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

### PREQUALIFICATION

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

### REQUESTS FOR AUTHORIZATION TO BID

Contractors 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 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** from IDOT's Central Bureau of Construction.

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

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

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

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

The Internet is the Department's primary way of doing business. The subscription server e-mails are an added courtesy the Department provides. It is suggested that bidder check IDOT's website http://www.dot.il.gov/desenv/delett.html 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.

**RETURN WITH BID**

95

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

# Letting January 20, 2006

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

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

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

Illinois Department of Transportation

**Springfield, Illinois 62764**

**Contract No. 83560**
**DUPAGE County**
**Section 94-P4031-00-BR (Wheaton Park District)**
**Route PEDESTRIAN BIKE PATH**
**Project TE-D1(422)**
**District 1 Construction Funds**

PLEASE MARK THE APPROPRIATE BOX BELOW:

☐ A Bid Bond is included.

☐ A Cashier's Check or a Certified Check is included

Prepared by

Checked by F

(Printed by authority of the State of Illinois)

## INSTRUCTIONS

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

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

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

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

1. All documents from the Proposal Cover Sheet through the Proposal Bid Bond

2. Other special documentation and/or information that may be required by the contract special provisions

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

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

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

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

**RETURN WITH BID**

Illinois Department of Transportation

# PROPOSAL

TO THE DEPARTMENT OF TRANSPORTATION

1. Proposal of _____

_____

Taxpayer Identification Number (Mandatory) _____

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

**Contract No. 83560**
**DUPAGE County**
**Section 94-P4031-00-BR (Wheaton Park District)**
**Project TE-D1(422)**
**Route PEDESTRIAN BIKE PATH**
**District 1 Construction Funds**

**Construction of a prefabricated pedestrian truss bridge over the Union Pacific Railroad with earth excavation, drainage, PCC sidewalk, furnished excavation and other incidental work to be completed at the intersection of Manchester Road and the Middle School Driveway to Nepil Avenue.**

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

3. **ASSURANCE OF EXAMINATION AND INSPECTION/WAIVER.** The undersigned further declares that he/she has carefully examined the proposal, plans, specifications, form of contract and contract bond, and special provisions, and that he/she has inspected in detail the site of the proposed work, and that he/she has familiarized themselves with all of the local conditions affecting the contract and the detailed requirements of construction, and understands that in making this proposal he/she waives all right to plead any misunderstanding regarding the same.

4. **EXECUTION OF CONTRACT AND CONTRACT BOND.** The undersigned further agrees to execute a contract for this work and present the same to the department within fifteen (15) days after the contract has been mailed to him/her. The undersigned further agrees that he/she and his/her surety will execute and present within fifteen (15) days after the contract has been mailed to him/her contract bond satisfactory to and in the form prescribed by the Department of Transportation, in the penal sum of the full amount of the contract, guaranteeing the faithful performance of the work in accordance with the terms of the contract.

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

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

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

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

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

**Attach Cashier's Check or Certified Check Here**

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

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

Item _____

Section No. _____

County _____

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

BD 354 (Rev. 11/2001)

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

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

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

**Schedule of Combination Bids**

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

7. **SCHEDULE OF PRICES.** The undersigned bidder submits herewith, in accordance with the rules and instructions, a schedule of prices for the items of work for which bids are sought. The unit prices bid are in U.S. dollars and cents, and all extensions and summations have been made. The bidder understands that the quantities appearing in the bid schedule are approximate and are provided for the purpose of obtaining a gross sum for the comparison of bids. If there is an error in the extension of the unit prices, the unit prices shall govern. Payment to the contractor awarded the contract will be made only for actual quantities of work performed and accepted or materials furnished according to the contract. The scheduled quantities of work to be done and materials to be furnished may be increased, decreased or omitted as provided elsewhere in the contract.

8. **CERTIFICATE OF AUTHORITY.** The undersigned bidder, if a business organized under the laws of another State, assures the Department that it will furnish a copy of its certificate of authority to do business in the State of Illinois with the return of the executed contract and bond. Failure to furnish the certificate within the time provided for execution of an awarded contract may be cause for cancellation of the award and forfeiture of the proposal guaranty to the State.

| COUNTY NAME | CODE | DIST | SECTION NUMBER | PROJECT NUMBER | ROUTE |
|---|---|---|---|---|---|
| DUPAGE | 043 | 01 | 94-P4031-00-BR WHEATON PK DIST | TE-00D1/422/000 | PEDSTRIAN |
| | | | | | BIKE PATH |

| ITEM NUMBER | PAY ITEM DESCRIPTION | UNIT OF MEASURE | QUANTITY | | UNIT PRICE DOLLARS | UNIT PRICE CENTS | | TOTAL PRICE DOLLARS | TOTAL PRICE CTS |
|---|---|---|---|---|---|---|---|---|---|
| XX000372 | TEMP AGGREGATE | TON | 25.000 | X | | | = | | |
| XX003817 | GRATING-C FL END S 12 | EACH | 2.000 | X | | | = | | |
| XX004056 | MECH ST EARTH RET WL | SQ FT | 9,990.000 | X | | | = | | |
| XX005920 | SEEDING WET PRAIRIE | ACRE | 0.200 | X | | | = | | |
| XX006143 | S&I CLD CATH LGHT SYS | L SUM | 1.000 | X | | | = | | |
| XX006144 | SEEDING,MESIC PRAIRIE | ACRE | 0.150 | X | | | = | | |
| X0320139 | TEMP CONSTR FENCE | FOOT | 1,331.000 | X | | | = | | |
| X0321072 | BRIDGE FENCE RAIL | FOOT | 1,540.000 | X | | | = | | |
| X0322508 | PED TRUSS SUPERSTR | SQ FT | 1,910.000 | X | | | = | | |
| X0322671 | STAB CONSTR ENTRANCE | SQ YD | 235.000 | X | | | = | | |
| X0322871 | MAINT EROS CONT SYS | L SUM | 1.000 | X | | | = | | |
| X0323868 | DRAINAGE RESTRICTOR | EACH | 1.000 | X | | | = | | |
| X0330200 | SAN MAN ADJUST | EACH | 1.000 | X | | | = | | |
| X4066414 | BC SC SUPER "C" N50 | TON | 434.000 | X | | | = | | |
| X4066614 | BCBC SUP IL-19.0 N50 | TON | 268.000 | X | | | = | | |

| ITEM NUMBER | PAY ITEM DESCRIPTION | UNIT OF MEASURE | QUANTITY | UNIT PRICE DOLLARS | UNIT PRICE CENTS | | TOTAL PRICE DOLLARS | TOTAL PRICE CTS |
|---|---|---|---|---|---|---|---|---|
| X8250005 | CONTROLLER STREET LGT | EACH | 2.000 | | | = | | |
| X8250230 | PHOTOCELL | EACH | 2.000 | | | = | | |
| Z0003900 | BICYCLE RAILING | FOOT | 700.000 | | | = | | |
| Z0008230 | DRIL SHAFT/SOIL 30 | FOOT | 216.000 | | | = | | |
| Z0008236 | DRIL SHAFT/SOIL 36 | FOOT | 36.000 | | | = | | |
| Z0013798 | CONSTRUCTION LAYOUT | L SUM | 1.000 | | | = | | |
| Z0017900 | DRAINAGE SCUPPERS | EACH | 4.000 | | | = | | |
| Z0018800 | DRAINAGE SYSTEM | L SUM | 1.000 | | | = | | |
| Z0048665 | RR PROT LIABILITY INS | L SUM | 1.000 | | | = | | |
| Z0055800 | RUSTIC RAIL FENCE | FOOT | 590.000 | | | = | | |
| Z0076600 | TRAINEES | HOUR | 500.000 | 0 | .80 | = | 400 | .00 |
| 20100500 | TREE REMOV ACRES | ACRE | 2.800 | | | = | | |
| 20200100 | EARTH EXCAVATION | CU YD | 3,304.000 | | | = | | |
| 20400800 | FURNISHED EXCAV | CU YD | 5,142.000 | | | = | | |
| 20700220 | POROUS GRAN EMBANK | CU YD | 1,300.000 | | | = | | |

| ITEM NUMBER | PAY ITEM DESCRIPTION | UNIT OF MEASURE | QUANTITY | UNIT PRICE DOLLARS | UNIT PRICE CENTS | | TOTAL PRICE DOLLARS | TOTAL PRICE CTS |
|---|---|---|---|---|---|---|---|---|
| 20800150 | TRENCH BACKFILL | CU YD | 19.000 | X | | = | | |
| 21001000 | GEOTECH FAB F/GR STAB | SQ YD | 2,012.000 | X | | = | | |
| 21101625 | TOPSOIL F & P 6 | SQ YD | 15,038.000 | X | | = | | |
| 25000100 | SEEDING CL 1 | ACRE | 2.830 | X | | = | | |
| 25000400 | NITROGEN FERT NUTR | POUND | 282.000 | X | | = | | |
| 25000500 | PHOSPHORUS FERT NUTR | POUND | 282.000 | X | | = | | |
| 25000600 | POTASSIUM FERT NUTR | POUND | 282.000 | X | | = | | |
| 25100630 | EROSION CONTR BLANKET | SQ YD | 15,038.000 | X | | = | | |
| 28000300 | TEMP DITCH CHECKS | EACH | 4.000 | X | | = | | |
| 28000400 | PERIMETER EROS BAR | FOOT | 4,300.000 | X | | = | | |
| 28000500 | INLET & PIPE PROTECT | EACH | 11.000 | X | | = | | |
| 28100707 | STONE DUMP RIP CL A4 | SQ YD | 11.600 | X | | = | | |
| 35101800 | AGG BASE CSE B 6 | SQ YD | 2,012.000 | X | | = | | |
| 35102000 | AGG BASE CSE B 8 | SQ YD | 1,859.000 | X | | = | | |
| 40300100 | BIT MATLS PR CT | GALLON | 1,805.000 | X | | = | | |

| ITEM NUMBER | PAY ITEM DESCRIPTION | UNIT OF MEASURE | QUANTITY | | UNIT PRICE DOLLARS | UNIT PRICE CENTS | | TOTAL PRICE DOLLARS | TOTAL PRICE CTS |
|---|---|---|---|---|---|---|---|---|---|
| 40600100 | BIT MATLS PR CT | GALLON | 186.000 | X | | | = | | |
| 40600300 | AGG PR CT | TON | 4.000 | X | | | = | | |
| 42001300 | PROTECTIVE COAT | SQ YD | 1,440.000 | X | | | = | | |
| 42400200 | PC CONC SIDEWALK 5 | SQ FT | 250.000 | X | | | = | | |
| 42400800 | DETECTABLE WARNINGS | SQ FT | 94.000 | X | | | = | | |
| 44000100 | PAVEMENT REM | SQ YD | 961.000 | X | | | = | | |
| 44000300 | CURB REM | FOOT | 95.000 | X | | | = | | |
| 44002300 | CURB REMOVAL PART | FOOT | 20.000 | X | | | = | | |
| 48101498 | AGGREGATE SHLDS B 4 | SQ YD | 746.000 | X | | | = | | |
| 50200100 | STRUCTURE EXCAVATION | CU YD | 992.000 | X | | | = | | |
| 50300120 | PREF JOINT SEAL 2 1/2 | FOOT | 15.000 | X | | | = | | |
| 50300150 | NEOPRENE EXPAN JT 2 | FOOT | 13.000 | X | | | = | | |
| 50300155 | NEOPRENE EXP JT 2 1/2 | FOOT | 39.000 | X | | | = | | |
| 50300160 | NEOPRENE EXPAN JT 4 | FOOT | 13.000 | X | | | = | | |
| 50300225 | CONC STRUCT | CU YD | 322.000 | X | | | = | | |

| ITEM NUMBER | PAY ITEM DESCRIPTION | UNIT OF MEASURE | QUANTITY | UNIT PRICE DOLLARS | UNIT PRICE CENTS | | TOTAL PRICE DOLLARS | TOTAL PRICE CTS |
|---|---|---|---|---|---|---|---|---|
| 50300255 | CONC SUP-STR | CU YD | 259.000 | X | | = | | |
| 50300310 | ELAST BEARING ASSY T1 | EACH | 12.000 | X | | = | | |
| 50300320 | ELAST BEARING ASSY T2 | EACH | 4.000 | X | | = | | |
| 50300330 | ELAST BEARING ASSY T3 | EACH | 4.000 | X | | = | | |
| 50500105 | F & E STRUCT STEEL | L SUM | 1.000 | X | | = | | |
| 50500505 | STUD SHEAR CONNECTORS | EACH | 3,632.000 | X | | = | | |
| 50800205 | REINF BARS, EPOXY CTD | POUND | 174,080.000 | X | | = | | |
| 51000105 | PIPE HANDRAIL | FOOT | 168.000 | X | | = | | |
| 542D0217 | P CUL CL D 1 12 | FOOT | 40.000 | X | | = | | |
| 542D0220 | P CUL CL D 1 15 | FOOT | 85.000 | X | | = | | |
| 542D0232 | P CUL CL D 1 27 | FOOT | 44.000 | X | | = | | |
| 54213657 | PRC FLAR END SEC 12 | EACH | 2.000 | X | | = | | |
| 54213669 | PRC FLAR END SEC 24 | EACH | 1.000 | X | | = | | |
| 54213867 | STEEL END SEC 12 | EACH | 4.000 | X | | = | | |
| 54213870 | STEEL END SEC 15 | EACH | 3.000 | X | | = | | |

| ITEM NUMBER | PAY ITEM DESCRIPTION | UNIT OF MEASURE | QUANTITY | UNIT PRICE DOLLARS | UNIT PRICE CENTS | | TOTAL PRICE DOLLARS | TOTAL PRICE CTS |
|---|---|---|---|---|---|---|---|---|
| 54213882 | STEEL END SEC 27 | EACH | 4.000 | X | | = | | |
| 54247130 | GRATING-C FL END S 24 | EACH | 1.000 | X | | = | | |
| 550A0050 | STORM SEW CL A 1 12 | FOOT | 10.000 | X | | = | | |
| 550A0120 | STORM SEW CL A 1 24 | FOOT | 24.000 | X | | = | | |
| 55100700 | STORM SEWER REM 15 | FOOT | 4.000 | X | | = | | |
| 55101200 | STORM SEWER REM 24 | FOOT | 18.000 | X | | = | | |
| 56103000 | D I WATER MAIN 6 | FOOT | 9.000 | X | | = | | |
| 56400100 | FIRE HYDNTS TO BE MVD | EACH | 1.000 | X | | = | | |
| 58700200 | BRIDGE SEAT SEALER | SQ FT | 194.000 | X | | = | | |
| 60203905 | CB TA 5 DIA T1F CL | EACH | 1.000 | X | | = | | |
| 60219000 | MAN TA 4 DIA T8G | EACH | 2.000 | X | | = | | |
| 60266600 | VALVE BOX ADJ | EACH | 4.000 | X | | = | | |
| 60600605 | CONC CURB TB | FOOT | 95.000 | X | | = | | |
| 66400305 | CH LK FENCE 6 | FOOT | 5,705.000 | X | | = | | |
| 66407600 | CH LK GATES 6X12 DBL | EACH | 2.000 | X | | = | | |

| ITEM NUMBER | PAY ITEM DESCRIPTION | UNIT OF MEASURE | QUANTITY | UNIT PRICE DOLLARS | UNIT PRICE CENTS | | TOTAL PRICE DOLLARS | TOTAL PRICE CTS |
|---|---|---|---|---|---|---|---|---|
| 66410300 | CH LK FENCE REMOV | FOOT | 46.000 | | | = | | |
| 67000400 | ENGR FIELD OFFICE A | CAL MO | 6.000 | | | = | | |
| 67100100 | MOBILIZATION | L SUM | 1.000 | | | = | | |
| 72400500 | RELOC SIN PAN ASSY TA | EACH | 20.000 | | | = | | |
| 80400100 | ELECT SERV INSTALL | EACH | 2.000 | | | = | | |
| 81000400 | CON T 1 1/4 GALVS | FOOT | 325.000 | | | = | | |
| 81100500 | CON AT ST 1 1/2 GALVS | FOOT | 1,025.000 | | | = | | |
| 81300220 | JUN BX SS AS 6X6X4 | EACH | 24.000 | | | = | | |
| 81300420 | JUN BX SS AS 10X8X6 | EACH | 6.000 | | | = | | |
| 81500200 | TR & BKFIL F ELECT WK | FOOT | 325.000 | | | = | | |
| 81702110 | EC C XLP USE 1C 10 | FOOT | 300.000 | | | = | | |
| 81702130 | EC C XLP USE 1C 6 | FOOT | 4,500.000 | | | = | | |
| 81702140 | EC C XLP USE 1C 4 | FOOT | 975.000 | | | = | | |

TOTAL $

NOTE:
*** PLEASE TURN PAGE FOR IMPORTANT NOTES ***

NOTE:

1. EACH PAY ITEM SHOULD HAVE A UNIT PRICE AND A TOTAL PRICE.

2. THE UNIT PRICE SHALL GOVERN IF NO TOTAL PRICE IS SHOWN OR IF THERE IS A DISCREPANCY BETWEEN THE PRODUCT OF THE UNIT PRICE MULTIPLIED BY THE QUANTITY.

3. IF A UNIT PRICE IS OMITTED, THE TOTAL PRICE WILL BE DIVIDED BY THE QUANTITY IN ORDER TO ESTABLISH A UNIT PRICE.

4. A BID MAY BE DECLARED UNACCEPTABLE IF NEITHER A UNIT PRICE NOR A TOTAL PRICE IS SHOWN.

## RETURN WITH BID

## 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.

## RETURN WITH BID

**I. Insider Information**

1. The Illinois Procurement Act provides:

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

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

**III. CERTIFICATIONS**

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

**B. Bribery**

1. The Illinois Procurement Code provides:

Section 50-5. Bribery.

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

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

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

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

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

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

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

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

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

**C. Educational Loan**

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

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

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

**D. Bid-Rigging/Bid Rotating**

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

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

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

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

A violation of Section 33E-4 would be represented by a conviction of the crime of bid-rotating which, in addition to Class 2 felony sentencing, provides that any person convicted of this offense or any similar offense of any state or the United States which contains the same elements as this offense shall be permanently barred from contracting with any unit of State or local government. No corporation shall be barred from contracting with any unit of State or local government as a result of a conviction under this Section of any employee or agent of such corporation if the employee so convicted is no longer employed by the corporation and: (1) it has been finally adjudicated not guilty or (2) if it demonstrates to the governmental entity with which it seeks to contract and that entity finds that the commission of the offense was neither authorized, requested, commanded, nor performed by a director, officer or a high managerial agent in behalf of the corporation.

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

**E. International Anti-Boycott**

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

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

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

**F. Drug Free Workplace**

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

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

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

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

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

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

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

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

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

**G. Debt Delinquency**

1. The Illinois Procurement Code provides:

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

**NA - FEDERAL**

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.

## TO BE RETURNED WITH BID

**IV. DISCLOSURES**

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

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

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

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

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

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

**C. Disclosure Form Instructions**

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

The Department has retained the Form A disclosures submitted by all bidders responding to these requirements for the April 24, 1998 or any subsequent letting conducted by the Department. The bidder has the option of submitting the information again or the bidder may 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 NOT APPLICABLE STATEMENT on the second page of Form A must be signed and dated by a person that is authorized to execute contracts for the bidding company. Note: These questions are for assistance only and are not required to be completed.

1. Does anyone in your organization have a direct or beneficial ownership share of greater than 5% of the bidding entity or parent entity? YES ___ NO___
2. Does anyone in your organization have a direct or beneficial ownership share of less than 5%, but which has a value greater than $90,420.00? YES ___ NO___
3. 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 per person per bid even if a specific individual would require a yes answer to more than one question.)

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

If the answer to each of the above questions is "NO", then the NOT APPLICABLE STATEMENT on page 2 of Form A must be signed and dated by a person that is authorized to execute contracts for your company.

**Form B: Identifying Other Contracts & Procurement Related Information** Disclosure Form B must be completed for each bid submitted by the bidding entity. It must be signed by an individual who is authorized to execute contracts for the bidding entity. *Note: Signing the NOT APPLICABLE STATEMENT on Form A does not 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) |

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

**DISCLOSURE OF FINANCIAL INFORMATION**

**1. Disclosure of Financial Information.** The individual named below has an interest in the BIDDER (or its parent) in terms of ownership or distributive income share in excess of 5%, or an interest which has a value of more than $90,420.00 (60% of the Governor's salary as of 7/1/01). **(Make copies of this form as necessary and attach a separate Disclosure Form A for each individual meeting these requirements)**

**FOR INDIVIDUAL (type or print information)**

**NAME:** _____

**ADDRESS** _____

_____

**Type of ownership/distributable income share:**

stock _____ sole proprietorship _____ Partnership _____ other: (explain on separate sheet):

% or $ value of ownership/distributable income share: _____

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

(a) State employment, currently or in the previous 3 years, including contractual employment of services. Yes ___ No __

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

1. Are you currently an officer or employee of either the Capitol Development Board or the Illinois Toll Highway Authority? Yes ___ No __

2. Are you currently appointed to or employed by any agency of the State of Illinois? If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds $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. _____
_____

3. 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 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 __

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(b) State employment of spouse, father, mother, son, or daughter, including contractual employment for services in the previous 2 years.

Yes ___No __

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

1. Is your spouse or any minor children currently an officer or employee of the Capitol Development Board or the Illinois Toll Highway Authority? Yes ___No __

2. Is your spouse or any minor children currently appointed to or employed by any agency of the State of Illinois? If your spouse or minor children is/are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds $90,420.00, (60% of the Governor's salary as of 7/1/01) provide the name of the 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 than 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 any minor children entitled to receive (i) more than 15% in the aggregate of the total distributable income from 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 State of America, or any unit of local government authorized by the Constitution of the State of Illinois or the statues of the State of Illinois, which office entitles the holder to compensation in excess of the expenses incurred in the discharge of that office currently or in the previous 3 years. Yes ___No __

---

(f) Relationship to anyone holding appointive office currently or in the previous 2 years; spouse, father, mother, son, or daughter. Yes ___No __

---

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

---

## RETURN WITH BID/OFFER

(h) Relationship to anyone who is or was a registered lobbyist in the previous 2 years; spouse, father, mother, son, or daughter. Yes ___ No __

(i) Compensated employment, currently or in the previous 3 years, by any registered election or reelection committee registered with the Secretary of State or any county clerk of the State of Illinois, or any political action committee registered with either the Secretary of State or the Federal Board of Elections.
Yes ___ No __

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

### APPLICABLE STATEMENT

**This Disclosure Form A is submitted on behalf of the INDIVIDUAL named on previous page.**

Completed by: _____
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

**RETURN WITH BID/OFFER**

# ILLINOIS DEPARTMENT OF TRANSPORTATION

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

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

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

**DISCLOSURE OF OTHER CONTRACTS AND PROCUREMENT RELATED INFORMATION**

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

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

**THE FOLLOWING STATEMENT MUST BE SIGNED**

_____
Name of Authorized Representative (type or print)

_____
Title of Authorized Representative (type or print)

_____ _____
Signature of Authorized Representative Date

**RETURN WITH BID**

## SPECIAL NOTICE TO CONTRACTORS

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

## CONSTRUCTION EMPLOYEE UTILIZATION PROJECTION

(a) All bidders on construction contracts shall complete and submit, along with and as part of their bids, a Bidder's Employee Utilization Form (Form BC-1256) setting forth a projection and breakdown of the total workforce intended to be hired and/or allocated to such contract work by the bidder including a projection of minority and female employee utilization in all job classifications on the contract project.

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

(c) The Department of Transportation shall provide to the Department of Human Rights a copy of the contract awardee's Employee Utilization Form, a copy of any required written affirmative action plan, and any written correspondence related thereto. The Department of Human Rights may review and revise any action taken by the Department of Transportation with respect to these requirements.

**RETURN WITH BID**

Illinois Department of Transportation

**Contract No. 83560**
**DUPAGE County**
**Section 94-P4031-00-BR (Wheaton Park District)**
**Project TE-D1(422)**
**Route PEDESTRIAN BIKE PATH**
**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

| TOTAL Workforce Projection for Contract | | | | | | | | | | | | | TABLE B: CURRENT EMPLOYEES TO BE ASSIGNED TO CONTRACT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | MINORITY EMPLOYEES | | | | | | TRAINEES | | | | | | | |
| JOB CATEGORIES | TOTAL EMPLOYEES | | BLACK | | HISPANIC | | *OTHER MINOR. | | APPREN-TICES | | ON THE JOB TRAINEES | | TOTAL EMPLOYEES | | MINORITY EMPLOYEES | |
| | M | F | M | F | M | F | M | F | M | F | M | F | M | F | M | F |
| OFFICIALS (MANAGERS) | | | | | | | | | | | | | | | | |
| SUPERVISORS | | | | | | | | | | | | | | | | |
| FOREMEN | | | | | | | | | | | | | | | | |
| CLERICAL | | | | | | | | | | | | | | | | |
| EQUIPMENT OPERATORS | | | | | | | | | | | | | | | | |
| MECHANICS | | | | | | | | | | | | | | | | |
| TRUCK DRIVERS | | | | | | | | | | | | | | | | |
| IRONWORKERS | | | | | | | | | | | | | | | | |
| CARPENTERS | | | | | | | | | | | | | | | | |
| CEMENT MASONS | | | | | | | | | | | | | | | | |
| ELECTRICIANS | | | | | | | | | | | | | | | | |
| PIPEFITTERS, PLUMBERS | | | | | | | | | | | | | | | | |
| PAINTERS | | | | | | | | | | | | | | | | |
| LABORERS, SEMI-SKILLED | | | | | | | | | | | | | | | | |
| LABORERS, UNSKILLED | | | | | | | | | | | | | | | | |
| TOTAL | | | | | | | | | | | | | | | | |

TABLE C

| TOTAL Training Projection for Contract | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| EMPLOYEES IN TRAINING | TOTAL EMPLOYEES | | BLACK | | HISPANIC | | *OTHER MINOR. | |
| | M | F | M | F | M | F | M | F |
| APPRENTICES | | | | | | | | |
| ON THE JOB TRAINEES | | | | | | | | |

FOR DEPARTMENT USE ONLY

*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**

**PART II. WORKFORCE PROJECTION -** continued

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

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

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

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

**PART III. AFFIRMATIVE ACTION PLAN**

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

B. The undersigned bidder understands and agrees that the minority and female employee utilization projection submitted herein, and the goals and timetable included under an Affirmative Action Plan if required, are deemed to be part of the contract specifications.

Company _____ Telephone Number _____

_____

Address _____

**NOTICE REGARDING SIGNATURE**

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

Signature: _____ Title: _____ Date: _____

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

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

Table B - Include all employees currently employed that will be allocated to the contract work including any apprentices and on-the-job trainees currently employed.

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

**RETURN WITH BID**

## ADDITIONAL FEDERAL REQUIREMENTS

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

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

B. CERTIFICATION, EQUAL EMPLOYMENT OPPORTUNITY:

1. Have you participated in any previous contracts or subcontracts subject to the equal opportunity clause. YES _____ NO _____

2. If answer to #1 is yes, have you filed with the Joint Reporting Committee, the Director of OFCC, any Federal agency, or the former President's Committee on Equal Employment Opportunity, all reports due under the applicable filing requirements of those organizations? YES _____ NO _____

**RETURN WITH BID**

**Contract No. 83560**
**DUPAGE County**
**Section 94-P4031-00-BR (Wheaton Park District)**
**Project TE-D1(422)**
**Route PEDESTRIAN BIKE PATH**
**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) Signature of Owner _____

Business Address _____

_____

---

Firm Name _____

By _____

(IF A CO-PARTNERSHIP) Business Address _____

_____
Name and Address of All Members of the Firm:

_____ _____

---

Corporate Name _____

By _____
Signature of Authorized Representative

(IF A CORPORATION)

_____
Typed or printed name and title of Authorized Representative

Attest _____
Signature

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

---

Corporate Name _____

By _____
Signature of Authorized Representative

(IF A JOINT VENTURE)

_____
Typed or printed name and title of Authorized Representative

Attest _____
Signature

Business Address _____

_____

If more than two parties are in the joint venture, please attach an additional signature sheet.

**RETURN WITH BID**

Illinois Department of Transportation

**Division of Highways**
**Proposal Bid Bond**
(Effective November 1, 1992)

Item No. _____
Letting Date _____

KNOW ALL MEN BY THESE PRESENTS, That We _____

_____

as PRINCIPAL, and _____

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

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

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

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

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

| **PRINCIPAL** | **SURETY** |
|---|---|
| _____ (Company Name) | _____ (Company Name) |
| By: _____ (Signature & Title) | By: _____ (Signature of Attorney-in-Fact) |

**Notary Certification for Principal and Surety**

STATE OF ILLINOIS,
COUNTY OF _____

I, _____, a Notary Public in and for said County, do hereby certify that

_____and _____

(Insert names of individuals signing on behalf of PRINCIPAL & SURETY)

who are each personally known to me to be the same persons whose names are subscribed to the foregoing instrument on behalf of PRINCIPAL and SURETY, appeared before me this day in person and acknowledged respectively, that they signed and delivered said instrument as their free and voluntary act for the uses and purposes therein set forth.

Given under my hand and notarial seal this _____ day of _____, A.D. _____.

My commission expires _____ _____
Notary Public

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

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

# PROPOSAL ENVELOPE

Illinois Department of Transportation

# PROPOSALS

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

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

Submitted By:

| Name: |
|---|
| Address: |
| |
| |
| Phone No. |

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

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

**NOTICE**

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

# CONTRACTOR OFFICE COPY OF CONTRACT SPECIFICATIONS

**NOTICE**

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

**Contract No. 83560**
**DUPAGE County**
**Section 94-P4031-00-BR (Wheaton Park District)**
**Project TE-D1(422)**
**Route PEDESTRIAN BIKE PATH**
**District 1 Construction Funds**

Illinois Department of Transportation

Illinois Department of Transportation

# NOTICE TO BIDDERS

1. **TIME AND PLACE OF OPENING BIDS.** Sealed proposals for the improvement described herein will be received by the Department of Transportation at the Harry R. Hanley Building, 2300 South Dirksen Parkway, in Springfield, Illinois until 10:00 o'clock a.m., January 20, 2006. 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. 83560**
   **DUPAGE County**
   **Section 94-P4031-00-BR (Wheaton Park District)**
   **Project TE-D1(422)**
   **Route PEDESTRIAN BIKE PATH**
   **District 1 Construction Funds**

**Construction of a prefabricated pedestrian truss bridge over the Union Pacific Railroad with earth excavation, drainage, PCC sidewalk, furnished excavation and other incidental work to be completed at the intersection of Manchester Road and the Middle School Driveway to Nepil Avenue.**

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 and LOCAL ROADS AND STREETS RECURRING SPECIAL PROVISIONS.

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

SUPPLEMENTAL SPECIFICATIONS

## RECURRING SPECIAL PROVISIONS

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



## LOCAL ROADS AND STREETS RECURRING SPECIAL PROVISIONS

**SPECIAL PROVISIONS**

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**REVISED**

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| GBSP2 | X | Drilled Shafts | 5/1/01 | 2/7/05 | 37 |
| GBSP3 | | High Performance Shotcrete | 6/7/94 | 1/1/02 | |
| GBSP4 | | Polymer Modified Portland Cement Mortar | 6/7/94 | 1/1/02 | |
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| GBSP12 | X | Drainage System | 6/10/94 | 1/1/02 | 47 |
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| GBSP21 | | Cleaning and Painting Contact Surface Areas of Existing Steel Structures | 6/30/03 | 2/7/05 | |
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| GBSP25 | | Cleaning and Painting Existing Steel Structures | 10/2/01 | 2/7/05 | |
| GBSP26 | | Containment and Disposal of Lead Paint Cleaning Residues | 10/2/01 | 8/18/04 | |
| GBSP28 | | Deck Slab Repair | 5/15/95 | 6/27/05 | |
| GBSP29 | | Bridge Deck Microsilica Concrete Overlay | 5/15/95 | 6/23/03 | |
| GBSP30 | | Bridge Deck Latex Concrete Overlay | 5/15/95 | 6/23/03 | |
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| GBSP35 | | Silicone Bridge Joint Sealer | 8/1/95 | 2/7/05 | |
| GBSP36 | X | Surface Preparation and Painting Req. for Weathering Steel | 11/21/97 | 6/21/04 | 58 |
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| GBSP38 | X | Mechanically Stabilized Earth Retaining Walls. | 2/3/99 | 6/27/05 | 59 |
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| GBSP 45 | | Bridge Deck Thin Polymer Overlay | 5/7/1997 | 3/5/03 | |
| GBSP 46 | | Geotextile Retaining walls | 9/19/2003 | 11/17/03 | |
| GBSP 47 | | High Performance Concrete Structures | 8/5/2002 | 9/10/03 | |
| GBSP 49 | | LRFD Piling | 2/7/05 | | |
| GBSP 50 | | Removal of Existing Non-composite Bridge Decks | 6/21/04 | 2/7/05 | |
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| GBSP 52 | | Porous Granular Embankment (Special) | 9/28/05 | | |

# INDEX LOCAL ROADS AND STREETS SPECIAL PROVISIONS

BDE SPECIAL PROVISIONS
For The January 20 and March 10, 2006 Lettings

The following special provisions indicated by an "x" are applicable to this contract. An * indicates a new or revised special provision for the letting.

| | File Name | PG # | | Special Provision Title | Effective | Revised |
|---|---|---|---|---|---|---|
| | 80099 | | | Accessible Pedestrian Signals (APS) | April 1, 2003 | |
| * | 80156 | 111 | X | Aggregate Shipping Tickets | Jan. 1, 2006 | |
| | 80108 | | | Asbestos Bearing Pad Removal | Nov. 1, 2003 | |
| | 7254I | | | Asbestos Waterproofing Membrane and Asbestos Bituminous Concrete Surface Removal | June 1, 1989 | June 30,1994 |
| | 80128 | 112 | X | Authority of Railroad Engineer | July 1, 2004 | |
| | 80065 | | | Bituminous Base Course/Widening Superpave | April 1, 2002 | Aug. 1, 2005 |
| | 80050 | 113 | X | Bituminous Concrete Surface Course | April 1, 2001 | April 1, 2003 |
| | 80142 | 114 | X | Bituminous Equipment, Spreading and Finishing Machine | Jan. 1, 2005 | |
| | 80066 | | | Bridge Deck Construction | April 1, 2002 | April 1, 2004 |
| | 5026I | | | Building Removal-Case I (Non-Friable and Friable Asbestos) | Sept. 1, 1990 | Aug. 1, 2001 |
| | 5048I | | | Building Removal-Case II (Non-Friable Asbestos) | Sept. 1, 1990 | Aug. 1, 2001 |
| | 5049I | | | Building Removal-Case III (Friable Asbestos) | Sept. 1, 1990 | Aug. 1, 2001 |
| | 5053I | | | Building Removal-Case IV (No Asbestos) | Sept. 1, 1990 | Aug. 1, 2001 |
| | 80118 | | | Butt Joints | April 1, 2004 | April 1, 2005 |
| | 80031 | | | Calcium Chloride Accelerator for Portland Cement Concrete Patching | Jan. 1, 2001 | |
| | 80077 | | | Chair Supports | Nov. 1, 2002 | Nov. 2, 2002 |
| | 80051 | 115 | X | Coarse Aggregate for Trench Backfill, Backfill and Bedding | April 1, 2001 | Nov. 1, 2003 |
| | 80094 | 122 | X | Concrete Admixtures | Jan. 1, 2003 | July 1, 2004 |
| | 80112 | | | Concrete Barrier | Jan. 1, 2004 | April 2, 2004 |
| | 80102 | 127 | X | Corrugated Metal Pipe Culverts | Aug. 1, 2003 | July 1, 2004 |
| | 80114 | 128 | X | Curing and Protection of Concrete Construction | Jan. 1, 2004 | Nov. 1, 2005 |
| | 80146 | 136 | X | Detectable Warnings | Aug. 1, 2005 | |
| | 80029 | 138 | X | Disadvantaged Business Enterprise Participation | Sept. 1, 2000 | June 22, 2005 |
| | 80144 | 146 | X | Elastomeric Bearings | April 1, 2005 | |
| | 31578 | 151 | X | Epoxy Coating on Reinforcement | April 1, 1997 | Jan. 1, 2003 |
| | 80041 | | | Epoxy Pavement Marking | Jan. 1, 2001 | Aug. 1, 2003 |
| | 80055 | 152 | X | Erosion and Sediment Control Deficiency Deduction | Aug. 1, 2001 | Nov. 1, 2001 |
| | 80103 | 153 | X | Expansion Joints | Aug. 1, 2003 | |
| * | 80101 | 154 | X | Flagger Vests | April 1, 2003 | Jan. 1, 2006 |
| | 80079 | 155 | X | Freeze-Thaw Rating | Nov. 1, 2002 | |
| | 80072 | 156 | X | Furnished Excavation | Aug. 1, 2002 | Nov. 1, 2004 |
| | 80054 | 157 | X | Hand Vibrator | Nov. 1, 2003 | |
| | 80147 | | | Illuminated Sign | Aug. 1, 2005 | |
| | 80109 | | | Impact Attenuators | Nov. 1, 2003 | |
| | 80110 | | | Impact Attenuators, Temporary | Nov. 1, 2003 | April 1, 2004 |
| | 80104 | 158 | X | Inlet Filters | Aug. 1, 2003 | |
| | 80080 | | | Insertion Lining of Pipe Culverts | Nov. 1, 2002 | Aug. 1, 2003 |
| | 80150 | | | Light Emitting Diode (LED) Pedestrian Signal Head | Nov. 1, 2005 | |
| | 80067 | | | Light Emitting Diode (LED) Signal Head | April 1, 2002 | Nov. 1, 2005 |
| | 80081 | | | Lime Gradation Requirements | Nov. 1, 2002 | |
| | 80133 | | | Lime Stabilized Soil Mixture | Nov. 1, 2004 | April 1, 2005 |
| | 80045 | | | Material Transfer Device | June 15, 1999 | March 1, 2001 |
| | 80137 | | | Minimum Lane Width with Lane Closure | Jan. 1, 2005 | |
| | 80138 | | | Mulching Seeded Areas | Jan. 1, 2005 | |
| | 80082 | | | Multilane Pavement Patching | Nov. 1, 2002 | |
| | 80129 | | | Notched Wedge Longitudinal Joint | July 1, 2004 | |
| | 80069 | 160 | X | Organic Zinc-Rich Paint System | Nov. 1, 2001 | Aug. 1, 2003 |

| | File Name | PG # | | Special Provision Title | Effective | Revised |
|---|---|---|---|---|---|---|
| | 80116 | 164 | X | Partial Payments | Sept. 1, 2003 | |
| | 80013 | | | Pavement and Shoulder Resurfacing | Feb. 1, 2000 | July 1, 2004 |
| | 53600 | | | Pavement Thickness Determination for Payment | April 1, 1999 | Jan. 1, 2004 |
| * | 80022 | 165 | X | Payments to Subcontractors | June 1, 2000 | Jan. 1, 2006 |
| | 80155 | 167 | X | Payrolls and Payroll Records | Aug. 10, 2005 | |
| | 80130 | 169 | X | Personal Protective Equipment | July 1, 2004 | |
| * | 80148 | | | Planting Woody Plants | Jan. 1, 2006 | |
| | 80134 | | | Plastic Blockouts for Guardrail | Nov. 1, 2004 | |
| | 80073 | | | Polymer Modified Emulsified Asphalt | Nov. 1, 2002 | |
| | 80119 | | | Polyurea Pavement Marking | April 1, 2004 | |
| | 80124 | | | Portable Changeable Message Signs | Nov. 1, 1993 | April 2, 2004 |
| | 80139 | 170 | X | Portland Cement | Jan. 1, 2005 | Nov. 1, 2005 |
| | 80083 | 171 | X | Portland Cement Concrete | Nov. 1, 2002 | |
| | 80036 | | | Portland Cement Concrete Patching | Jan. 1, 2001 | Jan. 1, 2004 |
| | 419 | 172 | X | Precast Concrete Products | July 1, 1999 | Nov. 1, 2004 |
| | 80120 | | | Precast, Prestressed Concrete Members | April 1, 2004 | |
| | 80084 | 173 | X | Preformed Recycled Rubber Joint Filler | Nov. 1, 2002 | |
| | 80015 | | | Public Convenience and Safety | Jan. 1, 2000 | |
| | 80121 | | | PVC Pipeliner | April 1, 2004 | April 1, 2005 |
| | 80122 | | | Railroad, Full-Actuated Controller and Cabinet | April 1, 2004 | |
| * | 3426I | | | Railroad Protective Liability Insurance | Dec. 1, 1986 | Jan. 1, 2006 |
| * | 80157 | 174 | X | Railroad Protective Liability Insurance (5 and 10) | Jan. 1, 2006 | |
| | 80105 | | | Raised Reflective Pavement Markers (Bridge) | Aug. 1, 2003 | |
| | 80011 | 176 | X | RAP for Use in Bituminous Concrete Mixtures | Jan. 1, 2000 | April 1, 2002 |
| * | 80151 | 180 | X | Reinforcement Bars | Nov. 1, 2005 | Nov. 2, 2005 |
| | 80032 | | | Remove and Re-Erect Steel Plate Beam Guardrail and Traffic Barrier Terminals | Jan. 1, 2001 | Jan. 1, 2005 |
| | 80085 | | | Sealing Abandoned Water Wells | Nov. 1, 2002 | |
| | 80131 | | | Seeding and Sodding | July 1, 2004 | Aug. 1, 2005 |
| | 80152 | 182 | X | Self-Consolidating Concrete for Cast-In-Place Construction | Nov. 1, 2005 | |
| | 80132 | 188 | X | Self-Consolidating Concrete for Precast Products | July 1, 2004 | Nov. 1, 2005 |
| | 80096 | | | Shoulder Rumble Strips | Jan. 1, 2003 | |
| | 80140 | | | Shoulder Stabilization at Guardrail | Jan. 1, 2005 | |
| | 80135 | | | Soil Modification | Nov. 1, 2004 | April 1, 2005 |
| | 80070 | | | Stabilized Subbase and Bituminous Shoulders Superpave | April 1, 2002 | Aug. 1, 2005 |
| | 80127 | | | Steel Cost Adjustment | April 2, 2004 | July 1, 2004 |
| | 80153 | | | Steel Plate Beam Guardrail | Nov. 1, 2005 | |
| | 80143 | 190 | X | Subcontractor Mobilization Payments | April 2, 2005 | |
| | 80086 | 191 | X | Subgrade Preparation | Nov. 1, 2002 | |
| | 80136 | | | Superpave Bituminous Concrete Mixture IL-4.75 | Nov. 1, 2004 | |
| | 80010 | 192 | X | Superpave Bituminous Concrete Mixtures | Jan. 1, 2000 | April 1, 2004 |
| | 80039 | | | Superpave Bituminous Concrete Mixtures (Low ESAL) | Jan. 1, 2001 | April 1, 2004 |
| | 80075 | | | Surface Testing of Pavements | April 1, 2002 | Nov. 1, 2005 |
| | 80145 | | | Suspension of Slipformed Parapets | June 11, 2004 | |
| | 80092 | | | Temporary Concrete Barrier | Oct. 1, 2002 | Nov. 1, 2003 |
| | 80087 | 199 | X | Temporary Erosion Control | Nov. 1, 2002 | |
| | 80008 | | | Temporary Module Glare Screen System | Jan. 1, 2000 | |
| | 80106 | | | Temporary Portable Bridge Traffic Signals | Aug. 1, 2003 | |
| | 80098 | | | Traffic Barrier Terminals | Jan. 1, 2003 | |
| | 5729I | 201 | X | Traffic Control Deficiency Deduction | April 1, 1992 | Jan. 1, 2005 |
| | 20338 | 202 | X | Training Special Provisions | Oct. 15, 1975 | |
| | 80107 | | | Transient Voltage Surge Suppression | Aug. 1, 2003 | |
| | 80123 | 205 | X | Truck Bed Release Agent | April 1, 2004 | |
| | 80154 | | | Turf Reinforcement Mat | Nov. 1, 2005 | |

| | File Name | PG # | | Special Provision Title | Effective | Revised |
|---|---|---|---|---|---|---|
| | 80149 | | | Variable Spaced Tining | Aug. 1, 2005 | |
| | 80048 | 206 | X | Weight Control Deficiency Deduction | April 1, 2001 | Aug. 1, 2002 |
| | 80090 | | | Work Zone Public Information Signs | Sept. 1, 2002 | Jan. 1, 2005 |
| * | 80125 | | | Work Zone Speed Limit Signs | April 2, 2004 | Jan. 1, 2006 |
| | 80126 | | | Work Zone Traffic Control | April 2, 2004 | Nov. 1, 2005 |
| | 80097 | | | Work Zone Traffic Control Devices | Jan. 1, 2003 | Nov. 1, 2004 |
| | 80071 | 208 | X | Working Days | Jan. 1, 2002 | |

The following special provisions have been **deleted** from use:

80113 Curb Ramps for Sidewalk This special provision has been replaced by the BDE Special Provision, "Detectable Warnings".

