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

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

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

### WHO CAN BID ?

Bids will be accepted from only those companies that request and receive written Authorization to Bid.

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

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

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

### IDOT is not responsible for any e-mail related failures.

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

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

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

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

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

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

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

Questions Regarding	Call
Prequalification and/or Authorization to Bid	(217)782-3413
Preparation and submittal of bids	(217)782-7806
Mailing of plans and proposals	(217)782-7806
Electronic plans and proposals	(217)524-1642

### ADDENDUMS AND REVISIONS TO THE PROPOSAL FORMS

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

Proposal Submitted By

Address

City

## Letting November 18, 2005

### NOTICE TO PROSPECTIVE BIDDERS

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

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



Springfield, Illinois 62764

Contract No. 62933 COOK County Section (1516.1,1717&1818)I-4 District 1 Construction Funds Route FAI 94

PLEASE MARK THE APPROPRIATE BOX BELOW:

A <u>Bid Bond</u> 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

### INSTRUCTIONS

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

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

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

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

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

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

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

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

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



### PROPOSAL

TO THE DEPARTMENT OF TRANSPORTATION

1. Proposal of \_\_\_\_\_\_

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

Contract No. 62933 COOK County Section (1516.1,1717&1818)I-4 Route FAI 94 District 1 Construction Funds

Planting beds and corner gardens along I-94 (Dan Ryan Expressway) at 95th, 94th, 87th and 79th Streets all located in Chicago.

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

BD 353A (Rev. 11/2001)

- 3. ASSURANCE OF EXAMINATION AND INSPECTION/WAIVER. The undersigned further declares that he/she has carefully examined the proposal, plans, specifications, form of contract and contract bond, and special provisions, and that he/she has inspected in detail the site of the proposed work, and that he/she has familiarized themselves with all of the local conditions affecting the contract and the detailed requirements of construction, and understands that in making this proposal he/she waives all right to plead any misunderstanding regarding the same.
- 4. EXECUTION OF CONTRACT AND CONTRACT BOND. The undersigned further agrees to execute a contract for this work and present the same to the department within fifteen (15) days after the contract has been mailed to him/her. The undersigned further agrees that he/she and his/her surety will execute and present within fifteen (15) days after the contract has been mailed to him/her contract bond satisfactory to and in the form prescribed by the Department of Transportation, in the penal sum of the full amount of the contract, guaranteeing the faithful performance of the work in accordance with the terms of the contract.

### NUMBER 5 BELOW DOES NOT APPLY TO SMALL BUSINESS SET-ASIDES

5. **PROPOSAL GUARANTY.** Accompanying this proposal is either a bid bond on the department form, executed by a corporate surety company satisfactory to the department, or a proposal guaranty check consisting of a bank cashier's check or a properly certified check for not less than 5 per cent of the amount bid or for the amount specified in the following schedule:

	<u>Amount c</u>	of Bid	Proposal <u>Guaranty</u>	Am	nount 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 cause	es suffered by the State because of the
failure to execute said contract and contract bond; otherwise, the bid bond shall become	e void or the proposal g	uaranty 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 tw of the proposal guaranties which would be required for each individua state below where it may be found.						
The proposal guaranty check will be found in the proposal for:	Item					
	Section No.					

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

BD 354 (Rev. 11/2001)

County \_\_\_\_

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

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

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

### **Schedule of Combination Bids**

Combination		Combination	Combination Bid				
No.	Dollars	Cents					

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

#### **ILLINOIS DEPARTMENT OF TRANSPORTATION** SCHEDULE OF PRICES CONTRACT 62933 NUMBER -

C-91-169-05 State Job # -PPS NBR -1-74823-1502 County Name -COOK--Code -31 - -District -1 - -

Project Number

Route

FAI 94

Section Number -(1516.1, 1717 & 1818) I-4

ltem Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
A2008750	T-ULMUS X PAT PE 3 TF	EACH	4.000				
B2005216	T-MALUS SUT TF 2	EACH	6.000				
C2C03930	S-ILEX VERT JD 24C	EACH	1.000				
C2C03932	S-ILEX VERT RS 24C	EACH	5.000				
K1003680	MULCH	SQ YD	183.000				
XX001363	PEREN PL NARCISSUS	UNIT	50.000				
XX003710	BACKFLOW PREVENT 2	EACH	2.000				
X0301407	PERENNIAL PLT-GAL POT	UNIT	16.000				
X0322256	TEMP INFO SIGNING	SQ FT	120.000				
X0324525	PLANTING MIX F & P 36	SQ YD	195.000				
X0325102	INSPECTION PIPE 4	EACH	4.000				
X0325103		EACH	2.000				
X0325104		EACH	2.000				
X0325105		SQ YD	183.000				
	IRR SYS FALL SHUTDOWN	EACH	2.000				

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#### **ILLINOIS DEPARTMENT OF TRANSPORTATION** SCHEDULE OF PRICES CONTRACT 62933 NUMBER -

C-91-169-05 State Job # -PPS NBR -1-74823-1502 County Name -COOK--Code -31 - -District -1 - -

Project Number

Route

FAI 94

Section Number -(1516.1, 1717 & 1818) I-4

ltem Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
X0325107	IRR SYS SPRING STRTUP	EACH	2.000				
X0325109	POROUS GRANULAR MATL	CU YD	66.000				
X0656300	PAVEMENT REM & REPL	SQ YD	28.000				
X4420222	CL C PATCH T1 10 1/2	SQ YD	10.000				
X4420223	CL C PATCH T2 10 1/2	SQ YD	20.000				
X6065740	CONC MED SURF 5 MOD	SQ FT	2,647.000				
X7015000	CHANGEABLE MESSAGE SN	CAL MO	12.000				
Z0027800	GEOTECH FABRIC	SQ YD	195.000				
20700220	POROUS GRAN EMBANK	CU YD	29.000				
25000210	SEEDING CL 2A	ACRE	0.250				
40601000	BIT REPL OVER PATCH	TON	4.000				
42001300		SQ YD	325.000				
44000112	BIT RM OV PATCH 3	SQ YD	43.000				
50200100		CU YD	48.000				
	WATER VALVES 2	EACH	2.000				

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#### ILLINOIS DEPARTMENT OF TRANSPORTATION SCHEDULE OF PRICES CONTRACT 62933 NUMBER -

C-91-169-05 State Job # -PPS NBR -1-74823-1502 County Name -COOK--Code -31 - -District -1 - -

Project Number

Route

FAI 94

Section Number -(1516.1, 1717 & 1818) I-4

ltem Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
56200900	WATER SERV LINE 2 1/2	FOOT	45.000				
60600605	CONC CURB TB	FOOT	222.000				
67100100	MOBILIZATION	L SUM	1.000				
70101800	TRAF CONT & PROT SPL	LSUM	1.000				
70103815	TR CONT SURVEILLANCE	CAL DA	69.000				
78000200	THPL PVT MK LINE 4	FOOT	54.000				

Page 3 10/19/2005 CONTRACT NUMBER

62933

THIS IS THE TOTAL BID \$

NOTES:

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

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

### I. GENERAL

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

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

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

### **II. ASSURANCES**

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

#### B. Felons

1. The Illinois Procurement Code provides:

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

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

#### C. Conflicts of Interest

1. The Illinois Procurement Code provides in pertinent part:

Section 50-13. Conflicts of Interest.

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

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

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

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

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

The current salary of the Governor is \$150,700.00. Sixty percent of the salary is \$90,420.00.

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

#### D. Negotiations

1. The Illinois Procurement Code provides in pertinent part:

Section 50-15. Negotiations.

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

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

#### E. Inducements

1. The Illinois Procurement Code provides:

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

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

### F. Revolving Door Prohibition

1. The Illinois Procurement Code provides:

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

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

#### G. Reporting Anticompetitive Practices

1. The Illinois Procurement Code provides:

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

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

#### H. Confidentiality

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

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

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

### I. Insider Information

1. The Illinois Procurement Act provides:

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

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

#### **III. CERTIFICATIONS**

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

#### B. Bribery

1. The Illinois Procurement Code provides:

Section 50-5. Bribery.

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

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

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

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

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

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

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

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

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

#### C. Educational Loan

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

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

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

#### D. Bid-Rigging/Bid Rotating

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

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

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

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

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

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

#### E. International Anti-Boycott

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

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

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

#### F. Drug Free Workplace

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

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

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

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

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

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

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

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

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

### G. Debt Delinquency

1. The Illinois Procurement Code provides:

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

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

### H. Sarbanes-Oxley Act of 2002

1. The Illinois Procurement Code provides:

Section 50-60(c).

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

### I. ADDENDA

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

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

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

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

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

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

### Illinois Department of Transportation Qualification and Equipment Inventory Certification Form

The undersigned authorized representative of Bidder certifies that the attached qualification information provided to the Department is true and correct, and that it is submitted with the understanding that the Department will use and rely upon the accuracy and currency of the information in the evaluation of Bidder's responsibility for award of this public contract.

Bidding Organization						
Signature	Date					
Printed Name	Title					
Address						
Address						
City/State	Zip Code					
-						
Telephone	Facsimile					
E-mail						

## Bidders that are currently prequalified by the Department are cautioned that they must complete these forms.

### PART I Business and Directory Information

(a)	Name of business (official name and assumed names):						
(b)	Business headquarters: Address:						
	Telephone:    Facsimile:						
(C)	Billing address:						
(d)	Type of organization (Sole Proprietor, Corporation, Partnership, etc. – should be the same as on the Taxpayer ID form Part V):						
(e)	State of incorporation, State of formation or State of organization:						
(f)	If a division or subsidiary of another organization provide the name and address of the parent:						
(g)	Businesses are affiliates when either one directly or indirectly controls or has the power to control the other, or, when a third party or parties controls or has the power to control both. In determining whether concerns are independently owned and operated and whether affiliation exists, consideration will be given to all appropriate factors, including the use of common facilities, common ownership and management and contractual arrangements. Identify all affiliated businesses and companies:						
(h)	Description of business:						
(i)	Length of time in business:						
(j)	Number of full-time employees (average from most recent Fiscal Year):						
(k)	Total annual sales and receipts for the most recently completed Fiscal Year including any parent and all related and affiliated organizations (tax returns for the relevant year may be required for verification):						
(I)	Name and title of all officers/managers:						
(m)	Identify and specify the location(s) and telephone numbers of the major offices and other facilities that would relate to performance under the terms of the contract if awarded:						

(n) Identify accounting firm:

(o) The successful business will be required to register to do business in Illinois. If already registered, provide the date of the registration to do business in Illinois and the name of the registered agent in the State: \_\_\_\_\_\_

- (p) Business web site:
- (q) Is this business currently prequalified by the Department of Transportation? If yes, list all work ratings issued:
- (r) Has this business performed contracts awarded by the Department as prime contractor? If yes, list the three most recent: \_\_\_\_\_
- (s) Has this business participated as a subcontractor under contracts awarded by the Department? If yes, list the three most recent identifying the prime contractor:

### PART II References

Provide references from established firms or government agencies, (four preferred; two of each type preferred) other than the Department, that can attest to your experience and ability to perform the work of the contract for which this bid is submitted. Bidders that have current work ratings issued by the Prequalification Section need only list references for this contract if more than 50% of the work as determined by the advertised quantities is not covered by an issued work rating.

(1)	Government Agency (Name)	:						
	Contact Person Name:							
	Address:							
		E-mail Address:						
	Types of services provided a	Types of services provided and dates provided:						
(2)	Governmental Agency (Nam	e):						
	Contact Person Name:							
	Address:							
		E-mail Address:						
	Types of services provided and dates provided:							
(3)	Private Firm (Name):							
	Contact Person Name:							
	Address:							
		E-mail Address:						
	Types of services provided a	nd dates provided:						
(4)	Private Firm (Name):							
( )	. ,							
		E-mail Address:						
		nd dates provided:						

### PART III Equipment Inventory

List all the equipment that will be used to performing the services required in this contract.

YEAR	MAKE	MODEL	ID#	CAPACITY	COMPLETE DESCRIPTION

- a. Is the above equipment owned by the company and presently in the firm's equipment inventory?
   (Do not include any proposed subcontractor equipment on this form)
- b. If not owned, how will the equipment be obtained within the required time in the event of award?

### PART IV Department of Human Rights (DHR) Public Contract Number

If the bidder has employed fifteen (15) or more full-time employees at any time during the 365-day period immediately preceding the publication of this invitation for bids, the bidder must have a current Public Contract Number or have proof of having submitted a completed application for one <u>prior</u> to the letting date. If the Department cannot confirm compliance, it will not be able to consider the bid or offer. Please complete the appropriate sections below.

Name of Company (and D/B/A):

DHR Public Contracts Number:

	(Ch	ieck if	f applicab	le) The nur	nber is	not	required	because	the company	has emplo	yed
14	or	less	full-time	employees	during	the	365-day	period	immediately	preceding	the
put	olica	tion c	of this invi	tation.							

IF NUMBER HAS NOT YET BEEN ISSUED:

Date completed application was submitted to DHR:

Date of Expiration:

### PART V 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**
- 2. 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).

### Name (Printed):

### **Taxpayer Identification Number:**

Social Security Number	
or Employer Identification Number	
Legal Status (check one):	
Individual	Governmental
Sole Proprietorship	Estate or Trust
Partnership/Legal Corporation	Other
Tax-exempt	

### PART VI Information Regarding Terminations, Litigation, Suspension and Debarment

- 1. During the last five (5) years, has the Bidder had a contract for services terminated for any reason? \_\_\_\_\_\_ If so, provide full details related to the termination.\_\_\_\_\_
- 2. During the last (5) years, describe any damages or penalties or anything of value traded or given up by the Bidder under any of its existing or past contracts as it relates to services performed that are similar to the services contemplated by this invitation and the contemplated Contract. If so, indicate the reason for the penalty or exchange of property or services and the estimated amount of the cost of that incident to the Bidder.
- 3. During the last five (5) years, describe any order, judgment or decree of any Federal or State authority barring, suspending or otherwise limiting the right of the Bidder to engage in any business, practice or activity.
- 4. During the last five (5) years, list and summarize pending or threatened litigation, administrative or regulatory proceedings, or similar matters that could affect the ability of the Bidder to perform the required services. The Bidder must also state whether it or any owners, officers, or primary partners have ever been convicted of a felony. Failure to disclose these matters may result in rejection of the bid or in termination of any subsequent contract. This is a continuing disclosure requirement. Any such matter commencing after submission of a bid, and with respect to the successful Bidder after the execution of a contract, must be disclosed in a timely manner in a written statement to the Department.

### TO BE RETURNED WITH BID

### **IV. DISCLOSURES**

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

### B. Financial Interests and Conflicts of Interest

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

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

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

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

### C. Disclosure Form Instructions

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

The Department has retained the Form A disclosures submitted by all bidders responding to these requirements for the April 24, 1998 or any subsequent letting conducted by the Department. The bidder has the option of submitting the information again or the bidder may sign the following certification statement indicating that the information previously submitted by the bidder is, as of the date of signature, current and accurate. The Certification must be signed and dated by a person who is authorized to execute contracts for the bidding company. Before signing this certification, the bidder should carefully review its prior submissions to ensure the Certification is correct. If the Bidder signs the Certification, the Bidder should proceed to Form B instructions.

### **CERTIFICATION STATEMENT**

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

(Bidding Company)

Name of Authorized Representative (type or print)

Title of Authorized Representative (type or print)

Signature of Authorized Representative

Date

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

If the bidder is a publicly traded entity subject to Federal 10K reporting, the 10K Report may be submitted to meet the requirements of Form A. If a bidder is a privately held entity that is exempt from Federal 10K reporting, but has more than 400 shareholders, it may submit the information that Federal 10K companies are required to report, and list the names of any person or entity holding any ownership share that is in excess of 5%. If a bidder is not subject to Federal 10K reporting, the bidder must determine if any individuals are required by law to complete a financial disclosure form. To do this, the bidder should answer each of the following questions. A "YES" answer indicates Form A must be completed. If the answer to each of the following questions is "NO", then the <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 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 \$90,420.00? YES \_\_\_\_ NO\_\_\_\_
- Does anyone in your organization receive more than \$90,420.00 of the bidding entity's or parent entity's distributive income? (Note: Distributive income is, for these purposes, any type of distribution of profits. An annual salary is not distributive income.) YES \_\_\_\_ NO \_\_\_
- 4. Does anyone in your organization receive greater than 5% of the bidding entity's or parent entity's total distributive income, but which is less than \$90,420.00? 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 page 2 of Form A must be signed and dated by a person that is authorized to execute contracts for your company.

Form B: Identifying Other Contracts & Procurement Related Information Disclosure Form B must be completed for each bid submitted by the bidding entity. It must be signed by an individual who is authorized to execute contracts for the bidding entity. Note: Signing the <u>NOT</u> <u>APPLICABLE STATEMENT</u> on Form A <u>does not</u> allow the bidder to ignore Form B. Form B must be completed, signed 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.

### D. Bidders Submitting More Than One Bid

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

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

### **RETURN WITH BID/OFFER**

### ILLINOIS DEPARTMENT OF TRANSPORTATION

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

Contractor Name	-	
Legal Address		
City, State, Zip		
Telephone Number	Email Address	Fax Number (if available)
(30 ILCS 500). Vendors desiring t and potential conflict of interest inf the publicly available contract file.	o enter into a contract with the Sta ormation as specified in this Discl This Form A must be complete ded company may submit a 1	the Section 50-35 of the Illinois Procurement Code ate of Illinois must disclose the financial information osure Form. This information shall become part of d for bids in excess of \$10,000, and for all open- IOK disclosure (or equivalent if applicable) in sure Form Instructions.
	DISCLOSURE OF FINANCIAL	
terms of ownership or distributive \$90,420.00 (60% of the Governor	income share in excess of 5%, or	elow has an interest in the BIDDER (or its parent) in an interest which has a value of more than bies of this form as necessary and attach a requirements)
FOR INDIVIDUAL (type or prin		
NAME:		
ADDRESS		
Type of ownership/distribu	table income share:	
stock sole pro % or \$ value of ownership/dis	pprietorship Partnersh stributable income share:	hip other: (explain on separate sheet):

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

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

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

- 1. Are you currently an officer or employee of either the Capitol Development Board or the Illinois Toll Highway Authority? Yes \_\_\_\_No \_\_\_
- 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 \$90,420.00, (60% of the Governor's salary as of 7/1/01) provide the name the State agency for which you are employed and your annual salary.

### **RETURN WITH BID/OFFER**

- If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds \$90,420.00, (60% of the Governor's salary as of 7/1/01) are you entitled to receive (i) more than 7 1/2% of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of the salary of the Governor? Yes \_\_\_\_No \_\_\_
- 4. If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds \$90,420.00, (60% of the Governor's salary as of 7/1/01) are you and your spouse or minor children entitled to receive (i) more than 15 % in the aggregate of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of 2 times the salary of the Governor? Yes \_\_\_\_No \_\_\_
- (b) State employment of spouse, father, mother, son, or daughter, including contractual employment services in the previous 2 years.

Yes <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 \$90,420.00, (60 % of the Governor's salary as of 7/1/01) 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 \$90,420.00, (60% of the salary of the Governor as of 7/1/01) are you entitled to receive (i) more then 71/2% of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of the salary of the Governor? Yes No \_\_\_
- 4. If your spouse or any minor children are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds \$90,420.00, (60% of the Governor's salary as of 7/1/01) are you and your spouse or minor children entitled to receive (i) more than 15% in the aggregate of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of 2 times the salary of the Governor?

Yes No

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

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

- (e) Appointive office; the holding of any appointive government office of the State of Illinois, the United States of America, or any unit of local government authorized by the Constitution of the State of Illinois or the statutes of the State of Illinois, which office entitles the holder to compensation in excess of the expenses incurred in the discharge of that office currently or in the previous 3 years. Yes \_\_\_\_No \_\_\_
- (f) Relationship to anyone holding appointive office currently or in the previous 2 years; spouse, father, mother, son, or daughter. Yes <u>No</u>

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

### **RETURN WITH BID/OFFER**

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

Yes No

### APPLICABLE STATEMENT This Disclosure Form A is submitted on behalf of the INDIVIDUAL named on previous page. Completed by: Name of Authorized Representative (type or print) Completed by: Title of Authorized Representative (type or print) Completed by: Signature of Individual or Authorized Representative Date NOT APPLICABLE STATEMENT I have determined that no individuals associated with this organization meet the criteria that would require the completion of this Form A. This Disclosure Form A is submitted on behalf of the CONTRACTOR listed on the previous page. Name of Authorized Representative (type or print) Title of Authorized Representative (type or print) Signature of Authorized Representative Date

### ILLINOIS DEPARTMENT OF TRANSPORTATION

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

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

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

### DISCLOSURE OF OTHER CONTRACTS AND PROCUREMENT RELATED INFORMATION

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

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

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

### THE FOLLOWING STATEMENT MUST BE SIGNED

Name of Authorized Representative (type or print)	
 Title of Authorized Representative (type or print)	
 Signature of Authorized Representative	

### SPECIAL NOTICE TO CONTRACTORS

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

### **CONSTRUCTION EMPLOYEE UTILIZATION PROJECTION**

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



### Contract No. 62933 COOK County Section (1516.1,1717&1818)I-4 Route FAI 94 District 1 Construction Funds

### 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: TABLE A TABLE B

TOTAL Workforce Projection for Contract									Г	CURRENT EMPLOYEES								
MINORITY EMPLOYEES													TO BE ASSIGNED TO CONTRACT					
100				MIN							INEES		_			JNI		
JOB		TAL						HER	APP			HE JOB			TAL			RITY
CATEGORIES		OYEES		ACK	HISP	1		NOR.	TIC			INEES	_		OYEES			DYEES
	М	F	Μ	F	М	F	М	F	Μ	F	М	F	_	М	F		М	F
OFFICIALS																		
(MANAGERS)																		
SUPERVISORS																		
FOREMEN																		
CLERICAL																		
EQUIPMENT																		
OPERATORS																		
MECHANICS													_					
TRUCK DRIVERS																		
IRONWORKERS																		
INDIWORKERS													_					
CARPENTERS																		
CEMENT MASONS																		
ELECTRICIANS																		
PIPEFITTERS,																		
PLUMBERS													_					
PAINTERS																		
LABORERS, SEMI-SKILLED																		
LABORERS,	1	1	1	1		<u> </u>							F					
UNSKILLED																		
TOTAL																		

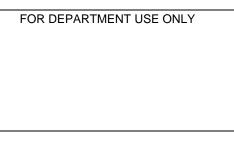
### TABLE C

TOTAL Training Projection for Contract									
EMPLOYEES	TO	TAL					*OTHER		
IN	EMPLO	OYEES	S BLACK		HISP	ANIC	MINOR.		
TRAINING	М	F	Μ	F	М	F	Μ	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.

Note: See instructions on the next page



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Contract No. 62933 COOK County Section (1516.1,1717&1818)I-4 Route FAI 94 **District 1 Construction Funds** 

### PART II. WORKFORCE PROJECTION - continued

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

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

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

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

### PART III. AFFIRMATIVE ACTION PLAN

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

Company \_\_\_\_\_

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 \_\_\_\_\_

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

- Table A -Include both the number of employees that would be hired to perform the contract work and the total number currently employed (Table B) that will be allocated to contract work, and include all apprentices and on-the-job trainees. The "Total Employees" column should include all employees including all minorities, apprentices and on-the-job trainees to be employed on the contract work.
- 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-Pg. 2 (Rev. 3/98)

### Contract No. 62933 COOK County Section (1516.1,1717&1818)I-4 Route FAI 94 District 1 Construction Funds

### PROPOSAL SIGNATURE SHEET

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

	Firm Name	
(IF AN INDIVIDUAL)		
	Firm Name	
(IF A CO-PARTNERSHIP)		
		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)	Attoct	
(IF A JOINT VENTURE, USE THIS SECTION		Signature
FOR THE MANAGING PARTY AND THE SECOND PARTY SHOULD SIGN BELOW)	Business Address	
	Corporate Name	
		Signature of Authorized Representative
		Typed or printed name and title of Authorized Representative
(IF A JOINT VENTURE)	Attost	
	Allesi	Signature
	Business Address	
If more than two parties are in the joint ventur	e nlease attach an ar	ditional signature sheet
	s, prodos alluon un de	

### THE PROPOSAL BID BOND IS NOT APPLICABLE TO SMALL BUSINESS SET-ASIDES

Illinois Departmen of Transportation	ıt
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**Division of Highways Proposal Bid Bond** (Effective November 1, 1992)

Ŭ		Item No.	
KNOW ALL MEN BY THE	SE PRESENTS, That We		
as PRINCIPAL, and			
			as SURETY, are

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

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

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

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

In TESTIMONY WHEREOF, the said PRINCIPAL and the said SURETY have caused this instrument to be signed by their respective officers this \_\_\_\_\_\_ day of \_\_\_\_\_\_ A.D., \_\_\_\_\_.

PRINCIPAL	SURETY
(Company Name)	(Company Name)
By:	By:
By:(Signature & Title)	By: (Signature of Attorney-in-Fact)
STATE OF ILLINOIS, COUNTY OF	otary Certification for Principal and Surety
I,	, a Notary Public in and for said County, do hereby certify that
and	
(Insert names of indiv	iduals signing on behalf of PRINCIPAL & SURETY)
	ersons whose names are subscribed to the foregoing instrument on behalf of in person and acknowledged respectively, that they signed and delivered said d purposes therein set forth.
Given under my hand and notarial seal this	_ day of, A.D
My commission expires	Notary Public

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

### PROPOSAL ENVELOPE



# PROPOSALS

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

Item No.	Item No.	Item No.

Submitted By:

lame:	
Address:	
Phone No.	

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

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

### **NOTICE**

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

## **CONTRACTOR OFFICE COPY OF CONTRACT SPECIFICATIONS**

### NOTICE

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

Contract No. 62933 COOK County Section (1516.1,1717&1818)I-4 Route FAI 94 District 1 Construction Funds





# **NOTICE TO BIDDERS**

- 1. TIME AND PLACE OF OPENING BIDS. Sealed proposals for the improvement described herein will be received by the Department of Transportation at the Harry R. Hanley Building, 2300 South Dirksen Parkway, in Springfield, Illinois until 10:00 o'clock a.m., November 18, 2005. All bids will be gathered, sorted, publicly opened and read in the auditorium at the Department of Transportation's Harry R. Hanley Building shortly after the 10:00 a.m. cut off time.
- 2. DESCRIPTION OF WORK. The proposed improvement is identified and advertised for bids in the Invitation for Bids as:

Contract No. 62933 COOK County Section (1516.1,1717&1818)I-4 Route FAI 94 District 1 Construction Funds

Planting beds and corner gardens along I-94 (Dan Ryan Expressway) at 95th, 94th, 87th and 79th Streets all located in Chicago.

- 3. INSTRUCTIONS TO BIDDERS. (a) This Notice, the invitation for bids, proposal and letter of award shall, together with all other documents in accordance with Article 101.09 of the Standard Specifications for Road and Bridge Construction, become part of the contract. Bidders are cautioned to read and examine carefully all documents, to make all required inspections, and to inquire or seek explanation of the same prior to submission of a bid.
  - (b) State law, and, if the work is to be paid wholly or in part with Federal-aid funds, Federal law requires the bidder to make various certifications as a part of the proposal and contract. By execution and submission of the proposal, the bidder makes the certification contained therein. A false or fraudulent certification shall, in addition to all other remedies provided by law, be a breach of contract and may result in termination of the contract.
- 4. AWARD CRITERIA AND REJECTION OF BIDS. This contract will be awarded to the lowest responsive and responsible bidder considering conformity with the terms and conditions established by the Department in the rules, Invitation for Bids and contract documents. The issuance of plans and proposal forms for bidding based upon a prequalification rating shall not be the sole determinant of responsibility. The Department reserves the right to determine responsibility at the time of award, to reject any or all proposals, to readvertise the proposed improvement, and to waive technicalities.

By Order of the Illinois Department of Transportation

Timothy W. Martin, Secretary

BD 351 (Rev. 01/2003)

### INDEX

#### FOR

#### SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS Adopted March 1, 2005

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

ERRATA Standard Specifications for Road and Bridge Construction (Adopted 1-1-02) (Revised 3-1-05)

#### SUPPLEMENTAL SPECIFICATIONS

Page No. Std. Spec. Sec. Definition of Terms ..... Control of Work ..... Embankment Mulch ..... Riprap..... Filter Fabric for Use With Riprap ..... Concrete Revetment Mats..... Granular Subbase ..... Aggregate Base Course ..... Removal of Existing Pavement and Appurtenances ..... Pavement Patching Removal and Replacement of Preformed Elastomeric Compression Joint Seal ..... Aggregate Shoulders ..... Removal of Existing Structures ..... Concrete Structures ..... Steel Structures ..... Cleaning and Painting Metal Structures ..... Reinforcement Bars ..... Piling ..... Box Culverts..... Elastic Joint Sealer ..... Catch Basin, Manhole, Inlet, Drainage Structures and Valve Vault Construction, Adjustment and Reconstruction ..... Adjusting Frames and Grates of Drainage and Utility Structures ..... Shoulder Inlets with Curb ..... Woven Wire Fence Removal and Disposal of Regulated Substances Mobilization ..... Work Zone Traffic Control Devices ..... Fine Aggregates ..... Coarse Aggregate Stone, Concrete Blocks and Broken Concrete for Erosion Protection, Sediment Control and Rockfill Metals ..... Timber and Preservative Treatment ..... Hydrated Lime Portland Cement Concrete ..... Concrete Admixtures Concrete Curing Materials ..... Nonshrink Grout ..... Brick ..... Precast Reinforced Concrete Manhole Sections and Adjusting Rings ..... Preformed Flexible Gaskets and Mastic Joint Sealer for Sewer and Culvert Pipe Elastic Joint Sealers Waterproofing Materials ..... Pole and Tower ..... Foundation and Breakaway Devices ..... Post and Foundation Fabric Materials Materials For Planting ..... Elastomeric Bearings Overhead Sign Structures Portland Cement Concrete Equipment ..... 

### **RECURRING SPECIAL PROVISIONS**

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

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1		State Required Contract Provisions All Federal-aid Construction Contracts (Eff. 2-1-69) (Rev. 10-1-83)	
2		Subletting of Contracts (Federal-aid Contracts) (Eff. 1-1-88) (Rev. 5-1-93)	82
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6		Reserved	
7	х	Asphalt Quantities and Cost Reviews (Eff. 7-1-88)	
8		National Pollutant Discharge Elimination System Permit (Eff. 7-1-94) (Rev. 1-1-03)	107
9		Haul Road Stream Crossings, Other Temporary Stream Crossings and In-Stream Work Pads	
-		(Eff. 1-2-92) (Rev. 1-1-98)	. 108
10		Construction Layout Stakes Except for Bridges (Eff. 1-1-99) (Rev. 1-1-02)	
11		Construction Layout Stakes (Eff. 5-1-93) (Rev. 1-1-02)	
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14		Bituminous Surface Treatments Half-Smart (Eff. 7-1-93) (Rev. 1-1-97)	
15		Quality Control/Quality Assurance of Bituminous Concrete Mixtures (Eff. 1-1-00) (Rev. 3-1-05)	
16		Subsealing of Concrete Pavements (Eff. 11-1-84) (Rev. 2-1-95)	
17		Bituminous Surface Removal (Cold Milling) (Eff. 11-1-87) (Rev. 10-15-97)	
18		Resurfacing of Milled Surfaces (Eff. 10-1-95)	
19		PCC Partial Depth Bituminous Patching (Eff. 1-1-98)	
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21		Protective Shield System (Eff. 4-1-95) (Rev. 1-1-03)	. 109
22		Polymer Concrete (Eff. 8-1-95) (Rev. 3-1-05)	. 160
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24		Controlled Low-Strength Material (CLSM) (Eff. 1-1-90) (Rev. 3-1-05)	
25		Pipe Underdrains (Eff. 9-9-87) (Rev. 1-1-98)	
26		Guardrail and Barrier Wall Delineation (Eff. 12-15-93) (Rev. 1-1-97)	. 170
27		Bicycle Racks (Eff. 4-1-94) (Rev. 1-1-97)	
28		Reserved	
29		Reserved	
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31		Night Time Inspection of Roadway Lighting (Eff. 5-1-96)	180
32		Reserved	181
33		English Substitution of Metric Bolts (Eff. 7-1-96)	
34		English Substitution of Metric Reinforcement Bars (Eff. 4-1-96) (Rev. 1-1-03)	183
35		Polymer Modified Emulsified Asphalt (Eff. 5-15-89) (Rev. 1-1-04)	
36		Corrosion Inhibitor (Eff. 3-1-80) (Rev. 7-1-99)	
37		Quality Control of Concrete Mixtures at the Plant-Single A (Eff. 8-1-00) (Rev. 1-1-04)	
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## STATE OF ILLINOIS

### SPECIAL PROVISIONS

The following Special Provisions supplement the "Standard Specifications for Road and Bridge Construction," adopted January 1, 2002 (hereinafter referred to as the Standard Specifications): the latest edition of the "Illinois Manual on Uniform Traffic Control Devices for Streets and Highways", and the "Manual of Test Procedures for Materials" in effect on the date of invitation for bids, and the Supplemental Specifications and Recurring Special Provisions indicated on the Check Sheet included herein which apply to and govern the construction of FAI Route 94, Section (1516.1, 1717 & 1818) I-4 in Cook County. In case of conflict with any part or parts of said specifications, the said Special Provisions shall take precedence and shall govern.

F.A.I. Route 94 (Dan Ryan / Bishop Ford / I-57 Expressways) Section: (1516.1, 1717 & 1818) I-4 County: Cook Contract: 62933 (17 H)

### LOCATION OF PROJECT

The project is located on the section of southbound Interstate 94 (Dan Ryan Expressway), between 79<sup>th</sup> Street and 95<sup>th</sup> Street in the City of Chicago. The work follows the South Lafayette Avenue frontage road within the project limits given and includes work at or near the intersections of 79<sup>th</sup> Street, 87<sup>th</sup> Street and 95<sup>th</sup> Street. The length along Lafayette Avenue is approximately 2.0 miles.

