#### 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 that 4:30 p.m. prevailing time twenty-one days prior to the letting of interest. This pre-qualification requirement applies to first time contractors, contractors renewing expired ratings, contractors maintaining continuous pre-qualification or contractors requesting revised ratings. To be eligible to bid, existing pre-qualification ratings must be effective through the date of letting.

#### **REQUESTS FOR AUTHORIZATION TO BID**

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

#### WHO CAN BID?

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

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

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

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

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

The Internet is the Department's primary way of doing business. The subscription server e-mails are an added courtesy the Department provides. It is suggested that bidders check IDOT's website at <a href="http://www.dot.il.gov/desenv/delett.html">http://www.dot.il.gov/desenv/delett.html</a> 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 and addendum or revision could result in a bid being rejected as irregular.

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

**BIDDERS** 

| Proposal Submitted By |  |
|-----------------------|--|
| Name                  |  |
|                       |  |
| Address               |  |
| City                  |  |

#### **Letting May 15, 2009**

#### 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



Springfield, Illinois 62764

Contract No. 60H23 LAKE County Section OR-RS-3 District 1 Construction Funds Route FAP 334

| PLEASE MARK THE APPROPRIATE BOX BELOW:                            |
|---|
| A Bid Bond is included.   |
| A <u>Cashier's Check</u> or a <u>Certified Check</u> is included. |
|   |

Prepared by

S

Checked by

(Printed by authority of the State of Illinois)

#### **INSTRUCTIONS**

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

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

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

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

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

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

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

#### WHO SHOULD BE CALLED IF ASSISTANCE IS NEEDED?

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



TO THE DEPARTMENT OF TRANSPORTATION

**PROPOSAL** 

| 1. Proposal of  |   |
|---|---|
| Taxpayer Identification Number (Mandatory)  | a |
| for the improvement identified and advertised for bids in the Invitation for Bids as: |   |
| Contract No. 60H23  |   |
| LAKE County Section OR-RS-3   |   |
| Route FAP 334   |   |
| District 1 Construction Funds   |   |

3.18 miles of resurfacing on US 12/IL 59 from Fish Lake Road to Grand Avenue in Fox Lake and Volo.

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.

- 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>A</u>    | mount o | of Bid      | Proposal<br><u>Guaranty</u> | <u>Am</u>    | nount c | Proposal<br>of Bid Guaranty |
|-------------|---------|-------------|-----------------------------|--------------|---------|-----------------------------|
| Up to       |         | \$5,000     | \$150                       | \$2,000,000  | to      | \$3,000,000\$100,000        |
| \$5,000     | to      | \$10,000    | \$300                       | \$3,000,000  | to      | \$5,000,000 \$150,000       |
| \$10,000    | to      | \$50,000    | \$1,000                     | \$5,000,000  | to      | \$7,500,000 \$250,000       |
| \$50,000    | to      | \$100,000   | \$3,000                     | \$7,500,000  | to      | \$10,000,000\$400,000       |
| \$100,000   | to      | \$150,000   | \$5,000                     | \$10,000,000 | to      | \$15,000,000 \$500,000      |
| \$150,000   | to      | \$250,000   | \$7,500                     | \$15,000,000 | to      | \$20,000,000\$600,000       |
| \$250,000   | to      | \$500,000   | \$12,500                    | \$20,000,000 | to      | \$25,000,000\$700,000       |
| \$500,000   | to      | \$1,000,000 | \$25,000                    | \$25,000,000 | to      | \$30,000,000\$800,000       |
| \$1,000,000 | to      | \$1,500,000 | \$50,000                    | \$30,000,000 | to      | \$35,000,000\$900,000       |
| \$1,500,000 | to      | \$2,000,000 | \$75,000                    | 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 gua | aranties which a | accompany the individua | l proposals | making up the | combination | will be con | sidered 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 proposa | I guaranty chec | k will be found in the p | proposal for: | ltem |  |
|-------------|-----------------|--------------------------|---------------|------|--|
|             |                 |                          |               |      |  |

Section No.

County

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

-3-

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 |                                  | Combination Bid |     |
|-------------|----------------------------------|-----------------|-----|
| No.         | Sections Included in Combination | Dollars Cer     | nts |
|             |                                  |                 |     |
|             |                                  |                 |     |
|             |                                  |                 |     |
|             |                                  |                 |     |
|             |                                  |                 |     |
|             |                                  |                 |     |
|             |                                  |                 |     |
|             |                                  |                 |     |

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

## ILLINOIS DEPARTMENT OF TRANSPORTATION SCHEDULE OF PRICES CONTRACT NUMBER - 60H23

State Job # - C-91-593-09 PPS NBR - 1-77952-0000

County Name - LAKE- -

Code - 97 - - District - 1 - -

Section Number - OR-RS-3

| Project Number | Route   |
|----------------|---------|
|                | FAP 334 |

| Item<br>Number | Pay Item Description  | Unit of<br>Measure | Quantity    | x | Unit Price | = | Total Price |
|----------------|-----------------------|--------------------|-------------|---|------------|---|-------------|
| X0322256       | TEMP INFO SIGNING     | SQ FT              | 52.000      |   |            |   |             |
| X4067107       | POL LB MM IL4.75 N50  | TON                | 7,069.000   |   |            |   |             |
| Z0018500       | DRAINAGE STR CLEANED  | EACH               | 20.000      |   |            |   |             |
| 40600200       | BIT MATLS PR CT       | TON                | 101.000     |   |            |   |             |
| 40600300       | AGG PR CT             | TON                | 505.000     |   |            |   |             |
| 40600400       | MIX CR JTS FLANGEWYS  | TON                | 21.000      |   |            |   |             |
| 40600895       | CONSTRUC TEST STRIP   | EACH               | 2.000       |   |            |   |             |
| 40600982       | HMA SURF REM BUTT JT  | SQ YD              | 2,782.000   |   |            |   |             |
| 40601005       | HMA REPL OVER PATCH   | TON                | 2,101.000   |   |            |   |             |
| 40603595       | P HMA SC "F" N90      | TON                | 16,494.000  |   |            |   |             |
| 42001300       | PROTECTIVE COAT       | SQ YD              | 44.000      |   |            |   |             |
| 44000159       | HMA SURF REM 2 1/2    | SQ YD              | 168,299.000 |   |            |   |             |
| 44001700       | COMB C C&G REM & REPL | FOOT               | 200.000     |   |            |   |             |
| 44002216       | HMA RM OV PATCH 4     | SQ YD              | 9,379.000   |   |            |   |             |
| 44201761       | CL D PATCH T1 10      | SQ YD              | 400.000     |   |            |   |             |

## ILLINOIS DEPARTMENT OF TRANSPORTATION SCHEDULE OF PRICES CONTRACT NUMBER - 60H23

State Job # - C-91-593-09 PPS NBR - 1-77952-0000

1-77952-0000 LAKE- -

Code - 97 - - District - 1 - -

County Name -

Section Number - OR-RS-3

| Project Number | Route   |
|----------------|---------|
|                | FAP 334 |

| Item<br>Number | Pay Item Description  | Unit of<br>Measure | Quantity    | X | Unit Price | = | Total Price |
|----------------|-----------------------|--------------------|-------------|---|------------|---|-------------|
| 44201765       | CL D PATCH T2 10      | SQ YD              | 900.000     |   |            |   |             |
| 44201769       | CL D PATCH T3 10      | SQ YD              | 750.000     |   |            |   |             |
| 44201771       | CL D PATCH T4 10      | SQ YD              | 6,500.000   |   |            |   |             |
| 55039700       | SS CLEANED            | FOOT               | 500.000     |   |            |   |             |
| 60300105       | FR & GRATES ADJUST    | EACH               | 5.000       |   |            |   |             |
| 60300310       | FR & LIDS ADJUST SPL  | EACH               | 10.000      |   |            |   |             |
| 67000400       | ENGR FIELD OFFICE A   | CAL MO             | 6.000       |   |            |   |             |
| 67100100       | MOBILIZATION          | L SUM              | 1.000       |   |            |   |             |
| 70100310       | TRAF CONT-PROT 701421 | L SUM              | 1.000       |   |            |   |             |
| 70100420       | TRAF CONT-PROT 701411 | EACH               | 2.000       |   |            |   |             |
| 70102632       | TR CONT & PROT 701602 | L SUM              | 1.000       |   |            |   |             |
| 70102635       | TR CONT & PROT 701701 | L SUM              | 1.000       |   |            |   |             |
| 70300100       | SHORT-TERM PAVT MKING | FOOT               | 3,257.000   |   |            |   |             |
| 70300210       | TEMP PVT MK LTR & SYM | SQ FT              | 1,702.000   |   |            |   |             |
| 70300220       | TEMP PVT MK LINE 4    | FOOT               | 102,350.000 |   |            |   |             |

#### **ILLINOIS DEPARTMENT OF TRANSPORTATION SCHEDULE OF PRICES** CONTRACT 60H23 **NUMBER -**

C-91-593-09 State Job # -PPS NBR -

1-77952-0000

County Name -LAKE--Code -97 - -

District -1 - -

Section Number - OR-RS-3

| Project Number | Route   |
|----------------|---------|
|                | FAP 334 |

| Item<br>Number | Pay Item Description  | Unit of<br>Measure | Quantity    | х | Unit Price | = | Total Price |
|----------------|-----------------------|--------------------|-------------|---|------------|---|-------------|
| 70300240       | TEMP PVT MK LINE 6    | FOOT               | 6,638.000   |   |            |   |             |
| 70300260       | TEMP PVT MK LINE 12   | FOOT               | 1,039.000   |   |            |   |             |
| 70300280       | TEMP PVT MK LINE 24   | FOOT               | 419.000     |   |            |   |             |
| 70301000       | WORK ZONE PAVT MK REM | SQ FT              | 1,086.000   |   |            |   |             |
| 78000100       | THPL PVT MK LTR & SYM | SQ FT              | 1,702.000   |   |            |   |             |
| 78000200       | THPL PVT MK LINE 4    | FOOT               | 102,350.000 |   |            |   |             |
| 78000400       | THPL PVT MK LINE 6    | FOOT               | 6,638.000   |   |            |   |             |
| 78000600       | THPL PVT MK LINE 12   | FOOT               | 1,039.000   |   |            |   |             |
| 78000650       | THPL PVT MK LINE 24   | FOOT               | 419.000     |   |            |   |             |
| 78100100       | RAISED REFL PAVT MKR  | EACH               | 594.000     |   |            |   |             |
| 78300200       | RAISED REF PVT MK REM | EACH               | 535.000     |   |            |   |             |
| 88600600       | DET LOOP REPL         | FOOT               | 1,667.000   |   |            |   |             |
|                |                       |                    |             |   |            |   |             |

| CONTRACT NUMBER       | 60H23 |   |
|-----------------------|-------|---|
| TUIS IS THE TOTAL DID |       | ¢ |
| THIS IS THE TOTAL BID |       | Þ |

#### 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.

## 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.

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.

#### 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.

(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.

#### G. Debt Delinquency

#### 1. The Illinois Procurement Code provides:

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

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.

#### 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. <u>Disclosure Forms</u>. 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 accurate, and all forms are hereby incorporated by reference in this bid. Any ne 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

D.

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.)   |
| the bide                     | " answer to any of these questions requires the completion of Form A. The bidder must determine each individual in the bidding entity or ding 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 zed to execute contracts for your organization. <b>Photocopied or stamped signatures are not acceptable</b> . The person signing can be, but of have to be, the person for which the form is being completed. The bidder is responsible for the accuracy of any information provided.  |
|                              | nswer to each of the above questions is "NO", then the <u>NOT APPLICABLE STATEMENT</u> on page 2 of Form A must be signed and dated by in that is authorized to execute contracts for your company.  |
| bidding                      | 3: Identifying Other Contracts & Procurement Related Information Disclosure Form B must be completed for each bid submitted by the entity. Note: Checking the NOT APPLICABLE STATEMENT on Form A does not allow the bidder to ignore Form B. Form B must be ted, checked, and dated or the bidder may be considered nonresponsive and the bid will not be accepted.  |
| ongoing                      | dder shall identify, by checking Yes or No on Form B, whether it has any pending contracts (including leases), bids, proposals, or other g procurement relationship with any other (non-IDOT) State of Illinois agency. If "No" is checked, the bidder only needs to complete the box on the bottom of Form B. If "Yes" is checked, the bidder must do one of the following:   |
| agency<br>attache<br>and are | 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 pending contracts, leases, bids, proposals, and other ongoing procurement relationships. These items may be listed on Form B or on an d sheet(s). Do not include IDOT contracts. Contracts with cities, counties, villages, etc. are not considered State of Illinois agency contracts not to be included. Contracts with other State of Illinois agencies such as the Department of Natural Resources or the Capital of Department Board must be included. Bidders who submit Affidavits of Availability are suggested to use Option II. |
| "See Atagency                | 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 fidavit of Availability" which indicates that the Affidavit of Availability is incorporated by reference and includes all non-IDOT State of Illinois pending contracts, leases, bids, proposals, and other ongoing procurement relationships. For any contracts that are not covered by the t of Availability, the bidder must identify them on Form B or on an attached sheet(s). These might be such things as leases.  |
| <u>Bidder</u>                | s Submitting More Than One Bid   |
|                              | s 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. indicate in the space provided below the bid item that contains the original disclosure forms and the bid items which incorporate the forms rence.  |
|                              | 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)  |
| (30 ILCS 500). Vendors desiring to enter and potential conflict of interest information the publicly available contract file. This ended contracts. A publicly traded contact of the requirements set for | rinto a contract with the Ston as specified in this Disc<br>Form A must be complete<br>ompany may submit a<br>rth in Form A. See Disclo |  |
| DISCL   | OSURE OF FINANCIAL  | <u> INFORMATION</u>  |
| terms of ownership or distributive incom<br>\$106,447.20 (60% of the Governor's sal<br>separate Disclosure Form A for each  | e share in excess of 5%, o ary as of 7/1/07). (Make coindividual meeting these  | elow has an interest in the BIDDER (or its parent) in or an interest which has a value of more than opies of this form as necessary and attach a requirements) |
| FOR INDIVIDUAL (type or print infor   | mation)   |  |
| NAME:   |   |  |
| ADDRESS   |   |  |
|   |   |  |
| Type of ownership/distributable in  | ncome share:  |  |
| stock sole proprietor: % or \$ value of ownership/distributal   |   | ship other: (explain on separate sheet):   |
|   |   |  |
|   |   | r "No" to indicate which, if any, of the following<br>ny question is "Yes", please attach additional pages   |
| (a) State employment, currently or  | in the previous 3 years, inc  | cluding contractual employment of services.  YesNo   |
| If your answer is yes, please an  | swer each of the following  |  |
| <ol> <li>Are you currently an off<br/>Highway Authority?</li> </ol>   | icer or employee of either t  | the Capitol Development Board or the Illinois Toll YesNo   |
| 2. Are you currently appo   | inted to or employed by a   | any agency of the State of Illinois? If you are  |

agency for which you are employed and your annual salary.

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

|     | 3.            | If you are currently appointed to or employed by any agency of the S salary exceeds \$106,447.20, (60% of the Governor's salary as of 7/(i) more than 7 1/2% of the total distributable income of your firm corporation, or (ii) an amount in excess of the salary of the Governor  | /1/07) are you entitled to receive , partnership, association or                               |
|-----|---------------|---|--|
|     | 4.            | If you are currently appointed to or employed by any agency of the S salary exceeds \$106,447.20, (60% of the Governor's salary as of 70 or minor children entitled to receive (i) more than 15 % in the aggressincome of your firm, partnership, association or corporation, or (ii) are the salary of the Governor?                                   | /1/07) are you and your spouse egate of the total distributable                                |
| (b) | •             | byment of spouse, father, mother, son, or daughter, including contractions 2 years.   |  |
|     | If your answ  | wer is yes, please answer each of the following questions.  | YesNo  |
|     | 1.            | Is your spouse or any minor children currently an officer or employee Board or the Illinois Toll Highway Authority?   | e of the Capitol Development<br>YesNo  |
|     | 2.            | Is your spouse or any minor children currently appointed to or employ of Illinois? If your spouse or minor children is/are currently appagency of the State of Illinois, and his/her annual salary exceed Governor's salary as of 7/1/07) provide the name of your spouse at of the State agency for which he/she is employed and his/her annual        | bointed to or employed by any ds \$106,447.20, (60 % of the nd/or minor children, the name     |
|     | 3.            | If your spouse or any minor children is/are currently appointed to or State of Illinois, and his/her annual salary exceeds \$106,447.20, (60 as of 7/1/07) are you entitled to receive (i) more then 71/2% of the to firm, partnership, association or corporation, or (ii) an amount in Governor?  | % of the salary of the Governor tal distributable income of your                               |
|     | 4.            | If your spouse or any minor children are currently appointed to or en State of Illinois, and his/her annual salary exceeds \$106,447.20, (60° 7/1/07) are you and your spouse or minor children entitled to reca aggregate of the total distributable income of your firm, partnership, (ii) an amount in excess of 2 times the salary of the Governor? | % of the Governor's salary as of eive (i) more than 15 % in the association or corporation, or |
|     |               |   | YesNo  |
|     | unit of       | re status; the holding of elective office of the State of Illinois, the gover local government authorized by the Constitution of the State of Illinois currently or in the previous 3 years.  |  |
|     |               | onship to anyone holding elective office currently or in the previous 2 y daughter.   | years; spouse, father, mother,<br>YesNo  |
|     | Americ of the | ntive office; the holding of any appointive government office of the States, or any unit of local government authorized by the Constitution of the State of Illinois, which office entitles the holder to compensation in excharge of that office currently or in the previous 3 years.   | he State of Illinois or the statutes   |
|     | ` '           | nship to anyone holding appointive office currently or in the previous 2 daughter.  | 2 years; spouse, father, mother, YesNo   |
|     | (g) Emplo     | yment, currently or in the previous 3 years, as or by any registered lob  | obyist of the State government. YesNo  |

| (h) | Relationship to anyone who is or was a registered lobbyist in the previous 2 years; spouse, father, mother, son, or daughter.  YesNo   |
|-----|--|
| (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.  YesNo  |
| (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   |
| Th  | is Disclosure Form A is submitted on behalf of the INDIVIDUAL named on previous page.  |
| С   | Completed by:  |
|     | Signature of Individual or Authorized Representative Date  |
|     | NOT APPLICABLE STATEMENT   |
|     | ave determined that no individuals associated with this organization meet the criteria that would quire the completion of this Form A.   |
| Th  | nis Disclosure Form A is submitted on behalf of the CONTRACTOR listed on the previous page.  |
|     |  |
|     | Signature of Authorized Representative Date  |
|     |  |

### ILLINOIS DEPARTMENT OF TRANSPORTATION

# Form B Other Contracts & Procurement Related Information Disclosure

| Contractor Name   |                            |                             |                |                      |                      |
|---|----------------------------|-----------------------------|----------------|----------------------|----------------------|
| Legal Address   |                            |                             |                |                      |                      |
| City, State, Zip  |                            |                             |                |                      |                      |
| Telephone Number  | 1                          | Email Address               | Fax            | Number (if available | :)                   |
| Disclosure of the information LCS 500). This information oids in excess of \$10,000, ar                   | shall become part          | of the publicly availab     |                |                      |                      |
| DISCLOSURE  | OF OTHER CON               | TRACTS AND PROC             | UREMENT REL    | ATED INFORM          | <u>ATION</u>         |
| 1. Identifying Other Contropending contracts (including Illinois agency: Yes_ If "No" is checked, the bid | g leases), bids, pro<br>No | oposals, or other ongoi     | ng procurement | relationship wit     | h any other State of |
| 2. If "Yes" is checked. Ide<br>descriptive information such<br>FORM INSTRUCTIONS:                         |                            |                             |                |                      |                      |
|   |                            |                             |                |                      |                      |
|   |                            |                             |                |                      |                      |
|   |                            |                             |                |                      |                      |
|   |                            |                             |                |                      |                      |
|   |                            |                             |                |                      |                      |
|   |                            |                             |                |                      |                      |
|   |                            |                             |                |                      |                      |
|   | THE FOLLOW                 | WING STATEMENT M            | UST BE CHECK   | KED                  |                      |
|   |                            |                             |                |                      |                      |
|   | - (                        | Signature of Authorized Rep | resentative    |                      | Date                 |
|   |                            |                             |                |                      |                      |

#### **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.



Contract No. 60H23 LAKE County Section OR-RS-3 Route FAP 334 District 1 Construction Funds

| PART I. IDENTIFIC   | ATION      |                        |                  |           |           |           |        | ļ            | Distri      | ict i  | OOM     | ti detio        |      | unus                 | •                                    |             |                     |       |
|---|------------|------------------------|------------------|-----------|-----------|-----------|--------|--------------|-------------|--------|---------|-----------------|------|----------------------|--------------------------------------|-------------|---------------------|-------|
| Dept. Human Right   | s#         |                        |                  |           |           |           | _ Dur  | ation o      | f Proje     | ect:   |         |                 |      |                      |                                      |             |                     |       |
| Name of Bidder: _   |            |                        |                  |           |           |           |        |              |             |        |         |                 |      |                      |                                      |             |                     |       |
| PART II. WORKFO<br>A. The undersigned<br>which this contract wo<br>projection including a | d bidder h | as analyz<br>e perform | ed mir<br>ed, an | d for the | ne locati | ions fro  | m whic | h the b      | idder re    | cruits | employe | ees, and h      | erel | oy subm<br>e allocat | its the foll<br>ted to this<br>TABLE | owir<br>con | ng workfo<br>tract: | orce  |
|   |            | TOTA                   | AL Wo            | rkforce   | Projec    | tion for  | Contra | ct           |             |        |         |                 |      | C                    | CURRENT<br>TO BE                     |             | IPLOYEE<br>SIGNED   | S     |
|   |            |                        |                  | MINO      | ORITY I   | EMPLO     | YEES   |              |             | TRA    | AINEES  |                 |      |                      | TO CO                                | TNC         | RACT                |       |
| JOB<br>CATEGORIES   |            | OYEES                  | BL/              | ACK<br>F  | HISP.     | ANIC<br>F | MIN    |              | APPI<br>TIC |        | TRA     | HE JOB<br>INEES |      | EMPL                 | OTAL<br>OYEES                        |             |                     | OYEES |
| OFFICIALS<br>(MANAGERS)   | IVI        | F                      | IVI              | Г         | M         | Г         | M      | F            | M           | Г      | М       | F               |      | М                    | F                                    |             | M                   | F     |
| SUPERVISORS   |            |                        |                  |           |           |           |        |              |             |        |         |                 |      |                      |                                      |             |                     |       |
| FOREMEN   |            |                        |                  |           |           |           |        |              |             |        |         |                 |      |                      |                                      |             |                     |       |
| CLERICAL  |            |                        |                  |           |           |           |        |              |             |        |         |                 |      |                      |                                      |             |                     |       |
| EQUIPMENT<br>OPERATORS  |            |                        |                  |           |           |           |        |              |             |        |         |                 |      |                      |                                      |             |                     |       |
| MECHANICS   |            |                        |                  |           |           |           |        |              |             |        |         |                 |      |                      |                                      |             |                     |       |
| TRUCK DRIVERS   |            |                        |                  |           |           |           |        |              |             |        |         |                 |      |                      |                                      |             |                     |       |
| IRONWORKERS   |            |                        |                  |           |           |           |        |              |             |        |         |                 |      |                      |                                      |             |                     |       |
| CARPENTERS  |            |                        |                  |           |           |           |        |              |             |        |         |                 |      |                      |                                      |             |                     |       |
| CEMENT MASONS   |            |                        |                  |           |           |           |        |              |             |        |         |                 |      |                      |                                      |             |                     |       |
| ELECTRICIANS  |            |                        |                  |           |           |           |        |              |             |        |         |                 |      |                      |                                      |             |                     |       |
| PIPEFITTERS,<br>PLUMBERS  |            |                        |                  |           |           |           |        |              |             |        |         |                 |      |                      |                                      |             |                     |       |
| PAINTERS  |            |                        |                  |           |           |           |        |              |             |        |         |                 |      |                      |                                      |             |                     |       |
| LABORERS,<br>SEMI-SKILLED   |            |                        |                  |           |           |           |        |              |             |        |         |                 |      |                      |                                      |             |                     |       |
| LABORERS,<br>UNSKILLED  |            |                        |                  |           |           |           |        |              |             |        |         |                 |      |                      |                                      |             |                     |       |
| TOTAL   |            |                        |                  |           |           |           |        |              |             |        |         |                 |      |                      |                                      | -           |                     |       |
|   |            | BLE C                  |                  | . (0      | \         |           |        | L.           | 1           |        | u e     | FOR             | DE   | PARTM                | MENT US                              | SE C        | ONLY                |       |
| EMPLOYEES<br>IN   | _          | TAL<br>OYEES           | BL               | ACK       | HISF      | ANIC      | MII    | THER<br>NOR. |             |        |         | -               |      |                      |                                      |             |                     |       |
| TRAINING  | М          | F                      | М                | F         | М         | F         | М      | F            | 4           |        |         |                 |      |                      |                                      |             |                     |       |
| APPRENTICES   |            |                        |                  |           |           |           |        |              | _           |        |         |                 |      |                      |                                      |             |                     |       |
| ON THE JOB<br>TRAINEES  |            |                        |                  |           |           |           |        |              |             |        |         |                 |      |                      |                                      |             |                     |       |

Note: See instructions on page 2

BC 1256 (Rev. 12/11/07)

\* Other minorities are defined as Asians (A) or Native Americans (N).

