| State of | |) | |
|----------|------|---|-----|
| County | of _ |) ss.) | |
| | | AFFIDAVIT | |
| | | (name of affiant), of, | |
| | | , being first duly sworn upon oath, states as follows: | |
| | 1. | That I am the (officer or position) of (bidder) and have personal knowledge of the facts | c |
| | | herein stated. | > |
| | 2. | That, if selected under this proposal,(bidde | er) |
| | | will maintain a business office in the State of Illinois which will be located in County, Illinois. | |
| | | That this business office will serve as the primary place of employment for any persons employed in the construction contemplated by this proposal. That this Affidavit is given as a requirement of state law as provided in Section 30-22(8) of the Illinois Procurement Code. | F |
| | | Signature | _ |
| | | Print Name of Affiant | |
| | | s instrument was acknowledged before me on the day of | _, |
| | | Notary Public | |

(SEAL)

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. These documents must be received three days before the letting date.

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 http://www.dot.il.gov/desenv/delett.html before submitting final bid information.

IDOT IS NOT RESPONSIBLE FOR ANY E-MAIL FAILURES.

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

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

BID SUBMITTAL GUIDELINES AND CHECKLIST

In an effort to eliminate confusion and standardize the bid submission process the Contracts Office has created the following guidelines and checklist for submitting bids.

This information has been compiled from questions received from contractors and from inconsistencies noted on submitted bids. If you have additional questions please refer to the contact information listed below.

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

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. This page has the Item number 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 after you are awarded the contract.
- 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.

Use the following checklist to ensure completeness and the correct order in assembling your bid

Illinois Office Affidavit (Not applicable to federally funded projects) insert your affidavit after page 4 along with your Cost Adjustments for Steel, Bituminous and Fuel (if applicable).

Cover page (the sheet that has the item number on it) followed by your bid (the Pay Items). If you are using special software or CBID to generate your schedule of prices, <u>do not include the blank pages of the schedule of prices that came with the proposal package.</u>

Page 4 (Item 9) – Check "YES" if you will use a subcontractor(s). Include the subcontractor(s) name, address, general type of work to be performed and the dollar amount (if over \$50,000). If you will use subcontractor(s) but are uncertain who or the dollar amount; check "YES" but leave the lines blank.

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 Union Local Name and number or certified training programs that you have in place. Your bid will not be read if this is not completed. 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 Form A that is filled out.

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 financial information changes. The certification <u>signature and date must be original</u> 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 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 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".

Bid Bond – Submit your bid bond using the current Bid Bond Form provided in the proposal package. The Power of Attorney page should be stapled to the Bid Bond. If you are using an electronic bond, include your bid bond number on the form and attach the Proof of Insurance printed from the electronic bond Web Site.

Disadvantaged Business Utilization Plan and/or Good Faith Effort – The last item in your bid should be the DBE Utilization Plan (SBE 2026), followed by the DBE Participation Statement (SBE 2025) and supporting paperwork. If you have documentation for a Good Faith Effort, it should follow the SBE Forms.

The Bid Letting is now available in streaming Audio/Video from the IDOT Web Site. A link to the stream will be placed on the main page of the current letting on the day of the Letting. The stream will not begin until 10 AM. The actual reading of the bids does not begin until approximately 10:20 AM.

Following the Letting, the As-Read Tabulation of Bids will be posted by the end of the day. You will find the link on the main page of the current letting.

QUESTIONS: pre-letting up to execution of the contract

| Contractor/Subcontractor pre-qualification | 217-782-3413 |
|---|--------------|
| Small Business, Disadvantaged Business Enterprise (DBE) | |
| Contracts, Bids, Letting process or Internet downloads | 217-782-7806 |
| Estimates Unit | 217-785-3483 |
| Aeronautics | 217-785-8515 |
| IDNR (Land Reclamation, Water Resources, Natural Resources) | 217-782-6302 |

QUESTIONS: following contract execution

| Including Subcontractor documentation, payments | 217-782-3413 |
|---|--------------|
| Railroad Insurance | 217-785-0275 |

Proposal Submitted By

1W

Name

Address

City

Letting August 2, 2013

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

Crystal Creek Flood Control Project Phase II B Villages of Schiller Park and Franklin Park Cook County FR- 425

PLEASE MARK THE APPROPRIATE BOX BELOW:

A Bid Bond is included.

A Cashier's Check or a Certified Check is included

Prepared by

Checked by Printed by authority of the State of Illinois

S

Page intentionally left blank



PROPOSAL

TO THE DEPARTMENT OF NATURAL RESOURCES

1. Proposal of ______

Taxpayer Identification Number (Mandatory)

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

1W FR-425 Cook County Crystal Creek Flood Control Project Phase II B Villages of Franklin Park and Schiller Park

Approximately 1,239 feet of pavement removal and replacement or resurfacing and curb and gutter removal and replacement along Denley Avenue/Dora Street, installation of 1,945 feet of precast concrete box culverts, and modification of approximately 1235 feet of existing stream and/or ditch together with all appurtenant work to complete the project located along or under Denley Avenue/Dora Street from approximately 350 feet north of Seymour Avenue south to Panoramic Drive then west along the ditch on the north side of Panoramic Drive to near the west end of Panoramic Drive, all in Schiller Park, Illinois.

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 Natural Resources and the Department of Transportation. This proposal will become part of the contract and the terms and conditions contained in the contract documents shall govern performance and payments.

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

| | Amount o | of Bid | Proposal <u>Guaranty</u> | An | ount c | of Bid | Proposal <u>Guaranty</u> |
|-------------|----------|-------------|-----------------------------|--------------|--------|--------------|-----------------------------|
| Up to | | \$5,000 | \$150 | \$2,000,000 | to | \$3,000,000 | \$100,000 |
| \$5,000 | to | \$10,000 | \$300 | \$3,000,000 | to | \$5,000,000 | \$150,000 |
| \$10,000 | to | \$50,000 | \$1,000 | \$5,000,000 | to | \$7,500,000 | \$250,000 |
| \$50,000 | to | \$100,000 | \$3,000 | \$7,500,000 | to | \$10,000,000 | \$400,000 |
| \$100,000 | to | \$150,000 | \$5,000 | \$10,000,000 | to | \$15,000,000 | \$500,000 |
| \$150,000 | to | \$250,000 | \$7,500 | \$15,000,000 | to | \$20,000,000 | \$600,000 |
| \$250,000 | to | \$500,000 | \$12,500 | \$20,000,000 | to | \$25,000,000 | \$700,000 |
| \$500,000 | to | \$1,000,000 | \$25,000 | \$25,000,000 | to | \$30,000,000 | \$800,000 |
| \$1,000,000 | to | \$1,500,000 | \$50,000 | \$30,000,000 | to | \$35,000,000 | \$900,000 |
| \$1,500,000 | to | \$2,000,000 | \$75,000 | over | | \$35,000,000 | \$1,000,000 |

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

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

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

| Attach Cashier's Check or Certified Check Here | |
|--|--|
|--|--|

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

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

Item _____

Section No.

County _____

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

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

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

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

Schedule of Combination Bids

| Combination | | Combinatio | on Bid |
|-------------|----------------------------------|------------|--------|
| No. | Sections Included in Combination | Dollars | Cents |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

- 7. SCHEDULE OF PRICES. The undersigned bidder submits herewith, in accordance with the rules and instructions, a schedule of prices for the items of work for which bids are sought. The unit prices bid are in U.S. dollars and cents, and all extensions and summations have been made. The bidder understands that the quantities appearing in the bid schedule are approximate and are provided for the purpose of obtaining a gross sum for the comparison of bids. If there is an error in the extension of the unit prices, the unit prices shall govern. Payment to the contractor awarded the contract will be made only for actual quantities of work performed and accepted or materials furnished according to the contract. The scheduled quantities of work to be done and materials to be furnished may be increased, decreased or omitted as provided elsewhere in the contract.
- AUTHORITY TO DO BUSINESS IN ILLINOIS. Section 20-43 of the Illinois Procurement Code (The Code) (30 ILCS 500/20-43) provides that a person (other than an individual acting as a sole proprietor) must be a legal entity authorized to do business in the State of Illinois prior to submitting the bid.

9. The services of a subcontractor will or may be used.

| Check Box | Yes | |
|-----------|-----|--|
| Check Box | No | |

For known subcontractors with subcontracts with an annual value of more than \$50,000, the contract shall include their name, address, general type of work to be performed, and the dollar allocation for each subcontractor. (30 ILCS 500/20-120)

10. EXECUTION OF CONTRACT: The Department of Natural Resources will, in accordance with the rules governing Department procurements, execute the contract and shall be the sole entity having the authority to accept performance and make payments under the contract. Execution of the contract by the Chief Procurement Officer (CPO) or the State Purchasing Officer (SPO) is for approval of the procurement process and execution of the contract by the Department. Neither the CPO nor the SPO shall be responsible for administration of the contract or determinations respecting performance or payment there under except as otherwise permitted in the Code.

SCHEDULE OF PRICES

Contract Pay Items

Project Name:

Project Number:

County:

Crystal Creek Flood Control Project Phase II B Cook FR-425 / 1W

| # | PAY ITEM DESCRIPTION | UNIT | QUANTITY | UNIT PRICE | TOTAL PRICE |
|----|---------------------------------------|-------|----------|------------|-------------|
| 1 | TREE REMOVAL (6-15 UNITS DIAMETER) | UNIT | 39 | | |
| 2 | TREE REMOVAL (OVER 15 UNITS DIAMETER) | UNIT | 42 | | |
| 3 | TREE REMOVAL, ACRES | ACRE | 1.12 | | |
| 4 | CHANNEL EXCAVATION | CU YD | 1,091 | | |
| 5 | TOPSOIL EXCAVATION AND PLACEMENT | CU YD | 471 | | |
| 6 | SEEDING, CLASS 4A | ACRE | 0.18 | | |
| 7 | NITROGEN FERTILIZER NUTRIENT | POUND | 16 | | |
| 8 | PHOSPHORUS FERTILIZER NUTRIENT | POUND | 16 | | |
| 9 | POTASSIUM FERTILIZER NUTRIENT | POUND | 16 | | |
| 10 | MULCH, METHOD 3 | ACRE | 0.18 | | |
| 11 | HEAVY DUTY EROSION CONTROL BLANKET | SQ YD | 3,152 | | |
| 12 | TEMPORARY EROSION CONTROL SEEDING | POUND | 161 | | |
| 13 | TEMPORARY DITCH CHECKS | FOOT | 75 | | |
| 14 | PERIMETER EROSION BARRIER | FOOT | 523 | | |
| 15 | INLET AND PIPE PROTECTION | EACH | 2 | | |

SCHEDULE OF PRICES

Contract Pay Items

Project Name:

Project Number:

County:

Crystal Creek Flood Control Project Phase II B Cook FR-425 / 1W

| # | PAY ITEM DESCRIPTION | UNIT | QUANTITY | UNIT PRICE | TOTAL PRICE |
|----|---|--------|----------|------------|-------------|
| 16 | INLET FILTERS | EACH | 11 | | |
| 17 | STONE RIPRAP, CLASS A4 | SQ YD | 823 | | |
| 18 | FILTER FABRIC | SQ YD | 823 | | |
| 19 | AGGREGATE BASE COURSE, TYPE B, 9" | SQ YD | 1,935 | | |
| 20 | BITUMINOUS MATERIALS (PRIME COAT) | GALLON | 155 | | |
| 21 | AGGREGATE (PRIME COAT) | TON | 4 | | |
| 22 | HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50 | TON | 168 | | |
| 23 | HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50 | TON | 197 | | |
| 24 | PAVEMENT REMOVAL | SQ YD | 1,935 | | |
| 25 | HOT-MIX ASPHALT SURFACE REMOVAL 3" | SQ YD | 400 | | |
| 26 | COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT | FOOT | 1,225 | | |
| 27 | PIPE CULVERT REMOVAL | FOOT | 259 | | |
| 28 | STRUCTURE EXCAVATION | CU YD | 211 | | |
| 29 | CONCRETE STRUCTURES | CU YD | 47.6 | | |
| 30 | REINFORCEMENT BARS, EPOXY COATED | POUND | 10,670 | | |

SCHEDULE OF PRICES

Contract Pay Items

Project Name:

Project Number:

County:

Crystal Creek Flood Control Project Phase II B Cook FR-425 / 1W

| # | PAY ITEM DESCRIPTION | UNIT | QUANTITY | UNIT PRICE | TOTAL PRICE |
|----|--|--------|----------|------------|-------------|
| 31 | BOX CULVERT END SECTION, CULVERT NO. 1 | EACH | 2 | | |
| 32 | BOX CULVERT END SECTION, CULVERT NO. 2 | EACH | 1 | | |
| 33 | BOX CULVERT END SECTION, CULVERT NO. 4 | EACH | 2 | | |
| 34 | EXPANSION BOLTS 3/4 INCH | EACH | 14 | | |
| 35 | PRECAST CONCRETE BOX CULVERT 9' X 3' | FOOT | 143 | | |
| 36 | PRECAST CONCRETE BOX CULVERT 7' X 4' | FOOT | 131 | | |
| 37 | PRECAST CONCRETE BOX CULVERT 7' X 2' | FOOT | 1,084 | | |
| 38 | PRECAST CONCRETE BOX CULVERT 8' X 4' | FOOT | 588 | | |
| 39 | PRECAST REINFORCED CONCRETE FLARED END SECTIONS 12" | EACH | 1 | | |
| 40 | STORM SEWERS, CLASS A, TYPE 2 10" | FOOT | 10 | | |
| 41 | STORM SEWERS, CLASS A, TYPE 2 12" | FOOT | 20 | | |
| 42 | STORM SEWERS, CLASS A, TYPE 2 15" | FOOT | 15 | | |
| 43 | CHAIN LINK FENCE TO BE REMOVED AND RE- ERRECTED | FOOT | 663 | | |
| 44 | ENGINEER'S FIELD OFFICE, TYPE B | CAL MO | 10 | | |
| 45 | MOBILIZATION | L SUM | 1 | | |

SCHEDULE OF PRICES

Contract Pay Items

Project Name:

County:

Project Number:

Crystal Creek Flood Control Project Phase II B Cook FR-425 / 1W

| # | PAY ITEM DESCRIPTION | UNIT | QUANTITY | UNIT PRICE | TOTAL PRICE |
|-----|--|-------|----------|------------|-------------|
| 46 | TEMPORARY CONCRETE BARRIER | FOOT | 385 | | |
| 141 | TRAFFIC CONTROL AND PROTECTION, (SPECIAL) | L SUM | 1 | | |
| 48 | WOOD INFORMATION SIGNS | EACH | 2 | | |
| 49 | CONSTRUCTION STAKING | L SUM | 1 | | |
| 50 | TEMPORARY COFFERDAM SYSTEM | L SUM | 1 | | |
| 51 | SEEDING, MULCHING, AND FERTILIZING | ACRE | 0.78 | | |
| 52 | SEEDING AND FERTILIZING | ACRE | 0.65 | | |
| | | | | TOTAL | |

NOTE:

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 is shown.

| Bidder's (Firm) Name | | | |
|----------------------|---------|---------------|--------|
| Address | | Telephone No. | |
| | | Signed this | day of |
| By | | | , 20 . |
| | (Title) | | |

Page 4 of 4

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-N, by execution of the Proposal Signature Sheet, the bidder indicates that each of the mandated assurances has been read and understood, that each certification is made and understood, and that each disclosure requirement has been understood and completed.

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

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

1. The Code provides in pertinent part:

Section 50-13. Conflicts of Interest.

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

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

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

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

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

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

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

B. Negotiations

1. The Code provides in pertinent part:

Section 50-15. Negotiations.

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

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

C. Inducements

1. The Code provides:

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

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

D. <u>Revolving Door Prohibition</u>

1. The Code provides:

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.

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

E. Reporting Anticompetitive Practices

1. The Code provides:

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.

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

F. Confidentiality

1. The Code provides:

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.

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

G. Insider Information

1. The Code provides:

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

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

III. CERTIFICATIONS

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

1. The Code provides:

Section 50-5. Bribery

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

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

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

(b) Businesses. No business shall be barred from contracting with any unit of State or local government 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 government 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 1961.

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

(d) Certification. Every bid submitted to and contract executed by the State, 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.

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

B. Felons

1. The Code provides:

Section 50-10. Felons. Unless otherwise provided, no person or business convicted of a felony shall do business with the State of Illinois or any State agency, 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.

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. Debt Delinquency

1. The Code provides:

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

1. The Code provides:

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 500/50-12 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

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

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

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

G. Bid-Rigging/Bid Rotating

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

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

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

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

A violation of Section 33E-4 would be represented by a conviction of the crime of bid-rotating which, in addition to Class 2 felony sentencing, provides that any person convicted of this offense or any similar offense of any state or the United States which contains the same elements as this offense shall be permanently barred from contracting with any unit of State or local government. No corporation shall be barred from contracting with any unit of State or local government. No corporation shall be barred from contracting with any unit of state or local government. No corporation shall be barred from contracting with any unit of state or local government. 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 government entity with which it seeks to contract and that entity finds that the commission of the offense was neither authorized, requested, commanded, nor performed by a director, officer or a high managerial agent in behalf of the corporation.

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

H. International Anti-Boycott

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

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

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

I. Drug Free Workplace

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

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

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

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

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

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

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

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

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

J. Disclosure of Business Operations in Iran

Section 50-36 of the Code, 30ILCS 500/50-36 provides that each bid, offer, or proposal submitted for a State contract shall include a disclosure of whether or not the Company acting as the bidder, offeror, or proposing entity, or any of its corporate parents or subsidiaries, within the 24 months before submission of the bid, offer, or proposal had business operations that involved contracts with or provision of supplies or services to the Government of Iran, companies in which the Government of Iran has any direct or indirect equity share, consortiums or projects commissioned by the Government of Iran, or companies involved in consortiums or projects commissioned by the Government of Iran and either of the following conditions apply:

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

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

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

Check the appropriate statement:

- /___/ Company has no business operations in Iran to disclose.
- /___/ Company has business operations in Iran as disclosed the attached document.

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 program sponsor holding the Certificate of Registration for all of the types of work or crafts in which the bidder is a participant and that will be performed with the bidder's forces. Types of work or craft work that will be subcontracted shall be included and listed as subcontract work. The list shall also indicate any type of work or craft job category that does not have an applicable apprenticeship or training program. The bidder is responsible for making a complete report and shall make certain that each type of work or craft job category that will be utilized on the project as reported on the Construction Employee Workforce Projection (Form BC-1256) and returned with the bid is accounted for and listed.

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

L. 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 committee established to promote the candidacy of the officeholder responsible for making any political contributions to any political committee established to promote the candidacy of the officeholder responsible for making any political contributions to any political committee established to promote the candidacy of the officeholder responsible for awarding the pending contract during the period beginning on the date the invitation for bids or request for proposals is issued and ending on the day after the date of award or selection if the entity was not awarded or selected. Section 20-160 requires certification of registration of affected business entities in accordance with procedures found in Section 9-35 of The Election Code.

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

The undersigned business entity certifies that it has registered as a business with the State Board of Elections and acknowledges a continuing duty to update the registration in accordance with the above referenced statutes. 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:

Name and address of person:

All costs, fees, compensation, reimbursements and other remuneration paid to said person:

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 \$25,000 shall be accompanied by disclosure of the financial interests of the bidder. This disclosed information for the successful bidder, will be maintained as public information subject to release by request pursuant to the Freedom of Information Act, 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 200 shareholders, it may submit the information that Federal 10K companies are required to report, and list the names of any person or entity holding any ownership share that is in excess of 5%. The disclosure shall include the names, addresses, and dollar or proportionate share of ownership of each person making the disclosure, their instrument of ownership or beneficial relationship, and notice of any potential conflict of interest resulting from the current ownership or beneficial interest of each person making the disclosure having any of the relationships identified in Section 50-35 and on the disclosure form. 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. Disclosure Form Instructions

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 200 shareholders, it may submit the information that Federal 10K companies are required to report, and list the names of any person or entity holding any ownership share that is in excess of 5%. If a bidder is not subject to Federal 10K reporting, the bidder must determine if any individuals are required by law to complete a financial disclosure form. To do this, the bidder should answer each of the following questions. A "YES" answer indicates Form A must be completed. If the answer to each of the following questions is "NO", then the <u>NOT APPLICABLE STATEMENT</u> on Form A must be signed and dated by a person that is authorized to execute contracts for the bidding company. Note: These questions are for assistance only and are not required to be completed.

- 1. Does anyone in your organization have a direct or beneficial ownership share of greater than 5% of the bidding entity or parent entity? YES ____ NO
- 2. Does anyone in your organization have a direct or beneficial ownership share of less than 5%, but which has a value greater than 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 person 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 a person that is authorized to execute contracts for your organization. **Photocopied or stamped signatures are not acceptable**. The person signing can be, but does not have to be, the person for which the form is being completed. The bidder is responsible for the accuracy of any information provided.

If the answer to each of the above questions is "NO", then the <u>NOT APPLICABLE STATEMENT</u> on Form A must be signed and dated by a person 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 signature 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 | | |
| City, State, Zip | | |
| Telephone Number | Email Address | Fax Number (if available) |

Disclosure of the information contained in this Form is required by the Section 50-35 of the 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 \$25,000, 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. <u>See Disclosure Form Instructions</u>.

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

DISCLOSURE OF FINANCIAL INFORMATION

1. Disclosure of Financial Information. The individual named below has an interest in the BIDDER (or its parent) in terms of ownership or distributive income share in excess of 5%, or an interest which has a value of more than 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 I | NDIVIDUAL | (type or print information) | | |
|-------|------------------|--------------------------------------|-------------|-------------------------------------|
| | NAME: | | | |
| | ADDRESS | | | |
| | | | | |
| | Type of owne | rship/distributable income share: | | |
| | stock | sole proprietorship | Partnership | other: (explain on separate sheet): |
| | % or \$ value of | f ownership/distributable income sha | 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.

- 1. 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 of the State agency for which you are employed and your annual salary.

- 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, are you entitled to receive

 (i) more than 7 1/2% of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of 100% of the annual salary of the Governor? Yes ____No ___
- 4. If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds 60% of the annual salary of the Governor, are you and your spouse or minor children entitled to receive (i) more than 15 % in aggregate of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of two times the salary of the Governor? Yes ____No ___
- (b) State employment of spouse, father, mother, son, or daughter, including contractual employment services in the previous 2 years.

Yes No

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

- 1. Is your spouse or any minor children currently an officer or employee of the Capitol Development Board or the Illinois State Toll Highway Authority? Yes ____No ___
- 2. Is your spouse or any minor children currently appointed to or employed by any agency of the State of Illinois? If your spouse or minor children is/are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds 60% of the annual salary of the Governor, provide the name of your spouse and/or minor children, the name of the State agency for which he/she is employed and his/her annual salary.
- 3. If your spouse or any minor children is/are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds 60% of the annual salary of the Governor, are you entitled to receive (i) more then 7½% of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of 100% of the annual salary of the Governor? Yes No ___
- 4. If your spouse or any minor children are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds 60% of the annual salary of the Governor, are you and your spouse or minor children entitled to receive (i) more than 15% in the aggregate of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of two times the salary of the Governor?

Yes <u>No</u>

- (c) Elective status; the holding of elective office of the State of Illinois, the government of the United States, any unit of local government authorized by the Constitution of the State of Illinois or the statutes of the State of Illinois currently or in the previous 3 years.
 Yes ___No ___
- (d) Relationship to anyone holding elective office currently or in the previous 2 years; spouse, father, mother, son, or daughter. Yes ____No ___
- (e) Appointive office; the holding of any appointive government office of the State of Illinois, the United States of America, or any unit of local government authorized by the Constitution of the State of Illinois or the statutes of the State of Illinois, which office entitles the holder to compensation in excess of the expenses incurred in the discharge of that office currently or in the previous 3 years. Yes ____No ___
- (f) Relationship to anyone holding appointive office currently or in the previous 2 years; spouse, father, mother, son, or daughter. Yes ____No ___

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

- (h)Relationship to anyone who is or was a registered lobbyist in the previous 2 years; spouse, father, mother, son, or daughter. Yes ____No ___
- (i) Compensated employment, currently or in the previous 3 years, by any registered election or reelection committee registered with the Secretary of State or any county clerk of the State of Illinois, or any political action committee registered with either the Secretary of State or the Federal Board of Elections. Yes No
- (j) Relationship to anyone; spouse, father, mother, son, or daughter; who was a compensated employee in the last 2 years by any registered election or re-election committee registered with the Secretary of State or any county clerk of the State of Illinois, or any political action committee registered with either the Secretary of State or the Federal Board of Elections.

Yes No

3. Communication Disclosure.

Disclose the name and address of each lobbyist and other agent of the bidder or offeror who is not identified in Section 2 of this form, who has communicated, is communicating, or may communicate with any State officer or employee concerning the bid or offer. This disclosure is a continuing obligation and must be promptly supplemented for accuracy throughout the process and throughout the term of the contract. If no person is identified, enter "None" on the line below:

Name and address of person(s): _____

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 penalty of perjury, I certify the contents of this disclosure to be true and accurate to the knowledge. | page. Under he best of my |
| 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 or the criteria that would require the completion of this Form A. | ganization meet |
| This Disclosure Form A is submitted on behalf of the CONTRACTOR listed on the prev | /ious 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 & Procurement Related Information Disclosure

| Address | Fax Number (if available) |
|---------|---------------------------|
| | Address |

Disclosure of the information contained in this Form is required by the Section 50-35 of the Code (30 ILCS 500). This information shall become part of the publicly available contract file. This Form B must be completed for bids in excess of \$25,000, and for all open-ended contracts.

DISCLOSURE OF OTHER CONTRACTS AND PROCUREMENT RELATED INFORMATION

1. Identifying Other Contracts & Procurement Related Information. The BIDDER shall identify whether it has any pending contracts (including leases), bids, proposals, or other ongoing procurement relationship with any other State of Illinois agency: Yes No If **"No" is checked,** the bidder only needs to complete the signature box on the bottom of this page.

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

THE FOLLOWING STATEMENT MUST BE CHECKED

| Signature of Authorized Representative | Date |
|--|------|
| | |

OWNERSHIP CERTIFICATION

Please certify that the following statement is true if the individuals for all submitted Form A disclosures do not total 100% of ownership.

Any remaining ownership interest is held by individuals receiving less than \$106,447.20 of the bidding entity's or parent entity's distributive income or holding less than a 5% ownership interest.

Yes No N/A (Form A disclosure(s) established 100% ownership)

TAXPAYER IDENTIFICATION NUMBER

I certify that:

- 1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me), and
- I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding, and
- 3. I am a U.S. person (including a U.S. resident alien).
 - If you are an individual, enter your name and SSN as it appears on your Social Security Card.
 - If you are a sole proprietor, enter the owner's name on the name line followed by the name of the business and the owner's SSN or EIN.
 - If you are a single-member LLC that is disregarded as an entity separate from its owner, enter the owner's name on the name line and the d/b/a on the business name line and enter the owner's SSN or EIN.
 - If the LLC is a corporation or partnership, enter the entity's business name and EIN and for corporations, attach IRS acceptance letter (CP261 or CP277).
 - For all other entities, enter the name of the entity as used to apply for the entity's EIN and the EIN.

| Business Name: | |
|--|---|
| - | |
| or Employer Identification Number | |
| Legal Status (check one): | |
| Individual | Governmental |
| Sole Proprietor | Nonresident alien |
| Partnership | Estate or trust |
| Legal Services Corporation | Pharmacy (Non-Corp.) |
| Tax-exempt | Pharmacy/Funeral Home/Cemetery (Corp.) |
| Corporation providing or billing medical and/or health care services | Limited Liability Company (select applicable tax classification) D = disregarded entity C = corporation |
| Corporation NOT providing or billing medical and/or health care services | \square C = corporation \square P = partnership |
| nature: | Date: |

SPECIAL NOTICE TO CONTRACTORS

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

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 Natural Resources shall review the Employee Utilization Form, and workforce projections contained therein, of the contract awardee to determine if such projections reflect an underutilization of minority persons and/or women in any job classification in accordance with the Equal Employment Opportunity Clause and Section 7.2 of the Illinois Department of Human Rights' Rules and Regulations for Public Contracts adopted as amended on September 17, 1980. If it is determined that the contract awardee's projections reflect an underutilization of minority persons and/or women in any job classification, it shall be advised in writing of the manner in which it is underutilizing and such awardee shall be considered to be in breach of the contract unless, prior to commencement of work on the contract project, it submits revised satisfactory projections or an acceptable written affirmative action plan to correct such underutilization including a specific timetable geared to the completion stages of the contract.
- (c) The Department of Natural Resources 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 Natural Resources with respect to these requirements.



Crystal Creek Flood Control Project Phase II B Villages of Franklin Park and Schiller Park Cook County FR- 425

PART I. IDENTIFICATION

Dept. Human Rights #____

Duration of Project:

Name of Bidder:

PART II. WORKFORCE PROJECTION

A. The undersigned bidder has analyzed minority group and female populations, unemployment rates and availability of workers for the location in which this contract work is to be performed, and for the locations from which the bidder recruits employees, and hereby submits the following workforce projection including a projection for minority and female employee utilization in all job categories in the workforce to be allocated to this contract:

| | | | | | | | | | 1 | | | | | | | | | |
|---|-------|-------|--------------------|-----|-------|------|------|----------|-------------------------------------|------|---|----------|-------|-----------|-------|--|-------|------|
| TOTAL Workforce Projection for Contract | | | | | | | | | CURRENT EMPLOYEES TO BE ASSIGNED | | | | | | | | | |
| | | - | | | | | | | | | - | | | | FRACT | | | |
| | | | MINORITY EMPLOYEES | | | | | TRAINEES | | | | | 10.00 | | | | | |
| JOB | TO | ΓAL | | | | | *OTH | IER | APP | REN- | | HE JOB | | TC | TAL | | MINO | RITY |
| CATEGORIES | EMPLO | | BLA | СК | HISPA | NIC | MINC | DR. | | ES | | TRAINEES | | EMPLOYEES | | | EMPLO | YEES |
| | М | F | М | F | М | F | М | F | М | F | М | F | 1 | М | F | | М | F |
| OFFICIALS (MANAGERS) | | | | | | - | | - | | | | | | | | | | |
| SUPERVISORS | | | | | | | | | | | | | | | | | | |
| FOREMEN | | | | | | | | | | | | | | | | | | |
| CLERICAL | | | | | | | | | | | | | | | | | | |
| EQUIPMENT OPERATORS | | | | | | | | | | | | | | | | | | |
| MECHANICS | | | | | | | | | | | | | | | | | | |
| TRUCK DRIVERS | | | | | | | | | | | | | | | | | | |
| IRONWORKERS | | | | | | | | | | | | | | | | | | |
| CARPENTERS | | | | | | | | | | | | | | | | | | |
| CEMENT MASONS | | | | | | | | | | | | | | | | | | |
| ELECTRICIANS | | | | | | | | | | | | | | | | | | |
| PIPEFITTERS, PLUMBERS | | | | | | | | | | | | | | | | | | |
| PAINTERS | | | | | | | | | | | | | | | | | | |
| LABORERS, SEMI-SKILLED | | | | | | | | | | | | | | | | | | |
| LABORERS, UNSKILLED | | | | | | | | | | | | | | | | | | |
| TOTAL | | | | | | | | | | | | | | | | | | |
| TABLE C EOR | | | | | | | | | ENT US | FC | | | | | | | | |
| TOTAL Training Projection for Contract | | | | | | | | | | | | | | | | | | |
| EMPLOYEES | | TAL | | - | | | *OT | HER | | | | | | | | | | |
| IN | | OYEES | BLA | ACK | HISP | ANIC | | NOR. | | | | | | | | | | |
| TRAINING | M | F | M | F | M | F | M | F | | | | | | | | | | |
| APPRENTICES | | | | | | | | | | | | | | | | | | |
| ON THE JOB TRAINEES | | | | | | | | | | | | | | | | | | |

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

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

BC 1256 (Rev. 12/11/08)

| Note: | See | instructions on page 2 | 2 |
|-------|-----|------------------------|---|
|-------|-----|------------------------|---|

Crystal Creek Flood Control Project Phase II B Villages of Franklin Park and Schiller Park Cook County FR- 425

PART II. WORKFORCE PROJECTION - continued

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

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

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

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

PART III. AFFIRMATIVE ACTION PLAN

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

Company ______

Address

NOTICE REGARDING SIGNATURE

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

Signature:

_____ Title: _____ Date: _____

Telephone Number _____

Instructions: All tables must include subcontractor personnel in addition to prime contractor personnel.

- Include both the number of employees that would be hired to perform the contract work and the total number currently employed Table A -(Table B) that will be allocated to contract work, and include all apprentices and on-the-job trainees. The "Total Employees" column should include all employees including all minorities, apprentices and on-the-job trainees to be employed on the contract work.
- Include all employees currently employed that will be allocated to the contract work including any apprentices and on-the-job trainees Table B currently employed.

Table C -Indicate the racial breakdown of the total apprentices and on-the-job trainees shown in Table A.

BC-1256 (Rev. 12/11/08)

Crystal Creek Flood Control Project Phase II B Villages of Franklin Park and Schiller Park Cook County FR- 425

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 | |
| | | |
| | Dusiness Address | |
| | | |
| | Firm Name | |
| | Ву | |
| (IF A CO-PARTNERSHIP) | Business Address | |
| | | Name and Address of All Members of the Firm: |
| | | |
| | Corporate Name | |
| | Ву | |
| | | Signature of Authorized Representative |
| | | Typed or printed name and title of Authorized Representative |
| (IF A CORPORATION) | 0 44 4 | |
| (IF A JOINT VENTURE, USE THIS SECTION | Allest | Signature |
| FOR THE MANAGING PARTY AND THE SECOND PARTY SHOULD SIGN BELOW) | Business Address | |
| | | |
| | Corporate Name | |
| | | |
| | Dy | Signature of Authorized Representative |
| | | Typed or printed name and title of Authorized Representative |
| (IF A JOINT VENTURE) | Attest | |
| | | Signature |
| | Business Address | |
| | | |
| If more than two parties are in the joint venture | e, please attach an ac | ditional signature sheet. |



Crystal Creek Flood Control Project Phase II B Villages of Franklin Park and Schiller Park Cook County FR- 425

1W

August 2, 2013

Item No.

Letting Date

Proposal Bid Bond

KNOW ALL MEN BY THESE PRESENTS. That We

as PRINCIPAL, and

as SURETY, are

held jointly, severally and firmly bound unto the STATE OF ILLINOIS in the penal sum of 5 percent of the total bid price, or for the amount specified in the bid proposal under "Proposal Guarantee" in effect on the date of the Invitation for Bids, whichever is the lesser sum, well and truly to be paid unto said STATE OF ILLINOIS, for the payment of which we bind ourselves, our heirs, executors, administrators, successors and assigns.

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

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

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

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

| their respective officers this | day of | | A.D., |
|-------------------------------------|-----------------------------|---------------------------------------|---|
| PRINCIPAL | | SURETY | |
| (Company Nan | ne) | | (Company Name) |
| Ву: | | Ву: | |
| (Signature & | Title) | | (Signature of Attorney-in-Fact) |
| STATE OF ILLINOIS, COUNTY OF | • | cation for Principal and | Surety |
| I, | | , a Notary Pu | blic in and for said County, do hereby certify that |
| | | and | |
| (Inse | ert names of individuals si | gning on behalf of PRINC | IPAL & SURETY) |
| | ed before me this day i | in person and acknowled | e subscribed to the foregoing instrument on behalf or diged respectively, that they signed and delivered said |
| Given under my hand and not | arial seal this | day of | , A.D |
| My commission expires | | · · · · · · · · · · · · · · · · · · · | |
| | | | Notary Public |
| marking the check box next to the S | Signature and Title line be | low, the Principal is ensu | ile an Electronic Bid Bond. By signing the proposal and ring the identified electronic bid bond has been executed ons of the bid bond as shown above. |
| | | | |
| | | | |

Signature and Title

ILLINOIS DEPARTMENT OF NATURAL RESOURCES STANDARD PROJECT LABOR AGREEMENT

This Agreement is entered into this _____ day of _____, 20 _, by and between the Illinois **Department of Natural Resources (IDNR)** and the AFL-CIO Project Labor Agreement **Committee (PLA Committee)** for and on behalf of its affiliated members, hereinafter referred to individually and collectively, as the "Union". This Agreement shall apply to work performed by the Employer and its Contractors and Subcontractors on Construction known as the **Crystal Creek Flood Control Project, Phase II B, IDNR Project No. FR-425 located in Cook County.**

ARTICLE 1 - INTENT AND PURPOSES

1.1 It is mutually understood that the following terms and conditions relating to employment of workmen covered by this Agreement have been written in order to promote efficiency of construction operations and provide for peaceful settlement of labor disputes without strikes or lockouts, thereby promoting the public interest in assuring the timely and economical completion of the work. It is also the intent of the parties to set out standard working conditions for the efficient prosecution of said construction work, herein to establish and maintain harmonious relations between all parties of the Agreement, to secure optimum productivity and to eliminate strikes, lockouts, or delays in the prosecution of the work.

(a) Therefore, the following provisions will be binding upon the Contractor and all its sub-contractors (hereinafter jointly referred to as "Contractor"), who shall be required to sign the "Participation Agreement", attached hereto as "Schedule A", and the Unions during the term of this Agreement and any renewal thereafter. The Unions hereby consent to apply the terms and conditions of this Project Agreement to said sub-contractors upon their signing the "Participation Agreement". It is understood that each sub-contractor will be considered and accepted by the Unions as a separate employer for the purposes of collective bargaining. It is further agreed that the employees working under this Agreement shall constitute a bargaining unit separate and distinct from all others. This Agreement may be modified by mutual consent in writing by the signatory parties hereto.

1.2 The Contractor agrees to be bound by the terms of the Collective Bargaining Agreements and amendments (CBA) thereto of the affiliates of the PLA Committee and the applicable employers association, if any. Such agreements are incorporated herein by reference. In order to comply with the requirements of the various fringe benefit funds to which the Contractor is to contribute, the Contractor shall sign such participation agreements as are necessary. Upon written notice from any fringe benefit fund IDNR will withhold payment of delinquencies occurring on this project from the involved Prime Contractors.

1.3 It is mutually understood that where the provisions of this Agreement are at variance with any other agreement between the Contractor and the Union, the language of this Agreement shall prevail.

1.4 The Contractor and the Union agree that should the Collective Bargaining Agreement (CBA) of any PLA Committee affiliates signatory to this Agreement expire prior to the completion of this project, the expired contracts' terms will be maintained until a new CBA is ratified. The wages, and fringe benefits included in any new CBA will be effective on the effective date of the newly negotiated CBA unless wage and fringe benefit retroactivity is agreed upon by the bargaining parties.

ARTICLE II - RECOGNITION

2.1 The Contractor recognizes the PLA Committee and the signatory affiliates as the sole and exclusive bargaining representatives for its craft employees employed on the jobsite. PLA Committee affiliates signatory to this Agreement will have recognition on the project for their craft.

ARTICLE III - ADMINISTRATION OF AGREEMENT

3.1 In order to assure that all parties have a clear understanding of the Agreement, to promote harmony and address potential problems, a pre-job conference will be held with the Contractor, PLA Committee Representatives and all signatory parties prior to the start of any work on the project.

3.2 Representatives of the Contractor and the Unions shall meet as required but not less than once a month to review the operation of this Agreement. The representatives at this meeting shall be empowered to resolve any dispute over the intent and application of the Agreement.

3.3 The Contractor shall make available in writing to the Unions and Council no less than one week prior to these meetings a job status report, planned activities for the next 30 day period, actual numbers of craft employees on the project and estimated numbers of employees by craft required for the next 30 day period. The purpose of this report is to allow time to address any potential jurisdictional problems and to ensure that no party signatory to the Agreement is hindering the continuous progress of the project through a lack of planning or shortage of manpower.

ARTICLE IV - HOURS OF WORK OVERTIME SHIFTS & HOLIDAYS

4.1 The standard work day shall be an established consecutive eight (8) hour period between the hours of 7:00 a.m. and 5:00 p.m. with one-half hour designated as unpaid period for lunch. The standard work week shall be five (5) consecutive days of work commencing on Monday. Starting time which is to be established at the pre-job conference will be applicable to all craft employees on the project. Should job conditions dictate a change in the established starting time and/or a staggered lunch period on certain work of the project or with individual crafts, the Contractor, Business Managers of the crafts involved and the PLA Committee shall mutually agree to such changes. If work schedule change cannot be mutually agreed to between these parties, the hours fixed in the Agreement shall prevail.

4.2 All time before and after the established work day of eight (8) hours, Monday through Friday and all time on Saturday shall be paid in accordance with each crafts current collective bargaining agreement. All time on Sundays and Holidays shall be paid for at the rate of double time.

(a) Fringe benefit payments for all overtime work shall be paid in accordance with each craft's Current collective Bargaining Agreement.

4.3 Shift work, if used, shall be as provided in the collective bargaining agreement of each affected craft.

4.4 Recognized Holidays shall be as follows: New Year's Day, Memorial Day, Fourth of July, Labor Day, Veterans Day (to be celebrated the day after Thanksgiving), Thanksgiving Day and Christmas Day. No work will be performed on Labor Day under any consideration, except in an extreme emergency and then only after consent is given by the Business Manager.

ARTICLE V - ABSENTEEISM

5.1 The Contractor and the Union agree that the chronic and/or unexcused absenteeism is undesirable and must be controlled. Employees that develop a record of such absenteeism shall be identified by the Contractor to the appropriate referral facility and the Contractor shall support such action with the work record of the involved employee. Any employee terminated for such absenteeism shall not be eligible for rehire on the project for a period of no less than ninety (90) days.

ARTICLE VI - MANAGEMENT RIGHTS

6.1 The Contractor retains and shall exercise full and exclusive authority and responsibility for the management of its operations, except as expressly limited by the terms of this Agreement and the Unions collective bargaining agreement.

ARTICLE VII - GENERAL WORKING CONDITIONS

7.1 Employment begins and ends at the project site, to be determined at the Pre-Job Conference.

7.2 Employees shall be at their place of work at the starting time and shall remain at their place of work until quitting time. The parties reaffirm their policy of a fair days work for a fair days pay.

7.3 The Contractor may utilize brassing, or other systems to check employees in and out. Should such procedures be required, the techniques and rules regarding such procedures shall be established by mutual consent of the parties at the pre-job conference.

7.4 There shall be no limit on production by workmen or restrictions on the full use of tools or equipment. Craftsmen using tools shall perform any work of their trade and shall work under the direction of the craft foreman. There shall be no restrictions on efficient use of manpower other than as may be required by safety regulations.

7.5 Crew Foreman shall be utilized as per the existing collective bargaining agreements. The Contractor agrees to allow crew foremen ample time to direct and supervise their crew. The Union agrees there will be no restrictions placed on crew foreman's ability to handle tools and materials.

7.6 The Contractor may utilize the most efficient methods or techniques of construction, tools or other labor saving devices to accomplish the work. Practices not a part of the terms and conditions of this Agreement will not be recognized.

7.7 Should overtime work be required, the Contractor will have the right to assign specific employees and/or crews to perform such overtime work as is necessary to accomplish the work.

7.8 The Contractor may establish such reasonable project rules as the Contractor deems appropriate. These rules will be reviewed and established at the pre-job conference and posted at the project site by the Contractor.

7.9 It is recognized that specialized or unusual equipment may be installed on the project and in such cases, the Union recognizes the right of the Contractor to involve the equipment supplier or vendor's personnel in supervising the setting of the equipment, making modifications and final alignment which may be necessary prior to and during the start-up procedure, in order to protect factory warranties.

7.10 In order to promote a harmonious relationship between the equipment or vendor's personnel and the Building Trades craftsmen, a meeting shall be held between the Contractor and the Unions prior to any involvement on the project by these personnel. The Contractor will inform the Unions of the nature of involvement by these personnel and the numbers of personnel to be involved, allowing ample time for the Union representatives to inform their stewards prior to the start of any work.

ARTICLE VIII - SAFETY

8.1 The employees covered by the terms of this Agreement shall at all times while in the employ of the Contractor be bound by the safety rules and regulations as established by the Contractor in accordance with the Construction Safety Act and OSHA.

(a) These rules and regulations will be published and posted at conspicuous places throughout the project.

8.2 In accordance with the requirements of OSHA, it shall be the exclusive responsibility of each Contractor on a jobsite to which this Agreement applies, to assure safe working conditions for its employees and compliance by them with any safety rules contained herein or established by the Contractor. Nothing in this Agreement will make the PLA Committee or any of its affiliates liable to any employees or to other persons in the event that injury or accident occurs.

ARTICLE IX - SUBCONTRACTING

9.1 The Contractor agrees that neither he nor any of his subcontractors will subcontract any work to be done on the project except to a person, firm or corporation party signatory to this Agreement.

9.2 Any Contractor or Sub-contractor working on the project covered by this Agreement shall as a condition to working on said project, become signatory to and perform all work under the terms of this Agreement. The furnishing of materials, supplies or equipment and the delivery thereof shall be in no case considered subcontracting.

ARTICLE X - UNION REPRESENTATION

10.1 Authorized representatives of the PLA Committee and its signatory affiliates shall have access to the project provided they do not interfere with the work of the employees and further provided that such representatives fully comply with the visitor and security rules established for the project.

10.2 Each PLA Committee affiliate which is a party to this Agreement shall have the right to designate a working journeyman as a steward. Such designated steward shall be a qualified worker performing the work of that craft and shall not exercise any supervisory functions. Each steward shall be concerned with the employees of the steward's employer and not with the employees of any other employer.

10.3 The working steward will be paid at the applicable wage rate for the job classification in which he is employed.

10.4 The working steward shall not be discriminated against because of his activities in performing his duties as steward, and except as otherwise provided in local agreements, shall be the last employee in his craft to be laid off in any reduction in force. Stewards will be subject to discharge to the same extent that other employees are only after notification to the Union Representative. The Contractor will permit stewards sufficient time to perform the duties inherent to a steward's responsibilities. Stewards will be offered available overtime work if qualified.

ARTICLE XI - GRIEVANCE AND ARBITRATION PROCEDURES

11.1 It is specifically agreed that in the event any disputes arises out of the interpretation or application of this Agreement, excluding jurisdictional disputes which are covered by an expedited procedure in Article XII below, the same shall be settled by means of the procedure set out herein upon mutual agreement of the parties. Otherwise, the procedure set forth in the local collective bargaining agreement shall be used, but in no case shall both procedures be utilized to resolve such disputes. No such grievance shall be recognized unless called to the attention of the Contractor by the Union or to the Union by the Contractor within five (5) working days after the alleged violation was committed or discovered by the grieving party.

- 11.2 Grievances shall be settled according to the following procedure:
 - (a) Step 1. The dispute shall be referred to the Steward of the craft union involved and a representative of the Contractor at the construction project.
 - (b) Step 2. In the event that the steward and the Contractor's representative at the construction site cannot reach agreement within two (2) working days after a meeting is arranged and held, the matter shall be referred to the Union Business Manager, a representative of the PLA Committee and the Project Superintendent and/or Project Manager.
 - (c) Step 3. In the event the dispute is not resolved within five (5) working days after completion of Step 2, these two shall request a panel of arbitrators from the U.S. Mediation and Conciliation Service for selection of an impartial arbitrator who shall hear the grievance and make a decision within ten (10) working days which shall be final and binding on all parties. The parties shall each pay the expense of their own representative. The decision of the arbitrator shall be binding upon all parties. The expense of the impartial arbitrator shall be borne equally by the Contractor and the involved craft Union.

ARTICLE XII - JURISDICTIONAL DISPUTES

This Agreement is entered into to prevent strikes, lost time, lockouts and to facilitate the peaceful adjustment of jurisdictional disputes in the building and construction industry and to prevent waste and unnecessary avoidable delays and expense, and for the further purpose of at all times securing for the employer sufficient skilled workers.

12.1 All decisions of the Illinois Jurisdictional Dispute Resolution Process are final and binding upon all parties.

12.2 Administrative functions under the Illinois Jurisdictional Dispute Resolution Process shall be performed through the offices of the President and/or Secretary-Treasurer of the Illinois State Federation of Labor, or their designated representative.

12.3 The primary concern of the Illinois Jurisdictional Dispute Resolution Process shall be the adjustment of jurisdictional disputes in the construction industry by independent Arbitrators selected by the Illinois State Federation of Labor. A sufficient number of Arbitrators shall be selected from geographical areas of the state of Illinois and shall be randomly assigned to a particular dispute subject only to the Arbitrator's ability to conduct a hearing and render a decision in a timely manner as required under this Process. Decisions shall be only for the specific job under consideration and shall become effective immediately upon issuance and complied with by all parties.

- 12.4 In rendering a decision, the Arbitrator shall determine:
 - (a) First, whether a previous agreement of record or applicable agreement, including a disclaimer agreement, between National or International Unions to the dispute or agreements between local unions involved in the dispute, governs;
 - (b) Only if the Arbitrator finds that the dispute is not covered by an appropriate or applicable agreement of record or agreement between the crafts to the dispute in the local area, the Arbitrator shall then consider whether there is a previous decision of record governing the case, including decisions of construction industry arbitration panels within the geographical jurisdiction of the local area Building Trades Council located within the State of Illinois;
 - (c) If the Arbitrator finds that a previous decision of record governs the case, the Arbitrator shall apply the decision of record in rendering his/her decision except under the following circumstances: After notice to the other parties to the dispute prior to the hearing that intends to challenge the decision of record, if a trade challenging the decision of record is able to demonstrate that the recognized and established prevailing practice in the locality of the work has been contrary to the applicable decision of record, and that historically in that locality the work in dispute has not been performed by the other craft or crafts, the Arbitrator may rely on such prevailing practice rather than the decision of record. If the craft relying on the decision of record demonstrates that it has performed the work in dispute in the locality of the job, then the Arbitrator finds that a craft has improperly obtained the prevailing practice in the locality through raiding, the undercutting of wages, or the use of

vertical agreements, the Arbitrator shall rely on the decision of record rather than the prevailing practice in the locality;

- (d) If no decision of record is applicable, the Arbitrator shall then consider the established trade practice in the industry and prevailing practice in the locality, and any party to the dispute may rely on prior decisions of record, decisions of construction industry arbitration panels within the state of Illinois.
- (e) Only if none of the above criteria is found to exist, the Arbitrator shall then consider that because efficiency, cost or continuity and good management are essential to the well-being of the industry, the interests of the consumer or the past practices of the employer shall not be ignored.

12.5 The Arbitrator shall set forth the basis for his/her decision and shall explain his/her findings regarding the applicability of the above criteria. If lower ranked criteria are relied upon, the Arbitrator shall explain why the higher-ranked criteria were not deemed applicable. The Arbitrator's decision shall only apply to the job in dispute. Agreements of Record are applicable only to those parties signatory to such agreements. Decisions of Record are those that were either attested to by the former Impartial Jurisdictional Disputes Board or adopted by the National Arbitration Panel.

12.6 There shall be no abandonment of work during any case participating in this Process or in violation of the arbitration decision. All parties to this Process release the Illinois State Federation of Labor from any liability arising from its action or inaction and covenant not to sue the Federation.

12.7 In the event of a dispute relating to trade or work jurisdiction, all parties, including the employers, contractors or subcontractors, agree that a final and binding resolution of the dispute shall be resolved as follows:

- a.) Representatives of the affected trades and the employer shall meet on the job site within forty-eight (48) hours after receiving notice in an effort to resolve the dispute. (In the event there is a dispute between local unions affiliated with the same International Union, the decision of the General President, or his/her designee, as the internal jurisdictional authority of that International Union, shall constitute a final and binding decision and determination as to the jurisdiction of work.)
- b.) If no settlement is achieved subsequent to the preceding Paragraph, the matter shall be referred to the local area Building & Construction Trades Council, which shall meet with the affected trades within forty-eight (48) hours subsequent to receiving written notice. In the event the parties do not wish to avail themselves of the local Building & Construction Trades Council, the parties may elect to invoke the services of their respective International Representatives with no extension of the time limitations. An agreement reached at this Step shall be final and binding upon all parties.
- c.) If no settlement agreement is reached during the proceedings contemplated by Paragraphs "a" or "b" above, the matter shall be immediately referred to the Illinois Jurisdictional Dispute Board pursuant to the provisions of the

Jurisdictional Dispute Resolution process, which may be amended from time to time, for final and binding resolution of said dispute. Said referral submission shall be in writing and served upon the Illinois State Federation of Labor, or its designated representative, pursuant to Article II of this agreement. The Administrator shall, within seventy-two (72) hours provide for the selection of an available Arbitrator to hear said dispute within this time period. Upon good cause shown to the Administrator, an additional seventy-two (72) hour extension for said hearing shall be granted at the sole discretion of the Administrator. Only upon mutual agreement of all parties may the Administrator extend the hearing for a period in excess of the time frames contemplated under this Paragraph. All time period contained in this Article specifically exclude Saturdays, Sundays and Holidays.

12.8 The Arbitrator chosen shall be randomly selected based on geographical location of the jurisdictional dispute and upon his/her availability to conduct a Hearing within 48 hours of said notice. The Arbitrator may issue a "bench" decision immediately following the Hearing or he/she may elect to only issue a written decision, said decision must be issued within 48 hours subsequent to the completion of the Hearing. Copies of all notices, pleadings, supporting memoranda, decisions, etc. shall be provided to all disputing parties, the local Building & Construction Trades Council, and the Illinois State Federation of Labor.

Any written decision shall be in accordance with this Process and shall be final and binding upon all parties to the dispute and may be a "short form" decision. Fees and costs of the arbitrator shall be divided evenly between the contesting parties except that any party wishing a full opinion and decision beyond the short form decision shall bear the reasonable fees and costs of such full opinion.

In the event a jurisdictional dispute is not referred to the Illinois Jurisdictional Dispute Resolution Process by either (or any) of the labor organizations claiming the work, the employer may, upon its own initiative, or at the request of the IDNR, petition the Administrator to assign an Arbitrator to hear the case. The decision of the Arbitrator shall be final and binding upon the parties hereto, their members, and affiliates.

In cases of jurisdictional disputes or other disputes between a signatory labor organization and another labor organization, both of which is an affiliate or member of the same International Union, the matter or dispute shall be settled in the manner set forth by their International Constitution and/or as determined by the International Union's General President whose decision shall be final and binding upon all parties. In no event shall there be an abandonment of work.

12.9 All interested parties shall be entitled to make presentations to the Arbitrator. Any interested party present at the Hearing, whether making a presentation or not, by such presence shall be deemed to accept the jurisdiction of the Arbitrator and to agree to be bound by its decision. In addition to the representative of the local labor organization, a representative of the labor organization's International Union may appear on behalf of the parties. Each party is responsible for arranging for its witnesses. In the event an Arbitrator's subpoena is required, the party requiring said subpoena shall prepare the subpoena for the Arbitrator to execute. Service of the subpoena upon any witness shall be the responsibility of the issuing party.

Upon approval of the Arbitrator, other parties not directly involved in the dispute may be invited to be present during the presentation and discussion. Attorneys shall not be permitted to

attend or participate in any portion of a Hearing.

The parties are encouraged to determine, prior to Hearing, documentary evidence which may be presented to the Arbitrator on a joint basis.

12.10 The Order of Presentation in all Hearings before an Arbitrator shall be:

- I. Identification and Stipulation of the Parties
- II. Union(s) claiming the disputed work presents its case
- III. Unions assigned the disputed work presents its case
- IV. Employer assigning the disputed work presents its case
- V. Evidence from other interested parties (i.e., general contractor, project manager, owner, etc.)
- VI. Rebuttal by unions(s) claiming the disputed work
- VII. Additional submissions permitted and requested by Arbitrator
- VIII. Closing arguments by the parties

12.11 To further the interests of the Illinois Jurisdictional Dispute Resolution Process, it is agreed that any party hereto or any employer may at any time file a Verified Complaint in writing with the Administrator alleging a violation of a decision or award previously made by an Arbitrator. The Administrator shall thereupon set a subsequent Hearing, before the same Arbitrator who presided at the initial Hearing or the next available Arbitrator in the event the original Arbitrator cannot timely hear the Verified Complaint. Said Hearing shall be held within three (3) days of receipt of the Verified Complaint with respect to the alleged violation. The Administrator shall interested parties of the time and place of the Hearing; provided, however, that the party filing the Verified Complaint must have served a copy of said document and all supporting documents to all interested parties and the Administrator.

All parties shall be given an opportunity to testify and present documentary evidence relating to the subject matter of the Hearing. Within forty-eight (48) hours after the conclusion of the Verified Complaint, the Arbitrator shall render a written decision in the matter and shall state whether or not there has been a violation of the Arbitrator's prior decision or award. Copies of the decision shall be served by regular mail, personal service of facsimile.

Should the Arbitrator determine that there has been a violation of its prior decision or award, it shall order immediate compliance by the offending party(s). The Arbitrator may take one or more of the following courses of action in order to enforce compliance with its decision:

a.) Assess liquidated damages not to exceed \$5,000.00 for each violation by the members of, or employees represented by, the parties hereto, and may assess liquidated damages not to exceed \$10,000.00 for each violation by either party hereto or any of its officers or representatives. If a fine is rendered by the Arbitrator, it should be commensurate with the seriousness of the violation having a relationship to lost hours for the labor organizations and lost efficiency for the employer. Each of the parties hereto hereby agrees for itself and its members to pay to the other party said liquidated damages within thirty (30) days from any sum, or sums, so assessed because of violations of a decision or award by itself, its officers or representatives, or its member(s). Should either party bound to this Process, or any of its members fail to pay the amount so assessed within the thirty (30) day time period herein provided, the party or member so failing to pay shall

be deprived of all the benefits of this Process until such time as the matter is adjusted to the satisfaction of the Administrator; provided, however, the foregoing shall not prohibit the offending party from defending jurisdictional dispute claim in a subsequent, non-related matter.

b.) In the event the Arbitrator determines that there is a violation of this Section, the Arbitrator may order an immediate cessation of all work by the non-compliant employers and employees performing work on the project. Enforcement of any decision of an Arbitrator or finding of non-compliance, including remedies contemplated under this Section, shall be pursuant to the terms and conditions of Section 12.12.

The filing of a Verified Complaint is not a necessary requirement in order for a party to seek judicial enforcement of the Arbitrator's prior decision or award.

12.12 The Illinois Jurisdictional Dispute Resolution Process, as an arbitration panel, nor its Administrator, shall have any authority to undertake any action to enforce its decision(s). Rather, it shall be the responsibility of the prevailing party to seek appropriate enforcement of a decision, including findings, orders or awards of the Arbitrator or Administrator determining non-compliance with a prior award or decision. The prevailing party in any enforcement proceedings shall be entitled to recover its costs and attorneys fees from the non-prevailing party. In the event the Illinois Jurisdictional Dispute Resolution Process or its Administrator is made a party to, or is otherwise required to participate in any such enforcement proceedings for whatsoever reason, the non-prevailing party shall bear all costs, attorneys' fees, and any other expenses incurred by the Process or the Administrator in those proceedings.

12.13 In the event there is a question as to the jurisdiction of the Illinois Jurisdictional Dispute Resolution Process, the primary responsibility for any determination of the arbitrability of a dispute and the jurisdiction of the Arbitrator shall be borne by the party requesting the Arbitrator to hear the underlying jurisdictional dispute. The affected party or parties may proceed before the Arbitrator even in the absence or one or more stipulated parties with the issue of jurisdiction as an additional item to be decided by the Arbitrator. The Administrator may participate in proceedings seeking a declaration or determination that the underlying dispute is subject to the jurisdiction and process of the Illinois Jurisdictional Dispute Resolution Process. In any such proceedings, the non-prevailing party and/or the party challenging the jurisdiction of the Illinois Jurisdictional Dispute Resolution Process and attorneys fees incurred by the Illinois Jurisdictional Dispute Resolution Process and/or its Administrator in establishing its jurisdiction.