### DESCRIPTION OF PROJECT

The project consists of installing landscape and concrete items at designated corner gardens and planting beds along Lafayette Avenue. The work at each location is outlined below. It should be noted that the work outlined is inclusive of the major items only. All other items necessary to complete this work are outlined in the plan sheets.

• Corner Garden at NE corner of 79<sup>th</sup> Street and Lafayette Avenue.

- 1. Installing Porous Granular Material, Geotechnical Fabric, and Planting Mix.
- 2. Installing Inspection Pipe.
- 3. Installing Seeding Class 2A.

- Corner Garden at SE corner of 87<sup>th</sup> Street and Lafayette Avenue.
  - 1. Installing Water Service Line and Utility Drop Down for Future Irrigation Projects.
  - 2. Installing Porous Granular Material, Geotechnical Fabric, and Planting Mix.
  - 3. Installing Inspection Pipe.
  - 4. Installing Seeding Class 2A
- Planting Bed at Lafayette Avenue at 94<sup>th</sup> Street.
  - 1. Installing Water Service Line and Utility Drop Down for Future Irrigation Projects.
  - 2. Installing Concrete Curb, Type B, and Concrete Median Surface, 5" (Modified).
  - 3. Installing Irrigation System and Water Service Connection and Equipment.
  - 4. Installing Porous Granular Material, Geotechnical Fabric, and Planting Mix.
  - 5. Installing Inspection Pipe.
  - 6. Installing Landscape Items.
- Planting Bed at Lafayette Avenue South of 95<sup>th</sup> Street.
  - 1. Installing Water Service Line and Utility Drop Down for Future Irrigation Projects.
  - 2. Installing Concrete Curb, Type B, and Concrete Median Surface, 5" (Modified).
  - 3. Installing Irrigation System and Water Service Connection and Equipment.
  - 4. Installing Porous Granular Material, Geotechnical Fabric, and Planting Mix.
  - 5. Installing Inspection Pipe.
  - 6. Installing Landscape Items.

In addition, the project includes providing traffic control protection, informational signing and other incidental and collateral work.

## MAINTENANCE OF ROADWAYS

Effective: September 30, 1985

Revised: November 1, 1996

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

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

## STATUS OF UTILITIES TO BE ADJUSTED

Effective: January 30, 1987

Revised: July 1, 1994

Utility companies involved in this project have provided the estimated dates:

<u>Name of</u> <u>Utility</u>	<u>Type</u>	Location	Estimated Dates for Start and Completion of Relocation or Adjustments
SBC	12 MTD IS IN POTENTIAL CONFLICT WITH EXCAVATION FOR FUTURE SIDE SLOPE PLANTING BED.	95 <sup>th</sup> Street Station 1204+33	SBC to reroute to Chicago Bureau of Electricity duct package attached to 95 <sup>th</sup> Street Bridge. Adjustment completed by September 1, 2005.
Peoples Energy	16" LP STEEL & 16" MP STEEL IN POTENTIAL CONFLICT WITH PIPING FOR FUTURE IRRIGATION SYSTEM.	79 <sup>th</sup> Street corner garden. Two locations: Station 1313+40 Station 1313+45	No conflict anticipated. Hand excavation is required for corner garden installation. Contact Mr. Ed Proctor at 773-962-4840 at least 48 hours in advance. Emergency Number 312- 240-7001.

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

## COMPLETION DATE PLUS GUARANTEED WORKING DAYS

The Contractor shall complete all contract items and safely open all roadways to traffic by May 31, 2007, except as specified herein.

"The Contractor will be allowed to complete all clean-up work and punch list items within fifteen (15) guaranteed working days after the completion date for opening the roadway to traffic. Under extenuating circumstances the Engineer may direct that certain items of work, not affecting the safe opening of the roadway to traffic, may be completed within the guaranteed working days allowed for clean up work and punch list items. Temporary lane closures for this work may be allowed at the discretion of the Engineer.

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

## INTERIM COMPLETION DATE FOR PHASE I

The Contractor shall schedule his/her operation in order to complete all Phase I work and open all roadways to traffic on or before October 15, 2006.

Phase I:

Construction of the concrete curb, concrete median surface, porous granular material, water service items, irrigation systems, planting soil mix and complete all other work associated with these items for the 94<sup>th</sup> and 95<sup>th</sup> Street Planting Beds.

Installation of the porous granular material, utility drop downs, planting soil mix and complete all other work associated with these items for the 87<sup>th</sup> Street Corner Garden.

Installation of the porous granular material, planting soil mix and complete all other work associated with these items for the 79<sup>th</sup> Street Corner Garden.

Installation of plant materials for the 94<sup>th</sup> and 95<sup>th</sup> Street Planting Beds.

Installation of seeding for the 79<sup>th</sup> and 87<sup>th</sup> Street Corner Gardens.

## INTERIM COMPLETION DATE FOR PHASE II

The Contractor shall schedule his/her operation in order to complete all Phase II work and open all roadways to traffic on or before May 31, 2007.

### Phase II:

Weeding, watering and all work which is necessary to maintain the health and satisfactory appearance of all plant materials in the 94<sup>th</sup> and 95<sup>th</sup> Street Planting Beds during the period of establishment (March 1, 2007 to April 30, 2007).

Installation of all required replacement plant materials and all required clean up the 94<sup>th</sup> and 95<sup>th</sup> Street Planting Beds.

## LANE CLOSURE RESTRICTIONS

Starting July 1, 2006, temporary lane closures will not be permitted during the hours of 6:00 a.m. to 9:00 a.m. and 3:00 p.m. to 6:00 p.m. Monday through Friday along the Frontage Road.

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

Failure to Open Traffic Lanes to Traffic: Should the Contractor fail to completely open and keep open all the traffic lanes to traffic in accordance with the limitations specified above, the Contractor shall be liable and shall pay to the Department the amount of \$250 per lane blocked, not as a penalty but as liquidated and ascertained damages, for each and every 15 minute interval or a portion thereof that a lane is blocked outside the allowable time limitations. The

Department may deduct such damages from any monies due the Contractor. These damages shall apply during the period governed by guaranteed working days and any extensions of that contract time.

## COORDINATION WITH ADJACENT AND/OR OVERLAPPING CONTRACTS

This contract abuts and /or overlaps with other concurrent Contracts as listed below. Each Contract includes work items requiring close coordination between the Contractors regarding the sequence and timing for the execution of such work items.

# 67<sup>TH</sup> ST. SB & NB C-D SYSTEM & RAMPS Contract 62590 (Dan Ryan Contract 7)

Location	Starting Date	Tentative Completion Date			
67 <sup>th</sup> to 71 <sup>st</sup> ST	Under Construction	June - 2005			
CONSTRUCT NB EXPRESS LANES Contract 62300 (Dan Ryan Contract 14)					
Location	Starting Date	Tentative Completion Date			
31 <sup>st</sup> to 71 <sup>st</sup> ST	March 2006	November - 2006			
CONSTRUCT SB EXPRESS LANE	ES Contract 62302 (Dan Ry	an Contract 15)			
Location	Starting Date	Tentative Completion Date			
31 <sup>st</sup> to 71 <sup>st</sup> ST	March 2006	November - 2006			
NB RET. WALLS, RAMPS, SIGNING (Contract 62694) Dan Ryan Contract 17A					
Location	Letting Date	Tentative Completion Date			
<u>Location</u> 71 <sup>st</sup> ST to I-57 Interchange		<u>Tentative Completion Date</u> July - 2006			
	June 2005	July - 2006			
71 <sup>st</sup> ST to I-57 Interchange	June 2005	July - 2006			
71 <sup>st</sup> ST to I-57 Interchange SB RET. WALLS, RAMPS, SIGNI AND 76 <sup>th</sup> STREET BRIDGE	June 2005 NG (Contract 62695) Dan F	July - 2006 Ryan Contract 17B			
71 <sup>st</sup> ST to I-57 Interchange SB RET. WALLS, RAMPS, SIGNI AND 76 <sup>th</sup> STREET BRIDGE Location	June 2005 NG (Contract 62695) Dan F Letting Date June 2005	July - 2006 Ryan Contract 17B <u>Tentative Completion Date</u> July - 2006			
71 <sup>st</sup> ST to I-57 Interchange <b>SB RET. WALLS, RAMPS, SIGNI</b> <b>AND 76<sup>th</sup> STREET BRIDGE</b> <u>Location</u> 71 <sup>st</sup> ST to I-57 Interchange	June 2005 NG (Contract 62695) Dan F Letting Date June 2005	July - 2006 Ryan Contract 17B <u>Tentative Completion Date</u> July - 2006			

F.A.I. Route 94 (Dan Ryan Expressway) Section (1516.1, 1717 & 1818) I-4 Cook County Contract 62933 (17H)

# LIGHTING & SURVEILLANCE (Contract 62583) Dan Ryan Contract 2

Location	Letting Date	Tentative Completion Date			
31 <sup>st</sup> ST to I-57 Interchange	April- 2005	December - 2007			
I-57 CONVENTIONAL LIGHTING (Contract 62937) Dan Ryan Contract 2D					
Location	Letting Date	Tentative Completion Date			
Halsted ST to Railroad Br	June- 2006	December - 2007			
SEWER TELEVISING SB RAMPS	(Contract 62935) Dan Ryan	Contract 17F			
Location	Letting Date	Tentative Completion Date			
71 <sup>st</sup> ST to I-57 Interchange	June - 2005	July - 2006			
CORNER GARDEN & IRRIGATION (Contract 62934) Dan Ryan Contr		5			
Location	Letting Date	Tentative Completion Date			
S. State St, between 75 <sup>th</sup> & 76 <sup>th</sup>	September - 2005	June - 2007			
FENCING NB RAMPS, (Contract 6	2932) Dan Ryan Contract 1	71			
Location	Letting Date	Tentative Completion Date			
71 <sup>st</sup> ST to 95 <sup>th</sup> ST	June - 2005	July - 2006			
FENCING SB RAMPS, (Contract 6	2931) Dan Ryan Contract 1	7J			
Location	Letting Date	Tentative Completion Date			
76 <sup>th</sup> ST to I-57 Interchange	June - 2005	July - 2006			
NB MAINLINE RECONSTRUCTION (Contract 62304) Dan Ryan Contract 20 AND BRIDGE RECONSTRUCTION					
Location	Letting Date	Tentative Completion Date			
76 <sup>th</sup> ST to I-57 Interchange	June - 2006	November – 2007			

F.A.I. Route 94 (Dan Ryan Expressway) Section (1516.1, 1717 & 1818) I-4 Cook County Contract 62933 (17H)

## SB MAINLINE RECONSTRUCTION, (Contract 62593) Dan Ryan Contract 23

Location	Letting Date	Tentative Completion Date
76 <sup>th</sup> ST to I-57 Interchange	June - 2006	November – 2007

## OVERHEAD BRIDGES (OVER DAN RYAN EXPRESSWAY)

Location	Letting Date	Tentative Completion Date
71 <sup>st</sup> Street Bridge	July 2005	July 2006
76 <sup>th</sup> Street Bridge	June 2005	July 2006
91 <sup>st</sup> Street Bridge	March 2005	June 2006
Michigan Avenue Bridge	Dec 2004	Feb 2006

Supplemental to the requirements of the Standard Specifications Article 105.08-Cooperation Between Contractors, the Contractors shall identify all such work items at the beginning of the Contract, and coordinate sequence and timing for their execution with the other Contractors through the Engineer. These work items shall be identified as separate line items in the Contractor's proposed Construction and Progress Schedule. Any conflicts between Contractor's schedules, the Department will be consulted through the Engineer to determine a resolution. Additional compensation or extension of the contract time will not be allowed for work and/or progress and/or lack of progress affected by lack of such coordination by the Contractor.

### ADVANCED PUBLIC NOTIFICATION

### Description:

This work shall consist of furnishing, installing, maintaining, relocating for various stages of construction, and eventually removing the advanced signing.

### General:

The Contractor shall provide notice to the public a minimum of 14 days in advance of any work that requires the closure of lanes or ramps through the use of a changeable message sign or temporary information signing.

### Basis of Payment:

This work will be paid as CHANGEABLE MESSAGE SIGNS in calendar months or TEMPORARY INFORMATION SIGNING in sq. ft.

### CONTRACTOR'S DAILY WORK SCHEDULE

### Description:

The Contractor shall submit a daily work schedule to the Resident Engineer for the purpose of coordinating the Contractor's activities for the next working day. The daily schedule must be submitted by 3:00 pm the day before. This schedule is necessary for the Engineer to schedule inspection, testing and layout checking for the following day.

The schedule shall include the location and type of all work to be performed that day and all material deliveries. It shall identify all concrete pours, the concrete mix design numbers, and estimated number of cubic yards. The placement of bituminous materials shall be identified, including the mix design numbers, location and number of estimated tons to be placed. The Contractor shall identify all locations where survey verification is required and shall give sufficient advance notification to the Engineer so as not to cause delay.

### Method of Measurement:

This coordination work will not be measured for payment.

### Basis of Payment:

Preparation and submittal of the Contractor's Daily Work Schedule shall not be paid for separately, but shall be included in the cost of the contract items of work.

## CONTRACTOR OFF-STREET PARKING RESTRICTION

The Contractor and all employees working on this project will not be allowed to park their vehicles and equipment on frontage roads or streets. The Contractor shall provide off-street parking facility for all vehicles and equipment. The Contractor shall also provide any transportation required to get his employees to and from the work site. The Contractor will provide the RE with written documentation of the off-site parking location.

The cost to comply with this requirement will not be paid for separately, but shall be considered as included in the contract unit bid prices of the contract, and no additional compensation will be allowed.

## POROUS GRANULAR MATERIAL

Work under this item shall be in accordance with the requirements of Section 207 of the Standard Specifications except as herein modified.

<u>Description</u>: This work shall consist of furnishing, transporting and placing porous granular material.

<u>General Requirements</u>: Materials placed as French Drains in medians and corner gardens shall be of CA (1) or CA (3) gradation as described in Section 1004 of the Standard Specifications. Geotechnical Fabric and Inspection Pipes shall be paid for separately.

Material placed as backfill, or other applications shall meet the requirements of Section 1003 and 1004 of the Standard Specifications, except that wet bottom boiler slag as defined in Article 1004.01 will not be allowed. The gradations for different applications shall be determined by the Engineer. The use of limestone, crushed concrete, or any other lime bearing material will not be permitted within two (2) feet of any planted area.

The aggregate shall be placed in six (6) inch layers, loose measurement, and compacted in a manner approved by the Engineer, except that if the desired results are being obtained, the compacted thickness of any layer may be increased to a maximum thickness of eight (8) inches.

<u>Method of Measurement</u>: Porous Granular Material will be measured for payment in cubic yards, compacted in place and the volume computed by the method of average end areas.

<u>Basis of Payment</u>: POROUS GRANULAR MATERIAL, of the thickness specified, will be paid for at the contract unit price per cubic yard, which price shall include all labor, material and equipment for furnishing, transporting, placing and compacting the material in place.

## PLANTING MIX FURNISH AND PLACE

Work under this item shall be performed in accordance with Section 200 of the Standard Specifications for Road and Bridge Construction except as modified herein.

<u>Description:</u> This work shall consist of furnishing, transporting, testing, preparing, and placing planting soil including finish grading to the depth specified in areas as shown in the plans or as directed by the Engineer.

<u>General Requirements:</u> In general the planting soil shall be two (2) parts pulverized top soil and one (1) part coarse sand. The sand, in the amount required to produce an acceptable planting soil, shall be added and mixed during the pulverization process only. The sand shall be of an FA 2 gradation.

<u>Soil Stockpiling:</u> The Contractor shall obtain the total quantity of planting soil required for this project and stockpile this material at an acceptable offsite location a minimum of 30 days in advance of placement. The stockpile must be covered to avoid excessive moisture content and erosion. The Contractor shall have the material tested following the guidelines presented below under Soil Testing and, if approved, this stockpile shall be the sole source for planting soil to be delivered to site. The test results along with a Request for Inspection form should be sent to the Engineer prior to delivering the material to site. This transmittal must also identify the location of the stockpile. If there are any changes in source the Contractor shall notify the Engineer immediately. There will be no additional time allowed for the completion of this project in order to substitute, test, and approve a new source of planting soil.

<u>Delivery, Storage and Handling:</u> Protect soil from absorbing excess water and from erosion at all times. Do not store materials unprotected from large rainfall events. Do not allow excess water to enter site prior.

<u>Soil Testing</u>: No planting soil shall be delivered to the site until the Engineer has reviewed test results and has accepted the planting soil. The Contractor shall employ a soil testing agency acceptable to the Engineer, which uses test methods approved by the Association of Agricultural Chemists. Test frequency shall be as follows:

F.A.I. Route 94 (Dan Ryan Expressway) Section (1516.1, 1717 & 1818) I-4 Cook County Contract 62933 (17H)

Quantity of Soil Placed (c.y.)	Number of Tests
1 - 200	1
200 – 1000	3
1000 <	((Quantity – 1000) / 500) + 3
	round up to whole number

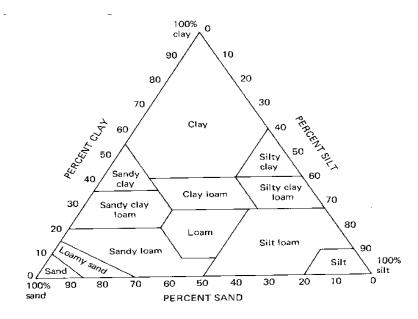
When more than one test is performed, the average of the test results will be used to determine acceptance.

The planting soil test report must obtain the following information:

		HIGH	LOW
1. Chemical a.	Analysis pH	7.0	6.5
2. Mechanica	al Analysis		
a.	% clay	25%	0%
b.	% silt	77%	45%
с.	% sand	33%	25%

### 3. Additionally the following variables are required.

- d. cation exchange capacity (CEC)
- e. soluble salts
- f. organic matter
- g. phosphorous
- h. available potassium
- i. nutrients
- j. residual chemicals
- k. Recommendations to mitigate any issues from the results in items 3a through 3g.



The mechanical analysis should show that the % sand, % silt, and the % clay must yield a silt loam soil. See the attached Textural Classes diagram above. To determine the class plot a line parallel to the % clay axis starting the line at the value of the % silt. Plot another line parallel to the % sand axis starting the line at the value of the % clay. The intersection of these lines should be in the silt loam region, for the soil to be approved.

## Preparation and Placement:

- 1. Perform or coordinate final adjustments of any utility structure.
- Clean planters of all trash and debris before placement of soil mix. Remove and legally dispose of debris off site in accordance with Article 202.03. Repair to the satisfaction of the Engineer any portion of the geotechnical fabric or drainage layers prior to installation of planting soil mix.
- 3. Place, spread and rough grade specified planting soil to depths specified in all areas to be planted. Place planting soil mix in two level (2) lifts. The first lift shall contain 2/3 of the planter soil depth. After placing each lift, moisten the surface at a rate sufficient to hydraulically settle the soil, as determined by the Engineer. Allow water to thoroughly percolate through the soil before placing the next lift. Allow for settling, and place additional planting soil as necessary. Allow for placement and mixing of compost, as determined by the Engineer, but place enough soil mix to meet finish grades within =/- 0.10 foot of design grades.
- 4. Rake smooth and finish grade all planted areas. The removal of excess material or the addition of planting soil may be required prior to landscaping. This shall be considered incidental to planting soil. Grading will be to a tolerance +/- 0.10 foot of design grades. Any grade disturbed by irrigation installation shall be restored to finish grade and raked smooth.
- 5. All debris, litter, tire tracks, dirt, and unintended materials shall be removed, swept or washed off of all landscape, hard median surfaces, and pavement on a daily basis.

### Planter Soil Acceptance:

The Engineer retains the right to visually inspect planting soil mix on site before placement. The Engineer may ask that material suspected of not meeting specification be removed from the site, until the material can be mechanically tested.

The final determination of the planter soil quality shall be based upon soil tests taken by the Engineer. The samples shall be taken at the time of planting soil installation. The samples will be tested by independent accredited agencies, for the Engineer. The test frequency shall be the same as listed above. When more than one test is required, the percentages of sand, silt and clay will be averaged. This averaged value will be used to determine the soil quality.

If the averaged test result for sand or silt content is outside the range specified by less than five (5%) percent, an adjusted unit price will be used in computing payment for the planting soil. The adjusted unit price will be a percentage of the contract unit price as given in the following schedule:

Average Sand or Silt Deficiency	Percent of Contract Payment
0 to 2	80
2.1 to 4	66
4.1 to 5	50

Clay content in excess of this specification by two (2%) percent or less: If the averaged result for clay is outside the range specified by less than two (2%) percent an adjusted unit price will be used in computing payment for the planting soil. The adjusted unit price will be sixty-six (66%) percent of the contract unit price.

The Contractor shall remove all deficient planting soil and install material meeting this specification. The Contractor shall be responsible for all costs incurred to remove deficient material and install acceptable planting soil. The Contractor shall be responsible for any damage to plant material, irrigation system, waterproof membrane, or any other damage caused by this work. The Contractor shall be responsible for all additional traffic control. No additional time will be provided in the contract to perform remedial work.

<u>Method of Measurement</u>: PLANTING MIX FURNISH AND PLACE will be measured for payment in place to the depth specified in square yards. Areas not meeting the depth specified shall not be measured for payment.

<u>Basis of Payment:</u> This work will be paid for at the contract unit price per square yard (square meter) for PLANTING MIX FURNISH AND PLACE, 36". Payment shall include all testing, furnishing, stockpiling, transporting of materials, all labor and equipment necessary, disposal and incidentals required to complete the work as specified herein and to the satisfaction of the Engineer. Furnishing and Placing Compost shall be paid for separately.

## MULCH

Mulch installation described shall be performed at all planter locations and as directed by the Engineer.

<u>Description</u>: This item shall consist of furnishing, transporting and placing shredded hardwood bark mulch in planter areas as described herein and per direction of the Engineer.

<u>General Requirements</u>: The Contractor shall supply and install shredded hardwood bark mulch, as required to mulch around trees, shrubs, and herbaceous plants in landscaped areas.

The Contractor shall remove all litter and plant debris before mulching. The Contractor shall repair grade by raking Planting Soil as needed, before mulching. Care shall be taken not to bury leaves, stems, or vines under mulch material.

All finished mulch areas shall be left smooth and level to maintain a uniform surface and appearance. All work areas shall be cleaned of debris and mulch, prior to leaving the site.

Hardwood bark mulch shall be clean, finely shredded mixed-hardwood bark, not to exceed two (2) inches in its largest dimension, free of foreign matter, sticks, stones, and clods. All hardwood mulch shall be processed through hammermill. Hardwood bark not processed through a hammermill shall not be accepted.

A sample and request for material inspection form must be supplied to the Engineer for approval prior to performing any work.

Place mulch layer around plants as follows:

<u>Perennials, including: bulbs, ground cover, vines, grasses</u>: Two (2) inches deep – keep mulch away from crowns of plants.

<u>Shrubs, including shrubs and roses</u>: Two (2) inches deep – keep mulch away from stems, crown, or neck of shrub.

<u>Trees, shade and ornamental</u>: Three (3) inches deep – keep mulch away from the trunk of the tree.

<u>Method of Measurement</u>: MULCH shall be measured for payment in place and in units of square yards of mulch installed, as described herein. This item will not be paid by Load Tickets.

<u>Basis of Payment</u>: MULCH will be paid for at the contract unit price per square yard which price shall include all labor, material, and equipment necessary to complete the item stated above.

## PAVEMENT REMOVAL AND REPLACEMENT

Work under this item shall be performed in accordance with Sections 440 and 441 of the Standard Specifications and Detailed Construction Standards, except as herein modified.

<u>Description</u>: This work shall consist of full depth sawcutting, removal, disposal, and replacement of existing pavement that is not scheduled for removal but is to remain in place at locations of proposed sewers, manholes, drains, conduits and water services.

<u>General Requirements:</u> This work shall consist of full depth sawcutting of the existing pavement, the excavation of the existing pavement material, its legal disposal beyond the limits of the project, and full depth pavement replacement, including supplying, drilling, installing, and grouting dowel bars into the PCC base course of the adjacent pavement. If machine breaking is necessary because the existing pavement is concrete or has a concrete base, it shall be done to the satisfaction of the Engineer and in such a manner that any underlying utility structures will not be disturbed.

The materials and method for replacement of the removed pavement shall be as shown in the Detail Construction Standard or Plans, performed in accordance to Sections 353 and 406 of the Standard Specifications.

High-early strength PCC base course, bituminous materials prime coat, sub base granular, and "SuperPave" bituminous concrete binder and surface courses shall be used. The mixture requirement consists of the following:

ITEM				AC TYPE	VOIDS	RAP %
BIT.	CONC.	SURFACE	COURSE,	PG 64-22	4% @ 70 Gyr	10
SUPE	RPAVE, MI	X "D", N70				
POLY	MERIZED	LEVELING	BINDER	SBS/SBR	2.5% @ 50 Gyr	0
(MACI	HINE METH	HOD), SUPER	PAVE, IL –	PG 76-28		
4.75, 1	N50					

The unit weight used to calculate all Bituminous Concrete Mixtures is 112 lbs/sqyd/in.

These materials will not be measured or paid separately.

Removed sections of pavement shall not be left open over night, but shall be backfilled to existing elevation or plated. No additional payment shall be made for backfilling or plating sections of removed pavement.

<u>Method of Measurement:</u> Pavement Removal and Replacement will be measured for payment in square yards. Removal and replacement shall not be measured separately. The actual area of full depth replacement shall be used as the basis of payment.

<u>Basis of Payment</u>: PAVEMENT REMOVAL AND REPLACEMENT will be paid for at the contract unit price per square yard, which price shall include all labor, materials, and equipment to perform the work including full depth sawcutting, removal, disposal, traffic control, temporary backfilling, plating, sub-base, concrete base course, prime coat, binder and surface courses, dowel bars, and any other work required to complete this work as specified.

## PLANTING WOODY PLANTS

This work shall consist of planting woody plants as specified in Section 253 of the Standard Specifications with the following revisions:

Delete Article 253.03 (b) and substitute the following:

Fall Planting. This work shall be performed prior to October 15th. No planting material shall be installed before below ground irrigation system components have been installed and are operational. Trees and shrubs shall be installed prior to perennial plant installations.

Delete the first and second sentences of Article 253.04 and substitute the following:

All woody plant material shall be dug while dormant in the spring and properly stored until the planters are ready for planting.

Delete the first sentence of Article 253.06 and substitute the following:

All woody plant material will be allowed to remain in temporary storage over the summer if dug while dormant in the spring.

Delete the third sentence of Article 253.07 and substitute the following:

The Contractor shall be responsible for all plant layout. The layout must be performed by qualified personnel. The planting locations must be laid out as shown in the landscape plan. The tree locations must be marked by staking and bed limits must be painted. The Engineer will contact the Roadside Development Unit at (847) 705-4171, at least 72 hours prior to planting to verify the layout.

Delete Article 253.08 Excavation of Plant Holes and substitute the following:

(a) and (b) Excavation for Trees and Shrubs:

The spacing of planting will be designated on the plans.

Spacing shall be measured from center to center and alternate rows shall be staggered.

Excavate with sides vertical, bottom flat but with high center for drainage. Deglaze and loosen bottom.

Minimum dimensions for individual tree pits (unless prevented by planter wall):

The diameter of the hole shall be one (1) foot wider than the root spread.

The depth of the hole shall be such that the top of the root ball is 2 to 3 inches above finish grade (allow for settling).

Delete Article 253.10 (a) and substitute the following:

Balled and Burlapped Trees. Set plants in excavation with top of ball 2 to 3 inches above finished grade. Add soil as required under ball to achieve plumb. Untie all cords binding burlap to trunk. Remove all burlap and wire baskets from top 1/3 of the root ball. Place backfill in 6 inch-thick layers. Work each layer by hand to compact backfill and eliminate voids. Maintain plumb during backfilling. When backfill is approximately 2/3

complete, saturate backfill with water and repeat until no more water can be absorbed. Place and compact remainder of backfill and thoroughly water again. Approved watering equipment shall be at the work site and in operational condition PRIOR TO STARTING the planting operation and DURING all planting operations OR PLANTING WILL NOT BE ALLOWED.

Add the following to Article 253.10 (b) Container Grown Plants:

Place and backfill as specified for balled and burlapped stock. Set and plumb shrub even with grade. Place backfill to thoroughly cover all roots.

Delete Article 253.11 and substitute the following:

Immediately after planting and watering, mulch shall be placed around all plants in the entire mulched bed or saucer area specified to a depth of 3 inches. See specification for Mulch.

Delete Article 253.13 and substitute the following:

Staking of trees will not be required.

Delete first paragraph of Article 253.14 and substitute the following:

Trees and shrubs must undergo a Period of Establishment starting from the day the plants are planted to May 7, 2007. Inspection for the successful completion of the Period of Establishment will be made during May 1 to May 7, 2007. To qualify for inspection, the Contractor must receive written certification from the Engineer stating that all specified plant material was in place and in a live healthy condition on or before October 15, 2006. To be acceptable, the plant must be in a live healthy condition, representative of its species. No portion of this work will be inspected until all items of work are completed.

Delete the second paragraph of Article 253.14.

Delete the second sentence of third paragraph of Article 253.14 and substitute the following:

Plants that do not meet the requirement for acceptance shall be replaced by the Contractor at his/her own expense following the date of inspection and prior to May 31, 2007.

Delete sub-paragraph (a) of Article 253.15 Plant Care and substitute the following:

Additional watering shall be performed not less than twice a week during the Period of Establishment if the irrigation system is not able to provide enough water to establish the plants. The Engineer may direct the Contractor to adjust the watering rate and frequency depending upon the weather conditions.

The water shall be applied to individual plants in such a manner that the plant hole shall be saturated without allowing the water to overflow beyond the earthen saucer. Watering of plants in beds shall be applied in such a manner that all plant holes are uniformly saturated without allowing the water to flow beyond the periphery of the bed. The plants to be watered and the method of application will be approved by the Engineer. The Contractor will not be relieved in any way from the responsibility for unsatisfactory plants due to the amount of watering.

Delete sub-paragraph (b) of Article 253.15 Plant Care and substitute the following:

Woody plants must undergo a Period of Establishment starting from the day the plants are planted to April 30, 2007. During the Period of Establishment, weeds and trash removal shall be removed from within the earthen saucer of individual trees and from the areas within the mulched shrub beds. This weeding and trash removal shall be performed one (1) time per week or as directed by the Engineer during the Period of Establishment. The Contractor will not be relieved in any way from the responsibility for unsatisfactory plants due to the extent of weeding or trash removal.

The weeding shall be performed in manner approved by the Engineer provided the weed and grass growth, including their roots and stems, are removed from the area specified. Mulch disturbed by the weeding operation shall be replaced to its original condition. All debris including trash removal that results from this operation must be removed from the right-of-way and disposed of at the end of each day in accordance with Article 202.03.

At the end of period of establishment, the Contractor will be permitted to replace any unacceptable plants by May 31, 2007 and shall thoroughly weed all the beds.

Add the following to Article 253.16 Method of Measurement:

Mulch placement will be measured for payment as specified in Mulch.

Delete Article 253.17 and substitute the following:

Basis of Payment. This work will be paid for 50% of the contract unit price each for several kinds and sizes of trees, shrubs and vines found to be in a live and healthy condition by October 15, 2006, as specified in Article 253.14. The remaining 50% of the contract unit price each will be paid for after the successful completion of all required replacement plantings and clean up work and receipt of the "Final Acceptance of Landscape Work" memorandum from the Bureau of Maintenance. The unit price shall include the cost of all material, equipment, labor, plant care, disposal and incidental required to complete the work as specified herein and to the satisfaction of the Engineer. The placement of Mulch shall be paid for at the contract unit price for MULCH.

### PLANTING PERENNIAL PLANTS

Add the following to Article 254.04 Planting Time:

No planting material shall be installed before below ground irrigation system components have been installed and are operational.

Trees must be installed prior to perennial planting to establish proper layout and to avoid damage to other plantings.

Add the following to Article 254.06 Layout of Planting:

The Contractor shall be responsible for all plant layout. The layout must be performed by qualified personnel. The planting locations must be laid out as shown in the landscape plan. The tree locations must be marked by staking and bed limits must be painted. The Engineer will contact the Roadside Development Unit at (847) 705-4171, at least 72 hours prior to planting to verify the layout.

Add the following to Article 254.07 Planting Procedures:

When planting perennials in bed areas shown on the plans or as directed by the Engineer, the following work shall be performed when planting:

Open holes sized to accommodate roots, place perennials at finished grade and backfill with planting soil, working carefully to avoid damage to roots and to leave no voids.

Water well immediately after planting. Do not wash soil onto crowns of plants.

Add the following to Article 254.08 Mulching:

Immediately after planting and watering, mulch shall be placed around all perennial plants to a depth of 2 inches and such that mulch covers all parts of the bed. See specification for Mulch.

Delete Article 254.09 (b) and substitute the following:

Perennial plants must undergo a Period of Establishment starting from the day the plants are planted to May 31, 2007. Additional watering shall be performed not less than twice a week during the Period of Establishment if the irrigation system is not able to provide enough water to establish the plants. Water shall be applied at the rate of 1 gallon per square foot. Should excess moisture prevail, the Engineer may delete any or all of the additional watering cycles. In severe weather, the Engineer may require additional watering.

A spray nozzle that does not damage small plants must be used when watering perennial plants. Water shall be applied at the base of the plant to keep as much water as possible off plant leaves. Watering of plants in beds shall be applied in such a manner that all plant holes are uniformly saturated without allowing water to flow beyond the periphery of the bed.

