#### **BID PROPOSAL INSTRUCTIONS**

**ABOUT IDOT PROPOSALS:** All proposals are potential bidding proposals. Each proposal contains all certifications and affidavits, a proposal signature sheet and a proposal bid bond.

#### **PREQUALIFICATION**

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

#### 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.

#### **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 124) 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.

#### WHAT CONSTITUTES WRITTEN AUTHORIZATION TO BID?

When a prospective prime bidder submits a "Request for Authorization to Bid/or Not For Bid Status" (BDE 124) he/she must indicate at that time which items are being requested For Bidding purposes. Only those items requested For Bidding will be analyzed. After the request has been analyzed, the bidder will be issued an **Authorization to Bid or Not for Bid Report**, approved by the Central Bureau of Construction and the Chief Procurement Officer that indicates which items have been approved For Bidding. If **Authorization to Bid** cannot be approved, the **Authorization to Bid or Not for Bid Report** will indicate the reason for denial.

#### **ABOUT AUTHORIZATION TO BID**

Firms that have not received an Authorization to Bid or Not For Bid Report within a reasonable time of complete and correct original document submittal should contact the Department as to the status. 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 bidder'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 or revision will be included with the Electronic Plans and Proposals. 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 service emails are an added courtesy the Department provides. It is suggested that bidders check IDOT's website at <a href="http://www.idot.illinois.gov/doing-business/procurements/construction-services/construction-bulletins/transportation-bulletin/index#TransportationBulletin">http://www.idot.illinois.gov/doing-business/procurements/construction-services/construction-bulletins/transportation-bulletin/index#TransportationBulletin</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 DOT.D&Econtracts@illlinois.gov

Technical questions about downloading these files may be directed to Tim Garman at (217)524-1642 or <a href="mailto:Timothy.Garman@illinois.gov">Timothy.Garman@illinois.gov</a>.

#### STANDARD GUIDELINES FOR SUBMITTING BIDS

- All pages should be single sided.
- Use the Cover Page that is provided in the Bid Proposal (posted on the IDOT Web Site) as the first page of your submitted bid. It has the item number in large bold type in the upper left-hand corner and lines provided for your company name and address in the upper right-hand corner.
- Do not use report covers, presentation folders or special bindings and do not staple multiple times on left side like a book. Use only 1 staple in the upper left hand corner. Make sure all elements of your bid are stapled together including the bid bond or guaranty check (if required).
- Do not include any certificates of eligibility, your authorization to bid, Addendum Letters or affidavit of availability.
- Do not include the Subcontractor Documentation with your bid (pages i iii and pages a g). This documentation is required only if you are awarded the project.
- Use the envelope cover sheet (provided with the proposal) as the cover for the proposal envelope.
- Do not rely on overnight services to deliver your proposal prior to 10 AM on letting day. It will not be read if it is delivered after 10 AM.
- Do not submit your Substance Abuse Prevention Program (SAPP) with your bid. If you are awarded the contract this form is to be submitted to the district engineer at the pre-construction conference.

#### **BID SUBMITTAL CHECKLIST**

| Cover page (the sheet that has the item number on it) – This should be the first page of your bid proposal, followed by your bid (the Schedule of Prices/Pay Items). If you are using special software or CBID to generate your schedule of prices, do not include the blank pages of the schedule of prices that came with the proposal package.   |
|---|
| ☐ Page 4 (Item 9) — Check "YES" if you will use a subcontractor(s) with an annual value over \$50,000. Include the subcontractor(s) name, address, general type of work to be performed and the dollar amount. If you will use subcontractor(s) but are uncertain who or the dollar amount; check "YES" but leave the lines blank.  |
| ☐ <b>After page 4</b> – Insert the following documents: Cost Adjustments for Steel, Bituminous and Fuel (if applicable) and the Contractor Letter of Assent (if applicable). The general rule should be, if you don't know where it goes, put it after page 4.  |
| ☐ Page 10 (Paragraph J) – Check "YES" or "NO" whether your company has any business in Iran.  |
| ☐ Page 10 (Paragraph K) – (Not applicable to federally funded projects) List the name of the apprenticeship and training program sponsor holding the certificate of registration from the US Department of Labor. If no applicable program exists, please indicate the work/job category. Do not include certificates with your bid. Keep the certificates in your office in case they are requested by IDOT.   |
| ☐ Page 11 (Paragraph L) – A copy of your State Board of Elections certificate of registration is no longer required with your bid.  |
| ☐ Page 11 (Paragraph M) – Indicate if your company has hired a lobbyist in connection with the job for which you are submitting the bid proposal.   |
| ☐ Page 12 (Paragraph C) – This is a work sheet to determine if a completed Form A is required. It is not part of the form and you do not need to make copies for each completed Form A.   |
| □ Pages 14-17 (Form A) – One Form A (4 pages) is required for each applicable person in your company. Copies of the forms can be used and only need to be changed when the information changes. The certification signature and date must be original for each letting. Do not staple the forms together. If you answered "NO" to all of the questions in Paragraph C (page 12), complete the first section (page 14) with your company information and then sign and date the Not Applicable statement on page 17.   |
| Page 18 (Form B) - If you check "YES" to having other current or pending contracts it is acceptable to use the phrase, "See Affidavit of Availability on file". Ownership Certification (at the bottom of the page) - Check N/A if the Form A(s) you submitted accounts for 100 percent of the company ownership. Check YES if any percentage of ownership falls outside of the parameters that require reporting on the Form A. Checking NO indicates that the Form A(s) you submitted is not correct and you will be required to submit a revised Form A. |
| ☐ Page 20 (Workforce Projection) – Be sure to include the Duration of the Project. It is acceptable to use the phrase "Per Contract Specifications".  |

| ☐ <b>Proposal Bid Bond</b> – (Insert after the proposal signature page) Submit you using the current Proposal Bid Bond form provided in the proposal package. the Proposal Bid Bond. If you are using an electronic bond, include your bid the Proof of Insurance printed from the Surety's Web Site. | The Power of Attorney page should be stapled to  |
|---|--|
| ☐ <b>Disadvantaged Business Utilization Plan and/or Good Faith Effort</b> – T Utilization Plan (SBE 2026), followed by the DBE Participation Statement (SB documentation of a Good Faith Effort, it is to follow the SBE Forms.   |  |
| The Bid Letting is now available in streaming Audio/Video from the IDOT the main page of the current letting on the day of the Letting. The stream will bids does not begin until approximately 10:30 AM.   | <b>T Web Site.</b> A link to the stream will be placed on not begin until 10 AM. The actual reading of the |
| Following the Letting, the As-Read Tabulation of Bids will be posted by the en Web page for the current letting.  | nd of the day. You will find the link on the main  |
| QUESTIONS: pre-letting up to execution of the contract  |  |
| Contractor pre-qualification  | 217-782-3413   |
| Small Business, Disadvantaged Business Enterprise (DBE)   |  |
| Contracts, Bids, Letting process or Internet downloads  |  |
| Estimates Unit  |  |
| Aeronautics   |  |
| IDNR (Land Reclamation, Water Resources, Natural Resources)   | 217-782-6302   |
| QUESTIONS: following contract execution   |  |
| Subcontractor documentation, payments   | 217-782-3413   |
| Railroad Insurance  | 217-785-0275   |
|   |  |

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

#### Letting November 6, 2015

#### 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.

**BIDDERS NEED NOT RETURN THE ENTIRE PROPOSAL** 

## Notice to Bidders, Specifications, Proposal, Contract and Contract Bond



Springfield, Illinois 62764

Contract No. 70599
CHAMPAIGN County
Section 106BR-1(2)
Route FAS 502
Project ACRS-0502(111)
District 5 Construction Funds

| PLEASE MARK THE APPROPRIATE BOX BELOW:                    |  |
|---|--|
| ☐ A <u>Bid</u> <u>Bond</u> is included.                   |  |
| A Cashier's Check or a Certified Check is included        |  |
| ☐ An Annual Bid Bond is included or is on file with IDOT. |  |

Prepared by

Checked by

'

(Printed by authority of the State of Illinois)

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1

#### **PROPOSAL**

#### TO THE DEPARTMENT OF TRANSPORTATION

| • | Proposal of   |
|---|---|
|   | Taxpayer Identification Number (Mandatory)  For the improvement identified and advertised for bids in the Invitation for Bids as: |
|   | Contract No. 70599 CHAMPAIGN County Section 106BR-1(2) Project ACRS-0502(111) Route FAS 502 District 5 Construction Funds         |

This project consists of replacing the bridge carrying Leverett Road over a ditch west of Leverett (SN 010-0131).

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 will govern performance and payments.

- 3. **ASSURANCE OF EXAMINATION AND INSPECTION/WAIVER.** The undersigned bidder further declares that he/she has carefully examined the proposal, plans, specifications, addenda 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 bid proposal he/she waives all right to plead any misunderstanding regarding the same.
- 4. **EXECUTION OF CONTRACT AND CONTRACT BOND.** The undersigned bidder 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, or as specified in the special provisions, 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>    | ount c |                  | roposal<br>luaranty |
|-------------|---------|-------------|-----------------------------|--------------|--------|------------------|---------------------|
| 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\$   | 3400,000            |
| \$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\$   | 000,008             |
| \$1,000,000 | to      | \$1,500,000 | \$50,000                    | \$30,000,000 | to     | \$35,000,000\$   | 3900,000            |
| \$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 bid proposals will be made payable to the Treasurer, State of Illinois.

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

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

| undersigned.   |                | sine told of the proposal guaranty officer, will be foldined to the |
|--|----------------|---|
| Attach Cashier's C   | heck or Certif | ied Check Here  |
| In the event that one proposal guaranty check is intended to cover two of the proposal guaranties which would be required for each individual proposal, state below where it may be found. |                |   |
| The proposal guaranty check will be found in the bid proposal for:   | Item           |   |
|  | Section No.    |   |
|  | County         |   |
|  |                |   |

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

| 6.  | following combination proportion to the  | BIDS. The undersigned bidder further agrees that if awarded the ation, he/she will perform the work in accordance with the requirement bid specified in the schedule below, and that the combination bid bid submitted for the same. If an error is found to exist in the gross in a combination, the combination bid shall be corrected as provide   | ents of each individual contract comprisir<br>shall be prorated against each section<br>s sum bid for one or more of the individu   |
|-----|--|---|---|
|     |  | a combination bid is submitted, the schedule below must be coising the combination.   | ompleted in each proposal   |
|     |  | nate bids are submitted for one or more of the sections compri<br>nation bid must be submitted for each alternate.  | sing the combination, a   |
|     |  | Schedule of Combination Bids  |   |
| Со  | mbination<br>No.   | Sections Included in Combination  | Combination Bid<br>Dollars Cents  |
|     |  |   |   |
|     |  |   |   |
|     |  |   |   |
|     |  |   |   |
| 7.  | schedule of price<br>all extensions ar<br>schedule are app<br>is an error in the<br>will be made only<br>The scheduled q | PRICES. The undersigned bidder submits herewith, in accordant is for the items of work for which bids are sought. The unit prices and summations have been made. The bidder understands that proximate and are provided for the purpose of obtaining a gross surextension of the unit prices, the unit prices will govern. Payment to actual quantities of work performed and accepted or materials unantities of work to be done and materials to be furnished may be the in the contract. | bid are in U.S. dollars and cents, and<br>the quantities appearing in the bid<br>in for the comparison of bids. If there<br>to the contractor awarded the contract<br>is furnished according to the contract. |
| 8.  | 500/20-43) provid  | DO BUSINESS IN ILLINOIS. Section 20-43 of the Illinois Produces that a person (other than an individual acting as a sole proprietor or conduct affairs in the State of Illinois prior to submitting the bid.  |   |
| 9.  | Department proc<br>and make payme<br>Purchasing Office<br>Neither the CPO  | F CONTRACT: The Department of Transportation will, in accurements, execute the contract and shall be the sole entity having ents under the contract. Execution of the contract by the Chief Proper (SPO) is for approval of the procurement process and execution on the SPO shall be responsible for administration of the coayment there under except as otherwise permitted in the Code.   | the authority to accept performance ocurement Officer (CPO) or the State of the contract by the Department.   |
| 10. | The services of  | a subcontractor will be used.   |   |
|     | Check box<br>Check box   | Yes  No   |   |
|     |  | ubcontractors with subcontracts with an annual value of more than \$ address, general type of work to be performed, and the dollar allocat 0/20-120)  |   |

# ILLINOIS DEPARTMENT OF TRANSPORTATION SCHEDULE OF PRICES CONTRACT NUMBER - 70599

State Job # - C-95-113-06

Project Number Route
ACRS-0502/111/ FAS 502

County Name - CHAMPAIGN- -

Code - 19 - - District - 5 - -

Section Number - 106BR-1(2)

| ltem<br>Number | Pay Item Description  | Unit of<br>Measure | Quantity  | х | Unit Price | = | Total Price |
|----------------|-----------------------|--------------------|-----------|---|------------|---|-------------|
| X4020500       | AGG SURF CSE B 6      | SQ YD              | 167.000   |   |            |   |             |
| X5860110       | GRANULAR BACKFILL STR | CU YD              | 109.000   |   |            |   |             |
| X7010216       | TRAF CONT & PROT SPL  | L SUM              | 1.000     |   |            |   |             |
| Z0004552       | APPROACH SLAB REM     | SQ YD              | 174.000   |   |            |   |             |
| Z0038700       | PERMNT BENCH MARKS    | EACH               | 1.000     |   |            |   |             |
| Z0046304       | P UNDR FOR STRUCT 4   | FOOT               | 155.000   |   |            |   |             |
| 20200100       | EARTH EXCAVATION      | CU YD              | 75.000    |   |            |   |             |
| 20300100       | CHANNEL EXCAVATION    | CU YD              | 160.000   |   |            |   |             |
| 20400800       | FURNISHED EXCAVATION  | CU YD              | 310.000   |   |            |   |             |
| 25000210       | SEEDING CL 2A         | ACRE               | 0.500     |   |            |   |             |
| 25000400       | NITROGEN FERT NUTR    | POUND              | 45.000    |   |            |   |             |
| 25000500       | PHOSPHORUS FERT NUTR  | POUND              | 45.000    |   |            |   |             |
| 25000600       | POTASSIUM FERT NUTR   | POUND              | 45.000    |   |            |   |             |
| 25100630       | EROSION CONTR BLANKET | SQ YD              | 2,404.000 |   |            |   |             |
| 28000250       | TEMP EROS CONTR SEED  | POUND              | 100.000   |   |            |   |             |

# ILLINOIS DEPARTMENT OF TRANSPORTATION SCHEDULE OF PRICES CONTRACT NUMBER - 70599

State Job # - C-95-113-06

Project Number Route
ACRS-0502/111/ FAS 502

County Name - CHAMPAIGN- -

Code - 19 - - District - 5 - -

Section Number - 106BR-1(2)

| ltem<br>Number | Pay Item Description  | Unit of<br>Measure | Quantity  | x | Unit Price | = | Total Price |
|----------------|-----------------------|--------------------|-----------|---|------------|---|-------------|
| 28000305       | TEMP DITCH CHECKS     | FOOT               | 70.000    |   |            |   |             |
| 28000400       | PERIMETER EROS BAR    | FOOT               | 972.000   |   |            |   |             |
| 28000500       | INLET & PIPE PROTECT  | EACH               | 1.000     |   |            |   |             |
| 28100111       | STONE RIPRAP CL A6    | SQ YD              | 744.000   |   |            |   |             |
| 28200200       | FILTER FABRIC         | SQ YD              | 744.000   |   |            |   |             |
| 40600275       | BIT MATLS PR CT       | POUND              | 1,558.000 |   |            |   |             |
| 40603080       | HMA BC IL-19.0 N50    | TON                | 406.000   |   |            |   |             |
| 40603310       | HMA SC "C" N50        | TON                | 206.000   |   |            |   |             |
| 42001430       | BR APPR PVT CON (FLX) | SQ YD              | 43.000    |   |            |   |             |
| 44000100       | PAVEMENT REM          | SQ YD              | 134.000   |   |            |   |             |
| 44000159       | HMA SURF REM 2 1/2    | SQ YD              | 1,245.000 |   |            |   |             |
| 48101500       | AGGREGATE SHLDS B 6   | SQ YD              | 264.000   |   |            |   |             |
| 50100100       | REM EXIST STRUCT      | EACH               | 1.000     |   |            |   |             |
| 50105220       | PIPE CULVERT REMOV    | FOOT               | 77.000    |   |            |   |             |
| 50200100       | STRUCTURE EXCAVATION  | CU YD              | 239.000   |   |            |   |             |

# ILLINOIS DEPARTMENT OF TRANSPORTATION SCHEDULE OF PRICES CONTRACT NUMBER - 70599

State Job # - C-95-113-06

County Name - CHAMPAIGN- - Project Number ACRS-0502/111/

Route FAS 502

Code - 19 - - District - 5 - -

Section Number - 106BR-1(2)

| ltem<br>Number | Pay Item Description  | Unit of<br>Measure | Quantity   | X | Unit Price | = | Total Price |
|----------------|-----------------------|--------------------|------------|---|------------|---|-------------|
| 50300225       | CONC STRUCT           | CU YD              | 65.900     |   |            |   |             |
| 50300255       | CONC SUP-STR          | CU YD              | 92.800     |   |            |   |             |
| 50400505       | P P CONC DK BM 27 DP  | SQ FT              | 2,145.000  |   |            |   |             |
| 50800205       | REINF BARS, EPOXY CTD | POUND              | 30,520.000 |   |            |   |             |
| 50901050       | STEEL RAILING TY SM   | FOOT               | 194.000    |   |            |   |             |
| 51200957       | FUR M S PILE 12X0.250 | FOOT               | 540.000    |   |            |   |             |
| 51202305       | DRIVING PILES         | FOOT               | 540.000    |   |            |   |             |
| 51203200       | TEST PILE MET SHELLS  | EACH               | 2.000      |   |            |   |             |
| 51204650       | PILE SHOES            | EACH               | 12.000     |   |            |   |             |
| 51500100       | NAME PLATES           | EACH               | 1.000      |   |            |   |             |
| 542D5476       | P CUL CL D 1 EQRS 21  | FOOT               | 52.000     |   |            |   |             |
| 54215766       | MET END SEC EQV RS 21 | EACH               | 2.000      |   |            |   |             |
| 58100200       | WATERPRF MEMBRANE SYS | SQ YD              | 238.000    |   |            |   |             |
| 58300100       | PC MORTAR FAIRING CSE | FOOT               | 469.000    |   |            |   |             |
| 59100100       | GEOCOMPOSITE WALL DR  | SQ YD              | 61.000     |   |            |   |             |

#### **ILLINOIS DEPARTMENT OF TRANSPORTATION SCHEDULE OF PRICES** CONTRACT 70599 **NUMBER -**

C-95-113-06 State Job # -

County Name -CHAMPAIGN--

Code -19 - -District -5 - -

Section Number -106BR-1(2)

| Project Number | Route   |
|----------------|---------|
| ACRS-0502/111/ | FAS 502 |

| Item<br>Number | Pay Item Description  | Unit of<br>Measure | Quantity  | X | Unit Price | = | Total Price |
|----------------|-----------------------|--------------------|-----------|---|------------|---|-------------|
| 60500050       | REMOV CATCH BAS       | EACH               | 1.000     |   |            |   |             |
| 63000001       | SPBGR TY A 6FT POSTS  | FOOT               | 125.000   |   |            |   |             |
| 63100087       | TRAF BAR TERM T6A     | EACH               | 4.000     |   |            |   |             |
| 63100167       | TR BAR TRM T1 SPL TAN | EACH               | 1.000     |   |            |   |             |
| 63100169       | TR BAR TRM T1 SPL FLR | EACH               | 3.000     |   |            |   |             |
| 63200310       | GUARDRAIL REMOV       | FOOT               | 373.000   |   |            |   |             |
| 67000400       | ENGR FIELD OFFICE A   | CAL MO             | 5.000     |   |            |   |             |
| 67100100       | MOBILIZATION          | L SUM              | 1.000     |   |            |   |             |
| 70300100       | SHORT TERM PAVT MKING | FOOT               | 57.000    |   |            |   |             |
| 70301000       |                       | SQ FT              | 19.000    |   |            |   |             |
| 78001110       | PAINT PVT MK LINE 4   | FOOT               | 1,282.000 |   |            |   |             |
| 78200410       |                       | EACH               | 9.000     |   |            |   |             |
| 78201000       |                       | EACH               | 4.000     |   |            |   |             |

| CONTRACT NUMBER       | 70599 |    |
|-----------------------|-------|----|
| THIS IS THE TOTAL BID |       | ¢. |
| THIS IS THE TOTAL BID |       | 5  |

#### 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 Code establishes the duty of all State CPOs, SPOs, 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. Except as otherwise required in subsection III, paragraphs J-M, by execution of the Proposal Signature Sheet, the bidder indicates that each of the mandated assurances have 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 the CPO to void the contract, and may result in the suspension or debarment of the bidder or subcontractor. If a false certification is made by a subcontractor the contractor's submitted bid and the executed contract may not be declared void unless the contractor refuses to terminate the subcontract upon the State's request after a finding that the subcontractor's certification was false.
- ☐ I acknowledge, understand and accept these terms and conditions.

#### II. ASSURANCES

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.

#### A. Conflicts of Interest

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 State 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 State 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 calendar 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.

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. Information concerning the exemption process is available from the Department upon request.

#### B. Negotiations

Section 50-15. Negotiations.

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.

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.

#### C. Inducements

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 provide a submission to a vendor portal or 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, not making a submission to a vendor portal, or who withholds a bid or submission to a vendor portal in consideration of the promise for the payment of money or other valuable thing is guilty of a Class 4 felony.

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.

#### D. Revolving Door Prohibition

Section 50-30. Revolving door prohibition.

CPOs, SPOs, procurement compliance monitors, 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.

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.

#### E. Reporting Anticompetitive Practices

Section 50-40. Reporting anticompetitive practices.

When, for any reason, any vendor, bidder, contractor, CPO, SPO, 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 CPO.

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 or submission to a vendor portal is submitted.

#### F. Confidentiality

Section 50-45. Confidentiality.

Any CPO, SPO, 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.

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.

#### G. Insider Information

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.

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.

☐ I acknowledge, understand and accept these terms and conditions for the above assurances.

#### **III. CERTIFICATIONS**

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. Section 50-2 of the Code provides that every person that has entered into a multi-year contract and every subcontractor with a multi-year subcontract shall certify, by July 1 of each fiscal year covered by the contract after the initial fiscal year, to the responsible CPO whether it continues to satisfy the requirements of Article 50 pertaining to the eligibility for a contract award. If a contractor or subcontractor is not able to truthfully certify that it continues to meet all requirements, it shall provide with its certification a detailed explanation of the circumstances leading to the change in certification status. A contractor or subcontractor that makes a false statement material to any given certification required under Article 50 is, in addition to any other penalties or consequences prescribed by law, subject to liability under the Whistleblower Reward and Protection Act for submission of a false claim.

#### A. Bribery

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, or subcontracting under such a contract, 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, or which is signatory to the contract which the subcontract relates, 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 2012.
- (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, and every subcontract subject to Section 20-120 of the Code shall contain a certification by the contractor or the subcontractor, respectively, that the contractor or subcontractor is not barred from being awarded a contract or subcontract under this Section and acknowledges that the CPO may declare the related contract void if any certifications required by this Section are false. A contractor who makes a false statement, material to the certification, commits a Class 3 felony.

The contractor or subcontractor certifies that it is not barred from being awarded a contract under Section 50-5.

#### B. Felons

Section 50-10. Felons.

- (a) Unless otherwise provided, no person or business convicted of a felony shall do business with the State of Illinois or any State agency, or enter into a subcontract, 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.
- (b) Certification. Every bid submitted to and contract executed by the State and every subcontract subject to Section 20-120 of the Code and every vendor's submission to a vendor portal shall contain a certification by the bidder or contractor or subcontractor, respectively, that the bidder, contractor, or subcontractor is not barred from being awarded a contract or subcontract under this Section and acknowledges that the CPO may declare the related contract void if any of the certifications required by this Section are false.

#### C. Debt Delinquency

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

The contractor or bidder or subcontractor, respectively, certifies that it, or any affiliate, is not barred from being awarded a contract or subcontract under the Code. Section 50-11 prohibits a person from entering into a contract with a State agency, or entering into a subcontract, 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, or entering into a subcontract, 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 bidder or contractor or subcontractor, respectively, further acknowledges that the CPO may declare the related contract void if this certification is false or if the bidder, contractor, or subcontractor, or any affiliate, is determined to be delinquent in the payment of any debt to the State during the term of the contract.

#### D. Prohibited Bidders, Contractors and Subcontractors

Section 50-10.5 and 50-60(c). Prohibited bidders, contractors and subcontractors.

The bidder or contractor or subcontractor, respectively, certifies in accordance with Section 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 or if in violation of Subsection (c) for a period of five years from the date of conviction. Every bid submitted to and contract executed by the State and every subcontract subject to Section 20-120 of the Code shall contain a certification by the bidder, contractor, or subcontractor, respectively, that the bidder, contractor, or subcontract under this Section and acknowledges that the CPO shall declare the related contract void if any of the certifications completed pursuant to this Section are false.

#### E. Section 42 of the Environmental Protection Act

Section 50-14 Environmental Protection Act violations.

The bidder or contractor or subcontractor, respectively, certifies in accordance with Section 50-14 that the bidder, contractor, or subcontractor, is not barred from being awarded a contract or entering into a subcontract under this Section which prohibits the bidding on or entering into contracts with the State of Illinois or a State agency, or entering into any subcontract, that is subject to the Code 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 bidder or contractor or subcontractor, respectively, acknowledges that the CPO may declare the contract void if this certification is false.

#### F. Educational Loan

Section 3 of the Educational Loan Default Act, 5 ILCS 385/3.

Pursuant to the Educational Loan Default Act no State agency shall contract with an individual for goods or services if that individual is in default on an educational loan.

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.

#### G. Bid-Rigging/Bid Rotating

Section 33E-11 of the Criminal Code of 2012, 720 ILCS 5/3BE-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.
- (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.

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.

#### H. International Anti-Boycott

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

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

#### I. Drug Free Workplace

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.

The bidder certifies that if awarded a contract in excess of \$5,000 it will provide a drug free workplace in compliance with the provisions of the Act.

#### J. Disclosure of Business Operations in Iran

Section 50-36 of the Code 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 may cause the bid, offer or proposal to be considered not responsive. The disclosure will be considered when evaluating the bid 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 appro | priate statement:  |
|-----------------|--|
| //              | Company has no business operations in Iran to disclose.                        |
| //              | Company has business operations in Iran as disclosed on the attached document. |

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

In accordance with the provisions of Section 30-22 (6) of the 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.

Addtionally, Section 30-22 of the Code requires that the bidder certify that an Illinois office be maintained as the primary place of employment for persons employed for this contract.

| NA-FEDERAL_ |  |
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The requirements of these certifications and disclosures are a material part of the contract, and the contractor shall require these certification provisions 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. Political Contributions and Registration with the State Board of Elections

Sections 20-160 and 50-37 of the 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 or any other procurement opportunity 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 Code, and that it makes the following certification:

The undersigned bidder 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. If the business entity is required to register, the CPO shall verify that it is in compliance on the date the bid or proposal is due. The CPO shall not accept a bid or proposal if the business entity is not in compliance with the registration requirements.

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 Code. This provision does not apply to Federal-aid contracts.

#### M. Lobbyist Disclosure

Section 50-38 of the Code requires that any bidder or offeror on a State contract that hires a person required to register under the Lobbyist Registration Act to assist in obtaining a contract shall:

- (i) Disclose all costs, fees, compensation, reimbursements, and other remunerations paid or to be paid to the lobbyist related to the contract.
- (ii) Not bill or otherwise cause the State of Illinois to pay for any of the lobbyist's costs, fees, compensation, reimbursements, or other remuneration, and
- (iii) Sign a verification certifying that none of the lobbyist's costs, fees, compensation, reimbursements, or other remuneration were billed to the State.

This information, along with all supporting documents, shall be filed with the agency awarding the contract and with the Secretary of State. The CPO shall post this information, together with the contract award notice, in the online Procurement Bulletin.

Pursuant to Subsection (c) of this Section, no person or entity shall retain a person or entity to attempt to influence the outcome of a procurement decision made under the Code for compensation contingent in whole or in part upon the decision or procurement. Any person who violates this subsection is guilty of a business offense and shall be fined not more than \$10,000.

Bidder acknowledges that it is required to disclose the hiring of any person required to register pursuant to the Illinois Lobbyist Registration Act (25 ILCS 170) in connection with this contract.

|      |     | Bidder has not hired any person required to register pursuant to the Illinois Lobbyist Registration Act in connection with this contract.       |
|------|-----|---|
|      | Or  |   |
|      |     | Bidder has hired the following persons required to register pursuant to the Illinois Lobbyist Registration Act in connection with the contract: |
|      |     | address of person:ees, compensation, reimbursements and other remuneration paid to said person:   |
|      |     |   |
| □lac | knc | welledge understand and accept these terms and conditions for the above certifications  |

#### **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 bidder further certifies that the Department has received the disclosure forms for each bid.

The CPO may void the bid, or contract, respectively, if it is later determined that the bidder or subcontractor rendered a false or erroneous disclosure. A contractor or subcontractor may be suspended or debarred for violations of the Code. Furthermore, the CPO may void the contract 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 Code provides that all bids of more than \$50,000 and all submissions to a vendor portal 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, filed with the Procurement Policy Board, and shall be incorporated as a material term of the contract. Furthermore, pursuant to Section 5-5, the Procurement Policy Board may review a proposal, bid, or contract and issue a recommendation to void a contract or reject a proposal or bid based on any violation of the Code or the existence of a conflict of interest as provided in subsections (b) and (d) of Section 50-35.

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 100 shareholders, it may submit the information that Federal 10K companies are required to report, and list the names of any individual 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 individual 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 individual making the disclosure having any of the relationships identified in Section 50-35 and on the disclosure form.

The current annual salary of the Governor is \$177,412.00.

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. A separate Disclosure Form A must be submitted with the bid for each individual meeting the above requirements. In addition, a second form (Disclosure Form B) provides for the disclosure of current or pending procurement relationships with other (non-IDOT) state agencies and a total ownership certification. **The forms must be included with each bid.** 

#### C. <u>Disclosure Form Instructions</u>

#### Form A Instructions for Financial Information & Potential Conflicts of Interest

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 100 shareholders, it may submit the information that Federal 10K companies are required to report, and list the names of any individual 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 Form A must be signed and dated by an individual 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 60% of the annual salary of the Governor? YES NO                      |
| 3. | Does anyone in your organization receive more than 60% of the annual salary of the Governor of the bidding entity's or parent entity's 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 60% of the annual salary of the Governor? YES NO |
|    | (Note: Only one set of forms needs to be completed <u>per individual per bid</u> even if a specific individual would require a yes answer to more than one question.)                                  |
|    |  |

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

If the answer to each of the above questions is "NO", then the <u>NOT APPLICABLE STATEMENT</u> of Form A must be signed and dated by an individual that is authorized to execute contracts for your company.

#### Form B: Instructions for Identifying Other Contracts & Procurement Related Information

Disclosure Form B must be completed for each bid submitted by the bidding entity. Note: Checking the <u>NOT APPLICABLE STATEMENT</u> on Form A <u>does not</u> allow the bidder to ignore Form B. Form B must be completed, checked, and dated or the bidder may be considered nonresponsive and the bid will not be accepted.

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

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

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

### ILLINOIS DEPARTMENT OF TRANSPORTATION

# Form A Financial Information & Potential Conflicts of Interest Disclosure

| Contractor Name  |               |                           |
|------------------|---------------|---------------------------|
| Legal Address    |               |                           |
| O'the Otate 7's  |               |                           |
| City, State, Zip |               |                           |
| Telephone Number | Email Address | Fax Number (if available) |
|                  |               |                           |

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

The current annual salary of the Governor is \$177,412.00.

#### DISCLOSURE OF FINANCIAL INFORMATION

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

| FOR IND | OR INDIVIDUAL (type or print information) |                                |             |                                     |  |  |
|---------|---|--------------------------------|-------------|-------------------------------------|--|--|
| NA      | ME:                                       |                                |             |                                     |  |  |
| AD      | DRESS                                     |                                |             |                                     |  |  |
|         |   |                                |             |                                     |  |  |
| Тур     | e of ownership                            | /distributable income share:   | :           |                                     |  |  |
| stoo    |   | sole proprietorship            | Partnership | other: (explain on separate sheet): |  |  |
| % 0     | r \$ value of own                         | ership/distributable income sh | are:        |                                     |  |  |

- **2. Disclosure of Potential Conflicts of Interest.** Check "Yes" or "No" to indicate which, if any, of the following potential conflict of interest relationships apply. If the answer to any question is "Yes", please attach additional pages and describe.
  - (a) State employment, currently or in the previous 3 years, including contractual employment of services. Yes No

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

- Are you currently an officer or employee of either the Capitol Development Board or the Illinois State
   Toll Highway Authority?
   Yes \_\_\_No \_\_
- Are you currently appointed to or employed by any agency of the State of Illinois? If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds 60% of the annual salary of the Governor provide the name the State agency for which you are employed and your annual salary.

| 3.                 | If you are currently appointed to or employed by any agency of the Salary exceeds 60% of the annual salary of the Governor, are you e (i) more than 7 1/2% of the total distributable income of your firm corporation, or (ii) an amount in excess of 100% of the annual salary   | ntitled to receive n, partnership, association or                   |
|--------------------|---|---|
| 4.                 | If you are currently appointed to or employed by any agency of the Salary exceeds 60% of the annual salary of the Governor, are you a or minor children entitled to receive (i) more than 15% in aggregate of your firm, partnership, association or corporation, or (ii) an amount salary of the Governor?   | nd your spouse of the total distributable income                    |
|                    | employment of spouse, father, mother, son, or daughter, including con previous 2 years.   |   |
| If your            | answer 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 State Toll Highway Authority?   | 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 appointed agency of the State of Illinois, and his/her annual salary exceeds 60 annual salary of the Governor, provide the name of the spouse and/of the State agency for which he/she is employed and his/her annual salary exceeds 60 annual salary of the Governor, provide the name of the spouse and/of the State agency for which he/she is employed and his/her annual salary exceeds 60 annual salary of the Governor, provide the name of the spouse and/of the State agency for which he/she is employed and his/her annual salary exceeds 60 annual salary exceeds 60 annual salary of the Governor, provide the name of the spouse and/of the State agency for which he/she is employed and his/her annual salary exceeds 60 | d to or employed by any<br>0% of the<br>or minor children, the name |
| 3.                 | If your spouse or any minor children is/are currently appointed to or estate of Illinois, and his/her annual salary exceeds 60% of the annual are you entitled to receive (i) more than 71/2% of the total distributable firm, partnership, association or corporation, or (ii) an amount in excannual salary of the Governor?  | I salary of the Governor,<br>e income of your                       |
| 4.                 | If your spouse or any minor children are currently appointed to or er State of Illinois, and his/her annual salary exceeds 60% of the annual and your spouse or any minor children entitled to receive (i) more that aggregate of the total distributable income from your firm, partnership (ii) an amount in excess of two times the salary of the Governor?  | salary of the Governor, are you an 15% in the                       |
|                    |   | Yes No  |
| unit of            | e status; the holding of elective office of the State of Illinois, the govern<br>local government authorized by the Constitution of the State of Illinoi<br>currently or in the previous 3 years.   |   |
|                    | nship to anyone holding elective office currently or in the previous 2 ye daughter.   | ears; spouse, father, mother, YesNo                                 |
| Americ<br>of the S | tive office; the holding of any appointive government office of the State a, or any unit of local government authorized by the Constitution of the State of Illinois, which office entitles the holder to compensation in exceptage of that office currently or in the previous 3 years.  | State of Illinois or the statues                                    |
|                    | nship to anyone holding appointive office currently or in the previous 2 daughter.  | years; spouse, father, mother, YesNo                                |
| (g) Employ         | yment, currently or in the previous 3 years, as or by any registered lob  | byist of the State government. YesNo                                |

| e previous 2 years; spouse, father, mother, YesNo   |
|---|
| s, by any registered election or reelection clerk of the State of Illinois, or any political the Federal Board of Elections.  YesNo   |
| er; who was a compensated employee in the registered with the Secretary of State or any littee registered with either the Secretary of  |
| Yes No  |
|   |
| · · · · · · · · · · · · · · · · · · ·   |
| t of the bidder or offeror who is not identified<br>ng, or may communicate with any State officer<br>continuing obligation and must be promp<br>nout the term of the contract. If no person |
|   |

**4. Debarment Disclosure.** For each of the persons identified under Sections 2 and 3 of this form, disclose whether any of the following has occurred within the previous 10 years: debarment from contracting with any governmental entity; professional licensure discipline; bankruptcies; adverse civil judgments and administrative findings; and criminal felony convictions. This disclosure is a continuing obligation and must be promptly supplemented for accuracy throughout the procurement process and term of the contract. If no person is identified, enter "None" on the line below:

| Name of person(s):   |      |
|--|------|
| Nature of disclosure:  |      |
| Track of displace of the second of the secon |      |
|  |      |
|  |      |
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|  |      |
|  |      |
|  |      |
|  |      |
|  |      |
|  |      |
| ADDU LOADUE OTATEMENT  |      |
| APPLICABLE STATEMENT  This Disclosure Form A is submitted on behalf of the INDIVIDUAL named on previous page. Und  | lor  |
| penalty of perjury, I certify the contents of this disclosure to be true and accurate to the best of knowledge.  |      |
| Completed by:  |      |
| Signature of Individual or Authorized Representative Date  | _    |
| NOT APPLICABLE STATEMENT   |      |
| Under penalty of perjury, I have determined that no individuals associated with this organization the criteria that would require the completion of this Form A.   | meet |
| This Disclosure Form A is submitted on behalf of the CONTRACTOR listed on the previous page  |      |
|  |      |
| Signature of Authorized Representative Date  | _    |
|  |      |

The bidder has a continuing obligation to supplement these disclosures under Sec. 50-35 of the Code.

## ILLINOIS DEPARTMENT OF TRANSPORTATION

# Form B Other Contracts & Financial Related Information Disclosure

| Contractor Na              | ıme  |                            |  |                       |                            |
|----------------------------|--|----------------------------|--|-----------------------|----------------------------|
| Legal Address              | 3  |                            |  |                       |                            |
| City, State, Zi            | p  |                            |  |                       |                            |
| Telephone Nu               | ımber  |                            | Email Address  | Fax Number (if avail  | able)                      |
|                            |  |                            | l<br>s Form is required by Section 50<br>dicly available contract file. This |                       |                            |
|                            | DISCLOSURE (                                     | OF OTHER (                 | CONTRACTS AND PROCURE  | MENT RELATED INF      | ORMATION                   |
| has any per<br>any other S | nding contracts (incl<br>state of Illinois agend | luding leases<br>cy: Yes _ | ement Related Information. The s), bids, proposals, or other ongo            | ping procurement rela |                            |
|                            | such as bid or proje                             |                            | relationship by showing State o<br>attach additional pages as nece           |                       |                            |
|                            |  |                            |  |                       |                            |
|                            |  |                            |  |                       |                            |
|                            |  | THE FOL                    | LOWING STATEMENT MUST I  | BE CHECKED            |                            |
|                            |  |                            |  |                       |                            |
|                            | П  |                            |  |                       |                            |
|                            |  |                            | Signature of Authorized Representative                                       |                       | Date                       |
|                            |  |                            |  |                       |                            |
|                            |  |                            |  |                       |                            |
|                            |  |                            |  |                       |                            |
|                            |  |                            | OWNERSHIP CERTIFICA  | TION                  |                            |
|                            | e certify that the foll of ownership.            | owing stater               | nent is true if the individuals for  | all submitted Form F  | A disclosures do not total |
|                            |  |                            | erest is held by individuals rec<br>outive income or holding less tha        |                       |                            |
|                            | ☐ Yes ☐ No                                       | □ N/A (I                   | Form A disclosure(s) established   | d 100% ownership)     |                            |

#### **SPECIAL NOTICE TO CONTRACTORS**

The following requirements of the Illinois Department of Human Rights Act 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 Title 44, Illinois Administrative Code, Section 750.120. 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.



**PART I. IDENTIFICATION** 

Contract No. 70599
CHAMPAIGN County
Section 106BR-1(2)
Project ACRS-0502(111)
Route FAS 502
District 5 Construction Funds

| Dept. of Human Rights #   |           |                      |                  |                    |            |          | [      | Duratio  | n of P   | roject: |          |            |           |              |             |            |            |
|---|-----------|----------------------|------------------|--------------------|------------|----------|--------|----------|----------|---------|----------|------------|-----------|--------------|-------------|------------|------------|
| Name of Bidder:   |           |                      |                  |                    |            |          |        |          |          |         |          |            |           |              |             |            |            |
| PART II. WORKFO A. The undersigned which this contract wor projection including a p | bidder ha | as analyz<br>perform | ed mir<br>ed, an | d for th<br>d fema | ne locati  | ons froi | n whic | h the b  | idder re | cruits  | employe  | es, and he | reby subm | its the foll | owir<br>con | ng workfo  |            |
|   |           | TOTA                 | AL Wo            | rkforce            | Project    | tion for | Contra | ct       |          |         |          |            |           | CURRENT      | EM          | IPLOYEE    | S          |
|   |           |                      |                  | MINO               | ORITY E    | EMPLO    | YEES   |          |          | TRA     | AINEES   |            |           | TO BE        |             |            |            |
| JOB   |           | TAL                  | -                |                    |            |          | *OTI   |          | APPI     | REN-    | ON T     | HE JOB     |           | OTAL         |             | MINC       |            |
| CATEGORIES  | EMPL(     | OYEES<br>F           | BLA<br>M         | ACK<br>F           | HISP/<br>M | ANIC     | MIN    | OR.<br>F | TIC<br>M | ES<br>F | TRA<br>M | INEES      | EMPL<br>M | OYEES<br>F   |             | EMPLO<br>M | )YEES<br>F |
| OFFICIALS<br>(MANAGERS)   | 101       |                      | 101              |                    | 101        |          | 101    |          | 141      | '       | 101      |            | 101       |              |             | 101        | •          |
| 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                |                  | , ,                |            |          |        |          | 7        |         |          | FOR I      | DEPARTM   | MENT USE     | - 01        | ILY        |            |
| TOTAL Training Projection for Contract  EMPLOYEES TOTAL *OTHER                      |           |                      |                  |                    |            | •        |        |          |          |         |          |            |           |              |             |            |            |
| IN  | _         | OYEES                | BLA              | ACK                | HISP       | ANIC     |        | NOR.     |          |         |          |            |           |              |             |            |            |
| TRAINING  | М         | F                    | М                | F                  | М          | F        | М      | F        |          |         |          |            |           |              |             |            |            |
| APPRENTICES   |           |                      |                  |                    |            |          |        |          |          |         |          |            |           |              |             |            |            |
| ON THE JOB  |           |                      |                  |                    |            |          |        |          |          |         |          |            |           |              |             |            |            |

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. 70599
CHAMPAIGN County
Section 106BR-1(2)
Project ACRS-0502(111)
Route FAS 502
District 5 Construction Funds

#### PART II. WORKFORCE PROJECTION - continued

|  |   | number of <b>new hires</b> that would   | be employed in the   |
|--|---|---|--|
| The u  | undersigned bidder projects that: (number)  |   | new hires would be   |
| recrui   |   |   |  |
| offico   | new hires would   | be recruited from the area in which   | ch the bidder's principal  |
|  | •   |   |  |
|  |   |   |  |
| The u  | undersigned bidder estimates that (number)  |   | persons will   |
| be dir<br>emplo                                | rectly employed by the prime contractor and that (nupyed by subcontractors.   | ımber)  | persons will be  |
| III. AFF                                       | FIRMATIVE ACTION PLAN   |   |  |
| utiliza<br>in any<br>comm<br>(geard<br>utiliza | ation projection included under <b>PART II</b> is determined by job category, and in the event that the undersign nencement of work, develop and submit a writtened to the completion stages of the contract) whation are corrected. Such Affirmative Action Plan whation | ed to be an underutilization of mined bidder is awarded this cont<br>n Affirmative Action Plan includer<br>ereby deficiencies in minority a   | nority persons or women<br>ract, he/she will, prior to<br>ling a specific timetable<br>and/or female employee  |
| subm   | itted herein, and the goals and timetable included u  |   |  |
| any  |   | Telephone Number  |  |
|  |   |   |  |
|  |   |   |  |
|  |   |   |  |
|  |   | the signing of this form. The follow  | wing signature block needs   |
| ture: 🗌  |   | Title:  | Date:  |
| ions:  | All tables must include subcontractor personnel in addition to p  | orime contractor personnel.   |  |
| ۱ -  | (Table B) that will be allocated to contract work, and include a  | all apprentices and on-the-job trainees.  | The "Total Employees" column   |
| 3 -  | Include all employees currently employed that will be allocated currently employed.   | d to the contract work including any appro  | entices and on-the-job trainees  |
| <b>)</b> -                                     | Indicate the racial breakdown of the total apprentices and on-t   | he-job trainees shown in Table A.   |  |
|  | The L office Included III. AFI  The L utilization and common (gear utilization and to be beauty   | recruited from the area in which the contract project is located.  The undersigned bidder projects that: (number) recruited from the area in which the contract project is located.  Included in "Total Employees" under Table A is a projectic undersigned bidder as well as a projection of numbers of the undersigned bidder estimates that (number) be directly employed by the prime contractor and that (numper) be directly employed by the prime contractor and that (numper) be directly employed by subcontractors.  III. AFFIRMATIVE ACTION PLAN  The undersigned bidder understands and agrees that in utilization projection included under PART II is determine in any job category, and in the event that the undersigned commencement of work, develop and submit a writter (geared to the completion stages of the contract) who utilization are corrected. Such Affirmative Action Plan withe IIIInois Department of Human Rights.  The undersigned bidder understands and agrees that the submitted herein, and the goals and timetable included used to be part of the contract specifications.  Pany | The undersigned bidder projects that: (number) recruited from the area in which the contract project is located; and/or (number) new hires would be recruited from the area in which office or base of operation is located.  Included in "Total Employees" under Table A is a projection of numbers of persons to be undersigned bidder as well as a projection of numbers of persons to be employed by subcurrective employed by the prime contractor and that (number) be directly employed by the prime contractor and that (number) employed by subcontractors.  III. AFFIRMATIVE ACTION PLAN  The undersigned bidder understands and agrees that in the event the foregoing minori utilization projection included under PART II is determined to be an underutilization of mi in any job category, and in the event that the undersigned bidder is awarded this concommencement of work, develop and submit a written Affirmative Action Plan includ (geared to the completion stages of the contract) whereby deficiencies in minority autilization are corrected. Such Affirmative Action Plan will be subject to approval by the the Illinois Department of Human Rights.  The undersigned bidder understands and agrees that the minority and female employee to submitted herein, and the goals and timetable included under an Affirmative Action Plan in to be part of the contract specifications.  **NOTICE REGARDING SIGNATURE**  **NOTICE REGARDING SIGNATURE**  **Include both the number of employees that would be hired to perform the contract work and the to (Table B) that will be allocated to contract work, and include all apprentices and on-the-job trainees to be employed included all employees currently employed that will be allocated to the contract work including any approurently employed. |

#### **ADDITIONAL FEDERAL REQUIREMENTS**

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

- A. By the execution of this proposal, the signing bidder certifies that the bidding entity has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action, in restraint of free competitive bidding in connection with the submitted bid. This statement made by the undersigned bidder is true and correct under penalty of perjury under the laws of the United States.
- B. <u>CERTIFICATION, EQUAL EMPLOYMENT OPPORTUNITY:</u>

| 1. | Have you participated in any previous contracts or subcontracts subject to the equal opportunity clause. YES NO   |
|----|---|
| 2. | If answer to #1 is yes, have you filed with the Joint Reporting Committee, the Director of OFCC, any Federal agency, or the former President's Committee on Equal Employment Opportunity, all reports due under the applicable filing requirements of those organizations? YES NO |

Contract No. 70599
CHAMPAIGN County
Section 106BR-1(2)
Project ACRS-0502(111)
Route FAS 502
District 5 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)   | Signature of Owner     |  |
|  | Business Address       |  |
|  |                        |  |
|  |                        |  |
|  | Firm Name              |  |
|  | Ву                     |  |
| (IF A CO-PARTNERSHIP)  |                        |  |
| (,   |                        |  |
|  |                        | Name and Address of All Members of the Firm:                 |
|  |                        |  |
| -  |                        |  |
|  | Corporate Name         |  |
|  |                        |  |
| (IF A COPPORTION)  | Бу                     | Signature of Authorized Representative                       |
| (IF A CORPORATION)   |                        |  |
|  |                        | Typed or printed name and title of Authorized Representative |
|  | Attest                 |  |
| (IE A JOINT VENTURE LICE THE SECTION                                 | 7111001                | Signature  |
| (IF A JOINT VENTURE, USE THIS SECTION FOR THE MANAGING PARTY AND THE | Business Address       |  |
| SECOND PARTY SHOULD SIGN BELOW)                                      |                        |  |
|  |                        |  |
|  | Corporate Name         |  |
| (IE A 101) T. VENTUES  | Ву                     |  |
| (IF A JOINT VENTURE)   |                        | Signature of Authorized Representative                       |
|  |                        | Typed or printed name and title of Authorized Representative |
|  |                        |  |
|  | Attest                 | Signature  |
|  | Puninges Address       | •  |
|  | business Audress       |  |
| If more than two parties are in the joint venture.                   | please attach an addit | ional signature sheet.                                       |

#### **Return with Bid**



#### Division of Highways Annual Proposal Bid Bond

| This Annual Proposal Bid Bond shall become effective at 12:01 AM (CDST) on   | and shall be valid until 11:59 PM (CDST).  |
|--|--|
| KNOW ALL PERSONS BY THESE PRESENTS, That We  |  |
| as PRINCIPAL, and  |  |
| price, or for the amount specified in the bid proposal under '   | ne STATE OF ILLINOIS in the penal sum of 5 percent of the total bid 'Proposal Guaranty" in effect on the date of the Invitation for Bids, d STATE OF ILLINOIS, for the payment of which we bind ourselves,   |
|  | SUCH that whereas, the PRINCIPAL may submit bid proposal(s) to tof Transportation, for various improvements published in the e.  |
| the time and as specified in the bidding and contract document into a contract in accordance with the terms of the bidding ar coverages and providing such bond as specified with good and the prompt payment of labor and material furnished in the prosenter into such contract and to give the specified bond, the P penalty hereof between the amount specified in the bid propo | d proposal(s) of the PRINCIPAL; and if the PRINCIPAL shall, within its; and if, after award by the Department, the PRINCIPAL shall enter and contract documents including evidence of the required insurance I sufficient surety for the faithful performance of such contract and for secution thereof; or if, in the event of the failure of the PRINCIPAL to RINCIPAL pays to the Department the difference not to exceed the sal and such larger amount for which the Department may contract oposal, then this obligation shall be null and void, otherwise, it shall |
| preceding paragraph, then Surety shall pay the penal sum to t<br>Surety does not make full payment within such period of time  | PAL has failed to comply with any requirement as set forth in the he Department within fifteen (15) days of written demand therefor. If e, the Department may bring an action to collect the amount owed. If attorney's fees, incurred in any litigation in which it prevails either in  |
| In TESTIMONY WHEREOF, the said PRINCIPAL has caused this instrument to be signed by its officer day of A.D.,   | In TESTIMONY WHEREOF, the said SURETY has caused this instrument to be signed by its officer  day of A.D.,   |
| (Company Name)   | (Company Name)   |
| Ву   | Ву   |
| (Signature and Title)  | (Signature of Attorney-in-Fact)  |
| Notary for PRINCIPAL   | Notary for SURETY  |
| STATE OF   | STATE OF   |
| COUNTY OF  | COUNTY OF  |
| Signed and attested before me on (date)  | Signed and attested before me on (date)  |
| by   |  |
| (Name of Notary Public)  | (Name of Notary Public)  |
| (Seal) (Signature of Notary Public)  | (Seal) (Signature of Notary Public)  |
| (19 111 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1  | (-3 , , , , , , , , , , , , , , , , ,  |
| (Date Commission Expires)  | (Date Commission Expires)  |

| signing the proposal(s) the Principal is ensuring the identified electronic bid bond has been executed and the Principal and Surety |
|---|
| are firmly bound unto the State of Illinois under the conditions of the bid bond as shown above.                                    |
|   |

In lieu of completing the above section of the Annual Proposal Bid Bond form, the Principal may file an Electronic Bid Bond. By

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

This bond may be terminated, at Surety's request, upon giving not less than thirty (30) days prior written notice of the cancellation/termination of the bond. Said written notice shall be issued to the Illinois Department of Transportation, Chief Contracts Official, 2300 South Dirksen Parkway, Springfield, Illinois, 62764, and shall be served in person, by receipted courier delivery or certified or registered mail, return receipt requested. Said notice period shall commence on the first calendar day following the Department's receipt of written cancellation/termination notice. Surety shall remain firmly bound to all obligations herein for proposals submitted prior to the cancellation/termination. Surety shall be released and discharged from any obligation(s) for proposals submitted for any letting or date after the effective date of cancellation/termination.

