated damages.

4.5.4 WITHHOLDING AND RELEASE OF FUNDS

The Engineer may withhold up to 100% of the total monthly routine maintenance payment for non-compliance of the Contract; the incomplete or otherwise unsatisfactory performance, including but not limited to failure to respond to reported incidents in a timely manner, perform maintenance in compliance of contract requirements, complete work per the agreed time frame, or document dispatch or response work activities in the time and/or manner as specified in articles herein.

After the previously uncompleted or deficient work has been subsequently completed to the satisfaction of the Engineer, the Contractor shall advise the Engineer in writing, requesting the release of funds previously withheld. The Engineer shall approve the release of funds previously withheld from the Contractor through an authorization letter.

4.5.5 LIQUIDATED DAMAGES

The Engineer may assess liquidated damages, to be deducted from the Contractor monthly routine maintenance payment, for any items not in compliance of the Contract, unless the Contractor can demonstrate to the satisfaction of the Engineer, that his/her efforts were deterred by the Department, or by other contractors employed by the Department or by unforeseeable causes beyond his control and without the fault or negligence of the Contractor.

It shall be the decision of the Engineer whether the liquidated damages per day or one time charge will be assessed as follows:

Liquidated Damage Assessment

Per Day	One Time	Per Contract Specifications Failure to:
\$ 200.00	\$ 500.00	Respond per Time Specifications
\$ 200.00	\$ 500.00	Provide Documentation
\$ 200.00	\$ 500.00	Provide Timely Repair or Replacement of Parts
\$ 200.00	\$ 500.00	Provide Proper Service
\$ 200.00	\$ 500.00	Provide Reports or Communication
\$ 200.00	\$ 500.00	Follow Specified Procedures
\$ 200.00	\$ 500.00	Provide Proper Staffing
\$ 200.00	\$ 1,000.00	Improper Use of Materials or Methods
	\$ 1,000.00	Improper Use of Traffic Control
	\$ 2,000.00*	Blocking Lane or Ramp to Traffic
	\$ 5,000.00*	Blocking Two Lanes to Traffic
\$ 500.00	\$ 1,000.00	Replace State Stock on Timely Basis
\$ 500.00	\$ 3,000.00	Return State Stock at End of Contract

*per each and every 15 minute interval or portion thereof that a lane is blocked outside the allowable time limitations

4.6 CONTRACTOR FACILITY REQUIREMENTS

4.6.1 GENERAL REQUIREMENTS

At the time of bidding the Contractor shall have an established business presence in the District to assure the timeliness of the assumption of the contract work on the first day of the Contract.

The Contractor shall have and maintain as part of his existing establishment adequate facilities at all times to facilitate the timely completion of work under this contract. These facilities shall include an ASMC Office and 24-hour Dispatch Center and other permanent facilities, which may be strategically located, geographically, to support the Contractor's work force. The size and type of facility may vary depending on the location, type, and quantity of electrical equipment to be serviced within that area.

All Contractor's facilities shall be complete and ready for ASMC maintenance operation no later than March 15, 2010, ready for a demonstration inspection by the Engineer, except that dial-up phone numbers which are transferred from the outgoing contractor need not be established by the Contractor until a mutually acceptable date is arranged with the Engineer.

4.6.2 ASMC OFFICE

The Contractor shall establish, for the duration of this Contract, a contractor's office in-District, (in the six county area covered by this Contract) for management of all contractor work under this Contract. This ASMC office may be a satellite office remote from the Contractor's headquarters or it may be a singular and clearly-defined section within the Contractor's in-District headquarters. In order to facilitate communication and shared interest in contract matters, the contract management and technical/administrative functions as defined herein and represented in the Contractor's organization chart shall not be dispersed throughout various areas of the Contractor's operations but shall be established here as an identifiable group with dedicated physical space. One desk and chair shall be dedicated for use by IDOT personnel when they are in the ASMC office. A minimum of one (1) EMCMS terminal is required for this area, and a UPS is recommended.

4.6.3 ASMC DISPATCH CENTER

Unless another location is approved by the Engineer, the Contractor's in-District headquarters or in-District ASMC office shall include the 24/7 hour operations of the Dispatch Center, which may be used for other Contractor dispatch functions, but shall be adequately equipped and staffed to service the ASMC on a first-priority basis. This function cannot be sub-contracted, and no voice mail or automatic answering is allowed. A minimum of two incoming telephone lines are required. Callers shall connect to a Contractor dispatcher within three (3) rings. A minimum of one (1) EMCMS terminal, and one (1) computer with internet and email access for photo transmission and GCM monitoring, or Blackberry or similar product with web access and email is required for this area. A UPS is recommended.

4.7 WIRELESS FIELD COMMUNICATIONS

The Contractor shall have in place, a district-wide wireless field communications system with a central base established at the Contractor's ASMC Dispatch Center or other location as approved by the Engineer.

To assure a consistent and reliable transmit and receive coverage throughout the entire 4400 square mile geographic area of District 1, the Contractor shall have a digital wireless communications system; cell phone system with unlimited local calling, camera, GPS, email, email photo transmission, and web access. In addition, the Contractor shall provide cigarette lighter charger/adapters, AC recharging units in the form of cords, largest Lithium-Ion battery available, separate carry case or protector (unless flip-top model), and belt carry attachment for all units.

To facilitate Contractor communications, timely transmission of data, inspection of work by Department personnel, and transmittal of photos of damage to state property, individual units shall be assigned as described herein. The ASMC Project Manager, all Contractor ASMC field personnel, the administrative manager, dispatch personnel and up to ten (10) Department supervisory field inspection personnel and/or communications center personnel shall be provided units.

As these units are used for field work, it may be necessary for the Contractor to replace up to five inspector units or receivers, and furnish additional new parts, holsters, chargers, adapters or batteries to all units, as necessary, during each contract year.

Each communication unit shall be new, and models and accessory equipment shall be approved by the Engineer prior to purchase or lease by the Contractor. The Contractor shall submit catalog cuts of the proposed system, units, and programming software, for Engineer approval, at the Pre-Construction Meeting.

The list of proposed call numbers shall be furnished to the Engineer for approval and assignment by March 1, 2010. The system shall be purchased or leased, and units delivered, programmed, and distributed to personnel by April 1, 2010.

The Contractor is responsible under routine maintenance for the monthly billing, email service provider, web access, web photo transmission, and other provider assistance as necessary for data transfers and proper operation of the communication units.

4.8 ELECTRICAL MAINTENANCE CONTRACT MANAGEMENT SYSTEM (EMCMS)

The emergency call-out data base, and a timely, accurate flow of information regarding contract work and billing are very much instrumental to the successful performance of the Advanced Systems Maintenance Contract. The Electrical Maintenance Call-Out and Management System (EMCMS) consists of hardware, software, and an information database to support the Contract needs. The existing established IDOT EMCMS shall continue into this Contract to assure operational continuity. The Contractor shall use the EMCMS for all Ticket creation and disposition, and non-routine authorization and invoicing of work, unless approved otherwise by the Engineer. Bidders may obtain a list of required hardware and the charge for hourly programming time from the current maintainer of the EMCMS, Xsys Inc., 653 Steele Drive, Valparaiso, IN. 46385, Telephone 219-477-4816.

Multiple maintenance contracts are managed through the current EMCMS. Due to security concerns, the Contractor is encouraged to use the current maintainer of EMCMS. However, should the Contractor intend to choose another maintainer, he shall submit the qualifications and references of the company for Department's review and approval to assure security and integrity of the system. Only Department approved maintainers may perform any changes on the EMCMS.

The Contractor is required to have a minimum of two computers with Windows XP and Internet Explorer, (one of which must be located in the Contractor's Dispatch facility), with sufficient speed and memory to run EMCMS software, and necessary T-1 phone lines, routers, etc, in place for inspection by the Engineer, by March 15, 2010. The connections and the set-up of the EMCMS servers for the new workstations shall be performed by Xsys., Inc.

In case of disruption of service, all Contractor EMCMS equipment, (all hardware, and communications lines between the IDOT headquarters computer and all remote terminals) shall be restored within eighteen (18) hours, except as otherwise permitted by the Engineer. The Contractor shall have sufficient staff or have a sub-contractor in place to maintain the EMCMS workstations and communications links.

The Contractor is responsible through routine maintenance to have the approved maintainer of EMCMS perform necessary training, (estimated 20 hours), correct Contractor database entry errors or printing errors or correct other malfunctions as they occur (estimated 30 hours for the Contract term). If the Contractor finds a need to modify or add tables, screens and reports in the EMCMS to aid him in contract management or to improve the productivity of his personnel, he may do so at his cost, upon approval of the Engineer, but only through the approved maintainer.

Additional modification work, separate from the correction of errors or malfunctions, which is necessary to for effective management of the EMCMS, as requested from the Department, will take approximately 200 hours of programming time from Xsys, Inc. for the first year of the Contract, and an additional 150 hours of time if this Contract is renewed. The Contractor shall provide the programming work from Xsys, Inc. through routine maintenance, which may be completed at any time from April 1, 2010 through December 31, 2012.

Modification work expected to be performed during the Contract term includes modification of the ticket summary, ticket count, locate location, and separation of ASMC calendar roll-over and re-sequencing screens.

All costs for the Contractor's EMCMS computers (installation and maintenance) and maintenance of the Department's existing units and printers, as well as tractor paper, Brother tape cartridges, and CO880 envelopes, shall be borne by the Contractor and shall be included in the routine maintenance.

Refer to work documentation requirements herein for EMCMS data entry requirements. As part of the site inspection visits offered by the Department prior to bidding, a limited tour of the EMCMS equipment and operations at the IDOT Traffic Electrical Maintenance Office in Schaumburg, IL, and the District 1 Headquarters in Schaumburg will be offered to familiarize bidders with the procedures.

4.9 SOFTWARE MAINTENANCE SUPPORT

For the duration of this Contract, and until December 31, 2011 if renewed, the Contractor shall secure a commitment for software maintenance support specialty services with the original software developer, Engineered Software Products of Lawrenceville, GA (or an approved alternate) for the ASMC systems for emergency trouble shooting expertise and for the modification of the existing system as may be necessary.

The principal for Engineered Software Products is Mr. D. Grib Murphy, 770-682-8259. A letter of intent to provide these services is required from Engineered Software Products (or an approved alternate) to be presented to the Engineer at the Pre-Construction Meeting.

The following chart indicates software which shall be maintained and licenses renewed under this Contract, and if renewed until December 31, 2011, as incidental to routine maintenance.

Rockwell Part Number	Serial Number	Software Description	Version	Expiration Date	IDOT Use
9357DNETL3D	1235020855	RSNetworx for DeviceNet	4.01.00	31-Mar-10	RACS
9357DNETL3D	1235020856	RSNetworx for DeviceNet	4.01.00	31-Mar-10	RACS
9357DNETL3D	1235020866	RSNetworx for DeviceNet	4.01.00	31-Mar-10	RACS
9357DNETL3D	1235020854	RSNetworx for DeviceNet	4.01.00	31-Mar-10	RACS
9357CNETL3D	1163019247	RSNetworx for ControlNet	4.01.00	31-Mar-10	RACS
9357CNETL3D	1163019248	RSNetworx for ControlNet	4.01.00	31-Mar-10	RACS
9357CNETL3D	1163019258	RSNetworx for ControlNet	4.01.00	31-Mar-10	RACS
9357CNETL3D	1163019246	RSNetworx for ControlNet	4.01.00	31-Mar-10	RACS
9324RLD300ENED	1203023898	ControlLogix & RSLOGIX 5000	11.11.00	31-Mar-10	RACS
9324RLD300ENED	1203023899	ControlLogix & RSLOGIX 5000	11.11.00	31-Mar-10	RACS
9324RLD300ENED	1203023897	ControlLogix & RSLOGIX 5000	11.11.00	31-Mar-10	RACS
9324RLD300ENED	1203023909	ControlLogix & RSLOGIX 5000	11.11.00	31-Mar-10	RACS
9324RLD300ENED	1203023859	ControlLogix & RSLOGIX 5000	11.11.00	31-Mar-10	RACS
9701VWSCWAENE	2524000143	RSView SE Client	2.10.00	31-Mar-10	RACS
9701VWSCWAENE	2524000142	RSView SE Client	2.10.00	31-Mar-10	RACS
9701VWSCWAENE	2524000106	RSView SE Client	2.10.00	31-Mar-10	RACS
9701VWSCWAENE	2524000107	RSView SE Client	2.10.00	31-Mar-10	RACS
9701VWSCWAENE	2524000108	RSView SE Client	2.10.00	31-Mar-10	RACS
9701VWSS100AENE	2527000100	RSView SE Server 100 Display	2.10.00	31-Mar-10	RACS
9701VWSS100AENE	2527000101	RSView SE Server 100 Display	2.10.00	31-Mar-10	RACS
9701VWSTENE	2529000103	RSView Studio for RSView Enterprise	2.10.00	31-Mar-10	RACS
9355WABGWENS	1006010204	RSLinux Gateway Software	2.40.01	31-Mar-10	RACS
9324RL5300ENE	1112063372	RSLogix 5	5.20.10	31-Mar-10	REVLAC
9324RL5300ENE	1112063372	RSLogix 5 upgrade Ver. 6.0	6	31-Mar-10	RACS
9357CNETL3	1163019246	RSNetWorx Update	4.11.00	31-Mar-10	RACS
9357CNETL3	1163019247	RSNetWorx Update	4.11.00	31-Mar-10	RACS

VARIOUS ROUTES
SECTION 2009-0861
VARIOUS COUNTIES
CONTRACT 60128

9357CNETL3	1163019248	RSNetWorx Update	4.11.00	31-Mar-10	RACS
9357CNETL3	1163019258	RSNetWorx Update	4.11.00	31-Mar-10	RACS
9701VWSCWAENE	2524000142	RSView SE Client 3.00.01	3.00.01	31-Mar-10	RACS
9701VWSCWAENE	2524000143	RSView SE Client	3.00.01	31-Mar-10	RACS
9701VWSS100AENE	2527000100	RSView SE Server 100 display	3.00.01	31-Mar-10	RACS
9701VWSS100AENE	2527000101	RSView SE Server 100 display	3.00.01	31-Mar-10	RACS
9701VWSTENE	2529000103	RSV Studio for RSV Enterprise	3.00.01	31-Mar-10	RACS
930125E3353	1476004195	RSView32 Runtime 5k			REVLAC(S)
9355WABENE	1008079409	RSLinx Professional	2.41.00-ENE		REVLAC(S)
930125E3353	1476004196	RSView32 Runtime 5k			REVLAC(C)
9355WABENE	1008079415	RSLinx Professional	2.41.00-ENE		REVLAC(C)
930125E3353	1476003669	RSView32 Runtime 5k			REVLAC(A)
9355WABENE	1008084954	RSLinx Professional	2.41.00-ENE		REVLAC(A)
930125E3353	1476004198	RSView32 Runtime 5k			REVLAC(D)
9355WABENE	1008079417	RSLinx Professional	2.41.00-ENE		REVLAC(D)
930125E3353	1476004197	RSView32 Runtime 5k			REVLAC(E)
9355WABENE	1008079416	RSLinx Professional	2.41.00-ENE		REVLAC(E)

Key: S =Dist 1 ComCenter/Schaumburg, A=REVLAC Bldg A, C=REVLAC Bldg C, D=REVLAC Bldg D, E=REVLAC Bldg E

4.10 EXTENDED WARRANTY AND MAINTENANCE AGREEMENTS

The Contractor shall obtain extended warranty and maintenance agreements for the duration of this Contract, and if renewed through December 31, 2011, incidental to routine maintenance, for the following equipment and software:

REVLAC and RACS systems

Name: AB Rockwell Software support and updates
 Contact: Revere Electric or Englewood Electric Supply
 Obtain: Annual support agreements for Rockwell software listed in Article 4.6
 Expires: 3/31/10

Nordic Tower, REVLAC Buildings A, C, D, and E, Hillside Hub

Obtain: Uninterruptible Power Supplies (UPS) Maintenance Agreements
 with next business day field response

CISCO Equipment (SmartNET) for SONET and GigE switches

Name: SBC or CISCO Authorized Service Vendor
 Contact: Ken Barnum, 217-527-2037 (or other CISCO authorized service vendor)
 Obtain: Software Extended Support Maintenance Agreement for 24/7 coverage and 4 hour equipment replacement delivery
 Expires: 3/31/10

District 1 Microwave Harris MegaStar at Hillside, Nordic, D1 HQ, REVLAC Bldg E, ISP/CMS DesPlaines

Name: Harris Corporation, Microwave Communications Division
 637 Davis Drive
 Morrisville, NC 27650
 Contact: John Kingsley, 630-762-3730, jkings01@harris.com or other Harris Authorized
 Obtain: Two (2) year extended warranty
 Expires: 3/31/10

District 1 AVL Equipment; base stations, controller, modems, and radios

Name: IP Mobile Net
 Contact: David Birarda, 604-937-5984, or other IP Mobile Net Authorized Vendor
 Obtain: Extended software and hardware support maintenance agreement
 Expires: 12/31/09 (Contract per year, In-coming Contractor coordinate with Out-going Contractor)

District 1 AVL Equipment; radio removals, re-installations and new installations

Name: Chicago Communications
Obtain: Support maintenance agreement for duration of contract
Contractor may have agreement for per unit billing

District 1 Storm Warning and Records Management System (SWARMS)

Name: Time Business Systems
Contact: John Naatz, 630-827-1800, or other Time Business Systems Authorized Vendor
Obtain: Maintenance agreement with 24/7 software support and field response during business hours
Expires: 3/31/10

Copies of the above list and any other signed maintenance agreements, with contact name and telephone number, all dates and details of equipment and response coverage, and monthly or yearly cost to the Contractor, shall be submitted to the Engineer at the Pre-Construction Meeting and again at the time of their renewal.

4.11 CONTRACT ADMINISTRATION AND CORRESPONDENCE

4.11.1 DAILY CONTRACT ADMINISTRATION

The ASMC will be administered by the IDOT District 1 Bureau of Traffic Electrical Maintenance Operations. The Resident Engineer, Mr. Naser Gholeh, P.E., will be responsible for the control of the work. The Contractor Project Manager shall communicate with the IDOT Resident Engineer on all formal contract matters. Contractor Supervisors and Administrative personnel shall normally communicate with the IDOT System Engineers and Technicians.

The Contractor shall address all matters of Contract interpretation or dispute at the lowest possible level. Issues which are not addressed to the Contractor's satisfaction at the Engineer/Technician level may be raised first to the IDOT Resident Engineer level and if not resolved may be raised to the level of Bureau Chief of Traffic Operations, Mr. Steve Travia.

4.11.2 FORMAL CORRESPONDENCE

All formal correspondence to IDOT regarding contractual matters shall only be submitted by the Principal or Project Manager and shall be addressed as follows:

Ms. Diane O'Keefe, P.E., District Engineer
Illinois Department of Transportation, District 1
Attn: Mr. Stephen M. Travia, P.E.
Bureau Chief of Traffic Operations
201 W. Center Court
Schaumburg, Illinois 60196-1096

cc: N. Gholeh, P.E. Resident Engineer

4.11.3 INFORMAL CORRESPONDENCE

Informal correspondence related to day-to-day maintenance matters shall be made by means of email where possible, or fax, and may be made directly to the parties involved. The Contractor ASMC Project Manager, the Specialist, the Field Technician, the Maintenance Foreman, Administrative Supervisor, Dispatch personnel, and other personnel as requested by the Engineer shall have an email address. The email service used by the Contractor shall not be a

service that attaches advertising to email. The Contractor shall have and maintain plain paper facsimile (fax) equipment at the headquarters, ASMC Office, and ASMC Dispatch Center, for the purpose of rapid dissemination of written information not in email form.

The Project Manager shall communicate with the Resident Engineer on all contract matters. System Managers and administrative personnel shall normally communicate with the IDOT System Engineers and Technicians.

4.11.4 WORK STATUS MEETINGS

Work status meetings may be requested by the Engineer or the Contractor. These meetings shall normally be held once per month, but may be held weekly if necessary. The Contractor Project Manager, the Specialist, the Field Technician, the Maintenance Foreman, Administrative Supervisor or other personnel, as requested by the Engineer, shall attend work status meetings, when requested by the Engineer.

4.12 CONTRACT PERSONNEL

4.12.1 GENERAL RESPONSIBILITIES

The Contractor shall at all times provide a force of qualified personnel, approved by the Engineer, sufficient in number to simultaneously perform the routine maintenance work, non-routine work and any specialized work operations required and described herein, and/or emergency operations at all times of the day and night.

All personnel working on IDOT systems and equipment shall have the proper training associated with their working environment, and shall use safety practices in accordance with OSHA rules and regulations such as those associated with confined space, fall protection, and lock-out-tag-out.

Except as otherwise restricted, the Contractor may utilize the workforce employed on this contract to serve the maintenance needs of other parties, however, this Contract requires that the Department of Transportation's work shall take precedence over other work. The Engineer may grant the Contractor authorization to postpone IDOT work to address emergency situations of others, but the shortage of workforce shall otherwise be insufficient grounds for the Contractor's failure to perform routine or other non-routine work within the prescribed time constraints.

The Engineer retains the right to reject the Contractor's structure for management of the contract if the specific requirements defined herein are not addressed or if the proposed structure or staffing is such that the effective execution of contract performance is compromised. If work performance is not acceptable to the Engineer, the Contractor shall have thirty days, after written notification is received, to comply with a personnel position change, as approved by the Engineer, or liquidated damages shall be assessed.

The Contractor shall remain responsible for any and all union agreements applicable to his workforce on the Contract. Union jurisdictions and other union contract requirements shall not become grounds for failure to perform the contract work.

Once per year the Contractor shall check for valid driver licenses for all personnel employed on the ASMC.

4.12.2 GENERAL WORKFORCE RESPONSIBILITIES

The Contractor shall employ sufficient trained personnel to perform all routine and non-routine maintenance and construction work concurrently, including inspections, equipment malfunction trouble-shooting, follow-up repairs, testing, and modification/replacement work. Skilled personnel shall be available 24/7 for immediate corrective response.

The Contractor's workforce shall possess the skills and knowledge necessary to perform all work in the proper manner. The workforce shall include personnel having certain special expertise, including, but not limited to the following:

- Materials Management
- General Electrical Power
- Building Wiring (Indoor Electrician)
- Motor Controls and Control Systems
- Various Types of Mechanical Work, particularly related to the gates and barriers
- Low Voltage Power Distribution Systems
- Roadway Electrical (Outdoor Lineman)
- Telemetry/Telecommunications
- Fiber Optic Cable Installation and Repairs
- Hardware/Software Trouble-Shooting
- Changeable Message Sign Technology
- PLC Repairs, Maintenance and Operation (Allen Bradley PLC systems)
- Ladder logic circuit troubleshooting
- Programmable logic controllers
- Communication equipment
- Office Administration
- Microwave Radio
- CCTV Systems

4.12.3 ORGANIZATIONAL DOCUMENTATION

The Contractor shall produce an organization chart to document the chain of command and to demonstrate compliance with the requirements defined by the contract, including reporting relationships of field personnel.

At the Pre-Construction meeting the Contractor shall submit, for review by the Engineer, the organization chart, naming the Project Manager, Dedicated Specialist or Specialist and Dedicated Field Technician, Maintenance Foreman and all electricians. Both emergency and non-emergency phone numbers, resumes and photo identification shall be supplied, sufficient to demonstrate compliance with contract requirements.

The Engineer retains the right to reject the Contractor's structure for management of the contract if the specific requirements defined herein are not addressed or if the proposed structure or staffing is such that the effective execution of contract performance is compromised. The Engineer may also reject the assignment of specific personnel to certain functions if the Contractor fails to demonstrate the qualifications matching personnel to defined responsibilities.

The submittal shall clearly define areas of responsibility and, in the case of supervisory personnel, the level of authority vested in each position. The Contractor may propose adjustments in the assignment of responsibilities as outlined herein, but staffing levels and overall accountabilities shall remain intact.

4.12.4 CORPORATE OFFICER

The name and title of the ASMC Project Manager's direct supervisor shall be provided. If at any time the Engineer determines that a Project Manager has insufficient authority and flexibility to effectively manage the work under this Contract, the Engineer retains the right to demand a Corporate Officer be in charge of the Contract, with the appropriate attendance at Pay Meetings, status meetings, etc.

4.12.5 ASMC PROJECT MANAGER

The Contractor shall appoint one person a ASMC Project Manager who shall have full daily responsibility for all maintenance and modification work of the ASMC Project under this contract.

This individual shall have a minimum of five (5) years of management experience in electrical construction and maintenance, and have an acceptable knowledge of the operations of the systems covered by this Contract, and the integration of multi-technology subsystems. The Project Manager shall have the full authority to speak definitively for the Corporate Officer relative to this Contract. This individual must meet the approval of the Engineer.

The ASMC Project Manager shall review all Tickets daily and correct, if necessary, to assure correct repair terminology, status of repair work, etc., prior to the Contractor Administrator sending the Ticket Summary Report to Department personnel. This individual shall be responsible for the scheduling of all ASMC work.

4.12.6 ASMC SPECIALIST

The Contractor shall appoint an ASMC Specialist who shall have a minimum of five (5) years experience in basic electronics and electronic components, such as relays, switches, etc. This individual shall be certified to trouble-shoot Allen Bradley programmable logic controllers, PLC 5, and RS Logics 5000 controllers. A minimum two (2) years work experience with CCTV systems and fiber optic transceivers is also required. Electrical construction and maintenance experience would also be desirable. This individual must meet the approval of the Engineer. This individual may also serve as the ASMC Project Manager, with Engineer approval. The Contractor shall designate the Systems Specialist as dedicated to Contract work or shall have the Field Technician (who would report to the Systems Specialist) as an employee dedicated to ASMC work.

4.12.7 ASMC FIELD TECHNICIAN

The Contractor shall appoint an ASMC Field Technician who shall have a minimum of five (5) years work experience in electrical construction and maintenance, ability to operate a bucket truck to access cameras, trouble-shoot CCTV, ability to operate a variety of test equipment for installing, servicing and testing electronic equipment, knowledge and ability to calibrate equipment to meet manufacturer and/or IDOT specifications, perform shop and field tests, and have advanced computer skills to troubleshoot network devices. This individual must meet the approval of the Engineer.

4.12.8 ASMC MAINTENANCE FOREMAN

The Contractor shall appoint an ASMC Maintenance Foreman who shall have a minimum of ten (10) years work experience in electrical construction and maintenance, and a minimum of five (5) years supervisory experience. This individual must meet the approval of the Engineer. This individual may also serve as the ASMC Project Manager, with Engineer approval.

The Maintenance Foreman shall supervise the Contractor-employed core of electricians, and any maintenance or material sub-contractors responsible for maintenance and modifications on the ASMC systems.

4.12.9 ASMC ADMINISTRATIVE SUPERVISOR

The Contractor shall appoint an ASMC Administrative Supervisor, who shall oversee all administrative functions of the Contract, including sending the daily work agenda, assembling the monthly routine maintenance work documentation book, providing EMCMS work quotes and invoices, preparing MCHD repair statements, and providing timely payment documentation for specialty vendors. This individual should have a minimum of five (5) years experience with Windows and Excel spreadsheet software. This individual may also function as the Dispatch Center Supervisor.

4.12.10 ASMC DISPATCH PERSONNEL

The Contractor shall provide trained, courteous dispatchers, with the ability to speak in English, clearly and distinctly, to staff the 24-hour/seven days per week operations of the ASMC Dispatch Center. The dispatch personnel shall be trained on the EMCMS and shall be made familiar with the ASMC locations. Soon after the start of the Contract, prior to May 1, 2010, (or at the applicable employee's hire date), the Contractor, with the Department's assistance, shall conduct a field tour of ASMC equipment for dispatch personnel. Training shall include watching a gate transition from the field observation area and a tour of the IDOT ComCenter.

Dispatch personnel respond to calls from Contractor personnel, Department and ComCenter personnel, and various police and municipal agencies. Duties, other than normal dispatching, include real-time ticket entry, morning distribution of ticket summary reports, documentation of MCHD repairs, creation of MCHD statements, 3rd party damage reports, and other work as assigned. Since the success of ASMC operations hinges on the dispatcher performance, the Engineer reserves the right to periodically review the dispatchers' performance, and if necessary, may ask for replacements.

On Thursday of each week, the Contractor shall provide the Engineer an email or fax of the next week's 24/7 Dispatcher work schedule. A minimum of one (1) dispatcher and one (1) back-up on-call dispatcher shall be shown for each hourly period. The Contractor is required to have a dispatcher on duty 24/7 to dispatch, take calls, and enter Tickets in the EMCMS. Refer also to Dispatch Center requirements.

4.13 24/7 ON-CALL FIELD RESPONSE PERSONNEL

The Contractor is required to have a 24/7 On-Call policy in place for routine work emergency response and repairs. On Thursday of each week, the Contractor shall provide Department personnel with an email or fax sheet noting the next week's On-Call Field person, his/her mobile number and an alternate or home telephone number. These On-Call personnel shall have the authority to call out additional Contractor personnel for emergency REVLAC and RACS repairs.

The appointed On-Call person may be the ASMC Project Manager, Specialist, Field Technician or Maintenance Foreman, shall be available for consultation by the Department 24/7 and shall have the authority to call out additional Contractor personnel for emergency repairs.

Under storm conditions, emergency situations or other special circumstances requiring the setting of priorities from among numerous items requiring immediate corrective action, which go beyond the Contractor's immediate ability to respond, the appointed On-Call person shall set response priorities in such a manner as to minimize hazard and inconvenience to the public and otherwise optimize the effectiveness of the contractor's forces, but only, after first initiating the callout of

additional forces in sufficient number to address the situation. The On-Call person shall communicate and coordinate with the Engineer in such situations.

4.14 DAILY WORK AGENDA

The scheduling of daily work shall be a responsibility of the Contractor, but governed by established schedules and/or authorized work completion dates. The Contractor is required to email the Engineer, each IDOT System Engineer/Inspector, and the IDOT ComCenter, a daily agenda which shall account for all scheduled repair work, project work, or preventive maintenance program work to be performed on system equipment. The daily agenda shall be received by 8:30 a.m. on the specified workday or by 2:30 p.m. on Fridays when weekend work is scheduled by the Contractor.

The Department will provide the Contractor the format for the daily agenda. The daily agenda shall account for all personnel, noting dedicated or assigned personnel status, listing their name, cell phone number, description of work assignments, both routine and non-routine, the location number, and ticket number or authorization number as applicable.

If the Contractor's work/testing, as specified herein, requires the presence of an IDOT Engineer/Inspector, the Contractor shall give a minimum 24 hour notice to the appropriate Engineer/Inspector when that work is to be scheduled on the daily agenda. If the Contractor proceeds with the work without this pre-notification, the Contractor shall, by the decision of the Engineer, be required to either re-perform the work/test or shall be assessed liquidated damages.

4.15 DEDICATED PERSONNEL

4.15.1 WEEKLY WORK SCHEDULE

In addition to the daily agenda, the ASMC dedicated person (Systems Specialist or Field Technician) shall submit a separate, weekly dedicated personnel work agenda. The weekly dedicated agenda shall be received by the Engineer by 8:30 a.m. on Mondays and shall cover the work of the dedicated personnel for the next week. The dedicated agenda may be emailed or faxed. The location of work, authorization number or ticket numbers as applicable, a detailed work description, designating initial or follow-up visit, listing applicable Contract Articles as applicable, etc., and the expected time requirement for each item shall be included in the dedicated agenda. The Engineer shall review the dedicated agenda daily, and may revise the priority of work as necessary per Article 4.5.1 herein.

A follow-up dedicated agenda shall be sent to the Engineer by email by 8:30 a.m. on Tuesdays through Fridays. This follow-up shall note any changes from the dedicated agenda as sent on Monday.

4.15.2 DAILY RELEASE (DURING THE WEEK DAY)

Any request for the daily release of dedicated personnel to address emergency situations outside this contract shall be made directed to the IDOT System Engineers, via telephone or email. Release without substitution will be based on the status of completion of applicable work for that day.

4.15.3 DEDICATED PERSONNEL NOTICE OF ABSENCE

When the Contractor is made aware of a planned or sudden absence of dedicated personnel an email notice of the dates of absence and the name of the assigned substitute shall be sent to the Engineer and System Engineers. Substitute personnel shall be qualified and trained for the work involved. Only under special circumstances shall the Engineer/System Engineers grant release of dedicated staff for regular leave purposes without substitution.

The Contractor shall account for the work schedule of all substitutes for dedicated personnel on the emailed Daily Agenda. The name of any substitute personnel shall be highlighted.

4.16 EMC TICKETS

4.16.1 INFORMATION REQUIREMENTS

The use of Tickets for the documentation of Contractor response and work on system equipment is integral to the ASMC. In the past five years, approximately 332 tickets per year have been created on the EMCMS by the Electrical Maintenance Contractor.

The EMCMS shall be the source and control of ticket number assignments for selected work activities of all systems. A single series of numbers will be sequentially assigned from the EMCMS database and will be used for all work activities related to the original work assignment. A separate numbering system for tickets will not be allowed.

The Contractor personnel (usually from ASMC dispatch center) shall immediately create a ticket on the EMCMS when:

- Contractor personnel is dispatched to a state maintained location
- Contractor personnel finds malfunctions or damage to system equipment
- IDOT personnel or any 3rd party reports malfunctions or damage to a state maintained or non-state maintained location
- Any work in progress on equipment installation(s) is found not properly grounded and may endanger the public at large or other Department property

The Contractor shall, within 1 hour of receipt of information, record in the EMCMS ticket, the following information:

- name of informant and call-back number
- time dispatched
- time of arrival at scene
- problem found (including unit number of effected equipment)
- time incident is cleared
- description of work completed at scene
- follow-up work necessary
- clearing information as given to IDOT ComCenter
- police accident number as received from the IDOT ComCenter or other agency for Motorist Caused Damage to system equipment

Ticket History per Calendar Year (not Contract year):

TICKET TYPE	2008	2007	2006	2005	2004
AVL	20	39			
Barrier	9	3	7	6	
CCTV	185	179	204	63	94
Equipment Problem	144	127	110	91	76

Motorist Damage	26	24	14	34	37
Swing Gate	51	43	25	21	19
Utility	2	4	2		
TOTAL:	437	419	362	215	226

4.16.2 COMMUNICATION WITH THE IDOT COMCENTER

The Contractor Dispatch personnel shall be provided with EMCMS call-out location numbers when the ComCenter workload allows, but it is the responsibility of the Contractor Dispatch personnel to have a thorough knowledge of the location look-up feature of the EMCMS. The Contractor shall dispatch patrol personnel for response after being provided with a main route and a cross street by the ComCenter or other police/ municipal agency.

During certain emergency situations it may be necessary that the Contractor Dispatch personnel provide periodical updates, including estimated time of arrival when requested by the ComCenter. In addition, the Contractor is required to telephone the IDOT ComCenter once a damage incident has been cleared for safety for the motoring public, or when service has been temporarily restored. The Contractor Dispatch personnel are not required to provide or submit repair information to the IDOT ComCenter. All pertinent information should, however, be entered on the Dispatch Ticket in a timely manner.

After office hours request for approval of emergency lane closures shall be made to the ComCenter, (847-705-4612) as soon as the need is determined, prior to the Contractor's arrival on the expressway.

4.16.3 INCIDENTS AT NON-STATE MAINTAINED LOCATIONS

When a third party, or IDOT personnel, notify Contractor dispatch personnel of a problem with a location which is maintained by a municipality or is owned by a private party, the Contractor shall notify the proper maintainer.

4.17 CONTRACTOR FURNISHED MATERIALS, EQUIPMENT, AND LABOR

The Contractor shall furnish the minimum material and equipment listed below. The equipment and labor necessary for transportation, removal, installation, or re-installation of the items listed below is furnished by the Contractor and paid through routine maintenance bid items. (Also the Contractor is responsible, through routine maintenance, for the equipment and labor necessary for transportation, removal, installation, or re-installation of all Non-Routine Furnish Only Pay Items listed herein).

The contractor shall provide an inventory of the material in the monthly submittal book.

Usage quantities from the prior ASMC contract year are shown in parenthesis, however, this information is provided to bidders for information purposes only, and is not provided as an estimate of expected future Contract usage.

- Barrier reflective tape (8) minimum required 4
- Building lighting and lamps, inside and outside (10)
- Camera Surge Protection (10) minimum required 5
- Cattron batteries (10) minimum required 4
- Circuit breakers less than 40A (1)
- Contactors less than 40A (3)
- Cleaning materials and solution, power washing equipment

- Decals, (50) for gate numbering, cameras, poles, aux signs, and chevrons
minimum required 24
- Fuses and switches (60)
- Gate tips (50) minimum required 24
- Indicator lights and lamps
- Photo cells (5) minimum required 3
- Phone modems (5)
- Relays (20)
- Shear pins and bushings (100) minimum required 25
- Snow removal supplies, salt
- Wire terminations
- Proximity Switch
- Timing delay relays
- Miscellaneous items \$2000 or less each in value to replace defective or malfunctioning or non-operational equipment, or materials which do not meet manufacturers' specifications

4.18 CONTRACTOR OWNED STOCK OF MATERIALS AND EQUIPMENT

The Contractor and the Engineer shall meet by March 1, 2010 to agree on the quantities of equipment which the Contractor shall have in his possession at the start of this Contract. The Contractor shall submit his current inventory to the Engineer on April 1, 2010.

The materials and/or equipment furnished by the Contractor shall be new, as approved by the Engineer, in equal quantities, which shall be identical to the original elements except as otherwise specified herein, or permitted by the Engineer.

In the event of a shortage of any parts or equipment causing delays in the implementation of replacements or repairs, the Contractor may be required to have additional material quantities in his possession, and/or liquidated damages may be assessed. The additional cost of maintaining the required parts inventory shall be borne solely by the Contractor. The Contractor shall submit anticipated schedule(s) for ordered replacement items when required for this Contract.

Unless approved in writing by the Engineer, all Contractor storage facilities for the inventory of ASMC materials and equipment shall be indoor semi-heated areas. The Contractor shall provide applicable and safe storage such as boxes, cases, lockers, and shelving, to house the different types of materials and equipment.

The Contractor's inventory of materials and equipment shall be kept separate from the State's owned State Stock Inventory. The Contractor's inventory of materials and equipment shall be kept in such order that accessibility is achieved and damage is prevented. The inventory may be inspected by the Engineer at any time as deemed necessary.

4.19 DEPARTMENT FURNISHED MATERIALS AND EQUIPMENT

The materials and equipment as listed below shall be made available to the Contractor by the Department for routine and non-routine maintenance work, however, the labor and equipment necessary for transportation, removal, installation or re-installation, plus shipping, mailing, and handling charges are paid through routine maintenance bid items.

- AVL units
- Barrier crash detector
- Barrier dragnet assembly
- Barrier tape cartridges
- Cameras, Camera Assemblies, Camera Pole
- Changeable Message Sign Contactors

- Equipment from State Stock
- Gig-E switches
- LED Chevron, Auxiliary, Lane Usage, Gore and Barrier Signs
- Monitors
- Motors for Changeable Message Signs
- Ramp Gates
- SM/MM Fiber Transceivers
- Swing Gate Arms
- Swing Gate Capstan and bracket assembly
- Swing Gate Controller
- Swing Gate Drivetrain Assembly
- Swing Gate Transmissions with Motors
- Turret Head Position Switches
- Video Communications Chassis Rack
- Video Decoders and Encoders

Equipment as listed above and other additional equipment in State Stock shall be removed, installed, and/or re-installed, shipped, mailed or handled by the Contractor through labor paid as incidental to routine maintenance bid items. State stock will be replenished as needed and approved by the Engineer.

4.20 STATE STOCK

4.20.1 GENERAL REQUIREMENTS

The Contractor is responsible, under routine maintenance, for the storage and inventory reporting of the Department's stock of parts, materials, and equipment. Approximately 1000 sq. ft. of state stock storage space will be required. This will be hereafter referred to as State Stock Inventory. At the Pre-Bid Meeting, the Department shall furnish all bidders with a list of equipment currently in State Stock.

When directed and approved by the Engineer the Contractor may use certain State Stock materials or equipment, however, the equipment and labor required for transportation, removal and salvage, installation, and re-installation shall be the responsibility of the Contractor and paid through routine maintenance bid items.

The Contractor may not use any State Stock inventory for any work outside the scope of this contract. Note the State Stock inventory is not sufficient to supply the Contractor with all materials necessary to carry out Contract provisions.

If the Engineer allows the Contractor to use State Stock parts and equipment which should be furnished by the Contractor through routine maintenance, the Contractor shall then replace the items used, and the costs and freight shall be incidental to routine maintenance. The Contractor shall provide invoices for all materials purchased to replace items taken from the State Stock inventory and the invoice shall show the entire cost of each item including separate freight charges.

The Contractor shall comply with the instructions given by the Engineer relating to the care, storage, and marking of State Stock inventory for identification purposes. All State Stock inventory is to be clearly identified and kept in a defined, separate area from the Contractors owned stock of materials, parts, and equipment. All storage areas shall be secure with screened, locked access. The Contractor shall provide sufficient storage boxes, cases, lockers, and shelving, incidental to routine maintenance, to house the different types of materials and equipment indoors in a locked, protected, semi-heated area.

The area designated for State Stock inventory shall be approved by the Engineer, prior to the receipt and placement of materials and/or equipment into storage. The Engineer may inspect the Contractor's designated sites at any time. Occasionally the Contractor may be required to deliver to or pick up from the State's Warehouse, currently located at 4000 South Central, Chicago, Illinois.

The Contractor shall provide insurance coverage for all State Stock inventory in his possession, for losses due to fire, theft or vandalism.

4.20.2 STATE STOCK DISBURSEMENT REPORTING

All parts, materials and equipment in State Stock which the Engineer approves for Contractor routine or non-routine work shall be transported by the Contractor at his expense to the job site. The Engineer may also require the Contractor to transport the items removed from one location to other location within District 1, and all such transport shall be made in a timely manner at no additional cost to the contract.

The Contractor shall keep an accurate accounting of all disbursements, on a monthly basis, of State Stock used from Contractor owned or Department facilities. Copies of all Contractor Disbursement Records shall be submitted in the monthly routine submittal book.

4.20.3 STATE STOCK RECEIPT REPORTING

All parts, materials and equipment furnished to the Contractor for State Stock shall be transported by the Contractor at his expense, to the State warehouse, shops, or sites, where such materials and equipment are to be stored, repaired, or used. The Engineer may also require the Contractor to deliver State Stock materials to State owned property in District 1, rather than to his own storage sites.

Removed equipment deemed salvageable by the Engineer shall be stored in the Contractor's warehouse or yard and designated as State Stock, property of the State of Illinois, or shall be sent to the State Stock Warehouse, if approved by the Engineer. These parts, materials, and other equipment shall be noted on a Contractor ASMC Receipt when placed in State Stock storage. The Contractor shall keep an accounting of all Contractor Receipts, on a monthly basis, and they shall be submitted in the monthly routine submittal book.

4.20.4 DISPOSAL OF SCRAP

The Engineer will make the sole determination as to whether material (equipment) is re-usable. Except as otherwise indicated herein, all removed items shall remain property of the State. The Contractor may not dispose (scrap) any materials without receiving prior approval from the Engineer in writing. For approval of items to be scrapped, the Contractor shall complete a State Scrap Transfer form and send it to the Engineer for approval. The state scrap transfer log must state the item name/model/type, condition, and location where item was located. If after inspection the materials are determined to be scrap, the Engineer will sign the state scrap transfer log, and convey ownership of the scrap materials to the Contractor. Only upon receiving the transfer of ownership, the Contractor shall be responsible, at his expense, for the proper, legal disposal of all scrap items; materials, parts, equipment, etc. The estimated salvage value of scrap materials shall be reflected in the bid unit prices for routine maintenance items. The Contractor shall keep an accounting of all State Scrap Transfers, on a monthly basis, and shall submit them in the monthly routine work submittal book.

All lamps removed as part of re-lamping operations, outage repairs or other authorized work shall become property of the Contractor and shall be disposed of in full compliance with Environmental Protection Agency (EPA) regulations. The EPA Rule 40 CFR, part 273, finalized in May 1994

established a guideline for the recycling of lamps and the mercury from scrapped lamps. Fluorescent, high-intensity, low pressure sodium, and other lamps bearing mercury may be classified as a potential hazardous waste. The Contractor shall recycle removed lamps to the maximum extent possible and shall submit to the Engineer, for approval, the name and background of a qualified lamp recycling specialty service which shall be used for lamp recycling under this Contract. Over the course of the Contract, the Contractor shall provide documentation of all lamp recycling activity to the satisfaction of the Engineer.

4.20.5 END OF YEAR STATE STOCK INSPECTION

At the end of the one-year term for response coverage, a physical accounting of all ASMC State Stock material shall be made via inspection with a Contractor's representative and the Engineer, with sign off of final quantities by both parties. The Contractor shall be responsible for all materials in his charge and shall provide replacement of any missing or damaged State Stock items.

4.21 INVENTORY DOCUMENTATION AND REPORTING

The Contractor shall maintain an Excel spreadsheet, a perpetual inventory of parts and equipment used in the maintenance of the systems. Each monthly inventory report prepared by the Contractor shall be signed by the person directly accountable for the accuracy of the report and the Project Manager. This report shall be submitted in the monthly routine work submittal book. The report format will be furnished at the Pre-Construction meeting. The spreadsheet will summarize material reservations, receipts, and disbursements and shall include information as to size, type, manufacturer, location, including all materials stored at Contractor facilities or State facilities, etc., and state of repair of all parts and equipment, as well as a record of where the prior months' stock was utilized, by staging area and/or Contract number. This report shall include copies of routine and non-routine work receipts and disbursements. The Contractor is responsible for the required to retain all inventory records for a period of 4-years following the completion of the Contract.

4.22 MATERIAL AND EQUIPMENT

4.22.1 USE OF APPROVED MATERIALS

The Contractor shall clearly understand that no equipment or material shall be installed prior to approval by the Engineer and that any equipment or material installed without the approval of the Engineer is subject to removal from the right-of-way solely at the Contractor's expense. If the Contractor changes the supplier of any approved materials for the contract, a new submittal for that item must be made for review and approval by the Engineer. The Contractor shall provide free access to the Bureau of Materials personnel for inspection to insure that the approved materials are used.

The Contractor (including all supervising personnel) is expected to familiarize themselves with all requirements with respect to proper materials, methods and procedures and failure to do so will not be justifiable grounds for lack of compliance with the contract requirements.

4.22.2 SUBMITTALS FOR APPROVAL

Within 60 days after contract execution, the Contractor shall submit to the Engineer for approval, complete, approvable manufacturer's product data (for standard products and components) and detailed shop drawings (for fabricated equipment) of materials and project equipment (products) proposed for use on this Contract for both routine and non-routine maintenance. The Engineer

may grant permission to delay certain submittals until the applicable work is authorized, but the 60-day requirement shall apply to all commonly used and general items.

In general, due to the highly specialized nature of this system, certain equipment used on this Contract must be manufactured by the original equipment manufacturer, unless written approval is given by the Engineer. The Engineer may waive the requirements for shop drawings for certain original-manufactured fabricated equipment as long as original shop drawings on file remain valid for the equipment. It is the contractor's responsibility to coordinate accordingly.

Submittals need not include all project equipment and materials in one submittal; however, the submittals for the equipment and materials for each individual pay item shall be complete in every respect. The Contractor may request, in writing, permission to make a partial submittal. The Engineer will evaluate the circumstances of the request and may agree to review such a partial submittal.

Prior to submittal, the Contractor shall review the submittal material and shall affix his stamp of approval, with comments as applicable, signed by a responsible representative, to each appropriate submittal item. In the case of subcontractors' submittals, both the subcontractor and the general Contractor shall review and stamp approval of the submittal.

The receipt of submittal information from the Contractor will be construed as the Contractor's assurance that he has reviewed the submittal information and attests to the submittal's accuracy and conformance to the requirements of the contract documents. Unless otherwise indicated, manufacturer's guarantees shall be included with the submittal information.

4.22.3 SUBMITTALS

A specific form is not necessary; however, the Contractor shall submit clearly written, typed submittals, identifying the proper Pay Item for each submittal as applicable. The Contractor and any subcontractor as applicable shall sign the submittal. Non-complying and/or non-approved submittals will be returned to the Contractor for re-submittal.

4.22.4 CERTIFICATION REQUIREMENTS

Where certifications are specified, the information submitted for approval shall incorporate certification information. When a certification is available prior to equipment manufacture, the certification shall be included with the submittal information. When a certification is available only after equipment manufacture, the submittal shall include a statement of intent to furnish the certification after equipment approval and manufacture. Certifications involving inspections and/or tests of equipment shall be complete with all test data, dates and times.

4.22.5 SAMPLES

The Engineer may request from the Contractor a sample of a specific item of a submittal for review and evaluation. The sample shall remain property of the Contractor and shall be returned after the review and evaluation with comments as applicable.

4.22.6 NEW MATERIALS INSPECTION REQUIREMENTS

The Contractor shall comply with the applicable requirements of Section 106 and 1000 of the Standard Specifications for Road and Bridge Construction. No uninspected equipment/material is to be delivered to the job site. When underground materials are furnished, the Contractor shall notify the State of Illinois, Department of Transportation, Bureau of Materials personnel to provide proper inspection for the approval of the materials, prior to delivery to the job site.

4.23 VEHICLE REQUIREMENTS

4.23.1 GENERAL REQUIREMENTS

The Contractor shall provide at all times sufficient vehicles and construction equipment to perform the routine and non-routine work and specialized operations required and described herein. The Contractor is expected to be familiar with the extent of systems to be maintained under this contract and the equipment necessary to provide the specified work response. Failure to have adequate equipment to perform the work shall not be sufficient grounds for the delay of routine or other authorized work.

The Contractor's equipment shall be in good working condition suitable for providing timely response on systems' maintenance. All vehicles used by the Contractor shall conform to all applicable laws and the Department safety Code and shall carry such lights and safety appurtenances as may be prescribed by the Department.

4.23.2 CONTRACTOR VEHICLES

The Contractor shall either own or lease sufficient vehicles to service the ASMC systems within the specified response times. The fleet vehicles shall have no more than 60,000 certified odometer miles at the beginning of the Contract, April 1, 2010. If this Contract is renewed fleet vehicles shall have no more than 110,000 certified odometer miles as of April 1, 2011. Each person assigned to response activities shall have an assigned vehicle so that the response is not impeded due to lack of vehicle access. The ASMC Specialist and ASMC Maintenance Foreman and Field Technician may be assigned SUV type vehicles or other suitable means of transportation, but the same mileage requirements apply.

As a minimum, the Contractor shall have in his possession, at the start of the Contract, three (3) trucks with permanent mounted lifts of 30 to 70 feet, for the monthly preventive maintenance programs to service pole mounted cameras and rotating drum signs and REVLAC barriers.

4.23.3 EQUIPMENT VERIFICATION

Evidence of vehicle ownership or lease shall be provided to the Engineer at the Pre-Construction Meeting. Upon a minimum notice of five (5) business days, the Contractor shall have all vehicles and equipment staged at an agreed location, available for inspection by the Engineer.

4.23.4 IDENTIFICATION

All Contractor and Sub-Contractor service vehicles and equipment, including those items listed herein, shall be clearly identified with the Contractor's name, location, and telephone number. Each category of identification; name, location, and telephone number, shall have a decal, a minimum of 3 inches in height, readily visible on the exterior sides and rear of each vehicle. Removable magnetic signs or similar non-permanent identification is not permitted at any time.

4.23.5 ACCESSORIES

ASMC Vehicles for use on the highway such as pickup trucks, aerial trucks, truck cranes and special trucks shall be equipped with as minimum roof-mounted amber flashing warning lights. Automobiles for similar use shall be equipped with roof-mounted or interior amber warning flashers. Note that red flashers are not permitted under any circumstances.

4.23.6 SUBCONTRACTOR VEHICLES

Equipment utilized by subcontractors employed in day-to-day operations of this contract, either routine work or non-routine work, shall conform to the requirements noted herein for the general contractor and shall be available for inspection, complete with specified certifications, upon request by the Engineer.

4.24 VEHICLE AND TEST EQUIPMENT

4.24.1 VEHICLE EQUIPMENT

The Contractor shall own and maintain equipment for use on the ASMC systems by Contractor's work crews and for the Engineer's use in inspecting the Contractor's work. As a minimum each truck shall be equipped with a multi-meter, assorted tools including a socket set, SAE and metric, wire strippers, weather-proof tie wraps, and various fluids for cleaning and greasing.

4.24.2 SPECIAL TEST EQUIPMENT

The ASMC Specialist shall have use of a volt meter, fiber optic light meter and light source, (OTDR optional), digital micro-wave frequency counter, power meter and power head for 6 and 11 GHz and coaxial cable tester, Ideal Model #62-204 or equal. The Contractor shall provide the above equipment for use by IDOT Inspectors when requested by the Engineer.

4.24.3 MAINTENANCE OF EQUIPMENT

The Contractor is expected to maintain all test equipment, in accordance with the manufacturer's specifications at all times, including certified calibration by a responsible test lab on not less than an annual basis. The equipment shall have the test lab's most recent calibration ticket attached.

4.25 TRAFFIC CONTROL FOR ASMC WORK

4.25.1 KEEPING THE EXPRESSWAY OPEN TO TRAFFIC

Whenever work is in progress on or adjacent to an expressway, the Contractor shall provide the necessary traffic control devices to warn the public and to delineate the work zone as required in these Special Provisions, the Standard Specifications for Road and Bridge Construction, latest version, Supplemental Specifications, the "Illinois Manual on Uniform Traffic Control Devices for Streets and Highways", "Highway Standards", the District One Traffic Control and Protection, latest version. The Contractor's personnel shall be limited to these barricaded work zones and shall not cross the expressway.

The governing factor in the execution and staging of work is to provide the motoring public with the safest possible travel conditions on the expressway through the work zone. The Contractor shall arrange his operations to keep the closing of lanes and/or ramps to a minimum.

The Contractor shall request and gain approval from the Illinois Department of Transportation's Expressway Traffic Operations Engineer (847-705-4155) twenty-four (24) hours in advance of all daily lane, partial ramp and shoulder closures and seventy-two (72) hours in advance of all permanent and weekend closures on all Freeways and/or Expressways in District 1.

Shoulder closures will not be permitted on weekdays (Monday through Friday) from 5:00 a.m. to 9:00 a.m. and from 3:00 p.m. to 7:00 p.m. Lane closure hours, if needed, will be determined by the IDOT Expressway Traffic Operations Engineer.

The approval for emergency closures or emergency moving operations during the normal workday shall also be requested from the Expressway Traffic Operations Engineer (847-705-4155). After office hours request for approval shall be made to the IDOT ComCenter, (847-705-4612) as soon as the need is determined, prior to the Contractor's arrival on the expressway.

All daily lane closures shall be removed during adverse weather conditions such as rain, snow, and/or fog and as determined by the Engineer.

Additional lane closure hour restrictions may have to be imposed to facilitate the flow of traffic to and from major sporting events and/or other events.

Private vehicles shall not be parked in the work zone. Contractor's equipment and/or vehicles shall not be parked on the shoulders or in the median during non-working hours. The parking of equipment and/or vehicles on State right-of-way will only be permitted at the locations approved by the Engineer.

4.25.2 TRAFFIC CONTROL RESPONSE

Upon notification from the Engineer or Department Expressway/Traffic Operations personnel, the Contractor shall dispatch qualified personnel immediately to make needed corrections of deficiencies that constitute an immediate safety hazard and/or the blocking of traffic lanes or ramps. If the Contractor fails to correct the deficiency within the specified time, a daily monetary deduction will be imposed, in accordance with Article 105.03 (b) of the Standard Specifications.

4.25.3 TRAFFIC CONTROL PAYMENT

Traffic Control and protection will not be paid separately but shall be considered as incidental to the work of the contract, and the cost for traffic control and protection shall be included as part of the various unit bid prices for the routine and non-routine maintenance pay items, and shall be payment in full for all labor, materials, transportation, handling and incidentals necessary to furnish, install, maintain, replace, relocate and remove all traffic control devices indicated in these specifications.

4.25.4 TRAFFIC CONTROL LIQUIDATED DAMAGES

Should the Contractor fail to completely open and keep open all the traffic lanes to traffic or fails to restore the required traffic control and protection, in accordance with the limitations specified under the Special provisions for "Keeping the Expressway Open to Traffic", the Engineer will impose daily monetary liquidated damages for each 15 minute interval (or portion thereof) that a traffic control deficiency exists. The time period will begin with the time of notification to the Contractor and end with the Resident Engineer's acceptance of the corrections.

\$1000.00	Improper Use of Traffic Control (per instance)
\$2000.00*	Blocking Lane or Ramp to Traffic
\$5000.00*	Blocking Two Lanes to Traffic

*per each and every 15 minute interval or portion thereof that a lane is blocked outside the allowable time limitations

4.26 SAFETY PROGRAM

4.26.1 GENERAL REQUIREMENTS

The Contractor shall establish a formal Safety Program to assure overall safety of ASMC personnel, operations and the electrical systems maintained as they affect the safety of the motoring public and the public at large. The Contractor shall furnish an overall description of this program at the Pre-Construction Meeting.

As part of the Safety Program, the Contractor shall initiate a procedure that states: "When a circuit is de-energized, the Contractor shall meter the downstream circuits with an instrument to assure that they are de-energized and safe for working conditions." The Contractor shall be fully responsible for compliance with all OSHA requirements. Particular attention is directed to the lock-out/tag-out requirements to assure that systems undergoing maintenance work cannot be inadvertently energized, causing harm to maintenance personnel.

The Contractor shall assure that all personnel be trained in, and have knowledge of, approved equipment grounding and bonding methods for all work under this contract. The Contractor shall be fully responsible for compliance with all NEC requirements.