During the Period of Establishment, weeds and trash shall be removed from within the mulched perennial beds. This weeding and trash removal shall be performed one (1) time per week or as directed by the Engineer until receipt of the "Final Acceptance of Landscape Work" memorandum from the Bureau of Maintenance. The Contractor will not be relieved in any way from the responsibility for unsatisfactory plants due to the extent of weeding or trash removal.

The weeding shall be performed in manner approved by the Engineer provided the weed and grass growth, including their roots and stems, are removed from the area specified. Mulch disturbed by the weeding operation shall be replaced to its original condition. All debris including trash removal that results from this operation must be removed from the right-of-way and disposed of at the end of each day in accordance with Article 202.03.

An interim inspection of the perennials will be performed during May 1 to May 7, 2007. Any unacceptable perennials shall be replaced by the completion date May 31, 2007.

Delete the second sentence of Article 254.10 Method of Measurement and substitute the following:

Final measurement for payment of this work will be performed on the final inspection date.

Add the following to Article 254.10 Method of Measurement:

a) Mulch placement will be measured for payment as specified in special provision for MULCH.

Add the following to Article 254.11 Basis of Payment:

- a) The placement of mulch shall be paid for at the contract unit price for MULCH.
- b) The unit price shall include the cost of all materials, equipment, labor, plant care, removal, disposal and incidentals required to complete the work as specified herein and to the satisfaction of the Engineer.
- c) This work will be paid for 75% of the contract unit price per unit of perennials in a live and healthy condition on the date the perennials are planted. The remaining 25% of the contract unit price per unit will be paid for after the successful completion of all required replacement planting and clean up work and receipt of the "Final Acceptance of Landscape Work" memorandum from the Bureau of Maintenance. The unit price shall include the cost of all material, equipment, labor, plant care, disposal and incidental work required to complete the work as specified herein and to the satisfaction of the Engineer.

### **GEOTECHNICAL FABRIC**

<u>Description</u>: This work shall consist of placing Geotechnical Fabric for French Drain in landscaped areas, as shown on the plans or as directed by the Engineer.

<u>General Requirements</u>: The fabric shall be delivered to the jobsite is such a manner to facilitate handling and incorporation into the work without damage. In no case shall the fabric be stored and exposed to direct sunlight that might significantly diminish its strength or toughness. Torn or punctured fabric shall not be used.

After the trench has been approved by the Engineer, the fabric shall be loosely rolled out so the center of the fabric is at the centerline of the excavated trench, and it will not tear when the aggregate is placed. When more than one section of fabric is used, the fabric shall overlap a minimum of two (2) feet. Enough fabric shall remain uncovered after the trench is filled to provide for fabric to overlap a minimum of two (2) feet at the top.

During backfilling with Porous Granular Material, a minimum 6-inch cushion of the aggregate shall be carefully placed over the lined trench before end dumping larger aggregates out of trucks or other equipment. Following the backfilling operation, the fabric shall be lapped over the top and covered with soil.

Materials for the geotechnical fabric shall meet the requirements of Section 1080.05 of the Standard Specifications.

<u>Method of Measurement</u>: Geotechnical Fabric will be measured for payment in place and the area computed in square yards. The additional fabric required for overlaps of individual sheets and overlaps at the top of the french drain will not be measured for payment.

<u>Basis of Payment</u>: GEOTECHNICAL FABRIC will be paid for at the contract unit price per square yard, which price shall include all labor, material and equipment for furnishing, transporting, and installing the material in place.

## **INSPECTION PIPE, 4 INCH**

<u>Description</u>: This work shall consist of the installation of the inspection pipe, 4 inch diameter at locations indicated on the plans or as directed by the Engineer.

<u>General Requirements</u>: Inspection Pipe, 4 inch shall extend from 3 inches above the mulch surface to the bottom of the French Drain, as shown in the plans.

The Inspection Pipe, 4 inch shall be Polyvinyl Chloride (PVC) pipe. The bottom 3 inches of the Inspection Pipe, 4 Inch shall be notched as indicated on plan details.

The top of the Inspection Pipe, 4 Inch is to be capped by use of a threaded cap and painted brown. The cap must be easily removed by use of a hand wrench.

Geotechnical fabric shall be secured around the inspection pipe by use of a stainless steel adjustable pipe clamp. The geotechnical fabric secured to the inspection pipe shall over lap the French Drain system a minimum of two (2) feet. This work is considered incidental to this item.

A  $3/4 \times 3/4$  inch or 3/4 inch diameter wooden rod, the same length as the Inspection Pipe, shall be placed inside the pipe.

Method of Measurement: Inspection Pipe, 4 Inch will be measured on a per each basis.

<u>Basis of Payment</u>: INSPECTION PIPE, 4 INCH shall be paid for at the contract unit price per each. This price shall include all labor, material and equipment required to complete this item per the Inspection Pipe Detail shown in the plans.

## **IRRIGATION SYSTEM**

Description:

- A. This work includes design and installation of the irrigation system as indicated on the drawings and as specified herein.
- B. Contractor shall prepare design drawings and shop drawings for approval by the Engineer and the Department of Water Management prior to commencement of any work on this item.
- C. This work shall include all labor, material, equipment, permits, and services to construct the irrigation system as designed in approved shop drawings, in accordance with sections 561, 562, 563, and 565 of the Standard Specification for Road and Bridge Construction and the Standard Construction Details, except as herein modified.
- D. The system shall be designed to irrigate the planting beds as detailed in the plans and irrigate future planting adjacent to the Dan Ryan Expressway with drip line covering an area approximately 50 feet by 200 feet. The system shall have enough zones to irrigate these areas, have sufficient water pressure to water these areas as specified under Design, and have irrigation and electrical conduits installed and stubbed out for this work to be performed at a later date by others.
- E. The system shall be designed such that water at NO TIME run off or spray onto the pavement.
- F. This work shall include monitoring and adjusting the completed system to assure healthy plant development.

Water Services:

A. Work described in the items WATER TAP, WATER VALVE ASSEMBLY, WATER METER IN VAULT, BACKFLOW PREVENTER (R.P.Z.), and WATER SERVICE LINE will collectively be described as Water Service Components within this specification.

- B. Water Service Components must be installed prior to the installation of the irrigation system, unless otherwise approved by the Engineer.
- C. The Water Service Components to be provided in this <u>contract</u> are shown in the plans. The number of water services and sizes shown in the plans have been designed to provide an adequate amount of water supply to service the areas to be irrigated (based on City of Chicago average water main pressure). If it is determined the Irrigation System requires a greater water supply to conform with the requirements of this specification the Contractor must notify the Engineer immediately. Contractor is to verify existing water pressure at the main and notify the Engineer in writing.
- D. The locations of Water Service Components are shown on the plans schematically. The location the Water Service Components will be determined by the Engineer in the field. The irrigation system must be designed to accommodate the location of the Water Service Components as installed.

## Electrical Services:

- A. The items contained in this contract used to supply electrical power for the irrigation system will be collectively described as the Electrical Service within this specification.
- B. Electrical Services are not required for battery or solar powered irrigation system controllers. The types of controllers to be used are shown on the plans.
- C. This specification includes requirements for both battery and electrical powered components. Therefore, some items are dependent on the type of system to be installed.
- D. Electrical Services will be obtained from either a new service from a Commonwealth Edison power source, or from a street lighting controller.
- E. Electrical services for pump stations <u>must</u> be obtained from a Commonwealth Edison power source.
- F. Electrical Service will extend to the pump station or irrigation system controller, and paid for using appropriate items. All electrical components from the pump station or irrigation system controller required to operate the irrigation system in accordance with this specification is considered incidental to this item and must be shown on the shop drawings.
- G. Contractor shall label all wire and circuit breakers to indicate they belong to the irrigation system, as directed by the Engineer.

## Codes and Standards:

A. Codes: All plumbing work shall be installed within applicable provisions of the City of Chicago building codes.

- B. All devices and their installation must be in accordance with the City of Chicago Plumbing Code.
- C. Standards: Items listed to conform to ASTM, ANSI, or manufactures recommendations, for installation.

### Design:

The design will be completed, reviewed, and signed by a Licensed Professional Engineer or a Licensed Plumber. The design will follow these guidelines:

- A. Max velocity = 5 feet per second.
- B. Spray head distribution system shall be designed, unless the existing water main pressure is not sufficient. If main pressure is not sufficient a drip line system could be designed if approved by the Engineer.
- C. Spray Heads Minimum Height: Non-Turf Areas: 12 inches expandable to 18 inches Turf Areas: minimum 4 inches or sufficient height to account for grade differentials

### D. PSI variance:

All spray heads should operate at  $\pm 3$  psi of every spray head within a zone. All zones should operate at  $\pm 3$  psi of every zone within a system.

### E. Isolation Valves:

Median Planters	Isolate each median planter
Parkway Planters	Isolate every 300 feet
Turf, Parks, & Malls	Per Engineer's Approval

## F. Head Spacing:

Median and Parkway Planters: 10 feet max spacing Turf, Parks, Malls, and Plazas: 50% of the diameter of throw minimum. Square or triangular spacing must be used. The heads should have a matched precipitation rate.

- G. Angle of Trajectory: Should be calculated so that the spray will be above the mature plant height.
- H. Precipitation:

Non-turf:	Minimum 1 1/2 Inch per week
Turf:	Minimum 1 Inch per week

## I. Watering Run Times:

Spray Head: Three (3) waterings per week, eight (8) hour per watering maximum duration.

Drip: Three (3) run times per week, twenty-four (24) hour per watering maximum duration.

J. Wiring size: calculations must be made to account for voltage drops and any splicing must be reflected on the shop drawings.

K.	Quick Couple Valves Spacing:	
	Median Planters:	200 feet or 1 per median
	Parkway Planters:	200 feet or 3 per block
	Parks, Malls and Plazas:	100 feet radius between valves, minimum

## L. Master Irrigation System Control Valve:

A master control valve must be installed in the irrigation mainline piping at a designated location specified by the City of Chicago during construction and on Public Property. The valve must only be open during irrigation run times. The valve must be located in a valve box.

## Submittals:

- A. Shop drawings shall be prepared by a Licensed Professional Engineer or a Licensed Plumber with proven experience in the design of irrigation systems of the magnitude of this project.
- B. Shop drawings shall include pipe detailing, controller layout, fabrication and installation of irrigation systems. Indicate plans, elevations and dimensions, including all accessories In addition, shop drawings must indicate water pressure at tapping location, and throughout irrigation system.
- C. Submittals shall include hydraulic calculations for circuit pressure losses and existing pressure at the main.
- D. Submittals shall include wiring sizes and electrical calculations.
- E. Submittals shall include a complete package of catalog cut sheets for all equipment used in this irrigation system.

## Manufacturers and Minimum Requirements:

Manufacturers: All products list herein are acceptable. However, the contractor can specify other products. These will be subject to review for approval prior to installation. Judgment of whether a product is equal to the approved will be based on the product information sheet, and the Engineer's past experiences with products.

1. <u>PVC or Polyethylene Piping & Fittings</u>:

All sprinkler piping mainlines and lateral pipe shall be SDR-21, Class 200, Polyvinyl Chloride (PVC) with a minimum pressure rating of 200 PSI. Pipe shall be permanently and continuously marked with the manufacturer's name, trademark, size, type, and National Sanitation Foundation (NSF) seal of approval. Pipe shall conform with the requirements of Commercial Standard CFS-256 and ASTM D-2241. PVC pipe shall be as manufactured by Crestline.

All PVC fittings shall be solvent weld, Schedule #40 and shall conform to ASTM D-2466. Fittings shall be manufactured from PVC Type I materials and shall meet National Sanitation Foundation (NSF) standards. PVC fittings shall be as manufactured by Spears Manufacturing Company. PVC fittings shall be joined with an approved PVC primer and cement.

Polyethylene piping 1 inch thru 1 ½ inch can be used for lateral piping, (down stream of the control valve). The pipe shall be polyethylene NT80 irrigation pipe SIDR-15 PE2406 NSF-PW ASTM D 2239 PPFA manufactured by Crestline. The pipe must be permanently continuously labeled accordingly. The insert fittings are to be constructed of PVC and shall conform to ASTM D 2609 and National Sanitation Foundation Standard #14 plastic fittings for potable water. Insert fittings shall be clamped to pipe with two (2) stainless steel crimp type clamps on each pipe end.

Plastic insert fittings for polyethylene plastic pipe are manufactured by Spears Manufacturing Company. Clamps shall be manufactured by Oetiker.

### 2. <u>Installation Main & Lateral Piping</u>:

All sprinkler main lines shall be installed by open trench method using either a chain type trencher or hand excavated. Trenches shall be excavated so as to provide sufficient depth and width to permit proper handling and installation of pipe and fittings. Excavate the trench deep enough to provide a minimum of 18 inches of cover over the pipe. Ensure that the bottom of the trench is clean and smooth with all rock, loose soil and organic matter removed. Trench bottom must provide a smooth and continuous bearing surface to support the pipe.

When the cutting of pipe is required the pipes shall be cut clean and square with all burrs removed prior to solvent welding. Pipe must be free of all dust, dirt, moisture, grease, oil, or any other foreign material.

Pipe shall be joined by solvent welding method using a quality primer and cement applied according to the manufacturer's recommendation. Excess solvent shall be wiped cleaned from the pipe and fittings.

Sprinkler lateral piping may be installed by either open trench method or with an approved "vibratory plow". Where the open trench method is employed, the above specifications shall apply. In both the "open trench" method and the "vibratory plow" method, the minimum depth of cover for the lateral lines shall be 18 inches.

Where the "vibratory plow" method is used, the "mole" or "bullet" of the plow which precedes the pipe and is used to form the opening for the pipe shall not be less than 1 inch larger diameter than the outside diameter of the pipe. Starting and finishing holes shall be of sufficient size to allow for proper connection of the required fittings.

For polyethylene pipe, the insert fittings are to be clamped with stainless steel clamps. All fittings are to be double clamped securely over the barbs on fittings. Detectable Warning Tape shall be installed over all pipes. The tape will be placed so that it is 6 inches above the top of the pipe. Polyethylene film warning tape manufactured for marking and identifying underground utilities, 4 inches wide and 5 mils thick minimum continuously inscribed with "Irrigation" detectable by metal detector when tape is buried up to 30 inches deep.

The irrigation system mainline water line in the bed shall not only provide water to the planting bed, but shall also connect to the Water Service Line 2 1/2" drop down to provide water at a future date for the irrigation of the planting beds adjacent to the Dan Ryan Expressway. In the irrigated planting beds, the mainline shall have an isolation valve in a valve box and a 2  $\frac{1}{2}$ " PVC to 2  $\frac{1}{2}$ " Copper adaptor as shown on the plans. This work is included in the cost of this irrigation system.

### 3a. Irrigation Controllers (Electric Operated):

The irrigation controllers shall accommodate all zones plus 3 extra zones, providing for complete automatic operation of the system. Run time for the controller shall be 0-2 Hours per station and shall provide for schedules of up to 2 weeks with interval scheduling available as an alternate method. The controllers shall have a seasonal adjust features capable of increasing or decreasing station timing from 0% to 200%. The controllers shall have a non-volatile memory capable of holding program information during power outages.

The controllers shall have a 365-day calendar, which automatically adjusts for leap year.

The controllers shall be programmable for up to 32 start times per day per program and shall be capable of operating 24 Volt AC electric remote control valves via a 30 Volt AC transformer.

The controller cabinets shall be constructed of cold forged stainless steel, and have a key-lockable door for vandal resistance.

The controllers shall be UL listed.

The controllers shall be Rainbird model ESP-MC.

### 3b. <u>Battery Operated Controller:</u>

An IBOC 12PLUS Series controller manufactured by Irritrol Systems, or an approved equivalent controller shall be furnished and installed to regulate the irrigation system. The controller shall operate on one six volt alkaline battery. The controller must be capable of watering a minimum of 12 stations.

## 4. Install Irrigation Controller (Electric and Battery Operated):

The irrigation controller is to be installed in a cabinet. The cabinet shall be brown in mulched areas and green in turfed areas or as directed by the Engineer. The cabinet will be able to be locked with a single lock. The lock will be provided by the Engineer. The cabinet will have the dimensions and installed per the details in the plans.

The low voltage irrigation control wiring is to be installed in 3 inch Schedule 40 PVC electrical conduit for protection. The conduit shall run from the controller, down and out 12 inches into the soil area. Conduit fittings are to be used to make 90 degree turn backs on the conduit at points of exit from the walls. (In no case shall the low voltage irrigation control wiring be installed in Class 160 or 200 PVC sprinkler pipe and Schedule 40 PVC 90-degree elbows).

The locations of all zones and recommended run times shall also be labeled on the controller along with the name, address, and phone number of the irrigation Installer.

The Contractor is responsible for obtaining any electric permits required for the low voltage wiring.

The irrigation controller shall be installed in a secured enclosure (cabinet). The enclosure shall be UL NEMA 4X Hinge Clip with provisions for a padlock and safety chain for door stops. The approximate dimensions are 20"x20"x8" with 4 legs. It shall be constructed of all stainless steel type 316 code gauge all seam weld grinded smooth. All conduits shall enter from the bottom. The enclosure shall be equipped with proper ventilation. The enclosure shall be primed and painted (brown in mulch area and green in turf area or black if determined by the Engineer). The controller and equipment shall be mounted on a back plate. All equipment housed in the enclosure shall be labeled as UL assembly. The enclosure shall be securely fastened square and level to the concrete pad using all stainless steel fasteners.

### 5a. <u>Automatic Control Valves (Electric Operated):</u>

Automatic Control Valve shall be female pipe inlet and female pipe outlet connection. The diaphragm shall be of rubber construction to retain flexibility and provide maximum sealing throughout its area.

The valve shall have a manual flow control, with a hand-operated, rising-type flow control stem with control wheel/handle. All parts shall be serviceable without removing valve from the line.

18 inch solenoid lead wires shall be attached to a 24 VAC, 50/60 cycle solenoid with waterproof molded coil. The valves shall be normally closed.

The automatic control valve shall be model PEB series as manufactured by Rainbird.

### 5b. <u>Solenoid & Control Module for Control Valves (Battery Operated)</u>

If electric power is not readily available the irrigation system shall be operated with latching solenoids, control modules and field transmitters. The latching solenoid shall be supplied with an installed filtered adapter allowing installation of the solenoid to the appropriate solenoid valve.

The DC latching solenoid shall be manufactured by Rain Bird Sprinkler Mfg. or an approved equivalent.

The irrigation control modules will be controlled via an infrared connection (see irrigation controller). The control module will function properly if submerged in water. The control module will operate on one 9V alkaline battery for one full year. The control module shall be able to operate 1 to 4 stations either sequentially or independently. The control module shall have three independent programs with eight start times each, station run time capability by the minute up to twelve hours and a seven day calendar. Manual operations shall be initiated by the hand-held controller with the manual start feature.

The control module shall be UNIK as manufactured by Rain Bird Sprinkler Mfg. Corp.

### 6a. Installation Automatic Control Valves (Electric Operated):

The automatic control valves are to be installed at the locations indicated on the shop drawings. All PVC shall conform to the Section 1. PVC Piping and Fittings. Schedule 80 toe-nipples are to be used on the up stream and down stream sides of the valve. Wire splicing for valves to follow Section 12 of this specification, CONTROL WIRING. Valves shall be assembled so that they fit comfortably and properly in the valve boxes allowing sufficient room for service. Every effort should be made to install the valves, and valve boxes, in a location where they will not interfere with foot traffic or the maintenance of the landscape.

6b. <u>Installation Solenoid and Control Module for Control Valves (Battery Operated)</u> The control module shall be mounted inside the valve box with stainless steel fasteners. It will be mounted for ease of accessibility and connection to irrigation controller.

At sometime after the completion of this project, the commissioner may deem it necessary to utilize a power source. Wiring as for the model PEB series as manufactured by Rainbird is required. The wiring should terminate at the location of the RPZ.

- 7. <u>Heads; Rotary, Spray, Swing Joints:</u>
  - a. Median and Parkway Planters: The Sprinkler Heads shall be fixed spray type designed for in-ground installation. The body of the sprinkler shall be constructed of non-corrosive heavy -duty cycolac. The sprinkler heads shall have a riser screen filter to prevent entry of foreign materials to the nozzle. All parts shall be removable through the top of the sprinkler case. The sprinkler heads shall have a stainless steel retraction spring to ensure positive pop-down and shall have a Conilip seal and cap to provide proper sealing.

The sprinkler heads shall be of pop-up design with an overall body height of 16 inches, and have a pop-up stroke of 12 inches.

The Spray Heads shall be Model 1812 for landscaped areas as manufactured by the Rainbird, for turf areas Model 1804 is permitted provided that available pressure does not allow for the use of rotary heads.

b. Turf Areas (when approved by the Commissioner): Full and Part Circle Rotary Sprinkler Heads shall be gear drive rotary sprinkler heads with a built in check valve to eliminate low head drainage. Radius reduction shall be adjustable by up to 25% by means of radius adjustment screw accessible from the top of the cap. Water distribution shall be via two (2) nozzles mounted in a stainless nozzle turret. The dual nozzles shall elevate 2-3/8 inches when in operation.

Retraction shall be achieved by a heavy-duty stainless steel retraction spring. The sprinkler head shall have a riser seal and a wiper which permits limited flushing on the up and down stroke. Rotation shall be accomplished by a planetary gear assembly. The sprinkler head housing shall be of high impact molded plastic with a 1 inch NPT connection.

The rotary heads shall be I-25 ADS series with stainless steel sleeve, manufacturing by Hunter.

c. All heads will be installed with swing joints. Sprinkler head swing joints are to be factory assembled PVC swing joints constructed of 315-psi pressure rated materials. Swing joints shall be three-elbow construction with pre-lubricated buttress threaded connections and double O-Ring seals.

Sprinkler head swing joints shall be manufactured by Spears Manufacturing Company, Sylmar, California.

8. Installation Heads; Rotary, Spray, Swing Joints:

Sprinkler heads shall be installed flush and level with existing grades. Where sprinkler heads are installed along curbs or sidewalks, heads are to be placed 4 inches from the curb or sidewalk to allow for mechanized trimming. Where sprinkler heads are installed in plant beds, the sprinkler heads must be installed 2 inches from the edge of planter wall. Soil around sprinkler head shall be tightly compacted.

All lines are to be flushed clean of debris prior to the installation of sprinkler head. Sprinkler heads and spray arcs are to be adjusted so that spray does not encroach into roadways or wet buildings and other structures.

### 9. <u>Quick Couple Valves:</u>

Quick Couple Valves shall be 1 inch with one-piece body construction from heavy cast bronze.

Quick Couple Valves shall be model QCV100N manufactured by Storm irrigation Products.

Two quick Coupler Keys shall be provided. The keys shall be one (1) inch single lug coupler made from heavy cast bronze.

Quick Couple Keys shall be model C-100 with hose swivel model HS100 manufactured by Storm irrigation Products.

### 10. Installation of Quick Couple Valves:

Quick coupler valves are to be installed plumb in a 10 inch round valve box (see Valve Box for product) The quick coupler valves are to be secured with a 36 inch x 5/8 inch epoxy coated steel rebar driven into stable ground. The quick coupler valve and rebar are to be secured together with three separate heavy duty stainless hose clamps. All quick coupler valves shall be mounted on a prefabricated triple swing joint assembly.

The swing joint assembly shall be model 5806-01-012 manufactured by Spears Manufacturing Company.

### 11. Control Wiring:

The irrigation control wire shall be a minimum of 14 gauge, single conductor, low energy circuit cable. A single 12-gauge single conductor white control wire shall be utilized as the common wire and connected in series to each valve. Zone wire shall be red, yellow, or orange in color. Irrigation Control Wire shall be a 14 gauge minimum PVC jacketed, single conductor, 600 volt rated, low energy direct burial circuit cable. The irrigation control wire shall be UL listed.

Irrigation control wiring shall be manufactured by Paige Electric Company, Union New Jersey.

### 12. Installation of Control Wiring:

Every other solenoid valve should have a spare control wire running from the irrigation controller. The spare wires should be marked at both termination points. The irrigation control wires are to be bundled and taped together at five-foot intervals. An expansion loop shall be provided every 100 feet, at every 90-degree angle, and at each valve location. Where irrigation control wiring is installed by itself, the minimum depth of cover shall be 24 inches. Under no circumstance shall the control wires be pulled through the ground. If a vibratory plow is utilized to install control wire, the plow must be used with a wire or cable-laying blade, which allows for cable installation without pulling the wire through the ground.

Splicing is not permissible unless approved on the shop drawings. If splicing has been approved all splices shall be waterproof. Should splices be required other than at valve locations, those splices must be installed in a valve box and noted on the As Built Plans. Under no circumstances shall splices be buried.

Splice Kits shall be Scotch DBY Direct Bury Splice Kit as manufactured by Electric Products Division/3M, St. Paul, MN.

### 13. Valve Boxes:

Valve Access Boxes shall be constructed of a combination of polyolefin and fibrous inorganic components (Superflexon Plastic) which is chemically inert and normally unaffected by moisture, corrosion and the effects of temperature change. Valve Boxes shall have a tensile strength of 3,400 psi.

For the automatic control valves, the Valve Box Base shall be #170101 and Valve Box Lid shall be #17314 as manufactured by Ametek Plymouth Products Division, Sheboygan, Wisconsin.

For the quick couple valves, the Valve Box shall be Model #181014 as manufactured by Ametek Plymouth Products Division, Sheboygen, Wisconsin.

The lids and boxes will be green for turfed areas and brown for mulched areas.

### 14. Installation of Valve Boxes:

Each automatic control valve shall be installed in a valve box. A minimum of two valve boxes shall be stacked. The valve boxes shall be installed so that the valve is centered in the box allowing sufficient room for servicing of the valves. Clearance between the highest part of the valve and the bottom of the valve box lid shall be 2 inch minimum. The lid must not be too deep for convenient service. The valve box must not rest on the pipe. Clearance between the top of the piping and the bottom of the valve box shall be a minimum of 1 inch. Each valve box is to be installed flush and plumb to grade.

As a part of the valve box installation 3 to 4 inches of ½ to 1 inch stone, free of fines should be placed so that the top of the stone is 2" below the valve.

### 15. Drip Lines:

The drip system shall include all necessary components for a drip system. Such as, filter for solenoid, drip tubing, check valves, air vacuum relief valve, lateral piping, line flush valve and fittings.

The drip tubing is to have a root barrier which makes it resistant to root intrusion. The drip tubing is to be Netafim Techline pipe with a dripper flow rate of 0.9 GPH part # TLDL 9-1210 with 12 inch on center spacing for the drippers.

### 16. Drip Lines Installation:

The drip tubing will be installed in rows 12 to 16 inches apart. The rows closest to the walls of the landscaped planter shall be 2 to 4 inches from the edge of the walls. The drip tubing shall be laid on the finished grade of the soil mixture. The drip tubing must be secured a minimum of every 3 feet with Techline Staples (TLS6). The drip tubing must be installed parallel to the longest wall of the landscaped planter. If the drip tubing needs to go around a plant or obstacle, the tubing must return to its original line as soon as possible. The installation must be complete prior to mulch installation.

When possible the system shall use a center feed layout. The drip tubing shall feed from a PVC or Polyethylene supply header in a grid layout. The exhaust header and the supply header shall form a continuous loop with PVC or Polyethylene piping. The maximum distance between each supply header and exhaust header is 70 feet. The furthest distance in each direction of the solenoid valve shall contain a Netafim Line Flushing Valve, model TLFV-1. The flush valve will be below grade in a valve box with a sump. A filter shall be installed down stream of the solenoid valve with the appropriate

filter mesh in accordance with Techline design manual. An air vacuum relief valve is to be installed at the highest points of each zone. The air vacuum relief valve is to be installed in a valve box. A single micro-spray head is required for each zone. The spray head is required to indicate that a zone is on and working. It should not be used as a main watering source for an area.

In situations where the slope is greater than or equal to 4% install the drip tubing perpendicular to the slope. Check valves must be installed to prevent water from draining to the lower elevations.

#### Hydrostatic Testing:

- A. The test shall consist of pressurizing the mainline piping system to a minimum of 150 psi for a period of four (4) hours.
- B. During the test, the piping system shall maintain 150 psi with an allowable pressure drop of not more that 5 psi, if any deficiencies in the piping system are found, the piping or fittings shall be repaired or replaced at no additional cost to the contract.

#### Pressure & Flow Testing:

- A. A test will be taken of the static pressure on the upstream and downstream sides of the RPZ valve.
- B. A pressure reading shall be taken at each zone while each zone is running.
- C. The flow rate shall be recorded from the water meter at each running zone for a 5minute period.
- D. This information shall be recorded on the As-Built drawings.

## As Built Drawings:

Upon completion of the installation the Contractor shall prepare and submit an "As-Built" drawing of the completed project. The drawings will show the accurate locations of all valves, quick couplers, mainline, wire splices, backflow devices, and controllers. The drawing shall also show the approximate location of sprinkler heads and lateral lines. Each controller shall be labeled on the plan alphabetically starting with A and the zones controlled by that controller shall be labeled A-1, A-2, A-3...etc.

The drawings must also show the locations of Water Service Components and Electrical Service Components.

#### Demonstration:

Demonstrate to Engineer's maintenance personnel operation of equipment, sprinklers, specialties, and accessories. Review operating and maintenance information. Provide 7 days notice to all parties in advance of each demonstration.

#### Additional Conduits and Junction Box

Irrigation System shall also include the installation of additional conduits in planting bed area. At all designated locations one (1) three (3") inch PVC Schedule #40 Conduit run shall be installed with pull string as shown on the plan.

This Conduit run will provide low voltage wiring to future landscaped areas adjacent to the Dan Ryan Expressway. The Conduit will be connected from the irrigation controller junction box to the Utility Drop Down, as provided for in Water Service Line,  $2\frac{1}{2}$  Inch, via a 13" x 24" Quazite junction box manufactured by Strongwell or an approved equivalent.

Polyvinyl chloride (PVC) conduit shall conform to the requirements of National Electrical Manufacturers Association Standard, Publication Number TC2 for EPC-40.

Method of Measurement: Irrigation system shall be measured per square yard of planted area.

<u>Basis of Payment</u>: IRRIGATION SYSTEM will be paid for at the contract unit price per square yard of planted area. Which price shall be payment in full for all labor, material, equipment, and services necessary for providing the landscape irrigation systems in a serviceable, fully operational manner, including, but not limited to, excavation, backfilling, sprinkler heads, solenoid control valves, isolation valves, valve boxes, automatic controls, system testing, owner personnel training, piping, equipment identification, plumbing permits, inspection fees, valve tags, charts, supports, sleeves, fittings, valves, and accessories.

#### IRRIGATION SYSTEM FALL SHUTDOWN IRRIGATION SYSTEM SPRING STARTUP

Description: The work to be performed under this item consists of placing the irrigation systems into operation (start-up) and preparing the irrigation systems for winter (shutdown) in accordance with the detailed specifications herein and generally accepted practices for operating, adjusting, and maintaining irrigation systems. This pay item does not include the initial start-up of the irrigation system. Initial start-up shall be included in the pay item **IRRIGATION SYSTEM per square yard.** 

All work on the irrigation system shall be performed between April 1 and November 20 or as specified.

All plumbing work shall be done by licensed plumbers as per the applicable requirements of the <u>Chicago Building Code</u> and <u>Illinois Plumbing Code</u> (latest edition).

<u>General Requirements:</u> The Contractor shall coordinate all activities required for the completion of contract requirements with the Engineer's vendors, suppliers, all subcontractors, and CDOT personnel. The procedures described below represent the intended minimum requirements for irrigation system maintenance; however, the Contractor's design may require different or additional procedures. The Contractor shall submit his recommended maintenance procedures in similar detail for review and approval by the Engineer.

# Irrigation Systems Fall Shut-Down (October 1<sup>st</sup> – 31<sup>st</sup>):

The Contractor shall prepare the entire irrigation system(s) for winter and protect its components against damage due to freezing or exposure.

Fall shut-down shall occur after October 1<sup>st</sup> and must be completed not later than October 31<sup>st</sup>. The following descriptions of work are minimum requirements applicable to all parts of the irrigation systems with the limits shown on the plans:

- 1. Full inspection as detailed in "Irrigation Systems Inspection" section.
- 2. Close valve in service line between city water main and water meter (supply side and discharge side). The piping drain valve downstream of the meter discharge valve shall remain closed and plugged at this time.
- 3. Open water outlets on ends of main piping to depressurize piping. Using the controller, activate each circuit to permit depressurization.
- 4. Remove the reduced pressure zone (RPZ) backflow preventer and prepare it for winter storage, including draining all water from the unit.
- 5. Provide compressed air (minimum one compressor 160 C.F.M.). Open each water outlet until all water and water vapor is released.
- 6. Carefully introduce compressed air into the water service line at the downstream (output) side of the RPZ. The Contractor shall provide any necessary special fittings for connection to the pipe flanges where the RPZ was removed.
- 7. Purge the water service line, the water supply pipe, and each circuit with compressed air. Purge each circuit for a minimum of five (5) minutes.
- 8. In the meter vault, remove the plug from the drain valve and open the drain valve to allow water in the water service line between the RPZ and the water meter to drain into the meter vault. Open the meter discharge side valve and allow water to drain from the water meter. Leave both the drain valve and the meter discharge valve open (until Spring Startup).
- 9. Remove all standing water from within the water meter vault. Record the water meter reading, serial number, and location.
- 10. Store RPZ units for the winter in a secured, frost-free storage facility. **Important:** RPZ units shall be reinstalled in the spring on the same water service lines from which they were removed in the Fall. After an RPZ is removed; record its serial number and location to facilitate reinstallation at the correct location in the spring.
- 11. Lubricate hinges and locks on all controller and RPZ cabinets.
- 12. Cover the exposed pipe connection fittings on RPZ units and water service lines with black or grey pipe caps. If caps are not available, the Contractor shall provide them at no additional cost to the contract. Covering the fitting with duct tape is not acceptable.

Any damage caused by improper or inadequate irrigation systems' fall shut-down shall be repaired immediately at the Contractor's expense.