# Illinois Department of Transportation

#### **Return with Bid**

### Division of Highways Proposal Bid Bond

|  |   | Item No.   |  |
|--|---|--|--|
|  |   | Letting Date   | e  |
| (NOW ALL PERSONS BY THE  | SE PRESENTS, That We  |  |  |
| as PRINCIPAL, and  |   |  |  |
| the amount specified in the bid  | proposal under "Proposal Guaranty" i  | in effect on the date of the Invitation for  | of 5 percent of the total bid price, or for r Bids, whichever is the lesser sum, well s, executors, administrators, successors   |
|  |   |  | omitted a bid proposal to the STATE OF retation Bulletin Item Number and Letting   |
| specified in the bidding and cor<br>with the terms of the bidding and<br>with good and sufficient surety<br>prosecution thereof; or if, in the<br>pays to the Department the diffe | ntract documents; and if, after award documents including evide for the faithful performance of such event of the failure of the PRINCIP perence not to exceed the penalty here tract with another party to perform the | by the Department, the PRINCIPAL sence of the required insurance coverage contract and for the prompt payment AL to enter into such contract and to go for between the amount specified in the | RINCIPAL shall, within the time and as shall enter into a contract in accordance es and providing such bond as specified t of labor and material furnished in the give the specified bond, the PRINCIPAL bid proposal and such larger amount for the this obligation shall be null and void, |
| hen Surety shall pay the penal within such period of time, the [   | sum to the Department within fiftee   | n (15) days of written demand therefo<br>ollect the amount owed. Surety is liable  | as set forth in the preceding paragraph, r. If Surety does not make full payment e to the Department for all its expenses,   |
| n TESTIMONY WHEREOF,<br>caused this instrument to be<br>day of   |   | In TESTIMONY WHEREOF, instrument to be signed by its day of  | the said SURETY has caused this officer  A.D.,   |
| (Compa   | any Name)   | (Com   | pany Name)   |
| Зу   |   | Ву   |  |
| (Sign  | ature and Title)  |  | e of Attorney-in-Fact)   |
| Notary for PRINCIPAL   |   | Notary for SURETY  |  |
| STATE OF   |   | STATE OF   |  |
| COUNTY OF  |   | COUNTY OF  |  |
| Signed and attested before r   | ne on (date)  | Signed and attested before m   | ne on (date)   |
| (Name of   | Notary Public)  | (Name o  | f Notary Public)   |
|  |   |  |  |
| (Seal)   |   | (Seal)   |  |
| ,,   | (Signature of Notary Public)  |  | (Signature of Notary Public)   |
|  | (Date Commission Expires)   | _  | (Date Commission Expires)  |
| proposal the Principal is en   |   | oid bond has been executed and   | Electronic Bid Bond. By signing the the Principal and Surety are firmly  |
| Electronic Bid Bond ID #   | Company/Bidder Nan  | ne   | Signature and Title  |



#### **DBE Utilization Plan**

#### (1) Policy

It is public policy that disadvantaged businesses as defined in 49 CFR Part 26 and the Special Provision shall have the maximum opportunity to participate in the performance of contracts financed in whole or in part with Federal or State funds. Consequently the requirements of 49 CFR Part 26 apply to this contract.

#### (2) Obligation

Date

The contractor agrees to ensure that disadvantaged businesses as defined in 49 CFR Part 26 and the Special Provision have the maximum opportunity to participate in the performance of contracts or subcontracts financed in whole or in part with Federal or State funds. The contractor shall take all necessary and reasonable steps in accordance with 49 CFR Part 26 and the Special Provision to ensure that said businesses have the maximum opportunity to compete for and perform under this contract. The contractor shall not discriminate on the basis of race, color, national origin or sex in the award and performance of contracts.

| (3) Project and Bid Identification   |  |   |   |
|--|--|---|---|
| Complete the following information concerning the project and bid:   |  |   |   |
| Route  | Total Bid  |   | _   |
| Section  | Contract DBE Goal  |   |   |
| Project  |  | (Percent)   | (Dollar Amount)   |
| County   |  |   |   |
| Letting Date   |  |   |   |
| Contract No.   |  |   |   |
| Letting Item No.   |  |   |   |
| (4) Assurance  |  |   |   |
| Attached are the signed participation statements, forms suse of each business participating in this plan and assuring work of the contract.  Failed to meet contract award goals and has included good provided participation as follows:  Disadvantaged Business Participation per of the contract goals should be accordingly modified or was support of this request including good faith effort. Als required by the Special Provision evidencing availability and the support of the supp | d documented participation as followers  SBE 2025, required by the Special of that each business will perform that each business will perform that each documentation to motion the second second are the signed participant use of each business participant. | al Provision evid<br>n a commercially<br>neet the goals ar<br>ion required by<br>rticipation stater | encing availability and vuseful function in the and that my company has the Special Provision in ments, forms SBE 2025, |
| business will perform a commercially useful function in the Company  By  | The "as read" Low Bidder is red  | for each project. Th  | •   |
| Title  | submitted in accordance with the   |   | ocal Let Projects   |

The Department of Transportation is requesting disclosure of information that is necessary to accomplish the purpose as outlined under State and Federal law. Disclosure of this information is **REQUIRED**. Failure to provide any information will result in the contract not being awarded. This form has been approved by the State Forms Manager Center.

2300 South Dirksen Parkway

Springfield, Illinois 62764

Submit forms to the

Local Agency



# **DBE Participation Statement**

| Subcontractor                                      | Registration Num  | ber   |   | L   | etting                                     |                      |
|--|---|---|---|---|--|----------------------|
| Participation                                      | Statement   |   |   | Ite                                       | em No.                                     |                      |
| (1) Instruction                                    | าร  |   |   | С   | ontract No.                                |                      |
| accordance w                                       | ith the special prov  | r each disadvantaged buvision and will be attach<br>cking participation items | ed to the Utilization Pl                        | an form. If addition                      | nal space is needed                        | l complete an        |
| (2) Work:  |   |   |   |   |  |                      |
| Please indicat                                     | te: J/V   | Manufacturer  | Supplier (60%)                                  | Subcor                                    | tractor                                    | Trucking             |
| Pay Item<br>No.                                    | Descri  | ption (Anticipated items  | for trucking)*                                  | Quantity                                  | Unit Price                                 | Total                |
|  |   |   |   |   |  |                      |
|  |   |   |   |   |  |                      |
|  |   |   |   |   |  |                      |
|  |   |   |   |   |  |                      |
| (2) Doutiel De                                     | umant Itama (Far  | any of the above items y  | uhiah ava navtial nav it                        | a-ma)                                     | Total                                      |                      |
|  | ist be sufficient to d  | any of the above items v<br>letermine a Commercially                          |   |   | work and subcontrac                        | t dollar amount:     |
| subcontract, it                                    | is to be a second-t<br>must be clearly in   | tier subcontractor, or if the dicated on the DBE Par                          | ticipation Statement, a                         | and the details of the                    | ne transaction fully                       | explained.           |
| In the event a contract, the p                     | DBE subcontractorime must submit  | or second-tiers a portion<br>a DBE Participation Sta                          | of its subcontract to o tement, with the detail | ne or more subcor<br>s of the transaction | ntractors during the n(s) fully explained. | work of a            |
| perform a com<br>contractor or 1<br>prior approval | The undersigned certify that the information included herein is true and correct, and that the DBE firm listed below has agreed to perform a commercially useful function in the work of the contract item(s) listed above and to execute a contract with the prime contractor or 1 <sup>st</sup> Tier subcontractor. The undersigned further understand that no changes to this statement may be made without prior approval from the Department's Bureau of Small Business Enterprises and that complete and accurate information regarding actual work performed on this project and the payment therefore must be provided to the Department. |   |   |   |  |                      |
| ű  | nature for Contractor _   | 1 <sup>st</sup> Tier 2 <sup>nd</sup> Tier                                     |   | •   | DBE Firm 1 <sup>st</sup> Tier              | 2 <sup>nd</sup> Tier |
|  |   |   |   |   |  |                      |
| Contact Pers                                       | on  |   | Cont  | act Person                                |  |                      |
| Title  |   |   | Title   |   |  |                      |
| Firm Name  | -   |   | Firm  | Name                                      |  |                      |
| Address  |   |   | Addı  | ess                                       |  |                      |
| City/State/Zip                                     |   |   | City/   | State/Zip                                 |  |                      |
| Phone  |   |   | Phoi  | ne  |  |                      |
| Email Addres                                       | ss  |   | Ema   | il Address                                |  |                      |
|  |   |   |   |   | E  |                      |
| The Department of To-                              | anapartation is requestive all  | and any and information that in passage                                       | with accomplish the statut                      | ann an airtiinad iraday tit-              | to and WC                                  |                      |

The Department of Transportation is requesting disclosure of information that is necessary to accomplish the statutory purpose as outlined under the state and federal law. Disclosure of this information is **REQUIRED**. Failure to provide any information will result in the contract not being awarded. This form has been approved by the State Forms Management Center.

# PROPOSAL ENVELOPE



# **PROPOSALS**

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

| Item No. | Item No. | Item No. |
|----------|----------|----------|
|          |          |          |
|          |          |          |
|          |          |          |
|          |          |          |
|          |          |          |
|          |          |          |

# Submitted By:

| lame:     |  |
|-----------|--|
| 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. 70599
CHAMPAIGN County
Section 106BR-1(2)
Project ACRS-0502(111)
Route FAS 502
District 5 Construction Funds



# **SUBCONTRACTOR DOCUMENTATION**

Public Acts 96-0795, 96-0920, and 97-0895 enacted substantial changes to the provisions of the Code (30 ILCS 500). Among the changes are provisions affecting subcontractors. The Contractor awarded this contract will be required as a material condition of the contract to implement and enforce the contract requirements applicable to subcontractors that entered into a contractual agreement with a total value of \$50,000 or more with a person or entity who has a contract subject to the Code and approved in accordance with article 108.01 of the Standard Specifications for Road and Bridge Construction.

If the Contractor seeks approval of subcontractors to perform a portion of the work, and approval is granted by the Department, the Contractor shall provide a copy of the subcontract to the Illinois Department of Transportation's CPO upon request within 15 calendar days after execution of the subcontract.

Financial disclosures required pursuant to Sec. 50-35 of the Code must be submitted for all applicable subcontractors. The subcontract shall contain the certifications required to be made by subcontractors pursuant to Article 50 of the Code. This Notice to Bidders includes a document incorporating all required subcontractor certifications and disclosures for use by the Contractor in compliance with this mandate. The document is entitled <u>State Required Ethical Standards Governing Subcontractors</u>.

# STATE ETHICAL STANDARDS GOVERNING SUBCONTRACTORS

Article 50 of the Code establishes the duty of all State CPOs, SPOs, 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.

The certifications hereinafter made by the subcontractor are each a material representation of fact upon which reliance is placed should the Department approve the subcontractor. The CPO may terminate or void the contract approval if it is later determined that the bidder or subcontractor rendered a false or erroneous certification. If a false certification is made by a subcontractor the contractor's submitted bid and the executed contract may not be declared void unless the contractor refuses to terminate the subcontract upon the State's request after a finding that the subcontractor's certification was false.

Section 50-2 of the Code provides that every person that has entered into a multi-year contract and every subcontractor with a multi-year subcontract shall certify, by July 1 of each fiscal year covered by the contract after the initial fiscal year, to the responsible CPO whether it continues to satisfy the requirements of Article 50 pertaining to the eligibility for a contract award. If a contractor or subcontractor is not able to truthfully certify that it continues to meet all requirements, it shall provide with its certification a detailed explanation of the circumstances leading to the change in certification status. A contractor or subcontractor that makes a false statement material to any given certification required under Article 50 is, in addition to any other penalties or consequences prescribed by law, subject to liability under the Whistleblower Reward and Protection Act for submission of a false claim.

# A. Bribery

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, or subcontracting under such a contract, 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, or which is signatory to the contract to which the subcontract relates, 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 2012.
- (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, and every subcontract subject to Section 20-120 of the Code shall contain a certification by the contractor or the subcontractor, respectively, that the contractor or subcontractor is not barred from being awarded a contract or subcontract under this Section and acknowledges that the CPO may declare the related contract void if any certifications required by this Section are false. A contractor who makes a false statement, material to the certification, commits a Class 3 felony.

The contractor or subcontractor certifies that it is not barred from being awarded a contract under Section 50-5.

# B. Felons

Section 50-10. Felons.

- (a) Unless otherwise provided, no person or business convicted of a felony shall do business with the State of Illinois or any State agency, or enter into a subcontract, 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.
- (b) Certification. Every bid submitted to and contract executed by the State and every subcontract subject to Section 20-120 of the Code shall contain a certification by the bidder or contractor or subcontractor, respectively, that the bidder, contractor, or subcontractor is not barred from being awarded a contract or subcontract under this Section and acknowledges that the CPO may declare the related contract void if any of the certifications required by this Section are false.

## C. <u>Debt Delinquency</u>

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

The contractor or bidder or subcontractor, respectively, certifies that it, or any affiliate, is not barred from being awarded a contract or subcontract under the Code. Section 50-11 prohibits a person from entering into a contract with a State agency, or entering into a subcontract, 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, or entering into a subcontract, 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 bidder or contractor or subcontractor, respectively, further acknowledges that the CPO may declare the related contract void if this certification is false or if the bidder, contractor, or subcontractor, or any affiliate, is determined to be delinquent in the payment of any debt to the State during the term of the contract.

#### D. Prohibited Bidders, Contractors and Subcontractors

Section 50-10.5 and 50-60(c). Prohibited bidders, contractors and subcontractors.

The bidder or contractor or subcontractor, respectively, 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 or if in violation of Subsection (c) for a period of five years from the date of conviction. Every bid submitted to and contract executed by the State and every subcontract subject to Section 20-120 of the Code shall contain a certification by the bidder, contractor, or subcontractor, respectively, that the bidder, contractor, or subcontract is not barred from being awarded a contract or subcontract under this Section and acknowledges that the CPO shall declare the related contract void if any of the certifications completed pursuant to this Section are false.

# E. Section 42 of the Environmental Protection Act

The bidder or contractor or subcontractor, respectively, certifies in accordance with 30 ILCS 500/50-14 that the bidder, contractor, or subcontractor, is not barred from being awarded a contract or entering into a subcontract under this Section which prohibits the bidding on or entering into contracts with the State of Illinois or a State agency, or entering into any subcontract, that is subject to the Code 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 bidder or contractor or subcontractor, respectively, acknowledges that the CPO may declare the contract void if this certification is false.

The undersigned, on behalf of the subcontracting company, has read and understands the above certifications and makes the certifications as required by law.

Name of Subcontracting Company

Authorized Officer

Date

# SUBCONTRACTOR DISCLOSURES

#### I. DISCLOSURES

**A.** The disclosures hereinafter made by the subcontractor are each a material representation of fact upon which reliance is placed. The subcontractor further certifies that the Department has received the disclosure forms for each subcontract.

The CPO may void the bid, contract, or subcontract, respectively, if it is later determined that the bidder or subcontractor rendered a false or erroneous disclosure. A contractor or subcontractor may be suspended or debarred for violations of the Code. Furthermore, the CPO may void the contract.

#### **B.** Financial Interests and Conflicts of Interest

1. Section 50-35 of the Code provides that all subcontracts with a total value of \$50,000 or more, from subcontractors identified in Section 20-120 of the Code, shall be accompanied by disclosure of the financial interests of the subcontractor. This disclosed information for the subcontractor, will be maintained as public information subject to release by request pursuant to the Freedom of Information Act, filed with the Procurement Policy Board, and shall be incorporated as a material term of the Prime Contractor's contract. Furthermore, pursuant to this Section, the Procurement Policy Board may recommend to allow or void a contract or subcontract based on a potential conflict of interest.

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 subcontracting entity or its parent entity, whichever is less, unless the subcontractor 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 subcontractor is a privately held entity that is exempt from Federal 10K reporting, but has more than 100 shareholders, it may submit the information that Federal 10K companies are required to report, and list the names of any individual 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 individual 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 individual making the disclosure having any of the relationships identified in Section 50-35 and on the disclosure form.

The current annual salary of the Governor is \$177,412.00.

In addition, all disclosures shall indicate any other current or pending contracts, subcontracts, proposals, leases, or other ongoing procurement relationships the subcontracting entity has with any other unit of state government and shall clearly identify the unit and the contract, subcontract, 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. A separate Disclosure Form A must be submitted with the bid for each individual meeting the above requirements. In addition, a second form (Disclosure Form B) provides for the disclosure of current or pending procurement relationships with other (non-IDOT) state agencies and a total ownership certification. **The forms must be included with each bid.** 

## C. <u>Disclosure Form Instructions</u>

## Form A Instructions for Financial Information & Potential Conflicts of Interest

If the subcontractor 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 subcontractor is a privately held entity that is exempt from Federal 10K reporting, but has more than 100 shareholders, it may submit the information that Federal 10K companies are required to report, and list the names of any individual or entity holding any ownership share that is in excess of 5%. If a subcontractor is not subject to Federal 10K reporting, the subcontractor must determine if any individuals are required by law to complete a financial disclosure form. To do this, the subcontractor 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 an individual that is authorized to execute contracts for the subcontracting 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 60% of the annual salary of the Governor? YESNO                              |
| 3.   | Does anyone in your organization receive more than 60% of the annual salary of the Governor of the subcontracting entity's or parent entity's distributive income? YES NO                                     |
|      | (Note: Distributive income is, for these purposes, any type of distribution of profits. An annual salary is not distributive income.)   |
| 4.   | Does anyone in your organization receive greater than 5% of the subcontracting entity's or parent entity's total distributive income, but which is less than 60% of the annual salary of the Governor? YES NO |
|      | (Note: Only one set of forms needs to be completed <u>per individual per subcontract</u> even if a specific individual would require a yes answer to more than one question.)                                 |
| 'FS" | answer to any of these questions requires the completion of Form A. The subcontractor must determine each individual in   |

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

If the answer 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 an individual that is authorized to execute contracts for your company.

# Form B: Instructions for Identifying Other Contracts & Procurement Related Information

Disclosure Form B must be completed for each subcontract submitted by the subcontracting entity. *Note: Checking the <u>NOT APPLICABLE STATEMENT</u> on Form A <u>does not</u> allow the subcontractor to ignore Form B. Form B must be completed, checked, and dated or the subcontract will not be approved.* 

The Subcontractor shall identify, by checking Yes or No on Form B, whether it has any pending contracts, subcontracts, leases, bids, proposals, or other ongoing procurement relationship with any other (non-IDOT) State of Illinois agency. If "No" is checked, the subcontractor only needs to complete the check box on the bottom of Form B. If "Yes" is checked, the subcontractor must list all non-IDOT State of Illinois agency pending contracts, subcontracts, leases, bids, proposals, and other ongoing procurement relationships. These items may be listed on Form B or on an attached sheet(s). Contracts with cities, counties, villages, etc. are not considered State of Illinois agency contracts and are not to be included. Contracts or subcontracts with other State of Illinois agencies such as the Department of Natural Resources or the Capital Development Board must be included.

# ILLINOIS DEPARTMENT OF TRANSPORTATION

# Form A Subcontractor: Financial Information & Potential Conflicts of Interest Disclosure

| Subcontractor Name |                 |                               |
|--------------------|-----------------|-------------------------------|
| Subcontractor Name |                 |                               |
|                    |                 |                               |
|                    |                 |                               |
| Legal Address      |                 |                               |
| Legal Address      |                 |                               |
|                    |                 |                               |
|                    |                 |                               |
| City, State, Zip   |                 |                               |
| Oity, State, Zip   |                 |                               |
|                    |                 |                               |
|                    |                 |                               |
| Telephone Number   | Email Address   | Fax Number (if available)     |
| relephone Number   | Liliali Addiess | i ax inuitibei (ii available) |
|                    |                 |                               |
|                    |                 |                               |

Disclosure of the information contained in this Form is required by Section 50-35 of the Code (30 ILCS 500). Subcontractors desiring to enter into a subcontract of a State of Illinois contract must disclose the financial information and potential conflict of interest information as specified in this Disclosure Form. This information shall become part of the publicly available contract file. This Form A must be completed for subcontracts with a total value of \$50,000 or more, from subcontractors identified in Section 20-120 of the Code, and for all openended contracts. A publicly traded company may submit a 10K disclosure (or equivalent if applicable) in satisfaction of the requirements set forth in Form A. See Disclosure Form Instructions.

The current annual salary of the Governor is \$177,412.00.

FOR INDIVIDUAL (type or print information)

# **DISCLOSURE OF FINANCIAL INFORMATION**

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

| TOTT INDIVIDUAL (         | type or print information)   |   |   |
|---------------------------|--|---|---|
| NAME:                     |  |   |   |
| ADDRESS _                 |  |   |   |
|                           |  |   |   |
| Type of owner             | ship/distributable income share:   | :   |   |
| stock<br>% or \$ value of | sole proprietorship ownership/distributable income sh  | Partnershipare:                                       | other: (explain on separate shee  |
|                           |  |   |   |
|                           | nterest relationships apply. If the  |   | dicate which, if any, of the following is "Yes", please attach additional |
| (a) State employme        | nt, currently or in the previous 3   | years, including contractu                            | ual employment of services.<br>Yes No                                     |
| If your answer is         | yes, please answer each of the   | e following questions.                                | <u> </u>  |
| -                         | currently an officer or employee way Authority?  | e of either the Capitol Deve                          | elopment Board or the Illinois State YesNo                                |
| currently exceeds         | currently appointed to or emplo<br>appointed to or employed by a<br>60% of the annual salary of the<br>or which you are employed and | ny agency of the State of le Governor, provide the na | Illinois, and your annual salary  |

|     | 3.            | If you are currently appointed to or employed by any agency of t salary exceeds 60% of the annual salary of the Governor, are yo (i) more than 7 1/2% of the total distributable income of your corporation, or (ii) an amount in excess of 100% of the annual salary   | ou entitled to receive firm, partnership, association or  |
|-----|---------------|---|---|
|     | 4.            | If you are currently appointed to or employed by any agency of the salary exceeds 60% of the annual salary of the Governor, are your minor children entitled to receive (i) more than 15% in the income of your firm, partnership, association or corporation, or the salary of the Governor?                                     | ou and your spouse aggregate of the total distributable   |
| (b) |               | employment of spouse, father, mother, son, or daughter, includir previous 2 years.  | ng contractual employment services  YesNo   |
|     | If            | your answer is yes, please answer each of the following question  |   |
|     | 1.            | Is your spouse or any minor children currently an officer or empl<br>Board or the Illinois State Toll Highway Authority?  | oyee of the Capitol Development<br>YesNo  |
|     |               | Is your spouse or any minor children currently appointed to or er of Illinois? If your spouse or minor children is/are currently agency of the State of Illinois, and his/her annual salary ex annual salary of the Governor, provide the name of your spouse of the State agency for which he/she is employed and his/her an     | appointed to or employed by any ceeds 60% of the and/or minor children, the name                  |
|     | 3.            | If your spouse or any minor children is/are currently appointed to State of Illinois, and his/her annual salary exceeds 60% of the are you entitled to receive (i) more than 71/2% of the total distribution, partnership, association or corporation, or (ii) an amount annual salary of the Governor?                           | nnual salary of the Governor,<br>utable income of your  |
|     | 4.            | If your spouse or any minor children are currently appointed to State of Illinois, and his/her annual salary exceeds 60% of the are you and your spouse or minor children entitled to receive aggregate of the total distributable income of your firm, partner (ii) an amount in excess of two times the salary of the Governor? | nual salary of the Governor,<br>(i) more than 15 % in the<br>ship, association or corporation, or |
| (-) | <b>-</b> 1    |   | YesNo   |
| (C) | unit of       | ve status; the holding of elective office of the State of Illinois, the glocal government authorized by the Constitution of the State of Illicurrently or in the previous 3 years.  |   |
| (d) |               | onship to anyone holding elective office currently or in the previour daughter.   | s 2 years; spouse, father, mother,<br>YesNo   |
| (e) | Americ of the | ntive office; the holding of any appointive government office of the ca, or any unit of local government authorized by the Constitution State of Illinois, which office entitles the holder to compensation is charge of that office currently or in the previous 3 years.  | of the State of Illinois or the statutes  |
|     |               | onship to anyone holding appointive office currently or in the previous daughter.   | ous 2 years; spouse, father, mother,<br>YesNo   |
| (g) | Emplo         | yment, currently or in the previous 3 years, as or by any registere   | d lobbyist of the State government. YesNo   |

| (h) Relationship to anyone who is or was a registered lobbyist son, or daughter.   | in the previous 2 years; spouse, father, mother, YesNo   |
|--|--|
| (i) Compensated employment, currently or in the previous 3 y committee registered with the Secretary of State or any contact action committee registered with either the Secretary of States   | ounty clerk of the State of Illinois, or any political   |
| (j) Relationship to anyone; spouse, father, mother, son, or data last 2 years by any registered election or re-election common county clerk of the State of Illinois, or any political action of State or the Federal Board of Elections.  | ttee registered with the Secretary of State or any ommittee registered with either the Secretary of    |
|  | YesNo  |
| Communication Disclosure.  |  |
| Disclose the name and address of each lobbyist and other a Section 2 of this form, who is has communicated, is communic employee concerning the bid or offer. This disclosure i supplemented for accuracy throughout the process and threidentified, enter "None" on the line below: | eating, or may communicate with any State officer or<br>s a continuing obligation and must be promptly |
| Name and address of person(s):   |  |
|  |  |
|  |  |

3

**4. Debarment Disclosure.** For each of the persons identified under Sections 2 and 3 of this form, disclose whether any of the following has occurred within the previous 10 years: debarment from contracting with any governmental entity; professional licensure discipline; bankruptcies; adverse civil judgments and administrative findings; and criminal felony convictions. This disclosure is a continuing obligation and must be promptly

supplemented for accuracy throughout the procurement process and term of the contract. If no person is identified, enter "None" on the line below: Name of person(s): Nature of disclosure: APPLICABLE STATEMENT This Disclosure Form A is submitted on behalf of the INDIVIDUAL named on previous page. Under penalty of perjury, I certify the contents of this disclosure to be true and accurate to the best of my knowledge. Completed by: Signature of Individual or Authorized Officer Date **NOT APPLICABLE STATEMENT** Under penalty of perjury, I have determined that no individuals associated with this organization meet the criteria that would require the completion of this Form A. This Disclosure Form A is submitted on behalf of the SUBCONTRACTOR listed on the previous page. Signature of Authorized Officer Date

# ILLINOIS DEPARTMENT OF TRANSPORTATION

# Form B Subcontractor: Other Contracts & Financial Related Information Disclosure

| Subcontractor Name   |   |   |
|--|---|---|
| Legal Address  |   |   |
| City, State, Zip   |   |   |
| Telephone Number   | Email Address                               | Fax Number (if available)                             |
| Disclosure of the information contained in information shall become part of the publicl a total value of \$50,000 or more, from subcontracts.                          | y available contract file. This Form        | B must be completed for subcontracts with             |
| DISCLOSURE OF OTHER CONTRA   | CTS, SUBCONTRACTS, AND PRO                  | OCUREMENT RELATED INFORMATION                         |
| 1. Identifying Other Contracts & Procure any pending contracts, subcontracts, includ any other State of Illinois agency: Ye If "No" is checked, the subcontractor only | ing leases, bids, proposals, or othe<br>sNo | r ongoing procurement relationship with               |
| 2. If "Yes" is checked. Identify each such information such as bid or project number (a INSTRUCTIONS:  |   |   |
| THE FOLLO  | WING STATEMENT MUST BE CH                   | ECKED   |
| П  |   |   |
|  | Signature of Authorized Officer             | Date  |
|  |   |   |
|  | OWNERSHIP CERTIFICATION                     |   |
| Please certify that the following statement is of ownership  | s true if the individuals for all submit    | ted Form A disclosures do not total 100%              |
| Any remaining ownership interest is parent entity's distributive income o  |   | han \$106,447.20 of the bidding entity's or interest. |
| □ Ves □ No □ N/A (Form   | A disclosura(s) established 100% of         | wnershin)   |

# 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. Electronic bids are to be submitted to the electronic bidding system (iCX-Integrated Contractors Exchange). Paper-based bids are to be submitted to the Chief Procurement Officer for the Department of Transportation in care of the Chief Contracts Official at the Harry R. Hanley Building, 2300 South Dirksen Parkway, in Springfield, Illinois until 10:00 a.mNovember 6, 2015. 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 10:00 a.m.
- **2. DESCRIPTION OF WORK**. The proposed improvement is identified and advertised for bids in the Invitation for Bids as:

Contract No. 70599
CHAMPAIGN County
Section 106BR-1(2)
Project ACRS-0502(111)
Route FAS 502
District 5 Construction Funds

This project consists of replacing the bridge carrying Leverett Road over a ditch west of Leverett (SN 010-0131).

- 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

Randall S. Blankenhorn, Secretary

# INDEX FOR SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS

# Adopted January 1, 2015

This index contains a listing of SUPPLEMENTAL SPECIFICATIONS, frequently used RECURRING SPECIAL PROVISIONS, and LOCAL ROADS AND STREETS RECURRING SPECIAL PROVISIONS.

ERRATA Standard Specifications for Road and Bridge Construction (Adopted 1-1-12) (Revised 1-1-15)

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# STATE OF ILLINOIS

# SPECIAL PROVISIONS

The following Special Provisions supplement the "Standard Specifications for Road and Bridge Construction, Adopted January 1, 2012", 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 FAS Route 502 (Leverett Road), Project ACRS-0502 (111) Section 106BR-1(2), Champaign County, Contract No. 70599 and in case of conflict with any part, or parts, of said Specifications, the said Special Provisions shall take precedence and shall govern.

# **LOCATION OF PROJECT**

This project is located in Champaign County, west of Leverett on FAS 502 (Leverett Road). The structure to be removed and replaced, existing structure 010-0131, carries FAS 502 (Leverett Rd) over the Saline Drainage Ditch.

# INTENT OF PROJECT

The work included in this project consists of:

- 1. Removal and replacement of existing structure including substructure.
- 2. Milling existing roadway and raising profile.
- 3. Laying asphalt over new superstructure.
- 4. Removal and replacement of all existing guardrail and terminals.
- 5. Construction of earthwork, seeding, pavement striping and all other items necessary to complete the work.

# START OF WORK

Construction operations shall not be allowed to commence until June 1, 2016.

# TRAFFIC CONTROL PLAN

Eff. 09-11-1990 Rev. 01-01-2014

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

Special attention is called to Articles 107.09 and 107.14 of the Standard Specifications, the following Highway Standards relating to Traffic Control, and the listed Supplemental Specifications and Recurring Special Provisions.

Highway Standards: 701006, 701311, 701901

Traffic: It is the intention of the Department that FAS Route 502 (Leverett Road) at Structure Number 010-0131 be kept closed to traffic until all work items are complete, excluding landscape seeding and permanent pavement marking work. One-way traffic will be permitted, after all items requiring road closure are completed, in the immediate work areas during construction. At all other times, two-way traffic shall be maintained throughout the project.

The following traffic control standards shall be utilized during, but not limited to, the listed construction operations:

<u>Traffic Control And Protection, Standard 701006:</u> Traffic Control and Protection, Standard 701006 shall be used for seeding and any other miscellaneous operation not requiring a lane closure. Traffic Control and Protection, Standard 701006 will not be measured for payment in accordance with Article 701.19(a) of the Standard Specifications.

<u>Traffic Control And Protection, Standard 701311:</u> Traffic Control and Protection, Standard 701311 shall be used for pavement marking operations, unless workers are on the pavement. Traffic Control and Protection, Standard 701311 will not be measured for payment in accordance with Article 701.19(a) of the Standard Specifications.

# TRAFFIC CONTROL AND PROTECTION (SPECIAL)

This work consists of furnishing, installing, maintaining and removing all traffic control devices and signs in accordance with the ROAD CLOSURE DETAIL shown in the plans. TRAFFIC CONTROL AND PROTECTION (SPECIAL) is required for the road closure of Leverett Road for the construction of this section.

The work within this contract will cause a Road Closure. The Contractor will provide two 48"x48" (o) "Road Closed On Or About (DATE)" signs for placement at locations to be determined by the Engineer. All signing shall be furnished, erected, maintained, and removed by the Contractor unless otherwise noted in the plans.

All road closure signs shall be in new or like-new condition at the start of the project. If an advanced warning or road closure sign is damaged or becomes unreadable, this sign shall be replaced by a new or like new sign, as directed by the Engineer. All signs shall meet current IDOT policy for retro-reflectivity requirements. Sizes of signs not specified in the plans shall be as required by the Manual on Uniform Traffic Control Devices (MUTCD) and the Illinois Supplement to the MUTCD.

The District will require a minimum notification of 21 days prior to the actual Road Closure to ensure specific route permitted loads are not sent to the restriction site. In their notification, the Contractor shall include the location and scheduled Road Closure start date. The Contractor is advised they will not be allowed to close the road without the 21 day notice and failure to provide proper notice will delay the road closure. The notice of road closure is considered a part of the Contractor's approved work schedule and it is the Contractor's responsibility to provide proper notice. Delays caused by failure to provide notice shall not be considered justification for workday reductions.

<u>Notification of Closure</u>: The Contractor shall notify the following at least two weeks prior to any closure of Leverett Road.

| Name           | Title                                     | Phone          |
|----------------|---|----------------|
| Gary Sims      | Traffic Operations Engineer               | (217)-465-4181 |
| Carl Phillips  | Maintenance Field Engineer                | (217)-465-4181 |
| Dan Walsh      | Champaign County Sheriff                  | (217)-384-1204 |
| Jeff Blue      | Champaign County Engineer                 | (217)-384-3800 |
| Bill James     | Director of Champaign County EMA          | (217)-384-3826 |
| Ralph Caldwell | Director of METCAD 911 (Champaign County) | (217)-333-4348 |
|                | Champaign Postmaster                      | (800) ASK-USPS |
|                | Somer Township Commissioner               | (217)-643-2495 |
| Judy Wiegand   | Champaign Comm. School Dist. #4           | (217)-351-3912 |
|                | Superintendent                            |                |

These agencies shall also be notified when the work is completed.

This work shall be paid for at the contract unit lump sum price for TRAFFIC CONTROL AND PROTECTION (SPECIAL). This price shall include all labor, materials, and equipment required to furnish, install, maintain, and remove all traffic control devices associated with the road closure as detailed in the plans.

# **CONTRACTOR ACCESS**

Eff. 09-11-1990 Rev. 01-01-2014

At road closure locations, where Type III barricades are installed in a manner that will not allow contractor access to the project without relocation of one or more of the barricades, the arrangement of the barricades at the beginning of each work day may be relocated, when approved by the Engineer, in the manner shown on Highway Standard 701901 for Road Closed to Through Traffic. 'Road Closed 'signs (RII-2), supplemented by 'Except Authorized Vehicles 'signs (R3-II0I), shall be mounted on both the near-right and the far-left barricade(s). At the end of each work day the barricades shall be returned to their in-line positions. This work will be considered to be included in the cost of the various traffic control items and no extra compensation will be allowed.

# APPROACH SLAB REMOVAL

This work shall consist of the complete removal of existing approach slabs including bituminous overlays, reinforcing bars, and sleeper slabs, at locations designated in the plans and in accordance with the applicable portions of Sections 440 and 501 of the Standard Specifications.

The Contractor shall remove the existing approach slabs in a manner so as not to damage the adjacent structures that are to remain.

Method of Measurement: Approach slab removal shall be measured for payment in place and the areas computed in square yards.

Basis of Payment: This work will be paid for at the contract unit price per square yard for APPROACH SLAB REMOVAL, which price shall include all labor and equipment necessary to remove and dispose of the entire approach slab pavement.

## COMPLETION DATE PLUS GUARANTEED WORKING DAYS

It is the intention of the Department that the period of road closure of FAS Route 502 (Leverett Road) be kept to a minimum and that all work, except for permanent seeding and striping, be completed during the closure. Once the road is closed, the Contractor shall work expeditiously to reopen it to traffic. It is the Department's intent that the project be completed, except for landscaping and permanent pavement markings, and the road opened to traffic by September 1, 2016. An additional 5 working days may be used for permanent seeding and permanent pavement marking after that date. Temporary lane closures for this work may be allowed at the discretion of the Engineer.

The provisions for the completion date plus working days shall be as set forth in Section 108 Prosecution and Progress of the Standard Specifications. All Applicable provisions of Section 108 shall apply.

If the project is not complete, except for permanent seeding and striping, and the road opened to traffic by September 1, 2016, the Contractor shall be liable and shall pay to the Department the amount per calendar day shown in the table in Article 108.09, and based on the full awarded value of the contract, not as penalty but as liquidated damages, for each day of overrun past the completion date or such extended time as may have been allowed.

# **HOT-MIX ASPHALT – REQUIRED FIELD TESTS**

Eff. 01-01-2011

Revise the first paragraph of Article 1030.05(d)(3) to read as follows:

Required Field Tests. The Contractor shall control the compaction process by testing the mix density at random locations determined by the Engineer in accordance with the QC/QA document, "Determination of Random Density Test Site Locations", and recording the results on forms approved by the Engineer. The density locations will be disclosed and marked by the Engineer after all compaction efforts have been completed. Locations shall be laid out using a tape measure or an approved measuring wheel. The Contractor shall follow the density testing procedures detailed in the QC/QA document, "Illinois-Modified ASTM D 2950, Standard Test Method for Determination of Density of Bituminous Concrete In-Place by Nuclear Method".

# HOT-MIX ASPHALT SURFACE REMOVAL

Eff. 10-01-09

This work shall be according to the applicable portions of Section 440 of the Standard Specifications, with the following additional requirements.

The Contractor shall have two options for the machine(s) used for Hot-Mix Asphalt Surface Removal on the through traffic lanes on this job.

1. The machine shall be capable of removing a layer of bituminous material at least the width of the lane of travel and 1-1/2 inches (40 mm) in depth in a single pass.

OR

2. Two machines shall be used. Each shall be capable of removing a layer of bituminous material at least one half the width of the lane of travel and 1-1/2 inches (40 mm) in depth in a single pass. If this option for two machines is used, they shall be operated in tandem with no more than 1/8-mile (200 m) separation. If areas of excessive cutting depth appear behind the second machine, then immediate adjustments to the operation of the first machine shall be made to correct the overcutting, and to provide the results shown above.

Any machine used for Hot-Mix Asphalt Surface Removal shall be equipped and operated with electronic grade control referenced to a traveling grade reference device not less than 30 ft. (9 m) in length, and according to Article 1101.16 of the Standard Specifications.

At locations where the milling operation does not fully mill and plane the pavement surface the requirements for checking tolerance with a 16 ft. (5 m) straightedge will not apply. These areas will include locations where the original pavement surface is untouched by the milling teeth. They shall also include areas where the milling teeth lightly touch the pavement, but the area between the cuts is not trimmed by the moldboard.

This work will be measured for payment according to the applicable portions of Article 440.07 of the Standard Specifications. No deduction will be made for areas traversed by the milling machine where the teeth do not touch the pavement surface as long as the work is performed as directed by the Engineer.

This work will be paid for according to the applicable portions of Article 440.08 of the Standard Specifications.

# **LONGITUDINAL JOINT DENSITY (D5-FG)**

Eff. 01-01-2010 Rev. 12-10-2014

<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). Work shall be according to Section 1030 of the Standard Specifications except as follows.

Quality Control/Quality Assurance (QC/QA). Delete the second and third sentence of the third paragraph of Article 1030.05(d)(3) of the Standard Specifications.

Add the following paragraphs to the end of Article 1030.05(d)(3) of the Standard Specifications:

- "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 4 in. (100 mm), from each pavement edge. (i.e. for a 4 in. (100 mm) lift the near edge of the density gauge or core barrel shall be within 4 in. (100 mm) from the edge of pavement.) Longitudinal joint density testing shall be performed using either a correlated nuclear gauge or cores.
- a. Confined Edge. Each confined edge density shall be represented by a oneminute nuclear density reading or a core density and shall be included in the average of density readings or core densities taken across the mat which represents the Individual Test.
- b. Unconfined Edge. Each unconfined edge joint density shall be represented by an average of three one-minute density readings or a single core density at the given density test location and shall meet the density requirements specified herein. The three one-minute readings shall be spaced ten feet apart longitudinally along the unconfined pavement edge and centered at the random density test location."

Revise the Density Control Limits table in Article 1030.05(d)(4) of the Standard Specifications to read:

|                             |                   | Individual Test            | Unconfined Edge |
|-----------------------------|-------------------|----------------------------|-----------------|
| "Mixture Composition        | Parameter         | (includes                  | Joint Density   |
|                             |                   | confined edges)            | Minimum         |
| IL-4.75                     | Ndesign=50        | 93.0 – 97.4% <sup>1/</sup> | 90.0%           |
| IL-9.5                      | Ndesign ≥ 90      | 92.0 – 96.0%               | 90.0%           |
| IL-9.5,IL-9.5L              | Ndesign < 90      | 92.5 – 97.4%               | 90.0%           |
| IL-19.0                     | Ndesign ≥ 90      | 93.0 – 96.0%               | 90.0%           |
| IL-19.0, IL-19.0L           | Ndesign < 90      | 93.0 – 97.4%               | 90.0%           |
| IL-9.5FG < 1 ¼ in (32 mm)   | Ndesign = 50 - 90 | 90.0 – 95.0%               | 90.0%           |
| IL-9.5FG > 1 1/4 in (32 mm) | Ndesign = 50 - 90 | 92.0 - 96.0%               | 90.0%           |
| SMA                         | Ndesign = 50 & 80 | 93.5 – 97.4%               | 91.0%           |

- 1/ Density shall be determined by cores or by correlated, approved thin lift nuclear gauge.
- 2/ 92.0% when placed as first lift on an unimproved subgrade.

# NON-VERTICAL IMPACT ROLLER FOR HOT-MIX ASPHALT

Eff. 10-13-2011

For all Hot-Mix Asphalt Mixtures placed at a rate exceeding 85 tons per hour (75 metric tons per hour), a Non-Vertical Impact roller may be used as the finish roller. The roller shall meet the requirements outlined below.

The roller shall be capable of operating in a mode that will provide non-vertical impacts and operate at a speed to produce not less than 10 impacts/ft (30 impacts/m). The roller shall be self-propelled and provide a smooth operation when starting, stopping or reversing directions. The non-vertical impact drum(s) amplitude and frequency shall be approximately the same in each direction and meet the following minimum requirements: drum diameter 48 in. (1200 mm), length of drum 66 in. (1650 mm), unit static force on drum(s) 125 lb/in. (22 N/m), adjustable eccentrics, and reversible eccentrics on non-driven drum(s). The total applied force and the direction it is applied for various combinations of VPM and eccentric positions shall be shown on decals on the vibrating roller or on a chart maintained with the roller. The roller shall be equipped with water tanks and sprinkling devices, or other approved methods, which shall be used to wet the drums to prevent material pickup.

This work will not be measured for payment or paid for separately, but shall be considered as included in the price per ton (metric ton) or square yard (square meter) of the various items of HOT-MIX ASPHALT, of the mixture and Ndesign (if applicable) specified.

# PNEUMATIC-TIRED ROLLER FOR HOT-MIX ASPHALT

Eff. 10-01-1998 Rev. 09-01-2006

For all Hot-Mix Asphalt Mixtures placed at a rate exceeding 85 tons per hour (75 metric tons per hour), a pneumatic-tired roller will be required as the intermediate roller. This roller shall meet the requirements of Table 1 of Article 406.07 of the Standard Specifications. This provision shall hold over any other requirements included elsewhere in the contract.

This work will not be measured for payment or paid for separately, but shall be considered as included in the price per ton (metric ton) or square yard (square meter) of the various items of HOT-MIX ASPHALT, of the mixture and Ndesign (if applicable) specified.

# STATUS OF UTILITIES

STATUS OF UTILITIES TO BE ADJUSTED For Contract 70599

The following utilities are involved in this project. The utility companies have provided the

estimated dates.

Name & Address <u>Type & Location</u> Estimated Date

of Utility

Relocation Completed

Mr. Dave Love Communications Throughout jobsite Not required

\* Frontier Communications

of Illinois

112 S. Main St

Sullivan, IL 61951

(217) 728-4503

Mob: (217) 821-6725

Mr. Randy Coverstone

\* Ameren Illinois 1112 West Anthony Drive

P.O. Box 17070

Urbana, IL 61803-7070

(217) 383-7257

Mob: (217) 840-4882

Mr. Marty Behrens

\* Ameren Illinois Mail Code K-30

2460 North Jasper Street

Decatur, IL 62521

(217) 424-7075

Mob: (217) 454-0956

Aerial electric on north ROW

Not required

Required

Gas transmission along south ROW

The above represents the best information of the Department and is only included for the convenience of the bidder. The applicable provisions of Sections 102, 103, and Articles 105.07, 107.20, 107.37, and 108.02 of the Standard Specifications for Road and Bridge Construction shall apply.

The estimated utility relocation dates should be part of the progress schedule submitted by the contractor. If any utility adjustments or relocations have not been completed by the above dates specified and when required by the contractor's operations after these dates, the contractor should notify the Engineer in writing. A request for an extension of time will be considered to the extent the Contractor's critical path schedule is affected.

Toll Free J.U.L.I.E. Telephone Number (800) 892-0123 or 811

\* = J.U.L.I.E. Member

## STEEL RAILING SALVAGE

The existing type S-1 steel bridge railing shall be removed and delivered to the IDOT Leverett Maintenance Storage at the following address:

160 East Leverett Road Champaign, IL 61821

Nick Gazzoli, Operations Supervisor, of the IDOT Bureau of Operations, Champaign Maintenance Section, shall be contacted at (217) 251-0543 at least two weeks prior to the delivery of the railing.

This work shall be considered incidental to Removal of Existing Structures and no additional compensation will be allowed.

# STRINGLINE

Eff. 11-27-1991 Rev. 08-01-2012

Some or all of the cold-milling, leveling binder, or hot-mix asphalt binder course on this section is intended as the first step toward establishing the proposed profile grade. The cold milling and leveling binder or hot-mix asphalt binder course will be controlled by stringline(s) erected, maintained, and removed and disposed of by the Contractor.

The cost of providing, erecting, maintaining, removing, disposing of and employing the stringline as the grade control will not be paid for separately but shall be considered as included in the COLD-MILLING, LEVELING BINDER (MACHINE METHOD) or HOT-MIX ASPHALT BINDER COURSE pay item involved.

# TREATMENT OF EXISTING FIELD TILE SYSTEMS

Eff. 12-21-1998 Rev. 01-01-2014

This work shall be according to Section 611, as shown in the plans, and as modified herein.

# Storm Sewers, Special and Storm Sewers, Protected

For use in replacing existing field tile, pipe diameters of 4 inches (100 mm), 6 inches (150 mm), 8 inches (200 mm), and 10 inches (250 mm) will be allowed. For storm sewers of these sizes used to replace existing field tile, Class B storm sewer pipe may be used where Class A storm sewer pipe would otherwise be required.

Connections between storm sewers smaller than 12 inches (300 mm) in diameter may be made using prefabricated, commercially available couplers, consisting of a casing pipe with flexible tubing bands at each end. The casing pipe shall completely cover the joint area, and the tubing shall be drawn tight around each pipe with corrosion and rust proof bands or hose clamps. Concrete collars, as shown in the plans, may also be used for these connections.

For pipe sizes of 12 inches (300 mm) and larger, concrete collars as shown on the plans will be required.

# **Field Tile Junction Vaults**

If known, the locations and depths of field tile junction vaults are shown on the plans. Other junction vaults provided as plan pay items shall be constructed according to the following:

FIELD TILE JUNCTION VAULTS 2 FEET (600 MM) DIA. shall be constructed according to Highway Standard 602301, "Inlet, Type A", using a frame and closed lid as shown on Highway Standard 604001, "Frame and Lids, Type 1." The maximum depth of the junction vault shall be 6 feet (1.8 m) from the flowline to the top of masonry. One or more Storm Sewer or field tiles will enter each of these junction vaults, and there will be at least one outlet pipe.

FIELD TILE JUNCTION VAULTS 3 FEET (900 MM) DIA. shall be constructed according to Highway Standard 602306, "Inlet, Type B", using a frame and closed lid as shown on Highway Standard 604001, "Frame and Lids, Type 1." The maximum depth of the junction vault shall be 6 feet (1.8 m) from the flowline to the top of masonry. One or more storm sewer or field tiles will enter each of these junction vaults, and there will be at least one outlet pipe.

Where conditions found in the field require the use of flat slab tops for the junction vaults, this work will be according to Article 109.04.