Please specify race of each employee shown in Other Minorities column.

Contract No. 60H23 **LAKE County Section OR-RS-3 Route FAP 334 District 1 Construction Funds** 

#### PART II. WORKFORCE PROJECTION - continued

|            | event the undersigned bidder is awarded this contra  |  | buid be employed in the   |
|------------|--|--|---|
|            | The undersigned bidder projects that: (number) recruited from the area in which the contract project paw bires we  | t is located; and/or (number)  yould be recruited from the area in   | new hires would be  |
|            | office or base of operation is located.  | rould be reclaited from the area in  | which the blader 3 philospar  |
|            | Included in "Total Employees" under Table A is a production of number as well as a projection of number 1.   |  |   |
|            | The undersigned bidder estimates that (number) be directly employed by the prime contractor and the employed by subcontractors.  | nat (number)   | persons will be   |
| PART II    | II. AFFIRMATIVE ACTION PLAN  |  |   |
|            | The undersigned bidder understands and agrees the utilization projection included under <b>PART II</b> is determined in any job category, and in the event that the undercommencement of work, develop and submit a write (geared to the completion stages of the contract) we utilization are corrected. Such Affirmative Action Part the <b>Department of Human Rights</b> . | ermined to be an underutilization o<br>signed bidder is awarded this cont<br>ten Affirmative Action Plan includin<br>hereby deficiencies in minority and | f minority persons or women tract, he/she will, prior to hg a specific timetable d/or female employee |
|            | The undersigned bidder understands and agrees the submitted herein, and the goals and timetable inclute to be part of the contract specifications.   |  |   |
| Compa      | any  | Telephone Number   |   |
| Addres     | SS   | <del></del>  |   |
|            | NOTICE REG   | ARDING SIGNATURE   |   |
|            | The Bidder's signature on the Proposal Signature Sheet vneeds to be completed if revisions are required.   | vill constitute the signing of this form.  | The following signature block   |
| s          | Signature:   | Title:   | Date:   |
| Instructio | ons: All tables must include subcontractor personnel in addi   | tion to prime contractor personnel.  |   |
| Table A -  | <ul> <li>Include both the number of employees that would be<br/>(Table B) that will be allocated to contract work, and in<br/>should include all employees including all minorities, approximately</li> </ul>  | nclude all apprentices and on-the-job traine   | ees. The "Total Employees" column   |
| Table B -  | <ul> <li>Include all employees currently employed that will be a<br/>currently employed.</li> </ul>  | llocated to the contract work including any  | apprentices and on-the-job trainees   |
| Table C -  | - Indicate the racial breakdown of the total apprentices a   | nd on-the-job trainees shown in Table A.   |   |
|            |  |  | BC-1256 (Rev. 12/11/07)   |

Contract No. 60H23 LAKE County Section OR-RS-3 Route FAP 334 District 1 Construction Funds

#### PROPOSAL SIGNATURE SHEET

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

|  | Firm Name              |  |
|--|------------------------|--|
| (IF AN INDIVIDUAL)   |                        |  |
|  |                        |  |
|  |                        |  |
|  |                        |  |
|  | Firm Name              |  |
|  |                        |  |
| (IF A CO-PARTNERSHIP)  |                        |  |
| (II A CO-FARTNERSHIF)  | Busiliess Address      |  |
|  |                        | Name and Address of All Members of the Firm:                 |
| _<br>_   |                        |  |
|  |                        |  |
|  | Corporate Name         |  |
|  |                        |  |
|  | ·                      | Signature of Authorized Representative                       |
|  |                        | To a descripted assessment title of Authorized Description   |
| (IF A CORPORATION)   |                        | Typed or printed name and title of Authorized Representative |
| (IF A JOINT VENTURE, USE THIS SECTION                          |                        | Signature  |
| FOR THE MANAGING PARTY AND THE SECOND PARTY SHOULD SIGN BELOW) |                        |  |
| SESSIVE FAIRTY SHOOLD SIGN BLESTY)                             | Buoineos / tadreos     |  |
|  |                        |  |
|  | Corporate Name         |  |
|  | Ву                     |  |
|  |                        | Signature of Authorized Representative                       |
|  |                        | Typed or printed name and title of Authorized Representative |
| (IF A JOINT VENTURE)   | Attest                 | , ,  |
|  | 7 111001               | Signature  |
|  | Business Address       |  |
|  |                        |  |
| If more than two parties are in the joint venture              | e, please attach an ad | dditional signature sheet.                                   |

#### **Return with Bid**



#### Division of Highways Proposal Bid Bond

(Effective November 1, 1992)

|   |   |  | Item No.   |
|---|---|--|--|
|   |   |  | Letting Date   |
| KNOW ALL MEN BY THESE PRES  | ENTS, That We   |  |  |
|   |   |  |  |
| as PRINCIPAL, and   |   |  |  |
| ·   | -   |  | as SURETY, are   |
| specified in Article 102.09 of the "St  | andard Specifications for R be paid unto said STATE   | load and Bridge Constru  | um of 5 percent of the total bid price, or for the amount ction" in effect on the date of invitation for bids, whichever ayment of which we bind ourselves, our heirs, executors,  |
|   | gh the Department of Trar   |  | ne PRINCIPAL has submitted a bid proposal to the rovement designated by the Transportation Bulletin Item   |
| and as specified in the bidding and after award by the Department, the including evidence of the required performance of such contract and failure of the PRINCIPAL to make the to the Department the difference no | contract documents, submit PRINCIPAL shall enter into insurance coverages and for the prompt payment of the required DBE submission at to exceed the penalty here to with another party to perf | it a DBE Utilization Plan<br>to a contract in accordar<br>providing such bond as<br>labor and material furning<br>or to enter into such contreof between the amoun | CIPAL; and if the PRINCIPAL shall, within the time that is accepted and approved by the Department; and if, nce with the terms of the bidding and contract documents a specified with good and sufficient surety for the faithful shed in the prosecution thereof; or if, in the event of the ntract and to give the specified bond, the PRINCIPAL pays at specified in the bid proposal and such larger amount for by said bid proposal, then this obligation shall be null and |
| paragraph, then Surety shall pay the  | e penal sum to the Departm<br>the Department may bring  | ent within fifteen (15) day<br>an action to collect the a  | with any requirement as set forth in the preceding ys of written demand therefor. If Surety does not make full amount owed. Surety is liable to the Department for all its a whole or in part.   |
| In TESTIMONY WHEREOF, t   | the said PRINCIPAL and the  | e said SURETY have ca  | used this instrument to be signed by   |
| their respective officers this  | day of  |  | A.D.,  |
| PRINCIPAL   |   | SURETY   | •  |
| (Company Na   | ame)  |  | (Company Name)   |
| D   | ,   | D  |  |
| By(Signatu  | re & Title)   | By:  | (Signature of Attorney-in-Fact)  |
|   | Notary Cert   | ification for Principal and  | Surety   |
| STATE OF ILLINOIS,  | 110001  |  |  |
| County of   |   |  |  |
| l,  |   | , a Notary Pt  | ublic in and for said County, do hereby certify that   |
|   | (Insert names of individuals  | and  | DINICIDAL & SLIDETVI   |
| who are each nercenally known to n  | •   |  | ,  |
|   | this day in person and ackr   |  | cribed to the foregoing instrument on behalf of PRINCIPAL that they signed and delivered said instrument as their free   |
| Given under my hand and not   | arial seal this   | day of   | A.D  |
| My commission expires   |   |  |  |
|   |   |  | Notary Public  |
|   | Signature and Title line belo   | ow, the Principal is ensu  | file an Electronic Bid Bond. By signing the proposal and uring the identified electronic bid bond has been executed ons of the bid bond as shown above.  |
| Electronic Bid Bond ID#   | Company / Bidder  | · Name   | Signature and Title  |
|   | Joinpany / Diddel   |  | eig.ia.dio dia 1100  |

#### 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. 60H23 LAKE County Section OR-RS-3 Route FAP 334 District 1 Construction Funds



## Illinois Department of Transportation

#### **NOTICE TO BIDDERS**

- 1. TIME AND PLACE OF OPENING BIDS. Sealed proposals for the improvement described herein will be received by the Department of Transportation at the Harry R. Hanley Building, 2300 South Dirksen Parkway, in Springfield, Illinois until 10:00 o'clock a.m., May 15, 2009. All bids will be gathered, sorted, publicly opened and read in the auditorium at the Department of Transportation's Harry R. Hanley Building shortly after the 10:00 a.m. cut off time.
- **2. DESCRIPTION OF WORK**. The proposed improvement is identified and advertised for bids in the Invitation for Bids as:

Contract No. 60H23 LAKE County Section OR-RS-3 Route FAP 334 District 1 Construction Funds

- 3.18 miles of resurfacing on US 12/IL 59 from Fish Lake Road to Grand Avenue in Fox Lake and Volo.
- 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, 2009

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

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

#### SUPPLEMENTAL SPECIFICATIONS

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#### **RECURRING SPECIAL PROVISIONS**

The following RECURRING SPECIAL PROVISIONS indicated by an "X" are applicable to this contract and are included by reference:

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#### STATE OF ILLINOIS

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#### SPECIAL PROVISIONS

The following Special Provisions supplement the "Standard Specifications for Road and Bridge Construction," adopted January 1, 2007, the latest edition of the "Manual on Uniform Traffic Control Devices for Streets and Highways," and the "Manual of Test Procedures for Materials" in effect on the date of invitation for bids, and the Supplemental Specifications and Recurring Special Provisions indicated on the Check Sheet included herein which apply to and govern the construction of FAP Route 334 (US-12 / IL-59), Section: OR-RS-3 in Lake County, Contract 60H23 and in case of conflict with any part or parts of said Specifications, the said Special Provisions shall take precedence and shall govern.

FAP Route 334 : US-12 / IL-59 (Rand Road)
Section: OR-RS-3
County: Lake
Contract No. 60H23

#### **LOCATION OF PROJECT**

The project begins at a point on U.S. Route 12 (Rand Road) approximately 1640 feet north of the centerline intersection of Illinois Route 120 and Rand Road, and extends in a northerly direction to the bridge carrying northbound Rand Road over the southbound Rand Road entrance ramp, for a total distance of approximately 18,413 feet (3.49 miles).

#### **DESCRIPTION OF PROJECT**

This project consists of the rehabilitation of the Rand Road pavement between the above limits. The work to be performed under this contract consists of full-depth Hot-Mix Asphalt (HMA) patching, curb and gutter removal and replacement, milling of the HMA pavement surface, adjustment of drainage structures within the pavement, resurfacing with HMA leveling binder and surface courses, thermoplastic pavement markings, and all incidental and collateral work necessary to complete this improvement as shown on the plans and as described herein.

#### STATUS OF UTILITIES TO BE ADJUSTED

Effective: January 30, 1987 Revised: July 1, 1994

Utility companies involved in this project have provided the following:

No conflicts are anticipated.

The above represents the best information available to the Department and is included for the convenience of the bidder. The applicable portions of Articles 105.07 and 107.31 of the Standard Specifications shall apply.

#### **MAINTENANCE OF ROADWAYS**

Effective: September 30, 1985 Revised: November 1, 1996

Beginning on the date that work begins on this project, the Contractor shall assume responsibility for normal maintenance of all existing roadways within the limits of the improvement. This normal maintenance shall include all repair work deemed necessary by the Engineer, but shall not include snow removal operations. Traffic control and protection for maintenance of roadways will be provided by the Contractor as required by the Engineer.

If items of work have not been provided in the contract, or otherwise specified for payment, such items, including the accompanying traffic control and protection required by the Engineer, will be paid for in accordance with Article 109.04 of the Standard Specifications.

#### RESTRICTION ON WORKING DAYS AFTER A COMPLETION DATE

Effective: January 21, 2003 Revised: January 1, 2007

All temporary lane closures during the period governed by working days after a completion date will not be permitted during the hours of 6:00 a.m. to 9:00 a.m. and 3:00 p.m. to 6:00 p.m. Monday through Friday.

All lane closure signs shall not be erected any earlier than one-half (1/2) hour before the starting hours listed above. Also, these signs should be taken down within one-half (1/2) hour after the closure is removed.

<u>Failure to Open Traffic Lanes to Traffic</u>: Should the Contractor fail to completely open and keep open all the traffic lanes to traffic in accordance with the limitations specified above, the Contractor shall be liable and shall pay to the Department the amount of \$250 per lane blocked, not as a penalty but as liquidated and ascertained damages, for each and every 15 minute interval or a portion thereof that a lane is blocked outside the allowable time limitations. The Department may deduct such damages from any monies due the Contractor. These damages shall apply during the period governed by working days after a completion date and any extensions of that contract time.

#### **COMPLETION DATE PLUS WORKING DAYS**

Effective: September 30, 1985 Revised: January 1, 2007

Revise Article 108.05 (b) of the Standard Specifications as follows:

"When a completion date plus working days is specified, the Contractor shall complete all contract items and safely open all roadways to traffic by 11:59 PM on October 16, 2009 except as specified herein.

The Contractor will be allowed to complete all clean-up work and punch list items within <u>5</u> working days after the completion date for opening the roadway to traffic. Under extenuating circumstances the Engineer may direct that certain items of work, not affecting the safe opening of the roadway to traffic, may be completed within the working days allowed for clean up work and punch list items. Temporary lane closures for this work may be allowed at the discretion of the Engineer.

Article 108.09 or the Special Provision for "Failure to Complete the Work on Time", if included in this contract, shall apply to both the completion date and the number of working days.

#### CLEANING EXISTING DRAINAGE STRUCTURES

Effective: September 30, 1985 Revised: January 1, 2007

All existing storm sewers, pipe culverts, manholes, catch basins and inlets shall be considered as drainage structures insofar as the interpretation of this Special Provision is concerned. When specified for payment, the location of drainage structures to be cleaned will be shown on the plans.

All existing drainage structures which are to be adjusted or reconstructed shall be cleaned in accordance with Article 602.15 of the Standard Specifications. This work will be paid for in accordance with Article 602.16 of the Standard Specifications.

All other existing drainage structures which are specified to be cleaned on the plans will be cleaned according to Article 602.15 of the Standard Specifications.

<u>Basis of Payment.</u> This work will be paid for at the contract unit price each for DRAINAGE STRUCTURES TO BE CLEANED, and at the contract unit price per foot (meter) for STORM SEWERS TO BE CLEANED.

## FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)

Effective: August 1, 1995 Revised: November 1, 1996

Add the following to Article 603.09 of the Standard Specifications:

"Removing frames and lids on drainage and utility structures in the pavement prior to milling, and adjusting to final grade prior to placing the surface course, will be paid for at the contract unit price each for FRAMES AND LIDS TO BE ADJUSTED (SPECIAL).

This work will not be paid for when drainage and utility structures are specified for payment as structure reconstruction."

#### TRAFFIC CONTROL PLAN

Effective: September 30, 1985 Revised: January 1, 2007

Traffic Control shall be according to the applicable sections of the Standard Specifications, the Supplemental Specifications, the "Illinois Manual on Uniform Traffic Control Devices for Streets and Highways", any special details and Highway Standards contained in the plans, and the Special Provisions contained herein.

Special attention is called to Article 107.09 of the Standard Specifications and the following Highway Standards, Details, Quality Standard for Work Zone Traffic Control Devices, Recurring Special Provisions and Special Provisions contained herein, relating to traffic control.

The Contractor shall contact the District One Bureau of Traffic at least 72 hours in advance of beginning work.

## STANDARDS:

701411, 701421, 701426, 701602, 701701, 701901

#### **DETAILS**:

Maintenance of Traffic Plans

Traffic Control and Protection for Side Roads, Intersections and Driveways Traffic Control and Protection at Turn Bays (to Remain Open to Traffic)

Raised Reflective Pavement Markers (Snow Plow Resistant)

District One Typical Pavement Markings

Pavement Marking Letters and Symbols for Traffic Staging

Arterial Road Information Sign

Typical Supplemental Signing and Pavement Marking Treatment for Railroad

Crossings

**Driveway Entrance Signing** 

# **SPECIAL PROVISIONS:**

Maintenance of Roadways Temporary Information Signing Personal Protective Equipment

# FINE AGGREGATE FOR HOT- MIX ASPHALT (HMA) (D-1)

Effective: May 1, 2007 Revised: February 5, 2009

Add the following to the gradation tables of Article 1003.01(c) of the Standard Specifications:

| FINE AGGREGATE GRADATIONS               |     |       |       |        |         |
|---|-----|-------|-------|--------|---------|
| Grad No. Sieve Size and Percent Passing |     |       |       |        |         |
| Grau No.                                | 3/8 | No. 4 | No. 8 | No. 16 | No. 200 |
| FM 23                                   | 100 | 6/    | 6/    | 8±8    | 2±2     |

| FINE AGGREGATE GRADATIONS (metric) |   |    |    |     |          |
|------------------------------------|---|----|----|-----|----------|
|                                    | Sieve Size and Percent Passing                  |    |    |     |          |
| Grad No.                           | 9.5 mm   4.75 mm   2.36 mm   1.16 mm   0.075 mr |    |    |     | 0.075 mm |
| FM 23                              | 100   | 6/ | 6/ | 8±8 | 2±2      |

6/ For the fine aggregate gradations FA 23, the aggregate producer shall set the midpoint percent passing and a range of  $\pm$  10% shall be applied. The midpoint shall not be changed without Department approval.

Revise Article 1003.03 (c) of the Standard Specifications to read:

"Gradation. The fine aggregate gradation for all HMA shall be FA1, FA 2, FA 20, FA 21 or FA 23. When Reclaimed Asphalt Pavement (RAP) is incorporated in the HMA design, the use of FA 21 Gradation will not be permitted.

## **HOT MIX ASPHALT MIXTURE IL-4.75 (DISTRICT ONE)**

Effective: January 1, 2007

<u>Description</u>. This work shall consist of constructing Hot-Mix Asphalt (HMA) surface course or leveling binder with an IL-4.75 mixture. Work shall be according to Sections 406, 1030, 1031 and 1032 of the Standard Specifications except as modified herein.

# Materials.

Fine Aggregate: Revise Note 2 of Article 1030.02 to read:

(a) Gradation. The fine aggregate gradation for IL-4.75 shall be FA 1, FA 2, or FA 20.

Revise the second sentence of Note 3 of Article 1030.02 to read:

"For mixtures with an Ndesign ≥ 90 and for mixture IL-4.75, at least 50 percent of the required fine aggregate fraction shall consist of either stone sand, slag sand, or steel slag meeting the FA/FM 20 gradation."

When the 4.75 mix is used as leveling binder, steel slag sand will not be permitted.

The fine aggregate quality shall be Class B. The total minus No. 200 (75  $\mu$ m) material in the mixture shall be free from organic impurities.

- (b) Reclaimed Asphalt Pavement (RAP). Only processed RAP over 3/8 in. (9.5 mm) screen will be permitted in the 4.75 mm mix. A maximum of 15% RAP will be allowed.
- (c) Asphalt Binder (AB). The AB shall be as indicated in the mixture requirement table shown on the contract plans. If an AB performance grade of SBS/SBR PG 76-22 or SBS/SBR PG 76-28 is specified on the plans, then the AB shall meet the requirements Article 1032.05(b) of the Standard Specifications, and the elastic recovery of the AB used shall be a minimum of 80.

The AB shall be shipped, maintained, and stored at the mix plant according to the manufacturer's requirements. It shall be placed in an empty tank and not blended with other asphalt cements.

(d) Mineral Filler. Mineral filler shall conform to the requirements of Article 1011.01 of the Standard Specifications.

#### Mixture Design.

Add the following to the list of Illinois Modified AASHTO references in Article 1030.04:

AASHTO T 305 Standard Method of Test for Determination of Draindown Characteristics in Uncompacted Asphalt Mixtures.

Add the following to Article 1030.04(a):

"(4) IL-4.75 Mixture. The Job Mix Formula (JMF) shall fall within the following limits

| Sieve             | Percent Passing |
|-------------------|-----------------|
| 1/2 in. (12.5 mm) | 100             |
| 3/8 in. (9.5 mm)  | 100             |
| No. 4 (4.75 mm)   | 90 - 100        |
| No. 8 (2.36 mm)   | 70 - 90         |
| No. 16 (1.18 mm)  | 50 - 65         |
| No. 30 (600 μm)   | 35 - 55         |
| No. 50 (300 μm)   | 15 - 30         |
| No. 100 (150 μm)  | 10 -18          |
| No. 200 (75 μm)   | 7 - 9           |
|                   |                 |
| AB Content        | 7% to 9%        |

Add the following to Article 1030.04(b):

"(4) IL 4.75 Mixture.

| Volumetric Parameter                 | Requirement         |
|--------------------------------------|---------------------|
| Design Air Voids                     | 4.0 % at Ndesign 50 |
| Voids in the Mineral Aggregate (VMA) | 18.5% minimum       |
| Voids Filled with Asphalt (VFA)      | 72 - 85%            |
| Dust/AC Ratio                        | 1.0                 |
| Density (% of Max Specific Gravity)  | 93.0 - 97.4         |
| Maximum Drain-down                   | 0.3%                |

<u>Mixture Production</u>. Plant modifications may be required to accommodate the addition of higher percentages of mineral filler as required by the JMF.

During production, mineral filler shall not be stored in the same silo as collected dust. This may require any previously collected bag house dust in a storage silo prior to production of the IL-4.75 mixture to be wasted. Only metered bag house dust may be returned back directly to the mix. Any additional minus No. 200 (75  $\mu$ m) material needed to produce the IL-4.75 shall be mineral filler.

As an option, collected bag-house dust may be used in lieu of manufactured mineral filler, provided; 1) there is enough is available for the production of the IL-4.75 mix for the entire project and 2) a mix design was prepared with collected bag-house dust.

The mixture shall be produced within the temperature range recommended by the asphalt cement producer; but not less than 310 °F (155 °C).

The amount of moisture remaining in the finished mixture shall be less than 0.3 percent based on the weight of the test sample after drying.

Mixtures contain steel slag sand or aggregate having absorptions  $\geq$  2.5 percent shall have a silo storage plus haul time of not less than 1.5 hours.

## Control Charts/Limits.

Add the following to Control Limits table in Article 1030.04(d)(4):

| Parameter              | Individual Test    | Moving Average     |
|------------------------|--------------------|--------------------|
| % Passing              |                    |                    |
| No. 16 (1.18 mm)       | ± 4%               | ± 3%               |
| No. 200 (75 μm)        | ± 1.5%             | ± 1.0%             |
| Asphalt Binder Content | ± 0.3%             | ± 0.2%             |
| Air Voids              | ± 1.2% (of design) | ± 1.0% (of design) |

Add the following to the Density Control Limits table in Article 1030.05(d)(4):

"DENSITY CONTROL LIMITS

Mixture Composition Parameter Individual Test

IL-4.75 2/ Ndesign = 50 93.0% - 97.4% 2/

2/ Density shall be determined by cores or by correlated, approved thin lift nuclear gauge."

# **Construction Requirements:**

#### Placing.

Revise the table in Article 406.05(c) to read:

| Leveling Binder   |                             |  |
|---|-----------------------------|--|
| Nominal, Compacted, Leveling Binder Thickness, in. (mm) | Mixture Composition         |  |
| ≤ 1 1/4 (32)  | IL-4.75, IL-9.5 or IL-9.5L  |  |
| 1 1/4 to 2 (32 to 50)                                   | IL-9.5, IL-12.5, or IL-9.5L |  |

Add the following to the end of the first paragraph of Article 406.05(c):

"Density requirements for IL-4.75 mixture shall apply when the nominal, compacted thickness is 3/4 in. (19 mm) or greater."

Revise the first and second paragraphs of Article 406.06(b) to read:

"General. The mixture shall be placed on a clean, dry base and when weather conditions are suitable. To avoid blistering, the surface shall be dry for at least 24 hours prior to mixture placement. Work shall not begin when local conditions indicate rain is imminent. The mixture shall be placed when the temperature in the shade is at least 50 °F (10 °C) and the forecast is for rising temperatures. The mixture temperature shall be 310 to 350 °F (155 to 175 °C) and shall be measured in the truck just prior to placement.