Contractor is responsible for any equipment losses during winter storage. Cost of storage shall be included in the cost of this pay item.

The Contractor shall be responsible to complete and submit to the Engineer the Chicago Department of Transportation Division of Infrastructure Management Irrigation Shut Down Form included in these Special Provisions.

#### Irrigation Systems Spring Startup (April 1<sup>st</sup> – May 1<sup>st</sup>):

The Contractor shall place the entire irrigation system(s) into operation by reinstalling and/or reactivating, testing, operating, and adjusting applicable components of the irrigation systems including manual valves, meters, backflow preventers, and water outlets. Spring start-up may be performed after April 1<sup>st</sup> and must be completed not later than May 1<sup>st</sup>. This work includes, but is not limited to, the following activities:

- 1. Coordination of the start-up with the Plumbing Inspector-In-Charge, Department of Water Management, a minimum of 48 hours in advance of start-up on each irrigation system so the Department of Water Management can witness the annual testing and recertifying of the reduced pressure backflow preventors (RPZs) and reestablish service. Such testing and recertification of the backflow preventers shall be the responsibility of the Contractor. Illinois Plumbing and Backflow Testing Licenses are required. Any permits required from the Department of Water Management, to perform this work, shall be included in the cost of this pay item.
- 2. Coordination of pick-up and /or delivery of stored RPZ units with the CDOT storage facility and reinstallation of the RPZ units in the same locations from which they were removed.
- 3. Full inspection as detailed in the "Irrigation Systems Inspection" section.
- 4. Full mainline activation and pressurization of each zone and sub-zone in each irrigation system.
- 5. Flushing each mainline system at each end of each system for a minimum of 12 minutes at each end.
- 6. Flushing and testing each water outlet.
- 7. Verifying satisfactory activation of each solenoid valve. Inspecting of all wire connections within valve boxes related to these solenoid valves.
- 8. Inspecting and adjusting (if necessary) all wire connections within each Irrigation System Controller.
- 9. Verifying satisfactory operation of all functions of each controller. Replacing any batteries each Spring. Placing the Spring program into the controller.
- 10. Testing the operation of each moisture sensor. If moisture conditions do not allow testing, a thorough soaking of the sensor area will be necessary. Placing sensor in active and then in bypass modes to test each operation.
- 11. Closing and then opening each isolation valve.
- 12. Lubricating hinges and locks on all controller and RPZ cabinets.
- 13. Testing and tagging each RPZ.
- 14. Re-compacting soil within valve box of each water outlet. Additionally, the Contractor shall verify that the concrete pads for valves or control boxes have compacted soil under them; not just mulch. If necessary, soil shall be placed completely under the pads to ensure continuing proper support and avoidance of stress loads on attached water lines or conduits.

- 15. Observing for visual evidence of water leaks.
- 16. Submitting a field report to the Engineer, the following day after each inspection/spring turn-on, as an overview of each system's operation, performance and required repairs.

Irrigation Systems Inspection: The Contractor shall perform an Irrigation System Inspection once during the spring startup between April 1<sup>st</sup> and May 1<sup>st</sup>. The inspection shall be considered included in the Contract Unit Price for Irrigation Systems Startup. The Contract shall notify the Engineer 48 hour prior to any inspections.

Inspection shall be performed while the system is in operation. Each inspection shall include the following activities:

- a. Testing all zones. Verify each manual water outlet valve's operation.
- b. Cleaning clogged manual water outlets.
- c. Trimming plants and grass around manual water outlets and valve boxes as required.
- d. Testing each entire system for overall performance.
- e. Observing for visual evidence of water leaks.
- f. Making all necessary adjustments.
- g. Submitting a written field report to the Engineer the following day after each inspection, including an overview of the system's operation and performance. Identifying any items requiring repairs.

Any damage caused by improper or inadequate irrigation systems' start-up shall be repaired immediately at the Contractor's expense.

The Contractor shall be responsible to complete and submit to the Engineer the Chicago Department of Transportation Division of Infrastructure Management Irrigation Start-Up Form included in these Special Provisions.

#### Syringing Plants/Flushing Beds (April 1<sup>st</sup> – May 1<sup>st</sup>):

The objective of syringing (washing) plants and flushing beds is to reduce damage from winter salt.

In early spring, when temperatures are anticipated to remain above 35 degrees Fahrenheit for a minimum of 24 hours and the threat of snowfall and road salting has diminished, the Contractor shall wash all plant material with a gentle spray of water to remove accumulated salt from stems, bark and crowns. The Contractor shall be responsible for supplying the water.

Between April 1<sup>st</sup> and May 1<sup>st</sup>, after irrigation system start-up, apply water at double the normal rate for a period of one (1) week to flush salts from mulch, beds and soil.

Syringing of plants and flushing of beds shall be included on a Median Maintenance Report (see sample form at end of this section) which shall be submitted to the Engineer. This report shall be faxed or delivered to CDOT personnel. If the Median Maintenance Report is not received, it will be assumed that no work was performed and no payment will be made.

Syringing the plants and flushing the beds at irrigated medians shall be considered incidental to IRRIGATION SYSTEMS SPRING STARTUP.

Any lane closures required to perform any of this work shall be done in accordance with Section 701 of the Standard Specifications and as stated under Traffic Control and Protection. Traffic Control and Protection shall not be paid for separately, but shall be considered incidental to this pay item.

<u>Method of Measurement</u>: Irrigation Systems Fall Shutdown and Irrigation System Spring Startup shall be measured per each for each Backflow Preventer (RPZ).

#### Basis of Payment:

Irrigation Systems Fall Shutdown: This item shall be paid for at the contract price per each for IRRIGATION SYSTEMS FALL SHUTDOWN which price shall include all materials, equipment, storage, and labor to complete the work specified herein for the period starting after October 1<sup>st</sup> and completing not later than October 31<sup>st</sup>.

Irrigation Systems Spring Startup: This item shall be paid for at the contract price per each for IRRIGATION SYSTEMS SPRING STARTUP which price shall include all materials, equipment, and labor to complete the work specified herein for the period starting after April 1<sup>st</sup> and completing not later than May 1<sup>st</sup>.

F.A.I. Route 94 (Dan Ryan Expressway) Section (1516.1, 1717 & 1818) I-4 Cook County Contract 62933 (17H)

## CHICAGO DEPARTMENT OF TRANSPORTATION DIVISION OF INFRASTRUCTURE MANAGEMENT

# **IRRIGATION SHUT DOWN**

Project Name, Location, Limits:			CDOT #:	
CDOT CONTACT	NAME	PHC	DNE	PAGER
Project Manager				
Resident Engineer				
Genera	I Contractor or Mainte	nance Con	tractor (if a	pplicable)
Contractor: Office Phone:				
Address:			Office Fax:	
Contact Person:			Phone/Pager:	
	Plumber	Informatio	n	
Plumber:				e:
Address: Offic		Office Fax:		
Contact Person:		Phone/Pager:		
Shut-down Informatio	n:			
No. of RPZ's to be installed/certified: Size:			:	
(List individual rpz locations and storage site on back of form) Dept. of Water Management contact:				
Phone No			_Date contac	cted:
"B" Permit NoIssue date:		e date:		

# CHICAGO DEPARTMENT OF TRANSPORTATION DIVISION OF INFRASTRUCTURE MANAGEMENT

# **IRRIGATION START-UP**

Project Name, Location, Limits:			CDOT #:		
CDOT CONTACT	NAME	PHO	ONE	PAGER	
Project Manager					
Resident Engineer					
General C	Contractor or Mainte	enance Con	tractor (if a	pplicable)	
Contractor: Office Phone:					
Address:			Office Fax:		
Contact Person:			Phone/Pager:		
	Plumber	Informatio			
Plumber: Office Phone:			e:		
Address: Office Fax:					
Contact Person:		Phone/Pager:			
Start-up Information:					
No. of RPZ's to be installed/certified: Size:					
(List individual rpz locations and storage site on back of form) Dept. of Water Management contact:					
Phone No	Phone NoDate contacted:			cted:	
"B" Permit NoIssue date:			e date:		

<b>RPZ SERVICE AND CERTIFICATION RECORD</b>				
Location	Install Date	Certification Date	In-Service Date	

## WATER SERVICE LINE, 2 1/2 INCH

Description: This work shall consist of furnishing and installing the water service line.

<u>General Requirements</u>: The Water Service Line shall be installed as indicated on the plan and detail sheets.

Structure Excavation shall be in accordance with applicable portions of Section 202 of Standard Specifications. Structure Excavation shall be paid for separately and be limited to the area shown on the plans and details. All shoring required shall be considered incidental to this item.

Restoration of non-paved areas shall include four (4) inches of topsoil and seeding (Seeding Class 2A). Restoration of non-paved areas shall be included in the cost of this item.

Backfill placed and compacted in accordance with Section 207 of the Standard Specification and shall be paid for as Porous Granular Embankment. Porous Granular Embankment shall be CA (6) gradation.

Concrete Thrust Block shall be installed as shown on the plan and shall be included in the cost of this item.

The line shall be Type K, Copper pipe with a minimum pressure rating of 200 PSI.

The pipe shall be installed as one piece per location. No joints or splice will be allowed. Installation of the Water Service Line 2 1/2"shall be performed in a manner meeting the approval of the Engineer.

#### Additional Conduits

Water service line shall also include the installation of additional conduits in structural excavation area. At all designated locations one (1) three (3") inch PVC Conduit Schedule #80 shall be installed as shown on the plan.

Polyvinyl chloride (PVC) conduit shall conform to the requirements of National Electrical Manufacturers Association Standard, Publication Number TC2 for EPC-40.

Method of Measurement: Water Service Line will be measured in per linear foot basis.

<u>Basis of Payment:</u> WATER SERVICE LINE, 2 1/2" shall be paid for at the contract price per foot, which price shall include all Copper piping, fittings, additional conduits, concrete thrust blocks, all permits and associated fees, and all other incidentals required to complete this work as specified herein and as shown on the plans.

#### WATER TAP, 2 INCH

<u>Description</u>: This work shall consist paying for and obtaining a water main tap permit from the City of Chicago Department of Water Management (CDWM), scheduling date and time for the CDWM to perform the tap, excavation to the existing water main, exposing the water main, cleaning the exterior of the water main, installing copper piping from the water tap to the water valve assembly, and placing and compacting trench backfill for each of the water service connections shown on drawings or as directed by the Engineer.

<u>General Requirements</u>: This work must be performed by a City of Chicago Licensed Plumbing Contractor.

The Contractor shall obtain a Water Tap Permit from the City of Chicago Department of Water Management at 121 N. LaSalle Street (City Hall), Room 1111. The contractor must supply approved irrigation shop drawings which indicate maximum flow rates, length of taps from property lines, and any other information required by CDWM. The Contractor will be required to pay a fee to the Department of Water Management in order to obtain the permit.

The contractor must supply street opening permit from the CDOT Bureau of Traffic.

The Contractor must schedule the date and time to perform the tap with the CDWM. The tap date is approximately two (2) weeks following permit issuance. The tap date must be coordinated with the Construction Phasing and the Maintenance of Traffic Plans, to minimize traffic conflicts.

The Contractor shall not remove pavement or excavate trench to the water main more than one (1) working day prior to the scheduled tap, unless otherwise approved by the Engineer. The placement and anchoring of steel plates and all additional traffic control required shall be considered incidental to this item.

Excavation shall be in accordance with applicable portions of Section 202 of Standard Specifications. Excavation shall be the minimum area required to facilitate the water tap. All shoring required shall be considered incidental to this item. This item shall also include excavation required to install pipe from the water tap to the Water Valve Assembly.

The excavation for water taps to be installed under pavement shall be from the sub-grade elevation to the depth required to perform the water tap. The excavation for water taps under non-paved areas shall be from the existing surface elevation to the depth required to perform the tap. Excavation shall not be paid for separately but shall be considered incidental to this item. Pavement removal and replacement shall be paid for using applicable line items. Restoration of non-paved areas shall be paid using applicable line items.

The Contractor shall clean the exterior of the water main to facilitate placement of the "saddle" by CDWM to perform the water tap. The Contractor shall use equipment which will not damage the water main. If the water main is not prepared to the satisfaction of the CDWM the tap will not be performed and must be rescheduled.

The Contractor shall install Type K Copper Pipe, 2 inch diameter from the water tap to the Water Valve Assembly. This work shall be considered incidental to this item.

Trench Backfill shall be placed and compacted in accordance with Section 208 of the Standard Specification and shall be included in the cost of this item. Trench backfill shall be FA 2 gradation.

Method of Measurement: Water Taps will be measured on a per each basis.

<u>Basis of Payment:</u> WATER TAP, 2 INCH will be paid for per each, which price shall include all labor, material, and equipment required to complete the work as specified.

#### WATER VALVES, 2 INCH

<u>Description:</u> Work associated with this item shall include excavation, the furnishing and installation of water valves and water valve service boxes, installation Type K copper water pipe, and sand backfill as indicated on the plans, and as directed by the Engineer.

Water valves, 2 inch, shall be curb stops fabricated of brass and provided with outlets suitable for copper connections. Curb stops shall be of the round-way type conforming to AWWA Standard C800-89 Underground Service Line Valves and Fittings.

This item includes excavation, furnishing and installing the Type K, 2 inch copper pipe, and trench backfill from the valve assembly to the water meter in vault.

Excavation shall be in accordance with applicable portions of Section 202 of Standard Specifications. Excavation shall be limited to the area shown on the plans and details, or as directed by the Engineer. All shoring required shall be considered incidental to this item.

Pavement removal and replacement shall be paid for using applicable line items. Restoration of non-paved areas shall be paid using applicable line items.

Trench Backfill shall be placed and compacted in accordance with Section 208 of the Standard Specification and shall be included in the cost of this item. Trench backfill shall be FA 2 gradation.

Curb Stops shall be housed in curb boxes. Curb boxes shall be screw type, with the base threaded to attach to the curb stop or shall be Buffalo or "arch" type, and of such construction that it shall be capable of extension to finished grade. Base sections and lids shall be cast of heavy, high grade iron. "Water" shall be marked on lid. Curb stop and box shall be equipped with a shut-off rod, typically 2 inches shorter than the curb box at is maximum extension.

Method of Measurement: Water valve assembly will be measured on a per each basis.

<u>Basis of Payment</u>: WATER VALVES, 2" will be paid for per each, which price shall include all labor, material, and equipment required to complete the work as specified.

#### WATER METER IN VAULT, 2 INCH

<u>Description:</u> This work shall consist of excavation, furnishing and installing water meter in a concrete vault, Type K, 2 inch copper pipe, and sand backfill at locations indicated on the plans or as directed by the Engineer.

The water meter type and brand shall be in accordance with the Chicago Department of Water Management Standards and AWWA C-700. The vault shall be a precast concrete as shown on the details in accordance with section 504 of the Standard Specifications and as directed by the Engineer.

This item includes excavation, furnishing and installing the Type K, 2 inch copper pipe, and trench backfill from the water meter in vault to the backflow preventer (RPZ).

Excavation shall be in accordance with applicable portions of Section 202 of Standard Specifications. Excavation shall be limited to the area shown on the plans and details, or as directed by the Engineer. All shoring required shall be considered incidental to this item. Any dewatering required shall not be paid for separately but will be incidental to the contract unit price of this item.

Pavement removal and replacement shall be paid for using applicable line items. Restoration of non-paved areas shall be paid using applicable line items.

Trench Backfill shall be placed and compacted in accordance with Section 208 of the Standard Specification and shall be included in the cost of this item. Trench backfill shall be FA 2 gradation

The installation of the water service line shall conform to Section 562 of the Standard Specifications and the Chicago Department of Water Management requirements.

The Contractor must notify the Chicago Department of Water Management (744-3711) seventytwo (72) hours before this work commences so that the Chicago Department of Water Management can provide field inspectors to oversee this work.

Method of Measurement: Water meter in vault will be measured on a per each basis.

<u>Basis of Payment:</u> WATER METER IN VAULT, 2 INCH shall be paid for at the contract unit price per each which price shall include excavation, disposal of excavated material, meter, vault, frame and lid, fittings, connections and adjustments, Type K, 2 inch copper pipe, and sand backfill required to complete the work as specified.

## **BACKFLOW PREVENTER (RPZ), 2 INCH**

<u>Description:</u> This item shall consist of excavation, installation of ASSE Standard backflow preventers, installation Type K copper water pipe, and sand backfill as indicated on the plans, and as directed by the Engineer.

<u>General Requirements</u>: Backflow preventers shall be of the size indicated for maximum flow rate and maximum pressure loss required. City approved with AGD Series air gap.

- 1. Working Pressure: 150 psi minimum except where otherwise indicated.
- 2. 2 Inches and Smaller: Bronze body with threaded ends.
- 3. 2-1/2 Inches and Larger: Bronze, cast-iron, steel, or stainless-steel body with flanged ends. Provide AWWA C550, interior protective epoxy coating for backflow preventers with cast-iron or steel body.

Interior Components must be Corrosion-resistant materials.

Other incidental items:

- 1. Strainer supplied within RPZ and compatible with size and capacity of unit, on the inlet.
- 2. Winterizing pipe caps.
- 3. RPZ Enclosure fastened to concrete base and concrete filled steel bollards.

Reduced-Pressure-Principle Backflow Preventer: ASSE 1013, with (OS&Y) gate valves on inlet and outlet, and strainer on inlet. Include test cocks and pressure-differential relief valve with ASME A112.1.2 air-gap fitting located between 2 positive-seating check valves for continuous pressure application.

- 1. Pressure Loss: 15 psig maximum, through middle third of flow range.
- 2. Gate valves supplied with and compatible for size and testing of unit on inlet and outlet. Valves 2 inches (50 mm) and smaller may be ball valves if these are unit manufacturer's standard valve for this application.
- 3. Test Kit: Unit manufacturer supplied, complete calibrated backflow preventer testing equipment kit with carrying case.

Anti-siphon, Pressure-Type Vacuum Breakers: ASSE 1020, with valves, spring-loaded check valve, and spring-loaded floating disc. Include test cocks and atmospheric vent for continuous pressure application.

- 1. Pressure Loss: 6 psig maximum, through middle third of flow range.
- 2. Gate valves supplied with and compatible for size and testing of unit on inlet and outlet. Valves 2 inches and smaller may be ball valves if these are unit manufacturer's standard valve for this application.
- 3. Test Kit: Unit manufacturer supplied, complete calibrated backflow preventer testing equipment kit with carrying case.

## Pressure Gauge:

ASME B40.1, 4-1/2-inch (115 mm) diameter dial, with dial range of 2 times system operating pressure and bottom outlet.

Concrete Base: The Portland cement concrete shall be class SI according to Section 1020 of the Standard Specifications.

Reinforcement: Steel conforming to the following:

- 1. Fabric: Fabric shall be according to Article 1006.10 of the Standard Specifications.
- 2. Reinforcement Bars: Reinforcement bars shall be according to Article 1006.10 of the Standard Specifications.

Backflow Preventers: RPZ's shall be FEBCO Model No. 825YA complete with shutoff valves, wye strainers shall be FEBCO Model 650 RPZ's shall be furnished with flanged unions to facilitate field removal for freeze protection or maintenance. All work shall be in accordance with Chicago Department of Water Management Standards.

Valves for above ground installation shall be

- A. Grinnell Supply Sales Co., Grinnell Corp.
- B. Milwaukee Valve Co., Inc.
- C. Nibco, Inc.
- D. Hammond Valve Div., Prairie Manufacturing Corp.
- E. Or an approved equivalent

This item includes excavation, furnishing and installing the Type K, 2 inch copper pipe, and trench backfill from the backflow preventer (RPZ) to a point five (5) feet downstream. From that point the system will either be paid as IRRIGATION SYSTEM or WATER SERVICE LINE.

The copper piping may be converted to PVC pipe five (5) feet downstream of the backflow preventer.

Excavation shall be in accordance with applicable portions of Section 202 of Standard Specifications. Excavation shall be the limited to the area shown on the plans and details, or as directed by the Engineer. All shoring required shall be considered incidental to this item.

Pavement removal and replacement shall be paid for using applicable line items. Restoration of non-paved areas shall be paid using applicable line items.

Trench Backfill placed and compacted in accordance with Section 208 of the Standard Specification and shall be included in the cost of this item. Trench backfill shall be FA 2 gradation.

Method of Measurement: Backflow preventers (RPZ) will be measured per each installed.

<u>Basis of Payment:</u> BACKFLOW PREVENTER (RPZ) shall be paid for at the contract unit price per each, which price shall include excavation, disposal of excavated material, backflow preventer (RPZ), enclosure, locks, keys, pipe caps, installation of Type K copper piping, and sand backfill required to complete the work as specified.

## CONCRETE MEDIAN SURFACE, 5" (MODIFIED)

<u>Description</u>: This work shall consist of the construction of concrete median as specified in Section 606 of the Standard Specifications with the following revisions:

606.10 <u>Finishing</u>. Revise the first sentence of the first paragraph to read:

All exposed surfaces shall be finished with a California Trowel Finish as shown in the details in the plans.

<u>Basis of Payment</u>: Concrete median as specified herein will be paid for at the contract unit price per square foot for CONCRETE MEDIAN SURFACE, 5" (MODIFIED).

#### CHANGEABLE MESSAGE SIGNS

This item shall be as contained in the Special Provisions for "Portable Changeable Message Signs" except as follows:

Two signs will be required for this contract. The signs shall be located as directed by the Engineer.

#### TEMPORARY INFORMATION SIGNING

Description:

This work shall consist of furnishing, installing, maintaining, relocating for various stages of construction and eventually removing temporary information signing.

Materials:

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

	ltem	Article/Section
a.)	Sign Base (Notes 1 & 2)	1090
b.)	Sign Face (Note 3)	1091
c.)	Sign Legends	1092
d.)	Sign Supports	1093
e.)	Overlay Panels (Note 4)	1090.01
Note 1	The Contractor may use E/9 inch instead of	2/1 in ab thick plume

Note 1. The Contractor may use 5/8 inch instead of 3/4 inch thick plywood.

Note 2. Type A sheeting can be used on the plywood base.

Note 3. All sign faces shall be Type A except all orange signs shall meet the requirements of Article 1084.02(b).

Note 4. The overlay panels shall be 0.08 inch thick.

#### General Construction Requirements

#### Installation:

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

Signs, which are placed along the expressway shoulder and/or within the construction zone, shall be installed according to the requirements of Article 702.05 and Article 720.04. The signs shall be 7 ft. above the near edge of the pavement and shall be a minimum of 2 ft. beyond the edge of the paved shoulder. A minimum of two posts per sign shall be used.

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

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

#### Method of Measurement:

This work shall be measured for payment in square feet edge to edge (horizontally and vertically). All hardware, posts, supports, bases for ground mounted signs, and connections, which are required for mounting these signs shall be included as part of this pay item.

#### Basis of Payment:

This work shall be paid at the contract unit price per square foot for TEMPORARY INFORMATION SIGNING, which price shall be full compensation for all labor, equipment and materials required for performing the work as herein specified.

## WORK ZONE TRAFFIC CONTROL (LUMP SUM PAYMENT)

Effective: February 1, 1996

Revised: November 1, 1996

Specific traffic control plan details and Special Provisions have been prepared for this contract.

Method of Measurement: All traffic control (except traffic control pavement marking) indicated on the traffic control plan details and specified in the Special Provisions will be measured for payment on a lump sum basis. Traffic control pavement markings will be measured per meter (foot).

Basis of Payment: All traffic control and protection will be paid for at the contract lump sum price for TRAFFIC CONTROL AND PROTECTION (SPECIAL). This price shall be payment in full for all labor, materials, transportation, handling and incidental work necessary to furnish, install, maintain and remove all traffic control devices required as indicated in the plans and as approved by the Engineer.

# TRAFFIC CONTROL PLAN

Effective: September 30, 1985

Revised: October 1, 1995

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

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

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

#### STANDARDS

701601 - Urban Lane Closure, Multilane 1W Or 2W with Nontraversable Median 701701 – Urban Lane Closure Multilane Intersection

701801 - Lane closure Multilane 1W or 2W Crosswalk or Sidewalk Closure

702001 - Traffic Control Devices

## DETAILS

TC-10 Traffic Control and Protection for Side Roads, Intersections, and Driveways TC-22 Temporary Information Signing

SPECIAL PROVISIONS

Flagger Vests Personal Protective Equipment Temporary Information Signing Portable Changeable Message Signs (BDE) Traffic Control Deficiency Deduction (BDE) Work Zone Traffic Control Devices (BDE)

## BITUMINOUS EQUIPMENT, SPREADING AND FINISHING MACHINE (BDE)

Effective: January 1, 2005

Revise the fourth paragraph of Article 1102.03 of the Standard Specifications to read:

"The paver shall be equipped with a receiving hopper having sufficient capacity for a uniform spreading operation. The hopper shall be equipped with a distribution system to uniformly place a non-segregated mixture in front of the screed. The distribution system shall have chain curtains, deflector plates, and/or other devices designed and built by the paver manufacturer to prevent segregation during distribution of the mixture from the hopper to the paver screed. The Contractor shall submit a written certification that the devices recommended by; the paver manufacturer to prevent segregation have been installed and are operational.

F.A.I. Route 94 (Dan Ryan Expressway) Section (1516.1, 1717 & 1818) I-4 Cook County Contract 62933 (17H)

Prior to paving, the Contractor, in the presence of the Engineer, shall visually inspect paver parts specifically identified by the manufacturer for excessive wear and the need for replacement. The Contractor shall supply a completed check list to the Engineer noting the condition of the parts. Worn parts shall be replaced. The Engineer may require an additional inspection prior to the placement of a surface course or at other times throughout the work."

#### CONCRETE ADMIXTURES (BDE)

Effective: January 1, 2003

Revised: July 1, 2004

Revise Article 1020.05(b) of the Standard Specifications to read:

"(b) Admixtures. Except as specified, the use of admixtures to increase the workability or to accelerate the hardening of the concrete will be permitted only when approved in writing by the Engineer. The Department will maintain an Approved List of Concrete Admixtures. When the Department permits the use of a calcium chloride accelerator, it shall be according to Article 442.02, Note 5.

When the atmosphere or concrete temperature is 18 °C (65 °F) or higher, a retarding admixture meeting the requirements of Article 1021.03 shall be used in the Class BD Concrete and portland cement concrete bridge deck overlays. The amount of retarding admixture to be used will be determined by the Engineer. 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 Class BD Concrete. The amount of high range water-reducing admixture will be determined by the Engineer. At the option of the Contractor, a water-reducing admixture may be used. Type I cement shall be used.

For Class PC and PS Concrete, a retarding admixture may be added to the concrete mixture when the concrete temperature is 18 °C (65 °F) or higher. Other admixtures may be used when approved by the Engineer, or if specified by the contract. If an accelerating admixture is permitted by the Engineer, it shall be the non-chloride type.

At the Contractor's option, admixtures in addition to an air-entraining admixture may be used for Class PP-1 concrete. The accelerator shall be the non-chloride type. If a water-reducing or retarding admixture is used, the cement factor may be reduced a maximum 18 kg/cu m (0.30 hundredweight/cu yd). If a high range water-reducing admixture is used, the cement factor may be reduced a maximum 36 kg/cu m (0.60 hundredweight/cu yd). Cement factor reductions shall not be cumulative when using multiple admixtures. An accelerator shall always be added prior to a high range water-reducing admixture, if both are used.

If Class C fly ash or ground granulated blast-furnace slag is used in Class PP-1 concrete, a water-reducing or high range water-reducing admixture shall be used. However, the cement factor shall not be reduced if a water-reducing, retarding, or high range water-reducing admixture is used. In addition, an accelerator shall not be used.

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. For Class PP-3 concrete, the non-chloride accelerator shall be calcium nitrite.

For Class PP-2 or PP-3 concrete, the Contractor has the option to use a water-reducing admixture. A retarding admixture shall not be used unless approved by the Engineer. A water-reducing, retarding, or high range water-reducing admixture shall not be used to reduce the cement factor.

When the air temperature is less than 13 °C (55 °F) for Class PP-1 or PP-2 concrete, the non-chloride accelerator shall be calcium nitrite.

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. 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 according to Article 1103.04, but a retarding admixture shall not be used unless approved by the Engineer. A water-reducing, retarding, or high range water-reducing admixture shall not be used to reduce the cement factor.

If the Department specifies a calcium chloride accelerator for Class PP-1 concrete, the maximum chloride dosage shall be 1.0 L (1.0 quart) of solution per 45 kg (100 lb) of cement. The dosage may be increased to a maximum 2.0 L (2.0 quarts) per 45 kg (100 lb) of cement if approved by the Engineer. If the Department specifies a calcium chloride accelerator for Class PP-2 concrete, the maximum chloride dosage shall be 1.3 L (1.3 quarts) of solution per 45 kg (100 lb) of cement. The dosage may be increased to a maximum 2.6 L (2.6 quarts) per 45 kg (100 lb) of cement if approved by the Engineer.

For Class PV, MS, SI, RR, SC and SH concrete, at the option of the Contractor, or when specified by the Engineer, a water-reducing admixture or a retarding admixture may be used. The amount of water-reducing admixture or retarding admixture permitted will be determined by the Engineer. The air-entraining admixture and other admixtures shall be added to the concrete separately, and shall be permitted to intermingle only after they have separately entered the concrete batch. The sequence, method and equipment for adding the admixtures shall be approved by the Engineer. The water-reducing admixture shall not delay the initial set of the concrete by more than one hour. Type I cement shall be used.

When a water-reducing admixture is added, a cement factor reduction of up to 18 kg/cu m (0.30 hundredweight/cu yd), from the concrete designed for a specific slump without the admixture, will be permitted for Class PV, MS, SI, RR, SC and SH concrete. When an approved high range water-reducing admixture is used, a cement factor reduction of up to 36 kg/cu m (0.60 hundredweight/cu yd), from a specific water cement/ratio without the admixture, will be permitted based on a 14 percent minimum

water reduction. This is applicable to Class PV, MS, SI, RR, SC and SH concrete. A cement factor below 320 kg/cu m (5.35 hundredweight/cu yd) will not be permitted for Class PV, MS, SI, RR, SC and SH concrete. A cement factor reduction will not be allowed for concrete placed underwater. Cement factor reductions shall not be cumulative when using multiple admixtures.

For use of admixtures to control concrete temperature, refer to Articles 1020.14(a) and 1020.14(b).

The maximum slumps given in Table 1 may be increased to 175 mm (7 in.) when a high range water-reducing admixture is used for all classes of concrete except Class PV and PP."

Revise Section 1021 of the Standard Specifications to read:

#### "SECTION 1021. CONCRETE ADMIXTURES"

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

Prior to inclusion of a product on the Department's Approved List of Concrete Admixtures, the manufacturer shall submit a report prepared by an independent laboratory accredited by the AASHTO Accreditation Program. The report shall show the results of physical tests conducted no more than five years prior to the time of submittal, according to applicable specifications.

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

In addition to the report, the manufacturer shall submit AASHTO T 197 water content and set time test results on the standard cement used by the Department. The test and reference concrete mixture shall contain a cement content of 335 kg/cu m (5.65 cwt/cu yd). The manufacturer may select their lab or an independent lab to perform this testing. The laboratory is not required to be accredited by the AASHTO Accreditation Program.

Prior to the approval of an admixture, the Engineer may conduct all or part of the applicable tests on a sample that is representative of the material to be furnished. The test and reference concrete mixtures tested by the Engineer will contain a cement content of 335 kg/cu m (5.65 cwt/cu yd). For freeze-thaw testing, the Department will perform the test according to Illinois Modified AASHTO T 161, Procedure B.

The manufacturer shall include in the submittal the following information according to ASTM C 494; the average and manufacturing range of specific gravity, the average and manufacturing range of solids in the solution, and the average and manufacturing range of pH. The submittal shall also include an infrared spectrophotometer trace no more than five years old.

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

All admixtures, except chloride-based accelerators, shall contain no more than 0.3 percent chloride by mass (weight).

**1021.02 Air-Entraining Admixtures.** Air-entraining admixtures shall conform to the requirements of AASHTO M 154.

If the manufacturer certifies that the air-entraining admixture is an aqueous solution of Vinsol resin that has been neutralized with sodium hydroxide (caustic soda), testing for compliance with the requirements may be waived by the Engineer. In the certification, the manufacturer shall show complete information with respect to the formulation of the solution, including the number of parts of Vinsol resin to each part of sodium hydroxide. Before the approval of its use is granted, the Engineer will test the solution for its air-entraining quality in comparison with a solution prepared and kept for that purpose.

**1021.03 Retarding and Water-Reducing Admixtures.** The admixture shall comply with the following requirements:

- (a) The retarding admixture shall comply with the requirements of AASHTO M 194, Type B (retarding) or Type D (water-reducing and retarding).
- (b) The water-reducing admixture shall comply with the requirements of AASHTO M 194, Type A.
- (c) The high range water-reducing admixture shall comply with the requirements of AASHTO M 194, Type F (high range water-reducing) or Type G (high range water-reducing and retarding).

When a Type F or Type G high range water-reducing admixture is used, water-cement ratios shall be a minimum of 0.32.

Type F or Type G admixtures may be used, subject to the following restrictions:

For Class MS, SI, RR, SC and SH concrete, the water-cement ratio shall be a maximum of 0.44.

The Type F or Type G admixture shall be added at the jobsite unless otherwise directed by the Engineer. The initial slump shall be a minimum of 40 mm (1 1/2 in.) prior to addition of the Type F or Type G admixture, except as approved by the Engineer.

When a Type F or Type G admixture is used, retempering with water or with a Type G admixture will not be allowed. An additional dosage of a Type F admixture, not to exceed 40 percent of the original dosage, may be used to retemper concrete once, provided set time is not unduly affected. A second retempering with a Type F admixture may be used for all classes of concrete except Class PP and SC, provided that the dosage does not exceed the dosage used for the first retempering, and provided that the set time is not unduly affected. No further retempering will be allowed.