Where conditions found in the field require depths in excess of 6 feet (1.8 m) for junction vaults, this work shall be according to Article 109.04.

<u>Method of Measurement</u>. Couplers for pipe sizes smaller than 12 inches (300 mm) will not be measured separately for payment.

Concrete collars will be measured in cubic yards (cubic meters), not to exceed the dimensions shown in the plans.

Field tile junction vaults will be measured on an each basis.

<u>Basis of Payment</u>. Concrete collars will be paid for at the contract unit price per cubic yard (cubic meter) for MISCELLANEOUS CONCRETE, which price shall include all excavation and backfill.

The risers, gratings, and pipe tees for inspection wells shall be considered as included in the payment for STORM SEWER of the type and diameter specified.

Pay items not included in the contract and not included in other items of the contract will be paid according to Article 109.04 of the Standard Specifications.

# WILDFLOWER AREA

Care shall be taken not to disturb a posted wildflower area maintained by IDOT located to the west of project on north side of Leverett Road.

# PIPE UNDERDRAINS FOR STRUCTURES

Effective: May 17, 2000 Revised: January 22, 2010

<u>Description</u>. This work shall consist of furnishing and installing a pipe underdrain system as shown on the plans, as specified herein, and as directed by the Engineer.

Materials. Materials shall meet the requirements as set forth below:

The perforated pipe underdrain shall be according to Article 601.02 of the Standard Specifications. Outlet pipes or pipes connecting to a separate storm sewer system shall not be perforated.

The drainage aggregate shall be a combination of one or more of the following gradations, FA1, FA2, CA5, CA7, CA8, CA11, or CA13 thru 16, according to Sections 1003 and 1004 of the Standard Specifications.

The fabric surrounding the drainage aggregate shall be Geotechnical Fabric for French Drains according to Article 1080.05 of the Standard Specifications.

<u>Construction Requirements.</u> All work shall be according to the applicable requirements of Section 601 of the Standard Specifications except as modified below.

The pipe underdrains shall consist of a perforated pipe drain situated at the bottom of an area of drainage aggregate wrapped completely in geotechnical fabric and shall be installed to the lines and gradients as shown on the plans.

<u>Method of Measurement.</u> Pipe Underdrains for Structures shall be measured for payment in feet (meters), in place. Measurement shall be along the centerline of the pipe underdrains. All connectors, outlet pipes, elbows, and all other miscellaneous items shall be included in the measurement. Concrete headwalls shall be included in the cost of Pipe Underdrains for Structures, but shall not be included in the measurement for payment.

<u>Basis of Payment.</u> This work will be paid for at the contract unit price per foot (meter) for PIPE UNDERDRAINS FOR STRUCTURES of the diameter specified. Furnishing and installation of the drainage aggregate, geotechnical fabric, forming holes in structural elements and any excavation required, will not be paid for separately, but shall be included in the cost of the pipe underdrains for structures.

# **CONCRETE DECK BEAMS**

Effective: June 13, 2008 Revised: October 9, 2009

Add the following equipment to Article 504.03.

(c) Mechanical Mixer (Note 1)

1101.19

Note 1: A drill with paddle may be used for mixing small quantities of nonshrink grout. Hand mixing will not be allowed.

Replace the second sentence of the fifth paragraph of Article 504.06(d) with the following.

Dowels at the fixed ends of the deck beams shall be installed, nonshrink grout placed and cured for a minimum of 24 hours. If the bearing area is specified to be grouted it shall be done at the time of dowel placement.

Replace the fourth paragraph of Article 504.06(e) with the following.

A mechanical mixer shall be used to mix the nonshrink grout and the type of mixer and mixing procedures shall be per the manufacturer's recommendations. During placement, the grout shall be worked into the area with a pencil vibrator. The surface shall be troweled to a smooth finish. The nonshrink grout shall be immediately cured with cotton mats according to Article 1020.13 for a minimum of seven days, and field testing will not be required. However, the cure time may be reduced provided the Contractor molds specimens, covers them, and performs cube tests according to ASTM C 1107. The tests shall verify the 6000 psi grout strength has been obtained, but in no case shall the cure time be less than three days.

For Contractor cube tests, each sample shall consist of three test specimens and a minimum of two samples will be required for each day of grouting. Additional samples may be requested by the Engineer. Specimens shall be cured underneath the cotton mats with the beams for a minimum of 48 hours before transport to the laboratory for testing. The laboratory shall be inspected for Hydraulic Cement – Physical Tests by the Cement and Concrete Reference Laboratory (CCRL).

Add the following paragraph to the end of Article 504.06

(f) Construction Inserts. All inserts, including those necessary for the fabrication and construction of the structure or portions thereof shall be cast into the member according to Article 3.5.2 of the Manual for Fabrication of Precast Prestressed Concrete Products.

Replace 1006.06(a) and (b) with the following.

- (a) Transverse Tie Rod Assemblies. Steel for transverse tie rod assemblies (i.e. rods, nuts, washers and coupling nuts) shall be according to ASTM F 1554 Grade 55 (Grade 380). After fabrication, the transverse tie assemblies shall be hot-dipped galvanized according to AASHTO M 232. The small articles may be zinc-coated by the mechanically deposited process according to AASHTO M 298, Class 50. The thickness of the mechanical galvanizing shall not exceed 6 mils (150 μm).
- (b) Dowel Rods. Steel for dowel rods shall be according to ASTM F 1554 Grade 55 (Grade 380) or A706 Grade 60. Dowel rods shall be either epoxy coated according to AASHTO M 284 or galvanized according to AASHTO M 111.

Add the following Article to Section 1101.

1101.19 Mechanical Mixer. The mechanical mixer shall have paddles or blades that are suitable for uniformly mixing the material, and shall have sufficient capacity to allow for a continuous work operation.

# **GRANULAR BACKFILL FOR STRUCTURES**

Effective: April 19, 2012 Revised: October 30, 2012

Revise Section 586 of the Standard Specifications to read:

# **SECTION 586.** Granular Backfill for structures

**586.01 Description.** This work shall consist of furnishing, transporting and placing granular backfill for abutment structures.

**586.02 Materials.** Materials shall be according to the following.

| Item               | Article/Section |
|--------------------|-----------------|
| (a) Fine Aggregate | 1003.04         |
|                    | 1004.05         |

# CONSTRUCTION REQUIREMENTS

**586.03 General.** This work shall be done according to Article 502.10 except as modified below. The backfill volume shall be backfilled, with granular material as specified in Article 586.02, to the required elevation as shown in the contract plans. The backfill volume shall be placed in convenient lifts for the full width to be backfilled. Unless otherwise specified in the contract plans, mechanical compaction will not be required. A deposit of gravel or crushed stone placed behind drain holes shall not be required. All drains not covered by geocomposite wall drains or other devices to prevent loss of backfill material shall be covered by sufficient filter fabric material meeting the requirements of Section 1080 and Section 282 with either 6 or 8 oz/sq yd (200 or 270 g/sq m) material allowed, with free edges overlapping the drain hole by at least 12 in. (300 mm) in all directions.

The granular backfill shall be brought to the finished grade as shown in the contract plans. When concrete is to be cast on top of the granular backfill, the Contractor, subject to approval of the Engineer, may prepare the top surface of the fill to receive the concrete as he/she deems necessary for satisfactory placement at no additional cost to the Department.

**586.04 Method of Measurement.** This work will be measured for payment as follows.

- (a) Contract Quantities. The requirements for the use of contract quantities shall conform to Article 202.07(a).
- (b) Measured Quantities. This work will be measured for payment in place and the volume computed in cubic yards (cubic meters). The volume will be determined by the method of average end areas behind the abutment.

**586.05** Basis of Payment. This work will be paid for at the contract unit price per cubic yard (cubic meter) for GRANULAR BACKFILL FOR STRUCTURES.

# **BRIDGE DECK CONSTRUCTION**

Effective: October 22, 2013 Revised: April 18, 2014

Revise the Second Paragraph of Article 503.06(b) to read as follows:

"When the Contractor uses cantilever forming brackets on exterior beams or girders, additional requirements shall be as follows."

Revise Article 503.06(b)(1) to read as follows:

"(1) Bracket Placement. The spacing of brackets shall be per the manufacturer's published design specifications for the size of the overhang and the construction loads anticipated. The resulting force of the leg brace of the cantilever bracket shall bear on the web within 6 inches (150 mm) of the bottom flange of the beam or girder."

Revise Article 503.06(b)(2) to read as follows:

"(2) Beam Ties. The top flange of exterior steel beams or girders supporting the cantilever forming brackets shall be tied to the bottom flange of the next interior beam. The top flange of exterior concrete beams supporting the cantilever forming brackets shall be tied to the top flange of the next interior beam. The ties shall be spaced at 4 ft (1.2 m) centers. Permanent cross frames on steel girders may be considered a tie. Ties shall be a minimum of 1/2 inch (13 mm) diameter threaded rod with an adjusting mechanism for drawing the tie taut. The ties shall utilize hanger brackets or clips which hook onto the flange of steel beams. No welding will be permitted to the structural steel or stud shear connectors, or to reinforcement bars of concrete beams, for the installation of the tie bar system. After installation of the ties and blocking, the tie shall be drawn taut until the tie does not vary from a straight line from beam to beam. The tie system shall be approved by the Engineer."

Revise Article 503.06(b)(3) to read as follows:

"(3) Beam Blocks. Suitable beam blocks of 4 in x 4 in (100 x 100 mm) timbers or metal structural shapes of equivalent strength or better, acceptable to the Engineer, shall be wedged between the webs of the two beams tied together, within 6 inches (150 mm) of the bottom flange at each location where they are tied. When it is not feasible to have the resulting force from the leg brace of the cantilever brackets transmitted to the web within 6 inches (150 mm) of the bottom flange, then additional blocking shall be placed at each bracket to transmit the resulting force to within 6 inches (150 mm) of the bottom flange of the next interior beam or girder."

Delete the last paragraph of Article 503.06(b).

Revise the third paragraph of Article 503.16 to read as follows:

"Fogging equipment shall be in operation unless the evaporation rate is less than 0.1 lb/sq ft/hour (0.5kg/sq m/hour) and the Engineer gives permission to stop. The evaporation rate shall be determined according to the following formula.

$$E = (T_c^{2.5} - rT_a^{2.5})(1 + 0.4V)x10^{-6} (English)$$
  

$$E = 5[(T_c + 18)^{2.5} - r(T_a + 18)^{2.5}](V + 4)x10^{-6} (Metric)$$

# Where:

 $E = \text{Evaporation Rate, lb/ft}^2/\text{h (kg/sq m/h)}$ 

 $T_c$  = Concrete Temperature, °F (°C)

 $T_a$  = Air Temperature, °F (°C)

r = Relative Humidity in percent/100

V = Wind Velocity, mph (km/h)

The Contractor shall provide temperature, relative humidity, and wind speed measuring equipment. Fogging equipment shall be adequate to reach or cover the entire pour from behind the finishing machine or vibrating screed to the point of curing covering application, and shall be operated in a manner which shall not accumulate water on the deck until the curing covering has been placed."

Revise the third paragraph of Article 503.16(a)(1) to read as follows:

"At the Contractor's option, a vibrating screed may be used in lieu of a finishing machine for superstructures with a pour width less than or equal to 24 ft (7.3 m). After the concrete is placed and consolidated, it shall be struck off with a vibrating screed allowing for camber, if required. The vibrating screed shall be of a type approved by the Engineer. A slight excess of concrete shall be kept in front of the cutting edge at all times during the striking off operation. After screeding, the entire surface shall be finished with hand-operated longitudinal floats having blades not less than 10 ft (3 m) in length and 6 in. (150 mm) in width. Decks so finished need not be straightedge tested as specified in 503.16(a)(2)."

Delete the fifth paragraph of 503.16(a)(1).

Revise Article 503.16(a)(2) to read as follows:

"(2) Straightedge Testing and Surface Correction. After the finishing has been completed and while the concrete is still plastic, the surface shall be tested for trueness with a 10 ft (3 m) straightedge, or a hand-operated longitudinal float having blades not less than 10 ft (3 m) in length and 6 in. (150 mm) in width. The Contractor shall furnish and use an accurate 10 ft (3 m) straightedge or float which has a handle not less than 3 ft (1 m) longer than 1/2 the pour width. The straightedge or float shall be held in contact with the surface and passed gradually from one side of the superstructure to the other. Advance along the surface shall be in successive stages of not more than 1/2 the length of the straightedge or float. Any depressions found shall be immediately filled with freshly mixed concrete, struck off, consolidated, and refinished. High areas shall be cut down and refinished."

Replace the second sentence of the first paragraph of Article 1020.13(a)(5) with the following sentences:

"Cotton mats in poor condition will not be allowed. The cotton mats shall be placed in a manner which will not create indentations greater than 1/4 inch (6 mm) in the concrete surface. Minor marring of the surface is tolerable and is secondary to the importance of timely curing."

Revise Article 1020.14(b) to read as follows:

- "(b) Concrete in Structures. Concrete may be placed when the air temperature is above 40 °F (4 °C) and rising, and concrete placement shall stop when the falling temperature reaches 45 °F (7 °C) or below, unless otherwise approved by the Engineer.
  - (1) Bridge Deck Concrete. For concrete in bridge decks, slabs, and bridge approach slabs the Contractor shall schedule placing and finishing of the concrete during hours in which the ambient air temperature is forecast to be lower than 85 °F (30 °C). It shall be understood this may require scheduling the deck pour at night in order to utilize the temperature window available. The temperature of the concrete immediately before placement shall be a minimum of 50 °F (10 °C) and a maximum of 85 °F (30 °C).
  - (2) Non-Bridge Deck Concrete. Except as noted above, the temperature of the concrete immediately before placement shall be a minimum of 50 °F (10 °C) and a maximum of 90 °F (32 °C).

If concrete is pumped, the temperature restrictions above shall be considered at point of placement. When insulated forms are used according to Article 1020.13(d)(1), the maximum temperature of the concrete mixture immediately before placement shall be 80 °F (25 °C). When concrete is placed in contact with previously placed concrete, the temperature of the freshly mixed concrete may be increased by the Contractor to offset anticipated heat loss, but in no case shall the maximum concrete temperature be permitted to exceed the limits stated in this Article."

Revise Article 1103.13(a) to read as follows:

"(a) Bridge Deck. The finishing machine shall be equipped with: (1) a mechanical strike off device; (2) either a rotating cylinder(s) or a longitudinal oscillating screed which transversely finishes the surface of the concrete. The Contractor may attach other equipment to the finishing machine to enhance the final finish when approved by the Engineer. The finishing machine shall produce a deck surface of uniform texture, free from porous areas, and with the required surface smoothness.

The finishing machine shall be operated on rails or other supports that will not deflect under the applied loads. The maximum length of rail segments supported on top of beams and within the pour shall be 10 ft (3 m). The supports shall be adjustable for elevation and shall be completely in place to allow the finishing machine to be used for the full length of the area to be finished. The supports shall be approved by the Engineer before placing of the concrete is started."

Revise Article 1103.17(k) to read as follows:

"(k) Fogging Equipment. Fogging equipment shall be hand held fogging equipment for humidity control. The equipment shall be capable of atomizing water to produce a fog blanket by the use of pressure 2500 psi minimum (17.24 MPa) and an industrial fire hose fogging nozzle or equivalent. Fogging equipment attached to the finishing machine will not be permitted."

# COARSE AGGREGATE QUALITY (BDE)

Effective: July 1, 2015

Revise Article 1004.01(b) of the Standard Specifications to read:

"(b) Quality. The coarse aggregate shall be according to the quality standards listed in the following table.

| COARSE AGGREGATE QUALITY   |                   |       |         |                  |  |
|--|-------------------|-------|---------|------------------|--|
| QUALITY TEST   |                   | CLASS |         |                  |  |
| QUALITI ILOT   | Α                 | В     | С       | D                |  |
| Na <sub>2</sub> SO <sub>4</sub> Soundness 5 Cycle, ITP 104 <sup>1/</sup> , % Loss max. | 15                | 15    | 20      | 25 <sup>2/</sup> |  |
| Los Angeles Abrasion, ITP 96 11/, % Loss max.  | 40 <sup>3/</sup>  | 40 4/ | 40 5/   | 45               |  |
| Minus No. 200 (75 μm) Sieve Material, ITP 11   | 1.0 6/            |       | 2.5 7/  |                  |  |
| Deleterious Materials 10/  |                   |       |         |                  |  |
| Shale, % max.  | 1.0               | 2.0   | 4.0 8/  |                  |  |
| Clay Lumps, % max.   | 0.25              | 0.5   | 0.5 8/  |                  |  |
| Coal & Lignite, % max.   | 0.25              |       |         |                  |  |
| Soft & Unsound Fragments, % max.   | 4.0               | 6.0   | 8.0 8/  |                  |  |
| Other Deleterious, % max.  | 4.0 <sup>9/</sup> | 2.0   | 2.0 8/  |                  |  |
| Total Deleterious, % max.  | 5.0               | 6.0   | 10.0 8/ |                  |  |
| Oil-Stained Aggregate <sup>10/</sup> , % max   | 5.0               |       |         |                  |  |

- 1/ Does not apply to crushed concrete.
- 2/ For aggregate surface course and aggregate shoulders, the maximum percent loss shall be 30.
- 3/ For portland cement concrete, the maximum percent loss shall be 45.
- 4/ Does not apply to crushed slag or crushed steel slag.

- 5/ For hot-mix asphalt (HMA) binder mixtures, except when used as surface course, the maximum percent loss shall be 45.
- 6/ For crushed aggregate, if the material finer than the No. 200 (75 μm) sieve consists of the dust from fracture, essentially free from clay or silt, this percentage may be increased to 2.5.
- 7/ Does not apply to aggregates for HMA binder mixtures.
- 8/ Does not apply to Class A seal and cover coats.
- 9/ Includes deleterious chert. In gravel and crushed gravel aggregate, deleterious chert shall be the lightweight fraction separated in a 2.35 heavy media separation. In crushed stone aggregate, deleterious chert shall be the lightweight fraction separated in a 2.55 heavy media separation. Tests shall be run according to ITP 113.
- 10/ Test shall be run according to ITP 203.
- 11/ Does not apply to crushed slag.

All varieties of chert contained in gravel coarse aggregate for portland cement concrete, whether crushed or uncrushed, pure or impure, and irrespective of color, will be classed as chert and shall not be present in the total aggregate in excess of 25 percent by weight (mass).

Aggregates used in Class BS concrete (except when poured on subgrade), Class PS concrete, and Class PC concrete (bridge superstructure products only, excluding the approach slab) shall contain no more than two percent by weight (mass) of deleterious materials. Deleterious materials shall include substances whose disintegration is accompanied by an increase in volume which may cause spalling of the concrete."

#### CONCRETE MIX DESIGN – DEPARTMENT PROVIDED (BDE)

Effective: January 1, 2012 Revised: January 1, 2014

For the concrete mix design requirements in Article 1020.05(a) of the Supplemental Specifications and Recurring Special Provisions, the Contractor has the option to request the Engineer determine mix design material proportions for Class PV, PP, RR, BS, DS, SC, and SI concrete. A single mix design for each class of concrete will be provided. Acceptance by the Contractor to use the mix design developed by the Engineer shall not relieve the Contractor from meeting specification requirements.

## **CONTRACT CLAIMS (BDE)**

Effective: April 1, 2014

Revise the first paragraph of Article 109.09(a) of the Standard Specifications to read:

"(a) Submission of Claim. All claims filed by the Contractor shall be in writing and in sufficient detail to enable the Department to ascertain the basis and amount of the claim. As a minimum, the following information must accompany each claim submitted."

Revise Article 109.09(e) of the Standard Specifications to read:

"(e) Procedure. The Department provides two administrative levels for claims review.

Level I Engineer of Construction

Level II Chief Engineer/Director of Highways or Designee

- (1) Level I. All claims shall first be submitted at Level I. Two copies each of the claim and supporting documentation shall be submitted simultaneously to the District and the Engineer of Construction. The Engineer of Construction, in consultation with the District, will consider all information submitted with the claim and render a decision on the claim within 90 days after receipt by the Engineer of Construction. Claims not conforming to this Article will be returned without consideration. The Engineer of Construction may schedule a claim presentation meeting if in the Engineer of Construction's judgment such a meeting would aid in resolution of the claim, otherwise a decision will be made based on the claim documentation submitted. If a Level I decision is not rendered within 90 days of receipt of the claim, or if the Contractor disputes the decision, an appeal to Level II may be made by the Contractor.
- (2) Level II. An appeal to Level II shall be made in writing to the Engineer of Construction within 45 days after the date of the Level I decision. Review of the claim at Level II shall be conducted as a full evaluation of the claim. A claim presentation meeting may be scheduled if the Chief Engineer/Director of Highways determines that such a meeting would aid in resolution of the claim, otherwise a decision will be made based on the claim documentation submitted. A Level II final decision will be rendered within 90 days of receipt of the written request for appeal.

Full compliance by the Contractor with the provisions specified in this Article is a contractual condition precedent to the Contractor's right to seek relief in the Court of Claims. The Director's written decision shall be the final administrative action of the Department. Unless the Contractor files a claim for adjudication by the Court of Claims within 60 days after the date of the written decision, the failure to file shall constitute a release and waiver of the claim."

## **DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION (BDE)**

Effective: September 1, 2000 Revised: November 2, 2015

<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.

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, which may include, but is not limited to:

- (a) Withholding progress payments:
- (b) Assessing sanctions;
- (c) Liquidated damages; and/or
- (d) Disqualifying the Contractor from future bidding as non-responsible.

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. The 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 6.00% of the work. This percentage is set as the DBE participation goal for this contract. Consequently, in addition to the other award criteria established for this contract, the Department will only award this contract to a bidder who makes a good faith effort to meet this goal of DBE participation in the performance of the work. A bidder makes a good faith effort for award consideration if either of the following is done in accordance with the procedures set for in this Special Provision:

- (a) The bidder documents that enough DBE participation has been obtained to meet the goal or,
- (b) The bidder documents that a good faith effort has been made to meet the goal, even though the effort did not succeed in obtaining enough DBE participation to meet the goal.

<u>DBE LOCATOR REFERENCES</u>. Bidders shall 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 website at:

http://www.idot.illinois.gov/doing-business/certifications/disadvantaged-business-enterprise-certification/il-ucp-directory/index.

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

In order to assure the timely award of the contract, the low bidder shall submit:

- (a) The bidder shall submit a Disadvantaged Business Utilization Plan on completed Department forms SBE 2025 and 2026.
  - (1) The final Utilization Plan must be submitted within five calendar days after the date of the letting.
  - (2) To meet the five day requirement, the bidder may send the Utilization Plan electronically by scanning and sending to <a href="DOT.DBE.UP@illinois.gov">DOT.DBE.UP@illinois.gov</a> or faxing to (217) 785-1524. The subject line must include the bid Item Number and the Letting date. The Utilization Plan should be sent as one .pdf file, rather than multiple files and emails for the same Item Number. It is the responsibility of the bidder to obtain confirmation of email or fax delivery.

Alternatively, the Utilization Plan may be sent by certified mail or delivery service within the five business day period. If a question arises concerning the mailing date of a Utilization 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 the postmark or receipt date is affixed within the five days if the bidder intends to rely upon mailing or delivery to satisfy the submission day requirement. The Utilization Plan is to be submitted to:

Illinois Department of Transportation Bureau of Small Business Enterprises Contract Compliance Section 2300 South Dirksen Parkway, Room 319 Springfield, Illinois 62764

The Department will not accept a Utilization Plan if it does not meet the five 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 Utilization 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 Utilization Plan approval or disapproval under the procedures of this Special Provision.
- (c) The Utilization Plan shall include a DBE Participation Commitment Statement, Department form SBE 2025, for each DBE proposed for the performance of work to achieve the contract goal. For bidding purposes, submission of the completed SBE 2025 forms, signed by the DBEs and scanned or faxed to the bidder will be acceptable as long as the original is available and provided upon request. All elements of information indicated on the said form shall be provided, including but not limited to the following:
  - (1) The names and addresses of DBE firms that will participate in the contract;
  - (2) A description, including pay item numbers, of the work each DBE will perform;
  - (3) The dollar amount of the participation of each DBE firm participating. The dollar amount of participation for identified work shall specifically state the quantity, unit price, and total subcontract price for the work to be completed by the DBE. If partial pay items are to be performed by the DBE, indicate the portion of each item, a unit price where appropriate and the subcontract price amount;

- (4) DBE Participation Commitment Statements, form SBE 2025, signed by the bidder and each participating DBE firm documenting the commitment to use the DBE subcontractors whose participation is submitted to meet the contract goal:
- (5) If the bidder is a joint venture comprised of DBE companies and non-DBE companies, the Utilization Plan must also include a clear identification of the portion of the work to be performed by the DBE partner(s); and,
- (6) If the contract goal is not met, evidence of good faith efforts; the documentation of good faith efforts must include copies of each DBE and non-DBE subcontractor quote submitted to the bidder when a non-DBE subcontractor is selected over a DBE for work on the contract.

GOOD FAITH EFFORT PROCEDURES. The contract will not be awarded until the Utilization Plan submitted by the apparent successful bidder is approved. All information submitted by the bidder must be complete, accurate and adequately document that enough DBE participation has been obtained or document that good faith efforts of the bidder, in the event enough DBE participation has not been obtained, before the Department will commit to the performance of the contract by the bidder. The Utilization Plan will be approved by the Department if the Utilization Plan documents sufficient commercially useful DBE work to meet the contract goal or the bidder submits sufficient documentation of a good faith effort to meet the contract goal pursuant to 49 CFR Part 26, Appendix A. The Utilization Plan will not be approved by the Department if the Utilization Plan does not document sufficient DBE participation to meet the contract goal unless the apparent successful bidder documented in the Utilization Plan that it made a good faith effort to meet the goal. This means that the bidder must show that all necessary and reasonable steps were taken to achieve the contract goal. Necessary and reasonable steps are those which, by their scope, intensity and appropriateness to the objective, could reasonably be expected to obtain sufficient DBE participation, even if they were not successful. The Department will consider the quality, quantity, and intensity of the kinds of efforts that the bidder has made. Mere pro forma efforts, in other words, efforts done as a matter of form, are not good faith efforts; rather, the bidder is expected to have taken genuine efforts that would be reasonably expected of a bidder actively and aggressively trying to obtain DBE participation sufficient to meet the contract goal.

- (a) The following is a list of types of action that the Department will consider as part of the evaluation of the bidder's good faith efforts to obtain participation. These listed factors are not intended to be a mandatory checklist and are not intended to be exhaustive. Other factors or efforts brought to the attention of the Department may be relevant in appropriate cases, and will be considered by the Department.
  - (1) Soliciting through all reasonable and available means (e.g. attendance at pre-bid meetings, advertising and/or written notices) the interest of all certified DBE companies that have the capability to perform the work of the contract. The bidder must solicit this interest within sufficient time to allow the DBE companies to respond to the solicitation. The bidder must determine with certainty if the DBE companies are interested by taking appropriate steps to follow up initial solicitations.

- (2) Selecting portions of the work to be performed by DBE companies in order to increase the likelihood that the DBE goals will be achieved. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate DBE participation, even when the prime Contractor might otherwise prefer to perform these work items with its own forces.
- (3) Providing interested DBE companies with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist them in responding to a solicitation.
- (4) a. Negotiating in good faith with interested DBE companies. It is the bidder's responsibility to make a portion of the work available to DBE subcontractors and suppliers and to select those portions of the work or material needs consistent with the available DBE subcontractors and suppliers, so as to facilitate DBE participation. Evidence of such negotiation includes the names, addresses, and telephone numbers of DBE companies that were considered; a description of the information provided regarding the plans and specifications for the work selected for subcontracting; and evidence as to why additional agreements could not be reached for DBE companies to perform the work.
  - b. A bidder using good business judgment would consider a number of factors in negotiating with subcontractors, including DBE subcontractors, and would take a firm's price and capabilities as well as contract goals into consideration. However, the fact that there may be some additional costs involved in finding and using DBE companies is not in itself sufficient reason for a bidder's failure to meet the contract DBE goal, as long as such costs are reasonable. Also the ability or desire of a bidder to perform the work of a contract with its own organization does not relieve the bidder of the responsibility to make good faith efforts. Bidders are not, however, required to accept higher quotes from DBE companies if the price difference is excessive or unreasonable. In accordance with subsection (c)(6) of the above Bidding Procedures, the documentation of good faith efforts must include copies of each DBE and non-DBE subcontractor quote submitted to the bidder when a non-DBE subcontractor was selected over a DBE for work on the contract.
- (5) Not rejecting DBE companies as being unqualified without sound reasons based on a thorough investigation of their capabilities. The bidder's standing within its industry, membership in specific groups, organizations, or associations and political or social affiliations (for example union vs. non-union employee status) are not legitimate causes for the rejection or non-solicitation of bids in the bidder's efforts to meet the project goal.
- (6) Making efforts to assist interested DBE companies in obtaining bonding, lines of credit, or insurance as required by the recipient or Contractor.

- (7) Making efforts to assist interested DBE companies in obtaining necessary equipment, supplies, materials, or related assistance or services.
- (8) Effectively using the services of available minority/women community organizations; minority/women contractors' groups; local, state, and federal minority/women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of DBE companies.
- (b) If the Department determines that the apparent successful bidder has made a good faith effort to secure the work commitment of DBE companies to meet the contract goal, the Department will award the contract provided that it is otherwise eligible for award. If the Department determines that the bidder has failed to meet the requirements of this Special Provision or that a good faith effort has not been made, the Department will notify the responsible company official designated in the Utilization Plan that the bid is not responsive. The notification shall include a statement of reasons for the determination. If the Utilization Plan is not approved because it is deficient as a technical matter, unless waived by the Department, the bidder will be notified and will be allowed no more than a five calendar day period in order to cure the deficiency.
- (c) The bidder may request administrative reconsideration of a determination adverse to the bidder within the five working days after the receipt of the notification date of the determination by delivering the request to the Department of Transportation, Bureau of Small Business Enterprises, Contract Compliance Section, 2300 South Dirksen Parkway, Room 319, Springfield, Illinois 62764 (Telefax: (217) 785-1524). Deposit of the request in the United States mail on or before the fifth business day shall not be deemed delivery. The determination shall become final if a request is not made and A request may provide additional written documentation or argument concerning the issues raised in the determination statement of reasons, provided the documentation and arguments address efforts made prior to submitting the bid. The request will be forwarded to the Department's Reconsideration Officer. Reconsideration Officer will extend an opportunity to the bidder to meet in person in order to consider all issues of documentation and 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 consideration, 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.

<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 contract. Credit will be given for the following:
  - (1) The DBE may lease trucks from another DBE firm, including an owner-operator who is certified as a DBE. The DBE who leases trucks from another DBE receives credit for the total value of the transportation services the lessee DBE provides on the contract.
  - (2) The DBE may also lease trucks from a non-DBE firm, including from an owner-operator. The DBE who leases trucks from a non-DBE is entitled to credit only for the fee or commission is receives as a result of the lease arrangement.
- (e) DBE as a material supplier:
  - (1) 60 percent goal credit for the cost of the materials or supplies purchased from a DBE regular dealer.

- (2) 100 percent goal credit for the cost of materials of 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 DBE regular dealer or DBE manufacturer.

CONTRACT COMPLIANCE. Compliance with this Special Provision is an essential part of the contract. The Department is prohibited by federal regulations from crediting the participation of a DBE included in the Utilization Plan toward either the contract goal or the Department's overall goal until the amount to be applied toward the goals has been paid to the DBE. The following administrative procedures and remedies govern the compliance by the Contractor with the contractual obligations established by the Utilization Plan. After approval of the Utilization Plan and award of the contract, the Utilization Plan and individual DBE Participation Statements become part of the contract. If the Contractor did not succeed in obtaining enough DBE participation to achieve the advertised contract goal, and the Utilization Plan was approved and contract awarded based upon a determination of good faith, the total dollar value of DBE work calculated in the approved Utilization Plan as a percentage of the awarded contract value shall become the amended contract goal. All work indicated for performance by an approved DBE shall be performed, managed, and supervised by the DBE executing the DBE Participation Commitment Statement.

- (a) <u>NO AMENDMENT</u>. 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) <u>CHANGES TO WORK</u>. Any deviation from the DBE condition-of-award or contract plans, specifications, or special provisions must be approved, in writing, by the Department as provided elsewhere in the Contract. The Contractor shall notify affected DBEs in writing of any changes in the scope of work which result in a reduction in the dollar amount condition-of-award to the contract. Where the revision includes work committed to a new DBE subcontractor, not previously involved in the project, then a Request for Approval of Subcontractor, Department form BC 260A or AER 260A, must be signed and submitted. If the commitment of work is in the form of additional tasks assigned to an existing subcontract, than a new Request for Approval of Subcontractor shall not be required. However, the Contractor must document efforts to assure that the existing DBE subcontractor is capable of performing the additional work and has agreed in writing to the change.
- (c) <u>SUBCONTRACT</u>. The Contractor must provide DBE subcontracts to IDOT upon request. Subcontractors shall ensure that all lower tier subcontracts or agreements with DBEs to supply labor or materials be performed in accordance with this Special Provision.

- (d) <u>ALTERNATIVE WORK METHODS</u>. In addition to the above requirements for reductions in the condition of award, additional requirements apply to the two cases of Contractorinitiated work substitution proposals. Where the contract allows alternate work methods which serve to delete or create underruns in condition of award DBE work, and the Contractor selects that alternate method or, where the Contractor proposes a substitute work method or material that serves to diminish or delete work committed to a DBE and replace it with other work, then the Contractor must demonstrate one of the following:
  - (1) That the replacement work will be performed by the same DBE (as long as the DBE is certified in the respective item of work) in a modification of the condition of award; or
  - (2) That the DBE is aware that its work will be deleted or will experience underruns and has agreed in writing to the change. If this occurs, the Contractor shall substitute other work of equivalent value to a certified DBE or provide documentation of good faith efforts to do so; or
  - (3) That the DBE is not capable of performing the replacement work or has declined to perform the work at a reasonable competitive price. If this occurs, the Contractor shall substitute other work of equivalent value to a certified DBE or provide documentation of good faith efforts to do so.
- (e) TERMINATION AND REPLACEMENT PROCEDURES. The Contractor shall not terminate or replace a DBE listed on the approved Utilization Plan, or perform with other forces work designated for a listed DBE except as provided in this Special Provision. The Contractor shall utilize the specific DBEs listed to perform the work and supply the materials for which each is listed unless the Contractor obtains the Department's written consent as provided in subsection (a) of this part. Unless Department consent is provided for termination of a DBE subcontractor, the Contractor shall not be entitled to any payment for work or material unless it is performed or supplied by the DBE in the Utilization Plan.

As stated above, the Contractor shall not terminate or replace a DBE subcontractor listed in the approved Utilization Plan without prior written consent. This includes, but is not limited to, instances in which the Contractor seeks to perform work originally designated for a DBE subcontractor with its own forces or those of an affiliate, a non-DBE firm, or with another DBE firm. Written consent will be granted only if the Bureau of Small Business Enterprises agrees, for reasons stated in its concurrence document, that the Contractor has good cause to terminate or replace the DBE firm. Before transmitting to the Bureau of Small Business Enterprises any request to terminate and/or substitute a DBE subcontractor, the Contractor shall give notice in writing to the DBE subcontractor. with a copy to the Bureau, of its intent to request to terminate and/or substitute, and the reason for the request. The Contractor shall give the DBE five days to respond to the Contractor's notice. The DBE so notified shall advise the Bureau and the Contractor of the reasons, if any, why it objects to the proposed termination of its subcontract and why the Bureau should not approve the Contractor's action. If required in a particular case as a matter of public necessity, the Bureau may provide a response period shorter than five days.

For purposes of this paragraph, good cause includes the following circumstances:

- (1) The listed DBE subcontractor fails or refuses to execute a written contract;
- (2) The listed DBE subcontractor fails or refuses to perform the work of its subcontract in a way consistent with normal industry standards. Provided, however, that good cause does not exist if the failure or refusal of the DBE subcontractor to perform its work on the subcontract results from the bad faith or discriminatory action of the prime contractor;
- (3) The listed DBE subcontractor fails or refuses to meet the prime Contractor's reasonable, nondiscriminatory bond requirements;
- (4) The listed DBE subcontractor becomes bankrupt, insolvent, or exhibits credit unworthiness;
- (5) The listed DBE subcontractor is ineligible to work on public works projects because of suspension and debarment proceedings pursuant 2 CFR Parts 180, 215 and 1200 or applicable state law.
- (6) You have determined that the listed DBE subcontractor is not a responsible contractor:
- (7) The listed DBE subcontractor voluntarily withdraws from the projects and provides to you written notice of its withdrawal;
- (8) The listed DBE is ineligible to receive DBE credit for the type of work required;
- (9) A DBE owner dies or becomes disabled with the result that the listed DBE contractor is unable to complete its work on the contract;
- (10) Other documented good cause that compels the termination of the DBE subcontractor. Provided, that good cause does not exist if the prime Contractor seeks to terminate a DBE it relied upon to obtain the contract so that the prime Contractor can self-perform the work for which the DBE contractor was engaged or so that the prime Contractor can substitute another DBE or non-DBE contractor after contract award.

When a DBE is terminated, or fails to complete its work on the Contract for any reason the Contractor shall make a good faith effort to find another DBE to substitute for the original DBE to perform at least the same amount of work under the contract as the terminated DBE to the extent needed to meet the established Contract goal. The good faith efforts shall be documented by the Contractor. If the Department requests documentation under this provision, the Contractor shall submit the documentation within seven days, which may be extended for an additional seven days if necessary at the request of the Contractor. The Department shall provide a written determination to the Contractor stating whether or not good faith efforts have been demonstrated.

- (f) PAYMENT RECORDS. 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 Resident Engineer. If full and final payment has not been made to the DBE, the DBE Payment Agreement shall indicate whether a disagreement as to the payment required exists between the Contractor and the DBE or if the Contractor believes that the work has not been satisfactorily completed. If the Contractor does not have the full amount of work indicated in the Utilization Plan performed by the DBE companies indicated in the Utilization Plan and after good faith efforts are reviewed, the Department may deduct from contract payments to the Contractor the amount of the goal not achieved as liquidated and ascertained damages. The Contractor may request an administrative reconsideration of any amount deducted as damages pursuant to subsection (h) of this part.
- (g) <u>ENFORCEMENT</u>. 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.
- (h) <u>RECONSIDERATION</u>. Notwithstanding any other provision of the contract, including but not limited to Article 109.09 of the Standard Specifications, the Contractor my 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. The result of the reconsideration process is not administratively appealable to the U.S. Department of Transportation.

# **EQUAL EMPLOYMENT OPPORTUNITY (BDE)**

Effective: April 1, 2015

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

#### "EQUAL EMPLOYMENT OPPORTUNITY

In the event of the Contractor's noncompliance with the provisions of this Equal Employment Opportunity Clause, the Illinois Human Rights Act, or the Illinois Department of Human Rights Rules and Regulations, the Contractor may be declared ineligible for future contracts or subcontracts with the State of Illinois or any of its political sub-divisions or municipal corporations, and the contract may be cancelled or voided in whole or in part, and such other sanctions or penalties may be imposed or remedies invoked as provided by statute or regulation.

During the performance of this Contract, the Contractor agrees as follows:

- (1) That it will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, marital status, order of protection status, national origin or ancestry, citizenship status, age, physical or mental disability unrelated to ability, military status, or an unfavorable discharge from military service; and further that it will examine all job classifications to determine if minority persons or women are underutilized and will take appropriate affirmative action to rectify any such underutilization.
- (2) That, if it hires additional employees in order to perform this contract or any portion hereof, it will determine the availability (according to the Illinois Department of Human Rights Rules and Regulations) of minorities and women in the area(s) from which it may reasonably recruit and it will hire for each job classification for which employees are hired in such a way that minorities and women are not underutilized.
- (3) That, in all solicitations or advertisements for employees placed by it or on its behalf, it will state that all applicants will be afforded equal opportunity without discrimination because of race, color, religion, sex, sexual orientation, marital status, order of protection status, national origin or ancestry, citizenship status, age, physical or mental disability unrelated to ability, military status or an unfavorable discharge from military service.

- (4) That it will send to each labor organization or representative of workers with which it has or is bound by a collective bargaining or other agreement or understanding, a notice advising such labor organization or representative of the Contractor's obligations under the Illinois Human Rights Act and the Illinois Department of Human Rights Rules and Regulations. If any labor organization or representative fails or refuses to cooperate with the Contractor in its efforts to comply with such Act and Rules and Regulations, the Contractor will promptly so notify the Illinois Department of Human Rights and IDOT and will recruit employees from other sources when necessary to fulfill its obligations thereunder.
- (5) That it will submit reports as required by the Illinois Department of Human Rights Rules and Regulations, furnish all relevant information as may from time to time be requested by the Illinois Department of Human Rights or IDOT, and in all respects comply with the Illinois Human Rights Act and the Illinois Department of Human Rights Rules and Regulations.
- (6) That it will permit access to all relevant books, records, accounts, and work sites by personnel of IDOT and the Illinois Department of Human Rights for purposes of investigation to ascertain compliance with the Illinois Human Rights Act and the Illinois Department of Human Rights Rules and Regulations.
- (7) That it will include verbatim or by reference the provisions of this clause in every subcontract it awards under which any portion of the contract obligations are undertaken or assumed, so that the provisions will be binding upon the subcontractor. In the same manner as with other provisions of this contract, the Contractor will be liable for compliance with applicable provisions of this clause by subcontractors; and further it will promptly notify IDOT and the Illinois Department of Human Rights in the event any subcontractor fails or refuses to comply with these provisions. In addition, the Contractor will not utilize any subcontractor declared by the Illinois Human Rights Commission to be ineligible for contracts or subcontracts with the State of Illinois or any of its political subdivisions or municipal corporations."

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

#### "II. EQUAL EMPLOYMENT OPPORTUNITY

In the event of the Contractor's noncompliance with the provisions of this Equal Employment Opportunity Clause, the Illinois Human Rights Act or the Illinois Department of Human Rights Rules and Regulations, the Contractor may be declared ineligible for future contracts or subcontracts with the State of Illinois or any of its political sub-divisions or municipal corporations, and the contract may be cancelled or voided in whole or in part, and such other sanctions or penalties may be imposed or remedies invoked as provided by statute or regulation.

During the performance of this Contract, the Contractor agrees as follows:

- 1. That it will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, marital status, order of protection status, national origin or ancestry, citizenship status, age, physical or mental disability unrelated to ability, military status, or an unfavorable discharge from military service; and further that it will examine all job classifications to determine if minority persons or women are underutilized and will take appropriate affirmative action to rectify any such underutilization.
- 2. That, if it hires additional employees in order to perform this contract or any portion hereof, it will determine the availability (according to the Illinois Department of Human Rights Rules and Regulations) of minorities and women in the area(s) from which it may reasonably recruit and it will hire for each job classification for which employees are hired in such a way that minorities and women are not underutilized.
- 3. That, in all solicitations or advertisements for employees placed by it or on its behalf, it will state that all applicants will be afforded equal opportunity without discrimination because of race, color, religion, sex, sexual orientation, marital status, order of protection status, national origin or ancestry, citizenship status, age, physical or mental disability unrelated to ability, military status, or an unfavorable discharge from military service.
- 4. That it will send to each labor organization or representative of workers with which it has or is bound by a collective bargaining or other agreement or understanding, a notice advising such labor organization or representative of the Contractor's obligations under the Illinois Human Rights Act and the Illinois Department of Human Rights Rules and Regulations. If any labor organization or representative fails or refuses to cooperate with the Contractor in its efforts to comply with such Act and Rules and Regulations, the Contractor will promptly so notify the Illinois Department of Human Rights and IDOT and will recruit employees from other sources when necessary to fulfill its obligations thereunder.
- 5. That it will submit reports as required by the Illinois Department of Human Rights Rules and Regulations, furnish all relevant information as may from time to time be requested by the Illinois Department of Human Rights or IDOT, and in all respects comply with the Illinois Human Rights Act and the Illinois Department of Human Rights Rules and Regulations.
- 6. That it will permit access to all relevant books, records, accounts and work sites by personnel of IDOT and the Illinois Department of Human Rights for purposes of investigation to ascertain compliance with the Illinois Human Rights Act and the Illinois Department of Human Rights Rules and Regulations.

7. That it will include verbatim or by reference the provisions of this clause in every subcontract it awards under which any portion of the contract obligations are undertaken or assumed, so that the provisions will be binding upon the subcontractor. In the same manner as with other provisions of this contract, the Contractor will be liable for compliance with applicable provisions of this clause by subcontractors; and further it will promptly notify IDOT and the Illinois Department of Human Rights in the event any subcontractor fails or refuses to comply with these provisions. In addition, the Contractor will not utilize any subcontractor declared by the Illinois Human Rights Commission to be ineligible for contracts or subcontracts with the State of Illinois or any of its political subdivisions or municipal corporations."

## FRICTION AGGREGATE (BDE)

Effective: January 1, 2011 Revised: November 1, 2014

Revise Article 1004.01(a)(4) of the Standard Specifications to read:

- "(4) Crushed Stone. Crushed stone shall be the angular fragments resulting from crushing undisturbed, consolidated deposits of rock by mechanical means. Crushed stone shall be divided into the following, when specified.
  - a. Carbonate Crushed Stone. Carbonate crushed stone shall be either dolomite or limestone. Dolomite shall contain 11.0 percent or more magnesium oxide (MgO). Limestone shall contain less than 11.0 percent magnesium oxide (MgO).
  - b. Crystalline Crushed Stone. Crystalline crushed stone shall be either metamorphic or igneous stone, including but is not limited to, quartzite, granite, rhyolite and diabase."

Revise Article 1004.03(a) of the Standard Specifications to read:

"1004.03 Coarse Aggregate for Hot-Mix Asphalt (HMA). The aggregate shall be according to Article 1004.01 and the following.

(a) Description. The coarse aggregate for HMA shall be according to the following table.

| Use                          | Mixture  | Aggregates Allowed  |
|------------------------------|--|---|
| Class A                      | Seal or Cover  | Allowed Alone or in Combination <sup>5/</sup> :  Gravel Crushed Gravel Carbonate Crushed Stone Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag Crushed Concrete                                    |
| HMA<br>Low ESAL              | Stabilized Subbase or Shoulders  | Allowed Alone or in Combination <sup>5/</sup> :  Gravel Crushed Gravel Carbonate Crushed Stone Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag <sup>1/</sup> Crushed Concrete                      |
| HMA<br>High ESAL<br>Low ESAL | Binder<br>IL-19.0<br>or IL-19.0L<br>SMA Binder                                     | Allowed Alone or in Combination <sup>5/</sup> :  Crushed Gravel Carbonate Crushed Stone <sup>2/</sup> Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Concrete <sup>3/</sup>                                  |
| HMA<br>High ESAL<br>Low ESAL | C Surface and<br>Leveling Binder<br>IL-9.5 or IL-9.5L<br>SMA<br>Ndesign 50 Surface | Allowed Alone or in Combination <sup>5/</sup> :  Crushed Gravel Carbonate Crushed Stone <sup>2/</sup> Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag <sup>4/</sup> Crushed Concrete <sup>3/</sup> |

| Use              | Mixture   | Aggregates Allowed   |  |  |
|------------------|---|--|--|--|
| HMA              | D Surface and   | Allowed Alone or in Com  | nbination <sup>5/</sup> :  |  |
| High ESAL        | Leveling Binder<br>IL-9.5<br>SMA<br>Ndesign 50<br>Surface | Crushed Gravel Carbonate Crushed Stone (other the Limestone) <sup>2/</sup> Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag <sup>4/</sup> Crushed Concrete <sup>3/</sup> |  |  |
|                  |   | Other Combinations Allo  | wed:   |  |
|                  |   | Up to  | With   |  |
|                  |   | 25% Limestone  | Dolomite   |  |
|                  |   | 50% Limestone  | Any Mixture D aggregate other than Dolomite  |  |
|                  |   | 75% Limestone  | Crushed Slag (ACBF) or Crushed Sandstone   |  |
| HMA<br>High ESAL | E Surface<br>IL-9.5<br>SMA<br>Ndesign 80<br>Surface       | Allowed Alone or in Combination <sup>5/</sup> :  Crushed Gravel Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag Crushed Concrete <sup>3/</sup> No Limestone.            |  |  |
|                  |   | Other Combinations Allo  | wed:   |  |
|                  |   | Up to  | With   |  |
|                  |   | 50% Dolomite <sup>2/</sup>   | Any Mixture E<br>aggregate   |  |
|                  |   | 75% Dolomite <sup>2/</sup>   | Crushed Sandstone,<br>Crushed Slag (ACBF),<br>Crushed Steel Slag, or<br>Crystalline Crushed<br>Stone |  |
|                  |   | 75% Crushed Gravel or Crushed Concrete <sup>3/</sup>   | Crushed Sandstone,<br>Crystalline Crushed<br>Stone, Crushed Slag<br>(ACBF), or Crushed<br>Steel Slag |  |

| Use              | Mixture   | Aggregates Allowed  |      |  |
|------------------|---|---|------|--|
| HMA<br>High ESAL | F Surface<br>IL-9.5<br>SMA<br>Ndesign 80<br>Surface | Allowed Alone or in Combination <sup>5/</sup> :  Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag No Limestone.                                 |      |  |
|                  |   | Other Combinations Allowed:   |      |  |
|                  |   | Up to   | With |  |
|                  |   | 50% Crushed Gravel,<br>Crushed Concrete <sup>3/</sup> , or<br>Dolomite <sup>2/</sup> Crushed Sandston<br>Crushed Slag (ACBF<br>Crushed Steel Slag,<br>Crystalline Crushe<br>Stone |      |  |

- 1/ Crushed steel slag allowed in shoulder surface only.
- 2/ Carbonate crushed stone shall not be used in SMA Ndesign 80. In SMA Ndesign 50, carbonate crushed stone shall not be blended with any of the other aggregates allowed alone in Ndesign 50 SMA binder or Ndesign 50 SMA surface.
- 3/ Crushed concrete will not be permitted in SMA mixes.
- 4/ Crushed steel slag shall not be used as leveling binder.
- 5/ When combinations of aggregates are used, the blend percent measurements shall be by volume."

# HOT-MIX ASPHALT - MIXTURE DESIGN COMPOSITION AND VOLUMETRIC REQUIREMENTS (BDE)

Effective: November 1, 2013 Revised: November 1, 2014

Revise the last sentence of the first paragraph of Article 312.05 of the Standard Specifications to read:

"The minimum compacted thickness of each lift shall be according to Article 406.06(d)."

Delete the minimum compacted lift thickness table in Article 312.05 of the Standard Specifications.

Revise the second paragraph of Article 355.02 of the Standard Specifications to read:

"The mixture composition used shall be IL-19.0."

Revise Article 355.05(a) of the Standard Specifications to read:

"(a) The top lift thickness shall be 2 1/4 in. (60 mm) for mixture composition IL-19.0."