The Contractor shall keep all systems free of hazards to the work force and the public, all in conformance with Article 107 of the Standard Specifications. Special care shall be taken to assure that electrical systems are not left in an exposed or otherwise hazardous condition. All electrical boxes, cabinets, pole handholes, etc., which contain wiring, either energized or non-energized, shall be closed or shall have their covers in place and shall be locked when configured for locking, except when work is being done at the location at the moment. If the worksite is left, enclosures shall be closed and no potentially hazardous electrical situation shall be left unattended.

4.26.2 YEARLY SAFETY PRESENTATION

The Contractor shall hold a yearly safety presentation for all personnel and sub-contractor personnel and Department personnel working on the ASMC systems. The outline shall be approved by the Engineer.

ARTICLE 5.0 – ROUTINE MAINTENANCE WORK AND PAYMENT

5.1 ROUTINE MAINTENANCE ITEM DESCRIPTIONS

Unless noted herein, all requirements as listed in Article 5.0 Routine Maintenance Work and Payment shall be paid through, are part of, and incidental to routine maintenance.

The routine work shall be paid at the contract unit bid price per month for Pay Items A-1 through A-6 as described below, and the bid price shall be payment in full for the work as specified herein this Contract and as directed by the Engineer.

The routine maintenance locations are found in Article 7.0 and general contract requirements are discussed in Article 4.0.

New items of equipment will be added to the system infrastructure through the duration of the Contract, and no additional compensation will be allowed for maintenance of this equipment. Major additions planned include a CCTV distribution system along with Kingery cameras, nodal buildings and associated equipment, IP multicast CCTV and network expansion, nodal buildings and associated equipment that is part of the Dan Ryan construction, experimental system of wireless CCTV on the Edens expressway, and beginning work on CCTV expansion to US 6 on I-55. Maintenance will transfer to the Contractor when systems are accepted by the Department, however, there is a minimum of six (6) months of warranty coverage from the construction contractor for defects in materials or workmanship.

The systems defined herein are not completely independent and separate systems. Functionality and elements of one system may be dependent upon the availability of another. The description of the District 1 systems herein shall not be construed to separate their integrated functionality nor shall it serve to omit some portion of an operating system due to either a shared operation or the lack of explicit inclusion with the generalized system definition. A failure or malfunction in one system that results in the failure, malfunction or reduced operation of another will be considered by the Department as a failure or malfunction in both systems.

A-1: Routine Maintenance of REVLAC, the Reversible Lane Access Control System

The REVLAC System operates to control access at the six entry ramps to the Kennedy Expressway Reversible Lanes. The REVLAC System includes, but is not limited to:

Swing Gates

The REVLAC system incorporates 117 swing gates manufactured by B & B Electromatic of Norwood, Louisiana. These swing gates direct the traffic away from closed ramps. Each swing gate can be operated remotely, locally, and with a manual hand crank.

Restraining Barriers

The system incorporates six restraining barriers manufactured by the Entwistle Company of Hudson, Massachusetts. Each reversible entrance ramp has a barrier to prevent the entrance of vehicles when in the lowered (closed) position. Each barrier can be operated remotely, locally or by means of a built in 12V DC motor which can be powered from a 12V DC truck battery.

Auxiliary Signs

There are a combination of 42 auxiliary fiber optic and LED signs manufactured by the National Sign and Signal Co. of Battle Creek Michigan throughout the REVLAC System. They are operated remotely.

Changeable Message Signs (Drum Signs)

There are 15 Changeable Message (drum signs) as manufactured by Lake Technologies. Each Changeable Message Sign can be operated remotely, locally, and with a manual hand crank. Of

these 15 signs, 7 signs are critical signs which must operate in order to close a given ramp entrance.

Operations Cameras (without PTZ)

The operations cameras are integral to the operation of the REVLAC system, and provide a generalized overview of the urban expressway system. (Refer to listing herein)

Control Buildings (A, C, D, E, and B) and Associated Equipment

The remote control buildings adjacent to entry ramp locations house various types of electrical power apparatus, control systems, alarm systems, radio systems, including microwave cables and microwave towers/poles, transformers, lighting systems, power wiring, heating and ventilation systems, doors, locks, and all associated equipment and appurtenances owned by the State of Illinois and under the jurisdiction of the Department.

Each of the remote control buildings, A, C, D, and E, have an Operational Control Panel (OCP). The OCP's house the PLCS Allen Bradley servers 5/60 and manual controls for the swing gates, signs and barriers. These OPC's in the control buildings differ from the IDOT ComCenter Supervisory Control Panels (SCP) only in that the individual gate, sign, and barrier status indication is not available. Instead, a device group indication is provided. The control functionality is otherwise identical, as each of the control buildings can operate the entire system through the normal or abnormal events panels of its OPC. Remote panels may be used for system testing or may be used in the event of a power outage or disruption at the IDOT ComCenter in order that the reversible lane control is not affected.

Buildings A, D and E have dual electrical services. Building C is fed from building D. Each of these three buildings route power through a UPS and have battery backup with associated chargers and inverters for critical controls and monitoring.

Control Building B is an interconnect building which houses equipment for REVLAC data lines.

Communications

Communications buildings for communications equipment are located at the Nordic Tower, Schaumburg Tower, Foster Tower, Control buildings, A, B, C, D, and E, Hillside RACS bldg, and IDOT Traffic Systems Center, Oak Park.

The REVLAC and RACS system interactions rely on a communications exchange between the IDOT ComCenter and the remote Control Buildings from which all devices are operated. Proper and continuous communications are necessary to control and provide status of individual ramps, device positions, and to prevent unsafe conditions on the reversible lane system.

The communications scheme is triple redundant (REVLAC only) to provide prompt and continuous communications in the event of a communications device failure. The three modes of communications are: fiber, microwave and telephone lines.

The primary communications is conducted on the fiber system. Primary communications are provided through fiber extensions to the fiber backbone and another fiber backbone involving Illinois Tollway fiber. (The REVLAC system depends on the fiber backbone as maintained under the Electrical Maintenance Contract (EMC), as well as an additional contract for telephone communications.)

The secondary communications system is the microwave network. The microwave radio system interconnects directly and indirectly all control nodes of the REVLAC system. The primary function of the microwave system is to provide reliable high-speed data transmission between all locations. The bandwidth of the microwave allows transmission of video from any site to any site by means of an elaborate switching network.

The third means of communications is a dial-up modem system via the telephone lines. In the event of a fiber link failure, the microwave system will pick up the communications traffic and the telephone modem connections will be set up as a backup communication mode.

The long distance transmission to the IDOT Headquarters ComCenter includes video (one way) and data (bi-directional) which is provided by a digital microwave link, repeated at the Illinois State Police Headquarters in Des Plaines to control building E.

All microwave paths are dual channel allowing redundant data paths, selected automatically, and can provide two real time video signals simultaneously from any site to any site.

The systems consist of 23 GHz analog links between the control buildings, 6 GHz digital links from building E to the IDOT Headquarters Schaumburg tower, a 6 GHz active repeater at ISP District Chicago in Des Plaines, dish antennas, coaxial cables, waveguides, power supplies, modulators, RF Heads, State owned radio towers, a network monitoring system, and a vast array of microwave technology to provide the desired service.

Telephone System (REVLAC)

Each nodal site has four 9600-baud smart modems interconnected between the sites. Each modem is dedicated and programmed for speed dial to another node. In the event of microwave failure, the modems interconnect and remain connected for the duration of path loss.

Control System (REVLAC)

The REVLAC Control System is a network of five sets of Allen Bradley PLC-5/60 and PLC-5/80 Programmable Logic Controllers (PLC). Each Remote Control Building and ComCenter utilize a redundant processor in their PLC system. Each system coordinates the communications and control of that specific location. Normally all five units work as an interconnected system (network) through the communications links; however, each system may operate as a stand-alone unit for its ramp or operate the entire system in the event of a loss of communication to/from Schaumburg.

REVLAC Associated Equipment

The IDOT ComCenter equipment includes three separate SCP stations for the REVLAC system, which are available to the dispatchers who work in the ComCenter to control the REVLAC system.

A tower and associated transmission equipment is located at the Illinois State Police District Chicago office in Des Plaines. It is a microwave repeater facility for the transmission of signals between the REVLAC control building E and District 1 Headquarters, Schaumburg.

All ramp gate and barrier equipment, including signage, dedicated CCTV, and Cattron units for the remote control of the swing gates

All interconnecting cable, Ethernet, and fiber systems

Associated microwave communications and support systems

In addition to controlling various traffic devices such as barriers, changeable message signs and auxiliary signs, the REVLAC control system monitors and controls support systems such as swing gate heaters, weather station warning signals, CCTV monitoring systems, alarm systems, and various circuit breaker/power supply systems.

While the reversible lanes on the Kennedy expressway extend from approximately the Ohio Street interchange on the south to the Edens/Kennedy junction on the north, (a distance of approximately 7.5 miles), the supporting control centers, signage and communications facilities extend beyond these limits and are all included as part of the system.

A-2: Routine Maintenance of RACS, the Roosevelt Ramp Access Control System

The RACS System operates to control access at the single entry ramp from eastbound Roosevelt Road to eastbound I-290, with the ramp entry just east of York Road. The RACS Systems include the complete distributed control system, but is not limited to:

Swing Gates

The RACS System incorporates 10 swing gates manufactured by B & B Electromatic of Norwood, Louisiana. These swing gates direct the traffic away from closed ramps. Each swing gate can be operated remotely, locally, and with a manual hand crank.

Dynamic Message Signs (LED)

There are 3 dynamic message signs, as manufactured by Voltron. Each sign can be operated remotely, or locally. Of these 3 signs, 2 signs are critical signs which must operate in order to close a given ramp entrance.

Operations Cameras (without PTZ)

Cameras are integral to the operation of RACS gate operations. (Refer to camera listing herein.) There are three (3) cameras which are mounted on the radio tower at the Hillside communications Hub, which have pictures transmitted to a central camera selection, control and switching system at the District 1 Headquarters ComCenter.

Control System (RACS)

The RACS Control System is a network of Allen Bradley Control Logix 5000 series Programmable Logic Controllers (PLC). Each Remote Control Building (Hub and Ramp) utilizes a separate redundant CPU in its PLC system and the user interface software in the workstations in IDOT ComCenter facilitate the remote control of the system. Each system coordinates the communications and control of that specific location. Normally all units work as an interconnected system (network) through the communications link; however, each system may operate as a stand-alone unit for its ramp or operate the entire system in the event of a loss of communication to/from Schaumburg. In addition to controlling various traffic devices such as barriers, changeable message signs and auxiliary signs, the RACS control system monitors and controls support systems such a traffic detector on the IL 38 ramp, CCTV monitoring systems, alarm systems, and various circuit breaker/power supply systems.

Buildings

The Hillside RACS Hub building is located at 5300 W. Harrison St., Hillside and the Roosevelt Ramp Control building is located at the IL 38 entrance to eastbound I-290. These buildings house various types of electrical power apparatus, control systems, alarm systems, fiber panels, radio systems, including microwave cables and microwave towers/poles, transformers, lighting systems, power wiring, heating and ventilation systems, doors, locks, and all associated equipment and appurtenances owned by the State of Illinois and under the jurisdiction of the Department.

RACS Associated Equipment

RACS equipment at the IDOT District 1 Headquarters ComCenter Schaumburg includes three computer workstations, one CCTV workstation, and one datalogger computer system. The CISCO maintenance computer system and iMPATH video equipment are also located in the Com Center.

Radar traffic detection equipment

All Interconnecting cable and fiber systems

All ramp gate equipment, including signage and dedicated CCTV

All associated equipment and items at the District 1 Headquarters in Schaumburg

While the Roosevelt RACS is located at the Eastbound IL 38 (Roosevelt Road) entrance ramp to the eastbound I-290 supporting control centers, signage and communications facilities extend beyond this location and are all included as part of the system.

A-3: Routine Maintenance of CCTV, the Closed Circuit Television System

Cameras

The CCTV System consists of surveillance cameras (camera with pan-tilt-zoom, PTZ) on expressways, for construction areas and Accident Investigation Sites, and various cameras for general surveillance. These cameras and their functionality are not dedicated solely to a particular operational system, such as RACS, but their views may be incorporated in the system functionality.

CCTV field equipment is dispersed within District 1, with the central control at the IDOT District 1 ComCenter and additional equipment at the Traffic Systems Center in Oak Park.

Additional cameras, including cameras mounted on light towers will be added to this system through the duration of the Contract.

The cameras on Ryan, and Kingery expressways and few cameras on I-290 and Kennedy expressways are mounted on light towers. Various transceivers for I-55, I-57 and I-290 cameras (pole-mounted cameras) are located in the surveillance system cabinets. It will be necessary for the Contractor to contact the State Electrical Maintenance Contractor to lower light tower rings to access the light tower mounted cameras, and for access to the surveillance cabinets or other state electrical maintenance contractor maintained equipment. The Contractor shall give the state's Electrical Maintenance contractor a minimum of 24 hours notice to respond to the camera and/or equipment location.

CCTV Associated Equipment

Various equipment including video transceivers, codecs, video transmission and distribution equipment, switching equipment, video servers, video work stations, wireless links fiber optic patch panels, fiber jumpers, etc., are located at, but not limited to the following locations:

- I-55 Dan Ryan interchange
- I-55 @ Canal Microwave Hut
- I-57 North and South Huts
- UIC Building
- REVLAC Buildings A, B, C, D, and E
- Traffic Systems Center in Oak Park
- District 1 Headquarters ComCenter in Schaumburg
- Roosevelt Ramp Building, Hillside, Nordic and Schaumburg Towers
- IDOT Pump Station No. 5
- ITS Office in Oak Park
- IL 53/I-290 at Schaumburg Road
- Schaumburg Tower and Rodenburg Tower video links

The central system has the capacity and provisions to add cameras region-wide so that an overall common system for the cameras will be in place. Any new cameras, which are added to the system under the contract, shall be maintained under routine maintenance bid items for the remaining period of the Contract.

The CCTV system includes all of the above elements, including cameras, interconnecting fiber and cable, control and switching equipment, monitors, and all interfaces to communications network equipment.

A-4: Routine Maintenance of DON, the District 1 Operations Network

The District Operations Network (DON) includes, but is not limited to, the SONET system installed as part of the REVLAC and RACS systems, CCTV equipment (including future IP multicast) and the Gig-E network equipment.

The SONET system is used for video and data communication links between the IDOT District 1 Headquarters ComCenter, Traffic Systems Center and other facilities and RACS and REVLAC equipment.

The SONET System is a basic communications infrastructure which incorporates Microwave Radio, Fiber Optic, Ethernet and SONET equipment to accept, transmit, and receive broadband digital data in a SONET ring that connects the Hillside RACS building site (5300 W. Harrison St., Hillside) to the District 1 Headquarters Schaumburg ComCenter. The connection is accomplished via microwave through an intermediate hop at the Nordic site and via a fiber optic link through fiber of the Illinois State Toll Highway Authority System. This system has a Sonet node at REVLAC building E with a microwave link between the Headquarters and Building E with an intermediate repeater at ISP District Chicago Headquarters in Des Plaines.

The system is comprised of the digital microwave radio system 6 GHz between Schaumburg Headquarters and the Nordic tower, 11 GHz between the Nordic repeater tower and the Hillside tower, and 6 GHz between the Schaumburg tower, ISP Des Plaines repeater tower and REVLAC Building E at 4755 Wilson Avenue in Chicago.

Except as included in other systems, it includes:

- The tower, shelter/hut, equipment and connections at the Hillside Hub site
- The tower, shelter/hut, equipment and connections at the Nordic Tower site
- The tower, shelter/hut, equipment and connections at the Schaumburg Tower
- Department's microwave equipment at District Chicago ISP HQ
- Harris Megastar Microwave equipment at REVLAC Building E
- Associated equipment at the District 1 Headquarters Com Center Schaumburg
- REVLAC Fiber Network, including Hirschmann Fiber Repeaters
- Associated interconnecting cable and non-ITSHA fiber
- Connections at various ITSHA locations

Any new sonet system fiber link or equipment, which is added to the system under the Contract, shall be covered under routine maintenance bid items for the remaining period of the Contract.

A-5: Routine Maintenance of the AVL, the Automatic Vehicle Locator System

The AVL Automatic Vehicle Location system tracks and locates the Department's vehicles for the safety of the personnel. At present, District 1's Emergency Traffic Patrol vehicles (62) are equipped with the AVL units, and the servers and workstations are located in the ComCenter.

A-6: Routine Maintenance of Other Miscellaneous ASMC Systems

Expressway Ramp Gate System (ERG)

Forty-one ramp gates with sand crash barrels have been installed to date for access control to the area expressways. The ramp gates and crash barrels are structured so as to stop vehicles from entering expressways through entrance ramps, in case the current inbound expressway traffic would need to be changed to outbound.

GCM Gateway Network

The GCM Gateway Network is the equipment/server which posts a website with travel information for the Gary, Indiana; Chicago, Illinois; and Milwaukee, Wisconsin corridor area. Many useful travel screens are available including real-time maps of congestion and construction data.

Servers and User Interface Workstations

The Contractor shall maintain the following equipment, which may not be all-inclusive, but all associated equipment for the servers and interface workstations shall be included in the Contract.

Hillside Hub

1 PLC Workstation
1 NetCams Workstation

Roosevelt Ramp Building

1 PLC Workstation
1 NetCams Workstation

District 1 Headquarters Schaumburg

2 RACS Workstations
1 RACS Event Logger
1 Sonet Maintenance Workstation
1 NetCams Workstation
1 NetCams Server
1 Maintenance Workstation
1 REVLAC Event Logger
1 REVLAC Alarm Monitor
1 Rack Unit TLC Video Server
1 Sensoray Video Capture Server
1 SWARMS Workstation
1 AVL Server
2 AVL Workstations
1 Multi-site base station controller of AVL System
2 Dell Laptops for PLC Programming
1 HP Laptop for PLC Programming

REVLAC Building A, C, D, E and IDOT Schaumburg Headquarters

5 REVLAC Alarm Monitors, 1 in each Building

5.2 CONTROL OF WORK

The Contractor is automatically authorized and required to perform routine maintenance work for the ASMC. All requirements as listed in Article 5.0, unless stated otherwise, and all work documentation as required herein, or at the request of the Engineer, shall be incidental to routine maintenance, and the costs of such work shall be included in the routine maintenance pay items.

It is the responsibility of the Contractor to perform all work required to maintain and operate equipment, devices and appurtenances. This includes all maintenance and repairs required to insure the equipment and devices are kept in their designed, constructed or updated condition, and operational items to function as intended.

Routine work required by the Contract includes response, scheduled and preventative work, equipment repairs, removals, installs, re-installs and/or replacements, shipping and handling of equipment, decals and their application, labeling, cleaning, providing lane closures, and all maintenance activities and associated work to keep the ASMC system equipment operating at peak performance.

The Engineer appointed for this Contract will be responsible for the control of the work in conformance with Section 105 of the Standard Specifications for Road and Bridge Construction, and contract Special Provisions.

The Contractor shall continuously watch for System elements that are malfunctioning or in need of replacement. Malfunctioning equipment shall be repaired or replaced as part of routine maintenance unless stated otherwise herein.

The Contractor shall document to the Engineer that the various items of equipment at all locations perform properly, as originally installed or as modified by the Department. Repair work as performed on system equipment shall meet all electrical codes and IDOT requirements. Scheduled maintenance completion dates as specified or agreed shall be met.

The Contractor is responsible to perform maintenance under this Contract which prevents operational problems, minimizes trouble calls, safeguards electrical safety, promotes operational safety and which prolongs the operations life of installed systems. Some of these maintenance activities will be initiated by the Engineer, some will be jointly developed between the Contractor and the Engineer, and some are expected to be routine maintenance obligations of the Contractor.

The maintenance preventative programs, activities, equipment repairs and/or replacements as found on prescribed programs and inspections and all associated work as found necessary for the proper maintenance of the systems as described herein shall be considered as part of routine maintenance, except as otherwise noted.

All equipment shall be maintained in accordance with manufacturer specifications and recommendations. Routine maintenance equipment service schedules and work shall be executed in accordance with equipment operations and maintenance (O & M) manuals unless otherwise stated herein.

The Engineer may make frequent investigations of Contractor work and periodic inspections of the respective systems and installations to determine if all maintenance operations are being performed satisfactorily and in the manner specified in the Contract.

The Engineer reserves the authority to call-out Contractor personnel and /or re-direct the Contractor's work priorities in response to emergency or special situations, potential hazards, contract coordination and incomplete or deficient work and the Contractor will be allowed no additional compensation for priorities so redirected.

Following repair work, the associated area restoration shall be equal to or better than the original area condition. For example, if the soil/sod has been disturbed during the course of his work, the Contractor shall regrade the surface work area with black dirt, placing seed or sod.

The Department retains ownership of all damaged equipment until a state scrap transfer log is signed by the IDOT Inspector.

The Contractor shall perform maintenance on equipment not maintained by him at contract unit prices, or if approved by the Engineer, at an agreed price.

In addition to the Daily Agenda, when Contractor personnel arrive at the site (or depart the site) where there is REVLAC or RACS equipment, the IDOT ComCenter must be directly notified by the Contractor's dispatch center personnel.

5.3 CONTRACTOR ADVISORY

The Contractor shall identify system elements which have become prone to recurring or imminent failure, and/or pose a significant liability or a safety risk, and recommend replacement or repair by submitting an Advisory Report in the monthly routine work submittal book.

The Engineer shall review and respond to the Contractor in regards to the advisory inspection, and reserves the right to determine a course of action to rectify any identified condition. When the Engineer concurs with the Contractor's basic recommendations, the Department shall furnish the materials or a non-routine authorization will be issued for the material portion of the repair and this will reduce the Contractor's routine maintenance obligation to the labor necessary to replace the deteriorated system element. Should the Engineer determine, however, that a deteriorated condition is due to neglectful maintenance on the part of this Contractor, all remedial work shall be performed as routine maintenance.

Repair of damage from weather-related failures of electric utility systems, broken aerial electrical lines, or damage from deteriorated electric utility systems which have been observed and reported by the Contractor to the utility and the Engineer prior to the occurrence of damage, may also be eligible for payment subject to approval of the Engineer. Engineer approval of the work will be based on adequate contractor repair response, proper advisory inspection report documentation, and the substantiated link to weather-related failure or previously reported deteriorated utility systems as noted above.

In the absence of an advisory inspection report received and acknowledged by the Engineer, if system elements fail or are observed by the Engineer to be causing recurring failures or imminent safety hazards, then the Contractor is obligated for the full cost of replacement or repair under routine maintenance. Such obligation is not limited only to individual components but may extend to the multiples of components at a location(s).

5.4 RESPONSE AND REPAIR OF DAMAGED EQUIPMENT

The Contractor is required, under routine maintenance, to clear sites for safety, provide immediate corrective response or normal corrective response, provide immediate repairs or temporary repairs, provide permanent repairs, and replacement where necessary of new parts or equipment for all state maintained system equipment found damaged or malfunctioning for any reason, regardless of the type of damage or who caused the damage, unless otherwise directed by the Engineer. Examples of damage include vehicular caused damage, third party damage, vandalism, natural causes, or incidental damage on or affecting system equipment as caused by the failure or the fault of utility company equipment. All responses and work on system equipment must be documented on an EMCMS Ticket.

Damaged equipment parts and materials shall be replaced with new equipment, previously approved by the Engineer, in equal quantities, which shall be identical to the original elements except as otherwise specified herein, or permitted by the Engineer. Materials, repair methods and/or equipment replacements shall be suitable for the intended use per specifications and standards as listed in Article 2.0 and contract requirements herein. In some cases failed equipment under warranty will need to be shipped back to the manufacturer.

If the Engineer concurs that permanent repairs require materials or equipment from an approved outside vendor, the Contractor shall place the order as soon as possible, within forty-eight (48) hours of the assessment. At the time the order is placed the Engineer shall be provided a scanned email copy of the purchase order and vendor information showing the expected arrival date. If a permanent repair delay is due to repairs by an outside vendor, the Contractor shall notify the Engineer so that other repair options may be considered.

All expressway, shoulder, or lane closures required for the response and repair of damaged System equipment is routine maintenance work and shall be in conformance with existing Departmental standards governing lane closures. (Review Article 4.0 for Traffic Control information.)

5.5 IMMEDIATE CORRECTIVE RESPONSE AND REPAIR

5.5.1 REVLAC AND RACS

When equipment failures occur on REVLAC or RACS equipment or other exposed electrical cables/equipment due to unforeseen events, winter weather, motorist caused damage, or from any cause whatsoever and which affect the traveling public, Contractor personnel are required to immediately respond to the scene, shut-down or safely isolate any potentially hazardous electrical condition, clear the pavement of any equipment debris resulting from the damage, take corrective measures to assure the safety of the motoring public, and coordinate the efforts to restore normal traffic operations. The REVLAC and RACS systems are to be kept operational 24/7 in automatic mode, or in manual mode when repairs are required.

The Contractor is required to use as many personnel as necessary to respond to trouble calls within one (1) hour of notification and repair REVLAC or RACS system operations within two (2) hours or less, unless Engineer approval of a delay is granted. In some cases this may require personnel, equipment and materials to assist in the operation of the system such as manually cranking signs into position, manually cranking swing gates, manning a control building if bypassing the PLC control, manning a control building to monitor transition events, manually covering prescribed malfunctioning signs, placing barrels or barricades for failed closure devices, staging Contractor owned vehicles in place of the barrier net and all such similar work as needed to produce essentially normal functionality of the REVLAC or RACS systems to the Department and the motoring public.

When Contractor personnel arrive at the site (or depart the site) where there is REVLAC or RACS equipment, the IDOT ComCenter must be directly notified by the Contractor's dispatch center personnel. This notification includes planned work or emergency work which may or may not require an emergency lane closure.

All immediate corrective action incidents shall be documented with an EMCMS Ticket, created by the Contractor at the time of the response, or found deficiency. The EMCMS Ticket and work repair log shall contain all pertinent information regarding the work performed and materials used, and this information does not need to be provided verbally to Department personnel at the time the work is completed.

The Contractor is required to have a 24/7 On-Call policy in place for emergency REVLAC and RACS response and repairs. Refer to Article 4.13.

5.5.2 OTHER ASMC EQUIPMENT

Failures of expressway ramp gates, fiber, intrusion alarms, power outages, servers, SONET or CCTV distribution equipment, also require immediate corrective action by Contractor personnel. The Contractor is required to use as many personnel as necessary or have approved sub-contractor on-call personnel to respond to trouble calls within one (1) hour of notification and repair operations within two (2) hours or less, unless Engineer approval of a delay is granted. All immediate corrective action incidents shall be documented with an EMCMS Ticket, created at the time of the response.

5.5.3 GCM GATEWAY NETWORK

The Contractor is required to maintain the GCM Gateway Network connections to the extended fiber network (IDOT fiber and connection to Tollway fiber) that support its IDOT distribution extensions to out-of-state connections, including the associated Gig-E equipment. Immediate corrective response requirements shall be met per Article 5.5 herein. This may require the

Contractor ASMC Specialist or Field Technician to coordinate with the Engineer and visit an Illinois Tollway property to service GCM equipment.

The Contractor may receive emails from the GCM Gateway Network support team using NAGIOS, notifying them of camera outages requiring field response per Article 5.5. If directed by ComCenter personnel, the Contractor may be dispatched to the Traffic Systems Center to reset the Gateway system server, or post a prepared outage message to the website.

5.6 NORMAL CORRECTIVE RESPONSE AND REPAIR

Other ASMC items needing repair, and not listed in Article 5.5, shall be handled through normal corrective action. The Contractor shall investigate these found or reported items within twenty-four (24) hours and correct the defective operation or equipment with temporary repairs within forty-eight (48) hours of the investigation, followed by permanent repairs within seven (7) days, unless approval is given by the Engineer for the repair delay.

All normal corrective actions shall be documented with an EMCMS Ticket, created at the time of notification or discovery by Contractor personnel. If a repair delay is approved by the Engineer, the Ticket shall state the date when the repair is expected to be completed. Refer also to Ticket requirements herein.

CCTV

In addition to the preventative maintenance program, cameras mounted 25 ft or lower, or cameras on lowering devices shall be cleaned upon request of the Engineer or the Department's ComCenter, when the images are not clear. The Contractor shall keep a ticket count, and will not be required to exceed twenty (20) cleanings per month.

When missing decals are discovered or new equipment installed the Contractor shall furnish and install new decals for cameras and camera poles. Decals shall be similar to those for lighting units as specified in Article 1069.06 of the Standard Specifications.

The Contractor shall be notified by the Engineer or the ComCenter when the CCTV video images need internal titles. Cameras shall be labeled internally through the camera or the video matrix switch for correct location name viewing.

AVL

The Contractor shall respond to trouble calls regarding the AVL equipment from the IDOT ComCenter and Department personnel. This may require travel to the vehicle in question for the equipment repair, or travel to the ComCenter for supervisory control repairs. The Contractor shall contact the IDOT ETP Manager to obtain time which the vehicle would be available for repair. Materials for AVL repairs shall be available in State Stock.

Modem installation work shall include all work necessary to install, wire, integrate, set-up all communications to the AVL server, and configure the complete system so as to provide a completely operational AVL unit in the vehicle.

Labeling

Certain ASMC fiber and/or wiring, such as power wiring, Ethernet, RS232 cables, Blue tube cables, and coax, as designated by the Engineer, may require permanent labeling from a Brady labeling machine or equivalent. A Brother P-Touch type of labeler is not acceptable.

5.7 SPECIAL RESPONSE AND REPAIR SITUATIONS

5.7.1 UNAUTHORIZED ACCESS OF IDOT PROPERTY

If the Contractor sees an unauthorized individual at a site he shall contact the IDOT ComCenter to call for police assistance, before confronting an individual.

5.7.2 VANDALISM OR THEFT OF IDOT PROPERTY

If the Contractor arrives on the scene of major vandalism to IDOT property, the Engineer shall be notified to determine if a police report is necessary. The first responder on scene shall take date stamped, digital photos of the damage. The Contractor shall immediately submit the photos with the Ticket number and responder call number via internet access, to the Engineer. The email internet access procedures shall be specified by the Engineer at the Pre-Bid Meeting.

All graffiti, including advertising decals, found on system equipment, huts, or buildings shall be removed as soon as possible, within (2) working days. Following incidents of tampering, graffiti, vandalism, or theft, the Contractor shall notify the local police agency so they may more frequently monitor the area.

If theft is suspected the Engineer shall be immediately notified and a Department representative shall arrive on the scene and make thorough inspection to ascertain if anything is missing or damaged. The Department representative shall determine if the Contractor shall file an official police theft report.

When, in judgment of the Engineer, damage or loss of system equipment is the result of extensive, specific theft activity affecting continuity of service, the Engineer may authorize non-routine maintenance payment of all or a portion of the permanent repair work, using contract pay items wherever applicable. The potential for the permanent work authorization, however, shall in no way relieve the Contractor from the responsibility to promptly respond and perform repairs.

5.8 MESSAGE SIGN MONITORING

General Requirements

The Contractor shall install 15 CCTV cameras to monitor the REVLAC Changeable Message Signs (CMS). The Contractor shall provide the labor, equipment and transportation to install the cameras, and coordinate work with the programming company to provide final views as specified. It is expected that each camera install, coordination, and final termination will require approximately fifteen (15) hours of labor, not including travel time to each site.

All associated hardware and equipment including communication, power wiring and terminations shall be furnished and made available through State Stock, Non-Routine Pay Items and Non-Routine Agreed Prices.

The Contractor shall provide video loss detection in a manner similar to that for existing cameras, as provided through state stock or non-routine agreed prices. However the Engineer will entertain combining sign camera video loss alarm functions with existing alarm outputs as long as alarm tags are re-designated or the addition of I/O and the associated alarm designations, depending on operational practicality and ease of installation.

Some re-positioning of some existing cameras may be necessary to retain optimum gate coverage throughout the camera views, but it is anticipated that this will not be extensive if required at all.

Traffic control for the work shall be within established requirements for the expressway and shall be included at no extra cost

Work by Specialty Service Vendor or Sub-Contractor

It is the intent of this specification that the images be added in combination with other existing images (anticipated to be the final sequence view) such that control programming will have little or no change. The implementation of any additional programming for CCTV images of changeable message signs into the viewed sequence and the recorded record of ramp transitions will be performed by others. This work will require coordination with the Contractor to provide a complete operational system.

The message sign images will be merged with existing images in the respective ramp control sequences using an advanced video quad combiner having control of scale, crop, position and overlay of 1-4 images, such as Ovation Systems "FourSight" device or an approved equal, to be furnished through state stock or non-routine agreed prices.

As part of the programming work by others, the REVLAC System shall be equipped with a redundant normally open (N.O.) and normally closed (N.C.) common REVLAC alarm (for any REVLAC alarm) output extended to the ComCenter wall-mounted alarm panel via the connection panel in the ComCenter equipment room, with an appropriate engraved window. Any new alarm added to the REVLAC alarm list shall initiate the alarm flashing sequence at the alarm panel.

A minor programming timer change may be requested to extend the delay time for flashing chevrons, etc. before gate operation is initiated, at the discretion of the Engineer.

Prior to the start of work, upon Engineer approval, the designated vendor or sub-contractor shall prepare modified connection diagrams (or diagram mark-ups) based on Record Drawings (as furnished by the Engineer).

Work Specifications

One camera shall be added, mounted on an individual pole, powered and connected to a video patch panel at the respective ramp control building, for each changeable message sign in the REVLAC system.

The installation of camera poles is routine maintenance. The locations of the camera poles shall be proposed by the Contractor and approved by the Engineer. When ground-mounted wiring shall be underground and when mounted on structures such as barrier wall, wiring may be attached to structure in PVC-coated rigid conduit and raceway systems.

Not all cameras are expected to be used in the revised control displays, but the Engineer will determine the exact number and configuration of images based on test viewing in conjunction with the Contractor to determine adequate position, size, etc. to optimize the resolution of images as necessary for the function.

The sign images will be combined with the final sequence view of gate operation.

Proposal, Schedule, and Acceptance of Work

The Contractor shall submit a proposal with a work schedule, a testing plan, block diagrams, and all product data sheets for equipment and materials to be provided by the Department. The dedicated ASMC person shall perform the message sign project work at any time Contractor personnel is scheduled for this work.

After completion of the work, the Contractor shall provide Record Drawings of the revised system, incorporating all modifications made in the course of installation, for review, approval and electronic storage by the Engineer.

5.9 REVLAC AND RACS GATES AND BARRIER STRIPING

Under routine maintenance the Contractor shall remove the existing retro-reflective sheeting, as specified by the Engineer, and install new striping, strictly following the manufacturer's

instructions. The Contractor shall provide special attention to surface preparation and mounting of sheeting for proper bonding and adhesion. A maximum of 500 sq. ft. of striping material will be removed and replaced. The new striping material is furnished through State Stock and/or non-routine agreed prices.

5.10 DAMAGE CAUSED BY DEPARTMENT PERSONNEL

The Contractor shall abide by the requirements of Articles 5.5 and 5.6, however, when damage to system equipment has been caused by Department personnel, in the performance of their assigned duties, the Contractor shall receive payment for temporary and permanent repair work necessary when notification of damage is received within 48 hours. The Contractor shall be paid material costs through Non-Routine Pay Items, where unit price items are applicable or Agreed Price.

The first responder on scene shall take date stamped, digital photos of the damage. The Contractor shall immediately submit the photos with the Ticket number and responder call number via internet access, to the Engineer. The email internet access procedures shall be specified by the Engineer at the Pre-Bid Meeting.

Within twenty-four hours of the found damage, the Contractor shall contact the Engineer to establish a mutually agreed date for a field inspection to ascertain the materials and/or parts necessary for the repair.

The Department reserves the right to furnish any or all of the materials or parts for any non-routine work, so no charge for items so furnished shall be made by the Contractor. Materials or parts furnished by the Department may be from the Department's state stock inventory or from other sources available to the Department.

5.11 DAMAGE CAUSED BY CONSTRUCTION (3RD PARTY DAMAGE)

The Contractor shall abide by requirements of Article 5.5 and 5.6, however, when damage to system equipment (Contractor maintained) has been caused by construction activity, the Contractor may invoice the offending third party for damage repairs, including clearing costs, if Engineer approval is given. Examples of third parties include contractors working under contract with IDOT, contractors working on a construction project under permit issued by the District's Traffic Permits Section or the District's Design Utility Section, or municipal and county agency workers and their contractors. Repairs shall be completed as specified in articles herein.

3rd Party Damage Repair Documentation:

- a. Upon finding 3rd party damage to state property (not caused by departmental personnel), the first responder on scene shall take date stamped, digital photos of the damage. The Contractor shall immediately submit the photos with the Ticket number and responder call number via internet access, to the Engineer. The email internet access procedures shall be specified by the Engineer at the Pre-Bid Meeting.
- b. The Contractor shall create an EMCMS GB (general billing) ticket, noting the name of the contractor at the scene, address, contract or permit number and contact name and phone numbers.
- c. The applicable party shall be sent a written estimate of repair (or construction) costs.
- d. The Contractor shall notify the IDOT Engineer/Inspector when the work is complete and ready for inspection by submitting, in the monthly routine maintenance work submittal book, a file on each 3rd party damage (or work) incident where permanent repairs have been completed. The file shall include copies of the completed ticket, daily general billing log(s), all

- correspondence, and Contractor original invoice. (Note: The 3rd party invoice number shall be the same as the ticket number.)
- e. After the work has been inspected, and the Engineer has signed an approval on the original invoice, the Contractor may submit it to the third party. If the work is inspected but not approved, the unsigned invoice shall be returned with a corrective work list. Contractor shall not submit an invoice to a third party for damage to IDOT property without an IDOT approval signature.

5.12 MOTORIST CAUSED HIGHWAY DAMAGE (MCHD)

5.12.1 DAMAGE CAUSED BY MOTORISTS

The Contractor shall abide by routine maintenance damage response and repair time requirements of Article 5.5 and 5.6. The Contractor is allowed to use materials furnished by the Department as listed in Article 4.19, or state stock, for the repairs due to motorist caused damage. All other materials, equipment and labor for repairs are furnished by the Contractor and paid through routine maintenance bid items. The Contractor is not allowed to collect repair costs from licensed motorists or insurance companies.

When the Contractor responds to a notification of state property damaged by motorists, or damage is found upon patrol, the Contractor shall create an EMCMS MC (motorist caused damage) ticket and the first responder on scene shall take date stamped, digital photos of the damage.

The Contractor is notified that the Department requires clear, concise photos of motorist caused damage, regardless of the hour of day or night, so the camera phone used by the Contractor personnel shall be of good quality and have email and internet access for photo transmission. Liquidated damages shall be collected if there is a pattern of disregard of this requirement.

At the end of each week, the Contractor shall submit, via internet access to the Engineer, photos of motorist caused damage which show the Ticket number and responder call number. The email internet access procedures shall be specified by the Engineer at the Pre-Construction Meeting. The Contractor is responsible for the email web-based transmission of the photos and email web-based receipt by the Department. Refer also to Ticket documentation and cell phone requirements herein.

The Contractor shall keep a log, by Ticket number, of work crew repair information (equipment damaged and/or salvaged, equipment re-used, new equipment installed, identifying state stock or contractor parts used, and total of labor repair time and vehicles used) and submit to the Engineer via email once per week. The log information shall be used by the Contractor to provide motorist caused damage (MCHD) statements, upon request of the Engineer.

Ramp Gate Sand Barrels and Sand

The Contractor shall create a Ticket, and the IDOT ComCenter shall be immediately notified when the Contractor finds motorist caused damage to expressway ramp gate sand barrels. The ComCenter will in turn notify the IDOT District 1 Bureau of Maintenance personnel who will replace the barrels and sand. The Contractor shall keep the Tickets open until the replacement work is completed.

5.12.2 MCHD CLAIMS PROCESSING

Upon notification of a claim to be processed by the Department, the Contractor shall prepare a MCHD statement, which consists of one (1) original and six (6) copies, in a 7-part multi-copy form. As agreed and approved by the Contractor and the Department, motorists who damage

state property shall be charged the Contractor's purchase price of the repair materials or equipment, plus any mark-up as allowed per Contract Specifications and labor repair time multiplied by the determined union labor rate on January 1 of each year. Each statement number shall be the same as the ticket number, and the format shall be approved by the Engineer prior to submittal. All statements shall be signed by the Contractor to verify repair work completion. The Contractor shall submit the statements to the Engineer, normally at the monthly pay meeting, but within seven (7) days of the request. Occasionally the Contractor may be required to furnish to the Department for insurance company claim requests, additional information regarding a particular MC Ticket, such as cat cuts of repair items, material purchase orders, etc.

5.12.3 SPECIAL PAYMENT FOR MCHD REPAIRS

Where there is costly damage to state property (in excess of \$25,000) caused by a licensed motorist, and the Contractor makes repairs through routine maintenance, if the Contractor provides complete documentation of material purchases and labor repair costs, and the IDOT Claims Department obtains repair cost reimbursement, the Department shall make separate payment to the contractor of the repair costs collected, after deducting any payment received by the Contractor in situations where furnished materials, non-routine pay items or agreed prices were applicable. Note the repair costs collected by the Department may not equal the total dollar amount of the Contractor's repair invoice. The IDOT Claims Department shall have the final determination of the amount of repair costs collected.

5.13 LOCATING CABLE OR OTHER COMPONENTS OF IDOT SYSTEMS

To prevent damage and facilitate work by others, the Contractor shall respond to calls requesting a locate of state owned electrical systems within twenty-four hours, or if special or emergency situations warrant, immediately, at the request of the Engineer. The Contractor is required to perform a locate of state owned underground cables or any other components, one time for each system location, per project or contract, as requested by the general contractor of the construction project, before or after the transfer of maintenance responsibilities. Each request may involve multiple locations where separated electrical systems are involved. Markings shall be given with a horizontal tolerance of one foot to either side.

5.14 COORDINATION WITH ELECTRIC UTILITY COMPANIES, CONTRACTORS, AND OTHERS

The Contractor shall keep incoming power service in proper condition at all times. The Engineer shall be promptly notified by email for cases such as the planned disruption of service power to System equipment.

The Contractor shall monitor the condition of electric service wiring and equipment, telephone service wiring and equipment, natural gas service lines and accessories and water service piping and appurtenances for all systems and facilities maintained under this contract. The Contractor shall maintain contacts with the respective utilities or providers for these services and shall coordinate with the utility and the Department to assure that services are installed in a timely manner, in compliance with requirements established for the service.

The Contractor shall fully coordinate access as required for utility company or contractor inspection, modification work as applicable, repair work as necessary and other matters as necessary to assure continuity of services and proper revisions when needed.

The Engineer may require the Contractor to inspect related non-system equipment, such as Com Ed power lines, that may interfere with the functioning and/or maintenance of systems as covered in the contract.

The Contractor shall assist the Engineer with the inspection of work completed by others such as the construction and/or replacement of intermittent median walls by a construction contractor (the non-EMC) and the necessary inspection of the required electrical ducts by the Contractor.

5.15 PROVIDING SYSTEM SERVICES

Upon request of the Engineer, the Contractor is required to provide trained personnel for the following miscellaneous routine maintenance work:

- Provide system access to utility workers or inspectors approved by the Department
- Provide system access for other contractors and consultants who have approved contracts to work on IDOT equipment
- Conduct an immediate System or component inspection upon notice of the Engineer
- Provide labor, transportation, and equipment, to assist IDOT inspectors in their inspection of any portion of a System(s)
- Provide additional special patrols, inspections, and tests to confirm proper system equipment operation
- Collect information to analyze the nature of repetitious or intermittent system malfunctions
- Travel to a designated location/installation to determine ownership, take photos of the requested area, and email photos and information back to the department (response required within two (2) hours of request, unless directed otherwise).
- Provide occasional monitoring (stand-by time) of hazardous or emergency situations
- The Engineer may direct the Contractor to clean individual camera lens and domes, not to exceed 20 per month.

5.16 PATROL INSPECTIONS

5.16.1 GENERAL REQUIREMENTS

The Contractor shall submit a spreadsheet, noting the location, type of patrol or maintenance, and date work was completed, in the monthly routine maintenance work submittal book. In addition all scheduled work shall be noted on the Daily Agenda.

5.16.2 DAYTIME PATROLS

Once per month, the same week for the duration of the Contract, the REVLAC/RACS Field Technician shall inspect all REVLAC and RACS buildings and huts to insure proper operating condition of all equipment and to check for graffiti. The Engineer may add additional patrol locations if unsatisfactory service reports have been made, or a new building or hut is accepted for Contract maintenance.

Specific items to be checked include, but are not limited to:

- Allen Bradley PLC processors and all input and output cards; check for alarms
- Building rodent infiltration; seal any openings found
- Building site maintenance; empty trash cans
- Check for graffiti, if found create ticket for scheduled cleaning
- Building HVAC operations and temperature control
- Camera focus and image
- Electrical Service
- Check operation of generator

- Check generator diesel fuel level. If fuel level is less than one half of full level, a ticket shall be created to schedule the refill of the tank
- Check generator air filter, change if necessary
- Indicator lamps; replace as required
- Modem communications
- Phone lines

5.16.3 TRANSITION PATROLS

Once per month, on approximately the same day per month, for each month of the Contract, for the daytime reversible change (approximately 11:30 a.m.) and for the night-time reversible change (approximately 11:30 p.m.) a Contractor representative shall follow an IDOT ETP (Emergency Traffic Patrol) foreman through a complete gate operation at each REVLAC location in both inbound and outbound directions, to check equipment for proper operations.

5.16.4 NIGHT-TIME PATROLS

The Contractor shall provide for a night-time patrol inspection of the lighting of the ASMC systems once per month, to be scheduled the same week of each month. It is expected that only one (1) or two (2) nights of driving per month will be required.

Lighting at the following locations and other facilities with lighted ASMC equipment as transferred to state maintenance:

- RACS Buildings at Hillside and Roosevelt ramp
- REVLAC Auxiliary signs
- REVLAC Buildings A, C, D, and E
- REVLAC Chevron signs
- REVLAC Gore signs
- Tower obstruction lights (red) at Schaumburg HQ, Foster on Edens, and Nordic on I-290
- Video and Communication Huts at Schaumburg HQ; Foster on Edens; Nordic at I-290; Parnell on I-57, I-57 @ I-80, and Hillside Hub on Roosevelt Road.

In addition to ticket documentation requirements, the IDOT ComCenter should be immediately notified of any tower obstruction (red) light outages. Normal outage repairs shall be completed within 48 hours.

5.16.5 PATROL DOCUMENTATION

Any deficiencies found on daytime or nighttime patrols shall be relayed to the Contractor dispatch center and a Ticket created. Repairs shall be conducted as applicable per Article 5.5 or 5.6.

5.17 SITE MAINTENANCE

5.17.1 GENERAL REQUIREMENTS

The Contractor shall provide general site exterior maintenance at ASMC locations, to provide safe access to buildings and to maintain the site in an aesthetically acceptable condition to the public. The Contractor shall keep all locations free and clear from any debris and litter at all times.

The Contractor shall submit a spreadsheet, noting the location, type of patrol or maintenance, and date work was completed, in the monthly routine maintenance work submittal book. In addition all scheduled work shall be noted on the Daily Agenda.

For each REVLAC building and the Hillside Hut Building, the Contractor shall provide a ladder, equal or better than Little Giant Type 1AA, with heavy wall aircraft grade aluminum construction, rated to hold up to 375 lbs., combines 24 different ladders into a convenient, lightweight and portable unit. The ladder shall comply with all applicable OSHA ANSI A14.2 standards and have a full lifetime warranty (which shall be submitted to the Engineer at the time of purchase). The ladders shall be listed as State Stock and shall become the property of the Department at the end of the Contract term. The Contractor shall inspect the ladder periodically for defects, and replace if necessary, per specifications herein.

5.17.2 SPRING/SUMMER/FALL MAINTENANCE

Weed or grass cutting to height of three (3) inches or less, tree trimming, tree branch or brush removal and debris disposal work shall be performed for a minimum radius of 50 feet around all buildings and huts as applicable, (Buildings A, C, D, and E, Hillside, Foster, Nordic, and Schaumburg Tower buildings, Hillside RACS Ramp Building, Hillside Media hut, and any future huts as accepted for maintenance by the Department, during the Contract), twice per month in the months, April through October, and as needed for the remaining months.

5.17.3 WINTER MAINTENANCE

General snowfall maintenance shall begin within 48 hours following a 1 inch snowfall or more. The Contractor shall provide reasonable access to Buildings A, B, C, D, E, and the Hillside Media, Foster, Nordic and Schaumburg Tower Buildings, and the Hillside RACS Ramp Building, by shoveling and plowing as necessary, and salting, all sidewalks, paths, driveways and parking areas.

5.18 INTERIOR MAINTENANCE

5.18.1 MONTHLY GENERAL EQUIPMENT MAINTENANCE

The Contractor shall provide monthly general interior site maintenance for ASMC equipment in ASMC building locations, hut locations, the ComCenter (equipment room and ASMC/EMCMS terminals and keyboards in dispatch area), the TSC equipment area, Field Office, and the ISP/CMS facility (IDOT/ISP equipment) in Des Plaines, through routine maintenance, to keep the equipment free of dust build up, to reduce heat buildup, and prolong the life of the systems. Following manufacturers' recommendations, soft cloths and compressed air shall be used to remove dust build up. A minimum of six (6) cans per month of compressed air is required to be delivered to the ComCenter, and/or Field Office for keyboard cleaning. The work can be performed in conjunction with other patrols and inspections (and may be performed at night where feasible), but should be scheduled for the same week of the month for the duration of the Contract. The Contractor Daily Agenda shall note the time of the expected maintenance of each location. Verbal approval is needed from the ComCenter Supervisor prior to beginning work at that location.

5.18.2 YEARLY FIRE EXTINGUISHER MAINTENANCE

The Contractor shall furnish and install fire extinguishers, equal or better than Badger Fire Protection extra carbon dioxide self-expelling model B20V for any new facilities placed on maintenance during the term of this Contract.

The Contractor shall have all fire extinguishers checked for proper service and re-filled as necessary, through a fire inspection service as approved by the Engineer, at a minimum of once per year, in April. It will be necessary for the Contractor to travel with the fire inspection service

personnel to unlock facilities. The Engineer shall be provided a schedule of the yearly testing, prior to the start of the work.

5.19 PREVENTIVE MAINTENANCE PROGRAMS

The Contractor is required to perform certain preventive maintenance (PM) work within certain regular intervals or within certain time limits. The following descriptions provide a basic guide for PM work, but shall not be construed as all inclusive. Preventive maintenance required by the manufacturers shall be performed in addition to these inspections. All PM work shall be in compliance with manufacturers' specifications. PM forms will be available at the Pre-Bid Meeting.

Schedules for start and completion of PM program work are important for the effectiveness of the overall system reliability. Every month, the Contractor shall submit the PM program for the following month in the monthly routine maintenance work submittal book. All PM work shall be completed within 30 days after starting, unless extensions are approved by the Engineer. All PM program work shall be scheduled on the Daily Agenda which shall list the specific type of inspection being performed (example: Roof PM).

All preventive maintenance reports and inspections shall be sent to the Engineer and Contractor Project Manager directly from the field, when follow-up work is required.

The Contractor shall submit in the monthly routine maintenance submittal book a schedule/chart that shows all maintenance locations, preventive maintenance programs, status and date of completion for each program, including the status of all uncompleted tickets and authorizations. The Contractor shall identify items, by ticket number or authorization number, which require follow-up.

5.20 RESTRAINING BARRIER PM

Barrier PM shall be conducted once per year, in April.

- Inspect all control cabinets, equipment access covers and hinged opening for proper closure (bolted or padlocked)
- Open control cabinets and clean out debris or corrosion
- Hand clean control cabinets and reflective strips with biodegradable detergent and water
- Check for fluid leaks in the cabinet and correct, if any
- Lubricate pillow block and idler sprocket bearings with multi-purpose lithium grease, NLGI No. 2, or equivalent.
- Check oil level in the drive reducer and fill with SAE No. 20 motor oil, if necessary.
- Lubricate drive chains semiannually using an aerosol chain lubricant spray (WD-40 or similar compounds are not acceptable).
- Clean tower via gas powered pressure washer
- Check net condition and positioning and check for damage or vandalism
- Check wire condition and terminations
- Open tower cover doors and hinged openings, clean, check drive chain and sprocket alignment and wear, counterweight cable attachment and general condition and check for oil leaks
- Check tower cover weather seal for wear or damage
- Check limit switches and actuators; adjustments, clearances, and secure mounting
- Check barrier net cables conditions, for tautness/tension and proper height
- Check stabilizer foot pads (replace worn or missing pads)
- Check inside of tower and cross ramp structure for accumulation of debris, dirt, dust, corrosion, animal nests, and excess grease
- Lubricate per maintenance manual section 4-5

The restraining barrier should run smoothly, without excess vibration or noise, stop quickly at its raised or lowered positions, and, when in remote operation, ensure prescribed status and warning light indications are working.

5.21 SWING GATES PM (FOR REVLAC AND RACS)

Swing gate PM shall be performed twice a year, in April and October. Lubrication shall be performed once per year as a minimum.

- Open control cabinet and clean out debris or corrosion
- Check for fluid leaks in the cabinets and correct, if any
- Check oil level in the drive train and top off as required by the manufacturer's requirements
- Hand clean control cabinets with biodegradable detergent and water
- Replace gate tip if more than 20% of the tip is damaged, or when directed by the Engineer
- Check proximity limit switch alignment and bracket conditions
- Check electrical connectors and wiring condition
- Check drive and control components
- Lubricate components with lubricants as listed in maintenance manual page 6-1
- Lube flange bearings only if seal failure is noticed
- Lube chain and sprocket with high grade aerosol chain lube
- Repair or replace speed reducer if it leaks oil
- Check that panel doors are closed and padlocked
- Operate the gate automatically to check for shear pin damage
- Operate the gate using the hand crank to check for operation

The swing gates should extend and retract smoothly, without excess vibration or noise, stop quickly at extended or retracted positions, and, when in remote operation, provide prescribed status indicator and warning light indications.

All swing gates shall be washed. Washing shall be performed with a pressure washer and process and cleaning solutions recommended by the reflective sheeting manufacturer. Washing shall not take place when the temperatures are expected to drop below freezing. Residual cleaning solution shall not be left on the pavement after the cleaning operation. Any cleaning solution shall be removed before traffic is allowed to travel on the pavement.

During the second inspection only , in October, all heaters shall be checked for proper operation.

5.22 ROTATING DRUM SIGNS PM

All rotating drum signs shall be cleaned twice a year, in April and October.

- Open control cabinet and clean out debris
- Check for fluid leaks in the cabinet and correct, if any
- Check oil level in the drive train and top off as required by manufacturer's specifications
- Lubricate all bearing surfaces as needed, at least once per year
- Lubricate grease fittings and oil reservoir on motors
- Oil chains
- Observe coupling operation, tighten all bolts and set screws
- Clean sign housing
- Hand clean control cabinets with biodegradable detergent and water

5.23 REVLAC AND RACS LED AND FIBEROPTIC SIGN PM

All REVLAC and RACS auxiliary signs, dynamic message signs, Chevron signs, and fiber optic signs shall be inspected twice a year, in April and October:

- Open access covers and clean out any accumulation of bird and insect nests, dirt and dust, or corrosion
- Clean and inspect interior and exterior sign housing
- Check and adjust voltage to LED power supply
- Clean all associated control cabinets with biodegradable detergent and water
- Clean LED signs with a cloth and biodegradable detergent and water
- Relamp fiber optic sign with halogen lamps and clean housing, once per year, at the time of April inspection
- Inspect lamp housings for corrosion and damage and replace, if necessary

All fiber optic signs shall be cleaned and relamped in April of each year.

5.24 CONTROL BUILDINGS, COMMUNICATION BUILDINGS, AND SYSTEMS PM

A preventive maintenance program shall be conducted once per year, in April, for all REVLAC and RACS buildings, all huts, IDOT Headquarters ASMC equipment, and ISP/CMS facility (Des Plaines) ASMC equipment.

Check refrigeration:

- Clean or replace air filter
- Inspect and clean indoor coil, drain pan, and condensation drain line
- Inspect and clean blower motor and wheel
- Check electrical connections for tightness
- Check controls for proper orientation
- Inspect refrigerant tubing connections

Fans:

- Inspect and tighten bolts and set screws
- Inspect belt wear and alignment
- Clean exterior surfaces
- Clean or replace filters
- Inspect and lubricate bearings if needed
- Check for proper control/line voltage and operation on supply/exhaust fan starters

Switchboards:

- Manually open and close breakers
- Check for torque values in secondary section of bus splices and connections
- Check for proper ammeter/voltmeter values

Panelboards:

- Inspect for moisture damage
- Replace any deteriorated insulation material
- Clean any accumulation of dust or dirt
- Inspect all connections for heat or other damage of loose connections
- Operate mechanical components
- Clean and dress copper electrical contacts
- Operate circuit breakers
- Replace burned out indicating lights

Transformers:

- Clean excessive dirt on windings & insulators

Automatic Transfer Switches:

- Inspect wiring and connections for tracking, overheating, and deterioration
- Tighten control circuit wiring terminals
- Check for free movement and contact continuity in manual switches
- Adjust time delay settings as necessary
- Clean or replace main, arcing, and auxiliary contacts
- Tighten lug connections and mounting insulation bolts
- Perform transfer operation
- Calibrate phase and voltage sensitive relays
- Clean and remove accumulated dust and dirt
- Check for proper operation or door closure, locking bars, and mechanism

Batteries:

- Check and record AC and DC voltages of each cell
- Tighten nuts/bolts
- Clean surfaces
- Check AC/DC power converter charger (if applicable)

Ethernet Network:

- Check Cisco mux
- Check fiber media converters and switches
- Clean and remove accumulated dust and dirt
- Clean filter
- Check Hirschman Fiber/Ethernet transceivers

6 GHz Microwave System:

- Clean outside and front panel of case
- Tighten cable connections
- Measure and record operating parameters
- Measure and record transmitter RF frequency
- Measure and record receiver IF frequency
- Measure and record receiver AGC voltage
- Check dehydrator

23 GHz Microwave System: (not applicable for ISP/CMS facility)

- Measure and record AGC voltage level
- Measure and record transmitter output power and frequency
- Tighten loose fasteners and replace missing hardware
- Check and replace indicator lamps
- Inspect cable for wear or fraying
- Clean painted surfaces and repair as necessary
- Check mounting hardware and guy wires of antennas, masts, or towers
- Measure and record transmitter gun current

Modems Microwave System:

- Remove dust from internal components with soft brush and low pressure air/vac

Antennas Microwave:

- Check tightness of hardware on mount, shroud, radome, and feed
- Inspect antenna and repair when necessary

Remote Control (Cattron) System: (not applicable for ISP/CMS facility)

- Check fuse resistance and replace when necessary

- Check fuse holders for corrosion and clean when necessary
- Check primary power source for proper readings
- Check control transmitter, receiver/decoder, relay output rack for loose bolts/screws/clamps
- Check fuses, holders, resistors, and transformers for over heating
- Visually check antenna, mounting devices, cables and connectors
- Conform receiver and transmitter in the system are aligned on the same frequency

Gate Arm Heating System for REVLAC and RACS:

- Check for proper settings, operation, and LED indication

CCTV: (not applicable for ISP/CMS facility)

Patrolmen shall inspect all equipment for cleanliness and proper operation, and check various levels and settings.