Air tests shall be performed after the addition of the Type F or Type G admixture.

**1021.04 Set Accelerating Admixtures.** The admixture shall comply with the requirements of AASHTO M 194, Type C (accelerating) or Type E (water reducing and accelerating)"

## CURING AND PROTECTION OF CONCRETE CONSTRUCTION (BDE)

Effective: January 1, 2004

Revised: November 1, 2005

Revise the second and third sentences of the eleventh paragraph of Article 503.06 of the Standard Specifications to read:

"Forms on substructure units shall remain in place at least 24 hours. The method of form removal shall not result in damage to the concrete."

Delete the twentieth paragraph of Article 503.22 of the Standard Specifications.

Revise the "Unit Price Adjustments" table of Article 503.22 of the Standard Specifications to read:

"UNIT PRICE ADJUSTMENTS	
	Percent
Type of Construction	Adjustment
	in Unit Price
For concrete in substructures, culverts (having a waterway	
opening of more than 1 sq m (10 sq ft)), pump houses, and	
retaining walls (except concrete pilings, footings and	
foundation seals):	
When protected by:	
Protection Method II	115%
Protection Method I	110%
For concrete in superstructures:	
When protected by:	
Protection Method II	123%
Protection Method I	115%

For concrete in footings:	
When protected by:	
Protection Method I, II or III	107%
For concrete in slope walls:	
When protected by:	
Protection Method I	107%"

Delete the fourth paragraph of Article 504.05(a) of the Standard Specifications.

Revise the second and third sentences of the fifth paragraph of Article 504.05(a) of the Standard Specifications to read:

"All test specimens shall be cured with the units according to Article 1020.13."

Revise the first paragraph of Article 504.06(c)(6) of the Standard Specifications to read:

"Curing and Low Air Temperature Protection. The curing and protection for precast, prestressed concrete members shall be according to Article 1020.13 and this Article."

Revise the first sentence of the second paragraph of Article 504.06(c)(6) of the Standard Specifications to read:

"For curing, air vents shall be in place and shall be so arranged that no water can enter the void tubes during the curing of the members."

Revise the first sentence of the third paragraph of Article 504.06(c)(6) of the Standard Specifications to read:

"As soon as each member is finished, the concrete shall be covered with curing material according to Article 1020.13."

Revise the eighth paragraph of Article 504.06(c)(6) of the Standard Specifications to read:

"The prestressing force shall not be transferred to any member before the concrete has attained the compressive strength of 28,000 kPa (4000 psi) or other higher compressive release strength specified on the plans, as determined from tests of 150 mm (6 in.) by 300 mm (12 in.) cylinders cured with the member according to Article 1020.13. Members shall not be shipped until 28-day strengths have been attained and members have a yard age of at least 4 days."

Delete the third paragraph of Article 512.03(a) of the Standard Specifications.

Delete the last sentence of the second paragraph of Article 512.04(d) of the Standard Specifications.

Revise the "Index Table of Curing and Protection of Concrete Construction" table of Article 1020.13 of the Standard Specifications to read:

"INDEX TABLE OF O	CURING AND PROTECTION O	F CONCRETE C	CONSTRUCTION
		CURING	
TYPE OF CONSTRUCTION	CURING METHODS	PERIOD DAYS	LOW AIR TEMPERATURE PROTECTION METHODS
Cast-in-Place Concrete: 11/			
Pavement	2/5/		
Shoulder	1020.13(a)(1)(2)(3)(4)(5) 3/5/	3	1020.13(c)
Base Course			
Base Course Widening	1020.13(a)(1)(2)(3)(4)(5) <sup>1/2/</sup>	3	1020.13(c)
Driveway			
Median			
Curb Gutter	1020.13(a)(1)(2)(3)(4)(5) 4/5/	3	1020.13(c) <sup>16/</sup>
Curb and Gutter	1020.13(8)(1)(2)(3)(4)(5)	3	1020.13(0)
Sidewalk			
Slope Wall			
Paved Ditch			
Catch Basin			
Manhole	1020.13(a)(1)(2)(3)(4)(5) 4/	3	1020.13(c)
Inlet			
Valve Vault			
Pavement Patching	1020.13(a)(1)(2)(3)(4)(5) <sup>2/</sup>	3 <sup>12/</sup>	1020.13(c)
Pavement Replacement	1020.13(a)(1)(2)(3)(4)(5) <sup>1/2/</sup>	3	442.06(h) and 1020.13(c)
Railroad Crossing	1020.13(a)(3)(5)	1	1020.13(c)
Piles	1020.13(a)(3)(5)	7	1020.13(e)(1)(2)(3)
Footings			
Foundation Seals	1020.13(a)(1)(2)(3)(4)(5) 4/6/	7	1020.13(e)(1)(2)(3)
Substructure	1020.13(a)(1)(2)(3)(4)(5) <sup>1/7/</sup>	7	1020.13(e)(1)(2)(3)
Superstructure (except deck)	1020.13(a)(1)(2)(3)(5) <sup>8/</sup>	7	1020.13(e)(1)(2)
Deck	1020.13(a)(5)	7	1020.13(e)(1)(2) <sup>17/</sup>
Retaining Walls	1020.13(a)(1)(2)(3)(4)(5) <sup>1/7/</sup>	7	1020.13(e)(1)(2)
Pump Houses	1020.13(a)(1)(2)(3)(4)(5) <sup>1/</sup>	7	1020.13(e)(1)(2)
Culverts	1020.13(a)(1)(2)(3)(4)(5) 4/6/	7	1020.13(e)(1)(2) <sup>18/</sup>
Other Incidental Concrete	1020.13(a)(1)(2)(3)(5)	3	1020.13(c)
Precast Concrete: 11/			
Bridge Beams			
Piles	0/40/	10	10/
Bridge Slabs	1020.13(a)(3)(5) <sup>9/ 10/</sup>	As required. <sup>13/</sup>	504.06(c)(6), 1020.13(e)(2) <sup>19/</sup>
Nelson Type Structural Member	0101401		10/
All Other Precast Items	1020.13(a)(3)(4)(5) <sup>2/9/10/</sup>	As required. <sup>14/</sup>	504.06(c)(6), 1020.13(e)(2) <sup>19/</sup>
Precast, Prestressed Concrete: 11/			
All Items	1020.13(a)(3)(5) <sup>9/ 10/</sup>		d504.06(c)(6), 1020.13(e)(2) <sup>19/</sup>
			S
		released. <sup>15/</sup>	

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 footings, foundation seals or the bottom slab of culverts is permissible when approved by the Engineer, provided the water temperature can be maintained at 7 °C (45 °F) 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 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), and meets the material requirements of Article 1022.07.
- 9/ Steam curing (heat and moisture) is acceptable and shall be accomplished by the method specified in Article 504.06(c)(6).
- 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, with a maximum curing period of three days.
- 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(e)(1).
- 17/ When Article 1020.13(e)(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(e)(1).
- 18/ For culverts having a waterway opening of 1 sq m (10 sq ft) or less, the culverts may be protected according to Article 1020.13(e)(3).
- 19/ The seven day protection period in the first paragraph of Article 1020.13(e)(2) shall not apply. The protection period shall end when curing is finished. For the third paragraph of Article 1020.13(e)(2), the decrease in temperature shall be according to Article 504.06(c)(6)."

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

"(5) Wetted Cotton Mat Method. After the surface of concrete has been textured or finished, it shall be covered immediately with dry 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 1.2 m (4 ft) 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)."

Revise the first paragraph of Article 1020.13(c) of the Standard Specifications to read:

"Protection of Portland Cement Concrete, Other Than Structures, From Low Air Temperatures. When the official National Weather Service forecast for the construction area predicts a low of 0 °C (32 °F), or lower, or if the actual temperature drops to 0 °C (32 °F), or lower, concrete less than 72 hours old shall be provided at least the following protection:"

Delete Article 1020.13(d) and Articles 1020.13(d)(1),(2),(3),(4) of the Standard Specifications.

Revise the first five paragraphs of Article 1020.13(e) of the Standard Specifications to read:

"Protection of Portland Cement Concrete Structures From Low Air Temperatures. When the official National Weather Service Forecast for the construction area predicts a low below 7 °C (45 °F), or if the actual temperature drops below 7 °C (45 °F), 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. If winter construction is specified, the Contractor shall proceed with the construction, including concrete, excavation, pile driving, 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 at no additional cost to the Department."

Add the following at the end of the third paragraph of Article 1020.13(e)(1) of the Standard Specifications:

"The Contractor shall provide means for checking the temperature of the surface of the concrete during the protection period."

Revise the second sentence of the first paragraph of Article 1020.13(e)(2) of the Standard Specifications to read:

"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."

Delete the last sentence of the first paragraph of Article 1020.13(e)(3) of the Standard Specifications.

Add the following Article to Section 1022 of the Standard Specifications:

"**1022.06 Cotton Mats.** Cotton mats shall consist of a cotton fill material, minimum 400 g/sq m (11.8 oz/sq yd), covered with unsized cloth or burlap, minimum 200 g/sq m (5.9 oz/sq yd), and be tufted or stitched to maintain stability.

Cotton mats shall be in a condition satisfactory to the Engineer. Any tears or holes in the mats shall be repaired."

Add the following Article to Section 1022 of the Standard Specifications:

"1022.07 Linseed Oil Emulsion Curing Compound. Linseed oil emulsion curing compound shall be composed of a blend of boiled linseed oil and high viscosity, heavy bodied linseed oil emulsified in a water solution. The curing compound shall meet the requirements of a Type I according to Article 1022.01, except the drying time requirement will be waived. The oil phase shall be  $50 \pm 4$  percent by volume. The oil phase shall consist of 80 percent by mass (weight) boiled linseed oil and 20 percent by mass (weight) Z-8 viscosity linseed oil. The water phase shall be  $50 \pm 4$  percent by volume."

Revise Article 1020.14 of the Standard Specifications to read:

**"1020.14 Temperature Control for Placement.** Temperature control for concrete placement shall be according to the following.

(a) Temperature Control other than Structures. The temperature of the concrete immediately before placement shall be a minimum of 10 °C (50 °F) and a maximum of 32 °C (90 °F). Aggregates and/or water shall be heated or cooled as necessary to produce concrete within these temperature limits.

When the temperature of the plastic concrete reaches 30 °C (85 °F), an approved retarding admixture shall be used or the approved water reducing admixture in use shall have its dosage increased by 50 percent over the dosage recommended on the Department's Approved List of Concrete Admixtures for the temperature experienced. The amount of retarding admixture to be used will be determined by the Engineer. This requirement may be waived by the Engineer when fly ash compensated mixtures are used.

Plastic concrete temperatures up to 35 °C (96 °F), as placed, may be permitted provided job site conditions permit placement and finishing without excessive use of water on and/or overworking of the surface. The occurrence within 24 hours of unusual surface distress shall be cause to revert to a maximum 32 °C (90 °F) plastic concrete temperature.

Concrete shall not be placed when the air temperature is below 5 °C (40 °F) and falling or below 2 °C (35 °F), without permission of the Engineer. When placing of concrete is authorized during cold weather, the Engineer may require the water and/or the aggregates to be heated to between 20 °C (70 °F) and 65 °C (150 °F). The aggregates may be heated by either steam or dry heat prior to being placed in the mixer. The apparatus used shall heat the mass uniformly and shall be so arranged as to preclude the possible occurrence of overheated areas which might damage the materials. No frozen aggregates shall be used in the concrete.

For pavement patching, refer to Article 442.06(e) for additional information on temperature control for placement.

(b) Temperature Control for Structures. The temperature of the concrete, as placed in the forms, shall be a minimum of 10 °C (50 °F) and a maximum of 32 °C (90 °F). Aggregates and/or water shall be heated or cooled as necessary to produce concrete within these temperature limits. When insulated forms are used, the temperature of the concrete mixture shall not exceed 25 °C (80 °F). If the Engineer determines that heat of hydration might cause excessive temperatures in the concrete, the concrete shall be placed at a temperature between 10 °C (50 °F) and 15 °C (60 °F). When concrete is placed in contact with previously placed concrete, the temperature of the concrete may be increased as required to offset anticipated heat loss.

Concrete shall not be placed when the air temperature is below 7 °C (45 °F) and falling or below 4 °C (40 °F), without permission of the Engineer. When placing of concrete is authorized during cold weather, the Engineer may require the water and/or the aggregates to be heated to between 20 °C (70 °F) and 65 °C (150 °F). The aggregates may be heated by either steam or dry heat prior to being placed in the mixer. The apparatus used shall heat the mass uniformly and shall be so arranged as to preclude the possible occurrence of overheated areas which might damage the materials. No frozen aggregates shall be used in the concrete.

When the temperature of the plastic concrete reaches 30 °C (85 °F), an approved retarding admixture shall be used or the approved water reducing admixture in use shall have its dosage increased by 50 percent over the dosage recommended on the Department's Approved List of Concrete Admixtures for the temperature experienced. The amount of retarding admixture to be used will be determined by the Engineer. This requirement may be waived by the Engineer when fly ash compensated mixtures are used.

(c) Temperature. The concrete temperature shall be determined according to ASTM C 1064."

## EROSION AND SEDIMENT CONTROL DEFICIENCY DEDUCTION (BDE)

Effective: August 1, 2001

Revised: November 1, 2001

When the Engineer is notified or determines an erosion and/or sediment control deficiency(s) exists, he/she will direct the Contractor in writing to correct the deficiency. The Contractor shall then correct the deficiency within 24 hours. The deficiency may be any lack of repair, maintenance, or implementation of erosion and/or sediment control devices included in the contract, or any failure to comply with the conditions of the National Pollutant Discharge Elimination System (NPDES) Storm Water Permit for Construction Site Activities.

If the Contractor fails to correct the deficiency(s) within 24 hours, a daily monetary deduction will be imposed for each calendar day or fraction thereof the deficiency exists. The time period will begin with the initial written notification to the Contractor and end with the Engineer's acceptance of the corrected work. The per calendar day deduction will be either \$1000.00 or 0.05 percent of the awarded contract value, whichever is greater.

If the Contractor fails to respond, the Engineer may correct the deficiencies and deduct the cost from monies due or which may become due the Contractor. This corrective action shall in no way relieve the Contractor of his/her contractual requirements or responsibilities.

# FLAGGER VESTS (BDE)

Effective: April 1, 2003

Revised: August 1, 2005

Revise the first sentence of Article 701.04(c)(1) of the Standard Specifications to read:

"The flagger shall be stationed to the satisfaction of the Engineer and be equipped with a fluorescent orange, fluorescent yellow/green or a combination of fluorescent orange and fluorescent yellow/green vest meeting the requirements of the American National Standards Institute specification ANSI/ISEA 107-1999 for Conspicuity Class 2 garments and approved flagger traffic control signs conforming to Standard 702001 and Article 702.05(e)."

Revise Article 701.04(c)(6) of the Standard Specifications to read:

"(6) Nighttime Flagging. Flaggers shall be illuminated by an overhead light source providing a minimum vertical illuminance of 108 lux (10 fc) measured 300 mm (1 ft) out from the flagger's chest. The bottom of any luminaire shall be a minimum of 3 m (10 ft) above the pavement. Luminaire(s) shall be shielded to minimize glare to approaching traffic and trespass light to adjoining properties.

The flagger vest shall be a fluorescent orange or fluorescent orange and fluorescent yellow/green vest meeting the requirements of the American National Standards Institute specification ANSI/ISEA 107-1999 for Conspicuity Class 3 garments."

## FREEZE-THAW RATING (BDE)

Effective: November 1, 2002

Revise the first sentence of Article 1004.02(f) of the Standard Specifications to read:

"When coarse aggregate is used to produce portland cement concrete for base course, base course widening, pavement, driveway pavement, sidewalk, shoulders, curb, gutter, combination curb and gutter, median, paved ditch or their repair using concrete, the gradation permitted will be determined from the results of the Department's Freeze-Thaw Test."

## PARTIAL PAYMENTS (BDE)

Effective: September 1, 2003

Revise Article 109.07 of the Standard Specifications to read:

#### "109.07 Partial Payments. Partial payments will be made as follows:

(a) Progress Payments. At least once each month, the Engineer will make a written estimate of the amount of work performed in accordance with the contract, and the value thereof at the contract unit prices. The amount of the estimate approved as due for payment will be vouchered by the Department and presented to the State Comptroller for payment. No amount less than \$1000.00 will be approved for payment other than the final payment. The failure to perform any requirement, obligation, or term of the contract by the Contractor shall be reason for withholding any progress payments until the Department determines that compliance has been achieved. Furthermore, progress payments may be reduced by liens filed pursuant to Section 23(c) of the Mechanics Lien Act, 770 ILCS 60/23(c).

(b) Material Allowances. At the discretion of the Department, payment may be made for materials, prior to their use in the work, when satisfactory evidence is presented by the Contractor. Satisfactory evidence includes justification for the allowance (to expedite the work, meet project schedules, regional or national material shortages, etc.), documentation of material and transportation costs, and evidence that such material is properly stored on the project or at a secure location acceptable and accessible to the Department.

Material allowances will be considered only for nonperishable materials when the cost, including transportation, exceeds \$10,000 and such materials are not expected to be utilized within 60 days of the request for the allowance. For contracts valued under \$500,000, the minimum \$10,000 requirement may be met by combining the principal (material) product of no more than two contract items. An exception to this two item limitation may be considered for any contract regardless of value for items in which material (products) are similar except for type and/or size.

Material allowances shall not exceed the value of the contract items in which used and shall not include the cost of installation or related markups. Amounts paid by the Department for material allowances will be deducted from estimates due the Contractor as the material is used. Two-sided copies of the Contractor's cancelled checks for materials and transportation must be furnished to the Department within 60 days of payment of the allowances or the amounts will be reclaimed by the Department."

## PAYMENTS TO SUBCONTRACTORS (BDE)

Effective: June 1, 2000

Revised: September 1, 2003

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 no later than 30 days from the receipt of each payment made to the Contractor.

State law addresses the timing of payments to be made to subcontractors. Section 7 of the Prompt Payment Act, 30 ILCS 540/7, generally requires that when a Contractor receives any payment from the Department, the Contractor is required to make corresponding, proportional 54payments to each subcontractor performing work within 15 calendar days after receipt of the state payment. Section 7 of the State Prompt Payment Act further provides that interest in the amount of 2% per month, in addition to the payment due, shall be paid to any subcontractor 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 throughout the contracting chain.

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

As progress payments are made to the Contractor in accordance with Article 109.07 of the Standard Specifications for Road and Bridge Construction, the Contractor shall make a corresponding partial payment within 15 calendar days to each subcontractor in proportion to the work satisfactorily completed by each subcontractor. The proportionate amount of partial payment due to each subcontractor 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 shall be paid in full within 15 calendar days after the subcontractor's work has been satisfactorily completed. The Contractor shall hold no retainage from the subcontractors.

This Special Provision does not create any rights in favor of any subcontractor against the State of Illinois or authorize any cause of action against the State of Illinois on account of any payment, nonpayment, delayed payment or interest claimed by application of the State Prompt Payment Act. The Department will neither determine the reasonableness of any cause for delay of payment nor enforce any claim to payment, including interest. Moreover, the Department will not approve any delay or postponement of the 15 day requirement. State law creates 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 in accordance with the Public Construction Bond Act, 30 ILCS 550.

## PERSONAL PROTECTIVE EQUIPMENT (BDE)

Effective: July 1, 2004

All personnel, excluding flaggers, working outside of a vehicle (car or truck) within 7.6 m (25 ft) of pavement open to traffic shall wear a fluorescent orange, fluorescent yellow/green or a combination of fluorescent orange and fluorescent yellow/.green vest meeting the requirements of the American National Standards Institute specification ANSI/ISEA 107-1999 for Conspicuity Class 2 garments. Other types of garments may be substituted for the vest as long as the garments have manufacturers tags identifying them as meeting the ANSI Class 2 requirement.

# PORTABLE CHANGEABLE MESSAGE SIGNS (BDE)

Effective: November 1, 1993

Revised: April 2, 2004

<u>Description</u>. This work shall consist of furnishing, placing, and maintaining changeable message sign(s) at the locations(s) shown on the plans or as directed by the Engineer.

The sign(s) shall be trailer mounted. The message panel shall be at least 2.1 m (7 ft) above the pavement, present a level appearance, and be capable of displaying up to eight characters in each of three lines at a time. Character height shall be 450 mm (18 in.).

The message panel shall be of either a bulb matrix or disc matrix design controlled by an onboard computer capable of storing a minimum of 99 programmed messages for instant recall. The computer shall be capable of being programmed to accept messages created by the operator via an alpha-numeric keyboard and able to flash any six messages in sequence. The message panel shall also be capable of being controlled by a computer from a remote location via a cellular linkage. The Contractor shall supply the modem, the cellular phone, and the necessary software to run the sign from a remote computer at a location designated by the Engineer. The Contractor shall promptly program and/or reprogram the computer to provide the messages as directed by the Engineer.

The message panel shall be visible from 400 m (1/4 mile) under both day and night conditions. The letters shall be legible from 250 m (750 ft).

The sign shall include automatic dimming for nighttime operation and a power supply capable of providing 24 hours of uninterrupted service.

The Contractor shall provide all preventive maintenance efforts s(he) deems necessary to achieve uninterrupted service. If service is interrupted for any cause and not restored within 24 hours, the Engineer will cause such work to be performed as may be necessary to provide this service. The cost of such work shall be borne by the Contractor or deducted from current or future compensation due the Contractor.

When the sign(s) are displaying messages, they shall be considered a traffic control device. At all times when no message is displayed, they shall be considered equipment.

<u>Basis of Payment</u>. When portable changeable message signs are shown on the Standard, this work will not be paid for separately but shall be considered as included in the cost of the Standard.

For all other portable changeable message signs, this work will be paid for at the contract unit price per calendar month for each sign as CHANGEABLE MESSAGE SIGN.

#### PORTLAND CEMENT (BDE)

Effective: January 1, 2005

Revised: November 1, 2005

Add the following paragraph after the last paragraph of Article 1001.01 of the Standard Specifications.

"For portland cement according to ASTM C 150, the bill of lading shall state if limestone has been added. The bill of lading shall also state that the limestone addition is not in excess of five percent by mass (weight) of the cement."

# PORTLAND CEMENT CONCRETE (BDE)

Effective: November 1, 2002

Add the following paragraph after the fourth paragraph of Article 1103.01(b) of the Standard Specifications:

"The truck mixer shall be approved before use according to the Bureau of Materials and Physical Research's Policy Memorandum, "Approval of Concrete Plants and Delivery Trucks"."

Add the following paragraph after the first paragraph of Article 1103.01(c) of the Standard Specifications:

"The truck agitator shall be approved before use according to the Bureau of Materials and Physical Research's Policy Memorandum, "Approval of Concrete Plants and Delivery Trucks"."

Add the following paragraph after the first paragraph of Article 1103.01(d) of the Standard Specifications:

"The nonagitator truck shall be approved before use according to the Bureau of Materials and Physical Research's Policy Memorandum, "Approval of Concrete Plants and Delivery Trucks"."

Revise the first sentence of the first paragraph of Article 1103.02 of the Standard Specifications to read:

"The plant shall be approved before production begins according to the Bureau of Materials and Physical Research's Policy Memorandum, "Approval of Concrete Plants and Delivery Trucks"."

## PORTLAND CEMENT CONCRETE PATCHING (BDE)

Effective: January 1, 2001

Revised: January 1, 2004

Revise Note 1 of Article 442.02 of the Standard Specifications, to read:

"Note 1. When patching ramp pavements and two lane pavements with two way traffic, Class PP-2, PP-3, or PP-4 concrete shall be used for Class A, Class B and Class C patching. For all other pavements, Class PP-1, PP-2, PP-3, or PP-4 concrete shall be used, at the Contractor's option, for Class A, Class B and Class C patching."

Delete Note 2 of Article 442.02 of the Standard Specifications.

Add the following to Article 442.02 of the Standard Specifications:

Note 5. The calcium chloride accelerator, when permitted by the Department, shall be Type L (Liquid) with a minimum of 32.0 percent by mass (weight) of calcium chloride."

Revise the first paragraph of Article 442.06(e) of the Standard Specifications to read:

"(e) Concrete Placement. For Class A, Class B and Class C Patches, concrete shall be placed according to Article 420.07 and governed by the limitations set forth in Article 1020.14, except that the maximum temperature of the mixed concrete immediately before placing shall be 35 °C (96 °F), the required use of an approved retarding admixture when the plastic concrete reaches 30 °C (85 °F) shall not apply."

Revise the first paragraph of Article 442.06(h) of the Standard Specifications to read:

"(h) Curing and Protection. In addition to Article 1020.13, when the air temperature is less than 13 °C (55 °F), the Contractor shall cover the patch with minimum R12 insulation until opening strength is reached. Insulation is optional when the air temperature is 13 °C - 35 °C (55 °F - 96 °F). Insulation shall not be placed when the air temperature is greater than 35 °C (96 °F)."

Revise the second paragraph of Article 701.05(e)(1)d.1. of the Standard Specifications to read:

"No open holes, broken pavement, or partially filled holes shall remain overnight for bituminous patching or when the Department specifies only Class PP-2, PP-3, or PP-4 concrete be used. The only exception is conditions beyond the control of the Contractor."

Revise Article 701.05(e)(2)b. of the Standard Specifications to read:

"b. Strength Tests. For patches constructed with Class PP-1, PP-2, PP-3, or PP-4 concrete, the pavement may be opened to traffic when test specimens cured with the patches have obtained a minimum flexural strength of 4150 kPa (600 psi) or a minimum compressive strength of 22,100 kPa (3200 psi) according to Article 1020.09.

For patches constructed with Class PP-2, PP-3, or PP-4 concrete which can obtain a minimum flexural strength of 4150 kPa (600 psi) or a minimum of compressive strength of 22,100 kPa (3200 psi) in 16 hours, the pavement may be opened to traffic at a lower opening strength. The specimens cured with the patches shall have obtained a minimum flexural strength of 2050 kPa (300 psi) or a minimum compressive strength of 11,000 kPa (1600 psi) according to Article 1020.09, to permit opening pavement to traffic.

With the approval of the Engineer, concrete strength may be determined according to AASHTO T 276. The strength-maturity relationship shall be developed from concrete which has an air content near the upper specification limit. The strength-maturity relationship shall be re-established if the mix design or materials are changed."

Revise Article 701.05(e)(2)c. of the Standard Specifications to read:

"c. Construction Operations. For Class PP-2, PP-3, or PP-4 concrete used on ramp pavements and two lane pavements with two way traffic, or when the Department specifies only Class PP-2, PP-3, or PP-4 concrete be used for other pavements, Contractor construction operations shall be performed in a manner which allows the patches to be opened the same day and before nightfall. If patches are not opened before nightfall, the additional traffic control shall be at the Contractor's expense. Any time patches cannot be opened before nightfall, the Contractor shall change subsequent construction operations or the mix design. The changes shall be at no additional cost to the Department."

Revise Table 1 of Article 1020.04 of the Standard Specifications by replacing Class PP concrete with the following:

"TABLE	"TABLE 1. CLASSES OF PORTLAND CEMENT CONCRETE AND MIX DESIGN CRITERIA							
Class of Concrete	Use	Specification Section Reference	Cement Factor kg/cu m (cwt/cu yd)	Max. Water/Cement Ratio kg/kg (lb/lb)				
PP-1	PCC Pavement Patching Bridge Deck Patching	442	Type I Cement 385 to 445 (6.50 to 7.50) Type III Cement 365 to 425 (6.20 to 7.20)	0.44				
PP-2	PCC Pavement Patching Bridge Deck Patching	442	Type I Cement 435 (7.35)	0.38				
PP-3	PCC Pavement Patching Bridge Deck Patching	442	Type III Cement 435 (7.35)	0.35				
PP-4	PCC Pavement Patching Bridge Deck Patching	442	Rapid Hardening Cement 355 to 370 (6.00 to 6.25)	0.50				

For PP-1, the Contractor has the option to replace the Type I Cement with Class C fly ash or ground granulated blast-furnace slag. The amount of cement replaced shall not exceed 15 percent by mass (weight), at a minimum replacement ratio of 1.5:1.

For PP-2, the Contractor has the option to replace the Type I cement with ground granulated blast-furnace slag. The amount of cement replaced shall not exceed 30 percent by mass (weight), at a minimum replacement ratio of 1:1.

For PP-3, in addition to the cement, 60 kg/cu m (100 lb/cu yd) of ground granulated blast-furnace slag and 30 kg/cu m (50 lb/cu yd) of microsilica are required. For an air temperature greater than 30 °C (85 °F), the Contractor has the option to replace the Type III cement with Type I cement.

### F.A.I. Route 94 (Dan Ryan Expressway) Section (1516.1, 1717 & 1818) I-4 Cook County Contract 62933 (17H)

For PP-4, the cement shall be from the Department's "Approved List of Packaged, Dry, Rapid Hardening Cementitious Materials for Concrete Repairs".

TABLE 1.	TABLE 1. (CONT'D) CLASSES OF PORTLAND CEMENT CONCRETE AND MIX DESIGN CRITERIA						
Class of Concrete	Slump, mm (in.)	Mix Design Compressive Strength, kPa (psi) Hours 48	Mix Design Flexural Strength, kPa (psi) Hours 48	Air Content, %	Coarse Aggregate Gradations Permitted		
PP – 1	100 (4) Max	22,100 (3200)	4150 (600)	4.0 - 7.0	CA-7, CA-11, CA-13, CA14, or CA-16		
PP – 2	150 (6) Max	22,100 (3200)	4150 (600)	4.0 - 6.0	CA-7, CA-11, CA-13, CA14, or CA-16		
PP – 3	100 (4) Max	22,100 (3200)	4150 (600)	4.0 - 6.0	CA-7, CA-11, CA-13, CA14, or CA-16		
PP – 4	150 (6) Max	22,100 (3200)	4150 (600)	4.0 - 6.0	CA-7, CA-11, CA-13, CA14, or CA-16		

For PP-1, PP-2, PP-3 or PP-4; only CA-13, CA-14, or CA-16 may be used for bridge deck patching. In addition, the mix design strength at 48 hours shall be increased to 27,500 kPa (4,000 psi) compressive or 4,650 kPa (675 psi) flexural for bridge deck patching.

For PP-1, the slump may be increased to 150 mm (6 in.) Max if a high range water-reducing admixture is used."

Delete Article 1020.05(g) of the Standard Specifications.

# PREFORMED RECYCLED RUBBER JOINT FILLER (BDE)

Effective: November 1, 2002

Revise Article 503.02(c) of the Standard Specifications to read:

"(c) Preformed Expansion Joint Filler1051	1"
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Revise Article 637.02(d) of the Standard Specifications to read:

Add the following Article to Section 1051 of the Standard Specifications:

F.A.I. Route 94 (Dan Ryan Expressway) Section (1516.1, 1717 & 1818) I-4 Cook County Contract 62933 (17H)

"1051.10 Preformed Recycled Rubber Joint Filler. Preformed recycled rubber joint filler shall consist of ground tire rubber, free of steel and fabric, combined with ground scrap or waste polyethylene. It shall not have a strong hydrocarbon or rancid odor and shall meet the physical property requirements of ASTM D 1752. Water absorption by volume shall not exceed 5.0 percent."

#### **RAP FOR USE IN BITUMINOUS CONCRETE MIXTURES (BDE)**

Effective: January 1, 2000

Revised: April 1, 2002

Revise Article 1004.07 to read:

"**1004.07 RAP Materials.** RAP is reclaimed asphalt pavement resulting from cold milling or crushing of an existing dense graded hot-mix asphalt pavement. RAP must originate from routes or airfields under federal, state or local agency jurisdiction. The Contractor shall supply documentation that the RAP meets these requirements.

- (a) Stockpiles. The Contractor shall construct individual, sealed RAP stockpiles meeting one of the following definitions. No additional RAP will be allowed on top of the pile after the pile has been sealed.
  - (1) Homogeneous. Homogeneous RAP stockpiles shall consist of RAP from Class I/ Superpave, or equivalent mixtures only and represent the same aggregate quality, but shall be at least C quality or better, the same type of crushed aggregate (either crushed natural aggregate, ACBF slag, or steel slag), similar gradation and similar AC 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. Homogenous stockpiles shall meet the requirements of Article 1004.07(d). Homogeneous RAP stockpiles not meeting these requirements may be processed (crushing and screening) and retested.
  - (2) Conglomerate. Conglomerate RAP stockpiles shall consist of RAP from Class I/ Superpave, or equivalent mixtures only. The coarse aggregate in this RAP shall be crushed aggregate only and may represent more than one aggregate type and/or quality but shall be at least C quality or better. This RAP may have an inconsistent gradation and/or asphalt cement content prior to processing. All conglomerate RAP shall be processed prior to testing by crushing to where all RAP shall pass the 16 mm (5/8 in.) or smaller screen. Conglomerate RAP stockpiles shall not contain steel slag or other expansive material as determined by the Department. Conglomerate RAP stockpiles shall meet the requirements of Article 1004.07(d).
  - (3) Conglomerate "D" Quality (DQ). Conglomerate DQ RAP stockpiles shall consist of RAP containing coarse aggregate (crushed or round) that is at least D quality or better. This RAP may have an inconsistent gradation and/or asphalt content. Conglomerate DQ RAP stockpiles shall not contain steel slag or other expansive material as determined by the Department. Conglomerate DQ RAP shall meet the requirements of Article 1004.07(d).

Reclaimed Superpave Low ESAL IL-9.5L surface mixtures shall only be placed in conglomerate DQ RAP stockpiles due to the potential for rounded aggregate.