The following special provisions require additional information from the designer. The additional information needs to be included in a separate document attached to this check sheet. The Project Development and Implementation section will then include the information in the applicable special provision. The Special Provisions are:

- Building Removal-Case I
- Building Removal-Case II
- Building Removal-Case III
- Building Removal-Case IV
- DBE Participation
- Material Transfer Device
- Railroad Protective Liability Insurance
- Training Special Provisions
- Working Days

# SPECIAL PROVISIONS

The following Special Provisions supplement the Illinois Department of Transportation (IDOT) "Standard Specifications for Road and Bridge Construction", adopted January 1, 2002, (hereinafter referred to as the Standard Specification); the latest edition of the "Manual on Uniform Traffic Control Devices for Streets and Highways", and the "Manual of Test Procedures for Material" in effect on the date of invitation for bids; and the "Supplemental Specifications and Recurring Special Provisions" indicated on the Check Sheet included herein, and the "Guide Bridge Special Provisions" indicated on the Check Sheet included herein, which apply to and govern the construction of the Pedestrian/Bicycle Path Bridge over the Union Pacific Railroad of conflict with any part or parts of said specifications, the said Special Provisions shall take precedence and shall govern.

## Location of Improvement

This project begins at the intersection of Manchester Road and the Monroe Middle School driveway and extends northerly over the Union Pacific Railroad then extends easterly where it connects to Nepil Avenue.

## Description of Improvement

The project consists of bituminous patch construction, mechanically stabilized retaining wall construction, Bridge Construction and a Pedestrian Truss Superstructure. The work to be performed under this contract includes earth excavation, bridge construction, drainage bituminous pavements, prefabricated pedestrian truss, furnished excavation and all incidental and collateral work necessary to complete the project as shown on the plans and as described herein.

## Special Provision - Curb Removal (Partial)

**Curb Removal (Partial).** This work shall consist of reducing the height of barrier curb by means of horizontally sawing the curb down to conform to the cross section for "Depressed Curb Adjacent to Curb Ramp Accessible to the Disabled" shown on Standard 606001. The locations of the curb to be depressed shall be shown on the plans and/or as directed by the Engineer.

The equipment used for the sawing shall meet the approval of the Engineer.

This work will be paid for at the contract unit price per foot for CURB REMOVAL (PARTIAL), which price shall be payment in full for performing the work to the Engineer's satisfaction.

## SPECIAL PROVISION – DUCTILE IRON WATER MAIN

**General.** All water main installation work shall meet the approval of the City of Wheaton Water Division. Unless otherwise specified herein, the materials used shall conform to the City's Standards and Specifications.

**Ductile Iron Water Main.** This item shall be constructed in accordance with the applicable portions of Section 561 of the "Standard Specifications" and the "Water and Sewer Main Specifications".

The water main and fittings shall be Class 52 ductile cast iron, cement lined, with push-on joints, polyethylene encased with taped joints, of the size as designated in the plans, and shall conform to the latest AWWA Standards C151, C111 and C104.

Wherever water is encountered in the trench, it shall be removed during pipelaying and jointing operations. Provisions shall be made to prevent floating of the pipe. Any dewatering of the trenches shall be considered incidental. At no time shall trench water be allowed to enter the water main.

All types of pipe shall be handled in such a manner as to prevent damage to the pipe or coating. Accidental damage to the pipe or coating shall be repaired to the satisfaction of the Engineer, or be removed from the job, and the methods of handling shall be corrected to prevent further damage when called to the attention of the Contractor.

The pipe shall be inspected by the Engineer for defects while suspended above grade.

Dirt or other foreign material shall be prevented from entering the pipe or pipe joint during handling or laying operations, and any pipe or fitting that has been installed with dirt or foreign material therein shall be removed, cleaned and relaid. At times when pipe laying is not in progress, the open ends of the pipe shall be closed by a watertight plug, or by other means approved by the Engineer, to ensure absolute cleanliness inside the pipe. All cutting of existing water main pipe for the insertion of valves, tees or other fitting shall be performed without damage to the pipe or pipe lining, and so as to leave a smooth end at right angles to the axis of the pipe. Any damaged water main shall be re-cut and replaced by the Contractor at his sole expense.

Ductile iron pipe, pipe fittings and valve bodies, as well as cast iron valve boxes, shall be wrapped with polyethylene film, a minimum of 5 mils in thickness. The entire wrap on any pipe or fitting shall have a single seam secured by waterproof tape. Polyethylene shall overlap a minimum of 24 inches at seams. The wrap shall enclose the entire pipe or fitting and shall be secured to the adjoining pipe barrel by waterproof tape tightened securely around the juncture of the wrap and the pipe barrel.

A canvas strap shall be used to lower the water main into the trench to avoid damaging the polyethylene film.

The Contractor shall install utility line marking tap along the centerline of the entire pipeline. The tape shall be four to six inches below the base course in roadway areas, and be 20 to 28 inches below existing or proposed ground surface in other areas.

The six-inch wide tape shall be aluminum foil encased in an impervious Mylar plastic coating on both sides, resistant to acid, alkali and corrosion and detectable with radio-type locators to a buried depth of three feet. The words "Caution – Water Main Buried Below" shall be continuously, reverse-printed on the safety Precaution blue tape with striping. The tape shall be Lineguard, Inc., Type III SUPER TUFF, CAUTION STRIPED, Linetec, Inc. or an approved equal.

Basis of Payment. This work will be paid for at the contract unit price per foot for DUCTILE IRON WATER MAIN, of the diameter specified, measured in place. This price shall include the cost of all pipe, joint materials, fittings (tees, bends, plugs, etc.), hydrostatic pressure tests, leakage tests, disinfecting of the water main, excavation, polyethylene wrapping and utility line marking tape.

The item shall also include any and all items such as Wheaton's approved corporation stops (for testing), water pumps, gauges, meters and laboratory test costs, and all other items necessary to complete this work as specified.

## SPECIAL PROVISION – TEMPORARY CONSTRUCTION FENCE

**Temporary Construction Fence.** This item shall consist of erecting and maintaining temporary fencing at locations shown on the plans, as designated in these Special Provisions and/or as directed by the Engineer. The fence shall be similar to plastic or wood lath snow fence, and shall be a minimum of 4 feet in height with the stakes placed a maximum of 15 feet apart. No construction equipment will be permitted past the temporary fence without the expressed approval of Engineer.

This work will be paid for at the contract unit price per foot for TEMPORARY CONSTRUCTION FENCE, which price shall include furnishing, erection, maintenance and subsequent removal of the fencing, which shall become the property of the Contractor upon completion of the improvement.

## SPECIAL PROVISION – MAINTENANCE OR EROSION CONTROL SYSTEM

## TEMPORARY EROSION CONTROL SYSTEMS

This work shall consist of developing a stormwater pollution prevention plan, constructing and maintaining temporary erosion control systems as shown in the plans, or as directed by the Engineer during the life of the contract, to control erosion and sediment damage to the roadway, adjacent properties and water resources. This work shall be done in accordance with Section 280 of the Standard Specifications and as described herein.

**Requirements**

1. All temporary erosion control systems will be installed and functional before any earthwork or storm sewer work proceeds on-site.

2. A perimeter erosion barrier will be placed around the base of any stockpile.

3. Should the volume, velocity, sediment load, or peak flow rates of stormwater runoff temporarily increase during construction, additional measures to protect adjacent properties shall be undertaken.

4. Storm sewer inlets shall be protected as shown in the temporary erosion control systems details following installation.

5. All stripped surface areas shall be protected from soil erosion by September 1, by either the placement of final seeding, sodding or temporary seeding.

6. The Contractor shall assume responsibility for inspection and maintenance of all temporary erosion control systems. Inspections will be no less then weekly or with in one day of every rain storm that produces runoff. A log or diary of these observation will be maintained for review by the Engineer.

7. The Contractor will submit all temporary erosion control systems inspection report to the Engineer on a weekly basis.

**Stormwater Pollution Prevention Plan**

The Contractor must submit to the Engineer a Stormwater Pollution Prevention Plan for this project. The plan must be submitted at the pre-construction meeting.

**A.** The Stormwater Pollution Prevention Plan must clearly identify for each measure identified in the Plan, the contractor(s) or subcontractor(s) that will implement the measure. All contractors and subcontractors identified in the Plan must sign a copy of the Certification Statement in paragraph B. of this Plan. All certifications must be included in the Stormwater Pollution Prevention Plan except for Owners that are acting as contractor.

**B.** Certification Statement. All contractors and subcontractor identified in a Stormwater Pollution Prevention Plan shall sign a copy of the following Certification Statement before conducting any service at the site identified in the Stormwater Pollution Prevention Plan:

"I, certify under penalty of law that I understand the terms and conditions of the general National Pollutant Discharge Elimination System (NPDES) permit (ILR100000) that authorizes the stormwater discharges associated with industrial activity from the construction site identified as part of this certification".

The certification must include the name and title of the person providing the signature; the name, address and telephone number of the contracting firm, the address (or other identifying description) of the site; and the date the certification is made.

## INSPECTION

Qualified personnel (provided by the Contractor) shall inspect disturbed areas of the construction site that have not been finally stabilized, structural control measures, and locations where vehicles enter or exit the site at least once every seven calendar days and within 24 hours of the end of a storm that is 0.5 inches or greater or equivalent snowfall.

**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 the plan and pollution prevention measures identified in the plan shall be revised as appropriate as soon as practicable after such inspection. such modifications shall provide for timely implementation of any changes to the plan within seven (7) calendar days following the inspection.

**C.** A report summarizing the scope of the inspection, name(s) and qualifications of personnel making the inspection, the date(s) of the inspection, major observations relating to the implementation of the Stormwater Pollution Prevention Plan, and actions taken shall be made and retained as part of the Stormwater Pollution Prevention Plan for at least three years after the date of inspection.

**D.** The Contractor shall complete and submit within five (5) days an "Incidence of Non-Compliance" (ION) report for any violation of the Stormwater Pollution Prevention Plan observed during an inspection conducted, including those not required by the Plan. Submission shall be on forms provided by the Agency and include specific information on the cause of non-compliance, actions which were taken to prevent any further causes of non-compliance, and a statement detailing any environmental impact which may have resulted from the non-compliance.

## MAINTENANCE OF TEMPORARY EROSION CONTROL SYSTEMS

The Contractor shall be responsible for the initial construction of the erosion control measures shown in the plans, and shall be responsible for the maintenance of said facilities until the completion of the final seeding operations. The Contractor shall request in writing a release from the City for maintenance of the site upon completion of his/her work. The City shall issue said release within 15 days of the Contractor's request providing the Contractor has completed all work required under the contract.

MAINTENANCE OF TEMPORARY EROSION CONTROL SYSTEMS will not be directly measured for payment. Payment therefore will be made at the Contract lump sum price, MAINTENANCE OF EROSION CONTROL SYSTEM which payment shall constitute full compensation for Stormwater Pollution Prevention Plan, all labor, equipment, materials and incidentals necessary to maintain, clean, the temporary erosion control systems.

## SPECIAL PROVISION – SEEDING, MESIC PRAIRIE

This work shall consist of preparing the seed bed and placing the seed and other materials required in seeding operations. All work shall meet the requirements of Section 250 of the Standard Specifications except as herein modified. The required seeding mixture and location shall be as indicated on the plans.

This work will be paid for at the contract unit price per acre for SEEDING, MESIC PRAIRIE.

## SPECIAL PROVISION – SEEDING, WET PRAIRIE

This work shall consist of preparing the seed bed and placing the seed and other materials required in seeding operations. All work shall meet the requirements of Section 250 of the Standard Specifications except as herein modified. The required seeding mixture and location shall be as indicated on the plans.

This work will be paid for at the contract unit price per acre for SEEDING, WET PRAIRIE.

## SPECIAL PROVISION – SUPPLY AND INSTALL COLD CATHODE LIGHTING SYSTEM

## SUPPLY AND INSTALL COLD CATHODE LIGHTING SYSTEM

**Description:**

This work shall consist of supplying and installing a cold cathode lighting system on the bridge fence railing and the pedestrian truss superstructure all in accordance with the manufacturers specifications and as shown on the plans.

**General:**

1. Each light fixture shall have a light bulb with a daylight color temperature of 4500K.

2. Each light fixture housing shall be made of 20 gauge Galvanized mild to half-hard steel.

3. Three support brackets will be used for each fixture and shall be 14 gauge mile to half-hard steel. Each bracket shall be four inches wide.

4. All exposed fasteners for the fixtures, the brackets, the conduit runs and the transformer enclosures shall be a tamper resistant grade.

5. The lens at the bottom of each lends shall be polycarbonate 1/8" thick.

6. The entire fixture and bracket assembly shall be BOCA code engineered to withstand a snow load of 30 p.s.f. and shall be engineered to withstand a continuous 90 m.p.h. wind.

9. The entire fixture and bracket assembly shall be acid etched primed and painted with two coats of epoxy paint, the inside of the fixture shall be painted a semi-gloss white and the outside shall be painted to match the safety rail structure. The bracket shall be painted to match the safety rail structure.

10. Each length of the fixture shall be made in 7'11" lengths, or as required by the lost spacing and shall have a lumen output of 3,600 lumens.

11. The entire Cold Cathode lighting system shall have a warranty of two years of shipment date. If any failure occurs which does not involve physical damage or power supply concerns the manufacturer will send a crew to repair it.

12. The Cold Cathode Light fixture manufacturer must be UL listed for Electric Discharge Lighting Systems, Cold Cathode (IFAY) as a factory.

13. Each Cold Cathode light shall be instant on/off with no ramp up to full brightness.

14. Every transformer used (one transformer for every six fixtures) shall be UL listed.

15. Color of bulbs to be determined by the Wheaton Park District.

Potential manufacturer includes but is not limited to:

Square 1 Precision Lighting, Inc.
4300 West North Avenue
Stone Park, IL 60165
708-343-1500, Fax 708-343-1562

This work will be paid for at the contract unit price lump sum for Supply and SUPPLY AND INSTALL COLD CATHODE LIGHTING SYSTEM.

**Submittals**

Prior to beginning construction or fabrication, the contractor shall submit eight (8) sets of shop drawings for review and approval.

**Installation**

**Section A**

**Determining Dimensions & Construction Patterns**

1. Begin by taking the exact overall length of the area covered by the cold cathode installation. The dimensions are to be recorded on the plan or elevation drawings, then forwarded to the manufacturer for the preparation of installation instructions, drawings, and the fabrication of the cold cathode lamps.

2. When exact field dimensions cannot be accurately obtained, or when the cold cathode lamps are intended to be a patterned shape or curve, construct and provide the manufacturer with a sample pattern representative of the condition.

   Construct the pattern by tracing the actual field condition on a 1/8 inch plywood, masonite, or particle board surface. Do not use paper or cardboard. Cut the traced pattern out and verify the cut and fit with the actual field condition. Label each section of the pattern on the pattern and indicate the location on the plans and/or elevation drawings. Forward the patterns and the drawings to the manufacturer for the preparation of installation instructions, drawings and the fabrication of the cold cathode lamps.

   The patterns along with specific installation instructions will be returned to the installing contractor for use with the installation of the lampholders and the cold cathode lamps.

3. Upon the installing contractor's receipt of the installation instructions, drawings, and patterns, verify the exact field dimension(s) and fit of the pattern with actual job site conditions. Compare actual field dimensions with the dimensions indicated in the cold cathode plan and elevation drawings. All field dimensions are to correspond with the dimensions indicated in the drawings. When actual field dimensions do not correspond with the drawing dimensions, do not continue with the installation. Contact the manufacturer and indicate the discrepancies.

## Section B

## MOUNTING THE TRANSFORMER OR BALLAST IN THE CABINET HOUSING:

1. With the transformer housing positioned in the upright position (removable top up), place the transformer in the cabinet with the high voltage terminals (2) inches, minimum, away from the cabinet housing's wall. Provide a minimum separation of (1 1/2) inches for the high voltage terminal wiring. Place one non-terminal side of the transformer against the side wall of the housing (the transformer housing will provide a heat sink to further heat dissipation and optimize the operation of the transformer).

2. With the transformer positioned properly, mark and drill (1/4) inch holes for the mounting bolts. Remove all metal debris from the cabinet housing. With the bolts, nuts and washers that are provided with transformer, secure the transformer to the housing. Tighten each bolt and nut to secure the transformer from any movement or vibration. When required, mount the neoprene vibration isolation pads between the transformer and the housing.

3. When mounting ballasts, center the ballast within the cabinet housing. With the ballast positioned properly, mark and drill (1/4) inch holes for the mounting bolts. Remove all metal debris from the cabinet housing. With the bolts, nuts and washers that are provided, secure the transformer to the housing.

   Tighten each bolt and nut to secure the ballast from any movement or vibration. When required, mount the neoprene vibration isolation pads between the transformer and the housing .

## Section C

## DETERMINING TRANSFORMER OR BALLAST LOCATIONS & CONDUIT RUNS:

[Refer to Instruction and Installation Drawings]

1. Locate the transformer or ballast and housing in an accessible ventilated location as close to the feed lampholders as construction conditions will permit. The ambient temperature of the mounting location shall not exceed 100"F.

   Keep the secondary GTO leads as short as possible and equally distant from each terminating end lampholder. The maximum distance from the transformer or ballast to the terminating lampholder are as follows:

   CONNECTION TYPE

   | | |
   |---|---|
   | a. Non-Metallic Conduit | 30 feet max |
   | b. Aluminum Conduit | 30 feet max |
   | c. EMT Conduit | 20 feet max |

2. Each transformer or ballast housing will have a minimum of (3) conduit connections. They are as follows:

   a. One primary conduit from the 120VAC source.

   b. Two secondary conduits from the terminating lampholders. Each conduit proceeds from the transformer to a terminating lampholder. See SECTION J for important installation instructions.

3. Match each transformer or ballast with its proper location. Each transformer or ballast is labeled and the label markings are indicated accordingly on the installation drawings.

4. From the 120VAC dedicated power source and circuit breaker, connect the primary conduit for the transformer directly to the primary side of the transformer or ballast housing. When a local disconnect switch or circuit breaker is not mounted on the transformer or ballast enclosure, connect the primary conduit to the disconnect switch or circuit breaker first, then to the primary side of the transformer or ballast housing. All conduit, fittings and junction boxes shall be suitable and listed for their rated use.

**Section D**

**MOUNTING THE TRANSFORMER OR BALLAST ENCLOSURE HOUSING:**
[Refer to Instruction and Installation Drawings]

1. With the transformer properly mounted in the enclosure housing, place the enclosure housing in the upright position with the primary side facing the primary feeder conduit and the secondary side facing the high-voltage GTO cable conduits.

2. Secure the transformer and housing to the mounting surface with screw or bolt fasteners using the (1/2) inch spacer blocks. The spacer blocks will provide ventilation to the underside of the enclosure housing and reduce the transmission of vibration to the mounting surface.

   Position the enclosure housing spacer blocks between the cabinet housing and the mounting surface and place the fasteners through the holes in the spacer block. Secure the enclosure housing to the mounting surface so that each fasting point is capable of supporting the weight of the assembly. The assembly must be supported with two fasteners minimum. Four fasteners are recommended.

3. With the enclosure housing securely mounted in place, connect the primary and secondary conduits.

## Section E

**PRIMARY WIRING:**
[Refer to Instruction and Installation Drawings]

1. With the transformer or ballast enclosure housing securely in place and the primary and secondary conduits connected, verify that 120VAC branch power supply is disconnected at the electrical panel's circuit breaker. Install the primary wiring as indicated in the installation drawings.

2. Connect the primary feed (BLACK wire) from the electrical panel's circuit breaker to the primary side of the local disconnect switch or circuit breaker. Connect the load wire (RED wire) to the load side of the disconnect switch or circuit breaker, then connect the load wire to the primary terminal of the transformer or ballast.

3. Connect the neutral wire (WHITE wire) to the neutral terminal of the transformer or ballast.

4. Connect the ground wire (GREEN wire) to the enclosure housing's ground terminal and properly ground the system.

## Section F

**DETERMINING LAMPHOLDER LOCATIONS:**
[Refer to Instruction and Installation Drawings]

1. All lamp holders shall be located so that the lamps are kept a minimum of (1) inch away from all metal surfaces.

2. All lampholders shall be located according to the dimensions indicated on the Instruction and Installation Drawings or as indicated on the field template.

3. Terminating lampholders are located at the beginning and the end of the cold cathode lamp system(s). Intermediate lampholders are located between individual lamp runs within the system(s).

## Section G

**INSTALLATION OF LAMPHOLDERS:**
[Refer to Instruction and Installation Drawings]

1. Position the lampholders according to the dimensions indicated on the Instruction and Installation Drawings or as indicated on the field template. Position lamp holders accurately maintaining a (1/16) inch maximum tolerance. Any greater tolerance will result in the lamps not fitting into the lampholders.

2. With fasteners suitable for the mounting surface, i.e.: screws or bolts, mount each lampholder securely into position using two fasteners per lampholder.

## Section H

**INSTALLATION OF INTERFEED CONDUIT, GTO CABLE & WIRING CONNECTIONS:**
[Refer to Instructions and Installation Drawings]

1. For cold cathode lighting systems that contain two or more sections of lamps that are separated from each other, an interfeed connection is required.

2. From the last terminating lampholder and junction box of one section of the system, install one conduit run to the last terminating lampholder and junction box of the second section of the system. Keep the conduit (6) inches away from all other conduits. Install one high voltage GTO cable in the interfeed conduit. Do not use any wire/cable pulling compounds.

3. Connect one end of the GTO cable to the terminal screw inside one terminating lampholder then connect the opposite end to the second terminating lampholder.

4. When using metallic conduit for interfeed connections the conduit must be grounded (bonded) to the transformer enclosure housing.

## Section J

**INSTALLATION OF SECONDARY CONDUIT, GTO CABLE & SECONDARY WIRING CONNECTIONS:**[Refer to Instruction and Installation Drawings]

1. In systems incorporating junction boxes, as in illustrations 3 & 8, run one conduit from the transformer enclosure to the junction box of each terminating lampholder. Maintain a distance of (6) inches minimum between secondary conduits and all other conduits, as well as other parallel, ferrous structures. Install one GTO cable per conduit only. Use absolutely no wire/cable pulling compounds. Connect the end of the GTO cable to the terminal screw inside the terminating lampholder. Replace the porcelain cover, and nylon cap nut.

2. In systems incorporating no junction box, as in illustration 6, run one conduit from the transformer enclosure to within (3) feet of each terminating lampholder. Maintain a distance of (6) inches minimum between secondary conduits and all other conduits, as well as other parallel, ferrous structures. Install one GTO cable per conduit only. Use absolutely no wire or cable pulling compounds. Attach aluminum flexible conduit to then lampholder end of conduit run. Pass this conduit a small way through the wall surface. Install a nylon flexible conduit connector, slide a length of dielectric carrier tubing (over the GTO) to the connector. The dielectric carrier tubing extends from the nylon connector and passes through the socket cable entry hole. Connect the end of the GTO cable to the terminal screw inside the terminating lampholder. Replace the porcelain cover, and nylon cap nut.

3. In systems incorporating P-K housings, pull GTO through all associated parts, and hex-crimp the spring assembly rivet to the end. Install the GTO strain relief. Retract the GTO so that the spring assembly is properly seated in the glass housing. Secure the GTO conduit (or flexible conduit) directly to the P-K housing.

**Method of Measurement**

The Cold Cathode Lighting System shall not be measured as individual units but as a complete lighting system. The system will begin at Station 0+50 and end at Station 22+31.5. It will also include lighting along the stair hand rail from the top of the stairs to the bottom of the stairs at approximately Station 19+25

The system will start at the junction boxes indicated on the plans.

**Basis of Payment**

This work will be paid for at the contract unit price lump sum for SUPPLY AND INSTALL COLD CATHODE LIGHTING SYSTEM.

## SPECIAL PROVISION – TEMPORARY AGGREGATE

## TEMPORARY AGGREGATE

This work shall consist of constructing and maintaining a 6" CA-6 aggregate surface course for the temporary widening along the existing bituminous path north of the middle school as shown on the plans or as directed by the Engineer.

This work will be paid for at the contract unit price per ton for TEMPORARY AGGREGATE which price shall include all costs of furnishing, placing, removing and disposing of the aggregate upon completion of the project.

## SPECIAL PROVISION – BICYCLE RAILING

### BICYCLE RAILING

This work shall consist of fabricating and installing a bicycle railing in accordance with the applicable portions of Section 509 of the Standard Specifications and the plan details or as directed by the Engineer.

This work will be paid for at the contract unit price per foot for BICYCLE RAILING.

**SPECIAL PROVISION -**
**BITUMINOUS CONCRETE SURFACE COURSE SUPERPAVE**
**BITUMINOUS CONCRETE BINDER COURSE SUPERPAVE**

**Bituminous Concrete Surface Course, Superpave, Mix "C", N50**
**Bituminous Concrete Binder Course, Superpave, IL-19.0, N50**

This work shall consist of constructing one or more bituminous concrete binder courses and a bituminous concrete surface course on a prepared base. The work shall be in accordance with the applicable portions of Section 406 of the Standard Specifications and in conformance with the QC/QA and Superpave Specifications at the locations and thicknesses shown on the plans.

The work will be paid for at the contract unit price per ton placed for

BITUMINOUS CONCRETE SURFACE COURSE, SUPERPAVE, MIX "C", N50
BITUMINOUS CONCRETE BINDER COURSE, SUPERPAVE, IL-19.0, N50

## SPECIAL PROVISION – SANITARY MANHOLES TO BE ADJUSTED

## SANITARY MANHOLES TO BE ADJUSTED

This work shall consist of adjusting sanitary manholes in accordance with the applicable portions of Section 602 of the Standard Specifications and

1. The frame lip shall be cleaned of all mud and debris to provide a watertight seal between the frame and the manhole cover gasket.

2. There must be "EZ-Stick" between the frame and adjusting rings and between the adjusting rings and the cone section.

This work will be paid for at the contract unit price each for SANITARY MANHOLES TO BE ADJUSTED.

## SPECIAL PROVISION – RAILROAD FLAGGER

## RAILROAD FLAGGER

This item shall consist of providing a railroad flagger in accordance with the applicable portions of ART. 107.12 of the Standard Specifications.

This work will be paid for in accordance with Article 109.04.

## SPECIAL PROVISION – DRAINAGE RESTRICTOR

### DRAINAGE RESTRICTOR

This item shall consist of fabricating and installing a drainage restrictor at the location shown on the plans and as indicated in the plan detail or as directed by the Engineer.

This work will be paid for at the contract unit price per each for DRAINAGE RESTRICTOR which price shall include the fabrication and installation of the restrictor.

## SPECIAL PROVISION – STABILIZED CONSTRUCTION ENTRANCE

## STABILIZED CONSTRUCTION ENTRANCE

This item shall consist of installing and maintaining a stabilized construction entrance at the location shown on the plans and as indicated in the plan detail or as directed by the Engineer.

This work will be paid for at the contract unit price per square yard for STABILIZED CONSTRUCTION ENTRANCE which price shall include the installation, maintenance and subsequent removal of the entrance upon completion of the improvement.

## SPECIAL PROVISION – RAILROAD PROTECTIVE LIABILITY INSURANCE

## RAILROAD PROTECTIVE LIABILITY INSURANCE

The contractor will be required to carry Railroad Protective Liability and Property Damage Liability Insurance in accordance with Article 107.11 of the Standard Specifications. The limits of liability shall be in accordance with Article 107.11 of the Standard Specifications unless otherwise noted. A separate policy is required for each railroad indicated below unless otherwise noted.

## UNION PACIFIC RAILROAD

Basis of Payment. The cost for providing insurance, as noted above, will be paid for at the contract unit price per Lump Sum for RAILROAD PROTECTIVE LIABILITY INSURANCE.

APPROVAL OF INSURANCE: The ORIGINAL and one CERTIFIED copy of each required policy shall be submitted to ENGINEER OF DESIGN, ILLINOIS DEPARTMENT OF TRANSPORTATION, 2300 SOUTH DIRKSEN PARKWAY, SPRINGFIELD, ILLINOIS 62764 for approval. The contractor will be advised when the Department has received approval of the insurance from the railroad(s). Before any work begins on railroad right-of-way, the Contractor shall submit to the Resident Engineer evidence that the required railroad protective liability insurance has been approved by the railroad(s). The Contractor shall also provide the Resident Engineer with expiration date of each required policy.

## SPECIAL PROVISION – PHOTO CELL

### PHOTOCELL

This work will consist of furnishing and installing a photoelectric control, dual voltage 120/240, locking type (Twist lock) on the Street Lighting Controller.

PHOTO-CELL: Photo-electric control, Dual Volt, Locking type (Twist lock) must meet or exceed the following requirements:

1. ANSI C136.10-1988.
2. Line voltage Operating Range of 105 to 300 VAC at 60 Hz
3. Load Rating of 1000 watts tungsten and 1800 VA ballast
4. Failure mode (per ANSI) shall be to "on" mode
5. Photo sensor shall be Cadmium Sulfide shall be sealed to prevent moisture and contamination damage. This is to be accomplished by a conformal coating, epoxy encapsulation, or a glass to metal hermetic seal.
6. Turn "on" mode calibrated at 1.6+ or - 0.3 foot candles at 120 VAC with turn "off" maximum ratio to turn "on" of 1.5: 1.
7. Time delay: Control shall have an instantaneous "on" response to allow for easy testing. Operating temperature shall have a minimal effect on time delay duration.
8. Surge protection shall be in the form of a Metal Oxide Varistor (MOV) wired line to neutral. MOV shall be a minimum of 160 joules. Secondary surge protection across the electronic circuit is required.
9. Calibration: Each unit shall be calibrated in production using a photometer whose accuracy is traceable to the NIST. A quality control inspection shall be performed after calibration and final assembly.
10. Contact "Chatter" on opening of contacts (TURN OFF of photoelectric control) shall not exceed 6 milliseconds.
11. Housing strength: The cover of the photoelectric control shall be of an impact and UV resistant material. Impact resistance of greater than 1.0 ft-lbs over the intended operating temperature range of the device is required.
12. Drop Test: The photoelectric control must be capable of withstanding a drop of 3 feet to a concrete floor without causing damage to the housing and without changing the electrical operation.
13. Housing Size: The diameter of the photoelectric control skirt shall be a minimum of 3 inches.
14. Plug blades shall be brass.
15. Markings: The following information shall be marked upon the exterior of the photoelectric control upon the base: month and year of manufacture, individual serial numbers, complete model description, operating voltage range, load rating, and provisions for marking installation and removal dates.
16. The photoelectric control shall detect cycling HPS lamps, open lamps or ballasts and activate a LED indicator lamp in combination with removing power from the lamp.
17. Warranty: The warranty for the photoelectric control shall be a minimum of 4 years.

Photoelectric controls (photo cells) shall be DTL DD120-1.5-STMB unless otherwise approved by Engineer.

This work will be paid for at the contract unit price per each for "PHOTO CELL"

## SPECIAL PROVISION – CONTROLLER, STREET LIGHTING

## CONTROLLER, STREET LIGHTING

**Street Lighting Controller:**

DESCRIPTION:

A. This item shall consist of furnishing and installing a roadway lighting electrical control cabinet complete with foundation and wiring for control of roadway lighting as specified herein and as directed by the Engineer.

B. Unless otherwise indicated, the cabinet, including all components, shall be new.

GENERAL:

A. The cabinet shall be a ground mount of minimum width of 30 inches x 48 inches in height x 17 3/4 inches minimum depth (IDOT Type III) and shall be fabricated from aluminum alloy of 0.125 inches in thickness. The surfaces shall have a smooth, natural aluminum finish

B. The main door is of NEMA type construction with a cellular neoprene gasket, which is rain and dirt tight without louver slots in the lower portion of the door to exclude the entry of moisture, dirt, and insects. Hinges are 14-gauge stainless steel. Standard equipment includes a three point locking system, which secures the door at the top, bottom, and center. A Corbin lock with two keys is also furnished. The main door is equipped with a two-position doorstop, one stop at 90 degrees and the other at 120 degrees.

C. The cabinet shall be equipped with a vent in the underside of the top overhand above the door, which is designed to resist moisture, dirt, and insects.

D. The equipment mounting panel shall be made of 1/4-inch minimum non-asbestos, inorganic, non-conducting material and shall be drilled and tapped for front mounting of the equipment. The panel shall be easily installed and removed from the front of the panel.

E. The heating strip shall not be mounted on the equipment mounting panel; the heating strip shall be mounted to the equipment rails on the side of the cabinet.

FOUNDATION:

A. The foundation shall be furnished and installed in place per the dimensions shown on the attached Street Lighting Controller Cabinet Foundation Detail for Type III Cabinet.

B. The anchor bolts shall comply with ASTM A576. The top 6 inches of the anchor bolts shall be hot dipped galvanized steel according to ASTM 153. The nuts and lock washers shall be galvanized also.

C. The foundation shall include a 2 inches galvanized steel raceway for the service, four (4) 2 inches rigid plastic raceways for the field circuits, and one spare raceway of 2 inches rigid plastic.

D. The foundation shall include a copper coated steel ground rod 3/4 inches in diameter and 10 feet in length, including copper bonding wire as shown in Street Lighting Controller Cabinet Foundation Detail for Type III Cabinet.

E. For the conditions of controller cabinet being a replacement/retrofit of an existing pedestal mounted street light controller, the foundation will include removal of the top 6 inches of the existing foundation, expose the remaining existing concrete foundation to a depth of 48 inches below the finished grade of the new foundation, setting of four anchor bolts into the remaining foundation at a depth to be a minimum of 12 inches below the finished grade of the new foundation to tie the existing foundation into the new ground mount cabinet foundation. Installation of new foundation includes raceways noted in C. above. The portion of this work that is a removal of existing foundation is included in the unit price for Remove Street Lighting Controller and Foundation. The remaining work of retrofitting an existing foundation is included in the unit price of Street Lighting Controller.

CONTROLLER OPERATION:

A. The street light controller shall control and provide over current protection for up to eight (8) individual street light circuits. Each circuit is to be protected by the use of individual thermal-magnetic circuit breakers. Provisions shall be made for connection of up to #6 stranded copper conductors for the individual circuits.

B. The street light controller shall be actuated by a remotely mounted photocell, which will operate through an auxiliary on-delay relay to pick up the controller's main mechanically held contractor. The operation of the photocell will insure that the street light circuits are energized during nighttime hours and de-energized during daytime hours.

CONTROLLER EQUIPMENT:

1. 100 ampere main breaker, 2 pole, 240 volt, JDB 2100
2. 100 ampere contactor, 2 pole, single throw, electrically operated and mechanically held remote switch, 120 volt, ASCO 2P, 100 amp, model number 920210031.
3. eight (8) 35 ampere, 1 pole circuit breakers, 120 volt, "I-Line".
4. Control breaker, 1 pole, 15 amp, WE GC1015
5. Relay, DPDT, 120 v, on-delay, Magnacraft W211ACPSOX-7
6. 15 ampere, HOA switch, 120 volt, Square D Manual Return KS43FBH13 NEMA 4x enclosure
7. SPST 20 ampere switch
8. Incandescent light fixture of the enclosed and gasketed type, Crouse Hinds VXHF15GP
9. 20 ampere duplex receptacle, GFCI
10. Photocell terminal block
11. Thermostat, Grainger 2E552
12. Heating Strip, 150 watt Grainger 2E919
13. Surge Protector, Square D SP-11100
14. Neutral bus bar, 1/4" X 1" X 12", color coded white, labeled "neutral"
15. Ground bus bar, 1/4" x 1" x 12", color coded green labeled "ground".

WIRING AND BUS BARS:

All wiring and bus bars shall be of a size to handle the rated current of the connected equipment. Exposed bus bars shall be insulated, except for ground and neutral bus bars.

GROUND AND NEUTRAL BUS BARS:

Separate ground and neutral bus bars shall be provided. The ground bus bar shall be copper and mounted on the equipment panel. The neutral bar shall be similar. The heads of the screws shall be painted white for the neutral bar and green for the ground bar.

WIRING AND IDENTIFICATION:

A. Wiring within the cabinet shall be of the size specified for the corresponding service conductors and branch circuits and shall be rated RHH/RHW or MTW, 600 volts.

B. Control and auxiliary wiring shall be a minimum of #10 copper and rated RHH/RHW or MTW with jacket, 600 volt, stranded cooper of appropriate colored insulation of red, black, white, and green.

C. All power and control wiring shall be tagged with self-sticking cable markers and shall be stranded copper.

D. All switches, controls and the like shall be identified as to function and position (as applicable) by means of engraved 2 color nameplates attached with screws.

CIRCUIT BREAKERS:

A. All feeders, branch circuits, and auxiliary and control circuits shall have over current protection per the requirements of the NEC and as shown on the engineering plans. The over current protection shall be by means of circuit breakers.

B. Circuit breakers shall be standard UL-listed molded case, thermal magnetic "I-Line" breakers with trip free indicating handles with terminals adequate for #6 single conductor copper cable.

C. Circuit breakers shall have an UL-listed interrupting rating of not less than 10,000 rms symmetrical amperes at rated voltage.

D. The eight (8) branch circuit breakers shall be as specified on the circuit schematic, unless a lesser number is specified.

CONTACTOR (S):

A. The contactor shall be electrically operated, mechanically held, with the number of poles required for the service and with 120 volt operating coil voltage as indicated or otherwise required. Unless otherwise indicated in the engineering plans, the contactor shall be an ASCO 2P, 100 amp, model number 920210031.

B. Contactor(s) shall be complete with a non-conducting inorganic, non-asbestos sub-panel for mounting.

C. Contactor(s) shall be mechanically held, and shall be complete with coil-clearing contacts to interrupt current through the coil once the contactor is held in position.

D. The main contactor contacts shall be double break, silver-to-silver type. They shall be spring-loaded and provide a wiping action when opening and closing. The contacts shall be renewable from the front panel, self-aligning, and protected by auxiliary arcing contacts.

E. The line and load terminals shall be pressure type terminals of copper construction and of the proper size for the ampere rating of the contactor.

F. The contactor operating coil shall be rated for nominal 120 volt, single phase.

G. Protection from accidental contact with current carrying parts, when operating the contactor manually, shall be provided.

H. Contactors shall be clearly marked to indicate whether they are in the open or closed position.

AUTO/MANUAL CONTROL:

A. The cabinet shall be equipped with automatic and manual operating controls via a one-pole, double-throw switch. The switch shall be premium specification grade, rated for the applied duty, but not less than 20 amperes at 120 volts and shall be mounted in a 4-inch square box with cover.

B. The cabinet control and auxiliary device circuit shall have over current protection as indicated and as required by NEC.

C. Each street lighting controller shall be wired to an individual photocell located on the controller cabinet. The photocell shall operate at 120 volts, 60 Hertz, AC, and be rated at 1,000 watts.

INTERIOR LIGHTING AND RECEPTACLE:

A. The auxiliary device circuit shall provide 120 volts single phase to supply the convenience receptacle and cabinet light.

B. The cabinet shall be equipped with an interior, 60-watt incandescent lighting fixture of the enclosed and gasketed type switched from a single pole, single throw, 20 amperes switch. The switch shall be premium specification grade in a suitable 4-inch box with a cover.

C. The cabinet shall be equipped with a 120-volt, 20-ampere G.F.I. duplex receptacle, premium specification grade in a 4-inch square box with a cover.

D. The cabinet shall be equipped with a heating strip that shall maintain the temperature within the cabinet at a minimum of forty (40) degrees Fahrenheit.

TESTING OF THE ASSEMBLED CABINET:

Prior to shipment of the completed cabinet, the control cabinet shall be tested for load, short circuits and complete operation of the cabinet as specified herein and as shown on the plans.

This work will be paid for at the contract unit price per each for "CONTROLLER, STREET LIGHTING"

## SPECIAL PROVISION – CONSTRUCTION LAYOUT

This work shall be performed as indicated in the "Special Provisions for Construction Layout Stakes" (Recurring Special Provision Check Sheet #11).

This item will be paid for at the contract lump sum price for CONSTRUCTION LAYOUT

## SPECIAL PROVISION – AGGREGATE SHOULDERS, TYPE B 4"

This work shall be done in accordance with Section 481 of the "Standard Specifications", with the exception that the material shall be limited to crushed stone, and the plasticity index requirements shall be waived.

This work shall be paid for at the contract unit price per square yard for AGGREGATE SHOULDERS, TYPE B 4"

## SPECIAL PROVISION – CHAIN LINK FENCE REMOVAL

This work shall consist of the removal and satisfactory disposal of an existing chain link fence at approximately station 10+07.5 from the exist fence at 10 feet left to the existing building at 46 feet right. The contractor shall contact the fence owner to determine whether he wishes to retain any of the removed material. If not, it shall be disposed of outside the limits of the improvement.

This work will be paid for at the contact unit price per foot for CHAIN LINK FENCE REMOVAL.

## SPECIAL PROVISION – DRAINAGE SCUPPERS

This item shall consist of furnishing and installing drainage scuppers as shown on plans, including grate, frame, downspout, bolts, studs, washers and nuts and any other accessories.

This work will be paid for at the contact unit bid price for DRAINAGE SCUPPERS.

**DRILLED SHAFTS**
Effective: May 1, 2001
Revised: February 7, 2005

Description. This work shall consist of all labor, materials, equipment and services necessary to complete the drilled shaft installation according to the details and dimensions shown on the plans, this specification and as directed by the Engineer.

Submittals. The Contractor shall submit the following:

(a) Qualifications. At the time of the preconstruction conference, the Contractor shall provide the following documentation:

(1) A list containing at least 3 projects completed within the 3 years prior to this project's bid date which the Contractor performing this work has installed drilled shafts of similar diameter, length and site conditions to those shown in the plans. The list of projects shall contain names and phone numbers of owner's representatives who can verify the Contractor's participation on those projects.

(2) Name and experience record of the drilled shaft supervisor, responsible for all facets of the shaft installation, and the drill operator(s) who will be assigned to this project. The supervisor and driller shall each have a minimum of 3 years experience in the construction of drilled shafts.

(3) A signed statement that the drilled shaft supervisor has inspected both the project site and all the subsurface information available. In addition to the subsurface information in the contract documents, rock core specimens and/or geotechnical reports, when available, should be requested for evaluation.

(b) Installation Procedure. A submittal detailing the installation procedure will be required for all drilled shafts, unless directed otherwise by the Engineer. The Contractor, meeting the above qualifications, shall prepare the installation procedure, addressing all items shown below and will be responsible for directing all aspects of the shaft construction. The installation procedure shall be submitted to the Engineer at least 45 days prior to drilled shaft construction and shall address each of the following items:

(1) List of proposed equipment to be used including cranes, drill rigs, augers, belling tools, casing, core barrels, bailing buckets, final cleaning equipment, slurry equipment, tremies or concrete pumps, etc.

(2) Details of the overall construction operation sequence, equipment access, and the sequence of individual shaft construction within each substructure bent or footing group. The submittal shall address the Contractor's proposed time delay and/or the minimum concrete strength necessary before initiating a shaft excavation adjacent to a recently installed drilled shaft.

(3) A step by step description of how the Contractor anticipates the shaft excavation to be advanced based on their evaluation of the subsurface data and conditions expected to be encountered. This sequence shall note the method of casing advancement, anticipated casing lengths, tip elevations and diameters, the excavation tools used and drilled diameters created. The Contractor shall indicate whether wet or dry drilling conditions are expected or if the water table will be sealed from the excavation.

(4) When slurry is proposed, details covering the measurement and control of the hardness of the mixing water, agitation, circulation, de-sanding, sampling, testing and chemical properties of the slurry shall be submitted.

(5) Method(s) and sequence proposed for the shaft cleaning operation as well as recommendations on how the shaft excavation will be inspected under the installation conditions anticipated.

(6) Details of reinforcement placement including cage centralization devices to be used and method to maintain proper elevation and plan location of cage within the shaft excavation during concrete placement. The method(s) of adjusting the cage length if rock is encountered at an elevation other than as estimated in the plans.

(7) Details of concrete placement including proposed operational procedures for free fall, tremie or pumping methods. The sequence and method of casing removal shall also be stated along with the top of pour elevation, and method of forming through water above streambed.

(8) The proposed concrete mix design(s).

The Engineer will evaluate the drilled shaft installation plan and notify the Contractor of acceptance, or if additional information is required, or if there are concerns with the installation's effect on the existing or proposed structure(s).

Materials. The materials used for the construction of the drilled shaft shall satisfy the following requirements:

(a) The drilled shaft portland cement concrete shall be according to Section 1020, except the mix design shall be as follows:

(1) A Type I or II cement shall be used at 395 kg/cu m (665 lb/cu yd). When specified in the plans that soil and ground water sulfate contaminates exceed 500 parts per million, a Type V cement shall be required.

(2) Class C or F fly ash may replace Type I or II cement. The cement replacement shall not exceed 15 percent by mass (weight) at a minimum replacement ratio of 1.5:1. The fly ash shall not be used in combination with ground granulated blast- furnace slag.

(3) Grade 100 or 120 ground granulated blast-furnace slag may replace Type I or II cement. The cement replacement shall not exceed 25 percent by mass (weight) at a minimum replacement ratio of 1:1. The ground granulated blast-furnace slag shall not be used in combination with fly ash.