Check for alarms on the following equipment:

- iMPath
- Optelicom
- Meridian
- Bosch

Controller for Tower Lights:

- Check and clean

PLC Servers:

- Check operations

DMS Signs: (RACS ramp buildings and Hillside Hub)

- Check media converter
- Check fiber transceiver

Enclosures:

- Blow dirt out of programmable controllers, I/O modules & power supplies with compressed air
- Blow dirt out of T-60 with compressed air
- Brush dust & construction debris off of the I/O racks, wire troughs, & horizontal surfaces
- Brush dust and construction debris off of the T-60 and other horizontal surfaces
- Vacuum dust and construction debris out of cabinets
- Wipe dirt off of edges of doors and door frames
- Check ground bus connections and bonding wires and lugs for tightness and integrity
- Check screws on AB 1771-I/O swing-arms for tightness
- Check screws on terminal boards for tightness
- Test Random Access Memory (RAM) function
- Verify alarms are updating properly
- Verify hard drive is functioning normally
- Verify screen brightness is within normal parameters
- Verify PLC-5 program backup is current and password protected
- Clean and inspect air filter
- Check bonding wires and lugs for tightness and integrity
- Check communication cable integrity
- Check alarm LED indicator lamp on AB I/O chassis

Roof Inspection and Repair for all Buildings and Structures (in April of each year)

- The Contractor shall thoroughly clean the roof surface of dirt, debris, and contaminants.

- The Contractor shall conduct a full roof and flashing inspection on all buildings and structures, by accessing with ladder, and physically walking the roof, checking for leaks or deterioration. Any problems found shall be noted on a Ticket for repair.

- Repair items as found:

Small Holes and Cracks: Clean surface, apply mastic (roof cement) 1/8" to 1/4" thick into the hole or crack using a roofer's trowel or gloved hand, working the mastic into the opening and 2 to 4 inches beyond.

Large Holes and Cracks: For damaged areas larger than 1/4" repair, clean surface, use self-adhering SBS Modified Asphalt Membrane by peeling off the backing and pressing it onto the area to remove any entrapped air. A coating of mastic (roof cement) shall be applied over all repaired areas.

Loose or Dry Laps, Fishmouths, Buckles, Wrinkles, Ridges: Cut defective material back to an adhered area. Repair area as needed with mastic and/or membrane and mastic as stated above.

Loose Mechanical Attachment, Termination Bar: Remove loose fasteners. Re-secure base flashings (or new flashing material) through tin discs of a larger diameter or fastened to an adjacent location (new hole).

General Items:

- Replace or repair corroded conduit, junction boxes and connectors
- Replace or repair damaged weather stripping and/or minor leaks
- Replace batteries in the surge arresters, building clocks, and other equipment, per manufacturers' specifications
- PLC batteries to be replaced in April of each year
- Wet mop floors with water and biodegradable cleaner, in Buildings A, C, D and E
- Check heaters for correct operations, note problems on tickets
- Check door operations, note problems on tickets

5.25 REVLAC CATTRON PM

The Contractor shall conduct a PM program twice per year, in April and October, for all Cattron remote controllers and their chargers at the Emergency Traffic Patrol (ETP) building. Since the units are needed daily by ETP for REVLAC operations, the PM shall be performed on a maximum of six units at any one time and with maximum turn-around time of one business day, returning the units the same evening. The units shall be tested for battery voltage; transmitting and receiving ability; power; modulation; and RX sensibility. The batteries shall be replaced, as needed.

If any unit is found to be defective, the unit shall be replaced with a spare unit until the repairs are completed. Tickets shall be issued for all defective units.

5.26 MICROWAVE PM

The Contractor shall perform a microwave preventive maintenance inspection at REVLAC buildings A, D, and E, ISP/CMS facility, and Hillside, Nordic Schaumburg buildings once per year, on a date as approved by the Engineer. The Contractor shall address any outstanding alarms and perform repairs as needed. The PM shall include the measurement and check, as applicable, of the following parameters by factory authorized and trained personnel:

- TX Crystal Frequency
- RX Crystal Frequency

- TX Output Power
- Gunn Current
- Input Voltage
- Video Input
- Audio Input
- AGC Level
- Receiver Frequency
- RX Carrier

5.27 GENERATOR PM

The Contractor shall perform generator preventive maintenance once per year, in October, for the Hillside and Nordic facilities.

- Check control panel and transfer switch operation
- Check engine oil and coolant levels
- Check that block heater is working
- Check battery charging system
- Check for holes or leaks and loose connections in the air cleaner
- Check fuel level and fuel transfer pump operation
- Check for exhaust system leaks or restrictions
- Drain the condensation trap
- Check all meters, gauges, and indicator lamps
- Check generator fuel and note level
- Check for fluid/fuel leaks
- Check oil reservoir and battery acid level and maintain proper operating levels
- Check air filter and change if necessary
- Exercise generator at full load for one (1) hour
- Diesel fuel shall be filled to the proper level after testing

5.28 CCTV CAMERA PM

All CCTV cameras shall be inspected once per year, in April. No form is required; however, a summary of the tickets created shall be included in the monthly April routine maintenance book.

- Clean camera lens and domes.
- Refill camera washers, if equipped
- Clean camera number labels, replace if damaged or missing
- Verify camera operation and correct for picture and control functions
- Provide Excel spreadsheet with all camera labels and locations

5.29 RAMP GATE PM

All gates installed on the entrance ramps to expressways shall be operated and tested once per year, in October, in presence on an IDOT inspector. No form is required; however, a summary of the ramp gate tickets created shall be included in the October monthly routine maintenance book.

5.30 AVL EQUIPMENT PM

Preventive maintenance on AVL equipment in each vehicle and covered under this contract is required once per calendar year, as mutually scheduled by the Contractor and the Engineer. The

Contractor shall submit an annual report, following the inspection, to summarize any changes or modification work performed, on-going problems, and to verify spare equipment inventory.

Preventive maintenance shall include: reading RF power out, reading SWR and impedance of both receive and transmit antennas, check for and repair any breaks/shorts and other damage of all cables, check condition of all fuses and fuse holders, check and clean all connections (at antennas, at radio modem, at power connection, at GPS receiver, etc.), check data connectivity with respect to the system, check reception of GPS antenna and receiver, and clean any user interface appurtenances.

5.31 EQUIPMENT AND NETWORK IDENTIFICATION AND DOCUMENTATION

The Contractor shall conduct a field survey of all network equipment maintained under this Contract such as SONET's, switches, hubs, GigE, etc., and provide a network identification for every termination/port for fiber and Ethernet, a block diagram for every location and one for all locations in the REVLAC system and tower hut locations during the first Contract year followed by the headquarters at Schaumburg, TSC in Oak Park and the RACS system in the second term of the Contract, if renewed. The Contractor shall provide the information listed below starting with Building E. The Engineer shall provide an Excel spreadsheet with fiber assignments and IP addresses if available. The Contractor shall furnish a progress report each month in the monthly routine work submittal book.

- **Network Identification**
Servers|Workstations|Routers|Switches|Hubs|Transceivers, etc.
IP Addresses
NetBIOS/Hostnames
MAC Addresses
Description
Installed Software|System Inventory
Make/Model/Serial Numbers
- **Network Topology**
Diagrams| Network Maps
Physical and Logical Diagrams
Layer 3 Networking Diagrams

All diagrams shall be on a CAD format.

5.32 ROUTINE MAINTENANCE PAYMENT

5.32.1 MONTHLY ROUTINE WORK SUBMITTAL BOOK

On the third business day of each month the Contractor shall submit to the Engineer a three ring, maximum one inch (1") binder which contains the required routine work documentation submittals from the Contractor for the prior month. These items are noted herein and additional items may be requested by the Engineer. In addition to these items the Contractor shall submit a schedule/chart which includes the status of all open tickets and non-routine work authorizations that require follow-up.

5.32.2 ROUTINE MAINTENANCE MONTHLY PAYMENT

The Contractor shall be sent via email, in advance of the Pay Meeting, the Department routine maintenance authorization for payment. This authorization for payment includes the total dollar amount of the monthly routine maintenance pay items, and any credits, debits, withholding,

MCHD deductions, and applicable routine or non-routine work liquidated damages. Incomplete routine work may cause the application of liquidated damages or retainage of the routine maintenance payment due the Contractor.

The Contractor is paid for repair work for motorist caused damage through routine maintenance bid items. However, as an accounting procedure, the total dollar amount of the monthly processed MCHD statements is deducted from the monthly routine maintenance payment authorization to the Contractor, and approximately sixty (60) days later, the Contractor shall receive that dollar amount directly from State of Illinois Motorist Caused Highway Damage Fund.

The monthly routine maintenance payment to the Contractor is scheduled for payment in the IDOT District 1 Headquarters, but the invoice is sent to IDOT Springfield for payment. Payment is normally made within sixty (60) days, but delays have been known to occur.

5.32.3 MONTHLY PAY MEETING

Once the Engineer has reviewed the submittal book the Contractor will be notified of the monthly pay meeting date, usually the second Wednesday or Thursday of each month. Meetings are normally held at the IDOT Materials Lab conference room in Schaumburg, Illinois. The ASMC Project Manager and any other additional ASMC personnel as requested by the Engineer shall attend to identify major work issues for the new month and to conduct a brief overview of outstanding work, both from Tickets and routine and non-routine work.

The Contractor shall bring the monthly routine invoice and authorization to the pay meeting, which shall match the Department authorization as previously sent via email. The Contractor invoice shall carry the same invoice number as the monthly authorization.

5.32.4 FINAL ROUTINE MAINTENANCE MONTHLY PAYMENT

In the final month of the Contract the Engineer retains the right to retain up to 75% of the final month's routine maintenance payment until all authorized routine and non-routine maintenance work is complete, but may progressively release portions of the retainage as the incomplete work is reduced. Key items for completion of work under a term include:

- All routine work complete, approved, with all submittal documentation
- All workforce analysis reports submitted and accepted
- All DBE/EEO submittals complete and accepted/approved

ARTICLE 6.0 -- NON-ROUTINE MAINTENANCE WORK AND PAYMENT

6.1 CONTROL OF WORK

6.1.1 DESCRIPTION OF WORK

Non-routine work under this Contract is specifically authorized work, not covered under the requirements of routine maintenance, for materials and work on the systems that tends to be irregular, event driven, or otherwise based on the selective direction of the Engineer in response to system needs. Non-routine work shall include unit-priced (PAY ITEM) work, agreed price work, force-account work, specialty service work, and expenses incurred by the Department.

An EMCMS authorization letter shall be received by the Contractor prior to the start of all non-routine work. Any non-routine maintenance work undertaken by the Contractor prior to receiving an approved authorization is done at the Contractor's own risk. The Department is under no obligation to pay for unauthorized work or work which is not in compliance with this contract.

The Department is under no obligation to authorize any non-routine work. The Department shall authorize unit price work wherever possible, as meets the system needs, or unit price work in addition to agreed price, specialty service, or force account work for the same project/location, if in the best interest of the Department. Quote work or force account work shall be performed using first shift labor rates for straight time whenever possible, or first shift overtime or double-time rates when permitted by the Engineer. Allowable equipment operating rates shall be taken from the FHWA hourly rates in the Equipment Watch Rental Rate Blue Book. A separate standby time hourly rate will not be paid.

Contract provisions or practices employed under other contracts shall have no bearing on these constraints under this contract.

Payment to the contractor will be made only for materials furnished as specified, operating equipment, new record drawings submitted as requested and actual quantities of work performed and accepted, with the Daily Agenda listing the authorization number and names of all personnel on the job each day. These requirements must be met for payment of all non-routine work. Additional documentation is necessary for payment of force account non-routine work.

The Department reserves the right to furnish any or all of the materials or parts for non-routine work, in which case no charge for items so furnished, shall be made by the Contractor. Materials or parts furnished by the Department may be from the state stock inventory or from other sources available to the Department.

If requested by the Engineer, the Contractor may be required to perform non-routine work at a location not listed herein.

The Contractor is responsible, through routine maintenance bid items, for the equipment and labor necessary for transportation, removal, installation, or re-installation of all non-routine furnish only pay items listed herein.

6.1.2 UNIT PRICE AUTHORIZATIONS

Unit-priced (PAY ITEM), non-routine work shall consist of work which has been authorized based upon the unit prices (PAY ITEMS) bid on this contract for the various non-routine work items.

Non-routine unit price work shall be authorized by the Engineer on an EMCMS estimated authorization letter, prior to the beginning of a job, when quantities are estimated.

6.1.3 AGREED-PRICE AUTHORIZATIONS

Agreed-price, non-routine work shall consist of work for which bid unit prices are not applicable. The Contractor shall submit an estimated quote for agreed price work with a "not to exceed price" noted in the EMCMS, prior to the beginning of a job, when quantities are estimated. If specifically requested by the Engineer, however, the Contractor shall submit a fixed, agreed price quote for the necessary work.

The Contractor shall enter all price quotes for agreed price non-routine work authorizations in the EMCMS within five (5) working days of the Engineer request. The quote should take into account the expected completion date of the work. One quote shall be necessary for each non-routine authorization letter.

The Contractor is required to enter clearly written concise quotes in the specified format of the EMCMS, and email or fax copies to the Engineer, but is not required to mail typed (hard copy) quotes. If additional explanation is necessary the Contractor may, however, submit additional paperwork to accompany any quote that explains complete details or provides justification of the work or price. In some cases the Engineer may request three (3) price quotes from different vendors.

Once work is authorized by the Department there will be no revisions made to the hourly allowable equipment operating rates or hourly labor rate as shown on a Contractor supplied quote.

6.1.3.1 Agreed-Price Work of Furnishing Materials

When non-routine agreed price work (not pay items) of furnishing materials for state stock is requested by the Department, the Contractor shall furnish the invoice for materials and the quote may include a fifteen percent mark-up per Article 109.04(b)(3) of the Standard Specifications.

When the Department furnishes materials, as specified herein, through non-routine agreed price work (not pay items) for existing equipment in the field which needs replacement (not paid through routine maintenance), the Contractor shall be allowed administrative costs of an amount equal to five (5) percent of the total approved costs on a individual work authorization, with the minimum being \$100. An additional material mark-up of fifteen percent per Article 109.04(b)(3) of the Standard Specifications is not allowed.

6.1.3.2 Agreed-Price Work by a Sub-Contractor

For non-routine agreed price work (not pay items) performed by an approved subcontractor as named on the authorization for work and on the contractor invoice, in accordance with Article 109.04 (b)(7) of the Standard Specifications for Road and Bridge Construction, when work is performed by an approved subcontractor, the Contractor shall be allowed administrative costs of an amount equal to five (5) percent of the total approved costs on a individual work authorization, with the minimum being \$100. An additional material mark-up of fifteen percent per Article 109.04(b)(3) of the Standard Specifications is not allowed.

6.1.3.3 Agreed-Price Work by a Specialty Vendor

When specialty service work (work by vendors not approved as subcontractors) is approved and authorized by the Department through agreed price work the Contractor shall be paid administrative costs of an amount equal to five (5) percent of the first \$10,000, with a minimum of \$ 100.00, and the Department shall allow an additional one (1) percent of any amount over \$10,000 of the total approved costs, for an individual work authorization.

If the Contractor is furnishing an invoice for materials not supplied by the vendor for specialty service work, the quote may include an appropriate mark-up per Article 109.04(b)(3) of the Standard Specifications. In no case shall specialty service work, in its entirety be considered "materials" when a quote for specialty service work is submitted to the Department, or shall Article 109.05 of the Standard Specifications be applicable.

6.1.4 FORCE ACCOUNT AUTHORIZATIONS

Force Account Work shall consist of work for which an agreed price cannot be established between the Engineer and the Contractor. The Engineer may direct the Contractor to perform any non-routine work as force account work which shall be measured and paid as described in Article 109.04(b) of the Standard Specifications.

A daily time/work accounting shall be kept on the daily general billing log, which shall be signed by the Contractor's field supervisor and submitted to the Engineer at the completion of each work day for the authorized work. A summary of all daily general billing logs, as well as proper documentation of materials used, shall be submitted to the Engineer within seven (7) working days following the completion of work.

A general foreman's time will not be billable on force account work unless there are more than five (5) additional crew workers employed at any one time, place and job and then only with the prior approval of the Engineer. A mark-up of fifteen (15) percent is allowed for material costs, which shall include any shipping and handling fees. The Contractor shall not be allowed overtime and/or prime time billing unless prior approval is received from the Engineer.

The Contractor shall submit an estimated quote for the force account work with a "not to exceed price" noted in the EMCMS, prior to the beginning of a job, when quantities are estimated. Force account work as required herein shall be authorized by the Engineer on an EMCMS estimated authorization letter.

6.1.5 EXPENSES INCURRED BY THE DEPARTMENT

In accordance with Article 109.05 of the Standard Specifications, as hereby modified, upon written request of the Engineer, the Contractor shall pay bills and/or expenses incurred by the Department. The Contractor shall be paid administrative costs of an amount equal to five (5) percent of the first \$10,000, with a minimum of \$ 100.00, and the Department shall allow an additional one (1) percent of any amount over \$10,000 of the total approved costs, for an individual work authorization. This work shall be authorized on an EMCMS estimated authorization letter.

6.1.6 TRANSMITTAL OF NON-ROUTINE WORK ASSIGNMENTS

It is the Contractor's responsibility to review daily, on the EMCMS, the list of authorizations which have been transmitted to the Contractor, and subsequently view and print the non-routine work authorization letters. The Contractor shall communicate with the Engineer regarding any questions about the work assignment. Any non-routine authorization letters which have been transmitted, but not entered as received by the Contractor on the EMCMS within seven (7) working days shall be subject to the assessment of liquidated damages. (Review liquidated damages as specified herein.)

6.2 NON-ROUTINE WORK COMPLETION/APPROVAL/INVOICE REQUIREMENTS

6.2.1 COMPLETION TIME

The normal completion time for non-routine work shall be 90 calendar days from the IDOT transmittal date of the authorization letter, or as specified by the Engineer. The Contractor may contact the Engineer to request a later date, or the Engineer may request an earlier date from the Contractor. If the Contractor fails to seek a change in completion date, the work completion time will remain as initiated by the Engineer. The Contractor is urged to check the EMCMS to review all authorizations which have been transmitted.

6.2.2 WORK COMPLETION NOTIFICATION TO THE ENGINEER

Unless prior approval is given by the Engineer, the Contractor shall notify the Engineer one day, (24 hours), prior to the Contractor's completion of the authorized work project in order that a joint EMC/IDOT inspection of the work may be held. In addition, the Contractor shall submit record drawings of any changes to the system(s) prior to the completion of the work.

6.2.3 CONTRACTOR EMCMS WORK COMPLETION REQUIREMENTS

When the work is complete the Contractor shall enter the work completion date in the EMCMS authorization letter, print an EMCMS copy of the authorization letter, note any pay item quantity changes, enter EMCMS quote final quantities if required, and email or fax to the Engineer.

6.2.4 EMCMS WORK INSPECTION APPROVAL

Following a field inspection, if all required documentation of work has been received, and record drawings submitted if requested, the Engineer shall enter the final pay item quantities, work inspection approval date, and EMCMS Engineer approval in the EMCMS final authorization letter. This final non-routine work authorization is transmitted to the Contractor.

The Engineer may waive the physical field inspection of any work if he believes the completion to be reasonably demonstrated by performance of the system, electronic monitoring, or other means. In such cases, the Engineer reserves the right to follow-up and/or selective spot inspections, and if evidence of prior incomplete or incorrect work is found, the Contractor shall remain responsible for corrective action and open to liquidated damages and/or payment withholding as provided elsewhere herein.

6.2.5 EMCMS CORRECTIVE WORK LIST

In cases where deficiencies are found at the IDOT inspection of the Contractor's work, the Engineer shall issue a corrective work list (CWL) on the EMCMS. The Contractor should view the EMCMS corrective work list summary report on a regular basis in order to promptly address any work deficiencies. When the Contractor has completed the work deficiencies the Contractor shall notify the Engineer that the work is ready to re-inspect.

6.2.6 EMCMS NON-ROUTINE WORK INVOICING PROCEDURES

The Contractor shall review daily, on the EMCMS, the list of authorizations which have been transmitted to the Contractor, and subsequently view and print the final non-routine work authorization letters. After these procedures are completed the Contractor may create an EMCMS invoice for payment of the work.

The Contractor shall prepare an EMCMS invoice for each Final Authorization letter. Each EMCMS invoice shall carry the same number as the authorization letter and shall be signed by a Principal of the Company, attesting that the work, as invoiced, has been completed and inspected in accordance with the provisions of the Contract and all applicable specifications. The invoice

shall also show a notarized certification by an officer of the Company. The Contractor's invoice shall conform to the EMCMS form requirements. The Engineer, prior to the start of the contract, shall review and approve the style and format of the Contractor's invoice.

All work billed for payment shall be complete, no billing for partially-completed work will be allowed. All invoices shall be submitted to the Department no later than 30 days following work completion approval by the Engineer.

To receive payment for completed work, the Contractor shall submit to the Engineer an original signed invoice with two copies, and an original signed final authorization letter with two copies. (An estimated authorization letter will not be acceptable.) The Engineer will sign the original invoice and final authorization and will forward to the District's Financial Services office personnel for scheduling of payment. An EMCMS entry is made for all invoices, noting the date it was scheduled for payment. Normal processing time for non-routine work payment to the Contractor is 6 to 8 weeks.

6.2.7 PAYMENT TO SPECIALTY VENDORS

Refer to Article 6.1.5 for a definition of non-routine work authorization for Expenses Incurred by the Department. Within seven (7) days following the EMCMS entry of the date the work was scheduled for payment, the Contractor shall pay the specialty vendor invoice, and fax or e-mail a confirmation of the payment with check number to the Engineer. If this procedure is not followed the Contractor shall be subject to the assessment of liquidated damages. (Review liquidated damages as specified herein.)

6.2.8 MONTHLY NON-ROUTINE WORK SUBMITTAL BOOK

Refer to Article 5.32.1.

ARTICLE 7.0 -- LIST OF LOCATIONS

The following list of locations is provided for Contractor reference, however all locations to be maintained under routine maintenance may not be listed here; others may come on routine maintenance during the term of the Contract. Bidders are urged to conduct a site inspection of all ASMC equipment prior to bidding. The location number shown is the reference number to be used for EMCMS Tickets and motorist caused highway damage invoices as requested by the Engineer. Note those locations listed as Tower Locations have ASMC camera equipment to be maintained under routine maintenance, however, the Tower is maintained by the Electrical Maintenance Contractor (EMC). These Tower locations require special permission of the EMC before work may be initiated. Refer to Articles herein for further information and instructions.

Bishop Ford Expressway Traffic Monitoring Cameras (TM)

EMCMS Loc. #	Camera #	Location Name
ABF0	I 94 FORD TM Camera BF0	Michigan, Tower MMN2
ABF1	I 94 FORD TM Camera BF1	M I King Dr, Tower MCD3
ABF8	I 94 FORD TM Camera BF8	S/O Dolton Ave., Wireless
ABF11	I 94 FORD TM Camera BF11	170 th St
ABF12	IL 394 TM Camera BF12	S/O I-80, Wireless
ABF13	IL 394 TM Camera BF13	183 rd , Wireless

Dan Ryan Expressway Traffic Monitoring Cameras (TM)

EMCMS Loc. #	Camera #	Location Name
ADR0	I 90 94 RYAN TM Camera DR0	I 290 IKE Jct
ADR0A	I 90 94 RYAN TM Camera DR0A	Polk St
ADR1	I 90 94 RYAN TM Camera DR1	Archer Ave
ADR1A	I 90 94 RYAN TM Camera DR1A	Archer Ave
ADR2	I 90 94 RYAN TM Camera DR2	I 55 Stevenson
ADR2A	I 90 94 RYAN TM Camera DR2A	Canal
ADR2B	I 90 94 RYAN TM Camera DR2B	28 th PI
ADR3	I 90 94 RYAN TM Camera DR3	35 th St, Tower WAB2
ADR4	I 90 94 RYAN TM Camera DR4	45 th St, Tower VMN2
ADR5	I 90 94 RYAN TM Camera DR5	50 th St, Tower UIJ4
ADR6	I 90 94 RYAN TM Camera DR6	58 th St, Tower TGH2
ADR7	I 90 94 RYAN TM Camera DR7	63 th St, Tower SAB1

ADR8	I 90 94 RYAN TM Camera DR8	72 nd St, Tower RKL3
ADR9	I 90 94 RYAN TM Camera DR9	81 st St, Tower POP3
ADR10	I 90 94 RYAN TM Camera DR9A	86 th St, Tower PEF5
ADR10A	I 90 94 RYAN TMCameraDR10A	90 th St, Tower OCD1
ADR11	I 90 94 RYAN TM Camera DR11	96 th St, Tower OAB2
ADRY1	I90 94 RYAN TM Camera DRY1	Dan Ryan Maintenance Yard

Edens I 94 Traffic Monitoring Cameras (TM)

EMCMS Loc. #	Camera #	Location Name
AED0	I 94 EDENS TM Camera ED0	I 90 94 NW Split
AED1	I 94 EDENS TM Camera ED1	Foster Ave

Elgin O'Hare Traffic Monitoring Cameras (TM)

EMCMS Loc. #	Camera #	Location Name
AEO8	ELG OHARE TM Camera EO8	Rodenburg Maintenance Yd
AEO8A	ELG OHARE TM Camera EO8A	Rodenburg Maintenance Yd
AEO8B	ELG OHARE TM Camera EO8B	Rodenburg Maintenance Yd

I 57 Expressway Traffic Monitoring Cameras (TM)

EMCMS Loc. #	Camera #	Location Name
AFS0	I 57 TM Camera FS0	Perry 98 th St
AFS0A	I 57 TM Camera FS0A	Wentworth, Tower AGH2
AFS0B	I 57 TM Camera FS0B	Princeton Ave
AFS0C	I 57 TM Camera FS0C	Parnell Ave
AFS1	I 57 TM Camera FS1	Peoria St
AFS1A	I 57 TM Camera FS1A	100th St
AFS2	I 57 TM Camera FS2	104 th St
AFS2A	I 57 TM Camera FS2A	107th St Throop
AFS3	I 57 TM Camera FS3	110th St
AFS3A	I 57 TM Camera FS3A	114 th St

AFS3B	I 57 TM Camera FS3B	South of 116th St
AFS4	I 57 TM Camera FS4	121 st St
AFS5	I 57 TM Camera FS5	South of 125 th St
AFS5A	I 57 TM Camera FS5A	128 th St Oak St.
AFS5B	I 57 TM Camera FS5B	North of Broadway
AFS6	I 57 TM Camera FS6	Charles Dr
AFS7	I 57 TM Camera FS7	South of Thorton Rd
AFS7A	I 57 TM Camera FS7A	141st St
AFS7B	I 57 TM Camera FS7B	Norris Oakley
AFS8	I 57 TM Camera FS8	Ent from Sibley
AFS8A	I 57 TM Camera FS8A	SW of Sibley
AFS8B	I 57 TM Camera FS8B	I294 Tri State TLWY
AFS9	I 57 TM Camera FS9	.1 mi North of Kedzie
AFS9A	I 57 TM Camera FS9A	155th St
AFS10	I 57 TM Camera FS10	159 th St
AFS10A	I 57 TM Camera FS10A	South of 159th St
AFS11	I 57 TM Camera FS11	.1 mi South of Crawford
AFS11A	I 57 TM Camera FS11A	167th St
AFS12	I 57 TM Camera FS12	.1 mi Southwest of 167th St
AFS12A	I 57 TM Camera FS12A	Cicero Ave
AFS12B	I 57 TM Camera FS12B	173rd St
AFS13	I 57 TM Camera FS13	South of 175th St
AFS13A	I 57 TM Camera FS13A	North of I 80
AFS13B	I 57 TM Camera FS13B	South of I 80
AFS14	I 57 TM Camera FS14	South of 186th St

Eisenhower Expressway Traffic Monitoring Cameras (TM)

EMCMS Loc. #	Camera #	Location Name
AIK0	I 290 IKE TM Camera IK0	Racine Ave # 1 UIC Roof
AIK0A	I 290 IKE TM Camera IK0A	Racine Ave # 2 UIC Roof

AIK0B	I 290 IKE TM Camera IK0B	Racine Ave # 3 UIC Roof
AIK12	I 290 IKE TM Camera IK12	US 12 45 Mannheim Rd
AIK13	I 290 IKE TM Camera IK13	US 12 45 West of Mannheim
AIK14	I 290 IKE TM Camera IK14	EB I 88 TLWY Merge
AIK14A	I 290 IKE TM Camera IK14A	Hillside Hub
AIK14B	I 290 IKE TM Camera IK14B	Ramp Camera
AIK14C	I 290 IKE TM Camera IK14C	Hillside Hub
AIK14D	I 290 IKE TM Camera IK14D	Wolf Rd
AIK14E	I 290 IKE TM Camera IK14E	Butterfield Rd
AIK15	I 290 IKE TM Camera IK15	St. Charles Rd
AIK16	I 290 IKE TM Camera IK17	North Ave
AIK18	I 290 IKE TM Camera IK18	York Rd
AIK19	I 290 IKE TM Camera IK19	Grand Ave
AIK23	I 290 IKE TM Camera IK23	Nordic Rd
AIK23A	I 290 IKE TM Camera IK23A	Nordic Rd
AIK23B	I 290 IKE TM Camera IK23B	Nordic Rd
AIK25	I 290 IKE TM Camera IK25	I 290 SB Ent Thorndale Rd
AIK25A	I 290 IKE TM Camera IK25A	I 290 SB Exit Thorndale Rd
AIK25B	I 290 IKE TM Camera IK25B	South of Devon
AIK26	I 290 IKE TM Camera IK26	South of Biesterfield Ramp
AIK26A	I 290 IKE TM Camera IK26A	South of Biesterfield
AIK26B	I 290 IKE TM Camera IK26B	.3 mi. North of Biesterfield
AIK27	I 290 IKE TM Camera IK27	.6 mi North of Biesterfield
AIK28	I 290 IKE TM Camera IK28	.1 mi South of Schaumburg
AIK28A	I 290 IKE TM Camera IK28A	Schaumburg Rd Tower
AIK28B	I 290 IKE TM Camera IK28B	I 290 Ent IL 72 Higgins
AIK29	I 290 IKE TM Camera IK29	I 290 SB Exit IL 72 Higgins Tower
AIK29A	I 290 IKE TM Camera IK29A	I 290 NB Ent IL 72 Higgins
AIK29B	I 290 IKE TM Camera IK29B	Woodfield Dr., Tower
AIK29C	I 290 IKE TM Camera IK29C	I 290 Entrance Ramp Woodfield

AIK29D	I 290 IKE TM Camera IK29D	Golf Rd, Tower
AIK30	I 290 IKE TM Camera IK30	I 90 IL 53 SW Quad, Tower
AIK30A	I 290 IKE TM Camera IK30A	I 90 IL53 NW Quad, Tower
AIK30B	I 290 IKE TM Camera IK30B	IL 62 Algonquin Rd, Tower
ABOY1	Yard Camera BOY1	Biesterfield Bridge Office

Kennedy Expressway Traffic Monitoring Cameras (TM)

EMCMS Loc. #	Camera #	Location Name
AKE0	I 90 94 JFK TM Camera KE0	I 290 IKE NE Quad
AKE0A	I 90 94 JFK TM Camera KE0A	South of Jackson
AKE0B	I 90 94 JFK TM Camera KE0B	Hubbards Cave
AKE0C	I 90 94 JFK TM Camera KE0C	Hubbards Cave Underpass
AKE0D	I 90 94 JFK TM Camera KE0D	Hubbards Cave Underpass
AKE0E	I 90 94 JFK TM Camera KE0E	Hubbards Cave
AKE0F	I 90 94 JFK TM Camera KE0F	Hubbards Cave
AKE1	I 90 94 JFK TM Camera KE1	Grand Ave
AKE1A	I 90 94 JFK TM Camera KE1A	Ontario Ohio St
AKE3	I 90 94 JFK TM Camera KE3	Webster Ave Underpass
AKE3A	I 90 94 JFK TM Camera KE3A	Webster Damon Ave
AKE3B	I 90 94 JFK TM Camera KE3B	Damon Ave Underpass
AKE4	I 90 94 JFK TM Camera KE4	Fullerton N AIS Underpass
AKE4A	I 90 94 JFK TM Camera KE4A	Fullerton Ave Underpass
AKE4B	I 90 94 JFK TM Camera KE4B	Fullerton S AIS Underpass
AKE4C	I 90 94 JFK TM Camera KE4C	Western Ave Underpass
AKE4D	I 90 94 JFK TM Camera KE4D	Logan Webster
AKE4E	I 90 94 JFK TM Camera KE4E	Logan Blvd Underpass
AKE5	I 90 94 JFK TM Camera KE5	Diversey Underpass
AKE5A	I 90 94 JFK TM Camera KE5A	California Diversey UP
AKE5B	I 90 94 JFK TM Camera KE5B	California Underpass
AKE5C	I 90 94 JFK TM Camera KE5C	SE of Sacramento Underpass

AKE5D	I 90 94 JFK TM Camera KE5D	Sacramento Underpass
AKE6	I 90 94 JFK TM Camera KE6	Kimball Underpass
AKE6A	I 90 94 JFK TM Camera KE6A	NW of Kimball
AKE7	I 90 94 JFK TM Camera KE7	Irving Park Rd Underpass
AKE7A	I 90 94 JFK TM Camera KE7A	Keeler Irving Park
AKE7B	I 90 94 JFK TM Camera KE7B	Keeler Underpass
AKE7C	I 90 JFK TM Camera KE7C	Kostner Ave Underpass
AKE7D	I 90 JFK TM Camera KE7D	NW of Kostner
AKE13	I 90 JFK TM Camera KE13	Cumberland Ave
AKE13A	I 90 JFK TM Camera KE13A	W/O Cumberland Ave, Tower
AKE14	I 90 JFK TM Camera KE14	East River Rd, Tower
AKE15	I 90 JFK TM Camera KE15	East of Mannheim Rd
AKE15A	I 90 JFK TM Camera KE15A	East of Mannheim Rd

Kingery Expressway Traffic Monitoring Cameras (TM)

EMCMS Loc. #	Camera #	Location Name
AKI0	I 80 94 Kingery TM Cam AKI0	State Line, Tower
AKI0A	I 80 94 Kingery TM Cam AKI0A	West of State Line, Tower
AKI0B	I 80 94 Kingery TM Cam AKI0B	William St, Tower
AKI1	I 80 94 Kingery TM Cam AKI1	Fritz Dr, Tower
AKI1A	I 80 94 Kingery TM Cam AKI1A	Torrance Ave, Tower
AKI2	I 80 94 Kingery TM Cam AKI2	IL 394 to EB I 80 Ramp, Tower
AKI2A	I 80 94 Kingery TM Cam AKI2A	WB I 80 to NB I 94, Tower
AKI2B	I 80 94 Kingery TM Cam AKI2B	IL 394 I 94, Tower

Stevenson Expressway Traffic Monitoring Cameras (TM)

EMCMS Loc. #	Camera #	Location Name
AST1	I 55 STEV TM Camera ST1	West of Canal St
AST1A	I 55 STEV TM Camera ST1A	I 90 94 JFK
AST1B	I 55 STEV TM Camera ST1B	I 90 94 Ryan

AST1C	I 55 STEV TM Camera ST1C	East of Halsted
AST5	I 55 STEV TM Camera ST5	West of California
AST6	I 55 STEV TM Camera ST6	East of Cicero
AST6A	I 55 STEV TM Camera ST6A	Cicero Exit Ramp
AST7	I 55 STEV TM Camera ST7	East of Central
AST8	I 55 STEV TM Camera ST8	West of Central
AST9	I 55 STEV TM Camera ST9	East of Harlem
AST10	I 55 STEV TM Camera ST10	Harlem Ave
AST10A	I 55 STEV TM Camera ST10A	.5 Mi East of 1 st Ave
AST11	I 55 STEV TM Camera ST11	East of 1 st Ave
AST11A	I 55 STEV TM Camera ST11A	West of 1 st Ave
AST12	I 55 STEV TM Camera ST12	.75 Mi West of 1 st Ave
AST12A	I 55 STEV TM Camera ST12A	1.25 Mi West of 1 st Ave
AST13	I 55 STEV TM Camera ST13	.5 Mi East of East Ave
AST14	I 55 STEV TM Camera ST14	Lagrange East Side
AST14A	I 55 STEV TM Camera ST14A	Lagrange West Side
AST14B	I 55 STEV TM Camera ST14B	Lagrange Rd
AST15	I 55 STEV TM Camera ST15	East of Willow Springs Rd
AST15A	I 55 STEV TM Camera ST15A	LaGrange Rd
AST16	I 55 STEV TM Camera ST16	Wolf Road, Wireless
AST16A	I 55 STEV TM Camera ST16A	West of I 294, Wireless
AST17	I 55 STEV TM Camera ST17	Madison at County Line, Wireless
AST18	I 55 STEV TM Camera ST18	West of County Line Rd, Wireless
AST18A	I 55 STEV TM Camera ST18A	Madison St (E/O IL 83), Wireless
AST19	I 55 STEV TM Camera ST19	IL 83, Wireless
AST20	I 55 STEV TM Camera ST20	Portsmouth, Wireless
AST20A	I 55 STEV TM Camera ST20A	Cass Ave, Wireless
AST22	I 55 STEV TM Camera ST22	East of Lemont Rd, Wireless
AST22A	I 55 STEV TM Camera ST22A	Lemont Rd, Wireless
AST23	I 55 STEV TM Camera ST23	Bet. I 355 & Lemont Rd, Wireless

AST24	I 55 STEV TM Camera ST24	I 355, Wireless
AST24A	I 55 STEV TM Camera ST24A	Joliet Road, Wireless
AST25	I 55 STEV TM Camera ST25	Bet. IL 53 & Joliet Rd, Fiber
AST26	I 55 STEV TM Camera ST26	IL 53, Fiber
AST27	I 55 STEV TM Camera ST27	East of Schimdt Rd, Wireless
AST28	I 55 STEV TM Camera ST28	Weigh Station, Wireless
AST29	I 55 STEV TM Camera ST29	Windham Parkway, Wireless
AST30	I 55 STEV TM Camera ST30	Weber Road, Wireless
AST30A	I 55 STEV TM Camera ST30A	Weber Road, Wireless
AST31	I 55 STEV TM Camera ST31	Bet. 135 th & Weber Rd, Wireless
AST32	I 55 STEV TM Camera ST32	IL 126, Wireless
AST32A	I 55 STEV TM Camera ST32A	IL 126, Wireless
AST34	I 55 STEV TM Camera ST34	Lockport Road, Wireless
AST35	I 55 STEV TM Camera ST35	Renwick Road, Wireless
AST35A	I 55 STEV TM Camera ST35A	US 30 (EJE RR), Wireless
AST36	I 55 STEV TM Camera ST36	US 30, Wireless
AST36A	I 55 STEV TM Camera ST36A	US 30, Wireless
AST37	I 55 STEV TM Camera ST37	Bet. US 30 & Caton Farm, Wireless
AST37A	I 55 STEV TM Camera ST37A	Caton Farm Road, Wireless
AST38	I 55 STEV TM Camera ST38	South of Caton Farm Rd, Wireless
AST39	I 55 STEV TM Camera ST39	North of Black Rd, Wireless
AST40	I 55 STEV TM Camera ST40	North of Jefferson St, Wireless
AST40A	I 55 STEV TM Camera ST40A	Jefferson St, Wireless
AST42	I 55 STEV TM Camera ST42	Seil Road, Wireless
AST43	I 55 STEV TM Camera ST43	I 80, Wireless
AST43A	I 55 STEV TM Camera ST43A	I 80, Wireless
AST44	I 55 STEV TM Camera ST44	I 55 Maintenance Yd, Wireless
AST45	I 55 STEV TM Camera ST45	US 6, Wireless

Veterans Memorial Expressway - Proposed Cameras

EMCMS Loc. #	Expressway	Location Name
VM0	I 355 TM Camera	Lake St
VM1	I 355 TM Camera	Army Trail Rd

Homeland Security Ramp Gates

EMCMS Loc. #	Expressway	Location Name
AIKIBAS	I 290 IKE IB Ramp Gate	Ashland Ave 25 Ft
AIKIBCA	I 290 IKE IB Ramp Gate	California 25 Ft
AIKIBCE	I 290 IKE IB Ramp Gate	Central Ave 30 Ft
AIKIBDA	I 290 IKE IB Ramp Gate	Damen 23 Ft
AIKIBHO	I 290 IKE IB Ramp Gate	Homan 23 Ft
AIKIBIN	I 290 IKE IB Ramp Gate	Independence 23 Ft
AIKIBKO	I 290 IKE IB Ramp Gate	Kostner 27.5 Ft
AIKIBLA	I 290 IKE IB Ramp Gate	Laramie 23 Ft
AIKIBOA	I 290 IKE IB Ramp Gate	Oakley 25 Ft
AKEIBAR	I 90 94 JFK IB Ramp Gate	Armitage 25 Ft
AKEIBAU	I 90 94 JFK IB Ramp Gate	Augusta 25 Ft
AKEIBCE	I 90 JFK IB Ramp Gate	Central 25 Ft
AKEIBCN	I 90 JFK IB Ramp Gate	Canfield 23 Ft
AKEIBCU	I 90 JFK IB Ramp Gate	Cumberland 27.5 Ft
AKEIBDI	I 90 94 JFK IB Ramp Gate	Division 30 Ft
AKEIBDV	I 90 94 JFK IB Ramp Gate	Diversey 30 Ft
AKEIBFO	I 90 JFK IB Ramp Gate	Foster 30 Ft
AKEIBFU	I 90 94 JFK IB Ramp Gate	Fullerton 30 Ft
AKEIBIR	I 90 94 JFK IB Ramp Gate	Irving Park 30 Ft
AKEIBKE	I 90 94 JFK IB Ramp Gate	Kedzie 23 Ft
AKEIBKI	I 90 94 JFK IB Ramp Gate	Kimball 30 Ft
AKEIBMO	I 90 94 JFK IB Ramp Gate	Montrose 30 Ft
AKEIBNA	I 90 JFK IB Ramp Gate	Nagle 23 Ft
AKEIBNO	I 90 94 JFK IB Ramp Gate	North 25 Ft

AKEIBPU	I 90 94 JFK IB Ramp Gate	Pulaski 27.45 Ft
AKEIBSA	I 90 JFK IB Ramp Gate	Sayre 23 Ft
AKEIBWE	I 90 94 JFK IB Ramp Gate	Webster 27.5 Ft
AKEOBAD	I 90 94 JFK OB Ramp Gate	Addison 27.5 Ft
AKEOBAR	I 90 94 JFK OB Ramp Gate	Armitage 25 Ft
AKEOBKA	I 90 94 JFK OB Ramp Gate	California 30 Ft
AKEOBCU	I 90 JFK OB Ramp Gate	Cumberland SB 30 Ft
AKEOBDI	I 90 94 JFK OB Ramp Gate	Division 30 Ft
AKEOBFO	I 90 JFK OB Ramp Gate	Foster 23 Ft
AKEOBFU	I 90 94 JFK OB Ramp Gate	Fullerton 30 Ft
AKEOBHA	I 90 JFK OB Ramp Gate	Harlem 23 Ft
AKEOBKI	I 90 94 JFK OB Ramp Gate	Kimball 30 Ft
AKEOBNA	I 90 JFK OB Ramp Gate	Nagle 23 Ft
AKEOBNO	I 90 94 JFK OB Ramp Gate	North 27.5 Ft
AKEOBOG	I 90 94 JFK OB Ramp Gate	Ogden 30 Ft
AKEIBHAN	I 90 JFK IB Ramp Gate	Harlem NB 23 Ft
AKEIBHAS	I 90 JFK IB Ramp Gate	Harlem SB 23 Ft

REVLAC Equipment – Swing Gates

EMCMS Loc. #	Location Name	Type Equipment
AIE1	Inbound Edens	Swing Gate 1
AIE2	Inbound Edens	Swing Gate 2
AIE3	Inbound Edens	Swing Gate 3
AIE4	Inbound Edens	Swing Gate 4
AIE5	Inbound Edens	Swing Gate 5
AIE6	Inbound Edens	Swing Gate 6
AIE7	Inbound Edens	Swing Gate 7
AIE8	Inbound Edens	Swing Gate 8
AIE9	Inbound Edens	Swing Gate 9
AIE10	Inbound Edens	Swing Gate 10

AIE11	Inbound Edens	Swing Gate 11
AIE12	Inbound Edens	Swing Gate 12
AIE13	Inbound Edens	Swing Gate 13
AIE14	Inbound Edens	Swing Gate 14
AIE15	Inbound Edens	Swing Gate 15
AIS1	Inbound Slip Ramp	Swing Gate 1
AIS2	Inbound Slip Ramp	Swing Gate 2
AIS3	Inbound Slip Ramp	Swing Gate 3
AIS4	Inbound Slip Ramp	Swing Gate 4
AIS5	Inbound Slip Ramp	Swing Gate 5
AIS6	Inbound Slip Ramp	Swing Gate 6
AIS7	Inbound Slip Ramp	Swing Gate 7
AIS8	Inbound Slip Ramp	Swing Gate 8
AIS9	Inbound Slip Ramp	Swing Gate 9
AIS10	Inbound Slip Ramp	Swing Gate 10
AIS11	Inbound Slip Ramp	Swing Gate 11
AIS12	Inbound Slip Ramp	Swing Gate 12
AIS13	Inbound Slip Ramp	Swing Gate 13
AIS14	Inbound Slip Ramp	Swing Gate 14
AIS15	Inbound Slip Ramp	Swing Gate 15
AIS16	Inbound Slip Ramp	Swing Gate 16
AIS17	Inbound Slip Ramp	Swing Gate 17
AIS18	Inbound Slip Ramp	Swing Gate 18
AIS19	Inbound Slip Ramp	Swing Gate 19
AIS20	Inbound Slip Ramp	Swing Gate 20
AIS21	Inbound Slip Ramp	Swing Gate 21
AIS22	Inbound Slip Ramp	Swing Gate 22
AIS23	Inbound Slip Ramp	Swing Gate 23
AIS24	Inbound Slip Ramp	Swing Gate 24
AIW1	Inbound West Leg	Swing Gate 1

AIW2	Inbound West Leg	Swing Gate 2
AIW3	Inbound West Leg	Swing Gate 3
AIW4	Inbound West Leg	Swing Gate 4
AIW5	Inbound West Leg	Swing Gate 5
AIW6	Inbound West Leg	Swing Gate 6
AIW7	Inbound West Leg	Swing Gate 7
AIW8	Inbound West Leg	Swing Gate 8
AIW9	Inbound West Leg	Swing Gate 9
AIW10	Inbound West Leg	Swing Gate 10
AIW11	Inbound West Leg	Swing Gate 11
AIW12	Inbound West Leg	Swing Gate 12
AIW13	Inbound West Leg	Swing Gate 13
AIW14	Inbound West Leg	Swing Gate 14
AIW15	Inbound West Leg	Swing Gate 15
AIW16	Inbound West Leg	Swing Gate 16
AIW17	Inbound West Leg	Swing Gate 17
AIW18	Inbound West Leg	Swing Gate 18
AIW19	Inbound West Leg	Swing Gate 19
AIW20	Inbound West Leg	Swing Gate 20
AOM1	Outbound Mainline	Swing Gate 1
AOM2	Outbound Mainline	Swing Gate 2
AOM3	Outbound Mainline	Swing Gate 3
AOM4	Outbound Mainline	Swing Gate 4
AOM5	Outbound Mainline	Swing Gate 5
AOM6	Outbound Mainline	Swing Gate 6
AOM7	Outbound Mainline	Swing Gate 7
AOM8	Outbound Mainline	Swing Gate 8
AOM9	Outbound Mainline	Swing Gate 9
AOM10	Outbound Mainline	Swing Gate 10
AOM11	Outbound Mainline	Swing Gate 11

AOM12	Outbound Mainline	Swing Gate 12
AOM13	Outbound Mainline	Swing Gate 13
AOM14	Outbound Mainline	Swing Gate 14
AOM15	Outbound Mainline	Swing Gate 15
AOM16	Outbound Mainline	Swing Gate 16
AOM17	Outbound Mainline	Swing Gate 17
AOM18	Outbound Mainline	Swing Gate 18
AOM19	Outbound Mainline	Swing Gate 19
AOM20	Outbound Mainline	Swing Gate 20
AOM21	Outbound Mainline	Swing Gate 21
AOO1	Outbound Ontario	Swing Gate 1
AOO2	Outbound Ontario	Swing Gate 2
AOO3	Outbound Ontario	Swing Gate 3
AOO4	Outbound Ontario	Swing Gate 4
AOO5	Outbound Ontario	Swing Gate 5
AOO6	Outbound Ontario	Swing Gate 6
AOO7	Outbound Ontario	Swing Gate 7
AOO8	Outbound Ontario	Swing Gate 8
AOO9	Outbound Ontario	Swing Gate 9
AOO10	Outbound Ontario	Swing Gate 10
AOO11	Outbound Ontario	Swing Gate 11
AOO12	Outbound Ontario	Swing Gate 12
AOO13	Outbound Ontario	Swing Gate 13
AOO14	Outbound Ontario	Swing Gate 14
AOO15	Outbound Ontario	Swing Gate 15
AOO16	Outbound Ontario	Swing Gate 16
AOS1	Outbound Slip Ramp	Swing Gate 1
AOS2	Outbound Slip Ramp	Swing Gate 2
AOS3	Outbound Slip Ramp	Swing Gate 3
AOS4	Outbound Slip Ramp	Swing Gate 4

AOS5	Outbound Slip Ramp	Swing Gate 5
AOS6	Outbound Slip Ramp	Swing Gate 6
AOS7	Outbound Slip Ramp	Swing Gate 7
AOS8	Outbound Slip Ramp	Swing Gate 8
AOS9	Outbound Slip Ramp	Swing Gate 9
AOS10	Outbound Slip Ramp	Swing Gate 10
AOS11	Outbound Slip Ramp	Swing Gate 11
AOS12	Outbound Slip Ramp	Swing Gate 12
AOS13	Outbound Slip Ramp	Swing Gate 13
AOS14	Outbound Slip Ramp	Swing Gate 14
AOS15	Outbound Slip Ramp	Swing Gate 15
AOS16	Outbound Slip Ramp	Swing Gate 16
AOS17	Outbound Slip Ramp	Swing Gate 17
AOS18	Outbound Slip Ramp	Swing Gate 18
AOS19	Outbound Slip Ramp	Swing Gate 19
AOS20	Outbound Slip Ramp	Swing Gate 20
AOS21	Outbound Slip Ramp	Swing Gate 21

REVLAC Equipment – Roadside Control Panel

EMCMS Loc. #	Location Name	Type Equipment
AIER1	Roadside Control Panel	Inbound Edens IE1
AIER2	Roadside Control Panel	Inbound Edens IE2
AIER3	Roadside Control Panel	Inbound Edens IE3
AISR1	Roadside Control Panel	Inbound Slip Ramp IS1
AISR2	Roadside Control Panel	Inbound Slip Ramp IS2
AISR3	Roadside Control Panel	Inbound Slip Ramp IS3
AIWR1	Roadside Control Panel	Inbound West Leg IW1
AIWR2	Roadside Control Panel	Inbound West Leg IW2
AIWR3	Roadside Control Panel	Inbound West Leg IW3
AOMR1	Roadside Control Panel	Outbound Mainline OM1

AOOR1	Roadside Control Panel	Outbound Ontario OO1
AOOR2	Roadside Control Panel	Outbound Ontario OO2
AOOR3	Roadside Control Panel	Outbound Ontario OO3
AOOR4	Roadside Control Panel	Outbound Ontario OO4
AOSR1	Roadside Control Panel	Outbound Slip Ramp OS1
AOSR2	Roadside Control Panel	Outbound Slip Ramp OS2

Buildings and Miscellaneous Equipment

EMCMS Loc. #	Location Name	Type Equipment
AA	Bldg A I 90 94 JFK	950 W Ontario OM
AB	Bldg B I 90 94 JFK	1035 W Grand Ave
AC	Bldg C I 90 94 JFK	2735 George St OS
AD	Bldg D I 90 94 JFK	3002 N Fransisco IS
AE	Bldg E I 90 94 JFK	4755 Wilson Ave OE
ACOM	IDOT ComCenter Equipment (2 SPC, etc.)	201 W Center Ct. Schaumburg
AETP	Emergency Traffic Patrol	3501 Harrison St Chicago
A55H	I 55 CCTV Hut	Bldg 26 th /Wallace
AHMH	Hillside Media Hut	Bldg 5300 W. Harrison
AHRB	Hillside RACS Bldg	12100 W. Roosevelt Rd
AISP	State Police District Chicago	Communications Area Des Plaines
ATFOS	Foster Tower Equipment	I 94 at Foster Ave
ATHIL	Hillside Tower Equipment	5250 W Harrison
ATNOR	Nordic Tower Equipment	I 355 @ I 290
ATROD	Rodenburg Yard Tower Equipment	1480 Rodenburg Rd
ATSC	Traffic Systems Center-GSM Server	Harrison, Oak Park
ATSCH	Schaumburg Tower Equipment	I 90 @ Roselle Rd

IDOT Headquarters Tower Cameras

EMCMS Loc. #	Location Name	Type Equipment
AHQ1A	I 90 @ ROSELLE TM Camera	Schaumburg Tower South Leg

AHQ1B	I 90 @ ROSELLE TM Camera	Schaumburg Tower South Leg
AHQ2	I 90 @ ROSELLE TM Camera	Schaumburg Tower East Leg

Cameras at Pump Stations

EMCMS Loc. #	Location Name	Type Equipment
APS23	I 90 94 JFK TM Camera On Wood Pole	PS 23 @ Roscoe/ Addison

REVLAC – Fiber Optic/LED Signs

EMCMS Loc. #	Location Name	Type Equipment
AIEAS1	Aux Sign	Inbound Edens IE AS1
AIEAS2	Aux Sign	Inbound Edens IE AS2
AIEG1	Gore Sign	Inbound Edens IE1
AIEV1	Chevron	Inbound Edens IE V1
AIEV2	Chevron	Inbound Edens IE V2
AIEV3	Chevron	Inbound Edens IE V3
AISAS1	Aux Sign	Inbound Slip Ramp IS AS1
AISAS2	Aux Sign	Inbound Slip Ramp IS AS2
AISG1	Gore Sign	Inbound Slip Ramp IS1
AISV1	Chevron	Inbound Slip Ramp IS V1
AISV2	Chevron	Inbound Slip Ramp IS V2
AISV3	Chevron	Inbound Slip Ramp IS V3
AIWAS1	Aux Sign	Inbound West Leg IW AS1
AIWAS2	Aux Sign	Inbound West Leg IW AS2
AIWG1	Gore Sign	Inbound West Leg IW1
AIWV1	Chevron	Inbound West Leg IW1
AIWV2	Chevron	Inbound West Leg IW2
AIWV3	Chevron	Inbound West Leg IW3
AIWV4	Chevron	Inbound West Leg IW4
AIWV5	Chevron	Inbound West Leg IW5
AOMAS1	Aux Sign	Outbound Mainline OM AS1

AOMAS2	Aux Sign	Outbound Mainline OM AS2
AOMAS3	Aux Sign	Outbound Mainline OM AS3
AOMG1	Gore Sign	Outbound Mainline OM1
AOMV1	Chevron	Outbound Mainline OM V1
AOMV2	Chevron	Outbound Mainline OM V2
AOMV3	Chevron	Outbound Mainline OM V3
AOMV4	Chevron	Outbound Mainline OM V4
AOOAS1	Aux Sign	Outbound Ontario OO AS1
AOOAS2	Aux Sign	Outbound Ontario OO AS2
AOOAS3	Aux Sign	Outbound Ontario OO AS3
AOOG1	Gore Sign	Outbound Ontario OO1 G1
AOOV1	Chevron	Outbound Ontario OO V1
AOOV2	Chevron	Outbound Ontario OO V2
AOOV3	Chevron	Outbound Ontario OO V3
AOSAS1	Aux Sign	Outbound Slip Ramp OS AS1
AOSAS2	Aux Sign	Outbound Slip Ramp OS AS2
AOSG1	Gore Sign	Outbound Slip Ramp OS1
AOSV1	Chevron	Outbound Slip Ramp OS V1
AOSV2	Chevron	Outbound Slip Ramp OS V2
AOSV3	Chevron	Outbound Slip Ramp OS V3

REVLAC – Operations Cameras

EMCMS Loc. #	Location Name	Type Equipment
AIECC1	Operations Camera	Inbound Edens IE CC1
AIECC2	Operations Camera	Inbound Edens IE CC2
AIECC3	Operations Camera	Inbound Edens IE CC3
AIECC4	Operations Camera	Inbound Edens IE CC4
AIECC5	Operations Camera	Inbound Edens IE CC5
AIECC6	Operations Camera	Inbound Edens IE CC6
AISCC1	Operations Camera	Inbound Slip Ramp IS CC1

AISCC2	Operations Camera	Inbound Slip Ramp IS CC2
AISCC3	Operations Camera	Inbound Slip Ramp IS CC3
AISCC4	Operations Camera	Inbound Slip Ramp IS CC4
AISCC5	Operations Camera	Inbound Slip Ramp IS CC5
AISCC6	Operations Camera	Inbound Slip Ramp IS CC6
AISCC7	Operations Camera	Inbound Slip Ramp IS CC7
AISCC8	Operations Camera	Inbound Slip Ramp IS CC8
AIWCC1	Operations Camera	Inbound West Leg IW CC1
AIWCC2	Operations Camera	Inbound West Leg IW CC2
AIWCC3	Operations Camera	Inbound West Leg IW CC3
AIWCC4	Operations Camera	Inbound West Leg IW CC4
AIWCC5	Operations Camera	Inbound West Leg IW CC5
AIWCC6	Operations Camera	Inbound West Leg IW CC6
AIWCC7	Operations Camera	Inbound West Leg IW CC7
AOMCC1	Operations Camera	Outbound Mainline OM CC1
AOMCC2	Operations Camera	Outbound Mainline OM CC2
AOMCC3	Operations Camera	Outbound Mainline OM CC3
AOMCC4	Operations Camera	Outbound Mainline OM CC4
AOMCC5	Operations Camera	Outbound Mainline OM CC5
AOMCC6	Operations Camera	Outbound Mainline OM CC6
AOMCC7	Operations Camera	Outbound Mainline OM CC7
AOOCC1	Operations Camera	Outbound Ontario OO CC1
AOOCC2	Operations Camera	Outbound Ontario OO CC2
AOOCC3	Operations Camera	Outbound Ontario OO CC3
AOOCC4	Operations Camera	Outbound Ontario OO CC4
AOOCC5	Operations Camera	Outbound Ontario OO CC5
AOOCC6	Operations Camera	Outbound Ontario OO CC6
AOSCC1	Operations Camera	Outbound SlipRamp OSCC1
AOSCC2	Operations Camera	Outbound SlipRamp OSCC2
AOSCC3	Operations Camera	Outbound SlipRamp OSCC3

AOSCC4	Operations Camera	Outbound SlipRamp OSCC4
AOSCC5	Operations Camera	Outbound SlipRamp OSCC5
AOSCC6	Operations Camera	Outbound SlipRamp OSCC6
AOSCC7	Operations Camera	Outbound SlipRamp OSCC7

REVLAC – Changeable Message Signs

EMCMS Loc. #	Location Name	Type Equipment
AOMCM1	Changeable Message	Outbound Mainline OM CM1
AOMCM2	Changeable Message	Outbound Mainline OM CM2
AOOCM3	Changeable Message	Outbound Ontario OO CM3
AOOCM4	Changeable Message	Outbound Ontario OO CM4
AOOCM5	Changeable Message	Outbound Ontario OO CM5
AOMCM6	Changeable Message	Outbound Mainline OM CM6
AOMCM7	Changeable Message	Outbound Mainline OM CM7
AOSCM8	Changeable Message	Outbound SlipRamp OSCM8
AOSCM9	Changeable Message	Outbound Slip Ramp OSCM9
AISCM10	Changeable Message	Inbound Slip Ramp IS CM10
AISCM11	Changeable Message	Inbound Slip Ramp IS CM11
AIECM12	Changeable Message	Inbound Edens IE CM12
AIECM13	Changeable Message	Inbound Edens IE CM13
AIWCM14	Changeable Message	Inbound West Leg IW CM14
AIWCM15	Changeable Message	Inbound West Leg IW CM15

REVLAC – Barrier Dragnets and Barrier Signs

EMCMS Loc. #	Equipment Type	Location
AIEB1	Barrier 28.0 Ft	Inbound Edens IE
AISB1	Barrier 36.21 Ft	Inbound Slip Ramp IS
AIWB1	Barrier 28.94 Ft	Inbound West Leg IW
AOMB1	Barrier 22.27 Ft	Outbound Mainline OM B1
AOOB1	Barrier 28.0 Ft	Outbound Ontario OO B1

AOSB1	Barrier 38.25 Ft	Outbound Slip Ramp OS B1
AISX1	Barrier "X" Sign	Inbound Slip Ramp IS X1
AIWX1	Barrier "X" Sign	Inbound West Leg IW X1
AOMX1	Barrier "X" Sign	Outbound Mainline OM X1
AOOX1	Barrier "X" Sign	Outbound Ontario OO X1
AOSX1	Barrier "X" Sign	Outbound Slip Ramp OS X1

RACS Equipment

EMCMS Loc. #	Location Name	Type Equipment
ARACSC1	RACS Chevron Aux Sign	EB Roosevelt Left Shoulder
ARACSC2	RACS Chevron Aux Sign	EB Roosevelt Left Shoulder
ARACSC3	RACS Chevron Aux Sign	EB Roosevelt Left Shoulder
ARACSC4	RACS Chevron Aux Sign	EB Roosevelt Left Shoulder
ARACSC5	RACS Chevron Aux Sign	EB Roosevelt Left Shoulder
ARACSC6	RACS Chevron Aux Sign	EB Roosevelt Left Shoulder
ARACSG1	RACS Swing Gate 1	Roosevelt Ramp
ARACSG2	RACS Swing Gate 2	Roosevelt Ramp
ARACSG3	RACS Swing Gate 3	Roosevelt Ramp
ARACSG4	RACS Swing Gate 4	Roosevelt Ramp
ARACSG5	RACS Swing Gate 5	Roosevelt Ramp
ARACSG6	RACS Swing Gate 6	Roosevelt Ramp
ARACSG7	RACS Swing Gate 7	Roosevelt Ramp
ARACSG8	RACS Swing Gate 8	Roosevelt Ramp
ARACSG9	RACS Swing Gate 9	Roosevelt Ramp
ARACSG10	RACS Swing Gate 10	Roosevelt Ramp
ARACSHH	RACS Equip Hillside Hub	Bldg 5300 W. Harrison St
ARACSR1	RACS Dyn Message Sign	.25 Mi West of York Rd
ARACSR3	RACS Dyn Message Sign	Between York Rd & I 88
ARACSR4	RACS Dyn Message Sign	Ramp Entrance
ARACSAS1	RACS Aux Sign AS1	West of I 88

ARACSAS2	RACS Aux Sign AS2	West of I 88
ARACS1	ILL 38 RACS OP Camera	West of York Rd
ARACS2	ILL 38 RACS OP Camera	York Rd
ARACS3	ILL 38 RACS OP Camera	IL 38 to I 290
ARACS4	ILL 38 RACS OP Camera	IL 38 to I 290
ARACS5	ILL 38 RACS OP Camera	IL 38 to I 290
ARACS6	ILL 38 RACS OP Camera	IL 38 to I 290
ARACS7	ILL 38 RACS OP Camera	IL 38 to I 290
ARACSHTC	RACS Hillside Tower Camera	Hillside Tower 5250 W Harrison
ARACSNTC	RACS Nordic Tower Camera	900 W Nordic
ARACSNH	RACS Equipment Nordic Hut	Bldg 900 W Nordic Rd

ARTICLE 8.0 -- NON-ROUTINE PAY ITEMS

ACC1 CCTV DOME CAMERA ASSEMBLY, COLOR, PTZ CONTROL, FURNISH ONLY

DESCRIPTION

This item shall consist of furnishing and delivering to State stock a Color CCTV dome camera assembly complete with an outdoor environmentally rated housing as manufactured by Bosch, Inc. Series 500i with external transformer or approved equal suitable for integration into the existing system. The assembly shall include a high performance color camera with 26X optical zoom or better, and 12X digital zoom. The assembly shall also include the pan, tilt and zoom mechanisms. An alternate camera manufacturer may be used provided that it is directly compatible with the existing CCTV camera system without the use of external PTZ protocol conversion devices and with the approval of the Engineer.