When used as leveling binder, the mixture shall be overlaid within five days of being placed."

# Lift Thickness.

Add the following to the end of Article 406.06(d):

"The minimum and maximum compacted lift thickness for the IL-4.75 mixture shall be 3/4 in. (19 mm) and 1 1/4 in. (32 mm) respectively."

## Compaction.

Add the following after the first paragraph of Article 406.07(a):

"The compaction operation shall start immediately after the mixture has been placed. The Contractor shall provide a minimum of two steel-wheeled tandem rollers for breakdown ( $T_B$ ) and one finish steel-wheeled roller ( $T_F$ ) meeting the requirements of Article 1101.01(e) of the Standard Specifications, except the minimum compression for all of the rollers shall be 280 lb/in. (49 N/mm) of roller width. Pneumatic-tired and vibratory rollers will not be permitted."

<u>Basis of Payment</u>. This work will be paid for at the contract unit price per ton (metric ton) for POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50; and POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, IL-4.75, N50.

# HOT MIX ASPHALT – DENSITY TESTING OF LONGITUDINAL JOINTS (D-1)

Effective: January 1, 2007 Revised: January 8, 2009

<u>Description</u>: This work shall consist of testing the density of longitudinal joints as part of the quality control / quality assurance (QC/QA) of hot-mix asphalt (HMA). This work shall be according to Section 1030 of the Standard Specifications except as follows.

#### Definitions:

Density Test Location: The station location used for density testing.

Density Test Site: Individual test site where a single density value is determined.

Density Reading: A single, one minute nuclear density reading.

Density Value: The density determined at a given density test site from the average of two "density readings".

## Quality Control / Quality Assurance (QC/QA)

1030.05(d) (3) add the following paragraphs:

Longitudinal joint density testing shall be performed at each random "density test location". Longitudinal joint testing shall be located at a distance equal to the lift thickness, or a minimum of two inches, from each pavement edge. For Example, on a four inch HMA lift the near edge of the nuclear gauge or core barrel shall be within four inches from the edge of pavement. The remaining 3 density test sites shall be equally spaced between the two edge readings. Documentation shall indicate whether the joint was confined or unconfined.

The joint density value shall be determined using either a correlated nuclear gauge or cores. When using a correlated nuclear gauge, two "density readings" shall be taken at the given density test site. The gauge shall be rotated 180 degrees between "density readings". If the two "density readings" are not within 1.5 lb/cu ft (23 kg/cu m) then one additional "density reading" shall be taken. Additional "density readings" taken at a given site shall not be allowed to replace the original "density readings" unless an error has occurred (i.e. the nuclear gauge was sitting on debris).

# HOT MIX ASPHALT PAY FOR PERFORMANCE USING PERCENT WITHIN LIMITS (D-1)

Effective: April 4, 2008 Revised: January 1, 2009

<u>Description</u>: This special provision describes the procedures used for production, placement and payment for hot-mix asphalt (HMA). This special provision applies to all HMA surface mixtures that individually have a minimum quantity of 8,000 tons (7,260 metric tons) and are placed at a minimum nominal thickness equal to or greater than 3 times the nominal maximum aggregate size. This work shall be according to the Standard Specifications for Road and Bridge Construction except as specified herein.

| Delete Articles: | 406.06(b), 2 <sup>nd</sup> Paragraph<br>406.06 (e) 3 <sup>rd</sup> Paragraph<br>406.07<br>1030.05(a) (4, 5, 7, 8, 9, & 10<br>1030.05(d) (2) a.<br>1030.05(d) (2) b. | (Temperature requirements) (Pavers speed requirements) (Compaction) () (QC/QA Documents) (Plant Tests) (Dust-to-Asphalt and Moisture Content) |
|------------------|---|---|
|                  | 1030.05(d) (2) d.   | (Small Tonnage)   |
|                  | 1030.05(d) (2) f.   | (HMA Sampling)  |
|                  | 1030.05(d) (3)  | (Required Field Tests)  |
|                  | 1030.05(d) (4)  | (Control Limits)  |
|                  | 1030.05(d) (5)  | (Control Charts)  |
|                  | 1030.05(d) (6)  | (Corrective Action for Required Plant Tests)  |
|                  | 1030.05(d) (7)  | (Corrective Action for Field Tests (Density))   |
|                  | 1030.05(e)  | (Quality Assurance by the Engineer)   |
|                  | 1030.05(f)  | (Acceptance by the Engineer)  |
|                  | 1030.06(a) (3, 7, 8, & 9):  |   |
|                  | <ul> <li>3 (Before start-up)</li> </ul>   | )   |
|                  | <ul> <li>7 (After an accept</li> </ul>  | able)   |
|                  | _ 1   | •   |

The following documents have been added or modified to replace the equivalent documents in the current Manual of Test Procedures for Materials.

8 (If a mixture...)
9 (A nuclear/core...)

| Existing   | Replacement (attached)                   |
|--|--|
| ERS - HMA QC/QA Initial Daily Plant & Random Samples; Appendix E2      | PFP Hot-Mix Asphalt Random Plant Samples |
| ERS - Determination of Random Density Test Site Locations; Appendix E3 | PFP Random Density Procedure             |
| ERS - Quality Level Analysis; Appendix E1                              | PFP Quality Level Analysis               |

# **Definitions:**

- A. Quality Control (QC): All production and construction activities by the Contractor required to achieve the required level of quality.
- B. Quality Assurance (QA): All monitoring and testing activities by the Engineer required to assess product quality, level of payment, and acceptability of the product.
- C. Percent Within Limits (PWL): The percentage of material within the quality limits for a given quality characteristic.
- D. Quality Characteristic: The characteristics that are evaluated by the Department for payment using PWL. The quality characteristics for this project are field VMA, voids, and density. Field VMA will be calculated using the combined  $G_{\text{sb}}$  from the mix design
- E. Quality Level Analysis (QLA): QLA is a statistical procedure for estimating the amount of product within specification limits.
- F. Sublot: The sublot for field VMA and voids will be 1000 tons. The sublot for density will be 1 mile. If a mixture sublot consists of less than 200 tons or a density sublot consists of less than 200 feet, it shall be combined with the previous sublot.
- G. Lot: A lot consists of 10 sublots. If seven or less sublots remain at the end of production of a mixture, the test results for these sublots will be combined with the previous lot for evaluation of percent within limits and pay factors.
- H. Density Test: A density test consists of a core taken at a random longitudinal and transverse offset.

#### Pre-production Meeting:

The Engineer will schedule a pre-production meeting a minimum of seven calendar days prior to the start of production. The HMA QC Plan, test frequencies, random test locations, and responsibilities of all parties involved in testing and determining the PWL will be addressed.

Personnel attending the meetings will include the following:

- Resident Engineer
- District Mixture Control Representative
- QC Manager
- Contractor Paving Superintendent
- Any consultant involved in any part of the HMA sampling or testing on this project

# Quality Control (QC) by the Contractor:

The Contractor's quality control plan shall include the schedule of testing for both quality characteristics and non-quality characteristics required to control the product such as asphalt binder and gradation. The schedule shall include sample location. The minimum test frequency shall not be less than outlined in the Minimum Quality Control Sampling and Testing Requirements table below.

# Minimum Quality Control Sampling and Testing Requirements

| Quality Characteristic | Minimum Test Frequency | Sampling Location |
|------------------------|------------------------|-------------------|
| Mixture Gradation      | 1/day                  | per QC Plan       |
| Binder Content         | 1/day                  | per QC Plan       |
| G <sub>mm</sub>        | 1/day                  | per QC Plan       |
| G <sub>mb</sub>        | 1/day                  | per QC Plan       |
| Density                | per QC plan            | per QC Plan       |

Revise Article 1030.05(d) (4) to read:

"(4) The QC Manager shall notify the Engineer when corrective action limits are exceeded and describe corrective action.

# **Quality Control Limits**

| Characteristic       | Corrective Action Limit            |
|----------------------|------------------------------------|
| Gradation            | Moving Average of 4                |
| ½ inch               | ±6%                                |
| No. 4                | ± 5 %                              |
| No. 8                | ± 5 %                              |
| No. 30               | ± 4 %                              |
| No. 200              | ± 1.5 %                            |
| Voids                | ± 1.2 %                            |
| Field VMA            | - 0.7 % or + 2.0 % from Spec Limit |
| Dust/AC Ratio        | Min. 0.6 - Max 1.2                 |
| HMA Moisture Content | Max 0.3%"                          |

<u>Initial Production Testing</u>: Three way splits will occur on the first two sublots of a given mixture. The Contractor and Engineer's laboratory shall each run a split and the third portion will be retained for potential dispute resolution. The Contractor and Engineer's laboratory shall complete all tests and report all results to the Engineer within two working days of sampling. If a test strip is utilized, the comparison evaluation may be utilized on the test strip samples.

The Contractor and Engineer's test results will be evaluated for acceptable precision limits listed in the following table.

# Acceptable Limits of Precision

| Test Parameter  | Limits of Precision |
|-----------------|---------------------|
| ½ in. (12.5 mm) | 5.0 %               |
| No. 4 (4.75 mm) | 5.0 %               |
| No. 8 (2.36 mm) | 3.0 %               |
| No. 30 (600 µm) | 2.0 %               |
| No. 200 (75 µm) | 2.2 %               |
| Binder Content  | 0.3%                |
| G <sub>mm</sub> | ± 0.026             |
| G <sub>mb</sub> | ± 0.030             |
| Core Density    | 1.0%                |

Upon approval of the initial production testing, production of sublot 1 shall begin. If the initial production testing test results do not meet the acceptable limits of precision, the Contractor and Engineer will jointly review the results, check equipment and review the test procedures for all testing laboratories to determine if there is an identifiable cause for the discrepancy. If the Department results are acceptable, production of sublot 1 shall then begin.

#### Quality Assurance (QA) by the Engineer:

The Engineer will test each sublot for field VMA, voids, dust/ac ratio and density to determine payment for each lot. A sublot shall begin once an acceptable test-strip has been completed and the AJMF has been determined. If the test strip is waived, a sublot shall begin with the start of production.

Voids, field VMA, and Dust/AC ratio: The mixture sublot size is 1000 tons. The Engineer will determine the random tonnage and the Contractor shall be responsible for obtaining the sample according to the "PFP Hot-Mix Asphalt Random Plant Samples" procedure.

Density: The sublot size for density is one mile. The Engineer will identify three locations within each sublot and the Contractor shall be responsible for obtaining the cores according to the "PFP Random Density Procedure". The locations will be identified after final rolling and cores shall be obtained under the supervision of the Engineer.

Test Results: The Department test results for the first sublot of every lot will be available to the Contractor five working days from the time the sublot has been delivered to a Department's Testing Facility or a location designated by the Engineer. Test results for the completed lot will be available to the Contractor 14 working days from the time the last sublot has been delivered to a Department testing facility or a location designated by the Engineer.

All Department testing will be performed in a qualified laboratory by personnel who have successfully completed the Department HMA Level I training.

The Engineer will maintain a complete record of all Department test results. Copies will be furnished upon request. The records will contain, as a minimum, the originals of all Department test results and raw data, random numbers used and resulting calculations for sampling locations, and quality level analysis calculations.

# **Dispute Resolution:**

If dispute resolution is necessary, the Contractor shall submit a request in writing within four working days of receipt of the results of the quality index analysis for the lot. The request for dispute resolution must include the Contractor's quality control and, if available, split sample test results for the lot. The Engineer will document receipt of the request. The Department central laboratory will be used for dispute resolution testing.

For density disputes, the Engineer will locate and mark the dispute resolution core locations by adding 1.0 ft longitudinally to the location of the original cores tested using the same transverse offset. The Engineer will witness the coring process and take possession of the cores and

submit them to the Department central laboratory for testing. The  $G_{mm}$  from the original QA test results will be used to calculate the new density values. If, in addition to density, either voids or field VMA are in dispute for the same lot, the new  $G_{mm}$  value will be used only to calculate the new density values for the disputed tests.

All dispute resolution results will replace original quality assurance test results. The overall lot pay factor and the lot pay adjustment for the lot under dispute resolution will be recalculated.

If the recalculated overall lot pay factor is less than or equal to the original overall lot pay factor, all costs associated with completing the dispute resolution sample testing will be borne by the Contractor.

If the recalculated overall lot pay factor is greater than the original pay factor, all costs associated with completing the dispute resolution sample testing will be borne by the Department.

Department central laboratory test costs are as follows:

| Test         | Cost              |
|--------------|-------------------|
| Mix Testing  | \$600.00 / sublot |
| Core Density | \$150.00 / sublot |

Acceptance by the Engineer and Basis of Payment:

The Engineer may cease production and reject material produced under the following circumstances:

- If the Contractor is not following the approved quality control plan
- If PWL for any quality characteristic is below 50% for any lot
- If visible pavement distress occurs such as segregation or flushing
- If any sublot test exceeds the acceptable limits listed below:

## Acceptable Limits

| Parameter   | Acceptable Range                             |
|---|--|
| Field VMA   | -1.0 -+3.0%                                  |
| Voids   | $2.0 - 6.0^{-17}$                            |
| Density:<br>IL-9.5, IL-12.5<br>IL-4.75, IL-19.0, IL-25.0<br>SMA | 89.0 - 98.0%<br>90.0 - 98.0%<br>92.0 - 98.0% |
| Dust / AC Ratio   | 0.4 – 1.5                                    |

1/ The acceptable range for SMA mixtures shall be 2.0% - 5.0%

Payment will be based on the calculation of the quantity within specification limits for each quality characteristic according to the "PFP Quality Level Analysis" document.

For this contract only the contractor minimum pay will be limited to 92% even if the calculated final pay is less than 92%. However the contractor will still have the possibility of receiving the maximum 103% if the calculated final pay so indicates. This special provision shall only apply to the surface course mixtures.

#### Dust / AC Ratio

In addition to the PWL on VMA, voids, and density, a monetary deduction will be made using the pay adjustment table below for dust/AC ratios that deviate from the 0.6 to 1.2 range.

Dust / AC Pay Adjustment Table

| Range                                  | Deduct / sublot               |
|--|-------------------------------|
| 0.6 ≤ X ≤ 1.2                          | \$0                           |
| $0.5 \le X < 0.6$ or $1.2 < X \le 1.4$ | \$1000                        |
| $0.4 \le X < 0.5$ or $1.4 < X \le 1.6$ | \$3000                        |
| X < 0.4 or X > 1.6                     | Shall be removed and replaced |

# **PFP Hot-Mix Asphalt Random Plant Samples**

Effective: May 1, 2008

Samples shall be obtained at the frequency specified in the Hot Mix Asphalt Pay for Performance Using Percent within Limits special provision.

- A. The random plant samples shall be taken at the randomly selected tonnage within a sublot. The random tonnage will be determined by the Engineer using the "Random Numbers" table as specified herein or an approved software program. The tonnage shall be calculated according to the following:
  - Unless otherwise known, determine the random locations for a tonnage in excess of five percent over plan quantity by multiplying the plan quantity tonnage by 1.05 to determine an over-projected final quantity. If the over-projected final quantity is not achieved, disregard the additional random values.
  - 2. Determine the maximum number of sublots needed for the given mixture by dividing the over-projected tonnage calculated above by the sublot size in tons (metric tons). This will determine the maximum number of sublots for the given mixture.
  - 3. Multiply the sublot tonnage by a three-digit random number, expressed as a decimal. The number obtained (rounded to a whole number) shall be the random sampling tonnage within the given sublot.
  - 4. The individual sublot random tonnages shall then be converted to the cumulative random tonnages. This is accomplished by using the following equation for each sublot.

$$CT_n = [(ST)*(n-1)] + RT_n$$

Where:n = the sublot number

CT = Cumulative tonnage

RT = Random tonnage as determined in #3 above

ST = Sublot tonnage (typically 1000 tons)

- B. If the paving is completed for a particular mixture before the specified sampling tonnage for the last sublot is achieved, the partial sublot shall be omitted.
- C. Plant truck samples shall be taken of the mixture for testing. Two sampling platforms (one on each side of the truck) shall be provided for sampling of the mix. In order to obtain a representative sample of the entire truck, an equal amount of material shall be taken from each quarter point around the circumference of each pile in the truck to obtain a composite sample weighing approximately 200lbs. (95 kg). All truck samples shall be obtained by using a "D"-handled, square-ended shovel with built-up sides and back (1 to 1-1/2 in. [25 to 38 mm]). The sample shall be taken out of the truck containing the random tonnage as determined by the Engineer following the procedure described herein. The sample tonnage will be disclosed no more than 30 minutes prior to sampling. Sampling shall be performed by the Contractor under the supervision of the Engineer.
- D. The truck sample shall be divided into three approximately equal size (split) samples by the use of an approved mechanical sample splitter. The Engineer will witness all splitting. Two split samples for Department testing shall be placed in Department-approved sample containers provided by the Contractor and identified as per the Engineer's direction. The Engineer will gain immediate possession of both Department split samples. The Contractor may store, discard, or test the remaining split as described in Section 1030 of the Standard Specifications. However, the Contractor must test and provide the sample results in order to initiate the dispute resolution process as described in the Hot Mix Asphalt Pay for Performance Special Provision.

#### Example:

Given: - Plan quantity = 10,000 tons for a given mixture. - Sublot = 1000 tons (725 metric tons).

**1.** Determine the over-projected final tonnage.

10,000 tons \* 1.05 = 10,500 tons (Note: Always round up)

Determine the maximum number of sublots needed for the project based on the overprojected tonnage.

10,500 tons/1000 tons = 10.5 (Note: Always round up) Therefore, 11 maximum sublots

**3.** Obtain random numbers from the table and apply a different random number to each sublot.

# Repeat for each sublot.

**4.** Convert **individual** tonnage to cumulative job tonnage.

$$[1000*(1-1)] + 546 = 546$$

$$[1000*(2-1)] + 123 = 1123$$

Repeat for each sublot

The following contains a completed table for the eleven plant random samples:

| Lot    | Sublot | Random | Tonnage          |     | Cumulative Job          |       |  |
|--------|--------|--------|------------------|-----|-------------------------|-------|--|
| Number | Number | Number | within Sublot    |     | Tonnage                 |       |  |
|        | 1      | 0.546  | 1000 * 0.546 = 5 | 546 | [1000 * (1-1)] + 546 =  | 546   |  |
|        | 2      | 0.123  | 1000 * 0.123 = 1 | 123 | [1000 * (2-1)] + 123 =  | 1123  |  |
|        | 3      | 0.789  | 1000 * 0.789 = 7 | 789 | [1000 * (3-1)] + 789 =  | 2789  |  |
|        | 4      | 0.372  | 1000 * 0.372 = 3 | 372 | [1000 * (4-1)] + 372 =  | 3372  |  |
|        | 5      | 0.865  | 1000 * 0.865 = 8 | 865 | [1000 * (5-1)] + 865 =  | 4865  |  |
| 1      | 6      | 0.921  | 1000 * 0.921 = 9 | 921 | [1000 * (6-1)] + 921 =  | 5921  |  |
|        | 7      | 0.037  | 1000 * 0.037 =   | 37  | [1000 * (7-1)] + 37 =   | 6037  |  |
|        | 8      | 0.405  | 1000 * 0.405 = 4 | 405 | [1000 * (8-1)] + 405 =  | 7405  |  |
|        | 9      | 0.214  | 1000 * 0.214 = 2 | 214 | [1000 * (9-1)] + 214 =  | 8214  |  |
|        | 10     | 0.698  | 1000 * 0.698 = 6 | 698 | [1000 * (10-1)] + 698 = | 9698  |  |
|        | 11     | 0.711  | 1000 * 0.711 = 7 | 711 | [1000 * (11-1)] + 711 = | 10711 |  |

# **RANDOM NUMBERS**

| 110011111 | CINDLIA | J     |       |       |       |       |       |       |       |
|-----------|---------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.576     | 0.730   | 0.430 | 0.754 | 0.271 | 0.870 | 0.732 | 0.721 | 0.998 | 0.239 |
| 0.892     | 0.948   | 0.858 | 0.025 | 0.935 | 0.114 | 0.153 | 0.508 | 0.749 | 0.291 |
| 0.669     | 0.726   | 0.501 | 0.402 | 0.231 | 0.505 | 0.009 | 0.420 | 0.517 | 0.858 |
| 0.609     | 0.482   | 0.809 | 0.140 | 0.396 | 0.025 | 0.937 | 0.301 | 0.253 | 0.761 |
| 0.971     | 0.824   | 0.902 | 0.470 | 0.997 | 0.392 | 0.892 | 0.957 | 0.040 | 0.463 |
| 0.053     | 0.899   | 0.554 | 0.627 | 0.427 | 0.760 | 0.470 | 0.040 | 0.904 | 0.993 |
| 0.810     | 0.159   | 0.225 | 0.163 | 0.549 | 0.405 | 0.285 | 0.542 | 0.231 | 0.919 |
| 0.081     | 0.277   | 0.035 | 0.039 | 0.860 | 0.507 | 0.081 | 0.538 | 0.986 | 0.501 |
| 0.982     | 0.468   | 0.334 | 0.921 | 0.690 | 0.806 | 0.879 | 0.414 | 0.106 | 0.031 |
| 0.095     | 0.801   | 0.576 | 0.417 | 0.251 | 0.884 | 0.522 | 0.235 | 0.389 | 0.222 |
| 0.509     | 0.025   | 0.794 | 0.850 | 0.917 | 0.887 | 0.751 | 0.608 | 0.698 | 0.683 |
| 0.371     | 0.059   | 0.164 | 0.838 | 0.289 | 0.169 | 0.569 | 0.977 | 0.796 | 0.996 |
| 0.165     | 0.996   | 0.356 | 0.375 | 0.654 | 0.979 | 0.815 | 0.592 | 0.348 | 0.743 |
| 0.477     | 0.535   | 0.137 | 0.155 | 0.767 | 0.187 | 0.579 | 0.787 | 0.358 | 0.595 |
| 0.788     | 0.101   | 0.434 | 0.638 | 0.021 | 0.894 | 0.324 | 0.871 | 0.698 | 0.539 |
| 0.566     | 0.815   | 0.622 | 0.548 | 0.947 | 0.169 | 0.817 | 0.472 | 0.864 | 0.466 |
| 0.901     | 0.342   | 0.873 | 0.964 | 0.942 | 0.985 | 0.123 | 0.086 | 0.335 | 0.212 |
| 0.470     | 0.682   | 0.412 | 0.064 | 0.150 | 0.962 | 0.925 | 0.355 | 0.909 | 0.019 |
| 0.068     | 0.242   | 0.777 | 0.356 | 0.195 | 0.313 | 0.396 | 0.460 | 0.740 | 0.247 |
| 0.874     | 0.420   | 0.127 | 0.284 | 0.448 | 0.215 | 0.833 | 0.652 | 0.701 | 0.326 |
| 0.897     | 0.877   | 0.209 | 0.862 | 0.428 | 0.117 | 0.100 | 0.259 | 0.425 | 0.284 |
| 0.876     | 0.969   | 0.109 | 0.843 | 0.759 | 0.239 | 0.890 | 0.317 | 0.428 | 0.802 |
| 0.190     | 0.696   | 0.757 | 0.283 | 0.777 | 0.491 | 0.523 | 0.665 | 0.919 | 0.146 |
| 0.341     | 0.688   | 0.587 | 0.908 | 0.865 | 0.333 | 0.928 | 0.404 | 0.892 | 0.696 |
| 0.846     | 0.355   | 0.831 | 0.281 | 0.945 | 0.364 | 0.673 | 0.305 | 0.195 | 0.887 |
| 0.882     | 0.227   | 0.552 | 0.077 | 0.454 | 0.731 | 0.716 | 0.265 | 0.058 | 0.075 |
| 0.464     | 0.658   | 0.629 | 0.269 | 0.069 | 0.998 | 0.917 | 0.217 | 0.220 | 0.659 |
| 0.123     | 0.791   | 0.503 | 0.447 | 0.659 | 0.463 | 0.994 | 0.307 | 0.631 | 0.422 |
| 0.116     | 0.120   | 0.721 | 0.137 | 0.263 | 0.176 | 0.798 | 0.879 | 0.432 | 0.391 |
| 0.836     | 0.206   | 0.914 | 0.574 | 0.870 | 0.390 | 0.104 | 0.755 | 0.082 | 0.939 |
| 0.636     | 0.195   | 0.614 | 0.486 | 0.629 | 0.663 | 0.619 | 0.007 | 0.296 | 0.456 |
| 0.630     | 0.673   | 0.665 | 0.666 | 0.399 | 0.592 | 0.441 | 0.649 | 0.270 | 0.612 |
| 0.804     | 0.112   | 0.331 | 0.606 | 0.551 | 0.928 | 0.830 | 0.841 | 0.702 | 0.183 |
| 0.360     | 0.193   | 0.181 | 0.399 | 0.564 | 0.772 | 0.890 | 0.062 | 0.919 | 0.875 |
| 0.183     | 0.651   | 0.157 | 0.150 | 0.800 | 0.875 | 0.205 | 0.446 | 0.648 | 0.685 |

**Note**: Always select a new set of numbers in a systematic manner, either horizontally or vertically. Once used, the set should be crossed out.