(4) The maximum water/cement ratio shall be 0.44.

(5) The mortar factor shall be a value which produces a coarse aggregate content comprising between 55 and 65 percent of total aggregate by mass (weight).

(6) The slump at point of placement shall be 175 mm ± 25 mm (7 ± 1 in.). If concrete is placed to displace drilling fluid, or against temporary casing, the slump shall be 200 mm ± 25 mm (8 ± 1 in.) at point of placement. The concrete mix shall be designed to remain fluid throughout the anticipated duration of the pour plus 1 hour.

(7) An air entraining admixture shall be required and the air content range shall be 4.0 to 7.0 percent.

(8) The minimum compressive strength shall be 27,500 kPa (4000 psi) at 14 days. The minimum flexural strength shall be 4,650 kPa (675 psi) at 14 days.

(9) A retarding admixture shall be required.

(10) A water-reducing or high range water-reducing admixture shall be required.

(11) An accelerating admixture may be used with the permission of the Engineer in extraordinary situations.

(12) The coarse aggregate shall be a CA 13, CA 14, CA 16 or a blend of these gradations. The fine aggregate shall consist of sand only according to Article 1003.01(a).

At the Engineers discretion, and at no additional cost to the Department, the Contractor may be required to conduct a minimum 0.76 cu m (1 cu yd) trial batch to verify the mix design.

(b) The sand-cement grout mix used to fill any visible gaps, which may exist between the permanent casing and either the drilled excavation or temporary casing, shall be as follows:

(1) A Type I or II cement shall be used at 110 kg/cu m (185 lb/cu yd). When specified in the plans that soil and ground water sulfate contaminates exceed 500 parts per million, a Type V cement shall be required. The cement shall be according to Section 1001.

(2) The fine aggregate shall be according to Articles 1003.01 and 1003.02.

(3) The water shall be according to Section 1002.

(4) The maximum water shall be sufficient to provide a flowable mixture with a typical slump of 254 mm (10 in.).

(c) Reinforcement shall be according to Section 508 of the Standard Specifications.

(d) Drilling slurry, when required, shall consist of a polymer or mineral base material. Mineral slurry shall have both a mineral grain size that will remain in suspension with sufficient viscosity and gel characteristics to transport excavated material to a suitable screening system. The percentage and specific gravity of the material used to make the suspension shall be sufficient to maintain the stability of the excavation and to allow proper concrete placement. For polymer slurry, the calcium hardness of the mixing water shall not exceed 100 mg/L.

(e) Permanent casing, when required, shall be fabricated from steel satisfying ASTM A252 Grade 2, produced by electric seam, butt, or spiral welding to satisfy the outside diameter(s) and lengths shown in the contract plans or as shown in the Contractor's installation procedure. The minimum wall thickness shall be as required to resist the anticipated installation and dewatering stresses, as determined by the Contractor, but in no case less than 6 mm (1/4 in.).

Equipment. The drilling equipment shall have adequate capacity, including power, torque and down thrust, to create a shaft excavation of the maximum diameter specified to a depth of 20 percent beyond the depths shown on the plans. Standby equipment of sufficient capacity shall be available so that there will be no delay in placing of the concrete once the operation has started. Concrete equipment shall be according to Article 1020.03 of the Standard Specifications.

Construction Requirements. Excavation for drilled shaft(s) shall not proceed until written authorization is received from the Engineer. The Contractor shall furnish an installation log for each shaft installed. Excavation by blasting shall not be permitted unless authorized in writing by the Engineer.

No shaft excavation shall be made within 4 shaft diameters center to center of a shaft with concrete that has a compressive strength less than 10,342 kPa (1500 psi) unless otherwise approved in the Contractor's installation procedure. The site-specific soil strengths and installation methods selected will determine the actual required minimum spacing, if any, to address vibration and blow out concerns.

Materials removed or generated from the shaft excavations shall be disposed of by the Contractor according to Article 202.03 of the Standard Specifications.

The Contractor's methods and equipment shall be suitable for the anticipated conditions and the following requirements noted below:

(a) Construction Tolerances. The following construction tolerances shall apply to all drilled shafts unless otherwise stated in the contract documents:

(1) The center of the drilled shaft shall be within 75 mm (3 in.) of the plan station and offset at the top of the shaft.

(2) The center of the reinforcement cage shall be within 38 mm (1 1/2 in.) of plan station and offset at the top of the shaft.

(3) The out of vertical plumbness of the shaft shall not exceed 1.5 percent.

(4) The out of vertical plumbness of the shaft reinforcement cage shall not exceed 0.83 percent.

(5) The top of the reinforcing steel cage shall be no more than 25 mm (1 in.) above and no more than 75 mm (3 in.) below the plan elevation.

(6) The top of the shaft shall be no more than 25 mm (1 in.) above and no more than 75 mm (3 in.) below the plan elevation.

(7) Excavation equipment and methods used to complete the shaft excavation shall have a nearly planar bottom. The cutting edges of excavation equipment used to create the bottom of shafts in rock shall be normal to the vertical axis of the shaft within a tolerance of 6.25 percent.

(b) Construction Methods. The construction of drilled shafts may involve the use of one or more of the following methods to support the excavation during the various phases of shaft drilling, cleaning and concrete placement dependent on the site conditions encountered. The following are general descriptions indicating the conditions when these methods may be used:

(1) Dry Method. The dry method consists of drilling the shaft excavation, removing accumulated water and loose material from the excavation, placing the reinforcing cage, and concrete in a predominately dry excavation. This method shall be used only at sites where the groundwater and soil conditions are suitable to permit the drilling and dewatering of the excavation without causing excessive water infiltration, boiling, squeezing, or caving of the shaft side walls. This method allows the concrete placement by tremie or concrete pumps, or if the excavation can be dewatered, the concrete can be placed by free fall within the limits specified for concrete placement.

(2) Wet Method. The wet construction method may be used at sites where dewatering the excavation would cause collapse of the shaft sidewalls or when the volume and head of water flowing into the shaft is likely to contaminate the concrete during placement resulting in a shaft defect. This method uses water or slurry to maintain stability of the shaft perimeter while advancing the excavation. After the excavation is completed, the water level in the shaft is allowed to seek equilibrium, the base is

cleaned, the reinforcing cage is set and the concrete is discharged at the base using a tremie pipe or concrete pump, displacing the drilling fluid upwards.

(3) Temporary Casing Method. Temporary casing shall be used when either the wet or dry methods provide inadequate support to prevent sidewall caving or ensure excessive deformation of the hole. Temporary casing may also be used to reduce the flow of water into the excavation to allow dewatering, adequate cleaning and inspection, or to insure proper concrete placement. Temporary casing left in place may constitute a shaft defect; no temporary casing will be allowed to remain permanently in place without the specific approval of the Engineer.

Before the temporary casing is broken loose, the level of concrete in the casing shall be a minimum of 1.5 m (5 ft) above the bottom of the casing. After being broken loose and as the casing is withdrawn, additional concrete shall be added to maintain sufficient head so that water and soil trapped behind the casing can be displaced upward and discharged at the ground surface without contaminating the concrete in the shaft or at the finished construction joint.

(4) Permanent Casing Method. When called for on the plans or proposed as part of the Contractor's accepted installation procedure, the Contractor shall install a permanent casing of the diameter, length, thickness and strength specified. When permanent casings are used, the lateral loading design requires intimate contact between the casing and the surrounding soils. If the installation procedure used to set the permanent casing results in annular voids between the permanent casing and the drilled excavation, the voids shall be filled with a sand-cement grout to maintain the lateral load capacity of the surrounding soil, as assumed in the design. No permanent casing will be allowed to remain in place beyond the limits shown on the plans without the specific approval of the Engineer.

(5) Removable Forms. When the shaft extends above streambed through a body of water and permanent casing is not shown, the portion above the streambed shall be formed with removable casings, column forms, or other forming systems as approved by the Engineer. The forming system shall not scar or spall the finished concrete or leave in place any forms or casing within the removable form limits as shown on the plans unless approved as part of the installation procedure. The forming system shall not be removed until the concrete has attained a minimum compressive strength of 17,237 kPa (2500 psi) and cured for a minimum of 72 hours. For shafts extending through water, the concrete shall be protected from water action after placement for a minimum of 7 days.

(c) Slurry. If the Contractor proposes to use a method of slurry construction, it shall be submitted with the installation plan. During construction, the level of the slurry shall be maintained at a height sufficient to prevent caving of the hole. In the event of a sudden or significant loss of slurry to the hole, the construction of that foundation shall be stopped and the shaft excavation backfilled or supported by temporary casing, until a method to stop slurry loss, or an alternate construction procedure has been approved by the Engineer.

(d) Obstructions. Obstructions shall be defined as any object (such as but not limited to, boulders, logs, old foundations etc.) that cannot be removed with normal earth drilling procedures but requires special augers, tooling, core barrels or rock augers to remove the obstruction. When obstructions are encountered, the Contractor shall notify the Engineer and upon concurrence of the Engineer, the Contractor shall begin working to core, break up, push aside, or remove the obstruction. Lost tools or equipment in the excavation as a result of the Contractor's operation shall not be defined as obstructions and shall be removed at the Contractor's expense.

(e) Top of Rock. The actual top of rock will be defined as the point when material is encountered which can not be drilled with a conventional earth auger and/or underreaming tool, and requires the use of special rock augers, core barrels, air tools, blasting or other methods of hand excavation.

(f) Sidewall overreaming. Sidewall overreaming shall be required when the sidewall of the hole is determined by the Engineer to have either softened due to the excavation methods, swelled due to delay in concreting, or degraded because of slurry cake buildup. It may also be required to correct a shaft excavation which has been drilled out of tolerance. Overreaming thickness shall be a minimum of 13 mm (1/2 in.). Overreaming may be accomplished with a grooving tool, overreaming bucket or other approved equipment. Any extra concrete needed as a result of the overreaming shall be furnished and installed at the Contractor's expense.

(g) Excavation Inspection. The Contractor shall be responsible for verification of the dimensions and alignment of each shaft excavation as directed by the Engineer. Unless otherwise specified in the contract documents, the Contractor's cleaning operation shall be adjusted so that a minimum of 50 percent of the base of each shaft shall have less than 13 mm (1/2 in.) of sediment or debris at the time of placement of the concrete. The maximum depth of sediment or any debris at any place on the base of the shaft shall not exceed 38 mm (1 1/2 in.).

Shaft cleanliness will be determined by the Contractor using the methods as submitted in their installation procedure. Visual inspection coupled with the use of a weighted tape may also be used to confirm adequate cleanliness.

(h) Design Modifications. If the top of rock elevation differs from that shown on the plans by more than 10 percent of the length of the shaft above the rock, the Engineer shall be contacted to determine if any drilled shaft design changes may be required. In addition, if the type of soil or rock encountered is not similar to that shown in the subsurface exploration data, the Contractor may be required to extend the drilled shaft length(s) beyond those specified in the plans. In either case, the Engineer will determine if revisions are necessary and the extent of the modifications required.

(i) Reinforcement Cage Construction and Placement. The shaft excavation shall be cleaned, inspected and accepted prior to placing the reinforcement cage. The reinforcement cage

shall be completely assembled prior to drilling and be ready for adjustment in length as required by the conditions encountered. The cage shall be lifted using multiple point sling straps or other approved methods to avoid cage distortion or stress. Additional cross frame stiffeners may also be required for lifting or to keep the cage in proper position during lifting and concrete placement.

The Contractor shall attach suitable centralizes to keep the cage away from the sides of the shaft excavation and ensure that at no point will the finished shaft have less than the minimum concrete cover(s) shown on the plans. The cage centralizes or other approved non-corrosive spacing devices shall be used at sufficient intervals (near the bottom and at intervals not exceeding 3 m (10 ft) throughout the length of the shaft) to ensure proper cage alignment and clearance for the entire shaft.

If the top of rock encountered is deeper than estimated in the plans, and/or if the conditions differ such that the length of the shaft is increased, additional longitudinal bars shall be either mechanically spliced or lap spliced to the lower end of the cage and confined with either hoop ties or spirals to provide the additional length. If the additional shaft length is less than the lap splice shown, subject to the approval of the Engineer, a mechanical splice may be used in lieu of the lap splice in order to take advantage of or utilize that lap length in the extension of the shaft reinforcement. The Contractor shall have additional reinforcement available or fabricate the cages with additional length as necessary to make the required adjustments in a timely manner as dictated by the encountered conditions. The additional reinforcement may be non-epoxy coated at the option of the Contractor. Any reinforcement fabricated in advance but not incorporated into the installed shaft(s) shall not be paid for but shall remain the property of the Contractor.

(j) Concrete placement. Concrete work shall be performed according to the applicable portions of Section 503 of the Standard Specifications and as specified herein.

Concrete shall be placed as soon as possible after reinforcing steel is set and secured in proper position. The pour shall be made in a continuous manner from the bottom to the top elevation of the shaft as shown on the contract plan or as approved in the Contractor's installation procedure. Concrete placement shall continue after the shaft excavation is full and until good quality, uncontaminated concrete is evident at the top of shaft. The elapsed time from the beginning of concrete placement in the shaft to the completion of the placement shall not exceed 2 hours. The Contractor may request a longer placement time provided the concrete mix maintains the minimum slump requirements over the longer placement time as demonstrated by trial mix and slump loss tests. Concrete shall be placed either by free fall, or through a tremie or concrete pump subject to the following conditions:

(1) The free fall placement shall only be permitted in shafts that can be dewatered to ensure less than 75 mm (3 in.) of standing water exist at the time of placement without causing side wall instability. The maximum height of free fall placement shall not exceed 18.3 m (60 ft). Concrete placed by free fall shall fall directly to the base without contacting either the rebar cage or hole sidewall. Drop chutes may be used to direct concrete to the base during free fall placement.

Drop chutes used to direct placement of free fall concrete shall consist of a smooth tube of either one continuous section or multiple pieces that can be added and removed. Concrete may be placed through either a hopper at the top of the tube or side openings as the drop chute is retrieved during concrete placement. The drop chute shall be supported so that the free fall does not exceed 18.3 m (60 ft) at all times and to ensure the concrete does not strike the rebar cage. If placement cannot be satisfactorily accomplished by free fall in the opinion of the Engineer, the Contractor shall use either tremie or pumping to accomplish the pour.

(2) Tremies shall consist of a tube of sufficient length, weight, and diameter to discharge the initial concrete at the base of the shaft. The tremie shall be according to Article 503.08 of the Standard Specifications and contain no aluminum parts that may have contact with the concrete. The inside and outside surfaces of the tremie shall be clean and smooth to permit both flow of concrete and unimpeded withdrawal during concrete placement.

(3) Concrete pumps: Pumps and lines may be used for concrete placement and shall have a minimum 100 mm (4 in.) diameter.

The tremie or pump lines used for wet method concrete placement shall be watertight and not begin discharge until placed within 250 mm (10 in.) of the shaft base. Valves, bottom plates or plugs may be used only when they can be removed from the excavation or be of a material approved by the Engineer that will not cause a defect in the shaft if not removed. The discharge end shall be immersed at least 1.5 m (5 ft) in concrete at all times after starting the pour. Sufficient concrete head shall be maintained in the tremie at all times to prevent water or slurry intrusion in the shaft concrete.

If at any time during the concrete pour in the "wet" hole, the tremie or pump line orifice is removed from the fluid concrete and discharges through drilling fluid or water above the rising concrete level, the shaft may be considered defective.

Vibration of concrete is not recommended when placed while displacing drilling fluid or water. In dry excavations, vibration is allowed only in the top 3 m (10 ft) of the shaft.

Conformity with Contract. In addition to Article 105.03, the Contractor shall be responsible for correcting all out of tolerance excavations and completed shafts as well as repairing any defects in the shaft to the satisfaction of the Engineer at no additional cost to the Department. No time extensions will be allowed to repair or replace unacceptable work. When a shaft excavation is completed with unacceptable tolerances, the Contractor will be required to submit for approval his/her proposed corrective measures. Any proposed design modification with computations submitted by the Contractor shall be signed and sealed by an Illinois licensed Structural Engineer.

Method of Measurement. The items Drilled Shaft in Soil and Drilled Shaft in Rock, will be measured for payment and the length computed in meters (feet) for all drilled shafts installed according to the plans, specifications, and accepted by the Engineer. The length shall be measured at each shaft. The length in soil will be defined as the difference in elevation between the top of the drilled shaft shown on the plans, or as installed as part of the Contractor's installation procedure, and the bottom of the shaft or the top of rock (when present) whichever is higher. The length in rock will be defined as the difference in elevation between the measured top of rock and the bottom of the shaft. When permanent casing is installed as specified on the plans, it will be measured in meters (feet) and shall be the length of casing installed.

Basis of Payment. This work will be paid for at the contract unit price per meter (foot) for DRILLED SHAFT IN SOIL, and/or DRILLED SHAFT IN ROCK, of the diameter(s) specified. The price shall be payment in full for all labor, materials, equipment, and services necessary to complete the work as specified. When the shaft is detailed with a belled base, furnishing and installing it shall not be paid for separately but shall be included in the cost of the appropriate drilled shaft item(s).

When permanent casing is furnished and installed as specified, it will be paid for at the contract unit price per meter (foot) for PERMANENT CASING. Permanent casing installed at the Contractor's option shall not be included in this item, but shall be considered as included in the appropriate drilled shaft item(s) above.

Obstruction mitigation shall be paid for according to Article 109.04 of the Standard Specifications.

No additional compensation, other than noted above, will be allowed for removing and disposing of excavated materials, for furnishing and placing concrete, bracing, lining, temporary casings placed and removed or left in place, for grouting of any voids, or for any excavation made or concrete placed outside of the plan diameter(s) of the shaft(s) specified.

Reinforcement bars, spirals and ties shall be as specified and paid for under the items, REINFORCEMENT BARS or REINFORCEMENT BARS EPOXY COATED, according to Section 508 of the Standard Specifications.

**DRAINAGE SYSTEM**
Effective : June 10, 1994
Revised: January 1, 2002

Description. This work shall consist of furnishing and installing a bridge drainage system as shown on the plans, including all piping, fittings, support brackets, inserts, bolts, and splash blocks when specified.

Material. The pipe and fittings shall be reinforced fiberglass according to ASTM D 2996 RTRP with a 207 MPa (30,000 psi) minimum short-time rupture strength hoop tensile stress. The reinforced fiberglass shall also have an apparent stiffness factor at 5 percent deflection exceeding 22.6 cu mm-kPa (200 cu in.-lbf/sq in) and a minimum wall thickness of 2.54 mm (0.10 in.). All pipe supports and associated hardware shall be hot dip galvanized according to AASHTO M 232. The fiberglass pipe and fittings furnished shall be pigmented through out, or have a resin-rich pigmented exterior coat, specifically designed for overcoating fiberglass, as recommended by the manufacturer. The color shall be as specified by the Engineer. The resin in either case shall have an ultraviolet absorber designed to prevent ultraviolet degradation. The supplier shall certify the material supplied meets or exceeds these requirements.

Installation. All connections of pipes and fittings shown on the plans to facilitate future removal for maintenance cleanout or flushing shall be made with a threaded, gasketed coupler or a bolted gasketed flange system. Adhesive bonded joints will be permitted for runs of pipe between such connections. The end run connection shall feature a minimum nominal 150 mm (6 in.) female threaded fiberglass outlet. Straight runs may utilize a 45 degree reducing saddle bonded to the pipe. The female outlet shall be filled with a male threaded PVC plug.

Runs of pipe shall be supported at spacings not exceeding those recommended by the manufacturer of the pipe. Supports that have point contact or narrow supporting areas shall be avoided. Standard slings, clamps, clevis hangers and shoe supports designed for use with steel pipe may be used. A minimum strap width for hangers shall be 40 mm (1 1/2 in.) for all pipe under 300 mm (12 in.) in diameter and 50 mm (2 in.) for diameters 300 mm (12 in.) or greater. Straps shall have 120 degrees of contact with the pipe. Pipes supported on less than 120 degrees of contact shall have a split fiberglass pipe protective sleeve bonded in place with adhesive.

All reinforced fiberglass pipe, fittings, and expansion joints shall be handled and installed according to guidelines and procedures recommended by the manufacturer or supplier of the material.

Basis of Payment. This work will be paid for at the contract lump sum price for DRAINAGE SYSTEM.

**CLEANING AND PAINTING NEW METAL STRUCTURES**
Effective Date: September 13, 1994
Revised Date: June 27, 2005

Description. The material and construction requirements that apply to cleaning and painting new structural steel shall be according to the applicable portion of Sections 506 of the Standard Specifications except as modified herein. The three coat paint system shall be the system as specified on the plans and as defined herein.

Materials. All materials to be used on an individual structure shall be produced by the same manufacturer. The Bureau of Materials and Physical Research has established a list of all products that have met preliminary requirements. Each batch of material must be tested and approved by that bureau before use.

The paint materials shall meet the requirements of the following articles of the Standard Specification:

| Item | Article |
|---|---|
| (a) Inorganic Zinc-Rich Primer | 1008.22 |
| (b) Waterborne Acrylic | 1008.24 |
| (c) Aluminum Epoxy Mastic | 1008.25 |
| (d) Organic Zinc-Rich Primer (Note 1) | |
| (e) Epoxy Intermediate (Note 1) | |
| (f) Aliphatic Urethane (Note 1) | |

Note 1: These material requirements shall be according to the Special Provision for the Organic Zinc-Rich Paint System.

Submittals. At least 30 days prior to beginning field painting, the Contractor shall submit for the Engineer's review and acceptance, the following applicable plans, certifications and information for completing the field work. Field painting can not proceed until the submittals are accepted by the Engineer. Qualifications, certifications and QC plans for shop cleaning and painting shall be available for review by the QA Inspector.

a) Contractor/Personnel Qualifications. Except for miscellaneous steel items such as bearings, side retainers, expansion joint devices, and other items allowed by the Engineer, or unless stated otherwise in the contract, the shop painting Contractors shall be certified to perform the work as follows: the shop painting Contractor shall possess AISC Sophisticated Paint Endorsement or SSPC-QP3 certification. Evidence of current qualifications shall be provided.

   Personnel managing the shop and field Quality Control program(s) for this work shall possess a minimum classification as a National Association of Corrosion Engineers (NACE) Coating Inspector Technician, or shall provide evidence of successful inspection of 3 projects of similar or greater complexity and scope that have been completed in the last 2 years. Copies of the certification and/or experience shall be provided.

The personnel performing the QC tests for this work shall be trained in coatings inspection and the use of the testing instruments. Documentation of training shall be provided.

b) Quality Control (QC) Program. The shop and field QC Programs shall identify the following; the instrumentation that will be used, a schedule of required measurements and observations, procedures for correcting unacceptable work, and procedures for improving surface preparation and painting quality as a result of quality control findings. The field program shall incorporate the IDOT Quality Control Daily Report form, as supplied by the Engineer.

c) Field Cleaning and Painting Inspection Access Plan. The inspection access plan for use by Contractor QC personnel for ongoing inspections and by the Engineer during Quality Assurance (QA) observations.

d) Surface Preparation/Painting Plan. The surface preparation/painting plan shall include the methods of surface preparation and type of equipment to be utilized for solvent cleaning, abrasive blast cleaning, washing, and power tool cleaning. The plan shall include the manufacturer's names of the materials that will be used, including Product Data Sheets and Material Safety Data Sheets (MSDS).

   A letter or written instructions from the coating manufacturer shall be included, indicating the required drying time for each coat at the minimum, normal, and maximum application temperatures before the coating can be exposed to temperatures or moisture conditions that are outside of the published application parameters.

Field Quality Control (QC) Inspections. The Contractor shall perform first line, in process QC inspections of each phase of the work. The Contractor shall implement the submitted and accepted QC Program to insure that the work accomplished complies with these specifications. The Contractor shall use the IDOT Quality Control Daily Report form supplied by the Engineer to record the results of quality control tests. The completed reports shall be turned into the Engineer before work resumes the following day.

The Contractor shall have available at the shop or on the field site, all of the necessary inspection and testing equipment. The equipment shall be available for the Engineer's use when requested.

Field Quality Assurance (QA) Observations. The Engineer will conduct QA observations of any or all phases of the work. The Engineer's observations in no way relieve the Contractor of the responsibility to provide all necessary daily QC inspections of his/her own and to comply with all requirements of this Specification.

The Engineer has the right to reject any work that was performed without adequate provision for QA observations.

The Engineer will issue a Non-Conformance Report when cleaning and painting work is found to be in violation of the specification requirements, and is not corrected to bring it into compliance before proceeding with the next phase of work.

Inspection Access and Lighting. The Contractor shall facilitate the Engineer's observations as required, including allowing ample time to view the work. The Contractor shall furnish, erect and move scaffolding or other mechanical equipment to permit close observation of all surfaces to be cleaned and painted. This equipment shall be provided during all phases of the work. Examples of acceptable access structures include:

- Mechanical lifting equipment, such as, scissor trucks, hydraulic booms, etc.
- Platforms suspended from the structure comprised of trusses or other stiff supporting members and including rails and kick boards.
- Simple catenary supports are permitted only if independent life lines for attaching a fall arrest system according to Occupational Safety and Health Administration (OSHA) regulations are provided.

When the surface to be inspected is more than 1.8 m (6 ft) above the ground or water surface, the Contractor shall provide the Engineer with a safety harness and a lifeline according to OSHA regulations. The lifeline and attachment shall not direct the fall into oncoming traffic. The Contractor shall provide a method of attaching the lifeline to the structure independent of the inspection facility or any support of the platform. When the inspection facility is more than 800 mm (2 1/2 ft) above the ground, the Contractor shall provide an approved means of access onto the platform.

The Contractor shall provide artificial lighting in areas where natural light is inadequate, as determined by the Engineer, to allow proper cleaning, inspection, and painting. Illumination for inspection shall be at least 325 LUX (30 foot candles). Illumination for cleaning and painting, including the working platforms, access, and entryways shall be at least 215 LUX (20 foot candles).

**Construction Requirements.** The Contractor shall be responsible for any damage caused to persons, vehicles, or property, except as indemnified by the Response Action Contractor Indemnification Act. Whenever the intended purposes of the protective devices are not being accomplished, as determined by the Engineer, work shall be immediately suspended until corrections are made. Painted surfaces damaged by any Contractor's operation shall be removed and repainted, as directed by the Engineer, at the Contractor's expense.

The Contractor shall comply with the provisions of the Illinois Environmental Protection Act. Paint drips, spills, and overspray are not permitted to escape into the air or onto any other surfaces or surrounding property not intended to be painted. Containment shall be used to control paint drips, spills, and overspray, and shall be dropped and all equipment secured when sustained wind speeds of 64 kph (40 mph) or greater occur, unless the containment design necessitates action at lower wind speeds. The contractor shall evaluate project-specific conditions to determine the specific type and extent of containment needed to control the paint emissions and shall submit a plan for containing or controlling paint debris (droplets, spills, overspray, etc.) to the Engineer for approval prior to starting the work. Approval shall not relieve the Contractor of their ultimate responsibility for controlling paint debris from escaping the work zone.

Surface and Weather Conditions. Surfaces to be painted after cleaning shall remain free of moisture and other contaminants. The Contractor shall control his/her operations to insure that dust, dirt, or moisture does not come in contact with surfaces cleaned or painted that day.

The surface temperature shall be at least 3°C (5°F) above the dew point during final surface preparation operations. The paint manufacturers' published literature shall be followed for specific temperature, dew point, and humidity restrictions during the application of each coat.

The Contractor shall monitor temperature, dew point, and humidity every 4 hours during surface preparation and coating application in the specific areas where the work is being performed. The frequency of monitoring shall increase if weather conditions are changing. The Engineer has the right to reject any work that was performed under unfavorable weather conditions. Rejected work shall be removed, recleaned, and repainted at the Contractor's expense.

Seasonal Restrictions on Field Cleaning and Painting. Field cleaning and painting work shall be accomplished between April 15 and October 31 unless authorized otherwise by the Engineer in writing.

**Inorganic Zinc-rich/ Waterborne Acrylic Paint system.** This system shall be for shop and field application of the coating system, shop application of the intermediate and top coats will not be allowed.

In the shop, all structural steel designated to be painted shall be given one coat of inorganic zinc rich primer. In the field, before the application of the intermediate coat, the prime coat and any newly installed fasteners shall be spot solvent cleaned per SSPC-SP 1 and all surfaces pressure washed to remove dirt, oil, lubricants, oxidation products, and foreign substances. Washing shall involve the use of potable water at a pressure between 7 MPa (1000 psi) and 34 MPa (5000 psi) and according to "Low Pressure Water Cleaning" of SSPC-SP12. Paint spray equipment shall not be used to perform the water cleaning. All damaged shop primed areas shall then be spot cleaned per SSPC-SP3 and spot primed with aluminum epoxy mastic. The structural steel shall then receive one full intermediate coat and one full topcoat of waterborne acrylic paint.

a) Paint drips, spills, and overspray must be controlled. If containment is used to control paint drips, spills, and overspray, the containment shall be dropped and all equipment secured when sustained wind speeds of 64 kph (40 mph) or greater occur. When the protective coverings need to be attached to the structure, they shall be attached by bolting, clamping, or similar means. Welding or drilling into the structure is prohibited unless approved by the Engineer in writing.

b) Coating Dry Film Thickness (dft), measured according to SSPC-PA2:
   Zinc Primer: 75 microns (3 mils) min., 150 microns (6 mils) max.
   Epoxy Mastic: 125 microns (5 mils) min., 180 microns (7 mils) max.
   Intermediate Coat: 50 microns (2 mils) min., 100 microns (4 mils) max.
   Topcoat: 50 microns (2 mils) min., 100 microns (4 mils) max.

The total dry film thickness, excluding the spot areas touched up with epoxy mastic, shall be between 180 and 355 microns (7 and 14 mils).

c) The pressure washing requirement above may be waived if the QC and QA Inspectors verify the primed surfaces have not been contaminated.

d) Damage to the paint system shall be spot cleaned using SSPC-SP3. The cleaned areas shall be spot painted with a penetrating sealer as recommended by the manufacturer, which shall overlap onto the existing topcoat. Then the aluminum epoxy mastic shall be spot applied not to go beyond the area painted with the sealer. The acrylic intermediate and topcoat shall be spot applied to the mastic with at least a 150 mm (6 inch) overlap onto the existing topcoat.

**Organic Zinc-Rich/ Epoxy/ Urethane Paint System.** This system shall be for full shop application of the coating system, all contact surfaces shall be masked off prior to application of the intermediate and top coats.

Additional Surface Preparation. In addition to the requirements of Section 3.2.9 of the AASHTO/AWS D1.5M/D1.5:2002 Bridge Welding Code (breaking thermal cut corners of stress carrying members), rolled and thermal cut corners to be painted with organic zinc primer shall be broken if they are sharper than a 1.5 mm (1/16 in.) radius. Corners shall be broken by a single pass of a grinder or other suitable device at a 45° angle to each adjoining surface prior to final blast cleaning, so the resulting corner approximates a 1.5 mm (1/16 in.) or larger radius after blasting. Surface anomalies (burrs, fins, deformations) shall also be treated to meet this criteria before priming.

In the shop, all structural steel designated to be painted shall be given one coat of organic zinc rich primer. Before the application of the intermediate coat, the prime coat and any newly installed fasteners shall be spot solvent cleaned per SSPC-SP 1 and all surfaces pressure washed to remove dirt, oil, lubricants, oxidation products, and foreign substances. Washing shall involve the use of potable water at a pressure between 7 MPa (1000 psi) and 34 MPa (5000 psi) and according to "Low Pressure Water Cleaning" of SSPC-SP12. Paint spray equipment shall not be used to perform the water cleaning. All damaged shop primed areas shall then be spot cleaned per SSPC-SP3, and the structural steel shall then receive one full intermediate coat of epoxy and one full topcoat of aliphatic urethane.

(a) Paint drips, spills, and overspray must be controlled. If containment is used to control paint drips, spills, and overspray, the containment shall be dropped and all equipment secured when sustained wind speeds of 64 kph (40 mph) or greater occur. When the protective coverings need to be attached to the structure, they shall be attached by bolting, clamping, or similar means. Welding or drilling into the structure is prohibited unless approved by the Engineer in writing.

(b) Coating Dry Film Thickness (dft), measured according to SSPC-PA2:
organic Zinc Primer: 75 microns (3 mils) min., 125 microns (5 mils) max.
Aluminum Epoxy Mastic: 125 microns (5 mils) min., 180 microns (7 mils) max.

Epoxy Intermediate Coat: 75 microns (3 mils) min., 150 microns (6 mils) max.
Aliphatic Urethane Top Coat: 65 microns (2.5 mils) min., 100 microns (4 mils) max.

(c) The total dry film thickness, excluding the spot areas touched up with epoxy mastic, shall be between 215 and 375 microns (8.5 and 15 mils).

(d) When specified on the plans or as requested by the Contractor, and approved by the Engineer, the epoxy intermediate and aliphatic urethane top coats shall be applied in the shop. All faying surfaces of field connections shall be masked off after priming and shall not receive the intermediate or top coats in the shop. The intermediate and top coats for field connections shall be applied, in the field, after erection of the structural steel is completed. The pressure washing requirement above may be waived if the QC and QA Inspectors verify the primed surfaces have not been contaminated.

(e) Erection and handling damage to the shop applied system shall be spot cleaned using SSPC-SP3. The surrounding coating at each repair location shall be feathered for a minimum distance of 40 mm (1 1/2 in.) to achieve a smooth transition between the prepared areas and the existing coating. The existing coating in the feathered area shall be roughened to insure proper adhesion of the repair coats. The areas cleaned to bare metal shall be spot painted with aluminum epoxy mastic. The intermediate and finish coat shall be spot applied to with at least a 150 mm (6 inch) overlap onto the existing finish coat.

**Aluminum Epoxy Mastic/ Waterborne Acrylic Paint system.** This system shall be for shop or field application of the entire coating system.

Before priming with aluminum epoxy mastic the steel the surfaces to be primed shall be prepared according to SSPC SP6 for Commercial Blast Cleaning. In the field, before the application of the intermediate coat, the prime coat and any newly installed fasteners shall be spot solvent cleaned per SSPC-SP 1 and all surfaces pressure washed to remove dirt, oil, lubricants, oxidation products, and foreign substances. Washing shall involve the use of potable water at a pressure between 7 MPa (1000 psi) and 34 MPa (5000 psi) and according to "Low Pressure Water Cleaning" of SSPC-SP12. Paint spray equipment shall not be used to perform the water cleaning. All damaged shop primed areas shall then be spot cleaned per SSPC-SP3 and spot primed with aluminum epoxy mastic. The structural steel shall then receive one full intermediate coat of aluminum epoxy mastic and one full topcoat of waterborne acrylic paint.

d) Paint drips, spills, and overspray must be controlled. If containment is used to control paint drips, spills, and overspray, the containment shall be dropped and all equipment secured when sustained wind speeds of 64 kph (40 mph) or greater occur. When the protective coverings need to be attached to the structure, they shall be attached by bolting, clamping, or similar means. Welding or drilling into the structure is prohibited unless approved by the Engineer in writing.

e) Coating Dry Film Thickness (dft), measured according to SSPC-PA2:
Epoxy Mastic Primer: 125 microns (5 mils) min., 180 microns (7 mils) max.
Epoxy Mastic Intermediate Coat: 125 microns (5 mils) min., 180 microns (7 mils) max.

Acrylic Topcoat: 50 microns (2 mils) min., 100 microns (4 mils) max.

The total dry film thickness, excluding the spot areas touched up with epoxy mastic, shall be between 300 and 460 microns (12 and 18 mils).

f) The pressure washing requirement above may be waived if the QC and QA Inspectors verify the primed surfaces have not been contaminated.

d) Damage to the paint system shall be spot cleaned using SSPC-SP3. The cleaned areas shall be spot painted with a penetrating sealer as recommended by the manufacturer, which shall overlap onto the existing topcoat. Then the aluminum epoxy mastic shall be spot applied not to go beyond the area painted with the sealer. The acrylic topcoat shall be spot applied to the mastic with at least a 150 mm (6 inch) overlap onto the existing topcoat.

The paint manufacturer's product data sheets shall be available for QA review in the shop and submitted to the Engineer prior to start of field work and the requirements as outlined in the data sheets shall be followed.

Special Instructions.

Painting Date/System Code. At the completion of the work, the Contractor shall stencil in contrasting color paint the date of painting the bridge, the painting Contractors name, and the paint type code from the Structure Information and Procedure Manual for the system used. The letters shall be capitals, not less than 50 mm (2 in.) and not more than 75 mm (3 in.) in height.

The stencil shall contain the following wording "PAINTED BY (insert the name of the painting Contractor)" and shall show the month and year in which the painting was completed, followed by "CODE S" for the Inorganic Zinc/ Acrylic System, "CODE X" for the Organic Zinc/ Epoxy/ Urethane System, "CODE AB" for the Organic Zinc/ Epoxy/ Urethane System (shop applied), and "CODE U" for the Aluminum Epoxy Mastic/ Acrylic System all stenciled on successive lines. This information shall be stenciled on the cover plate of a truss end post near the top of the railing, or on the outside face of an outside stringer near both ends of the bridge facing traffic, or at some equally visible surface designated by the Engineer.

Method of Measurement. Shop cleaning and painting new structures will not be measured for payment. Field cleaning and painting will not be measured for payment except when performed under a contract that contains a separate pay item for this work.

Basis of Payment. This work will be paid for according to Article 506.07.

**PEDESTRIAN TRUSS SUPERSTRUCTURE**
Effective: January 13, 1998
Revised: February 7, 2005

**Description:** This work shall consist of the design, fabrication, storage, delivery and erection of a welded steel, pedestrian truss superstructure. Also included in this work shall be the furnishing and installation of a deck, all bearings, anchors and/or retainers, railings, fencing and miscellaneous items as indicated on the plans.

**Materials:**

Truss. Structural steel shall conform to the requirements of Section 1006 of the Standard Specifications, ASTM A847 for cold formed welded square and rectangular tubing, AASHTO M270 Grade 345W (50W) for atmospheric corrosion resistant structural steel, as applicable, unless otherwise shown on the plans or approved by the Engineer. The minimum design parameters shall be according to AASHTO "Guide Specifications for Design of Pedestrian Bridges". All structural steel field connections shall be bolted with high strength bolts. High strength bolts, including suitable nuts and plain hardened washers, shall conform to the requirements of Article 1006.08 of the Standard Specifications.

Deck. The deck type shall be as specified on the plans. The materials shall comply with the applicable portions of the materials section of the Standard Specifications.

When specified for use, the concrete deck and stay-in-place forms shall be non composite. Metal Forms shall have a minimum thickness of 912 microns (0.0359 in.) or 20 Gage and shall be galvanized per ASTM A653 with a Z350 (G165 min.) coating designation.

Railing. The railing shall consist of a smooth rub rail, a toe plate and misc. elements, all located on the inside face of the truss.

Bearings. The bearing shall be designed and furnished as detailed in the plans, in the absence of details, the bearings details shall be as specified by the bridge manufacturer.

When specified for use, elastomeric bearings shall be according to Article 1083 of the Standard Specifications. Teflon surfaces shall be per Article 1083.03 of the Standard Specification and shall be bonded to the bearing plate.

Suppliers. The manufacturer shall be a company specializing in the design and manufacture of pedestrian bridges. The manufacturer shall be certified by AISC according to Article 106.08(b) of the Standard Specifications. The manufacturer shall provide information, to the satisfaction of the Engineer, demonstrating it has successfully provided bridges of similar scope for a minimum of 10 projects. The submittals demonstrating experience shall include names, addresses and telephone numbers of the owners of the structures. This submittal shall be made at the time of the preconstruction conference.

Potential bridge suppliers include but are not limited to:

Continental Custom Bridge Company
8301 State Hwy 29 North
Alexandria, Minnesota 56308
800-328-2047, FAX 320-852-7067

Steadfast Bridges
4021 Gault Ave South
Fort Payne, Alabama 35967
800-749-7515, FAX 256-845-9750

Excel Bridge Manufacturing Company
12001 Shoemaker Avenue
Santa Fe Springs, California 90670
800-548-0054, FAX 562-944-4025

Wheeler Consolidated
9330 James Avenue South
Bloomington, MN 55431
800-328-3986, FAX 952-929-2909

Decker, Incorporated
P.O. Box 4075
Elmira, New York 14904
607-733-1559, FAX 607-733-0296

**Design:**

The superstructure shall conform to the clear span, clear width, and railing configuration shown on the contract plans. The AASHTO "Guide Specifications for Design of Pedestrian Bridges" shall govern the design. The design loads shall be as specified by the AASHTO Guide Specification unless otherwise specified in the Contract plans.

The railings shall be designed per AASHTO Design Specifications for bicycle railings. Smooth rub rails shall be attached to the bicycle railing and located at a bicycle handlebar height of 1.1 m (3.5 ft) above the top of the deck.

Prior to beginning construction or fabrication, the Contractor shall submit design calculations and six sets of shop drawings for each pedestrian bridge to the Engineer for review and approval. In addition, for bridges with any span over 46 m (150 ft), or over a State or Federal Route, or within the States Right-of-Way, a copy of the shop drawings will be reviewed and approved for structural adequacy, by the Bureau of Bridges and Structures prior to final approval of shop drawings. The shop drawings shall include all support reactions for each load type. The following certification shall be placed on the first sheet of the bridge shop plans adjacent to the seal and signature of the Structural Engineer:

"I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans and complies with the requirements of the Contract and the current 'AASHTO Guide Specifications for Design of Pedestrian Bridges'."

The substructure is designed per AASHTO and based on the assumed truss loads shown on the plans. If the manufacturer's design exceeds those loads and/or the substructure needs to be adjusted to accommodate the truss superstructure chosen, then the Contractor shall submit the redesign to the Engineer for approval prior to ordering any material or starting construction. All design calculations, shop drawings and redesigned substructure drawings shall be sealed by a Structural Engineer licensed in the State of Illinois.

**Construction:** Truss erection procedures shall be according to the manufacturer's instructions. The deck shall be placed according to the applicable Sections of the Standard Specifications.

When weathering steel is used, all structural steel shall be cleaned and painted according to the Special Provision for "Surface Preparation and Painting Requirements for Weathering Steel.

When painting is specified, all structural steel shall be cleaned and painted according to the Special Provision for "Cleaning and Painting New Metal Structures". The color of the finish coat shall be as specified in the plans.

**Method of Measurement:** The pedestrian truss superstructure will be measured in square meters (square feet) of completed and accepted bridge deck within the limits of the truss superstructure.

**Basis of Payment:** The pedestrian superstructure will be paid for at the contract unit price per square meter (square foot) for "PEDESTRIAN TRUSS SUPERSTRUCTURE" which will be payment in full for completing the work as described.

**SURFACE PREPARATION AND PAINTING REQUIREMENTS FOR WEATHERING STEEL**
Effective: November 21, 1997
Revised: June 21, 2004

Description. This work consists of surface preparation of structural steel on bridges built with AASHTO M270M Grade 345W (AASHTO Grade 50W) weathering steel. Also included is the protection and cleaning of the substructure. When field painting of the structural steel or portions thereof is specified on the plans it shall be according to the Special Provision for "Cleaning and Painting New Metal Structures" except as modified herein.

The galvanizing requirement of Article 506.04(j) of the Standard Specifications shall not apply to AASHTO M164 Type 3 bolts.

All materials for the paint system used shall be supplied by the same paint manufacturer. The color of the finish coat supplied shall match the Federal Color Standard 595a 20045.

## Construction Requirements

Surface Preparation. All steel shall be cleaned of any surface contamination according to SSPC-SP1 (Solvent Cleaning) and then given a blast cleaning according to SSPC-SP6 (Commercial Blast Cleaning) except areas to be painted shall be given a blast cleaning according to SSPC-SP10 (Near-White Blast Cleaning).

Water Washing. After blasting and painting, all areas of the steel to remain unpainted shall be sprayed with a stream of potable water to ensure uniform weathering.

Protection and Cleaning of Substructure. The piers and abutments shall be protected during construction to prevent rust staining of the concrete. This can be accomplished by temporarily wrapping the piers and abutments with polyethylene covering. Any rust staining of the piers or abutments shall be cleaned to satisfaction of the Engineer after the bridge deck is complete.

Basis of Payment. Surface preparation of structural steel, protection and cleaning of the substructure and painting of structural steel when specified will be considered as included in the cost for fabrication and erection of structural steel and will not be paid for separately.

**MECHANICALLY STABILIZED EARTH RETAINING WALLS**
Effective: February 3, 1999
Revised: June 27, 2005

**Description.** This work shall consist of preparing the design, furnishing the materials, and constructing the mechanically stabilized earth (MSE) retaining wall to the lines, grades and dimensions shown in the contract plans and as directed by the Engineer.

**General.** The MSE wall consists of a concrete leveling pad, precast concrete face panels, a soil reinforcing system, select fill and concrete coping (when specified). The soil reinforcement shall have sufficient strength, quantity, and pullout resistance, beyond the failure surface within the select fill, as required by design. The material, fabrication, and construction shall comply with this Special Provision and the requirements specified by the supplier of the wall system selected by the Contractor for use on the project.