12.14 All parties bound to the provisions of this Process hereby release the Illinois State Federation of Labor and the IDNR, their respective officers, agents, employees or designated representatives, specifically including any Arbitrator participating in said Process, from any and all liability or claim, of whatsoever nature, and specifically incorporating the protections provided in the Illinois Arbitration Act, as amended from time to time.

ARTICLE XIII - WORK STOPPAGES AND LOCKOUTS

13.1 During the term of this Agreement there shall be no strikes, picketing, work stoppages, slow downs are other disruptive activity for any reason by the PLA Committee, its affiliates or by any employee and there shall be no lockout by the Contractor. Failure of any Union or employee to cross any picket line established at the project site is a violation of this

Article.

13.2 The PLA Committee and its affiliates shall not sanction, aid or abet, encourage or continue any work stoppage, picketing or other disruptive activity and will not make any attempt of any kind to dissuade others from making deliveries to or performing services for or otherwise doing business with the Contractor at the project site. Should any of these prohibited activities occur the Union will take the necessary action to end such prohibited activities.

13.3 No employee shall engage in any activities which violate this Article. Any employee who participates in or encourages any activities which interfere with the normal operation of the project shall be subject to disciplinary action, including discharge, and if justifiably discharged for the above reasons, shall not be eligible for rehire on the same project for a period of not less than ninety (90) days.

13.4 Neither the PLA Committee nor its affiliates shall be liable for acts of employees for which it has not responsibility. The principal officer or officers of the PLA Committee will immediately instruct, order and use the best efforts of his office to cause the affiliated union or unions to cease any violations of this Article. The PLA Committee in its compliance with this obligation shall not be liable for unauthorized acts of its affiliates. The principal officer or officers of any involved affiliate will immediately instruct, order or use the best effort of his office to cause the employees the union represents to cease any violations of this Article. A union complying with this obligation shall not be liable for unauthorized acts of employees it represents. The failure of the Contractor to exercise its right in any instance shall not be deemed a waiver of its right in any other instance.

13.5 In lieu of any action at law or equity, any party shall institute the following procedure when a breech of this Article is alleged, after all involved parties have been notified of the fact.

- (a) The party invoking this procedure shall notify an individual to be mutually agreed upon, whom the parties agree shall be the permanent arbitrator under this procedure. In the event the permanent arbitrator is unavailable at any time, he shall appoint his alternate. Notice to the arbitrator shall be by the most expeditious means available, with notice by telegram or any effective written means to the party alleged to be in violation and all involved parties.
- (b) Upon receipt of said notice the arbitrator named above shall set and hold a hearing within twenty-four (24) hours if it is contended the violation still exists but not before twenty-four (24) hours after the telegraph notice to all parties involved as required above.
- (c) The Arbitrator shall notify the parties by telegram or any other effective written means, of the place and time he has chosen for this hearing. Said hearing shall be completed in one session. A failure of any party or parties to attend said hearing shall not delay the hearing of evidence or issuance of an Award by the Arbitrator.
- (d) The sole issue at the hearing shall be whether or not a violation of this Article has in fact occurred. The Award shall be issued in writing within three (3) hours after the close of the hearing, and may be issued without an

Opinion. If any party desires an Opinion, one shall be issued within fifteen (15) days, but its insurance shall not delay compliance with, or enforcement of, the Award. The Arbitrator may order cessation of the violation of this Article, and such Award shall be served on all parties by hand or registered mail upon issuance.

- (e) Such Award may be enforced by any court of competent jurisdiction upon the filing of the Agreement and all other relevant documents referred to herein above in the following manner. Telegraphic notice of the filing of such enforcement proceedings shall be given to the other party. In the proceeding to obtain a temporary order enforcing the Arbitrator's Award as issued under Section 13.5 of this Article, all parties waive the right to a hearing and agree that such proceedings may be *ex parte*. Such agreement does not waive any party's right to participate in a hearing for a final order of enforcement. The Court's order or orders enforcing the Arbitrator's Award shall be served on all parties by hand or by delivery to their last known address or by registered mail.
- (f) Any rights created by statue or law governing arbitration proceedings inconsistent with the above procedure or which interfere with compliance therewith are hereby waived by parties to whom they accrue.
- (g) The fees and expenses of the Arbitrator shall be borne by the party or parties found in violation, or in the event no violation is found, such fees and expenses shall be borne by the moving party.

ARTICLE XIV - GENERAL SAVINGS CLAUSE

14.1 If any Article or provision of this Agreement shall be declared invalid, inoperative or unenforceable by operation of law or by any of the above mentioned tribunals of competent jurisdiction, the remainder of this Agreement or the application of such Article or provision to persons or circumstances other than those as to which it has been held invalid, inoperative or unenforceable shall not be affected thereby.

ARTICLE XV - TERM OF AGREEMENT

15.1 This Agreement shall be in full force as of and from the date of the Notice of Award to the Substantial Completion of all applicable contractors.

**** RETURN WITH BID ****

Project # FR-425 Crystal Creek Flood Control Project, Phase II B Illinois Department of Natural Resources

Contractor Letter of Assent

(Date)

To All Parties:

In accordance with the terms and conditions of the contract for the referenced reclamation project, this Letter of Assent hereby confirms that the undersigned Prime Contractor or Subcontractor agrees to be bound by the terms and conditions of the Project Labor Agreement established and entered into by the Illinois Department of Natural Resources in connection with said Project.

It is the understanding and intent of the undersigned party that this Project Labor Agreement shall pertain only to the identified Project. In the event it is necessary for the undersigned party to become signatory to a collective bargaining agreement to which it is not otherwise a party in order that it may lawfully make certain required contributions to applicable fringe benefit funds, the undersigned party hereby expressly conditions its acceptance of and limits its participation in such collective bargaining agreement to its work on the Project.

(Authorized Company Officer)

(Company)

**** RETURN WITH BID ****

SCHEDULE A

PARTICIPATION AGREEMENT

| The undersigned, a subcontractor to | agrees to be bound to the |
|---|---------------------------|
| attached Project Agreement negotiated between | and the |
| PLA Committee. | |

Subcontractor

By

Date



(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

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

I, acting in my capacity as an officer of the undersigned bidder (or bidders if a joint venture), hereby assure the Department that on this project my company : (check one)

Meets or exceeds contract award goals and has provided documented participation as follows:

Disadvantaged Business Participation _____ percent

Attached are the signed participation statements, forms SBE 2025, required by the Special Provision evidencing availability and use of each business participating in this plan and assuring that each business will perform a commercially useful function in the work of the contract.

Failed to meet contract award goals and has included good faith effort documentation to meet the goals and that my company has provided participation as follows:

Disadvantaged Business Participation _____ percent

The contract goals should be accordingly modified or waived. Attached is all information required by the Special Provision in support of this request including good faith effort. Also attached are the signed participation statements, forms SBE 2025, required by the Special Provision evidencing availability and use of each business participating in this plan and assuring that each business will perform a commercially useful function in the work of the contract.

| Company By | The "as read" Low Bidder is required to com Submit only one utilization plan for each pro | |
|---------------|---|-------------------------------------|
| Title | submitted in accordance with the special provision. Bureau of Small Business Enterprises Local Let Projects | |
| | 2300 South Dirksen Parkway Springfield, Illinois 62764 | Submit forms to the Local Agency |
| | | |

Date

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.



DBE Participation Statement

| Subcontractor Registration | Letting |
|----------------------------|----------|
| Participation Statement | Item No. |
| (1) Instructions | Contract |

This form must be completed for each disadvantaged business participating in the Utilization Plan. This form shall be submitted in accordance with the special provision and will be attached to the Utilization Plan form. If additional space is needed complete an additional form for the firm.

(2) Work

| Pay Item No. | Description | Quantity | Unit Price | Total |
|-----------------|-------------|----------|------------|-------|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | Total | |

(3) Partial Payment Items

For any of the above items which are partial pay items, specifically describe the work and subcontract dollar amount:

(4) Commitment

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. 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.

| Signature for Prime Contractor | Signature for DBE Firm |
|---|--|
| Title | Title |
| Date | Date |
| Contact | Contact |
| Phone | Phone |
| Firm Name | Firm Name |
| Address | Address |
| City/State/Zip | |
| | Ε |
| The Department of Transportation is requesting disclosure of information that is personally | to accomplice the statutory purpose as outlined under the state 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:

| ame: | |
|----------|--|
| ddress: | |
| | |
| | |
| hone 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 323 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.

Crystal Creek Flood Control Project Phase II B Villages of Franklin Park and Schiller Park Cook County FR- 425



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 Natural Resources' 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

1. The Code provides:

Section 50-5. Bribery.

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

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

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

(b) Businesses. No business shall be barred from contracting with any unit of State or local government, 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 1961.

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

(d) Certification. Every bid submitted to and contract executed by the State, 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.

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

B. Felons

1. The Code provides:

Section 50-10. Felons. Unless otherwise provided, no person or business convicted of a felony shall do business with the State of Illinois or any State agency, 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.

2. 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. Debt Delinguency

1. The Code provides:

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

1. The Code provides:

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 500/50-12 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 200 shareholders, it may submit the information that Federal 10K companies are required to report, and list the names of any person or entity holding any ownership share that is in excess of 5%. The disclosure shall include the names, addresses, and dollar or proportionate share of ownership of each person making the disclosure, their instrument of ownership or beneficial relationship, and notice of any potential conflict of interest resulting from the current ownership or beneficial interest of each person making the disclosure having any of the relationships identified in Section 50-35 and on the disclosure form. **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. Disclosure Form Instructions

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 200 shareholders, it may submit the information that Federal 10K companies are required to report, and list the names of any person or entity holding any ownership share that is in excess of 5%. If a 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 <u>NOT APPLICABLE STATEMENT</u> on the second page of Form A must be signed and dated by a person 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? YES ____ NO
- 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 person per subcontract</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 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 a person that is authorized to execute contracts for your organization. **Photocopied or stamped signatures are not acceptable**. The person signing can be, but does not have to be, the person for which the form is being completed. The 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 a person 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</u> <u>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 | | |
|--------------------|---------------|---------------------------|
| | | |
| Legal Address | | |
| | | |
| City, State, Zip | | |
| | | |
| Telephone Number | Email Address | Fax Number (if available) |
| | | · · · · · |

Disclosure of the information contained in this Form is required by the Section 50-35 of the 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.

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)

| FOR INDIVIDUAL | . (type or print information) | | |
|----------------|--------------------------------------|-------------|-------------------------------------|
| NAME: | | | |
| ADDRESS | | | |
| | | | |
| Type of own | ership/distributable income share | : | |
| stock | sole proprietorship | Partnership | other: (explain on separate sheet): |
| % or \$ value | of ownership/distributable income sh | nare: | |

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

(a) State employment, currently or in the previous 3 years, including contractual employment of services.

Yes No

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

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

-C-

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, are you entitled to receive
 (i) more than 7 1/2% of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of 100% of the annual salary of the Governor?

Yes No

- 4. If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds 60% of the annual salary of the Governor, are you and your spouse or minor children entitled to receive (i) more than 15 % in the aggregate of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of two times the salary of the Governor? Yes No ___
- (b) State employment of spouse, father, mother, son, or daughter, including contractual employment services in the previous 2 years.

Yes <u>No</u>

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

- 1. Is your spouse or any minor children currently an officer or employee of the Capitol Development Board or the Illinois Toll Highway Authority? Yes ____No ___
- 2. Is your spouse or any minor children currently appointed to or employed by any agency of the State of Illinois? If your spouse or minor children is/are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds 60% of the annual salary of the Governor, provide the name of your spouse and/or minor children, the name of the State agency for which he/she is employed and his/her annual salary.
- 3. If your spouse or any minor children is/are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds 60% of the annual salary of the Governor, as of 7/1/07) are you entitled to receive (i) more then 7 1/2% of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of 100% of the annual salary of the Governor? Yes No ___
- 4. If your spouse or any minor children are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds 60% of the annual salary of the Governor, are you and your spouse or minor children entitled to receive (i) more than 15% in the aggregate of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of two times the annual salary of the Governor?

Yes <u>No</u>

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

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

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

(f) Relationship to anyone holding appointive office currently or in the previous 2 years; spouse, father, mother, son, or daughter. Yes <u>No</u>

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

- (h) Relationship to anyone who is or was a registered lobbyist in the previous 2 years; spouse, father, mother, son, or daughter. Yes <u>No</u>
- (i) Compensated employment, currently or in the previous 3 years, by any registered election or reelection committee registered with the Secretary of State or any county clerk of the State of Illinois, or any political action committee registered with either the Secretary of State or the Federal Board of Elections. Yes ____ No ___
- (j) Relationship to anyone; spouse, father, mother, son, or daughter; who was a compensated employee in the last 2 years by any registered election or re-election committee registered with the Secretary of State or any county clerk of the State of Illinois, or any political action committee registered with either the Secretary of State or the Federal Board of Elections.

Yes ___ No ___

3 Communication Disclosure.

Disclose the name and address of each lobbyist and other agent of the bidder or offeror who is not identified in Section 2 of this form, who is has communicated, is communicating, or may communicate with any State officer or employee concerning the bid or offer. This disclosure is a continuing obligation and must be promptly supplemented for accuracy throughout the process and throughout the term of the contract. If no person is identified, enter "None" on the line below:

Name and address of person(s):

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 penalty of perjury, I certify the contents of this disclosure to be true and accu knowledge. | |
| Completed by: | |
| Signature of Individual or Authorized Officer | Date |
| NOT APPLICABLE STATEMENT | |
| Under penalty of perjury, I have determined that no individuals associated withe criteria that would require the completion of this Form A. | ith this organization meet |
| This Disclosure Form A is submitted on behalf of the SUBCONTRACTOR list | ed 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 this Form is required by the Section 50-35 of the Code (30 ILCS 500). This information shall become part of the publicly available contract file. This Form B 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 open-ended contracts.

DISCLOSURE OF OTHER CONTRACTS, SUBCONTRACTS, AND PROCUREMENT RELATED INFORMATION

1. Identifying Other Contracts & Procurement Related Information. The SUBCONTRACTOR shall identify whether it has any pending contracts, subcontracts, including leases, bids, proposals, or other ongoing procurement relationship with any other State of Illinois agency: Yes ____No ___

If "No" is checked, the subcontractor only needs to complete the signature box on the bottom of this page.

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

THE FOLLOWING STATEMENT MUST BE CHECKED

| - | Signature of Authorized Representative | Date |
|---|--|------|
| | | |

OWNERSHIP CERTIFICATION

Please certify that the following statement is true if the individuals for all submitted Form A disclosures do not total 100% of ownership

Any remaining ownership interest is held by individuals receiving less than \$106,447.20 of the bidding entity's or parent entity's distributive income or holding less than a 5% ownership interest.

Yes No N/A (Form A disclosure(s) established 100% ownership)



- TIME AND PLACE OF OPENING BIDS. Sealed proposals for the improvement described herein will be received by the Department of Transportation for the Department of Natural Resources at the Harry R. Hanley Building, 2300 South Dirksen Parkway, in Springfield, Illinois until 10:00 o'clock a.m., August 2, 2013. All bids will be gathered, sorted, publicly opened and read in the auditorium at the Department of Transportation's Harry R. Hanley Building shortly after the 10:00 a.m. cut off time.
- 2. DESCRIPTION OF WORK. The proposed improvement is identified and advertised for bids in the Invitation for Bids as:
- 1W FR-425 Cook County Crystal Creek Flood Control Project Phase II B Villages of Franklin Park and Schiller Park

Approximately 1,239 feet of pavement removal and replacement or resurfacing and curb and gutter removal and replacement along Denley Avenue/Dora Street, installation of 1,945 feet of precast concrete box culverts, and modification of approximately 1235 feet of existing stream and/or ditch together with all appurtenant work to complete the project located along or under Denley Avenue/Dora Street from approximately 350 feet north of Seymour Avenue south to Panoramic Drive then west along the ditch on the north side of Panoramic Drive to near the west end of Panoramic Drive, all in Schiller Park, Illinois.

- **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 Illinois Department of Transportation and the Illinois Department of Natural Resources 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 Illinois Department of Natural Resources 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 Natural Resources

Marc Miller, Director

STANDARD SPECIFICATIONS

The "Standard Specifications for Road and Bridge Construction," prepared by the Department of Transportation of the State of Illinois and adopted by said Department, January 1, 2012; as amended and supplemented by the "Supplemental Specifications and Recurring Special Provisions," adopted January 1, 2013 (hereinafter referred to collectively as "Standard Specifications"), are incorporated by reference and made a part of this Contract for the Crystal Creek Flood Control Project Phase II B, Villages of Franklin Park and Schiller Park, Cook County, FR-425. (The Standard Specifications can be purchased from the Illinois Department of Transportation or downloaded from their web site.)

SPECIAL PROVISIONS

The following Special Provisions supplement the Standard Specifications, the latest edition of the "Manual on Uniform Traffic Control Devices for Streets and Highways," 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 the "Ashland Flood Control Project FR-399" project, and in the case of conflict with any part, or parts, of said Specifications, the said Special Provisions shall take precedence and shall govern.

DEFINITION OF TERMS

In the application of the Standard Specifications, the Recurring Special Provisions, the BDE Special Provisions, and the GBSP Special Provisions to this Contract, references to the Department of Transportation shall be interpreted to mean the Department of Natural Resources, Office of Water Resources, Division of Project Implementation (Department); except that references to the Department of Transportation within Section 102 - Advertisement, Bidding, Award, and Contract Execution, and references to Department publications - shall continue to mean the Department of Transportation. References to the Division of Highways shall be interpreted to mean the Department of Natural Resources; Office of Water Resources; Division of Project Implementation.

Wherever the word "Engineer" is used, it shall mean the Director of the Office of Water Resources of the Department of Natural Resources of the State of Illinois: or his authorized representative limited by the particular duties entrusted to him, nominally the Chief of Design of the Division of Project Implementation or his delegated representative.

Wherever the words "Right of Way" are used, it shall mean a general term denoting land, property, or interest therein, usually a strip, acquired for or devoted to water resource projects.

Wherever the words "Central Bureau of Construction" or District Office" are used, it shall mean the Department of Natural Resources, Office of Water Resources, Division of Project Implementation.

The advertising for Bids, Prequalification of Bidders, Issuance of Proposals, Proposal Guarantee, and Acceptance and Opening of Bids shall be in accordance with the policies and procedures of the Illinois Department of Transportation. Proposals, Schedule of Prices, Signature Sheet and other bidding or contract requirements as utilized by the Department of Natural Resources; Office of Water Resources; Division of Project Implementation shall apply to this contract.

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FOR SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS

Adopted January 1, 2013

This index contains a listing of SUPPLEMENTAL SPECIFICATIONS and 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 1-1-13)

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CHECK SHEET FOR RECURRING SPECIAL PROVISIONS

Adopted January 1, 2013

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

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Adopted January 1, 2013

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STATE OF ILLINOIS

SPECIAL PROVISIONS

LOCATION OF PROJECT

The proposed improvement is located in Sections 16 and 21 in Township 40 North, Range 12 East of the Third Principal Meridian, in Cook County, Illinois. The project is located along or under Denley Avenue/Dora Street from approximately 350 feet north of Seymour Avenue south to Panoramic Drive then west along the ditch on the north side of Panoramic Drive to near the west end of Panoramic Drive, all in Schiller Park, Illinois

DESCRIPTION OF PROJECT

The work of this contract consists of approximately 1,239 feet of pavement removal and replacement or resurfacing and curb and gutter removal and replacement along Denley Avenue/Dora Street, installation of 1,945 feet of precast concrete box culverts, and modification of approximately 1235 feet of existing stream and/or ditch, together with all appurtenant work required to complete the project in accordance with the plans, specifications, special provisions, and as directed by the Engineer.

PLANS AND DRAWINGS

The work to be done is shown on the drawings entitled "Crystal Creek Flood control Project Phase II B, Villages of Franklin Park and Schiller Park, Cook County, FR-425".

TIME LIMIT

<u>Time Limit for work</u>. The Contractor's attention is called to the fact that the appropriation for the current fiscal year, from which the cost of this contract will be paid, will lapse at the end of the fiscal year, which is June 30. Continuation of this contract into the next fiscal year will be contingent upon the Illinois General Assembly reappropriating funds for this contract. If funds are not reappropriated, this contract will be terminated on or before the appropriation lapse date.

STARTING DATE OF CONTRACT

Work on the project shall commence within 15 calendar days of the execution of the contract. The Contractor shall contact the Department within the 15 day period to schedule a preconstruction conference prior to the beginning of actual construction operations.

WORKING DAYS

Complete all construction by November 1, 2014. The only work that be allowed after the completion date will be reseeding/repair of seeded areas that do not provide the required cover after one growing season.

CONTRACT ENDING DATE

This Contract shall end on or before June 30, 2015 (see also interim progress date below).

PROGRESS AND LIQUIDATED DAMAGES

All work shall proceed in accordance with a Progress Schedule as provided in Article 108.02 of the Standard Specifications.

Establishing vegetation is critical to the success of the project. Seeding must be performed within specified times for optimum chances of success. Failure to complete all prerequisite earthwork, erosion control, *permanent* seeding (or temporary seeding, if approved by the Engineer) *and mulching* by June 15th, 2014 shall be considered a material breach of the Contract and the Department may assess liquidated damages immediately upon such failure, and until said work is completed, as provided in article 108.09 of the Standard Specifications.

All remaining work, including final clean-up, removal of equipment, final inspection, any alterations, repair, remedial or holdover work, reseeding, and submission of the final pay request shall be completed prior to the completion date of November 1, 2014. Failure to do so shall be considered a material breach of the Contract and the Department may assess liquidated damages immediately upon such failure, and until said work is completed, as provided in article 108.09 of the Standard Specifications.

CONTRACT CLAIM

The following provisions shall be substituted in Article 109.09 of the Standard Specifications.

- (1) The title District Engineer shall mean Chief of Design, Division of Project Implementation.
- (2) The section titled Procedure shall be as follows:

Procedure

All claims must be submitted to the Chief of Design, Division of Project Implementation. The Contractor may request an opportunity to present the claim verbally at each of the following levels if the claim has not been satisfactorily resolved at the previous level.

- (a) Chief of Design, Division of Project Implementation
- (b) Director of Water Resources

All requests for presentation must be made through the Chief of Design, Division of Project Implementation. Requests by the Contractor to present a claim at the second level will be accompanied by two additional copies of the claim with addenda.

Full compliance by the Contractor with the provisions of this Special Provision is a contractual condition precedent to the Contractor's right to seek relief in the Court of Claims. The Director's written response shall be deemed a final 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 response, the failure to so file shall constitute a release and waiver of the claim.

VALUE ENGINEERING PROPOSALS

Replace Section (a) of Article 104.07 of the Standard Specifications with the following:

(a) Proposal Submittals. Value Engineering Proposals shall be submitted in two phases as follows:

- (1) Concept Phase. Prior to the submittal of any Value Engineering Proposal, the Contractor shall submit a brief summary outlining the concept of the proposal to the Division of Project Implementation. Within five working days after receipt of the proposal concept, the Department will notify the Contractor as to whether or not the proposal concept qualifies for consideration as Value Engineering. If it appears, based on the concept, that the actual proposal will require a review period exceeding the normal review period, as outlined below, the Contractor will be so advised. Approval of the concept does not constitute or imply approval of the subsequent submittal of the complete Value Engineering Proposal.
- (2) After the concept has been approved, the Contractor, if electing to proceed with submittal of the complete Value Engineering Proposal, shall submit the proposal to the Division of Project Implementation for review. Provided the proposal is complete and contains all the required information for review, the Chief of Design of the Division of Project Implementation will notify the Contractor, within 10 working days after receipt of the proposal, as to the acceptability of the proposal, unless additional review time has been established as noted in the concept review process.

CONSTRUCTION PROCEDURE

The Contractor's attention is directed to the fact that the IDNR/Office of Water Resources (OWR), the U.S. Army Corps of Engineers (COE), the Illinois Environmental Protection Agency and the North Cook County Soil & Water Conservation District (NCCSWCD) have issued permits and or sign-offs for this project. The Contractor is also required to obtain and submit to the OWR any and all other permits for construction required by local ordinances, state and/or federal laws, including a construction permit from the Illinois State Toll Highway Authority (ISTHA). Any fees required for the procurement of other permits which may be necessary shall be at the expense of the Contractor, not to be reimbursed by the State, but to be considered included in the various items of work. The OWR has submitted plans to the ISTHA to aid in the acquisition of the Tollway permit. The Contractor shall contact Mr. Dana Havranek from the

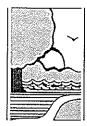
ISTHA permit section at 630-241-6800 ext. 3941 in order to obtain a tollway construction permit prior to commencement of any work on the ISTHA right-of-way or facilities. The Contractor shall be required to become a party to the Department of Natural Resources; Office of Water Resources Storm Water Pollution Prevention Plan, as mandated by the Illinois Environmental Protection Agency General Permit for Storm Water Discharges. These permits and the Storm Water Pollution Prevention Plan (SWPPP) along with the Contractor Certification Statement form, NPDES Notice of Intent, and the SWPPP Erosion Control Inspection Report form are included in this special provision.

These permits contain certain requirements which may affect the construction of this project. It will be the Contractor's responsibility to familiarize himself with the requirements of the abovementioned permits and conduct his work in accordance with those requirements and the special provision contained herein. See the following pages for copies of the permits From the OWR, COE, IEPA and the NCCSWCD.

Should the Contractor desire to use materials, construction methods, or procedures which differ substantially from that authorized by the granted permits, it is the responsibility of the Contractor to obtain approved amendments to the permits.

The Contractor shall name Schiller Park; Franklin Park; and the Illinois State Toll Highway Authority, and its agents, officers, directors, and employees as additional insured parties in the General Liability Insurance and any other type of insurance coverage that is required by the contract. The Contractor shall also add the ISTHA as an additional protected party on all performance bonds required. The Contractor shall maintain documentation throughout the duration of the contract evidencing the existence of required ISTHA insurance coverage. The required insurance documentation shall include, but not be limited to: copies of policies, certificates of insurance and additional insured endorsements.

All costs incurred by the Contractor in complying with the applicable requirements of the abovementioned permits/documents, construction/erosion control requirements, and additional insurance/bond requirements shall be considered as completely covered by the contract unit prices bid for the various items of work in the proposal.



Illinois Department of Natural Resources

One Natural Resources Way Springfield, Illinois 62702-1271 http://dnr.state.il.us

Pat Quinn, Governor Marc Miller, Director

Office of Water Resources • 2050 West Stearns Road • Bartlett, Illinois 60103

December 13, 2012

SUBJECT: Permit No. NE2006009 Crystal Creek Flood Control Project, Phases IIA and IIB Crystal Creek, Sister Stream, Sexton Ditch Cook County

Hon. Anna Montana, Mayor Village of Schiller Park 9526 W. Irving Park Road Schiller Park, Illinois 60176 Hon. Barrett F. Pedersen, Village President Village of Franklin Park 9500 Belmont Avenue Franklin Park, Illinois 60131

Dear Ms. Montana and Mr. Pedersen:

As requested in the Illinois Department of Natural Resources, Office of Water Resources' November 5, 2012 letter, condition (13) of the subject permit is hereby revised to read as follows:

(13) If the construction activity permitted is not completed on or before December 31, 2015, this permit shall cease and be null and void. When all work is constructed, the permittee shall notify the Department so that a final inspection can be completed.

RECOMMENDED: Oand .or.l Gary W. Jekeb, Chief

Northeastern Illinois Regulatory Program Section

APPROVED:

an Miller

Marc Miller, Director Department of Natural Resources

MM:ARJ:GWJ:crw

APPROVAL RECOMMENDED:

Arlan R. Juhl, Director Office of Water Resources



Illinois Department of Natural Resources

Rod R. Blagojevich, Governor Sam Flood, Acting Director

One Natural Resources Way • Springfield, Illinois 62702-1271 http://dnr.state.il.us

January 24, 2006

SUBJECT: Permit No. NE2006009 Crystal Creek Flood Control Project, Phases IIA and IIB Crystal Creek, Sister Stream, Sexton Ditch Cook County Application No. 2004470

Honorable Anna Montana Village President Village of Schiller Park 9526 W. Irving Park Road Schiller Park, Illinois 60176 Honorable Daniel Pritchett Village President Village of Franklin Park 9500 Belmont Avenue Franklin Park, Illinois 60131

Dear Ms. Montana and Mr. Pritchett:

We are enclosing Permit No. NE2006009 authorizing the subject project.

If any changes in the location or plans of the work are proposed, revised plans should be submitted promptly to my office for review and approval before construction begins.

Upon receipt and review of this permit and all conditions included therein, please properly execute and return the attached acceptance slip within sixty (60) days from the date of this permit.

When the work is completed, please contact Heather McGowan of my staff at 847/608-3100 extension 2025 so we may schedule a final inspection.

Sincerely,

Gary Venton

Gary W. Jereb, P.E., Chief Northeastern Illinois Regulatory Programs Section

GJ/HM:crw Enclosure cc: Chicago District Corps of Engineers (Chic. COE) Arlan Juhl, IDNR/OWR Ken Hinterlong, FEMA -6-

4 lanning



Illinois Department of **Natural Resources**

One Natural Resources Way Springfield, Illinois 62702-1271 http://dnr.state.il.us

Pat Quinn, Governor Marc Miller, Director

Office of Water Resources • 2050 West Stearns Road • Bartlett, Illinois 60103

January 20, 2010

SUBJECT: Permit No. NE2006009 Crystal Creek Flood Control Project, Phases IIA and IIB Crystal Creek, Sister Stream, Sexton Ditch Cook County

Honorable Anna Montana, Mayor Village of Schiller Park 9526 W. Irving Park Road Schiller Park, Illinois 60176 Honorable Barrett F. Pedersen, Village President Village of Franklin Park 9500 Belmont Avenue Franklin Park, Illinois 60131

Dear Ms. Montana and Mr. Pedersen:

As requested in the Illinois Department of Natural Resources, Office of Water Resources' September 28, 2009 letter, condition (13) of the subject permit is hereby revised to read as follows:

 (13) If the construction activity permitted is not completed on or before December 31, 2012, this permit shall cease and be null and void.
 When all work is constructed, the permittee shall notify the Department so that a final inspection can be completed.

RECOMMENDED: ONOL

Gary W. Jeteb, Chief Northeastern Illinois Regulatory Program Section APPROVAL RECOMMENDED:

Gary R. Clark, Director Office of Water Resources

APPROVED:

Mare Miller

Marc Miller, Director Department of Natural Resources

MM:GRC:GWJ:crw
 cc: Chicago District, U.S Army Corps of Engineers
 Arlan Juhl, IDNR/OWR – Division of Water Resources Planning
 Ken Hinterlong, FEMA

-7-



PERMIT NO. NE2006009 DATE: January 24, 2006

State of Illinois

Department of Natural Resources, Office of Water Resources

Permission is hereby granted to:

1.50

Village of Schiller Park 9526 W. Irving Park Road Schiller Park, Illinois 60176 Village of Franklin Park 9500 Belmont Avenue Franklin Park, Illinois 60131

to construct a public flood control project, including culvert replacements and installations, channel reshaping, and pedestrian bridge replacements, in the floodways of Crystal Creek, Sister Stream and Sexton Ditch in Section 16 and the Northwest Quarter of Section 21, Township 40 North, Range12 East of the Third Principal Meridian in Cook County,

in accordance with an application dated December 28, 2004, and the plans and specifications entitled:

CRYSTAL CREEK FLOOD CONTROL PROJECT, PHASE IIA - ALTERNATIVE 8, SHEETS 1 TO 3 OF 6, UNDATED, CRYSTAL CREEK FLOOD CONTROL PROJECT PHASE IIB- ALTERNATIVE 8, SHEETS 4 TO 6 OF 6, UNDATED, ALL RECEIVED DECEMBER 30, 2004, PHASE II, TYPICAL CROSS-SECTIONS, TWELVE SHEETS, UNDATED, RECEIVED JULY 1, 2005.

Examined and Recommended:

Gary Ŵ. Jereb, Chief Northeastern Illinois Regulatory Programs Section

Approval Recommended:

Gary R. Clark, Director Office of Water Resources

Approved:

Sam Flood, Acting Director Department of Natural Resources

This PERMIT is subject to the terms and special conditions contained herein.

-8-

PERMIT NO. NE2006009

THIS PERMIT IS SUBJECT TO THE FOLLOWING CONDITIONS:

1)

- This permit is granted in accordance with the Rivers, Lakes and Streams Act "615 ILCS 5."
- 2) This permit does not convey title to the permittee or recognize title of the 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 activity or any part thereof will be located, or otherwise grant to the 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 the permittee from liability for damage to persons or property resulting from the work covered by this permit, and does not authorize any injury to private property or invasion of private rights.
- 4) This permit does not relieve the permittee of the responsibility to obtain other federal, state or local authorizations required for the construction of the permitted activity; and if the permittee is required by law to obtain approvals from any federal or state agency to do the work, this permit is not effective until the federal and state approvals are obtained.
- 5) The permittee shall, at the permittee's own expense, remove all temporary piling, cofferdams, false work, and material incidental to the construction of the project. If the permittee fails to remove such structures or materials, the Department may have removal made at the expense of the permittee.
- 6) In public waters, if future need for public navigation or other public interest 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 the permittee's successors as required by the Department 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.
- 7) The execution and details of the work authorized shall be subject to the review and approval of the Department. Department personnel shall have the right of access to accomplish this purpose.
- 8) Starting work on the activity authorized will be considered full acceptance by the permittee of the terms and conditions of the permit.
- 9) The Department in issuing this permit has relied upon the statements and representations made by the permittee; if any substantive statement or representation made by the permittee is found to be false, this permit will be revoked; and when revoked, all rights of the permittee under the permit are voided.
- 10) In public waters, the permittee and the permittee's successors shall make no claim whatsoever to any interest in any accretions caused by the activity.
- 11) In issuing this permit, the Department does not ensure the adequacy of the design or structural strength of the structure or improvement.
- 12) Noncompliance with the conditions of this permit will be considered grounds for revocation.
- 13) If the construction activity permitted is not completed on or before <u>December 31, 2009</u>, this permit shall cease and be null and void. When all work is constructed, the permittee shall notify the Department so that a final inspection can be completed.

THIS PERMIT IS SUBJECT TO THE FOLLOWING SPECIAL CONDITIONS:

- a) The Permittees shall provide the Department of Natural Resources, Office of Water Resources Bartlett office with "asbuilt" plans when construction has been completed.
- b) Within 90 days of the completion of the project hereby permitted, the Permittees shall submit all drawings, computations and other information to the Department of Natural Resources, Office of Water Resources Bartlett office and to the Federal Emergency Management Agency in order to obtain a regulatory floodway map and flood profile revision for the affected streams.

-9-



DEPARTMENT OF THE ARMY

CHICAGO DISTRICT, CORPS OF ENGINEERS 111 NORTH CANAL STREET CHICAGO, ILLINOIS 60606-7206

REPLY TO ATTENTION OF

August 27, 2012

Technical Services Division Regulatory Branch LRC-2005-22976, RAMS #200500166

SUBJECT: Construction of Flood Control Project in Schiller Park and Franklin Park Consisting of Channel Modifications to Crystal Creek, Sexton Ditch and Sister Stream, Three Culvert Modifications, and Approximately 1253 Feet of New Culverts Located Upstream of 25th Avenue in Schiller Park and Franklin Park, Cook County, Illinois

Honorable Anna Montana Village President 9526 W. Irving Park Road Schiller Park, Illinois 60176 Honorable Daniel B. Pritchett Village President 9500 Belmont Avenue Franklin Park, Illinois 60131

Dear Ms. Montana and Mr. Pritchett:

This is in reference to your letter dated June 18, 2012, in which you requested an extension to your Individual Permit issued on September 18, 2009.

This office has reviewed your proposal for an extension of time and agrees that such an extension would not be contrary to the public interest. Accordingly, the subject permit is hereby specifically modified to extend the expiration date to June 18, 2015. All other permit conditions to which the authorized work was made subject to shall remain in full force and effect. This letter shall be added to all copies of the permit, including those at the work site.

This determination covers only your project as described above and as shown in the previously approved plans. Caution should be taken so that construction materials and/or activities do not enter any waterway or wetlands beyond the scope of this determination. If the design, location or purpose of the project is changed, you should contact this office to determine the need for other authorization. Be informed that if it becomes necessary to request future time extensions to complete the project, this office reserves the right to re-evaluate the project pursuant to new regulations or District policy.

It is your responsibility to obtain any required state or local approvals for your time extension before commencing any work. If you have any questions, please contact Kathy Chernich, Chief, East Section, by telephone at 312 846-5531or email at Kathy.g.chernich@usace.army.mil.

Sincerely,

Auto home

For Kathleen G. Chernich Chief, East Section Regulatory Branch

Copy Furnished:

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Illinois Department of Natural Resources/OWR (Bill Milner) Illinois Department of Natural Resources (Robert Schanzle) North Cook County SWCD (McAndless)

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DEPARTMENT OF THE ARMY

CHICAGO DISTRICT, CORPS OF ENGINEERS 111 NORTH CANAL STREET CHICAGO, ILLINOIS 60606-7206

SEP 1 8 2009

REPLY TO ATTENTION OF

Technical Services Division Regulatory Branch LRC-2005-22976, RAMS #200500166

SUBJECT: Construction of Flood Control Project in Schiller Park and Franklin Park Consisting of Channel Modifications to Crystal Creek, Sexton Ditch and Sister Stream, Three Culvert Modifications, and Approximately 1253 Feet of New Culverts Located Upstream of 25th Avenue in Schiller Park and Franklin Park, Cook County, Illinois

Honorable Anna Montana Village President 9526 W. Irving Park Road Schiller Park, Illinois 60176 Honorable Barrett F. Pedersen Village President 9500 Belmont Avenue Franklin Park, Illinois 60131

Dear Ms. Montana and Mr. Pritchett:

The U.S. Army Corps of Engineers has authorized the above-referenced project under Section 404 of the Clean Water Act, as described in your notification and as shown on the plans titled, "State of Illinois, Department of Natural Resources, Office of Water Resources, Crystal Creek Flood Control Project", dated Phase IIA, Villages Of Franklin Park And Schiller Park, Cook County 2008", dated November 13, 2007.

The approved mitigation and management plan is titled, "Management and Monitoring Plan for Crystal Creek Flood Control Project, dated November 14, 2007, Revised October 31, 2008, prepared by Illinois Department of Natural Resources. Enclosed is your copy of the executed permit which becomes effective on the date of this letter.

This determination covers only your project as described above. If the design, location, or purpose of the project is changed, you should contact this office to determine the need for further authorization. If it is anticipated that the activity as described cannot be completed within the time limits of the authorization, you must submit a request for a time extension to this office at least thirty (30) calendar days prior to the expiration date of your permit. Failure to do so will – result in the District's re-evaluation of your project, which may include the issuance of a public notice.

Once you have completed your project, please sign and return the enclosed compliance certification. If you have any questions, please contact Kathy Chernich of my staff by telephone at (312) 846-5531, or email at kathy.g.chernich@usace.army.mil.

-13-

ncerely. Mitchell A. Isoe Chief, Regulatory Branch

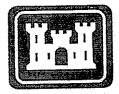
Enclosure

Copy Furnished (with authorization):

United States Fish & Wildlife Service (Rogner) North Cook County SWCD (McAndless)

Copy Furnished w/out authorization:

Illinois Department of Natural Resources/OWR (Jereb) Illinois Environmental Protection Agency (Heacock)



PERMIT COMPLIANCE CERTIFICATION

Permit Number: LRC-2005-22976, RAMS 200500166

Permittee: Honorable Anna Montana Village President 9526 W. Irving Park Road Schiller Park, Illinois 60176 Honorable Barrett F. Pedersen Village President 9500 Belmont Avenue Franklin Park, Illinois 60131

Date of Issuance: SEP 1 8 2009

I hereby certify that the work authorized by the above-referenced permit has been completed in accordance with the terms and conditions of said permit and that compensatory wetland mitigation was completed in accordance with the approved mitigation plan.¹

PERMITTEE

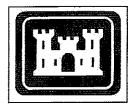
DATE

Upon completion of the activity authorized by this permit and any mitigation required by the permit, this certification must be signed and returned to the following address:

U.S. Army Corps of Engineers Chicago District, Regulatory Branch 111 North Canal Street, Suite 600 Chicago, Illinois 60606-7206

Please note that your permitted activity is subject to compliance inspections by Corps of Engineers representatives. If you fail to comply with this permit, you may be subject to permit suspension, modification, or revocation.

¹ If compensatory mitigation was required as part of your authorization, you are certifying that the mitigation area has been graded and planted in accordance with the approved plan. You are acknowledging that the maintenance and monitoring period will begin after a site inspection by a Corps of Engineers representative or after thirty days of the Corps' receipt of this certification. You agree to comply with all permit terms and conditions, including additional reporting requirements, for the duration of the maintenance and monitoring period.



DEPARTMENT OF THE ARMY

PERMIT

Permittees:

Honorable Anna Montana Village President 9526 W. Irving Park Road Schiller Park, Illinois 60176

Honorable Barrett F. Pedersen Village President 9500 Belmont Avenue Franklin Park, Illinois 60131

Application No.: LRC #2005-22976, RAMS #200500166

Issuing Office: CHICAGO DISTRICT, U.S. ARMY CORPS OF ENGINEERS

DEFINITIONS: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform the work in accordance with the terms and conditions specified below.

Project Description: Construction of Flood Control Project in Schiller Park and Franklin Park Consisting of Channel Modifications to Crystal Creek, Sexton Ditch and Sister Stream, Three Culvert Modifications, and Approximately 1253 Feet of New Culverts Located Upstream of 25th Avenue in Schiller Park and Franklin Park, Cook County, Illinois, as described in your notification and as shown on "State of Illinois, Department of Natural Resources, Office of Water Resources, Crystal Creek Flood Control Project", dated Phase IIA, Villages Of Franklin Park And Schiller Park, Cook County 2008", dated November 13, 2007.

The approved mitigation and management plan is titled, "Management and Monitoring Plan for Crystal Creek Flood Control Project, dated November 14, 2007, Revised October 31, 2008, prepared by Illinois Department of Natural Resources.

Project Location: Schiller Park and Franklin Park, Cook County, Illinois, Des Plaines River Watershed, (Sections 16 and 21, Township 40 North, Range 12 East)

Permit Conditions

General Conditions:

1. The time limit for completing the authorized work ends on July 31, 2012. If you find that you need more time to complete the authorized activity(s), submit your request for a time extension to this office for consideration at least one month before the above date is reached.

2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.

3. If you discover any previously unknown historic or archaeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and State coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.

5. You shall comply with the water quality certification issued under Section 401 of the Clean Water Act by the Illinois Environmental Protection Agency for the project. Conditions of the certification are conditions of this authorization. For your convenience, a copy of the certification is attached if it contains such conditions.

6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being accomplished in accordance with the terms and conditions of your permit.

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Special Conditions:

1. This permit is based on all material submitted as part of application number LRC #2005-22978, RAMS #200500166. You must comply with all applicable regulations and the mitigation requirements in carrying out this project. Failure to comply with the terms and conditions of this permit may result in suspension and revocation of your permit.

2. You shall undertake and complete the project as described in the plans titled, "State of Illinois, Department of Natural Resources, Office of Water Resources, Crystal Creek Flood Control Project", dated Phase IIA, Villages Of Franklin Park And Schiller Park, Cook County 2008", dated November 13, 2007 and, including all relevant documentation to the project plans as proposed.

3. You shall fully implement the Project Mitigation Document titled "Management and Monitoring Plan For Crystal Creek Flood Control Project, dated November 14, 2007, Revised October 31, 2008, prepared by Illinois Department of Natural Resources. The required compensatory mitigation shall be completed concurrent with the construction of the authorized activity. All created wetlands shall meet performance criteria in accordance with the performance standards in the approved revegetation document.

4. Your responsibility to complete the required creek corridor revegetation plan as set forth in Special Condition #3 will not be considered fulfilled until you have demonstrated successful revegetation of the project site and have received written verification of that success from the U.S. Army Corps of Engineers.

5. Throughout the duration of the project you shall comply with the project's soil erosion and sediment control (SESC) plans and the installation and maintenance requirements of the SESC practices on-site. You shall notify this office any changes or modifications to the approved plan set. Please be aware that field conditions during project construction may require the implementation of additional SESC measures for further protection of aquatic resources. If you fail to implement corrective measures, this office may require more frequent site

You shall complete the following requirements:

a. You shall comply with the North Cook County Soil and Water Conservation District's (NCCSWCD) written and verbal recommendations regarding the soil erosion and sediment control (SESC) plan and the installation and maintenance requirements of the SESC practices on-site.

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b. You shall notify the NCCSWCD of any changes or modifications to the approved plan set. Field conditions during project construction may require the implementation of additional SESC measures. If you fail to implement corrective measures, this office may require more frequent site inspections to ensure the installed SESC measures are acceptable.

c. Work authorized herein shall not commence until you provide written evidence to this office that the NCCSWCD has determined that your plans meets technical standards. In addition, you shall schedule a preconstruction meeting with NCCSWCD to discuss the SESC plan and the installation and maintenance requirements of the SESC practices on the site.

6. You shall enter into an agreement with the NCCSWCD which allows the NCCSWCD to oversee the successful completion of the mitigation plans and any Best Management Practices (BMP's) required for the project. Part of the agreement will require you to submit to their office a copy of the approved Management and Monitoring plans for the mitigation work. Please contact the NCCSWCD at (847 463-0071) for further instructions regarding this requirement.

7. The Villages of Schiller Park and Franklin Park have acquired rights-of-way and/or an easement from another public entity such as a park district or a school district within the boundaries of the project. Therefore, both villages will be responsible for operation and long-term maintenance and management of the project, with each governmental agency responsible for portions of the project that lie within their village boundary.

You shall submit to this office for review a long-term management plan that encompasses all work on the stream corridor within the project boundary. The management plan will be set in motion immediately after issuance of the Corps final sign-off letter approving the completed work as stated under the 3-year revegetation plan. The plan shall outline a management strategy for maintenance of the stream corridor in perpetuity.

8. You shall ensure that any wetland areas and buffers to the streams that have been created or preserved as mitigation for work authorized by this permit shall not be made subject to any future construction and/or fill activities, except for the purposes of enhancing or restoring the mitigation area associated with this permit. All plans are to be approved by this office prior to commencement of any work.

9. You are responsible for all work authorized herein and for ensuring that all contractors are aware of the terms and conditions of this authorization. A copy of this authorization

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must be present at the project site during all phases of construction.

10. You shall notify this office of any proposed modifications to the project, including revisions to any of the plans or documents cited in this authorization. You must receive approval from this office before work affected by the proposed modification is performed.

11. You shall notify this office prior to the transfer of this authorization and liabilities associated with compliance with its terms and conditions. The transferee must sign the authorization in the space provided and forward a copy of the authorization to this office.

Further Information:

1. Congressional Authorities. You have been authorized to undertake the activity described above pursuant to:

() Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403).

(X) Section 404 of the Clean Water Act (33 U.S.C. 1344).

() Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).

2. Limits of this Authorization.

a. This permit does not obviate the need to obtain other federal, state, or local authorizations required by law.

b. This permit does not grant any property rights or exclusive privileges.

c. This permit does not authorize any injury to the property or rights of others.

d. This permit does not authorize interference with any existing or proposed Federal project.

3. Limits of Federal Liability. The Federal Government does not assume any liability for the following:

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a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.

b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on the behalf of the United States in the public interest.

c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.

d. Design or construction deficiencies associated with the permitted work.

e. Damage claims associated with any future modifications, suspension, or revocation of this permit.

4. Reliance on Applicant's Data: The determination of this office that issuance of this permit is not contrary to the public interest was made in the reliance on the information you provided.

5. Reevaluation of Permit Decision. The office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:

a. You fail to comply with the terms and conditions of this permit.

b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (see 4 above).

c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions. General Condition 1 established a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of

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the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

Your signature below, as a permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.

DATE 4-2-0

PERMITTEE DATE Honorable Barrett F. Pedersen

Honorable Anna Montana Village President 9526 W. Irving Park Road Schiller Park, Illinois 60176

Village President 9500 Belmont Avenue Franklin Park, Illinois 60131

This authorization becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

LRC-2005-22978, RAMS #200500166

Corps, Authorization Number AND ON BEHALF OF

Vincent V. Quarles Colonel, U.S. Army District Commander

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In the event that the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit shall be binding on the new owner(s) of the property. To validate the transfer of this permit and the liabilities associated with compliance to its terms and conditions, the transferee shall provide a signature and a transfer date below.

| TRANSFEREE | edanti - 166 | | <u> </u> | DATE | | |
|------------|------------------|----------|----------|------|----|--|
| | | | | | a. | |
| ADDRESS | _ | <u> </u> | | | | |
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| TELEPHONE | | | | | | |
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ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, Springfield, Illinois 62794-9276 - (217) 782-2829 James R. Thompson Center, 100 West Randolph, Suite 11-300, Chicago, IL 60601 - (312) 814-6026

> DOUGLAS P. SCOTT, DIRECTOR RECEIV OFFICE OF WATER FOR COLORS SPRINGFIELD, FLUNCIS

> > JUN 05 (109

| | DIR Signature |
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| AB PGMD PL:16 | 17.1 |
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217/782-0610

MAY 2 2 2009

Chicago District Corps of Engineers 111 North Canal Street Chicago, IL 60606

Re: Crystal Creek Flood Control Project (Cook County) Construct flood control project - Crystal Creek and tributaries Log # C-1015-04 [CoE appl.# 200500166]

Gentlemen:

This Agency received a request on November 18, 2004 from Crystal Creek Flood Control Project requesting necessary comments concerning the channel improvements of 1320 feet of Crystal Creek with split-face block walls and culvert modifications, 645 feet of channel modifications on Sister Stream with culvert modifications, 1253 feet of new culverts along Sexton Ditch and 733 feet of new channel at upstream end of Sexton Ditch. We offer the following comments.

Based on the information included in this submittal, it is our engineering judgment that the proposed project may be completed without causing water pollution as defined in the Illinois Environmental Protection Act, provided the project is carefully planned and supervised.

These comments are directed at the effect on water quality of the construction procedures involved in the above described project and are not an approval of any discharge resulting from the completed facility, nor an approval of the design of the facility. These comments do not supplant any permit responsibilities of the applicant toward the Agency.

This Agency hereby issues certification under Section 401 of the Clean Water Act (PL 95-217), subject to the applicant's compliance with the following conditions:

- 1. The applicant shall not cause:
 - a. violation of applicable water quality standards of the Illinois Pollution Control Board, Title 35, Subtitle
 C: Water Pollution Rules and Regulation;
 - b. water pollution defined and prohibited by the Illinois Environmental Protection Act; or
 - c. interference with water use practices near public recreation areas or water supply intakes.
- 2. The applicant shall provide adequate planning and supervision during the project construction period for implementing construction methods, processes and cleanup procedures necessary to prevent water pollution and control erosion.

 ROCKFORD - 4302 North Main Street, Rockford, IL 61103 - (815) 987-7760
 Des Plaines - 9511 W. Harrison St., Des Plaines, IL 60016 - (847) 294-4000

 ELGIN - 595 South State, Elgin, IL 60123 - (847) 608-3131
 PEORIA - 5415 N. University St., Peoria, IL 61614 - (309) 693-5463

 BUREAU OF LAND - PEORIA - 7620 N. University St., Peoria, IL 61614 - (309) 693-5462
 CHAMPAIGN - 2125 South First Street, Champaign, IL 61820 - (217) 278-5800

 COLUNSVILLE - 2009 Mall Street, Collinsville, IL 62234 - (618) 346-5120
 -234MARION - 2309 W. Main St., Suite 116, Marion, IL 62959 - (618) 993-7200

Page No. 2 Log No. C-1015-04 [CoE # 200500166]

- 3. Any spoil material excavated, dredged or otherwise produced must not be returned to the waterway but must be deposited in a self-contained area in compliance with all state statutes, regulations and permit requirements with no discharge to waters of the State unless a permit has been issued by this Agency. Any backfilling must be done with clean material and placed in a manner to prevent violation of applicable water quality standards.
- 4. All areas affected by construction shall be mulched and seeded as soon after construction as possible. The applicant shall undertake necessary measures and procedures to reduce erosion during construction. Interim measures to prevent erosion during construction shall be taken and may include the installation of staked straw bales, sedimentation basins and temporary mulching. All construction within the waterway shall be constructed during zero or low flow conditions. The applicant shall be responsible for obtaining an NPDES Storm Water Permit prior to initiating construction if the construction activity associated with the project will result in the disturbance of 1 (one) or more acres, total land area on or after March 10, 2003. An NPDES Storm Water Permit may be obtained by submitting a properly completed Notice of Intent (NOI) form by certified mail to the Agency's Division of Water Pollution Control, Permit Section.
- 5. The applicant shall implement erosion control measures consistent with the "Illinois Urban Manual" (IEPA/USDA, NRCS; 2002).
- 6. The applicant is advised that the following permit(s) must be obtained from the Agency: the applicant must obtain permits to construct sanitary sewers, water mains and related facilities prior to construction.
- 7. The channel relocation shall be constructed under dry conditions and stabilized to prevent erosion prior to the diversion of flow.
- 8. The proposed work shall be constructed with adequate erosion control measures (i.e., silt fences, straw bales, etc.) to prevent transport of sediment and materials to the adjoining wetlands and downstream.
- 9. The wetland mitigation plan received by the Agency on July 1, 2005 shall be implemented. Modifications to the wetland mitigation plan must be submitted to the Agency for approval. The permittee shall submit annual reports by July 1 of each calendar year on the status of the mitigation The first annual report shall include a hydric soils determination that represents the soils at the completion of initial construction for the wetland mitigation site(s). The permittee shall monitor the mitigation for 5 years after the completion of initial construction. A final report shall be submitted within 90 days after completion of a 5year monitoring period. Each annual report and the final report shall include the following: IEPA Log No., date of completion of initial construction, representative photographs, floristic quality index, updated topographic maps, description of work in the past year, the performance standards for the mitigation as stated in the mitigation plan, and the activities remaining to complete the mitigation plan. For welland mitigation sites containing non-hydric soils at the time of initial construction, the final report shall include a hydric soils determination that represents the soils at the end of the 5-year monitoring period. For wetland mitigation provided by purchase of wetland mitigation banking credits, in lieu of the above monitoring and reporting, the permittee shall submit written proof from the wetland mitigation bank that the wetland credits have been purchased within thirty (30) days of said purchase. The subject reports and proof of purchase of mitigation credits shall be submitted to:

Illinois Environmental Protection Agency Bureau of Water Permit Section 1021 North Grand Avenue East Post Office Box 19276 Springfield, Illinois 62794-9276 Page No. 3 Log No. C-1015-04 [CoE # 200500166]

This certification becomes effective when the Department of the Army, Corps of Engineers, includes the above condition # 1 through # 9 as conditions of the requested permit issued pursuant to Section 404 of PL 95-217. This certification does not grant immunity from any enforcement action found necessary by this Agency to meet its responsibilities in prevention, abatement, and control of water pollution.

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Very truly yours,

Alan Keller, P.E. Manager, Permit Section Division of Water Pollution Control

SAK:DLH:JRA:\

cc: IEPA, Records Unit IEPA, DWPC, FOS, DesPlaines IDNR, OWR, Bartlett USEPA, Region 5 Village of Schiller Park Village of Franklin Park

North Cook County Soil & Water Conservation District

Mailing address: P.O. Box 407, Streamwood, Illinois 60107 Phone: 847-468-0071, Fax: 847-608-8302, email: Rick.McAndless@il.nacdnet.net Street location: 899 Jay Street, Elgin, Illinois

October 23, 2008

Mr. Rick Pohlman, P.E. Project Design Engineer Office of Water Resources Illinois Department of Natural Resources 1 Natural Resources Way Springfield, II. 62702-1271

Re: Soil Erosion & Sediment Control (SE/SC) Plan Review for the Crystal Creek Flood Control Project, Schiller Park & Franklin Park, Cook County, Il. U.S. Army Corps of Engineers reference # 200500166

Dear Mr. Pohlman,

I have reviewed the revised Soil Erosion & Sediment Control Plans submitted for the Crystal Creek Flood Control Project, Schiller Park & Franklin Park, Cook County, II. U.S. Army Corps of Engineers reference # 200500166. It is my opinion that the SE/SC plan now meets technical standards. I will notify your U.S. Army Corps Project manager of your completion of this phase of the permitting process. If any changes are made to the SE/SC plan, I will need to be notified prior to the installation of the design change. One of the requirements for this office under our Inter-Agency Cooperative Agreement with the U.S. Army Corps, Chicago District is to make monthly inspections of the SE/SC practices during the period of time that they will be in place during the life of the project. If it is noted that a planned practice does not function as designed, if an additional practice is needed, or if job changes require plan modifications, I will need to work with your office and all contracted parties to amend the existing plan and/or correct any deficiencies. **Please notify me of any pre-construction meeting** where the soil erosion & sediment control practices for the project will be discussed. Also, please let me know when construction activity is scheduled to begin on the site:

Regards, Rick McAndless on Church and a standard standard standard standard standard standard standard standard standard Resource Conservationist, CPESC

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Cc: Kathy Chernich, U.S. Army Corps of Engineers

NPDES Permit No. ILR10

General NPDES Permit No. ILR10

Illinois Environmental Protection Agency Division of Water Pollution Control 1021 North Grand Avenue East Post Office Box 19276 Springfield, Illinois 62794-9276 www.epa.state.il.us

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

General NPDES Permit

For

Storm Water Discharges From Construction Site Activities

Expiration Date:

July 31, 2013

Issue Date: August 11, 2008 Effective Date: August 11, 2008

In compliance with the provisions of the Illinois Environmental Protection Act, the Illinois Pollution Control Board Rules and Regulations (35 Ill. Adm. Code, Subtitle C, Chapter I), and the Clean Water Act, and the regulations thereunder the following discharges are authorized by this permit in accordance with the conditions and attachments herein.

Kella Alan Keller P F

Manager, Permit Section Division of Water Pollution Control

Part I. COVERAGE UNDER THIS PERMIT

- A. Permit Area. The permit covers all areas of the State of Illinois with discharges to any waters of the State.
- B. Eligibility.
 - 1. This permit shall authorize all discharges of storm water associated with industrial activity from construction sites that will result in the disturbance of one or more acres total land area, construction sites less than one acre of total land that is part of a larger common plan of development or sale if the larger common plan will ultimately disturb one or more acres total land area. This permit also authorizes discharges from construction sites designated by the Agency that have the potential for contribution to a violation of water quality standards or significant contribution of pollutants to waters of the State, occurring after the effective date of this permit (including discharges occurring after the effective date of this permit are also authorized by this permit, except for discharges identified under Part I.B.3 (Limitations on Coverage).
 - 2. This permit may only authorize a storm water discharge associated with industrial activity from a construction site that is mixed with a storm water discharge from an industrial source other than construction, where:
 - a. the industrial source other than construction is located on the same site as the construction activity;
 - b. storm water discharges associated with industrial activity from the areas of the site where construction activities are occurring are in compliance with the terms of this permit; and
 - c. storm water discharges associated with industrial activity from the areas of the site where industrial activity other than construction are occurring (including storm water discharges from dedicated asphalt plants and dedicated concrete plants) are covered by a different NPDES general permit or individual permit authorizing such discharges.
 - 3. Limitations on Coverage. The following storm water discharges from construction sites are not authorized by this permit:
 - a. storm water discharges associated with industrial activity that originate from the site after construction activities have been completed and the site has undergone final stabilization;

NPDES Permit No. ILR10

- b. discharges that are mixed with sources of non-storm water other than discharges identified in Part III.A (Prohibition on Non-Storm Water Discharges) of this permit and in compliance with paragraph IV.D.5 (Non-Storm Water Discharges) of this permit;
- storm water discharges associated with industrial activity that are subject to an existing NPDES individual or general permit or which are issued a permit in accordance with Part VI.N (Requiring an Individual Permit or an Alternative General Permit) of this permit. Such discharges may be authorized under this permit after an existing permit expires provided the existing permit did not establish numeric limitations for such discharges;
- d. storm water discharges from construction sites that the Agency has determined to be or may reasonably be expected to be contributing to a violation of a water quality standard; and
- e. Storm water discharges that the Agency, at its discretion, determines are not appropriately authorized or controlled by this general permit.
- f. Storm water discharges to any receiving water specified under 35 III. Adm. Code 302.105(d)(6).