TRANSPORTATION

The Contractor shall transport and handle the CCTV cameras in complete conformance with the manufacturer's recommendations.

BASIS OF PAYMENT

This work shall be paid at the contract unit price each for **CCTV DOME CAMERA ASSEMBLY, COLOR, PTZ CONTROL, FURNISH ONLY**, which price shall be payment in full for furnishing and delivering the materials to State Stock as specified herein and as directed by the Engineer.

ACC2 CCTV CAMERA ASSEMBLY, COLOR, FIXED CONTROL, FURNISH ONLY

DESCRIPTION

This item shall consist of furnishing a color CCTV camera assembly complete with housing and mounting adaptor, as manufactured by Bosch, assembly no. LTC 0630/61 camera, with LTC 3274/41 lens, LTC 9488/61 housing with sun shield and AH2000 mounting adaptor, or as approved by the Engineer and compatible with the fixed position CCTV camera system in use. The item shall also consist of furnishing, one pair of multimode fiber transceivers, GE Model S700VT-EST transmitter and Model S700VR-RST receiver, and one junction box (8"x8"x6", NEMA 4, Stainless Steel) to house the new transmitter, or as approved by the Engineer, compatible with the existing CCTV camera system in use. Modifications to the existing wiring, multimode fiber and raceways and removal of the old camera and transceivers shall be incidental to this pay item.

TRANSPORTATION

The Contractor shall transport and handle the CCTV cameras in complete conformance with the manufacturer's recommendations.

BASIS OF PAYMENT

This work shall be paid at the contract unit price each for **CCTV CAMERA ASSEMBLY, COLOR, FIXED CONTROL, FURNISH ONLY**, which price shall be payment in full for furnishing and delivering the materials to State Stock as specified herein and as directed by the Engineer.

ACM1 CCTV COLOR MONITOR, QUAD, 4", FURNISH ONLY

DESCRIPTION

This item shall consist of furnishing and delivering to State Stock four, 4" inch, active matrix, color monitors, Marshall Electronics V-R44P or approved equal, with the following characteristics.

Power Source	120 V AC, 60 Hz
Power Consumption	3 W (Approx.)
Input/Output	Video (Input:1 with active loop through)
TV System	NTSC
Resolution	480 x 234 pixels, 112,300 total
Dot Pitch	.171 mm X .264 mm pixel
Viewing Radius	130 ⁰ Horizontal and vertical
Brightness (in cd/m ²)	300
Contrast Ratio	500:1
Actual Display Size (Approx.)	3.23" X 2.43" (4" diagonal)
Overall Size (Approx.)	19.125"W X 3.43"H X 1.9"D
19-type Rack-Mount	Yes, 2U High
Ambient Operating Temperature	-10°C to +50°C (+14°F to +122°F)
Ambient Operating Humidity	Less than 90%
Backlight Life	5 year /50,000 hours
Weight	3.5 lbs.

BASIS OF PAYMENT

This work shall be paid at the contract unit price each for **CCTV COLOR MONITOR, QUAD, 4"**, **FURNISH ONLY**, which price shall be payment in full for furnishing and delivering the materials to State stock as specified herein and as directed by the Engineer.

ACM2 CCTV COLOR MONITOR, 8.4", FURNISH ONLY

DESCRIPTION

This item shall consist of furnishing and delivering to State Stock one, 8.4 inch, active matrix, CCTV Color monitor, Marshall Electronics V-R84P-SDI or approved equal, with the following characteristics. Note a REVLAC panel installation shall include custom mounting bracket.

Power Source	120 V AC, 60 Hz
Power Consumption	4 W (Approx.)
Input/Output	1 composite video, S-Video and SDI inputs with active loop through
TV System	NTSC
Resolution	800 x 600 dots with 1.44 million RGB pixels
Dot Pitch	.213 mm square pixel
Viewing Radius	130 ⁰ Horizontal and vertical
Brightness (in cd/m ²)	350
Contrast Ratio	500:1
Actual Display Size (Approx.)	6.7" X 5.03" (8.4" diagonal)
Overall Size (Approx.)	8.74"W X 6.73"H X 2.65D
Stand Alone	Yes
Ambient Operating Temperature	-10°C to +50°C (+14°F to +122°F)
Ambient Operating Humidity	Less than 90%
Backlight Life	5 year /50,000 hours
Weight	3 lbs.

BASIS OF PAYMENT

This work shall be paid at the contract unit price each for **CCTV COLOR MONITOR, 8.4”, FURNISH ONLY**, which price shall be payment in full for furnishing and delivering the materials to State Stock as specified herein and as directed by the Engineer.

ACM3 CCTV COLOR MONITOR, DUAL, 8.4”, FURNISH ONLY

DESCRIPTION

This item shall consist of furnishing and delivering to State Stock one dual screen, 8.4 inch Color TFT monitors, Marshall Electronics V-R82DP-2C or approved equal, with the following characteristics.

Power Source	120 V AC, 60 Hz
Power Consumption	10 W (Approx.)
Input/Output	Video (Input: 2 / Output: 2, loop through) -- composite video
TV System	NTSC
Resolution	800 x 600 dots with 1.44 million RGB pixels
Dot Pitch	.213 mm square pixel
Viewing Radius	130 ⁰ Horizontal and vertical
Brightness (in cd/m ²)	350
Contrast Ratio	500:1
Actual Display Size (Approx.)	17 cm X 12.8 cm (8.4” diagonal)
Overall Size (Approx.)	25 cm (9-13/16”) diagonal
19-type Rack-Mount	Yes, 4U Height
Ambient Operating Temperature	-10°C to +50°C (+14°F to +122°F)
Ambient Operating Humidity	Less than 90%
Backlight Life	5 year /50,000 hours
Dimensions (W x H x D)	486 x 175 x 38 mm (19-1/8” x 6-7/8” x 1-1/8”)
Weight	2.4 kg (5.5 lbs.)

BASIS OF PAYMENT

This work shall be paid at the contract unit price each for **CCTV COLOR MONITOR, DUAL, 8.4”, FURNISH ONLY**, which price shall be payment in full for furnishing and delivering the materials to State Stock as specified herein and as directed by the Engineer.

ACM4 CCTV COLOR MONITOR, 12”, FURNISH ONLY

DESCRIPTION

This item shall consist of furnishing and delivering to State Stock a 12.1”, LCD, Color CCTV monitor, Marshall Electronics V-LCD12.1-SVGA or approved equal, with the following characteristics.

Power Source	120 V AC, 60 Hz
Power Consumption	40 W (Approx.)
Input/Output	Composite Video and S-Video
TV System	NTSC

Resolution	800 X 600 Pixels
Dot Pitch	0.3075 mm square pixels
Brightness	25 cd
Display	12.1" diagonal (9.62" X 7.25")
Overall Size (Approx.)	11.5" X 8.75" X 1.25"

BASIS OF PAYMENT

This work shall be paid at the contract unit price each for **CCTV COLOR MONITOR, 12", FURNISH ONLY**, which price shall be payment in full for furnishing and delivering the materials to State Stock as specified herein and as directed by the Engineer.

ACP1 CCTV CAMERA POLE, FURNISH ONLY

DESCRIPTION

This item shall consist of furnishing and delivering to State Stock, a CCTV camera pole, under 55 feet mounting height, complete with CCTV camera mounting brackets as manufactured by Union Metal Inc., or as approved by the Engineer, identical to the existing CCTV camera poles in use.

BASIS OF PAYMENT

This work shall be paid at the contract unit price each for **CCTV CAMERA POLE, FURNISH ONLY**, which price shall be payment in full for furnishing and delivering the materials to State Stock as specified herein and as directed by the Engineer.

ACP2 CCTV CAMERA LOWERING SYSTEM, FURNISH AND INSTALL

DESCRIPTION

This item shall consist of furnishing and installing a CCTV camera lowering system as directed by the Engineer.

The camera lowering system shall be designed to support and lower a standard closed circuit television camera, lens, housing, PTZ mechanism, cabling, connectors and other supporting field components without damage or causing degradation of camera operations. The lowering system shall consist of a suspension contact unit, divided support arm, and a pole adapter for attachment to a pole top tenon, pole top junction box, and camera connection box. The divided support arm and receiver brackets shall be designed to self-align the contact unit with the pole center line during installation and insure the contact unit cannot twist under high wind conditions. Round support arms are not acceptable. The camera-lowering device shall withstand wind forces of 100mph with a 30 percent gust factor using a 1.65 safety factor. The lowering device manufacturer, upon request, shall furnish independent laboratory testing documents certifying adherence to the stated wind force criteria utilizing, as a minimum, effective projected area of the camera system to be attached.

The suspension contact unit shall have a load capacity 200 lbs. with a safety factor of 4 and with a locking mechanism between the fixed and moveable components of the lowering device. This latching mechanism shall securely hold the device and its mounted equipment and relieve their weight from the lowering cable. The fixed unit shall have a heavy duty cast tracking guide and means to allow latching in the same position each time. The contact unit housing shall be weatherproof with a gasket provided to seal the interior from dust and moisture.

The camera-lowering device shall be operated by use of a portable lowering tool. The tool shall consist of a lightweight metal frame and winch assembly with cable as described herein, a quick release cable

connector, an adjustable safety clutch and a variable speed industrial duty electric drill motor. This tool shall be compatible with accessing the support cable through the hand hole of the pole. The lowering tool shall attach to the pole with one single bolt. The tool will support itself and the load assuring lowering operations and provide a means to prevent freewheeling when loaded.

All electrical and video coaxial connections between the fixed and lowerable portion of the contact block shall be protected from exposure to the weather by a waterproof seal to prevent degradation of the electrical contacts. The electrical connections between the fixed and movable lowering device components shall be designed to conduct high frequency data bits and one (1) volt peak-to-peak video signals as well as the power requirements for operation of dome environmental controls. All cables in all sections of the lowering device which are used for video signals shall be shielded coax.

The interface and locking components shall be made of stainless steel and or aluminum. All external components of the lowering device shall be made of corrosion resistant materials, powder coated, galvanized, or otherwise protected from the environment by industry-accepted coatings to withstand exposure to a corrosive environment.

The camera-lowering device shall be in production and in successful use for a highway application for a minimum of 3 years. The camera lowering device shall be the [MG]² Model CLDMG2-HYP-XXX or approved equal.

BASIS OF PAYMENT

This item shall be paid at the contract unit price each for a **CCTV CAMERA LOWERING SYSTEM, FURNISH AND INSTALL**, which shall be payment in full for furnishing, delivering to State Stock, removing from State Stock, transporting, assembling and installing a CCTV camera lowering system, as specified, for a completely operational system, as directed by the Engineer.

ALD1 LED CHEVRON SIGN, FURNISH ONLY

DESCRIPTION

This item shall consist of furnishing and delivering to State stock a LED chevron sign as manufactured by National Sign & Signal Company, reference National Sign Drawing No. B5450-592LED or as approved by the Engineer, compatible to the existing fiber optic chevron signs in use complete with heaters. The signs shall have built in thermostats as have the existing fiber optic chevrons.

BASIS OF PAYMENT

This work shall be paid at the contract unit price each for **LED CHEVRON SIGN, FURNISH ONLY**, which price shall be payment in full for furnishing and delivering the materials to State stock as specified herein and as directed by the Engineer.

ALD2 LED AUXILIARY SIGN, FURNISH ONLY

DESCRIPTION

This item shall consist of furnishing and delivering to State stock a LED auxiliary sign as manufactured by National Sign & Signal Company compatible to the existing fiber optic auxiliary signs in use complete with heaters. The auxiliary sign shall be of the following type as directed by the Engineer:

Type of Sign	National Sign Drawing No
"GATES CLOSING"	B5447-589LED
"STAY IN YOUR LANE"	B5448-590LED
Red "X"	

The LED auxiliary sign shall include thermostats to control the heaters.

BASIS OF PAYMENT

This work shall be paid at the contract unit price each for **LED AUXILIARY SIGN, FURNISH ONLY**, which price shall be payment in full for furnishing and delivering the materials to State stock as specified herein and as directed by the Engineer.

ALD3 LED LANE USAGE SIGN, FURNISH ONLY

DESCRIPTION

This item shall consist of furnishing and delivering to State stock a LED Lane Usage sign compatible to the existing lane usage signs in use complete.

BASIS OF PAYMENT

This work shall be paid at the contract unit price each for **LED LANE USAGE SIGN, FURNISH ONLY**, which price shall be payment in full for furnishing and delivering the materials to State stock as specified herein and as directed by the Engineer.

ALD4 LED GORE SIGN, FURNISH ONLY

DESCRIPTION

This work shall consist of furnishing and delivering to storage a LED gore sign as described herein. The LED shall be fully operationally equivalent to the existing fiber optic gore sign.

VENDORS

The LED system (sign, controller, related appurtenances) shall be manufactured by or approved equal:

Daktronics, Inc.	800-843-5843
Skyline Products:	800-759-9046
National Sign & Signal	269-963-2865

PAINT

Paint for the sign front and mask shall be a fluoropolymer-based coating system containing KYNAR 500 resin or equivalent.

DISPLAYS

The display shall be provided, utilizing 26mm diameter pixels, each consisting of identical clusters of LED's as per the requirements stated herein.

The signs shall have sufficient borders on all four sides for display clarity and background contrast, and shall be legible from a distance of 300 feet, within a minimum 17 degree cone of vision on each side of the centerline perpendicular to the width of the sign.

The minimum sign luminance shall be 4300 cd/sq m over the range of 8.5 degrees right and left of the vertical geometric center of the sign and 8.5 degrees below the horizontal geometric center of the sign.

All LED's shall conform to the following minimum requirements:

LED's shall be un-tinted, non-diffused, high-output, solid state lamps utilizing aluminum indium gallium phosphide (AlInGaP) LED technology. These lamps shall be as produced by Hewlett-Packard or approved equal and shall be fully interchangeable.

The MTBF at an ambient temperature of +85 degrees Celsius shall be a minimum of 500,000 hours. LED's shall have an operating temperature range of -13 to +185 degrees Fahrenheit (-25 to +85 Celsius).

LED's shall be of the size T-1 3/4 (5 mm).

Normalized intensity of an LED at an angle of 10 degrees off the center axis shall be no less than 50% of the normalized intensity at an off-axis angle of 0 degrees.

PIXELS

LED's shall be mounted in 26mm diameter pixels, each one consisting of 4 LED's.

Pixels shall be mounted on a printed circuit board, and shall be arranged into a seven (7) pixel high by five (5) pixel wide matrix. Characters formed by the VMS displays shall have a minimum of seven (7) pixels in height. The number of pixels making up the character width shall vary by character and shall be in accordance with the characters described herein. The pixel pitch, or center-to-center spacing, shall produce a character 18. in height (+/- 0.5%).

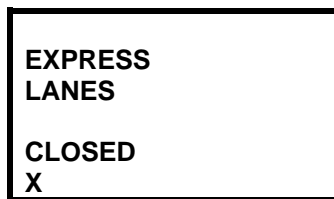
The LED printed circuit board shall be double-sided and shall be plated on both sides with a minimum of .002 inches of copper. The cathode pads shall be located on both the front and back sides of the board. Each cathode lead trace pad shall be a minimum of 0.40 square inches in size.

The LED printed circuit boards shall be coated on their front and back sides with a moisture-resistant acrylic conformal coating. The coating shall have a minimum cured thickness of 0.003 inches, except around the front of each LED pixel, where the coating shall be a minimum of 0.006 inches thick. Each pixel shall be protected from normal handling damage by a circular polycarbonate plastic ring that clips onto the printed circuit board and surrounds the LED's. The ring shall be 0.5 to 0.6 inches in height and have a minimum wall thickness of 0.050 inches.

Each pixel printed circuit board shall attach mechanically to an aluminum module panel using standoffs and wing-nut fasteners. Each printed circuit board shall be removable from its module using simple hand tools or no hand tools. The front of the module panel shall be painted flat black.

Pixels shall have automatically variable brightness capabilities. Sign shall only operate at full brightness on cloudless days with full sunshine.

Pixels shall operate with no more that 20 mA of current at full intensity.



Ramp Closed



Ramp Open

Dimensions	
Sign Height	47"
Sign Width	40"
Height of X	30"
Character Height	6"
<i>All dimensions are approximate</i>	

LED Colors	
Express Lanes	Amber
Closed	Red
X	Red
Open	Green
Arrow	Green

EXTERIOR HOUSING

Sign housings shall be constructed of aluminum, alloy 3003-H14, and shall not be less than 1/8 inch thick. Seams shall be continuously welded except for the sign face. Framing structural shapes shall be constructed of aluminum, alloy 6061-T6. Non-corrosive materials shall be used where possible and corrosion protection shall be provided between dissimilar metals. Sign cases shall be cleaned and deoxidized after welding.

The enclosure shall be thoroughly cleaned and then neutralized for priming. The housing shall then be treated with a phosphate coating solution and sealed as per Military Specification MIL-C-5541. The surface shall be prepared for priming per the primer manufacturer's recommended pretreatment procedure. A zincchromate primer shall be applied, 34 mills thick, followed by a top coat of epoxy-mastic based flat matte black paint. The primer and paint shall be compatible products from the same manufacturer.

Sign face shall be designed and developed in a manner that reduces or eliminates reflections from headlights or sunlight. Signs shall have ICYNAR 500 or equivalent polycarbonate sign face coverings. Coverings shall be weather tight, ultraviolet protected, and non-diffusing, with a thickness of 1/4 inch. Polycarbonate sign face shall be covered with a 0.040 inch minimum thickness aluminum mask. Aluminum mask shall provide openings directly in front of each pixel. Pixel openings shall be of sufficient size so as to not interfere with LED light output. Sign face shall be designed to minimize bowing.

Sign housing, windows, framing and mounting members shall be designed to withstand a wind velocity of 90 mph with a gust factor of 30 percent in accordance with AASHTO's "Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals" and certified by a registered Professional Structural Engineer.

Signs shall be constructed to present a clean, neat appearance; the equipment located therein shall be protected from moisture, dust, dirt and corrosion. Sign enclosures shall contain small weep holes for draining moisture accumulating in the signs from condensation. Weep holes shall be designed so as to protect against insect entrance.

Lifting eyes or other equivalent components shall be provided for moving and mounting signs. The sign housing shall be designed such that the sign can be shipped and temporarily stored without damage or undue stresses prior to installation. The sign shall be provided with a temporary storage support frame that will permit the storage of the sign in an above-ground vertical position without damage to the sign housing.

POWER SUPPLIES

Power supplies shall operate from 208 VAC power. The LED displays shall be operated at low internal DC voltage not exceeding 24 VDC. Power supplies shall be solid-state electronic switching regulated output. Two supplies shall be provided for each 1/3 of the display. Power supplies shall be wired in redundant parallel configuration for each section and shall provide equal amounts of current to each section. Power supplies shall be rated such that if one supply fails, the other can operate the entire LED section under full load conditions. Power supplies shall operate from -2 to +140 degrees F (-30 to +60 C).

Power supplies shall be short-circuit protected by DC power off and shall reset automatically after 5 seconds of AC power off. Power supplies shall also be short-circuit protected by a minimum overload allowance of 105% and have an efficiency rating of at least 75%. Power supply shall be UL listed.

Sign controller shall be capable of sensing the failure of each individual power supply. When one of the power supplies in a group has failed, the status of each supply shall be clearly displayed on the control computer screen.

TERMINAL BLOCKS AND CONNECTORS

Screw type terminal blocks and crimp-on spade terminals shall be used for all wire connections except plug connections. Telephone type knife connectors are not acceptable.

LIGHTNING PROTECTION

Surrestor SPA-300 or approved equal shall be provided on all external power lines.

TESTING

The Contractor shall deliver a sample of the character module to be used in the proposed sign. The module shall be capable of being turned fully on and fully off with all LEDs operating at full design brightness. A sample of the sign face material to be used, attached at the design distance from the character module, shall be included. If any deviations from these Special Provisions are discovered, the sample will be returned to the Contractor for modification, and resubmitted for testing.

SIGN PERFORMANCE TESTING

The signs being installed under this project shall be tested for operational completeness. Testing shall be performed in the presence of the Engineer and/or his/her designated representative and shall consist of a pre-test check-out and a systems Sixty-day (60) Performance Test.

The Contractor shall state, in writing, that the sign is complete and ready for local testing. Within five (5) days upon receiving his notification the Authority shall begin the Pre-test Check-out.

Pre-test Check-out:

The Engineer and/or his/her representative shall thoroughly exercise the system, All hardware, and performance functions, including the maintenance and trouble shooting, shall be individually checked for compliance with the specifications.

Any portion of the project which does not meet these specifications shall be corrected by the Contractor and rechecked by the Engineer. The Contractor shall demonstrate that the field equipment can meet the local performance requirements.

Sign Sixty-day (60) Performance Test:

Following successful completion of the Pre-test Check-out, and the correction, repair and/or replacement of identified deficiencies, the Contractor shall demonstrate that the system satisfies the specified operational requirements as an integrated unit by operating the system continuously for ten consecutive days without malfunction or failure.

The Contractor shall notify the Authority, in writing, that the Sign Sixty-day (60) Performance Test will begin on a date and time mutually acceptable to all parties.

During the Sign Sixty-day (60) Performance Test, the Engineer shall exercise the system and document the performance of all specified features and any other events which could be expected to occur in an operational Traffic Management System. During the system exercise, the Sign Sixty-day Performance test may be suspended or terminated by the Engineer or the Contractor. Suspension is defined as halting the

test progress, the Contractor taking necessary corrective action, and the test being resumed from the point of suspension. Termination is defined as halting the test. In the event of termination, the Contractor shall take necessary corrective action, and the test shall be restarted from the beginning. Any corrective action shall be by mutual agreement between the Contractor and the Engineer.

The Sign Sixty-day (60) Performance Test may be suspended for the following reasons, including but not limited to:

Failure or interference due to conditions beyond the control of the Contractor, such as vandalism, traffic accidents, power failures and similar occurrences.

Failure of any support or diagnostic equipment necessary to successfully test the system.

The Sign Sixty-day (60) Performance Test may be terminated for the following reasons, including but not limited to:

Failure of any hardware or performance item to meet these Special Provisions.

Failure of any pixel.

Failure of more than 1% of the total number of LEDs in the sign at the end of the test.

Failure of any pixel to turn off or turn on.

The appearance of any problem which, in the opinion of the State, has a significant effect upon the reliability, safety or operation of the system.

CERTIFICATION

The Contractor shall furnish supplier documentation and certification for all individual components in the finished product, showing that the component manufacturer has established an MTBF rate and what the rate is. Payment will not be made for any sign installed without component certification.

The Contractor shall furnish the following submittal for approval before the delivery of any sign:

LED manufacturer's data sheet, stating the make and model of LED to be used, the luminance of the LED at a stated current, the maximum/minimum operating temperatures and other pertinent information.

Pixel Design - Include a detail drawing of the physical layout of the pixel, including the pixel size, number of LEDs, board detail, operating voltage and current, method of weather protection, orientation of the individual LEDs and the calculated luminance at the following points:

10° right and left of the vertical geometric center.

90° perpendicular to the pixel.

10° below the horizontal geometric center of the sign.

The module design, including mounting details.

The cabinet design and installation details of equipment in the cabinet.

BASIS OF PAYMENT

This work shall be paid at the contract unit price each for **LED GORE SIGN, FURNISH ONLY**, which price shall be payment in full for furnishing and delivering the materials to State stock as specified herein and as directed by the Engineer.

APM1-2 MICROWAVE MONOPOLE/TOWER PAINTING

DESCRIPTION

This item shall consist of cleaning and painting a microwave grade monopole or short open grid steel radio tower.

WORK COORDINATION

Before work begins on the monopole/tower, the contractor shall notify the Engineer of the scheduled date and time of work being done. Coordination of planned system outages may be necessary for contractor safety per FCC policies regarding Radio Frequency (RF) radiation safety.

SURFACE PREPARATION

Monopoles/towers will first be inspected for any sign of rust or scaring of steel surface. Areas affected by rust or scaring will be prepared by cleaning and brushing. An application of a rust inhibitor is to be used on rust areas. These areas will be lightly brushed only of rust/scale; the rust inhibitor product will be applied via manufacturer’s specifications. All surfaces with loose or scaly paint shall be scraped and/or wire brushed prior to painting. All painted surfaces will then be cleaned by brushing and washing; a vinegar water solution may be used to remove all scale and dirt. No primer or paint will be applied until these procedures are completed. Any loose hardware shall be tightened before painting. Any missing nuts and bolts shall be replaced with equivalent size and type before painting. All electrical conduit and feedlines shall be secured, where needed, at appropriate intervals with stainless steel wraplock or approved equivalent. All old rusty/broken cable ties, wraplock, etc. shall be removed, discarded and replaced.

PAINTING

The entire monopole/tower and all exposed appurtenances will be painted, including but not limited to structural steel, antenna mounts, wave guide ladders, and conduit. Items that shall NOT be painted are microwave radomes, land mobile radio antenna, cameras, feedlines/wave guide, stainless steel hardware, ground bus bars, and grounding cables. Care should be used to not seal/plug drain holes in conduit junction boxes due to excessive painting. Care should also be used on access doors and/or hatches on monopoles so that the door/hatch may freely open, close and latch/lock. Any excessive painting resulting in drips and spills on other structures shall be cleaned up as appropriate.

Weather conditions – Painting work shall only be performed when tower surfaces are completely dry, the outside air and tower surface temperatures are above 50°F (10°C) and the relative humidity is less than 81%. If paint manufacturer’s recommendations call for warmer and/or dryer conditions, then those should be used.

Preferred method is by mitt application. Brush application is acceptable. Other application methods may be used only with prior approval from the Engineer.

Primer for galvanized steel towers will be Aluminum Epoxy Mastic as specified in the IDOT Standard Specifications for Road and Bridge Construction, Article 1008.03. A spot coat shall be used on all areas where rust is evident and areas where the old paint has been removed, feathered and/or damaged prior to, during or after the cleaning and surface preparation operations.

A full finish coat of the entire tower (top to bottom) will be Waterborne Acrylic as specified in the IDOT Standard Specifications, Article 1008.04, using the Gray color as specified.

This work is expected to be Specialty Service work or to be provided by an approved Sub-Contractor. Only companies with verifiable experience in painting of active communication towers with multiple antenna systems and heavy transmission cable occupancy will be considered as qualified for this Specialty Service work, or as a sub-contractor.

BASIS OF PAYMENT

This work shall be paid at the unit price each for cleaning and painting a microwave grade monopole or short open grid steel radio tower for:

PAY ITEM	LOCATION	HGT	NORTH	WEST
APM1	HQ Monopole	100'	42°23'52.30"	88°04'49.10"

	201 W. Center Ct., Schaumburg, IL			
APM2	REVLAC Building E Northbound Edens at northwest bound Kennedy split	150'	41°57'49.10"	87°44'46.00"

APT1 SCHAUMBURG TOWER PAINTING

DESCRIPTION

This item shall consist of cleaning and painting an open grid steel radio tower. The work shall be in accordance with Federal Aviation Administration (FAA) and Federal Communications Commission (FCC) regulations and policies. All radio towers are painted FAA's aviation orange and white paint scale code.

WORK COORDINATION

Before work begins on the tower, the contractor shall notify the Engineer of the scheduled date and time of work on the tower. Coordination of planned system outages may be necessary for contractor safety per FCC policies regarding Radio Frequency (RF) radiation safety.

SURFACE PREPARATION

Towers will first be inspected for any sign of rust or scaring of galvanize to the tower steel. Areas affected by rust or scaring will be prepared by cleaning and brushing. An application of a rust inhibitor is to be used on rust areas. These areas will be lightly brushed only of rust/scale; the rust inhibitor product will be applied via manufacturer's specifications. All surfaces with loose or scaly paint shall be scraped and/or wire brushed prior to painting. All painted surfaces will then be cleaned by brushing and washing; a vinegar water solution may be used to remove all scale and dirt. No primer or paint will be applied until these procedures are completed. Any loose hardware shall be tightened before painting. Any missing nuts and bolts shall be replaced with equivalent size and type before painting. All electrical conduit and feedlines shall be secured, where needed, at appropriate intervals with stainless steel wraplock or approved equivalent. All old rusty/broken cable ties, wraplock, etc. shall be removed, discarded and replaced.

PAINTING

The entire tower and all appurtenances will be painted the appropriate FAA color band, including but not limited to tower structural steel, antenna mounts, wave guide ladders, and conduit. Items that shall NOT be painted are microwave radomes, land mobile radio antenna, cameras, feedlines, stainless steel hardware, light lens, ground bus bars, and grounding cables unless required by FAA and FCC regulations. Care should be used to not seal/plug drain holes in conduit junction boxes due to excessive painting. Any excessive painting resulting in drips and spills on other structures shall be cleaned up as appropriate.

Weather conditions – Painting work shall only be performed when tower surfaces are completely dry, the outside air and tower surface temperatures are above 50°F (10°C) and the relative humidity is less than 81%. If paint manufacturer's recommendations call for warmer and/or dryer conditions, then those should be used.

No spray application of paint is acceptable. Preferred method is by mitt application. Brush application is acceptable.

Primer for galvanized steel towers will be Aluminum Epoxy Mastic as specified in the IDOT Standard Specifications for Road and Bridge Construction, Article 1008.03. A spot coat shall be used on all areas where rust is evident and areas where the old paint has been removed, feathered and/or damaged prior to, during or after the cleaning and surface preparation operations.

A full finish coat of the entire tower (top to bottom) will be Waterborne Acrylic as specified in the IDOT Standard Specifications, Article 1008.04, except the color shall be as specified by FAA regulations.

This work is expected to be Specialty Service work or to be provided by an approved Sub-Contractor. Only companies with verifiable experience in painting of active communication towers with multiple antenna systems and heavy transmission cable occupancy will be considered as qualified for this Specialty Service work, or as a sub-contractor.

BASIS OF PAYMENT

This work shall be paid at the unit price each for cleaning and painting an open grid steel radio tower for:

PAY ITEM - LOCATION	TYPE	LIT	FCC #	NORTH	WEST
APT1 Schaumburg Tower 101 W. Center Ct., Schaumburg	140' self supporting	Y	1230514	42°23'53.8"	88°04'49.1"

APV1 PAVEMENT SEALCOATING

DESCRIPTION

The Contractor shall patch where necessary and seal coat the pavement, within the fenced areas, at each building, hut, and structure once per year in April, per the following specifications. The Engineer's decision shall be final as to the determination of which application and products are utilized.

PREPARATION

Pavement surface oils shall be removed by washing with an applicable detergent and brushing and/or pressure wash cleaning. All dirt, gravel, leaves, etc., must be removed from the pavement and the pavement must be completely dry, prior to crack sealing and seal coating.

INSTALLATION

Seal Coating: The Contractor (or Specialty Vendor as approved by the Engineer) shall furnish and install two (2) coats of an appropriate sealcoat coal tar emulsion sealer. The product must meet or exceed both the Air Force and Federal R-P 355e GSA-FSS and the American Society for Testing and Material Specification D-3320-74T specifications. All manufacturers' mix specifications are to be followed as the proper amounts of washed silica sand provide added traction and longevity to the seal finish. A sealer latex enhancer shall be added to increase the longevity and color of the finish. The sealer shall be transported in steel hydraulically agitated tanks to ensure the application of a consistent and uniform mixture at the work site. The seal coating shall be applied at a temperature above 50 degrees F. with a spray device or drag broom assembly, but a uniform distribution is required.

The first seal coat shall be allowed to dry not less than four (4) hours but no more than six (6) hours before the second coat of seal coat is applied. The pavement shall be roped or taped off so no traffic uses the pavement for twenty-four (24) hours after the second coat of seal coat is applied.

The Contractor (or Specialty Vendor as approved by the Engineer) shall furnish and install crack sealant where necessary. Only hot (350 F.) pour rubberized commercial parking lot crack sealant, similar or better than "Flex-A-Fill" shall be used.

BASIS OF PAVEMENT

This item shall be paid at the contract unit price per square yard for **PAVEMENT SEALCOATING**, .12 gallons of seal per square yard for the first coat and .06 gallons per square yard for the second coat of seal coating for ASMC pavement.

ARR1 REVLAC RESTRAINING BARRIER TAPE CARTRIDGE, REFURBISH

DESCRIPTION

This item is for furnishing and delivering to State Stock an Energy Absorbing Tape Cartridge completely refurbished, with tape assembly for use with the Vehicle Restraining Mechanisms for the Kennedy Expressway REVLAC System.

MATERIALS

The energy absorbing tape cartridge assembly shall be refurbished Part No. EJ31256, Tape assembly and EJ41223, energy absorber, as manufactured by the Entwistle Company.

The energy absorbing device shall be model number MBF 4K-200-A as manufactured by The Entwistle Company. The following additional requirements shall be incorporated into the design of the barrier restraining mechanism:

The leading end of the energy absorbing device shall attach to one end of the restraining net with a removable connection.

The mounting of the energy absorbing device shall not degrade its FHWA-Approved operating characteristics.

The mounting of the energy absorbing device shall facilitate its replacement as a complete unit and also shall facilitate replacement only of the energy absorbing tape contained within its cartridge. In either case, replacement shall be from the ramp side of the unit

BASIS OF PAYMENT

This work shall be paid at the contract unit price each for **REVLAC RESTRAINING BARRIER TAPE CARTRIDGE, REFURBISH**, which price shall be payment in full for the work as described herein.

ARR2 REVLAC RESTRAINING BARRIER DRAGNET ASSEMBLY, FURNISH ONLY

DESCRIPTION

This item shall consist of furnishing and delivering to State stock a complete restraining barrier dragnet assembly as manufactured by The Entwistle Company, compatible with the existing dragnet and barrier. The dragnet assembly shall be of the following type as directed by the Engineer:

RAMP	Entwistle Part No.
OB Mainline	EJ41224-10
OB Ontario	EJ41224-20
IB Edens	EJ41224-20
IB JFK West Leg	EJ41224-30
OB Slip Ramp	EJ41225-10
IB Slip Ramp	EJ41225-20

The restraining net shall be the barrier Vendor's standard Highway Safety Net. The net shall consist of a minimum of two horizontal runs of stranded wire rope interlaced through a section of galvanized chain link fence or shall consist of a minimum of two horizontal runs of wire rope and wire rope vertical members spaced at approximately six inch centers. The restraining net shall be provided with removable connectors and with vertical stays and tensioning devices to maintain proper net tension and deployment. The Barrier Vendor shall submit complete details of the restraining net construction including sized, materials, and rated capacities of all components used. The restraining net shall be compatible with the energy absorbing devices, be FHWA-Approved, and be approved by the Engineer.

The net shall have a reflective material of eight inch wide, alternating red and white, diagonal stripes adhered to a semi-rigid, conformable, panel fastened to the net. The panel shall be capable of repeated impact without splintering, fracturing, or permanently deforming. The panel shall not alter the performance characteristics of the vehicle restraining mechanism.

REFLECTIVE MATERIAL FOR RESTRAINING NET

Reflective sheeting shall be used on both sides of the restraining barrier net as shown on the Contract Drawings. All sheeting requirements shall meet or exceed the standards as defined in AASHTO M 268-84, Retro reflective Sheeting for Traffic Control.

The sheeting shall be a minimum of Type III High Intensity with pre-coated pressure sensitive adhesive (Class 1), diagonal alternating red and silver white stripes as shown on the Contract Drawings, angling down at 45° from the left to the right. The sheeting shall be oriented to take advantage of the directional reflectivity of the material as defined by the supplier of the reflective sheeting.

The preferred material for this application shall be "Scotchlite" Reflective Sheeting Diamond Grade Series 3970G, as manufactured by 3M, or approved equal. The retro reflective sheeting shall be installed strictly according to the manufacturer's instructions. Special attention to surface preparation and mounting of sheeting for proper bonding and adhesion shall be rigidly followed.

BASIS OF PAYMENT

This work shall be paid at the contract unit price each for **REVLAC RESTRAINING BARRIER DRAGNET ASSEMBLY, FURNISH ONLY**, of the location specified, which price shall be payment in full for furnishing and delivering the materials to State stock as specified herein and as directed by the Engineer.

ASC1 SWING GATE CONTROLLER, FURNISH ONLY

DESCRIPTION

This item is for furnishing and delivering to State Stock, a complete Swing Gate controller, for the Kennedy Expressway Traffic Redirection and Access Control System as specified herein.

MATERIALS

The swing gate controller shall be Model Number HZ64B as manufactured by B&B Electromatic, Norwood, Louisiana and shall be a clockwise or counter-clockwise unit as designated by the Engineer without a gate arm or gate arm tip.

Support Frame

The frames shall be rigid structural weldments designed to withstand all operating loads imposed upon them by the swing gates and shall transfer the loads into the barrier walls via the anchor bolts.

The support frame for the swing gate assembly shall be fabricated from ASTM A36 structural steel shapes and plates using standard structural shapes to the maximum extent possible. All steel used in frame fabrication, including the component mounting plates, shall be at least 0.375 inches thick.

The configuration of all frames shall provide a rigid frame support for mounting additional items as described elsewhere herein.

The frames shall be drilled to match the anchor bolt patterns shown on the Contract Drawings with slotted anchor bolt holes, one inch diameter by two inches long, to allow for field positioning. The anchor bolt pattern shall match the anchor bolts installed under a previous contract.

Ease all exposed edges to a radius of 1/32 inch or more. Corners, seams, and joints shall be welded continuously and shall comply with requirements specified for welding. Welding flux shall be removed immediately and all exposed welds and surfaces shall be cleaned and ground to remove all scale, burrs, and sharp edges. Joints that may be exposed to the weather shall be fabricated to prevent the accumulation of water, dirt, and ice.

The frames shall be complete with all mounting requirements for installation of the gate actuators, controls, housing, and operational warning signs. Mounting plates shall be accurately drilled to match the components mounted. Torch-cut holes are not acceptable. The frames shall be hot dip galvanized after fabrication in compliance with Hot Dip Galvanizing.

The frame shall incorporate removable fitting attachments (lugs) for use during initial installation and for subsequent maintenance of the swing gate assembly. The lifting lugs shall be located on the top of the swing gate housing, as generally shown on the Contract Drawings, and shall be either stainless steel or galvanized to protect the lifting attachments from the elements. The threads of the lifting lugs shall penetrate the housing and engage threaded members welded to the support frame.

The lifting lugs shall be removed after installation and stored inside the swing gate housing in a rigid, non-metallic, re-sealable container, mounted to the inside of the swing gate housing.

Stainless steel bolts with watertight gasketed washers shall be provided with each unit to seal the lifting lug housing penetrations and to achieve an uncluttered appearance upon removal of the lifting lugs.

A stainless steel bottom plate, not less than 12 gauge thickness, shall fit against the bottom of the support frame to cover the opening in the top of the barrier wall at the location of the swing gate insert. Within the confines of the support frame the bottom plate shall cover the entire top area of the swing gate insert, not already covered by the swing gate cover plate (see drawings CP-01 and CP-02), and extend to the capstan end of the frame. Vertical lugs, welded to the upper side of the bottom plate, shall be used to secure the plate against the bottom of the support frame angles by bolting through the lugs and the vertical legs of the angles on three sides of the frame. The bottom of the support frame will vary between 0.875 and 1.75 Inches above the top of the swing gate insert frame (see Mounting Detail on SG series drawings). Provide an adjustable 12 gauge stainless steel skirt, extending the full width of the housing, to close the gap between the bottom plate and the top of swing gate insert. This skirt shall be located along the one edge of the bottom plate which has no support frame angle to fit against. The bottom plate and skirt shall be designed to exclude vermin, to prevent the accumulation of ice, snow, and water within the housing, and to provide safety and security. The bottom plate shall fit as closely as possible around the gate arm capstan. The Swing Gate Vendor shall submit design details for review.

Housing

The housing for the swing gate unit shall be fabricated to accurately fit over the support frame and bolt to the frame to form a weatherproof enclosure to prevent the accumulation of dust, dirt, water, ice, snow and prevent the entrance of vermin. The housing shall be removable and incorporate a positive locating design to facilitate positioning of the housing on the frame. Access doors shall be provided on three sides of the housing to provide maintenance access to each component within the enclosure.

Housings shall be fabricated from Type 302, or approved equal, stainless steel sheets of not less than 12 gauge thickness. Welding flux shall be removed immediately and all exposed welds and surfaces shall be cleaned to remove all scale, burrs, and sharp edges. All exterior welds and surfaces shall be ground smooth and blended to remove all roughness. Each housing shall have two large gasketed doors on the roadway side of the housing and one access door at each end of the housing to provide access for

routine maintenance and for servicing of the swing gate assembly. The doors shall be fabricated from the same material as the housing, with a stamped raised frame/flange for rigidity, and be neoprene gasketed. Housing openings and doors shall be reinforced to eliminate deflection.

Doors shall be hung using bronze slip off hinges with stainless steel hinge pins and incorporate a three point door latch with provision for padlocking, and hold-open linkage. The two access doors on the roadway side of the unit shall be provided with heavy duty brass padlocks; all padlocks shall be keyed alike and each swing gate unit shall be provided with two keys. The two access doors at each end of the unit shall be opened from the inside of the unit. With access doors closed, no portion of the housing, including its latches and locks, may extend beyond the face of the barrier wall. In their open position, access doors may extend past the face of the barrier wall.

Each housing shall have a port opening fitted with a hinged, cast stainless steel cover held normally closed by gravity. The port opening shall be aligned with the extended output shaft of the transmission to permit inserting the shaft of a hand crank through the opening and onto the end of the extended output shaft. Brackets shall be provided, within the housing, upon which to store the crank when not in use. The Swing Gate Vendor shall submit a sample cast cover for review by the Engineer.

The roof of housing shall be pitched to prevent build-up or ponding of water.

Each housing shall completely enclose the support frame and anchor bolts. The two end doors shall provide access to the anchor bolts for installation and maintenance of the unit:

The local controls for the swing gate mechanism shall be coordinated with the remote building Programmable Logic Control (PLC) system for the Reversible Lanes Traffic Redirection and Access Control System. Each swing gate shall be complete with local controls consisting of, but not limited to, the following:

- a) Main Motor Circuit Protector with Auxiliary Contacts
- b) Control Power Transformer
- c) Motor Overloads with Auxiliary Contacts
- d) Reversing Starter - minimum NEMA size 1
- e) Terminal Blocks for both AC and DC Voltages
- f) 125 Volt DC Coil, Remote Control Relays
- g) Limit Switches - Cam Actuated
- h) Limit Switches
- i) Proximity Switch - two piece magnet actuated
- j) Remote Control/Local Manual Control Maintained Correct Selector Switch
- k) "Manual Open/Remote Control/Manual Close" Spring Return Selector Switch
- l) "ON/OFF" Maintained Contact Rotary Pilot Switch
- m) Circuit Breaker for the operation of the gate arm slot heater.
- n) Circuit Breaker for the 120 VAC controller power
- o) LED's for DC control indication.

All electrical components furnished shall be NEMA rated, U.L listed, readily available products of a national, USA manufacturer. Similar components shall be of the same manufacturer.

The entire local control system is to be serviceable from the roadway side of the unit. The local controls shall be enclosed within the swing gate housing and contained within a separate, self-supporting, single lever latch type NEMA 4X, enclosure. The enclosure shall not attach to the swing gate housing, but shall be attached to the swing gate housing support frame. All selector switches shall be mounted on the hinged door of the NEMA 4X enclosure which mounts inside of the swing gate housing. Switches shall be NEMA 4/13 type and installed with suitable gasketing to retain the NEMA 4 rating.

The local controls shall permit valid automatic operations to resume after manual positioning of the gate arm or switching from manual to automatic operation without requiring on-site resetting of the gate arm.

All wiring shall be through the use of pressure type terminal blocks and all control wires shall terminate in these blocks. Each terminal shall be clearly labeled (number or alpha-numeric), and all wires shall be color coded based on their connected voltage. The wire numbers for the interconnection points to the remote control system shall be the same as shown on the Contract Drawings. The wiring diagram shall identify all colors and wire numbers. Wire all auxiliary contacts to the terminal block to permit transmission of the selector switch settings to the remote control system.

Where number of wires are trained through a box or wired to a hinged cover, they shall be grouped by circuit where applicable, bundled using appropriate cable ties, and supported to prevent pressure or strain on the cable insulation. Wire all selector switches, limit switches, auxiliary contacts, etc., including spare devices, to the terminal block.

Control Device Requirements

Motor Circuit Protector (CB-1):

The local controls at each swing gate shall include a three-pole motor circuit protector (MCP) for the incoming three-phase 480 volts.

Located inside of swing gate housing shall be a three-pole incoming MCP power circuit breaker with a normally open (N.O.) auxiliary contact to close on a "TRIP" or "OPEN" position. Contacts shall be rated not less than 0.5 amperes at 125 VDC.

Motor circuit protectors shall be manually operated and have a magnetic trip level adjustment. Trip ratings shown on the Contract Drawings are approximate and the trip rating provided shall be as recommended by the device manufacturer for the characteristics of the motor.

Motor circuit protectors shall be rated for an available fault current of 65,000 RMS symmetrical amperes.

Control Power Transformer (TR1):

Control power transformers shall be not less than 500 VA continuous duty and rated at 480V - 60 Hz primary to 120V single phase secondary. The control power transformer shall have a circuit breaker secondary and shall be sized adequately for the starter and all connected control devices. Control transformers shall be NEMA type AA, dry, with a temperature rise not to exceed 55 degrees C above a 40 degrees C ambient temperature at continuous rated load. Data submitted for approval shall include starter coil load data and total VA rating of control transformer.

Reversing Starter (MS-1):

Provide a reversing starter that is mechanically and electrically interlocked and rated for 480 Volts, 3 phase power, in a minimum NEMA size 1 configuration.

Starters shall be sized for the motor to be connected, but shall not be smaller than NEMA size 1. Starter size shall be carefully coordinated based on the motor characteristics of the motor to be connected and the manufacturer's starting ratings.

All starters shall be equipped with pull-apart terminal blocks for control and power wiring.

Starters shall be electrically operated, electrically held, with arc-extinguishing characteristics and renewable silver-to-silver contacts. Each starter shall have an overload relay as specified.

As a minimum each starter shall be equipped with two SPDT auxiliary contacts, with the N.C. contacts wired in as coil clearing contacts, in addition to the forward and reverse seal-in contacts. Provide two additional DPDT auxiliary contacts, one in each direction, as spares.

Provide an automatic reset non-compensated thermal overload relay with 480 V, 5 amp continuous duty contact rating. Provide additional auxiliary electrically isolated contacts rated at 120 V, 5 amp continuous

duty, one normally dosed in motor control circuit and one normally open for monitoring by the Programmable Logic Controller. Relay shall be a NEMA B600 with three type B heater elements sized as required for the motor HP rating.

Motor control circuit shall operate at 120 volts derived from control transformer TR1, as specified.

Terminal Blocks (TB):

Terminal blocks shall be heavy duty corrosion resistant type rated at 600 volts AC & DC. AC and DC voltages shall be connected to color coded terminal blocks, separated and electrically isolated from each other. AC terminal housing shall be gray, and DC terminals shall be blue. Terminal block housing shall be manufactured from nylon capable of long term exposure of -40 degrees F to 180 degrees F, and all terminals shall be capable of terminating #22 through #6 AWG stranded or solid wire.

The current carrying metal body characteristics shall be as follows:

- a. Modular design and construction.
- b. Manufactured from a minimum of 85% copper alloy with locking screws manufactured from stress relieved brass.
- c. 100% nickel plated.
- d. Have self locking screws so that when wire is clamped into terminal, self loosening is not possible.
- e. Have wire guides on base body.
- f. Achieve "gas tight" termination, as wire is clamped into "serrated" metal body.
- g. Have center bridgeability
- h. Have no less than 3 milli-ohms of contact resistance.

The terminal blocks shall be as manufactured by Phoenix Contact or approved equal.

125 Volt DC Coil, Remote Control Relays (CR-1, CR-2, CR-3):

Provide electrically held, heavy duty relays rated at 300 V with a minimum of two normally open (N.O.) and two nominally closed (N.C.) independent electrically isolated contacts. The relay shall be hermetically sealed, with convertible, high reliability contact rates not less than 5 ampere resistive. Contact ratings shall be NEMA A300 AC, and NEMA P300 DC as per Contract Drawings.

Control Relay (CR-1), Located in the gate control enclosure. Interlace DC relay to allow remote ramp opening of the gate (PLC control or manual control from the Remote Control Building).

Control Relay (CR-2), Located in the gate control enclosure. Interface DC relay to allow remote ramp closing of the gate (PLC control or manual control from the Remote Control Building).

Control Relay (CR-3), Located in the gate control enclosure. Interface DC relay to allow remote PLC control of chevron sign. Shall be installed in each swing gate unit and connected in only selected swing gates.

Relays shall be as manufactured by Allen Bradley catalog #700-N or as approved by the Engineer.

Limit Switches - Cam Actuated (LS-5, LS-6, & spare LS-7, LS-8):

The gate cam actuated limit switch shall be a unit assembly containing a minimum of 4 individual switches each having one SPDT set of contacts. Contacts shall be totally enclosed and shall have a U.L rating of not less than 15 amperes at 220 volts AC. Each individual switch shall be controlled by an independent cam, which shall be adjustable with a single set screw. The limit switch body, cams and shaft shall be of corrosion resistant non-ferrous materials.

The multiple cam positron sensor assembly shall be operated from the drive transmission. Two of the switches normally closed (N.C.) (LS-5 & LS-6) shall function as motor overtravel limit switches. The other two switches shall be spares. Switches which are of different voltage type shall be isolated through the use of a spacer inserted between the switches.

Each switch shall be operated by an independent cam. The cams shall be position adjustable through 360 degrees of rotation. The signals from these position sensors shall de-energize the starting coils to the motor.

Cam Limit Switches shall be installed as shown on the Contract Drawings and as herein specified:

- a) Limit Switch LS-5, with one normally closed (N.C.) contact located on the retract cam position opens and disconnects power to the retract starting coil when the drive travels past the retract position (indicates a broken chain on the cam).
- b) Limit Switch LS-6, with one N.C. contact located on the extend cam position opens and disconnects power to the extend starting coil when the drive travels past the extend position (indicates a broken chain on the cam).