The MSE retaining wall shall be one of the following pre-approved wall systems:

Advanced Reinforced Soil: Tensar Earth Technologies, Inc.
Hilfiker 5x5 Panel Wall: T & B Structural Systems, Inc.
MSE Plus 5x6 Panel System: SSL Construction Products
Reinforced Earth: The Reinforced Earth Company
Retained Earth: Foster Geotechnical
Strengthened Soil: Shaw Technologies, Inc.
Tricon Retained Soil Wall System: Tricon Precast LTD.

Pre-approval of the wall system does not include material acceptance at the jobsite.

**Submittals.** The wall system supplier shall submit complete design calculations and shop drawings to the Department for review and approval no later than 90 days prior to beginning construction of the wall. All submittals shall be sealed by an Illinois Licensed Structural Engineer and shall include all details, dimensions, quantities and cross sections necessary to construct the wall and shall include, but not be limited to, the following items:

(a) Plan, elevation and cross section sheet(s) for each wall showing the following:

(1) A plan view of the wall indicating the offsets from the construction centerline to the face of the wall at all changes in horizontal alignment. The plan view shall show the limits of soil reinforcement and stations where changes in length and/or size of reinforcement occur. The centerline shall be shown for all drainage structures or pipes behind or passing through and/or under the wall.

(2) An elevation view of the wall indicating the elevations of the top of the panels. These elevations shall be at or above the top of exposed panel line shown on the contract plans. This view shall show the elevations of the top of the leveling pads, all steps in the leveling pads and the finished grade line. Each panel type, the number, size and length of soil reinforcement connected to the panel shall be designated. The

equivalent uniform applied bearing pressure shall be shown for each designed wall section.

(3) A listing of the summary of quantities shall be provided on the elevation sheet of each wall.

(4) Typical cross section(s) showing the limits of the reinforced select fill volume included within the wall system, soil reinforcement, embankment material placed behind the select fill, precast face panels, and their relationship to the right-of-way limits, excavation cut slopes, existing ground conditions and the finished grade line.

(5) All general notes required for constructing the wall.

(b) All details for the concrete leveling pads, including the steps, shall be shown. The top of the leveling pad shall be located at or below the theoretical top of the leveling pad line shown on the contract plans. The theoretical top of leveling pad line shall be 1.1 m ( 3.5 ft) below finished grade line at the front face of the wall, unless otherwise shown on the plans.

(c) Where concrete coping or barrier is specified, the panels shall extend up into the coping or barrier a minimum of 50 mm (2 in.). The top of the panels may be level or sloped to satisfy the top of exposed panel line shown on the contract plans. Cast-in-place concrete will not be an acceptable replacement for panel areas below the top of exposed panel line. As an alternative to cast in place coping, the Contractor may substitute a precast coping, the details of which must be included in the shop drawings and approved by the Engineer.

(d) All panel types shall be detailed. The details shall show all dimensions necessary to cast and construct each type of panel, all reinforcing steel in the panel, and the location of soil reinforcement connection devices embedded in the panels. These panel embed devices shall not be in contact with the panel reinforcement steel.

(e) All details of the wall panels and soil reinforcement placement around all appurtenances located behind, on top of, or passing through the soil reinforced wall volume such as parapets with anchorage slabs, coping, foundations, and utilities etc. shall be clearly indicated. Any modifications to the design of these appurtenances to accommodate a particular system shall also be submitted.

(f) When specified on the contract plans, all details of architectural panel treatment, including color, texture and form liners shall be shown.

(g) The details for the connection between concrete panels, embed devices, and soil reinforcement shall be shown.

The initial submittal shall include three sets of shop drawings and one set of calculations. One set of drawings will be returned to the Contractor with any corrections indicated. After approval,

the Contractor shall furnish the Engineer with eight sets of corrected plan prints and one mylar set of plans for distribution by the Department. No work or ordering of materials for the structure shall be done until the submittal has been approved by the Engineer.

**Materials**. The MSE walls shall conform to the supplier's standards as previously approved by the Department, and the following:

(a) The soil reinforcing system, which includes the soil reinforcement, panel embeds and all connection devices, shall be according to the following:

Inextensible Soil Reinforcement. Steel reinforcement shall be either epoxy coated or galvanized. Epoxy coatings shall be according to Article 1006.10(b)(2), except the minimum thickness of epoxy coating shall be 457 microns (18 mils). No bend test will be required. Galvanizing shall be according to AASHTO M 232 or AASHTO M 111 as applicable.

| | |
|---|---|
| Mesh and Loop Panel Embeds | AASHTO M 32M /M 32 and M 55M/M 55 |
| Strips | AASHTO M 223M/M 223 Grade 450 (65) |
| Tie Strip Panel Embeds | AASHTO M 270M/M 270 Grade 345 (50) |

Extensible Soil Reinforcement. Geosynthetic reinforcement shall be monolithically fabricated from virgin high density polyethylene (HDPE) resins having the following properties verified by mill certifications:

| Property | Value | Test |
|---|---|---|
| Melt Flow Rate (g/cm) | 0.060 – 0.150 | ASTM D 1238, Procedure B |
| Density (g/cu m) | 0.941 – 0.965 | ASTM D 792 |
| Carbon Black | 2% (min) | ASTM D 4218 |

Panel embed/connection devices used with geosynthetic soil reinforcement shall be manufactured from virgin or recycled polyvinyl chloride having the following properties:

| Property | Value | Test |
|---|---|---|
| Heat Deflection Temperature (°F) | 155 - 164 | ASTM D 1896 |
| Notched IZOD 1/8 inch @ 73°F (ft-lb/in) | 4 – 12 | ASTM D 256 |
| Coefficient of Linear Exp. (in/in/°F) | 3.5 – 4.5 | ASTM D 696 |
| Hardness, Shore D | 79 | ASTM D 2240 |

(b) The select fill, defined as the material placed in the reinforced volume behind the wall, shall be according to the following:

(1) Select Fill Gradation. Either a coarse aggregate or a fine aggregate may be used. For coarse aggregate, gradations CA 6 thru CA 16 may be used. If an epoxy coated or geosynthetic reinforcing is used, the coarse aggregate gradations shall be limited to CA 12 thru CA 16. For fine aggregate, gradations FA 1, FA 2, or FA 20 may be used.

Other aggregate gradations may be used provided the maximum aggregate size is 38 mm (1 ½ in.), the maximum material passing the 425 μm (#40) sieve is 60 percent, and the maximum material passing the 75 μm (#200) sieve is 15 percent.

(2) Select Fill Quality. The coarse or fine aggregate shall be Class C quality or better, except that a maximum of 15 percent of the material can be finer than the #200 sieve.

(3) Select Fill Internal Friction Angle. The effective internal friction angle for the coarse or fine aggregate shall be a minimum 34 degrees according to AASHTO T 236 on samples compacted to 95 percent density according to ASHTO T 99. The AASHTO T 296 test with pore pressure measurement may be used in lieu of AASHTO T 236. If the vendor's design uses a friction angle higher than 34 degrees, as indicated on the approved shop drawings, this higher value shall be taken as the minimum required.

(4) Select Fill and Steel Reinforcing. When steel reinforcing is used, the select fill shall meet the following requirements.

a. The pH shall be 5.0 to 10.0 according to AASHTO T 289.
b. The resistivity shall be greater than 3000 ohm centimeters according to AASHTO T 288.
c. The chlorides shall be less than 100 parts per million according to AASHTO T 291 or ASTM D 4327. For either test, the sample shall be prepared according to AASHTO T 291.
d. The sulfates shall be less than 200 parts per million according to AASHTO T 290 or ASTM D 4327. For either test, the sample shall be prepared according to AASHTO T 290.
e. The organic content shall be a maximum 1.0 percent according to ASHTO T 267.

(5) Select Fill and Geosynthetic Reinforcing. When geosynthetic reinforcing is used, the select fill pH shall be 4.5 to 9.0 according to AASHTO T 289.

(6) Test Frequency. Prior to start of construction, a sample of select fill material shall be submitted to the Department for testing and approval. Thereafter, the minimum frequency of sampling and testing at the jobsite will be one per 15,500 cubic meters (20,000 cubic yards) of select fill material.

(c) The embankment material behind the select fill shall be according to Section 202 and/or Section 204. An embankment unit weight of 1921 kg/cubic meter (120 lbs/cubic foot) and an effective friction angle of 30 degrees shall be used in the wall system design, unless otherwise indicated on the plans.

(d) The geosynthetic filter material used across the panel joints shall be either a non-woven needle punch polyester or polypropylene or a woven monofilament polypropylene with a minimum width of 300 mm (12 in.) and a minimum non-sewn lap of 150 mm (6 in.) where necessary.

(e) The bearing pads shall be rubber, neoprene, polyvinyl chloride, or polyethylene of the type and grade as recommended by the wall supplier.

(f) All precast panels shall be manufactured with Class PC concrete, and shall be according to Section 504 and the following requirements:

(1) The minimum panel thickness shall be 140 mm (5 1/2 in.).

(2) The minimum reinforcement bar cover shall be 38 mm (1 1/2 in.).

(3) The panels shall have a ship lap or tongue and groove system of overlapping joints between panels designed to conceal joints and bearing pads.

(4) The panel reinforcement shall be epoxy coated.

(5) All dimensions shall be within 5 mm (3/16 in.).

(6) Angular distortion with regard to the height of the panel shall not exceed 5 mm (0.2 in.) in 1.5 m (5 ft).

(7) Surface defects on formed surfaces measured on a length of 1.5 m (5 ft.) shall not be more than 2.5 mm (0.1 in.).

(8) The panel embed/connection devices shall be cast into the facing panels with a tolerance not to exceed 25 mm (1 in.) from the locations specified on the approved shop drawings.

Unless specified otherwise, concrete surfaces exposed to view in the completed wall shall be finished according to Article 503.16. The back face of the panel shall be roughly screeded to eliminate open pockets of aggregate and surface distortions in excess of 6 mm (1/4 in.).

The precast panels shall be produced according to the latest Department's Policy Memorandum for "Quality Control/Quality Assurance Program for Precast Concrete Products."

**Design Criteria**. The design shall be according to the AASHTO Design Specifications for Mechanically Stabilized Earth Walls except as modified herein. The wall supplier shall be responsible for all internal stability aspects of the wall design and shall supply the Department with computations for each designed wall section. The analyses of settlement, bearing capacity and overall slope stability will be the responsibility of the Department.

External loads, such as those applied through structure foundations, from traffic or railroads, slope surcharge etc., shall be accounted for in the internal stability design. The presence of all appurtenances behind, in front of, mounted upon, or passing through the wall volume such as drainage structures, utilities, structure foundation elements or other items shall be accounted for in the internal stability design of the wall.

The design of the soil reinforcing system shall be according to the applicable AASHTO Design Specifications for "Inextensible" steel or "Extensible" geosynthetic reinforcement criteria. The reduced section of the soil reinforcing system shall be sized to allowable stress levels at the end of a 75 year design life.

Steel soil reinforcing systems shall be protected by either galvanizing or epoxy coating. The design life for epoxy shall be 16 years. The corrosion protection for the balance of the 75 year total design life shall be provided using a sacrificial steel thickness computed for all exposed surfaces according to the applicable AASHTO Design Specifications.

Geosynthetic soil reinforcing systems shall be designed to account for the strength reduction due to long-term creep, chemical and biological degradation, as well as installation damage.

To prevent out of plane panel rotations, the soil reinforcement shall be connected to the standard panels in at least two different elevations, vertically spaced no more than 760 mm (30 in.) apart.

The panel embed/soil reinforcement connection capacity shall be determined according to the applicable AASHTO Design Specifications.

The factor of safety for pullout resistance in the select fill shall not be less than 1.5, based on the pullout resistance at 13 mm (1/2 in.) deformation. Typical design procedures and details, once accepted by the Department, shall be followed. All wall system changes shall be submitted in advance to the Department for approval.

For aesthetic considerations and differential settlement concerns, the panels shall be erected in such a pattern that the horizontal panel joint line is discontinuous at every other panel. This shall be accomplished by alternating standard height and half height panel placement along the leveling pad. Panels above the lowest level shall be standard size except as required to satisfy the top of exposed panel line shown on the contract plans.

At locations where the plans specify a change of panel alignment creating an included angle of $150^{\circ}$ or less, precast corner joint elements will be required. This element shall separate the adjacent panels by creating a vertical joint secured by means of separate soil reinforcement.

Isolation or slip joints, which are similar to corner joints in design and function, may be required to assist in differential settlements at locations indicated on the plans or as recommended by the wall supplier. Wall panels with areas greater than 2.8 sq m (30 sq ft) may require additional slip joints to account for differential settlements. The maximum standard panel area shall not exceed 5.6 sq m (60 sq ft).

**Construction.** The Contractor shall obtain technical assistance from the supplier during wall erection to demonstrate proper construction procedures and shall include any costs related to this technical assistance in the unit price bid for this item.

The foundation soils supporting the structure shall be graded for a width equal to or exceeding the length of the soil reinforcement. Prior to wall construction, the foundation shall be compacted with a smooth wheel vibratory roller. Any foundation soils found to be unsuitable shall be removed and replaced, as directed by the Engineer, and shall be paid for separately according to Section 202.

When structure excavation is necessary, it shall be made and paid for according to Section 502 except that the horizontal limits for structure excavation shall be from the rear limits of the soil reinforcement to a vertical plane 600 mm (2 ft) from the finished face of the wall. The depth shall be from the top of the original ground surface to the top of the leveling pad. The additional excavation necessary to place the concrete leveling pad will not be measured for payment but shall be included in this work.

The concrete leveling pads shall have a minimum thickness of 150 mm (6 in.) and shall be placed according to Section 503.

As select fill material is placed behind a panel, the panel shall be maintained in its proper inclined position according to the supplier specifications and as approved by the Engineer. Vertical tolerances and horizontal alignment tolerances shall not exceed 19 mm (3/4 in.) when measured along a 3 m (10 ft) straight edge. The maximum allowable offset in any panel joint shall be 19 mm (3/4 in.). The overall vertical tolerance of the wall, (plumbness from top to bottom) shall not exceed 13 mm per 3 m (1/2 in. per 10 ft) of wall height. The precast face panels shall be erected to insure that they are located within 25 mm (1 in.) from the contract plan offset at any location to insure proper wall location at the top of the wall. Failure to meet this tolerance may cause the Engineer to require the Contractor to disassemble and re-erect the affected portions of the wall. A 19 mm (3/4 in.) joint separation shall be provided between all adjacent face panels to prevent direct concrete to concrete contact. This gap shall be maintained by the use of bearing pads and/or alignment pins.

The back of all panel joints shall be covered by a geotextile filter material attached to the panels with a suitable adhesive. No adhesive will be allowed directly over the joints.

The select fill and embankment placement shall closely follow the erection of each lift of panels. At each soil reinforcement level, the fill material should be roughly leveled and compacted before placing and attaching the soil reinforcing system. The soil reinforcement and the maximum lift thickness shall be placed according to the supplier's recommended procedures except, the lifts for select fill shall not exceed 255 mm (10 in.) loose measurement or as approved by the Engineer. Embankment shall be constructed according to Section 205.

At the end of each day's operations, the Contractor shall shape the last level of select fill to permit runoff of rainwater away from the wall face. Select fill shall be compacted according to the project specifications for embankment except the minimum required compaction shall be 95 percent of maximum density as determined by AASHTO T-99. Select fill compaction shall be accomplished without disturbance or distortion of soil reinforcing system and panels. Compaction in a strip 1 m (3 ft) wide adjacent to the backside of the panels shall be achieved using a minimum of 3 passes of a light weight mechanical tamper, roller or vibratory system.

**Method of Measurement**. Mechanically Stabilized Earth Retaining Wall will be measured for payment in square meters (square feet). The MSE retaining wall will be measured from the top of exposed panel line to the theoretical top of leveling pad line for the length of the wall as shown on the contract plans.

**Basis of Payment**. This work, including placement of the select fill within the soil reinforced wall volume shown on the approved shop drawings, precast face panels, soil reinforcing system, concrete leveling pad and accessories will be paid for at the contract unit price per square meter (square foot) for MECHANICALLY STABILIZED EARTH RETAINING WALL.

Concrete coping when specified on the contract plans will be included for payment in this work. Other concrete appurtenances such as anchorage slabs, parapets, abutment caps, etc. will not be included in this work, but will be paid for as specified elsewhere in this contract, unless otherwise noted on the plans.

Excavation necessary to place the select fill for the MSE wall shall be paid for as STRUCTURE EXCAVATION and/or ROCK EXCAVATION FOR STRUCTURES as applicable, according to Section 502.

Embankment placed outside of the select fill volume will be measured and paid for according to Sections 202 and/or 204 as applicable.

## SPECIAL PROVISION – RUSTIC RAIL FENCE

**Rustic Rail Fence.** Timber Split Rail Fence shall consist of three parallel timber rails supported on wooden posts installed where shown on the plans or as directed by the Engineer.

All materials used in the work shall conform to the requirements for the class of material named. The Engineer reserves the right of approval of the manufacturer and type of split rail fence through shop drawing submittals in accordance with 105.04 of the Standard Specifications.

Specific reference is made to the following:

Lumber and Timber..... Section 507
Wood Preservatives..... Subsection 1007
Miscellaneous Metals..... Subsection 1006

Sawed Posts shall be from one of the following species:

Pacific Coast Douglas Fir
Western Larch
Eastern Hemlock
Red (Norway) Pine
White Pine
Jack Pine
Southern Yellow Pine
Oak
Ponderosa Pine

The fence shall conform to the dimensions shown on the plans. Posts shall be installed into the ground by direct burial. The fence shall consist of three rails, each 10' long and 3" diameter minimum, connected to the posts by means of 2" diameter hollowed out openings in the posts to insert the rails. The end of the rails shall be tapered to fit into the post opening. The rails shall also be connected to the posts with galvanized gutter spikes. The dimensions are subject to the tolerances as approved by the Engineer. The posts need not be surfaced. Each post furnished shall be not less than three inches longer than the net length shown on the plans. All posts shall have a minimum stress grade rating of 1200fb.

Rails furnished for timber split rail fence shall be sawed rails and shall be from one of the following species:

Pacific Coast Douglas Fir
Southern Yellow Pine
Western Larch
Red (Norway) Pine
White Pine
Oak

Sawed rails shall be furnished treated unless otherwise required on the plans. Sawed rails shall be furnished unsurfaced on all four sides.

Preservative treatment shall be in accordance with Article 1007.12 for fence posts and wood guardrail lumber.

All bolts, nuts, gutter spikes, and miscellaneous hardware furnished for the work shall be in accordance with the design and dimensions shown on the plans. Bolts shall be threaded sufficiently to permit secure fastening and shall be supplied with the necessary washers.

Unless otherwise specified, all bolts, nuts, washers, gutter spikes, and other hardware shall be furnished galvanized.

All work shall be constructed in accordance with the approved shop drawing details. Holes for posts shall be dug at the required location and depth, and the bottom of the holes shall be compacted to provide a stable foundation. A tolerance of plus or minus three inches will be permitted in depth of post holes provided the length of the post is adequate to obtain the required elevation of the finished top. The posts shall be set plumb and with the front faces in a straight line or to conform to such curves as shown on the plans or as directed by the Engineer. The MSE Wall end of the fence shall be placed to provide a transition between the fence and the MSE Wall. The first section of fence shall then taper back to a minimum 9-inch clear offset from the edge of the path. The placed posts shall be backfilled with approved material placed in layers and compacted in such a manner as to avoid disturbing the position or alignment of the post.

After the post has been set, the finished elevation of the top and bottom rails shall be determined and the post cut off and trimmed as shown on the plans. The cut surfaces of treated posts shall be treated with two brush applications of the same type of preservative used in the original treatment. Holes shall be bored in the set posts to support the rails at the required elevation and grade. The rails shall be bolted to the posts, or fastened with gutter spikes, with round headed bolts, with the head at the rail face. The threaded ends of all bolts shall be burred. Where the bolt extends one inch or more through the nut, it shall be cut off at ½ inch from nut before burring.

This work shall be paid for at the contract unit price per foot for RUSTIC RAIL FENCE, which price shall be full compensation for furnishing all materials, including posts, rails, bolts, preservative, and incidentals; for all excavation, erection, backfilling, and disposal of surplus materials; for preservative treating; and for all labor, tools, equipment, and incidental necessary to construct the fence complete.

# DU PAGE COUNTY STORMWATER MANAGEMENT PERMIT APPLICATION

| 1. COMMUNITY AND STATUS | 2. DATE APP. RECEIVED BY COMMUNITY *(office use only)* | 3. STORMWATER APPLICATION/PERMIT NO. *(to be assigned by community)* | 4. *(Community use only)* |
|---|---|---|---|
| City of Wheaton<br>Non X Partial Complete | | 04360048 | T12722 |

5. *(Community use only)*

| 6. NAME, ADDRESS TITLE OF APPLICANT | 7. NAME AND ADDRESS OF OWNER |
|---|---|
| Wheaton Park District<br>666 South Main Street<br>Wheaton, IL 60187 | Wheaton Park District<br>666 South Main Street<br>Wheaton, IL 60187 |
| FAX NO. 630-665-5880 | FAX NO. 630-665-5880 |
| Telephone No. during business hours: 630-665-4710 | Telephone No. during business hours: 630-665-4710 |

8. Check all of the following conditions which apply:

_____ The development does not affect a special management area. Attach a stormwater submittal.

_____ Wetlands located on or near the development site. Development does not directly affect wetland. Attach a stormwater submittal and a wetland submittal.

X The development affects a wetland but not a flood plain. Attach a stormwater submittal and a wetland submittal.

_____ The development affects a flood plain but not a wetland. Attach a stormwater submittal and a flood plain/riparian submittal.

_____ The development affects both a flood plain and a wetland. attach a stormwater submittal, and a flood plain/riparian submittal, and wetland submittal.

9. DESCRIPTION OF PROPOSED DEVELOPMENT:

2,400 linear feet of a 12-foot wide bike / pedestrian path with stormwater conveyance system and a detention basin.

| 10. LOCATION OF DEVELOPMENT | 11. LEGAL DESCRIPTION |
|---|---|
| Monroe Junior High School<br>Street Address: Manchester Road<br>Municipality: Wheaton<br>Watershed Planning Area & Tributary: West Branch DuPage River | 1/4 Section _____ Township _____ Range _____<br>PP No. __ __-__ __-__ __ __-__ __ __ |

12. UNDER PENALTY OF INTENTIONAL MISREPRESENTATION AND/OR PERJURY, I declare that I have examined and/or made this application and it is true and correct to the best of my knowledge and belief. I agree to construct said improvement in compliance with all provisions of the applicable ordinances. I realize that the information that I have affirmed hereon forms a basis for the issuance of the stormwater management permit(s) herein applied for and aproval of plans in connection therewith shall not be construed to permit any construction upon said premises or use thereof in violation of any provision of any applicable ordinance or to excuse the owner or his successors in title form compplying therewith.

| Signature of applicant | Date | Signature of Owner | Date |
|---|---|---|---|
| [signature] | 4/27/04 | [signature] | 4/27/04 |
| [signature] | 4/27/04 | [signature] | 4/27/04 |

*(office use only)*

| 13. PERMIT REVIEW FEE (separate checks) | Amount | Received By/Title |
|---|---|---|
| Community | $2000 ck | [signature] |
| DuPage County Development and Stormwater | | |

| 14. PROBABLE COST | Amount | 15. SECURITIES | Amount |
|---|---|---|---|
| Estimate of probable cost of construction of stormwater facilities | | Development Security | |
| Estimate of probable cost of implementation maintenance of sediment and erosion plan | | Sediment and Erosion Control Security | |
| | | TOTAL SECURITY | by Performance Bond |

| 16. FINAL APROVALS | Date | Approved By/Title |
|---|---|---|
| Community | 11/23/05 | [signature] DIR. OF ENGINEERING |
| DuPage County Development and Stormwater Certification | 11/23/05 | [signature] Stormwater Permit Manager |
| DuPage County Stormwater Permit Issued | | N/A |

Unless otherwise noted, this permit expires December 31 of the third year following the date of permit issuance.

17. SPECIAL CONDITIONS

(01/01) White-Community Copy Green DEC Permit Copy Canary-Applicant Permit Copy Pink-DEC Copy Goldenrod-Application Copy

DEPARTMENT OF DEVELOPMENT AND ENVIRONMENTAL CONCERNS

*FEE RECEIPT*

28637

Nov. 23, 20 05

Received of Wheaton Park District Owner _____ Agent _____

(Owner's Name/Address)

Lot No. _____ Block # _____ Township _____

Amount 9460.00 Check # 86641 Cash _____

Amount _____ Check # _____ Cash _____

FOR: ☐ **Permit Fee #** _____ ☐ **Reinspection Fee** _____

☐ **Storm Water Fee #** _____ ☐ **Revision Fee** _____

☐ **Zoning** _____ ☐ **Conference Fee** _____

*Receipt of this fee does not guarantee that a permit will be issued. In case permit is refused, a partial refund may be made.*

Storm - Wheaton Park Dist.

Wetland Det.

*BUILDING OFFICIAL*

DEPARTMENT OF DEVELOPMENT AND ENVIRONMENTAL CONCERNS

*FEE RECEIPT*

28638

Nov. 23, 20 05

Received of Wheaton Park District Owner _____ Agent _____

(Owner's Name/Address)

Lot No. _____ Block # _____ Township _____

Amount $69,125.00 Check # 86635 Cash _____

Amount _____ Check # _____ Cash _____

FOR: ☐ **Permit Fee #** _____ ☐ **Reinspection Fee** _____

☑ **Storm Water Fee #** _____ ☐ **Revision Fee** _____

☐ **Zoning** _____ ☐ **Conference Fee** _____

*Receipt of this fee does not guarantee that a permit will be issued. In case permit is refused, a partial refund may be made.*

Wetlands

*BUILDING OFFICIAL*

Illinois Department of Transportation

# Storm Water Pollution Prevention Plan

Route Pedestrian / Bike Path over Union Pacific RR Marked

Section 94-P4031-00-BR Project No. STPTE - 00D1 (420)

County DuPage

This plan has been prepared to comply with the provisions of the NPDES Permit Number ILR10, issued by the Illinois Environmental Protection Agency for storm water discharges from Construction Site Activities.

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

Signature

November 7, 2005
Date

Vice President
Title

## 1. Site Description

a. The following is a description of the construction activity which is the subject of this plan (use additional pages, as necessary):
Construction of at-grade and above grade pedestrian pathway.

b. The following is a description of the intended sequence of major activities which will disturb soils for major portions of the construction site, such as grubbing, excavation and grading (use additional pages, as necessary):
Install silt fence for construction of MSE Wall (Sta. 9+00 - 13+50), and earthen embankment (sta. 22+32 - 26+00). Install silt fence and ditch checks along the swale between Nepil and Cottonwood.

c. The total area of the construction site is estimated to be 4 +/- acres.

The total area of the site that it is estimated will be disturbed by excavation, grading or other activities is _____ acres.

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 either in the Soils Report for the project, which is hereby incorporated by reference, or in an attachment to this plan.

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 discharged to a surface water.

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 has temporarily or permanently ceased on all disturbed portions 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 (use additional pages, as necessary):

Contractor shall not disturb vegetation outside limits of construction. Disturbed areas (except slopes and Detention Basin) shall be seeded with CL.1 seed mix and mulched immediately following construction. Detention basin and embankment slopes shall be stabilized with Mesic Prairie seeding and erosion control blanket. Temporary Seeding (Cl.7) and mulch shall be used to stabilize work areas if needed or at the Engineer's direction. Also, see Stormwater Management Report provisions incorporated by reference.

(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 (use additional pages, as necessary):

Silt fence shall be installed prior to any soil disturbance at the Project site. Temporary ditch checks and inlet and pipe protectors shall be installed as provided for in the plans or as directed by the Engineer. Rip rap aprons shall be installed at storm sewer outlet locations as provided for in the plans.

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).

Description of Storm Water Management Controls (use additional pages, as necessary):

A stormwater management facility is proposed at the west limit of the earthen embankment. This facility shall be constructed prior to or concurrent with the embankment and shall be used as a sediment basin during construction. Collected sediment shall be removed prior to completing and stabilizing the facility.

**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 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 ILR10 incorporated by reference and are enforceable under this permit even if they are not specifically included in the plan.

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

A stormwater management facility is proposed at the west limit of the earthen embankment. This facility shall be constructed prior to or concurrent with the embankment and shall be used as a sediment basin during construction. Collected sediment shall be removed prior to completing and stabilizing the facility.

## 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 (use additional pages, as necessary):

Contractor shall be responsible to maintain all erosion control measures throughout construction. Based on inspections (see below), if it is necessary to replace or supplement erosion control measures, contractor shall do so at the direction of the qualified inspector. Contractor shall be required to partifipate in all inspections, and shall maintain responsibility for all measures and controls necessary to satisfy NPDES Permit No. IL R10

## 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 must be described below. Appropriate pollution prevention measures, as described below, will be implemented for the non-storm water component(s) of the discharge. (Use additional pages as necessary to describe non-storm water discharges and applicable pollution control measures).

Not Applicable.



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Illinois Department of Transportation

## Contractor Certification Statement

This certification statement is a part of the Storm Water Pollution Prevention Plan for the project described below, in accordance with NPDES Permit No. ILR10, issued by the Illinois Environmental Protection Agency on May 14, 1998.

Project Information:

Route Pedestrian / Bike Path over Union Pacific RR  Marked N/A

Section 94-P4031-00-BR  Project No. STPTE - 00D1 (420)

County DuPage

I certify under penalty of law that I understand the terms of the general National Pollutant Discharge Elimination System (NPDES) permit (ILR 10) that authorizes the storm water discharges associated with industrial activity from the construction site identified as part of this certification.

Signature  Date

Title

Name of Firm

Street Address

City  State

Zip Code

Telephone Number

BDE 2342a

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

# NOTICE OF INTENT (NOI)

## GENERAL PERMIT TO DISCHARGE STORM WATER CONSTRUCTION SITE ACTIVITIES

## OWNER INFORMATION

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| NAME: | LAST / FIRST / MIDDLE / (OR COMPANY NAME): Wheaton Park District | | | | | OWNER TYPE: SPECIAL DISTRICT | |
| MAILING ADDRESS: | 666 South Main Street | | | | | | |
| CITY: | Wheaton | STATE: | Illinois | | | ZIP: | 60187 |
| CONTACT PERSON: | Kenneth S. Kutska | | | TELEPHONE NUMBER: | AREA CODE: 630 | | NUMBER: 665-4710 |

## CONTRACTOR INFORMATION

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| NAME: | LAST / FIRST / MIDDLE / (OR COMPANY NAME) | | | | TELEPHONE NUMBER: | AREA CODE | NUMBER |
| MAILING ADDRESS: | | CITY: | | STATE: IL | | ZIP: | |

## CONSTRUCTION SITE INFORMATION

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| SELECT ONE: | ☒ New Site ☐ CHANGE OF INFORMATION TO PERMIT NO. ILR10_____ | | | | | | |
| FACILITY NAME: | Pedestrian / Bike Path over Union Pacific RR | | | OTHER NPDES PERMIT NOS.: | N/A | | |
| FACILITY LOCATION: | Manchester Road to Cottonwood Drive | | | TELEPHONE NUMBER: | AREA CODE | NUMBER | |
| CITY: | Wheaton | ST: IL | ZIP: | LATITUDE: | | LONGITUDE: | |
| COUNTY: | DuPage | | SECTION: | TOWNSHIP: | | RANGE: | |
| APPROX. CONST. START DATE: | 3/15/06 | APPROX. CONSTRUCTION END DATE: | 7/15/06 | TOTAL SIZE OF CONSTRUCTION SITE IN ACRES: | | | |
| STORM WATER POLLUTION PREVENTION PLAN COMPLETED ☒ YES ☐ NO (If no, separate notification required to Agency prior to construction.) | | | | | | | |

## TYPE OF CONSTRUCTION

| | |
|---|---|
| OTHER | TYPE BRIEF DESCRIPTION OF PROJECT: Pedestrian / Bike Path Bridge over Union Pacific Railroad |

## HISTORIC PRESERVATION AND ENDANGERED SPECIES COMPLIANCE

HAS THIS PROJECT SATISFIED APPLICABLE REQUIREMENTS FOR COMPLIANCE WITH ILLINOIS LAW ON:

| | | |
|---|---|---|
| HISTORIC PRESERVATION | ☒ YES | ☐ NO |
| ENDANGERED SPECIES | ☒ YES | ☐ NO |

## RECEIVING WATER INFORMATION

| | |
|---|---|
| DOES YOUR STORM WATER DISCHARGE DIRECTLY TO: ☐ WATERS OF THE STATE OR ☒ STORM SEWER | OWNER OF STORM SEWER SYSTEM: City of Wheaton |
| NAME OF CLOSEST RECEIVING WATER: | |

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

OWNER SIGNATURE:_____ DATE: _____

FOR OFFICE USE ONLY

| | | |
|---|---|---|
| MAIL COMPLETED FORM TO:<br><br>(DO NOT SUBMIT ADDITIONAL DOCUMENTATION UNLESS REQUESTED) | ILLINOIS ENVIRONMENTAL PROTECTION AGENCY<br>DIVISION OF WATER POLLUTION CONTROL<br>ATTN: PERMIT SECTION<br>POST OFFICE BOX 19276<br>SPRINGFIELD, ILLINOIS 62794-9276<br>www.epa.state.il.us | LOG:<br>PERMIT NO. ILR10<br>DATE: |

Information required by this form must be provided to comply with 415 ILCS 5/39 (1996). Failure to do so may prevent this form from being processed and could result in your application being denied. This form has been approved by the Forms Management Center.

IL 532 2104
WPC 623 Rev. 6/03

~~members shall have forty percent (40%), divided equally among them, of the~~ votes entitled to be cast.

5.2.3 Whenever the Parties deem it necessary or advisable (on a date or dates to be determined by the Original Parties), the Advisory Board , in consultation with IDOT and a professional Illinois licensed engineer mutually acceptable to the Parties, shall submit written recommendations to the Parties for appropriate maintenance, repair, reconstruction or replacement of the Project.

5.2.4 The Administrative Party shall call at least one meeting of the Advisory Board annually for the purpose of establishing and considering the recommendations provided for in subparagraph 5.2.3 and such other matters as the Administrative Party shall deem appropriate. Meetings may also be called by not less than two (2) other Advisory Board members. Notice of meetings of the Advisory Board shall be in writing (personal delivery, facsimile transmission or US mail) given not less than five (5) nor more than thirty (30) days prior to the date of the meeting; provided, however, that notice of a meeting held for the purpose of discussing a bona fide emergency may be given upon twenty-four (24) hours notice. The agenda for the meeting shall accompany every notice. Notwithstanding the foregoing, attendance of an Advisory Board member at any meeting shall constitute a waiver of notice of such meeting, except where a member attends a meeting for the expressed purpose of objecting to the transaction of any business because the meeting is not lawfully called or convened. The meetings of the Advisory Board shall be subject to the ~~requirements of the Open Meetings Act of the State of~~ Illinois.

5.3 The Administrative Party shall act as an escrowee for the Parties with respect to receiving deposits for the design and construction of the Project and any later reconstruction, replacement or repair of any portion of the Project, subject to fund accounting by the Park District. A representative of the Park, specifically Kenneth Kutska, and a representative of the School, specifically Dr. Gary Catalani, shall agree in advance to the final design of the Project and approval of contracts and change orders, and otherwise subject to applicable law; provided, however, that approvals shall not be unreasonably withheld or delayed, and that no changes to the design or construction may be required by either Party which might adversely effect the structural integrity of the Project or funding for the Project. The monies deposited by each Party and each Non-Party Contributor shall be drawn upon according to submittal of payout requests by the contractor(s) responsible for the initial construction of the Project. Each payout request shall be sent by the Administrative Party to the other Parties, accompanied by appropriate contractor's, subcontractor's and material supplier's sworn statements and mechanic's lien waivers. Upon

review and approval of each payout request by the Parties, which review and approval shall not be unreasonably withheld or delayed, the Administrative Party shall then direct IDOT to pay the appropriate payee. The Parties acknowledge that a) IDOT will actually pay the appropriate payee, b) twenty percent (20%) of each payout shall be billed by IDOT to the Administrative Party and eighty percent (80%) shall be paid by Federal Highway Administration funds ("FHWA Funds") until FHWA Funds are exhausted, and c) after FHWA Funds are exhausted, IDOT will bill the Administrative Party for one hundred percent (100%) of all payout requests. If any Party's unreasonable withholding or delay of a payout request results in the imposition of any interest or other charges from the payee to whom the payout funds are owed, the withholding or delaying Party shall be responsible for those charges. It is contemplated that Park will facilitate payment for all Project costs otherwise reimbursable from grant funding, will seek funding from the granting agencies for those payments, and that School shall not be liable to Park if any grant funding is not finally paid out from the applicable granting agency(ies). Except as provided in Paragraph 9.4, below, interest earned on funds deposited in the fund account maintained by the Park shall remain in the fund account and shall be used only for the purpose of the design and construction of the Project and the maintenance, repair, reconstruction or replacement of the Project, and if the Parties agree in writing, for payment of actual, reasonable and necessary out of pocket costs and expenses incurred by the Administrative Party.

5.4 ~~If approved in advance by the Parties, any maintenance or repair of the Project may be~~ performed by any of the Parties with its own personnel or through a subcontractor, and in such event the Party performing such maintenance or repair shall be reimbursed for the actual costs of such maintenance or repair incurred by such Party. Payment to the Party performing such repair shall be made by the Administrative Party out of the fund account established pursuant to Paragraph 5.3, above, following the same procedure outlined in that paragraph, except that if the repairs are performed by the Party's own personnel, a reasonably detailed invoice shall be submitted in lieu of the contractor's sworn statement and supporting lien waivers.

## 6. RIGHTS AND RESPONSIBILITIES

6.1. The Park shall contribute funds in accordance with Paragraph 4, above and for the short and long term maintenance of the Project, shall contribute the use of Park-owned lands for the site of the Project, and:

6.1.1 The Park, in cooperation and consultation with the other Parties, reserves the right to review and approve all Project design, and all engineering, construction, maintenance, and restoration contracts for the Project .

6.1.2 The Park shall be responsible for continued maintenance of the portion of the ~~Project on property owned by the Park, and of the fencing located on Railroad~~

causes of action arising out of or related to any injury to or death of any person, or loss of or damage to property, to the extent same result from or arise out of the negligent or wrongful acts or omissions of such other Party or third party or its agents or employees.

7.6 Each Party shall maintain, at its own expense, the insurance coverages described in **Exhibit E-1** attached to and incorporated by reference in this Agreement, subject to such other or additional requirements as may be agreed between the Parties depending on the final terms of the Railroad Agreement or as may be required by the Railroad thereunder, or such other coverages as agreed to by the Parties in writing, insuring the members of its governing board, and its officers, employees and agents, and with respect to the Project, except for worker's compensation coverage, naming the other Parties, the members of their governing boards and their officers, employees and agents as additional insureds. The insurance policies shall incorporate a provision requiring the giving of written notice to the other Parties at least thirty (30) days prior to the cancellation, nonrenewal, or reduction in limits of liability by endorsement, change in deductible per claim, or change in limits or exclusion of any such policies.

7.7 Every contractor retained by the Parties or a Party to perform construction or maintenance on the Project shall be required before commencing work to provide and maintain at his/its sole cost and expense commercial general liability insurance with coverages and policy provisions as described in **Exhibits E-2-A** and **E-2-B** attached to and incorporated by reference in this Agreement, or such other coverages as agreed to by the Parties in writing.

7.8 If the Parties utilize an engineer or other design consultant to perform inspection or design services on the Project , the engineer or consultant shall, prior to commencing its services, be required to provide and maintain at his/its sole cost and expense, commercial general liability and professional (errors and omissions) liability insurance with coverages and policy provisions as described in **Exhibit E-3** attached to and incorporated by reference in this Agreement, or such other coverages agreed to by the Parties in writing.

7.9 If and as required by the Railroad, during the entire period of construction, major repair, reconstruction or replacement of the Overpass Structure, the Parties shall obtain on behalf of their contractors, or shall require their contractors and subcontractors to so provide and maintain, insurance for the benefit of the Railroad as describe in **Exhibit E-4** attached to and incorporated by reference in this Agreement or such other coverages as required by the Railroad.

7.10 The Parties shall provide such other and additional insurance coverages as they shall mutually agree in writing, the Parties acknowledging that with the passage of time required insurance amounts or coverage may increase or change. Allocation of responsibility for payment of the cost of such coverages shall also be as agreed by the Parties in writing.

## EXHIBIT E-2-A

## INSURANCE COVERAGES TO BE MAINTAINED BY CONTRACTOR DURING CONSTRUCTION OR MAJOR RECONSTRUCTION OF OVERPASS

Contractor shall obtain insurance of the types and in the amounts listed below.

**A. Commercial General and Umbrella Liability Insurance**

Contractor shall maintain commercial general liability (CGL) and, if necessary, commercial umbrella insurance with a limit of not less that $2,000,000 each occurrence. If such CGL insurance contains a general aggregate limit, it shall apply separately to this project/location.

CGL insurance shall be written on Insurance Services Office (ISO) occurrence form CG 00 01 10 93, or a substitute form providing equivalent coverage, and shall cover liability arising from premises, operations, independent contractors, products-completed operations, personal injury, including death, property damage and advertising injury, and liability assumed under an insured contract (including the tort liability of another assumed in a business contract), and liability arising from the indemnity provisions of any agreement between the Contractor and the Railroad. The CGL insurance shall also provide for Broad Form Property Damage, and Underground Hazard.

The Parties shall be included as insured under the CGL, using ISO additional insured endorsement CG 20 10 or a substitute providing equivalent coverage, and under the commercial umbrella, if any. This insurance shall apply as primary insurance with respect to any other insurance or self-insurance afforded to the Parties.

There shall be no endorsement of the CGL limiting the scope of coverage for liability arising from pollution, explosion, collapse, or underground property damage.

**B. Continuing Completed Operations Liability Insurance**

Contractor shall maintain commercial general liability (CGL) and, if required by the Parties, commercial umbrella liability insurance with a limit of not less than $5,000,000 each occurrence for at least three years following substantial completion of the work.

Continuing CGL insurance shall be written on ISO occurrence form CG 00 01 10 93, or substitute form providing equivalent coverage, and shall, at minimum, cover liability arising from products-completed operations and liability assumed under an insured contract.

Continuing CGL insurance shall have a products-completed operations aggregate of at least two times its each occurrence limit.

Continuing commercial umbrella coverage, if any, shall include liability coverage for damage to the insured's completed work equivalent to that provided under ISO form CG 00 01.

**C. Business Auto and Umbrella Liability**

Contractor shall maintain business auto liability and commercial umbrella liability insurance with a limit of not less that $2,000,000 for each occurrence or claim. Such insurance shall cover liability arising out of any auto including owned, hired and non-owned autos, and mobile equipment to the extent it may be excluded from CGL coverage.

Business auto insurance shall be written on Insurance Services Office (ISO) form CA 00 01, CA 00 05, CA 12, CA 00 20, or a substitute form providing equivalent liability coverage. If necessary, the policy shall be endorsed to provide contractual liability coverage equivalent to that provided in the 1990 and later editions of CA 00 01.

**D. Workers Compensation Insurance**

Contractor shall maintain workers compensation as required by statute and employers liability insurance. The commercial umbrella and/or employers liability limits shall not be less than $1,000,000 each accident for bodily injury by accident or $1,000,000 each employee for bodily injury by disease.

If the Parties have not been included as insureds under the CGL using ISO additional insured endorsement CG 20 10 under the Commercial General and Umbrella Liability Insurance required in this Agreement, the Contractor waives all rights against the Parties, the Railroad, their officers, officials, employees, volunteers and agents for recovery of damages arising out of or incident to the Contractor's work.

**E. General Insurance Provisions**

**1. Evidence of Insurance**

Prior to beginning work, contractor shall furnish the Parties with a certificate(s) of insurance, other than Accord 25-S, and applicable policy endorsement(s), executed by a duly authorized representative of each insurer, showing compliance with the insurance requirements set forth above.

All policies shall provide for 30 days' written notice to the Parties prior to the cancellation or material change of any insurance referred to therein. Written notice to the Parties shall be by certified mail, return receipt requested.

Failure of the Parties to demand such certificate, policy, endorsement or other evidence of full compliance with these insurance requirements or failure of the Parties to identify a deficiency from evidence that is provided shall not be construed as a waiver of Contractor's obligation to maintain such insurance.

The Parties shall have the right, but not the obligation, of prohibiting Contractor or any subcontractor from entering the project site until such certificates or other evidence that insurance has been placed in complete compliance with these requirements is received and approved by the Parties

Failure to maintain the required insurance may result in termination of this Contract at the Parties' option.

With respect to insurance maintained after final payment in compliance with a requirement above, an additional certificate(s) or policies evidencing such coverage shall be promptly provided to the Parties whenever requested.

Contractor shall provide certified copies of all insurance policies required above within 10 days of a written request by the Parties for said copies.