C. Authorization.

- 1. In order for storm water discharges from construction sites to be authorized to discharge under this general permit a discharger must submit a Notice of Intent (NOI) in accordance with the requirements of Part II below, using an NOI form provided by the Agency.
- 2. Where a new contractor is selected after the submittal of an NOI under Part II below, a new Notice of Intent (NOI) must be submitted by the owner in accordance with Part II.
- 3. For projects that have complied with State law on historic preservation and endangered species prior to submittal of the NOI, through coordination with the Illinois Historic Preservation Agency and the Illinois Department of Natural Resources or through fulfillment of the terms of interagency agreements with those agencies, the NOI shall indicate that such compliance has occurred.
- 4. Unless notified by the Agency to the contrary, dischargers who submit an NOI in accordance with the requirements of this permit are authorized to discharge storm water from construction sites under the terms and conditions of this permit in 30 days after the date the NOI is received by the Agency.
- 5. The Agency may deny coverage under this permit and require submittal of an application for an individual NPDES permit based on a review of the NOI or other information.

Part II. NOTICE OF INTENT REQUIREMENTS

A. Deadlines for Notification.

- To receive authorization under this general permit, a discharger must submit a completed Notice of Intent (NOI) in accordance with Part VI.G (Signatory Requirements) and the requirements of this Part in sufficient time to allow a 30 day review period after the receipt of the NOI by the Agency and the start of construction. The completed NOI may be submitted electronically to the following email address: <u>epa.constilr10swppp@illinois.gov</u>
- 2. Discharges that were previously covered by a valid General NPDES Permit for Storm Water Discharges from Construction Site Activities are automatically covered by this permit.
- 3. A discharger may submit an NOI in accordance with the requirements of this Part after the start of construction. In such instances, the Agency may bring an enforcement action for any discharges of storm water associated with industrial activity from a construction site that have occurred on or after the start of construction.
- B. Failure to Notify. Dischargers who fail to notify the Agency of their intent to be covered, and discharge storm water associated with construction site activity to Waters of the State without an NPDES permit, are in violation of the Environmental Protection Act and Clean Water Act.
- C. Contents of Notice of Intent. The Notice of Intent shall be signed in accordance with Part VI.G (Signatory Requirements) of this permit by all of the entities identified in paragraph 2 below and shall include the following information:
 - 1. The mailing address, and location of the construction site for which the notification is submitted. Where a mailing address for the site is not available, the location can be described in terms of the latitude and longitude of the approximate center of the facility to the nearest 15 seconds, or the nearest quarter section (if the section, township and range is provided) that the construction site is located in;
 - 2. The owner's name, address, telephone number, and status as Federal, State, private, public or other entity;
 - 3. The name, address and telephone number of the general contractor(s) that have been identified at the time of the NOI submittal;
 - 4. The name of the receiving water(s), or if the discharge is through a municipal separate storm sewer, the name of the municipal operator of the storm sewer and the ultimate receiving water(s);
 - 5. The number of any NPDES permit for any discharge (including non-storm water discharges) from the site that is currently authorized by an NPDES permit;

Page 3

NPDES Permit No. ILR10

- 6. A description of the project, detailing the complete scope of the project, estimated timetable for major activities and an estimate of the number of acres of the site on which soil will be disturbed; and
- 7. An electronic copy of the storm water pollution prevention plan that has been prepared for the site in accordance with Part IV of this permit. The electronic copy shall be submitted to the Agency at the following email address: epa.constilr10swppp@illinois.gov

D. Where to Submit.

1. Facilities which discharge storm water associated with construction site activity must use an NOI form provided by the Agency. NOIs must be signed in accordance with Part VI.G (Signatory Requirements) of this permit. NOIs and the applicable fee for construction site activities are to be submitted by certified mail to the Agency at the following address:

Illinois Environmental Protection Agency Division of Water Pollution Control, Mail Code #15 Attention: Permit Section 1021 North Grand Avenue East Post Office Box 19276 Springfield, Illinois 62794-9276

The completed NOI and SWPPP may be submitted electronically to the following email address: epa.constril10swppp@illinois.gov

- A copy of the letter of notification of coverage along with the General NPDES Permit for Storm Water Discharges from Construction Site Activities or other indication that storm water discharges from the site are covered under an NPDES permit shall be posted at the site in a prominent place for public viewing (such as alongside a building permit).
- E. Additional Notification. Facilities which are operating under approved local sediment and erosion plans, grading plans, or storm water management plans, in addition to filing copies of the Notice of Intent in accordance with Part D above, shall also submit signed copies of the Notice of Intent to the local agency approving such plans in accordance with the deadlines in Part A above. See Part IV.D.2.d (Approved State or Local Plans).
- F. Notice of Termination. Where a site has been finally stabilized and all storm water discharges from construction sites that are authorized by this permit are eliminated, the permittee of the facility must submit a completed Notice of Termination that is signed in accordance with Part VI.G (Signatory Requirements) of this permit.
 - 1. The Notice of Termination shall include the following information:
 - a. The mailing address, and location of the construction site for which the notification is submitted. Where a mailing address for the site is not available, the location can be described in terms of the latitude and longitude of the approximate center of the facility to the nearest 15 seconds, or the nearest guarter section (if the section, township and range is provided) that the construction site is located in;
 - b. The owner's name, address, telephone number, and status as Federal, State, private, public or other entity;
 - c. The name, address and telephone number of the general contractor(s); and
 - d. The following certification signed in accordance with Part VI.G (Signatory Requirements) of this permit:

"I certify under penalty of law that all storm water discharges associated with construction site activity from the identified facility that are authorized by NPDES general permit ILR10 have otherwise been eliminated. I understand that by submitting this notice of termination, that I am no longer authorized to discharge storm water associated with construction site activity by the general permit, and that discharging pollutants in storm water associated with construction site activity to Waters of the State is unlawful under the Environmental Protection Act and Clean Water Act where the discharge is not authorized by a NPDES permit. I also understand that the submittal of this notice of termination does not release an operator from liability for any violations of this permit or the Clean Water Act."

For the purposes of this certification, elimination of storm water discharges associated with industrial activity means that all disturbed soils at the identified facility have been finally stabilized and temporary erosion and sediment control measures have been removed or will be removed at an appropriate time, or that all storm water discharges associated with construction activities from the identified site that are authorized by a NPDES general permit have otherwise been eliminated.

2. All Notices of Termination are to be sent to the Agency to the mailing address in Part II.D.1, using the form provided by the Agency.

Part III. SPECIAL CONDITIONS, MANAGEMENT PRACTICES, AND OTHER NON-NUMERIC LIMITATIONS

A. Prohibition on Non-Storm Water Discharges.

- 1. Except as provided in Part I paragraph B.2 and paragraph 2 below, all discharges covered by this permit shall be composed entirely of storm water.
- 2. a. Except as provided in paragraph b below, discharges of materials other than storm water must be in compliance with a NPDES permit (other than this permit) issued for the discharge.

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b. The following non-storm water discharges may be authorized by this permit provided the non-storm water component of the discharges is in compliance with Part IV.D.5 (Non-Storm Water Discharges): discharges from fire fighting activities; fire hydrant flushings; waters used to wash vehicles where detergents are not used; waters used to control dust; potable water sources including uncontaminated waterline flushings; landscape irrigation drainages; routine external building washdown which does not use detergents; pavement washwaters where spills or leaks of toxic or hazardous materials have not occurred (unless all spilled material has been removed) and where detergents are not used; uncontaminated air conditioning condensate; springs; uncontaminated ground water; and foundation or footing drains where flows are not contaminated with process materials such as solvents.

B. Discharges into Receiving Waters With an Approved Total Maximum Daily Load (TMDL):

Discharges to waters for which there is a TMDL allocation for sediment or a parameter that addressed sediment (such as total suspended solids, turbidity, or siltation) are not eligible for coverage under this permit unless you develop and certify a SWPPP that is consistent with the assumptions and requirements in the approved TMDL. To be eligible for coverage under this general permit, operators must incorporate into their SWPPP any conditions applicable to their discharges necessary for consistency with the assumptions and requirements of the TMDL within any timeframes established in the TMDL. If a specific numeric waste load allocation has been established that would apply to the project's discharges, the operator must incorporate that allocation into its SWPPP and implement necessary steps to meet that allocation. Please refer to the Agency website at: http://www.epa.state.il.us/water/tmdl/report-status.html

C. Discharges covered by this permit, alone or in combination with other sources, shall not cause or contribute to a violation of any applicable water quality standard.

Part IV. STORM WATER POLLUTION PREVENTION PLANS

A storm water pollution prevention plan shall be developed for each construction site covered by this permit. Storm water pollution prevention plans shall be prepared in accordance with good engineering practices. The plan shall identify potential sources of pollution which may reasonably be expected to affect the quality of storm water discharges associated with construction site activity from the facility. In addition, the plan shall describe and ensure the implementation of best management practices which will be used to reduce the pollutants in storm water discharges associated with construction site activity and to assure compliance with the terms and conditions of this permit. Facilities must implement the provisions of the storm water pollution prevention plan required under this part as a condition of this permit.

A. Deadlines for Plan Preparation and Compliance.

The plan shall:

- 1. Be completed prior to the start of the construction to be covered under this permit and submitted electronically to the Agency; and
- 2. Provide for compliance with the terms and schedule of the plan beginning with the initiation of construction activities.

B. Signature, Plan Review and Notification.

- 1. The plan shall be signed in accordance with Part VI.G (Signatory Requirements), and be retained on-site at the facility which generates the storm water discharge in accordance with Part VI.E (Duty to Provide Information) of this permit.
- 2. Prior to commencement of construction, the permittee shall provide the plan to the Agency. Said plan shall be available at the site.
- 3. The permittee shall make plans available upon request from this Agency or a local agency approving sediment and erosion plans, grading plans, or storm water management plans; or in the case of a storm water discharge associated with industrial activity which discharges through a municipal separate storm sewer system with an NPDES permit, to the municipal operator of the system.
- 4. The Agency may notify the permittee at any time that the plan does not meet one or more of the minimum requirements of this Part. Such notification shall identify those provisions of the permit which are not being met by the plan, and identify which provisions of the plan require modifications in order to meet the minimum requirements of this part. Within 7 days from receipt of notification from the Agency, the permittee shall make the required changes to the plan and shall submit to the Agency a written certification that the requested changes have been made. Failure to comply shall terminate authorization under this permit.
- All storm water pollution prevention plans and all completed inspection forms/reports required under this permit are considered reports that shall be available to the public at any reasonable time upon request. However, the permittee may claim any portion of a storm water pollution prevention plan as confidential in accordance with 40 CFR Part 2.
- C. Keeping Plans Current. The permittee shall amend the plan whenever there is a change in design, construction, operation, or maintenance, which has a significant effect on the potential for the discharge of pollutants to Waters of the State and which has not otherwise been addressed in the plan or if the storm water pollution prevention plan proves to be ineffective in eliminating or significantly minimizing pollutants from sources identified under paragraph D.2 below, or in otherwise achieving the general objectives of controlling pollutants in storm water discharges associated with construction site activity. In addition, the plan shall be amended to identify any new contractor and/or subcontractor that will implement a measure of the storm water pollution prevention plan. Amendments to the plan may be reviewed by the Agency in the same manner as Part IV.B above. Any revisions of the documents for the storm water pollution prevention plan shall be kept on site at all times.
- D. Contents of Plan. The storm water pollution prevention plan shall include the following items:
 - 1. Site Description. Each plan shall, provide a description of the following:
 - a. A description of the nature of the construction activity or demolition work;

- b. A description of the intended sequence of major activities which disturb soils for major portions of the site (e.g. clearing, grubbing, excavation, grading);
- c. An estimate of the total area of the site and the total area of the site that is expected to be disturbed by excavation, grading, or other activities;
- d. An estimate of the runoff coefficient of the site after construction activities are completed and existing data describing the soil or the quality of any discharge from the site;
- e. A site map indicating drainage patterns and approximate slopes anticipated before and after major grading activities, locations where vehicles enter or exit the site and controls to prevent offsite sediment tracking, areas of soil disturbance, the location of major structural and nonstructural controls identified in the plan, the location of areas where stabilization practices are expected to occur, surface waters (including wetlands), and locations where storm water is discharged to a surface water; and
- f. The name of the receiving water(s) and the ultimate receiving water(s), and areal extent of wetland acreage at the site.
- 2. Controls. Each plan shall include a description of appropriate controls that will be implemented at the construction site. The Illinois Urban Manual (<u>http://www.il.nrcs.usda.gov/technical/engineer/urban/index.html</u>) or other similar documents shall be used for developing the appropriate management practices, controls or revisions of the plan. The plan will clearly describe for each major activity identified in paragraph D.1 above, appropriate controls and the timing during the construction process that the controls will be implemented. (For example, perimeter controls for one portion of the site will be installed after the clearing and grubbing necessary for installation of the measure, but before the clearing and grubbing for the remaining portions of the site. Perimeter controls will be actively maintained until final stabilization of those portions of the site upward of the perimeter control. Temporary perimeter controls will be removed after final stabilization). The description of controls shall address as appropriate the following minimum components:

a. Erosion and Sediment Controls.

- (i) Stabilization Practices. A description of interim and permanent stabilization practices, including site-specific scheduling of the implementation of the practices. Site plans should ensure that existing vegetation is preserved where practicable and that disturbed portions of the site are stabilized. Stabilization practices may include: temporarily seeding, permanent seeding, mulching, geotextiles, sod stabilization, vegetative buffer strips, protection of trees, preservation of mature vegetation, staged or staggered development, and other appropriate measures. A record of the dates when major grading activities occur, when construction activities temporarily or permanently cease on a portion of the site, and when stabilization measures are initiated shall be included in the plan. Except as provided in paragraphs (A) and (B) below, stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 7 days after the construction activity in that portion of the site has temporarily or permanently ceased as follows:
 - (A) Where the initiation of stabilization measures by the 7th day after construction activity temporarily or permanently ceases on a portion of the site is precluded by snow cover, stabilization measures shall be initiated as soon as practicable.
 - (B) Where construction activity will resume on a portion of the site within 14 days from when activities ceased, (e.g. the total time period that construction activity is temporarily ceased is less than 14 days) then stabilization measures do not have to be initiated on that portion of site by the 7th day after construction activity temporarily ceased.
- (ii) Structural Practices. A description of structural practices utilized to divert flows from exposed soils, store flows or otherwise limit runoff and the discharge of pollutants from exposed areas of the site. Such practices may include silt fences, earth dikes, drainage swales, sediment traps, check dams, subsurface drains, pipe slope drains, level spreaders, storm drain inlet protection, rock outlet protection, reinforced soil retaining systems, gabions, and temporary or permanent sediment basins. Structural practices should be placed on upland soils to the degree practicable. The installation of these devices may be subject to Section 404 of the CWA.
- (iii) Best Management Practices for Impaired Waters. For any site which discharges directly to an impaired water identified on the Agency's website for 303(d) listing for suspended solids, turbidity, or siltation the storm water pollution prevention plan shall be designed for a storm event equal to or greater than a 25-year 24-hour rainfall event. If required by federal regulations or the Illinois Environmental Protection Agency's lllinois Urban Manual, the storm water pollution prevention plan shall adhere to a more restrictive design criteria. Please refer to the Agency's website at: (http://www.epa.state.ii.us/water/tmdl/303d-list.html)
- b. Storm Water Management. A description of measures that will be installed during the construction process to control pollutants in storm water discharges that will occur after construction operations have been completed. Structural measures should be placed on upland soils to the degree attainable. The installation of these devices may be subject to Section 404 of the CWA. This permit only addresses the installation of storm water management measures, and not the ultimate operation and maintenance of such structures after the construction activities have been completed and the site has undergone final stabilization. Permittees are responsible for only the installation and maintenance of storm water management measures prior to final stabilization of the site, and are not responsible for maintenance after storm water discharges associated with industrial activity have been eliminated from the site.
 - (i) Such practices may include: storm water detention structures (including wet ponds); storm water retention structures; flow attenuation by use of open vegetated swales and natural depressions; infiltration of runoff onsite; and sequential systems (which combine several practices). The storm water pollution prevention plan shall include an explanation of the technical basis used to select the practices to control pollution where flows exceed predevelopment levels.
 - (ii) Velocity dissipation devices shall be placed at discharge locations and along the length of any outfall channel as necessary to provide a non-erosive velocity flow from the structure to a water course so that the natural physical and biological characteristics and functions are

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maintained and protected (e.g. maintenance of hydrologic conditions, such as the hydroperiod and hydrodynamics present prior to the initiation of construction activities).

(iii) Unless otherwise specified in the Illinois Environmental Protection Agency's Illinois Urban Manual, the storm water pollution prevention plan shall be designed for a storm event equal to or greater than a 25-year 24-hour rainfall event.

c. Other Controls.

- (i) Waste Disposal. No solid materials, including building materials, shall be discharged to Waters of the State, except as authorized by a Section 404 permit.
- (ii) The plan shall ensure and demonstrate compliance with applicable State and/or local waste disposal, sanitary sewer or septic system regulations.
- (iii) For construction sites that receive concrete or asphalt from off site locations, the plan must identify and include appropriate controls and measures to reduce or eliminate these discharges.

d. Approved State or Local Plans.

- (i) The management practices, controls and other provisions contained in the storm water pollution prevention plan must be at least as protective as the requirements contained in Illinois Environmental Protection Agency's Illinois Urban Manual, 2002. Facilities which discharge storm water associated with construction site activities must include in their storm water pollution prevention plan procedures and requirements specified in applicable sediment and erosion site plans or storm water management plans approved by local officials. Requirements specified in sediment and erosion site plans or site permits or storm water management plans or site permits approved by local officials that are applicable to protecting surface water resources are, upon submittal of an NOI to be authorized to discharge under this permit, incorporated by reference and are enforceable under this permit. The plans shall include all requirements of this permit and include more stringent standards required by any local approval. This provision does not apply to provisions of master plans, comprehensive plans, non-enforceable guidelines or technical guidance documents that are not identified in a specific plan or permit that is issued for the construction site.
- (ii) Dischargers seeking alternative permit requirements are not authorized by this permit and shall submit an individual permit application in accordance with 40 CFR 122.26 at the address indicated in Part II.D (Where to Submit) of this permit, along with a description of why requirements in approved local plans or permits should not be applicable as a condition of an NPDES permit.
- 3. Maintenance. The plan shall include a description of procedures to maintain in good and effective operating conditions vegetation, erosion and sediment control measures and other protective measures identified in the site plan.
- 4. Inspections. Qualified personnel (provided by the permittee) shall inspect disturbed areas of the construction site that have not been finally stabilized, structural control measures, and locations where vehicles enter or exit the site at least once every seven calendar days and within 24 hours of the end of a storm that is 0.5 inches or greater or equivalent snowfall. Qualified personnel means a person knowledgeable in the principles and practices of erosion and sediment controls measures, such as a licensed Professional Engineer (P.E.), a Certified Professional in Erosion and Sediment Control (CPESC), a Certified Erosion Sediment and Storm Water Inspector (CESSWI) or other knowledgeable person who possesses the skills to assess conditions at the construction site that could impact storm water quality and to assess the effectiveness of any sediment and erosion control measures selected to control the quality of storm water discharges from the construction activities.
 - a. Disturbed areas and areas used for storage of materials that are exposed to precipitation shall be inspected for evidence of, or the potential for, pollutants entering the drainage system. Erosion and sediment control measures identified in the plan shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters. Locations where vehicles enter or exit the site shall be inspected for evidence of offsite sediment tracking.
 - b. Based on the results of the inspection, the description of potential pollutant sources identified in the plan in accordance with Part IV.D.1 (Site Description) of this permit and pollution prevention measures identified in the plan in accordance with Part IV.D.2 (Controls) of this permit shall be revised as appropriate as soon as practicable after such inspection. Such modifications shall provide for timely implementation of any changes to the plan within 7 calendar days following the inspection.
 - c. A report summarizing the scope of the inspection, name(s) and qualifications of personnel making the inspection, the date(s) of the inspection, major observations relating to the implementation of the storm water pollution prevention plan, and actions taken in accordance with paragraph b above shall be made and retained as part of the storm water pollution prevention plan for at least three years from the date that the permit coverage expires or is terminated. All inspection reports shall be retained at the construction site. The report shall be signed in accordance with Part VI.G (Signatory Requirements) of this permit.
 - d. The permittee shall notify the appropriate Agency Field Operations Section office by email at: <u>epa.swnoncomp@illinois.gov</u>, telephone or fax within 24 hours of any incidence of noncompliance for any violation of the storm water pollution prevention plan observed during any inspection conducted, or for violations of any condition of this permit. The permittee shall complete and submit within 5 days an "Incidence of Noncompliance" (ION) report for any violation of the storm water pollution prevention plan observed during any inspection conducted, or for violations of any condition of the storm water pollution prevention plan observed during any inspection conducted, or for violations of any condition of the storm water pollution prevention plan observed during any inspection conducted, or for violations of any condition of this permit. Submission shall be on forms provided by the Agency and include specific information on the cause of noncompliance, actions which were taken to prevent any further causes of noncompliance, and a statement detailing any environmental impact which may have resulted from the noncompliance.
 - e. All reports of noncompliance shall be signed by a responsible authority as defined in Part VI.G (Signatory Requirements).

f. After the initial contact has been made with the appropriate Agency Field Operations Section Office, all reports of noncompliance shall be mailed to the Agency at the following address:

Illinois Environmental Protection Agency Division of Water Pollution Control Compliance Assurance Section 1021 North Grand Avenue East Post Office Box 19276 Springfield, Illinois 62794-9276

- 5. Non-Storm Water Discharges. Except for flows from fire fighting activities, sources of non-storm water listed in Part III.A.2 of this permit that are combined with storm water discharges associated with industrial activity must be identified in the plan. The plan shall identify and insure the implementation of appropriate pollution prevention measures for the non-storm water component(s) of the discharge.
- E. Additional requirements for storm water discharges from industrial activities other than construction, including dedicated asphalt plants, and dedicated concrete plants. This permit may only authorize any storm water discharge associated with industrial activity from a construction site that is mixed with a storm water discharge from an industrial source other than construction, where:
 - 1. The industrial source other than construction is located on the same site as the construction activity;
 - 2. Storm water discharges associated with industrial activity from the areas of the site where construction activities are occurring are in compliance with the terms of this permit; and
 - Storm water discharges associated with industrial activity from the areas of the site where industrial activity other than construction are occurring (including storm water discharges from dedicated asphalt plants (other than asphalt emulsion facilities) and dedicated concrete plants) are in compliance with the terms, including applicable NOI or application requirements, of a different NPDES general permit or individual permit authorizing such discharges.

F. Contractors.

- The storm water pollution prevention plan must clearly identify for each measure identified in the plan, the contractor(s) or subcontractor(s) that will
 implement the measure. All contractors and subcontractors identified in the plan must sign a copy of the certification statement in paragraph 2 below
 in accordance with Part VI.G (Signatory Requirements) of this permit. All certifications must be included in the storm water pollution prevention plan
 except for owners that are acting as contractors.
- Certification Statement. All contractors and subcontractors identified in a storm water pollution prevention plan in accordance with paragraph 1 above shall sign a copy of the following certification statement before conducting any professional service at the site identified in the storm water pollution prevention plan:

"I certify under penalty of law that I understand the terms and conditions of the general National Pollutant Discharge Elimination System (NPDES) permit (ILR10) that authorizes the storm water discharges associated with industrial activity from the construction site identified as part of this certification."

The certification must include the name and title of the person providing the signature in accordance with Part VI.G of this permit: the name, address and telephone number of the contracting firm; the address (or other identifying description) of the site; and the date the certification is made.

Part V. RETENTION OF RECORDS

- A. The permittee shall retain copies of storm water pollution prevention plans and all reports and notices required by this permit, and records of all data used to complete the Notice of Intent to be covered by this permit, for a period of at least three years from the date that the permit coverage expires or is terminated. This period may be extended by request of the Agency at any time.
- B. The permittee shall retain a copy of the storm water pollution prevention plan and any revisions to said plan required by this permit at the construction site from the date of project initiation to the date of final stabilization.

Part VI. STANDARD PERMIT CONDITIONS

- A. Duty to Comply. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Illinois Environmental Protection Act and the CWA and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.
- B. Continuation of the Expired General Permit. This permit expires five years from the date of issuance. An expired general permit continues in force and effect until a new general permit or an individual permit is issued. Only those facilities authorized to discharge under the expiring general permit are covered by the continued permit.
- C. Need to halt or reduce activity not a defense. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- D. Duty to Mitigate. The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

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- E. Duty to Provide Information. The permittee shall furnish within a reasonable time to the Agency or local agency approving sediment and erosion control plans, grading plans, or storm water management plans; or in the case of a storm water discharge associated with industrial activity which discharges through a municipal separate storm sewer system with an NPDES permit, to the municipal operator of the system, any information which is requested to determine compliance with this permit. Upon request, the permittee shall also furnish to the Agency or local agency approving sediment and erosion control plans, grading plans, or storm water management plans; or in the case of a storm water discharge associated with industrial activity which discharges through a municipal separate storm sewer system with an NPDES permit, to the municipal operator of the system, copies of all records required to be kept by this permit.
- F. Other Information. When the permittee becomes aware that he or she failed to submit any relevant facts or submitted incorrect information in the Notice of Intent or in any other report to the Agency, he or she shall promptly submit such facts or information.
- G. Signatory Requirements. All Notices of Intent, storm water pollution prevention plans, reports, certifications or information either submitted to the Agency or the operator of a large or medium municipal separate storm sewer system, or that this permit requires be maintained by the permittee, shall be signed.
 - 1. All Notices of Intent shall be signed as follows:
 - a. For a corporation: by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (1) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or (2) any person authorized to sign documents that has been assigned or delegated said authority in accordance with corporate procedures;
 - b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or
 - c. For a municipality, State, Federal, or other public agency: by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes (1) the chief executive officer of the agency, or (2) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.
 - 2. All reports required by the permit and other information requested by the Agency shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:
 - a. The authorization is made in writing by a person described above and submitted to the Agency.
 - b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of manager, operator, superintendent, or position of equivalent responsibility or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position).
 - c. Changes to Authorization. If an authorization under Part I.C (Authorization) is no longer accurate because a different individual or position has responsibility for the overall operation of the construction site, a new authorization satisfying the requirements of Part I.C must be submitted to the Agency prior to or together with any reports, information, or applications to be signed by an authorized representative.
 - d. Certification. Any person signing documents under this Part shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

- H. Penalties for Falsification of Reports. Section 309(c)(4) of the Clean Water Act provides that any person who knowingly makes any false material statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than 2 years, or by both. Section 44(j)(4) and (5) of the Environmental Protection Act provides that any person who knowingly makes any false statement, representation, or certification in an application form, or form pertaining to a NPDES permit commits a Class A misdemeanor, and in addition to any other penalties provided by law is subject to a fine not to exceed \$10,000 for each day of violation.
- I. Penalties for Falsification of Monitoring Systems. The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by fines and imprisonment described in Section 309 of the CWA. The Environmental Protection Act provides that any person who knowingly renders inaccurate any monitoring device or record required in connection with any NPDES permit or with any discharge which is subject to the provisions of subsection (f) of Section 12 of the Act commits a Class A misdemeanor, and in addition to any other penalties provided by law is subject to a fine not to exceed \$10,000 for each day of violation.
- J. Oil and Hazardous Substance Liability. Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under section 311 of the CWA.
- K. Property Rights. The issuance of this permit does not convey any property rights of any sort, nor any exclusive privileges, nor does it authorize any injury to private property nor any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.
- L. Severability. The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.

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M. Transfers. This permit is not transferable to any person except after notice to the Agency. The Agency may require the discharger to apply for and obtain an individual NPDES permit as stated in Part I.C (Authorization).

N. Requiring an Individual Permit or an Alternative General Permit.

- 1. The Agency may require any person authorized by this permit to apply for and/or obtain either an individual NPDES permit or an alternative NPDES general permit. Any interested person may petition the Agency to take action under this paragraph. Where the Agency requires a discharger authorized to discharge under this permit to apply for an individual NPDES permit, the Agency shall notify the discharger in writing that a permit application is required. This notification shall include a brief statement of the reasons for this decision, an application form, a statement setting a deadline for the discharger to file the application, and a statement that on the effective date of the individual NPDES permit or the alternative general permit as it applies to the individual permittee, coverage under this general permit shall automatically terminate. Applications shall be submitted to the Agency indicated in Part II.D (Where to Submit) of this permit. The Agency may grant additional time to submit the application upon request of the applicant. If a discharger fails to submit in a timely manner an individual NPDES permit application as required by the Agency under this paragraph, then the applicability of this permit to the individual NPDES permit application as required by the day specified by the Agency for application submittal. The Agency may require an individual NPDES permit based on:
 - a. information received which indicates the receiving water may be of particular biological significance pursuant to 35 III. Adm. Code 302.105(d)(6);
 - b. whether the receiving waters are impaired waters for suspended solids, turbidity or siltation as identified by the Agency's 303(d) listing;
 - c. size of construction site, proximity of site to the receiving stream, etc.

The Agency may also require monitoring of any storm water discharge from any site to determine whether an individual permit is required.

- 2. Any discharger authorized by this permit may request to be excluded from the coverage of this permit by applying for an individual permit. In such cases, the permittee shall submit an individual application in accordance with the requirements of 40 CFR 122.26(c)(1)(ii), with reasons supporting the request, to the Agency at the address indicated in Part II.D (Where to Submit) of this permit. The request may be granted by issuance of any individual permit or an alternative general permit if the reasons cited by the permittee are adequate to support the request.
- 3. When an individual NPDES permit is issued to a discharger otherwise subject to this permit, or the discharger is authorized to discharge under an alternative NPDES general permit, the applicability of this permit to the individual NPDES permittee is automatically terminated on the effective date of the individual permit or the date of authorization of coverage under the alternative general permit, whichever the case may be. When an individual NPDES permit is denied to a discharger otherwise subject to this permit, or the discharger is denied for coverage under an alternative NPDES general permit, the applicability of this permit to the individual NPDES permit, whichever the case may be. When an individual NPDES permit is denied to a discharger otherwise subject to this permit, or the discharger is denied for coverage under an alternative NPDES general permit, the applicability of this permit to the individual NPDES permittee remains in effect, unless otherwise specified by the Agency.
- O. State/Environmental Laws. No condition of this permit shall release the permittee from any responsibility or requirements under other environmental statutes or regulations.
- P. Proper Operation and Maintenance. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit and with the requirements of storm water pollution prevention plans. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. Proper operation and maintenance requires the operation of backup or auxiliary facilities or similar systems, installed by a permittee only when necessary to achieve compliance with the conditions of the permit.
- Q. Inspection and Entry. The permittee shall allow the IEPA, or an authorized representative upon presentation of credentials and other documents as may be required by law, to:
 - 1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
 - 2. Have access to and copy at reasonable times, any records that must be kept under the conditions of this permit;
 - 3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
 - 4. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location.
- R. Permit Actions. This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

Part VII. REOPENER CLAUSE

- A. If there is evidence indicating potential or realized impacts on water quality due to any storm water discharge associated with industrial activity covered by this permit, the discharger may be required to obtain an individual permit or an alternative general permit in accordance with Part I.C (Authorization) of this permit or the permit may be modified to include different limitations and/or requirements.
- B. Permit modification or revocation will be conducted according to provisions of 35 III. Adm. Code, Subtitle C, Chapter I and the provisions of 40 CFR 122.62, 122.63, 122.64 and 124.5 and any other applicable public participation procedures.

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- C. The Agency will reopen and modify this permit under the following circumstances:
 - 1. the U.S. EPA amends its regulations concerning public participation;
 - 2. a court of competent jurisdiction binding in the State of Illinois or the 7th Circuit Court of Appeals issues an order necessitating a modification of public participation for general permits; or
 - 3. to incorporate federally required modifications to the substantive requirements of this permit.

Part VIII. DEFINITIONS

"Agency" means the Illinois Environmental Protection Agency.

"Best Management Practices" ("BMPs") means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States. BMPs also include treatment requirements, operating procedures, and practices to control construction site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

"Commencement of Construction or Demolition Activities" The initial disturbance of soils associated with clearing, grading, or excavating activities or other construction or demolition activities.

"CWA" means Clean Water Act (formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972) Pub. L. 92-500, as amended Pub. L. 95-217, Pub. L. 95-576, Pub. L. (96-483 and Pub. L. 97-117, 33 U.S.C. 1251 et seq.).

"Dedicated portable asphalt plant" A portable asphalt plant that is located on or contiguous to a construction site and that provides asphalt only to the construction site that the plant is located on or adjacent to. The term dedicated portable asphalt plant does not include facilities that are subject to the asphalt emulsion effluent limitation guideline at 40 CFR 443.

"Dedicated portable concrete plant" A portable concrete plant that is located on or contiguous to a construction site and that provides concrete only to the construction site that the plant is located on or adjacent to.

"Dedicated sand or gravel operation" An operation that produces sand and/or gravel for a single construction project.

"Director" means the Director of the Illinois Environmental Protection Agency or an authorized representative.

"Final Stabilization" means that all soil disturbing activities at the site have been completed, and either of the two following conditions are met:

- (i) A uniform (e.g., evenly distributed, without large bare areas) perennial vegetative cover with a density of 70 percent of the native background vegetative cover for the area has been established on all unpaved areas and areas not covered by permanent structures, or
- (ii) Equivalent permanent stabilization measures (such as the use of riprap, gabions, or geotextiles) have been employed.

For individual lots in residential construction, final stabilization means that either:

- (i) The homebuilder has completed final stabilization as specified above, or
- (ii) The homebuilder has established temporary stabilization including perimeter controls for an individual lot prior to occupation of the home by the homeowner and informing the homeowner of the need for, and benefits of, final stabilization.

"Large and Medium municipal separate storm sewer system" means all municipal separate storm sewers that are either:

- (i) Located in an incorporated place (city) with a population of 100,000 or more as determined by the latest Decennial Census by the Bureau of Census (these cities are listed in Appendices F and G of 40 CFR Part 122); or
- (ii) Located in the counties with unincorporated urbanized populations of 100,000 or more, except municipal separate storm sewers that are located in the incorporated places, townships or towns within such counties (these counties are listed in Appendices H and I of 40 CFR Part 122); or
- (iii) Owned or operated by a municipality other than those described in paragraph (i) or (ii) and that are designated by the Director as part of the large or medium municipal separate storm sewer system.

"NOI" means notice of intent to be covered by this permit (see Part II of this permit.)

"Point Source" means any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharges. This term does not include return flows from irrigated agriculture or agricultural storm water runoff.

"Runoff coefficient" means the fraction of total rainfall that will appear at the conveyance as runoff.

"Storm Water" means storm water runoff, snow melt runoff, and surface runoff and drainage.

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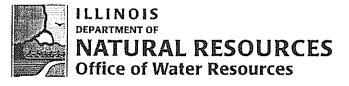
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"Storm Water Associated with Industrial Activity" means the discharge from any conveyance which is used for collecting and conveying storm water and which is directly related to manufacturing, processing or raw materials storage areas at an industrial plant. The term does not include discharges from facilities or activities excluded from the NPDES program. For the categories of industries identified in subparagraphs (i) through (x) of this subsection, the term includes, but is not limited to, storm water discharges from industrial plant yards; immediate access roads and rail lines used or traveled by carriers of raw materials, manufactured products, waste material, or by-products used or created by the facility; material handling sites; refuse sites; sites used for the application or disposal of process waste waters (as defined at 40 CFR 401); sites used for the storage and maintenance of material handling equipment; sites used for residual treatment, storage, or disposal; shipping and receiving areas; manufacturing buildings; storage areas (including tank farms) for raw materials, and intermediate and finished products; and areas where industrial activity has taken place in the past and significant materials remain and are exposed to storm water. For the categories of industries identified in subparagraph (xi), the term includes only storm water discharges from all areas listed in the previous sentence (except access roads) where material handling equipment or activities, raw materials, intermediate products, final products, waste materials, by-products, or industrial machinery are exposed to storm water. For the purposes of this paragraph, material handling activities include the storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, finished product, by-product or waste product. The term excludes areas located on plant lands separate from the plant's industrial activities, such as office buildings and accompanying parking lots as long as the drainage from the excluded areas is not mixed with storm water drained from the above described areas. Industrial facilities (including industrial facilities that are Federally or municipally owned or operated that meet the description of the facilities listed in this paragraph (i)- (xi)) include those facilities designated under 40 CFR 122.26(a)(1)(v). The following categories of facilities are considered to be engaging in "industrial activity" for purposes of this subsection:

- Facilities subject to storm water effluent limitations guidelines, new source performance standards, or toxic pollutant effluent standards under 40 CFR Subchapter N (except facilities with toxic pollutant effluent standards which are exempted under category (xi) of this paragraph);
- (ii) Facilities classified as Standard Industrial Classifications 24 (except 2434), 26 (except 265 and 267), 28, 29, 311, 32, 33, 3441, 373;
- (iii) Facilities classified as Standard Industrial Classifications 10 through 14 (mineral industry) including active or inactive mining operations (except for areas of coal mining operations meeting the definition of a reclamation area under 40 CFR 434.11(I)) and oil and gas exploration, production, processing, or treatment operations, or transmission facilities that discharge storm water contaminated by contact with or that has come into contact with, any overburden, raw material, intermediate products, finished products, byproducts or waste products located on the site of such operations; inactive mining operations are mining sites that are not being actively mined, but which have an identifiable owner/operator;
- (iv) Hazardous waste treatment, storage, or disposal facilities, including those that are operating under interim status or a permit under Subtitle C of RCRA;
- Landfills, land application sites, and open dumps that have received any industrial wastes (waste that is received from any of the facilities described under this subsection) including those that are subject to regulation under Subtitle D of RCRA;
- (vi) Facilities involved in the recycling of materials, including metal scrapyards, battery reclaimers, salvage yards, and automobile junkyards, including but limited to those classified as Standard Industrial Classification 5015 and 5093;
- (vii) Steam electric power generating facilities, including coal handling sites;
- (viii) Transportation facilities classified as Standard Industrial Classifications 40, 41, 42, 44, and 45 which have vehicle maintenance shops, equipment cleaning operations, or airport deicing operations. Only those portions of the facility that are either involved in vehicle maintenance (including vehicle rehabilitation, mechanical repairs, painting, fueling, and lubrication), equipment cleaning operations, airport deicing operations, or which are otherwise identified under subparagraphs (i)-(vii) or (ix)-(xi) of this subsection are associated with industrial activity;
- (ix) Treatment works treating domestic sewage or any other sewage sludge or wastewater treatment device or system, used in the storage treatment, recycling, and reclamation of municipal or domestic sewage, including land dedicated to the disposal of sewage sludge that are located within the confines of the facility, with a design flow of 1.0 mgd or more, or required to have an approved pretreatment program under 40 CFR 403. Not included are farm lands, domestic gardens or lands used for sludge management where sludge is beneficially reused and which are not physically located in the confines of the facility, or areas that are in compliance with 40 CFR 503;
- (x) Construction activity including clearing, grading and excavation activities except: operations that result in the disturbance of less than one acre of total land area which are not part of a larger common plan of development or sale unless otherwise designated by the Agency pursuant to Part I.B.1.
- (xi) Facilities under Standard Industrial Classifications 20, 21, 22, 23, 2434, 25, 265, 267, 27, 283, 31 (except 311), 34 (except 3441), 35, 36, 37 (except 373), 38, 39, 4221-25, (and which are not otherwise included within categories (i)-(x)).

"<u>Waters</u>" mean all accumulations of water, surface and underground, natural, and artificial, public and private, or parts thereof, which are wholly or partially within, flow through, or border upon the State of Illinois, except that sewers and treatment works are not included except as specially mentioned; provided, that nothing herein contained shall authorize the use of natural or otherwise protected waters as sewers or treatment works except that in-stream aeration under Agency permit is allowable.

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| Project | Crystal Creek Flood Control Phase II B | | |
|---------|---|-------------|--------|
| City | Schiller Park and Franklin Park, Illinois | Project No. | FR-425 |
| County | Cook | Year | 2013 |

This plan has been prepared to comply with the provisions of the National Pollutant Discharge Elimination System (NPDES) Permit No. ILR10 (Permit ILR10), issued by the Illinois Environmental Protection Agency (IEPA) for storm water discharges from construction site activities.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

| Ted Montrey | Ind Montray |
|----------------------------|---------------------|
| chief of Design | Signature 7/3//3 |
| Dept. of Natural Resources | Date |
| Agency | inaure |

I. Site Description:

A. Provide a description of the project location (include latitude and longitude):

The improvement is located along or under Denley Avenue/Dora Street from approximately 350 feet north of Seymour Avenue to Panoramic Drive then west to near the end of Panoramic Drive, all in Schiller Park, Illinois. The latitude and longitude of the intersection of Panoramic Drive and Dora Street is N 41° 56' 43.9", W 87° 49.9" based on itouchmap.com.

B. Provide a description of the construction activity which is the subject of this plan:

The work of this contract consists of approximately 1,239 feet of pavement removal and replacement or resurfacing and curb and gutter removal and replacement along Denley Avenue/Dora Street, installation of 1,945 feet of precast concrete box culverts, and modification of approximately 1235 feet of existing stream and/or ditch together with all appurtenant work to complete the project located along or under Denley Avenue/Dora Street from approximately 350 feet north of Seymour Avenue south to Panoramic Drive then west along the ditch on the north side of Panoramic Drive to near the west end of Panoramic Drive, all in Schiller Park, Illinois; includes 1,091 cu yd channel excavation, 471 cu yd topsoil excavation and placement, 823 sq yd stone riprap, class A4, 365 ton hot-mix asphalt surface and binder course, 1,935 sq yd pavement removal, 400 sq yd hot-mix asphalt surface removal 3", 1,225 ft combination concrete curb and gutter removal and replacement, 47.6 cu yd concrete structures, 1,945 feet of precast concrete box culverts ranging in size from 7' x 2' to 8' x 4' with necessary end sections, mobilization, traffic control and protection.

C. Provide the estimated duration of this project:

This project should be completed in approximately one year.

D. The total area of the construction site is estimated to be 2.7 acres.

The total area of the site estimated to be disturbed by excavation, grading or other activities is 2.7 acres.

E. The following is a weighted average of the runoff coefficient for this project after construction activities are completed:

The estimated runoff curve numbers of the various areas of the site after construction activities are completed are contained in the Project Drainage Study which is hereby incorporated by reference in this plan. Information describing the soils at the site is contained either in the Soils Report for the project, which is hereby incorporated by reference, or in an attachment to this plan.

F. List all soils found within project boundaries. Include map unit name, slope information, and erosivity:

Urbanland-Markham-Ashkum, 0 to 2%. The natural slopes will remain except at the proposed channel/ditch cut slopes whose side slopes will be the same or flatter than the existing side slopes and range from 2 horizontal to 1 vertical to 3 horizontal to 1 vertical.

G. Provide an aerial extent of wetland acreage at the site:

No wetland was identified at the site.

- H. Provide a description of potentially erosive areas associated with this project:
 - 1. Disturbed areas adjacent to the work areas
 - 2. Temporary topsoil stockpile locations.
 - 3. Earth/channel excavation areas within the ditch/channel.
 - 4. Pavement removal and excavation areas for culverts, headwalls and riprap.
- I. The following is a description of soil disturbing activities by stages, their locations, and their erosive factors (e.g. steepness of slopes, length of slopes, etc):

This job will require: tree removal and grubbing; topsoil excavation, stockpiling, and placement; channel excavation; minimal fill placement and compaction; excavation for and placement of riprap; pavement removal and replacement; structure excavation and backfilling of proposed structures; and excavation for and placement of proposed precast concrete box culverts.

- J. See the erosion control plans and/or drainage plans for this contract for information regarding drainage patterns, approximate slopes anticipated before and after major grading activities, locations where vehicles enter or exit the site and controls to prevent offsite sediment tracking (to be added after contractor identifies locations), areas of soil disturbance, the location of major structural and non-structural controls identified in the plan, the location of areas where stabilization practices are expected to occur, surface waters and locations where storm water is discharged to surface water.
- K. Identify who owns the drainage system (municipality or agency) this project will drain into:

This project drains into a small stream.

L. The following is a list of receiving water(s) and the ultimate receiving water(s) for this site. The location of the receiving waters can be found on the erosion and sediment control plans:

Sister Stream is the immediate receiving water and Crystal Creek is the ultimate receiving water.

M. Describe areas of the site that are to be protected or remain undisturbed. These areas may include steep slopes, highly erodible soils, streams, stream buffers, specimen trees, natural vegetation, nature preserves, etc.

All construction activity is to be contained within the project right of way/work limits. Only those areas necessary to complete construction shall be disturbed.

- N. The following sensitive environmental resources are associated with this project, and may have the potential to be impacted by the proposed development:
 - Floodplain
 - Wetland Riparian
 - Threatened and Endangered Species
 - Historic Preservation
 - 303(d) Listed receiving waters for suspended solids, turbidity, or siltation
 - Receiving waters with Total Maximum Daily Load (TMDL) for sediment, total suspended solids, turbidity or siltation
 - Applicable Federal, Tribal, State or Local Programs

- Other
- 1. 303(d) Listed receiving waters (fill out this section if checked above):
 - a. The name(s) of the listed water body, and identification of all pollutants causing impairment:
 - b. Provide a description of how erosion and sediment control practices will prevent a discharge of sediment resulting from a storm event equal to or greater than a twenty-five (25) year, twenty-four (24) hour rainfall event:
 - c. Provide a description of the location(s) of direct discharge from the project site to the 303(d) water body:
 - d. Provide a description of the location(s) of any dewatering discharges to the MS4 and/or water body:
- 2. TMDL (fill out this section if checked above)
 - a. The name(s) of the listed water body:
 - b. Provide a description of the erosion and sediment control strategy that will be incorporated into the site design that is consistent with the assumptions and requirements of the TMDL:
 - c. If a specific numeric waste load allocation has been established that would apply to the project's discharges, provide a description of the necessary steps to meet that allocation:
- O. The following pollutants of concern will be associated with this construction project:

| \bowtie | Soil Sediment | \boxtimes | Petroleum (gas, diesel, oil, kerosene, hydraulic oil / fluids) |
|-------------|---------------------------|-------------|--|
| \boxtimes | Concrete | \boxtimes | Antifreeze / Coolants |
| | Concrete Truck Waste | \boxtimes | Waste water from cleaning construction equipment |
| | Concrete Curing Compounds | | Other (specify) |
| | Solid Waste Debris | | Other (specify) |
| | Paints | | Other (specify) |
| | Solvents | | Other (specify) |
| \boxtimes | Fertilizers / Pesticides | | Other (specify) |

II. Controls:

This section of the plan addresses the controls that will be implemented for each of the major construction activities described in I.I. above and for all use areas, borrow sites, and waste sites. For each measure discussed, the Contractor will be responsible for its implementation as indicated. The Contractor shall provide to the Resident Engineer a plan for the implementation of the measures indicated. The Contractor, and subcontractors, will notify the Resident Engineer of any proposed changes, maintenance, or modifications to keep construction activities compliant with the Permit ILR10. Each such Contractor has signed the required certification on forms which are attached to, and are a part of, this plan:

- A. Erosion and Sediment Controls
 - 1. Stabilized Practices: Provided below is a description of interim and permanent stabilization practices, including site specific scheduling of the implementation of the practices. Site plans will ensure that existing vegetation is preserved where attainable and disturbed portions of the site will be stabilized. Stabilization practices may include but are not limited to: temporary seeding, permanent seeding, mulching, geotextiles, sodding, vegetative buffer strips, protection of trees, preservation of mature vegetation, and other appropriate measures. Except as provided below in II(A)(1)(a) and II(A)(3), stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or

permanently ceased, but in no case more than seven (7) days after the construction activity in that portion of the site has temporarily or permanently ceases on all disturbed portions of the site where construction will not occur for a period of fourteen (14) or more calendar days.

(a) Where the initiation of stabilization measures by the seventh day after construction activity temporarily or permanently ceases is precluded by snow cover, stabilization measures shall be initiated as soon as practicable thereafter.

The following stabilization practices will be used for this project:

| \boxtimes | Preservation of Mature Vegetation | \boxtimes | Erosion Control Blanket / Mulching |
|-------------|-----------------------------------|-------------|------------------------------------|
| | Vegetated Buffer Strips | | Sodding |
| \boxtimes | Protection of Trees | | Geotextiles |
| \boxtimes | Temporary Erosion Control Seeding | | Other (specify) |
| | Temporary Turf (Seeding, Class 7) | | Other (specify) |
| \boxtimes | Temporary Mulching | | Other (specify) |
| \boxtimes | Permanent Seeding | | Other (specify) |
| | - | | |

Describe how the stabilization practices listed above will be utilized during construction:

Only those trees that conflict with the construction of the project shall be removed. Care shall be taken to not damage existing trees and vegetation to remain. Clearing and tree removal shall only be completed in the area/reach of the project that will immediately be worked on. Permanent seeding, mulching/erosion control blanket and fertilizing may be applied as soon as construction is completed in an area within allowable planting times. If permanent seeding has not been applied, Temporary Erosion Control Seeding shall be applied to all bare areas every seven days, regardless of weather conditions or progress of work. The Engineer may require that critical locations be seeded immediately and the Contractor shall seed these areas within 48 hours.

Describe how the stabilization practices listed above will be utilized after construction activities have been completed:

All disturbed earth areas not protected by other measures will be protected with permanent seeding, mulching/erosion control blanket and fertilizing as shown in the contract plans, the Summary of Quantities or as directed by the Resident Engineer.

2. **Structural Practices:** Provided below is a description of structural practices that will be implemented, to the degree attainable, to divert flows from exposed soils, store flows or otherwise limit runoff and the discharge of pollutants from exposed areas of the site. Such practices may include but are not limited to: perimeter erosion barrier, earth dikes, drainage swales, sediment traps, ditch checks, subsurface drains, pipe slope drains, level spreaders, storm drain inlet protection, rock outlet protection, reinforced soil retaining systems, gabions, and temporary or permanent sediment basins. The installation of these devices may be subject to Section 404 of the Clean Water Act.

The following structural practices will be used for this project:

- Perimeter Erosion Barrier
- Temporary Ditch Check
- Storm Drain Inlet Protection
- Sediment Trap
- Temporary Pipe Slope Drain
- Temporary Sediment Basin
- Temporary Stream Crossing
- Stabilized Construction Exits
- Turf Reinforcement Mats
- Permanent Check Dams
- Permanent Sediment Basin
- Aggregate Ditch
- Paved Ditch

- Rock Outlet Protection
- Riprap
- □ Gabions
- □ Slope Mattress
- Retaining Walls
- □ Slope Walls
- Concrete Revetment Mats
- □ Level Spreaders
- Other (specify) Inlet and Pipe Protection
- Other (specify)
- Other (specify)
- □ Other (specify)
- □ Other (specify)

Describe how the structural practices listed above will be utilized during construction:

Prior to any construction activities, the Contractor will install Perimeter Erosion Barrier at locations shown on

the plans or as directed by the Resident Engineer to prevent sediment from discharging off of the limits of the working area. The contractor will also install the following temporary erosion control devices during the construction activity; inlet and pipe protection and temporary ditch checks. During any dewatering operations, water will be pumped into sediment basins or silt traps. Dewatering directly into field tiles or storm structures is prohibited.

Describe how the structural practices listed above will be utilized after construction activities have been completed:

Permanent structural erosion control measures installed during construction of this project include Stone Riprap placed on the channel bottom and side slopes at locations as shown in the plans. All other structural practices will be removed at completion of construction.

- 3. **Storm Water Management:** Provided below is a description of measures that will be installed during the construction process to control pollutants in storm water discharges that will occur after construction operations have been completed. The installation of these devices may be subject to Section 404 of the Clean Water Act.
 - a. Such practices may include but are not limited to: storm water detention structures (including wet ponds), storm water retention structures, flow attenuation by use of open vegetated swales and natural depressions, infiltration of runoff on site, and sequential systems (which combine several practices).

The practices selected for implementation were determined on the basis of the technical guidance in Chapter 41 (Construction Site Storm Water Pollution Control) of the IDOT Bureau of Design and Environment Manual. If practices other than those discussed in Chapter 41 are selected for implementation or if practices are applied to situations different from those covered in Chapter 41, the technical basis for such decisions will be explained below.

b. Velocity dissipation devices will be placed at discharge locations and along the length of any outfall channel as necessary to provide a non-erosive velocity flow from the structure to a water course so that the natural physical and biological characteristics and functions are maintained and protected (e.g. maintenance of hydrologic conditions such as the hydroperiod and hydrodynamics present prior to the initiation of construction activities).

Description of storm water management controls:

As stated above, the channel bottom and slopes will be protected at locations that could expect erosive velocities to prevent the erosion of the soil.

4. **Approved State or Local Laws:** The management practices, controls and provisions contained in this plan will be in accordance with IDOT specifications, which are at least as protective as the requirements contained in the Illinois Environmental Protection Agency's Illinois Urban Manual. Procedures and requirements specified in applicable sediment and erosion site plans or storm water management plans approved by local officials shall be described or incorporated by reference in the space provided below. Requirements specified in sediment and erosion site plans, site permits, storm water management site plans or site permits approved by local officials that are applicable to protecting surface water resources are, upon submittal of an NOI, to be authorized to discharge under the Permit ILR10 incorporated by reference and are enforceable under this permit even if they are not specifically included in the plan.

Description of procedures and requirements specified in applicable sediment and erosion site plans or storm water management plans approved by local officials:

n/a

- 5. **Contractor Required Submittals:** Prior to conducting any professional services at the site covered by this plan, the Contractor and each subcontractor responsible for compliance with the permit shall submit to the Resident Engineer a Contractor Certification Statement, BDE 2342a.
 - a. The Contractor shall provide a construction schedule containing an adequate level of detail to show major activities with implementation of pollution prevention BMPs, including the following items:
 - Approximate duration of the project, including each stage of the project
 - Rainy season, dry season, and winter shutdown dates
 - Temporary stabilization measures to be employed by contract phases

- Mobilization timeframe
- Mass clearing and grubbing/roadside clearing dates
- Deployment of Erosion Control Practices
- Deployment of Sediment Control Practices (including stabilized construction entrances/exits)
- Deployment of Construction Site Management Practices (including concrete washout facilities, chemical storage, refueling locations, etc.)
- Paving, saw-cutting, and any other pavement related operations
- Major planned stockpiling operations
- Timeframe for other significant long-term operations or activities that may plan non-storm water discharges such as dewatering, grinding, etc.
- Permanent stabilization activities for each area of the project
- b. The Contractor and each subcontractor shall provide, as an attachment to their signed Contractor Certification Statement, a discussion of how they will comply with the requirements of the permit in regard to the following items and provide a graphical representation showing location and type of BMPs to be used when applicable:
 - Vehicle Entrances and Exits Identify type and location of stabilized construction entrances and exits to be used and how they will be maintained.
 - Material Delivery, Storage and Use Discuss where and how materials including chemicals, concrete curing compounds, petroleum products, etc. will be stored for this project.
 - Stockpile Management Discuss what BMPs will be used to prevent pollution of storm water from stockpiles.
 - Waste Disposal Discuss methods of waste disposal that will be used for this project.
 - Spill Prevention and Control Discuss steps that will be taken in the event of a material spill (chemicals, concrete curing compounds, petroleum, etc.)
 - Concrete Residuals and Washout Wastes Discuss the location and type of concrete washout facilities to be used on this project and how they will be signed and maintained.
 - Litter Management Discuss how litter will be maintained for this project (education of employees, number of dumpsters, frequency of dumpster pick-up, etc.).
 - Vehicle and Equipment Fueling Identify equipment fueling locations for this project and what BMPs will be used to ensure containment and spill prevention.
 - Vehicle and Equipment Cleaning and Maintenance Identify where equipment cleaning and maintenance locations for this project and what BMPs will be used to ensure containment and spill prevention.
 - Additional measures indicated in the plan.

III. Maintenance:

When requested by the Contractor, the Resident Engineer will provide general maintenance guides to the Contractor for the practices associated with this project. The following additional procedures will be used to maintain, in good and effective operating conditions, the vegetation, erosion and sediment control measures and other protective measures identified in this plan. It will be the Contractor's responsibility to attain maintenance guidelines for any manufactured BMPs which are to be installed and maintained per manufacture's specifications.

IV Inspections:

Qualified personnel shall inspect disturbed areas of the construction site which have not yet been finally stabilized, structural control measures, and locations where vehicles and equipment enter and exit the site using IDOT Storm Water Pollution Prevention Plan Erosion Control Inspection Report (BC 2259). Such inspections shall be conducted at least once every seven (7) calendar days and within twenty-four (24) hours of the end of a storm that is 0.5 inch or greater or equivalent snowfall.

If any violation of the provisions of this plan is identified during the conduct of the construction work covered by this plan, the Resident Engineer shall notify the appropriate IEPA Field Operations Section office by email at: <u>epa.swnoncomp@illinois.gov</u>, telephone or fax within twenty-four (24) hours of the incident. The Resident Engineer shall then complete and submit an "Incidence of Non-Compliance" (ION) report for the identified violation within five (5) days of the incident. The Resident Engineer shall use forms provided by IEPA and shall include specific information on the cause of noncompliance, actions which were taken to prevent any further causes of noncompliance, and a statement detailing any environmental impact which may have resulted from the noncompliance. All reports of non-compliance shall be signed by a responsible authority in accordance with Part VI. G of the Permit ILR10.

The Incidence of Non-Compliance shall be mailed to the following address:

Illinois Environmental Protection Agency

Division of Water Pollution Control Attn: Compliance Assurance Section 1021 North Grand East Post Office Box 19276 Springfield, Illinois 62794-9276

V. Failure to Comply:

Failure to comply with any provisions of this Storm Water Pollution Prevention Plan will result in the implementation of a National Pollutant Discharge Elimination System/Erosion and Sediment Control Deficiency Deduction against the Contractor and/or penalties under the Permit ILR10 which could be passed on to the Contractor.



Prior to conducting any professional services at the site covered by this contract, the Contractor and every subcontractor must complete and return to the Resident Engineer the following certification. A separate certification must be submitted by each firm. Attach to this certification all items required by Section II.5 of the Storm Water Pollution Prevention Plan (SWPPP) which will be handled by the Contractor/subcontractor completing this form.

| Project | Crystal Creek Flood Control Project Phase II B | | | | |
|---------|--|-------------|--------|--|--|
| City | Franklin Park and Schiller Park, Illinois | Project No. | FR-425 | | |
| County | Cook | Year | 2013 | | |

This certification statement is a part of the SWPPP for the project described above, in accordance with the General NPDES Permit No. ILR10 issued by the Illinois Environmental Protection Agency.

I certify under penalty of law that I understand the terms of the Permit No. ILR 10 that authorizes the storm water discharges associated with industrial activity from the construction site identified as part of this certification.

In addition, I have read and understand all of the information and requirements stated in the SWPPP for the above mentioned project; I have received copies of all appropriate maintenance procedures; and, I have provided all documentation required to be in compliance with the Permit ILR10 and SWPPP and will provide timely updates to these documents as necessary.