## **PFP Random Density Procedure**

Effective: May 1, 2008 Revised: January 1, 2009

Density tests (core samples) shall be obtained at the frequency specified in the Hot Mix Asphalt Pay for Performance Using Percent within Limits special provision. The random test locations shall be determined as follows:

- A. The beginning station number shall be established daily and the estimated paving distance computed for the day's production. The total distance paved shall then be subdivided into sublots of one mile each.
- B. Three core locations shall be determined for each sublot. Each core location within the sublot shall be determined with two random numbers. The first random number shall be used to determine the longitudinal distance into the one-mile sublot, and the second random number shall be used to determine the transverse offset from the left edge of the paving lane. The entire width of the pavement shall be used in calculating transverse offset when both edges are confined. Unconfined edges of pavement shall omit the outer 1.0 foot from the calculation. Areas outside the mainline pavement that are paved concurrently with the mainline pavement (e.g. three-foot wide left shoulders, driveways) are not considered part of the paved mainline mat.

This example illustrates the determination of the three core locations within a sublot:

The first mile of pavement consists of a 13.0-foot-wide mat with the left edge unconfined and the right edge confined. The random numbers for the longitudinal direction are 0.917, 0.289, and 0.654. The random numbers for the transverse direction are 0.890, 0.317, and 0.428. The core locations are determined by multiplying the longitudinal random numbers by 5280, and transverse random number by multiplying the width of the paved mat less the one, 1.0 foot edge for the left unconfined edge. In this case, the width of the paved mat available for coring is 12.0 feet. Therefore, these are the random cores locations, measured from the beginning of the sublot and the left edge of the paved mainline mat:

| Core Number | Longitudinal location      | Transverse location      |
|-------------|----------------------------|--------------------------|
| 1           | 5280 x 0.917 = 4841.8 feet | 12.0 x 0.890 = 10.7 feet |
| 2           | 5280 x 0.289 = 1525.9 feet | 12.0 x 0.317 = 3.8 feet  |
| 3           | 5280 x 0.654 = 3453.1 feet | 12.0 x 0.428 = 5.1 feet  |

- C. This process shall be repeated for the subsequent sublots for the day's production, using a random number for each location.
- D. A core shall be cut along each unconfined edge at a rate of 1 per sublot. A random number shall be used to determine the longitudinal distance into the one-mile sublot. This core shall be located a distance equal to the mat thickness from the unconfined edge. This core shall have a minimum density of 90.0%. Failing cores shall require corrective action on the following days paving.

# **RANDOM NUMBERS**

| 0.576 | 0.730 | 0.430 | 0.754 | 0.271 | 0.870 | 0.732 | 0.721 | 0.998 | 0.239 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.892 | 0.948 | 0.858 | 0.025 | 0.935 | 0.114 | 0.153 | 0.508 | 0.749 | 0.291 |
| 0.669 | 0.726 | 0.501 | 0.402 | 0.231 | 0.505 | 0.009 | 0.420 | 0.517 | 0.858 |
| 0.609 | 0.482 | 0.809 | 0.140 | 0.396 | 0.025 | 0.937 | 0.301 | 0.253 | 0.761 |
| 0.971 | 0.824 | 0.902 | 0.470 | 0.997 | 0.392 | 0.892 | 0.957 | 0.040 | 0.463 |
| 0.053 | 0.899 | 0.554 | 0.627 | 0.427 | 0.760 | 0.470 | 0.040 | 0.904 | 0.993 |
| 0.810 | 0.159 | 0.225 | 0.163 | 0.549 | 0.405 | 0.285 | 0.542 | 0.231 | 0.919 |
| 0.081 | 0.277 | 0.035 | 0.039 | 0.860 | 0.507 | 0.081 | 0.538 | 0.986 | 0.501 |
| 0.982 | 0.468 | 0.334 | 0.921 | 0.690 | 0.806 | 0.879 | 0.414 | 0.106 | 0.031 |
| 0.095 | 0.801 | 0.576 | 0.417 | 0.251 | 0.884 | 0.522 | 0.235 | 0.389 | 0.222 |
| 0.509 | 0.025 | 0.794 | 0.850 | 0.917 | 0.887 | 0.751 | 0.608 | 0.698 | 0.683 |
| 0.371 | 0.059 | 0.164 | 0.838 | 0.289 | 0.169 | 0.569 | 0.977 | 0.796 | 0.996 |
| 0.165 | 0.996 | 0.356 | 0.375 | 0.654 | 0.979 | 0.815 | 0.592 | 0.348 | 0.743 |
| 0.477 | 0.535 | 0.137 | 0.155 | 0.767 | 0.187 | 0.579 | 0.787 | 0.358 | 0.595 |
| 0.788 | 0.101 | 0.434 | 0.638 | 0.021 | 0.894 | 0.324 | 0.871 | 0.698 | 0.539 |
| 0.566 | 0.815 | 0.622 | 0.548 | 0.947 | 0.169 | 0.817 | 0.472 | 0.864 | 0.466 |
| 0.901 | 0.342 | 0.873 | 0.964 | 0.942 | 0.985 | 0.123 | 0.086 | 0.335 | 0.212 |
| 0.470 | 0.682 | 0.412 | 0.064 | 0.150 | 0.962 | 0.925 | 0.355 | 0.909 | 0.019 |
| 0.068 | 0.242 | 0.777 | 0.356 | 0.195 | 0.313 | 0.396 | 0.460 | 0.740 | 0.247 |
| 0.874 | 0.420 | 0.127 | 0.284 | 0.448 | 0.215 | 0.833 | 0.652 | 0.701 | 0.326 |
| 0.897 | 0.877 | 0.209 | 0.862 | 0.428 | 0.117 | 0.100 | 0.259 | 0.425 | 0.284 |
| 0.876 | 0.969 | 0.109 | 0.843 | 0.759 | 0.239 | 0.890 | 0.317 | 0.428 | 0.802 |
| 0.190 | 0.696 | 0.757 | 0.283 | 0.777 | 0.491 | 0.523 | 0.665 | 0.919 | 0.146 |
| 0.341 | 0.688 | 0.587 | 0.908 | 0.865 | 0.333 | 0.928 | 0.404 | 0.892 | 0.696 |
| 0.846 | 0.355 | 0.831 | 0.281 | 0.945 | 0.364 | 0.673 | 0.305 | 0.195 | 0.887 |
| 0.882 | 0.227 | 0.552 | 0.077 | 0.454 | 0.731 | 0.716 | 0.265 | 0.058 | 0.075 |
| 0.464 | 0.658 | 0.629 | 0.269 | 0.069 | 0.998 | 0.917 | 0.217 | 0.220 | 0.659 |
| 0.123 | 0.791 | 0.503 | 0.447 | 0.659 | 0.463 | 0.994 | 0.307 | 0.631 | 0.422 |
| 0.116 | 0.120 | 0.721 | 0.137 | 0.263 | 0.176 | 0.798 | 0.879 | 0.432 | 0.391 |
| 0.836 | 0.206 | 0.914 | 0.574 | 0.870 | 0.390 | 0.104 | 0.755 | 0.082 | 0.939 |
| 0.636 | 0.195 | 0.614 | 0.486 | 0.629 | 0.663 | 0.619 | 0.007 | 0.296 | 0.456 |
| 0.630 | 0.673 | 0.665 | 0.666 | 0.399 | 0.592 | 0.441 | 0.649 | 0.270 | 0.612 |
| 0.804 | 0.112 | 0.331 | 0.606 | 0.551 | 0.928 | 0.830 | 0.841 | 0.702 | 0.183 |
| 0.360 | 0.193 | 0.181 | 0.399 | 0.564 | 0.772 | 0.890 | 0.062 | 0.919 | 0.875 |
| 0.183 | 0.651 | 0.157 | 0.150 | 0.800 | 0.875 | 0.205 | 0.446 | 0.648 | 0.685 |

**Note**: Always select a new set of numbers in a systematic manner, either horizontally or vertically. Once used, the set should be crossed out.

# **PFP Quality Level Analysis**

Effective: May 1, 2008

This stand-alone document explains the statistical procedure used to determine the pay factor for Hot-Mix Asphalt (HMA) mixture based on VMA, voids and in-place density.

Test results will be analyzed statistically by the Quality Level Analysis method using the procedures listed to determine the total estimated percent of the lot that is within specification limits (PWL). Quality Level Analysis is a statistical procedure for estimating the percent compliance to a specification and is affected in the arithmetic mean and the sample standard deviation. Two measures of quality are required to establish the contract unit price adjustment. The first measure is the Acceptable Quality Level (AQL) which is the PWL at which the lot will receive 100 percent pay. The second measure of quality is the Rejectable Quality Level (RQL) at which the Department has determined the material may not perform as desired and may be rejected.

The pay factor on full-depth projects shall be determined by combining pay factors for each mixture proportional to the quantity.

#### **QUALITY LEVEL ANALYSIS**

Note: Table 1: Pay Attributes and Price Adjustment Factors contain the UL, LL, and pay factor "f" weights.

The following procedure will be repeated for each pay factor parameter.

(1) Determine the arithmetic mean ( $\bar{x}$ ) of the test results:

$$\bar{x} = \frac{\sum x}{n}$$

Where:

 $\sum_{x = \text{individual test value}} = \text{summation of}$ 

n = total number of test values

#### **PFP Quality Level Analysis (continued)**

(2) Calculate the sample standard deviation(s):

$$S = \sqrt{\frac{n \cdot \Sigma (x)^2 - (\Sigma x)^2}{n(n-1)}}$$

Where:

 $\sum (x^2)$  = summation of the squares of individual test values

 $(\sum x)^2$  = summation of the individual test values squared

(3) Calculate the upper quality index  $(Q_U)$ :

$$Q_{U} = \frac{UL - \overline{x}}{s}$$

Where:

UL = upper specification limit or target value (TV) plus allowable deviation

(4) Calculate the lower quality index (Q<sub>L</sub>):

$$Q_L = \frac{\overline{x} - LL}{s}$$

Where:

LL = lower specification limit or target value (TV) minus allowable deviation

(5) Determine  $P_U$  (percent within the upper specification limit which corresponds to a given  $Q_U$ ) from Table 2. (Note: Round up to nearest  $Q_U$  in table 2.)

Note: If a UL is not specified, P<sub>U</sub> will be 100.

(6) Determine  $P_L$  (percent within the lower specification limit which corresponds to a give  $Q_L$ ) from Table 2. (Note: Round up to nearest  $Q_L$  in table 2.)

Note: If a LL is not specified, P<sub>I</sub> will be 100.

(7) Determine the Quality Level or PWL (the total percent within specification limits).

$$PWL = (P_U + P_L) - 100$$

(8) To determine the pay factor for each individual parameter lot:

Pay Factor (PF) = 
$$53 + 0.5$$
 (PWL)

Determine the Composite Pay Factor (CPF) for each lot. The CPF shall be rounded to 3 decimal places.

$$CPF = \left[ f_{VMA} \left( PF_{VMA} \right) + f_{voids} \left( PF_{voids} \right) + f_{density} \left( PF_{density} \right) \right] / 100$$

Substituting from Table 1:

CPF = 
$$\left[0.3(PF_{VMA}) + 0.3(PF_{voids}) + 0.4(PF_{density})\right] / 100$$

Where:

 $F_{VMA}$ ,  $f_{voids}$ , and  $f_{density}$  = Price Adjustment Factor listed in Table 1

 $PF_{VMA}$ ,  $PF_{voids}$ , and  $PF_{density}$  = Pay Factor for the designated measured attribute

(9) Determine the final pay for a given mixture.

Final Pay = Mixture Unit Price \* Quantity \* CPF

| Table 1: Pay Attributes and Price Adjustment Factors |                      |                         |                    |  |  |  |  |
|--|----------------------|-------------------------|--------------------|--|--|--|--|
| Measured Attribute                                   | Weight<br>Factor "f" | UL                      | LL                 |  |  |  |  |
| VMA  | .3                   | MDR <sup>/1</sup> + 3.0 | $MDR^{/1} - 0.7$   |  |  |  |  |
| Plant Voids  | .3                   | AJMF + 1.35             | AJMF – 1.35        |  |  |  |  |
| In-Place Density:                                    | .4                   | 97.0% <sup>2</sup>      | 91.5% <sup>2</sup> |  |  |  |  |
| IL 4.75  | .4                   | 97.0%                   | 92.5%              |  |  |  |  |
| IL-19.0 & 25.0                                       | .4                   | 97.0%                   | 92.2%              |  |  |  |  |
| SMA  | .4                   | 98.0%                   | 93.0%              |  |  |  |  |

- 1. MDR = Minimum Design Requirement
- 2. Applies to all HMA mixes other than IL-4.75, IL-19.0, IL25.0 and SMA...

# Example:

The average and standard deviation of a N90 HMA binder have been calculated using the given results:

NOTE: Sublot Number 1 for plant samples may not include the same material as Sublot Number 1 for density.

| Lot     | Sublot       | Voids                | VMA   |         |
|---------|--------------|----------------------|-------|---------|
| #       | #            | TV = 4.0 AJMF = 13.0 |       | Density |
|         | 1            | 4.2                  | 13.0  | 91.5    |
|         | 2            | 4.5                  | 12.5  | 93.0    |
|         | 3            | 3.3                  | 13.0  | 92.9    |
|         | 4            | 5.0                  | 13.3  | 93.5    |
| 1       | 5            | 5.4                  | 12.9  | 93.0    |
| '       | 6            | 2.5                  | 12.4  | 94.0    |
|         | 7            | 3.8                  | 13.4  | 92.8    |
|         | 8            | 4.1                  | 13.0  | 93.5    |
|         | 9            | 4.3                  | 12.6  | 91.0    |
|         | 10           | 4.5                  | 12.8  | 92.7    |
|         | Average:     |                      | 12.89 | 92.79   |
| Standar | d Deviation: | 0.825                | 0.325 | 0.910   |

Determine the pay factor for each parameter.

# Voids:

Lot: Average = 4.16 Standard Deviation = 0.825

$$Q_U = \frac{(4.0 + 1.35) - 4.16}{0.825} = 1.44$$

$$Q_L = \frac{4.16 - (4.0 - 1.35)}{0.825} = 1.83$$

N = 10 sublots (from table)

$$P_{U} = 94$$

$$P_{L} = 98$$

$$PWL = (94 + 98) - 100$$

$$PF = 53 + 0.5 (92)$$

Determine the pay factor for Voids.

$$PF_{Voids} = 99.0$$

# VMA:

Lot: Average = 12.89 Standard Deviation = 0.325

$$Q_U = \frac{(13.0 + 3.0) - 12.89}{0.325} = 9.57$$

$$Q_L = \frac{12.89 - (13.0 - 0.7)}{0.325} = 1.82$$

N = 10 sublots (from table)

$$P_{U} = 100$$

$$P_{L} = 98$$

$$PWL = (100 + 98) - 100$$

$$PF = 53 + 0.5 (98)$$

Determine the pay factor for VMA.

$$PF_{VMA} = 102.0$$

# **Density:**

Lot: Average = 92.79 Standard Deviation = 0.910

$$Q_U = \frac{97.0 - 92.79}{0.910} = 4.63$$

$$Q_L = \frac{92.79 - 91.5}{0.910} = 1.42$$

N = 10 Density measurements (from table)

 $P_{U} = 100$ 

 $P_1 = 93$ 

PWL = (100 + 93) - 100

PWL = 93

PF = 53 + 0.5 (93)

PF = 99.5

Determine the pay factor for Density.

$$PF_{Density} = 99.5$$

Determine the pay factor for the given mixture using the above pay factors for each parameter.

$$CPF = [0.3(99.0) + 0.3(102.0) + 0.4(99.5)] / 100$$

CPF = 1.001

Determine the price paid for the given mixture.

Given that the mixture bid price per ton = \$35.00 and 10,000 tons were placed.

Final Pay = \$35.00/ ton \* 10,000 tons \* 1.001 = \$350,350

Final Pay = \$350,350

#### **Full Depth Examples:**

Given a full-depth project with two mixtures whose pay factors were determined to be 101.5% and 99.2%. The full-depth pay factor shall be calculated as follows:

$$101.5(1/2) + 99.2(1/2) = 100.4\%$$

Determine the adjusted pay for the full-depth pay factor.

Given that the bid price per square yard = \$25.00 and 1400 yd<sup>2</sup> were placed.

Final Pay = 
$$$25.00/ yd^2 * 1400 yd^2 * 1.004 = $35,140$$

Final Pay = \$35,140

Given a full-depth project with three mixtures whose pay factors were determined to be 98.9%, 101.5% and 99.2%. The full depth pay factor shall be calculated as follows:

$$98.9(1/3) + 101.5(1/3) + 99.2(1/3) = 99.9\%$$

Determine the adjusted pay for the full-depth pay factor.

Given that the bid price per square yard = \$25.00 and 1400 yd<sup>2</sup> were placed.

Final Pay = 
$$$25.00/ yd^2 * 1400 yd^2 * 0.999 = $34,965$$

Final Pay = 
$$$34,965$$

TABLE 2: QUALITY LEVELS

QUALITY LEVEL ANALYSIS BY STANDARD DEVIATION METHOD

|            |          | ro   | -    | **** |      |              |       |      |      |      | **   |      |      |       |              |
|------------|----------|--|------|------|------|--------------|-------|------|------|------|------|------|------|-------|--------------|
| Pu OR Pt   |          | LIBBER OHALITY INDEX O. OR LOWER OHALITY INDEX O.                        |      |      |      |              |       |      |      |      |      |      |      |       |              |
| PERCENT    | SECOND 1 | UPPER QUALITY INDEX Q <sub>u</sub> OR LOWER QUALITY INDEX Q <sub>t</sub> |      |      |      |              |       |      |      |      |      |      |      |       |              |
| WITHIN     |          |  |      |      |      |              |       |      |      |      | - 4  | 0928 | 4920 | 5.5   |              |
| LIMITS FOR |          |  |      |      | 2010 | rij<br>2019. | h 400 | n=10 | n=12 | n=15 | n=19 | n=26 | n=38 | n=70  | n=201        |
| POSITIVE   | n=3      | n=4  | n=5  | n=6  | n=7  | n=8          | n=9   | to    | to           |
| VALUES OF  |          |  |      |      |      |              |       | n=11 | n=14 | n=18 | n=25 | n=37 | n=69 | n=200 | infinity     |
| Qu OR Qt   |          |  |      |      |      |              |       |      |      |      |      |      |      | To    |              |
| 100        | 1.16     | 1.50   | 1.79 | 2.03 | 2.23 | 2.39         | 2.53  | 2.65 | 2.83 | 3.03 | 3.20 | 3.38 | 3.54 | 3.70  | 3.83         |
| 99         |          | 1.47   | 1.67 | 1.80 | 1.89 | 1.95         | 2.00  | 2.04 | 2.09 | 2.14 | 2.18 | 2,22 | 2.26 | 2.29  | 2.31         |
| 98         | 1.15     | 1.44   | 1.60 | 1.70 | 1.76 | 1.81         | 1.84  | 1.86 | 1.91 | 1.93 | 1.96 | 1.99 | 2.01 | 2.03  | 2.05         |
| 97         |          | 1.41   | 1.54 | 1.62 | 1.67 | 1.70         | 1.72  | 1.74 | 1.77 | 1.79 | 1.81 | 1.83 | 1.85 | 1.86  | 1.87         |
| 96         | 1.14     | 1.38   | 1.49 | 1.55 | 1.59 | 1.61         | 1.63  | 1.65 | 1.67 | 1.68 | 170  | 1.71 | 1.73 | 1.74  | <b>1.</b> 75 |
| 95         |          | 1.35   | 1.44 | 1.49 | 1.52 | 1.54         | 1.55  | 1.56 | 1.58 | 1.59 | 1.61 | 1.62 | 1.63 | 1.63  | 1.64         |
| 94         | 1.13     | 1.32   | 1.39 | 1.43 | 1.46 | 1.47         | 1.48  | 1.49 | 1,50 | 1.51 | 1.52 | 1.53 | 1.54 | 1.55  | 1.55         |
| 93         |          | 1,29   | 1,35 | 1.38 | 1,40 | 1,41         | 1,42  | 1.43 | 1.44 | 1.44 | 1.45 | 1.46 | 1.46 | 1.47  | 1.47         |
| 92         | 1.12     | 1.26   | 1.31 | 1.33 | 1.35 | 1.36         | 1.36  | 1.37 | 1.37 | 1.38 | 1.39 | 1.39 | 1.40 | 1.40  | 1.40         |
| 91         | 1.11     | 1.23   | 1.27 | 1.29 | 1.30 | 1.30         | 1,31  | 1.31 | 1.32 | 1.32 | 1.33 | 1.33 | 1.33 | 1.34  | 1.34         |
| 90         | 1.10     | 1.20   | 1.23 | 1,24 | 1.25 | 1.25         | 1.26  | 1.26 | 1.26 | 1.27 | 1.27 | 1.27 | 1.28 | 1.28  | 1.28         |
| 89         | 1.09     | 1.17   | 1.19 | 1.20 | 1.20 | 1.21         | 1,21  | 1.21 | 1.21 | 1.22 | 1.22 | 1.22 | 1.22 | 1.22  | 1.23         |
| 88         | 1.07     | 1.14   | 1.15 | 1.16 | 1.16 | 1.16         | 1.16  | 1.17 | 1.17 | 1.17 | 1.17 | 1.17 | 1.17 | 1.17  | 1.17         |
| 87         | 1.06     | 1.11   | 1.12 | 1.12 | 1.12 | 1.12         | 1.12  | 1.12 | 1.12 | 1.12 | 1.12 | 1.12 | 1.12 | 1.13  | 1.13         |
| 86         | 1.04     | 1.08   | 1.08 | 1.08 | 1.08 | 1.08         | 1.08  | 1.08 | 1.08 | 1.08 | 1.08 | 1.08 | 1.08 | 1.08  | 1.08         |
| 85         | 1.03     | 1.05   | 1.05 | 1.04 | 1.04 | 1.04         | 1.04  | 1.04 | 1.04 | 1.04 | 1.04 | 1.04 | 1.04 | 1.04  | 1.04         |
| 84         | 1.01     | 1.02   | 1.01 | 1.01 | 1.00 | 1.00         | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.99 | 0.99  | 0.99         |
| 83         | 1.00     | 0.99   | 0.98 | 0.97 | 0.97 | 0.96         | 0.96  | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.95 | 0.95  | 0.95         |
| 82         | 0.97     | 0.96   | 0.95 | 0.94 | 0.93 | 0.93         | 0.93  | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92  | 0.92         |
| 81         | 0.96     | 0.93   | 0.91 | 0.90 | 0.90 | 0.89         | 0.89  | 0.89 | 0.89 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88  | 0.88         |
| 80         | 0.93     | 0.90   | 0.88 | 0.87 | 0.86 | 0.86         | 0.86  | 0.85 | 0.85 | 0.85 | 0.85 | 0.84 | 0.84 | 0.84  | 0.84         |
| 79         | 0.91     | 0.87   | 0.85 | 0.84 | 0.83 | 0.82         | 0.82  | 0.82 | 0.82 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81  | 0.81         |
| 78         | 0.89     | 0.84   | 0.82 | 0.80 | 0.80 | 0.79         | 0.79  | 0.79 | 0.78 | 0.78 | 0.78 | 0.78 | 0.77 | 0.77  | 0.77         |
| 77         | 0.87     | 0.81   | 0.78 | 0.77 | 0.76 | 0.76         | 0.76  | 0.75 | 0.75 | 0.75 | 0.75 | 0.74 | 0.74 | 0.74  | 0.74         |
| 76         | 0.84     | 0.78   | 0.75 | 0.74 | 0.73 | 0.73         | 0.72  | 0.72 | 0.72 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71  | 0.71         |
| 75         | 0.82     | 0.75   | 0.72 | 0.71 | 0.70 | 0.70         | 0.69  | 0.69 | 0.69 | 0.68 | 0.68 | 0.68 | 0.68 | 0.68  | 0.67         |
| 74         | 0.79     | 0.72   | 0.69 | 0.68 | 0.67 | 0.66         | 0.66  | 0,66 | 0.66 | 0.65 | 0.65 | 0.65 | 0.65 | 0.64  | 0.64         |
| 73         | 0.76     | 0.69   | 0.66 | 0.65 | 0.64 | 0.63         | 0.63  | 0.63 | 0.62 | 0.62 | 0.62 | 0.62 | 0.62 | 0.61  | 0.61         |
| 72         | 0.74     | 0.66   | 0.63 | 0.62 | 0.61 | 0.60         | 0.60  | 0.60 | 0.59 | 0.59 | 0.59 | 0.59 | 0.59 | 0.58  | 0.58         |
| 71         | 0.71     | 0.63   | 0.60 | 0.59 | 0.58 | 0.57         | 0.57  | 0.57 | 0.57 | 0.56 | 0.56 | 0.56 | 0.56 | 0.55  | 0.55         |
| 70         | 0.68     | 0.60   | 0.57 | 0.56 | 0.55 | 0.55         | 0.54  | 0.54 | 0.54 | 0.53 | 0.53 | 0.53 | 0.53 | 0.53  | 0.53         |