**2. Acceptability of Insurers**

For insurance companies which obtain a rating from A.M. Best, that rating should be no less than A VII using the most recent edition of the A.M. Best's Key Rating Guide. If the Best's rating is less than A VII or a Best's rating is not obtained, the Parties have the right to reject insurance written by an insurer it deems unacceptable. Such insurance companies must be qualified to do business in Illinois.

**3. Cross-Liability Coverage**

If Contractor's liability policies do not contain the standard ISO separation of insureds provision, or a substantially similar clause, they shall be endorsed to provide cross-liability coverage.

**4. Deductibles and Self-Insured Retentions**

Any deductibles or self-insured retentions must be declared to the Parties. At the option of the Parties, the Contractor may be asked to eliminate such deductibles or self-insured retentions as respects the Parties, their officers, officials, employees, volunteers and agents or required to procure a bond guaranteeing payment of losses and other related costs including but not limited to investigations, claim administration and defense expenses.

**5. Subcontractors**

Contractor shall cause each subcontractor employed by Contractor to purchase and maintain insurance of the type specified above. When requested by the Parties, Contractor shall furnish copies of policies and/or certificates of insurance evidencing coverage for each subcontractor.

**6. Claims Made Policies**

If insurance coverage is purchased on a "claims made" basis, such coverage shall provide for at least a three (3) year extended reporting or discovery period, which shall be invoked should insurance required hereunder be cancelled.

**F. Indemnification**

To the fullest extent permitted by law, the Contractor shall indemnify and hold harmless the Parties, and the architect and their officers, officials, employees, volunteers and agents from and against all claims, damages, losses and expenses, including but not limited to legal fees (attorney's and paralegals' fees and court costs), arising out of or resulting from the performance of the Contractor's work, provided that any such claim, damage, loss or expense (i) is attributable to bodily injury, sickness, disease or death, or injury to or destruction of tangible property, other than the work itself, including the loss of use resulting therefrom and (ii) is caused in whole or in part by any wrongful or negligent act or omission of the Contractor, any subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in part by a party indemnified hereunder. Such obligation shall not be construed to negate, abridge, or otherwise reduce any other right or obligation of indemnity which would otherwise exist as to any party or person described in this Paragraph. Contractor shall similarly protect, indemnify and hold and save harmless the Parties, their officers, officials, employees, volunteers and agents against and from any and all claims, costs, causes, actions and expenses including but not limited to legal fees, incurred by reason of Contractor's breach of any of its obligations under, or Contractor's default of, any provision of the Contract.

**EXHIBIT E-2-B**

## INSURANCE TO BE MAINTAINED BY CONTRACTOR DURING ROUTINE MAINTENANCE OF OVERPASS OR CONSTRUCTION OF TRAILS

Contractor shall obtain insurance of the types and in the amounts listed below.

### A. Commercial General and Umbrella Liability Insurance

Contractor shall maintain commercial general liability (CGL) and, if necessary, commercial umbrella insurance with a limit of not less than $1,000,000 each occurrence. If such CGL insurance contains a general aggregate limit, it shall apply separately to this project/location.

CGL insurance shall be written on Insurance Services Office (ISO) occurrence form CG 00 01 10 93, or a substitute form providing equivalent coverage, and shall cover liability arising from premises, operations, independent contractors, products-completed operations, personal injury, including death, property damage and advertising injury, and liability assumed under an insured contract (including the tort liability of another assumed in a business contract), and liability arising from the indemnity provisions of any agreement between the Contractor and the Railroad.

The Parties shall be included as an insured under the CGL, using ISO additional insured endorsement CG 20 10 or a substitute providing equivalent coverage, and under the commercial umbrella, if any. This insurance shall apply as primary insurance with respect to any other insurance or self-insurance afforded to the Parties

There shall be no endorsement or modification of the CGL limiting the scope of coverage for liability arising from pollution, explosion, collapse, or underground property damage.

### B. Continuing Completed Operations Liability Insurance

Contractor shall maintain commercial general liability (CGL) and, if required by the Parties commercial umbrella liability insurance with a limit of not less than $1,000,000 each occurrence for at least three years following substantial completion of the work.

Continuing CGL insurance shall be written on ISO occurrence form CG 00 01 10 93, or substitute form providing equivalent coverage, and shall, at minimum, cover liability arising from products-completed operations and liability assumed under an insured contract.

Continuing CGL insurance shall have a products-completed operations aggregate of at least two times its each occurrence limit.

Continuing commercial umbrella coverage, if any, shall included liability coverage for damage to the insured's completed work equivalent to that provided under ISO form CG 00 01.

### C. Business Auto and Umbrella Liability Insurance

Contractor shall maintain business auto liability and commercial umbrella liability insurance with a limit of not less than $1,000,000 each occurrence or claim. Such insurance shall cover liability arising out of any auto including owned, hired and non-owned autos and mobile equipment to the extent it may be excluded from CGL coverage.

Business auto insurance shall be written on Insurance Services Office (ISO) form CA 00 01, CA 00 05, CA 00 12, CA 00 20, or substitute form providing equivalent liability coverage. If necessary, the policy shall be endorsed to provide contractual liability coverage equivalent to that provided in the 1990 and later editions of CA 00 01.

**D. Workers Compensation Insurance**

Contractor shall maintain workers compensation as required by statute and employers liability insurance. The commercial umbrella and/or employers liability limits shall not be less than $1,000,000 each accident for bodily injury by accident or $1,000,000 each employee for bodily injury by disease.

If the Parties have not been included as an insured under the CGL using ISO additional insured endorsement CG 20 10 under Commercial General and Umbrella Liability Insurance required in this Contract, the Contractor waives all rights against the Parties, and their officers, officials, employees, volunteers and agents for recovery of damages arising out of or incident to the Contractor's work.

**E. General Insurance Provisions**

**1. Evidence of Insurance**

Prior to beginning work, Contractor shall furnish the Parties with a certificate(s) of insurance, other than Accord 25-S, and applicable policy endorsement(s), executed by a duly authorized representative of each insurer, showing compliance with the insurance requirements set forth above.

All policies shall provide for 30 days' written notice to the Parties prior to the cancellation or material change of any insurance referred to therein. Written notice to the Parties and the Railroad shall be by certified mail, return receipt requested.

Failure of the Parties to demand such certificate, policy, endorsement or other evidence of full compliance with these insurance requirements or failure of the Parties to identify a deficiency from evidence that is provided shall not be construed as a waiver of Contractor's obligation to maintain such insurance.

The Parties or the Railroad shall have the right, but not the obligation, of prohibiting Contractor or any subcontractor from entering the project site until such certificates or other evidence that insurance has been placed in complete compliance with these requirements is received and approved by the Parties

Failure to maintain the required insurance may result in termination of this Contract at the Parties' or the Railroad's option.

With respect to insurance maintained after final payment in compliance with a requirement above, an additional certificate(s) or policy evidencing such coverage shall be promptly provided to the Parties whenever requested.

Contractor shall provide certified copies of all insurance policies required above within 10 days of written request by the Parties for said copies.

**2. Acceptability of Insurers**

For insurance companies which obtain a rating from A.M. Best, that rating should be no less than A VII using the most recent edition of the A.M. Best's Key Rating Guide. If the Best's rating is less than A VII or a Best's rating is not obtained, the Parties have the right to reject insurance written by an insurer it deems unacceptable. Such insurance companies must be qualified to do business in Illinois.

**3. Cross-Liability Coverage**

If Contractor's liability policies do not contain the standard ISO separation of insureds provision, or a substantially similar clause, they shall be endorsed to provided cross-liability coverage.

**4. Deductibles and Self-Insured Retentions**

Any deductibles or self-insured retentions must be declared to the Parties and the Railroad. At the option of the Parties, the Contractor may be asked to eliminate such deductibles or self-insured retentions as respects the Parties, their officers, officials, employees, volunteers and agents or required to procure a bond guaranteeing payment of losses and other related costs including but not limited to investigations, claim administration and defense expenses.

**5. Subcontractors**

Contractor shall cause each subcontractor employed by Contractor to purchase and maintain insurance of the type specified above. When requested by the Parties, Contractor shall furnish copies of policies and/or certificates of insurance evidencing coverage for each subcontractor.

**6. Claims Made Policies**

If insurance is purchased on a "claims made" basis, such coverage shall provide for at least a three (3) year extended reporting or discovering period, which shall be invoked should insurance required hereunder be cancelled.

**F. Indemnification**

To the fullest extent permitted by law, the Contractor shall indemnify and hold harmless the Parties, and the Architect and their officers, officials, employees, volunteers and agents from and against all claims, damages, losses and expenses including but not limited to legal fees (attorney's and paralegals' fees and court costs), arising out of or resulting from the performance of the Contractor's work, provided that any such claim, damage, loss or expense (i) is attributable to bodily injury, sickness, disease or death, or injury to or destruction of tangible property, other than the work itself, including the loss of use resulting therefrom and (ii) is caused in whole or in part by any wrongful or negligent act or omission of the contractor, any Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in part by a party indemnified hereunder. Such obligation shall not be construed to negate, abridge, or otherwise reduce any other right or obligation of indemnity which would otherwise exist as to any party or person described in this Paragraph. Contractor shall similarly protect, indemnify and hold and save harmless the Parties, and their officers, officials, employees, volunteers and agents against and from any and all claims, costs, causes, actions and expenses, volunteers and agents against and from any and all claims, costs, causes, actions and expenses including but not limited to legal fees, incurred by reason of Contractor's breach of any of its obligations under, or Contractor's default of, any provision of the Contract.

## EXHIBIT E-4

## INSURANCE REQUIRED BY RAILROAD OF CONTRACTORS AND SUB-CONTRACTORS

Contractor shall at its sole cost and expense, procure and maintain during the life of this Agreement the following insurance coverage:

A. **Commercial General Liability Insurance** This insurance shall contain broad form contractual liability with a single limit of at least $5,000,000 each occurrence or claim and an aggregate limit of at least $10,000,000. Coverage must be purchased on a post 1998 ISO or equivalent form, including but not limited to coverage for the following:

Bodily injury including death and personal injury
Property damage
Fire legal liability (Not less than the replacement value of the portion of the premises occupied)
Products and completed operations

The policy shall also contain the following endorsements which shall be indicated on the certificate of insurance:

"For purposes of this insurance, Union Pacific Railroad payments related to the Federal Employers Liability Act or a Union Pacific Wage Continuation Program or similar programs are deemed not to be either payments made or obligations assumed under any Worker's Compensation, disability benefits, or unemployment compensation law or similar law."
The exclusion for railroad (except where the Job site is more than fifty (50') feet from any railroad including but not limited to tracks, bridges, trestles, roadbeds, terminals, underpasses or crossings), and explosion, collapse and underground hazard shall be removed.
Coverage for Contractor's (and Railroad's) employees shall not be excluded
Waiver of subrogation

B. **Business Automobile Coverage Insurance** This insurance shall contain a combined single limit of at least $5,000,000 per occurrence or claim, including but not limited to coverage for the following:
Bodily injury and property damage
Any and all motor vehicles including owned, hired and non-owned

The policy shall also contain the following endorsements which shall be indicated on the certificate of insurance:

"For purposes of this insurance, Union Pacific Railroad payments related to the Federal Employers Liability Act or a Union Pacific Wage Continuation Program or similar programs are deemed not to be either payments made or obligations assumed under any Worker's Compensation, disability benefits, or unemployment compensation law or similar law."
The exclusions for railroads (except where the Job site is more than fifty (50') from any railroad including but not limited to tracks, bridges, trestles, roadbeds, terminals, underpasses or crossings), and explosion, collapse and underground hazard shall be removed.
Motor Carrier Act Endorsement – Hazardous materials clean up (MCS-90) if required by law.

C. **Workers Compensation and Employers Liability** Insurance including but not limited to:

Contractor's statutory liability under the worker's compensation laws of the state(s) affected by this Agreement
Employers' Liability (Part B) with limits of at least

$500,000 each accident, $500,000 disease policy limit
$500,000 each employee

If Workers Compensation insurance will not cover the liability of the Contractor in states that require participation in state workers' compensation fund, Contractor shall comply with the laws of such states. If Contractor is self-insured, evidence of state approval must be provided along with evidence of excess workers compensation coverage. Coverage shall include liability arising out of the U.S. Longshoremen's and Harbor Workers' Act, the Jones Act, and the Outer Continental Shelf Land Act, if applicable.

The policy shall contain the following endorsement which shall be indicated on the certificate of insurance:
Alternate Employer Endorsement

**D.** **Umbrella or Excess Policies** In the event Contractor utilizes Umbrella or excess policies, these policies shall "follow form" and afford no less coverage that the primary policy.

**E.** **Railroad Protective Liability** Insurance naming only the Railroad as the insured with a combined single limit of $2,000,000 per occurrence with a $6,000,000 aggregate. The policy shall be broad form coverage for "Physical Damage to Property" (ISO Form CG 00 35 07 98 or equivalent). A binder stating the policy is in place must be submitted to the Railroad until the original policy is forwarded to the Railroad.

**Other Requirements**

**F.** Punitive damage exclusion must be deleted, which deletion shall be indicated on the certificate of insurance.

**G.** Contractor agrees to waive its right of recovery, and its insurers, through policy endorsement, agree to waive their right of subrogation against Railroad. Contractor further waives its right of recovery, and its insurers also waive their right of subrogation against Railroad for loss of its owned or leased property or property under its care, custody and control. Contractor's insurance shall be primary with respect to any insurance carried by Railroad. All waivers of subrogation shall be indicated on the certificate of insurance.

**H.** All policy(ies) required above (excluding Workers Compensation) shall provide severability of interests and shall name Railroad as an additional insured. Severability of interest and naming Railroad as additional insured shall be indicated on the certificate of insurance.

**I.** Prior to commencing the Work, Contractor shall furnish to Railroad original certificate(s) of insurance evidencing the required coverage, endorsements, and amendments. The certificate(s) shall contain a provision that obligates the insurance company(ies) issuing such policy(ies) to notify Railroad in writing of any cancellation or material alteration. Upon request from Railroad, a certified duplicate original of any required policy shall be furnished.

**J.** Any insurance policy shall be written by a reputable insurance company acceptable to Railroad or with a current Bests Insurance Guide Rating of A- and Class VII or better and authorized to business in the state(s) in which this service is to be provided.

**K.** Contractor WARRANTS that this Agreement has been thoroughly reviewed by Contractor's insurance agent(s)/broker(s), who have been instructed by Contractor to procure the insurance coverage required by this Agreement and acknowledges that Contractor's insurance coverage will be primary.

L. The fact that insurance is obtained by Contractor or Railroad on behalf of Contractor shall not be deemed to release or diminish the liability of Contractor, including, without limitation, liability under the indemnity provisions of this Agreement. Damages recoverable by Railroad shall not be limited by the amount of the required insurance coverage.

to the Construction Zone, any improvements located thereon and any other affected portion(s) of the City Land, and replace all lost or destroyed items. By way of example and not limitation, the existing fence on the City Land shall be removed during initial construction of the Project, and may be removed in part for subsequent maintenance and repair work on the Project, and such fence shall be relocated, at the expense of the School and Park District Grantees, as the Parties shall reasonably agree. Any damage to sidewalks, paths or parking lots on the City Land will be repaired or replaced as reasonably deemed necessary by the City. All restoration, repair and replacement shall be completed to the reasonable satisfaction of the City within thirty (30) days after the conclusion of the work, or, if due to weather or other circumstances which, in the City's opinion, would make any such restoration, repair and replacement inadvisable, then within such later time period as the City shall reasonably request.

12. Recitals Incorporated. The recitals listed at the beginning of this Agreement, above, are hereby incorporated in their entireties by reference in this Agreement.

13. Grantees' Duty of Notice and Cooperation. The School and Park District Grantees hereunder, shall give prior notice to City of the commencement, anticipated duration and termination of construction, placement, reconstruction, repair and maintenance activities, as applicable, and shall conduct said activities so as to not unreasonably interfere with City's activities on the City Land.

14. Right to Cure . In the event the School and Park District Grantees shall fail to perform and of their agreements or covenants hereunder, then City may give written notice of such deficiency to the applicable grantee, and if the applicable grantee does not cure such deficiency, or commence such cure and be diligently pursuing it to completion (if the nature of such deficiency is that it cannot be immediately cured), within forty-five (45) days after the giving of such notice, the City may either bring an action for specific performance thereof or take such action as the City deems reasonably necessary to perform said obligations, and the applicable grantee shall pay the City's costs therefor, immediately upon City's demand. The City's right to bring an action for specific performance of the applicable grantee's aforementioned obligations, or to perform said obligations and demand payment therefor, shall be the City's sole remedies for said deficiencies by the applicable grantee. In the event City brings any such action for specific performance or for the recovery of payments required to be made under this Paragraph 14, the non-prevailing Party in said action shall be responsible for the prevailing Party's reasonable attorneys' fees paid or incurred with respect to such action.

15. Indemnification.

15.1 Subject to the limitations contained in this Paragraph 15.1 , the School District and the Park District hereby indemnify and hold harmless City, its council members, officers, agents, employees, officials, successors and assigns (the "City Indemnitees") and shall defend the City Indemnitees, from and against all liabilities, claims, demands, causes of actions, costs and expenses (including, without limitation, reasonable attorneys' fees and paralegals' fees and costs and court costs, collectively, hereinafter, the "Legal Expenses") arising out of or related to any injury to or the death of any person or loss of or damage to property (the "Injuries") occurring in or about the City Land to the extent caused by any negligent or wrongful act or omission of any of the School and Park District Grantees. In furtherance of the foregoing indemnification obligation of School District and Park District, School District's and Park District's contractors, subcontractors or material suppliers shall separately indemnify the City Indemnitees in their contracts with School District and Park District or other third parties. School District and Park District shall each be responsible only for Injuries caused by its own respective uses. School District and Park District shall not be obligated or responsible to indemnify, hold harmless and defend the City Indemnitees, or any third parties, from or against any liability, claim, demand, cause of action, costs or expenses (including, without limitation, Legal Expenses) arising out of or related to any Injuries, to the extent same result from or arise out of the negligent or wrongful acts or omissions of any of the City Indemnitees. Nothing in this paragraph shall be interpreted to waive any statutory or common law grants of privilege or immunity.

15.2 School District and Park District hereby indemnify and hold the City Indemnitees harmless from and against any and all mechanics' and materialmen's liens, or claims therefor, including Legal Expenses for defense thereof, arising out of or in connection with the Permitted Pathway Construction Activities on the City Land.

16. Insurance. Park District and School District shall maintain commercial general liability insurance which includes coverage for liability assumed under an insured contract (including the tort liability of another assumed in a contract) covering occurrences on the City Land and shall name City, its council members, agents, employees and officials, as additional insureds under such policies. Park District and School District shall also require all of their contractors and subcontractors performing any work for Park District or School District on the City Land to maintain commercial general liability and property damage insurance, which insurance shall name City, its council members, commissioners, agents, employees and officials, as additional insureds thereon. All such policies of insurance shall be in the amount and form described in **Exhibits B, C and D** attached hereto, and evidence of insurance shall be provided as described in said Exhibits. Because the Easement is contemplated to be a perpetual easement, City may require School District and Park District, at any time after the initial construction of the Pathway, while Easement is in effect, to provide other or additional insurance coverage as may be reasonable under all of the facts and circumstances at the relevant time, and City may, in its sole and absolute discretion, reduce or waive any of the insurance requirements contained in **Exhibits B, C and D** attached hereto.

17. Notices. The Parties may give notice to each other at, and any notice required by the provisions of this Agreement shall be in writing and shall be mailed, United States mail, first class, postage prepaid, to the following addresses; or delivered in person to the following locations, with proof of such delivery to be evidenced by a receipt signed by the receiving Party; or transmitted by fax transmission, with hard copy and machine generated proof of transmission being mailed, the date of transmission, United States mail, first class, postage prepaid, to the receiving Party, at the following addresses:

If to School District:
Community Unit School District 200
130 West Park Ave.
Wheaton, IL 60187

If to Park District:
Wheaton Park District
666 S. Main St.
Wheaton, IL 60187
Attention: Executive Director

If to City:
City of Wheaton
303 West Wesley Street
Wheaton, IL 60187
Attention: City Manager

Notice sent by mail shall be deemed given the third business day after deposit in the United States mail, first class, postage prepaid. Notices delivered in person shall be deemed given the date of delivery, as evidenced by a signed receipt of the Party receiving delivery, provided such delivery is made between 9:00 AM and 5:00 PM on a regular business day, and if delivery is made after such hours, notice shall be deemed given the next regular business day. Notices transmitted by fax shall be deemed given the date of

THIS EXHIBIT IS SUBSTANTIVELY IDENTICAL TO EXHIBIT E-2-A TO THE INTERGOVERNMENTAL AGREEMENT BETWEEN THE PARK DISTRICT AND SCHOOL DISTRICT - IT JUST REQUIRES CITY TO BE NAMED AS AN ADDITIONAL INSURED

**EXHIBIT C TO GRANT OF EASEMENT FOR CONSTRUCTION, ETC.**

**INSURANCE TO BE MAINTAINED BY CONTRACTORS DURING CONSTRUCTION OR MAJOR RECONSTRUCTION OF PROJECT**

As used in this Exhibit, "Contractor" or "Contractors" mean a contractor contractors retained by School District or Park District, to perform work relating to the construction, placement or major reconstruction of the Project, and "Construction Agreement" means the applicable construction contract between the School District or Park District and said Contractor or Contractors, for said work. The substantive provisions of this Exhibit shall be incorporated into any Construction Agreement. "Additional Insured" means the City. "Parties" means City, School District and/or Park District.

Contractors shall obtain insurance of the types and in the amounts listed below.

**A. Commercial General and Umbrella Liability Insurance**

Contractors shall maintain commercial general liability (CGL) and, if necessary, commercial umbrella insurance with a limit of not less than $2,000,000 each occurrence, and a general aggregate limit of at least $4,000,000. If such CGL insurance contains a general aggregate limit, it shall apply separately to this project/location.

CGL insurance shall be written on Insurance Services Office (ISO) occurrence form CG 00 01 10 93, or a substitute form providing equivalent coverage, and shall cover liability arising from premises, operations, independent contractors, products-completed operations, personal injury, including death, property damage and advertising injury, liability assumed ~~under an insured~~ contract (including the tort liability of another assumed in a business contract), and liability arising from the indemnity provisions of any Construction Agreement. The CGL insurance shall also provide for Broad Form Property Damage, Underground Hazard, and Broad Form Property Damage.

The Additional Insured shall be included as an insured under the CGL, using ISO additional insured endorsement CG 20 10 or a substitute providing equivalent coverage, and under the commercial umbrella, if any. This insurance shall apply as primary insurance with respect to any other insurance or self-insurance afforded to the Additional Insured.

There shall be no endorsement or modification of the CGL limiting the scope of coverage for liability arising from pollution, explosion, collapse, or underground property damage.

**B. Continuing Completed Operations Liability Insurance**

Contractors shall maintain commercial general liability (CGL) and, if required by the Additional Insured, commercial umbrella liability insurance with a limit of not less than $5,000,000 each occurrence for at least three years following substantial completion of the work.

Continuing CGL insurance shall be written on ISO occurrence form CG 00 01 10 93, or substitute form providing equivalent coverage, and shall, at minimum, cover liability arising from products-completed operations and liability assumed under an insured contract.

Continuing CGL insurance shall have a products-completed operations aggregate of at least two times its each occurrence limit.

Continuing commercial umbrella coverage shall include liability coverage for damage to the insured's completed work equivalent to that provided under ISO form CG 00 01.

C. **Business Auto and Umbrella Liability Insurance**

Contractors shall maintain business auto liability and commercial umbrella liability insurance with a limit of not less than $2,000,000 for each occurrence or claim. Such insurance shall cover liability arising out of any auto including owned, hired and non-owned autos, and mobile equipment to the extent it may be excluded from CGL coverage.

Business auto insurance shall be written on Insurance Services Office (ISO) form CA 00 01, CA 00 05, CA 00 12, CA 00 20, or a substitute form providing equivalent liability coverage. If necessary, the policy shall be endorsed to provide contractual liability coverage equivalent to that provided in the 1990 and later editions of CA 00 01.

D. **Workers Compensation Insurance**

Contractors shall maintain workers compensation as required by statute and employers liability insurance. The commercial umbrella and/or employers liability limits shall not be less than $1,000,000 each accident for bodily injury by accident or $1,000,000 each employee for bodily injury by disease.

If the Additional Insured has not been included as an insured under the CGL using ISO additional insured endorsement CG 20 10 under the Commercial General and Umbrella Liability Insurance required in this Contract, the Contractor waives all rights against the Additional Insured, its officers, officials, employees, volunteers and agents for recovery of damages arising out of or incident to the Contractor's work.

E. **General Insurance Provisions**

1. **Evidence of Insurance**

Prior to beginning work, a Contractor shall furnish the Additional Insured with (a) certificate(s) of insurance and applicable policy endorsement(s), executed by a duly authorized representative of each insurer, showing compliance with the insurance requirements set forth above.

All policies shall provide for 30 days' written notice to the Additional Insured prior to the cancellation of material change of any insurance referred to therein. Written notice to the Additional Insured shall be by certified mail, return receipt requested.

Failure of the Additional Insured to demand such certificate, endorsement or other evidence of full compliance with these insurance requirements or failure of the Additional Insured to identify a deficiency from evidence that is provided shall not be construed as a waiver of a Contractor's obligation to maintain such insurance.

The Additional Insured shall have the right, but not the obligation, of prohibiting a Contractor or any subcontractor from entering the project site until such certificates or other evidence that insurance has been placed in complete compliance with these requirements is received and approved by the Additional Insured.

Failure to maintain the required insurance may result in termination of the Construction Agreement.

With respect to insurance maintained after final payment in compliance with a requirement above, an additional certificate(s) evidencing such coverage shall be promptly provided to the Additional Insured whenever requested.

Contractors shall provided certified copies of all insurance policies required above within 10 days of written request by the Additional Insured for said copies.

**2. Acceptability of Insurers**

For insurance companies which obtain a rating from A.M. Best, that rating should be no less than A VII using the most recent edition of the A.M. Best's Key Rating Guide. If the Best's rating is less than A VII or a Best's rating is not obtained, the Additional Insured shall have the right to reject insurance written by an insurer it deems unacceptable. Such insurance companies must be qualified to do business in Illinois.

**3. Cross-Liability Coverage**

If a Contractor's liability policies do not contain the standard ISO separation of insureds provision, or a substantially similar clause, they shall be endorsed to provide cross-liability coverage.

**4. Deductibles and Self-Insured Retentions**

Any deductibles or self-insured retentions must be declared to the Additional Insured. At the option of the Parties or the Railroad, the Contractor may be asked to eliminate such deductibles or self-insured retentions as respects the Additional Insured, its officers, officials, employees, volunteers and agents or required to procure a bond guaranteeing payment of losses and other related costs including but not limited to investigations, claim administration and defense expenses.

**5. Subcontractors**

Contractor shall cause each subcontractor employed by a Contractor to purchase and maintain insurance of the type specified above. When requested by the Additional Insured, Contractor shall furnish copies of certificates of insurance evidencing coverage for each subcontractor.

**6. Occurrence and Claims Made Policies**

All insurance required herein shall be on an "occurrence" basis. If, after every diligent effort to procure such insurance has been made, and such insurance cannot be obtained, Contractor may provide insurance on a "claims made" basis, but such coverage must provide for at least a three (3) year extended reporting or discovery period, which shall be invoked should insurance required hereunder be cancelled.

**7. Insurance Required by Railroad**

If Railroad requires higher amounts or different types of insurance, with respect to work done on or near Railroad property, the Contractor shall purchase such insurance, and name Railroad as an insured or additional insured thereunder, as Railroad may require.

**F. Indemnification**

To the fullest extent permitted by law, Contractors shall indemnify and hold harmless the Parties, including the Additional Insured, their officers, officials, employees, volunteers and agents from and against all claims, damages, losses and expenses, including but not limited to legal fees (attorneys' and paralegals' fees and court costs), arising out of or resulting from the performance of the Contractor's work, provided that any such claim, damage, loss or expense (i) is attributable to bodily injury, sickness, disease

or death, or injury to or destruction of tangible property, other than the work itself, including the loss of use resulting therefrom and (ii) is caused in whole or in part by any wrongful or negligent act or omission of the Contractor, any subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, except to the extent it is caused in whole or in part by a party indemnified hereunder. Such obligation shall not be construed to negate, abridge, or otherwise reduce any other right or obligation of indemnity which would otherwise exist as to any party or person described in this Paragraph. The Contractor shall similarly protect, indemnify and hold and save harmless the Parties, including the Additional Insured, their officers, officials, employees, volunteers and agents against and from any and all claims, costs, causes, actions and expenses including but not limited to legal fees, incurred by reason of Contractor's breach of any of its obligations under, or Contractor's default of, any provision of the Construction Agreement.

~~arrangements for relocation or other protection of the fiber optic cable prior to beginning any work on the right-of-way.~~

Section 2. CONTRACTOR'S RIGHT OF ENTRY AGREEMENT; FLAGGING.

a) The Licensee confirms that all work described herein, will be performed by a contractor or contractors hired by the Licensee. The Licensee agrees to require each of its contractors, (and their respective subcontractors), to execute UP's form of Contractor's Right of Entry Agreement that is marked Exhibit B, hereto attached and hereby made a part hereof, and to provide UP the insurance binders or certificates set forth in Exhibit C of the Contractor's Right of Entry Agreement before commencing any work on any UP property.

b) In its agreements with its contractors and subcontractors, the Licensee shall also require its contractors/subcontractors to perform their construction work in such a manner so as not to endanger or delay the movement of trains, engines or cars of UP, and so as not to injure or endanger UP's officers, agents, employees or damage their property. In its agreements with its contractors and subcontractors, the Licensee shall also require its contractors/subcontractors to give precedence to the movement of trains, engines and cars of UP, over the movement of vehicles or equipment or construction activities of the Licensee's contractors/subcontractors.

c) ~~If at any time during the initial construction of the Overpass or fencing, UP deems it necessary that flagging protection is necessary, such flagging shall be provided by UP at no cost to Licensee as set forth in the Contractor's Right of Entry Agreement described in Section 2-a) above.~~

Section 3. LIABILITY.

To the extent permitted by Illinois law, Licensee shall save, protect, defend, indemnify and hold harmless UP, and its respective affiliates, and their respective officers, agents and employees (collectively, the "Indemnitees"), against and from any and all liability, damages, claims, demands, costs and expenses, fines and penalties of whatsoever nature, including court costs and reasonable attorney's fees (individually, a "Cost" and collectively, the "Costs") , paid or incurred by UP, arising from and growing out of any injury to or death of any person whomsoever (including officers, agents, and employees of UP or the Licensee and of any contractor, as well as other persons) or loss of or damage to any property whatsoever (including property of or in the custody of UP, the Licensee or any contractor of UP or Licensee, as well as other property), when such Cost occurs or arises from: i) Licensee's or Licensee's employees,' contractors' or agents' use of the Property and Overpass; or ii) Licensee's breach of any of its obligations under this Agreement; or iii) any use of the Property and Overpass by members of the general public while using any portion of the Overpass for its intended purposes; or iv) any misuse or non-intended use of the Property and Overpass by members of the general public when such misuse or non-intended use could not have occurred but for the existence of the Overpass; but not to the extent any Cost occurs or arises from the negligent or wrongful act or omission to act of any of the Indemnitees. Notwithstanding anything contained in this Agreement to the contrary, Licensee's liability under this Section shall never exceed $10,000,000 per occurrence. Nothing in this Agreement shall be deemed to constitute an express or implied waiver, or shall waive, any of UP's or Licensee's privileges or immunities under any applicable statute or at common law, including but not limited to the Recreational Use of Land and Water Areas Act of the State of Illinois, 745 ILCS 65/1 et.seq. and the Local Governmental and Governmental Employees Tort Immunity Act of the State of Illinois, 745 ILCS 10/1 et. seq.

Section 4. TERMINATION; WAIVER OF BREACH; TERM.

a) UP may terminate this Agreement by giving Licensee notice of termination if Licensee defaults under any obligation of Licensee under this Agreement and, if after written notice is given by UP to Licensee specifying the default, Licensee either, (i) fails to cure the default within 30 days after the default notice is received by Licensee, or (ii) if the default is of such a nature that it cannot be cured within 30 days, ~~Licensee fails to begin and be diligently pursuing the cure of the default within 30 days after the~~

## EXHIBIT B

Exhibit B shall be the Contractor's Right of Entry Agreement to allow the Contractor to construct and install the pedestrian and bicycle Overpass and fencing upon, along and over the UP's property, and to use the access road, as follows:

**CONTRACTOR'S**
**RIGHT OF ENTRY AGREEMENT**

**THIS AGREEMENT** is made and entered into as of the _____ day of _____, 200__, by and between **UNION PACIFIC RAILROAD COMPANY**, a Delaware corporation (the "Railroad"); and

_____
*(Name of Contractor)*

a _____ corporation (the "Contractor").
*(State of Incorporation)*

**RECITALS:**

Contractor has been hired by **the Wheaton Park District, as administrative party for itself and Community Unit School District 200, DuPage County, Illinois** to perform work relating to construction or maintenance, repair, renewal or reconstruction of a bicycle/pedestrian overpass (the "Overpass") , or to construct , repair, renew or reconstruct a fence near the Overpass (the "work"), with all or a portion of such work to be performed on property of Railroad in the vicinity of Lincoln Marsh on the north and Monroe Middle School on the south, in Wheaton, IL , which work is the subject of a License Agreement for Grade Separation Bicycle and Pedestrian Overpass Crossing on Railroad Property dated among Railroad , Wheaton Park District, and Community Unit School District 200, DuPage County, Illinois (the "License Agreement") .

Contractor has requested Railroad to permit it to perform the work on the portion of Railroad's property shown on the print marked **Exhibit A** to the License Agreement, which Exhibit A also shows the Railroad's access road to the north of its tracks between County Line Road on the west and the Overpass on the east, in Wheaton, IL, which Railroad shall allow Contractor to use for access to the work, and Railroad is agreeable thereto, subject to the following terms and conditions.

**AGREEMENT:**

**NOW, THEREFORE,** it is mutually agreed by and between the Railroad and Contractor, as follows:

**ARTICLE 1 - DEFINITION OF CONTRACTOR.**

For purposes of this agreement, all references in this agreement to the Contractor shall include the Contractor's contractors, subcontractors, officers, agents and employees, and others acting under its or their authority.

**ARTICLE 2 - RIGHT GRANTED; PURPOSE.**

The Railroad hereby grants to the Contractor the right, during the term hereinafter stated and upon and subject to each and all of the terms, provisions and conditions herein contained, to enter upon and have ingress to and egress from the property described in the Recitals for the purpose of performing any work described in the Recitals above. The right herein granted to Contractor is limited to those portions of Railroad's property specifically described herein, or as designated by the Railroad Representative named in Article 4.

ARTICLE 3 - TERMS AND CONDITIONS CONTAINED IN EXHIBITS A, B, C AND D.

The terms and conditions contained in **Exhibit A** to the License Agreement, and in **Exhibit B, Exhibit C** and **Exhibit D**, attached hereto, are hereby made a part of this agreement.

ARTICLE 4 - ALL EXPENSES TO BE BORNE BY CONTRACTOR; RAILROAD REPRESENTATIVE.

A. The Contractor shall bear any and all costs and expenses associated with any work performed by the Contractor, or any costs or expenses incurred by the Railroad relating to this agreement [except as otherwise provided on Exhibit B hereto with respect to flagging work during construction being at Railroad's expense], which shall include applicable flagging costs incurred during maintenance, repair, reconstruction or renewal of the Overpass, and shall be no more than $500.00 per day.

B. The Contractor shall coordinate all of its work with the following Railroad representative or his or her duly authorized representative (the "Railroad Representative"):

Philip E. Shanks
Manager, Track Maintenance
Union Pacific Railroad Company
702 Kress Road
West Chicago, IL 60185
Phone: (312)720-0365
Facsimile (708)876-2728

C. The Contractor, at its own expense, shall adequately police and supervise all work to be performed by the Contractor and shall ensure that such work is performed in a safe manner as set forth in Section 7 of **Exhibit B**. The responsibility of the Contractor for safe conduct and adequate policing and supervision of the Contractor's work shall not be lessened or otherwise affected by the Railroad's approval of plans and specifications involving the work, or by the Railroad's collaboration in performance of any work, or by the presence at the work site of the Railroad Representative, or by compliance by the Contractor with any requests or recommendations made by the Railroad Representative. At its expense, Contractor shall restore the Railroad property to the condition in which it existed prior to the commencement of any of the work performed by the Contractor.

ARTICLE 5 - TERM; TERMINATION.

A. The grant of right herein made to Contractor shall commence on the date of this agreement, and continue until _____ **[will be approximately one year from date agreement is entered into]**, unless sooner terminated as herein provided, or at such time as Contractor has completed its work on Railroad's property, whichever is earlier. Contractor agrees to notify the Railroad Representative in writing when it has completed its work on Railroad property.

B. This agreement may be terminated by either party on ten (10) days written notice to the other party.

ARTICLE 6 - CERTIFICATE OF INSURANCE.

A. Before commencing any work, Contractor will provide Railroad with the insurance binders, policies, certificates and/or endorsements set forth in **Exhibit C** of this agreement.

B. All insurance correspondence, binders, policies, certificates and/or endorsements shall be directed to:

Union Pacific Railroad Company
1400 Douglas Street
Omaha NE 68179-1690
Attn.: Director Contracts
Folder No.: 1892-41

**ARTICLE 7 - DISMISSAL OF CONTRACTOR/SUBCONTRACTOR EMPLOYEE.**

At the request of Railroad, Contractor shall remove from Railroad property any employee of Contractor or any subcontractor who fails to conform to the instructions of the Railroad Representative in connection with the work on Railroad's property, and any right of Contractor shall be suspended until such removal has occurred. Contractor shall indemnify Railroad against any claims arising from the removal of any such employee from Railroad property.

**ARTICLE 8 - ADMINISTRATIVE FEE.**

Contractor shall pay to Railroad **FIVE HUNDRED DOLLARS ($500.00)** as reimbursement for clerical, administrative and handling expenses in connection with the processing of this agreement.

**ARTICLE 9 - CROSSINGS.**

No additional vehicular crossings (including temporary haul roads, other than the access road marked on Exhibit A) or pedestrian crossings over Railroad's trackage shall be installed or used by Contractor without the prior written permission of Railroad.

**ARTICLE 10 - EXPLOSIVES.**

Explosives or other highly flammable substances shall not be stored on Railroad property without the prior written approval of the Railroad.

**IN WITNESS WHEREOF,** the parties hereto have duly executed this agreement in duplicate as of the date first herein written.

**UNION PACIFIC RAILROAD COMPANY**

By:_____
Manager Contracts

WITNESS: _____
*(Name of Contractor)*

_____ By:_____

Title: _____

**EXHIBIT B**

TO CONTRACTOR'S RIGHT OF ENTRY AGREEMENT

**Section 1.** **NOTICE OF COMMENCEMENT OF WORK - FLAGGING.**

A. The Contractor agrees to notify the Railroad Representative at least ten (10) working days in advance of Contractor commencing its work and at least ten (10) working days in advance of proposed performance of any work by the Contractor in which any person or equipment will be within twenty-five (25) feet of any track, or will be near enough to any track that any equipment extension (such as, but not limited to, a crane boom) will reach to within twenty-five (25) feet of any track. No work of any kind shall be performed, and no person, equipment, machinery, tool(s), material(s), vehicle(s), or thing(s) shall be located, operated, placed, or stored within twenty-five (25) feet of any of Railroad's track(s) at any time, for any reason, unless and until a Railroad flagman is provided to watch for trains. Upon receipt of such ten (10)-day notice, the Railroad Representative will determine and inform the Contractor whether a flagman need be present and whether the Contractor need implement any special protective or safety measures. If flagging or other special protective or safety measures are performed by the Railroad, such flagging services will be provided at Railroad's expense if the flagging relates to initial construction of the Overpass or the fencing, or at the Contractors' expense, if the work is other than flagging related to the initial construction of the Overpass or the fencing, or if the work relates to any subsequent maintenance, repair, renewal or reconstruction of the Overpass or the fencing (the " Reimbursable Services"), with the understanding that if the Railroad provides any flagging or other services, the Contractor shall not be relieved of any of its responsibilities or liabilities set forth herein. Contractor shall promptly pay to Railroad all charges connected with Reimbursable Services within thirty (30) days after presentation of a bill. The Railroad estimates its fees for Reimbursable Services related to the initial construction of the Overpass and fencing to be $5,000.00.

B. In determining the amount due from the Contractor when Reimbursable Services are involved, the rate of pay per hour for each man will be the prevailing hourly rate in effect for an eight hour day for the class of men used during regularly assigned hours and overtime in accordance with Labor Agreements and Schedules in effect at the time the work is performed. In addition to the cost of such labor, a composite charge for vacation, holiday, health and welfare, supplemental sickness, Railroad Retirement and unemployment compensation, supplemental pension, Employees Liability and Property Damage and Administration will be included, computed on actual payroll. The composite charge will be the prevailing composite charge in effect on the day of execution of this agreement. One and one-half times the current hourly rate is paid for overtime, Saturdays and Sundays; two and one-half times current hourly rate for holidays. Wage rates are subject to change, at any time, by law or by agreement between the Railroad and its employees, and may be retroactive as a result of negotiations or a ruling of an authorized Governmental Agency. Additional charges on labor are also subject to change. If the wage rate or additional charges are changed, the Contractor shall pay for Reimbursable Services on the basis of the new rates and charges.

C. Reimbursement to the Railroad will be required covering the full eight hour day during which any flagman is furnished, unless he can be assigned to other Railroad work during a portion of such day, in which event reimbursement will not be required for the portion of the day during which the flagman is engaged in other Railroad work. Reimbursement will also be required for any day not actually worked by said flagman following his assignment to work on the project for which the Railroad is required to pay the flagman and which could not reasonably be avoided by the Railroad by assignment of such flagman to other work , even though the Contractor may not be working during such time. When it becomes necessary for the Railroad to bulletin and assign an employee to a flagging position in compliance with union collective bargaining agreements, the Contractor must provide the Railroad a minimum of five (5) days notice prior to the cessation of the need for a flagman. If five (5)-days notice of cessation is not given, the Contractor will still be required to pay flagging charges for the five (5)-day notice period required by union agreement to be given to the employee, even though flagging is not required for that period. An additional ten (10) days notice must then be given to the Railroad if flagging service are needed again after such five day cessation notice has been given Railroad. The requirements of this Section 1-C relate only to Reimbursable Services, and not to any flagman provided by Railroad during the initial construction of the Overpass and the fencing.

**Section 2.** **LIMITATION AND SUBORDINATION OF RIGHTS GRANTED**

A. The foregoing grant of right is subject and subordinate to the prior and continuing right and obligation of the Railroad to use and maintain its entire property including the right and power of the Railroad to construct, maintain, repair,

renew, use, operate, change, modify or relocate railroad tracks, roadways, signal, communication, fiber optics, or other wirelines, pipelines and other facilities upon, along or across any or all parts of its property, all or any of which may be freely done at any time or times by the Railroad without liability to the Contractor or to any other party for compensation or damages.

B. The foregoing grant is also subject to all outstanding superior rights (including those in favor of licensees and lessees of the Railroad's property, and others) and the right of the Railroad to renew and extend the same, and is made without covenant of title or for quiet enjoyment.

**Section 3.** **NO INTERFERENCE WITH OPERATIONS OF RAILROAD AND ITS TENANTS.**

A. The Contractor shall conduct its operations so as not to interfere with the continuous and uninterrupted use and operation of the railroad tracks and property of the Railroad, including without limitation, the operations of the Railroad's lessees, licensees or others, unless specifically authorized in advance by the Railroad Representative. Nothing shall be done or permitted to be done by the Contractor at any time that would in any manner impair the safety of such operations. When not in use, Contractor's machinery and materials shall be kept at least fifty (50) feet from the centerline of the Railroad's nearest track, and there shall be no vehicular crossings of Railroads tracks except at existing open public crossings.

B. Operations of the Railroad and work performed by the Railroad personnel and delays in the work to be performed by the Contractor caused by such railroad operations and work are expected by the Contractor, and Contractor agrees that the Railroad shall have no liability to Contractor, its subcontractors or any other person or entity for any such delays. The Contractor shall coordinate its activities with those of the Railroad and third parties so as to avoid interference with railroad operations. The safe operation of the Railroad takes precedence over any work to be performed by the Contractor.

**Section 4.** **LIENS.**

The Contractor shall pay in full all persons who perform labor or provide materials for the work to be performed by Contractor. The Contractor shall not create, permit or suffer any mechanic's or materialmen's liens of any kind or nature to be created or enforced against any property of the Railroad for any such work performed. The Contractor shall indemnify and hold harmless the Railroad from and against any and all liens, claims, demands, costs or expenses of whatsoever nature in any way connected with or growing out of such work done, labor performed, or materials furnished. If the Contractor fails to promptly cause any lien to be released of record, the Railroad may, at its election, discharge the lien or claim of lien at Contractor's expense.