Contractor

□ Sub-Contractor

| Print Name | Signature | | | | |
|--|----------------|--|--|--|--|
| | | | | | |
| | | | | | |
| Title | Date | | | | |
| | | | | | |
| | | | | | |
| Name of Firm | Telephone | | | | |
| | | | | | |
| | | | | | |
| Street Address | City/State/ZIP | | | | |
| | | | | | |
| | | | | | |
| Items which this Contractor/subcontractor will be responsible for as required in Section II.5. of the SWPPP: | | | | | |
| • | • | | | | |
| | | | | | |



Illinois Environmental Protection Agency

| Bureau of Water | • 1021 North Grand | Avenue East | • P.C |). Box 1927 | 6 • Spring | field • | Illinois • 627 | 94-9276 | |
|--|---|--|---------------|-------------------|------------------------|-------------------|---|--------------------|-------|
| to | | Division of ice of Inten 1 Water Ass | t (NOI) | for Gene | ral Permit | | Activities | | |
| This fillable form Section at the abo | may be completed or ove address. | nline, a copy | saved loo | cally, printe | ed and signe | | e <i>it is submitt</i> or Office Use C | | ermit |
| OWNER INFOR | MATION | | | | | | Permit No. ILR | - | |
| Company/Owner | Name: <u>Illinois Departm</u> | ent of Natural | Resourc | es | | | | 10 | |
| Mailing Address: | One Natural Resource | es Way | | | Ph | ione: 21 | 7-785-3334 | | |
| | | | | | | ix: <u>217-</u> 7 | 785-5014 | | |
| Contact Person: | Arlan R. Juhl | | | E-ı | mail: <u>arlan.j</u> u | ıhl@illind | ois.gov | | |
| Owner Type (sele | ct one) State | | | | | | | | |
| CONTRACTOR Contractor Name: | | | | | | Commur | nity: 🔲 Yes | 🗌 No | |
| Mailing Address: | | | | | P | none: | | <u> </u> | |
| | | | | | | | | | |
| Select One: 🛛 🕅 | DN SITE INFORMAT | e of informatio | | | | unty: <u>C</u> | Cook | | |
| Street Address: | Panoramic Drive and | Dora Street | _ City: | Schiller Par | ʻk | _ IL Z | ːip: | | |
| Latitude: <u>41</u> | <u>56</u> <u>43.9</u> | - | | | | | | <u>12E</u> | |
| (Deg) | | | , | • • | • • | | Township | - | |
| | struction Start Date _ | | <u> </u> | pproximate | Construction | n End Da | ate Nov 1 | , 2014 | |
| If less than 1 acre | truction site in acres: e, is the site part of a la ☐ ☐ No | | plan of d | evelopment | ? | Less th | hedule for Cor an 5 acres - 3 pre acres - \$7 | \$250 | tes: |
| Has the SWPPP be (Submit SWPPF | POLLUTION PREV een submitted to the A electronically to: <u>epa.c</u> P for viewing: Address | gency? onstilr10swppp(| @illinois.go | <u>vv</u>) | ✓ Yes | L | lo y: | | |
| SWPPP contact in | formation: | | | | | Ins | pector qualific | ations: | |
| Contact Name: | | | | | | | | ····· | |
| Phone: | Fa | x: | | | | | | | |
| Project inspector, i | if different from above | | | | | Ins | pector qualific | ations: | |
| Inspector's Name: | | | | | | | | | |
| Phone: | | «: | | | | | | | |
| | This Agency is authorized to | require this informat | tion under Se | ction 4 and Title | X of the Environm | ental Protec | tion Act (415 ILCS 5 | /4, 5/39). Failure | to |

IL 532 2104 WPC 623 Rev 5/10

disclose this information may result in: a civil penalty of not to exceed \$50,000 for the violation and an additional civil penalty of not to exceed \$10,000 for each day during which the violation continues (415 ILCS 5/42) and may also prevent this form from being processed and could result in your application being denied. This form has been approved by the Forms Management Center.

TYPE OF CONSTRUCTION (select one)

Construction Type

| SIC Code: | | | | |
|--|--|--|--|--|
| Type a detailed description of the project: | | | | |
| The work of this project consists of approximately 1239 feet of pavement removal and replacement or resurfacing and | | | | |
| curb and gutter removal and replacement along Denley Avenue/Dora Street, installation of 1,945 feet of precast | | | | |
| concrete box culverts, and modification of approximately 1235 feet of existing stream and/or ditch together with all | | | | |
| appurtenant work to complete the project located along or under Denley Avenue/Dora Street from approximately 350 | | | | |
| feet north of Seymore Avenue south to Panoramic Drive then west along the ditch on the north side of Panoramic | | | | |
| Drive to near the west end of Panoramic Drive. | | | | |
| HISTORIC PRESERVATION AND ENDANGERED SPECIES COMPLIANCE Has the project been submitted to the following state agencies to satisfy applicable requirements for compliance with Illinois law on: Historic Preservation Agency Yes No Endangered Species Yes No RECEIVING WATER INFORMATION Does your storm water discharge directly to: Vaters of the State or Storm Sewer | | | | |
| Owner of storm sewer system: | | | | |
| Name of closest receiving water body to which you discharge: Sister Stream | | | | |
| lail completed form to: Illinois Environmental Protection Agency Division of Water Pollution Control Attn: Permit Section Post Office Box 19276 Springfield, Illinois 62794-9276 or call (217) 782-0610 FAX: (217) 782-9891 | | | | |

Or submit electronically to: epa.constilr10swppp@illinois.gov

I certify under penalty of law that this document and all attachments were prepared under my direction and supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage this system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. In addition, I certify that the provisions of the permit, including the development and implementation of a storm water pollution prevention plan and a monitoring program plan, will be complied with.

Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

Owner Signature:

Date:

Printed Name:

INSTRUCTIONS FOR COMPLETION OF CONSTRUCTION ACTIVITY NOTICE OF INTENT (NOI) FORM

Page 3 of 3

This fillable form may be completed online, a copy saved locally, printed and signed before it is submitted to the Permit Section at:

Illinois Environmental Protection Agency Division of Water Pollution Control Permit Section Post Office Box 19276 Springfield, Illinois 62794-9276 or call (217) 782-0610 FAX: (217) 782-9891

Or submit electronically to: epa.constilr10swppp@illinois.gov

Reports must be typed or printed legibly and signed.

Any facility that is not presently covered by the General NPDES Permit for Storm Water Discharges From Construction Site Activities is considered a new facility.

If this is a change in your facility information, renewal, etc., please fill in your permit number on the appropriate line, changes of information or permit renewal notifications do not require a fee.

NOTE: FACILITY LOCATION IS NOT NECESSARILY THE FACILITY MAILING ADDRESS, BUT SHOULD DESCRIBE WHERE THE FACILITY IS LOCATED.

Use the formats given in the following examples for correct form completion.

| | Example | Format |
|----------|---------|--|
| Section | 12 | 1 or 2 numerical digits |
| Township | 12N | 1 or 2 numerical digits followed by "N" or "S" |
| Range | 12W | 1 or 2 numerical digits followed by "E" or "W" |

For the Name of Closest Receiving Waters, do not use terms such as ditch or channel. For unnamed tributaries, use terms which include at least a named main tributary such as "Unnamed Tributary to Sugar Creek to Sangamon River."

Submission of initial fee and an electronic submission of Storm Water Pollution Prevention Plan (SWPPP) for Initial Permit prior to the Notice of Intent being considered complete for coverage by the ILR10 General Permits. Please make checks payable to: Illinois EPA at the above address.

Construction sites with less than 5 acres of land disturbance - fee is \$250.

Construction sites with 5 or more acres of land disturbance - fee is \$750.

SWPPP should be submitted electronically to: <u>epa.constilr10swppp@illinois.gov</u> When submitting electronically, use Project Name and City as indicated on NOI form.



Storm Water Pollution Prevention Plan

| Date | e of Inspection: | | County: | Erosion Control Inspec | tion F | lepo | rt |
|--|---|--|-----------------------|----------------------------|----------|--------|----------|
| | ne of Inspector: | | _ County: Section: | | | | |
| | e of Inspection: Weekly | v 🗆 | _ Route: | | | | |
| .) P | >0.5" Precip | | District: | 1 | | | |
| Con | traatari | | Contract I | | | | |
| Sub | <u>.</u> | | – Job No. | FR-425 | | | |
| | | | – Project: | Crystal Creek Flood Contro | ol Proje | ct Ph; | ase II B |
| NPD | DES/ESC Deficiency Deduc | ction: \$ | NPDES F | Permit No: | | | |
| Tota | al Disturbed Area: | acre | – Ready for | r Final Cover: | | acre | |
| | - | | Final Cov | er Established: | | acre | Э |
| - | sion and Sediment Contro n # / BMP | ol Practices | | | YES | NO | N/A |
| 1. | permanently | nd exposed areas where soil distur ceased, and not permanently stabi ration in accordance with the NPDE | ilized, have | adequate temporary seed or | | | |
| 2. | Ditches Are all ditches (existing and temporary) clear of sediment and/or debris? Do all ditches have adequate stabilization and structural practices in place? | | | | | | |
| 3. | Perimeter Erosion Barrier: Are all perimeter erosion barriers in good working order? Has perimeter barrier no longer needed been removed and the area stabilized? | | | | | | |
| 4. Temporary Ditch Checks: Are all temporary ditch checks. Are the current ditch checks a | | | | | | | |
| 5. Temp Diversions/ Slope Drains: Are all Temporary Diversions and Slope Drains functioning properly? | | | | | | | |
| 6. | - | | | | | | |
| 7. | | ALL sediment basins/traps in good as sufficient capacity exist for the de | | | | | |
| 8. | Has | and/Prairie/Tree Preservation: the contractor remained clear of al all "no intrusion" areas adequately | | | | | |
| 9. | | ockpiles properly situated and mair inimize discharge of materials or re | | | | | |
| 10. | 0. Borrow/Waste Are all borrow and waste locations, including those located offsite, in compliance with NPDES requirements? | | | | | | |
| 11. | Other Installations: | Are all other BMP installations show (note in comments) | wn in the pla | ns properly functioning? | | | |
| Gen | eral Site Maintenance Re | quired of the Permit | | | | | |
| 12. | Tracking: road a Are Stabiliz | free from mud, sediment and debris reas throughout the site? zed Construction field entrances pro zed Construction field entrances in | operly locate | ed? | | | |

Item # / BMP

| Item | # / BMP | | YES | NO | N/A |
|------|-----------------------------------|---|-----|----|-----|
| 13. | Concrete Washout Areas: | Are concrete washout areas adequately signed and maintained? Has all washout occurred only at designated washout locations? | | | |
| 14. | Staging/Storage Areas: | Are all staging/storage facilities free of litter, leaking containers, leaking equipment, spills, etc? | | | |
| 15. | Fuel/Chemical Storage: | Are all fuels and chemicals stored only in designated locations? Are all designated locations free of evidence of leaks and or spills? | | | |
| 16. | Previous Inspection Follow Up: | Have all corrections from the last report been properly completed? If not, has a NPDES/ESC Deficiency Deduction been assessed? | | | |
| 17. | • | changes to the projects SWPPP been noted on the graphic site plan, ed and dated? | | | |
| 18. | Dischare of If Yes, has the | or other pollutants of concern been released from the project site? Illinois Environmental Protection Agency been notified within 24 hours | | | |
| | Sediment: of your obs mailed with | ervation of the discharge and an Incidence of Non-Compliance (ION) in 5 days? | | | |

Specific Instructions Related to "No" Answers From Above:

| Item # | Station or Station to Station | Practice | Comments/Actions Required | Time for Repair |
|--------|----------------------------------|----------|---------------------------|--------------------|
| | | | | |
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Other Comments:

| Additional Pages (Attached A | As Needed) | | |
|--|--|---------------------------------|-------------------------|
| Outfalls / Receiving Water Drainage Structure/Ditch (Additional Instructions to (| Check Locations | | |
| Repairs and stabilization are to | 16 above is "No", the contractor is hereby on be completed within 24 hours of this reportion will be assessed for each noted deficient terms of the second terms of terms o | t (or as indicated above) or th | DAILY |
| Inspector's Signature | | Date/Time: | |
| Contractor's Signature | | Date/Time: | |
| Original: Project File cc: Contractor | | | |
| Printed on: 7/5/2013 | Page 2 of 2 | E | 3C 2259 (Rev. 05/15/09) |
| | -50- | | |

COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT

<u>Description</u>. This work shall consist of the complete removal and replacement in kind of the existing combination concrete curb and gutter at the locations shown on the plans or as directed by the Engineer.

<u>General Requirements</u>. This work shall be performed in accordance with Section 440 and Section 606 of the Standard Specifications. Materials resulting from the removal of existing curb and gutter as herein specified shall be disposed of according to Article 202.03. The concrete curb and gutter shall be installed over a bed of sub-base granular material as shown in the plans. The sub-base granular material shall be furnished, placed and completed in accordance with Section 311 of the Standard Specifications.

<u>Method of Measurement</u>. Removal and replacement of combination concrete curb and gutter will be measured for payment in place, in feet.

<u>Basis of Payment</u>. This work will be paid for at the contract unit price per foot for COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT. Subbase granular material shall not be paid for separately but shall be included in the cost of the COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT.

CHAIN LINK FENCE TO BE REMOVED AND RE-ERECTED

<u>Description</u>. This work shall consist of removing and re-erecting fencing and/or gates at the locations shown on the plans or as directed by the Engineer. If other types of fence are encountered, they shall be removed and re-erected in kind, but shall be measured and paid for as CHAIN LINK FENCE TO BE REMOVED AND RE-ERECTED.

<u>General Requirements</u>. The Contractor shall remove the fence and/or gates in a work-manlike manner by any suitable means that does not damage the fence. The fence and/or gate shall be removed and re-erected per the plans or as directed by the Engineer. Re-erection of the existing fence shall be performed per applicable portions of section 664 and/or 641 of the Standard Specifications and per standard 664001.

<u>Method of Measurement</u>. The fence removal and re-erection of any kind will be measured for payment in place, in feet.

<u>Basis of Payment</u>. The work will be paid for at the contract unit price per foot for CHAIN LINK FENCE TO BE REMOVED AND RE-ERECTED which price shall include all labor, materials and equipment to complete the work including but not limited to removing and reassembling existing fence, post and gates, repair or replacement of existing material, cleaning posts, concrete for foundations, and removing and disposing of post foundations. Damage to the existing fence and/or gate to be reinstalled due to improper construction procedures or carelessness on the part of the Contractor shall be repaired in kind at no cost to the Department.

ENGINEER'S FIELD OFFICE TYPE B SPECIAL

Revise Article 670.04 of the Standard Specifications to read:

"670.04 Engineer's Field Office Type B. Type B field offices shall have a minimum ceiling height of 7 ft (2m) and a minimum floor space of 380 sq ft (35 sq m). The office shall be provided with sufficient heat, natural and artificial light, and air conditioning. Doors and windows shall be equipped with locks approved by the Engineer.

Adequate all weather parking shall be available to accommodate a minimum of six vehicles.

In addition, the following equipment and furniture meeting the approval of the Engineer shall be furnished.

- (a) Four desks with a minimum working surface 42 x 30 in. (1.1 m x 750 mm) each and four non-folding chairs with upholstered seat and back.
- (b) One free standing four drawer legal size file cabinet with lock and an underwriters' laboratories insulated file device 350 degrees one hour rating.
- (c) One four post drafting table with minimum top size of 37 ½ x 48 in. (950 mm x 1.2 m). The top shall be basswood or equivalent and capable of being tilted through an angle of 50 degrees. An adjustable height drafting stool with upholstered seat and back shall also be provided.
- (d) Two folding chairs.
- (e) One equipment cabinet of minimum inside dimension of 44 in. (1100 mm) high x 24 in. (600 mm) wide x 30 in. (750 mm) deep with lock. The walls shall be of steel with a 3/32 in. (2 mm) minimum thickness with concealed hinges and enclosed lock constructed to prevent entry by force. The cabinet assembly shall be permanently attached to a structural element of the field office to prevent theft of the entire cabinet.
- (f) A minimum of three communication paths The configuration shall include:
 - (1) Internet Connection. An internet service connection using telephone DSL, cable broadband, or CDMA wireless technology. Additionally, an 802.11g/N wireless router shall be provided, which will allow connection by the Engineer and up to four Department staff.
 - (2) Telephone lines. Two separate telephone lines.
 - (3) One cellular phone with a minimum of 1000 anytime calling minutes per month for exclusive use by the Engineer.
- (g) One electric desk type tape printing calculator.
- (h) One first-aid cabinet fully equipped.

- One plain paper copy machine capable of reproducing prints up to 11 x 17 in. (280 x 432 mm) with an automatic feed tray capable of storing 30 sheets of paper. Letter size and 11 x 17 in. (280 x 432 mm) paper shall be provided.
- (j) One plain paper fax machine with paper.
- (k) One telephone, with touch tone, where available, and a digital telephone answering machine, for exclusive use by the Engineer.
- (I) A portable toilet meeting Federal, State, and local health department requirements stocked with lavatory and sanitary supplies at all times.
- (m) One electric water cooler dispenser.
- (n) One refrigerator with a minimum size of 16 cu ft (0.45 cu m) with a freezer unit."

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

"This price shall include all utility costs and shall reflect the salvage value of the building or buildings, equipment, and furniture which become the property of the Contractor after release by the Engineer, except that the Department will pay that portion of the monthly long distance and monthly local telephone bills that, when combined, exceed \$150 and the additional cost, if any, for cell phone use over the minimum required allotment of anytime calling minutes stated above."

TRAFFIC CONTROL AND PROTECTION, (SPECIAL)

<u>Description</u>. This work shall consist of the furnishing, installation, maintenance, relocation and removal of all signs, traffic cones, barricades, temporary pavement markings, warning lights, or any other control devices as shown on the plans or as directed by the Engineer for the purpose of regulating, warning or directing traffic during construction of this improvement. It shall also include restoring the permanent pavement markings and existing signs at their original locations.

<u>Traffic Control Plan</u>. Traffic control and protection shall be in accordance with the applicable sections of the Standard Specifications and the guidelines contained in the Manual on Uniform Traffic Control Devices for Streets and Highways, these Special Provisions, and any special details contained herein and in the plans.

The Contractor shall ensure that all traffic control devices installed by him are operational, functional and effective 24 hours a day, including Sundays and holidays.

Special attention is called to Articles 107.09 and 107.14, and Sections 701 and 702 of the Standard Specifications and the following Highway Standards and details relating to Traffic Control.

The following Highway Standards are related to the operation of this Special Provision:

701006, 701501, 701901, 704001, and 780001

It is the intention of the Department to close Denley Avenue/Dora Street from Sarah Street to Seymore Avenue and detour traffic around this area utilizing Addison Avenue, Wehrman Avenue, and Seymore Avenue during the construction of the box culverts under Denley Avenue/Dora Street. Vehicular access to the driveways along the east side of Dora Street between Panoramic Drive and Sarah Street shall be maintained throughout the project.

Lights shall be in accordance with section 701.16 of the Standard specifications

All pavement markings shall be restored to their original type, size and location at completion of culvert and roadway construction.

<u>Basis of Payment</u>. Traffic control will be paid for at the contract lump sum price for "TRAFFIC CONTROL AND PROTECTION, (SPECIAL)," which price shall be payment in full for all labor, materials, transportation, handling, and any incidentals necessary to furnish, install, maintain and remove all traffic devices indicated in the plans and specifications for traffic control on the project, and to restore the permanent pavement markings and existing signs at their original locations.

WOOD INFORMATION SIGNS

<u>Description</u>. This work shall consist of furnishing, fabricating, installing and subsequent removal and disposal of the wood information signs at the locations shown in the plans or as directed by the Engineer.

<u>General Requirements</u>. The posts shall be installed in a vertical hole not exceeding 12 inches in diameter and not less than three feet deep. The posts shall be centered in the holes and then backfilled with CA6 thoroughly tamped in 12 inch lifts. The post material shall be according to the details shown in the plans and as described in Article 1007.05 of the Standard Specifications.

The signs shall be plumb at all times throughout the duration of the project and readjusted as directed by the Engineer.

<u>Method of Measurement</u>. Wood information signs will be measured for payment per square foot.

<u>Basis of Payment</u>. This work will be paid for at the contract unit price per square foot for WOOD INFORMATION SIGNS.

CONSTRUCTION STAKING

<u>Requirements</u>. The Contractor is advised that the Department shall provide the control staking at the beginning of construction for use by the Contractor to establish the necessary lines and grades to construct the project as shown on the Plans and in the Specifications and as specified

by the Engineer. Bench mark elevations shall be established by the Engineer as shown on the plans. Traverse (Baseline) lines, offsets for all cross section stations as shown on the plans, along with reference offsets for all points of curvature (P.C.), points of tangent (P.T.) points on tangent (P.O.T.), points of intersection (P.I.) and the bisect of the internal angle of each P.I. will be furnished by the Department for use by the Contractor at no cost to the Contractor. All stakes required to perform the work furnished by the Department shall be at the expense of the Department.

All remaining lines and grades required by the Contractor to properly perform the work as specified on the plans and in the specifications as directed by the Engineer and the Standard Specifications for Road and Bridge Construction, adopted January 1, 2012; particularly Article 105.09 shall be the responsibility of the Contractor. The construction surveying work to be performed by the Contractor shall be under the direction of an Illinois Registered Land Surveyor or an Illinois Registered Professional Engineer.

<u>Method of Measurement and Basis of Payment</u>. The construction staking work to be performed by the Contractor, will be paid for at the lump sum price for CONSTRUCTION STAKING, which price shall be payment in full for performing the work as specified.

TEMPORARY COFFERDAM SYSTEM

<u>Description</u>. This work shall consist of furnishing all design, labor, materials, and equipment necessary to construct, maintain and subsequently remove a Temporary Cofferdam System as required to construct the, culverts, channel modifications, etc....

<u>Construction Requirements</u>. The Contractor shall submit drawings and design calculations for the temporary cofferdam system showing the proposed design, method of construction, removal, as well as other details left open to the option of the contractor. The Contractor is fully responsible for the design of the cofferdam and may propose systems including prefabricated dams, inflatable dams, etc... The Contractor is responsible for the safety of his personnel and cost of cleanup and cofferdam restoration in the case of cofferdam overtopping and/or failure.

After having served its purpose, the temporary cofferdam and all associated materials used in conjunction with the temporary cofferdam shall be removed in a manner approved by the Engineer and shall remain the property of the Contractor.

<u>Method of Measurement</u>: This work will be measured for payment as a single lump sum item. All diversion structures and appurtenances required for any and all of the proposed and/or required construction shall be included in the single lump sum item.

<u>Basis of Payment</u>. This work will be paid for at the contact lump sum price for TEMPORARY COFFERDAM SYSTEM, which payment shall constitute full compensation for all labor, equipment, materials, maintenance, cleanup and restoration in the event of cofferdam failure or overtopping, the removal and disposal of all materials, and all other items necessary to complete this work.

SEEDING, MULCHING AND FERTILIZING

<u>Description</u>. This work shall consist of preparing the seed bed, and furnishing, transporting, and placing fertilizer, seed, and mulch (unless heavy duty erosion control blanket or turf reinforcement mat is called for), and other materials required in the seeding operation for the area within the limits as shown on the plans including the slope of the ditches and all other areas disturbed by the Contractor's operation except where other surfacing is required, in accordance with plans, specifications, and as required by the Engineer.

<u>Seed Bed Preparation</u>. Seed bed preparation shall not be started until all stones, boulders, debris, and similar material larger than 3 inches in diameter have been removed. The area to be seeded shall be worked to a minimum depth of 3 inches with a disk or other equipment approved by the Engineer, reducing all soil particles to a size not larger than 2 inches in the largest dimension. The prepared surface shall be relatively free from all weeds, clods, stones, roots, sticks, rivulets, gullies, crusting and caking. No seeds shall be sown until the seed bed has been approved by the Engineer.

<u>Fertilizer</u>. Fertilizer having an analysis of 10-6-4, or having a different analysis but still meeting the 5-3-2 ratio requirement, shall be applied at such a rate that each acre to be seeded shall receive a total of 240 pounds of the 3 nutrients. The Engineer may increase or decrease the amount of nutrients required per acre. Fertilizer shall be spread over the seeding area before completion of the ground preparation and incorporated in the soil as a part of the ground preparation operations. The fertilizer shall be a ready-mixed material containing the following nutrients expressed in percent of the total weight of the ready-mixed materials: 10% Nitrogen, 6% available Phosphoric Acid, and 4% water soluble Potash (10-6-4 Analysis).

The following information shall be shown on the fertilizer bags:

- (1) Name and address of manufacturer;
 - (2) Name, brand or trademark;
 - (3) Number of net pounds of ready-mixed material in the package;
 - (4) Chemical composition of analysis;
 - (5) Guarantee of analysis.

<u>Grass Seed</u>. Grass seed shall be fresh, clean, and new crop seed having been tested within 6 months prior to the date of seeding composed of the varieties mixed in proportion by weight as shown and testing the minimum percentage of purity and germination indicated.

Seed shall have the equivalent of a minimum of 80 percent pure, live seed. When the percentage of purity multiplied by the percentage germination gives a percentage of pure, live seed less than the 80 percent, the rate of seeding shall be increased proportionately.

Adjusted pounds per acre = <u>Specified Pounds x 80</u> Actual Pure, Live Seed Percent

| Kentucky Blue Grass | 60 pounds per acre |
|---------------------|---------------------------|
| Alta Fescue | 40 pounds per acre |
| Timothy | 20 pounds per acre |
| Perennial Rye Grass | 20 pounds per acre |
| Red Top | <u>20 pounds per acre</u> |
| Total | 160 pounds per acre |

All seeds used shall be labeled in accordance with U.S. Department of Agricultural Rules and Regulations under the Federal Seed Act in effect at the time of installation of the work involved under seeding operations. All seeds shall be furnished in sealed standard containers. Seed may be mixed by dealers or by approved method on the site. Weed seeds shall not exceed 0.35% by weight of the total amount supplied.

If seed is mixed by dealers, the dealer's guaranteed statement of composition of mixture and percentage of purity and germination of each variety must be furnished.

If the Contractor desires to mix the seed at the site, the operation shall be performed under the supervision of the Engineer. Individual varieties of seed must be delivered in a separate unopened original container and the dealer's guaranteed analysis for each variety must be furnished.

The seed shall be proportioned by weight properly mixed and sown by any approved method which will insure uniform distribution over the areas, except that a farm drill shall not be used. The prescribed seeding shall be sown on the following dates in the IDOT Districts specified below:

In Districts 1 through 6, the planting times shall be April 1 to June 15 and August 1 to November 1. In Districts 7 through 9, the planting times shall be March 1 to June 1 and August 1 to November 15. Seeding may be performed outside these dates provided the Contractor guarantees a minimum of 75 percent uniform growth over the entire seeded area(s) after a period of establishment. Inspection dates for the period of establishment will be as follows: Seeding conducted in Districts 1 through 6 between June 16 and July 31 will be inspected after April 15 and seeding conducted between November 2 and March 31 will be inspected after September 15. Seeding conducted in Districts 7 through 9 between June 2 and July 31 will be inspected after September 15 and seeding conducted between November 16 and February 28 will be inspected after September 15. The guarantee shall be submitted to the Engineer in writing prior to performing the work. After the period of establishment, areas not exhibiting 75 percent uniform growth shall be interseeded or reseeded, as determined by the Engineer, at no additional cost to the Department.

Spring seeding in all regions may be performed any time after the ground conditions are satisfactory to provide an acceptable seed bed preparation as explained elsewhere in this Special Provision.

No seed shall be sown during high winds or when the ground is not in a proper condition for seeding, nor shall any seed be sown until the purity test has been completed for the seed to be used, and shows that the seed meets the noxious weed seed requirements. The Engineer shall examine and then approve the equipment to be used. Prior to starting work, seeders shall be calibrated and adjusted to sow seeds at the proper seeding rate. Equipment shall be operated in a manner to insure complete coverage of the entire area to be seeded. The Engineer shall be notified 48 hours prior to beginning the seeding operations so that he can determine by trial runs that a calibration of the seeder will provide uniform distribution at the specified rate per acre. When seed or fertilizer is applied with a hydraulic seeder, the rate of application shall be not less than 1000 gallons of slurry per acre. This slurry shall contain the proper quantity of seed or fertilizer specified per acre. When using a hydraulic seeder the fertilizer nutrients and seed shall be applied in two separate operations.

The optimum depth for seeding shall be 1/4 inch.

<u>Mulch</u>. All mulch material shall be non-toxic to vegetation and to the germination of seed and shall be free from the noxious weeds and weed seeds in the group classed as primary noxious weed seed in the existing Illinois Seed Law and shall be approved by the Engineer.

Straw. Straw shall be stalks of wheat, rye, oats, or other approved straw, and shall be air-dried.

<u>Hay</u>. Hay shall be obtained from fields of timothy, red top, mature brome grass, or other mature grasses, or from other sources approved by the Engineer. It shall be air-dried.

<u>Mulching Seeded Areas</u>. Within 24 hours from the time seeding has been performed, the areas to be mulched shall be given a covering of mulch. On slopes steeper than 3:1 mulch shall be applied the same day as the seed.

The mulch shall be applied uniformly at the rate of approximately 2 tons per acre on seeded areas. The exact rate to be specified by the Engineer. The mulch shall be loose enough to permit air to circulate but compact enough to reduce erosion. If baled mulch material is used, care shall be taken that the material is in a loosened condition and contains no lumps or knots of compacted material. Mulching shall be anchored by pressing the straw or hay into the soil to a 2 inch depth using a serrated straight disk.

Areas that are shown on the plans to receive seeding and fertilizing and heavy duty erosion control blanket or turf reinforcement mat shall not be mulched, but shall be seeded and fertilized in accordance with this special provision. The heavy duty erosion control blanket or turf reinforcement mat shall be in accordance with the applicable requirements of the Standard Specifications.

<u>Method of Measurement</u>. Seeding, mulching and fertilizing or seeding and fertilizing shall be measured to the nearest one hundredth of an acre using the full horizontal width and length of the areas as shown on the plans or as authorized by the Engineer. Deduction will be made for areas within the limit which are not required to be seeded. All other work and material shall not be measured for payment but shall be considered incidental.

<u>Basis of Payment</u>. This work will be paid at the contract unit price per acre as measured above for SEEDING, MULCHING, AND FERTILIZING, or SEEDING AND FERTILIZING measured as specified. Any re-seeding required as directed by the Engineer that is not required elsewhere in this special provision, shall be measured and paid for at the contract unit price for SEEDING, MULCHING, AND FERTILIZING or SEEDING AND FERTILIZING.

ABOVE GRADE INLET PROTECTION (BDE)

Effective: July 1, 2009 Revised: January 1, 2012

Add the following to Article 280.02 of the Standard Specifications:

"(m) Above Grade Inlet Filter1081.15(j)"

Add the following paragraph after the second paragraph of Article 280.04(c) of the Standard Specifications:

"When above grade inlet filters are specified, they shall be of sufficient size to completely span and enclose the inlet structure. Prior to ordering materials, the Contractor shall determine the size of the various drainage structures being protected."

Add the following paragraph after the second paragraph of Article 280.08(d) of the Standard Specifications:

"Protection of drainage structures with rigid inlet protection assemblies will be paid for at the contract unit price per each for ABOVE GRADE INLET FILTERS."

Add the following to Article 1081.15 of the Standard Specifications:

- "(j) Above Grade Inlet Filters. Above grade inlet filters shall consist of a rigid polyethylene frame covered with a fitted geotextile filter. A clean, used fitted filter and a used rigid polyethylene frame in good condition meeting the approval of the Engineer may be substituted for new materials. Materials for the above grade inlet filter assembly shall be according to the following.
 - (1) Frame Construction. Frame shall be constructed of a high density polyethylene copolymer. The design of the frame shall allow the structure to fit completely over the sewer inlet. The frame shall be a minimum of 26 in. (650 mm) tall and the top of the frame shall be designed with an opening to allow large volumes of water to pass through under high flow events. The frame shall conform to the following requirements:

| | Frame | |
|----------------------------------|-------------|-------------------------|
| Material Property | Test Method | Value |
| Tensile Yield Strength | ASTM D 638 | 3600 psi (24.82 MPa) |
| Elongation at Break | ASTM D 638 | >600% |
| Tensile-Impact Strength | ASTM D 1822 | 170 ft lb/sq in (230 J) |
| Brittleness Temperature | ASTM D 746 | <-105°F (-76.11°C) |
| Environmental Stress Cracking | ASTM D 1693 | >800 hours |
| Durometer Hardness, | ASTM D 2240 | 68 |

| Shore A | | |
|--|-------------|---|
| Vicat Softening Temperature | ASTM D 1525 | 254°F (123.33°C) |
| Deflection Temperature | ASTM D 648 | 157°F (69.44°C) |
| Coefficient of Linear Thermal Expansion | ASTM D 696 | 7x10 ⁻⁵ in/in/°F (12.6x10 ⁻⁵ m/m/°C) |
| Bulk Density | ASTM D 1895 | 37 lbs/cu ft (592.7 kg/cu m) |

(2) Fitted Geotextile Filter. The sides of the fitted geotextile filter shall be constructed of 100 percent continuous polyester needle-punched fabric. The filter shall be fabricated to provide a direct fit to the frame. The top of the filter shall integrate a coarse screening to allow large volumes of water to pass through in the event of heavy flows. This screening shall have a minimum apparent opening of 1/2 in. (13 mm). The filter shall have integrated anti-buoyancy pockets capable of holding no less than 3.0 cu ft (0.08 cu m) of stabilization material. Each filter shall have a label with the following information sewn to or otherwise permanently adhered to the outside: manufacturer's name, product name, and lot, model or serial number. The fitted geotextile filter shall conform to the following requirements:

| _ | | | | | | | | | | | |
|-------------------------|-----------------------|-------------------------|--|--|--|--|--|--|--|--|--|
| F. | itted Geotextile Filt | er | | | | | | | | | |
| Material Property | Test Method | Minimum Avg. Roll Value | | | | | | | | | |
| Weight | ASTM D 3776 | 3.0 oz/sq yd +/- 10% | | | | | | | | | |
| | ASTN D 3770 | (71.1 grams/sq m) | | | | | | | | | |
| Grab Tensile Strength | ASTM D 4632 | 80 lb min. (36.29 kg) | | | | | | | | | |
| Grab Tensile Elongation | ASTM D 4632 | 50% | | | | | | | | | |
| Bursting Strength | ASTM D 3786 | 150 psi min. (1.03 MPa) | | | | | | | | | |
| Puncture Resistance | ASTM D 4833 | 50 lb min. (22.68 kg) | | | | | | | | | |
| Trapezoid Tearing | ASTM D 4533 | 30 lb min. (13.61 kg) | | | | | | | | | |
| Strength | 7.01111 D 4000 | 00 10 mm. (10:01 kg) | | | | | | | | | |
| Apparent Opening Size | ASTM D 4751 | Sieve No. 70 (0.212 mm) | | | | | | | | | |
| Permittivity | ASTM D 4491 | 2.0/sec | | | | | | | | | |
| Water Permeability | ASTM D 4491 | 102 gal/min/sq ft | | | | | | | | | |
| | A3110 D 4491 | (4150 liter/min/sq m) | | | | | | | | | |
| UV Resistance | ASTM D 4355 | 70% at 500 hours | | | | | | | | | |

(3) Certification. The manufacturer shall furnish a certificate with each shipment of above grade inlet filter assemblies, stating the amount of product furnished and that the material complies with these requirements."

80240

AGGREGATE SUBGRADE IMPROVEMENT (BDE)

Effective: April 1, 2012 Revised: January 1, 2013

Add the following Section to the Standard Specifications:

"SECTION 303. AGGREGATE SUBGRADE IMPROVEMENT

303.01 Description. This work shall consist of constructing an aggregate subgrade improvement.

303.02 Materials. Materials shall be according to the following.

| ltem | Article/Section |
|--|-----------------|
| (a) Coarse Aggregate | |
| (b) Reclaimed Asphalt Pavement (RAP) (Notes 1, 2, and 3) | |

Note 1. Crushed RAP, from either full depth or single lift removal, may be mechanically blended with aggregate gradations CS 01, CS 02, and RR 01 but shall not exceed 40 percent of the total product. The top size of the RAP shall be less than 4 in. (100 mm) and well graded.

Note 2. RAP having 100 percent passing the 1 1/2 in. (37.5 mm) sieve and being well graded, may be used as capping aggregate in the top 3 in. (75 mm) when aggregate gradations CS 01, CS 02, or RR 01 are used in lower lifts.

Note 3. The RAP used for aggregate subgrade improvement shall be according to the current Bureau of Materials and Physical Research Policy Memorandum, "Reclaimed Asphalt Pavement (RAP) for Aggregate Applications".

303.03 Equipment. The vibratory machine shall be according to Article 1101.01, or as approved by the Engineer.

303.04 Soil Preparation. The stability of the soil shall be according to the Department's Subgrade Stability Manual for the aggregate thickness specified.

303.05 Placing Aggregate. The maximum nominal lift thickness of aggregate gradations CA 02, CA 06, or CA 10 shall be 12 in. (300 mm). The maximum nominal lift thickness of aggregate gradations CS 01, CS 02, and RR 01 shall be 24 in. (600 mm).

303.06 Capping Aggregate. The top surface of the aggregate subgrade shall consist of a minimum 3 in. (75 mm) of aggregate gradations CA 06 or CA 10. When the contract specifies that a granular subbase is to be placed on the aggregate subgrade improvement, the 3 in. (75 mm) of capping aggregate shall be the same gradation and may be placed with the underlying aggregate subgrade improvement material.

303.07 Compaction. All aggregate lifts shall be compacted to the satisfaction of the Engineer. If the moisture content of the material is such that compaction cannot be obtained, sufficient water shall be added so that satisfactory compaction can be obtained.

303.08 Finishing and Maintenance of Aggregate Subgrade Improvement. The aggregate subgrade improvement shall be finished to the lines, grades, and cross sections shown on the plans, or as directed by the Engineer. The aggregate subgrade improvement shall be maintained in a smooth and compacted condition.

303.09 Method of Measurement. This work will be measured for payment according to Article 311.08.

303.10 Basis of Payment. This work will be paid for at the contract unit price per cubic yard (cubic meter) or ton (metric ton) for AGGREGATE SUBGRADE IMPROVEMENT or at the contract unit price per square yard (square meter) for AGGREGATE SUBGRADE IMPROVEMENT, of the thickness specified."

Add the following to Section 1004 of the Standard Specifications:

"**1004.06 Coarse Aggregate for Aggregate Subgrade Improvement.** The aggregate shall be according to Article 1004.01 and the following.

- (a) Description. The coarse aggregate shall be crushed gravel, crushed stone, or crushed concrete.
- (b) Quality. The coarse aggregate shall consist of sound durable particles reasonably free of deleterious materials.
- (c) Gradation.
 - (1) The coarse aggregate gradation for total subgrade thickness less than or equal to 12 in. (300 mm) shall be CA 2, CA 6, CA 10, or CS 01.

The coarse aggregate gradation for total subgrade thickness more than 12 in. (300 mm) shall be CS 01, CS 02 or RR 01(see Article 1005.01(c)).

| | COA | COARSE AGGREGATE SUBGRADE GRADATIONS | | | | | | | | | |
|----------|-----|--------------------------------------|---------|---------|---------|--|--|--|--|--|--|
| Grad No | | Sieve Size and Percent Passing | | | | | | | | | |
| Grad No. | 8" | 6" | 4" | 2" | #4 | | | | | | |
| CS 01 | 100 | 97 ± 3 | 90 ± 10 | 45 ± 25 | 20 ± 20 | | | | | | |
| CS 02 | | 100 | 80 ± 10 | 25 ± 15 | | | | | | | |

| | COARSE AGGREGATE SUBGRADE GRADATIONS (Metric) | | | | | | | |
|--------------------------------|---|--------|--------|-------|---------|--|--|--|
| Sieve Size and Percent Passing | | | | | | | | |
| Grad No. | 200 mm | 150 mm | 100 mm | 50 mm | 4.75 mm | | | |

| CS 01 | 100 | 97 ± 3 | 90 ± 10 | 45 ± 25 | 20 ± 20 |
|-------|-----|--------|---------|---------|---------|
| CS 02 | | 100 | 80 ± 10 | 25 ± 15 | |

(2) The 3 in. (75 mm) capping aggregate shall be gradation CA 6 or CA 10."

80274

CONCRETE BOX CULVERTS WITH SKEWS > 30 DEGREES AND DESIGN FILLS ≤ 5 FEET (BDE)

Effective: April 1, 2012

Revise the second paragraph of Article 540.04 of the Standard Specifications to read:

"Unless otherwise noted on the plans, the Contractor shall have the option, when a cast-inplace concrete box culvert is specified, of constructing the box culvert using precast box culvert sections when the design cover is 6 in. (150 mm) minimum. The precast box culvert sections shall be designed for the same design cover shown on the plans for cast-in-place box culvert; shall be of equal or larger size opening, and shall satisfy the design requirements of ASTM C 1577."

Revise the fourth paragraph of Article 540.06 of the Standard Specifications to read:

"The excavation and backfilling for precast concrete box culverts shall be according to the requirements of Section 502, except where the design fill is less than or equal to 8 ft (2.4 m), or the design fill is less than the clear span of the box. In these cases ASTM C 1577 requires a select granular backfill (porous granular material) over the box. If a porous granular backfill is required but is not detailed on the plans for the culvert(s), the Contractor shall have the option of either furnishing porous granular backfill where required to satisfy ASTM C 1577, or submitting an alternate design, sealed by an Illinois licensed Structural Engineer, which precludes the use of a porous granular backfill. In addition for all precast boxes a layer of porous granular material, at least 6 in. (150 mm) in thickness, shall be placed below the elevation of the bottom of the box. The porous granular material shall extend at least 2 ft (600 mm) beyond each side of the box. The precast concrete box culvert shall be laid according to the applicable requirements of Article 542.04(d). After installation, the interior and exterior joint gap between precast concrete box culvert sections shall be a maximum of 1 1/2 in. (38 mm)."

Add the following after the seventh paragraph of Article 540.06 of the Standard Specifications:

"Precast concrete box culverts with skews greater than 30 degrees and having design covers less than or equal to 5 feet are not covered by the standard design table shown in ASTM C 1577. The design table provided herein is provided to address this design range. The same notes, reinforcement configurations, clearances, and requirements of ASTM C 1577 apply to this special design table. A box designated 7 x 6 x 8 indicates a span of 7 ft, a rise of 6 ft, and top slab, bottom slab, walls and haunches of 8 in. unless otherwise noted on the tables.

| | 3 ft by 2 ft by 4 in. | | | | | | | | | | | |
|---------------------|--|-------|-------|-------|-------|-------|-------|-------|----------|--|--|--|
| Design | Circumferential Reinforcement Areas, sq in./ ft. | | | | | | | | | | | |
| Earth Cover, ft. | As1 | As2 | As3 | As4 | As5 | As6 | As7 | As8 | "M", in. | | | |
| 0<2* | 0.168 | 0.900 | 0.295 | 0.096 | 0.269 | 0.168 | 0.853 | 0.144 | | | | |
| 2<3 | 0.134 | 0.180 | 0.182 | 0.096 | | | | | 31 | | | |
| 3-5 | 0.096 | 0.115 | 0.117 | 0.096 | | | | | 29 | | | |

*top slab 7 in., bottom slab 6.0 in.

| 3 ft by 3 ft by 4 in. | | | | | | | | | | | |
|-----------------------|--|-------|-------|-------|-------|-------|-------|-------|----------|--|--|
| Design | Circumferential Reinforcement Areas, sq in./ ft. | | | | | | | | | | |
| Earth Cover, ft. | As1 | As2 | As3 | As4 | As5 | As6 | As7 | As8 | "M", in. | | |
| 0<2* | 0.168 | 0.956 | 0.326 | 0.096 | 0.290 | 0.168 | 0.849 | 0.144 | | | |
| 2<3 | 0.101 | 0.214 | 0.218 | 0.096 | | | | | 31 | | |
| 3-5 | 0.096 | 0.136 | 0.140 | 0.096 | | | | | 31 | | |

*top slab 7.0 in., bottom slab 6.0 in.

| | 4 ft by 2 ft by 5 in. | | | | | | | | | | | |
|---------------------|--|-------|-------|-------|-------|-------|-------|-------|----------|--|--|--|
| Design | Circumferential Reinforcement Areas, sq in./ ft. | | | | | | | | | | | |
| Earth Cover, ft. | As1 | As2 | As3 | As4 | As5 | As6 | As7 | As8 | "M", in. | | | |
| 0<2* | 0.204 | 0.790 | 0.262 | 0.120 | 0.268 | 0.180 | 0.846 | 0.144 | | | | |
| 2<3 | 0.201 | 0.203 | 0.196 | 0.120 | | | | | 32 | | | |
| 3-5 | 0.129 | 0.134 | 0.136 | 0.120 | | | | | 32 | | | |

*top slab 7.5 in., bottom slab 6.0 in.

| | 4 ft by 3 ft by 5 in. | | | | | | | | | | |
|---------------------|--|-------|-------|-------|-------|-------|-------|-------|----------|--|--|
| Design | Circumferential Reinforcement Areas, sq in./ ft. | | | | | | | | | | |
| Earth Cover, ft. | As1 | As2 | As3 | As4 | As5 | As6 | As7 | As8 | "M", in. | | |
| 0<2* | 0.180 | 0.876 | 0.303 | 0.120 | 0.305 | 0.180 | 0.831 | 0.144 | | | |
| 2<3 | 0.160 | 0.245 | 0.238 | 0.120 | | | | | 38 | | |
| 3-5 | 0.120 | 0.161 | 0.165 | 0.120 | | | | | 35 | | |

*top slab 7.5 in., bottom slab 6.0 in.

| | 4 ft by 4 ft by 5 in. | | | | | | | | | | | |
|---------------------|--|-------|-------|-------|-------|-------|-------|-------|----------|--|--|--|
| Design | Circumferential Reinforcement Areas, sq in./ ft. | | | | | | | | | | | |
| Earth Cover, ft. | As1 | As2 | As3 | As4 | As5 | As6 | As7 | As8 | "M", in. | | | |
| 0<2* | 0.180 | 0.927 | 0.334 | 0.120 | 0.327 | 0.180 | 0.822 | 0.144 | | | | |
| 2<3 | 0.130 | 0.277 | 0.270 | 0.120 | | | | | 38 | | | |
| 3-5 | 0.120 | 0.181 | 0.188 | 0.120 | | | | | 38 | | | |

*top slab 7.5 in., bottom slab 6.0 in.

| - | 5 ft by 3 ft by 6 in. | | | | | | | | | | |
|---------------------|--|-------|-------|-------|-------|-------|-------|-------|----------|--|--|
| Design | Circumferential Reinforcement Areas, sq in./ ft. | | | | | | | | | | |
| Earth Cover, ft. | As1 | As2 | As3 | As4 | As5 | As6 | As7 | As8 | "M", in. | | |
| 0<2* | 0.197 | 0.682 | 0.269 | 0.144 | 0.280 | 0.192 | 0.705 | 0.168 | | | |
| 2<3 | 0.206 | 0.259 | 0.246 | 0.144 | | | | | 37 | | |
| 3-5 | 0.144 | 0.180 | 0.179 | 0.144 | | | | | 35 | | |

*top slab 8.0 in., bottom slab 7.0 in.

| | 5 ft by 4 ft by 6 in. | | | | | | | | | | | |
|---------------------|-----------------------|-------|-------|-------|-------|-------|-------|-------|----------|--|--|--|
| Design | | | | | | | | | | | | |
| Earth Cover, ft. | As1 | As2 | As3 | As4 | As5 | As6 | As7 | As8 | "M", in. | | | |
| 0<2* | 0.192 | 0.735 | 0.299 | 0.144 | 0.307 | 0.192 | 0.693 | 0.168 | | | | |
| 2<3 | 0.180 | 0.294 | 0.282 | 0.144 | | | | | 46 | | | |
| 3-5 | 0.144 | 0.204 | 0.205 | 0.144 | | | | | 40 | | | |

*top slab 8.0 in., bottom slab 7.0 in.

| 5 ft by 5 ft by 6 in. | | | | | | | | | | | |
|-----------------------|--|--|--|--|--|--|--|--|--|--|--|
| | | | | | | | | | | | |
| s8 "M", in. | | | | | | | | | | | |
| 168 | | | | | | | | | | | |
| 45 | | | | | | | | | | | |
| 45 | | | | | | | | | | | |
| | | | | | | | | | | | |

*top slab 8.0 in., bottom slab 7.0 in.

| 6 ft by 3 ft by 7 in. | | | | | | | | | | | |
|-----------------------|--|-------|-------|-------|-------|-------|-------|-------|----------|--|--|
| Design | Circumferential Reinforcement Areas, sq in./ ft. | | | | | | | | | | |
| Earth Cover, ft. | As1 | As2 | As3 | As4 | As5 | As6 | As7 | As8 | "M", in. | | |
| 0<2* | 0.270 | 0.566 | 0.257 | 0.168 | 0.263 | 0.192 | 0.575 | 0.168 | | | |
| 2<3 | 0.260 | 0.269 | 0.273 | 0.168 | | | | | 41 | | |
| 3-5 | 0.186 | 0.192 | 0.197 | 0.168 | | | | | 39 | | |

*top slab 8.0 in.

| | | | 6 | ft by 4 ft | by 7 in. | | | | | | |
|---------------------|--|---|----------|------------|-----------|-----------|--------------|-------|----------|--|--|
| Design | | | Circumfe | rential Re | inforceme | ent Areas | , sq in./ ft | • | | | |
| Earth Cover, ft. | As1 | As2 | As3 | As4 | As5 | As6 | As7 | As8 | "M", in. | | |
| 0<2* | 0.245 | 0.617 | 0.297 | 0.168 | 0.293 | 0.192 | 0.565 | 0.168 | | | |
| 2<3 | 0.225 | 0.305 | 0.313 | 0.168 | | | | | 42 | | |
| 3-5 | 0.168 | 0.220 | 0.227 | 0.168 | | | | | 41 | | |
| *top slab 8.0 |) in. | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | 6 | ft by 5 ft | by 7 in. | | | | | | |
| Design | | Circumferential Reinforcement Areas, sq in. / ft. | | | | | | | | | |
| Earth Cover, ft. | As1 | As2 | As3 | As4 | As5 | As6 | As7 | As8 | "M", in. | | |
| 0<2* | 0.226 | 0.657 | 0.331 | 0.168 | 0.317 | 0.192 | 0.551 | 0.168 | | | |
| 2<3 | 0.198 | 0.338 | 0.348 | 0.168 | | | | | 59 | | |
| 3-5 | 0.168 | 0.242 | 0.252 | 0.168 | | | | | 48 | | |
| *top slab 8.0 |) in. | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | 6 | ft by 6 ft | by 7 in. | | | | | | |
| Design | Circumferential Reinforcement Areas, sq in./ ft. | | | | | | | | | | |
| Earth Cover, ft. | As1 | As2 | As3 | As4 | As5 | As6 | As7 | As8 | "M", in. | | |
| 0<2* | 0.208 | 0.692 | 0.363 | 0.168 | 0.337 | 0.192 | 0.540 | 0.168 | | | |
| 2<3 | 0.176 | 0.364 | 0.379 | 0.168 | | | | | 52 | | |

*top slab 8.0 in.