# TABLE 2 (continued): QUALITY LEVELS QUALITY LEVEL ANALYSIS BY STANDARD DEVIATION METHOD

|                                  |      |  |      | 1474 |      |      |      |              |      |      |      | 7    |      |       |          |
|----------------------------------|------|--|------|------|------|------|------|--------------|------|------|------|------|------|-------|----------|
| Pu OR PL                         | a a  |  |      |      |      |      |      |              |      |      |      |      |      |       |          |
| PERCENT                          | į    | UPPER QUALITY INDEX Q <sub>U</sub> OR LOWER QUALITY INDEX Q <sub>L</sub> |      |      |      |      |      |              |      |      |      |      |      |       |          |
| WITHIN<br>LIMITS FOR             |      | 4 P  |      |      |      |      |      | n=10         | n≓12 | n=15 | n=19 | n=26 | n=38 | n=70  | n=201    |
| POSITIVE                         | n=3  | n=4  | n=5  | n=6  | n=7  | n=8  | n=9  | to           | to   | to   | to   | to   | to   | to    | to       |
| VALUES OF                        |      |  |      |      |      |      |      | n= <b>11</b> | n=14 | n=18 | n=25 | n=37 | n=69 | n=200 | infinity |
| Q <sub>U</sub> OR Q <sub>L</sub> |      |  |      |      |      |      |      |              |      |      |      |      |      |       |          |
| 69                               | 0.65 | 0.57   | 0.54 | 0.53 | 0.52 | 0.52 | 0.51 | 0.51         | 0.51 | 0.50 | 0.50 | 0.50 | 0.50 | 0.50  | 0.50     |
| 68                               | 0.62 | 0.54   | 0.51 | 0.50 | 0.49 | 0.49 | 0.48 | 0.48         | 0.48 | 0.48 | 0.47 | 0.47 | 0.47 | 0.47  | 0.47     |
| 67                               | 0.59 | 0.51   | 0.47 | 0.47 | 0.46 | 0.46 | 0.46 | 0.45         | 0.45 | 0.45 | 0.45 | 0.44 | 0.44 | 0.44  | 0.44     |
| 66                               | 0.56 | 0.48   | 0.45 | 0.44 | 0.44 | 0.43 | 0.43 | 0.43         | 0.42 | 0.42 | 0.42 | 0.42 | 0.41 | 0.41  | 0.41     |
| 65                               | 0.52 | 0.45   | 0.43 | 0.41 | 0.41 | 0.40 | 0.40 | 0.40         | 0.40 | 0.39 | 0.39 | 0.39 | 0.39 | 0.39  | 0.39     |
| 64                               | 0.49 | 0.42   | 0.40 | 0.39 | 0.38 | 0.38 | 0.37 | 0.37         | 0.37 | 0.37 | 0.36 | 0.36 | 0.36 | 0.36  | 0.36     |
| 63                               | 0.46 | 0.39   | 0.37 | 0.36 | 0.35 | 0.35 | 0.35 | 0.34         | 0.34 | 0.34 | 0.34 | 0.34 | 0.33 | 0.33  | 0.33     |
| 62                               | 0.43 | 0.36   | 0,34 | 0.33 | 0.32 | 0.32 | 0.32 | 0.32         | 0.31 | 0.31 | 0.31 | 0.31 | 0.31 | 0.31  | 0.31     |
| 61                               | 0.39 | 0.33   | 0.31 | 0.30 | 0.30 | 0.29 | 0.29 | 0.29         | 0.29 | 0.29 | 0.28 | 0.28 | 0.28 | 0.28  | 0.28     |
| 60                               | 0.36 | 0.30   | 0.28 | 0.27 | 0.27 | 0.27 | 0.26 | 0.26         | 0.26 | 0.26 | 0.26 | 0.26 | 0.26 | 0.25  | 0.25     |
| 59                               | 0.32 | 0.27   | 0.25 | 0.25 | 0.24 | 0.24 | 0.24 | 0.24         | 0.23 | 0.23 | 0.23 | 0.23 | 0.23 | 0.23  | 0.23     |
| 58                               | 0.29 | 0.24   | 0.23 | 0.22 | 0.21 | 0.21 | 0.21 | 0.21         | 0.21 | 0.21 | 0.20 | 0.20 | 0.20 | 0.20  | 0.20     |
| 57                               | 0.25 | 0.21   | 0.20 | 0.19 | 0.19 | 0.19 | 0.18 | 0.18         | 0.18 | 0.18 | 0.18 | 0.18 | 0.18 | 0.18  | 0.18     |
| 56                               | 0.22 | 0.18   | 0.17 | 0.16 | 0.16 | 0.16 | 0.16 | 0.16         | 0.16 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15  | 0.15     |
| 55                               | 0.18 | 0.15   | 0.14 | 0.14 | 0.13 | 0.13 | 0.13 | 0.13         | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 | 0.13  | 0.13     |
| 54                               | 0.14 | 0.12   | 0.11 | 0.11 | 0.11 | 0.11 | 0.10 | 0.10         | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10  | 0.10     |
| 53                               | 0.11 | 0.09   | 0.08 | 0.08 | 0.08 | 80.0 | 0.08 | 0.08         | 0.08 | 0.08 | 80.0 | 0.08 | 0:08 | 80.0  | 80.0     |
| 52                               | 0.07 | 0.06   | 0.06 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05         | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05  | 0.05     |
| 51                               | 0.04 | 0,03   | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03         | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03  | 0.03     |
| 50                               | 0.00 | 0.00   | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00         | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00     |

Note: For negative values of  $Q_U$  or  $Q_L$ ,  $P_U$  or  $P_L$  is equal to 100 minus the table  $P_U$  or  $P_L$ . If the value of  $Q_U$  or  $Q_L$  does not correspond exactly to a figure in the table, use the next higher value.

# TEMPERATURE CONTROL FOR CONCRETE PLACEMENT (DISTRICT ONE)

Effective: May 1, 2007

Delete the second and third sentences of the second paragraph of Article 1020.14(a) of the Standard Specifications.

**USE OF RAP (DIST 1)** 

Effective: January 1, 2007 Revised: January 7, 2009

In Article 1030.02(g) of the Standard Specifications, delete the last sentence of the first paragraph in (Note 2).

Revise Section 1031 of the Standard Specifications to read:

#### "SECTION 1031. RECLAIMED ASPHALT PAVEMENT

**1031.01 Description.** Reclaimed asphalt pavement (RAP) results from the cold milling or crushing of an existing hot-mix asphalt (HMA) pavement. The Contractor shall supply written documentation that the RAP originated from routes or airfields under federal, state, or local agency jurisdiction. The contractor can also request that a processed pile be tested by the Department to determine the aggregate quality.

**1031.02 Stockpiles.** The Contractor shall construct individual, sealed RAP stockpiles meeting one of the following definitions. No additional RAP shall be added to the pile after the pile has been sealed. Stockpiles shall be sufficiently separated to prevent intermingling at the base. Stockpiles shall be identified by signs indicating the type and size as listed below (i.e. "Homogenous Surface").

Prior to milling or removal of an HMA pavement, the Contractor may request the District to provide verification of the existing mix composition to clarify appropriate stockpile.

- (a) Homogeneous. Homogeneous RAP stockpiles shall consist of RAP from Class I, Superpave (High ESAL), HMA (High ESAL), or equivalent mixtures and represent:
  1) the same aggregate quality, but shall be at least C quality; 2) the same type of crushed aggregate (either crushed natural aggregate, ACBF slag, or steel slag);
  3) similar gradation; and 4) similar asphalt binder content. If approved by the Engineer, combined single pass surface/binder millings may be considered "homogenous" with a quality rating dictated by the lowest coarse aggregate quality present in the mixture.
- (b) Conglomerate 5/8. Conglomerate 5/8 RAP stockpiles shall consist of RAP from Class I, Superpave (High ESAL), HMA (High ESAL), or equivalent mixtures. The coarse aggregate in this RAP shall be crushed aggregate and may represent more than one aggregate type and/or quality but shall be at least C quality. This RAP may have an inconsistent gradation and/or asphalt binder content prior to processing. All conglomerate 5/8 RAP shall be processed prior to testing by crushing to where all RAP shall pass the 5/8 in. (16 mm) or smaller screen. Conglomerate 5/8 RAP stockpiles shall not contain steel slag or other expansive material as determined by the Department.

- (c) Conglomerate 3/8. Conglomerate 3/8 RAP stockpiles shall consist of RAP from Class I, Superpave (High ESAL), HMA (High ESAL), or equivalent mixtures. The coarse aggregate in this RAP shall be crushed aggregate and may represent more than one aggregate type and/or quality but shall be at least B quality. This RAP may have an inconsistent gradation and/or asphalt binder content prior to processing. All conglomerate 3/8 RAP shall be processed prior to testing by crushing to where all RAP shall pass the 3/8 in (9.5 mm) or smaller screen. Conglomerate 3/8 RAP stockpiles shall not contain steel slag or other expansive material as determined by the Department.
- (d) Conglomerate Variable Size. Conglomerate variable size RAP shall consist of RAP from Class I, Superpave (High ESAL), HMA (High ESAL), or equivalent mixtures. The coarse aggregate in this RAP shall be crushed aggregate and may represent more than one aggregate type and/or quality but shall be at least B quality. This RAP may have an inconsistent gradation and/or asphalt binder content prior to processing. All conglomerate variable size RAP shall be processed prior to testing by crushing and screening to where all RAP is separated into various sizes. All the conglomerate variable size RAP shall pass the 3/4 in. (19 mm) screen and shall be a minimum of two sizes. Conglomerate variable size RAP stockpiles shall not contain steel slag or other expensive material as determined by the Department.
- (e) Conglomerate "D" Quality (DQ). Conglomerate DQ RAP stockpiles shall consist of RAP from Class I, Superpave (High or Low ESAL), HMA (High or Low Esal), or equivalent mixtures. The coarse aggregate in this RAP may be crushed or round but shall be at least D quality. This RAP may have an in consistent gradation and/or asphalt binder content. Conglomerate DQ Rap stockpiles shall not contain steel slag or other expansive material as determined by the Department.
- (f) Non-Quality. RAP stockpiles that do not meet the requirements of the stockpile categories listed above shall be classified as "Non-Quality".

RAP containing contaminants, such as earth, brick, sand, concrete, sheet asphalt, bituminous surface treatment (i.e. chip seal), pavement fabric, joint sealants, etc., will be unacceptable unless the contaminants are removed to the satisfaction of the Engineer. Sheet asphalt shall be stockpiled separately.

**1031.03 Testing.** When used in HMA, the RAP shall be sampled and tested either during or after stockpiling.

For testing during stockpiling, washed extraction samples shall be run at the minimum frequency of one sample per 500 tons (450 metric tons) for the first 2000 tons (1800 metric tons) and one sample per 2000 tons (1800 metric tons) thereafter. A minimum of five tests shall be required for stockpiles less than 4000 tons (3600 metric tons).

For testing after stockpiling, the Contractor shall submit a plan for approval to the District proposing a satisfactory method of sampling and testing the RAP pile either in-situ or by restockpiling. The sampling plan shall meet the minimum frequency required above and detail the procedure used to obtain representative samples throughout the pile for testing.

Before extraction, each field sample shall be split to obtain two samples of test sample size. One of the two test samples from the final split shall be labeled and stored for Department use. The Contractor shall extract the other test sample according to Department procedure. The Engineer reserves the right to test any sample (split or Department-taken) to verify Contractor test results.

- (a) Testing Conglomerate 3/8 and Conglomerate Variable Size. In addition to the requirements above, conglomerate 3/8 and variable size RAP shall be tested for maximum theoretical specific gravity (G<sub>mm</sub>) at a frequency of one sample per 500 tons (450 metric tons) for the first 2000 tons (1800 metric tons) and one sample per 2000 tons (1800 metric tons) thereafter. A minimum of five tests shall be required for stockpiles less than 4000 tons (3600 metric tons).
- (b) Evaluation of Test Results. All of the extraction results shall be compiled and averaged for asphalt binder content and gradation and, when applicable G<sub>mm</sub>. Individual extraction test results, when compared to the averages, will be accepted if within the tolerances listed below.

| Parameter        | Homogeneous/<br>Conglomerate | Conglomerate "D" Quality |
|------------------|------------------------------|--------------------------|
| 1 in. (25 mm)    |                              | ± 5 %                    |
| 3/4 in. (19mm)   |                              |                          |
| 1/2 in. (12.5mm) | ±8 %                         | ± 15 %                   |
| No. 4 (4.75 mm)  | ±6 %                         | ± 13 %                   |
| No. 8 (2.36 mm)  | ±5 %                         |                          |
| No. 16 (1.18 mm) |                              | ± 15 %                   |
| No. 30 (600 μm)  | ± 5. %                       |                          |
| No. 200 (75 μm)  | ± 2.0 %                      | ± 4.0 %                  |
| Asphalt Binder   | $\pm$ 0.4 % <sup>1/</sup>    | ± 0.5 %                  |
| Gmm              | ±0.02 % <sup>2/</sup>        |                          |
| Gmm              | ±0.03 % <sup>3/</sup>        |                          |

- 1/ The tolerance for conglomerate 3/8 shall be  $\pm$  0.3 %.
- 2/ Applies only to conglomerate 3/8. When variation of the  $G_{mm}$  exceeds the  $\pm$  0.02 % tolerance, a new conglomerate 3/8 stockpile shall be created which will also require an additional mix design.
- 3/ Applies only to conglomerate variable size. When variation of the  $G_{mm}$  exceeds the  $\pm\,0.03$  tolerance, a new conglomerate variable size stockpile shall be created which will also require an additional mix design.

If more than 20 percent of the individual sieves are out of the gradation tolerances, or if more than 20 percent of the asphalt binder content test results fall outside the appropriate tolerances, the RAP shall not be used in HMA unless the RAP representing the failing tests is removed from the stockpile. All test data and acceptance ranges shall be sent to the District for evaluation.

With the approval of the Engineer, the ignition oven may be substituted for extractions according to the Illinois Test Procedure, "Calibration of the Ignition Oven for the Purpose of Characterizing Reclaimed Asphalt Pavement (RAP)".

**1031.04 Quality Designation of Aggregate in RAP.** The quality of the RAP shall be set by the lowest quality of coarse aggregate in the RAP stockpile and are designated as follows.

- (a) RAP from Class I, Superpave (High ESAL), or HMA (High ESAL) surface mixtures are designated as containing Class B quality coarse aggregate.
- (b) RAP from Superpave (Low ESAL)/HMA (Low ESAL) IL-19.0L binder and IL-9.5L surface mixtures are designated as Class D quality coarse aggregate.
- (c) RAP from Class I, Superpave (High ESAL), or HMA (High ESAL) binder mixtures, bituminous base course mixtures, and bituminous base course widening mixtures are designated as containing Class C quality coarse aggregate.
- (d) RAP from bituminous stabilized subbase and BAM shoulders are designated as containing Class D quality coarse aggregate.

**1031.05** Use of RAP in HMA. The use of RAP in HMA shall be as follows.

- (a) Coarse Aggregate Size. The coarse aggregate in all RAP shall be equal to or less than the nominal maximum size requirement for the HMA mixture to be produced.
- (b) Steel Slag Stockpiles. RAP stockpiles containing steel slag or other expansive material, as determined by the Department, shall be homogeneous and will be approved for use in HMA (High ESAL and Low ESAL) surface mixtures only.
- (c) Use in HMA Surface Mixtures (High and Low ESAL). RAP stockpiles for use in HMA surface mixtures (High and Low ESAL) shall be either homogeneous or conglomerate 3/8 or variable size in which the coarse aggregate is Class B quality or better.
- (d) Use in HMA Binder Mixtures (High and Low ESAL), HMA Base Course, and HMA Base Course Widening. RAP stockpiles for use in HMA binder mixtures (High and Low ESAL), HMA base course, and HMA base course widening shall be homogeneous, conglomerate 5/8, or conglomerate 3/8, conglomerate variable size, in which the coarse aggregate is Class C quality or better.
- (e) Use in Shoulders and Subbase. RAP stockpiles for use in HMA shoulders and stabilized subbase (HMA) shall be homogeneous, conglomerate 5/8, conglomerate 3/8, conglomerate variable size, or conglomerate DQ.
- (f) The use of RAP shall be a contractor's option when constructing HMA in all contracts. When the contractor chooses the RAP option, the percentage of RAP shall not exceed the amounts indicated in the table for a given N Design.

## Max Mix Rap Percentage

| HMA Mixtures 1/3/ |                     | Maximum % Ra        | Maximum % Rap    |  |  |  |  |
|-------------------|---------------------|---------------------|------------------|--|--|--|--|
| Ndesign           | Binder/Leveling     | Surface             | Polymer Modified |  |  |  |  |
|                   | Binder              |                     |                  |  |  |  |  |
| 30                | 30/40 <sup>2/</sup> | 30                  | 10               |  |  |  |  |
| 50                | 25/40 <sup>2/</sup> | 15/25 <sup>2/</sup> | 10               |  |  |  |  |
| 70                | 25/30 <sup>2/</sup> | 10/20 <sup>2/</sup> | 10               |  |  |  |  |
| 90                | 10/15 <sup>2/</sup> | 10/15 <sup>2/</sup> | 10               |  |  |  |  |
| 105               | 10/15 <sup>2/</sup> | 10/15 <sup>2/</sup> | 10               |  |  |  |  |

- 1/ For HMA Shoulder and Stabilized Sub-Base (HMA) N-30, the amount of RAP shall not exceed 50% of the mixture.
- 2/ Value of Max % RAP If 3/8 Rap or conglomerate variable size RAP is utilized.
- 3/ When RAP exceeds 20% the AC shall be PG58-22. However, when RAP exceeds 20% and is used in full depth HMA pavement the AC shall be PG58-28.

**1031.06 HMA Mix Designs.** At the Contractor's option, HMA mixtures may be constructed utilizing RAP material meeting the above detailed requirements.

RAP designs shall be submitted for volumetric verification. If additional RAP stockpiles are tested and found that no more than 20 percent of the results, as defined under "Testing" herein, are outside of the control tolerances set for the original RAP stockpile and HMA mix design, and meets all of the requirements herein, the additional RAP stockpiles may be used in the original mix design at the percent previously verified.

**1031.07 HMA Production.** The coarse aggregate in all RAP used shall be equal to or less than the nominal maximum size requirement for the HMA mixture being produced.

To remove or reduce agglomerated material, a scalping screen, crushing unit, or comparable sizing device approved by the Engineer shall be used in the RAP feed system to remove or reduce oversized material. If material passing the sizing device adversely affects the mix production or quality of the mix, the sizing device shall be set at a size specified by the Engineer.

If the RAP control tolerances or QC/QA test results require corrective action, the Contractor shall cease production of the mixture containing RAP and either switch to the virgin aggregate design or submit a new RAP design. When producing mixtures containing conglomerate 3/8 or conglomerate variable size RAP, a positive dust control system shall be utilized.

HMA plants utilizing RAP shall be capable of automatically recording and printing the following information.

- (a) Drier Drum Plants
  - (1) Date, month, year, and time to the nearest minute for each print.

- (2) HMA Mix number assigned by the Department
- (3) Accumulated weight of dry aggregate (combined or individual) in tons (metric tons)Accumulated weight of dry aggregate (combined or individual) in tons (metric tons) to the nearest 0.1 ton (0.1 metric ton)
- (4) Accumulated dry weight of RAP in tons (metric tons) to the nearest 0.1 ton (0.1 metric ton)
- (5) Accumulated mineral filler in revolutions, tons (metric tons), etc. to the nearest 0.1 unit.
- (6) Accumulated asphalt binder in gallons (liters), tons (metric tons), etc. to the nearest 0.1 unit.
- (7) Residual asphalt binder in the RAP material (per size) as a percent of the total mix to the nearest 0.1 unit.
- (8) Aggregate and RAP moisture compensators in percent as set on the control panel (Required when accumulated or individual aggregate and RAP are printed in wet condition).
- (b) Batch Plants
  - (1) Date, month, year, and time to the nearest minute for each print.
  - (2) HMA mix number assigned by the Department.
  - (3) Individual virgin aggregate hot bin batch weights to the nearest pound (kilogram)
  - (4) Mineral filler weight to the nearest pound (kilogram).
  - (5) Individual RAP Aggregate weight to the nearest pound (kilogram).
  - (6) Virgin asphalt binder weight to the nearest pound (kilogram)
  - (7) Residual asphalt binder of each RAP size material as a percent of the total mix to the nearest 0.1 percent.

The printouts shall be maintained in a file at the plant for a minimum of one year or as directed by the Engineer and shall be made available upon request. The printing system will be inspected by the Engineer prior to production and verified at the beginning of each construction season thereafter.

**1031.08 RAP in Aggregate Surface Course and Aggregate Shoulders.** The use of RAP in aggregate surface course and aggregate shoulders shall be as follows.

- (a) Stockpiles and Testing. RAP stockpiles may be any of those listed in Article 1031.02, except "Other". The testing requirements of Article 1031.03 shall not apply.
- (b) Gradation. One hundred percent of the RAP material shall pass the 1 1/2 in. (37.5 mm) sieve. The RAP material shall be reasonably well graded from coarse to fine. RAP material that is gap-graded or single sized will not be accepted."

TRAFFIC SIGNAL SPECIFICATIONS FOR DETECTOR REPLACEMENT AND/OR INSTALLATION ON ROADWAY GRINDING, RESURFACING, & PATCHING OPERATIONS

Effective: October 1, 1999 Revised: January 1, 2007

The following Traffic Signal Special Provisions and the "District 1 Standard Traffic Signal Design Details" supplement the requirements of the State of Illinois "Standard Specifications for Road and Bridge Construction.".

The intent of this Special Provision is to prescribe the materials and construction methods commonly used to replace traffic signal detector loops and replace magnetic signal detectors with detector loops during roadway resurfacing, grinding and patching operations. Loop detector replacement will not require the transfer of traffic signal maintenance from the District Electrical Maintenance Contractor to this contract's electrical contractor. Replacement of magnetic detector will require wiring revisions inside the control cabinet and therefore the transfer of maintenance will be required. All material furnished shall be new. The locations and the details of all installations shall be as indicated on the Plans or as directed by the Engineer.

The work to be provided under this contract consists of furnishing and installing all traffic signal work as specified on the Plans and as specified herein in a manner acceptable and approved by the Engineer.

NOTIFICATION OF INTENT TO WORK. Contracts such as pavement grinding or patching which result in the destruction of traffic signal detection require a notification of intent to work and an inspection. A minimum of seven (7) working days prior to the detection removal, the Contractor shall notify the:

- Traffic Signal Maintenance and Operations Engineer at (847)705-4424
- IDOT Electrical Maintenance Contractor at (773) 287-7600

at which time arrangements will be made to adjust the traffic controller timing to compensate for the absence of detection.

Failure to provide proper notification may require the District's Electrical Maintenance Contractor to be called to investigate complaints of inadequate traffic signal timing. All costs associated with these expenses will be paid for by the Contractor at no additional expense to the Department according to Section 109 of the "Standard Specifications."

#### ACCEPTANCE OF MATERIAL.

The Contractor shall provide:

- 1. All material approval requests shall be submitted a minimum of seven (7) days prior to the delivery of equipment to the job site, or within 30 consecutive calendar days after the contract is awarded, or within 15 consecutive calendar days after the preconstruction meeting, whichever is first.
- 2. Seven (7) copies of a letter listing the manufacturer's name and model numbers of the proposed equipment shall be supplied. The letter will be reviewed by the Traffic Design Engineer to determine whether the equipment to be used is approved. The letters will be stamped as approved or not approved accordingly and returned to the Contractor.
- 3. One (1) copy of material catalog cuts.
- 4. The contract number, permit number or intersection location must be on each sheet of the letter and material catalog cuts as required in items 2 and 3.

## **INSPECTION OF CONSTRUCTION.**

When the road is open to traffic, except as otherwise provided in Section 801 and 850 of the Standard Specifications, the Contractor may request a turn-on and inspection of the completed traffic signal installation at each separate location. This request must be made to the Traffic Signal Maintenance and Operations Engineer at (847)705-4424 a minimum of seven (7) working days prior to the time of the requested inspection.