**Section 5.** **PROTECTION OF FIBER OPTIC CABLE SYSTEMS.**

A. Fiber optic cable systems may be buried on the Railroad's property. Protection of the fiber optic cable systems is of extreme importance since any break could disrupt service to users resulting in business interruption and loss of revenue and profits. Contractor shall telephone the Railroad during normal business hours (7:00 a.m. to 9:00 p.m. Central Time, Monday through Friday, except holidays) at 1-800-336-9193 (also a 24-hour, 7-day number for emergency calls) to determine if fiber optic cable is buried anywhere on the Railroad's premises to be used by the Contractor. If it is, Contractor will telephone the telecommunications company(ies) involved, make arrangements for a cable locator and, if applicable, for relocation or other protection of the fiber optic cable. The Contractor shall not commence any work until all such protection or relocation (if applicable) has been accomplished.

B. In addition to other indemnity provisions in this Agreement, the Contractor shall indemnify, defend and hold the Railroad harmless from and against all costs, liability and expense whatsoever paid or incurred by Railroad (including, without limitation, reasonable attorneys' fees, court costs and expenses) arising out of any act or omission of the Contractor, its contractor, agents and/or employees, that causes or contributes to (1) any damage to or destruction of any telecommunications system on Railroad's property, and/or (2) any injury to or death of any person employed by or on behalf of any telecommunications company, and/or its contractor, agents and/or employees, on Railroad's property. Contractor shall not have or seek recourse against Railroad for any claim or cause of action by a telecommunication company or its customers against Contractor for alleged loss of profits or revenue or loss of service or other consequential damage to a telecommunication company using Railroad's property or a customer or user of services of the fiber optic cable on Railroad's property.

**Section 6.** **PERMITS - COMPLIANCE WITH LAWS.**

In the prosecution of the work covered by this agreement, the Contractor shall secure any and all necessary permits and shall comply with all applicable federal, state and local laws, regulations and enactments affecting the work including, without limitation, all applicable Federal Railroad Administration regulations.

**Section 7.** **SAFETY.**

A. Safety of personnel, property, rail operations and the public is of paramount importance in the prosecution of the work performed by the Contractor. The Contractor shall be responsible for initiating, maintaining and supervising all safety, operations and programs in connection with the work. The Contractor shall at a minimum comply with the Railroad's safety standards listed in **Exhibit D**, hereto attached, to ensure uniformity with the safety standards followed by the Railroad's own forces. As a part of the Contractor's safety responsibilities, the Contractor shall notify the Railroad if the Contractor determines that any of the Railroad's safety standards are contrary to good safety practices. The Contractor shall furnish copies of **Exhibit D** to each of its employees before they enter on the job site.

B. Without limitation of the provisions of paragraph A above, the Contractor shall keep the job site free from safety and health hazards and ensure that its employees are competent and adequately trained in all safety and health aspects of the job.

C. The Contractor shall have proper first aid supplies available on the job site so that prompt first aid services may be provided to any person injured on the job site. The Contractor shall promptly notify the Railroad of any U.S. Occupational Safety and Health Administration reportable injuries. The Contractor shall have a nondelegable duty to control its employees while they are on the job site or any other property of the Railroad, and to be certain they do not use, be under the influence of, or have in their possession any alcoholic beverage, drug or other substance that may inhibit the safe performance of any work.

D. If and when requested by the Railroad, the Contractor shall deliver to the Railroad a copy of the Contractor's safety plan for conducting the work (the "Safety Plan"). Railroad shall have the right, but not the obligation, to require the Contractor to correct any deficiencies in the Safety Plan. The terms of this agreement shall control if there are any inconsistencies between this agreement and the Safety Plan.

**Section 8.** **INDEMNITY.**

A. To the extent not prohibited by applicable statute, the Contractor shall indemnify, defend and hold harmless the Railroad, its affiliates, and its and their officers, agents and employees ("Indemnified Parties") from and against any and all loss, damage, injury, liability, claim, demand, cost or expense (including, without limitation, reasonable attorney's, consultant's and expert's fees, and court costs), fine or penalty (collectively, "Loss") incurred by any Indemnified Party, , or any employee of any Indemnified Party) arising out of or in any manner connected with (i) any work performed by the Contractor, or (ii) any act or omission of the Contractor, its officers, agents or employees, or (iii) any breach of this agreement by the Contractor.

B. The right to indemnity under this Section 8 shall accrue upon occurrence of the event giving rise to the Loss, and shall apply regardless of any negligence or strict liability of any Indemnified Party, except where the Loss is caused by the sole active negligence of an Indemnified Party as established by the final judgment of a court of competent jurisdiction. The sole active negligence of any Indemnified Party shall not bar the recovery of any other Indemnified Party.

C. The Contractor expressly and specifically assumes potential liability under this Section 8 for claims or actions brought by the Contractor's own employees. The Contractor waives any immunity it may have under worker's compensation or industrial insurance acts to indemnify the Railroad under this Section 8. Contractor acknowledges that this waiver was mutually negotiated by the parties hereto.

D. No court or jury findings in any employee's suit pursuant to any worker's compensation act or the Federal Employers' Liability Act against a party to this agreement may be relied upon or used by the Contractor in any attempt to assert liability against the Railroad.

E. The provisions of this Section 8 shall survive the completion of any work performed by the Contractor or the termination or expiration of this agreement. In no event shall this Section 8 or any other provision of this agreement be deemed to limit any liability the Contractor may have to any Indemnified Party by statute or under common law.

**Section 9.** **RESTORATION OF PROPERTY.**

In the event the Railroad authorizes the Contractor to take down any fence of the Railroad or in any manner move or disturb any of the other property of the Railroad in connection with the work to be performed by Contractor, then in that event the Contractor shall, as soon as possible and at Contractor's sole expense, restore such fence and other property to the same condition as the same were in before such fence was taken down or such other property was moved or disturbed. The Contractor shall remove all of Contractor's tools, equipment, rubbish and other materials from Railroad's property promptly upon completion of the work, restoring Railroad's property to the same state and condition as when Contractor entered thereon.

**Section 10.** **WAIVER OF DEFAULT.**

Waiver by the Railroad of any breach or default of any condition, covenant or agreement herein contained to be kept, observed and performed by the Contractor shall in no way impair the right of the Railroad to avail itself of any remedy for any subsequent breach or default.

**Section 11.** **MODIFICATION - ENTIRE AGREEMENT.**

No modification of this agreement shall be effective unless made in writing and signed by the Contractor and the Railroad. This agreement and the exhibits attached hereto and made a part hereof constitute the entire understanding between the Contractor and the Railroad and cancel and supersede any prior negotiations, understandings or agreements, whether written or oral, with respect to the work to be performed by the Contractor.

**Section 12.** **ASSIGNMENT - SUBCONTRACTING.**

The Contractor shall not assign or subcontract this agreement, or any interest therein, without the written consent of the Railroad. The Contractor shall be responsible for the acts and omissions of all subcontractors, and shall require all subcontractors to maintain the insurance coverage required to be maintained by the Contractor as provided in this agreement, and to indemnify the Contractor and the Railroad to the same extent as the Railroad is indemnified by the Contractor under this agreement.

**EXHIBIT C**

TO CONTRACTOR'S RIGHT OF ENTRY AGREEMENT

Union Pacific Railroad Company
Insurance Provisions For
Contractor's Right of Entry Agreement

Contractor shall, at its sole cost and expense, procure and maintain during the life of this Agreement the following insurance coverage:

A. **Commercial General Liability** insurance. This insurance shall contain broad form contractual liability with a single limit of at least $5,000,000 each occurrence or claim and an aggregate limit of at least $10,000,000. Coverage must be purchased on a post 1998 ISO or equivalent form, including but not limited to coverage for the following:

Bodily injury including death and personal injury
Property damage
Fire legal liability (Not less than the replacement value of the portion of the premises occupied)
Products and completed operations

The policy shall also contain the following endorsements which shall be indicated on the certificate of insurance:

"For purposes of this insurance, Union Pacific Railroad payments related to the Federal Employers Liability Act or a Union Pacific Wage Continuation Program or similar programs are deemed not to be either payments made or obligations assumed under any Workers Compensation, disability benefits, or unemployment compensation law or similar law."
The exclusions for railroads (except where the Job site is more than fifty feet (50') from any railroad including but not limited to tracks, bridges, trestles, roadbeds, terminals, underpasses or crossings), and explosion, collapse and underground hazard shall be removed.
Coverage for Contractor's (and Railroad's) employees shall not be excluded
Waiver of subrogation

B. **Business Automobile Coverage** insurance. This insurance shall contain a combined single limit of at least $5,000,000 per occurrence or claim, including but not limited to coverage for the following:
Bodily injury and property damage
Any and all motor vehicles including owned, hired and non-owned

The policy shall also contain the following endorsements which shall be indicated on the certificate of insurance:

"For purposes of this insurance, Union Pacific Railroad payments related to the Federal Employers Liability Act or a Union Pacific Wage Continuation Program or similar programs are deemed not to be either payments made or obligations assumed under any Workers Compensation, disability benefits, or unemployment compensation law or similar law."
The exclusions for railroads (except where the Job site is more than fifty feet (50') from any railroad including but not limited to tracks, bridges, trestles, roadbeds, terminals, underpasses or crossings), and explosion, collapse and underground hazard shall be removed.
Motor Carrier Act Endorsement- Hazardous materials clean up (MCS-90) if required by law.

C. **Workers Compensation and Employers Liability** insurance including but not limited to:

Contractor's statutory liability under the workers' compensation laws of the state(s) affected by this Agreement
Employers' Liability (Part B) with limits of at least
$500,000 each accident, $500,000 disease policy limit
$500,000 each employee

If Workers Compensation insurance will not cover the liability of Contractor in states that require participation in state workers' compensation fund, Contractor shall comply with the laws of such states. If Contractor is self-insured, evidence of state approval must be provided along with evidence of excess workers compensation coverage. Coverage shall

include liability arising out of the U. S. Longshoremen's and Harbor Workers' Act, the Jones Act, and the Outer Continental Shelf Land Act, if applicable.

The policy shall also contain the following endorsement which shall be indicated on the certificate of insurance:
Alternate Employer Endorsement

D. **Umbrella or Excess Policies** In the event Contractor utilizes Umbrella or excess policies, these policies shall "follow form" and afford no less coverage than the primary policy.

E. **Railroad Protective Liability** insurance naming only the Railroad as the insured with a combined single limit of $2,000,000 per occurrence with a $6,000,000 aggregate. The policy shall be broad form coverage for "Physical Damage to Property" (ISO Form CG 00 35 07 98 or equivalent). A binder stating the policy is in place must be submitted to the Railroad until the original policy is forwarded to the Railroad.

**Other Requirements**

F. Punitive damage exclusion must be deleted, which deletion shall be indicated on the certificate of insurance.

G. Contractor agrees to waive its right of recovery, and its insurers, through policy endorsement, agree to waive their right of subrogation against Railroad. Contractor further waives its right of recovery, and its insurers also waive their right of subrogation against Railroad for loss of its owned or leased property or property under its care, custody and control. Contractor's insurance shall be primary with respect to any insurance carried by Railroad. All waivers of subrogation shall be indicated on the certificate of insurance.

H. All policy(ies) required above (excluding Workers Compensation) shall provide severability of interests and shall name Railroad as an additional insured. Severability of interest and naming Railroad as additional insured shall be indicated on the certificate of insurance.

I. Prior to commencing the Work, Contractor shall furnish to Railroad original certificate(s) of insurance evidencing the required coverage, endorsements, and amendments. The certificate(s) shall contain a provision that obligates the insurance company(ies) issuing such policy(ies) to notify Railroad in writing of any cancellation or material alteration. Upon request from Railroad, a certified duplicate original of any required policy shall be furnished.

J. Any insurance policy shall be written by a reputable insurance company acceptable to Railroad or with a current Best's Insurance Guide Rating of A- and Class VII or better, and authorized to do business in the state(s) in which the service is to be provided.

K. Contractor WARRANTS that this Agreement has been thoroughly reviewed by Contractor's insurance agent(s)/broker(s), who have been instructed by Contractor to procure the insurance coverage required by this Agreement and acknowledges that Contractor's insurance coverage will be primary.

L. The fact that insurance is obtained by Contractor or Railroad on behalf of Contractor shall not be deemed to release or diminish the liability of Contractor, including, without limitation, liability under the indemnity provisions of this Agreement. Damages recoverable by Railroad shall not be limited by the amount of the required insurance coverage.

## EXHIBIT D

TO CONTRACTOR'S RIGHT OF ENTRY AGREEMENT

MINIMUM SAFETY REQUIREMENTS

The term "employees" as used herein refer to all employees of the Contractor as well as all employees of any subcontractor or agent of the Contractor.

I. Clothing

A. All employees of the Contractor will be suitably dressed to perform their duties safely and in a manner that will not interfere with their vision, hearing, or free use of their hands or feet.

Specifically, the Contractor's employees must wear:

(i) Waist-length shirts with sleeves.
(ii) Trousers that cover the entire leg. If flare-legged trousers are worn, the trouser bottoms must be tied to prevent catching.
(iii) Footwear that covers their ankles and has a defined heel. Employees working on bridges are required to wear safety-toed footwear that conforms to the American National Standards Institute (ANSI) and FRA footwear requirements.

B. Employees shall not wear boots (other than work boots), sandals, canvas-type shoes, or other shoes that have thin soles or heels that are higher than normal.

C. Employees must not wear loose or ragged clothing, neckties, finger rings, or other loose jewelry while operating or working on machinery.

II. Personal Protective Equipment

The Contractor shall require its employees to wear personal protective equipment as specified by Railroad rules, regulations, or recommended or requested by the Railroad Representative.

(i) Hard hat that meets the American National Standard (ANSI) Z89.1 – latest revision. Hard hats should be affixed with the contractor's or subcontractor's company logo or name.
(ii) Eye protection that meets American National Standard (ANSI) for occupational and educational eye and face protection, Z87.1 – latest revision. Additional eye protection must be provided to meet specific job situations such as welding, grinding, etc.
(iii) Hearing protection, which affords enough attenuation to give protection from noise levels that will be occurring on the job site. Hearing protection, in the form of plugs or muffs, must be worn when employees are within:

100 feet of a locomotive or roadway/work equipment
15 feet of power operated tools
150 feet of jet blowers or pile drivers
150 feet of retarders in use (when within 10 feet, employees must wear dual ear protection – plugs and muffs)

(iv) Other types of personal protective equipment, such as respirators, fall protection equipment, and face shields, must be worn as recommended or requested by the Railroad Representative.

III. On Track Safety

The Contractor is responsible for compliance with the Federal Railroad Administration's Roadway Worker Protection regulations – 49CFR214, Subpart C and Railroad's On-Track Safety rules. Under 49CFR214, Subpart C, railroad contractors are responsible for the training of their employees on such regulations. In addition to the instructions contained in Roadway Worker Protection regulations, all employees must:

(i) Maintain a distance of twenty-five (25) feet to any track unless the Railroad Representative is present to authorize movements.
(ii) Wear an orange, reflectorized workwear approved by the Railroad Representative.
(iii) Participate in a job briefing that will specify the type of On-Track Safety for the type of work being performed. Contractors must take special note of limits of track authority, which tracks may or may not be fouled, and clearing the track. The Contractors will also receive special instructions relating to the work zone around machines and minimum distances between machines while working or traveling.

IV. Equipment

A. It is the responsibility of the Contractor to ensure that all equipment is in a safe condition to operate. If, in the opinion of the Railroad Representative, any of the Contractor's equipment is unsafe for use, the Contractor shall remove such equipment from the Railroad's property. In addition, the Contractor must ensure that the operators of all equipment are properly trained and competent in the safe operation of the equipment. In addition, operators must be:

Familiar and comply with Railroad's rules on lockout/tagout of equipment.
Trained in and comply with the applicable operating rules if operating any hy-rail equipment on-track.
Trained in and comply with the applicable air brake rules if operating any equipment that moves rail cars or any other railbound equipment.

B. All self-propelled equipment must be equipped with a first-aid kit, fire extinguisher, and audible back-up warning device.

C. Unless otherwise authorized by the Railroad Representative, all equipment must be parked a minimum of twenty-five (25) feet from any track. Before leaving any equipment unattended, the operator must stop the engine and properly secure the equipment against movement.

D. Cranes must be equipped with three orange cones that will be used to mark the working area of the crane and the minimum clearances to overhead powerlines.

V. General Safety Requirements

A. The Contractor shall ensure that all waste is properly disposed of in accordance with appli cable federal and state regulations.

B. The Contractor shall ensure that all employees participate in and comply with a job briefing conducted by the Railroad Representative, if applicable. During this briefing, the Railroad Representative will specify safe work procedures, (including On-Track Safety) and the potential hazards of the job. If any employee has any questions or concerns about the work, the employee must voice them during the job briefing. Additional job briefings will be conducted during the work as conditions, work procedures, or personnel change.

C. All track work performed by the Contractor meets the minimum safety requirements established by the Federal Railroad Administration's Track Safety Standards 49CFR213.

D. All employees comply with the following safety procedures when working around any railroad track:

(i) Always be on the alert for moving equipment. Employees must always expect movement on any track, at any time, in either direction.
(ii) Do not step or walk on the top of the rail, frog, switches, guard rails, or other track components.
(iii) In passing around the ends of standing cars, engines, roadway machines or work equipment, leave at least 20 feet between yourself and the end of the equipment. Do not go between pieces of equipment if the opening is less than one car length (50 feet).
(iv) Avoid walking or standing on a track unless so authorized by the employee in charge.
(v) Before stepping over or crossing tracks, look in both directions first.
(vi) Do not sit on, lie under, or cross between cars except as required in the performance of your duties and only when track and equipment have been protected against movement.

E. All employees must comply with all federal and state regulations concerning workplace safety.

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State of Illinois
Department of Transportation
Bureau of Local Roads and Streets

# SPECIAL PROVISION FOR COOPERATION WITH UTILITIES

Effective: January 1, 1999
Revised: January 1, 2006

All references to Sections or Articles in this specification shall be construed to mean specific Section or Article of the Standard Specifications for Road and Bridge Construction, adopted by the Department of Transportation.

When the plans or special provisions include information pertaining to the location of underground utility facilities, such information represents only the opinion of the Department as to the location of such utilities and is only included for the convenience of the bidder. The Department assumes no responsibility in respect to the sufficiency or the accuracy of the information shown on the plans relative to the location of the underground utility facilities. It shall be the Contractor's responsibility to determine the actual location of all such facilities. He shall also obtain from the respective utility companies detailed information relative to the location of their facilities and the working schedules of the utility companies for removing or adjusting them.

Revise Article 105.07 of the Standard Specifications to read:

"**105.07 Utility Facilities.** Utilities which are within the limits of the proposed construction are to be moved or removed at no cost to the Contractor except as otherwise provided for in the special provisions or as noted in the plans.

(a) For the purpose of this Article, limits of proposed construction for utilities extending in the same longitudinal direction as the roadway, shall be defined as follows:

(1) The horizontal limits shall be a plane, outside of, parallel to, and 600 mm (2 ft) distant at right angles from the plan or revised slope limits and the slope limits extended vertically above the point of intersection of the slope limits and the original cross-section surface.

In cases where the limits of excavation for structures are not shown on the plans, the horizontal limits shall be a vertical plane 1.2 m (4 ft) outside the edges of structure footings or the structure where no footings are required.

(2) The upper vertical limits shall be the regulations governing the roadbed clearance for the specific utility involved.

(3) The lower vertical limits shall be the limits of excavation.

(b) For the purpose of this Article, limits of proposed construction for utilities crossing the roadway in a generally transverse direction shall be defined as follows:

(1) Utilities crossing excavations for structures that are normally made by trenching such as sewers, underdrains, etc., and all minor structures such as manholes, inlets, foundations for signs, foundations for traffic signals, etc., the limits shall be the space to be occupied by the proposed permanent construction unless otherwise required by the regulations governing the specific utility involved.

(2) For utilities crossing the proposed site of major structures such as bridges, sign trusses, etc., the limits shall be as defined above for utilities extending in the same general longitudinal direction as the roadway.

All reasonable adjustments, as determined by the Engineer, of utilities not shown on the plans, or visible or not identified by markers will be made at no cost to the Contractor except that traffic structures, light poles, etc., that are normally located within the construction limits will not be adjusted unless required by the proposed improvement.

The Contractor may make arrangements for adjustment of utilities outside the limits of proposed construction as defined above provided the Contractor furnishes the Department with a signed agreement with the utility owner covering the adjustments to be made. The cost of any adjustments made outside the limits of proposed construction as defined above shall be the responsibility of the Contractor unless otherwise provided for.

It is understood and agreed that the Contractor has considered in his bid all of the permanent and temporary utility appurtenances in their present or relocated positions and that no additional compensation will be allowed for any delays, inconvenience, or damage sustained by him due to any interference from the said utility appurtenances or the operation of moving them either by the utility company or by him; or on account of any special construction methods required in prosecuting his work due to the existence of said appurtenances either in their present or relocated positions."

## AGGREGATE SHIPPING TICKETS (BDE)

Effective: January 1, 2006

Add the following to Article 1003.01 of the Standard Specifications:

"(f) Shipping Tickets. Shipping tickets for the material shall be according to the current Bureau of Materials and Physical Research Policy Memorandum, "Designation of Aggregate Information on Shipping Tickets"."

Add the following to Article 1004.01 of the Standard Specifications:

"(f) Shipping Tickets. Shipping tickets for the material shall be according to the current Bureau of Materials and Physical Research Policy Memorandum, "Designation of Aggregate Information on Shipping Tickets"."

Add the following to Article 1005.01 of the Supplemental Specifications:

"(d) Shipping Tickets. Shipping tickets for the material shall be according to the current Bureau of Materials and Physical Research Policy Memorandum, "Designation of Aggregate Information on Shipping Tickets"."

80156

AUTHORITY OF RAILROAD ENGINEER (BDE)

Effective: July 1, 2004

Revise Article 105.02 of the Standard Specifications to read:

"**105.02 Authority of Railroad Engineer.** Whenever the safety of railroad traffic is concerned, the Railroad Engineer will have jurisdiction over safety measures to be taken and his/her decision as to the methods, procedures, and measures used shall be final, and any and all Contractors performing work near or about the railroad shall be governed by such decision. Instructions to the Contractor by the Railroad Engineer will be given through the Engineer. Work ordered as specified herein will be classified and paid for according to Article 104.02. Work performed for the Contractor's convenience will not be paid for separately but shall be considered as included in the contract."

80128

**BITUMINOUS CONCRETE SURFACE COURSE (BDE)**

Effective: April 1, 2001
Revised: April 1, 2003

Replace the fourth paragraph of Article 406.23(b) of the Standard Specifications with the following:

"Mixture for cracks, joints, flangeways, leveling binder (machine method), leveling binder (hand method) and binder course in excess of 103 percent of the quantity specified by the Engineer will not be measured for payment.

Surface course mixture in excess of 103 percent of adjusted plan quantity will not be measured for payment. The adjusted plan quantity for surface course mixtures will be calculated as follows:

Adjusted Plan Quantity = C x quantity shown on the plans or as specified by the Engineer.

where C = metric: $C = \frac{G_{mb} \times 24.99}{U}$ English: $C = \frac{G_{mb} \times 46.8}{U}$

and where:

$G_{mb}$ = average bulk specific gravity from approved mix design.
U = Unit weight of surface course shown on the plans in kg/sq m/25 mm (lb/sq yd/in.), used to estimate plan quantity.
24.99 = metric constant.
46.8 = English constant.

If project circumstances warrant a new surface course mix design, the above equations shall be used to calculate the adjusted plan quantity for each mix design using its respective average bulk specific gravity."

80050

**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. 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 placement of the surface course or at other times throughout the work."

80142

## COARSE AGGREGATE FOR TRENCH BACKFILL, BACKFILL AND BEDDING (BDE)

Effective: April 1, 2001
Revised: November 1, 2003

Revise Article 208.02 of the Standard Specifications to read:

"**208.02 Materials.** Materials shall be according to the following Articles of Section 1000 – Materials:

(a) Fine Aggregate (Note 1) ..... 1003.04
(b) Coarse Aggregate (Note 2) ..... 1004.06

Note 1. The fine aggregate shall be moist to the satisfaction of the Engineer.

Note 2. The coarse aggregate shall be wet to the satisfaction of the Engineer."

Revise the first sentence of the second paragraph of subparagraph (b) in Article 208.03 of the Standard Specifications to read:

"Any material meeting the requirements of Articles 1003.04 or 1004.06 which has been excavated from the trenches shall be used for backfilling the trenches."

Add the following to the end of Article 542.02 of the Standard Specifications:

"(bb) Fine Aggregate (Note 1) ..... 1003.04
(cc) Coarse Aggregate (Note 2) ..... 1004.06

Note 1. The fine aggregate shall be moist to the satisfaction of the Engineer.

Note 2. The coarse aggregate shall be wet to the satisfaction of the Engineer."

Revise the first and second sentences of the second paragraph of subparagraph (a) of Article 542.04 of the Standard Specifications to read:

"The unstable and unsuitable material shall be removed to a depth determined by the Engineer and for a width of one diameter (or equivalent diameter) of the pipe on each side of the pipe culvert, and replaced with aggregate. Rock shall be removed to an elevation 300 mm (1 ft) lower than the bottom of the pipe or to a depth equal to 40 mm/m (1/2 in./ft) of ultimate fill height over the top of the pipe culvert, whichever is the greater depth, and for a width as specified in (b) below, and replaced with aggregate."

Revise the second paragraph of subparagraph (c) of Article 542.04 of the Standard Specifications to read:

"Well compacted aggregate, at least 100 mm (4 in.) in depth below the pipe culvert, shall be placed the entire width of the trench and for the length of the pipe culvert, except well compacted impervious material shall be used for the outer 1 m (3 ft) at each end of the pipe. When the trench has been widened by the removal and replacement of unstable or unsuitable material, the foundation material shall be placed for a width not less than the above specified widths on each side of the pipe. The aggregate and impervious material shall be approved by the Engineer and shall be compacted to the Engineer's satisfaction by mechanical means."

Revise subparagraph (e) of Article 542.04 of the Standard Specifications to read:

"(e) Backfilling. As soon as the condition of the pipe culvert will permit, the entire width of the trench shall be backfilled with aggregate to a height of at least the elevation of the center of the pipe. The aggregate shall be placed longitudinally along the pipe culvert, except at the outer 1 m (3 ft) at each end of the culvert which shall be backfilled with impervious material. The elevation of the backfill material on each side of the pipe shall be the same. The space under the pipe shall be completely filled. The aggregate and impervious material shall be placed in 200 mm (8 in.) layers, loose measurement. When using PVC, PE, or corrugated metal pipe, the aggregate shall be continued to a height of at least 300 mm (1 ft) above the top of the pipe and compacted to a minimum of 85 percent of standard lab density by mechanical means. When reinforced concrete pipes are used and the trench is within 600 mm (2 ft) of the pavement structure, the backfill shall be compacted to a minimum of 85 percent of standard lab density by mechanical means.

When using PVC, PE, or corrugated metal pipe a minimum of 300 mm (1 ft) of cover from the top of the pipe to the top of the subgrade will be required.

The installed pipe and its embedment shall not be disturbed when using movable trench boxes and shields, sheet pile, or other trench protection.

The remainder of the trench shall be backfilled with select material, from excavation or borrow, free from large or frozen lumps, clods or rock, meeting the approval of the Engineer. The material shall be placed in layers not exceeding 200 mm (8 in.) in depth, loose measurement and compacted to 95 percent of the standard laboratory density. Compaction shall be obtained by use of mechanical tampers or with approved vibratory compactors. Before compacting, each layer shall be wetted or dried to bring the moisture content within the limits of 80 to 110 percent of optimum moisture content determined according to AASHTO T 99 (Method C). All backfill material shall be deposited in the trench or excavation in such a manner as not to damage the culvert. The filling of the trench shall be carried on simultaneously on both sides of the pipe.

The Contractor may, at his/her expense, backfill the entire trench with aggregate in lieu of select material. The aggregate shall be compacted to the satisfaction of the Engineer by mechanical means.

The backfill material for all trenches and excavations made in the subgrade of the proposed improvement, and for all trenches outside of the subgrade where the inner edge of the trench is within 600 mm (2 ft) of the edge of the proposed pavement, curb, gutter, curb and gutter, stabilized shoulder, or sidewalk shall be according to Section 208. The trench backfill material shall be compacted to a minimum of 85 percent of standard lab density by mechanical means.

The Contractor may, at his/her expense, backfill the entire trench with controlled low strength material meeting the approval of the Engineer.

When the trench has been widened for the removal and replacement of unstable or unsuitable material, the backfilling with aggregate and impervious material, will be required for a width of at least the specified widths on each side of the pipe. The remaining width of each layer may be backfilled with select material. Each 200 mm (8 in.) layer for the entire trench width shall be completed before beginning the placement of the next layer."

Revise subparagraph (b) of Article 542.05 of the Standard Specifications to read:

"(b) Embankment. Embankment extending to an elevation of 300 mm (1 ft) over the top of the pipe shall be constructed according to Article 542.04(f), except the material up to the elevation of the center of the pipe and extending to a width of at least 450 mm (18 in.) on each side of the pipe, exclusive of the outer 1 m (3 ft) at each end of the pipe, shall consist of aggregate. At the outer 1 m (3 ft) at each end of the culvert, impervious material shall be used."

Add the following paragraph after the first paragraph of Article 542.10 of the Standard Specifications:

"Trench backfill will be measured for payment according to Article 208.03."

Add the following paragraph after the third paragraph of Article 542.11 of the Standard Specifications:

"Trench backfill will be paid for according to Article 208.04."

Add the following to of Article 550.02 of the Standard Specifications:

"(m) Fine Aggregate (Note 2) ..... 1003.04
(n) Coarse Aggregate (Note 3) ..... 1004.06

Note 2. The fine aggregate shall be moist to the satisfaction of the Engineer.

Note 3. The coarse aggregate shall be wet to the satisfaction of the Engineer."

Revise the first two sentences of the third paragraph of Article 550.04 of the Standard Specifications to read:

"Well compacted, aggregate bedding material at least 100 mm (4 in.) in depth below the pipe, shall be placed for the entire width of the trench and length of the pipe. The aggregate shall be compacted to the satisfaction of the Engineer by mechanical means."

Revise Article 550.07 of the Standard Specifications to read:

**"550.07 Backfilling.** As soon as the condition of the pipe will permit, the entire width of the trench shall be backfilled with aggregate to a height of at least the elevation of the center of the pipe. The aggregate shall be placed longitudinally along the pipe. The elevation of the backfill material on each side of the pipe shall be the same. The space under the pipe shall be completely filled. The aggregate backfill material shall be placed in 200 mm (8 in.) layers, loose measurement and compacted to the satisfaction of the Engineer by mechanical means. When using PVC pipe, the aggregate shall be continued to a height of at least 300 mm (12 in.) above the top of the pipe.

The installed pipe and its embedment shall not be disturbed when using movable trench boxes and shields, sheet pile, or other trench protection.

The remainder of the trench and excavation shall be backfilled to the natural line or finished surface as rapidly as the condition of the sewer will permit. The backfill material shall consist of suitable excavated material from the trench or of trench backfill as herein specified. All backfill material shall be deposited in the trench or excavation in such a manner as not to damage the sewer and shall be compacted to the satisfaction of the Engineer by mechanical means. The filling of the trench shall be carried on simultaneously on both sides of the pipe.

The backfill material for trenches and excavation made in the subgrade of the proposed improvement, and for all trenches outside of the subgrade where the inner edge of the trench is within 600 mm (2 ft) of the edge of the proposed pavement, curb, gutter, curb and gutter, stabilized shoulder or sidewalk shall be according to Section 208. The backfill material shall be compacted to 85 percent of standard lab density by mechanical means.

All backfill material up to a height of 300 mm (1 ft) above the pipe shall be deposited in uniform layers not exceeding 200 mm (8 in.) thick, loose measurement. The material in each layer shall be compacted to the satisfaction of the Engineer by mechanical means. The

backfilling above this height shall be done according to Method 1, 2 or 3 as described below, with the following exceptions.

When trench backfill or excavated material meeting the requirements of Section 208 is required above the first 300 mm (1 ft) of the pipe, the layers shall not exceed 200 mm (8 in.). Gradations CA6 or CA10 shall not be used with Method 2 or Method 3.

Method 1. The material shall be deposited in uniform layers not exceeding 300 mm (1 ft) thick, loose measurement, and each layer shall be compacted to the satisfaction of the Engineer by mechanical means.

Method 2. The material shall be deposited in uniform layers not exceeding 300 mm (1 ft) thick, loose measurement, and each layer shall be either inundated or deposited in water.

Method 3. The trench shall be backfilled with loose material, and settlement secured by introducing water through holes jetted into the backfill to a point approximately 600 mm (2 ft) above the top of the pipe. The holes shall be spaced as directed by the Engineer but shall be no farther than 2 m (6 ft) apart.

The water shall be injected at a pressure just sufficient to sink the holes at a moderate rate of speed. The pressure shall be such that the water will not cut cavities in the backfill material nor overflow the surface. If water does overflow the surface, it shall be drained into the jetted holes by means of shallow trenches.

Water shall be injected as long as it will be absorbed by the backfill material and until samples taken from test holes in the trench show a satisfactory moisture content. The Contractor shall bore the test holes not more than 15 m (50 ft) apart and at such other locations in the trench designated by the Engineer. As soon as the watersoaking has been completed, all holes shall be filled with soil and compacted by ramming with a tool approved by the Engineer.

Backfill material which has been watersoaked shall be allowed to settle and dry for at least 10 days before any surface course or pavement is constructed on it. The length of time may be altered, if deemed desirable, by the Engineer. Where the inner edge of the trench is within 600 mm (2 ft) of the edge of the proposed pavement, curb, gutter, curb and gutter, stabilized shoulder or sidewalk, the provisions of this paragraph shall also apply.

At the end of the settling and drying period, the crusted top of the backfill material shall be scarified and, if necessary, sufficient backfill material added, as specified in Method 1, to complete the backfilling operations.

The method used for backfilling and compacting the backfill material shall be the choice of the Contractor. If the method used does not produce results satisfactory to the Engineer, the Contractor will be required to alter or change the method being used so the resultant backfill will be satisfactory to the Engineer. Should the Contractor be required to alter or change the

method being used, no additional compensation will be allowed for altering or changing the method.

The Contractor may, at his/her expense, backfill the entire trench with controlled low strength material meeting the approval of the Engineer.

When sheeting and bracing have been used, sufficient bracing shall be left across the trench as the backfilling progresses to hold the sides firmly in place without caving or settlement. This bracing shall be removed as soon as practicable. Any depressions which may develop within the area involved in the construction operation due to settlement of the backfilling material shall be filled in a manner approved by the Engineer.

When the Contractor constructs the trench with sloped or benched sides according to Article 550.04, backfilling for the full width of the excavation shall be as specified, except no additional compensation will be allowed for trench backfill material required outside the vertical limits of the specified trench width.

Whenever excavation is made for installing sewer pipe across earth shoulders or private property, the topsoil disturbed by excavation operations shall be replaced as nearly as possible in its original position, and the whole area involved in the construction operations shall be left in a neat and presentable condition.

When using any PVC pipe, the pipe shall be backfilled with aggregate to 300 mm (1 ft) over the top of the pipe and compacted to a minimum of 85 percent of standard lab density by mechanical means.

When reinforced concrete pipes are used and the trench is within 600 mm (2 ft) of the pavement structure, the backfill shall be compacted to a minimum of 85 percent of standard lab density by mechanical means.

Deflection Testing for Storm Sewers. All PVC storm sewers will be tested for deflection not less than 30 days after the pipe is installed and the backfill compacted.

For PVC storm sewers with diameters 600 mm (24 in.) or smaller, a mandrel drag shall be used for deflection testing. For PVC storm sewers with diameters over 600 mm (24 in.), deflection measurements other than by a mandrel drag shall be used.

Where the mandrel is used, the mandrel shall be furnished by the Contractor and pulled by hand through the pipeline with a suitable rope or cable connected to each end. Winching or other means of forcing the deflection gauge through the pipeline will not be allowed.

The mandrel shall be of a shape similar to that of a true circle enabling the gauge to pass through a satisfactory pipeline with little or no resistance. The mandrel shall be of a design to prevent it from tipping from side to side and to prevent debris build-up from occurring between the channels of the adjacent fins or legs during operation. Each end of the core of the mandrel shall have fasteners to which the pulling cables can be attached. The mandrel shall have 9,

various sized fins or legs of appropriate dimension for various diameter pipes. Each fin or leg shall have a permanent marking that states its designated pipe size and percent of deflection allowable.

The outside diameter of the mandrel shall be 95 percent of the base inside diameter, where the base inside diameter is:

For all PVC pipe (as defined using ASTM D 3034 methodology):

If the pipe is found to have a deflection greater than specified, that pipe section shall be removed, replaced, and retested."

Revise subparagraph (c) of Article 1003.04 of the Standard Specifications to read:

"(c) Gradation. The fine aggregate gradation shall be as follows:

| | |
|---|---|
| Backfill, bedding and trench backfill for pipe culverts and storm sewers | FA 1, FA 2, FA 6, or FA 21 |
| Porous granular embankment and backfill, french drains, and sand backfill for underdrains | FA 1, FA 2, or FA20 (Note 1) |

Note 1: For FA 1, FA 2, and FA 20 the percent passing the 75 μm (No. 200) sieve shall be 2 ± 2."

Revise the title of Article 1004.06 of the Standard Specifications to read:

**"Coarse Aggregate for Blotter, Embankment, Backfill, Trench Backfill, French Drains, and Bedding."**

Add the following to the end of subparagraph (c) of Article 1004.06 of the Standard Specifications:

| | |
|---|---|
| "Backfill, bedding, and trench backfill for pipe culverts and storm sewers | CA 6, CA 10, and CA 18" |

80051

**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)"

80094

**CORRUGATED METAL PIPE CULVERTS (BDE)**

Effective: August 1, 2003
Revised: July 1, 2004

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

"When corrugated steel or aluminum alloy culvert pipe (including bituminous coated steel or aluminum and pre-coated steel) is used, the pipe shall be placed such that the longitudinal lap is placed at the sides and separate sections of pipe shall be joined with a hugger-type band. When the pipes are fabricated with a smooth sleeve-type coupler, the gasket shall meet the requirements of Article 1006.01."

Add the following paragraph after the first paragraph of Article 1006.01 of the Standard Specifications:

"Round pipes 1200 mm (48 in.) in diameter and smaller may be fabricated with a smooth sleeve-type coupler. Gasket material on the smooth sleeve-type coupler shall be polyisoprene or equal with a durometer hardness of 45±5 (ASTM D 2240, Shore A). Pipe used with smooth sleeve-type couplers shall contain a homing mark that indicates when the joint is tight. The homing mark shall consist of a painted stripe around the circumference of the male end of the pipe."

Delete the last sentence of the first paragraph of Article 1006.01(a) of the Standard Specifications.

Add the following paragraph after the first paragraph of Article 1006.03 of the Standard Specifications:

"Round pipes 1200 mm (48 in.) in diameter and smaller may be fabricated with a smooth sleeve-type coupler. Gasket material on the smooth sleeve-type coupler shall be polyisoprene or equal with a durometer hardness of 45±5 (ASTM D 2240, Shore A). Pipe used with smooth sleeve-type couplers shall contain a homing mark that indicates when the joint is tight. The homing mark shall consist of a painted stripe around the circumference of the male end of the pipe."

80102

## 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 | |
|---|---|
| Type of Construction | Percent 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 CURING AND PROTECTION OF CONCRETE CONSTRUCTION | | | |
|---|---|---|---|
| TYPE OF CONSTRUCTION | CURING METHODS | CURING PERIOD DAYS | LOW AIR TEMPERATURE PROTECTION METHODS |
| **Cast-in-Place Concrete:** [11/] | | | |
| Pavement<br>Shoulder | 1020.13(a)(1)(2)(3)(4)(5) [3/ 5/] | 3 | 1020.13(c) |
| Base Course<br>Base Course Widening | 1020.13(a)(1)(2)(3)(4)(5) [1/ 2/] | 3 | 1020.13(c) |
| Driveway<br>Median<br>Curb<br>Gutter<br>Curb and Gutter<br>Sidewalk<br>Slope Wall | 1020.13(a)(1)(2)(3)(4)(5) [4/ 5/] | 3 | 1020.13(c) [16/] |
| Paved Ditch<br>Catch Basin<br>Manhole<br>Inlet<br>Valve Vault | 1020.13(a)(1)(2)(3)(4)(5) [4/] | 3 | 1020.13(c) |
| Pavement Patching | 1020.13(a)(1)(2)(3)(4)(5) [2/] | 3 [12/] | 1020.13(c) |
| Pavement Replacement | 1020.13(a)(1)(2)(3)(4)(5) [1/ 2/] | 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<br>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) [1/ 7/] | 7 | 1020.13(e)(1)(2)(3) |
| Superstructure (except deck) | 1020.13(a)(1)(2)(3)(5) [6/] | 7 | 1020.13(e)(1)(2) |
| Deck | 1020.13(a)(5) | 7 | 1020.13(e)(1)(2) [17/] |
| Retaining Walls | 1020.13(a)(1)(2)(3)(4)(5) [1/ 7/] | 7 | 1020.13(e)(1)(2) |
| Pump Houses | 1020.13(a)(1)(2)(3)(4)(5) [1/] | 7 | 1020.13(e)(1)(2) |
| Culverts | 1020.13(a)(1)(2)(3)(4)(5) [4/ 6/] | 7 | 1020.13(e)(1)(2) [18/] |
| Other Incidental Concrete | 1020.13(a)(1)(2)(3)(5) | 3 | 1020.13(c) |
| **Precast Concrete:** [11/] | | | |
| Bridge Beams<br>Piles<br>Bridge Slabs<br>Nelson Type Structural Member | 1020.13(a)(3)(5) [9/ 10/] | As required. [13/] | 504.06(c)(6), 1020.13(e)(2) [19/] |
| All Other Precast Items | 1020.13(a)(3)(4)(5) [2/ 9/ 10/] | As required. [14/] | 504.06(c)(6), 1020.13(e)(2) [19/] |
| **Precast, Prestressed Concrete:** [11/] | | | |
| All Items | 1020.13(a)(3)(5) [9/ 10/] | Until strand tensioning is released. [15/] | 504.06(c)(6), 1020.13(e)(2) [19/] |

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 ± 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 ± 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."

80114

**DETECTABLE WARNINGS (BDE)**

Effective: August 1, 2005

Replace Articles 424.08 – 424.12 of the Standard Specifications with the following:

"**424.08 Curb Ramps.** Curb ramps shall be constructed according to the Americans with Disabilities Act Accessibility Guidelines (ADAAG), the Illinois Accessibility Code, and as shown on the plans.

Curb ramps shall be constructed to the same thickness as the adjacent sidewalk with a minimum thickness of 100 mm (4 in.).

**424.09 Detectable Warnings.** Detectable warnings shall consist of a surface of truncated domes meeting the requirements of the ADAAG and the details shown on the plans.

Detectable warnings shall be installed at curb ramps, medians and pedestrian refuge islands, at-grade railroad crossings, transit platform edges, and other locations where pedestrians are required to cross a hazardous vehicular way. Detectable warnings shall also be installed at alleys and commercial entrances when permanent traffic control devices are present. The installation shall be an integral part of the walking surface and only the actual domes shall project above the walking surface.

The product or method used for installing detectable warnings shall come with the following documents which shall be given to the Engineer prior to use.

(a) Manufacturer's certification stating the product is fully compliant with the ADAAG.

(b) Manufacturer's five year warranty.

(c) Manufacturer's specifications stating the required materials, equipment, and installation procedures.

Products that are colored shall be colored their entire thickness.

The materials, equipment, and installation procedures used shall be according to the manufacturer's specifications.

**424.10 Backfill.** After the concrete has been cured, the spaces along the edges of the sidewalk and ramps shall be backfilled with approved material. The material shall be compacted until firm and the surface neatly graded.

**424.11 Disposal of Surplus Material.** Surplus or waste material shall be disposed of according to Article 202.03.

**424.12 Method of Measurement.** This work will be measured for payment in place and the area computed in square meters (square feet). Curb ramps will be measured for payment as sidewalk. No deduction will be made for detectable warnings located within the ramp.

Detectable warnings will be measured for payment in place and the area computed in square meters (square feet).

Earth excavation will be measured for payment according to Article 202.07.

**424.13 Basis of Payment.** This work will be paid for at the contract unit price per square meter (square foot) for PORTLAND CEMENT CONCRETE SIDEWALK, of the thickness specified.

Detectable warnings will be paid for at the contract unit price per square meter (square foot) for DETECTABLE WARNINGS.

Earth excavation will be paid for according to Article 202.08."

80146

## DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION

Effective: September 1, 2000
Revised: June 22, 2005

FEDERAL OBLIGATION. The Department of Transportation, as a recipient of federal financial assistance, is required to take all necessary and reasonable steps to ensure nondiscrimination in the award and administration of contracts. Consequently, the federal regulatory provisions of 49 CFR part 26 apply to this contract concerning the utilization of disadvantaged business enterprises. For the purposes of this Special Provision, a disadvantaged business enterprise (DBE) means a business certified by the Department in accordance with the requirements of 49 CFR part 26 and listed in the DBE Directory or most recent addendum.