Standard Enclosed Limit Switches (LS-1A-1B, LS-2A-2B, LS-3, LS4, LS-9):

Standard Enclosed Limit Switches shall be NEMA 4 as required for outdoor installation (-40 to + 180 degrees F). Limit switches shall be heavy duty, Industrial type, oil and water tight, with a minimum 10 amp, 125 volt DC rating, and rated for one million operations. No electronic switches shall be used.

Standard Enclosed Limit Switches shall be installed as shown on the Contract Drawings and as herein specified:

- a) Standard limit Switch LS-1, with one normally open (N.O.) (LS-1A) and one normally closed (N.C.) (LS-1B) independent electrically isolated contacts, located on gate arm inner rotating shaft. LS-1A contact is held closed when the gate is NOT in the retract position. When the gate arm moves to the retracted position (ramp open), the held closed N.O. LS-1A contact opens and disconnects power to the retract starting coil. And the held open N.C. LS-1 B contact closes signaling the Programmable Logic Controller that the Crank Arm is in the retracted (ramp open) position.
- b) Standard Limit Switch LS-2, with one N.O.(LS-2A) and one N.C.(LS-2B) independent electrically isolated contacts, located on gate arm Inner rotating shaft. LS-2A contact is held closed when the gate is NOT in the extent position. When the gate arm moves to the extended position (ramp closed), the held closed N.O. LS-2A contact opens and disconnects power to the extend starting coil. And the held open N.C. LS-2B contact closes signaling the PLC that the Crank Arm is in the extended (ramp closed) position.
- c) Standard limit switch LS-3, with one N.C. contact, located on the gate arm outer rotating it shaft. LS-3 is held open when the gate arm is NOT in the retracted position. When the gate arm moves to the retracted position, the held open LS-3 contact closes and signals the PLC that the gate arm is in the retracted position (Input to PLC constant from + 10 degrees of fully retracted).
- d) Standard Limit Switch LS-4, with one N.C. contact, located on the gate arm outer rotating shaft. LS-4 is held open when the gate arm is NOT in the extended position. When the gate arm moves to the extended position, the held open LS contact closes and signals the PLC that the gate arm is in the extended position (Input to PLC constant from -10 degrees of fully extended).
- e) Standard Limit Switch LS-9, with two N.C. independent electrically isolated contacts (LS-9A & LS-9B), located at the hand crank opening. When the hand crank is inserted, LS-9A opens and disables the motor control circuit and LS-9B opens and disconnects signal to the PLC.

Standard Limit Switches shall be as manufactured by Allen Bradley Bulletin 802M or approved equal.

Remote/Local Control Selector Switch (SS-1):

Selector switch shall be NEMA 4/13 heavy duty type, two position maintained contact, rated at 600 volts AC. Provide and wire auxiliary contacts to the terminal block to permit transmission of the selector switch position to the remote control system.

Selector Switch (SS-1), Located on door of swing gate local control enclosure. Two position selector switch intended to be used for maintenance and local gate control. To allow the gate to be switched to local control (LOCAL MANUAL CONTROL), or to remote building control (REMOTE CONTROL).

Remote Control Switch (SS-2):

Remote control switch shall be NEMA 4/13 heavy duty type, three position spring return to center, rated at 600 volts AC. Provide and wire auxiliary contacts to the selector switch (SS-1) to permit transmission of the selector switch position to the remote/local control system.

Selector Switch (SS-2), Located on door of swing gate local control enclosure. Three Position, spring return to center, selector switch that allows (MANUAL OPEN), (MANUAL CLOSE), when SS-1 is in the "LOCAL MANUAL CONTROL" position.

Rotary ON/OFF Pilot Switch (SS-3):

Rotary Pilot switch shall be NEMA 4/13 heavy duty type, two position maintained contact, rated at 600 volts AC. Wire SS-3 auxiliary contacts to Selector switch (SS-1) via the Terminal strip.

Rotary Pilot Switch (SS-3), located on door of swing gate local control enclosure. Two position selector switch to turn DC power ON and OFF.

Circuit Breaker for the gate arm slot heater (CB-2):

A two-pole, 15 ampere, 600 volt circuit breaker shall be provided for the swing gate sandwich heater cable mounted on the barrier wall.

Circuit Breaker for 120 VAC control power (CB-3):

A two-pole, 5 ampere, 240 volt circuit breaker shall be provided on the secondary power feed, for the control power transformer TR1.

LED's:

Provide high intensity, long life (10 year average) solid state LED cartridges with built-in resistors/rectifiers rated for 125 VDC. Mount LED's in a grouped configuration into the NEMA 4 cabinet as shown on the Contract Drawings.

Wiring for Power and Control:

All wire shall be minimum number 14 AWG stranded copper, type MTW, 600 V insulation.

SEQUENCE OF OPERATIONS - AUTOMATIC:

Automatic Operation - Extent Gate (Close Ramp):

- a. Beginning state - swing gate retracted, ramp open.
- b. Requirements for automatic operation:

- Selector Switch SS-00 "PLC CONTROL/OFF PLC CONTROL" (located in the Remote Control Building) in "PLC CONTROL" Position
 - Selector Switch SS-1 "REMOTE CONTROL/LOCAL MANUAL CONTROL" (located in the local swing gate control cabinet) in "REMOTE CONTROL" Position
 - Selector Switch SS-3 "ON/OFF" (located in swing gate control cabinet) in "ON" position
 - "Crank Arm Open Limit Switch" LS-1B Closed - PLC Input - Crank Arm in Open Position
 - "Gate Retracted Limit Switch LS-3 Closed" - PLC Input - Gate in Retracted Position
 - "Shear Pin Detector Proximity Switch" PRX-1 Closed - PLC Input - Shear Pin Detector Intact
 - Motor Circuit Protector CB-1 Aux Contact Open, and Motor Overload Relay MOL Aux Contact Open - No fault input to PLC
- c. PLC power output to swing gate terminal block #4, energize DC relay CR-3 and flashes Chevron Sign on and off. (PLC programmed logic turns relay on and off).
- d. PLC applies power to swing gate terminal block #2, energize DC relay CR-2. CR-2 contact closes and energizes starting coil MS-1R.
- e. The motor starts and the gate arm begins moving from the retracted to the extended position.
- f. When the gate moves 10 degrees from fully retracted, limit switches LS-3 and LS-1B signal inputs to the PLC that the gate is no longer in the retracted position.
- g. Power is continuous to relay CR-2, until limit switches LS-4 and LS-2B signal the PLC that the gate is in the extended position, or a pre-set time limit in the PLC has expired. Relay CR-3 is de-energized after all the gates are in the extended position, turning the chevron signs off.

Automatic Operation - Retract Gate (Open Ramp):

- a. Beginning state - swing gate extended, ramp closed.
- b. Requirements for automatic operation:
- Selector Switch SS-00 "PLC CONTROL/OFF PLC CONTROL" (located in the Remote Control Building) in "PLC CONTROL" Position
 - Selector Switch SS-1 "REMOTE CONTROL/LOCAL MANUAL CONTROL" (located in the local swing gate control cabinet) in "REMOTE CONTROL" Position
 - Selector Switch SS-3 "ON/OFF" (located in swing gate control cabinet) in "ON" position
 - "Crank Arm Closed Limit Switch" LS-2B Closed - PLC Input - Crank Arm Closed
 - "Gate Extended Limit Switch" LS-4 Closed - PLC Input - Gate Extended
 - "Shear Pin Detector Proximity Switch" PRX-1 Closed PLC Input - Shear Pin Detector Intact
 - Motor circuit Protector CB-1 Aux. Contact Open and Motor Overload Relay MOL Aux. Contact Open. No fault input to PLC
- c. PLC applies power to swing gate terminal block #1, energize DC relay CR-1. CR-1 contact closes and energizes starting coil MS-1F.
- d. The motor starts and the gate arm begins moving from the extended to the retracted position.
- e. When the gate moves 10 degrees from fully extended, limit switches LS-4 and LS-2B signal inputs to PLC that the gate is no longer in the extended Position.
- f. Power is continuous to relay CR-1, until limit switches LS-3 and LS-1B signal the PLC that the gate is in the retracted position, or a pre-set time limit in the PLC has expired. Relay CR-1 is then de-energized, turning the motor off.

Manual Operating Requirements (Local Control):

- a. Open the housing access door.
- b. Set selector switch SS-1 in "LOCAL MANUAL CONTROL" position. (disconnects PLC outputs from the remote control building).
- c. Moving and holding the selector switch SS-2 in either the "MANUAL OPEN" or "MANUAL CLOSE" position, moves the gate arm in the extended or retract direction. Releasing the spring return switch stops all movement.
- d. To return to remote control, SS-1 must be switched to the "REMOTE CONTROL" position.
- e. Close the housing access door.

Manual Operating Requirements (Hand Cranking)

A hand crank shall be furnished with each swing gate to provide a means for manual operation of the gate arm in the event of a power or control failure, maintenance, or emergency operations. The hand crank shall connect to an extended output shaft from the transmission and shall require approximately 36 complete rotations to crank the gate arm 90 degrees. The crank arm shall not require more than 30 pounds of force per rotation. The following steps shall be required to position the hand crank for use:

- a. Open the housing access door.
- b. Open the port cover for crank arm.
- c. From outside the housing, insert the shaft of the crank through the port and onto the end of the transmission shaft. Automatically disconnects motor control circuit from operating remotely (LS-9 Opens). Mechanically releases brake.
- d. Crank the arm to the required position, until extended or retracted LED lights up, or until physical stop is reached.
- e. Remove the crank arm. Automatically re-energizes the control circuit (LS-9 Closes), and engages the brake.
- f. Replace the crank arm inside the housing, and close the access door.

CORROSION PROTECTION

Aluminum components shall not be treated with corrosion inhibitors.

The Swing Gate Vendor's names and data plates, machined ways, and other machined surfaces, bright metal work, lubrication points, oilers, and sumps shall be protected against entry of coatings, dirt, or cleaning agents during coating application.

BASIS OF PAYMENT

This work shall be paid at the contract unit price each for **SWING GATE CONTROLLER, FURNISH ONLY**, for either a clockwise (COO) or counter-clockwise (CCW) operating unit, which price shall be payment in full for furnishing and delivering the materials to State Stock as directed by the Engineer.

ASD1 SWING GATE DRIVETRAIN ASSEMBLY, FURNISH ONLY

DESCRIPTION

This item shall consist of furnishing and delivering to State Stock a complete swing gate actuator transmission, motor and crank arm, hereinafter referred to as a drivetrain assembly, as manufactured by B&B Electromatic, compatible with the existing swing gates.

MATERIALS

Transmission:

The gate actuator shall include but not be limited to a worm gear transmission with a double extended output shaft, reduction gears, and input shaft. The drive motor shall direct couple to the input shaft of the transmission. One of the output shafts of the transmission shall be connected to the swing gate crank arm assembly. The second output shaft shall be used for manual cranking of the gate arm.

The gate actuator transmission shall transfer the torque to the gate arm capstan via a linkage of the crank arm assembly which shall consist of two crank arms and an adjustable connecting rod having self-aligning ball ends. The crank arm assembly shall be factory pre-set for the specific gate location and gate arm angle. All linkage components shall be heavy-duty and shall permit field adjustment of the rotation of the gate arm from -5 to 95 degrees of rotation.

The gate actuator transmission shall be a totally enclosed unit designed and built for the required service. Gears shall conform with the requirements of AGMA and shall be oil bath lubricated with lightweight oil as applicable for the design temperatures. The transmission housing shall include, but not be limited to an oil fill plug and an oil drain plug. These items shall be located for easy access, from the ramp side access door during routine inspection and maintenance of the mechanism, without removing the housing or other components.

The connecting rod shall be fabricated from ASTM A311 Class B high strength steel.

The gate actuator shall incorporate sine wave motion to accelerate the gate arm smoothly from zero to maximum velocity at mid-stroke and then decelerate smoothly to zero velocity at full stroke. The drive shall be designed to rotate the gate arm through 90 degrees within 15 seconds and shall be capable of reversing of the direction of rotation from any point.

Actuator Drive Motors:

The drive motors shall be flange mounted to their transmission cases. The motors shall be double extended shaft type, suitable for harsh environment use, as specified herein. An electric, solenoid released, motor brake shall be mounted to the other end of the motor.

Motors shall be squirrel cage induction type, 460 volt, 3-phase, 60 Hertz, High Slip, High Torque (NEMA design D), Totally Enclosed Non Ventilated, and shall have Class F insulation. Horsepower rating shall be not less than twice that calculated by the Swing Gate Vendor to meet specified design parameters. Motors shall be capable of operating the driven equipment over the full range of operating load conditions without exceeding the nameplate rating. Motors shall be flange mounted, attached to the transmission with at least four bolts, and shall be of the instant reversing type to permit reversing the movement direction at any point of travel.

The ratings, characteristics, materials, and construction of electric motors shall be in accordance with the latest applicable standards of ANSI, IEEE, and NEMA. The manufacturer's certification of the preceding shall be provided as a part of the submittal data.

Submittal data shall include complete manufacturer's specifications and descriptive bulletins for all equipment, size, capacity, description and make of motor. Motor data shall include the following:

- a. Manufacturer
- b. Nameplate Rated Horsepower
- c. Rated Voltage
- d. Full Load RPM

- e. Full Load Current
- f. NEMA Design Letter
- g. NEC Code Letter or Inrush Current
- h. Insulation Class
- i. Service Factor
- j. Recommended Starting Restrictions, including Allowable Starts Per Hour
- k. Design Load Calculations

The motor shall be equipped with an electric solenoid actuated type brake which shall automatically release when the gate arm starts to move out of position under power and shall automatically set when the gate arm reaches the opened or closed position. The brake shall have the same operating voltage rating as the drive motor. A means shall be provided to mechanically release the brake, in the case of control power failure, to permit use of the hand crank for manual operation. The solenoid brake shall be sized to hold the gate arm in position under the forces produced by the wind loads as described elsewhere herein.

Motor bearings shall be designed to withstand all axial thrust from the driven equipment.

BASIS OF PAYMENT

This work shall be paid at the contract unit price each, for **GATE DRIVETRAIN ASSEMBLY, FURNISH ONLY**, which price shall be payment in full for furnishing and delivering the materials to State stock as directed by the Engineer.

ASG1-6 SWING GATE ARM, FURNISH ONLY

DESCRIPTION

This item is for furnishing and delivering to State Stock swing gate arms with gate tips of various lengths for the Kennedy Expressway REVLAC System as specified herein.

MATERIALS

The swing gate arm shall consist of an aluminum reflectorized area. The swing gate materials shall be compatible with swing gate controller Model Number HZ64B (Referenced drawing No. 0100DD0037 - latest version) as manufactured by B&B Electromatic, Norwood, Louisiana. The swing gate arms are constructed having the following standard lengths: 2 ft., 4 ft., 5 ft., 6 ft., 7 ft., 8 ft., 9 ft., 10 ft., 11 ft., 12 ft., 13 ft., 14 ft., 15 ft., 16 ft., 17 ft., 18 ft., 19 ft., 20 ft., 21 ft., 22 ft. and 23 ft.

SWING GATE ARMS

Gate arms shall consist of an assembly of standardized design, standard length, segmented truss structures, connectors, brackets, and a three foot long flexible gate tip. Gate arm truss assemblies, as shown on the Contract Drawings and as specified, shall include both the gate arm truss segments and the gate tips.

Each gate arm truss segment shall be 12 Inches high and configured as generally shown on the Contract Drawings. The truss segments shall form a welded structural fabrication of 6061-T6 extruded seamless aluminum tubing having a minimum allowable yield strength of 40,000 pounds per square inch (psi). The segments shall be constructed to prevent accumulation of water within the structural tubes. The minimum allowable size of the materials shall be as shown on the Contract Drawings.

The truss segments shall be interchangeable to permit assembling the gate arms to the specified lengths. The segments shall be provided with the reflective sheeting on both sides of the truss and the stripes properly oriented to allow either side to face the traffic.

Each assembled gate arm shall be designed to resist the loads described herein and meet the following additional requirements:

- a) The free end of the assembled gate arm shall not sag more than 0.75 inches, below horizontal, under its own weight.
- b) The longest gate arm assembly, excluding the flexible gate tip, shall not deflect more than 36 inches, horizontally, in the specified wind loads.
- c) The free end of the longest gate arm assembly shall not sag more than two inches, below horizontal, when covered with ice as described elsewhere herein.
- d) The maximum allowable design stress of the gate arm shall be calculated as 60 percent of the yield strength of the material (6061-T6 extruded seamless aluminum tubing has a yield strength of 40,000 psi; therefore, the design stress of the arm shall not exceed 24,000 psi).
- e) The gate arms shall be free of harmonics and standing wave vibrations. Should any such harmonics and vibrations develop, the Swing Gate Vendor shall make all necessary corrections at his own cost.

A gate arm truss shall be connected to its mounting bracket via an aluminum connector assembly. The connector shall be fabricated from the same material as the gate arm truss segment and shall be bolted to the mounting bracket with stainless steel bolts, nuts and washers as described below. The attachment bracket may be shimmed, if required, to adjust for deflection caused by the weight of the gate arm assembly. The Swing Gate Vendor shall supply a shim pack, as needed, for each arm assembly. Shimming of a gate arm is limited by the physical constraints of the gate arm recess formed in the barrier wall. Whether shimmed or not, all gate arms shall completely retract into the barrier wall recess. Rubber bumpers shall also be provided with each gate arm to prevent the gate arms from damage when they are retracted. A Teflon gasket shall also be provided for the gate arm to mounting bracket connection.

The use of exterior supports or attachments (such as guy wires) to remove sag from the gate or for any other reason is unacceptable.

Gate arms shall be connected, with an aluminum insert of the same material as the gate arm, as shown on the Contract Drawings. The insert shall be bolted to the truss segments with stainless steel bolts, nuts, and washers as described below.

The gate tip is furnished under this pay item. Flexible gate tips shall be connected to the end truss segment using the connector assembly as shown on the Contract Drawings. The assembly, truss segment, and gate tips shall be bolted together with 0.5 inch diameter stainless steel bolts, nuts, and washers. One washer shall be placed under the bolt head and a lock washer shall be placed under the nut. The nuts and bolts shall be hand tightened until snug and further tightened with a wrench a minimum of 1/2 turn of the nut.

REFLECTIVE MATERIAL FOR GATE ARMS

Both sides of each gate arm, including both the truss and the flexible end, shall be covered with retro-reflective sheeting. All sheeting requirements shall meet or exceed the standards as defined in AASHTO M 268-84, Retroreflective Sheeting for Traffic Control.

The sheeting shall be a minimum of Type III High Intensity with pre-coated, pressure sensitive, adhesive (Class 1), diagonal alternating red and silver white stripes as shown on the Contract Drawings, angling down at 45° from left to right. The sheeting shall be oriented to take advantage of the directional reflectivity of the material as defined by the supplier of the reflective sheeting.

The material for this application shall be "Scotchlite" Reflective Sheeting Diamond Grade Series 3970G as manufactured by 3M, or approved equal. The sheeting shall be pre-stripped of appropriate size and width to match the application surface. The retro-reflective sheeting shall be installed strictly according to the manufacturer's instructions. Provide special attention to surface preparation and mounting of sheeting for proper bonding and adhesion.

BASIS OF PAYMENT

This work shall be paid at the contract unit price each for complete **SWING GATE ARM** and tip, for the length specified:

SWING GATE ARM, (2 FT.) TO (4 FT.), FURNISH ONLY	(ASG1)
SWING GATE ARM, (5 FT.) TO (8 FT.), FURNISH ONLY	(ASG2)
SWING GATE ARM, (9 FT.) TO (12 FT.), FURNISH ONLY	(ASG3)
SWING GATE ARM, (13 FT.) TO (16 FT.), FURNISH ONLY	(ASG4)
SWING GATE ARM, (17 FT.) TO (20 FT.), FURNISH ONLY	(ASG5)
SWING GATE ARM, (21 FT.) TO (23 FT.), FURNISH ONLY	(ASG6)

which price shall be payment in full for furnishing and delivering the materials to State Stock as directed by the Engineer.

ASG7 SWING GATE ARM CAPSTAN AND BRACKET ASSEMBLY, FURNISH ONLY

DESCRIPTION

This item shall consist of furnishing and delivering to State stock a complete swing gate arm capstan and mounting bracket assembly Model No. HZ-64B as manufactured by B&B Electromatic, reference drawing numbers 0100DD0537 and 0064DD0072 latest revision.

MATERIALS

Gate Arm Capstan and Mounting Bracket:

The gate arm capstan shall be composed of two rotating shafts and one stationary support stanchion (tube) in a "shaft within a shaft" design.

The inner rotating shaft shall transfer the torque and rotary motion from the gate actuator crank arm to the outer rotating shaft which supports the gate arm. The upper end of the inner shaft shall extend through a flange bearing which is bolted to a support plate integral with the frame. Above the crank arm connection, the bearing shall be connected to the shaft with a Nyloc type set-screw. Spare set-screws shall be provided in the box provided for spare shear pins. Self Lubricating, all impregnated, radial bronze bushings shall be used to maintain concentric alignment of the inner shaft relative to a stationary support tube. The upper end of the shaft shall extend past the bearing to provide for the gate position sensors.

The torque and rotary motion shall be transmitted between the inner and outer shafts through a shear connection consisting of two adjacent circular plates of identical metallurgical composition located at the bottom of both shafts. The plates shall be linked by shear pins. The shear pin holes in the plates shall match each other in only one position. Alignment holes shall be provided in both plates to assist shear pin replacement. The adjacent faces of the shear plates shall be ground to a smooth finish and coated with Teflon pipe thread compound or similar material, as approved by the Engineer, to minimize friction and corrosion between the plates.

The inner rotating shaft shall be fabricated from ASTM-A193-B7 solid alloy steel, turned, ground, polished, and machined as required, with a nominal outside diameter of not less than two inches. The upper end shall be connected to the crank arm using a key and two double set-screws placed 90 degrees apart (one cone point and one set point over top the cone point). The assembly to support the return spring and shear pins shall incorporate keys, rings, or other method approved by the Engineer, at the lower end of the inner shaft.

The stationary support tube shall be rigidly attached to the swing gate frame and incorporate a "keeper collar" to support both the support tube and the outer rotating shaft. The keeper collar shall be bolted through the support tube and into the frame of the swing gate. Self lubricating, oil impregnated, radial bronze bushings shall be located on the exterior at both ends of the support tube to maintain concentric alignment of the outer shaft and the support tube. A self lubricating, oil impregnated, bronze thrust bushing shall be located inside the keeper collar where the outer rotating shaft is supported, to maintain a smooth surface upon which the outer shaft shall ride.

The stationary support tube shall be fabricated from ASTM-A519 steel alloy, machined as required, with a nominal outside diameter of not less than 4.5 inches and a wall thickness of not less than 0.5 inches; it shall be rigidly bolted to the frame of the swing gate using ASTM A-325 bolts, nuts and washers.

The outer rotating shaft shall be supported from the keeper collar of the support tube and shall extend to the shear plate of the inner rotating shaft. The gate arm mounting bracket shall attach to the exterior of the outer rotating shaft as described below.

The outer rotating shaft shall be fabricated from ASTM-A519 steel alloy seamless tubing, machined as required, with a nominal outside diameter of not less than six inches and a wall thickness of not less than 0.5 inches. A circular steel plate shall be fabricated from ASTM A656 GR80, welded to the lower end of the outer rotating shaft, and have the shear pin mounting holes drilled and reamed. The shear pin holes shall match the holes for the inner shaft in only one position. Another circular steel plate (ASTM A656 GR80) shall be welded to the upper end of the outer shaft to transfer all axial loads into the swing gate frame via the thrust bearing.

The gate arm mounting bracket shall be fabricated from ASTM A36 steel not less than 0.25 inches thick. The bracket shall be fabricated in two halves and shall be hot dip galvanized after complete fabrication. The halves shall be bolted together with a minimum of eight, 0.5 inch diameter, ASTM-A325 bolts, Type 1 or 2. The bracket shall be damped to the outer shaft of the capstan. The frictional force developed in the clamped connection shall be sufficient to hold the gate arm in position and resist all live and dead loads imposed on the gate. A teflon gasket shall be provided and installed at the end of the bracket, where the aluminum gate arm assembly attaches to the bracket, to isolate the dissimilar metals.

An adjustable disc shall be attached to the swing gate inner rotating shaft. Adjustable position sensing limit switches shall be used to stop the drive motor at the gate arm extended and retracted positions (ramp closed and ramp open).

A second adjustable disc shall be attached to the swing gate outer rotating shaft. Adjustable position sensing limit switches shall be furnished and installed to provide a control input for monitoring the gate position to -10 degrees of fully extended and +10 degrees of fully retracted, by the remote control system.

BASIS OF PAYMENT

This work shall be paid at the contract unit price each for **SWING GATE ARM CAPSTAN AND BRACKET ASSEMBLY, FURNISH ONLY**, for either a clockwise (COO) or counter-clockwise (CCW) operating unit, which price shall be payment in full for furnishing and delivering the materials to State stock as directed by the Engineer.

AV01 VIDEO COMMUNICATION HUT, FURNISH AND INSTALL

DESCRIPTION

This item shall consist of furnishing and installing a video communication hut, precast concrete, 11'-3" X 14' interior dimensions. The equipment in the hut shall include 200 A Main Service Disconnect Switch and distribution panel, two three ton air conditioning units with lead-lag controller and 5 kW electric heater, smoke alarm, four 4' fluorescent fixtures, three convenience outlets, heavy duty 18 gauge metal

door and frame with panic bar and door closer, emergency light and fire extinguisher. The hut shall be designed to withstand a floor live load of 250 PSF, a roof load of 65 PSF, and a wind load of 110 MPH.

Panelboards

Panelboards shall be in conformance with the NEC shall be UL listed and shall conform to Federal Specification W P 115b. Panelboards used for service entrance shall be UL listed for use as service entrance equipment. Panelboards shall be of dead front construction, providing access to the wiring compartment without exposing bus.

Boxes (tubs) shall be code gauge galvanized steel with ample wiring space and knock outs all in conformance with UL 50. Fronts shall be code gauge steel with a hinged door and a cylinder lock. The front shall have a grey finish over a rust inhibitor. The interior of the door shall have a circuit directory in a frame with a clear plastic cover. Boxes and fronts shall be suitable for surface or flush mounting as indicated and where no other indication in made, panels shall be surface mounted.

Unless otherwise indicated, phase bus bars may be copper or aluminum, sized as shown or as required by UL standards, whichever is larger. Neutral shall have a solid bar with a separate connector for each pole of panelboard branch circuit space. Phase bus shall be for bolt on branch circuit breakers. A ground bar shall be provided for all panels.

Unless otherwise specifically indicated, each panelboard shall be provided with a main breaker sized at the panel bus rating.

Unless otherwise indicated, branch circuits shall be arranged in parallel vertical rows with alternate phasing. Branch circuit protective devices shall be bolted on circuit breakers unless otherwise indicated and these devices shall be interchangeable and removable without disturbing adjacent devices.

Panelboards operating at 240 volts phase to phase or less shall be rated at 240 volts AC with circuit breakers rated at 240 volts AC and, unless otherwise indicated, these circuit breakers shall have UL listed interrupting rating of not less than 22,000 RMS symmetrical amperes at 240 volts.

Unless otherwise indicated, panelboards operating at 480 volts shall be rated at 600 volts and with circuit breakers rated at 480 volts and, unless otherwise indicated, these circuit breakers shall have a UL listed interrupting rating of not less than 25,000 RMS symmetrical amperes.

Circuit Breakers

Circuit breakers shall be molded case type, bolt on, with trip free handles and visual trip indicators.

This specification shall apply to all circuit breakers which are not integral to panelboards.

Circuit breakers shall be UL listed, molded case, thermal magnetic, manually operated circuit breakers of the trip ratings shown or indicated. Unless otherwise indicated, circuit breakers shall be 3 pole. Unless otherwise indicated, circuit breakers shall be rated for use on 480 volt circuits. Multi pole circuit breakers shall have a common trip and single operating handles. Handles shall be trip free. Circuit breakers in 250 ampere frames and above shall have an adjustable magnetic trip setting. The circuit breakers shall indicate "ON", "OFF", and "TRIPPED" conditions. Unless otherwise indicated, circuit breakers shall have a UL listed interrupting rating of not less than 25,000 RMS symmetrical amperes at 480 volts. Where indicated or where required for indicated functions, circuit breakers shall be equipped with accessories such as shunt trips, auxiliary switches, and under voltage release.

Transformers

Unless otherwise indicated, transformers shall be general purpose dry type, 2 winding, of the capacities and voltage indicated.

Transformers 15KVA and below shall be indoor/outdoor type and those above 15KVA shall be indoor type unless otherwise indicated.

Unless otherwise indicated, transformers 3KVA and above shall have not less than four 2 1/2% taps in the high voltage winding, two above and two below rated primary volts.

Transformers shall be UL listed and shall meet all applicable NEMA, ANSI, UL, and IEEE standards.

Unless otherwise indicated, transformers shall have 220 degrees C Class insulation but shall be designed for a maximum temperature rise of 115 degrees C, over an ambient temperature of 40 degrees C.

Receptacles

Duplex convenience receptacles shall be premium specification grade with wide heavy wrap around support bridge, large deep slot terminal screws which permit back or side wiring, heavy walled area body and ground terminal lug. They shall conform to Federal Specification W C 596 Style X2 and NEMA Standard WD 1 1965. Unless otherwise indicated they shall be brown, 2 pole, 3 wire, NEMA configuration 5 20R, 20 ampere, 125 volt.

Receptacles installed outdoors or otherwise exposed to the weather shall be installed with weatherproof flap type covers and shall be of the Ground Fault Circuit Interrupter (GFCI) type, unless otherwise indicated.

Unless otherwise indicated, receptacles shall be installed with their centers 48 inches above the finished floor.

Clock receptacle shall be 3-wire, 15-ampere, 125-volt with hanger and flush stainless steel plate for each clock.

Toggle Switches

Toggle switches shall be premium specification grade with large deep slot terminal screws, silver cadmium oxide contacts and a rugged molded plastic body. The switches shall conform to Federal Specification W S 896, Specification Sheet W S 896/3. Unless otherwise indicated, the switches shall be single pole single throw (SPST), 20 ampere, with brown handles, rated for 120 277 volts AC only.

Switches installed outdoors or otherwise exposed to the weather shall have NEMA 4 covers. Switches in hazardous locations shall meet the NEC Class I, Division 1, Group D requirements.

Unless otherwise indicated, toggle switches shall be installed with their centers 48 inches above the finished floor.

Fluorescent Lighting Fixtures

Lighting fixtures shall be as indicated on the Drawings and they shall be provided complete with lamps and all necessary fixture wire for connection.

Fluorescent fixtures shall have spring loaded, high quality sockets which will hold lamps in place securely, even under conditions of vibration.

Lenses, shall be virgin acrylic.

Fixtures shall be complete with the frames, flanges, fittings, etc., required for the indicated installation. The fixtures shall be carefully examined for coordination with architectural and structural work.

Fluorescent ballasts shall be Standard Type ballasts as specified herein. Standard Type ballasts shall be UL listed, high power factor Certified Ballast Manufacturers (CBM) certified Class P ballasts with integral thermal protection.

Energy saving (high efficiency) fluorescent ballasts shall be used. These ballasts shall be of the standard core and coil type (non electronic) and shall be UL listed, high power factor, Certified Ballast

Manufacturers (CBM) Certified Class P Ballasts with integral thermal protection. Ballasts shall be of the manufacturer's series for which the two lamp F40 size, when tested in accordance with ANSI C82.2, will have listed input watts of not more than 72 watts.

Fluorescent fixtures shall be for operation on a 120 volt supply.

The hut shall comply with latest applicable codes. The hut shall be Oldcastle Precast Communications Model 1215, or approved equal.

INSTALLATION

The installation shall include all work to install a foundation, as per manufacturer's recommendation, and hut for a complete system at a location designated by the Engineer. All hardware, wiring and mounting brackets shall be included in this item and not paid separately.

BASIS OF PAYMENT

This work will be paid for at the contract unit price each for, **VIDEO COMMUNICATION HUT, FURNISH AND INSTALL**, of the type indicated, which price shall be payment in full for furnishing and installing the unit as specified herein and as directed by the Engineer.

AV02-05 VIDEO CODECS, FURNISH ONLY

DESCRIPTION

Video encoders and video decoders (codecs) shall be dedicated hardware devices, and except for differences between encoders and decoders they shall all of the same type from the same common manufacturer. The codecs may be either single or dual channel video type to transfer "full motion" 30 frame-per-second high quality color video via MPEG-2 video compression at 1 to 15 Megabits per second. The units shall operate to produce a robust data communications stream that shall allow for both video and audio transmission and shall be immune to timing disruptions in the IP multi-cast configuration.

The Codecs shall be the standard product of an established North American manufacturer. The manufacturer shall have been in business for a minimum of 7 years. The manufacturer shall provide a minimum of a twelve (12) month warranty from the date of installation. The manufacturer shall provide technical support via email, fax and telephone. The above forms of support shall be provided Monday through Friday, 8:00am to 5:00pm EST. The Manufacturer shall also have a repair facility within North America.

The encoders shall be NKF Electronics #C-15 E/IP or C-15/SA for 1 channel encoders and iMpath #VSG1000 for 2 channel encoders or approved equal to be compatible with the existing equipment.

The units shall be rack-mountable, complete with redundant power supplies as required for the rack configurations indicated on the plans, operating from a 120-volt single phase AC power input.

Encoder units shall accept NTSC video BNC inputs and Ethernet RJ-45 control/communications input connections.

The encoders shall interface the serial communications port of the CCTV camera assembly through the fiber optic video link. Using the Ethernet port on the encoder and its IP address, commands shall be exchanged between the camera control computer at the Video Control Points and the serial port of the CCTV camera. Each video channel shall have at least one dedicated data channel.

The codecs shall conform to the following:

Video	
Analog Video	NTSC (30 fps)

Analog Video Connections	BNC, connector, 75 ohms; S-Video
Encoding Format	ISO/IEC 13818 MPEG-2
Decoding Format	NTSC
Encoding Rate	1 Mbps to 15 Mbps
Decoding Rate	1 Mbps to 15 Mbps
G.O.P. Structure	User Selectable: I; I&P; I,B&P
Intra-picture Distance	1 to 19 frames
Reference Distance	0 to 2 frames
Resolution	D1, 720 x 480
Codec Control	Web server, IP and HTML interface
MPEG-2 Stream Type	Transport

Low Speed Data Transmission

Interface	RS232, RS422, RS485
Connections	DB-9, RJ-45
Data Rate	1.2Kbps to 115.2 Kbps
Format	Serial , asynchronous, RS-422
Interface	IEEE 802.3 Ethernet
Network Connections	RJ-45
Data Rate	100 Mbps
Broadcast	Unicast / Multicast
Management	SNMP, Web server, C. L. I.

Physical Requirements

Operating Temperature	0° to +70° C
Relative Humidity	95% non-Condensing

Regulatory Requirements

UL 1950
FCC 47 CFR Part 15, Subpart B: 1999 Class A

The Encoders/Decoders must support firmware updates from a central site. Updates must be downloadable to a single unit or by bulk via a single command from a firmware utility application via the Ethernet network. The firmware utility application must provide confirmation of the successful and unsuccessful updates. Upon completing of the update, the units must resume to original configuration without the need to reload the unit configuration.

Special Submittal Requirements and Operational Demonstration

As a part of the product catalog cut submittal, the Engineer may request that the Contractor provide a demonstration of the codecs at the time of the initial product submittal. The manufacturer shall demonstrate the following interoperability with at least one other codec manufacturer. Compatibility shall also include successful transmission of PTZ commands. The demonstration shall be comprised of the following parts:

- **Codec CCTV camera PTZ compatibility.** The demonstration shall include a pair of the proposed codecs, a proposed CCTV camera, and a CCTV camera of another manufacturer other than the proposed CCTV which is of a manufacturer already installed in the District 1 Video Distribution System.
- **Video interoperability.** The demonstration shall demonstrate the following interoperability: The proposed encoder shall be capable of encoding a video stream that is decodable by at least one other Manufacturer compiling with this specification, or of a manufacturer which equipment is presently in use by IDOT District 1 at the time of bidding. The interoperability demonstration shall be conducted in multicast mode.
- **Software video decoding.** A software based video decoder with PTZ control shall be provided

for viewing and controlling a video stream remotely over the IP network.

All costs for this demonstration shall be included in the cost of this pay item. It is the Contractor's responsibly to provide all hardware and software to perform the demonstrations as specified.

All hardware, wiring and mounting brackets shall be included in this item and not paid separately.

METHOD OF MEASUREMENT

Video encoders or video decoders shall be counted, each.

BASIS OF PAYMENT

This work will be paid for at the contract unit price each of **VIDEO CODEC, FURNISH ONLY**, of the type indicated, which price shall be payment in full for furnishing the unit as specified herein and as directed by the Engineer.

AV02 VIDEO COMMUNICATION ENCODER, 1 CHANNEL, FURNISH ONLY

AV03 VIDEO COMMUNICATION ENCODER, 2 CHANNEL, FURNISH ONLY

AV04 VIDEO COMMUNICATION DECODER, 1 CHANNEL, FURNISH ONLY

AV05 VIDEO COMMUNICATION DECODER, 2 CHANNEL, FURNISH ONLY

AV06-09 VIDEO COMMUNICATIONS MPEG4 CODECS, FURNISH ONLY

DESCRIPTION

Video encoders and video decoders (codecs) shall be dedicated hardware devices, and except for differences between encoders and decoders they shall all of the same type from the same common manufacturer. The codec shall be either single or 4 channel MPEG4 video codec transfer "full motion" 30 frame-per-second high quality color. The units shall operate to produce a robust data communications stream that shall allow for both video and audio transmission and shall be immune to timing disruptions in the IP multicast configuration. The Codec shall also support PTZ camera control.

The Codec shall be the standard product of an established North American manufacturer. The manufacturer shall have been in business for a minimum of 7 years. The manufacturer shall provide a minimum of a twelve (12) month warranty from the date of installation. The manufacturer shall provide technical support via email, fax and telephone. The above forms of support shall be provided Monday through Friday, 8:00am to 5:00pm EST. The Manufacturer shall also have a repair facility within North America.

4 CHANNEL MPEG4 CODEC

The 4 channel codec shall be rack mountable. Management of the codec shall be through a built-in web-interface, and a SNMPv2 agent.

Encoder

The encoder shall be an Optelecom-NKF Electronics S-44E or approved equal.

The encoder shall have four digital signal processors (DSP), one per analog video input. Each DSP shall be capable of running two MPEG-4 encoders as well as an M-JPEG encoder for high quality MPEG-4 for live viewing, reduced frame rate MPEG-4 for time-lapse recording, and JPEG Image capture and transfer.

Decoder

The decoder shall be a Optelecom-NKF Electronics S-44D or approved equal.

The decoder shall decode four incoming MPEG-4 streams and convert them to analog video signals to drive analog CCTV monitors. Each of the four channels shall have an independent decoder and each decoder shall have a dedicated DSP for optimal performance and crystal clear images. The decoder shall decode the video stream from the one channel MPEG4 encoder, specified elsewhere herein, as well as the 4 channel device.

The CODEC shall conform to the following technical requirements:

VIDEO	
Video Channels	4
Input / Output Level	1 Vp-p (+/- 3dB)
Input / Output impedance	75Ω
Compression Algorithm	MPEG-4 SP Layer 5 (ISO/IEC 14496-2), M-JPEG
Number of encoders	2 MPEG-4 and M-JPEG
Number of output streams	10 multicast or unicast
Encoding-Decoding Latency	<200ms
Supported video resolutions	NTSC
D1	720 x 480
HD1	352 x 480
2CIF	720 x 240
CIF	352 x 240
QCIF	176 x 120
Frame Rate	1 to 30 fps
Video Motion Detection	Integrated
Video connector type	Four BNC, 75Ω

DATA	
Number of Channels	1, full duplex
Number of Streams	3, multicast or unicast
Interface	RS422/485, 2 or 4 wire
Format	Asynchronous, serial
Data Rate	300 b/s to 19.2 kb/s
Lantency	<5ms
Connector type	5-pin

TRANSMISSION INTERFACE	
Number of Interfaces	1
Interface	10/100Base-TX Fast Ethernet (IEEE 802.3) Selectable: Auto Negotiation, Half/Full Duplex, 10/100 Mbps
Protocols	MPEG-4 ES, JPEG, RTP, RTCP, TCP, UDP, IP, DHCP, IGMPv2, RTSP, (S)NTP, MX/IP, HTTP, SNMPv2, FTP
Connector	RJ45

ENVIRONMENTAL	
Operating Temperature	-10° to +60°C +14° to 140°F
Relative Humidity	<95% (no condensation)
MTBF	>200,000 hours
Safety and EMC	IEC/EN 60950-1, IEC/EN 60825, IEC/EN 61000, EN 50130-4, EN 50081-1, EN 55022, FCC PART 15

1 CHANNEL MPEG4 CODEC

DESCRIPTION

Video encoder (codec) shall be a dedicated hardware device. The codec shall be a single channel MPEG4 video codec transferring “full motion” 30 frame-per-second high quality color. The unit shall operate to produce a robust data communications stream that shall allow for both video and audio transmission and shall be immune to timing disruptions in the IP multicast configuration. The Codec shall also support PTZ camera control.

The Codec shall be the standard product of an established North American manufacturer. The manufacturer shall have been in business for a minimum of 7 years. The manufacturer shall provide a minimum of a twelve (12) month warranty from the date of installation. The manufacturer shall provide technical support via email, fax and telephone. The above forms of support shall be provided Monday through Friday, 8:00am to 5:00pm EST. The Manufacturer shall also have a repair facility within North America

The encoder shall be an Optelecom-NKF Electronics C-40 or approved equal.

Configuration and management shall be through a built in web-interface, serial USB console port.

Encoder

The codec shall have a dual-core encoder that can simultaneously stream two different video formats; both formats (resolution and frame/s) shall be configurable independently. The codec shall support IGMPv2 multicast. The codec shall incorporate with two-way serial data transmission for PTZ control, and two-way contacts (e.g., for alarm contacts), and motion detection (VMD).

Decoder

The encoded MPEG4 stream shall be decoded by the 4-channel MPEG4 decoder as described in the specification for the 4 channel MPEG4 Codec.

The CODEC shall conform to the following technical requirements:

VIDEO	
Video Channels	1
Input / Output Level	1 Vp-p (+/- 3dB)
Input / Output impedance	75Ω
Compression Algorithm	MPEG-4
Number of encoders	2 MPEG-4
Number of output streams	5 multicast or unicast
Encoding-Decoding Latency	<200ms
Supported video resolutions	NTSC
D1	720 x 480
HD1	352 x 480
2CIF	720 x 240
CIF	352 x 240
QCIF	176 x 120
Frame Rate	1 to 30 fps
Video Motion Detection	Integrated
Video connector type	BNC, 75Ω

DATA	
Number of Channels	1, full duplex
Number of Streams	3, multicast or unicast
Interface	RS422/485, 2 or 4 wire
Format	Asynchronous, serial
Data Rate	300 b/s to 19.2 kb/s
Lantency	<5ms
Connector type	RJ45

TRANSMISSION INTERFACE	
Number of Interfaces	1
Interface	10/100Base-TX Fast Ethernet (IEEE 802.3) Selectable: Auto Negotiation, Half/Full

	Duplex, 10/100 Mbps
Protocols	MPEG-4 ES, JPEG, RTP, RTCP, TCP, UDP, IP, DHCP, IGMPv2, RTSP, (S)NTP, MX/IP, HTTP, SNMPv2, FTP
Connector	RJ45

ENVIRONMENTAL	
Operating Temperature	0° to +50°C +32° to 122°F
Relative Humidity	<95% (no condensation)
MTBF	>200,000 hours
Safety and EMC	IEC/EN 60950-1, IEC/EN 60825, IEC/EN 61000, EN 50130-4, EN 50081-1, EN 55022, FCC PART 15

All hardware, wiring and mounting brackets shall be included in this item and not paid separately.

BASIS OF PAYMENT

This work will be paid for at the contract unit price each of **VIDEO COMMUNICATIONS MPEG4 CODECS, FURNISH ONLY**, of the type indicated, which price shall be payment in full for furnishing the unit as specified herein and as directed by the Engineer.

- AV06 VIDEO COMMUNICATION MPEG4 ENCODER, 4 CHANNEL, FURNISH ONLY**
- AV07 VIDEO COMMUNICATION MPEG4 DECODER, 4 CHANNEL, FURNISH ONLY**
- AV08 VIDEO COMMUNICATION MPEG4 ENCODER 1 CHANNEL, FURNISH ONLY**
- AV09 VIDEO COMMUNICATION MPEG4 DECODER, 1 CHANNEL, FURNISH ONLY**

AV10 VIDEO COMMUNICATIONS MPEG4, CHASSIS RACK, FURNISH ONLY

DESCRIPTION

The MPEG4 chassis rack shall be produced by the same manufacturer as the MPEG4 Codec device described elsewhere herein. The rack shall provide serial communication and I/O connectors at the rear of each slot, and a single network connection together with an integrated power supply. The MPEG4 capture cards shall be hot swappable.

The MPEG4 rack chassis shall conform to the following technical requirements:

Expansion slots	8
Connectors	Ethernet 10BaseT/100BaseTX/1000BaseT (Gigabit Ethernet), RJ-45 Terminal block (x 3): 4 alarm inputs 4 outputs RS-485/422 half-duplex port
Power	100 - 240 V AC, 1.9 A max 80 W (with 3x243Q)
Operating conditions	0 - 45 °C (32 - 113 °F) Humidity 20 - 80% RH (non-condensing)
Approvals	EN 61000-6-1, EN 61000-6-2, EN 55024, EN 55022

	Class B, EN 61000-3-2, EN 61000-3-3 FCC Part 15 Subpart B Class B, AS/NZS CISPR 22, ICES-003, VCCI Class B, ITE, EN 60950-1, CB-certificate, UL, cUL, KTL
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All hardware, wiring and mounting brackets shall be included in this item and not paid separately.

BASIS OF PAYMENT

This work will be paid for at the contract unit price each of **VIDEO COMMUNICATIONS MPEG4, CHASSIS RACK, FURNISH ONLY**, of the type indicated, which price shall be payment in full for furnishing the unit as specified herein and as directed by the Engineer.

AXB1 BUDGETARY ALLOWANCE FOR REVLAC REMOTE CONTROL MODIFICATIONS

DESCRIPTION

This item is to establish a budget account to allocate funds for the payment of modifications to the existing remote control radio system as manufacturer by Cattron and for partial activation control of the gates, auxiliary signs and Chevrons. The modification will involve PLC programming to turn on and turn off the radios only when needed and will involve replacing the existing gate control switches with a master control selector switch for each ramp. A budgetary allowance has been established since these modifications are not accurately or completely identifiable at the time of bidding and will require specialty service.

The total estimated amount of the annual expenses for services performed which will be paid under Article 6.0, is \$30,000 as indicated for Pay Item AXB1. For bidding purposes this amount shall be used.

AXB2 BUDGETARY ALLOWANCE FOR PLC CONTROL SYSTEM REPAIR

DESCRIPTION

This item is to establish a budget account to allocate funds for the payment of repair to the existing Allen-Bradley PLC control system. A budgetary allowance has been established since it is unknown if repair will be needed and/or a specialty contractor service.

This allowance will not be used to repair damage caused by the Contractor's operations. Damage caused by the Contractor's operations shall be repaired at not additional cost to the Contract.

The total estimated amount of the annual expenses for services performed which will be paid under Article 6.0, is \$40,000 as indicated for Pay Item AXB2. For bidding purposes this amount shall be used.

AXB3 BUDGETARY ALLOWANCE FOR STATE STOCK PARTS

DESCRIPTION

This item is to establish a budget account to allocate funds for the purchase of fabricated or specialty designed parts to be used for the repair of motorist caused damage. A budgetary allowance has been established since it is unknown what the total cost would be for each situation.

This allowance will not be used to repair damage caused by the Contractor's operations. Damage caused by the Contractor's operations shall be repaired at no additional cost to the Contract.

The total estimated amount of the annual expenses for services performed which will be paid under Article 6.0 is \$30,000 as indicated for Pay Item AXB3. For bidding purposes this amount shall be used.

AXB4 BUDGETARY ALLOWANCE FOR REMOTE NETWORK MONITORING SYSTEM

DESCRIPTION

This item is to establish a budget account to allocate funds for the remote network monitoring system. A budgetary allowance has been established since the specifics are unknown at this time and specialty services would be necessary.

In general, this item shall consist of furnishing hardware and software as specified to allow remote monitoring of the REVLAC/RACS systems alarms and/or device history.

Engineering dial up notebook computers/printers shall be incorporated to the monitoring system to allow the Engineer to call into the system and view/download the alarm/device history. The remote monitoring dial up unit shall be approved by the Engineer.

All software and programming required for remote access shall be included as a part of this item (provided on CD ROM or floppy) and coordinated with the network monitor specified elsewhere herein.

To minimize wear and tear on the proposed remote network monitoring system any equipment furnished to the State shall not be used as a development platform by the Contractor, Subcontractor or software developer. The Contractor and/or software developer shall use a different unit to develop software and operational configurations. However, the equipment delivered to the State shall have all software loaded and be ready for use as specified.

The total estimated amount of the annual expenses for this system which will be paid under Article 6.0 is \$25,000 as indicated for Pay Item AXB4. For bidding purposes, this amount shall be used.

AXB5 BUDGETARY ALLOWANCE FOR CCTV SYSTEM REPAIR

DESCRIPTION

This item is to establish a budget account to allocate funds for the payment of repair to the existing CCTV system. A budgetary allowance has been established since it is unknown if repair will be needed and/or a specialty contractor service.

This allowance will not be used to repair damage caused by the Contractor's operations. Damage caused by the Contractor's operations shall be repaired at not additional cost to the Contract.

The total estimated amount of the annual expenses for services performed which will be paid under Article 6.0, is \$50,000 as indicated for Pay Item AXB5. For bidding purposes this amount shall be used.

AXB6 BUDGETARY ALLOWANCE FOR COMMUNICATION SYSTEM REPAIR

DESCRIPTION

This item is to establish a budget account to allocate funds for the payment of repairs to the existing communication system. A budgetary allowance has been established since it is unknown if repair will be needed and/or a specialty contractor service.

This allowance will not be used to repair damage caused by the Contractor's operations. Damage caused by the Contractor's operations shall be repaired at not additional cost to the Contract.

The total estimated amount of the annual expenses for services performed which will be paid under Article 6.0, is \$30,000 as indicated for Pay Item AXB6. For bidding purposes, this amount shall be used.

AXB7 BUDGETARY ALLOWANCE FOR UPS AND OTHER BUILDING EQUIPMENT REPAIRS

DESCRIPTION

This item is to establish a budget account to allocate funds for the payment of the specialty services for repairing or replacing UPS, and other equipment at REVLAC and RACS buildings and communication huts.

This allowance will not be used to repair damage caused by the Contractor's operations. Damage caused by the Contractor's operations shall be repaired at no additional cost to the Contract.

The total estimated amount of the annual expenses for services performed which will be paid under Article 6.0, is \$30,000 as indicated for Pay Item AXB7. For bidding purposes this amount shall be used.

AXB8 BUDGETARY ALLOWANCE FOR GATE DRIVETRAIN ASSEMBLY REPAIRS

DESCRIPTION

This item is to establish a budget account to allocate funds for the repair of a gate drivetrain assembly from an approved vendor. A budgetary allowance has been established since it is unknown what the total cost would be for each situation and/or a specialty contractor service.

This allowance will not be used to repair damage caused by the Contractor's operations. Damage caused by the Contractor's operations shall be repaired at no additional cost to the Contract.

The total estimated amount of the annual expenses for services performed which will be paid under Article 6.0, is \$40,000 as indicated for Pay Item AXB8. For bidding purposes this amount shall be used.

AXB9 BUDGETARY ALLOWANCE FOR MICROWAVE REPAIRS

DESCRIPTION

This item is to establish a budget account to allocate funds for the repairs of all microwave equipment with the ASMC Contract. A budgetary allowance has been established since it is unknown what the total cost would be for each repair situation and/or a specialty contractor service

This allowance will not be used to repair damage caused by the Contractor's operations. Damage caused by the Contractor's operations shall be repaired at no additional cost to the Contract.

The total estimated amount of the annual expenses for services performed which will be paid under Articles 6.0, is \$30,000 as indicated for Pay Item AXB9. For bidding purposes this amount shall be used.

AXB10 BUDGETARY ALLOWANCE FOR RAMP GATE AND ATTENUATOR WORK

DESCRIPTION

This item is to establish a budget account to allocate funds for materials and/or repairs for damage to ramp gates and attenuators since there is little motorist caused damage history.

The total estimated amount of the annual expenses for services performed which will be paid under Article 6.0, is \$35,000 as indicated for Pay Item AXB10. For bidding purposes this amount shall be used.

**APPROVAL OF PROPOSED BORROW AREAS, USE AREAS, AND/OR WASTE AREAS
INSIDE ILLINOIS STATE BORDERS (BDE)**

Effective: November 1, 2008

Revise the title of Article 107.22 of the Standard Specifications to read:

**“107.22 Approval of Proposed Borrow Areas, Use Areas, and/or Waste Areas Inside
Illinois State Borders.”**

Add the following sentence to the end of the first paragraph of Article 107.22 of the Standard Specifications:

“Proposed borrow areas, use areas, and/or waste areas outside of Illinois shall comply with Article 107.01.”

CONSTRUCTION AIR QUALITY - DIESEL VEHICLE EMISSIONS CONTROL (BDE)

Effective: April 1, 2009

Revised: July 1, 2009

Diesel Vehicle Emissions Control. The reduction of construction air emissions shall be accomplished by using cleaner burning diesel fuel. The term “equipment” refers to any and all diesel fuel powered devices rated at 50 hp and above, to be used on the project site in excess of seven calendar days over the course of the construction period on the project site (including any “rental” equipment).

All equipment on the jobsite, with engine ratings of 50 hp and above, shall be required to: use Ultra Low Sulfur Diesel fuel (ULSD) exclusively (15 ppm sulfur content or less).

Diesel powered equipment in non-compliance will not be allowed to be used on the project site, and is also subject to a notice of non-compliance as outlined below.

The Contractor shall submit copies of monthly summary reports and include certified copies of the ULSD diesel fuel delivery slips for diesel fuel delivered to the jobsite for the reporting time period, noting the quantity of diesel fuel used.

If any diesel powered equipment is found to be in non-compliance with any portion of this specification, the Engineer will issue the Contractor a notice of non-compliance and identify an appropriate period of time, as outlined below under environmental deficiency deduction, in which to bring the equipment into compliance or remove it from the project site.

Any costs associated with bringing any diesel powered equipment into compliance with these diesel vehicle emissions controls shall be considered as included in the contract unit prices bid for the various items of work involved and no additional compensation will be allowed. The Contractor's compliance with this notice and any associated regulations shall also not be grounds for a claim.

Environmental Deficiency Deduction. When the Engineer is notified, or determines that an environmental control deficiency exists, he/she will notify the Contractor in writing, and direct the Contractor to correct the deficiency within a specified time period.

The specified time-period, which begins upon Contractor notification, will be from 1/2 hour to 24 hours long, based on the urgency of the situation and the nature of the deficiency. The Engineer shall be the sole judge regarding the time period.

The deficiency will be based on lack of repair, maintenance and diesel vehicle emissions control.

If the Contractor fails to correct the deficiency within the specified time frame, a daily monetary deduction will be imposed for each calendar day or fraction thereof the deficiency continues to exist. The calendar day(s) will begin when the time period for correction is exceeded and end with the Engineer's written acceptance of the correction. The daily monetary deduction will be \$1,000.00 for each deficiency identified.

If a Contractor or subcontractor accumulates three environmental deficiency deductions in a contract period, the Contractor will be shutdown until the deficiency is corrected. Such a shutdown will not be grounds for any extension of contract time, waiver of penalties, or be grounds for any claim.

CONSTRUCTION AIR QUALITY - IDLING RESTRICTIONS (BDE)

Effective: April 1, 2009

Idling Restrictions. The Contractor shall establish truck-staging areas for all diesel powered vehicles that are waiting to load or unload material at the jobsite. Staging areas shall be located where the diesel emissions from the equipment will have a minimum impact on adjacent sensitive receptors. The Department will review the selection of staging areas, whether within or outside the existing highway right-of-way, to avoid locations near sensitive areas or populations to the extent possible. Sensitive receptors include, but are not limited to, hospitals, schools, residences, motels, hotels, daycare facilities, elderly housing and convalescent facilities. Diesel powered engines shall also be located as far away as possible from fresh air intakes, air conditioners, and windows. The Engineer will approve staging areas before implementation.

Diesel powered vehicle operators may not cause or allow the motor vehicle, when it is not in motion, to idle for more than a total of 10 minutes within any 60 minute period, except under any of the following circumstances:

- 1) The motor vehicle has a gross vehicle weight rating of less than 8000 lb (3630 kg).
- 2) The motor vehicle idles while forced to remain motionless because of on-highway traffic, an official traffic control device or signal, or at the direction of a law enforcement official.
- 3) The motor vehicle idles when operating defrosters, heaters, air conditioners, or other equipment solely to prevent a safety or health emergency.
- 4) A police, fire, ambulance, public safety, other emergency or law enforcement motor vehicle, or any motor vehicle used in an emergency capacity, idles while in an emergency or training mode and not for the convenience of the vehicle operator.
- 5) The primary propulsion engine idles for maintenance, servicing, repairing, or diagnostic purposes if idling is necessary for such activity.
- 6) A motor vehicle idles as part of a government inspection to verify that all equipment is in good working order, provided idling is required as part of the inspection.

- 7) When idling of the motor vehicle is required to operate auxiliary equipment to accomplish the intended use of the vehicle (such as loading, unloading, mixing, or processing cargo; controlling cargo temperature; construction operations, lumbering operations; oil or gas well servicing; or farming operations), provided that this exemption does not apply when the vehicle is idling solely for cabin comfort or to operate non-essential equipment such as air conditioning, heating, microwave ovens, or televisions.
- 8) When the motor vehicle idles due to mechanical difficulties over which the operator has no control.
- 9) The outdoor temperature is less than 32 °F (0 °C) or greater than 80 °F (26 °C).