- (4) Other. RAP stockpiles that do not meet the requirements of the stockpile categories listed above shall be classified as "Other". "Other" RAP stockpiles shall not be used in any of the Department's bituminous mixtures.
- (b) Use. The allowable use of a RAP stockpile shall be set by the lowest quality of coarse aggregate in the RAP stockpile. Class I/Superpave surface mixtures are designated as containing Class B quality coarse aggregate only. Superpave Low ESAL IL-19.0L binder and IL-9.5L surface mixtures are designated as Class C quality coarse aggregate only. Class I/Superpave binder mixtures, bituminous base course mixtures, and bituminous base course widening mixtures are designated as containing Class C quality coarse aggregate only. Bituminous stabilized subbase and BAM shoulders are designated as containing Class D quality coarse aggregate only. Any mixture not listed above shall have the designated quality determined by the Department.

RAP containing steel slag or other expansive material, as determined by the Department, shall be homogeneous and will be approved for use in Class I/Superpave (including Low ESAL) surface mixtures only. RAP stockpiles for use in Class I/Superpave mixtures (including Low ESAL), base course, base course widening and Class B mixtures shall be either homogeneous or conglomerate RAP stockpiles except conglomerate RAP stockpiles shall not be used in Superpave surface mixture Ndesign 50 or greater. RAP for use in bituminous aggregate mixtures (BAM) shoulders and BAM stabilized subbase shall be from homogeneous, conglomerate, or conglomerate DQ stockpiles.

Additionally, RAP used in Class I/Superpave surface mixtures shall originate from milled or crushed mixtures only, in which the coarse aggregate is of Class B quality or better. RAP stockpiles for use in Class I/Superpave (including Low ESAL) binder mixes as well as base course, base course widening and Class B mixtures shall originate from milled or processed surface mixture, binder mixture, or a combination of both mixtures uniformly blended to the satisfaction of the Engineer, in which the coarse aggregate is of Class C quality or better.

- (c) Contaminants. RAP containing contaminants, such as earth, brick, sand, concrete, sheet asphalt, bituminous surface treatment (i.e. chip seal), pavement fabric, etc., will be unacceptable unless the contaminants are removed to the satisfaction of the Engineer. Sheet asphalt shall be stockpiled separately.
- (d) Testing. All RAP shall be sampled and tested either during or after stockpiling.

For testing during stockpiling, washed extraction samples shall be run at the minimum frequency of one sample per 450 metric tons (500 tons) for the first 1800 metric tons (2,000 tons) and one sample per 1800 metric tons (2,000 tons) thereafter. A minimum of five tests shall be required for stockpiles less than 3600 metric tons (4,000 tons).

For testing existing stockpiles, the Contractor shall submit a plan for approval to the District proposing a satisfactory method of sampling and testing the RAP pile either insitu or by restockpiling. The sampling plan shall meet the minimum frequency required above and detail the procedure used to extract representative samples throughout the pile for testing.

Before extraction, each field sample shall be split to 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.

All of the extraction results shall be compiled and averaged for asphalt content and gradation. Individual extraction test results, when compared to the averages, will be accepted if within the tolerances listed below.

Parameter	Homogeneous / Conglomerate	Conglomerate "D" Quality
25 mm (1 in.)		± 5%
12.5 mm (1/2 in.)	± 8%	± 15%
4.75 mm (No. 4)	± 6%	± 13%
2.36 mm (No. 8)	± 5%	
1.18 mm (No. 16)		± 15%
600 μm (No. 30)	± 5%	
75 μm (No. 200)	$\pm 2.0\%$	$\pm 4.0\%$
AC	± 0.4%	± 0.5%

If more than 20 percent of the individual sieves are out of the gradation tolerances, or if more than 20 percent of the asphalt content test results fall outside the appropriate tolerances, the RAP will not be allowed to be used in the Department's bituminous concrete mixtures unless the RAP representing the failing tests is removed from the stockpile to the satisfaction of the Engineer. 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)".

(e) Designs. At the Contractor's option, bituminous concrete mixtures may be constructed utilizing RAP material meeting the above detailed requirements. The amount of RAP included in the mixture shall not exceed the percentages specified in the plans.

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

(f) Production. The coarse aggregate in all RAP used shall be equal to or less than the nominal maximum size requirement for the bituminous mixture being produced.

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

If the RAP control tolerances or QC/QA test results require corrective action, the Contractor shall cease production of the mixture containing RAP and either switch to the virgin aggregate design or submit a new RAP design.

# SEEDING AND SODDING (BDE)

Effective: July 1, 2004

Revised: August 1, 2005

Revise Class 1A and 2A seeding mixtures shown in Table 1 of Article 250.07 of the Standard Specifications to read:

	"Table 1 - SEEDING MIXTURES							
Class – Type Seeds kg/hectare (lb/acre)								
1A	Salt Tolerant	Bluegrass	70 (60)					
	Lawn Mixture 7/	Perennial Ryegrass	20 (20)					
		Audubon Red Fescue	20 (20)					
		Rescue 911 Hard Fescue	20 (20)					
		Fults Salt Grass*	70 (60)					
2A	Salt Tolerant	Alta Fescue or Ky 31	70 (60)					
	Roadside Mixture 7/	Perennial Ryegrass	20 (20)					
		Audubon Red Fescue	20 (30)					
		Rescue 911 Hard Fescue	20 (30)					
		Fults Salt Grass 1/	70 (60)"					

Revise Note 7 of Article 250.07 of the Standard Specifications to read:

"Note 7. 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 one growing season. The guarantee shall be submitted to the Engineer in writing prior to performing the work. After one growing season, areas not sustaining 75 percent uniform growth shall be interseeded or reseeded, as determined by the Engineer, at the Contractor's expense."

Add the following sentence to Article 252.04 of the Standard Specifications:

"Sod shall not be placed during the months of July and August."

Revise the first paragraph of Article 252.08 of the Standard Specifications to read:

"252.08 Sod Watering. Within two hours after the sod has been placed, water shall be applied at a rate of 25 L/sq m (5 gal/sq yd). Additional water shall be applied every other day at a rate of 15 L/sq m (3 gal/sq yd) for a total of 15 additional waterings. During periods exceeding 26 °C (80 °F) or subnormal rainfall, the schedule of additional waterings may be altered with the approval of the Engineer."

Revise Article 252.09 of the Standard Specifications to read:

"252.09 Supplemental Watering. During periods exceeding 26 °C (80 °F) or subnormal rainfall, supplemental watering may be required after the initial and additional waterings. Supplemental watering shall be performed when directed by the Engineer. Water shall be applied at the rate specified by the Engineer within 24 hours of notice."

Revise the first and third paragraphs of Article 252.12 of the Standard Specifications to read:

"252.12 Method of Measurement. Sodding will be measured for payment in place and the area computed in square meters (square yards). To be acceptable for final payment, the sod shall be growing in place for a minimum of 30 days in a live, healthy condition. When directed by the Engineer, any defective or unacceptable sod shall be removed, replaced and watered by the Contractor at his/her own expense."

"Supplemental watering will be measured for payment in units of 1000 L (1000 gal) of water applied on the sodded areas. Waterings performed in addition to those required by Article 252.08 or after the 30 day establishment period will be considered as supplemental watering."

Replace the first paragraph of Article 252.13 of the Standard Specifications with the following:

"252.13 Basis of Payment. Sodding will be paid for at the contract unit price per square meter (square yard) for SODDING or SODDING, SALT TOLERANT according to the following schedule.

- (a) Initial Payment. Upon placement of sod, 25 percent of the pay item will be paid.
- (b) Final Payment. Upon acceptance of sod, the remaining 75 percent of the pay item will be paid."

Revise Article 1081.03(b) of the Standard Specifications to read:

"(b) Salt Tolerant Sod.

Variety	Percent by Weight
Buffalo Grass	30%
Buchloe Dactyloides	
Amigo Fineleaf Tall Fescue	20%
Audubon Red Fescue	15%
Rescue 911 Hard Fescue	15%
Rugby Kentucky Bluegrass	5%
Fults Pucinnellia Distans	15%"

Revise Table II of Article 1081.04(c)(6) of the Standard Specifications to read:

		ТА	BLE II			
					Secondary	
	Hard Seed	Purity	Pure, Live	Weed	Noxious Weeds	
	Percent	Percent	Seed Percent	Percent	No. per kg (oz)	
Variety of Seeds	Maximum	Minimum	Minimum	Maximum	Max. Permitted*	Remarks
Alfalfa	20	92	89	0.50	211 (6)	1/
Brome Grass	-	90	75	0.50	175 (5)	-
Clover, Alsike	15	92	87	0.30	211 (6)	2/
Clover, Crimson	15	92	83	0.50	211 (6)	-
Clover, Ladino	15	92	87	0.30	211 (6)	-
Clover, Red	20	92	87	0.30	211 (6)	-
Clover, White Dutch	30	92	87	0.30	211 (6)	3/
Audubon Red Fescue	0	97	82	0.10	105 (3)	-
Fescue, Alta or Ky. 31	-	97	82	1.00	105 (3)	-
Fescue, Creeping Red	-	97	82	1.00	105 (3)	-
Fults Salt Grass	0	98	85	0.10	70 (2)	-
Kentucky Bluegrass	-	97	80	0.30	247 (7)	5/
Lespedeza, Korean	20	92	84	0.50	211 (6)	3/
Oats	-	92	88	0.50	70 (2)	4/
Orchard Grass	-	90	78	1.50	175 (5)	4/
Redtop	-	90	78	1.80	175 (5)	4/
Ryegrass, Perennial, Annual	-	97	85	0.30	175 (5)	4/
Rye, Grain, Winter	-	92	83	0.50	70 (2)	4/
Rescue 911 Hard Fescue	0	97	82	0.10	105 (3)	-
Timothy	-	92	84	0.50	175 (5)	4/
Vetch, Crown	30	92	67	1.00	211 (6)	3/ & 6/
Vetch, Spring	30	92	88	1.00	70 (2)	4/
Vetch, Winter	15	92	83	1.00	105 (3)	4/
Wheat, hard Red Winter	-	92	89	0.50	70 (2)	4/

SELF-CONSOLIDATING CONCRETE FOR CAST-IN-PLACE CONSTRUCTION (BDE)

Effective: November 1, 2005

<u>Definition</u>. Self-consolidating concrete is a flowable mixture that does not require mechanical vibration for consolidation.

<u>Usage</u>. Self-consolidating concrete may be used for cast-in-place concrete construction items involving Class MS and SI concrete. Self-consolidating concrete may also be used for drilled shafts.

Materials. Materials shall be according to the following.

(a) <u>Self-Consolidating Admixtures</u>. The self-consolidating admixture system shall consist of either a high range water-reducing admixture only or a high range water-reducing admixture combined with a separate viscosity modifying admixture. The one or two component admixture system shall be capable of producing a concrete that can flow around reinforcement and consolidate under its own weight without additional effort and without segregation.

The high range water-reducing admixture shall comply with the requirements of AASHTO M 194, Type F.

The viscosity modifying admixture will be evaluated according to the test methods and mix design proportions referenced in AASHTO M 194, except the following physical requirements shall be met:

- (1) For initial and final set times, the allowable deviation of the test concrete from the reference concrete shall not be more than 1.0 hour earlier or 1.5 hours later.
- (2) For compressive and flexural strengths, the test concrete shall be a minimum of 90 percent of the reference concrete at 3, 7, and 28 days.
- (3) The length change of the test concrete shall be a maximum 135 percent of the reference concrete. However, if the length change of the reference concrete is less than 0.030 percent, the length change of the test concrete shall be a maximum 0.010 percentage units greater than the reference concrete.
- (4) The relative durability factor of the test concrete shall be a minimum 80 percent.
- (b) <u>Fine Aggregate</u>. A fine aggregate used alone in the mix design shall not have an expansion greater than 0.30 percent per ASTM C 1260. For a blend of two or more fine aggregates, the resulting blend shall not have an expansion greater than 0.30 percent.

The aggregate blend expansion will be calculated as follows:

Where: a, b, c, ... = percent of aggregate blend A, B, C, ... = aggregate expansion according to ASTM C 1260

Mix Design Criteria. Article 1020.04 of the Standard Specifications shall apply except as follows:

- (a) The minimum cement factor shall be according to Article 1020.04 of the Standard Specifications or as specified. The maximum cement factor shall be 418 kg/cu m (7.05 cwt/cu yd). The cement factor shall not be reduced if a water-reducing, retarding, or high range water-reducing admixture is used.
- (b) The maximum allowable water/cement ratio shall be according to Article 1020.04 of the Standard Specifications or 0.44, whichever is lower.
- (c) The slump requirements shall not apply.
- (d) The coarse aggregate gradations shall be CA 11, CA 13, CA 14, CA 16, or a blend of these gradations. CA 11 shall not be used for drilled shafts or when the Engineer approves a horizontal flow distance greater than 9 m (30 ft). The fine aggregate proportion shall be a maximum 50 percent by mass (weight) of the total aggregate used.
- (e) The slump flow range shall be ± 50 mm (± 2 in.) of the Contractor target value, and within the overall Department range of 510 mm (20 in.) minimum to 710 mm (28 in.) maximum.
- (f) The visual stability index shall be a maximum of 1.
- (g) The J-ring value shall be a maximum of 100 mm (4 in.). The Contractor may specify a lower maximum in the mix design.
- (h) The L-box blocking ratio shall be a minimum of 60 percent. The Contractor may specify a higher minimum in the mix design.
- (i) The column segregation index shall be a maximum 15 percent.
- (j) The hardened visual stability index shall be a maximum of 1.

<u>Test Methods</u>. Illinois Test Procedures SCC-1, SCC-2, SCC-3, SCC-4, SCC-5, SCC-6, and Illinois Modified AASHTO T 22, 23, 121, 126, 141, 152, 177, 196, and 309 shall be used for testing of self-consolidating concrete mixtures.

<u>Mix Design Submittal</u>. The Contractor's Level III PCC Technician shall submit a mix design according to the "Portland Cement Concrete Level III Technician" course manual, except target slump information is not applicable and will not be required. However, a slump flow target range shall be submitted. In addition, the design mortar factor may exceed 1.10 and durability test data will be waived.

A J-ring value shall be submitted if a lower mix design maximum will apply. An L-box blocking ratio shall be submitted if a higher mix design minimum will apply. The Contractor shall also indicate applicable construction items for the mix design.

Trial mixture information will also be required by the Engineer. A trial mixture is a batch of concrete tested by the Contractor to verify the Contractor's mix design will meet specification requirements. Trial mixture information shall include test results as specified in the "Portland Cement Concrete Level III Technician" course manual. Test results shall also include slump flow, visual stability index, J-ring value, L-box blocking ratio, column segregation index, and hardened visual stability index. For the trial mixture, the slump flow shall be near the midpoint of the proposed slump flow target range.

<u>Trial Batch</u>. A minimum 1.5 cu m (2 cu yd) trial batch shall be produced, and the selfconsolidating concrete admixture dosage proposed by the Contractor shall be used. The slump flow shall be within 25 mm (1.0 in.) of the maximum slump flow range specified by the Contractor, and the air content shall be within the top half of the allowable specification range.

The trial batch shall be scheduled a minimum of 21 calendar days prior to anticipated use, and shall be performed in the presence of the Engineer.

The Contractor shall provide the labor, equipment, and materials to test the concrete. The mixture will be evaluated by the Engineer for strength, air content, slump flow, visual stability index, J-ring value, L-box blocking ratio, column segregation index, and hardened visual stability index.

Upon review of the test data from the trial batch, the Engineer will verify or deny the use of the mix design and notify the Contractor. Verification by the Engineer will include the Contractor's target slump flow range. If applicable, the Engineer will verify the Contractor's maximum J-ring value and minimum L-box blocking ratio.

A new trial batch will be required whenever there is a change in the source of any component material, proportions, dosage of the self-consolidating concrete admixture, batch sequence, mixing speed, mixing time, or as determined by the Engineer. The testing criteria for the new trial batch will be determined by the Engineer.

When necessary, the trial batches shall be disposed of according to Article 202.03 of the Standard Specifications.

<u>Mixing Portland Cement Concrete</u>. In addition to Article 1020.11 of the Standard Specifications, the mixing time for central-mixed concrete shall not be reduced as a result of a mixer performance test. Truck-mixed or shrink-mixed concrete shall be mixed in a truck mixer for a minimum of 100 revolutions.

Wash water, if used, shall be completely discharged from the drum or container before the succeeding batch is introduced.

The batch sequence, mixing speed, and mixing time shall be appropriate to prevent cement balls and mix foaming for central-mixed, truck-mixed, and shrink-mixed concrete.

<u>Falsework and Forms</u>. In addition to Articles 503.05 and 503.06 of the Standard Specifications, the Contractor shall design falsework and forms for full hydrostatic head pressure of the concrete. Forms shall be tight to prevent leakage of fluid concrete.

<u>Placing and Consolidating</u>. Concrete placement and consolidations shall be according to Article 503.07 of the Standard Specifications except as follows:

Revise the third paragraph of Article 503.07 of the Standard Specifications to read:

"Open troughs and chutes shall extend as nearly as practicable to the point of deposit. The drop distance of concrete shall not exceed 1.5 m (5 ft). If necessary, a tremie shall be used to meet this requirement. The maximum distance of horizontal flow from the point of deposit shall be 9 m (30 ft), unless approved otherwise by the Engineer. For drilled shafts, free fall placement will not be permitted."

Delete the sixth, seventh, eighth and ninth paragraphs of Article 503.07 of the Standard Specifications.

Revise the eleventh paragraph of Article 503.07 of the Standard Specifications to read:

"Concrete shall be placed in continuous 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. In order that the concrete will not be injured and that there shall be no line of separation between the batches, the separate batches shall follow each other closely as recommended by the manufacturer of the self-consolidating concrete admixture(s). In no case shall the interval of time between the placing of successive batches be greater than 20 minutes. Concrete shall be rodded with a piece of lumber or conduit if the material has lost its fluidity prior to placement of additional concrete. Any other method for restoring the fluidity of the concrete shall be approved by the Engineer. If ready-mixed concrete is used, the requirements of Article 1020.11 shall apply. Delivery of mixed concrete shall be regulated so that there will not be an interruption in the placing of concrete in the forms, as recommended by the manufacturer of the self-consolidating concrete admixture(s). In no case shall the interval of time between admixture(s). In no case shall be regulated so that there will not be an interruption in the placing of concrete in the forms, as recommended by the manufacturer of the self-consolidating concrete admixture(s). In no case shall the interval of time be greater than 20 minutes."

<u>Quality Control by Contractor at Plant</u>. The specified test frequencies for aggregate gradation, aggregate moisture, air content, unit weight/yield, and temperature shall be performed as indicated in the contract plans.

Slump flow, visual stability index, and J-ring or L-box tests shall be performed as needed to control production. The column segregation index test and hardened visual stability index test will not be required to be performed at the plant.

<u>Quality Control by Contractor at Jobsite</u>. The specified test frequencies for air content, strength, and temperature shall be performed as indicated in the contract plans.

Slump flow, visual stability index, and J-ring or L-box tests shall be performed on the first two truck deliveries of the day, and every 40 cu m (50 cu yd) thereafter. The Contractor shall select either the J-ring or L-box test for jobsite testing.

The column segregation index test will not be required to be performed at the jobsite. The hardened visual stability index test shall be performed on the first truck delivery of the day, and every 230 cu m (300 cu yd) thereafter. Slump flow, visual stability index, J-ring value or L-box blocking ratio, air content, and concrete temperature shall be recorded for each hardened visual stability index test.

The Contractor shall retain all hardened visual stability index cut cylinder specimens until the Engineer notifies the Contractor that the specimens may be discarded.

If mix foaming or other potential detrimental material is observed during placement or at the completion of the pour, the material shall be removed while the concrete is still plastic.

<u>Quality Assurance by Engineer at Plant</u>. For air content and aggregate gradation, quality assurance independent sample testing and split sample testing will be performed as indicated in the contract plans.

For slump flow, visual stability index, and J-ring or L-box tests, quality assurance independent sample testing and split sample testing will be performed as determined by the Engineer.

<u>Quality Assurance by Engineer at Jobsite</u>. For air content and strength, quality assurance independent sample testing and split sample testing will be performed as indicated in the contract plans.

For slump flow, visual stability index, J-ring or L-box, and hardened visual stability index tests, quality assurance independent sample testing will be performed as determined by the Engineer.

For slump flow and visual stability index quality assurance split sample testing, the Engineer will perform tests at the beginning of the project on the first three tests performed by the Contractor. Thereafter, a minimum of ten percent of total tests required of the Contractor will be performed per plant, which will include a minimum of one test per mix design. The acceptable limit of precision will be 25 mm (1 in.) for slump flow, and a limit of precision will not apply to the visual stability index.

For the J-ring or the L-box quality assurance split sample testing, a minimum of 80 percent of the total tests required of the Contractor will be witnessed by the Engineer per plant, which will include a minimum of one witnessed test per mix design. The Engineer reserves the right to conduct quality assurance split sample testing. The acceptable limit of precision will be 25 mm (1 in.) for the J-ring value and ten percent for the L-box blocking ratio.

For each hardened visual stability index test performed by the Contractor, the cut cylinders shall be presented to the Engineer for determination of the rating. The Engineer reserves the right to conduct quality assurance split sample testing. A limit of precision will not apply to the hardened visual stability index.

### SUBCONTRACTOR MOBILIZATION PAYMENTS (BDE)

Effective: April 2, 2005

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

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

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

# SUPERPAVE BITUMINOUS CONCRETE MIXTURE IL-4.75 (BDE)

Effective: November 1, 2004

<u>Description</u>. This work shall consist of constructing bituminous concrete surface course or leveling binder with a Superpave, IL-4.75 mixture. Work shall be according to Section 406 of the Standard Specifications and the special provision "Quality Control/Quality Assurance of Bituminous Concrete Mixtures", except as modified herein.

#### Materials.

(a) Fine Aggregate. The fine aggregate shall be at least 50 percent manufactured sand meeting FA 20 gradation. The manufactured sand shall be stone sand, slag sand, steel slag sand, or combinations thereof. When used as leveling binder, steel slag sand will not be permitted.

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

- (b) Reclaimed Asphalt Pavement (RAP). RAP will not be permitted.
- (c) Bituminous Material. The asphalt cement (AC) shall conform to Article 1009.05 of the Standard Specifications for SBS PG76-28 or SBR PG76-28, except the elastic recovery shall be a minimum of 80.

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

(d) Mineral Filler. Mineral filler shall conform to the requirements of Article 1011.01 of the Standard Specifications, except it shall not be collected dust.

### Laboratory Equipment.

- (a) Superpave Gyratory Compactor. The Superpave gyratory compactor (SGC) shall be used for all laboratory mixture compaction.
- (b) Ignition Oven. The ignition oven shall be used for determination of AC content. The ignition oven shall also be used to recover aggregates for all required washed gradations.

The Engineer may waive the ignition oven requirement for AC content if the aggregates to be used are known to have ignition AC content calibration factors, which exceed 1.5 percent. If the calibration factor exceeds 1.5 percent other IDOT approved methods shall be utilized for determination of AC content.

<u>Mixture Design</u>. The Contractor shall submit mix designs for approval, for each required mixture. Mix designs shall be developed by Level III personnel who have successfully completed the course, "Superpave Mix Design Upgrade". Articles 406.10 and 406.13 of the Standard Specifications shall not apply. The mixtures shall be designed according to the respective Illinois Modified AASHTO references listed below.

- AASHTO MP 2 Standard Specification for Superpave Volumetric Mix Design
- AASHTO PP 2 Standard Practice for Short and Long Term Aging of Hot Mix Asphalt (HMA)
- AASHTO PP 19 Standard Practice for Volumetric Analysis of Compacted Hot Mix Asphalt (HMA)
- AASHTO PP 28 Standard Practice for Designing Superpave HMA
- AASHTO T 209 Theoretical Maximum Specific Gravity and Density of Bituminous Paving Mixtures
- AASHTO T 305 Standard Method of Test for Determination of Draindown Characteristics in Uncompacted Asphalt Mixtures.
- AASHTO T 308 Determining the Asphalt Content of Hot Mix Asphalt (HMA) by the Ignition Method
- AASHTO T 312 Preparing and Determining the Density of Hot Mix Asphalt (HMA) Specimens by Means of the Superpave Gyratory Compactor

(a) Mixture Composition. The job mix formula (JMF) shall conform to the following:

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

(b) Volumetric Requirements.

Volumetric Parameter	Requirement
Design Air Voids	2.5 % at Ndesign 50
Voids in the Mineral Aggregate (VMA)	19.0% minimum
Voids Filled with Asphalt (VFA)	87-95%
Maximum Draindown	0.3%

(c) Determination of Need for Anti-Stripping Additive. The mixture designer shall determine if an additive is needed in the mix to prevent stripping. The determination shall be made on the basis of tests performed according to Illinois Modified T 283. To be considered acceptable by the Engineer as a mixture not susceptible to stripping, the ratio of conditioned to unconditioned split tensile strengths (TSRs) shall be equal to or greater than 0.75 for 4 in. specimens or 0.85 for 6 in. specimens. Mixtures having TSRs less than these, either with or without an additive, will be considered unacceptable.

When it is determined that an additive is required, the additive may be hydrated lime, slaked quicklime, or a liquid additive, at the Contractor's option. The liquid additive shall be selected from the Department's list of approved additives and may be limited to those, which have exhibited satisfactory performance in similar mixes.

Dry hydrated lime shall be added at a rate of 1.0 to 1.5 percent by weight of total dry aggregate. Slurry shall be added in such quantity as to provide the required amount of hydrated lime solids by weight of total dry aggregate. The exact rate of application for all anti-stripping additives will be determined by the Engineer. The method of application shall be according to Article 406.12 of the Standard Specifications.

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

During production, mineral filler shall not be stored in the same silo as collected dust. This may require the wasting of any previously collected baghouse fines prior to production of the IL-4.75 mixture. Only dust collected during the production of IL-4.75 may be returned directly to the IL-4.75 mixture. Any additional minus 75  $\mu$ m (No. 200) material needed to produce the IL-4.75 shall be mineral filler.

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

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

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

<u>Control Charts/Limits</u>. Control charts/limits and testing frequency shall be according to QC/QA requirements for Class I mixtures except as follows:

Parameter	Individual Test	Moving Average
% Passing		
1.18 mm (No. 16)	± 4%	± 3%
75 μm mm (No. 200)	± 1.0%	± 0.8%
Asphalt Content	± 0.2%	± 0.1%
Air Voids	± 1.0% (of design)	± 0.8% (of design)
Density	93.5 - 97.4%	

# CONSTRUCTION REQUIREMENTS

<u>Placement</u>. The mixture shall be placed on a dry, clean surface when the air temperature in the shade is 10 °C (50 °F) or above. The mixture temperature shall be 155 °C (310 °F) or above and shall be measured in the truck just prior to placement.

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

# Lift Thickness.

- (a) Surface Course. The minimum and maximum compacted lift thickness for the IL-4.75 mixture shall be 19 mm (3/4 in.) and 32 mm (1 1/4 in.) respectively.
- (b) Leveling Binder. Density requirements for IL-4.75 mixture shall apply when the nominal, compacted thickness is 19 mm (3/4 in.) or greater.

<u>Compaction</u>. The compaction operation shall start immediately after the mixture has been placed. The Contractor shall provide a minimum of two steel-wheeled tandem rollers for breakdown ( $T_B$ ) and one finish steel-wheeled roller ( $T_F$ ) meeting the requirements of Article 406.16(a) and 1101.01(e) of the Standard Specifications except the minimum compression for all of the rollers shall be 49 N/mm (280 lb/in.) of roller width. Pneumatic-tired and vibratory rollers will not be permitted.

Basis of Payment. This work will be paid for at the contract unit price per metric ton (ton) for POLYMERIZED LEVELING BINDER (MACHINE METHOD), SUPERPAVE, IL-4.75, N50; and POLYMERIZED BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, IL-4.75, N50.

### SUPERPAVE BITUMINOUS CONCRETE MIXTURES (BDE)

Effective: January 1, 2000

Revised: April 1, 2004

<u>Description</u>. This work shall consist of designing, producing and constructing Superpave bituminous concrete mixtures using Illinois Modified Strategic Highway Research Program (SHRP) Superpave criteria. This work shall be according to Sections 406 and 407 of the Standard Specifications and the special provision, "Quality Control/Quality Assurance of Bituminous Concrete Mixtures", except as follows.

#### Materials.

- (a) Fine Aggregate Blend Requirement. The Contractor may be required to provide FA 20 manufactured sand to meet the design requirements. For mixtures with Ndesign ≥ 90, at least 50 percent of the required fine aggregate fraction shall consist of either stone sand, slag sand, or steel slag sand meeting the FA/FM 20 gradation.
- (b) Reclaimed Asphalt Pavement (RAP). If the Contractor is allowed to use more than 15 percent RAP, as specified in the plans, a softer performance-graded binder may be required as determined by the Engineer.

RAP shall meet the requirements of the special provision, "RAP for Use in Bituminous Concrete Mixtures".

RAP will not be permitted in mixtures containing polymer modifiers.

RAP containing steel slag will be permitted for use in top-lift surface mixtures only.

(c) Bituminous Material. The asphalt cement (AC) shall be performance-graded (PG) or polymer modified performance-graded (SBS-PG or SBR-PG) meeting the requirements of Article 1009.05 of the Standard Specifications for the grade specified on the plans.

The following additional guidelines shall be used if a polymer modified asphalt is specified:

- (1) The polymer modified asphalt cement shall be shipped, maintained, and stored at the mix plant according to the manufacturer's requirements. Polymer modified asphalt cement shall be placed in an empty tank and shall not be blended with other asphalt cements.
- (2) The mixture shall be designed using a mixing temperature of  $163 \pm 3 \degree C (325 \pm 5 \degree F)$ and a gyratory compaction temperature of  $152 \pm 3 \degree C (305 \pm 5 \degree F)$ .
- (3) Pneumatic-tired rollers will not be allowed unless otherwise specified by the Engineer. A vibratory roller meeting the requirements of Article 406.16 of the Standard Specifications shall be required in the absence of the pneumatic-tired roller.

# Laboratory Equipment.

- (a) Superpave Gyratory Compactor. The superpave gyratory compactor (SGC) shall be used for all QC/QA testing.
- (b) Ignition Oven. The ignition oven shall be used to determine the AC content. The ignition oven shall also be used to recover aggregates for all required washed gradations.

The Engineer may waive the ignition oven requirement for AC content if the aggregates to be used are known to have ignition AC 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 AC content.

<u>Mixture Design</u>. The Contractor shall submit mix designs, for approval, for each required mixture. Mix designs shall be developed by Level III personnel who have successfully completed the course, "Superpave Mix Design Upgrade". Articles 406.10 and 406.13 of the Standard Specifications shall not apply. The mixtures shall be designed according to the respective Illinois Modified AASHTO references listed below.

- AASHTO MP 2 Standard Specification for Superpave Volumetric Mix Design
- AASHTO R 30 Standard Practice for Mixture Conditioning of Hot-Mix Asphalt (HMA)
- AASHTO PP 28 Standard Practice for Designing Superpave HMA
- AASHTO T 209 Theoretical Maximum Specific Gravity and Density of Bituminous Paving Mixtures
- AASHTO T 312 Preparing and Determining the Density of Hot Mix Asphalt (HMA) Specimens by Means of the Superpave Gyratory Compactor
- AASHTO T 308 Determining the Asphalt Content of Hot Mix Asphalt (HMA) by the Ignition Method

#### F.A.I. Route 94 (Dan Ryan Expressway) Section (1516.1, 1717 & 1818) I-4 Cook County Contract 62933 (17H)

(a) Mixture Composition. The ingredients of the bituminous mixture shall be combined in such proportions as to produce a mixture conforming to the composition limits by weight. The gradation mixture specified on the plans shall produce a mixture falling within the limits specified in Table 1.

		TABLE 1. MIXTURE COMPOSITION (% PASSING)							
Sieve		-25.0 mm IL-19.0 mm IL-12.5 mm <sup>4</sup>			5 mm <sup>4/</sup>	<sup>/</sup> IL-9.5 mm <sup>4/</sup>			
Size	min	max	min	max	Min	max	min	max	
37.5 mm (1 1/2 in.)		100							
25 mm (1 in.)	90	100		100					
19 mm (3/4 in.)		90	82	100		100			
12.5 mm (1/2 in.)	45	75	50	85	90	100		100	
9.5 mm (3/8 in.)						89	90	100	
4.75 mm (#4)	24	42 <sup>2/</sup>	24	50 <sup>2/</sup>	28	65	28	65	
2.36 mm (#8)	16	31	20	36	28	48 <sup>3/</sup>	28	48 <sup>3/</sup>	
1.18 mm (#16)	10	22	10	25	10	32	10	32	
600 μm (#30)									
300 μm (#50)	4	12	4	12	4	15	4	15	
150 μm (#100)	3	9	3	9	3	10	3	10	
75 μm (#200)	3	6	3	6	4	6	4	6	

- 1/ Based on percent of total aggregate weight.
- 2/ The mixture composition shall not exceed 40 percent passing the 4.75 mm (#4) sieve for binder courses with Ndesign  $\ge$  90.
- 3/ The mixture composition shall not exceed 40 percent passing the 2.36 mm (#8) sieve for surface courses with Ndesign  $\ge$  90.
- 4/ The mixture composition for surface courses shall be according to IL-12.5 mm or IL-9.5 mm, unless otherwise specified by the Engineer.

One of the above gradations shall be used for leveling binder as specified in the plans and according to Article 406.04 of the Standard Specifications.

It is recommended that the selected combined aggregate gradation not pass through the restricted zones specified in Illinois Modified AASHTO MP 2.

- (b) Dust/AC Ratio for Superpave. The ratio of material passing the 75 μm (#200) sieve to total asphalt cement shall not exceed 1.0 for mixture design (based on total weight of mixture).
- (c) Volumetric Requirements. The target value for the air voids of the hot mix asphalt (HMA) shall be 4.0 percent at the design number of gyrations. The VMA and VFA of the HMA design shall be based on the nominal maximum size of the aggregate in the mix and shall conform to the requirements listed in Table 2.