Revise the Leveling Binder table and second paragraph of Article 406.05(c) of the Standard Specifications to read:

| "Leveling Binder  |                             |  |  |  |
|---|-----------------------------|--|--|--|
| Nominal, Compacted, Leveling Mixture Composition Binder Thickness, in. (mm) |                             |  |  |  |
| ≤ 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 or IL-9.5L           |  |  |  |

The density requirements of Article 406.07(c) shall apply for leveling binder, machine method, when the nominal compacted thickness is: 3/4 in. (19 mm) or greater for IL-4.75 mixtures; and 1 1/4 in. (32 mm) or greater for IL-9.5 and IL-9.5L mixtures."

Revise the table in Article 406.06(d) of the Standard Specifications to read:

| "MINIMUM COMPACTED LIFT THICKNESS       |             |  |  |  |
|---|-------------|--|--|--|
| Mixture Composition Thickness, in. (mm) |             |  |  |  |
| IL-4.75                                 | 3/4 (19)    |  |  |  |
| IL-9.5, IL-9.5L                         | 1 1/4 (32)  |  |  |  |
| SMA-12.5                                | 2 (51)      |  |  |  |
| IL-19.0, IL-19.0L                       | 2 1/4 (57)" |  |  |  |

Revise the ninth paragraph of Article 406.14 of the Standard Specifications to read:

"Test strip mixture will be evaluated at the contract unit price according to the following."

Revise Article 406.14(a) of the Standard Specifications to read:

"(a) If the HMA placed during the initial test strip is determined to be acceptable the mixture will be paid for at the contract unit price."

Revise Article 406.14(b) of the Standard Specifications to read:

"(b) If the HMA placed during the initial test strip (1) is determined to be unacceptable to remain in place by the Engineer, and (2) was not produced within 2.0 to 6.0 percent air voids or within the individual control limits of the JMF according to the Department's test results, the mixture will not be paid for and shall be removed at the Contractor's expense. An additional test strip shall be constructed and the mixture will be paid for in full, if produced within 2.0 to 6.0 percent air voids and within the individual control limits of the JMF."

Revise Article 406.14(c) of the Standard Specifications to read:

"(c) If the HMA placed during the initial test strip (1) is determined to be unacceptable to remain in place by the Engineer, and (2) was produced within 2.0 to 6.0 percent air voids and within the individual control limits of the JMF according to the Department's test results, the mixture shall be removed. Removal will be paid according to Article 109.04. This initial mixture will be paid for at the contract unit price. An additional test strip shall be constructed and the mixture will be paid for in full, if produced within 2.0 to 6.0 percent air voids and within the individual control limits of the JMF."

Delete Article 406.14(d) of the Standard Specifications.

Delete Article 406.14(e) of the Standard Specifications.

Delete the last sentence of Article 407.06(c) of the Standard Specifications.

Revise Note 2. of Article 442.02 of the Standard Specifications to read:

"Note 2. The mixture composition of the HMA used shall be IL-19.0 binder, designed with the same Ndesign as that specified for the mainline pavement."

Delete the second paragraph of Article 482.02 of the Standard Specifications.

Revise the first sentence of the sixth paragraph of Article 482.05 of the Standard Specifications to read:

"When the mainline HMA binder and surface course mixture option is used on resurfacing projects, shoulder resurfacing widths of 6 ft (1.8 m) or less may be placed simultaneously with the adjacent traffic lane for both the binder and surface courses."

Revise the second sentence of the fourth paragraph of Article 601.04 of the Standard Specifications to read:

"The top 5 in. (125 mm) of the trench shall be backfilled with an IL-19.0L Low ESAL mixture meeting the requirements of Section 1030 and compacted to a density of not less than 90 percent of the theoretical density."

Revise the second sentence of the fifth paragraph of Article 601.04 of the Standard Specifications to read:

"The top 8 in. (200 mm) of the trench shall be backfilled with an IL-19.0L Low ESAL mixture meeting the requirements of Section 1030 and compacted to a density of not less than 90 percent of the theoretical density."

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

"(c) Gradation. The fine aggregate gradation for all HMA shall be FA 1, FA 2, FA 20, FA 21, or FA 22. The fine aggregate gradation for SMA shall be FA/FM 20.

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

For mixture IL-19.0, Ndesign = 90 the fine aggregate fraction shall consist of at least 67 percent manufactured sand meeting FA 20 or FA 22 gradation. For mixture IL-19.0, Ndesign = 50 or 70 the fine aggregate fraction shall consist of at least 50 percent manufactured sand meeting FA 20 or FA 22 gradation. The manufactured sand shall be stone sand, slag sand, steel slag sand, or combinations thereof.

Gradation FA 1, FA 2, or FA 3 shall be used when required for prime coat aggregate application for HMA."

Remove footnote 3/ from the tables and at the end of the tables in Article 1004.01(c) of the Standard Specifications.

Delete the last sentence of the first paragraph of Article 1004.03(b) of the Standard Specifications.

Revise the table in Article 1004.03(c) of the Standard Specifications to read:

| "Use              | Size/Application     | Gradation No.       |
|-------------------|----------------------|---------------------|
| Class A-1, 2, & 3 | 3/8 in. (10 mm) Seal | CA 16               |
| Class A-1         | 1/2 in. (13 mm) Seal | CA 15               |
| Class A-2 & 3     | Cover                | CA 14               |
| HMA High ESAL     | IL-19.0              | CA 11 <sup>1/</sup> |
|                   | IL-9.5               | CA 16 and/or CA 13  |
|                   |                      | CA 16               |
| HMA Low ESAL      | IL-19.0L             | CA 11 <sup>1/</sup> |
|                   | IL-9.5L              | CA 16               |
|                   | Stabilized Subbase   |                     |
|                   | or Shoulders         |                     |

<sup>1/</sup> CA 16 or CA 13 may be blended with the gradations listed."

Revise the nomenclature table in Article 1030.01 of the Standard Specifications to read:

| "High ESAL | IL-19.0 binder;                          |
|------------|--|
|            | IL-9.5 surface                           |
| Low ESAL   | IL-19.0L binder; IL-9.5L surface;        |
|            | Stabilized Subbase (HMA) <sup>1/</sup> ; |
|            | HMA Shoulders <sup>2/</sup>              |

- 1/ Uses 19.0L binder mix.
- 2/ Uses 19.0L for lower lifts and 9.5L for surface lift."

Revise Article 1030.02 of the Standard Specifications and Supplemental Specifications to read:

"1030.02 Materials. Materials shall be according to the following.

| Item   | Article/Section |
|--|-----------------|
| (a) Coarse Aggregate                             | 1004.03         |
| (b) Fine Aggregate                               | 1003.03         |
| (c) RAP Material                                 | 1031            |
| (d) Mineral Filler                               | 1011            |
| (e) Hydrated Lime                                |                 |
| (f) Slaked Quicklime (Note 1)                    |                 |
| (g) Performance Graded Asphalt Binder (Note 2)   | 1032            |
| (h) Fibers (Note 3)                              |                 |
| (i) Warm Mix Asphalt (WMA) Technologies (Note 4) |                 |

- Note 1. Slaked quicklime shall be according to ASTM C 5.
- Note 2. The asphalt binder shall be an SBS PG 76-28 when the SMA is used on a full-depth asphalt pavement and SBS PG 76-22 when used as an overlay.
- Note 3. A stabilizing additive such as cellulose or mineral fiber shall be added to the SMA mixture according to Illinois Modified AASHTO M 325. The stabilizing additive shall meet the Fiber Quality Requirements listed in Illinois Modified AASHTO M 325. Prior to approval and use of fibers, the Contractor shall submit a notarized certification by the producer of these materials stating they meet these requirements.
- Note 4. Warm mix additives or foaming processes shall be selected from the current Bureau of Materials and Physical Research Approved List, "Warm Mix Asphalt Technologies"."

Revise Article 1030.04(a)(1) of the Standard Specifications and the Supplemental Specifications to read:

"(1) High ESAL Mixtures. The Job Mix Formula (JMF) shall fall within the following limits.

| High ESAL, MIXTURE COMPOSITION (% PASSING) 1/ |        |      |                                 |                    |      |                  |       |        |
|---|--------|------|---------------------------------|--------------------|------|------------------|-------|--------|
| Sieve   | IL-19. | 0 mm | SMA 12.5 <sup>4/</sup> IL-9.5 m |                    | 5 mm | IL-4.7           | 75 mm |        |
| Size  | min    | max  | min                             | max                | min  | max              | min   | max    |
| 1 1/2 in<br>(37.5 mm)                         |        |      |                                 |                    |      |                  |       |        |
| 1 in.<br>(25 mm)                              |        | 100  |                                 |                    |      |                  |       |        |
| 3/4 in.<br>(19 mm)                            | 90     | 100  |                                 | 100                |      |                  |       |        |
| 1/2 in.<br>(12.5 mm)                          | 75     | 89   | 90                              | 99                 |      | 100              |       | 100    |
| 3/8 in.<br>(9.5 mm)                           |        |      | 50                              | 85                 | 90   | 100              |       | 100    |
| #4<br>(4.75 mm)                               | 40     | 60   | 20                              | 40                 | 32   | 69               | 90    | 100    |
| #8<br>(2.36 mm)                               | 26     | 42   | 16                              | 24 <sup>5/</sup>   | 32   | 52 <sup>2/</sup> | 70    | 90     |
| #16<br>(1.18 mm)                              | 15     | 30   |                                 |                    | 10   | 32               | 50    | 65     |
| #50<br>(300 µm)                               | 6      | 15   |                                 |                    | 4    | 15               | 15    | 30     |
| #100<br>(150 µm)                              | 4      | 9    |                                 |                    | 3    | 10               | 10    | 18     |
| #200<br>(75 µm)                               | 3      | 6    | 8.0                             | 11.0 <sup>3/</sup> | 4    | 6                | 7     | 9      |
| Ratio<br>Dust/Asphalt<br>Binder               |        | 1.0  |                                 |                    |      | 1.0              |       | 1.0 3/ |

- 1/ Based on percent of total aggregate weight.
- 2/ The mixture composition shall not exceed 44 percent passing the #8 (2.36 mm) sieve for surface courses with Ndesign = 90.
- 3/ Additional minus No. 200 (0.075 mm) material required by the mix design shall be mineral filler, unless otherwise approved by the Engineer.
- 4/ The maximum percent passing the #635 (20  $\mu$ m) sieve shall be  $\leq$  3 percent.
- 5/ When establishing the Adjusted Job Mix Formula (AJMF) the percent passing the #8 (2.36 mm) sieve shall not be adjusted above 24 percent."

Delete Article 1030.04(a)(3) of the Standard Specifications.

Delete Article 1030.04(a)(4) of the Standard Specifications.

Revise the table in Article 1030.04(b)(1) of the Standard Specifications to read:

|   | "VOLUMETRIC REQUIREMENTS<br>High ESAL |        |   |                       |  |
|---|---------------------------------------|--------|---|-----------------------|--|
| Voids in the Mineral Aggregate (VMA), % minimum |                                       |        | Voids Filled with<br>Asphalt Binder<br>(VFA), |                       |  |
| Ndesign   | IL-19.0                               | IL-9.5 | %   |                       |  |
| 50  | 18.5                                  |        |   | 65 – 78 <sup>2/</sup> |  |
| 70<br>90  | 13.5                                  | 15.0   |   | 65 - 75               |  |

- 1/ Maximum Draindown for IL-4.75 shall be 0.3 percent
- 2/ VFA for IL-4.75 shall be 76-83 percent"

Revise the table in Article 1030.04(b)(2) of the Standard Specifications to read:

| "VOLUMETRIC REQUIREMENTS<br>Low ESAL |                                 |           |             |             |  |  |
|--------------------------------------|---------------------------------|-----------|-------------|-------------|--|--|
| Mixture                              | Design                          | Design    | VMA (Voids  | VFA (Voids  |  |  |
| Composition                          | Compactive                      | Air Voids | in the      | Filled with |  |  |
|                                      | Effort Target % Mineral Asphalt |           |             |             |  |  |
|                                      |                                 |           | Aggregate), | Binder),    |  |  |
|                                      | % min.                          |           |             |             |  |  |
| IL-9.5L                              | N <sub>DES</sub> =30            | 4.0       | 15.0        | 65-78       |  |  |
| IL-19.0L                             | N <sub>DES</sub> =30            | 4.0       | 13.5        | N/A"        |  |  |

Replace Article 1030.04(b)(3) of the Standard Specifications with the following:

# "(3) SMA Mixtures.

| ESALs     | Ndesign | Design    | Voids in the | Voids Filled |
|-----------|---------|-----------|--------------|--------------|
| (million) |         | Air Voids | Mineral      | with Asphalt |
|           |         | Target %  | Aggregate    | (VFA), %     |
|           |         |           | (VMA),       |              |
|           |         |           | % min.       |              |
| ≤ 10      | 50      | 4.0       | 16.0         | 75 – 80      |
| > 10      | 80      | 4.0       | 17.0         | 75 – 80"     |

Delete Article 1030.04(b)(4) of the Standard Specifications.

Delete Article 1030.04(b)(5) from the Supplemental Specifications.

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

|   | Frequency of Tests   | Test Method<br>See Manual of      |
|---|--|-----------------------------------|
| "Parameter  | High ESAL Mixture<br>Low ESAL Mixture  | Test Procedures for Materials     |
| Aggregate<br>Gradation  % passing sieves:<br>1/2 in. (12.5 mm),<br>No. 4 (4.75 mm),<br>No. 8 (2.36 mm),<br>No. 30 (600 μm)<br>No. 200 (75 μm) | 1 washed ignition oven test on the mix per half day of production  Note 3.   | Illinois<br>Procedure             |
| Asphalt Binder<br>Content by Ignition<br>Oven<br>Note 1.  | 1 per half day of production   | Illinois-Modified<br>AASHTO T 308 |
| VMA<br>Note 2.  | Day's production ≥ 1200 tons:  1 per half day of production  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) | Illinois-Modified<br>AASHTO R 35  |
| Air Voids  Bulk Specific Gravity of Gyratory Sample  Note 4.  | Day's production ≥ 1200 tons:  1 per half day of production  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) | Illinois-Modified<br>AASHTO T 312 |
| Maximum Specific<br>Gravity of Mixture  | Day's production ≥ 1200 tons:  1 per half day of production  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) | Illinois-Modified<br>AASHTO T 209 |

- Note 1. The Engineer may waive the ignition oven requirement for asphalt binder content if the aggregates to be used are known to have ignition asphalt binder content calibration factors which exceed 1.5 percent. If the ignition oven requirement is waived, other Department approved methods shall be used to determine the asphalt binder content.
- Note 2. 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.
- Note 3. The Engineer reserves the right to require additional hot bin gradations for batch plants if control problems are evident.
- Note 4. The WMA compaction temperature for mixture volumetric testing shall be 270  $\pm$  5 °F (132  $\pm$  3 °C) for quality control testing. The WMA compaction temperature for quality assurance testing will be 270  $\pm$  5 °F (132  $\pm$  3 °C) if the mixture is not allowed to cool to room temperature. If the mixture is allowed to cool to room temperature, it shall be reheated to standard HMA compaction temperatures."

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

| "Parameter                   | High ESAL Mixture<br>Low ESAL Mixture |
|------------------------------|---------------------------------------|
| Ratio<br>Dust/Asphalt Binder | 0.6 to 1.2                            |
| Moisture                     | 0.3 %"                                |

Revise the Article 1030.05(d)(4) of the Supplemental Specifications to read:

"(4) Control Limits. Target values shall be determined by applying adjustment factors to the AJMF where applicable. The target values shall be plotted on the control charts within the following control limits.

| CONTROL LIMITS                        |                       |                      |                      |                      |                      |                      |
|---------------------------------------|-----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Darameter                             | High ESAL<br>Low ESAL |                      | SMA                  |                      | IL-4.75              |                      |
| Parameter                             | Individual<br>Test    | Moving<br>Avg. of 4  | Individual<br>Test   | Moving<br>Avg. of 4  | Individual<br>Test   | Moving<br>Avg. of 4  |
| % Passing: 1/                         |                       |                      |                      |                      |                      |                      |
| 1/2 in. (12.5 mm)                     | ±6%                   | ± 4 %                | ±6%                  | ± 4 %                |                      |                      |
| 3/8 in. (9.5mm)                       |                       |                      | ± 4 %                | ± 3 %                |                      |                      |
| No. 4 (4.75 mm)                       | ± 5 %                 | ± 4 %                | ± 5 %                | ± 4 %                |                      |                      |
| No. 8 (2.36 mm)                       | ± 5 %                 | ± 3 %                | ± 4 %                | ± 2 %                |                      |                      |
| No. 16 (1.18 mm)                      |                       |                      | ± 4 %                | ± 2 %                | ± 4 %                | ± 3 %                |
| No. 30 (600 µm)                       | ± 4 %                 | ± 2.5 %              | ± 4 %                | ± 2.5 %              |                      |                      |
| Total Dust Content<br>No. 200 (75 µm) | ± 1.5 %               | ± 1.0 %              |                      |                      | ± 1.5 %              | ± 1.0 %              |
| Asphalt Binder Content                | ± 0.3 %               | ± 0.2 %              | ± 0.2 %              | ± 0.1 %              | ± 0.3 %              | ± 0.2 %              |
| Voids                                 | ± 1.2 %               | ± 1.0 %              | ± 1.2 %              | ± 1.0 %              | ± 1.2 %              | ± 1.0 %              |
| VMA                                   | -0.7 % <sup>2/</sup>  | -0.5 % <sup>2/</sup> | -0.7 % <sup>2/</sup> | -0.5 % <sup>2/</sup> | -0.7 % <sup>2/</sup> | -0.5 % <sup>2/</sup> |

- 1/ Based on washed ignition oven
- 2/ Allowable limit below minimum design VMA requirement

| DENSITY CONTROL LIMITS |                   |                             |  |  |
|------------------------|-------------------|-----------------------------|--|--|
| Mixture Composition    | Parameter         | Individual Test             |  |  |
| IL-4.75                | Ndesign = 50      | 93.0 - 97.4 % <sup>1/</sup> |  |  |
| IL-9.5                 | Ndesign = 90      | 92.0 - 96.0 %               |  |  |
| IL-9.5,IL-9.5L         | Ndesign < 90      | 92.5 - 97.4 %               |  |  |
| IL-19.0                | Ndesign = 90      | 93.0 - 96.0 %               |  |  |
| IL-19.0, IL-19.0L      | Ndesign < 90      | 93.0 <sup>2/</sup> - 97.4 % |  |  |
| SMA                    | Ndesign = 50 & 80 | 93.5 - 97.4 %               |  |  |

- 1/ Density shall be determined by cores or by correlated, approved thin lift nuclear gauge.
- 2/ 92.0 % when placed as first lift on an unimproved subgrade."

Revise the table in Article 1030.05(d)(5) of the Supplemental Specifications to read:

| "CONTROL CHART        | High ESAL,                      |
|-----------------------|---------------------------------|
| REQUIREMENTS          | Low ESAL, SMA                   |
|                       | & IL-4.75                       |
|                       | % Passing Sieves:               |
|                       | 1/2 in. (12.5 mm) <sup>2/</sup> |
| Gradation 1/3/        | No. 4 (4.75 mm)                 |
|                       | No. 8 (2.36 mm)                 |
|                       | No. 30 (600 µm)                 |
| Total Dust Content 1/ | No. 200 (75 µm)                 |
|                       | Asphalt Binder Content          |
|                       | Bulk Specific Gravity           |
|                       | Maximum Specific                |
|                       | Gravity of Mixture              |
|                       | Voids                           |
|                       | Density                         |
|                       | VMA                             |

- 1/ Based on washed ignition oven.
- 2/ Does not apply to IL-4.75.
- 3/ SMA also requires the 3/8 in. (9.5 mm) sieve."

Delete Article 1030.05(d)(6)a.1.(b.) of the Standard Specifications.

Delete Article 1030.06(b) of the Standard Specifications.

Delete Article 1102.01(e) of the Standard Specifications.

## HOT-MIX ASPHALT – MIXTURE DESIGN VERIFICATION AND PRODUCTION (BDE)

Effective: November 1, 2013 Revised: November 1, 2014

<u>Description</u>. This special provision provides the requirements for Hamburg Wheel and tensile strength testing for High ESAL, IL-4.75, and Stone Matrix Asphalt (SMA) hot-mix asphalt (HMA) mixes during mix design verification and production. This special provision also provides the plant requirements for hydrated lime addition systems used in the production of High ESAL, IL-4.75, and SMA mixes.

<u>Mix Design Testing</u>. Add the following below the referenced AASHTO standards in Article 1030.04 of the Standard Specifications:

AASHTO T 324 Hamburg Wheel Test

AASHTO T 283 Tensile Strength Test

Add the following to Article 1030.04 of the Standard Specifications:

"(d) Verification Testing. High ESAL, IL-4.75, and SMA mix designs submitted for verification will be tested to ensure that the resulting mix designs will pass the required criteria for the Hamburg Wheel Test (Illinois Modified AASHTO T 324) and the Tensile Strength Test (Illinois Modified AASHTO T 283). The Department will perform a verification test on gyratory specimens compacted by the Contractor. If the mix fails the Department's verification test, the Contractor shall make necessary changes to the mix and provide passing Hamburg Wheel and tensile strength test results from a private lab. The Department will verify the passing results.

All new and renewal mix designs shall meet the following requirements for verification testing.

(1) Hamburg Wheel Test Criteria. The maximum allowable rut depth shall be 0.5 in. (12.5 mm). The minimum number of wheel passes at the 0.5 in. (12.5 mm) rut depth criteria shall be based on the high temperature binder grade of the mix as specified in the mix requirements table of the plans.

Illinois Modified AASHTO T 324 Requirements 1/

| PG Grade             | Number of Passes |  |
|----------------------|------------------|--|
| PG 58-xx (or lower)  | 5,000            |  |
| PG 64-xx             | 7,500            |  |
| PG 70-xx             | 15,000           |  |
| PG 76-xx (or higher) | 20,000           |  |

1/ When produced at temperatures of  $275 \pm 5$  °F ( $135 \pm 3$  °C) or less, loose Warm Mix Asphalt shall be oven aged at  $270 \pm 5$  °F ( $132 \pm 3$  °C) for two hours prior to gyratory compaction of Hamburg Wheel specimens.

(2) Tensile Strength Criteria. The minimum allowable conditioned tensile strength shall be 60 psi (415 kPa) for non-polymer modified performance graded (PG) asphalt binder and 550 kPa (80 psi) for polymer modified PG asphalt binder. The maximum allowable unconditioned tensile strength shall be 200 psi (1380 kPa)."

<u>Production Testing</u>. Revise Article 1030.06(a) of the Standard Specifications to read:

"(a) High ESAL, IL-4.75, WMA, and SMA Mixtures. For each contract, a 300 ton (275 metric tons) test strip will be required at the beginning of HMA production for each mixture with a quantity of 3000 tons (2750 metric tons) or more according to the Manual of Test Procedures for Materials "Hot Mix Asphalt Test Strip Procedures".

Before start-up, target values shall be determined by applying gradation correction factors to the JMF when applicable. These correction factors shall be determined from previous experience. The target values, when approved by the Engineer, shall be used to control HMA production. Plant settings and control charts shall be set according to target values.

Before constructing the test strip, target values shall be determined by applying gradation correction factors to the JMF when applicable. After any JMF adjustment, the JMF shall become the Adjusted Job Mix Formula (AJMF). Upon completion of the first acceptable test strip, the JMF shall become the AJMF regardless of whether or not the JMF has been adjusted. If an adjustment/plant change is made, the Engineer may require a new test strip to be constructed. If the HMA placed during the initial test strip is determined to be unacceptable to remain in place by the Engineer, it shall be removed and replaced.

The limitations between the JMF and AJMF are as follows.

| Parameter       | Adjustment |         |
|-----------------|------------|---------|
| 1/2 in. (12.5 m | nm)        | ± 5.0 % |
| No. 4 (4.75 m   | m)         | ± 4.0 % |
| No. 8 (2.36 mm) |            | ± 3.0 % |
| No. 30 (600 µm) |            | *       |
| No. 200 (75 µm) |            | *       |
| Asphalt I       | Binder     | ± 0.3 % |
| Content         |            |         |

<sup>\*</sup> In no case shall the target for the amount passing be greater than the JMF.

Any adjustments outside the above limitations will require a new mix design.

Mixture sampled to represent the test strip shall include additional material sufficient for the Department to conduct Hamburg Wheel testing according to Illinois Modified AASHTO T324 (approximately 60 lb (27 kg) total).

The Contractor shall immediately cease production upon notification by the Engineer of failing Hamburg Wheel test. All prior produced material may be paved out provided all other mixture criteria is being met. No additional mixture shall be produced until the Engineer receives passing Hamburg Wheel tests.

The Department may conduct additional Hamburg Wheel tests on production material as determined by the Engineer."

Revise the title of Article 1030.06(b) of the Standard Specifications to read:

"(b) Low ESAL Mixtures."

<u>System for Hydrated Lime Addition</u>. Revise the fourth sentence of the third paragraph of Article 1030.04(c) of the Standard Specifications to read:

"The method of application shall be according to Article 1102.01(a)(10)."

Replace the first three sentences of the second paragraph of Article 1102.01(a)(10) of the Standard Specifications to read:

"When hydrated lime is used as the anti-strip additive, a separate bin or tank and feeder system shall be provided to store and accurately proportion the lime onto the aggregate either as a slurry, as dry lime applied to damp aggregates, or as dry lime injected onto the hot aggregates prior to adding the liquid asphalt cement. If the hydrated lime is added either as a slurry or as dry lime on damp aggregates, the lime and aggregates shall be mixed by a power driven pugmill to provide a uniform coating of the lime prior to entering the dryer. If dry hydrated lime is added to the hot dry aggregates in a dryer-drum plant, the lime shall be added in such a manner that the lime will not become entrained into the air stream of the dryer-drum and that thorough dry mixing shall occur prior to the injection point of the liquid asphalt. When a batch plant is used, the hydrated lime shall be added to the mixture in the weigh hopper or as approved by the Engineer."

<u>Basis of Payment</u>. Replace the seventh paragraph of Article 406.14 of the Standard Specifications with the following:

"For mixes designed and verified under the Hamburg Wheel criteria, the cost of furnishing and introducing anti-stripping additives in the HMA will not be paid for separately, but shall be considered as included in the contract unit price of the HMA item involved.

If an anti-stripping additive is required for any other HMA mix, the cost of the additive will be paid for according to Article 109.04. The cost incurred in introducing the additive into the HMA will not be paid for separately, but shall be considered as included in the contract unit price of the HMA item involved.

No additional compensation will be awarded to the Contractor because of reduced production rates associated with the addition of the anti-stripping additive."

## **HOT MIX ASPHALT – PRIME COAT (BDE)**

Effective: November 1, 2014

Revise Note 1 of Article 406.02 of the Standard Specifications to read:

"Note 1. The bituminous material used for prime coat shall be one of the types listed in the following table.

When emulsified asphalts are used, any dilution with water shall be performed by the emulsion producer. The emulsified asphalt shall be thoroughly agitated within 24 hours of application and show no separation of water and emulsion.

| Application                                 | Bituminous Material Types  |
|---|--|
| Prime Coat on Brick, Concrete, or HMA Bases | SS-1, SS-1h, SS-1hP, SS-1vh, RS-1,<br>RS-2, CSS-1, CSS-1h, CSS-1hp, CRS-1,<br>CRS-2, HFE-90, RC-70 |
| Prime Coat on Aggregate Bases               | MC-30, PEP"  |

Add the following to Article 406.03 of the Standard Specifications.

| "(i) | Vacuum Sweeper | 1101.19  |
|------|----------------|----------|
| (i)  | Spray Paver    | 1102.06" |

Revise Article 406.05(b) of the Standard Specifications to read:

- "(b) Prime Coat. The bituminous material shall be prepared according to Article 403.05 and applied according to Article 403.10. The use of RC-70 shall be limited to air temperatures less than 60 °F (15 °C).
  - (1) Brick, Concrete or HMA Bases. The base shall be cleaned of all dust, debris and any substance that will prevent the prime coat from adhering to the base. Cleaning shall be accomplished by sweeping to remove all large particles and air blasting to remove dust. As an alternative to air blasting, a vacuum sweeper may be used to accomplish the dust removal. The base shall be free of standing water at the time of application. The prime coat shall be applied uniformly and at a rate that will provide a residual asphalt rate on the prepared surface as specified in the following table.

| Type of Surface to be Primed   | Residual Asphalt Rate<br>lb/sq ft (kg/sq m) |
|--|---|
| Milled HMA, Aged Non-Milled HMA, Milled Concrete, Non-Milled Concrete & Tined Concrete | 0.05 (0.244)                                |
| Fog Coat between HMA Lifts, IL-4.75 & Brick  | 0.025 (0.122)                               |

The bituminous material for the prime coat shall be placed one lane at a time. If a spray paver is not used, the primed lane shall remain closed until the prime coat is fully cured and does not pickup under traffic. When placing prime coat through an intersection where it is not possible to keep the lane closed, the prime coat may be covered immediately following its application with fine aggregate mechanically spread at a uniform rate of 2 to 4 lb/sq yd (1 to 2 kg/sq m).

(2) Aggregate Bases. The prime coat shall be applied uniformly and at a rate that will provide a residual asphalt rate on the prepared surface of  $0.25 \text{ lb/sq ft} \pm 0.01 (1.21 \text{ kg/sq m} \pm 0.05)$ .

The prime coat shall be permitted to cure until the penetration has been approved by the Engineer, but at no time shall the curing period be less than 24 hours for MC-30 or four hours for PEP. Pools of prime occurring in the depressions shall be broomed or squeegeed over the surrounding surface the same day the prime coat is applied.

The base shall be primed 1/2 width at a time. The prime coat on the second half/width shall not be applied until the prime coat on the first half/width has cured so that it will not pickup under traffic.

The residual asphalt rate will be verified a minimum of once per type of surface to be primed as specified herein for which at least 2000 tons (1800 metric tons) of HMA will be placed. The test will be according to the "Determination of Residual Asphalt in Prime and Tack Coat Materials" test procedure.

Prime coat shall be fully cured prior to placement of HMA to prevent pickup by haul trucks or paving equipment. If pickup occurs, paving shall cease in order to provide additional cure time, and all areas where the pickup occurred shall be repaired.

If after five days, loss of prime coat is evident prior to covering with HMA, additional prime coat shall be placed as determined by the Engineer at no additional cost to the Department."

Revise the last sentence of the first paragraph of Article 406.13(b) of the Standard Specifications to read:

"Water added to emulsified asphalt, as allowed in Article 406.02, will not be included in the quantities measured for payment."

Revise the second paragraph of Article 406.13(b) of the Standard Specifications to read:

"Aggregate for covering prime coat will not be measured for payment."

Revise the first paragraph of Article 406.14 of the Standard Specifications to read:

"406.14 Basis of Payment. Prime Coat will be paid for at the contract unit price per pound (kilogram) of residual asphalt applied for BITUMINOUS MATERIALS (PRIME COAT), or POLYMERIZED BITUMINOUS MATERIALS (PRIME COAT)."

Revise Article 407.02 of the Standard Specifications to read:

"407.02 Materials. Materials shall be according to Article 406.02, except as follows.

Item Article/Section
(a) Packaged Rapid Hardening Mortar or Concrete .......1018"

Revise Article 407.06(b) of the Standard Specifications to read:

"(b) A bituminous prime coat shall be applied between each lift of HMA according to Article 406.05(b)."

Delete the second paragraph of Article 407.12 of the Standard Specifications.

Revise the first paragraph of Article 408.04 of the Standard Specifications to read:

**"408.04 Method of Measurement.** Bituminous priming material will be measured for payment according to Article 406.13."

Revise the first paragraph of Article 408.05 of the Standard Specifications to read:

"408.05 Basis of Payment. This work will be paid for at the contract unit price per pound (kilogram) of residual asphalt applied for BITUMINOUS MATERIALS (PRIME COAT) or POLYMERIZED BITUMINOUS MATERIALS (PRIME COAT) and at the contract unit price per ton (metric ton) for INCIDENTAL HOT-MIX ASPHALT SURFACING."

Revise Article 1032.02 of the Standard Specifications to read:

"1032.02 Measurement. Asphalt binders, emulsified asphalts, rapid curing liquid asphalt, medium curing liquid asphalts, slow curing liquid asphalts, asphalt fillers, and road oils will be measured by weight."

A weight ticket for each truck load shall be furnished to the inspector. The truck shall be weighed at a location approved by the Engineer. The ticket shall show the weight of the empty truck (the truck being weighed each time before it is loaded), the weight of the loaded truck, and the net weight of the bituminous material.

When an emulsion or cutback is used for prime coat, the percentage of asphalt residue of the actual certified product shall be shown on the producer's bill of lading or attached certificate of analysis. If the producer adds extra water to an emulsion at the request of the purchaser, the amount of water shall also be shown on the bill of lading.

Payment will not be made for bituminous materials in excess of 105 percent of the amount specified by the Engineer."

Add the following to the table in Article 1032.04 of the Standard Specifications.

| "SS-1vh     | 160-180 | 70-80  |
|-------------|---------|--------|
| RS-1, CRS-1 | 75-130  | 25-55" |

Add the following to Article 1032.06 of the Standard Specifications.

"(g) Non Tracking Emulsified Asphalt SS-1vh shall be according to the following.

| Requirements for SS-1vh          |                  |                 |        |  |  |  |  |  |  |  |  |  |
|----------------------------------|------------------|-----------------|--------|--|--|--|--|--|--|--|--|--|
| Test SPEC AASHTO Test Method     |                  |                 |        |  |  |  |  |  |  |  |  |  |
| Saybolt Viscosity @ 25C,         | SFS              | 20-200          | T 72   |  |  |  |  |  |  |  |  |  |
| Storage Stability, 24hr.,        | %                | 1 max.          | T 59   |  |  |  |  |  |  |  |  |  |
| Residue by Evaporation,          | %                | 50 min.         | T 59   |  |  |  |  |  |  |  |  |  |
| Sieve Test,                      | %                | 0.3 max.        | T 59   |  |  |  |  |  |  |  |  |  |
|                                  | Tests on Residue | e from Evaporat | ion    |  |  |  |  |  |  |  |  |  |
| Penetration @25°C, 100g.,        | 5 sec., dmm      | 20 max.         | T 49   |  |  |  |  |  |  |  |  |  |
| Softening Point, °C 65 min. T 53 |                  |                 |        |  |  |  |  |  |  |  |  |  |
| Solubility,                      | %                | 97.5 min.       | T 44   |  |  |  |  |  |  |  |  |  |
| Orig. DSR @ 82°C,                | kPa              | 1.00 min.       | T 315" |  |  |  |  |  |  |  |  |  |

Revise the last table in Article 1032.06(f)(2)d. of the Standard Specifications to read:

| "Grade  | Use                                |
|---|------------------------------------|
| SS-1, SS-1h, RS-1, RS-2, CSS-1, CRS-1, CRS-2, CSS-1h, HFE-90, SS-1hP, CSS-1hP, SS-1vh |                                    |
| PEP   | Bituminous surface treatment prime |
| RS-2, HFE-90, HFE-150, HFE- 300, CRSP, HFP, CRS-2, HFRS-2                             | Bituminous surface treatment       |
| CSS-1h Latex Modified   | Microsurfacing"                    |

Add the following to Article 1101 of the Standard Specifications.

**"1101.19 Vacuum Sweeper.** The vacuum sweeper shall have a minimum sweeping path of 52 in. (1.3 m) and a minimum blower rating of 20,000 cu ft per minute (566 cu m per minute)."

Add the following to Article 1102 of the Standard Specifications:

"1102.06 Spray Paver. The spreading and finishing machine shall be capable of spraying a rapid setting emulsion tack coat, paving a layer of HMA, and providing a smooth HMA mat in one pass. The HMA shall be spread over the tack coat in less than five seconds after the application of the tack coat during normal paving speeds. No wheel or other part of the paving machine shall come into contact with the tack coat before the HMA is applied. In addition to meeting the requirements of Article 1102.03, the spray paver shall also meet the requirements of Article 1102.05 for the tank, heating system, pump, thermometer, tachometer or synchronizer, and calibration. The spray bar shall be equipped with properly sized and spaced nozzles to apply a uniform application of tack coat at the specified rate for the full width of the mat being placed."

# LRFD PIPE CULVERT BURIAL TABLES (BDE)

Effective: November 1, 2013 Revised: April 1, 2015

Revise Article 542.02 of the Standard Specifications to read as follows:

|      | "Item   | Article/Section |
|------|---|-----------------|
| (a)  | Galvanized Corrugated Steel Pipe                                    | 1006.01         |
| (b)  | Galvanized Corrugated Steel Pipe Arch                               | 1006.01         |
| (c)  | Bituminous Coated Corrugated Steel Pipe                             | 1006.01         |
| (d)  | Bituminous Coated Corrugated Steel Pipe Arch                        | 1006.01         |
| (e)  | Reserved  |                 |
|      | Aluminized Steel Type 2 Corrugated Pipe                             |                 |
|      | Aluminized Steel Type 2 Corrugated Pipe Arch                        |                 |
|      | Precoated Galvanized Corrugated Steel Pipe                          |                 |
|      | Precoated Galvanized Corrugated Steel Pipe Arch                     |                 |
|      | Corrugated Aluminum Alloy Pipe                                      |                 |
|      | Corrugated Aluminum Alloy Pipe Arch                                 |                 |
| ` '  | Extra Strength Clay Pipe  |                 |
| ` ,  | Concrete Sewer, Storm Drain, and Culvert Pipe                       |                 |
|      | Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe            |                 |
|      | Reinforced Concrete Elliptical Culvert, Storm Drain, and Sewer Pipe |                 |
| ,    | Reinforced Concrete Arch Culvert, Storm Drain, and Sewer Pipe       |                 |
| ` ., | Polyvinyl Chloride (PVC) Pipe                                       |                 |
|      | Corrugated Polyvinyl Chloride (PVC) Pipe with a Smooth Interior     |                 |
|      | Corrugated Polypropylene (CPP) pipe with smooth Interior            |                 |
|      | Corrugated Polyethylene (PE) Pipe with a Smooth Interior            |                 |
|      | Polyethylene (PE) Pipe with a Smooth Interior                       |                 |
| ` ,  | Rubber Gaskets and Preformed Flexible Joint Sealants for Concrete F | •               |
| ` '  | Mastic Joint Sealer for Pipe  |                 |
|      | External Sealing Band   |                 |
|      | Fine Aggregate (Note 1)   |                 |
| (z)  | Coarse Aggregate (Note 2)   | 1004.05         |

| (aa) Packaged Rapid Hardening Mortar or Concrete | 1018    |
|--|---------|
| (bb) Nonshrink Grout                             |         |
| (cc) Reinforcement Bars and Welded Wire Fabric   |         |
| (dd) Handling Hole Plugs                         | 1042.16 |

- Note 1. The fine aggregate shall be moist.
- Note 2. The coarse aggregate shall be wet."

Revise the table for permitted materials in Article 542.03 of the Standard Specifications as follows:

| "Class Materials  |   |
|---|---|
| A Rigid Pipes:  |   |
| Extra Strength Clay Pipe  |   |
| Concrete Sewer Storm Drain and Culvert Pipe, Class 3  |   |
| Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe  |   |
| Reinforced Concrete Elliptical Culvert, Storm Drain, and Sewer Pipe                                     | е |
| Reinforced Concrete Arch Culvert, Storm Drain, and Sewer Pipe   |   |
| C Rigid Pipes: Extra Strength Clay Pipe   |   |
| Concrete Sewer Storm Drain and Culvert Pipe, Class 3  |   |
| Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe  |   |
| Reinforced Concrete Elliptical Culvert, Storm Drain, and Sewer Pipe                                     | e |
| Reinforced Concrete Arch Culvert, Storm Drain, and Sewer Pipe   |   |
| Flexible Pipes:   |   |
| Aluminized Steel Type 2 Corrugated Pipe   |   |
| Aluminized Steel Type 2 Corrugated Pipe Arch  |   |
| Precoated Galvanized Corrugated Steel Pipe  |   |
| Precoated Galvanized Corrugated Steel Pipe Arch   |   |
| Corrugated Aluminum Alloy Pipe  |   |
| Corrugated Aluminum Alloy Pipe Arch Polyvinyl Chloride (PVC) Pipe                                       |   |
| Corrugated Polyvinyl Chloride (PVC) Pipe with a Smooth Interior   |   |
| Polyethylene (PE) Pipe with a Smooth Interior   |   |
| Corrugated Polypropylene (CPP) Pipe with Smooth Interior  |   |
| D Rigid Pipes:  |   |
| Extra Strength Clay Pipe  |   |
| Concrete Sewer Storm Drain and Culvert Pipe, Class 3  |   |
| Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe  |   |
| Reinforced Concrete Elliptical Culvert, Storm Drain, and Sewer Pipe                                     | е |
| Reinforced Concrete Arch Culvert, Storm Drain, and Sewer Pipe   |   |
| Flexible Pipes:<br>  Galvanized Corrugated Steel Pipe   |   |
| Galvanized Corrugated Steel Pipe Arch   |   |
| Bituminous Coated Corrugated Steel Pipe   |   |
| Bituminous Coated Corrugated Steel Pipe Arch  |   |
| Aluminized Steel Type 2 Corrugated Pipe   |   |
| Aluminized Steel Type 2 Corrugated Pipe Arch  |   |
| Precoated Galvanized Corrugated Steel Pipe  |   |
| Precoated Galvanized Corrugated Steel Pipe Arch   |   |
| Corrugated Aluminum Alloy Pipe  |   |
| Corrugated Aluminum Alloy Pipe Arch   |   |
| Polyvinyl Chloride (PVC) Pipe   |   |
| Corrugated Polyvinyl Chloride (PVC) Pipe with a Smooth Interior   |   |
| Corrugated Polyethylene (PE) Pipe with a Smooth Interior Polyethylene (PE) Pipe with a Smooth Interior" |   |
| Corrugated Polypropylene (CPP) Pipe with Smooth Interior  |   |

Revise Articles 542.03(b) and (c) of the Standard Specifications to read:

- "(b) Extra strength clay pipe will only be permitted for pipe culverts Type 1, for 10 in., 12 in., 42 in. and 48 in. (250 mm, 300 mm, 1050 mm and 1200 mm), Types 2, up to and including 48 in. (1200 mm), Type 3, up to and including 18 in. (450 mm), Type 4 up to and including 10 in. (250 mm), for all pipe classes.
- (c) Concrete sewer, storm drain, and culvert pipe Class 3 will only be permitted for pipe culverts Type 1, up to and including 10 in (250 mm), Type 2, up to and including 30 in. (750 mm), Type 3, up to and including 15 in. (375 mm); Type 4, up to and including 10 in. (250 mm), for all pipe classes."

Replace the pipe tables in Article 542.03 of the Standard Specifications with the following:

|              |                             | for the Resp                            |  | es of Reinforced Co<br>Pipe and Fill Heigh | ncrete Pipe<br>ts over the Top of the    | e Pipe                                |                                       |   |   |
|--------------|-----------------------------|---|--|--|--|---------------------------------------|---------------------------------------|---|---|
|              | Type 1                      | Type 2                                  | Type 3                                   | Type 4                                     | Type 5                                   | Type 6                                | Type 7                                |   |   |
| Nominal      | Fill Height:                | Fill Height:                            | Fill Height:                             | Fill Height:                               | Fill Height:                             | Fill Height:                          | Fill Height:                          |   |   |
| Diameter in. | 3' and less<br>1' min cover | Greater than 3'<br>not exceeding<br>10' | Greater than 10'<br>not exceeding<br>15' | Greater than 15'<br>not exceeding<br>20'   | Greater than 20'<br>not exceeding<br>25' | Greater than 25'<br>not exceeding 30' | Greater than 30'<br>not exceeding 35' |   |   |
| 12           | IV                          | II                                      | III                                      | IV   | IV                                       | V                                     | V                                     |   |   |
| 15           | IV                          | II                                      | III                                      | IV   | IV                                       | V                                     | V                                     |   |   |
| 18           | IV                          | II                                      | III                                      | IV   | IV                                       | V                                     | V                                     |   |   |
| 21           | III                         | II                                      | III                                      | IV   | IV                                       | V                                     | V                                     |   |   |
| 24           | III                         | II                                      | III                                      | IV   | IV                                       | V                                     | V                                     |   |   |
| 30           | IV                          | II                                      | III                                      | IV   | IV                                       | V                                     | V                                     |   |   |
| 36           | III                         | II                                      | III                                      | IV   | IV                                       | V                                     | V                                     |   |   |
| 42           | II                          | II                                      | II                                       | II   | III                                      | IV                                    | IV                                    | V | V |
| 48           | II                          | II                                      | III                                      | IV   | IV                                       | V                                     | V                                     |   |   |
| 54           | II                          | II                                      | III                                      | IV   | IV                                       | V                                     | V                                     |   |   |
| 60           | II                          | II                                      | III                                      | IV   | IV                                       | V                                     | V                                     |   |   |
| 66           | II                          | II                                      | III                                      | IV   | IV                                       | V                                     | V                                     |   |   |
| 72           | II                          | II                                      | III                                      | IV   | V  | V                                     | V                                     |   |   |
| 78           | II                          | II                                      | III                                      | IV   | 2020                                     | 2370                                  | 2730                                  |   |   |
| 84           | II                          | II                                      | III                                      | IV   | 2020                                     | 2380                                  | 2740                                  |   |   |
| 90           | II                          | II                                      | III                                      | 1680                                       | 2030                                     | 2390                                  | 2750                                  |   |   |
| 96           | II                          | III                                     | III                                      | 1690                                       | 2040                                     | 2400                                  | 2750                                  |   |   |
| 102          | II                          | III                                     | III                                      | 1700                                       | 2050                                     | 2410                                  | 2760                                  |   |   |
| 108          | ļļ.                         | III                                     | 1360                                     | 1710                                       | 2060                                     | 2410                                  | 2770                                  |   |   |

Notes:

A number indicates the D-Load for the diameter and depth of fill and that a special design is required. Design assumptions; Water filled pipe, Type 2 bedding and Class C Walls

# Table IA: Classes of Reinforced Concrete Pipe for the Respective Diameters of Pipe and Fill Heights over the Top of the Pipe (Metric)

|                           | Type 1             | Type 2                                | Type 3          | Type 4                 | Type 5               | Type 6                 | Type 7               |  |
|---------------------------|--------------------|---------------------------------------|-----------------|------------------------|----------------------|------------------------|----------------------|--|
| Nominal<br>Diameter<br>mm | Fill Height:       | Fill Height:                          | Fill Height:    | Fill Height:           | Fill Height:         | Fill Height:           | Fill Height:         |  |
| '''''                     | 1 m and less 0.3 m | n and less 0.3 m Greater than 1 m not |                 | Greater than 4.5 m not | Greater than 6 m not | Greater than 7.5 m not | Greater than 9 m not |  |
|                           | min cover          | exceeding 3 m                         | exceeding 4.5 m | exceeding 6 m          | exceeding 7.5 m      | exceeding 9 m          | exceeding 10.5 m     |  |
| 300                       | IV                 | II                                    | III             | IV                     | IV                   | V                      | V                    |  |
| 375                       | IV                 | II                                    | III             | IV                     | IV                   | V                      | V                    |  |
| 450                       | IV                 | II                                    | III             | IV                     | IV                   | V                      | V                    |  |
| 525                       | III                | II                                    | III             | IV                     | IV                   | V                      | V                    |  |
| 600                       | III                | II                                    | III             | IV                     | IV                   | V                      | V                    |  |
| 750                       | IV                 | II                                    | III             | IV                     | IV                   | V                      | V                    |  |
| 900                       | III                | II                                    | III             | IV                     | IV                   | V                      | V                    |  |
| 1050                      | II                 | II                                    | III             | IV                     | IV                   | V                      | V                    |  |
| 1200                      | II                 | II                                    | III             | IV                     | IV                   | V                      | V                    |  |
| 1350                      |                    | II                                    | III             | IV                     | IV                   | V                      | V                    |  |
| 1500                      | II                 | II                                    | III             | IV                     | IV                   | V                      | V                    |  |
| 1650                      | II                 | II                                    | III             | IV                     | IV                   | V                      | V                    |  |
| 1800                      | II                 | II                                    | III             | IV                     | V                    | V                      | V                    |  |
| 1950                      | II                 | II                                    | III             | IV                     | 100                  | 110                    | 130                  |  |
| 2100                      | II                 | II                                    | III             | IV                     | 100                  | 110                    | 130                  |  |
| 2250                      | II                 | II II                                 |                 | 80                     | 100                  | 110                    | 130                  |  |
| 2400                      | II III             |                                       | III             | 80                     | 100                  | 110                    | 130                  |  |
| 2550                      | II III             |                                       | III             | 80                     | 100                  | 120                    | 130                  |  |
| 2700                      | II III             |                                       | 70              | 80                     | 100                  | 120                    | 130                  |  |

Notes:

A number indicates the D-Load for the diameter and depth of fill and that a special design is required.