0.168

0.261

0.275

0.168

52

3-5

| | 7 ft by 4 ft by 8 in. | | | | | | | | | | |
|---|-----------------------|-------|-------|-------|-------|-------|-------|-------|----------|--|--|
| Design Circumferential Reinforcement Areas, sq in./ ft. | | | | | | | | - | | | |
| Earth Cover, ft. | As1 | As2 | As3 | As4 | As5 | As6 | As7 | As8 | "M", in. | | |
| 0<2 | 0.339 | 0.599 | 0.372 | 0.192 | 0.271 | 0.192 | 0.697 | 0.192 | | | |
| 2<3 | 0.287 | 0.335 | 0.342 | 0.192 | | | | | 44 | | |
| 3-5 | 0.206 | 0.241 | 0.248 | 0.192 | | | | | 42 | | |

| | 7 ft by 5 ft by 8 in. | | | | | | | | | | | |
|---------------------|-----------------------|--|-------|-------|-------|-------|-------|-------|----------|--|--|--|
| Design | | Circumferential Reinforcement Areas, sq in./ ft. | | | | | | | | | | |
| Earth Cover, ft. | As1 | As2 | As3 | As4 | As5 | As6 | As7 | As8 | "M", in. | | | |
| 0<2 | 0.317 | 0.637 | 0.417 | 0.192 | 0.293 | 0.192 | 0.684 | 0.192 | | | | |
| 2<3 | 0.256 | 0.370 | 0.381 | 0.192 | | | | | 49 | | | |
| 3-5 | 0.192 | 0.266 | 0.276 | 0.192 | | | | | 46 | | | |

| | 7 ft by 6 ft by 8 in. | | | | | | | | | | | |
|---------------------|-----------------------|--|-------|-------|-------|-------|-------|-------|----------|--|--|--|
| Design | | Circumferential Reinforcement Areas, sq in./ ft. | | | | | | | | | | |
| Earth Cover, ft. | As1 | As2 | As3 | As4 | As5 | As6 | As7 | As8 | "M", in. | | | |
| 0<2 | 0.296 | 0.672 | 0.458 | 0.192 | 0.312 | 0.192 | 0.658 | 0.192 | | | | |
| 2<3 | 0.230 | 0.401 | 0.416 | 0.192 | | | | | 59 | | | |
| 3-5 | 0.192 | 0.288 | 0.302 | 0.192 | | | | | 55 | | | |

| 7 ft by 7 ft by 8 in. | | | | | | | | | | | |
|-----------------------|-------|--|-------|-------|-------|-------|-------|-------|----------|--|--|
| Design | | Circumferential Reinforcement Areas, sq in./ ft. | | | | | | | | | |
| Earth Cover, ft. | As1 | As2 | As3 | As4 | As5 | As6 | As7 | As8 | "M", in. | | |
| 0<2 | 0.276 | 0.703 | 0.496 | 0.192 | 0.330 | 0.192 | 0.653 | 0.192 | | | |
| 2<3 | 0.210 | 0.428 | 0.447 | 0.192 | | | | | 59 | | |
| 3-5 | 0.192 | 0.307 | 0.326 | 0.192 | | | | | 59 | | |

| 8 ft by 4 ft by 8 in. | | | | | | | | | | | |
|-----------------------|-------|--|-------|-------|-------|-------|-------|-------|----------|--|--|
| Design | | Circumferential Reinforcement Areas, sq in./ ft. | | | | | | | | | |
| Earth Cover, ft. | As1 | As2 | As3 | As4 | As5 | As6 | As7 | As8 | "M", in. | | |
| 0<2 | 0.397 | 0.510 | 0.400 | 0.192 | 0.283 | 0.192 | 0.568 | 0.192 | | | |
| 2<3 | 0.399 | 0.415 | 0.423 | 0.192 | | | | | 45 | | |
| 3-5 | 0.285 | 0.298 | 0.306 | 0.192 | | | | | 45 | | |

| 8 ft by 5 ft by 8 in. | | | | | | | | | | | |
|-----------------------|--|-------|-------|-------|-------|-------|-------|-------|----------|--|--|
| Design | Circumferential Reinforcement Areas, sq in./ ft. | | | | | | | | | | |
| Earth Cover, ft. | As1 | As2 | As3 | As4 | As5 | As6 | As7 | As8 | "M", in. | | |
| 0<2 | 0.368 | 0.555 | 0.446 | 0.192 | 0.305 | 0.192 | 0.559 | 0.192 | | | |
| 2<3 | 0.360 | 0.458 | 0.470 | 0.192 | | | | | 48 | | |
| 3-5 | 0.259 | 0.328 | 0.340 | 0.192 | | | | | 45 | | |

| 8 ft by 6 ft by 8 in. | | | | | | | | | | |
|---|-------|-------|-------|-------|-------|-------|-------|-------|----------|--|
| Design Circumferential Reinforcement Areas, sq in./ ft. | | | | | | | | | | |
| Earth Cover, ft. | As1 | As2 | As3 | As4 | As5 | As6 | As7 | As8 | "M", in. | |
| 0<2 | 0.342 | 0.596 | 0.488 | 0.192 | 0.325 | 0.192 | 0.556 | 0.192 | | |
| 2<3 | 0.328 | 0.496 | 0.512 | 0.192 | | | | | 56 | |
| 3-5 | 0.237 | 0.355 | 0.371 | 0.192 | | | | | 50 | |

| 8 ft by 7 ft by 8 in. | | | | | | | | | | | |
|-----------------------|-------|--|-------|-------|-------|-------|-------|-------|----------|--|--|
| Design | | Circumferential Reinforcement Areas, sq in./ ft. | | | | | | | | | |
| Earth Cover, ft. | As1 | As2 | As3 | As4 | As5 | As6 | As7 | As8 | "M", in. | | |
| 0<2 | 0.319 | 0.633 | 0.527 | 0.192 | 0.343 | 0.192 | 0.555 | 0.192 | | | |
| 2<3 | 0.301 | 0.529 | 0.551 | 0.192 | | | | | 65 | | |
| 3-5 | 0.219 | 0.379 | 0.399 | 0.192 | | | | | 61 | | |

| | 8 ft by 8 ft by 8 in. | | | | | | | | | | | |
|---------------------|-----------------------|--|-------|-------|-------|-------|-------|-------|----------|--|--|--|
| Design | | Circumferential Reinforcement Areas, sq in./ ft. | | | | | | | | | | |
| Earth Cover, ft. | As1 | As2 | As3 | As4 | As5 | As6 | As7 | As8 | "M", in. | | | |
| 0<2 | 0.297 | 0.668 | 0.565 | 0.192 | 0.360 | 0.192 | 0.531 | 0.192 | | | | |
| 2<3 | 0.280 | 0.560 | 0.587 | 0.192 | | | | | 65 | | | |
| 3-5 | 0.204 | 0.400 | 0.427 | 0.192 | | | | | 65 | | | |

| 9 ft by 5 ft by 9 in. | | | | | | | | | | | |
|-----------------------|-------|--|-------|-------|-------|-------|-------|-------|----|--|--|
| Design | | Circumferential Reinforcement Areas, sq in./ ft. | | | | | | | | | |
| Earth Cover, ft. | As1 | As1 As2 As3 As4 As5 As6 As7 As8 "M", in | | | | | | | | | |
| 0<2 | 0.361 | 0.411 | 0.416 | 0.216 | 0.275 | 0.216 | 0.465 | 0.216 | | | |
| 2<3 | 0.425 | 0.484 | 0.496 | 0.216 | | | | | 49 | | |
| 3-5 | 0.306 | 0.348 | 0.360 | 0.216 | | | | | 49 | | |

| | 9 ft by 6 ft by 9 in. | | | | | | | | | | | |
|---------------------|-----------------------|---|-------|-------|-------|-------|-------|-------|----|--|--|--|
| Design | | Circumferential Reinforcement Areas, sq in. / ft. | | | | | | | | | | |
| Earth Cover, ft. | As1 | As1 As2 As3 As4 As5 As6 As7 As8 "M", in | | | | | | | | | | |
| 0<2 | 0.335 | 0.439 | 0.455 | 0.216 | 0.294 | 0.216 | 0.467 | 0.216 | | | | |
| 2<3 | 0.390 | 0.524 | 0.541 | 0.216 | | | | | 55 | | | |
| 3-5 | 0.282 | | | | | | | | | | | |

| | 9 ft by 7 ft by 9 in. | | | | | | | | | | | |
|---------------------|-----------------------|---|-------|-------|-------|-------|-------|-------|----------|--|--|--|
| Design | | Circumferential Reinforcement Areas, sq in. / ft. | | | | | | | | | | |
| Earth Cover, ft. | As1 | As2 | As3 | As4 | As5 | As6 | As7 | As8 | "M", in. | | | |
| 0<2 | 0.313 | 0.464 | 0.491 | 0.216 | 0.311 | 0.216 | 0.453 | 0.216 | | | | |
| 2<3 | 0.360 | 0.561 | 0.583 | 0.216 | | | | | 64 | | | |
| 3-5 | 0.262 | 0.402 | 0.423 | 0.216 | | | | | 58 | | | |

| 9 ft by 8 ft by 9 in. | | | | | | | | | | | |
|-----------------------|-------|--|-------|-------|-------|-------|-------|-------|----------|--|--|
| Design | | Circumferential Reinforcement Areas, sq in./ ft. | | | | | | | | | |
| Earth Cover, ft. | As1 | As2 | As3 | As4 | As5 | As6 | As7 | As8 | "M", in. | | |
| 0<2 | 0.286 | 0.488 | 0.514 | 0.216 | 0.327 | 0.216 | 0.454 | 0.216 | | | |
| 2<3 | 0.336 | 0.594 | 0.621 | 0.216 | | | | | 72 | | |
| 3-5 | 0.244 | 0.426 | 0.453 | 0.216 | | | | | 73 | | |

| | 9 ft by 9 ft by 9 in. | | | | | | | | | | | |
|---------------------|-----------------------|--|-------|-------|-------|-------|-------|-------|----------|--|--|--|
| Design | | Circumferential Reinforcement Areas, sq in./ ft. | | | | | | | | | | |
| Earth Cover, ft. | As1 | As2 | As3 | As4 | As5 | As6 | As7 | As8 | "M", in. | | | |
| 0<2 | 0.274 | 0.511 | 0.557 | 0.216 | 0.342 | 0.216 | 0.452 | 0.216 | | | | |
| 2<3 | 0.316 | 0.625 | 0.659 | 0.216 | | | | | 72 | | | |
| 3-5 | 0.231 | 0.448 | 0.481 | 0.216 | | | | | 72 | | | |

| | 10 ft by 5 ft by 10 in. | | | | | | | | | | | |
|---------------------|-------------------------|--|-------|-------|-------|-------|-------|-------|----------|--|--|--|
| Design | | Circumferential Reinforcement Areas, sq in./ ft. | | | | | | | | | | |
| Earth Cover, ft. | As1 | As2 | As3 | As4 | As5 | As6 | As7 | As8 | "M", in. | | | |
| 0<2 | 0.370 | 0.393 | 0.392 | 0.240 | 0.263 | 0.240 | 0.240 | 0.240 | | | | |
| 2<3 | 0.492 | 0.509 | 0.522 | 0.240 | | | | | 52 | | | |
| 3-5 | 0.354 | 0.366 | 0.379 | 0.240 | | | | | 52 | | | |

| | 10 ft by 6 ft by 10 in. | | | | | | | | | | | |
|---------------------|-------------------------|--|-------|-------|-------|-------|-------|-------|----------|--|--|--|
| Design | | Circumferential Reinforcement Areas, sq in./ ft. | | | | | | | | | | |
| Earth Cover, ft. | As1 | As2 | As3 | As4 | As5 | As6 | As7 | As8 | "M", in. | | | |
| 0<2 | 0.348 | 0.420 | 0.432 | 0.240 | 0.282 | 0.240 | 0.418 | 0.240 | | | | |
| 2<3 | 0.455 | 0.552 | 0.570 | 0.240 | | | | | 56 | | | |
| 3-5 | 0.329 | 0.397 | 0.414 | 0.240 | | | | | 52 | | | |

| | 10 ft by 7 ft by 10 in. | | | | | | | | | | | |
|---------------------|-------------------------|--|-------|-------|-------|-------|-------|-------|----------|--|--|--|
| Design | | Circumferential Reinforcement Areas, sq in./ ft. | | | | | | | | | | |
| Earth Cover, ft. | As1 | As2 | As3 | As4 | As5 | As6 | As7 | As8 | "M", in. | | | |
| 0<2 | 0.321 | 0.445 | 0.463 | 0.240 | 0.298 | 0.240 | 0.240 | 0.240 | | | | |
| 2<3 | 0.423 | 0.591 | 0.614 | 0.240 | | | | | 59 | | | |
| 3-5 | 0.307 | 0.425 | 0.447 | 0.240 | | | | | 56 | | | |

| | 10 ft by 8 ft by 10 in. | | | | | | | | | | | |
|---------------------|-------------------------|---|-------|-------|-------|-------|-------|-------|----------|--|--|--|
| Design | | Circumferential Reinforcement Areas, sq in. / ft. | | | | | | | | | | |
| Earth Cover, ft. | As1 | As2 | As3 | As4 | As5 | As6 | As7 | As8 | "M", in. | | | |
| 0<2 | 0.301 | 0.469 | 0.496 | 0.240 | 0.314 | 0.240 | 0.240 | 0.240 | | | | |
| 2<3 | 0.394 | 0.627 | 0.655 | 0.240 | | | | | 72 | | | |
| 3-5 | 0.288 | 0.451 | 0.478 | 0.240 | | | | | 66 | | | |

| 10 ft by 9 ft by 10 in. | | | | | | | | | | | |
|-------------------------|-------|--|-------|-------|-------|-------|-------|-------|----------|--|--|
| Design | | Circumferential Reinforcement Areas, sq in./ ft. | | | | | | | | | |
| Earth Cover, ft. | As1 | As2 | As3 | As4 | As5 | As6 | As7 | As8 | "M", in. | | |
| 0<2 | 0.284 | 0.492 | 0.527 | 0.240 | 0.329 | 0.240 | 0.240 | 0.240 | | | |
| 2<3 | 0.371 | 0.660 | 0.694 | 0.240 | | | | | 79 | | |
| 3-5 | 0.272 | 0.475 | 0.508 | 0.240 | | | | | 85 | | |

| | 10 ft by 10 ft by 10 in. | | | | | | | | | | | |
|---------------------|--------------------------|--|-------|-------|-------|-------|-------|-------|----------|--|--|--|
| Design | | Circumferential Reinforcement Areas, sq in./ ft. | | | | | | | | | | |
| Earth Cover, ft. | As1 | As2 | As3 | As4 | As5 | As6 | As7 | As8 | "M", in. | | | |
| 0<2 | 0.272 | 0.514 | 0.559 | 0.240 | 0.344 | 0.240 | 0.240 | 0.240 | | | | |
| 2<3 | 0.353 | 0.691 | 0.732 | 0.240 | | | | | 79 | | | |
| 3-5 | 0.259 | 0.497 | 0.537 | 0.240 | | | | | 79 | | | |

| 11 ft by 4 ft by 11 in. | | | | | | | | | | |
|-------------------------|--|-------|-------|-------|-------|-------|-------|-------|----------|--|
| Design | Circumferential Reinforcement Areas, sq in./ ft. | | | | | | | | | |
| Earth Cover, ft. | As1 | As2 | As3 | As4 | As5 | As6 | As7 | As8 | "M", in. | |
| 0<2 | 0.414 | 0.341 | 0.333 | 0.264 | 0.264 | 0.264 | 0.264 | 0.264 | | |
| 2<3 | 0.609 | 0.481 | 0.491 | 0.264 | | | | | 60 | |
| 3-5 | 0.436 | 0.348 | 0.357 | 0.264 | | | | | 56 | |

| 11 ft by 6 ft by 11 in. | | | | | | | | | | |
|-------------------------------|--|-------|-------|-------|-------|-------|-------|-------|----------|--|
| Design Earth Cover, ft. | Circumferential Reinforcement Areas, sq in./ ft. | | | | | | | | | |
| | As1 | As2 | As3 | As4 | As5 | As6 | As7 | As8 | "M", in. | |
| 0<2 | 0.356 | 0.399 | 0.407 | 0.264 | 0.265 | 0.264 | 0.264 | 0.264 | | |
| 2<3 | 0.521 | 0.580 | 0.597 | 0.264 | | | | | 56 | |
| 3-5 | 0.377 | 0.418 | 0.435 | 0.264 | | | | | 56 | |

| 11 ft by 8 ft by 11 in. | | | | | | | | | | |
|-------------------------|--|-------|-------|-------|-------|-------|-------|-------|----------|--|
| Design | Circumferential Reinforcement Areas, sq in./ ft. | | | | | | | | | |
| Earth Cover, ft. | As1 | As2 | As3 | As4 | As5 | As6 | As7 | As8 | "M", in. | |
| 0<2 | 0.314 | 0.449 | 0.471 | 0.264 | 0.298 | 0.264 | 0.264 | 0.264 | | |
| 2<3 | 0.457 | 0.659 | 0.687 | 0.264 | | | | | 67 | |
| 3-5 | 0.333 | 0.475 | 0.502 | 0.264 | | | | | 63 | |

| 11 ft by 10 ft by 11 in. | | | | | | | | | | |
|--------------------------|--|-------|-------|-------|-------|-------|-------|-------|----------|--|
| Design | Circumferential Reinforcement Areas, sq in./ ft. | | | | | | | | | |
| Earth Cover, ft. | As1 | As2 | As3 | As4 | As5 | As6 | As7 | As8 | "M", in. | |
| 0<2 | 0.285 | 0.494 | 0.532 | 0.264 | 0.328 | 0.264 | 0.264 | 0.264 | | |
| 2<3 | 0.409 | 0.727 | 0.769 | 0.264 | | | | | 86 | |
| 3-5 | 0.300 | 0.524 | 0.565 | 0.264 | | | | | 86 | |

| | 11 ft by 11 ft by 11 in. | | | | | | | | |
|---------------------|--|-------|-------|-------|-------|-------|-------|-------|----------|
| Design | Circumferential Reinforcement Areas, sq in./ ft. | | | | | | | | |
| Earth Cover, ft. | As1 | As2 | As3 | As4 | As5 | As6 | As7 | As8 | "M", in. |
| 0<2 | 0.276 | 0.516 | 0.562 | 0.264 | 0.342 | 0.264 | 0.264 | 0.264 | |
| 2<3 | 0.391 | 0.758 | 0.808 | 0.264 | | | | | 86 |
| 3-5 | 0.289 | 0.548 | 0.596 | 0.264 | | | | | 86 |

| | 12 ft by 4 ft by 12 in. | | | | | | | | |
|---------------------|-------------------------|--|-------|-------|-------|-------|-------|-------|----------|
| Design | | Circumferential Reinforcement Areas, sq in./ ft. | | | | | | | |
| Earth Cover, ft. | As1 | As2 | As3 | As4 | As5 | As6 | As7 | As8 | "M", in. |
| 0<2 | 0.426 | 0.329 | 0.316 | 0.288 | 0.288 | 0.288 | 0.321 | 0.288 | |
| 2<3 | 0.682 | 0.503 | 0.512 | 0.288 | | | | | 64 |
| 3-5 | 0.489 | 0.364 | 0.373 | 0.288 | | | | | 60 |

| | | 12 ft by 6 ft by 12 in. | | | | | | | |
|---------------------|-------|--|-------|-------|-------|-------|-------|-------|----------|
| Design | | Circumferential Reinforcement Areas, sq in./ ft. | | | | | | | |
| Earth Cover, ft. | As1 | As2 | As3 | As4 | As5 | As6 | As7 | As8 | "M", in. |
| 0<2 | 0.367 | 0.385 | 0.387 | 0.288 | 0.288 | 0.288 | 0.320 | 0.288 | |
| 2<3 | 0.590 | 0.606 | 0.624 | 0.288 | | | | | 60 |
| 3-5 | 0.427 | 0.438 | 0.456 | 0.288 | | | | | 56 |

| | 12 ft by 8 ft by 12 in. | | | | | | | | |
|---------------------|--|-------|-------|-------|-------|-------|-------|-------|----------|
| Design | Circumferential Reinforcement Areas, sq in./ ft. | | | | | | | | |
| Earth Cover, ft. | As1 | As2 | As3 | As4 | As5 | As6 | As7 | As8 | "M", in. |
| 0<2 | 0.326 | 0.435 | 0.449 | 0.288 | 0.288 | 0.288 | 0.288 | 0.288 | |
| 2<3 | 0.521 | 0.690 | 0.719 | 0.288 | | | | | 67 |
| 3-5 | 0.381 | 0.499 | 0.527 | 0.288 | | | | | 64 |

| | 12 ft by 10 ft by 12 in. | | | | | | | | |
|---------------------|--------------------------|--|-------|-------|-------|-------|-------|-------|----------|
| Design | | Circumferential Reinforcement Areas, sq in./ ft. | | | | | | | |
| Earth Cover, ft. | As1 | As2 | As3 | As4 | As5 | As6 | As7 | As8 | "M", in. |
| 0<2 | 0.298 | 0.481 | 0.507 | 0.288 | 0.305 | 0.288 | 0.288 | 0.288 | |
| 2<3 | 0.467 | 0.762 | 0.804 | 0.288 | | | | | 93 |
| 3-5 | 0.344 | 0.551 | 0.592 | 0.288 | | | | | 79 |

| | 12 ft by 12 ft by 12 in. | | | | | | | | |
|---------------------|--------------------------|--|-------|-------|-------|-------|-------|-------|----------|
| Design | | Circumferential Reinforcement Areas, sq in./ ft. | | | | | | | |
| Earth Cover, ft. | As1 | As2 | As3 | As4 | As5 | As6 | As7 | As8 | "M", in. |
| 0<2 | 0.288 | 0.525 | 0.566 | 0.288 | 0.333 | 0.288 | 0.288 | 0.288 | |
| 2<3 | 0.431 | 0.827 | 0.886 | 0.288 | | | | | 93 |
| 3-5 | 0.320 | 0.599 | 0.656 | 0.288 | | | | | 93" |

CONCRETE BOX CULVERTS WITH SKEWS ≤ 30 DEGREES REGARDLESS OF DESIGN FILL AND SKEWS > 30 DEGREES WITH DESIGN FILLS > 5 FEET (BDE)

Effective: April 1, 2012

Revise the second paragraph of Article 540.04 of the Standard Specifications to read:

"Unless otherwise noted on the plans, the Contractor shall have the option, when a cast-inplace concrete box culvert is specified, of constructing the box culvert using precast box culvert sections when the design cover is 6 in. (150 mm) minimum. The precast box culvert sections shall be designed for the same design cover shown on the plans for cast-in-place box culvert; shall be of equal or larger size opening, and shall satisfy the design requirements of ASTM C 1577."

Revise the fourth paragraph of Article 540.06 of the Standard Specifications to read:

"The excavation and backfilling for precast concrete box culverts shall be according to the requirements of Section 502, except where the design fill is less than or equal to 8 ft (2.4 m), or the design fill is less than the clear span of the box. In these cases ASTM C 1577 requires a select granular backfill (porous granular material) over the box. If a porous granular backfill is required but is not detailed on the plans for the culvert(s), the Contractor shall have the option of either furnishing porous granular backfill where required to satisfy ASTM C 1577, or submitting an alternate design, sealed by an Illinois licensed Structural Engineer, which precludes the use of a porous granular backfill. In addition for all precast boxes a layer of porous granular material, at least 6 in. (150 mm) in thickness, shall be placed below the elevation of the bottom of the box. The porous granular material shall extend at least 2 ft (600 mm) beyond each side of the box. The precast concrete box culvert shall be laid according to the applicable requirements of Article 542.04(d). After installation, the interior and exterior joint gap between precast concrete box culvert sections shall be a maximum of 1 1/2 in. (38 mm)."

CONCRETE MIX DESIGN – DEPARTMENT PROVIDED (BDE)

Effective: January 1, 2012

For the "Portland Cement Concrete (BDE)" special provision included in this project, specifically Article 1020.05(a), 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.

CONSTRUCTION AIR QUALITY – DIESEL RETROFIT (BDE)

Effective: June 1, 2010

The reduction of emissions of particulate matter (PM) for off-road equipment shall be accomplished by installing retrofit emission control devices. The term "equipment" refers to diesel fuel powered devices rated at 50 hp and above, to be used on the jobsite in excess of seven calendar days over the course of the construction period on the jobsite (including rental equipment).

Contractor and subcontractor diesel powered off-road equipment assigned to the contract shall be retrofitted using the phased in approach shown below. Equipment that is of a model year older than the year given for that equipment's respective horsepower range shall be retrofitted:

| Effective Dates | Horsepower Range | Model Year |
|----------------------------|------------------|------------|
| | | |
| June 1, 2010 ^{1/} | 600-749 | 2002 |
| | 750 and up | 2006 |
| | | |
| June 1, 2011 ^{2/} | 100-299 | 2003 |
| | 300-599 | 2001 |
| | 600-749 | 2002 |
| | 750 and up | 2006 |
| | | |
| June 1, 2012 ^{2/} | 50-99 | 2004 |
| | 100-299 | 2003 |
| | 300-599 | 2001 |
| | 600-749 | 2002 |
| | 750 and up | 2006 |

1/ Effective dates apply to Contractor diesel powered off-road equipment assigned to the contract.

2/ Effective dates apply to Contractor and subcontractor diesel powered off-road equipment assigned to the contract.

The retrofit emission control devices shall achieve a minimum PM emission reduction of 50 percent and shall be:

- a) Included on the U.S. Environmental Protection Agency (USEPA) Verified Retrofit Technology List (<u>http://www.epa.gov/otaq/retrofit/verif-list.htm</u>), or verified by the California Air Resources Board (CARB) (<u>http://www.arb.ca.gov/diesel/verde/verdev.htm</u>); or
- b) Retrofitted with a non-verified diesel retrofit emission control device if verified retrofit emission control devices are not available for equipment proposed to be used on the project, and if the Contractor has obtained a performance certification from the retrofit

device manufacturer that the emission control device provides a minimum PM emission reduction of 50 percent.

Note: Large cranes (Crawler mounted cranes) which are responsible for critical lift operations are exempt from installing retrofit emission control devices if such devices adversely affect equipment operation.

Diesel powered off-road equipment with engine ratings of 50 hp and above, which are unable to be retrofitted with verified emission control devices or if performance certifications are not available which will achieve a minimum 50 percent PM reduction, may be granted a waiver by the Department if documentation is provided showing good faith efforts were made by the Contractor to retrofit the equipment.

Construction shall not proceed until the Contractor submits a certified list of the diesel powered off-road equipment that will be used, and as necessary, retrofitted with emission control devices. The list(s) shall include (1) the equipment number, type, make, Contractor/rental company name; and (2) the emission control devices make, model, USEPA or CARB verification number, or performance certification from the retrofit device manufacturer. Equipment reported as fitted with emissions control devices shall be made available to the Engineer for visual inspection of the device installation, prior to being used on the jobsite.

The Contractor shall submit an updated list of retrofitted off-road construction equipment as retrofitted equipment changes or comes on to the jobsite. The addition or deletion of any diesel powered equipment shall be included on the updated list.

If any diesel powered off-road equipment is found to be in non-compliance with any portion of this special provision, the Engineer will issue the Contractor a diesel retrofit deficiency deduction.

Any costs associated with retrofitting any diesel powered off-road equipment with emission control devices shall be considered as included in the contract unit prices bid for the various items of work involved and no additional compensation will be allowed. The Contractor's compliance with this notice and any associated regulations shall not be grounds for a claim.

Diesel Retrofit Deficiency Deduction

When the Engineer determines that a diesel retrofit deficiency exists, a daily monetary deduction will be imposed for each calendar day or fraction thereof the deficiency continues to exist. The calendar day(s) will begin when the time period for correction is exceeded and end with the Engineer's written acceptance of the correction. The daily monetary deduction will be \$1,000.00 for each deficiency identified.

The deficiency will be based on lack of diesel retrofit emissions control.

If a Contractor accumulates three diesel retrofit deficiency deductions for the same piece of equipment in a contract period, the Contractor will be shutdown until the deficiency is corrected.

Such a shutdown will not be grounds for any extension of the contract time, waiver of penalties, or be grounds for any claim.

DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION (BDE)

Effective: September 1, 2000 Revised: August 2, 2011

<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.

<u>STATE OBLIGATION</u>. 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.

<u>OVERALL GOAL SET FOR THE DEPARTMENT</u>. 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.

<u>CONTRACT GOAL TO BE ACHIEVED BY THE CONTRACTOR</u>. 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 <u>15</u>% 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 <u>www.dot.il.gov</u>.

<u>BIDDING PROCEDURES</u>. Compliance with this Special Provision is a material bidding requirement. The failure of the bidder to comply will render the bid not responsive.

- (a) The bidder shall submit a Disadvantaged Business Utilization Plan on Department forms SBE 2025 and 2026 with the bid.
- (b) The Utilization Plan shall indicate that the bidder either has obtained sufficient DBE participation commitments to meet the contract goal or has not obtained enough DBE participation commitments in spite of a good faith effort to meet the goal. The Utilization Plan shall further provide the name, telephone number, and telefax number of a responsible official of the bidder designated for purposes of notification of plan approval or disapproval under the procedures of this Special Provision.
- (c) The Utilization Plan shall include a DBE Participation Commitment Statement, Department form SBE 2025, for each DBE proposed for the performance of work to achieve the contract goal. For bidding purposes, submission of the completed SBE 2025 forms, signed by the DBEs and faxed to the bidder will be acceptable as long as the original is available and provided upon request. All elements of information indicated on the said form shall be provided, including but not limited to the following:
 - (1) The names and addresses of DBE firms that will participate in the contract;

- (2) A description, including pay item numbers, of the work each DBE will perform;
- (3) The dollar amount of the participation of each DBE firm participating. The dollar amount of participation for identified work shall specifically state the quantity, unit price, and total subcontract price for the work to be completed by the DBE. If partial pay items are to be performed by the DBE, indicate the portion of each item, a unit price where appropriate and the subcontract price amount;
- (4) DBE Participation Commitment Statements, form SBE 2025, signed by the bidder and each participating DBE firm documenting the commitment to use the DBE subcontractors whose participation is submitted to meet the contract goal;
- (5) if the bidder is a joint venture comprised of DBE companies and non-DBE companies, the plan must also include a clear identification of the portion of the work to be performed by the DBE partner(s); and,
- (6) If the contract goal if not met, evidence of good faith efforts.

GOOD FAITH EFFORT PROCEDURES. The contract will not be awarded until the Utilization Plan submitted by the apparent successful bidder is approved. All information submitted by the bidder must be complete, accurate and adequately document 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 performance to meet the contract goal or the bidder submits sufficient documentation of a good faith effort to meet the contract goal pursuant to 49 CFR Part 26, Appendix A. The Utilization Plan will not be approved by the Department if the Utilization Plan does not 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.
- (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.
- (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 delivered. A request may provide additional written documentation and/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. The 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 owneroperator. 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 regular dealer or manufacturer.

<u>CONTRACT COMPLIANCE</u>. 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 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 be come the amended contract goal. All work indicated for performance by an approved DBE shall be performed, managed, and supervised by the DBE executing the Participation 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>TERMINATION OR REPLACEMENT</u>. 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 the Special Provision.
- (c) <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, 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.
- (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 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 1,200 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.

(f) <u>PAYMENT RECORDS</u>. The Contractor shall maintain a record of payments for work performed to the DBE participants. The records shall be made available to the Department for inspection upon request. After the performance of the final item of work or delivery of material by a DBE and final payment therefore to the DBE by the Contractor, but not later than thirty calendar days after payment has been made by the Department to the Contractor for such work or material, the Contractor shall submit a DBE Payment Agreement on Department form SBE 2115 to the Regional Engineer. If full and final payment has not been made to the DBE, the DBE Payment Agreement shall indicate whether a disagreement as to the payment required exists between the Contractor and the DBE or if the Contractor does not have the full amount of work indicated in the Utilization Plan performed by the BDE 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.

FRICTION AGGREGATE (BDE)

Effective: January 1, 2011

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.

| Use | Mixture | Aggregates Allowed |
|------------------|---------------------------------------|--|
| Class A | Seal or Cover | Allowed Alone or in Combination: Gravel Crushed Gravel Carbonate Crushed Stone Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag Crushed Concrete |
| HMA All Other | Stabilized Subbase or Shoulders | Allowed Alone or in Combination: Gravel Crushed Gravel Carbonate Crushed Stone Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag ^{1/} Crushed Concrete |

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

| Use | Mixture | Aggregates Allowed | | |
|------------------------------|---|--|---|--|
| HMA High ESAL Low ESAL | Binder IL-25.0, IL-19.0, or IL-19.0L SMA Binder | Allowed Alone or in Co Crushed Gravel Carbonate Crushed St Crystalline Crushed St Crushed Sandstone Crushed Slag (ACBF) Crushed Concrete ^{3/} | one ^{2/} | |
| HMA High ESAL Low ESAL | C Surface and Leveling Binder IL-12.5,IL-9.5, or IL-9.5L SMA Ndesign 50 Surface | Allowed Alone or in Co Crushed Gravel Carbonate Crushed St Crystalline Crushed St Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag ^{4/} Crushed Concrete ^{3/} | one ^{2/} | |
| HMA High ESAL | D Surface and Leveling Binder IL-12.5 or IL-9.5 SMA Ndesign 50 Surface | Allowed Alone or in Combination: Crushed Gravel Carbonate Crushed Stone (other than Limestone) ^{2/} Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) ^{5/} Crushed Steel Slag ^{4/5/} Crushed Concrete ^{3/} | | |
| | | Other Combinations Al | With | |
| | | 25% Limestone 50% Limestone | Dolomite Any Mixture D aggregate other than Dolomite | |
| | | 75% Limestone | Crushed Slag (ACBF) ^{5/} or Crushed Sandstone | |

| Use | Mixture | Aggregates Allowed | | | | |
|------------------|---|---|---|--|--|--|
| HMA High ESAL | E Surface IL-12.5 or IL-9.5 SMA Ndesign 80 Surface | Allowed Alone or in Combination: Crushed Gravel Crystalline Crushed Stone Crushed Sandstone Crushed Slag (ACBF) ^{5/} Crushed Steel Slag ^{5/} Crushed Concrete ^{3/} No Limestone. | | | | |
| | | Up to | With | | | |
| | 50% Dolomite ^{2/} | Any Mixture E aggregate | | | | |
| | | 75% Dolomite ^{2/} | Crushed Sandstone, Crushed Slag (ACBF) ^{5/} , Crushed Steel Slag ^{5/} , or Crystalline Crushed Stone | | | |
| | | 75% Crushed Gravel or Crushed Concrete ^{3/} | Crushed Sandstone, Crystalline Crushed Stone, Crushed Slag (ACBF) ^{5/} , or Crushed Steel Slag ^{5/} | | | |
| | F Surface IL-12.5 or | Allowed Alone or in Combination: | | | | |
| High ESAL | SMA Surface | Crystalline Crushed S Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag ^{5/} No Limestone. | | | | |
| | | Other Combinations Allowed: | | | | |
| | | Up to | With | | | |

| Use | Mixture | Aggregates Allowed | |
|-----|---------|---|---|
| | | 50% Crushed Gravel, Crushed Concrete ^{3/} , or Dolomite ^{2/} | Crushed Sandstone, Crushed Slag (ACBF) ^{5/} , Crushed Steel Slag ^{5/} , or Crystalline Crushed 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 either slag is used, the blend percentages listed shall be by volume."

GRANULAR MATERIALS (BDE)

Effective: November 1, 2012

Revise the title of Article 1003.04 of the Standard Specifications to read:

"1003.04 Fine Aggregate for Bedding, Trench Backfill, Embankment, Porous Granular Backfill, Sand Backfill for Underdrains, and French Drains."

Revise Article 1003.04(c) of the Standard Specifications to read:

"(c) Gradation. The fine aggregate gradations for granular embankment, granular backfill, bedding, and trench backfill for pipe culverts and storm sewers shall be FA 1, FA 2, or FA 6 through FA 21.

The fine aggregate gradation for porous granular embankment, porous granular backfill, french drains, and sand backfill for underdrains shall be FA 1, FA 2, or FA 20, except the percent passing the No. 200 (75 μ m) sieve shall be 2±2."

Revise Article 1004.05(c) of the Standard Specifications to read:

"(c) Gradation. The coarse aggregate gradations shall be as follows.

| Application | Gradation |
|---|---|
| Blotter | CA 15 |
| Granular Embankment, Granular Backfill, Bedding, and Trench Backfill for Pipe Culverts and Storm Sewers | CA 6, CA 9, CA 10, CA 12, CA17, CA18, and CA 19 |
| Porous Granular Embankment, Porous Granular Backfill, and French Drains | CA 7, CA 8, CA 11, CA 15, CA 16 and CA 18" |

LIQUIDATED DAMAGES (BDE)

Effective: April 1, 2013

Revise the table in Article 108.09 of the Standard Specifications to read:

| "Schedule of Deductions for Each Day of Overrun in Contract Time | | | | | | |
|--|--|--|---|--|--|--|
| Original Con | tract Amount | Daily Charges | | | | |
| From More Than | | | Work Day | | | |
| \$0 100,000 500,000 1,000,000 3,000,000 6,000,000 12,000,000 | \$ 100,000 500,000 1,000,000 3,000,000 6,000,000 12,000,000 And over | \$ 475 750 1,025 1,275 1,425 2,300 6,775 | \$ 675 1,050 1,425 1,725 2,000 3,450 9,525" | | | |

PAVEMENT PATCHING (BDE)

Effective: January 1, 2010

Revise the first sentence of the second paragraph of Article 701.17(e)(1) of the Standard Specifications to read:

"In addition to the traffic control and protection shown elsewhere in the contract for pavement, two devices shall be placed immediately in front of each open patch, open hole, and broken pavement where temporary concrete barriers are not used to separate traffic from the work area."

PAVEMENT REMOVAL (BDE)

Effective: April 1, 2013

Revise Article 440.07(c) of the Standard Specifications to read:

"(c) Adjustment of Quantities. The quantity of pavement removal will be adjusted if the thickness of the existing pavement varies more than 15 percent from that shown on the plans. The quantity will be either increased or decreased according to the following table.

| % change of thickness | % change of quantity |
|-----------------------|----------------------|
| 0 to less than 15 | 0 |
| 15 to less than 20 | 10 |
| 20 to less than 30 | 15 |
| 30 to less than 50 | 20 |

If the thickness of the existing pavement varies by 50 percent or more from that shown on the plans, the character of the work will be considered significantly changed and an adjustment to the contract will be made according to Article 104.02.

When an adjustment is made for variations in pavement thickness a resulting adjustment will also be made in the earthwork quantities when applicable.

No adjustment will be made for variations in the amount of reinforcement."

PAYMENTS TO SUBCONTRACTORS (BDE)

Effective: June 1, 2000 Revised: January 1, 2006

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

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

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

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

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

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

PLACING AND CONSOLIDATING CONCRETE (BDE)

Effective: January 1, 2013

Revise the first paragraph of Article 503.06 of the Standard Specifications to read:

"**503.06 Forms.** Forms shall be set and maintained to the lines and grades shown on the plans, and shall be tight to prevent concrete leakage."

Revise Article 503.07 of the Standard Specifications to read:

"503.07 Placing and Consolidating. No concrete shall be placed on ice, snow, or frozen foundation material.

The method and manner of placing concrete shall be such as to avoid segregation or separation of the aggregates or the displacement of the reinforcement. The external surface of all concrete shall be thoroughly worked during the operations of placing in such a manner as to work the mortar against the forms to produce a smooth finish free of honeycomb and with a minimum of water and air pockets.

Open troughs and chutes shall extend as nearly as practicable to the point of deposit. Dropping the concrete a distance of more than 5 ft (1.5 m) or depositing a large quantity at any point and running or working it along the forms will not be permitted. The concrete for walls with an average thickness of 12 in. (300 mm) or less shall be placed with tubes so that the drop is not greater than 5 ft (1.5 m).

For self-consolidating concrete, the maximum distance of horizontal flow from the point of deposit shall be 15 ft (4.6 m). The distance may be increased if the dynamic segregation index (DSI) at the maximum flow distance is 10.0 percent or less according to Illinois Test Procedure SCC-8 (Option C). The maximum distance using the DSI shall be 25 ft (7.6 m). In addition, this specified horizontal flow distance shall apply to precast products. In the case of precast prestressed concrete products, refer to the Department's "Manual of Fabrication for Precast Prestressed Concrete Products" for the specified horizontal flow distance requirements.

When the form height for placing the self-consolidating concrete is greater than 10 ft (3.0 m), direct monitoring of form pressure shall be performed by the Contractor according to Illinois Test Procedure SCC-10. The monitoring requirement is a minimum, and the Contractor shall remain responsible for adequate design of the falsework and forms. The Contractor shall record the formwork pressure during concrete placement. This information shall be used by the Contractor to prevent the placement rate from exceeding the maximum formwork pressure allowed, to monitor the thixotropic change in the concrete during the pour, and to make appropriate adjustments to the mix design. This information shall be provided to the Engineer during the pour.

When concrete is pumped, the equipment shall be suitable in kind and adequate in capacity for the work and arranged so that vibrations will not damage freshly placed concrete. Aluminum

pipe or conduit will not be permitted in pumping or placing concrete. Mixed concrete shall be supplied to maintain continuous operation of the pumping equipment.

When air entrained concrete is pumped, an accessory or accessories shall be incorporated in the discharge components to minimize air loss. The maximum allowable air loss caused by the pumping operation shall be 3.0 percent with the minimum air content at the point of discharge meeting the requirements of Article 1020.04.

Placing of concrete shall be regulated so that the pressures caused by the wet concrete will not exceed those used in the design of the forms. Special care shall be taken to fill each part of the forms by depositing the concrete as near its final position as possible, to work the coarser aggregates back from the face, and to force the concrete under and around the reinforcement bars without displacing them. Leakage through forms onto beams or girders shall not be allowed to harden and shall be removed while in a plastic state.

The concrete shall be consolidated by internal vibration unless self-consolidating concrete is used. Self-consolidating concrete may be used for inaccessible locations where consolidation by internal vibration is not practicable. The self consolidating concrete shall be rodded with a piece of lumber, conduit, or vibrator if the material has lost its fluidity prior to placement of additional concrete. The vibrator may only be permitted if it can be used in a manner that does not cause segregation as determined by the Engineer. Any other method for restoring the fluidity of the concrete shall be approved by the Engineer.

The Contractor shall provide and use a sufficient number of vibrators to ensure that consolidation can be started immediately after the concrete has been deposited in the forms.

The vibrators shall be inserted into the concrete immediately after it is deposited and shall be moved throughout the mass so as to thoroughly work the concrete around the reinforcement, embedded fixtures, and into the corners and angles of the forms. Vibrators shall not be attached to the forms, reinforcement bars, or the surface of the concrete.

Application of vibrators shall be at points uniformly spaced and not farther apart than twice the radius over which the vibration is visibly effective. The duration of the vibration at the points of insertion shall be sufficient to thoroughly consolidate the concrete into place but shall not be continued so as to cause segregation. When consolidating concrete in bridge decks, the vibrator shall be vertically inserted into the concrete for 3 - 5 seconds or for a period of time determined by the Engineer. Vibration shall be supplemented by spading when required by the Engineer. In addition to the internal vibration required herein, formed surfaces which will be exposed to view after completion of the work shall be spaded with a spading tool approved by the Engineer.

Concrete shall be placed in continuous horizontal layers. When it is necessary by reason of an emergency to place less than a complete horizontal layer in one operation, such layer shall terminate in a vertical bulkhead. Separate batches shall follow each other closely and in no case shall the interval of time between the placing of successive batches be greater than 20 minutes. If mix foaming or detrimental material is observed during placement or at the completion of a pour, the material shall be removed while the concrete is still plastic

After the concrete has taken its initial set, care shall be exercised to avoid jarring the forms or placing any strain on the ends of projecting reinforcement."

Revise Article 516.12(a) of the Standard Specifications to read:

"(a) Free Fall Placement. The free fall placement shall only be permitted in shafts that can be dewatered to ensure less than 3 in. (75 mm) of standing water exist at the time of placement without causing side wall instability. The height of free fall placement shall be a maximum of 60 ft (18.3 m) as measured from the discharge end, but it shall be reduced to a maximum of 30 ft (9.1 m) when self-consolidating concrete is used. The Contractor shall obtain approval from the Engineer to place self-consolidating concrete by free fall.

Concrete placed by free fall shall fall directly to the base without contacting either the rebar cage or shaft sidewall. Drop chutes may be used to direct concrete to the base during free fall placement.

Drop chutes used to direct placement of free fall concrete shall consist of a smooth tube of either one continuous section or multiple pieces that can be added and removed. Concrete may be placed through either a hopper at the top of the tube or side openings as the drop chute is retrieved during concrete placement. The drop chute shall be supported so that free fall does not exceed the specified maximum 60 ft (18.3 m) or 30 ft (9.1 m) at all times from the discharge end, and to ensure the concrete does not strike the rebar cage. If placement cannot be satisfactorily accomplished by free fall in the opinion of the Engineer, either a tremie or pump shall be used to accomplish the pour."

PORTLAND CEMENT CONCRETE (BDE)

Effective: January 1, 2012 Revised: January 1, 2013

Revise Notes 1 and 2 of Article 312.24 of the Standard Specifications to read:

- "Note 1. Coarse aggregate shall be gradation CA 6, CA 7, CA 9, CA 10, or CA 11, Class D quality or better. Article 1020.05(d) shall apply.
- Note 2. Fine aggregate shall be FA 1 or FA 2. Article 1020.05(d) shall apply."

Revise the first paragraph of Article 312.26 of the Standard Specifications to read:

"312.26 Proportioning and Mix Design. At least 60 days prior to start of placing CAM II, the Contractor shall submit samples of materials for proportioning and testing. The mixture shall contain a minimum of 200 lb (90 kg) of cement per cubic yard (cubic meter). Portland cement may be replaced with fly ash according to Article 1020.05(c)(1), however the minimum portland cement content in the mixture shall be 170 lbs/cu yd (101 kg/cu m). Blends of coarse and fine aggregates will be permitted, provided the volume of fine aggregate does not exceed the volume of coarse aggregate. The Engineer will determine the proportions of materials for the mixture. However, the Contractor may substitute their own mix design. Article 1020.05(a) shall apply and a Level III PCC Technician shall develop the mix design."

Revise the second paragraph of Article 503.22 of the Standard Specifications to read:

Other cast-in-place concrete for structures will be paid for at the contract unit price per cubic yard (cubic meter) for CONCRETE HANDRAIL, CONCRETE ENCASEMENT, and SEAL COAT CONCRETE."

Add the following to Article 1003.02 of the Standard Specifications:

- (e) Alkali Reaction.
 - (1) ASTM C 1260. Each fine aggregate will be tested by the Department for alkali reaction according to ASTM C 1260. The test will be performed with Type I or II portland cement having a total equivalent alkali content (Na₂O + 0.658K₂O) of 0.90 percent or greater. The Engineer will determine the assigned expansion value for each aggregate, and these values will be made available on the Department's Alkali-Silica Potential Reactivity Rating List. The Engineer may differentiate aggregate based on ledge, production method, gradation number, or other factors. An expansion value of 0.03 percent will be assigned to limestone or dolomite fine

aggregates (manufactured stone sand). However, the Department reserves the right to perform the ASTM C 1260 test.

- (2) ASTM C 1293 by Department. In some instances, such as chert natural sand or other fine aggregates, testing according to ASTM C 1260 may not provide accurate test results. In this case, the Department may only test according to ASTM C 1293.
- (3) ASTM C 1293 by Contractor. If an individual aggregate has an ASTM C 1260 expansion value that is unacceptable to the Contractor, an ASTM C 1293 test may be performed by the Contractor to evaluate the Department's ASTM C 1260 test result. The laboratory performing the ASTM C 1293 test shall be approved by the Department according to the current Bureau of Materials and Physical Research Policy Memorandum "Minimum Laboratory Requirements for Alkali-Silica Reactivity (ASR) Testing".

The ASTM C 1293 test shall be performed with Type I or II portland cement having a total equivalent alkali content (Na₂O + 0.658K₂O) of 0.80 percent or greater. The interior vertical wall of the ASTM C 1293 recommended container (pail) shall be half covered with a wick of absorbent material consisting of blotting paper. If the testing laboratory desires to use an alternate container, wick of absorbent material, or amount of coverage inside the container with blotting paper, ASTM C 1293 test results with an alkali-reactive aggregate of known expansion characteristics shall be provided to the Engineer for review and approval. If the expansion is less than 0.040 percent after one year, the aggregate will be assigned an ASTM C 1260 expansion value of 0.08 percent that will be valid for two years, unless the Engineer determines the aggregate has changed significantly. If the aggregate is manufactured into multiple gradation numbers, and the other gradation numbers have the same or lower ASTM C 1260 value, the ASTM C 1293 test result may apply to multiple gradation numbers.

The Engineer reserves the right to verify a Contractor's ASTM C 1293 test result. When the Contractor performs the test, a split sample shall be provided to the Engineer. The Engineer may also independently obtain a sample at any time. The aggregate will be considered reactive if the Contractor or Engineer obtains an expansion value of 0.040 percent or greater.

Revise the first paragraph of Article 1004.01(e)(5) of the Standard Specifications to read:

"Crushed concrete, crushed slag, or lightweight aggregate for portland cement concrete shall be stockpiled in a moist condition (saturated surface dry or greater) and the moisture content shall be maintained uniformly throughout the stockpile by periodic sprinkling." Revise Article 1004.02(d) of the Standard Specifications to read:

- "(d)Combining Sizes. Each size shall be stored separately and care shall be taken to prevent them from being mixed until they are ready to be proportioned. Separate compartments shall be provided to proportion each size.
 - (1) When Class BS concrete is to be pumped, the coarse aggregate gradation shall have a minimum of 45 percent passing the 1/2 in. (12.5 mm) sieve. The Contractor may combine two or more coarse aggregate sizes, consisting of CA 7, CA 11, CA 13, CA 14, and CA 16, provided a CA 7 or CA 11 is included in the blend.
 - (2) If the coarse aggregate is furnished in separate sizes, they shall be combined in proportions to provide a uniformly graded coarse aggregate grading within the following limits.

| Class | Combined | Sieve Size and Percent Passing | | | | | | |
|-------------------------|--------------|--------------------------------|------|-------|-------|-------|-------|-----|
| of | Sizes | 2 1/2 | 2 | 1 3/4 | 1 1/2 | 1 | 1/2 | No. |
| Concrete 1/ | 01203 | in. | in. | in. | in. | in. | in. | 4 |
| PV 2/ | | | | | | | | |
| | CA 5 & CA 7 | | | 100 | 98±2 | 72±22 | 22±12 | 3±3 |
| | CA 5 & CA 11 | | | 100 | 98±2 | 72±22 | 22±12 | 3±3 |
| SI and SC ^{2/} | | | | | | | | |
| | CA 3 & CA 7 | 100 | 95±5 | | | 55±25 | 20±10 | 3±3 |
| | CA 3 & CA 11 | 100 | 95±5 | | | 55±25 | 20±10 | 3±3 |
| | CA 5 & CA 7 | | | 100 | 98±2 | 72±22 | 22±12 | 3±3 |
| | CA 5 & CA 11 | | | 100 | 98±2 | 72±22 | 22±12 | 3±3 |

| - | | | | | | | | |
|-------------------------|--------------|---|------|-----|------|-------|-------|------|
| Class | Combined | Sieve Size (metric) and Percent Passing | | | | | | |
| of | Sizes | 63 | 50 | 45 | 37.5 | 25 | 12.5 | 4.75 |
| Concrete ^{1/} | 01203 | mm | mm | mm | mm | mm | mm | mm |
| PV 2/ | | | | | | | | |
| | CA 5 & CA 7 | | | 100 | 98±2 | 72±22 | 22±12 | 3±3 |
| | CA 5 & CA 11 | | | 100 | 98±2 | 72±22 | 22±12 | 3±3 |
| SI and SC ^{2/} | | | | | | | | |
| | CA 3 & CA 7 | 100 | 95±5 | | | 55±25 | 20±10 | 3±3 |
| | CA 3 & CA 11 | 100 | 95±5 | | | 55±25 | 20±10 | 3±3 |
| | CA 5 & CA 7 | | | 100 | 98±2 | 72±22 | 22±12 | 3±3 |
| | CA 5 & CA 11 | | | 100 | 98±2 | 72±22 | 22±12 | 3±3 |

1/ See Table 1 of Article 1020.04.

2/ Any of the listed combination of sizes may be used."

Add the following to Article 1004.02 of the Standard Specifications:

(g) Alkali Reaction.

- (1) ASTM C 1260. Each coarse aggregate will be tested by the Department for alkali reaction according to ASTM C 1260. The test will be performed with Type I or II portland cement having a total equivalent alkali content (Na₂O + 0.658K₂O) of 0.90 percent or greater. The Engineer will determine the assigned expansion value for each aggregate, and these values will be made available on the Department's Alkali-Silica Potential Reactivity Rating List. The Engineer may differentiate aggregate based on ledge, production method, gradation number, or other factors. An expansion value of 0.05 percent will be assigned to limestone or dolomite coarse aggregates. However, the Department reserves the right to perform the ASTM C 1260 test.
- (2) ASTM C 1293 by Department. In some instances testing a coarse aggregate according to ASTM C 1260 may not provide accurate test results. In this case, the Department may only test according to ASTM C 1293.
- (3) ASTM C 1293 by Contractor. If an individual aggregate has an ASTM C 1260 expansion value that is unacceptable to the Contractor, an ASTM C 1293 test may be performed by the Contractor according to Article 1003.02(e)(3).

Revise the first paragraph of Article 1019.06 of the Standard Specifications to read:

"1019.06 Contractor Mix Design. A Contractor may submit their own mix design and may propose alternate fine aggregate materials, fine aggregate gradations, or material proportions. Article 1020.05(a) shall apply and a Level III PCC Technician shall develop the mix design."

Revise Section 1020 of the Standard Specifications to read:

"SECTION 1020. PORTLAND CEMENT CONCRETE

1020.01 Description. This item shall consist of the materials, mix design, production, testing, curing, low air temperature protection, and temperature control of concrete.

1020.02 Materials. Materials shall be according to the following.

| Item | Article/Section |
|----------------------|-----------------|
| (a) Cement | |
| (b) Water | |
| (c) Fine Aggregate | |
| (d) Coarse Aggregate | |

| (e) | Concrete Admixtures | |
|-----|---------------------------|--|
| | Finely Divided Minerals | |
| | Concrete Curing Materials | |
| | Straw | |
| | Calcium Chloride | |

1020.03 Equipment. Equipment shall be according to the following.

| Item | Article/Section |
|---|-----------------|
| (a) Concrete Mixers and Trucks | |
| (b) Batching and Weighing Equipment | |
| (c) Automatic and Semi-Automatic Batching Equipment | |
| (d) Water Supply Equipment | |
| (e) Membrane Curing Equipment | |
| (f) Mobile Portland Cement Concrete Plants | |

1020.04 Concrete Classes and General Mix Design Criteria. The classes of concrete shown in Table 1 identify the various mixtures by the general uses and mix design criteria. If the class of concrete for a specific item of construction is not specified, Class SI concrete shall be used.

For the minimum cement factor in Table 1, it shall apply to portland cement, portlandpozzolan cement, and portland blast-furnace slag except when a particular cement is specified in the Table.

The Contractor shall not assume that the minimum cement factor indicated in Table 1 will produce a mixture that will meet the specified strength. In addition, the Contractor shall not assume that the maximum finely divided mineral allowed in a mix design according to Article 1020.05(c) will produce a mixture that will meet the specified strength. The Contractor shall select a cement factor within the allowable range that will obtain the specified strength. The Contractor shall take into consideration materials selected, seasonal temperatures, and other factors which may require the Contractor to submit multiple mix designs.

For a portland-pozzolan cement, portland blast-furnace slag cement, or when replacing portland cement with finely divided minerals per Articles 1020.05(c) and 1020.05(d), the portland cement content in the mixture shall be a minimum of 375 lbs/cu yd (222 kg/cu m). When the total of organic processing additions, inorganic processing additions, and limestone exceed 5.0 percent in the cement, the minimum portland cement content in the mixture shall be 400 lbs/cu yd (237 kg/cu m). When calculating the portland cement portion in the portland-pozzolan or portland blast-furnace slag cement, the AASHTO M 240 tolerance may be ignored.

Special classifications may be made for the purpose of including the concrete for a particular use or location as a separate pay item in the contract. The concrete used in such cases shall conform to this section.

| Γ | TABLE 1. CLASSES OF CONCRETE AND MIX DESIGN CRITERIA | | | | | | | | | | | |
|---|--|--|---|----------------------------|-----------------------|-------------------------------------|-------------------------|-------------------------|---|---------------|---------------------|---|
| | Class of Conc. | Use | Specification Section Reference | Cen Fac cwt/c (\$ | ctor cu yd | Water / Cement Ratio Ib/Ib | S I u p in. | Co (Flex | lix Desig ompressi Strength ural Stre i, minimu Days | ve ngth) | Air Content % | Coarse Aggregate Gradations (14) |
| | | | | Min. | Max | | (4) | 3 | 14 | 28 | | |
| | PV | Pavement Base Course Base Course Widening Driveway Pavement Shoulders Shoulder Curb | 420 or 421 353 354 423 483 662 | 5.65 (1) 6.05 (2) | 7.05 | 0.32 - 0.42 | 2 - 4 (5) | Ty III 3500 (650) | 3500 (650) | | 5.0 - 8.0 (5) | CA 5 & CA 7, CA 5 & CA 11, CA 7, CA 11, or CA 14 |
| 1 | PP | Pavement Patching Bridge Deck Patching (10) | 442 | | | | | Article | 3200 (600) 701.17(| e)(3)b. | | |
| | | PP-1 | | 6.50 6.20 (Ty III) | 7.50 7.20 (Ty III) | 0.32 - 0.44 | 2 - 4 | at | 48 hour | s | 4.0 - 7.0 | CA 7, CA 11, |
| | | PP-2 | | 7.35 | 8.20 | 0.32 - 0.38 | 2 - 6 | | t 24 houi | - | 4.0 - 6.0 | CA 13, CA 14, |
| | | PP-3 | | 7.35 (Ty III) (8) | 7.35 (Ty III) (8) | 0.32 - 0.35 | 2 - 4 | | t 16 houi | | 4.0 - 6.0 | or CA 16 |
| | | PP-4 | | 6.00 (9) | 6.25 (9) | 0.32 - 0.50 | 2 - 6 | | at 8 hour | - | 4.0 - 6.0 | |
| | | PP-5 | | 6.75 (9) | 6.75 (9) | 0.32 - 0.40 | 2 - 8 | | at 4 hours | - | 4.0 - 6.0 | |
| | RR | Railroad Crossing | 422 | 6.50 6.20 (Ty III) | 7.50 7.20 (Ty III) | 0.32 - 0.44 | 2 - 4 | | 500 (650 t 48 houi | | 4.0 - 7.0 | CA 7, CA 11, or CA 14 |
| | BS | Bridge Superstructure Bridge Approach Slab | 503 | 6.05 | 7.05 | 0.32 - 0.44 | 2 - 4 (5) | | 4000 (675) | | 5.0 - 8.0 (5) | CA 7, CA 11, or CA 14 (7) |
| | PC | Various Precast Concrete Items Wet Cast Dry Cast | 1042 | 5.65 5.65 (TY III) | 7.05 7.05 (TY III) | 0.32 - 0.44 0.25 - 0.40 | 1 - 4 0 - 1 | See | Section | - | 5.0 - 8.0 N/A | CA7, CA11,CA 13, CA 14, CA 16, or CA 7 & CA 16 |
| | PS | Precast Prestressed Members Precast Prestressed Piles and Extensions | 504 512 | 5.65 5.65 (TY III) | 7.05 7.05 (TY III) | 0.32 - 0.44 | 1 - 4 | | | Plans 5000 | 5.0 - 8.0 | CA 11 (11), CA 13, CA 14 (11), or CA 16 |
| L | | Precast Prestressed Sight Screen | 639 | | | | | | | 3500 | | |

| | | TABLE 1. C | LASSES OF (| CONCRET | E AND MIX I | DESIG | IN CRIT | ERIA | | | - |
|----------------------|---|---|--------------------------------|---------|-------------------------------------|------------------|----------------|--|------------------|---------------------|--|
| Class of Conc. | Use | Specification Section Reference | Ceme Facto cwt/cu (3) | or | Water / Cement Ratio Ib/Ib | SI ump in. | Compi (Flex | Aix Desig ressive S cural Stre si, minimu Days | trength ngth) | Air Content % | Coarse Aggregate Gradations (14) |
| | | | Min. | Max | | (4) | 3 | 14 | 28 | - | |
| DS | Drilled Shaft (12) Metal Shell Piles (12) Sign Structures Drilled Shaft (12) Light Tower Foundation (12) | 516 512 734 837 | 6.65 | 7.05 | 0.32 - 0.44 | 6 - 8 (6) | | 4000 (675) | | 5.0 - 8.0 | CA 13, CA 14, CA 16, or a blend of these gradations |
| SC | Seal Coat | 503 | 5.65 (1) 6.05 (2) | 7.05 | 0.32 - 0.44 | 3 - 5 | | 3500 (650) | | | CA 3 & CA 7, CA 3 & CA 11, CA 5 & CA 7, CA 5 & CA 11, CA 7, or CA 11 |
| SI | Structures (except Superstructure) Sidewalk Slope Wall Encasement Box Culverts End Section and Collar Curb, Gutter, Curb & Gutter, Median, and Paved Ditch Concrete Barrier Sign Structures Spread Footing Concrete Foundation Pole Foundation (12) Traffic Signal Foundation Drilled Shaft (12) Square or Rectangular | 503 424 511 512 540 542 606 637 734 836 878 | 5.65 (1) 6.05 (2) | 7.05 | 0.32 - 0.44 | 2 - 4 (5) | | 3500 (650) | | 5.0 - 8.0 (5) | CA 3 & CA 7, CA 3 & CA 11, CA 5 & CA 7, CA 5 & CA 11, CA 7, CA 11, CA 1 CA 14, or CA 16 (13) |

- Notes: (1) Central-mixed.
 - (2) Truck-mixed or shrink-mixed.
 - (3) For Class SC concrete and for any other class of concrete that is to be placed underwater, except Class DS concrete, the cement factor shall be increased by ten percent.
 - (4) The maximum slump may be increased to 7 in. when a high range water-reducing admixture is used for all classes of concrete, except Class PV, SC, and PP. For Class SC, the maximum slump may be increased to 8 in. For Class PP-1, the maximum slump may be increased to 6 in. For Class PS, the 7 in. maximum slump may be increased to 8 1/2 in. if the high range water-reducing admixture is the polycarboxylate type.
 - (5) The slump range for slipform construction shall be 1/2 to 2 1/2 in. and the air content range shall be 5.5 to 8.0 percent.
 - (6) If concrete is placed to displace drilling fluid, or against temporary casing, the slump shall be 8 10 in. at the point of placement. If a water-reducing admixture is used in lieu of a high range water-reducing admixture according to Article 1020.05(b)(7), the slump shall be 2 4 in.
 - (7) For Class BS concrete used in bridge deck patching, the coarse aggregate gradation shall be CA 13, CA 14, or CA 16, except CA 11 may be used for full-depth patching.
 - (8) In addition to the Type III portland cement, 100 lb/cu yd of ground granulated blast-furnace slag and 50 lb/cu yd of microsilica (silica fume) shall be used. For an air temperature greater than 85 °F, the Type III portland cement may be replaced with Type I or II portland cement.
 - (9) The cement shall be a rapid hardening cement from the Department's "Approved List of Packaged, Dry, Rapid Hardening Cementitious Materials for Concrete Repairs" for PP-4 and calcium aluminate cement for PP-5.
 - (10) For Class PP concrete used in bridge deck patching, the coarse aggregate gradation shall be CA 13, CA 14, or CA 16, except CA 11 may be used for full-depth patching. In addition, the mix design shall have 72 hours to obtain a 4,000 psi compressive or 675 psi flexural strength for all PP mix designs.
 - (11) The nominal maximum size permitted is 3/4 in. Nominal maximum size is defined as the largest sieve which retains any of the aggregate sample particles.
 - (12) The concrete mix shall be designed to remain fluid throughout the anticipated duration of the pour plus one hour. At the Engineer's discretion, the Contractor may be required to conduct a minimum 2 cu yd trial batch to verify the mix design.
 - (13) CA 3 or CA 5 may be used when the nominal maximum size does not exceed two-thirds the clear distance between parallel reinforcement bars, or between the reinforcement bar and the form. Nominal maximum size is defined in Note 11.
 - (14) Alternate combinations of gradation sizes may be used with the approval of the Engineer. Refer also to Article 1004.02(d) for additional information on combining sizes.

| | TABLE 1. CLASSES OF CONCRETE AND MIX DESIGN CRITERIA (metric) | | | | | | | | | | |
|----------------------|--|---|------------------------------------|---------------------|-------------------------------------|-----------------------|---|-----------------------------|---------------------|---|---|
| Class of Conc. | Use | Specification Section Reference | Cement Factor kg/cu m (3) | | Water / Cement Ratio kg/kg | S I u m p | Mix Design Compressive Strength (Flexural Strength) kPa, minimum Days | | Air Content % | Coarse Aggregate Gradations (14) | |
| | | | Min. | Max | | mm (4) | 3 | 14 | 28 | | |
| PV | Pavement Base Course Base Course Widening Driveway Pavement Shoulders Shoulder Curb | 420 or 421 353 354 423 483 662 | 335 (1) 360 (2) | 418 | 0.32 - 0.42 | 50 - 100 (5) | Ty III 24,000 (4500) | 24,000 (4500) | | 5.0 - 8.0 (5) | CA 5 & CA 7, CA 5 & CA 11, CA 7, CA 11, or CA 14 |
| PP | Pavement Patching Bridge Deck Patching (10) | 442 | | | | | Article | 22,100 (4150) 701.17(| e)(3)b. | | |
| | PP-1 | | 385 365 (Ty III) | 445 425 (Ty III) | 0.32 - 0.44 | 50 - 100 | а | t 48 houi | rs | 4.0 - 7.0 | CA 7, CA 11, CA 13, CA 14, |
| | PP-2 | | 435 | 485 | 0.32 - 0.38 | | a | t 24 houi | ſS | 4.0 - 6.0 | or CA 16 |
| | PP-3 | | 435 (Ty III) (8) | 435 (Ty III) (8) | 0.32 - 0.35 | 50 - 100 | a | t 16 houi | ſS | 4.0 - 6.0 | |
| | PP-4 | | 355 (9) | 370 (9) | 0.32 - 0.50 | | á | at 8 hour: | S | 4.0 - 6.0 | |
| | PP-5 | | 400 (9) | 400 (9) | 0.32 - 0.40 | 50 - 200 | á | at 4 hours | S | 4.0 - 6.0 | |
| RR | Railroad Crossing | 422 | 385 365 (Ty III) | 445 425 (Ty III) | 0.32 - 0.44 | 50 - 100 | | ,000 (450 t 48 houi | | 4.0 - 7.0 | CA 7, CA 11, or CA 14 |
| BS | Bridge Superstructure Bridge Approach Slab | 503 | 360 | 418 | 0.32 - 0.44 | 50 - 100 (5) | | 27,500 (4650) | | 5.0 - 8.0 (5) | CA 7, CA 11, or CA 14 (7) |
| PC | Various Precast Concrete Items Wet Cast Dry Cast | 1042 | 335 335 (TY III) | 418 418 (TY III) | 0.32 - 0.44 0.25 - 0.40 | | See | Section | - | | CA7, CA11, CA13, CA 14, CA 16, or CA 7 & CA 16 |
| PS | Precast Prestressed Members Precast Prestressed Piles and Extensions | 504 512 | 335 335 (TY III) | 418 418 (TY III) | 0.32 - 0.44 | 25 - 100 | | | Plans 34,500 | 5.0 - 8.0 | CA 11 (11), CA 13, CA 14 (11), or CA 16 |
| | Precast Prestressed Sight Screen | 639 | | | | | | | 24,000 | | |

| | ТА | BLE 1. CLAS | SSES OF CON | CRETE AN | ID MIX DES | IGN CRI | TERIA (| (metric) | | | |
|----------------------|---|--|-------------------------------|------------|-------------------------------------|-----------------|----------------------|--|------------------------|---------------------|--|
| Class of Conc. | Use | Specification Section Reference | Ceme Facto kg/cu (3) | m | Water / Cement Ratio kg/kg | S I u m p mm | Compr (Flex kP | /lix Desig ressive Si tural Stre ra, minimi Days | trength ngth) um | Air Content % | Coarse Aggregate Gradations (14) |
| DS | Drilled Shaft (12) | 516 | Min. 395 | Max 418 | 0.32 - 0.44 | (4) 150 -200 | 3 | 14 27,500 | 28 | 5.0 - 8.0 | CA 13, CA 14, |
| | Metal Shell Piles (12) Sign Structures Drilled Shaft (12) Light Tower Foundation (12) | 512 734 837 | | | | (6) | | (4650) | | | CA 16, or a blend of these gradations. |
| SC | Seal Coat | 503 | 335 (1) 360 (2) | 418 | 0.32 - 0.44 | 75 - 125 | | 24,000 (4500) | | | CA 3 & CA 7, CA 3 & CA 11, CA 5 & CA 7, CA 5 & CA 11, CA 7, or CA 1 |
| SI | Structures (except Superstructure) Sidewalk Slope Wall Encasement Box Culverts End Section and Collar Curb, Gutter, Curb & Gutter, Median, and Paved Ditch Concrete Barrier Sign Structures Spread Footing Concrete Foundation Pole Foundation (12) | 503 424 511 512 540 542 606 637 734 836 | 335 (1) 360 (2) | 418 | 0.32 - 0.44 | 50 - 100 (5) | | 24,000 (4500) | | 5.0 - 8.0 (5) | CA 3 & CA 7, CA 3 & CA 11, CA 5 & CA 7, CA 5 & CA 11, CA 7, CA 11, CA 13, CA 14, CA 16 (13) |
| | Draffic Signal Foundation Drilled Shaft (12) Square or Rectangular | 878 | | | | | | | | | |

- Notes: (1) Central-mixed.
 - (2) Truck-mixed or shrink-mixed.
 - (3) For Class SC concrete and for any other class of concrete that is to be placed underwater, except Class DS concrete, the cement factor shall be increased by ten percent.
 - (4) The maximum slump may be increased to 175 mm when a high range water-reducing admixture is used for all classes of concrete except Class PV, SC, and PP. For Class SC, the maximum slump may be increased to 200 mm. For Class PP-1, the maximum slump may be increased to 150 mm. For Class PS, the 175 mm maximum slump may be increased to 215 mm if the high range water-reducing admixture is the polycarboxylate type.
 - (5) The slump range for slipform construction shall be 13 to 64 mm and the air content range shall be 5.5 to 8.0 percent.
 - (6) If concrete is placed to displace drilling fluid, or against temporary casing, the slump shall be 200 250 mm at the point of placement. If a water-reducing admixture is used in lieu of a high range water-reducing admixture according to Article 1020.05(b)(7), the slump shall be 50 100 mm.
 - (7) For Class BS concrete used in bridge deck patching, the coarse aggregate gradation shall be CA 13, CA 14, or CA 16, except CA 11 may be used for full-depth patching.
 - (8) In addition to the Type III portland cement, 60 kg/cu m of ground granulated blast-furnace slag and 30 kg/cu m of microsilica (silica fume) shall be used. For an air temperature greater than 30 °C, the Type III portland cement may be replaced with Type I or II portland cement.
 - (9) The cement shall be a rapid hardening cement from the Department's "Approved List of Packaged, Dry, Rapid Hardening Cementitious Materials for Concrete Repairs" for PP-4 and calcium aluminate cement for PP-5.
 - (10) For Class PP concrete used in bridge deck patching, the coarse aggregate gradation shall be CA 13, CA 14, or CA 16, except CA 11 may be used for full-depth patching. In addition, the mix design shall have 72 hours to obtain a 27,500 kPa compressive or 4,650 kPa flexural.
 - (11) The nominal maximum size permitted is 19 mm. Nominal maximum size is defined as the largest sieve which retains any of the aggregate sample particles.
 - (12) The concrete mix shall be designed to remain fluid throughout the anticipated duration of the pour plus one hour. At the Engineer's discretion, the Contractor may be required to conduct a minimum 1.5 cu m trial batch to verify the mix design.
 - (13) CA 3 or CA 5 may be used when the nominal maximum size does not exceed two-thirds the clear distance between parallel reinforcement bars, or between the reinforcement bar and the form. Nominal maximum size is defined in Note 11.
 - (14) Alternate combinations of gradation sizes may be used with the approval of the Engineer. Refer also to Article 1004.02(d) for additional information on combining sizes.