When the outdoor temperature is greater than or equal to 32 °F (0 °C) or less than or equal to 80 °F (26 °C), a person who operates a motor vehicle operating on diesel fuel shall not cause or allow the motor vehicle to idle for a period greater than 30 minutes in any 60 minute period while waiting to weigh, load, or unload cargo or freight, unless the vehicle is in a line of vehicles that regularly and periodically moves forward.

The above requirements do not prohibit the operation of an auxiliary power unit or generator set as an alternative to idling the main engine of a motor vehicle operating on diesel fuel.

Environmental Deficiency Deduction. When the Engineer is notified, or determines that an environmental control deficiency exists based on non-compliance with the idling restrictions, he/she will notify the Contractor, and direct the Contractor to correct the deficiency.

If the Contractor fails to correct the deficiency a monetary deduction will be imposed. The monetary deduction will be \$1,000.00 for each deficiency identified.

DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION (BDE)

Effective: September 1, 2000

Revised: January 1, 2010

FEDERAL OBLIGATION. The Department of Transportation, as a recipient of federal financial assistance, is required to take all necessary and reasonable steps to ensure nondiscrimination in the award and administration of contracts. Consequently, the federal regulatory provisions of 49 CFR part 26 apply to this contract concerning the utilization of disadvantaged business enterprises. For the purposes of this Special Provision, a disadvantaged business enterprise (DBE) means a business certified by the Department in accordance with the requirements of 49 CFR part 26 and listed in the Illinois Unified Certification Program (IL UCP) DBE Directory.

STATE OBLIGATION. This Special Provision will also be used by the Department to satisfy the requirements of the Business Enterprise for Minorities, Females, and Persons with Disabilities Act, 30 ILCS 575. When this Special Provision is used to satisfy state law requirements on 100 percent state-funded contracts, the federal government has no involvement in such contracts (not a federal-aid contract) and no responsibility to oversee the implementation of this Special Provision by the Department on those contracts. DBE participation on 100 percent state-funded contracts will not be credited toward fulfilling the Department's annual overall DBE goal required by the US Department of Transportation to comply with the federal DBE program requirements.

CONTRACTOR ASSURANCE. The Contractor makes the following assurance and agrees to include the assurance in each subcontract that the Contractor signs with a subcontractor:

The Contractor, subrecipient, or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The Contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of contracts funded in whole or in part with federal or state funds. Failure by the Contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate.

OVERALL GOAL SET FOR THE DEPARTMENT. As a requirement of compliance with 49 CFR part 26, the Department has set an overall goal for DBE participation in its federally assisted contracts. That goal applies to all federal-aid funds the Department will expend in its federally assisted contracts for the subject reporting fiscal year. The Department is required to make a good faith effort to achieve the overall goal. The dollar amount paid to all approved DBE companies performing work called for in this contract is eligible to be credited toward fulfillment of the Department's overall goal.

CONTRACT GOAL TO BE ACHIEVED BY THE CONTRACTOR. This contract includes a specific DBE utilization goal established by the Department. The goal has been included because the Department has determined that the work of this contract has subcontracting opportunities that may be suitable for performance by DBE companies. This determination is based on an assessment of the type of work, the location of the work, and the availability of DBE companies to do a part of the work. The assessment indicates that, in the absence of unlawful discrimination, and in an arena of fair and open competition, DBE companies can be expected to perform 0.0% of the work. This percentage is set as the DBE participation goal for this contract. Consequently, in addition to the other award criteria established for this contract, the Department will only award this contract to a bidder who makes a good faith effort to meet this goal of DBE participation in the performance of the work. A bidder makes a good faith effort for award consideration if either of the following is done in accordance with the procedures set forth in this Special Provision:

- (a) The bidder documents that enough DBE participation has been obtained to meet the goal; or
- (b) The bidder documents that a good faith effort has been made to meet the goal, even though the effort did not succeed in obtaining enough DBE participation to meet the goal.

DBE LOCATOR REFERENCES. Bidders may consult the IL UCP DBE Directory as a reference source for DBE-certified companies. In addition, the Department maintains a letting and item specific DBE locator information system whereby DBE companies can register their interest in providing quotes on particular bid items advertised for letting. Information concerning DBE companies willing to quote work for particular contracts may be obtained by contacting the Department's Bureau of Small Business Enterprises at telephone number (217)785-4611, or by visiting the Department's web site at www.dot.il.gov.

BIDDING PROCEDURES. Compliance with this Special Provision is a material bidding requirement. The failure of the bidder to comply will render the bid not responsive.

- (a) The bidder shall submit a Disadvantaged Business Utilization Plan on Department forms SBE 2025 and 2026 with the bid.
- (b) The Utilization Plan shall indicate that the bidder either has obtained sufficient DBE participation commitments to meet the contract goal or has not obtained enough DBE participation commitments in spite of a good faith effort to meet the goal. The Utilization Plan shall further provide the name, telephone number, and telefax number of a responsible official of the bidder designated for purposes of notification of plan approval or disapproval under the procedures of this Special Provision.
- (c) The Utilization Plan shall include a DBE Participation Commitment Statement, Department form SBE 2025, for each DBE proposed for the performance of work to achieve the contract goal. For bidding purposes, submission of the completed SBE 2025 forms, signed by the DBEs and faxed to the bidder will be acceptable as long as the original is available and provided upon request. All elements of information indicated on the said form shall be provided, including but not limited to the following:
 - (1) The names and addresses of DBE firms that will participate in the contract;
 - (2) A description, including pay item numbers, of the work each DBE will perform;
 - (3) The dollar amount of the participation of each DBE firm participating. The dollar amount of participation for identified work shall specifically state the quantity, unit price, and total subcontract price for the work to be completed by the DBE. If partial pay items are to be performed by the DBE, indicate the portion of each item, a unit price where appropriate and the subcontract price amount;
 - (4) DBE Participation Commitment Statements, form SBE 2025, signed by the bidder and each participating DBE firm documenting the commitment to use the DBE subcontractors whose participation is submitted to meet the contract goal;
 - (5) If the bidder is a joint venture comprised of DBE companies and non-DBE companies, the plan must also include a clear identification of the portion of the work to be performed by the DBE partner(s); and,
 - (6) If the contract goal is not met, evidence of good faith efforts.

GOOD FAITH EFFORT PROCEDURES. The contract will not be awarded until the Utilization Plan submitted by the apparent successful bidder is approved. All information submitted by the bidder must be complete, accurate and adequately document the good faith efforts of the bidder before the Department will commit to the performance of the contract by the bidder. The Utilization Plan will be approved by the Department if the Utilization Plan commits sufficient commercially useful DBE work performance to meet the contract goal or the bidder submits sufficient documentation of a good faith effort to meet the contract goal pursuant to 49 CFR part 26, Appendix A. The Utilization Plan will not be approved by the Department if the Utilization Plan does not commit sufficient DBE participation to meet the contract goal unless the apparent successful bidder documented in the Utilization Plan that it made a good faith effort to meet the goal. This means that the bidder must show that all necessary and reasonable steps were taken to achieve the contract goal.

Necessary and reasonable steps are those which, by their scope, intensity and appropriateness to the objective, could reasonably be expected to obtain sufficient DBE participation, even if they were not successful. The Department will consider the quality, quantity, and intensity of the kinds of efforts that the bidder has made. Mere *pro forma* efforts, in other words, efforts done as a matter of form, are not good faith efforts; rather, the bidder is expected to have taken genuine efforts that would be reasonably expected of a bidder actively and aggressively trying to obtain DBE participation sufficient to meet the contract goal.

- (a) The following is a list of types of action that the Department will consider as part of the evaluation of the bidder's good faith efforts to obtain participation. These listed factors are not intended to be a mandatory checklist and are not intended to be exhaustive. Other factors or efforts brought to the attention of the Department may be relevant in appropriate cases, and will be considered by the Department.
- (1) Soliciting through all reasonable and available means (e.g. attendance at pre-bid meetings, advertising and/or written notices) the interest of all certified DBE companies that have the capability to perform the work of the contract. The bidder must solicit this interest within sufficient time to allow the DBE companies to respond to the solicitation. The bidder must determine with certainty if the DBE companies are interested by taking appropriate steps to follow up initial solicitations.
 - (2) Selecting portions of the work to be performed by DBE companies in order to increase the likelihood that the DBE goals will be achieved. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate DBE participation, even when the prime Contractor might otherwise prefer to perform these work items with its own forces.
 - (3) Providing interested DBE companies with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist them in responding to a solicitation.
 - (4) a. Negotiating in good faith with interested DBE companies. It is the bidder's responsibility to make a portion of the work available to DBE subcontractors and suppliers and to select those portions of the work or material needs consistent with the available DBE subcontractors and suppliers, so as to facilitate DBE participation. Evidence of such negotiation includes the names, addresses, and telephone numbers of DBE companies that were considered; a description of the information provided regarding the plans and specifications for the work selected for subcontracting; and evidence as to why additional agreements could not be reached for DBE companies to perform the work.
 - b. A bidder using good business judgment would consider a number of factors in negotiating with subcontractors, including DBE subcontractors, and would take a firm's price and capabilities as well as contract goals into consideration. However, the fact that there may be some additional costs involved in finding and using DBE companies is not in itself sufficient reason for a bidder's failure to meet the contract DBE goal, as long as such costs are reasonable. Also, the ability or desire of a bidder to perform the work of a contract with its own organization does not relieve the bidder of the responsibility to make good faith efforts.

Bidders are not, however, required to accept higher quotes from DBE companies if the price difference is excessive or unreasonable.

- (5) Not rejecting DBE companies as being unqualified without sound reasons based on a thorough investigation of their capabilities. The bidder's standing within its industry, membership in specific groups, organizations, or associations and political or social affiliations (for example union vs. non-union employee status) are not legitimate causes for the rejection or non-solicitation of bids in the bidder's efforts to meet the project goal.
 - (6) Making efforts to assist interested DBE companies in obtaining bonding, lines of credit, or insurance as required by the recipient or Contractor.
 - (7) Making efforts to assist interested DBE companies in obtaining necessary equipment, supplies, materials, or related assistance or services.
 - (8) Effectively using the services of available minority/women community organizations; minority/women contractors' groups; local, state, and federal minority/women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of DBE companies.
- (b) If the Department determines that the apparent successful bidder has made a good faith effort to secure the work commitment of DBE companies to meet the contract goal, the Department will award the contract provided that it is otherwise eligible for award. If the Department determines that the bidder has failed to meet the requirements of this Special Provision and that a good faith effort has not been made, the Department will notify the responsible company official designated in the Utilization Plan that the bid is not responsive. The notification shall include a statement of reasons why good faith efforts have not been found.
- (c) The bidder may request administrative reconsideration of a determination adverse to the bidder within the five working days after receipt of the notification date of the determination by delivering the request to the Department of Transportation, Bureau of Small Business Enterprises, Contract Compliance Section, 2300 South Dirksen Parkway, Room 319, Springfield, Illinois 62764 (Telefax: (217)785-1524). Deposit of the request in the United States mail on or before the fifth business day shall not be deemed delivery. The determination shall become final if a request is not made and delivered. A request may provide additional written documentation and/or argument concerning the issue of whether an adequate good faith effort was made to meet the contract goal. The request will be forwarded to the Department's Reconsideration Officer. The Reconsideration Officer will extend an opportunity to the bidder to meet in person in order to consider all issues of whether the bidder made a good faith effort to meet the goal. After the review by the Reconsideration Officer, the bidder will be sent a written decision within ten working days after receipt of the request for reconsideration, explaining the basis for finding that the bidder did or did not meet the goal or make adequate good faith efforts to do so. A final decision by the Reconsideration Officer that a good faith effort was made shall approve the Utilization Plan submitted by the bidder and shall clear the contract for award. A final decision that a good faith effort was not made shall render the bid not responsive.

CALCULATING DBE PARTICIPATION. The Utilization Plan values represent work anticipated to be performed and paid for upon satisfactory completion. The Department is only able to count toward the achievement of the overall goal and the contract goal the value of payments made for the work actually performed by DBE companies. In addition, a DBE must perform a commercially useful function on the contract to be counted. A commercially useful function is generally performed when the DBE is responsible for the work and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. The Department and Contractor are governed by the provisions of 49 CFR part 26.55(c) on questions of commercially useful functions as it affects the work. Specific counting guidelines are provided in 49 CFR part 26.55, the provisions of which govern over the summary contained herein.

- (a) DBE as the Contractor: 100 percent goal credit for that portion of the work performed by the DBE's own forces, including the cost of materials and supplies. Work that a DBE subcontracts to a non-DBE does not count toward the DBE goals.
- (b) DBE as a joint venture Contractor: 100 percent goal credit for that portion of the total dollar value of the contract equal to the distinct, clearly defined portion of the work performed by the DBE's own forces.
- (c) DBE as a subcontractor: 100 percent goal credit for the work of the subcontract performed by the DBE's own forces, including the cost of materials and supplies, excluding the purchase of materials and supplies or the lease of equipment by the DBE subcontractor from the prime Contractor or its affiliates. Work that a DBE subcontractor in turn subcontracts to a non-DBE does not count toward the DBE goal.
- (d) DBE as a trucker: 100 percent goal credit for trucking participation provided the DBE is responsible for the management and supervision of the entire trucking operation for which it is responsible. At least one truck owned, operated, licensed, and insured by the DBE must be used on the contract. Credit will be given for the following:
 - (1) The DBE may lease trucks from another DBE firm, including an owner-operator who is certified as a DBE. The DBE who leases trucks from another DBE receives credit for the total value of the transportation services the lessee DBE provides on the contract.
 - (2) The DBE may also lease trucks from a non-DBE firm, including from an owner-operator. The DBE who leases trucks from a non-DBE is entitled to credit only for the fee or commission it receives as a result of the lease arrangement.
- (e) DBE as a material supplier:
 - (1) 60 percent goal credit for the cost of the materials or supplies purchased from a DBE regular dealer.
 - (2) 100 percent goal credit for the cost of materials or supplies obtained from a DBE manufacturer.

- (3) 100 percent credit for the value of reasonable fees and commissions for the procurement of materials and supplies if not a regular dealer or manufacturer.

CONTRACT COMPLIANCE. Compliance with this Special Provision is an essential part of the contract. The Department is prohibited by federal regulations from crediting the participation of a DBE included in the Utilization Plan toward either the contract goal or the Department's overall goal until the amount to be applied toward the goals has been paid to the DBE. The following administrative procedures and remedies govern the compliance by the Contractor with the contractual obligations established by the Utilization Plan. After approval of the Utilization Plan and award of the contract, the Utilization Plan and individual DBE Participation Statements become part of the contract. If the Contractor did not succeed in obtaining enough DBE participation to achieve the advertised contract goal, and the Utilization Plan was approved and contract awarded based upon a determination of good faith, the total dollar value of DBE work calculated in the approved Utilization Plan as a percentage of the awarded contract value shall become the amended contract goal.

- (a) No amendment to the Utilization Plan may be made without prior written approval from the Department's Bureau of Small Business Enterprises. All requests for amendment to the Utilization Plan shall be submitted to the Department of Transportation, Bureau of Small Business Enterprises, Contract Compliance Section, 2300 South Dirksen Parkway, Room 319, Springfield, Illinois 62764. Telephone number (217) 785-4611. Telefax number (217) 785-1524.
- (b) The Contractor must notify and obtain written approval from the Department's Bureau of Small Business Enterprises prior to replacing a DBE or making any change in the participation of a DBE. Approval for replacement will be granted only if it is demonstrated that the DBE is unable or unwilling to perform. The Contractor must make every good faith effort to find another certified DBE subcontractor to substitute for the original DBE. The good faith efforts shall be directed at finding another DBE to perform at least the same amount of work under the contract as the original DBE, to the extent needed to meet the contract goal.
- (c) Any deviation from the DBE condition-of-award or contract specifications must be approved, in writing, by the Department. The Contractor shall notify affected DBEs in writing of any changes in the scope of work which result in a reduction in the dollar amount condition-of-award to the contract.
- (d) In addition to the above requirements for reductions in the condition of award, additional requirements apply to the two cases of Contractor-initiated work substitution proposals. Where the contract allows alternate work methods which serve to delete or create underruns in condition of award DBE work, and the Contractor selects that alternate method or, where the Contractor proposes a substitute work method or material that serves to diminish or delete work committed to a DBE and replace it with other work, then the Contractor must demonstrate one of the following:
- (1) That the replacement work will be performed by the same DBE (as long as the DBE is certified in the respective item of work) in a modification of the condition of award;
or

- (2) That the DBE is aware that its work will be deleted or will experience underruns and has agreed in writing to the change. If this occurs, the Contractor shall substitute other work of equivalent value to a certified DBE or provide documentation of good faith efforts to do so; or
- (3) That the DBE is not capable of performing the replacement work or has declined to perform the work at a reasonably competitive price. If this occurs, the Contractor shall substitute other work of equivalent value to a certified DBE or provide documentation of good faith efforts to do so.
- (e) Where the revision includes work committed to a new DBE subcontractor, not previously involved in the project, then a Request for Approval of Subcontractor, Department form BC 260A, must be signed and submitted.
- (f) If the commitment of work is in the form of additional tasks assigned to an existing subcontract, then a new Request for Approval of Subcontractor shall not be required. However, the Contractor must document efforts to assure that the existing DBE subcontractor is capable of performing the additional work and has agreed in writing to the change.
- (g) All work indicated for performance by an approved DBE shall be performed, managed, and supervised by the DBE executing the Participation Statement. The Contractor shall not terminate for convenience a DBE listed in the Utilization Plan and then perform the work of the terminated DBE with its own forces, those of an affiliate or those of another subcontractor, whether DBE or not, without first obtaining the written consent of the Bureau of Small Business Enterprises to amend the Utilization Plan. The Contractor shall notify the Bureau of Small Business Enterprises of any termination for reasons other than convenience, and shall obtain approval for inclusion of the substitute DBE in the Utilization Plan. If good faith efforts following a termination of a DBE for cause are not successful, the Contractor shall contact the Bureau of Small Business Enterprises and provide a full accounting of the efforts undertaken to obtain substitute DBE participation. The Bureau of Small Business Enterprises will evaluate the good faith efforts in light of all circumstances surrounding the performance status of the contract, and determine whether the contract goal should be amended.
- (h) The Contractor shall maintain a record of payments for work performed to the DBE participants. The records shall be made available to the Department for inspection upon request. After the performance of the final item of work or delivery of material by a DBE and final payment therefore to the DBE by the Contractor, but not later than thirty calendar days after payment has been made by the Department to the Contractor for such work or material, the Contractor shall submit a DBE Payment Agreement on Department form SBE 2115 to the Regional Engineer. If full and final payment has not been made to the DBE, the DBE Payment Agreement shall indicate whether a disagreement as to the payment required exists between the Contractor and the DBE or if the Contractor believes that the work has not been satisfactorily completed. If the Contractor does not have the full amount of work indicated in the Utilization Plan performed by the DBE companies indicated in the Utilization Plan and after good faith efforts are reviewed, the Department may deduct from contract payments to the Contractor the amount of the goal not achieved as liquidated and ascertained damages.

The Contractor may request an administrative reconsideration of any amount deducted as damages pursuant to subsection (j) of this part.

- (i) The Department reserves the right to withhold payment to the Contractor to enforce the provisions of this Special Provision. Final payment shall not be made on the contract until such time as the Contractor submits sufficient documentation demonstrating achievement of the goal in accordance with this Special Provision or after liquidated damages have been determined and collected.
- (j) Notwithstanding any other provision of the contract, including but not limited to Article 109.09 of the Standard Specifications, the Contractor may request administrative reconsideration of a decision to deduct the amount of the goal not achieved as liquidated damages. A request to reconsider shall be delivered to the Contract Compliance Section and shall be handled and considered in the same manner as set forth in paragraph (c) of "Good Faith Effort Procedures" of this Special Provision, except a final decision that a good faith effort was not made during contract performance to achieve the goal agreed to in the Utilization Plan shall be the final administrative decision of the Department.

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.

FHWA hourly rate = (monthly rate/176) x (model year adj.) x (Illinois adj.) + 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 x (FHWA hourly rate - 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.”

FLAGGER AT SIDE ROADS AND ENTRANCES (BDE)

Effective: April 1, 2009

Revise the second paragraph of Article 701.13(a) of the Standard Specifications to read:

“The Engineer will determine when a side road or entrance shall be closed to traffic. A flagger will be required at each side road or entrance remaining open to traffic within the operation where two-way traffic is maintained on one lane of pavement. The flagger shall be positioned as shown on the plans or as directed by the Engineer.”

Revise the first and second paragraph of Article 701.20(i) of the Standard Specifications to read:

“Signs, barricades, or other traffic control devices required by the Engineer over and above those specified will be paid for according to Article 109.04. All flaggers required at side roads and entrances remaining open to traffic including those that are shown on the Highway Standards and/or additional barricades required by the Engineer to close side roads and entrances will be paid for according to Article 109.04.”

LIQUIDATED DAMAGES (BDE)

Effective: April 1, 2009

Revise the table in Article 108.09 of the Standard Specifications to read:

"Schedule of Deductions for Each Day of Overrun in Contract Time			
Original Contract Amount		Daily Charges	
From More Than	To and Including	Calendar Day	Work Day
\$ 0	\$ 100,000	\$ 375	\$ 500
100,000	500,000	625	875
500,000	1,000,000	1,025	1,425
1,000,000	3,000,000	1,125	1,550
3,000,000	5,000,000	1,425	1,950
5,000,000	10,000,000	1,700	2,350
10,000,000	And over	3,325	4,650"

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM / EROSION AND SEDIMENT CONTROL DEFICIENCY DEDUCTION (BDE)

Effective: April 1, 2007

Revised: November 1, 2009

Revise Article 105.03(a) of the Standard Specifications to read:

“(a) National Pollutant Discharge Elimination System (NPDES) / Erosion and Sediment Control Deficiency Deduction When the Engineer is notified or determines an erosion and/or sediment control deficiency(s) exists, or the Contractor’s activities represents a violation of the Department’s NPDES permits, the Engineer will notify and direct the Contractor to correct the deficiency within a specified time. The specified time, which begins upon notification to the Contractor, will be from 1/2 hour to 1 week based on the urgency of the situation and the nature of the work effort required. The Engineer will be the sole judge.

A deficiency may be any lack of repair, maintenance, or implementation of erosion and/or sediment control devices included in the contract, or any failure to comply with the conditions of the Department’s NPDES permits. A deficiency may also be applied to situations where corrective action is not an option such as the failure to participate in a jobsite inspection of the project, failure to install required measures prior to initiating earth moving operations, disregard of concrete washout requirements, or other disregard of the NPDES permit.

If the Contractor fails to correct a deficiency within the specified time, a daily monetary deduction will be imposed for each calendar day or portion of a calendar day until the deficiency is corrected to the satisfaction of the Engineer. The calendar day(s) will begin with notification to the Contractor and end with the Engineer’s acceptance of the correction. The base value of the daily monetary deduction is \$1000.00 and will be applied to each location for which a deficiency exists. The value of the deficiency deduction assessed for each infraction will be determined by multiplying the base value by a Gravity Adjustment Factor provided in Table A.

Except for failure to participate in a required jobsite inspection of the project prior to initiating earthmoving operations which will be based on the total acreage of planned disturbance at the following multipliers: <5 Acres: 1; 5-10 Acres: 2; >10-25 Acres: 3; >25 Acres: 5. For those deficiencies where corrective action was not an option, the monetary deduction will be immediate and will be valued at one calendar day multiplied by a Gravity Adjustment Factor.

Table A Deficiency Deduction Gravity Adjustment Factors				
Types of Violations	Soil Disturbed and Not Permanently Stabilized At Time of Violation			
	< 5 Acres	5 - 10 Acres	>10 - 25 Acres	> 25 Acres
Failure to Install or Properly Maintain BMP	0.1 - 0.5	0.2 - 1.0	0.5 - 2.5	1.0 - 5
Careless Destruction of BMP	0.2 - 1	0.5 - 2.5	1.0 - 5.	1.0 - 5
Intrusion into Protected Resource	1.0 - 5	1.0 - 5	2.0 - 10	2.0 - 10
Failure to properly manage Chemicals, Concrete Washouts or Residuals, Litter or other Wastes	0.2 - 1	0.2 - 1	0.5 - 2.5	1.0 - 5
Improper Vehicle and Equipment Maintenance, Fueling or Cleaning	0.1 - 0.5	0.2 - 1	0.2 - 1	0.5 - 2.5
Failure to Provide or Update Written or Graphic Plans Required by SWPPP	0.2 - 1	0.5 - 2.5	1.0 - 5	1.0 - 5
Failure to comply with Other Provisions of the NPDES Permit	0.1 - 0.5	0.2 - 1	0.2 - 1	0.5 - 2.5"

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.

PERSONAL PROTECTIVE EQUIPMENT (BDE)

Effective: November 1, 2008

Revise the first sentence of Article 701.12 of the Standard Specifications to read:

“All personnel on foot, excluding flaggers, within the highway right-of-way shall wear a fluorescent orange, fluorescent yellow/green, or a combination of fluorescent orange and fluorescent yellow/green vest meeting the requirements of ANSI/ISEA 107-2004 for Conspicuity Class 2 garments.”

RAMP CLOSURE FOR FREEWAY/EXPRESSWAY (BDE)

Effective: January 1, 2009

Description. This work shall consist of furnishing and installing traffic control for the closure of ramps on a freeway/expressway. Work shall be according to Section 701 except as modified herein.

Delete the third paragraph of Article 701.17(e)(1) of the Standard Specifications.

Add the following to Article 701.18 of the Standard Specifications:

“(k) Standard 701451. Only one interchange at a time may have ramps closed and only one exit ramp and one entrance ramp may be closed at a time.

The Contractor shall furnish a portable changeable message sign to be placed on the mainline in advance of the ramp closure. The exact placement and display shall be as shown in the plans or as directed by the Engineer.”

Revise the first sentence of Article 701.19(c) of the Standard Specifications to read:

“Traffic control and protection required under Standards 701201, 701206, 701306, 701326, 701336, 701406, 701421, 701451, 701501, 701502, 701601, 701602, 701606, 701701 and 701801 will be measured for payment on a lump sum basis.”

Add the following to the first paragraph of Article 701.20(b) of the Standard Specifications:

“TRAFFIC CONTROL AND PROTECTION STANDARD 701451;”

REFLECTIVE SHEETING ON CHANNELIZING DEVICES (BDE)

Effective: April 1, 2007

Revised: November 1, 2008

Revise the seventh paragraph of Article 1106.02 of the Standard Specifications to read:

“At the time of manufacturing, the retroreflective prismatic sheeting used on channelizing devices shall meet or exceed the initial minimum coefficient of retroreflection as specified in the following table. Measurements shall be conducted according to ASTM E 810, without averaging. Sheeting used on cones, drums and flexible delineators shall be reboundable as tested according to ASTM D 4956. Prestriped sheeting for rigid substrates on barricades shall be white and orange. [The sheeting shall be uniform in color and devoid of streaks throughout the length of each roll. The color shall conform to the latest appropriate standard color tolerance chart issued by the U.S. Department of Transportation, Federal Highway Administration, and to the daytime and nighttime color requirements of ASTM D 4956.](#)

Initial Minimum Coefficient of Retroreflection candelas/foot candle/sq ft (candelas/lux/sq m) of material				
Observation Angle (deg.)	Entrance Angle (deg.)	White	Orange	Fluorescent Orange
0.2	-4	365	160	150
0.2	+30	175	80	70
0.5	-4	245	100	95
0.5	+30	100	50	40”

Revise the first sentence of the first paragraph of Article 1106.02(c) of the Standard Specifications to read:

“Barricades and vertical panels shall have alternating white and orange stripes sloping downward at 45 degrees toward the side on which traffic will pass.”

Revise the third sentence of the first paragraph of Article 1106.02(d) of the Standard Specifications to read:

“The bottom panels shall be 8 x 24 in. (200 x 600 mm) with alternating white and orange stripes sloping downward at 45 degrees toward the side on which traffic will pass.”

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.

TRUCK MOUNTED/TRAILER MOUNTED ATTENUATORS (BDE)

Effective: January 1, 2010

Revise Article 701.03(k) of the Standard Specifications to read:

“(k) Truck Mounted/Trailer Mounted Attenuators 1106.02”

Revise Article 701.15(h) of the Standard Specifications to read:

“(h) Truck Mounted/Trailer Mounted Attenuators (TMA). TMA units shall have a roll ahead distance in the event of an impact. The TMA shall be between 100 and 200 ft (30 and 60 m) behind the vehicle ahead or the workers. This distance may be extended by the Engineer.

TMA host vehicles shall have the parking brake engaged when stationary.

The driver and passengers of the TMA host vehicle should exit the vehicle if the TMA is to remain stationary for 15 minutes or more in duration.”

Revise Article 1106.02(g) of the Standard Specifications to read:

“(g) Truck Mounted/Trailer Mounted Attenuators. The attenuator shall be a NCHRP 350 approved unit for Test Level 3. Test Level 2 may be used as directed by the Engineer for normal posted speeds less than or equal to 45 mph.”

ILLINOIS DEPARTMENT OF LABOR

PREVAILING WAGES FOR VARIOUS COUNTIES EFFECTIVE DECEMBER 2009

The Prevailing rates of wages are included in the Contract proposals which are subject to Check Sheet #5 of the Supplemental Specifications and Recurring Special Provisions. The rates have been ascertained and certified by the Illinois Department of Labor for the locality in which the work is to be performed and for each craft or type of work or mechanic needed to execute the work of the Contract. As required by Prevailing Wage Act (820 ILCS 130/0.01, et seq.) and Check Sheet #5 of the Contract, not less than the rates of wages ascertained by the Illinois Department of Labor and as revised during the performance of a Contract shall be paid to all laborers, workers and mechanics performing work under the Contract. Post the scale of wages in a prominent and easily accessible place at the site of work.

If the Illinois Department of Labor revises the prevailing rates of wages to be paid as listed in the specification of rates, the contractor shall post the revised rates of wages and shall pay not less than the revised rates of wages. Current wage rate information shall be obtained by visiting the Illinois Department of Labor web site at <http://www.state.il.us/agency/idol/> or by calling 312-793-2814. It is the responsibility of the contractor to review the rates applicable to the work of the contract at regular intervals in order to insure the timely payment of current rates. Provision of this information to the contractor by means of the Illinois Department of Labor web site satisfies the notification of revisions by the Department to the contractor pursuant to the Act, and the contractor agrees that no additional notice is required. The contractor shall notify each of its subcontractors of the revised rates of wages.

Cook County Prevailing Wage for December 2009

Trade Name	RG	TYP	C	Base	FRMAN	*M-F>8	OSA	OSH	H/W	Pensn	Vac	Trng
=====	==	===	=	=====	=====	=====	===	===	=====	=====	=====	=====
ASBESTOS ABT-GEN		ALL		35.200	35.700	1.5	1.5	2.0	9.130	8.370	0.000	0.400
ASBESTOS ABT-MEC		BLD		31.540	0.000	1.5	1.5	2.0	9.670	9.610	0.000	0.520
BOILERMAKER		BLD		43.020	46.890	2.0	2.0	2.0	6.720	9.890	0.000	0.350
BRICK MASON		BLD		39.030	42.930	1.5	1.5	2.0	8.800	10.67	0.000	0.740
CARPENTER		ALL		40.770	42.770	1.5	1.5	2.0	9.840	9.790	0.000	0.490
CEMENT MASON		ALL		41.850	43.850	1.5	1.5	2.0	8.600	9.810	0.000	0.220
CERAMIC TILE FNSHER		BLD		33.600	0.000	2.0	1.5	2.0	6.950	8.020	0.000	0.540
COMM. ELECT.		BLD		36.440	38.940	1.5	1.5	2.0	7.650	7.750	0.000	0.700
ELECTRIC PWR EQMT OP		ALL		39.850	46.430	1.5	1.5	2.0	9.870	12.40	0.000	0.300
ELECTRIC PWR GRNDMAN		ALL		31.080	46.430	1.5	1.5	2.0	7.700	9.680	0.000	0.240
ELECTRIC PWR LINEMAN		ALL		39.850	46.430	1.5	1.5	2.0	9.870	12.40	0.000	0.300
ELECTRICIAN		ALL		40.400	43.000	1.5	1.5	2.0	11.33	9.420	0.000	0.750
ELEVATOR CONSTRUCTOR		BLD		44.930	50.550	2.0	2.0	2.0	9.525	8.210	2.700	0.000
FENCE ERECTOR		ALL		30.700	32.200	1.5	1.5	2.0	7.950	8.430	0.000	0.500
GLAZIER		BLD		37.000	38.500	1.5	1.5	2.0	7.340	12.05	0.000	0.740
HT/FROST INSULATOR		BLD		42.050	44.550	1.5	1.5	2.0	9.670	10.81	0.000	0.520
IRON WORKER		ALL		40.750	42.750	2.0	2.0	2.0	10.95	15.99	0.000	0.300
LABORER		ALL		35.200	35.950	1.5	1.5	2.0	9.130	8.370	0.000	0.400
LATHER		ALL		40.770	42.770	1.5	1.5	2.0	9.840	9.790	0.000	0.490
MACHINIST		BLD		42.770	44.770	1.5	1.5	2.0	7.750	8.690	0.650	0.000
MARBLE FINISHERS		ALL		28.650	0.000	1.5	1.5	2.0	7.920	9.970	0.000	0.550
MARBLE MASON		BLD		38.030	41.830	1.5	1.5	2.0	8.000	9.970	0.000	0.550
MATERIAL TESTER I		ALL		25.200	0.000	1.5	1.5	2.0	9.130	8.370	0.000	0.400
MATERIALS TESTER II		ALL		30.200	0.000	1.5	1.5	2.0	9.130	8.370	0.000	0.400
MILLWRIGHT		ALL		40.770	42.770	1.5	1.5	2.0	9.840	9.790	0.000	0.490
OPERATING ENGINEER		BLD 1		45.100	49.100	2.0	2.0	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		BLD 2		43.800	49.100	2.0	2.0	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		BLD 3		41.250	49.100	2.0	2.0	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		BLD 4		39.500	49.100	2.0	2.0	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		BLD 5		48.850	49.100	2.0	2.0	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		BLD 6		46.100	49.100	2.0	2.0	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		BLD 7		48.100	49.100	2.0	2.0	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		FLT 1		49.800	49.800	1.5	1.5	2.0	10.35	7.050	1.900	1.000
OPERATING ENGINEER		FLT 2		48.300	49.800	1.5	1.5	2.0	10.35	7.050	1.900	1.000
OPERATING ENGINEER		FLT 3		43.000	49.800	1.5	1.5	2.0	10.35	7.050	1.900	1.000
OPERATING ENGINEER		FLT 4		35.750	49.800	1.5	1.5	2.0	10.35	7.050	1.900	1.000
OPERATING ENGINEER		HWY 1		43.300	47.300	1.5	1.5	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		HWY 2		42.750	47.300	1.5	1.5	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		HWY 3		40.700	47.300	1.5	1.5	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		HWY 4		39.300	47.300	1.5	1.5	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		HWY 5		38.100	47.300	1.5	1.5	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		HWY 6		46.300	47.300	1.5	1.5	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		HWY 7		44.300	47.300	1.5	1.5	2.0	11.70	8.050	1.900	1.150
ORNAMNTL IRON WORKER		ALL		39.200	41.450	2.0	2.0	2.0	8.700	13.79	0.000	0.500
PAINTER		ALL		38.000	42.750	1.5	1.5	1.5	8.350	9.400	0.000	0.670
PAINTER SIGNS		BLD		30.820	34.600	1.5	1.5	1.5	2.600	2.470	0.000	0.000
PILEDRIIVER		ALL		40.770	42.770	1.5	1.5	2.0	9.840	9.790	0.000	0.490
PIPEFITTER		BLD		43.150	46.150	1.5	1.5	2.0	7.660	9.550	0.000	1.570
PLASTERER		BLD		38.550	40.860	1.5	1.5	2.0	9.000	9.690	0.000	0.450
PLUMBER		BLD		44.000	46.000	1.5	1.5	2.0	9.860	7.090	0.000	1.030
ROOFER		BLD		37.000	40.000	1.5	1.5	2.0	7.250	5.270	0.000	0.330
SHEETMETAL WORKER		BLD		40.460	43.700	1.5	1.5	2.0	9.580	12.35	0.000	0.610
SIGN HANGER		BLD		28.210	29.060	1.5	1.5	2.0	4.450	2.880	0.000	0.000
SPRINKLER FITTER		BLD		40.500	42.500	1.5	1.5	2.0	8.500	6.850	0.000	0.500
STEEL ERECTOR		ALL		40.750	42.750	2.0	2.0	2.0	10.95	15.99	0.000	0.300
STONE MASON		BLD		39.030	42.930	1.5	1.5	2.0	8.800	10.67	0.000	0.740
TERRAZZO FINISHER		BLD		35.150	0.000	1.5	1.5	2.0	6.950	10.57	0.000	0.380
TERRAZZO MASON		BLD		39.010	42.010	1.5	1.5	2.0	6.950	11.91	0.000	0.510

TILE MASON		BLD		40.490	44.490	2.0	1.5	2.0	6.950	9.730	0.000	0.610
TRAFFIC SAFETY WRKR		HWY		24.300	25.900	1.5	1.5	2.0	3.780	1.875	0.000	0.000
TRUCK DRIVER	E	ALL	1	30.700	31.350	1.5	1.5	2.0	6.750	5.450	0.000	0.150
TRUCK DRIVER	E	ALL	2	30.950	31.350	1.5	1.5	2.0	6.750	5.450	0.000	0.150
TRUCK DRIVER	E	ALL	3	31.150	31.350	1.5	1.5	2.0	6.750	5.450	0.000	0.150
TRUCK DRIVER	E	ALL	4	31.350	31.350	1.5	1.5	2.0	6.750	5.450	0.000	0.150
TRUCK DRIVER	W	ALL	1	32.550	33.100	1.5	1.5	2.0	6.500	4.350	0.000	0.000
TRUCK DRIVER	W	ALL	2	32.700	33.100	1.5	1.5	2.0	6.500	4.350	0.000	0.000
TRUCK DRIVER	W	ALL	3	32.900	33.100	1.5	1.5	2.0	6.500	4.350	0.000	0.000
TRUCK DRIVER	W	ALL	4	33.100	33.100	1.5	1.5	2.0	6.500	4.350	0.000	0.000
TUCKPOINTER		BLD		39.200	40.200	1.5	1.5	2.0	7.830	10.25	0.000	0.770

Legend:

M-F>8 (Overtime is required for any hour greater than 8 worked each day, Monday through Friday.)

OSA (Overtime is required for every hour worked on Saturday)

OSH (Overtime is required for every hour worked on Sunday and Holidays)

H/W (Health & Welfare Insurance)

Pensn (Pension)

Vac (Vacation)

Trng (Training)

Explanations

COOK COUNTY

TRUCK DRIVERS (WEST) - That part of the county West of Barrington Road.

The following list is considered as those days for which holiday rates of wages for work performed apply: New Years Day, Memorial/Decoration Day, Fourth of July, Labor Day, Veterans Day, Thanksgiving Day, Christmas Day. Generally, any of these holidays which fall on a Sunday is celebrated on the following Monday. This then makes work performed on that Monday payable at the appropriate overtime rate for holiday pay. Common practice in a given local may alter certain days of celebration such as the day after Thanksgiving for Veterans Day. If in doubt, please check with IDOL.

EXPLANATION OF CLASSES

ASBESTOS - GENERAL - removal of asbestos material/mold and hazardous materials from any place in a building, including mechanical systems where those mechanical systems are to be removed. This includes the removal of asbestos materials/mold and hazardous materials from ductwork or pipes in a building when the building is to be demolished at the time or at some close future date.

ASBESTOS - MECHANICAL - removal of asbestos material from mechanical systems, such as pipes, ducts, and boilers, where the mechanical systems are to remain.

CERAMIC TILE FINISHER

The grouting, cleaning, and polishing of all classes of tile, whether for interior or exterior purposes, all burned, glazed or unglazed products; all composition materials, granite tiles, warning detectable tiles, cement tiles, epoxy composite materials, pavers, glass, mosaics, fiberglass, and all substitute materials, for tile made in tile-like units; all mixtures in tile like form of cement, metals, and other materials that are for and intended for use as a finished floor surface, stair treads, promenade roofs, walks, walls, ceilings, swimming pools, and all other places where tile is to form a finished interior or exterior. The mixing of all setting mortars including but not limited to thin-set mortars, epoxies, wall mud, and any other sand and cement mixtures or adhesives when used in the preparation, installation, repair, or maintenance of tile and/or similar materials. The handling and unloading of all sand, cement, lime, tile, fixtures, equipment, adhesives, or any other materials to be used in the preparation, installation, repair, or maintenance of tile and/or similar materials. Ceramic Tile Finishers shall fill all joints and voids regardless of method on all tile work, particularly and especially after installation of said tile work. Application of any and all protective coverings to all types of tile installations including, but not be limited to, all soap compounds, paper products, tapes, and all polyethylene coverings, plywood, masonite, cardboard, and any new type of products that may be used to protect tile installations, Blastrac equipment, and all floor scarifying equipment used in preparing floors to receive tile. The clean up and removal of all waste and materials. All demolition of existing tile floors and walls to be re-tiled.

COMMUNICATIONS ELECTRICIAN

Installation, operation, inspection, maintenance, repair and service of radio, television, recording, voice sound vision production and reproduction, telephone and telephone interconnect, facsimile, data apparatus, coaxial, fibre optic and wireless equipment, appliances and systems used for the transmission and reception of signals of any nature, business, domestic, commercial, education, entertainment, and residential purposes, including but not limited to, communication and telephone, electronic and sound equipment, fibre optic and data communication systems, and the performance of any task directly related to such installation or service whether at new or existing sites, such tasks to include the placing of wire and cable and electrical power conduit or other raceway work within the equipment room and pulling wire and/or cable through conduit and the installation of any incidental conduit, such that the employees covered hereby can complete any job in full.

MARBLE FINISHER

Loading and unloading trucks, distribution of all materials (all stone, sand, etc.), stocking of floors with material, performing all rigging for heavy work, the handling of all material that may be needed for the installation of such materials, building of scaffolding, polishing if needed, patching, waxing of material if damaged, pointing up, caulking, grouting and cleaning of marble, holding water on diamond or Carborundum blade or saw for setters cutting, use of tub saw or any other saw needed for preparation of material, drilling of holes for wires that anchor material set by setters, mixing up of molding plaster for installation of material, mixing up thin set for the installation of material, mixing up of sand to cement for the installation of material and such other work as may be required in helping a Marble Setter in the handling of all material in the erection or installation of interior marble, slate, travertine, art marble, serpentine, alberene stone, blue stone,

granite and other stones (meaning as to stone any foreign or domestic materials as are specified and used in building interiors and exteriors and customarily known as stone in the trade), carrara, sanionyx, vitrolite and similar opaque glass and the laying of all marble tile, terrazzo tile, slate tile and precast tile, steps, risers treads, base, or any other materials that may be used as substitutes for any of the aforementioned materials and which are used on interior and exterior which are installed in a similar manner.

MATERIAL TESTER I: Hand coring and drilling for testing of materials; field inspection of uncured concrete and asphalt.

MATERIAL TESTER II: Field inspection of welds, structural steel, fireproofing, masonry, soil, facade, reinforcing steel, formwork, cured concrete, and concrete and asphalt batch plants; adjusting proportions of bituminous mixtures.

OPERATING ENGINEER - BUILDING

Class 1. Asphalt Plant; Asphalt Spreader; Autograde; Backhoes with Caisson Attachment; Batch Plant; Benoto (requires Two Engineers); Boiler and Throttle Valve; Caisson Rigs; Central Redi-Mix Plant; Combination Back Hoe Front End-loader Machine; Compressor and Throttle Valve; Concrete Breaker (Truck Mounted); Concrete Conveyor; Concrete Conveyor (Truck Mounted); Concrete Paver Over 27E cu. ft; Concrete Paver 27E cu. ft. and Under; Concrete Placer; Concrete Placing Boom; Concrete Pump (Truck Mounted); Concrete Tower; Cranes, All; Cranes, Hammerhead; Cranes, (GCI and similar Type); Creter Crane; Crusher, Stone, etc.; Derricks, All; Derricks, Traveling; Formless Curb and Gutter Machine; Grader, Elevating; Grouting Machines; Highlift Shovels or Front Endloader 2-1/4 yd. and over; Hoists, Elevators, outside type rack and pinion and similar machines; Hoists, One, Two and Three Drum; Hoists, Two Tugger One Floor; Hydraulic Backhoes; Hydraulic Boom Trucks; Hydro Vac (and similar equipment); Locomotives, All; Motor Patrol; Lubrication Technician; Manipulators; Pile Drivers and Skid Rig; Post Hole Digger; Pre-Stress Machine; Pump Cretes Dual Ram; Pump Cretes: Squeeze Cretes-Screw Type Pumps; Gypsum Bulker and Pump; Raised and Blind Hole Drill; Roto Mill Grinder; Scoops - Tractor Drawn; Slip-Form Paver; Straddle Buggies; Tournapull; Tractor with Boom and Side Boom; Trenching Machines.

Class 2. Boilers; Broom, All Power Propelled; Bulldozers; Concrete Mixer (Two Bag and Over); Conveyor, Portable; Forklift Trucks; Highlift Shovels or Front Endloaders under 2-1/4 yd.; Hoists, Automatic; Hoists, Inside Elevators; Hoists, Sewer Dragging Machine; Hoists, Tugger Single Drum; Rock Drill (Self-Propelled); Rock Drill (Truck Mounted); Rollers, All; Steam Generators; Tractors, All; Tractor Drawn Vibratory Roller; Winch Trucks with "A" Frame.

Class 3. Air Compressor; Combination Small Equipment Operator; Generators; Heaters, Mechanical; Hoists, Inside Elevators; Hydraulic Power Units (Pile Driving, Extracting, and Drilling); Pumps, over 3" (1 to 3 not to exceed a total of 300 ft.); Low Boys; Pumps, Well Points; Welding Machines (2 through 5); Winches, 4 Small Electric Drill Winches; Bobcats (up to and including ¾ cu yd.) .

Class 4. Bobcats and/or other Skid Steer Loaders (other than bobcats up to and including ¾ cu yd.); Oilers; and Brick Forklift.

Class 5. Assistant Craft Foreman.

Class 6. Gradall .

Class 7. Mechanics.

OPERATING ENGINEERS - HIGHWAY CONSTRUCTION

Class 1. Asphalt Plant; Asphalt Heater and Planer Combination; Asphalt Heater Scarfire; Asphalt Spreader; Autograder/GOMACO or other similar type machines: ABG Paver; Backhoes with Caisson Attachment; Ballast Regulator; Belt Loader; Caisson Rigs; Car Dumper; Central Redi-Mix Plant; Combination Backhoe Front Endloader Machine, (1 cu. yd. Backhoe Bucket or over or with attachments); Concrete Breaker (Truck Mounted); Concrete Conveyor; Concrete Paver over 27E cu. ft.; Concrete Placer; Concrete Tube Float; Cranes, all attachments; Cranes, Tower Cranes of all types: Creter Crane: Crusher, Stone, etc.; Derricks, All; Derrick Boats; Derricks, Traveling; Dowell Machine with Air Compressor; Dredges; Formless Curb and Gutter Machine; Grader, Elevating; Grader, Motor Grader, Motor Patrol, Auto Patrol, Form Grader, Pull Grader, Subgrader; Guard Rail Post Driver Truck Mounted; Hoists, One, Two and Three Drum; Hydraulic Backhoes; Backhoes with shear attachments; Lubrication Technician; Manipulators; Mucking Machine; Pile Drivers and Skid Rig; Pre-Stress Machine; Pump Cretes Dual Ram; Rock Drill - Crawler or Skid Rig; Rock Drill - Truck Mounted; Rock/Track Tamper; Roto Mill Grinder; Slip-Form Paver; Soil Test Drill Rig (Truck Mounted); Straddle Buggies; Hydraulic Telescoping Form (Tunnel); Tractor Drawn Belt Loader (with attached pusher - two engineers); Tractor with Boom; Tractaire with Attachments; Trenching Machine; Truck Mounted Concrete Pump with Boom; Raised or Blind Hole Drills (Tunnel Shaft); Underground Boring and/or Mining Machines 5 ft. in diameter and over tunnel, etc; Underground Boring and/or Mining Machines under 5 ft. in diameter; Wheel Excavator; Widener (APSCO).

Class 2. Batch Plant; Bituminous Mixer; Boiler and Throttle Valve; Bulldozers; Car Loader Trailing Conveyors; Combination Backhoe Front Endloader Machine (Less than 1 cu. yd. Backhoe Bucket or over or with attachments); Compressor and Throttle Valve; Compressor, Common Receiver (3); Concrete Breaker or Hydro Hammer; Concrete Grinding Machine; Concrete Mixer or Paver 7S Series to and including 27 cu. ft.; Concrete Spreader; Concrete Curing Machine, Burlap Machine, Belting Machine and Sealing Machine; Concrete Wheel Saw; Conveyor Muck Cars (Haglund or Similar Type); Drills, All; Finishing Machine - Concrete; Highlift Shovels or Front Endloader; Hoist - Sewer Dragging Machine; Hydraulic Boom Trucks (All Attachments); Hydro-Blaster; All Locomotives, Dinky; Off-Road Hauling Units (including articulating)/2 ton capacity or more; Non Self-Loading Ejection Dump; Pump Cretes: Squeeze Cretes - Screw Type Pumps, Gypsum Bulker and Pump; Roller, Asphalt; Rotary Snow Plows; Rototiller, Seaman, etc., self-propelled; Scoops - Tractor Drawn; Self-Propelled Compactor; Spreader - Chip - Stone, etc.; Scraper; Scraper - Prime Mover in Tandem (Regardless of Size); Tank Car Heater; Tractors, Push, Pulling Sheeps Foot, Disc, Compactor, etc.; Tug Boats.

Class 3. Boilers; Brooms, All Power Propelled; Cement Supply Tender; Compressor, Common Receiver (2); Concrete Mixer (Two Bag and Over); Conveyor, Portable; Farm-Type Tractors Used for Mowing, Seeding, etc.; Fireman on Boilers; Forklift Trucks; Grouting Machine; Hoists, Automatic; Hoists, All Elevators; Hoists, Tugger Single Drum; Jeep Diggers; Low Boys; Pipe Jacking Machines; Post-Hole Digger; Power Saw, Concrete Power Driven; Pug Mills; Rollers, other than Asphalt; Seed and Straw Blower; Steam Generators; Stump Machine; Winch Trucks with "A" Frame; Work Boats; Tamper-Form-Motor Driven.

Class 4. Air Compressor; Combination - Small Equipment Operator; Directional Boring Machine; Generators; Heaters, Mechanical; Hydraulic Power Unit (Pile Driving, Extracting, or Drilling); Hydro- Blaster; Light Plants, All (1 through 5); Pumps, over 3" (1 to 3 not to exceed a total of 300 ft.); Pumps, Well Points; Tractaire; Welding Machines (2 through 5); Winches, 4 Small Electric Drill Winches.

Class 5. Bobcats (all); Brick Forklifts; Oilers.

Class 6. Field Mechanics and Field Welders

Class 7. Gradall and machines of like nature.

OPERATING ENGINEER - FLOATING

Class 1. Craft Foreman; Diver/Wet Tender; and Engineer (hydraulic dredge).

Class 2. Crane/Backhoe Operator; 70 Ton or over Tug Operator; Mechanic/Welder; Assistant Engineer (Hydraulic Dredge); Leverman (Hydraulic Dredge); Diver Tender; Friction and Lattice Boom Cranes.

Class 3. Deck Equipment Operator, Machineryman; Maintenance of Crane (over 50 ton capacity); Tug/Launch Operator; Loader/Dozer and like equipment on Barge; and Deck Machinery, etc.

Class 4. Deck Equipment Operator, Machineryman/Fireman (4 Equipment Units or More); Off Road Trucks (2 ton capacity or more); Deck Hand, Tug Engineer, Crane Maintenance 50 Ton Capacity and Under or Backhoe Weighing 115,000 pounds or less; and Assistant Tug Operator.

TERRAZZO FINISHER

The handling of sand, cement, marble chips, and all other materials that may be used by the Mosaic Terrazzo Mechanic, and the mixing, grinding, grouting, cleaning and sealing of all Marble, Mosaic, and Terrazzo work, floors, base, stairs, and wainscoting by hand or machine, and in addition, assisting and aiding Marble, Masonic, and Terrazzo Mechanics.

TRAFFIC SAFETY

Work associated with barricades, horses and drums used to reduce lane usage on highway work, the installation and removal of temporary lane markings, and the installation and removal of temporary road signs.

TRUCK DRIVER - BUILDING, HEAVY AND HIGHWAY CONSTRUCTION - EAST & WEST

Class 1. Two or three Axle Trucks. A-frame Truck when used for transportation purposes; Air Compressors and Welding Machines, including those pulled by cars, pick-up trucks and tractors; Ambulances; Batch Gate Lockers; Batch Hopperman; Car and Truck Washers; Carry-alls; Fork Lifts and Hoisters; Helpers; Mechanics Helpers and Greasers; Oil Distributors 2-man operation; Pavement Breakers; Pole Trailer, up to 40 feet; Power Mower Tractors; Self-propelled Chip Spreader; Skipman; Slurry Trucks, 2-man operation; Slurry Truck Conveyor Operation, 2 or 3 man; TEamsters Unskilled dumpman; and Truck Drivers hauling warning lights, barricades, and portable toilets on the job site.

Class 2. Four axle trucks; Dump Crets and Adgetors under 7 yards; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnapulls or Turnatrailers when pulling other than self-loading equipment or

similar equipment under 16 cubic yards; Mixer Trucks under 7 yards; Ready-mix Plant Hopper Operator, and Winch Trucks, 2 Axles.

Class 3. Five axle trucks; Dump Crets and Adgetors 7 yards and over; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnatrailers or turnapulls when pulling other than self-loading equipment or similar equipment over 16 cubic yards; Explosives and/or Fission Material Trucks; Mixer Trucks 7 yards or over; Mobile Cranes while in transit; Oil Distributors, 1-man operation; Pole Trailer, over 40 feet; Pole and Expandable Trailers hauling material over 50 feet long; Slurry trucks, 1-man operation; Winch trucks, 3 axles or more; Mechanic--Truck Welder and Truck Painter.

Class 4. Six axle trucks; Dual-purpose vehicles, such as mounted crane trucks with hoist and accessories; Foreman; Master Mechanic; Self-loading equipment like P.B. and trucks with scoops on the front.

Other Classifications of Work:

For definitions of classifications not otherwise set out, the Department generally has on file such definitions which are available. If a task to be performed is not subject to one of the classifications of pay set out, the Department will upon being contacted state which neighboring county has such a classification and provide such rate, such rate being deemed to exist by reference in this document. If no neighboring county rate applies to the task, the Department shall undertake a special determination, such special determination being then deemed to have existed under this determination. If a project requires these, or any classification not listed, please contact IDOL at 217-782-1710 for wage rates or clarifications.

LANDSCAPING

Landscaping work falls under the existing classifications for laborer, operating engineer and truck driver. The work performed by landscape plantsman and landscape laborer is covered by the existing classification of laborer. The work performed by landscape operators (regardless of equipment used or its size) is covered by the classifications of operating engineer. The work performed by landscape truck drivers (regardless of size of truck driven) is covered by the classifications of truck driver.