Design assumptions; Water filled pipe, Type 2 bedding and Class C Walls

## TABLE IB: THICKNESS OF CORRUGATED STEEL PIPE FOR THE RESPECTIVE DIAMETER OF PIPE AND FILL HEIGHTS OVER THE TOP OF THE PIPE FOR 2 2/3"x1/2", 3"x1" AND 5"x1" CORRUGATIONS

|                          |                  | Туре 1                |         |                  | Type 2                  |                |                                       | Туре 3         |                |                                    | Type 4             |                                    |                  | Type 5                             |                |                  | Type 6                                |                      |                  | Type 7               |                      |
|--------------------------|------------------|-----------------------|---------|------------------|-------------------------|----------------|---------------------------------------|----------------|----------------|------------------------------------|--------------------|------------------------------------|------------------|------------------------------------|----------------|------------------|---------------------------------------|----------------------|------------------|----------------------|----------------------|
| neter                    | Fil              | l Height:             |         | F                | ill Heigh               | t:             | F                                     | ill Height     | t:             | F                                  | Fill Height:       |                                    | Fill Height:     |                                    | Fill Height:   |                  |                                       | Fill Height:         |                  | :                    |                      |
| Diar<br>.*               |                  |                       |         |                  |                         |                |                                       |                |                |                                    |                    |                                    |                  |                                    |                |                  |                                       |                      |                  |                      |                      |
| Nominal Diameter<br>in.* | -                | and less<br>nin. cove |         | -                | eater than<br>exceeding |                | Greater than 10'<br>not exceeding 15' |                |                | Greater than 15' not exceeding 20' |                    | Greater than 20' not exceeding 25' |                  | Greater than 25' not exceeding 30' |                |                  | Greater than 30'<br>not exceeding 35' |                      |                  |                      |                      |
| ž                        | 2 2/3" x<br>1/2" | 3"x1"                 | 5"x1"   | 2 2/3" x<br>1/2" | 3"x1"                   | 5"x1"          | 2 2/3" x<br>1/2"                      | 3"x1"          | 5"x1"          | 2 2/3" x<br>1/2"                   | 3"x1"              | 5"x1"                              | 2 2/3" x<br>1/2" | 3"x1"                              | 5"x1"          | 2 2/3" x<br>1/2" | 3"x1"                                 | 5"x1"                | 2 2/3" x<br>1/2" | 3"x1"                | 5"x1"                |
| 12                       | 0.064            |                       |         | 0.064            |                         |                | 0.064                                 |                |                | 0.064                              |                    |                                    | 0.064            |                                    |                | 0.064            |                                       |                      | 0.064            |                      |                      |
| 15                       | 0.064            |                       |         | 0.064            |                         |                | 0.064                                 |                |                | 0.064                              |                    |                                    | 0.064            |                                    |                | 0.064            |                                       |                      | (0.079)          |                      |                      |
| 18                       | (0.079)          |                       |         | 0.064            |                         |                | 0.064                                 |                |                | 0.064                              |                    |                                    | 0.064            |                                    |                | (0.079)          |                                       |                      | (0.079)          |                      |                      |
| 21                       | (0.079)          |                       |         | 0.064            |                         |                | 0.064                                 |                |                | 0.064                              |                    |                                    | (0.079)          |                                    |                | (0.079)          |                                       |                      | (0.079)          |                      |                      |
| 24                       | (0.079)          |                       |         | 0.064            |                         |                | 0.064                                 |                |                | 0.064                              |                    |                                    | (0.079)          |                                    |                | (0.079)          |                                       |                      | (0.109)          |                      |                      |
| 30                       | (0.109E)         |                       |         | 0.064            |                         |                | 0.064                                 |                |                | (0.079)                            |                    |                                    | (0.079)          |                                    |                | (0.109)          |                                       |                      | 0.109            |                      |                      |
| 36                       | (0.109E)         |                       |         | 0.064            |                         |                | (0.079)                               |                |                | (0.079)                            |                    |                                    | (0.109)          |                                    |                | 0.109            |                                       |                      | (0.138E)         |                      |                      |
| 42                       | 0.079            |                       |         | 0.064            |                         |                | (0.079)                               |                |                | (0.079)                            |                    |                                    | (0.109)          |                                    |                | (0.109E)         |                                       |                      | (0.109E)         |                      |                      |
| 48                       |                  | (0.109)               |         | (0.109)          | 0.079                   | 0.079          | (0.109)                               | 0.079          | (0.109)        | 0.109                              | (0.109)            | 0.109                              | (0.138)          | (0.109)                            | 0.109          | (0.138E)         | 0.109                                 | 0.109                | (0.138E)         | 0.109                | (0.138)              |
| 54                       |                  | (0.109)               | 0.109   | (0.109)          | 0.079                   | 0.079          | 0.109                                 | (0.109)        | 0.109          | 0.109                              | (0.109)            | 0.109                              | (0.138)          | 0.109                              | 0.109          | (0.138E)         | 0.109                                 | (0.138)              | (0.138E)         | 0.138                | 0.138                |
| 60                       | 0.109            | 0.109                 | 0.109   | 0.109            | 0.079                   | (0.109)        | 0.109                                 | (0.109)        | 0.109          | 0.109                              | (0.109)            | 0.109                              | (0.138)          | 0.109                              | 0.109          | (0.138E)         | (0.138)                               | (0.138)              | 0.138E           | (0.138E)             | (0.138E)             |
| 66                       | (0.138)          | 0.109                 | 0.109   | 0.109            | 0.079                   | (0.109)        | 0.109                                 | (0.109)        | 0.109          | 0.109                              | 0.109              | 0.109                              | (0.138)          | 0.109                              | (0.138)        | (0.138E)         | 0.138                                 | 0.138                | 0.138E           | (0.138E)             | 0.138E               |
| 72                       | 0.138            | 0.109                 | (0.138) | 0.138            | (0.109)                 | (0.109)        | 0.138                                 | (0.109)        | 0.109          | 0.138                              | 0.109              | 0.109                              | 0.138            | (0.138)                            | (0.138)        | (0.168E)         | (0.138E)                              | 0.138E               | (0.168E)         | (0.138E)             | 0.138E               |
| 78                       | 0.168            | 0.109                 | (0.138) | 0.168            | (0.109)                 | 0.109          | 0.168                                 | 0.109          | 0.109          | 0.168                              | 0.109              | (0.138)                            | 0.168            | (0.138)                            | (0.138)        | H0.168E          | (0.138E)                              | 0.138E               | H0.168E          | 0.138E               | (0.168E)             |
| 84                       |                  | ` ′                   | (0.138) | 0.168            | (0.109)                 | 0.109          | 0.168                                 | 0.109          | 0.109          | 0.168                              | 0.109              | (0.138)                            | 0.168            | (0.138)                            | 0.138          | H0.168E          | (0.138E)                              |                      | H0.168E          | (0.168E)             | (0.168E)             |
| 90<br>96                 |                  | (0.138)<br>(0.138)    | ( /     |                  | (0.109)                 | 0.109<br>0.109 |                                       | 0.109<br>0.109 | 0.109<br>0.109 |                                    | (0.138)            | (0.138)                            |                  | (0.138)                            | 0.138<br>0.138 |                  | 0.138E<br>(0.168E)                    | (0.168E)<br>(0.168E) |                  | (0.168E)<br>(0.168E) | (0.168E)<br>(0.168E) |
| 102                      |                  | (0.138)<br>0.109Z     | ( /     |                  | (0.109)<br>(0.109)      | 0.109          |                                       | 0.109          | (0.138)        |                                    | (0.138)<br>(0.138) | (0.138)<br>(0.138)                 |                  | (0.138)<br>(0.138)                 | 0.138          |                  | (0.168E)                              | (0.168E)             |                  | (0.168E)<br>H0.138E  | H0.168E)             |
| 102                      |                  | 0.109Z                |         |                  | 0.109)                  | 0.109          |                                       | 0.109          | (0.138)        |                                    | (0.138)            | 0.138                              |                  | 0.138                              | (0.168)        |                  | (0.168E)                              | (0.168E)             |                  | H0.138E              |                      |
| 114                      |                  | 0.109Z                |         |                  | 0.109                   | 0.109          |                                       | 0.109          | (0.138)        |                                    | (0.138)            | 0.138                              |                  | (0.168)                            | (0.168)        |                  | (0.168E)                              | 0.168E               |                  | H0.138E              |                      |
| 120                      |                  | 0.109Z                | ( /     |                  | 0.109                   | 0.109          |                                       | (0.138)        | (0.138)        |                                    | (0.138)            | 0.138                              |                  | (0.168)                            | (0.168)        |                  | H0.138E                               | H0.168E              |                  |                      | H0.168E              |
| 126                      |                  | 0.138Z                | ` ,     |                  | 0.103                   | 0.138          |                                       | 0.138          | 0.138          |                                    | 0.138              | (0.168)                            |                  | (0.168)                            | (0.168)        |                  | H0.138E                               | H0.168E              |                  |                      |                      |
| 132                      |                  | 0.138Z                |         |                  | 0.138                   | 0.138          |                                       | 0.138          | 0.138          |                                    | (0.168)            | (0.168)                            |                  | 0.168                              | 0.168          |                  | H0.138E                               | H0.168E              |                  | H0.168E              |                      |
| 138                      |                  | 0.138Z                |         |                  | 0.138                   | 0.138          |                                       | 0.138          | 0.138          |                                    | (0.168)            | (0.168)                            |                  |                                    | H0.168E        |                  |                                       | H0.168E              |                  | H0.168E              |                      |
| 144                      |                  | 0.168Z                |         |                  | 0.168                   | 0.168          |                                       | 0.168          | 0.168          |                                    | 0.168              | 0.168                              |                  | ,                                  | H0.168E        |                  | H0.168E                               | H0.168E              |                  | H0.168E              |                      |

Notes:

<sup>\*</sup> Aluminized Type 2 Steel or Precoated Galvanized Steel shall be required for diameters up to 42" according to Article 1006.01, 1 1/2" x 1/4" corrugations shall be used for diameters less than 12". Thicknesses are based on longitudinal riveted seam fabrication, values in "()" can be reduced by one gage thickness if helical seam fabrication is utilized. A thickness preceded by "H" indicates only helical seam fabrication is allowed.

E Elongation according to Article 542.04(e)

Z 1'-6" Minimum fill

### TABLE IB: THICKNESS OF CORRUGATED STEEL PIPE FOR THE RESPECTIVE DIAMETER OF PIPE AND FILL HEIGHTS OVER THE TOP OF THE PIPE FOR 68 mm x 13 mm, 75 mm x 25 mm AND 125 mm x 25 mm CORRUGATIONS (Metric)

| Ö                        |         | Type 1 Type 2  |                  |              | Type 3       |              |                           |         | Type 4         | Type 4            |                    | Type 5              |                  | Type 6           |                   |                    | Type 7     |                      |         |                    |                    |  |
|--------------------------|---------|----------------|------------------|--------------|--------------|--------------|---------------------------|---------|----------------|-------------------|--------------------|---------------------|------------------|------------------|-------------------|--------------------|------------|----------------------|---------|--------------------|--------------------|--|
| net                      | F       | ill Heigh      | t:               | Fill Height: |              |              | Fill Height: Fill Height: |         |                |                   | Fill Heigh         | nt:                 |                  | Fill Heigh       | nt:               |                    | Fill Heigh | nt:                  | ı       | Fill Heigh         | nt:                |  |
| Nominal Diameter<br>mm * | 1       | m and le       | 00               | Gro          | ater than    | 1 m          | Greater than 3 m          |         |                | Gro               | Greater than 4.5 m |                     | Greater than 6 m |                  |                   | Greater than 7.5 m |            |                      | Gro     | Greater than 9 m   |                    |  |
| nal D                    | -       | m min. c       |                  |              | xceeding     |              | not exceeding 4.5 m       |         |                | not exceeding 6 m |                    | not exceeding 7.5 m |                  |                  | not exceeding 9 m |                    |            | not exceeding 10.5 m |         |                    |                    |  |
| i                        | 68 x 13 | 75 x 25        | 125 x 25         | 68 x 13      | 75 x 25      | 125 x 25     | 68 x 13                   | 75 x 25 | 125 x 25       | 68 x 13           | 75 x 25            | 125 x 25            | 68 x 13          | 75 x 25          | 125 x 25          | 68 x 13            | 75 x 25    | 125 x 25             | 68 x 13 | 75 x 25            | 125 x 25           |  |
| ž                        | mm      | mm             | mm               | mm           | mm           | mm           | mm                        | mm      | mm             | mm                | mm                 | mm                  | mm               | mm               | mm                | mm                 | mm         | mm                   | mm      | mm                 | mm                 |  |
| 300                      | 1.63    |                |                  | 1.63         |              |              | 1.63                      |         |                | 1.63              |                    |                     | 1.63             |                  |                   | 1.63               |            |                      | 1.63    |                    |                    |  |
| 375                      | 1.63    |                |                  | 1.63         |              |              | 1.63                      |         |                | 1.63              |                    |                     | 1.63             |                  |                   | 1.63               |            |                      | (2.01)  |                    |                    |  |
| 450                      | (2.01)  |                |                  | 1.63         |              |              | 1.63                      |         |                | 1.63              |                    |                     | 1.63             |                  |                   | (2.01)             |            |                      | (2.01)  |                    |                    |  |
| 525                      | (2.01)  |                |                  | 1.63         |              |              | 1.63                      |         |                | 1.63              |                    |                     | (2.01)           |                  |                   | (2.01)             |            |                      | (2.01)  |                    |                    |  |
| 600                      | (2.01)  |                |                  | 1.63         |              |              | 1.63                      |         |                | 1.63              |                    |                     | (2.01)           |                  |                   | (2.01)             |            |                      | (2.77)  |                    |                    |  |
| 750                      | (2.77E) |                |                  | 1.63         |              |              | 1.63                      |         |                | (2.01)            |                    |                     | (2.01)           |                  |                   | (2.77)             |            |                      | 2.77    |                    |                    |  |
| 900                      | (2.77E) |                |                  | 1.63         |              |              | (2.01)                    |         |                | (2.01)            |                    |                     | (2.77)           |                  |                   | 2.77               |            |                      | (3.51E) |                    |                    |  |
| 1050                     | 2.01    |                |                  | 1.63         |              |              | (2.01)                    |         |                | (2.01)            |                    |                     | (2.77)           |                  |                   | (2.77E)            |            |                      | (2.77E) |                    |                    |  |
| 1200                     | 2.77    | (2.77)         | 2.77             | (2.77)       | 2.01         | 2.01         | (2.77)                    | 2.01    | (2.77)         | 2.77              | (2.77)             | 2.77                | (3.51)           | (2.77)           | 2.77              | (3.51E)            |            | 2.77                 | (3.51E) | 2.77               | (3.51)             |  |
| 1350                     | 2.77    | (2.77)         | 2.77             | (2.77)       | 2.01         | 2.01         | 2.77                      | (2.77)  | 2.77           | 2.77              | (2.77)             | 2.77                | (3.51)           | 2.77             | 2.77              | (3.51E)            | 2.77       | (3.51)               | (3.51E) | 3.51               | 3.51               |  |
| 1500                     | 2.77    | 2.77           | 2.77             | 2.77         | 2.01         | (2.77)       | 2.77                      | (2.77)  | 2.77           | 2.77              | (2.77)             | 2.77                | (3.51)           | 2.77             | 2.77              | (3.51E)            | (3.51)     | (3.51)               | 3.51E   | (3.51E)            | (3.51E)            |  |
| 1650                     | (3.51)  | 2.77           | 2.77             | 2.77         | 2.01         | (2.77)       | 2.77                      | (2.77)  | 2.77           | 2.77              | 2.77               | 2.77                | (3.51)           | 2.77             | (3.51)            | (3.51E)            |            | 3.51                 |         | (3.51E)            | 3.51E              |  |
| 1800                     | 3.51    | 2.77           | (3.51)           | 3.51         | (2.77)       | (2.77)       | 3.51                      | (2.77)  | 2.77           | 3.51              | 2.77               | 2.77                | 3.51             | (3.51)           | (3.51)            | (4.27E)            | ` ,        | 3.51E                | (4.27E) | ,                  | 3.51E              |  |
| 1950                     | 4.27    | 2.77           | (3.51)           | 4.27         | (2.77)       | 2.77         | 4.27                      | 2.77    | 2.77           | 4.27              | 2.77               | (3.51)              | 4.27             | (3.51)           | (3.51)            | H 4.27E            | ` '        |                      | H 4.27E |                    | (4.27E)            |  |
| 2100                     | 4.27    | (3.51)         | (3.51)           | 4.27         | (2.77)       | 2.77         | 4.27                      | 2.77    | 2.77           | 4.27              | 2.77               | (3.51)              | 4.27             | (3.51)           |                   | H 4.27E            | ,          |                      | H 4.27E |                    | (4.27E)            |  |
| 2250                     |         | (3.51)         | (3.51)           |              | (2.77)       | 2.77         |                           | 2.77    | 2.77           |                   | (3.51)             | (3.51)              |                  | (3.51)           | 3.51              |                    | 3.51E      | (4.27E)              |         | (4.27E)            | (4.27E)            |  |
| 2400                     |         | (3.51)         | (3.51)           |              | (2.77)       | 2.77         |                           | 2.77    | 2.77           |                   | (3.51)             | (3.51)              |                  | (3.51)           | 3.51              |                    | (4.27E)    | , ,                  |         | (4.27E)            | ,                  |  |
| 2550                     |         | 2.77Z          | 2.77Z            |              | (2.77)       | 2.77         |                           | 2.77    | (3.51)         |                   | (3.51)             | (3.51)              |                  | (3.51)           | 3.51              |                    | (4.27E)    | (4.27E)              |         |                    | H 4.27E            |  |
| 2700                     |         | 2.77Z          | (3.51Z)          |              | 2.77         | 2.77         |                           | 2.77    | (3.51)         |                   | (3.51)             | 3.51                |                  | 3.51             | (4.27)            |                    | (4.27E)    |                      |         |                    | H 4.27E            |  |
| 2850                     |         | 2.77Z          | (3.51Z)          |              | 2.77         | 2.77         |                           | 2.77    | (3.51)         |                   | (3.51)             | 3.51                |                  | (4.27)           | (4.27)            |                    | (4.27E)    | 4.27E                |         |                    | H 4.27E            |  |
| 3000<br>3150             |         | 2.77Z<br>3.51Z | (3.51Z)<br>3.51Z |              | 2.77<br>3.51 | 2.77<br>3.51 |                           | (3.51)  | (3.51)<br>3.51 |                   | (3.51)             | 3.51<br>(4.27)      |                  | (4.27)<br>(4.27) | (4.27)<br>(4.27)  |                    |            | H 4.27E<br>H 4.27E   |         |                    | H 4.27E<br>H 4.27E |  |
| 3300                     |         | 3.51Z          | 3.51Z            |              | 3.51         | 3.51         |                           | 3.51    | 3.51           |                   | (4.27)             | (4.27)              |                  | 4.27             | 4.27              |                    |            | H 4.27E              |         |                    | H 4.27E            |  |
| 3450                     |         | 3.51Z          | 3.51Z<br>3.51Z   |              | 3.51         | 3.51         |                           | 3.51    | 3.51           |                   | (4.27)             | (4.27)<br>(4.27)    |                  |                  | 4.27<br>H 4.27E   |                    |            | H 4.27E              |         | H 4.27E<br>H 4.27E | ∏ 4.∠/ E           |  |
| 3600                     |         | 3.51Z<br>4.27Z | 3.51Z<br>4.27Z   |              | 4.27         | 3.51<br>4.27 |                           | 4.27    | 4.27           |                   | 4.27               | (4.27)<br>4.27      |                  | ,                | H 4.27E           |                    |            | H 4.27E              |         | п 4.27E<br>Н 4.27E |                    |  |
| 3000                     |         | 4.212          | 4.212            |              | 4.21         | 4.21         |                           | 4.21    | 4.21           |                   | 4.21               | 4.21                |                  | 114.2/E          | 114.4/E           |                    | 114.4/E    | 114.21E              |         | 114.215            |                    |  |

Notes:

Thicknesses are based on longitudinal riveted seam fabrication, values in "()" can be reduced by one gage thickness if helical seam fabrication is utilized. A thickness preceded by an "H" indicates only helical seam fabrication is allowed.

Aluminized Type 2 Steel or Precoated Galvanized Steel shall be required for diameters up to 1050 mm according to Article 1006.01, 38 mm x 6.5 mm corrugations shall be used for diameters less

Elongation according to Article 542.04(e) 450 mm Minimum Fill

| -                             | ABLE IC: THICKNESS OF | F CORRUGATED ALUM  | INUM ALLOY PIPE         |                     |       |
|-------------------------------|-----------------------|--------------------|-------------------------|---------------------|-------|
| FOR THE RESPECTIVE DIAMETER ( | F PIPE AND FILL HEIGH | TS OVER THE TOP OF | THE PIPE FOR 2 2/3"x1/2 | " AND 3"x1" CORRUGA | TIONS |
|                               |                       |                    |                         |                     |       |

| ter                     | Туре              | Type 1 Type 2 |                                      | 2       | Туре                                  | : 3     | Туре                               | 4       | Туре                                  | e 5     | Тур                                   | e 6      | Тур         | e 7      |
|-------------------------|-------------------|---------------|--------------------------------------|---------|---------------------------------------|---------|------------------------------------|---------|---------------------------------------|---------|---------------------------------------|----------|-------------|----------|
| ame                     | Fill He           | ight:         | Fill Height:                         |         | Fill Height:                          |         | Fill Height:                       |         | Fill Height:                          |         | Fill Height:                          |          | Fill He     | eight:   |
| Nominal Diameter<br>in. | 3' and<br>1' min. |               | Greater than 3'<br>not exceeding 10' |         | Greater than 10'<br>not exceeding 15' |         | Greater than 15' not exceeding 20' |         | Greater than 20'<br>not exceeding 25' |         | Greater than 25'<br>not exceeding 30' |          | Greater to  |          |
| Non                     | 2 2/3"x1/2"       | 3"x1"         | 2 2/3"x1/2"                          | 3"x1"   | 2 2/3"x1/2"                           | 3"x1"   | 2 2/3"x1/2"                        | 3"x1"   | 2 2/3"x1/2"                           | 3"x1"   | 2 2/3"x1/2"                           | 3"x1"    | 2 2/3"x1/2" | 3"x1"    |
| 12                      | (0.075)           |               | 0.060                                |         | 0.060                                 |         | 0.060                              |         | 0.060                                 |         | 0.060                                 |          | 0.060       |          |
| 15                      | (0.075)           |               | 0.060                                |         | 0.060                                 |         | 0.060                              |         | 0.060                                 |         | 0.060                                 |          | (0.075)     |          |
| 18                      | (0.075)           |               | 0.060                                |         | 0.060                                 |         | 0.060                              |         | 0.060                                 |         | (0.075)                               |          | H 0.060     |          |
| 21                      | H 0.060E          |               | 0.060                                |         | 0.060                                 |         | 0.060                              |         | (0.075)                               |         | H 0.060                               |          | H 0.060E    |          |
| 24                      | (0.105E)          |               | 0.060                                |         | 0.060                                 |         | (0.075)                            |         | (0.105)                               |         | (0.105)                               |          | (0.105E)    |          |
| 30                      | H 0.075E          | H 0.060       | 0.075                                | H 0.060 | 0.075                                 | H 0.060 | (0.105)                            | H 0.060 | (0.105)                               | H 0.060 | H 0.075E                              | H 0.060  | H 0.075E    | H 0.060  |
| 36                      | (0.135E)          | H 0.060E      | 0.075                                | H 0.060 | (0.105)                               | H 0.060 | (0.105)                            | H 0.060 | (0.135)                               | H 0.060 | H 0.075E                              | H 0.060  | H 0.075E    | H 0.060E |
| 42                      | 0.105E            | (0.075)       | 0.105                                | 0.060   | 0.105                                 | 0.060   | 0.105                              | 0.060   | 0.105                                 | (0.075) | 0.105E                                | 0.105    | 0.105E      | (0.105E) |
| 48                      | 0.105E            | (0.075)       | 0.105                                | 0.060   | 0.105                                 | 0.060   | 0.105                              | (0.075) | 0.105                                 | (0.105) | 0.105E                                | (0.105E) | 0.105E      | (0.135E) |
| 54                      | 0.105E            | (0.105)       | 0.105                                | 0.060   | 0.105                                 | 0.060   | 0.105                              | (0.075) | 0.105                                 | (0.105) | 0.105E                                | (0.105E) | (0.135E)    | (0.135E) |
| 60                      | 0.135E            | (0.105)       | 0.135                                | 0.060   | 0.135                                 | (0.075) | 0.135                              | (0.105) | 0.135                                 | (0.105) | 0.135E                                | (0.135E) | (0.164E)    | (0.135E) |
| 66                      | 0.164E            | (0.105)       | 0.164                                | 0.060   | 0.164                                 | (0.075) | 0.164                              | (0.105) | 0.164                                 | (0.135) | 0.164E                                | (0.135E) | H 0.164E    | (0.135E) |
| 72                      | 0.164E            | (0.105)       | 0.164                                | 0.060   | 0.164                                 | (0.075) | 0.164                              | (0.105) | 0.164                                 | (0.135) | H 0.164E                              | (0.135E) | H 0.164E    | (0.164E) |
| 78                      |                   | (0.135)       |                                      | 0.075   |                                       | (0.105) |                                    | (0.105) |                                       | (0.135) |                                       | (0.135E) |             | (0.164E) |
| 84                      |                   | (0.135)       |                                      | 0.105   |                                       | 0.105   |                                    | (0.135) |                                       | (0.135) |                                       | (0.164E) |             | (0.164E) |
| 90                      |                   | (0.135)       |                                      | 0.105   |                                       | 0.105   |                                    | (0.135) |                                       | (0.135) |                                       | (0.164E) |             | (0.164E) |
| 96                      |                   | (0.135)       |                                      | 0.105   |                                       | 0.105   |                                    | (0.135) |                                       | (0.135) |                                       | (0.164E) |             | H 0.135E |
| 102                     |                   | 0.135Z        |                                      | 0.135   |                                       | 0.135   |                                    | 0.135   |                                       | (0.164) |                                       | (0.164E) |             | H 0.135E |
| 108                     |                   | 0.135Z        |                                      | 0.135   |                                       | 0.135   |                                    | 0.135   |                                       | (0.164) |                                       | (0.164E) |             | H 0.164E |
| 114                     |                   | 0.164Z        |                                      | 0.164   |                                       | 0.164   |                                    | 0.164   |                                       | 0.164   |                                       | H 0.164E |             | H 0.164E |
| 120                     |                   | 0.164Z        |                                      | 0.164   |                                       | 0.164   |                                    | 0.164   |                                       | 0.164   |                                       | H 0.164E |             |          |

### Notes:

Thicknesses are based on longitudinal riveted seam fabrication, values in "()" can be reduced by one gage thickness if helical seam fabrication is utilized. A thickness preceded by an "H" indicates only helical seam fabrication is allowed.

- E Elongation according to Article 542.04(e), the elongation requirement for Type 1 fill heights may be eliminated for fills above 1'-6"
- Z 1"-6" Minimum fill

### TABLE IC: THICKNESS OF CORRUGATED ALUMINUM ALLOY PIPE FOR THE RESPECTIVE DIAMETER OF PIPE AND FILL HEIGHTS OVER THE TOP OF THE PIPE FOR 68 mm x 13 mm AND 75 mm x 25 mm CORRUGATIONS (Metric)

| Type   Fill Height   Fill H |               |         |         |        |        |         |        |        |        |         |        |         |         |         |         |
|---|---------------|---------|---------|--------|--------|---------|--------|--------|--------|---------|--------|---------|---------|---------|---------|
| 300   (1.91)  | <u></u>       | Тур     | ne 1    | Тур    | e 2    | Туре    | e 3    | Тур    | e 4    | Тур     | e 5    | Тур     | e 6     | Тур     | e 7     |
| 300   (1.91)  | mete          | Fill H  | eight:  | Fill H | eight: | Fill He | eight: | Fill H | eight: | Fill He | eight: | Fill He | eight:  | Fill He | eight:  |
| 300   (1.91)  | nal Dia<br>mm |         |         |        |        |         | -      |        |        |         |        |         | -       |         |         |
| 375         (1,91)         1.52 <t< td=""><td>Nom</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>  | Nom           |         |         |        |        |         |        |        |        |         |        |         |         |         |         |
| 450         (1.91)         1.52         1.52         1.52         1.52         1.52         (1.91)         H 1.52           525         H 1.52E         1.52         1.52         1.52         (1.91)         (2.67)         (2.67)         (2.67E)         H 1.52E           750         H 1.91E         H 1.52         1.91         H 1.52         (2.67)         H 1.91E         H 1.52         1.91         H 1.52         (2.67)         H 1.52         H 1.91E         H 1.52         1.52         2.67         1.52         2.67         1.52         2.67         1.52         2.67         1.52         2.67         1.52         2.67         1.52         2.67         1.52         2.67         1.52         2.67         1.52         2.67   | 300           | (1.91)  |         | 1.52   |        | 1.52    |        | 1.52   |        | 1.52    |        | 1.52    |         | 1.52    |         |
| 525         H 1.52E         1.52         1.52         1.52         1.52         (1.91)         (2.67)         H 1.52         H 1.52E         L 2.67   | 375           | (1.91)  |         | 1.52   |        | 1.52    |        | 1.52   |        | 1.52    |        | 1.52    |         | (1.91)  |         |
| 600         (2.67E)         1.52         1.52         1.52         (1.91)         (2.67)         (2.67)         (2.67)         (2.67E)         (2.67E)           750         H 1.91E         H 1.52         1.91         H 1.52         (2.67)         H 1.52         H 1.91E         H 1.52E         H 1.91E         H 1.52E         1.52         2.67E         1.52         2.67         1.52         2.67         1.52         2.67         (1.91)         2.67E         (2.67E)         2.67E         (2.67E)         2.67E         (2.67E)         2.67E         (2.67E)         2.67E         (2.67E)         2.67E         (2.67E)         3.43E         (3.43E)         4.34E         4.17E         4.17E         4.17E         4.17E         4.17E         4.17E   | 450           | (1.91)  |         | 1.52   |        | 1.52    |        | 1.52   |        | 1.52    |        | (1.91)  |         | H 1.52  |         |
| 750         H 1.91E         H 1.52         1.91         H 1.52         1.91         H 1.52         (2.67)         H 1.52         H 1.91E         H 1.92E         H 1.91E         H 1.92E         H 1.91E         H 1.92E         H 1.91E         H 1.92E         H 1.91E         H 1.52         2.67E         2.67E <td>525</td> <td>H 1.52E</td> <td></td> <td>1.52</td> <td></td> <td>1.52</td> <td></td> <td>1.52</td> <td></td> <td>(1.91)</td> <td></td> <td>H 1.52</td> <td></td> <td>H 1.52E</td> <td></td>   | 525           | H 1.52E |         | 1.52   |        | 1.52    |        | 1.52   |        | (1.91)  |        | H 1.52  |         | H 1.52E |         |
| 900 (3.43E) H 1.52E   | 600           | (2.67E) |         | 1.52   |        | 1.52    |        | (1.91) |        | (2.67)  |        | (2.67)  |         | (2.67E) |         |
| 1050         2.67E         (1.91)         2.67         1.52         2.67         1.52         2.67         1.52         2.67         (1.91)         2.67E         2.67F         2.67F         2.67F         2.67F         4.17F         4.17F         4.17F         4.17F   | 750           | H 1.91E | H 1.52  | 1.91   | H 1.52 | 1.91    | H 1.52 | (2.67) | H 1.52 | (2.67)  | H 1.52 | H 1.91E | H 1.52  | H 1.91E | H 1.52  |
| 1200         2.67E         (1.91)         2.67         1.52         2.67         (1.91)         2.67         (2.67)         2.67E         (2.67E)         2.67E         (3.43E)           1350         2.67E         (2.67)         2.67         1.52         2.67         (1.91)         2.67         (2.67)         2.67E         (2.67E)         (3.43E)         (3.43E)           1500         3.43E         (2.67)         3.43         (1.91)         3.43         (2.67)         3.43E         (3.43E)         (4.17E)         (3.43E)           1650         4.17E         (2.67)         4.17         1.52         4.17         (1.91)         4.17         (2.67)         4.17         (3.43E)         (4.17E)         (3.43E)           1800         4.17E         (2.67)         4.17         1.52         4.17         (1.91)         4.17         (2.67)         4.17         (3.43E)         H 4.17E         (3.43E)           1950         (3.43)         1.91         (2.67)         (2.67)         (3.43)         (4.17E)         (4.17E)           2100         (3.43)         2.67         2.67         (3.43)         (3.43)         (4.17E)         (4.17E)           2250         (3.43) <td< td=""><td>900</td><td>(3.43E)</td><td>H 1.52E</td><td>1.91</td><td>H 1.52</td><td>(2.67)</td><td>H 1.52</td><td>(2.67)</td><td>H 1.52</td><td>(3.43)</td><td>H 1.52</td><td>H 1.91E</td><td>H 1.52</td><td>H 1.91E</td><td>H 1.52E</td></td<>  | 900           | (3.43E) | H 1.52E | 1.91   | H 1.52 | (2.67)  | H 1.52 | (2.67) | H 1.52 | (3.43)  | H 1.52 | H 1.91E | H 1.52  | H 1.91E | H 1.52E |
| 1350         2.67E         (2.67)         2.67         1.52         2.67         (1.91)         2.67         (2.67)         2.67E         (2.67E)         (3.43E)         (3.43E)           1500         3.43E         (2.67)         3.43         (1.91)         3.43         (2.67)         3.43E         (3.43E)         (4.17E)         (3.43E)           1650         4.17E         (2.67)         4.17         1.52         4.17         (1.91)         4.17         (2.67)         4.17         (3.43E)         (4.17E)         (3.43E)           1800         4.17E         (2.67)         4.17         1.52         4.17         (1.91)         4.17         (2.67)         4.17         (3.43E)         H 4.17E         (3.43E)           1950         (3.43)         1.91         (2.67)         (2.67)         (2.67)         (3.43)         H 4.17E         (4.17E)         (4.17E)           2100         (3.43)         2.67         2.67         (3.43)         (3.43)         (4.17E)         (4.17E)           2250         (3.43)         2.67         2.67         (3.43)         (3.43)         (4.17E)         (4.17E)           2400         (3.43)         2.67         2.67         (3.43)   | 1050          | 2.67E   | (1.91)  | 2.67   | 1.52   | 2.67    | 1.52   | 2.67   | 1.52   | 2.67    | (1.91) | 2.67E   | 2.67    | 2.67E   | (2.67E) |
| 1500         3.43E         (2.67)         3.43         1.52         3.43         (1.91)         3.43         (2.67)         3.43         (2.67)         3.43E         (3.43E)         (4.17E)         (3.43E)           1650         4.17E         (2.67)         4.17         1.52         4.17         (1.91)         4.17         (2.67)         4.17         (3.43)         4.17E         (3.43E)         H 4.17E         (3.43E)           1950         (3.43)         1.91         (2.67)         (2.67)         (2.67)         (3.43)         (3.43E)         H 4.17E         (4.17E)           2100         (3.43)         2.67         2.67         (3.43)         (3.43)         (4.17E)         (4.17E)           2250         (3.43)         2.67         2.67         (3.43)         (3.43)         (4.17E)         (4.17E)           2400         (3.43)         2.67         2.67         (3.43)         (3.43)         (4.17E)         H 3.43E           2550         3.43Z         3.43         3.43         3.43         (4.17E)         (4.17E)         H 3.43E           2700         3.43Z         3.43         3.43         3.43         (4.17E)         H 4.17E         H 4.17E <t< td=""><td>1200</td><td>2.67E</td><td>(1.91)</td><td>2.67</td><td>1.52</td><td>2.67</td><td>1.52</td><td>2.67</td><td>(1.91)</td><td>2.67</td><td>(2.67)</td><td>2.67E</td><td>(2.67E)</td><td>2.67E</td><td>(3.43E)</td></t<>  | 1200          | 2.67E   | (1.91)  | 2.67   | 1.52   | 2.67    | 1.52   | 2.67   | (1.91) | 2.67    | (2.67) | 2.67E   | (2.67E) | 2.67E   | (3.43E) |
| 1650         4.17E         (2.67)         4.17         1.52         4.17         (1.91)         4.17         (2.67)         4.17         (3.43E)         H 4.17E         (3.43E)         H 4.17E         (3.43E)         H 4.17E         (3.43E)         H 4.17E         (4.17E)         (4.17E)         (3.43)         H 4.17E         (4.17E)         (4.17E)         (3.43)         (3.43E)         H 4.17E         (4.17E)         (4.17E) <t< td=""><td>1350</td><td>2.67E</td><td>(2.67)</td><td>2.67</td><td>1.52</td><td>2.67</td><td>1.52</td><td>2.67</td><td>(1.91)</td><td>2.67</td><td>(2.67)</td><td>2.67E</td><td>(2.67E)</td><td>(3.43E)</td><td>(3.43E)</td></t<>  | 1350          | 2.67E   | (2.67)  | 2.67   | 1.52   | 2.67    | 1.52   | 2.67   | (1.91) | 2.67    | (2.67) | 2.67E   | (2.67E) | (3.43E) | (3.43E) |
| 1800         4.17E         (2.67)         4.17         1.52         4.17         (1.91)         4.17         (2.67)         4.17         (3.43)         H 4.17E         (3.43E)         H 4.17E         (4.17E)           1950         (3.43)         1.91         (2.67)         (2.67)         (3.43)         (3.43E)         (4.17E)         (4.17E)           2100         (3.43)         2.67         2.67         (3.43)         (3.43)         (4.17E)         (4.17E)           2250         (3.43)         2.67         2.67         (3.43)         (3.43)         (4.17E)         (4.17E)           2400         (3.43)         2.67         2.67         (3.43)         (3.43)         (4.17E)         H 3.43E           2550         3.43Z         3.43         3.43         3.43         (4.17)         (4.17E)         H 3.43E           2700         3.43Z         3.43         3.43         3.43         (4.17)         (4.17E)         H 4.17E           2850         4.17Z         4.17         4.17         4.17         4.17         H 4.17E         H 4.17E  | 1500          | 3.43E   | (2.67)  | 3.43   | 1.52   | 3.43    | (1.91) | 3.43   | (2.67) | 3.43    | (2.67) | 3.43E   | (3.43E) | (4.17E) | (3.43E) |
| 1950         (3.43)         1.91         (2.67)         (2.67)         (3.43)         (3.43E)         (4.17E)           2100         (3.43)         2.67         2.67         (3.43)         (3.43)         (4.17E)         (4.17E)           2250         (3.43)         2.67         2.67         (3.43)         (3.43)         (4.17E)         (4.17E)           2400         (3.43)         2.67         2.67         (3.43)         (3.43)         (4.17E)         H 3.43E           2550         3.43Z         3.43         3.43         3.43         (4.17)         (4.17E)         H 3.43E           2700         3.43Z         3.43         3.43         3.43         (4.17)         (4.17E)         H 4.17E           2850         4.17Z         4.17         4.17         4.17         4.17         H 4.17E         H 4.17E  | 1650          | 4.17E   | (2.67)  | 4.17   | 1.52   | 4.17    | (1.91) | 4.17   | (2.67) | 4.17    | (3.43) | 4.17E   | (3.43E) | H 4.17E | (3.43E) |
| 2100         (3.43)         2.67         2.67         (3.43)         (3.43)         (4.17E)         (4.17E)           2250         (3.43)         2.67         2.67         (3.43)         (3.43)         (4.17E)         (4.17E)           2400         (3.43)         2.67         2.67         (3.43)         (3.43)         (4.17E)         H 3.43E           2550         3.43Z         3.43         3.43         3.43         (4.17)         (4.17E)         H 3.43E           2700         3.43Z         3.43         3.43         3.43         (4.17)         (4.17E)         H 4.17E           2850         4.17Z         4.17         4.17         4.17         4.17         H 4.17E         H 4.17E  | 1800          | 4.17E   | (2.67)  | 4.17   | 1.52   | 4.17    | (1.91) | 4.17   | (2.67) | 4.17    | (3.43) | H 4.17E | (3.43E) | H 4.17E | (4.17E) |
| 2250         (3.43)         2.67         2.67         (3.43)         (4.17E)         (4.17E)           2400         (3.43)         2.67         2.67         (3.43)         (3.43)         (4.17E)         H 3.43E           2550         3.43Z         3.43         3.43         3.43         (4.17)         (4.17E)         H 3.43E           2700         3.43Z         3.43         3.43         3.43         (4.17)         (4.17E)         H 4.17E           2850         4.17Z         4.17         4.17         4.17         H 4.17E         H 4.17E         H 4.17E  | 1950          |         | (3.43)  |        | 1.91   |         | (2.67) |        | (2.67) |         | (3.43) |         | (3.43E) |         | (4.17E) |
| 2400         (3.43)         2.67         2.67         (3.43)         (3.43)         (4.17E)         H 3.43E           2550         3.43Z         3.43         3.43         3.43         (4.17)         (4.17E)         H 3.43E           2700         3.43Z         3.43         3.43         (4.17)         (4.17E)         H 4.17E           2850         4.17Z         4.17         4.17         4.17         H 4.17E         H 4.17E  | 2100          |         | (3.43)  |        | 2.67   |         | 2.67   |        | (3.43) |         | (3.43) |         | (4.17E) |         | (4.17E) |
| 2550     3.43Z     3.43     3.43     3.43     (4.17)     (4.17E)     H 3.43E       2700     3.43Z     3.43     3.43     (4.17)     (4.17E)     H 4.17E       2850     4.17Z     4.17     4.17     4.17     H 4.17E     H 4.17E  | 2250          |         | (3.43)  |        | 2.67   |         | 2.67   |        | (3.43) |         | (3.43) |         | (4.17E) |         | (4.17E) |
| 2700         3.43Z         3.43         3.43         3.43         (4.17)         (4.17E)         H 4.17E           2850         4.17Z         4.17         4.17         4.17         H 4.17E         H 4.17E         H 4.17E  | 2400          |         | (3.43)  |        | 2.67   |         | 2.67   |        | (3.43) |         | (3.43) |         | (4.17E) |         | H 3.43E |
| 2850 4.17Z 4.17 4.17 4.17 H4.17E H4.17E   | 2550          |         | 3.43Z   |        | 3.43   |         | 3.43   |        | 3.43   |         | (4.17) |         | (4.17E) |         | H 3.43E |
|   | 2700          |         | 3.43Z   |        | 3.43   |         | 3.43   |        | 3.43   |         | (4.17) |         | (4.17E) |         | H 4.17E |
| 3000 4.17Z 4.17 4.17 4.17 H4.17E  | 2850          |         | 4.17Z   |        | 4.17   |         | 4.17   |        | 4.17   |         | 4.17   |         | H 4.17E |         | H 4.17E |
|   | 3000          |         | 4.17Z   |        | 4.17   |         | 4.17   |        | 4.17   |         | 4.17   |         | H 4.17E |         |         |

### Notes:

Thicknesses are based on longitudinal riveted seam fabrication, values in "()" can be reduced by one gage thickness if helical seam fabrication is utilized. A thickness preceded by an "H" indicates only helical seam fabrication is allowed.

E Elongation according to Article 542.04(e), the elongation requirement for Type 1 fill heights may be eliminated for fills above 450 mm.

Z 450 mm Minimum fill

|                              |                     |                                 |                              | Т                    |          |          | KNESS FO       |                  |                |                |                  |                |                  |                    |                         |                  |                |                  | ES             |                |                  |                |
|------------------------------|---------------------|---------------------------------|------------------------------|----------------------|----------|----------|----------------|------------------|----------------|----------------|------------------|----------------|------------------|--------------------|-------------------------|------------------|----------------|------------------|----------------|----------------|------------------|----------------|
|                              | Corri               | ıgated                          | Corru                        | gatod                |          |          |                |                  |                | Type 1         |                  |                |                  |                    | Туре 2                  |                  |                |                  |                | Type 3         |                  |                |
| Equivalent Round<br>Size in. | Ste<br>Alum<br>Pipe | el &<br>ninum<br>Arch<br>x 1/2" | Stee<br>Alum<br>Pipe<br>3" > | el &<br>inum<br>Arch | Pipe     | eel      | Min.<br>Cover  |                  |                | ill Height     |                  |                | Grea             |                    | I Height:<br>3' not exc | ceeding '        | 10'            | Gre              |                | Fill Heigh     | nt:<br>exceedinç | <b>15</b> '    |
| quiv                         | Span                | Rise                            | Span                         | Rise                 | Span     | Rise     | Steel &        |                  | Steel          |                | Alum             | inum           |                  | Steel              |                         | Alumi            | inum           |                  | Steel          |                | Alum             | inum           |
| Ш                            | (in.)*              | (in.)                           | (in.)                        | (in.)                | (in.)    | (in.)    | Aluminum       | 2 2/3" x<br>1/2" | 3"x1"          | 5" x 1"        | 2 2/3" x<br>1/2" | 3"x1"          | 2 2/3" x<br>1/2" | 3"x1"              | 5" x 1"                 | 2 2/3" x<br>1/2" | 3"x1"          | 2 2/3" x<br>1/2" | 3"x1"          | 5" x 1"        | 2 2/3" x<br>1/2" | 3"x1"          |
| 15                           | 17                  | 13                              |                              |                      |          |          | 1'-6"          | 0.064            |                |                | 0.060            |                | 0.064            |                    |                         | 0.060            |                | 0.064            |                |                | 0.060            |                |
| 18                           | 21                  | 15                              |                              |                      |          |          | 1'-6"          | 0.064            |                |                | 0.060            |                | 0.064            |                    |                         | 0.060            |                | 0.064            |                |                | 0.060            |                |
| 21                           | 24                  | 18                              |                              |                      |          |          | 1'-6"          | 0.064            |                |                | (0.075)          |                | 0.064            |                    |                         | 0.060            |                | 0.064            |                |                | 0.060            |                |
| 24                           | 28                  | 20                              |                              |                      |          |          | 1'-6"          | (0.079)          |                |                | (0.105)          |                | 0.064            |                    |                         | 0.075            |                | 0.064            |                |                | 0.075            |                |
| 30                           | 35                  | 24                              |                              |                      |          |          | 1'-6"          | (0.079)          |                |                | (0.105)          |                | 0.064            |                    |                         | 0.075            |                | (0.079)          |                |                | (0.105)          |                |
| 36                           | 42                  | 29                              |                              |                      |          |          | 1'-6"          | (0.079)          |                |                | 0.105            |                | 0.064            |                    |                         | 0.105            |                | 0.064            |                |                | 0.105            | <u> </u>       |
| 42                           | 49                  | 33                              |                              |                      |          |          | 1'-6"          | 0.109            |                |                | 0.105            |                | (0.109)          |                    |                         | 0.105            |                | (0.109)          |                |                | 0.105            |                |
| 48                           | 57                  | 38                              | 53                           | 41                   | 53       | 41       | 1'-6"          | 0.109            | (0.109)        | ` ,            | 0.135            | 0.060          | 0.109            | 0.079              | 0.079                   | 0.135            | 0.060          |                  | 0.079          | (0.109)        | 0.135            | 0.060          |
| 54                           | 64                  | 43                              | 60                           | 46                   | 60       | 46       | 1'-6"          | 0.109            | (0.109)        |                | 0.164            | (0.075)        | 0.109            | 0.079              | 0.079                   | 0.164            | 0.060          | 0.109            | (0.109)        | 0.109          | 0.164            | (0.075)        |
| 60                           | 71                  | 47                              | 66                           | 51                   | 66       | 51       | 1'-6"          | 0.138            | (0.109)        |                | 0.164            | (0.075)        | 0.138            | 0.079              | (0.109)                 | 0.164            | 0.060          | 0.138            | (0.109)        | 0.109          | 0.164            | (0.075)        |
| 66                           | 77<br>83            | 52<br>57                        | 73<br>81                     | 55<br>59             | 73<br>81 | 55<br>59 | 1'-6"<br>1'-6" | 0.168            | (0.109)        |                |                  | 0.075          | 0.168            | 0.079              | (0.109)                 |                  | 0.075          | 0.168            | (0.109)        | 0.109          |                  | 0.075          |
| 72<br>78                     | 03                  | 5/                              | 87                           | 63                   | 87       | 63       | 1'-6"          | 0.168            | (0.109)        |                |                  | 0.105          | 0.168            | 0.079              | (0.109)                 |                  | 0.105          | 0.168            | (0.109)        | 0.109          |                  | 0.105          |
| 84                           |                     |                                 | 95                           | 67                   | 95       | 67       | 1'-6"          |                  | 0.109          | 0.109          |                  | 0.105          |                  | (0.109)            | 0.109                   |                  | 0.105          |                  | 0.109          | 0.109<br>0.109 |                  | 0.105          |
| 90                           |                     |                                 | 103                          | 71                   | 103      | 71       | 1'-6"          |                  | 0.109<br>0.109 | 0.109<br>0.109 |                  | 0.105<br>0.135 |                  | (0.109)<br>(0.109) | 0.109<br>0.109          |                  | 0.105<br>0.135 |                  | 0.109<br>0.109 | 0.109          |                  | 0.105<br>0.135 |
| 96                           |                     |                                 | 112                          | 75                   | 112      | 75       | 1'-6"          |                  | 0.109          | (0.138)        |                  | 0.135          |                  | 0.109)             | 0.109                   |                  | 0.164          |                  | 0.109          | (0.138)        |                  | 0.135          |
| 102                          |                     |                                 | 117                          | 79                   | 117      | 79       | 1'-6"          |                  | 0.109          | (0.138)        |                  | 0.164          |                  | 0.109              | 0.109                   |                  | 0.164          |                  | 0.109          | (0.138)        |                  | 0.164          |
| 108                          |                     |                                 | 128                          | 83                   | 128      | 83       | 1'-6"          |                  | 0.138          | 0.138          |                  | 3.101          |                  | 0.138              | 0.138                   |                  | 3.104          |                  | 0.138          | 0.138          |                  | 3.101          |
| 114                          |                     |                                 | 137                          | 87                   | 137      | 87       | 1'-6"          |                  | 0.138          | 0.138          |                  |                |                  | 0.138              | 0.138                   |                  |                |                  | 0.138          | 0.138          |                  |                |
| 120                          |                     |                                 | 142                          | 91                   | 142      | 91       | 1'-6"          |                  | 0.168          | 0.168          |                  |                |                  | 0.168              | 0.168                   |                  |                |                  | 0.168          | 0.168          |                  | 1              |

<sup>\*</sup> Aluminized Type 2 Steel or Precoated Galvanized Steel shall be required for steel spans up to 42" according to Article 1006.01.

Thicknesses are based on longitudinal riveted seam fabrication, values in "()" can be reduced by one gage thickness if helical seam fabrication is utilized.