STATE OBLIGATION. This Special Provision will also be used by the Department to satisfy the requirements of the Business Enterprise for Minorities, Females, and Persons with Disabilities Act, 30 ILCS 575. When this Special Provision is used to satisfy state law requirements on 100% state-funded contracts, the federal government has no involvement in such contracts (not a federal-aid contract) and no responsibility to oversee the implementation of this Special Provision by the Department on those contracts. DBE participation on 100% state-funded contracts will not be credited toward fulfilling the Department's annual overall DBE goal required by the US Department of Transportation to comply with the federal DBE program requirements.

CONTRACTOR ASSURANCE. The Contractor makes the following assurance and agrees to include the assurance in each subcontract that the Contractor signs with a subcontractor:

> The Contractor, subrecipient, or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The Contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of contracts funded in whole or in part with federal or state funds. Failure by the Contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate.

OVERALL GOAL SET FOR THE DEPARTMENT. As a requirement of compliance with 49 CFR part 26, the Department has set an overall goal for DBE participation in its federally assisted contracts. That goal applies to all federal-aid funds the Department will expend in its federally assisted contracts for the subject reporting fiscal year. The Department is required to make a good faith effort to achieve the overall goal. The dollar amount paid to all approved DBE firms performing work called for in this contract is eligible to be credited toward fulfillment of the Department's overall goal.

CONTRACT GOAL TO BE ACHIEVED BY THE CONTRACTOR. This contract includes a specific DBE utilization goal established by the Department. The goal has been included because the Department has determined that the work of this contract has subcontracting opportunities that may be suitable for performance by DBE companies. This determination is based on an assessment of the type of work, the location of the work, and the availability of DBE companies to do a part of the work. The assessment indicates that, in the absence of

unlawful discrimination, and in an arena of fair and open competition, DBE companies can be expected to perform _4.00% of the work. This percentage is set as the DBE participation goal for this contract. Consequently, in addition to the other award criteria established for this contract, the Department will award this contract to a bidder who makes a good faith effort to meet this goal of DBE participation in the performance of the work. A bidder makes a good faith effort for award consideration if either of the following is done in accordance with the procedures set forth in this Special Provision:

(a) The bidder documents that firmly committed DBE participation has been obtained to meet the goal; or

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

DBE LOCATOR REFERENCES. Bidders may consult the DBE Directory as a reference source for DBE companies certified by the Department. In addition, the Department maintains a letting and item specific DBE locator information system whereby DBE companies can register their interest in providing quotes on particular bid items advertised for letting. Information concerning DBE companies willing to quote work for particular contracts may be obtained by contacting the Department's Bureau of Small Business Enterprises at telephone number (217)785-4611, or by visiting the Department's web site at www.dot.state.il.us.

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

(a) In order to assure the timely award of the contract, the as-read low bidder shall submit a Disadvantaged Business Utilization Plan on Department form SBE 2026 within seven (7) working days after the date of letting. To meet the seven (7) day requirement, the bidder may send the Plan by certified mail or delivery service within the seven (7) working day period. If a question arises concerning the mailing date of a Plan, the mailing date will be established by the U.S. Postal Service postmark on the original certified mail receipt from the U.S. Postal Service or the receipt issued by a delivery service. It is the responsibility of the bidder to ensure that the postmark or receipt date is affixed within the seven (7) working days if the bidder intends to rely upon mailing or delivery to satisfy the submission day requirement. The Plan is to be submitted to the Department of Transportation, Bureau of Small Business Enterprises, Contract Compliance Section, 2300 South Dirksen Parkway, Room 319, Springfield, Illinois 62764 (Telefax: (217)785-1524). It is the responsibility of the bidder to obtain confirmation of telefax delivery. The Department will not accept a Utilization Plan if it does not meet the seven (7) day submittal requirement and the bid will be declared not responsive. In the event the bid is declared not responsive due to a failure to submit a Plan or failure to comply with the bidding procedures set forth herein, the Department may elect to cause the forfeiture of the penal sum of the bidder's proposal guaranty, and may deny authorization to bid the project if re-advertised for bids. The Department reserves the right to invite any other

bidder to submit a Utilization Plan at any time for award consideration or to extend the time for award.

(b) The Utilization Plan shall indicate that the bidder either has obtained sufficient DBE participation commitments to meet the contract goal or has not obtained enough DBE participation commitments in spite of a good faith effort to meet the goal. The Utilization Plan shall further provide the name, telephone number, and telefax number of a responsible official of the bidder designated for purposes of notification of plan approval or disapproval under the procedures of this Special Provision.

(c) The Utilization Plan shall include a DBE Participation Commitment Statement, Department form SBE 2025, for each DBE proposed for the performance of work to achieve the contract goal. The signatures on these forms must be original signatures. All elements of information indicated on the said form shall be provided, including but not limited to the following:

(1) The name and address of each DBE to be used;

(2) A description, including pay item numbers, of the commercially useful work to be done by each DBE;

(3) The price to be paid to each DBE for the identified work specifically stating the quantity, unit price, and total subcontract price for the work to be completed by the DBE. If partial pay items are to be performed by the DBE, indicate the portion of each item, a unit price where appropriate and the subcontract price amount;

(4) A commitment statement signed by the bidder and each DBE evidencing availability and intent to perform commercially useful work on the project; and

(5) If the bidder is a joint venture comprised of DBE firms and non-DBE firms, the plan must also include a clear identification of the portion of the work to be performed by the DBE partner(s).

(d) The contract will not be awarded until the Utilization Plan submitted by the bidder is approved. The Utilization Plan will be approved by the Department if the Plan commits sufficient commercially useful DBE work performance to meet the contract goal. The Utilization Plan will not be approved by the Department if the Plan does not commit sufficient DBE performance to meet the contract goal unless the bidder documents that it made a good faith effort to meet the goal. The good faith procedures of Section VIII of this special provision apply. If the Utilization Plan is not approved because it is deficient in a technical matter, unless waived by the Department, the bidder will be notified and will be allowed no less than a five (5) working day period in order to cure the deficiency.

CALCULATING DBE PARTICIPATION. The Utilization Plan values represent work anticipated to be performed and paid for upon satisfactory completion. The Department is only able to count toward the achievement of the overall goal and the contract goal the value of payments

made for the work actually performed by DBE companies. In addition, a DBE must perform a commercially useful function on the contract to be counted. A commercially useful function is generally performed when the DBE is responsible for the work and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. The Department and Contractor are governed by the provisions of 49 CFR part 26.55(c) on questions of commercially useful functions as it affects the work. Specific counting guidelines are provided in 49 CFR part 26.55, the provisions of which govern over the summary contained herein.

(a) DBE as the Contractor: 100% goal credit for that portion of the work performed by the DBE's own forces, including the cost of materials and supplies. Work that a DBE subcontracts to a non-DBE firm does not count toward the DBE goals.

(b) DBE as a joint venture Contractor: 100% goal credit for that portion of the total dollar value of the contract equal to the distinct, clearly defined portion of the work performed by the DBE's own forces.

(c) DBE as a subcontractor: 100% goal credit for the work of the subcontract performed by the DBE's own forces, including the cost of materials and supplies, excluding the purchase of materials and supplies or the lease of equipment by the DBE subcontractor from the prime Contractor or its affiliates. Work that a DBE subcontractor in turn subcontracts to a non-DBE firm does not count toward the DBE goal.

(d) DBE as a trucker: 100% goal credit for trucking participation provided the DBE is responsible for the management and supervision of the entire trucking operation for which it is responsible. At least one truck owned, operated, licensed, and insured by the DBE must be used on the contact. Credit will be given for the full value of all such DBE trucks operated using DBE employed drivers. Goal credit will be limited to the value of the reasonable fee or commission received by the DBE if trucks are leased from a non-DBE company.

(e) DBE as a material supplier:

(1) 60% goal credit for the cost of the materials or supplies purchased from a DBE regular dealer.

(2) 100% goal credit for the cost of materials or supplies obtained from a DBE manufacturer.

(3) 100% credit for the value of reasonable fees and commissions for the procurement of materials and supplies if not a regular dealer or manufacturer.

GOOD FAITH EFFORT PROCEDURES. If the bidder cannot obtain sufficient DBE commitments to meet the contract goal, the bidder must document in the Utilization Plan the good faith efforts made in the attempt to meet the goal. This means that the bidder must show that all necessary and reasonable steps were taken to achieve the contract goal. Necessary

and reasonable steps are those which could reasonably be expected to obtain sufficient DBE participation. The Department will consider the quality, quantity, and intensity of the kinds of efforts that the bidder has made. Mere *pro forma* efforts are not good faith efforts; rather, the bidder is expected to have taken those efforts that would be reasonably expected of a bidder actively and aggressively trying to obtain DBE participation sufficient to meet the contract goal.

(a) The following is a list of types of action that the Department will consider as part of the evaluation of the bidder's good faith efforts to obtain participation. These listed factors are not intended to be a mandatory checklist and are not intended to be exhaustive. Other factors or efforts brought to the attention of the Department may be relevant in appropriate cases, and will be considered by the Department.

(1) Soliciting through all reasonable and available means (e.g. attendance at pre-bid meetings, advertising and/or written notices) the interest of all certified DBE companies that have the capability to perform the work of the contract. The bidder must solicit this interest within sufficient time to allow the DBE companies to respond to the solicitation. The bidder must determine with certainty if the DBE companies are interested by taking appropriate steps to follow up initial solicitations.

(2) Selecting portions of the work to be performed by DBE companies in order to increase the likelihood that the DBE goals will be achieved. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate DBE participation, even when the prime Contractor might otherwise prefer to perform these work items with its own forces.

(3) Providing interested DBE companies with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist them in responding to a solicitation.

(4) a. Negotiating in good faith with interested DBE companies. It is the bidder's responsibility to make a portion of the work available to DBE subcontractors and suppliers and to select those portions of the work or material needs consistent with the available DBE subcontractors and suppliers, so as to facilitate DBE participation. Evidence of such negotiation includes the names, addresses, and telephone numbers of DBE companies that were considered; a description of the information provided regarding the plans and specifications for the work selected for subcontracting; and evidence as to why additional agreements could not be reached for DBE companies to perform the work.

b. A bidder using good business judgment would consider a number of factors in negotiating with subcontractors, including DBE subcontractors, and would take a firm's price and capabilities as well as contract goals into consideration. However, the fact that there may be some additional costs involved in finding and using DBE companies is not in itself sufficient reason for a bidder's failure to meet the contract DBE goal, as long as such costs are reasonable. Also, the ability or desire of a bidder to perform the work of a contract with its own

organization does not relieve the bidder of the responsibility to make good faith efforts. Bidders are not, however, required to accept higher quotes from DBE companies if the price difference is excessive or unreasonable.

(5) Not rejecting DBE companies as being unqualified without sound reasons based on a thorough investigation of their capabilities. The bidder's standing within its industry, membership in specific groups, organizations, or associations and political or social affiliations (for example union vs. non-union employee status) are not legitimate causes for the rejection or non-solicitation of bids in the bidder's efforts to meet the project goal.

(6) Making efforts to assist interested DBE companies in obtaining bonding, lines of credit, or insurance as required by the recipient or Contractor.

(7) Making efforts to assist interested DBE companies in obtaining necessary equipment, supplies, materials, or related assistance or services.

(8) Effectively using the services of available minority/women community organizations; minority/women contractors' groups; local, state, and federal minority/women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of DBE companies.

(b) If the Department determines that the bidder has made a good faith effort to secure the work commitment of DBE companies to meet the contract goal, the Department will award the contract provided that it is otherwise eligible for award. If the Department determines that a good faith effort has not been made, the Department will notify the bidder of that preliminary determination by contacting the responsible company official designated in the Utilization Plan. The preliminary determination shall include a statement of reasons why good faith efforts have not been found, and may include additional good faith efforts that the bidder could take. The notification will designate a five (5) working day period during which the bidder shall take additional efforts. The bidder is not limited by a statement of additional efforts, but may take other action beyond any stated additional efforts in order to obtain additional DBE commitments. The bidder shall submit an amended Utilization Plan if additional DBE commitments to meet the contract goal are secured. If additional DBE commitments sufficient to meet the contract goal are not secured, the bidder shall report the final good faith efforts made in the time allotted. All additional efforts taken by the bidder will be considered as part of the bidder's good faith efforts. If the bidder is not able to meet the goal after taking additional efforts, the Department will make a pre-final determination of the good faith efforts of the bidder and will notify the designated responsible company official of the reasons for an adverse determination.

(c) The bidder may request administrative reconsideration of a pre-final determination adverse to the bidder within the five (5) working days after the notification date of the determination by delivering the request to the Department of Transportation, Bureau of Small Business Enterprises, Contract Compliance Section, 2300 South Dirksen

Parkway, Room 319, Springfield, Illinois 62764 (Telefax: (217)785-1524). Deposit of the request in the United States mail on or before the fifth business day shall not be deemed delivery. The pre-final determination shall become final if a request is not made and delivered. A request may provide additional written documentation and/or argument concerning the issue of whether an adequate good faith effort was made to meet the contract goal. In addition, the request shall be considered a consent by the bidder to extend the time for award. The request will be forwarded to the Department's Reconsideration Officer. The Reconsideration Officer will extend an opportunity to the bidder to meet in person in order to consider all issues of whether the bidder made a good faith effort to meet the goal. After the review by the Reconsideration Officer, the bidder will be sent a written decision within ten (10) working days after receipt of the request for reconsideration, explaining the basis for finding that the bidder did or did not meet the goal or make adequate good faith efforts to do so. A final decision by the Reconsideration Officer that a good faith effort was made shall approve the Utilization Plan submitted by the bidder and shall clear the contract for award. A final decision that a good faith effort was not made shall render the bid not responsive.

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

(a) No amendment to the Utilization Plan may be made without prior written approval from the Department's Bureau of Small Business Enterprises. All requests for amendment to the Utilization Plan shall be submitted to the Department of Transportation, Bureau of Small Business Enterprises, Contract Compliance Section, 2300 South Dirksen Parkway, Room 319, Springfield, Illinois 62764. Telephone number (217) 785-4611. Telefax number (217) 785-1524.

(b) All work indicated for performance by an approved DBE shall be performed, managed, and supervised by the DBE executing the Participation Statement. The Contractor shall not terminate for convenience a DBE listed in the Utilization Plan and then perform the work of the terminated DBE with its own forces, those of an affiliate or those of another subcontractor, whether DBE or not, without first obtaining the written consent of the Bureau of Small Business Enterprises to amend the Utilization Plan. If a DBE listed in the Utilization Plan is terminated for reasons other than convenience, or fails to complete its work on the contract for any reason, the Contractor shall make good faith efforts to find another DBE to substitute for the terminated DBE. The good faith efforts shall be

directed at finding another DBE to perform at least the same amount of work under the contract as the DBE that was terminated, but only to the extent needed to meet the contract goal or the amended contract goal. The Contractor shall notify the Bureau of Small Business Enterprises of any termination for reasons other than convenience, and shall obtain approval for inclusion of the substitute DBE in the Utilization Plan. If good faith efforts following a termination of a DBE for cause are not successful, the Contractor shall contact the Bureau and provide a full accounting of the efforts undertaken to obtain substitute DBE participation. The Bureau will evaluate the good faith efforts in light of all circumstances surrounding the performance status of the contract, and determine whether the contract goal should be amended.

(c) The Contractor shall maintain a record of payments for work performed to the DBE participants. The records shall be made available to the Department for inspection upon request. After the performance of the final item of work or delivery of material by a DBE and final payment therefor to the DBE by the Contractor, but not later than thirty (30) calendar days after payment has been made by the Department to the Contractor for such work or material, the Contractor shall submit a DBE Payment Report on Department form SBE 2115 to the Regional Engineer. If full and final payment has not been made to the DBE, the Report shall indicate whether a disagreement as to the payment required exists between the Contractor and the DBE or if the Contractor believes that the work has not been satisfactorily completed. If the Contractor does not have the full amount of work indicated in the Utilization Plan performed by the DBE companies indicated in the Plan, the Department will deduct from contract payments to the Contractor the amount of the goal not achieved as liquidated and ascertained damages.

(d) The Department reserves the right to withhold payment to the Contractor to enforce the provisions of this Special Provision. Final payment shall not be made on the contract until such time as the Contractor submits sufficient documentation demonstrating achievement of the goal in accordance with this Special Provision or after liquidated damages have been determined and collected.

(e) Notwithstanding any other provision of the contract, including but not limited to Article 109.09 of the Standard Specifications, the Contractor may request administrative reconsideration of a decision to deduct the amount of the goal not achieved as liquidated damages. A request to reconsider shall be delivered to the Contract Compliance Section and shall be handled and considered in the same manner as set forth in paragraph (c) of "Good Faith Effort Procedures" of this Special Provision, except a final decision that a good faith effort was not made during contract performance to achieve the goal agreed to in the Utilization Plan shall be the final administrative decision of the Department.

80029

**ELASTOMERIC BEARINGS (BDE)**

Effective: April 1, 2005

Revise Section 1083 of the Standard Specifications to read:

**"SECTION 1083. ELASTOMERIC BEARINGS**

**1083.01 Description.** Elastomeric bearings shall consist of steel laminated elastomeric pads or assemblies of steel laminated elastomeric pads with externally bonded structural steel bearing plates, structural steel top bearing plate, and required stainless steel and TFE sheets, as shown on the plans and as specified herein.

Shop drawings of the bearing assemblies shall be submitted to the Engineer. The bearing assemblies shall be furnished as a complete unit from one manufacturing source.

**1083.02 Materials.** Materials shall be according to the following.

(a) Properties of the Elastomer. The elastomer compound used in the construction of the bearings shall contain only virgin crystallization resistant polychloroprene (neoprene) or virgin natural polyisoprene (natural rubber) as the raw polymer. All materials shall be new with no reclaimed material incorporated in the finished bearing. The elastomer compounds shall be classified as being of low-temperature, Grade 3, as specified by the minimum grade requirements of Table 14.7.5.2-2, "Low Temperature Zones and Minimum Grade of Elastomer", of the AASHTO LRFD Bridge Design Specification. Low temperature zones used in this table are as defined in Figure 14.7.5.2-1, "Temperature Zones", of the same publication.

The cured elastomer shall be according to the following requirements. The properties of the cured elastomeric compound material shall be determined using samples taken from actual bearings.

| Material [1/ 2/] Property | ASTM Standard | Test Requirements | Polyisoprene (Natural Rubber) | Polychloroprene (Neoprene) |
|---|---|---|---|---|
| Physical Properties | D 2240 | Hardness | 55 ± 5 Shore "A" points | 55 ± 5 Shore "A" points |
| | D 412 | Min. Tensile Strength | 15,500 kPa (2250 psi) | 15,500 kPa (2250 psi) |
| | | Min. Ultimate Elongation | 400% | 400% |
| Heat Resistance | D 573 at Specified Temp. | Specified Temperature of Test | 70 °C (158 °F) | 100 °C (212 °F) |
| | | Aging Time | 168 hours | 70 hours |
| | | Max. Change in Durometer hardness | +10 Shore "A" points | +15 Shore "A" points |
| | | Max. Change in Tensile Strength | -25% | -15% |

| | | | | |
|---|---|---|---|---|
| | | Max. Change in Ultimate Elongation | -25% | -40% |
| Adhesion [3/] to Steel | Illinois Test Procedure 603 | Bond Strength (Peel Test) | 7 N/mm (40 lb/in.) | 7 N/mm (40 lb/in.) |
| | D 429, B | Adhesion Failure | R-80% | R-80% |

1/ All material tests shall be conducted at 23 ± 2°C (73 ± 4°F) unless otherwise noted.

2/ For the purpose of determining conformance with this specification, an observed or calculated value shall be rounded off to the nearest 100 kPa (10 psi) for tensile strength, to the nearest ten percent of elongation, and to the nearest one percent for change in aged tensile and aged elongation. Hardness and aged hardness shall be rounded off to nearest point according to AASHTO R 11.

3/ The adhesion failure requirement is waived if bond strength equals or exceeds 14 N/mm (80 lb/in.).

(b) TFE Material. The TFE resin shall be 100 percent virgin material, premium grade, meeting the requirements of ASTM D 4894. The TFE sheet (polytetrafluoroethylene sheet, premium grade) shall consist of pure TFE resin, compression molded and skived into sheets of the required thickness. The finished sheet shall conform to the following.

| ASTM Standard | Physical Properties | |
|---|---|---|
| D 638M (D 638) | Tensile strength min, kPa (psi) | 19,300 (2800) |
| D 638M (D 638) | Elongation, min % | 200 |
| D 792 | Specific Gravity | 2.15-2.20 |
| D 2240 | Hardness, Durometer D | 50-65 |
| D 621 | Deformation Under Load | |
| | 23 °C/690 kPa/24 hrs (73 °F/100 psi/24 hrs), % | 2-3 |
| | 50 °C/8,300 kPa/24 hrs (122 °F/1200 psi/24 hrs), % | 4-8 |
| | 23 °C/13,800 kPa/24 hrs (73 °F/2000 psi/24 hrs), % | 15 max. |
| D 570 | Water Absorption, % | 0.01 max. |
| | Static Coef. of Friction at 3450 kPa (500 psi) bearing pressure on stainless steel, max | 0.07 |
| D 429, B | Adhesion to Steel Peel Strength, N/mm (lb/in.) | 4.4 (25) |

(c) Stainless Steel Sheets. The stainless steel sheets shall be of the thickness specified and shall conform to ASTM A 240, Type 304. The sliding surface shall have a Type 2B finish or smoother as per the American Society of Metals.

(d) Structural Steel. Structural steel components shall be according to the following.

(1) Structural Steel Bearing Plates. The structural steel bearing plates shall conform to the requirements of AASHTO M 270M Grade 250 (M 270, Grade 36).

(2) Internal Steel Laminates. The internal steel laminates for the laminated elastomeric bearings shall be rolled mild steel sheets conforming to AISI 1015 - 1025, inclusive, ASTM A 1008 (A 1008M) or ASTM A 1011 (A 1011M) for less than 5 mm (3/16 in.) thick sheets, or AASHTO M 270M, Grade 250 (M 270, Grade 36) or ASTM A 283M (A 283) Grade D for 5 mm (3/16 in.) and thicker sheets.

(3) Shear Restrictor Pin. The shear restrictor pin, when required, shall be press fit into the bearing plate and shall be alloy steel, quenched, and tempered to a minimum yield strength 1,450,000 kPa (210,000 psi) or RC hardness of 50 to 55.

(4) Threaded Stud. The threaded stud, nuts and washers, when required, shall conform to the requirements of ASTM A 449 or A 193-B7 and shall be galvanized according to Article 1006.08 of the Standard Specifications.

**1083.03 Fabrication Requirements.** Bearings with steel laminates shall be cast as a unit in a mold and bonded and vulcanized under heat and pressure. The molds shall have standard shop practice mold finish. The internal steel laminates shall be blast cleaned to a condition matching that of SSPC-Vis 1-01, Pictorial Standard SP6, and additionally cleaned of any oil or grease before bonding. External load plates shall be protected from rusting by the manufacturer, and shall be hot bonded to the bearing during vulcanization. The bond of steel components to and within the elastomeric pads shall be continuous throughout the plan area with no voids or air spaces greater than 2.5 mm (0.10 in.) within the bonding material. Bearings with steel laminates which are designed to act as a single unit with a given shape factor must be manufactured as a single unit. Corners and edges may be rounded with a radius at the corners not exceeding 10 mm (3/8 in.) and a radius at the edges not exceeding 6 mm (1/4 in.).

Bonding of TFE sheets shall be done as noted on the plans. No rubber flash will be permitted on the edges of TFE bearing surfaces. All burrs or raised edges along the perimeter of the TFE surface shall be removed before shipment.

All dimension tolerances shall be according to the following.

| Dimensions | Tolerances mm | (in.) |
|---|---|---|
| Overall vertical dimensions: | | |
| Design thickness; 32 mm (1 1/4 in.) or less | -0, + 3 | (-0, + 1/8) |
| Design thickness; over 32 mm (1 1/4 in.) | -0, + 6 | (-0, + 1/4) |
| Overall horizontal dimensions: | | |
| For measurements 914 mm (36 in.) and less | -0, + 6 | (-0, + 1/4) |
| For measurements over 914 mm (36 in.) | -0, + 12 | (-0, + 1/2) |
| Thickness of individual layers of elastomer at any point within the bearing: | ± 20 % of design value but no more than ± 3 mm (1/8 in.) | |
| Variation from a plane parallel to the theoretical surface: (as determined by measurements at the edge of the bearings) | | |
| Top | Slope relative to the bottom of no more than 0.005 radians. | |
| Sides | 6 | (1/4) |
| Position of exposed connection members: | ± 3 | (± 1/8) |
| Edge cover of embedded steel laminates, restraining devices, holes and slots: | + 3 min.<br>+ 6 max. | (+ 1/8 min.)<br>(+ 1/4 max.) |
| Size of holes, slots, or inserts: | ± 3 | (± 1/8) |
| Position of holes, slots, or inserts: | ± 3 | (± 1/8) |

Structural steel bearing plates shall be fabricated according to Article 505.04 of the Standard Specifications. Prior to shipment of the bearing assemblies, the exposed edges and other exposed portions of the structural steel bearing plates shall be cleaned and painted in accordance with Articles 506.03 and 506.04 of the Standard Specifications. Painting shall be with the zinc-silicate primer according to Article 1008.22 of the Standard Specifications. During the cleaning and painting, the stainless steel and TFE sheet sliding surfaces and the elastomer shall be protected from abrasion and paint.

**1083.04 Testing and Acceptance.** The rubber laminates shall be of uniform integral units, capable of being separated by mechanical means into separate, well-defined elastomeric layers. The ultimate breakdown limit of the elastomeric bearing under compressive loading shall be not less than 13,800 kPa (2000 psi).

The bearing manufacturer shall load test each completed steel laminated elastomeric bearing pad assembly prior to shipment. The bearings shall be loaded to 10,300 kPa (1500 psi) and under this loading shall exhibit relatively uniform bulging of the rubber layers on all sides and shall show no bond loss or edge splitting. Bearing assemblies under this loading showing nonuniform bulging from one side of the pad to the other, nonuniform bulging along any vertical face of a pad, bulging extending across the specified location of one or more of the internal steel laminates or edge splitting shall be replaced. Nonuniform bulging from one side of the pad to the other may be an indication of lateral misalignment of the internal steel laminates and would not be cause for replacement if probing shows that the edge cover of the steel laminates are within the specified tolerances. Nonuniform bulging along any vertical face of the pad may be

an indication of vertical misalignment of the steel laminates and would not be cause for replacement if measurement of the bases of the nonuniform bulges show that the thickness of the elastomeric layers are within the specified ± 20 percent tolerance. Bulging across the specified location of one or more steel laminates indicates missing steel laminates or lack of bond and pads exhibiting these characteristics shall always be replaced.

The Contractor shall furnish certified copies of the bearing manufacturer's test reports on the physical properties of the component materials for the bearings to be furnished and a certification by the bearing manufacturer that the bearings furnished have been load tested and conform to all requirements.

When directed by the Engineer, the Contractor shall furnish random samples of component materials used in the bearings for testing. In addition, when requested in writing by the Engineer, the Contractor shall furnish an additional project bearing assembly to the Department for testing. When the additional bearing assembly is requested, the Engineer retains the right to select the bearing assembly for testing at random from the project lot. The Contractor will be paid for the additional bearing assembly as specified in Article 503.22 of the Standard Specifications. If the bearing assembly tested is found to be unacceptable, two additional bearing assemblies will be tested. If both are acceptable, the lot will be accepted. If either of the two additional bearing assemblies are unacceptable, the lot will be rejected. The Contractor shall have a new lot produced, including one additional test bearing. No payment will be made for the original failed bearing assembly or any subsequent test assemblies."

80144

**EPOXY COATING ON REINFORCEMENT (BDE)**

Effective: April 1, 1997
Revised: January 1, 2003

For work outside the limits of bridge approach pavement, all references to epoxy coating in the Highway Standards and Standard Specifications for reinforcement, tie bars and chair supports will not apply for pavement, shoulders, curb, gutter, combination curb and gutter and median.

31578

**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.

80055

**EXPANSION JOINTS (BDE)**

Effective: August 1, 2003

Add the following paragraph after the second paragraph of Article 420.10(e) of the Standard Specifications:

"After the dowel bars are oiled, plastic expansion caps shall be secured to the bars maintaining a minimum expansion gap of 50 mm (2 in.) between the end of the bar and the end of the cap. The caps shall fit snuggly on the bar and the closed end shall be watertight. For expansion joints formed using dowel bar basket assemblies, the caps shall be installed on the alternating free ends of the bars. For expansion joints formed using a construction header, the caps shall be installed on the exposed end of each bar once the header has been removed and the joint filler material has been installed."

80103

FLAGGER VESTS (BDE)

Effective: April 1, 2003
Revised: January 1, 2006

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 107-2004 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."

80101

**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."

80079

**FURNISHED EXCAVATION (BDE)**

Effective: August 1, 2002
Revised: November 1, 2004

Revise Article 204.01 of the Standard Specifications to read:

"**Description.** Borrow excavation and furnished excavation shall consist of excavating suitable materials obtained from locations approved by the Engineer and transporting the materials to various locations throughout the limits of the contract."

Revise Article 204.07(b) of the Standard Specifications to read:

"(b) Measured Quantities. Furnished excavation will be computed for payment in cubic meters (cubic yards) as follows:

Furnished Excavation = Embankment - [Suitable Excavation x (1 - Shrinkage Factor)]

Where:

Embankment = the volume of fill in its final position computed by the method of average end areas and based upon the existing ground line as shown on the plans except as noted in (1) and (2) below;

Suitable Excavation = earth excavation, rock excavation, and other on-site excavation suitable for use in embankments as shown in the Earthwork Schedule on the plans;

Shrinkage Factor = 0.25 unless otherwise shown on the plans.

(1) If the Contractor so requests, the Engineer will reestablish the existing ground line after the clearing and tree removal have been performed according to Section 201 and the top 150 mm (6 in.) of the existing ground surface has been disked and compacted to the satisfaction of the Engineer.

(2) If settlement platforms are erected, the Engineer will reestablish the existing ground line after the embankment is complete as specified in Article 204.07(a)(2).

Furnished excavation placed in excess of that required for the execution of the contract will not be measured for payment."

Add the following paragraph to the end of Article 204.07 of the Standard Specifications:

"The quantity for furnished excavation will not be recalculated when surplus, suitable materials are utilized in embankments according to Article 202.03."

80072

**HAND VIBRATOR (BDE)**

Effective: November 1, 2003

Add the following paragraph to Article 1103.17(a) of the Standard Specifications:

"The vibrator shall have a non-metallic head for areas containing epoxy coated reinforcement. The head shall be coated by the manufacturer. The hardness of the non-metallic head shall be less than the epoxy coated reinforcement, resulting in no damage to the epoxy coating. Slip-on covers will not be allowed."

80054

**INLET FILTERS (BDE)**

Effective: August 1, 2003

Add the following to Article 280.02 of the Standard Specifications:

"(k) Inlet Filters..... 1081.15(h)"

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

"When specified, drainage structures shall be protected with inlet filters. Inlet filters shall be installed either directly on the drainage structure or under the grate of the drainage structure resting on the lip of the frame. The fabric bag shall hang down into the drainage structure. Prior to ordering materials, the Contractor shall determine the size and shape of the various drainage structures being protected."

Revise Article 280.07(d) of the Standard Specifications to read:

"(d) Inlet and Pipe Protection. This work will be paid for at the contract unit price per each for INLET AND PIPE PROTECTION.

Protection of drainage structures with inlet filters will be paid for at the contract unit price per each for INLET FILTERS."

Add the following to Article 1081.15 of the Standard Specifications:

"(h) Inlet Filters. An inlet filter shall consist of a steel frame with a two piece geotextile fabric bag attached with a stainless steel band and locking cap that is suspended from the frame. A clean, used bag and a used steel frame in good condition meeting the approval of the Engineer may be substituted for new materials. Materials for the inlet filter assembly shall conform to the following requirements:

(1) Frame Construction. Steel shall conform to Article 1006.04.

Frames designed to fit under a grate shall include an overflow feature that is welded to the frame's ring. The overflow feature shall be designed to allow full flow of water into the structure when the filter bag is full. The dimensions of the frame shall allow the drainage structure grate to fit into the inlet filter assembly frame opening. The assembly frame shall rest on the inside lip of the drainage structure frame for the full variety of existing and proposed drainage structure frames that are present on this contract. The inlet filter assembly frame shall not cause the drainage structure grate to extend higher than 6 mm (1/4 in.) above the drainage structure frame.

(2) Grate Lock. When the inlet is located in a traffic lane, a grate lock shall be used to secure the grate to the frame. The grate lock shall conform to the manufacturer's requirements for materials and installation.

(3) Geotextile Fabric Bag. The sediment bag shall be constructed of an inner filter bag and an outer reinforcement bag.

a. Inner Filter Bag. The inner filter bag shall be constructed of a polypropylene geotextile fabric with a minimum silt and debris capacity of 0.06 cu m (2.0 cu ft). The bag shall conform to the following requirements:

| Inner Filter Bag | | |
|---|---|---|
| Material Property | Test Method | Minimum Avg. Roll Value |
| Grab Tensile Strength | ASTM D 4632 | 45 kg (100 lb) |
| Grab Tensile Elongation | ASTM D 4632 | 50% |
| Puncture Strength | ASTM D 4833 | 29 kg (65 lb) |
| Trapezoidal Tear | ASTM D 4533 | 20 kg (45 lb) |
| UV Resistance | ASTM D 4355 | 70% at 500 hours |
| Actual Open Size | ASTM D 1420 | 212 µm (No. 70 sieve US) |
| Permittivity | ASTM D 4491 | 2.0/sec |
| Water Flow Rate | ASTM D 4491 | 5900 Lpm/sq m (145 gpm/sq ft) |

b. Outer Reinforcement Bag. The outer reinforcement bag shall be constructed of polyester mesh material that conforms to the following requirements:

| Outer Reinforcement Bag | | |
|---|---|---|
| Material Property | Test Method | Value |
| Content | ASTM D 629 | Polyester |
| Weight | ASTM D 3776 | 155 g/sq m (4.55 oz/sq yd) ±15% |
| Whales (holes) | ASTM D 3887 | 7.5 ± 2 holes/25 mm (1 in.) |
| Chorses (holes) | ASTM D 3887 | 15.5 ± 2holes/25 mm (1 in.) |
| Instronball Burst | ASTM D 3887 | 830 kPa (120 psi) min. |
| Thickness | ASTM D 1777 | 1.0 ± 0.1 mm (0.040 ± 0.005 in.) |

(4) Certification. The manufacturer shall furnish a certification with each shipment of inlet filters, stating the amount of product furnished, and that the material complies with these requirements."

80104

**ORGANIC ZINC-RICH PAINT SYSTEM (BDE)**

Effective: November 1, 2001
Revised: August 1, 2003

Add the following to Section 1008 of the Standard Specifications:

"**1008.26 Organic Zinc-Rich Paint System.** The organic zinc-rich paint system shall consist of an organic zinc-rich primer, an epoxy or urethane intermediate coat, and aliphatic urethane finish coats. It is intended for use over blast-cleaned steel when three-coat shop applications are specified. The system is also suitable for field painting blast-cleaned existing structures.

(a) General Requirements.

(1) Compatibility. Each coating in the system shall be supplied by the same paint manufacturer.

(2) Toxicity. Each coating shall contain less than 0.01 percent lead in the dry film and no more than trace amounts of hexavalent chromium, cadmium, mercury or other toxic heavy metals.

(3) Volatile Organics. The volatile organic compounds of each coating shall not exceed 420 g/L (3.5 lb/gal) as applied.

(b) Test Panel Preparation.

(1) Substrate and Surface Preparation. Test panels shall be AASHTO M 270M, Grade 250 (M 270 Grade 36), hot-rolled steel measuring 100 mm x 150 mm (4 in. x 6 in.). Panels shall be blast-cleaned per SSPC–SP5 white metal condition using metallic abrasive. The abrasive shall be a 60/40 mix of shot and grit. The shot shall be an SAE shot number S230 and the grit an SAE number G40. Hardness of the shot and grit shall be Rockwell C45. The anchor profile shall be 40-65 microns (1.5-2.5 mils) measured according to ASTM D 4417, Method C.

(2) Application and Curing. All coatings shall be spray applied at the manufacturer's recommended film thickness. The coated panels shall be cured at least 14 days at 24 °C ± 1 °C (75 °F ± 2 °F) and 50 ± 5 percent relative humidity.

(3) Scribing. The test panels shall be scribed according to ASTM D 1654 with a single "X" mark centered on the panel. The rectangular dimensions of the scribe shall have a top width of 50 mm (2 in.) and a height of 100 mm (4 in.). The scribe cut shall expose the steel substrate as verified with a microscope.

(4) Number of Panels. All testing shall be performed on triplicate panels.

(c) Zinc-Rich Primer Requirements.

(1) Generic Type. This material shall be an organic zinc-rich epoxy or urethane primer. It shall be suitable for topcoating with epoxies, urethanes, and acrylics.

(2) Zinc Dust. The zinc dust pigment shall comply with ASTM D 520, Type II.

(3) Slip Coefficient. The organic zinc coating shall meet a Class B AASHTO slip coefficient (0.50 or greater) for structural steel joints using ASTM A 325M (A 325) or A 490M (A 490) bolts.

(4) Salt Fog. There shall be no delamination, blistering, rust creepage at the scribe, or rusting at the scribe edges after 5,000 hours of salt fog exposure when tested according to ASTM B 117 and evaluated according to AASHTO R 31.

(5) Cyclic Exposure. There shall be no delamination, blistering, rust creepage at the scribe, or rusting at the scribe edges after 5,000 hours of cyclic exposure when tested according to ASTM D 5894 and evaluated according to AASHTO R 31.

(6) Humidity Exposure. There shall be no delamination, blistering, rust creepage at the scribe, or rusting at the scribe edges after 4,000 hours of humidity exposure when tested according to ASTM D 2247 and evaluated according to AASHTO R 31.

(7) Adhesion. The adhesion to an abrasively blasted steel substrate shall not be less than 6200 kPa (900 psi) when tested according to ASTM D 4541 Annex A4.

(8) Freeze Thaw Stability. There shall be no reduction of adhesion, which exceeds the test precision, after 30 days of freeze/thaw/immersion testing. One 24-hour cycle shall consist of 16 hours of approximately –30 °C (-22 °F) followed by 4 hours of thawing at 50 °C (122 °F) and 4 hours tap water immersion at 25 °C (77 °F). The test panels shall remain in the freezer on weekends and holidays.

(d) Intermediate Coat Requirements.

(1) Generic Type. This material shall be an epoxy or urethane. It shall be suitable as an intermediate coat over inorganic and organic zinc primers and compatible with acrylic, epoxy, and polyurethane topcoats.

(2) Color. The color of the intermediate coat shall be white or off-white.

(e) Urethane Finish Coat Requirements.

(1) Generic Type. This material shall be an aliphatic urethane. It shall be suitable as a topcoat over epoxies and urethanes.

(2) Color and Hiding Power. The finish coat shall match Munsell Glossy Color 7.5G 4/8 Interstate Green, 2.5YR 3/4 Reddish Brown, 10B 3/6 Blue, or 5B 7/1 Gray. The

color difference shall not exceed 3.0 Hunter Delta E Units. Color difference shall be measured by instrumental comparison of the designated Munsell standard to a minimum dry film thickness of 75 microns (3 mils) of sample coating produced on a test panel according to ASTM D 823, Practice E, Hand–Held, Blade Film Application. Color measurements shall be determined on a spectrophotometer with 45 degrees circumferential/zero degrees geometry, illuminant C, and two degrees observer angle. The spectrophotometer shall measure the visible spectrum from 380-720 nanometers with a wavelength interval and spectral bandpass of 10 nanometers.

The contrast ratio of the finish coat at 75 microns (3 mils) dry film thickness shall not be less than 0.99 when tested according to ASTM D 2805.

(3) Weathering Resistance. Test panels shall be aluminum alloy measuring 300 mm x 100 mm (12 in. x 4 in.) prepared according to ASTM D 1730 Type A, Method 1 Solvent Cleaning. A minimum dry film thickness of 75 microns (3 mils) of finish coat shall be applied to three test panels according to ASTM D 823, Practice E, Hand Held Blade Film Application. The coated panels shall be cured at least 14 days at 24 °C ± 1 °C (75 °F ± 2 °F) and 50 ± 5 percent relative humidity. The panels shall be subjected to 300 hours of accelerated weathering using the light and water exposure apparatus (fluorescent UV - condensation type) as specified in ASTM G 53-96 and ASTM G 154 (equipped with UVB-313 lamps). The cycle shall consist of 8 hours UV exposure at 60 °C (140 °F) followed by 4 hours of condensation at 40 °C (104 °F). After exposure, rinse the panel with clean water; allow to dry at room temperature for one hour. The exposed panels shall not show a color change of more than 3 Hunter Delta E Units.

(f) Three Coat System Requirements.

(1) Finish Coat Color. For testing purposes, the color of the finish coat shall match Federal Standard No 595, color chip 14062 (green).

(2) Salt Fog. When tested according to ASTM B 117 and evaluated according to AASHTO R 31, the paint system shall exhibit no spontaneous delamination and not exceed the following acceptance levels after 5,000 hours of salt fog exposure:

| Salt Fog Acceptance Criteria (max) | | | |
|---|---|---|---|
| Blister Criteria | Rust Criteria | | |
| Size/Frequency | Maximum Creep | Average Creep | % Rusting at Scribed Edges |
| #8 Few | 4mm | 1mm | 1 |

(3) Cyclic Exposure. When tested according to ASTM D 5894 and evaluated according to AASHTO R 31, the paint system shall exhibit no spontaneous delamination and not exceed the following acceptance levels after 5,000 hours of cyclic exposure:

| Cyclic Exposure Acceptance Criteria (max) | | | |
|---|---|---|---|
| Blister Criteria | Rust Criteria | | |
| Size/Frequency | Maximum Creep | Average Creep | % Rusting at Scribed Edges |
| #8 Few | 2mm | 1mm | 1 |

(4) Humidity Exposure. There shall be no delamination, blistering, rust creepage at the scribe, or rusting at the scribe edges after 4,000 hours of humidity exposure when tested according to ASTM D 2247 and evaluated according to AASHTO R 31.

(5) Adhesion. The adhesion to an abrasively blasted steel substrate shall not be less than 6200 kPa (900 psi) when tested according to ASTM D 4541 Annex A4.

(6) Freeze Thaw Stability. There shall be no reduction of adhesion, which exceeds the test precision, after 30 days of freeze/thaw/immersion testing. One 24 hour cycle shall consist of 16 hours of approximately –30 °C (-22 °F) followed by 4 hours of thawing at 50 °C (122 °F) and 4 hours tap water immersion at 25 °C (77 °F). The test panels shall remain in the freezer mode on weekends and holidays.

(g) Qualification Samples and Tests. The manufacturer shall supply, to an independent test laboratory and to the Department, samples of the organic zinc-rich primer, epoxy or urethane intermediate coat, and aliphatic urethane finish coats for evaluation. Prior to approval and use, the manufacturer shall submit a notarized certification of the independent laboratory, together with results of all tests, stating that these materials meet the requirements as set forth herein. The certified test report shall state lots tested, manufacturer's name, product names, and dates of manufacture. New certified test results and samples for testing by the Department shall be submitted any time the manufacturing process or paint formulation is changed. All costs of testing, other than tests conducted by the Department, shall be borne by the manufacturer.

(h) Acceptance Samples and Certification. A 1 L (1 qt) sample of each lot of paint produced for use on state or local agency projects shall be submitted to the Department for testing, together with a manufacturer's certification. The certification shall state that the formulation for the lot represented is essentially identical to that used for qualification testing. All acceptance samples shall be witnessed by a representative of the Illinois Department of Transportation. The organic zinc-rich primer, epoxy or urethane intermediate coat, and aliphatic urethane finish coats shall not be used until tests are completed and they have met the requirements as set forth herein."

80069

**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."

80116

**PAYMENTS TO SUBCONTRACTORS (BDE)**

Effective: June 1, 2000
Revised: January 1, 2006

Federal regulations found at 49 CFR §26.29 mandate the Department to establish a contract clause to require Contractors to pay subcontractors for satisfactory performance of their subcontracts and to set the time for such payments.

State law also addresses the timing of payments to be made to subcontractors and material suppliers. Section 7 of the Prompt Payment Act, 30 ILCS 540/7, requires that when a Contractor receives any payment from the Department, the Contractor shall make corresponding, proportional payments to each subcontractor and material supplier performing work or supplying material within 15 calendar days after receipt of the Department payment. Section 7 of the Act further provides that interest in the amount of 2 percent per month, in addition to the payment due, shall be paid to any subcontractor or material supplier by the Contractor if the payment required by the Act is withheld or delayed without reasonable cause. The Act also provides that the time for payment required and the calculation of any interest due applies to transactions between subcontractors and lower-tier subcontractors and material suppliers throughout the contracting chain.