Du Page County Prevailing Wage for December 2009

Trade Name	RG	TYP	C	Base	FRMAN	*M-F>8	OSA	OSH	H/W	Pensn	Vac	Trng
=====	==	===	=	=====	=====	=====	===	===	=====	=====	=====	=====
ASBESTOS ABT-GEN		ALL		35.200	35.700	1.5	1.5	2.0	9.130	8.370	0.000	0.400
ASBESTOS ABT-MEC		BLD		31.540	0.000	1.5	1.5	2.0	9.670	9.610	0.000	0.520
BOILERMAKER		BLD		43.020	46.890	2.0	2.0	2.0	6.720	9.890	0.000	0.350
BRICK MASON		BLD		39.030	42.930	1.5	1.5	2.0	8.800	10.67	0.000	0.740
CARPENTER		ALL		40.770	42.770	1.5	1.5	2.0	9.840	9.790	0.000	0.490
CEMENT MASON		ALL		38.000	40.000	2.0	1.5	2.0	7.700	14.45	0.000	0.380
CERAMIC TILE FNSHER		BLD		33.600	0.000	2.0	1.5	2.0	6.950	8.020	0.000	0.540
COMMUNICATION TECH		BLD		32.650	34.750	1.5	1.5	2.0	7.650	11.98	0.500	0.490
ELECTRIC PWR EQMT OP		ALL		31.790	40.830	1.5	1.5	2.0	4.750	9.850	0.000	0.240
ELECTRIC PWR GRNDMAN		ALL		24.630	40.830	1.5	1.5	2.0	4.750	7.640	0.000	0.180
ELECTRIC PWR LINEMAN		ALL		37.810	40.830	1.5	1.5	2.0	4.750	11.71	0.000	0.280
ELECTRIC PWR TRK DRV		ALL		25.440	40.830	1.5	1.5	2.0	4.750	7.880	0.000	0.190
ELECTRICIAN		BLD		36.200	39.820	1.5	1.5	2.0	8.650	14.07	3.980	0.580
ELEVATOR CONSTRUCTOR		BLD		44.930	50.550	2.0	2.0	2.0	9.525	8.210	2.700	0.000
FENCE ERECTOR	NE	ALL		30.700	32.200	1.5	1.5	2.0	7.950	8.430	0.000	0.500
FENCE ERECTOR	W	ALL		40.200	42.210	2.0	2.0	2.0	8.140	15.16	0.000	0.230
GLAZIER		BLD		37.000	38.500	1.5	1.5	2.0	7.340	12.05	0.000	0.740
HT/FROST INSULATOR		BLD		42.050	44.550	1.5	1.5	2.0	9.670	10.81	0.000	0.520
IRON WORKER	E	ALL		40.750	42.750	2.0	2.0	2.0	10.95	15.99	0.000	0.300
IRON WORKER	W	ALL		40.200	42.210	2.0	2.0	2.0	8.140	15.16	0.000	0.230
LABORER		ALL		35.200	35.950	1.5	1.5	2.0	9.130	8.370	0.000	0.400
LATHER		ALL		40.770	42.770	1.5	1.5	2.0	9.840	9.790	0.000	0.490
MACHINIST		BLD		42.770	44.770	1.5	1.5	2.0	7.750	8.690	0.650	0.000
MARBLE FINISHERS		ALL		28.650	0.000	1.5	1.5	2.0	7.920	9.970	0.000	0.550
MARBLE MASON		BLD		38.030	41.830	1.5	1.5	2.0	8.000	9.970	0.000	0.550
MATERIAL TESTER I		ALL		25.200	0.000	1.5	1.5	2.0	9.130	8.370	0.000	0.400
MATERIALS TESTER II		ALL		30.200	0.000	1.5	1.5	2.0	9.130	8.370	0.000	0.400
MILLWRIGHT		ALL		40.770	42.770	1.5	1.5	2.0	9.840	9.790	0.000	0.490
OPERATING ENGINEER		BLD	1	45.100	49.100	2.0	2.0	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		BLD	2	43.800	49.100	2.0	2.0	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		BLD	3	41.250	49.100	2.0	2.0	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		BLD	4	39.500	49.100	2.0	2.0	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		BLD	5	48.850	49.100	2.0	2.0	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		BLD	6	46.100	49.100	2.0	2.0	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		BLD	7	48.100	49.100	2.0	2.0	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		HWY	1	43.300	47.300	1.5	1.5	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		HWY	2	42.750	47.300	1.5	1.5	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		HWY	3	40.700	47.300	1.5	1.5	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		HWY	4	39.300	47.300	1.5	1.5	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		HWY	5	38.100	47.300	1.5	1.5	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		HWY	6	46.300	47.300	1.5	1.5	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		HWY	7	44.300	47.300	1.5	1.5	2.0	11.70	8.050	1.900	1.150
ORNAMNTL IRON WORKER	E	ALL		39.200	41.450	2.0	2.0	2.0	8.700	13.79	0.000	0.500
ORNAMNTL IRON WORKER	W	ALL		40.200	42.210	2.0	2.0	2.0	8.140	15.16	0.000	0.230
PAINTER		ALL		39.680	41.680	1.5	1.5	1.5	7.500	7.250	0.000	0.750
PAINTER SIGNS		BLD		30.820	34.600	1.5	1.5	1.5	2.600	2.470	0.000	0.000
PILEDRIVER		ALL		40.770	42.770	1.5	1.5	2.0	9.840	9.790	0.000	0.490
PIPEFITTER		BLD		39.500	41.500	1.5	1.5	2.0	9.450	11.24	0.000	1.310
PLASTERER		BLD		32.000	33.500	1.5	1.5	2.0	6.450	6.770	0.000	0.570
PLUMBER		BLD		39.500	41.500	1.5	1.5	2.0	9.450	11.24	0.000	1.310
ROOFER		BLD		37.000	40.000	1.5	1.5	2.0	7.250	5.270	0.000	0.330
SHEETMETAL WORKER		BLD		41.660	43.660	1.5	1.5	2.0	8.210	10.66	0.000	0.780
SPRINKLER FITTER		BLD		40.500	42.500	1.5	1.5	2.0	8.500	6.850	0.000	0.500
STEEL ERECTOR	E	ALL		40.750	42.750	2.0	2.0	2.0	10.95	15.99	0.000	0.300
STEEL ERECTOR	W	ALL		40.200	42.210	2.0	2.0	2.0	8.140	15.16	0.000	0.230
STONE MASON		BLD		39.030	42.930	1.5	1.5	2.0	8.800	10.67	0.000	0.740
TERRAZZO FINISHER		BLD		35.150	0.000	1.5	1.5	2.0	6.950	10.57	0.000	0.380
TERRAZZO MASON		BLD		39.010	42.010	1.5	1.5	2.0	6.950	11.91	0.000	0.510

TILE MASON	BLD	40.490	44.490	2.0	1.5	2.0	6.950	9.730	0.000	0.610
TRAFFIC SAFETY WRKR	HWY	24.300	25.900	1.5	1.5	2.0	3.780	1.875	0.000	0.000
TRUCK DRIVER	ALL 1	32.550	33.100	1.5	1.5	2.0	6.500	4.350	0.000	0.150
TRUCK DRIVER	ALL 2	32.700	33.100	1.5	1.5	2.0	6.500	4.350	0.000	0.150
TRUCK DRIVER	ALL 3	32.900	33.100	1.5	1.5	2.0	6.500	4.350	0.000	0.150
TRUCK DRIVER	ALL 4	33.100	33.100	1.5	1.5	2.0	6.500	4.350	0.000	0.150
TUCKPOINTER	BLD	39.200	40.200	1.5	1.5	2.0	7.830	10.25	0.000	0.770

Legend:

M-F>8 (Overtime is required for any hour greater than 8 worked each day, Monday through Friday.)

OSA (Overtime is required for every hour worked on Saturday)

OSH (Overtime is required for every hour worked on Sunday and Holidays)

H/W (Health & Welfare Insurance)

Pensn (Pension)

Vac (Vacation)

Trng (Training)

Explanations

DUPAGE COUNTY

IRON WORKERS AND FENCE ERECTOR (WEST) - West of Route 53.

The following list is considered as those days for which holiday rates of wages for work performed apply: New Years Day, Memorial/Decoration Day, Fourth of July, Labor Day, Veterans Day, Thanksgiving Day, Christmas Day. Generally, any of these holidays which fall on a Sunday is celebrated on the following Monday. This then makes work performed on that Monday payable at the appropriate overtime rate for holiday pay. Common practice in a given local may alter certain days of celebration such as the day after Thanksgiving for Veterans Day. If in doubt, please check with IDOL.

EXPLANATION OF CLASSES

ASBESTOS - GENERAL - removal of asbestos material/mold and hazardous materials from any place in a building, including mechanical systems where those mechanical systems are to be removed. This includes the removal of asbestos materials/mold and hazardous materials from ductwork or pipes in a building when the building is to be demolished at the time or at some close future date.

ASBESTOS - MECHANICAL - removal of asbestos material from mechanical systems, such as pipes, ducts, and boilers, where the mechanical systems are to remain.

TRAFFIC SAFETY - work associated with barricades, horses and drums used to reduce lane usage on highway work, the installation and removal of temporary lane markings, and the installation and removal of temporary road signs.

CERAMIC TILE FINISHER

The grouting, cleaning, and polishing of all classes of tile, whether for interior or exterior purposes, all burned, glazed or unglazed products; all composition materials, granite tiles, warning detectable tiles, cement tiles, epoxy composite materials, pavers, glass, mosaics, fiberglass, and all substitute materials, for tile made in tile-like units; all mixtures in tile like form of cement, metals, and other materials that are for and intended for use as a finished floor surface, stair treads, promenade roofs, walks, walls, ceilings, swimming pools, and all other places where tile is to form a finished interior or exterior. The mixing of all setting mortars including but not limited to thin-set mortars, epoxies, wall mud, and any other sand and cement mixtures or adhesives when used in the preparation, installation, repair, or maintenance of tile and/or similar materials. The handling and unloading of all sand, cement, lime, tile, fixtures, equipment, adhesives, or any other materials to be used in the preparation, installation, repair, or maintenance of tile and/or similar materials. Ceramic Tile Finishers shall fill all joints and voids regardless of method on all tile work, particularly and especially after installation of said tile work. Application of any and all protective coverings to all types of tile installations including, but not be limited to, all soap compounds, paper products, tapes, and all polyethylene coverings, plywood, masonite, cardboard, and any new type of products that may be used to protect tile installations, Blastrac equipment, and all floor scarifying equipment used in preparing floors to receive tile. The clean up and removal of all waste and materials. All demolition of existing tile floors and walls to be re-tiled.

COMMUNICATIONS TECHNICIAN

Low voltage installation, maintenance and removal of telecommunication facilities (voice, sound, data and video) including telephone and data inside wire, interconnect, terminal equipment, central offices, PABX, fiber optic cable and equipment, micro waves, V-SAT, bypass, CATV, WAN (wide area networks), LAN (local area networks), and ISDN (integrated system digital network), pulling of wire in raceways, but not the installation of raceways.

MARBLE FINISHER

Loading and unloading trucks, distribution of all materials (all stone, sand, etc.), stocking of floors with material, performing all rigging for heavy work, the handling of all material that may be needed for the installation of such materials, building of scaffolding, polishing if needed, patching, waxing of material if damaged, pointing up, caulking, grouting and cleaning of marble, holding water on diamond or Carborundum blade or saw for setters cutting, use of tub saw or any other saw needed for preparation of material, drilling of holes for wires that anchor material set by setters, mixing up of molding plaster for installation of material, mixing up thin set for the installation of material, mixing up of sand to cement for the installation of material and such other work as may be required in helping a Marble Setter in the handling of all material in the erection or installation of interior marble, slate, travertine, art marble, serpentine, alberene stone, blue stone, granite and other stones (meaning as to stone any foreign or domestic materials as are specified and used in building interiors and exteriors and customarily known as stone in the trade), carrara, sanionyx, vitrolite and similar opaque glass and the laying of all marble tile, terrazzo tile, slate tile and precast tile, steps, risers treads, base, or any other materials that may be used as substitutes for any of the aforementioned materials and which are used on interior and exterior which are installed in a similar manner.

MATERIAL TESTER I: Hand coring and drilling for testing of materials; field inspection of uncured concrete and asphalt.

MATERIAL TESTER II: Field inspection of welds, structural steel, fireproofing, masonry, soil, facade, reinforcing steel, formwork, cured concrete, and concrete and asphalt batch plants; adjusting proportions of bituminous mixtures.

OPERATING ENGINEER - BUILDING

Class 1. Asphalt Plant; Asphalt Spreader; Autograde; Backhoes with Caisson Attachment; Batch Plant; Benoto (requires Two Engineers); Boiler and Throttle Valve; Caisson Rigs; Central Redi-Mix Plant; Combination Back Hoe Front End-loader Machine; Compressor and Throttle Valve; Concrete Breaker (Truck Mounted); Concrete Conveyor; Concrete Conveyor (Truck Mounted); Concrete Paver Over 27E cu. ft; Concrete Paver 27E cu. ft. and Under; Concrete Placer; Concrete Placing Boom; Concrete Pump (Truck Mounted); Concrete Tower; Cranes, All; Cranes, Hammerhead; Cranes, (GCI and similar Type); Creter Crane; Crusher, Stone, etc.; Derricks, All; Derricks, Traveling; Formless Curb and Gutter Machine; Grader, Elevating; Grouting Machines; Highlift Shovels or Front Endloader 2-1/4 yd. and over; Hoists, Elevators, outside type rack and pinion and similar machines; Hoists, One, Two and Three Drum; Hoists, Two Tugger One Floor; Hydraulic Backhoes; Hydraulic Boom Trucks; Hydro Vac (and similar equipment); Locomotives, All; Motor Patrol; Lubrication Technician; Manipulators; Pile Drivers and Skid Rig; Post Hole Digger; Pre-Stress Machine; Pump Cretes Dual Ram; Pump Cretes: Squeeze Cretes-Screw Type Pumps; Gypsum Bulker and Pump; Raised and Blind Hole Drill; Roto Mill Grinder; Scoops - Tractor Drawn; Slip-Form Paver; Straddle Buggies; Tournapull; Tractor with Boom and Side Boom; Trenching Machines.

Class 2. Boilers; Broom, All Power Propelled; Bulldozers; Concrete Mixer (Two Bag and Over); Conveyor, Portable; Forklift Trucks; Highlift Shovels or Front Endloaders under 2-1/4 yd.; Hoists, Automatic; Hoists, Inside Elevators; Hoists, Sewer Dragging Machine; Hoists, Tugger Single Drum; Rock Drill (Self-Propelled); Rock Drill (Truck Mounted); Rollers, All; Steam Generators; Tractors, All; Tractor Drawn Vibratory Roller; Winch Trucks with "A" Frame.

Class 3. Air Compressor; Combination Small Equipment Operator; Generators; Heaters, Mechanical; Hoists, Inside Elevators; Hydraulic Power Units (Pile Driving, Extracting, and Drilling); Pumps, over 3" (1 to 3 not to exceed a total of 300 ft.); Low Boys; Pumps, Well Points; Welding Machines (2 through 5); Winches, 4 Small Electric Drill Winches; Bobcats (up to and including 3/4 cu yd.) .

Class 4. Bobcats and/or other Skid Steer Loaders (other than bobcats up to and including 3/4 cu yd.); Oilers; and Brick Forklift.

Class 5. Assistant Craft Foreman.

Class 6. Gradall .

Class 7. Mechanics.

OPERATING ENGINEERS - HIGHWAY CONSTRUCTION

Class 1. Asphalt Plant; Asphalt Heater and Planer Combination; Asphalt Heater Scarfire; Asphalt Spreader; Autograder/GOMACO or other similar type machines: ABG Paver; Backhoes with Caisson Attachment; Ballast

Regulator; Belt Loader; Caisson Rigs; Car Dumper; Central Redi-Mix Plant; Combination Backhoe Front Endloader Machine, (1 cu. yd. Backhoe Bucket or over or with attachments); Concrete Breaker (Truck Mounted); Concrete Conveyor; Concrete Paver over 27E cu. ft.; Concrete Placer; Concrete Tube Float; Cranes, all attachments; Cranes, Tower Cranes of all types: Creter Crane: Crusher, Stone, etc.; Derricks, All; Derrick Boats; Derricks, Traveling; Dowell Machine with Air Compressor; Dredges; Formless Curb and Gutter Machine; Grader, Elevating; Grader, Motor Grader, Motor Patrol, Auto Patrol, Form Grader, Pull Grader, Subgrader; Guard Rail Post Driver Truck Mounted; Hoists, One, Two and Three Drum; Hydraulic Backhoes; Backhoes with shear attachments; Lubrication Technician; Manipulators; Mucking Machine; Pile Drivers and Skid Rig; Pre-Stress Machine; Pump Cretes Dual Ram; Rock Drill - Crawler or Skid Rig; Rock Drill - Truck Mounted; Rock/Track Tamper; Roto Mill Grinder; Slip-Form Paver; Soil Test Drill Rig (Truck Mounted); Straddle Buggies; Hydraulic Telescoping Form (Tunnel); Tractor Drawn Belt Loader (with attached pusher - two engineers); Tractor with Boom; Tractaire with Attachments; Trenching Machine; Truck Mounted Concrete Pump with Boom; Raised or Blind Hole Drills (Tunnel Shaft); Underground Boring and/or Mining Machines 5 ft. in diameter and over tunnel, etc; Underground Boring and/or Mining Machines under 5 ft. in diameter; Wheel Excavator; Widener (APSCO).

Class 2. Batch Plant; Bituminous Mixer; Boiler and Throttle Valve; Bulldozers; Car Loader Trailing Conveyors; Combination Backhoe Front Endloader Machine (Less than 1 cu. yd. Backhoe Bucket or over or with attachments); Compressor and Throttle Valve; Compressor, Common Receiver (3); Concrete Breaker or Hydro Hammer; Concrete Grinding Machine; Concrete Mixer or Paver 7S Series to and including 27 cu. ft.; Concrete Spreader; Concrete Curing Machine, Burlap Machine, Belting Machine and Sealing Machine; Concrete Wheel Saw; Conveyor Muck Cars (Haglund or Similar Type); Drills, All; Finishing Machine - Concrete; Highlift Shovels or Front Endloader; Hoist - Sewer Dragging Machine; Hydraulic Boom Trucks (All Attachments); Hydro-Blaster; All Locomotives, Dinky; Off-Road Hauling Units (including articulating)/2 ton capacity or more; Non Self-Loading Ejection Dump; Pump Cretes: Squeeze Cretes - Screw Type Pumps, Gypsum Bulker and Pump; Roller, Asphalt; Rotary Snow Plows; Rototiller, Seaman, etc., self-propelled; Scoops - Tractor Drawn; Self-Propelled Compactor; Spreader - Chip - Stone, etc.; Scraper; Scraper - Prime Mover in Tandem (Regardless of Size); Tank Car Heater; Tractors, Push, Pulling Sheeps Foot, Disc, Compactor, etc.; Tug Boats.

Class 3. Boilers; Brooms, All Power Propelled; Cement Supply Tender; Compressor, Common Receiver (2); Concrete Mixer (Two Bag and Over); Conveyor, Portable; Farm-Type Tractors Used for Mowing, Seeding, etc.; Fireman on Boilers; Forklift Trucks; Grouting Machine; Hoists, Automatic; Hoists, All Elevators; Hoists, Tugger Single Drum; Jeep Diggers; Low Boys; Pipe Jacking Machines; Post-Hole Digger; Power Saw, Concrete Power Driven; Pug Mills; Rollers, other than Asphalt; Seed and Straw Blower; Steam Generators; Stump Machine; Winch Trucks with "A" Frame; Work Boats; Tamper-Form-Motor Driven.

Class 4. Air Compressor; Combination - Small Equipment Operator; Directional Boring Machine; Generators; Heaters, Mechanical; Hydraulic Power Unit (Pile Driving, Extracting, or Drilling); Hydro- Blaster; Light Plants, All (1 through 5); Pumps, over 3" (1 to 3 not to exceed a total of 300 ft.); Pumps, Well Points; Tractaire; Welding Machines (2 through 5); Winches, 4 Small Electric Drill Winches.

Class 5. Bobcats (all); Brick Forklifts; Oilers.

Class 6. Field Mechanics and Field Welders

Class 7. Gradall and machines of like nature.

TRUCK DRIVER - BUILDING, HEAVY AND HIGHWAY CONSTRUCTION

Class 1. Two or three Axle Trucks. A-frame Truck when used for transportation purposes; Air Compressors and Welding Machines, including those pulled by cars, pick-up trucks and tractors; Ambulances; Batch Gate Lockers; Batch Hopperman; Car and Truck Washers; Carry-alls; Fork Lifts and Hoisters; Helpers; Mechanics Helpers and Greasers; Oil Distributors 2-man operation; Pavement Breakers; Pole Trailer, up to 40 feet; Power Mower Tractors; Self-propelled Chip Spreader; Skipman; Slurry Trucks, 2-man operation; Slurry Truck Conveyor Operation, 2 or 3 man; Teamsters Unskilled dumpman; and Truck Drivers hauling warning lights, barricades, and portable toilets on the job site.

Class 2. Four axle trucks; Dump Crets and Adgetors under 7 yards; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnapulls or Turnatrailers when pulling other than self-loading equipment or similar equipment under 16 cubic yards; Mixer Trucks under 7 yards; Ready-mix Plant Hopper Operator, and Winch Trucks, 2 Axles.

Class 3. Five axle trucks; Dump Crets and Adgetors 7 yards and over; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnatrailers or turnapulls when pulling other than self-loading equipment or similar equipment over 16 cubic yards; Explosives and/or Fission Material Trucks; Mixer Trucks 7 yards or over; Mobile Cranes while in transit; Oil Distributors, 1-man operation; Pole Trailer, over 40 feet; Pole and Expandable Trailers hauling material over 50 feet long; Slurry trucks, 1-man operation; Winch trucks, 3 axles or more; Mechanic--Truck Welder and Truck Painter.

Class 4. Six axle trucks; Dual-purpose vehicles, such as mounted crane trucks with hoist and accessories; Foreman; Master Mechanic; Self-loading equipment like P.B. and trucks with scoops on the front.

TERRAZZO FINISHER

The handling of sand, cement, marble chips, and all other materials that may be used by the Mosaic Terrazzo Mechanic, and the mixing, grinding, grouting, cleaning and sealing of all Marble, Mosaic, and Terrazzo work, floors, base, stairs, and wainscoting by hand or machine, and in addition, assisting and aiding Marble, Masonic, and Terrazzo Mechanics.

Other Classifications of Work:

For definitions of classifications not otherwise set out, the Department generally has on file such definitions which are available. If a task to be performed is not subject to one of the classifications of pay set out, the Department will upon being contacted state which neighboring county has such a classification and provide such rate, such rate being deemed to exist by reference in this document. If no neighboring county rate applies to the task, the Department shall undertake a special determination, such special determination being then deemed to have existed under this determination. If a project requires these, or any classification not listed, please contact IDOL at 217-782-1710 for wage rates or clarifications.

LANDSCAPING

Landscaping work falls under the existing classifications for laborer, operating engineer and truck driver. The work performed by landscape plantsman and landscape laborer is covered by the existing classification of laborer. The work performed by landscape operators (regardless of equipment used or its size) is covered by the classifications of operating engineer. The work performed by landscape truck drivers (regardless of size of truck driven) is covered by the classifications of truck driver.

Kane County Prevailing Wage for December 2009

Trade Name	RG	TYP	C	Base	FRMAN	*M-F>8	OSA	OSH	H/W	Pensn	Vac	Trng
=====	==	===	=	=====	=====	=====	===	===	=====	=====	=====	=====
ASBESTOS ABT-GEN		ALL		35.200	35.700	1.5	1.5	2.0	9.130	8.370	0.000	0.400
ASBESTOS ABT-MEC		BLD		31.540	0.000	1.5	1.5	2.0	9.670	9.610	0.000	0.520
BOILERMAKER		BLD		43.020	46.890	2.0	2.0	2.0	6.720	9.890	0.000	0.350
BRICK MASON		BLD		39.030	42.930	1.5	1.5	2.0	8.800	10.67	0.000	0.740
CARPENTER		ALL		40.770	42.770	1.5	1.5	2.0	9.840	9.800	0.000	0.490
CEMENT MASON		ALL		41.550	43.550	2.0	1.5	2.0	7.900	10.81	0.000	0.150
CERAMIC TILE FNSHER		BLD		33.600	0.000	2.0	1.5	2.0	6.950	8.020	0.000	0.540
COMMUNICATION TECH	N	BLD		29.960	31.760	1.5	1.5	2.0	5.842	6.290	0.000	0.375
COMMUNICATION TECH	S	BLD		34.220	36.320	1.5	1.5	2.0	9.340	8.900	0.000	1.030
ELECTRIC PWR EQMT OP		ALL		31.790	40.830	1.5	1.5	2.0	4.750	9.850	0.000	0.240
ELECTRIC PWR GRNDMAN		ALL		24.630	40.830	1.5	1.5	2.0	4.750	7.640	0.000	0.180
ELECTRIC PWR LINEMAN		ALL		37.810	40.830	1.5	1.5	2.0	4.750	11.71	0.000	0.280
ELECTRIC PWR TRK DRV		ALL		25.440	40.830	1.5	1.5	2.0	4.750	7.880	0.000	0.190
ELECTRICIAN	N	ALL		40.470	44.510	1.5	1.5	2.0	9.920	9.300	0.000	0.500
ELECTRICIAN	S	BLD		42.470	46.720	1.5	1.5	2.0	9.340	10.61	0.000	1.270
ELEVATOR CONSTRUCTOR		BLD		44.930	50.550	2.0	2.0	2.0	9.525	8.210	2.700	0.000
FENCE ERECTOR		ALL		40.200	42.210	2.0	2.0	2.0	8.140	15.16	0.000	0.230
GLAZIER		BLD		37.000	38.500	1.5	1.5	2.0	7.340	12.05	0.000	0.740
HT/FROST INSULATOR		BLD		42.050	44.550	1.5	1.5	2.0	9.670	10.81	0.000	0.520
IRON WORKER		ALL		40.200	42.210	2.0	2.0	2.0	8.140	15.16	0.000	0.230
LABORER		ALL		35.200	35.950	1.5	1.5	2.0	9.370	8.130	0.000	0.400
LATHER		ALL		40.770	42.770	1.5	1.5	2.0	9.840	9.800	0.000	0.490
MACHINIST		BLD		42.770	44.770	1.5	1.5	2.0	7.750	8.690	0.650	0.000
MARBLE FINISHERS		ALL		28.650	0.000	1.5	1.5	2.0	7.920	9.970	0.000	0.550
MARBLE MASON		BLD		38.030	41.830	1.5	1.5	2.0	8.000	9.970	0.000	0.550
MATERIAL TESTER I		ALL		25.200	0.000	1.5	1.5	2.0	9.370	8.130	0.000	0.400
MATERIALS TESTER II		ALL		30.200	0.000	1.5	1.5	2.0	9.370	8.130	0.000	0.400
MILLWRIGHT		ALL		40.770	42.770	1.5	1.5	2.0	9.840	9.800	0.000	0.490
OPERATING ENGINEER		BLD	1	45.100	49.100	2.0	2.0	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		BLD	2	43.800	49.100	2.0	2.0	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		BLD	3	41.250	49.100	2.0	2.0	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		BLD	4	39.500	49.100	2.0	2.0	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		BLD	5	48.850	49.100	2.0	2.0	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		BLD	6	46.100	49.100	2.0	2.0	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		BLD	7	48.100	49.100	2.0	2.0	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		HWY	1	43.300	47.300	1.5	1.5	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		HWY	2	42.750	47.300	1.5	1.5	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		HWY	3	40.700	47.300	1.5	1.5	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		HWY	4	39.300	47.300	1.5	1.5	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		HWY	5	38.100	47.300	1.5	1.5	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		HWY	6	46.300	47.300	1.5	1.5	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		HWY	7	44.300	47.300	1.5	1.5	2.0	11.70	8.050	1.900	1.150
ORNAMNTL IRON WORKER		ALL		40.200	42.210	2.0	2.0	2.0	8.140	15.16	0.000	0.230
PAINTER		ALL		39.680	41.680	1.5	1.5	1.5	7.500	7.250	0.000	0.750
PAINTER SIGNS		BLD		30.820	34.600	1.5	1.5	1.5	2.600	2.470	0.000	0.000
PILEDRIIVER		ALL		40.770	42.770	1.5	1.5	2.0	9.840	9.800	0.000	0.490
PIPEFITTER		BLD		39.500	41.500	1.5	1.5	2.0	9.450	11.24	0.000	1.310
PLASTERER		BLD		38.550	40.860	1.5	1.5	2.0	9.000	9.690	0.000	0.450
PLUMBER		BLD		39.500	41.500	1.5	1.5	2.0	9.450	11.24	0.000	1.310
ROOFER		BLD		37.000	40.000	1.5	1.5	2.0	7.250	5.270	0.000	0.330
SHEETMETAL WORKER		BLD		41.660	43.660	1.5	1.5	2.0	8.210	10.66	0.000	0.780
SIGN HANGER		BLD		26.070	27.570	1.5	1.5	2.0	3.800	3.550	0.000	0.000
SPRINKLER FITTER		BLD		40.500	42.500	1.5	1.5	2.0	8.500	6.850	0.000	0.500
STEEL ERECTOR		ALL		40.200	42.210	2.0	2.0	2.0	8.140	15.16	0.000	0.230
STONE MASON		BLD		39.030	42.930	1.5	1.5	2.0	8.800	10.67	0.000	0.740
TERRAZZO FINISHER		BLD		35.150	0.000	1.5	1.5	2.0	6.950	10.57	0.000	0.380
TERRAZZO MASON		BLD		39.010	42.010	1.5	1.5	2.0	6.950	11.91	0.000	0.510
TILE MASON		BLD		40.490	44.490	2.0	1.5	2.0	6.950	9.730	0.000	0.610

TRAFFIC SAFETY WRKR	HWY	24.300	25.900	1.5	1.5	2.0	3.780	1.875	0.000	0.000
TRUCK DRIVER	ALL 1	32.550	33.100	1.5	1.5	2.0	6.500	4.350	0.000	0.150
TRUCK DRIVER	ALL 2	32.700	33.100	1.5	1.5	2.0	6.500	4.350	0.000	0.150
TRUCK DRIVER	ALL 3	32.900	33.100	1.5	1.5	2.0	6.500	4.350	0.000	0.150
TRUCK DRIVER	ALL 4	33.100	33.100	1.5	1.5	2.0	6.500	4.350	0.000	0.150
TUCKPOINTER	BLD	39.200	40.200	1.5	1.5	2.0	7.830	10.25	0.000	0.770

Legend:

M-F>8 (Overtime is required for any hour greater than 8 worked each day, Monday through Friday.)

OSA (Overtime is required for every hour worked on Saturday)

OSH (Overtime is required for every hour worked on Sunday and Holidays)

H/W (Health & Welfare Insurance)

Pensn (Pension)

Vac (Vacation)

Trng (Training)

Explanations

KANE COUNTY

ELECTRICIANS AND COMMUNICATIONS TECHNICIAN (NORTH) - Townships of Burlington, Campton, Dundee, Elgin, Hampshire, Plato, Rutland, St. Charles (except the West half of Sec. 26, all of Secs. 27, 33, and 34, South half of Sec. 28, West half of Sec. 35), Virgil and Valley View CCC and Elgin Mental Health Center.

The following list is considered as those days for which holiday rates of wages for work performed apply: New Years Day, Memorial/Decoration Day, Fourth of July, Labor Day, Veterans Day, Thanksgiving Day, Christmas Day. Generally, any of these holidays which fall on a Sunday is celebrated on the following Monday. This then makes work performed on that Monday payable at the appropriate overtime rate for holiday pay. Common practice in a given local may alter certain days of celebration such as the day after Thanksgiving for Veterans Day. If in doubt, please check with IDOL.

EXPLANATION OF CLASSES

ASBESTOS - GENERAL - removal of asbestos material/mold and hazardous materials from any place in a building, including mechanical systems where those mechanical systems are to be removed. This includes the removal of asbestos materials/mold and hazardous materials from ductwork or pipes in a building when the building is to be demolished at the time or at some close future date.

ASBESTOS - MECHANICAL - removal of asbestos material from mechanical systems, such as pipes, ducts, and boilers, where the mechanical systems are to remain.

CERAMIC TILE FINISHER

The grouting, cleaning, and polishing of all classes of tile, whether for interior or exterior purposes, all burned, glazed or unglazed products; all composition materials, granite tiles, warning detectable tiles, cement tiles, epoxy composite materials, pavers, glass, mosaics, fiberglass, and all substitute materials, for tile made in tile-like units; all mixtures in tile like form of cement, metals, and other materials that are for and intended for use as a finished floor surface, stair treads, promenade roofs, walks, walls, ceilings, swimming pools, and all other places where tile is to form a finished interior or exterior. The mixing of all setting mortars including but not limited to thin-set mortars, epoxies, wall mud, and any other sand and cement mixtures or adhesives when used in the preparation, installation, repair, or maintenance of tile and/or similar materials. The handling and unloading of all sand, cement, lime, tile, fixtures, equipment, adhesives, or any other materials to be used in the preparation, installation, repair, or maintenance of tile and/or similar materials. Ceramic Tile Finishers shall fill all joints and voids regardless of method on all tile work, particularly and especially after installation of said tile work. Application of any and all protective coverings to all types of tile installations including, but not be limited to, all soap compounds, paper products, tapes, and all polyethylene coverings, plywood, masonite, cardboard, and any new type of products that may be used to protect tile installations, Blastrac equipment, and all floor scarifying equipment used in preparing floors to receive tile. The clean up and removal of all waste and materials. All demolition of existing tile floors and walls to be re-tiled.

COMMUNICATIONS TECHNICIAN

Construction, installation, maintenance and removal of telecommunication facilities (voice, sound, data and video), telephone, security systems, fire alarm systems that are a component of a multiplex system and share a common cable, and data inside wire, interconnect, terminal equipment, central offices, PABX and equipment, micro waves, V-SAT, bypass, CATV, WAN (wide area network), LAN (local area networks), and ISDN (integrated system digital network), pulling of wire in raceways, but not the installation of raceways.

MARBLE FINISHER

Loading and unloading trucks, distribution of all materials (all stone, sand, etc.), stocking of floors with material, performing all rigging for heavy work, the handling of all material that may be needed for the installation of such materials, building of scaffolding, polishing if needed, patching, waxing of material if damaged, pointing up, caulking, grouting and cleaning of marble, holding water on diamond or Carborundum blade or saw for setters cutting, use of tub saw or any other saw needed for preparation of material, drilling of holes for wires that anchor material set by setters, mixing up of molding plaster for installation of material, mixing up thin set for the installation of material, mixing up of sand to cement for the installation of material and such other work as may be required in helping a Marble Setter in the handling of all material in the erection or installation of interior marble, slate, travertine, art marble, serpentine, alberene stone, blue stone, granite and other stones (meaning as to stone any foreign or domestic materials as are specified and used in building interiors and exteriors and customarily known as stone in the trade), carrara, sanionyx, vitrolite and similar opaque glass and the laying of all marble tile, terrazzo tile, slate tile and precast tile, steps, risers

treads, base, or any other materials that may be used as substitutes for any of the aforementioned materials and which are used on interior and exterior which are installed in a similar manner.

MATERIAL TESTER I: Hand coring and drilling for testing of materials; field inspection of uncured concrete and asphalt.

MATERIAL TESTER II: Field inspection of welds, structural steel, fireproofing, masonry, soil, facade, reinforcing steel, formwork, cured concrete, and concrete and asphalt batch plants; adjusting proportions of bituminous mixtures.

OPERATING ENGINEER - BUILDING

Class 1. Asphalt Plant; Asphalt Spreader; Autograde; Backhoes with Caisson Attachment; Batch Plant; Benoto (requires Two Engineers); Boiler and Throttle Valve; Caisson Rigs; Central Redi-Mix Plant; Combination Back Hoe Front End-loader Machine; Compressor and Throttle Valve; Concrete Breaker (Truck Mounted); Concrete Conveyor; Concrete Conveyor (Truck Mounted); Concrete Paver Over 27E cu. ft; Concrete Paver 27E cu. ft. and Under; Concrete Placer; Concrete Placing Boom; Concrete Pump (Truck Mounted); Concrete Tower; Cranes, All; Cranes, Hammerhead; Cranes, (GCI and similar Type); Creter Crane; Crusher, Stone, etc.; Derricks, All; Derricks, Traveling; Formless Curb and Gutter Machine; Grader, Elevating; Grouting Machines; Highlift Shovels or Front Endloader 2-1/4 yd. and over; Hoists, Elevators, outside type rack and pinion and similar machines; Hoists, One, Two and Three Drum; Hoists, Two Tugger One Floor; Hydraulic Backhoes; Hydraulic Boom Trucks; Hydro Vac (and similar equipment); Locomotives, All; Motor Patrol; Lubrication Technician; Manipulators; Pile Drivers and Skid Rig; Post Hole Digger; Pre-Stress Machine; Pump Cretes Dual Ram; Pump Cretes: Squeeze Cretes-Screw Type Pumps; Gypsum Bulker and Pump; Raised and Blind Hole Drill; Roto Mill Grinder; Scoops - Tractor Drawn; Slip-Form Paver; Straddle Buggies; Tournapull; Tractor with Boom and Side Boom; Trenching Machines.

Class 2. Boilers; Broom, All Power Propelled; Bulldozers; Concrete Mixer (Two Bag and Over); Conveyor, Portable; Forklift Trucks; Highlift Shovels or Front Endloaders under 2-1/4 yd.; Hoists, Automatic; Hoists, Inside Elevators; Hoists, Sewer Dragging Machine; Hoists, Tugger Single Drum; Rock Drill (Self-Propelled); Rock Drill (Truck Mounted); Rollers, All; Steam Generators; Tractors, All; Tractor Drawn Vibratory Roller; Winch Trucks with "A" Frame.

Class 3. Air Compressor; Combination Small Equipment Operator; Generators; Heaters, Mechanical; Hoists, Inside Elevators; Hydraulic Power Units (Pile Driving, Extracting, and Drilling); Pumps, over 3" (1 to 3 not to exceed a total of 300 ft.); Low Boys; Pumps, Well Points; Welding Machines (2 through 5); Winches, 4 Small Electric Drill Winches; Bobcats (up to and including 3/4 cu yd.) .

Class 4. Bobcats and/or other Skid Steer Loaders (other than bobcats up to and including 3/4 cu yd.); Oilers; and Brick Forklift.

Class 5. Assistant Craft Foreman.

Class 6. Gradall .

Class 7. Mechanics.

OPERATING ENGINEERS - HIGHWAY CONSTRUCTION

Class 1. Asphalt Plant; Asphalt Heater and Planer Combination; Asphalt Heater Scarfire; Asphalt Spreader; Autograder/GOMACO or other similar type machines: ABG Paver; Backhoes with Caisson Attachment; Ballast Regulator; Belt Loader; Caisson Rigs; Car Dumper; Central Redi-Mix Plant; Combination Backhoe Front Endloader Machine, (1 cu. yd. Backhoe Bucket or over or with attachments); Concrete Breaker (Truck Mounted); Concrete Conveyor; Concrete Paver over 27E cu. ft.; Concrete Placer; Concrete Tube Float; Cranes, all attachments; Cranes, Tower Cranes of all types: Creter Crane: Crusher, Stone, etc.; Derricks, All; Derrick Boats; Derricks, Traveling; Dowell Machine with Air Compressor; Dredges; Formless Curb and Gutter Machine; Grader, Elevating; Grader, Motor Grader, Motor Patrol, Auto Patrol, Form Grader, Pull Grader, Subgrader; Guard Rail Post Driver Truck Mounted; Hoists, One, Two and Three Drum; Hydraulic Backhoes; Backhoes with shear attachments; Lubrication Technician; Manipulators; Mucking Machine; Pile Drivers and Skid Rig; Pre-Stress Machine; Pump Cretes Dual Ram; Rock Drill - Crawler or Skid Rig; Rock Drill - Truck Mounted; Rock/Track Tamper; Roto Mill Grinder; Slip-Form Paver; Soil Test Drill Rig (Truck Mounted); Straddle Buggies; Hydraulic Telescoping Form (Tunnel); Tractor Drawn Belt Loader (with attached pusher - two engineers); Tractor with Boom; Tractaire with Attachments; Trenching Machine; Truck Mounted Concrete Pump with Boom; Raised or Blind Hole Drills (Tunnel Shaft); Underground Boring and/or Mining Machines 5 ft. in diameter and over tunnel, etc; Underground Boring and/or Mining Machines under 5 ft. in diameter; Wheel Excavator; Widener (APSCO).

Class 2. Batch Plant; Bituminous Mixer; Boiler and Throttle Valve; Bulldozers; Car Loader Trailing Conveyors; Combination Backhoe Front Endloader Machine (Less than 1 cu. yd. Backhoe Bucket or over or with attachments); Compressor and Throttle Valve; Compressor, Common Receiver (3); Concrete Breaker or Hydro Hammer; Concrete Grinding Machine; Concrete Mixer or Paver 7S Series to and including 27 cu. ft.; Concrete Spreader; Concrete Curing Machine, Burlap Machine, Belting Machine and Sealing Machine; Concrete Wheel Saw; Conveyor Muck Cars (Haglund or Similar Type); Drills, All; Finishing Machine - Concrete; Highlift Shovels or Front Endloader; Hoist - Sewer Dragging Machine; Hydraulic Boom Trucks (All Attachments); Hydro-Blaster; All Locomotives, Dinky; Off-Road Hauling Units (including articulating)/2 ton capacity or more; Non Self-Loading Ejection Dump; Pump Cretes: Squeeze Cretes - Screw Type Pumps, Gypsum Bulker and Pump; Roller, Asphalt; Rotary Snow Plows; Rototiller, Seaman, etc., self-propelled; Scoops - Tractor Drawn; Self-Propelled Compactor; Spreader - Chip - Stone, etc.; Scraper; Scraper - Prime Mover in Tandem (Regardless of Size); Tank Car Heater; Tractors, Push, Pulling Sheeps Foot, Disc, Compactor, etc.; Tug Boats.

Class 3. Boilers; Brooms, All Power Propelled; Cement Supply Tender; Compressor, Common Receiver (2); Concrete Mixer (Two Bag and Over); Conveyor, Portable; Farm-Type Tractors Used for Mowing, Seeding, etc.; Fireman on Boilers; Forklift Trucks; Grouting Machine; Hoists, Automatic; Hoists, All Elevators; Hoists, Tugger Single Drum; Jeep Diggers; Low Boys; Pipe Jacking Machines; Post-Hole Digger; Power Saw, Concrete Power Driven; Pug Mills; Rollers, other than Asphalt; Seed and Straw Blower; Steam Generators; Stump Machine; Winch Trucks with "A" Frame; Work Boats; Tamper-Form-Motor Driven.

Class 4. Air Compressor; Combination - Small Equipment Operator; Directional Boring Machine; Generators; Heaters, Mechanical; Hydraulic Power Unit (Pile Driving, Extracting, or Drilling); Hydro- Blaster; Light Plants, All (1 through 5); Pumps, over 3" (1 to 3 not to exceed a total of 300 ft.); Pumps, Well Points; Tractaire; Welding Machines (2 through 5); Winches, 4 Small Electric Drill Winches.

Class 5. Bobcats (all); Brick Forklifts; Oilers.

Class 6. Field Mechanics and Field Welders

Class 7. Gradall and machines of like nature.

TRAFFIC SAFETY - work associated with barricades, horses and drums used to reduce lane usage on highway work, the installation and removal of temporary lane markings, and the installation and removal of temporary road signs.

TRUCK DRIVER - BUILDING, HEAVY AND HIGHWAY CONSTRUCTION

Class 1. Two or three Axle Trucks. A-frame Truck when used for transportation purposes; Air Compressors and Welding Machines, including those pulled by cars, pick-up trucks and tractors; Ambulances; Batch Gate Lockers; Batch Hopperman; Car and Truck Washers; Carry-alls; Fork Lifts and Hoisters; Helpers; Mechanics Helpers and Greasers; Oil Distributors 2-man operation; Pavement Breakers; Pole Trailer, up to 40 feet; Power Mower Tractors; Self-propelled Chip Spreader; Skipman; Slurry Trucks, 2-man operation; Slurry Truck Conveyor Operation, 2 or 3 man; Teamsters; Unskilled dumpman; and Truck Drivers hauling warning lights, barricades, and portable toilets on the job site.

Class 2. Four axle trucks; Dump Crets and Adgetors under 7 yards; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnapulls or Turnatrailers when pulling other than self-loading equipment or similar equipment under 16 cubic yards; Mixer Trucks under 7 yards; Ready-mix Plant Hopper Operator, and Winch Trucks, 2 Axles.

Class 3. Five axle trucks; Dump Crets and Adgetors 7 yards and over; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnatrailers or turnapulls when pulling other than self-loading equipment or similar equipment over 16 cubic yards; Explosives and/or Fission Material Trucks; Mixer Trucks 7 yards or over; Mobile Cranes while in transit; Oil Distributors, 1-man operation; Pole Trailer, over 40 feet; Pole and Expandable Trailers hauling material over 50 feet long; Slurry trucks, 1-man operation; Winch trucks, 3 axles or more; Mechanic--Truck Welder and Truck Painter.

Class 4. Six axle trucks; Dual-purpose vehicles, such as mounted crane trucks with hoist and accessories; Foreman; Master Mechanic; Self-loading equipment like P.B. and trucks with scoops on the front.

TERRAZZO FINISHER

The handling of sand, cement, marble chips, and all other materials that may be used by the Mosaic Terrazzo Mechanic, and the mixing, grinding, grouting, cleaning and sealing of all Marble, Mosaic, and Terrazzo work, floors, base, stairs, and wainscoting by hand or machine, and in addition, assisting and aiding Marble, Masonic, and Terrazzo Mechanics.

Other Classifications of Work:

For definitions of classifications not otherwise set out, the Department generally has on file such definitions which are available. If a task to be performed is not subject to one of the classifications of pay set out, the Department will upon being contacted state which neighboring county has such a classification and provide such rate, such rate being deemed to exist by reference in

this document. If no neighboring county rate applies to the task, the Department shall undertake a special determination, such special determination being then deemed to have existed under this determination. If a project requires these, or any classification not listed, please contact IDOL at 217-782-1710 for wage rates or clarifications.

LANDSCAPING

Landscaping work falls under the existing classifications for laborer, operating engineer and truck driver. The work performed by landscape plantsman and landscape laborer is covered by the existing classification of laborer. The work performed by landscape operators (regardless of equipment used or its size) is covered by the classifications of operating engineer. The work performed by landscape truck drivers (regardless of size of truck driven) is covered by the classifications of truck driver.

Lake County Prevailing Wage for December 2009

Trade Name	RG	TYP	C	Base	FRMAN	*M-F>8	OSA	OSH	H/W	Pensn	Vac	Trng
=====	==	===	=	=====	=====	=====	===	===	=====	=====	=====	=====
ASBESTOS ABT-GEN		ALL		35.200	35.700	1.5	1.5	2.0	9.130	8.370	0.000	0.400
ASBESTOS ABT-MEC		BLD		31.540	0.000	1.5	1.5	2.0	9.670	9.610	0.000	0.520
BOILERMAKER		BLD		43.020	46.890	2.0	2.0	2.0	6.720	9.890	0.000	0.350
BRICK MASON		BLD		39.030	42.930	1.5	1.5	2.0	8.800	10.67	0.000	0.740
CARPENTER		ALL		40.770	42.770	1.5	1.5	2.0	9.840	9.790	0.000	0.490
CEMENT MASON		ALL		40.300	42.300	2.0	1.5	2.0	8.900	11.08	0.000	0.150
CERAMIC TILE FNSHER		BLD		33.600	0.000	2.0	1.5	2.0	6.950	8.020	0.000	0.540
COMMUNICATION TECH		BLD		33.130	35.230	1.5	1.5	2.0	9.280	9.270	1.330	0.480
ELECTRIC PWR EQMT OP		ALL		31.790	40.830	1.5	1.5	2.0	4.750	9.850	0.000	0.240
ELECTRIC PWR GRNDMAN		ALL		24.630	40.830	1.5	1.5	2.0	4.750	7.640	0.000	0.180
ELECTRIC PWR LINEMAN		ALL		37.810	40.830	1.5	1.5	2.0	4.750	11.71	0.000	0.280
ELECTRIC PWR TRK DRV		ALL		25.440	40.830	1.5	1.5	2.0	4.750	7.880	0.000	0.190
ELECTRICIAN		BLD		38.350	42.190	1.5	1.5	2.0	11.13	11.89	1.530	0.540
ELEVATOR CONSTRUCTOR		BLD		44.930	50.550	2.0	2.0	2.0	9.525	8.210	2.700	0.000
FENCE ERECTOR		ALL		30.700	32.200	1.5	1.5	2.0	7.950	8.430	0.000	0.500
GLAZIER		BLD		37.000	38.500	1.5	1.5	2.0	7.340	12.05	0.000	0.740
HT/FROST INSULATOR		BLD		42.050	44.550	1.5	1.5	2.0	9.670	10.81	0.000	0.520
IRON WORKER		ALL		40.750	42.750	2.0	2.0	2.0	10.95	15.99	0.000	0.300
LABORER		ALL		35.200	35.950	1.5	1.5	2.0	9.130	8.370	0.000	0.400
LATHER		ALL		40.770	42.770	1.5	1.5	2.0	9.840	9.790	0.000	0.490
MACHINIST		BLD		42.770	44.770	1.5	1.5	2.0	7.750	8.690	0.650	0.000
MARBLE FINISHERS		ALL		28.650	0.000	1.5	1.5	2.0	7.920	9.970	0.000	0.550
MARBLE MASON		BLD		38.030	41.830	1.5	1.5	2.0	8.000	9.970	0.000	0.550
MATERIAL TESTER I		ALL		25.200	0.000	1.5	1.5	2.0	9.130	8.370	0.000	0.400
MATERIALS TESTER II		ALL		30.200	0.000	1.5	1.5	2.0	9.130	8.370	0.000	0.400
MILLWRIGHT		ALL		40.770	42.770	1.5	1.5	2.0	9.840	9.790	0.000	0.490
OPERATING ENGINEER		BLD	1	45.100	49.100	2.0	2.0	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		BLD	2	43.800	49.100	2.0	2.0	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		BLD	3	41.250	49.100	2.0	2.0	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		BLD	4	39.500	49.100	2.0	2.0	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		BLD	5	48.850	49.100	2.0	2.0	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		BLD	6	46.100	49.100	2.0	2.0	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		BLD	7	48.100	49.100	2.0	2.0	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		FLT	1	49.800	49.800	1.5	1.5	2.0	10.35	7.050	1.900	1.000
OPERATING ENGINEER		FLT	2	48.300	49.800	1.5	1.5	2.0	10.35	7.050	1.900	1.000
OPERATING ENGINEER		FLT	3	43.000	49.800	1.5	1.5	2.0	10.35	7.050	1.900	1.000
OPERATING ENGINEER		FLT	4	35.750	49.800	1.5	1.5	2.0	10.35	7.050	1.900	1.000
OPERATING ENGINEER		HWY	1	43.300	47.300	1.5	1.5	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		HWY	2	42.750	47.300	1.5	1.5	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		HWY	3	40.700	47.300	1.5	1.5	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		HWY	4	39.300	47.300	1.5	1.5	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		HWY	5	38.100	47.300	1.5	1.5	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		HWY	6	46.300	47.300	1.5	1.5	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		HWY	7	44.300	47.300	1.5	1.5	2.0	11.70	8.050	1.900	1.150
ORNAMNTL IRON WORKER		ALL		39.200	41.450	2.0	2.0	2.0	8.700	13.79	0.000	0.500
PAINTER		ALL		38.000	42.750	1.5	1.5	1.5	8.350	9.400	0.000	0.670
PAINTER SIGNS		BLD		30.820	34.600	1.5	1.5	1.5	2.600	2.470	0.000	0.000
PILEDRIVER		ALL		40.770	42.770	1.5	1.5	2.0	9.840	9.790	0.000	0.490
PIPEFITTER		BLD		43.150	46.150	1.5	1.5	2.0	7.660	9.550	0.000	1.570
PLASTERER		BLD		38.690	41.010	2.0	1.5	2.0	8.900	11.08	0.000	0.150
PLUMBER		BLD		42.650	45.150	1.5	1.5	2.0	9.900	9.450	0.000	0.950
ROOFER		BLD		37.000	40.000	1.5	1.5	2.0	7.250	5.270	0.000	0.330
SHEETMETAL WORKER		BLD		40.460	43.700	1.5	1.5	2.0	9.580	12.35	0.000	0.610
SIGN HANGER		BLD		28.210	29.060	1.5	1.5	2.0	4.450	2.880	0.000	0.000
SPRINKLER FITTER		BLD		40.500	42.500	1.5	1.5	2.0	8.500	6.850	0.000	0.500
STEEL ERECTOR		ALL		40.750	42.750	2.0	2.0	2.0	10.95	15.99	0.000	0.300
STONE MASON		BLD		39.030	42.930	1.5	1.5	2.0	8.800	10.67	0.000	0.740
TERRAZZO FINISHER		BLD		35.150	0.000	1.5	1.5	2.0	6.950	10.57	0.000	0.380

TERRAZZO MASON	BLD	39.010	42.010	1.5	1.5	2.0	6.950	11.91	0.000	0.510
TILE MASON	BLD	40.490	44.490	2.0	1.5	2.0	6.950	9.730	0.000	0.610
TRAFFIC SAFETY WRKR	HWY	24.300	25.900	1.5	1.5	2.0	3.780	1.875	0.000	0.000
TRUCK DRIVER	ALL 1	32.200	32.750	1.5	1.5	2.0	5.700	5.500	0.000	0.150
TRUCK DRIVER	ALL 2	32.350	32.750	1.5	1.5	2.0	5.700	5.500	0.000	0.150
TRUCK DRIVER	ALL 3	32.550	32.750	1.5	1.5	2.0	5.700	5.500	0.000	0.150
TRUCK DRIVER	ALL 4	32.750	32.750	1.5	1.5	2.0	5.700	5.500	0.000	0.150
TUCKPOINTER	BLD	39.200	40.200	1.5	1.5	2.0	7.830	10.25	0.000	0.770

Legend:

M-F>8 (Overtime is required for any hour greater than 8 worked each day, Monday through Friday.)

OSA (Overtime is required for every hour worked on Saturday)

OSH (Overtime is required for every hour worked on Sunday and Holidays)

H/W (Health & Welfare Insurance)

Pensn (Pension)

Vac (Vacation)

Trng (Training)

Explanations

LAKE COUNTY

The following list is considered as those days for which holiday rates of wages for work performed apply: New Years Day, Memorial/Decoration Day, Fourth of July, Day, Veterans Day, Thanksgiving Day, Christmas Day. Generally, any of these holidays which fall on a Sunday is celebrated on the following Monday. This then makes work performed on that Monday payable at the appropriate overtime rate for holiday pay. Common practice in a given local may alter certain days of celebration such as the day after Thanksgiving for Veterans Day. If in doubt, please check with IDOL.

EXPLANATION OF CLASSES

ASBESTOS - GENERAL - removal of asbestos material/mold and hazardous materials from any place in a building, including mechanical systems where those mechanical systems are to be removed. This includes the removal of asbestos materials/mold and hazardous materials from ductwork or pipes in a building when the building is to be demolished at the time or at some close future date.

ASBESTOS - MECHANICAL - removal of asbestos material from mechanical systems, such as pipes, ducts, and boilers, where the mechanical systems are to remain.

CERAMIC TILE FINISHER

The grouting, cleaning, and polishing of all classes of tile, whether for interior or exterior purposes, all burned, glazed or unglazed products; all composition materials, granite tiles, warning detectable tiles, cement tiles, epoxy composite materials, pavers, glass,

mosaics, fiberglass, and all substitute materials, for tile made in tile-like units; all mixtures in tile like form of cement, metals, and other materials that are for and intended for use as a finished floor surface, stair treads, promenade roofs, walks, walls, ceilings, swimming pools, and all other places where tile is to form a finished interior or exterior. The mixing of all setting mortars including but not limited to thin-set mortars, epoxies, wall mud, and any other sand and cement mixtures or adhesives when used in the preparation, installation, repair, or maintenance of tile and/or similar materials. The handling and unloading of all sand, cement, lime, tile, fixtures, equipment, adhesives, or any other materials to be used in the preparation, installation, repair, or maintenance of tile and/or similar materials. Ceramic Tile Finishers shall fill all joints and voids regardless of method on all tile work, particularly and especially after installation of said tile work. Application of any and all protective coverings to all types of tile installations including, but not be limited to, all soap compounds, paper products, tapes, and all polyethylene coverings, plywood, masonite, cardboard, and any new type of products that may be used to protect tile installations, Blastrac equipment, and all floor scarifying equipment used in preparing floors to receive tile. The clean up and removal of all waste and materials. All demolition of existing tile floors and walls to be re-tiled.

COMMUNICATION TECHNICIAN

Low voltage construction, installation, maintenance and removal of telecommunication facilities (voice, sound, data and video) including outside plant, telephone, security systems and data inside wire, interconnect, terminal equipment, central offices, PABX, fiber optic cable and equipment, micro waves, V-SAT, bypass, CATV, WAN (wide area network), LAN (local area networks), and ISDN (integrated system digital network), pulling of wire in raceways, but not the installation of raceways.

MARBLE FINISHER

Loading and unloading trucks, distribution of all materials (all stone, sand, etc.), stocking of floors with material, performing all rigging for heavy work, the handling of all material that may be needed for the installation of such materials, building of scaffolding, polishing if needed, patching, waxing of material if damaged, pointing up, caulking, grouting and cleaning of marble, holding water on diamond or Carborundum blade or saw for setters cutting, use of tub saw or any other saw needed for preparation of material, drilling of holes for wires that anchor material set by setters, mixing up of molding plaster for installation of material, mixing up thin set for the installation of material, mixing up of sand to cement for the installation of material and such other work as may be required in helping a Marble Setter in the handling of all material in the erection or installation of interior marble, slate, travertine, art marble, serpentine, alberene stone, blue stone, granite and other stones (meaning as to stone any foreign or domestic materials as are specified and used in building interiors and exteriors and customarily known as stone in the trade), carrara, sanionyx, vitrolite and similar opaque glass and the laying of all marble tile, terrazzo tile, slate tile and precast tile, steps, risers treads, base, or any other materials that may be used as substitutes for any of the aforementioned materials and which are used on interior and exterior which are installed in a similar manner.

MATERIAL TESTER I: Hand coring and drilling for testing of materials; field inspection of uncured concrete and asphalt.

MATERIAL TESTER II: Field inspection of welds, structural steel, fireproofing, masonry, soil, facade, reinforcing steel, formwork, cured concrete, and concrete and asphalt batch plants; adjusting proportions of bituminous mixtures.

OPERATING ENGINEER - BUILDING

Class 1. Asphalt Plant; Asphalt Spreader; Autograde; Backhoes with Caisson Attachment; Batch Plant; Benoto (requires Two Engineers); Boiler and Throttle Valve; Caisson Rigs; Central Redi-Mix Plant; Combination Back Hoe Front End-loader Machine; Compressor and Throttle Valve; Concrete Breaker (Truck Mounted); Concrete Conveyor; Concrete Conveyor (Truck Mounted); Concrete Paver Over 27E cu. ft; Concrete Paver 27E cu. ft. and Under; Concrete Placer; Concrete Placing Boom; Concrete Pump (Truck Mounted); Concrete Tower; Cranes, All; Cranes, Hammerhead; Cranes, (GCI and similar Type); Creter Crane; Crusher, Stone, etc.; Derricks, All; Derricks, Traveling; Formless Curb and Gutter Machine; Grader, Elevating; Grouting Machines; Highlift Shovels or Front Endloader 2-1/4 yd. and over; Hoists, Elevators, outside type rack and pinion and similar machines; Hoists, One, Two and Three Drum; Hoists, Two Tugger One Floor; Hydraulic Backhoes; Hydraulic Boom Trucks; Hydro Vac (and similar equipment); Locomotives, All; Motor Patrol; Lubrication Technician; Manipulators; Pile Drivers and Skid Rig; Post Hole Digger; Pre-Stress Machine; Pump Cretes Dual Ram; Pump Cretes: Squeeze Cretes-Screw Type Pumps; Gypsum Bulker and Pump; Raised and Blind Hole Drill; Roto Mill Grinder; Scoops - Tractor Drawn; Slip-Form Paver; Straddle Buggies; Tournapull; Tractor with Boom and Side Boom; Trenching Machines.