Acceptance of the traffic signal equipment by the Department shall be based upon inspection results at the traffic signal "turn on." If approved, traffic signal acceptance shall be verbal at the "turn on" inspection followed by written correspondence from the Engineer. If this work is not completed in time, the Department reserves the right to have the work completed by others at the Contractor's expense.

All cost of work and materials required to comply with the above requirements shall be included in the pay item bid prices, under which the subject materials and signal equipment are paid, and no additional compensation will be allowed. Materials and signal equipment not complying with the above requirements will be subject to removal and disposal at the Contractor's expense.

<u>RESTORATION OF WORK AREA</u>. Restoration of the traffic signal work area shall be incidental to the related pay item such as foundation, conduit, handhole, trench and backfill, etc., and no extra compensation shall be allowed. All roadway surfaces such as shoulders, medians, sidewalks, pavement, etc. shall be replaced as shown in the plans or in kind. All damage to mowed lawns shall be replaced with an approved sod, and all damage to unmowed fields shall be seeded.

REMOVAL, DISPOSAL AND SALVAGE OF EXISTING TRAFFIC SIGNAL EQUIPMENT. This item shall be incidental to this contract. All material and equipment removed shall become the property of the Contractor and disposed of by the Contractor outside the State's right-of-way. No additional compensation shall be provided to the Contractor for removal, disposal or salvage expense for the work in this contract.

<u>DETECTOR LOOP REPLACEMENT</u>. This work shall consist of replacing existing detector loops which are destroyed during grinding, resurfacing, or patching operations.

If damage to the detector loop is unavoidable, replacement of the existing detection system will be necessary. This work shall be completed by an approved Electrical Contractor as directed by the Engineer.

Replacement of the loops shall be accomplished in the following manner: The Engineer shall mark the location of the replacement loops. The Traffic Signal Maintenance and Operations Engineer shall be called to approve loop locations prior to the cutting of the pavement. The Contractor may reuse the existing conduit (duct) located between the existing handhole and the pavement if it hasn't been damaged. All burrs shall be removed from the edges of the existing conduit which may cause damage to the new detector loop during installation. If the existing conduit is damaged beyond repair, or if it cannot be located, or if additional conduits are required to provide one lead-in duct for each proposed loop; the Contractor shall be required to drill through the existing pavement into the appropriate handhole, and install 25 mm (1") unit duct conduit. This work and the required materials shall not be paid for separately but shall be included in the pay item Detector Loop Replacement. Upon establishment of the duct, the loop may be cut, installed, sealed and spliced to the twisted-shielded controller cable in the handhole.

Detector loop measurements shall include the saw-cut and the length of the loop lead-in leading to the edge of pavement. Unit duct, splicing, trench and backfill, and drilling of pavement or handholes shall be incidental to detector loop quantities.

All loops installed in new asphalt pavement shall be installed in the binder course and not in the surface course. The edge of pavement or the curb shall be cut with a  $6.3 \text{ mm} (1/4)^{\circ}$  deep x  $100 \text{ mm} (4)^{\circ}$  saw-cut to mark location of each loop lead-in.

A minimum of seven (7) working days prior to the Contractor cutting loops, the Contractor shall have the proposed loop locations marked and contact the Traffic Signal Maintenance and Operations Engineer (847)705-4424 to inspect and approve the layout.

Loop detectors shall be installed according to the requirements of the "District 1 Standard Traffic Signal Design Details." Saw-cuts from the loop to the edge of pavement shall be made perpendicular to the edge of pavement when possible in order to minimize the length of the saw-cut unless directed otherwise by the Engineer or as shown on the plan.

The detector loop cable insulation shall be labeled with the cable specifications.

Each loop detector lead-in wire shall be labeled in the handhole using a Panduit 250W175C water proof tag or approved equal secured to each wire with nylon ties. The lead-in wire, including all necessary connections for proper operation, from the edge of pavement to the handhole, shall be incidental to the price of the detector loop.

Loop sealant shall be a two-component thixotropic chemically cured polyurethane either Chemque Q-Seal 295, Percol Elastic Cement A/C Grade or an approved equal. The sealant shall be installed 3 mm (1/8") below the pavement surface, if installed above the surface the overlap shall be removed immediately.

Round loop(s) 1.8 m (six foot) diameter may be substituted for 1.8 m (six foot) by 1.8 m (six foot) square loop(s) and shall be paid for as 7.2 m (24 feet) of detector loop.

Resistance to ground shall be a minimum of 100 megohms under any conditions of weather or moisture.

Heat shrink splices shall be used according to the "District 1 Standard Traffic Signal Design Details."

Drilling handholes, sawing the pavement, furnishing and installing unit-duct to the appropriate handhole, cable splicing to provide a fully operable detector loop, testing and all trench and backfill shall be included in this item.

Detector loop replacement shall be measured along the sawed slot in the pavement containing the loop and lead-in, rather than the actual length of the wire in the slot.

<u>Basis of Payment.</u> Detector Loop Replacement shall be paid for at the contract unit price per foot (meter) of DETECTOR LOOP REPLACEMENT.

MAGNETIC DETECTOR REMOVAL AND DETECTOR LOOP INSTALLATION. This work shall consist of the removal of existing magnetic detectors, magnetic detector lead-in cable and magnetic detection amplifiers and related control equipment wiring, installation of detector lead-in cable, detector loops, detector amplifiers and related equipment wiring. The detector loop, cable, and amplifier shall be installed according to the applicable portions of the "Standard Specifications" and the applicable portions of the Special Provision for "Detector Loop Replacement." All drilling of handholes, furnishing and installing unit duct, cable splicing, trench and backfill, removal of equipment, and pulling cable from conduit shall be included in this item.

<u>Basis of Payment.</u> Magnetic Detector Removal and Detector Loop Installation shall be paid for at the contract unit price per foot (meter) for DETECTOR LOOP, TYPE I, per each for INDUCTIVE LOOP DETECTOR, and foot (meter) for ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR.

#### TEMPORARY INFORMATION SIGNING

Effective: November 13, 1996 Revised: January 2, 2007

#### Description.

This work shall consist of furnishing, installing, maintaining, relocating for various states of construction and eventually removing temporary informational signs. Included in this item may be ground mount signs, skid mount signs, truss mount signs, bridge mount signs, and overlay sign panels which cover portions of existing signs.

#### Materials.

Materials shall be according to the following Articles of Section 1000 - Materials:

|     | <u>ltem</u>             | <u>Article/Section</u> |
|-----|-------------------------|------------------------|
| a.) | Sign Base (Notes 1 & 2) | 1090                   |
| b.) | Sign Face (Note 3)      | 1091                   |
| c.) | Sign Legends            | 1092                   |
| d.) | Sign Supports           | 1093                   |
| e.) | Overlay Panels (Note 4) | 1090.02                |

- Note 1. The Contractor may use 5/8 inch (16 mm) instead of 3/4 inch (19 mm) thick plywood.
- Note 2. Type A sheeting can be used on the plywood base.
- Note 3. All sign faces shall be Type A except all orange signs shall meet the requirements of Article 1106.01.
- Note 4. The overlay panels shall be 0.08 inch (2 mm) thick.

#### GENERAL CONSTRUCTION REQUIREMENTS

#### Installation.

The sign sizes and legend sizes shall be verified by the Contractor prior to fabrication.

Signs which are placed along the roadway and/or within the construction zone shall be installed according to the requirements of Article 701.14 and Article 720.04. The signs shall be 7 ft (2.1 m) above the near edge of the pavement and shall be a minimum of 2 ft (600 mm) beyond the edge of the paved shoulder. A minimum of two (2) posts shall be used.

The attachment of temporary signs to existing sign structures or sign panels shall be approved by the Engineer. Any damage to the existing signs due to the Contractor's operations shall be repaired or signs replaced, as determined by the Engineer, at the Contractor's expense.

Signs which are placed on overhead bridge structures shall be fastened to the handrail with stainless steel bands. These signs shall rest on the concrete parapet where possible. The Contractor shall furnish mounting details for approval by the Engineer.

#### Method Of Measurement.

This work shall be measured for payment in square feet (square meters) edge to edge (horizontally and vertically).

All hardware, posts or skids, supports, bases for ground mounted signs, connections, which are required for mounting these signs will be included as part of this pay item.

## Basis Of Payment.

This work shall be paid for at the contract unit price per square foot (square meter) for TEMPORARY INFORMATION SIGNING.

### ALKALI-SILICA REACTION FOR CAST-IN-PLACE CONCRETE (BDE)

Effective: August 1, 2007 Revised: January 1, 2009

<u>Description</u>. This special provision is intended to reduce the risk of a deleterious alkali-silica reaction in concrete exposed to humid or wet conditions. The special provision is not intended or adequate for concrete exposed to potassium acetate, potassium formate, sodium acetate or sodium formate. The special provision shall not apply to the dry environment (humidity less than 60 percent) found inside buildings for residential or commercial occupancy. The special provision shall also not apply to precast products or precast prestressed products.

<u>Aggregate Expansion Values</u>. Each coarse and fine aggregate will be tested by the Department for alkali reaction according to ASTM C 1260. The test will be performed with Type I or II cement having a total equivalent alkali content ( $Na_2O + 0.658K_2O$ ) of 0.90 percent or greater.

The Engineer will determine the assigned expansion value for each aggregate, and these values will be made available on the Department's Alkali-Silica Potential Reactivity Rating List. The Engineer may differentiate aggregate based on ledge, production method, gradation number, or other factors. An expansion value of 0.05 percent will be assigned to limestone or dolomite coarse aggregates and 0.03 percent to limestone or dolomite fine aggregates (manufactured stone sand); however the Department reserves the right to perform the ASTM C 1260 test.

<u>Aggregate Groups</u>. Each combination of aggregates used in a mixture will be assigned to an aggregate group. The point at which the coarse aggregate and fine aggregate expansion values intersect in the following table will determine the group.

| AGGREGATE GROUPS       |                       |          |           |  |  |
|------------------------|-----------------------|----------|-----------|--|--|
| Coarse Aggregate       | Fine Aggregate        |          |           |  |  |
| or                     | or                    |          |           |  |  |
| Coarse Aggregate Blend | Fine Aggregate Blend  |          |           |  |  |
| ASTM C 1260 Expansion  | ASTM C 1260 Expansion |          |           |  |  |
|                        | ≤ 0.16%               | > 0.27%  |           |  |  |
| ≤ 0.16%                | Group I               | Group II | Group III |  |  |
| > 0.16% - 0.27%        | Group II              | Group II | Group III |  |  |
| > 0.27%                | Group III Group IV    |          |           |  |  |

<u>Mixture Options</u>. Based upon the aggregate group, the following mixture options shall be used; however, the Department may prohibit a mixture option if field performance shows a deleterious alkali-silica reaction or Department testing indicates the mixture may experience a deleterious alkali-silica reaction.

Group I - Mixture options are not applicable. Use any cement or finely divided mineral.

Group II - Mixture options 1, 2, 3, 4, or 5 shall be used.

Group III - Mixture options 1, 2 and 3 combined, 4, or 5 shall be used.

Group IV - Mixture options 1, 2 and 4 combined, or 5 shall be used.

For Class PP-3 concrete the mixture options are not applicable, and any cement may be used with the specified finely divided minerals.

a) Mixture Option 1. The coarse or fine aggregates shall be blended to place the material in a group that will allow the selected cement or finely divided mineral to be used.

When a coarse or fine aggregate is blended, the weighted expansion value shall be calculated separately for the coarse and fine aggregate as follows:

Weighted Expansion Value =  $(a/100 \times A) + (b/100 \times B) + (c/100 \times C) + ...$ 

Where: a, b, c... = percentage of aggregate in the blend; A, B, C... = expansion value for that aggregate.

b) Mixture Option 2. A finely divided mineral shall be used as described in 1), 2), 3), or 4) that follow. The replacement ratio is defined as "finely divided mineral:portland cement".

- 1) Class F Fly Ash. For Class PV, BS, MS, DS, SC, and SI concrete and cement aggregate mixture II (CAM II), Class F fly ash shall replace 15 percent of the portland cement at a minimum replacement ratio of 1.5:1.
- 2) Class C Fly Ash. For Class PV, MS, SC, and SI Concrete, Class C fly ash with 18 percent to less than 26.5 percent calcium oxide content, and less than 2.0 percent loss on ignition, shall replace 20 percent of the portland cement at a minimum replacement ratio of 1:1; or at a minimum replacement ratio of 1.25:1 if the loss on ignition is 2.0 percent or greater. Class C fly ash with less than 18 percent calcium oxide content shall replace 20 percent of the portland cement at a minimum replacement ratio of 1.25:1.

For Class PP-1, RR, BS, and DS concrete and CAM II, Class C fly ash with less than 26.5 percent calcium oxide content shall replace 15 percent of the portland cement at a minimum replacement ratio of 1.5:1.

3) Ground Granulated Blast-Furnace Slag. For Class PV, BS, MS, SI, DS, and SC concrete, ground granulated blast-furnace slag shall replace 25 percent of the portland cement at a minimum replacement ratio of 1:1.

For Class PP-1 and RR concrete, ground granulated blast-furnace slag shall replace 15 percent of the portland cement at a minimum replacement ratio of 1.5:1.

For Class PP-2, ground granulated blast-furnace slag shall replace 25 to 30 percent of the portland cement at a minimum replacement ratio of 1:1.

- 4) Microsilica or High Reactivity Metakaolin. Microsilica solids or high reactivity metakaolin shall be added to the mixture at a minimum 25 lb/cu yd (15 kg/cu m) or 27 lb/cu yd (16 kg/cu m) respectively.
- c) Mixture Option 3. The cement used shall have a maximum total equivalent alkali content (Na<sub>2</sub>O + 0.658K<sub>2</sub>O) of 0.60 percent. When aggregate in Group II is involved, any finely divided mineral may be used with a portland cement.
- d) Mixture Option 4. The cement used shall have a maximum total equivalent alkali content  $(Na_2O + 0.658K_2O)$  of 0.45 percent. When aggregate in Group II or III is involved, any finely divided mineral may be used with a portland cement.
- e) Mixture Option 5. The proposed cement or finely divided mineral may be used if the ASTM C 1567 expansion value is ≤ 0.16 percent when performed on the aggregate in the concrete mixture with the highest ASTM C 1260 test result. The ASTM C 1567 test will be valid for two years, unless the Engineer determines the materials have changed significantly. For latex concrete, the ASTM C 1567 test shall be performed without the latex. The 0.20 percent autoclave expansion limit in ASTM C 1567 shall not apply.

If during the two year time period the Contractor needs to replace the cement, and the replacement cement has an equal or lower total equivalent alkali content  $(Na_2O + 0.658K_2O)$ , a new ASTM C 1567 test will not be required.

<u>Testing.</u> If an individual aggregate has an ASTM C 1260 expansion value > 0.16 percent, an ASTM C 1293 test may be performed by the Contractor to evaluate the Department's ASTM C 1260 test result. The ASTM C 1293 test shall be performed with Type I or II cement having a total equivalent alkali content ( $Na_2O + 0.658K_2O$ ) of 0.80 percent or greater. The interior vertical wall of the ASTM C 1293 recommended container (pail) shall be half covered with a wick of absorbent material consisting of blotting paper. If the testing laboratory desires to use an alternate container or wick of absorbent material, ASTM C 1293 test results with an alkali-reactive aggregate of known expansion characteristics shall be provided to the Engineer for review and approval. If the expansion is less than 0.040 percent after one year, the aggregate will be assigned an ASTM C 1260 expansion value of 0.08 percent that will be valid for two years, unless the Engineer determines the aggregate has changed significantly.

The Engineer reserves the right to verify a Contractor's ASTM C 1293 or 1567 test result. The Engineer will not accept the result if the precision and bias for the test methods are not met.

The laboratory performing the ASTM C 1567 test shall either be accredited by the AASHTO Materials Reference Laboratory (AMRL) for ASTM C 227 under Portland Cement Concrete or Aggregate; or shall be inspected for Hydraulic Cement - Physical Tests by the Cement and Concrete Reference Laboratory (CCRL) and shall be approved by the Department. The laboratory performing the ASTM C 1293 test shall be inspected for Portland Cement Concrete by CCRL and shall be approved by the Department.

## 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."

## **CEMENT (BDE)**

Effective: January 1, 2007 Revised: April 1, 2009

Revise Section 1001 of the Standard Specifications to read:

## **"SECTION 1001. CEMENT**

**1001.01 Cement Types.** Cement shall be according to the following.

(a) Portland Cement. Acceptance of portland cement shall be according to the current Bureau of Materials and Physical Research's Policy Memorandum, "Portland or Blended Cement Acceptance Procedure for Qualified and Non-Qualified Plants".

Portland cement shall be according to ASTM C 150, and shall meet the standard physical and chemical requirements. Type I or Type II may be used for cast-in-place, precast, and precast prestressed concrete. Type III may be used according to Article 1020.04, or when approved by the Engineer. All other cements referenced in ASTM C 150 may be used when approved by the Engineer.

The total of all organic processing additions shall be a maximum of 1.0 percent by weight (mass) of the cement. The total of all inorganic processing additions shall be a maximum of 4.0 percent by weight (mass) of the cement. However, a cement kiln dust inorganic processing addition shall be limited to a maximum of 1.0 percent. Organic processing additions shall be limited to grinding aids that improve the flowability of cement, reduce pack set, and improve grinding efficiency. Inorganic processing additions shall be limited to granulated blast-furnace slag according to the chemical requirements of AASHTO M 302, Class C fly ash according to the chemical requirements of AASHTO M 295, and cement kiln dust.

(b) Portland-Pozzolan Cement. Acceptance of portland-pozzolan cement shall be according to the current Bureau of Materials and Physical Research's Policy Memorandum, "Portland or Blended Cement Acceptance Procedure for Qualified and Non-Qualified Plants".

Portland-pozzolan cement shall be according to ASTM C 595 and shall meet the standard physical and chemical requirements. Type IP may be used for cast-in-place, precast, and precast prestressed concrete, except when Class PP concrete is used. The pozzolan constituent for Type IP shall be a maximum of 21 percent of the weight (mass) of the portland-pozzolan cement.

For cast-in-place construction, portland-pozzolan cement shall not be used in concrete mixtures when the air temperature is below 40 °F (4 °C) without permission of the Engineer. If permission is given, the mix design strength requirement may require the Contractor to increase the cement or eliminate the cement factor reduction for a water-reducing or high range water-reducing admixture which is permitted according to Article 1020.05(b).

The total of all organic processing additions shall be a maximum of 1.0 percent by weight (mass) of the cement. Organic processing additions shall be limited to grinding aids as defined in (a) above. Inorganic processing additions shall be limited to cement kiln dust at a maximum of 1.0 percent.

(c) Portland Blast-Furnace Slag Cement. Acceptance of portland blast-furnace slag cement shall be according to the current Bureau of Materials and Physical Research's Policy Memorandum, "Portland or Blended Cement Acceptance Procedure for Qualified and Non-Qualified Plants".

Portland blast-furnace slag cement shall be according to ASTM C 595 and shall meet the standard physical and chemical requirements. Type IS portland blast-furnace slag cement may be used for cast-in-place, precast, and precast prestressed concrete, except when Class PP concrete is used. The blast-furnace slag constituent for Type IS shall be a maximum of 25 percent of the weight (mass) of the portland blast-furnace slag cement.

For cast-in-place construction, portland blast-furnace slag cement shall not be used in concrete mixtures when the air temperature is below 40 °F (4 °C) without permission of the Engineer. If permission is given, the mix design strength requirement may require the Contractor to increase the cement or eliminate the cement factor reduction for a water-reducing or high range water-reducing admixture which is permitted according to Article 1020.05(b).

The total of all organic processing additions shall be a maximum of 1.0 percent by weight (mass) of the cement. Organic processing additions shall be limited to grinding aids as defined in (a) above. Inorganic processing additions shall be limited to cement kiln dust at a maximum of 1.0 percent.

- (d) Rapid Hardening Cement. Rapid hardening cement shall be used according to Article 1020.04 or when approved by the Engineer. The cement shall be on the Department's current "Approved List of Packaged, Dry, Rapid Hardening Cementitious Materials for Concrete Repairs", and shall be according to the following.
  - (1) The cement shall have a maximum final set of 25 minutes, according to Illinois Modified ASTM C 191.
  - (2) The cement shall have a minimum compressive strength of 2000 psi (13,800 kPa) at 3.0 hours, 3200 psi (22,100 kPa) at 6.0 hours, and 4000 psi (27,600 kPa) at 24.0 hours, according to Illinois Modified ASTM C 109.
  - (3) The cement shall have a maximum drying shrinkage of 0.050 percent at seven days, according to Illinois Modified ASTM C 596.
  - (4) The cement shall have a maximum expansion of 0.020 percent at 14 days, according to Illinois Modified ASTM C 1038.
  - (5) The cement shall have a minimum 80 percent relative dynamic modulus of elasticity; and shall not have a weight (mass) gain in excess of 0.15 percent or a weight (mass) loss in excess of 1.0 percent, after 100 cycles, according to AASHTO T 161, Procedure B.
- (e) Calcium Aluminate Cement. Calcium aluminate cement shall be used only where specified by the Engineer. The cement shall meet the standard physical requirements for Type I cement according to ASTM C 150, except the time of setting shall not apply. The chemical requirements shall be determined according to ASTM C 114 and shall be as follows: minimum 38 percent aluminum oxide (Al<sub>2</sub>O<sub>3</sub>), maximum 42 percent calcium oxide (CaO), maximum 1 percent magnesium oxide (MgO), maximum 0.4 percent sulfur trioxide (SO<sub>3</sub>), maximum 1 percent loss on ignition, and maximum 3.5 percent insoluble residue.

- **1001.02 Uniformity of Color.** Cement contained in single loads or in shipments of several loads to the same project shall not have visible differences in color.
- **1001.03 Mixing Brands and Types.** Different brands or different types of cement from the same manufacturing plant, or the same brand or type from different plants shall not be mixed or used alternately in the same item of construction unless approved by the Engineer.
- **1001.04 Storage.** Cement shall be stored and protected against damage, such as dampness which may cause partial set or hardened lumps. Different brands or different types of cement from the same manufacturing plant, or the same brand or type from different plants shall be kept separate."

## **CONCRETE ADMIXTURES (BDE)**

Effective: January 1, 2003 Revised: April 1, 2009

Replace the first paragraph of Article 1020.05(b) of the Standard Specifications to read:

"(b) Admixtures. The use of admixtures to increase the workability or to accelerate the hardening of the concrete will be permitted when approved by the Engineer. Admixture dosages shall result in the mixture meeting the specified plastic and hardened properties. The Department will maintain an Approved List of Corrosion Inhibitors. Corrosion inhibitor dosage rates shall be according to Article 1020.05(b)(12). The Department will also maintain an Approved List of Concrete Admixtures, and an admixture technical representative shall be consulted when determining an admixture dosage from this list. The dosage shall be within the range indicated on the approved list unless the influence by other admixtures, jobsite conditions (such as a very short haul time), or other circumstances warrant a dosage outside the range. The Engineer shall be notified when a dosage is proposed outside the range. To determine an admixture dosage, air temperature, concrete temperature, cement source and quantity, finely divided mineral sources(s) and quantity, influence of other admixtures, haul time. placement conditions, and other factors as appropriate shall be considered. Engineer may request the Contractor to have a batch of concrete mixed in the lab or field to verify the admixture dosage is correct. An admixture dosage or combination of admixture dosages shall not delay the initial set of concrete by more than one hour. When a retarding admixture is required or appropriate for a bridge deck or bridge deck overylay pour, the initial set time shall be delayed until the deflections due to the concrete dead load are no longer a concern for inducing cracks in the completed work. However, a retarding admixture shall not be used to further extend the pour time and justify the alteration of a bridge deck pour sequence.

When determining water in admixtures for water/cement ratio, the Contractor shall calculate 70 percent of the admixture dosage as water, except a value of 50 percent shall be used for a latex admixture used in bridge deck latex concrete overlays."

Revise Section 1021 of the Standard Specifications to read:

"SECTION 1021. CONCRETE ADMIXTURES

1021.01 **General.** Admixtures shall be furnished in liquid form ready for use. The admixtures shall be delivered in the manufacturer's original containers, bulk tank trucks or such containers or tanks as are acceptable to the Engineer. Delivery shall be accompanied by a ticket which clearly identifies the manufacturer and trade name of the material. Containers shall be readily identifiable as to manufacturer and trade name of the material they contain.

Corrosion inhibitors will be maintained on the Department's Approved List of Corrosion Inhibitors. All other concrete admixture products will be maintained on the Department's Approved List of Concrete Admixtures. For the admixture submittal, a report prepared by an independent laboratory accredited by the AASHTO Materials Reference Laboratory (AMRL) for Portland Cement Concrete shall be provided. The report shall show the results of physical tests conducted no more than five years prior to the time of submittal, according to applicable specifications. However, for corrosion inhibitors the ASTM G 109 test information specified in ASTM C 1582 is not required to be from and independent lab. All other information in ASTM C 1582 shall be from and independent lab.