TABLE 2. VOLUMETRIC REQUIREMENTS							
	V	Voids Filled with Asphalt (VFA),					
Ndesign	IL-25.0	IL-19.0	%				
50					65 - 78		
70	12.0	13.0					
90	12.0	13.0	65 - 75				
105							

(d) Determination of Need for Anti-Stripping Additive. The mixture designer shall determine if an additive is needed in the mix to prevent stripping. The determination will be made on the basis of tests performed according to Illinois Modified T 283 using 4 in. Marshall bricks. To be considered acceptable by the Department as a mixture not susceptible to stripping, the ratio of conditioned to unconditioned split tensile strengths (TSRs) shall be equal to or greater than 0.75. Mixtures, either with or without an additive, with TSRs less than 0.75 will be considered unacceptable.

If it is determined that an additive is required, the additive may be hydrated lime, slaked quicklime, or a liquid additive, at the Contractor's option. The liquid additive shall be selected from the Department's list of approved additives and may be limited to those which have exhibited satisfactory performance in similar mixes.

Dry hydrated lime shall be added at a rate of 1.0 to 1.5 percent by weight of total dry aggregate. Slurry shall be added in such quantity as to provide the required amount of hydrated lime solids by weight of total dry aggregate. The exact rate of application for all anti-stripping additives will be determined by the Department. The method of application shall be according to Article 406.12 of the Standard Specifications.

<u>Personnel</u>. The QC Manager and Level I Technician shall have successfully completed the Department's "Superpave Field Control Course".

#### F.A.I. Route 94 (Dan Ryan Expressway) Section (1516.1, 1717 & 1818) I-4 Cook County Contract 62933 (17H)

<u>Required Plant Tests</u>. Testing shall be conducted to control the production of the bituminous mixture. The Contractor shall use the test methods identified to perform the following mixture tests at a frequency not less than that indicated in Table 3.

TABLE 3. REQUIRED PLANT TESTS for SUPERPAVE				
Parameter		Frequency of Tests	Test Method	
Aggregate Gradation Hot bins for batch and continuous plants		1 dry gradation per day of production (either morning or afternoon sample). And	Illinois Procedure (See Manual of Test Procedures for Materials).	
Individual cold-feeds or combined belt-feed for drier drum plants.		1 washed ignition oven test on the mix per day of production (conduct in afternoon if dry gradation is conducted in the morning or vice versa).		
(% passing sieves: 12.5 mm (1/2 in.), 4.75 mm (No. 4), 2.36 mm (No. 8), 600 μm (No. 30), 75 μm (No. 200))		NOTE. The order in which the above tests are conducted shall alternate from the previous production day (example: a dry gradation conducted in the morning will be conducted in the afternoon on the next production day and so forth).		
		The dry gradation and washed ignition oven test results shall be plotted on the same control chart.		
	Content by Ignition Note 1.)	1 per half day of production	Illinois Modified AASHTO T 308	
Air Voids	Bulk Specific Gravity of Gyratory Sample	1 per half day of production for first 2 days and 1 per day thereafter (first sample of the day)	Illinois Modified AASHTO T 312	
	Maximum Specific Gravity of Mixture		Illinois Modified AASHTO T 209	

Note 1. The Engineer may waive the ignition oven requirement for AC content if the aggregates to be used are known to have ignition AC 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 AC content.

During production, the ratio of minus 75  $\mu$ m (#200) sieve material to total asphalt cement shall be not less than 0.6 nor more than 1.2 and the moisture content of the mixture at discharge from the mixer shall not exceed 0.5 percent. If at any time the ratio of minus 75  $\mu$ m (#200) material to asphalt or moisture content of the mixture falls outside the stated limits, production of the mix shall cease. The cause shall be determined and corrective action satisfactory to the Engineer shall be initiated prior to resuming production. During production, mixtures containing an anti-stripping additive will be tested by the Department for stripping according to Illinois Modified T 283. If the mixture fails to meet the TSR criteria for acceptance, no further mixture will be accepted until the Contractor takes such action as is necessary to furnish a mixture meeting the criteria.

### Construction Requirements

### Lift Thickness.

(a) Binder and Surface Courses. The minimum compacted lift thickness for constructing bituminous concrete binder and surface courses shall be according to Table 4:

TABLE 4 – MINIMUM COMPACTED LIFT THICKNESS		
Mixture	Thickness, mm (in.)	
IL-9.5	32 (1 1/4)	
IL-12.5	38 (1 1/2)	
IL-19.0	57 (2 1/4)	
IL-25.0	76 (3)	

(b) Leveling Binder. Mixtures used for leveling binder shall be as follows:

TABLE 5 – LEVELING B	NDER
Nominal, Compacted, Leveling	Mixture
Binder Thickness, mm (in.)	
≤ <b>32 (1 1/4)</b>	IL-9.5
32 (1 1/4) to 50 (2)	IL 9.5 or IL-12.5

Density requirements shall apply for leveling binder when the nominal, compacted thickness is 32 mm (1 1/4 in.) or greater for IL-9.5 mixtures and 38 mm (1 1/2 in.) or greater for IL-12.5 mixtures.

(c) Full-Depth Pavement. The compacted thickness of the initial lift of binder course shall be 100 mm (4 in.). The compacted thickness of succeeding lifts shall meet the minimums specified in Table 4 but not exceed 100 mm (4 in.).

If a vibratory roller is used for breakdown, the compacted thickness of the binder lifts, excluding the top lift, may be increased to 150 mm (6 in.) provided the required density is obtained.

(d) Bituminous Patching. The minimum compacted lift thickness for constructing bituminous patches shall be according to Table 4.

<u>Control Charts/Limits</u>. Control charts/limits shall be according to QC/QA Class I requirements, except density shall be plotted on the control charts within the following control limits:

TABLE 6. DENSITY CONTROL LIMITS		
Mixture Parameter Individual Test		
12.5 mm / 9.5 mm	Ndesign ≥ 90	92.0 - 96.0%
12.5 mm / 9.5 mm	Ndesign < 90	92.5 - 97.4%
19.0 mm / 25.0 mm	Ndesign ≥ 90	93.0 - 96.0%
19.0 mm / 25.0 mm	Ndesign < 90	93.0 - 97.4%

<u>Basis of Payment</u>. On resurfacing projects, this work will be paid for at the contract unit price per metric ton (ton) for BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, of the friction aggregate mixture and Ndesign specified, LEVELING BINDER (HAND METHOD), SUPERPAVE, of the Ndesign specified, LEVELING BINDER (MACHINE METHOD), SUPERPAVE, of the Ndesign specified, and BITUMINOUS CONCRETE BINDER COURSE, SUPERPAVE, of the mixture composition and Ndesign specified.

On resurfacing projects in which polymer modifiers are required, this work will be paid for at the contract unit price per metric ton (ton) for POLYMERIZED BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, of the friction aggregate mixture and Ndesign specified, POLYMERIZED LEVELING BINDER (HAND METHOD), SUPERPAVE, of the Ndesign specified, POLYMERIZED LEVELING BINDER (MACHINE METHOD), SUPERPAVE, of the Ndesign specified, and POLYMERIZED BITUMINOUS CONCRETE BINDER COURSE, SUPERPAVE, of the mixture composition and Ndesign specified.

On full-depth pavement projects, this work will be paid for at the contract unit price per square meter (square yard) for BITUMINOUS CONCRETE PAVEMENT, (FULL-DEPTH), SUPERPAVE, of the thickness specified.

On projects where widening is constructed and the entire pavement is then resurfaced, the binder for the widening will be paid for at the contract unit price per square meter (square yard) for BITUMINOUS CONCRETE BINDER COURSE, SUPERPAVE, of the mixture composition, Ndesign, and thickness specified. The surface and binder used to resurface the entire pavement will be paid for according to the paragraphs above for resurfacing projects.

# TRAFFIC CONTROL DEFICIENCY DEDUCTION (BDE)

Effective: April 1, 1992

Revised: January 1, 2005

To ensure a prompt response to incidents involving the integrity of work zone traffic control, the Contractor shall provide a telephone number where a responsible individual can be contacted 24 hours-a-day.

When the Engineer is notified, or determines a traffic control deficiency exists, he/she will notify and direct the Contractor to correct the deficiency within a specified time. The specified time, which begins upon notification to the Contractor, will be from 1/2 hour to 12 hours based upon the urgency of the situation and the nature of the deficiency. The Engineer shall be the sole judge. A deficiency may be any lack of repair, maintenance, or non-compliance with the traffic control plan. A deficiency may also be applied to situations where corrective action is not an option such as the use of non-certified flaggers for short term operations; working with lane closures beyond the time allowed in the contract; or failure to perform required contract obligations such as traffic control surveillance.

If the Contractor fails to correct a deficiency within the specified time, a daily monetary deduction will be imposed for each calendar day or fraction thereof the deficiency exists. The calendar day(s) will begin with notification to the Contractor and end with the Engineer's acceptance of the correction. The daily monetary deduction will be either \$1,000 or 0.05 percent of the awarded contract value, whichever is greater. For those deficiencies where corrective action was not an option this monetary deduction will be immediate.

In addition, if the Contractor fails to respond, the Engineer may correct the deficiency and the cost thereof will be deducted from monies due or which may become due the Contractor. This corrective action will in no way relieve the Contractor of his/her contractual requirements or responsibilities.

# TRUCK BED RELEASE AGENT (BDE)

Effective: April 1, 2004

Add the following sentence after the third sentence of the first paragraph of Article 406.14 of the Standard Specifications.

"In addition to the release agent, the Contractor may use a light scatter of manufactured sand (FA 20 or FA 21) evenly distributed over the bed of the vehicle."

# WEIGHT CONTROL DEFICIENCY DEDUCTION

Effective: April 1, 2001

Revised: August 1, 2002

The Contractor shall provide accurate weights of materials delivered to the contract for incorporation into the work (whether temporary or permanent) and for which the basis of payment is by weight. These weights shall be documented on delivery tickets which shall identify the source of the material, type of material, the date and time the material was loaded, the contract number, the net weight, the tare weight when applicable and the identification of the transporting vehicle. For aggregates, the Contractor shall have the driver of the vehicle furnish or establish an acceptable alternative to provide the contract number and a copy of the material order to the source for each load. The source is defined as that facility that produces the final material product that is to be incorporated into the contract pay items.

The Department will conduct random, independent vehicle weight checks for material sources according to the procedures outlined in the Documentation Section Policy Statement of the Department's Construction Manual and hereby incorporated by reference. The results of the independent weight checks shall be applicable to all contracts containing this Special Provision.

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Should the vehicle weight check for a source result in the net weight of material on the vehicle exceeding the net weight of material shown on the delivery ticket by 0.50% (0.70% for aggregates) or more, the Engineer will document the independent vehicle weight check and immediately furnish a copy of the results to the Contractor. No adjustment in pay quantity will be made. Should the vehicle weight check for a source result in the net weight of material shown on the delivery ticket exceeding the net weight of material on the vehicle by 0.50% (0.70% for aggregates) or more, the Engineer will document the independent vehicle by 0.50% (0.70% for aggregates) or more, the Engineer will document the independent vehicle weight check and immediately furnish a copy of the results to the Contractor. The Engineer will adjust the net weight shown on the delivery ticket to the checked delivered net weight as determined by the independent vehicle weight check.

The Engineer will also adjust the method of measurement for all contracts for subsequent deliveries of all materials from the source based on the independent weight check. The net weight of all materials delivered to all contracts containing this Special Provision from this source, for which the basis of payment is by weight, will be adjusted by applying a correction factor "A" as determined by the following formula:

A = 1.0 - 
$$\left(\frac{B-C}{B}\right)$$
; Where A ≤ 1.0;  $\left(\frac{B-C}{C}\right)$  > 0.50% (0.70% for aggregates)

Where A = Adjustment factor

B = Net weight shown on delivery ticket

C = Net weight determined from independent weight check

The adjustment factor will be applied as follows:

Adjusted Net Weight = A x Delivery Ticket Net Weight

The adjustment factor will be imposed until the cause of the deficient weight is identified and corrected by the Contractor to the satisfaction of the Engineer. If the cause of the deficient weight is not identified and corrected within seven (7) calendar days, the source shall cease delivery of all materials to all contracts containing this Special Provision for which the basis of payment is by weight.

Should the Contractor elect to challenge the results of the independent weight check, the Engineer will continue to document the weight of material for which the adjustment factor would be applied. However, provided the Contractor furnishes the Engineer with written documentation that the source scale has been calibrated within seven (7) calendar days after the date of the independent weight check, adjustments in the weight of material paid for will not be applied unless the scale calibration demonstrates that the source scale was not within the specified Department of Agriculture tolerance.

At the Contractor's option, the vehicle may be weighed on a second independent Department of Agriculture certified scale to verify the accuracy of the scale used for the independent weight check.

### WORK ZONE TRAFFIC CONTROL DEVICES (BDE)

Effective: January 1, 2003

Revised: November 1, 2004

Add the following to Article 702.01 of the Standard Specifications:

"All devices and combinations of devices shall meet the requirements of the National Cooperative Highway Research Program (NCHRP) Report 350 for their respective categories. The categories are as follows:

Category 1 includes small, lightweight, channelizing and delineating devices that have been in common use for many years and are known to be crashworthy by crash testing of similar devices or years of demonstrable safe performance. These include cones, tubular markers, flexible delineators and plastic drums with no attachments. Category 1 devices shall be crash tested and accepted or may be self-certified by the manufacturer.

Category 2 includes devices that are not expected to produce significant vehicular velocity change but may otherwise be hazardous. These include drums and vertical panels with lights, barricades and portable sign supports. Category 2 devices shall be crash tested and accepted for Test Level 3.

Category 3 includes devices that are expected to cause significant velocity changes or other potentially harmful reactions to impacting vehicles. These include crash cushions, truck mounted attenuators and other devices not meeting the definitions of Category 1 or 2. Category 3 devices shall be crash tested and accepted for either Test Level 3 or the test level specified.

Category 4 includes portable or trailer-mounted devices such as arrow boards, changeable message signs, temporary traffic signals and area lighting supports. Currently, there is no implementation date set for this category and it is exempt from the NCHRP 350 compliance requirement.

The Contractor shall provide a manufacturer's self-certification letter for each Category 1 device and an FHWA acceptance letter for each Category 2 and Category 3 device used on the contract. The letters shall state the device meets the NCHRP 350 requirements for its respective category and test level, and shall include a detail drawing of the device."

Delete the third, fourth and fifth paragraphs of Article 702.03(b) of the Standard Specifications.

Delete the third sentence of the first paragraph of Article 702.03(c) of the Standard Specifications.

Revise the first sentence of the first paragraph of Article 702.03(e) of the Standard Specifications to read:

"Drums shall be nonmetallic and have alternating reflectorized Type AA or Type AP fluorescent orange and reflectorized white horizontal, circumferential stripes."

Add the following to Article 702.03 of the Standard Specifications:

"(h) Vertical Barricades. Vertical barricades may be used in lieu of cones, drums or Type II barricades to channelize traffic."

Delete the fourth paragraph of Article 702.05(a) of the Standard Specifications.

Revise the sixth paragraph of Article 702.05(a) of the Standard Specifications to read:

"When the work operations exceed four days, all signs shall be post mounted unless the signs are located on the pavement or define a moving or intermittent operation. When approved by the Engineer, a temporary sign stand may be used to support a sign at 1.2 m (5 ft) minimum where posts are impractical. Longitudinal dimensions shown on the plans for the placement of signs may be increased up to 30 m (100 ft) to avoid obstacles, hazards or to improve sight distance, when approved by the Engineer. "ROAD CONSTRUCTION AHEAD" signs will also be required on side roads located within the limits of the mainline "ROAD CONSTRUCTION AHEAD" signs."

Delete all references to "Type 1A barricades" and "wing barricades" throughout Section 702 of the Standard Specifications.

# PAYROLLS AND PAYROLL RECORDS (BDE)

Effective: August 10, 2005

<u>FEDERAL AID CONTRACTS</u>. Add the following State of Illinois requirements to the Federal requirements contained in Section V of Form FHWA-1273:

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

The Contractor and each subcontractor shall submit payroll records to the Engineer each week from the start to the completion of their respective work. The submittals shall be on the Department's form SBE 48, or an approved facsimile. When there has been no activity during a work week, a payroll record shall still be submitted with the appropriate box ("No Work", "Suspended", or "Complete") checked on the form."

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

"IV.COMPLIANCE WITH THE PREVAILING WAGE ACT

- Prevailing Wages. All wages paid by the Contractor and each subcontractor shall be in compliance with The Prevailing Wage Act (820 ILCS 130), as amended, except where a prevailing wage violates a federal law, order, or ruling, the rate conforming to the federal law, order, or ruling shall govern. The Contractor shall be responsible to notify each subcontractor of the wage rates set forth in this contract and any revisions thereto. If the Department of Labor revises the wage rates, the Contractor will not be allowed additional compensation on account of said revisions.
- 2. Payroll Records. The Contractor and each subcontractor shall make and keep, for a period of three years from the date of completion of this contract, records of the wages paid to his/her workers. The payroll records shall include each worker's name, address, telephone number, social security number, classification, rate of pay, number of hours worked each day, starting and ending times of work each day, total hours worked each week, itemized deductions made, and actual wages paid. Upon two business days' notice, these records shall be available, at all reasonable hours at a location within the State, for inspection by the Department or the Department of Labor.
- 3. Submission of Payroll Records. The Contractor and each subcontractor shall submit payroll records to the Engineer each week from the start to the completion of their respective work. The submittals shall be on the Department's form SBE 48, or an approved facsimile. When there has been no activity during a work week, a payroll record shall still be submitted with the appropriate box ("No Work", "Suspended", or "Complete") checked on the form.

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

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

# Storm Water Pollution Prevention Plan

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of Transportation	
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#### Storm Water Pollution Prevention Plan

Route	1-90/94 Dan Ryan Expressway	1-57 at illin	Expressway ois Route 1 (Halsted St) & K to 31st Street
Section	See Individual contract	Project No. Various Refer to	s Contract Numbers
County	Cook, IL	·····	· · · ·

This plan has been prepared to comply with the provisions of the MSY-Phase II NPDES Permit Number ILR40, issued by the Illinois Environmental Protection Agency for storm water discharges.

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 property 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.

#### **Site Description**

The following is a description of the construction activity which is the subject of this plan (use additional pages, as necessary):

> The project is located at Interstate 94 (the Dan Ryan Expressway) from the I-57 interchange to Illinois 1 (Halsted Street) to the west and Martin Luther King (MLK) Drive to the east, and continues in a northerly direction to 31" Street,

#### Construction Descriptions

The Dan Ryan Expressway project consists of roadway improvements including added lanes, mainline and shoulder reconstruction, construction of retaining walls, new collector-distributor roadways, new and relocated exit and entrance ramps, lighting, drainage, signing, and surveillance improvements.

The Dan Ryan Expressway reconstruction project was designed in three segments in Phase I. The three segments are described from south to north.

The segment from 95th to 67th Streets (U.S. Route 20 / 45), the improvement includes reconstruction of the eight traffic lanes of the existing Dan Ryan Expressway pavement, the addition of a through travel lane in each direction, and modifications to entrance and exit ramps. The improvement involves the addition of a through travel lane along both northbound and southbound Dan Ryan onto Interstate 57 to the Interchange with Halsted Street (Illinois Route 1). There are intersection improvements at 79th Street.

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The segment from 67th to 47th Street includes reconstruction of the existing northbound and southbound express lanes (four tanes in each direction) and local lanes (two lanes in each direction). The improvement will also provide for an additional through travel lane in each direction to the local traffic lanes, and modifications to all entrance and exit ramps. There are intersection improvements at 67th Street. Frontage roads will be reconstructed both northbound and southbound from 63rd to 47th Streets. Additional work will involve bridge construction and reconfiguration of the Chicago Skyway / Dan Ryan Expressway interchange to provide an additional entrance ramp from the Chicago Skyway to connect directly to the northbound Dan Ryan Expressway express lanes.

The scope of the roadway work between 47th and 31st Streets will include reconstruction of the existing northbound and southbound express lanes (four lanes in each direction) and local lanes (three lanes in each direction) to the Dan Ryan Expressway pavement, and the reconstruction and/or reconfiguration of entrance and exit ramps. The Root Street structure (41st Street) will be removed.

The drainage work consists of removing or abandoning the existing collector storm sewer system and surface water collection system and constructing a new collector storm sewer and surface water collection system. The existing main drain will remain in place and remain functional, with new connections for the proposed storm sewer system. New collector sewers to drain the area directly tributary to the Dan Ryan Expressway (CTA tracks, local lanes, and adjacent ramps and grass areas), and overflows from offsite tributary areas (frontage roads) are planned. Separate collector sewers are required to drain the northbound and southbound lanes of the Dan Ryan Expressway. These proposed collector sewers are to be designed to convey the 50year storm event.

The work will include the construction of new retaining walls and the rehabilitation, and/or modifications of several existing retaining walls and any roadway and traffic signal improvements required at cross streets and alternate routes.

In addition, other improvements include:

- A new highway lighting system (110 foot towers with lights on 11-foot mounting rinas).
- New expressway signing (provides four new and upgrade three changeable message signs).
- Replacement of traffic surveillance equipment with upgraded technology.
- Closed circuit television for traffic conditions and crash incident monitoring.
- Accident investigation sites.
- Other incidental work as required completing the reconstruction of this segment of the expressway to AASHTO and IDOT criteria.

The improvement will also consolidate several points of access and improve the unsafe weaving conditions created by the existing substandard weaving distances. Currently, ramps are spaced evenly at one-half mile increments, resulting in weaving distances in the range of 300 feet. This is a major safety concern and suspected cause/for the high incidence of sideswipe collisions in the ramp influence areas. The proposed access consolidation plan improves many of the mainline weaving movements while minimally influencing the local access to the Dan Ryan Expressway through the addition of collector-distributor roadways and both entrance and exit ramp removals. The presence of parallel city street frontage roads facilitates local access without substantive changes in through and local travel patterns. The proposals for ramp closure are:

- Northbound (NB) exit and southbound (SB) entrance at 76th Street (2 ramps)
- Northbound (NB) and southbound (SB) exits and entrances at 59th Street (4 ramps)
- Northbound (NB) and southbound (SB) exits and entrances at 51st Street (4 ramps)
- Northbound (NB) exit and southbound (SB) entrance at 43rd Street (2 ramps)

Capacity analyses indicate unsatisfactory conditions at the intersections of 55th Street (Garfield Boulevard) / Wells Street and 55th Street (Garfield Boulevard) / Wentworth Avenue. The improvements necessary to make this interchange operate effectively require right-of-way acquisition from three separate parcels. The parcels on the southwest quadrant of 55th Street (Garfield Boulevard) / Wells Street is occupied by a "Mobil Service Station" in which a portion of each of the two parcels shall be acquired to construct an eastbound to southbound right turn lane. In addition, dual right turn lanes are proposed for the northbound to eastbound movement at the intersection of 55th Street (Garfield Boulevard) / Wentworth Avenue. These right turn lanes require securing property, the portion of the parcel that is currently vacant.

To construct the proposed two-lane, left-hand exit to the Chicago Skyway from the southbound lanes on the Dan Ryan Expressway, Wells Street needs to be relocated from 64th Street to 65th Street. The improvement requires reconstruction of an18 foot high retaining wall adjacent to the mainline and the full replacement of the frontage road (Wells Street) pavement. The realignment shifts the centerline of the road approximately 10 feet west. A relocation and reconstruction of the west sidewalk bordering Wells Street does encroach into a parcel currently owned by the Chicago Housing Authority for the "Yale Street Apartment". The corner parcel would facilitate the relocation and reconstruction of the 5 foot sidewalk and modifications to the bituminous parking lot.

Right-of-Way Acquisition	Acres	Number of Parceis
SW Corner of 55 <sup>th</sup> / Wells Street	0.05	6
SE Corner of 55 <sup>th</sup> / Wentworth Avenue	0.10	1
NE Corner of 57 <sup>th</sup> / Wentworth Avenue	0.12	2
SE Corner of 57 <sup>th</sup> / Wentworth Avenue	0.24	1
NE Corner of 59 <sup>th</sup> / Wentworth Avenue	0.007	11
SE Corner of 59 <sup>th</sup> / Wentworth Avenue	0.014	11
NW Corner of 63 <sup>rd</sup> / Wells Street	0.05	1
Along West edge of Wells Street From 65th Street to 64th Street	0.11	<b>1</b>
Temporary Construction Easement	Acres	Number of Parcels
Along west edge of Wells Street From 65 <sup>th</sup> Street to 64 <sup>th</sup> Street	0.07	1

The right-of-way uses are summarized in the tabulation below:

The Total Acquired Right-of-Way (ROW) is 0.691 acres involving eight parcels, with a Temporary Construction Easement (TCE) of 0.07 acres involving one parcel.

### Environmental Descriptions

Special waste for the Dan Ryan project has **HIGH** risk for the occurrence of regulated substances or natural hazards at twelve sites. A Preliminary Environmental Site Assessment (PESA #1106) with stipulations for excavation depths varies for twelve high risk locations. Depth stipulations can be met at Sites: 808-10A, 1106-17B, 1106-25B, 1106-44A, and 1106-51. A request for Preliminary Site Investigation (PSI) will be required for Sites: 1106-2B, 1106-4A, 1106-6A, and 1106-9, 1106-33B, 1106-47, and 1106-52.

Besides special waste, there are no ecologically sensitive areas in the Dan Ryan project area. The Environmental Survey Request Form (ESRF) on 10/15/99 requested only biological and special waste survey because all of the ground had been previously disturbed and no new right-of-way is to be involved with areas not previously occupied, excavated, or disturbed. The project, as described on the ESRF, does not require biological or wetland surveys. The Illinois Department of Natural Resources (IDNR) Natural Heritage Database has no records of listed species, natural areas or nature preserves within the Dan Ryan project corridor (IDNR Agency Action Report dated September 20, 1999). By agreement, no coordination with the Illinois Department of Natural Resources (IDNR) and the U.S. Fish and Wildlife Service (USFWS) are necessary.

No streams or rivers are involved with this project. There is no water resources in the area involved with the project. A closed drainage system for storm water and urban roadway cross section, including pavement and shoulder, will continue.

The project will result in the disturbance of 0.4 or more hectares (1.0 acre). Permit coverage for the project is secured either under the IEPA Phase II General Permit for Storm-water Discharges (NPDES Permit No. ILR40) or under an individual NPDES permit. Requirements applicable for a permit will be followed, including the preparation of a <u>Storm-water Pollution Prevention Plan</u>. The plan shall identify potential sources of pollution that may reasonably be expected to affect the quality of storm water discharges from the construction site. The plan shall describe and ensure the implementation of practices that will reduce the pollutants in discharges associated with construction site activity and assure compliance with terms of the permits.

Although there may be a remote possibility (not likely) of a potable water well within 200 feet (60 meters) of the centerline, this threshold is only relevant for routes and sources of groundwater pollution. Since this project will not introduce any new routes of groundwater pollution (dry wells, "French drains", or borrow pits) or sources (bulk road oil or deicing storage facilities), then there will be no violation of the wellhead setback requirements.

According to the <u>National Flood Insurance Rate Maps</u> (FIRM), there are no flood plains involved within this project limits.

From field inspection by project team environmental and wetland specialists, and their réview of the available and published National Wetlands Inventory (NWI) maps, and the most recent available aerial photography of the area, determined wetlands are not involved. The project is within the existing rights-of-way, and no wetlands are located within or adjacent to the required parcels, which include: west edge of Wells Street from 65th to 64th Street; 63rd Street and South Wells Street, 59th Street and Wentworth Avenue; 57th Street and Wentworth Avenue; 55th Street and South Wentworth Avenue, and 55th Street and South Wells Street. There is no use or proposed use of protected Section 4(f), Section 6f lands, or lands that have OSLAD funds involved with their purchase and/or development.

b. The following is a description of the intended sequence of major activities for the reconstruction of the Dan Ryan Expressway. The construction year, contract number, description, duration of construction, and highlights of work to be completed follow.

Contract # -- Name/Description

Contract Duration

Major Activities

#### Construction Year 2003

62573 – Shoulder Repair and Median Cross-Over

August 18 - October 31, 2003

Reconstruction of the 65th to 47th Street local lane inside shoulder

62591 - Storm Sewer Jacking

November 15, 2003 – June 4, 2004

Storm sewer jacking from 95th to 67th Streets

#### Construction Year 2004 to 2005

62594 - 83rd to 79th Street C-D System and Ramps

March 1 – October 31, 2004

- Reconstruction and reconfiguration of the collector-distributor (C-D) ramps between 83rd and 79th Streets
- Replacement of the storm sewer
- Retaining wall construction
- 62691 Reconstruct Watermain Crossing under the Dan Ryan from 32nd Street to 63rd Street

May 3, 2004 - June 20, 2005

# 62590 - 71st to 67th Street C-D System and Ramps

June 21, 2004 – August 15, 2005

- Reconstruction of the collector-distributor (C-D) ramps between 71st and 67th Street
- Improvements to 67th Street / State Street intersection
- Retaining wall construction
- Reconstruction of the 67th Street bridge
- 62587 Wentworth Avenue Overpass and Wells Street Realignment
- June 21, 2004 June 30, 2005
  - Reconstruction of Wells Street from 67th to 63rd Street
  - Reconstruction of Wentworth Avenue bridge

62589 -- Skyway Interchange Bridges and Local Lanes Wentworth Avenue to 67th

June 21, 2004 – August 15, 2005

- Dan Ryan / Skyway interchange
- Reconstruction of local lanes from 67th to 63rd Street
- Retaining wall construction

62586 – 57th Street Bridge, Retaining Walls, Ramps and Frontage Roads 63rd to 47th Streets

August 1, 2004 - October 31, 2005

- Reconstruction of the frontage roads, Wells Street and Wentworth Avenue, between 63rd and 47th Street
- Construction of eight (8) new ramps between 63rd and 47th Street
- Construction of the new 57th Street bridge over the Dan Ryan
- Retaining walls
- 62585 Reconstruct SB Ramps between 39th and 31st Street and Shoulder Reconstruction

September 13, 2004 - November 30, 2005

- Reconstruction of the SB ramps between 39th and 31st Street
- 62584 Reconstruct NB Ramps between 39th and 31st Street and Shoulder Reconstruction

September 13, 2004 - November 30, 2004

Reconstruction of the NB ramps between 39th and 31st Street

62692 – Reconstruct Watermain Crossings under the Dan Ryan from 75th Street to the I-57 Interchange

September 27, 2004 - July 1, 2005

TBA – Reconstruct I-57 Bridge over WB Cross Connection from I-94 and Tunnel over SB I-94

December 21, 2004 - July 4, 2005

62694 – NB Retaining Walls and Ramps from 71st to I-57 and 71st to 75th Street C-D System

February 28, 2005 - December 30, 2005

62695 – SB Retaining Walls and Ramps from 71st Street to I-57 and 71st to 75th Street C-D System February 28, 2005 – December 30, 2005

#### **Construction Year 2006**

62592 – NB Outside Lanes (4, 5, and Shoulder), 71st to I-57 and Miscellaneous Ramps

March 6 - October 27, 2006

- Reconstruction of the local lanes 4, 5, and the outside shoulder for the Dan Ryan 1-57 interchange
- Replacement of the storm sewer
- Retaining wall construction

62593 – SB Outside Lanes (4, 5, and Shoulder), 71st to I-57 and Miscellaneous Ramps

March 6 - October 27, 2006

- Reconstruction of the local lanes 4, 5, and the outside shoulder for the Dan Ryan I-57 interchange
- Replacement of the storm sewer
- Retaining wall construction

62302 - SB Express Lanes 71st to 47th Streets

March 6 - October 27, 2006

- Reconstruction of the express lanes between 67th and 47th Street
- Construction of lanes 4 & 5 between 71st and 67th Street

62300 - NB Express Lanes 71st to 31st Streets

March 6 - October 27, 2006

Reconstruction of the NB and SB express lanes between 71st to 31st Street

#### Construction Year 2007

62304 – NB Inside Lanes (1, 2 and 3, shoulder and barrier wall) from 71st Street and the I-57 Interchange and Miscellaneous Ramps

March – November 2007

- Reconstruction of the NB local lane 3
- Reconstruction of the I-57 interchange
- Replacement of the storm sewer
- Reconstruction of NB Dan Ryan inside Lanes 1 and 2
- Reconstruction of CTA wall
- 62305 SB Inside Lanes (1, 2 and 3, shoulder and barrier wall) from 71st Street and the I-57 Interchange and Miscellaneous Ramps
- March November 2007
  - Reconstruction of the SB local lanes 3
  - Reconstruction of the I-57 interchange
  - Replacement of the storm sewer
  - Reconstruction of SB Dan Ryan inside Lanes 1 and 2
  - Reconstruction of CTA wall

62303 – SB Local Lanes 71st to 31st Streets and Miscellaneous Ramps March – November 2007

- Reconstruction of the local lanes between 67th and 47th Street
- Reconstruction of the local lanes 1, 2, and 3 between 71st and 67th Street
- Construction of the WB Skyway ramp to NB Dan Ryan Local

62301 – NB Local Lanes 71st to 31st Streets and Miscellaneous Ramps March 7 – November 2007

Reconstruction of the NB and SB local lanes between 47th to 31st Street

c. The total area of the construction site is estimated to be <u>612</u> acres.

The total area of the site that it is estimated will be disturbed by excavation, grading or other activities is acres 433.

- d. The estimated runoff coefficients 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 in individual Soils Reports for each construction contract.
- e. The design/project report, hydraulic report, or plan documents, hereby incorporated by reference, contain site map(s) indicating drainage patterns and approximate slopes anticipated after major grading activities, areas of major 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 di

f. The names of receiving water(s) and areal extent of wetland acreage at the site are in the design/project report or plan documents, which are incorporated by reference as a part of this plan.