Self-consolidating concrete is a flowable mixture that does not require mechanical vibration for consolidation. Self-consolidating concrete mix designs may be developed for Class BS, PC, PS, DS, and SI concrete. Self-consolidating concrete mix designs may also be developed for precast concrete products that are not subjected to Class PC concrete requirements according to Section 1042. The mix design criteria for the concrete mixture shall be according to Article 1020.04 with the following exceptions.

- (a) The slump requirements shall not apply.
- (b) The concrete mixture should be uniformly graded, and information in the "Portland Cement Concrete Level III Technician Course Manual of Instructions for Design of Concrete Mixtures" may be used to develop the uniformly graded mix design. The coarse aggregate gradations shall be CA 11, CA 13, CA 14, CA 16, or a blend of these gradations. However, the final gradation when using a single coarse aggregate or combination of coarse aggregates shall have 100 percent pass the 1 in. (25 mm) sieve, and minimum 95 percent pass the 3/4 in. (19 mm) sieve. The fine aggregate proportion shall be a maximum 50 percent by weight (mass) of the total aggregate used.
- (c) The slump flow range shall be 22 in. (560 mm) minimum to 28 in. (710 mm) maximum and tested according to Illinois Test Procedure SCC-2.
- (d) The visual stability index shall be a maximum of 1 and tested according to Illinois Test Procedure SCC-2.
- (e) The J-Ring value shall be a maximum of 2 in. (50 mm) and tested according to Illinois Test Procedure SCC-3. The L-Box blocking ratio shall be a minimum of 80 percent and tested according to Illinois Test Procedure SCC-3. The Contractor has the option to select either test.
- (f) The hardened visual stability index shall be a maximum of 1 and tested according to Illinois Test Procedure SCC-6.
- (g) If Class PC concrete requirements do not apply to the precast concrete product according to Section 1042, the maximum cement factor shall be 7.05 cwt/cu yd (418 kg/cu m) and the maximum allowable water/cement ratio shall be 0.44.
- (h) If the measured slump flow, visual stability index, J-Ring value, or L-Box blocking ratio fall outside the limits specified, a check test will be made. In the event of a second failure, the Engineer may refuse to permit the use of the batch of concrete represented.

The Contractor may use water or self-consolidating admixtures at the jobsite to obtain the specified slump flow, visual stability index, J-ring value, or L-box blocking ratio. The maximum design water/cement ratio shall not be exceeded.

1020.05 Other Concrete Criteria. The concrete shall be according to the following.

(a) Proportioning and Mix Design. For all Classes of concrete, it shall be the Contractor's responsibility to determine mix design material proportions and to proportion each batch of concrete. A Level III PCC Technician shall develop the mix design for all Classes of concrete, except Classes PC and PS. The mix design, submittal information, trial batch, and Engineer verification shall be according to the "Portland Cement Concrete Level III Technician" course material.

The Contractor shall provide the mix designs a minimum of 45 calendar days prior to production. More than one mix design may be submitted for each class of concrete.

The Engineer will verify the mix design submitted by the Contractor. Verification of a mix design shall in no manner be construed as acceptance of any mixture produced. Once a mix design has been verified, the Engineer shall be notified of any proposed changes.

Tests performed at the jobsite will determine if a mix design can meet specifications. If the tests indicate it cannot, the Contractor shall make adjustments to a mix design, or submit a new mix design if necessary, to comply with the specifications.

(b) Admixtures. The Contractor shall be responsible for using admixtures and determining dosages for all Classes of concrete, cement aggregate mixture II, and controlled low-strength material that will produce a mixture with suitable workability, consistency, and plasticity. In addition, admixture dosages shall result in the mixture meeting the specified plastic and hardened properties. The Contractor shall obtain approval from the Engineer to use an accelerator when the concrete temperature is greater than 60 °F (16 °C). However, this accelerator approval by the Engineer will not be required for Class PP, RR, PC, and PS concrete. The accelerator shall be the non-chloride type unless otherwise specified in the contract plans.

The Department will maintain an Approved List of Corrosion Inhibitors. Corrosion inhibitor dosage rates shall be according to Article 1020.05(b)(10). For information on approved controlled low-strength material air-entraining admixtures, refer to The Department will also maintain an Approved List of Concrete Article 1019.02. Admixtures, and an admixture technical representative shall be consulted by the Contractor prior to the pour when determining an admixture dosage from this list or when making minor admixture dosage adjustments at the jobsite. The dosage shall be within the range indicated on the approved list unless the influence by other admixtures, jobsite conditions (such as a very short haul time), or other circumstances warrant a dosage outside the range. The Engineer shall be notified when a dosage is proposed outside the range. To determine an admixture dosage, air temperature, concrete temperature, cement source and quantity, finely divided mineral sources and quantity, influence of other admixtures, haul time, placement conditions, and other factors as appropriate shall be considered. The Engineer may request the Contractor to have a batch of concrete mixed in the lab or field to verify the admixture dosage is correct. An admixture dosage or combination of admixture dosages shall not delay the initial set of concrete by more than one hour. When a retarding admixture is required or appropriate for a bridge deck or bridge deck overlay pour, the initial set time shall be delayed until the deflections due

to the concrete dead load are no longer a concern for inducing cracks in the completed work. However, a retarding admixture shall not be used to further extend the pour time and justify the alteration of a bridge deck pour sequence.

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

The sequence, method, and equipment for adding the admixtures shall be approved by the Engineer. Admixtures shall be added to the concrete separately. An accelerator shall always be added prior to a high range water-reducing admixture, if both are used.

Admixture use shall be according to the following.

- (1) When the atmosphere or concrete temperature is 65 °F (18 °C) or higher, a retarding admixture shall be used in the Class BS concrete and concrete bridge deck overlays. The proportions of the ingredients of the concrete shall be the same as without the retarding admixture, except that the amount of mixing water shall be reduced, as may be necessary, in order to maintain the consistency of the concrete as required. In addition, a high range water-reducing admixture shall be used in bridge deck concrete. At the option of the Contractor, a water-reducing admixture may be used with the high range water-reducing admixture in Class BS concrete.
- (2) At the Contractor's option, admixtures in addition to an air-entraining admixture may be used for Class PP-1 or RR concrete. When the air temperature is less than 55 °F (13 °C) and an accelerator is used, the non-chloride accelerator shall be calcium nitrite.
- (3) When Class C fly ash or ground granulated blast-furnace slag is used in Class PP-1 or RR concrete, a water-reducing or high range water-reducing admixture shall be used.
- (4) For Class PP-2 or PP-3 concrete, a non-chloride accelerator followed by a high range water-reducing admixture shall be used, in addition to the air-entraining admixture. The Contractor has the option to use a water-reducing admixture with the high range water-reducing admixture. For Class PP-3 concrete, the non-chloride accelerator shall be calcium nitrite. For Class PP-2 concrete, the non-chloride accelerator shall be calcium nitrite when the air temperature is less than 55 °F (13 °C).
- (5) For Class PP-4 concrete, a high range water-reducing admixture shall be used in addition to the air-entraining admixture. The Contractor has the option to use a water-reducing admixture with the high range water-reducing admixture. An accelerator shall not be used. For stationary or truck-mixed concrete, a retarding admixture shall be used to allow for haul time. The Contractor has the option to use

a mobile portland cement concrete plant, but a retarding admixture shall not be used unless approved by the Engineer.

For PP-5 concrete, a non-chloride accelerator, high range water-reducing admixture, and air-entraining admixture shall be used. The accelerator, high range water-reducing admixture, and air-entraining admixture shall be per the Contractor's recommendation and dosage. The approved list of concrete admixtures shall not apply. A mobile portland cement concrete plant shall be used to produce the patching mixture.

- (6) When a calcium chloride accelerator is specified in the contract, the maximum chloride dosage shall be 1.0 quart (1.0 L) of solution per 100 lb (45 kg) of cement. The dosage may be increased to a maximum 2.0 quarts (2.0 L) per 100 lb (45 kg) of cement if approved by the Engineer. When a calcium chloride accelerator for Class PP-2 concrete is specified in the contract, the maximum chloride dosage shall be 1.3 quarts (1.3 L) of solution per 100 lb (45 kg) of cement. The dosage may be increased to a maximum 2.6 quarts (2.6 L) per 100 lb (45 kg) of cement if approved by the Engineer.
- (7) For Class DS concrete a retarding admixture and a high range water-reducing admixture shall be used. For dry excavations that are 10 ft (3 m) or less, the high range water-reducing admixture may be replaced with a water-reducing admixture if the concrete is vibrated. The use of admixtures shall take into consideration the slump loss limits specified in Article 516.12 and the fluidity requirement in Article 1020.04 (Note 12).
- (8) At the Contractor's option, when a water-reducing admixture or a high range water-reducing admixture is used for Class PV, PP-1, RR, SC, and SI concrete, the cement factor may be reduced a maximum 0.30 hundredweight/cu yd (18 kg/cu m). However, a cement factor reduction will not be allowed for concrete placed underwater.
- (9) When Type F or Type G high range water-reducing admixtures are used, the initial slump shall be a minimum of 1 1/2 in. (40 mm) prior to addition of the Type F or Type G admixture, except as approved by the Engineer.
- (10) When specified, a corrosion inhibitor shall be added to the concrete mixture utilized in the manufacture of precast, prestressed concrete members and/or other applications. It shall be added, at the same rate, to all grout around post-tensioning steel when specified.

When calcium nitrite is used, it shall be added at the rate of 4 gal/cu yd (20 L/cu m), and shall be added to the mix immediately after all compatible admixtures have been introduced to the batch.

When Rheocrete 222+ is used, it shall be added at the rate of 1.0 gal/cu yd (5.0 L/cu m), and the batching sequence shall be according to the manufacturer's instructions.

- (c) Finely Divided Minerals. Use of finely divided minerals shall be according to the following.
 - (1) Fly Ash. At the Contractor's option, fly ash from approved sources may partially replace portland cement in cement aggregate mixture II, Class PV, PP-1, PP-2, RR, BS, PC, PS, DS, SC, and SI concrete.

The use of fly ash shall be according to the following.

- a. Measurements of fly ash and portland cement shall be rounded up to the nearest 5 lb (2.5 kg).
- b. When Class F fly ash is used in cement aggregate mixture II, Class PV, BS, PC, PS, DS, SC, and SI concrete, the amount of portland cement replaced shall not exceed 25 percent by weight (mass).
- c. When Class C fly ash is used in cement aggregate mixture II, Class PV, PP-1, PP-2, RR, BS, PC, PS, DS, SC, and SI concrete, the amount of portland cement replaced shall not exceed 30 percent by weight (mass).
- d. Fly ash may be used in concrete mixtures when the air temperature is below 40 °F (4 °C), but the Engineer may request a trial batch of the concrete mixture to show the mix design strength requirement will be met.
- (2) Ground Granulated Blast-Furnace (GGBF) Slag. At the Contractor's option, GGBF slag may partially replace portland cement in Class PV, PP-1, PP-2, RR, BS, PC, PS, DS, SC, and SI concrete. For Class PP-3 concrete, GGBF slag shall be used according to Article 1020.04.

The use of GGBF slag shall be according to the following.

- a. Measurements of GGBF slag and portland cement shall be rounded up to the nearest 5 lb (2.5 kg).
- b. When GGBF slag is used in Class PV, PP-1, PP-2, RR, BS, PC, PS, DS, SC and SI concrete, the amount of portland cement replaced shall not exceed 35 percent by weight (mass).
- c. GGBF slag may be used in concrete mixtures when the air temperature is below 40 °F (4 °C), but the Engineer may request a trial batch of the concrete mixture to show the mix design strength requirement will be met.

(3) Microsilica. At the Contractor's option, microsilica may be added at a maximum of 5.0 percent by weight (mass) of the cement and finely divided minerals summed together.

Microsilica shall be used in Class PP-3 concrete according to Article 1020.04.

- (4) High Reactivity Metakaolin (HRM). At the Contractor's option, HRM may be added at a maximum of 5.0 percent by weight (mass) of the cement and finely divided minerals summed together.
- (5) Mixtures with Multiple Finely Divided Minerals. Except as specified for Class PP-3 concrete, the Contractor has the option to use more than one finely divided mineral in Class PV, PP-1, PP-2, RR, BS, PC, PS, DS, SC, and SI concrete as follows.
 - a. The mixture shall contain a maximum of two finely divided minerals. The finely divided mineral in portland-pozzolan cement or portland blast-furnace slag cement shall count toward the total number of finely divided minerals allowed. The finely divided minerals shall constitute a maximum of 35.0 percent of the total cement plus finely divided minerals. The fly ash portion shall not exceed 30.0 percent for Class C fly ash or 25.0 percent for Class F fly ash. The Class C and F fly ash combination shall not exceed 30.0 percent. The ground granulated blast-furnace slag portion shall not exceed 35.0 percent. The microsilica or high-reactivity metakaolin portion used together or separately shall not exceed ten percent. The finely divided mineral in the portland-pozzolan cement or portland blast-furnace slag blended cement shall apply to the maximum 35.0 percent.
 - b. Central Mixed. For Class PV, SC, and SI concrete, the mixture shall contain a minimum of 565 lbs/cu yd (335 kg/cu m) of cement and finely divided minerals summed together. If a water-reducing or high-range water-reducing admixture is used, the Contractor has the option to use a minimum of 535 lbs/cu yd (320 kg/cu m).
 - c. Truck-Mixed or Shrink-Mixed. For Class PV, SC, and SI concrete, the mixture shall contain a minimum of 605 lbs/cu yd (360 kg/cu m) of cement and finely divided minerals summed together. If a water-reducing or high-range water-reducing admixture is used, the Contractor has the option to use a minimum of 575 lbs/cu yd (345 kg/cu m).
 - d. Central-Mixed, Truck-Mixed or Shrink-Mixed. For Class PP-1 and RR concrete, the mixture shall contain a minimum of 650 lbs/cu yd (385 kg/cu m) of cement and finely divided minerals summed together. For Class PP-1 and RR concrete using Type III portland cement, the mixture shall contain a minimum of 620 lbs/cu yd (365 kg/cu m).

For Class PP-2 concrete, the mixture shall contain a minimum of 735 lbs/cu yd (435 kg/cu m) of cement and finely divided minerals summed together. For Class BS concrete, the mixture shall contain a minimum of 605 lbs/cu yd (360 kg/cu m). For Class DS concrete, the mixture shall contain a minimum of 665 lbs/cu yd (395 kg/cu m).

If a water-reducing or high range water-reducing admixture is used in Class PP-1 and RR concrete, the Contractor has the option to use a minimum of 620 lbs/cu yd (365 kg/cu m) of cement and finely divided minerals summed together. If a water-reducing or high-range water-reducing admixture is used with Type III portland cement in Class PP-1 and RR concrete, the Contractor has the option to use a minimum of 590 lbs/cu yd (350 kg/cu m).

- e. Central-Mixed or Truck-Mixed. For Class PC and PS concrete, the mixture shall contain a minimum of 565 lbs/cu yd (335 kg/cu m) of cement and finely divided minerals summed together.
- f. The mixture shall contain a maximum of 705 lbs/cu yd (418 kg/cu m) of cement and finely divided mineral(s) summed together for Class PV, BS, PC, PS, DS, SC, and SI concrete. For Class PP-1 and RR concrete, the mixture shall contain a maximum of 750 lbs/cu yd (445 kg/cu m). For Class PP-1 and RR concrete using Type III portland cement, the mixture shall contain a maximum of 720 lbs/cu yd (425 kg/cu m). For Class PP-2 concrete, the mixture shall contain a maximum of 820 lbs/cu yd (485 kg/cu m).
- g. For Class SC concrete and for any other class of concrete that is to be placed underwater, except Class DS concrete, the allowable cement and finely divided minerals summed together shall be increased by ten percent.
- h. The combination of cement and finely divided minerals shall comply with Article 1020.05(d).
- (d) Alkali-Silica Reaction. For cast-in-place (includes cement aggregate mixture II and latex mixtures), precast, and precast prestressed concrete, one of the mixture options provided in Article 1020.05(d)(2) shall be used to reduce the risk of a deleterious alkali-silica reaction in concrete exposed to humid or wet conditions. The mixture options are not intended or adequate for concrete exposed to potassium acetate, potassium formate, sodium acetate, or sodium formate. The mixture options will not be required for the dry environment (humidity less than 60 percent) found inside buildings for residential or commercial occupancy.

The mixture options shall not apply to concrete revetment mats, insertion lining of pipe culverts, portland cement mortar fairing course, controlled low-strength material, miscellaneous grouts that are not prepackaged, Class PP-3 concrete, Class PP-4 concrete, and Class PP-5 concrete.

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

| | Aggregat | e Groups | | | | | |
|---------------------------|-----------------------|----------------|-----------|--|--|--|--|
| Coarse Aggregate | | Fine Aggregate | | | | | |
| or | | Or | | | | | |
| Coarse Aggregate Blend | Fine Aggregate Blend | | | | | | |
| | ASTM C 1260 Expansion | | | | | | |
| ASTM C 1260 Expansion | ≤0.16% | >0.16% - 0.27% | >0.27% | | | | |
| ≤0.16% | Group I | Group II | Group III | | | | |
| >0.16% - 0.27% | Group II | Group II | Group III | | | | |
| >0.27% | Group III | Group III | Group IV | | | | |

(2) Mixture Options. Based upon the aggregate group, the following mixture options shall be used. However, the Department may prohibit a mixture option if field performance shows a deleterious alkali-silica reaction or Department testing indicates the mixture may experience a deleterious alkali-silica reaction.

| Re | Reduction of Risk for Deleterious Alkali-Silica Reaction | | | | | | | | | |
|-----------|--|---|---|---|----------|--|--|--|--|--|
| Aggregate | | Mixture Options | | | | | | | | |
| Groups | Option 1 | | | Option 4 | Option 5 | | | | | |
| Group I | Mixture options are not applicable. Use any cement or finely divided mineral. | | | | | | | | | |
| Group II | х | х | х | х | х | | | | | |
| Group III | х | Combine Option 2 with Option 3 | Combine Option 2 with Option 3 | Х | х | | | | | |
| Group IV | х | Combine Option 2 with Option 4 | Invalid Option | Combine Option 2 with Option 4 | х | | | | | |

"X" denotes valid mixture option for aggregate group.

a. Mixture Option 1. The coarse or fine aggregates shall be blended to place the material in a group that will allow the selected cement or finely divided mineral to be used. Coarse aggregate may only be blended with another coarse aggregate. Fine aggregate may only be blended with another fine aggregate. Blending of

coarse with fine aggregate to place the material in another group will not be permitted.

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

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

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

- b. Mixture Option 2. A finely divided mineral shall be used as described in 1), 2), 3), or 4) that follow. In addition, a blended cement with a finely divided mineral may be added to a separate finely divided mineral to meet the following requirements, provided the finely divided minerals are the same material. However, adding together two different finely divided minerals to obtain the specified minimum percentage of one material will not be permitted for 1), 2), 3), and 4). Refer to Mixture Option 5 to address this situation.
 - 1. Class F Fly Ash. For cement aggregate mixture II, Class PV, BS, PC, PS, MS, DS, SC and SI concrete, the Class F fly ash shall be a minimum 25.0 percent by weight (mass) of the cement and finely divided minerals summed together.

If the maximum total equivalent available alkali content (Na₂O + $0.658K_2O$) exceeds 4.50 percent for the Class F fly ash, it may be used only if it complies with Mixture Option 5.

 Class C Fly Ash. For cement aggregate mixture II, Class PV, PP-1, PP-2, RR, BS, PC, PS, DS, SC, and SI concrete, Class C fly ash shall be a minimum of 25.0 percent by weight (mass) of the cement and finely divided minerals summed together.

If the maximum total equivalent available alkali content (Na₂O + $0.658K_2O$) exceeds 4.50 percent or the calcium oxide exceeds 26.50 percent for the Class C fly ash, it may be used only per Mixture Option 5.

 Ground Granulated Blast-Furnace Slag. For Class PV, PP-1, PP-2, RR, BS, PC, PS, DS, SC, and SI concrete, ground granulated blast-furnace slag shall be a minimum of 25.0 percent by weight (mass) of the cement and finely divided minerals summed together.

If the maximum total equivalent available alkali content (Na₂O + $0.658K_2O$) exceeds 1.00 percent for the ground granulated blast-furnace slag, it may be used only per Mixture Option 5.

4. Microsilica or High Reactivity Metakaolin, Microsilica solids or high reactivity metakaolin shall be a minimum 5.0 percent by weight (mass) of the cement and finely divided minerals summed together.

If the maximum total equivalent available alkali content (Na₂O + $0.658K_2O$) exceeds 1.00 percent for the Microsilica or High Reactivity Metakaolin, it may be used only if it complies with Mixture Option 5.

- c. Mixture Option 3. The cement used shall have a maximum total equivalent alkali content (Na₂O + 0.658K₂O) of 0.60 percent. When aggregate in Group II is involved and the Contractor desires to use a finely divided mineral, any finely divided mineral may be used with the cement unless the maximum total equivalent available alkali content (Na₂O + 0.658K₂O) exceeds 4.50 percent for the fly ash; or 1.00 percent for the ground granulated blast-furnace slag, microsilica or high reactivity metakaolin. If the alkali content is exceeded, the finely divided mineral may be used only per Mixture Option 5.
- d. Mixture Option 4. The cement used shall have a maximum total equivalent alkali content (Na₂O + 0.658K₂O) of 0.45 percent. When aggregate in Group II or III is involved and the Contractor desires to use a finely divided mineral, any finely divided mineral may be used with the cement unless the maximum total equivalent available alkali content (Na₂O + 0.658K₂O) exceeds 4.50 percent for the fly ash; or 1.00 percent for the ground granulated blast-furnace slag, microsilica, or high reactivity metakaolin. If the alkali content is exceeded, the finely divided mineral may be used only per Mixture Option 5.
- e. Mixture Option 5. The proposed cement or finely divided mineral may be used if the ASTM C 1567 expansion value is ≤ 0.16 percent when performed on the aggregate in the concrete mixture with the highest ASTM C 1260 test result. The laboratory performing the ASTM C 1567 test shall be approved by the Department according to the current Bureau of Materials and Physical Research Policy Memorandum "Minimum Laboratory Requirements for Alkali-Silica Reactivity (ASR) Testing". The ASTM C 1567 test will be valid for two years, unless the Engineer determines the materials have changed significantly.

For latex concrete, the ASTM C 1567 test shall be performed without the latex.

The 0.20 percent autoclave expansion limit in ASTM C 1567 shall not apply.

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

The Engineer reserved the right to verify a Contractor's ASTM C 1567 test result. When the Contractor performs the test, a split sample may be requested by the Engineer. The Engineer may also independently obtain a sample at any time. The proposed cement or finely divided mineral will not be allowed for use if the Contractor or Engineer obtains an expansion value greater than 0.16 percent.

1020.06 Water/Cement Ratio. The water/cement ratio shall be determined on a weight (mass) basis. When a maximum water/cement ratio is specified, the water shall include mixing water, water in admixtures, free moisture on the aggregates, and water added at the jobsite. The quantity of water may be adjusted within the limit specified to meet slump requirements.

When fly ash, ground granulated blast-furnace slag, high-reactivity metakaolin, or microsilica (silica fume) are used in a concrete mix, the water/cement ratio will be based on the total cement and finely divided minerals contained in the mixture.

1020.07 Slump. The slump shall be determined according to Illinois Modified AASHTO T 119.

If the measured slump falls outside the limits specified, a check test will be made. In the event of a second failure, the Engineer may refuse to permit the use of the batch of concrete represented.

If the Contractor is unable to add water to prepare concrete of the specified slump without exceeding the maximum design water/cement ratio, a water-reducing admixture shall be added.

1020.08 Air Content. The air content shall be determined according to Illinois Modified AASHTO T 152 or Illinois Modified AASHTO T 196. The air-entrainment shall be obtained by the use of cement with an approved air-entraining admixture added during the mixing of the concrete or the use of air-entraining cement.

If the air-entraining cement furnished is found to produce concrete having air content outside the limits specified, its use shall be discontinued immediately and the Contractor shall provide other air-entraining cement which will produce air contents within the specified limits.

If the air content obtained is above the specified maximum limit at the jobsite, the Contractor may have the concrete further mixed, within the limits of time and revolutions specified, to reduce the air content. If the air content obtained is below the specified minimum limit, the Contractor may add to the concrete a sufficient quantity of an approved air-entraining admixture at the jobsite to bring the air content within the specified limits.

1020.09 Strength Tests. The specimens shall be molded and cured according to Illinois Modified AASHTO T 23. Specimens shall be field cured with the construction item as specified in Illinois Modified AASHTO T 23. The compressive strength shall be determined according to Illinois Modified AASHTO T 22. The flexural strength shall be determined according to Illinois Modified AASHTO T 177.

Except for Class PC and PS concrete, the Contractor shall transport the strength specimens from the site of the work to the field laboratory or other location as instructed by the Engineer. During transportation in a suitable light truck, the specimens shall be embedded in straw,

burlap, or other acceptable material in a manner meeting with the approval of the Engineer to protect them from damage; care shall be taken to avoid impacts during hauling and handling. For strength specimens, the Contractor shall provide a field curing box for initial curing and a water storage tank for final curing. The field curing box will be required when an air temperature below 60 °F (16 °C) is expected during the initial curing period. The device shall maintain the initial curing temperature range specified in Illinois Modified AASHTO T 23, and may be insulated or power operated as appropriate.

1020.10 Handling, Measuring, and Batching Materials. Aggregates shall be handled in a manner to prevent mixing with soil and other foreign material.

Aggregates shall be handled in a manner which produces a uniform gradation, before placement in the plant bins. Aggregates delivered to the plant in a nonuniform gradation condition shall be stockpiled. The stockpiled aggregate shall be mixed uniformly before placement in the plant bins.

Aggregates shall have a uniform moisture content before placement in the plant bins. This may require aggregates to be stockpiled for 12 hours or more to allow drainage, or water added to the stockpile, or other methods approved by the Engineer. Moisture content requirements for crushed concrete, crushed slag or lightweight aggregate shall be according to Article 1004.01(e)(5).

Aggregates, cement, and finely divided minerals shall be measured by weight (mass). Water and admixtures shall be measured by volume or weight (mass).

The Engineer may permit aggregates, cement, and finely divided minerals to be measured by volume for small isolated structures and for miscellaneous items. Aggregates, cement, and finely divided minerals shall be measured individually. The volume shall be based upon dry, loose materials.

1020.11 Mixing Portland Cement Concrete. The mixing of concrete shall be according to the following.

- (a) Ready-Mixed Concrete. Ready-mixed concrete is central-mixed, truck-mixed, or shrinkmixed concrete transported and delivered in a plastic state ready for placement in the work and shall be according to the following.
 - (1) Central-Mixed Concrete. Central-mixed concrete is concrete which has been completely mixed in a stationary mixer and delivered in a truck agitator, a truck mixer operating at agitating speed, or a nonagitator truck.

The stationary mixer shall operate at the drum speed for which it was designed. The batch shall be charged into the drum so that some of the water shall enter in advance of the cement, finely divided minerals, and aggregates. The flow of the water shall be uniform and all water shall be in the drum by the end of the first 15 seconds of the mixing period. Water shall begin to enter the drum from zero to

two seconds in advance of solid material and shall stop flowing within two seconds of the beginning of mixing time.

Some coarse aggregate shall enter in advance of other solid materials. For the balance of the charging time for solid materials, the aggregates, finely divided minerals, and cement (to assure thorough blending) shall each flow at acceptably uniform rates, as determined by visual observation. Coarse aggregate shall enter two seconds in advance of other solid materials and a uniform rate of flow shall continue to within two seconds of the completion of charging time.

The entire contents of the drum, or of each single compartment of a multiple-drum mixer, shall be discharged before the succeeding batch is introduced.

The volume of concrete mixed per batch shall not exceed the mixer's rated capacity as shown on the standard rating plate on the mixer by more than ten percent.

The minimum mixing time shall be 75 seconds for a stationary mixer having a capacity greater than 2 cu yd (1.5 cu m). For a mixer with a capacity equal to or less than 2 cu yd (1.5 cu m) the mixing time shall be 60 seconds. Transfer time in multiple drum mixers is included in the mixing time. Mixing time shall begin when all materials are in the mixing compartment and shall end when the discharge of any part of the batch is started. The required mixing times will be established by the Engineer for all types of stationary mixers.

When central-mixed concrete is to be transported in a truck agitator or a truck mixer, the stationary-mixed batch shall be transferred to the agitating unit without delay and without loss of any portion of the batch. Agitating shall start immediately thereafter and shall continue without interruption until the batch is discharged from the agitator. The ingredients of the batch shall be completely discharged from the agitator before the succeeding batch is introduced. Drums and auxiliary parts of the equipment shall be kept free from accumulations of materials.

The vehicles used for transporting the mixed concrete shall be of such capacity, or the batches shall be so proportioned, that the entire contents of the mixer drum can be discharged into each vehicle load.

(2) Truck-Mixed Concrete. Truck-mixed concrete is completely mixed and delivered in a truck mixer. When the mixer is charged with fine and coarse aggregates simultaneously, not less than 60 nor more than 100 revolutions of the drum or blades at mixing speed shall be required, after all of the ingredients including water are in the drum. When fine and coarse aggregates are charged separately, not less than 70 revolutions will be required. For self-consolidating concrete, a minimum of 100 revolutions is required in all cases. Additional mixing beyond 100 revolutions shall be at agitating speed unless additions of water, admixtures, or other materials are made at the jobsite. The mixing operation shall begin immediately after the cement and water, or the cement and wet aggregates, come in contact. The

ingredients of the batch shall be completely discharged from the drum before the succeeding batch is introduced. The drum and auxiliary parts of the equipment shall be kept free from accumulations of materials. If additional water or an admixture is added at the jobsite, the concrete batch shall be mixed a minimum of 40 additional revolutions after each addition.

- (3) Shrink-Mixed Concrete. Shrink-mixed concrete is mixed partially in a stationary mixer and completed in a truck mixer for delivery. The mixing time of the stationary mixer may be reduced to a minimum of 30 seconds to intermingle the ingredients, before transferring to the truck mixer. All ingredients for the batch shall be in the stationary mixer and partially mixed before any of the mixture is discharged into the truck mixer. The partially mixed batch shall be transferred to the truck mixer without delay and without loss of any portion of the batch, and mixing in the truck mixer shall start immediately. The mixing time in the truck mixer shall be not less than 50 nor more than 100 revolutions of the drum or blades at mixing speed. For selfconsolidating concrete, a minimum of 100 revolutions is required in the truck mixer. Additional mixing beyond 100 revolutions shall be at agitating speed, unless additions of water, admixtures, or other materials are made at the jobsite. Units designed as agitators shall not be used for shrink mixing. The ingredients of the batch shall be completely discharged from the drum before the succeeding batch is introduced. The drum and auxiliary parts of the equipment shall be kept free from accumulations of materials. If additional water or an admixture is added at the jobsite, the concrete batch shall be mixed a minimum of 40 additional revolutions after each addition.
- (4) Mixing Water. Wash water shall be completely discharged from the drum or container before a batch is introduced. All mixing water shall be added at the plant and any adjustment of water at the jobsite by the Contractor shall not exceed the specified maximum water/cement ratio or slump. If strength specimens have been made for a batch of concrete, and subsequently during discharge there is more water added, additional strength specimens shall be made for the batch of concrete. No additional water may be added at the jobsite to central-mixed concrete if the mix design has less than 565 lbs/cu yd (335 kg/cu m) of cement and finely divided minerals summed together.
- (5) Mixing and Agitating Speeds. The mixing or agitating speeds used for truck mixers or truck agitators shall be per the manufacturer's rating plate.
- (6) Capacities. The volume of plastic concrete in a given batch will be determined according to AASHTO T 121, based on the total weight (mass) of the batch, determined either from the weight (masses) of all materials, including water, entering the batch or directly from the net weight (mass) of the concrete in the batch as delivered.

The volume of mixed concrete in truck mixers or truck agitators shall in no case be greater than the rated capacity determined according to the Truck Mixer, Agitator,

and Front Discharge Concrete Carrier Standards of the Truck Mixer Manufacturer's Bureau, as shown by the rating plate attached to the truck. If the truck mixer does not have a rating plate, the volume of mixed concrete shall not exceed 63 percent of the gross volume of the drum or container, disregarding the blades. For truck agitators, the value is 80 percent.

(7) Time of Haul. Haul time shall begin when the delivery ticket is stamped. The delivery ticket shall be stamped no later than five minutes after the addition of the mixing water to the cement, or after the addition of the cement to the aggregate when the combined aggregates contain free moisture in excess of two percent by weight (mass). If more than one batch is required for charging a truck using a stationary mixer, the time of haul shall start with mixing of the first batch. Haul time shall end when the truck is emptied for incorporation of the concrete into the work.

The time elapsing from when water is added to the mix until it is deposited in place at the site of the work shall not exceed 30 minutes when the concrete is transported in nonagitating trucks.

The maximum haul time for concrete transported in truck mixers or truck agitators shall be according to the following.

| Concrete Temperature at Point | Haul Time | | | |
|--------------------------------|-----------|---------|--|--|
| of Discharge ℉ (℃) | Hours | Minutes | | |
| 50-64 (10-17.5) | 1 | 30 | | |
| >64 (>17.5) - without retarder | 1 | 0 | | |
| >64 (>17.5) - with retarder | 1 | 30 | | |

To encourage start-up testing for mix adjustments at the plant, the first two trucks will be allowed an additional 15 minutes haul time whenever such testing is performed.

For a mixture which is not mixed on the jobsite, a delivery ticket shall be required for each load. The following information shall be recorded on each delivery ticket: (1) ticket number; (2) name of producer and plant location; (3) contract number; (4) name of Contractor; (5) stamped date and time batched; (6) truck number; (7) quantity batched; (8) amount of admixture(s) in the batch; (9) amount of water in the batch; and (10) Department mix design number.

For concrete mixed in jobsite stationary mixers, the above delivery ticket may be waived, but a method of verifying the haul time shall be established to the satisfaction of the Engineer.

(8) Production and Delivery. The production of ready-mixed concrete shall be such that the operations of placing and finishing will be continuous insofar as the job operations require. The Contractor shall be responsible for producing concrete that will have the required workability, consistency, and plasticity when delivered to the work. Concrete which is unsuitable for placement as delivered will be rejected. The Contractor shall minimize the need to adjust the mixture at the jobsite, such as adding water and admixtures prior to discharging.

- (9) Use of Multiple Plants in the Same Construction Item. The Contractor may simultaneously use central-mixed, truck-mixed, and shrink-mixed concrete from more than one plant, for the same construction item, on the same day, and in the same pour. However, the following criteria shall be met.
 - a. Each plant shall use the same cement, finely divided minerals, aggregates, admixtures, and fibers.
 - b. Each plant shall use the same mix design. However, material proportions may be altered slightly in the field to meet slump and air content criteria. Field water adjustments shall not result in a difference that exceeds 0.02 between plants for water/cement ratio. The required cement factor for central-mixed concrete shall be increased to match truck-mixed or shrink-mixed concrete, if the latter two types of mixed concrete are used in the same pour.
 - c. The maximum slump difference between deliveries of concrete shall be 3/4 in. (19 mm) when tested at the jobsite. If the difference is exceeded, but test results are within specification limits, the concrete may be used. The Contractor shall take immediate corrective action and shall test subsequent deliveries of concrete until the slump difference is corrected. For each day, the first three truck loads of delivered concrete from each plant shall be tested for slump by the Contractor. Thereafter, when a specified test frequency for slump is to be performed, it shall be conducted for each plant at the same time.
 - d. The maximum air content difference between deliveries of concrete shall be 1.5 percent when tested at the jobsite. If the difference is exceeded, but test results are within specification limits, the concrete may be used. The Contractor shall take immediate corrective action and shall test subsequent deliveries of concrete until the air content difference is corrected. For each day, the first three truck loads of delivered concrete from each plant shall be tested for air content by the Contractor. Thereafter, when a specified test frequency for air content is to be performed, it shall be conducted for each plant at the same time.
 - e. Strength tests shall be performed and taken at the jobsite for each plant. When a specified strength test is to be performed, it shall be conducted for each plant at the same time. The difference between plants for strength shall not exceed 900 psi (6200 kPa) compressive and 90 psi (620 kPa) flexural. If the strength difference requirements are exceeded, the Contractor shall take corrective action.
 - f. The maximum haul time difference between deliveries of concrete shall be 15 minutes. If the difference is exceeded, but haul time is within specification

limits, the concrete may be used. The Contractor shall take immediate corrective action and check subsequent deliveries of concrete.

- (b) Class PC Concrete. The concrete shall be central-mixed or truck-mixed. Variations in plastic concrete properties shall be minimized between batches.
- (c) Class PV Concrete. The concrete shall be central-mixed, truck-mixed, or shrink-mixed.

The required mixing time for stationary mixers with a capacity greater than 2 cu yd (1.5 cu m) may be less than 75 seconds upon satisfactory completion of a mixer performance test. Mixer performance tests may be requested by the Contractor when the quantity of concrete to be placed exceeds 50,000 sq yd (42,000 sq m). The testing shall be conducted according to the current Bureau of Materials and Physical Research's Policy Memorandum, "Field Test Procedures for Mixer Performance and Concrete Uniformity Tests".

The Contractor will be allowed to test two mixing times within a range of 50 to 75 seconds. If satisfactory results are not obtained from the required tests, the mixing time shall continue to be 75 seconds for the remainder of the contract. If satisfactory results are obtained, the mixing time may be reduced. In no event will mixing time be less than 50 seconds.

The Contractor shall furnish the labor, equipment, and material required to perform the testing according to the current Bureau of Materials and Physical Research's Policy Memorandum, "Field Test Procedures for Mixer Performance and Concrete Uniformity Tests".

A contract which has 12 ft (3.6 m) wide pavement or base course, and a continuous length of 1/2 mile (0.8 km) or more, shall have the following additional requirements.

- (1) The plant and truck delivery operation shall be able to provide a minimum of 50 cu yd (38 cu m) of concrete per hour.
- (2) The plant shall have automatic or semi-automatic batching equipment.
- (d) All Other Classes of Concrete. The concrete shall be central-mixed, truck-mixed, or shrink-mixed concrete.

1020.12 Mobile Portland Cement Concrete Plants. The use of a mobile portland cement concrete plant may be approved under the provisions of Article 1020.10 for volumetric proportioning in small isolated structures, thin overlays, and for miscellaneous and incidental concrete items.

The first 1 cu ft (0.03 cu m) of concrete produced may not contain sufficient mortar and shall not be incorporated in the work. The side plate on the cement feeder shall be removed

periodically (normally the first time the mixer is used each day) to see if cement is building up on the feed drum.

Sufficient mixing capacity of mixers shall be provided to enable continuous placing and finishing insofar as the job operations and the specifications require.

Slump and air tests made immediately after discharge of the mix may be misleading, since the aggregates may absorb a significant amount of water for four or five minutes after mixing.

1020.13 Curing and Protection. The method of curing, curing period, and method of protection for each type of concrete construction is included in the following Index Table.

| INDEX TABLE OF C | URING AND PROTECTION O CURING | CURING | LOW AIR |
|--|---|--|-----------------------------------|
| TYPE OF CONSTRUCTION | METHODS | PERIOD | TEMPERATURE PROTECTION METHODS |
| Cast-in-Place Concrete 11/ | | DATS | |
| Pavement | | | |
| 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) ^{2/} | 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) ^{16/} |
| Catch Basin Manhole Inlet 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 12/ | 1020.13(c) |
| Bridge Deck Patching | 1020.13(a)(3)(5) | 3 or 7 ^{12/} | 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) ^{8/} | 7 | 1020.13(d)(1)(2) |
| Deck | | | |
| Bridge Approach Slab | 1020.13(a)(5) | 7 | 1020.13(d)(1)(2) ^{17/} |
| 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 ^{13/} Required | 9/ |
| All Other Precast Items | $1020.13(a)(3)(4)(5)^{2/9/10/}$ | As ^{14/} Required | 9/ |
| Precast, Prestressed Concrete 11/ | , | • | |
| All Items | 1020(a)(3)(5) ^{9/10/} | Until Strand Tensioning is Released ^{15/} | 9/ |

Notes-General:

- 1/ Type I, membrane curing only
- 2/ Type II, membrane curing only
- 3/ Type III, membrane curing only

- 4/ Type I, II and III membrane curing
- 5/ Membrane Curing will not be permitted between November 1 and April 15.
- 6/ The use of water to inundate foundations and footings, seal coats or the bottom slab of culverts is permissible when approved by the Engineer, provided the water temperature can be maintained at 45 °F (7 °C) or higher.
- 7/ Asphalt emulsion for waterproofing may be used in lieu of other curing methods when specified and permitted according to Article 503.18.
- 8/ On non-traffic surfaces which receive protective coat according to Article 503.19, a linseed oil emulsion curing compound may be used as a substitute for protective coat and other curing methods. The linseed oil emulsion curing compound will be permitted between April 16 and October 31 of the same year, provided it is applied with a mechanical sprayer according to Article 1101.09(b).
- 9/ Steam, supplemental heat, or insulated blankets (with or without steam/supplemental heat) are acceptable and shall be according to the Bureau of Materials and Physical Research's Policy Memorandum "Quality Control/Quality Assurance Program for Precast Concrete Products" and the "Manual for Fabrication of Precast, Prestressed Concrete Products".
- 10/ A moist room according to AASHTO M 201 is acceptable for curing.
- 11/ If curing is required and interrupted because of form removal for cast-in-place concrete items, precast concrete products, or precast prestressed concrete products, the curing shall be resumed within two hours from the start of the form removal.
- 12/ Curing maintained only until opening strength is attained for pavement patching, with a maximum curing period of three days. For bridge deck patching the curing period shall be three days if Class PP concrete is used and 7 days if Class BS concrete is used.
- 13/ The curing period shall end when the concrete has attained the mix design strength. The producer has the option to discontinue curing when the concrete has attained 80 percent of the mix design strength or after seven days. All strength test specimens shall remain with the units and shall be subjected to the same curing method and environmental condition as the units, until the time of testing.
- 14/ The producer shall determine the curing period or may elect to not cure the product. All strength test specimens shall remain with the units and shall be subjected to the same curing method and environmental condition as the units, until the time of testing.

- 15/ The producer has the option to continue curing after strand release.
- 16/ When structural steel or structural concrete is in place above slope wall, Article 1020.13(c) shall not apply. The protection method shall be according to Article 1020.13(d)(1).
- 17/ When Article 1020.13(d)(2) is used to protect the deck, the housing may enclose only the bottom and sides. The top surface shall be protected according to Article 1020.13(d)(1).
- 18/ For culverts having a waterway opening of 10 sq ft (1 sq m) or less, the culverts may be protected according to Article 1020.13(d)(3).
- (a) Methods of Curing. Except as provided for in the Index Table of Curing and Protection of Concrete Construction, curing shall be accomplished by one of the following described methods. When water is required to wet the surface, it shall be applied as a fine spray so that it will not mar or pond on the surface. Except where otherwise specified, the curing period shall be at least 72 hours.
 - (1) Waterproof Paper Method. The surface of the concrete shall be covered with waterproof paper as soon as the concrete has hardened sufficiently to prevent marring the surface. The surface of the concrete shall be wetted immediately before the paper is placed. The blankets shall be lapped at least 12 in. (300 mm) end to end, and these laps shall be securely weighted with a windrow of earth, or other approved method, to form a closed joint. The same requirements shall apply to the longitudinal laps where separate strips are used for curing edges, except the lap shall be at least 9 in. (225 mm). The edges of the blanket shall be weighted securely with a continuous windrow of earth or any other means satisfactory to the Engineer to provide an air-tight cover. Any torn places or holes in the paper shall be repaired immediately by patches cemented over the openings, using a bituminous cement having a melting point of not less than 180 °F (82 °C). The blankets may be reused, provided they are air-tight and kept serviceable by proper repairs.

A longitudinal pleat shall be provided in the blanket to permit shrinkage where the width of the blanket is sufficient to cover the entire surface. The pleat will not be required where separate strips are used for the edges. Joints in the blanket shall be sewn or cemented together in such a manner that they will not separate during use.

(2) Polyethylene Sheeting Method. The surface of the concrete shall be covered with white polyethylene sheeting as soon as the concrete has hardened sufficiently to prevent marring the surface. The surface of the concrete shall be wetted immediately before the sheeting is placed. The edges of the sheeting shall be weighted securely with a continuous windrow of earth or any other means satisfactory to the Engineer to provide an air-tight cover. Adjoining sheets shall overlap not less than 12 in. (300 mm) and the laps shall be securely weighted with earth, or any other means satisfactory to the Engineer, to provide an air tight cover. For surface and base course concrete, the polyethylene sheets shall be not less than 100 ft (30 m) in length nor longer than can be conveniently handled, and shall be of such width that, when in place, they will cover the full width of the surface, including the edges, except that separate strips may be used to cover the edges. Any tears or holes in the sheeting shall be repaired. When sheets are no longer serviceable as a single unit, the Contractor may select from such sheets and reuse those which will serve for further applications, provided two sheets are used as a single unit; however, the double sheet units will be rejected when the Engineer deems that they no longer provide an air tight cover.

(3) Wetted Burlap Method. The surface of the concrete shall be covered with wetted burlap blankets as soon as the concrete has hardened sufficiently to prevent marring the surface. The blankets shall overlap 6 in. (150 mm). At least two layers of wetted burlap shall be placed on the finished surface. The burlap shall be kept saturated by means of a mechanically operated sprinkling system. In place of the sprinkling system, at the Contractor's option, two layers of burlap covered with impermeable covering shall be used. The burlap shall be kept saturated with water. Plastic coated burlap may be substituted for one layer of burlap and impermeable covering.

The blankets shall be placed so that they are in contact with the edges of the concrete, and that portion of the material in contact with the edges shall be kept saturated with water.

(4) Membrane Curing Method. Membrane curing will not be permitted where a protective coat, concrete sealer, or waterproofing is to be applied, or at areas where rubbing or a normal finish is required, or at construction joints other than those necessary in pavement or base course. Concrete at these locations shall be cured by another method specified in Article 1020.13(a).

After all finishing work to the concrete surface has been completed, it shall be sealed with membrane curing compound of the type specified within ten minutes. The seal shall be maintained for the specified curing period. The edges of the concrete shall, likewise, be sealed within ten minutes after the forms are removed. Two separate applications, applied at least one minute apart, each at the rate of not less than 1 gal/250 sq ft (0.16 L/sq m) will be required upon the surfaces and edges of the concrete. These applications shall be made with the mechanical equipment specified. Type III compound shall be agitated immediately before and during the application.

At locations where the coating is discontinuous or where pin holes show or where the coating is damaged due to any cause and on areas adjacent to sawed joints, immediately after sawing is completed, an additional coating of membrane curing compound shall be applied at the above specified rate. The equipment used may be of the same type as that used for coating variable widths of pavement. Before the additional coating is applied adjacent to sawed joints, the cut faces of the joint shall be protected by inserting a suitable flexible material in the joint, or placing an

adhesive width of impermeable material over the joint, or by placing the permanent sealing compound in the joint. Material, other than the permanent sealing compound, used to protect cut faces of the joint, shall remain in place for the duration of the curing period. In lieu of applying the additional coating, the area of the sawed joint may be cured according to any other method permitted.

When rain occurs before an application of membrane curing compound has dried, and the coating is damaged, the Engineer may require another application be made in the same manner and at the same rate as the original coat. The Engineer may order curing by another method specified, if unsatisfactory results are obtained with membrane curing compound.

(5) Wetted Cotton Mat Method. After the surface of concrete has been textured or finished, it shall be covered immediately with dry or damp cotton mats. The cotton mats shall be placed in a manner which will not mar the concrete surface. A texture resulting from the cotton mat material is acceptable. The cotton mats shall then be wetted immediately and thoroughly soaked with a gentle spray of water. For bridge decks, a foot bridge shall be used to place and wet the cotton mats.

The cotton mats shall be maintained in a wetted condition until the concrete has hardened sufficiently to place soaker hoses without marring the concrete surface. The soaker hoses shall be placed on top of the cotton mats at a maximum 4 ft (1.2 m) spacing. The cotton mats shall be kept wet with a continuous supply of water for the remainder of the curing period. Other continuous wetting systems may be used if approved by the Engineer.

After placement of the soaker hoses, the cotton mats shall be covered with white polyethylene sheeting or burlap-polyethylene blankets.

For construction items other than bridge decks, soaker hoses or a continuous wetting system will not be required if the alternative method keeps the cotton mats wet. Periodic wetting of the cotton mats is acceptable.

For areas inaccessible to the cotton mats on bridge decks, curing shall be according to Article 1020.13(a)(3).

(b) Removing and Replacing Curing Covering. When curing methods specified above in Article 1020.13(a), (1), (2), or (3) are used for concrete pavement, the curing covering for each day's paving shall be removed to permit testing of the pavement surface with a profilograph or straightedge, as directed by the Engineer.

Immediately after testing, the surface of the pavement shall be wetted thoroughly and the curing coverings replaced. The top surface and the edges of the concrete shall not be left unprotected for a period of more than 1/2 hour.

(c) Protection of Concrete, Other Than Structures, From Low Air Temperatures. When the official National Weather Service forecast for the construction area predicts a low of 32 °F (0 °C), or lower, or if the actual temperature drops to 32 °F (0 °C), or lower, concrete less than 72 hours old shall be provided at least the following protection.

| Minimum Temperature | Protection |
|------------------------|---|
| 25 – 32 °F (-4 − 0 °C) | Two layers of polyethylene sheeting, one layer of polyethylene and one layer of burlap, or two layers of waterproof paper. |
| Below 25 °F (-4 ℃) | 6 in. (150 mm) of straw covered with one layer of polyethylene sheeting or waterproof paper. |

These protective covers shall remain in place until the concrete is at least 96 hours old. When straw is required on pavement cured with membrane curing compound, the compound shall be covered with a layer of burlap, polyethylene sheeting or waterproof paper before the straw is applied.

After September 15, there shall be available to the work within four hours, sufficient clean, dry straw to cover at least two days production. Additional straw shall be provided as needed to afford the protection required. Regardless of the precautions taken, the Contractor shall be responsible for protection of the concrete placed and any concrete damaged by cold temperatures shall be removed and replaced.

(d) Protection of Concrete Structures From Low Air Temperatures. When the official National Weather Service forecast for the construction area predicts a low below 45 °F (7 °C), or if the actual temperature drops below 45 °F (7 °C), concrete less than 72 hours old shall be provided protection. Concrete shall also be provided protection when placed during the winter period of December 1 through March 15. Concrete shall not be placed until the materials, facilities, and equipment for protection are approved by the Engineer.

When directed by the Engineer, the Contractor may be required to place concrete during the winter period. When winter construction is specified, the Contractor shall proceed with the construction, including excavation, pile driving, concrete, steel erection, and all appurtenant work required for the complete construction of the item, except at times when weather conditions make such operations impracticable.

Regardless of the precautions taken, the Contractor shall be responsible for protection of the concrete placed and any concrete damaged by cold temperatures shall be removed and replaced.

(1) Protection Method I. The concrete shall be completely covered with insulating material such as fiberglass, rock wool, or other approved commercial insulating material having the minimum thermal resistance R, as defined in ASTM C 168, for

| Minimum Po | Thermal Resistance R | |
|------------|-------------------------|------|
| 6 or less | (mm) (150 or less) | R=16 |
| > 6 to 12 | (> 150 to 300) | R=10 |
| > 12 to 18 | (> 300 to 450) | R=6 |
| > 18 | (> 450) | R=4 |

the corresponding minimum dimension of the concrete unit being protected as shown in the following table.

The insulating material manufacturer shall clearly mark the insulating material with the thermal resistance R value.

The insulating material shall be completely enclosed on sides and edges with an approved waterproof liner and shall be maintained in a serviceable condition. Any tears in the liner shall be repaired in a manner approved by the Engineer. The Contractor shall provide means for checking the temperature of the surface of the concrete during the protection period.

On formed surfaces, the insulating material shall be attached to the outside of the forms with wood cleats or other suitable means to prevent any circulation of air under the insulation and shall be in place before the concrete is placed. The blanket insulation shall be applied tightly against the forms. The edges and ends shall be attached so as to exclude air and moisture. If the blankets are provided with nailing flanges, the flanges shall be attached to the studs with cleats. Where tie rods or reinforcement bars protrude, the areas adjacent to the rods or bars shall be adequately protected in a manner satisfactory to the Engineer. Where practicable, the insulation on the underside of floors on steel members shall cover the top flanges of supporting members. On horizontal surfaces, the insulating material shall be placed as soon as the concrete has set, so that the surface will not be marred and shall be covered with canvas or other waterproof covering. The insulating material shall be remain in place for a period of seven days after the concrete is placed.

The Contractor may remove the forms, providing the temperature is 35 °F (2 °C) and rising and the Contractor is able to wrap the particular section within two hours from the time of the start of the form removal. The insulation shall remain in place for the remainder of the seven days curing period.

(2) Protection Method II. The concrete shall be enclosed in adequate housing and the air surrounding the concrete kept at a temperature of not less than 50 °F (10 °C) nor more than 80 °F (27 °C) for a period of seven days after the concrete is placed. The Contractor shall provide means for checking the temperature of the surface of the concrete or air temperature within the housing during the protection period. All exposed surfaces within the housing shall be cured according to the Index Table.

The Contractor shall provide adequate fire protection where heating is in progress and such protection shall be accessible at all times. The Contractor shall maintain labor to keep the heating equipment in continuous operation.

At the close of the heating period, the temperature shall be decreased to the approximate temperature of the outside air at a rate not to exceed 15 % (8 %) per 12 hour period, after which the housing maybe removed. The surface of the concrete shall be permitted to dry during the cooling period.

(3) Protection Method III. As soon as the surface is sufficiently set to prevent marring, the concrete shall be covered with 12 in. (300 mm) of loose, dry straw followed by a layer of impermeable covering. The edges of the covering shall be sealed to prevent circulation of air and prevent the cover from flapping or blowing. The protection shall remain in place until the concrete is seven days old. If construction operations require removal, the protection removed shall be replaced immediately after completion or suspension of such operations.

1020.14 Temperature Control for Placement. Temperature control for concrete placement shall be according to the following.

(a) Concrete other than Structures. Concrete may be placed when the air temperature is above 35 °F (2 °C) and rising, and concrete placement shall stop when the falling temperature reaches 40 °F (4 °C) or below, unless otherwise approved by the Engineer.

The temperature of 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 of the concrete at point of placement shall be a minimum of 50 °F (10 °C) and a maximum of 90 °F (32 °C). A maximum concrete temperature shall not apply to Class PP concrete.

(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.

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 of the concrete at point of placement shall be a minimum of 50 °F (10 °C) and a maximum of 90 °F (32 °C).

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 to 80 °F (25 °C) by the Contractor to offset anticipated heat loss.

- (c) All Classes of Concrete. Aggregates and water shall be heated or cooled uniformly and as necessary to produce concrete within the specified temperature limits. No frozen aggregates shall be used in the concrete.
- (d) Temperature. The concrete temperature shall be determined according to Illinois Modified AASHTO T 309.