The Type 1 corrugated steel or aluminum pipe arches shall be placed on soil having a minimum bearing capacity of 3 tons per square foot. The Type 2 and 3 corrugated steel or aluminum pipe arches shall be placed on soil having a minimum bearing capacity of 2 tons per square foot. This minimum bearing capacity will be determined by the Engineer in the field.

| Table IIA: THICKNESS FOR CORRUGATED STEEL PIPE ARCHES AND CORRUGATED ALUMINUM ALLOY PIPE ARCHES |  |
|---|--|
| FOR THE RESPECTIVE EQUIVALENT ROUND SIZE OF PIPE AND FILL HEIGHTS OVER THE TOP OF PIPE          |  |
| (Metric)  |  |

| e).                   | Corrug           | nated | Corru          | nated |              |               |          |         |         | Type 1     |        |        |         |          | Type 2    |           |      |         |            | Type 3      |           |        |
|-----------------------|------------------|-------|----------------|-------|--------------|---------------|----------|---------|---------|------------|--------|--------|---------|----------|-----------|-----------|------|---------|------------|-------------|-----------|--------|
| d Size                | Ste              | el    | Ste            | eel   | Corru<br>Ste | gated<br>eel  | Min.     |         |         | Fill Heigh | nt:    |        |         | F        | ill Heigh | t:        |      |         |            | Fill Height | :         |        |
| onno (u               | & Alum<br>Pipe A | Arch  | & Alur<br>Pipe | Arch  | Pipe         | Arch<br>25 mm | Cover    |         |         |            |        |        | _       |          |           |           |      | _       |            |             |           |        |
| mr (mn                | 68 x 13          | 3 mm  | 75 x 2         | 5 mm  | 123 X        | 23 111111     |          |         | 1       | m and le   | ess    |        | Grea    | ter than | 1 m not e | exceeding | 3 m  | Grea    | ter than 3 | 3 m not ex  | ceeding 4 | 4.5 m  |
| Equivalent Round (mm) | Span             | Rise  | Span           | Rise  | Span         | Rise          | Steel &  |         | Steel   |            | Alumi  | num    |         | Steel    |           | Alum      | inum |         | Steel      |             | Alum      | inum   |
| Eq                    |                  |       |                |       | (mm)         | (mm)          | Aluminum | 68 x 13 | 75 x 25 | 125 x 25   |        |        | 68 x 13 |          |           |           |      | 68 x 13 | 75 x 25    | 125 x 25    |           | -      |
|                       |                  |       |                |       |              |               |          | mm      | mm      | mm         | mm     | mm     | mm      | mm       | mm        | mm        | mm   | mm      | mm         | mm          | mm        | mm     |
| 375                   | 430              | 330   |                |       |              |               | 0.5 m    | 1.63    |         |            | 1.52   |        | 1.63    |          |           | 1.52      |      | 1.63    |            |             | 1.52      |        |
| 450                   | 530              | 380   |                |       |              |               | 0.5 m    | 1.63    |         |            | 1.52   |        | 1.63    |          |           | 1.52      |      | 1.63    |            |             | 1.52      |        |
| 525                   | 610              | 460   |                |       |              |               | 0.5 m    | 1.63    |         |            | (1.91) |        | 1.63    |          |           | 1.52      |      | 1.63    |            |             | 1.52      |        |
| 600                   | 710              | 510   |                |       |              |               | 0.5 m    | (2.01)  |         |            | (2.67) |        | 1.63    |          |           | 1.91      |      | 1.63    |            |             | 1.91      |        |
| 750                   | 870              | 630   |                |       |              |               | 0.5 m    | (2.01)  |         |            | (2.67) |        | 1.63    |          |           | 1.91      |      | (2.01)  |            |             | (2.67)    |        |
| 900                   | 1060             | 740   |                |       |              |               | 0.5 m    | (2.01)  |         |            | 2.67   |        | 1.63    |          |           | 2.67      |      | 1.63    |            |             | 2.67      |        |
| 1050                  | 1240             | 840   |                |       |              |               | 0.5 m    | 2.77    |         |            | 2.67   |        | (2.77)  |          |           | 2.67      |      | (2.77)  |            |             | 2.67      |        |
| 1200                  | 1440             | 970   | 1340           | 1050  | 1340         | 1050          | 0.5 m    | 2.77    | (2.77)  | (2.77)     | 3.43   | 1.52   | 2.77    | 2.01     | 2.01      | 3.43      | 1.52 | 2.77    | 2.01       | (2.77)      | 3.43      | 1.52   |
| 1350                  | 1620             | 1100  | 1520           | 1170  | 1520         | 1170          | 0.5 m    | 2.77    | (2.77)  | 2.77       | 4.17   | (1.91) | 2.77    | 2.01     | 2.01      | 4.17      | 1.52 | 2.77    | (2.77)     | 2.77        | 4.17      | (1.91) |
| 1500                  | 1800             | 1200  | 1670           | 1300  | 1670         | 1300          | 0.5 m    | 3.51    | (2.77)  | 2.77       | 4.17   | (1.91) | 3.51    | 2.01     | (2.77)    | 4.17      | 1.52 | 3.51    | (2.77)     | 2.77        | 4.17      | (1.91) |
| 1650                  | 1950             | 1320  | 1850           | 1400  | 1850         | 1400          | 0.5 m    | 4.27    | (2.77)  | 2.77       |        | 1.91   | 4.27    | 2.01     | (2.77)    |           | 1.91 | 4.27    | (2.77)     | 2.77        |           | 1.91   |
| 1800                  | 2100             | 1450  | 2050           | 1500  | 2050         | 1500          | 0.5 m    | 4.27    | (2.77)  | 2.77       |        | 2.67   | 4.27    | 2.01     | (2.77)    |           | 2.67 | 4.27    | (2.77)     | 2.77        |           | 2.67   |
| 1950                  |                  |       | 2200           | 1620  | 2200         | 1620          | 0.5 m    |         | 2.77    | 2.77       |        | 2.67   |         | (2.77)   | 2.77      |           | 2.67 |         | 2.77       | 2.77        |           | 2.67   |
| 2100                  |                  |       | 2400           | 1720  | 2400         | 1720          | 0.5 m    |         | 2.77    | 2.77       |        | 2.67   |         | (2.77)   | 2.77      |           | 2.67 |         | 2.77       | 2.77        |           | 2.67   |
| 2250                  |                  |       | 2600           | 1820  | 2600         | 1820          | 0.5 m    |         | 2.77    | 2.77       |        | 3.43   |         | (2.77)   | 2.77      |           | 3.43 |         | 2.77       | 2.77        |           | 3.43   |
| 2400                  |                  |       | 2840           | 1920  | 2840         | 1920          | 0.5 m    |         | 2.77    | (3.51)     |        | 4.17   |         | 2.77     | 2.77      |           | 4.17 |         | 2.77       | (3.51)      |           | 4.17   |
| 2550                  |                  |       | 2970           | 2020  | 2970         | 2020          | 0.5 m    |         | 2.77    | (3.51)     |        | 4.17   |         | 2.77     | 2.77      |           | 4.17 |         | 2.77       | (3.51)      |           | 4.17   |
| 2700                  |                  |       | 3240           | 2120  | 3240         | 2120          | 0.5 m    |         | 3.51    | 3.51       |        |        |         | 3.51     | 3.51      |           |      |         | 3.51       | 3.51        |           |        |
| 2850                  |                  |       | 3470           | 2220  | 3470         | 2220          | 0.5 m    |         | 3.51    | 3.51       |        |        |         | 3.51     | 3.51      |           |      |         | 3.51       | 3.51        |           |        |
| 3000                  |                  |       | 3600           | 2320  | 3600         | 2320          | 0.5 m    |         | 4.27    | 4.27       |        |        |         | 4.27     | 4.27      |           |      |         | 4.27       | 4.27        |           |        |
| Noto                  | -                |       |                |       |              |               |          |         |         |            |        |        |         |          | •         |           |      |         |            |             |           | •      |

The Type 2 and 3 corrugated steel or aluminum pipe arches shall be placed on soil having a minimum bearing capacity of 192 kN per square meter. This minimum bearing capacity will be determined by the Engineer in the field.

<sup>\*</sup> Aluminized Type 2 Steel or Precoated Galvanized Steel shall be required for steel spans up to 1060 mm according to Article 1006.01. Thicknesses are based on longitudinal riveted seam fabrication, values in "()" can be reduced by one gage thickness if helical seam fabrication is utilized. The Type 1 corrugated steel or aluminum pipe arches shall be placed on soil having a minimum bearing capacity of 290 kN per square meter.

|                                   |                                   |                  |        |                            | CONCRETE ELLI<br>ROUND SIZE OI | _      | _                 |                                 | _          | _     |                                   |
|-----------------------------------|-----------------------------------|------------------|--------|----------------------------|--------------------------------|--------|-------------------|---------------------------------|------------|-------|-----------------------------------|
|                                   | Daint                             |                  |        |                            |                                | Тур    | ne 1              | Тур                             | e 2        | Тур   | e 3                               |
| Equivalent<br>Round Size<br>(in.) | Reinfo<br>Cond<br>Elliptic<br>(ir | crete<br>al pipe | Con    | orced<br>crete<br>pe (in.) | Minimum<br>Cover               |        | eight:<br>nd less | Fill H<br>Greater the<br>exceed | nan 3' not |       | eight:<br>ian 10' not<br>ling 15' |
|                                   | Span                              | Rise             | Span   | Rise                       | RCCP HE & A                    | HE     | Arch              | HE                              | Arch       | HE    | Arch                              |
| 15                                | 23                                | 14               | 18     | 11                         | 1' -0"                         | HE-III | A-III             | HE-III                          | A-III      | HE-IV | A-IV                              |
| 18                                | 23                                | 14               | 22     | 13 1/2                     | 1' -0"                         | HE-III | A-III             | HE-III                          | A-III      | HE-IV | A-IV                              |
| 21                                | 30                                | 19               | 26     | 15 1/2                     | 1' -0"                         | HE-III | A-III             | HE-III                          | A-III      | HE-IV | A-IV                              |
| 24                                | 30                                | 19               | 28 1/2 | 18                         | 1' -0"                         | HE-III | A-III             | HE-III                          | A-III      | HE-IV | A-IV                              |
| 27                                | 34                                | 22               | 36 1/4 | 22 1/2                     | 1' -0"                         | HE-III | A-III             | HE-III                          | A-III      | HE-IV | A-IV                              |
| 30                                | 38                                | 24               | 36 1/4 | 22 1/2                     | 1' -0"                         | HE-III | A-III             | HE-III                          | A-III      | HE-IV | A-IV                              |
| 36                                | 45                                | 29               | 43 3/4 | 26 5/8                     | 1' -0"                         | HE-II  | A-II              | HE-III                          | A-III      | HE-IV | A-IV                              |
| 42                                | 53                                | 34               | 51 1/8 | 31 5/16                    | 1' -0"                         | HE-I   | A-II              | HE-III                          | A-III      | HE-IV | A-IV                              |
| 48                                | 60                                | 38               | 58 1/2 | 36                         | 1' -0"                         | HE-I   | A-II              | HE-III                          | A-III      | 1460  | 1450                              |
| 54                                | 68                                | 43               | 65     | 40                         | 1' -0"                         | HE-I   | A-II              | HE-III                          | A-III      | 1460  | 1460                              |
| 60                                | 76                                | 48               | 73     | 45                         | 1' -0"                         | HE-I   | A-II              | HE-III                          | A-III      | 1460  | 1470                              |
| 66                                | 83                                | 53               | 88     | 54                         | 1' -0"                         | HE-I   | A-II              | HE-III                          | A-III      | 1470  | 1480                              |
| 72                                | 91                                | 58               | 88     | 54                         | 1' -0"                         | HE-I   | A-II              | HE-III                          | A-III      | 1470  | 1480                              |

# Notes:

A number indicates the D-Load for the diameter and depth of fill and that a special design is required.

Design assumptions; Water filled pipe, AASHTO Type 2 installation per AASHTO LRFD Table 12.10.2.1-1

# Table IIB: CLASSES OF REINFORCED CONCRETE ELLIPTICALL AND REINFORCED CONCRETE ARCH PIPE FOR THE RESPECTIVE EQUIVALENT ROUND SIZE OF PIPE AND FILL HEIGHTS OVER THE TOP OF PIPE (Metric)

|                                  |      |                                |      |                           |                  | Тур    | e 1               | Тур                               | e 2       | Тур   | e 3                              |
|----------------------------------|------|--------------------------------|------|---------------------------|------------------|--------|-------------------|-----------------------------------|-----------|-------|----------------------------------|
| Equivalent<br>Round Size<br>(mm) | Cor  | nforced<br>ncrete<br>pipe (mm) | Con  | orced<br>crete<br>pe (mm) | Minimum<br>Cover |        | eight:<br>nd less | Fill He<br>Greater tha<br>exceedi | n 1 m not |       | eight:<br>an 3 m not<br>ng 4.5 m |
|                                  | Span | Rise                           | Span | Rise                      | RCCP HE & A      | HE     | Arch              | HE                                | Arch      | HE    | Arch                             |
| 375                              | 584  | 356                            | 457  | 279                       | 0.3 m            | HE-III | A-III             | HE-III                            | A-III     | HE-IV | A-IV                             |
| 450                              | 584  | 356                            | 559  | 343                       | 0.3 m            | HE-III | A-III             | HE-III                            | A-III     | HE-IV | A-IV                             |
| 525                              | 762  | 483                            | 660  | 394                       | 0.3 m            | HE-III | A-III             | HE-III                            | A-III     | HE-IV | A-IV                             |
| 600                              | 762  | 483                            | 724  | 457                       | 0.3 m            | HE-III | A-III             | HE-III                            | A-III     | HE-IV | A-IV                             |
| 686                              | 864  | 559                            | 921  | 572                       | 0.3 m            | HE-III | A-III             | HE-III                            | A-III     | HE-IV | A-IV                             |
| 750                              | 965  | 610                            | 921  | 572                       | 0.3 m            | HE-III | A-III             | HE-III                            | A-III     | HE-IV | A-IV                             |
| 900                              | 1143 | 737                            | 1111 | 676                       | 0.3 m            | HE-II  | A-II              | HE-III                            | A-III     | HE-IV | A-IV                             |
| 1050                             | 1346 | 864                            | 1299 | 795                       | 0.3 m            | HE-I   | A-II              | HE-III                            | A-III     | HE-IV | A-IV                             |
| 1200                             | 1524 | 965                            | 1486 | 914                       | 0.3 m            | HE-I   | A-II              | HE-III                            | A-III     | 70    | 70                               |
| 1350                             | 1727 | 1092                           | 1651 | 1016                      | 0.3 m            | HE-I   | A-II              | HE-III                            | A-III     | 70    | 70                               |
| 1500                             | 1930 | 1219                           | 1854 | 1143                      | 0.3 m            | HE-I   | A-II              | HE-III                            | A-III     | 70    | 70                               |
| 1676                             | 2108 | 1346                           | 2235 | 1372                      | 0.3 m            | HE-I   | A-II              | HE-III                            | A-III     | 70    | 70                               |
| 1800                             | 2311 | 1473                           | 2235 | 1372                      | 0.3 m            | HE-I   | A-II              | HE-III                            | A-III     | 70    | 70                               |

Notes:

A number indicates the D-Load for the diameter and depth of fill and that a special design is required. Design assumptions; Water filled pipe, AASHTO Type 2 installation per AASHTO LRFD Table 12.10.2.1-1

## TABLE IIIA: PLASTIC PIPE PERMITTED FOR A GIVEN PIPE DIAMETER AND FILL HEIGHT OVER THE TOP OF THE PIPE

|                     |     |                | Type 1                |     |     |     | ,                     | Type 2            |     |     |     |                      | Type 3               |     |     |     | Typ                   | e 4 |     |
|---------------------|-----|----------------|-----------------------|-----|-----|-----|-----------------------|-------------------|-----|-----|-----|----------------------|----------------------|-----|-----|-----|-----------------------|-----|-----|
| Nominal<br>Diameter |     | Fill Heig<br>w | ht: 3' a<br>vith 1' m |     | ,   | ı   | Fill Height:<br>not e | Greate<br>xceedin |     | 3', | F   | ill Height:<br>not e | Greater<br>exceeding |     | ,   |     | eight: Gr<br>not exce |     |     |
| (in.)               | PVC | CPVC           | PE                    | CPE | CPP | PVC | CPVC                  | PE                | CPE | CPP | PVC | CPVC                 | PE                   | CPE | CPP | PVC | CPVC                  | PE  | CPP |
| 10                  | Х   | Х              | Χ                     | Х   | NA  | Χ   | Х                     | Х                 | Х   | NA  | Х   | Х                    | Х                    | Х   | NA  | Х   | Х                     | Х   | NA  |
| 12                  | Χ   | Х              | X                     | X   | X   | Х   | Χ                     | X                 | Х   | Χ   | Χ   | X                    | Χ                    | NA  | Х   | Х   | Х                     | X   | NA  |
| 15                  | Χ   | Х              | NA                    | Х   | Х   | Х   | Χ                     | NA                | Х   | Χ   | Х   | Х                    | NA                   | NA  | Х   | Х   | Х                     | NA  | Х   |
| 18                  | Χ   | Х              | X                     | Х   | Х   | Х   | Χ                     | Х                 | Х   | X   | Х   | X                    | X                    | NA  | Х   | Х   | Х                     | Х   | NA  |
| 21                  | Χ   | Х              | NA                    | NA  | NA  | Х   | Χ                     | NA                | NA  | NA  | Χ   | X                    | NA                   | NA  | NA  | Х   | X                     | NA  | NA  |
| 24                  | Χ   | Х              | Х                     | Х   | Х   | Х   | Χ                     | Х                 | Х   | Χ   | Х   | Х                    | NA                   | NA  | NA  | Х   | Х                     | Х   | NA  |
| 30                  | Χ   | Х              | X                     | Х   | Х   | Х   | Χ                     | Х                 | Х   | X   | Х   | X                    | X                    | NA  | Х   | Х   | Х                     | Х   | NA  |
| 36                  | Χ   | X              | Χ                     | X   | X   | X   | Χ                     | X                 | Х   | Χ   | Х   | X                    | Χ                    | NA  | NA  | X   | X                     | Х   | NA  |
| 42                  | Χ   | NA             | Χ                     | Х   | NA  | Х   | NA                    | Х                 | NA  | NA  | Х   | NA                   | Χ                    | NA  | NA  | Х   | NA                    | Х   | NA  |
| 48                  | Χ   | NA             | Χ                     | Х   | X   | X   | NA                    | Х                 | NA  | NA  | Х   | NA                   | Χ                    | NA  | NA  | Х   | NA                    | Χ   | NA  |

Notes:

PVC Polyvinyl Chloride (PVC) pipe with a smooth interior CPVC Corrugated Polyvinyl Chloride (CPVC) pipe with a smooth interior

PE Polyethylene (PE) pipe with a smooth interior
CPE Corrugated Polyethylene (PE) pipe with a smooth interior
CPP Corrugated Polypropylene (CPP) pipe with a smooth interior
X This material may be used for the given pipe diameter and fill height

NA Not Available

### TABLE IIIA: PLASTIC PIPE PERMITTED FOR A GIVEN PIPE DIAMETER AND FILL HEIGHT OVER THE TOP OF THE PIPE (Metric) Type 2 Type 1 Type 3 Type 4 Fill Height: 1 m and less, Fill Height: Greater than 1 m, Fill Height: Greater than 3 m, Fill Height: Greater than 4.5 Nominal not exceeding 3 m with 0.3 m min. cover not exceeding 4.5 m m, not exceeding 6 m Diameter (mm) PVC CPVC PΕ CPE CPP PVC CPVC PΕ CPE CPP PVC CPVC PΕ CPE CPP PVC CPVC PΕ CPP Х Х Χ Χ NA Χ Χ Χ Χ NA Χ Χ Χ Х NA Χ Х Χ NA 250 Χ Χ Χ Χ Х Χ Χ Χ Х Χ Х Х Х NA Х Χ Χ Х NA 300 Χ Х NA Χ Χ Χ Χ NA Χ Χ Χ Χ NA NA Χ Χ Χ NA Χ 375 Х Х Χ Χ Х Χ Χ Х Х Χ Х Х Χ Χ Х Х Х NA NA 450 Χ Х NA Х Χ Х Χ NA Х Х 525 Χ Χ Х Х Х Х Х Х Х Х NA NA NA Χ Χ Χ NA 600 Χ Χ Χ Х 750 Χ Χ Χ Χ Χ Χ Χ Χ Χ Χ Χ NA Х Χ Х Χ NA

1200 Notes:

900

1000

PVC Polyvinyl Chloride (PVC) pipe with a smooth interior

Χ

Χ

CPVC Corrugated Polyvinyl Chloride (CPVC) pipe with a smooth interior

Χ

Χ

Χ

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NA

PE Polyethylene (PE) pipe with a smooth interior

CPE Corrugated Polyethylene (PE) pipe with a smooth interior CPP Corrugated Polypropylene (CPP) pipe with a smooth interior

X This material may be used for the given pipe diameter and fill height

NA Not Available

Χ

Χ

Χ

Х

NA

NA

|                     |              |              | Т                      | ABLE IIIB: PLA | STIC PIPE PE   | RMITTED              |                   |                                  |
|---------------------|--------------|--------------|------------------------|----------------|----------------|----------------------|-------------------|----------------------------------|
|                     |              |              | FOR A GIVEN PIPE D     | IAMETER AND    | FILL HEIGHT    | OVER THE TOP OF      | THE PIPE          |                                  |
|                     |              | Туре         | 5                      |                | Type 6         |                      |                   | Type 7                           |
| Nominal<br>Diameter | Fill Height: | Greater than | 20', not exceeding 25' | Fill Height: G | reater than 25 | ', not exceeding 30' | Fill Height: Grea | ater than 30', not exceeding 35' |
| (in.)               | PVC          | CPVC         |                        | PVC            | CPVC           |                      | CPVC              |                                  |
| 10<br>12            | X<br>X       | X            |                        | X<br>X         | X              |                      | X<br>X            |                                  |
| 15                  | Х            | X            |                        | X              | X              |                      | X                 |                                  |
| 18<br>21            | X<br>X       | X            |                        | X<br>X         | X              |                      | X<br>X            |                                  |
| 24<br>30            | X<br>X       | X<br>X       |                        | X<br>X         | X              |                      | X                 |                                  |
| 36                  | X            | X            |                        | X              | X              |                      | x                 |                                  |
| 42<br>48            | X<br>X       | NA<br>NA     |                        | X<br>X         | NA<br>NA       |                      | NA<br>NA          |                                  |

Notes:

PVC Polyvinyl Chloride (PVC) pipe with a smooth interior CPVC Corrugated Polyvinyl Chloride (CPVC) pipe with a smooth interior X This material may be used for the given pipe diameter and fill height

NA Not Available

|                  |                 |                | FOR A GIVEN PIPE       | TABLE IIIB: PI<br>DIAMETER AN |                | PERMITTED<br>IT OVER THE TOP OF | THE PIPE        |                                       |
|------------------|-----------------|----------------|------------------------|-------------------------------|----------------|---------------------------------|-----------------|---------------------------------------|
|                  |                 | Type 5         | ,                      |                               | Type 6         | <b>;</b>                        |                 | Type 7                                |
| Nominal          | Fill Height: Gr | eater than 6 m | n, not exceeding 7.5 m | Fill Height: Gr               | eater than 7.5 | m, not exceeding 9 m            | Fill Height: Gr | reater than 9 m, not exceeding 10.5 m |
| Diameter<br>(mm) | PVC             | CPVC           |                        | PVC                           | CPVC           |                                 | CPVC            |                                       |
| 250              | X               | Х              |                        | X                             | Х              |                                 | X               |                                       |
| 300              | X               | X              |                        | X                             | X              |                                 | X               |                                       |
| 375              | X               | X              |                        | X                             | X              |                                 | X               |                                       |
| 450              | X               | X              |                        | X                             | X              |                                 | X               |                                       |
| 525              | X               | X              |                        | X                             | X              |                                 | X               |                                       |
| 600              | Х               | Х              |                        | Х                             | Х              |                                 | Х               |                                       |
| 750              | X               | X              |                        | Χ                             | Х              |                                 | Х               |                                       |
| 900              | X               | X              |                        | X                             | X              |                                 | X               |                                       |
| 1000             | X               | NA             |                        | X                             | NA             |                                 | NA              |                                       |
| 1200             | X               | NA             |                        | X                             | NA             |                                 | NA              |                                       |

Notes:

PVC Polyvinyl Chloride (PVC) pipe with a smooth interior
CPVC Corrugated Polyvinyl Chloride (CPVC) pipe with a smooth interior
PE Polyethylene (PE) pipe with a smooth interior
This material may be used for the given pipe diameter and fill height

NA Not Available"

Revise the first sentence of the first paragraph of Article 542.04(c) of the Standard Specifications to read:

"Compacted aggregate, at least 4 in. (100 mm) in depth below the pipe culvert, shall be placed the entire width of the trench and for the length of the pipe culvert, except compacted impervious material shall be used for the outer 3 ft (1 m) at each end of the pipe culvert."

Revise the seventh paragraph of Article 542.04(d) of the Standard Specifications to read:

"PVC, PE and CPP pipes shall be joined according to the manufacturer's specifications."

Replace the third sentence of the first paragraph of Article 542.04(h) of the Standard Specifications with the following:

"The total cover required for various construction loadings shall be the responsibility of the Contractor."

Delete "Table IV: Wheel Loads and Total Cover" in Article 542.04(h) of the Standard Specifications.

Revise the first and second paragraphs of Article 542.04(i) of the Standard Specifications to read:

"(i) Deflection Testing for Pipe Culverts. All PE, PVC and CPP pipe culverts shall be tested for deflection not less than 30 days after the pipe is installed and the backfill compacted. The testing shall be performed in the presence of the Engineer.

For PVC, PE, and CPP pipe culverts with diameters 24 in. (600 mm) or smaller, a mandrel drag shall be used for deflection testing. For PVC, PE, and CPP pipe culverts with diameters over 24 in. (600 mm), deflection measurements other than by a mandrel shall be used."

Revise Articles 542.04(i)(1) and (2) of the Standard Specifications to read:

- "(1) For all PVC pipe: as defined using ASTM D 3034 methodology.
- (2) For all PE and CPP pipe: the average inside diameter based on the minimum and maximum tolerances specified in the corresponding ASTM or AASHTO material specifications."

Revise the second sentence of the second paragraph of Article 542.07 of the Standard Specifications to read:

"When a prefabricated end section is used, it shall be of the same material as the pipe culvert, except for polyethylene (PE), polyvinylchloride (PVC), and polypropylene (PP) pipes which shall have metal end sections."

Revise the first paragraph of Article 1040.03 of the Standard Specifications to read:

"1040.03 Polyvinyl Chloride (PVC) Pipe. Acceptance testing of PVC pipe and fittings shall be accomplished during the same construction season in which they are installed. The section properties shall be according to the manufacturer pre-submitted geometric properties on file with the Department. The manufacturer shall submit written certification that the material meets those properties. The pipe shall meet the following additional requirements."

Delete Articles 1040.03(e) and (f) of the Standard Specifications.

Revise Articles 1040.04(c) and (d) of the Standard Specifications to read:

- "(c) PE Profile Wall Pipe for Insertion Lining. The pipe shall be according to ASTM F 894. When used for insertion lining of pipe culverts, the pipe liner shall have a minimum pipe stiffness of 46 psi (317 kPa) at five percent deflection for nominal inside diameters of 42 in. (1050 mm) or less. For nominal inside diameters of greater than 42 in. (1050 mm), the pipe liner shall have a minimum pipe stiffness of 32.5 psi (225 kPa) at five percent deflection. All sizes shall have wall construction that presents essentially smooth internal and external surfaces.
- (d) PE Pipe with a Smooth Interior. The pipe shall be according to ASTM F 714 (DR 32.5) with a minimum cell classification of PE 335434 as defined in ASTM D 3350. The section properties shall be according to the manufacturer pre-submitted geometric properties on file with the Department. The manufacturer shall submit written certification that the material meets those properties and the resin used to manufacture the pipe meets or exceeds the minimum cell classification requirements."

Add the following to Section 1040 of the Standard Specifications:

"1040.08 Polypropylene (PP) Pipe. Storage and handling shall be according to the manufacturer's recommendations, except in no case shall the pipe be exposed to direct sunlight for more than six months. Acceptance testing of the pipe shall be accomplished during the same construction season in which it is installed. The section properties shall be according to the manufacturer pre-submitted geometric properties on file with the Department. The manufacturer shall submit written certification that the material meets those properties. The pipe shall meet the following additional requirements.

- (a) Corrugated PP Pipe with a Smooth Interior. The pipe shall be according to AAHSTO M 330 (nominal size 12 to 60 in. (300 to 1500 mm)). The pipe shall be Type S or D.
- (b) Perforated Corrugated PP Pipe with A Smooth Interior. The pipe shall be according to AASHTO M 330 (nominal size 12 to 60 in. (300 to 1500 mm)). The pipe shall be Type SP. In addition, the top centerline of the pipe shall be marked so that it is readily visible from the top of the trench before backfilling, and the upper ends of the slot perforations shall be a minimum of ten degrees below the horizontal."

# **PAVEMENT STRIPING - SYMBOLS (BDE)**

Effective: January 1, 2015

Revise the Symbol Table of Article 780.14 of the Supplemental Specifications to read:

# "SYMBOLS

| Symbol   | Large Size   | Small Size   |
|--|--------------|--------------|
|  | sq ft (sq m) | sq ft (sq m) |
| Through Arrow                                      | 11.5 (1.07)  | 6.5 (0.60)   |
| Left or Right Arrow                                | 15.6 (1.47)  | 8.8 (0.82)   |
| 2 Arrow Combination<br>Left (or Right) and Through | 26.0 (2.42)  | 14.7 (1.37)  |
| 3 Arrow Combination<br>Left, Right, and Through    | 38.4 (3.56)  | 20.9 (1.94)  |
| Lane Drop Arrow                                    | 41.5 (3.86)  |              |
| Wrong Way Arrow                                    | 24.3 (2.26)  |              |
| Railroad "R" 6 ft (1.8 m)                          | 3.6 (0.33)   |              |
| Railroad "X" 20 ft (6.1 m)                         | 54.0 (5.02)  |              |
| International Symbol of Accessibility              | 3.1 (0.29)   |              |
| Bike Symbol  | 4.7 (0.44)   |              |
| Shared Lane Symbol                                 | 8.0 (0.74)   | "            |

# PORTLAND CEMENT CONCRETE BRIDGE DECK CURING (BDE)

Effective: April 1, 2015

Replace the table in Article 1020.13 of the Supplemental Specifications with the following:

| Replace the table in Article 10   | • |  |   |
|---|---|--|---|
| "INDEX TABLE OF CU  | JRING AND PROTECTION OF                 | CONCRETE C   | CONSTRUCTION                              |
| TYPE OF CONSTRUCTION  | CURING<br>METHODS                       | CURING<br>PERIOD<br>DAYS                                 | LOW AIR TEMPERATURE<br>PROTECTION METHODS |
| Cast-in-Place Concrete 11/  |   |  |   |
| Pavement<br>Shoulder  | 1020.13(a)(1)(2)(3)(4)(5) 3/5/          | 3  | 1020.13(c)                                |
| Base Course Base Course Widening  | 1020.13(a)(1)(2)(3)(4)(5) <sup>2/</sup> | 3  | 1020.13(c)                                |
| Driveway Median Barrier Curb Gutter Curb & Gutter Sidewalk Slope Wall Paved Ditch | 1020.13(a)(1)(2)(3)(4)(5) 4/5/          | 3  | 1020.13(c) <sup>16/</sup>                 |
| Catch Basin<br>Manhole<br>Inlet<br>Valve Vault                                    | 1020.13(a)(1)(2)(3)(4)(5) 4/            | 3  | 1020.13(c)                                |
| Pavement Patching   | 1020.13(a)(1)(2)(3)(4)(5) 2/            | 3 <sup>12/</sup>   | 1020.13(c)                                |
| Bridge Deck Patching  | 1020.13(a)(3)(5)                        | 3 or 7 <sup>12/</sup>                                    | 1020.13(c)                                |
| Railroad Crossing   | 1020.13(a)(3)(5)                        | 1  | 1020.13(c)                                |
| Piles and Drilled Shafts  | 1020.13(a)(3)(5)                        | 7  | 1020.13(d)(1)(2)(3)                       |
| Foundations & Footings Seal Coat  | 1020.13(a)(1)(2)(3)(4)(5) 4/6/          | 7  | 1020.13(d)(1)(2)(3)                       |
| Substructure  | 1020.13(a)(1)(2)(3)(4)(5) 1/7/          | 7  | 1020.13(d)(1)(2)(3)                       |
| Superstructure (except deck)  | 1020.13(a)(1)(2)(3)(5) <sup>8/</sup>    | 7  | 1020.13(d)(1)(2)                          |
| Deck<br>Bridge Approach Slab  | 1020.13(a)(5)(6) <sup>19/</sup>         | 7  | 1020.13(d)(1)(2) <sup>17/</sup>           |
| Retaining Walls   | 1020.13(a)(1)(2)(3)(4)(5) 1/7/          | 7  | 1020.13(d)(1)(2)                          |
| Pump Houses   | 1020.13(a)(1)(2)(3)(4)(5) 1/            | 7  | 1020.13(d)(1)(2)                          |
| Culverts  | 1020.13(a)(1)(2)(3)(4)(5) 4/6/          | 7  | 1020.13(d)(1)(2) 18/                      |
| Other Incidental Concrete   | 1020.13(a)(1)(2)(3)(5)                  | 3  | 1020.13(c)                                |
| Precast Concrete 11/  |   |  |   |
| Bridge Slabs Piles and Pile Caps Other Structural Members                         | 1020.13(a)(3)(5) 9/10/                  | As<br>Required <sup>13/</sup>                            | 9/  |
| All Other Precast Items   | 1020.13(a)(3)(4)(5) 2/9/10/             | As<br>Required <sup>14/</sup>                            | 9/  |
| Precast, Prestressed Concrete 11  |   |  |   |
| All Items   | 1020.13(a)(3)(5) 9/ 10/                 | Until Strand<br>Tensioning is<br>Released <sup>15/</sup> | 9/"                                       |
| L   | 1                                       |  | i .                                       |

Add the following footnote to the end of the Index Table of Curing and Protection of Concrete Construction in Article 1020.13 of the Supplemental Specifications:

"19/ The cellulose polyethylene blanket method shall not be used on latex modified concrete."

Add the following to Article 1020.13(a) of the Standard Specifications.

"(6) Cellulose Polyethylene Blanket Method. The cellulose polyethylene blanket shall consist of a white polyethylene sheeting with cellulose fiber backing. After the surface of concrete has been textured or finished, it shall be covered immediately with a cellulose polyethylene blanket. The blankets shall be installed with the white perforated polyethylene side facing up. Adjoining blankets shall overlap a minimum of 4 in. (100 mm). On pours wider than 20 ft (6 m), a foot bridge shall be used to place the blankets and to spray water on the blankets immediately after placement on the concrete surface. The blankets shall be placed in a manner which will not create indentations greater than 1/4 in. (6 mm) in the concrete surface. Any air bubbles trapped during placement shall be removed without tearing the blanket. The blankets shall then be immediately flooded with a gentle spray of water to ensure complete saturation of the cellulose. The overlaps and outside edges of the cellulose polyethylene blankets, as well as tears in the blanket, shall be weighted down to prevent displacement as needed with care taken not to indent the concrete surface. Soaker hoses shall be placed along the length of the bridge so 100 percent of the deck surface is continuously saturated for the duration of the cure. Damaged cellulose polyethylene blankets shall be repaired or replaced at the direction of the Engineer."

Revise the first paragraph of Article 1022.03 of the Standard Specifications to read:

"1022.03 Waterproof Paper Blankets, White Polyethylene Sheeting, Burlap-Polyethylene Blankets, and Cellulose Polyethylene Blankets. These materials shall be white and according to ASTM C 171, except moisture loss test specimens shall be made according to Illinois Modified AASHTO T 155. Cellulose polyethylene blankets shall be limited to single use only. The cellulose polyethylene blankets shall be delivered to the jobsite unused and in the manufacturer's unopened packaging until ready for installation. Each roll shall be clearly labeled with product name, manufacturer, and manufacturer's certification of compliance with ASTM C 171."

# PROGRESS PAYMENTS (BDE)

Effective: November 2, 2013

Revise Article 109.07(a) of the Standard Specifications to read:

"(a) Progress Payments. At least once each month, the Engineer will make a written estimate of the quantity of work performed in accordance with the contract, and the value thereof at the contract unit prices. The amount of the estimate approved as due for payment will be vouchered by the Department and presented to the State Comptroller for payment. No amount less than \$1000.00 will be approved for payment other than the final payment.

Progress payments may be reduced by liens filed pursuant to Section 23(c) of the Mechanics' Lien Act, 770 ILCS 60/23(c).

If a Contractor or subcontractor has defaulted on a loan issued under the Department's Disadvantaged Business Revolving Loan Program (20 ILCS 2705/2705-610), progress payments may be reduced pursuant to the terms of that loan agreement. In such cases, the amount of the estimate related to the work performed by the Contractor or subcontractor, in default of the loan agreement, will be offset, in whole or in part, and vouchered by the Department to the Working Capital Revolving Fund or designated escrow account. Payment for the work shall be considered as issued and received by the Contractor or subcontractor on the date of the offset voucher. Further, the amount of the offset voucher shall be a credit against the Department's obligation to pay the Contractor, the Contractor's obligation to pay the subcontractor, and the Contractor's or subcontractor's total loan indebtedness to the Department. The offset shall continue until such time as the entire loan indebtedness is satisfied. The Department will notify the Contractor and Fund Control Agent in a timely manner of such offset. The Contractor or subcontractor shall not be entitled to additional payment in consideration of the offset.

The failure to perform any requirement, obligation, or term of the contract by the Contractor shall be reason for withholding any progress payments until the Department determines that compliance has been achieved."

# RECLAIMED ASPHALT PAVEMENT AND RECLAIMED ASPHALT SHINGLES (BDE)

Effective: November 1, 2012 Revise: January 2, 2015

Revise Section 1031 of the Standard Specifications to read:

# "SECTION 1031. RECLAIMED ASPHALT PAVEMENT AND RECLAIMED ASPHALT SHINGLES

**1031.01 Description.** Reclaimed asphalt pavement and reclaimed asphalt shingles shall be according to the following.

- (a) Reclaimed Asphalt Pavement (RAP). RAP is the material produced by cold milling or crushing 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.
- (b) Reclaimed Asphalt Shingles (RAS). Reclaimed asphalt shingles (RAS). RAS is from the processing and grinding of preconsumer or post-consumer shingles. RAS shall be a clean and uniform material with a maximum of 0.5 percent unacceptable material, as defined in Bureau of Materials and Physical Research Policy Memorandum "Reclaimed Asphalt Shingle (RAS) Sources", by weight of RAS. All RAS used shall come from a Bureau of Materials and Physical Research approved processing facility where it shall be ground and processed to 100 percent passing the 3/8 in. (9.5 mm) sieve and 93 percent passing the #4 (4.75 mm) sieve based on a dry shake gradation. RAS shall be uniform in gradation and asphalt binder content and shall meet the testing requirements specified herein. In addition, RAS shall meet the following Type 1 or Type 2 requirements.
  - (1) Type 1. Type 1 RAS shall be processed, preconsumer asphalt shingles salvaged from the manufacture of residential asphalt roofing shingles.
  - (2) Type 2. Type 2 RAS shall be processed post-consumer shingles only, salvaged from residential, or four unit or less dwellings not subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP).

1031.02 Stockpiles. RAP and RAS stockpiles shall be according to the following.

(a) RAP 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 as listed below (i.e. "Homogeneous Surface").

Prior to milling, the Contractor shall request the District provide documentation on the quality of the RAP to clarify the appropriate stockpile.

(1) Fractionated RAP (FRAP). FRAP shall consist of RAP from Class I, HMA (High and Low ESAL) mixtures. The coarse aggregate in FRAP shall be crushed aggregate and may represent more than one aggregate type and/or quality but shall be at least C quality. All FRAP shall be fractionated prior to testing by screening into a minimum of two size fractions with the separation occurring on or between the #4 (4.75 mm) and 1/2 in. (12.5 mm) sieves. Agglomerations shall be minimized such that 100 percent of the RAP shall pass the sieve size specified below for the mix into which the FRAP will be incorporated.

| Mixture FRAP will be used in: | Sieve Size that 100% of FRAP |
|-------------------------------|------------------------------|
|                               | Shall Pass                   |
| IL-25.0                       | 2 in. (50 mm)                |
| IL-19.0                       | 1 1/2 in. (40 mm)            |
| IL-12.5                       | 1 in. (25 mm)                |
| IL-9.5                        | 3/4 in. (20 mm)              |
| IL-4.75                       | 1/2 in. (13 mm)              |

- (2) Homogeneous. Homogeneous RAP stockpiles shall consist of RAP from Class I, HMA (High and Low ESAL) 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.
- (3) Conglomerate. Conglomerate RAP stockpiles shall consist of RAP from Class I, HMA (High and Low ESAL) 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 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 RAP stockpiles shall not contain steel slag.
- (4) Conglomerate "D" Quality (DQ). Conglomerate DQ RAP stockpiles shall consist of RAP from Class I, HMA (High or Low ESAL), or "All Other" (as defined by Article 1030.04(a)(3)) mixtures. The coarse aggregate in this RAP may be crushed or round but shall be at least D quality. This RAP may have an inconsistent gradation and/or asphalt binder content. Conglomerate DQ RAP stockpiles shall not contain steel slag.
- (5) Non-Quality. RAP stockpiles that do not meet the requirements of the stockpile categories listed above shall be classified as "Non-Quality".

RAP/FRAP 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.

(b) RAS Stockpiles. Type 1 and Type 2 RAS shall be stockpiled separately and shall not be intermingled. Each stockpile shall be signed indicating what type of RAS is present.

Unless otherwise specified by the Engineer, mechanically blending manufactured sand (FM 20 or FM 22) up to an equal weight of RAS with the processed RAS will be permitted to improve workability. The sand shall be "B Quality" or better from an approved Aggregate Gradation Control System source. The sand shall be accounted for in the mix design and during HMA production.

Records identifying the shingle processing facility supplying the RAS, RAS type and lot number shall be maintained by project contract number and kept for a minimum of three years.

**1031.03 Testing.** RAP/FRAP and RAS testing shall be according to the following.

- (a) RAP/FRAP Testing. When used in HMA, the RAP/FRAP shall be sampled and tested either during or after stockpiling.
  - (1) During 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).
  - (2) After Stockpiling. 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/FRAP 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.

Each sample shall be split to obtain two equal 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.

(b) RAS Testing. RAS or RAS blended with manufactured sand shall be sampled and tested during stockpiling according to Illinois Department of Transportation Policy Memorandum, "Reclaimed Asphalt Shingle (RAS) Source".

Samples shall be collected during stockpiling at the minimum frequency of one sample per 200 tons (180 metric tons) for the first 1000 tons (900 metric tons) and one sample per 250 tons (225 metric tons) thereafter. A minimum of five samples are required for stockpiles less than 1000 tons (900 metric tons). Once a  $\leq$  1000 ton (900 metric ton), five-sample/test stockpile has been established it shall be sealed. Additional incoming RAS or RAS blended with manufactured sand shall be stockpiled in a separate working pile as designated in the Quality Control plan and only added to the sealed stockpile when the test results of the working pile are complete and are found to meet the tolerances specified herein for the original sealed RAS stockpile.

Before testing, each sample shall be split to obtain two test samples. One of the two test samples from the final split shall be labeled and stored for Department use. The Contractor shall perform a washed extraction and test for unacceptable materials on the other test sample according to Department procedures. The Engineer reserves the right to test any sample (split or Department-taken) to verify Contractor test results.

If the sampling and testing was performed at the shingle processing facility in accordance with the QC Plan, the Contractor shall obtain and make available all of the test results from start of the initial stockpile.

**1031.04 Evaluation of Tests.** Evaluation of tests results shall be according to the following.

(a) Evaluation of RAP/FRAP 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         | FRAP/Homogeneous<br>/Conglomerate | Conglomerate "D"  Quality |
|-------------------|-----------------------------------|---------------------------|
| 1 in. (25 mm)     |                                   | ± 5 %                     |
| 1/2 in. (12.5 mm) | ± 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 % $^{1/}$               | ± 0.5 %                   |
| G <sub>mm</sub>   | ± 0.03                            |                           |

1/ The tolerance for FRAP shall be  $\pm$  0.3 %.

If more than 20 percent of the individual sieves and/or asphalt binder content tests are out of the above tolerances, the RAP/FRAP shall not be used in HMA unless the RAP/FRAP 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)".

(b) Evaluation of RAS and RAS Blended with Manufactured Sand Test Results. All of the test results, with the exception of percent unacceptable materials, shall be compiled and averaged for asphalt binder content and gradation. Individual test results, when compared to the averages, will be accepted if within the tolerances listed below.

| Parameter              | RAS     |  |
|------------------------|---------|--|
| No. 8 (2.36 mm)        | ± 5 %   |  |
| No. 16 (1.18 mm)       | ± 5 %   |  |
| No. 30 (600 µm)        | ± 4 %   |  |
| No. 200 (75 µm)        | ± 2.0 % |  |
| Asphalt Binder Content | ± 1.5 % |  |

If more than 20 percent of the individual sieves and/or asphalt binder content tests are out of the above tolerances, or if the percent unacceptable material exceeds 0.5 percent by weight of material retained on the # 4 (4.75 mm) sieve, the RAS or RAS blend shall not be used in Department projects. All test data and acceptance ranges shall be sent to the District for evaluation.

# 1031.05 Quality Designation of Aggregate in RAP/FRAP.

- (a) RAP. The aggregate quality of the RAP for homogenous, conglomerate, and conglomerate "D" quality stockpiles shall be set by the lowest quality of coarse aggregate in the RAP stockpile and are designated as follows.
  - (1) RAP from Class I, Superpave/HMA (High ESAL), or (Low ESAL) IL-9.5L surface mixtures are designated as containing Class B quality coarse aggregate.
  - (2) RAP from Superpave/HMA (Low ESAL) IL-19.0L binder mixture is designated as Class D quality coarse aggregate.
  - (3) RAP from Class I, Superpave/HMA (High ESAL) binder mixtures, bituminous base course mixtures, and bituminous base course widening mixtures are designated as containing Class C quality coarse aggregate.
  - (4) RAP from bituminous stabilized subbase and BAM shoulders are designated as containing Class D quality coarse aggregate.
- (b) FRAP. If the Engineer has documentation of the quality of the FRAP aggregate, the Contractor shall use the assigned quality provided by the Engineer.

If the quality is not known, the quality shall be determined as follows. Coarse and fine FRAP stockpiles containing plus #4 (4.75 mm) sieve coarse aggregate shall have a maximum tonnage of 5,000 tons (4,500 metric tons). The Contractor shall obtain a representative sample witnessed by the Engineer. The sample shall be a minimum of 50 lb (25 kg). The sample shall be extracted according to Illinois Modified AASHTO T 164 by a consultant prequalified by the Department for the specified testing. The consultant shall submit the test results along with the recovered aggregate to the District Office. The cost for this testing shall be paid by the Contractor. The District will forward the sample to the BMPR Aggregate Lab for MicroDeval Testing, according to Illinois Modified AASHTO T 327. A maximum loss of 15.0 percent will be applied for all HMA applications.

**1031.06 Use of RAP/FRAP and/or RAS in HMA.** The use of RAP/FRAP and/or RAS shall be a Contractor's option when constructing HMA in all contracts.

- (a) RAP/FRAP. The use of RAP/FRAP in HMA shall be as follows.
  - (1) 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.
  - (2) Steel Slag Stockpiles. Homogeneous RAP stockpiles containing steel slag will be approved for use in all HMA (High ESAL and Low ESAL) Surface and Binder Mixture applications.
  - (3) Use in HMA Surface Mixtures (High and Low ESAL). RAP/FRAP stockpiles for use in HMA surface mixtures (High and Low ESAL) shall be FRAP or homogeneous in which the coarse aggregate is Class B quality or better. RAP/FRAP from Conglomerate stockpiles shall be considered equivalent to limestone for frictional considerations. Known frictional contributions from plus #4 (4.75 mm) homogeneous RAP and FRAP stockpiles will be accounted for in meeting frictional requirements in the specified mixture.
  - (4) Use in HMA Binder Mixtures (High and Low ESAL), HMA Base Course, and HMA Base Course Widening. RAP/FRAP stockpiles for use in HMA binder mixtures (High and Low ESAL), HMA base course, and HMA base course widening shall be FRAP, homogeneous, or conglomerate, in which the coarse aggregate is Class C quality or better.
  - (5) Use in Shoulders and Subbase. RAP/FRAP stockpiles for use in HMA shoulders and stabilized subbase (HMA) shall be FRAP, homogeneous, conglomerate, or conglomerate DQ.
  - (6) When the Contractor chooses the RAP option, the percentage of RAP shall not exceed the amounts indicated in Article 1031.06(c)(1) below for a given N Design.
- (b) RAS. RAS meeting Type 1 or Type 2 requirements will be permitted in all HMA applications as specified herein.

- (c) RAP/FRAP and/or RAS Usage Limits. Type 1 or Type 2 RAS may be used alone or in conjunction with RAP or FRAP in HMA mixtures up to a maximum of 5.0% by weight of the total mix.
  - (1) RAP/RAS. When RAP is used alone or RAP is used in conjunction with RAS, the percentage of virgin asphalt binder replacement shall not exceed the amounts listed in the Max RAP/RAS ABR table listed below for the given Ndesign.

# RAP/RAS Maximum Asphalt Binder Replacement (ABR) Percentage

| HMA Mixtures 1/, 2/ | RAP/RAS Maximum ABR %     |         |                  |
|---------------------|---------------------------|---------|------------------|
| Ndesign             | Binder/Leveling<br>Binder | Surface | Polymer Modified |
| 30                  | 30                        | 30      | 10               |
| 50                  | 25                        | 15      | 10               |
| 70                  | 15                        | 10      | 10               |
| 90                  | 10                        | 10      | 10               |
| 105                 | 10                        | 10      | 10               |

- 1/ For HMA "All Other" (shoulder and stabilized subbase) N-30, the RAP/RAS ABR shall not exceed 50 percent of the mixture.
- 2/ When RAP/RAS ABR exceeds 20 percent, the high and low virgin asphalt binder grades shall each be reduced by one grade (i.e. 25 percent ABR would require a virgin asphalt binder grade of PG64-22 to be reduced to a PG58-28). If warm mix asphalt (WMA) technology is utilized, and production temperatures do not exceed 275 °F (135 °C) the high and low virgin asphalt binder grades shall each be reduced by one grade when RAP/RAS ABR exceeds 25 percent (i.e. 26 percent RAP/RAS ABR would require a virgin asphalt binder grade of PG64-22 to be reduced to a PG58-28).

(2) FRAP/RAS. When FRAP is used alone or FRAP is used in conjunction with RAS, the percentage of virgin asphalt binder replacement shall not exceed the amounts listed in the FRAP/RAS table listed below for the given N design.

FRAP/RAS Maximum Asphalt Binder Replacement (ABR) Percentage

| HMA Mixtures | FRAP/RAS Maximum ABR %    |         |                         |  |
|--------------|---------------------------|---------|-------------------------|--|
| Ndesign      | Binder/Leveling<br>Binder | Surface | Polymer Modified 3/, 4/ |  |
| 30           | 50                        | 40      | 10                      |  |
| 50           | 40                        | 35      | 10                      |  |
| 70           | 40                        | 30      | 10                      |  |
| 90           | 40                        | 30      | 10                      |  |
| 105          | 40                        | 30      | 10                      |  |

- 1/ For HMA "All Other" (shoulder and stabilized subbase) N30, the FRAP/RAS ABR shall not exceed 50 percent of the mixture.
- 2/ When FRAP/RAS ABR exceeds 20 percent for all mixes the high and low virgin asphalt binder grades shall each be reduced by one grade (i.e. 25 percent ABR would require a virgin asphalt binder grade of PG64-22 to be reduced to a PG58-28). If warm mix asphalt (WMA) technology is utilized, and production temperatures do not exceed 275 °F (135 °C) the high and low virgin asphalt binder grades shall each be reduced by one grade when FRAP/RAS ABR exceeds 25 percent (i.e. 26 percent ABR would require a virgin asphalt binder grade of PG64-22 to be reduced to a PG58-28).
- 3/ For SMA the FRAP/RAS ABR shall not exceed 20 percent.
- 4/ For IL-4.75 mix the FRAP/RAS ABR shall not exceed 30 percent.

**1031.07 HMA Mix Designs.** At the Contractor's option, HMA mixtures may be constructed utilizing RAP/FRAP and/or RAS material meeting the detailed requirements specified herein.