Tests shall be conducted using materials and methods specified on a "test" concrete and a "reference" concrete, together with a certification that no changes have been made in the formulation of the material since the performance of the tests. Per the manufacturer's option, the cement content for all required tests shall either be according to applicable specifications or 5.65 cwt/cu yd (335 kg/cu m). Compressive strength test results for six months and one year will not be required.

Prior to the approval of an admixture, the Engineer reserves the right to request a sample for testing. The test and reference concrete mixtures tested by the Engineer will contain a cement content of 5.65 cwt/cu yd (335 kg/cu m). For freeze-thaw testing, the Department will perform the test according to AASHTO T 161, Procedure B. The flexural strength test will be performed according to AASHTO T 177. If the Engineer decides to test the admixture, the manufacturer shall submit AASHTO T 197 water content and set time test results on the standard cement used by the Department. The test and reference concrete mixture shall contain a cement content of 5.65 cwt/cu yd (335 kg/cu m). The manufacturer may select their lab or an independent lab to perform this testing. The laboratory is not required to be accredited by AASHTO.

The manufacturer shall include in the submittal the following admixture information: the manufacturing range for specific gravity, the midpoint and manufacturing range for residue by oven drying, and the manufacturing range for pH. The submittal shall also include an infrared spectrophotometer trace no more than five years old.

For air-entraining admixtures according to Article 1021.02, the specific gravity allowable manufacturing range shall be established by the manufacturer and the test method shall be according to ASTM C 494. For residue by oven drying and pH, the allowable manufacturing range and test methods shall be according to ASTM C 260.

For admixtures according to Articles 1021.03, 1021.04, 1021.05, 1021.06, and 1021.07, the pH allowable manufacturing range shall be established by the manufacturer and the test method shall be according to ASTM E 70. For specific gravity and residue by oven drying, the allowable manufacturing range and test methods shall be according to ASTM C 494.

When test results are more than seven years old, the manufacturer shall re-submit the infrared spectrophotometer trace and the report prepared by an independent laboratory accredited by AASHTO.

All admixtures, except chloride-based accelerators, shall contain a maximum of 0.3 percent chloride by weight (mass).

Random field samples may be taken by the Department to verify an admixture meets specification. A split sample will be provided to the manufacturer if requested. Admixtures that do not meet specification requirements or an allowable manufacturing range established by the manufacturer shall be replaced with new material.

**1021.02Air-Entraining Admixtures.** Air-entraining admixtures shall be according to AASHTO M 154.

**1021.03 Retarding and Water-Reducing Admixtures.** The admixture shall be according to the following.

- (a) The retarding admixture shall be according to AASHTO M 194, Type B (retarding) or Type D (water-reducing and retarding).
- (b) The water-reducing admixture shall be according to AASHTO M 194, Type A.
- (c) The high range water-reducing admixture shall be according to AASHTO M 194, Type F (high range water-reducing) or Type G (high range water-reducing and retarding).
- **1021.04Accelerating Admixtures.** The admixture shall be according to AASHTO M 194, Type C (accelerating) or Type E (water reducing and accelerating).
- **1021.05Self-Consolidating Admixtures.** The self-consolidating admixture system shall consist of either a high range water-reducing admixture only or a high range water-reducing admixture combined with a separate viscosity modifying admixture. The one or two component admixture system shall be capable of producing a concrete mixture that can flow around reinforcement and consolidate under its own weight without additional effort and without segregation.

The high range water-reducing admixture shall be according to AASHTO M 194, Type F.

The viscosity modifying admixture shall be according to ASTM C 494, Type S (specific performance).

- **1021.06Rheology-Controlling Admixture.** The rheology-controlling admixture shall be capable of producing a concrete mixture with a lower yield stress that will consolidate easier for slipform applications used by the Contractor. The rheology-controlling admixture shall be according to ASTM C 494, Type S (specific performance).
- **1021.07Corrosion Inhibitor.** The corrosion inhibitor shall be according to one of the following.

- (a) Calcium Nitrite. The corrosion inhibitor shall contain a minimum 30 percent calcium nitrite by weight (mass) of solution, and shall comply with the requirements of AASHTO M 194, Type C (accelerating).
- (b) Other Materials. The corrosion inhibitor shall be according to ASTM C 1582."

## **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.

<u>Environmental Deficiency Deduction</u>. 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: November 1, 2008

<u>FEDERAL OBLIGATION</u>. 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 or most recent addendum.

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.

<u>CONTRACTOR ASSURANCE</u>. 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 8.0% 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 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 firmly committed 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.

<u>DBE LOCATOR REFERENCES</u>. 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.

<u>BIDDING PROCEDURES</u>. Compliance with the bidding procedures of this Special Provision is required prior to the award of the contract and the failure of the as-read low bidder to comply will render the bid not responsive.

(a) In order to assure the timely award of the contract, the as-read low bidder shall submit a Disadvantaged Business Utilization Plan on Department form SBE 2026 within seven working days after the date of letting. To meet the seven day requirement, the bidder may send the Plan by certified mail or delivery service within the seven working day period. If a question arises concerning the mailing date of a Plan, the mailing date will be established by the U.S. Postal Service postmark on the original certified mail receipt from the U.S. Postal Service or the receipt issued by a delivery service. It is the responsibility of the bidder to ensure that the postmark or receipt date is affixed within the seven working days if the bidder intends to rely upon mailing or delivery to satisfy the submission day requirement. The Plan is to be submitted 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). It is the responsibility of the bidder to obtain confirmation of telefax delivery. The Department will not accept a Utilization Plan if it does not meet the seven day submittal requirement and the bid will be declared not responsive. In the event the bid is declared not responsive due to a failure to submit a Plan or failure to comply with the bidding procedures set forth herein, the Department may elect to cause the forfeiture of the penal sum of the bidder's proposal guaranty, and may deny authorization to bid the project if re-advertised for bids. The Department reserves the right to invite any other bidder to submit a Utilization Plan at any time for award consideration or to extend the time for award.

- (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. The signatures on these forms must be original signatures. All elements of information indicated on the said form shall be provided, including but not limited to the following:
  - (1) The name and address of each DBE to be used;
  - (2) A description, including pay item numbers, of the commercially useful work to be done by each DBE;
  - (3) The price to be paid to each DBE for the identified work specifically stating 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) A commitment statement signed by the bidder and each DBE evidencing availability and intent to perform commercially useful work on the project; and
  - (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).
- (d) The contract will not be awarded until the Utilization Plan submitted by the bidder is approved. The Utilization Plan will be approved by the Department if the Plan commits sufficient commercially useful DBE work performance to meet the contract goal. The

Utilization Plan will not be approved by the Department if the Plan does not commit sufficient DBE performance to meet the contract goal unless the bidder documents that it made a good faith effort to meet the goal. The good faith procedures of Section VIII of this special provision apply. If the Utilization Plan is not approved because it is deficient in a technical matter, unless waived by the Department, the bidder will be notified and will be allowed no less than a five working day period in order to cure the deficiency.

<u>CALCULATING DBE PARTICIPATION</u>. 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 contact. Credit will be given for the full value of all such DBE trucks operated using DBE employed drivers. Goal credit will be limited to the value of the reasonable fee or commission received by the DBE if trucks are leased from a non-DBE company.
- (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.

GOOD FAITH EFFORT PROCEDURES. If the bidder cannot obtain sufficient DBE commitments to meet the contract goal, the bidder must document in the Utilization Plan the good faith efforts made in the attempt 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 could reasonably be expected to obtain sufficient DBE participation. The Department will consider the quality, quantity, and intensity of the kinds of efforts that the bidder has made. Mere *pro forma* efforts are not good faith efforts; rather, the bidder is expected to have taken those 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 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 a good faith effort has not been made, the Department will notify the bidder of that preliminary determination by contacting the responsible company official designated in the Utilization Plan. The preliminary determination shall include a statement of reasons why good faith efforts have not been found, and may include additional good faith efforts that the bidder could take. The notification will designate a five working day period during which the bidder shall take additional efforts. The bidder is not limited by a statement of additional efforts, but may take other action beyond any stated additional efforts in order to obtain additional DBE commitments. The bidder shall submit an amended Utilization Plan if additional DBE commitments to meet the contract goal are secured. If additional DBE commitments sufficient to meet the contract goal are not secured, the bidder shall report the final good faith efforts made in the time allotted. All additional efforts taken by the bidder will be considered as part of the bidder's good faith efforts. If the bidder is not able to meet the goal after taking additional efforts, the Department will make a pre-final determination of the good faith efforts of the bidder and will notify the designated responsible company official of the reasons for an adverse determination.
- (c) The bidder may request administrative reconsideration of a pre-final determination adverse to the bidder within the five working days after 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 pre-final 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. In addition, the request shall be considered a consent by the bidder to extend the time for award. 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.

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 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) 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. If a DBE listed in the Utilization Plan is terminated for reasons other than convenience, or fails to complete its work on the contract for any reason, the Contractor shall make good faith efforts to find another DBE to substitute for the terminated 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 DBE that was terminated, but only to the extent needed to meet the

contract goal or the amended contract goal. 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.

- (c) 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 Plan, the Department will deduct from contract payments to the Contractor the amount of the goal not achieved as liquidated and ascertained damages.
- (d) 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.
- (e) 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.

#### **ENGINEER'S FIELD OFFICE TYPE A (BDE)**

Effective: April 1, 2007 Revised: August 1, 2008

Revise Article 670.02 of the Standard Specifications to read:

"670.02 Engineer's Field Office Type A. Type A field offices shall have a minimum ceiling height of 7 ft (2 m) and a minimum floor space 450 sq ft (42 sq m). The office shall be provided with sufficient heat, natural and artificial light, and air conditioning.

The office shall have an electronic security system that will respond to any breach of exterior doors and windows. Doors and windows shall be equipped with locks. Doors shall also be equipped with dead bolt locks or other secondary locking device.

Windows shall be equipped with exterior screens to allow adequate ventilation. All windows shall be equipped with interior shades, curtains, or blinds. Adequate all-weather parking space shall be available to accommodate a minimum of ten vehicles.

Suitable on-site sanitary facilities meeting Federal, State, and local health department requirements shall be provided, maintained clean and in good working condition, and shall be stocked with lavatory and sanitary supplies at all times.

Sanitary facilities shall include hot and cold potable running water, lavatory and toilet as an integral part of the office where available. Solid waste disposal consisting of two waste baskets and an outside trash container of sufficient size to accommodate a weekly provided pick-up service.

In addition, the following furniture and equipment shall be furnished.

- (a) Four desks with minimum working surface 42 x 30 in. (1.1 m x 750 mm) each and five non-folding chairs with upholstered seats and backs.
- (b) One desk with minimum working surface 48 x 72 in. (1.2 x 1.8 m) with height adjustment of 23 to 30 in. (585 to 750 mm).
- (c) One four-post drafting table with minimum top size of 37 1/2 x 48 in. (950 mm x 1.2 m). The top shall be basswood or equivalent and capable of being tilted through an angle of 50 degrees. An adjustable height drafting stool with upholstered seat and back shall also be provided.
- (d) Two free standing four drawer legal size file cabinet with lock and an underwriters' laboratories insulated file device 350 degrees one hour rating.
- (e) One 6 ft (1.8 m) folding table with six folding chairs.
- (f) One equipment cabinet of minimum inside dimension of 44 in. (1100 mm) high x 24 in. (600 mm) wide x 30 in. (750 mm) deep with lock. The walls shall be of steel with a 3/32 in. (2 mm) minimum thickness with concealed hinges and enclosed lock constructed in such a manner as to prevent entry by force. The cabinet assembly shall be permanently attached to a structural element of the field office in a manner to prevent theft of the entire cabinet.
- (g) One refrigerator with a minimum size of 16 cu ft (0.45 cu m) with a freezer unit.
- (h) One electric desk type tape printing calculator.
- (i) A minimum of two communication paths. The configuration shall include:

- (1) Internet Connection. An internet service connection using telephone DSL, cable broadband, or CDMA wireless technology. Additionally, an 802.11g/N wireless router shall be provided, which will allow connection by the Engineer and up to four Department staff.
- (2) Telephone Lines. Three separate telephone lines.
- (j) One plain paper copy machine capable of reproducing prints up to 11 x 17 in. (280 x 432 mm) with an automatic feed tray capable of storing 30 sheets of paper. Letter size and 11 x 17 in. (280 x 432 mm) paper shall be provided.
- (k) One plain paper fax machine with paper.
- (I) Two telephones, with touch tone, where available, and a digital telephone answering machine, for exclusive use by the Engineer.
- (m) One electric water cooler dispenser.
- (n) One first-aid cabinet fully equipped.
- (o) One microwave oven, 1 cu ft (0.03 cu m) minimum capacity.
- (p) One fire-proof safe, 0.5 cu ft (0.01 cu m) minimum capacity.
- (q) One electric paper shredder.
- (r) One post mounted rain gauge, located on the project site for each 5 miles (8 km) of project length."

Revise the first sentence of the first paragraph of Article 670.07 of the Standard Specifications to read:

"The building or buildings fully equipped as specified will be paid for on a monthly basis until the building or buildings are released by the Engineer."

Revise the last sentence of the first paragraph of Article 670.07 of the Standard Specifications to read:

"This price shall include all utility costs and shall reflect the salvage value of the building or buildings, equipment, and furniture which become the property of the Contractor after release by the Engineer, except that the Department will pay that portion of the monthly long distance telephone bills that, when combined, exceed \$150."

## **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."

## HOT-MIX ASPHALT - FIELD VOIDS IN THE MINERAL AGGREGATE (BDE)

Effective: April 1, 2007 Revised: April 1, 2008

Add the following to the table in Article 1030.05(d)(2)a. of the Standard Specifications:

|            | Frequency of Tests                   | Frequency of Tests | Test Method        |
|------------|--------------------------------------|--------------------|--------------------|
| "Parameter |                                      |                    | See Manual of Test |
|            | High ESAL Mixture                    | All Other Mixtures | Procedures for     |
|            | Low ESAL Mixture                     |                    | Materials          |
| VMA        | Day's production                     | N/A                | Illinois-Modified  |
|            | ≥ 1200 tons:                         |                    | AASHTO R 35        |
|            |                                      |                    |                    |
|            | 1 per half day of production         |                    |                    |
| Note 5.    |                                      |                    |                    |
|            | Day's production                     |                    |                    |
|            | < 1200 tons:                         |                    |                    |
|            |                                      |                    |                    |
|            | 1 per half day of production for     |                    |                    |
|            | first 2 days and 1 per day           |                    |                    |
|            | thereafter (first sample of the day) |                    |                    |

Note 5. The  $G_{sb}$  used in the voids in the mineral aggregate (VMA) calculation shall be the same average  $G_{sb}$  value listed in the mix design."

Add the following to the Control Limits table in Article 1030.05(d)(4) of the Standard Specifications:

|           | "CONTROL LIMITS       |                       |                 |  |  |
|-----------|-----------------------|-----------------------|-----------------|--|--|
| Parameter | High ESAL<br>Low ESAL | High ESAL<br>Low ESAL | All Other       |  |  |
|           | Individual Test       | Moving Avg. of 4      | Individual Test |  |  |
| VMA       | -0.7 % <sup>2/</sup>  | -0.5 % <sup>2/</sup>  | N/A             |  |  |

<sup>2/</sup> Allowable limit below minimum design VMA requirement"

Add the following to the table in Article 1030.05(d)(5) of the Standard Specifications:

| "CONTROL CHART<br>REQUIREMENTS | High ESAL<br>Low ESAL | All Other |
|--------------------------------|-----------------------|-----------|
|                                | VMA"                  |           |

Revise the heading of Article 1030.05(d)(6)a.1. of the Standard Specifications to read:

"1. Voids, VMA, and Asphalt Binder Content."

Revise the first sentence of the first paragraph of Article 1030.05(d)(6)a.1.(a.) of the Standard Specifications to read:

"If the retest for voids, VMA, or asphalt binder content exceeds control limits, HMA production shall cease and immediate corrective action shall be instituted by the Contractor."

Revise the table in Article 1030.05(e) of the Standard Specifications to read:

| "Test Parameter                                     | Acceptable Limits of<br>Precision |
|---|-----------------------------------|
| % Passing: 1/                                       |                                   |
| 1/2 in. (12.5 mm)                                   | 5.0 %                             |
| No. 4 (4.75 mm)                                     | 5.0 %                             |
| No. 8 (2.36 mm)                                     | 3.0 %                             |
| No. 30 (600 μm)                                     | 2.0 %                             |
| Total Dust Content<br>No. 200 (75 μm) <sup>1/</sup> | 2.2 %                             |
| Asphalt Binder Content                              | 0.3 %                             |
| Maximum Specific Gravity of Mixture                 | 0.026                             |
| Bulk Specific Gravity                               | 0.030                             |
| VMA   | 1.4 %                             |
| Density (% Compaction)                              | 1.0 % (Correlated)                |

<sup>1/</sup> Based on washed ignition."

## **HOT-MIX ASPHALT – PLANT TEST FREQUENCY (BDE)**

Effective: April 1, 2008

Revise the table in Article 1030.05(d)(2)a. of the Standard Specifications to read:

| "Parameter   | Frequency of Tests  High ESAL Mixture Low ESAL Mixture  | Frequency of Tests  All Other Mixtures  | Test Method<br>See Manual of Test<br>Procedures for Materials |
|--|---|---|---|
| Aggregate Gradation  Hot bins for batch and continuous plants.  Individual cold-feed or combined belt-feed for drier drum plants.  % passing sieves: 1/2 in. (12.5 mm), No. 4 (4.75 mm), No. 8 (2.36 mm), No. 30 (600 μm) No. 200 (75 μm)  Note 1. | 1 dry gradation per day of production (either morning or afternoon sample).  and 1 washed ignition oven test on the mix per day of production (conduct in the afternoon if dry gradation is conducted in the morning or vice versa).  Note 3. | 1 gradation per day of production.  The first day of production shall be a washed ignition oven test on the mix. Thereafter, the testing shall alternate between dry gradation and washed ignition oven test on the mix.  Note 4. | Illinois Procedure  |

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## **HOT-MIX ASPHALT – TRANSPORTATION (BDE)**

Effective: April 1, 2008

Revise Article 1030.08 of the Standard Specifications to read:

"1030.08 Transportation. Vehicles used in transporting HMA shall have clean and tight beds. The beds shall be sprayed with asphalt release agents from the Department's approved list. In lieu of a release agent, the Contractor may use a light spray of water with a light scatter of manufactured sand (FA 20 or FA 21) evenly distributed over the bed of the vehicle. After spraying, the bed of the vehicle shall be in a completely raised position and it shall remain in this position until all excess asphalt release agent or water has been drained.

When the air temperature is below 60 °F (15 °C), the bed, including the end, endgate, sides and bottom shall be insulated with fiberboard, plywood or other approved insulating material and shall have a thickness of not less than 3/4 in (20 mm). When the insulation is placed inside the bed, the insulation shall be covered with sheet steel approved by the Engineer. Each vehicle shall be equipped with a cover of canvas or other suitable material meeting the approval of the Engineer which shall be used if any one of the following conditions is present.

- (a) Ambient air temperature is below 60 °F (15 °C).
- (b) The weather is inclement.
- (c) The temperature of the HMA immediately behind the paver screed is below 250 °F (120 °C).

The cover shall extend down over the sides and ends of the bed for a distance of approximately 12 in. (300 mm) and shall be fastened securely. The covering shall be rolled back before the load is dumped into the finishing machine."

## 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 Con   | tract Amount     | Daily Ch     | arges    |  |  |
| 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, 2008

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 fraction thereof the deficiency exists. The calendar day(s) will begin with notification to the Contractor and end with the Engineer's acceptance of the correction. The daily monetary deduction will be either \$1000.00 or 0.05 percent of the awarded contract value, whichever is greater. For those deficiencies where corrective action was not an option, the monetary deduction will be immediate and will be valued at one calendar day."

## 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.

## PAYROLLS AND PAYROLL RECORDS (BDE)

Effective: March 1, 2009

<u>FEDERAL AID CONTRACTS</u>. Revise the following section of Check Sheet #1 of the Recurring Special Provisions to read:

#### "STATEMENTS AND PAYROLLS

The payroll records shall include each worker's name, address, telephone number, social security number, classification, rate of pay, number of hours worked each day, starting and ending times of work each day, total hours worked each week, itemized deductions made, and actual wages paid.

The Contractor and each subcontractor shall submit payroll records to the Engineer each week from the start to the completion of their respective work, except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall include an identification number for each employee (e.g., the last four digits of the employee's social security number.). The submittals shall be on the Department's form SBE 48, or an approved facsimile. When there has been no activity during a work week, a payroll record shall still be submitted with the appropriate box ("No Work", "Suspended", or "Complete") checked on the form."

<u>STATE CONTRACTS</u>. Revise Section IV of Check Sheet #5 of the Recurring Special Provisions to read:

### "IV. COMPLIANCE WITH THE PREVAILING WAGE ACT

1. Prevailing Wages. All wages paid by the Contractor and each subcontractor shall be in compliance with The Prevailing Wage Act (820 ILCS 130), as amended, except where a prevailing wage violates a federal law, order, or ruling, the rate conforming to the federal law, order, or ruling shall govern. The Contractor shall be responsible to notify each subcontractor of the wage rates set forth in this contract and any revisions thereto. If the Department of Labor revises the wage rates, the Contractor will not be allowed additional compensation on account of said revisions.

- 2. Payroll Records. The Contractor and each subcontractor shall make and keep, for a period of three years from the date of completion of this contract, records of the wages paid to his/her workers. The payroll records shall include each worker's name, address, telephone number, social security number, classification, rate of pay, number of hours worked each day, starting and ending times of work each day, total hours worked each week, itemized deductions made, and actual wages paid. Upon two business days' notice, these records shall be available, at all reasonable hours at a location within the State, for inspection by the Department or the Department of Labor.
- 3. Submission of Payroll Records. The Contractor and each subcontractor shall submit payroll records to the Engineer each week from the start to the completion of their respective work, except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall include an identification number for each employee (e.g., the last four digits of the employee's social security number). The submittals shall be on the Department's form SBE 48, or an approved facsimile. When there has been no activity during a work week, a payroll record shall still be submitted with the appropriate box ("No Work", "Suspended", or "Complete") checked on the form.

Each submittal shall be accompanied by a statement signed by the Contractor or subcontractor which avers that: (i) such records are true and accurate; (ii) the hourly rate paid to each worker is not less than the general prevailing rate of hourly wages required by the Act; and (iii) the Contractor or subcontractor is aware that filing a payroll record that he/she knows to be false is a Class B misdemeanor.

4. Employee Interviews. The Contractor and each subcontractor shall permit his/her employees to be interviewed on the job, during working hours, by compliance investigators of the Department or the Department of Labor."

## 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."

#### 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.

## THERMOPLASTIC PAVEMENT MARKINGS (BDE)

Effective: January 1, 2007

Revise Article 1095.01(a)(2) of the Standard Specifications to read:

"(2) Pigment. The pigment used for the white thermoplastic compound shall be a high-grade pure (minimum 93 percent) titanium dioxide (TiO<sub>2</sub>). The white pigment content shall be a minimum of ten percent by weight and shall be uniformly distributed throughout the thermoplastic compound.

The pigments used for the yellow thermoplastic compound shall not contain any hazardous materials listed in the Environmental Protection Agency Code of Federal Regulations (CFR) 40, Section 261.24, Table 1. The combined total of RCRA listed heavy metals shall not exceed 100 ppm when tested by X-ray fluorescence spectroscopy. The pigments shall also be heat resistant, UV stable and color-fast yellows, golds, and oranges, which shall produce a compound which shall match Federal Standard 595 Color No. 33538. The pigment shall be uniformly distributed throughout the thermoplastic compound."

Revise Article 1095.01(b)(1)e. of the Standard Specifications to read:

"e. Daylight Reflectance and Color. The thermoplastic compound after heating for four hours ± five minutes at 425 ± 3 °F (218.3 ± 2 °C) and cooled at 77 °F (25 °C) shall meet the following requirements for daylight reflectance and color, when tested, using a color spectrophotometer with 45 degree circumferential/zero degree geometry, illuminant C, and two degree observer angle. The color instrument shall measure the visible spectrum from 380 to 720 nm with a wavelength measurement interval and spectral bandpass of 10 nm.

White: Daylight Reflectance .....75 percent min. \*Yellow: Daylight Reflectance .....45 percent min.