1020.15 Heat of Hydration Control for Concrete Structures. The Contractor shall control the heat of hydration for concrete structures when the least dimension for a drilled shaft, foundation, footing, substructure, or superstructure concrete pour exceeds 5.0 ft (1.5 m). The work shall be according to the following.

- (a) Temperature Restrictions. The maximum temperature of the concrete after placement shall not exceed 150 °F (66 °C). The maximum temperature differential between the internal concrete core and concrete 2 to 3 in. (50 to 75 mm) from the exposed surface shall not exceed 35 °F (19 °C). The Contractor shall perform temperature monitoring to ensure compliance with the temperature restrictions.
- (b) Thermal Control Plan. The Contractor shall provide a thermal control plan a minimum of 28 calendar days prior to concrete placement for review by the Engineer. Acceptance of the thermal control plan by the Engineer shall not preclude the Contractor from specification compliance, and from preventing cracks in the concrete. At a minimum, the thermal control plan shall provide detailed information on the following requested items and shall comply with the specific specifications indicated for each item.
 - (1) Concrete mix design(s) to be used. Grout mix design if post-cooling with embedded pipe.

The mix design requirements in Articles 1020.04 and 1020.05 shall be revised to include the following additional requirements to control the heat of hydration.

- a. The concrete mixture should be uniformly graded and preference for larger size aggregate should be used in the mix design. Article 1004.02(d)(2) shall apply and information in the "Portland Cement Concrete Level III Technician Course Manual of Instructions for Design of Concrete Mixtures" may be used to develop the uniformly graded mixture.
- b. The following shall apply to all concrete except Class DS concrete or when self-consolidating concrete is desired. For central-mixed concrete, the Contractor shall have the option to develop a mixture with a minimum of 520 lbs/cu yd (309 kg/cu m) of cement and finely divided minerals summed together. For truck-mixed or shrink-mixed concrete, the Contractor shall have the option to develop a mixture with a minimum of 550 lbs/cu yd (326 kg/cu m) of cement and finely divided minerals summed together. For truck-mixed minerals summed together. A water-reducing or high range water-reducing admixture shall be used in the central mixed, truck-mixed or shrink-mixed

mixed concrete mixture. For any mixture to be placed underwater, the minimum cement and finely divided minerals shall be 550 lbs/cu yd (326 kg/cu m) for central-mixed concrete, and 580 lbs/cu yd (344 kg/cu m) for truck-mixed or shrink-mixed concrete.

For Class DS concrete, CA 11 may be used. If CA 11 is used, the Contractor shall have the option to develop a mixture with a minimum cement and finely divided minerals of 605 lbs/cu yd (360 kg/cu m) summed together. If CA 11 is used and either Class DS concrete is placed underwater or a self-consolidating concrete mixture is desired, the Contractor shall have the option to develop a mixture with a minimum cement and finely divided minerals of 635 lbs/cu yd (378 kg/cu m) summed together.

- c. The minimum portland cement content in the mixture shall be 375 lbs/cu yd (222 kg/cu m). When the total of organic processing additions, inorganic processing additions, and limestone addition exceed 5.0 percent in the cement, the minimum portland cement content in the mixture shall be 400 lbs/cu yd (237 kg/cu m). For a drilled shaft, foundation, footing, or substructure, the minimum portland cement may be reduced to as low as 330 lbs/cu yd (196 kg/cu m) if the concrete has adequate freeze/thaw durability. The Contractor shall provide freeze/thaw test results according to AASHTO T 161 Procedure A or B, and the relative dynamic modulus of elasticity of the mix design shall be a minimum of 80 percent. Freeze/thaw testing will not be required for concrete that will not be exposed to freezing and thawing conditions as determined by the Engineer.
- d. The maximum cement replacement with fly ash shall be 40.0 percent. The maximum cement replacement with ground granulated blast-furnace slag shall be 65.0 percent. When cement replacement with ground granulated blast-furnace slag exceeds 35.0 percent, only Grade 100 shall be used.
- e. The mixture may contain a maximum of two finely divided minerals. The finely divided mineral in portland-pozzolan cement or portland blast-furnace slag cement shall count toward the total number of finely divided minerals allowed. The finely divided minerals shall constitute a maximum of 65.0 percent of the total cement plus finely divided minerals. The fly ash portion shall not exceed 40.0 percent. The ground granulated blast-furnace slag portion shall not exceed 65.0 percent. The microsilica or high-reactivity metakaolin portion used together or separately shall not exceed 5.0 percent.
- f. The time to obtain the specified strength may be increased to a maximum 56 days, provided the curing period specified in Article 1020.13 is increased to a minimum of 14 days.

The minimum grout strength for filling embedded pipe shall be as specified for the concrete, and testing shall be according to AASHTO T 106.

(2) The selected mathematical method for evaluating heat of hydration thermal effects, which shall include the calculated adiabatic temperature rise, calculated maximum concrete temperature, and calculated maximum temperature differential between the internal concrete core and concrete 2 to 3 in. (50 to 75 mm) from the exposed surface. The time when the maximum concrete temperature and maximum temperature differential will occur is required.

Acceptable mathematical methods include ACI 207.2R "Report on Thermal and Volume Change Effects on Cracking of Mass Concrete" as well as other proprietary methods. The Contractor shall perform heat of hydration testing on the cement and finely divided minerals to be used in the concrete mixture. The test shall be according to ASTM C 186 or other applicable test methods, and the result for heat shall be used in the equation to calculate adiabatic temperature rise. Other required test parameters for the mathematical model may be assumed if appropriate.

The Contractor has the option to propose a higher maximum temperature differential between the internal concrete core and concrete 2 to 3 in. (50 to 75 mm) from the exposed surface, but the proposed value shall not exceed 50 °F (28 °C). In addition, based on strength gain of the concrete, multiple maximum temperature differentials at different times may be proposed. The proposed value shall be justified through a mathematical method.

(3) Proposed maximum concrete temperature or temperature range prior to placement.

Article 1020.14 shall apply except a minimum 40 $^{\circ}$ F (4 $^{\circ}$ C) concrete temperature will be permitted.

(4) Pre-cooling, post-cooling, and surface insulation methods that will be used to ensure the concrete will comply with the specified maximum temperature and specified or proposed temperature differential. For reinforcement that extends beyond the limits of the pour, the Contractor shall indicate if the reinforcement is required to be covered with insulation.

Refer to ACI 207.4R "Cooling and Insulating Systems for Mass Concrete" for acceptable methods that will be permitted. If embedded pipe is used for postcooling, the material shall be polyvinyl chloride or polyethylene. The embedded pipe system shall be properly supported, and the Contractor shall subsequently inspect glued joints to ensure they are able to withstand free falling concrete. The embedded pipe system shall be leak tested after inspection of the glued joints, and prior to the concrete placement. The leak test shall be performed at maximum service pressure or higher for a minimum of 15 minutes. All leaks shall be repaired. The embedded pipe cooling water may be from natural sources such as streams and rivers, but shall be filtered to prevent system stoppages. When the embedded pipe is no longer needed, the surface connections to the pipe shall be removed to a depth of 4 in. (100 mm) below the surface of the concrete. The remaining pipe shall be completely filled with grout. The 4 in. (100 mm) deep concrete hole shall be filled with nonshrink grout. Form and insulation removal shall be done in a manner to prevent cracking and ensure the maximum temperature differential is maintained. Insulation shall be in good condition as determined by the Engineer and properly attached.

(5) Dimensions of each concrete pour, location of construction joints, placement operations, pour pattern, lift heights, and time delays between lifts.

Refer to ACI 207.1R "Guide to Mass Concrete" for acceptable placement operations that will be permitted.

(6) Type of temperature monitoring system, the number of temperature sensors, and location of sensors.

A minimum of two independent temperature monitoring systems and corresponding sensors shall be used.

The temperature monitoring system shall have a minimum temperature range of 32 °F (0 °C) to 212 °F (100 °C), an accuracy of ± 2 °F (± 1 °C), and be able to automatically record temperatures without external power. Temperature monitoring shall begin once the sensor is encased in concrete, and with a maximum interval of one hour. Temperature monitoring may be discontinued after the maximum concrete temperature has been reached, post-cooling is no longer required, and the maximum temperature differential between the internal concrete core and the ambient air temperature does not exceed 35 °F (19 °C). The Contractor has the option to select a higher maximum temperature differential, but the proposed value shall not exceed 50 °F (28 °C). The proposed value shall be justified through a mathematical method.

At a minimum, a temperature sensor shall be located at the theoretical hottest portion of the concrete, normally the geometric center, and at the exterior face that will provide the maximum temperature differential. At the exterior face, the sensor shall be located 2 to 3 in. (50 to 75 mm) from the surface of the concrete. Sensors shall also be located a minimum of 1 in. (25 mm) away from reinforcement, and equidistant between cooling pipes if either applies. A sensor will also be required to measure ambient air temperature. The entrant/exit cooling water temperature for embedded pipe shall also be monitored.

Temperature monitoring results shall be provided to the Engineer a minimum of once each day and whenever requested by the Engineer. The report may be electronic or hard copy. The report shall indicate the location of each sensor, the temperature recorded, and the time recorded. The report shall be for all sensors and shall include ambient air temperature and entrant/exit cooling water temperatures. The temperature data in the report may be provided in tabular or graphical format, and the report shall indicate any corrective actions during the monitoring period. At the completion of the monitoring period, the Contractor shall provide the Engineer a final report that includes all temperature data and corrective actions.

- (7) Indicate contingency operations to be used if the maximum temperature or temperature differential of the concrete is reached after placement.
- (c) Temperature Restriction Violations. If the maximum temperature of the concrete after placement exceeds 150 °F (66 °C), but is equal to or less than 158 °F (70 °C), the concrete will be accepted if no cracking or other unacceptable defects are identified. If cracking or unacceptable defects are identified, Article 105.03 shall apply. If the concrete temperature exceeds 158 °F (70 °C), Article 105.03 shall apply.

If a temperature differential between the internal concrete core and concrete 2 to 3 in. (50 to 75 mm) from the exposed surface exceeds the specified or proposed maximum value allowed, the concrete will be accepted if no cracking or other unacceptable defects are identified. If unacceptable defects are identified, Article 105.03 shall apply.

When the maximum 150 °F (66 °C) concrete temperature or the maximum allowed temperature differential is violated, the Contractor shall implement corrective action prior to the next pour. In addition, the Engineer reserves the right to request a new thermal control plan for acceptance before the Contractor is allowed to pour again.

(d) Inspection and Repair of Cracks. The Engineer will inspect the concrete for cracks after the temperature monitoring is discontinued, and the Contractor shall provide access for the Engineer to do the inspection. A crack may require repair by the Contractor as determined by the Engineer. The Contractor shall be responsible for the repair of all cracks. Protective coat or a concrete sealer shall be applied to a crack less than 0.007 in. (0.18 mm) in width. A crack that is 0.007 in. (0.18 mm) or greater shall be pressure injected with epoxy according to Section 590.

80279

QUALITY CONTROL/QUALITY ASSURANCE OF CONCRETE MIXTURES (BDE)

Effective: January 1, 2012 Revised: January 1, 2013

Add the following to Section 1020 of the Standard Specifications:

"1020.16 Quality Control/Quality Assurance of Concrete Mixtures. This Article specifies the quality control responsibilities of the Contractor for concrete mixtures (except Class PC and PS concrete), cement aggregate mixture II, and controlled low-strength material incorporated in the project, and defines the quality assurance and acceptance responsibilities of the Engineer.

A list of quality control/quality assurance (QC/QA) documents is provided in Article 1020.16(g), Schedule D.

A Level I Portland Cement Concrete (PCC) Technician shall be defined as an individual who has successfully completed the Department's training for concrete testing.

A Level II Portland Cement Concrete (PCC) Technician shall be defined as an individual who has successfully completed the Department's training for concrete proportioning.

A Level III Portland Cement Concrete (PCC) Technician shall be defined as an individual who has successfully completed the Department's training for concrete mix design.

A Concrete Tester shall be defined as an individual who has successfully completed the Department's training to assist with concrete testing and is monitored on a daily basis.

Aggregate Technician shall be defined as an individual who has successfully completed the Department's training for gradation testing involving aggregate production and mixtures.

Mixture Aggregate Technician shall be defined as an individual who has successfully completed the Department's training for gradation testing involving mixtures.

Gradation Technician shall be defined as an individual who has successfully completed the Department's training to assist with gradation testing and is monitored on a daily basis.

(a) Equipment/Laboratory. The Contractor shall provide a laboratory and test equipment to perform their quality control testing.

The laboratory shall be of sufficient size and be furnished with the necessary equipment, supplies, and current published test methods for adequately and safely performing all required tests. The laboratory will be approved by the Engineer according to the current Bureau of Materials and Physical Research Policy Memorandum "Minimum Private Laboratory Requirements for Construction Materials Testing or Mix Design". Production of a mixture shall not begin until the Engineer provides written approval of the laboratory.

The Contractor shall refer to the Department's "Required Sampling and Testing Equipment for Concrete" for equipment requirements.

Test equipment shall be maintained and calibrated as required by the appropriate test method, and when required by the Engineer. This information shall be documented on the Department's "Calibration of Concrete Testing Equipment" form.

Test equipment used to determine compressive or flexural strength shall be calibrated each 12 month period by an independent agency, using calibration equipment traceable to the National Institute of Standards and Technology (NIST). The Contractor shall have the calibration documentation available at the test equipment location.

The Engineer will have unrestricted access to the plant and laboratory at any time to inspect measuring and testing equipment, and will notify the Contractor of any deficiencies. Defective equipment shall be immediately repaired or replaced by the Contractor.

(b) Quality Control Plan. The Contractor shall submit, in writing, a proposed Quality Control (QC) Plan to the Engineer. The QC Plan shall be submitted a minimum of 45 calendar days prior to the production of a mixture. The QC Plan shall address the quality control of the concrete, cement aggregate mixture II, and controlled low-strength material incorporated in the project. The Contractor shall refer to the Department's "Model Quality Control Plan for Concrete Production" to prepare a QC Plan. The Engineer will respond in writing to the Contractor's proposed QC Plan within 15 calendar days of receipt.

Production of a mixture shall not begin until the Engineer provides written approval of the QC Plan. The approved QC Plan shall become a part of the contract between the Department and the Contractor, but shall not be construed as acceptance of any mixture produced.

The QC Plan may be amended during the progress of the work, by either party, subject to mutual agreement. The Engineer will respond in writing to a Contractor's proposed QC Plan amendment within 15 calendar days of receipt. The response will indicate the approval or denial of the Contractor's proposed QC Plan amendment.

(c) Quality Control by Contractor. The Contractor shall perform quality control inspection, sampling, testing, and documentation to meet contract requirements. Quality control includes the recognition of obvious defects and their immediate correction. Quality control also includes appropriate action when passing test results are near specification limits, or to resolve test result differences with the Engineer. Quality control may require increased testing, communication of test results to the plant or the jobsite, modification of operations, suspension of mixture production, rejection of material, or other actions as appropriate. The Engineer shall be immediately notified of any failing tests and subsequent remedial action. Passing tests shall be reported no later than the start of the next work day.

When a mixture does not comply with specifications, the Contractor shall reject the material; unless the Engineer accepts the material for incorporation in the work, according to Article 105.03.

(1) Personnel Requirements. The Contractor shall provide a Quality Control (QC) Manager who will have overall responsibility and authority for quality control. The jobsite and plant personnel shall be able to contact the QC Manager by cellular phone, two-way radio or other methods approved by the Engineer.

The QC Manager shall visit the jobsite a minimum of once a week. A visit shall be performed the day of a bridge deck pour, the day a non-routine mixture is placed as determined by the Engineer, or the day a plant is anticipated to produce more than 1000 cu yd (765 cu m). Any of the three required visits may be used to meet the once per week minimum requirement.

The Contractor shall provide personnel to perform the required inspections, sampling, testing and documentation in a timely manner. The Contractor shall refer to the Department's "Qualifications and Duties of Concrete Quality Control Personnel" document.

A Level I PCC Technician shall be provided at the jobsite during mixture production and placement, and may supervise concurrent pours on the project. For concurrent pours, a minimum of one Concrete Tester shall be required at each pour location. If the Level I PCC Technician is at one of the pour locations, a Concrete Tester is still required at the same location. Each Concrete Tester shall be able to contact the Level I PCC Technician by cellular phone, two-way radio or other methods approved by the Engineer. A single Level I PCC Technician shall not supervise concurrent pours for multiple contracts.

A Level II PCC Technician shall be provided at the plant, or shall be available, during mixture production and placement. A Level II PCC Technician may supervise a maximum of three plants. Whenever the Level II PCC Technician is not at the plant during mixture production and placement, a Concrete Tester or Level I PCC Technician shall be present at the plant to perform any necessary concrete tests. The Concrete Tester, Level I PCC Technician, or other individual shall also be trained to perform any necessary aggregate moisture tests, if the Level II PCC Technician is not at the plant during mixture production and placement. The Concrete Tester, Level I PCC Technician, plant personnel, and jobsite personnel shall have the ability to contact the Level II PCC Technician by cellular phone, two-way radio, or other methods approved by the Engineer.

For a mixture which is produced and placed with a mobile portland cement concrete plant as defined in Article 1103.04, a Level II PCC Technician shall be provided. The Level II PCC Technician shall be present at all times during mixture production and placement. However, the Level II PCC Technician may request to be available if

operations are satisfactory. Approval shall be obtained from the Engineer, and jobsite personnel shall have the ability to contact the Level II PCC Technician by cellular phone, two-way radio, or other methods approved by the Engineer.

A Concrete Tester, Mixture Aggregate Technician, and Aggregate Technician may provide assistance with sampling and testing. A Gradation Technician may provide assistance with testing. A Concrete Tester shall be supervised by a Level I or Level II PCC Technician. A Gradation Technician shall be supervised by a Level II PCC Technician, Mixture Aggregate Technician, or Aggregate Technician.

- (2) Required Plant Tests. Sampling and testing shall be performed at the plant, or at a location approved by the Engineer, to control the production of a mixture. The required minimum Contractor plant sampling and testing is indicated in Article 1020.16(g) Schedule A.
- (3) Required Field Tests. Sampling and testing shall be performed at the jobsite to control the production of a mixture, and to comply with specifications for placement. For standard curing, after initial curing, and for strength testing; the location shall be approved by the Engineer. The required minimum Contractor jobsite sampling and testing is indicated in Article 1020.16(g), Schedule B.
- (d) Quality Assurance by Engineer. The Engineer will perform quality assurance tests on independent samples and split samples. An independent sample is a field sample obtained and tested by only one party. A split sample is one of two equal portions of a field sample, where two parties each receive one portion for testing. The Engineer may request the Contractor to obtain a split sample. Aggregate split samples and any failing strength specimen shall be retained until permission is given by the Engineer for disposal. The results of all quality assurance tests by the Engineer will be made available to the Contractor. However, Contractor split sample test results shall be provided to the Engineer before Department test results are revealed. The Engineer's quality assurance independent sample and split sample testing is indicated in Article 1020.16(g), Schedule C.
 - (1) Strength Testing. For strength testing, Article 1020.09 shall apply, except the Contractor and Engineer strength specimens may be placed in the same field curing box for initial curing and may be cured in the same water storage tank for final curing.
 - (2) Comparing Test Results. Differences between the Engineer's and the Contractor's split sample test results will be considered reasonable if within the following limits:

| Test Parameter | Acceptable Limits of Precision |
|----------------------|-----------------------------------|
| Slump | 0.75 in. (20 mm) |
| Air Content | 0.9% |
| Compressive Strength | 900 psi (6200 kPa) |

| Flexural Strength | 90 psi (620 kPa) |
|--|---------------------------|
| Slump Flow (Self-Consolidating Concrete (SCC)) | 1.5 in. (40 mm) |
| Visual Stability Index (SCC) | Not Applicable |
| J-Ring (SCC) | 1.5 in. (40 mm) |
| L-Box (SCC) | 10 % |
| Hardened Visual Stability Index (SCC) | Not Applicable |
| Dynamic Segregation Index (SCC) | 1.0 % |
| Flow (Controlled Low-Strength Material (CLSM)) | 1.5 in. (40 mm) |
| Strength (Controlled Low-Strength Material (CLSM)) | 40 psi (275 kPa) |
| | See "Guideline for Sample |
| Aggregate Gradation | Comparison" in Appendix |
| | "A" of the Manual of Test |
| | Procedures for Materials. |

When acceptable limits of precision have been met, but only one party is within specification limits, the failing test shall be resolved before the material may be considered for acceptance.

(3)Test Results and Specification Limits.

- a. Split Sample Testing. If either the Engineer's or the Contractor's split sample test result is not within specification limits, and the other party is within specification limits; immediate retests on a split sample shall be performed for slump, air content, slump flow, visual stability index, J-Ring, L-Box, dynamic segregation index, flow (CLSM), or aggregate gradation. A passing retest result by each party will require no further action. If either the Engineer's or Contractor's slump, air content, slump flow, visual stability index, J-Ring, L-Box, dynamic segregation index, flow (CLSM), or aggregate gradation split sample retest result is a failure; or if either the Engineer's or Contractor's strength or hardened visual stability index test result is a failure, and the other party is within specification limits; the following actions shall be initiated to investigate the test failure:
 - 1. The Engineer and the Contractor shall investigate the sampling method, test procedure, equipment condition, equipment calibration, and other factors.
 - 2. The Engineer or the Contractor shall replace test equipment, as determined by the Engineer.
 - 3. The Engineer and the Contractor shall perform additional testing on split samples, as determined by the Engineer.

For aggregate gradation, jobsite slump, jobsite air content, jobsite slump flow, jobsite visual stability index, jobsite J-Ring, jobsite L-Box, jobsite dynamic segregation index, and jobsite flow (CLSM); if the failing split sample test result is not resolved according to 1., 2., or 3., and the mixture has not been placed, the Contractor shall reject the material; unless the Engineer accepts the material for

incorporation in the work according to Article 105.03. If the mixture has already been placed, or if a failing strength or hardened visual stability index test result is not resolved according to 1., 2., or 3., the material will be considered unacceptable.

If a continued trend of difference exists between the Engineer's and the Contractor's split sample test results, or if split sample test results exceed the acceptable limits of precision, the Engineer and the Contractor shall investigate according to items 1., 2., and 3.

- b. Independent Sample Testing. For aggregate gradation, jobsite slump, jobsite air content jobsite slump flow, jobsite visual stability index, jobsite J-Ring, jobsite L-Box, jobsite dynamic segregation index, jobsite flow (CLSM); if the result of a quality assurance test on a sample independently obtained by the Engineer is not within specification limits, and the mixture has not been placed, the Contractor shall reject the material, unless the Engineer accepts the material for incorporation in the work according to Article 105.03. If the mixture has already been placed or the Engineer obtains a failing strength or hardened visual stability index test result, the material will be considered unacceptable.
- (e) Acceptance by the Engineer. Final acceptance will be based on the Standard Specifications and the following:
 - (1) The Contractor's compliance with all contract documents for quality control.
 - (2) Validation of Contractor quality control test results by comparison with the Engineer's quality assurance test results using split samples. Any quality control or quality assurance test determined to be flawed may be declared invalid only when reviewed and approved by the Engineer. The Engineer will declare a test result invalid only if it is proven that improper sampling or testing occurred. The test result is to be recorded and the reason for declaring the test invalid will be provided by the Engineer.
 - (3) Comparison of the Engineer's quality assurance test results with specification limits using samples independently obtained by the Engineer.

The Engineer may suspend mixture production, reject materials, or take other appropriate action if the Contractor does not control the quality of concrete, cement aggregate mixture II, or controlled low-strength material for acceptance. The decision will be determined according to (1), (2), or (3).

- (f) Documentation.
 - (1) Records. The Contractor shall be responsible for documenting all observations, inspections, adjustments to the mix design, test results, retest results, and corrective actions in a bound hardback field book, bound hardback diary, or appropriate

Department form, which shall become the property of the Department. The documentation shall include a method to compare the Engineer's test results with the Contractor's results. The Contractor shall be responsible for the maintenance of all permanent records whether obtained by the Contractor, the consultants, the subcontractors, or the producer of the mixture. The Contractor shall provide the Engineer full access to all documentation throughout the progress of the work.

The Department's form MI 504M, form BMPR MI654, and form BMPR MI655 shall be completed by the Contractor, and shall be submitted to the Engineer weekly or as required by the Engineer. A correctly completed form MI 504M, form BMPR MI654, and form BMPR MI655 are required to authorize payment by the Engineer, for applicable pay items.

- (2) Delivery Truck Ticket. The following information shall be recorded on each delivery ticket or in a bound hardback field book: initial revolution counter reading (final reading optional) at the jobsite, if the mixture is truck-mixed; time discharged at the jobsite; total amount of each admixture added at the jobsite; and total amount of water added at the jobsite.
- (g) Basis of Payment and Schedules. Quality Control/Quality Assurance of portland cement concrete mixtures will not be paid for separately, but shall be considered as included in the cost of the various concrete contract items.

| CONTRACTOR PLANT SAMPLING AND TESTING | | | |
|--|---|--|---|
| Item | Test | Frequency | IL Modified AASHTO or Department Test Method ^{1/} |
| Aggregates (Arriving at Plant) | Gradation ^{2/} | As needed to check source for each gradation number | 2, 11, 27, and 248 |
| Aggregates (Stored at Plant in Stockpiles or Bins) | Gradation ^{2/} | 2,500 cu yd (1,900 cu m) for each gradation number ^{3/} | 2, 11, 27, and 248 |
| Aggregates (Stored at Plant in Stockpiles or Bins) | Moisture ^{4/} : Fine Aggregate | Once per week for moisture sensor, otherwise daily for each gradation number | Flask, Dunagan, Pychnometer Jar, or 255 |
| | Moisture ^{4/} : Coarse Aggregate | As needed to control production for each gradation number | Dunagan, Pychnometer Jar, or 255 |
| Mixture ^{5/} | Slump Air Content Unit Weight / Yield Slump Flow (SCC) Visual Stability Index (SCC) J-Ring (SCC) ^{6/} L-Box (SCC) ^{6/} Temperature | As needed to control production | T 141 and T 119 T 141 and T 152 or T 196 T 141 and T 121 SCC-1 and SCC-2 SCC-1 and SCC-2 SCC-1 and SCC-3 SCC-1 and SCC-4 T 141 and T 309 |
| Mixture (CLSM) 7/ | Flow Air Content Temperature | As needed to control production | Illinois Test Procedure 307 |

SCHEDULE A

- 1/ Refer to the Department's "Manual of Test Procedures for Materials".
- 2/ All gradation tests shall be washed. Testing shall be completed no later than 24 hours after the aggregate has been sampled.
- 3/ One per week (Sunday through Saturday) minimum unless the stockpile has not received additional aggregate material since the previous test.

One per day minimum for a bridge deck pour unless the stockpile has not received additional aggregate material since the previous test. The sample shall be taken and testing completed prior to the pour. The bridge deck aggregate sample may be taken the day before the pour or as approved by the Engineer.

4/ If the moisture test and moisture sensor disagree by more than 0.5 percent, retest. If the difference remains, adjust the moisture sensor to an average of two or more moisture tests. The Department's "Water/Cement Ratio Worksheet" form shall be completed when applicable. 5/ The Contractor may also perform strength testing according to Illinois Modified AASHTO T 141, T 23, and T 22 or T 177; or water content testing according to Illinois Modified AASHTO T 318.

The Contractor may also perform other available self-consolidating concrete (SCC) tests at the plant to control mixture production.

- 6/ The Contractor shall select the J-Ring or L-Box test for plant sampling and testing.
- 7/ The Contractor may also perform strength testing according to Illinois Test Procedure 307.

SCHEDULE B

| CONTRACTOR JOBSITE SAMPLING & TESTING 1/ | | | |
|---|---|---|---|
| Item | Measured Property | Random Sample Testing Frequency per Mix Design and per Plant ^{2/} | IL Modified AASHTO Test Method |
| Pavement, Shoulder, Base Course, | Slump ^{3/4/} | 1 per 500 cu yd (400 cu m) or minimum 1/day | T 141 and T 119 |
| Base Course Widening, Driveway Pavement, | Air Content ^{3/ 5/} | 1 per 100 cu yd (80 cu m) or minimum 1/day | T 141 and T 152 or T 196 |
| Railroad Crossing, Cement Aggregate Mixture II | Compressive Strength ^{7/ 8/} or | 1 per 1250 cu yd (1000 cu m) or | T 141, T 22 and T 23 or |
| | Flexural Strength ^{7/ 8/} | minimum 1/day | T 141, T 177 and T 23 |
| Bridge Approach Slab ^{9/} , Bridge Deck ^{9/} , | Slump ^{3/4/} | 1 per 50 cu yd (40 cu m) or minimum 1/day | T 141 and T 119 |
| Bridge Deck Overlay ^{9/} , Superstructure ^{9/} , | Air Content 3/ 5/ 6/ | 1 per 50 cu yd (40 cu m) or minimum 1/day | T 141 and T 152 or T 196 |
| Substructure, Culvert, Miscellaneous Drainage Structures, Retaining Wall, Building Wall, Drilled Shaft Pile & Encasement Footing, Foundation, Pavement Patching, Structural Repairs | Compressive Strength ^{7/ 8/} or Flexural Strength ^{7/ 8/} | 1 per 250 cu yd (200 cu m) or minimum 1/day | T 141, T 22 and T 23 or T 141, T 177 and T 23 |
| Seal Coat | Slump ^{3/} | 1 per 250 cu yd (200 cu m) or minimum 1/day | T 141 and T 119 |
| | Air Content ^{3/ 5/ 6/} | 1 per 250 cu yd (200 cu m) or minimum 1/day when air is entrained | T 141 and T 152 or T 196 |
| | Compressive Strength ^{7/ 8/} or Flexural | 1 per 250 cu yd (200 cu m) or minimum 1/day | T 141, T 22 and T 23 or T 141, T 177 and |
| | Strength 7/8/ | initiant 1/day | T 23 |

| CONTRACTOR JOBSITE SAMPLING & TESTING 1/ | | | |
|---|--|--|--|
| Curb, Gutter, Median, | Slump ^{3/4/} | 1 per 100 cu yd (80 cu m) or minimum 1/day | T 141 and T 119 |
| Barrier, Sidewalk, Slope Wall, | Air Content ^{3/ 5/ 6/} | 1 per 50 cu yd (40 cu m) or minimum 1/day | T 141 and T 152 or T 196 |
| Paved Ditch, Fabric Formed Concrete Revetment Mat ^{10/} , Miscellaneous Items, Incidental Items | Compressive Strength ^{7/8/} or Flexural Strength ^{7/8/} | 1 per 400 cu yd (300 cu m) or minimum 1/day | T 141, T 22 and T 23 or T 141, T 177 and T 23 |
| The Item will use a Self- Consolidating Concrete Mixture | Slump Flow ^{3/} VSI ^{3/} J-Ring ^{3/11/} L-Box ^{3/11/} | Perform at same frequency that is specified for the Item's slump | SCC-1 & SCC-2 SCC-1 & SCC-2 SCC-1 & SCC-3 SCC-1 & SCC-4 |
| The Item will use a Self- Consolidating Concrete Mixture | HVSI '2' | Minimum 1/day at start of production for that day | SCC-1 and SCC-6 |
| The Item will use a Self- Consolidating Concrete Mixture | Dynamic Segregation Index (DSI) | Minimum 1/week at start of production for that week | SCC-1 and SCC-8 (Option C) |
| The Item will use a Self- Consolidating Concrete Mixture | Air Content ^{3/ 5/ 6/} | Perform at same frequency that is specified for the Item's air content | SCC-1 and T 152 or T 196 |
| The Item will use a Self- Consolidating Concrete Mixture | Compressive Strength 7/ 8/ or Flexural Strength ^{7/ 8/} | Perform at same frequency that is specified for the Item's strength | SCC-1, T 22 and T 23 or SCC-1, T 177 and T 23 |
| All | Temperature ^{3/} | As needed to control production | T 141 and T 309 |
| Controlled Low-Strength Material (CLSM) | Flow, Air Content, Compressive Strength (28-day) ^{13/} , and Temperature | First truck load delivered and as needed to control production thereafter | Illinois Test Procedure 307 |

1/ Sampling and testing of small quantities of curb, gutter, median, barrier, sidewalk, slope wall, paved ditch, miscellaneous items, and incidental items may be waived by the Engineer if requested by the Contractor. However, quality control personnel are still required according to Article 1020.16(c)(1) The Contractor shall also provide recent evidence that similar material has been found to be satisfactory under normal sampling and testing procedures. The total quantity that may be waived for testing shall not exceed 100 cu yd (76 cu m) per contract.

If the Contractor's or Engineer's test result for any jobsite mixture test is not within the specification limits, all subsequent truck loads delivered shall be tested by the Contractor until the problem is corrected.

2/ If one mix design is being used for several construction items during a day's production, one testing frequency may be selected to include all items. The construction items shall have the same slump, air content, and water/cement ratio specifications. For self-consolidating concrete, the construction items shall have the same slump flow, visual stability index, J-Ring, L-Box, air content, and water/cement ratio specifications. The frequency selected shall equal or exceed the testing required for the construction item.

One sufficiently sized sample shall be taken to perform the required test(s). Random numbers shall be determined according to the Department's "Method for Obtaining Random Samples for Concrete". The Engineer will provide random sample locations.

- 3/ The temperature, slump, and air content tests shall be performed on the first truck load delivered, for each pour. For self consolidating concrete, the temperature, slump flow, visual stability index, J-Ring or L-Box, and air content tests shall be performed on the first truck load delivered, for each pour. Unless a random sample is required for the first truck load, testing the first truck load does not satisfy random sampling requirements.
- 4/ The slump random sample testing frequency shall be a minimum 1/day for a construction item which is slipformed.
- 5/ If a pump or conveyor is used for placement, a correction factor shall be established to allow for a loss of air content during transport. The first three truck loads delivered shall be tested, before and after transport by the pump or conveyor, to establish the correction factor. Once the correction is determined, it shall be re-checked after an additional 50 cu yd (40 cu m) is pumped, or an additional 100 cu yd (80 cu m) is conveyored. This shall continue throughout the pour. If the re-check indicates the correction factor has changed, a minimum of two truckloads is required to re-establish the correction factor. The correction factor shall also be re-established when significant changes in temperature, distance, pump or conveyor arrangement, and other factors have occurred. If the correction factor is >3.0 percent, the Contractor shall take corrective action to reduce the loss of air content during transport by the pump or conveyor. The Contractor shall record all air content test results, correction factors and corrected air contents. The corrected air contents shall be reported on form BMPR MI654.
- 6/ If the Contractor's or Engineer's air content test result is within the specification limits, and 0.2 percent or closer to either limit, the next truck load delivered shall be tested by the Contractor. For example, if the specified air content range is 5.0 to 8.0 percent and the test result is 5.0, 5.1, 5.2, 7.8, 7.9 or 8.0 percent, the next truck shall be tested by the Contractor.
- 7/ The test of record for strength shall be the day indicated in Article 1020.04. For cement aggregate mixture II, a strength requirement is not specified and testing is not required. Additional strength testing to determine early falsework and form removal, early pavement or bridge opening to traffic, or to monitor strengths is at the discretion of the Contractor. Strength shall be defined as the average of at least two cylinder or two beam breaks for field tests.

- 8/ In addition to the strength test, a slump test, air content test, and temperature test shall be performed on the same sample. For self-consolidating concrete, a slump flow test, visual stability index test, J-Ring or L-Box test, air content test, and temperature test shall be performed on the same sample as the strength test. For mixtures pumped or conveyored, the Contractor shall sample according to Illinois Modified AASHTO T 141.
- 9/ The air content test will be required for each delivered truck load.
- 10/ For fabric formed concrete revetment mat, the slump test is not required and the flexural strength test is not applicable.
- 11/ The Contractor shall select the J-Ring or L-Box test for jobsite sampling and testing.
- 12/ In addition to the hardened visual stability index (HVSI) test, a slump flow test, visual stability index (VSI) test, J-Ring or L-Box test, air content test, and temperature test shall be performed on the same sample. The Contractor shall retain all hardened visual stability index cut cylinder specimens until the Engineer notifies the Contractor that the specimens may be discarded.
- 13/ The test of record for strength shall be the day indicated in Article 1019.04. In addition to the strength test, a flow test, air content test, and temperature test shall be performed on the same sample. The strength test may be waived by the Engineer if future removal of the material is not a concern.

SCHEDULE C

| ENGINEER QUALITY ASSURANCE INDEPENDENT SAMPLE TESTING | | |
|---|--|---------------------------------|
| Location | Measured Property | Testing Frequency ^{1/} |
| Plant | Gradation of aggregates stored in stockpiles or bins, Slump and Air Content | As determined by the Engineer. |
| Jobsite | Slump, Air Content, Slump Flow, Visual Stability Index, J-Ring, L-Box, Hardened Visual Stability Index, Dynamic Segregation Index and Strength | As determined by the Engineer. |
| | Flow, Air Content, Strength (28-day), and Dynamic Cone Penetration for Controlled Low-Strength Material (CLSM) | As determined by the Engineer |

| El | ENGINEER QUALITY ASSURANCE SPLIT SAMPLE TESTING | | |
|----------|---|---|--|
| Location | Measured Property | Testing Frequency ^{1/} | |
| Plant | Gradation of aggregates stored in stockpiles or bins ^{2/} | At the beginning of the project, the first test performed by the Contractor. Thereafter, a minimum of 10% of total tests required of the Contractor will be performed per aggregate gradation number and per plant. | |
| | Slump and Air Content | As determined by the Engineer. | |
| Jobsite | Slump ^{2/} , Air Content ^{2/3/} , Slump Flow ^{2/} , Visual Stability Index ^{2/} , J-Ring ^{2/} and L-box ^{2/} Hardened Visual Stability Index ^{2/} | At the beginning of the project, the first three tests performed by the Contractor. Thereafter, a minimum of 20% of total tests required of the Contractor will be performed per plant, which will include a minimum of one test per mix design. As determined by the Engineer. | |
| | Dynamic Segregation Index ^{2/} | As determined by the Engineer. | |
| | Strength ^{2/} | At the beginning of the project, the first test performed by the Contractor. Thereafter, a minimum of 20% of total tests required of the Contractor will be performed per plant, which will include a minimum of one test per mix design. | |
| | Flow, Air Content, and Strength (28-day) for Controlled Low-Strength Material (CLSM) | As determined by the Engineer. | |

- 1/ The Engineer will perform the testing throughout the period of quality control testing by the Contractor.
- 2/ The Engineer will witness and take immediate possession of or otherwise secure the Department's split sample obtained by the Contractor.
- 3/ Before transport by pump or conveyor, a minimum of 20 percent of total tests required of the Contractor will be performed per mix design and per plant. After transport by pump or conveyor, a minimum of 20 percent of total tests required of the Contractor will be performed per mix design and per plant.

SCHEDULE D

CONCRETE QUALITY CONTROL AND QUALITY ASSURANCE DOCUMENTS

- (a) Model Quality Control Plan for Concrete Production (*)
- (b) Qualifications and Duties of Concrete Quality Control Personnel (*)
- (c) Development of Gradation Bands on Incoming Aggregate at Mix Plants (*)
- (d) Required Sampling and Testing Equipment for Concrete (*)
- (e) Method for Obtaining Random Samples for Concrete (*)
- (f) Calibration of Concrete Testing Equipment (BMPR PCCQ01 through BMPR PCCQ09) (*)
- (g) Water/Cement Ratio Worksheet (BMPR PCCW01) (*)
- (h) Field/Lab Gradations (MI 504M) (*)
- (i) Concrete Air, Slump and Quantity (BMPR MI654) (*)
- (j) P.C. Concrete Strengths (BMPR MI655) (*)
- (k) Aggregate Technician Course or Mixture Aggregate Technician Course (*)
- (I) Portland Cement Concrete Tester Course (*)
- (m) Portland Cement Concrete Level I Technician Course Manual of Instructions for Concrete Testing (*)
- (n) Portland Cement Concrete Level II Technician Course Manual of Instructions for Concrete Proportioning (*)
- (o) Portland Cement Concrete Level III Technician Course Manual of Instructions for Design of Concrete Mixtures (*)
- (p) Manual of Test Procedures for Materials
- * Refer to Appendix C of the Manual of Test Procedures for Materials for more information."

80281

RECLAIMED ASPHALT PAVEMENT AND RECLAIMED ASPHALT SHINGLES (BDE)

Effective: November 1, 2012 Revise: January 1, 2013

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 the FRAP will be incorporated.

| Mixture FRAP will be used in: | Sieve Size that 100% of FRAF | |
|-------------------------------|------------------------------|--|
| | 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 approved 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 $a \le 1000$ 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_{mm}. Individual extraction test results, when compared to the averages, will be accepted if within the tolerances listed below.

| Parameter | FRAP/Homogeneous /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 _{mm} | ± 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.

| HMA Mixtures ^{1/, 2/} | RAP/RAS Maximum ABR % | | |
|--------------------------------|---|----|------------------|
| Ndesign | Binder/Leveling Surface Polymer Modifie | | Polymer Modified |
| | Binder | | |
| 30 | 30 | 30 | 10 |
| 50 | 25 | 15 | 10 |
| 70 | 15 | 10 | 10 |
| 90 | 10 | 10 | 10 |
| 105 | 10 | 10 | 10 |

RAP/RAS Maximum Asphalt Binder Replacement (ABR) Percentage

- 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 tables listed below for the given N design.

Level 1 - FRAP/RAS Maximum Asphalt Binder Replacement (ABR) Percentage

| HMA Mixtures | Level 1 - FRAP/RAS Maximum ABR % | | | |
|--------------|---|----|----|--|
| Ndesign | Binder/Leveling Surface Polymer Modified 3/, 4/ | | | |
| 30 | 35 | 35 | 10 | |

| 50 | 30 | 25 | 10 |
|-----|----|----|----|
| 70 | 25 | 20 | 10 |
| 90 | 20 | 15 | 10 |
| 105 | 10 | 10 | 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 20 percent.

| HMA Mixtures | Level 2 – FRAP/RAS Maximum ABR % | | |
|--------------|----------------------------------|---------|---------------------------------|
| Ndesign | Binder/Leveling Binder | Surface | Polymer Modified ^{3/,} |
| 30 | 40 | 40 | 10 |
| 50 | 40 | 30 | 10 |
| 70 | 30 | 20 | 10 |
| 90 | 30 | 20 | 10 |
| 105 | 30 | 15 | 10 |

Level 2 – FRAP/RAS Maximum Asphalt Binder Replacement (ABR) Percentage

- 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 above detailed requirements.

FRAP/RAS mix designs exceeding the Level 1 FRAP/RAS Maximum ABR percentages shall be tested prior to submittal for verification, according to Illinois Modified AASHTO T 324 (Hamburg Wheel) and shall meet the following requirements.

| Asphalt Binder Grade | # Repetitions | Max. Rut Depth |
|----------------------|---------------|----------------|
| | | in. (mm) |
| PG76-XX | 20,000 | 1/2 (12.5) |
| PG70-XX | 15,000 | 1/2 (12.5) |
| PG64-XX | 7,500 | 1/2 (12.5) |
| PG58-XX | 5,000 | 1/2 (12.5) |

- (a) RAP/FRAP and/or RAS. RAP/FRAP and/or RAS designs shall be submitted for volumetric 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 2.500 shall be used for mix design purposes.

1031.08 HMA Production. Mixture production where the FRAP/RAS ABR percentage exceeds the Level 1 limits, shall be sampled within the first 500 tons (450 metric tons) on the first day of production with a split reserved for the Department. The mix sample shall be tested according to the Illinois Modified AASHTO T 324 and shall meet the requirements specified herein. Mix production shall not exceed 1500 tons (1350 metric tons) or one day's production, whichever comes first, until the testing is completed and the mixture is found to be in conformance. The requirement to cease mix production may be waived if the plant produced mixture conformance is demonstrated prior to start of mix production for a State contract.

(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.

When producing HMA containing RAS, a positive dust control system shall be utilized.

- (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).
- f. RAP/FRAP/RAS weight to the nearest pound (kilogram).
- g. Virgin asphalt binder weight to the nearest pound (kilogram).
- h. 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."

80306

REMOVAL AND DISPOSAL OF REGULATED SUBSTANCES (BDE)

Effective: January 1, 2012 Revised: November 2, 2012

Revise Article 669.01 of the Standard Specifications to read:

"669.01 Description. This work shall consist of the transportation and proper disposal of contaminated soil and water. This work shall also consist of the removal, transportation, and proper disposal of underground storage tanks (UST), their content and associated underground piping to the point where the piping is above the ground, including determining the content types and estimated quantities."

Revise Article 669.08 of the Standard Specifications to read:

"669.08 Contaminated Soil and/or Groundwater Monitoring. The Contractor shall hire a qualified environmental firm to monitor the area containing the regulated substances. The affected area shall be monitored with a photoionization detector (PID) utilizing a lamp of 10.6eV or greater or a flame ionization detector (FID). Any field screen reading on the PID or FID in excess of background levels indicates the potential presence of contaminated material requiring handling as a non-special waste, special waste, or hazardous waste. No excavated soils can be taken to a clean construction and demolition debris (CCDD) facility or an uncontaminated soil fill operation with detectable PID or FID meter readings that are above background. The PID or FID meter shall be calibrated on-site and background level readings taken and recorded daily. All testing shall be done by a qualified engineer/technician. Such testing and monitoring shall be included in the work. The Contractor shall identify the exact limits of removal of non-special waste, special waste, or hazardous waste. All limits shall be approved by the Engineer prior to excavation. The Contractor shall take all necessary precautions.

Based upon the land use history of the subject property and/or PID or FID readings indicating contamination, a soil or groundwater sample shall be taken from the same location and submitted to an approved laboratory. Soil or groundwater samples shall be analyzed for the contaminants of concern, including pH, based on the property's land use history or the parameters listed in the maximum allowable concentration (MAC) for chemical constituents in uncontaminated soil established pursuant to Subpart F of 35 Illinois Administrative Code 1100.605. The analytical results shall serve to document the level of soil contamination. Soil and groundwater samples may be required at the discretion of the Engineer to verify the level of soil and groundwater contamination.

Samples shall be grab samples (not combined with other locations). The samples shall be taken with decontaminated or disposable instruments. The samples shall be placed in sealed containers and transported in an insulated container to the laboratory. The container shall maintain a temperature of 39 °F (4 °C). All samples shall be clearly labeled. The labels shall indicate the sample number, date sampled, location and elevation, and any other observations.

The laboratory shall use analytical methods which are able to meet the lowest appropriate practical quantitation limits (PQL) or estimated quantitation limit (EQL) specified in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods", EPA Publication No. SW-846 and "Methods for the Determination of Organic Compounds in Drinking Water", EPA, EMSL, EPA-600/4-88/039. For parameters where the specified cleanup objective is below the acceptable detection limit (ADL), the ADL shall serve as the cleanup objective. For other parameters the ADL shall be equal to or below the specified cleanup objective."

Replace the first two paragraphs of Article 669.09 of the Standard Specifications with the following:

"669.09 Contaminated Soil and/or Groundwater Management and Disposal. The management and disposal of contaminated soil and/or groundwater shall be according to the following:

- (a) Soil Analytical Results Exceed Most Stringent MAC. When the soil analytical results indicate that detected levels exceed the most stringent maximum allowable concentration (MAC) for chemical constituents in uncontaminated soil established pursuant to Subpart F of 35 Illinois Administrative Code 1100.605, the soil shall be managed as follows:
 - (1) When analytical results indicate inorganic chemical constituents exceed the most stringent MAC but they are still considered within area background levels by the Engineer, the excavated soil can be utilized within the construction limits as fill, when suitable. Such soil excavated for storm sewers can be placed back into the excavated trench as backfill, when suitable, unless trench backfill is specified. If the soils cannot be utilized within the construction limits, they shall be managed and disposed of off-site as a non-special waste, special waste, or hazardous waste as applicable.
 - (2) When analytical results indicate chemical constituents exceed the most stringent MAC but do not exceed the MAC for a Metropolitan Statistical Area (MSA) County, the excavated soil can be utilized within the construction limits as fill, when suitable, or managed and disposed of off-site as "uncontaminated soil" at a CCDD facility or an uncontaminated soil fill operation within an MSA County provided the pH of the soil is within the range of 6.25 - 9.0, inclusive.
 - (3) When analytical results indicate chemical constituents exceed the most stringent MAC but do not exceed the MAC for an MSA County excluding Chicago, or the MAC within the Chicago corporate limits, the excavated soil can be utilized within the construction limits as fill, when suitable, or managed and disposed of off-site as "uncontaminated soil" at a CCDD facility or an uncontaminated soil fill operation within an MSA County excluding Chicago or within the Chicago corporate limits provided the pH of the soil is within the range of 6.25 - 9.0, inclusive.

- (4) When analytical results indicate chemical constituents exceed the most stringent MAC but do not exceed the MAC for an MSA County excluding Chicago, the excavated soil can be utilized within the construction limits as fill, when suitable, or managed and disposed of off-site as "uncontaminated soil" at a CCDD facility or an uncontaminated soil fill operation within an MSA County excluding Chicago provided the pH of the soil is within the range of 6.25 - 9.0, inclusive.
- (5) When the Engineer determines soil cannot be managed according to Articles 669.09(a)(1) through (a)(4) above, the soil shall be managed and disposed of off-site as a non-special waste, special waste, or hazardous waste as applicable.
- (b) Soil Analytical Results Do Not Exceed Most Stringent MAC. When the soil analytical results indicate that detected levels do not exceed the most stringent MAC but the pH of the soil is less than 6.25 or greater than 9.0, the excavated soil can be utilized within the construction limits or managed and disposed of off-site as "uncontaminated soil" according to Article 202.03. However the excavated soil cannot be taken to a CCDD facility or an uncontaminated soil fill operation.
- (c) Groundwater. When groundwater analytical results indicate the detected levels are above Appendix B, Table E of 35 Illinois Administrative Code 742, the most stringent Tier 1 Groundwater Remediation Objectives for Groundwater Component of the Groundwater Ingestion Route for Class 1 groundwater, the groundwater shall be managed off-site as a special waste.

All groundwater encountered within lateral trenches may be managed within the trench and allowed to infiltrate back into the ground. If the groundwater cannot be managed within the trench it must be removed as a special or hazardous waste. The Contractor is prohibited from managing groundwater within the trench by discharging it through any existing or new storm sewer. The Contractor shall install backfill plugs within the area of groundwater contamination.

One backfill plug shall be placed down gradient to the area of groundwater contamination. Backfill plugs shall be installed at intervals not to exceed 50 ft (15 m). Backfill plugs are to be 4 ft (1.2 m) long, measured parallel to the trench, full trench width and depth. Backfill plugs shall not have any fine aggregate bedding or backfill, but shall be entirely cohesive soil or any class of concrete. The Contractor shall provide test data that the material has a permeability of less than 10⁻⁷ cm/sec according to ASTM D 5084, Method A or per another test method approved by the Engineer."

Revise Article 669.14 of the Standard Specifications to read:

"669.14 Final Environmental Construction Report. At the end of the project, the Contractor will prepare and submit three copies of the Environmental Construction Report on the activities conducted during the life of the project, one copy shall be submitted to the Resident Engineer, one copy shall be submitted to the District's Environmental Studies Unit, and one copy shall be submitted with an electronic copy in Adode.pdf format to the Geologic

and Waste Assessment Unit, Bureau of Design and Environment, IDOT, 2300 South Dirksen Parkway, Springfield, Illinois 62764. The technical report shall include all pertinent information regarding the project including, but not limited to:

- (a) Measures taken to identify, monitor, handle, and dispose of soil or groundwater containing regulated substances, to prevent further migration of regulated substances, and to protect workers,
- (b) Cost of identifying, monitoring, handling, and disposing of soil or groundwater containing regulated substances, the cost of preventing further migration of regulated substances, and the cost for worker protection from the regulated substances. All cost should be in the format of the contract pay items listed in the contract plans (identified by the preliminary environmental site investigation (PESA) site number),
- (c) Plan sheets showing the areas containing the regulated substances,
- (d) Field sampling and testing results used to identify the nature and extent of the regulated substances,
- (e) Waste manifests (identified by the preliminary environmental site investigation (PESA) site number) for special or hazardous waste disposal, and
- (f) Landfill tickets (identified by the preliminary environmental site investigation (PESA) site number) for non-special waste disposal."

Revise the second paragraph of Article 669.16 of the Standard Specifications to read:

"The transportation and disposal of soil and other materials from an excavation determined to be contaminated will be paid for at the contract unit price per cubic yard (cubic meter) for NON-SPECIAL WASTE DISPOSAL, SPECIAL WASTE DISPOSAL, or HAZARDOUS WASTE DISPOSAL."

80283

REMOVAL AND DISPOSAL OF SURPLUS MATERIALS (BDE)

Effective: November 2, 2012

Revise the first four paragraphs of Article 202.03 of the Standard Specifications to read:

"202.03 Removal and Disposal of Surplus, Unstable, Unsuitable, and Organic Materials. Suitable excavated materials shall not be wasted without permission of the Engineer. The Contractor shall dispose of all surplus, unstable, unsuitable, and organic materials, in such a manner that public or private property will not be damaged or endangered.

Suitable earth, stones and boulders naturally occurring within the right-of-way may be placed in fills or embankments in lifts and compacted according to Section 205. Broken concrete without protruding metal bars, bricks, rock, stone, reclaimed asphalt pavement with no expansive aggregate, or uncontaminated dirt and sand generated from construction or demolition activities may be used in embankment or in fill. If used in fills or embankments, these materials shall be placed and compacted to the satisfaction of the Engineer; shall be buried under a minimum of 2 ft (600 mm) of earth cover (except when the materials include only uncontaminated dirt); and shall not create an unsightly appearance or detract from the natural topographic features of an area. Broken concrete without protruding metal bars, bricks, rock, or stone may be used as riprap as approved by the Engineer. If the materials are used for fill in locations within the right-of-way but outside project construction limits, the Contractor must specify to the Engineer, in writing, how the landscape restoration of the fill areas will be accomplished. Placement of fill in such areas shall not commence until the Contractor's landscape restoration plan is approved by the Engineer.

Aside from the materials listed above, all other construction and demolition debris or waste shall be disposed of in a licensed landfill, recycled, reused, or otherwise disposed of as allowed by State or Federal laws and regulations. When the Contractor chooses to dispose of uncontaminated soil at a clean construction and demolition debris (CCDD) facility or at an uncontaminated soil fill operation, it shall be the Contractor's responsibility to have the pH of the material tested to ensure the value is between 6.25 and 9.0, inclusive. A copy of the pH test results shall be provided to the Engineer.

A permit shall be obtained from IEPA and made available to the Engineer prior to open burning of organic materials (i.e., plant refuse resulting from pruning or removal of trees or shrubs) or other construction or demolition debris. Organic materials originating within the rightof-way limits may be chipped or shredded and placed as mulch around landscape plantings within the right-of-way when approved by the Engineer. Chipped or shredded material to be placed as mulch shall not exceed a depth of 6 in. (150 mm)."

80319

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

Effective: April 2, 2004 Revised: April 1, 2009

<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 has a contract value of \$10,000 or greater.

<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_L = The Materials Cost Index for steel as published by the Engineering News-Record for the month prior to the letting. 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 MPI_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 as part of the contract plans for the following items of work?

| 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: | |

STONE MATRIX ASPHALT (BDE)

Effective: January 1, 2010 Revised: August 1, 2013

<u>Description</u>. This work shall consist of constructing polymer modified 1/2 in. (12.5 mm) stone matrix asphalt (SMA) surface course and binder course. Work shall be according to Sections 406, 407 and 1030 of the Standard Specifications, except as modified herein.

Materials.

Add the following to the end of the first paragraph of Article 1003.03(a) of the Standard Specifications:

"Fine aggregate for SMA shall consist of stone sand, slag sand, or steel slag sand."

Add the following to the end of the first paragraph of Article 1003.03(c) of the Standard Specifications.

"The fine aggregate gradation for SMA shall be FA/FM 20."

Add the following to the end of Article 1004.03(a) of the Standard Specifications:

- "(1) For SMA surface course, the coarse aggregate shall be crushed aggregate meeting the friction requirement specified.
- (2) For SMA binder course, the coarse aggregate shall be crushed aggregate. Steel slag will not be permitted in the binder course."

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

"(b) Quality. For surface courses and binder courses when used as surface course, the coarse aggregate shall be Class B quality or better. For SMA surface and binder courses the coarse aggregate shall be Class B Quality or better. For Class A (seal or cover coat), other binder courses, and surface course IL-9.5L (Low ESAL), the coarse aggregate shall be Class C quality or better. For All Other courses, the coarse aggregate shall be Class D quality or better."

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

"(c) Gradation. The coarse aggregate gradations shall be as listed in the following table.

| 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-25.0 | CA 7 ^{1/} or CA 8 ^{1/} |
| | IL-19.0 | CA 11 ^{1/} |
| | IL-12.5 | CA 16 and/or CA 13 |
| | IL-9.5 | CA 16 |
| HMA Low ESAL | IL-19.0L | CA 11 ^{1/} |
| | IL-9.5L | CA 16 |
| HMA All Other | Stabilized Subbase or Shoulders | CA 6 ^{2/} , CA 10, or CA 12 |
| SMA ^{3/} | 1/2 in. (12.5 mm) Binder & Surface | CA 13, CA 14, CA 16 |

- 1/ CA 16 or CA 13 may be blended with the gradations listed.
- 2/ CA 6 will not be permitted in the top lift of shoulders.
- 3/ The coarse aggregates used shall be capable of being combined with stone sand, slag sand, or steel slag sand meeting the FA/FM 20 gradation and mineral filler to meet the approved mix design and the mix requirements noted herein."

Add the following to Article 1004.03 of the Standard Specifications:

- "(d) Flat and Elongated Particles. For SMA the coarse aggregate shall meet the criteria for Flat and Elongated Particles listed in Illinois Modified AASHTO M 325.
- (e) Absorption. For SMA the coarse aggregate shall also have water absorption ≤ 2.5 percent."

Add the following to Article 1011.01 of the Standard Specifications:

"(c) Additional requirements for SMA. Mineral filler for use in SMA shall be free from organic impurities and have a Plasticity Index \leq 4."

Revise Article 1030.02(g) of the Standard Specifications to read:

"(g) Performance Graded Asphalt Binder (Note 3)1032"

Add the following to Article 1030.02 of the Standard Specifications:

"(h) Fibers (Note 4)"

Add the following notes to Article 1030.02 of the Standard Specifications:

"Note 3. The asphalt binder shall be an SBS PG 76-28 when the SMA is used on a full depth asphalt pavement and a SBS PG76-22 when used as an overlay.

Note 4. 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."

Mix Design.