- (a) RAP/FRAP and/or RAS. RAP/FRAP and/or RAS mix designs shall be submitted for verification. If additional RAP/FRAP 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/FRAP stockpile and HMA mix design, and meets all of the requirements herein, the additional RAP/FRAP stockpiles may be used in the original mix design at the percent previously verified.
- (b) RAS. Type 1 and Type 2 RAS are not interchangeable in a mix design. A RAS stone bulk specific gravity (Gsb) of 2.300 shall be used for mix design purposes.

**1031.08 HMA Production.** HMA production utilizing RAP/FRAP and/or RAS shall be as follows.

(a) RAP/FRAP. The coarse aggregate in all RAP/FRAP 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, gator, 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/FRAP control tolerances or QC/QA test results require corrective action, the Contractor shall cease production of the mixture containing RAP/FRAP and either switch to the virgin aggregate design or submit a new RAP/FRAP design.

- (b) RAS. RAS shall be incorporated into the HMA mixture either by a separate weight depletion system or by using the RAP weigh belt. Either feed system shall be interlocked with the aggregate feed or weigh system to maintain correct proportions for all rates of production and batch sizes. The portion of RAS shall be controlled accurately to within ± 0.5 percent of the amount of RAS utilized. When using the weight depletion system, flow indicators or sensing devices shall be provided and interlocked with the plant controls such that the mixture production is halted when RAS flow is interrupted.
- (c) RAP/FRAP and/or RAS. HMA plants utilizing RAP/FRAP and/or RAS shall be capable of automatically recording and printing the following information.
  - (1) Dryer Drum Plants.
    - a. Date, month, year, and time to the nearest minute for each print.
    - b. HMA mix number assigned by the Department.
    - c. Accumulated weight of dry aggregate (combined or individual) in tons (metric tons) to the nearest 0.1 ton (0.1 metric ton).
    - d. Accumulated dry weight of RAP/FRAP/RAS in tons (metric tons) to the nearest 0.1 ton (0.1 metric ton).
    - e. Accumulated mineral filler in revolutions, tons (metric tons), etc. to the nearest 0.1 unit.
    - f. Accumulated asphalt binder in gallons (liters), tons (metric tons), etc. to the nearest 0.1 unit.

- g. Residual asphalt binder in the RAP/FRAP material as a percent of the total mix to the nearest 0.1 percent.
- h. Aggregate and RAP/FRAP moisture compensators in percent as set on the control panel. (Required when accumulated or individual aggregate and RAP/FRAP are printed in wet condition.)

# (2) Batch Plants.

- a. Date, month, year, and time to the nearest minute for each print.
- b. HMA mix number assigned by the Department.
- c. Individual virgin aggregate hot bin batch weights to the nearest pound (kilogram).
- d. Mineral filler weight to the nearest pound (kilogram).
- e. RAP/FRAP/RAS weight to the nearest pound (kilogram).
- f. Virgin asphalt binder weight to the nearest pound (kilogram).
- g. Residual asphalt binder in the RAP/FRAP/RAS 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.

**1031.09 RAP in Aggregate Surface Course and Aggregate Shoulders.** The use of RAP in aggregate surface course (temporary access entrances only) and aggregate wedge shoulders Type B shall be as follows.

- (a) Stockpiles and Testing. RAP stockpiles may be any of those listed in Article 1031.02, except "Non-Quality" and "FRAP". The testing requirements of Article 1031.03 shall not apply. RAP used to construct aggregate surface course and aggregate shoulders shall be according to the current Bureau of Materials and Physical Research's Policy Memorandum, "Reclaimed Asphalt Pavement (RAP) for Aggregate Applications".
- (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."

# REINFORCEMENT BARS (BDE)

Effective: November 1, 2013

Revise the first and second paragraphs of Article 508.05 of the Standard Specifications to read:

"508.05 Placing and Securing. All reinforcement bars shall be placed and tied securely at the locations and in the configuration shown on the plans prior to the placement of concrete. Manual welding of reinforcement may only be permitted or precast concrete products as indicated in the current Bureau of Materials and Physical Research Policy Memorandum "Quality Control / Quality Assurance Program for Precast Concrete Products", and for precast prestressed concrete products as indicated in the Department's current "Manual for Fabrication of Precast Prestressed Concrete Products". Reinforcement bars shall not be placed by sticking or floating into place or immediately after placement of the concrete.

Bars shall be tied at all intersections, except where the center to center dimension is less than 1 ft (300 mm) in each direction, in which case alternate intersections shall be tied. Molded plastic clips may be used in lieu of wire to secure bar intersections, but shall not be permitted in horizontal bar mats subject to construction foot traffic or to secure longitudinal bar laps. Plastic clips shall adequately secure the reinforcement bars, and shall permit the concrete to flow through and fully encase the reinforcement. Plastic clips may be recycled plastic, and shall meet the approval of the Engineer. The number of ties as specified shall be doubled for lap splices at the stage construction line of concrete bridge decks when traffic is allowed on the first completed stage during the pouring of the second stage."

Revise the fifth paragraph of Article 508.05 of the Standard Specifications to read:

"Supports for reinforcement in bridge decks shall be metal. For all other concrete construction the supports shall be metal or plastic. Metal bar supports shall be made of cold-drawn wire, or other approved material and shall be either epoxy coated, galvanized or plastic tipped. When the reinforcement bars are epoxy coated, the metal supports shall be epoxy coated. Plastic supports may be recycled plastic. Supports shall be provided in sufficient number and spaced to provide the required clearances. Supports shall adequately support the reinforcement bars, and shall permit the concrete to flow through and fully encase the reinforcement. The legs of supports shall be spaced to allow an opening that is a minimum 1.33 times the nominal maximum aggregate size used in the concrete. Nominal maximum aggregate size is defined as the largest sieve which retains any of the aggregate sample particles. All supports shall meet the approval of the Engineer."

Revise the first sentence of the eighth paragraph of Article 508.05 of the Standard Specifications to read:

"Epoxy coated reinforcement bars shall be tied with plastic coated wire, epoxy coated wire, or molded plastic clips where allowed."

Add the following sentence to the end of the first paragraph of Article 508.06(c) of the Standard Specifications:

"In addition, the total slip of the bars within the splice sleeve of the connector after loading in tension to 30 ksi (207 MPa) and relaxing to 3 ksi (20.7 MPa) shall not exceed 0.01 in. (254 microns)."

Revise Article 1042.03(d) of the Standard Specifications to read:

"(d) Reinforcement and Accessories: The concrete cover over all reinforcement shall be within ±1/4 in. (±6 mm) of the specified cover.

Welded wire fabric shall be accurately bent and tied in place.

Miscellaneous accessories to be cast into the concrete or for forming holes and recesses shall be carefully located and rigidly held in place by bolts, clamps, or other effective means. If paper tubes are used for vertical dowel holes, or other vertical holes which require grouting, they shall be removed before transportation to the construction site."

# SIDEWALK, CORNER, OR CROSSWALK CLOSURE (BDE)

Effective: January 1, 2015 Revised: April 1, 2015

Revise the first sentence of Article 1106.02(m) of the Supplemental Specifications to read:

"The top and bottom panels shall have alternating white and orange stripes sloping 45 degrees on both sides."

# TRACKING THE USE OF PESTICIDES (BDE)

Effective: August 1, 2012

Add the following paragraph after the first paragraph of Article 107.23 of the Standard Specifications:

"Within 48 hours of the application of pesticides, including but not limited to herbicides, insecticides, algaecides, and fungicides, the Contractor shall complete and return to the Engineer, Operations form "OPER 2720"."

# WARM MIX ASPHALT (BDE)

Effective: January 1, 2012 Revised: November 1, 2014

<u>Description</u>. This work shall consist of designing, producing and constructing Warm Mix Asphalt (WMA) in lieu of Hot Mix Asphalt (HMA) at the Contractor's option. Work shall be according to Sections 406, 407, 408, 1030, and 1102 of the Standard Specifications, except as modified herein. In addition, any references to HMA in the Standard Specifications, or the special provisions shall be construed to include WMA.

WMA is an asphalt mixture which can be produced at temperatures lower than allowed for HMA utilizing approved WMA technologies. WMA technologies are defined as the use of additives or processes which allow a reduction in the temperatures at which HMA mixes are produced and placed. WMA is produced by the use of additives, a water foaming process, or combination of both. Additives include minerals, chemicals or organics incorporated into the asphalt binder stream in a dedicated delivery system. The process of foaming injects water into the asphalt binder stream, just prior to incorporation of the asphalt binder with the aggregate.

Approved WMA technologies may also be used in HMA provided all the requirements specified herein, with the exception of temperature, are met. However, asphalt mixtures produced at temperatures in excess of 275 °F (135 °C) will not be considered WMA when determining the grade reduction of the virgin asphalt binder grade.

# Equipment.

Revise the first paragraph of Article 1102.01 of the Standard Specifications to read:

"1102.01 Hot-Mix Asphalt Plant. The hot-mix asphalt (HMA) plant shall be the batch-type, continuous-type, or dryer drum plant. The plants shall be evaluated for prequalification rating and approval to produce HMA according to the current Bureau of Materials and Physical Research Policy Memorandum, "Approval of Hot-Mix Asphalt Plants and Equipment". Once approved, the Contractor shall notify the Bureau of Materials and Physical Research to obtain approval of all plant modifications. The plants shall not be used to produce mixtures concurrently for more than one project or for private work unless permission is granted in writing by the Engineer. The plant units shall be so designed, coordinated and operated that they will function properly and produce HMA having uniform temperatures and compositions within the tolerances specified. The plant units shall meet the following requirements."

Add the following to Article 1102.01(a) of the Standard Specifications.

- "(13) Equipment for Warm Mix Technologies.
  - a. Foaming. Metering equipment for foamed asphalt shall have an accuracy of ± 2 percent of the actual water metered. The foaming control system shall be electronically interfaced with the asphalt binder meter.
  - b. Additives. Additives shall be introduced into the plant according to the supplier's recommendations and shall be approved by the Engineer. The system for introducing the WMA additive shall be interlocked with the aggregate feed or weigh system to maintain correct proportions for all rates of production and batch sizes."

# Mix Design Verification.

Add the following to Article 1030.04 of the Standard Specifications.

- "(e) Warm Mix Technologies.
  - (1) Foaming. WMA mix design verification will not be required when foaming technology is used alone (without WMA additives). However, the foaming technology shall only be used on HMA designs previously approved by the Department.
  - (2) Additives. WMA mix designs utilizing additives shall be submitted to the Engineer for mix design verification."

# Construction Requirements.

Revise the second paragraph of Article 406.06(b)(1) of the Standard Specifications to read:

"The HMA shall be delivered at a temperature of 250 to 350 °F (120 to 175 °C). WMA shall be delivered at a minimum temperature of 215 °F (102 °C)."

# Basis of Payment.

This work will be paid at the contract unit price bid for the HMA pay items involved. Anti-strip will not be paid for separately, but shall be considered as included in the cost of the work.

# WEEKLY DBE TRUCKING REPORTS (BDE)

Effective: June 2, 2012 Revised: April 2, 2015

The Contractor shall submit a weekly report of Disadvantaged Business Enterprise (DBE) trucks hired by the Contractor or subcontractors (i.e. not owned by the Contractor or subcontractors) that are used for DBE goal credit.

The report shall be submitted to the Engineer on Department form "SBE 723" within ten business days following the reporting period. The reporting period shall be Monday through Sunday for each week reportable trucking activities occur.

Any costs associated with providing weekly DBE trucking reports shall be considered as included in the contract unit prices bid for the various items of work involved and no additional compensation will be allowed.

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

Effective: April 1, 2009 Revised: July 1, 2015

<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 extra work paid for by agreed unit price will be subject to fuel cost adjustment only when the category representing the added work was subject to the fuel cost adjustment. Extra work paid for at a lump sum price or by force account 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                           |        |                     |
| Category                               | Factor | Units               |
| A - Earthwork                          | 1.68   | liters / cu m       |
| B – Subbase and Aggregate Base courses | 2.58   | liters / metric ton |
| C – HMA Bases, Pavements and Shoulders | 4.37   | liters / metric ton |
| D – PCC Bases, Pavements and Shoulders | 12.52  | liters / cu m       |
| E – Structures                         | 30.28  | liters / \$1000     |

# (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.

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

Where: CA = Cost Adjustment, \$

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

FPI<sub>L</sub> = Fuel Price Index, as published by the Department for the month prior to the letting for work paid for at the contract price; or for the month the agreed unit price letter is submitted by the Contractor for extra work paid for by agreed unit price, \$/gal (\$/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.

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

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.

# 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? | as par | t 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    |                         |         |
| Signature:   |        | Date:                   |         |

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

Effective: April 2, 2004 Revised: July 1, 2015

<u>Description</u>. Steel cost adjustments will be made to provide additional compensation to the Contractor, or a credit to the Department, for fluctuations in steel 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 steel cost adjustments for all items of steel. Failure to indicate "Yes" for any item of work will make that item of steel exempt from steel cost adjustment.

<u>Types of Steel Products</u>. An adjustment will be made for fluctuations in the cost of steel used in the manufacture of the following items:

Metal Piling (excluding temporary sheet piling) Structural Steel Reinforcing Steel

Other steel materials such as dowel bars, tie bars, mesh reinforcement, guardrail, steel traffic signal and light poles, towers and mast arms, metal railings (excluding wire fence), and frames and grates will be subject to a steel cost adjustment when the pay items they are used in have a contract value of \$10,000 or greater.

The adjustments shall apply to the above items when they are part of the original proposed construction, or added as extra work and paid for by agreed unit prices. The adjustments shall not apply when the item is added as extra work and paid for at a lump sum price or by force account.

<u>Documentation</u>. Sufficient documentation shall be furnished to the Engineer to verify the following:

- (a) The dates and quantity of steel, in lb (kg), shipped from the mill to the fabricator.
- (b) The quantity of steel, in lb (kg), incorporated into the various items of work covered by this special provision. The Department reserves the right to verify submitted quantities.

Method of Adjustment. Steel cost adjustments will be computed as follows:

SCA = Q X D

Where: SCA = steel cost adjustment, in dollars

Q = quantity of steel incorporated into the work, in lb (kg)

D = price factor, in dollars per lb (kg)

 $D = MPI_M - MPI_L$ 

Where:  $MPI_M =$  The Materials Cost Index for steel as published by the Engineering News-Record for the month the steel is shipped from the mill. The indices will be converted from dollars per 100 lb to dollars per lb (kg).

MPI<sub>L</sub> = The Materials Cost Index for steel as published by the Engineering News-Record for the month prior to the letting for work paid for at the contract price; or for the month the agreed unit price letter is submitted by the Contractor for extra work paid for by agreed unit price,. The indices will be converted from dollars per 100 lb to dollars per lb (kg).

The unit weights (masses) of steel that will be used to calculate the steel cost adjustment for the various items are shown in the attached table.

No steel cost adjustment will be made for any products manufactured from steel having a mill shipping date prior to the letting date.

If the Contractor fails to provide the required documentation, the method of adjustment will be calculated as described above; however, the  $\mathsf{MPI}_\mathsf{M}$  will be based on the date the steel arrives at the job site. In this case, an adjustment will only be made when there is a decrease in steel costs.

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

Percent Difference =  $\{(MPI_L - MPI_M) \div MPI_L\} \times 100$ 

Steel cost adjustments will be calculated by the Engineer and will be paid or deducted when all other contract requirements for the items of work are satisfied. Adjustments will only be made for fluctuations in the cost of the steel as described herein. No adjustment will be made for changes in the cost of manufacturing, fabrication, shipping, storage, etc.

The adjustments shall not apply during contract time subject to liquidated damages for completion of the entire contract.

# Attachment

| Item  | Unit Mass (Weight)            |
|---|-------------------------------|
| Metal Piling (excluding temporary sheet piling)                                   |                               |
| Furnishing Metal Pile Shells 12 in. (305 mm), 0.179 in. (3.80 mm) wall thickness) | 23 lb/ft (34 kg/m)            |
| Furnishing Metal Pile Shells 12 in. (305 mm), 0.250 in. (6.35 mm) wall thickness) | 32 lb/ft (48 kg/m)            |
| Furnishing Metal Pile Shells 14 in. (356 mm), 0.250 in. (6.35 mm) wall thickness) | 37 lb/ft (55 kg/m)            |
| Other piling  | See plans                     |
| Structural Steel  | See plans for weights         |
|   | (masses)                      |
| Reinforcing Steel   | See plans for weights         |
|   | (masses)                      |
| Dowel Bars and Tie Bars   | 6 lb (3 kg) each              |
| Mesh Reinforcement  | 63 lb/100 sq ft (310 kg/sq m) |
| Guardrail   |                               |
| Steel Plate Beam Guardrail, Type A w/steel posts                                  | 20 lb/ft (30 kg/m)            |
| Steel Plate Beam Guardrail, Type B w/steel posts                                  | 30 lb/ft (45 kg/m)            |
| Steel Plate Beam Guardrail, Types A and B w/wood posts                            | 8 lb/ft (12 kg/m)             |
| Steel Plate Beam Guardrail, Type 2  | 305 lb (140 kg) each          |
| Steel Plate Beam Guardrail, Type 6  | 1260 lb (570 kg) each         |
| Traffic Barrier Terminal, Type 1 Special (Tangent)                                | 730 lb (330 kg) each          |
| Traffic Barrier Terminal, Type 1 Special (Flared)                                 | 410 lb (185 kg) each          |
| Steel Traffic Signal and Light Poles, Towers and Mast Arms                        |                               |
| Traffic Signal Post   | 11 lb/ft (16 kg/m)            |
| Light Pole, Tenon Mount and Twin Mount, 30 - 40 ft (9 – 12 m)                     | 14 lb/ft (21 kg/m)            |
| Light Pole, Tenon Mount and Twin Mount, 45 - 55 ft (13.5 – 16.5 m)                | 21 lb/ft (31 kg/m)            |
| Light Pole w/Mast Arm, 30 - 50 ft (9 – 15.2 m )                                   | 13 lb/ft (19 kg/m)            |
| Light Pole w/Mast Arm, 55 - 60 ft (16.5 – 18 m)                                   | 19 lb/ft (28 kg/m)            |
| Light Tower w/Luminaire Mount, 80 - 110 ft (24 - 33.5 m)                          | 31 lb/ft (46 kg/m)            |
| Light Tower w/Luminaire Mount, 120 - 140 ft (36.5 – 42.5 m)                       | 65 lb/ft (97 kg/m)            |
| Light Tower w/Luminaire Mount, 150 - 160 ft (45.5 – 48.5 m)                       | 80 lb/ft (119 kg/m)           |
| Metal Railings (excluding wire fence)   |                               |
| Steel Railing, Type SM  | 64 lb/ft (95 kg/m)            |
| Steel Railing, Type S-1   | 39 lb/ft (58 kg/m)            |
| Steel Railing, Type T-1   | 53 lb/ft (79 kg/m)            |
| Steel Bridge Rail   | 52 lb/ft (77 kg/m)            |
| Frames and Grates   |                               |
| Frame   | 250 lb (115 kg)               |
| Lids and Grates   | 150 lb (70 kg)                |

# Return With Bid

# ILLINOIS DEPARTMENT OF TRANSPORTATION

# OPTION FOR STEEL 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 steel cost adjustments for all items of steel. Failure to indicate "Yes" for any item of work will make that item of steel exempt from steel 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 a following items of work? | s part of the | contract plans for the |
| Metal Piling  | Yes           |                        |
| Structural Steel  | Yes           |                        |
| Reinforcing Steel   | Yes           |                        |
| Dowel Bars, Tie Bars and Mesh Reinforcement   | Yes           |                        |
| Guardrail   | Yes           |                        |
| Steel Traffic Signal and Light Poles, Towers and Mast Arms                          | Yes           |                        |
| Metal Railings (excluding wire fence)   | Yes           |                        |
| Frames and Grates   | Yes           |                        |
| Signature:  | Date:         |                        |

# **404 PERMIT**



### **DEPARTMENT OF THE ARMY**

U.S. ARMY ENGINEER DISTRICT, LOUISVILLE CORPS OF ENGINEERS P.O. BOX 59 LOUISVILLE KY 40201-0059 FAX: (502) 315-6677 http://www.irl.usace.army.mii/

'15 JUL 2 10:02AM

June 25, 2015

Operations Division Regulatory Branch (North) ID No. LRL-2015-357-jlt

Mr. Kensil Garnett
Illinois Department of Transportation
Region 3/District 5
13473 IL Highway 133
P.O. Box 610
Paris, Illinois 61944

Dear Mr. Garnett:

This is in response to your application received April 28, 2015, and additional information received June 18, 2015, for authorization to replace a single-span concrete bridge with a 32-foot wide by 70-foot long single-span concrete bridge with riprap for erosion control. The total impacts to Saline Branch would be 80 linear feet. The project is identified as Contract 70599 Bridge Replacement over Saline Branch. The project is located just east of the intersection of County Road 1300 E and E Leverett Road over Saline Branch, in Leverett, Champaign County, Illinois (Latitude: 40.189240°; Longitude:-88.216890°). The information supplied by you was reviewed to determine whether a Department of the Army (DA) permit will be required under the provisions of Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water

Your project is considered maintenance of a structure which has been previously authorized, either by DA Permit or by having been constructed prior to current Federal laws. Therefore, the project is authorized under the provisions of 33 CFR 330 Nationwide Permit (NWP) No. 3, Maintenance, as published in the Federal Register February 21, 2012. Under the provisions of this authorization, you must comply with the enclosed Terms and General Conditions for Nationwide Permit No. 3.

You also may need to obtain an individual State 401 Water Quality Certification (WQC) or waiver from the Illinois Environmental Protection Agency (ILEPA). You may contact them directly at the following address.

Illinois Environmental Protection Agency Permits Section 1020 North Grand Avenue East P.O. Box 19276 Springfield, Illinois 62794-9676

Once you have contacted the ILEPA and received their approval, you may proceed without further contact or verification from us.

This decision is valid until March 18, 2017. The enclosed Compliance Certification should be signed and returned when the project is completed. If your project is not completed by this date or if your project is modified, you must contact us for another permit determination in accordance with the rules and regulations in effect at that time. Please note that we also perform periodic inspections to ensure compliance with our permit conditions and applicable Federal laws. A copy of this letter is being sent to the ILEPA (see enclosure for address).

If you have any questions, please contact this office by writing to the above address, ATTN: CELRL-OPF-N, or call me at (502) 315-6710. All correspondence pertaining to this matter should refer to our ID No. LRL-2015-357-jlt.

Sincerely,

Jim Thomas

Project Manager, North Regulatory Branch

Enclosures

# TERMS FOR NATIONWIDE PERMIT NO. 3 - MAINTENANCE

- (a) The repair, rehabilitation, or replacement of any previously authorized, currently serviceable structure, or fill, or of any currently serviceable structure or fill authorized by 33 CFR 330.3, provided that the structure or fill is not to be put to uses differing from those uses specified or contemplated for it in the original permit or the most recently authorized modification. Minor deviations in the structure's configuration or filled area, including those due to changes in materials, construction techniques, requirements of other regulatory agencies, or current construction codes or safety standards that are necessary to make the repair, rehabilitation, or replacement are authorized. Any stream channel modification is limited to the minimum necessary for the repair, rehabilitation, or replacement of the structure or fill; such modifications, including the removal of material from the stream channel, must be immediately adjacent to the project or within the boundaries of the structure or fill. This NWP also authorizes the repair, rehabilitation, or replacement of those structures or fills destroyed or damaged by storms, floods, fire or other discrete events, provided the repair, rehabilitation, or replacement is commenced, or is under contract to commence, within two years of the date of their destruction or damage. In cases of catastrophic events, such as hurricanes or tornadoes, this two-year limit may be waived by the district engineer, provided the permittee can demonstrate funding, contract, or other similar delays.
- (b) This NWP also authorizes the removal of accumulated sediments and debris in the vicinity of existing structures (e.g., bridges, culverted road crossings, water intake structures, etc.) and/or the placement of new or additional riprap to protect the structure. The removal of sediment is limited to the minimum necessary to restore the waterway in the vicinity of the structure to the approximate dimensions that existed when the structure was built, but cannot extend farther than 200 feet in any direction from the structure. This 200 foot limit does not apply to maintenance dredging to remove accumulated sediments blocking or restricting outfall and intake structures or to maintenance dredging to remove accumulated sediments from canals associated with outfall and intake structures. All dredged or excavated materials must be deposited and retained in an area that has no waters of the United States unless otherwise specifically approved by the district engineer under separate authorization. The placement of new or additional riprap must be the minimum necessary to protect the structure or to ensure the safety of the structure. Any bank stabilization measures not directly associated with the structure will require a separate authorization from the district engineer.
- (c) This NWP also authorizes temporary structures, fills, and work necessary to conduct the maintenance activity. Appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable, when temporary structures, work, and discharges, including cofferdams, are necessary for construction activities, access fills, or dewatering of construction sites. Temporary fills must consist of materials, and be placed in a manner, that will not be eroded by expected high flows. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The areas affected by temporary fills must be revegetated, as appropriate.
- (d) This NWP does not authorize maintenance dredging for the primary purpose of navigation. This NWP does not authorize beach restoration. This NWP does not authorize new stream channelization or stream relocation projects.

Notification: For activities authorized by paragraph (b) of this NWP, the permittee must submit a preconstruction notification to the district engineer prior to commencing the activity (see general condition 31). The pre-construction notification must include information regarding the original design capacities and configurations of the outfalls, intakes, small impoundments, and canals. (Sections 10 and 404)

Note: This NWP authorizes the repair, rehabilitation, or replacement of any previously authorized structure or fill that does not qualify for the Clean Water Act Section 404(f) exemption for maintenance.



# Nationwide Permit Conditions

The following General Conditions must be followed in order for any authorization by NWP to be valid:

Navigation. (a) No activity may cause more than a minimal adverse effect on

authorized facilities in navigable waters of the US regulations or otherwise, must be installed and maintained at the permittee's expense on (b) Any safety lights and signals prescribed by the US Coast Guard, through

cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the made against the US on account of any such removal or alteration. the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the structural work or obstructions caused thereby, without expense to the US. No claim shall be opinion of the Secretary of the Army or his authorized representative, said structure or work shall (c) The permittee understands and agrees that, if future operations by the US require

cycle movements of those species of aquatic life indigenous to the waterbody, including those movement of those aquatic species culverted, bridged, or otherwise designed and constructed to maintain low flows to sustain the mpound water. All permanent and temporary crossings of waterbodies shall be suitably pecies that normally migrate through the area, unless the activity's primary purpose is to Aquatic Life Movements. No activity may substantially disrupt the necessary life

avoided to the maximum extent practicable. Activities that result in the physical destruction (e.g., through excavation, fill, or downstream smothering by substantial turbidity) of an important spawning area are not authorized Spawning Areas. Activities in spawning areas during spawning seasons must be

areas for migratory birds must be avoided to the maximum extent practicable.

5. Shellfish Beds. No activity may occur in areas of concentrated shellfish populations, unless the activity is directly related to a shellfish harvesting activity authorized by NWPs 4 and unless the activity is directly related to a shellfish harvesting activity authorized by NWPs 4 and 4. Migratory Bird Breeding Areas. Activities in waters of the US that serve as breeding

bodies, asphalt, etc.). Material used for construction or discharged must be free from toxic or is a shellifish seeding or habitat restoration activity authorized by NWP 27.
 Suitable Material. No activity may use unsuitable material (e.g., tras trash, debris, car

 Water Supply Intakes. No activity may occur in the proximity of a public water supply intake, except where the activity is for the repair or improvement of public water supply pollutants in toxic amounts (see Section 307 of the Clean Water Act).

water, adverse effects to the aquatic system due to accelerating the passage of water, and/or restricting its flow must be minimized to the maximum extent practicable. ntake structures or adjacent bank stabilization. Adverse Effects From Impoundments. If the activity creates an impoundment of

(e.g., stream restoration or relocation activities). course, condition, capacity, and location of open waters if it benefits the aquatic environment the activity is to impound water or manage high flows. The activity may alter the pre-construction provided below. The activity must be constructed to withstand expected high flows. The activity construction course, condition, capacity, and location of open waters must be maintained for must not restrict or impede the passage of normal or high flows, unless the primary purpose of each activity, including stream channelization and storm water management activities, except as Management of Water Flows. To the maximum extent practicable, the pre-

approved state or local floodplain management requirements Equipment. Heavy equipment working in wetlands or mudflats must be placed on Fills Within 100-Year Floodplains. The activity must comply with applicable FEMA

controls must be used and maintained in effective operating condition during construction, and all exposed soil and other filis, as well as any work below the ordinary high water mark or high mats, or other measures must be taken to minimize soil disturbance. Soil Erosion and Sediment Controls. Appropriate soil erosion and sediment

> encouraged to perform work within waters of the US during periods of low-flow or no-flow.
>
> 13. Removal of Temporary Fills. Temporary fills must be removed in their entirety and tide line, must be permanently stabilized at the earliest practicable date. Permittees are

the affected areas returned to pre-construction elevations. The affected areas must be

conditions, as well as any activity-specific conditions added by the district engineer to an NWP including maintenance to ensure public safety and compliance with applicable NWP general revegetated, as appropriate 14. Proper Maintenance. Any authorized structure or fill shall be properly maintained

15. <u>Single and Complete Project</u>. The activity must be a single and complete project. The same NWP cannot be used more than once for the same single and complete project. authorization.

and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, unless the appropriate management agency responsible for the designated Wild and Scenic River or study river (e.g., National Park Service, US Forest Service, US Fish and Wildlife Service). the proposed activity will not adversely affect the Wild and Scenic River designation or study status. Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land ederal agency with direct management responsibility for such river, has determined in writing that 16. Wild and Scenic Rivers. No activity may occur in a component of the National Wild

17. Tribal Rights. No activity or its operation may impair reserved tribal rights, including

a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will directly or indirectly destroy or adversely modify the critical habitat of such species. No activity is authorized under any NWP which "may affect" a listed species or critical but not limited to, reserved water rights and treaty fishing and hunting rights.

18. Endangered Species. (a) No activity is authorized under any NWP which is likely to directly or indirectly jeopardize the continued existence of a threatened or endangered species or nabitat, unless Section 7 consultation addressing the effects of the proposed activity has been

compliance for the NWP activity, or whether additional ESA consultation is necessary. appropriate documentation to demonstrate compliance with those requirements. The district engineer will review the documentation and determine whether it is sufficient to address ESA (b) Federal agencies should follow their own procedures for complying with the requirements of the ESA. Federal permittees must provide the district engineer with the

or until Section 7 consultation has been completed. If the non-Federal applicant has not heard the project, and has so notified the Corps, the applicant shall not begin work until the Corps has provided notification the proposed activities will have "no effect" on listed species or critical habitat back from the Corps within 45 days, the applicant must still wait for notification from Corps determination within 45 days of receipt of a complete PCN. In cases where the non-Federal engineer will determine whether the proposed activity "may affect" or will have "no effect" to listed name(s) of the endangered or threatened species that might be affected by the proposed work or that utilize the designated critical habitat that might be affected by the proposed work. The district been satisfied and that the activity is authorized. For activities that might affect Federally-listed endangered or threatened species or designated critical habitat, the PCN must include the district engineer if any listed species or designated critical habitat might be affected or is in the vicinity of the project, or if the project is located in designated critical habitat, and shall not begin applicant has identified listed species or critical habitat that might be affected or is in the vicinity of species and designated critical habitat and will notify the non-Federal applicant of the Corps work on the activity until notified by the district engineer that the requirements of the ESA have (c) Non-federal permittees must submit a pre-construction notification (PCN) to the

> or endangered species as defined under the ESA, in the absence or separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with "incidental take" provisions, etc. the USPWS or the NMFS, The Endangered Species Act prohibits any person subject to the wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or word "harm" in the definition of "take" means an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. urisdiction of the US to take a listed species, where "take" means to harass, harm, pursue, hunt endangered species as defined under the ESA. In the absence of separate authorization .g., an ESA Section 10 Permit, a Biological Opinion with "incidental take" provisions, etc.) from (e) Authorization of an activity by a NWP does not authorize the "take" of a threatened

nabitat can be obtained directly from the offices of the USFWS and NMFS at http://www.fws.gov (f) Information on the location of threatened and endangered species and their critical

or <a href="http://www.fws.gov/ipac">http://www.fws.gov/ipac</a> and <a href="https://www.noaa.gov/fisheries.htm">https://www.fws.gov/ipac</a> and <a href="https://www.noaa.gov/fisheries.htm">https://www.noaa.gov/fisheries.htm</a> fire responsible for obtaining any "take" permits required under the USFWS's regulations governing compliance with the Migratory Bird Treaty Act or the Bald and Golden Eagle Protection Act. The permittee should contact the appropriate local office of the USFWS to determine if such "take" permits are required for a particular activity.

20. <u>Historic Properties</u>. (a) In cases where the district engineer determines that the activity may affect properties listed, or eligible for listing, in the National Register of Historic Places, the activity is not authorized, until the requirements of Section 106 of the National Historic Preservation Act (NHPA) have been satisfied.

it is sufficient to address section 106 compliance for the NWP activity, or whether additional section 106 consultation is necessary. provide the district engineer with the appropriate documentation to demonstrate compliance with (b) Federal permittees should follow their own procedures for complying with the requirements of Section 106 of the National Historic Preservation Act. Federal permittees must hose requirements. The district engineer will review the documentation and determine whether

(c) Non-federal permittees must submit a pre-construction notification to the district

National Register of Historic Places (see 33 CFR 330.4(g)). When reviewing pre-construction notifications, district engineers will comply with the current procedures for addressing the requirements of Section 106 of the National Historic Preservation Act. The district engineer shall make a reasonable and good faith effort to carry out appropriate identification efforts, which may include background research, consultation, oral history interviews, sample field investigation, by the proposed work or include a vicinity map indicating the location of the historic properties or the potential for the presence of historic properties. Assistance regarding information on the engineer if the authorized activity may have the potential to cause effects to any historic properties listed on, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places, including previously unidentified properties. For such properties. Where the non-Federal applicant has identified historic properties on which the activity may have the potential to cause effects and notified the Corps, the non-Federal applicant shall not begin the activity until notified by the district engineer either that the activity has no determine whether the proposed activity has the potential to cause an effect on the historic and field survey. Based on the information submitted and these efforts, the district engineer shall Historic Preservation Officer or Tribal Historic Preservation Officer, as appropriate, and the location of or potential for the presence of historic resources can be sought from the State activities, the pre-construction notification must state which historic properties may be affected

potential to cause effects or that consultation under Section 106 of the NHPA is complete.

(d) The district engineer will notify the prospective permittee within 45 days of receipt of a complete pre-construction notification whether NHPA Section 106 consultation is required. Federal applicant that he or she cannot begin work until Section 106 consultation is completed. the non-Federal applicant has not heard back from the Corps within 45 days, the applicant must have the potential to cause effects on historic properties (see 36 CFR §800.3(a)). Section 106 consultation is not required when the Corps determines that the activity does not section 106 consultation is required and will occur, the district engi eer will notify the non-

adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the Corps, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify parties known to have a legitimate interest in the impacts to the activity on historic properties. properties affected, and proposed mitigation. This documentation must include any views obtained from the applicant, SHPO/THPO, appropriate Indian tribes if the undertaking occurs on or documentation specifying the circumstances, the degree of damage to the integrity of any historic granting such assistance despite the adverse effect created or permitted by the applicant. If circumstances justify granting the assistance, the Corps is required to notify the ACHP and provide with intent to avoid the requirements of Section 106 of the NHPA, has intentionally significantly adversely affected a historic property to which the permit would relate, or having legal power to affects historic properties on tribal lands or affects properties of interest to those tribes, and other

21. <u>Discovery of Previously Unknown Remains and Artifacts</u>. If you discover any previously unknown historic, cultural or archeological remains and artifacts while accomplishing the activity authorized by this permit, you must immediately notify the district engineer of what you have found, and to the maximum extent practicable, avoid construction activities that may affect have found, and to the maximum extent practicable, avoid construction activities that may affect have found, and to the maximum extent practicable. will initiate the Federal, Tribal and state coordination required to determine if the items or remains warrant recovery effort or if the site is eligible for listing in the National Register of Historic Places. the remains and artifacts until the required coordination has been completed. The district enginee

significance, such as outstanding national resource waters or state natural heritage sites. The district engineer may also designate additional critical resource waters after notice and opportunity for public comment. 22. <u>Designated Critical Resource Waters</u>. Critical resource waters include, NOAA-managed marine sanctuaries and marine monuments, and National Estuarine Research Reserves. The district engineer may designate, after notice and opportunity for public comment, additional waters officially designated by a state as having particular environmental or ecological.

(a) Discharges of dredged or fill material into waters of the US are not authorized by NWPs 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, 44, 49, 50, 51, and 52 for any activity within, or directly affecting, critical resource waters, including wetlands adjacent to such waters. (b) For NWPs 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37, and 38,

notification is required in accordance with general condition 31, for any activity proposed in the designated critical resource waters including wetlands adjacent to those waters. The district engineer may authorize activities under these NWPs only after it is determined that the impacts to

23. <u>Mitigation</u>. The district engineer will consider the following factors when determining appropriate and practicable mitigation necessary to ensure that adverse effects on the aquatic the critical resource waters will be no more than minimal

the project site (i.e., on site) (a) The activity must be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to waters of the US to the maximum extent practicable at environment are minimal:

(b) Mitigation in all its forms (avoiding, minimizing, rectifying, reducing, or compensating for resource losses) will be required to the extent necessary to ensure that the adverse effects to the aquatic environment are minimal.

wetland losses that exceed 1/10-acre and require pre-construction notification, unless the district engineer determines in writing that either some other form of mitigation would be more environmentally appropriate or the adverse effects of the proposed activity are minimal, and effects on the aquatic environment. Compensatory mitigation projects provided to offset losses of aquatic resources must comply with the applicable provisions of 33 CFR part 332. require pre-construction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in minimal adverse provides a project-specific waiver of this requirement. For wetland losses of 1/10-acre or less that (c) Compensatory mitigation at a minimum one-for-one ratio will be required for all

(1) The prospective permittee is responsible for proposing an appropriate compensatory mitigation option if compensatory mitigation is necessary to ensure that the activity results in

(2) Since the likelihood of success is greater and the impacts to potentially valuable

> permittee is responsible for submitting a mitigation plan. A conceptual or detailed mitigation plan and to submitting a mitigation plan. A conceptual or detailed mitigation plan may be used by the district engineer to make the decision on the NWP verification request, but a final mitigation plan that addresses the applicable requirements of 22 CED 222 CED nitigation (see 33 CFR 332.3(k)(3)) final mitigation plan that addresses the applicable requirements of 33 CFR 332.4(c)(2) - (14) must be approved by the district engineer before the permittee begins work in waters of the US, practicable or not necessary to ensure timely completion of the required compensatory inless the district engineer determines that prior approval of the final mitigation plan is not (3) If permittee-responsible mitigation is the proposed option, the prospective

(4) If mitigation bank or in-lieu fee program credits are the proposed option, the mitigation plan only needs to address the baseline conditions at the impact site and the number of credits to be provided.

provided as compensatory mitigation, site protection, ecological performance standards, monitoring requirements) may be addressed through conditions added to the NWP authorization, instead of components of a compensatory mitigation plan. (5) Compensatory mitigation requirements (e.g., resource type and amount to be

adverse effects on the aquatic environment ehabilitation, enhancement, or preservation, to ensure that the activity results in minimal notification, the district engineer may require compensatory mitigation, such as stream

by the acreage limits of the NWPs. For example, if an NWP has an acreage limit of 1/2-acre, it cannot be used to authorize any project resulting in the loss of greater than 1/2-acre of waters of the US, even if compensatory mitigation is provided that replaces or restores some of the lost waters. However, compensatory mitigation can and should be used, as necessary, to ensure that a project already meeting the established acreage limits also satisfies the minimal impact requirement associated with the NWPs. (e) Compensatory mitigation will not be used to increase the acreage losses allowed

or aquatic habitat loss concerns. Normally, the riparian area will be 25 to 50 feet wide on each side of the stream, but the district engineer may require slightly wider riparian areas to address documented water quality or habitat loss concerns. If it is not possible to establish a riparian area on both sides of a stream, or if the waterbody is a lake or coastal waters, then restoring or protection (e.g., conservation easements) of riparian areas next to open waters. In some cases, riparian areas may be the only compensatory mitigation required. Riparian areas should consist of native species. The width of the required riparian area will address documented water quality are determined to be the most appropriate form of compensatory mitigation, the district engineer may waive or reduce the requirement to provide wetland compensatory mitigation for wetland establishing a riparian area along a single bank or shoreline may be sufficient. Where both wetlands and open waters exist on the project site, the district engineer will determine the (f) Compensatory mitigation plans for projects in or near streams or other open waters will normally include a requirement for the restoration or establishment, maintenance, and legal on what is best for the aquatic environment on a watershed basis. In cases where riparian areas appropriate compensatory mitigation (e.g., riparian areas and/or wetlands compensation) based

estuarine credits available for sale or transfer to the permittee. For permittee-responsible mitigation, the special conditions of the NWP verification must clearly indicate the party or estuarine resources, permittee-responsible compensatory mitigation may be environmentally (g) Permittees may propose the use of mitigation banks, in-lieu fee programs, or separate permittee-responsible mitigation. For activities resulting in the loss of marine or parties responsible for the implementation and performance of the compensatory mitigation preferable if there are no mitigation banks or in-lieu fee programs in the area that have marine or project, and, if required, its long-term management.

(h) Where certain functions and services of waters of the US are permanently adversely affected, such as the conversion of a forested or scrub-shrub wetland to a herbaceous educe the adverse effects of the project to the minimal level vetland in a permanently maintained utility line right-of-way, mitigation may be required to

safely designed, the district engineer may require non-Federal applicants to demonstrate that the structures comply with established state dam safety criteria or have been designed by

Safety of Impoundment Structures. To ensure that all impoundment structures are

been independently reviewed by similarly qualified persons, and appropriate modifications made to

activity does not result in more than minimal degradation of water quality.

26. Coastal Zone Management. In coastal states where an NWP has not previously not previously certified compliance of an NWP with CWA Section 401, individual 401 Water Quality Certification must be obtained or waived (see 33 CFR 330.4(c)). The district engineer or State or Tribe may require additional water quality management measures to ensure that the authorized 25. Water Quality. Where States and authorized Tribes, or EPA where applicable, have

zone management consistency concurrence must be obtained, or a presumption of concurrence must occur (see 33 CFR 330.4(d)). The district engineer or a State may require additional measures to ensure that the authorized activity is consistent with state coastal zone management received a state coastal zone management consistency concurrence, an individual state coastal

27. Regional and Case-By-Case Conditions. The activity must comply with any regional conditions that may have been added by the Division Engineer (see 3C-FR 330.4(e)) and with any case specific conditions added by the Corps or by the state, Indian Tribe, or USEPA in its section 401 Water Quality Certification, or by the state in its Coastal Zone Management Act

consistency determination.

28. Use of Multiple Nationwide Permits. The use of more than one NWP for a single and 28. Use of Multiple Nationwide Permits. The use of more than one NWP for a single and complete project is prohibited, except when the acreage loss of waters of the US authorized by the NWPs does not exceed the acreage limit of the NWP with the highest specified acreage limit. For example, if a road crossing over tidal waters is constructed under NWP 14, with associated bank stabilization authorized by NWP 13, the maximum acreage loss of waters of the US for the total stabilization authorized by NWP 13, the maximum acreage loss of waters of the US for the total project cannot exceed 1/3-acre.

29. Transfer of Nationwide Permit Verifications. If the permittee sells the property associated with a nationwide permit verification, the permittee may transfer the nationwide permit verification to the new owner by submitting a letter to the appropriate Corps district office to validate the transfer. A copy of the nationwide permit verification must be attached to the letter, and the letter must contain the following statement and signature: "When the structures or work authorized by this nationwide permit are still in existence at the time the property is transferred, the terms and conditions of this nationwide permit, including on the new owner(s) of the property. To validate the transfer of this nationwide permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below."

30. <u>Compliance Certification</u>. Each permittee who receives an NWP verification letter from the Corps must provide a signed certification documenting completion of the authorized activity and any required compensatory mitigation. The success of any required permittee-responsible mitigation, including the achievement of ecological performance standards, will be addressed separately by the district engineer. The Corps will provide the permittee the certification document with the NWP verification letter. The certification document will include:

(a) A statement that the authorized work was done in accordance with the NWP including any general, regional, or activity-specific conditions;

completed in accordance with the permit conditions. If credits from a mitigation bank or include the documentation required by 33 CFR 332.3(I)(3) to confirm that the permittee secured program are used to satisfy the compensatory mitigation requirements, the certification must (b) A statement that the implementation of any required compensatory mitigation was

the appropriate number and resource type of credits; and (c) The signature of the permittee certifying the completion of the work and mitigation

> 31. <u>Pre-Construction Notification (PCN)</u>. (a) <u>Timing</u>. Where required by the terms of the NWP, the prospective permittee must notify the district engineer by submitting a PCN as early as possible. The district engineer must determine if the PCN is complete within 30 calendary. the PCN is still incomplete and the PCN review process will not commence until all of the to make the PCN complete only once. However, if the prospective permittee does not provide all of the requested information, then the district engineer will notify the prospective permittee that PCN complete. As a general rule, district engineers will request additional information necessary permittee within that 30 day period to request the additional information necessary to make the days of the date of receipt and, if the PCN is determined to be incomplete, notify the prospective ested information has been received by the district engineer. The prospective permittee

under the NWP with any special conditions imposed by the district or division engineer; or (2) 45 calendar days have passed from the district engineer's receipt of the complete PCN and the prospective permittee has not received written notice from the district or division engineer. However, if the permittee was required to notify the Corps pursuant to general condition 18 that listed species or critical habitat might be affected or in the vicinity of the project, or to notify the Corps pursuant to general condition 20 that the activity may have the potential to shall not begin the activity until either:
shall not begin the activity until either:
(1) He or she is notified in writing by the district engineer that the activity may proceed
(1) He or she is notified in writing by the district or division engineer; or
who NMP with any special conditions imposed by the district or division engineer; or

suspended, or revoked only in accordance with the procedure set forth in 33 CFR 330.5(d)(2).

(b) Contents of Pre-Construction Notification: The PCN must be in writing and include the following information: begin the activity until the district engineer issues the waiver. If the district or division engineer notifies the permittee in writing that an individual permit is required within 45 calendar days of receipt of a complete PCN, the permittee cannot begin the activity until an individual permit has been obtained. Subsequently, the permittee's right to proceed under the NWP may be modified. Preservation (see 33 CFR 330.4(g)) has been completed. Also, work cannot begin under NWPs 21, 49, or 50 until the permittee has received written approval from the Corps. If the proposed activity requires a written waiver to exceed specified limits of an NWP, the permittee may not cause effects to historic properties, the permittee cannot begin the activity until receiving written notification from the Corps that there is "no effect" on listed species or "no potential to cause effects" on historic properties, or that any consultation required under Section 7 of the Endangered Species Act (see 33 CFR 330.4(f)) and/or Section 106 of the National Historic

Name, address and telephone numbers of the prospective permittee;

(2) Location of the proposed project;
(3) A description of the proposed project; the project's purpose; direct and indirect adverse environmental effects the project would cause, including the anticipated amount of loss of water of the US expected to result from the NWP activity, in acres, linear feet, or other appropriate unit of measure; any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity. The description should be sufficiently detailed to allow the district engineer to description of the proposed activity (e.g., a conceptual plan), but do not need to be detailed complies with the terms of the NWP. (Sketches usually clarify the project and when provided results in a quicker decision. Sketches should contain sufficient detail to provide an illustrative determine that the adverse effects of the project will be minimal and to determine the need for compensatory mitigation. Sketches should be provided when necessary to show that the activity

and other waters on the project site, but there may be a delay if the Corps does the delineation especially if the project site is large or contains many waters of the US. The 45 day period will not start until the delineation has been submitted to or completed by the Corps, as appropriate; waters, such as lakes and ponds, and perennial, intermittent, and ephemeral streams, on the project site. Wetland delineations must be prepared in accordance with the current method required by the Corps. The permittee may ask the Corps to delineate the special aquatic sites (4) The PCN must include a delineation of wetlands, other special aquatic sites, and

mitigation requirement will be satisfied, or explaining why the adverse effects are minimal and why compensatory mitigation should not be required. As an atternative, the prospective and a PCN is required, the prospective permittee must submit a statement describing how the (5) If the proposed activity will result in the loss of greater than 1/10-acre of wetlands

> proposed work. Federal applicants must provide documentation demonstrating compliance with the Endangered Species Act; and of the project, or if the project is located in designated critical habitat, for non-Federal applicants the PCN must include the name(s) of those endangered or threatened species that might be affected by the proposed work or utilize the designated critical habitat that may be affected by the (6) If any listed species or designated critical habitat might be affected or is in the vicinity

Preservation Act must provide documentation demonstrating compliance with Section 106 of the National Historic Federal applicants the PCN must state which historic property may be affected by the proposed work or include a vicinity map indicating the location of the historic property. Federal applicants for listing on, or potentially eligible for listing on, the National Register of Historic Places, for non (7) For an activity that may affect a historic property listed on, determined to be eligible

ENG 4345) may be used, but the completed application form must clearly indicate that it is a PCN and must include all of the information required in paragraphs (b)(1) through (7) of this general condition. A letter containing the required information may also be used. (c) Form of PCN Notification: The standard individual permit application form (Form

(d) <u>Agency Coordination</u>: (1) The district engineer will consider any comments from Federal and state agencies concerning the proposed activity's compliance with the terms and conditions of the NWPs and the need for mitigation to reduce the project's adverse environmental (2) For all NWP activities that require PCN notification and result in the loss of greater

where there is an unacceptable hazard to life or a significant loss of property or economic hardshir will occur. The district engineer will consider any comments received to decide whether the NWP each PCN notification that the resource agencies' concerns were considered. For NWP 37, the emergency watershed protection and rehabilitation activity may proceed immediately in cases as provided below. The district engineer will indicate in the administrative record associated with to ensure the net adverse environmental effects to the aquatic environment of the proposed consider agency comments received within the specified time frame concerning the proposed activity's compliance with the terms and conditions of the NWPs, including the need for mitigation will be more than minimal. If so contacted by an agency, the district engineer will wait an additiona 15 calendar days before making a decision on the PCN notification. The district engineer will fully transmitted to telephone or fax the district engineer notice that they intend to provide substantive, site-specific comments. The comments must explain why the agency believes the adverse effects expeditious manner) a copy of the complete PCN to the appropriate Federal or state offices (USFWS, state natural resource or water quality agency, EPA, State Historic Preservation Officer ((SHPO) or Tribal Historic Preservation Office (THPO) and, if appropriate, the NMFS). With the exception of NWP 37, these agencies will have 10 calendar days from the date the material is engineer will immediately provide (e.g., via e-mail, facsimile transmission, overnight mail, or other require PCN notification and will result in the loss of greater than 300 linear feet of intermittent and ephemeral stream bed, and for all NWP 48 activities that require PCN notification, the district activity are minimal. The district engineer will provide no response to the resource agency, except than 1/2-acre of waters of the US, for NWP 21, 29, 39, 40, 42, 43, 44, 50, 51, and 52 activities tha authorization should be modified, suspended, or revoked in accordance with the procedures at

(3) In cases of where the prospective permittee is not a Federal agency, the district engineer will provide a response to NMFS within 30 calendar days of receipt of any Essential Fish Stevens Fishery Conservation and Management Act labitat conservation recommendations, as required by Section 305(b)(4)(B) of the Magnuson-

copies of PCN notifications to expedite agency coordination (4) Applicants are encouraged to provide the Corps with either electronic files or multiple

and conditions of an NWP 1. District Engineers have authority to determine if an activity complies with the terms

approvals, or authorizations required by law. NWPs do not obviate the need to obtain other federal, state, or local permits

NWPs do not grant any property rights or exclusive privileges.
 NWPs do not authorize any injury to the property or rights of others.
 NWPs do not authorize interference with any existing or proposed Federal project

| Compliance C | ertification: |
|--------------|---------------|
|--------------|---------------|

Permit Number: LRL-2015-327-jlt

Name of Permittee: Kensil Garnett, Illinois Department of Transportation Region 3/District 5

Date of Issuance: June 25, 2015

Upon completion of the activity authorized by this permit and any mitigation required by this permit, sign this certification and return it to the following address:

U.S. Army Corps of Engineers CELRL-OPF-N P.O. Box 59 Louisville, Kentucky 40201

Please note that your permitted activity is subject to a compliance inspection by an U.S. Army Corps of Engineers representative. If you fail to comply with this permit, you are subject to permit suspension, modification, or revocation.