### 2. Controls

This section of the plan addresses the various controls that will be implemented for each of the major construction activities described in 1.b. above. For each measure discussed, the contractor that will be responsible for its implementation is indicated. Each such contractor has signed the required certification on forms which are attached to, and a part of, this plan:

### a. Erosion and Sediment Controls

- (i) Stabilization 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: temporary seeding, permanent seeding, mulching, geotextiles, sod stabilization, vegetative buffer strips, protection of trees, preservation of mature vegetation, and other appropriate measures. Except as provided in 2.a.(i).(A) and 2.b., 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 14 days after the construction activity in that portion of the site where construction activity will not occur for a period of 21 or more calendar days.
  - (A) Where the initiation of stabilization measures by the 14th day after construction activity temporarily or permanently ceases is precluded by snow cover, stabilization measures shall be initiated as soon as practicable thereafter.

Description of Stabilization Practices:

- 1. Temporary Erosion Control Seeding shall be applied in accordance with the Special Provision. Seed mixture will depend on the time of year it is applied. Oats will be applied from January 1 to July 31 and Hard Red Winter Wheat from August 1 to December 31.
- 2. Short Term Seeding Seeding Class 2A shall be used to protect bare earth from more than just one or two summer-winter cycles. Due to the length and complexity of this project, it is necessary that short term, final graded slopes be short term seeded as directed by the Engineer.
- 3. Stone Riprap Class A4 stone riprap with filter fabric will be used as protection at the discharge end of most storm sewer and culvert end sections to prevent scouring at the end of pipes and to prevent downstream erosion.
- 4. Temporary Tree Protection Shall consist of items "temporary fencing" and "tree trunk protection" as directed by the engineer and in accordance with Article 201.05 of the Illinois Department of Transportation's Standard Specifications for Road and Bridge Construction.
- 5. Permanent Stabilization All areas disturbed by construction will be stabilized as soon as permitted with permanent seeding following the finished grading, but always within seven days with Temporary Erosion

Control Seeding. Erosion Blankets will be installed over fill slopes, which have been brought to final grade and have been seeded to protect the slopes from rill and gully erosion and allow seeds to germinate properly.

- Erosion Control Blankets and Mulching Erosion control blankets will be installed over fill slopes and in high velocity areas that have been brought to final grade and seeded to protect slopes from erosion and allow seeds to germinate. Mulch will be applied in relatively flat areas to prevent further erosion.
- (ii) 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 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. The installation of these devices may be subject to Section 404 of the Clean Water Act.

### Description of Structural Practices:

- Sediment Control, Stabilized Construction Access Coarse aggregate overlaying a geotextile fabric will be placed in locations necessary for contractor access. The aggregate surface of the access points will capture soil debris, reducing the amount of soil deposits placed on to the roadway by vehicles leaving the work zones.
- 2. Inlet Filters Inlet and Pipe Protection will be provided for storm sewers. These filters will be placed in every inlet, catch basis or manhole with an open lid, which will drain water during at least a 10-year storm event. The Erosion Control Plan will identify the structures requiring Inlet filters.
- Sediment Control, Silt Fence A silt fence will be placed adjacent to the areas of construction to intercept waterborne silt and prevent it from leaving the site. These areas are marked on the erosion control plans in each contract.
- Sediment Control, Temporary Ditch Checks Rolled excelsior ditch checks will be placed in swales at the rate of one for every 0.3 meters in vertical drop, or as directed by the Engineer, in order to prevent downstream erosion.
- 5. Sediment Control, Temporary Stream Crossing Coarse aggregate overlaying a geotextile fabric will be placed in locations necessary for contractor access over water channels. The aggregate surface of the crossing will reduce the amount of soil disturbance in the streams.
- Sediment Control, Temporary Pipe Slope Drain This item consists of a
   pipe with flared end sections, placed daily, along with anchor devices in conjunction with temporary berms that direct runoff down an unstabilized slope.
- Sediment Control, Dewatering Basins will be provided at wherever the contractor is removing and discharging water from excavated areas and the water is not being routed through a sediment trap or basin.

- 8. Stone riprap will be provided at several storm and culvert outlets as a measure for erosion and sediment control where needed during and after the project.
- 9. Bridges will be designed to reduce the potential for scouring.
- 10. Underdrains will be used to minimize potential erosion caused by surface water flows by reducing the subsurface water which can cause failed pavements, unstable shoulders and other disturbed areas.
- 11. Covers will be placed on open ends of pipes in trenches.

The structural practices indicated above may not be used in every contract. The Erosion Control Plans included in every contract will indicate which structural practices are required for that contract.

### b. 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.

- (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 on site; and sequential systems (which combine several practices). The practices selected for implementation were determined on the basis of the technical guidance in Section 10-300 (Design Considerations) in Chapter 10 (Erosion and Sedimentation Control) of the illinois Department of Transportation Drainage Manual. If practices other than those discussed in Section 10-300 are selected for implementation or if practices are applied to situations different from those covered in Section 10-300, the technical basis for such decisions will be explained below.
- (ii) 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).
- (iii) The Department proposes to remove vegetation within the project limits as necessary for construction. The Department proposes to revegetate according to the City of Chicago Landscape Framework Plan.

### c. Other Controls

- (i) Waste Disposal. No solid materials, including building materials, shall be discharged into Waters of the State, except as authorized by a Section 404 permit.
- (ii) The provisions of this plan shall ensure and demonstrate compliance with applicable State and/or local waste disposal, sanitary sewer or septic system regulations.

### d. Approved State or Local Plans

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, 1995. 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 or site permits or storm water management site plans or site permits or 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 permit ILR40 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: See Landscape Design and Erosion Control for further details. In addition, Guidance Memorandums #02-14 and #02-22 leading up to the ILR40NPDES Permit Requirements IDOT Strategies of Storm Water Management will be complied with along with Construction Memorandum 02-60.

### 3. Maintenance

The following is a description of procedures that will be used to maintain, in good and effective operating conditions, vegetation, erosion and sediment control measures and other protective measures identified in this plan:

Construction equipment shall be stored and fueled only at designated locations. All necessary measures shall be taken to contain any fuel or pollution runoff in compliance with environmental law and EPA Water Quality Regulations. Leaking equipment or supplies shall be immediately repaired or removed from the site. The construction field engineer on a weekly basis shall inspect the project to determine that erosion controls efforts are in place and effective and if other control is necessary. Sediment collected during construction by the various temporary erosion systems shall be disposed on the site on a regular basis as directed by the Engineer.

All erosion and sediment control measures will be checked weekly and after each significant rainfall (13 mm (0.5 inch) or greater in a 24 hour period). The following items will be checked:

- 1. Seeding all erodable bare earth areas will be temporarily seeded and inspected on a weekly basis to minimize the amount of erodable surface within the contract limits.
- 2. Silt Filter Fence, all types
- 3. Erosion Control Blanket
- 4. Tree Protection
- 5. Ditch Checks
- 6. Temporary slope drains
- 7. Sediment/dewatering basins
- 8. Stabilized construction entrances

All maintenance of the erosion control systems will be the responsibility of the contractor. All locations where vehicles enter and exit the construction site and all other areas subject to erosion should also be inspected periodically. Inspection of these areas shall be made at least once every seven days and within 24 hours of the end of each 13 mm (0.5 inch) or greater rainfall, or an equivalent snowfall.

### 4. Inspections

Qualified personnel shall inspect disturbed areas of the construction site, which have not been finally stabilized, structural control measures, and locations where vehicles enter or exit the site. Such inspections shall be conducted at least once every seven (7)-calendar days and within 24 hours of the end of a storm that is 0.5 inches or greater or equivalent snowfall.

- 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 off site sediment tracking.
- b. Based on the results of the inspection, the description of potential pollutant sources identified in section 1 above and pollution prevention measures identified in section 2 above shall be revised as appropriate as soon as practicable after such inspection. Any changes to this plan resulting from the required inspections shall be implemented 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 this storm water pollution prevention plan, and actions taken in accordance with section 4.b. shall be made and retained as part of the plan for at least three (3) years after the date of the inspection. The report shall be signed in accordance with Part VI. G of the general permit.
- d. 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 or Resident Technician shall complete and file an "Incidence of Noncompliance" (ION) report for the identified violation. The Resident Engineer or Resident Technician shall use forms provided by the Illinois Environmental Protection Agency 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 noncompliance shall be signed by a responsible authority in accordance with Part VI. G of the general permit.

The report of noncompliance 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

### 5. Non-Storm Water Discharges

Except for flows from fire fighting activities, sources of non-storm water that is combined with storm water discharges associated with the industrial activity addressed in this plan is described below. Appropriate pollution prevention measures, as described below, will be implemented for the non-storm water component(s) of the discharge.

Dewatering activities for footing and pier construction of retailing walls and bridges will be a source of non-storm water discharge during construction. Contractors should discharge dewatering activities to a temporary settling basing surrounded by silt fence.

The cutting of joints in PCC pavements or bridge deck grooving will result in slurry. This slurry shall be contained on the deck/pavement and cleaned up.

An additional source of non-storm water discharge during construction is the slurry from washing out redi-mix concrete trucks. Redi-mix concrete trucks should wash out in designated areas surrounded by silt fence. After all PCC items have been constructed, the dried concrete wash material should be cleaned up and properly disposed of. It will be the contractor's responsibility to secure these designated areas for the duration of their use. The Engineer will approve the locations.

On site maintenance of equipment shall be performed in accordance with environmental law, such as proper storage and no dumping of old engine oil or other fluids on site.

Good Housekeeping

- 1. An effort will be made to store only enough product required to do the job.
- 2. All materials stored on site will be stored in a neat, orderly manner in their appropriate containers, and if possible, under a roof or other enclosure.
- 3. Products will be kept in their original containers with the original manufacturer's label.
- 4. Substances will not be mixed with one another unless recommended by the manufacturer.
- 5. The site superintendent will inspect daily to ensure proper use and disposal of materials on the site.
- 6. Whenever possible, all of a product will be used up before disposing of the container.
- 7. Follow manufacturer's recommended practices for use and disposal.



### **Contractor Certification Statement**

Date

ż.

This certification statement is a part of the Storm Water Pollution Prevention Plan for the project described below, in accordance with NPDES Permit No. ILR40, issued by the Illinois Environmental Protection Agency on \_\_\_\_\_, 2003.

Project Information:

Route	I-90/94 Dan Ryan Expressway	Marked	Dan Ryan Expressway I-57 at Illinois Route 1 (Halsted St) & I-90 at MLK to 31st Street			
Section	See individual contract	Project No.	Various Contract Numbers Refer to Attachment			
County	Cook					

I certify under penalty of law that I understand the terms of the general National Pollutant Discharge Elimination System (NPDES) permit (ILR 40) that authorizes the storm water discharges associated with industrial activity from the construction site identified as part of this certification.

Signature

Title

Name of Firm

Street Address

City

State

Zip Code

Telephone Number

Storm Water Pollution Prevention Plan – Attachment

Project Limits: Dan Ryan Expressway I-57 at Illinois Route 1 (Halsted St) & I-90 at MLK to 31st Street

Attachment: Contract Numbers and Description. Note that the contract numbers are listed in numerical order.

IDOT Contract No.	Description
62300	Reconstruct NB Express Lanes from 31st Street to 71st Street
62301	Reconstruct NB Local Lanes from 31st St. to Wentworth Ave. and Misc. Ramps
62302	Reconstruct SB Express Lanes from 31st Street to 71st Street
62303	Reconstruct SB Local Lanes from 31st St. to Wentworth Ave. and Misc. Ramps
62304	Reconstruct NB Inside Lanes (1-3, shoulder and barrier wall) from 71st Street to I-57 Interchange
62305	Reconstruct SB Inside Lanes (1-3, shoulder and barrier wall) from 71st Street to I-57 Interchange
62573	Shoulder Rehabilitation from 47th St. to 71st St.
62584	Reconstruct NB ramps between 31st and 39th Street and Shoulder Rehabilitation
62585	Reconstruct SB ramps between 31st and 39th Street and Shoulder Rehabilitation
62586	Reconstruct 57th St. Bridge, and Frontage Rds., Retaining Walls, and Ramps between 47th and 59th. Streets
62587	Wentworth Avenue Overpass Reconstruction and Wells Street Realignments
62589	Skyway Interchange Bridges and Local Lanes from Wentworth Avenue to 67th Street
62590	Reconstruct 67th St. Bridge and NB and SB C-D System between 67th and 71st St.
62591	Storm Sewer Jacking & Collector Sewers from 67th Street to 95th Street.
62592	Reconstruct NB Outside Lanes (4, 5, shoulder) from 71st to 1-57 Interchange
62593	reconstruct SB Outside Lanes (4, 5, shoulder) from 71st to I-57 Interchange
62594	Reconstruct NB and SB C-D System and Ramps between 79th and 83rd Streets
62691	Reconstruct Watermain crossings under Dan Ryan from 32nd to 63rd
62692	Reconstruct Watermain Crossings Under the Dan Ryan from 75th St. to I-57 Interchange
62693	Frontage Rds., Retaining Walls, and Ramps between 59th. and 63rd.
62694	Reconstruct NB Retaining Walls & Ramps from 71st to I-57 Interchange, and 71st to 75th C-D System
62695	Reconstruct SB Retaining Walls & Ramps from 71st to I-57 Interchange, and 71st to 75th C-D System
TBA	Reconstruct NB I-57 Bridge over WB cross connection from I-94 & tunnel over SB I-94

### ILLINOIS DEPARTMENT OF LABOR

### PREVAILING WAGES FOR COOK COUNTY EFFECTIVE JUNE 2005

The Prevailing rates of wages are included in the Contract proposals which are subject to Check Sheet #5 of the Supplemental Specifications and Recurring Special Provisions. The rates have been ascertained and certified by the Illinois Department of Labor for the locality in which the work is to be performed and for each craft or type of work or mechanic needed to execute the work of the Contract. As required by Prevailing Wage Act (820 ILCS 130/0.01, et seq.) and Check Sheet #5 of the Contract, not less than the rates of wages ascertained by the Illinois Department of Labor and as revised during the performance of a Contract shall be paid to all laborers, workers and mechanics performing work under the Contract. Post the scale of wages in a prominent and easily accessible place at the site of work.

If the Illinois Department of Labor revises the prevailing rates of wages to be paid as listed in the specification of rates, the contractor shall post the revised rates of wages and shall pay not less than the revised rates of wages. Current wage rate information shall be obtained by visiting the Illinois Department of Labor web site at <a href="http://www.state.il.us/agency/idol/">http://www.state.il.us/agency/idol/</a> or by calling 312-793-2814. It is the responsibility of the contractor to review the rates applicable to the work of the contract at regular intervals in order to insure the timely payment of current rates. Provision of this information to the contractor by means of the Illinois Department of Labor web site satisfies the notification of revisions by the Department to the contractor pursuant to the Act, and the contractor agrees that no additional notice is required. The contractor shall notify each of its subcontractors of the revised rates of wages.

# **Cook County Prevailing Wage for November 2005**

Trade Name		TYP C		FRMAN *M-F>8		-	Pensn	Vac	Trng 
ASBESTOS ABT-GEN		ALL		30.900 1.5		0 6.860			
ASBESTOS ABT-MEC		BLD		24.800 1.5		0 3.640			
BOILERMAKER		BLD		40.140 2.0		0 6.920			
BRICK MASON		BLD		36.580 1.5		0 6.450			
CARPENTER		ALL		37.320 1.5		0 6.760			
CEMENT MASON		ALL	36.600	37.850 2.0	1.5 2	0 6.110	4.920	0.000	0.150
CERAMIC TILE FNSHER		BLD	27.200	0.000 2.0	1.5 2	0 5.400	5.200	0.000	0.100
COMM. ELECT.		BLD	31.440	33.940 1.5	1.5 2	0 6.300	5.290	0.000	0.700
ELECTRIC PWR EQMT OP		ALL	34.950	40.720 1.5	1.5 2	0 7.420	8.730	0.000	0.260
ELECTRIC PWR GRNDMAN		ALL		40.720 1.5	1.5 2	0 5.790	6.820	0.000	0.210
ELECTRIC PWR LINEMAN		ALL	34.950	40.720 1.5	1.5 2	0 7.420	8.730	0.000	0.260
ELECTRICIAN		ALL	35.150	37.750 1.5		0 8.680			
ELEVATOR CONSTRUCTOR		BLD		43.870 2.0		0 7.275			
FENCE ERECTOR		ALL		26.090 1.5		0 6.650			
GLAZIER		BLD		32.400 1.5		0 6.490			
HT/FROST INSULATOR		BLD		34.550 1.5		0 7.860			
IRON WORKER		ALL		37.750 2.0		0 8.970			
LABORER		ALL		30.900 1.5 37.320 1.5		0 6.860 0 6.760			
LATHER MACHINIST		BLD BLD		37.630 2.0		0 3.880			
MACHINISI MARBLE FINISHERS		ALL	25.750	0.000 1.5		0 6.070			
MARBLE MASON		BLD		36.580 1.5		0 6.450			
MILLWRIGHT		ALL		37.320 1.5		0 6.760			
OPERATING ENGINEER				43.550 2.0		0 6.450			
OPERATING ENGINEER				43.550 2.0		0 6.450			
OPERATING ENGINEER		BLD 3	35.700	43.550 2.0	2.0 2	0 6.450	5.150	1.800	0.650
OPERATING ENGINEER		BLD 4	33.950	43.550 2.0	2.0 2	0 6.450	5.150	1.800	0.650
OPERATING ENGINEER		FLT 1	42.700	42.700 1.5	1.5 2	0 6.050	4.850	1.800	0.000
OPERATING ENGINEER		FLT 2	41.200	42.700 1.5	1.5 2	0 6.050	4.850	1.800	0.000
OPERATING ENGINEER				42.700 1.5		0 6.050			
OPERATING ENGINEER				42.700 1.5		0 6.050			
OPERATING ENGINEER				41.750 1.5		0 6.450			
OPERATING ENGINEER		HWY 2		41.750 1.5		0 6.450			
OPERATING ENGINEER				41.750 1.5		0 6.450			
OPERATING ENGINEER OPERATING ENGINEER				41.750 1.5 41.750 1.5		0 6.450 0 6.450			
OPERAIING ENGINEER ORNAMNTL IRON WORKER		ALL		41.750 1.5 35.350 2.0		0 7.250			
PAINTER		ALL		37.560 1.5		5 5.800			
PAINTER SIGNS		BLD		28.660 1.5		5 2.600			
PILEDRIVER		ALL		37.320 1.5		0 6.760			
PIPEFITTER		BLD		38.100 1.5		0 7.910			
PLASTERER		BLD		33.600 1.5		0 6.240			
PLUMBER		BLD	38.400	40.400 1.5		0 7.170			
ROOFER		BLD	32.800	34.800 1.5	1.5 2	0 5.570	3.000	0.000	0.330
SHEETMETAL WORKER		BLD	33.400	36.070 1.5	1.5 2	0 6.460	7.850	0.000	0.590
SIGN HANGER		BLD	23.750	24.600 1.5	1.5 2	0 3.880	2.000	0.000	0.000
SPRINKLER FITTER		BLD	34.500	36.500 1.5	1.5 2	0 7.000	5.550	0.000	0.500
STEEL ERECTOR		ALL		37.750 2.0		0 8.970			
STONE MASON		BLD		36.580 1.5		0 6.450			
TERRAZZO FINISHER		BLD	27.950	0.000 1.5		0 6.150			
TERRAZZO MASON		BLD		35.050 1.5		0 6.150			
TILE MASON		BLD		37.000 2.0		0 5.400			
TRAFFIC SAFETY WRKR	न्य	HWY ATT 1		24.400 1.5		0 3.078			
TRUCK DRIVER TRUCK DRIVER	E E			29.350 1.5 29.350 1.5		0 5.000 0 5.000			
TRUCK DRIVER	Е Е			29.350 1.5		0 5.000			
TRUCK DRIVER	E			29.350 1.5		0 5.000			
TRUCK DRIVER	W			29.250 1.5		0 5.900			

TRUCK DRIVER	W	ALL 2	28.850	29.250	1.5	1.5 2	2.0 5.900	3.300	0.000	0.000
TRUCK DRIVER	W	ALL 3	29.050	29.250	1.5	1.5 2	2.0 5.900	3.300	0.000	0.000
TRUCK DRIVER	W	ALL 4	29.250	29.250	1.5	1.5 2	2.0 5.900	3.300	0.000	0.000
TUCKPOINTER		BLD	34.500	35.500	1.5	1.5 2	2.0 4.710	6.340	0.000	0.400

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Legend:
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M-F>8 (Overtime is required for any hour greater than 8 worked each day, Monday through Friday.

OSA (Overtime is required for every hour worked on Saturday)

OSH (Overtime is required for every hour worked on Sunday and Holidays)

H/W (Health & Welfare Insurance)

Pensn (Pension)

Vac (Vacation)

Trng (Training)

## **Explanations**

COOK COUNTY

TRUCK DRIVERS (WEST) - That part of the county West of Barrington Road.

The following list is considered as those days for which holiday rates of wages for work performed apply: New Years Day, Memorial/Decoration Day, Fourth of July, Labor Day, Veterans Day, Thanksgiving Day, Christmas Day. Generally, any of these holidays which fall on a Sunday is celebrated on the following Monday. This then makes work performed on that Monday payable at the appropriate overtime rate for holiday pay. Common practice in a given local may alter certain days of celebration such as the day after Thanksgiving for Veterans Day. If in doubt, please check with IDOL.

### EXPLANATION OF CLASSES

ASBESTOS - GENERAL - removal of asbestos material/mold and hazardous materials from any place in a building, including mechanical systems where those mechanical systems are to be removed. This includes the removal of asbestos materials/mold and hazardous materials from ductwork or pipes in a building when the building is to be demolished at the time or at some close future date. ASBESTOS - MECHANICAL - removal of asbestos material from mechanical systems, such as pipes, ducts, and boilers, where the mechanical systems are to remain.

### CERAMIC TILE FINISHER

The grouting, cleaning, and polishing of all classes of tile, whether for interior or exterior purposes, all burned, glazed or unglazed products; all composition materials, granite tiles, warning detectable tiles, cement tiles, epoxy composite materials, pavers, glass, mosaics, fiberglass, and all substitute materials, for tile made in tile-like units; all mixtures in tile like form of cement, metals, and other materials that are for and intended for use as a finished floor

surface, stair treads, promenade roofs, walks, walls, ceilings, swimming pools, and all other places where tile is to form a finished interior or exterior. The mixing of all setting mortars including but not limited to thin-set mortars, epoxies, wall mud, and any other sand and cement mixtures or adhesives when used in the preparation, installation, repair, or maintenance of tile and/or similar materials. The handling and unloading of all sand, cement, lime, tile, fixtures, equipment, adhesives, or any other materials to be used in the preparation, installation, repair, or maintenance of tile and/or similar materials. Ceramic Tile Finishers shall fill all joints and voids regardless of method on all tile work, particularly and especially after installation of said tile work. Application of any and all protective coverings to all types of tile installations including, but not be limited to, all soap compounds, paper products, tapes, and all polyethylene coverings, plywood, masonite, cardboard, and any new type of products that may be used to protect tile installations, Blastrac equipment, and all floor scarifying equipment used in preparing floors to receive tile. The clean up and removal of all waste and materials. All demolition of existing tile floors and walls to be re-tiled.

COMMUNICATIONS ELECTRICIAN - Installation, operation, inspection, maintenance, repair and service of radio, television, recording, voice sound vision production and reproduction, telephone and telephone interconnect, facsimile, data apparatus, coaxial, fibre optic and wireless equipment, appliances and systems used for the transmission and reception of signals of any nature, business, domestic, commercial, education, entertainment, and residential purposes, including but not limited to, communication and telephone, electronic and sound equipment, fibre optic and data communication systems, and the performance of any task directly related to such installation or service whether at new or existing sites, such tasks to include the placing of wire and cable and electrical power conduit or other raceway work within the equipment room and pulling wire and/or cable through conduit and the installation of any incidental conduit, such that the employees covered hereby can complete any job in full.

### MARBLE FINISHER

Loading and unloading trucks, distribution of all materials (all stone, sand, etc.), stocking of floors with material, performing all rigging for heavy work, the handling of all mateiral that may be needed for the installation of such materials, building of scaffolding, polishing if needed, patching, waxing of material if damaged, pointing up, caulking, grouting and cleaning of marble, holding water on diamond or Carborundum blade or saw for setters cutting, use of tub saw or any other saw needed for preparation of material, drilling of holes for wires that anchor material set by setters, mixing up of molding plaster for installation of material, mixing up thin set for the installation of material, mixing up of sand to cement for the installatin of material and such other work as may be required in helping a Marble Setter in the handling of all material in the erection or installation of interior marble, slate, travertine, art marble, serpentine, alberene stone, blue stone, granite and other stones (meaning as to stone any foreign or domestic materials as are specified and used in building interiors and experiors and customarily known as stone in the trade), carrara, sanionyx, vitrolite and similar opaque glass and the laying of all marble tile, terrazzo tile, slate tile and precast tile, steps, risers treads, base, or any other materials that may be used as substitutes for any of the aforementioned materials and which are used on interior and experior which sare installed in a similar manner.

#### 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.

#### OPERATING ENGINEERS - BUILDING

Class 1. Mechanic; Asphalt Plant; Asphalt Spreader; Autograde; Backhoes with Caisson attachment; Batch Plant; Benoto; Boiler and Throttle Valve; Caisson Rigs; Central Redi-Mix Plant; Combination Back Hoe Front End-loader Machine; Compressor and Throttle Valve; Concrete Breaker (Truck Mounted); Concrete Conveyor; Concrete Paver; Concrete Placer; Concrete Placing Boom; Concrete Pump (Truck Mounted); Concrete Tower; Cranes, All; Cranes, Hammerhead; Cranes, (GCI and similar Type); Creter Crane; Crusher, Stone, etc.; Derricks, All; Derricks, Traveling; Formless Curb and Gutter Machine; Grader, Elevating; Grouting Machines; Highlift Shovels or Front Endloader 2-1/4 yd. and over; Hoists, Elevators, outside type rack and pinion and similar machines; Hoists, one, two and three Drum; Hoists, Two Tugger One Floor; Hydraulic Backhoes; Hydraulic Boom Trucks; Hydro Vac (and similar equipment); Locomotives, All; Motor Patrol; Pile Drivers and Skid Rig; Post Hole Digger; Pre-Stress Machine; Pump Cretes Dual Ram; Pump Cretes; Squeeze Cretes-screw Type Pumps; Raised and Blind Hole Drill; Roto Mill Grinder; Scoops - Tractor Drawn; Slip-form Paver; Straddle Buggies; Tournapull; Tractor with Boom and Side Boom; Trenching Machines.

Class 2. Bobcat (over 3/4 cu. yd.); Boilers; Brick Forklift; Broom, All Power Propelled; Bulldozers; Concrete Mixer (Two Bag and Over); Conveyor, Portable; Forklift Trucks; Greaser Engineer; Highlift Shovels or Front Endloaders under 2-1/4 yd.; Hoists, Automatic; Hoists, inside Freight Elevators; Hoists, Sewer Dragging Machine; Hoists, Tugger Single Drum; Laser Screed; Rock Drill (self-propelled); Rock Drill (truck mounted); Rollers, All; Steam Generators; Tractors, All; Tractor Drawn Vibratory Roller; Winch Trucks with "A" Frame.

Class 3. Air Compressor; Combination - Small Equipment Operator; Generators; Heaters, Mechanical; Hoists, Inside Elevators - (Rheostat Manual Controlled); Hydraulic Power Units (Pile Driving, Extracting, and Drilling); Pumps, over 3" (1 to 3 not to exceed a total of 300 ft.); Pumps, Well Points; Welding Machines (2 through 5); Winches, 4 small Electric Drill Winches; Bobcat (up to and including 3/4 cu. yd.).

Class 4. Bobcats and/or other Skid Steer Loaders; Oilers; and Brick Forklift.

OPERATING ENGINEERS - FLOATING

Class 1. Craft foreman (Master Mechanic), diver/wet tender, engineer (hydraulic dredge).

Class 2. Crane/backhoe operator, mechanic/welder, assistant engineer (hydraulic dredge), leverman (hydraulic dredge), and diver tender.

Class 3. Deck equipment operator (machineryman), maintenance of crane (over 50 ton capacity) or backhoe (96,000 pounds or more), tug/launch operator, loader, dozer and like equipment on barge, breakwater wall, slip/dock or scow, deck machinery, etc.

Class 4. Deck equipment operator (machineryman/fireman), (4 equipment units or more) and crane maintenance 50 ton capacity and under or backhoe weighing 96,000 pounds or less, assistant tug operator.

OPERATING ENGINEERS - HEAVY AND HIGHWAY CONSTRUCTION Class 1. Craft Foreman; Asphalt Plant; Asphalt Heater and Planer Combination; Asphalt Heater Scarfire; Asphalt Spreader; Autograder/GOMACO or other similar type machines; ABG Paver; Backhoes with Caisson attachment; Ballast Regulator; Belt Loader; Caisson Rigs; Car Dumper; Central Redi-Mix Plant; Combination Backhoe Front Endloader Machine, (1 cu. yd. Backhoe Bucket or over or with attachments); Concrete Breaker (Truck Mounted): Concrete Conveyor; Concrete Paver over 27E cu. ft.; Concrete Placer; Concrete Tube Float; Cranes, all attachments; Cranes, Hammerhead, Linden, Peco & Machines of a like nature; Crete Crane; Crusher, Stone, etc.; Derricks, All; Derrick Boats; Derricks, Traveling; Dowell machine with Air Compressor; Dredges; Field Mechanic-Welder; Formless Curb and Gutter Machine; Gradall and Machines of a like nature; Grader, Elevating; Grader, Motor Grader, Motor Patrol, Auto Patrol, Form Grader, Pull Grader, Subgrader; Guard Rail Post Driver Mounted; Hoists, One, Two and Three Drum; Hydraulic Backhoes; Backhoes with

shear attachments; Mucking Machine; Pile Drivers and Skid Rig; Pre-Stress Machine; Pump Cretes Dual Ram; Rock Drill - Crawler or Skid Rig; Rock Drill - Truck Mounted; Roto Mill Grinder; Slip-Form Paver; Soil Test Drill Rig (Truck Mounted); Straddle Buggies; Hydraulic Telescoping Form (Tunnel); Tractor Drawn Belt Loader (with attached pusher - two engineers); Tractor with Boom; Tractaire with Attachments; Trenching Machine; Truck Mounted Concrete Pump with Boom; Raised or Blind Hole; Drills (Tunnel Shaft); Underground Boring and/or Mining Machines; Wheel Excavator; Widener (APSCO).

Class 2. Batch Plant; Bituminous Mixer; Boiler and Throttle Valve; Bulldozers; Car Loader Trailing Conveyors; Combination Backhoe Front Endloader Machine (less than 1 cu. yd. Backhoe Bucket or over or with attachments); Compressor and Throttle Valve; Compressor, Common Receiver (3); Concrete Breaker or Hydro Hammer; Concrete Grinding Machine; Concrete Mixer or Paver 7S Series to and including 27 cu. ft.; Concrete Spreader; Concrete Curing Machine, Burlap Machine, Belting Machine and Sealing Machine; Concrete Wheel Saw; Conveyor Muck Cars (Haglund or Similar Type); Drills, All; Finishing Machine -Concrete; Greaser Engineer; Highlift Shovels or Front Endloader; Hoist - Sewer Dragging Machine; Hydraulic Boom Trucks (All Attachments); Hydro-Blaster; All Locomotives, Dinky; Pump Cretes; Squeeze Cretes-Screw Type Pumps, Gypsum Bulker and Pump; Roller, Asphalt; Rotory Snow Plows; Rototiller, Seaman, etc., self-propelled; Scoops -Tractor Drawn; Self-Propelled Compactor; Spreader - Chip - Stone, etc.; Scraper; Scraper - Prime Mover in Tandem (Regardless of Size); Tank Car Heater; Tractors, Push, Pulling Sheeps Foot, Disc, Compactor, etc.; Tug Boats.

Class 3. Boilers; Brooms, All Power Propelled; Cement Supply Tender; Compressor, Common Receiver (2); Concrete Mixer (Two Bag and Over); Conveyor, Portable; Farm-Type Tractors Used for Mowing, Seeding, etc.; Fireman on Boilers; Forklift Trucks; Grouting Machine; Hoists, Automatic; Hoists, All Elevators; Hoists, Tugger Single Drum; Jeep Diggers; Pipe Jacking Machines; Post-Hole Digger; Power Saw, Concrete Power Driven; Pug Mills; Rollers, other than asphalt; Seed and Straw Blower; Steam Generators; Stump Machine; Winch Trucks with "A" Frame; Work Boats; Tamper - Form-Motor Driven.

Class 4. Air Compressor; Combination - Small Equipment Operator; Directional Boring Machine; Generators; Heaters, Mechanical; Hydraulic Power Unit (Pile Driving, Extracting, or Drilling); Hydro-Blaster; Light Plants, All (1 through 5); Pumps, over 3" (1 to 3 not to exceed a total of 300 ft.); Pumps, Well Points; Tractaire; Welding Machines (2 through 5); Winches, 4 Small Electric Drill Winches.

Class 5. Bobcats (all); Brick Forklifts, Oilers.

Other Classifications of Work:

For definitions of classifications not otherwise set out, the Department generally has on file such definitions which are available. If a task to be performed is not subject to one of the classifications of pay set out, the Department will upon being contacted state which neighboring county has such a classification and provide such rate, such rate being deemed to exist by reference in this document. If no neighboring county rate applies to the task, the Department shall undertake a special determination, such special determination being then deemed to have existed under this determination. If a project requires these, or any classification not listed, please contact IDOL at 618/993-7271 for wage rates or clarifications.

#### LANDSCAPING

Landscaping work falls under the existing classifications for laborer, operating engineer and truck driver. The work performed by landscape plantsman and landscape laborer is covered by the existing classification of laborer. The work performed by landscape operators (regardless of equipment used or its size) is covered by the classifications of operating engineer. The work performed by landscape truck drivers (regardless of size of truck driven) is covered by the classifications of truck driver.