Add the following below the referenced AASHTO standards in Article 1030.04 of the Standard Specifications:

"The SMA mixture shall be designed according to the following additional Illinois Modified AASHTO references listed below, except as modified herein.

| AASHTO M 325 | Standard Specification for Designing Stone Matrix Asphalt (SMA) | | | |
|--------------|---|--|--|--|
| AASHTO R 46 | Standard Practice for Designing Stone Matrix Asphalt (SMA) | | | |
| AASHTO T 305 | Determination of Draindown Characteristics in Uncompacted Mixtures" | | | |

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

| | "High ESAL, MIXTURE COMPOSITION (% PASSING) ^{1/} | | | | | | | | | |
|----------------------------------|---|-----------------------|-----|----------------------|-----|------------------|--------|------------------|-----|--------------------|
| Sieve | IL-25. | IL-25.0 mm IL-19.0 mm | | IL-12.5 mm IL-9.5 mm | | 5 mm | SMA 4/ | | | |
| Size | min | max | min | max | min | max | min | max | min | max |
| 1 1/2 in (37.5 mm) | | 100 | | | | | | | | |
| 1 in. (25 mm) | 90 | 100 | | 100 | | | | | | |
| 3/4 in. (19 mm) | | 90 | 82 | 100 | | 100 | | | | 100 |
| 1/2 in. (12.5 mm) | 45 | 75 | 50 | 85 | 90 | 100 | | 100 | 90 | 99 |
| 3/8 in. (9.5 mm) | | | | | | 89 | 90 | 100 | 50 | 85 |
| #4 (4.75 mm) | 24 | 42 ^{2/} | 24 | 50 ^{2/} | 28 | 65 | 28 | 65 | 20 | 40 |
| #8 (2.36 mm) | 16 | 31 | 20 | 36 | 28 | 48 ^{3/} | 28 | 48 ^{3/} | 16 | 24 ^{5/} |
| #16 (1.18 mm) | 10 | 22 | 10 | 25 | 10 | 32 | 10 | 32 | | |
| #50 (300 μm) | 4 | 12 | 4 | 12 | 4 | 15 | 4 | 15 | | |
| #100 (150 μm) | 3 | 9 | 3 | 9 | 3 | 10 | 3 | 10 | | |
| #200 (75 μm) | 3.0 | 6.0 | 3.0 | 6.0 | 4.0 | 6.0 | 4.0 | 6.0 | 8.0 | 11.0 ^{6/} |
| Ratio Dust/Asph alt Binder | | 1.0 | | 1.0 | | 1.0 | | 1.0 | | |

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

- 1/ Based on percent of total aggregate weight.
- 2/ The mixture composition shall not exceed 40 percent passing the #4 (4.75 mm) sieve for binder courses with Ndesign \ge 90.
- 3/ The mixture composition shall not exceed 40 percent passing the #8 (2.36 mm) sieve for surface courses with Ndesign \ge 90.
- 4/ The maximum percent passing the 20 μ m sieve shall be ≤3 percent.
- 5/ When establishing the Adjusted Job Mix Formula (AJMF) the #8 (2.36 mm) sieve shall not be adjusted above 24 percent.

6/ Additional minus No. 200 (0.075 mm) material required by the mix design shall be mineral filler."

Add the following to Article 1030.04(b) of the Standard Specifications:

"(5) SMA Mixtures.

| ESAL's (million) | Ndesign | Design Air Voids Target % | Voids in the Mineral Aggregate (VMA), % min. | Voids Filled with Asphalt (VFA), % |
|---------------------|------------------|---------------------------------|--|---------------------------------------|
| ≤ 10 | 50 ^{1/} | 4.0 | 16.0 | 75 – 80 |
| > 10 | 80 ^{2/} | 4.0 | 17.0 | 75 – 80 |

- 1/ Coarse aggregate shall be limestone, dolomite, crushed gravel, diabase, granite, quartzite, sandstone, or steel slag.
- 2/ Coarse aggregate shall be crushed gravel, diabase, granite, quartzite, sandstone, or steel slag."

Plant Requirements.

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

"(13) Requirements for SMA.

a. Mineral Filler. When producing SMA, the mineral filler system shall accurately proportion the large amounts of mineral filler required for the mixture. Alteration or adjustment of the current system may be required. Mineral filler shall not be stored in the same silo as collected dust.

Only dust collected during the production of SMA may be returned to the SMA mixture. Any additional minus No. 200 (0.075 mm) material needed to produce the SMA shall be mineral filler meeting the requirements stated herein. Mineral filler shall not be collected dust.

b. Stabilizing Additive. Adequate dry storage shall be provided for the stabilizing fiber additive. A separate feed system shall be provided to proportion the fiber into the mixture uniformly and in desired quantities. The feed system shall be interlocked with the aggregate feed or weigh system to maintain the correct proportions for all rates of production and batch sizes. The proportion of fibers shall be controlled at all times within ± ten percent of the amount of fibers required. The fiber system shall provide in-process monitoring consisting of either a digital display of output or a printout of the feed-rate, in pounds per minute. Flow indicators or sensing devices for the fiber system shall be provided and interlocked with plant controls so mix production shall be interrupted if fiber introduction fails, or if the output rate is not within the specified tolerances.

- 1. Batch Plant. Stabilizing additive shall be pneumatically added through a separate inlet directly into the weigh hopper above the pugmill. The addition of fiber shall be timed to occur during the hot aggregate charging of the hopper. Adequate mixing time will be required to ensure proper blending of the aggregate and fiber additive. Both the wet and dry mixing times shall each be increased a minimum of five seconds beyond the standard mixing time. The actual mixing time increase shall be determined by the Engineer based on individual plant characteristics. If concentrations of mastic (fiber, AC and fines) are visible behind the paver the batch size shall be reduced in ten percent increments until the problem is alleviated.
- 2. Drum Mix Plant. Stabilizing additive shall be introduced using specialized equipment to mix the asphalt cement with loose fiber at the time of introduction into the drum mixer. This equipment shall be approved by the Engineer. Care shall be taken to ensure the loose fiber does not become entrained in the exhaust system of the plant.

A manufacturer's representative for the fiber and fiber equipment shall be present for the fiber system calibration and mixture startup and shall be available at all times during production and lay-down of the mix.

- c. Hot-mix Storage. SMA mixtures containing steel slag coarse aggregate or coarse aggregate with absorption ≥ 2.0 percent shall have a combined silo storage time plus haul time not less than 1 1/2 hours.
- d. Production Rate. The Bureau of Materials and Physical Research will establish the maximum production rate for SMA based items such as the plant's ability to (1) add mineral filler consistently within 0.3 percent of the target by total weight of mix and (2) thoroughly disperse the stabilizing additive."

<u>QC/QA</u>.

Revise Article 1030.05(d)(4) of the Standard 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 | | | | | | |
|--|-----------------------|----------------------|----------------------|----------------------|--------------------|----------------------|----------------------|
| Parameter | High ESAL Low ESAL | | SN | A | All Other | IL-4 | .75 |
| | Individual Test | Moving Avg. of 4 | Individual Test | Moving Avg. of 4 | Individual Test | Individual Test | Moving Avg. of 4 |
| % Passing: 1/ | | | | | | | |
| 1/2 in. (12.5 mm) | ±6% | ±4% | ±6% | ±4% | ± 15 % | | |
| 3/8 in. (9.5 mm) | | | ±4% | ±3% | | | |
| No. 4 (4.75 mm) | ±5% | ±4% | ±5% | ±4% | ± 10 % | | |
| No. 8 (2.36 mm) | ±5% | ±3% | ±4% | ±2% | | | |
| No. 16 (1.18 mm) | | | | | | ±4% | ±3% |
| No. 30 (600 μm) | ±4% | ± 2.5 % | ±4% | ± 2.5 % | | | |
| Total Dust Content No. 200 (75 μm) | ± 1.5 % | ± 1.0 % | | | ± 2.5 % | ± 1.5 % | ± 1.0 % |
| Asphalt Binder Content | ± 0.3 % | ± 0.2 % | ± 0.2 % | ± 0.1 % | ± 0.5 % | ± 0.3 % | ± 0.2 % |
| Voids | ± 1.2 % | ± 1.0 % | ± 1.2 % | ± 1.0 % | ± 1.2 % | ± 1.2 % | ± 1.0 % |
| VMA | -0.7 % ^{2/} | -0.5 % ^{2/} | -0.7 % ^{2/} | -0.5 % ^{2/} | | -0.7 % ^{2/} | -0.5 % ^{2/} |

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 % ^{1/} | | | |
| IL-9.5, IL-12.5 | Ndesign ≥ 90 | 92.0 - 96.0 % | | | |
| IL-9.5,IL-9.5L, | Ndesign < 90 | 92.5 – 97.4 % | | | |
| IL-12.5 | | | | | |
| IL-19.0, IL-25.0 | Ndesign ≥ 90 | 93.0 - 96.0 % | | | |
| IL-19.0, IL-19.0L, IL-25.0 | Ndesign < 90 | 93.0 – 97.4 % | | | |
| SMA | Ndesign = 50 & 80 | 93.5 – 97.4 % | | | |
| All Other | Ndesign = 30 | 93.0 ^{2/} - 97.4 % | | | |

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

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

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

- 1/ Based on washed ignition oven.
- 2/ Does not apply to IL-4.75."

Replace the first and second paragraphs of Article 1030.06(a) of the Standard Specifications with the following:

"(a) High ESAL, Low ESAL, IL-4.75 and SMA Mixture. During the mixture start-up for High or Low ESAL mixture the Contractor shall follow the QC/QA document "Hot-Mix Asphalt QC/QA Start-Up Procedures". At the start of High or Low ESAL mixture production, QC/QA mixture start-up will be required for the following situations: at the beginning of production of a new mixture design, at the beginning of each production season, and at every plant utilized to produce mixtures, regardless of the mix.

For SMA, a preliminary test strip shall be constructed according to the document "Off-Site Preliminary Test Strip and Modified Start-Up Procedures" at an off-site location approved by the Engineer to determine mix properties, density and laydown characteristics. At the start of SMA production, a modified start-up shall be performed on the jobsite. The modified start-up shall not begin until the Engineer has reviewed, evaluated, and approved the mixture based on the results from the off-site preliminary test strip."

Revise the table in Article 1030.06(a) of the Standard Specifications to read:

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

- 1/ In no case shall the target for the amount passing be greater than the JMF.
- 2/ For SMA, the asphalt binder content shall not be adjusted by more than 0.2 percent."

Transportation.

Add the following after the second paragraph of Article 1030.08 of the Standard Specifications:

"(d) The mixture being placed is SMA."

Construction Requirements.

Add the following to Article 406.06(b) of the Standard Specifications:

- "(3) Special Conditions for SMA
 - a. SMA mixture shall be placed on a dry surface when the temperature of the roadbed is above 50 °F (10 °C).
 - b. SMA shall be placed at a minimum mixture temperature of 310 °F (154 °C) when using SBS PG76-28 and 300 °F (149 °C) when using SBS PG76-22. The mixture temperature shall be measured immediately behind the paver screed."

Revise the last sentence of the third paragraph of Article 406.06(e) of the Standard Specifications to read:

"In no case shall the speed of the paver exceed 50 ft (15 m) per minutes for High and Low ESAL mixes or 30 ft (9 m) per minute for SMA."

Revise Table 1 in Article 406.07(a) of the Standard Specifications to read:

| "TAB | "TABLE 1 - MINIMUM ROLLER REQUIREMENTS FOR HMA | | | | | | |
|--|---|------------------------|--|--|--|--|--|
| | Breakdown Roller (one of the following) | Intermediate Roller | Final Roller (one or more of the following) | Density Requirement | | | |
| Level Binder: (When the density requirements of Article 406.05(c) do not apply.) | P ^{3/} | | V _S , P ^{3/} , T _B , T _F , 3W | To the satisfaction of the Engineer. | | | |
| Binder and Surface ^{1/} Level Binder ^{1/} : (When the density requirements of Article 406.05(c) apply.) | V _D , P ^{3/} , T _B , 3W | P ^{3/} | V _S , T _B , T _F | As specified in Articles: 1030.05(d)(3), (d)(4), and (d)(7). | | | |
| IL-4.75 and SMA ^{4/5/} | Τ _B | | T _F | | | | |
| Bridge Decks 2/ | Τ _Β | | T _F | As specified in Articles: 582.05 and 582.06. | | | |

- 1/ If the average delivery at the job site is 85 ton/hr (75 metric ton/hr) or less, any roller combination may be used provided it includes a steel wheeled roller and the required density and smoothness is obtained.
- 2/ One T_B may be used for both breakdown and final rolling on bridge decks 300 ft (90 m) or less in length, except when the air temperature is less than 60 °F (15 °C).
- 3/ A vibratory roller (V_D) may be used in lieu of the pneumatic-tired roller on mixtures containing polymer modified asphalt binder.
- 4/ Pneumatic-tired and vibratory rollers will not be allowed.
- 5/ The Contractor shall provide a minimum of two steel-wheeled tandem rollers (T_B) for breakdown. Both T_B and T_F rollers shall be a minimum of 280 lb/in. (49 N/mm). The T_B rollers shall be operated at a uniform speed not to exceed 3 mph (5 km/h), with the drive roll nearest the paver, and maintain an effective rolling distance of not more than 150 ft (45 m) behind the paver."

<u>Prepaving Conference</u>. A prepaving conference shall be held a minimum of one week prior to the start of mix production. Those in attendance shall include the QC Manager, Construction Supervising Field Engineer, Resident Engineer, Mixture Control Engineer, BMPR representative, fiber supplier representative, asphalt binder supplier representative, as well as plant, paver and roller operators.

Basis of Payment. This work will be measured and paid for according to Article 406.13 and 406.14 of the Standard Specifications at the contract unit price per metric ton (ton) for POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, STONE MATRIX ASPHALT, of the N design specified; and POLYMERIZED HOT-MIX ASPHALT BINDER COURSE, STONE MATRIX ASPHALT, of the N design specified.

The preliminary test strip will be paid for at the contract unit price per each for PRELIMINARY TEST STRIP, which price shall include the 272 metric tons (300 tons) of mix as well as the appropriate testing, provided the bituminous mixture is placed within the JMF tolerances.

SUBCONTRACTOR MOBILIZATION PAYMENTS (BDE)

Effective: April 2, 2005 Revised: April 1, 2011

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

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

The mobilization payment to the subcontractor is an advance payment of the reported amount of the subcontract and is not a payment in addition to the amount of the subcontract; therefore, the amount of the advance payment will be deducted from future progress payments.

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

SYNTHETIC FIBERS IN CONCRETE GUTTER, CURB, MEDIAN, AND PAVED DITCH (BDE)

Effective: November 1, 2012

Add the following to Article 606.02 of the Standard Specifications.

Note 1. Synthetic fibers may be used in the concrete mixture for slipform applications. Synthetic fibers shall be Type III according to ASTM C 1116. The synthetic fiber shall have a minimum length of 1/2 in. (13 mm) and a maximum length of 0.75 in. (19 mm).

The synthetic fibers shall be added to the concrete and mixed per the manufacturer's recommendation. The maximum dosage rate in the concrete mixture shall be 1.5 lb/cu yd (0.9 kg/cu m).

The Department will maintain an "Approved List of Synthetic Fibers"."

Revise the second paragraph of Article 606.11 of the Standard Specifications to read:

"Forms shall be removed within 24 hours after the concrete has been placed, and minor defects shall be filled with grout consisting of one part cement and two parts sand mixed with water."

TEMPORARY EROSION AND SEDIMENT CONTROL (BDE)

Effective: January 1, 2012

Revise the first paragraph of Article 280.04(f) of the Standard Specifications to read:

"(f) Temporary Erosion Control Seeding. This system consists of seeding all erodible/bare areas to minimize the amount of exposed surface area. Seed bed preparation will not be required if the surface of the soil is uniformly smooth and in a loose condition. Light disking shall be done if the soil is hard packed or caked. Erosion rills greater than 1 in. (25 mm) in depth shall be filled and area blended with the surrounding soil. Fertilizer nutrients will not be required."

Delete the last sentence of Article 280.08(e) of the Standard Specifications.

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"."

TRAFFIC CONTROL DEFICIENCY DEDUCTION (BDE)

Effective: August 1, 2011

Revise the third sentence of the third paragraph of Article 105.03(b) of the Standard Specifications to read:

"The daily monetary deduction will be \$2,500."

UTILITY COORDINATION AND CONFLICTS (BDE)

Effective: April 1, 2011 Revised: January 1, 2012

Revise Article 105.07 of the Standard Specifications to read:

"**105.07 Cooperation with Utilities.** The Department reserves the right at any time to allow work by utilities on or near the work covered by the contract. The Contractor shall conduct his/her work so as not to interfere with or hinder the progress or completion of the work being performed by utilities. The Contractor shall also arrange the work and shall place and dispose of the materials being used so as not to interfere with the operations of utility work in the area.

The Contractor shall cooperate with the owners of utilities in their removal and rearrangement operations so work may progress in a reasonable manner, duplication or rearrangement of work may be reduced to a minimum, and services rendered by those parties will not be unnecessarily interrupted.

The Contractor shall coordinate with any planned utility adjustment or new installation and the Contractor shall take all precautions to prevent disturbance or damage to utility facilities. Any failure on the part of the utility owner, or their representative, to proceed with any planned utility adjustment or new installation shall be reported promptly by the Contractor to the Engineer."

Revise the first sentence of the last paragraph of Article 107.19 of the Standard Specifications to read:

"When the Contractor encounters unexpected regulated substances due to the presence of utilities in unanticipated locations, the provisions of Article 107.40 shall apply; otherwise, if the Engineer does not direct a resumption of operations, the provisions of Article 108.07 shall apply."

Revise Article107.31 of the Standard Specification to read:

"107.31 Reserved."

Add the following four Articles to Section 107 of the Standard Specifications:

"**107.37 Locations of Utilities within the Project Limits.** All known utilities existing within the limits of construction are either indicated on the plans or visible above ground. For the purpose of this Article, the limits of proposed construction are defined as follows:

- (a) Limits of Proposed Construction for Utilities Paralleling the Roadway.
 - (1) The horizontal limits shall be a vertical plane, outside of, parallel to, and 2 ft (600 mm) distant at right angles from the plan or revised slope limits.

In cases where the limits of excavation for structures are not shown on the plans, the horizontal limits shall be a vertical plane 4 ft (1.2 m) outside the edges of structure footings or the structure where no footings are required.

- (2) The upper vertical limits shall be the regulations governing the roadbed clearance for the specific utility involved.
- (3) The lower vertical limits shall be either the top of the utility at the depth below the proposed grade as prescribed by the governing agency or the limits of excavation, whichever is less.
- (b) Limits of Proposed Construction for Utilities Crossing the Roadway in a Generally Transverse Direction.
 - (1) Utilities crossing excavations for structures that are normally made by trenching such as sewers, underdrains, etc. and all minor structures such as manholes, inlets, foundations for signs, foundations for traffic signals, etc., the limits shall be the space to be occupied by the proposed permanent construction, unless otherwise required by the regulations governing the specific utility involved.
 - (2) For utilities crossing the proposed site of major structures such as bridges, sign trusses, etc., the limits shall be as defined above for utilities extending in the same general direction as the roadway.

It is understood and agreed that the Contractor has considered in the bid all of the permanent and temporary utilities in their present and/or adjusted positions as indicated in the contract. It is further understood the actual location of the utilities may be located anywhere within the tolerances provided in 220 ILCS 50/2.8 or Administrative Code Title 92 Part 530.40(c), and the proximity of some utilities to construction may require extraordinary measures by the Contractor to protect those utilities.

No additional compensation will be allowed for any delays, inconveniences, or damages sustained by the Contractor due to the presence of or any claimed interference from known utility facilities or any adjustment of them, except as specifically provided in the contract.

107.38 Adjustments of Utilities within the Project Limits. The adjustment of utilities consists of the relocation, removal, replacement, rearrangements, reconstruction, improvement, disconnection, connection, shifting, new installation, or altering of an existing utility facility in any manner.

Utilities which are to be adjusted shall be adjusted by the utility owner or the owner's representative or by the Contractor as a contract item. Generally, arrangements for adjusting known utilities will be made by the Department prior to project construction; however, utilities will not necessarily be adjusted in advance of project construction and, in some cases, utilities will not be removed from the proposed construction limits as described in Article 107.37. When

utility adjustments must be performed in conjunction with construction, the utility adjustment work will be indicated in the contract.

The Contractor may make arrangements for adjustment of utilities indicated in the contract, but not scheduled by the Department for adjustment, provided the Contractor furnishes the Department with a signed agreement with the utility owner covering the adjustments to be made. The cost of any such adjustments shall be the responsibility of the Contractor.

107.39 Contractor's Responsibility for Locating and Protecting Utility Property and Services. At points where the Contractor's operations are adjacent to properties or facilities of utility companies, or are adjacent to other property, damage to which might result in considerable expense, loss, or inconvenience, work shall not be commenced until all arrangements necessary for the protection thereof have been made.

Within the State of Illinois, a State-Wide One Call Notice System has been established for notifying utilities. Outside the city limits of the City of Chicago, the system is known as the Joint Utility Locating Information for Excavators (JULIE) System. Within the city limits of the City of Chicago the system is known as DIGGER. All utility companies and municipalities which have buried utility facilities in the State of Illinois are a part of this system.

The Contractor shall call JULIE (800-892-0123) or DIGGER (312-744-7000), a minimum of 48 hours in advance of work being done in the area, and they will notify all member utility companies involved their respective utility should be located.

For utilities which are not members of JULIE or DIGGER, the Contractor shall contact the owners directly. The plan general notes will indicate which utilities are not members of JULIE or DIGGER.

| Utility Service | Color |
|---|--|
| Electric Power, Distribution and Transmission | Safety Red |
| Municipal Electric Systems | Safety Red |
| Gas Distribution and Transmission | High Visibility Safety Yellow |
| Oil Distribution and Transmission | High Visibility Safety Yellow |
| Telephone and Telegraph System | Safety Alert Orange |
| Community Antenna Television Systems | Safety Alert Orange |
| Water Systems | Safety Precaution Blue |
| Sewer Systems | Safety Green |
| Non-Potable Water and Slurry Lines | Safety Purple |
| Temporary Survey | Safety Pink |
| Proposed Excavation | Safety White (Black when snow is on the ground) |

The following table indicates the color of markings required of the State-Wide One Call Notification System.

The State-Wide One Call Notification System will provide for horizontal locations of utilities. When it is determined that the vertical location of the utility is necessary to facilitate construction, the Engineer may make the request for location from the utility after receipt of notice from the Contractor. If the utility owner does not field locate their facilities to the satisfaction of the Engineer, the Engineer will authorize the Contractor in writing to proceed to locate the facilities in the most economical and reasonable manner, subject to the approval of the Engineer, and be paid according to Article 109.04.

The Contractor shall be responsible for maintaining the excavations or markers provided by the utility owners.

The Contractor shall take all necessary precautions for the protection of the utility facilities. The Contractor shall be responsible for any damage or destruction of utility facilities resulting from neglect, misconduct, or omission in the Contractor's manner or method of execution or nonexecution of the work, or caused by defective work or the use of unsatisfactory materials. Whenever any damage or destruction of a utility facility occurs as a result of work performed by the Contractor, the utility company will be immediately notified. The utility company will make arrangements to restore such facility to a condition equal to that existing before any such damage or destruction was done.

In the event of interruption of utility services as a result of accidental breakage or as a result of being exposed or unsupported, the Contractor shall promptly notify the proper authority and shall cooperate with the said authority in the restoration of service. If water service is interrupted, repair work shall be continuous until the service is restored. No work shall be undertaken around fire hydrants until provisions for continued service have been approved by the local fire authority.

107.40 Conflicts with Utilities. Except as provided hereinafter, the discovery of a utility in an unanticipated location will be evaluated according to Article 104.03. It is understood and agreed that the Contractor has considered in the bid all facilities not meeting the definition of a utility in an unanticipated location and no additional compensation will be allowed for any delays, inconveniences, or damages sustained by the Contractor due to the presence of or any claimed interference from such facilities.

When the Contractor discovers a utility in an unanticipated location, the Contractor shall not interfere with said utility, shall take proper precautions to prevent damage or interruption of the utility, and shall promptly notify the Engineer of the nature and location of said utility.

- (a) Definition. A utility in an unanticipated location is defined as an active or inactive utility, which is either:
 - (1) Located underground and (a) not shown in any way in any location on the contract documents; (b) not identified in writing by the Department to the Contractor prior to the letting; or (c) not located relative to the location shown in the contract within the tolerances provided in 220 ILCS 50/2.8 or Administrative Code Title 92 Part 530.40(c); or

(2) Located above ground or underground and not relocated as provided in the contract.

Service connections shall not be considered to be utilities in unanticipated locations.

- (b) Compensation. Compensation will not be allowed for delays, inconveniences, or damages sustained by the Contractor from conflicts with facilities not meeting the above definition; or if a conflict with a utility in an unanticipated location does not cause a shutdown of the work applicable to the utility or a documentable reduction in the rate of progress exceeding the limits set herein. The provisions of Article 104.03 notwithstanding, compensation for delays caused by a utility in an unanticipated location will be paid according to the provisions of this Article governing minor and major delays or reduced rate of production which are defined as follows:
 - (1) Minor Delay. A minor delay occurs when the Contractor's operation is completely stopped by a utility in an unanticipated location for more than two hours, but not to exceed three weeks.
 - (2) Major Delay. A major delay occurs when the Contractor's operation is completely stopped by a utility in an unanticipated location for more than three weeks.
 - (3) Reduced Rate of Production Delay. A reduced rate of production delay occurs when the contractor's rate of production decreases by more than 25 percent and lasts longer than seven days.
- (c) Payment. Payment for Minor, Major and Reduced Rate of Production Delays will be made as follows.
 - (1) Minor Delay. Labor idled which cannot be used on other work will be paid for according to Article 109.04(b)(1) and (2) for the time between start of the delay and the minimum remaining hours in the work shift required by the prevailing practice in the area.

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

(2) Major Delay. Labor will be the same as for a minor delay.

Equipment will be the same as for a minor delay, except Contractor-owned equipment will be limited to three weeks plus the cost of move-out to either the Contractor's yard or another job, whichever is less. Rental equipment may be paid for longer than three weeks provided the Contractor presents adequate support to the Department (including lease agreement) to show retaining equipment on the job is the most economical course to follow and in the public interest.

(3) Reduced Rate of Production Delay. The Contractor will be compensated for the reduced productivity for labor and equipment time in excess of the 25 percent threshold for that portion of the delay in excess of seven days. Determination of compensation will be in accordance with Article 104.02, except labor and material additives will not be permitted.

Whether covered by (1), (2) or (3) above, additional traffic control required as a result of the operation(s) delayed will be paid for according to Article 109.04 for the total length of the delay.

If the delay is clearly shown to have caused work, which would have otherwise been completed, to be done after material or labor costs have increased, such increases may be paid. Payment for materials will be limited to increased cost substantiated by documentation furnished by the Contractor. Payment for increased labor rates will include those items in Article 109.04(b)(1) and (2), except the 35 percent and ten percent additives will not be permitted. On a working day contract, a delay occurring between November 30 and May 1, when work has not started, will not be considered as eligible for payment of measured labor and material costs.

Project overhead (not including interest) will be allowed when all progress on the contract has been delayed, and will be calculated as 15 percent of the delay claim.

(d) Other Obligations of Contractor. Upon payment of a claim under this provision, the Contractor shall assign subrogation rights to the Department for the Department's efforts of recovery from any other party for monies paid by the Department as a result of any claim under this Provision. The Contractor shall fully cooperate with the Department in its efforts to recover from another party any money paid to the Contractor for delay damages under this Provision."

WARM MIX ASPHALT (BDE)

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

<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.

Materials.

Add the following to Article 1030.02 of the Standard Specifications.

"(h) Warm Mix Asphalt (WMA) Technologies (Note 3)"

Add the following note to Article 1030.02 of the Standard Specifications.

"Note 3. Warm mix additives or foaming processes shall be selected from the current Bureau of Materials and Physical Research Approved List, "Warm-Mix Asphalt Technologies"."

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.

- "(d) 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. Additional mixture verification requirements include Hamburg Wheel testing according to Illinois Modified AASHTO T324 and tensile strength testing according to Illinois Modified AASHTO T283 which shall meet the criteria in Tables 1 and 2 respectively herein. The Contractor shall provide the additional material as follows:
 - a. Four gyratory specimens to be prepared in the Contractor's lab according to Illinois Modified AASHTO T324.
 - b. Sufficient mixture to conduct tensile strength testing according to Illinois Modified AASHTO T283.

| Asphalt Binder | # Wheel | Max Rut Depth | | | |
|----------------|---------|-------------------|--|--|--|
| Grade | Passes | in. (mm) | | | |
| PG 76-XX | 20,000 | 1/2 in. (12.5 mm) | | | |
| PG 70-XX | 15,000 | 1/2 in. (12.5 mm) | | | |

Table 1. Illinois Modified AASHTO T324 Requirements ^{1/}

| PG 64-XX | 7,500 | 1/2 in. (12.5 mm) |
|----------|-------|-------------------|
| PG 58-XX | 5,000 | 1/2 in. (12.5 mm) |

1/ Loose WMA shall be oven aged at 270 ± 5 °F (132 ± 3 °C) for two hours prior to gyratory compaction of Hamburg Wheel specimens.

| Table 2 | Topoilo C | tronath E | Poquiromonto |
|------------|-----------|-----------|--------------|
| I a D E Z. | Tensile 3 | иендин г | Requirements |

| Asphalt Binder | Tensile Strength psi (kPa) | | | | | | | |
|----------------|----------------------------|-------------|--|--|--|--|--|--|
| Grade | Minimum | Maximum | | | | | | |
| PG 76-XX | 80 (552) | 200 (1379) | | | | | | |
| PG 70-XX | | | | | | | | |
| PG 64-XX | 60 (414) | 200 (1379)" | | | | | | |
| PG 58-XX | | | | | | | | |

Production.

Revise the second paragraph of Article 1030.06(a) of the Standard Specifications to read:

"At the start of mix production for HMA, WMA, and HMA using WMA technologies, QC/QA mixture start-up will be required for the following situations; at the beginning of production of a new mix of a new mixture design, at the beginning of each production season, and at every plant utilized to produce mixtures, regardless of the mix."

Insert the following after the sixth paragraph of Article 1030.06(a) of the Standard Specifications:

"Warm mix technologies shall be as follows.

- (1) 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 and tensile strength testing according to Illinois Modified AASHTO T283 (approximately 110 lb (50 kg) total).
- (2) Upon completion of the start-up, WMA, or HMA using WMA technologies, production shall cease. The Contractor may revert to conventional HMA production provided a start-up has been previously completed for the current construction season for the mix design. WMA, or HMA using WMA technologies, may resume once all the test results, including Hamburg Wheel results are completed and found acceptable by the Engineer."

Add the following after the first paragraph of Article 1030.05(d)(2)c. of the Standard Specifications:

"During production of each WMA mixture or HMA utilizing WMA technologies, the Engineer will request a minimum of one randomly located sample, identified by the Engineer, for Hamburg Wheel testing to determine compliance with the requirements specified in Table 1 herein."

Quality Control/Quality Assurance Testing.

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

| | Frequency of Tests | Frequency of Tests | Test Method See Manual of |
|--|---|--|-----------------------------------|
| Parameter | High ESAL Mixture Low ESAL Mixture | All Other Mixtures | Test Procedures for Materials |
| Aggregate Gradation % passing sieves: 1/2 in. (12.5 mm), No. 4 (4.75 mm), No. 8 (2.36 mm), No. 30 (600 μm) No. 200 (75 μm) Note 1. | 1 washed ignition oven test on the mix per half day of production Note 4. | 1 washed ignition oven test on the mix per day of production Note 4. | Illinois Procedure |
| Asphalt Binder Content by Ignition Oven Note 2. | 1 per half day of production | 1 per day | Illinois-Modified AASHTO T 308 |
| VMA Note 3. | 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) | N/A | Illinois-Modified AASHTO R 35 |
| Air Voids Bulk Specific Gravity of Gyratory Sample Note 5. | Day's production ≥ 1200 tons: 1 per half day of production Day's production < 1200 tons: | 1 per day | Illinois-Modified AASHTO T 312 |

| | Frequency of Tests | Frequency of Tests | Test Method | | |
|--------------------|-----------------------|--------------------|-------------------|--|--|
| | - 1 | | See Manual of | | |
| Deremeter | Lligh ECAL Mixture | All Other Mixtures | | | |
| Parameter | High ESAL Mixture | All Other Mixtures | Test Procedures | | |
| | Low ESAL Mixture | | for Materials | | |
| | Day's production | | | | |
| Maximum Specific | ≥ 1200 tons: | 1 per day | Illinois-Modified | | |
| Gravity of Mixture | = 1200 tono: | i poi duy | AASHTO T 209 | | |
| Gravity of Mixture | | | AA3HTO 1 209 | | |
| | 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) | | | | |

Note 1. The No. 8 (2.36 mm) and No. 30 (600 μm) sieves are not required for All Other Mixtures.

Note 2. 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 3. 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 4. The Engineer reserves the right to require additional hot bin gradations for batch

Note 5. 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. If the mixture is allowed to conduct to the temperature it shall be reheated to standard HMA compaction temperatures."

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

The Contractor shall provide 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 on the jobsite; or used for the delivery and/or removal of equipment/material to and from the jobsite. The jobsite shall also include offsite locations, such as plant sites or storage sites, when those locations are used solely for this contract.

The report shall be submitted on the form provided by the Department within ten business days following the reporting period. The reporting period shall be Monday through Sunday for each week reportable trucking activities occur. The report shall be submitted to the Engineer and a copy shall be provided to the district EEO Officer.

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.

NOTICE: Prevailing Wage Rates

The Illinois Prevailing Wage Act (820 ILCS 130/) requires payment of prevailing wages on State of Illinois public works projects.

As required by this Act, not less than the rates of wages ascertained by the Illinois Department of Labor and as revised during the performance of a Contract shall be paid to all laborers, workers and mechanics performing work under the Contract.

Post the scale of wages in a prominent and easily accessible place at the site of work. If the Illinois Department of Labor revises the prevailing rates of wages to be paid as listed in the specification of rates, the Contractor shall post the revised rates of wages and shall pay not less than the revised rates of wages. Current wage rate information shall be obtained by visiting the Illinois Department of Labor web site at http://www.state.il.us/agency/idol/ or by calling 312-793-2814. It is the responsibility of the Contractor to review the rates applicable to the work of the contract at regular intervals in order to insure the timely payment of current rates. Provision of this information to the Contractor by means of the Illinois Department of Labor web site satisfies the notification of revisions by the Department to the Contractor pursuant to the Act, and the Contractor agrees that no additional notice is required. The Contractor shall notify each of its subcontractors of the revised rates of wages.

Cook County Prevailing Wage for July 2013

(See explanation of column headings at bottom of wages)

| Trade Name | RG TYP C | | FRMAN M-F>8 | OSA OSH | H/W | Pensn | Vac | Trng ===== |
|--|----------------|------------------|--------------------------|---------|----------------|-------|-------|---------------|
| ASBESTOS ABT-GEN | ALL | 36.200 | 36.700 1.5 | 1.5 2.0 | 12.78 | 9.020 | 0.000 | 0.500 |
| ASBESTOS ABT-MEC | BLD | 34.160 | 36.660 1.5 | | 10.82 | | 0.000 | 0.720 |
| BOILERMAKER | BLD | 43.450 | 47.360 2.0 | 2.0 2.0 | 6.970 | 14.66 | 0.000 | 0.350 |
| BRICK MASON | BLD | 40.680 | 44.750 1.5 | 1.5 2.0 | 9.550 | 12.00 | 0.000 | 0.970 |
| CARPENTER | ALL | 42.520 | 44.520 1.5 | 1.5 2.0 | 13.29 | 12.75 | 0.000 | 0.630 |
| CEMENT MASON | ALL | 42.350 | 44.350 2.0 | 1.5 2.0 | | | 0.000 | 0.320 |
| CERAMIC TILE FNSHER | BLD | 34.440 | 0.000 2.0 | 1.5 2.0 | 9.700 | 6.930 | 0.000 | 0.610 |
| COMM. ELECT. | BLD | | 40.150 1.5 | | 8.420 | | | 0.700 |
| ELECTRIC PWR EQMT OP | ALL | | 49.850 1.5 | | 10.63 | | | 0.450 |
| ELECTRIC PWR GRNDMAN | ALL | | 49.850 1.5 | | 8.290 | | | 0.350 |
| ELECTRIC PWR LINEMAN | ALL | | 49.850 1.5 | | 10.63 | | | 0.450 |
| ELECTRICIAN | ALL | | 44.800 1.5 | 1.5 2.0 | | | | |
| ELEVATOR CONSTRUCTOR | BLD | | 55.215 2.0 | 2.0 2.0 | | | | |
| FENCE ERECTOR | ALL | | 36.840 1.5 | 1.5 2.0 | | | | |
| GLAZIER HT/FROST INSULATOR | BLD | | 41.000 1.5 48.050 1.5 | | 11.99 | | | |
| IRON WORKER | BLD ALL | | 48.050 1.5 42.750 2.0 | | 10.82 13.20 | | | |
| LABORER | ALL | | 37.750 1.5 | | | 9.520 | | |
| LATHER | ALL | 42.520 | 44.520 1.5 | | 13.29 | | | |
| MACHINIST | BLD | | 46.420 1.5 | | 6.760 | | | 0.000 |
| MARBLE FINISHERS | ALL | 29.700 | 0.000 1.5 | | 9.550 | | 0.000 | 0.620 |
| MARBLE MASON | BLD | | 43.870 1.5 | | 9.550 | | 0.000 | 0.730 |
| MATERIAL TESTER I | ALL | 27.000 | 0.000 1.5 | | 13.38 | | | |
| MATERIALS TESTER II | ALL | 32.000 | 0.000 1.5 | | 13.38 | | 0.000 | 0.500 |
| MILLWRIGHT | ALL | 42.520 | 44.520 1.5 | 1.5 2.0 | 13.29 | 12.75 | 0.000 | 0.630 |
| OPERATING ENGINEER | BLD 1 | 46.100 | 50.100 2.0 | 2.0 2.0 | 16.60 | 11.05 | 1.900 | 1.250 |
| OPERATING ENGINEER | | 44.800 | | 2.0 2.0 | 16.60 | 11.05 | 1.900 | 1.250 |
| OPERATING ENGINEER | BLD 3 | 42.250 | 50.100 2.0 | | 16.60 | | | |
| OPERATING ENGINEER | BLD 4 | | 50.100 2.0 | | 16.60 | | | |
| OPERATING ENGINEER | BLD 5 | | 50.100 2.0 | 2.0 2.0 | | | | |
| OPERATING ENGINEER | BLD 6 | | 50.100 2.0 | 2.0 2.0 | | | | |
| OPERATING ENGINEER | BLD 7 | 49.100 | | | 16.60 | | 1.900 | |
| OPERATING ENGINEER | FLT 1 | 51.300 | 51.300 1.5 | | 15.70 | | 1.900 | |
| OPERATING ENGINEER OPERATING ENGINEER | FLT 2 FLT 3 | 49.800 44.350 | 51.300 1.5 51.300 1.5 | | 15.70 15.70 | | 1.900 | |
| OPERATING ENGINEER | FLT 4 | 36.850 | | | 15.70 | | | |
| OPERATING ENGINEER | | 52.800 | | | 15.70 | | | 1.250 |
| OPERATING ENGINEER | | | 48.300 1.5 | 1.5 2.0 | | | | |
| OPERATING ENGINEER | | | 48.300 1.5 | 1.5 2.0 | | | | |
| OPERATING ENGINEER | | | 48.300 1.5 | 1.5 2.0 | | | | |
| OPERATING ENGINEER | | | 48.300 1.5 | 1.5 2.0 | | | | |
| OPERATING ENGINEER | | | 48.300 1.5 | 1.5 2.0 | | | | |
| OPERATING ENGINEER | HWY 6 | 47.300 | 48.300 1.5 | 1.5 2.0 | | | | |
| OPERATING ENGINEER | HWY 7 | 45.300 | 48.300 1.5 | 1.5 2.0 | 16.60 | 11.05 | 1.900 | 1.250 |
| ORNAMNTL IRON WORKER | ALL | 42.900 | 45.400 2.0 | 2.0 2.0 | 13.11 | 16.40 | 0.000 | 0.600 |
| PAINTER | ALL | 40.000 | 44.750 1.5 | 1.5 1.5 | 9.750 | 11.10 | 0.000 | 0.770 |
| PAINTER SIGNS | BLD | 33.920 | 38.090 1.5 | 1.5 1.5 | | | | |
| PILEDRIVER | ALL | | 44.520 1.5 | 1.5 2.0 | | | | |
| PIPEFITTER | BLD | | 49.000 1.5 | 1.5 2.0 | | | | |
| PLASTERER | BLD | | 42.670 1.5 | 1.5 2.0 | | | | |
| PLUMBER | BLD | | 47.000 1.5 | 1.5 2.0 | | | | |
| ROOFER | BLD | | 41.350 1.5 | 1.5 2.0 | | | | |
| SHEETMETAL WORKER | BLD | | 44.510 1.5 | 1.5 2.0 | | | | |
| SIGN HANGER SPRINKLER FITTER | BLD BLD | | 30.710 1.5 51.200 1.5 | 1.5 2.0 | | | | |
| OTNINNER FILLER | חיים | 49.200 | JI.200 I.J | 1.0 2.0 | , TO.12 | 0.330 | 0.000 | 0.430 |

| STEEL ERECTOR STONE MASON TERRAZZO FINISHER TERRAZZO MASON | | ALL BLD BLD BLD | 40.680 35.510 39.370 | 42.370 | 1.5 1.5 1.5 | $1.5 \\ 1.5 $ | 2.0 2.0 2.0 | 9.550 9.700 9.700 | 12.00 9.320 10.66 | 0.000 0.000 0.000 0.000 | 0.970 0.400 0.550 |
|--|---|--------------------------|----------------------------|--------|-------------------|--|-------------------|-------------------------|-------------------------|----------------------------------|-------------------------|
| TILE MASON | | BLD | | 45.430 | | | | | + | 0.000 | |
| TRAFFIC SAFETY WRKR | - | HWY | | 29.850 | | | | | | 0.000 | |
| TRUCK DRIVER | E | | 33.850 | | | | | | | 0.000 | |
| TRUCK DRIVER | E | | 34.100 | | - | | | | | 0.000 | |
| TRUCK DRIVER | Ē | | 34.300 | | | | | | | 0.000 | |
| TRUCK DRIVER | E | | 34.500 | | | | | | + + + | 0.000 | |
| TRUCK DRIVER | W | | 32.550 | | | | | | | 0.000 | |
| TRUCK DRIVER | W | | 32.700 | | | | | | | 0.000 | |
| TRUCK DRIVER | W | | 32.900 | | | | | | | 0.000 | |
| TRUCK DRIVER | Ŵ | ALL 4 | | 33.100 | - · · | | | | | 0.000 | |
| TUCKPOINTER | | BLD | 40.950 | 41.950 | 1.5 | 1.5 | 2.0 | 8.180 | 10.82 | 0.000 | 0.940 |
| TUCKPOINTERBLD40.95041.9501.51.52.08.18010.820.0000.940Legend: RG (Region) TYP (Trade Type - All, Highway, Building, Floating, Oil & Chip, Rivers) C (Class) Base (Base Wage Rate) FRMAN (Foreman Rate) M-F>8 (OT required for any hour greater than 8 worked each day, Mon through Fri. OSA (Overtime (OT) is required for every hour worked on Saturday) OSH (Overtime is required for every hour worked on Sunday and Holidays) H/W (Health & Welfare Insurance) Pensn (Pension) Vac (Vacation) Trng (Training)H.0.95041.9501.51.52.08.18010.820.0000.940 | | | | | | | | | | | |

Explanations

COOK COUNTY

The following list is considered as those days for which holiday rates of wages for work performed apply: New Years Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day, Christmas Day and Veterans Day in some classifications/counties. Generally, any of these holidays which fall on a Sunday is celebrated on the following Monday. This then makes work performed on that Monday payable at the appropriate overtime rate for holiday pay. Common practice in a given local may alter certain days of celebration. If in doubt, please check with IDOL.

TRUCK DRIVERS (WEST) - That part of the county West of Barrington Road.

EXPLANATION OF CLASSES

ASBESTOS - GENERAL - removal of asbestos material/mold and hazardous materials from any place in a building, including mechanical systems where those mechanical systems are to be removed. This includes the removal of asbestos materials/mold and hazardous materials from ductwork or pipes in a building when the building is to be demolished at the time or at some close future date. ASBESTOS - MECHANICAL - removal of asbestos material from mechanical systems, such as pipes, ducts, and boilers, where the mechanical systems are to remain.

CERAMIC TILE FINISHER

The grouting, cleaning, and polishing of all classes of tile, whether for interior or exterior purposes, all burned, glazed or unglazed

products; all composition materials, granite tiles, warning detectable tiles, cement tiles, epoxy composite materials, pavers, glass, mosaics, fiberglass, and all substitute materials, for tile made in tile-like units; all mixtures in tile like form of cement, metals, and other materials that are for and intended for use as a finished floor surface, stair treads, promenade roofs, walks, walls, ceilings, swimming pools, and all other places where tile is to form a finished interior or exterior. The mixing of all setting mortars including but not limited to thin-set mortars, epoxies, wall mud, and any other sand and cement mixtures or adhesives when used in the preparation, installation, repair, or maintenance of tile and/or similar materials. The handling and unloading of all sand, cement, lime, tile, fixtures, equipment, adhesives, or any other materials to be used in the preparation, installation, repair, or maintenance of tile and/or similar materials. Ceramic Tile Finishers shall fill all joints and voids regardless of method on all tile work, particularly and especially after installation of said tile work. Application of any and all protective coverings to all types of tile installations including, but not be limited to, all soap compounds, paper products, tapes, and all polyethylene coverings, plywood, masonite, cardboard, and any new type of products that may be used to protect tile installations, Blastrac equipment, and all floor scarifying equipment used in preparing floors to receive tile. The clean up and removal of all waste and materials. All demolition of existing tile floors and walls to be re-tiled.

COMMUNICATIONS ELECTRICIAN

Installation, operation, inspection, maintenance, repair and service of radio, television, recording, voice sound vision production and reproduction, telephone and telephone interconnect, facsimile, data apparatus, coaxial, fibre optic and wireless equipment, appliances and systems used for the transmission and reception of signals of any nature, business, domestic, commercial, education, entertainment, and residential purposes, including but not limited to, communication and telephone, electronic and sound equipment, fibre optic and data communication systems, and the performance of any task directly related to such installation or service whether at new or existing sites, such tasks to include the placing of wire and cable and electrical power conduit or other raceway work within the equipment room and pulling wire and/or cable through conduit and the installation of any incidental conduit, such that the employees covered hereby can complete any job in full.

MARBLE FINISHER

Loading and unloading trucks, distribution of all materials (all stone, sand, etc.), stocking of floors with material, performing all rigging for heavy work, the handling of all material that may be needed for the installation of such materials, building of scaffolding, polishing if needed, patching, waxing of material if damaged, pointing up, caulking, grouting and cleaning of marble, holding water on diamond or Carborundum blade or saw for setters cutting, use of tub saw or any other saw needed for preparation of material, drilling of holes for wires that anchor material set by setters, mixing up of molding plaster for installation of material, mixing up thin set for the installation of material, mixing up of sand to cement for the installation of material and such other work as may be required in helping a Marble Setter in the handling of all material in the erection or installation of interior marble, slate, travertine, art marble, serpentine, alberene stone, blue stone, granite and other stones (meaning as to stone any foreign or domestic

materials as are specified and used in building interiors and exteriors and customarily known as stone in the trade), carrara, sanionyx, vitrolite and similar opaque glass and the laying of all marble tile, terrazzo tile, slate tile and precast tile, steps, risers treads, base, or any other materials that may be used as substitutes for any of the aforementioned materials and which are used on interior and exterior which are installed in a similar manner.

MATERIAL TESTER I: Hand coring and drilling for testing of materials; field inspection of uncured concrete and asphalt.

MATERIAL TESTER II: Field inspection of welds, structural steel, fireproofing, masonry, soil, facade, reinforcing steel, formwork, cured concrete, and concrete and asphalt batch plants; adjusting proportions of bituminous mixtures.

OPERATING ENGINEER - BUILDING

Class 1. Asphalt Plant; Asphalt Spreader; Autograde; Backhoes with Caisson Attachment; Batch Plant; Benoto (requires Two Engineers); Boiler and Throttle Valve; Caisson Rigs; Central Redi-Mix Plant; Combination Back Hoe Front End-loader Machine; Compressor and Throttle Valve; Concrete Breaker (Truck Mounted); Concrete Conveyor; Concrete Conveyor (Truck Mounted); Concrete Paver Over 27E cu. ft; Concrete Paver 27E cu. ft. and Under: Concrete Placer; Concrete Placing Boom; Concrete Pump (Truck Mounted); Concrete Tower; Cranes, All; Cranes, Hammerhead; Cranes, (GCI and similar Type); Creter Crane; Spider Crane; Crusher, Stone, etc.; Derricks, All; Derricks, Traveling; Formless Curb and Gutter Machine; Grader, Elevating; Grouting Machines; Heavy Duty Self-Propelled Transporter or Prime Mover; Highlift Shovels or Front Endloader 2-1/4 yd. and over; Hoists, Elevators, outside type rack and pinion and similar machines; Hoists, One, Two and Three Drum; Hoists, Two Tugger One Floor; Hydraulic Backhoes; Hydraulic Boom Trucks; Hydro Vac (and similar equipment); Locomotives, All; Motor Patrol; Lubrication Technician; Manipulators; Pile Drivers and Skid Rig; Post Hole Digger; Pre-Stress Machine; Pump Cretes Dual Ram; Pump Cretes: Squeeze Cretes-Screw Type Pumps; Gypsum Bulker and Pump; Raised and Blind Hole Drill; Roto Mill Grinder; Scoops - Tractor Drawn; Slip-Form Paver; Straddle Buggies; Operation of Tie Back Machine; Tournapull; Tractor with Boom and Side Boom; Trenching Machines.

Class 2. Boilers; Broom, All Power Propelled; Bulldozers; Concrete Mixer (Two Bag and Over); Conveyor, Portable; Forklift Trucks; Highlift Shovels or Front Endloaders under 2-1/4 yd.; Hoists, Automatic; Hoists, Inside Elevators; Hoists, Sewer Dragging Machine; Hoists, Tugger Single Drum; Laser Screed; Rock Drill (Self-Propelled); Rock Drill (Truck Mounted); Rollers, All; Steam Generators; Tractors, All; Tractor Drawn Vibratory Roller; Winch Trucks with "A" Frame.

Class 3. Air Compressor; Combination Small Equipment Operator; Generators; Heaters, Mechanical; Hoists, Inside Elevators (remodeling or renovation work); Hydraulic Power Units (Pile Driving, Extracting, and Drilling); Pumps, over 3" (1 to 3 not to exceed a total of 300 ft.); Low Boys; Pumps, Well Points; Welding Machines (2 through 5); Winches, 4 Small Electric Drill Winches.

Class 4. Bobcats and/or other Skid Steer Loaders; Oilers; and Brick Forklift.

Class 5. Assistant Craft Foreman.

Class 6. Gradall.

Class 7. Mechanics; Welders.

OPERATING ENGINEERS - HIGHWAY CONSTRUCTION

Class 1. Asphalt Plant; Asphalt Heater and Planer Combination; Asphalt Heater Scarfire; Asphalt Spreader; Autograder/GOMACO or other similar type machines: ABG Paver; Backhoes with Caisson Attachment; Ballast Regulator; Belt Loader; Caisson Rigs; Car Dumper; Central Redi-Mix Plant; Combination Backhoe Front Endloader Machine, (1 cu. yd. Backhoe Bucket or over or with attachments); Concrete Breaker (Truck Mounted); Concrete Conveyor; Concrete Paver over 27E cu. ft.; Concrete Placer; Concrete Tube Float; Cranes, all attachments; Cranes, Tower Cranes of all types: Creter Crane: Spider Crane; Crusher, Stone, etc.; Derricks, All; Derrick Boats; Derricks, Traveling; Dredges; Elevators, Outside type Rack & Pinion and Similar Machines; Formless Curb and Gutter Machine; Grader, Elevating; Grader, Motor Grader, Motor Patrol, Auto Patrol, Form Grader, Pull Grader, Subgrader; Guard Rail Post Driver Truck Mounted; Hoists, One, Two and Three Drum; Heavy Duty Self-Propelled Transporter or Prime Mover; Hydraulic Backhoes; Backhoes with shear attachments up to 40' of boom reach; Lubrication Technician; Manipulators; Mucking Machine; Pile Drivers and Skid Rig; Pre-Stress Machine; Pump Cretes Dual Ram; Rock Drill - Crawler or Skid Rig; Rock Drill - Truck Mounted; Rock/Track Tamper; Roto Mill Grinder; Slip-Form Paver; Snow Melters; Soil Test Drill Rig (Truck Mounted); Straddle Buggies; Hydraulic Telescoping Form (Tunnel); Operation of Tieback Machine; Tractor Drawn Belt Loader; Tractor Drawn Belt Loader (with attached pusher - two engineers); Tractor with Boom; Tractaire with Attachments; Traffic Barrier Transfer Machine; Trenching; Truck Mounted Concrete Pump with Boom; Raised or Blind Hole Drills (Tunnel Shaft); Underground Boring and/or Mining Machines 5 ft. in diameter and over tunnel, etc; Underground Boring and/or Mining Machines under 5 ft. in diameter; Wheel Excavator; Widener (APSCO).

Class 2. Batch Plant; Bituminous Mixer; Boiler and Throttle Valve; Bulldozers; Car Loader Trailing Conveyors; Combination Backhoe Front Endloader Machine (Less than 1 cu. yd. Backhoe Bucket or over or with attachments); Compressor and Throttle Valve; Compressor, Common Receiver (3); Concrete Breaker or Hydro Hammer; Concrete Grinding Machine; Concrete Mixer or Paver 7S Series to and including 27 cu. ft.; Concrete Spreader; Concrete Curing Machine, Burlap Machine, Belting Machine and Sealing Machine; Concrete Wheel Saw; Conveyor Muck Cars (Haglund or Similar Type); Drills, All; Finishing Machine -Concrete; Highlift Shovels or Front Endloader; Hoist - Sewer Dragging Machine; Hydraulic Boom Trucks (All Attachments); Hydro-Blaster; Hydro Excavating (excluding hose work); Laser Screed; All Locomotives, Dinky; Off-Road Hauling Units (including articulating) Non Self-Loading Ejection Dump; Pump Cretes: Squeeze Cretes - Screw Type Pumps, Gypsum Bulker and Pump; Roller, Asphalt; Rotary Snow Plows; Rototiller, Seaman, etc., self-propelled; Self-Propelled Compactor; Spreader - Chip - Stone, etc.; Scraper - Single/Twin Engine/Push and Pull; Scraper - Prime Mover in Tandem (Regardless of Size); Tractors pulling attachments, Sheeps Foot, Disc, Compactor, etc.; Tug Boats.

Class 3. Boilers; Brooms, All Power Propelled; Cement Supply Tender; Compressor, Common Receiver (2); Concrete Mixer (Two Bag and Over); Conveyor, Portable; Farm-Type Tractors Used for Mowing, Seeding, etc.; Forklift Trucks; Grouting Machine; Hoists, Automatic; Hoists, All Elevators; Hoists, Tugger Single Drum; Jeep Diggers; Low Boys; Pipe Jacking Machines; Post-Hole Digger; Power Saw, Concrete Power Driven; Pug Mills; Rollers, other than Asphalt; Seed and Straw Blower; Steam Generators; Stump Machine; Winch Trucks with "A" Frame; Work Boats; Tamper-Form-Motor Driven.

Class 4. Air Compressor; Combination - Small Equipment Operator; Directional Boring Machine; Generators; Heaters, Mechanical; Hydraulic Power Unit (Pile Driving, Extracting, or Drilling); Light Plants, All (1 through 5); Pumps, over 3" (1 to 3 not to exceed a total of 300 ft.); Pumps, Well Points; Vacuum Trucks (excluding hose work); Welding Machines (2 through 5); Winches, 4 Small Electric Drill Winches.

Class 5. SkidSteer Loader (all); Brick Forklifts; Oilers.

Class 6. Field Mechanics and Field Welders

Class 7. Dowell Machine with Air Compressor; Gradall and machines of like nature.

OPERATING ENGINEER - FLOATING

Class 1. Craft Foreman; Master Mechanic; Diver/Wet Tender; Engineer; Engineer (Hydraulic Dredge).

Class 2. Crane/Backhoe Operator; Boat Operator with towing endorsement; Mechanic/Welder; Assistant Engineer (Hydraulic Dredge); Leverman (Hydraulic Dredge); Diver Tender.

Class 3. Deck Equipment Operator, Machineryman, Maintenance of Crane (over 50 ton capacity) or Backhoe (115,000 lbs. or more); Tug/Launch Operator; Loader/Dozer and like equipment on Barge, Breakwater Wall, Slip/Dock, or Scow, Deck Machinery, etc.

Class 4. Deck Equipment Operator, Machineryman/Fireman (4 Equipment Units or More); Off Road Trucks; Deck Hand, Tug Engineer, Crane Maintenance (50 Ton Capacity and Under) or Backhoe Weighing (115,000 pounds or less); Assistant Tug Operator.

Class 5. Friction or Lattice Boom Cranes.

TERRAZZO FINISHER

The handling of sand, cement, marble chips, and all other materials that may be used by the Mosaic Terrazzo Mechanic, and the mixing, grinding, grouting, cleaning and sealing of all Marble, Mosaic, and Terrazzo work, floors, base, stairs, and wainscoting by hand or machine, and in addition, assisting and aiding Marble, Masonic, and Terrazzo Mechanics.

TRAFFIC SAFETY

Work associated with barricades, horses and drums used to reduce lane usage on highway work, the installation and removal of temporary lane markings, and the installation and removal of temporary road signs.

TRUCK DRIVER - BUILDING, HEAVY AND HIGHWAY CONSTRUCTION - EAST & WEST

Class 1. Two or three Axle Trucks. A-frame Truck when used for transportation purposes; Air Compressors and Welding Machines, including those pulled by cars, pick-up trucks and tractors; Ambulances; Batch Gate Lockers; Batch Hopperman; Car and Truck Washers; Carry-alls; Fork Lifts and Hoisters; Helpers; Mechanics Helpers and Greasers; Oil Distributors 2-man operation; Pavement Breakers; Pole Trailer, up to 40 feet; Power Mower Tractors; Self-propelled Chip Spreader; Skipman; Slurry Trucks, 2-man operation; Slurry Truck Conveyor Operation, 2 or 3 man; Teamsters; Unskilled Dumpman; and Truck Drivers hauling warning lights, barricades, and portable toilets on the job site.

Class 2. Four axle trucks; Dump Crets and Adgetors under 7 yards; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnapulls or Turnatrailers when pulling other than self-loading equipment or similar equipment under 16 cubic yards; Mixer Trucks under 7 yards; Ready-mix Plant Hopper Operator, and Winch Trucks, 2 Axles.

Class 3. Five axle trucks; Dump Crets and Adgetors 7 yards and over; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnatrailers or turnapulls when pulling other than self-loading equipment or similar equipment over 16 cubic yards; Explosives and/or Fission Material Trucks; Mixer Trucks 7 yards or over; Mobile Cranes while in transit; Oil Distributors, 1-man operation; Pole Trailer, over 40 feet; Pole and Expandable Trailers hauling material over 50 feet long; Slurry trucks, 1-man operation; Winch trucks, 3 axles or more; Mechanic--Truck Welder and Truck Painter.

Class 4. Six axle trucks; Dual-purpose vehicles, such as mounted crane trucks with hoist and accessories; Foreman; Master Mechanic; Self-loading equipment like P.B. and trucks with scoops on the front.

Other Classifications of Work:

For definitions of classifications not otherwise set out, the Department generally has on file such definitions which are available. If a task to be performed is not subject to one of the classifications of pay set out, the Department will upon being contacted state which neighboring county has such a classification and provide such rate, such rate being deemed to exist by reference in this document. If no neighboring county rate applies to the task, the Department shall undertake a special determination, such special determination being then deemed to have existed under this determination. If a project requires these, or any classification not listed, please contact IDOL at 217-782-1710 for wage rates or clarifications.

LANDSCAPING

Landscaping work falls under the existing classifications for laborer, operating engineer and truck driver. The work performed by landscape plantsman and landscape laborer is covered by the existing classification of laborer. The work performed by landscape operators (regardless of equipment used or its size) is covered by the classifications of operating engineer. The work performed by landscape truck drivers (regardless of size of truck driven) is covered by the classifications of truck driver.