I hereby certify that the work authorized by the above referenced permit has been completed in accordance with the terms and conditions of the said permit, and required mitigation was completed in accordance with the permit conditions.

|                        | _    |  |
|------------------------|------|--|
| Signature of Permittee | Date |  |

# ADDRESS FOR COORDINATING AGENCY

Mr. Bernard Killian
Director
Permits Section
Environmental Protection Agency
1020 North Grand Avenue East
P.O. Box 19276
Springfield, Illinois 62794-9676

110

# **SWPPP**



To: Section File

From: Timothy J. Brandenburg

Subject: IDNR/OWR Statewide Permit No. 12; SWP12-02-2015-D5

Date: April 7, 2015

Route: FAS 502 (Leverett Road) PTB: N/A Job No.: P-95-113-06 Section: 106BR-1(2) S.N.: 010-0131 (E) County: Champaign S.N.: 010-0292 (P) Stream: Saline Branch Drainage Ditch Contract No.: 70599

Structure Type: Single Span 27" PPC Deck Beam Bridge

Bridge Length: 69'-3 5/8" B-B; 63'-6" F-F of Open/Stub Abutments

Acting as the agent of the Illinois Department of Natural Resources' Office of Water Resources, the Illinois Department of Transportation, Division of Highways, Region 3, District 5 issues:

Statewide Permit No.: SWP12-02-2015-D5

to construct a bridge replacement on FAS 502 (Leverett Road) over the Saline Branch Drainage Ditch in Champaign County.

The permit is based on the Hydraulic Report approved by the Bridge and Hydraulics Unit of Region 3, District 5 dated June 11, 2014 and a Professional Engineer's Certification Statement dated June 11, 2014.

The permit is valid indefinitely. There is no expiration date for the IDNR/OWR Statewide 2 or Statewide 12 Permit.

Cc: Bridge & Hydraulics File



| IDNR/O  | WR STATEWIDE PERMIT  | Г 12  |
|---|--|---|
| PERMIT N  | NO: SWP12-02-2015-D5   | DATE: April 7, 2015   |
| Section: 1<br>County: C<br>Stream: S<br>Structure | AS 502 (Leverett Road)<br>106BR-1(2)<br>Champaign<br>Saline Branch Drainage Ditch<br>Type: Single Span 27" PPC Deck<br>ngth: 69'-3 5/8" B-B; 63'-6" F-F of | Job No.: P-95-113-06<br>S.N.: 010-0131 (E)<br>S.N.: 010-0292 (P)<br>Contract No.: 70599<br>Beam Bridge<br>Open/Stub Abutments |
| above pro<br>dated Jun                            | District 5 has no objection to the p<br>vided the proposed improvement<br>e 16, 2014 and Hydraulic Report a<br>s Unit on June 11, 2014. The follo          | is based on the Structure Report approved by the Bridge &   |
| $\boxtimes$                                       | ten square miles or an urban ar  | in a rural area draining more than<br>ea draining more than one square  |
| $\boxtimes$                                       |  | ides the same or greater amount   |
|   | of effective waterway opening a<br>The waterway opening of the ex-<br>has been determined by or under<br>Professional Engineer.                            | sisting and replacement structure   |
| Existi  | ng road grade is: \overline{\text{NO}} lower than the 100-year fre   | quency highwater elevation with<br>over the road flow area, or  |
| $\boxtimes$                                       | There will be no straightening, e  | enlargement or relocation of the  |
|   | channel in the vicinity of the rep<br>Certification statement by a Pro<br>following criteria:  | fessional Engineer meets the  |
|   | in the existing structure has n flood damages, in no buildings or structures hackwater induced by the existing   |   |
|   |  | f flood damages associated with   |
| APPROVE   | ED: Kensil G. Lain   | ett,  |
| Deputy Dir  | Garnett, P.E.<br>rector of Highways<br>ree Engineer  | CAE   |

June 15, 1998

MEMORANDUM FOR DISTRIBUTION

SUBJECT: STATEWIDE PERMIT NO. 12 - BRIDGE AND CULVERT REPLACEMENT STRUCTURES AND BRIDGE WIDENINGS

Attached for your information is a copy of Illinois Department of Natural Resources, Office of Water Resources Statewide Permit No. 12, which has been issued to authorize the replacement and widening of specified existing bridges and culverts on all rivers, lakes and streams under the Department's jurisdiction except the State's public waters (see attached list) and those in Lake, McHenry, Cook, DuPage, Kane and Will Counties for which regulatory floodways have been designated pursuant to 17 Illinois Administrative Code 3708. This permit has been issued pursuant to the Rivers, Lakes and Streams Act, 615 ILCS 5 (1996 State Bar Edition).

In addition to other duties, this Act requires the Department to regulate construction within the floodways of streams draining ten (10) square miles or more in rural areas and one (1) square mile or more in urban areas. Among the purposes of the regulatory program are the preservation of the flood carrying capacity of streams and the prevention of significant increases in potential flood damage. The issuance of Statewide Permit No. 12 represents, in part, the Department's ongoing effort to accomplish these purposes while reducing regulatory costs and burden on the public.

For additional information regarding this permit, or any other aspect of the Office of Water Resources' regulatory program, please feel free to contact the Downstate Regulatory Programs Section in Springfield (217/782-3863) or the Northeastern Illinois Regulatory Programs Section in Schaumburg (847/705-4341).

Attachment

ILLINOIS DEPARTMENT OF NATURAL RESOURCES
OFFICE OF WATER RESOURCES
524 SOUTH SECOND STREET
SPRINGFIELD, ILLINOIS 62701-1787

STATEWIDE PERMIT NO. 12

AUTHORIZING SPECIFIED BRIDGE AND CULVERT REPLACEMENT STRUCTURES AND BRIDGE WIDENINGS

### PURPOSE

The purpose of this Statewide Permit is to authorize the replacement of existing bridges and culverts and the widening of existing bridges where the following conditions apply: 1) the existing structure has not been the cause of demonstrable flood damage, 2) the new structure will provide the same or greater effective waterway opening, and 3) there will be no appreciable reduction in existing over-the-road flow area. It is no longer necessary to submit applications to, or obtain individual permits from, the Illinois Department of Natural Resources, Office of Water Resources (IDNR/OWR), for activities meeting the terms and conditions of this permit. If a project would not meet all of the terms and conditions of this permit, a permit application must be submitted to IDNR/OWR for review.

# APPLICABILITY

This permit applies to bridge and culvert replacement structures and the widening of existing bridges on all Illinois rivers, lakes and streams under the Department's jurisdiction except public waters (see attached list) and those in Lake, McHenry, Cook, DuPage, Kane and Will Counties for which regulatory floodways have been designated pursuant to 17 Illinois Administrative Code 3708. This permit does **not** apply to any project which conflicts with a federal, state or local project or improvement or with any other rules of the Department.

## COORDINATION WITH OTHER AGENCIES

This permit does not supersede nor relieve any permittee's responsibility to obtain other federal, state or local permits. The local (county or municipal) regulatory official and the U. S. Army Corps of Engineers' regulatory functions office should be contacted to obtain any additional required permits.

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### SPECIAL CONDITIONS

In order for a project to be authorized by this permit, the following special conditions shall be met.

- 1. A registered professional engineer shall determine and document that the existing structure has not been the cause of demonstrable flood damage. Such documentation shall include, at a minimum, confirmation that:
  - a) no buildings or structures have been impacted by the backwater induced by the existing structure; and
  - b) there is no record of complaints of flood damages associated with the existing structure.
- 2. A registered professional engineer shall determine that the new structure will provide the same or greater effective waterway opening as the existing structure. For bridge widening projects, the existing piers and the proposed pier extensions must be in line with the direction of the approaching flow upstream of the bridge.
- 3. The project shall not include any appreciable raising of the approach roads. (This condition does not apply if all points on the approaches exist at an elevation equal to or higher than the 100-year frequency flood headwater elevation as determined by a Federal Emergency Management Agency flood insurance study or a study completed or approved by IDNR/OWR.)
- 4. The project shall not involve the straightening, enlargement or relocation of the existing channel of the river or stream except as permitted by the Department's Statewide Permit No. 9 (Minor Shoreline, Channel and Streambank Protection Activities) or Statewide Permit No. 11 (Minor Maintenance Dredging Activities).
- 5. The permittee shall maintain records of projects authorized by this permit necessary to document compliance with the above conditions.

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### GENERAL CONDITIONS OF THE STATEWIDE PERMIT

- This permit is granted in accordance with the Rivers, Lakes and Streams Act, 615 ILCS 5 (1996 State Bar Edition).
- This permit does not convey title to any permittee or recognize title of any permittee to any submerged or other lands, and furthermore, does not convey, lease or provide any right or rights of occupancy or use of the public or private property on which the project or any part thereof will be located, or otherwise grant to any permittee any right or interest in or to the property, whether the property is owned or possessed by the State of Illinois or by any private or public party or parties.
- 3. This permit does not release any permittee from liability for damage to persons or property resulting from any activity covered by this permit and does not authorize any injury to private property or invasion of private rights.
- 4. This permit does not relieve any permittee of the responsibility to obtain other federal, state or local authorizations required for the construction of the permitted activity; and if any permittee is required by law to obtain approval from any federal or other state agency to do the work, authorization granted by this permit is not effective until the federal and state approvals are obtained.
- The permittee shall, at the permittee's own expense, remove 5. all temporary piling, cofferdams, false work, and material incidental to the construction of the project, from the floodway in which the work is done. If the permittee fails to remove such structures or materials, the Department may have removal made at the expense of the permittee. If the activity is on a public body of water and if future need for public navigation or public interests, by the state or federal government, necessitates changes in any part of the structure or structures, such changes shall be made by and at the expense of the permittee or permittee's successors as required by the Department of Natural Resources or other properly constituted agency, within sixty (60) days from receipt of written notice of the necessity from the Department or other agency, unless a longer period of time is specifically authorized.

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- In issuing this permit, the Department of Natural Resources does not approve the adequacy of the design or structural strength of any structure or improvement authorized by this permit.
- 7. This Statewide Permit shall remain in effect until such time as it is modified, suspended, or revoked by the Department of Natural Resources.

This Statewide Permit was issued on July 30, 1990 and last modified or corrected June 15, 1998.

APPROVED:

Brent Manning, Director Department of Natural Resources

EXAMINED AND RECOMMENDED:

Martin J. Stralow, Manager Division of Water Resource Management

APPROVAL RECOMMENDED:

Donald R. Vonnahme, Director Office of Water Resources

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# Public Bodies of Water

The following public bodies of water were navigable in their natural condition or were improved for navigation and opened to public use. The entire length and surface area in Illinois, including all backwater lakes and sloughs open to the main channel or body of water at normal flows or stages, are open to the public unless limited to a head of navigation as stated. Head of navigation descriptions use the U.S. rectangular survey system and these abbreviations: T = township, R = range, PM = principal meridian, Sec. = section, 1/4 = quarter section, N = north, E = east, S = south, W = west, USGS = U.S. Geological Survey.

- 1) Lake Michigan;
- 2) Chicago River: Main Branch;
- Chicago River: North Branch to North Shore Channel;
- 4) Chicago River: South Branch;
- 5) Chicago River: South Fork of South Branch;
- Chicago River: East and West Arms of South Fork of South Branch;
- Chicago River: West Fork of South Branch to Chicago Sanitary and Ship Canal;
- 8) Calumet River;
- 9) Lake Calumet and entrance channel to Calumet River;
- 10) Grand Calumet River;
- 11) Little Calumet River;
- 12) Wolf Lake (Cook County);
- Mississippi River (including all backwater lakes such as Frentress Lake in Jo Daviess County, Boston Bay in Mercer County and Quincy Bay in Adams County);

- 14) Sinsiniwa River to North Line of Sec. 9, T28N, R1W, 4th PM in Jo Daviess County, which is located approximately two-thirds mile downstream from the U.S. Highway 20 bridge. This area is shown on the Galena, Ill.-Iowa, 7.5 minute USGS quadrangle map;
- 15) Galena River to East Line of Sec. 6, T28N, R1E, 4th PM in Jo Daviess County, which is located approximately one-half mile upstream from the County Highway 67 bridge. This area is shown on the Galena, Ill.-Iowa, 7.5 minute USGS quadrangle map;
- 16) Apple River to North Line of Sec. 35, T26N, R2E, 4th PM in Jo Daviess County;
- 17) Plum River to North Line, T24N, R3E, 4th PM in Carroll County, which is located approximately one and one-half miles upstream from the U.S. Highway 52 bridge. This area is shown on the Savanna, Ill., 15 minute USGS quadrangle map;
- 18) Rock River;
- 19) Pecatonica River;
- 20) Sugar River (Winnebago County);
- 21) Stillman Creek to South Line, T25N, R11E, 4th PM in Ogle County, which is located approximately one-third mile downstream from the Illinois Highway 72 bridge. This area is shown on the Stillman Valley, 7.5 minute USGS quadrangle map;
- 22) Henderson Creek (new channel) to East Line, SW 1/4, Sec. 6, T10N, R5W, 4th PM in Henderson County. The river has been relocated and the old channel abandoned;
- 23) The Sny in Adams, Pike and Calhoun Counties. The area has been drained with levees and ditches and it is uncertain that any descendent body of water exists;
- 24) Bay Creek to West Line, Sec. 29, T8S, R3W, 4th PM in Calhoun County. The head of navigation is the limit of meanders on the official plat of survey; but it is uncertain that any descendent body of water exists;

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- 25) Illinois River (including all backwater lakes such as Peoria Lake in Peoria, Tazewell and Woodford Counties; Matanzas Bay in Mason County; and Meredosia Lake in Cass and Morgan Counties);
- Des Plaines River to Hoffman Dam in Cook County, which is located one-half mile downstream from the junction with Salt Creek. This area is shown on the Berwyn, 7.5 minute USGS quadrangle map;
- 27) Kankakee River;
- 28) Iroquois River to South Line, SW 1/4, Sec. 30, T27N, R12W, 2nd PM in Iroquois County, which is located approximately one mile downstream from the junction with Sugar Creek. This area is shown on the Gilman, 15 minute USGS quadrangle;
- 29) Fox River (Illinois River Basin);
- 30) Griswold Lake (McHenry County);
- 31) Fox Chain-O-Lakes (Lake and McHenry Counties):
  Bluff Lake, Lake Catherine, Channel Lake, Fox
  Lake, Grass Lake, Lake Marie, Nippersink Lake,
  Dunns Lake, Pistakee Lake, Lake Jerilyn, Lac
  Louette, Redhead Lake;
- 32) Vermilion River (Illinois River Basin) to approximately one-half mile above the mouth near Oglesby in LaSalle County;
- 33) Spring Lake (Tazewell County);
- 34) Spoon River to North Line, Sec. 24, T6N, R1E, 4th PM in Fulton County, which is located approximately one-half mile upstream from the Illinois Highway 95 bridge. This area is shown on the Smithfield, 7.5 minute USGS quadrangle map;
- 35) Sangamon River to South Line, NE 1/4, Sec. 1, T15N, R4W, 3rd PM in Sangamon County, which is located approximately one mile south of the Mechanicsburg Road bridge. This area is shown on the Mechanicsburg, 7.5 minute USGS quadrangle map;

- 36) Sangamon River: South Fork to South Line, Sec. 33, T16N, R4W, 3rd PM in Sangamon County, which is located approximately two miles upstream from the mouth. This area is shown on the Springfield-East, 7.5 minute USGS quadrangle map;
- 37) Macoupin Creek to East Line, Sec. 25, T9N, R13W, 3rd PM in Green and Jersey Counties, which is located approximately one mile downstream from the junction with Boyer Creek. This area is shown on the Boyer Creek, 7.5 minute USGS quadrangle map;
- 38) Otter Creek to East Line of Sec. 3, T7N, R13W, 3rd PM in Jersey County, which is located approximately two miles east of the Illinois Highway 100 bridge. This area is shown on the Nutwood, 7.5 minute USGS quadrangle map;
- 39) Kaskaskia River to East Line, SW 1/4, Sec. 31, T8N, R2E, 3rd PM, which is located nine miles south and two miles west of Herrick. This area is shown on the Vera, 7.5 minute USGS quadrangle map;
- 40) Big Muddy River to East Line T8S, R2W, 3rd PM in Jackson County, which is located approximately one mile northwest of the Southern Illinois Airport. This area is shown on the Murphysboro, 7.5 minute USGS quadrangle map;
- 41) Ohio River;
- 42) Wabash River;
- 43) Vermilion River (Wabash River Basin) to West Line, T19N, R11W, 2nd PM in Vermilion County, which is located approximately one mile upstream from the junction with the North Fork. This area is shown on the Danville, SW, 7.5 minute USGS quadrangle map;
- 44) Little Wabash River to the Illinois Highway 1 bridge in Carmi in White County;
- 45) Saline River to junction of North Fork and South Fork;

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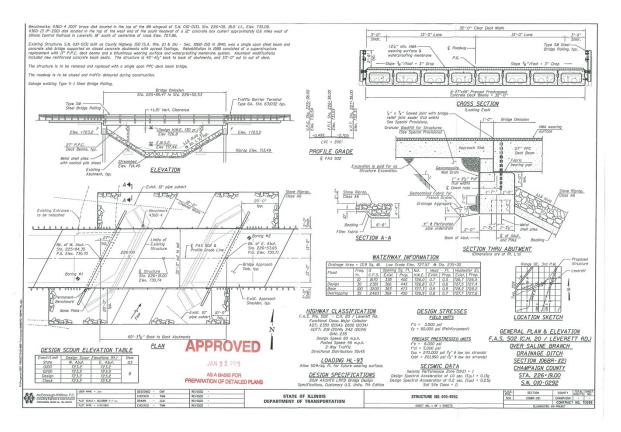
- 46) Saline River: North Fork to North Line, Sec. 5, T8S, R8E, 3rd PM in Gallatin County, which is located approximately three miles south of the junction of Illinois Highway 141 and U.S. Highway 45. This area is shown on the Ridgway, 7.5 minute USGS quadrangle map;
- 47) Saline River: South Fork to West Line, T9S, R8E, 3rd PM in Gallatin County, which is located at the Gallatin-Saline County line. This area is shown on the Equality, 7.5 minute USGS quadrangle map;
- 48) Horseshoe Lake (Alexander County).

The following public bodies of water are primarily artificial navigable waters that were opened to public use.

- 1) Illinois and Michigan Canal;
- Illinois and Mississippi (Hennepin) Canal and Canal Feeder;
- 3) North Shore Channel (Cook County);
- 4) North Branch Canal of North Branch Chicago River (Cook County);
- 5) Relocated South Branch Chicago River (Cook County);
- 6) Chicago Sanitary and Ship Canal;
- 7) Calumet Sag Channel;
- 8) Marseilles Canal (LaSalle County);
- 9) Chain of Rocks Canal (Madison County);
- 10) Relocated Kaskaskia River.

The following public bodies of water are navigable waters that were dedicated to public use. This list is incomplete. It is believed there are numerous channels and slips in subdivisions on the margins of public bodies of water which have been dedicated by plat. Additional channels and slips have been dedicated by common law.

 Petite Lake, Spring Lake and connecting channels between Bluff Lake and Fox Lake in Lake County.





# Illinois Department of Transportation

# Memorandum

To:

D. Carl Puzey

Attn: David L. Greifzu

From:

Kensil A. Garnett

By: Craig A. Emberton

Subject:

Hydraulic Report - Region 3/District 5 Approved

Date:

June 11, 2014

Route: FAS 502 (Leverett Road)

PTB: N/A

Job No.: P-95-113-06 Existing S.N.: 010-0131 Proposed S.N.: 010-0292 Contract No.: 70599

Section: 106BR-1(2) County: Champaign

Crosses: Saline Branch Drainage Ditch

An electronic copy of the Region 3/District 5 approved Hydraulic Report for proposed SN 010-0292 has been placed on the Hydraulics Unit SharePoint Site. This District prepared and approved Hydraulic Report is being sent for your information, records and potential process review as indicated in the ADE Memorandum, Delegation of Approval Authority to Districts dated June 28, 2004.

Structure Number 010-0131 is a single span PPC Deck Beam Bridge carrying Leverett Road over Saline Branch Drainage District west of Leverett. The District proposes complete replacement. The proposed structure consists of a single span PPC Deck Beam (27") bridge with a waterproofing membrane system and 1 ¾" HMA wearing surface at a 27° left-forward skew on open/stub abutments. Total structure length along centerline is 63'-6" F-F; 69'-3 5/8" B-B with horizontal clear width and out to out widths of 32'-0".

This project is in a rural area draining more than ten square miles (13.9 sq. miles) thus will require an IDNR-OWR Statewide Permit 12. The Region 3/District 5 Bridge & Hydraulics Unit will issue the required permit upon notice of the approved TSL from the BBS Planning Unit. A Professional Engineer's Certification Statement dated June 11, 2014 has been included.

The proposed structure satisfies the Design Criteria as described in Chapter 36, Figure 36-5A of the Bureau of Local Roads and Streets Manual of 1-ft minimum vertical clearance (1.15ft) above the 30 year design high-water elevation. A specific Design Criteria for Freeboard does not exist for unmarked state routes.

The proposed bridge length and geometry are subject to refinement during the TSL stage. Contact Timothy J. Brandenburg at (217) 465-4181 with questions.

Kensil A. Gamett, P.E.

Acting Deputy Director of Highways

Region Three Engineer



# STATEWIDE PERMIT NO. 12 CERTIFICATION SUMMARY

Route: FAS 502 (Leverett Road)
Section: 106BR-1(2)
County: Champaign
Stream: Saline Branch Drainage Ditch
Job No.: P-95-113-06
S.N.: 010-0131 (E)
S.N.: 010-0292 (P)
Contract No.: 70599

Structure Type: Single Span 27" PPC Deck Beam Bridge

Bridge Length: 69'-3 5/8" B-B; 63'-6" F-F of Open/Stub Abutments

In compliance with IDNR/OWR requirements, the following statements are valid.

 Region 3, District 5 Registered Professional Engineer, Timothy J. Brandenburg certifies the following:

The existing structure has not been the cause of demonstrable flood damages. No buildings or structures have been impacted by the backwater induced by the existing crossing. No records or complaints of flood damages associated with the existing structure exist.

SIGNED:

Illinois Registered Professional Engineer

Cc: Bridge & Hydraulics File

→ DE STANDON STANDON

EXPIRES: 11/30/2015

OF IL

EXPIRES: NOVEMBER 30, 2015

## **HYDRAULIC REPORT**

REGION: 3
DISTRICT: 5

ROUTE: FAS 502 (Leverett Road)

COUNTY: Champaign

STRUCTURE NUMBER: 010-0131 (E) / 010-0292 (P)

SECTION: 106BR-1(2)

JOB NUMBER: P-95-113-06

D-95-113-06

CONTRACT #: 70599

LOCATION: FAS 502 (Leverett Road) over an un-named

tributary to Saline Branch Drainage Ditch,

west of Leverett.

PREPERED BY: Eurnie Garver

DATE PREPARED: May 2014

PROPOSED LETTING DATE: November 2015 (tentative)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTAION
DIVISION OF HIGHWAYS
QUALIFIED DISTRICT HYDRAULIC ENGINEER
REGION 3 / DISTRICT 5 HYDRAULICS UNIT
JANUARY 21, 2009

APPROVED: Marfor C. Brandeshire June 11, 2014

CHIEF, TIMOTHY J. BRANDENBURG

June 11, 2014

SQUAD LEADER, EURNIE D. GARVER

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## I. General Information and Physical Description of Structure:

Structure number 010-0131 carries FAS 502 (CH 20/Leverett Road) over an un-named tributary to the Saline Branch Drainage Ditch west of Leverett. The structure was originally built in 1940 as County Highway 15D, Section 106B-15D (State-Aid Routes 21 & 1A) at station 226+19 by Champaign County. The superstructure and approach pavements were replaced in 1988 by the State of Illinois with FAS 502 Section 106BR at the same station. The structure was overlaid in 1996 with FAS 502 Section (106,86)(W,RS). This bridge was part of contract 90944, a scour mitigation project in 2003. The existing structure is a single span deck beam bridge on closed concrete abutments.

### II. Field Inspection and Observations:

A field inspection was performed for this structure on July 30, 2012, with Gary Sims and Eurnie Garver in attendance. During the field inspection, the following observations were made with respect to the hydraulic study.

- The existing structure is aligned with the stream channel.
- . The up and down stream banks are lined with tall grass.
- The floodplain is row crops in 3 quadrants. The 4<sup>th</sup> quadrant (southwest) is a trailer park.

#### III. Historical Flooding Data:

There have been no High Water Data Sheets provided by IDOT maintenance. An interview in 2010 with the Leverett Storage Lead Lead Worker confirmed that no known flooding of FAS 502 has ever occurred at or near the bridge.

Interview with Brian Sedens, owner of the trailer park in the southwest quadrant, he said water never got out of the banks, even last spring with all the rain. He also said once it stops raining it goes down fast. The only problem he has is that the water backs up in the tiles that outlet in the ditch and ponds water in the trailer park.

This interview was taken by the survey crew in January 2009.

#### IV. Sensitive Flood Receptors:

There is a trailer park in the southwest quadrant (upstream left floodplain with ±32 mobile homes. The trailer with the lowest entry elevation is 727.75.

## V. Other Studies and Effected Agencies:

No other known studies are affected by this location. Other agencies include the Beaver Lake Drainage District. A letter was sent to the drainage district commissioners on 8/17/2012. The letter described the previous scope of work (in kind superstructure

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replacement) and provided a means for comments and/or further discussion about the project. No reply was received from the drainage district. Since the scope of work has a second letter was sent to the drainage district commissioner. As of the time of this report, no comments or requests for a meeting were ever received from the drainage district.

#### VI. Potential Scope of Work:

The condition of the deck beams has deteriorated to the point that the deck beams need to be replaced. But, due to the condition of the abutment faces it has been determined that the substructure cannot be reused. The District is proposing complete replacement. Any proposed structure should be skewed 27° left forward to align with the existing drainage ditch. The proposed structure will be 63'-6" face to face of abutments along the centerline of FAS 502 (CH 20). The low beam elevation will be 727.95 feet. The proposed bridge's centerline elevation will be raised ±0.85', to account for the new superstructure depth.

#### VII. Hydraulic Analysis:

Flow rates, drainage area and stream slopes were determined, for structure number 010-0131, by using USGS Illinois StreamStats web application. The drainage area is 13.9 square miles and the stream slope is 12.533 feet per mile. The average permeability above this location is 1.334 and 100% of the drainage area is in region 3. The 10, 25, 50, 100 and 500 year flow rates were determined to be 1670, 2260, 2720, 3200 and 4360 cubic feet per seconds, respectively

These discharges plus estimated intermediate discharges were used in the computer model HEC-RAS version 4.1.0 to estimate the natural, existing and proposed water surface elevations. Stream cross sections and other information were surveyed by District Five and can be found in book number 4857. The starting water surface elevations were calculated using the friction slope method in HEC-RAS. The slope used was 0.0007 ft/ft.

The HEC-RAS analysis exhibits a natural water surface elevation of 726.0 for the 10 year storm, 726.8 for the 30 year storm, and 727.3 for the 100 year storm. The existing low beam is 727.9 and the bridge is skewed 27° left forward. The analysis of the existing bridge shows 0.7 ft, 0.7 ft, and 0.9 ft of head is created by the structure during the 10, 30 and 100 year storms, respectively. Existing overtopping was determined to be the 35 year storm, with an estimated flow rate of 2483 cfs. The 35 year natural water surface elevation is 726.9. The existing head for the 35 year storm is 0.8 ft.

A proposed single span, 63'-6" from face to face of abutments along the centerline of FAS 502, 27° skew left forward, with 27" deck beams bridge was analyzed. The proposed low beam is 727.95 ft. HEC-RAS analysis shows a head of 0.5 ft for the 10 year storm, 0.6 ft for the 30 year storm and 0.9 ft for the 100 year storm. Proposed overtopping was determined to be the 35 year storm, with a calculated flow rate of 2483 cfs. The 35 year natural water surface elevation is 726.9. The proposed head for the 35 year storm is 0.7 ft.

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Scour analysis was performed on the proposed structure using the procedures given in HEC-18. Contraction scour with pressure for the 10, 30, 50, 100 and 200 year storms was calculated to be 1, 2, 4, 4 and 0 feet respectively.

### VIII.Conclusions and Recommendations:

District Five proposes replacing the existing structure with a single span 27" deck beam bridge, 27° skew left forward at station 226+19.00. The proposed structure is 63'-6" face to face of abutments. There is adequate width for stage construction; however, the adequacy of the existing superstructure and substructure to support stage construction traffic will need to be evaluated during plan development.

Since this an unmarked state route the design criteria is taken form the Bureau of Local Roads and Streets Manual. Figure 36-5A requires a minimum vertical clearance of 1 foot above the 30 year design high-water elevation. The design high-water elevation is 726.8 and the proposed low beam elevation is 727.95 giving a vertical clearance of 1.15 feet. A specific design criterion for freeboard does not exist for unmarked State routes; however the proposed design will provide 0.17 feet of freeboard. This was deemed sufficient based on engineering judgment and the lack of water over the road reports.

Due to the potential abutment scour District Five recommends the proposed abutments to be protected with A-6 riprap. The Design Scour Elevation for the abutment will be the bottom of the abutment. Scour elevations are subject to refinement during the SGR and TS&L development. Please consult the District Hydraulic Engineer with any modifications.

The Estimated Water Surface Elevation is 717.44. See attachment W for the E.W.S.E. calculations. For the 404 permitting process the ordinary high water mark is at 716.3.

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## **Hydraulic Report Data Sheets**

|        | ion 106BR-1(2) PTB#   |  |  |  |  |
|--------|---|--|--|--|--|
|        | General Information   |  |  |  |  |
| 1.     | Stream name: un-named tributary to Saline Branch Drainage Ditch   |  |  |  |  |
| 2.     | Structure location: SW ¼ of the SW ¼ of Section 17, Township 20 N, Range 9 E of the 3rd P.M.  |  |  |  |  |
| 3.     | Hydraulic Report Prepared By: Consultant Prime Sub  |  |  |  |  |
| 4.     | Hydraulic Report Approval Authority:  District – Post PDF of HR to BBS Hydraulics SharePoint Server BBS Hydraulics - Submit 2 hard copies of HR to BBS Hydraulics |  |  |  |  |
|        | Site Design Data  |  |  |  |  |
| 5.     | Drainage Area (sq. mi.): 13.9   |  |  |  |  |
| 6.     | Highway Classification:  Rural  Urban  Minor Arterial  Collector  Local   |  |  |  |  |
| 7.     | Design Frequency: ⊠ 30 yr ☐ 50 Yr. ☐ Other  |  |  |  |  |
| 8.     | Number of Waterway Information Tables (WIT): 1  If more than one, explain:  |  |  |  |  |
|        |   |  |  |  |  |
|        | Hydrologic & Hydraulic Analysis   |  |  |  |  |
| 9.     | Hydrology Modeling (check all that apply):  USGS/Stream Stats FIS Gage Data Other   |  |  |  |  |
| 10.    | Hydraulic Modeling (check all that apply):  a. Method:  |  |  |  |  |
|        | f. Were the Expansion/Contraction cones properly addressed?   Yes No N/A  If No or N/A, explain:  |  |  |  |  |
| Printe | ed 6/12/14 BBS 2800 (Rev. 02/25/13)   |  |  |  |  |

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|        |  | Expansion:<br>Contraction                                      | 2 (X:1)<br>1 (X:1) |                          |
|--------|--|--|--------------------|--------------------------|
|        | IDNR – OWR Floodwa   | ay Permit  |                    |                          |
| 11.    | Is area experiencing urbanization or expected to urbanize with   | nin 10 years?  | ☐ Yes              | No (Rural)               |
| 12.    | Are there any sensitive flood receptors located upstream withi If yes, list and describe critical upstream flood damageable pro Trailer Park with ± 32 mobile homes with the lowest having an  | operties and th  | eir elevations.    |                          |
| 13.    | Is there any History of Flooding or Overtopping problems?<br>Sources & dates of Observed Highwater:<br>Adjacent property owner (2009) & Lead Lead Worker at Lever  |  | ⊠ No<br>010)       |                          |
| 14.    | 가 하는데 하다 살아야 하게 되어 되었다면 네트리아 기뻐지하다 때문에 보시하다 하는데 하는데 가는데 하는데 하는데 하는데 하는데 하다 하다 하는데 하는데 하다 하나 하다 하는데   | ay of an IDNR-<br>/R 3704 Rules                                |                    | i                        |
| 15.    | Required IDNR - OWR Permit type:  Individual 3700 SWP #2 SWP #12  None Other   | ☐ Floodwa  | ay 3708            |                          |
|        | Proposed Structur  | e Data   |                    |                          |
| 16.    | a.   Complete Replacement  b.   Superstructure Replacement  C:   Superstructure Widening; Length of Pier Extension in the  | /S   |                    |                          |
| 17.    | If a bridge is proposed, supply: Flow line elevation (ft):  Preliminary low beam elevation (ft):  Width of deck (ft):  Total length from face to face of abutment (ft) 63'-6"  | Abutment ty<br>Skew (degree<br>Number of s                     | ees): 27°          | nt.                      |
| 18.    | If a culvert is proposed, supply:  Type and size:  Upstream invert elevation (ft):  Downstream invert elevation (ft):  Note: Upstream and downstream elevations should reflect the elevations before   | Length (ft):<br>Entrance ty<br>Skew (deg<br>ore the standard 3 | /pe:               | edment) is applied       |
| 19.    | If a three-sided structure is proposed, supply: U/S Flow line elevation (ft): Span (ft): Height (ft):  | Skew (deg<br>Length (ft):<br>Number of                         |                    |                          |
| 20.    | ) IN THE REPORT OF THE PROPERTY OF THE PROPERT | No NA  | Value (<br>Value ( |                          |
| 21.    | Type of streambed soil : Clay Silt Sand  | l 🛛 Loam   | Drumi              | mer silty clay loam      |
| Drinte | red 6/12/14  |  |                    | BBS 2800 (Rev. 02/25/13) |

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| 22.           | Comments: Possible contraction/abutment scour with sign  |                           | evere<br>the tow of 1:1.5 slop | oe, which is close |  |  |  |  |
|---------------|--|---------------------------|--------------------------------|--------------------|--|--|--|--|
|               | to the angle of repose for riprap.  Ice Concerns: None/Minimal S  Comments:  | ignificant S              | evere                          |                    |  |  |  |  |
|               | Debris Concerns: None/Minimal S Comments:  | ignificant S              | evere                          |                    |  |  |  |  |
|               | Proposed or Identified Countermeasures: A-6 Rip Rap o  | n the sloping abutme      | ent / bridge cone.             |                    |  |  |  |  |
|               | Existing Struc   | ture Data                 |                                |                    |  |  |  |  |
|               |  | Structure<br>U/S 010-4245 | Subject<br>Structure           | Structure<br>D/S   |  |  |  |  |
| 23.           | Distance from proposed (subject) structure: (ft.)  | 1100 ft                   | N/A                            | 2665 ft            |  |  |  |  |
| 24.           | Type of structure:   | deck beam                 | deck beam                      | unknown            |  |  |  |  |
| 25.           | Low beam elevation:  | 728.02                    | 727.90                         | unknown            |  |  |  |  |
| 26.           | Flow line elevation:   | 716.54                    | 714.29                         | unknown            |  |  |  |  |
| 27.           | Maximum known high water elevation:  | unknown                   | unknown                        | unknown            |  |  |  |  |
| 28.           | Date of maximum high water:  | unknown                   | unknown                        | unknown            |  |  |  |  |
| 29.           | Cause (backwater, headwater, etc.):  | unknown                   | unknown                        | unknown            |  |  |  |  |
| 30.           | Does structure carry entire design flood flow?   | ☐ Yes ☐ No                | ⊠ Yes □ No                     | ☐ Yes ☐ No         |  |  |  |  |
|               | If not, state area of additional waterway opening: $(\mathrm{ft}^2)$   | unknown                   |                                | unknown            |  |  |  |  |
| 31.           | Type and size of existing overflow structures:   | none                      | none                           | unknown            |  |  |  |  |
| 32.           | Has adverse scour occurred under or adjacent to the structure?   | no                        | no                             | unknown            |  |  |  |  |
| 33.           | Classify type of scour and/or aggradation / degradation:   | NA                        | NA                             | unknown            |  |  |  |  |
|               | Required Additional Data   |                           |                                |                    |  |  |  |  |
| 34.           | <ol> <li>Deviations from the General Procedures presented in IDOT Drainage Manual CH. 2, CH.6, and CH.7:</li> <li>None</li> </ol>  |                           |                                |                    |  |  |  |  |
| 35.           | 35. Information regarding high water from other streams, reservoirs, flood control projects, proposed channel changes, or other controls affecting proposed waterway area: |                           |                                |                    |  |  |  |  |
|               | None   |                           |                                |                    |  |  |  |  |
| 36.           | Site Inspection made by: Gary Sims & Eurnie Garver   |                           | Date: July 30, 2               | 010                |  |  |  |  |
|               | Remarks:   |                           |                                |                    |  |  |  |  |
|               |  |                           |                                |                    |  |  |  |  |
| 37.           | Prepared by: Eurnie Garver   |                           | Date May 23, 20                | 014                |  |  |  |  |
|               | Signed (QA/QC): Templay J. Baselehay   |                           | Date 6/11/14                   |                    |  |  |  |  |
| Printe        | Printed 6/12/14 BBS 2800 (Rev. 02/25/13)   |                           |                                |                    |  |  |  |  |
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## Hydraulic Report Checklist

The District or Consultant should complete the following checklist before submitting the Hydraulic Report for approval.

| 1.  | $\boxtimes$ | Title Page   |  |  |  |  |  |
|-----|-------------|--|--|--|--|--|--|
| 2.  | ⊠           | Table of Contents  |  |  |  |  |  |
| 3.  |             | Narrative - (as outlined in Section 2-601.01 Item #3)  |  |  |  |  |  |
| 4.  | ⊠           | Waterway Information Table (WIT) - (as outlined in Section 2-601.01 Item #4)   |  |  |  |  |  |
| 5.  |             | Hydraulic Report Data Sheets   |  |  |  |  |  |
| 6.  | ⊠           | Location Map - should show the subject structure along with nearby location defining landmarks (cities, roads, highways, nearby structures over same stream, etc.) |  |  |  |  |  |
| 7.  |             | USGS Hydrologic Atlas (historical data available on selected streams- District 1 only)   |  |  |  |  |  |
| 8.  | ×           | Photographs - (Minimum: U/S & D/S structure faces, U/S & D/S channel, U/S & D/S roadway across structure)  |  |  |  |  |  |
| 9.  | ⊠           | Hydrology (map, calculations and related exhibits)   |  |  |  |  |  |
| 10. | ⊠           | Streambed Profile  |  |  |  |  |  |
| 11. | ⊠           | Roadway Profile (existing and proposed)  |  |  |  |  |  |
| 12. | ⊠           | Cross Section Plots - with plan layout preferably overlayed upon an aerial photo with the contours   |  |  |  |  |  |
| 13. | ⊠           | Bridge Opening Plots   |  |  |  |  |  |
| 14. | ⊠           | Natural Condition Analysis  When HEC-RAS modeling is being used, ALL   |  |  |  |  |  |
| 15. | ⊠           | Existing Condition Analysis  Plans (Natural, Existing, & Proposed) shall be included in ONE Project File.  |  |  |  |  |  |
| 16. | ⊠           | Proposed Condition Analysis  |  |  |  |  |  |
| 17. | ⊠           | Scour Analysis – Existing and Proposed Conditions  |  |  |  |  |  |
| 18. |             | Compensatory Storage Calculations (if required- District 1 only. Include permit summary form and related attachments.)   |  |  |  |  |  |
| 19. | ⊠           | Survey Notes (if available, CADD plot of survey points. No Electronic Point Files)   |  |  |  |  |  |
| 20. | ⊠           | EWSE Data - (per Section 2-402.06)   |  |  |  |  |  |
| 21. | ⊠           | Correspondence Notes   |  |  |  |  |  |
| 22. |             | CD with Project Files (Include pdf copy of the Hydraulic Report and working files for the hydrology and hydraulic analyses.)                                       |  |  |  |  |  |

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## WATERWAY INFORMATION TABLE

| Route:   | FAS 502 (CH 20) | Existing S.N.: | 010-0131                                       |
|----------|-----------------|----------------|--|
| Section: | 106BR-1(2)      | Proposed S.N.: | 010-0292                                       |
| County:  | Champaign       | Waterway:      | Un-named Trib. to Saline Branch Drainage Ditch |
| Date:    | 5/23/2014       | Ву:            | Eurnie Garver                                  |

|                  |                        |                    |                            | Existing Low         | Grade Elev. = | 727.57       | at Sta.  | 235+00              |          |
|------------------|------------------------|--------------------|----------------------------|----------------------|---------------|--------------|----------|---------------------|----------|
| Drainage Area =  | 13.93 mi. <sup>2</sup> |                    | Proposed Low Grade Elev. = |                      | 727.57        | at Sta.      | 235+00   |                     |          |
| Flood            | Freq.                  | Q                  | Openi                      | ng - ft <sup>2</sup> | Natural       | Natural Head |          | Headwater Elevation |          |
| 11000            | Yr.                    | Ft <sup>3</sup> /s | Existing                   | Proposed             | H.W.E.        | Existing     | Proposed | Existing            | Proposed |
|                  | 10                     | 1670               | 338                        | 400                  | 726.0         | 0.7          | 0.5      | 726.7               | 726.5    |
| Design           | 30                     | 2381               | 366                        | 445                  | 726.8         | 0.7          | 0.6      | 727.5               | 727.4    |
| Base             | 100                    | 3200               | 383                        | 473                  | 727.3         | 0.9          | 0.9      | 728.2               | 728.2    |
| Overtop Existing | 35                     | 2483               | 369                        | ><                   | 726.9         | 0.8          | ><       | 727.7               | $>\!\!<$ |
| Overtop Proposed | 35                     | 2483               | $>\!<$                     | 450                  | 726.9         | $>\!\!<$     | 0.7      | ><                  | 727.6    |

10 YEAR VELOCITIY THROUGH EXISTING BRIDGE = 4.73 ft/s
ALL-TIME H.W.E. & DATE: Unknown

10 YEAR VELOCITIY THROUGH PROPOSED BRIDGE = 3.99 ft/s

SCOPE OF WORK: Structure Replacement

|           | EXISTING STRUCTURE   |           | PROPOSED STRUCTURE  |
|-----------|--|-----------|---|
| RDWY STA: | 226+19.00  | RDWY STA: | 226+19.00   |
| TYPE:     | 17" Deck Beam on Closed Abutments                              | TYPE:     | 27" Deck Beam on Spill Through Abutments (1V:1.5H)                  |
| LENGTH:   | 42'-6 1/4" bk. to bk. 38'-8 3/4" face to face along centerline | LENGTH:   | 69'-3 5/8" bk. to bk. 63'-6" face to face along centerline of pav't |
| # SPANS:  | 1  | # SPANS:  | 1   |
| LOW BEAM: | 727.9  | LOW BEAM: | 727.95  |
| SKEW:     | 27° Left Forward   | SKEW:     | 27° Left Forward  |

NOTE: PROPOSED STRUCTURE DETAILS ARE PRELIMINARY; SUBJECT TO REFINEMENT IN TSL STAGE.

## REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS

- General
- II. Nondiscrimination
- III. Nonsegregated Facilities
- IV. Davis-Bacon and Related Act Provisions
- V. Contract Work Hours and Safety Standards Act Provisions
- VI. Subletting or Assigning the Contract
- VII. Safety: Accident Prevention
- VIII. False Statements Concerning Highway Projects
- IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
- X. Compliance with Governmentwide Suspension and Debarment Requirements
- XI. Certification Regarding Use of Contract Funds for Lobbying

#### **ATTACHMENTS**

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

#### I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under Title 23 (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services). The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in bid proposal or request for proposal documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract).

- 2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.
- 3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.
- 4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors.

#### II. NONDISCRIMINATION

The provisions of this section related to 23 CFR Part 230 are applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR 60, 29 CFR 1625-1627, Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding \$10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR 60, and 29 CFR 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), and Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR 230, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

- 1. Equal Employment Opportunity: Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630, 29 CFR 1625-1627, 41 CFR 60 and 49 CFR 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:
- a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract.
- b. The contractor will accept as its operating policy the following statement:
  - "It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or onthe-job training."
- 2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

- 3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:
- a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.
- b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.
- c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.
- d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.
- e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.
- **4. Recruitment:** When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.
- a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.
- b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.
- c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.
- **5. Personnel Actions:** Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:
- a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.
- b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.
- c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If

the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

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

#### 6. Training and Promotion:

- a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.
- b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).
- c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.
- d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.
- **7. Unions:** If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:
- a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.
- b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.
- c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.
- d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

- 8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established there under. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.
- 9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.
- a. The contractor shall notify all potential subcontractors and suppliers and lessors of their EEO obligations under this contract.
- b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

#### 10. Assurance Required by 49 CFR 26.13(b):

- a. The requirements of 49 CFR Part 26 and the State DOT's U.S. DOT-approved DBE program are incorporated by reference.
- b. The contractor 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 DOT-assisted contracts. 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 contracting agency deems appropriate.
- 11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.
  - a. The records kept by the contractor shall document the following:
- (1) The number and work hours of minority and nonminority group members and women employed in each work classification on the project;
  - (2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and
  - (3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women;
- b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

## III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more.

The contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color,

religion, sex, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location, under the contractor's control, where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

#### IV. Davis-Bacon and Related Act Provisions

This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size). The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. Contracting agencies may elect to apply these requirements to other projects.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

#### 1. Minimum wages

a. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b.(1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

- (i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and
- (ii) The classification is utilized in the area by the construction industry; and
- (iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.
- (2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.
- (3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. The Wage and Hour Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.
- (4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.
- c. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.
- d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

### 2. Withholding

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such

action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

#### 3. Payrolls and basic records

- a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.
- (1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose Wage and Hour Division Web http://www.dol.gov/esa/whd/forms/wh347instr.htm or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency..
- (2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:
  - (i) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;
  - (ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

- (iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.
- (3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH–347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(2) of this section.
- (4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.
- c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

#### 4. Apprentices and trainees

a. Apprentices (programs of the USDOL).

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

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

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

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

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

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

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

- c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.
  - d. Apprentices and Trainees (programs of the U.S. DOT).

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

- **5. Compliance with Copeland Act requirements.** The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.
- **6. Subcontracts.** The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.
- **7. Contract termination: debarment.** A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for

debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

- **8. Compliance with Davis-Bacon and Related Act requirements.** All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.
- **9. Disputes concerning labor standards.** Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

### 10. Certification of eligibility.

- a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).
- b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).
- c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

#### V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

The following clauses apply to any Federal-aid construction contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

- 1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.
- 2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (1.) of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1.) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1.) of this section.
- 3. Withholding for unpaid wages and liquidated damages. The FHWA or the contacting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such

contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2.) of this section.

**4. Subcontracts.** The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1.) through (4.) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1.) through (4.) of this section.

#### VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System.

- 1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).
- a. The term "perform work with its own organization" refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions:
- (1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
  - (2) the prime contractor remains responsible for the quality of the work of the leased employees;
- (3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and
- (4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.
- b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract.
- 2. The contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.
- 3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

- 4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.
- 5. The 30% self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements.

#### **VII. SAFETY: ACCIDENT PREVENTION**

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

- 1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.
- 2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).
- 3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C.3704).

### **VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS**

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

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

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

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

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

Shall be fined under this title or imprisoned not more than 5 years or both."

# IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

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

- 1. That any person who is or will be utilized in the performance of this contract is not prohibited from receiving an award due to a violation of Section 508 of the Clean Water Act or Section 306 of the Clean Air Act.
- 2. That the contractor agrees to include or cause to be included the requirements of paragraph (1) of this Section X in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements.

# X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost \$25,000 or more — as defined in 2 CFR Parts 180 and 1200.

## 1. Instructions for Certification – First Tier Participants:

- a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.
- b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction.
- c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default.
- d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
- e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded,"

as used in this clause, are defined in 2 CFR Parts 180 and 1200. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

- f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.
- g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.
- h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (https://www.epls.gov/), which is compiled by the General Services Administration.
- i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
- j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

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# 2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

- a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:
- (1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency;
- (2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
- (3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with

commission of any of the offenses enumerated in paragraph (a)(2) of this certification; and

- (4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.
- b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

#### 2. Instructions for Certification - Lower Tier Participants:

(Applicable to all subcontracts, purchase orders and other lower tier transactions requiring prior FHWA approval or estimated to cost \$25,000 or more - 2 CFR Parts 180 and 1200)

- a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.
- b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.
- c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.
- d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).
- e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.
- f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.
- g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (https://www.epls.gov/), which is compiled by the General Services Administration.
- h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the

certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

\* \* \* \* \*

## Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

- 1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency.
- 2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

\* \* \* \*

## XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000 (49 CFR 20).

- 1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:
- a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
- 2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.
- 3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

# MINIMUM WAGES FOR FEDERAL AND FEDERALLY ASSISTED CONSTRUCTION CONTRACTS

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

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