Class 2. Boilers; Broom, All Power Propelled; Bulldozers; Concrete Mixer (Two Bag and Over); Conveyor, Portable; Forklift Trucks; Highlift Shovels or Front Endloaders under 2-1/4 yd.; Hoists, Automatic; Hoists, Inside Elevators; Hoists, Sewer Dragging Machine; Hoists, Tugger Single Drum; Rock Drill (Self-Propelled); Rock Drill (Truck Mounted); Rollers, All; Steam Generators; Tractors, All; Tractor Drawn Vibratory Roller; Winch Trucks with "A" Frame.

Class 3. Air Compressor; Combination Small Equipment Operator; Generators; Heaters, Mechanical; Hoists, Inside Elevators; Hydraulic Power Units (Pile Driving, Extracting, and Drilling); Pumps, over 3" (1 to 3 not to exceed a total of 300 ft.); Low Boys; Pumps, Well Points; Welding Machines (2 through 5); Winches, 4 Small Electric Drill Winches; Bobcats (up to and including $\frac{3}{4}$ cu yd.) .

Class 4. Bobcats and/or other Skid Steer Loaders (other than bobcats up to and including $\frac{3}{4}$ cu yd.); Oilers; and Brick Forklift.

Class 5. Assistant Craft Foreman.

Class 6. Gradall

Class 7. Mechanics

OPERATING ENGINEERS - HIGHWAY CONSTRUCTION

Class 1. Asphalt Plant; Asphalt Heater and Planer Combination; Asphalt Heater Scarfire; Asphalt Spreader; Autograder/GOMACO or other similar type machines: ABG Paver; Backhoes with Caisson Attachment; Ballast Regulator; Belt Loader; Caisson Rigs; Car Dumper; Central Redi-Mix Plant; Combination Backhoe Front Endloader Machine, (1 cu. yd. Backhoe Bucket or over or with attachments); Concrete Breaker (Truck

Mounted); Concrete Conveyor; Concrete Paver over 27E cu. ft.; Concrete Placer; Concrete Tube Float; Cranes, all attachments; Cranes, Tower Cranes of all types: Creter Crane: Crusher, Stone, etc.; Derricks, All; Derrick Boats; Derricks, Traveling; Dowell Machine with Air Compressor; Dredges; Formless Curb and Gutter Machine; Grader, Elevating; Grader, Motor Grader, Motor Patrol, Auto Patrol, Form Grader, Pull Grader, Subgrader; Guard Rail Post Driver Truck Mounted; Hoists, One, Two and Three Drum; Hydraulic Backhoes; Backhoes with shear attachments; Lubrication Technician; Manipulators; Mucking Machine; Pile Drivers and Skid Rig; Pre-Stress Machine; Pump Cretes Dual Ram; Rock Drill - Crawler or Skid Rig; Rock Drill - Truck Mounted; Rock/Track Tamper; Roto Mill Grinder; Slip-Form Paver; Soil Test Drill Rig (Truck Mounted); Straddle Buggies; Hydraulic Telescoping Form (Tunnel); Tractor Drawn Belt Loader (with attached pusher - two engineers); Tractor with Boom; Tractaire with Attachments; Trenching Machine; Truck Mounted Concrete Pump with Boom; Raised or Blind Hole Drills (Tunnel Shaft); Underground Boring and/or Mining Machines 5 ft. in diameter and over tunnel, etc; Underground Boring and/or Mining Machines under 5 ft. in diameter; Wheel Excavator; Widener (APSCO).

Class 2. Batch Plant; Bituminous Mixer; Boiler and Throttle Valve; Bulldozers; Car Loader Trailing Conveyors; Combination Backhoe Front Endloader Machine (Less than 1 cu. yd. Backhoe Bucket or over or with attachments); Compressor and Throttle Valve; Compressor, Common Receiver (3); Concrete Breaker or Hydro Hammer; Concrete Grinding Machine; Concrete Mixer or Paver 7S Series to and including 27 cu. ft.; Concrete Spreader; Concrete Curing Machine, Burlap Machine, Belting Machine and Sealing Machine; Concrete Wheel Saw; Conveyor Muck Cars (Haglund or Similar Type); Drills, All; Finishing Machine - Concrete; Highlift Shovels or Front Endloader; Hoist - Sewer Dragging Machine; Hydraulic Boom Trucks (All Attachments); Hydro-Blaster; All Locomotives, Dinky; Off-Road Hauling Units (including articulating)/2 ton capacity or more; Non Self-Loading Ejection Dump; Pump Cretes: Squeeze Cretes - Screw Type Pumps, Gypsum Bulker and Pump; Roller, Asphalt; Rotary Snow Plows; Rototiller, Seaman, etc., self-propelled; Scoops - Tractor Drawn; Self-Propelled Compactor; Spreader - Chip - Stone, etc.; Scraper; Scraper - Prime Mover in Tandem (Regardless of Size); Tank Car Heater; Tractors, Push, Pulling Sheeps Foot, Disc, Compactor, etc.; Tug Boats.

Class 3. Boilers; Brooms, All Power Propelled; Cement Supply Tender; Compressor, Common Receiver (2); Concrete Mixer (Two Bag and Over); Conveyor, Portable; Farm-Type Tractors Used for Mowing, Seeding, etc.; Fireman on Boilers; Forklift Trucks; Grouting Machine; Hoists, Automatic; Hoists, All Elevators; Hoists, Tugger Single Drum; Jeep Diggers; Low Boys; Pipe Jacking Machines; Post-Hole Digger; Power Saw, Concrete Power Driven; Pug Mills; Rollers, other than Asphalt; Seed and Straw Blower; Steam Generators; Stump Machine; Winch Trucks with "A" Frame; Work Boats; Tamper-Form-Motor Driven.

Class 4. Air Compressor; Combination - Small Equipment Operator; Directional Boring Machine; Generators; Heaters, Mechanical; Hydraulic Power Unit (Pile Driving, Extracting, or Drilling); Hydro- Blaster; Light Plants, All (1 through 5); Pumps, over 3" (1 to 3 not to exceed a total of 300 ft.); Pumps, Well Points; Tractaire; Welding Machines (2 through 5); Winches, 4 Small Electric Drill Winches.

Class 5. Bobcats (all); Brick Forklifts; Oilers.

Class 6. Field Mechanics and Field Welders

Class 7. Gradall and machines of like nature.

OPERATING ENGINEER - FLOATING

Class 1. Craft Foreman; Diver/Wet Tender; and Engineer (hydraulic dredge).

Class 2. Crane/Backhoe Operator; 70 Ton or over Tug Operator; Mechanic/Welder; Assistant Engineer (Hydraulic Dredge); Leverman (Hydraulic Dredge); Diver Tender; Friction and Lattice Boom Cranes.

Class 3. Deck Equipment Operator, Machineryman; Maintenance of Crane (over 50 ton capacity); Tug/Launch Operator; Loader/Dozer and like equipment on Barge; and Deck Machinery, etc.

Class 4. Deck Equipment Operator, Machineryman/Fireman (4 Equipment Units or More); Off Road Trucks (2 ton capacity or more); Deck Hand, Tug Engineer, Crane Maintenance 50 Ton Capacity and Under or Backhoe Weighing 115,000 pounds or less; and Assistant Tug Operator.

TRAFFIC SAFETY - work associated with barricades, horses and drums used to reduce lane usage on highway work, the installation and removal of temporary lane markings, and the installation and removal of temporary road signs.

TRUCK DRIVER - BUILDING, HEAVY AND HIGHWAY CONSTRUCTION

Class 1. Two or three Axle Trucks. A-frame Truck when used for transportation purposes; Air Compressors and Welding Machines, including those pulled by cars, pick-up trucks and tractors; Ambulances; Batch Gate Lockers; Batch Hopperman; Car and Truck Washers; Carry-alls; Fork Lifts and Hoisters; Helpers; Mechanics Helpers and Greasers; Oil Distributors 2-man operation; Pavement Breakers; Pole Trailer, up to 40 feet; Power Mower Tractors; Self-propelled Chip Spreader; Skipman; Slurry Trucks, 2-man operation; Slurry Truck Conveyor Operation, 2 or 3 man; Teamsters; Unskilled dumpman; and Truck Drivers hauling warning lights, barricades, and portable toilets on the job site.

Class 2. Four axle trucks; Dump Crets and Adgetors under 7 yards; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnapulls or Turnatrailers when pulling other than self-loading equipment or similar equipment under 16 cubic yards; Mixer Trucks under 7 yards; Ready-mix Plant Hopper Operator, and Winch Trucks, 2 Axles.

Class 3. Five axle trucks; Dump Crets and Adgetors 7 yards and over; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnatrailers or turnapulls when pulling other than self-loading equipment or similar equipment over 16 cubic yards; Explosives and/or Fission Material Trucks; Mixer Trucks 7 yards or over; Mobile Cranes while in transit; Oil Distributors, 1-man operation; Pole Trailer, over 40 feet; Pole and Expandable Trailers hauling material over 50 feet long; Slurry trucks, 1-man operation; Winch trucks, 3 axles or more; Mechanic--Truck Welder and Truck Painter.

Class 4. Six axle trucks; Dual-purpose vehicles, such as mounted crane trucks with hoist and accessories; Foreman; Master Mechanic; Self-loading equipment like P.B. and trucks with scoops on the front.

TERRAZZO FINISHER

The handling of sand, cement, marble chips, and all other materials that may be used by the Mosaic Terrazzo Mechanic, and the mixing, grinding, grouting, cleaning and sealing of all Marble, Mosaic, and

Terrazzo work, floors, base, stairs, and wainscoting by hand or machine, and in addition, assisting and aiding Marble, Masonic, and Terrazzo Mechanics.

Other Classifications of Work:

For definitions of classifications not otherwise set out, the Department generally has on file such definitions which are available. If a task to be performed is not subject to one of the classifications of pay set out, the Department will upon being contacted state which neighboring county has such a classification and provide such rate, such rate being deemed to exist by reference in this document. If no neighboring county rate applies to the task, the Department shall undertake a special determination, such special determination being then deemed to have existed under this determination. If a project requires these, or any classification not listed, please contact IDOL at 217-782-1710 for wage rates or clarifications.

LANDSCAPING

Landscaping work falls under the existing classifications for laborer, operating engineer and truck driver. The work performed by landscape plantsman and landscape laborer is covered by the existing classification of laborer. The work performed by landscape operators (regardless of equipment used or its size) is covered by the classifications of operating engineer. The work performed by landscape truck drivers (regardless of size of truck driven) is covered by the classifications of truck driver.

Mchenry County Prevailing Wage for December 2009

Trade Name	RG	TYP	C	Base	FRMAN	*M-F>8	OSA	OSH	H/W	Pensn	Vac	Trng
=====	==	===	=	=====	=====	=====	===	===	=====	=====	=====	=====
ASBESTOS ABT-GEN		ALL		35.200	35.700	1.5	1.5	2.0	9.130	8.370	0.000	0.400
ASBESTOS ABT-MEC		BLD		31.540	0.000	1.5	1.5	2.0	9.670	9.610	0.000	0.520
BOILERMAKER		BLD		43.020	46.890	2.0	2.0	2.0	6.720	9.890	0.000	0.350
BRICK MASON		BLD		39.030	42.930	1.5	1.5	2.0	8.800	10.67	0.000	0.740
CARPENTER		ALL		40.770	42.770	1.5	1.5	2.0	9.840	9.800	0.000	0.490
CEMENT MASON		ALL		41.550	43.550	2.0	1.5	2.0	7.900	10.81	0.000	0.150
CERAMIC TILE FNSHER		BLD		33.600	0.000	2.0	1.5	2.0	6.950	8.020	0.000	0.540
COMMUNICATION TECH		BLD		29.960	31.760	1.5	1.5	2.0	5.842	6.290	0.000	0.375
ELECTRIC PWR EQMT OP		ALL		31.790	40.830	1.5	1.5	2.0	4.750	9.850	0.000	0.240
ELECTRIC PWR GRNDMAN		ALL		24.630	40.830	1.5	1.5	2.0	4.750	7.640	0.000	0.180
ELECTRIC PWR LINEMAN		ALL		37.810	40.830	1.5	1.5	2.0	4.750	11.71	0.000	0.280
ELECTRIC PWR TRK DRV		ALL		25.440	40.830	1.5	1.5	2.0	4.750	7.880	0.000	0.190
ELECTRICIAN		ALL		40.470	44.510	1.5	1.5	2.0	9.920	9.300	0.000	0.500
ELEVATOR CONSTRUCTOR		BLD		44.930	50.550	2.0	2.0	2.0	9.525	8.210	2.700	0.000
FENCE ERECTOR	E	ALL		30.700	32.200	1.5	1.5	2.0	7.950	8.430	0.000	0.500
FENCE ERECTOR	S	ALL		40.200	42.210	2.0	2.0	2.0	8.140	15.16	0.000	0.230
GLAZIER		BLD		37.000	38.500	1.5	1.5	2.0	7.340	12.05	0.000	0.740
HT/FROST INSULATOR		BLD		42.050	44.550	1.5	1.5	2.0	9.670	10.81	0.000	0.520
IRON WORKER	E	ALL		40.750	42.750	2.0	2.0	2.0	10.95	15.99	0.000	0.300
IRON WORKER	S	ALL		40.200	42.210	2.0	2.0	2.0	8.140	15.16	0.000	0.230
IRON WORKER	W	ALL		35.000	36.750	2.0	2.0	2.0	7.700	18.76	0.000	1.200
LABORER		ALL		35.200	35.950	1.5	1.5	2.0	9.370	8.130	0.000	0.400
LATHER		ALL		40.770	42.770	1.5	1.5	2.0	9.840	9.800	0.000	0.490
MACHINIST		BLD		42.770	44.770	1.5	1.5	2.0	7.750	8.690	0.650	0.000
MARBLE FINISHERS		ALL		28.650	0.000	1.5	1.5	2.0	7.920	9.970	0.000	0.550
MARBLE MASON		BLD		38.030	41.830	1.5	1.5	2.0	8.000	9.970	0.000	0.550
MATERIAL TESTER I		ALL		25.200	0.000	1.5	1.5	2.0	9.370	8.130	0.000	0.400
MATERIALS TESTER II		ALL		30.200	0.000	1.5	1.5	2.0	9.370	8.130	0.000	0.400
MILLWRIGHT		ALL		40.770	42.770	1.5	1.5	2.0	9.840	9.800	0.000	0.490
OPERATING ENGINEER		BLD	1	45.100	49.100	2.0	2.0	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		BLD	2	43.800	49.100	2.0	2.0	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		BLD	3	41.250	49.100	2.0	2.0	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		BLD	4	39.500	49.100	2.0	2.0	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		BLD	5	48.850	49.100	2.0	2.0	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		BLD	6	46.100	49.100	2.0	2.0	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		BLD	7	48.100	49.100	2.0	2.0	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		HWY	1	43.300	47.300	1.5	1.5	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		HWY	2	42.750	47.300	1.5	1.5	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		HWY	3	40.700	47.300	1.5	1.5	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		HWY	4	39.300	47.300	1.5	1.5	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		HWY	5	38.100	47.300	1.5	1.5	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		HWY	6	46.300	47.300	1.5	1.5	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		HWY	7	44.300	47.300	1.5	1.5	2.0	11.70	8.050	1.900	1.150
ORNAMNTL IRON WORKER	E	ALL		39.200	41.450	2.0	2.0	2.0	8.700	13.79	0.000	0.500
ORNAMNTL IRON WORKER	S	ALL		40.200	42.210	2.0	2.0	2.0	8.140	15.16	0.000	0.230
PAINTER		ALL		39.680	41.680	1.5	1.5	1.5	7.500	7.250	0.000	0.750
PAINTER SIGNS		BLD		30.820	34.600	1.5	1.5	1.5	2.600	2.470	0.000	0.000
PILEDRIVER		ALL		40.770	42.770	1.5	1.5	2.0	9.840	9.800	0.000	0.490
PIPEFITTER		BLD		43.150	46.150	1.5	1.5	2.0	7.660	9.550	0.000	1.570
PLASTERER		BLD		38.550	40.860	1.5	1.5	2.0	9.000	9.690	0.000	0.450
PLUMBER		BLD		42.650	45.150	1.5	1.5	2.0	9.900	9.450	0.000	0.950
ROOFER		BLD		37.000	40.000	1.5	1.5	2.0	7.250	5.270	0.000	0.330
SHEETMETAL WORKER		BLD		41.660	43.660	1.5	1.5	2.0	8.210	10.66	0.000	0.780
SIGN HANGER		BLD		26.070	27.570	1.5	1.5	2.0	3.800	3.550	0.000	0.000
SPRINKLER FITTER		BLD		40.500	42.500	1.5	1.5	2.0	8.500	6.850	0.000	0.500
STEEL ERECTOR	E	ALL		40.750	42.750	2.0	2.0	2.0	10.95	15.99	0.000	0.300
STEEL ERECTOR	S	ALL		40.200	42.210	2.0	2.0	2.0	8.140	15.16	0.000	0.230
STONE MASON		BLD		39.030	42.930	1.5	1.5	2.0	8.800	10.67	0.000	0.740

TERRAZZO FINISHER	BLD	35.150	0.000	1.5	1.5	2.0	6.950	10.57	0.000	0.380
TERRAZZO MASON	BLD	39.010	42.010	1.5	1.5	2.0	6.950	11.91	0.000	0.510
TILE MASON	BLD	40.490	44.490	2.0	1.5	2.0	6.950	9.730	0.000	0.610
TRAFFIC SAFETY WRKR	HWY	24.300	25.900	1.5	1.5	2.0	3.780	1.875	0.000	0.000
TRUCK DRIVER	ALL 1	32.200	32.750	1.5	1.5	2.0	5.700	5.500	0.000	0.150
TRUCK DRIVER	ALL 2	32.350	32.750	1.5	1.5	2.0	5.700	5.500	0.000	0.150
TRUCK DRIVER	ALL 3	32.550	32.750	1.5	1.5	2.0	5.700	5.500	0.000	0.150
TRUCK DRIVER	ALL 4	32.750	32.750	1.5	1.5	2.0	5.700	5.500	0.000	0.150
TUCKPOINTER	BLD	39.200	40.200	1.5	1.5	2.0	7.830	10.25	0.000	0.770

Legend:

M-F>8 (Overtime is required for any hour greater than 8 worked each day, Monday through Friday.)

OSA (Overtime is required for every hour worked on Saturday)

OSH (Overtime is required for every hour worked on Sunday and Holidays)

H/W (Health & Welfare Insurance)

Pensn (Pension)

Vac (Vacation)

Trng (Training)

Explanations

MCHENRY COUNTY

FENCE ERECTOR (EAST) - That part of the county East and Northeast of a line following Route 31 North to Route 14, northwest to Route 47 north to the Wisconsin State Line.

IRONWORKERS (EAST) - That part of the county East of Rts. 47 and 14.

IRONWORKERS (SOUTH) - That part of the county South of Route 14 and East of Route 47.

IRONWORKERS (WEST) - That part of the county West of Route 47.

The following list is considered as those days for which holiday rates of wages for work performed apply: New Years Day, Memorial/Decoration Day, Fourth of July, Labor Day, Veterans Day, Thanksgiving Day, Christmas Day. Generally, any of these holidays which fall on a Sunday is celebrated on the following Monday. This then makes work performed on that Monday payable at the appropriate overtime rate for holiday pay. Common practice in a given local may alter certain days of celebration such as the day after Thanksgiving for Veterans Day. If in doubt, please check with IDOL.

EXPLANATION OF CLASSES

ASBESTOS - GENERAL - removal of asbestos material/mold and hazardous materials from any place in a building, including mechanical systems where those mechanical systems are to be removed. This includes the removal of asbestos materials/mold and hazardous materials from ductwork or pipes in a building when the building is to be demolished

at the time or at some close future date.

ASBESTOS - MECHANICAL - removal of asbestos material from mechanical systems, such as pipes, ducts, and boilers, where the mechanical systems are to remain.

CERAMIC TILE FINISHER

The grouting, cleaning, and polishing of all classes of tile, whether for interior or exterior purposes, all burned, glazed or unglazed products; all composition materials, granite tiles, warning detectable tiles, cement tiles, epoxy composite materials, pavers, glass, mosaics, fiberglass, and all substitute materials, for tile made in tile-like units; all mixtures in tile like form of cement, metals, and other materials that are for and intended for use as a finished floor surface, stair treads, promenade roofs, walks, walls, ceilings, swimming pools, and all other places where tile is to form a finished interior or exterior. The mixing of all setting mortars including but not limited to thin-set mortars, epoxies, wall mud, and any other sand and cement mixtures or adhesives when used in the preparation, installation, repair, or maintenance of tile and/or similar materials. The handling and unloading of all sand, cement, lime, tile, fixtures, equipment, adhesives, or any other materials to be used in the preparation, installation, repair, or maintenance of tile and/or similar materials. Ceramic Tile Finishers shall fill all joints and voids regardless of method on all tile work, particularly and especially after installation of said tile work. Application of any and all protective coverings to all types of tile installations including, but not be limited to, all soap compounds, paper products, tapes, and all polyethylene coverings, plywood, masonite, cardboard, and any new type of products that may be used to protect tile installations, Blastrac equipment, and all floor scarifying equipment used in preparing floors to receive tile. The clean up and removal of all waste and materials. All demolition of existing tile floors and walls to be re-tiled.

COMMUNICATIONS TECHNICIAN

Construction, installation, maintenance and removal of telecommunication facilities (voice, sound, data and video), telephone, security systems, fire alarm systems that are a component of a multiplex system and share a common cable, and data inside wire, interconnect, terminal equipment, central offices, PABX and equipment, micro waves, V-SAT, bypass, CATV, WAN (wide area network), LAN (local area networks), and ISDN (integrated system digital network), pulling of wire in raceways, but not the installation of raceways.

MARBLE FINISHER

Loading and unloading trucks, distribution of all materials (all stone, sand, etc.), stocking of floors with material, performing all rigging for heavy work, the handling of all material that may be needed for the installation of such materials, building of scaffolding, polishing if needed, patching, waxing of material if damaged, pointing up, caulking, grouting and cleaning of marble, holding water on diamond or Carborundum blade or saw for setters cutting, use of tub saw or any other saw needed for preparation of material, drilling of holes for wires that anchor material set by setters, mixing up of molding plaster for installation of material, mixing up thin set for the installation of material, mixing up of sand to cement for the installation of material and such other work as may be required in helping a Marble Setter in the handling of all

material in the erection or installation of interior marble, slate, travertine, art marble, serpentine, alberene stone, blue stone, granite and other stones (meaning as to stone any foreign or domestic materials as are specified and used in building interiors and exteriors and customarily known as stone in the trade), carrara, sanionyx, vitrolite and similar opaque glass and the laying of all marble tile, terrazzo tile, slate tile and precast tile, steps, risers treads, base, or any other materials that may be used as substitutes for any of the aforementioned materials and which are used on interior and exterior which are installed in a similar manner.

MATERIAL TESTER I: Hand coring and drilling for testing of materials; field inspection of uncured concrete and asphalt.

MATERIAL TESTER II: Field inspection of welds, structural steel, fireproofing, masonry, soil, facade, reinforcing steel, formwork, cured concrete, and concrete and asphalt batch plants; adjusting proportions of bituminous mixtures.

OPERATING ENGINEER - BUILDING

Class 1. Asphalt Plant; Asphalt Spreader; Autograde; Backhoes with Caisson Attachment; Batch Plant; Benoto (requires Two Engineers); Boiler and Throttle Valve; Caisson Rigs; Central Redi-Mix Plant; Combination Back Hoe Front End-loader Machine; Compressor and Throttle Valve; Concrete Breaker (Truck Mounted); Concrete Conveyor; Concrete Conveyor (Truck Mounted); Concrete Paver Over 27E cu. ft; Concrete Paver 27E cu. ft. and Under; Concrete Placer; Concrete Placing Boom; Concrete Pump (Truck Mounted); Concrete Tower; Cranes, All; Cranes, Hammerhead; Cranes, (GCI and similar Type); Creter Crane; Crusher, Stone, etc.; Derricks, All; Derricks, Traveling; Formless Curb and Gutter Machine; Grader, Elevating; Grouting Machines; Highlift Shovels or Front Endloader 2-1/4 yd. and over; Hoists, Elevators, outside type rack and pinion and similar machines; Hoists, One, Two and Three Drum; Hoists, Two Tugger One Floor; Hydraulic Backhoes; Hydraulic Boom Trucks; Hydro Vac (and similar equipment); Locomotives, All; Motor Patrol; Lubrication Technician; Manipulators; Pile Drivers and Skid Rig; Post Hole Digger; Pre-Stress Machine; Pump Cretes Dual Ram; Pump Cretes: Squeeze Cretes-Screw Type Pumps; Gypsum Bulker and Pump; Raised and Blind Hole Drill; Roto Mill Grinder; Scoops - Tractor Drawn; Slip-Form Paver; Straddle Buggies; Tournapull; Tractor with Boom and Side Boom; Trenching Machines.

Class 2. Boilers; Broom, All Power Propelled; Bulldozers; Concrete Mixer (Two Bag and Over); Conveyor, Portable; Forklift Trucks; Highlift Shovels or Front Endloaders under 2-1/4 yd.; Hoists, Automatic; Hoists, Inside Elevators; Hoists, Sewer Dragging Machine; Hoists, Tugger Single Drum; Rock Drill (Self-Propelled); Rock Drill (Truck Mounted); Rollers, All; Steam Generators; Tractors, All; Tractor Drawn Vibratory Roller; Winch Trucks with "A" Frame.

Class 3. Air Compressor; Combination Small Equipment Operator; Generators; Heaters, Mechanical; Hoists, Inside Elevators; Hydraulic Power Units (Pile Driving, Extracting, and Drilling); Pumps, over 3" (1 to 3 not to exceed a total of 300 ft.); Low Boys; Pumps, Well Points; Welding Machines (2 through 5); Winches, 4 Small Electric Drill Winches; Bobcats (up to and including ¾ cu yd.) .

Class 4. Bobcats and/or other Skid Steer Loaders (other than bobcats up to and including ¾ cu yd.); Oilers; and Brick Forklift.

Class 5. Assistant Craft Foreman.

Class 6. Gradall .

Class 7. Mechanics.

OPERATING ENGINEERS - HIGHWAY CONSTRUCTION

Class 1. Asphalt Plant; Asphalt Heater and Planer Combination; Asphalt Heater Scarfire; Asphalt Spreader; Autograder/GOMACO or other similar type machines: ABG Paver; Backhoes with Caisson Attachment; Ballast Regulator; Belt Loader; Caisson Rigs; Car Dumper; Central Redi-Mix Plant; Combination Backhoe Front Endloader Machine, (1 cu. yd. Backhoe Bucket or over or with attachments); Concrete Breaker (Truck Mounted); Concrete Conveyor; Concrete Paver over 27E cu. ft.; Concrete Placer; Concrete Tube Float; Cranes, all attachments; Cranes, Tower Cranes of all types: Creter Crane: Crusher, Stone, etc.; Derricks, All; Derrick Boats; Derricks, Traveling; Dowell Machine with Air Compressor; Dredges; Formless Curb and Gutter Machine; Grader, Elevating; Grader, Motor Grader, Motor Patrol, Auto Patrol, Form Grader, Pull Grader, Subgrader; Guard Rail Post Driver Truck Mounted; Hoists, One, Two and Three Drum; Hydraulic Backhoes; Backhoes with shear attachments; Lubrication Technician; Manipulators; Mucking Machine; Pile Drivers and Skid Rig; Pre-Stress Machine; Pump Cretes Dual Ram; Rock Drill - Crawler or Skid Rig; Rock Drill - Truck Mounted; Rock/Track Tamper; Roto Mill Grinder; Slip-Form Paver; Soil Test Drill Rig (Truck Mounted); Straddle Buggies; Hydraulic Telescoping Form (Tunnel); Tractor Drawn Belt Loader (with attached pusher - two engineers); Tractor with Boom; Tractaire with Attachments; Trenching Machine; Truck Mounted Concrete Pump with Boom; Raised or Blind Hole Drills (Tunnel Shaft); Underground Boring and/or Mining Machines 5 ft. in diameter and over tunnel, etc; Underground Boring and/or Mining Machines under 5 ft. in diameter; Wheel Excavator; Widener (APSCO).

Class 2. Batch Plant; Bituminous Mixer; Boiler and Throttle Valve; Bulldozers; Car Loader Trailing Conveyors; Combination Backhoe Front Endloader Machine (Less than 1 cu. yd. Backhoe Bucket or over or with attachments); Compressor and Throttle Valve; Compressor, Common Receiver (3); Concrete Breaker or Hydro Hammer; Concrete Grinding Machine; Concrete Mixer or Paver 7S Series to and including 27 cu. ft.; Concrete Spreader; Concrete Curing Machine, Burlap Machine, Belting Machine and Sealing Machine; Concrete Wheel Saw; Conveyor Muck Cars (Haglund or Similar Type); Drills, All; Finishing Machine - Concrete; Highlift Shovels or Front Endloader; Hoist - Sewer Dragging Machine; Hydraulic Boom Trucks (All Attachments); Hydro-Blaster; All Locomotives, Dinky; Off-Road Hauling Units (including articulating)/2 ton capacity or more; Non Self-Loading Ejection Dump; Pump Cretes: Squeeze Cretes - Screw Type Pumps, Gypsum Bulker and Pump; Roller, Asphalt; Rotary Snow Plows; Rototiller, Seaman, etc., self-propelled; Scoops - Tractor Drawn; Self-Propelled Compactor; Spreader - Chip - Stone, etc.; Scraper; Scraper - Prime Mover in Tandem (Regardless of Size); Tank Car Heater; Tractors, Push, Pulling Sheeps Foot, Disc, Compactor, etc.; Tug Boats.

Class 3. Boilers; Brooms, All Power Propelled; Cement Supply Tender; Compressor, Common Receiver (2); Concrete Mixer (Two Bag and Over); Conveyor, Portable; Farm-Type Tractors Used for Mowing, Seeding, etc.; Fireman on Boilers; Forklift Trucks; Grouting Machine; Hoists, Automatic; Hoists, All Elevators; Hoists, Tugger Single Drum; Jeep Diggers; Low Boys; Pipe Jacking Machines; Post-Hole Digger; Power Saw, Concrete Power Driven; Pug Mills; Rollers, other than Asphalt; Seed and Straw Blower; Steam Generators; Stump Machine; Winch Trucks with "A" Frame; Work Boats; Tamper-Form-Motor Driven.

Class 4. Air Compressor; Combination - Small Equipment Operator; Directional Boring Machine; Generators; Heaters, Mechanical; Hydraulic Power Unit (Pile Driving, Extracting, or Drilling); Hydro- Blaster; Light Plants, All (1 through 5); Pumps, over 3" (1 to 3 not to exceed a total of 300 ft.); Pumps, Well Points; Tractaire; Welding Machines (2 through 5); Winches, 4 Small Electric Drill Winches.

Class 5. Bobcats (all); Brick Forklifts; Oilers.

Class 6. Field Mechanics and Field Welders.

Class 7. Gradall and machines of like nature.

TRAFFIC SAFETY - work associated with barricades, horses and drums used to reduce lane usage on highway work, the installation and removal of temporary lane markings, and the installation and removal of temporary road signs.

TRUCK DRIVER - BUILDING, HEAVY AND HIGHWAY CONSTRUCTION

Class 1. Two or three Axle Trucks. A-frame Truck when used for transportation purposes; Air Compressors and Welding Machines, including those pulled by cars, pick-up trucks and tractors; Ambulances; Batch Gate Lockers; Batch Hopperman; Car and Truck Washers; Carry-alls; Fork Lifts and Hoisters; Helpers; Mechanics Helpers and Greasers; Oil Distributors 2-man operation; Pavement Breakers; Pole Trailer, up to 40 feet; Power Mower Tractors; Self-propelled Chip Spreader; Skipman; Slurry Trucks, 2-man operation; Slurry Truck Conveyor Operation, 2 or 3 man; Teamsters; Unskilled dumpman; and Truck Drivers hauling warning lights, barricades, and portable toilets on the job site.

Class 2. Four axle trucks; Dump Crets and Adgetors under 7 yards; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnapulls or Turnatrailers when pulling other than self-loading equipment or similar equipment under 16 cubic yards; Mixer Trucks under 7 yards; Ready-mix Plant Hopper Operator, and Winch Trucks, 2 Axles.

Class 3. Five axle trucks; Dump Crets and Adgetors 7 yards and over; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnatrailers or turnapulls when pulling other than self-loading equipment or similar equipment over 16 cubic yards; Explosives and/or Fission Material Trucks; Mixer Trucks 7 yards or over; Mobile Cranes while in transit; Oil Distributors, 1-man operation; Pole Trailer, over 40 feet; Pole and Expandable Trailers hauling material over 50 feet long; Slurry trucks, 1-man operation; Winch trucks, 3 axles or more; Mechanic--Truck Welder and Truck Painter.

Class 4. Six axle trucks; Dual-purpose vehicles, such as mounted crane trucks with hoist and accessories; Foreman; Master Mechanic; Self-loading equipment like P.B. and trucks with scoops on the front.

TERRAZZO FINISHER

The handling of sand, cement, marble chips, and all other materials that may be used by the Mosaic Terrazzo Mechanic, and the mixing, grinding, grouting, cleaning and sealing of all Marble, Mosaic, and Terrazzo work, floors, base, stairs, and wainscoting by hand or machine, and in addition, assisting and aiding Marble, Masonic, and Terrazzo Mechanics.

Other Classifications of Work:

For definitions of classifications not otherwise set out, the Department generally has on file such definitions which are available. If a task to be performed is not subject to one of the classifications of pay set out, the Department will upon being contacted state which neighboring county has such a classification and provide such rate, such rate being deemed to exist by reference in this document. If no neighboring county rate applies to the task, the Department shall undertake a special determination, such special determination being then deemed to have existed under this determination. If a project requires these, or any classification not listed, please contact IDOL at 217-782-1710 for wage rates or clarifications.

LANDSCAPING

Landscaping work falls under the existing classifications for laborer, operating engineer and truck driver. The work performed by landscape plantsman and landscape laborer is covered by the existing classification of laborer. The work performed by landscape operators (regardless of equipment used or its size) is covered by the classifications of operating engineer. The work performed by landscape truck drivers (regardless of size of truck driven) is covered by the classifications of truck driver.

Will County Prevailing Wage for December 2009

Trade Name	RG	TYP	C	Base	FRMAN	*M-F>8	OSA	OSH	H/W	Pensn	Vac	Trng
=====	==	===	=	=====	=====	=====	===	===	=====	=====	=====	=====
ASBESTOS ABT-GEN		ALL		35.200	35.700	1.5	1.5	2.0	9.130	8.370	0.000	0.400
ASBESTOS ABT-MEC		BLD		31.540	0.000	1.5	1.5	2.0	9.670	9.610	0.000	0.520
BOILERMAKER		BLD		43.020	46.890	2.0	2.0	2.0	6.720	9.890	0.000	0.350
BRICK MASON		BLD		39.030	42.930	1.5	1.5	2.0	8.800	10.67	0.000	0.740
CARPENTER		ALL		40.770	44.850	1.5	1.5	2.0	8.590	13.36	0.000	0.490
CEMENT MASON		ALL		41.000	43.000	2.0	2.0	2.0	7.900	11.48	0.000	0.150
CERAMIC TILE FNSHER		BLD		33.600	0.000	2.0	1.5	2.0	6.950	8.020	0.000	0.540
COMMUNICATION TECH		BLD		32.200	33.700	1.5	1.5	2.0	9.670	9.670	0.000	0.320
ELECTRIC PWR EQMT OP		ALL		39.850	46.430	1.5	1.5	2.0	9.870	12.40	0.000	0.300
ELECTRIC PWR GRNDMAN		ALL		31.080	46.430	1.5	1.5	2.0	7.700	9.680	0.000	0.240
ELECTRIC PWR LINEMAN		ALL		39.850	46.430	1.5	1.5	2.0	9.870	12.40	0.000	0.300
ELECTRICIAN		BLD		39.000	42.510	1.5	1.5	2.0	10.42	13.66	0.000	0.390
ELEVATOR CONSTRUCTOR		BLD		44.930	50.550	2.0	2.0	2.0	9.525	8.210	2.700	0.000
GLAZIER		BLD		37.000	38.500	1.5	1.5	2.0	7.340	12.05	0.000	0.740
HT/FROST INSULATOR		BLD		42.050	44.550	1.5	1.5	2.0	9.670	10.81	0.000	0.520
IRON WORKER		ALL		38.000	39.000	2.0	2.0	2.0	8.140	17.52	0.000	0.600
LABORER		ALL		35.200	35.950	1.5	1.5	2.0	9.130	8.370	0.000	0.400
LATHER		ALL		40.770	44.850	1.5	1.5	2.0	8.590	13.36	0.000	0.490
MACHINIST		BLD		42.770	44.770	1.5	1.5	2.0	7.750	8.690	0.650	0.000
MARBLE FINISHERS		ALL		28.650	0.000	1.5	1.5	2.0	7.920	9.970	0.000	0.550
MARBLE MASON		BLD		38.030	41.830	1.5	1.5	2.0	8.000	9.970	0.000	0.550
MATERIAL TESTER I		ALL		25.200	0.000	1.5	1.5	2.0	9.130	8.370	0.000	0.400
MATERIALS TESTER II		ALL		30.200	0.000	1.5	1.5	2.0	9.130	8.370	0.000	0.400
MILLWRIGHT		ALL		40.770	44.850	1.5	1.5	2.0	8.590	13.36	0.000	0.490
OPERATING ENGINEER		BLD	1	45.100	49.100	2.0	2.0	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		BLD	2	43.800	49.100	2.0	2.0	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		BLD	3	41.250	49.100	2.0	2.0	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		BLD	4	39.500	49.100	2.0	2.0	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		BLD	5	48.850	49.100	2.0	2.0	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		BLD	6	46.100	49.100	2.0	2.0	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		BLD	7	48.100	49.100	2.0	2.0	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		FLT	1	49.800	49.800	1.5	1.5	2.0	10.35	7.050	1.900	1.000
OPERATING ENGINEER		FLT	2	48.300	49.800	1.5	1.5	2.0	10.35	7.050	1.900	1.000
OPERATING ENGINEER		FLT	3	43.000	49.800	1.5	1.5	2.0	10.35	7.050	1.900	1.000
OPERATING ENGINEER		FLT	4	35.750	49.800	1.5	1.5	2.0	10.35	7.050	1.900	1.000
OPERATING ENGINEER		HWY	1	43.300	47.300	1.5	1.5	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		HWY	2	42.750	47.300	1.5	1.5	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		HWY	3	40.700	47.300	1.5	1.5	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		HWY	4	39.300	47.300	1.5	1.5	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		HWY	5	38.100	47.300	1.5	1.5	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		HWY	6	46.300	47.300	1.5	1.5	2.0	11.70	8.050	1.900	1.150
OPERATING ENGINEER		HWY	7	44.300	47.300	1.5	1.5	2.0	11.70	8.050	1.900	1.150
PAINTER		ALL		38.000	42.750	1.5	1.5	2.0	8.350	9.400	0.000	0.670
PAINTER SIGNS		BLD		30.820	34.600	1.5	1.5	1.5	2.600	2.470	0.000	0.000
PILEDRIVER		ALL		40.770	44.850	1.5	1.5	2.0	8.590	13.36	0.000	0.490
PIPEFITTER		BLD		43.150	46.150	1.5	1.5	2.0	7.660	9.550	0.000	1.570
PLASTERER		BLD		38.550	40.860	1.5	1.5	2.0	9.000	9.690	0.000	0.450
PLUMBER		BLD		43.000	45.000	1.5	1.5	2.0	9.500	10.00	0.000	1.310
ROOFER		BLD		37.000	40.000	1.5	1.5	2.0	7.250	5.270	0.000	0.330
SHEETMETAL WORKER		BLD		41.660	43.660	1.5	1.5	2.0	8.210	10.66	0.000	0.780
SPRINKLER FITTER		BLD		40.500	42.500	1.5	1.5	2.0	8.500	6.850	0.000	0.500
STONE MASON		BLD		39.030	42.930	1.5	1.5	2.0	8.800	10.67	0.000	0.740
TERRAZZO FINISHER		BLD		35.150	0.000	1.5	1.5	2.0	6.950	10.57	0.000	0.380
TERRAZZO MASON		BLD		39.010	42.010	1.5	1.5	2.0	6.950	11.91	0.000	0.510
TILE MASON		BLD		40.490	44.490	2.0	1.5	2.0	6.950	9.730	0.000	0.610
TRAFFIC SAFETY WRKR		HWY		24.300	25.900	1.5	1.5	2.0	3.780	1.875	0.000	0.000
TRUCK DRIVER		ALL	1	35.650	36.200	1.5	1.5	2.0	6.250	4.275	0.000	0.250
TRUCK DRIVER		ALL	2	35.800	36.200	1.5	1.5	2.0	6.250	4.275	0.000	0.250

TRUCK DRIVER	ALL	3	36.000	36.200	1.5	1.5	2.0	6.250	4.275	0.000	0.250
TRUCK DRIVER	ALL	4	36.200	36.200	1.5	1.5	2.0	6.250	4.275	0.000	0.250
TUCKPINTER	BLD		39.200	40.200	1.5	1.5	2.0	7.830	10.25	0.000	0.770

Legend:

M-F>8 (Overtime is required for any hour greater than 8 worked each day, Monday through Friday.)

OSA (Overtime is required for every hour worked on Saturday)

OSH (Overtime is required for every hour worked on Sunday and Holidays)

H/W (Health & Welfare Insurance)

Pensn (Pension)

Vac (Vacation)

Trng (Training)

Explanations

WILL COUNTY

The following list is considered as those days for which holiday rates of wages for work performed apply: New Years Day, Memorial/Decoration Day, Fourth of July, Labor Day, Veterans Day, Thanksgiving Day, Christmas Day. Generally, any of these holidays which fall on a Sunday is celebrated on the following Monday. This then makes work performed on that Monday payable at the appropriate overtime rate for holiday pay. Common practice in a given local may alter certain days of celebration such as the day after Thanksgiving for Veterans Day. If in doubt, please check with IDOL.

EXPLANATION OF CLASSES

ASBESTOS - GENERAL - removal of asbestos material/mold and hazardous materials from any place in a building, including mechanical systems where those mechanical systems are to be removed. This includes the removal of asbestos materials/mold and hazardous materials from ductwork or pipes in a building when the building is to be demolished at the time or at some close future date.

ASBESTOS - MECHANICAL - removal of asbestos material from mechanical systems, such as pipes, ducts, and boilers, where the mechanical systems are to remain.

CERAMIC TILE FINISHER

The grouting, cleaning, and polishing of all classes of tile, whether for interior or exterior purposes, all burned, glazed or unglazed products; all composition materials, granite tiles, warning detectable tiles, cement tiles, epoxy composite materials, pavers, glass, mosaics, fiberglass, and all substitute materials, for tile made in tile-like units; all mixtures in tile like form of cement, metals, and other materials that are for and intended for use as a finished floor surface, stair treads, promenade roofs, walks, walls, ceilings,

swimming pools, and all other places where tile is to form a finished interior or exterior. The mixing of all setting mortars including but not limited to thin-set mortars, epoxies, wall mud, and any other sand and cement mixtures or adhesives when used in the preparation, installation, repair, or maintenance of tile and/or similar materials. The handling and unloading of all sand, cement, lime, tile, fixtures, equipment, adhesives, or any other materials to be used in the preparation, installation, repair, or maintenance of tile and/or similar materials. Ceramic Tile Finishers shall fill all joints and voids regardless of method on all tile work, particularly and especially after installation of said tile work. Application of any and all protective coverings to all types of tile installations including, but not be limited to, all soap compounds, paper products, tapes, and all polyethylene coverings, plywood, masonite, cardboard, and any new type of products that may be used to protect tile installations, Blastrac equipment, and all floor scarifying equipment used in preparing floors to receive tile. The clean up and removal of all waste and materials. All demolition of existing tile floors and walls to be re-tiled.

COMMUNICATIONS TECHNICIAN

Installation, operation, inspection, maintenance, repair and service of radio, television, recording, voice, sound and vision production and reproduction, telephone and telephone interconnect, facsimile, equipment and appliances used for domestic, commercial, educational and entertainment purposes, pulling of wire through conduit but not the installation of conduit.

MARBLE FINISHER

Loading and unloading trucks, distribution of all materials (all stone, sand, etc.), stocking of floors with material, performing all rigging for heavy work, the handling of all material that may be needed for the installation of such materials, building of scaffolding, polishing if needed, patching, waxing of material if damaged, pointing up, caulking, grouting and cleaning of marble, holding water on diamond or Carborundum blade or saw for setters cutting, use of tub saw or any other saw needed for preparation of material, drilling of holes for wires that anchor material set by setters, mixing up of molding plaster for installation of material, mixing up thin set for the installation of material, mixing up of sand to cement for the installation of material and such other work as may be required in helping a Marble Setter in the handling of all material in the erection or installation of interior marble, slate, travertine, art marble, serpentine, alberene stone, blue stone, granite and other stones (meaning as to stone any foreign or domestic materials as are specified and used in building interiors and exteriors and customarily known as stone in the trade), carrara, sanionyx, vitrolite and similar opaque glass and the laying of all marble tile, terrazzo tile, slate tile and precast tile, steps, risers treads, base, or any other materials that may be used as substitutes for any of the aforementioned materials and which are used on interior and exterior which are installed in a similar manner.

MATERIAL TESTER I: Hand coring and drilling for testing of materials; field inspection of uncured concrete and asphalt.

MATERIAL TESTER II: Field inspection of welds, structural steel, fireproofing, masonry, soil, facade, reinforcing steel, formwork, cured concrete, and concrete and asphalt batch plants; adjusting proportions of bituminous mixtures.

OPERATING ENGINEER - BUILDING

Class 1. Asphalt Plant; Asphalt Spreader; Autograde; Backhoes with Caisson Attachment; Batch Plant; Benoto (requires Two Engineers); Boiler and Throttle Valve; Caisson Rigs; Central Redi-Mix Plant; Combination Back Hoe Front End-loader Machine; Compressor and Throttle Valve; Concrete Breaker (Truck Mounted); Concrete Conveyor; Concrete Conveyor (Truck Mounted); Concrete Paver Over 27E cu. ft; Concrete Paver 27E cu. ft. and Under; Concrete Placer; Concrete Placing Boom; Concrete Pump (Truck Mounted); Concrete Tower; Cranes, All; Cranes, Hammerhead; Cranes, (GCI and similar Type); Creter Crane; Crusher, Stone, etc.; Derricks, All; Derricks, Traveling; Formless Curb and Gutter Machine; Grader, Elevating; Grouting Machines; Highlift Shovels or Front Endloader 2-1/4 yd. and over; Hoists, Elevators, outside type rack and pinion and similar machines; Hoists, One, Two and Three Drum; Hoists, Two Tugger One Floor; Hydraulic Backhoes; Hydraulic Boom Trucks; Hydro Vac (and similar equipment); Locomotives, All; Motor Patrol; Lubrication Technician; Manipulators; Pile Drivers and Skid Rig; Post Hole Digger; Pre-Stress Machine; Pump Cretes Dual Ram; Pump Cretes: Squeeze Cretes-Screw Type Pumps; Gypsum Bulker and Pump; Raised and Blind Hole Drill; Roto Mill Grinder; Scoops - Tractor Drawn; Slip-Form Paver; Straddle Buggies; Tournapull; Tractor with Boom and Side Boom; Trenching Machines.

Class 2. Boilers; Broom, All Power Propelled; Bulldozers; Concrete Mixer (Two Bag and Over); Conveyor, Portable; Forklift Trucks; Highlift Shovels or Front Endloaders under 2-1/4 yd.; Hoists, Automatic; Hoists, Inside Elevators; Hoists, Sewer Dragging Machine; Hoists, Tugger Single Drum; Rock Drill (Self-Propelled); Rock Drill (Truck Mounted); Rollers, All; Steam Generators; Tractors, All; Tractor Drawn Vibratory Roller; Winch Trucks with "A" Frame.

Class 3. Air Compressor; Combination Small Equipment Operator; Generators; Heaters, Mechanical; Hoists, Inside Elevators; Hydraulic Power Units (Pile Driving, Extracting, and Drilling); Pumps, over 3" (1 to 3 not to exceed a total of 300 ft.); Low Boys; Pumps, Well Points; Welding Machines (2 through 5); Winches, 4 Small Electric Drill Winches; Bobcats (up to and including ¾ cu yd.) .

Class 4. Bobcats and/or other Skid Steer Loaders (other than bobcats up to and including ¾ cu yd.); Oilers; and Brick Forklift.

Class 5. Assistant Craft Foreman.

Class 6. Gradall .

Class 7. Mechanics.

OPERATING ENGINEERS - HIGHWAY CONSTRUCTION

Class 1. Asphalt Plant; Asphalt Heater and Planer Combination; Asphalt Heater Scarfire; Asphalt Spreader; Autograder/GOMACO or other similar type machines: ABG Paver; Backhoes with Caisson Attachment; Ballast Regulator; Belt Loader; Caisson Rigs; Car Dumper; Central Redi-Mix Plant; Combination Backhoe Front Endloader Machine, (1 cu. yd. Backhoe Bucket or over or with attachments); Concrete Breaker (Truck Mounted); Concrete Conveyor; Concrete Paver over 27E cu. ft.; Concrete Placer; Concrete Tube Float; Cranes, all attachments; Cranes, Tower Cranes of all types: Creter Crane: Crusher, Stone, etc.; Derricks, All; Derrick Boats; Derricks, Traveling; Dowell Machine with Air Compressor; Dredges; Formless Curb and Gutter Machine; Grader, Elevating; Grader, Motor Grader, Motor Patrol, Auto Patrol, Form

Grader, Pull Grader, Subgrader; Guard Rail Post Driver Truck Mounted; Hoists, One, Two and Three Drum; Hydraulic Backhoes; Backhoes with shear attachments; Lubrication Technician; Manipulators; Mucking Machine; Pile Drivers and Skid Rig; Pre-Stress Machine; Pump Cretes Dual Ram; Rock Drill - Crawler or Skid Rig; Rock Drill - Truck Mounted; Rock/Track Tamper; Roto Mill Grinder; Slip-Form Paver; Soil Test Drill Rig (Truck Mounted); Straddle Buggies; Hydraulic Telescoping Form (Tunnel); Tractor Drawn Belt Loader (with attached pusher - two engineers); Tractor with Boom; Tractaire with Attachments; Trenching Machine; Truck Mounted Concrete Pump with Boom; Raised or Blind Hole Drills (Tunnel Shaft); Underground Boring and/or Mining Machines 5 ft. in diameter and over tunnel, etc; Underground Boring and/or Mining Machines under 5 ft. in diameter; Wheel Excavator; Widener (APSCO).

Class 2. Batch Plant; Bituminous Mixer; Boiler and Throttle Valve; Bulldozers; Car Loader Trailing Conveyors; Combination Backhoe Front Endloader Machine (Less than 1 cu. yd. Backhoe Bucket or over or with attachments); Compressor and Throttle Valve; Compressor, Common Receiver (3); Concrete Breaker or Hydro Hammer; Concrete Grinding Machine; Concrete Mixer or Paver 7S Series to and including 27 cu. ft.; Concrete Spreader; Concrete Curing Machine, Burlap Machine, Belting Machine and Sealing Machine; Concrete Wheel Saw; Conveyor Muck Cars (Haglund or Similar Type); Drills, All; Finishing Machine - Concrete; Highlift Shovels or Front Endloader; Hoist - Sewer Dragging Machine; Hydraulic Boom Trucks (All Attachments); Hydro-Blaster; All Locomotives, Dinky; Off-Road Hauling Units (including articulating)/2 ton capacity or more; Non Self-Loading Ejection Dump; Pump Cretes: Squeeze Cretes - Screw Type Pumps, Gypsum Bulker and Pump; Roller, Asphalt; Rotary Snow Plows; Rototiller, Seaman, etc., self-propelled; Scoops - Tractor Drawn; Self-Propelled Compactor; Spreader - Chip - Stone, etc.; Scraper; Scraper - Prime Mover in Tandem (Regardless of Size); Tank Car Heater; Tractors, Push, Pulling Sheeps Foot, Disc, Compactor, etc.; Tug Boats.

Class 3. Boilers; Brooms, All Power Propelled; Cement Supply Tender; Compressor, Common Receiver (2); Concrete Mixer (Two Bag and Over); Conveyor, Portable; Farm-Type Tractors Used for Mowing, Seeding, etc.; Fireman on Boilers; Forklift Trucks; Grouting Machine; Hoists, Automatic; Hoists, All Elevators; Hoists, Tugger Single Drum; Jeep Diggers; Low Boys; Pipe Jacking Machines; Post-Hole Digger; Power Saw, Concrete Power Driven; Pug Mills; Rollers, other than Asphalt; Seed and Straw Blower; Steam Generators; Stump Machine; Winch Trucks with "A" Frame; Work Boats; Tamper-Form-Motor Driven.

Class 4. Air Compressor; Combination - Small Equipment Operator; Directional Boring Machine; Generators; Heaters, Mechanical; Hydraulic Power Unit (Pile Driving, Extracting, or Drilling); Hydro- Blaster; Light Plants, All (1 through 5); Pumps, over 3" (1 to 3 not to exceed a total of 300 ft.); Pumps, Well Points; Tractaire; Welding Machines (2 through 5); Winches, 4 Small Electric Drill Winches.

Class 5. Bobcats (all); Brick Forklifts; Oilers.

Class 6. Field Mechanics and Field Welders.

Class 7. Gradall and machines of like nature.

OPERATING ENGINEER - FLOATING

Class 1. Craft Foreman; Diver/Wet Tender; and Engineer (hydraulic dredge).

Class 2. Crane/Backhoe Operator; 70 Ton or over Tug Operator; Mechanic/Welder; Assistant Engineer (Hydraulic Dredge); Leverman (Hydraulic Dredge); Diver Tender; Friction and Lattice Boom Cranes.

Class 3. Deck Equipment Operator, Machineryman; Maintenance of Crane (over 50 ton capacity); Tug/Launch Operator; Loader/Dozer and like equipment on Barge; and Deck Machinery, etc.

Class 4. Deck Equipment Operator, Machineryman/Fireman (4 Equipment Units or More); Off Road Trucks (2 ton capacity or more); Deck Hand, Tug Engineer, Crane Maintenance 50 Ton Capacity and Under or Backhoe Weighing 115,000 pounds or less; and Assistant Tug Operator.

TRAFFIC SAFETY - work associated with barricades, horses and drums used to reduce lane usage on highway work, the installation and removal of temporary lane markings, and the installation and removal of temporary road signs.

TRUCK DRIVER - BUILDING, HEAVY AND HIGHWAY CONSTRUCTION

Class 1. Two or three Axle Trucks. A-frame Truck when used for transportation purposes; Air Compressors and Welding Machines, including those pulled by cars, pick-up trucks and tractors; Ambulances; Batch Gate Lockers; Batch Hopperman; Car and Truck Washers; Carry-alls; Fork Lifts and Hoisters; Helpers; Mechanics Helpers and Greasers; Oil Distributors 2-man operation; Pavement Breakers; Pole Trailer, up to 40 feet; Power Mower Tractors; Self-propelled Chip Spreader; Skipman; Slurry Trucks, 2-man operation; Slurry Truck Conveyor Operation, 2 or 3 man; Teamsters; Unskilled dumpman; and Truck Drivers hauling warning lights, barricades, and portable toilets on the job site.

Class 2. Four axle trucks; Dump Crets and Adgetors under 7 yards; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnapulls or Turnatrailers when pulling other than self-loading equipment or similar equipment under 16 cubic yards; Mixer Trucks under 7 yards; Ready-mix Plant Hopper Operator, and Winch Trucks, 2 Axles.

Class 3. Five axle trucks; Dump Crets and Adgetors 7 yards and over; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnatrailers or turnapulls when pulling other than self-loading equipment or similar equipment over 16 cubic yards; Explosives and/or Fission Material Trucks; Mixer Trucks 7 yards or over; Mobile Cranes while in transit; Oil Distributors, 1-man operation; Pole Trailer, over 40 feet; Pole and Expandable Trailers hauling material over 50 feet long; Slurry trucks, 1-man operation; Winch trucks, 3 axles or more; Mechanic--Truck Welder and Truck Painter.

Class 4. Six axle trucks; Dual-purpose vehicles, such as mounted crane trucks with hoist and accessories; Foreman; Master Mechanic; Self-loading equipment like P.B. and trucks with scoops on the front.

TERRAZZO FINISHER

The handling of sand, cement, marble chips, and all other materials that may be used by the Mosaic Terrazzo Mechanic, and the mixing, grinding, grouting, cleaning and sealing of all Marble, Mosaic, and Terrazzo work, floors, base, stairs, and wainscoting by hand or machine, and in addition, assisting and aiding Marble, Masonic, and Terrazzo Mechanics.

Other Classifications of Work:

For definitions of classifications not otherwise set out, the

Department generally has on file such definitions which are available. If a task to be performed is not subject to one of the classifications of pay set out, the Department will upon being contacted state which neighboring county has such a classification and provide such rate, such rate being deemed to exist by reference in this document. If no neighboring county rate applies to the task, the Department shall undertake a special determination, such special determination being then deemed to have existed under this determination. If a project requires these, or any classification not listed, please contact IDOL at 217-782-1710 for wage rates or clarifications.

LANDSCAPING

Landscaping work falls under the existing classifications for laborer, operating engineer and truck driver. The work performed by landscape plantsman and landscape laborer is covered by the existing classification of laborer. The work performed by landscape operators (regardless of equipment used or its size) is covered by the classifications of operating engineer. The work performed by landscape truck drivers (regardless of size of truck driven) is covered by the classifications of truck driver.