\*Shall meet the coordinates of the following color tolerance chart.

x 0.490 0.475 0.485 0.530 v 0.470 0.438 0.425 0.456"

Revise Article 1095.01(b)(1)k. of the Standard Specifications to read:

"k. Accelerated Weathering. After heating the thermoplastic for four hours ± five minutes at 425 ± 3 °F (218.3 ± 2 °C) the thermoplastic shall be applied to a steel wool abraded aluminum alloy panel (Federal Test Std. No. 141, Method 2013) at a film thickness of 30 mils (0.70 mm) and allowed to cool for 24 hours at room temperature. The coated panel shall be subjected to accelerated weathering using the light and water exposure apparatus (fluorescent UV - condensation type) for 75 hours according to ASTM G 53 (equipped with UVB-313 lamps).

The cycle shall consist of four hours UV exposure at 122 °F (50 °C) followed by four hours of condensation at 104 °F (40 °C). UVB 313 bulbs shall be used. At the end of the exposure period, the panel shall not exceed 10 Hunter Lab Delta E units from the original material."

## BITUMINOUS MATERIALS COST ADJUSTMENTS (BDE) (RETURN FORM WITH BID)

Effective: November 2, 2006 Revised: April 1, 2009

<u>Description</u>. Bituminous material cost adjustments will be made to provide additional compensation to the Contractor, or credit to the Department, for fluctuations in the cost of bituminous materials when optioned by the Contractor. The adjustments shall apply to permanent and temporary hot-mix asphalt (HMA) mixtures, bituminous surface treatments (cover and seal coats), and pavement preservation type surface treatments. The adjustments shall not apply to bituminous prime coats, tack coats, crack filling/sealing, or joint filling/sealing.

The bidder shall indicate on the attached form whether or not this special provision will be part of the contract and submit the completed form with his/her bid. Failure to submit the form, or failure to fill out the form completely, shall make this contract exempt of bituminous materials cost adjustments.

Method of Adjustment. Bituminous materials cost adjustments will be computed as follows.

 $CA = (BPI_P - BPI_L) \times (\%AC_V / 100) \times Q$ 

Where: CA = Cost Adjustment, \$.

BPI<sub>P</sub> = Bituminous Price Index, as published by the Department for the month the work is performed, \$/ton (\$/metric ton).

BPI<sub>L</sub> = Bituminous Price Index, as published by the Department for the month prior to the letting, \$/ton (\$/metric ton).

 $^{\circ}$ AC $_{\vee}$  = Percent of virgin Asphalt Cement in the Quantity being adjusted. For HMA mixtures, the  $^{\circ}$  AC $_{\vee}$  will be determined from the adjusted job mix formula. For bituminous materials applied, a performance graded or cutback asphalt will be considered to be 100% AC $_{\vee}$  and undiluted emulsified asphalt will be considered to be 65% AC $_{\vee}$ .

Q = Authorized construction Quantity, tons (metric tons) (see below).

For HMA mixtures measured in square yards: Q, tons = A x D x ( $G_{mb}$  x 46.8) / 2000. For HMA mixtures measured in square meters: Q, metric tons = A x D x ( $G_{mb}$  x 24.99) / 1000. When computing adjustments for full-depth HMA pavement, separate calculations will be made for the binder and surface courses to account for their different  $G_{mb}$  and %  $AC_{V}$ .

For bituminous materials measured in gallons: Q, tons =  $V \times 8.33$  lb/gal x SG / 2000 For bituminous materials measured in liters: Q, metric tons =  $V \times 1.0$  kg/L x SG / 1000

Where: A = Area of the HMA mixture, sq yd (sq m).

D = Depth of the HMA mixture, in. (mm).

G<sub>mb</sub> = Average bulk specific gravity of the mixture, from the approved mix design.

V = Volume of the bituminous material, gal (L).

SG = Specific Gravity of bituminous material as shown on the bill of lading.

<u>Basis of Payment</u>. Bituminous materials cost adjustments may be positive or negative but will only be made when there is a difference between the  $BPI_L$  and  $BPI_P$  in excess of five percent, as calculated by:

Percent Difference =  $\{(BPI_L - BPI_P) \div BPI_L\} \times 100$ 

Bituminous materials cost adjustments will be calculated for each calendar month in which applicable bituminous material is placed; and will be paid or deducted when all other contract requirements for the work placed during the month are satisfied. The adjustments shall not apply during contract time subject to liquidated damages for completion of the entire contract.

## **RETURN WITH BID**

# ILLINOIS DEPARTMENT OF TRANSPORTATION

## OPTION FOR BITUMINOUS MATERIALS COST ADJUSTMENTS

The bidder shall submit this completed form with his/her bid. Failure to submit the form, or failure to fill out the form completely, shall make this contract exempt of bituminous materials cost adjustments. After award, this form, when submitted, shall become part of the contract.

| Contract No.:      |                   |         | <u> </u>                                 |
|--------------------|-------------------|---------|--|
| Company Name:      |                   |         |  |
| Contractor's Optio | <u>on</u> :       |         |  |
| Is your company op | ting to include t | his spe | ecial provision as part of the contract? |
| Yes                |                   | No      |  |
| Signature:         |                   |         | Date:                                    |

## FUEL COST ADJUSTMENT (BDE) (RETURN FORM WITH BID)

Effective: April 1, 2009

<u>Description</u>. Fuel cost adjustments will be made to provide additional compensation to the Contractor, or a credit to the Department, for fluctuations in fuel prices when optioned by the Contractor. The bidder shall indicate on the attached form whether or not this special provision will be part of the contract and submit the completed form with his/her bid. Failure to submit the form or failure to indicate contract number, company name and sign and date the form shall make this contract exempt of fuel cost adjustments for all categories of work. Failure to indicate "Yes" for any category of work will make that category of work exempt from fuel cost adjustment.

General. The fuel cost adjustment shall apply to contract pay items as grouped by category. The adjustment shall only apply to those categories of work checked "Yes", and only when the cumulative plan quantities for a category exceed the required threshold. Adjustments to work items in a category, either up or down, and work added by adjusted unit price will be subject to fuel cost adjustment only when the category representing the added work was subject to the fuel cost adjustment. Added work paid for by time and materials will not be subject to fuel cost adjustment. Category descriptions and thresholds for application and the fuel usage factors which are applicable to each are as follows:

## (a) Categories of Work.

- (1) Category A: Earthwork. Contract pay items performed under Sections 202, 204, and 206 including any modified standard or nonstandard items where the character of the work to be performed is considered earthwork. The cumulative total of all applicable item plan quantities shall exceed 25,000 cu yd (20,000 cu m). Included in the fuel usage factor is a weighted average 0.10 gal/cu yd (0.50 liters/cu m) factor for trucking.
- (2) Category B: Subbases and Aggregate Base Courses. Contract pay items constructed under Sections 311, 312 and 351 including any modified standard or nonstandard items where the character of the work to be performed is considered construction of a subbase or aggregate, stabilized or modified base course. The cumulative total of all applicable item plan quantities shall exceed 5000 tons (4500 metric tons). Included in the fuel usage factor is a 0.60 gal/ton (2.50 liters/metric ton) factor for trucking.
- (3) Category C: Hot-Mix Asphalt (HMA) Bases, Pavements and Shoulders. Contract pay items constructed under Sections 355, 406, 407 and 482 including any modified standard or nonstandard items where the character of the work to be performed is considered HMA bases, pavements and shoulders. The cumulative total of all applicable item plan quantities shall exceed 5000 tons (4500 metric tons). Included in the fuel usage factor is 0.60 gal/ton (2.50 liters/metric ton) factor for trucking.

- (4) Category D: Portland Cement Concrete (PCC) Bases, Pavements and Shoulders. Contract pay items constructed under Sections 353, 420, 421 and 483 including any modified standard or nonstandard items where the character of the work to be performed is considered PCC base, pavement or shoulder. The cumulative total of all applicable item plan quantities shall exceed 7500 sq yd (6000 sq m). Included in the fuel usage factor is 1.20 gal/cu yd (5.94 liters/cu m) factor for trucking.
- (5) Category E: Structures. Structure items having a cumulative bid price that exceeds \$250,000 for pay items constructed under Sections 502, 503, 504, 505, 512, 516 and 540 including any modified standard or nonstandard items where the character of the work to be performed is considered structure work when similar to that performed under these sections and not included in categories A through D.

## (b) Fuel Usage Factors.

| English Units   |                |                                      |
|---|----------------|--------------------------------------|
| Category  | Factor         | Units                                |
| A - Earthwork   | 0.34           | gal / cu yd                          |
| B – Subbase and Aggregate Base courses                  | 0.62           | gal / ton                            |
| C – HMA Bases, Pavements and Shoulders                  | 1.05           | gal / ton                            |
| D – PCC Bases, Pavements and Shoulders                  | 2.53           | gal / cu yd                          |
| E – Structures  | 8.00           | gal / \$1000                         |
|   |                | -                                    |
| Metric Units  |                |                                      |
| Catagory  |                |                                      |
| Category  | Factor         | Units                                |
| A - Earthwork   | Factor<br>1.68 | Units<br>liters / cu m               |
| <b>5</b> ,  |                |                                      |
| A - Earthwork   | 1.68           | liters / cu m                        |
| A - Earthwork<br>B – Subbase and Aggregate Base courses | 1.68<br>2.58   | liters / cu m<br>liters / metric ton |

## (c) Quantity Conversion Factors.

| Category | Conversion                         | Factor   |
|----------|------------------------------------|--|
| В        | sq yd to ton<br>sq m to metric ton | 0.057 ton / sq yd / in depth<br>0.00243 metric ton / sq m / mm depth |
| С        | sq yd to ton<br>sq m to metric ton | 0.056 ton / sq yd / in depth<br>0.00239 m ton / sq m / mm depth      |
| D        | sq yd to cu yd<br>sq m to cu m     | 0.028 cu yd / sq yd / in depth<br>0.001 cu m / sq m / mm depth       |

Method of Adjustment. Fuel cost adjustments will be computed as follows.

 $CA = (FPI_P - FPI_L) \times (FUF / 100) \times Q$ 

Where: CA = Cost Adjustment, \$

FPI<sub>P</sub> = Fuel Price Index, as published by the Department for the month the work is performed, \$/gal (\$/liter)

FPI<sub>L</sub> = Fuel Price Index, as published by the Department for the month prior to the letting, \$/qal (\$/liter)

FUF = Fuel Usage Factor in the pay item(s) being adjusted

Q = Authorized construction Quantity, tons (metric tons) or cu yd (cu m)

The entire FUF indicated in paragraph (b) will be used regardless of use of trucking to perform the work.

Progress Payments. Fuel cost adjustments will be calculated for each calendar month in which applicable work is performed; and will be paid or deducted when all other contract requirements for the items of work are satisfied. The adjustments shall not apply during contract time subject to liquidated damages for completion of the entire contract.

Final Quantities. Upon completion of the work and determination of final pay quantities, an adjustment will be prepared to reconcile any differences between estimated quantities previously paid and the final quantities. The value for the balancing adjustment will be based on a weighted average of FPI<sub>P</sub> and Q only for those months requiring the cost adjustment. The cost adjustment will be applicable to the final measured quantities of all applicable pay items.

<u>Basis of Payment</u>. Fuel cost adjustments may be positive or negative but will only be made when there is a difference between the  $FPI_L$  and  $FPI_P$  in excess of five percent, as calculated by:

Percent Difference =  $\{(FPI_L - FPI_P) \div FPI_L\} \times 100$ 

## **RETURN WITH BID**

# ILLINOIS DEPARTMENT OF TRANSPORTATION

## OPTION FOR FUEL COST ADJUSTMENT

The bidder shall submit this completed form with his/her bid. Failure to submit the form or properly complete contract number, company name, and sign and date the form shall make this contract exempt of fuel cost adjustments in all categories. Failure to indicate "Yes" for any category of work at the time of bid will make that category of work exempt from fuel cost adjustment. After award, this form, when submitted shall become part of the contract.

| Contract No.:  |          |                                  |
|--|----------|----------------------------------|
| Company Name:  |          |                                  |
| Contractor's Option:   |          |                                  |
| Is your company opting to include this special provision following categories of work? | on as pa | rt of the contract plans for the |
| Category A Earthwork.  | Yes      |                                  |
| Category B Subbases and Aggregate Base Courses   | Yes      |                                  |
| Category C HMA Bases, Pavements and Shoulders  | Yes      |                                  |
| Category D PCC Bases, Pavements and Shoulders  | Yes      |                                  |
| Category E Structures  | Yes      |                                  |
| Signatura  |          | Doto                             |

## ILLINOIS DEPARTMENT OF LABOR

## PREVAILING WAGES FOR LAKE COUNTY EFFECTIVE MAY 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 <a href="http://www.state.il.us/agency/idol/">http://www.state.il.us/agency/idol/</a> 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.

## **Lake County Prevailing Wage for May 2009**

| Trade Name                            |    |            | -      | Base             | FRMAN *          |             |     |     |                | Pensn          | Vac   | Trng  |
|---------------------------------------|----|------------|--------|------------------|------------------|-------------|-----|-----|----------------|----------------|-------|-------|
| AGDEGEOG ADE GEN                      | == |            | =      |                  | =====            |             |     |     |                |                |       | ===== |
| ASBESTOS ABT-GEN                      |    | ALL        |        |                  |                  | 1.5         |     | 2.0 | 8.830          | 6.170          | 0.000 | 0.270 |
| ASBESTOS ABT-MEC                      |    | BLD        |        | 29.930           | 0.000<br>44.940  | 2.0         | 2.0 |     | 9.170<br>6.720 |                | 0.000 | 0.320 |
| BOILERMAKER<br>BRICK MASON            |    | BLD<br>BLD |        | 38.030           | 44.940           |             | 1.5 |     | 8.000          |                |       | 0.550 |
| CARPENTER                             |    | ALL        |        | 39.770           |                  | 1.5         | 1.5 | 2.0 | 9.460          |                |       | 0.330 |
| CEMENT MASON                          |    | ALL        |        |                  |                  | 2.0         | 1.5 |     |                | 10.33          |       |       |
| CERAMIC TILE FNSHER                   |    | BLD        |        | 32.150           |                  | 2.0         |     |     |                | 7.370          |       |       |
| COMMUNICATION TECH                    |    | BLD        |        |                  |                  | 1.5         |     |     |                | 8.720          |       |       |
| ELECTRIC PWR EQMT OP                  |    | ALL        |        |                  |                  | 1.5         |     |     |                | 8.530          |       |       |
| ELECTRIC PWR GRNDMAN                  |    | ALL        |        | 23.630           | 39.170           | 1.5         | 1.5 | 2.0 | 4.750          | 6.620          | 0.000 | 0.180 |
| ELECTRIC PWR LINEMAN                  |    | ALL        |        | 36.270           | 39.170           | 1.5         | 1.5 | 2.0 | 4.750          | 10.16          | 0.000 | 0.270 |
| ELECTRIC PWR TRK DRV                  |    | ALL        |        | 24.400           | 39.170           | 1.5         | 1.5 | 2.0 | 4.750          | 6.830          | 0.000 | 0.180 |
| ELECTRICIAN                           |    | BLD        |        | 36.680           | 40.350           | 1.5         | 1.5 | 2.0 | 10.27          | 11.01          | 1.470 | 0.520 |
| ELEVATOR CONSTRUCTOR                  |    | BLD        |        | 44.930           |                  | 2.0         | 2.0 | 2.0 |                | 8.210          |       | 0.000 |
| FENCE ERECTOR                         |    | ALL        |        |                  |                  | 1.5         | 1.5 | 2.0 |                | 8.430          |       | 0.500 |
| GLAZIER                               |    | BLD        |        |                  |                  | 1.5         | 1.5 |     |                | 12.05          |       |       |
| HT/FROST INSULATOR                    |    | BLD        |        |                  |                  | 1.5         | 1.5 |     |                | 10.46          |       |       |
| IRON WORKER                           |    | ALL        |        |                  |                  | 2.0         | 2.0 |     |                | 14.74          |       |       |
| LABORER<br>LATHER                     |    | ALL        |        |                  | 35.500<br>41.770 | 1.5         | 1.5 |     | 8.830<br>9.460 |                | 0.000 |       |
| MACHINIST                             |    | ALL<br>BLD |        |                  |                  | 1.5         | 1.5 |     | 7.000          |                | 0.650 |       |
| MARBLE FINISHERS                      |    | ALL        |        | 28.650           | 0.000            |             | 1.5 |     | 7.920          |                |       | 0.550 |
| MARBLE MASON                          |    | BLD        |        |                  |                  | 1.5         | 1.5 |     | 8.000          |                |       | 0.550 |
| MATERIAL TESTER I                     |    | ALL        |        | 24.750           |                  | 1.5         | 1.5 |     |                |                | 0.000 |       |
| MATERIALS TESTER II                   |    | ALL        |        | 29.750           | 0.000            | 1.5         | 1.5 | 2.0 | 8.830          | 6.170          | 0.000 | 0.270 |
| MILLWRIGHT                            |    | ALL        |        | 39.770           | 41.770           | 1.5         | 1.5 |     | 9.460          |                | 0.000 | 0.490 |
| OPERATING ENGINEER                    |    |            |        | 43.800           |                  | 2.0         | 2.0 |     | 9.600          |                |       | 1.000 |
| OPERATING ENGINEER                    |    |            |        | 42.500           |                  | 2.0         |     |     | 9.600          |                |       | 1.000 |
| OPERATING ENGINEER                    |    |            |        | 39.950           |                  | 2.0         | 2.0 |     |                | 6.550          |       |       |
| OPERATING ENGINEER                    |    |            |        | 38.200           |                  | 2.0         | 2.0 |     | 9.600          |                | 1.900 |       |
| OPERATING ENGINEER OPERATING ENGINEER |    | FLT<br>FLT | 1<br>2 | 47.250<br>45.750 |                  | 1.5         | 1.5 | 2.0 | 6.850<br>6.850 |                | 1.900 | 0.000 |
| OPERATING ENGINEER                    |    |            | 3      | 40.700           |                  | 1.5         | 1.5 | 2.0 |                | 5.600          |       |       |
| OPERATING ENGINEER                    |    |            |        |                  |                  | 1.5         | 1.5 |     |                |                |       |       |
| OPERATING ENGINEER                    |    |            |        | 42.000           |                  | 1.5         | 1.5 | 2.0 |                | 6.550          |       | 1.000 |
| OPERATING ENGINEER                    |    | HWY        | 2      | 41.450           |                  | 1.5         |     |     |                | 6.550          |       | 1.000 |
| OPERATING ENGINEER                    |    | HWY        | 3      | 39.400           | 46.000           | 1.5         | 1.5 | 2.0 | 9.600          | 6.550          | 1.900 | 1.000 |
| OPERATING ENGINEER                    |    | HWY        | 4      | 38.000           | 46.000           | 1.5         | 1.5 | 2.0 | 9.600          | 6.550          | 1.900 | 1.000 |
| OPERATING ENGINEER                    |    | HWY        | 5      | 36.800           | 46.000           | 1.5         | 1.5 | 2.0 | 9.600          | 6.550          | 1.900 | 1.000 |
| ORNAMNTL IRON WORKER                  |    | ALL        |        |                  | 41.300           |             |     |     |                | 13.19          |       |       |
| PAINTER                               |    | ALL        |        |                  | 41.510           |             |     |     |                | 8.400          |       |       |
| PAINTER SIGNS                         |    | BLD        |        |                  | 34.600           |             |     |     |                | 2.470          |       |       |
| PILEDRIVER                            |    | ALL        |        |                  | 41.770<br>45.050 |             |     |     |                | 7.790          |       |       |
| PIPEFITTER<br>PLASTERER               |    | BLD<br>BLD |        |                  | 39.050           |             |     |     |                | 8.550<br>10.33 |       |       |
| PLUMBER                               |    | BLD        |        |                  | 41.500           |             |     |     |                | 8.250          |       |       |
| ROOFER                                |    | BLD        |        |                  | 39.400           |             |     |     |                | 4.670          |       |       |
| SHEETMETAL WORKER                     |    | BLD        |        |                  | 42.260           |             |     |     |                | 11.83          |       |       |
| SIGN HANGER                           |    | BLD        |        |                  | 28.210           |             |     |     |                | 2.530          |       |       |
| SPRINKLER FITTER                      |    | BLD        |        | 40.500           | 42.500           | 1.5         | 1.5 | 2.0 | 8.500          | 6.850          | 0.000 | 0.500 |
| STEEL ERECTOR                         |    | ALL        |        | 40.250           | 42.250           | 2.0         | 2.0 | 2.0 | 9.950          | 14.74          | 0.000 | 0.300 |
| STONE MASON                           |    | BLD        |        |                  | 41.830           |             |     |     |                | 9.970          |       |       |
| TERRAZZO FINISHER                     |    | BLD        |        | 33.810           | 0.000            |             |     |     |                | 9.850          |       |       |
| TERRAZZO MASON                        |    | BLD        |        |                  | 40.390           |             |     |     |                | 11.11          |       |       |
| TILE MASON                            |    | BLD        |        |                  | 42.630           |             |     |     |                | 9.010          |       |       |
| TRAFFIC SAFETY WRKR TRUCK DRIVER      |    | HWY        |        |                  | 25.900<br>32.750 |             |     |     |                | 1.875<br>5.500 |       |       |
| TRUCK DRIVER                          |    |            |        |                  | 32.750           |             |     |     |                | 5.500          |       |       |
| INCOME DIVINE                         |    | للىد،      |        | 52.550           | 54.150           | <b>4.</b> J | 1.5 | 4.0 | 5.700          | 5.500          | 0.000 | 0.100 |

| 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   | 38.200 | 39.200 1 | .5 1.5 | 2.0 | 6.580 | 9.550 | 0.000 | 0.280 |

#### 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 mateiral 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 installatin 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 experiors 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 experior which sare 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.

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.

### OPERATING ENGINEERS - BUILDING

Class 1. Mechanic; Asphalt Plant; Asphalt Spreader; Autograde; Backhoes with Caisson attachment; Batch Plant; Benoto; 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 Paver; 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; Pile Drivers and Skid Rig; Post Hole Digger; Pre-Stress Machine; Pump Cretes Dual Ram; Pump Cretes; Squeeze Cretes-screw Type Pumps; 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; Greaser Engineer; Highlift Shovels or Front Endloaders under 2-1/4

- yd.; Hoists, Automatic; Hoists, inside Freight Elevators; Hoists, Sewer Dragging Machine; Hoists, Tugger Single Drum; Laser Screed; 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 (Rheostat Manual Controlled); Hydraulic Power Units (Pile Driving, Extracting, and Drilling); Pumps, over 3" (1 to 3 not to exceed a total of 300 ft.); Pumps, Well Points; Welding Machines (2 through 5); Winches, 4 small Electric Drill Winches; Bobcat (up to and including 3/4 cu.yd.).
- Class 4. Bobcats and/or other Skid Steer Loaders; Oilers; and Brick Forklift.

## OPERATING ENGINEERS - FLOATING

- Class 1. Craft foreman (Master Mechanic), diver/wet tender, engineer (hydraulic dredge).
- Class 2. Crane/backhoe operator, mechanic/welder, assistant engineer (hydraulic dredge), leverman (hydraulic dredge), and diver tender.
- Class 3. Deck equipment operator (machineryman), maintenance of crane (over 50 ton capacity) or backhoe (96,000 pounds or more), tug/launch operator, loader, dozer and like equipment on barge, breakwater wall, slip/dock or scow, deck machinery, etc.
- Class 4. Deck equipment operator (machineryman/fireman), (4 equipment units or more) and crane maintenance 50 ton capacity and under or backhoe weighing 96,000 pounds or less, assistant tug operator. OPERATING ENGINEERS - HEAVY AND HIGHWAY CONSTRUCTION Class 1. Craft Foreman; 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, Hammerhead, Linden, Peco & Machines of a like nature; Crete Crane; Crusher, Stone, etc.; Derricks, All; Derrick Boats; Derricks, Traveling; Dowell machine with Air Compressor; Dredges; Field Mechanic-Welder; Formless Curb and Gutter Machine; Gradall and Machines of a like nature; Grader, Elevating; Grader, Motor Grader, Motor Patrol, Auto Patrol, Form Grader, Pull Grader, Subgrader; Guard Rail Post Driver Mounted; Hoists, One, Two and Three Drum; Hydraulic Backhoes; Backhoes with shear attachments; Mucking Machine; Pile Drivers and Skid Rig; Pre-Stress Machine; Pump Cretes Dual Ram; Rock Drill - Crawler or Skid Rig; Rock Drill - Truck Mounted; 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; 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; Greaser Engineer; Highlift Shovels or Front Endloader; Hoist - Sewer Dragging Machine; Hydraulic Boom Trucks (All Attachments); Hydro-Blaster; All Locomotives, Dinky; Pump Cretes; Squeeze Cretes-Screw Type Pumps, Gypsum Bulker and Pump; Roller, Asphalt; Rotory 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; 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.

#### 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 618/993-7271 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.