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

When progress payments are made to the Contractor according to Article 109.07 of the Standard Specifications, the Contractor shall make a corresponding payment to each subcontractor and material supplier in proportion to the work satisfactorily completed by each subcontractor and for the material supplied to perform any work of the contract. The proportionate amount of partial payment due to each subcontractor and material supplier throughout the contracting chain shall be determined by the quantities measured or otherwise determined as eligible for payment by the Department and included in the progress payment to the Contractor. Subcontractors and material suppliers shall be paid by the Contractor within 15 calendar days after the receipt of payment from the Department. The Contractor shall not hold retainage from the subcontractors. These obligations shall also apply to any payments made by subcontractors and material suppliers to their subcontractors and material suppliers; and to all payments made to lower tier subcontractors and material suppliers throughout the contracting chain. Any payment or portion of a payment subject to this provision may only be withheld from the subcontractor or material supplier to whom it is due for reasonable cause.

This Special Provision does not create any rights in favor of any subcontractor or material supplier against the State or authorize any cause of action against the State on account of any payment, nonpayment, delayed payment, or interest claimed by application of the State Prompt Payment Act. The Department will not approve any delay or postponement of the 15 day requirement except for reasonable cause shown after notice and hearing pursuant to Section

7(b) of the State Prompt Payment Act. State law creates other and additional remedies available to any subcontractor or material supplier, regardless of tier, who has not been paid for work properly performed or material furnished. These remedies are a lien against public funds set forth in Section 23(c) of the Mechanics Lien Act, 770 ILCS 60/23(c), and a recovery on the Contractor's payment bond according to the Public Construction Bond Act, 30 ILCS 550.

80022

## PAYROLLS AND PAYROLL RECORDS (BDE)

Effective: August 10, 2005

FEDERAL AID CONTRACTS. 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."

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

"IV. COMPLIANCE WITH THE PREVAILING WAGE ACT

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

2. Payroll Records. The Contractor and each subcontractor shall make and keep, for a period of three years from the date of completion of this contract, records of the wages paid to his/her workers. The payroll records shall include each worker's name, address, telephone number, social security number, classification, rate of pay, number of hours worked each day, starting and ending times of work each day, total hours worked each week, itemized deductions made, and actual wages paid. Upon two business days' notice, these records shall be available, at all reasonable hours at a location within the State, for inspection by the Department or the Department of Labor.

3. Submission of Payroll Records. The Contractor and each subcontractor shall submit payroll records to the Engineer each week from the start to the completion of their respective work. 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."

80155

**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.

80130

**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."

80139

**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"."

80083

**PRECAST CONCRETE PRODUCTS (BDE)**

Effective: July 1, 1999
Revised: November 1, 2004

Product Approval. Precast concrete products shall be produced according to the Department's current Policy Memorandum, "Quality Control/Quality Assurance Program for Precast Concrete Products". The Policy Memorandum applies to precast concrete products listed under the Products Key of the "Approved List of Certified Precast Concrete Producers".

Precast Concrete Box Culverts. Add the following sentence to the end of the fourth paragraph of Article 540.06:

"After installation, the interior and exterior joint gap between precast concrete box culvert sections shall not exceed 38 mm (1 1/2 in.)."

Portland Cement Replacement. For precast concrete products using Class PC concrete or other mixtures, portland cement replacement with fly ash or ground granulated blast-furnace (GGBF) slag shall be governed by the AASHTO or ASTM standard specification referenced in the Standard Specifications.

For all other precast concrete products using Class PC concrete or other mixtures, portland cement replacement with fly ash or GGBF slag shall be approved by the Engineer. Class F fly ash shall not exceed 15 percent by mass (weight) of the total portland cement and Class F fly ash. Class C fly ash shall not exceed 20 percent by mass (weight) of the total portland cement and Class C fly ash. GGBF slag shall not exceed 25 percent by mass (weight) of the total portland cement and GGBF slag.

Concrete mix designs, for precast concrete products, shall not consist of portland cement, fly ash and GGBF slag.

Ready-Mixed Concrete. Delete the last paragraph of Article 1020.11(a) of the Standard Specifications.

Shipping. When a precast concrete product has attained the specified strength, the earliest the product may be loaded, shipped, and used is on the fifth calendar day. The first calendar day shall be the date casting was completed.

Acceptance. Products which have been lot or piece inspected and approved by the Department prior to July 1, 1999, will be accepted for use on this contract.

419.doc

**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 Filler.....1051"

Revise Article 637.02(d) of the Standard Specifications to read:

"(d) Preformed Expansion Joint Filler.....1051"

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

"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."

80084

**RAILROAD PROTECTIVE LIABILITY INSURANCE (5 and 10) (BDE)**

Effective: January 1, 2006

Description. Railroad Protective Liability and Property Damage Liability Insurance shall be carried according to Article 107.11 of the Standard Specifications, except the limits shall be a minimum of $5,000,000 combined single limit per occurrence for bodily injury liability and property damage liability with an aggregate limit of $10,000,000 over the life of the policy. A separate policy is required for each railroad unless otherwise noted.

| NAMED INSURED & ADDRESS | NUMBER & SPEED OF PASSENGER TRAINS | NUMBER & SPEED OF FREIGHT TRAINS |
|---|---|---|
| Union Pacific Railroad Co.<br>1416 Dodge Street<br>Omaha, Nebraska 68179 | 52 @ 70 mph | 43 @ 70 mph |

DOT/AAR No.:
RR Division:
RR Mile Post:
RR Sub-Division:

For Freight/Passenger Information Contact: Tom Andryuk Phone: 312-496-4726
For Insurance Information Contact: Wendy Whalen Phone: 402-271-5183

DOT/AAR No.:
RR Division:
RR Mile Post:
RR Sub-Division:

For Freight/Passenger Information Contact: Phone:
For Insurance Information Contact: Phone:

Approval of Insurance. The original and one certified copy of each required policy shall be submitted to the following address for approval:

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

The Contractor will be advised when the Department has received approval of the insurance from the railroad(s). Before any work begins on railroad right-of-way, the Contractor shall submit to the Engineer evidence that the required insurance has been approved by the railroad(s). The Contractor shall also provide the Engineer with the expiration date of each required policy.

Basis of Payment. Providing Railroad Protective Liability and Property Damage Liability Insurance will be paid for at the contract unit price per Lump Sum for RAILROAD PROTECTIVE LIABILITY INSURANCE.

80157

**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 in-situ 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) | ± 2.0% | ± 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.

80011

**REINFORCEMENT BARS (BDE)**

Effective: November 1, 2005
Revised: November 2, 2005

Revise Article 1006.10(a) of the Supplemental Specifications to read:

"(a) Reinforcement Bars. Reinforcement bars will be accepted according to the current Bureau of Materials and Physical Research Policy Memorandum, "Reinforcement Bar and Dowel Bar Plant Certification Procedure". The Department will maintain an approved list of producers.

(1) Reinforcement Bars (Non-Coated). Reinforcement bars shall be according to ASTM A 706M (A 706), Grade 420 (60) for deformed bars and the following.

a. Chemical Composition. The chemical composition of the bars shall be according to the following table.

| CHEMICAL COMPOSITION | | |
|---|---|---|
| Element [1/] | Heat Analysis (% maximum) | Product Analysis (% maximum) |
| Carbon | 0.30 | 0.33 |
| Manganese | 1.50 | 1.56 |
| Phosphorus | 0.035 | 0.045 |
| Sulfur | 0.045 | 0.055 |
| Silicon | 0.50 | 0.55 |
| Nickel | 2/ | 2/ |
| Chromium | 2/ | 2/ |
| Molybdenum | 2/ | 2/ |
| Copper | 2/ | 2/ |
| Titanium | 2/ | 2/ |
| Vanadium | 2/ | 2/ |
| Columbium | 2/ | 2/ |
| Aluminum | 2/, 3/ | 2/, 3/ |
| Tin [4/] | 0.040 | 0.044 |

Note 1/. The bars shall not contain any traces of radioactive elements.

Note 2/. There is no composition limit but the element must be reported.

Note 3/. If aluminum is not an intentional addition to the steel for deoxidation or killing purposes, residual aluminum content need not be reported.

Note 4/. If producer bar testing indicates an elongation of 15 percent or more and passing of the bend test, the tin composition requirement may be waived.

b. Heat Numbers. Bundles or bars at the construction site shall be marked or tagged with heat identification numbers of the bar producer.

c. Guided Bend Test. Bars may be subject to a guided bend test across two pins which are free to rotate, where the bending force shall be centrally applied with a fixed or rotating pin of a certain diameter as specified in Table 3 of ASTM A 706M (A 706). The dimensions and clearances of this guided bend test shall be according to ASTM E 190.

d. Spiral Reinforcment. Spiral reinforcement shall be deformed or plain bars conforming to the above requirements or cold-drawn steel wire conforming to AASHTO M 32.

(2) Epoxy Coated Reinforcement Bars. Epoxy coated reinforcement bars shall be according to Article 1006.10(a)(1) and shall be epoxy coated according to AASHTO M 284M (M 284) and the following.

a. Certification. The epoxy coating applicator shall be certified under the Concrete Reinforcing Steel Institute's (CRSI) Epoxy Plant Certification Program.

b. Coating Thickness. The thickness of the epoxy coating shall be 0.18 to 0.30 mm (7 to 12 mils). When spiral reinforcment is coated after fabrication, the thickness of the epoxy coating shall be 0.18 to 0.50 mm (7 to 20 mils).

c. Cutting Reinforcement. Reinforcement bars may be sheared or sawn to length after coating, providing the end damage to the coating does not extend more than 13 mm (0.5 in.) back and the cut is patched before any visible rusting appears. Flame cutting will not be permitted."

80151

## SELF-CONSOLIDATING CONCRETE FOR CAST-IN-PLACE CONSTRUCTION (BDE)

Effective: November 1, 2005

Definition. Self-consolidating concrete is a flowable mixture that does not require mechanical vibration for consolidation.

Usage. 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) Self-Consolidating Admixtures. The self-consolidating admixture system shall consist of either a high range water-reducing admixture only or a high range water-reducing admixture combined with a separate viscosity modifying admixture. The one or two component admixture system shall be capable of producing a concrete 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) Fine Aggregate. 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:

Aggregate Blend Expansion = (a/100 x A) + (b/100 x B) + (c/100 x C) + .....etc.

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.

Test Methods. 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.

Mix Design Submittal. 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.

Trial Batch. A minimum 1.5 cu m (2 cu yd) trial batch shall be produced, and the self-consolidating 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.

Mixing Portland Cement Concrete. 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.

Falsework and Forms. 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.

Placing and Consolidating. 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 be greater than 20 minutes."

Quality Control by Contractor at Plant. 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.

Quality Control by Contractor at Jobsite. 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.

Quality Assurance by Engineer at Plant. 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.

Quality Assurance by Engineer at Jobsite. 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.

80152

## SELF-CONSOLIDATING CONCRETE FOR PRECAST PRODUCTS (BDE)

Effective: July 1, 2004
Revised: November 1, 2005

Definition. Self-consolidating concrete is a flowable mixture that does not require mechanical vibration for consolidation.

Usage. Self-consolidating concrete may be used for precast concrete products.

Materials. Materials shall be according to the following.

(a) Self-Consolidating Admixtures. The self-consolidating admixture system shall consist of either a high range water-reducing admixture only or a high range water-reducing admixture combined with a separate viscosity modifying admixture. The one or two component admixture system shall be capable of producing a concrete 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) Fine Aggregate. 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:

Aggregate Blend Expansion = (a/100 x A) + (b/100 x B) + (c/100 x C) + .....etc.

Where: a, b, c, ... = percent of aggregate blend
A, B, C, ... = aggregate expansion according to ASTM C 1260

Mix Design Criteria. The mix design criteria shall be 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).

(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 of Article 1020.04 of the Standard Specifications 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 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.

Mix Design Approval. The Contractor shall obtain mix design approval according to the Department's Policy Memorandum "Quality Control/Quality Assurance Program for Precast Concrete Products".

80132

## 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.

80143

**SUBGRADE PREPARATION (BDE)**

Effective: November 1, 2002

Revise the tenth paragraph of Article 301.03 of the Standard Specifications to read:

"Equipment of such weight, or used in such a way as to cause a rut in the finished subgrade of 13 mm (1/2 in.) or more in depth, shall be removed from the work or the rutting otherwise prevented."

80086

**SUPERPAVE BITUMINOUS CONCRETE MIXTURES (BDE)**

Effective: January 1, 2000
Revised: April 1, 2004

Description. 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 $\geq$ 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 °C (325 $\pm$ 5 °F) and a gyratory compaction temperature of 152 $\pm$ 3 °C (305 $\pm$ 5 °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.

Mixture Design. 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 |

(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)[1/] | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Sieve Size | IL-25.0 mm | | IL-19.0 mm | | IL-12.5 mm[4/] | | IL-9.5 mm[4/] | |
| | 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[2/] | 24 | 50[2/] | 28 | 65 | 28 | 65 |
| 2.36 mm (#8) | 16 | 31 | 20 | 36 | 28 | 48[3/] | 28 | 48[3/] |
| 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 ≥ 90.

3/ The mixture composition shall not exceed 40 percent passing the 2.36 mm (#8) sieve for surface courses with Ndesign ≥ 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**

| | Voids in the Mineral Aggregate (VMA), % minimum | | | | Voids Filled with Asphalt (VFA), % |
|---|---|---|---|---|---|
| Ndesign | IL-25.0 | IL-19.0 | IL-12.5 | IL-9.5 | |
| 50 | 12.0 | 13.0 | 14.0 | 15 | 65 - 78 |
| 70 | | | | | 65 - 75 |
| 90 | | | | | |
| 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.

Personnel. The QC Manager and Level I Technician shall have successfully completed the Department's "Superpave Field Control Course".

Required Plant Tests. 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<br><br>Hot bins for batch and continuous plants<br><br>Individual cold-feeds or combined belt-feed for drier drum plants.<br><br>(% passing sieves:<br>12.5 mm (1/2 in.),<br>4.75 mm (No. 4),<br>2.36 mm (No. 8),<br>600 µm (No. 30),<br>75 µm (No. 200)) | | 1 dry gradation per day of production (either morning or afternoon sample).<br><br>and<br><br>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).<br><br>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).<br><br>The dry gradation and washed ignition oven test results shall be plotted on the same control chart. | Illinois Procedure (See Manual of Test Procedures for Materials). |
| Asphalt Content by Ignition Oven (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 µm (#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 µm (#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 BINDER | |
|---|---|
| Nominal, Compacted, Leveling Binder Thickness, mm (in.) | Mixture |
| ≤ 32 (1 1/4) | 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.

Control Charts/Limits. 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% |

Basis of Payment. 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.

80010

**TEMPORARY EROSION CONTROL (BDE)**

Effective: November 1, 2002

Revise the fifth sentence of the third paragraph of Article 280.04(a) of the Standard Specifications to read:

"This work may be constructed of hay or straw bales, extruded UV resistant high density polyethylene panels, erosion control blanket, mulch barrier, aggregate barriers, excavation, seeding, or mulch used separately or in combination, as approved, by the Engineer."

Add the following paragraphs after the fifth paragraph of Article 280.04(a) of the Standard Specifications.

"A ditch check constructed of extruded, UV resistant, high density polyethylene panels, "M" pins and erosion control blanket shall consist of the following materials:

Extruded, UV resistant, high density polyethylene panels shall have a minimum height of 250 mm (10 in.) and minimum length of 1.0 m (39.4 in.). The panels shall have a 51 mm (2 in.) lip along the bottom of the panel. Each panel shall have a single rib thickness of 4 mm (5/32 in.) with a 12 mm (1/2 in.) distance between the ribs. The panels shall have an average apparent opening size equal to 4.75 mm (No. 4) sieve, with an average of 30 percent open area. The tensile strength of each panel shall be 26.27 kN/m (1800 lb/ft) in the machine direction and 7.3 kN/m (500 lb/ft) in the transverse direction when tested according to ASTM D 4595.

"M" pins shall be at least 76 mm (3 in.) by 686 mm (27 in.), constructed out of deformed grade C1008 D3.5 rod (0.211 in. diameter). The rod shall have a minimum tensile strength of 55 MPa (8000 psi).

Erosion control blanket shall conform to Article 251.04.

A section of erosion control blanket shall be placed transverse to the flowline direction of the ditch prior to the construction of the polyethylene ditch check. The length of the section shall extend from the top of one side of the ditch to the top of the opposite side of the ditch, while the width of the section shall be one roll width of the blanket. The upstream edge of the erosion control blanket shall be secured in a 100 mm (4 in.) trench. The blanket shall be secured in the trench with 200 mm (8 in.) staples placed at 300 mm (1 ft) intervals along the edge before the trench is backfilled. Once the upstream edge of the blanket is secured, the downstream edge shall be secured with 200 mm (8 in.) staples placed at 300 mm (1 ft) intervals along the edge. The polyethylene ditch check shall be installed in the middle of the erosion control blanket, with the lip of each panel facing outward.

The ditch check shall consist of two panels placed back to back forming a single row. Placement of the first two panels shall be at the toe of the backslope or sideslope, with the panels extending across the bottom of the ditch. Subsequent panels shall extend both across the bottom of the ditch and up the opposite sideslope, as well as up the original backslope or sideslope at the distance determined by the Engineer.

The M pins shall be driven through the panel lips to secure the panels to the ground. M pins shall be installed in the center of the panels with adjacent panels overlapping the ends a minimum of 50 mm (2 in.). The pins shall be placed through both sets of panels at each overlap. They shall be installed at an interval of three M pins per one meter (39 in.) length of ditch check. The panels shall be wedged into the M pins at the top to ensure firm contact between the entire bottom of the panels and the soil."

80087

## 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.

5729I

**TRAINING SPECIAL PROVISIONS (BDE)** This Training Special Provision supersedes Section 7b of the Special Provision entitled "Specific Equal Employment Opportunity Responsibilities," and is in implementation of 23 U.S.C. 140(a).

As part of the contractor's equal employment opportunity affirmative action program, training shall be provided as follows:

The contractor shall provide on-the-job training aimed at developing full journeyman in the type of trade or job classification involved. The number of trainees to be trained under this contract will be 1 . In the event the contractor subcontracts a portion of the contract work, he shall determine how many, if any, of the trainees are to be trained by the subcontractor, provided however, that the contractor shall retain the primary responsibility for meeting the training requirements imposed by this special provision. The contractor shall also insure that this Training Special Provision is made applicable to such subcontract. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training.

The number of trainees shall be distributed among the work classifications on the basis of the contractor's needs and the availability of journeymen in the various classifications within the reasonable area of recruitment. Prior to commencing construction, the contractor shall submit to the Illinois Department of Transportation for approval the number of trainees to be trained in each selected classification and training program to be used. Furthermore, the contractor shall specify the starting time for training in each of the classifications. The contractor will be credited for each trainee employed by him on the contract work who is currently enrolled or becomes enrolled in an approved program and will be reimbursed for such trainees as provided hereinafter.

Training and upgrading of minorities and women toward journeyman status is a primary objective of this Training Special Provision. Accordingly, the contractor shall make every effort to enroll minority trainees and women (e.g. by conducting systematic and direct recruitment through public and private sources likely to yield minority and women trainees) to the extent such persons are available within a reasonable area of recruitment. The contractor will be responsible for demonstrating the steps that he has taken in pursuance thereof, prior to a determination as to whether the contractor is in compliance with this Training Special Provision. This training commitment is not intended, and shall not be used, to discriminate against any applicant for training, whether a member of a minority group or not.

No employee shall be employed as a trainee in any classification in which he has successfully completed a training course leading to journeyman status or in which he has been employed as a journeyman. The contractor should satisfy this requirement by including appropriate questions in the employee application or by other suitable means. Regardless of the method used the contractor's records should document the findings in each case.

The minimum length and type of training for each classification will be as established in the training program selected by the contractor and approved by the Illinois Department of Transportation and the Federal Highway Administration. The Illinois Department of Transportation and the Federal Highway Administration shall approve a program, if it is reasonably calculated to meet the equal employment opportunity obligations of the contractor and to qualify the average trainee for journeyman status in the classification concerned by the end of the training period. Furthermore, apprenticeship programs registered with the U.S. Department of Labor, Bureau of Apprenticeship and Training, or with a State apprenticeship agency recognized by the Bureau and training programs approved by not necessarily sponsored by the U.S. Department of Labor, Manpower Administration, Bureau of Apprenticeship and Training shall also be considered acceptable provided it is being administered in a manner consistent with the equal employment obligations of Federal-aid highway construction contracts. Approval or acceptance of a training program shall be obtained from the State prior to commencing work on the classification covered by the program. It is the intention of these provisions that training is to be provided in the construction crafts rather then clerk-typists or secretarial-type positions. Training is permissible in lower level management positions such as office engineers, estimators, timekeepers, etc., where the training is oriented toward construction applications. Training in the laborer classification may be permitted provided that significant and meaningful training is provided and approved by the Illinois Department of Transportation and the Federal Highway Administration. Some offsite training is permissible as long as the training is an integral part of an approved training program and does not comprise a significant part of the overall training.

Except as otherwise noted below, the contractor will be reimbursed 80 cents per hour of training given an employee on this contract in accordance with an approved training program. As approved by the Engineer, reimbursement will be made for training of persons in excess of the number specified herein. This reimbursement will be made even though the contractor receives additional training program funds from other sources, provided such other source does not specifically prohibit the contractor from receiving other reimbursement. Reimbursement for offsite training indicated above may only be made to the contractor where he does one or more of the following and the trainees are concurrently employed on a Federal-aid project; contributes to the cost of the training, provides the instruction to the trainee or pays the trainee's wages during the offsite training period.

No payment shall be made to the contractor if either the failure to provide the required training, or the failure to hire the trainee as a journeyman, is caused by the contractor and evidences a lack of good faith on the part of the contractor in meeting the requirement of this Training Special Provision. It is normally expected that a trainee will begin his training on the project as soon as feasible after start of work utilizing the skill involved and remain on the project as long as training opportunities exist in his work classification or until he has completed his training program.

It is not required that all trainees be on board for the entire length of the contract. A contractor will have fulfilled his responsibilities under this Training Special Provision if he has provided acceptable training to the number of trainees specified. The number trained shall be determined on the basis of the total number enrolled on the contract for a significant period.

Trainees will be paid at least 60 percent of the appropriate minimum journeyman's rate specified in the contract for the first half of the training period, 75 percent for the third quarter of the training period, and 90 percent for the last quarter of the training period, unless apprentices or trainees in an approved existing program are enrolled as trainees on this project. In that case, the appropriate rates approved by the Departments of Labor or Transportation in connection with the existing program shall apply to all trainees being trained for the same classification who are covered by this Training Special Provision.

The contractor shall furnish the trainee a copy of the program he will follow in providing the training. The contractor shall provide each trainee with a certification showing the type and length of training satisfactorily complete.

The contractor will provide for the maintenance of records and furnish periodic reports documenting his performance under this Training Special Provision.

METHOD OF MEASUREMENT The unit of measurement is in hours.

BASIS OF PAYMENT This work will be paid for at the contract unit price of 80 cents per hour for TRAINEES. The estimated total number of hours, unit price and total price have been included in the schedule of prices.

20338

**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."

80123

**WEIGHT CONTROL DEFICIENCY DEDUCTION (BDE)**

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. 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 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:

$$A = 1.0 - \left(\frac{B-C}{B}\right); \text{ Where } A \leq 1.0; \left(\frac{B-C}{C}\right) > 0.50\% \text{ (0.70\% for aggregates)}$$

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.

80048

**WORKING DAYS (BDE)**

Effective: January 1, 2002

The Contractor shall complete the work within 80 working days.

80071

# REQUIRED CONTRACT PROVISIONS
# FEDERAL-AID CONSTRUCTION CONTRACTS



## I. GENERAL

1. These contract provisions shall apply to all word performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

2. Except as otherwise provided for in each section, the contractor shall insert in each subcontract all of the stipulations contained in these Required Contract Provisions, and further require their inclusion in any lower tier subcontract or purchase order that may in turn be made. The Required Contract Provisions shall not be incorporated by reference in any case. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with these Required Contract Provisions.

3. A breach of any of the stipulations contained in these Required Contract Provisions shall be sufficient grounds for termination of the contract.

4. A breach of the following clauses of the Required Contract Provisions may also be grounds for debarment as provided in 29 CFR 5.12:

Section I, paragraph 2;
Section IV, paragraphs 1, 2, 3, 4 and 7;
Section V, paragraphs 1 and 2a through 2g.

5. Disputes arising out of the labor standards provisions of Section IV (except paragraph 5) and Section V of these Required Contract Provisions shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the U.S. Department of Labor (DOL) as set forth in 29 CFR 5, 6 and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the DOL, or the contractor's employees or their representatives.

6. Selection of Labor: During the performance of this contract, the contractor shall not:

a. Discriminate against labor from any other State, possession, or territory of the United States (except for employment preference for Appalachian contracts, when applicable, as specified in Attachment A), or

b. Employ convict labor for any purpose within the limits of the project unless it is labor performed by convicts who are on parole, supervised release, or probation.

## II. NONDISCRIMINATION

(Applicable to all Federal-aid construction contracts and to all related subcontracts of $10,000 or more.)

1. Equal Employment Opportunity: Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630 and 41 CFR 60 (and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The Equal Opportunity Construction Contract Specifications set forth under 41 CFR 60-4.3 and the provisions of the American Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the State highway agency (SHA) and the Federal Government in carrying out EEO obligations and in their review of his/her activities under the contract.

b. The contractor will accept as his operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, preapprenticeship, and/or on-the-job-training."

2. EEO Officer: The contractor will designate and make known to the SHA contracting officers an EEO Officer who will have the responsibility for an must be capable of effectively administering and promoting an active contractor program of EEO and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above

agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minority group employees.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minority groups in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employees referral sources likely to yield qualified minority group applicants. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish which such identified sources procedures whereby minority group applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, he is expected to observe the provisions of that agreement to the extent that the system permits the contractor's compliance with EEO contract provisions. (The DOL has held that where implementation of such agreements have the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Executive Order 11246, as amended.)

c. The contractor will encourage his present employees to refer minority group applicants for employment. Information and procedures with regard to referring minority group applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with his obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of his avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minority group and women employees, and applicants for employment.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision.

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of minority group and women employees and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use his/her best efforts to obtain the cooperation of such unions to increase opportunities for minority groups and women within the unions, and to effect referrals by such unions of minority and female employees. Actions by the contractor either directly or through a contractor's association acting as agent will include the procedures set forth below:

a. The contractor will use best efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minority group members and women for membership in the unions and increasing the skills of minority group employees and women so that they may qualify for higher paying employment.

b. The contractor will use best efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to

the SHA and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of minority and women referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or quailifiable minority group persons and women. (The DOL has held that it shall be no excuse that the union with which the contractor has a collective bargaining agreement providing for exclusive referral failed to refer minority employees.) In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the SHA.

8. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment.

a. The contractor shall notify all potential subcontractors and suppliers of his/her EEO obligations under this contract.

b. Disadvantaged business enterprises (DBE), as defined in 49 CFR 23, shall have equal opportunity to compete for and perform subcontracts which the contractor enters into pursuant to this contract. The contractor will use his best efforts to solicit bids from and to utilize DBE subcontractors or subcontractors with meaningful minority group and female representation among their employees. Contractors shall obtain lists of DBE construction firms from SHA personnel.

c. The contractor will use his best efforts to ensure subcontractor compliance with their EEO obligations.

9. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following completion of the contract work and shall be available at reasonable times and places for inspection by authorized representatives of the SHA and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women;

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minority and female employees; and

(4) The progress and efforts being made in securing the services of DBE subcontractors or subcontractors with meaningful minority and female representation among their employees.

b. The contractors will submit an annual report to the SHA each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data.

**III. NONSEGREGATED FACILITIES**

(Applicable to all Federal-aid construction contracts and to all related subcontracts of $10,000 or more.)

a. By submission of this bid, the execution of this contract or subcontract, or the consummation of this material supply agreement or purchase order, as appropriate, the bidder, Federal-aid construction contractor, subcontractor, material supplier, or vendor, as appropriate, certifies that the firm does not maintain or provide for its employees any segregated facilities at any of its establishments, and that the firm does not permit its employees to perform their services at any location, under its control, where segregated facilities are maintained. The firm agrees that a breach of this certification is a violation of the EEO provisions of this contract. The firm further certifies that no employee will be denied access to adequate facilities on the basis of sex or disability.

b. As used in this certification, the term “segregated facilities” means any waiting rooms, work areas, restrooms and washrooms, restaurants and other eating areas, timeclocks, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive, or are, in fact, segregated on the basis of race, color, religion, national origin, age or disability, because of habit, local custom, or otherwise. The only exception will be for the disabled when the demands for accessibility override (e.g. disabled parking).

c. The contractor agrees that it has obtained or will obtain identical certification from proposed subcontractors or material suppliers prior to award of subcontracts or consummation of material supply agreements of $10,000 or more and that it will retain such certifications in its files.

**IV. PAYMENT OF PREDETERMINED MINIMUM WAGE**

(Applicable to all Federal-aid construction contracts exceeding $2,000 and to all related subcontracts, except for projects located on roadways classified as local roads or rural minor collectors, which are exempt.)

1. General:

a. All mechanics and laborers employed or working upon the site of the work will be paid unconditionally and not less often than once a week and without subsequent deduction or rebate on any account [except such payroll deductions as are permitted by regulations (29 CFR 3) issued by the Secretary of Labor under the Copeland Act (40 U.S.C. 276c)] the full amounts of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment. The payment shall be computed at wage rates not less than those contained in the wage determination of the Secretary of Labor (hereinafter “the wage determination”) which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the

contractor or its subcontractors and such laborers and mechanics. The wage determination (including any additional classifications and wage rates conformed under paragraph 2 of this Section IV and the DOL poster (WH-1321) or Form FHWA-1495) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers. For the purpose of this Section, contributions made or costs reasonably anticipated for bona fide fringe benefits under Section 1(b)(2) of the Davis-Bacon Act (40 U.S.C. 276a) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of Section IV, paragraph 3b, hereof. Also, for the purpose of this Section, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs, which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in paragraphs 4 and 5 of this Section IV.

b. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein, provided, that the employer's payroll records accurately set forth the time spent in each classification in which work is performed.

c. All rulings and interpretations of the Davis-Bacon Act and related acts contained in 29 CFR 1, 3, and 5 are herein incorporated by reference in this contract.

2. Classification:

a. The SHA contracting officer shall require that any class of laborers or mechanics employed under the contract, which is not listed in the wage determination, shall be classified in conformance with the wage determination.

b. The contracting officer shall approve an additional classification, wage rate and fringe benefits only when the following criteria have been met:

(1) the work to be performed by the additional classification requested is not performed by a classification in the wage determination;

(2) the additional classification is utilized in the area by the construction industry;

(3) the proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination; and

(4) with respect to helpers, when such a classification prevails in the area in which the work is performed.

c. If the contractor or subcontractors, as appropriate, the laborers and mechanics (if known) to be employed in the additional classification or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the DOL, Administrator of the Wage and Hour Division, Employment Standards Administration, Washington, D.C. 20210. The Wage and Hour Administrator, or an authorized representative, will approve, modify, or



disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

d. In the event the contractor or subcontractors, as appropriate, the laborers or mechanics to be employed in the additional classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the question, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. Said Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advised the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

e. The wage rate (including fringe benefits where appropriate) determined pursuant to paragraph 2c or 2d of this Section IV shall be paid to all workers performing work in the additional classification from the first day on which work is performed in the classification.

3. Payment of Fringe Benefits:

a. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor or subcontractors, as appropriate, shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly case equivalent thereof.

b. If the contractor or subcontractor, as appropriate, does not make payments to a trustee or other third person, he/she may consider as a part of the wages of any laborer or mechanic the amount of any cost reasonably anticipated in providing bona fide fringe benefits under a plan or program, provided that the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

4. Apprentices and Trainees (Programs of the U.S. DOL) and Helpers:

a. Apprentices:

(1) Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the DOL, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State apprenticeship agency recognized by the Bureau, or if a person is employed in his/her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Bureau of Apprenticeship and Training or a State apprenticeship agency (where appropriate) to be eligible for probationary employment as an apprentice.

(2) The allowable ratio of apprentices to journeyman-level employees on the job site in any craft classification shall not

listed on the wage determination unless the Administrator of the

be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any employee listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate listed in the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor or subcontractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman-level hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

(3) Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeyman-level hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator for the Wage and Hour Division determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

(4) In the event the Bureau of Apprenticeship and Training, or a State apprenticeship agency recognized by the Bureau, withdraws approval of an apprenticeship program, the contractor or subcontractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the comparable work performed by regular employees until an acceptable program is approved.

b. Trainees:

(1) Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the DOL, Employment and Training Administration.

(2) The ratio of trainees to journeyman-level employees on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

(3) Every trainee must be paid at not less than the rate specified in the approved program for his/her level of progress, expressed as a percentage of the journeyman-level hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits

Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman-level wage rate on the wage determination which provides for less than full fringe benefits for apprentices, in which cases such trainees shall receive the same fringe benefits as apprentices.

(4) In the event the Employment and Training Administration withdraws approval of a training program, the contractor or subcontractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Helpers:
Helpers will be permitted to work on a project if the helper classification is specified and defined on the applicable wage determination or is approved pursuant to the conformance procedure set forth in Section IV. 2. Any worker listed on a payroll at a helper wage rate, who is not a helper under a approved definition, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed.

5. Apprentices and Trainees (Programs of the U.S. DOT):

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

6. Withholding:

The SHA shall upon its own action or upon written request of an authorized representative of the DOL withhold, or cause to be withheld, from the contractor or subcontractor under this contract or any other Federal contract with the same prime contractor or any other Federally-assisted contract subject to Davis-Bacon prevailing wage requirements which is held by the same prime contractor, as much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainee's and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the SHA contracting officer may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

7. Overtime Requirements:

No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers, mechanics, watchmen, or guards (including apprentices, trainees, and helpers described in paragraphs 4 and 5 above) shall require or permit any laborer, mechanic, watchman, or guard in any workweek in which he/she is employed on such work, to work in excess of 40 hours in such workweek unless such laborer, mechanic, watchman, or guard receives compensation at a rate not less than one-and-one-half times his/her basic rate of pay for all hours worked in excess of 40 hours in such workweek.

8. Violation:

Liability for Unpaid Wages; Liquidated Damages: In the event of any violation of the clause set forth in paragraph 7 above, the contractor and any subcontractor responsible thereof shall be liable to the affected employee for his/her unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory) for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer, mechanic, watchman, or guard employed in violation of the clause set forth in paragraph 7, in the sum of $10 for each calendar day on which such employee was required or permitted to work in excess of the standard work week of 40 hours without payment of the overtime wages required by the clause set forth in paragraph 7.

9. Withholding for Unpaid Wages and Liquidated Damages:

The SHA shall; upon its own action or upon written request of any authorized representative of the DOL withhold, or cause to be withheld, from any monies payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph 8 above.

**V. STATEMENTS AND PAYROLLS**

(Applicable to all Federal-aid construction contracts exceeding $2,000 and to all related subcontracts, except for projects located on roadways classified as local roads or rural collectors, which are exempt.)

1. Compliance with Copeland Regulations (29 CFR 3):

The contractor shall comply with the Copeland Regulations of the Secretary of Labor which are herein incorporated by reference.

2. Payrolls and Payroll Records:

a. Payrolls and basic records relating thereto shall be maintained by the contractor and each subcontractor during the course of the work and preserved for a period of 3 years from the date of completion of the contract for all laborers, mechanics, apprentices, trainees, watchmen, helpers, and guards working at the site of the work.

b. The payroll records shall contain the name, social security number, and address of each such employee; his or her correct classification; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalent thereof the types described in Section 1(b)(2)(B) of the Davis Bacon Act); daily and weekly number of hours worked; deductions made; and actual wages paid. In addition, for Appalachian contracts, the payroll records shall contain a notation indicating whether the employee does, or does not, normally reside in the labor area as defined in Attachment A, paragraph 1. Whenever the Secretary of Labor, pursuant to Section IV, paragraph 3b, has found that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in Section 1(b)(2)(B) of the Davis Bacon Act, the contractor and each subcontractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, that the plan or program has been communicated in writing to the laborers or mechanics affected, and show the cost anticipated or the actual cost incurred in providing benefits. Contractors or subcontractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprentices and trainees, and ratios and wage rates prescribed in the applicable programs.

c. Each contractor and subcontractor shall furnish, each week in which any contract work is performed, to the SHA resident engineer a payroll of wages paid each of its employees (including apprentices trainees, and helpers, described in Section IV, paragraphs 4 and 5, and watchmen and guards engaged on work during the preceding weekly payroll period).

The payroll submitted shall set out accurately and completely all of the information required to be maintained under paragraph 2b of this Section V.

This information may be submitted in any form desired. Optional Form WH-347 is available for this purpose and may be purchased from the Superintendent of Documents (Federal stock number 029-005-0014-1), U.S. Government Printing Office, Washington, D.C. 20402. The prime contractor is responsible for the submission of copies of payrolls by all suncontractors.

d. Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the Contractor or subcontractor or his/her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) that the payroll for the payroll period contains the information required to be maintained under paragraph 2b of this Section V and that such information is correct and complete;

(2) that such laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in the Regulations, 29 CFR 3;

(3) that each laborer or mechanic has been paid not less that the applicable wage rate and fringe benefits or cash equivalent for the classification of worked performed, as specified in the applicable wage determination incorporated into the contract.

e. The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 2d of this Section V.

f. The falsification of any of the above certifications may subject the contractor to civil or criminal prosecution under 18 U/S. C. 1001 and 31 U.S.C. 231.

g. The contractor or subcontractor shall make the records required under paragraph 2b of this Section V available for

inspection, copying, or transcription by authorized representatives of the SHA, the FHWA, or the DOL, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the SHA, the FHWA, the DOL, or all may, after written notice to the contractor, sponsor, applicant, or owner, take such actions as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

**VI. RECORD OF MATERIALS, SUPPLIES, AND LABOR**

1. On all federal-aid contracts on the national highway system, except those which provide solely for the installation of protective devices at railroad grade crossings, those which are constructed on a force account or direct labor basis, highway beautification contracts, and contracts for which the total final construction cost for roadway and bridge is less than $1,000,000 (23 CFR 635) the contractor shall:

a. Become familiar with the list of specific materials and supplies contained in Form FHWA-47, "Statement of Materials and Labor Used by Contractor of Highway Construction Involving Federal Funds," prior to the commencement of work under this contract.

b. Maintain a record of the total cost of all materials and supplies purchased for and incorporated in the work, and also of the quantities of those specific materials and supplies listed on Form FHWA-47, and in the units shown on Form FHWA-47.

c. Furnish, upon the completion of the contract, to the SHA resident engineer on /Form FHWA-47 together with the data required in paragraph 1b relative to materials and supplies, a final labor summary of all contract work indicating the total hours worked and the total amount earned.

2. At the prime contractor's option, either a single report covering all contract work or separate reports for the contractor and for each subcontract shall be submitted.

**VII. SUBLETTING OR ASSIGNING THE CONTRACT**

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in he contract) of the total original contract price, excluding any specialty items designated by the State. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted form the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635).

a. "Its own organization" shall be construed to include only workers employed and paid directly by the prime contractor and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor, assignee, or agent of the prime contractor.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid on the contract as a whole and in general are to be limited to minor components of the overall contract.

2. The contract amount upon which the requirements set forth in paragraph 1 of Section VII is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the SHA contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the SHA contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract.

Written consent will be given only after the SHA has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

**VIII. SAFETY: ACCIDENT PREVENTION**

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the SHA contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S. C. 333).

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 333).

**IX. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS**

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification,

distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, the following notice shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

**NOTICE TO ALL PERSONNEL ENGAGED ON FEDERAL-AID HIGHWAY PROJECTS**

18 U.S.C. 1020 reads as follows:

*"Whoever, being an officer, agent or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or*

*Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or*

*Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;*

*Shall be fined not more than $10,000 or imprisoned not more than 5 years or both."*

**X. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT**

(Applicable to all Federal-aid construction contracts and to all related subcontracts of $100,000 or more).

By submission of this bid or the execution of this contract, or subcontract, as appropriate, the bidder, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any facility that is or will be utilized in the performance of this contract, unless such contract is exempt under the Clean Air Act, as amended (42 U.S.C. 1857 et seq., as amended by Pub.L. 91-604), and under the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et seq., as amended by Pub.L. 92-500), Executive Order 11738, and regulations in implementation thereof (40 CFR 15) is not listed, on the date of contract award, on the U.S. Environmental Protection Agency (EPA) List of Violating Facilities pursuant to 40 CFR 15.20.

2. That the firm agrees to comply and remain in compliance with all the requirements of Section 114 of the Clean Air Act and Section 308 of the Federal Water Pollution Control Act and all regulations and guidelines listed thereunder.

3. That the firm shall promptly notify the SHA of the receipt of any communication from the Director, Office of Federal Activities, EPA indicating that a facility that is or will be utilized for the contract is under consideration to be listed on the EPA List of Violating Facilities.

4. That the firm agrees to include or cause to be included the requirements of paragraph 1 through 4 of this Section X in every nonexempt subcontract, and further agrees to take such action as the government may direct as a means of enforcing such requirements.

**XI. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION**

1. Instructions for Certification - Primary Covered Transactions:

(Applicable to all Federal-aid contracts - 49 CFR 29)

a. By signing and submitting this proposal, the prospective primary participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective participant shall submit an an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective primary participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the department or agency determined to enter into this transaction. If it is later determined that the prospective primary participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause of default.

d. The prospective primary participant shall provide immediate written notice to the department or agency to whom this proposal is submitted if any time the prospective primary participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

e. The terms "covered transaction," "debarred," "suspended," "ineligible,""lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the department or agency to which this proposal is submitted for assistance in obtaining a copy of those regulations.

f. The prospective primary participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.

g. The prospective primary participant further agrees by submitting this proposal that it will include the clause titled

"Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," provided by the department or agency entering into this covered transaction, without modification in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the nonprocurement portion of the "Lists of Parties Excluded from Federal Procurement or Nonprocurement Programs" (Nonprocurement List) which is compiled by the General Services Administration.

i. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph f of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

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**Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Primary Covered Transactions**

1. The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:

a. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;

b. Have not within a 3-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

c. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph 1b of this certification; and

d. Have not within a 3-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

2. Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

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**2. Instructions for Certification - Lower Tier Covered Transactions**:

(Applicable to all subcontracts, purchase orders and other lower tier transactions of $25,000 or more - 49 CFR 29)

a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "primary covered transaction," "participant," "person," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.

e. The prospective lower tie participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealing.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily

excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

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**Certification Regarding Debarment, Suspension, Ineligibility And Voluntary Exclusion-Lower Tier Covered Transactions**:

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

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**XII. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING**

(Applicable to all Federal-aid construction contracts and to all related subcontracts which exceed $100,000 - 49 CFR 20)

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, “Disclosure Form to Report Lobbying,” in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

3. The prospective participant also agrees by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed $100,000 and that all such recipients shall certify and disclose accordingly.

**MINIMUM WAGES FOR FEDERAL AND FEDERALLY ASSISTED CONSTRUCTION CONTRACTS**

This project is funded, in part, with Federal-aid funds and, as such, is subject to the provisions of the Davis-Bacon Act of March 3, 1931, as amended (46 Sta. 1494, as amended, 40 U.S.C. 276a) and of other Federal statutes referred to in a 29 CFR Part 1, Appendix A, as well as such additional statutes as may from time to time be enacted containing provisions for the payment of wages determined to be prevailing by the Secretary of Labor in accordance with the Davis-Bacon Act and pursuant to the provisions of 29 CFR Part 1. The prevailing rates and fringe benefits shown in the General Wage Determination Decisions issued by the U.S. Department of Labor shall, in accordance with the provisions of the foregoing statutes, constitute the minimum wages payable on Federal and federally assisted construction projects to laborers and mechanics of the specified classes engaged on contract work of the character and in the localities described therein.

General Wage Determination Decisions, modifications and supersedes decisions thereto are to be used in accordance with the provisions of 29 CFR Parts 1 and 5. Accordingly, the applicable decision, together with any modifications issued, must be made a part of every contract for performance of the described work within the geographic area indicated as required by an applicable DBRA Federal prevailing wage law and 29 CFR Part 5. The wage rates and fringe benefits contained in the General Wage Determination Decision

**NOTICE**

The most current **General Wage Determination Decisions** (wage rates) are available on the IDOT web site. They are located on the Letting and Bidding page at http://www.dot.il.gov/desenv/delett.html.

In addition, ten (10) days prior to the letting, the applicable Federal wage rates will be e-mailed to subscribers. It is recommended that all contractors subscribe to the Federal Wage Rates List or the Contractor's Packet through IDOT's subscription service.

PLEASE NOTE: if you have already subscribed to the Contractor's Packet you will automatically receive the Federal Wage Rates.

The instructions for subscribing are at http://www.dot.il.gov/desenv/subsc.html.

If you have any questions concerning the wage rates, please contact IDOT's Chief Contract Official at 217-782-7806.